MORE TO GO ON.™

2005 ATV

Operator's Manual

- 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.

⚠ 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.

ARCTIC CAT®

Your ATV can be hazardous to operate.

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

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

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

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

Training is available: U.S. owners, call 1-800-887-2887; Canadian owners, call 1-613-739-1535.

Un cours d'instruction est disponible: pour les propriétaires canadiens, composez le 1-613-739-1535.

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

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

⚠ CAUTION

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

■ **NOTE:**

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

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.

Introduction

FOREWORD

Congratulations and thank you from Arctic Cat Inc. for purchasing an ARCTIC CAT® All-Terrain Vehicle (ATV). 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 ensure that the operator is 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.

Protect Your Sport

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

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

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

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

Age (Years)	Engine Size (cc)	Speed Limitations (MPH)
6-11	Up to 70	10 - Governed 15 - Maximum
12-15	Up to 90	15 - Governed 30 - Maximum
16 and Older	Over 90	According to Local Regulations

Table of Contents

DIVISION 1 - SAFETY

DIVISION II - OPERATION/ MAINTENANCE

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

- Always go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the ATV.
- Never operate on excessively rough, slippery, or loose terrain.
- Always follow proper procedures for turning as described in this manual. Practice turning at slow speeds before attempting to turn at faster speeds. Do not turn at excessive speed.
- Always have the ATV checked by an authorized Arctic Cat ATV dealer if it has been involved in an accident.
- Never operate the ATV on hills too steep for the ATV or for your abilities. Practice on smaller hills before attempting larger hills.
- Always follow proper procedures for climbing hills as described in this manual. Check the terrain carefully before you start up any hill. Never climb hills with slippery or loose surfaces. Shift your weight forward. Never open the throttle suddenly or make sudden gear changes. Never go over the top of any hill at high speed.
- Always follow proper procedures for going down hills and for braking on hills as described in this manual. Check the terrain carefully before you start down any hill. Shift your weight backward. Never go down a hill at high speed. Avoid going down a hill at an angle which would cause the ATV to lean sharply to one side. Go straight down the hill where possible.
- Always follow proper procedures for crossing the side of a hill as described in this manual. Avoid hills with slippery or loose surfaces. Shift your weight to the uphill side of the ATV. Never attempt to turn the ATV around on any hill until you have mastered the turning techniques described in this manual on level ground. Avoid crossing the side of a steep hill if possible.
- Always use proper procedures if you stall or roll backward when climbing a hill. To avoid stalling, maintain a steady speed when climbing a hill. If you stall or roll backwards, follow the special procedure for braking described in this manual. Dismount on the uphill side or to either side if pointed straight uphill. Turn the ATV around and mount following the procedure described in this manual.
- Always check for obstacles before operating in a new area. Never attempt to operate over large obstacles, such as large rocks or fallen trees. Always follow proper procedures when operating over obstacles as described in this manual.
- Always be careful of skidding or sliding. On slippery surfaces, such as ice, go slowly and be very cautious in order to reduce the chance of skidding or sliding out of control.
- Never operate an ATV in fast flowing water or in water deeper than the footrests. Remember that wet brakes may have reduced stopping capability. Test your brakes after leaving water. If necessary, apply them lightly several times to let friction dry out the pads.
- Always be sure there are no obstacles or people behind you when you operate in reverse. When it is safe to proceed in reverse, go slowly. Avoid turning at sharp angles in reverse.
- Always use the size and type tires specified in this manual. Always maintain proper tire pressure as described in this manual.
- Never improperly install or improperly use accessories on this ATV.
- Never install a twist grip throttle on this ATV.
- Never exceed the stated load capacity for an ATV. Cargo should be properly distributed and securely attached. Reduce speed and follow instructions in this manual for carrying cargo or pulling a trailer and allow greater distance for braking.

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

- No one under the age of 16 should operate this ATV. Some operators at the age of 16 may not be able to operate an 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.

FOR MORE INFORMATION ABOUT ATV SAFETY, call the ATV Safety Institute at 1-800-887-2887 (U.S.) or 1-613-739-1535 (Canada).

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

ATV SAFETY ALERT

The Consumer Product Safety Commission has concluded that ALL-TERRAIN VEHICLES (ATV's) may present a risk of DEATH or SEVERE INJURY in certain circumstances. Accidents may occur for many reasons:

*** Over 1920 people, including many children, have died in accidents associated with ATV's since 1998.

*** Many people have become severely paralyzed or suffered severe internal injuries as a result of accidents associated with ATV's.

*** Every month thousands of people are treated in hospital emergency rooms for injuries received while riding an ATV.

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

TO AVOID DEATH OR SEVERE PERSONAL INJURY:

* Always read the operator's manual carefully and follow the operating procedures described. Pay special attention to the warnings contained in the manual and on all labels.

* Never operate an ATV without proper instruction. Take a training course. Beginners should complete the training course described on the following page.

* Always follow these age recommendations:

* A child under 12 years old should never operate an ATV with an engine size 70 cc or greater.

* A child under 16 years old should never operate an ATV with an engine size greater than 90 cc.

* A child under 16 years old should never operate an ATV without adult supervision. children need to be observed carefully because not all children have the strength, size, skills, or judgment to operate an ATV safely.

* Never carry a passenger on an ATV. Carrying a passenger may upset the balance of the ATV and may cause it to go out of control.

* Always avoid paved surfaces. ATV's are not designed to be used on paved surfaces and may seriously affect handling and control.

* Never operate an ATV on a public road, even a dirt or gravel one, because you may not be able to avoid colliding with other vehicles. Also, operating an ATV on a public road may be against the law.

* Never operate an ATV without an approved motorcycle helmet, eye protection, boots, gloves, long pants and a long-sleeved shirt or jacket.

* Never consume alcohol or drugs before or while operating an ATV.

* Never operate an ATV at excessive speeds. Go at a speed which is proper for the terrain, visibility conditions, and your experience.

* Never attempt to do wheelies, jumps, or other stunts.

* Always be careful when operating an ATV, especially when approaching hills, turns, and obstacles and when operating on unfamiliar or rough terrain.

* Never lend your ATV to anyone who has not taken a training course or has not been driving an ATV for at least a year.

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 $100.00 from Arctic Cat through the SVIA/ASI after completing the training course (U.S. owners only, one incentive, and free rider training courses for 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.

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

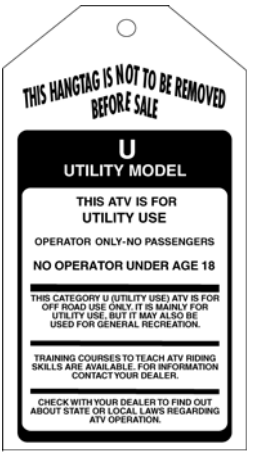
Visit the Arctic Cat Inc. website at www.arcticcat.com for additional product information.

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

Hang Tags & Warning Information

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

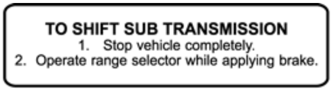
The labels should be considered as permanent parts of the ATV. If a label comes off or becomes hard to read, contact your Arctic Cat ATV dealer for a replacement.



Pour commander des Etiquettes de Mise en Garde gratuites, voyez votre détaillant de autorisé VTT Arctic Cat pour le numéro de pièce 0436-601.

Warning Labels (250/300)

A


H


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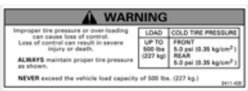

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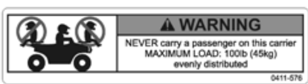

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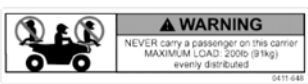

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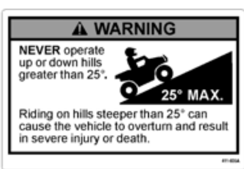
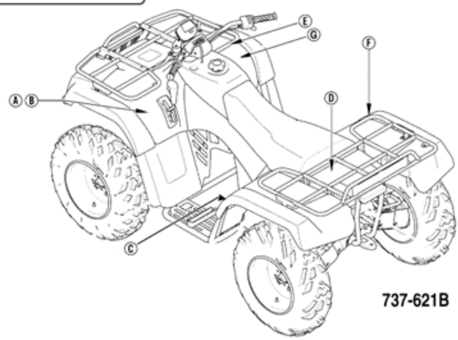
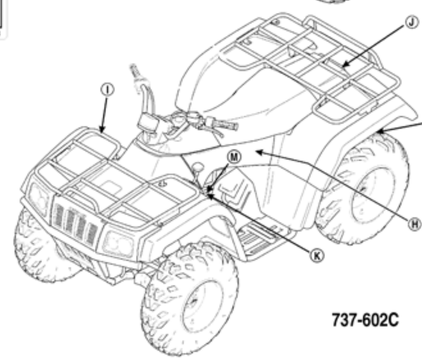




737-621B



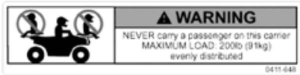
737-602C

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

Warning Labels (400/500/650/650 V-Twin)

A

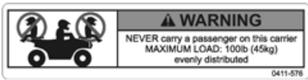
B



C

D

E



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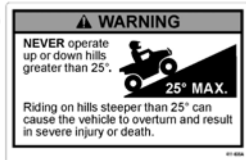

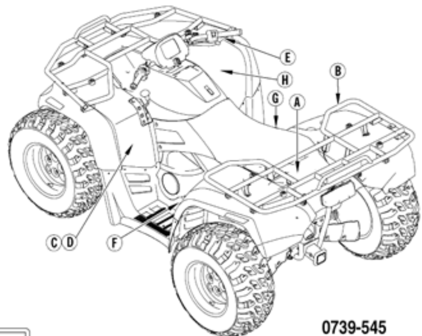

0739-545

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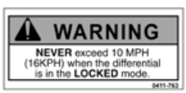

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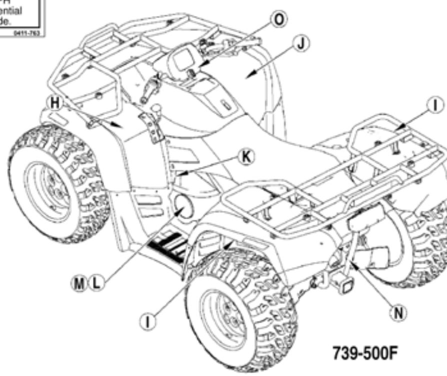


739-500F

Warning Labels (400 TBX/500 TBX)

A

⚠ WARNING

NEVER ride as a passenger

Passengers can cause a loss of control, resulting in **SEVERE INJURY or DEATH**

B

⚠ CAUTION

MAXIMUM LOAD CAPACITY OF SIDE CONTAINER: 20 lb (9 kg)

0411-487

C

⚠ WARNING

UNDER 16

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 the age of **16**.

D

⚠ WARNING

Improper ATV use can result in SEVERE INJURY or DEATH

ALWAYS USE AN APPROVED HELMET AND PROTECTIVE GEAR — NEVER USE ON PUBLIC ROADS — NEVER CARRY PASSENGERS — NEVER USE WITH DRUGS OR ALCOHOL

NEVER **operate:**

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

ALWAYS:

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

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

E

⚠ WARNING

NEVER carry a passenger on this carrier MAXIMUM LOAD: 100lb (45kg) evenly distributed

0411-576

F

⚠ WARNING

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

LOAD	COLD TIRE PRESSURE
UP TO 600 lbs. (272 kg)	FRONT 5 psi (0.35 kg/cm²) REAR 5 psi (0.35 kg/cm²)

ALWAYS maintain proper tire pressure as shown.

NEVER exceed the vehicle load capacity of 600 lbs. (272 kg.) Includes weight of operator, passenger, cargo, and accessories (and if applicable, trailer tongue weight).

LOADING/ TRAILER TOWING

- Cargo or trailer can affect stability and handling.
- When loading with cargo or towing a trailer
  - reduce speed.
  - allow more room to stop.
  - Avoid hills and rough terrain.

G

⚠ 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

H

MGF BY ARCTIC CAT INC. MADE IN USA

THIS VEHICLE IS DESIGNED AND MANUFACTURED FOR OFF THE ROAD USE ONLY AND IS NOT SUBJECT TO US FEDERAL MOTOR VEHICLE SAFETY STANDARDS AS IT IS NOT EQUIPPED OR APPROVED FOR OPERATION ON PUBLIC STREETS, ROADS OR HIGHWAYS.

CE

I

⚠ WARNING

TO ENGAGE REVERSE:

■ NOTE

- **ALWAYS RESPECT THE RIGHTS OF OTHERS, protect the environment, and comply with all applicable laws and regulations.**

TREAD LIGHTLY! ON PUBLIC AND PRIVATE LAND

PRE-RIDE INSPECTION PROCEDURES

T	TIRES AND WHEELS	
C	CONTROLS AND CABLE	
L	LIGHTS AND ELECTRICAL	
O	OIL AND FUEL	
C	CHASSIS AND DRIVE TRAIN	

STARTING PROCEDURES

B	BRAKES	
O	ON	
N	NEUTRAL	
E	ENGINE	
C	CHOKE	

J

DATE MFG.
DATE FABR.

V.I.N. Number
N.I.V. NO.

ARCTIC CAT

ATV / VTT

THIS VEHICLE WAS MANUFACTURED BY ARCTIC CAT INC OF THIEF RIVER FALLS, MN, U.S.A., AND CONFORMS TO ALL APPLICABLE U.S. FEDERAL, STATE, AND CANADIAN MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE.
CE VÉHICLE A ÉTÉ FABRIQUÉ PAR ARCTIC CAT INC. À THIEF RIVER FALLS, MN, U.S.A. ET EST CONFORME À TOUTES LES NORMES FÉDÉRALES ET RÉGIONALES APPLICABLES AINSI QU'AUX NORMES CANADIENNES DE SÉCURITÉ DU VÉHICULE MOTORISÉ EN VIGUEUR À LA DATE DE FABRICATION.

K

⚠ WARNING

Exceeding vehicle's towing limit could lead to an accident. Reduce speed when towing a trailer. Read Operator's Manual for details.

MAXIMUM TOWING CAPACITY:
1050 lb (477 kg)

0411-267

L

⚠ WARNING

- **NEVER** carry passengers.
- Passengers can be thrown off.
- This can cause **SERIOUS INJURY OR DEATH.**

0411-485

M

⚠ WARNING

NEVER operate up or down hills greater than 25°.

25° MAX.

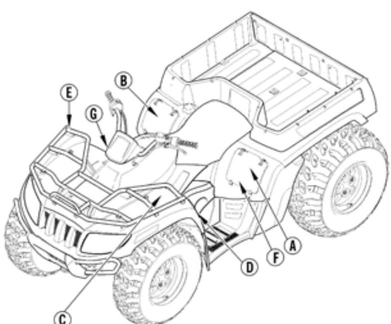
Riding on hills steeper than 25° can cause the vehicle to overturn and result in severe injury or death.

N

⚠ WARNING

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

0411-763



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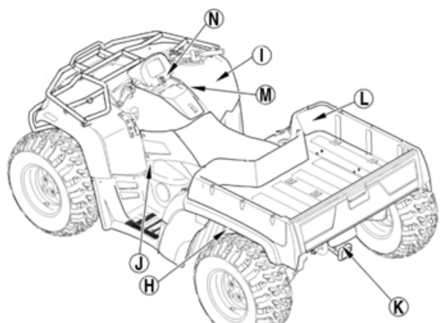
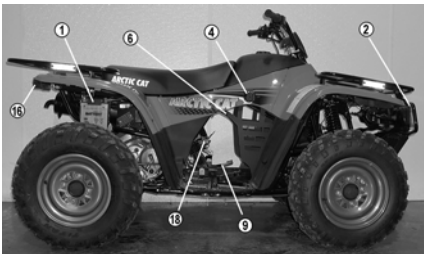


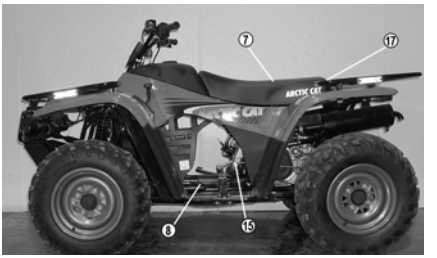
739-560B

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

Location of Parts and Controls (250/300)



AF965



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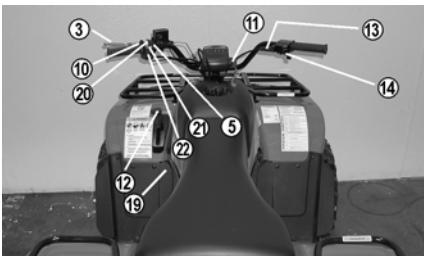
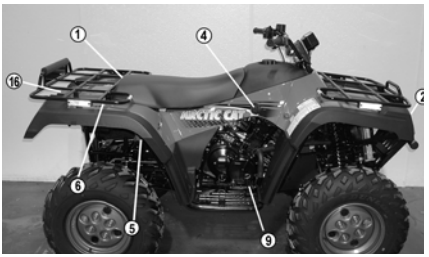


AF967

1. Battery
2. Headlights
3. Hand Brake Lever
4. Fuel Valve
5. Choke Lever
6. Seat Lock Lever
7. Tool Storage
8. Gearshift Pedal
9. Auxiliary Brake Pedal
10. Brake Lever Lock
11. Key Switch
12. Reverse Lever
13. Throttle Limiter
14. Throttle Lever
15. Range Control Lever
16. Taillight/Brakelight
17. Operator's Manual Location
18. Manual Decompression Lever
19. Front Wheel Drive Selector (300)
20. Headlight HI/LO Switch
21. Engine Stop Switch
22. Engine Starter Button

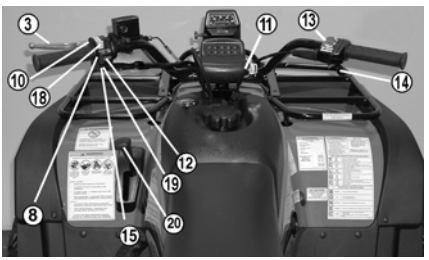
■ **NOTE: The ATV you have purchased may differ slightly from those shown in the figures of this manual.**

Location of Parts and Controls (400 FIS/ACT)



AL659C

AL660A



AL661C

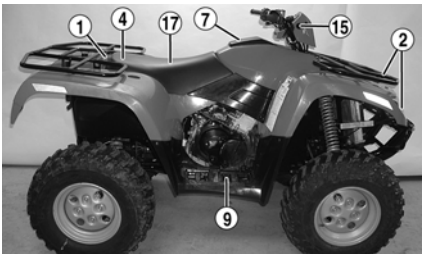
1. Battery
2. Headlights
3. Hand Brake Lever
4. Fuel Valve
5. Power Distribution Module
6. Seat Lock Lever
7. Storage Compartment
8. Gearshift Pedal*
9. Auxiliary Brake Pedal
10. Brake Lever Lock
11. Key Switch
12. Front Differential Lock (FIS)
13. Throttle Limiter
14. Throttle Lever
15. Reverse Override Switch
16. Taillight/Brakelight
17. Operator's Manual Location
18. Headlight HI/LO Switch
19. Engine Starter Button
20. Engine Stop Switch
21. Front Wheel Drive Selector Switch (FIS)

* Not Applicable w/Automatic Transmission.

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

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

Location of Parts and Controls (500/650/650 V-Twin)



AL672A

AL669A

AL665A

1. Battery
2. Headlights
3. Hand Brake Lever
4. Power Distribution Module
5. Choke Lever (650 V-Twin)
6. Seat Lock Release
7. Storage Compartment
8. Gearshift Pedal*
9. Auxiliary Brake Pedal
10. Brake Lever Lock
11. Key Switch
12. Reverse Lever (Manual Transmission)

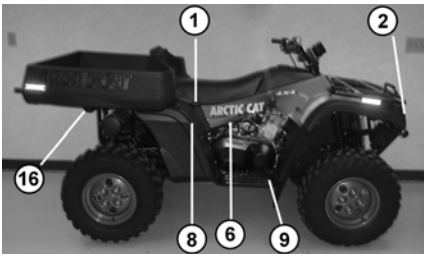
12. Low Range-High Range-Neutral-Reverse Lever

13. Throttle Limiter
14. Throttle Lever
15. High/Low Range Lever (Manual Transmission)
16. Taillight/Brakelight
17. Operator's Manual Location
18. Headlight HI/LO Switch
19. Engine Starter Button
20. Engine Stop Switch
21. Front Wheel Drive Selector Switch
22. Reverse Override Switch (Automatic Transmission)
23. Front Differential Lock

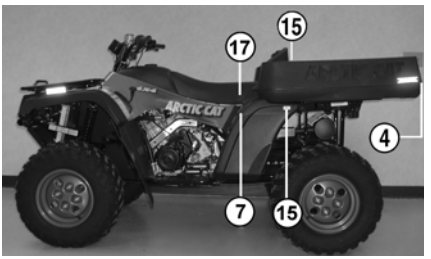
* Not Applicable w/Automatic Transmission.

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

Location of Parts and Controls (400 TBX/500 TBX)



CD043



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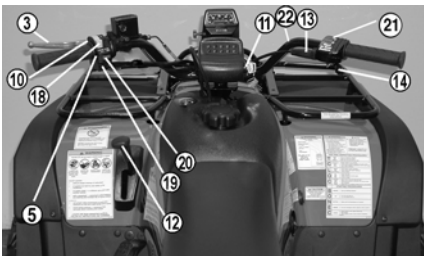


AL661

1. Battery
2. Headlights
3. Hand Brake Lever
4. Tailgate Latch
5. Reverse Override Switch
6. Seat Lock Lever
7. Left-Side Storage Compartment
8. Rigth-Side Storage Compartment
9. Auxiliary Brake Pedal
10. Brake Lever Lock
11. Key Switch
12. Low Range-High Range-Neutral-Reverse Lever
13. Throttle Limiter
14. Throttle Lever
15. Cargo Box Latch Handle
16. Taillight/Brakelight
17. Operator's Manual Location
18. Headlight HI/LO Switch
19. Engine Starter Button
20. Engine Stop Switch
21. Front Wheel Drive Selector Switch
22. Front Differential Lock

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

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

Warnings

⚠ 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.

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

⚠ WARNING

POTENTIAL HAZARD

Allowing anyone under age 16 to operate this ATV.

WHAT CAN HAPPEN

Use of an 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.

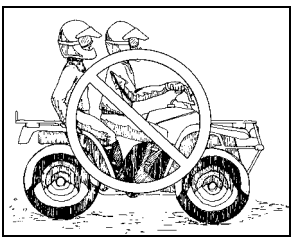
HOW TO AVOID THE HAZARD

A child under 16 should never operate this ATV.

⚠ WARNING

POTENTIAL HAZARD

Carrying a passenger on this ATV.



WHAT CAN HAPPEN

Greatly reduces your ability to balance and control this ATV.

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

HOW TO AVOID THE HAZARD

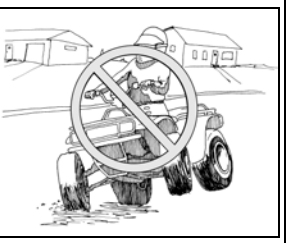
Never carry a passenger. The long seat is to allow the operator to shift positions as needed during operation. It is not for carrying passengers.

Warnings

⚠ 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.

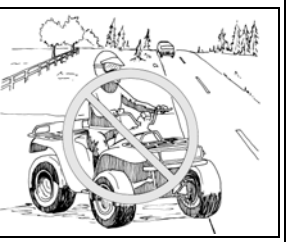
HOW TO AVOID THE HAZARD

Never operate the ATV on any paved surfaces, including sidewalks, driveways, parking lots, and streets.

⚠ WARNING

POTENTIAL HAZARD

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



WHAT CAN HAPPEN

You can collide with another vehicle.

HOW TO AVOID THE HAZARD

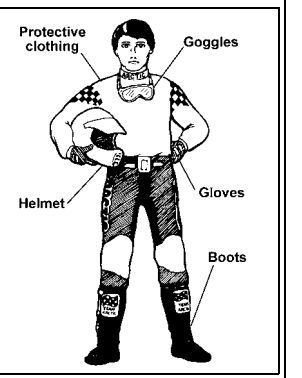
Never operate this ATV on any public street, road, or highway, even a dirt or gravel one.

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

⚠ WARNING

POTENTIAL HAZARD

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



WHAT CAN HAPPEN

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

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

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

HOW TO AVOID THE HAZARD

Always wear an approved helmet that fits properly.

You should also wear: Eye protection (goggles or face shield)
Gloves
Boots
Long sleeved shirt or jacket
Long pants

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

Warnings

⚠ WARNING

POTENTIAL HAZARD

Operating this ATV after or while consuming alcohol or drugs.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

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

⚠ WARNING

POTENTIAL HAZARD

Operating this ATV at excessive speeds.

WHAT CAN HAPPEN

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

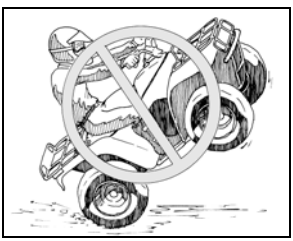
HOW TO AVOID THE HAZARD

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

⚠ WARNING

POTENTIAL HAZARD

Attempting wheelies, jumps, and other stunts.



WHAT CAN HAPPEN

Increases the chance of an accident including a rollover.

HOW TO AVOID THE HAZARD

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

⚠ WARNING

POTENTIAL HAZARD

Improperly operating in reverse.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

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

Warnings

⚠ 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 handlebars or feet from footrests during operation.

WHAT CAN HAPPEN

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

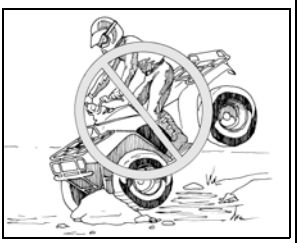
HOW TO AVOID THE HAZARD

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

⚠ 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.

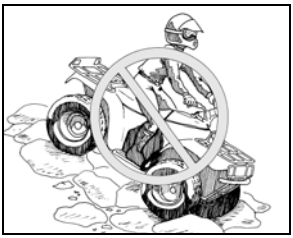
⚠ WARNING **Indicates a potential hazard that could result in a serious injury or death.**

Warnings

⚠ WARNING

POTENTIAL HAZARD

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



WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

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

Always be especially cautious on these kinds of terrain.

⚠ WARNING

POTENTIAL HAZARD

Turning improperly.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

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

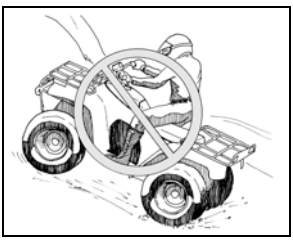
Practice turning at slow speeds before attempting to turn at faster speeds.

Do not turn at excessive speed.

⚠ WARNING

POTENTIAL HAZARD

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.

Warnings

⚠ WARNING

POTENTIAL HAZARD

Climbing hills improperly.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

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

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

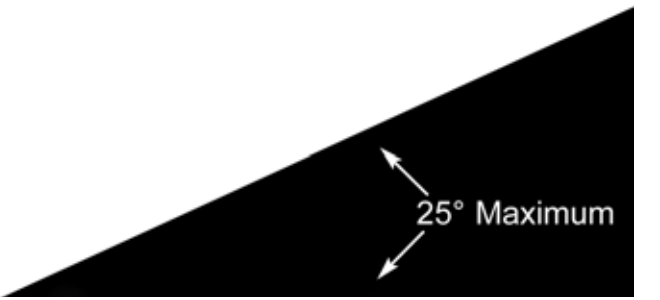
Never climb hills with slippery or loose surfaces.

Shift your weight forward.

Never open the throttle suddenly or make sudden gear changes. The ATV could flip over backwards.

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

NEVER OPERATE UP OR DOWN HILLS STEEPER THAN 25°



⚠ WARNING

POTENTIAL HAZARD

Going down a hill improperly.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

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

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

Shift your weight backward.

Never go down a hill at high speed.

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

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

Warnings

⚠ WARNING

POTENTIAL HAZARD

Improperly crossing hills or turning on hills.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

Never attempt to turn the ATV around n any hill until you have mastered the turning technique as described in this Operator's Manual. Practice first on level ground. Be very careful when turning on any hill.

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

When crossing the side of a hill:

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

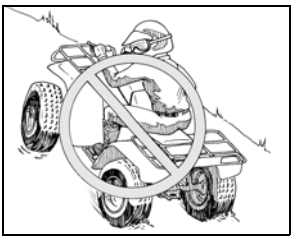
Avoid hills with slippery or loose surfaces.

Shift your weight to the uphill side of the ATV.

⚠ 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.

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.

Warnings

⚠ 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 through deep or fast flowing water.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

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

Remember that wet brakes may have reduced stopping capability.

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

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

Warnings

⚠ WARNING

POTENTIAL HAZARD

Operating 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

Operating the ATV with improper modifications.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

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

⚠ WARNING

POTENTIAL HAZARD

Overloading the ATV or carrying or towing cargo improperly.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

Never exceed the stated load capacity for the ATV.

Cargo should be properly distributed and securely attached.

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

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

Prevention

Overview

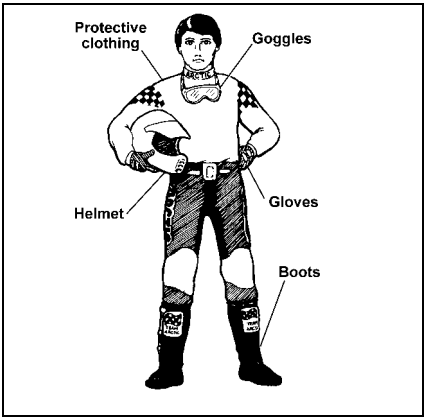
When using an ATV, prevention is the name of the game. “Had you only known” something could go wrong, you would have prevented it. If you don’t notice your conditions and surroundings before riding your ATV, you give up control over the situation. Using ATV prevention techniques helps you forecast potential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

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

Safe Riding Clothing and Gear

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

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



ATV-0004

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.

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.

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

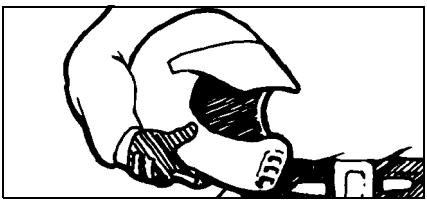
Prevention

Helmet

Your helmet is the most important piece of protective gear for safe riding. A helmet can prevent a severe head injury. There are several types of helmets on the market, but make sure you wear a helmet that complies with the standards of the 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.

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.

Condition of the ATV

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

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

TESTIMONIAL

DOCUMENT#: X46481A1
CITY/STATE: LAUREL, MS
SEX: M
AGE: 25
BODY PART: ALL PARTS BODY
DATE ACCIDENT: 6-25-93
DISPOSITION: DOA
SYNOPSIS: A 25 year old male died from drowning after the 4-wheeled ATV he was driving overturned and landed on the victim, pinning him face down in 6 inches of water in a drainage ditch. The victim had failed to make a right hand turn and drove off the side of the road. The victim was driving at an excessive speed, and under the influence of alcohol. He was pronounced dead at the scene. The victim was not wearing a helmet.

Prevention

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

T	C	L	O	C
TIRES AND WHEELS	**C**ONTROLS AND CABLES	**L**IGHTS AND ELECTRIC	**O**IL AND FUEL	**C**HASSIS

TIRES AND WHEELS

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

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

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

CONTROLS AND CABLES

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

Check:
1. Forward
2. Neutral
3. Reverse

A. Brakes

Squeeze 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.

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

Check:
1. Hand brake lever
2. Auxiliary brake pedal
3. Brake lever lock

B. Throttle

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

Check:
1. Free, smooth range of motion

LIGHTS AND ELECTRIC

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

Check:
1. Hi-beam
2. Lo-beam
3. Taillight/brakelight
4. Status/warning indicators

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

Check:
1. Ignition switch
2. Stop switch

OIL AND FUEL

Start with a full tank of gas before every ride, and while you're at it, top off the oil. Don't forget to check for fluid leaks around the ATV. Watch the overheat lamp to ensure the engine coolant level is adequate.

Check:
1. Gas
2. Oil
3. Fluid leaks

CHASSIS

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

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

Miscellaneous Items

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

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

First Aid and Survival

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

- Tools
- Water
- Identification
- First Aid Kit

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

- Money
- Maps
- Emergency Kit (*with Flashlight and First Aid Kit*)

Tools

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

Carry these items on your ATV:
1. Bulbs
2. Duct tape
3. Rope
4. Spark plugs
5. Spare parts
6. Tool Kit

Water

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

Prevention

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.

Money

It may be necessary to make an urgent phone call.

Maps

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

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

Active Riding

Overview

"Active Riding" is the second part of "P.A.S.S." It involves an understanding of how your body weight, balance, gravity, and physical forces affect the handling of the ATV. For example, when you drive a car quickly into a sharp turn, your body is pulled to the outside of the vehicle by centrifugal force. Although a car is relatively stable, enough centrifugal force can cause an ATV to overturn. Constantly shifting your weight is one major difference between driving a car and riding an ATV. Knowing how to shift your weight is necessary to avoid rolling or flipping the ATV.

Basic Operating Maneuvers

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

- Mounting the ATV
- Starting the Engine
- Starting a Cold Engine 250/300/650 V-Twin
- Starting a Cold Engine (400/500/650
- Varying Temperature Adjustments
- Emergency Starting
- Braking/Stopping
- Shifting
- Parking
- Dismounting the ATV

Mounting the ATV

To get seated:

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

Starting the Engine

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

1. Turn on the gas tank valve.
2. Climb up onto the ATV and sit down.
3. Engage the brake lever lock.
4. Shift into neutral.
5. If applicable, move the choke lever to its closed position if starting the engine cold (if it's already warmed up, you shouldn't need to use the choke at all).
6. Turn on the ignition.
7. Move the emergency stop switch to RUN.
8. Press the starter button.
9. Let the engine warm up.

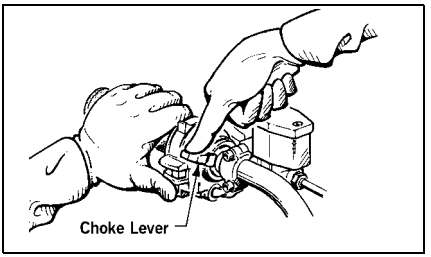
Another way to remember the starting procedure is by using the acronym "BONE-C." It stands for:

B	O	N	E	C
BRAKES LOCKED	**O**N FUEL VALVE	**N**EUTRAL TRANSMISSION	**E**NGINE SWITCH	**C**HOKE ON

Starting A Cold Engine (250/300/650 V-Twin)

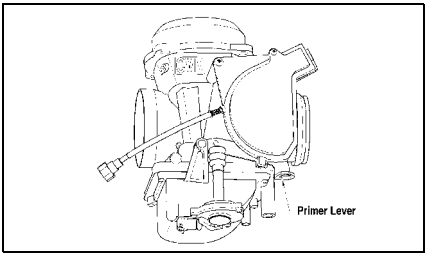
■ NOTE: It is very important not to touch or compress the throttle lever during the starting procedures.

1. Turn off all electrical accessories (hand warmer, lights, etc.); then rotate the ignition switch key to the first position (ON) leaving the headlights OFF. Note that the Neutral light is illuminated.
2. Press the choke lever down.



734-017B

3. Press on the starter button for a maximum eight seconds.
4. When the engine starts, continue to hold the choke lever down for 3 to 4 seconds.
5. Once the engine RPM starts to slow down, slowly raise the choke lever until RPM increases.
6. Allow the engine to warm up for approximately 2-2 1/2 minutes; then raise the choke lever to the full-up position. Do not touch the throttle lever until the engine has run for at least 3 minutes.



738-436A

■ NOTE: If the engine RPM starts to decrease or if the engine starts to stall, press the choke lever down until RPM increases; then as the RPM stabilizes, move the choke lever to the full-up position.

7. Run the engine for at least 10 minutes so it is thoroughly warmed up. If the engine is run for a shorter period of time, the spark plug may not have reached a high enough temperature to burn off the excess fuel in the combustion chamber.

⚠ CAUTION

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

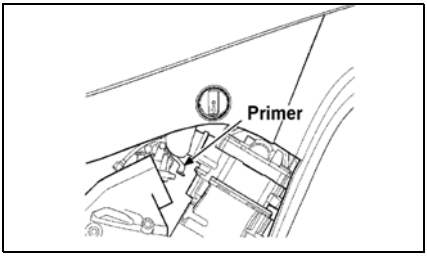
Starting A Cold Engine (400/500/650)

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

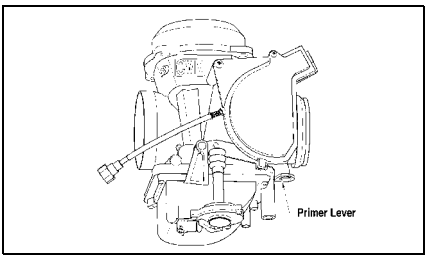
1. Turn off all electrical accessories (hand warmer, lights, etc.); then rotate the ignition switch key to the first position (ON) leaving the headlights OFF. Note that the Neutral light is illuminated.

■ NOTE: Pump the primer three times when the temperature is at -18°C (0°F) or colder.

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



735-887C



738-436A

2. Press the starter button for eight seconds maximum.

3. If the engine does not start, press the starter button again for eight seconds.

■ NOTE: At this point if the engine does not start, pump the primer three more times; then press the starter button again.

4. Allow the engine to warm up for approximately 2-3 minutes.

5. Run the engine for at least 10 minutes so it is thoroughly warmed up. If the engine is run for a shorter period of time, the spark plug may not have reached a high enough temperature to burn off the excess fuel in the combustion chamber.

Varying Temperature Adjustments

To ensure proper starting and operating performance, the following adjustments should be made for varying ambient temperatures.

- 0° C (32° F) - Use 5W-30 Arctic Cat 4-Cycle Engine Oil (p/n 0436-003).
- -18° C (0° F) - Install 20 amp/hr Battery Kit (p/n 0436-183).
- Below -18° C (0° F) - Install in-hose Engine Heater Kit (p/n 0436-035).

■ NOTE: These recommended adjustments are the owner's responsibility.

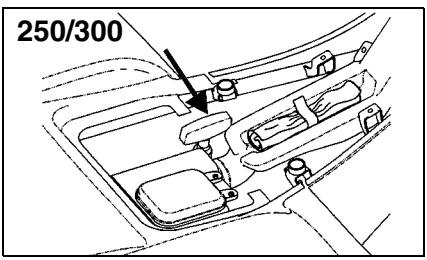
Emergency Starting

All Arctic Cat ATV models have an emergency recoil starter to use if the electric starter becomes inoperative. To use the recoil starter, follow this procedure.

⚠ WARNING

Be sure the transmission is in the neutral position, the reverse lever is in the forward position, and the brake lever lock is engaged when using the emergency recoil starter.

1. Pull the recoil starter handle slowly until resistance is felt; then give a short, quick pull.



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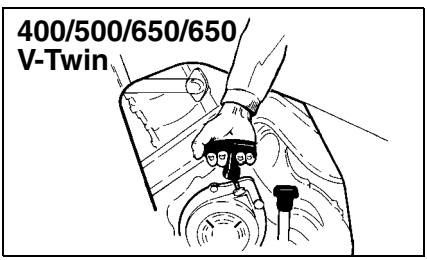


ATV-0054

2. Repeat until the engine starts.

⚠ CAUTION

To avoid damaging the recoil starter, DO NOT pull the recoil rope to its limit or release the recoil handle from an extended position. Allow the rope to rewind slowly.

3. After making sure that the engine is warm, apply the hand brake to release the brake lever lock.

Braking/Stopping

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

1. 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.
3. Never "ride" the brake. Even maintaining minimal pressure on the brake lever will cause the brake pads to drag on the disc and may overheat the brake fluid.

⚠ WARNING

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

⚠ WARNING

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

TESTIMONIAL

DOCUMENT#: N380310A1
CITY/STATE: NEW CUMBERLAND, WV
SEX: M
AGE: 18
BODY PART: HEAD
DATE ACCIDENT: 7-30-93
DISPOSITION: DOA
SYNOPSIS: An 18 year old male died as the result of injuries which he sustained in an accident while driving a 4-wheel ATV on a gravel public road. The victim lost control of the ATV when he suddenly applied the brakes to avoid a dog crossing the road. During the accident, the ATV's brake lever penetrated the victim's brain through his right eye resulting in death. The victim was not wearing a helmet.

Shifting (Manual Transmission)

The Arctic Cat ATV with a manual transmission has five forward gears. The neutral position is where you start. To shift the ATV, follow these steps:

0411-003

1. Press the rear of the gearshift pedal with your heel to shift into first gear.
2. Press the rear of the gearshift pedal again for each higher gear.
3. Press on the front of the gearshift pedal with your toe to shift down each gear and into neutral.

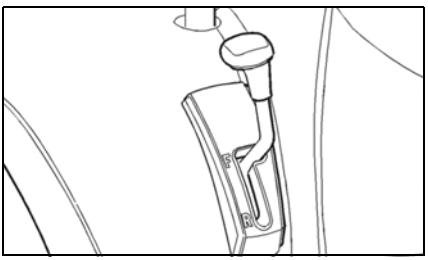
⚠ WARNING **Indicates a potential hazard that could result in a serious injury or death.**

■ **NOTE: Using the range control lever, select which range the ATV should be operated in for the type of riding being planned. Also, on the 300/400 FIS/500/650/650 V-Twin 4x4 models, determine whether or not you will be operating in 2-wheel drive or 4-wheel drive. Make sure the drive selector is in the desired position.**

4. With the hand brake applied, engage first gear by pressing downward on the rear of the gearshift pedal. To start moving, release the brake; then gradually compress the throttle lever. When speed has increased, release the throttle lever and press the rear of the gearshift pedal downward to engage second gear. Select third, fourth, and fifth gear in succession by repeating this sequence.

5. Reduce speed by releasing the throttle, braking as necessary, and shifting down to a lower gear. Shifting to a lower gear is performed by pressing downward on the front of the gearshift pedal. Repeat this sequence to select each lower gear.

To shift the ATV into reverse,follow these steps:

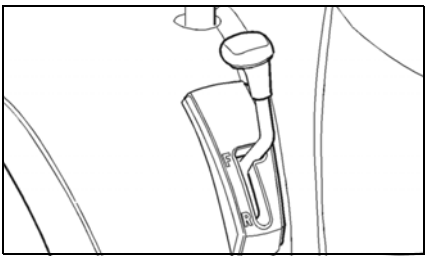


0736-566

1. Bring the ATV to a complete stop.
2. Shift the transmission into neutral.
3. Move the selector lever outward and down into the R position.

Shifting (Automatic Transmission)

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



0736-565

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

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

⚠ CAUTION

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

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

⚠ CAUTION

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

⚠ WARNING

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

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 low gear; otherwise, try to park only on level surfaces.
5. Engage the brake lever lock.
6. Turn off the gas tank valve.

Dismounting the ATV

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

1. Double check that the brake lever lock is engaged.
2. Swing your right leg over to the left side of the seat.
3. Step to the ground on the left side of the ATV.

How to Handle the ATV (Active Riding Techniques)

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

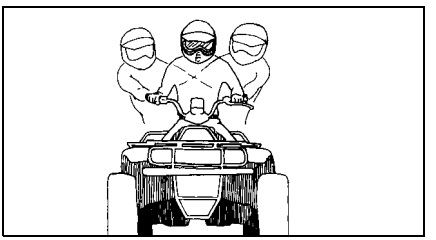
Your safety depends on using safe riding techniques. Statistics from the U.S. Consumer Product Safety Commission (CPSC) say that inexperienced riders who don't use safe riding techniques are **13 times more likely to have an ATV accident** than riders who have over 1 month of experience.

Safe riding techniques include:

- Riding
- Leaning, Weight Shift, and Balance
- Wide Turns
- Sharp Turns
- Quick 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-0012

1. Keep your feet on the footrests and both hands on the handlebar.
2. Hold the brake lever, and release the brake lever lock.

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

3. Shift into first gear.
4. Release the brake slowly and apply the throttle.

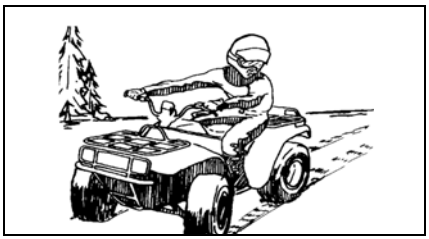
Leaning, Weight Shift, and Balance

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

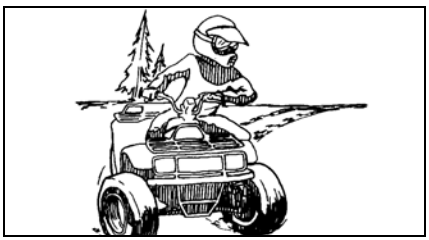
Wide Turns

About 20% of ATV accidents happen during turns. If you don't understand turning techniques, it's easy for the ATV to get away from you by losing traction, plowing, or tipping. Use this method for wide turns:

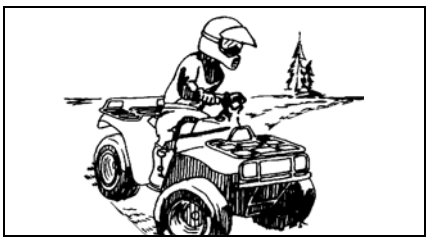
1. Ease off the throttle as you approach the turn to slow down.
2. Use the principles of leaning, weight shifting, and balancing—shift your body weight to the inside of the turn.
3. Gradually increase your speed as you come out of the turn.



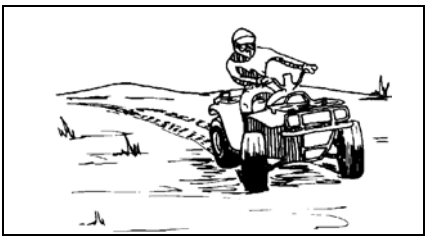
ATV-0013



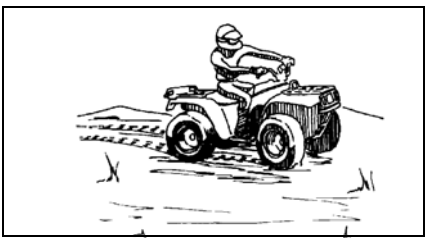
ATV-0024



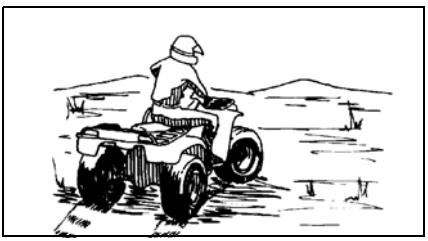
ATV-0025



ATV-0046



ATV-0045

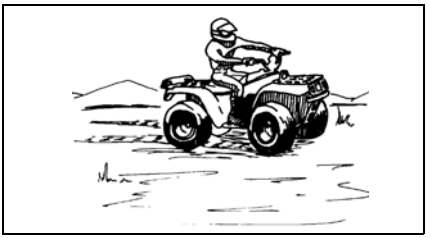


ATV-0044

Active Riding

Sharp Turns

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



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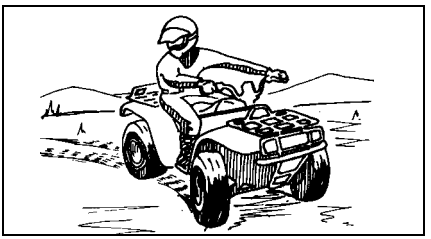
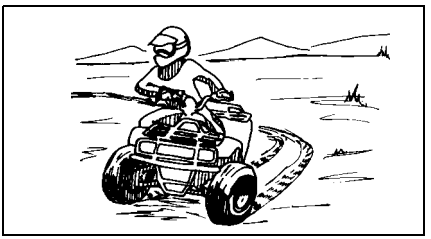


ATV-0039

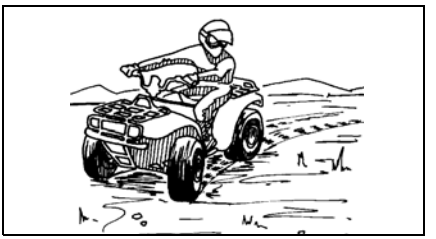


ATV-0040

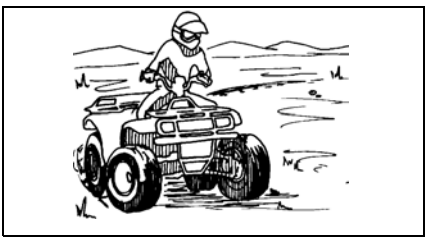
1. Ease off the throttle as you approach the turn to slow down.
2. Use the principles of leaning, weight shifting, and balancing—shift your body weight to the inside of the turn.
3. You might have to lean into the turn more than you do in a wide turn.
4. If shifting your weight and balance aren't enough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

Quick Turns

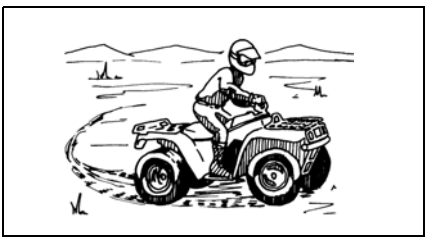
Quick turns are the most difficult turns and should only be done after you are experienced with your ATV.



ATV-0021



ATV-0022



ATV-0023

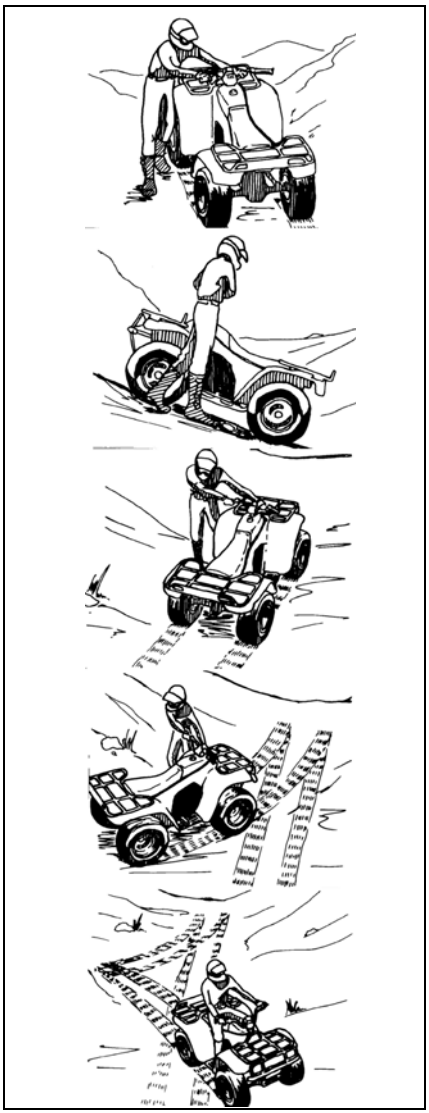
1. Ease off the throttle as you approach the turn to slow down.
2. Turn the handlebars and shift your weight and balance at the same time as you enter the turn (use the principles of leaning, weight shifting, and balancing—shift your body weight to the inside of the turn).
3. Follow this with slight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

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

Active Riding

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.

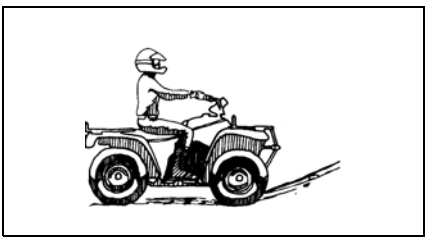


ATV-204

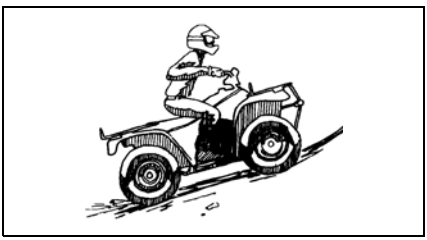
1. Stop where you are, apply the brakes, and shift to neutral.
2. Shut off the engine.
3. Keep your body weight shifted forward.
4. Get off the ATV on the uphill side.
5. If you're to the left of the ATV, turn the handlebar all the way left.
6. Partially release the brake, but lightly hold the brake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

Riding Uphill

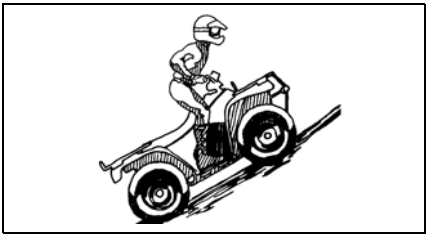
Roughly 20% of accidents happen while riding on hills and as a result of the ATV rolling or flipping. So, obviously, use extreme caution and follow this method for riding uphill.



ATV-0019



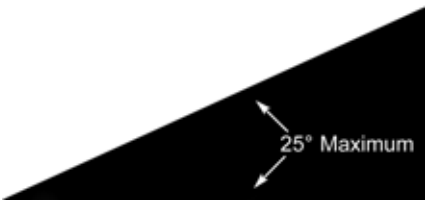
ATV-0032



ATV-0033

1. Shift down and accelerate before you start climbing; then maintain a steady pace.
2. Lean as far forward as possible. For steeper hills, come off your seat to stand and lean forward.
3. If you lose speed, quickly shift to a lower gear. At the same time, 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.

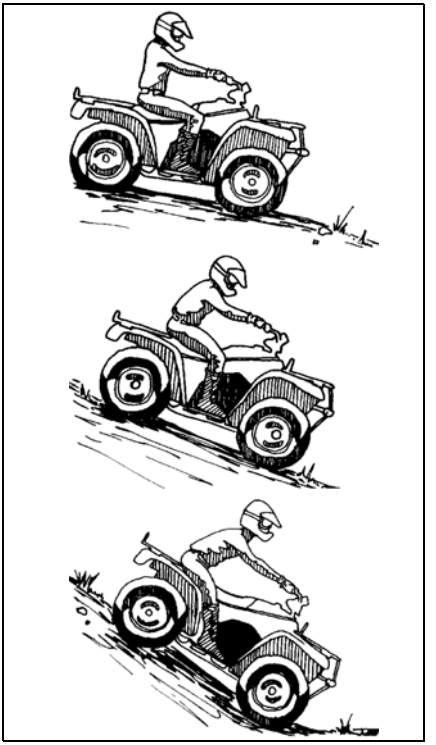
NEVER OPERATE UP OR DOWN HILLS STEEPER THAN 25°



0739-501

Riding Downhill

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



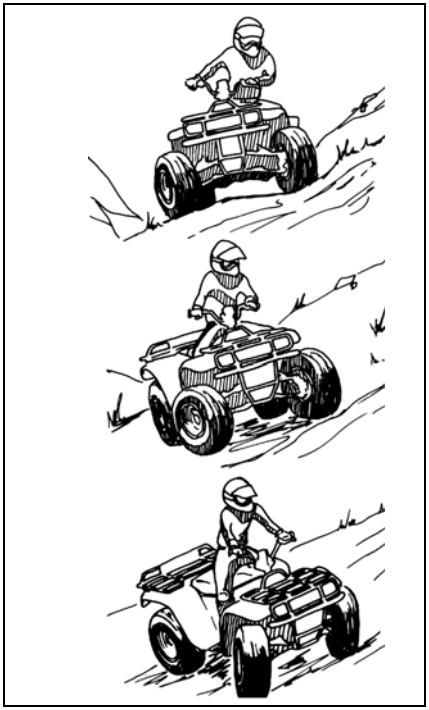
ATV-205

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

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:

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

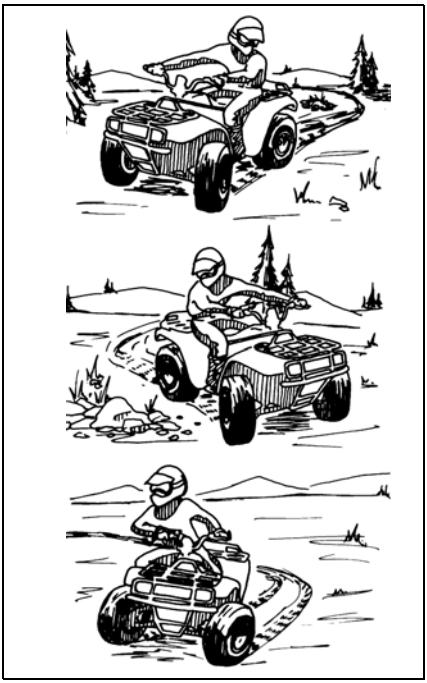


ATV-211

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

Swerving

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



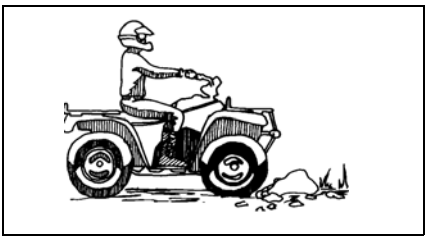
ATV-206

1. Ease off the throttle as you approach the obstacle.
2. Turn the handlebar. At the same time, shift your weight and balance as you swerve. Use the principles of leaning, weight shifting, and balancing—shift your 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.

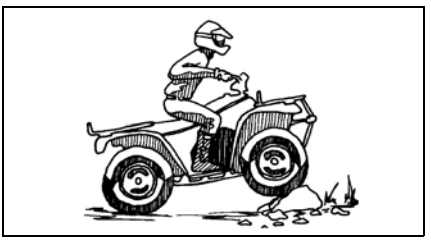
Active Riding

Crossing Obstacles

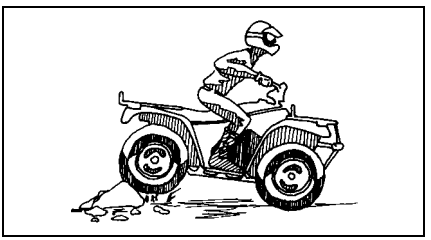
Crossing obstacles is risky; avoid it if possible. Riding over logs, rocks, and ruts means combining all the active riding skills into one big motion. Your ATV will respond differently for different obstacles (logs, ruts, etc.), but these are general guidelines for overcoming two-track (both tires contacting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



ATV-0016



ATV-0026



ATV-0027

1. Keep your speed way down; less than 5 mph.
2. Approach the obstacle head-on.
3. Come up off the seat.
4. Keep your weight on the footrests.
5. Apply a little throttle when the front tires make contact with the obstacle.
6. Lean forward and release the throttle when the front tires clear the obstacle.
7. Keep your body loose to absorb any shock.
8. If the ATV starts tipping, shift your weight to keep it in balance.

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

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

Tips

You know cars. You've been driving them for years. Driving an ATV and a car have similar rules; 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
- Driving in Cold Weather
- 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.

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

3. Backing down hills is a bad idea; do a U-turn or K-turn instead to turn around.

Skidding or Sliding

If you lose control after hitting sand, ice, oil, 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.
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. Shut off the gas tank valve.
4. 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, lean as far forward as possible 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.
5. If the ATV continues to roll backward, dismount immediately on the uphill side.

Crossing Water

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

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

Crossing Roads

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

1. Stop completely on the shoulder of the road.
2. Check both directions for traffic.
3. Crossing near a blind corner or intersection is dangerous; don't do it.
4. Drive straight across to the opposite shoulder.

5. Take into account that your ATV could stall while crossing; give yourself enough time to get off the road.

6. You have to assume that oncoming cars don't see you, and if they do, they won't be able to predict your actions.

7. It's illegal to cross public roads in some places. Know your local laws.

Driving In Cold Weather

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

⚠ WARNING

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

1. With the transmission in neutral, move the ATV forward and backward to check that the wheels roll freely. If the ATV will not roll, the tires may be frozen to the ground or the brake pads may be frozen to the discs.

2. If the tires are frozen to the ground, pour warm water around them to melt the ice.

⚠ CAUTION

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

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

⚠ WARNING

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

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

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

⚠ WARNING

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

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

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

Stopping The ATV

To stop the ATV, first release the throttle lever. Next, apply the brake. As the ATV speed decreases, shift down through gears.

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.

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

Sound Judgment

Overview

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

Do you consider yourself to be pretty conservative, or are you a heavy risk-taker? Before continuing with this section on sound judgment, check your **Risk Factor** by doing this short survey:

1. Do you drive over the speed limit?

1	2	3
Never	Sometimes	Often

2. Are you more daring around your friends than you are when alone?

1	2	3
Never	Sometimes	Often

3. Do you drive your car when the gas gauge is on empty?

1	2	3
Never	Sometimes	Often

4. Do you feel that no matter what you do, you won't get hurt?

1	2	3
Never	Sometimes	Often

5. Do you drink or use drugs before you drive your car?

1	2	3
Never	Sometimes	Often

6. Do you drive your car even if it has a major problem with the brakes, tires, or engine?

1	2	3
Never	Sometimes	Often

7. Do you thrive on the adrenaline rush you get from speeding and dangerous situations?

1	2	3
Never	Sometimes	Often

8. Do you hurt yourself because you do things that are out of your ability range?

1	2	3
Never	Sometimes	Often

9. Do you tailgate other drivers when you think they're driving too slow?

1	2	3
Never	Sometimes	Often

10. Do you ignore weather reports before you do outside activities like swimming, camping, fishing, or boating?

1	2	3
Never	Sometimes	Often

Add the totals from lines 1-10. **YOUR RISK FACTOR IS:**

10-15: <u>You're pretty conservative.</u> Chances are good that the consistently safe choices you make will help you avoid hurting yourself and the people around you.

16-20: <u>You're straddling the fence.</u> Depending on your mood or whom you're with, the choices you make may help you or hurt you.

21-30: <u>You're taking your chances.</u> Time to reconsider a lot of the judgments you make. You're destined to put yourself in dangerous situations and potentially hurt yourself and the people around you.

Sound Judgment

Environment

The environment controls you, not the other way around. And there's nothing you can do about it except respect it.

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

Just because you're on familiar terrain doesn't mean you can start daydreaming. You can't assume that the landscape you're used to doesn't change. Changes to landscape can happen at nearly any time. Fences can be constructed and excavations dug in a short period of time. Weather, climate, and development take their toll. The thing about terrain is that sometimes you don't know it's changed until you get there. Whether it's familiar or not, check out your surroundings before and during your ride.

Night Riding

Don't do it! It's a lot more difficult to see what's coming.

Paved Surfaces

Don't do it! The ATV isn't designed for pavement. Its handling becomes more difficult on paved surfaces.

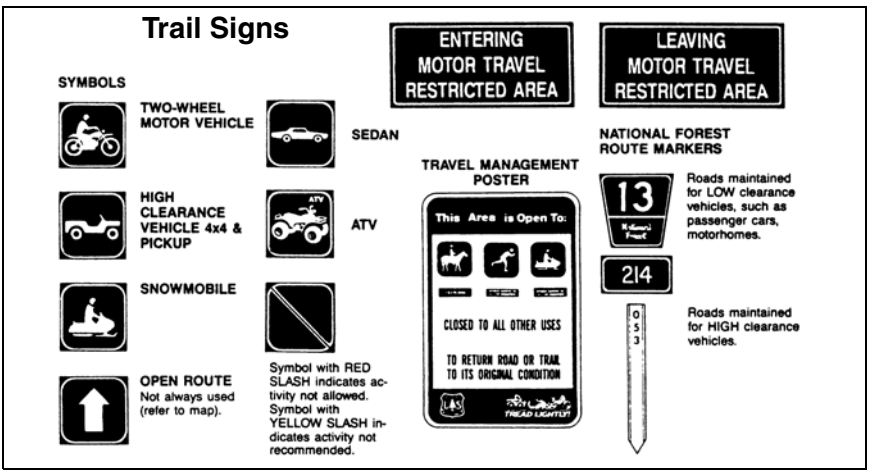
Trail Riding

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

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

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

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



ATV-0068

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

Sound Judgment

Those Around You

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

Riding Companions

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

Riding with companions on several ATV's is not the same as riding one ATV with a passenger. Passengers are prohibited; it's unsafe. The extra weight on the seat makes the ATV difficult to control. About 50% of all ATV accidents involve passengers.

Other Vehicles

Depending on where you're riding, you might encounter other 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.

TESTIMONIAL

DOCUMENT#: N490117A1
CITY/STATE: N. HUNTINGDON, PA
SEX: M
AGE: 6
BODY PART: HEAD
DATE ACCIDENT: 14-06-94
DISPOSITION: DOA
SYNOPSIS: The 6 year old male victim died from blunt force trauma to the head when the 4-wheel ATV on which he was a passenger struck a rock on a hill connecting two roads and flipped over backwards onto the victim, shattering his bicycle helmet. The victim was life-flighted to the hospital and died that night. The driver of the ATV, the victim's 29 year old father, sustained minor injuries, but wasn't treated.

Hikers

People can get to some strange places on foot that you'd never expect them to be. For their sake, keep your eyes open.

Animals and Nature

You love the outdoors . . . you love to hunt and fish . . . so don't destroy what you love.

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.

ATV Maintenance

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

Cargo Limitations

One reason why passengers are prohibited on ATVs is because their presence throws off the weight and balance of the ATV. Cargo can do the same if it weighs too much. Limit the ATV to the load capacity ratings identified in the following chart for the particular model being operated. So if you're weighing in at over 200 lb (91 kg) when you ride, leave some of that extra cargo at home. The combined weight limit, including you, your rack cargo, and your trailer, is a specified amount, so consult the appropriate ATV Load Capacity Ratings Chart and monitor it carefully.

Sound Judgment

Extra weight on the ATV will also throw you off balance if it's not distributed evenly, side-to-side and front-to-rear. If you have 160 lb (73 kg) on the rear rack only and you're heading up an incline, shifting your own weight forward isn't going to do enough to compensate for that cargo sitting over the back tires.

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

Think about these when dealing with cargo:

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

Personal Choices

You value your freedom . . . the freedom to be adventurous, and careless, and reckless . . . to live life to its fullest and take chances. The other side of the story is the tragedy that sometimes occurs during these adventures . . . when a victim's family says, "Had I only known how dangerous these ATV's can be." Making good personal choices is your responsibility.

Load Capacity Ratings Chart:

Arctic Cat ATV Load Capacity Ratings		
ITEM	Specifications	
	(lb)	(kg)
Max Load Capacity - 250/300/400/500 ACT/ 650 and FIS Models	500	227
Max Load Capacity - TBX Models	600	272
Front Rack (max)	100	45
Rear Rack (max)	200	91
Rear Cargo Box (max) - TBX Models	300	136
Side Storage Box (each - max) - TBX Models	20	9
Tongue Weight	35	16
Tongue and Rear Cargo Weight (max)	200	91
Tongue and Rear Cargo Weight (max) - TBX Models	300	136
Towing Capacity - 250/ 300	850	386
Towing Capacity - 400/ 500/650/650 V-Twin	1050	476
Towing Capacity - TBX Models	1050	476

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

Tongue Weight - Weight on trailer tongue.

Accessory Weight - Winch, gun scabbard brackets, etc.

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

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

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

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

Sound Judgment

Multi-Rack Platform (MRP) Rack:

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

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

⚠ WARNING

POTENTIAL HAZARD

Overloading the ATV or carrying or towing cargo improperly.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

Never exceed the stated load capacity for the ATV.

Cargo should be properly distributed and securely attached.

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

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

Alcohol and Drug Consumption

Alcohol is related to 30% of all hospital admissions due to ATV accidents in the U.S. This isn't an issue of morality. It's extremely dangerous to drink alcoholic beverages and ride . . . it's also very foolish. When the alcohol starts kicking in and you're tearing along on your ATV, those odds can catch up to you.

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 antihistamine tablet can affect your judgment.

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.*

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 ATV ride.

Sound Judgment

Your Physical Condition

Being physically exhausted is like being drunk. Try to do something that's detail-oriented when you're really tired, and you'll feel totally uncoordinated.

Don't ride:
1. When you're tired

Reckless Riding

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

Laws and Regulations

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

Group Behavior

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

SIPDE

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

S	I	P	D	E
SCAN/ SEARCH	**I**DENTIFY HAZARDS	**P**REDICT WHAT WILL HAPPEN	**D**ECIDE WHAT TO DO	**E**XECUTE THE DECISION

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

Supervision

Overview

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

Taking Responsibility

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

TESTIMONIAL

DOCUMENT#: N37023A1
CITY/STATE: MOOERSFORKS, NY
SEX: F
AGE: 5
BODY PART: UPPER TRUNK
DATE ACCIDENT: 6-29-93
DISPOSITION: DOA
SYNOPSIS: The victim of this incident, a five year old female, was operating a four wheeled all terrain vehicle (ATV) in the front yard of her parents' house, under the supervision of her father. The victim drove the ATV down an area where the only way to turn around was around a grain silo. The victim was executing a right hand turn when the vehicle tipped over to the right and fell onto her body. The victim was transported to a local hospital where she was pronounced dead on arrival. Photographs of the incident were not taken by law enforcement officials.

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, and have them read the Operator's Manual. You train them. It doesn't matter how you do it, as long as you do it.

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

Supervision

TESTIMONIAL

DOCUMENT#: X46418A1
CITY/STATE: LAUREL, MS
SEX: M
AGE: 25
BODY PART: ALL PARTS BODY
DATE ACCIDENT: 6-25-93
DISPOSITION: DOA
SYNOPSIS: The 25 year old male died from drowning, after the 4-wheeled ATV he was driving overturned and landed on the victim, pinning him face down in 6 inches of water in a drainage ditch. The victim had failed to make a right hand turn and drove off the side of the road. The victim was driving at an excessive speed, and under the influence of alcohol. He was pronounced dead at the scene.

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

Age (Years)	Engine Size (cc)	Speed Limitations (MPH)
6-11	Up to 70	10 - Governed 15 - Maximum
12-15	Up to 90	15 - Governed 30 - Maximum
16 and Older	Over 90	According to Local Regulations

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

DIVISION II - PREFACE

(Operation/Maintenance)

This Arctic Cat ATV Operator's Manual should be considered a permanent part of the ATV and must remain with the ATV at the time of resale. If the ATV changes ownership more than once, contact Arctic Cat Inc., Service Department, P.O. Box 810, Thief River Falls, MN 56701, for proper registration information. Division II of this Operator's Manual was prepared by the Service Department of Arctic Cat Inc.

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

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

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

PARTS AND ACCESSORIES

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

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

DECLARATION OF CONFORMITY

Application of council directives: EMC Directive 89/336/EEC
Date of Issue: October, 1993
EC Machinery Directive 89/392/EEC
Date of Issue: June, 1993

Issued by European Commission.

Type of Equipment: All Terrain Vehicles

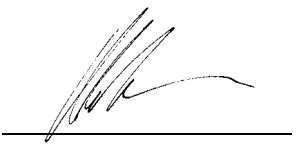
Brand Name: Arctic Cat

Model: 250 2x4, 500 4x4, 250 4x4, 650 4x4, 300 4x4, 650 V-Twin 4x4, 400 4x4

Standards to which conformity is declared: IEC 801-2:1991
IEC 801-3:1984
EN 55011: Class A

Manufacturer (if not issuing agent): Arctic Cat Inc.
601 Brooks Ave S.
Thief River Falls, MN
56701 USA

I, the undersigned, hereby declare that the equipment specified above conforms to the directive(s) and standard(s) as specified.



Ole Tweet
Vice President, New Product Development

250 ATV SPECIFICATIONS*

ENGINE AND DRIVE		
Type	Four-Cycle/Oil Cooled	
Bore x Stroke	66 mm x 72 mm (2.60 x 2.83 in.)	
Displacement	246 cc (15 cu in.)	
Ignition Type	CDI	
Ignition Timing	5° BTDC below 1800 RPM 35° BTDC above 3800 RPM	
Spark Plug Type	NGK DR7EA	
Spark Plug Gap	0.6 - 0.7 mm (0.024 - 0.028 in.)	
Brake Type	Hydraulic w/Brake Lever Lock and Auxiliary Brake	
Carburetor Type	Keihin CVK32	
CHASSIS	**4x4**	**2x4**
Length (Overall)	202 cm (79.5 in.)	202 cm (79.5 in.)
Height (Overall)	114 cm (45 in.)	114 cm (45 in.)
Width (Overall)	114 cm (45 in.)	114 cm (45 in.)
Suspension Travel	16.5 cm (6.5 in.)	16.5 cm (6.5 in.)
Wheelbase	127 cm (50 in.)	127 cm (50 in.)
Front Tire Size	AT23 x 8-12	AT23 x 8-12
Rear Tire Size	AT24 x 9-12	AT24 x 9-12
Tire Inflation Pressure	0.35 kg/cm² (5.0 psi)	0.35 kg/cm² (5.0 psi)
MISCELLANY	**4x4**	**2x4**
Dry Weight (Approx)	261 kg (575 lb)	245 kg (540 lb)
Gas Tank Capacity (Rated)	17.98 L (4.75 U.S. gal.)	17.98 L (4.75 U.S. gal.)
Reserve Capacity	2.46 L (0.65 U.S. gal.)	2.46 L (0.65 U.S. gal.)
Differential Capacity (Front)	275 ml (9.3 fl oz)	N/A
Differential Lubricant	SAE Approved 80W-90 Hypoid	N/A
Engine Oil Capacity	3.5 L (3.7 U.S. qt)	3.5 L (3.7 U.S. qt)
Gasoline (Recommended)	87 Octane Regular Unleaded	87 Octane Regular Unleaded
Engine Oil (Recommended)	SAE 10W-40	SAE 10W-40
Taillight/Brakelight	12V/8W/27W	12V/8W/27W
Headlight	12V/27W (2)	12V/27W (2)
Starting System	Electric w/Manual Recoil (Emergency)	Electric w/Manual Recoil (Emergency)

* Specifications subject to change without notice.

300 ATV SPECIFICATIONS*

ENGINE AND DRIVE	
Type	Four-Cycle/Oil Cooled
Bore x Stroke	68.5 x 76 mm (2.69 x 2.99 in.)
Displacement	280 cc (16.7 cu in.)
Ignition Type	CDI
Ignition Timing	5° BTDC @ 1800 RPM 30° BTDC @ 3800 RPM
Spark Plug Type	NGK DR7EA
Spark Plug Gap	0.6 - 0.7 mm (0.024 - 0.028 in.)
Brake Type	Hydraulic w/Brake Lever Lock and Auxiliary Brake
Carburetor Type	Keihin CVK32
CHASSIS	
Length (Overall)	202 cm (79.5 in.)
Height (Overall)	114 cm (45 in.)
Width (Overall)	114 cm (45 in.)
Suspension Travel	16.5 cm (6.5 in.)
Wheelbase	127 cm (50 in.)
Front Tire Size	AT24 x 9-12
Rear Tire Size	AT25 x 10-12
Tire Inflation Pressure	0.35 kg/cm² (5.0 psi)
MISCELLANY	
Dry Weight (Approx)	263 kg (580 lb)
Gas Tank Capacity (Rated)	17.98 L (4.75 U.S. gal.)
Reserve Capacity	2.46 L (0.65 U.S. gal.)
Differential Capacity (Front)	275 ml (9.3 fl oz)
Differential Lubricant	SAE Approved 80W-90 Hypoid
Engine Oil Capacity	3.5 L (3.7 U.S. qt)
Gasoline (Recommended)	87 Octane Regular Unleaded
Engine Oil (Recommended)	SAE 10W-40
Taillight/Brakelight	12V/8W/27W
Headlight	12V/27W (2)
Starting System	Electric w/Manual Recoil (Emergency)

* Specifications subject to change without notice.

400 AUTO ATV SPECIFICATIONS*

ENGINE AND DRIVE		
Type	Four-Cycle/Oil Cooled	
Bore x Stroke	82 mm x 71.2 mm (3.29 x 2.80 in.)	
Displacement	376 cc (22.94 cu in.)	
Ignition Type	CDI	
Ignition Timing	10° BTDC @ 1500 RPM	
Spark Plug Type	NGK CR7E	
Spark Plug Gap	0.7 - 0.8 mm (0.028 - 0.032 in.)	
Brake Type	Hydraulic w/Brake Lever Lock and Auxiliary Brake	
Carburetor Type	Keihin CVK34	
CHASSIS	**ACT**	**FIS**
Length (Overall)	205 cm (81 in.)	205 cm (81 in.)
Height (Overall)	122 cm (48 in.)	125 cm (49.3 in.)
Width (Overall)	112 cm (44.25 in.)	121 cm (47.5 in.)
Suspension Travel (Front)	21.5 cm (8.45 in.)	25 cm (10 in.)
Suspension Travel (Rear)	18.2 cm (7.2 in.)	25 cm (10 in.)
Wheelbase	127 cm (50 in.)	127 cm (50 in.)
Front Tire Size	25 x 8-12	25 x 8-12
Rear Tire Size	25 x 10-12	25 x 10-12
Tire Inflation Pressure	0.35 kg/cm² (5.0 psi)	0.35 kg/cm² (5.0 psi)
MISCELLANY	**ACT**	**FIS**
Dry Weight (Approx)	282 kg (622 lb)	286 kg (630 lb)
Gas Tank Capacity (Rated)	17.98 L (4.75 U.S. gal.)	17.98 L (4.75 U.S. gal.)
Reserve Capacity	2.46 L (0.65 U.S. gal.)	2.46 L (0.65 U.S. gal.)
Differential Capacity	275 ml (9.3 fl oz)	275 ml (9.3 fl oz)
Rear Drive Capacity	275 ml (9.3 fl oz)	250 ml (8.5 fl oz)
Engine Oil Capacity	3.08 L (3.25 U.S. qt)	3.08 L (3.25 U.S. qt)
Gasoline (Recommended)	87 Octane Regular Unleaded	87 Octane Regular Unleaded
Engine Oil (Recommended)	SAE 10W-40	SAE 10W-40
Differential/Rear Drive Lubricant	SAE Approved 80W-90 Hypoid	SAE Approved 80W-90 Hypoid
Taillight/Brakelight	12V/8W/27W	12V/8W/27W
Headlight	12V/27W (2)	12V/27W (2)
Starting System	Electric w/Manual Recoil (Emergency)	Electric w/Manual Recoil (Emergency)

* Specifications subject to change without notice.

400 TBX ATV SPECIFICATIONS*

ENGINE AND DRIVE	
Type	Four-Cycle/Oil Cooled
Bore x Stroke	82 mm x 71.2 mm (3.29 x 2.80 in.)
Displacement	376 cc (22.94 cu in.)
Ignition Type	CDI
Ignition Timing	10° BTDC @ 1500 RPM
Spark Plug Type	NGK CR7E
Spark Plug Gap	0.7 - 0.8 mm (0.028 - 0.032 in.)
Brake Type	Hydraulic w/Brake Lever Lock and Auxiliary Brake
Carburetor Type	Keihin CVK34
CHASSIS	
Length (Overall)	244.5 cm (96 in.)
Height (Overall)	125 cm (49.3 in.)
Width (Overall)	121 cm (47.5 in.)
Suspension Travel (Front)	25 cm (10 in.)
Suspension Travel (Rear)	25 cm (10 in.)
Wheelbase	127 cm (50 in.)
Front Tire Size	25 x 8-12
Rear Tire Size	25 x 10-12
Tire Inflation Pressure	0.35 kg/cm² (5.0 psi)
MISCELLANY	
Dry Weight (Approx)	323.5 kg (713 lb)
Gas Tank Capacity (Rated)	24.6 L (6.5 U.S. gal.)
Differential Capacity	275 ml (9.3 fl oz)
Rear Drive Capacity	250 ml (8.5 fl oz)
Engine Oil Capacity	3.08 L (3.25 U.S. qt)
Gasoline (Recommended)	87 Octane Regular Unleaded
Engine Oil (Recommended)	SAE 10W-40
Differential/Rear Drive Lubricant	SAE Approved 80W-90 Hypoid
Taillight/Brakelight	12V/8W/27W
Headlight	12V/27W (2)
Starting System	Electric w/Manual Recoil (Emergency)

* Specifications subject to change without notice.

400 MANUAL ATV SPECIFICATIONS*

ENGINE AND DRIVE		
Type	Four-Cycle/Oil Cooled	
Bore x Stroke	82 mm x 71.2 mm (3.29 x 2.80 in.)	
Displacement	376 cc (22.94 cu in.)	
Ignition Type	CDI	
Ignition Timing	10° BTDC @ 1500 RPM	
Spark Plug Type	NGK CR7E	
Spark Plug Gap	0.7 - 0.8 mm (0.028 - 0.032 in.)	
Brake Type	Hydraulic w/Brake Lever Lock and Auxiliary Brake	
Carburetor Type	Keihin CVK34	
CHASSIS	**ACT**	**FIS**
Length (Overall)	205 cm (81 in.)	205 cm (81 in.)
Height (Overall)	122 cm (48 in.)	125 cm (49.3 in.)
Width (Overall)	112 cm (44.25 in.)	121 cm (47.5 in.)
Suspension Travel (Front)	21.5 cm (8.45 in.)	25 cm (10 in.)
Suspension Travel (Rear)	18.2 cm (7.2 in.)	25 cm (10 in.)
Wheelbase	127 cm (50 in.)	127 cm (50 in.)
Front Tire Size	25 x 8-12	25 x 8-12
Rear Tire Size	25 x 10-12	25 x 10-12
Tire Inflation Pressure	0.35 kg/cm² (5.0 psi)	0.35 kg/cm² (5.0 psi)
MISCELLANY	**ACT**	**FIS**
Dry Weight (Approx)	276 kg (609 lb)	280 kg (617 lb)
Gas Tank Capacity (Rated)	17.98 L (4.75 U.S. gal.)	17.98 L (4.75 U.S. gal.)
Reserve Capacity	2.46 L (0.65 U.S. gal.)	2.46 L (0.65 U.S. gal.)
Differential Capacity	275 ml (9.3 fl oz)	275 ml (9.3 fl oz)
Rear Drive Capacity	275 ml (9.3 fl oz)	250 ml (8.5 fl oz)
Engine Oil Capacity	3.08 L (3.25 U.S. qt)	3.08 L (3.25 U.S. qt)
Gasoline (Recommended)	87 Octane Regular Unleaded	87 Octane Regular Unleaded
Engine Oil (Recommended)	SAE 10W-40	SAE 10W-40
Differential/Rear Drive Lubricant	SAE Approved 80W-90 Hypoid	SAE Approved 80W-90 Hypoid
Taillight/Brakelight	12V/8W/27W	12V/8W/27W
Headlight	12V/27W (2)	12V/27W (2)
Starting System	Electric w/Manual Recoil (Emergency)	Electric w/Manual Recoil (Emergency)

* Specifications subject to change without notice.

500/500 TBX ATV SPECIFICATIONS*

ENGINE AND DRIVE		
Type	Four-Cycle/ Liquid Cooled	
Bore x Stroke	87.5 mm x 82 mm (3.40 x 3.22 in.)	
Displacement	493 cc (30.1 cu in.)	
Ignition Type	CDI	
Ignition Timing	10° BTDC @ 1500 RPM	
Spark Plug Type	NGK CR6E	
Spark Plug Gap	0.7 - 0.8 mm (0.028 - 0.032 in.)	
Brake Type	Hydraulic w/Brake Lever Lock and Auxiliary Brake	
Carburetor Type	Keihin CVK36	
CHASSIS	**Manual**	**Automatic**
Length (Overall)	211 cm (83 in.)	211 cm (83 in.)/ 244.5 cm (96 in.) - TBX
Height (Overall)	125 cm (49.3 in.)	125 cm (49.3 in.)
Width (Overall)	120.7 cm (47.5 in.)	120.7 cm (47.5 in.)
Suspension Travel (Front)	25 cm (10 in.)	25 cm (10 in.)
Suspension Travel (Rear)	25 cm (10 in.)	25 cm (10 in.)
Wheelbase	127 cm (50 in.)	127 cm (50 in.)
Front Tire Size	25 x 8-12	25 x 8-12
Rear Tire Size	25 x 11-12	25 x 11-12
Tire Inflation Pressure	0.35 kg/cm² (5.0 psi)	0.35 kg/cm² (5.0 psi)
MISCELLANY	**Manual**	**Automatic**
Dry Weight (Approx)	288.5 kg (636 lb)	293 kg (646 lb)/ 331.5 kg (731 lb) - TBX
Gas Tank Capacity (Rated)	24.6 L (6.5 U.S. gal.)	24.6 L (6.5 U.S. gal.)
Coolant Capacity	2.9 L (3.0 U.S. qt)	2.9 L (3.0 U.S. qt)
Differential Capacity	275 ml (9.3 fl oz)	275 ml (9.3 fl oz)
Rear Drive Capacity	250 ml (8.5 fl oz)	250 ml (8.5 fl oz)
Engine Oil Capacity	3.4 L (3.5 U.S. qt)	2.5 L (2.6 U.S. qt)
Gasoline (Recommended)	87 Octane Regular Unleaded	87 Octane Regular Unleaded
Engine Oil (Recommended)	SAE 10W-40	SAE 10W-40
Differential/Rear Drive Lubricant	SAE Approved 80W-90 Hypoid	SAE Approved 80W-90 Hypoid
Taillight/Brakelight	12V/8W/27W	12V/8W/27W
Headlight	12V/27W (2)	12V/27W (2)
Starting System	Electric w/Manual Recoil (Emergency)	Electric w/Manual Recoil (Emergency)

* Specifications subject to change without notice.

650 ATV SPECIFICATIONS*

ENGINE AND DRIVE	
Type	Four-Cycle/ Liquid Cooled
Bore x Stroke	98 mm x 85 mm (3.86 x 3.35 in.)
Displacement	641 cc (39.1 cu in.)
Ignition Type	CDI
Spark Plug Type	Champion R6YCA
Spark Plug Gap	0.7 - 0.8 mm (0.028 - 0.032 in.)
Brake Type	Hydraulic w/Brake Lever Lock and Auxiliary Brake
Carburetor Type	Keihin CVK40
CHASSIS	
Length (Overall)	211 cm (83 in.)
Height (Overall)	125 cm (49.3 in.)
Width (Overall)	120.7 cm (47.5 in.)
Suspension Travel (Front)	25 cm (10 in.)
Suspension Travel (Rear)	25 cm (10 in.)
Wheelbase	127 cm (50 in.)
Front Tire Size	25 x 8-12
Rear Tire Size	25 x 11-12
Tire Inflation Pressure	0.35 kg/cm^2 (5.0 psi)
MISCELLANY	
Dry Weight (Approx)	293 kg (646 lb)
Gas Tank Capacity (Rated)	24.6 L (6.5 U.S. gal.)
Coolant Capacity	2.9 L (3.0 U.S. qt)
Differential Capacity	275 ml (9.3 fl oz)
Rear Drive Capacity	250 ml (8.5 fl oz)
Engine Oil Capacity	2.5 L (2.6 U.S. qt)
Gasoline (Recommended)	87 Octane Regular Unleaded
Engine Oil (Recommended)	SAE 10W-40
Differential/Rear Drive Lubricant	SAE Approved 80W-90 Hypoid
Taillight/Brakelight	12V/8W/27W
Headlight	12V/27W (2)
Starting System	Electric w/Manual Recoil (Emergency)

* Specifications subject to change without notice.

650 V-Twin ATV SPECIFICATIONS*

ENGINE AND DRIVE	
Type	SOHC/V-Twin/Four-Cycle/ Liquid Cooled
Bore x Stroke	80 mm x 63 mm (3.15 x 2.48 in.)
Displacement	633 cc (38.6 cu in.)
Ignition Type	Digital DC - CDI
Ignition Timing	5° BTDC @ 1500 RPM/28° BTDC @ 5000 RPM
Spark Plug Type	NGK CR7E
Spark Plug Gap	0.7 - 0.8 mm (0.028 - 0.032 in.)
Brake Type	Hydraulic w/Brake Lever Lock and Auxiliary Brake
Carburetor Type	Keihin CVKR-D32 (2)
CHASSIS	
Length (Overall)	211 cm (83 in.)
Height (Overall)	125 cm (49.3 in.)
Width (Overall)	120.7 cm (47.5 in.)
Suspension Travel (Front)	25 cm (10 in.)
Suspension Travel (Rear)	25 cm (10 in.)
Wheelbase	127 cm (50 in.)
Front Tire Size	26 x 8-12
Rear Tire Size	26 x 11-12
Tire Inflation Pressure	0.35 kg/cm² (5.0 psi)
MISCELLANY	
Dry Weight (Approx)	293 kg (646 lb)
Gas Tank Capacity (Rated)	24.6 L (6.5 U.S. gal.)
Coolant Capacity	2.7 L (2.8 U.S. qt)
Differential Capacity	275 ml (9.3 fl oz)
Rear Drive Capacity	250 ml (8.5 fl oz)
Engine Oil Capacity	1.75 L (1.85 U.S. qt)
Gasoline (Recommended)	87 Octane Regular Unleaded
Engine Oil (Recommended)	SAE 10W-40
Differential/Rear Drive Lubricant	SAE Approved 80W-90 Hypoid
Taillight/Brakelight	12V/8W/27W
Headlight	12V/27W (2)
Starting System	Electric w/Manual Recoil (Emergency)

* Specifications subject to change without notice.

GENERAL INFORMATION

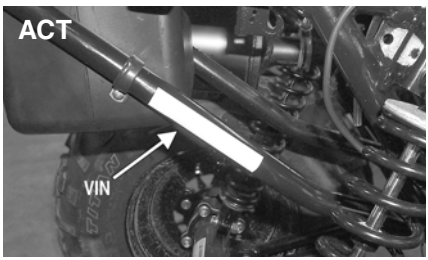
ATV IDENTIFICATION NUMBERS

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

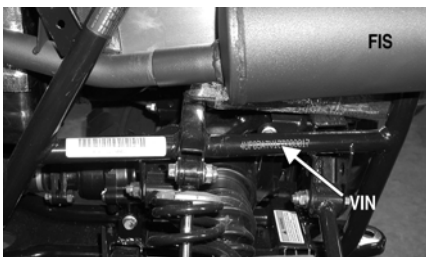
On the 250/300, the Vehicle Identification Number is located on the horizontal frame bar beneath the rear left-side fender.

AF729B

On the 400/500/650/650 V-Twin, the Vehicle Identification Number is located on the frame support rail.

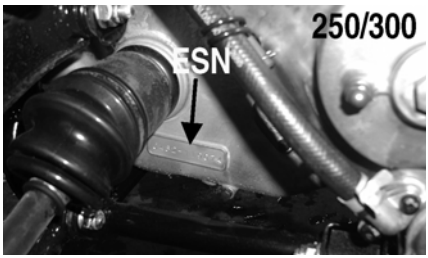


AF927A



AF968A

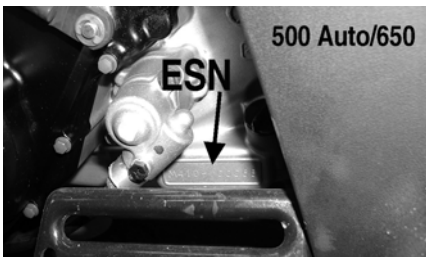
On the 250/300, the Engine Serial Number is located on the right-side rear of the engine crankcase.



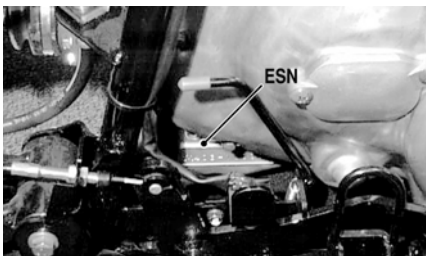
CD036A

On the 400, the Engine Serial Number is located on the left-side of the engine crankcase near the base of the cylinder.

On the 500/650, the Engine Serial Number is located on the right-side rear of the engine crankcase (manual transmission) or on the left-side rear of the engine crankcase (automatic transmission).



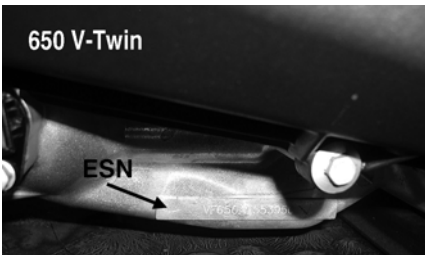
CD038A



CC323E

CD037A

On the 650 V-Twin, the Engine Serial Number is located on lower right-side of the engine crankcase.



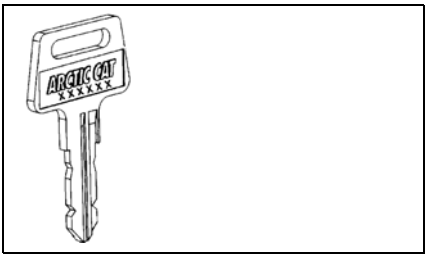
KX026A

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.

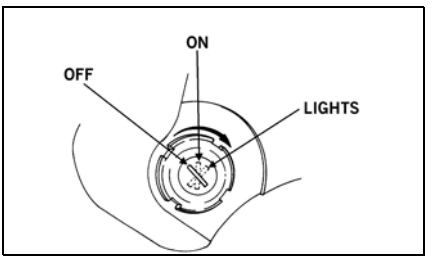


ATV-0055

CONTROL LOCATIONS AND FUNCTIONS

Ignition Switch

The ignition switch has three positions.



ATV-0056

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

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

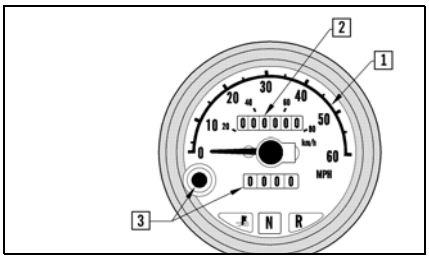
ON position — The ignition circuit is complete and the engine can run. The key cannot be removed in this position.

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

⚠ CAUTION

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

Speedometer (300/400 ACT Auto/400 TBX)

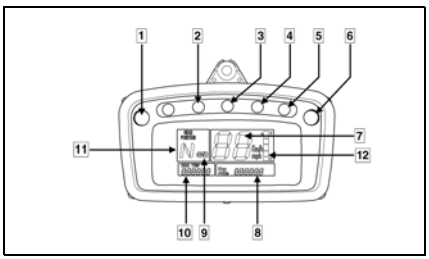


0739-499

1. **Speedometer** — The speedometer shows approximate speed.
2. **Odometer** — The odometer shows the total distance traveled.
3. **Trip Meter** — The trip meter is an odometer which can be reset. It can be used to show the distance traveled on short trips or between gas stops. Turning the knob counterclockwise resets the trip meter to zero.

Speedometer/ Indicator Lights (400 FIS/500/650)

■ NOTE: The indicator lights will illuminate for approximately two seconds when the ignition switch is rotated to the ON position.



738-504A

1. **Odometer/Trip Meter Display Button** — Press the display button to display the Odometer (10), the A & B Trip Meters (10), and in conjunction with the Clock/Hour Display Button (6), the speedometer km/h and mph displays.
2. **Reverse Indicator** — A red light will illuminate when the transmission is shifted into reverse gear. The light will go off when shifted out of reverse.
3. **Neutral Indicator** — A green light will illuminate when the transmission is in neutral and the ignition switch is on. The light will go out when shifted into any gear other than neutral.
4. **High Beam Indicator** — A blue light will illuminate when the lights are on high beam. The light will not be illuminated when the lights are switched to low beam.
5. **Temperature Indicator** — A red light will illuminate if the engine overheats. The light should be off during normal operation.

⚠ 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.

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

6. **Clock/Hour Meter Display Button** — Press the display button to switch to either the clock or hour meter and in conjunction with the Odometer/Trip Meter Display Button (1), the speedometer km/h and mph displays.

■ NOTE: The clock icon indicates a 12-hour mode; the hour meter icon indicates total time the ATV is used.

A. Press and hold the display button until the minute display blinks; then adjust the minute display by pressing the button. Press the Odometer/Trip Meter Display Button (1) to set minute display.

■ NOTE: If the display button is pressed in and held, the minute display will advance continuously.

B. After the minute display is set, the hour display will blink. Press the Clock/Hour Meter Display Button (6) to set hour display.

7. **Speedometer** — Shows approximate ATV speed in km/h and mph.

■ NOTE: To display km/h or mph, press Display Button (1) to odometer; then press and hold Display Button (1) while pressing Clock/Hour Meter Display Button (6) for two seconds. Speedometer will display between km/h and mph.

8. **Clock/Hour Meter** — Clock indicates 12-hour mode; the hour meter indicates total time the ATV is used.

9. **4WD Indicator** — Displays 4WD when the front drive selector switch is moved to the 4WD position. Display will go off when 2WD is selected.

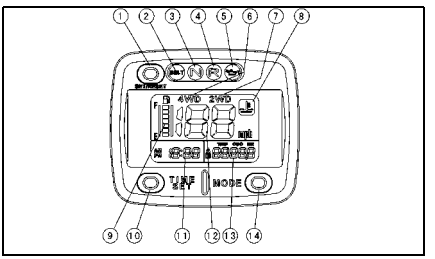
10. **Odometer/Trip Meters (A & B)** — Odometer registers the total distance the ATV has traveled. Trip meters can register two different types of distances (for instance, A could register trip distance and B could register distance between stops). Trip meters can be reset.

11. **Gear Position Indicator** — Displays which position the shift lever is in: R (reverse gear) and the Reverse Indicator (2) will illuminate, N (neutral) and the Neutral Indicator (3) will illuminate, and on the automatic transmission model H (high gear), and L (low gear).

12. **Fuel Level Indicator** — Shows amount of gasoline in the gas tank.

Speedometer/Indicator Lights (650 V-Twin)

■ NOTE: The indicator lights will illuminate for approximately one second when the ignition switch is rotated to the ON position.



1. **Set/Reset Button** — Used (in conjunction with the Time Set button) to advance the hour and minute display for setting the clock and to reset the trip meter display to zero.

2. **Belt Check Indicator** — The Belt light will flash at 0.35-second intervals when excessive belt wear or belt damage is detected. Also, light will illuminate every 100 hours of operation to indicate service requirements.

3. **Neutral Indicator** — The Neutral light will illuminate when the transmission is in neutral and the ignition switch is on. The light will go out when shifted into any gear other than neutral.

4. **Reverse Indicator** — The Reverse light will illuminate when the transmission is shifted into reverse gear. The light will go off when shifted out of reverse.

5. **Oil Pressure Indicator** — An oil pressure warning symbol LED (light emitting diode) will flash when low oil pressure is detected.

6. **4WD Indicator** — Displays 4WD when the front drive selector switch is moved to the 4WD position. Display will go off when 2WD is selected.

7. **2WD Indicator** — Displays 2WD when the front drive selector switch is moved to the 2WD position. Display will go off when 4 WD is selected.

8. **Coolant Temperature Indicator** — A red light will illuminate if the engine overheats. The light should be off during normal operation.

⚠ 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.

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

9. **Fuel Level Indicator** — Shows amount of gasoline in the gas tank. When bottom portion flashes, 3.5 L (0.92 U.S. gal.) of gasoline remains in the tank.

10. **Time Set Button** — Press the button to set clock hours and minutes.

    A. Press the button and the minute display will blink; then adjust the hour display by pressing the Set/Reset Button. Press the Time Set Button to set hour display.

■ NOTE: If the Set/Reset Button is pressed in and held, the hour display will advance continuously.

    B. After the hour display is set, the minute display will blink. Press the Set/Reset Button to set minute display.

11. **Clock** — Clock indicates 12-hour mode.

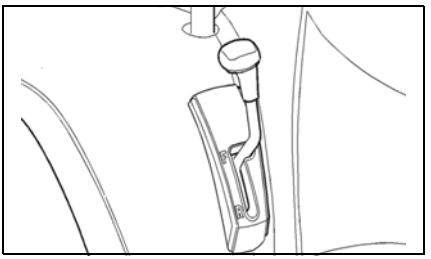
12. **Speedometer** — Shows approximate ATV speed in km/h and mph.

13. **Odometer/Trip Meters (A & B)/ Hour Meter** — Odometer registers the total distance the ATV has traveled. Trip meters can register two different types of distances (for instance, A could register trip distance and B could register distance between stops). Trip meters can be reset. Hour meter registers total ignition switch ON time.

14. **Mode Button** — Used (in conjunction with the Odometer/Trip Meters/Hour Meter) to shift the odometer/trip meters/hour meter display through the four modes: odometer, trip meter (A), trip meter (B), and hour meter.

Reverse Shift Lever (Manual Transmission)

To shift into reverse gear, stop the ATV completely and shift the transmission into neutral. Pull the reverse shift lever fully rearward. When the ATV is in reverse gear, the gearshift pedal will not function.



0736-566

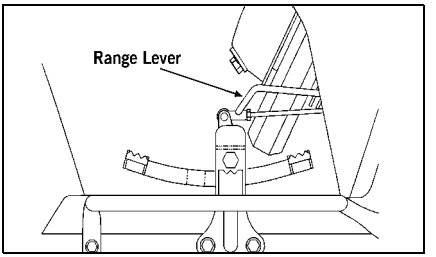
⚠ WARNING

Never shift the ATV into reverse gear when the ATV is moving as it could cause the ATV to stop suddenly throwing the operator from the ATV.

Range Lever (250/300)

■ NOTE: All five of the transmission gears and reverse can be used in all ranges.

The range lever (high/low ranges for the 250 2x4 and high/low/ super-low ranges on the 250 4x4 and the 300 models) is used for changing the output ratio of the transmission.



736-567A

Select HIGH, LOW, or SUPER-LOW (4x4 models) range according to intended use of the ATV. Always come to a complete stop before attempting to shift from one range to the other. Shift on level ground or engage the brake lever lock.

High Range — Normal riding with light loads.

Low Range — Carrying heavy loads or trailer towing. Compared to HIGH range, the LOW range position provides slower speed and greater torque to the wheels.

Super-Low Range (4x4 models) — Carrying heavy loads or trailer towing on slippery or rugged surfaces. This position provides the slowest speed and greatest torque to the wheels.

To shift to a different range, use the following procedure:

1. Stop the ATV completely. If on an inclined surface, engage the brake lever lock.
2. Shift the transmission into neutral.
3. Either push or pull the range lever to the desired position (2x4 model application — forward position for HIGH range - rearward position for LOW range; 4x4 application — forward position for HIGH range - center position for LOW range - rearward position for SUPER-LOW range).

4. Allow the range lever to lock into the desired position.

⚠ CAUTION

Make sure the range lever locks into the desired position before shifting the transmission.

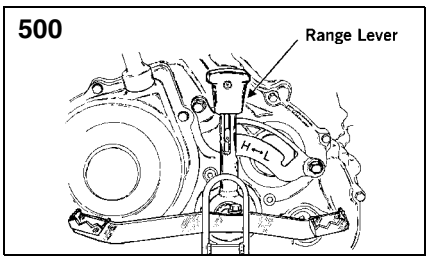
⚠ WARNING

If the range control is shifted when the ATV is moving, it could reduce speed suddenly throwing the operator from the ATV and possibly cause damage to the transmission.

Range Lever (500 - Manual Transmission)

■ NOTE: All five of the trans-mission gears and reverse can be used in both HIGH and LOW ranges.

The range lever is used for changing the output ratio of the transmission. Select HIGH or LOW range according to intended use of the ATV. Always come to a complete stop before attempting to shift from one range to the other.



ATV0078A

Shift on level ground or engage the brake lever lock.

High Range — Normal riding with light loads.

Low Range — Carrying heavy loads or trailer towing. Compared to HIGH range, the LOW range position provides slower speed and greater torque to the wheels.

To shift to a different range, use the following procedure:

1. Stop the ATV completely. If on an inclined surface, engage the brake lever lock.
2. Shift the transmission into neutral.
3. Pull the range lever up and move it to the desired position (forward position for HIGH range - rearward position for LOW range).
4. Allow the range lever to lock into position.

⚠ CAUTION

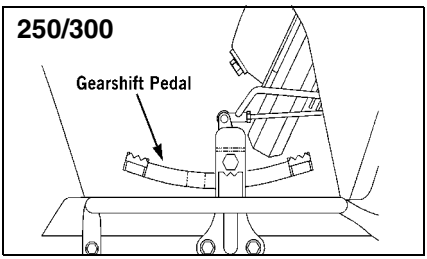
Make sure the range lever locks into the desired position before shifting the transmission.

⚠ WARNING

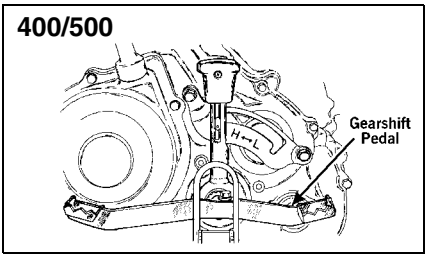
If the range lever is shifted from high range to low range when the ATV is moving, it could reduce speed suddenly throwing the operator from the ATV and possibly cause damage to the transmission.

Gearshift Pedal (Manual Transmission)

The gearshift pedal is attached to a ratchet mechanism in the transmission. Each time a gear is selected, the gearshift pedal will return to its normal position ready to select the next gear.



736-567B

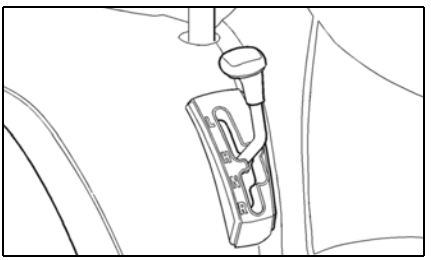


ATV0078B

To return to neutral, press down repeatedly (once for each gear) on the front of the pedal. Shift into gears by pressing down on the back of the pedal once for each gear. The ratchet mechanism makes it impossible to upshift or downshift more than one gear at a time.

Shifting (Automatic Transmission)

These ATV's have a dual-range automatic transmission with reverse. To shift the ATV, follow these steps:


0736-565

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

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

⚠ CAUTION

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

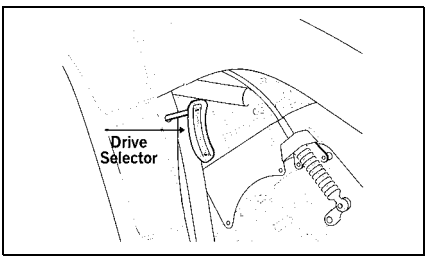
3. To engage reverse gear from neutral, move the shift lever outward and rearward into the R position.

⚠ CAUTION

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

Front Drive Selector (300)

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



736-508A

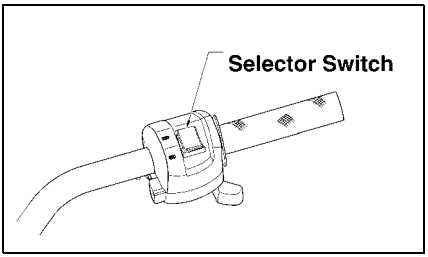
To either engage or disengage the front wheels, come to a complete stop; then either push (to engage) or pull (to disengage) the front wheel differential. Apply slight throttle until positive engagement of the differential has been observed.

⚠ CAUTION

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

Front Drive Selector Switch (400 TBX/500/650/650 V-Twin)

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



738-422A

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

Front Differential Lock (FIS Models)

The front differential lock allows the operator to mechanically lock the differential to apply equal power to both front wheels. To engage the front differential lock, rotate the handle fully counterclockwise to LOCK; to disengage the front differential lock, rotate the handle fully clockwise to UNLOCK.

KX016A

⚠ WARNING

The front differential lock is intended for use where minimum traction is available. NEVER EXCEED 10 MPH (16 kph) with the front differential lock engaged. Maneuverability and handling characteristics will differ with the front differential lock engaged. ALWAYS shift into 4-wheel drive prior to engaging the front differential lock. Failure to follow this procedure may result in loss of control. Control loss can result in severe injury or even death.

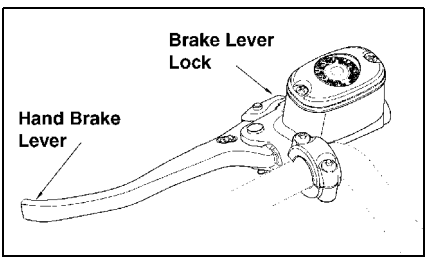
Hand Brake

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.

Brake Lever Lock

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



738-420B

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.

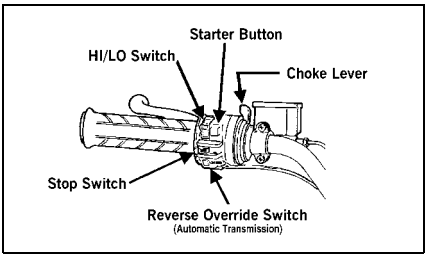
■ NOTE: The brake lever lock must lock the wheels. If it doesn't, take the ATV to an authorized Arctic Cat ATV dealer for service.

⚠ 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 for more than ONE HOUR. Always block the downhill side of the wheels if leaving the ATV on a hill or park the ATV in a sidehill position.

Headlight HI/LO Switch

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



0735-941

Emergency Stop Switch

OFF position — The ignition circuit is off. The engine cannot be started or will not run. If the emergency 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.

Electric Starter Button

Pushing in on this button activates the starter motor. Before starting the engine, make sure the ignition switch is in the ON position, the transmission is in neutral, the reverse shift lever is in the forward position, 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 or when the reverse shift lever is in the reverse position.

Reverse Override Switch - Automatic Transmission

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

⚠ WARNING

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

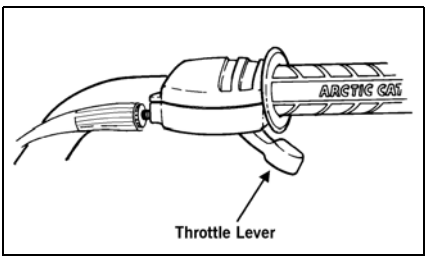
Choke Lever (250/300/650 V-Twin)

■ NOTE: On the 400/500/650 models, the choke is an automatic one. There is no choke lever.

The choke lever is used to help start a cold engine. Press the lever down fully to activate the choke. Return the lever to the full upright position to de-activate the choke.

Throttle Lever

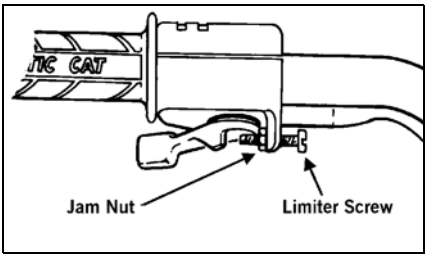
Control engine RPM with the position of the throttle lever. Operate this lever with the thumb. Pushing it forward increases engine RPM and allowing it to retract decreases engine RPM.



ATV0047A

Throttle Limiter Screw

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



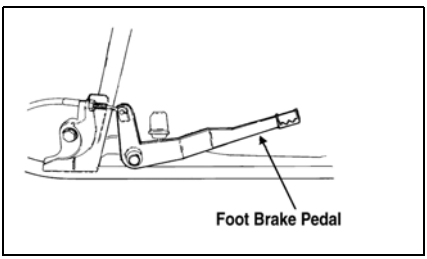
ATV-0053

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 a CDI unit that retards ignition timing when maximum RPM is approached. When the RPM limiter is activated, it could be misinterpreted as a high-speed misfire.

Auxiliary Brake Pedal

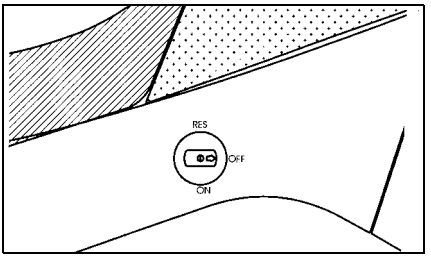
Pressing the auxiliary brake pedal downward will apply the brake to the rear wheels.



ATV0088D

Gas Tank Valve (250/300/400)

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



ATV-1098

In the OFF position, the valve will not allow gasoline to flow to the carburetor. In the ON position (the normal operating position), gasoline will flow from the tank to the carburetor. In this position, 2.46 L (0.65 U.S. gal.) will remain in the tank as a reserve quantity.

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

⚠ WARNING

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

Electric Fuel Pump (650 V-Twin)

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

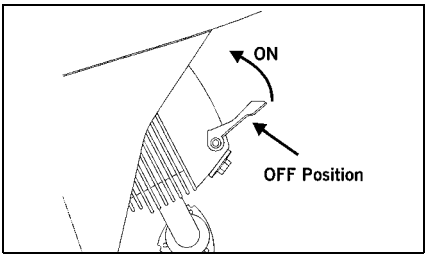
■ NOTE: Both the ignition and fuel pump functions will be interrupted by the Vehicle Tip Sensor (VTS) if the ATV tips over past 60°-70°. Righting the ATV will reactivate the ignition and fuel pump.

Vacuum Fuel Pump (400 TBX/500/650)

A vacuum fuel pump is incorporated in the gas tank to deliver gasoline to the carburetor. The fuel pump operates when the engine is turning.

Decompression Lever (250/300)

■ NOTE: The engine on some models can be started in any gear if the hand brake lever is applied. However, it is recommended to shift into neutral before starting the engine.



733-731A

The engine has a manual decompression lever which may be activated when starting the engine using the recoil starter. Activating the decompression lever allows the engine to be cranked over at a higher rate of speed. To activate the decompression lever, lift the decompression lever fully upward; then release it. The lever will automatically return to its OFF position.

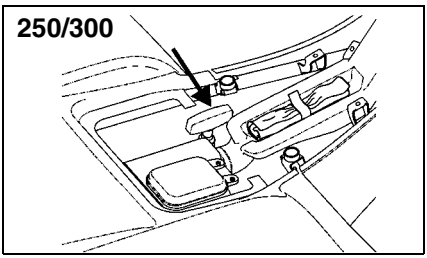
⚠ CAUTION

Do not use the manual decompression lever when using the electric start. Also, do not activate the decompression lever when the engine is running.

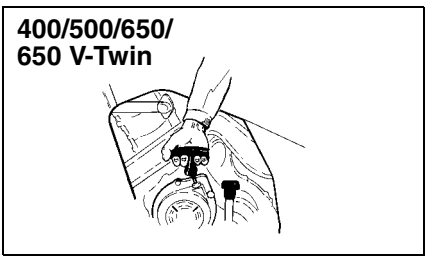
■ NOTE: The decompression lever may lift without any resistance and will then return to its OFF position. If this occurs, decompression has occurred. Pull the recoil to start the engine.

EMERGENCY RECOIL STARTER

All Arctic Cat ATV models have an emergency recoil starter if the electric starter becomes inoperative. This recoil starter should never be used as the main starting system for the ATV. Use in emergency only.



733-708C



ATV-0054

If the electric starter becomes inoperative due to an electrical malfunction, the starter safety interlock switches may also malfunction. If the emergency recoil starter is to be used on manual transmission models, press repeatedly on the front of the gearshift pedal to ensure the transmission is in neutral and also that the reverse lever is in the forward position.

⚠ WARNING

On manual transmission models, make sure the transmission is in the neutral position, the reverse lever is in the forward position, and the brake lever lock is engaged when using the emergency recoil starter.

If the emergency recoil starter is to be used on automatic transmission models, make sure the range/reverse shift selector is in the neutral position.

⚠ WARNING

On automatic transmission models, make sure the range/reverse shift selector is in the neutral position and the brake lever lock is engaged when using the emergency recoil starter.

To use the recoil starter, grip the starter rope handle, pull the rope gently until resistance is felt, and then give a short, quick pull. Repeat until the engine starts. Allow the rope to rewind slowly.

⚠ CAUTION

To avoid damaging the recoil starter, DO NOT pull the recoil rope to its limit or release the recoil handle from an extended position. Allow the rope to rewind slowly.

GAS/VENT HOSES

Replace the gas hose every two years. Damage from aging may not always be visible. Do not bend or obstruct the routing of the carburetor vent hose. Make certain that the vent hose is securely connected to the carburetor and hose holder and the opposite end is always open.

CARBURETOR FLOAT BOWL DRAIN

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

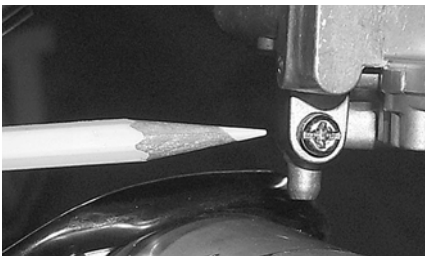
1. Attach a hose to the float bowl drain and direct it into a container.

■ NOTE: On certain models, a drain hose is attached to the float bowl drain.

⚠ WARNING

Do not drain float bowl contents directly onto the engine. Gasoline is highly flammable and could ignite. Use a hose.

2. Loosen the drain screw and allow the gasoline and condensation to flow out.



AF925

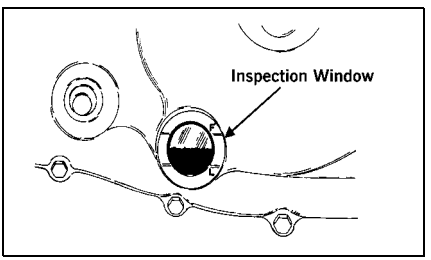
3. Tighten the drain screw securely and remove the hose.

⚠ WARNING

It is very important that the drain screw be tightened securely. If it is not tightened securely, gasoline could drip onto the engine.

OIL LEVEL INSPECTION WINDOW (Manual Transmission Models)

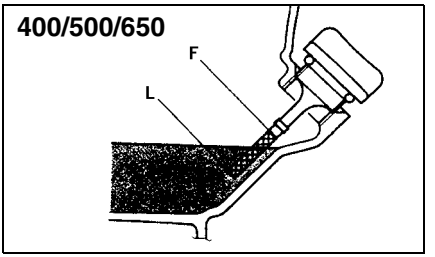
The oil level inspection window is located on the lower-right side of the transmission. With the ATV on a level surface, the oil level should be visible at any point between the level marks.



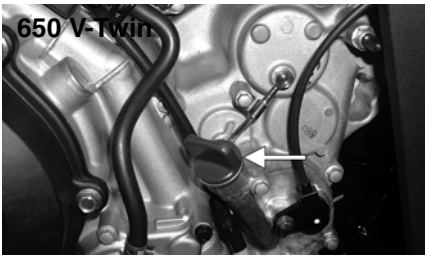
ATV-0074

OIL LEVEL STICK (Automatic Transmission Models)

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



ATV-0100



KX019A

■ **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.

■ **NOTE: On the 400/500/650, the oil level stick should not be threaded in for checking purposes.**

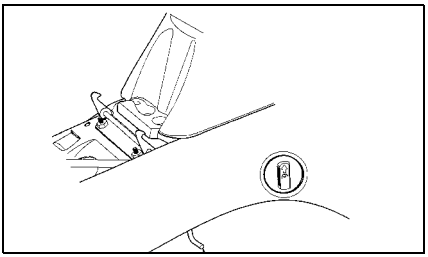
■ **NOTE: On the 650 V-Twin, the oil level stick should be threaded in for checking purposes.**

3. Remove the oil level stick; the engine oil level should be above the “L” mark but not higher than the “F” mark.

⚠ CAUTION

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

SEAT LATCH (250/300)



738-443A

1. To remove the seat, pull the seat latch lever forward (located below the right side of the seat). Raise the front end of the seat and slide it forward.
2. To lock the seat into position, slide the rear of the seat into the seat retainers and push down firmly on front 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.

SEAT LATCH (400 FIS/ACT)

1. To remove the seat, push the seat latch lever backward (located under the rear rack near the front-right rack mount). 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 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.

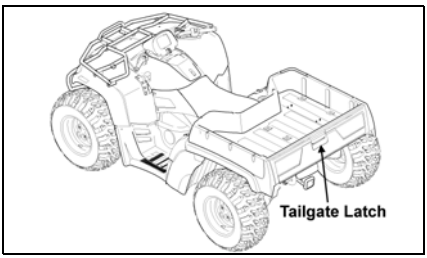
SEAT LATCH (400 TBX/500/650/650 V-Twin)

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.

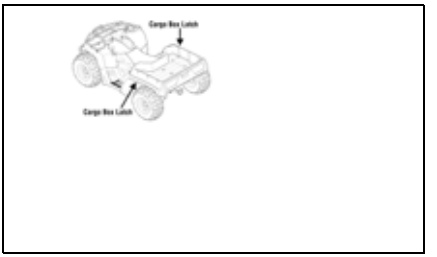
TAILGATE LATCH (400 TBX/500 TBX)



739-569A

1. To open the tailgate, pull the latch (located at the center of the tailgate).
2. To close the tailgate, press down firmly. The tailgate will latch automatically.

CARGO BOX LATCH HANDLES (400 TBX/500 TBX)



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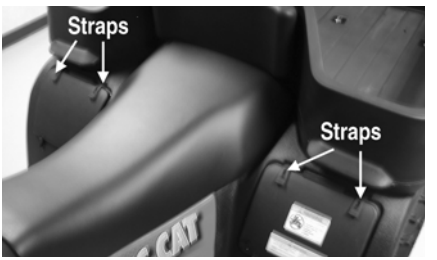
1. To raise the cargo box, rotate either handle downward; then raise the cargo box.
2. To lower the cargo box, push down firmly on the front of the box. The box will automatically lock into position.

SIDE STORAGE COMPARTMENT STRAPS (400 TBX/500 TBX)



CD040

1. To open a compartment, lift the straps off the hatch lugs.
2. To close a compartment, pull the straps over the hatch lugs.

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 appropriate ATV Load Capacity Ratings Chart for proper capacities.

⚠ WARNING

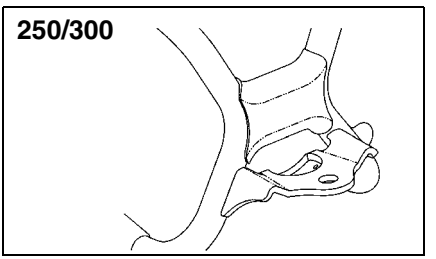
Make sure the loads on the front and rear racks will not interfere with the ATV controls or obstruct the view of the operator. Also, make sure the loads are evenly distributed, properly secured, and will not shift while operating the ATV.

TRAILERING AND TOWING

⚠ WARNING

Never use the racks as a towing or trailering point.

The trailer hitch is standard equipment. Use a trailer and towing equipment that are compatible to this ATV. Use only a No. 1 trailer hitch ball 48 mm (1 7/8 in.) in diameter or larger. Never use a trailer hitch bracket that provides a trailer coupler location lower than the center of the rear wheels.



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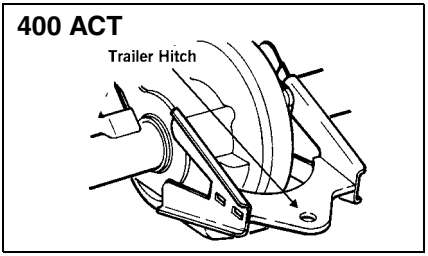
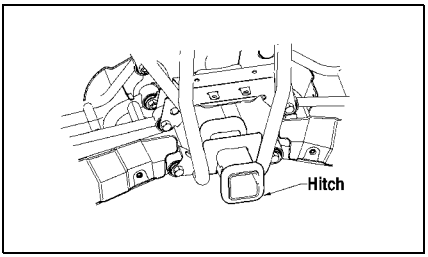


ATV-0050

The 400/500 FIS/650 models 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.



738-424

⚠ WARNING

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

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

⚠ 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. Tow only at low speeds 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 and has a rigid tow bar. Allow more stopping distance than when not towing a trailer.

TRANSPORTING ATV

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

1. Engage the brake lever lock and place the transmission in first gear.
2. If equipped, turn the gas tank valve OFF.
3. Secure the ATV with load rated hold-down straps.

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

⚠ CAUTION

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

⚠ CAUTION

When transporting the ATV, make sure the brake lever lock is engaged, the transmission is in first gear, and the ATV is properly secured.

GASOLINE-OIL-LUBRICANT

Recommended Gasoline

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

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

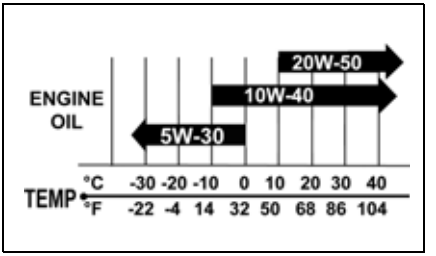
⚠ CAUTION

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

Recommended Engine/ Transmission Oil

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

The recommended oil to use in this ATV is an oil which is rated SE, SF, or SG under API service classification. These oils meet all of the lubrication requirements of the Arctic Cat ATV engine. The recommended engine oil viscosity is SAE 10W-40. Ambient temperature should determine the correct weight of oil. See the viscosity chart or an authorized Arctic Cat ATV dealer for details.



OILCHARTA

⚠ CAUTION

Any oil used in place of the recommended oil could cause serious engine damage.

Recommended Front Differential/Rear Drive Lubricant

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

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

⚠ CAUTION

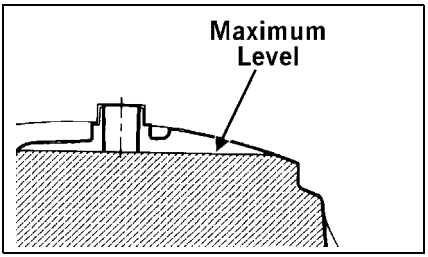
Any lubricant used in place of the recommended lubricant could cause serious front differential/rear drive damage.

Filling Gas Tank

⚠ WARNING

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

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



ATV0049C

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.

Tighten the gas tank cap securely after filling the tank.

⚠ WARNING

Do not overfill the gas tank.

BREAK-IN PROCEDURE

New ATV's and renewed ATV engines require a "break-in" period. The first month is most critical to the life of this ATV. Proper operation during this break-in period will help assure maximum life and performance from the ATV.

During the first 10 hours of operation, always use less than 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.

⚠ CAUTION

BRAKE PADS MUST BE BURNISHED TO ACHIEVE FULL BRAKING EFFECTIVENESS.

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

TO PROPERLY BURNISH THE BRAKES, USE FOLLOWING PROCEDURE:

- **Choose an area sufficiently large to safely accelerate ATV to 30 mph and to brake to a stop.**
- **Accelerate to 30 mph; then compress brake lever to decelerate to 0-5 mph.**
- **Repeat procedure 5 times until brakes are burnished.**

⚠ WARNING

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

After the completion of the break-in period, the engine oil and oil filter should be changed. Other maintenance after break-in should include checking of all prescribed adjustments and tightening of all fasteners. At the discretion and expense of the owner/operator, the ATV may be taken to an authorized Arctic Cat ATV dealer for this initial service.

GENERAL MAINTENANCE

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

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

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

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

MAINTENANCE SCHEDULE					
Item	**Page**	**Initial 100 miles (160 km) after break-in**	**Every 100 miles (160 km) or 1 month**	**Every 300 miles (482 km) or 3 months**	**Every 500 miles (804 km) or 6 months**
Battery	135	I	I		
* Engine nuts and bolts	—	I			I
* Valve clearance	—	I			I
Spark plug	137	I		I	I
	137	Replace every 4000 miles (6436 km) or 18 months			
Liquid cooling system (500/650/650 V-Twin)	122	I	I		
Oil cooler (250/300/400)	—	I		I	I
Idle speed	138	I			I
Throttle cable	139	I	Inspect every time before riding		
Gas/vent hoses	109	I	Inspect every time before riding		
	109		Replace every 2 years		
Engine/transmission oil and filter	124-127	R		R	
Air filter	139	I	I		
Gear lubricant (Front differential - rear drive)	127	I	I		
	128		Replace every 4 years		
V-Belt (Automatic)	142	I			I
Spark arrester/muffler	144				C
Tires/air pressure	143	I	Inspect every time before riding		
* Brake components	129	I	Inspect every time before riding		
	130	I	Inspect every time before riding		
	132	I	Inspect every time before riding		
Brake fluid	129	I	*Replace every 2 years		
Brake hoses	129	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
Headlights/taillight-brake-light	145/146	I	Inspect every time before riding		
Air filter drains (650)	—	I	Inspect every time before riding		

I = Inspect and clean, adjust, lubricate, replace as necessary
* = Dealer maintenance
T = Tighten
R = Replace
C = Clean

LIQUID COOLING SYSTEM (500/650/650 V-Twin)

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

The cooling system capacity can be found in the specification charts. 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.

■ 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.

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.

CD453

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

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

GENERAL LUBRICATION

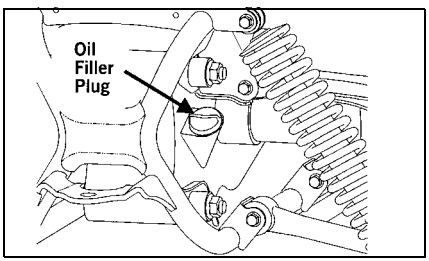
Cables

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

Engine/Transmission Oil and Filter (250/300)

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

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



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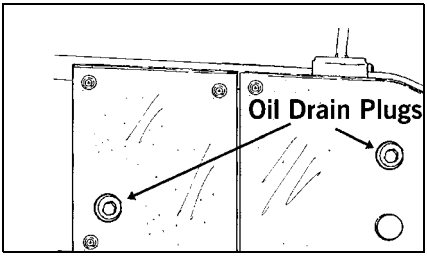
3. Remove the drain plugs from the bottom of the engine and drain the oil into a drain pan.



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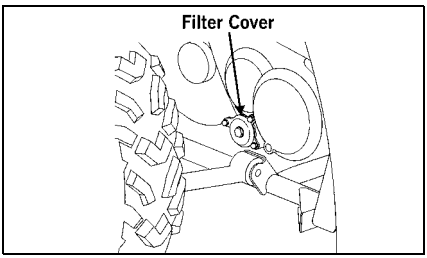
4. Remove the three nuts securing the filter cover.



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5. Remove the filter cover; then pull out the oil filter element and properly discard. Remove and properly discard the O-ring from the filter cover.

■ **NOTE: Clean up any excess oil after removing the filter. Also, check to be sure the filter cover spring is properly positioned.**

6. Apply oil to the new filter cover O-ring and position it correctly in the filter cover.
7. With the open end of the oil filter element directed toward the center of the engine, slide the element into position.

⚠ CAUTION

If the oil filter element is inserted backwards, engine damage will occur due to a lack of oil flow.

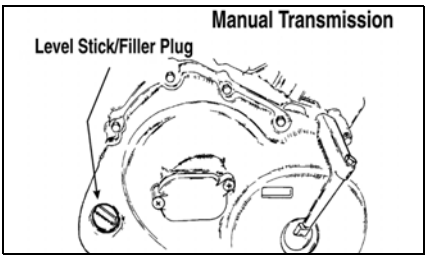
8. Place the filter cover into position and secure with three nuts. Tighten securely.

9. Install the engine drain plugs and tighten securely. Pour the recommended oil in the filler hole. Install filler plug.
10. Start the engine (while the ATV is outside on level ground) and allow it to idle for a few minutes.
11. Turn the engine off and wait approximately one minute. Recheck the oil level in the engine oil inspection window. The oil level should be visible through the window. If oil is not visible, add recommended oil until the oil level is visible at any point within the window.
12. Inspect the area around the drain plug and oil filter for leaks.

Engine/Transmission Oil and Filter (400/500/650)

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

1. Park the ATV on level ground.
2. Remove the oil filler plug. Be careful not to allow contaminates to enter the opening.
3. Remove the drain plug from the bottom of the engine and drain the oil into a drain pan.



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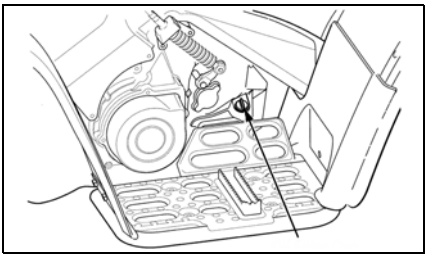
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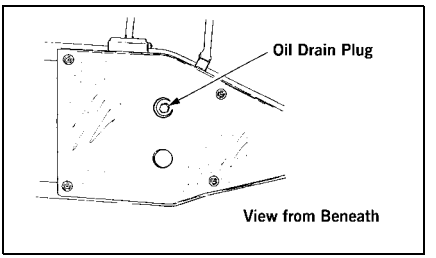


733-441A

4. Remove the oil filter plug from the filter mounting boss (located on the front-right side of the transmission case) and allow the filter to drain completely.

5. Using the oil filter wrench and a ratchet handle (or a socket or box-end wrench), remove the old oil filter and dispose of properly. Do not re-use oil filter.

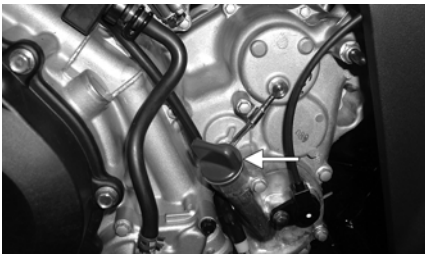
■ NOTE: Clean up any excess oil after removing the filter.

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

Engine/Transmission Oil and Filter (650 V-Twin)

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



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KX036A

KX046

4. Using the oil filter wrench and an appropriate handle, 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.

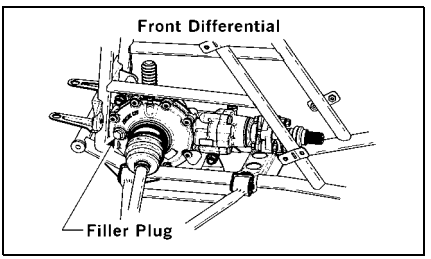
5. Apply oil to the new filter gasket and check to make sure it is positioned correctly; then install the new oil filter. Tighten securely.
6. Install the engine drain plug and tighten it securely. Remove the oil filler plug and pour the recommended oil in the filler hole. Install filler plug.

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.



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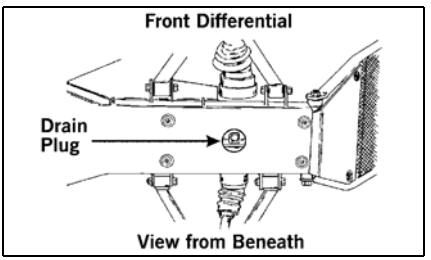
3. Drain the oil into a drain pan by removing in turn the drain plug from each.



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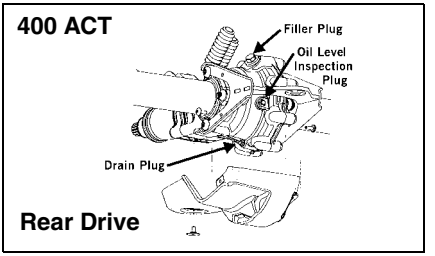

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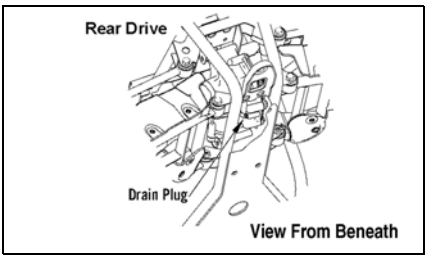


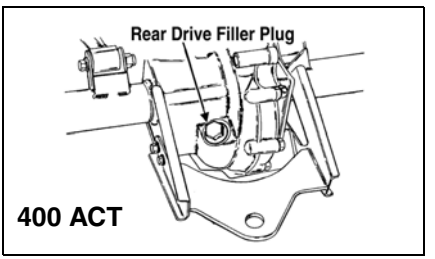
737-651A

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.
6. Install the filler plugs.



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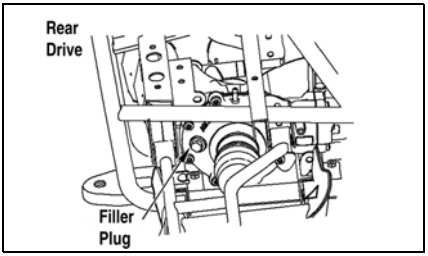

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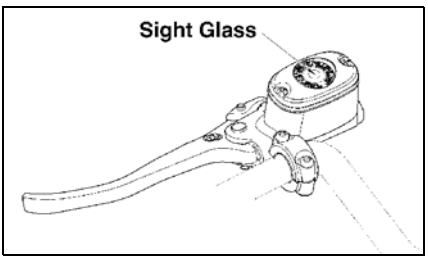
HYDRAULIC HAND BRAKE

⚠ 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.



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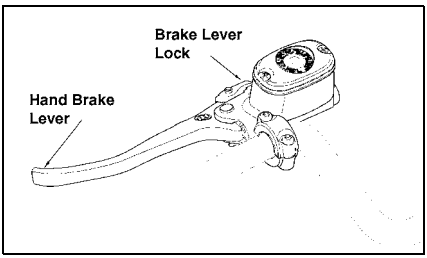
■ NOTE: If the sight glass appears dark, there is a sufficient amount of fluid in the reservoir.

⚠ CAUTION

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

Brake Lever Lock

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



738-420B

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

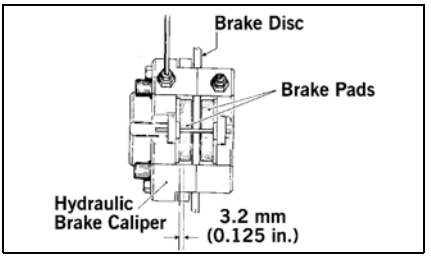
Carefully inspect the hydraulic brake hoses for cracks or other damage. If found, take the ATV to an authorized Arctic Cat ATV dealer to have the brake hoses replaced.

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 is less than 3.2 mm (0.125 in.), take the ATV to an authorized Arctic Cat ATV dealer to have brake pads replaced. Install the wheel and tighten to 5.5 kg-m (40 ft-lb).



730-434C

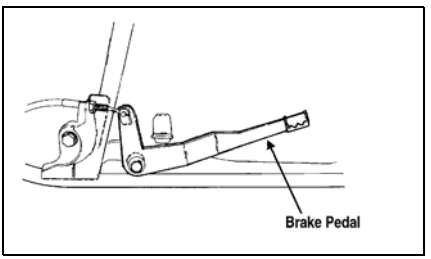
AUXILIARY BRAKE (250/300/400 ACT)

The auxiliary brake must be properly maintained to be fully functional.

⚠ WARNING

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

1. Press the auxiliary brake pedal.

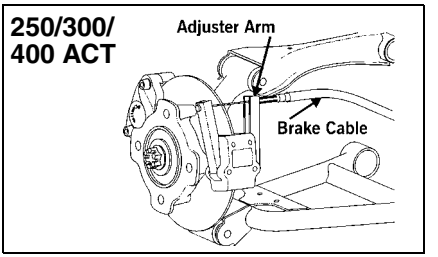


ATV-0088D

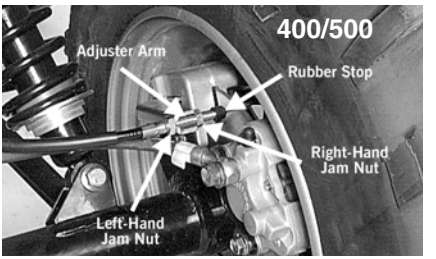
2. With the engine off, transmission in neutral, and the reverse lever in the forward position, attempt to move the ATV.
3. If the rear wheels are locked, it is adjusted properly.
4. If the rear wheels are not locked, it must be adjusted (set up).

To adjust (set up) the brake, use the following procedure.

1. Loosen the right-hand jam nut (wheel-side when viewing from behind) of the adjuster arm.
2. Pull the brake cable to the left and push the adjuster arm to the right.

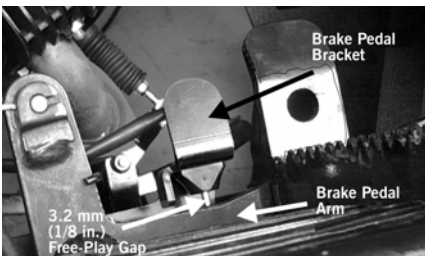


733-730B



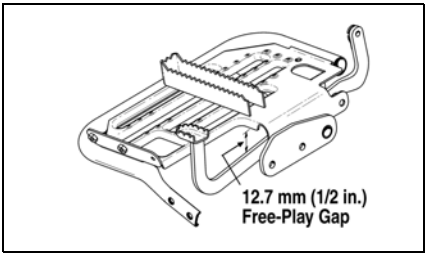
AF765A

■ **NOTE: On the 250/300, there should be 3.2 mm (1/8 in.) free-play gap between the brake pedal arm and the brake pedal bracket.**



AF796A

■ **NOTE: On the 400 ACT, there should be 12.7 mm (1/2 in.) free-play gap between the pedal and the footrest.**



736-569A

3. While holding the cable and adjuster arm in this position, finger-tighten the left-hand jam nut until it contacts the adjuster arm; then loosen it 2 1/2 turns.
4. Tighten the right-hand jam nut securely against the adjuster arm.
5. If the free-play gap is not within tolerance, readjust the jam nuts of the adjuster arm in 1/4 turn increments until the correct free-play gap is attained.

■ NOTE: Apply the brake a number of times to ensure the wheels lock and the brakelight illuminates properly.

⚠ CAUTION

When the right-hand jam nut cannot be loosened (bottoms against the rubber adjuster arm stop), both brake pads must be replaced. Take the ATV to an authorized Arctic Cat ATV dealer for this service.

AUXILIARY BRAKE (FIS Models)

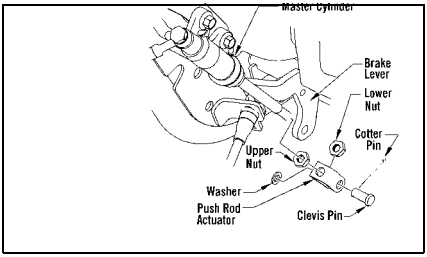
The auxiliary brake must be maintained to be fully functional.

⚠ WARNING

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

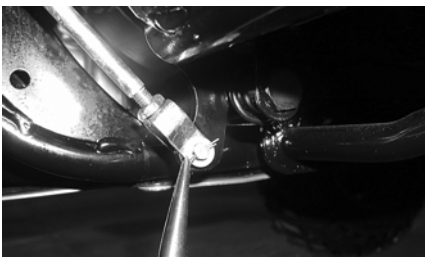
■ NOTE: Any time the auxiliary brake is not functioning properly, the linkage adjustment procedure should be done prior to any other procedure.

To adjust the linkage, use the following procedure:

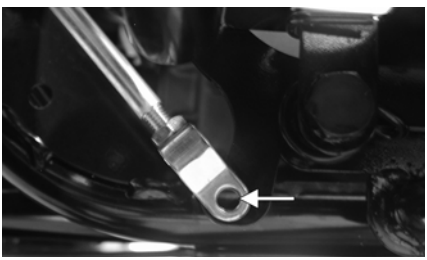


0739-542

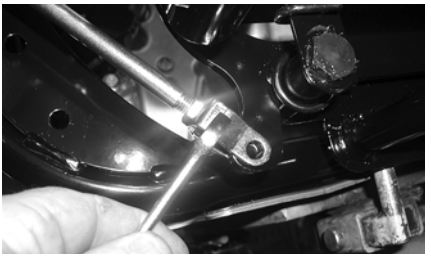
1. Remove the cotter pin and washer; then remove the clevis pin.



CD472



CD473A



CD476

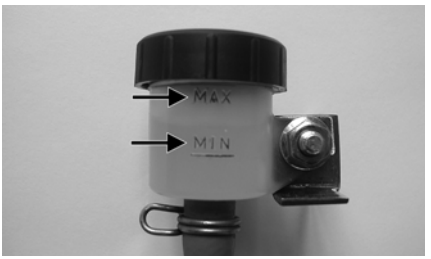
2. Making sure the brake pedal is fully released and against the stop, check that the holes in the push-rod actuator align with the hole in the pedal lever.

■ NOTE: If the holes align, no adjustment is necessary; proceed to step 4.

3. If the holes are not aligned, loosen the upper nut and rotate the push-rod actuator and lower nut until the holes align; then hold the actuator and lower nut and tighten the upper nut securely.

4. Verify for proper alignment; then install the clevis pin, washer, and a new cotter pin.

5. 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 reservoil is low, add D.O.T. 4 brake fluid.



CD474A

■ NOTE: The brake fluid reservoir is located on the battery box above the right-rear wheel (400) or under the seat (400 TBX/500/650/650 V-Twin).

6. Press the auxiliary brake pedal several times to check for firmness.

7. If the pedal 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)

CC791

1. Secure the ATV on a support stand to elevate the front wheels.

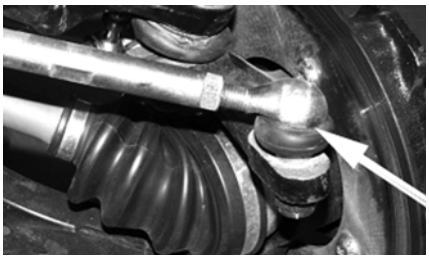
2. Remove both front wheels.

3. Inspect the four ball joint boots for cracks, tears, or perforations.

4. Check the ball joint for free-play by grasping the steering knuckle and turning it from side to side and up and down.

5. If boot damage is present or ball joint free-play seems excessive, contact an authorized Arctic Cat ATV dealer for service.

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



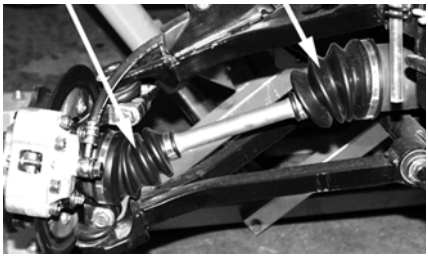
CC792

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

Drive Axle Boots

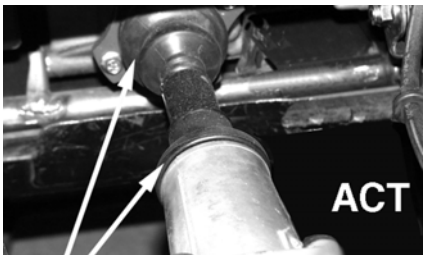
■ NOTE: The FIS 4x4 models have four drive axles and eight boots, and the ACT 4x4 models and the FIS 2x4 models have two drive axles and four boots.

1. Inspect all drive axle boots for cracks, tears, or perforations.



CC793

2. If boot damage is present, contact an authorized Arctic Cat ATV dealer for service.



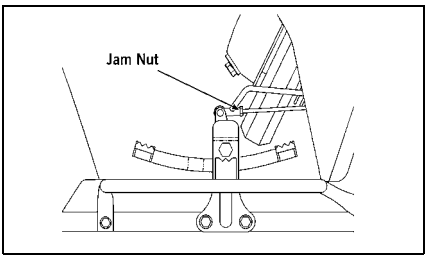
0735-940

CD039

GEARSHIFT PEDAL ADJUSTMENT (250/300)

Periodically, the position of the gearshift pedal should be checked and adjusted if necessary. When the gearshift pedal is in its normal position, the front and rear ends of the pedal should either be level (in relation to the footrest) or the front of the footrest should be slightly higher than the back, but no more than 19 mm (3/4 in.). To adjust the gearshift pedal, use the following procedure.

1. Loosen the jam nut on the shift rod.



0736-567

2. Remove the lock nut securing the shift rod to the gearshift pedal; then remove the shift rod.
3. Rotate the end of the shift rod until the proper adjustment is achieved.
4. Position the shift rod on the gear shift pedal and secure with the existing lock nut. Tighten securely.
5. Tighten the jam nut securely.

BATTERY

The battery is located under the right rear fender (250/300) or under the seat (400/500/650/650 V-Twin).

The level of the battery fluid must be kept between the MAX and MIN level lines at all times. If the level drops below the MIN level line, add only **distilled water** until it reaches MAX level line.

⚠ WARNING

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

If the battery is discharged, remove the battery from the ATV and charge the battery at the standard charging rate of 1.4 amps for 10 hours.

To remove and charge the battery, use the following procedure.

1. Remove the seat assembly; then remove the battery hold-down bracket.
2. Remove the negative battery cable; then remove the positive cable and the battery vent tube. Remove the battery from the ATV. Care should be taken not to damage the vent tube.

⚠ WARNING

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

⚠ CAUTION

Do not charge the battery while it is in the ATV with the battery terminals connected.

3. Remove the vent plugs; then (if necessary) fill the battery with **distilled water** to the MAX level indicated on the battery.
4. Trickle charge the battery at 1.4 amps for 10 hours.

⚠ CAUTION

Never exceed the standard charging rate.

5. After charging, check fluid level and fill with distilled water as necessary; then install vent plugs.

⚠ CAUTION

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

6. Place the battery into position in the ATV and secure with the hold-down bracket.
7. Attach the vent tube and check the vent tube to make sure it is not crimped or obstructed in any way and that it is properly routed through and secured to the frame.
8. Clean the battery posts and cable ends by using a battery post cleaning tool and/or a wire brush to remove dirt, grease, and corrosion.
9. Connect cables to the proper terminals: positive cable to the positive terminal (+) and negative cable to the negative terminal (-). Connect the negative cable last.

⚠ CAUTION

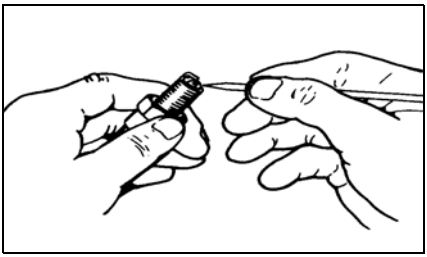
Connecting cables in reverse (positive to negative and negative to positive) can cause serious damage to the electrical system.

SPARK PLUG

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

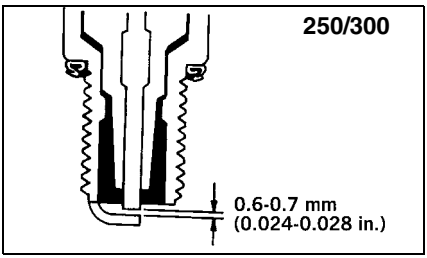
To maintain a hot, strong spark, keep the plug free of carbon.

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.



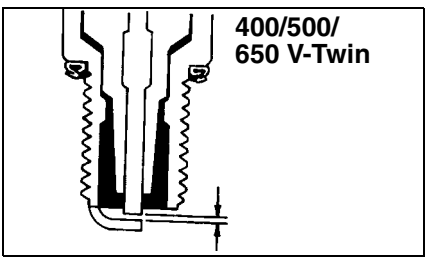
ATV-0051

Adjust the gap on the 250/300 to 0.6-0.7 mm (0.024-0.028 in.) or on the 400/500/650/650 V-Twin to 0.7-0.8 mm (0.028-0.032 in.) for proper ignition. Use a feeler gauge to check the gap.



ATV-0052A

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.



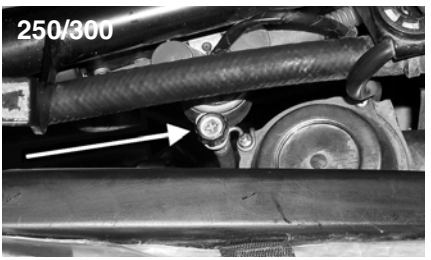
ATV-0052

ENGINE IDLE RPM ADJUSTMENT

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

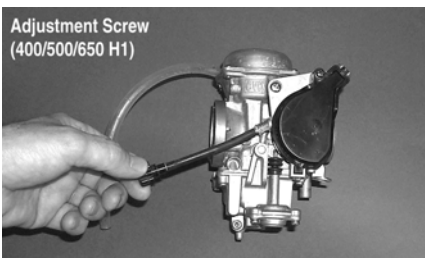
To adjust idle RPM:

■ NOTE: To access the idle adjustment screw, it will be necessary to remove the seat on the 250/300 models. The idle adjustment screw is located on the right-hand side of the carburetor on the 400/500/650/650 V-Twin models.



735-939A

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



AF920C

Engine Idle RPM	
250/300/400/500/650	1250-1350
650 V-Twin	1050-1150

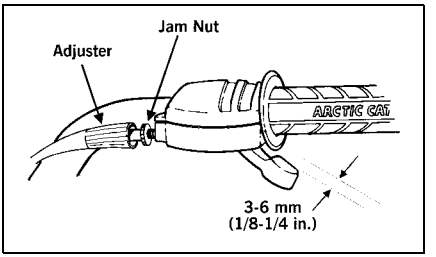
⚠ WARNING

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

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.).



ATV-0047

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

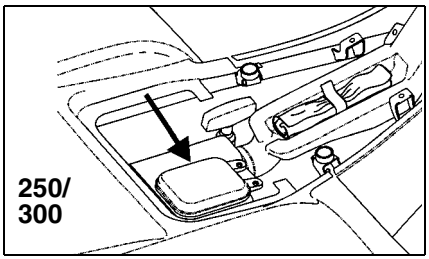
AIR FILTER

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

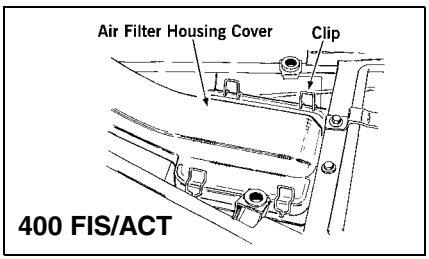
⚠ CAUTION

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

1. Remove the seat.
2. Remove the air filter housing cover.



733-708A



733-444A

A. On the 250/300, remove the two machine screws securing the cover; then pull the retainer out and remove the filter.

B. On the 400 FIS/ACT, remove the cover from the retaining clips; then loosen the clamp and remove the filter.

C. On the 400 TBX/500/650/650 V-Twin, remove the two fasteners securing the storage compartment and remove the storage compartment. Remove the air cleaner housing cover from the four retaining clips; then remove the air filter.

3. Fill a wash pan larger than the element with a non-flammable cleaning solvent; then dip the element in the solvent and wash it.
4. Squeeze the element by pressing it between the palms of both hands to remove excess solvent. Do not twist or wring the element or it will develop cracks.
5. Dry the element.
6. Put the element in a plastic bag; then pour in air filter oil and work the oil into the element.
7. Squeeze the element to remove excess oil.

⚠ CAUTION

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

8. Clean any dirt or debris from inside the air cleaner. Be sure no dirt enters the carburetor.
9. Install the air filter and cover.

A. On the 250/300, place the filter in the air filter housing making sure it is properly seated and secure with the retainer; then install the cover and secure with the machine screws.

B. On the 400 FIS/ACT, place the filter in the air filter housing making sure it is properly in position and seated and secure with the clamp; then install the cover and secure with the retaining clips.

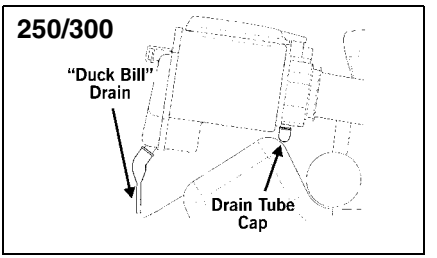
C. On the 400 TBX/500/650/650 V-Twin, place the storage compartment into position; then secure with the fasteners.

10. Install the seat making sure it is properly secured.

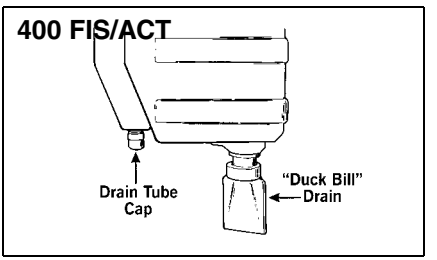
AIR FILTER HOUSING DRAIN TUBE

Periodically (weekly) check the drain tube for gasoline or oil accumulation. If noticed, remove the drain tube cap from beneath the front housing, drain the gasoline or oil into a suitable container, and install and secure the tube cap.

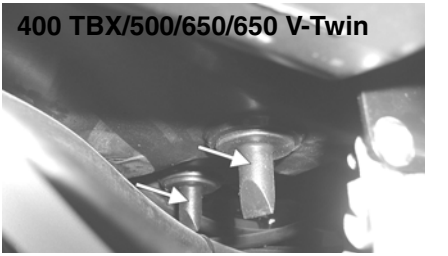
Inspect the "duck bill" drain beneath the main housing for debris and for proper sealing.



733-715B



ATV-0087



KX045A

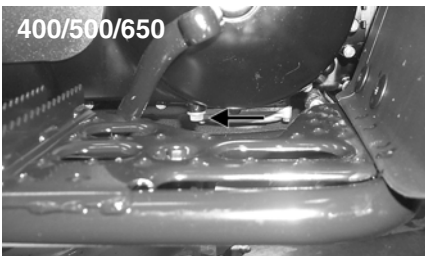
⚠ CAUTION

The drain on the right side of the housing is on the "clean air"side of the air filter. Any leak in this drain will allow unfiltered air to enter the engine. Severe engine damage could occur.

DRAINING V-BELT COVER (Automatic Transmission)

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

On the 400/500/650 to drain the belt cover, use the following procedure.



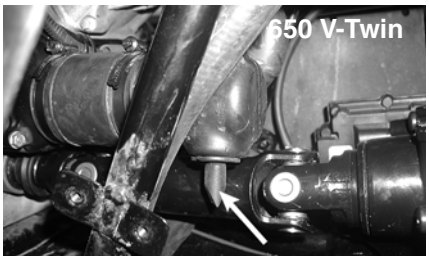
AF922A

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

5. Install the drain bolt and tighten securely.

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

On the 650 V-Twin to drain the belt cover, use the following procedure.



KX384A

1. Elevate the rear of the ATV (no more than 25°) to allow water trapped in the V-belt cover to run into the cooling inlet duct and drain out through the "duck bill" drain.
2. Shift the range lever to the neutral position; then start the engine.
3. Increase and decrease the RPM several times to "blow out" any water; then stop the engine.

■ NOTE: The V-belt and pulleys must be inspected every 100 hours and the belt replaced (if necessary).

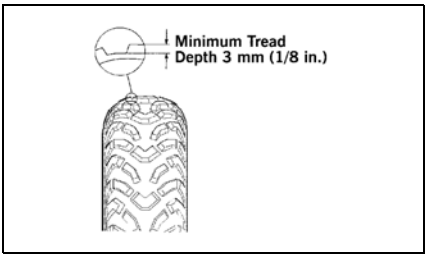
TIRES

⚠ 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.

WHEEL REMOVAL

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 by placing a jack under the axle.
4. Remove the lug nuts.
5. Remove the wheel.
6. Install the wheel and install the lug nuts.
7. Tighten the nuts in a crisscross pattern to 5.5 kg-m (40 ft-lb).
8. Remove the jack.

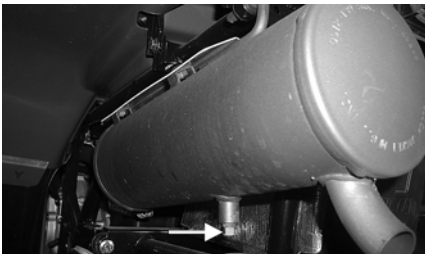
MUFFLER/SPARK ARRESTER

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. Shift the transmission into neutral and engage the brake lever lock.
2. Elevate the front of the ATV on a safety stand until the muffler is horizontal.
3. Remove the plug from the bottom of the muffler.



CD451A

4. Start the engine and increase RPM to “blow out” the accumulated carbon particles.
5. Stop the engine. Wait until the muffler cools; then install the plug and tighten securely.

LIGHT BULB REPLACEMENT

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

Headlight	12V/27W (2)
Tailight/Brakelight	12V/8W/27W

⚠ CAUTION

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

Headlight

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

⚠ WARNING

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

To replace the headlight bulb, use the following procedure.

1. Remove the wiring harness connector from the back of the headlight.
2. Grasp the bulb housing, turn it counterclockwise, and remove the bulb.
3. Install the new bulb into the housing and rotate it completely clockwise.
4. Install the wiring harness connector.

⚠ CAUTION

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

Taillight/Brakelight

To replace the taillight/brakelight bulb, use the following procedure.

1. Remove the two screws and remove the lens cover.
2. Push the bulb in and turn it counterclockwise.
3. Install the new bulb by turning it clockwise while pushing in.
4. Install the lens cover.

⚠ CAUTION

Tighten the lens cover screws only until they are snug.

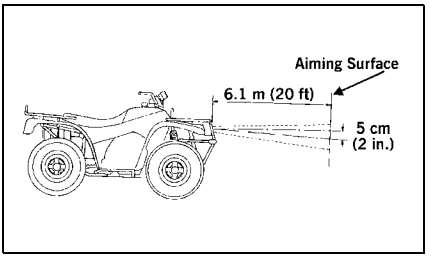
CHECKING/ ADJUSTING HEADLIGHT AIM

The headlights can be adjusted vertically and horizontally. The geometric center of the HIGH beam light zone is to be used for vertical and horizontal 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).

■ 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.

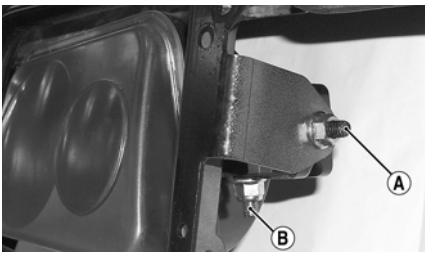


ATV-0070

7. Adjust each headlight until correct aim is obtained.

■ NOTE: On the 250/300/400 FIS/ ACT models, it will be necessary to remove the two machine screws securing the front grille and removing the grille for steps A and B.

■ NOTE: Steps A and B are for the 250/300/400 FIS/ACT models; step C is for the 400 TBX/500/650/650 V-Twin models.



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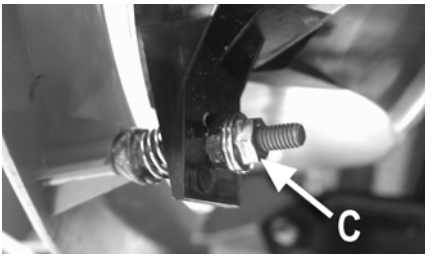
A. Horizontal — Loosen nut A and adjust for proper aiming. Tighten the nut securely.

B. Vertical — Loosen nut B and adjust for proper aiming. Tighten the nut securely.

C. Turn the nut clockwise to raise the beam and counterclockwise to lower the beam.



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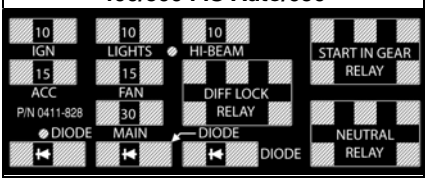
FUSES

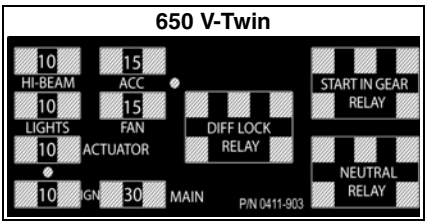
The fuses are located in a fuse block under the center cover in the front fender assembly (on the 250/300 models), under the seat (on the 400 ACT model), and in a power distribution module under the seat (on the 400 FIS/ 500/TBX/650/650 V-Twin models). If there is any type of electrical system failure, always check the fuses first.

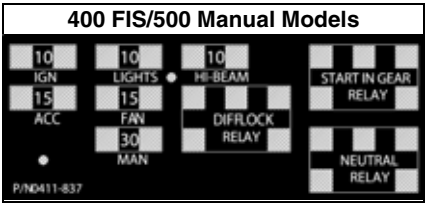
250/300
10 A IGN
15 A LIGHTS
10 A ACC
10 A SPARE

400/500 FIS Auto/650



650 V-Twin





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

⚠ 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.

ELECTRICAL OUTPUT TERMINALS

One output terminal for electrical accessories is located on the front wiring harness.

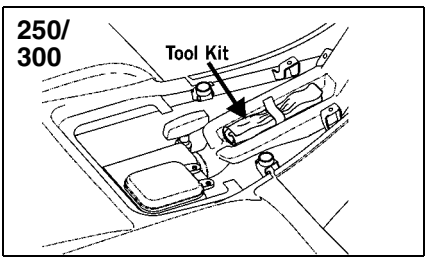
On the 400/500/650/650 V-Twin, two output terminals for electrical accessories are located on the front and rear wiring harnesses. The accessory plug is located by the right front fender.

⚠ CAUTION

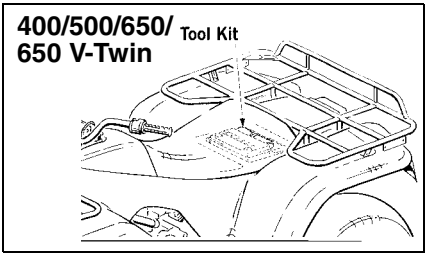
Always use electrical accessories less than 180W.

STORAGE COMPARTMENT/ TOOLS

A basic tool kit is provided with the ATV.



733-708B



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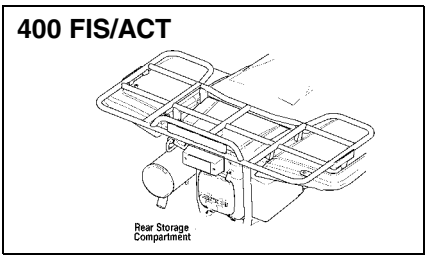
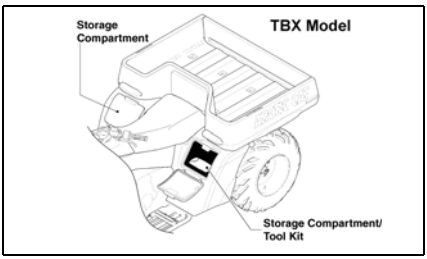


738-503A



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Maintain the tool kit with the ATV at all times.

The storage compartment on the 400 FIS/ACT is located under the rear rack.

The storage compartment on the TBX/ 500/650/650 V-Twin is above the engine in front of the seat.

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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. Drain the carburetor float bowl.
5. Plug the hole in the exhaust system with a clean cloth.
6. Apply light oil to the upper steering post bushing and plungers of the shock absorbers.
7. Tighten all nuts, bolts, cap screws, and screws. Make sure rivets holding components together are tight. Replace all loose rivets. Care must be taken that all calibrated nuts, cap screws, and bolts are tightened to specifications.
8. On liquid cooled models, fill the cooling system to the bottom of the stand pipe in the radiator neck with properly mixed coolant.
9. Disconnect the battery cables (negative cable first); then remove the battery, clean the battery posts and cables, and store in a clean, dry area.
10. 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. On liquid cooled models, 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.

⚠ CAUTION

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

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.

NOTES

LIMITED WARRANTY

Arctic Cat Inc. (hereinafter referred to as Arctic Cat) extends a limited warranty on each new Arctic Cat ATV it manufactures and on each genuine Arctic Cat ATV part and accessory manufactured or sold by an authorized Arctic Cat ATV dealer. Warranty on an Arctic Cat ATV is extended to the original retail purchaser; however, the balance of the unused warranty may be transferred to a second party.

Arctic Cat warrants only the products it manufactures 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 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. Six months from date of sale — for batteries on full exchange basis.
3. Thirty days from date of sale — for all dealer installed parts and accessories.
4. Until expiration of the new product warranty — for all eligible replacement parts.

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

Tires	CV Boots	Oil Filter	Cables
Air Filter	Light Bulbs	Spark Plug	Brake Pads
Torn or Punctured Upholstery		Cracks or Gouges in Body Panels	
Clutch Wear Parts (bushings, etc.)			

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 service as recommended in the Operator's Manual.
2. Repair by anyone other than an authorized Arctic Cat ATV dealer.
3. An ATV used for commercial purposes, including rentals.
4. Use of improper carburetor jets.
5. Use of improper gasoline, lubricating oils, or spark plug.
6. An accident or subjecting the ATV to misuse, abuse, or negligent operation.
7. Any modification or removal of parts (i.e. muffler, carburetor boot, etc.) unless instructed to do so by Arctic Cat.
8. Use of the ATV in any way for racing purposes.
9. Removal of the engine for use in another vehicle.
10. Removal or mutilation of the Vehicle Identification Number or Engine Serial Number.
11. Use of parts not sold or approved by Arctic Cat.
12. Damage due to improper transportation.

In consideration of the foregoing, any implied warranty is limited in duration to the various warranty periods set forth. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state or country to country. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

WARRANTY PROCEDURE/ OWNER RESPONSIBILITY

At the time of sale, an ATV Rider Training Certificate and Owner Registration form (included with each new ATV) 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 ATV should be taken to the selling dealer, who has the primary responsibility to perform warranty repairs. 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 ATV 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 ATV in accordance with Arctic Cat's recommendations in the Operator's Manual. To protect yourself and your ATV, 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 Inc., P.O. Box 810, Thief River Falls, MN 56701 (218) 681-8558

CHANGE OF ADDRESS, OWNERSHIP, OR WARRANTY TRANSFER

Arctic Cat Inc. keeps on file the current name and address of the owner of this ATV. This will allow 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 ATV 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.

Address Change ❑

Ownership Change ❑

Warranty Transfer ❑

CHANGE OF ADDRESS/OWNERSHIP/ WARRANTY TRANSFER TO:

Name _____

Address _____

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

Phone # ( ) _____

Year and Model ATV _____

Vehicle Identification Number (VIN) _____

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.

Avant d'utiliser le véhicule, vous devriez prendre un cours d'instruction VTT pour maîtriser les techniques ou pour renforcer ceux que vous avez. Pour le Canada, composez le (613) 739-1535.

Fold Back

Place
Stamp
Here

CHANGE OF ADDRESS/OWNERSHIP

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

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 MERCHANT-ABILITY 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.

INDEX

MAINTENANCE RECORD

DATE	MILEAGE	SERVICE PERFORMED/NOTES

Identification Numbers Record

⚠ WARNING

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

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

1. KEY IDENTIFICATION NUMBER:

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

2. VEHICLE IDENTIFICATION NUMBER:

3. ENGINE SERIAL NUMBER:

⚠ WARNING

Improper ATV use can result in SEVERE INJURY or DEATH

ALWAYS USE AN APPROVED HELMET AND PROTECTIVE GEAR

NEVER USE ON PUBLIC ROADS

NEVER CARRY PASSENGERS

NEVER USE WITH DRUGS OR ALCOHOL

NEVER operate:

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

ALWAYS:

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

LOCATE AND READ OPERATORíS MANUAL
FOLLOW ALL INSTRUCTIONS AND WARNINGS

Dealer Imprint

p/n 2257-034