

cannondale

READ THIS MANUAL CAREFULLY!
It contains important safety information.

2002
ATV OWNER'S
MANUAL



WARNING

Minimum Recommended Operator Age: 16

- Maintain your ATV
- ATV Safety Information



WARNING

POTENTIAL HAZARD

Crashing, flipping, or losing control of the ATV.

WHAT CAN HAPPEN

This ATV may exceed the performance of ATVs you have ridden previously. It accelerates extremely fast and reaches high speeds. Inexperience with a high performance category "S" (Sport) ATV or riding beyond your skill level could lead to a loss of control extremely quickly. **YOU COULD BE INJURED OR KILLED.**

HOW TO AVOID THE HAZARD

The hazards of ATV riding cannot be completely avoided. If you are under 16, do not ride this ATV. If you do not have advanced skills and substantial operating experience, do not ride this ATV. If you have not taken an ATV training course, take one before riding this ATV. Locate and read the Owner's Manual before riding this ATV. Follow all instructions in the Owner's Manual when riding this ATV. Ride this ATV at small throttle openings and low speeds until you learn its performance and handling characteristics and develop respect and experience.

ATV SPORT REALITY

WARNING

STOP! - If you have the impression that four wheels give you the stability of a car, you are wrong. If you have the impression that an A TV is simple to drive and similar to those other vehicles, you are wrong. The risks involved are at least equal to those faced when riding a motorcycle.

CHARACTERISTIC	PURPOSE	REALITY
<i>Example: Sharp knife</i>	<i>Useful tool for cutting</i>	<i>Risk of cutting yourself</i>
No restraint system, no body, no protective structure	Rider must be able to shift weight	Motorcycle-like risk, rider can fall or fly off and is exposed, unprotected
Very high power-to-weight ratio	Thrilling acceleration, competition performance	Relatively easy to wheelie, requires focus and skill to stay ahead of machine
Short wheelbase	Maneuverable in woods, compact	Relatively easy to wheelie, to turn over backwards or pitch over forward
Narrow track	Maneuverable in woods, narrow trails	Relatively easy to turn over
High ground clearance, high center of gravity	Clearance for obstacles, more suspension travel	Relatively easy to turn over
Soft, high traction tires	Traction and flotation on soft, loose surfaces	Grip on hard surface (pavement) makes it easy to turn over
Totally unsuited and illegal for road use	Designed exclusively for off road	High risk of turn over or collision if you ride on.

POTENTIAL HAZARD

Given the realities of sport ATVs and/or the limits of your own riding abilities, you may lose control. The limits are impossible to be specific about because of the variation in terrain and rider ability are nearly unlimited. If you chose to ride an ATV, you must understand and respect the reality of the above.

WHAT CAN HAPPEN

You could lose control, have an accident and be severely injured, paralyzed or killed.

HOW TO AVOID THE HAZARD

The hazards of ATV riding cannot be completely avoided. They can be minimized with training, good judgement, experience, use of helmet, protective gear and development of skills in weight shifting, throttle and brake control. Reading and understanding this Owner's Manual and warning labels, watching and understanding the ATV safety video and completing an ATV training course are essential and can begin your learning process.

FOREWORD

Experienced Riders Only

All Cannondale motorsports products are high performance, sport and/or competition machines and should only be operated by licensed competition riders in excellent physical condition. Operators should be well-trained and experienced in the operation of high performance competition vehicles.

- **This vehicle is not for beginners or the inexperienced.**
- **Before you ride this vehicle, read this Owner's Manual thoroughly and understand all of the instructions, warnings, cautions, and notes presented.**

About this manual

The purpose of this manual is to provide the vehicle owner with important safety, service, maintenance, and tuning information. Read and understand this manual before operating or working on the vehicle. Keep your Owner's Manual on the vehicle while you ride. If you lose this manual, contact an authorized Cannondale motorsports dealer for a replacement.

- **This manual contains standard ATV industry safety information required to be a part of ATV Owner's Manuals. It also contains Cannondale specific model information.**

- **Read and understand the entire procedure before performing any work. If you are unfamiliar with or doubt your own abilities to complete a procedure as described, have an authorized Cannondale motorsports dealer service your vehicle.**

For detailed service information, obtain the engine service or chassis manual for your vehicle or contact an authorized Cannondale motorsports dealer for a list of available publications.

Addenda to this manual

Before you begin reading the manual, go to the "Addenda" section at the end of this manual. The addenda or "supplements" section provides any additional, replacement, or supplemental information for your product available at the time of shipment.

Comments?

If you have any comments or suggestions about this Owner's manual, we'd appreciate hearing from you. Send to:

**Technical Publications
Cannondale Corporation**
2 Corporate Drive
Bedford, PA 15522

E-mail:
technical.publications@cannondale.com

Noise Regulation

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED

U.S. federal law prohibits the following acts or the causing thereof;(1) The removal or rendering inoperative by any person, other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW:

1. Removing, puncturing, or altering of the muffler, the baffle system, header pipes, or any other component which conducts exhaust gases.
2. Lack of proper maintenance.
3. Replacing, altering, modifying any moving part of the vehicle or parts of the exhaust, intake (e.g. air filters) with parts other than those specified by the manufacturer.

Limitations

All information in this Owner's Manual is based upon the latest product data and specifications available at the time of printing. Cannondale Corporation reserves the right to make product changes and improvements which may affect illustrations, photographs and explanations contained in this Owner's Manual.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, (electronic mechanical photocopying, recording or otherwise), without the prior written permission of Cannondale Corporation. No liability can be accepted for any inaccuracies or omissions in this publication, although every possible care has been taken to make it as complete and accurate as possible. All the procedures and specifications found in this publication are subject to change without prior notice and without Cannondale Corporation incurring any obligation. The illustrations in this publication are intended for reference use only and may not depict the actual model or component parts. Your model may differ.

If you have questions about this Owner's Manual call:

1-800-MOTO-USA.

SAFETY ALERTS

- **FAILURE TO FOLLOW THE WARNINGS CONTAINED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH.**
- **Keep this Owner's Manual with your vehicle at all times.**

Messages with the Safety Alert Symbol

- **Pay special attention to all messages preceded by the Safety Alert Symbol. It means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.**



Indicates that severe personal injury or death **WILL** result if instructions are not followed.



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

CAUTION

Indicates a potential hazard which that could result in vehicle damage if instructions are not followed.

NOTE :

Provides helpful information.

SPECIAL SAFETY MESSAGES

- **AN ATV IS NOT A TOY AND CAN BE HAZARDOUS TO OPERATE**
- An ATV handles differently from other vehicles including motorcycles and cars. A collision or rollover can occur quickly, even during routine maneuvers such as turning and driving on hills or over obstacles, if you fail to take proper precautions.
- Severe injury or Death can result if you do not follow these instructions:
- Read this manual and all labels carefully and follow the operating procedures described.
- Never operate an ATV without proper instruction. Take a training course. Beginners should receive training from a certified instructor. Contact an authorized ATV dealer or call 1-800-887-2887 (USA only) to find out about the training courses nearest you.
- Always follow the age recommendation: A child under 16 years old should never operate an ATV with engine size greater than 90cc.
- Never allow a child under age 16 to operate an ATV without adult supervision, and never allow continued use of an ATV by a child if he or she does not have the abilities to operate it safely.
- Never carry a passenger on a ATV.
- Never operate an ATV on any paved surfaces, including sidewalks, driveways, parking lots and streets.
- Never operate an ATV on any public street, road or highway, even a dirt or gravel one.
- Never operate an ATV without wearing an approved motorcycle helmet that fits properly. You should also wear eye protection (goggles or face shield), gloves, boots, long-sleeved shirt or jacket, and long pants.
- Never consume alcohol or drugs before or while operating this ATV.
- Never operate at excessive speeds. Always go at a speed that is proper for the terrain, visibility, operating conditions, and your experience.
- Never attempt wheelies, jumps or other stunts.
- Always inspect your ATV each time you use it to make sure it is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in this manual.
- Always keep both hands on the handlebars and both feet on the footpegs of the ATV during operation.
- Always go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to

changing terrain conditions when operating the ATV.

- Never operate on excessively rough, slippery or loose terrain 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.
- Always follow proper procedures for turning at low speeds before attempting to turn at faster speeds. Do not turn at excessive speed.
- 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 excessively 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 that would cause the vehicle 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 excessively 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 technique described in this manual. Avoid hills with excessively 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 technique 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 backwards when climbing a hill. To avoid stalling, use the proper gear and maintain a steady speed when climbing a hill. If you stall or roll backwards, follow the special procedure for braking 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 when skidding or sliding. Learn to safely control skidding or sliding by practicing at low speeds and on level, smooth terrain. On extremely slippery surfaces, such as ice, go slowly

an be very cautious in order to reduce the chance of skidding out of control.

- **Never operate an ATV in fast flowing water or in water deeper than that specified in this manual. Remember that wet brakes may have reduced stopping ability. Test you brakes after leaving water. if necessary, apply them several times to let friction dry out the linings.**
- **Always use the size and type of tires specified in this manual. Always maintain proper tire pressure as described in this manual.**
- **Never modify an ATV through improper installation or use of accessories.**
- **Never install a twist grip throttle on this ATV.**
- **Never exceed the stated load limits for an ATV. Cargo should be properly distributed and securely attached. Reduce speed and follow instructions in this manual for carrying cargo. Allow greater distance for braking.**
- **FOR MORE INFORMATION ABOUT ATV SAFETY, call the Consumer Product Safety Commission at 1-800-638-2772, or the ATV Distributors' Safety Hotline at 1-800-852-5344 (USA only).**

When reading this manual, remember:

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

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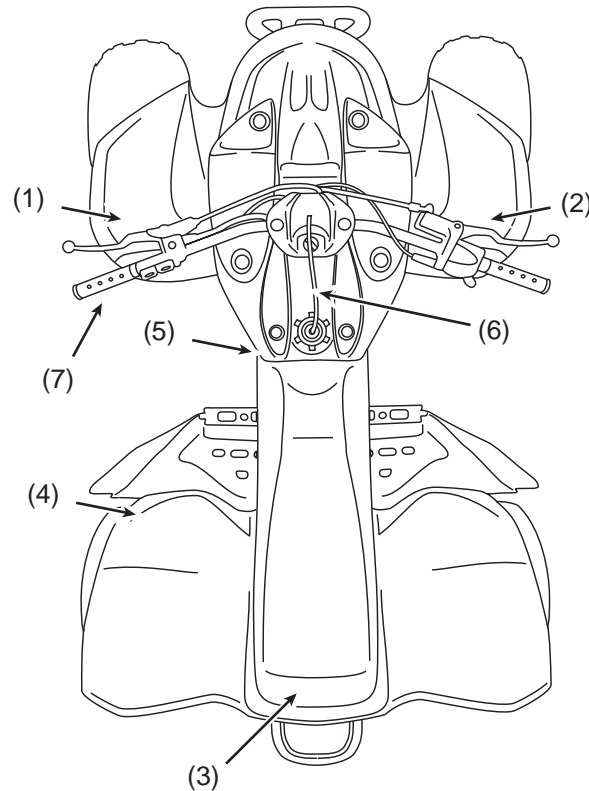
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WARNING LABELS


Examples of all vehicle warning labels are found in this section. Read and understand the actual ones on your vehicle. The labels contain information which is important to your safety and that of anyone else who operates the ATV.

- **The warning labels should be considered permanent parts of vehicle. Yes, just like the wheels and engine, they are needed parts for any operator.**
- **If any label is missing, worn, damaged, or becomes unreadable, be sure to replace it. Cannondale offers replacement labels at no charge. A label's part number is printed in the lower right corner of the label and here in the manual. Contact an authorized Cannondale motorsports dealer for replacements.**
- **Label locations are shown in the following illustration. Examples of the labels are shown on the following pages.**
- **Always replace labels in the correct position. See the illustration for the correct location of the warning labels on your vehicle.**




⚠ WARNING


Improper use of ATVs 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 UNDER THE INFLUENCE OF 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 vehicle overturns on hills, rough terrain, or in turns.
- avoid paved surfaces – pavement may seriously affect handling and control.

**LOCATE AND READ THE OWNER'S MANUAL
FOLLOW ALL INSTRUCTIONS AND WARNINGS**

315-6000236-01

Label 2

P/N 315-6000236-01

⚠ 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 age 16.

315-6000237-01

Label 2

P/N 315-6000237-01

⚠ WARNING



NEVER CARRY PASSENGERS

Riding as a passenger can cause the ATV to go out of control.

Loss of control can cause a collision or rollover, which can result in severe injury or death.

NEVER ride as a passenger.

315-6000239-01

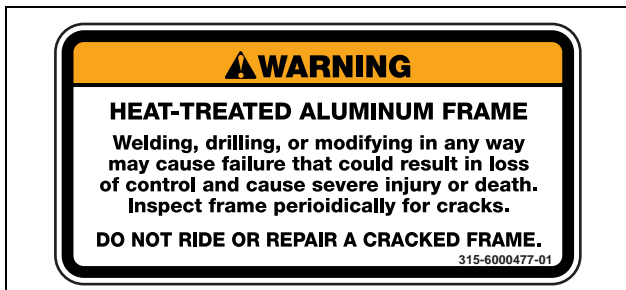
Label 3

P/N 315-6000239-01



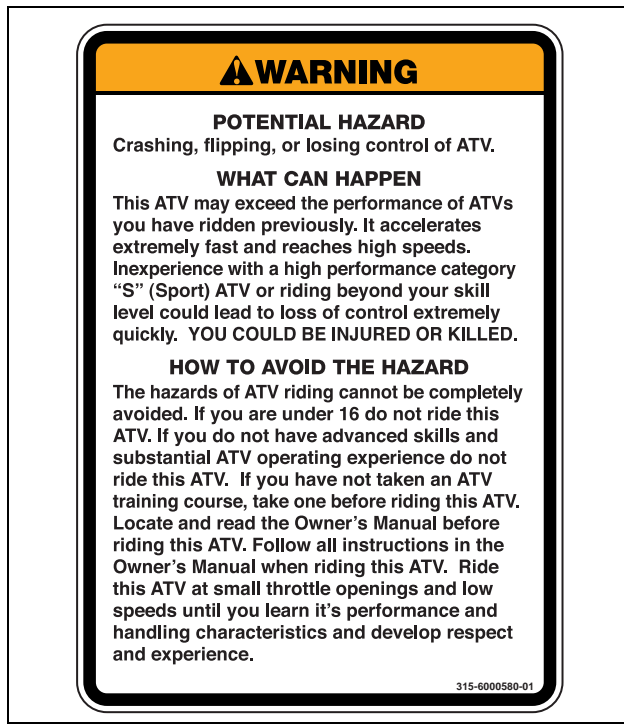
Label 4

P/N 315-6000238-01



Label 5

P/N 315-6000477-01









Label 6

P/N 315-6000580-01

Hangtag

All Cannondale ATVs are shipped with a removable hangtag attached to the handlebar. Like the vehicle's warning labels, this hangtag contains important information for your safety. Read and understand it thoroughly before removing it.

FRONT	BACK
 SPORT MODEL	 WARNING
<p>THIS ATV IS FOR RECREATIONAL USE BY EXPERIENCED OPERATORS ONLY</p> <p>OPERATOR ONLY – NO PASSENGERS</p> <p>NO OPERATOR UNDER AGE 16</p>	<p>Improper ATV use can result in SEVERE INJURY or DEATH</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <small>ALWAYS USE AN APPROVED HELMET AND PROTECTIVE GEAR</small> </div> <div style="text-align: center;">  <small>NEVER USE ON PUBLIC ROADS</small> </div> <div style="text-align: center;">  <small>NEVER CARRY PASSENGERS</small> </div> <div style="text-align: center;">  <small>NEVER USE WITH DRUGS OR ALCOHOL</small> </div> </div> <p>NEVER operate:</p> <ul style="list-style-type: none"> • 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. <p>ALWAYS:</p> <ul style="list-style-type: none"> • use proper riding techniques to avoid vehicle overturns on hills and rough terrain and in turns. • avoid paved surfaces – pavement may seriously affect handling and control.
<p><small>THIS CATEGORY "S" (SPORT) ATV IS A HIGH PERFORMANCE ATV FOR OFF-ROAD USE ONLY. IT IS FOR SPORT-TYPE RECREATIONAL AND COMPETITIVE USE BY OPERATORS WITH ADVANCED SKILLS AND ADEQUATE EXPERIENCE.</small></p>	<p><small>901600002</small></p>
<p><small>TRAINING COURSES TO TEACH ATV RIDING SKILLS ARE AVAILABLE. FOR MORE INFORMATION CONTACT YOUR DEALER OR CALL CANNONDALE AT (800) MOTO USA.</small></p>	<p>LOCATE AND READ THE OWNER'S MANUAL. FOLLOW ALL INSTRUCTIONS AND WARNINGS. THIS HANGTAG IS NOT TO BE REMOVED BEFORE SALE</p>
<p><small>CHECK WITH YOUR DEALER TO FIND OUT ABOUT STATE OR LOCAL LAWS REGARDING ATV OPERATION.</small></p>	
<p>THIS HANGTAG IS NOT TO BE REMOVED BEFORE SALE</p>	
<p><small>FOR MORE INFORMATION PLEASE CONTACT CANNONDALE @ (800) MOTO USA OR VISIT www.cannondale.com</small></p> <p>cannondale <small>HANDMADE IN USA</small></p>	

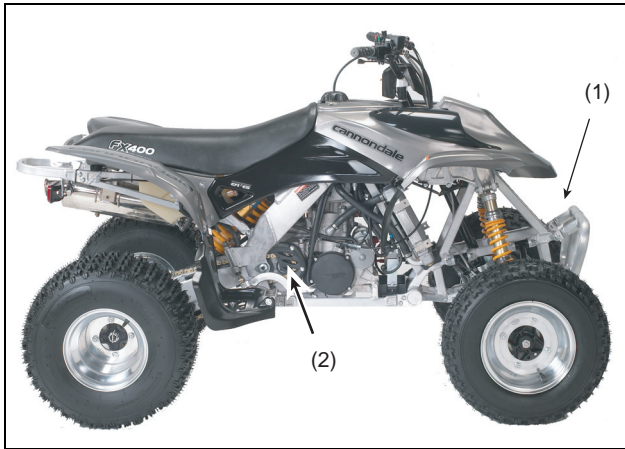
MACHINE IDENTIFICATION

NOTE :

Your vehicle may differ from those shown in the illustrations in this manual.

Record your vehicle's identification numbers in the spaces provided. Keep another record of the numbers in a safe place; you may need them for parts, service information, or theft recovery.

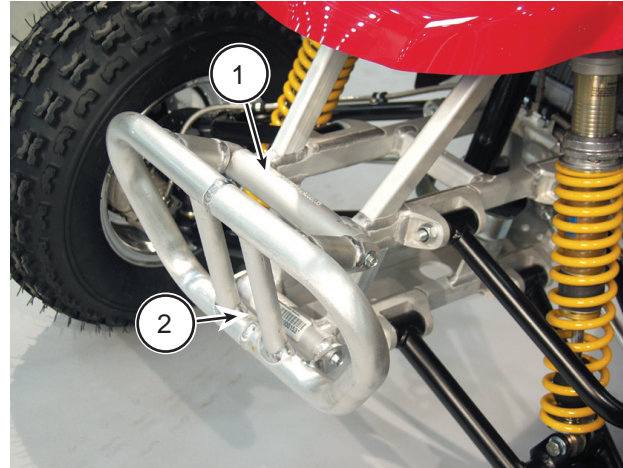
Your vehicle's ID numbers identify it from others of the same model type.



1. Vehicle identification number (VIN)
2. Engine serial number

VEHICLE IDENTIFICATION NUMBER (VIN)

The vehicle identification number (VIN) is etched/stamped into the frame behind the front brush guard. The VIN also appears on a temporary factory applied adhesive label in the same area.

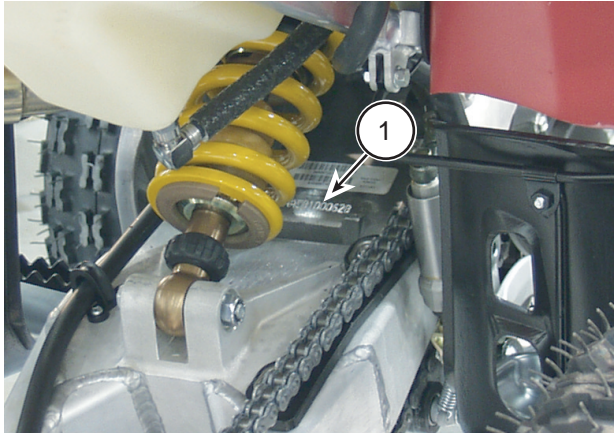


1. Etched vehicle identification number
2. Factory VIN label

Write your number here

ENGINE SERIAL NUMBER

The engine serial number is etched/stamped into the rear area of the engine crankcase. The number also appears on a metallic plate affixed to the crankcase area above the countershaft sprocket. The number also appears on a temporary factory applied adhesive label in the same area.



1. Engine serial number

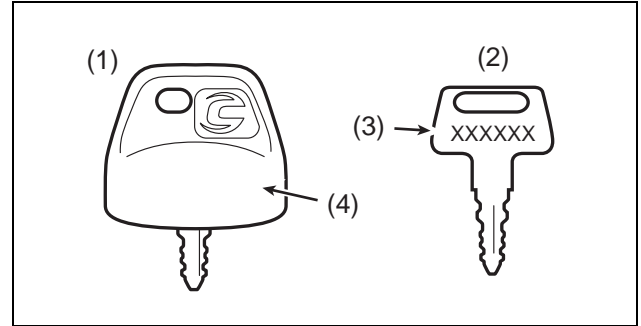
Write your number here

KEY ID NUMBER

Key identification numbers are etched/stamped into key bodies.

NOTE :

Keep your spare key in a safe place in case you lose the primary key.



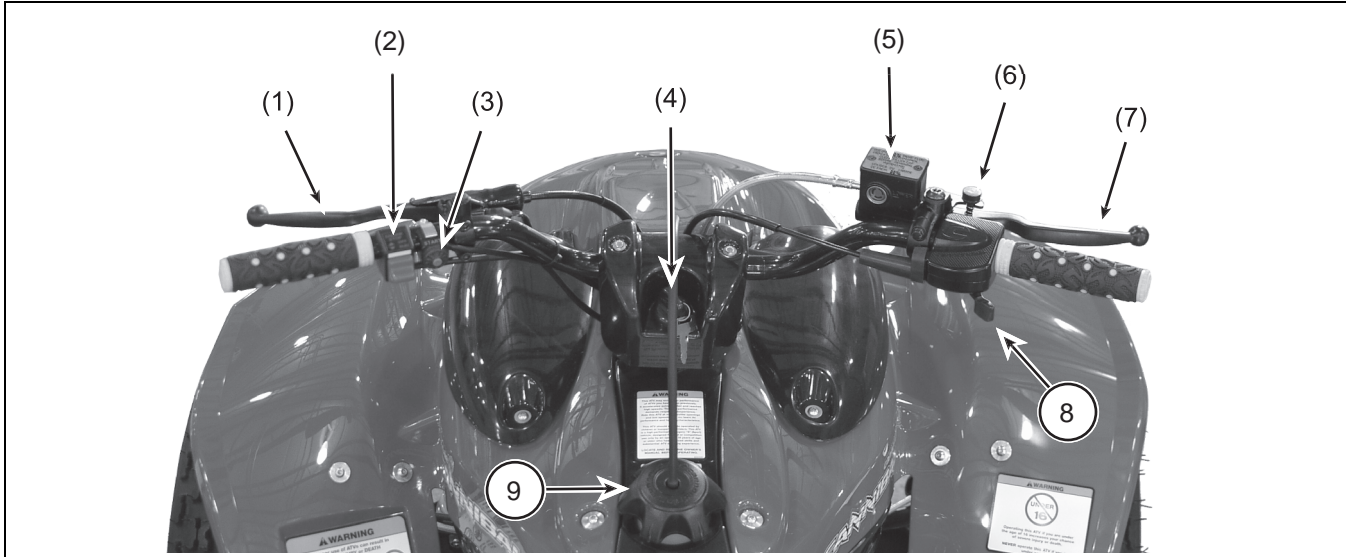
1. Primary Key (remove housing to view ID number)
2. Spare key
3. Key ID number
4. Housing

Write your number here

PARTS AND CONTROL FUNCTIONS

NOTE :

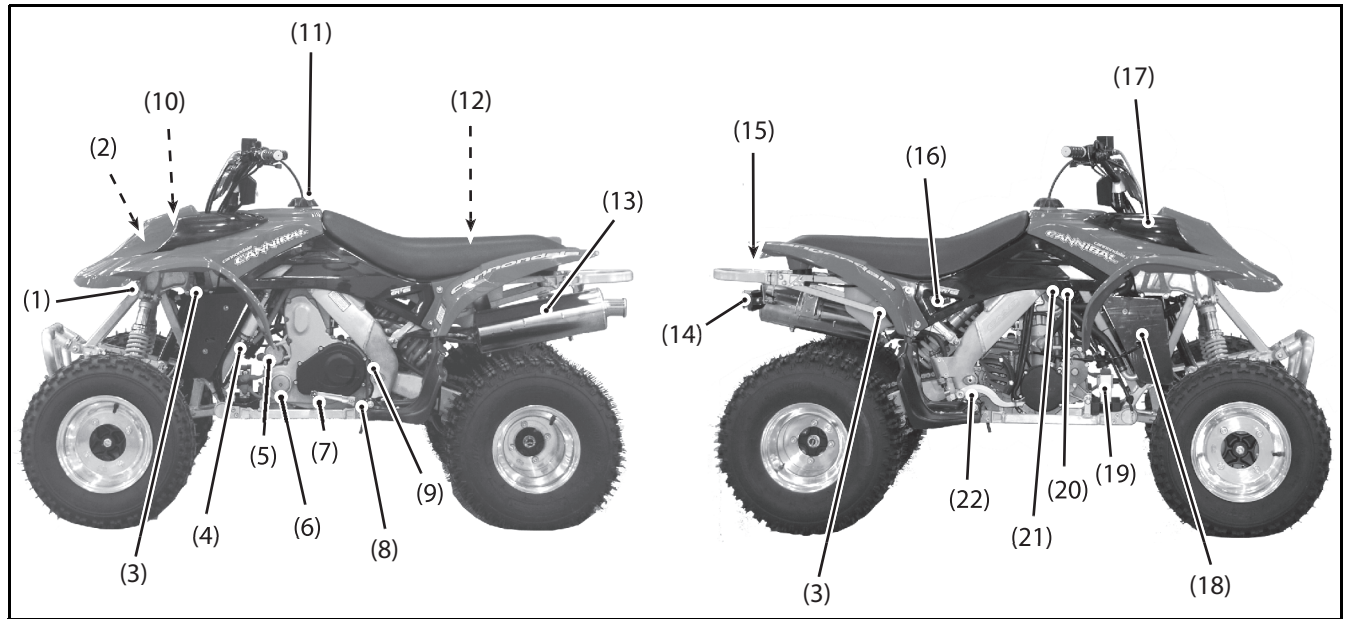
Your vehicle may differ slightly from those shown in the illustrations in this manual.



1. Clutch lever
2. Engine RUN/OFF switch
3. Engine start switch (green)

4. Ignition switch
5. Front brake master cylinder
6. Parking brake lock

7. Front brake lever
8. Throttle
9. Fuel cap



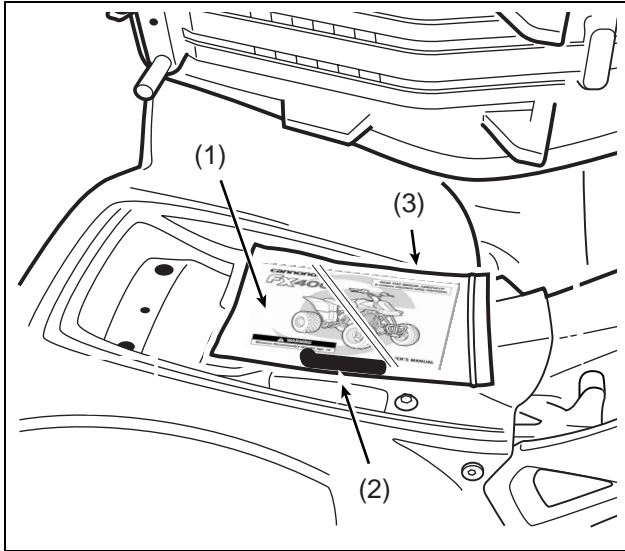
1. Rectifier/regulator
2. Engine Control Unit (ECU)
3. Diagnostic connector & fuse
4. Fuel pump
5. Starter
6. Engine oil filter (1 of 2)
7. Shift lever

8. Transmission oil level check
9. Left frame spar drain bolt
10. Air filter
11. Fuel cap
12. Owner's Manual
13. Muffler
14. Taillight
15. Safety flag mount

16. Fuel filter
17. Engine oil, coolant levels check
18. Radiator
19. Battery
20. Coolant bleed bolt
21. Right frame spar drain
22. Rear brake pedal

OWNER'S MANUAL

The Owner's Manual for your vehicle is located under the seat. It contains important safety and maintenance information. Keep it on the vehicle when you ride. To find the manual, remove the seat.

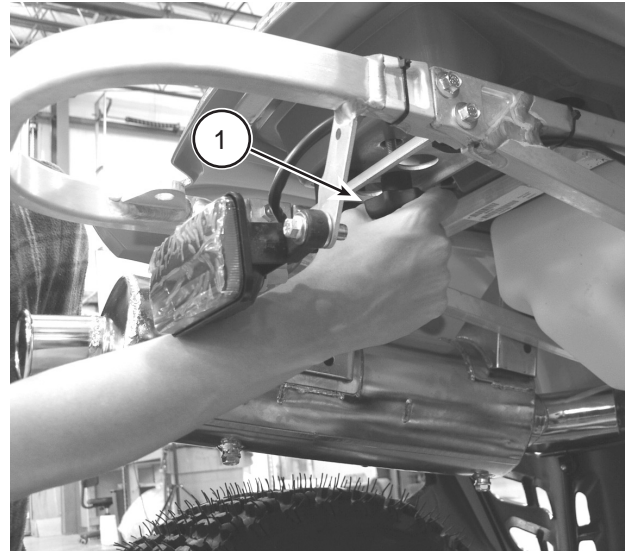


1. Owner's manual
2. Low pressure tire gauge
3. Vinyl bag

SEAT

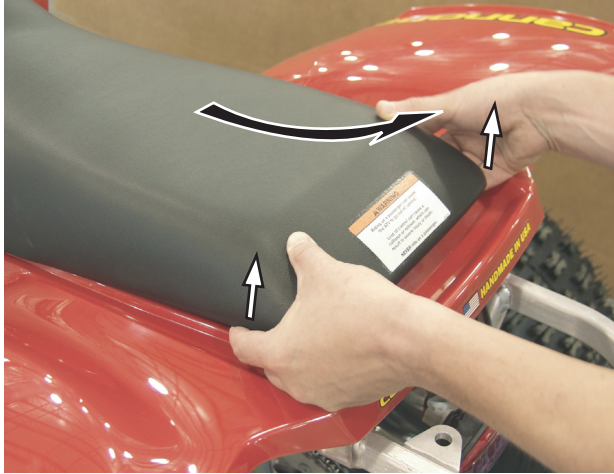
The seat on your vehicle is for you only. Carrying a passenger can cause you to lose control of the vehicle. The entire length of the seat is required so that you can shift body weight/position while riding to maintain vehicle control and stability. Make sure the seat is in good condition and fastened securely before you ride.

1. To remove the seat, loosen and completely remove the seat retention bolt.



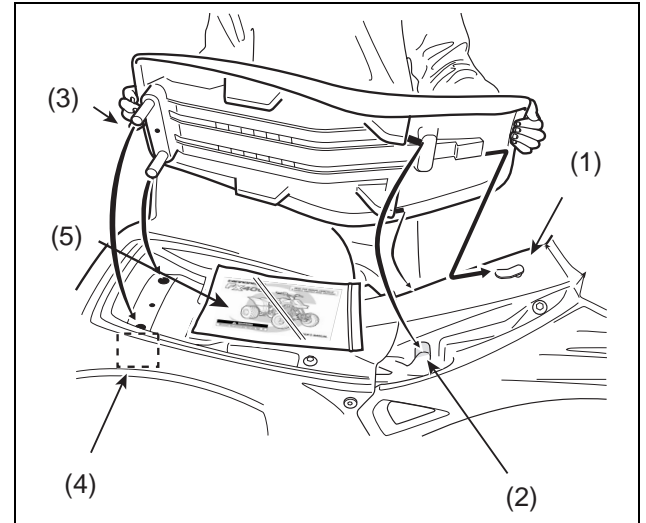
1. Seat retention bolt

2. Use your fingertips to lift up the rear of the seat slightly. Then, pull the seat back toward the rear of the vehicle and lift it off.



3. To install the seat, align the receivers in the seat pan with the fuel tank clip and the subframe guides.

4. Press down gently on the middle of the seat and slide the seat forward onto the clip and subframe guides. If correctly aligned, the rear seat pegs will slip easily through the subframe seat buffers.



1. Fuel tank clip
2. Subframe guides (right)
3. Seat pegs
4. Subframe seat buffers (right)
5. Owner's Manual & Tool Kit

 **WARNING**

POTENTIAL HAZARD

Loose, damaged, or improperly installed seat

WHAT CAN HAPPEN

The seat can shift or come off while you are riding causing you to lose control of the vehicle. You can be severely injured or killed.

HOW TO AVOID THE HAZARD

Always make sure the seat is locked into position on the mounts and secured properly with the retention bolt. Never ride this ATV with a damaged seat. Have it replaced.

CAUTION

Do not force the seat pegs through the holes in the rear fender or subframe buffers; you could damage the seat.

Avoid excessive force.

5. Install the seat retention bolt and tighten it securely.

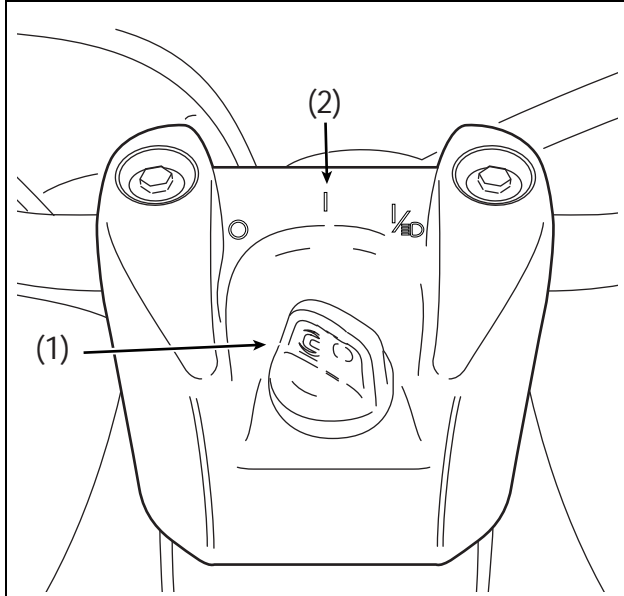
When reading this manual, remember:

 **WARNING**



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

IGNITION SWITCH

The ignition switch is located between the handlebars. Always remove the key from the switch to help prevent unauthorized vehicle use or theft. See the table for a description of the switch positions.

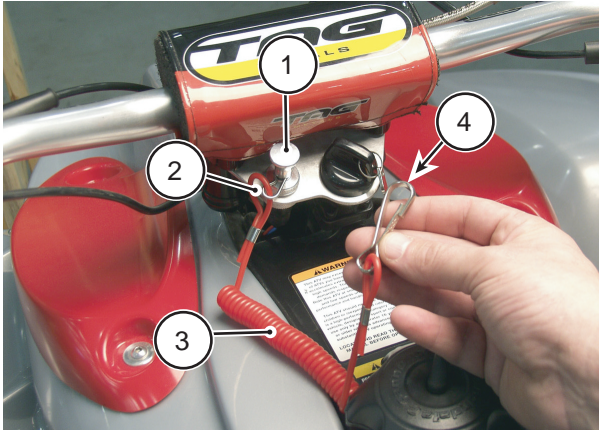


1. Ignition switch (key shown inserted)
2. Switch positions

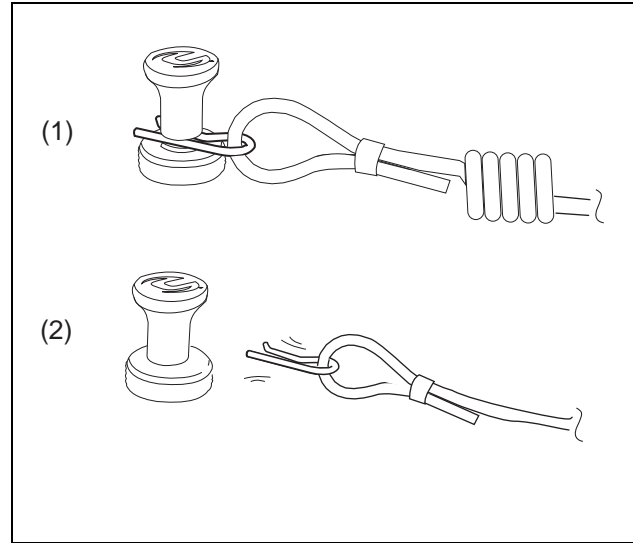
Key Position	Function	Key Removal
 "OFF"	The engine and lighting cannot be operated. Turning the ignition switch to the "OFF" position, will stop a running engine, however, we recommend using the engine stop button (or switch) as the primary means to shut off a running engine - follow-up by turning the switch to the "OFF" position.	Yes
 "ON"	With the Engine Stop switch in the "RUN" position and the clutch lever pulled in, the engine can be started using the Engine Start button. We recommend starting the engine with the ignition switch in the () position then switch to the "ON w/LIGHTS" position	No
 "ON w/ LIGHTS"	Lighting (headlights and taillight are activated.	No

TETHER SWITCH

On equipped models, the tether switch is an additional safety device. Test for proper operation of the switch before riding. The switch must be in the operating position to start the vehicle. To test the switch, make sure the switch pin is inserted correctly. Start the engine. With the engine running, pull the strap quickly from the switch body the engine should shut down immediately. If it does not, do not ride the ATV; the switch is damaged and must be replaced. Contact your dealer for a replacement.



1. Switch body
2. Tether pin
3. Tether strap
4. Body clip (to be secured to the rider)

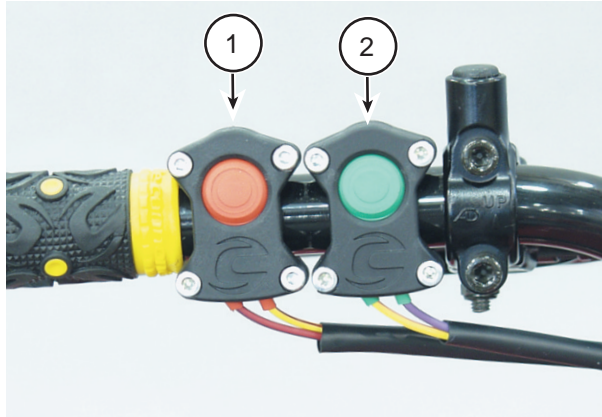


1. Tether switch in operate position
2. Detached position

NOTE :

Body clip attachment to rider not illustrated.

ENGINE STOP/START BUTTONS (MC500)



1. Engine stop button
2. Engine start button

Engine stop button

The engine stop button is located on the left handlebar close to the inside edge of the handle grip and is red in color. Press the stop button to shut off the running engine. It is also an emergency control. Test the stop button before moving off to ride to confirm that it is operating properly. If the switch does not “kill” the engine, don’t ride the ATV. Turn the ignition switch to the “OFF” position and contact a Cannondale motorsports dealer to have it replaced.

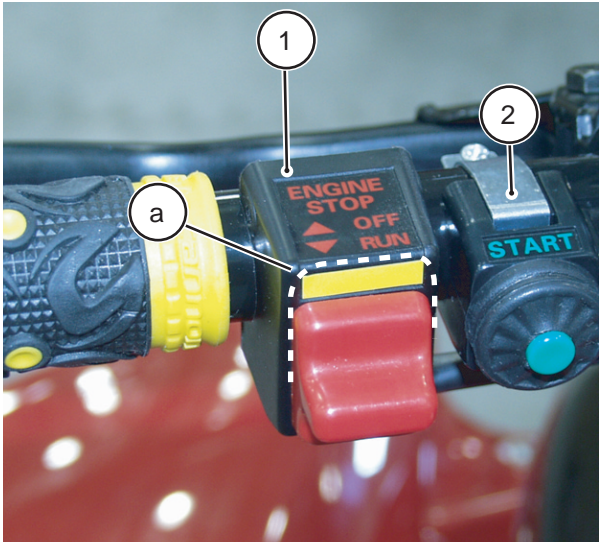
NOTE :

The stop button is a “normally closed” circuit switch. If the switch is damaged or the wires are frayed or torn, (i.e. circuit open) the engine will not start.

Engine start button

The engine start button is green in color and is mounted closer to the center of the handlebars. Pressing it activates the engine management system circuits and the starter motor. Make sure it operates properly before each ride.

ENGINE STOP SWITCH/ START BUTTON (MC1000)



1. Engine OFF/RUN Switch
2. Engine start button
- a. OFF position

NOTE :

The switch is shown in the RUN position in this photo.

Engine stop switch

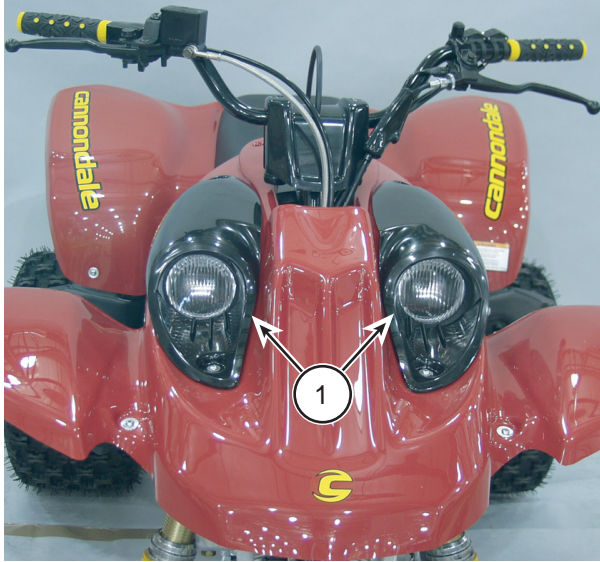
The engine stop switch is located on the left handlebar close to the inside edge of the handle grip and is the sliding type with two positions. Sliding the switch to the “OFF” position will deactivate the Engine Management System and is the recommended method to stop the engine while it is running as opposed to using the ignition switch. This switch is also an emergency control used to shut down the engine quickly with your thumb without removing your hands from the handle grip. This switch must be maintained nearer the handle grip for this reason. During your pre-ride inspection and before moving off to ride, start the engine and test the switch to confirm that it is operating properly. If the switch does not “kill” a running engine, don’t ride the ATV. Remove the key from the ignition switch to prevent vehicle use and contact an Cannondale motorsports dealer for servicing.

Engine start button

The engine start button is green in color and is mounted closer to the center of the handlebars. Pressing it activates the engine management system circuits and the starter motor. Make sure it operates properly before each ride.

HEADLIGHTS

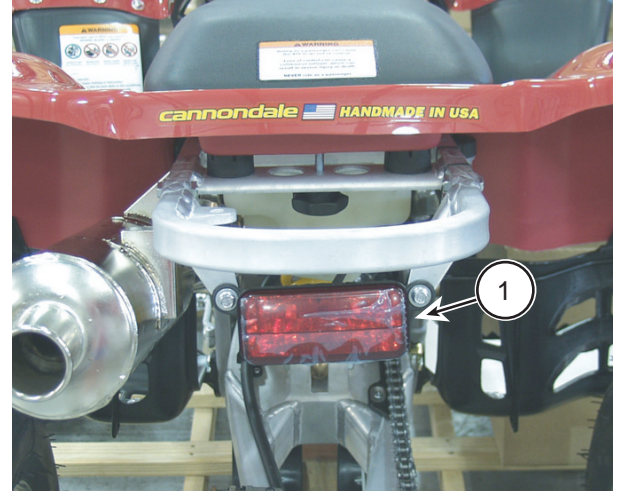
Turn the ignition switch to the “ON w/LIGHTS” position to activate the headlights. Test for the proper operation of the headlights before operating the vehicle.



1. Headlights

TAILLIGHT

Turn the ignition switch to the “ON with LIGHTS” position to activate the taillight. The taillight IS NOT a brake light. Make sure it works before every ride.

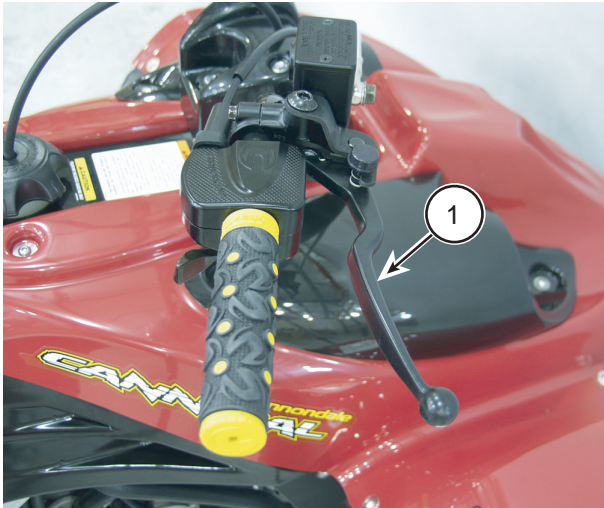


1. Taillight

FRONT BRAKE LEVER

The front brake lever is located on the right side of the handlebar. Pull it toward the handlebar to apply the front brakes. Pull the lever harder to increase braking force.

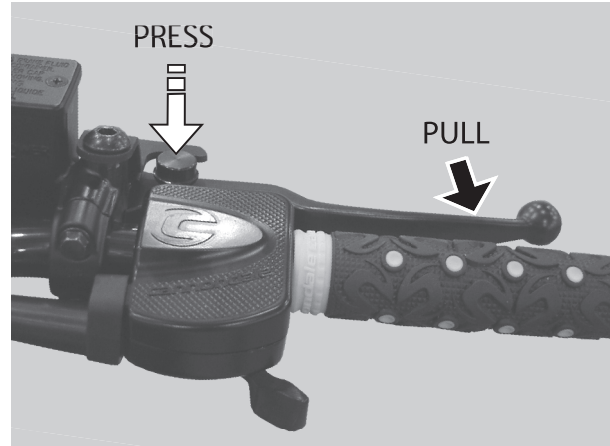
Before each ride, make sure the front brakes are operating properly and can provide braking force when needed. Roll the vehicle forward and back applying the brake to confirm that braking force is applied to the front brake discs.



1. Front brake lever

PARKING BRAKE

The parking brake is applied with a lock button on the front brake lever. When the parking brake is applied (locked), the front brakes temporarily prevent the vehicle from rolling. Be sure to read the warning about using the parking brake!





WARNING

POTENTIAL HAZARD(S)

- (1) ATV rolling away**
- (2) Riding with the parking brake applied**

WHAT CAN HAPPEN

- (1) A potential decline in fluid pressure can decrease the applied braking force allowing the ATV to begin to roll.**
 - (2) Brake system will overheat, cause premature wear, and damage to the brake pads. This can result in a loss of brake function.**
- In either case above, severe injury or death can result to the owner or bystanders.**

HOW TO AVOID THE HAZARD

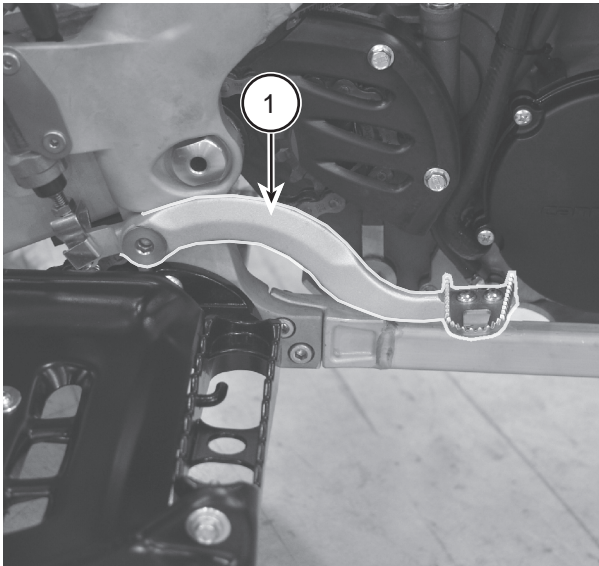
- (1) Always block or chock the wheels on your ATV immediately after applying the parking brake. Never apply the parking brake and leave the vehicle unattended.**
Always choose firm level ground on which to park your ATV.
- (2) Release the parking brake before you ride.**

1. To apply, pull the front brake lever against the handle grip and hold it. Press and hold the locking button with

- your index finger until it is fully depressed - release the lever and remove your index finger from the button.
2. To disengage the parking brake, press down on the rear brake pedal with your foot. Then, pull the front brake lever against the handle grip; the locking mechanism will automatically disengage (pop up).
3. Release the front brake lever slowly.

REAR BRAKE PEDAL

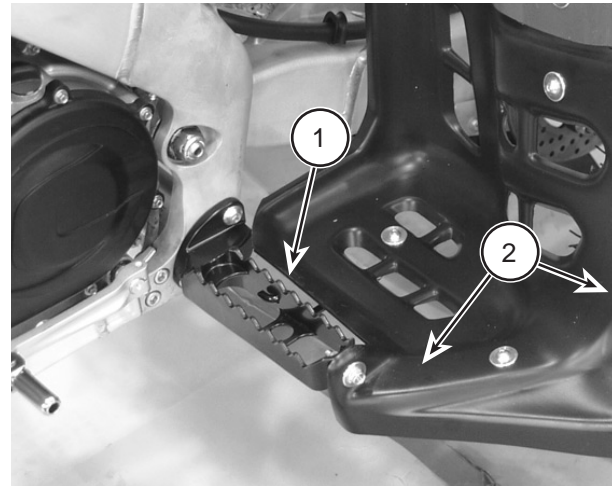
The rear brake pedal is located on the right side of the vehicle. When pressed, braking force is applied to the rear wheels. Make sure the rear brake is operating properly before you ride. Roll the vehicle forward and back and press the pedal to confirm that braking force is applied to the rear brake disc.



1. Rear brake pedal

FOOTPEGS & BASKETS

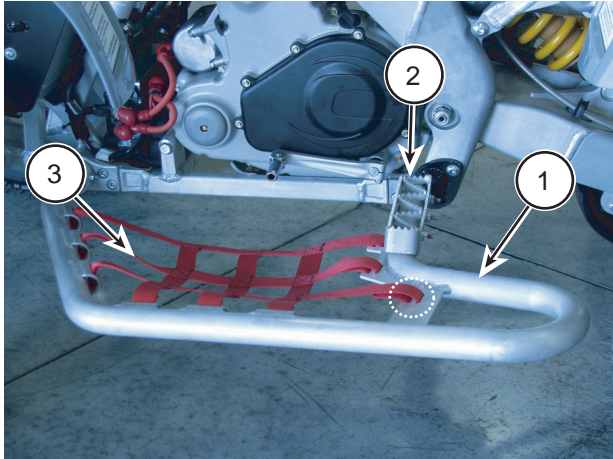
When riding always keep your feet on the footpegs. Always check the condition of the footpegs and baskets before every ride. Make sure that they are fastened securely to the vehicle. The footpeg teeth should be in good condition (not smooth or worn excessively). The baskets should be free of any packed soils and they should not be cracked, broken, or damaged in any way. If damage is found install new ones.



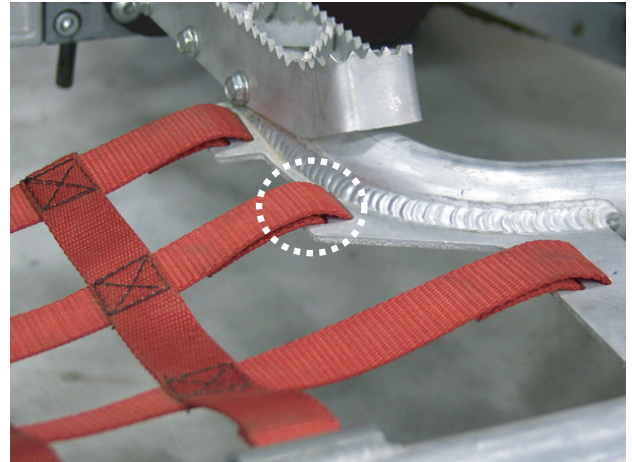
1. Footpeg (left)
2. Basket

NERF BARS

Always check the condition of the nerf bars, strapping, and footpeg teeth before every ride. Make sure that they are fastened securely to the vehicle and that the footpeg teeth and webbing is in good condition and does not sag excessively when the weight of the rider is applied. Pay particular attention to strapping in the areas where it attaches to the bars. See example at dotted circle in photo below.



1. Nerf bar (right)
2. Teeth (replacable)
3. Strapping



WARNING

POTENTIAL HAZARD(S)

Damaged webbing

WHAT CAN HAPPEN

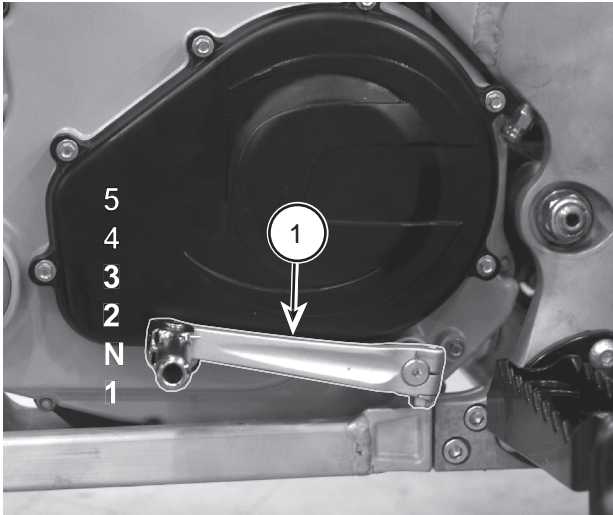
Foot can go through the bars while riding. You can lose control and have a serious accident.

HOW TO AVOID THE HAZARD

Inspect the webbing before you ride. If its damaged don't ride the vehicle. Replace it.

SHIFT LEVER

The shift lever is located on the left side of the engine in front of the left footpeg. The vehicle has five forward gears (1-down, "NEUTRAL" 4-up). Place the vehicle on a level surface. Before every ride, make sure the shift lever operates properly and shifts through the entire range of gears with the engine turned off; roll the vehicle forward and back as you shift through all the gears to avoid damaging the transmission.



1. Shift lever

FUEL TANK CAP

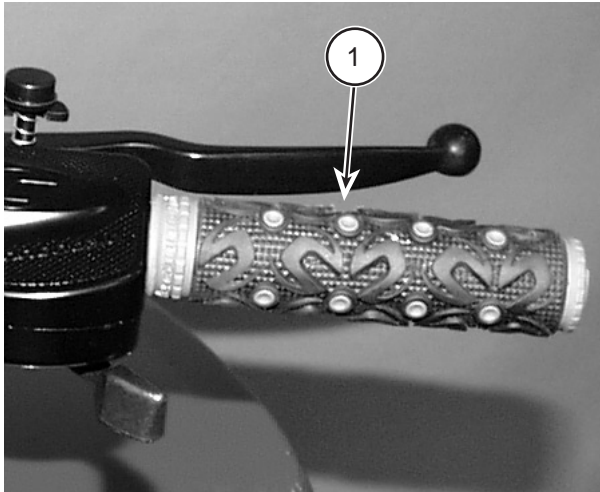
Make sure the fuel cap is tightly secured before every ride. Turn the fuel cap counterclockwise to remove it and clockwise to tighten it. Always make sure the breather hose is routed from the cap properly (inserted into the handlebar cover hole).



1. Fuel cap
2. Breather hose
3. Hole

HANDLE GRIPS

Inspect both (left and right) handlebar grips before every ride. Make sure they are firmly attached and do not twist on the handlebar. Inspect the grips for wear, tears, or other damage. Replace the grips with a new set if damage is found. Contact an authorized Cannondale motorsports dealer for a replacement set.



1. Handle grip (right)

THROTTLE LEVER

The throttle lever is located on the right side of the handlebar. When pushed, the engine speed will increase. When released, engine speed will decrease - the lever spring pressure should return the lever to the set idle (engine) speed. Check for proper operation and specified freeplay of the throttle before every ride. See “2002 Model Specifications” starting on page 161.

Lever movement should work smoothly without binding or pinching in all lever and handlebar positions.

DANGER

POTENTIAL HAZARD

Overturning or flipping the ATV onto yourself

WHAT CAN HAPPEN

Opening the throttle too quickly and/or releasing the clutch lever too quickly can overturn or “flip” the ATV. You can be severely injured or killed.

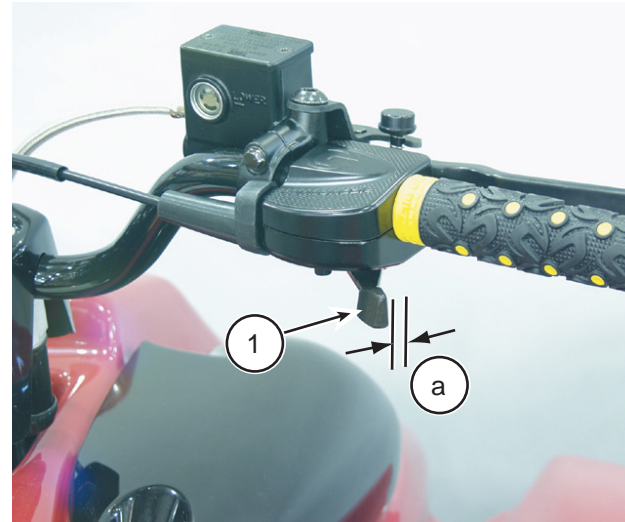
HOW TO AVOID THE HAZARD

Never open the throttle abruptly. Open the throttle gradually when moving off or accelerating. Never “pop” or release the clutch lever quickly. Always gradually release the clutch lever.

If the ATV “wheelies” or the front wheels begin to come off the ground, close the throttle and pull in the clutch lever immediately.

NOTE :

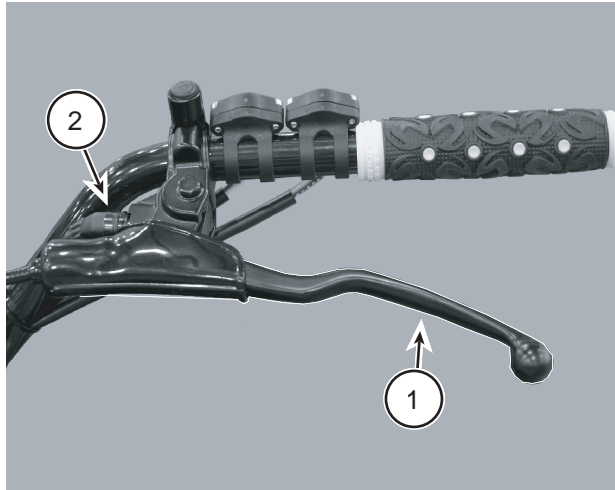
Freeplay is the distance the lever moves until the slack in the cable is taken up.



- 1. Throttle lever
- a. Freeplay

CLUTCH LEVER (MANUAL)

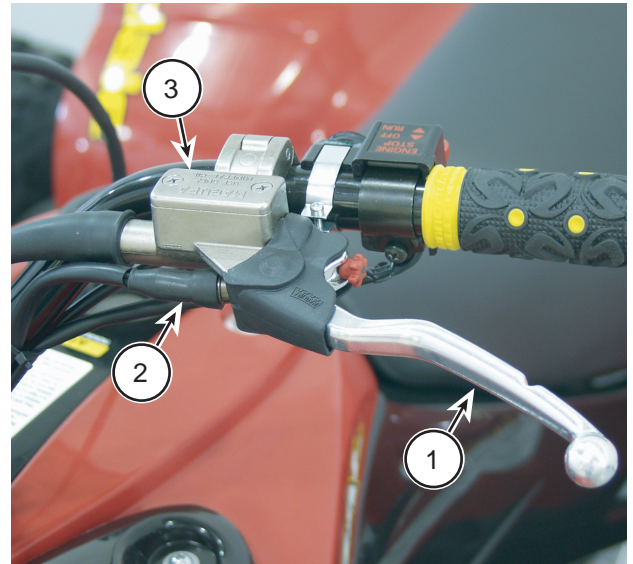
The clutch lever is located on the left side of the handlebar. Pull in the clutch lever (quickly) to disengage the clutch, and release the lever (slowly) to engage the clutch. Check the condition and proper operation of the clutch lever and cable before every ride. Also make sure the clutch lever freeplay is adjusted to specification. See “Clutch lever (manual)” starting on page 33.



1. Clutch Lever
2. Starting system interlock switch

CLUTCH LEVER (HYDRAULIC)

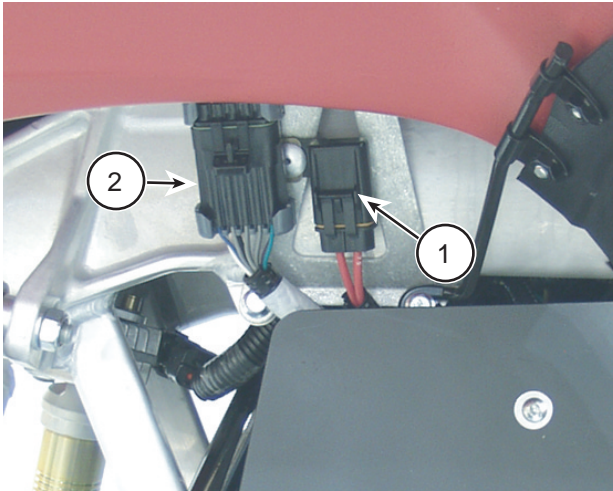
The hydraulic clutch lever is located on the left side of the handlebar. Pull in the clutch lever (quickly) to disengage the clutch, and release the lever (slowly) to engage the clutch. The lever position can be adjusted for individual hand sizes. See “Clutch lever position (hydraulic)” starting on page 110.



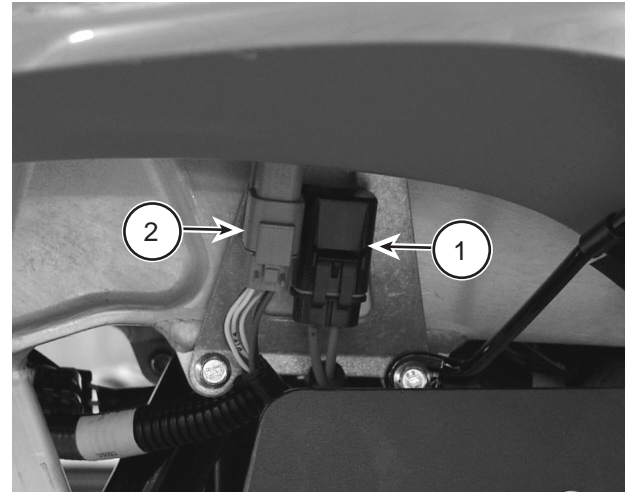
1. Clutch Lever
2. Starting system interlock switch
3. Clutch reservoir

FUSE & DIAGNOSTIC CONNECTOR

The main electrical fuse is located in the area under the left front fender. Always replace the fuse with one of the specified rating. See "Fuse" starting on page 130. A special diagnostic tool connector is also located in the same area. The connector type is different for MC500 and MC1000 equipped models. See the photos. The diagnostic tools can be used to diagnose faults with the engine management system as well as other functions.



1. Fuse (in holder)
2. MC500 Data port



1. Fuse (in holder)
2. MC1000 Data port

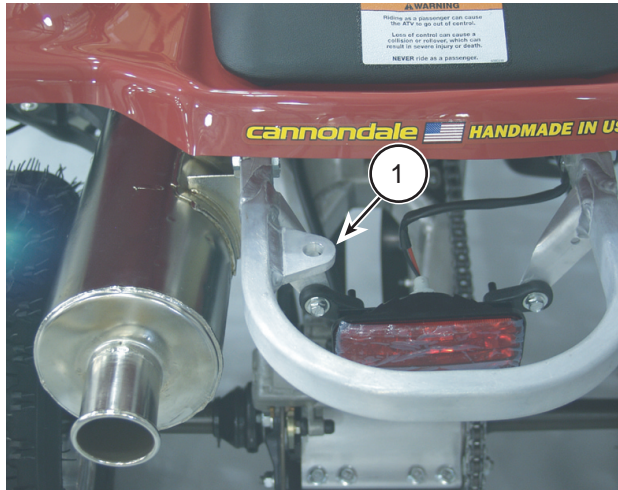
NOTE :

For information on special tools developed to service your ATV, contact an authorized Cannondale motorsports dealer.

SAFETY FLAG MOUNT

The safety flag mounting bracket is integrated into the left side of the rear grab rail. When riding in areas where you might not be easily seen (e.g. hilly terrain or sand dunes) mount an approved ATV safety flag.

Safety flags are required in some riding areas. For more information on approved ATV safety flags, contact an authorized Cannondale motorsports dealer.



1. Safety flag mount

SAFE OPERATION

EXPERIENCED RIDERS ONLY!

When reading this manual, remember:



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

WARNING

POTENTIAL HAZARD

Crashing the ATV

WHAT CAN HAPPEN

Cannondale ATVs are high-performance sport category machines designed for competition use only by operators who already have substantial skill and operating experience. Operating without substantial skill and operating experience increases the risk that you could lose control of the vehicle becoming severely injured or killed in a resulting accident.

HOW TO AVOID THE HAZARD

If you do not have substantial skill and operating experience, **DO NOT OPERATE ANY CANNONDALE ATV.**

Always remove the ignition key from this vehicle to prevent unauthorized use.

TRAINING AND INSTRUCTION

The following warning message is required to be part of this Owner's Manual as part of an agreement between the ATV Industry and the U.S. Consumer Product Safety Commission (CPSC). The warning was written to communicate the need for beginning and inexperienced riders to get training and instruction before operating any ATV. Although the message that training and instruction is required for any beginning rider is correct, these riders SHOULD NOT operate Cannondale ATVs. See the warning on the previous page.

WARNING

POTENTIAL HAZARD

Operating this ATV without proper instruction.

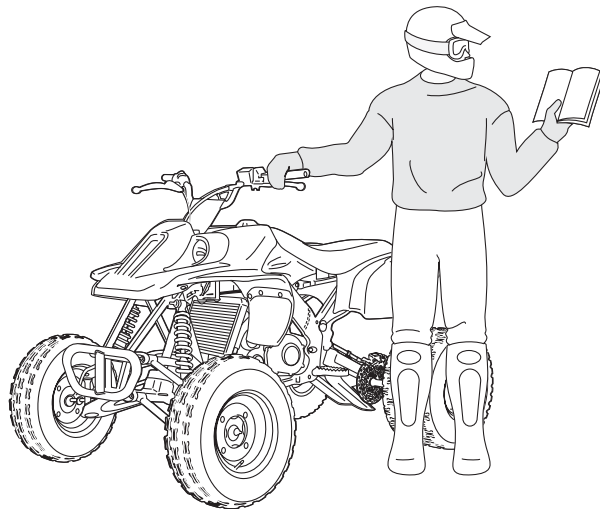
WHAT CAN HAPPEN

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 riders should complete the certified training course. They should then regularly practice the skills learned in the course and the operating techniques described in this Owner's Manual.

For more information about the training course, contact an authorized Cannondale motorsports dealer or call 1-800-887-2887 (USA only).



AGE RECOMMENDATION

WARNING

POTENTIAL HAZARD

Failure to follow the age recommendation for this ATV.

WHAT CAN HAPPEN

Use by children of ATV's that are not recommended for their age can lead to severe injury or death of the child.

Even though a child may be within the age group for which an ATV is recommended, he or she may not have the skills, abilities, or judgement needed to operate the ATV safely and may be involved in a serious accident.

HOW

A CHILD UNDER 16 SHOULD NEVER OPERATE AN ATV WITH ENGINE SIZE GREATER THAN 90CC.



WEAR PROTECTIVE GEAR

The proper riding apparel (gear) can help reduce the chance of injury in the event of an accident and make riding more comfortable.



WARNING

POTENTIAL HAZARD

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

WHAT CAN HAPPEN

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

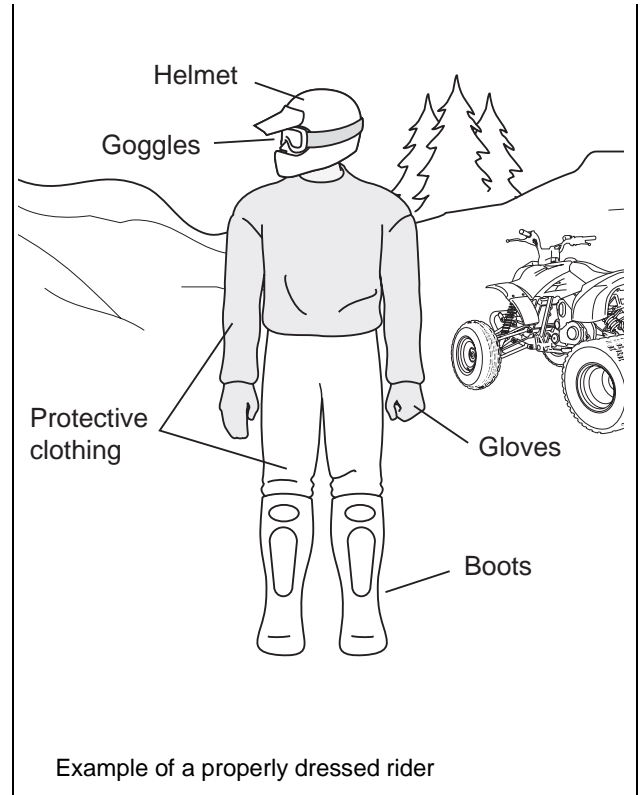
Operating without eye protection can result in an accident and increases your chances of severe eye injury in the event of an accident.

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 motorcycle helmet that fits properly.

You should also wear: eye protection (goggles or face shield), gloves, boots, long pants and a jacket or long sleeved shirt.



RIDE SENSIBLY

Riding too fast increases your chances of an accident occurring which could result in a serious injury or death, no matter what your experience level.

Do not ride faster than what is appropriate for your skill level and surrounding conditions.

Always reduce speed when riding at dusk, dawn, and night. Riding at dusk, dawn, and nighttime, even with the lighting on this ATV, reduces your ability to see obstacles; therefore, you must slow down.

WARNING

POTENTIAL HAZARD

Riding this ATV at excessive speeds.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

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

When reading this manual, remember:

WARNING

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

NO PASSENGERS: NO EXCEPTIONS!

Don't carry a passenger on any ATV. Passengers will interfere with your ability to control the vehicle. A special NO PASSENGERS warning label is affixed on the seat to always remind you and those who ask for a ride. If someone asks for a ride, refuse and ask them to read the warning label on the rear of the seat. Then, explain that your ATV has no seating space, footpegs, or grab rails for his/her use. And, that the seemingly large seat is needed for you to shift body position/weight as necessary when riding. Also explain that if they put their feet on the footpegs you will not be able to operate the foot controls (e.g. rear brake, shift lever).



WARNING

POTENTIAL HAZARD

Carrying a passenger on this ATV.

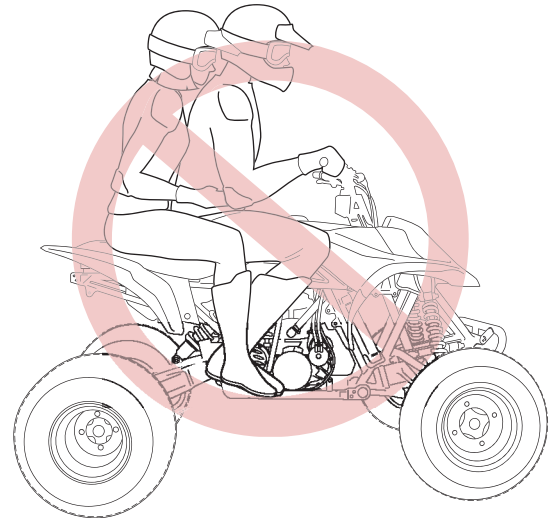
WHAT CAN HAPPEN

Greatly reduces your ability to balance and control this ATV. Passengers affect balance and steering increasing the risk of losing control. Carrying a passenger 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 ATV has a long seat to allow the operator to shift position as needed during operation.

It is not for carrying passengers.



CARGO, LOADING LIMIT

Do not carry cargo on your ATV. Do not modify your ATV to carry cargo.

Do not exceed the vehicle's specified loading limit. Loading limit is defined as: the weight of the operator (wearing all protective gear/apparel) - nothing else! Consult the Model Specifications section of this Owner's Manual for your vehicle's loading limit. "2002 Model Specifications" on page 161.

Exceeding the vehicle's specified loading limit will cause a loss of stability and erratic handling that can result in the loss of vehicle control. You could be involved in an accident and be seriously injured or killed.

⚠ WARNING

POTENTIAL HAZARD

Overloading this ATV or carrying or towing cargo improperly.

WHAT CAN HAPPEN

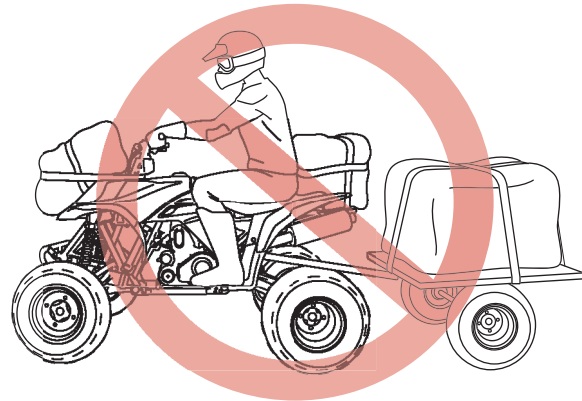
Could cause changes in vehicle handling which could lead to an accident.

HOW TO AVOID THE HAZARD

Never exceed the stated load capacity for this 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 your Owner's Manual for carrying cargo or pulling a trailer.



OFF-ROAD USE ONLY

Stay off the public streets, highways, or any other paved surfaces.

First, you risk a collision with other vehicles. Aside from severely injuring or killing yourself, you'll probably injure or kill a motorist. Second, no matter what speed you might choose to attempt it, you can't operate an ATV safely on a public road or highway. The hard surface makes the handling and stability of all ATVs wildly unpredictable. You can lose control suddenly and without warning. The lighting on this ATV does not imply that it is for public roads or highways.



WARNING

POTENTIAL HAZARD

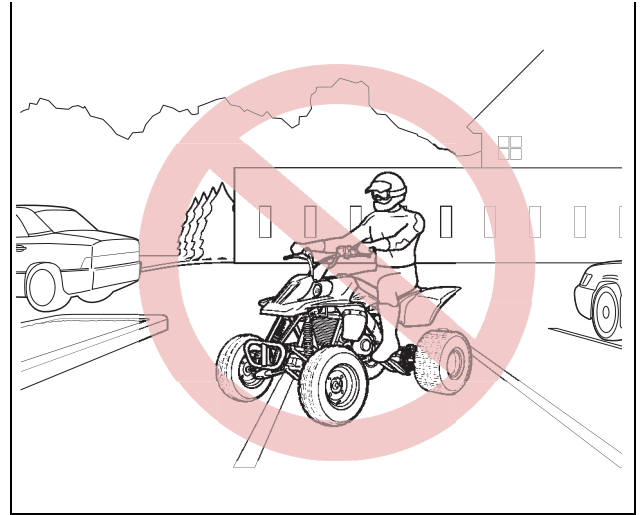
Operating this ATV on paved surfaces.

WHAT CAN HAPPEN

The ATV and its tires are designed for off-road use only. Paved surfaces may seriously affect handling of the ATV which may cause you to lose control of the vehicle.

HOW TO AVOID THE HAZARD

Never operate this ATV on any paved surfaces, including sidewalks, driveways, parking lots and streets. If you must ride on a paved surface, go slowly and do not make sudden turns or stops.



STAY OFF PUBLIC ROADS AND HIGHWAYS

WARNING

POTENTIAL HAZARD

Operating this ATV on public streets, roads or highways.

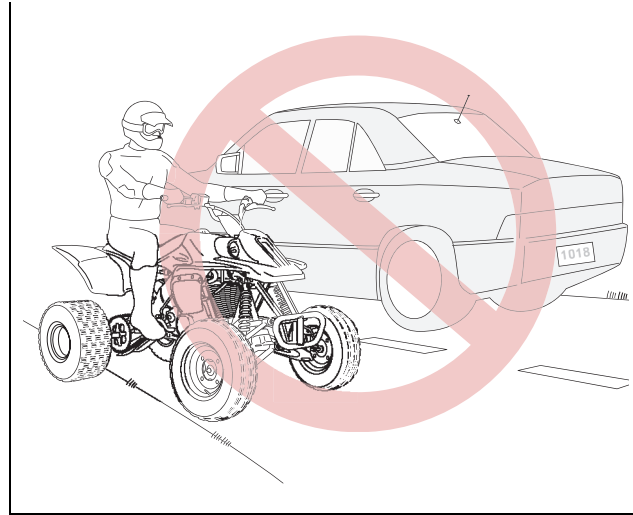
WHAT CAN HAPPEN

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 ATVs on public streets, roads and highways.



TURNING THE ATV

Practice making turns in a large open area at slow speeds to build experience before attempting more difficult turns at increased speed.

To turn, slide forward on the seat and turn the handlebars in the direction of the turn. Lean your body to the inside of the turn while maintaining the throttle position. When the turn is complete, straighten the handlebars and return to a normal riding position.

The ability of the rear inside wheel to slip during a turn also depends on the type of terrain where you are riding. If the terrain is loose the inside wheel will slip more easily and turns can be made in a smaller radius. If the terrain is hard, where the inside wheel is slipping less, the turning radius will be larger.

Always slow down before turning and reduce your speed before entering a turn.



WARNING

POTENTIAL HAZARD

Turning improperly.

Removing your feet from the footpegs when turning.

WHAT CAN HAPPEN

The ATV can go out of control, causing a collision or overturn.

Your foot can come in to contact with the rear wheel resulting in severe personal injury.

HOW TO AVOID THE HAZARD

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

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

Keep your feet on the footpegs when operating this ATV.

Do not turn at excessive speeds.

If you have experience riding a motorcycle you will have to quickly “unlearn” the technique you might have developed of removing your inside foot from the footpeg and positioning it on the ground when making a turn. This motorcycle technique will result in severe personal injury and possibly a loss of control if attempted on any ATV. **Never** remove your feet from the footpegs while riding this ATV.

DON'T DRINK AND DRIVE!

ATV's are no different than cars when it comes to drinking and driving. Do it and people wind up dying or hurting themselves and others severely.

Alcohol impairs your judgement and slows your reactions - so stay off any ATV if you've been drinking alcohol or taking drugs or medication. And, remember that even prescription and over-the-counter drugs can impair your ability to safely operate this ATV. If you are taking any type of medication, check with your doctor before riding.

WARNING

POTENTIAL HAZARD

Operating this ATV after 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.



When reading this manual, remember:

WARNING

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

NO WHEELIES, STUNTS, OR JUMPS

We urge you NOT TO DO STUNTS, ride sensibly, and develop a healthy respect for the vehicle. All Cannondale ATV's are high-performance vehicles. If the throttle is opened abruptly and/or the clutch lever is released too quickly the front wheels will come off the ground. This may result in the vehicle overturning.

You will see people attempting jumps or other stunts with ATVs. You'll probably see someone do it in one of the magazines or at an ATV event. What you could be seeing is a professional rider or a weekend amateur. In any case, whoever the jumper or stunter is, they are engaging in a extremely high-risk activity which can result in crippling injury or death.



WARNING

POTENTIAL HAZARD

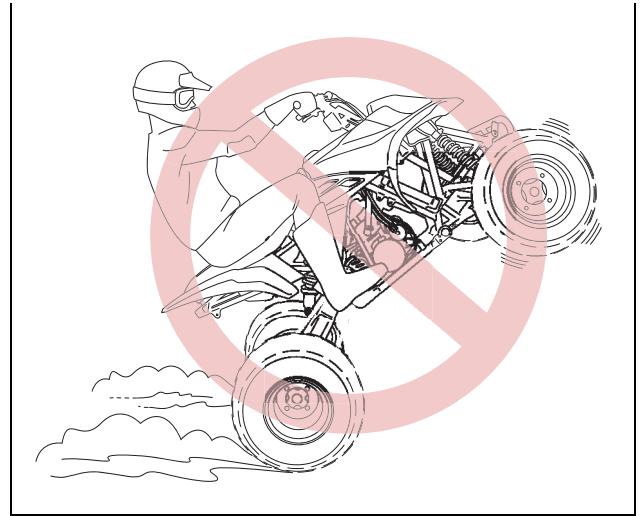
Attempting wheelies, jumps, and other stunts.

WHAT CAN HAPPEN

Increases the chance of an accident, including an overturn.

HOW TO AVOID THE HAZARD

Never attempt stunts, such as wheelies or jumps.
Don't be a show off!



KEEP YOUR HANDS AND FEET ON THE CONTROLS

Riding ATV's safely means being in complete control of the vehicle at all times.

Always keep your hands on the handle grips and your feet on the footpegs. By removing your hands and feet from the handle grips and footpegs you risk serious injury and losing control of this ATV.

ATTENTION MOTORCYCLE RIDERS:

You may have a motorcycle riding technique to unlearn! The common practice of removing a foot from your motorcycle footpegs when rounding a turn is **VERY DANGEROUS** if done on an ATV. If you take your foot off the footpeg while turning the rear tires will run over your foot or leg and cause severe injury - maybe even death.

⚠ WARNING

POTENTIAL HAZARD

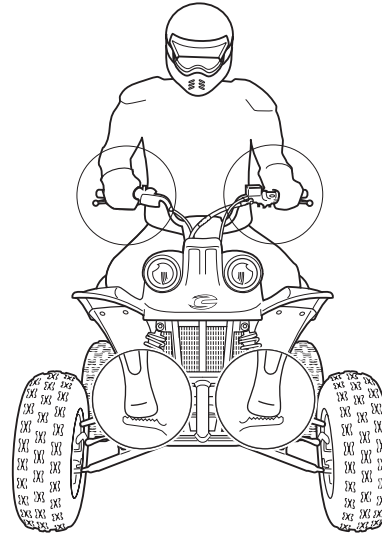
Removing hands from handlebars or feet from footpegs during operation.

WHAT CAN HAPPEN

Removing even one hand or foot can reduce your ability to control the ATV or could cause you to lose you balance and fall off theATV. If you remove a foot from the footpeg, your foot or leg may come into contact with the rear 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 footpegs of your ATV during operation.



WATCH OUT FOR TERRAIN CHANGES

Watch out for terrain changes or hidden hazards that can cause you to lose control of the vehicle or collide with unseen obstacles (e.g., gopher holes, logs, gullies, or ditches). Always use caution in an unfamiliar area.

For example, never ride through an area where the view of the ground surface is not clear (e.g., high-standing grass, fallen branches, holes, large obstacles or other hazards); you could collide with a hidden hazard and be seriously injured or even killed.



WARNING

POTENTIAL HAZARD

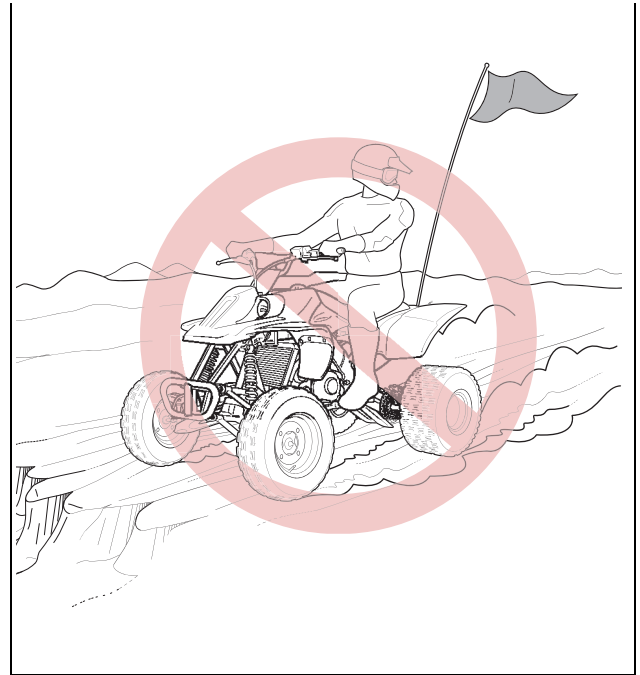
Failure to use extra care when operating this ATV on unfamiliar terrain.

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.



ROUGH OR SLIPPERY TERRAIN

Never operate on excessively rough, slippery or loose terrain until you have learned and practiced the skills necessary to control the ATV on such terrain.

WARNING

POTENTIAL HAZARD

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

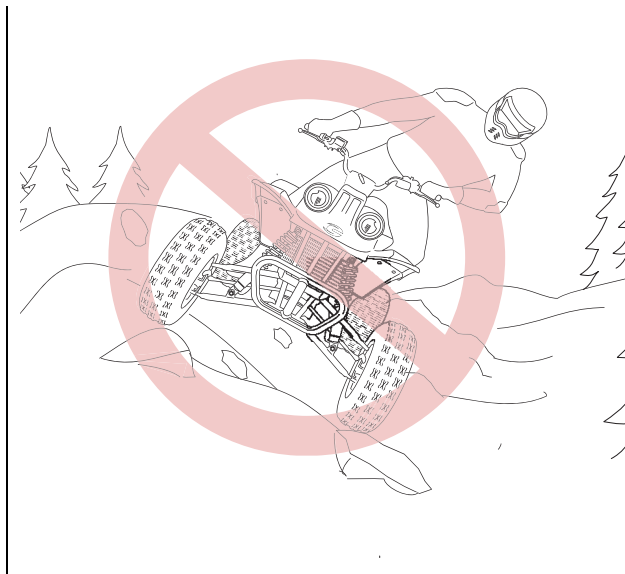
WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

Do not operate on excessively 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.



STAY OFF STEEP HILLS

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

Keep the front wheels on the ground so that you maintain steering control and prevent the possibility of overturning the ATV.



WARNING

POTENTIAL HAZARD

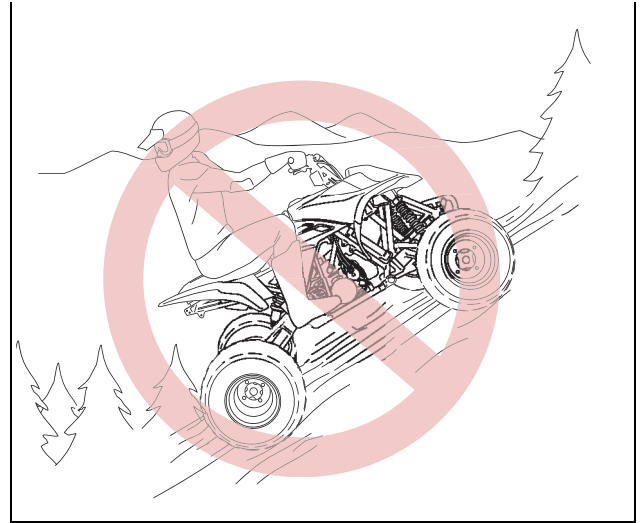
Operating on excessively steep hills.

WHAT CAN HAPPEN

The vehicle can overturn more easily on extremely 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.



CLIMBING HILLS IMPROPERLY

Climbing hills is an advanced technique. Before attempting to climb difficult hills, begin by practicing on flat ground and then smaller hills to build experience. Never attempt a hill or slope beyond your skill level and evaluate all hills and slopes carefully to avoid terrain that might cause the ATV to overturn. Only attempt difficult hills and inclines after you have developed considerable skill and experience through study and practice.

When climbing hills and slopes, shift your weight forward toward the front wheels to help keep them from lifting off the ground. Shift your weight in greater degrees (depending on the hill and conditions) by sliding forward on the seat.

As you move forward, lean your body forward and maintain a steady speed. Always avoid hills and climbs with loose or slippery surfaces, or where obstacles might cause you to lose control or force a sudden change in direction. This can result in a serious accident resulting in serious injury or death. Maintain steady and controlled throttle openings. Sudden acceleration can cause the front wheels to come off the ground - you could flip the ATV onto yourself. It's heavy and you can severely injure or kill yourself.



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 Owner's Manual.

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

Never climb hills with excessively slippery or loose surfaces.

Shift your weight forward.

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

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.

RIDING DOWNHILL

When riding downhill, shift your weight back as far as possible with your arms straight. Choose a low gear to allow the engine to do most of the braking for you. Improper braking with either the front or rear brakes could lead to a loss of traction and vehicle control resulting in an accident.

Always travel straight down a hill when possible. Avoid sharp turns which could cause the ATV to tip or roll over.

Always choose a path down hill that is free of obstacles.

Never ride faster than your ability to react safely and maneuver the ATV. If you don't give yourself enough time to avoid obstacles and terrain hazards, you can be seriously injured or even killed.



WARNING

POTENTIAL HAZARD

Going downhill improperly.

Avoid going down a hill at an angle that would cause the vehicle to lean sharply to one side.

Go straight down the hill where possible.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

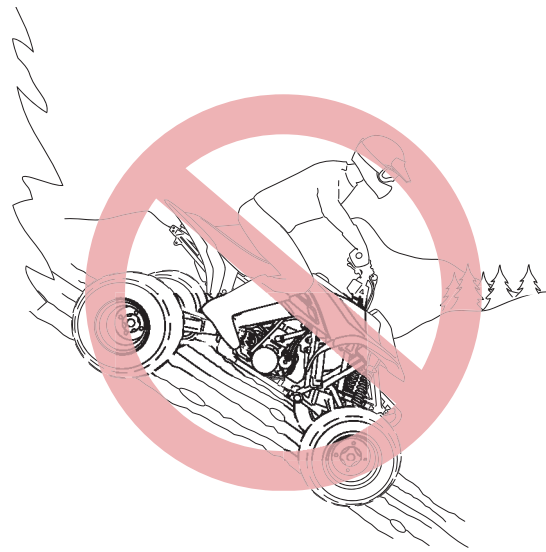
Always follow proper procedures for going down hills as described in this Owner's Manual.

Note: a special technique is required when braking as you go down a hill.

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

Shift your weight backward.

Never go down a hill at high speed.



CROSSING SLOPES OR HILLS

WARNING

POTENTIAL HAZARD

Improperly crossing hills or turning on hills.

WHAT CAN HAPPEN

Could cause loss of control or cause ATV to overturn.

HOW TO AVOID THE HAZARD

Never attempt to turn the ATV around on any hill until you have mastered the turning technique as described in this Owner's Manual 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 Owner's Manual.

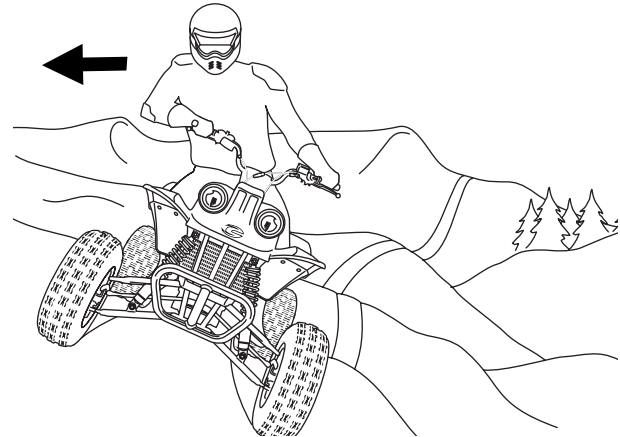
Avoid hills with excessively slippery or loose surfaces.

Shift your weight to the uphill side of the ATV.

Crossing slopes or hills on this ATV requires you to properly position your weight to maintain stability and control. Crossing slopes is an advanced skill, so learn basic riding skills on flat level ground before attempting to traverse a slope.

In every case, stay off slopes with slippery, loose, or rough surfaces. These surfaces can cause a loss of traction and control or upset your balance. When crossing a slope keep your body weight toward the top of the slope or hill and avoid making sudden or sharp turns in either up or down hill direction. Shifting weight helps to maintain your balance and stability. It may be necessary to adjust steering up the slope slightly so that your direction of travel is straight across the slope. If the vehicle begins to tip over, correct by reducing speed and gradually steering in the downhill direction.

Avoid slopes with unstable or slippery surfaces that will cause the tires to lose traction. Always travel at a reduced speed.



TURNING ON SLOPES OR HILLS

Turning on slopes or hills is an advanced skill so before attempting a turn on a slope or hill, practice turning on level ground.

Avoid slopes with unstable or slippery surfaces that will cause the tires to lose traction. When turning on a slope or hill you may need to shift a greater amount of your weight and lean more to successfully make the turn. Practice turning on smaller slopes or hills first and never attempt a turn on steep, slippery, or rough slopes or hills.

Always reduce speed when turning.

WARNING

POTENTIAL HAZARD

Improperly crossing hills or turning on hills.

WHAT CAN HAPPEN

Could cause loss of control or cause ATV to overturn.

HOW TO AVOID THE HAZARD

Never attempt to turn the ATV around on any hill until you have mastered the turning technique as described in this Owner's Manual 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 Owner's Manual.

Avoid hills with excessively slippery or loose surfaces.

Shift your weight to the uphill side of the ATV.

OBSTACLES

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

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 Owner's Manual.



When reading this manual, remember:

WARNING

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

SKIDDING OR SLIDING

Slow down and use caution when riding over loose, slippery, or unstable surfaces such as snow, ice, or mud.

Slides are more likely on slippery or loose surfaces when turning. If you skid or slide you may lose all steering control of the ATV and an accident will result.

If you skid sideways when turning on a loose or slippery surface, steer in the direction of the skid.

WARNING

POTENTIAL HAZARD

Skidding or sliding improperly.

WHAT CAN HAPPEN

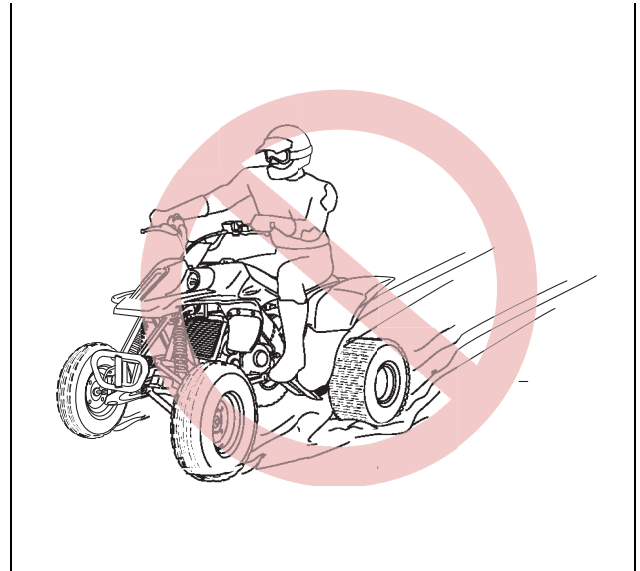
You may lose control of this ATV.

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

HOW TO AVOID THE HAZARD

Learn to safely control skidding 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.



SAFETY FLAG

In hilly terrain, use a safety flag so that others can see you. Use extra care when approaching the tops of hills or blind areas such as around bends or turns.

Some states and state-run areas require a safety flag. Make sure your flag meets state and local requirements.

⚠️ WARNING

POTENTIAL HAZARD

Operating in areas where you might not be easily seen by other ATV's or off-road vehicles.

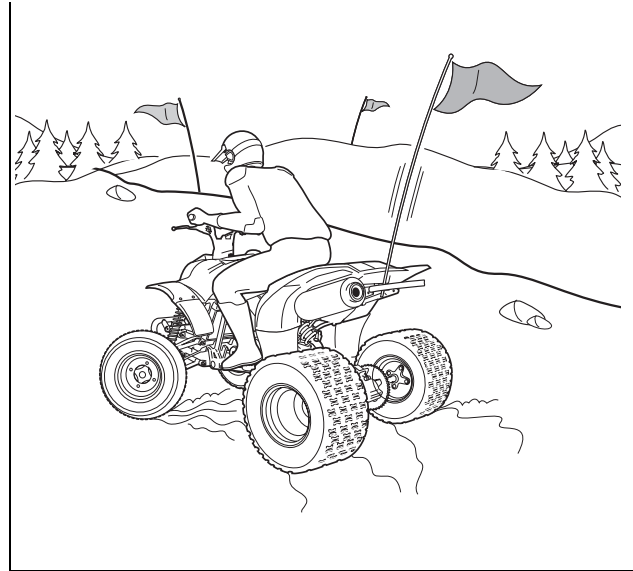
WHAT CAN HAPPEN

You could collide with another vehicle.

HOW TO AVOID THE HAZARD

Always mount an ATV safety flag to the vehicle to make you more visible.

Always use caution around other vehicles.



RIDING THROUGH SHALLOW WATER

The ATV can be used to cross through slow moving shallow water - up to a maximum depth specified for each ATV model. See "2002 Model Specifications" starting on page 161.

Never attempt to ride any ATV in deep or fast moving water, such as rivers or streams. The tires will float causing the vehicle to become unstable. You could quickly lose control and become caught in water currents.

Never enter water without first checking out the area. Look for areas to enter and exit the water where surfaces are stable and not slippery or loose.

Check for any hidden obstructions and holes which may trap, disable, or result in the vehicle becoming submerged.

Travel at reduced speed.

⚠ WARNING

POTENTIAL HAZARD

Operating this ATV through deep or fast flowing water.

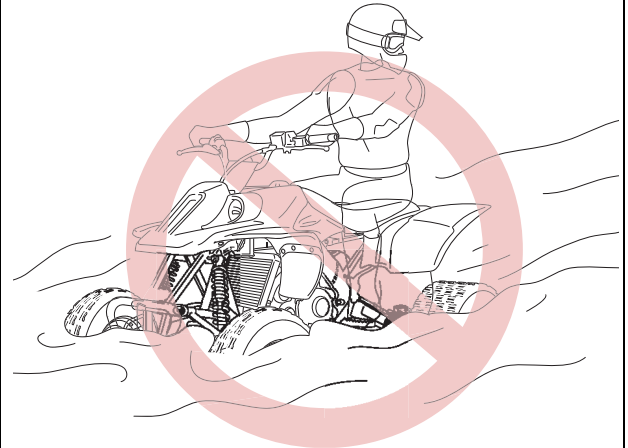
WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

Never operate this ATV in fast flowing water or in water deeper than that specified in this Owner's Manual.

Remember that wet brakes may have reduced stopping ability. Test your brakes after leaving the water. If necessary, apply them several times to let friction dry out the pads.



STALLING, ROLLING BACKWARDS

WARNING

POTENTIAL HAZARD

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

WHAT CAN HAPPEN

Could result in 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.

Lock parking brake, after you are stopped.

If you begin rolling backwards:

Keep weight uphill.

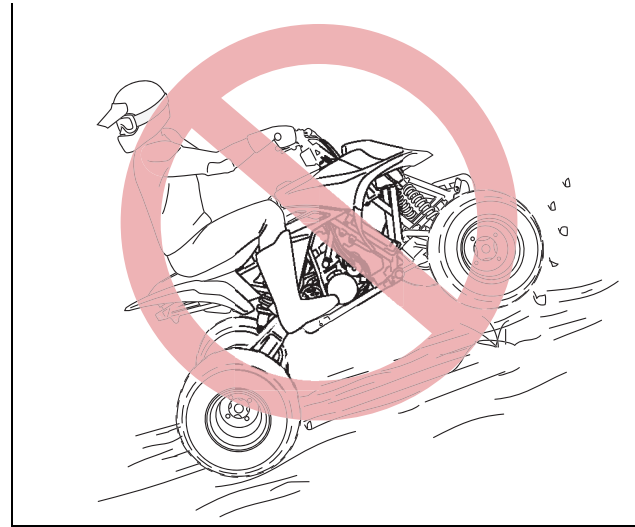
Never apply the rear brake abruptly while rolling backward.

Apply the front brake.

When fully stopped, apply rear brake as well, and then lock parking brake.

Dismount on uphill side if the vehicle is not pointed straight uphill.

Back the vehicle down the hill, following the instructions in this Owner's Manual.



Backing the ATV downhill

If you stall, you may be able to get off and walk the ATV back down the hill if it is not too slippery and you have good footing.

1. Make sure the path back down the hill is clear.
2. Stand with your body facing downhill at the side of the vehicle with your hand on the front brake lever.
3. Make sure your legs are clear of the wheels and back the ATV down the hill. Use the brake lever to control speed.

4. If you lose control of the ATV, don't attempt to regain control, for your safety, get away from the vehicle and alert others.

If you can't back the ATV downhill

If you stall and the hill is too slippery or you doubt whether you can back the ATV down the hill safely as described above, leave the ATV where it is and go to get help. Apply the parking brake and block the wheels so that the ATV won't begin to roll backwards on its own.

MODIFICATIONS



WARNING

POTENTIAL HAZARD

Operating this ATV with improper modifications.

WHAT CAN HAPPEN

Improper installation of accessories or modifications of this vehicle may cause changes in handling which could lead to an accident.

HOW TO AVOID THE HAZARD

Never modify this ATV through improper installation or use of accessories. All parts and accessories added to this vehicle should be genuine Cannondale or equivalent components designed for use on this ATV and should be installed and used according to instructions. If you have questions, consult an authorized Cannondale motorsports dealer.

PRE-RIDE INSPECTION

WARNING

POTENTIAL HAZARD

Failure to inspect vehicle before operating.

WHAT CAN HAPPEN

Increases the possibility of equipment failure resulting in an accident.

HOW TO AVOID THE HAZARD

Always inspect this ATV before you operate it.
Always follow the inspection and maintenance procedures found in this Owner's Manual.
Have your vehicle serviced by an authorized Cannondale motorsports dealer every 25 hours of operation.

When reading this manual, remember:

WARNING

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

PRE-RIDE CHECKLIST

ITEM	CHECK	PAGE
Apparel	Condition of (helmet, eye protection, boots, gloves, long-sleeved shirt and, long trousers).	Start on page39.
Brakes	Proper operation, fluid levels, front lever freeplay, leaks. Fill with DOT4 brake fluid if necessary. Check the rear brake disc carrier for tightness.	Start on page100.
Clutch (if applicable)	Proper operation, condition, and lever freeplay, actuating arm position	Start on page109.
Coolant	Coolant level. Fill with coolant if necessary.	Start on page95.
Drive	Clean and lubricate the drive chain. Check drive chain slack, sprockets, swingarm buffer, rollers, and guide block.	Start on pag e116.
Engine	Oil level. Fill with engine oil if necessary	Start on page85.
Fuel	Fuel level. Fill with fuel if necessary	Start on page82.
Transmission	Oil level. Fill with transmission oil if necessary	Start on page91.
Wheels/Tires	Wheels (for damage), tire pressures (all four) and condition. Replace if damaged. Add air if required.	Start on page149.
Steering	Handlebars turn freely; no binding of the cables/hoses throughout the full steering range.	
Chassis (frame)	Inspect the frame, subframe, and swingarm for bending, cracks, or other damage. Don't ride if damage is found.	Start on page80.
Panels, Bolts/Fasteners	Secure, tightness	Start on page75.
Lights	Proper operation (headlights and taillight)	Start on page25.

OPERATION

WARNING

POTENTIAL HAZARD

Operating the ATV without being familiar with all the controls.

WHAT CAN HAPPEN

Losing control which can cause an accident where you can be severely injured or killed.

HOW TO AVOID THE HAZARD

Read the Owner's Manual carefully and be sure you understand everything in it before operating the vehicle.

If you don't understand something, ask a Cannondale motorsports dealer.

General Starting Tips

CAUTION

Only hold the start button for 2-3 seconds at a time.

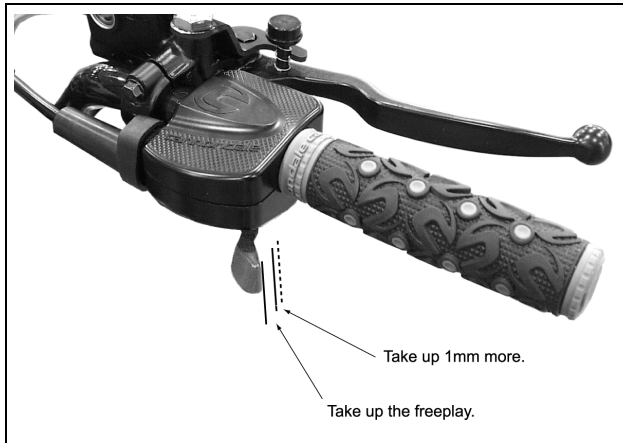
Why? The injectors spray a "starting pulse" of fuel then spray less as cranking continues. Since a cold engine requires more fuel, repeated and shorter cranking attempts should be used to deliver the

extra fuel needed. If you crank more than 2-3 seconds you're wasting battery power because the fuel spray has become too small to start the cold engine.

- **NEUTRAL WITH PULLED-IN CLUTCH**
Shift the transmission into **NEUTRAL** and pull-in the clutch lever before starting. Without pulling in the clutch, the starter working efficiency is reduced; It doesn't turn the crankshaft as fast and can result in overheating and damage.
- **FULLY CHARGED BATTERY**
Make sure the battery is at full charge before you attempt to start the engine. If the battery is not at full charge, the battery voltage can drop enough while the starter is turning over the engine to disengage the ECU's power latch relay. When this happens, the engine will turn over but not start.
- **MC1000 DO NOT OPEN THE THROTTLE**
The MC1000 engine management system utilizes an Idle Air Control Valve located on the throttle body to automatically control the idle air mixture during a cold start attempt. Be sure to read the cold start procedure.

MC500 Cold starting

1. Make sure the vehicle is on level ground and the transmission is in NEUTRAL.
2. Turn the ignition switch to the "ON" position and wait 3 seconds as the fuel pump pressurizes the fuel injectors.
3. Shift transmission into NEUTRAL and pull-in and hold in the clutch lever.
4. Carefully take up the throttle lever freeplay, then take up 1mm more.



1 mm throttle lever freeplay

5. Press and hold the engine start button for no more than 2 to 3 seconds at a time. If the engine "pops" or seems to backfire you're holding the throttle open too much. 1mm is a very fine lever movement. Back the lever off, wait briefly, and re-try.
6. When the engine fires, hold the throttle at a fast idle for 10 seconds or until a smooth idle is obtained.
7. Always wait for the engine to reach operating temperature (70°C) before riding.

ATV MC1000 Cold Starting

1. Make sure the vehicle is on level ground and the transmission is in NEUTRAL.
2. Turn the ignition switch to the "ON" position.
3. Switch the engine stop switch to "RUN."
4. Pull in the clutch lever.
5. Quickly, press the engine start button and release it.
6. **WAIT 5 SECONDS.** This 5 second wait is required to activate the engine management circuits. During this time the fuel pump turns on for three seconds to pressurize the injectors. And, the Idle Air Control Valve (IACV) moves into position opening the idle bypass port. If you don't wait 5 seconds, insufficient fuel pressure and incorrect idle air bypass positioning will prevent the engine from starting.
7. After waiting 5 seconds, press and hold the engine start button for no more than 2 to 3 seconds at a time.
8. When the engine starts, slowly release the clutch lever.
9. Allow the engine to idle until it reaches operating temperature (70°C) before you begin riding.

Starting a warm engine - (MC500 or MC1000)

When starting an engine after it has reached operating temperature, do NOT open the throttle while operating the starter motor. This will make starting very difficult and possibly foul the spark plug.

When reading this manual, remember:



WARNING

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

BREAK-IN

The break-in period is critical to the long term life and reliability of the engine. The break-in period for the engine is 1 hour. When operating during this period be sure to observe the following cautions:

- **Ride at low to medium engine speeds.**
 - **Do not lug or rev the engine during the break-in period.**
 - **Avoid full-throttle starts and rapid acceleration.**
 - **Do not hold the throttle grip in one position for more than a few seconds. It is better to roll the throttle on and off and ride on flat terrain.**
 - **Avoid riding up steep hills and in sand because this produces greater engine loads, possibly damaging engine components.**
1. Ride the ATV normally for two 10-minute segments using no more than 1/2 throttle. Wait for the engine to cool completely between segments.
 2. Next, ride three 15-minute segments using no more than 3/4 throttle, again allowing the engine to cool between rides.

NOTE :

During all rides, it is important to shift gears often so that high rpms are avoided and the engine is not lugged.

3. After riding the vehicle, clean it thoroughly and allow it to dry. Then inspect the entire vehicle for damage or loose fasteners.
4. Repair or tighten any damaged or loose components and lubricate the vehicle.
5. If the vehicle is damaged, it is recommended that you put tape over the start button to remind you to not start the vehicle. Also, attach a piece of paper to the handlebar with the problem written on it.
6. Complete the break-in period maintenance schedule. See "Maintenance & Adjustment" starting on page 68.

MAINTENANCE & ADJUSTMENT

When reading this manual, remember:



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

Regular Maintenance

Periodic inspection, adjustment and lubrication of your vehicle helps keep it safe and reliable to operate. The maintenance schedule provided in this section is intended as a general guide only. Where you ride (geographic location), the weather conditions, terrain (e.g. sand, dirt, dusty, wet, etc.), and your riding style all influence how often a maintenance item should be performed. For example, if you ride in sandy conditions the time (interval) between servicing will be shortened because sand is very abrasive and will act to wear vehicle components more quickly.

Your Ability

If you do not feel comfortable or in any way doubt your own abilities to perform a procedure described in this manual, don't attempt it; have an authorized Cannondale motorsports dealer perform the servicing.

Torque specs

Many maintenance procedures found in this section require the use of a "torque wrench," - a special tool enabling a precise tightness to be applied to a fastener. If you do not have a torque wrench or are not familiar with using one; contact your authorized Cannondale dealer for assistance.

WORK SAFELY

Make sure you read and understand the warnings at the beginning of this section.

Carbon Monoxide

DANGER

POTENTIAL HAZARD

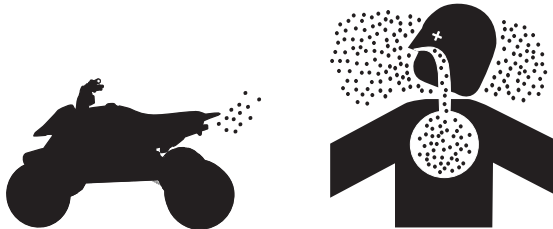
Running the engine indoors.
Breathing exhaust gases

WHAT CAN HAPPEN

Running the engine indoors will expose you to dangerous exhaust gases. Breathing carbon monoxide gas leads to poisoning, asphyxiation, and death. This will happen rapidly and without notice.

HOW TO AVOID THE HAZARD

Never operate the vehicle indoors even for brief periods of time.



Hot Components

WARNING

POTENTIAL HAZARD

Hot components (e.g., engine, radiator, hoses, bulbs, exhaust, brakes)

WHAT CAN HAPPEN

The engine and other vehicle systems operate at extremely high temperatures. Contact can produce severe burns.

HOW TO AVOID THE HAZARD

Wait for the engine and vehicle systems to cool completely before starting any work. If the engine must be running, work carefully and avoid hot surfaces.



Gasoline

WARNING

POTENTIAL HAZARD

Improper care when handling fuel.

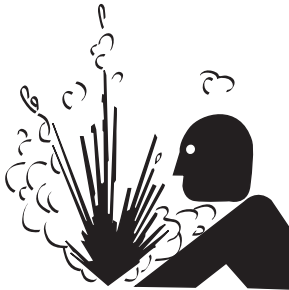
WHAT CAN HAPPEN

Fuel is highly flammable, spilling it can cause a fire or explosion.

HOW TO AVOID THE HAZARD

Be sure the fuel cap is closed securely.

Work in a well-ventilated area which is free of sources that could ignite any spilled fuel accidentally (e.g. cigarettes, welders, torches, grinders, electric shop tools, etc.)



Protect Your Eyes

WARNING

POTENTIAL HAZARD

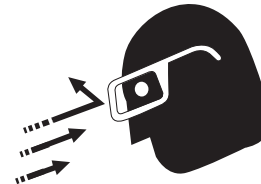
Blindness, eye injury

WHAT CAN HAPPEN

Anytime you work on the vehicle there is a potential that an accident involving a foreign object, vehicle component part, fluid, tool, or other maintenance related item can result in severe injury to your eyes. For example, when cleaning the oil filters, objects propelled by compressed air can strike your eyes and cause serious injury or blindness.

HOW TO AVOID THE HAZARD

Always wear safety glasses when working on the vehicle.



Moving parts

WARNING

POTENTIAL HAZARD

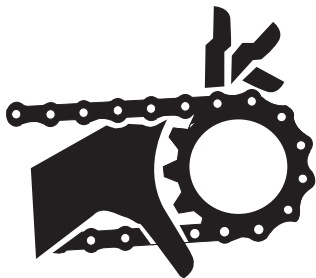
Losing a finger, hand or limb or entanglement

WHAT CAN HAPPEN

Moving parts can catch your clothing, fingers or hand resulting in severe injury.

HOW TO AVOID THE HAZARD

Never perform maintenance procedures with the engine running unless directed otherwise in a procedure.



Fluids

WARNING

POTENTIAL HAZARD

Vehicle fluids (e.g., engine oil, transmission oil, brake fluid, coolant)

WHAT CAN HAPPEN

The fluids in your vehicle are hazardous substances. Contact with your skin or eyes you can result in serious injury or irritation.

If swallowed, death can result

HOW TO AVOID THE HAZARD

Wear hand protection and safety glasses when working with vehicle fluids.

If you touch a fluid, wash it off immediately with soap and water.

Clean clothes or rags contaminated with engine oil. If swallowed seek immediate medical attention.

KEEP ALL VEHICLE FLUIDS AWAY FROM CHILDREN AND ANIMALS.

MAINTENANCE SCHEDULE

Perform a Pre-Ride Inspection before every ride and at scheduled maintenance periods.

C: Clean, R: Replace, L: Lubricate, I: Inspect, verify, clean, adjust, lubricate, replace if necessary

NOTE(s)		NOTE	Regular Maintenance Interval (in hours)						
			BREAK-IN (after 1 hr)	5	10	25	50	100	200
1. Service more if operating in dusty, sandy or snowy areas. 2. Service more frequently if operating in wet or muddy conditions. 3. Replace every 2 years									
ITEMS									
	WARNING LABELS (condition, readable)		EVERY RIDE						
••	FRAME (mainframe, subframe, swingarm)		I			I		I	
•	FUEL SYSTEM (hoses, tank)		I	I					
	FUEL FILTER			R					
•	THROTTLE OPERATION		I	I					
	AIR FILTER	1		C					
	AIRBOX DRAIN TUBE	2			I, C				
	SPARK PLUG				I		R		
•	IDLE SPEED					I	I		
•	VALVE CLEARANCE					I		I	
•	EXHAUST (spark arrester)						C		
<ul style="list-style-type: none"> • Cannondale dealer service suggested. Servicing owners should have the proper tools, service data, and be mechanically qualified. •• Operational safety involved, The service should be performed by a Cannondale dealer. ••• Lithium soap base grease 									

C: Clean, R: Replace, L: Lubricate, I: Inspect, verify, clean, adjust, lubricate, replace if necessary

NOTE(s)		NOTE	Regular Maintenance Interval (in hours)						
			BREAK-IN (after 1 hr)	5	10	25	50	100	200
	1. Service more if operating in dusty, sandy or snowy areas. 2. Service more frequently if operating in wet or muddy conditions. 3. Replace every 2 years								
	SWITCHES (engine, stop, start, tether, ignition)	1, 2	I			I			
	LIGHTING (headlight, tail light)		I	I		I			
	ENGINE OIL		R		R				
	ENGINE OIL FILTER(s)		C		C				
•	TRANSMISSION OIL		R		R				
	TRANSMISSION OIL FILTER		C		C				
	DRIVE CHAIN (sag, stretch, buffer, guide block, sprockets (condition/tightness), guards)	1,2	I	I		I			
•	BRAKE FLUID	3	I						R
••	BRAKE SYSTEM (cables, discs, pads, hoses, etc.)	1,2	I			I		I	
•	BRAKE, REAR, DISC CARRIER		I	I		I			
•	CLUTCH (lever, cable and arm position)	3	I	I		I			R
	CLUTCH HYD OIL		I						R
<p>• Cannondale dealer service suggested. Servicing owners should have the proper tools, service data, and be mechanically qualified. •• Operational safety involved, The service should be performed by a Cannondale dealer. ••• Lithium soap base grease</p>									

C: Clean, R: Replace, L: Lubricate, I: Inspect, verify, clean, adjust, lubricate, replace if necessary

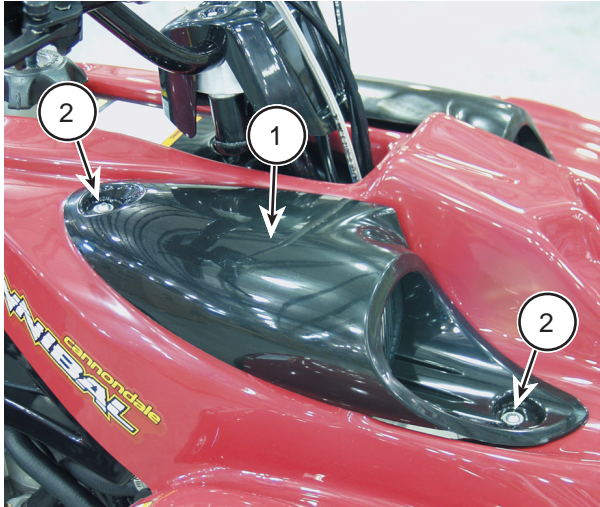
NOTE(s)		NOTE	Regular Maintenance Interval (in hours)						
			BREAK-IN (after 1 hr)	5	10	25	50	100	200
1.	Service more if operating in dusty, sandy or snowy areas.								
2.	Service more frequently if operating in wet or muddy conditions.								
3.	Replace every 2 years								
	COOLANT (radiator, cap, hoses, level, strength)	3	I			I			R
•	SUSPENSION (front/rear shocks, condition, setting)		I	I	I	I		I	
•	NUTS, BOLTS AND FASTENERS			I	I			I	
	SEAT (condition, wear, damage)		I						
••	WHEELS/TIRES (pressure, condition, wear)		I		I	I		I	
	SWINGARM (bearings)	1,2		I	I				
	STEERING ASSEMBLY (fasteners, operation)				I				
•••	A-ARM BUSHINGS					I			
•••	TIE ROD ENDS	1,2	I	I	I	I		I	
<p>• Cannondale dealer service suggested. Servicing owners should have the proper tools, service data, and be mechanically qualified. •• Operational safety involved, The service should be performed by a Cannondale dealer. ••• Lithium soap base grease</p>									

PANELS

Many of the maintenance procedures in this manual require that you remove and reinstall vehicle panels. Consult the following procedures:

Headlight covers

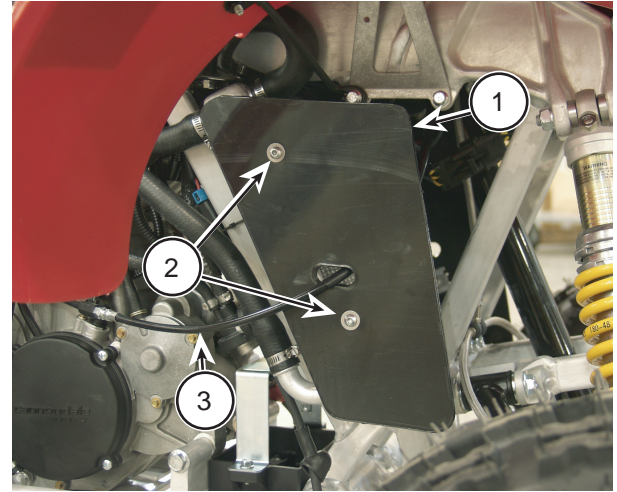
To remove either headlight cover, loosen the bolts but do not try to remove them from the cover holes. When loose, simply lift off the cover.



1. Right panel
2. Bolts

To install the covers, return the cover to its original position and tighten the bolts snug. Do not over-tighten.

Radiator Guards



1. Guard
2. Bolts
3. Clutch cable (manual)

NOTE :

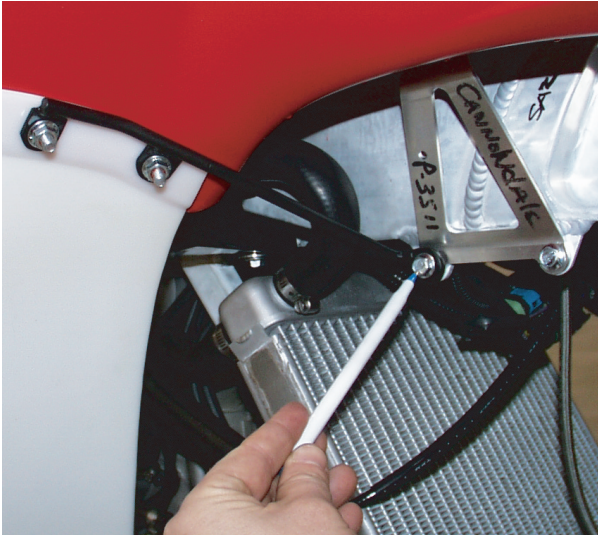
Remove the clutch cable at the actuating arm then withdraw the cable from the right guard.

Cowl

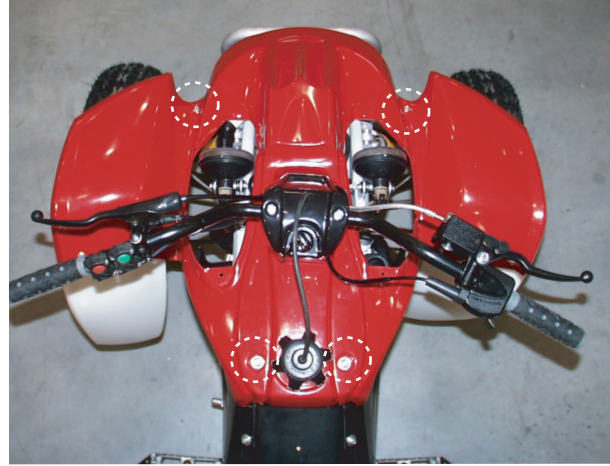
NOTE :

The Engine Control Unit (ECU) and air filter are located under the cowl.

1. To remove the cowl and the seat
2. Remove the fender support bracket bolts at the frame.



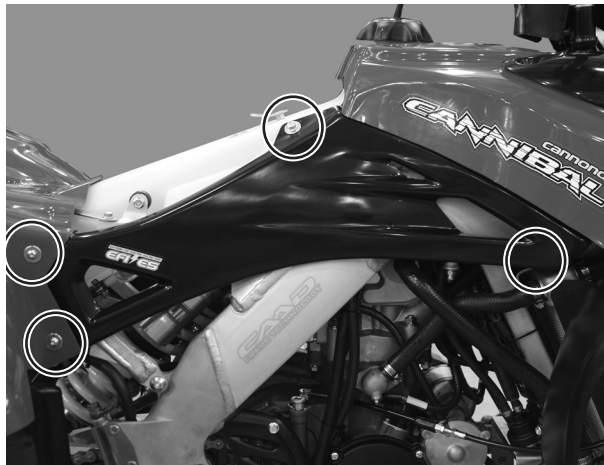
3. Loosen and remove the cowl mounting bolts.



4. Lift the outer fender edges of the cowl - spreading them out slightly - and move the cowl forward off the frame making sure that the fender support braces clear the frame and shock structure.
5. Remove the fuel cap and lift off the center piece. Return the fuel cap.
6. To install, place the panel in the original position and install the bolts and tighten to the specified torque.

Side Panels

1. To remove, first remove the seat.
2. Remove the panel bolts.



Panel bolts

3. To install, place the panel in the original position and install the bolts.

Rear Fender

1. Remove the seat and side panels.
2. Remove the bolts and lift the rear fender off the subframe.



Rear fender bolts (3 of 4 visible in photo)

3. To install, place the panel in the original position and install the bolts.

Fuel tank removal/installation

The following procedure requires moderate mechanical skill. If you doubt your skills or abilities to remove the fuel tank safely, have the fuel tank serviced by an authorized Cannondale motorsports dealer.

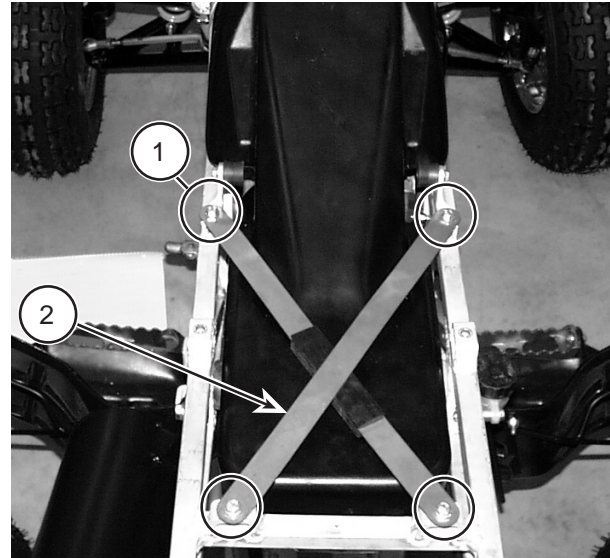
CAUTION

Inspect and lubricate with clean engine oil - each of the quick connect hose end O-rings before installing them into the tank fittings. Also, press in the tabs on the tank fittings before inserting the hose ends.

Follow the torque recommendation for the tank to frame mounting bolts, over-tightening the tank bolts will result in damage to the embedded threaded inserts.

1. Make sure the fuel cap is tightened securely.
2. Remove the fuse, seat, rear fender, and cowl.

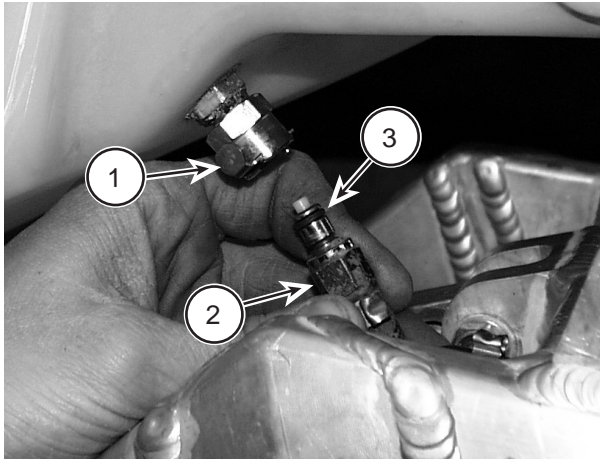
3. Remove the bolts and subframe cross braces.



1. Bolt
2. Cross brace

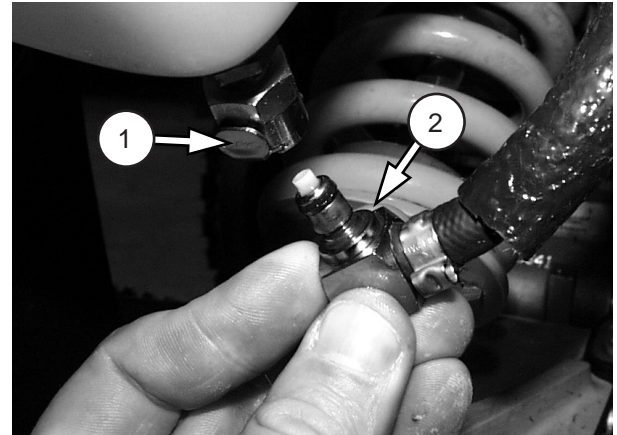
4. Remove two (front sides of tank) tank mounting bolts and gently lift up on the front of the fuel tank.

5. Press in the tank fitting tab and remove the quick connect from the tank.



1. Tab
2. Fuel tank return (from pressure regulator) quick connect
3. O-ring

6. Remove the quick connect at the rear of tank in the same manner.



1. Tab
2. Fuel tank outlet quick connect

7. To install the fuel tank, reverse the removal procedure.

FRAME, SUBFRAME, SWINGARM

Regular Inspection

The aluminum chassis components of your ATV have a finite, limited useful life. The length of that life varies depending on the material used in their manufacture, the amount of use they are subjected to and the care they receive while in service. Regular inspection by a Cannondale motorsports dealer is important.

- **Frame - a main support structure for the engine, various components, and rider.**
- **Subframe - adds structural support.**
- **Swingarm - a suspension component**
- **Brush guard - mounted on the front of the ATV**

Use in competitive events, hard and aggressive riding, riding on severe terrain, riding in severe climates and riding fast can dramatically shorten the life of the aluminum (frame) components. Any one and/or a combination of these conditions may result in an unpredictable failure.

We recommend that you carefully inspect your ATV's chassis components for cracking, bending, deep scratches and/or other damage before every ride.

If you have crashed or rolled your ATV, there could be damage hidden from your view. DO NOT ride an ATV with any crack, even a small one. It must be carefully inspected by an authorized Cannondale motorsports dealer before it is used again.

Riding a cracked frame could lead to complete frame failure. If you have any questions contact your Cannondale dealer or call 1-800-MOTO-USA.



WARNING

POTENTIAL HAZARD(S)

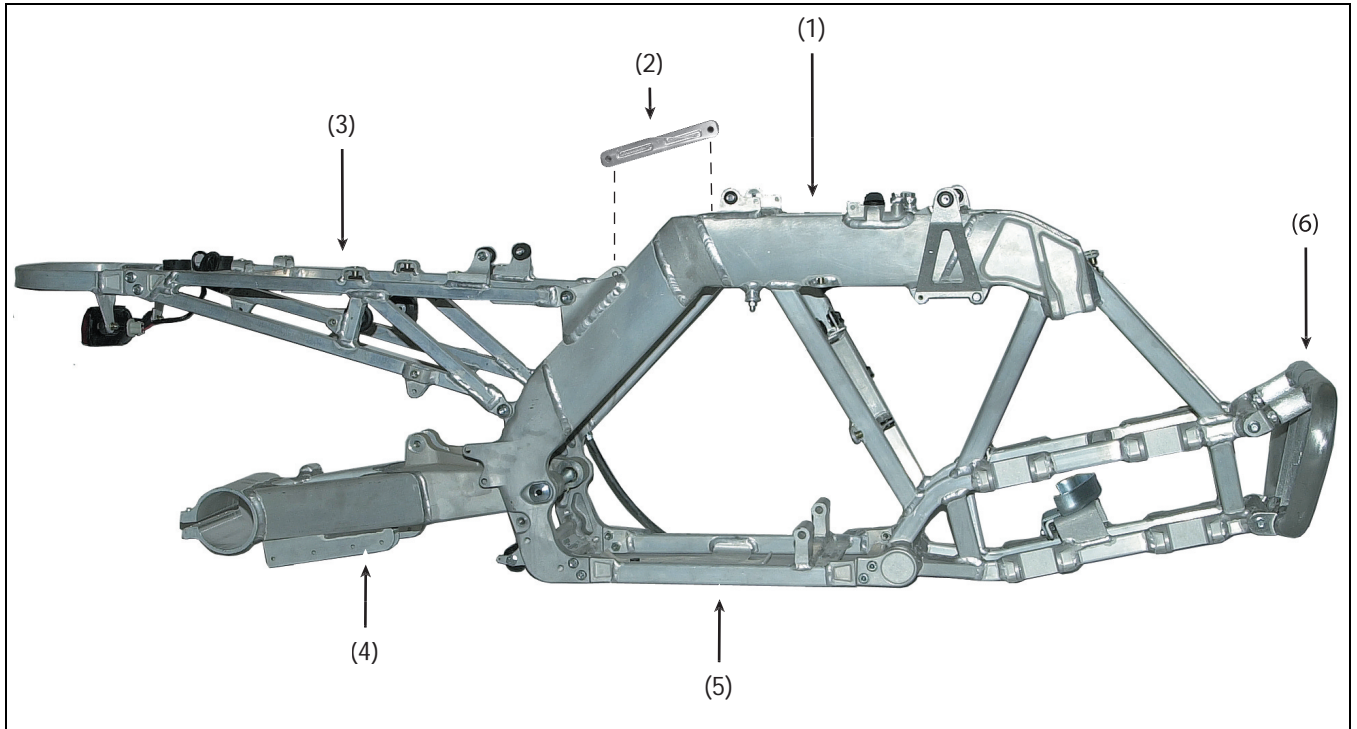
- (1) Operating with a bent, corroded/rusted, cracked, dented, or damaged frame, subframe, swingarm or other aluminum component.
- (2) Attempting to repair the frame, subframe, or swingarm on this ATV.

WHAT CAN HAPPEN

- (1) Riding on a damaged frame can lead to a complete frame failure.
- (2) Aluminum frame (and components) are heat treated. Welding, drilling, or modifying the frame, subframe, or swingarm may weaken the component and result in complete failure leading to a serious accident with subsequent injury or death.

HOW TO AVOID THE HAZARD

- (1 & 2) Contact an authorized Cannondale motorsports dealer for servicing if either the frame, subframe, or swingarm is damaged; never try to repair the frame, subframe, swingarm, or other components.



1. Frame
2. Rear shock strut

3. Subframe
4. Swingarm

5. Engine rail/skid plate
6. Brush guard

FUEL

Always use clean high quality unleaded gasoline. See "2002 Model Specifications" starting on page 161.)

WARNING

POTENTIAL HAZARD

Overfilling the fuel tank

WHAT CAN HAPPEN

Fuel expands due to heat (e.g., engine, sun) and may overflow if the tank is overfilled, resulting in a fire.

HOW TO AVOID THE HAZARD

Stop adding fuel when the correct level is reached.

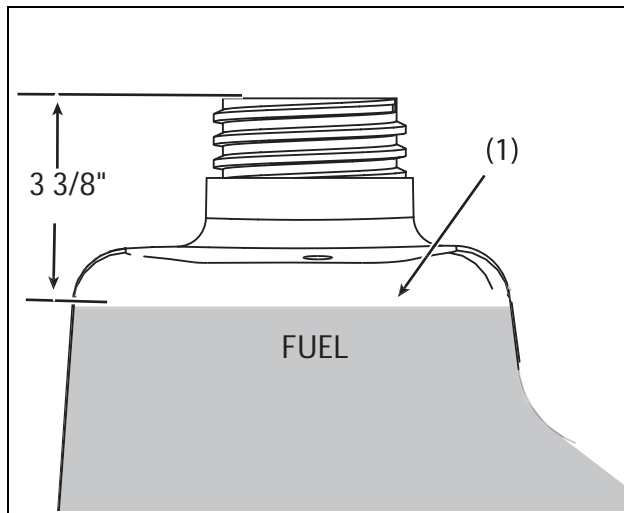
CAUTION

If engine "knocking" or pinging occurs, use a different brand of gasoline or a higher octane rating.

Never experiment. Other fuels or additives can severely damage the engine and its supporting components (e.g. fuel system, sensors, tank, hoses, etc.)

Adding fuel

1. Make sure the vehicle is completely cold.
2. Remove the ignition switch key.
3. Remove the fuel cap and fill the fuel tank with the specified fuel to the correct level.
4. Reinstall fuel tank cap and tighten it securely.
5. Make sure the fuel cap hose is routed correctly.

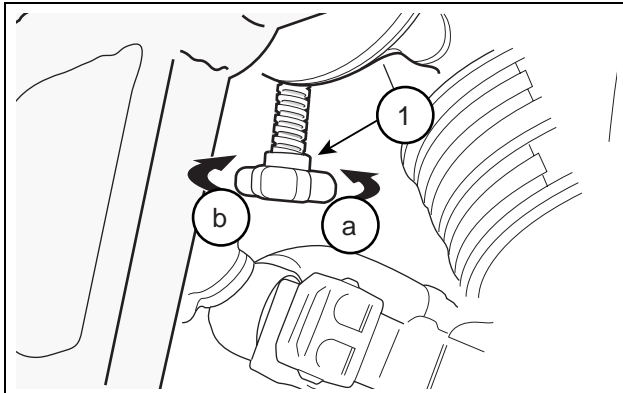


1. Correct fuel level

Idle speed adjustment

The idle speed adjustment screw is located on the throttle body. It is accessible from the left side of the vehicle. A special diagnostic tool is necessary to communicate with the vehicle ECU and accurately read (display) the engine rpm. For this reason, idle adjust should be left to a Cannondale service technician.

1. To adjust the idle, allow the engine to reach operating temperature 158°F (70°C).
2. Set the idle speed by turning the adjuster (1) in direction (a) to increase idle speed, or direction (b) to decrease idle speed.

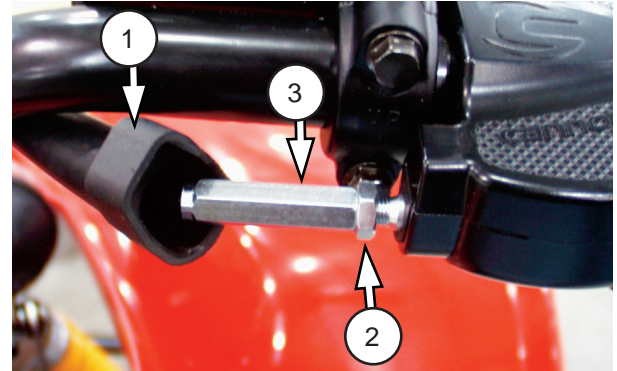


1. Adjuster
- a. Increase (clockwise)
- b. Decrease (counterclockwise)

Throttle lever adjustment

See "2002 Model Specifications" starting on page 161.

Loosen locknut and then turn the adjuster until the specified freeplay is reached. Tighten the locknut.



1. Rubber boot
2. Locknut
3. Adjuster

NOTE :

If the proper adjustment cannot be obtained or the throttle lever does not operate properly, the cable end at the throttle body can be adjusted, however, access to it is difficult and should be left to a qualified service technician. See your Cannondale motorsports dealer for servicing.

Fuel filter replacement

See “2002 Model Specifications” starting on page 161.
Replace the inline fuel filter every 5 hours.

CAUTION

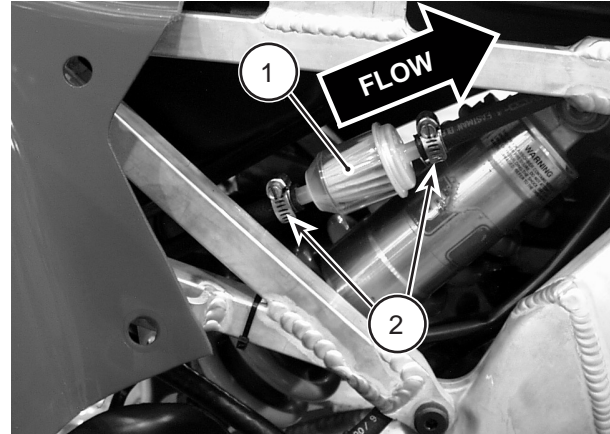
Do not operate with the fuel filter removed. You can seriously damage the fuel injection system. The result may be hard starts, stalling, performance loss, or severe damage to the system. Always use a high quality filter of the specified type. “Cheap” or inexpensive filters not meeting the specified efficiency can result in damage to the fuel system (e.g., clogged fuel injectors, inadequate fuel supply, blockage, and reduced flow).

NOTE :

We recommend that you keep a few fuel filters which are inexpensive and easily obtained - handy for convenient replacement.

1. Make sure the engine and exhaust system are completely cool before starting this procedure.
2. Remove the fuse, seat, and right side panel.

3. Cradle the fuel filter with the hoses attached in a clean dry shop towel to help absorb any residual fuel that will drain as the filter is removed. Loosen the fuel hose clamps and remove the fuel filter.



1. **Inline fuel filter**
2. **Fuel hose clamps**

4. Install the specified fuel filter and tighten the hose clamps securely.
5. Reinstall removed components.
6. Follow-up with a visual inspection of the fuel system. If any leaks or damage is found, take the necessary corrective action.

ENGINE OIL

Engine oil is a significant factor in the service life and performance of the engine. See “2002 Model Specifications” starting on page 161.

Change the engine oil and clean the filters in accordance with the maintenance schedule. See “Maintenance & Adjustment” starting on page 68. Service more frequently under severe conditions.

Checking engine oil

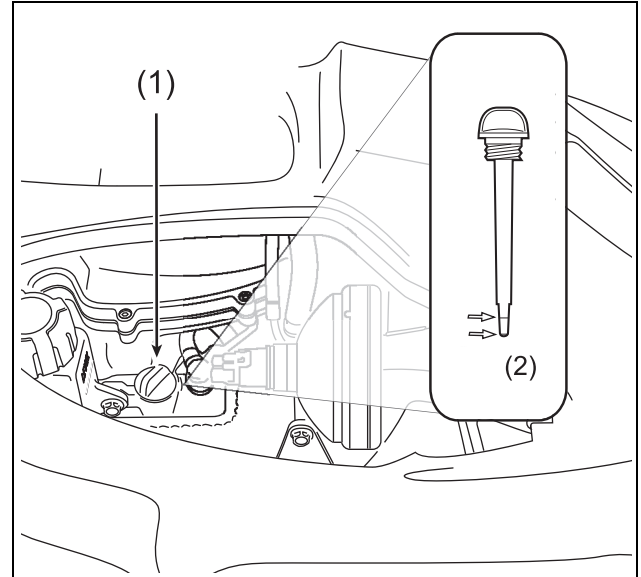
CAUTION

Run the engine for 1 minute before checking or you will take an inaccurate measurement.

Add in small amounts and recheck the level between pours.

1. To check the level, start the engine and allow to run for 1 minute at idle speed, then turn off the engine.
2. Remove the right headlight cover.

3. Remove the dipstick.



1. Engine oil dipstick
2. Markings

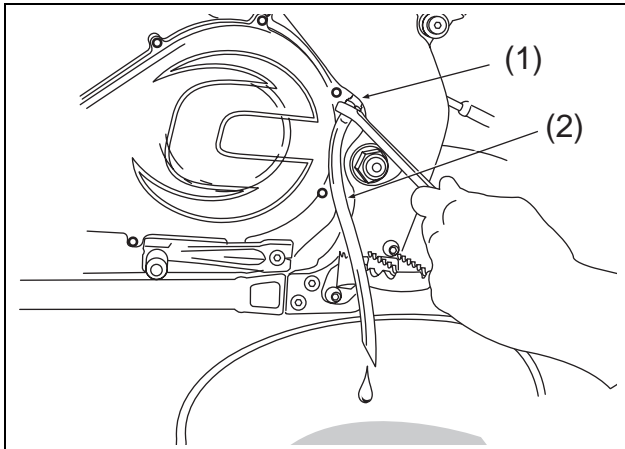
4. Wipe the dipstick with a clean rag and screw back in completely. Then remove and inspect the level on the stick. The oil level should be between the markings on the dipstick. If low, add a sufficient amount of oil to raise it to the correct level.

Changing engine oil

NOTE :

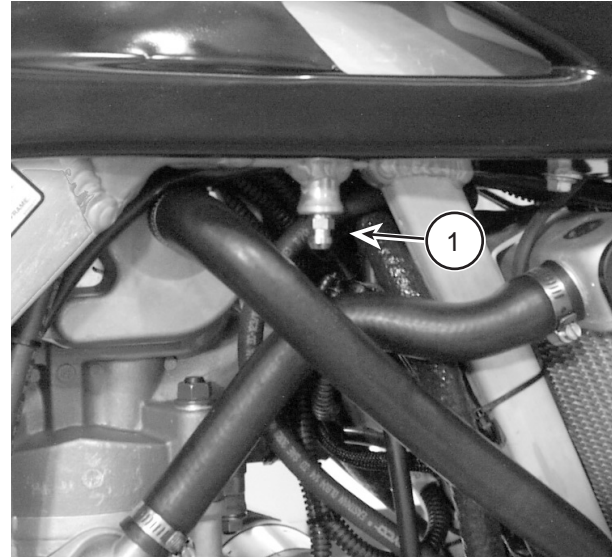
Have a clean shop towel handy to clean up any spilled oil.

1. Start the engine and allow to reach normal operating temperature 158°F (70°C). Then, turn the engine off.
2. Connect a clear plastic hose to the left spar drain bolt and loosen it. Allow the spar contents to drain completely into a suitable container. Tighten the bolt to the specified torque.



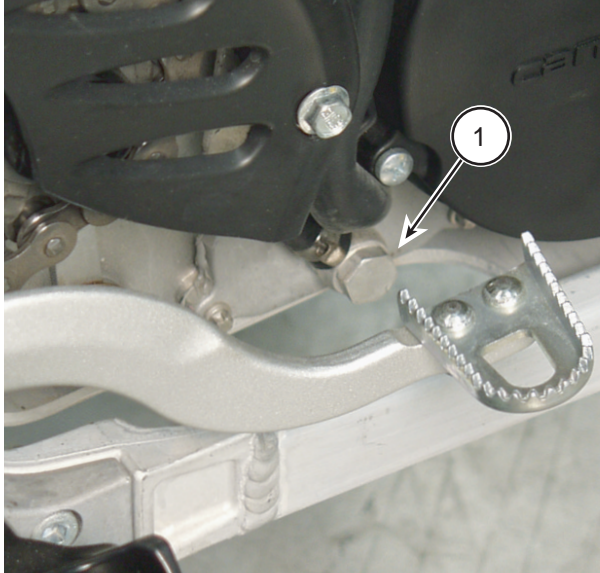
1. Left spar drain bolt
2. Hose

3. Move to the right frame spar and drain the engine oil from it the same way. Tighten the spar drain bolt to the specified torque.

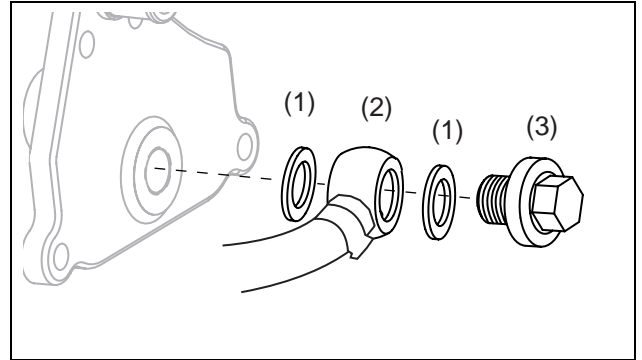


1. Right spar engine oil drain bolt

4. Now, drain the crankcase by removing the crankcase drain bolt. Be sure to note and return the two crush (sealing) washers of the drain bolt. They can be reused but replace them with new washers if they are damaged.

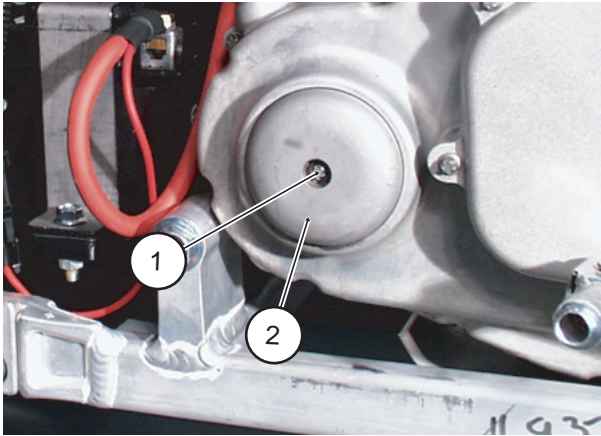


1. Crankcase engine oil drain bolt



- 1. Sealing washer**
- 2. Fitting**
- 3. Drain bolt**

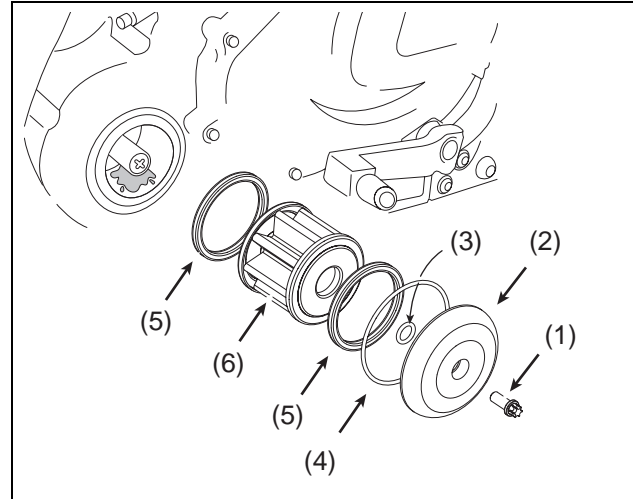
5. Place a container under engine oil filter cover and remove the bolt, engine oil filter cover and the two cover O-rings.



1. Bolt
2. Cover

6. Remove the engine oil filter seal, oil filter and oil filter seal from the housing. Wipe the inside of the filter housing with a clean shop towel to remove any accumulated sediments or other debris.
7. If your filter is the screen type, clean the filter using compressed air. If your filter is the paper element type, discard it and replace it with a new one.

8. Inspect the seals and filter element for tears, cracks, and other damage. Replace if damaged.



1. Bolt
2. Cover
3. O-ring
4. O-ring
5. Filter seal
6. Filter (screen)

9. Apply a light coat of O-ring grease to the large and small cover O-rings and insert them back into the cover.

NOTE :

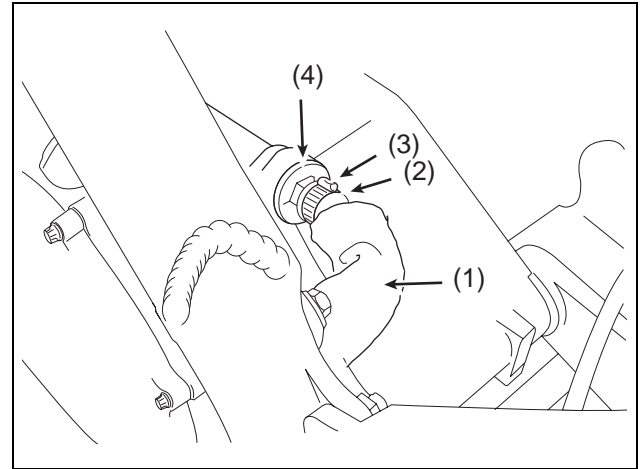
Use some O-ring grease to “stick” the filter seals so that they are centered on the filter. This will help assure that the seals remain in place when you insert the filter into the housing.

10. Install the cover and cover bolt. Tighten the bolt to the specified torque.

CAUTION

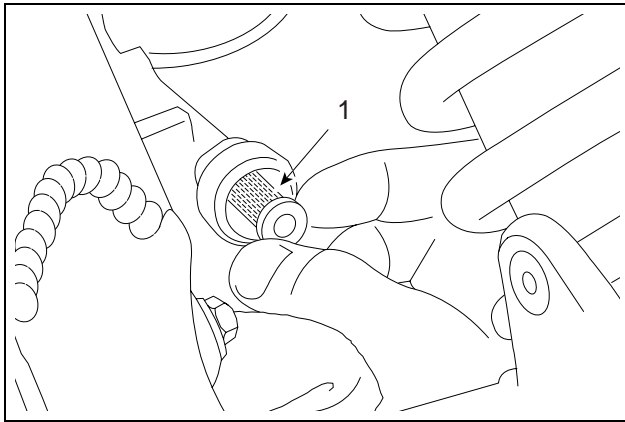
Do not over-tighten the cover bolt. You will damage the threads of the filter housing. If the cover leaks, you may need to replace the cover O-rings or inspect the cover and housing mating surfaces for damage.

11. Now, carefully work the heat shield back to expose the left spar return hose and clamp. Then, remove the clamp and hose from the engine oil inlet fitting.



1. Heat shield
2. Spar return hose
3. Clamp
4. Inlet fitting

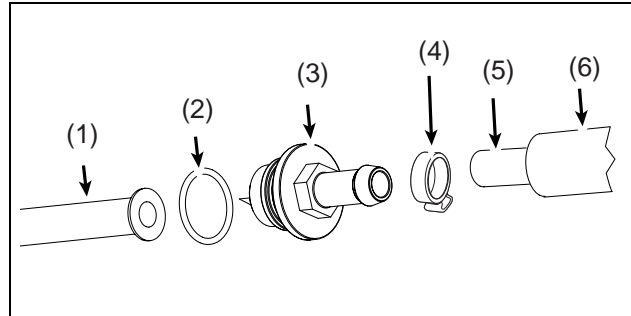
12. Loosen and remove the inlet fitting. Then, remove the inlet filter (screen) from the hole.



1. Inlet filter (screen)

13. Clean the screen using compressed air.
14. Inspect the inlet fitting, O-ring, and inlet screen for tears, cracks, and other damage. Replace any damaged part with a new one.
15. Reinstall the filter into the crankcase. Inspect the fitting O-ring and replace it with a new one if necessary.
16. Apply light coat of clean engine oil to the fitting O-ring.

17. Install the fitting. Tighten it to the specified torque.



- 1. Screen**
2. O-ring
3. Inlet fitting
4. Clamp
5. Spar return hose
6. Heat shield

18. Reinstall the engine oil inlet hose and clamp onto the fitting.
19. Re-position the heat shield up to the clamp.
20. Add 1US quart of the specified engine oil in the dipstick hole at the right frame spar using a clean funnel.
21. Reinstall dipstick and run engine for 1 minute at idle speed to circulate the new oil.
22. Remove the dipstick and recheck the level. The oil level should be between the dipstick markings. Add as required.

TRANSMISSION OIL

The transmission oil in your ATV is just as critical to engine life and performance as the engine oil. Be sure to maintain the correct level of the specified transmission oil. See “2002 Model Specifications” starting on page 161.

Change the oil in accordance with the maintenance schedule and more frequently under severe conditions. See “Maintenance & Adjustment” starting on page 68.

Checking transmission oil

CAUTION

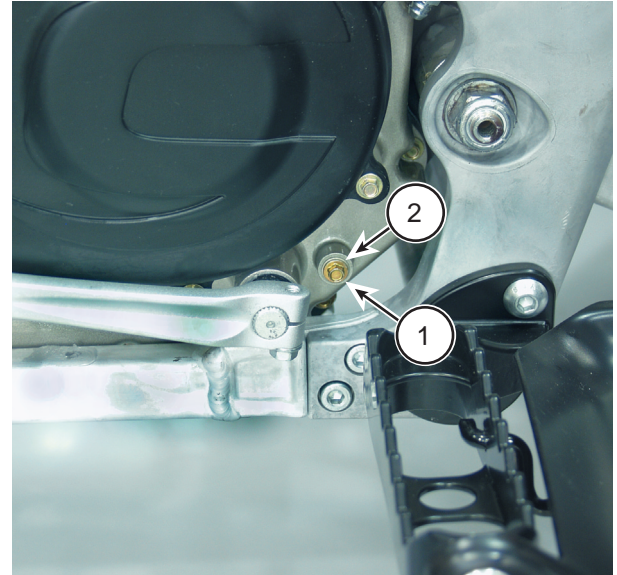
A low transmission oil level may result in severe engine damage. Always use the specified transmission oil and check the level before every ride.

NOTE :

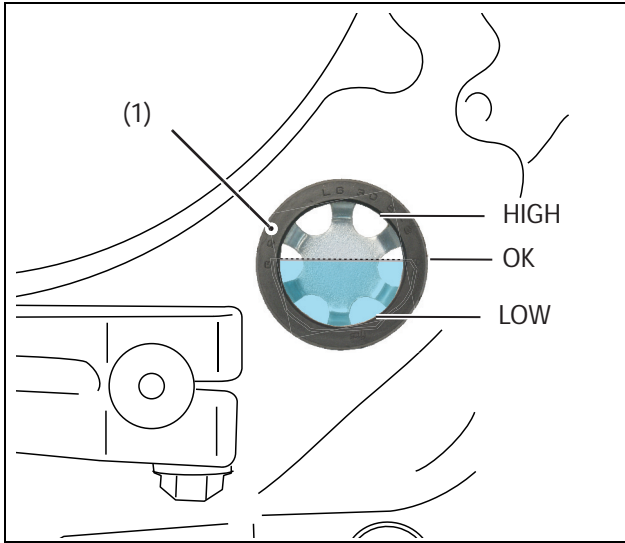
The sealing washer of the check bolt is reusable but not indefinitely. We recommend that you replace it if it is damaged or you observe signs of oil leakage at the bolt. Have a clean shop towel handy to clean up any spilled oil.

1. To check the level, first make sure the engine is cold.

2. Remove transmission oil level check bolt and sealing washer. The oil level should be even with the bottom of the check hole. If your model is equipped with a window, see the illustration for how to read the level.



1. Transmission oil check bolt
2. Sealing washer

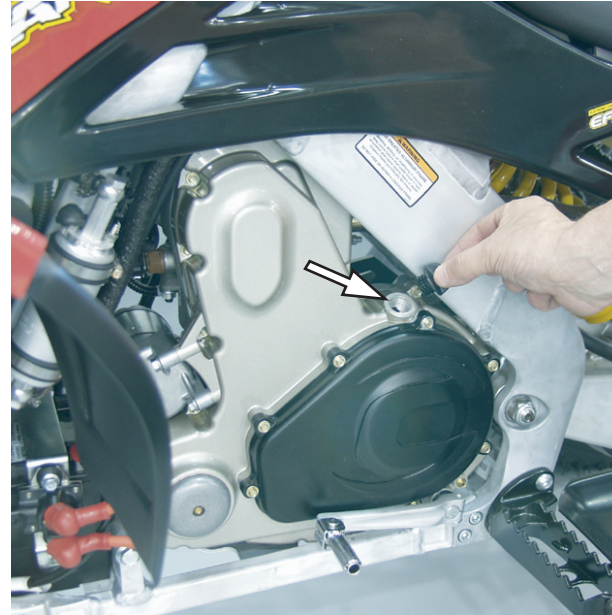


1. Transmission oil window

NOTE :

The transmission oil level within the crankcase should be visible in the window. Maintain the oil level between the "LOW" and "HIGH" as indicated in the illustration above.

3. To add, reinstall the check bolt and pour the specified transmission oil slowly and in small amounts using a clean funnel. Recheck the level.



Transmission oil filler hole

Changing transmission oil

CAUTION

When re-installing the transmission oil filter, sealing washer, and bolt, insert the filter into the bolt, then insert the pair into the crankcase hole together. This helps assure that the other end of the filter will locate into the back of the transmission oil pump (rear of cartridge plate inside gearbox cavity). If the filter does not locate into the plate hole, unfiltered oil can enter and damage the pump.

NOTE :

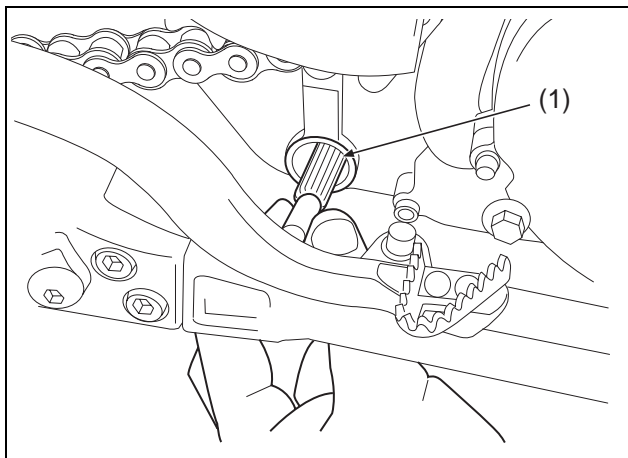
The transmission drain bolt is located on the right side of the engine. The filter (screen) may not come out with the drain bolt. After the oil drains, use needle nose pliers to gently remove it from within the drain hole.

1. Place vehicle on a level surface with a suitable container under the transmission drain bolt and remove the bolt and sealing washer.



2. Allow the transmission oil to drain from the hole completely.

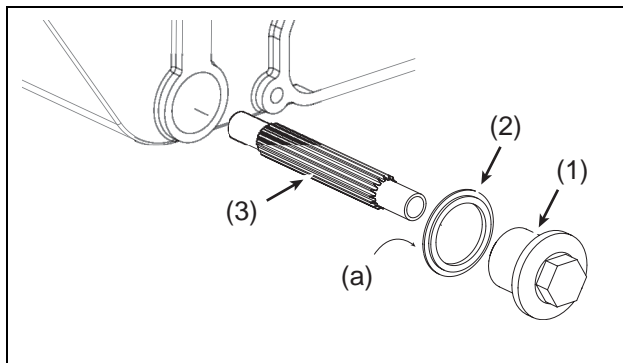
3. If the filter did not come out with the bolt, remove it carefully from the hole. Clean it using compressed air.



1. Filter

4. Inspect the filter for cracks, holes, tears, and other damage. Replace new if damaged.
5. Make sure the threads of the bolt and crankcase are clean.
6. Apply anti-seize compound to the threads of the transmission drain bolt (1). The sealing washer is reusable, however, inspect its condition before reinstalling. A damaged washer may result in a fluid

leak. Install the washer onto the bolt so that the flat side (a) faces the case. Insert the filter into the bolt, and install into the case.



1. Drain bolt
2. Sealing washer
3. Filter (screen)
- a. Sealing washer flat side

7. Tighten the bolt to the specified torque.
8. Add the specified transmission oil at the filler cap until the oil level reaches the bottom of the check bolt hole. Pour slowly and allow time for the oil to flow throughout the case cavity.
9. Then, run the engine briefly (1-2 minutes) to circulate newly added oil and recheck the level. Add if necessary.

COOLANT

The engine coolant bottle is located on the right side of the vehicle under the headlight cover. Check the coolant level in the bottle when the engine is cold. The fluid level in the bottle will vary during operation. Maintain coolant at the “LEVEL” mark on the bottle when the engine is cold. We recommend a 50/50 mixture of high-quality aluminum compatible anti-freeze/coolant and distilled water.

WARNING

POTENTIAL HAZARD

Severe burns

WHAT CAN HAPPEN

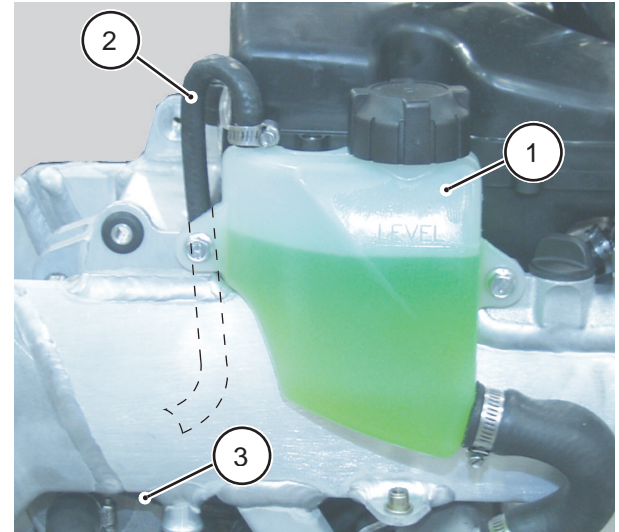
Coolant can sprayed out under high pressure if the bottle is opened while the system is hot.

HOW TO AVOID THE HAZARD

Wait for the engine to cool completely before removing the cap.

CAUTION

Anytime the coolant level falls significantly (not visible in the bottle), the non-self bleeding systems will require bleeding after refilling the system. See page 98.



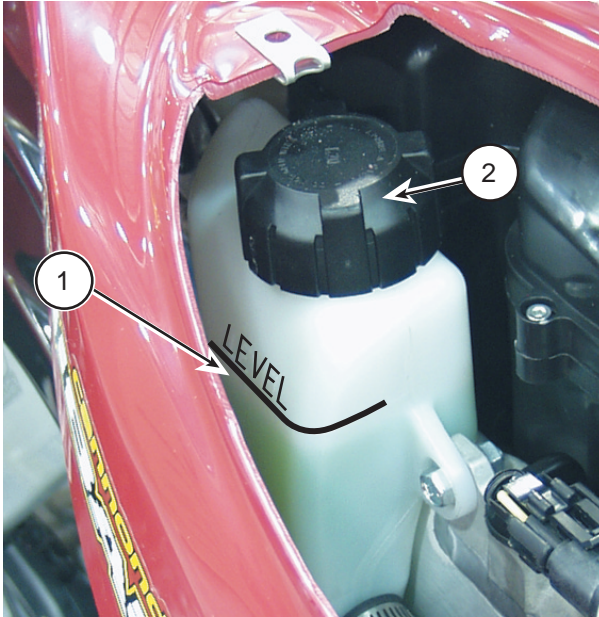
1. Coolant bottle
2. Bleed hose
3. Coolant pump cover

NOTE :

Components have been removed in the above photo for clarity. If the coolant system on your vehicle is the self bleed type (bottle & pump cover), the hose should be visible with just the headlight cover removed.

Checking the coolant level

1. Make sure the engine and radiator are completely cold.
2. Remove the right headlight cover and observe the coolant level in the bottle without opening the cap. The level should be at the 'LEVEL' mark.



1. "LEVEL" mark
2. Cap

Adding coolant

1. To add coolant, make sure the engine is cold.
2. Place a thick rag over the coolant bottle cap and open it very slowly to allow any residual pressure to escape. Then, remove the cap and slowly add the specified coolant using a clean funnel until it reaches the 'LEVEL' mark.
3. Reinstall the cap and check coolant system for leaks.

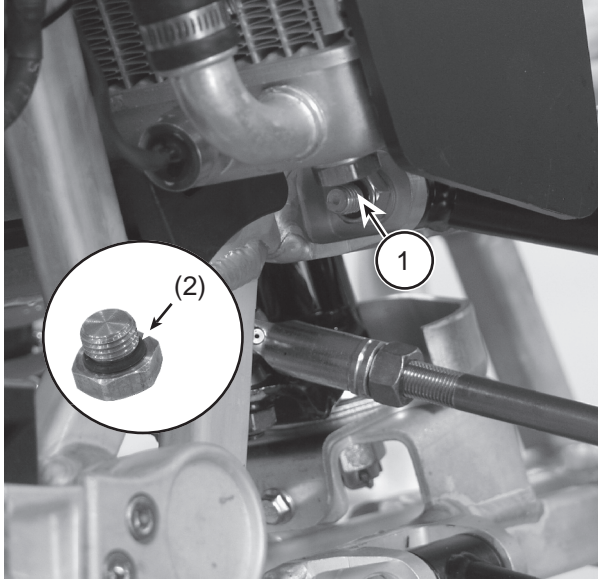
Changing the coolant

CAUTION

Bleed the coolant system after refilling.

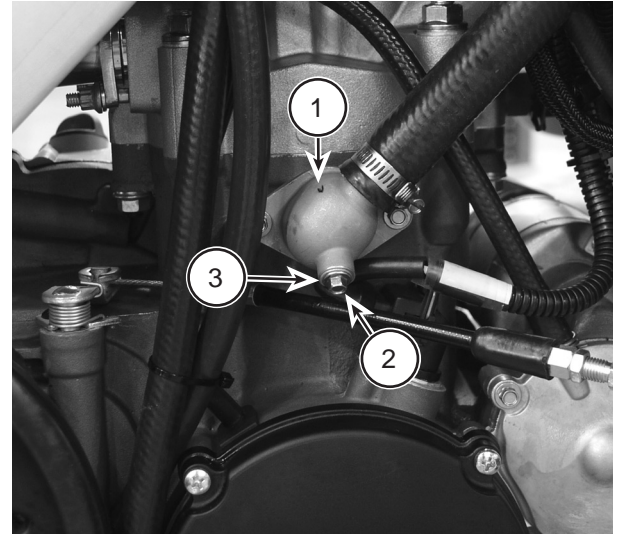
1. Make sure the coolant system is completely cold and you are wearing safety glasses and protective rubber gloves. Have a few clean rags handy to wipe up any spills.
2. Place a thick towel over the coolant bottle cap and remove the cap slowly to release any residual pressure.

- Place a clean bucket under the radiator drain bolt and remove it. Allow the radiator contents to drain completely. Then, inspect the drain bolt O-ring - if damaged, replace. Apply some O-ring lubricant to the O-ring and install the drain bolt.



- Radiator drain bolt**
- O-ring**

- Remove the coolant outlet drain bolt and sealing washer and allow coolant to drain completely. Reinstall the sealing washer and bolt. Tighten snug.



- Coolant outlet**
- Drain bolt**
- Sealing washer**

- Add the specified coolant at the bottle until it reaches the LEVEL mark on the bottle.
- Bleed the coolant system.

Bleeding coolant

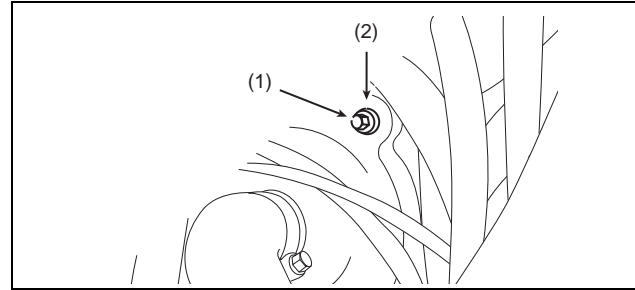
NOTE :

Check to see if your vehicle is equipped with the self-bleeding coolant pump cover and coolant bottle. If it is, bleeding coolant is not required.

The coolant bleed bolt is located in the top right corner of the coolant pump cover (right side of engine). Access to it is difficult. If you are unfamiliar with coolant bleeding, have an authorized Cannondale dealer bleed the coolant.

1. Make sure the coolant system is completely cold and you are wearing safety glasses and protective rubber gloves. Have a few clean rags handy to wipe up any spills.
2. Place a thick towel over the coolant bottle cap and slowly remove the cap to release any residual pressure.
3. Fill the coolant bottle to the LEVEL mark with the specified coolant.

4. Loosen the bleed bolt on the water pump cover and allow any trapped air to escape. It is not necessary to remove the bolt.



1. **Bleed bolt**
 2. **Sealing washer**
5. Continue bleeding the system until only coolant flows out (no air). Then, tighten the bleed bolt.
 6. Refill the coolant bottle to the LEVEL mark when completed.
 7. Reinstall the coolant bottle cap.
 8. Start the engine and allow to idle for 3 minutes. Quickly, touch the radiator. If it is warm the system was bled properly. If it is cool to the touch, the system was not bled properly. The procedure must be repeated.
 9. Shut off the engine and wait for the system to cool completely and repeat this procedure.

When reading this manual, remember:



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

BRAKES

System test

1. Squeeze the front brake lever and test for proper braking. The lever should feel firm and proportional force should be applied to the discs preventing the ATV from rolling. If the brake lever feels spongy or weak, or the vehicle is not prevented from rolling have the brakes inspected by a Cannondale motorsports dealer.
2. Check for fluid leaks. Inspect the entire length of the hoses paying close attention to the banjo bolts, calipers, and master cylinders.
3. Check the rear brake pedal for proper operation by pressing it with your foot. You should feel firm resistance when braking. As with the front brakes, force applied to the pedal should apply force to the rear disc preventing the vehicle from rolling. If the rear brake operates improperly have a Cannondale motorsports dealer inspect the system.
4. Inspect the rear brake pads for wear.
5. Test both brake systems at slow speed. Make sure that both systems function properly and that there is proper braking force available always.
6. When riding in wet conditions or after exiting a water crossing, apply the brake lightly a few times so that the heat of friction will dry the pads and discs. If water remains on the system, you will not have adequate braking power when needed.

Brake fluid

WARNING

POTENTIAL HAZARD

Using contaminated brake fluid, using brake fluid other than DOT4, mixing brake fluid types.

WHAT CAN HAPPEN

Brake performance can be reduced or brakes can fail resulting in a serious accident.

HOW TO AVOID THE HAZARD

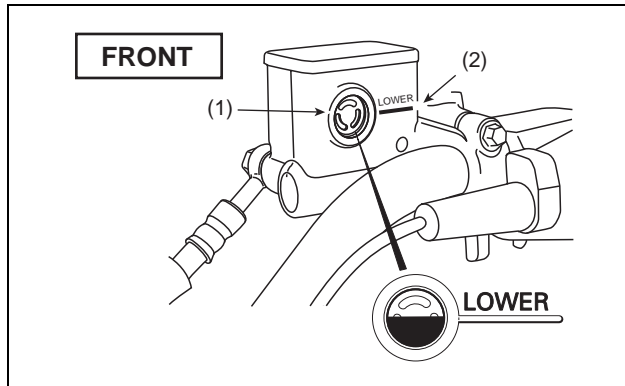
Use only DOT4 brake fluid from a sealed container. Fluid from an opened container, even though the cap has been returned, can absorb moisture and may be contaminated with dust and dirt.

CAUTION

Do not spill brake fluid on painted, plastic or rubber parts or surfaces. Place a shop towel or rag over these parts when servicing the brake system. If you do spill fluid on these parts, wash it off immediately.

Front

1. To check the front system, place vehicle on a level surface and level the handlebars.
2. Inspect the fluid level through the inspection window in the master cylinder reservoir. The fluid should be above the 'LOWER' mark on reservoir body. Add fluid if necessary.



1. Inspection window
2. 'LOWER' mark
3. To add, wipe any dirt or debris from the master cylinder housing and cover.
4. Remove the front brake master cylinder cover screws, cover, and diaphragm.

5. Add the recommended brake fluid from a sealed container until the fluid level is above the 'LOWER' mark on the reservoir body.
6. Reinstall the diaphragm, cover, and cover screws.

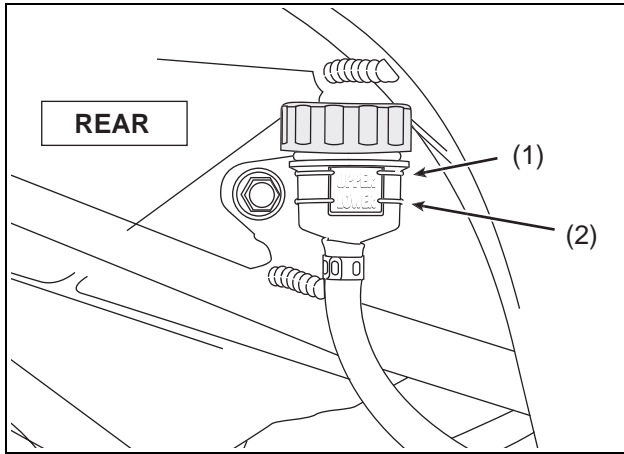
NOTE :

The rear brake master cylinder reservoir is located on the right side of the vehicle inside the rear fender. Make sure the vehicle is on a level surface and the reservoir itself is level when checking. Clean the area surrounding the reservoir before opening it to help prevent fluid contamination.

Rear

1. To check the rear fluid level, place vehicle on a level surface and make sure the reservoir itself is level. The

fluid level should be above the 'LOWER' mark. Add if necessary.



1. UPPER mark
2. LOWER mark

2. To add, clean the cap and surrounding area thoroughly before opening. Pour the specified brake fluid from a clean container until it reaches the 'UPPER' mark. Reinstall the diaphragm, insert, and cap.
3. Be sure to check for proper brake operation before riding the vehicle.

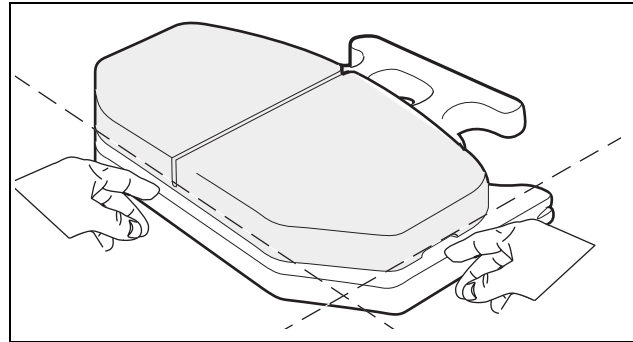
Brake pads and discs, inspection

NOTE :

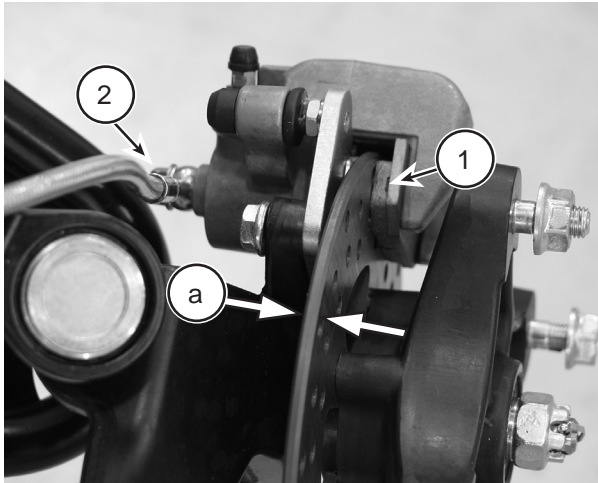
Consult the Model Specifications section in this Owner's Manual for brake pad and disc wear specifications.

Consult the Torque Table, for torque values.

1. Inspect the brake pads wear limit indicators on each pad before every ride. When the friction material wears to these indicators, have the brake pads replaced.



This illustration shows where on the brake pads to look for the pad wear indication limits.



1. Front brake pads (right) wear limit indicator
2. Banjo bolt
- a. Disc thickness

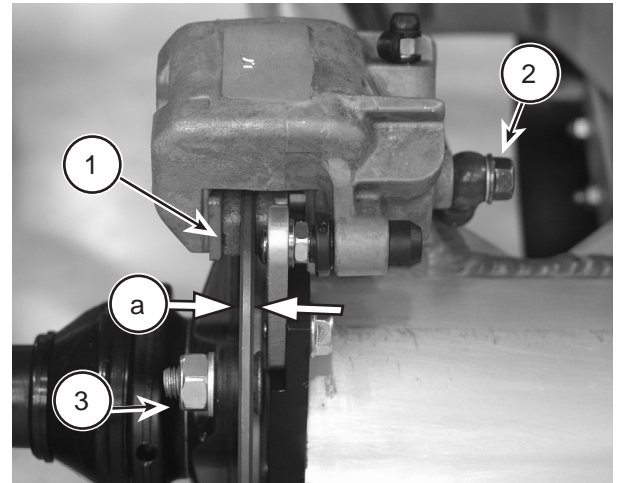
NOTE :

Remove the front wheel to check the front pads.

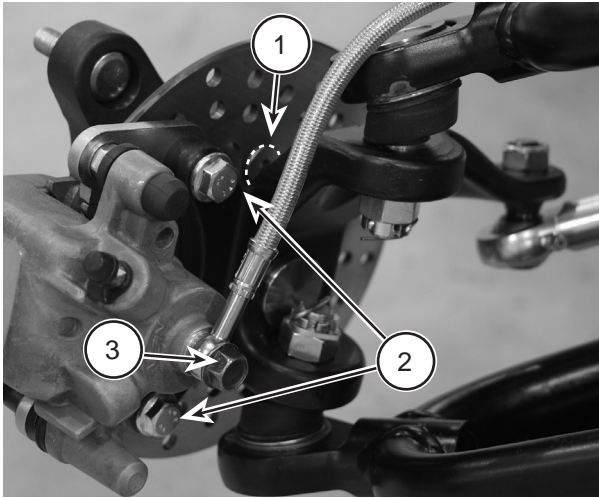
2. Inspect the brake discs for bending, chips, cracks, deep wear grooves, or other damage. Slight circumferential grooving is indicative of normal wear, and does not

necessitate replacing the brake disc. However, if the brake disc is worn beyond the specified thickness it must be replaced.

3. Make sure the front and rear brake disc mounting bolts are tightened to the specified torque.



1. Rear brake pads wear limit indicator
2. Banjo bolt
3. Rear disc mounting bolt (1 of 4 visible in photo)
- a. Disc thickness



1. Front disc mounting bolts (1 visible in photo)
2. Caliper mounting bolts
3. Banjo bolt

Front brake line routing



WARNING

POTENTIAL HAZARD

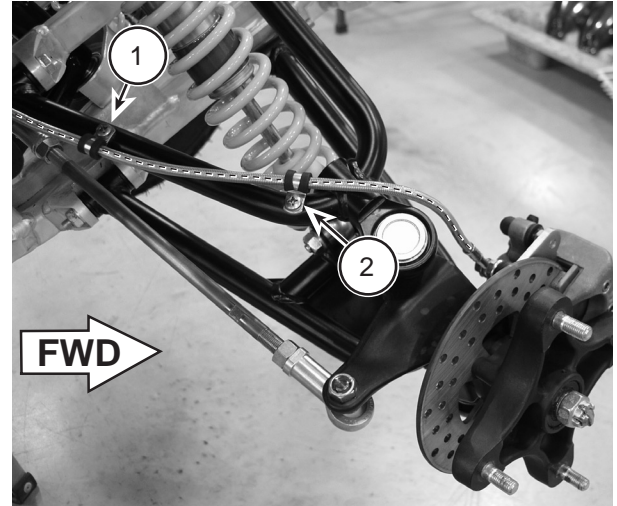
Incorrect brake line routing

WHAT CAN HAPPEN

If the brake line clamps are positioned incorrectly, the line can be damaged or break resulting in a loss of braking control resulting in a serious accident. You can be severely injured or killed.

HOW TO AVOID THE HAZARD

The inner line clamp (1) must face back and the outer line clamp (2) must face forward.



1. Inner clamp
2. Outer clamp

Rear brake disc carrier preload nut inspection

Inspect for play in the rear brake disc carrier before every ride to ensure proper brake function and to protect the rear axle assembly from damage.



WARNING

POTENTIAL HAZARDS

- (1) Injury to your hands (burns, cuts)
- (2) Crashing the ATV, losing control

WHAT CAN HAPPEN

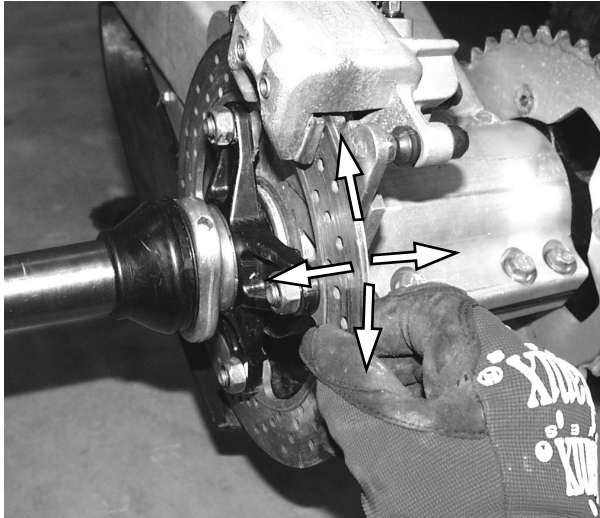
- (1) Brake discs operate at very high temperatures and remain hot for a period of time after the brakes are released. If you touch them, you can burn yourself. Also, brake discs can develop very sharp edges; they can be sharp enough to cut your hands or skin severely.
- (2) If you operate this ATV with a malfunctioning brake system you can lose the brakes. You can lose control of the vehicle resulting in an accident with severe injury or death.

HOW TO AVOID THE HAZARD

- (1) Always allow the brake discs to cool completely before servicing. Wear a protective leather glove when checking the rear brake disc for play.
- (2) Never ride this ATV with a malfunctioning brake system. Contact an authorized Cannondale motorsports dealer for servicing.

1. Place the vehicle on firm level ground. Make sure the rear brake disc is completely cool and the disc mounting bolts are tightened to the specified torque before continuing.
2. Using a protective leather glove, firmly hold the rear portion of the brake disc and test the disc for any side-to-side or rotational play. Test by trying to move the disc up and down (rotational play) and left and right (side-to-side play). Make sure you are not rotating the

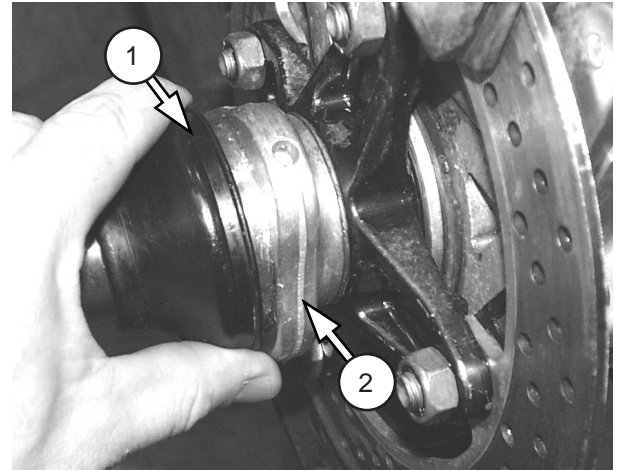
wheel when attempting to detect play. You should detect no play in the disc. If you detect any play, you must tighten the rear brake disc carrier preload nut.



This photo shows how to detect play in the rear brake disc. There should be no play found. If play is found, the brake disc carrier preload nut must be tightened.

3. To tighten the nut, place the vehicle on firm level ground and block/chock the wheels so that vehicle is prevented from rolling.

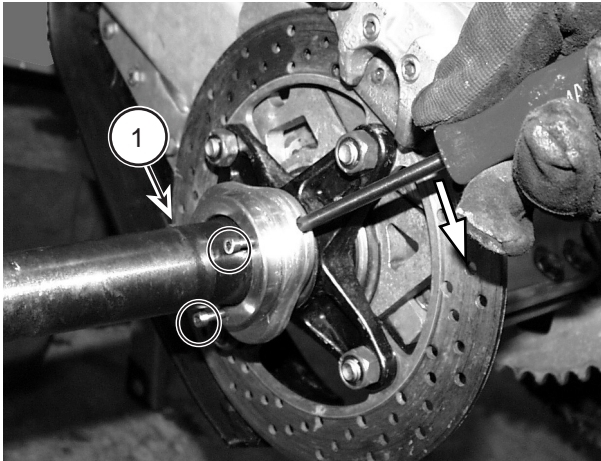
4. Remove the protective boot covering the rear brake disc carrier preload nut and slide it back. It helps to use a thin-blade screwdriver to carefully pry the boot edge away from the nut. Also, rotate the boot as you remove it.



1. Protective boot
2. Preload nut

5. Loosen and back out the allen bolts. It is not necessary to remove them. Using a tool with a shaft diameter closely matching the diameter of the holes in the preload nut, carefully hand tighten the preload nut by rotating the tool handle in the direction indicated (see

photo). Use only moderate force when tightening the preload nut. Using greater force on the preload nut (e.g., cheater bars, pipe wrenches, etc.) will not extend the maintenance interval for the brake disc carrier it will damage the nut and axle assembly.



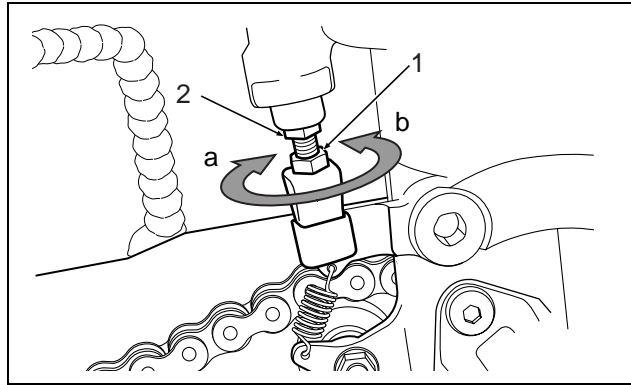
1. Allen bolts (2 of 3 visible in photo)

6. Tighten the allen bolts uniformly. They should be tightened snug. Do not over-tighten them.
7. Reinstall the protective boot and recheck the rear brake disc carrier for play. If play is still present, do not ride the vehicle; contact an authorized Cannondale motorsports dealer for servicing

Rear pedal height adjustment

The rear brake pedal can be adjusted for comfort as well as proper operation.

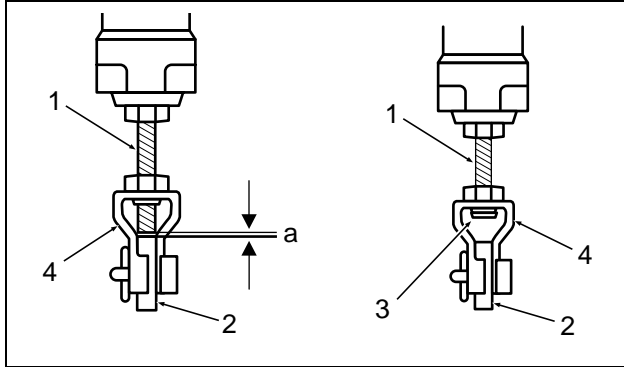
1. Loosen the locknut on the master cylinder pushrod. Turn the hex on top of the pushrod until the brake pedal is at the correct height. Turning the hex nut in direction (b) will lower the brake pedal and turning the hex in direction (a) will raise the brake pedal.



1. Locknut
2. Hex nut
- a. raise
- b. lower

2. Tighten the locknut to the specified torque.

- When lowering the brake pedal, make sure the clearance (a) between the lower end of the pushrod and the brake pedal is within specification. When raising the brake pedal, ensure that at least two pushrod threads are visible inside the pedal joint.



- Pushrod
 - Brake pedal
 - Pushrod thread
 - Pedal joint
- a. Clearance

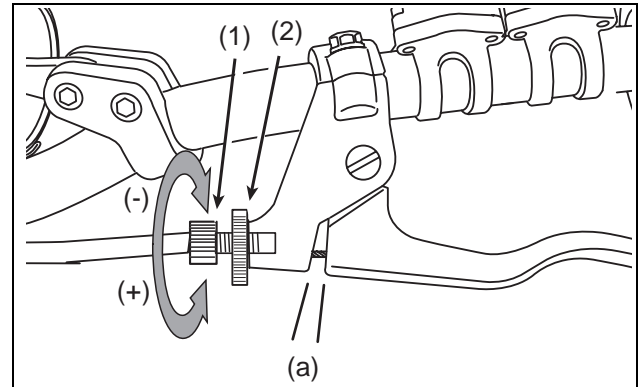
CLUTCH

Clutch lever (manual) freeplay

NOTE :

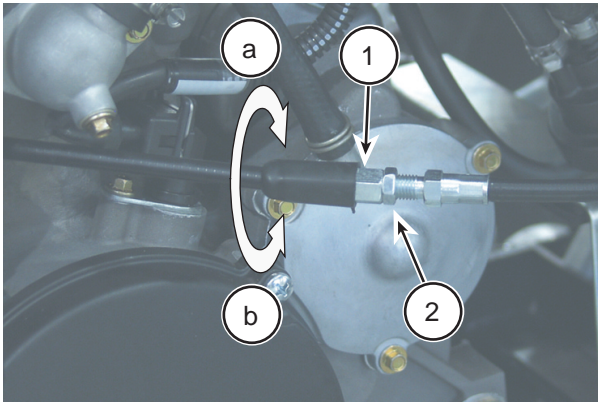
Adjust at the lever first. If the specified freeplay cannot be achieved, adjust at the inline adjuster. Inspect the clutch arm position anytime the lever freeplay is adjusted.

- To measure the freeplay, slide back the protective boot, gently pull in the clutch lever until the cable slack is taken up, then measure the gap between the lever and the clutch lever mounting bracket.



- Adjuster
 - Lock ring
- a. Freeplay

2. To adjust, loosen the locking and turn adjuster until the specified freeplay is reached. Tighten the locknut securely and reposition the boot when finished. If the specified freeplay can not be adjusted at the lever, adjust the inline cable adjuster.
3. To adjust the inline cable adjuster, loosen the locknut and turn the adjuster in direction (a) to decrease freeplay, direction (b) to increase available freeplay at the lever. Tighten the locknut securely after adjusting the clutch cable. Re-adjust freeplay at the lever when finished.



1. Adjuster
 2. Lock nut
- a. Decrease freeplay
b. Increase freeplay

Clutch lever position (hydraulic)

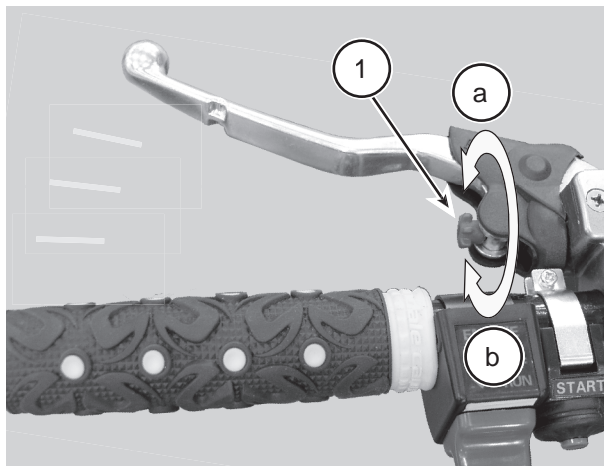
The lever position of vehicles equipped with a hydraulic clutch can be adjusted to suit individual hand sizes.

CAUTION

The adjusting screw can be turned within certain limits. Do not use excessive force when turning the screw.

1. To adjust, turn the adjusting screw clockwise to reduce the distance between the lever and the handle grip; turn

the adjusting screw counterclockwise to increase the distance between the clutch lever and handle grip.



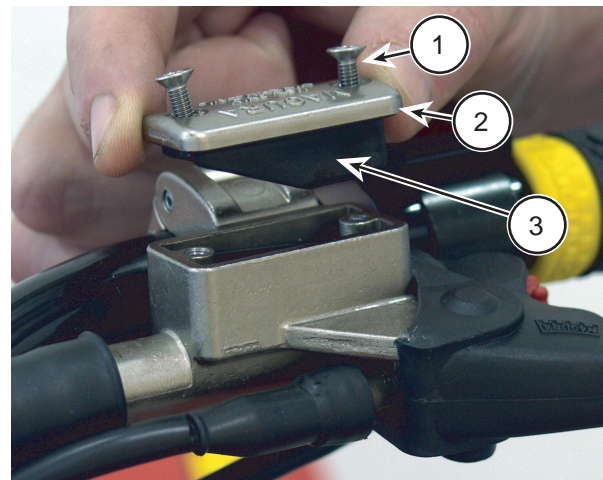
- 1. Adjusting screw
- a. Increases distance
- b. Reduces distance

Checking the oil level of the hydraulic clutch

CAUTION

Never substitute brake fluid for SAE 10 (mineral hydraulic oil).

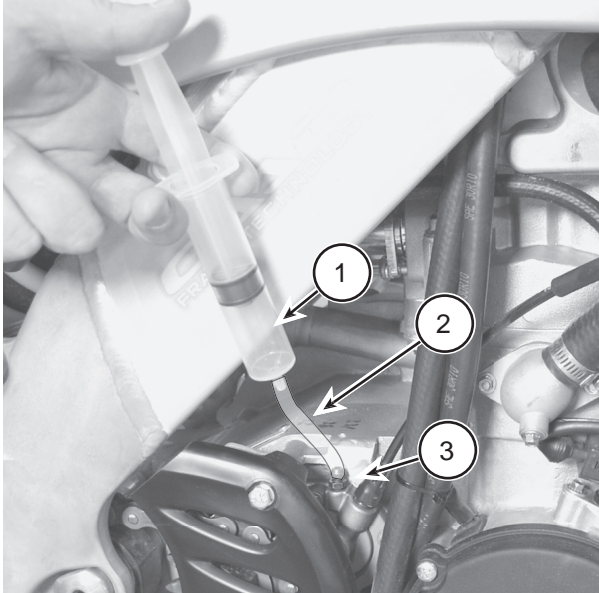
1. To check the level, remove the cover screws, cover and rubber boot.



- 1. Screws
- 2. Cover
- 3. Boot

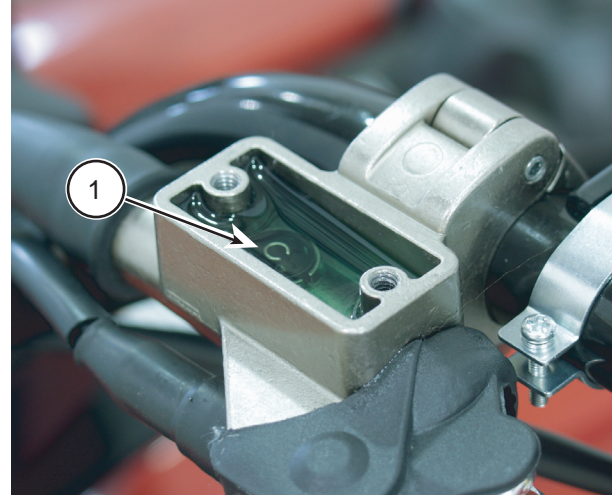
Bleeding the hydraulic clutch

1. To bleed, remove the master cylinder cover and slave cylinder bleed bolt cap.
2. Attach a clean syringe filled with SAE 10 (mineral hydraulic oil) to the bleeder bolt at the slave cylinder.



1. Syringe
2. Tube
3. Bleeder bolt

3. Loosen the bolts and slowly compress the syringe until only oil, (no air bubbles) is discharged at the bore of the master cylinder. Make sure the oil does not overflow out of the master cylinder.



1. Bore

CAUTION

After bleeding, make sure the fluid level in the master cylinder is correct.

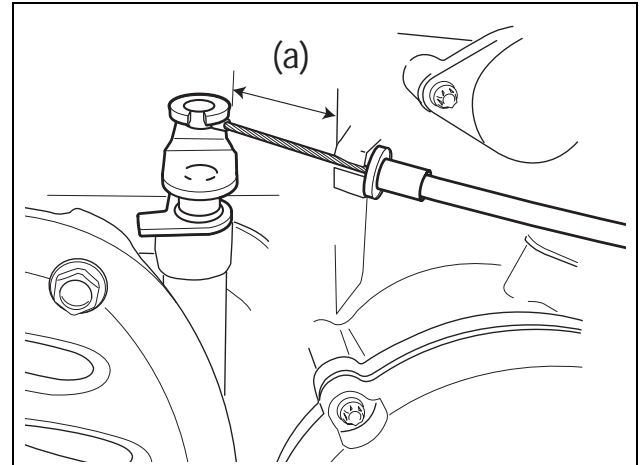
Setting the clutch release collar with a hydraulic clutch system

Complete the following procedure anytime the clutch plates or springs are replaced.

1. Remove the shift lever and clutch cover.
2. Loosen the clutch release collar lock nut.
3. Turn the adjuster locknut all the way in (clockwise). Then back the adjuster out (counterclockwise) three full turns.
4. Tighten the adjuster locknut to the specified torque.
5. Check the fluid level in the master cylinder.

Clutch arm adjustment (manual)

Normal clutch plate wear and cable stretch influences the clutch arm position. If the length (a) is out of specification, you will need to adjust it.



a. length

NOTE :

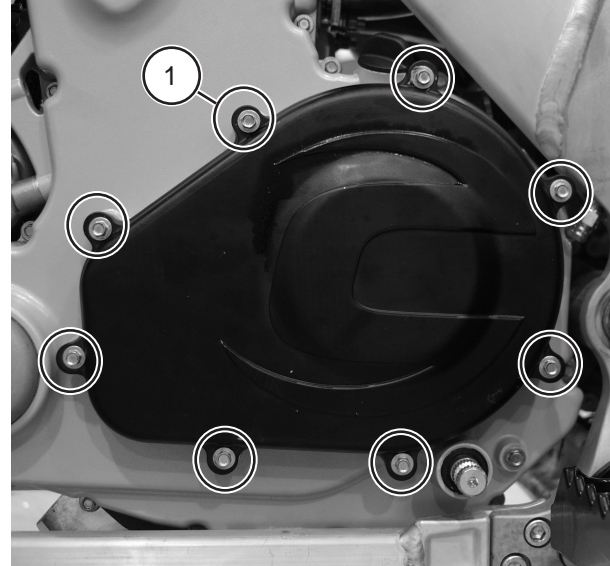
A special “clutch release collar” holding tool has been developed for the following procedure, but right angle circlip plier of the correct size can be used successfully. Contact an authorized Cannondale dealer for information on special tools for your vehicle.

1. Place the vehicle on a level surface.
2. Clean the area surrounding the clutch cover area to prevent contamination of the transmission oil when the clutch cover is removed.
3. Disconnect the clutch cable end from the clutch arm.
4. Remove the shift lever pinch bolt and shift lever from the shift shaft.

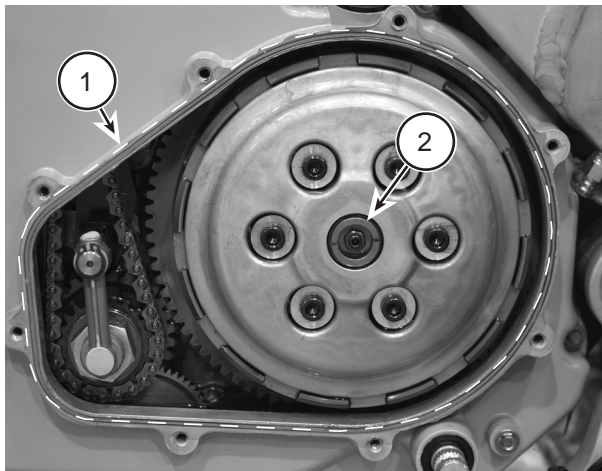


1. Shift lever pinch bolt

5. Remove the clutch cover bolts and clutch cover.



1. Clutch cover bolts

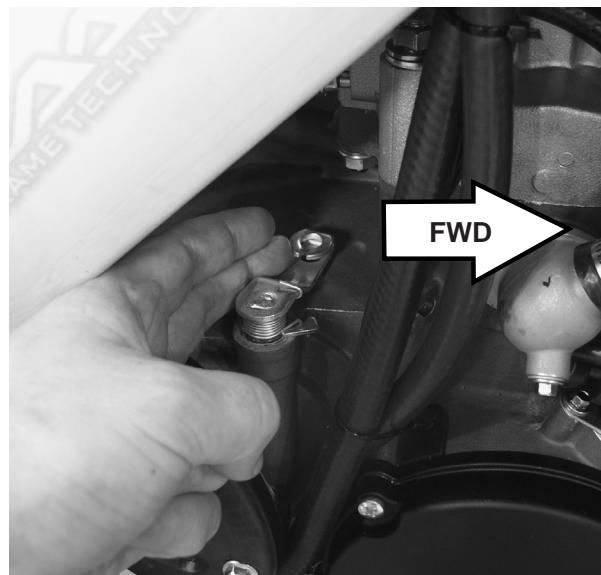


1. Seal
2. Clutch release collar

6. The clutch cover seal is reusable, however, inspect it carefully for damage. When reusing the seal, we recommend, cleaning the mating surfaces and applying a thin film of silicone sealant to the seal when reinstalling the cover.

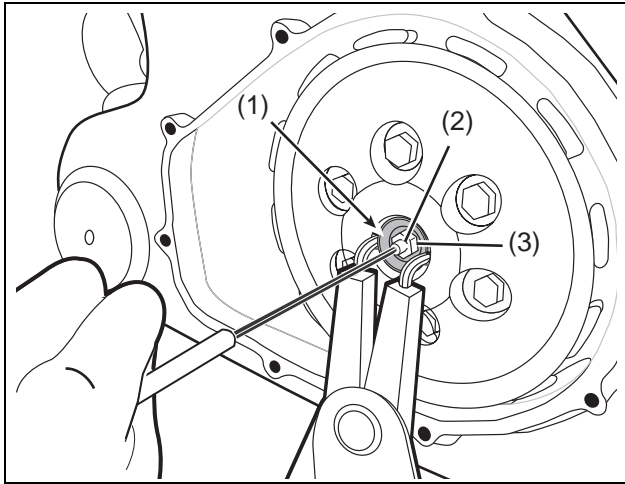
Now, you are ready to begin the adjustment.

7. Have an assistant hold light pressure on the actuating arm toward the cylinder head on the actuating arm.



8. As your assistant continues to hold light pressure on the arm, hold the clutch release collar (right angle circlip pliers shown in illustration) and loosen the

adjuster locknut. Turn the adjuster until the actuating arm is in the specified position. Tighten the adjuster locknut when completed.



1. Clutch release collar
2. Adjuster
3. Locknut

9. Reinstall the clutch cover and shift lever.
10. Reconnect the clutch cable end into the clutch arm.
11. Now, adjust the clutch lever freeplay. When you are finished adjusting the cable freeplay, reinspect the arm position to make sure you did not change the specified arm position.

DRIVE

Drive chain lubrication

The drive chain must be cleaned and lubricated before every ride. Significant forces act on the chain during operation. If its not clean and lubricated, it can quickly wear-out and possibly fail or contribute to un-safe operating conditions.

CAUTION

The O-rings of the drive chain can be damaged by steam or high pressure washers.

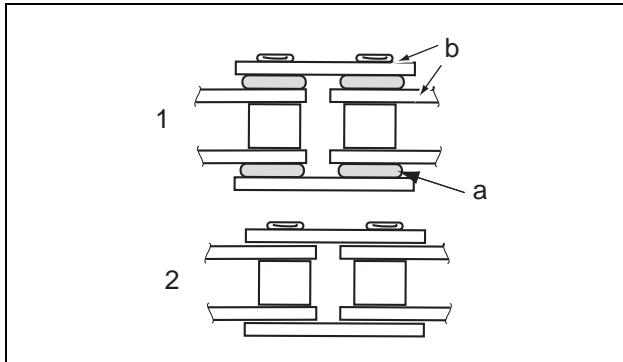
Never clean the chain with gasoline or other solvents.

Do not use motor oils or grease to lubricate the drive chain. Use only lubricants approved for O-ring type chains.

Lubricate the drive chain after riding in wet or dusty conditions or if the chain appears dry.

NOTE :

Make sure the chain has dried completely before applying the lubrication.



1. O-ring type chain
2. Conventional (non-O-ring chain)
- a. O-ring
- b. Chain plates

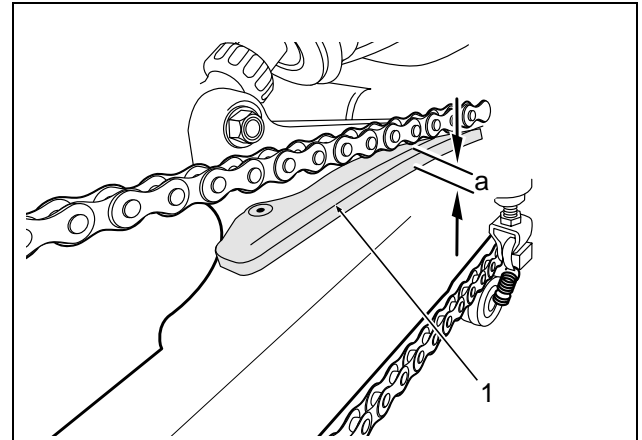
1. To clean and lubricate the chain, first use a small soft (nylon) brush, mild detergent and water solution to gently remove the heavier soils. Do not scrub the chain.
2. Wipe the chain dry with a clean shop towel and apply an O-ring chain lubricant to the entire length of the chain.
3. Next, inspect the chain slack and adjust it if necessary. (page 119)

Swingarm buffer inspection

CAUTION

Wear may be distributed differently across the buffer length. Inspect the entire length carefully.

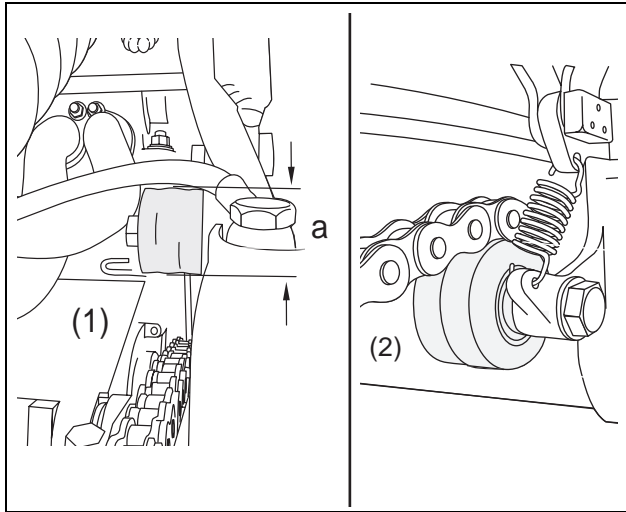
1. Measure the buffer thickness on the upper and lower sides of the swingarm and at several points along its entire length. Out of specification → replace.



1. Swingarm buffer
- a. Thickness

Chain rollers inspection

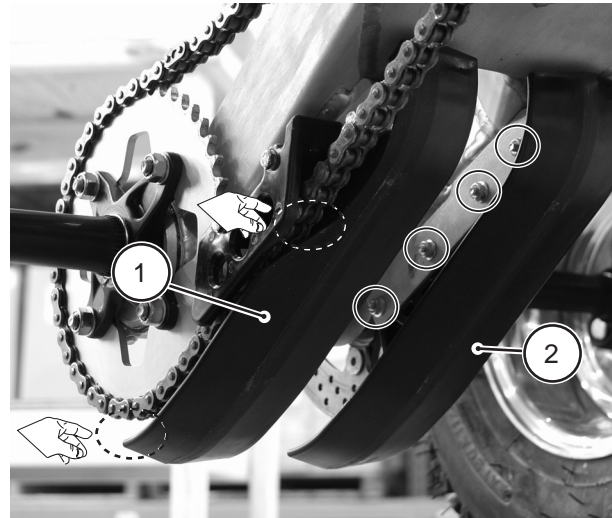
1. Rotate the chain rollers. They should rotate smoothly.
2. Measure the outside diameter of the upper and lower rollers. Replace if out of specification.



1. Upper roller
 2. Lower roller
- a. O.D.

Rear brake disc & sprocket guards

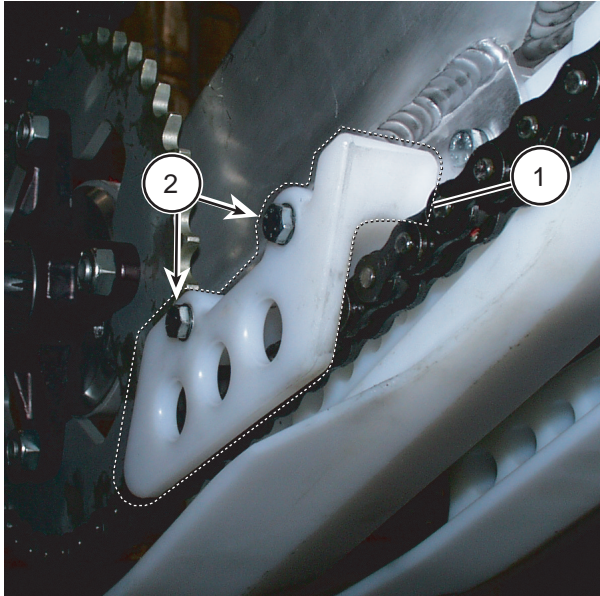
Make sure both guards are mounted securely. Inspect each guard for cracking and/or other signs of excessive damage or wear. On the sprocket guard, pay particular attention to the areas (dotted circles) indicated in the photo. These areas can receive excessive wear by an incorrectly adjusted chain. If either guard is damaged replace it with a new one.



1. Sprocket guard
2. Rear brake disc guard

Chain guide block inspection

Check the drive chain guide block for excessive wear, cracks, and/or any other damage. Make sure it is fastened securely to the swingarm. If the guide block is damaged or worn, replace it with a new one.



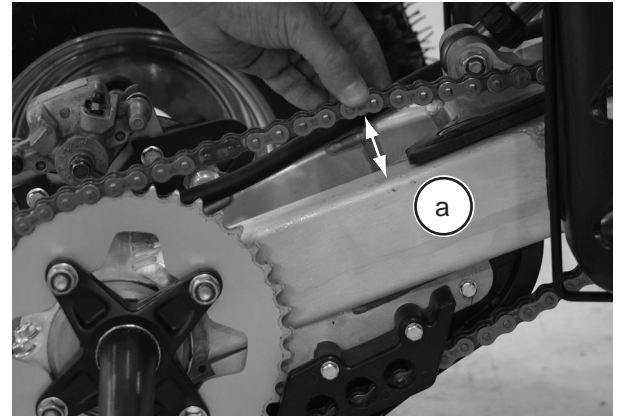
1. Guide block
2. Bolts

Chain slack inspection

NOTE :

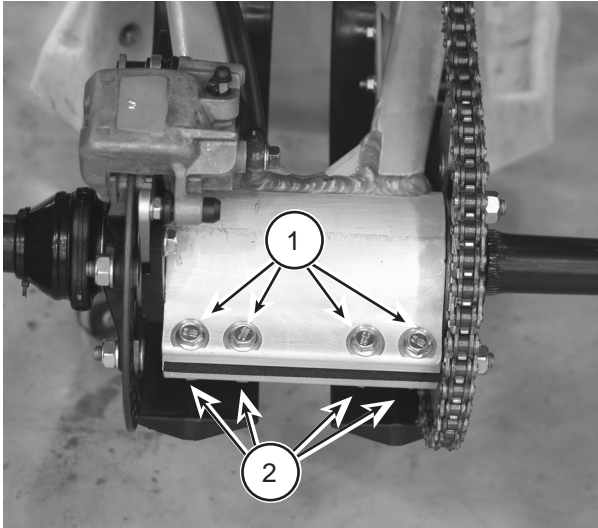
Clean and lubricate the drive chain before measuring the slack. The chain's condition affects the accuracy of measurement. Also, when measuring, rotate the chain and measure different links at the mid-point between the sprockets.

1. Place the vehicle on a level surface with all four wheels on the ground.
2. Measure the slack (a) at the middle point between the sprockets from the top of the swingarm to the bottom of the links. Adjust if out of specification.



- a. Chain slack

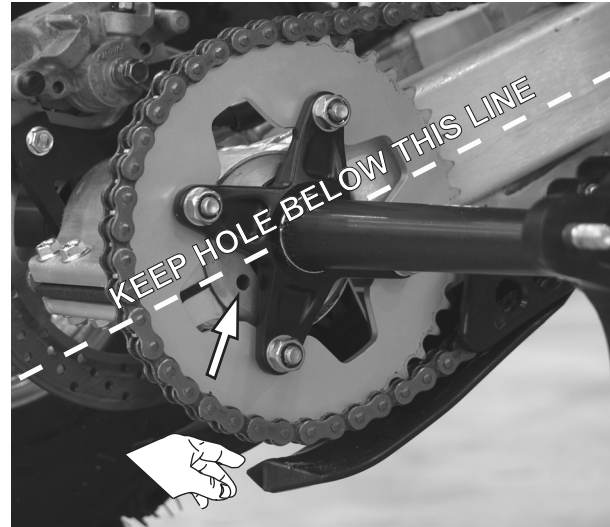
3. To adjust, loosen rear axle locking bolts.



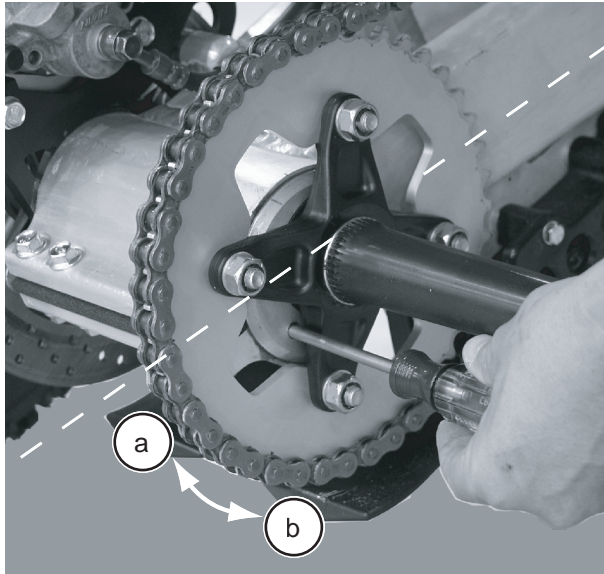
- 1. Locking bolts
- 2. Nuts

CAUTION

When adjusting drive chain slack, keep the hole in the eccentric below the rear axle midline. If the hole is adjusted above the midline, the chain will wear into the sprocket guard causing damage to the guard and the chain. (See hand figure in photo below)



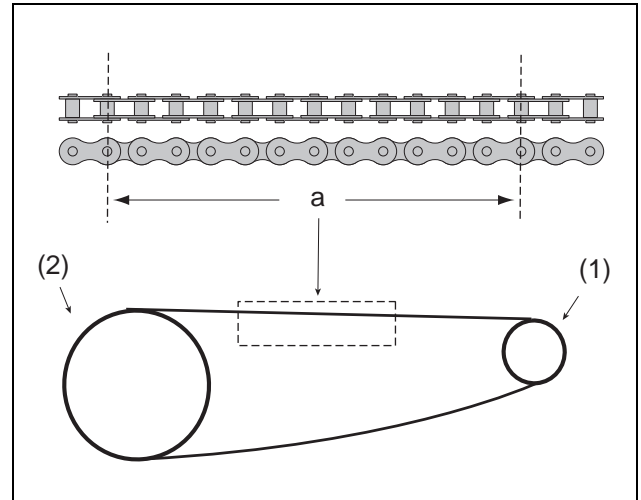
4. Insert a tool with a round shaft diameter (Philips screwdriver in photo) that closely approximates the hole in the eccentric. Then, slowly rotate the wheels in direction (a) to increase the drive chain slack or direction (b) to decrease drive chain slack. When the specified chain slack is reached, tighten the rear axle locking bolts.



- a. Increase slack
- b. Decrease slack

Drive chain stretch inspection

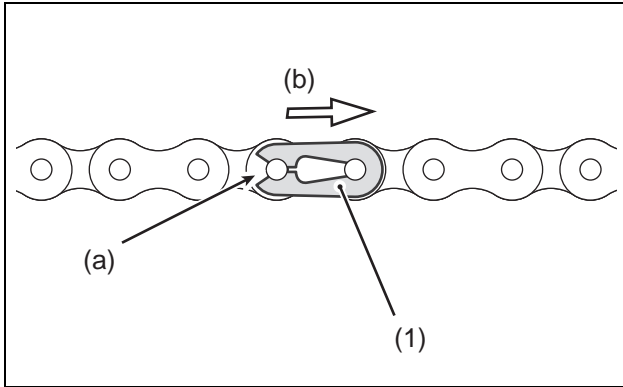
1. With the upper or lower section of the drive chain tight between the sprockets, measure the distance between the span of 13 pins from pin center to pin center. If the distance exceeds the service limit, replace the chain.
2. Measure the distance between the specified span of pins from pin center to pin center with the chain installed on the vehicle.



1. Countershaft
 2. Rear sprocket
- a. stretch measurement

Masterlink clip inspection

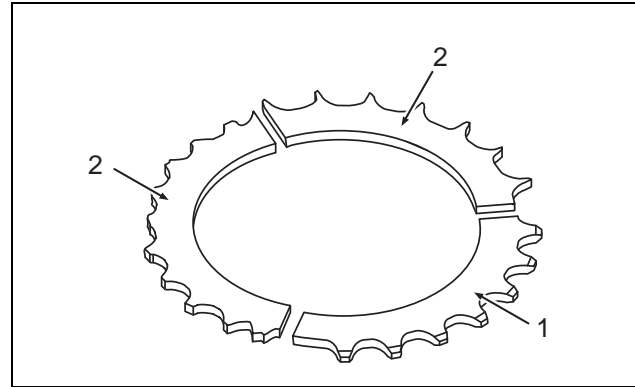
The open end of the masterlink clip must face the opposite direction of the chain rotation.



1. Master link clip
- a. Open-end
- b. Direction of chain rotation

Sprocket inspection

Visually inspect the condition of the rear countershaft sprocket(s) before every ride. If damage is found; contact an authorized Cannondale motorsports dealer.



1. OK
2. Damaged (replace)

ELECTRICAL

Troubleshooting

Many electrical problems are caused by faulty electrical connectors or couplers. For example, wet terminals/pins, dirty or corroded terminals/pins, or broken or bent cable pins within multi-plug couplers.

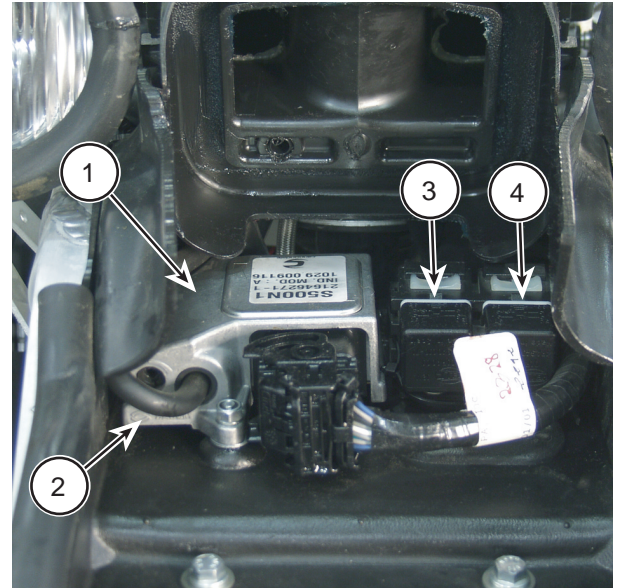
Engine Management System (EMS)

All Cannondale ATV models use an advanced fuel injection system. Engine operation is supported by an Engine Control Unit (ECU) controlling both ignition and fuel delivery. The complete system consists of three types of electrical components: the ECU, sensors, and actuators.

- **The engine control unit (ECU or ECM) precisely calculates ignition timing and fuel delivery for all engine speeds and loads (based on the currently installed calibration file and its mapping). The ECU is an extremely reliable component and should be the last component checked in the event there is a problem with the fuel injection system.**
- **The sensors of the system collect engine operating information and transmit it to the ECU.**
- **Actuators are devices like the fuel injectors, fuel pump, fuel pressure regulator, spark plug coil, and relays.**

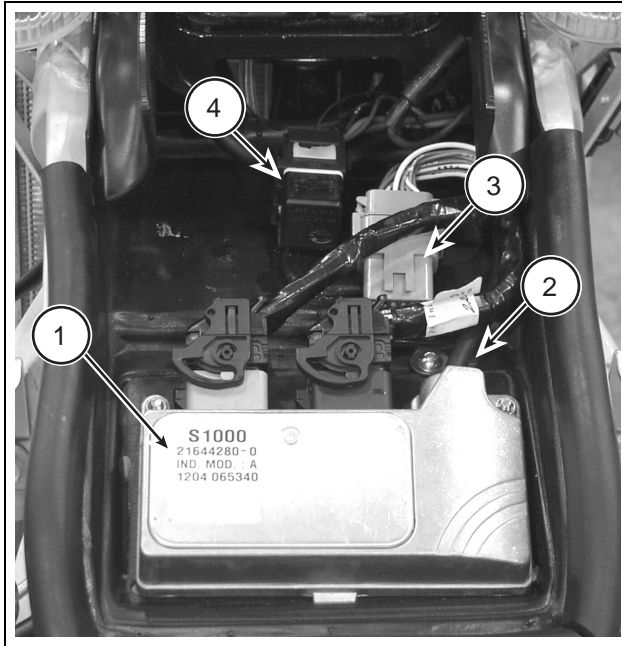
Engine Control Units - MC500 & M1000

On all models, the vehicle ECU is located on the electronics tray under the cowl.



Components have been removed for this photo.

1. MC500 ECU
2. Air pressure sensor hose (from airbox)
3. Relay
4. Relay



Components have been removed for this photo.

1. MC1000 ECU
2. Air pressure sensor hose (from airbox)
3. Data interface connector
4. ECU power relay

Barometric pressure sensor

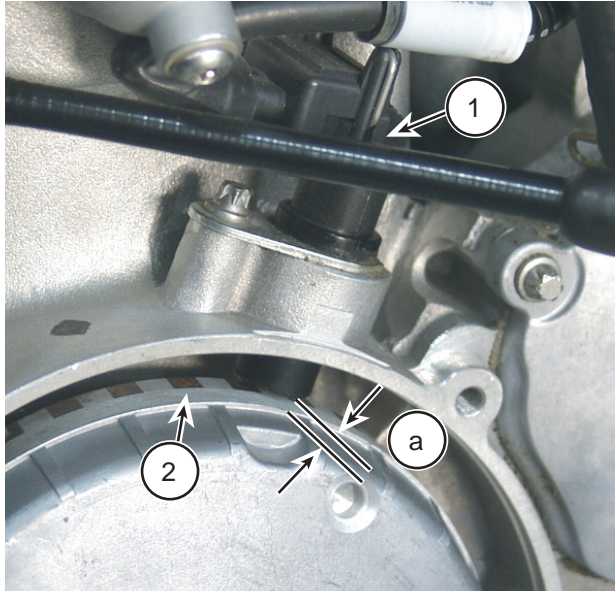
The intake air pressure (barometric) sensor is built into the ECU and is connected to the airbox plenum by a narrow hose. The sensor measures the air pressure in the airbox. Using this information the ECU determines the air density, and when other inputs are added to the ECU, the engine load is calculated. This information is then used to adjust the amount of injected fuel to match the prevailing conditions.

Crankshaft position sensor

The crankshaft position sensor is located in the generator housing. This sensor detects movement of a toothed wheel that is molded into the flywheel and attached to the right side of the crankshaft. The wheel has a 36-tooth pattern. The teeth are evenly spaced with the exception of one triple length tooth next to one triple length gap. Every time this tooth/gap passes the sensor the ECU interprets it as bottom dead center (BDC). The ECU uses this information to determine engine speed and crankshaft position in relation to the point where fuel is injected and ignition of the air/fuel mixture occurs.

NOTE :

Metallic debris or other contaminants on the sensor tip will affect the sensor.



The flywheel cover has been removed for this photo to show the sensor tip.

1. Crankshaft position sensor
2. Flywheel tooth
- a. Gap

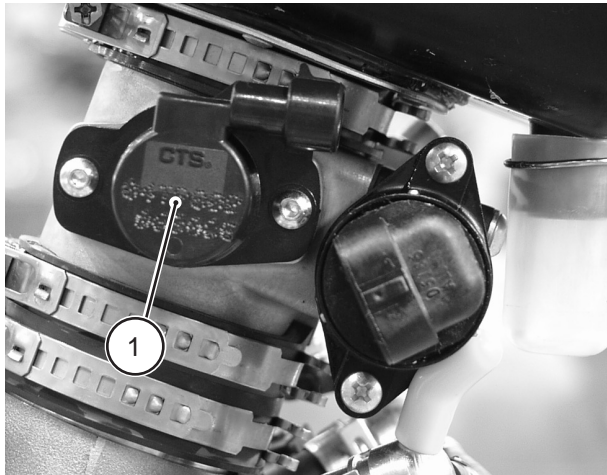
See “2002 Model Specifications” on page 161

Throttle position sensor (TPS)

The TPS is a small, black plastic sensor attached to the throttle plate shaft and located on the right side of the throttle body. The TPS is a potentiometer that gives a reading in the fully-closed position and all other throttle-plate opening angles are calculated using the fully-closed position as a base. Throttle-plate angle is used by the ECM to determine fueling requirements for all throttle positions. The signals that the TPS sends, informs the ECM of not only the position of the throttle plate, but the speed with which it is being opened or closed. The engine load is determined from the TPS and engine speed (rpm). The voltage output from the TPS increases proportionately as the throttle is opened.

Whenever the throttle body is serviced the fully closed and fully open throttle plate openings must be recorded in the ECU (MC500 or MC1000). For MC500 models, this procedure is accomplished with a special diagnostic tool. For MC1000 models, a special Windows-based software

application and data cable have been developed. Ask an authorized Cannondale Motorsports dealer for special tools developed to service your vehicle.



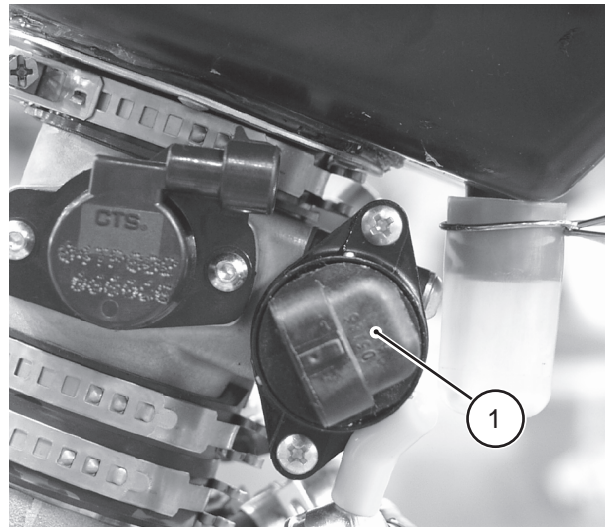
Engine shown removed for clarity.

1. Throttle position sensor

Idle air control valve (IACV)

The IACV valve is mounted on the front of the throttle body. This valve permits air to bypass the throttle plate during engine cold starting to compensate for the richer fuel mixture needed when the engine is cold. When the start button is pressed, this valve begins to move to the

correct position depending on the air and engine temperature. Be sure to follow the cold starting procedure described in this manual to ensure that you allow enough time (5 seconds) for this valve to actuate before turning over the engine. As the engine reaches operating temperature the valves will close.

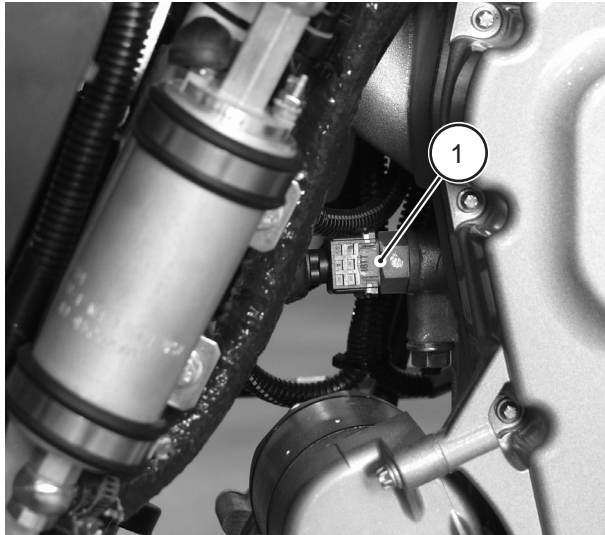


Engine shown removed for clarity.

1. Idle Air Control Valve

Coolant temperature sensor

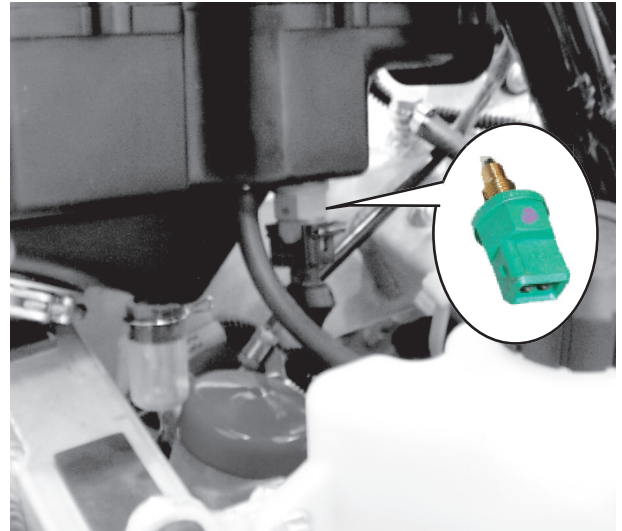
The engine temperature sensor is brown, located on the front of the cylinder head. It is an NTC thermistor. The ECM receives electronic signals from this thermistor and uses them to determine the coolant temperature. This information is used by the ECM to optimize fueling at all engine temperatures and to calculate hot and cold start fueling requirements. The sensor resistance decreases as the temperature increases.



1. Coolant temperature sensor

Air temperature sensor

The intake air temperature sensor is green. It is mounted on the front area of the airbox (base). It is a NTC thermistor. The ECM uses the information from this sensor to calculate the fuel necessary for a given air temperature (based on information from other sensors).

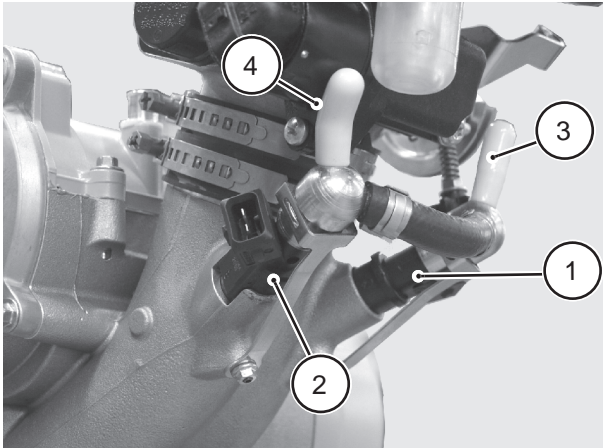


NOTE :

Components have been removed for this photo. Here the airbox is lifted to reveal the sensor location.

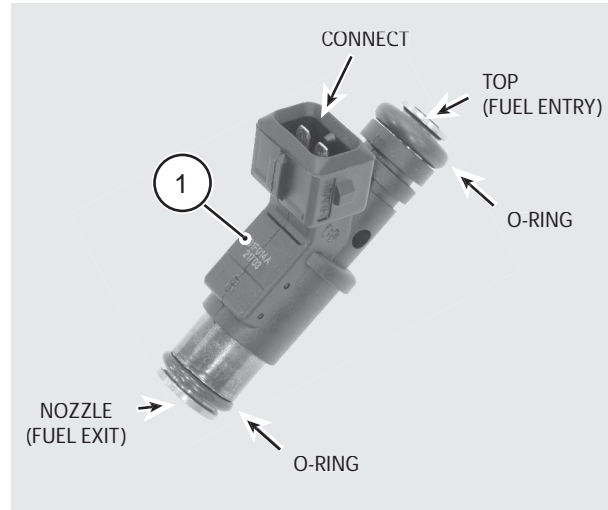
Fuel injectors (left and right)

The fuel injectors are mounted in the cylinder head intake tract and are positioned as close as possible to the back of the intake valves. The spray pattern and flow rate of the injectors are fixed, but the length of time they remain open varies. The duration that the injectors stay open is calculated by the ECU using the calibration file and data received by the various sensors.



Engine shown removed for clarity.

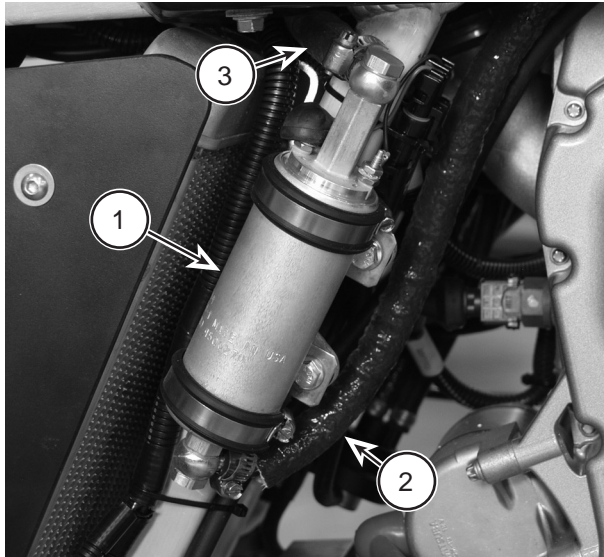
1. Left fuel injector
2. Right fuel injector
3. Fuel inlet (from fuel pump outlet)
4. Fuel outlet (to pressure regulator)



1. Fuel injector (left or right)

Fuel Pump

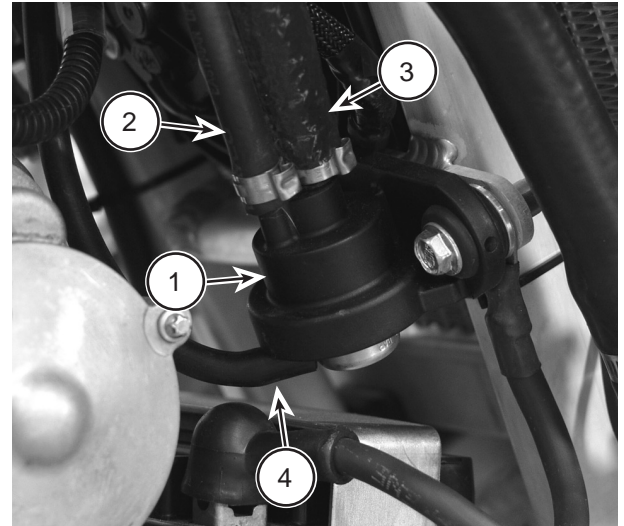
The fuel pump is located on the left side of the vehicle (front). When the engine management system is first “powered-up” this pump activates for 3 seconds to pressure the fuel system then turns off again until the engine starts. When the engine starts, it resumes pumping providing pressurized fuel to the injectors.



1. Fuel pump
2. Fuel inlet (from tank)
3. Fuel outlet (to injectors)

Fuel Pressure Regulator

The fuel pressure regulator is mounted on the right side of the vehicle (front). This device maintains the correct fuel pressure in the fuel rail (hoses and injectors). It returns fuel to the tank after it passes the fuel injectors.



Components have been removed for this photo.

1. Fuel pressure regulator housing
2. Fuel hose (from injectors)
3. Fuel hose (return to tank)
4. Air pressure hose (from airbox)

Ignition coil

The ignition coil is a “pencil-type” coil located on top of the spark plug within the cylinder head. The ECU controls when the coil is switched on or off. The coil is switched on to allow sufficient time for the coil to charge to a level where a spark can be produced at the spark plug. The coil switches off at ignition, which is timed for good engine performance.

Fuse

See “2002 Model Specifications” on page 161 for the specified fuse rating.

The fuse holder is located in the left front fender area. When a fuse blows repeatedly, it usually indicates a short circuit or current overload in the electrical system. The problem could be intermittent or constant. In either case, don’t ride the vehicle because an electrical fire could lead to a serious accident. If you experience frequent fuse “blows,” have the vehicle inspected by an authorized Cannondale dealer.



POTENTIAL HAZARD

Electrical fire or damage to the ATV electrical system

WHAT CAN HAPPEN

A malfunctioning electrical system increases the risk that you may be seriously injured or killed while operating the vehicle. For example, an electrical fire can develop from a system overload or you could lose vehicle lighting. Using a fuse with a rating other than specified or using other materials in place of the fuse will cause damage to system.

HOW TO AVOID THE HAZARD

Always use a replacement fuse of the specified rating.

Never use other materials in place of the fuse.

If a fuse blows immediately after replacement have the electrical circuits checked by an authorized Cannondale motorsports dealer.

Always turn OFF the ignition switch when checking or replacing the fuse. Otherwise a short circuit may occur.

Check the condition of the wiring harness and connectors before replacing a blown fuse.

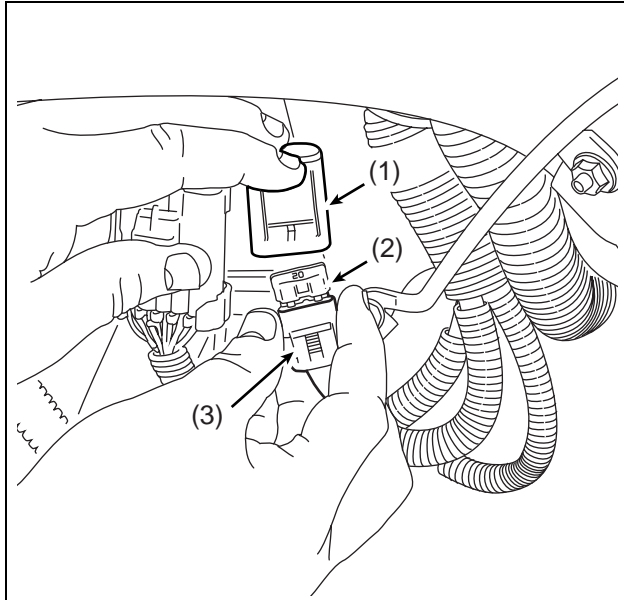
Make sure the ignition switch is OFF.

NOTE :

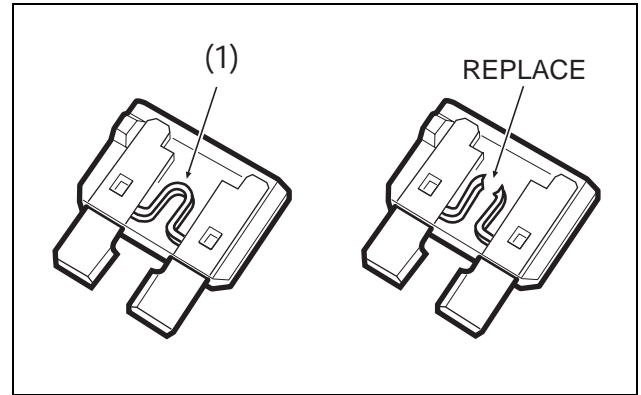
Turning the ignition switch OFF will isolate some areas of the electrical system. It is an added step in circuit protection. See your vehicle’s wiring diagram.

1. Turn the ignition switch OFF.

2. Remove the fuse holder from the cap.
3. Remove the fuse and replace with the specified fuse. .



1. Cap
2. Fuse
3. Holder



1. Link
4. If the fuse immediately blows again, check the electrical circuits.

Lighting

NOTE :

Always wipe off a newly installed bulb with alcohol-dampened clean cloth or tissue. Oils from your fingers can cause premature bulb failure.

Headlight bulb replacement

1. Remove the headlight cover (left or right).
2. Disconnect the headlight harness connector.
3. Turn the bulb unit counterclockwise to remove it from the headlight housing.



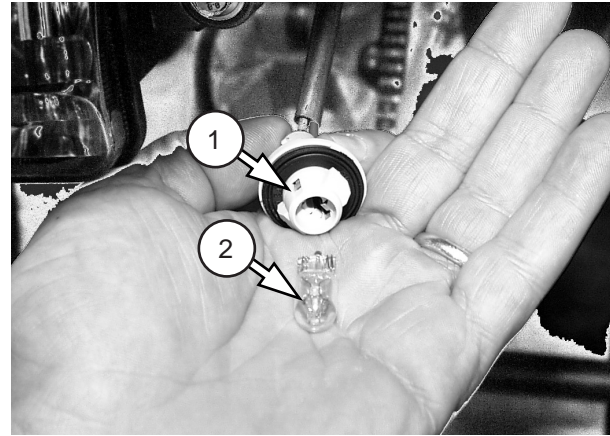
4. Install a new bulb unit into the housing.

5. Reconnect the harness.
6. Test for proper operation.

Taillight bulb replacement

Turn the bulb mount counterclockwise and remove it from the housing.

1. Pull the bulb out from mount and install a new bulb.



1. **Bulb mount**
2. **Bulb**

2. Reinstall the mount into the taillight housing.
3. Test for proper operation.

Battery

All models use a sealed type battery therefore they do not require any maintenance other than routine charging such as during storage and cleaning. Always have the battery serviced by an authorized Cannondale motorsports dealer.

CAUTION

Never attempt to add water to a maintenance-free battery. Never allow a battery to stand in a discharged condition.



WARNING

POTENTIAL HAZARD

Attempting to open the battery, remove the cap strip or add fluids to this maintenance free battery.

WHAT CAN HAPPEN

Could release poisonous gas and corrosive fluid which could injure you severely.

HOW TO AVOID THE HAZARD

Never attempt to open the battery cap strip. Keep sources of ignition away from the battery (e.g. cigarettes, flames, or sparks).

Spark plug

See “2002 Model Specifications” starting on page 161.

CAUTION

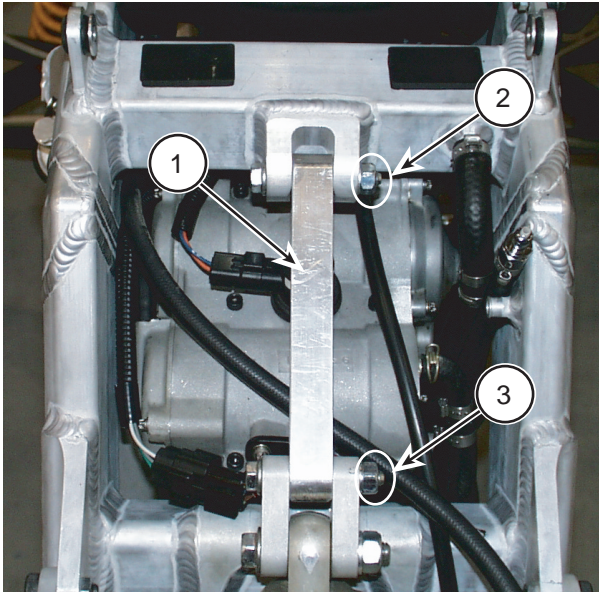
Place a clean shop towel over the cylinder head to help guard against dirt or other object falling into the combustion chamber when the spark plug is removed.

NOTE :

Accessing the spark plug requires a moderate degree of mechanical skill and the appropriate tools.

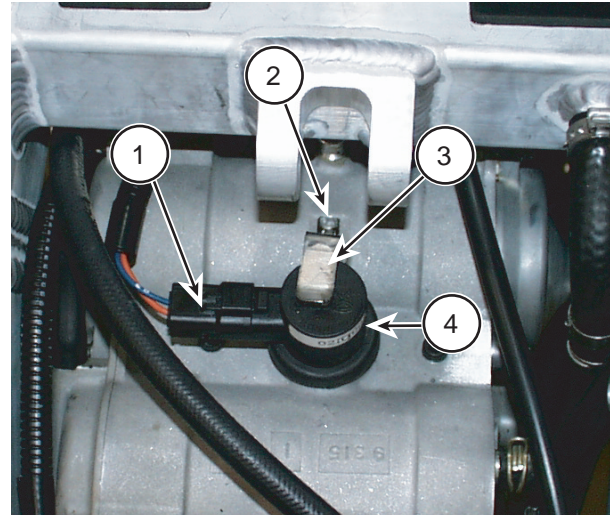
1. Remove the seat.
2. Remove the cowl.
3. Remove the side panels.
4. Remove the rear fender.
5. Remove the fuel tank.

6. Remove the upper shock strut bolt. Loosen the lower frame spar bolt enough so that it can be tilted back.



- 1. Spar
- 2. Upper bolt
- 3. Lower bolt

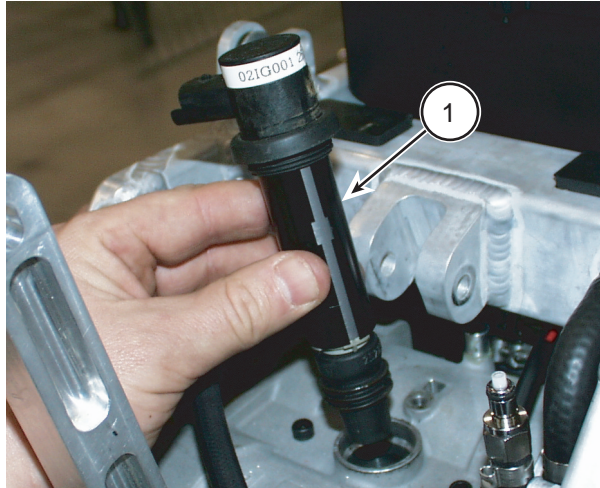
7. Tilt the shock strut back and disconnect the coil from the wiring harness.



- 1. Connector
- 2. Coil holder
- 3. Bolt
- 4. Coil

8. Remove the spark plug coil holder bolt and clip.
9. Clean the area surrounding the coil to prevent dirt from entering the cylinder head when the coil and spark plug are removed.

10. Lift out the spark plug coil.



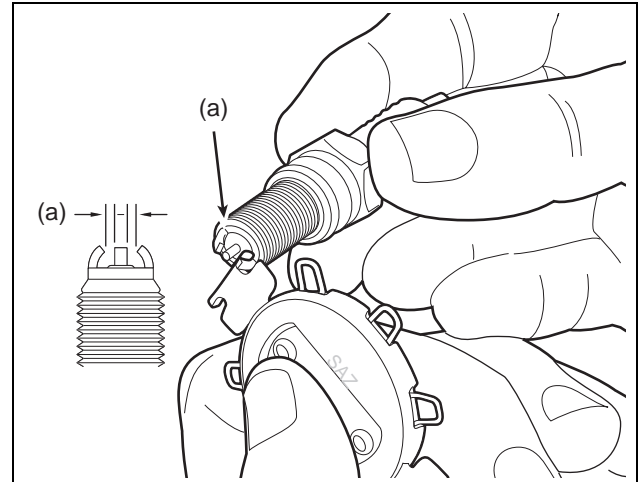
1. Coil

11. Use a spark plug socket and long extension to loosen and remove the spark plug from the cylinder head.

NOTE :

Spark plugs are good indicators of the engine's operating condition. Examining the condition of the spark and physical signs produced by various engine conditions (normal and abnormal) should be left to a qualified service technician.

12. Before reinstalling the spark plug measure each gap (a) with a wire gauge or feeler gauge. If either gap is out of specification, adjust it.



a. gap

13. Lightly coat the threads with a suitable anti-seize compound; this will allow for easier plug removal in the future.

14. Install the spark plug into the cylinder head and tighten to the specified torque.

15. Reinstall removed components.

AIR

Air filter element cleaning

The air filter is located under the cowl.

WARNING

POTENTIAL HAZARD

Fire or explosion, filter damage

WHAT CAN HAPPEN

Using gasoline or other low flash point solvents to clean the air filter can result in a fire or explosion.

HOW TO AVOID THE HAZARD

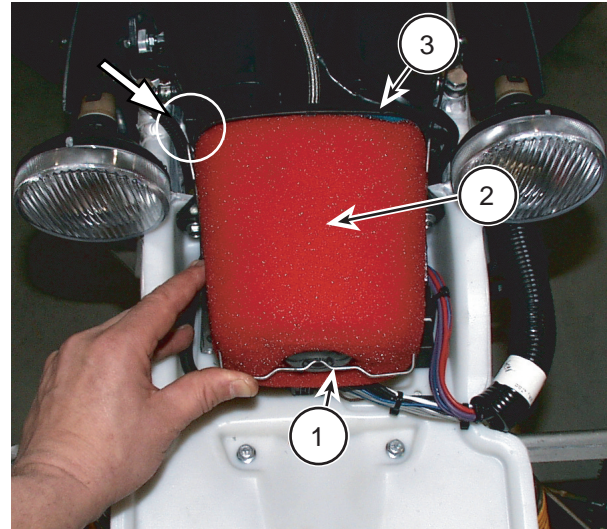
Use a non-flammable (high-flash point) solvent to clean the air filter elements.

CAUTION

Don't operate the vehicle with the air filter removed. Unfiltered air entering the engine will cause rapid engine wear and severe damage.

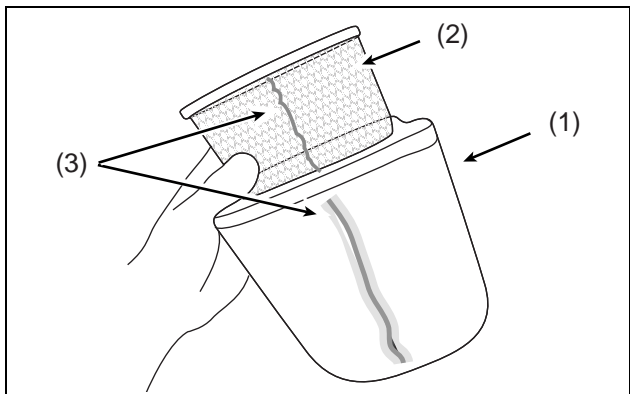
Always clean the area surrounding the air filter before removing it to lessen the chance of contaminating the airbox with foreign objects, water, dirt or other debris.

1. Remove the cowl.
2. Release the filter retaining clip and remove it.
3. Remove the air filter from the air filter base plate.



1. Clip
2. Filter
3. Base plate

- Carefully separate the foam and cage.



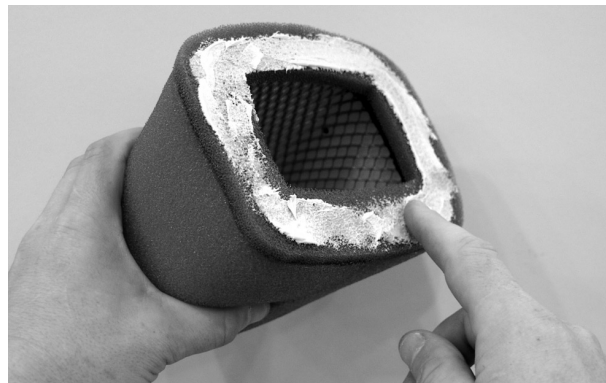
- Foam element
- Cage
- Seams (align them when reinstalling)

- Clean the cage with a non-flammable (high-flash point) solvent. Clean foam element with an air filter specific cleaning solvent. Rinse the element in warm water and allow to dry.

CAUTION

Don't ring (twist) the foam to remove water- you can damage the foam - squeeze it gently.

- Coat the outer surface of the foam with a high-quality foam air filter oil. Even if you use a spray or pour type oil, be sure to massage the foam to ensure a good application throughout.
- Recombine the cage and foam element. Be sure to install the foam onto the cage so that the seam in the foam is aligned with the seam in the cage.
- Now, apply a thin film of a high-quality water-proof grease to the foam filter base (area that contacts the base plate).



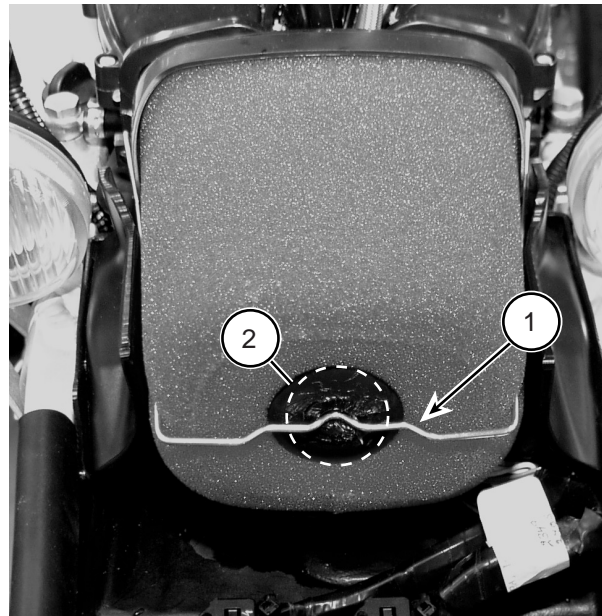
- Position the bottom (seam side) of the air filter onto the lower edge of the base plate. Then, tilt the top edge of the filter into the upper edge of the base plate. This helps avoid "bunching" the foam element off the cage in

the area indicated in the photo below. If the filter is installed carelessly, the result may be creating a path for unfiltered air to bypass the filter.



This photo shows the area where, if the airfilter is installed incorrectly, the foam element can drag away from the cage allowing unfiltered air to bypass the filter.

10. Apply a small dab or waterproof grease to the end of the air filter and reinstall the retaining clip.



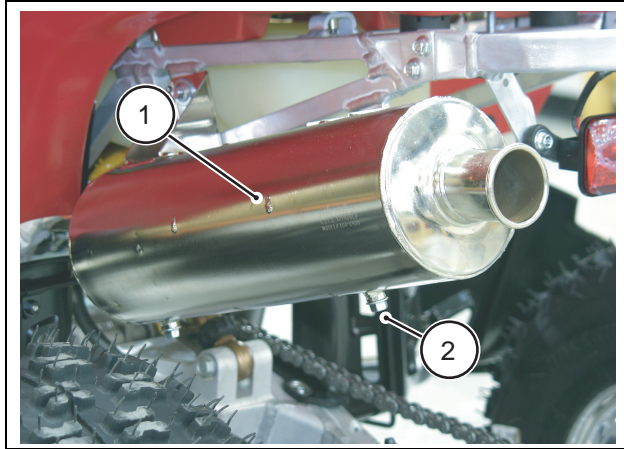
1. Clip
2. Area to apply waterproof grease

11. Reinstall the removed components.

EXHAUST

Spark arrester cleaning

The spark arrester must be purged of carbon build up at the intervals specified in the maintenance schedule of this Owner's Manual.



1. Muffer/ spark arrester
2. Purge bolt

1. Move the vehicle to a suitable outdoor location. Place the vehicle on a level surface, shift the transmission into NEUTRAL and apply the parking brake. Make sure the engine and exhaust system are completely cool.
2. Remove the purge bolt, and start the engine.
3. Increase the engine speed with the throttle lever repeatedly while momentarily blocking the end of the muffer / spark arrester with a clean shop towel, then quickly remove it. This technique causes brief system back pressure and will force carbon build-up out the purge bolt hole. Also, while performing this procedure to help dislodge carbon build-up, gently tap the muffer housing with rubber mallet. Continue this technique and discontinue after 1 minute. Limiting yourself to under 1-minute helps reduce the risk of burns from the exhaust system which will reach very high temperatures.
4. Stop the engine and allow it to cool completely. Then reinstall the purge bolt securely.

SUSPENSION

The front and rear suspension systems are pre-set at the factory with settings developed for an average rider (weight & skill). Choosing individual settings will depend on your skill level, weight, and riding style (preferences). The adjustability of the suspension system varies with the type of shock installed.



WARNING

POTENTIAL HAZARD

Unevenly adjusted front shocks

WHAT CAN HAPPEN

Uneven adjustment will result in poor handling and/or loss of vehicle stability. You can lose control of the ATV and suffer severe injury or death in a resulting accident.

HOW TO AVOID THE HAZARD

Always adjust both front shock absorber spring preload and compression and rebound settings to the same setting.

CAUTION

Before you adjust the front or rear shock, be sure to consult the model specification section of this manual for the suspension components installed and the applicable settings and service limits. See “2002 Model Specifications” starting on page 161.

Do not turn the adjusters beyond the fully closed position (fully seated). Using too much force when closing the adjusters will destroy important sealing surfaces.

Adjustment Tips

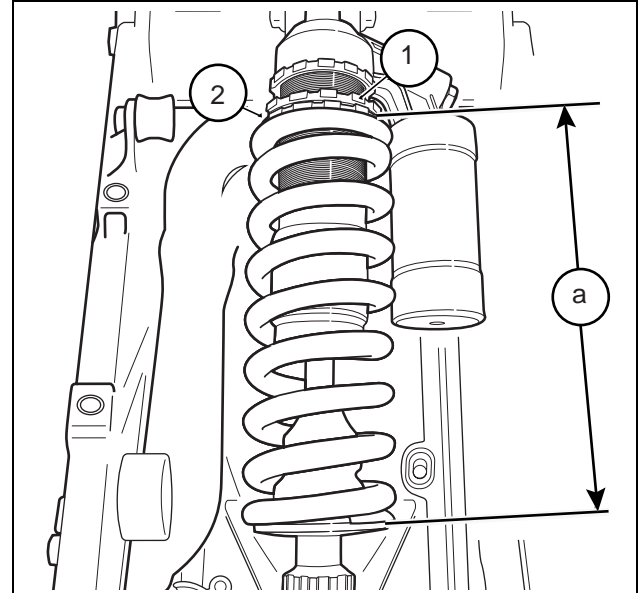
- When making adjustments, make them one at a time and in small steps.
- The external adjusters have a normal right-hand thread. As you turn the external adjusters, you will hear them click. Each click identifies a setting.
- To avoid turning the adjuster in the wrong direction, always fully close the adjuster (turn it clockwise until it seats), then turn it counterclockwise the required number of clicks until the desired setting is reached.
- Click position 0 (zero) is when the adjusters are turned clockwise until they are fully closed (i.e.,

fully seated). This is the hardest damping and should be your starting point. Turn the adjuster counterclockwise and listen for the clicks that identify setting positions “1”, “2”, etc.

- Turning the adjusters counterclockwise (more clicks out) will give less damping force.
- Normally, the adjusters should not be adjusted more than two clicks at a time and not outside the maximum click range.
- When you think you have made an improvement, go back to what you started with and double check to be sure an improvement was made. Also, pay attention to changes in conditions (e.g., tires, air temperature).
- In general, compression damping changes should be used to influence the vehicle's stability and response, while rebound damping changes should be used to influence comfort and traction.
- When you need more damping force, you should mainly try to increase compression damping and use as little rebound damping as possible. This will result in a gain in comfort and handling performance.

Rear shock spring pre-load

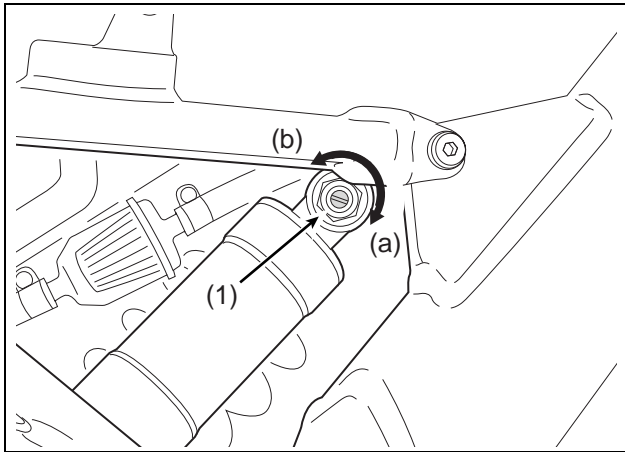
To adjust, loosen the lockring and turn the adjuster ring clockwise to increase the preload or counterclockwise to reduce the preload. Tighten the lock ring securely when finished.



1. Lockring
2. Adjusting ring
- a. Spring installed length

Compression adjuster

1. To adjust, turn the adjuster clockwise and count the clicks until the adjuster is fully seated (closed). Be sure to write down the number of clicks. This will let you know what you are adjusting from.
2. Turn the adjuster counterclockwise the desired number of clicks.

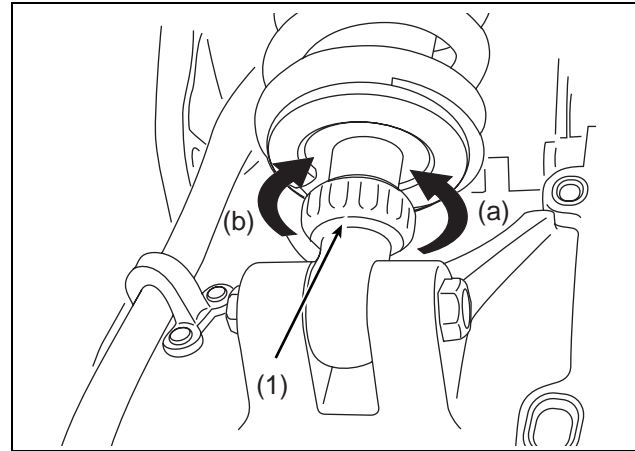


1. Adjuster

- a. More damping (stiffer)
- b. Less damping (softer)

Rebound adjuster

1. To adjust, turn the adjuster clockwise and count the number clicks until the adjuster is fully seated. Be sure to write down the number of clicks.
2. Turn the adjuster counterclockwise the desired number of clicks.



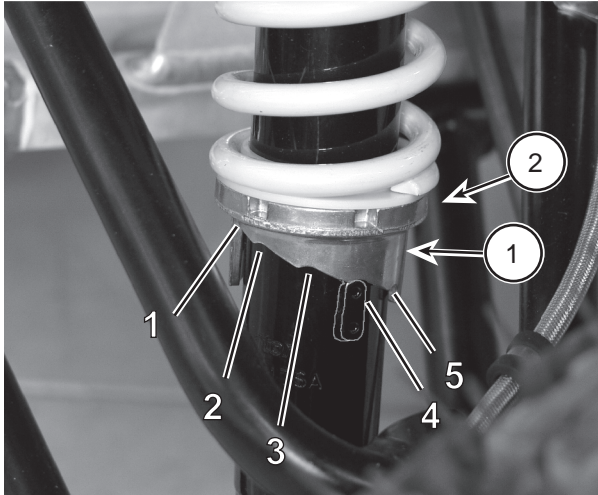
1. Adjuster

- a. Less damping (softer)
- b. More damping (stiffer)

Adjusting the front shocks

Front spring pre-load Type I

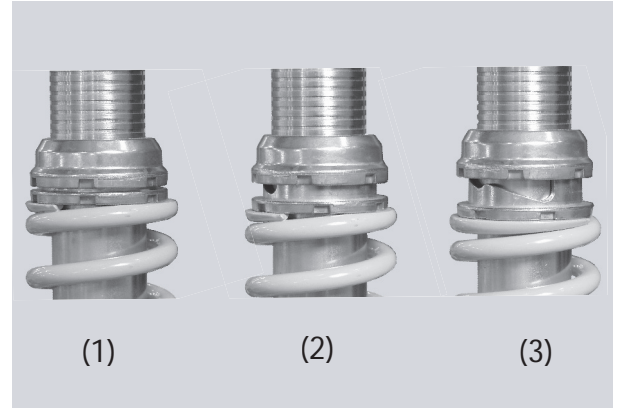
The spring adjusting sleeve has five positions so that the spring can be adjusted for different riding conditions. To adjust the preload turn the adjusting sleeve with a spanner wrench. The photo below shows a shock with settings 1-5.



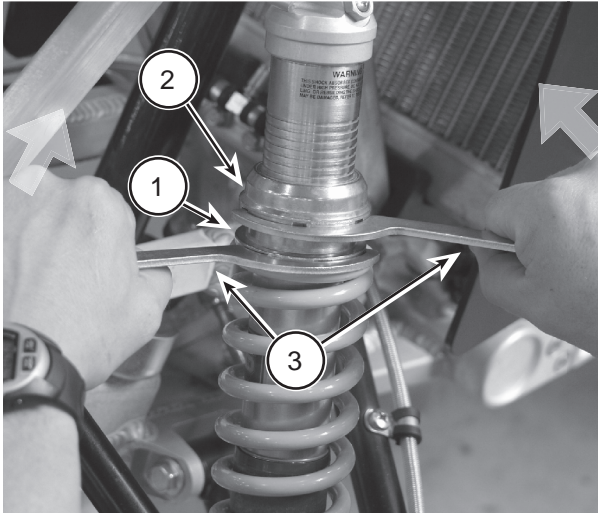
1. Adjusting sleeve
2. Turn with a spanner wrench

Front spring pre-load Type II

The spring adjusting sleeve has three positions so that the spring can be adjusted for different riding conditions. Adjust the spring preload using two spanner wrenches turning in opposite directions.



1. Minimum (softer)
2. Middle (factory preset)
3. Maximum (harder)



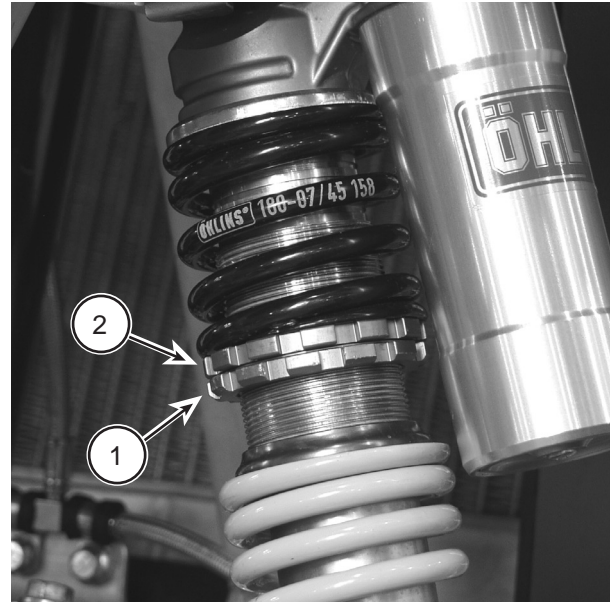
1. Cam
2. Adjusting sleeve
3. Spanner wrenches

NOTE :

This photo shows how to hold the spanners when reducing the preload. Reverse the orientation shown when increasing the preload.

Front spring preload Type III

To adjust the preload, loosen the locking and turn the adjuster ring clockwise to increase the preload or counterclockwise to reduce the preload.



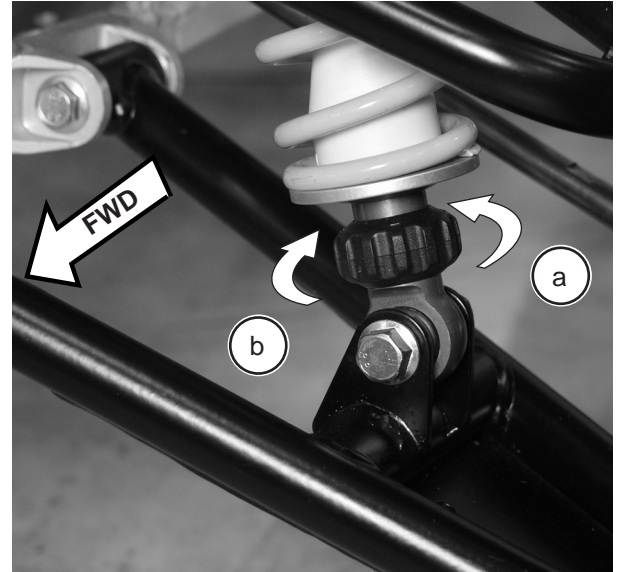
1. Adjuster
2. Locking ring

Front compression adjuster Type III



- a. More damping (stiffer)
- b. Less damping (softer)

Front rebound adjuster Type III



- a. More damping (stiffer)
- b. Less damping (softer)

WHEELS

⚠ WARNING

POTENTIAL HAZARD(S)

- (1) Damaged cotter pins (or re-using cotter pins)
- (2) Riding on damaged wheel rims

WHAT CAN HAPPEN

- (1) A damaged cotter pin can become dislodged allowing the hub nut and wheel to come off suddenly causing you to lose control.
- (2) Damaged rims will allow air pressure to escape resulting in improper tire pressure.

In either case above, you could be seriously injured or killed in the resulting accident.

HOW TO AVOID THE HAZARD

- (1) Inspect the condition of the cotter pins regularly and replace if damage is detected. Never re-use a cotter pin.
- (2) Inspect the condition of the wheel rims before every ride. If you observe bending, deep scratches, gouging, or other damage, have the rims replaced with new ones.

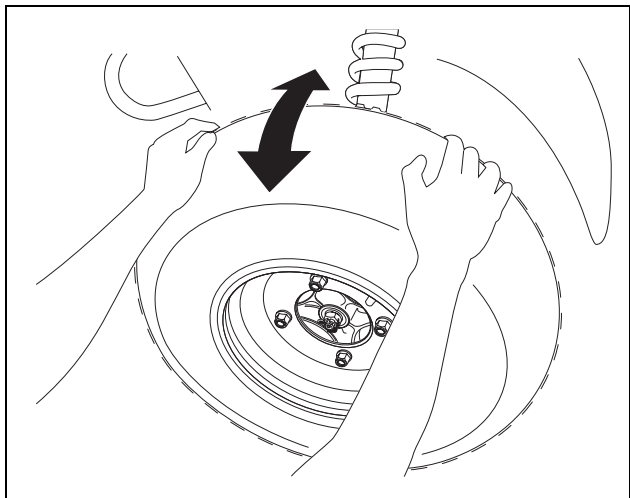
Wheel inspection

1. Check the wheel rims for damage.

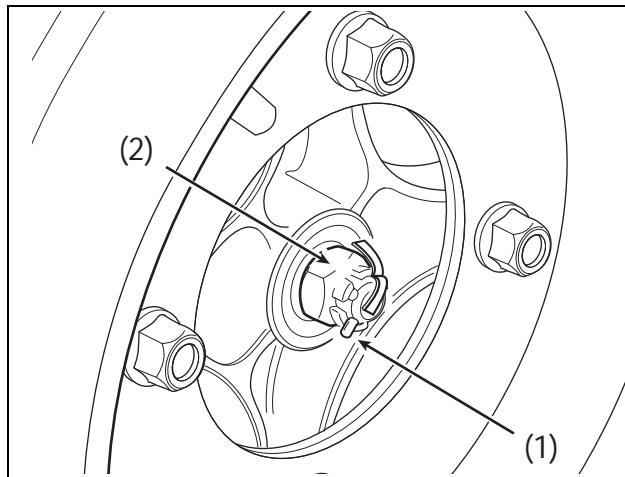


2. To check the condition of the front wheel bearings, raise the front of the vehicle so that no weight is on the front wheels.
3. Move the top of the wheel back and forth. If excessive lateral freeplay is detected, don't ride the vehicle. Excessive freeplay could be caused by worn or damaged A-arm bushings, damaged or worn wheel bearings, incorrectly adjusted or loose tie rod ends, or

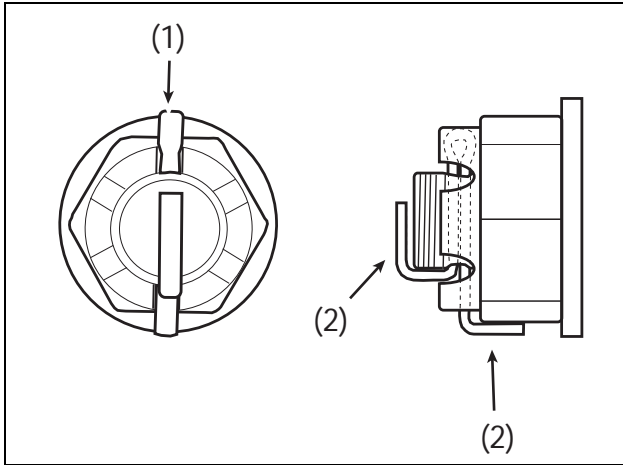
other damage in the steering assembly. Contact an authorized Cannondale motorsports dealer and have the conditions corrected.



4. Make sure the wheel axle nut cotter pins on each wheel are in good condition before every ride. Make sure the pin is not broken or damaged. It should have both tabs (or legs) and they should be bent properly.



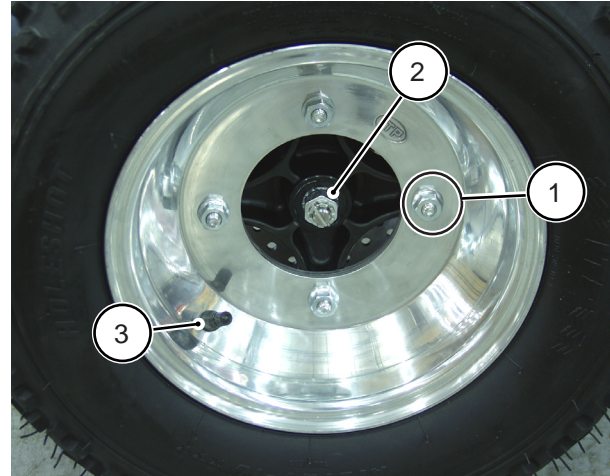
1. Cotter pin
2. Wheel nut



1. Cotter pin
2. Tab

Wheel removal / installation

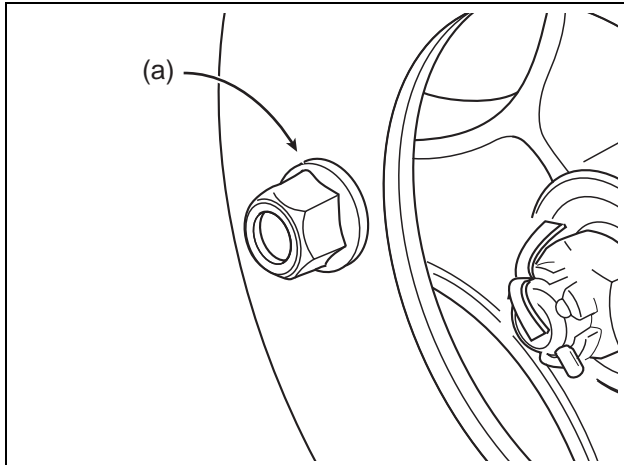
1. Place the vehicle on a level surface and block the wheels not being removed to prevent the vehicle from rolling away unexpectedly.
2. Loosen the wheel lug nuts.



This is a photo of a front wheel.

1. Wheel lug nut (4)
 2. Axle (hub) nut
 3. Valve stem
3. Now, place a stable support under the vehicle frame and raise the wheel off the ground.

4. Remove the wheel from the wheel hub.
5. To install the wheels, first make sure the wheel hub stud threads in the wheel hub are clean.
6. Apply a light coat of anti-seize lubricant to the studs.
7. Install the wheel onto the hub so that the valve stem faces out. If the wheel installed includes a directional indicator, install the wheel as indicated.
8. Install the wheel (lug) nuts. Be sure the flat side of the nuts face the wheel rim. Tighten the nuts in a criss-cross pattern.



a. Flat side

TIRES

See “2002 Model Specifications” starting on page 161.

All Cannondale ATVs are equipped with low pressure tires. The air pressure within the tires affects the ATV’s handling and stability. Check the air pressure and maintain the recommended tire pressure in each tire before every ride

Ordinary automotive tire pressure gauges are not capable of accurately reading the pressure in your ATV tires. A low pressure tire gauge was provided with your ATV. It is located with the Owner’s Manual.

WARNING

POTENTIAL HAZARD

- (1) Uneven or improper tire pressure
- (2) Improper tires

WHAT CAN HAPPEN

(1 & 2) Tire characteristics influence the handling and stability of this ATV. Use of tire types/sizes other than specified (front/rear) in this Owner's Manual or improper tire pressures can adversely affect the handling and stability (operation) of this ATV increasing your risk of an accident.

HOW TO AVOID THE HAZARD

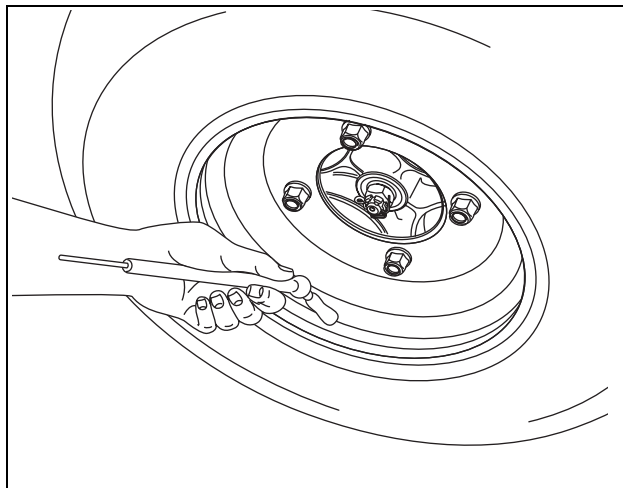
Maintain proper pressures in each of the tire.
Set pressures when tires are cold.
Maintain equal pressure in both front tires and equal pressure in both rear tires.
Always use the type and size tires specified in the Owner's Manual for this vehicle.

NOTE :

Tire pressure below the minimum specification could cause the tire to dislodge from the rim under severe riding conditions.

Tire inspection

1. Take two tire pressure measurements of each tire using the low pressure gauge while the tires are cool. Use the second reading.
2. Adjust pressure in each tire to meet tire pressure specifications for your vehicle.
3. Add air in small amounts and re-check often to help avoid overinflating. Unusual air loss might be attributed to damaged tires or rims.



4. Inspect the tire tread wear. Check the tread wear indicators and condition of the rims and tires of all four wheels.



1. Tread
2. Wear limit

5. Check the physical condition of each tire. Make sure there is adequate tread. If the tire is ripped, torn, punctured, or damaged have it replaced with a new one.

When reading this manual, remember:

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

CLEANING

Regular cleaning helps to maintain appearance and contributes to overall performance of the ATV by keeping it free of damaging dirt, soils, and grime.

- **When cleaning, avoid harsh detergents and chemical solvents.**
- **Use an ordinary garden hose and only enough water pressure to do the job.**
- **Use mild solutions of ordinary dish soaps and clean water.**
- **The advertising claims of “power” cleaning products are no substitute for careful and deliberate attention when cleaning the ATV.**

CAUTION

Don't use high-pressure (e.g., coin-operated car washes) or portable steam power washers to clean the ATV. The excessive water pressure will force dirt, water, and other contaminants into important electrical connectors and devices, bearings, engine seals, wheel bearings, seals promoting rust and corrosion. Severe damage can result.

Before you start cleaning the ATV take the following precautions:

- **Make sure the vehicle is completely cool before**

cleaning it.

- **Thoroughly dry the vehicle after washing it.**
- **Cover the rear muffler opening, brake lever and pedals, start and stop switch, clutch lever, throttle with plastic bags secure with strong rubber bands.**
- **Cover the ignition switch keyhole with tape.**
- **Make sure all filler and check caps are tightened securely.**

After washing

- **Remove all plastics bags.**
- **Lubricate the front brake lever and rear brake pedal with clean engine oil.**
- **Lubricate the tie-rod ends using the grease fittings. Use a high quality lithium soap-based grease.**
- **Test the brakes before operation. Wet brake discs and pads reduce braking efficiency.**
- **Start the engine and allow to run for 5 minutes.**

STORAGE

When the vehicle will not be operated for an extended period of time (e.g., winter months, 45 days or more), it is necessary to perform certain procedures to guard against deterioration and to make sure it is in perfect running condition when the riding season begins.

1. Change the engine and transmission oils and clean the filters.
2. Perform all necessary repairs.
3. Either drain the fuel tank completely or fill it with fresh fuel. Add a good quality fuel stabilizer directly to the tank. Fuel stabilizer can be purchased at most automotive parts or large department stores. Make sure you follow the directions on the product label.
4. Remove the air filter and thoroughly clean the area surrounding the airbox.
5. Start the engine. With the engine idling spray (for 10 - 20 seconds) a high-quality engine fogging oil into the airbox base plate directing the spray toward the intake funnel inside the airbox.
6. Shut off the engine and allow to cool.
7. Clean, re-oil and install the air filter.
8. Plug the hole in the muffler with a clean shop towel and cover the towel with a clean plastic bag. Secure the bag with a rubber band.
9. Thoroughly clean and dry the vehicle.
10. Remove the battery and store it where it will not be exposed to direct sunlight a clean, dry area.

11. Position the vehicle on a level surface and block the wheels to prevent the wheels from moving.
12. Remove the ignition key.

TRANSPORTING



WARNING

POTENTIAL HAZARD

Towing

WHAT CAN HAPPEN

You can lose control while attempting to tow or being towed.

HOW TO AVOID THE HAZARD

Never tow anything with this ATV, or tow this ATV with any other vehicle.



WARNING

POTENTIAL HAZARD

ATV may roll off the truck or trailer

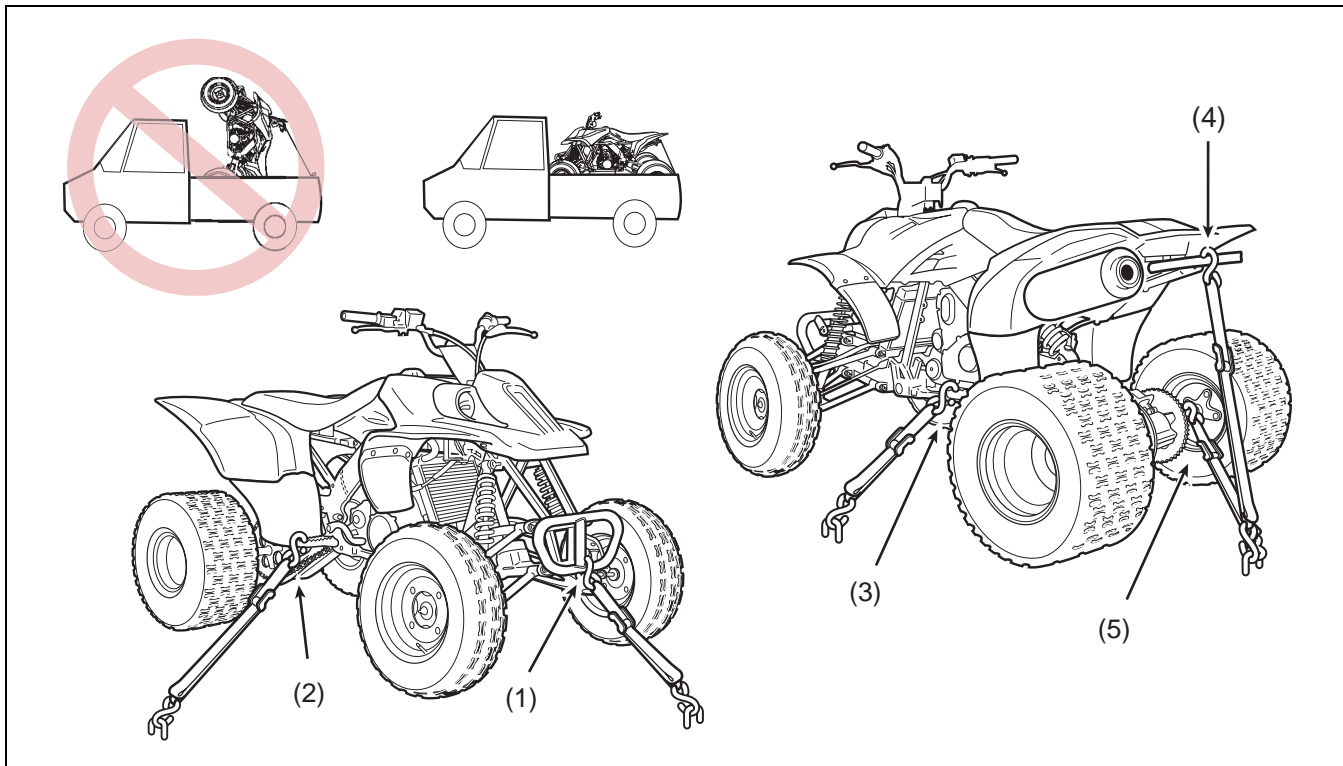
WHAT CAN HAPPEN

Ordinary ropes can stretch and break. The parking brake on this vehicle is not designed to prevent a roll-away during transport. A properly applied parking brake can slowly release braking force resulting in this ATV becoming unstable during transport.

HOW TO AVOID THE HAZARD

Only use “tie-downs” designed for cargo securing application. See a Cannondale motorsports dealer. Never rely solely on the parking brake on this ATV to secure the vehicle during transport.

1. Make sure all four wheels are positioned squarely on a level surface (the normal operating position).
2. Make sure the fuel cap is tightened securely.
3. Apply the parking brake and shift the transmission into NEUTRAL.
4. Secure the vehicle with suitable tie-downs in the locations shown - compress suspension slightly when tightening the tie-downs.



- 1. Brush guard
- 2. Right footpeg

- 3. Left footpeg
- 4. Grab rail

- 5. Rear axle

TORQUE TABLE

Item	Torque		
	lb•ft	N•m	kgf•m
Cowl support bracket bolts (cowl)	5.0	6.8	0.69
Cowl mounting bolts	5.0	6.8	0.69
Side panel mounting bolts	5.0	6.8	0.69
Rear fender mounting bolt	5.0	6.8	0.69
Engine oil spar drain bolts (left/right)	15.0	20.3	2.07
Engine oil bolt (crankcase)	6.0	8.1	0.83
Engine oil filter cover bolt	3.3	4.5	0.47
Transmission oil check bolt	5.0	6.8	0.69
Transmission oil drain bolt	6.0	8.1	0.83
Coolant bleed screw	3.3	4.5	0.47
Banjo bolt (brake)	14.0	19.0	1.9
Brake caliper mounting bolts (front/rear)	22.0	30.0	3.04
Rear brake disc carrier bolts (allen type)	1.5	2.0	0.21
Front/rear brake disc mounting bolts	25.0	33.9	3.46
Brake pedal adjusting locknut	13.0	17.6	1.8
Adjuster locknut (clutch)	3.3	4.5	0.47
Clutch release collar locknut	3.3	4.5	0.47
Clutch cover bolts	3.3	4.5	0.47
Transmission shift lever pinch bolt	5.0	6.8	0.69
Rear sprocket mounting bolts	35.0	47.5	4.83

Item	Torque		
	lb•ft	N•m	kgf•m
Sprocket/disc guard mounting bolts	5.0	6.8	0.69
Chain guide block mounting bolts	5.0	6.8	0.69
Wheel lug nuts (front/rear)	35.0	47.5	4.83
Front axle nut	35.0	47.5	4.83
Rear axle nut	125.0	169.5	17.28
Rear axle locking bolts	15.0	20.3	2.07
Spark plug	20.0	27.1	2.77
Upper/lower rear shock strut bolts	25.0	34.0	3.47
Front/rear shock mounting bolts	40.0	54.2	5.53
Swingarm pivot nut	55.0	74.6	7.60
Tie rod studs	45.0	61.0	6.22
Steering stop plate mounting bolts	7.4	10.0	1.02
A-arm mounting bolts	35.0	47.5	4.83
Footpeg mounting bolts	20.0	27.1	2.77
Engine rail mounting bolts	20.0	27.1	2.77
Ball joint nuts	35.0	47.5	4.83
Brush guard mounting bolt	22.5	30.5	3.11
Grab rail mounting bolts	22.5	30.5	3.11
Handlebar clamp bolts	20.0	27.1	2.77
Handlebar mounting bolts	25.0	34.0	3.47

TROUBLESHOOTING

NOTE :

The troubleshooting items listed here are provided as a rough guide to assist in some of the more common difficulties. For more complete systems troubleshooting, consult the vehicle chassis manual.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Engine turns over but will not start or is hard to start	Fuel deterioration, water in fuel or no fuel in tank.	Drain fuel and replace with fresh fuel.
	Fouled spark plug	Replace with a new spark plug.
	Low compression	Piston ring is worn or stuck Cylinder is worn.
	Battery voltage is low, discharged. The terminals are loose or corroded	Charge and/or clean the battery.
	Fuel pump, injectors, or pressure regulator is leaking or faulty or fuel filter is clogged. Fuel tank vent hose clogged or kinked.	Verify fuel pump operation: Press the start button without starting the engine. If the pump does not operate, check the electrical connections to the pump. Check the fuel system for leaks. Replace fuel filter.
	Debris on the crankshaft sensor tip or an incorrect gap.	Check sensor.
	(MC500 only) ECU power-down.	Reset the ECU by turning the ignition switch to the "OFF" position and then back "ON" to reset the ECU timer.

Engine will not turn over.	Battery voltage is low or the terminals are loose.	Charge the battery or secure the terminals.
	Fuse blown.	Replace the blown fuse.
	Ignition is in the "OFF" position	Turn the ignition to the "ON" position.
	Engine stop and start switches are faulty.	Check.
	Solenoid faulty.	Replace.
Engine starts hard when hot.	Air filter clogged	Clean or replace.
	Fuel not reaching the fuel injection system.	Change fuel filter.
	Corroded battery terminal	Clean.
	Fouled spark plug	Replace.
	Clogged air filter.	Replace or clean.
	Faulty solenoid.	Test, replace.
Spark plug fouls repeatedly	Fuel return line blocked	Inspect.
	Fuel regulator faulty.	Replace
	Incorrect calibration file.	Replace
	Corroded batter terminals.	Clean

Engine lacks power.	Throttle body air boots are loose or damaged.	Tighten.
	Faulty or incorrectly gapped spark plug.	Replace.
	Faulty ignition coil.	Replace.
	Fuel filter clogged.	Clean or replace.
	Deteriorated or contaminated fuel.	Replace.
	Faulty fuel pump.	Repair or replace.
	Fuel pressure is low.	Inspect for leaks. Inspect fuel regulator.
	Fuel deterioration	Replace fuel.
	Brake dragging.	Adjust the brake system.
	Air filter is clogged.	Clean or replace.
Overheating	Compression release damaged	Replace.
	Air pocket in water system	Bleed coolant add if necessary.
	Low coolant level.	Add coolant.
	Coolant leak in engine.	Repair.
	Water pump impeller malfunction	Repair or replace.
Engine stalls.	Coolant bottle cap loose.	Tighten
	Fuel deterioration.	Drain, fill with fresh fuel.
	Fouled spark plug.	Replace spark plug.
	Fuel hose clogged.	Clean or replace.
	Air filter clogged	Clean or replace.

MAINTENANCE RECORD

It is important to keep accurate records of maintenance service. This data is vital for referencing previous work or knowing what type of tuning was performed under certain conditions.

DATE	SERVICE	REMARKS

2002 MODEL SPECIFICATIONS

NOTE :

Specifications subject to change without notice

ENGINE

	CANNIBAL	SPEED	BLAZE	MOTO 440
Engine	4 - stroke single			
Bore and stroke	95 mm x 61 mm			
Compression ratio	12.5: 1			
Displacement	432 cc			
Engine Management System	MC500,MC 1000	MC1000		
Coolant system	Liquid cooled			
Coolant	1:1 water/anti-freeze [ethylene glycol (containing corrosion inhibitors for aluminum engines and radiators)]			
Ignition system	Constant - energy inductive coil			
Starting system	Electric			
Compression release	Automatic			
Transmission	5-speed cassette (no reverse)			
Final drive	2WD / chain			
Primary reduction ratio	3.071 (86/28)			

ENGINE

	CANNIBAL	SPEED	BLAZE	MOTO 440
1st gear ratio	2,000 (30/15)			
2nd gear ratio	1.588 (27/17)			
3rd gear ratio	1.316 (25/19)			
4th gear ratio	1.095 (23/21)			
5th gear ratio	0.833 (20/24)			
Countershaft sprocket	13T			
Rear sprocket	42T			38T
Clutch type	Wet, multi-disc			
Clutch plates	10 metal, 9- friction			
Engine idle speed	2100 - 2200 r/min			
Spark plug, standard	NGK (CR10EK)			
Spark plug gap	0.024 - 0.028 in (0.6 - 0.7 mm)			
Crankshaft position sensor gap	0.00 in (0.5 -1.0 mm)			
Valve clearance	IN .006 -.008, EX.013 -.015			
Fuel	Premium unleaded (Anti-Knock Index 93 or higher)			
Fuel filter replacement	FRAM G4164 or equivalent			
Fuel regulator pressure	43.5 psi (3 bar)			

ENGINE

	CANNIBAL	SPEED	BLAZE	MOTO 440
<p>Engine oil</p> <p>Recommended viscosity: 10W40</p> <p>Synthetic or semi-synthetic</p> <p>Classification: Use only high-detergent, premium quality motor oils with the American Petroleum Institute (API) service classification SF or SG type displayed on the container.</p> <p>NOTE :</p> <p><i>Other viscosities can be used when the average temperature range is within the indicated range.</i></p>	<p>TEMP (C°) -20 -15 -10 -5 0 5 10 15 20 25 30 35 40</p> <p>TEMP (F°) -4 5 14 23 32 41 50 59 68 78 86 95 104</p> <p>0W 40</p> <p>10W 30</p> <p>10W 40, 10W 50</p> <p>15W 50</p> <p>20W 50</p>			
	<p>CAUTION</p> <p>Be sure to change the engine oil and clean/replace the filters in accordance with the vehicle maintenance schedule. Service more frequently when operating under severe conditions.</p>			

ENGINE

	CANNIBAL	SPEED	BLAZE	MOTO 440
Engine oil quantity (dry fill)	1600cc (1.7 US qt.)			
Transmission oil	80W or 85W (Do not use hypoid gear oils)			
Transmission oil quantity (dry fill)	600cc (0.85 US qt.)			

CHASSIS

	Cannibal	Speed	Blaze	Moto440
Frame	Aluminum twin spar perimeter			
Overall length	73.5 in (187 cm)			
Overall width	46.4 (118 cm)			50 in (127 cm)
Overall height	44 in (112 cm)		43.5 in (110 cm)	
Seat height	32.5 in (83 cm)		32.75 in (83 cm)	29 in (74 cm)
Wheel base	49.5 in (126 cm)			50 in (127)
Caster angle	8°			6°
Front tire	21 x 7 - 10		22 x 7 - 10	20 x 6 - 10
Rear tire	20 x 9 - 11			18 x 11 - 8
Recommended cold tire pressure (front/ rear)	5.5 / 5.5 psi		6.0/6.0 psi	12.0/6.0 psi

CHASSIS

	Cannibal	Speed	Blaze	Moto440
Turning radius	8 ft (2.4 m)			8.7 ft (2.65 m)
Fuse	20A			
Loading limit	245 lbs (111kg)			
Headlight	12V (2 x 37w)			
Taillight	12V (168 -automotive type bulb)			
Battery	YUASA, YTX9-VS			YUASA, , YTX5L-BS
Ground clearance, unloaded	4.5 in (114)			3.5 in (89mm)
Water crossing maximum depth	8 in (203mm)			
Front suspension travel	9 in (229mm)			11in (279mm)
Rear suspension travel	10 in (254mm)			
Dry weight (appx)	375 lbs (168kg)	370 lbs (170kg)		
Fuel tank capacity	3.2 gal (12.1L)			
Throttle lever freeplay	1/8 - 5/16 in (3 - 8 mm)			
Air filter	wet foam type			
Brake fluid	DOT 4			
Brake pad thickness (MIN)	0.04 in (1.0 mm)			
Brake disc thickness (MIN)	0.14 in (3.5 mm)			

CHASSIS

	Cannibal	Speed	Blaze	Moto440
Clutch lever freeplay (manual)	0.08 - 0.16 in (2 - 4 mm)	N/A		
Clutch arm position (manual)	37.5 mm	N/A		
Clutch oil (hydraulic)	SAE 10 mineral hydraulic oil			
Drive chain type	DID 520V (O-ring type)			
Drive chain slack	1.37 - 1.60 in (35 - 40mm)			
Swingarm buffer thickness (STD / MIN)	0.275 in (7 mm) / 0.118 in (3 mm)			
Drive chain roller O.D. (STD / MIN)	1.4 in (35.2 mm) / 1.3 in (32.0 mm)			

SUSPENSION

See "Addenda" starting on page170.	CANNIBAL	SPEED	BLAZE	MOTO 440
FRONT SHOCK				
Type	I,II	II	II	III
Compression adjuster	N/A			
Rebound adjuster	N/A			

SUSPENSION

See "Addenda" starting on page170.	CANNIBAL	SPEED	BLAZE	MOTO 440
REAR SHOCK				
Type	I			
Compression adjuster (MIN/STD/MAX)	0/18/40			
Rebound adjuster	0/15/32			

ATV LIMITED WARRANTY

WARRANTY CONDITIONS

Cannondale warrants new CannondaleATV's, that are purchased from and properly assembled, serviced for delivery, and warranty registered by an authorized Cannondale Motorsports Dealer, to be free from defects in materials and factory workmanship subject to the following exclusions, obligations, and limitations.

WARRANTY PERIOD

The warranty period for Cannondale ATV's begins on the date of purchase and ends six (6) months from the date of purchase.

WARRANTY TRANSFER

This warranty applies to the original purchaser and is not transferable.

WARRANTY EXCLUSION

Cannondale ATV's used for commercial, rental, or law enforcement purposes are excluded from warranty coverage.

COMPETITION MODEL EXCLUSION

Cannondale competition models are excluded from warranty coverage.

PARTS AND LABOR COVERED BY WARRANTY

The warranty coverage applies only to the main frame welded assembly, the swingarm welded assembly, engine crankcase, internal engine parts housed within the engine crankcase, cylinder head, electronic control module, electronic fuel injection sensors and injectors, wiring harness, voltage regulator, starter motor, and battery.

No other components are covered by any warranty, expressed or implied and are sold "as is". Covered parts and the labor to repair or replace the covered parts will be provided at no charge to the original purchaser only when performed by an authorized Cannondale Motorsports Dealer. Covered parts used in warranty repairs will be warranted for the balance of the warranty period. Covered parts replaced under warranty become the property of Cannondale.

PARTS AND LABOR NOT COVERED BY WARRANTY

Warranty coverage does not apply to:

- Parts and labor required as a result of, but not limited to, transportation, collisions, misuse, negligence, improper or abusive operation, alterations, competition, or any other damage that is not a result of a defect in factory workmanship or materials.
- Parts and labor required due to insufficient or improperly performed maintenance or repairs, improper storage, use of improper fuels or lubricants, or use of other than Cannondale replacement parts or accessories.
- Parts and labor required as a result of normal wear, such as, but not limited to, hoses and rubber components, clutch components, piston, rings, cylinder liner, valve guides, valve seats, valves, transmission gear engagement surfaces, seals, and bearings.

- Parts and labor required as a result of piston or cylinder seizures.
- Parts and labor required to perform routine maintenance or scheduled service.

PURCHASER'S RESPONSIBILITY

- Maintain and operate the CannondaleATV in accordance with the instructions and maintenance schedule printed in the Owner's Manual.
- Keep records and receipts of the date of purchase of the Cannondale ATV and all scheduled maintenance performed at the intervals specified in the Owner's Manual. This will be necessary when requesting warranty repairs to prove that the Cannondale ATV is within the warranty period and that required scheduled maintenance was performed.
- Return the Cannondale ATV to an authorized Cannondale Motorsports Dealer within five (5) days after discovery of a suspected warranty defect.
- If unable to obtain satisfactory warranty service from an authorized Cannondale Motorsports dealer, please contact Cannondale Customer Service at 800 668 6872 or 172 Friendship Village Road, Bedford, PA 15522-6600 Cannondale will be glad to locate or assist a dealer to perform satisfactory warranty service. When contacting Cannondale Customer Service please provide the following information: [Date purchased, model, vehicle identification number, engine identification number, number of hours or miles, description of problem, date problem occurred, dealer name, dealer personnel consulted, and purchaser's name, address, and phone number].

WARRANTY LIMITATION

CANNONDALE MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, WITH RESPECT TO SERVICE TO OWNERS OR USERS OR TO ANY OTHER PERSON OR ENTITY. NO ONE IS AUTHORIZED TO ASSUME FOR CANNONDALE ANY WARRANTY OBLIGATION OR LIABILITY IN CONNECTION WITH THE SALE OF CANNONDALE ATV'S. CANNONDALE RESERVES THE RIGHT TO CHANGE ANY WARRANTY AND SERVICE POLICY AT ANY TIME WITHOUT LIABILITY TO ANY PERSON OR ENTITY BY REASON OF ANY SUCH CHANGE. UNLESS CONSIDERED UNENFORCEABLE UNDER APPLICABLE LAW, ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED.

ALSO EXCLUDED FROM THIS WARRANTY, UNLESS CONSIDERED UNENFORCEABLE UNDER APPLICABLE LAW, ARE ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, SUCH AS, BUT NOT LIMITED TO, TRANSPORTATION TO AN AUTHORIZED CANNONDALE MOTORSPORTS DEALER, LOSS OF USE, INCONVENIENCE, OR DAMAGE TO PERSONAL PROPERTY.

STOLEN UNITS

In the event that your vehicle is stolen, notify local authorities first. Then, call our customer service reps at 1-800-MOTO-USA. We will maintain a list of all Vehicle Identification Numbers (VIN) reported stolen on our website (www.cannondale.com). We'll also provide the list to our dealers. Any warranty claims registered against the listed units will be flagged stolen in our dealer service databases.

The following information is required when reporting a stolen vehicle:

- **Vehicle identification number (VIN)**
- **Model**
- **Name of owner**
- **Address**
- **City, State, ZIP**
- **Date unit was stolen**
- **Owner's signature**
- **Today's date**
- **Copy of the police or stolen property report.**

Fax to:

Cannondale Dealer Service
1-800-429-8464

CHANGE OF ADDRESS

Manufacturers of motor vehicles are required by the federal government to maintain a complete and up-to-date list of all original purchasers. This information is first compiled from the completed vehicle registration forms filled out at the time of sale. The information is used to notify original purchasers in the event of a safety-related defect or recall.

If you change your address, please send us a postcard listing the model number of your vehicle, the Vehicle Identification Number (VIN), and your name and both your old and new mailing address.

As a convenience, we've provided a single tear-out postcard with your Owner's Manual. Although, anytime you change your address a regular postcard including the information above will do.

Mail the information to:

Cannondale Corporation
Motorsports Division
172 Friendship Village Road
Bedford, Pennsylvania 15522-6600
Attention: Customer Service Department

ADDENDA

This section is reserved for updates, supplements, and revisions.

When reading this manual, remember:



WARNING

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



 **DANGER**

POTENTIAL HAZARD

Running the engine indoors.
Breathing exhaust gases

WHAT CAN HAPPEN

Running the engine indoors will expose you to dangerous exhaust gases. Breathing carbon monoxide gas leads to poisoning, asphyxiation, and death. This will happen rapidly and without notice.

HOW TO AVOID THE HAZARD

Never operate the vehicle indoors even for brief periods of time.

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 vehicle overturns on hills, rough terrain, or in turns.
- avoid paved surfaces - pavement may seriously affect handling and control.

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