Pantone 425 C

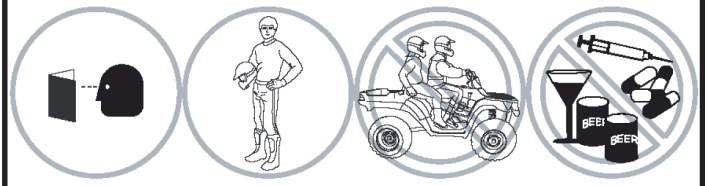
POLARIS®

The Way Out.

Scrambler 2X4 Quadricycle

Owner's Manual
for Maintenance and Safety

Read this manual carefully. It contains important safety information.
This is an adult vehicle only.
Operation is prohibited for those under 16 years of age.



GB Before you operate this vehicle, read the owner's manual.

D Lesen Sie die Bedienungsanleitung bevor Sie dieses Fahrzeug fahren.

E Antes de conducir este vehiculo, lea el Manual del Propietario.

F Lire le manuel du propriétaire avant d'utiliser ce véhicule.

I Prima di usare il veicolo, leggete il manuale di istruzioni.

FI Lue aina käyttöohjekirja ennen tämän ajoneuvon käyttöä.

P Antes de utilizar este veículo, leia o manual do proprietário.

S Innan du kör detta fordon, läs handboken.

 7173025

POLARIS
The Way Out.

For your nearest Polaris dealer, visit www.polarisindustries.com

Polaris Sales Inc.,
2100 Hwy. 55, Medina, MN 55340
U.S.A.

Part No. 9921620 Rev 01
Printed in U.S.A.

WELCOME

Thank you for purchasing a Polaris vehicle, and welcome to our world-wide family of Polaris owners. We proudly produce an exciting line of utility and recreational products.

- Snowmobiles
- All-terrain vehicles (ATVs)
- Quadricycles
- *RANGER* utility vehicles
- Victory motorcycles

We believe Polaris sets a standard of excellence for all utility and recreational vehicles manufactured in the world today. Many years of experience have gone into the engineering, design, and development of your Polaris vehicle, making it the finest machine we've ever produced.

For safe and enjoyable operation of your vehicle, be sure to follow the instructions and recommendations in this owner's manual. Your manual contains instructions for minor maintenance, but information about major repairs is outlined in the Polaris Service Manual and should be performed only by a Factory Certified Master Service Dealer (MSD) Technician.

Your Polaris dealer knows your vehicle best and is interested in your total satisfaction. Be sure to return to your dealership for all of your service needs during, and after, the warranty period.

We also take great pride in our complete line of apparel, parts and accessories, available through our online store at www.purepolaris.com. Have your accessories and clothing delivered right to your door!

POLARIS®
The Way Out.

2008 Scrambler 500 2X4 International Owner's Manual P/N 9921620

Printed in U.S.A.

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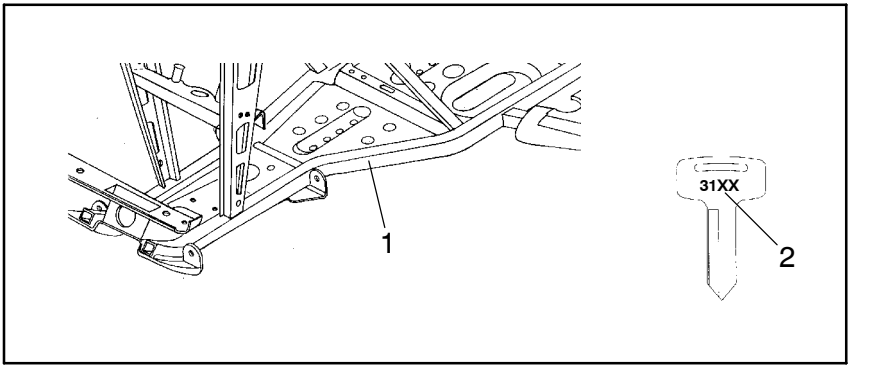
KNOW YOUR VEHICLE

As the operator of the vehicle, you are responsible for your personal safety, the safety of others, and the protection of our environment. Read and understand your owner's manual, which includes valuable information about all aspects of your vehicle, including safe operating procedures.

Ride responsibly. Know all laws and regulations concerning the operation of this vehicle in your area.

Vehicle Identification Numbers

Record your vehicle's identification numbers and key number in the spaces provided. Remove the spare key and store it in a safe place. An ignition key can be duplicated only by ordering a Polaris key blank (using your key number) and mating it with one of your existing keys. The ignition switch must be replaced if all keys are lost.



Vehicle Model Number: _____

Frame VIN (1): _____

Engine Serial Number (right front side of engine crankcase): _____

Key Number (2): _____

SAFETY

Operator Safety

The following signal words and symbols appear throughout this manual and on your vehicle. Your safety is involved when these words and symbols are used. Become familiar with their meanings before reading the manual.

The *safety alert symbol*, on your vehicle or in this manual, alerts you to the potential for personal injury.

⚠ WARNING

The *safety alert warning* indicates a potential hazard that may result in serious injury or death.

⚠ CAUTION

The *safety alert caution* indicates a potential hazard that may result in minor personal injury or damage to the vehicle.

CAUTION

A *caution* indicates a situation that may result in damage to the vehicle.

NOTE:

A *note* will alert you to important information or instructions.

Operator Safety

⚠ WARNING

Failure to follow the warnings contained in this manual can result in serious injury or death. A Polaris Quadricycle is not a toy and can be hazardous to operate. This vehicle handles differently than other vehicles, such as motorcycles and cars. A collision or rollover can occur quickly, even during routine maneuvers like turning, or driving on hills or over obstacles, if you fail to take proper precautions.

Read and understand your owner's manual and all warnings before operating a Polaris Quadricycle.

Safety Training

When you purchased your new Quadricycle, your dealer offered a hands-on safety training course. You were also provided with printed materials that explain safe operating procedures. Review this information on a regular basis.

If you purchased a used Polaris Quadricycle from a party other than a Polaris dealer, please request free safety training from any authorized Polaris dealer.

Age Restrictions

This vehicle is an ADULT VEHICLE ONLY. Operation is prohibited for anyone under 16 years of age.

Equipment Modifications

The warranty on your Polaris Quadricycle is terminated if any equipment has been added to the vehicle, or if any modifications have been made to the vehicle, that increase its speed or power.

NOTE: The addition of certain accessories, including (but not limited to) mowers, blades, tires, sprayers, or large racks, may change the handling characteristics of the vehicle. Use only Polaris-approved accessories, and familiarize yourself with their function and effect on the vehicle.

SAFETY

Operator Safety

⚠ WARNING

Serious injury or death can result if you do not follow these instructions and procedures, which are outlined in further detail within your owner's manual.

- Read this manual and all labels carefully, and follow the operating procedures described.
- Never operate a Quadricycle without proper instruction. *Take a training course*. Beginners should receive training from a certified instructor. Contact an authorized Polaris Quadricycle dealer or visit the Polaris web site at www.polarisindustries.com.
- Never allow anyone under 16 years of age to operate this Quadricycle.
- Never permit a guest to operate the Quadricycle unless the guest has read this manual and all product labels and has completed a certified safety training course.
- Never operate a Quadricycle without wearing an approved helmet that fits properly. Always wear eye protection (goggles or face shield), gloves, boots, a long-sleeved shirt or jacket, and long pants.
- Never consume alcohol or drugs before or while operating a Quadricycle.
- Never operate at excessive speeds. Travel at speeds appropriate for the terrain, visibility and operating conditions, and your experience.
- Never attempt wheelies, jumps or other stunts.
- Always inspect your Quadricycle before each use to make sure it's in safe operating condition. Always follow the inspection and maintenance procedures and schedules outlined in your owner's manual.
- Always keep both hands on the handlebars and both feet on the footrests of the Quadricycle during operation.
- Always travel slowly and use extra caution when operating on unfamiliar terrain. Be alert to changing terrain conditions.
- Never operate on excessively rough, slippery, or loose terrain.
- Always follow proper turning procedures as described in this manual. Practice turning at low speeds before attempting to turn at faster speeds. Do not turn at excessive speeds.

Operator Safety

- Always have the Quadricycle inspected by an authorized Polaris dealer if it's been involved in an accident.
- Never operate on hills too steep for the Quadricycle or for your abilities. Practice on smaller hills before attempting larger hills.
- Always follow proper procedures for climbing hills. Check the terrain carefully before ascend a 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 a hill at high speed.
- Always follow proper procedures for going downhill and for braking on hills. Check the terrain carefully before you start down a hill. Shift your weight backward. Never go down a hill at high speed. Avoid going down a hill at an angle, which would cause the vehicle to lean sharply to one side. Travel straight down the hill when possible.
- Always follow proper procedures for crossing the side of a hill. Avoid hills with excessively slippery or loose surfaces. Shift your weight to the uphill side of the Quadricycle. Never attempt to turn the Quadricycle around on any hill until you've mastered (on level ground) the turning technique outlined in this manual. Avoid crossing the side of a steep hill when possible.
- Always use proper procedures if you stall or roll backwards while climbing a hill. To avoid stalling, maintain a steady speed when climbing a hill. If you stall or roll backwards, follow the special procedure for braking described in this manual. Always dismount on the uphill side, or to either side if the Quadricycle is pointed straight uphill. Turn the Quadricycle around and remount following the procedure described in this manual.
- Always check for obstacles before operating in a new area. Never attempt to operate over large obstacles, such as rocks or fallen trees. Always follow proper procedures when operating over obstacles as described in this manual.
- Always be careful of skidding or sliding. On slippery surfaces like ice, travel slowly and use extra caution to reduce the chance of skidding or sliding out of control.
- Avoid operating the Quadricycle through deep or fast-flowing water. If it's unavoidable, travel slowly, balance your weight carefully, avoid sudden movements, and maintain a slow and steady forward motion. Do not make sudden turns or stops, and do not make sudden throttle changes.

SAFETY

Operator Safety

- Wet brakes may have reduced stopping ability. Test your brakes after leaving water. If necessary, apply them lightly several times to allow friction to dry out the pads.
- Always check for obstacles or people behind the vehicle before operating in reverse. When it's safe to proceed in reverse, move slowly and avoid turning at sharp angles.
- Always use the size and type of tires specified for your vehicle, and always maintain proper tire pressure.
- Never modify a Quadricycle through improper installation or use of accessories.
- Never exceed the stated load capacity for your vehicle. Cargo must be properly distributed and securely attached. Reduce speed and follow the instructions in this manual for carrying cargo or towing. Allow a greater distance for braking.
- Always remove the ignition key when the vehicle is not in use to prevent unauthorized use or accidental starting.

FOR MORE INFORMATION ABOUT QUADRICYCLE SAFETY, contact an authorized Polaris Quadricycle dealer or visit the Polaris web site at www.polarisindustries.com.

Operator Safety

⚠ WARNING

POTENTIAL HAZARD

Operating this Quadricycle without proper instruction.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

Never operate a Quadricycle without proper instruction. *Take a training course*. Beginners should receive training from a certified instructor. Contact an authorized Polaris Quadricycle dealer or visit the Polaris web site at www.polarisindustries.com.

⚠ WARNING

POTENTIAL HAZARD

Failure to follow the age recommendations for this Quadricycle.

WHAT CAN HAPPEN

Severe injury and/or death could occur if a child under the minimum age recommendation operates a Quadricycle.

Even though a child may be within the recommended age group for operating some Quadricycles, he/she may not have the skills, abilities, or judgment needed to operate a Quadricycle safely and could be susceptible to accident or injury.

HOW TO AVOID THE HAZARD

Never allow anyone under 16 years of age to operate this vehicle.

SAFETY
Operator Safety

⚠ WARNING

POTENTIAL HAZARD

Carrying a passenger on a Quadricycle.

WHAT CAN HAPPEN

Carrying a passenger greatly reduces the operator's ability to balance and control the Quadricycle, which could cause an accident and injury to the operator and/or passenger.

HOW TO AVOID THE HAZARD

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

Operator Safety

⚠ WARNING

POTENTIAL HAZARD

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

WHAT CAN HAPPEN

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

Operating without eye protection could result in an accident and could increase the chance of a severe injury in the event of an accident.

HOW TO AVOID THE HAZARD

Always wear an approved helmet that fits properly.

Always wear eye protection (goggles or face shield), gloves, boots, long-sleeved shirt or jacket, and long pants.

SAFETY

Operator Safety

⚠ WARNING

POTENTIAL HAZARD

Operating the Quadricycle after consuming alcohol or drugs.

WHAT CAN HAPPEN

Consumption of alcohol and/or drugs could seriously affect operator judgment. Reaction time may be slower and operator balance and perception could be affected.

Consuming alcohol and/or drugs before or while operating a Quadricycle could result in an accident causing severe injury or death.

HOW TO AVOID THE HAZARD

Never consume alcohol or drugs before or while operating a Quadricycle.

⚠ WARNING

POTENTIAL HAZARD

Operating the Quadricycle at excessive speeds.

WHAT CAN HAPPEN

Excessive speed increases the operator's chance of losing control of the Quadricycle, which can result in an accident.

HOW TO AVOID THE HAZARD

Always operate the Quadricycle at a speed that's proper for the terrain, visibility and operating conditions, and your experience.

Operator Safety

⚠ WARNING

POTENTIAL HAZARD

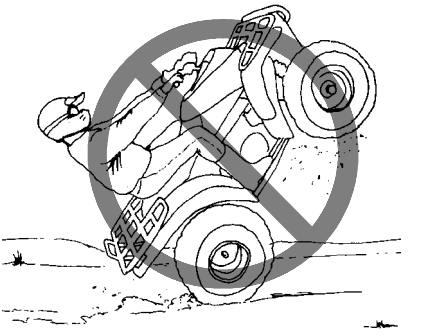
Attempting wheelies, jumps and other stunts.

WHAT CAN HAPPEN

Attempting stunts increases the chance of an accident, including an overturn.

HOW TO AVOID THE HAZARD

Never attempt wheelies, jumps, or other stunts. Avoid exhibition driving.



⚠ WARNING

POTENTIAL HAZARD

Failure to inspect the Quadricycle before operating.

Failure to properly maintain the Quadricycle.

WHAT CAN HAPPEN

Poor maintenance increases the possibility of an accident or equipment damage.

HOW TO AVOID THE HAZARD

Always inspect your Quadricycle before each use to make sure it's in safe operating condition.

Always follow the inspection and maintenance procedures and schedules described in the owner's manual.

SAFETY
Operator Safety

⚠ WARNING

POTENTIAL HAZARD

Removing hands from the handlebars or feet from the footrests during operation.

WHAT CAN HAPPEN

Removing even one hand or foot can reduce ability to control the vehicle or could cause loss of balance and ejection from the Quadricycle.

If the operator's foot is not firmly planted on the footrest, it could come into contact with the rear wheels and lead to accident or injury.

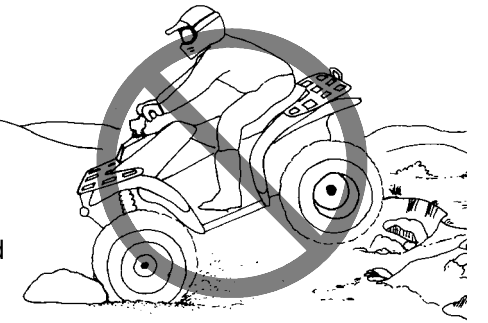
HOW TO AVOID THE HAZARD

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

⚠ WARNING

POTENTIAL HAZARD

Failure to use extra caution when operating the Quadricycle on unfamiliar terrain.



WHAT CAN HAPPEN

Unfamiliar terrain may contain hidden rocks, bumps, or holes that could cause loss of control or overturn.

HOW TO AVOID THE HAZARD

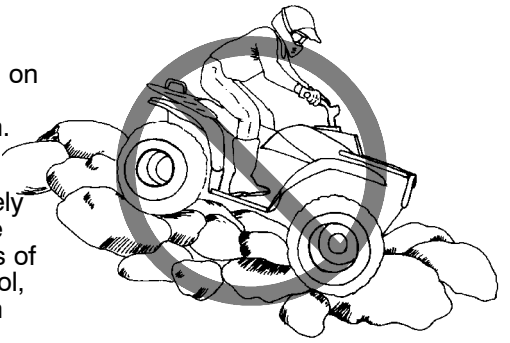
Travel slowly and use extra caution when operating on unfamiliar terrain. Always be alert to changing terrain conditions.

Operator Safety

⚠ WARNING

POTENTIAL HAZARD

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



WHAT CAN HAPPEN

Operating on excessively rough, slippery or loose terrain could cause loss of traction or loss of control, which could result in an accident or overturn.

HOW TO AVOID THE HAZARD

Do not operate on excessively rough, slippery or loose terrain until you've learned and practiced the skills necessary to control the Quadricycle on such terrain.

Always use extra caution on rough, slippery or loose terrain.

⚠ WARNING

POTENTIAL HAZARD

Turning improperly.

WHAT CAN HAPPEN

Improper turns could cause loss of control and lead to a collision or overturn.

HOW TO AVOID THE HAZARD

Always follow proper procedures for turning as described in the owner's manual.

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

Never turn at excessive speed.

SAFETY
Operator Safety

⚠ WARNING

POTENTIAL HAZARD

Operating on excessively steep hills.

WHAT CAN HAPPEN

The vehicle may overturn.

HOW TO AVOID THE HAZARD

Never operate on hills too steep for the Quadricycle or for your abilities. Never operate the Quadricycle on hills steeper than 25°.

Practice on smaller hills before attempting large hills.

⚠ WARNING

POTENTIAL HAZARD

Climbing hills improperly.

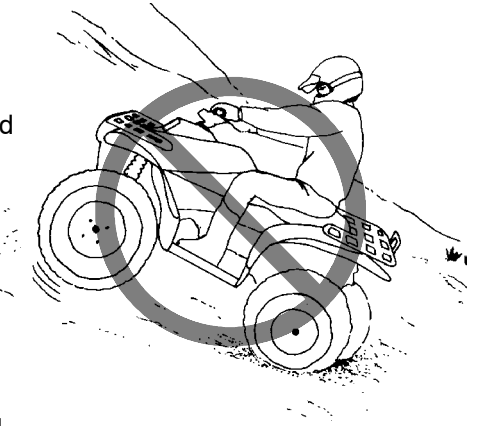
WHAT CAN HAPPEN

Improper hill climbing could cause loss of control or overturn.

HOW TO AVOID THE HAZARD

Always follow proper procedures for climbing hills as described in the owner's manual.

Always check the terrain carefully before ascending any hill.



Never operate the Quadricycle on hills steeper than 25°.

Never climb hills with excessively slippery or loose surfaces.

Shift your weight forward.

Never open the throttle suddenly while traveling uphill. The vehicle could flip over backwards.

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

Operator Safety

⚠ WARNING

POTENTIAL HAZARD

Traveling downhill improperly.

WHAT CAN HAPPEN

Improperly descending a hill could cause loss of control or overturn.

HOW TO AVOID THE HAZARD

Always follow proper procedures for traveling down hills as described in the owner's manual. **NOTE:** A special technique is required when braking while traveling downhill. See page 53.

Always check the terrain carefully before descending a hill.

Shift your weight backward.

Never travel down a hill at high speed.

Avoid traveling down a hill at an angle, which would cause the vehicle to lean sharply to one side. Travel straight down the hill when possible.

SAFETY
Operator Safety

⚠ WARNING

POTENTIAL HAZARD

Improperly crossing hills and turning on hills.

WHAT CAN HAPPEN

Improperly crossing or turning as hills could cause loss of control or overturn.

HOW TO AVOID THE HAZARD

Never attempt to turn the Quadricycle around on any hill until you've mastered the turning technique (on level ground) as described in the owner's manual. See page 54. Use extra caution when turning on any hill.

Avoid crossing the side of a steep hill.

When crossing the side of a hill:

Always follow proper procedures as described in the owner's manual.

Avoid hills with excessively slippery or loose surfaces.

Shift your weight to the uphill side of the Quadricycle.

Operator Safety

⚠ WARNING

POTENTIAL HAZARD

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

WHAT CAN HAPPEN

The vehicle could overturn.

HOW TO AVOID THE HAZARD

Maintain steady speed when climbing a hill.

If all forward speed is lost:

Keep your weight uphill.

Apply the single lever brake gradually.

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

If the Quadricycle begins rolling backwards:

Keep weight uphill.

Never apply engine power.

Never apply the auxiliary rear brake while rolling backwards.

Apply the single-lever brake gradually.

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

Dismount on uphill side, or to either side if vehicle is pointed straight uphill.

Turn the vehicle around and remount, following the procedure described in the owner's manual. See page 54.

SAFETY

Operator Safety

⚠ WARNING

POTENTIAL HAZARD

Improperly operating over obstacles.

WHAT CAN HAPPEN

Operating over obstacles could cause loss of control or overturn.

HOW TO AVOID THE HAZARD

Before operating in a new area, check for obstacles.

Avoid operating over large obstacles such as rocks and fallen trees when possible. If unavoidable, use extreme caution and always follow proper procedures as outlined in the owner's manual.

⚠ WARNING

POTENTIAL HAZARD

Skidding or sliding.

WHAT CAN HAPPEN

Skidding or sliding can cause loss of control.

If the tires regain traction unexpectedly, the vehicle could overturn.

HOW TO AVOID THE HAZARD

On slippery surfaces such as ice, travel slowly and use extra caution to reduce the chance of skidding or sliding out of control.

⚠ WARNING

POTENTIAL HAZARD

Improperly operating in reverse.

WHAT CAN HAPPEN

The Quadricycle could collide with an obstacle or person, resulting in severe injury.

HOW TO AVOID THE HAZARD

Before shifting into reverse gear, always check for obstacles or people behind the vehicle. When it's safe to proceed, back slowly.

Operator Safety

⚠ WARNING

POTENTIAL HAZARD

Operating the Quadricycle 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 or overturn.

HOW TO AVOID THE HAZARD

Avoid operating the Quadricycle through deep or fast-flowing water. If it's unavoidable to enter water that exceeds the recommended maximum depth (see page 55), travel slowly, balance your weight carefully, avoid sudden movements, and maintain a slow and steady forward motion. Do not make sudden turns or stops, and do not make sudden throttle changes.

Wet brakes may have reduced stopping ability. Always test the brakes after leaving water. If necessary, apply them several times to let friction dry out the pads.

⚠ WARNING

POTENTIAL HAZARD

Operating this Quadricycle with improper tires, or with improper or uneven tire pressure.

WHAT CAN HAPPEN

Use of improper tires, or operation of the Quadricycle with improper or uneven tire pressure, could cause loss of control or accident.

HOW TO AVOID THE HAZARD

Always use the size and type of tires specified for the vehicle.

Always maintain proper tire pressure as specified.

SAFETY
Operator Safety

⚠ WARNING

POTENTIAL HAZARD

Operating the Quadricycle with improper modifications.

WHAT CAN HAPPEN

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

HOW TO AVOID THE HAZARD

Never modify the Quadricycle through improper installation or use of accessories. All parts and accessories added to the vehicle must be genuine Polaris Industries Inc. or equivalent components designed for use on this Quadricycle and should be installed and used according to approved instructions. See your authorized Polaris Quadricycle dealer for more information.

⚠ WARNING

POTENTIAL HAZARD

Overloading the Quadricycle or carrying/towing cargo improperly.

WHAT CAN HAPPEN

Overloading and towing can cause changes in vehicle handling, which could lead to loss of control or an accident.

HOW TO AVOID THE HAZARD

Never exceed the stated load capacity for this vehicle.

Cargo should be properly distributed and securely attached.

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

Always follow the instructions in the owner's manual for carrying cargo or pulling a trailer. See page 46.

⚠ WARNING

POTENTIAL HAZARD

Operating on frozen bodies of water.

WHAT CAN HAPPEN

Severe injury or death can result if the vehicle and/or the operator fall through the ice.

HOW TO AVOID THE HAZARD

Never operate the Quadricycle on a frozen body of water.

Operator Safety

⚠ WARNING

Leaving the keys in the ignition can lead to unauthorized use of the vehicle resulting in serious injury or death. Always remove the ignition key when the vehicle is not in use.

⚠ WARNING

After any overturn or accident, have a qualified service dealer inspect the entire vehicle for possible damage, including (but not limited to) brakes, throttle and steering systems.

⚠ WARNING

Safe operation of this rider-active vehicle requires good judgement and physical skills. Persons with cognitive or physical disabilities who operate this vehicle have an increased risk of overturn and loss of control, which could result in severe injury or death.

CAUTION

Exhaust system components are very hot during and after use of the vehicle. Hot components can cause serious burns and fire. Do not touch hot exhaust system components. Always keep combustible materials away from the exhaust system. Use caution when traveling through tall grass, especially dry grass.

SAFETY

Fuel Safety

⚠ WARNING

Gasoline is highly flammable and explosive under certain conditions.

- Always exercise extreme caution whenever handling gasoline.
- Always refuel with the engine stopped, and outdoors or in a well ventilated area.
- Do not smoke or allow open flames or sparks in or near the area where refueling is performed or where gasoline is stored.
- Do not overfill the tank. Do not fill the tank neck.
- If gasoline spills on your skin or clothing, immediately wash it off with soap and water and change clothing.
- Never start the engine or let it run in an enclosed area. Engine exhaust fumes are poisonous and can cause loss of consciousness or death in a short time.
- Turn the fuel valve off whenever the vehicle is stored or parked.

⚠ WARNING

The engine exhaust from this product contains chemicals known to cause cancer, birth defects or other reproductive harm.

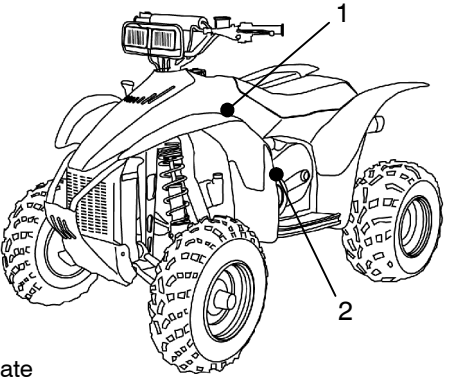
Operate this vehicle only outdoors or in well-ventilated areas.

Safety Decals and Locations

Warning decals have been placed on the vehicle for your protection. Read and follow the instructions of the decals on the vehicle carefully. If any of the decals depicted in this manual differ from the decals on your vehicle, always read and follow the instructions of the decals *on the vehicle*.

If any decal becomes illegible or comes off, contact your Polaris dealer to purchase a replacement. Replacement *safety* decals are provided by Polaris at no charge. The part number is printed on the decal.

Discretionary Warning (1)



WARNING

- Never operate this vehicle on HILLS steeper than 25 degrees ∠ 25°. To prevent flipover on hilly terrain, when going up or down, use throttle and brakes gradually.
- REVERSE operation can be dangerous, even at low speeds. Steering becomes difficult. To prevent flipover, avoid sudden braking or sharp turns.
- Use OVERRIDE for reverse speed limiter with caution. To prevent loss of control, never activate override button with open throttle.
- PARKING BRAKE may relax when used for more than 5 minutes. When parking on grades, leave shift in forward.

Clutch Cover Warning (2)

WARNING

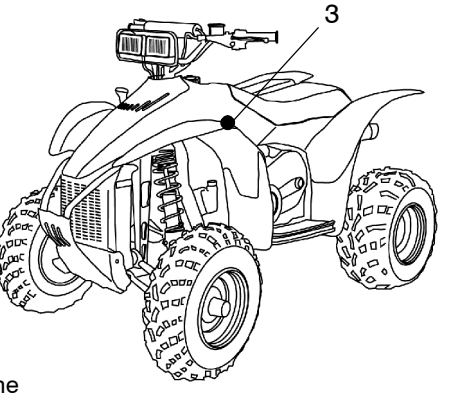
NO STEP

- Moving parts hazard under belt-clutch guard. To prevent serious injury, do not operate vehicle with guard removed.
- Do not modify engine or clutch. Doing so can cause part failure, possible imbalance, and excessive engine RPM, which can result in serious injury or death.

SAFETY

Safety Decals and Locations

General Warning (3)



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

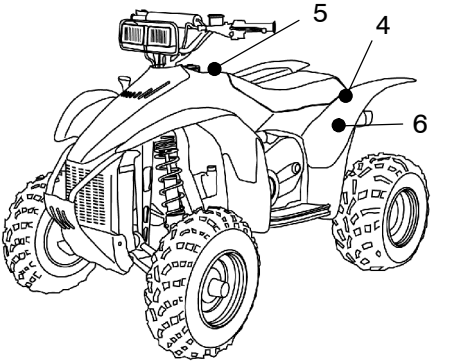
ALWAYS:

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

LOCATE AND READ OWNER'S MANUAL. FOLLOW ALL INSTRUCTIONS AND WARNINGS. IF OWNER'S MANUAL IS MISSING, CONTACT A POLARIS DEALER FOR A REPLACEMENT.

Safety Decals and Locations

No Passenger Warning (4)



WARNING

NEVER ride as a passenger.

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

Age 16 Warning (5)

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.

Tire Pressure/Load Warning (6)

WARNING

IMPROPER TIRE PRESSURE OR OVERLOADING can cause loss of control resulting in SEVERE INJURY OR DEATH.

TIRE PRESSURE IN PSI (KPa): FRONT 4 (27.6) REAR 3 (20.7)

MAXIMUM WEIGHT CAPACITY 305 LBS. (138 kg).

INCLUDES WEIGHT OF OPERATOR, CARGO AND ACCESSORIES

Reduce speed and allow greater distance for braking when carrying cargo. Overloading or carrying tall, off-center, or unsecured loads will increase your risk of losing control. Loads should be centered, carried as low as possible, and firmly secured to the racks. With dual racks, load distribution 1/3 front 2/3 rear is best. For stability on rough or hilly terrain, reduce speed and cargo. Do not block headlight. Be careful if load extends over the side of the rack.

Read Owner's Manual for more detailed loading information.

SAFETY

Safe Riding Gear

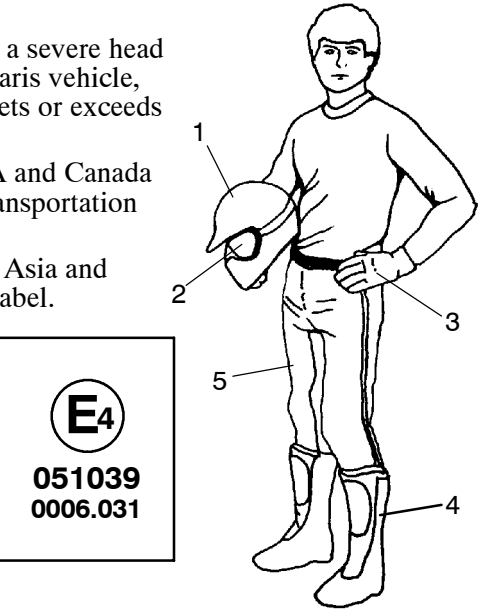
Always wear clothing suited to the type of riding. Quadricycle riding requires special protective clothing for comfort and to reduce the chance of injury.

1. Helmet

Wearing a helmet can prevent a severe head injury. Whenever riding a Polaris vehicle, always wear a helmet that meets or exceeds established safety standards.

Approved helmets in the USA and Canada bear a U.S. Department of Transportation (DOT) label.

Approved helmets in Europe, Asia and Oceania bear the ECE 22.05 label. The ECE mark consists of a circle surrounding the letter E, followed by the distinguishing number of the country which has granted approval. The approval number and serial number will also be displayed on the label.



2. Eye Protection

Do not depend on eyeglasses or sunglasses for eye protection. Whenever riding a Polaris vehicle, always wear shatterproof goggles or use a shatterproof helmet face shield. Polaris recommends wearing approved Personal Protective Equipment (PPE) bearing markings such as VESC 8, V-8, Z87.1, or CE. Make sure protective eye wear is kept clean.

3. Gloves

Off-road style gloves with knuckle pads are the best for comfort and protection.

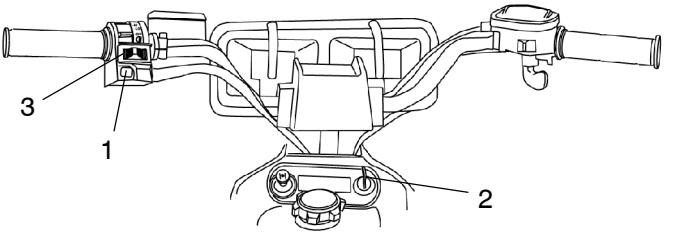
4. Boots

The best footwear is a pair of sturdy over-the-calf boots with low heels.

5. Clothing

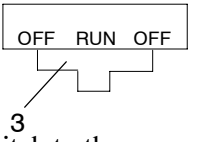
Always wear long sleeves and long pants to protect arms and legs. Riding pants with kneepads and a jersey with shoulder pads provide the best protection.

Electrical Switches



⚠ WARNING

Activating the override switch while the throttle is open can cause loss of control, resulting in severe injury or death. Do not activate the override switch while the throttle is open.



Override Switch (1) (Reverse Speed Limiter) - This vehicle is equipped with a reverse speed limiter system. To gain additional power while backing, depress the override switch.

Main Switch (2) - To start the engine, slide the stop switch to the center *RUN* position and turn the main key switch clockwise past the *ON* position. Release the key when the engine starts.

NOTE: Turn off the main switch to end all electrical power to the vehicle, including the lights.

⚠ WARNING

Leaving the keys in the ignition can lead to unauthorized use of the vehicle resulting in serious injury or death. Always remove the ignition key when the vehicle is not in use.

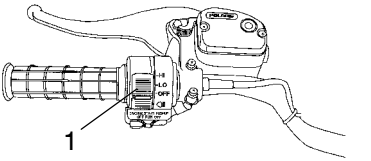
Engine Stop Switch (3) - The engine will not start or run when the switch is in its *OFF* position. Its purpose is to provide the operator with a quick means of engine shutdown in case of an emergency. To stop the engine, slide the stop switch either right or left to the *OFF* position.

NOTE: Turning off the engine stop switch will shut off all electrical power to the vehicle, including the lights.

FEATURES AND CONTROLS

Light Switches

The light switch is located on the left handlebar (1). It's used to turn the lights on and off and to switch the lights from high beam to low beam.

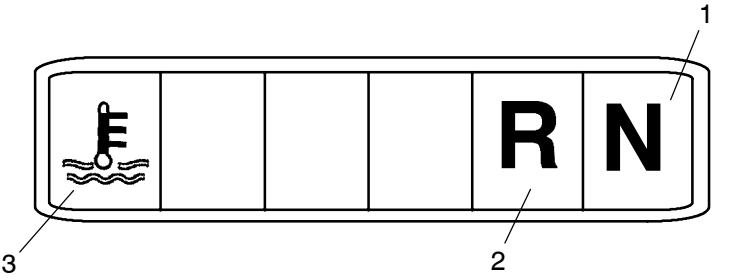


NOTE: The lights won't work unless the key is in the *ON* position and the shut-off switch is in the *RUN* position.

Indicator Lights

With the engine running, verify the function of all indicator lights each time the vehicle is used.

NOTE: The taillight is on whenever the main switch (key) is on. Turn the key off to prevent battery drain.



1. **Transmission Neutral Indicator**
2. **Transmission Reverse Indicator**
3. **High Temp Warning** (displays if engine overheats)

Throttle Lever

⚠ WARNING

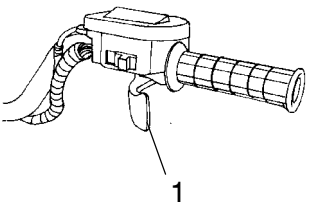
Do not start or operate a Quadricycle with sticking or improperly operating throttle controls, which could cause an accident and lead to severe injury or death.

Always contact your dealer for service repairs if throttle problems arise.

Failure to check or maintain proper operation of the throttle system can result in an accident if the throttle lever sticks during operation.

Always check the lever for free movement and return before starting the engine. Also check occasionally during operation.

Engine speed and vehicle movement are controlled by pressing the throttle lever. The throttle lever (1) is spring loaded. Engine speed returns to idle when the lever is released.



This vehicle is equipped with Polaris Electronic Throttle Control (ETC), which is designed to reduce the risk of a frozen or stuck throttle. If the throttle cable should stick in an open position when the operator releases the throttle lever, the engine will stop, and power to the rear wheels will cease.

⚠ WARNING

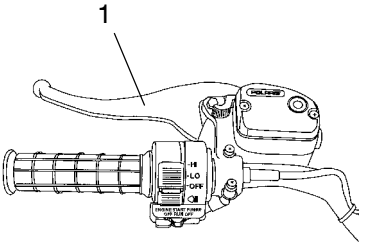
The Electronic Throttle Control (ETC) stops the engine in the event of a throttle system malfunction and is provided for your safety. Do not attempt to modify the ETC system or replace it with any after market throttle mechanisms.

FEATURES AND CONTROLS

Brake Lever

⚠ WARNING

Operating the vehicle with a spongy brake lever can result in loss of braking, which could cause an accident. Never operate the vehicle with a spongy-feeling brake lever.

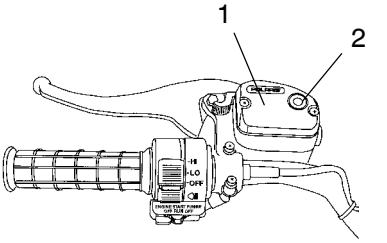


The front and rear brakes are applied by squeezing the brake lever (1) toward the handlebar. The front and rear brakes are hydraulically activated disc type brakes that are activated by only one lever.

Always test brake lever travel and master cylinder fluid level before riding. When squeezed, the lever should feel firm. Any sponginess would indicate a possible fluid leak or low master cylinder fluid level, which must be corrected before riding. Contact your dealer for proper diagnosis and repairs.

Brakes

Check the brake fluid level in the master cylinder before each use of the vehicle. The master cylinder (1) is located on the left handlebar.



The fluid level can be seen through an indicator window (2) on the top of the master cylinder. This "eye" will appear dark when the fluid level is full. When fluid needs to be added, the eye will be clear.

⚠ WARNING

An over-full master cylinder may cause brake drag or brake lock-up, which could result in serious injury or death. Maintain brake fluid at the recommended level. Do not overfill.

NOTE: When checking the fluid level, the vehicle must be on level ground with the handlebars straight. If the fluid level is low add DOT 4 brake fluid only. DO NOT OVERFILL. See page 111 for the part numbers of Polaris products.

⚠ WARNING

Never store or use a partial bottle of brake fluid. Brake fluid is hygroscopic, meaning it rapidly absorbs moisture from the air. The moisture causes the boiling temperature of the brake fluid to drop, which can lead to early brake fade and the possibility of accident or severe injury. After opening a bottle of brake fluid, always discard any unused portion.

FEATURES AND CONTROLS

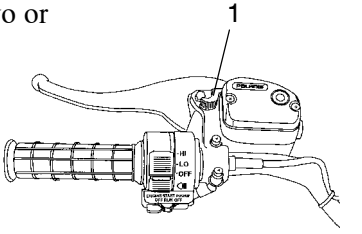
Parking Brake

⚠ WARNING

Operating the vehicle while the parking brake is engaged could result in an accident and serious injury or death. Always check to be sure the parking brake is disengaged before operating.

Locking the Parking Brake

1. Squeeze and release the brake lever two or three times, then squeeze and hold.
2. Push the parking brake lock (1) forward to engage the brake. Release the brake lever.
3. To release the parking brake lock, squeeze and release the brake lever. It will return to its unlocked position.



Important Safeguards

- The parking brake may relax if left on for a long period of time. Always block the wheels to prevent rolling.
- Always block the wheels on the downhill side of the vehicle if leaving it parked on a hill. Another option is to park the vehicle in a sidehill position.
- Never depend on the parking brake alone if the vehicle is parked on a hill. Always block the wheels to prevent rolling.

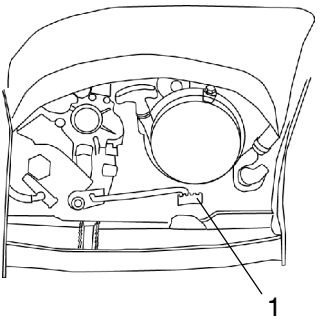
Auxiliary Brake

⚠ WARNING

Aggressively applying the rear brake when backing downhill may cause rear tipover, which could result in serious injury or death.

Use caution when applying the auxiliary brake. Do not aggressively apply the auxiliary brake when going forward. The rear wheels may skid and slide sideways, causing loss of control and serious injury or death.

The auxiliary foot brake (1), is located on the inside of the right floorboard and is operated by the right foot. The auxiliary brake serves as a backup to the main brake system if the main system becomes inoperative.



If the rear wheels slide while using the auxiliary brake, *reduce* brake pedal pressure to brake the rear wheels without skidding.

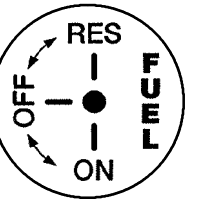
Check the brake fluid level frequently for the auxiliary brake system. The reservoir is located under the seat or near the foot brake. Maintain the fluid level between the maximum and minimum marks.

FEATURES AND CONTROLS

Choke

The choke assists in starting a cold engine. Refer to the engine starting procedure on page 43 for correct choke and throttle settings during starting.

Fuel Valve



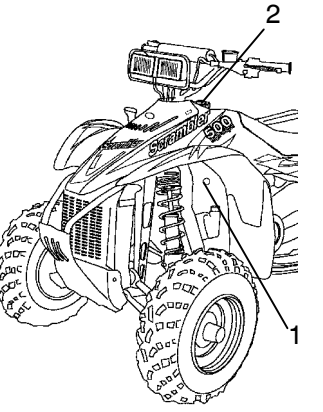
The fuel valve (1) is located on the left side of the vehicle, below the fender. It has three positions:

OFF: For vehicle storage and when transporting.

ON: For normal operation.

RES: For reserve supply if main supply is exhausted.

NOTE: There's about a 7 to 10 mile (11.2 to 16 km) range on reserve gas. Always refill the gas tank as soon as possible after using the reserve supply.



Always return the valve to the *ON* position after refueling.

Fuel Tank

The fuel tank filler cap (2) is located directly below the handlebar. Use either leaded or unleaded gasoline with a minimum pump octane number of 87=(R+ M/2) octane. Refer to the specifications section at the rear of this manual for tank capacity.

Fuel Filter

The in-line fuel filter should be replaced by your dealer after every 100 hours of operation, or annually. Do not attempt to clean the fuel filter.

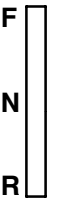
Automatic Transmission Gear Selector

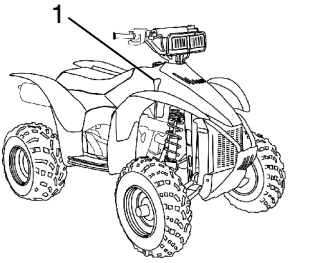
The transmission gear selector (1) is located on the right side of the vehicle.

F: Forward

N: Neutral

R: Reverse





CAUTION

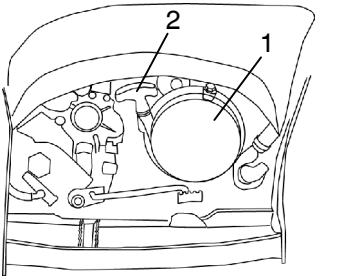
Shifting gears with the engine speed above idle or while the vehicle is moving could cause transmission damage.

To change gears, stop the vehicle, and with the engine idling, move the lever to the desired gear.

Whenever the vehicle is left unattended, always place the transmission in gear and lock the parking brake.

FEATURES AND CONTROLS

Recoil Starter



If the battery has been drained or damaged and cannot start the engine, use of the recoil starter (1) will allow vehicle operation until repairs can be made. The recoil starter is located on the right side of the machine.

Polaris 4-cycle engines are equipped with automatic decompressors. This makes recoil starting possible by reducing the amount of compression during starting. The decompressor senses when the engine is spinning fast enough to start and restores compression when running.

1. Position the vehicle on a level surface and lock the parking brake (see page 36).
2. Shift the transmission into neutral.
3. Make sure the engine stop switch is set to RUN and the main key switch is in the ON position.

NOTE: If the engine is cold, use the choke as outlined on page 43.

4. Grasp the recoil starter rope handle (2) firmly and pull slowly so you can feel the engine strokes.

NOTE: Every other stroke will be a “compression stroke” and will make the rope harder to pull. When a compression stroke is found, continue pulling the rope just until the engine rolls past the stroke, then *stop pulling immediately*.

5. Allow the recoil rope to rewind into the recoil assembly, then pull the rope abruptly and forcefully to start the engine.
6. Repeat steps 4-5 if necessary.

CAUTION

Extending the recoil starter rope until it stops can cause damage to the recoil assembly. Do not extend the starter rope so far that it stops.

If the starter rope handle is not seated properly, water may enter the recoil housing and damage components. Make sure the handle is fully seated on the recoil housing, especially when traveling in wet areas.

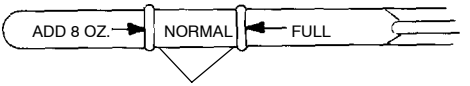
Break-In Period

The break-in period for your new Polaris Quadricycle is the first ten hours of operation, or the time it takes to use the first two full tanks of gasoline. No single action on your part is as important as following the procedures for a proper break-in. Careful treatment of a new engine and drive components will result in more efficient performance and longer life for these components.

CAUTION

Excessive heat build-up during the first three hours of operation will damage close-fitted engine parts and drive components. Do not operate at full throttle or high speeds during the first three hours of use.

Engine and Drivetrain Break-in



1

1. Fill the fuel tank with gasoline (see page 38).
2. Check the oil level on the dipstick (see page 66). Add the recommended oil as needed to maintain the oil level in the normal operating range (1).
3. Drive slowly at first. Select an open area that allows room to familiarize yourself with vehicle operation and handling.
4. Vary throttle positions. Do not operate at sustained idle.
5. Perform regular checks on fluid levels, controls and areas outlined on the daily pre-ride inspection checklist. See page 42.
6. Pull only light loads.
7. During the break-in period, change both the oil and the filter at 25 hours or one month, whichever comes first.

PVT Break-in (Clutches/Belt)

A proper break-in of the clutches and drive belt will ensure a longer life and better performance. Break in the clutches and belt by operating at slower speeds during the break-in period as recommended. Pull only light loads. Avoid aggressive acceleration and high speed operation during the break-in period.

OPERATION

Pre-Ride Inspection

⚠ WARNING

If a proper inspection is not done before each use, severe injury or death could result. Always inspect the vehicle before each use to ensure it's in proper operating condition.

Pre-Ride Checklist		
Item	**Remarks**	**See Page**
Brake system / lever travel	Ensure proper operation	34, 74
Brake fluid	Ensure proper level	35
Auxiliary brake	Ensure proper operation	75
Front suspension	Inspect, lubricate if necessary	64
Rear suspension	Inspect, lubricate if necessary	64
Steering	Ensure free operation	–
Tires	Inspect condition and pressure	81
Wheels / fasteners	Inspect, ensure fastener tightness	80
Frame nuts, bolts, fasteners	Inspect, ensure tightness	–
Fuel and oil	Ensure proper levels	66
Coolant level (if applicable)	Ensure proper level	84
Coolant hoses (if applicable)	Inspect for leaks	–
Throttle	Ensure proper operation	33, 76
Indicator lights / switches	Ensure operation	31, 32
Engine stop switch	Ensure proper operation	31
Drive chain	Check condition / slack, lubricate as needed	72, 82
Air filter, pre-filter	Inspect, clean	88
Air box sediment tube	Drain deposits whenever visible	–
Headlamp	Check operation, apply Polaris dielectric grease when lamp is replaced	86
Brake light / tail lamp	Check operation, apply Polaris dielectric grease when lamp is replaced	87
Riding gear	Wear helmet, goggles, protective clothing	30

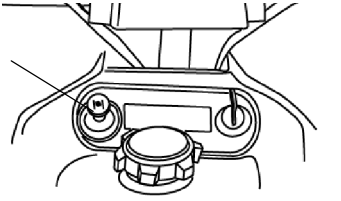
Starting the Engine

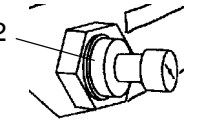
⚠ WARNING

Engine exhaust contains poisonous carbon monoxide and can cause loss of consciousness resulting in severe injury or death. Never run an engine in an enclosed area.

1. Position the vehicle on a level surface.
2. Place the transmission in neutral.
3. Lock the parking brake.

NOTE: The starter interlock will prevent the engine from starting if the transmission is in gear and the brake is not engaged.





4. Turn the fuel valve on.
5. Sit on the vehicle.

NOTE: Do not use the choke if starting a warm engine. Excessive use of the choke can cause the spark plug to become wet fouled.

6. If the engine is cold, pull the choke knob out until it stops (1).

NOTE: The variable choke is fully on when the knob is pulled completely out. The choke is off when the knob is pushed completely in. The choke can be adjusted gradually, depending on how much choke is needed for starting. Be sure the choke is off during operation, as excess fuel washing into the engine oil will increase wear on engine components.

NOTE: If the knob doesn't stay where positioned, increase the tension by rotating the tension adjusting nut (2) clockwise.

OPERATION

Starting the Engine

7. Move the engine stop switch to RUN.

NOTE: Do not press the throttle while starting the engine.

8. Turn the ignition key past the ON position to engage the starter. Activate the starter for a maximum of five seconds, releasing the key when the engine starts.
9. If the engine does not start, release the key and wait five seconds. Activate the starter for another five seconds. Repeat this procedure until the engine starts.

NOTE: If a warm engine has cooled to a point where it does not readily start, intermittent use of the choke button (pulled half way out) may be necessary. If the engine is over-choked when warm, depress the throttle lever fully while cranking to aid in starting. Release the throttle lever immediately after the engine starts. If the engine does not start and all conditions are favorable, change the spark plug and try again.

10. If the engine slows, position the choke knob half way in to allow proper engine warm up. Vary the engine RPM slightly with the throttle to aid in warm-up. When the engine idles smoothly, push the choke completely in.

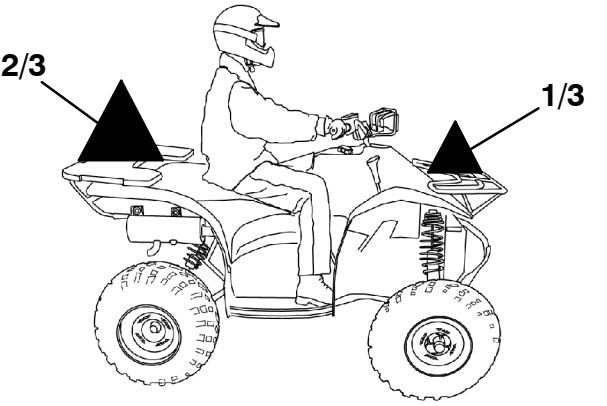
CAUTION

Operating the vehicle immediately after starting could cause engine damage. Allow the engine to warm up for several minutes before operating the vehicle.

Driving Safely
Driving Procedures

1. Sit upright with both feet on the footrests and both hands on the handlebars.
2. Start the engine and allow it to warm up, then shift the transmission into gear.
3. Check your surroundings and determine your path of travel.
4. Release the parking brake.
5. Slowly depress the throttle with your right thumb and begin driving. Vehicle speed is controlled by the amount of throttle opening.
6. Drive slowly. Practice maneuvering and using the throttle and brakes on level surfaces.

OPERATION
Driving Safely
Hauling Cargo



Accessory racks and hitches are available from your Polaris dealer. Always read and understand the load distribution warnings on all warning labels, and never exceed the specified weight capacities for the vehicle.

Maximum Towing Capacities

Refer to the specifications at the rear of this manual for towing capacities. When towing, reduce the rear rack cargo load capacity by the amount of trailer tongue weight.

Never tow any trailer on a grade steeper than 15°.

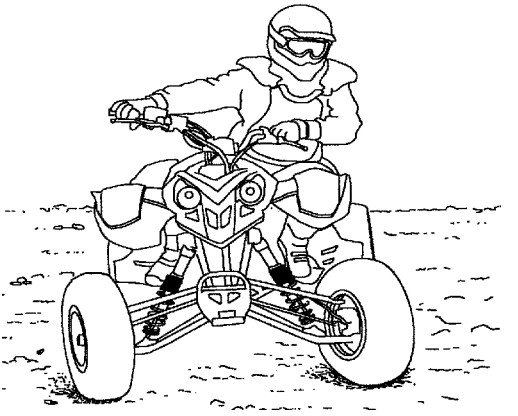
Driving Safely
Hauling Cargo

⚠ WARNING

Hauling cargo improperly can alter vehicle handling and may cause loss of control or brake instability and result in serious injury or death. Always follow these precautions when hauling cargo:

- REDUCE SPEED AND ALLOW GREATER DISTANCE FOR BRAKING WHEN HAULING CARGO.
- CARGO WEIGHT DISTRIBUTION should be 1/3 on the front rack and 2/3 on the rear rack. When operating over rough or hilly terrain, reduce speed and cargo to maintain stable driving conditions. Carrying loads on one rack only increases the possibility of vehicle overturn.
- LOADS MUST BE CARRIED AS LOW ON THE RACKS AS POSSIBLE. Carrying loads high on the racks raises the center of gravity of the vehicle and creates a less stable operating condition. When cargo loads are carried high on the racks, the weight of the loads must be reduced to maintain stable operating conditions.
- ALL LOADS MUST BE SECURED BEFORE OPERATING. Unsecured loads can create unstable operating conditions, which could result in loss of control of the vehicle.
- OPERATE ONLY WITH STABLE AND SAFELY ARRANGED LOADS. When handling off-centered loads that cannot be centered, securely fasten load and operate with extra caution. Always attach the tow load to the hitch point designated for your vehicle.
- HEAVY LOADS CAN CAUSE BRAKING AND CONTROL PROBLEMS. Use extreme caution when applying brakes with a loaded vehicle. Avoid terrain or situations that may require backing downhill.
- EXTREME CAUTION MUST BE USED when operating with loads extending over the rack sides. Stability and maneuverability may be adversely affected, causing the machine to overturn.
- DO NOT BLOCK THE FRONT HEADLIGHT BEAM when carrying loads on the front rack.
- DO NOT TRAVEL FASTER THAN THE RECOMMENDED SPEEDS. Vehicle should never exceed 10 mph (16 kph) while towing a load on a level grass surface. Vehicle speed should never exceed 5 mph (8 kph) when towing loads in rough terrain, while cornering, or while ascending or descending a hill.

OPERATION
Driving Safely
Making Turns



Your Polaris vehicle is equipped with a solid rear axle, which drives both rear wheels equally at all times. This means that the wheel on the outside of the turn must travel a greater distance than the inside wheel when turning and the inside tire must slip traction slightly.

To make a turn, steer in the direction of the turn, leaning your upper body to the inside of the turn while supporting your weight on the outer footrest. This technique alters the balance of traction between the rear wheels, allowing the turn to be made smoothly. The same leaning technique should be used for turning in reverse.

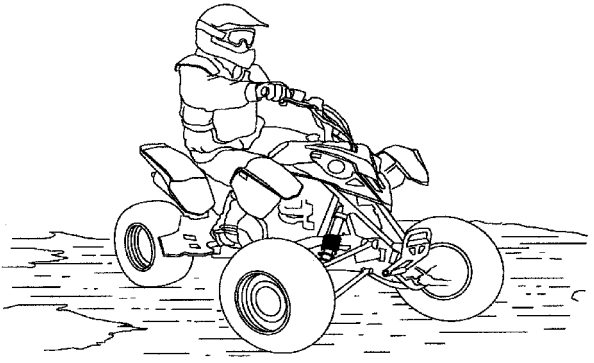
NOTE: Practice making turns at slow speeds before attempting to turn at faster speeds.

⚠ WARNING

Turning at sharp angles or at excessive speeds can result in vehicle overturn and lead to serious injury. Avoid turning at sharp angles. Never turn at high speeds.

Driving Safely

Driving on Slippery Surfaces



Whenever riding on slippery surfaces such as wet trails or loose gravel, or during freezing weather, follow these precautions:

1. Slow down when entering slippery areas.
2. Maintain a high level of alertness, reading the trail and avoiding quick, sharp turns which can cause skids.
3. Correct a skid by turning the handlebars in the direction of the skid and shifting your body weight forward.

⚠ WARNING

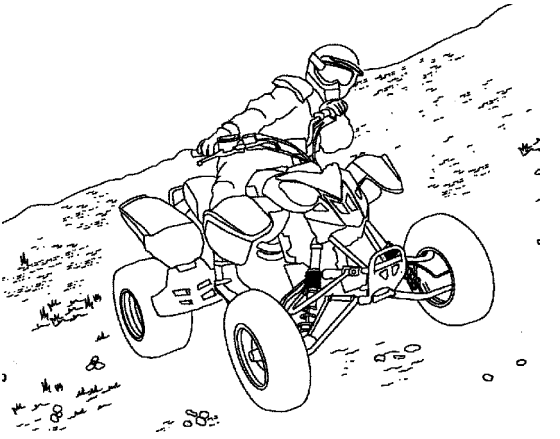
Failure to exercise care when operating on slippery surfaces can result in loss of tire traction and cause loss of control, accident, and serious injury or death.

Never apply the brakes during a skid.

Do not operate on excessively slippery surfaces.

Always reduce speed and use additional caution.

OPERATION
Driving Safely
Sidehilling



⚠ WARNING

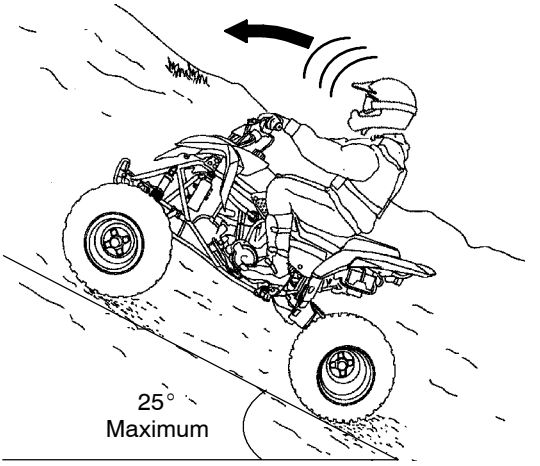
Improperly crossing hills or turning on hills can result in loss of control or vehicle overturn, resulting in severe injury or death. Avoid crossing the side of a hill when possible. Follow proper procedures as outlined in the owner's manual.

Sidehilling can be a dangerous type of driving and should be avoided if at all possible. If you do enter into a situation where sidehilling is necessary, follow these precautions:

1. Slow down.
2. Lean into the hill, transferring your upper body weight toward the hill while keeping your feet on the footrests.
3. Steer slightly into the hill to maintain vehicle directions.

NOTE: If the vehicle begins to tip, quickly turn the front wheel downhill, if possible, or dismount on the uphill side *immediately*!

Driving Safely
Driving Uphill



⚠ WARNING

Braking and handling are greatly affected when operating in hilly terrain. Improper procedure could cause loss of control or overturn and result in serious injury or death.

Avoid climbing steep hills (25° maximum).

Use extreme caution when operating on hills, and follow proper operating procedures outlined in the owner's manual.

OPERATION

Driving Safely

Driving Uphill

Whenever traveling uphill, follow these precautions:

1. Always travel straight uphill.
2. Avoid steep hills (25° maximum).
3. Keep both feet on the footrests.
4. Transfer your weight forward.
5. Proceed at a steady rate of speed and throttle opening.
6. Remain alert and be prepared to take emergency action. This may include quick dismounting of the vehicle.

If all forward speed is lost:

Keep your weight uphill.

Apply the single lever brake, gradually. When fully stopped, apply the auxiliary brake as well, then lock the parking brake.

If the vehicle begins rolling backwards:

Keep your weight uphill. Never apply engine power. Never apply the auxiliary rear brake while rolling backwards.

Apply the single-lever brake, gradually. When fully stopped, apply the auxiliary rear brake as well, and then lock the parking brake.

Dismount on uphill side, or to either side if vehicle is pointed straight uphill. Turn the vehicle around and remount, following the procedure described on page 54.

Driving Safely
Driving Downhill

Whenever descending a hill, follow these precautions:

1. Proceed directly downhill.
2. Transfer your weight to the rear of the vehicle.
3. Slow down.
4. Apply the brakes *slightly* to aid in slowing, using the single brake lever.

NOTE: Familiarize yourself with operation of the auxiliary rear brake pedal for additional braking in the event of normal service brake loss.

⚠ WARNING

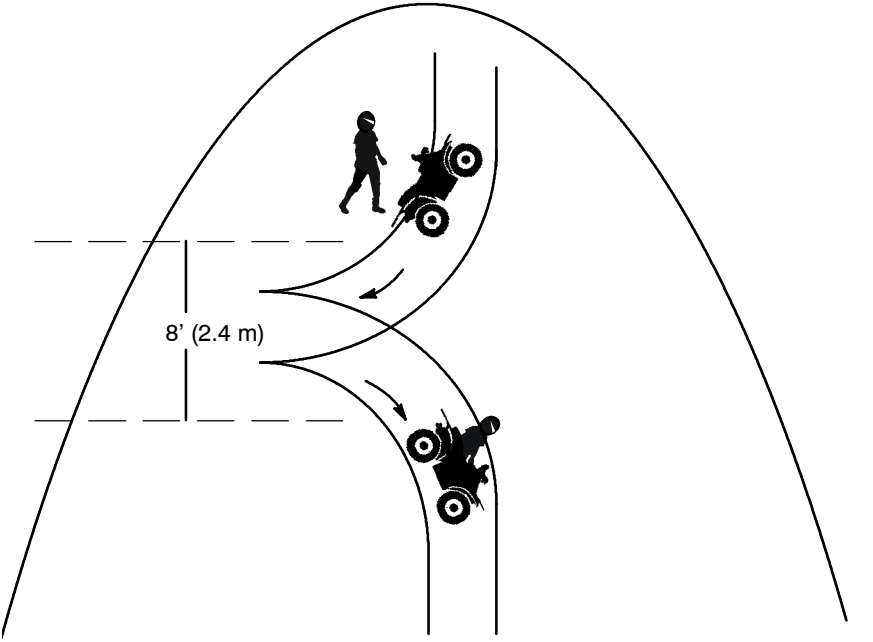
Excessive speed can cause loss of control and lead to serious injury or death. Always operate slowly when traveling downhill.

OPERATION

Driving Safely

Turning Around on a Hill

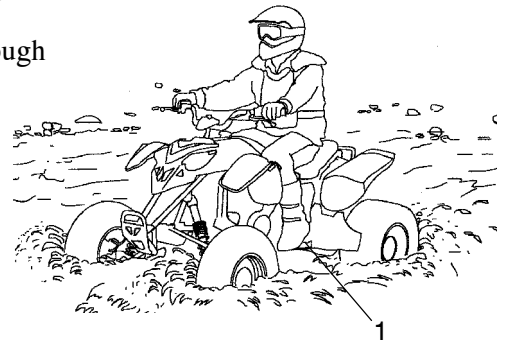
If the vehicle stalls while climbing a hill, never back it down the hill! Use the K-turn to turn around.



1. Stop and lock the parking brake while keeping body weight uphill.
2. Leave the transmission in forward and shut off the engine.
3. Dismount on the uphill side of the vehicle, or on the left if the vehicle is pointing straight uphill.
4. Staying uphill of the vehicle, turn the handlebars full left.
5. While holding the brake lever, release the parking brake lock and slowly allow the vehicle to roll around to your right until it's pointing across the hill or slightly downward.
6. Lock the parking brake and remount the vehicle from the uphill side, keeping body weight uphill.
7. Restart the engine with the transmission still in forward.
8. Release the parking brake and proceed *slowly*, controlling speed with the brake, until the vehicle is on more level ground.

Driving Safely

Driving Through Water



Your vehicle can operate through water with a maximum recommended depth equal to the bottom of the footrests (1). Follow these procedures when operating through water:

1. Determine water depths and current before crossing.
2. Choose a crossing where both banks have gradual inclines.
3. Proceed slowly, avoiding rocks and obstacles if possible.
4. After crossing, dry the brakes by applying light pressure to the lever until braking action is normal.

After running the vehicle in water, it's *critical* to have it serviced as outlined in the maintenance chart. See page 60. The following areas need special attention: engine oil, transmission oil, front and rear gearcases (if equipped), and all grease fittings.

⚠ CAUTION

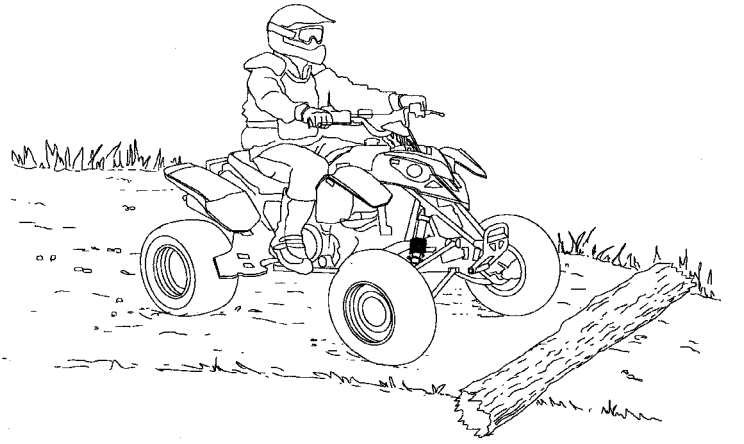
Major engine damage can result if the vehicle is not thoroughly inspected after operation in water. Perform the services outlined in the maintenance chart.

If your vehicle becomes immersed or is operated in water that exceeds the footrest level, take it to your dealer for service before starting the engine.

NOTE: Avoid operating the vehicle through deep or fast-flowing water. If you cannot avoid water that exceeds the recommended maximum depth, go slowly, balance your weight carefully, avoid sudden movements, and maintain a slow and steady forward motion. Do not make sudden turns or stops, and do not make sudden throttle changes.

If your vehicle becomes immersed, and it's impossible to take it to a dealer before starting it, follow the steps described on page 91. Have the vehicle serviced by your dealer at the first opportunity.

OPERATION
Driving Safely
Driving Over Obstacles



Be alert! Look ahead and learn to read the terrain you're traveling on. Be constantly alert for hazards such as logs, rocks and low hanging branches.

⚠ WARNING

Severe injury or death can result if your vehicle comes in contact with a hidden obstacle. Not all obstacles are immediately visible. Travel with caution in unfamiliar terrain.

Driving Safely

Driving in Reverse

Follow these precautions when operating in reverse:

1. Always avoid backing downhill.
2. Back slowly.
3. When in reverse, apply the brakes *lightly* for stopping.
4. Avoid turning at sharp angles in reverse.
5. Never open the throttle suddenly while backing.

⚠ WARNING

Failure to use caution when operating in reverse can result in serious injury or death. Before shifting into reverse, always check for obstacles or people behind the vehicle. When it's safe to proceed, back slowly.

Do not use the override switch unless additional power is required for vehicle movement. Use with caution.

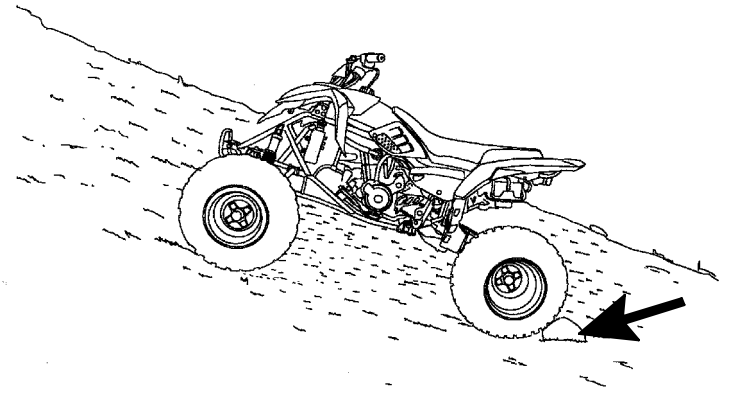
Avoid backing on inclines, and avoid turning at sharp angles.

NOTE: This Polaris vehicle is equipped with a reverse speed limiter. The override button should be used with caution as rearward vehicle speed is greatly increased. Do not operate at wide open throttle. Open the throttle just enough to maintain a desired speed.

CAUTION

Excessive throttle operation while in the speed limit mode may cause fuel to build in the exhaust, resulting in engine popping and/or engine damage.

OPERATION
Driving Safely
Parking on an Incline



Avoid parking on an incline if possible. If it's unavoidable, follow these precautions:

1. Turn the engine off.
1. Place the transmission in gear.
2. Lock the parking brake.
3. Always block the rear wheels on the downhill side. See illustration.
4. Shut off the fuel supply.

EMISSION CONTROL SYSTEMS

Noise Emission Control System

Do not modify the engine, intake or exhaust components, as doing so may affect compliance with governmental noise level requirements.

Exhaust Emission Control System

The emissions from the exhaust of this vehicle are controlled by engine design, including factory-set fuel delivery and ignition. The engine and related components must be maintained at Polaris specifications to achieve optimal performance.

Engine idle speed is the only adjustment Polaris recommends that the operator perform. Any other adjustments should be performed by an authorized Polaris dealer.

Electromagnetic Interference

This spark ignition system complies with USA requirements, Canadian ICES-002 and European directives 89/336/EEC and 97/24/EC.

MAINTENANCE

Periodic Maintenance Chart

Careful periodic maintenance will help keep your vehicle in the safest, most reliable condition. Inspection, adjustment and lubrication of important components are explained in the periodic maintenance chart.

Inspect, clean, lubricate, adjust and replace parts as necessary. When inspection reveals the need for replacement parts, use genuine Polaris parts available from your Polaris dealer.

Record maintenance and service in the Maintenance Log beginning on page 118.

NOTE: Service and adjustments are important for proper vehicle operation. If you're not familiar with safe service and adjustment procedures, have a qualified dealer perform these operations.

Maintenance intervals in the following chart are based upon average riding conditions and an average vehicle speed of approximately 10 miles per hour. Vehicles subjected to severe use must be inspected and serviced more frequently.

Severe Use Definition

- Frequent immersion in mud, water or sand
- Racing or race-style high RPM use
- Prolonged low speed, heavy load operation
- Extended idle
- Short trip cold weather operation

Pay special attention to the oil level. A rise in oil level during cold weather can indicate contaminants collecting in the oil sump or crankcase. Change oil immediately if the oil level begins to rise. Monitor the oil level, and if it continues to rise, discontinue use and determine the cause or see your dealer.

Periodic Maintenance Chart

Maintenance Chart Key

▶ Perform these procedures more frequently for vehicles subjected to severe use.

E Emission-related service (Failure to conduct this maintenance will not void the emissions warranty but may affect emissions.)

■ Have an authorized Polaris dealer perform these services.

⚠ WARNING

Improperly performing the procedures marked with a ■ could result in component failure and lead to serious injury or death. Have an authorized Polaris dealer perform these services.

Perform all services at whichever maintenance interval is reached first.

Item		Maintenance Interval (whichever comes first)			Remarks
		Hours	Calendar	Miles (Km)	
■	Steering	-	Pre-Ride	-	Make adjustments as needed. See Pre-Ride Checklist on page 42.
▶	Front suspension	-	Pre-Ride	-	
▶	Rear suspension	-	Pre-Ride	-	
	Tires	-	Pre-Ride	-	
▶	Brake fluid level	-	Pre-Ride	-	
▶	Brake lever travel	-	Pre-Ride	-	
	Brake system	-	Pre-Ride	-	
	Wheels/fasteners	-	Pre-Ride	-	
	Frame fasteners	-	Pre-Ride	-	
▶	Engine oil level	-	Pre-Ride	-	
▶ E	Air filter, pre-filter	-	Daily	-	Inspect; clean often; replace as needed
▶	Air box sediment tube	-	Daily	-	Drain deposits when visible
	Coolant	-	Daily	-	Check level daily, change coolant every 2 years
	Headlamp/tail lamp	-	Daily	-	Check operation; apply dielectric grease if replacing
▶ E	Air filter, main element	-	Weekly	-	Inspect; replace as needed
	Recoil housing	-	Weekly	-	Drain water as needed, check often if operating in wet conditions

MAINTENANCE
Periodic Maintenance Chart

Item		Maintenance Interval (whichever comes first)			Remarks
		Hours	Calendar	Miles (Km)	
▶ ■	Brake pad wear	10 H	Monthly	100 (160)	Inspect periodically
	Battery	20 H	Monthly	200 (320)	Check terminals; clean; test
▶	Front gearcase oil (if applicable)	25 H	Monthly	250 (400)	Inspect level; change yearly
▶	Transmission oil	25 H	Monthly	250 (400)	Inspect level; change yearly
▶ E	Engine breather filter (if equipped)	25 H	Monthly	250 (400)	Inspect; clean if needed
▶	General lubrication	50 H	3 M	500 (800)	Lubricate all fittings, pivots, cables, etc.
	Carburetor float bowl	50 H	6 M	500 (800)	Drain bowl periodically and prior to storage
■ E	Throttle Cable/ ETC Switch	50 H	6 M	500 (800)	Inspect; adjust; lubricate; replace if necessary
■ E	Choke cable	50 H	6 M	500 (800)	Inspect; adjust; lubricate; replace if necessary
E	Carburetor air intake ducts/ flange	50 H	6 M	500 (800)	Inspect ducts for proper sealing/air leaks
	Drive belt	50 H	6 M	500 (800)	Inspect; adjust; replace as needed
	Cooling system	50 H	6 M	1000 (1600)	Inspect coolant strength seasonally; pressure test system yearly
▶	Engine oil change	100 H	6 M	1000 (1600)	Perform a break-in oil change at one month
▶	Oil filter change	100 H	6 M	1000 (1600)	Replace with oil change
▶	Oil tank vent hose	100 H	12 M	1000 (1600)	Inspect routing, condition
■ E	Valve clearance	100 H	12 M	1000 (1600)	Inspect; adjust
■ E	Fuel system/filter	100 H	12 M	1000 (1600)	Check for leaks at tank cap, lines, fuel valve, filter, pump, carburetor; replace lines every two years
▶	Radiator (if applicable)	100 H	12 M	1000 (1600)	Inspect; clean external surfaces

Periodic Maintenance Chart

	Item	Maintenance Interval (whichever comes first)			Remarks
		Hours	Calendar	Miles (Km)	
▶	Cooling hoses (if applicable)	100 H	12 M	1000 (1600)	Inspect for leaks
▶	Engine mounts	100 H	12 M	1000 (1600)	Inspect
	Exhaust muffler/ pipe	100 H	12 M	1000 (1600)	Inspect
■ E	Spark plug	100 H	12 M	1000 (1600)	Inspect; replace as needed
■ E	Ignition Timing	100 H	12 M	1000 (1600)	Inspect
▶	Wiring	100 H	12 M	1000 (1600)	Inspect for wear, routing, security; apply dielectric grease to connectors subjected to water, mud, etc.
■	Clutches (drive and driven)	100 H	12 M	1000 (1600)	Inspect; clean; replace worn parts
■	Front wheel bearings	100 H	12 M	1000 (1600)	Inspect; replace as needed
■	Brake fluid	200 H	24 M	2000 (3200)	Change every two years
	Spark arrestor	300 H	36 M	3000 (4800)	Clean out
	Idle speed	-			Adjust as needed
■	Toe adjustment	-			Inspect periodically; adjust when parts are replaced
	Headlight aim	-			Adjust as needed

▶ Perform these procedures more often for vehicles subjected to severe use.
E Emission-Related Service
■ Have an authorized Polaris dealer perform these services.

MAINTENANCE

Lubrication Recommendations

Always check and change fluids and lubricate greaseable components at the intervals outlined in the Periodic Maintenance Chart beginning on page 60. Items not listed in the chart should be lubricated at the General Lubrication interval.

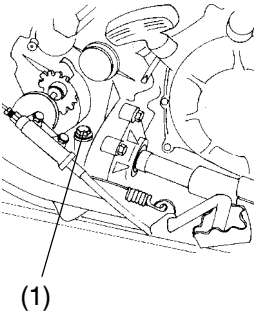
NOTE: The a-arms and lower control arms are lubricated at the factory, and no additional lubrication will be needed. However, if these components are subjected to severe use, grease zerks have been provided for additional lubrication at the user's discretion.

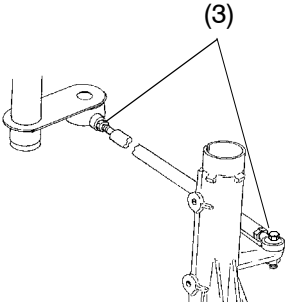
Lubrication Chart Key

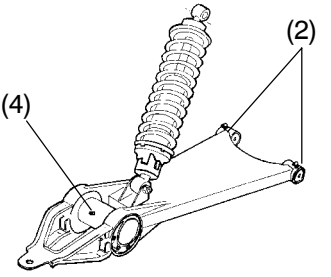
▶ More often under severe use, such as wet or dusty conditions
★ Polaris Premium All Season Grease or grease conforming to NLG No. 2, such as Conoco Superlube M or Mobilegrease Special
● Use Polaris Premium U-Joint Lube every 500 miles, before long periods of storage, or after pressure washing or submerging
Δ When suspension action becomes stiff, or after washing

Item	Lube	Method
Engine Oil	PS-4 PLUS Performance Synthetic 2W-50	Add to proper level on dipstick.
Brakes	DOT 4 fluid only	Maintain level between fill lines. See page 35.
Drive chain(s)	O-ring chain lube or SAE 80/90	Lubricate.
(1) Transmission	AGL Synthetic Gearcase Lube	Maintain as recommended on page 70.
(2) Swing Arm Bushings	▶★ Grease	Locate fittings on swing arm and grease with grease gun.
(3) Tie Rod Ends	▶★Δ Grease	Lift boot, clean away dirt and grease, apply fresh grease by hand and reassemble.
(4) Axle Housing	▶★ Grease	Locate fittings on swing arm and grease with grease gun.

Lubrication Recommendations







MAINTENANCE

Engine Oil

Always check and change the engine oil at the intervals outlined in the Periodic Maintenance Chart beginning on page 60. Always change the oil filter whenever changing oil.

Oil Recommendations

Polaris recommends the use of Polaris PS-4 PLUS Performance Synthetic 2W-50 4-cycle oil or a similar oil for this engine. Oil may need to be changed more frequently if Polaris oil is not used. Always use 2W-50 oil. Follow the manufacturer's recommendations for ambient temperature operation.

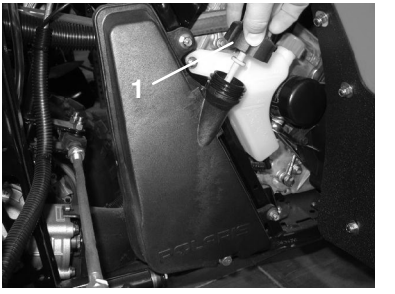
See page 111 for the part numbers of Polaris products.

CAUTION

Mixing brands or using a non-recommended oil may cause serious engine damage. Always use the recommended oil. Never substitute or mix oil brands.

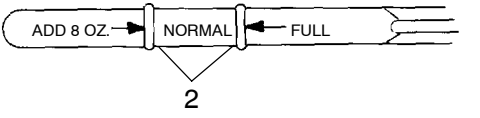
Oil Check

1. Position the vehicle on a level surface.
2. Start the engine and let it idle for 20-30 seconds. Stop the engine.
3. Remove the dipstick (1), which is located on the left side of the vehicle.
4. Wipe the dipstick dry with a clean cloth. Reinstall it and screw it completely in.



NOTE: The dipstick must be screwed completely in to keep the angle and depth of the stick consistent.

5. Remove the dipstick and read the oil level. Maintain the oil level in the normal operating range (2). Do not overfill.



Engine Oil
Oil and Filter Change

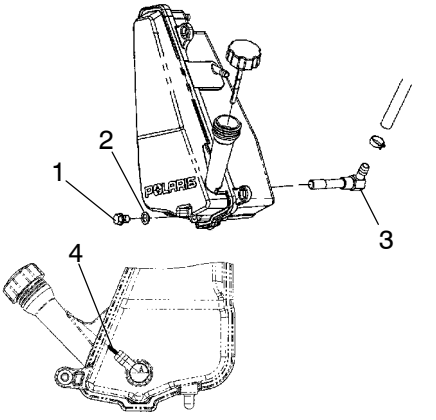
⚠ CAUTION

Contact with hot oil may result in serious burns. Do not allow hot oil to come into contact with skin.

1. Position the vehicle on a level surface. Clean the area around the drain plug at the bottom of the oil tank and the bottom of the engine.
2. Run the engine for two to three minutes, then turn it off.
3. Place a drain pan beneath the oil tank and remove the drain plug (1). Allow the oil to drain completely.
4. Install a new sealing washer (2) on the oil drain plug.

NOTE: The sealing surfaces on the drain plug and the oil tank should be clean and free of burrs, nicks or scratches.

5. Reinstall the drain plug and torque to 14-17 ft. lbs. (19-23 Nm).
6. Disconnect the lower oil delivery hose and remove the screen fitting (3) from the oil tank. Clean the fitting.



NOTE: The fitting threads must be sealed with LOCTITE PST 505 or PTFE seal tape.

7. Reinstall the screen fitting and rotate the fitting clockwise a minimum of 2 1/2 turns into the tank threads. Continue to rotate the fitting until the nipple of the fitting aligns with the mark (4) on the tank.

NOTE: Do not over-tighten. Maximum torque for the screen fitting is 25 ft. lbs. (34 Nm).

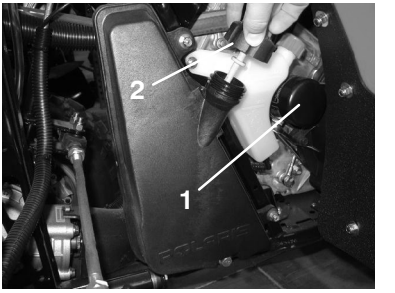
8. Reattach the oil line.

MAINTENANCE

Engine Oil

Oil and Filter Change

9. Place shop towels beneath the oil filter. Using an oil filter wrench, turn the filter (1) counterclockwise and remove.
10. Lubricate the gasket on the new filter with a film of new engine oil. Check to make sure the gasket is in good condition. Also make sure the gasket from the old filter is not still on the engine.
11. Install the new filter and tighten by hand 1/2 to 3/4 turn after gasket contacts the engine.
12. Approximately one cup of engine oil will remain in the crankcase. To drain, remove the drain plug on the lower right side of the crankcase.



NOTE: The sealing surfaces on the drain plug and crankcase should be clean and free of burrs, nicks or scratches.

13. Reinstall the drain plug and torque to 14 ft. lbs. (19 Nm).
14. Remove the dipstick (2) and add two quarts (1.9 l) of the recommended oil. Reinstall the dipstick.

NOTE: If the sump is not drained, add about 1 3/4 quarts initially.

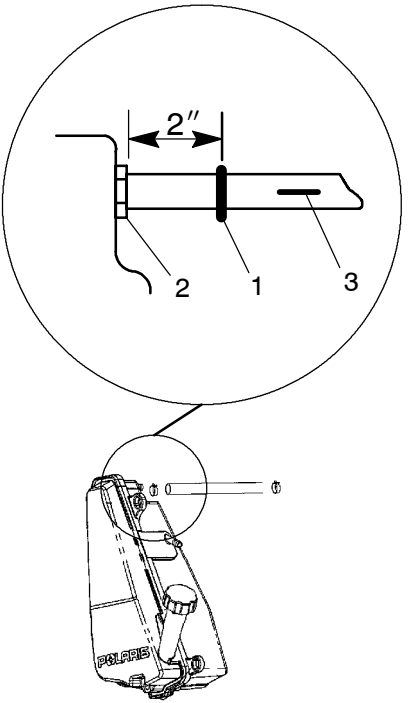
15. Place the gear selector in neutral. Lock the parking brake.
16. **Prime the oil pump using the procedure on page 69.**. Then stop the engine and inspect for leaks.
17. Recheck the oil level on the dipstick and add oil as necessary to bring it to the recommended level on the dipstick.
18. Dispose of used filter and oil properly.

Engine Oil

Oil and Filter Change
Oil Pump Priming

This priming procedure must be performed whenever the oil hose connection between the oil tank and pump inlet has been disconnected.

1. Clamp or pinch off the vent line (1) approximately 2″ from the oil tank (2), between the end of the oil tank vent fitting and the vent line's pressure relief slit (3).
2. Run the engine for 10-20 seconds.
3. Remove the vent line clamp. If the line is bled properly, you should hear a rush of air, indicating that the line is properly primed and ready for operation. *If you do not hear air, the line has not bled, and you'll need to repeat the priming procedure.*



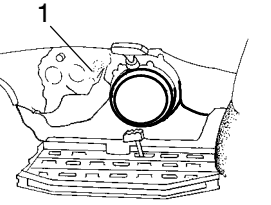
MAINTENANCE

Transmission Oil

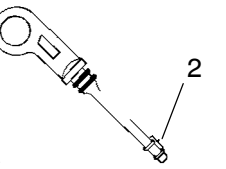
Always check and change the transmission oil at the intervals outlined in the Periodic Maintenance Chart beginning on page 60. Maintain the oil level within the SAFE operating range on the dipstick. We recommend the use of Premium AGL Synthetic Gearcase Lubricant. See page 111 for the part numbers of Polaris products.

Oil Check

The transmission oil dipstick (1) is located on the right side of the vehicle.



1. Position the vehicle on a level surface.
2. Remove the dipstick and wipe it clean.
3. Reinstall the dipstick completely, then remove it and check the level.



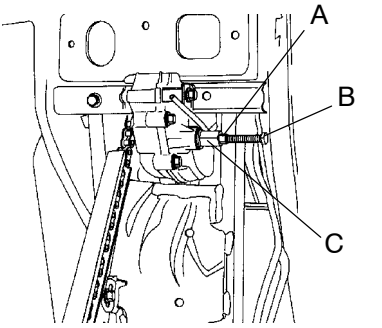
4. Add the recommended lubricant to bring the level into the safe operating range (2).
5. Reinstall the dipstick.

Transmission Oil

Refer to the specifications section beginning on page 108 for transmission oil capacity.

Oil Change

1. Position the vehicle on a level surface.
2. Place a drain pan beneath the transmission oil drain plug area.
3. Loosen the jam nut (A).
4. Turn the adjuster bolt (B) in to allow the removal of the drain plug (C).
5. Remove the drain plug and wipe the magnetic end clean to remove accumulated metallic filings.



6. After the oil has drained completely, install a new sealing washer and reinstall the drain plug. Torque to 14 ft. lbs. (19 Nm).
7. Turn the adjuster bolt (B) out until it touches the frame, and then turn an additional 1/2 turn.
8. Tighten the jam nut securely while holding the adjuster bolt.
9. Remove the dipstick. Add the recommended lubricant until the oil level is between the upper and lower limits. Do not overfill.
10. Reinstall the dipstick.
11. Check for leaks.

MAINTENANCE

Drive Chain

The drive chains are equipped with o-ring-sealed, permanently greased pins and rollers. However, the outer surfaces of the roller must be lubricated.

Always inspect the drive chain prior to operating the vehicle. Check for damaged or missing o-rings or damaged rollers. Also check for correct slack adjustment. Maintain the stone guard to rear sprocket clearance at 1/8″ (.3 cm).

Regularly lubricate the drive chain with Polaris Chain Lube, an SAE 80-90 lube or an approved o-ring chain spray lube. See page 111 for the part numbers of Polaris products.

CAUTION

Washing the drive chain with a high pressure washer or gasoline can cause damage to the o-rings, causing premature wear and drive chain failure. Do not use a high pressure washer or gasoline to clean the drive chain.

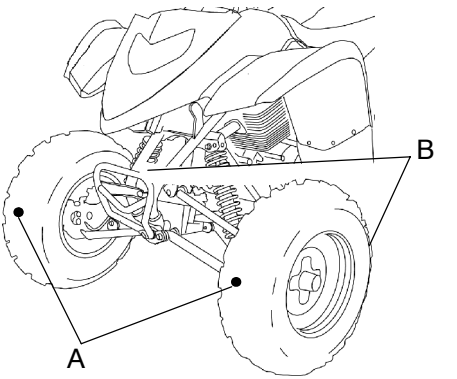
Toe Alignment

⚠ WARNING

Severe injury or death can result from improper toe alignment and adjustment. Do not attempt to adjust tie rod alignment. All tie rod adjustments should be performed by an authorized Polaris dealer.

Use the following procedure to check the toe alignment of the vehicle. The recommended toe alignment is 1/8″ - 1/4″ (3-6 mm) toe out.

1. Position the vehicle on a level surface.
2. Set the handlebars in a straight-ahead position and secure them in this position.
3. Place a chalk mark on the center line of the front tires approximately 10″ (25.4 cm) from the floor, or as close to the hub/axle center line as possible. Make sure both marks are the same distance from the floor.



4. Measure the distance between the marks and record the measurement (A).
5. Move the vehicle until the chalk marks are at the rear of the tires, even with the hub/axle centerline.
6. Measure the distance between the marks and record the measurement (B).
7. Subtract measurement B from measurement A. The difference is the vehicle toe-out alignment.

NOTE: If you discover improper alignment, see your Polaris dealer for service.

MAINTENANCE

Brakes

The front and rear brakes are hydraulic disc brakes, activated by moving the single brake lever toward the handlebar. These brakes are self-adjusting.

The following checks are recommended to keep the brake system in good operating condition. Check more often if brakes are used heavily under normal operation, such as in hilly country or in muddy terrain.

⚠ WARNING

Never store or use a partial bottle of brake fluid. Brake fluid is hygroscopic, meaning it rapidly absorbs moisture from the air. The moisture causes the boiling temperature of the brake fluid to drop, which can lead to early brake fade and the possibility of accident or severe injury. After opening a bottle of brake fluid, always discard any unused portion.

1. Always maintain brake fluid at an adequate level (see page 35).

⚠ WARNING

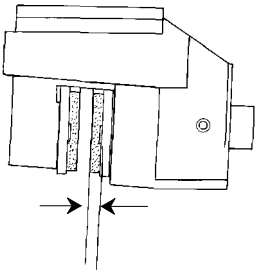
An over-full master cylinder may cause brake drag or brake lock-up, which could result in serious injury or death. Maintain brake fluid at the recommended level. Do not overfill.

NOTE: Under normal operation, the diaphragm extends into the reservoir as fluid level drops. If the fluid level is low and the diaphragm is not extended, a leak is likely and the diaphragm should be replaced. Always fill the reservoir as needed whenever the cover is loosened or removed to ensure proper diaphragm operation. Use Polaris DOT 4 brake fluid. Do not overfill.

Brakes

1. Check the brake system for fluid leaks.
2. Check the brakes for excessive travel or spongy feel.
3. Check the friction pads for wear, damage and looseness.
4. Check the security and surface condition of the disc.

NOTE: Pads should be changed when worn to 3/64″ (.1 cm).



3/64″ (.1 cm)

Auxiliary Brake

The auxiliary brake system is intended to be used as a backup for the main brake system. Should the main system fail, the rear brake can be activated by depressing the foot pedal on the inside of the right footrest. The hydraulic auxiliary brake system requires no adjustment.

NOTE: Since this is a rear brake only, it will not be as effective as the all-wheel single lever system.

MAINTENANCE

Steering Assembly

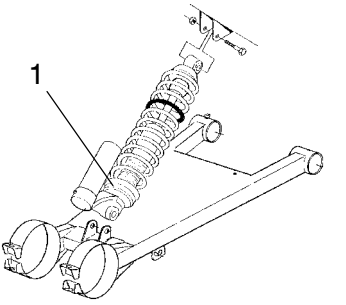
The steering assembly of the vehicle should be checked periodically for loose nuts and bolts. If loose nuts and bolts are found, see your Polaris dealer for service before operating the vehicle.

Camber and Caster

The camber and caster are non-adjustable.

Rear Spring

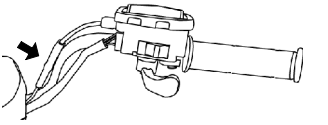
The rear shock absorber spring is adjusted by rotating the adjuster (1) either clockwise or counterclockwise to increase or decrease spring tension.

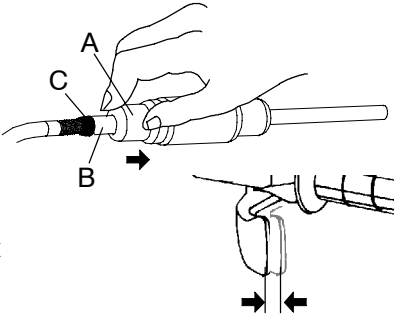


NOTE: Accessory springs are available through your Polaris dealer.

Throttle Cable Freeplay

1. Locate the throttle cable adjuster at the handlebar.
2. Squeeze the end of the rubber boot (A) and slide it far enough to expose the end of the inline cable adjuster (B).
3. Loosen the adjuster locknut (C).
4. Rotate the boot to turn the adjuster until 1/16″ to 1/8″ (1.5-3 mm) of freeplay is achieved at the thumb lever.



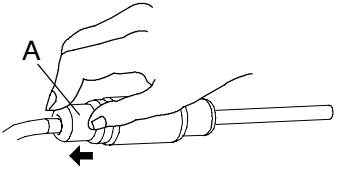


1/16″ to 1/8″
(1.5-3 mm)

NOTE: Move the throttle lever back and forth while adjusting.

5. Tighten the locknut.
6. Reinstall the boot(s) to their original position.

NOTE: Engine RPM should not increase when steering is turned full left or right. Readjust cable freeplay if this occurs.

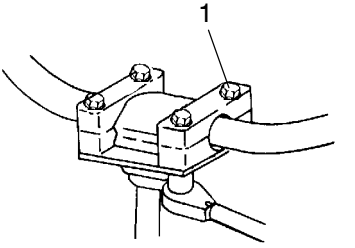


Handlebars

⚠ WARNING

Improper adjustment of the handlebars or incorrect torquing of the adjuster block tightening bolts can cause limited steering or loosening of the handlebars, resulting in loss of control and possible serious personal injury or death. Follow the adjustment procedures exactly, or see your Polaris dealer for service.

The handlebars can be adjusted for rider preference.



1. Remove the handlebar cover to access the handlebar bolts (1).
2. Loosen the four bolts.
3. Adjust the handlebar to the desired height. Be sure the handlebars do not contact the gas tank or any other part of the machine when turned fully to the left or right.
4. Torque the two front bolts to 10-12 ft. lbs. (14-17 Nm), then torque the two rear bolts. A gap of up to 1/8” will remain at the rear bolts.

MAINTENANCE

Carburetor

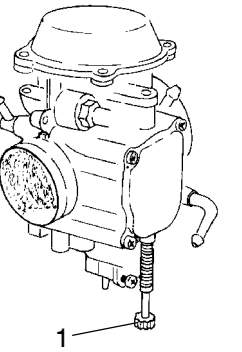
IMPORTANT: Your Polaris vehicle is calibrated at the factory for optimal performance at altitudes ranging from zero to 6,000 feet (1800 m) and temperatures of +40 degrees F. (4 degrees C.) or higher. Above 6000 feet (1800 m) the engine air/fuel mixture becomes overly rich and the engine loses approximately 3% of its power for each 1000-foot (304.8 m) increase in elevation. Although this power cannot be regained, adjustments to the carburetor and drive system can be made to allow more efficient operation. Optional jets, available from your Polaris dealer, are required for operation above 6,000 feet and temperatures below +40 degrees F. (4 degrees C.)

NOTE: Continuous operation of the engine without proper jetting when required can cause poor performance, overheating and engine or PVT damage. See your Polaris dealer for more information about jetting the vehicle for conditions in your area.

If the engine idle speed is not satisfactory, and all other conditions are favorable, the carburetor can be adjusted.

1. Warm up the engine by running the vehicle for approximately five minutes.
2. Place the transmission in gear and engage the parking brake.
3. Adjust the carburetor idle screw (1) either in or out until the desired idle RPM is reached. Refer to the specifications section beginning on page 108 for the proper setting.

NOTE: Turn the screw in (clockwise) to raise RPM. Turn the screw out (counterclockwise) to lower RPM.



Wheels

⚠ WARNING

Operating your vehicle with worn tires, improperly inflated tires, non-standard tires or improperly installed tires will affect vehicle handling and could cause an accident resulting in serious injury or death.

Maintain proper tire pressure as described on the decal on your vehicle and in your owner's manual.

Always use original equipment size and type when replacing tires.

Make sure the wheels are installed properly.

Always replace tires when the tread depth measures 1/8″ (.3 cm) or less.

Wheel Removal

1. Stop the engine, place the transmission in gear and lock the parking brake.
2. Loosen the wheel nuts slightly.
3. Elevate the side of the vehicle by placing a suitable stand under the footrest frame.
4. Remove the wheel nuts and remove the wheel.

MAINTENANCE

Wheels

Wheel Installation

1. Place the transmission in gear and lock the parking brake.

⚠ WARNING

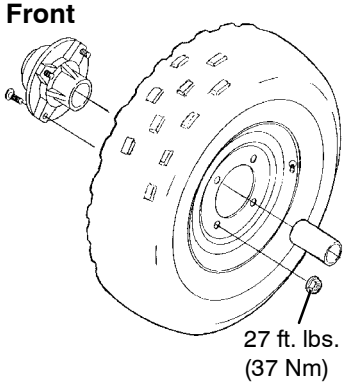
Improperly installed wheels can adversely affect tire wear and vehicle handling, which can result in serious injury or death. Always ensure that all nuts are torqued to specification. Do not service axle nuts that have a cotter pin installed. See your Polaris dealer.

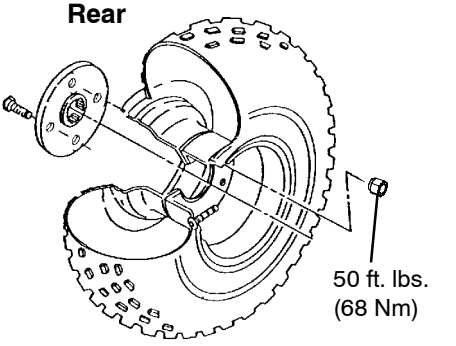
2. Place the wheel on the wheel hub with the valve stem toward the outside and rotation arrows on the tire pointing toward forward rotation.
3. Install the wheel nuts and finger tighten. On vehicles with tapered rear wheel nuts, make sure the tapered ends of the nuts fit into the tapers on the wheels.
4. Lower the vehicle to the ground.
5. Torque the nuts to specification.

Wheel Nut Torque Specifications

Check the wheel nut torques occasionally and when they've been loosened for maintenance.

Item	Specification
Front Wheel Nuts	27 ft. lbs. (37 Nm)
Rear Wheel Nuts	50 ft. lbs. (68 Nm)





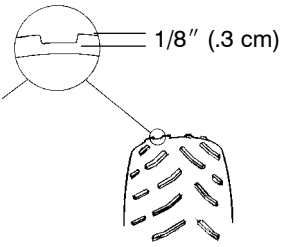
Wheels

Front Wheel Hub Tightening

Front wheel bearing tightness and spindle nut retention are critical component operations. All service must be performed by your authorized Polaris dealer.

Tire Tread Depth

Always replace tires when tread depth is worn to 1/8″ (.3 cm) or less. See illustration.



⚠ WARNING

Operating the vehicle with worn tires will increase the possibility of skidding, which could lead to loss of control and serious injury or death. Always replace tires when the tread depth measures 1/8″ (.3 cm) or less.

⚠ WARNING

Use of non-standard size or type of tires or improper tire inflation may adversely affect vehicle maneuverability and cause loss of control resulting in serious injury or death. Maintain proper tire pressure as outlined in this owner's manual. When replacing a tire always use original equipment size and type.

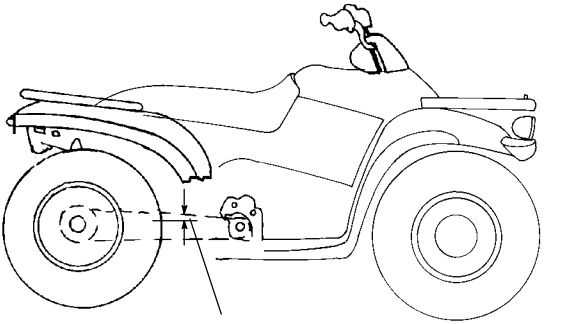
MAINTENANCE

Rear Drive Chain Slack

CAUTION

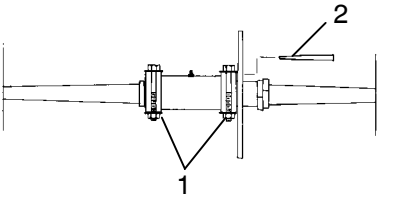
Adjusting or operating the vehicle with improper rear drive chain slack can result in severe damage to the transmission and drive components. Always make sure the slack is within the stated specifications.

Check the amount of chain slack in three different locations by moving the vehicle slightly forward to gain slack at the top side of the rear chain. Measure the chain slack at the tightest of the three positions. At this point the chain should have 3/16″-3/8″ (.48 cm - .95 cm) deflection. Use the following procedure if adjustment is required.



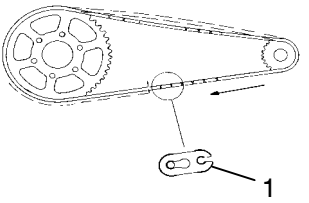
3/16″-3/8″ (.48 cm - .95 cm)

1. Remove the chain guard.
2. Loosen the chain guide.
3. Loosen the two eccentric locking bolts (1).
4. Loosen the caliper mounting bolt located on the left side of the swing arm.



5. Insert a pin punch (2) through the sprocket hub and into the eccentric housing.

Rear Drive Chain Slack



6. Roll the vehicle forward or backward to adjust the chain slack to the proper tension. See the illustration for proper splice link clip opening position (1).
7. Tighten the eccentric locking bolts to 30 ft. lbs. (41 Nm) for machines without the hitch and 45 ft. lbs. (61 Nm) for machines with a hitch.
8. Tighten the caliper mount bolt to 15 ft. lbs. (20 Nm)
9. Remove the pin punch.
10. Roll the vehicle forward, checking chain tension in several places around the chain.

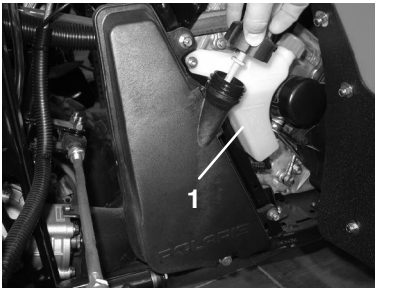
NOTE: The chain is adjusted correctly when the tightest portion of the chain has approximately 3/8" (10mm) deflection.

11. Position the chain guide to allow 1/8" (3mm) clearance and tighten the retaining bolt to 5 ft. lbs. (7 Nm).
12. Reinstall the chain guard.

MAINTENANCE

Engine Cooling System

Coolant Level



The recovery bottle (1) is located on the left side of the machine. The fluid level must be maintained between the minimum and maximum marks on the bottle (when the fluid is cool).

The engine coolant level is controlled or maintained by the recovery system. The recovery system components are the recovery bottle, radiator filler neck, radiator pressure cap and connecting hose.

As coolant operating temperature increases, the expanding (heated) excess coolant is forced out of the radiator, past the pressure cap, and into the recovery bottle. As engine coolant temperature decreases, the contracting (cooled) coolant is drawn back up from the tank, past the pressure cap, and into the radiator.

Some coolant level drop on new machines is normal, as the system is purging itself of trapped air. Observe coolant levels and maintain as recommended by adding coolant to the recovery bottle.

To ensure that the coolant maintains its ability to protect the engine, we recommend that the system be completely drained every two years and a fresh mixture of antifreeze and water added.

Polaris recommends the use of Polaris Premium 60/40 anti-freeze/coolant or a 50/50 mixture of high quality aluminum compatible anti-freeze/coolant and distilled water. See page 111 for the part numbers of Polaris products.

NOTE: Polaris Premium 60/40 is already premixed and ready to use. Do not dilute with water.

NOTE: Always follow the manufacturer's mixing recommendations for the freeze protection required in your area.

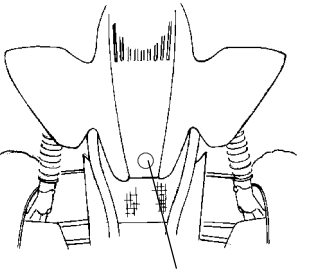
Engine Cooling System

⚠ WARNING

Escaping steam can cause severe burns. Never remove the pressure cap while the engine is warm or hot. Always allow the engine to cool before removing the pressure cap.

Radiator Coolant Level

NOTE: This procedure is required only if the cooling system has been drained for maintenance and/or repair. However, if the recovery bottle has run dry, the level in the radiator should be inspected and coolant added if necessary.



1. Remove the front panel to access the radiator pressure cap (1). Remove the cap.
2. If coolant is low, use a funnel and slowly add coolant through the radiator filler neck.
3. Reinstall the pressure cap and secure the front panel.
4. Fill the coolant recovery bottle to the upper mark on the bottle.
5. Check the coolant level in the bottle frequently, adding coolant as needed until the level stabilizes.

NOTE: Use of a non-standard pressure cap will not allow the recovery system to function properly. Contact your dealer for the correct replacement part.

MAINTENANCE

Lights

When servicing a halogen lamp, don't touch the lamp with bare fingers. Oil from your skin leaves a residue, causing a hot spot that will shorten the life of the lamp.

⚠ WARNING

Poor lighting while driving can result in severe injury or death. Headlight and taillight lenses become dirty during normal operation. Wash the headlights frequently to maintain lighting quality.

Hot components can cause serious burns to skin. Do not service the headlamps until they've cooled sufficiently.

Headlight Lamp Replacement

1. Remove the wire harness connector from the back of the headlight.
2. Grasp the bulb housing and turn it counterclockwise to remove the bulb.
3. Apply dielectric grease to the light bulb socket before installing the new bulb. Install the replacement bulb into headlight housing and rotate clockwise firmly.

NOTE: The bulb must be positioned so the harness installs into the lamp at the bottom.

4. Reinstall the connector to the back of the headlight..

High Beam Adjustment

The headlight beam can be adjusted vertically.

1. Position the vehicle on a level surface with the headlight approximately 25 ft. (7.6 m) from a flat wall.
2. Measure the distance from the floor to the center of the headlight and make a mark on the wall at the same height.
3. Start the engine and turn the headlight switch to high beam.
4. Observe the headlight aim on the wall. The most intense part of the headlight beam should be aimed 2" (5.1 cm) below the mark placed on the wall.

NOTE: Include rider weight on the seat when measuring.

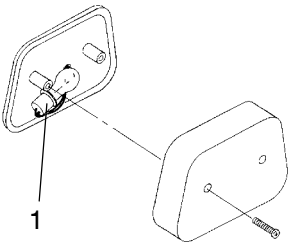
5. Loosen the pivot bolt and adjust the beam to the desired position.
6. Tighten the bolt and torque to 60 in. lbs. (7 Nm).

Lights

Taillight/Brakelight Lamp Replacement

If the taillight/brakelight does not work the lamp may need to be replaced.

1. Remove the taillight lens cover mounting screws. Remove the lens cover and gasket and set aside for reassembly.
2. Remove the lamp (1).
3. Apply dielectric grease to the socket and install the new lamp.
4. Test the taillight/brakelight for proper operation.
5. Reinstall the gasket and lens cover.



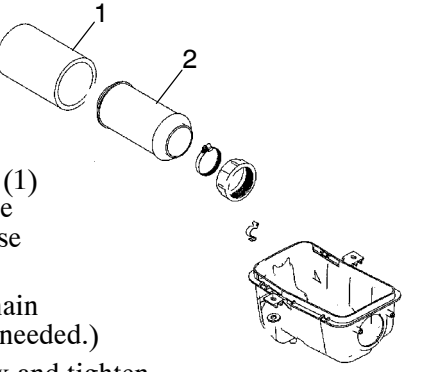
Indicator Lamp Replacement

1. Remove the instrument panel, if necessary, to access the back of the indicator panel.
2. Using a small, straight-blade screwdriver, turn the base of the bulb 1/4 turn counterclockwise.
3. Using a needle-nose plier or similar tool, pull the lamp out of the indicator panel housing.
4. Insert the new bulb and seat it by turning it 1/4 turn clockwise.
5. Reinstall the instrument panel if removed.

MAINTENANCE

Filter Systems

Air Filter Service

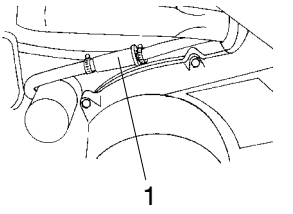


1. Remove the seat, release the clips, and remove the air box cover.
2. Loosen the clamp and remove the filter.
3. Remove the fabric type pre-filter (1) from the main filter (2). Wash the pre-filter in soapy water, then rinse and let dry.
4. Reinstall the pre-filter over the main filter. (Replace the main filter if needed.)
5. Reinstall the filter into the air box and tighten the clamp. Do not over tighten the clamp, as filter damage could occur.

Breather Filter/Hose

CAUTION

Operation of your vehicle without a breather filter can cause engine damage. Always reinstall the breather filter after removing for service.



1. Remove the clamps and pull the filter (1) out of the hoses.

NOTE: It's not necessary to remove the lower hose from the engine.

2. Inspect the filter for debris. Blow gently through the filter in the direction of the arrow to check for clogging. Replace if needed.
3. Check the hoses for cracks, deterioration, abrasion, or leaks. Replace as needed.
4. Reinstall the filter and secure the clamps.

NOTE: The filter is effective with the arrow pointing in either direction.

Spark Plugs

Spark Plug Recommendations

CAUTION

Using non-recommended spark plugs can result in serious engine damage. Always use Polaris-recommended spark plugs. Refer to the specifications section beginning on page 108.

Refer to the specifications section beginning on page 108 for the recommended spark plug type and gap for your vehicle. Torque spark plugs to specification.

Plug Condition	Torque Specification
New Spark Plug	9-11 ft. lbs. (12-15 Nm)
Previously Installed Spark Plug	17-20 ft. lbs. (23-27 Nm)

Spark Plug Inspection

Spark plug condition is indicative of engine operation. Check the spark plug firing end condition after the engine has been warmed up and the vehicle has been driven at higher speeds. Immediately check the spark plug for correct color. See page 90.

⚠ WARNING

A hot exhaust system and engine can cause serious burns. Wear protective gloves when removing a spark plug for inspection.

1. Remove the spark plug cap.
2. Using the special wrench provided in the tool pouch, rotate the spark plug counterclockwise to remove it.
3. Reverse the procedure for spark plug installation. Torque to specification.

MAINTENANCE

Spark Plugs

Spark Plug Inspection

Normal Plug

The normal insulator tip is gray, tan or light brown. There will be few combustion deposits. The electrodes are not burned or eroded. This indicates the proper type and heat range for the engine and the service.

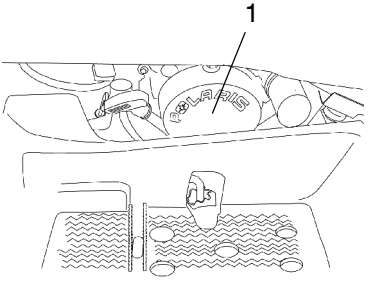
NOTE: The tip should not be white. A white insulator tip indicates overheating, caused by use of an improper spark plug or incorrect carburetion adjustments.

Wet Fouled Plug

The wet fouled insulator tip is black. A damp oil film covers the firing end. There may be a carbon layer over the entire nose. Generally, the electrodes are not worn. General causes of fouling are excessive oil, use of non-recommended injection oil, improper use of the choke, or incorrect carburetion adjustments.

Recoil Housing

To prevent possible engine damage, always drain the recoil housing (1) after operating the vehicle in very wet conditions. This should also be done before storing the vehicle.



Water will enter the recoil housing if the starter handle is disengaged from the rope guide when under water.

The drain screw is located at the bottom of the recoil housing. Use a wrench to remove the screw. Be sure to reinstall the screw after draining the housing.

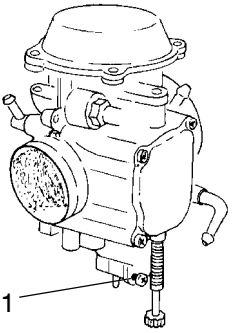
NOTE: Do not open the *crankcase* drain unless the engine has ingested water. On 4-cycle engines, some engine oil will be lost if the crankcase drain is opened.

Vehicle Immersion

CAUTION

If your vehicle becomes immersed, major engine damage can result if the machine is not thoroughly inspected. Take the vehicle to your dealer before starting the engine.

If it's impossible to take your Quadricycle to a dealer before starting it, follow the steps outlined below.



1. Move the vehicle to dry land or at the very least, to water below the footrests.
2. Check the airbox for any water. Drain and dry it if water is present.
3. Turn the fuel valve off.
4. Remove the spark plug.
5. Turn the engine over several times using the electric start.
6. Loosen the carburetor drain screw (1).
7. Dry the spark plug and reinstall, or replace it with a new plug.
8. Tighten the carburetor drain screw.
9. Turn the fuel valve on.
10. Attempt to start the engine. If necessary, repeat the drying procedure.
11. Take the vehicle to your dealer for service as soon as possible, whether you succeed in starting it or not.

NOTE: If water has been ingested into the PVT, follow the procedure on page 93 for drying out the PVT.

MAINTENANCE
PVT System

The basic operation of the Polaris PVT system is dependent on engine speed and vehicle torque requirements. As engine speed increases, the force exerted on the movable drive sheave by the flyweights also increases. This, in turn, increases the amount of "pinch" applied to the drive belt. Similarly, if the engine speed decreases, the amount of centrifugal force decreases, reducing the amount of belt "pinch." This begins to occur at speeds of less than 5 MPH, due to the system's dependence on engine speed.

For example, when operating at a ground speed of 3 MPH, the engine would be running at only about 1500 RPM, with an engagement speed of about 1400 RPM. Whenever operating this close to the engagement point, the engine may be running at a speed too low to provide the adequate "pinch" needed to prevent incomplete engagement. Incomplete engagement creates excessive heat that can destroy belts and clutch covers. In some cases, excessive clutch wear and damage may result.

If the vehicle will be operated for extended periods below 5 MPH, or for towing loads, we recommend that you install a one tooth smaller counter shaft sprocket to raise the operating RPM far enough above the engagement RPM to reduce heat caused by incomplete engagement. Reducing the temperature inside the clutch cover extends the life of the PVT components (belt, cover, etc.).

NOTE: Avoid heavy pulling and extended low-speed operation.

PVT System

⚠ WARNING

Failure to comply with the instructions in this warning can result in severe injury or death.

Do not modify any component of the PVT system. Doing so may reduce its strength so that a failure may occur at a high speed. The PVT system has been precision balanced. Any modification will cause the system to be out of balance, creating vibration and additional loads on components.

The PVT system rotates at high speeds, creating large amounts of force on clutch components. Extensive engineering and testing has been conducted to ensure the safety of this product. However, as the owner, you have the following responsibilities to make sure this system remains safe:

Always follow all recommended maintenance procedures. See your dealer as outlined in the owner's manual.

This PVT system is intended for use on Polaris products only. Do not install it in any other product.

Always make sure the PVT housing is securely in place during operation.

PVT Drying

There may be some instances when water is accidently ingested into the PVT system. Use the following instructions to dry it out before operating:

1. Remove the drain plug and allow the water to drain. Reinstall the drain plug.
2. Start the engine and shift the transmission into neutral. Apply varying throttle for 10-15 seconds to expel the moisture and air-dry the belt and clutches. Do not hold the throttle wide open for more than 10 seconds.
3. Allow the engine RPM to settle to idle speed, then shift the transmission to the lowest available range.
4. Test for belt slippage. If the belt slips, repeat the process.
5. Take the vehicle to your dealer for service as soon as possible.

MAINTENANCE

Spark Arrestor

⚠ WARNING

Failure to heed the following warnings while servicing the spark arrestor could result in serious injury or death.

Do not perform service on the spark arrestor while the system is hot. Exhaust system temperatures can reach 1000° F. Allow components to cool sufficiently before proceeding.

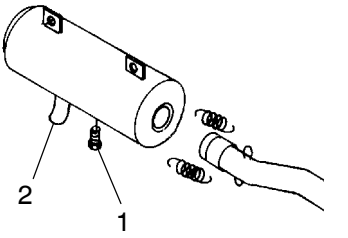
Remove any combustible materials from the area.

Wear eye protection and leather work gloves.

Do not stand behind or in front of the vehicle while purging.

Never run the engine in an enclosed area. Exhaust contains poisonous carbon monoxide gas.

Never go under the vehicle while it's inclined.



1. Remove the arrestor clean-out plug (1) from the bottom of the muffler.
2. Place the transmission in neutral and start the engine.
3. Purge carbon from the system by momentarily revving the engine several times.
4. If carbon is expelled, cover or plug the exhaust outlet (2) and rap on the pipe around the cleanout plug while revving the engine several more times.
5. If particles are still suspected to be in the muffler, elevate the rear of the vehicle one foot higher than the front. Lock the parking brake and block the wheels. Make sure the vehicle is in neutral and repeat steps 3 and 4 until no more particles are expelled when the engine is revved.
6. Stop the engine and allow the arrestor to cool. Reinstall the arrestor plug and remove the outlet cover or plug.

Battery

Your vehicle may have either a sealed battery, which requires little maintenance, or a conventional battery. A sealed battery can be identified by its flat covers on the top of the battery. A conventional battery has six filler caps on the top of the battery.

Conventional Battery

Always keep battery terminals and connections free of corrosion. If cleaning is necessary, remove corrosion with a stiff wire brush. Wash with a solution of one tablespoon baking soda and one cup water. Rinse well with tap water and dry off with clean shop towels. Coat the terminals with dielectric grease or petroleum jelly. Be careful not to allow cleaning solution or tap water into a conventional battery.

⚠ WARNING

Battery electrolyte is poisonous. It contains sulfuric acid. Serious burns can result from contact with skin, eyes or clothing.

Antidote:

External: Flush with water.

Internal: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call physician immediately.

Eyes: Flush with water for 15 minutes and get prompt medical attention.

Batteries produce explosive gases. Keep sparks, flame, cigarettes, etc. away. Ventilate when charging or using in an enclosed space. Always shield eyes when working near batteries. KEEP OUT OF REACH OF CHILDREN.

MAINTENANCE

Battery

⚠ WARNING

Improperly connecting or disconnecting battery cables can result in an explosion and cause serious injury or death. When removing the battery, always disconnect the negative (black) cable first. When reinstalling the battery, always connect the negative (black) cable last.

Battery Removal

1. Disconnect the hold-down strap holding the battery in position, and remove battery cover.
2. On conventional batteries, remove the battery vent tube.
3. Disconnect the black (negative) battery cable first.
4. Disconnect the red (positive) battery cable next.
5. Lift the battery out of the vehicle. Be careful not to tip a conventional battery sideways, which could spill electrolyte.

⚠ CAUTION

If electrolyte spills, immediately wash it off with a solution of one tablespoon baking soda and one cup water to prevent damage to the vehicle.

Battery

Battery Installation

Using a new battery that has not been fully charged can damage the battery and result in a shorter life. It can also hinder vehicle performance. Follow the battery charging instructions on pages 99-101 before installing the battery.

1. Ensure that the battery is fully charged.
2. Place the battery in the battery holder.
3. With conventional batteries, install the battery vent tube (sealed batteries do not have a vent tube).

NOTE: The vent tube must be free of obstructions and securely installed. Route the tube away from the frame and vehicle body to prevent contact with electrolyte.

⚠ WARNING

Battery gases could accumulate in an improperly installed vent tube and cause an explosion, resulting in serious injury or death. Always ensure that the vent tube is free of obstructions and is securely installed as recommended.

4. On conventional batteries, coat the terminals with dielectric grease or petroleum jelly.
5. Connect and tighten the red (positive) cable first.
6. Connect and tighten the black (negative) cable last.
7. Install the battery cover.
8. Secure the battery hold-down strap.
9. Verify that cables are properly routed.

NOTE: Cables should be safely tucked away at the front and rear of the battery.

MAINTENANCE

Battery

Battery Storage

Whenever the vehicle is not used for a period of three months or more, remove the battery from the vehicle, ensure that it's fully charged, and store it out of the sun in a cool, dry place. Check battery voltage each month during storage and recharge as needed to maintain a full charge.

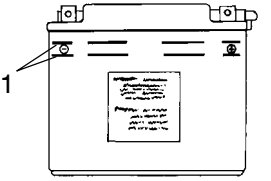
NOTE: Power plug leads may need to be bent down so that the battery cover can be installed.

NOTE: Battery charge can be maintained by using a Polaris Battery Tender charger or by charging about once a month to make up for normal self-discharge. Battery Tender can be left connected during the storage period, and will automatically charge the battery if the voltage drops below a pre-determined point. See page 111 for the part numbers of Polaris products.

Battery

Battery Fluid (Conventional Battery)

A poorly maintained battery will deteriorate rapidly. Check the battery fluid level often. Maintain the fluid level between the upper and lower level marks (1).



Add only distilled water. Tap water contains minerals that are harmful to a battery.

Battery Charging (Conventional Battery)

1. Remove the battery from the vehicle to prevent damage from leaking or spilled electrolyte during charging. See page 96.
2. Charge the battery with a charging output no larger than 1/10 of the battery's amp/hr rating. Charge as needed to raise the specific gravity to 1.270 or greater.
3. Reinstall the battery. See page 97. Make sure the positive terminal is toward the front of the vehicle.

MAINTENANCE

Battery

Battery Charging (Sealed Battery)

The following battery charging instructions apply only to the installation of a sealed battery. Read all instructions before proceeding with the installation of this battery.

The sealed battery is already filled with electrolyte and has been sealed and fully charged at the factory. Never pry the sealing strip off or add any other fluid to this battery.

The single most important thing about maintaining a sealed battery is to keep it fully charged. Since the battery is sealed and the sealing strip cannot be removed, you must use a voltmeter or multimeter to measure DC voltage.

⚠ WARNING

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

For a refresh charge, follow all instructions carefully.

1. Check the battery voltage with a voltmeter or multimeter. A fully charged battery will register 12.8 V or higher.
2. If the voltage is less than 12.8 volts, recharge the battery.

NOTE: When using an automatic charger, refer to the charger manufacturer's instructions for recharging. When using a constant current charger, use the following guidelines for recharging.

Battery

Battery Charging (Sealed Battery)

NOTE: Always verify battery condition before and 1-2 hours after the end of charging.

State of Charge	Voltage	Action	Charge Time* (Using constant current charger @ standard amps specified on top of battery)
100%	12.8-13.0 volts	None, check at 3 mos. from date of manufacture	None required
75%-100%	12.5-12.8 volts	May need slight charge, if no charge given, check in 3 months	3-6 hours
50%-75%	12.0-12.5 volts	Needs Charge	5-11 hours
25%-50%	11.5-12.0 volts	Needs Charge	At least 13 hours, verify state of charge
0%-25%	11.5 volts or less	Needs Charge	At least 20 hours

MAINTENANCE

Cleaning and Storage

See page 111 for the part numbers of Polaris products.

Washing the Vehicle

Keeping your vehicle clean will not only improve its appearance but it can also extend the life of various components.

> **CAUTION**
>
> High water pressure may damage vehicle components. Polaris recommends washing the vehicle by hand or with a garden hose, using mild soap.
>
> Certain products, including insect repellants and chemicals, will damage plastic surfaces. Do not allow these types of products to come into contact with the vehicle.

The best and safest way to clean your Polaris vehicle is with a garden hose and a pail of mild soap and water.

1. Use a professional-type washing cloth, cleaning the upper body first and the lower parts last.
2. Rinse with clean water frequently.
3. Dry surfaces with a chamois to prevent water spots.

Washing Tips

- Avoid the use of harsh cleaners, which can scratch the finish.
- Do not use a power washer to clean the vehicle.
- Do not use medium to heavy duty compounds on the finish.
- Always use clean cloths and pads for cleaning and polishing. Old or reused cloths and pads may contain dirt particles that will scratch the finish.

Cleaning and Storage

Washing the Vehicle

If a high pressure water system is used for cleaning (not recommended), exercise extreme caution. The water may damage components and could remove paint and decals. Avoid directing the water stream at the following items:

- Wheel bearings
- Radiator
- Transmission seals
- Brakes
- Cab and body panels
- Labels and decals
- Electrical components and wiring

NOTE: If warning and safety labels are damaged, contact your Polaris dealer for free replacement.

Grease all zerk fittings immediately after washing. Allow the engine to run for a while to evaporate any water that may have entered the engine or exhaust system.

Polishing the Vehicle

Polaris recommends the use of common household aerosol furniture polish for polishing the finish on your Polaris vehicle. Follow the instructions on the container.

Polishing Tips

- Avoid the use of automotive products, some of which can scratch the finish of your vehicle.
- Always use clean cloths and pads for cleaning and polishing. Old or reused cloths and pads may contain dirt particles that will scratch the finish.

MAINTENANCE

Cleaning and Storage

Chrome Wheel Care (if equipped)

Proper maintenance will protect chrome wheels from corrosion, preserve wheel life and ensure a ”like new” appearance for many years.

NOTE: Chrome wheels exposed to road salt (or salt in the air in coastal areas) are more susceptible to corrosion if not properly cleaned. Clean chrome wheels more often if they’re exposed to salt or other corrosive elements.

1. Wash chrome wheels frequently. Use a mild detergent. Never use abrasive cleaners on plated or painted surfaces.
2. Rinse well with clear water. Soap, detergents, salt, dirt, mud and other elements can cause corrosion.
3. Polish the clean chrome wheels periodically. Use an automotive grade chrome polish.
4. Routinely and liberally apply a weather resistant wax to each polished chrome wheel. Choose a product suitable for chrome finishes. Read and follow the product labels and instructions.

Removing Corrosion

If light rust is found on the chrome finish, use steel wool (#0000–OTT grade) to remove it. Gently rub the affected areas with the steel wool until the corrosion has been removed. Clean and polish the wheel as outlined above.

Cleaning and Storage

Storage Tips

See page 111 for the part numbers of Polaris products.

CAUTION

Starting the engine during the storage period will disturb the protective film created by fogging and damage could occur. Never start the engine during the storage period.

Clean the Exterior

Make any necessary repairs and clean the vehicle as recommended. See page 102.

Fuel Stabilizer

1. Fill the fuel tank.
2. Add Polaris Carbon Clean Fuel Treatment or Polaris Fuel Stabilizer. Follow the instructions on the container for the recommended amount.

NOTE: Carbon Clean removes water from fuel systems, stabilizes fuel and removes carbon deposits from pistons, rings, valves and exhaust systems.

3. Allow the engine to run for 15-20 minutes to allow the stabilizer to disperse through the fuel in the tank and carburetor.
4. Turn the fuel valve off.
5. Drain the carburetor bowl.

Oil and Filter

Change the oil and filter. See page 67.

Air Filter / Air Box

1. Inspect and clean (or replace) the pre-cleaner and air filter.
2. Clean the air box.
3. Drain the sediment tube.

Recoil Housing

Drain the recoil housing. See page 90.

MAINTENANCE

Cleaning and Storage

Storage Tips

Fluid Levels

Inspect the fluid levels. Add or change fluids as recommended in the Periodic Maintenance Chart beginning on page 60.

- Demand drive unit (front gearcase)
- Rear gearcase (if equipped)
- Transmission
- Brake fluid (change every two years and any time the fluid looks dark or contaminated)
- Coolant (test strength/fill)

Fog the Engine

1. Support the front end of the machine so the engine is level or tilted slightly rearward.
2. Remove the spark plug.
3. Pour 2-3 tablespoons (29-44 ml) of engine oil into the hole.

NOTE: Use a section of small hose and a small plastic squeeze bottle filled with the pre-measured amount of oil.

4. Reinstall the spark plug. Torque to specification.
5. Apply dielectric grease to the inside of the spark plug cap. Reinstall the cap.
6. Turn the engine over several times using the recoil starter. Oil will be forced in and around the piston rings and ring lands, coating the cylinder with a protective film of fresh oil.
7. Treat the fuel system with Polaris Carbon Clean. See page 105.
8. If Polaris fuel system additive is not used, the fuel tank, fuel lines, and carburetor should be completely drained of gasoline.
9. To eliminate any fuel remaining in the carburetor, run the engine until it stops.

Cleaning and Storage

Storage Tips

Inspect and Lubricate

Inspect all cables and lubricate all areas of the vehicle as recommended in the Periodic Maintenance Chart beginning on page 60.

Battery Storage

See pages 98-101 for storage and charging procedures.

Storage Area/Covers

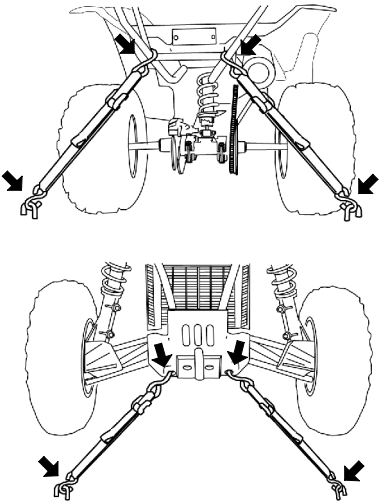
Set the tire pressure and safely support the vehicle with the tires slightly off the ground. Be sure the storage area is well ventilated. Cover the vehicle with a genuine Polaris cover.

NOTE: Do not use plastic or coated materials. They do not allow enough ventilation to prevent condensation, and may promote corrosion and oxidation.

Transporting the Quadricycle

Follow these procedures when transporting the vehicle.

1. Turn off the engine and remove the key to prevent loss during transporting.
2. Turn the fuel valve off.
3. Be sure the fuel cap, oil cap and seat are installed correctly.
4. Always tie the frame of the Quadricycle to the transporting unit securely using suitable straps or rope. See illustration.
5. Always place the transmission in gear and lock the parking brake.



SPECIFICATIONS
2008 Scrambler 500 2X4 International

Capacities	
Body Style	Gen III
Maximum Weight Capacity	305 lbs. (138 kg)
Fuel	3.5 gal. (13.2 l)
Transmission Oil	11.3 oz. (334 ml)
Coolant	2.25 qts. (2.13 l)
Engine Oil	2 qts. (1.89 l)
Front Rack (Accessory)	30 lbs. (13.6 kg) (Maximum)
Rear Rack (Accessory)	60 lbs. (27.2 kg) (Maximum)
Hitch Towing Rating	850 lbs. (386 kg)
Hitch Tongue Weight Capacity	85 lbs. (38.6 kg)
Unbraked Trailer Towing Capacity*	1210 lbs. (549 kg)
Turn Radius	75 in. (190.5 cm)
Ground Clearance	5.5 in. (14 cm)
Height	47 in. (119.4 cm)
Length	75 in. (190.5 cm)
Width	46 in. (116.8 cm)
Seat Height	34 in. (86.4 cm)
Dry Weight	530 lbs. (240 kg)
Wheel Base	48 in. (121.9 cm)
Engine & Cooling	
Engine Type	4 Cycle, Single Cylinder
Lubrication	Dry Sump
Bore x Stroke	92 x 75
Displacement	499
Compression Ratio	10.2:1
Engine Cooling	Liquid
Alternator Output (watts)	250w @5000 RPM
Carburetion	BST 40
Main Jet	155
Pilot Jet	40
Needle Jet	Y-0M (896)
Pilot Air Jet	160
Pilot Screw	2.0 turns
Jet Needle	6H25-94-3
Ignition	CDI
Timing	30° ± 2° @ 5000 RPM
Spark Plug Type / Gap	BKR6E / .036 in. (.9 mm)

* Based on EU Directive 76/432/EC

2008 Scrambler 500 2X4 International

Drive System	
Drive System Type	PVT
Shift Type	Side Lever (F-N-R)
Gear Reduction - Reverse	3.05/1
Gear Reduction - Forward	2.68/1
Final Drive (ratio)	12/36 76P
Drive Chain	520 O-Ring
Front Tires	23 x 7-10 (4 psi)
Rear Tires	22 x 12-10 (3 psi)
Suspension and Brakes	
Front Suspension: Mac Strut	8.2 in. (20.8 cm) travel
Rear Suspension: Progressive Rate Swing Arm	10.5 in. (26.7 cm) travel
Shock Adjustment	Threaded adjuster
Front Brake	Fixed disc, hydraulic floating caliper
Rear Brake	Fixed disc, hydraulic floating caliper
Auxiliary Brake	Fixed disc, hydraulic floating caliper
Parking Brake	Hydraulic lock, all wheel
Features	
Headlight	2 Dual Beam 30w/30w
Taillight	Not Applicable
Brake Light	Not Applicable
Battery	12V 14 AH
DC Plug-In (Rear)	Accessory
DC Socket (Forward)	Accessory
Electric Start	Standard
High Beam Indicator	Standard
High Temp Indicator	Standard
Windshield	Accessory
Low Oil Light	Not Applicable
Neutral Indicator	Standard
Reverse Indicator	Standard
Speedometer	Accessory
Fuel Gauge	Standard
Tool Kit	Standard

SPECIFICATIONS
2008 Scrambler 500 2X4 International
Jetting Chart

Altitude	AMBIENT TEMPERATURE	Below 40° F (Below 5° C)	+40°F and above (+5°C and above)
Meters (Feet)	0-1800 (0-6000)	**160**	**155**
	1800-3700 (6000-12000)	**152.5**	**147.5**

Clutching Chart

Altitude		Shift Weight	Drive Clutch Spring	Driven Clutch Spring	Helix/Spring Setting
Meters (Feet)	0-1800 (0-6000)	10WH 5630710	Blue/Green 7041157	Silver 7041499	40° 5131446 1+1
	1800 & above (6000 & above)	10RH 5630709	Blue/Green 7041157	Silver 7041499	40° 5131446 1+1

POLARIS PRODUCTS

Part No.	Description
	Engine Lubricant
2870791	Fogging Oil (12 oz. Aerosol)
2876244	PS-4 PLUS Performance Synthetic 2W-50 4-Cycle Oil (qt.)
2876245	PS-4 PLUS Performance Synthetic 2W-50 4-Cycle Oil (gal.)
	Gearcase / **Transmission Lubricants**
2873602	Premium AGL Synthetic Gearcase Lube (qt.)
2873603	Premium AGL Synthetic Gearcase Lube (gal.)
2871653	Premium ATV Angle Drive Fluid (8 oz.)
2872276	Premium ATV Angle Drive Fluid (2.5 gal.)
2870465	Pump for Gallon Jug
2871654	Premium Demand Drive Hub Fluid (8 oz.)
2872277	Premium Demand Drive Hub Fluid (2.5 gal.)
	Grease / **Specialized Lubricants**
2871322	Premium All Season Grease (3 oz. cartridge)
2871423	Premium All Season Grease (14 oz. cartridge)
2871460	Starter Drive Grease
2871515	Premium U-Joint Lube (3 oz.)
2871551	Premium U-Joint Lube (14 oz.)
2871312	Grease Gun Kit
2871329	Dielectric Grease (Nyogel™)
2872073	Chain Lube (6.25 oz. aerosol)
2872348	Chain Lube (16 oz. aerosol)
	Coolant
2871323	60/40 Coolant (gal.)
2871534	60/40 Coolant (qt.)
	Additives / **Miscellaneous**
2871326	Carbon Clean Plus (12 oz.)
2870652	Fuel Stabilizer (16 oz.)
2872189	DOT 4 Brake Fluid
2871956	LOCTITE 565 Thread Sealant
2871076	Polaris Battery Tender™ Charger

TROUBLESHOOTING

Contact your Polaris dealer for service if you're unable to identify solutions using the following charts.

Drive Belt and Cover Problems	
Possible Cause	**Solution**
Driving onto a pickup or tall trailer in high range	Shift transmission to low range during loading of the Quadricycle to prevent belt burning.
Starting out going up a steep incline	When starting out on an incline, use low range or dismount the vehicle (after first locking the parking brake) and perform the K-turn as described on page 54.
Driving at low RPM or low ground speed (at approximately 3-7 MPH)	Drive at a higher speed or use low range more frequently. The use of low range is highly recommended for cooler PVT operating temperatures and longer component life.
Insufficient warm-up of vehicles exposed to low ambient temperatures	Warm the engine at least 5 minutes. With the transmission in neutral, advance the throttle to about 1/8 throttle in short bursts, 5 to 7 times. The belt will become more flexible and prevent belt burning.
Slow/easy clutch engagement	Use the throttle quickly and effectively.
Towing/pushing at low RPM/low ground speed	Use low range only.
Utility use/plowing	Use low range only.
Stuck in mud or snow	Shift the transmission to low range, and carefully use fast, aggressive throttle application to engage clutch. **WARNING:** Excessive throttle may cause loss of control and vehicle overturn.
Climbing over large objects from a stopped position	Shift the transmission to low range and carefully use fast, brief, aggressive throttle application to engage clutch. **WARNING:** Excessive throttle may cause loss of control and vehicle overturn.
Belt slippage from water or snow ingestion into the PVT system	Shift the transmission to neutral. Using the throttle, vary the engine RPM from idle to full throttle. Repeat several times as required. During this procedure, the throttle should not be held at the full position for more than 10 seconds. Clutch seals should be inspected for damage if repeated leaking occurs.
Clutch malfunction	See your Polaris dealer.
Poor engine performance	Check for fouled plugs or foreign material in gas tank, fuel lines, or carburetor. See your dealer.
Slippage from failure to warm up belt	Always warm up the belt by operating below 30 mph for one mile (5 miles or more when temperature is below freezing).
Wrong or missing belt	Always use the recommended belt.
Improper break-in	Always break in a new belt and/or clutch by avoiding aggressive or high speed operation during the first two full tanks of fuel.

Engine Doesn't Turn Over

Possible Cause	Solution
Tripped circuit breaker	Reset the breaker
Low battery voltage	Recharge battery to 12.8 VDC
Loose battery connections	Check all connections and tighten
Loose solenoid connections	Check all connections and tighten

Engine Turns Over, Fails to Start

Possible Cause	Solution
Out of fuel	Turn fuel valve to reserve, refuel
Clogged fuel valve or filter	Inspect and clean or replace
Water is present in fuel	Drain the fuel system and refuel
Fuel valve is turned off	Turn the fuel valve on
Old or non-recommended fuel	Replace with new fuel
Fouled or defective spark plug(s)	Inspect plug(s), replace if necessary
No spark to spark plug	Inspect plug(s), verify stop switch is on
Crankcase filled with water or fuel	Immediately see your Polaris dealer
Overuse of choke	Inspect, clean and/or replace spark plugs
Clogged fuel filter	Replace the filter
Low battery voltage	Recharge battery to 12.8 VDC
Mechanical failure	See your Polaris dealer

Engine Pings or Knocks

Possible Cause	Solution
Poor quality or low octane fuel	Replace with recommended fuel
Incorrect ignition timing	See your Polaris dealer
Incorrect spark plug gap or heat range	Set gap to specs or replace plugs

TROUBLESHOOTING

Engine Backfires

Possible Cause	Solution
Weak spark from spark plugs	Inspect, clean and/or replace spark plugs
Incorrect spark plug gap or heat range	Set gap to specs or replace plugs
Old or non-recommended fuel	Replace with new fuel
Incorrectly installed spark plug wires	See your Polaris dealer
Incorrect ignition timing	See your Polaris dealer
Mechanical failure	See your Polaris dealer

Engine Runs Irregularly, Stalls or Misfires

Possible Weak Spark Cause	Solution
Fouled or defective spark plugs	Inspect, clean and/or replace spark plugs
Worn or defective spark plug wires	See your Polaris dealer
Incorrect spark plug gap or heat range	Set gap to specs or replace plugs
Loose ignition connections	Check all connections and tighten
Water present in fuel	Replace with new fuel
Low battery voltage	Recharge battery to 12.8 VDC
Kinked or plugged fuel vent line	Inspect and replace
Incorrect fuel	Replace with recommended fuel
Clogged air filter	Inspect and clean or replace
Reverse speed limiter malfunction	See your Polaris dealer
Electronic throttle control malfunction	See your Polaris dealer
Other mechanical failure	See your Polaris dealer
Possible Lean Fuel Mixture Cause	**Solution**
Low or contaminated fuel	Add or change fuel, clean the fuel system
Low octane fuel	Replace with recommended fuel
Clogged fuel filter	Replace filter
Incorrect jetting	See your Polaris dealer
Possible Rich Fuel Mixture Cause	**Solution**
Overuse of choke	Inspect, clean and/or replace spark plugs
Fuel is very high octane	Replace with lower octane fuel
Incorrect jetting	See your Polaris dealer

Engine Stops or Loses Power

Possible Cause	Solution
Out of fuel	Turn fuel valve to reserve, refuel
Kinked or plugged fuel vent line	Inspect and replace
Water present in fuel	Replace with new fuel
Overuse of choke	Inspect, clean and/or replace spark plugs
Fouled or defective spark plugs	Inspect, clean and/or replace spark plugs
Worn or defective spark plug wires	See your Polaris dealer
Incorrect spark plug gap or heat range	Set gap to specs or replace plugs
Loose ignition connections	Check all connections and tighten
Low battery voltage	Recharge battery to 12.8 VDC
Incorrect fuel	Replace with recommended fuel
Clogged air filter	Inspect and clean or replace
Reverse speed limiter malfunction	See your Polaris dealer
Electronic throttle control malfunction	See your Polaris dealer
Other mechanical failure	See your Polaris dealer
Overheated engine	Clean radiator screen and core if equipped Clean engine exterior See your Polaris dealer

WARRANTY

LIMITED WARRANTY

Polaris Industries Inc., 2100 Highway 55, Medina, MN 55340, gives a TWO YEAR LIMITED WARRANTY on all components of the Polaris Quadricycle against defects in material or workmanship. This warranty covers the parts and labor charges for repair or replacement of defective parts which are covered by this warranty. This warranty begins on the date of purchase. This warranty is transferrable to another consumer during the warranty period through a Polaris dealer.

REGISTRATION

At the time of sale, the Warranty Registration Form must be completed by your dealer and submitted to Polaris within ten days. Upon receipt of this registration, Polaris will record the registration for warranty. THE PURCHASER MUST COMPLETE A QUADRICYCLE SAFETY TRAINING COURSE PROVIDED BY THE DEALER IN ORDER TO HAVE VALID WARRANTY ON THE QUADRICYCLE. No verification of registration will be sent to the purchaser as the copy of the Warranty Registration Form will be the warranty entitlement. If you have not signed the original registration and received the “customer copy”, please contact your dealer immediately. NO WARRANTY COVERAGE WILL BE ALLOWED UNLESS YOUR QUADRICYCLE IS REGISTERED WITH POLARIS.

Initial dealer preparation and set-up of your vehicle is very important in ensuring trouble-free operation. Purchasing a machine in the crate or without proper dealer set-up will void your warranty coverage.

LIMITATIONS OF WARRANTIES AND REMEDIES

The Polaris limited warranty excludes any failures that are not caused by a defect in material or workmanship. This warranty does not cover accidental damage, normal wear and tear, abuse or improper handling. This warranty also does not cover any Quadricycle that has been altered structurally, modified, neglected, improperly maintained, used for racing, or used for purposes other than for which it was manufactured, or for any damages which occur during trailer transit or as a result of unauthorized service or the use of unauthorized parts. In addition, this warranty does not cover physical damage to paint or finish, stress cracks, tearing or puncturing of upholstery material, corrosion, or defects in parts, components or the vehicle due to fire, explosions or any other cause beyond Polaris’ control.

This warranty does not cover the use of unauthorized lubricants, chemicals, or fuels that are not compatible with the Quadricycle. The exclusive remedy for breach of this warranty shall be, at Polaris’ exclusive option, repair or replacement of any defective materials, or components or products. THE REMEDIES SET FORTH IN THIS WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON FOR BREACH OF THIS WARRANTY. POLARIS SHALL HAVE NO LIABILITY TO ANY PERSON FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY DESCRIPTION, WHETHER ARISING OUT OF EXPRESS OR IMPLIED WARRANTY OR ANY OTHER CONTRACT, NEGLIGENCE, OR OTHER TORT OR OTHERWISE. Some states do not permit the exclusion or limitation of incidental or consequential damages or implied warranties, so the above limitations or exclusions may not apply to you if inconsistent with controlling state law.

LIMITATIONS OF WARRANTIES AND REMEDIES

ALL IMPLIED WARRANTIES (INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) ARE LIMITED IN DURATION TO THE ABOVE TWO YEAR WARRANTY PERIOD. POLARIS FURTHER DISCLAIMS ALL EXPRESS WARRANTIES NOT STATED IN THIS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you if inconsistent with controlling state law.

HOW TO OBTAIN WARRANTY SERVICE

If your Quadricycle requires warranty service, you must take it to a Polaris dealer authorized to repair Polaris Quadricycles. When requesting warranty service you must present your copy of the Warranty Registration form to the dealer. (THE COST OF TRANSPORTATION TO AND FROM THE DEALER IS YOUR RESPONSIBILITY). Polaris suggests that you use your original selling dealer; however, you may use any Polaris Servicing Dealer to perform warranty service.

Please work with your dealer to resolve any warranty issues. Should your dealer require any additional assistance they will contact the appropriate personnel at Polaris.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If any of the above terms are void because of state or federal law, all other warranty terms will remain in effect.

MAINTENANCE LOG

Use the following chart to record periodic maintenance.

DATE	MILES (KM)	TECHNICIAN	SERVICE PERFORMED / COMMENTS

MAINTENANCE LOG

DATE	MILES (KM)	TECHNICIAN	SERVICE PERFORMED / COMMENTS

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