



Read, understand, and follow all of the instructions and safety precautions in this manual and on all product labels.

Failure to follow the safety precautions could result in serious injury or death.



# **WARNING**

Operating, servicing, and maintaining a passenger vehicle or off-road vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine expect as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle.

For more information go to www.P65Warnings.ca.gov/passenger-vehicle.



For videos and more information about a safe riding experience with your Polaris vehicle, scan this QR code with your smartphone.





# 2019 RZR Owner's Manual

XP Turbo S
XP 4 Turbo S
XP Turbo S Velocity
XP 4 Turbo S Velocity

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The original instructions for this vehicle are in English. Other languages are provided as translations of the original instructions.

Printed in U.S.A.

9929465 Rev 02



Thank you for purchasing a POLARIS vehicle, and welcome to our world-wide family of POLARIS enthusiasts. Be sure to visit us online at www.polaris.com for the latest news, new product introductions, upcoming events, career opportunities and more.

Here at POLARIS we proudly produce an exciting line of utility and recreational products. 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.

- Snowmobiles
- SPORTSMAN® All-terrain vehicles
- Low emission vehicles (LEVs)
- · RANGER® utility vehicles
- BRUTUS® work vehicles
- SLINGSHOT® three wheel motorcycles

- · RZR® sport vehicles
- · GEM® vehicles
- · INDIAN® motorcycles
- POLARIS POWER® generators
- POLARIS DEFENSE® combat vehicles
- Timbersled® Snow Bikes

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 can be performed by a factory certified Master Service Dealer® (MSD) technician.

Your POLARIS dealer knows your vehicle best and is interested in your total satisfaction. Your POLARIS dealership can perform all of your service needs during, and after, the warranty period.

#### SAFETY SYMBOLS AND SIGNAL WORDS

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.

#### **A** DANGER

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

#### **A WARNING**

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

#### **A** CAUTION

SAFETY ALERT CAUTION indicates a hazardous situation which, if not avoided, COULD result in minor to moderate injury.

#### CAUTION

CAUTION indicates special precautions that must be taken to avoid vehicle damage or property damage.

#### **IMPORTANT**

IMPORTANT provides key reminders during disassembly, assembly, and inspection of components.

#### NOTICE

NOTICE provides key information by clarifying instructions.



The Prohibition Safety Sign indicates an action NOT to take in order to avoid a hazard.



The Mandatory Action Sign indicates an action that NEEDS to be taken to avoid a hazard.

# TABLE OF CONTENTS

| Introduction            |  |  |  |  |  |  |  |  | . 7 |
|-------------------------|--|--|--|--|--|--|--|--|-----|
| Safety                  |  |  |  |  |  |  |  |  |     |
| Features and Co         |  |  |  |  |  |  |  |  |     |
| Operation               |  |  |  |  |  |  |  |  |     |
| Winch Guide             |  |  |  |  |  |  |  |  |     |
| <b>Emission Control</b> |  |  |  |  |  |  |  |  |     |
| Maintenance .           |  |  |  |  |  |  |  |  |     |
| Specifications .        |  |  |  |  |  |  |  |  |     |
| Polaris Products        |  |  |  |  |  |  |  |  |     |
| Troubleshooting         |  |  |  |  |  |  |  |  |     |
| Warranty                |  |  |  |  |  |  |  |  |     |
| Maintenance Lo          |  |  |  |  |  |  |  |  |     |

# INTRODUCTION

## **A** WARNING

Failure to heed the warnings and safety precautions contained in this manual can result in severe injury or death. Your POLARIS vehicle is not a toy and can be hazardous to operate. This vehicle handles differently than cars, trucks or other off-road vehicles. 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 this owner's manual and review the safety DVD that came with your vehicle. A free extra copy of the DVD can be obtained by contacting your local POLARIS dealer. Understand all safety warnings, precautions and operating procedures before operating the vehicle. Keep this manual with the vehicle.
- This vehicle is an ADULT VEHICLE ONLY. You MUST be at least age 16 and have a valid driver's license to operate this vehicle.
- All riders must be able to sit with backs against the seat, both feet flat on the floor and both hands on the steering wheel (if driving) or on a passenger hand hold.
- Always use the cab nets (or doors) while riding in this vehicle. Always keep hands, feet and all other body parts inside the vehicle at all times.
- Always wear a seat belt when riding in this vehicle. Always wear a helmet, eye protection, gloves, long-sleeve shirt, long pants and over-the-ankle boots.
- Never use this vehicle with drugs or alcohol, as these conditions impair judgment and reduce operator reaction time.
- Complete the steps described in the New Operator Driving Procedures section. Never allow a guest to operate this vehicle until the guest has completed the New Operator Driving Procedures.

#### INTRODUCTION

# **VEHICLE IDENTIFICATION NUMBERS**

Record your vehicle's identification number ①, engine serial number ②, and key number ③ 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:          |  |
|--------------------------------|--|
| Vehicle Identification Number: |  |
| Engine Serial Number:          |  |
| Key Number:                    |  |

# **SAFETY**

#### SAFETY TRAINING

Safety training is a top priority for POLARIS. POLARIS strongly encourages you and any family members who will be riding this vehicle to take a training course

ROHVA (Recreational Off-Highway Vehicle Association) provides both an online safety e-course and a hands-on safety course. To access this valuable training, visit www.rohva.org.

Your POLARIS vehicle is considered an off-road vehicle. Familiarize yourself with all laws and regulations concerning the operation of this vehicle in your area.

We strongly advise you to strictly follow the recommended maintenance program outlined in your owner's manual. This preventive maintenance program is designed to ensure that all critical components on your vehicle are thoroughly inspected at specific intervals.

For more information about recreational off-road vehicle safety in the United States, visit www.rohva.org or call POLARIS at 1-800-342-3764.

# SAFE RIDING GEAR

The driver and all passengers must wear helmet ①, eye protection ②, long-sleeve shirt ③, gloves ④, long pants ⑤, over-the-ankle boots ⑥, and seat belt at all times. Protective gear reduces the chance of injury.



#### **HELMET**

Wearing a helmet can prevent a severe head injury. Whenever riding this 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.



## **EYE PROTECTION**

Do not depend on eyeglasses or sunglasses for eye protection. Whenever riding this 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.

# **GLOVES**

Wear gloves for comfort and for protection from sun, cold weather and other elements.

#### **BOOTS**

Wear sturdy over-the-ankle boots for support and protection. Never ride a POLARIS vehicle with bare feet or sandals.

#### **CLOTHING**

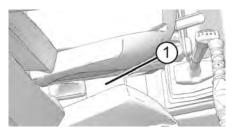
Wear long sleeves and long pants to protect arms and legs.

#### RIDER COMFORT

Under certain operating conditions, heat generated by the engine and exhaust system can elevate temperatures in the driver and passenger cab area. The condition occurs most frequently when a vehicle is being operated in high ambient temperatures at low speeds and/or high load conditions for an extended period of time. The use of certain windshield, roof and/or cab systems may contribute to this condition by restricting airflow. Any discomfort due to heat buildup in this area can be minimized by wearing proper riding apparel and by varying speeds to increase airflow.

## SAFETY LABELS AND LOCATIONS

Warning labels ① have been placed on the vehicle for your protection. Read and follow the instructions of the labels on the vehicle carefully. If any of the labels depicted in this manual differ from the labels on your vehicle, always read and follow the instructions of the labels on the vehicle



If an informational or graphic label becomes illegible or comes off, contact your POLARIS dealer to purchase a replacement. Replacement safety labels are provided by POLARIS at no charge. The part number is printed on the label.

# **PROPER USE WARNING**

#### **WARNING:**

Require Proper Use of Your Vehicle

Do your part to prevent injuries:

- · Do not allow careless or reckless driving.
- Make sure operators are 16 or older with a valid driver's license.
- Do not let people drive or ride after using alcohol or drugs.
- Do not allow operation on public roads (unless designated for off-highway vehicle access) - collisions with cars and trucks can occur.

Turbo S / Turbo S Velocity: Do not exceed seating capacity: 2 occupants.

**Turbo 4 S / Turbo 4 S Velocity:** Do not exceed seating capacity: 4 occupants.

# **RIDERS WARNING**

Be Sure Riders Pay Attention and Plan Ahead

If you think or feel the vehicle may tip or roll, reduce your risk of injury:

- Keep a firm grip on the steering wheel or hand holds and brace yourself.
- Do not put any part of your body outside of the vehicle for any reason.

#### **DRIVE RESPONSIBLY WARNING**

#### WARNING:

#### **Drive Responsibly**

Rollovers have caused severe injuries and death, even on flat, open areas.

#### Avoid loss of control and rollovers:

- Avoid abrupt maneuvers, sideways sliding, skidding or fishtailing, and never do donuts.
- · Slow down before entering a turn.
- Avoid hard acceleration when turning, even from a stop.
- Plan for hills, rough terrain, ruts and other changes in traction and terrain.
- Avoid paved surfaces.
- Avoid sidehilling (riding across slopes).



#### SEAT BELT WARNING

Improper vehicle use can result in SEVERE INJURY or DEATH.

#### Be Prepared

- Fasten seat belts.
- Wear an approved helmet and protective gear.
- · ALWAYS use cab nets and/or doors.
- Each rider must be able to sit with back against seat, feet flat on the floor, and hands on steering wheel or hand holds. Stay completely inside the vehicle.



LOCATE AND READ OWNER'S MANUAL. FOLLOW ALL INSTRUCTIONS AND WARNINGS. ALWAYS REVIEW SAFETY VIDEO AND TAKE ROHVA TRAINING (rohva.org).

# LOAD / PASSENGER / TIRE PRESSURE WARNING

The Load / Passenger / Tire Pressure Warning 1 is located at the rear of the vehicle in the cargo box.



- Never carry passengers in cargo box.
- Passengers can be thrown off. This can cause serious injury or death.

IMPROPER TIRE PRESSURE OR OVERLOADING CAN CAUSE LOSS OF CONTROL RESULTING IN SERIOUS INJURY OR DEATH.

- 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 and carried as low as possible in box.
- For stability on rough or hilly terrain, reduce speed and cargo.

|   | RZR XP TURBO S<br>/ RZR XP TURBO<br>S VELOCITY | RZR XP 4 TURBO<br>S / RZR XP 4<br>TURBO S<br>VELOCITY |
|---|--|---|
| MAXIMUM CARGO BOX LOAD  | 300 lbs. (136 kg)                              | 300 lbs. (136 kg)                                     |
| TIRE PRESSURE IN PSI (KPa)  | FRONT 16 (110)<br>REAR 16 (110)                | FRONT 16 (110)<br>REAR 16 (110)                       |
| MAXIMUM WEIGHT CAPACITY<br>INCLUDES WEIGHT OF<br>OPERATOR, PASSENGERS,<br>CARGO AND ACCESSORIES | 740 lbs. (336 kg)                              | 900 lbs. (408 kg)                                     |

Read Operation and Maintenance Manual for more detailed loading information.

# **FUEL TRANSPORT WARNING**

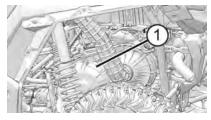
NEVER carry fuel or other flammable liquids on this vehicle.

Failure to follow this instruction could lead to serious burn injuries or death.



#### **BELT DEBRIS WARNING**

Improper service or maintenance of this PVT system can result in vehicle damage, SEVERE INJURY or DEATH. Always look for and remove debris inside and around the clutch and vent system when replacing the belt. Read owner's manual or see authorized dealer.

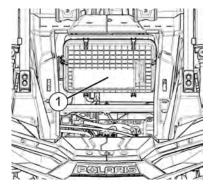


1 Belt Debris Warning

# AIR BOX CAUTION

CAUTION:

Use a Polaris approved air filter. The use of a non-Polaris approved air filter may cause engine damage. Before installing filter, ensure there is no dirt or debris in the clean side of the intake tube. The air filter must be properly seated before the lid is reinstalled. Please reference your owner's manual for additional information regarding air filter service.



1) Air Box Caution

# **ROOF WARNING**

#### **NOTE**

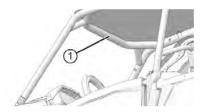
This page only applies to RZR XP 4 Turbo S vehicles produced prior to January 7th, 2019. To identify your vehicle's build date, reference the vehicle identification sticker as shown on page 8 or the vehicle purchase documents.

# **A** WARNING

DO NOT REMOVE ROOF Roof is part of Roll Over Protective Structure (ROPS)

Roof Warning Decal ①





## INTERNATIONAL WARNING LABELS

#### **GENERAL ALERT**

Read your owner's manual. Never allow anyone under 16 years of age to operate this vehicle. Never use alcohol or drugs before or while driving or riding. Do not allow operation on public roads (unless designated for off-highway vehicle access). Wear approved helmet, goggles, and protective clothing. Always wear seat belts. Always use the cab nets or doors. Avoid operating in a manner that could result in a rollover. Avoid exhibition driving.



#### INTAKE ALERT

Use a Polaris approved air filter. The use of a non-Polaris approved air filter may cause engine damage. Before installing filter ensure there is no dirt or debris in the clean side of the intake tube. The air filter must be properly seated and the hinges fully inserted when the lid is reinstalled. Please reference your owner's manual for additional information regarding the air filter service.



#### **CLUTCH COVER ALERT**

Read your owner's manual. Keep body parts away from belt.



#### FUEL RECOMMENDATION ALERT

Always read and understand your owner's manual. Always use recommended fuel type found in owner's manual.



# FUEL / LOAD / PASSENGER / TIRE PRESSURE ALERTS RZR XP Turbo S / RZR XP Turbo S Velocity

Never carry passengers in cargo box. Passengers can be thrown off. This can cause serious injury or death. Read owner's manual. Never carry or transport fuel on this vehicle.

| MAXIMUM CARGO<br>BOX LOAD | TIRE PRESSURE<br>(IN KPA/BAR)                   | MAXIMUM CAPACITY   |
|---------------------------|---|--|
| 136 kg                    | Front: 110 kPa/1,1 bar<br>Rear: 110 kPa/1,1 bar | Occupants: 2<br>(Occupants + Tow<br>Load) Weight: 336 kg |

#### RZR XP 4 Turbo S / RZR XP 4 Turbo S Velocity

Never carry passengers in cargo box. Passengers can be thrown off. This can cause serious injury or death. Read owner's manual. Never carry or transport fuel on this vehicle.

| MAXIMUM CARGO<br>BOX LOAD | TIRE PRESSURE<br>(IN KPA/BAR)                   | MAXIMUM CAPACITY   |
|---------------------------|---|--|
| 136 kg                    | Front: 110 kPa/1,1 bar<br>Rear: 110 kPa/1,1 bar | Occupants: 4<br>(Occupants + Tow<br>Load) Weight: 408 kg |

## SAFETY WARNINGS

#### **A** WARNING

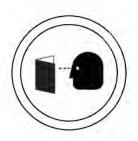
Failure to operate this vehicle properly can result in a collision, loss of control, accident or rollover, which may result in serious injury or death. Heed all safety warnings outlined in this section of the owner's manual and in the safety DVD provided with your vehicle. See the OPERATION section of the owner's manual for proper operating procedures.

#### **OPERATING WITHOUT INSTRUCTION**

Operating this vehicle without proper instruction increases the risk of an accident. The operator must understand how to operate the vehicle properly in different situations and on different types of terrain. Take a training course and complete the steps outlined in the New Operator Driving Procedures section.

All operators must read and understand the owner's manual and all warning and instruction labels before operating the vehicle.

Never allow a guest to operate this vehicle until the guest has completed the steps outlined in the New Operator Driving Procedures section.



# **OPERATOR RESTRICTIONS / AGE RESTRICTIONS**

This vehicle is an ADULT VEHICLE ONLY. Operation is prohibited for anyone under 16 years of age or anyone without a valid driver's license.

All operators and (if applicable) riders must be able to sit with backs against the seat, both feet flat on the floor and both hands on the steering wheel (if driving) or on a passenger hand hold.



#### **USING ALCOHOL OR DRUGS**

Operating this vehicle after consuming alcohol or drugs could adversely affect operator judgment, reaction time, balance and perception.

Never consume alcohol or drugs before or while operating this vehicle.



## FAILURE TO INSPECT BEFORE OPERATING

#### **A** WARNING

Failure to inspect and verify that the vehicle is in safe operating condition before operating increases the risk of an accident. Always perform the Pre-Ride Inspection outlined in the Operation chapter before each use of your vehicle to make sure it's in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in this owner's manual. See the Periodic Maintenance section of the Maintenance chapter.

#### **PROTECTIVE APPAREL**

Riding in this vehicle without wearing an approved helmet and protective eyewear increases the risk of a serious injuries in the event of an accident. Operator and all passengers must always wear a helmet, eye protection, gloves, long-sleeve shirt, long pants and over-the-ankle boots



#### **SEAT BELTS**

Riding in this vehicle without wearing the seat belt increases the risk of serious injury in the event of rollover, loss of control, other accident or sudden stop. Seat belts may reduce the severity of injury in these circumstances.

All riders must wear seat belts at all times.

#### **CAB DOORS**

Riding in this vehicle without closed and latched cab doors increases the risk of serious injury or death in the event of an accident or rollover. Always make sure all cab doors are closed and latched while riding in this vehicle. Cab doors are NOT intended to be used as arm rests. *Keep hands and feet inside the vehicle at all times*.

# **CARRYING MULTIPLE PASSENGERS (RZR 2-SEAT)**

Never carry a passenger until you have operated this vehicle for at least two hours and have completed the steps in the New Operator Driving Procedures section. A passenger must always be seated in a passenger seat with seat belt secured. Carrying more than one passenger in a 2-seat vehicle can affect the operator's ability to steer and operate the controls, which increases the risk of loss of control and accident or rollover. Never carry more than one passenger in a 2-seat vehicle.

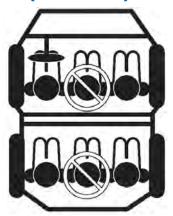


# **CARRYING MULTIPLE PASSENGERS (RZR 4-SEAT)**

Never carry a passenger until you have operated this vehicle for at least two hours and have completed the steps in the New Operator Driving Procedures section.

A passenger must always be seated in a passenger seat with seat belt secured.

Never carry more than three passengers in a 4-seat vehicle.



#### **OPERATING WITH A LOAD ON THE VEHICLE**

The weight of both cargo and passengers impacts vehicle operation and stability. For your safety and the safety of others, carefully consider how your vehicle is loaded and how to safely operate the vehicle. Follow the instructions in this manual for loading, tire pressure, gear selection and speed.

- Do not exceed vehicle weight capacities. The vehicle's maximum weight
  capacity is listed in the specifications section of this manual and on a label on
  the vehicle. When more passenger weight is added, cargo weight may need
  to be reduced accordingly.
- The recommended tire pressures are listed in the specifications section of this
  manual and on a label on the vehicle.

#### Always follow these guidelines:

| Under ANY of these conditions:                                  | Do ALL of these steps:                           |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Passenger and/or cargo exceeds half the maximum weight capacity |  |  |  |  |  |  |
| Operating in rough terrain                                      | 1. Slow down.                                    |  |  |  |  |  |
| Operating over obstacles  | Verify tire pressure.     Use extra caution when |  |  |  |  |  |
| Climbing an incline   | operating.                                       |  |  |  |  |  |
| Towing  |  |  |  |  |  |  |

#### PASSENGERS IN THE CARGO BOX

Carrying a passenger in the cargo box could result in a fall from the vehicle or contact with moving components. Never allow a passenger to ride in the cargo box. A passenger must always be seated in a passenger seat with seat belt secured.



## **OPERATING ON PAVEMENT**

This vehicle's tires are designed for off-road use, not for use on pavement. Operating this vehicle on paved surfaces (including sidewalks, paths, parking lots and driveways) may adversely affect the handling of the vehicle and may increase the risk of loss of control and accident or rollover. Avoid operating the vehicle on pavement. If it's unavoidable, travel slowly, travel short distances and avoid sudden turns or stops.

#### **OPERATING ON PUBLIC ROADS**

Operating this vehicle on public streets, roads or highways could result in a collision with another vehicle. Never operate this vehicle on any public street, road or highway, including dirt and gravel roads (unless designated for off-highway use).



## **OPERATING AT EXCESSIVE SPEEDS**

Operating this vehicle at excessive speeds increases the operator's risk of losing control. Always operate at a speed that's appropriate for the terrain, the visibility and operating conditions, your skills and experience and your passengers' skills and experience.



#### **TURNING IMPROPERLY**

Turning improperly could cause loss of traction, loss of control, accident or rollover. Always follow proper procedures for turning as described in this owner's manual.

Avoid sharp turns. Never turn while applying heavy throttle. Never make abrupt steering maneuvers. Practice turning at slow speeds before attempting to turn at faster speeds.

# **JUMPS AND STUNTS**

Exhibition driving increases the risk of an accident or rollover. DO NOT do power slides, "donuts", jumps or other driving stunts. Avoid exhibition driving.



# IMPROPER HILL CLIMBING

Improper hill climbing could cause loss of control or rollover. Use extreme caution when operating on hills. Always follow proper procedures for hill climbing as described in this owner's manual. See the Driving Uphill section for details.



# **DESCENDING HILLS IMPROPERLY**

Improperly descending a hill could cause loss of control or rollover. Always follow proper procedures for traveling down hills as described in this owner's manual. See the Driving Downhill section for details.



#### **CROSSING HILLSIDES**

Driving on a sidehill is not recommended. Improper procedure could cause loss of control or rollover. Avoid crossing the side of any hill unless absolutely necessary.

If crossing a hillside is unavoidable, always follow proper procedures as described in this owner's manual. See the Driving on a Sidehill (Sidehilling) section for details.

## STALLING WHILE CLIMBING A HILL

Stalling or rolling backwards while climbing a hill could cause a rollover. Maintain a steady speed when climbing a hill.

If you lose all forward speed:

Apply the brakes gradually until the vehicle is fully stopped. Place the transmission in reverse and slowly allow the vehicle to roll straight downhill while applying light brake pressure to control speed.



#### **OPERATING IN UNFAMILIAR TERRAIN**

Failure to use extra caution when operating on unfamiliar terrain could result in an accident or rollover. Unfamiliar terrain may contain hidden rocks, bumps, or holes that could cause loss of control or rollover. Travel slowly and use extra caution when operating on unfamiliar terrain. Always be alert to changing terrain conditions.



# **OPERATING IMPROPERLY IN REVERSE**

Improperly operating in reverse could result in a collision with an obstacle or person. Always follow proper operating procedures as outlined in this manual. See the Driving in Reverse section for details. Before shifting into reverse gear, always check for obstacles or people behind the vehicle. When it's safe to proceed, back slowly.



#### **IMPROPER TIRE MAINTENANCE**

Operating this vehicle with improper tires or with improper or uneven tire pressure could cause loss of control, accident or rollover.

Always use the size and type of tires specified for your vehicle. Always maintain proper tire pressure as described in this owner's manual and on safety labels.

#### SKIDDING OR SLIDING

Failure to use extra caution when operating on excessively rough, slippery or loose terrain could cause loss of traction, loss of control, accident or rollover. Do not operate on excessively slippery surfaces. Always slow down and use additional caution when operating on slippery surfaces.

Skidding or sliding due to loss of traction can cause loss of control or rollover (if tires regain traction unexpectedly). Always follow proper procedures for operating on slippery surfaces as described in this owner's manual. See the Driving on Slippery Surfaces section for details.

#### **OPERATING OVER OBSTACLES**

Improperly operating over obstacles could cause loss of control or rollover.

Before operating in a new area, check for obstacles. Never attempt to operate over large obstacles such as large rocks or fallen trees. Always follow the proper procedures outlined in this manual when operating over obstacles. See the Driving Over Obstacles section for details.



#### OPERATING THROUGH WATER

Operating through deep or fast-flowing water can cause loss of traction, loss of control, rollover or accident. Never operate in fast-flowing water or in water that exceeds the floor level of the vehicle.

Always follow proper procedures for operating in water as described in this owner's manual. See the Driving Through Water section for details.

Wet brakes may have reduced stopping ability. After leaving water, test the brakes. Apply them lightly several times while driving slowly. The friction will help dry out the pads.



#### **OPERATING ON FROZEN BODIES OF WATER**

Severe injury or death can result if the vehicle and/or the operator fall through the ice. Never operate the vehicle on a frozen body of water unless you have first verified that the ice is sufficiently thick to support the weight and moving force of the vehicle, you and your passengers, and your cargo, together with any other vehicles in your party.



Always check with local authorities and residents to confirm ice conditions and thickness over your entire route. Vehicle operators assume all risk associated with ice conditions on frozen bodies of water.

#### **OPERATING A DAMAGED VEHICLE**

Operating a damaged vehicle can result in an accident. After any rollover or other accident, have a qualified service dealer inspect the entire machine for possible damage, including (but not limited to) seat belts, rollover protection devices, brakes, throttle and steering systems.

#### IMPROPER CARGO LOADING

Overloading the vehicle or carrying cargo improperly may cause changes in stability and handling, which could cause loss of control or an accident.

- Always follow the instructions in this owner's manual for carrying cargo. See the Hauling Cargo section for details.
- Never exceed the stated load capacity for this vehicle.
- Cargo should be properly distributed and securely attached. See the Hauling Cargo section for details.
- Reduce speed when carrying cargo. Allow a greater distance for braking.



#### REFUELING

Gasoline is highly flammable and explosive under certain conditions.

- Always exercise extreme caution whenever handling gasoline.
- · Always turn off the engine when refueling.
- Always refuel outdoors or in a well ventilated area free of any source of flame or sparks.
- NEVER carry fuel or other flammable liquids on this vehicle. Failure to follow this instruction could lead to serious burn injuries or death.
- 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.

#### **EXPOSURE TO EXHAUST**

Engine exhaust fumes are poisonous and can cause loss of consciousness or death in a short time. Never start the engine or let it run in an enclosed area.

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

#### **HOT EXHAUST SYSTEMS**

#### **A** WARNING

Exhaust system components are very hot during and after use of the vehicle. Hot components can cause 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. Always inspect the underside of the vehicle and areas near the exhaust system after driving through tall grass, weeds, brush, and other tall ground cover. Promptly remove any grass or debris clinging to the vehicle.

#### UNAUTHORIZED USE OF THE VEHICLE

Leaving the keys in the ignition can lead to unauthorized use of the vehicle by someone under the age of 16, without a drivers license, or without proper training. This could result in an accident or rollover. Always remove the ignition key when the vehicle is not in use.

#### **EQUIPMENT MODIFICATIONS**

Your POLARIS vehicle is designed to provide safe operation when used as directed. Modifications to your vehicle may negatively impact vehicle stability. Failure of critical machine components may result from operation with any modifications, especially those that increase speed or power. This vehicle may become less stable at speeds higher than those for which it is designed. Loss of control may occur at higher speeds.

Do not install any non-POLARIS-approved accessory or modify the vehicle for the purpose of increasing speed or power. Any modifications or installation of non-POLARIS-approved accessories could create a substantial safety hazard and increase the risk of bodily injury.

The POLARIS limited warranty on your POLARIS vehicle will be terminated if any non-POLARIS-approved equipment and/or modifications have been added to the vehicle that increase speed or power.

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.

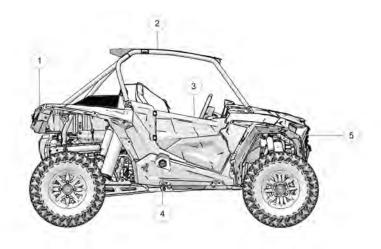
FOR MORE INFORMATION ABOUT SAFETY call POLARIS at 1-800-342-3764.

# FEATURES AND CONTROLS

# **COMPONENT LOCATIONS**

#### NOTE

Turbo S feature set shown below.



- ① Cargo Box
- (2) ROPS Frame
- (3) Cab Door
- 4 Fuel Tank Cap
- (5) Radiators

# STEERING WHEEL

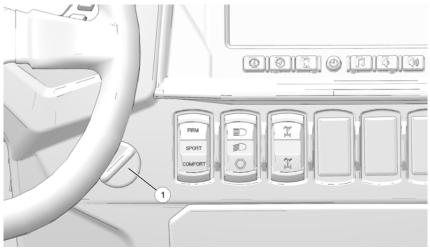
The steering wheel can be tilted upward or downward for rider preference. Lift and hold the steering wheel adjustment lever ① while moving the steering wheel upward or downward. Release the lever when the steering wheel is at the desired position.



# **SWITCHES**

# **IGNITION SWITCH**

# NOTE Turbo S feature set shown.



The ignition switch 1 is a four-position, key-operated switch. Use the ignition switch to start the engine. See page 84 for starting procedures.

| POSITION  | FUNCTION   |  |  |  |
|-----------|--|--|--|--|
| OFF       | The engine is off. Electrical circuits are off, except accessory 12V.  |  |  |  |
| ACCESSORY | The engine is off. Powers the display and terminal block. Check engine and power steering warning indicators will appear on the display in this mode but will turn off when the vehicle is started if no issues are present. |  |  |  |
| ON        | Electrical circuits are on. Electrical equipment can be used.  |  |  |  |
| START     | Turn the key to the START position to engage the electric starter. The key returns to the ON position when released.   |  |  |  |

The key can be removed from the switch when it is in the OFF position.

#### **HEADLIGHT SWITCH**

The ignition switch key must be in the ON/RUN position to operate the headlights. Press the top of the switch to place the headlights on high beam. Move the switch to the center position to place the headlights on low beam. Press the bottom of the switch to turn off the headlights. If the headlight switch is ON when the ignition switch is turned off, the lights will remain on for approximately 30 seconds.

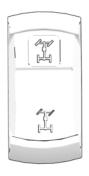


# **ALL WHEEL DRIVE (AWD) SWITCH**

The AWD switch has two positions:

- All Wheel Drive (AWD)
- Two Wheel Drive (2WD)

Press the top of the rocker switch to engage All Wheel Drive. Press the bottom of the switch to operate in two wheel drive. See the All Wheel Drive (AWD) System section for AWD operating instructions.



#### **AUXILIARY OUTLETS**

The vehicle is equipped with one or more 12-volt accessory outlets. One outlet is on the dash, a second outlet (if equipped) is in the rear passenger area. Use the outlets to power an auxiliary light or other optional accessories. For service, the dash outlet connection is under the dash. The rear outlet connection is under the rear passenger seats.



#### FEATURES AND CONTROLS

# **ELECTRONIC POWER STEERING (EPS)**

Electronic power steering (if equipped) engages when the ignition key is turned to the ON position. EPS remains engaged whether the vehicle is moving or idle.

The EPS warning indicator briefly illuminates when the key is turned to the ON position. See the Indicator Lamps section for details.

To conserve battery power, the EPS will shut down 5 minutes after the engine is stopped if the key remains in the ON position. The EPS warning indicator will illuminate to indicate the EPS has shut down.

If the light remains on after starting the engine, the EPS system is inoperative. See your POLARIS dealer, or another qualified person, as soon as possible for repair. Continued operation could result in permanent damage to the EPS unit and increased steering effort.

# SUSPENSION MODE SWITCH (IF EQUIPPED)

The RZR XP Turbo S and RZR XP 4 Turbo S are equipped with a suspension control mode switch that allows you to change the suspension control mode of your DYNAMIX™ Active Suspension system on-the-fly. (The Turbo S Velocity is not equipped with the DYNAMIX™ Active Suspension system.) There are 3 available suspension modes to select from: Firm, Sport, and Comfort.



# WARNING

The rider should use caution to select the appropriate suspension mode to match the current terrain conditions and driving style. Failure to select an appropriate suspension mode could lead to vehicle dynamic behaviors not matched to the terrain or driver's skill level.

### **NOTICE**

The system will prevent mode transitions from a more firm operating mode to a more soft operating mode when a current active vehicle state is present (cornering, braking, accelerating, or airborne).

In **Firm Mode**, the suspension reverts to its most firm compression damping setting. This mode is recommended for challenging terrain where large suspension events and complex terrain is encountered. In this mode, all 4 shocks are at the most firm setting.

In **Sport Mode**, some level of rider comfort is traded for higher performance levels and reduced body motion. Damping ramps up more aggressively as a function of vehicle speed. This mode is recommended for spirited driving where additional suspension system performance is required. All semi-active features are enabled in this mode.

In **Comfort mode**, the suspension control system is optimized for rider comfort, intervening in performance situations where required. The system will gradually increase the base value of damping as vehicle speed increases. Cornering, braking, acceleration, and airborne detection algorithms are fully active.

# **SEATS**

Before operating the vehicle, always push down on all seat backs to ensure the latches are secure.

#### **SEAT ADJUSTMENTS**

On seats equipped with an adjustment lever under the front edge of the seat, pull the lever to the left. Slide the seat forward or rearward to the desired position. Release the lever. The seat will lock into the new position.

For other seat styles, loosen (do not remove) the four screws located on the seat bottom. Slide the seat forward or rearward to the desired position. Tighten the screws to 4 ft. lbs. (5.4 Nm). Do not overtighten.

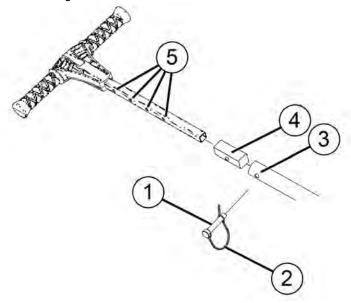
#### **SEAT REMOVAL**

- 1. Pull up on the seat latch lever located under the rear edge of the seat.
- Tilt the seat forward.
- 3. Lift the seat upward to remove it from the vehicle.
- 4. Reverse this procedure to reinstall the seat. Make sure the seat tabs at the front edge of the seat slide under the seat retainer bar.
- 5. Press down firmly at the rear of the seat to engage the rear latch.

# PASSENGER HAND HOLD

Always adjust the hand hold to a comfortable position for your passenger before operating. Make sure the adjustment pin and retainer are securely installed after making adjustments.

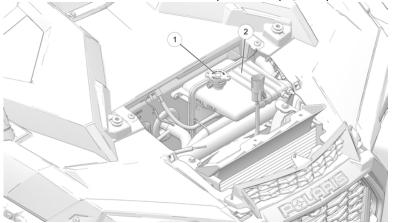
- 1. Remove the retainer ① from the end of the adjustment pin ②.
- 2. Remove the pin from the post.
- 3. Slide the post inward or outward to the desired position.
- 4. Reinstall the pin through the post mounting hole ③, adapter bushing hole ④, both post adjustment holes ⑤, and lastly through the remaining bushing hole and post mounting hole.



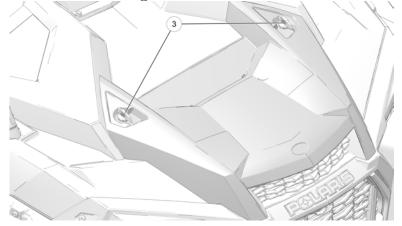
5. Reinstall the retainer to the pin.

# HOOD

Remove the hood to access the radiator pressure cap ① and pressure tank ②.



1. Turn the hood fasteners (3) 1/4 turn.



- 2. Grasp the upper hood edge and pull upward to disengage the fasteners.
- 3. Pivot the hood forward and lift upward to disengage the lower hood hooks.
- 4. Lift the hood away from the vehicle.

# **TURBO SYSTEM**

Do not attempt to perform maintenance or repairs to any component of the turbo system. Please see your POLARIS dealer or other qualified service person for this service.

# **FUEL RECOMMENDATIONS**

- Use ONLY 91 octane (or higher) unleaded fuel (minimum pump octane number of 91 R+M/2)
- Do not use any fuel lower than 91 octane
- Do not use fuel containing more than 10% ethanol (including E85)

## **FUEL LEVEL**

The fuel tank filler cap ① is located on the right side of the vehicle near the passenger seat.

### NOTE

Turbo S feature set shown.



The fuel symbol and the last fuel bar on the MFD gauge will blink when the fuel level reaches 1/8th tank. There will be approximately one gallon of fuel remaining. Refuel as soon as possible. *Do not allow the vehicle to run out of fuel*.

### **NOTICE**

Damage to the fuel pump will occur if the vehicle is operated with an empty fuel tank. Do not allow the vehicle to run out of fuel. Always refuel when the level is low.

# NOTICE

Operating with obstructed fuel systems will result in serious engine damage.

Perform maintenance as recommended.

### NOTICE

Prolonged exposure to petroleum based products may damage paint. Always protect painted surfaces when handling fuel.

# **SEAT BELTS**

This POLARIS vehicle is equipped with seat belts for all riders. Always make sure the seat belts are secured for the operator and all passengers before riding. The driver's seat belt is equipped with a seat belt interlock. Vehicle speed will be limited to 15 MPH (24 km/h) if the seat belt is not secured.

### STATIC 4-POINT SEAT BELT

This vehicle is equipped with a safety harness with built-in interlock. To wear the 4-point seat belt properly, follow this procedure:

- 1. Buckle up:
  - Slide arms under each shoulder web. Do not twist webbing.
  - Insert tongue into buckle until you hear a CLICK.
- 2. TUG slightly on buckle and tongue to make sure belt is securely fastened.
- 3. Position buckle low and centered on pelvis. SNUG each side of the lap belt by pulling each adjuster strap.
- Pull torso belts snug.
- 5. Latch chest clip (if applicable).

**To release belt:** Depress button with thumb or finger. Tongue will eject from buckle.

# SEAT BELT INSPECTION

Inspect all seat belts for proper operation before each use of the vehicle.

- Pull each seat belt completely out and inspect the full length for any damage, including cuts, wear, fraying or stiffness. If any damage is found, or if the seat belt does not operate properly, have the seat belt system checked and/or replaced by a qualified technician.
- To clean dirt or debris from the seat belts, sponge the straps with mild soap and water. Do not use bleach, dye or household detergents. Rinse the entire length of the belt webbing.

# SERVICE ACCESS PANELS

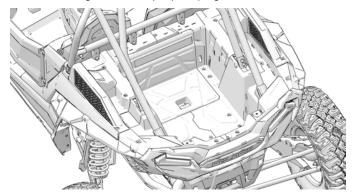
### **ENGINE ACCESS PANEL**

The engine access panel is located behind the seats on the frame of the vehicle. Remove the seats and remove the access panel to reach serviceable engine components.



## **CARGO BOX ACCESS PANEL**

The cargo box access panel is located on the floor of the cargo box. Remove the panel to access the engine oil fill cap, spark plugs and air filter.



## CAB DOORS

This vehicle is equipped with cab doors. Riding in this vehicle without closed and latched cab doors increases the risk of serious injury or death in the event of an accident or rollover. Always make sure all cab doors are closed and latched when riding in this vehicle.

Always inspect doors and latches for wear and damage before each use of the vehicle.

Promptly replace any worn or damaged parts with new parts available from your authorized POLARIS dealer or qualified person.

# **GEAR SELECTOR**

P: Park

R: Reverse

N: Neutral

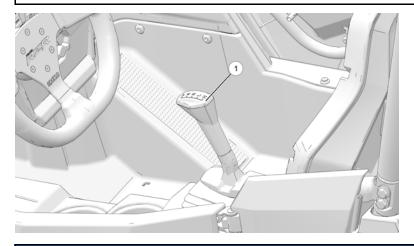
L: Low Gear

H: High Gear

To change gears, stop the vehicle, and with the engine idling, move the lever ① to the desired gear. Do not attempt to shift gears with engine speed above idle or while the vehicle is moving.

### **NOTE**

Turbo S model shown in image.



#### TIP

Maintaining shift linkage adjustment is important to assure proper transmission function. Your POLARIS dealer can assist in resolving any shifting problems.

#### **NOTICE**

Do not attempt to shift the transmission while the vehicle is moving or damage to the transmission could result. Always shift when the vehicle is stationary and the engine is at idle.

### **USING LOW RANGE**

Always shift into low gear for any of the following conditions:

- · Operating in rough terrain or over obstacles
- · Loading the vehicle onto a trailer

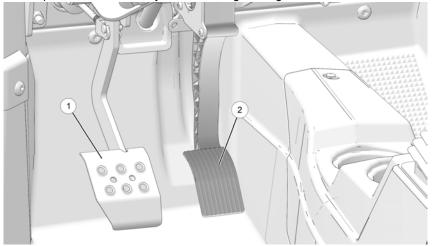
## **BRAKE AND THROTTLE PEDALS**

#### **BRAKE PEDAL**

Depress the brake pedal ① to slow or stop the vehicle. Apply the brakes while starting the engine.

## THROTTLE PEDAL

Push the throttle pedal ② down to increase engine speed. Spring pressure returns the pedal to the rest position when released. Always check that the throttle pedal returns normally before starting the engine.



# **TIP**

If the throttle pedal and brake pedal are applied simultaneously, engine power may be limited.

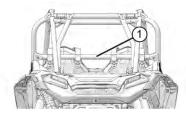
# **ROLLOVER PROTECTIVE STRUCTURE (ROPS)**

#### NOTE

This page applies to all 2019 RZR XP Turbo S, RZR XP Turbo S Velocity, and RZR XP 4 Turbo S Velocity vehicles, and RZR XP 4 Turbo S vehicles if those vehicles were produced after January 7th, 2019. For RZR XP 4 Turbo S vehicles produced before January 7th, 2019, see page 46. To identify your vehicle's build date, reference the vehicle identification sticker as shown on page 8 or the vehicle purchase documents.

The Roll Over Protective Structure (ROPS) on this vehicle is certified in compliance with ROHVA. Always have your authorized dealer or qualified person thoroughly inspect the ROPS if it ever becomes damaged in any way.

#### 1 ROPS Label



# **A** WARNING

Never make modifications to the vehicle's ROPS structure.

No device can assure occupant protection in the event of a rollover. When used with seat belts and cab nets or doors, the ROPS helps prevent occupants from being ejected from the vehicle. Always follow all safe operating practices outlined in this manual to avoid vehicle rollover.

# **A** WARNING

Vehicle rollover could cause severe injury or death. Always avoid operating in a manner that could result in vehicle rollover.

# **ROLLOVER PROTECTIVE STRUCTURE (ROPS)**

#### **NOTE**

This page only applies to RZR XP 4 Turbo S vehicles produced prior to January 7th, 2019. To identify your vehicle's build date, reference the vehicle identification sticker as shown on page 8 or the vehicle purchase documents.

# **A** WARNING

Never make modifications to the vehicle's ROPS structure.

The Roll Over Protective Structure (ROPS) on this vehicle is certified in compliance with ROHVA. The roof on this vehicle is part of the ROPS and should not be removed. Always have your authorized dealer or qualified person thoroughly inspect the ROPS if it ever becomes damaged in any way.



- 1) ROPS Label
- ② Roof Warning Decal



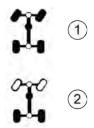
No device can assure occupant protection in the event of a rollover. When used with seat belts and cab nets or doors, the ROPS helps prevent occupants from being ejected from the vehicle. Always follow all safe operating practices outlined in this manual to avoid vehicle rollover.

# **A** WARNING

Vehicle rollover could cause severe injury or death. Always avoid operating in a manner that could result in vehicle rollover.

# ALL WHEEL DRIVE (AWD) SYSTEM

The All Wheel Drive system is controlled by the AWD switch. Once the vehicle is in gear, the switch is set to one of two modes. When the switch is on 2X4 ②, the vehicle is in two-wheel drive at all times. When the switch is on AWD ①, the vehicle is in all wheel drive and the 4X4 indicator in the instrument cluster will be on.



When in AWD, the demand drive unit will automatically engage any time the rear wheels lose traction. When the rear wheels regain traction, the demand drive unit will automatically disengage.

There is no limit to the length of time the vehicle may remain in AWD.

### **ENGAGING AWD**

The AWD switch may be turned on or off while the vehicle is moving. Initially, the vehicle's electronic system will not enable the AWD until the engine RPM is below 3100. Once enabled, the AWD remains enabled until the AWD switch is turned off. If the switch is turned off while the demand drive unit is moving, it will not disengage until the rear wheels regain traction.

Engage the AWD switch before getting into conditions where front wheel drive may be needed. If the rear wheels are spinning, release the throttle before switching to AWD.

#### **NOTICE**

Switching to AWD while the rear wheels are spinning or slipping may cause severe drive shaft and gearcase damage. Always switch to AWD while the rear wheels have traction or are at rest.

# INSTRUMENT CLUSTER

### **NOTICE**

High water pressure may damage components. Wash the vehicle by hand or with a garden hose using mild soap. Certain products, including insect repellents and chemicals, will damage the speedometer lens and other plastic surfaces. Do not use alcohol to clean the instrument cluster. Do not allow insect sprays to contact the lens. Immediately clean off any gasoline that splashes on the instrument cluster.



- 1 Speedometer
- (2) Tachometer
- (3) Indicator Lamps

- 4 Mode Button
- **5** Toggle Buttons
- (6) Rider Information Center

### **SPEEDOMETER**

The speedometer displays vehicle speed in either miles per hour (MPH) or kilometers per hour (km/h).

### **TACHOMETER**

The tachometer displays engine speed in revolutions per minute (RPM).

### MODE AND TOGGLE BUTTONS

Press and hold the MODE button (4) to enter or exit the settings menu. Press and release the MODE button to cycle through Area 1 modes and to select an item.

Press and release either toggle button ⑤ to cycle through the options menu or Area 2 modes. Press and hold either toggle button to reset an item. See page 53.

#### TIP

With the ignition key off, pressing the MODE button or either toggle button will power up the Rider Information Center for 10 seconds to allow viewing of the odometer and the clock.

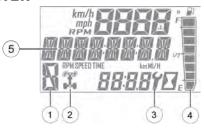
# **INDICATOR LAMPS**

| LAMP                | INDICATES                    | CONDITION   |
|---------------------|------------------------------|---|
|                     | Check Engine                 | This indicator appears if an EFI related fault occurs. Do not operate the vehicle if this warning appears. Serious engine damage could result. Your authorized dealer can assist.   |
|                     | EPS Warning<br>(if equipped) | This indicator illuminates briefly when the key is turned to the ON position. If the light remains on, the EPS system is inoperative. See your POLARIS dealer, or another qualified person, as soon as possible for repair. Continued operation could result in permanent damage to the EPS unit and increased steering effort. |
| }<br> }<br> }<br> } | Engine Hot                   | This lamp illuminates to indicate an overheated engine. If the indicator flashes, a severe overheating condition exists.  |
|                     | Neutral                      | This lamp when the transmission is in neutral and the ignition key is on the ON position.   |
| Ž,                  | Helmet / Seat<br>Belt        | This lamp flashes for several seconds when the key is turned to the ON position. The lamp is a reminder to wear helmet and seat belt before operating.  |
|                     | High Beam                    | This lamp illuminates when the headlamp switch is set to high beam.   |
| A                   | Chassis Fault                | This lamp illuminates when there is an issue with the DYNAMIX suspension system.  |
| ~                   | Performance<br>Limited       | Not applicable.   |

# RIDER INFORMATION CENTER

The rider information center is located in the instrument cluster. All segments will light up for one second at start-up. If the instrument cluster fails to illuminate, a battery over-voltage may have occurred and the instrument cluster may have shut off to protect the electronic speedometer. If this occurs, your POLARIS dealer can provide proper diagnosis.

The information center is set to display standard units of measurement and a 12-hour clock at the factory. To change to metric and/or a 24-hour clock.



| 1   | Gear Indicator                       | This indicator displays gear shifter position .H = High Gear L = Low Gear N = Neutral R = Reverse Gear P = Park - = Gear Signal Error (or shifter between gears)                                       |
|-----|--------------------------------------|--|
| 2   | AWD Indicator                        | This indicator shows whether 2X4 or AWD is active when the vehicle is in gear.   |
| 3   | Service<br>Indicator                 | A flashing wrench symbol alerts the operator that the preset service interval has been reached. Your POLARIS dealer can provide scheduled maintenance. See page 56 for resetting instructions.         |
| 4   | Fuel Gauge                           | The segments of the fuel gauge show the level of fuel in the fuel tank. When the last segment clears, a low fuel warning is activated. The outline of the fuel display will flash. Refuel immediately. |
| (5) | Speed<br>Limitation (if<br>equipped) | This vehicle may be equipped with a maximum speed limitation function. This would be displayed on the screen as "LIM" followed by the speed. "LIM 30" for example.                                     |

# MODE INFORMATION DISPLAYS

The rider information center contains three areas that display mode information.



| ① Area 1 Modes      | Description  |
|---------------------|--|
| Engine Temperature  | Temperature of engine coolant  |
| Vehicle Speed       | Speed of vehicle   |
| Tachometer          | Engine speed (RPM)   |
| ② Area 2 Modes      | Description  |
| Odometer            | The odometer records and displays the distance traveled by the vehicle.                                      |
| Trip Meters (T1/T2) | A trip meter records the distance traveled by the vehicle if reset before each trip. To reset, see page 55.  |
| Engine Hours        | Total hours of engine operation since manufacture  |
| Service Hours       | A flashing wrench symbol indicates that the preset service interval has been reached. To reset, see page 56. |
| Trip Time           | Time length of vehicle operation since mode was last reset   |
| ③ Area 3 Modes      | Description  |
| Clock               | The clock displays time in a 12-hour or 24-hour format. To reset, see page 54.                               |

# **ACCESSING MENUS AND OPTIONS**

#### GAUGE SETTINGS MENU

Press and release the MODE button to cycle through the Area 1 modes until the desired default mode displays. See the Mode Information Displays section for details

Press and hold the MODE button to enter the settings menu.

The OPTIONS screen will display for a few seconds.

- Press and release either toggle button to cycle to the desired option.
- 2. Press MODE to select the option.
- 3. Press either toggle button to cycle to the desired setting.
- 4. Press MODE to save and exit to the settings menu.
- 5. Press and hold the MODE button to exit the settings menu.



#### **BACKLIGHT COLOR**

The information center backlight can be set to either blue or red.

- 1. Press and hold the MODE button to enter the settings menu.
- Press either toggle button to cycle to the "BL COLOR" option. Press MODE to select.
- 3. Press either toggle button to cycle to the desired setting.
- 4. Press MODE to save and exit to the settings menu,



#### **BACKLIGHT BRIGHTNESS**

The information center backlight can be set to either blue or red.

- 1. Press and hold the MODE button to enter the settings menu.
- Press either toggle button to cycle to the "BL LEVEL" option. Press MODE to select.
- 3. Press "UP" button to increase brightness. Press "DOWN" button to decrease brightness.
- 4. Press MODE to select and exit to the settings menu.



#### **CLOCK**

The clock must be reset any time the battery has been disconnected or discharged.

- 1. Press and hold the MODE button to enter the settings menu.
- Press either toggle button to cycle to the "CLOCK" option. Press MODE to select.
- Press either toggle button to cycle to the desired setting (12H or 24H). Press MODE to select.
- Press either toggle button to change each segment of the clock. Press MODE to accept a change and advance to the next segment.



# **DISPLAY UNITS (STANDARD/METRIC)**





- 1. Press and hold the MODE button to enter the settings menu.
- Press either toggle button to cycle to the desired "UNITS" option (distance, temperature or volume). Press MODE to select.
- 3. Press either toggle button to cycle to the desired setting.
- 4. Press MODE to save and exit to the settings menu.

#### TRIP METER

Use a trip meter to track the distance traveled during a specific trip or period of time. Reset the meter to zero before traveling.

- Press either toggle button to cycle to the desired trip meter option (T1 or T2).
- 2. Press and hold either toggle button until the meter resets to zero.



## **TRIP TIME**

Use a trip time meter to track the travel time during a specific trip. Reset the meter to zero before traveling.

- 1. Press either toggle button to cycle to the trip time option (TT).
- 2. Press and hold either toggle button until the meter resets to zero.



#### PROGRAMMABLE SERVICE INTERVAL

The service interval counter is programmed to 25 hours at the factory. As hours of engine operation increase, the counter decreases. The wrench icon will flash for about 10 seconds when the counter reaches zero (0), and each time the key is turned on thereafter, until the counter is reset.

When this feature is enabled, it provides a convenient reminder to perform routine maintenance. Refer to the Periodic Maintenance Chart for recommended service intervals

Use the following procedure to reset or change the service interval.

- 1. Press and hold the MODE button to enter the settings menu.
- Press either toggle button to cycle to the "Service Hours" option. Press MODE to select.
- Press MODE to reset the existing value and exit, or press either toggle button to change the value. Press MODE to save and exit to the settings menu.

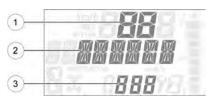


### **ENGINE ERROR CODES**

The error screen displays only when the CHECK ENGINE indicator is on or when it goes on and off during one ignition cycle. Error codes are not stored. When the key is turned OFF, the code and message is lost, but will reappear if the fault reoccurs after restarting the engine.

If the CHECK ENGINE lamp or the EPS lamp illuminates, retrieve the active error codes from the display.

- ① Failure Mode Indicator (FMI)
- ② Suspect Parameter Number (SPN)
- 3 Code Count



- 1. Press and hold the MODE button to enter the settings menu.
- Press either toggle button to cycle to the "DIAGCODE" option. Press MODE to select.
- More than one diagnostic code may be present. Press the toggle UP button to see if more codes are present. Press MODE to select a code.

#### NOTE

If the displayed code is an engine fault code, the CHECK ENGINE lamp will blink. If the displayed code is an EPS fault code, the EPS lamp will blink.

- 4. Record the three (3) numbers displayed.
- 5. Press MODE to exit to the settings menu.

# DIAGNOSTIC DISPLAY CODE DEFINITIONS

<u>Open Load:</u> There is a break in the wires that lead to the item listed in the chart (injector, fuel pump, etc.), or the item has failed.

<u>Short-to-Ground:</u> The wire is shorted to ground between the electronic control unit and the item listed in the chart.

<u>Shorted Load:</u> The wires leading to the item listed in the chart are shorted together, or the item has shorted internally.

<u>Short-to-Battery:</u> The wire leading from the item listed in the chart to the electronic control unit is shorted to a wire at battery voltage.

| DIAGNOSTIC CODES              |   |     |     |
|-------------------------------|---|-----|-----|
| COMPONENT                     | CONDITION   | SPN | FMI |
|                               | Engine Control Module   |     |     |
| Accelerator Position 2        | Data Erratic, Intermittent Or Incorrect                                 | 29  | 2   |
|                               | Voltage Above Normal, Or<br>Shorted To High Source                      | 29  | 3   |
|                               | Voltage Below Normal, Or<br>Shorted To Low Source                       | 29  | 4   |
| Throttle Position<br>Sensor 1 | Data Valid But Above Normal<br>Operational Range - Most<br>Severe Level | 51  | 0   |
|                               | Data Valid But Below Normal<br>Operational Range - Most<br>Severe Level | 51  | 1   |
|                               | Data Erratic, Intermittent Or Incorrect                                 | 51  | 2   |
|                               | Voltage Above Normal, Or<br>Shorted To High Source                      | 51  | 3   |
|                               | Voltage Below Normal, Or<br>Shorted To Low Source                       | 51  | 4   |
|                               | Abnormal Rate Of Change   | 51  | 10  |
|                               | Out Of Calibration  | 51  | 13  |

|                         | DIAGNOSTIC CODES  |     |     |
|-------------------------|---|-----|-----|
| COMPONENT               | CONDITION   | SPN | FMI |
| Vehicle Speed<br>Sensor | Data Valid But Above Normal<br>Operational Range - Most<br>Severe Level | 84  | 0   |
|                         | Data Valid But Below Normal<br>Operational Range - Most<br>Severe Level | 84  | 1   |
|                         | Data Erratic, Intermittent Or Incorrect                                 | 84  | 2   |
|                         | Voltage Above Normal, Or<br>Shorted To High Source                      | 84  | 3   |
|                         | Voltage Below Normal, Or<br>Shorted To Low Source                       | 84  | 4   |
|                         | Abnormal Frequency Or Pulse Width Or Period                             | 84  | 8   |
|                         | Abnormal Update Rate  | 84  | 9   |
|                         | Abnormal Rate Of Change   | 84  | 10  |
|                         | Bad Intelligent Device Or<br>Component                                  | 84  | 12  |
|                         | Received Network Data In Error  | 84  | 19  |
| Accelerator Position    | Data Erratic, Intermittent Or Incorrect                                 | 91  | 2   |
|                         | Voltage Above Normal, Or<br>Shorted To High Source                      | 91  | 3   |
|                         | Voltage Below Normal, Or<br>Shorted To Low Source                       | 91  | 4   |

|                                      | DIAGNOSTIC CODES   |     |     |  |
|--------------------------------------|--|-----|-----|--|
| COMPONENT                            | CONDITION  | SPN | FMI |  |
| Manifold Absolute<br>Pressure Sensor | Data Erratic, Intermittent Or Incorrect                                | 102 | 2   |  |
|                                      | Voltage Above Normal, Or<br>Shorted To High Source                     | 102 | 3   |  |
|                                      | Voltage Below Normal, Or<br>Shorted To Low Source                      | 102 | 4   |  |
|                                      | Mechanical System Not<br>Responding Or Out Of<br>Adjustment            | 102 | 7   |  |
|                                      | Abnormal Rate Of Change  | 102 | 10  |  |
| Intake Air<br>Temperature Sensor     | Data Erratic, Intermittent Or Incorrect                                | 105 | 2   |  |
|                                      | Voltage Above Normal, Or<br>Shorted To High Source                     | 105 | 3   |  |
|                                      | Voltage Below Normal, Or<br>Shorted To Low Source                      | 105 | 4   |  |
|                                      | Abnormal Rate Of Change  | 105 | 10  |  |
|                                      | Data Valid But Above Normal<br>Operating Range - Least Severe<br>Level | 105 | 15  |  |

|                              | DIAGNOSTIC CODES  |     |     |
|------------------------------|---|-----|-----|
| COMPONENT                    | CONDITION   | SPN | FMI |
| Engine Temperature<br>Sensor | Data Valid But Above Normal<br>Operational Range - Most<br>Severe Level     | 110 | 0   |
|                              | Data Erratic, Intermittent Or Incorrect                                     | 110 | 2   |
|                              | Voltage Above Normal, Or<br>Shorted To High Source                          | 110 | 3   |
|                              | Voltage Below Normal, Or<br>Shorted To Low Source                           | 110 | 4   |
|                              | Abnormal Rate Of Change   | 110 | 10  |
|                              | Data Valid But Above Normal<br>Operating Range - Least Severe<br>Level      | 110 | 15  |
|                              | Data Valid But Above Normal<br>Operating Range - Moderately<br>Severe Level | 110 | 16  |
|                              | Data Valid But Below Normal<br>Operating Range - Least Severe<br>Level      | 110 | 17  |

|              | DIAGNOSTIC CODES  |     |     |
|--------------|---|-----|-----|
| COMPONENT    | CONDITION   | SPN | FMI |
| System Power | Data Valid But Above Normal<br>Operational Range - Most<br>Severe Level     | 168 | 0   |
|              | Data Valid But Below Normal<br>Operational Range - Most<br>Severe Level     | 168 | 1   |
|              | Voltage Above Normal, Or<br>Shorted To High Source                          | 168 | 3   |
|              | Voltage Below Normal, Or<br>Shorted To Low Source                           | 168 | 4   |
|              | Data Valid But Above Normal<br>Operating Range - Moderately<br>Severe Level | 168 | 16  |
|              | Data Valid But Below Normal<br>Operating Range - Moderately<br>Severe Level | 168 | 18  |
| Engine Speed | Data Valid But Above Normal<br>Operational Range - Most<br>Severe Level     | 190 | 0   |
|              | Data Valid But Below Normal<br>Operational Range - Most<br>Severe Level     | 190 | 1   |
|              | Data Erratic, Intermittent Or Incorrect                                     | 190 | 2   |
|              | Mechanical System Not<br>Responding Or Out Of<br>Adjustment                 | 190 | 7   |
|              | Received Network Data In Error  | 190 | 19  |
|              | Condition Exists  | 190 | 31  |

| DIAGNOSTIC CODES                      |  |      |     |
|---------------------------------------|--|------|-----|
| COMPONENT                             | CONDITION  | SPN  | FMI |
| Gear Sensor Signal                    | Data Erratic, Intermittent Or Incorrect            | 523  | 2   |
|                                       | Voltage Above Normal, Or<br>Shorted To High Source | 523  | 3   |
|                                       | Voltage Below Normal, Or<br>Shorted To Low Source  | 523  | 4   |
|                                       | Abnormal Update Rate                               | 523  | 9   |
| ECU Memory                            | Bad Intelligent Device Or<br>Component             | 628  | 12  |
|                                       | Out Of Calibration                                 | 628  | 13  |
| Calibration                           | Out Of Calibration                                 | 630  | 13  |
| Crankshaft Position<br>Sensor         | Data Erratic, Intermittent Or Incorrect            | 636  | 2   |
|                                       | Abnormal Frequency Or Pulse<br>Width Or Period     | 636  | 8   |
| Injector 1 (Front)<br>(MAG) (SDI Port | Voltage Above Normal, Or<br>Shorted To High Source | 651  | 3   |
| Injector)                             | Voltage Below Normal, Or<br>Shorted To Low Source  | 651  | 4   |
|                                       | Current Below Normal Or Open<br>Circuit            | 651  | 5   |
| Fan Relay Driver<br>Circuit           | Voltage Above Normal, Or<br>Shorted To High Source | 1071 | 3   |
|                                       | Voltage Below Normal, Or<br>Shorted To Low Source  | 1071 | 4   |
|                                       | Current Below Normal Or Open<br>Circuit            | 1071 | 5   |

|  | DIAGNOSTIC CODES                                   |      |     |
|--|--|------|-----|
| COMPONENT  | CONDITION  | SPN  | FMI |
| Ignition Coil Primary<br>Driver 1 (Front)<br>(MAG) | Voltage Above Normal, Or<br>Shorted To High Source | 1268 | 3   |
| (MAG)  | Voltage Below Normal, Or<br>Shorted To Low Source  | 1268 | 4   |
|  | Current Below Normal Or Open<br>Circuit            | 1268 | 5   |
| Fuel Pump Driver<br>Circuit                        | Voltage Above Normal, Or<br>Shorted To High Source | 1347 | 3   |
|  | Voltage Below Normal, Or<br>Shorted To Low Source  | 1347 | 4   |
|  | Current Below Normal Or Open<br>Circuit            | 1347 | 5   |
| Oxygen Sensor 1                                    | Data Erratic, Intermittent Or Incorrect            | 3056 | 2   |
|  | Voltage Above Normal, Or<br>Shorted To High Source | 3056 | 3   |
|  | Voltage Below Normal, Or<br>Shorted To Low Source  | 3056 | 4   |
|  | Bad Intelligent Device Or<br>Component             | 3056 | 12  |

|                                | DIAGNOSTIC CODES  |      |     |
|--------------------------------|---|------|-----|
| COMPONENT                      | CONDITION   | SPN  | FMI |
| ECU Output Supply<br>Voltage 1 | Data Valid But Above Normal<br>Operational Range - Most<br>Severe Level     | 3597 | 0   |
|                                | Data Valid But Below Normal<br>Operational Range - Most<br>Severe Level     | 3597 | 1   |
|                                | Voltage Above Normal, Or<br>Shorted To High Source                          | 3597 | 3   |
|                                | Voltage Below Normal, Or<br>Shorted To Low Source                           | 3597 | 4   |
|                                | Data Valid But Above Normal<br>Operating Range - Moderately<br>Severe Level | 3597 | 16  |
|                                | Data Valid But Below Normal<br>Operating Range - Moderately<br>Severe Level | 3597 | 18  |

|                                | DIAGNOSTIC CODES  |      |     |
|--------------------------------|---|------|-----|
| COMPONENT                      | CONDITION   | SPN  | FMI |
| ECU Output Supply<br>Voltage 2 | Data Valid But Above Normal<br>Operational Range - Most<br>Severe Level     | 3598 | 0   |
|                                | Data Valid But Below Normal<br>Operational Range - Most<br>Severe Level     | 3598 | 1   |
|                                | Voltage Above Normal, Or<br>Shorted To High Source                          | 3598 | 3   |
|                                | Voltage Below Normal, Or<br>Shorted To Low Source                           | 3598 | 4   |
|                                | Data Valid But Above Normal<br>Operating Range - Moderately<br>Severe Level | 3598 | 16  |
|                                | Data Valid But Below Normal<br>Operating Range - Moderately<br>Severe Level | 3598 | 18  |
| ECU Output Supply<br>Voltage 3 | Data Valid But Above Normal<br>Operational Range - Most<br>Severe Level     | 3599 | 0   |
|                                | Data Valid But Below Normal<br>Operational Range - Most<br>Severe Level     | 3599 | 1   |
|                                | Voltage Above Normal, Or<br>Shorted To High Source                          | 3599 | 3   |
|                                | Voltage Below Normal, Or<br>Shorted To Low Source                           | 3599 | 4   |
|                                | Data Valid But Above Normal<br>Operating Range - Moderately<br>Severe Level | 3599 | 16  |
|                                | Data Valid But Below Normal<br>Operating Range - Moderately<br>Severe Level | 3599 | 18  |

| DIAGNOSTIC CODES   |   |        |     |  |
|--|---|--------|-----|--|
| COMPONENT  | CONDITION   | SPN    | FMI |  |
| ETC Accelerator<br>Position Sensor<br>Outputs 1 & 2<br>Correlation | Data Erratic, Intermittent Or Incorrect                                 | 65613  | 2   |  |
| Throttle Position<br>Sensor 2                                      | Data Valid But Above Normal<br>Operational Range - Most<br>Severe Level | 520198 | 0   |  |
|  | Data Valid But Below Normal<br>Operational Range - Most<br>Severe Level | 520198 | 1   |  |
|  | Data Erratic, Intermittent Or Incorrect                                 | 520198 | 2   |  |
|  | Voltage Above Normal, Or<br>Shorted To High Source                      | 520198 | 3   |  |
|  | Voltage Below Normal, Or<br>Shorted To Low Source                       | 520198 | 4   |  |
|  | Abnormal Rate Of Change   | 520198 | 10  |  |
|  | Out Of Calibration  | 520198 | 13  |  |
| Fuel Correction<br>Front   | Data Valid But Above Normal<br>Operating Range - Least Severe<br>Level  | 520204 | 15  |  |
|  | Data Valid But Below Normal<br>Operating Range - Least Severe<br>Level  | 520204 | 17  |  |
| All Wheel Drive<br>Control Circuit                                 | Voltage Above Normal, Or<br>Shorted To High Source                      | 520207 | 3   |  |
|  | Voltage Below Normal, Or<br>Shorted To Low Source                       | 520207 | 4   |  |
|  | Current Below Normal Or Open<br>Circuit                                 | 520207 | 5   |  |

| DIAGNOSTIC CODES   |  |        |     |  |
|--|--|--------|-----|--|
| COMPONENT  | CONDITION  | SPN    | FMI |  |
| Oxygen Sensor<br>Heater 1                                | Data Erratic, Intermittent Or Incorrect            | 520209 | 2   |  |
|  | Voltage Above Normal, Or<br>Shorted To High Source | 520209 | 3   |  |
|  | Voltage Below Normal, Or<br>Shorted To Low Source  | 520209 | 4   |  |
|  | Current Below Normal Or Open<br>Circuit            | 520209 | 5   |  |
| Accelerator<br>Position/Brake<br>Position Interaction    | Condition Exists                                   | 520275 | 31  |  |
| Throttle Position<br>Sensor (1 or 2<br>Indeterminable)   | Data Erratic, Intermittent Or Incorrect            | 520276 | 2   |  |
|  | Bad Intelligent Device Or<br>Component             | 520276 | 12  |  |
| Throttle Body<br>Control - Power<br>Stage                | Data Erratic, Intermittent Or Incorrect            | 520277 | 2   |  |
|  | Voltage Above Normal, Or<br>Shorted To High Source | 520277 | 3   |  |
|  | Voltage Below Normal, Or<br>Shorted To Low Source  | 520277 | 4   |  |
|  | Abnormal Frequency Or Pulse<br>Width Or Period     | 520277 | 8   |  |
|  | Condition Exists                                   | 520277 | 31  |  |
| Throttle Body<br>Control - Return<br>Spring Check Failed | Condition Exists                                   | 520278 | 31  |  |
| Throttle Body<br>Control - Adaption<br>Aborted           | Condition Exists                                   | 520279 | 31  |  |

| DIAGNOSTIC CODES  |  |        |     |
|---|--|--------|-----|
| COMPONENT   | CONDITION  | SPN    | FMI |
| Throttle Body<br>Control - Limp<br>Home Position<br>Check Failed        | Condition Exists                                   | 520280 | 31  |
| Throttle Body<br>Control -<br>Mechanical Stop<br>Adaptation Failure     | Condition Exists                                   | 520281 | 31  |
| Throttle Body<br>Control - Repeated<br>Adaptation Failed                | Condition Exists                                   | 520282 | 31  |
| Throttle Body<br>Control  | Data Erratic, Intermittent Or Incorrect            | 520283 | 2   |
|   | Voltage Above Normal, Or<br>Shorted To High Source | 520283 | 3   |
|   | Voltage Below Normal, Or<br>Shorted To Low Source  | 520283 | 4   |
| Throttle Body<br>Control - Position<br>Deviation Fault                  | Condition Exists                                   | 520284 | 31  |
| ECU Monitoring<br>Error   | Condition Exists                                   | 520286 | 31  |
| ECU Monitoring<br>Error (Level 3)                                       | Condition Exists                                   | 520287 | 31  |
| ECU Monitoring of<br>Injection Cut Off<br>(Level 1)                     | Condition Exists                                   | 520288 | 31  |
| ECU Monitoring of<br>Injection Cut Off<br>(Level 2)                     | Condition Exists                                   | 520289 | 31  |
| Throttle Body<br>Control - Requested<br>Throttle Angle Not<br>Plausible | Condition Exists                                   | 520305 | 31  |

| DIAGNOSTIC CODES  |   |        |     |  |
|---|---|--------|-----|--|
| COMPONENT   | CONDITION   | SPN    | FMI |  |
| ECU ADC Fault - No<br>Load                                      | Condition Exists  | 520306 | 31  |  |
| ECU ADC Fault -<br>Voltage                                      | Condition Exists  | 520307 | 31  |  |
| Accelerator Sensor<br>Sync Fault - Sensor<br>Diff Exceeds Limit | Condition Exists  | 520308 | 31  |  |
| ECU Fault - ICO   | Condition Exists  | 520309 | 31  |  |
| ECU Fault -<br>Hardware Disruption                              | Condition Exists  | 520311 | 31  |  |
| Idle Fuel Correction<br>Bank 1                                  | Data Valid But Above Normal<br>Operating Range - Least Severe | 520342 | 15  |  |
|   | Data Valid But Below Normal<br>Operating Range - Least Severe | 520342 | 17  |  |
| Adaptive Fuel<br>Correction Bank 1                              | Data Valid But Above Normal<br>Operating Range - Least Severe | 520344 | 15  |  |
|   | Data Valid But Below Normal<br>Operating Range - Least Severe | 520344 | 17  |  |

| DIAGNOSTIC CODES                    |   |        |     |
|-------------------------------------|---|--------|-----|
| COMPONENT                           | CONDITION   | SPN    | FMI |
|                                     | EPAS Module   |        |     |
| Steering Over<br>Current Shut Down  | Current Above Normal Or<br>Grounded Circuit                       | 520221 | 6   |
| Steering Excessive<br>Current Error | Current Above Normal Or<br>Grounded Circuit                       | 520222 | 6   |
| Steering Torque<br>Partial Failure  | Condition Exists  | 520223 | 31  |
| Steering Torque Full Failure        | Condition Exists  | 520224 | 31  |
| EPAS Inverter<br>Temperature        | Data Valid But Above Normal<br>Operational Range - Most<br>Severe | 520225 | 0   |
|                                     | Data Valid But Above Normal<br>Operating Range - Severe           |        | 16  |
| EPAS<br>Communications              | Data Erratic, Intermittent Or Incorrect                           | 520226 | 2   |
| Receive Data Error                  | Condition Exists  | 520226 | 31  |
| Position Encoder<br>Error           | Root Cause Not Known  | 520228 | 11  |
|                                     | Bad Intelligent Device Or<br>Component                            | 520228 | 12  |
|                                     | Condition Exists  | 520228 | 31  |
| EPAS Software<br>Error              | Bad Intelligent Device Or<br>Component                            | 520229 | 12  |
|                                     | Condition Exists  | 520229 | 31  |
| EPAS Power Save<br>Condition        | Condition Exists  | 520231 | 31  |
| EPS SEPIC Voltage<br>Error          | Voltage Above Normal, Or<br>Shorted To High Source                | 524086 | 3   |
|                                     | Voltage Below Normal, Or<br>Shorted To Low Source                 | 524086 | 4   |
| Calibration CRC                     | Checksum/CRC Error  | 630    | 13  |

| DIAGNOSTIC CODES                           |   |        |     |
|--|---|--------|-----|
| COMPONENT                                  | CONDITION                                   | SPN    | FMI |
| Steering Torque Full Failure               | Torque Sensor Out of Range                  | 520223 | 31  |
| Tallare                                    | Torque Sensor Linearity Error               | 520224 | 31  |
| EPS CAN<br>Communications<br>Receive Error | No RX Message for {{cal parameter}} seconds | 520226 | 2   |
| Vehicle Speed                              | Vehicle Speed Too High                      | 84     | 0   |
|  | Vehicle Speed Implausible                   |        | 10  |
|  | Received Vehicle Speed has Errors           |        | 19  |
| Engine Speed                               | Engine Speed Too High                       | 190    | 0   |
|  | Received Engine Speed has<br>Errors         | 190    | 19  |
| Battery Voltage                            | Too High                                    | 168    | 3   |
| Battery Voltage                            | Too Low                                     | 168    | 4   |

| DIAGNOSTIC CODES            |  |        |     |
|-----------------------------|--|--------|-----|
| COMPONENT                   | CONDITION                                      | SPN    | FMI |
| Position Encoder            | Loss of SPI Communication                      | 520228 | 12  |
| Error                       | Encoder Variance Error                         |        | 31  |
| EPS Software Error          | Manufacturing CRC Error                        | 520229 | 12  |
|                             | Boot Count Error                               | ]      | 31  |
| ICS Communication           | Loss of CAN between EPS and Instrument Cluster | 520230 | 31  |
| EPAS Power Save             | 5 minute time out                              | 520231 | 31  |
| ECU Memory                  | EEPROM Communication Error                     | 628    | 12  |
|                             | Application CRC Error                          |        | 13  |
| VGD Low                     | VGD Low  | 524086 | 4   |
| Absolute Position<br>Sensor | Absolute Position Sensor Out of Range          | 1807   | 31  |
|                             | Absolute Position Sensor Not Calibrated        | 1807   | 13  |

| DIAGNOSTIC CODES                           |  |        |     |
|--|--|--------|-----|
| COMPONENT                                  | CONDITION  | SPN    | FMI |
|  | Suspension Control Module                          |        |     |
| Vehicle Speed<br>Sensor                    | Data Drifted High                                  | 84     | 20  |
| Selisoi                                    | Data Drifted Low                                   | ]      | 21  |
| Transmission<br>Requested Range<br>Data    | Data Erratic, Intermittent Or Incorrect            | 162    | 2   |
| Suspension Mode<br>Switch Input (Turbo     | Data Erratic, Intermittent Or Incorrect            | 516098 | 2   |
| S only)                                    | Voltage Above Normal, Or<br>Shorted To High Source |        | 3   |
|  | Voltage Below Normal, Or<br>Shorted To Low Source  |        | 4   |
| Valve Driver Front<br>Left (Turbo S only)  | Voltage Above Normal, Or<br>Shorted To High Source | 516106 | 3   |
|  | Voltage Below Normal, Or<br>Shorted To Low Source  |        | 4   |
| Valve Driver Front<br>Right (Turbo S only) | Voltage Above Normal, Or<br>Shorted To High Source | 516107 | 3   |
|  | Voltage Below Normal, Or<br>Shorted To Low Source  |        | 4   |
| Valve Driver Rear<br>Left (Turbo S only)   | Voltage Above Normal, Or<br>Shorted To High Source | 516108 | 3   |
|  | Voltage Below Normal, Or<br>Shorted To Low Source  |        | 4   |
| Valve Driver Rear<br>Right (Turbo S only)  | Voltage Above Normal, Or<br>Shorted To High Source | 516109 | 3   |
|  | Voltage Below Normal, Or<br>Shorted To Low Source  |        | 4   |

| DIAGNOSTIC CODES  |  |        |     |
|---|--|--------|-----|
| COMPONENT   | CONDITION  | SPN    | FMI |
| Shock Valve Power<br>Supply Relay Driver                        | Voltage Above Normal, Or<br>Shorted To High Source                     | 516110 | 3   |
| (Turbo S only)  | Voltage Below Normal, Or<br>Shorted To Low Source                      |        | 4   |
| Absolute Shock<br>Current Error - Front<br>Left (Turbo S only)  | Root Cause Not Known   | 516111 | 11  |
| Absolute Shock<br>Current Error - Front<br>Right (Turbo S only) | Root Cause Not Known   | 516112 | 11  |
| Absolute Shock<br>Current Error - Rear<br>Left (Turbo S only)   | Root Cause Not Known   | 516113 | 11  |
| Absolute Shock<br>Current Error - Rear<br>Right (Turbo S only)  | Root Cause Not Known   | 516114 | 11  |
| Internal Inertial<br>Measurement Unit<br>(Turbo S only)         | Bad Intelligent Device Or<br>Component                                 | 516115 | 12  |
| (Table 6 of my)   | Data Valid But Above Normal<br>Operating Range - Least Severe<br>Level |        | 15  |
|   | Data Valid But Below Normal<br>Operating Range - Least Severe<br>Level |        | 17  |

| DIAGNOSTIC CODES                                    |  |        |     |
|---|--|--------|-----|
| COMPONENT   | CONDITION  | SPN    | FMI |
| CAN Message PGN<br>65382                            | Abnormal Update Rate   | 516116 | 9   |
| CAN Message PGN<br>65396                            | Abnormal Update Rate   | 516117 | 9   |
| CAN Message PGN<br>65314                            | Abnormal Update Rate   | 516118 | 9   |
| SW Version & HW<br>Version Mismatch                 | Data Erratic, Intermittent Or Incorrect                                | 516119 | 2   |
| CAN Message PGN<br>65265                            | Abnormal Update Rate   | 516120 | 9   |
| CAN Message PGN<br>61445                            | Abnormal Update Rate   | 516121 | 9   |
| Steering Angle<br>Adoption Offset<br>(Turbo S only) | Data Valid But Above Normal<br>Operating Range - Least Severe<br>Level | 516122 | 15  |
| Vehicle Speed Data                                  | Data Erratic, Intermittent Or Incorrect                                | 516123 | 2   |
|   | Data Drifted High  |        | 20  |
| Suspension Control<br>Module (Turbo S<br>only)      | Bad Intelligent Device Or<br>Component                                 | 516124 | 12  |
| CAN 1   | Root Cause Not Known   | 516125 | 11  |

| DIAGNOSTIC CODES                            |   |        |     |
|---|---|--------|-----|
| COMPONENT                                   | CONDITION   | SPN    | FMI |
| System Voltage                              | Data Valid But Above Normal<br>Operational Range - Most<br>Severe Level     | 516126 | 0   |
|   | Data Valid But Below Normal<br>Operational Range - Most<br>Severe Level     |        | 1   |
|   | Voltage Above Normal, Or<br>Shorted To High Source                          |        | 3   |
|   | Voltage Below Normal, Or<br>Shorted To Low Source                           |        | 4   |
|   | Data Valid But Above Normal<br>Operating Range - Moderately<br>Severe Level |        | 16  |
|   | Data Valid But Below Normal<br>Operating Range - Moderately<br>Severe Level |        | 18  |
| Raw Brake Switch<br>Status                  | Data Erratic, Intermittent Or Incorrect                                     | 520572 | 2   |
| Normalized<br>Accelerator Pedal<br>Position | Data Erratic, Intermittent Or Incorrect                                     | 520574 | 2   |
| Engine Speed Data                           | Data Erratic, Intermittent Or Incorrect                                     | 524000 | 2   |
| Steering Angle Input                        | Data Erratic, Intermittent Or Incorrect                                     | 524114 | 2   |

## **OPERATION**

### **A** WARNING

Failure to operate the vehicle properly can result in a collision, loss of control, accident or rollover, which may result in serious injury or death. Read and understand all safety warnings outlined in the safety section of this owner's manual.

#### VEHICLE BREAK-IN PERIOD

The break-in period for your new POLARIS vehicle is the first 25 hours of operation, or the time it takes to use the first two tanks full of gasoline. Clutch and drive belt break-in periods vary depending on operating conditions.

No single action on your part is as important as a proper break-in period. Careful treatment of a new engine and drive components will result in more efficient performance and longer life for these components. Perform the following procedures carefully.

#### **NOTICE**

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.

Use of any improper oils may cause serious engine damage. POLARIS Premium 4 Synthetic Oil is specifically formulated for your 4-cycle engine

#### **ENGINE AND DRIVETRAIN BREAK-IN**

- Fill the fuel tank with the recommended fuel. See the Refueling section for details. Always exercise extreme caution whenever handling gasoline.
- Check the oil level. See the Oil Check section for details. Add the recommended oil as needed to maintain the oil level in the safe operating range.
- 3. Complete the steps in the New Operator Driving Procedures section.
- 4. Avoid aggressive use of the brakes.
- 5. Vary throttle positions. Do not operate at sustained idle.
- Perform regular checks on fluid levels, controls and areas outlined on the daily pre-ride inspection checklist.
- 7. Carry only light loads.
- During the break-in period, change both the oil and the filter at 25 hours or one month.
- Check fluid levels of transmission and all gearcases after the first 25 hours of operation and every 100 hours thereafter.

### **BRAKE SYSTEM BREAK-IN**

Apply only moderate braking force for the first 50 stops. Aggressive or overly forceful braking when the brake system is new could damage brake pads and rotors.

## **PVT BREAK-IN (CLUTCHES / BELT)**

A proper break-in of the clutches and drive belt will ensure a longer life and better performance. If a belt fails, always clean any debris from the duct and from the engine compartment.

## STANDARD BREAK-IN

Drive at slower speeds for the first 50 miles (80 km) of operation. Carry only light loads. Avoid aggressive acceleration, high-speed operation and prolonged operation at a specific RPM during this period.

## SAND / DUNE BREAK-IN

Drive in low gear for the first 5 miles (8 km) of operation. Avoid prolonged low speed operation at high throttle. Avoid aggressive acceleration, high-speed operation and prolonged operation at a specific RPM during this period.

## PRE-RIDE INSPECTION

Failure to inspect and verify that the vehicle is in safe operating condition before operating increases the risk of an accident. Always inspect the vehicle before each use to make sure it's in safe operating condition.

| ITEM                          | REMARKS   | REF                 |
|-------------------------------|---|---------------------|
| Brake system/pedal travel     | Ensure proper operation                                       | page 44<br>page 166 |
| Brake fluid                   | Ensure proper level   | page 168            |
| Front suspension              | Inspect, lubricate if necessary                               | page 139            |
| Rear suspension               | Inspect, lubricate if necessary                               | page 139            |
| Steering                      | Ensure free operation   | page 178            |
| Tires                         | Inspect condition and pressure                                | page 18<br>page 173 |
| Wheels/fasteners              | Inspect, ensure fastener tightness                            | page 174            |
| Frame nuts, bolts, fasteners  | Inspect, ensure tightness                                     | -                   |
| Fuel and oil                  | Ensure proper levels  | page 142            |
| Coolant level                 | Ensure proper level   | page 155            |
| Coolant hoses                 | Inspect for leaks   | -                   |
| Throttle                      | Ensure proper operation                                       | -                   |
| Indicator lights/<br>switches | Ensure proper operation                                       | page 50             |
| Engine intake pre-<br>filter  | Inspect, clean  | page 162            |
| PVT intake pre-filter         | Inspect, clean  | page 158            |
| Headlights                    | Check operation   | -                   |
| Brake light/taillight         | Check operation   | -                   |
| Seat Latches                  | Push down on both seat backs to ensure the latches are secure | page 36             |

## **OPERATION**

| ITEM             | REMARKS   | REF      |
|------------------|---|----------|
| Seat Belts       | Check length of belt for damage, check latches for proper operation                               | page 41  |
| Cab Doors        | Check doors and latches for wear or damage.   | page 21  |
| Exhaust          | Inspect spark arrester and clean if needed after riding through water and/or mud.                 | page 164 |
| Grass and leaves | Remove grass, leaves, and other flammable material or debris, especially near the exhaust system. | <u>-</u> |

### SAFE OPERATION PRACTICES

- Visit the Recreational Off-Highway Vehicle Association web site (rohva.org) and take the free on-line training course. Complete the steps in the New Operator Driving Procedures section.
- Do not allow anyone under 16 years of age or without a valid driver's license to operate this vehicle.
- Never carry a passenger on a 1-seat vehicle. Never carry more than one
  passenger in a 2-seat vehicle. Never carry more than three passengers in a
  4-seat vehicle. Never allow a passenger to ride in the cargo box.
- 4. Engine exhaust fumes are poisonous. Never start the engine or let it run in an enclosed area.
- Never operate with accessories not approved by POLARIS for use on this vehicle.
- 6. Operate this vehicle off-road only. Never operate the vehicle on pavement or on any public street, road or highway, including dirt and gravel roads.
- Drive in a manner appropriate for your skills and operating conditions. Never operate at excessive speeds. Never attempt wheelies, jumps, or other stunts. Keep both hands on the steering wheel during operation.
- 8. Never consume alcohol or drugs before or while operating this vehicle.
- Always use the size and type of tires specified for your vehicle. Always maintain proper tire pressure.
- 10. Never operate a damaged vehicle. After any rollover or accident, have a qualified service dealer inspect the entire machine for possible damage.
- 11. Never operate the vehicle on a frozen body of water unless you have first verified that the ice is sufficiently thick to support the weight and moving force of the vehicle, you and your passengers, and your cargo, together with any other vehicles in your party.
- 12. Do not touch hot exhaust system components. Always keep combustible materials away from the exhaust system.
- 13. Always remove the ignition key when the vehicle is not in use to prevent unauthorized use.

## STARTING THE ENGINE

#### NOTICE

Do not apply throttle during or immediately after starting a turbo model. After starting the engine, wait 10 seconds to allow engine oil to circulate and lubricate the engine and turbo system.

- Position the vehicle on a level surface outdoors or in a well-ventilated area.
- Sit in the driver's seat and fasten the seat belt. Always make sure all cab doors are closed and latched when riding in this vehicle.
- Place the transmission in PARK.
- 4. Apply the brakes. Do not press the throttle pedal while starting the engine.
- 5. Turn the ignition key past the ON/RUN position to START. Engage the starter for a maximum of five seconds. Release the key when the engine starts.
- If the engine does not start within five seconds, return the ignition switch to the OFF position and wait five seconds. Repeat steps 5 and 6 until the engine starts.
- 7. After starting the engine, wait 10 seconds before applying throttle.

#### STOPPING THE ENGINE

- 1. Release the throttle pedal completely and brake to a complete stop.
- Place the transmission in PARK.
- 3. After a ride, allow the engine to idle for 30 seconds before stopping the engine. This will allow the turbo system to cool down.
- 4. Stop the engine.
- Slowly release the brake pedal and make sure the transmission is in PARK before exiting the vehicle.

#### BRAKING

1. Release the throttle pedal completely.

#### TIP

When the throttle pedal is released completely and engine speed slows to near idle, the vehicle has no engine braking.

- Press on the brake pedal evenly and firmly.
- Practice starting and stopping (using the brakes) until you're familiar with the controls.

#### PARKING THE VEHICLE

- Stop the vehicle on a level surface. When parking inside a garage or other structure, be sure that the structure is well ventilated and that the vehicle is not close to any source of flame or sparks, including any appliance with pilot lights.
- Place the transmission in PARK.

#### NOTE

After a ride, allow the engine to idle for 30 seconds before stopping the engine.

This will allow the turbo system to cool down.

- 3. Stop the engine.
- Slowly release the brake pedal and make sure the transmission is in PARK before exiting the vehicle.
- 5. Remove the ignition key to prevent unauthorized use.

### KNOW YOUR RIDING AREA / TREAD LIGHTLY

Familiarize yourself with all laws and regulations concerning the operation of this vehicle in your area. Respect the environment in which you ride your vehicle. Find out where the designated riding areas are by contacting your POLARIS dealer, a local riding club, or local officials.

Help keep our trails open for recreational vehicle use. As an off-road enthusiast, you represent the sport and can set a good example (or a poor example) for others to follow. Tread lightly. Operate with respect for the terrain, avoid littering, and always stay on the designated trails.

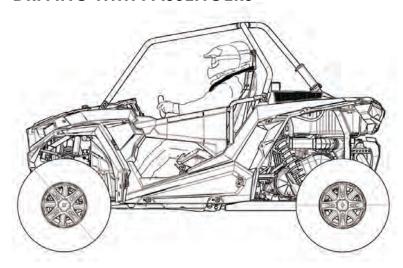
### NEW OPERATOR DRIVING PROCEDURES

- 1. Read and understand the owner's manual and all warning and instruction labels before operating this vehicle.
- 2. Visit the Recreational Off-Highway Vehicle Association web site (rohva.org) and take the free on-line training course. Hands-on training is also available through ROHVA.
- 3. Perform the pre-ride inspection.
- 4. Do not carry a passenger until you have at least two hours of driving experience with this vehicle.
- 5. Do not carry cargo during this period.
- Select an open area that allows room to familiarize yourself with vehicle operation and handling.
- The driver and all passengers must wear helmet, eye protection, gloves, long-sleeve shirt, long pants, over-the-ankle boots and seat belt at all times.
- 8. Always make sure all cab doors are closed and latched when riding in this vehicle.
- Sit in the driver's seat and fasten the seat belt.
- 10. Place the transmission in PARK.
- 11. Start the engine.
- 12. Apply the brakes and shift into low gear.
- 13. Check your surroundings and determine your path of travel.
- 14. Keeping both hands on the steering wheel, slowly release the brakes and depress the throttle with your right foot to begin driving.
- 15. Drive slowly at first. On level surfaces, practice starting, stopping, turning, maneuvering, using the throttle and brakes and driving in reverse. Learn how the vehicle handles when making both left and right turns at a slow speed.
- 16. Increase speed only after mastering all maneuvers at a slow speed.
- 17. After you become skilled at making turns and begin to operate at faster speeds, follow these precautions:
- Avoid sharp turns.
- Never turn while applying heavy throttle.
- Never make abrupt steering maneuvers.
- Operate at speeds appropriate for your skills, the conditions and the terrain.
- DO NOT do power slides, "donuts", jumps or other driving stunts.

## TRAIL ETIQUETTE

Always practice good etiquette when riding. Allow a safe distance between your vehicle and other vehicles operating in the same area. Communicate to oncoming operators by signaling the number of vehicles in your group. When stopping, move your vehicle to the edge of the trail as far as possible to allow others to pass safely.

### **DRIVING WITH PASSENGERS**



- 1. Complete the steps in the New Operator Driving Procedures section.
- 2. Perform the pre-ride inspection.
- 3. Do not carry more than one passenger in a 2-seat vehicle. Do not carry more than three passengers in a 4-seat vehicle. Additional passengers can affect the operator's ability to steer and operate the controls.
- All riders must be able to sit with backs against the seat, both feet flat on the floor and both hands on the steering wheel (if driving) or on a passenger hand hold.
- The driver and all passengers must wear helmet, eye protection, gloves, long-sleeve shirt, long pants, over-the-ankle boots and seat belt at all times. See the Safe Riding Gear section for details.
- Always make sure all cab doors are closed and latched when riding in this vehicle.
- 7. Allow a passenger to ride only in a passenger seat.
- Slow down. Always travel at a speed appropriate for your skills, your
  passengers' skills and operating conditions. Avoid unexpected or aggressive
  maneuvers that could cause discomfort or injury to a passenger.
- 9. Vehicle handling may change with passengers and/or cargo on board. Allow more time and distance for braking.
- Always follow all operating guidelines as outlined on safety labels and in this manual.

### **DRIVING ON SLIPPERY SURFACES**

When driving on slippery surfaces such as wet trails, loose gravel, or ice, be alert for the possibility of skidding and sliding.

Follow these precautions when encountering slippery conditions:

- 1. Slow down before entering slippery areas.
- 2. Maintain a high level of alertness, reading the trail and avoiding quick, sharp turns, which can cause skids.
- 3. Engage all-wheel drive before wheels begin to lose traction.

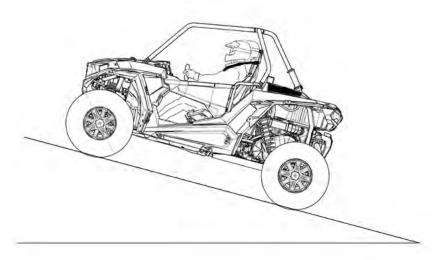
#### **NOTICE**

Severe damage to the drive train may occur if the AWD is engaged while the wheels are spinning. Always allow the wheels to stop spinning before engaging AWD.

4. Correct a skid by turning the steering wheel in the direction of the skid. *Never apply the brakes during a skid*.



#### **DRIVING UPHILL**



Whenever traveling uphill, follow these precautions:

- 1. Always check the terrain carefully before ascending a hill. Never drive on hills with excessively slippery or loose surfaces.
- Avoid excessively steep hills. If ascending a steeper grade is unavoidable, engage all-wheel drive before ascending.
- Drive straight uphill.
- Proceed at a steady rate of speed and throttle opening. Never open the throttle suddenly.
- 5. Avoid unnecessary changes in speed or direction.
- Never go over the crest of a hill at high speed. An obstacle, a sharp drop, or another vehicle or person could be on the other side of the hill.
- 7. If the vehicle stalls while climbing a hill, apply the brakes. Place the transmission in reverse and slowly allow the vehicle to roll straight downhill while applying light brake pressure to control speed.

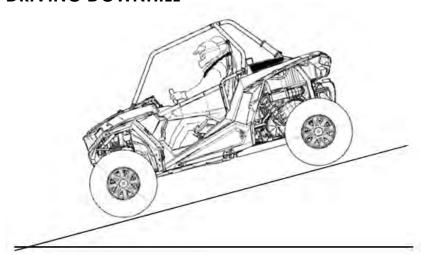
# DRIVING ON A SIDEHILL (SIDEHILLING)

Driving on a sidehill is not recommended. Improper procedure could cause loss of control or rollover. Avoid crossing the side of any hill unless absolutely necessary.

If crossing a hill is unavoidable, follow these precautions:

- Engage all-wheel drive.
- Never operate in TURF mode (if equipped) while operating on a hill or other irregular terrain. Always move the AWD switch to AWD before ascending or descending a hill.
- 3. Drive slowly and use extreme caution.
- If the vehicle begins to roll over, or if it feels as if it may roll over, immediately turn downhill.
- Avoid obstacles and changes in terrain that may lower or raise one side of the vehicle or cause the vehicle to slide.
- If the vehicle begins to slide downhill, immediately turn downhill to stop the slide, or stop the vehicle and maneuver slowly and carefully until the vehicle can be driven straight downhill.

## **DRIVING DOWNHILL**



Whenever descending a hill, follow these precautions:

- 1. Avoid excessively steep hills.
- 2. Slow down. Never travel down a hill at high speed.
- 3. Always check the terrain carefully before descending a hill. Never drive on hills with excessively slippery or loose surfaces.
- 4. Always descend a hill with the transmission in forward gear. Never descend a hill with the transmission in neutral.
- Avoid traveling down a hill at an angle, which would cause the vehicle to lean sharply to one side. Travel straight downhill.
- 6. Apply the brakes lightly to aid in slowing.

### **DRIVING THROUGH WATER**

#### **A** WARNING

The large tires on your vehicle may cause the vehicle to float in deep or fast-flowing water, which could result in loss of traction, loss of control, rollover or accident.

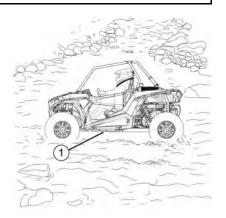
#### **NOTICE**

Major engine damage can result if the vehicle is not thoroughly inspected after operation in water. Perform the services outlined in the Maintenance Chart section. Give special attention to engine oil, transmission oil, demand drive fluid, rear gearcase oil, and all grease fittings.

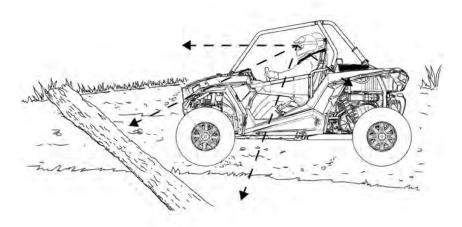
If your vehicle becomes immersed or is operated in water that exceeds the floor level, *service is required before starting the engine*. Your POLARIS dealer can provide this service. If it's impossible to bring the vehicle in before starting the engine, perform the service outlined on page 178, and take the vehicle in for service at the first opportunity.

Your vehicle can operate through water with a maximum recommended depth equal to floor level. Follow these precautions when operating through water:

- Determine the water depth and current before entering the water.
- Choose a crossing where the water level is lowest and where both banks have gradual inclines. Never operate in water that exceeds the maximum recommended depth (floor level) ①.
- Wet brakes may have reduced stopping ability. After leaving water, test the brakes. Apply them lightly several times while driving slowly. The friction will help dry out the pads. Avoid applying brake and throttle at the same time.



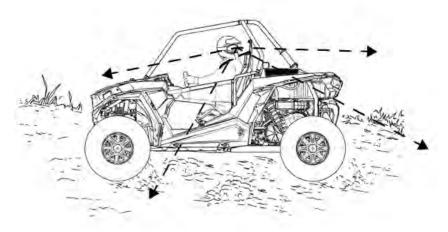
## **DRIVING OVER OBSTACLES**



Follow these precautions when operating over obstacles:

- 1. Always check for obstacles before operating in a new area.
- 2. Look ahead and learn to read the terrain. Be constantly alert for hazards such as logs, rocks and low hanging branches.
- 3. Travel slowly and use extra caution when operating on unfamiliar terrain. Not all obstacles are immediately visible.
- 4. Avoid operating over large obstacles such as large rocks and fallen trees. If unavoidable, use extreme caution and operate slowly.
- 5. Always have all passengers dismount and move away from the vehicle before operating over an obstacle that could cause a rollover.

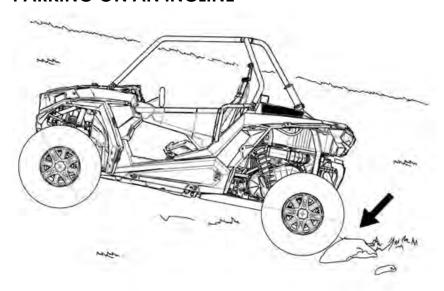
## **DRIVING IN REVERSE**



Follow these precautions when operating in reverse:

- 1. Always check for obstacles or people behind the vehicle.
- 2. Apply the throttle lightly. Never open the throttle suddenly.
- 3. Back slowly.
- 4. Apply the brakes lightly for stopping.
- 5. Avoid making sharp turns.

## **PARKING ON AN INCLINE**



A rolling vehicle can result in serious injury. Avoid parking on an incline. If parking on an incline is *unavoidable*, follow these precautions:

- 1. Apply the brakes.
- 2. Place the transmission in PARK.

#### **NOTE**

After a ride, allow the engine to idle for 30 seconds before stopping the engine. This will allow the turbo system to cool down.

- Stop the engine.
- 4. Slowly release the brake pedal and make sure the transmission is in PARK before exiting the vehicle.
- 5. Block the rear wheels on the downhill side.

### **HAULING CARGO**

#### **A** WARNING

NEVER carry fuel or other flammable liquids on this vehicle. Failure to follow this instruction could lead to serious burn injuries or death.

Overloading the vehicle or carrying cargo improperly can alter vehicle handling and may cause loss of control or brake instability. Always follow these precautions when hauling cargo:

Never exceed the stated load capacity for this vehicle.

REDUCE SPEED AND ALLOW GREATER DISTANCES FOR BRAKING WHEN HAULING CARGO.

NEVER EXCEED THE MAXIMUM WEIGHT CAPACITY of the vehicle. When determining the weight you are adding to the vehicle, include the weight of the operator, passengers, accessories and loads in the rack or box. The combined weight of these items must not exceed the maximum weight capacity.

Always load the cargo box with the load as far forward and as low as possible.

When operating over rough or hilly terrain, reduce speed and cargo to maintain stable driving conditions.

Always operate the vehicle with extreme care when hauling cargo. Slow down and drive in the lowest gear available.

#### **A WARNING**

Carrying a passenger in the cargo box could result in a fall from the vehicle or contact with moving components. Never allow a passenger to ride in the cargo box. A passenger must always be seated in a passenger seat with seat belt secured.



### **A** WARNING

SECURE ALL LOADS 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 the load and operate with extra caution.

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.

USE EXTREME CAUTION when operating with loads that extend over the rack sides. Stability and maneuverability may be adversely affected, causing a rollover.

DO NOT TRAVEL FASTER THAN THE RECOMMENDED SPEEDS. Vehicle should never exceed 10 MPH (16 km/h) while cornering or while ascending or descending a hill.

Your POLARIS vehicle has been designed to carry a specific capacity. Reduce speed and allow a greater distance for braking when carrying cargo.

Loads should be centered and carried as low as possible in the box. For stability on rough or hilly terrain, reduce both speed and cargo. Exercise caution if the cargo load extends over the side of the box.

Always read and understand the load distribution warnings listed on warning labels and in this manual. Never exceed the maximum capacities specified for your vehicle.

#### **BELT LIFE**

To extend belt life, use low gear in the following conditions:

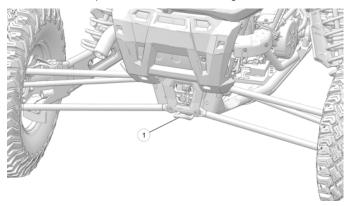
- · when hauling or towing heavy cargo.
- when consistently operating at speeds less than 35 MPH (56 km/h) in hardpulling terrain, such as mud, rocks or sand/dune environments.

### **TOWING**

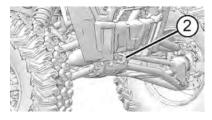
#### **A** WARNING

Towing improperly can alter vehicle handling and may cause loss of control or brake instability.

The tow loop ① on the rear of the vehicle is provided for recovery use ONLY. Tow a vehicle ONLY of equal or lesser size and weight.



If preferred, the tow loop ② on the front of the vehicle is provided for recovery use ONLY as well. Tow a vehicle ONLY of equal or lesser size and weight.



When towing a disabled *RZR* vehicle, place the disabled vehicle's transmission in neutral. Do not operate the vehicle faster than 10 MPH (16 km/h) when towing.

#### **OPERATION**

### **TOWING A RZR**

Towing this vehicle is not recommended. Always transport the vehicle on a trailer or flatbed with all four wheels off the ground. See the Transporting the Vehicle section for details.

If towing a disabled vehicle is unavoidable, place the disabled vehicle's transmission in neutral. Tow the shortest distance possible. Do not operate faster than 16 km/h (10 MPH).

## WINCH GUIDE

These safety warnings and instructions apply if your vehicle came equipped with a winch or if you choose to add an accessory winch to your vehicle.

### **A** WARNING

Improper winch use can result in SEVERE INJURY or DEATH. Always follow all winch instructions and warnings in this manual.

Your winch may have a cable made of either wire rope or specially designed synthetic rope. The term "winch cable" will be used for either unless noted otherwise.

### WINCH SAFETY PRECAUTIONS

- Read all sections of this manual.
- 2. Never use alcohol or drugs before or while operating the winch.
- 3. Never allow children under 16 years of age to operate the winch.
- 4. Always wear eye protection and heavy gloves when operating the winch.
- 5. Always keep body, hair, clothing and jewelry clear of the winch cable, fairlead and hook when operating winch.
- 6. Never attempt to "jerk" a load attached to the winch with a moving vehicle. See the *Shock Loading* section on page 109.
- 7. Always keep the area around the vehicle, winch, winch cable, and load clear of people (especially children) and distractions while operating the winch.
- Always turn the vehicle ignition power OFF when it and the winch are not being used.
- 9. Always be sure that at least five (5) full turns of winch cable are wrapped around the winch drum at all times. The friction provided by this wrapped cable allows the drum to pull on the winch cable and move the load.
- 10. Always apply your vehicle's park brake and/or park mechanism to hold the vehicle in place during winching. Use wheel chocks if needed.
- 11. Always align the vehicle and winch with the load directly in front of the vehicle as much as possible. Avoid winching with the winch cable at an angle to the winching vehicle's centerline whenever possible.
- 12. If winching at an angle is unavoidable, follow these precautions:
  - a. Look at the winch drum occasionally. Never let the winch cable "stack" or accumulate at one end of the winch drum. Too much winch cable at one end of the winch drum can damage the winch and the winch cable.

#### WINCH GUIDE

- b. If stacking occurs, stop winching. Follow step 15 of Winch Operation to feed and rewind the cable evenly before continuing the winch operation.
- 13. Never winch up or down at sharp angles. This can destabilize the winching vehicle and possibly cause it to move without warning.
- 14. Never attempt to winch loads that weigh more than the winch's rated capacity.
- 15. The winch motor may become hot during winch use. If you winch for more than 45 seconds, or if the winch stalls during operation, stop winching and permit the winch to cool down for 10 minutes before using it again.
- 16. Never touch, push, pull or straddle the winch cable while winching a load.
- 17. Never let the winch cable run through your hands, even if wearing heavy gloves.



- 18. Never release the clutch on the winch when the winch cable is under load.
- 19. Never use the winch for lifting or transporting people.
- 20. Never use the winch to hoist or suspend a vertical load.
- 21. Never immerse or submerse your winch in water. Your dealer can provide service on your winch if this occurs.
- 22. Always inspect your winch and winch cable before each use.
- 23. Never winch the hook fully into the winch. This can cause damage to winch components.
- 24. Unplug the remote control from the vehicle when the winch is not in use to prevent inadvertent activation and use by unauthorized persons.
- 25. Never grease or oil the winch cable. This will cause the winch cable to collect debris that will shorten the life of the cable.

### WINCH OPERATION

Read the Winch Safety Precautions in the preceding pages before using your winch.

#### TIP

Consider practicing the operation and use of your winch before you actually need to use it in the field.

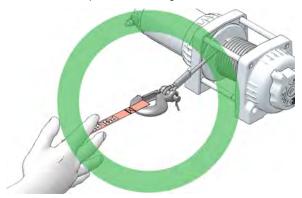
#### **A** WARNING

Improper winch use can result in SEVERE INJURY or DEATH. Always follow all winch instructions and warnings in this manual.

Each winching situation is unique.

- Take your time to think through the winching you are about to do.
- · Proceed slowly and deliberately.
- · Never hurry or rush during winching.
- Always pay attention to your surroundings.
- You may need to change your winching strategy if it is not working.
- · Always remember that your winch is very powerful.
- There are simply some situations that you and your winch will not be able to deal with. Do not be afraid to ask others to help when this happens.
- Always inspect the vehicle, winch, winch cable and winch controls for any signs of damage or parts in need of repair or replacement before each use. Pay particular attention to the first 3 feet (1 meter) of winch cable if the winch is being used (or has been used) for lifting an accessory plow assembly. Promptly replace any worn or damaged cable.
- 2. Never operate a winch or a vehicle in need of repair or service.
- 3. Always apply your vehicle's park brake and/ or park mechanism to hold the vehicle in place during winching. Use wheel chocks if needed.

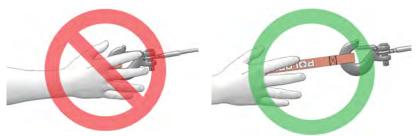
4. Always use the hook strap when handling the hook.



#### **A** WARNING

Never put your fingers into the hook. This could lead to SEVERE INJURY.

 Attach the hook itself onto the load or use a tow strap or chain to secure the load to the winch cable.



#### TIP

A "tow strap" is NOT intended to stretch. A "recovery strap" is designed to stretch.

### **A** WARNING

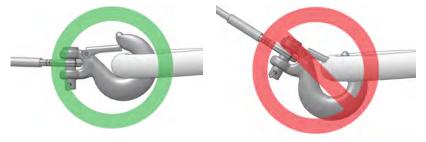
Never use a recovery strap when winching due to the excessive energy that can be released if the winch cable breaks. This can result in SEVERE INJURY or DEATH. See the *Shock Loading* section on page 109.

 Never hook the winch cable back onto itself. This will damage the winch cable and may result in winch cable failure.

## **A WARNING**

Replace the winch cable at the first sign of damage to prevent SEVERE INJURY or DEATH in the event of failure. For your safety, always replace POLARIS winch parts (including the cable) with genuine POLARIS replacement parts available at your authorized POLARIS dealer, or other qualified dealer.

- If possible, keep the winch cable aligned with the centerline of the winching vehicle. This will help the spooling of the winch cable and reduce the load on the fairlead.
- If freeing a stuck vehicle by attaching to a tree, use an item such as a tow strap to avoid damaging the tree during winch operation. Sharp cables and chains can damage and even kill trees. Please remember to TreadLightly® (treadlightly.org).
- Before operating the winch, be sure that the safety latch on the winch cable hook is fully seated when the load is attached.
- Never operate your winch with a damaged hook or latch. Always replace damaged parts before using the winch.



- 5. Never remove the hook strap from the hook.
- 6. Release the winch clutch and pull out the winch cable.
- 7. Pulling out as much cable as possible maximizes the winch's pulling capacity. Always be sure that at least five (5) full turns of winch cable are wrapped around the winch drum at all times. The friction provided by this wrapped cable allows the drum to pull on the winch cable and move the load.
- 8. Read and adhere to the following information for winch damping to ensure safe winch use.
  - a. In order to absorb energy that could be released by a winch cable failure, always place a "damper" on the winch cable. A damper can be heavy jacket, tarp, or other soft, dense object. A damper can absorb much of the energy released if a winch cable breaks when winching. Even a tree limb can help as a damper if no other items are available to you.

#### WINCH GUIDE

- b. Lay the damper on top of the mid-point of the winch cable length that is spooled out.
- c. On a long pull, it may be necessary to stop winching so that the damper can be repositioned to the new mid-point of the winch cable. Always release the tension on the winch cable before repositioning the damper.
- d. Avoid being directly in line with the winch cable whenever possible. Also, never permit others to stand near or in line with the winch cable during winch operation.
- 9. Never hook the winch cable back onto itself. This will damage the winch cable and may result in winch cable failure.
- 10. Never use straps, chains or other rigging items that are damaged or worn.
- 11. The ONLY time a winch-equipped vehicle should be moving when using the winch is when that vehicle itself is stuck. The winch equipped vehicle should NEVER be in motion to "shock" load the winch cable in an attempt to move a second stuck vehicle. See the Shock Loading section on page 109. For your safety, always follow these guidelines when winching a vehicle free:
  - Release the winch clutch and spool out the necessary length of winch cable.
  - Align the winch cable as close as possible to the winching vehicle's centerline.
  - c. Attach the winch cable hook to the anchor point or the stuck vehicle's frame following instructions in this manual.
  - d. Re-engage the clutch on the winch.
  - e. Slowly winch in the slack in the winch cable.
  - f. Select the proper vehicle gear to propel the stuck vehicle in the direction of winching.
  - g. Shift to the lowest gear available on the stuck vehicle.
  - Slowly and carefully apply vehicle throttle and winch together to free the vehicle.
  - Stop winching as soon as the stuck vehicle is able to propel itself without the help of the winch.
  - i. Detach the winch cable hook.
  - Rewind the winch cable evenly back onto the winch drum following the instructions in this manual.
- 12. Never attempt to winch another stuck vehicle by attaching the winch cable to a suspension component, brush guard, bumper or cargo rack. Vehicle damage may result. Instead, attach the winch to a strong portion of the vehicle frame or hitch.

- 13. Extensive winching will run down the battery on the winching vehicle. Let the winching vehicle's engine run while operating the winch to prevent the battery from running low if winching for long periods.
- 14. The winch motor may become hot during winch use. If you winch for more than 45 seconds, or if the winch stalls during operation, stop winching and permit the winch to cool down for 10 minutes before using it again.
- 15. After winching is complete, especially if winching at an angle, it may be necessary to re-distribute the winch cable across the winch drum. You will need an assistant to perform this task.
  - a. Release the clutch on the winch.
  - b. Feed out the winch cable that is unevenly bunched up in one area.
  - c. Re-engage the winch clutch.
  - d. Have an assistant pull the winch cable tightly with about 100 lbs. (45 kg) of tension using the hook strap.
  - Slowly winch the cable in while your assistant moves the end of the winch cable back and forth horizontally to evenly distribute the winch cable on the drum.
  - f. Doing this reduces the chances of the winch cable "wedging" itself between lower layers of winch cable.

### WINCH CABLE CARE

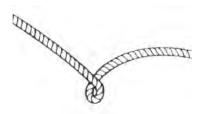
#### **A** WARNING

Use of worn or damaged cable could lead to sudden failure and SEVERE INJURY.

For your safety, always replace POLARIS winch parts (including the cable) with genuine POLARIS replacement parts available at your authorized POLARIS dealer, or other qualified person.

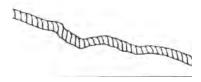
- Always inspect your winch before each use. Inspect for worn or loose parts including mounting hardware. Never use the winch if any part needs repair or replacement.
- Always inspect your winch cable before each use. Inspect for worn or kinked winch cable.

A kinked winch cable made of wire rope is shown at right. Even after being "straightened out," this cable has already been permanently and severely damaged. Promptly discontinue use of a winch cable in this condition.



A kinked winch cable made of wire rope that has been "straightened out" is shown at right. Even though it may look usable, the cable has been permanently and severely damaged. It can no longer transmit the load that it could prior to kinking. Promptly discontinue use of a winch cable in this condition.

A winch cable made of synthetic rope should be inspected for signs of fraying. Replace the cable if fraying is observed (shown below). Promptly discontinue use of a winch cable in this condition. Also replace the winch cable if there are fused or melted fibers. Such an area of the synthetic rope will be stiff and appear smooth or glazed. Promptly discontinue use of a winch cable in this condition.





### SHOCK LOADING

#### **A** WARNING

Your winch cable is very strong but it is NOT designed for dynamic, or "shock" loading. Shock loading may tension a winch cable beyond its strength and cause the cable to break. The end of a broken winch cable under such high loading can cause SEVERE INJURY or DEATH to you and other bystanders.

Winch cables are designed to NOT absorb energy. This is true of both wire-rope and synthetic-rope winch cables.

1. Never attempt to "jerk" a load with the winch. For example, never take up slack in the winch cable by moving the winching vehicle in an attempt to move an object. This is a dangerous practice. It generates high winch cable loads that may exceed the strength of the cable. Even a slowly moving vehicle can create large shock loads in a winch cable.

### **A** WARNING

SEVERE INJURY or DEATH can result from a broken winch cable.

- Never quickly turn the winch ON and OFF repeatedly ("jogging"). This puts extra load on the winch, winch cable, and generates excessive heat from the motor. This is a form of shock loading.
- 3. Never tow a vehicle or other object with your winch. Towing an object with a winch produces shock loading of the cable even when towing at slow speeds. Towing from a winch also positions the towing force high on the vehicle. This can cause instability of the vehicle and possibly lead to an accident.
- 4. Never use recovery straps with your winch. Recovery straps are designed to stretch and can store energy. This stored energy in the recovery strap is released if a winch cable fails making the event even more hazardous. Similarly, never use elastic "bungie" cords for winching.
- Never use the winch to tie down a vehicle to a trailer or other transportation vehicle. This type of use also causes shock loading that can cause damage to the winch, winch cable, or vehicles used.

Your winch cable is designed and tested to withstand the loads produced by the winch motor when operated from a stationary vehicle. Always remember that the winch and winch cable are NOT designed for shock loading.

### WINCH MAINTENANCE AND SERVICE SAFETY

#### **A** WARNING

Improper or lack of winch maintenance and service could lead to SEVERE INJURY or DEATH. Always follow all winch instructions and warnings in this manual.

- 1. Always inspect your winch before each use. Inspect for worn or kinked winch cable. Also inspect for worn or loose parts including mounting hardware.
- 2. Permit your winch motor to cool down prior to servicing your winch.
- 3. Never work on your winch without first disconnecting the battery connections to prevent accidental activation of the winch.
- 4. For your safety, always replace POLARIS winch parts (including the cable) with genuine POLARIS replacement parts available at your authorized POLARIS dealer, or other qualified person.
- Some winch models use wire rope as the winch cable. Other winches use a specially designed synthetic rope as the winch cable.
- Never replace a synthetic-rope winch cable with a consumer-grade polymer rope such as can be purchased in a hardware store. Although they may look similar, they are NOT alike. A polymer rope not designed for winch use will stretch and store excessive energy when winching.

### **A** WARNING

Failure of a stretched rope under winching conditions will release all of the stored energy. This will increase the chances of SEVERE INJURY or DEATH.

### **EMISSION CONTROL SYSTEMS**

### NOISE EMISSION CONTROL SYSTEM

Do not modify the engine, intake or exhaust components, as doing so may affect compliance with U.S.A. EPA noise control requirements (40 CFR 205) and local noise level requirements.

### OPERATION ON PUBLIC LANDS IN THE U.S.A.

Your POLARIS vehicle has a spark arrester that was tested and qualified to be in accordance with the USFS standard 5100-1C. Federal law requires that this spark arrester be installed and functional when the vehicle is operated on public lands.

Operation of off-road vehicles on public lands in the U.S.A. is regulated by 43 CFR 420. Violations are subject to monetary penalties. Federal regulations can be viewed online at www.gpoaccess.gov/ecfr/.

#### CRANKCASE EMISSION CONTROL SYSTEM

This engine is equipped with a closed crankcase system. Blow-by gases are forced back to the combustion chamber by the intake system. All exhaust gases exit through the exhaust system.

### **EXHAUST EMISSION CONTROL SYSTEM**

Exhaust emissions are controlled by engine design. An electronic fuel injection (EFI) system controls fuel delivery. The engine and EFI components are set at the factory for optimal performance and are not adjustable.

The emissions label is located on the left front frame of the vehicle.

### **ELECTROMAGNETIC INTERFERENCE**

This spark ignition system complies with Canadian ICES-002.

This vehicle complies with the EMC requirements of European directives 97/24/EC and 2004/108/EC.

Non-ionizing Radiation: This vehicle emits some electromagnetic energy. People with active or non-active implantable medical devices (such as heart monitoring or controlling devices) should review the limitations of their device and the applicable electromagnetic standards and directives that apply to this vehicle.

### PERIODIC MAINTENANCE CHART

Any qualified repair shop or person may maintain, replace or repair the emission control devices or systems on your vehicle. An authorized POLARIS dealer can perform any service that may be necessary for your vehicle. POLARIS also recommends POLARIS parts for emissions-related service, however equivalent parts can be used.

It is a potential violation of the Clean Air Act if a part supplied by an aftermarket parts manufacturer reduces the effectiveness of the vehicle's emission controls. Tampering with emission controls is prohibited by federal law.

Owners are responsible for performing the scheduled maintenance identified in this owner's manual.

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, genuine POLARIS parts are available from your POLARIS dealer. Equivalent parts may be used for emissions-related service.

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

Vehicles subjected to heavy or severe use patterns 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
- Frequent short trip operation in cold weather (engine frequently does not operate long enough to reach full operating temperature)

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. Your POLARIS dealer or other authorized person can assist.

#### MAINTENANCE CHART TABLES

The maintenance interval charts outline required maintenance and inspection based on vehicle hours / miles. Each table states the number of hours / miles that service is required on the vehicle. Some items or components may need to be serviced more often due to severe use, such as operation in water or under severe loads. When the vehicle goes beyond 500 hours / 5000 miles, return to the 25 hours / 250 mile chart and start the interval process over.

### 25 HOUR / 250 MILE (400 KM) SERVICE

| CON       | IPONENT                                    | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion   |
| XU<br>/ D | Parking Brake Cable Adjustment (INT'L)     | Inspect; adjust tension after first 25 hours   |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Engine Oil & Filter<br>Change (Break-In)   | Perform a break-in oil and filter change at 25 hours or one month; perform every 50 hours or 6 months thereafter                 |
| XU        | Front Gearcase<br>Lubricant                | Initial fluid level inspection; add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Initial fluid level inspection; add lubricant if needed  |
|           | Spark Arrestor                             | Clean daily if driven in mud / water; replace a damaged arrestor before operating. Otherwise, clean at 2000 mile (3200 km) mark. |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

### 50 HOUR / 500 MILE (800 KM) SERVICE

| ITEN      |  | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |
| XU        | General Lubrication                        | Lubricate all fittings, pivots, cables, etc.                                       |
| D         | Throttle Pedal                             | Inspect; replace if it sticks  |
|           | Throttle Body Intake<br>Ducts/Flange       | Inspect ducts for proper sealing / air leaks                                       |
|           | Shift Cable / Linkage                      | Inspect; adjust as needed  |
| D         | Steering                                   | Lubricate (if applicable)  |
| XU        | Front / Rear Suspension                    | Lubricate (if applicable)  |
| D         | Cooling System                             | Inspect coolant strength seasonally; pressure test system yearly                   |
| D         | Drive Belt                                 | Inspect; replace as needed   |
| XU<br>/ D | Clutches (Drive and Driven)                | Inspect; clean; replace worn parts   |
| XU        | Engine Oil Lines/<br>Fasteners             | Inspect for leaks and loose fittings   |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 75 HOUR / 750 MILE (1200 KM)SERVICE

| CON       | IPONENT                                    | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Engine Oil & Filter<br>Change              | Change oil and filter, inspect used oil for contaminants                           |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

# 100 HOUR / 1000 MILE (1600 KM) SERVICE

| ITEM      | 1  | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | General Lubrication                        | Lubricate all fittings, pivots, cables, etc.                                       |
| D         | Throttle Pedal                             | Inspect; replace if it sticks  |
|           | Throttle Body Intake<br>Ducts/Flange       | Inspect ducts for proper sealing / air leaks                                       |
|           | Shift Cable / Linkage                      | Inspect; adjust as needed  |
| D         | Steering                                   | Lubricate (if applicable)  |
| XU        | Front / Rear Suspension                    | Lubricate (if applicable)  |
| D         | Cooling System                             | Inspect coolant strength seasonally; pressure test system yearly                   |
| D         | Drive Belt                                 | Inspect; replace as needed   |
| XU        | Engine Oil Lines/<br>Fasteners             | Inspect for leaks and loose fittings   |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension as needed  |
| XU        | Front Gearcase<br>Lubricant                | Change lubricant   |
| XU        | Transmission Lubricant (AGL)               | Change lubricant   |
| D         | Fuel System                                | Check for leaks at fill cap, fuel line / rail, and fuel pump.                      |
| D         | Spark Plug Inspection                      | Inspect; replace as needed; torque to specification                                |
| XU        | Radiator                                   | Inspect; clean external surfaces   |
| XU        | Cooling Hoses                              | Inspect for leaks; pressure test system  |
| XU        | Engine Mounts                              | Inspect, torque to specification   |
|           | Exhaust Silencer / Pipe                    | Inspect  |

| XU<br>/ D | BRAKE PADS /<br>PARKING BRAKE<br>PADS (INT'L) | INSPECT PAD WEAR  |
|-----------|---|---|
| XU        | Wiring  | Inspect for wear, routing, security; inspect connectors subjected to water, mud, etc. |
| XU<br>/ D | Clutches (Drive and Driven)                   | Inspect; clean; replace worn parts  |
| D         | Wheel Bearings                                | Inspect; replace as needed  |
| XU        | Shocks  | Visually inspect shock seals; change oil and seals if leaking                         |
|           | Cam Chain Tensioner                           | Inspect/clean; replace as needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 125 HOUR / 1250 MILE (2000 KM) SERVICE

| COM       | PONENT                                     | REMARKS  |
|-----------|--|--|
| XU /<br>D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU /<br>D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Engine Oil & Filter<br>Change              | Change oil and filter, inspect used oil for contaminants                           |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 150 HOUR / 1500 MILE (2400 KM) SERVICE

| ITEM      |  | REMARKS  |
|-----------|--|--|
| XU /<br>D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU /<br>D | Parking Brake Cable Adjustment (INT'L)     | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |
| XU        | General Lubrication                        | Lubricate all fittings, pivots, cables, etc.                                       |
| D         | Throttle Pedal                             | Inspect; replace if it sticks  |
|           | Throttle Body Intake<br>Ducts/Flange       | Inspect ducts for proper sealing / air leaks                                       |
|           | Shift Cable / Linkage                      | Inspect; adjust as needed  |
| D         | Steering                                   | Lubricate (if applicable)  |
| XU        | Front / Rear Suspension                    | Lubricate (if applicable)  |
| D         | Cooling System                             | Inspect coolant strength seasonally; pressure test system yearly                   |
| D         | Drive Belt                                 | Inspect; replace as needed   |
| XU /<br>D | Clutches (Drive and Driven)                | Inspect; clean; replace worn parts   |
| XU        | Engine Oil Lines/<br>Fasteners             | Inspect for leaks and loose fittings   |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 175 HOUR / 1750 MILE (2800 KM) SERVICE

| COM       | PONENT                                     | REMARKS  |
|-----------|--|--|
| XU /<br>D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU /<br>D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Engine Oil & Filter<br>Change              | Change oil and filter, inspect used oil for contaminants                           |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 200 HOUR / 2000 MILE (3200 KM) SERVICE

| ITEM      |  | REMARKS  |
|-----------|--|--|
| XU /<br>D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU /<br>D | Parking Brake Cable Adjustment (INT'L)     | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | General Lubrication                        | Lubricate all fittings, pivots, cables, etc.                                       |
| D         | Throttle Pedal                             | Inspect; replace if it sticks  |
|           | Throttle Body Intake<br>Ducts/Flange       | Inspect ducts for proper sealing / air leaks                                       |
|           | Shift Cable / Linkage                      | Inspect; adjust as needed  |
| D         | Steering                                   | Lubricate (if applicable)  |
| XU        | Front / Rear Suspension                    | Lubricate (if applicable)  |
| D         | Cooling System                             | Inspect coolant strength seasonally; pressure test system yearly                   |
| D         | Drive Belt                                 | Inspect; replace as needed   |
| XU /<br>D | Clutches (Drive and Driven)                | Inspect; clean; replace worn parts   |
| XU        | Engine Oil Lines/<br>Fasteners             | Inspect for leaks and loose fittings   |
| XU /<br>D | Parking Brake Cable Adjustment (INT'L)     | Inspect; adjust tension as needed  |
| XU        | Front Gearcase<br>Lubricant                | Change lubricant   |
| XU        | Transmission Lubricant (AGL)               | Change lubricant   |
| D         | Fuel System                                | Check for leaks at fill cap, fuel line / rail, and fuel pump.                      |
| D         | Spark Plug Inspection                      | Inspect; replace as needed; torque to specification                                |
| XU        | Radiator                                   | Inspect; clean external surfaces   |
| XU        | Cooling Hoses                              | Inspect for leaks; pressure test system  |
| XU        | Engine Mounts                              | Inspect, torque to specification   |

| XU /<br>D | BRAKE PADS /<br>PARKING BRAKE<br>PADS (INT'L) | INSPECT PAD WEAR  |
|-----------|---|---|
|           | Exhaust Silencer / Pipe                       | Inspect   |
| XU        | Wiring  | Inspect routing and for wear; inspect connectors subjected to water/mud.          |
| D         | Wheel Bearings                                | Inspect; replace as needed  |
| XU /<br>D | Shocks  | Change shock oil and inspect seals  |
| D         | Brake Fluid                                   | Change every two years (DOT 4)  |
|           | Spark Arrestor                                | Clean daily if driven in mud / water; replace a damaged arrestor before operating |
|           | Cam Chain Tensioner                           | Inspect/clean; replace as needed  |
| D         | Valve Clearance                               | Inspect; adjust as needed   |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 225 HOUR / 2250 MILE (3600 KM) SERVICE

| COM       | PONENT                                     | REMARKS  |
|-----------|--|--|
| XU /<br>D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU /<br>D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Engine Oil & Filter<br>Change              | Change oil and filter, inspect used oil for contaminants                           |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

### 250 HOUR / 2500 MILE (4000 KM) SERVICE

| ITEN      |  | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |
| XU        | General Lubrication                        | Lubricate all fittings, pivots, cables, etc.                                       |
| D         | Throttle Pedal                             | Inspect; replace if it sticks  |
|           | Throttle Body Intake<br>Ducts/Flange       | Inspect ducts for proper sealing / air leaks                                       |
|           | Shift Cable / Linkage                      | Inspect; adjust as needed  |
| D         | Steering                                   | Lubricate (if applicable)  |
| XU        | Front / Rear Suspension                    | Lubricate (if applicable)  |
| D         | Cooling System                             | Inspect coolant strength seasonally; pressure test system yearly                   |
| D         | Drive Belt                                 | Inspect; replace as needed   |
| XU<br>/ D | Clutches (Drive and Driven)                | Inspect; clean; replace worn parts   |
| XU        | Engine Oil Lines/<br>Fasteners             | Inspect for leaks and loose fittings   |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 275 HOUR / 2750 MILE (4400 KM) SERVICE

| COM       | IPONENT                                    | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable Adjustment (INT'L)     | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Engine Oil & Filter<br>Change              | Change oil and filter, inspect used oil for contaminants                           |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 300~HOUR / 3000~MILE (4800 KM) SERVICE

| ITEM      |  | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | General Lubrication                        | Lubricate all fittings, pivots, cables, etc.                                       |
| D         | Throttle Pedal                             | Inspect; replace if it sticks  |
|           | Throttle Body Intake<br>Ducts/Flange       | Inspect ducts for proper sealing / air leaks                                       |
|           | Shift Cable / Linkage                      | Inspect; adjust as needed  |
| D         | Steering                                   | Lubricate (if applicable)  |
| XU        | Front / Rear Suspension                    | Lubricate (if applicable)  |
| D         | Cooling System                             | Inspect coolant strength seasonally; pressure test system yearly                   |
| D         | Drive Belt                                 | Inspect; replace as needed   |
| XU<br>/ D | Clutches (Drive and Driven)                | Inspect; clean; replace worn parts   |
| XU        | Engine Oil Lines/<br>Fasteners             | Inspect for leaks and loose fittings   |
| XU<br>/ D | Parking Brake Cable Adjustment (INT'L)     | Inspect; adjust tension as needed  |
| XU        | Front Gearcase<br>Lubricant                | Change lubricant   |
| XU        | Transmission Lubricant (AGL)               | Change lubricant   |
| D         | Fuel System                                | Check for leaks at fill cap, fuel line / rail, and fuel pump.                      |
| D         | Spark Plug Inspection                      | Inspect; replace as needed; torque to specification                                |
| XU        | Radiator                                   | Inspect; clean external surfaces   |
| XU        | Cooling Hoses                              | Inspect for leaks; pressure test system  |
| XU        | Engine Mounts                              | Inspect, torque to specification   |

| XU<br>/ D | BRAKE PADS /<br>PARKING BRAKE<br>PADS (INT'L) | INSPECT PAD WEAR  |
|-----------|---|---|
|           | Exhaust Silencer / Pipe                       | Inspect   |
| XU        | Wiring  | Inspect for wear, routing, security; inspect connectors subjected to water, mud, etc. |
| D         | Wheel Bearings                                | Inspect; replace as needed  |
| XU        | Shocks  | Visually inspect shock seals; change oil and seals if leaking                         |
|           | Cam Chain Tensioner                           | Inspect/clean; replace as needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 325 HOUR / 3250 MILE (5200 KM) SERVICE

| CON       | IPONENT                                    | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Engine Oil & Filter<br>Change              | Change oil and filter, inspect used oil for contaminants                           |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 350 HOUR / 3500 MILE (5600 KM) SERVICE

| ITEN      | I  | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable Adjustment (INT'L)     | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |
| XU        | General Lubrication                        | Lubricate all fittings, pivots, cables, etc.                                       |
| D         | Throttle Pedal                             | Inspect; replace if it sticks  |
|           | Throttle Body Intake<br>Ducts/Flange       | Inspect ducts for proper sealing / air leaks                                       |
|           | Shift Cable / Linkage                      | Inspect; adjust as needed  |
| D         | Steering                                   | Lubricate (if applicable)  |
| XU        | Front / Rear Suspension                    | Lubricate (if applicable)  |
| D         | Cooling System                             | Inspect coolant strength seasonally; pressure test system yearly                   |
| D         | Drive Belt                                 | Inspect; replace as needed   |
| XU<br>/ D | Clutches (Drive and Driven)                | Inspect; clean; replace worn parts   |
| XU        | Engine Oil Lines/<br>Fasteners             | Inspect for leaks and loose fittings   |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 375 HOUR / 3750 MILE (6000 KM) SERVICE

| COM       | PONENT                                     | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable Adjustment (INT'L)     | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Engine Oil & Filter<br>Change              | Change oil and filter, inspect used oil for contaminants                           |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 400 HOUR / 4000 MILE (6400 KM) SERVICE

| ITEM      |   | REMARKS  |
|-----------|---|--|
| XU        | Brake Pads / Parking                      | -  |
| / D       | Brake Pads (INT'L)                        | Inspect pad wear   |
|           | Fuel System                               | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L) | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                           | Inspect; clean   |
|           | Battery                                   | Check terminals; clean; test   |
| XU        | General Lubrication                       | Lubricate all fittings, pivots, cables, etc.                                       |
| D         | Throttle Pedal                            | Inspect; replace if it sticks  |
|           | Throttle Body Intake<br>Ducts/Flange      | Inspect ducts for proper sealing / air leaks                                       |
|           | Shift Cable / Linkage                     | Inspect; adjust as needed  |
| D         | Steering                                  | Lubricate (if applicable)  |
| XU        | Front / Rear Suspension                   | Lubricate (if applicable)  |
| D         | Cooling System                            | Inspect coolant strength seasonally; pressure test system yearly                   |
| D         | Drive Belt                                | Inspect; replace as needed   |
| XU<br>/ D | Clutches (Drive and Driven)               | Inspect; clean; replace worn parts   |
| XU        | Engine Oil Lines/<br>Fasteners            | Inspect for leaks and loose fittings   |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L) | Inspect; adjust tension as needed  |
| XU        | Front Gearcase<br>Lubricant               | Change lubricant   |
| XU        | Transmission Lubricant (AGL)              | Change lubricant   |
| D         | Fuel System                               | Check for leaks at fill cap, fuel line / rail, and fuel pump.                      |
| D         | Spark Plug Inspection                     | Inspect; replace as needed; torque to specification                                |
| XU        | Radiator                                  | Inspect; clean external surfaces   |
| XU        | Cooling Hoses                             | Inspect for leaks; pressure test system  |
| XU        | Engine Mounts                             | Inspect, torque to specification   |

| XU<br>/ D | BRAKE PADS /<br>PARKING BRAKE<br>PADS (INT'L) | INSPECT PAD WEAR  |
|-----------|---|---|
|           | Exhaust Silencer / Pipe                       | Inspect   |
| XU        | Wiring  | Inspect for wear, routing, security; inspect connectors subjected to water, mud, etc. |
| D         | Wheel Bearings                                | Inspect; replace as needed  |
| XU<br>/ D | Shocks  | Change shock oil and inspect seals  |
| D         | Brake Fluid                                   | Change every two years (DOT 4)  |
|           | Spark Arrestor                                | Clean daily if driven in mud / water; replace a damaged arrestor before operating     |
|           | Cam Chain Tensioner                           | Inspect/clean; replace as needed  |
| D/<br>E   | Valve Clearance                               | Inspect; adjust as needed   |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 425 HOUR / 4250 MILE (6800 KM) SERVICE

| COM       | IPONENT                                    | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable Adjustment (INT'L)     | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Engine Oil & Filter<br>Change              | Change oil and filter, inspect used oil for contaminants                           |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

### 450 HOUR / 4500 MILE (7200 KM) SERVICE

| ITEN      |  | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |
| XU        | General Lubrication                        | Lubricate all fittings, pivots, cables, etc.                                       |
| D         | Throttle Pedal                             | Inspect; replace if it sticks  |
|           | Throttle Body Intake<br>Ducts/Flange       | Inspect ducts for proper sealing / air leaks                                       |
|           | Shift Cable / Linkage                      | Inspect; adjust as needed  |
| D         | Steering                                   | Lubricate (if applicable)  |
| XU        | Front / Rear Suspension                    | Lubricate (if applicable)  |
| D         | Cooling System                             | Inspect coolant strength seasonally; pressure test system yearly                   |
| D         | Drive Belt                                 | Inspect; replace as needed   |
| XU<br>/ D | Clutches (Drive and Driven)                | Inspect; clean; replace worn parts   |
| XU        | Engine Oil Lines/<br>Fasteners             | Inspect for leaks and loose fittings   |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## 475 HOUR / 4750 MILE (7600 KM) SERVICE

| COM       | IPONENT                                    | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | Engine Oil & Filter<br>Change              | Change oil and filter, inspect used oil for contaminants                           |
| XU        | Front Gearcase<br>Lubricant                | Inspect / add lubricant if needed  |
| XU        | Transmission Lubricant (AGL)               | Inspect / add lubricant if needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

## $500~\text{HOUR} \ / \ 5000~\text{MILE} \ (8000~\text{KM})~\text{SERVICE}$

| ITEM      |  | REMARKS  |
|-----------|--|--|
| XU<br>/ D | Brake Pads / Parking<br>Brake Pads (INT'L) | Inspect pad wear   |
|           | Fuel System                                | Turn key on to pressurize fuel pump; check lines / fittings for leaks and abrasion |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension after first 25 hours                                       |
| XU        | Engine Breather                            | Inspect; clean   |
|           | Battery                                    | Check terminals; clean; test   |
| XU        | General Lubrication                        | Lubricate all fittings, pivots, cables, etc.                                       |
| D         | Throttle Pedal                             | Inspect; replace if it sticks  |
|           | Throttle Body Intake<br>Ducts/Flange       | Inspect ducts for proper sealing / air leaks                                       |
|           | Shift Cable / Linkage                      | Inspect; adjust as needed  |
| D         | Steering                                   | Lubricate (if applicable)  |
| XU        | Front / Rear Suspension                    | Lubricate (if applicable)  |
| D         | Cooling System                             | Inspect coolant strength seasonally; pressure test system yearly                   |
| D         | Drive Belt                                 | Inspect; replace as needed   |
| XU        | Engine Oil Lines/<br>Fasteners             | Inspect for leaks and loose fittings   |
| XU<br>/ D | Parking Brake Cable<br>Adjustment (INT'L)  | Inspect; adjust tension as needed  |
| XU        | Front Gearcase<br>Lubricant                | Change lubricant   |
| XU        | Transmission Lubricant (AGL)               | Change lubricant   |
| D         | Fuel System                                | Check for leaks at fill cap, fuel line / rail, and fuel pump.                      |
| D         | Spark Plug Inspection                      | Inspect; replace as needed; torque to specification                                |
| XU        | Radiator                                   | Inspect; clean external surfaces   |
| XU        | Cooling Hoses                              | Inspect for leaks; pressure test system  |
| XU        | Engine Mounts                              | Inspect, torque to specification   |
|           | Exhaust Silencer / Pipe                    | Inspect  |

| XU<br>/ D | BRAKE PADS /<br>PARKING BRAKE<br>PADS (INT'L) | INSPECT PAD WEAR  |
|-----------|---|---|
| XU        | Wiring  | Inspect for wear, routing, security; inspect connectors subjected to water, mud, etc. |
| XU<br>/ D | Clutches (Drive and Driven)                   | Inspect; clean; replace worn parts  |
| D         | Wheel Bearings                                | Inspect; replace as needed  |
| XU<br>/ D | Shocks  | Change shock oil and inspect seals  |
| D         | Brake Fluid                                   | Change every two years (DOT 4)  |
|           | Spark Arrestor                                | Clean daily if driven in mud / water; replace a damaged arrestor before operating     |
|           | Cam Chain Tensioner                           | Inspect; replace as needed  |
| D         | Valve Clearance                               | Inspect; adjust as needed   |
| D         | Spark Plug<br>Replacement                     | Replace; torque to specification  |
| XU        | Coolant                                       | Replace coolant   |
| D         | Toe Adjustment                                | Inspect periodically; adjust when parts are replaced                                  |
|           | Cam Chain Tensioner                           | Inspect/clean; replace as needed  |

XU - Perform these procedures more often for vehicles subjected to severe use.

D - Have an authorized Polaris dealer or other qualified person perform these services.

When the vehicle goes beyond 500 hours / 5000 miles, return to the 25 hours / 250 mile chart and start the interval process over.

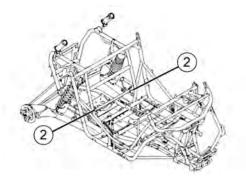
### **LUBRICATION RECOMMENDATIONS**

Check and lubricate all components at the intervals outlined in the Periodic Maintenance Chart beginning on page 114, or more often under severe use, such as wet or dusty conditions. Items not listed in the chart should be lubricated at the general lubrication interval.

| ITEM                                | LUBE   | METHOD  |
|-------------------------------------|--|---|
| Engine Oil                          | PS-4 5W-50 4-Cycle<br>Oil and PS-4 Extreme<br>Duty 10W-50 4-Cycle<br>Oil | See page 143  |
| Brake Fluid                         | DOT 4 Brake Fluid  | Maintain level between fill lines. See page 168                                 |
| Transmission Oil<br>(Main Gearcase) | AGL Gearcase<br>Lubricant &<br>Transmission Fluid                        | See page 146.   |
| Front Gearcase Fluid (Demand Drive) | Demand Drive Fluid   | See page 149.   |
| Prop Shaft                          | U-Joint Grease   | Grease the fitting.   |
| Rear Stabilizer Bar<br>Bushings     | All Season Grease or grease conforming to NLGI No. 2                     | Remove engine access panel and grease 2 fittings (one on each side of vehicle). |



① Middle Prop Shaft Grease Fitting



② Rear Stabilizer Bar Bushings (one on each side of vehicle)

#### **ENGINE OIL**

#### **OIL RECOMMENDATIONS**

#### **A** WARNING

Vehicle operation with insufficient, deteriorated, or contaminated engine oil will cause accelerated wear and may result in engine seizure, accident, and injury.

Always perform the maintenance procedures as outlined in the Periodic

Maintenance Chart.

| Ambient Temperature Range               | Recommended Oil                         |
|---|---|
| -35° F to +100° F<br>(-37° C to +38° C) | PS-4 5W-50 4-Cycle Oil                  |
| 0° F to 120° F<br>(-18° C to +49° C)    | PS-4 Extreme Duty<br>10W-50 4-Cycle Oil |

Oil may need to be changed more frequently if POLARIS oil is not used. Do not use automotive oil. Follow the manufacturer's recommendations for ambient temperature operation. Part numbers can be found in the POLARIS Products chapter.

#### **NOTICE**

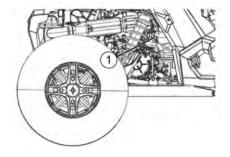
Mixing brands or using a non-recommended oil may cause serious engine damage. Always use the recommended oil. Never substitute or mix oil brands.

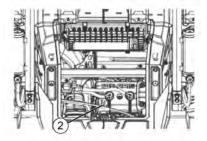
Always check and change the oil at the intervals outlined in the Periodic Maintenance Chart. Always use the recommended engine oil.

#### **OIL CHECK**

Always check the oil when the engine is cold. If the engine is hot when the oil is checked, the level will appear to be overfull.

Access the oil check dipstick ① through the right rear wheel well. Access the oil fill cap ② through the service access panel on the floor of the cargo box.





- 1. Position the vehicle on a level surface.
- 2. Place the transmission in PARK.
- 3. Start the engine. Allow the engine to idle for 30 seconds.
- 4. Stop the engine. Wait two (2) minutes to allow oil to drain back to the sump.
- 5. Remove the dipstick. Wipe it dry with a clean cloth.
- 6. Reinstall the dipstick completely. Remove the dipstick and check the oil level.
- Remove the oil fill cap to add the recommended oil as needed. Maintain the oil level between the minimum and maximum marks on the dipstick. Do not overfill
- 8. Reinstall the fill cap. Reinstall the dipstick.

## **OIL AND FILTER CHANGE**

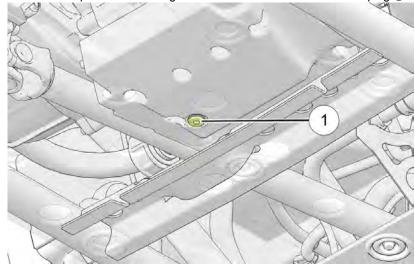
## **A** WARNING

Spilled oil left on engine components or in the engine area may pose a fire hazard. Use shop rags to clean any spilled oil. If needed, use a non- flammable solvent on the rag to aid the cleaning process. Do not use any device such as pressurized water or air as this may disperse the oil onto engine components and could pose a fire hazard.

Always change the oil and filter at the intervals outlined in the Periodic Maintenance Chart beginning on page 114.

- 1. Position the vehicle on a level surface. Place the transmission in PARK.
- 2. Allow engine to cool down before draining oil.

3. Place a drain pan under the engine crankcase and remove the drain plug (1).



4. Access the oil filter through the driver's side rear wheel well.

#### **NOTE**

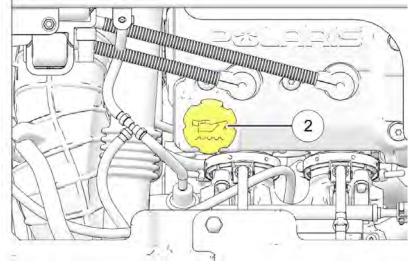
The engine should be off for at least 2 minutes prior to removing the oil filter.

Place the shop rags under filter to catch any spilled oil during removal. Using the Oil Filter Wrench, turn the oil filter counterclockwise to remove it. Tip the open end of the oil filter up to minimize oil spill. 6. Clean the filter sealing surface on the engine crankcase with a clean rag and ensure the original oil filter o-ring is not stuck to the crankcase.

#### **A** WARNING

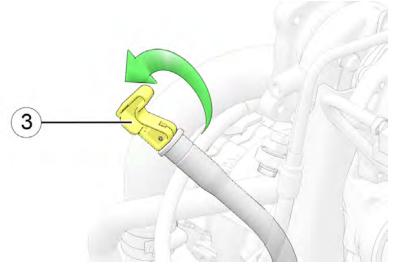
Do not use a hose/pressure washer to clean up spilled oil on a vehicle. This may spread oil into surfaces that may get hot which may lead to a fire.

- Lubricate the o-ring on the new oil filter with a film of clean engine oil. Check
  to make sure the o-ring is in good condition. Tighten to specification (Turn by
  hand until filter O-ring contacts sealing surface, then turn an additional 3/4
  turn.)
- 8. Inspect the sealing washer on the drain plug for burrs or nicks. Replace the washer if it is damaged.
- Reinstall the engine crankcase drain plug. Torque drain plug to specification [12 ft-lbs (16 Nm)].
- 10. Remove the cargo box access panel. Add engine oil through the oil fill cap ② located on top of the engine valve cover.



- 11. Fill the engine to the recommended specification.
- 12. Start engine and allow it to idle for 30 seconds.
- 13. Stop the engine and inspect for leaks. Wait at least 15 seconds before removing the oil dipstick.

14. Unlock the dipstick lever ③. Remove the dipstick and wipe it dry with a clean rag.



15. Reinstall the dipstick to fully seat it. Do not lock the dipstick.

#### **NOTE**

Make certain the dipstick is inserted all the way down to ensure an accurate reading.

- Remove the dipstick and check the oil level.
- 17. Add the recommended oil as necessary to bring the oil level within the SAFE range (between the holes) on the dipstick. Do NOT overfill.

#### NOTE

A rising oil level between checks during cold weather operation can indicate contaminants such as gas or moisture collecting in the crankcase. If the oil level is over the upper mark, change the oil immediately.

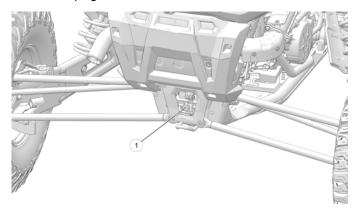
- 18. When finished, reinstall dipstick and lock the lever.
- 19. Reinstall the cargo box access panel, engine service panel, and seats.
- 20. Dispose of used oil, filter, and rags properly.

# TRANSMISSION (MAIN GEARCASE)

Always check and change the fluid at the intervals outlined in the Periodic Maintenance Chart section. Refer to the Gearcase Specifications Chart section for recommended lubricants, capacities and torque specifications.

#### FLUID CHECK

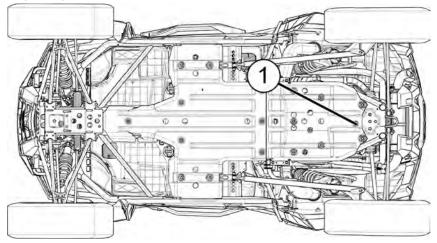
The fill plug ① is located on the rear of the gearcase. Maintain the fluid level at the bottom of the fill plug hole.



- 1. Position the vehicle on a level surface.
- 2. Remove the fill plug.
- 3. Check the fluid level.
- 4. Add the recommended fluid to the bottom of the fill plug hole. Do not overfill.
- 5. Reinstall the fill plug. Torque to specification.

## **FLUID CHANGE**

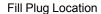
The drain plug 1 is located on the bottom of the gearcase. Access the drain plug through the drain hole in the skid plate.

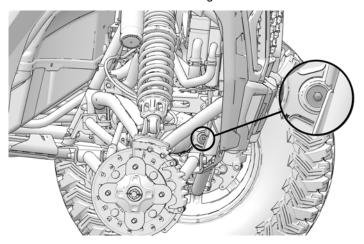


- 1. Remove the fill plug.
- 2. Place a drain pan under the drain plug.
- 3. Remove the drain plug. Allow the fluid to drain completely.
- 4. Clean the drain plug.
- 5. Reinstall the drain plug. Torque to specification.
- 6. Add the recommended fluid to the bottom of the fill plug hole. Do not overfill.
- 7. Reinstall the fill plug. Torque to specification.
- 8. Check for leaks. Discard used fluid properly.

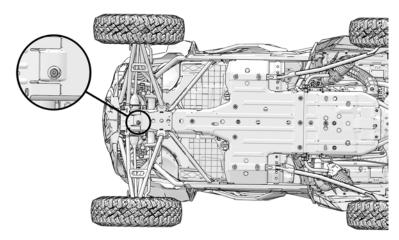
# **DEMAND DRIVE UNIT (FRONT GEARCASE)**Always check and change the fluid at the intervals outlined in the Periodic

Always check and change the fluid at the intervals outlined in the Periodic Maintenance Chart section. Refer to the Gearcase Specifications Chart section for recommended lubricants, capacities and torque specifications.





**Drain Plug Location** 



#### **DEMAND DRIVE FLUID CHECK**

The fill plug is located on the bottom right side of the demand drive unit. Maintain recommended fluid volume (250 ml). Do not overfill.

- 1. Position the vehicle on a level surface.
- 2. Remove the fill plug. Check the fluid level.
- 3. Add the recommended fluid to reach 250 ml capacity.
- 4. Reinstall the fill plug. Torque to specification.

#### **DEMAND DRIVE FLUID CHANGE**

The demand drive drain plug is located on the bottom of the gearcase.

- 1. Remove the fill plug.
- 2. Place a drain pan under the drain plug.
- 3. Remove the drain plug. Allow the fluid to drain completely.
- 4. Clean the drain plug.
- 5. Reinstall the drain plug. Torque to specification.
- 6. Add the recommended fluid (250 ml). Do not overfill.
- 7. Reinstall the fill plug. Torque to specification.
- 8. Check for leaks. Discard used fluid properly.

# **GEARCASE SPECIFICATION CHART**

Use of other fluids may result in improper operation of components. See the part numbers in the Polaris Products section.

| Gearcase                                    | Lubricant   | Capacity            | Fill Plug<br>Torque          | Drain Plug<br>Torque         |
|---|---|---------------------|------------------------------|------------------------------|
| Transmission<br>(Main<br>Gearcase)          | AGL<br>Gearcase<br>Lubricant &<br>Transmission<br>Fluid | 61 oz.<br>(1800 ml) | 10-14 ft. lbs.<br>(14-19 Nm) | 10-14 ft. lbs.<br>(14-19 Nm) |
| Demand<br>Drive Unit<br>(Front<br>Gearcase) | Demand<br>Drive Fluid                                   | 8.5 oz.<br>(250 ml) | 8-10 ft. lbs.<br>(11-14 Nm)  | 8-10 ft. lbs.<br>(11-14 Nm)  |

## **SPARK PLUGS**

## **SPARK PLUG GAP / TORQUE**

| Electrode Gap | Spark Plug Torque  |
|---------------|--------------------|
| 0.7-0.8 mm    | 7 ft. lbs. (10 Nm) |

#### **NOTICE**

Using non-recommended spark plugs can result in serious engine damage. Always use POLARIS-recommended spark plugs or their equivalent. Refer to the Specifications section for details.

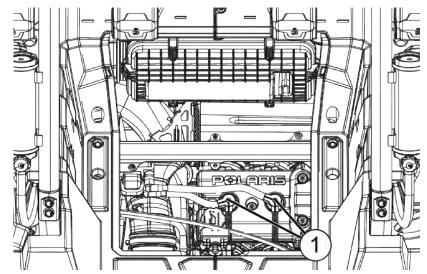
Spark plug condition is indicative of engine operation. The spark plug firing end condition should be read after the engine is warmed up and the vehicle is driven at higher speeds. Immediately check the spark plug for correct color.

#### CAUTION

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

## SPARK PLUG REMOVAL AND REPLACEMENT

1. Remove the cargo box access panel to access the spark plugs ①.



2. Clean the area around the spark plugs before removing the plugs.

#### **MAINTENANCE**

- Remove the spark plug caps.
- 4. Using the spark plug wrench provided in the tool kit, remove the plugs by rotating them counterclockwise.
- 5. Reverse the procedure for spark plug installation. Torque to specification.

## SPARK PLUG CONDITION

#### 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.

#### TIP

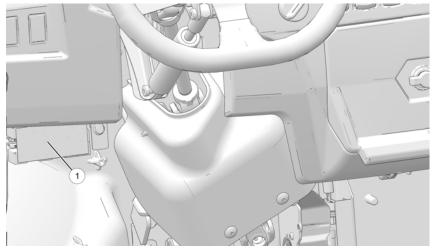
The tip should not be white. A white insulator tip indicates overheating, caused by use of an improper spark plug or incorrect throttle body adjustments.

## 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. Fouling may be caused by excessive oil or by frequent short trips, especially in cold weather.

## **FUSE / RELAY CENTER**

If the engine stops or will not start, if the power steering stops working (if equipped), or if you experience other electrical failures, a fuse may need replacement. Locate and correct any short circuits that may have caused the blown fuse, then replace the fuse. The fuse/relay center ① is located below and to the left of the steering wheel. The fuse for the engine cooling fan is an external fuse in a holder on top of the fuse box.



| LABEL            | VALUE  | FUNCTION   |
|------------------|--|--|
| FAN              | 50A Fuse<br>(separate fuse<br>holder, on top of<br>fuse box) | Engine Cooling Fan   |
| WATER            | 7.5A Fuse  | Water Pump   |
| FUEL             | 7.5A Fuse  | Fuel Pump  |
| FUEL (EVAP ONLY) | 10A Fuse   | Fuel Pump  |
| TERM ACCY        | 10A Fuse   | Terminal Block Accessory   |
| INSTACCY         | 7.5A Fuse  | Diagnostic Accessory, Interior<br>LED Light, Display Accessory<br>(optional) |
| SOCKET           | 10A Fuse   | Socket   |
| EPS              | 30A Fuse   | Power Steering   |

# **MAINTENANCE**

| LABEL                 | VALUE     | FUNCTION  |
|-----------------------|-----------|---|
| SCM (Turbo S only)    | 7.5A Fuse | Suspension Control Module (SCM), Shocks Relay Coil  |
| SHOCKS (Turbo S only) | 7.5A Fuse | Shocks  |
| INST UNSW             | 7.5A Fuse | Display (optional), Gauge,<br>Diagnostic  |
| LIGHTS                | 7.5A Fuse | Headlights, Taillights, Accent<br>Lights (optional), Brake Lights   |
| CHASSIS               | 7.5A Fuse | AWD Switch Light, Oxygen<br>Sensor Heater, EPS Wake-Up,<br>Vehicle Speed Sensor, Seat Belt<br>Switch, SCM Wake-Up (optional),<br>SCM Mode Switch (optional),<br>AWD Coil, Gauge, Waste Gate   |
| EFI                   | 10A Fuse  | Accessory Relay Coil, ECM<br>Wake-Up, Pump Relay Coil,<br>Chassis Relay Coil, Start Relay<br>Coil, EFI Relay Coil, Injectors,<br>SCM Relay Coil (optional), Lights<br>Relay Coil, Ignition Coil, Starter<br>Solenoid Coil, Brake Relay Coil |

## **COOLING SYSTEM**

The engine coolant level is maintained by a remote pressurized tank system. The remote pressurized tank is connected to both radiators and provides a single pressure cap and fill point for the vehicle.

The pressure tank is designed to contain a volume of air above the coolant level. As coolant operating temperature increases the coolant level in the pressure tank will rise and push out air past the pressure cap. As the engine coolant temperature decreases the coolant level in the pressure tank will lower and draw air back into the tank through the pressure cap.

#### TIP

Some coolant level drop on new vehicles is normal as the system is purging itself of trapped air. Observe coolant levels and maintain cold coolant level as recommended by adding coolant to the pressure tank.

#### CAUTION

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

#### ADDING OR CHANGING COOLANT

POLARIS recommends the use of POLARIS Antifreeze 50/50 Premix. This antifreeze is already premixed and ready to use. Do not dilute with water. See the Polaris Products section for the part numbers.

To ensure that the coolant maintains its ability to protect the engine, we recommend that the system be completely drained every five (5) years and fresh Antifreeze 50/50 Premix added.

Any time the cooling system has been drained for maintenance or repair, replace the coolant with fresh Antifreeze 50/50 Premix.

## **RADIATORS AND COOLING FAN**

Always check and clean the screens and radiator fins at the intervals outlined in the Periodic Maintenance Chart section. Do not obstruct or deflect air flow through the radiators by installing unauthorized accessories in front of the radiators or behind the cooling fan. Interference with radiator air flow can lead to overheating and consequent engine damage.

#### **NOTICE**

Washing the vehicle with a high-pressure hose could damage radiator fins and impair a radiator's effectiveness. Using a high-pressure system is not recommended.

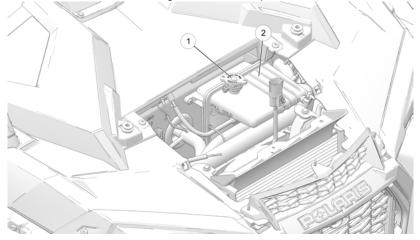
## **RADIATOR COOLANT LEVEL / CHANGING COOLANT**

This procedure is required only if the cooling system has been drained for maintenance and/or repair.

#### CAUTION

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

- 1. Remove the hood. See page 38.
- Slowly remove the radiator pressure cap ①
- 3. View the coolant level ② through the side of the pressure tank.



- 4. Use a funnel and slowly add coolant as needed.
- 5. Before reinstalling the pressure cap, bleed the system of trapped air. Locate the coolant bleed screw on the engine above the exhaust head pipe on the power take- off side. Use a socket wrench to turn the bleed screw slightly, allowing the air to escape. Slowly add additional coolant to the pressure tank until air no longer escapes and only coolant flows from the bleed hole, then tighten the bleed screw.
- 6. Reinstall the pressure cap.

#### TIP

Use of a non-standard pressure cap will not allow the recovery system to function properly. Your POLARIS dealer can provide the correct replacement part.

#### PRESSURE TANK COOLANT LEVEL

Always check and change the coolant at the intervals outlined in the Periodic Maintenance Chart beginning on page 114. Maintain the coolant level within one inch (2.5 cm) of the cold full mark on the side of the pressure tank (when the fluid is cool).

- 1. Position the vehicle on a level surface.
- 2. Remove the hood. See page 38.
- 3. View the coolant level through the side of the pressure tank.

#### CAUTION

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

- Remove the pressure cap and use a funnel to add coolant as needed.
   Maintain the coolant level within one inch (2.5 cm) of the cold full mark on the side of the pressure tank (when the fluid is cool).
- 5. Reinstall the pressure cap.

#### TIP

If coolant must be added often, or if the pressure tank runs completely dry, there may be a leak in the system. Your POLARIS dealer can inspect the cooling system.

# POLARIS VARIABLE TRANSMISSION (PVT) SYSTEM

## **A** 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. As the owner, you have the following responsibilities for your own safety and the safety of others:

- Always follow all recommended maintenance procedures. Always look for and remove debris inside and around the clutch and vent system when replacing the belt.
- See your dealer or other qualified service person as recommended in the owner's manual and on safety labels.
- 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.

Belt slip is responsible for creating excessive heat that destroys belts, wears clutch components and causes outer clutch covers to fail. Switch to low range while operating at slower speeds to extend the life of the PVT components (belt, cover, etc.).

## **BELT REPLACEMENT / DEBRIS REMOVAL**

If a belt fails, always clean any debris from the outlet duct and from the clutch and engine compartments when replacing the belt.

## **A** WARNING

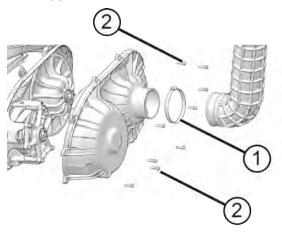
Failure to remove ALL debris when replacing the belt could result in vehicle damage, loss of control and severe injury or death.

- 1. Allow hot components to cool before performing this procedure.
- Remove the engine access panel and thoroughly clean <u>ALL debris</u> from the engine compartment.

#### **NOTE**

Removal of the left rear wheel or shock is not necessary for belt replacement.

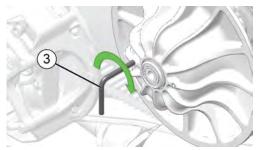
- 3. Loosen the clamp ① retaining the PVT inlet duct to the outer clutch cover.
- 4. Remove the nine (9) clutch cover screws 2.



- 5. Maneuver the outer clutch cover outward to access the drive belt.
- Mark the drive belt direction of rotation so that it can be installed in the same direction.

#### **MAINTENANCE**

7. Insert the clutch spreader tool ③ into the driven clutch. The tool is provided in the tool kit.



- 8. Turn the tool clockwise to open the sheaves on the driven clutch.
- 9. Walk the belt out of the driven and drive clutch. Remove the belt.
- 10. Remove **ALL** debris wrapped in and around the PVT system.
- 11. Remove **ALL** debris from the entire clutch air duct passage.
- 12. Check for signs of damage to seals on the transmission and engine. If any seals appear to be damaged, your vehicle requires prompt service. Your POLARIS dealer can assist.

#### **TIP**

Belt slip is responsible for creating excessive heat that destroys belts, wears clutch components and causes outer clutch covers to fail. Switch to low range while operating at slower speeds to extend the life of the PVT components (belt, cover, etc.).

#### **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.

#### NOTICE

When washing the vehicle, always avoid spraying water directly toward the PVT intake duct. See the Washing the Vehicle section for details.

- 1. Remove the clutch cover drain plug.
- 2. Allow the water to drain. Reinstall the drain plug.
- 3. Place the transmission in PARK. Apply the brakes.
- Start the engine.
- 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.
- 6. Allow the engine RPM to settle to idle speed. Apply the brakes. Shift the transmission to the lowest available range.
- 7. Test for belt slippage. If the belt slips, repeat the process.
- 8. Your vehicle requires service as soon as possible. Your POLARIS dealer or authorized person can assist.

## **FILTER SYSTEMS**

### **INTAKE PRE-FILTERS**

The clutch air intake ① is located on the left side of the vehicle. The engine intake pre-filter ② is located on the right side of the vehicle.

#### **NOTE**

Turbo S feature set shown.





Inspect the engine pre-filter before each use of the vehicle to ensure adequate air flow. If necessary, remove the pre-filter and clean with soapy water. Dry with low pressure compressed air.

Periodically inspect the clutch (PVT) air intake for debris and clean as needed to ensure adequate air flow.

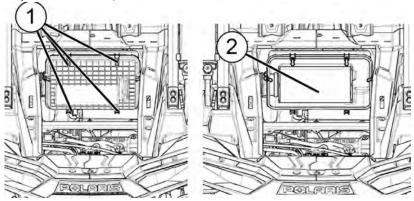
#### **TIP**

When washing the vehicle, always avoid spraying water directly toward the PVT intake duct. See the Washing the Vehicle section for recommended washing procedures.

#### **AIR FILTER**

Always change the air filter at the intervals outlined in the Periodic Maintenance Chart.

- Remove the cargo box access panel.
- 2. Clean all dirt and debris from the air box area.
- Unlatch the four (4) air box cover clips ① and carefully remove the air box cover.
- 4. Inspect the air filter ② and air box for dirt, debris or water.



- 5. To remove the filter, slide the filter toward the passenger's side of the vehicle.
- With the filter removed, clean the intake tube and air box thoroughly. Wipe well with a clean, dry cloth.

## NOTICE

Dirt or debris in the intake tube could result in severe engine damage. Always clean all dirt and debris from the intake tube before installing the filter.

Reinstall the air filter (if clean) or install a new air filter (if soiled). Do not attempt to clean the air filter.

#### **NOTICE**

Use of a non-POLARIS-approved air filter may cause engine damage. Always use a POLARIS-approved replacement filter. Replacement filters are available at your POLARIS dealer.

8. Make sure that there are no gaps between the filter, the filter ring and the stop on the intake tube.

#### MAINTENANCE

- Reinstall the air box cover and ensure the alignment tabs are properly positioned.
- 10. Secure the four (4) cover clips.
- 11. Reinstall the cargo box access panel.

## SPARK ARRESTER

## **A WARNING**

- Never operate the vehicle without the spark arrester.
- · Remove any combustible materials from the area.

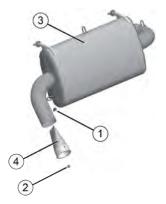
# Failure to heed the following warnings while servicing the spark arrester could result in serious injury or death.

- Never run the engine in an enclosed area. Exhaust contains poisonous carbon monoxide gas that can cause loss of consciousness or death in a very short time.
- Do NOT perform service on the spark arrester while the system is HOT. Exhaust system temperatures can reach extreme temperatures. Allow components to cool sufficiently before proceeding.
- Do not stand behind or in front of the vehicle while purging the exhaust system.
- · Never go under the vehicle while it is inclined.
- Wear eye protection and gloves while servicing.

Periodically clean the spark arrester to remove accumulated carbon. A plugged spark arrester will affect engine performance. Clean daily when driving in mud and water. Replace a cracked or damaged arrester before operating.

- 1. Remove the arrester retaining bolt ① and nut ②.
- 2. Remove the arrester from the end of the muffler ③.

3. Use a non-synthetic brush to clean the arrester screen ④. A synthetic brush may melt if components are warm. If necessary, blow debris from the screen with compressed air.



- 4. Inspect the screen for wear and damage. Replace a worn or damaged screen.
- 5. Reinstall the arrester. Torque bolt to 7-9 ft. lbs. (9-12 Nm).

#### **BRAKES**

### **A** WARNING

Operating the vehicle with a spongy brake pedal can result in loss of braking, which could cause an accident resulting in severe injury or death. Never operate the vehicle with a spongy-feeling brake pedal.

The front and rear brakes are hydraulic disc type brakes activated by the brake pedal.

Always check brake pedal travel and the brake fluid reservoir level before each use of the vehicle. When applied, the brake pedal should feel firm. Any sponginess would indicate a possible fluid leak or low brake fluid level, which must be corrected before riding. See the Brake Fluid section for further details.

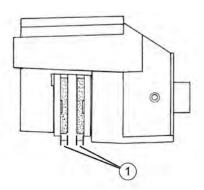
If you discover any irregularities in brake system operation, including excessive pedal travel, contact your dealer for proper diagnosis and repairs.

## **BRAKE INSPECTION**

## **A** WARNING

Do not apply WD-40 or any petroleum product to brake discs. These types of products are flammable and may also reduce the friction between the brake pad and caliper.

- Check the brake system for fluid leaks.
- 2. Check the brake pedal for excessive travel or a spongy feel.
- 3. Check the friction pads for wear, damage and looseness.
- Check brake discs for signs of cracks, excessive corrosion, warping or other damage. Clean any grease using an approved brake cleaner or alcohol.
- Inspect the brake disc spline and pad wear surface for excessive wear. Change pads when worn to 0.030" (0.762 mm) ①.



#### **BRAKE FLUID**

## **A** WARNING

After opening a bottle of brake fluid, always discard any unused portion. Never store or use a partial bottle. 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.

Inspect the level of the brake fluid before each operation. If the fluid level is low add DOT 4 brake fluid only. See the Polaris Products section for the part numbers.

Change the brake fluid every two years and any time the fluid becomes contaminated, the fluid level is below the minimum, or if the type and brand of the fluid in the reservoir are unknown. Access the brake fluid reservoir through the left front wheel well.



- Position the vehicle on a level surface.
- Place the transmission in PARK.
- 3. View the brake fluid level in the reservoir. The level should be between the maximum ① and minimum ② level lines.
- 4. If the fluid level is lower than the lower level line, add brake fluid to the upper line
- 5. Apply the brake forcefully for a few seconds and check for fluid leakage around the fittings.

## SUSPENSION SYSTEM

## SHOCK ADJUSTMENT RECOMMENDATIONS

## **A** WARNING

Be advised that the shocks contain nitrogen at high pressure. Damaged shocks could cause injury if not replaced or addressed promptly by qualified personnel.

| SHOCK ADJUSTMENTS                          |                              |   |  |
|--|------------------------------|---|--|
| RZR XP Turbo S and Turbo S Velocity        |                              |   |  |
| Weight C<br>assuming each rider, w<br>(97. | Spring Preload<br>Adjustment |   |  |
| Riders                                     | Cargo +<br>Accessories       | Shaded cells indicate factory settings          |  |
| Driver only                                | 0                            | Remove 0.2 inch (5 mm) preload, front and rear  |  |
| Driver + 1                                 | 0                            | Factory default preload                         |  |
| Driver + 1                                 | 100 lbs.<br>(45 kg)          | Add 0.2 inch (5 mm)<br>preload, front and rear  |  |
| Driver + 1                                 | 200 lbs.<br>(91 kg)          | Add 0.4 inch (10 mm)<br>preload, front and rear |  |
| Driver + 1                                 | 300 lbs.<br>(136 kg)         | Add 0.6 inch (15 mm)<br>preload, front and rear |  |

| SHOCK ADJUSTMENTS  |                        |   |  |
|--|------------------------|---|--|
| RZR XP 4 Turbo S and 4 Turbo S Velocity  |                        |   |  |
| <b>Weight Condition</b> assuming each rider, wearing gear, is 215 lbs. (97.5 kg) |                        | Spring Preload<br>Adjustment                    |  |
| Riders   | Cargo +<br>Accessories | Shaded cells indicate factory settings          |  |
| Driver only  | 0                      | Remove 0.4 inch (10 mm) preload, front and rear |  |

#### **MAINTENANCE**

| SHOCK ADJUSTMENTS |                  |   |
|-------------------|------------------|---|
| Driver + 2        | 40 lbs.<br>18 kg | Factory default preload                         |
| Driver + 3        | 40 lbs.<br>18 kg | Add 0.4 inch (10 mm)<br>preload, front and rear |

## FRONT / REAR SPRING PRELOAD ADJUSTMENT

- 1. Elevate the vehicle to allow the suspension to fully extend.
- 2. Turn the adjusting ring to the left to add preload. Turn the adjusting ring to the right to remove preload.

### **A** WARNING

Uneven adjustment may cause poor handling of the vehicle, which could result in an accident. Always adjust both the left and right spring preloads equally or have your POLARIS dealer or qualified person perform the adjustments.

#### **DYNAMIX SHOCKS**

- 1) Front Shock Preload Measurement
- (2) Rear Shock Preload Measurement





# **FACTORY DEFAULT PRELOAD SETTINGS**

| FACTORY DEFAULT PRELOAD SETTINGS |             |                        |
|----------------------------------|-------------|------------------------|
|                                  | DYNAMIX     |                        |
| RZR Turbo S                      | Front       | 2.88 inches (7.32 cm)  |
|                                  | Rear        | 6.38 inches (16.21 cm) |
|                                  | DYN         | IAMIX                  |
| RZR 4 Turbo S                    | Front       | 2.5 inches (6.35 cm)   |
|                                  | Rear        | 6.5 inches (16.51 cm)  |
|                                  | NON-DYNAMIX |                        |
| RZR Turbo S Velocity             | Front       | 0.84 inches (2.13 cm)  |
|                                  | Rear        | 0.96 inches (2.44 cm)  |
|                                  | NON-DYNAMIX |                        |
| RZR 4 Turbo S<br>Velocity        | Front       | 0.72 inches (1.83 cm)  |
| •                                | Rear        | 0.77 inches (1.96 cm)  |

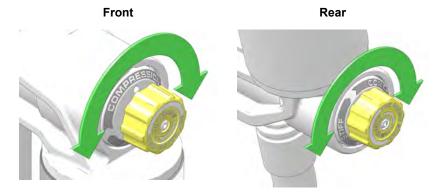
# FRONT / REAR SHOCK COMPRESSION ADJUSTMENT

## **NOTE**

Applies to Velocity models only.

The compression damping clicker knob is located at the top of the shock reservoir.

- 1. Turn the clicker clockwise to increase compression damping.
- 2. Turn the clicker counter-clockwise to decrease compression damping.



| SHOCK COMPRESSION SETTINGS                |         |   |  |
|---|---------|---|--|
| Setting Compression D                     |         | Compression Damping                         |  |
|   | Softest | Full counter-clockwise position (16 clicks) |  |
| WALKER Factory Center position (8 clicks) |         | Center position (8 clicks)                  |  |
|   | Firmest | Full clockwise position (0 clicks)          |  |

## **TIRES**

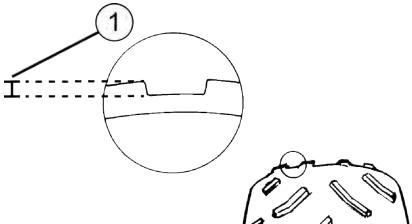
## **A** WARNING

Operating your vehicle with worn tires will increase the possibility of skidding, loss of control and an accident, which could result in serious injury or death. Always replace tires when the tread depth measures 1/8" (3 mm) or less.

Improper tire inflation or the use of non-standard size or type of tires may adversely affect vehicle handling, which could result in vehicle damage or personal injury. Always maintain proper tire pressure. Always use POLARIS-approved size and type of tires for this vehicle when replacing tires.

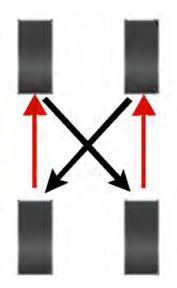
## TIRE TREAD DEPTH

Always replace tires when tread depth is worn to 1/8" (3 mm) ① or less.



## TIRE ROTATION

Tire rotation is recommended for every 500-mile (805-km) interval. Perform tire rotation on the vehicle by following the rearward cross strategy shown below.



## **AXLE AND WHEEL NUT TORQUE SPECIFICATIONS**

Inspect the following items occasionally for tightness, and if they've been loosened for maintenance service. Do not lubricate the stud or the lug nut.

| Lug Nut<br>(Aluminum Wheels) | Front and Rear | 120 ft-lbs<br>(162.7 Nm) |
|------------------------------|----------------|--------------------------|
| Hub Retaining Nut            | Front and Rear | 180 ft-lbs.<br>(244 Nm)  |

## WHEEL REMOVAL

- 1. Position the vehicle on a level surface.
- 2. Place the transmission in PARK.

#### NOTE

After a ride, allow the engine to idle for 30 seconds before stopping the engine. This will allow the turbo system to cool down.

- 3. Stop the engine.
- 4. Loosen the wheel nuts slightly.

- 5. Elevate the side of the vehicle by placing a suitable stand under the frame.
- 6. Remove the wheel lug nuts. Remove the wheel.

#### WHEEL INSTALLATION

### **A 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. Your POLARIS dealer can assist.

- Place the transmission in PARK.
- 2. Place the wheel in the correct position on the wheel hub. Be sure the valve stem ① is toward the outside and rotation arrows on the tire point toward forward rotation.
- 3. Attach the wheel nuts and finger tighten.
- 4. Carefully lower the vehicle to the ground.
- Torque the wheel nuts to specification. See the Axle and Wheel Nut Torque Specifications section for details.



Right Rear Wheel (type varies by model)

## LIGHTS

Headlight and taillight lenses become dirty during normal operation. Clean all lights frequently to ensure a clear field of vision as well as visibility to other vehicles.

#### TIP

#### **LED LAMPS**

If an LED headlamp has moisture or fogging inside, disconnect the wiring harness from the headlamp(s) for a few days to allow the moisture to clear out.

#### TIP

#### **HALOGEN LAMPS**

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.

### TAILLIGHT / BRAKE LIGHT REPLACEMENT

The taillight assembly is not serviceable. If the taillight or brake light fails to operate properly, replace the entire taillight assembly.

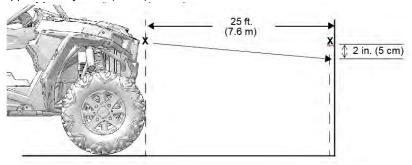
#### **HEADLIGHT REPLACEMENT**

If a headlight becomes damaged or inoperable, the entire headlight assembly must be replaced. Do not operate this vehicle at night or in low light conditions until the headlight is replaced. Always make sure lights are adjusted properly for best visibility.

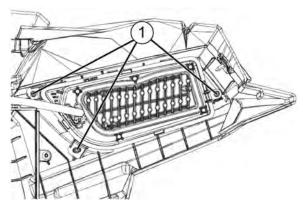
## **HEADLIGHT BEAM ADJUSTMENT**

The headlight beam can be adjusted slightly upward or downward and to the left or right.

1. Position the vehicle on a level surface. The headlight should be approximately 25 ft. (7.6 m) from a wall.



- 2. Place the transmission in PARK.
- 3. Measure the distance from the floor to the center of the headlight and make a mark on the wall at the same height.
- 4. Apply the brakes. Start the engine. Turn the headlights to high beam.
- Include the weight of a rider on the seat while performing this step. Observe
  the headlight aim. As a starting point, the most intense part of the headlight
  beam should be 2 inches (5 cm) below the mark on the wall. Adjust to
  operator preference.
- 6. Tighten or loosen the three (3) headlight screws ① on the rear of the headlight to adjust the beam upward or downward or to the left or right.



## **VEHICLE IMMERSION**

#### **NOTICE**

If your vehicle becomes immersed, major engine damage can result if the machine is not thoroughly inspected. Take the vehicle in for service before starting the engine. Your POLARIS dealer can provide this service.

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

- 1. Move the vehicle to dry land.
- 2. Check the air box. See page 163. If water is present, dry the air box and replace the filter with a new filter.
- Remove the fuse/relay center cover. See the Fuse/Relay Center section for details. Allow any moisture to dry, then reinstall the cover.
- 4. Dry the spark plug wells with a clean cloth, then remove the spark plugs.
- 5. Turn the engine over several times.
- Dry the spark plugs and reinstall them, or install new plugs.
- 7. Attempt to start the engine. If necessary, repeat the drying procedure.
- Take the vehicle in for service as soon as possible, whether you succeed in starting it or not. Your POLARIS dealer can provide the required service.
- If water has been ingested into the PVT follow the procedure on page 161 for drying.

## STEERING WHEEL INSPECTION

Check the steering wheel for specified freeplay and smooth operation at the intervals outlined in the Periodic Maintenance Chart.

- 1. Position the vehicle on level ground.
- 2. Lightly turn the steering wheel left and right.
- 3. There should be 0.8-1.0" (20-25 mm) of freeplay.
- 4. If there is excessive freeplay or strange noises, or if the steering feels rough or "catchy," have the steering system inspected by an authorized POLARIS dealer or other qualified personnel.

## **BATTERY**

## **A** 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.

Your vehicle has a maintenance-free battery. Always keep battery terminals and connections free of corrosion. If cleaning is necessary, remove the 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.

### **BATTERY REMOVAL**

- 1. Ensure the key switch is set to OFF position before removing the battery.
- Remove the driver's seat (XP) or the left rear passenger seat (XP 4). See the Seats section for details.
- 3. Disconnect the black (negative) battery cable first.
- 4. Disconnect the red (positive) battery cable last.
- Remove the battery hold-down strap.
- 6. Lift the battery out of the vehicle.

## **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 instructions in the Battery Charging section before installing the battery.

- 1. Ensure that the battery is fully charged.
- 2. Place the battery in the battery holder.
- 3. Coat the terminals with dielectric grease or petroleum jelly.
- 4. Secure the battery hold-down strap.
- 5. Connect and tighten the red (positive) cable first.
- 6. Connect and tighten the black (negative) cable last.
- 7. Verify that cables are properly routed.
- 8. Reinstall the seat.

### **BATTERY STORAGE**

Whenever the vehicle is not used for a period of three months or more, recharge the battery about once a month to make up for normal self-discharge (see the Battery Charging section for details), or use a POLARIS Battery Tender, which can be left connected during the storage period. Battery Tender will automatically charge the battery if voltage drops below a pre-determined point. See the POLARIS products section for the part numbers.

During the storage period, park the vehicle out of the sun in a cool, dry place or remove the battery and store it in a cool, dry place.

## **BATTERY CHARGING**

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

The maintenance-free battery is already filled with electrolyte and has been fully charged at the factory. Never pry the battery caps off or add any other fluid to this battery.

Always keep a maintenance-free battery fully charged. Since the battery caps cannot be removed, you must use a voltmeter or multimeter to measure DC voltage.

## **A** WARNING

An overheated battery may 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.

- Check the battery voltage with a voltmeter or multimeter. A fully charged battery will register 12.8 V or greater.
- 2. If the voltage is less than 12.8 volts, recharge the battery at 5 amps or less until battery voltage is 12.8 volts or greater, at least 1-2 hours after the charger has been removed.
- When using an automatic charger, refer to the charger manufacturer's instructions for recharging.

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

| STATE OF<br>CHARGE | VOLTAGE            | ACTION   | CHARGE TIME*                              |
|--------------------|--------------------|--|---|
| 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<br>charge, if no<br>charge given,<br>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 with desulfating charger                                  | At least 20 hours                         |

<sup>\*(</sup>Using constant current charger @ standard amps specified on top of battery)

## **CLEANING AND STORAGE**

### **WASHING THE VEHICLE**

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

#### NOTICE

Water in the PVT system could cause the drive belt to become wet and slip in the clutches. Always avoid spraying water directly toward any intake pre-filters(1).



High water pressure may damage radiator fins and impair a radiator's effectiveness. High pressure may also damage other vehicle components.

Certain products, including insect repellents and chemicals, will damage plastic surfaces. Do not allow these types of products to contact 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.

- 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.

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 labels. Avoid directing the water stream at the following items:

- · Wheel bearings
- Radiators
- · Turbo wastegate actuator and linkage
- · Transmission seals
- Brakes
- · Cab and body panels
- · Labels and decals
- Electrical components and wiring
- · Air intake components

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.

### **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.

### **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.

### **STORAGE TIPS**

### **NOTICE**

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 the Washing the Vehicle section for details.

### STABILIZE THE FUEL

- 1. Fill the fuel tank.
- Add POLARIS Carbon Clean Fuel Treatment or POLARIS Fuel Stabilizer or equivalent fuel treatments or stabilizers. Follow the instructions on the container for the recommended amount. 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 entire fuel delivery system.

### OIL AND FILTER

Change the oil and filter. See page 143.

### AIR FILTER / AIR BOX

Replace the air filter. See page 163. Clean the air box.

## **FLUID LEVELS**

Inspect the fluid levels. Add or change fluids as recommended in the Periodic Maintenance Chart beginning on page 114.

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

### **INSPECT AND LUBRICATE**

Inspect all cables and lubricate all areas of the vehicle as recommended in the Periodic Maintenance Chart beginning on page 114.

## **FOG THE ENGINE**

- Treat the fuel system with POLARIS Carbon Clean or other equivalent fuel treatment. Follow the instructions on the container. Start the engine. Allow it to idle for several minutes so the Carbon Clean reaches the injectors. Stop the engine.
- Remove the spark plugs and add 2-3 tablespoons of engine oil. To access
  the plug holes, use a section of clear 1/4" hose and a small plastic squeeze
  bottle filled with the pre-measured amount of oil. Do this carefully! If you miss
  the plug holes, oil will drain from the spark plug cavities into the hole at the
  front of the cylinder head, and appear to be an oil leak.
- 3. Reinstall the spark plugs. Torque to specification. See page 151.
- 4. Apply dielectric grease to the inside of each spark plug cap. *Do not reinstall the caps onto the plugs at this step.*
- Turn the engine over several times. Oil will be forced in and around the piston rings and ring lands, coating the cylinder with a protective film of fresh oil.
- 6. If POLARIS fuel system additive is not used, fuel tank, fuel lines, and injectors should be completely drained of gasoline.
- 7. Reinstall the spark plug caps to the spark plugs.

### **BATTERY MAINTENANCE**

See page 179 for storage and charging procedures.

## STORAGE AREA / COVERS

Be sure the storage area is well ventilated. Cover the vehicle with a genuine POLARIS cover. Do not use plastic or coated materials. They do not allow enough ventilation to prevent condensation, and may promote corrosion and oxidation.

### REMOVAL FROM STORAGE

- 1. Charge the battery if necessary.
- Make sure the spark plug is tight. Reinstall the fuse box cover if it was removed for storage.
- Fill the fuel tank with fuel.
- Check all the points listed in the Daily Pre-Ride Inspection sectionb.
   Tightness of the bolts, nuts and other fasteners should be checked by an
   authorized POLARIS dealer or other qualified service facility.
- Lubricate at the intervals outlined in the Periodic Maintenance Chart beginning on page 114.

## **A** WARNING

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

## TRANSPORTING THE VEHICLE

### NOTE

For functional descriptions detailing how to operate the DYNAMIX suspension system on certain vehicle models, consult the Polaris *RideCommand* manual.

Follow these procedures when transporting the vehicle.

### NOTICE

After a ride, allow the engine to idle for 30 seconds before stopping the engine.

This will allow the turbo system to cool down.

- Place the transmission in PARK.
- Stop the engine. Turn the key back on to the accessory or ON position without starting the engine. Slowly release the brake pedal and make sure the transmission is in PARK before exiting the vehicle, verifying that the PARK position is shown on the display.
- 3. Prior to securing the vehicle, the key switch must remain in the ON position, the suspension mode switch must be in the COMFORT setting, and the demo mode timeout must not be active while securing the vehicle. Shock damping settings can be verified on the Suspension visualization screen.
- 4. Secure the vehicle.

## **A** WARNING

Vehicles equipped with DYNAMIX active suspension must be powered on, set to COMFORT mode, and properly functioning in order to ensure the shocks are operating at their minimum compression damping setting prior to securing the vehicle for transport. Failure to ensure the shocks are in their minimum compression damping setting prior to securing the vehicle can potentially lead to a reduction of intended strap tension while trailering.

- 5. After the vehicle has been secured, verify the gauge indicates PARK, and turn the vehicle power off. Verify also that the suspension compression damping values are still soft after securing the vehicle. If after securing the suspension demo mode has timed out or the suspension has moved to a FIRM setting as indicated on the Suspension control screen, cycle the key switch, place the mode switch in COMFORT mode, and re-tighten the straps per step number 3.
- 6. Remove the key to prevent loss during transporting. Secure the fuel cap and seats. Ensure that the seats are attached correctly and are not loose.

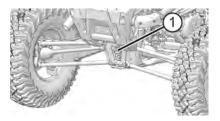
## **A WARNING**

Cargo and other loose vehicle parts may fly off while transporting this vehicle. Secure or remove all cargo, and inspect the unit for loose parts prior to transport.

Always tie the frame of the POLARIS vehicle to the transporting unit securely with suitable straps or rope. Do not attach tie straps to the front control arm bolt pockets.

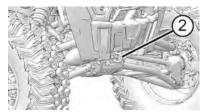
# MAINTENANCE

## ① Rear Tie-Down





## ② Front Tow Loop Tie-Down



# **SPECIFICATIONS**

| RZR XP TURBO S / RZR XP 4 TURBO S<br>RZR XP TURBO S VELOCITY / RZR XP 4 TURBO S VELOCITY |  |  |
|--|--|--|
| Gross Vehicle Weight   | S: 2575 lbs. (1168 kg)<br>4 S: 2985 lbs. (1354 kg)<br>S Velocity: 2561 lbs. (1162 kg)<br>4 S Velocity: 2939 lbs. (1333 kg)               |  |
| Dry Weight   | S: 1782 lbs. (808 kg)<br>4 S: 1999 lbs. (907 kg)<br>S Velocity: 1731 lbs. (685 kg)<br>4 S Velocity: 1949 lbs. (884 kg)                   |  |
| Test GVW - Rollover Protection<br>System (ROPS)  | S and S Velocity: 2650 lbs. (1202 kg) per ISO 3471:2008<br>4 S and 4 S Velocity: 3200 lbs. (1452 kg) per OSHA 1928.53                    |  |
| Rear Cargo Box Capacity  | 300 lbs. (136 kg)  |  |
| Maximum Weight Capacity (Payload)  | S and S Velocity: 740 lbs. (336 kg)<br>4 S and 4 S Velocity: 900 lbs. (408 kg)<br>(including riders, cargo and accessories)              |  |
| Fuel Capacity  | 9.5 gal. (36 L)  |  |
| Engine Oil Capacity  | 2.75 qts. (2.6 L)  |  |
| Coolant Capacity   | 10.8 qts. (10.22 L)  |  |
| Demand Drive Fluid Capacity  | 8.5 oz. (250 ml)   |  |
| Transmission Oil Capacity  | 61 oz. (1800 ml)   |  |
| Overall Length/Width/Height  | S and S Velocity: 122 / 74.5 / 75 in. (309.9 / 189.2 / 190.5 cm) 4 S and 4 S Velocity: 149 / 73.75 / 76.5 in. (378.5 / 187.3 / 194.3 cm) |  |
| Wheelbase  | S and S Velocity: 90 in. (228.6 cm)<br>4 S and 4 S Velocity: 117 in. (297.2 cm)  |  |
| Ground Clearance   | 16 in. (40.6 cm)   |  |
| Engine   | Turbo Charged 4-Stroke DOHC Twin Cylinder  |  |

| RZR XP TURBO S / RZR XP 4 TURBO S<br>RZR XP TURBO S VELOCITY / RZR XP 4 TURBO S VELOCITY |  |  |
|--|--|--|
| Displacement   | 925 cc   |  |
| Bore x Stroke  | 93mm x 68mm  |  |
| Alternator Output  | 900W @ 3000 RPM  |  |
| Compression Ratio  | 9.0:1  |  |
| Starting System  | Electric   |  |
| Fuel System  | Electronic fuel injection                              |  |
| Ignition System  | ECU  |  |
| Spark Plug / Gap   | MR9F / 0.7-0.8 mm                                      |  |
| Front Suspension   | Independent double a-arm with 19 in. (48.3 cm) travel  |  |
| Rear Suspension  | Independent trailing arms with 21 in. (53.3 cm) travel |  |
| Lubrication System   | Wet Sump   |  |
| Driving System Type  | Automatic POLARIS Variable Transmission                |  |
| Shift Type   | Dual Range P/R/N/L/H                                   |  |
| Tire Size - Front  | 32x10xR15  |  |
| Tire Size - Rear   | 32x10xR15  |  |
| Tire Pressure  | Front: 16 psi (110 kPa)<br>Rear: 16 psi (110 kPa)      |  |
| Brakes, Front/Rear   | Foot Activated, 4-wheel hydraulic disc                 |  |
| Headlights   | 2 dual beam LED cluster                                |  |
| Taillights   | 2 LED cluster  |  |
| Brake Lights   | 2 LED cluster  |  |
| Instrument Cluster   | LCD  |  |
| Auxiliary DC Outlet  | 12V  |  |

| OUTPUT GEAR RATIOS            |         |  |
|-------------------------------|---------|--|
| Rear                          |         |  |
| High Gear                     | 11.58:1 |  |
| Low Gear                      | 20.25:1 |  |
| Reverse                       | 23.36:1 |  |
| Front (including front drive) |         |  |
| High Gear                     | 12.19:1 |  |
| Low Gear                      | 21.31:1 |  |
| Reverse                       | 24.57:1 |  |
| -                             |         |  |
| Drive Ratio - Front           | 3.17:1  |  |

# **CLUTCHING**

Please see your POLARIS dealer for clutching specifications

# **POLARIS PRODUCTS**

| PART NUMBER                     | DESCRIPTION   |  |
|---------------------------------|---|--|
| Engine Lubricant                |   |  |
| 2870791                         | Fogging Oil (12 oz./355 ml Aerosol)                                     |  |
| 2876244                         | PS-4 Full Synthetic 5W-50 4-Cycle Oil (qt./.95 l)                       |  |
| 2876245                         | PS-4 Full Synthetic 5W-50 4-Cycle Oil (gal./3.8 l)                      |  |
| 2878920                         | PS-4 Extreme Duty Synthetic 10W-50 4-Cycle Oil (qt./ .95 l)             |  |
| 2878919                         | PS-4 Extreme Duty Synthetic 10W-50 4-Cycle Oil (gal./ 3.8 l)            |  |
|                                 | Gearcase / Transmission Lubricants                                      |  |
| 2878068                         | AGL Full Synthetic Gearcase Lubricant & Transmission Fluid (qt./.95 l)  |  |
| 2878069                         | AGL Full Synthetic Gearcase Lubricant & Transmission Fluid (gal./3.8 l) |  |
| 2877922                         | Demand Drive Fluid (qt./.95 I)  |  |
| 2877923                         | Demand Drive Fluid (gal./3.8 l)   |  |
| 2870465                         | Pump for Gallon (3.8 l) Jug   |  |
|                                 | Coolant   |  |
| 2880514                         | Antifreeze 50/50 Premix (qt./.95 I)                                     |  |
| 2880513                         | Antifreeze 50/50 Premix (gal./3.8 I)                                    |  |
| Grease / Specialized Lubricants |   |  |
| 2871312                         | Grease Gun Kit, All Season Grease                                       |  |
| 2871322                         | All Season Grease (3 oz./89 ml cartridge)                               |  |
| 2871423                         | All Season Grease (14 oz./414 ml cartridge)                             |  |
| 2876160                         | ATV Angle Drive Fluid (qt./.95 I)                                       |  |
| 2872276                         | ATV Angle Drive Fluid (2.5 gal./9.5 l)                                  |  |

# **POLARIS PRODUCTS**

| PART NUMBER               | DESCRIPTION                              |  |
|---------------------------|--|--|
| 2871460                   | Premium Starter Grease                   |  |
| 2871515                   | U-Joint Grease (3 oz./89 ml cartridge)   |  |
| 2871551                   | U-Joint Grease (14 oz./414 ml cartridge) |  |
| 2871329                   | Dielectric Grease (Nyogel™)              |  |
| Additives / Miscellaneous |  |  |
| 2871326                   | Carbon Clean                             |  |
| 2870652                   | Fuel Stabilizer                          |  |
| 2872189                   | DOT 4 Brake Fluid                        |  |
| 2871956                   | Loctite™ 565 Thread Sealant              |  |
| 2859044                   | POLARIS Battery Tender™ Charger          |  |

# **TROUBLESHOOTING**

# **DRIVE BELT WEAR / BURN**

| POSSIBLE CAUSE  | SOLUTION   |
|---|--|
| Driving onto a pickup or tall trailer in high range     | Use low range during loading.  |
| Starting out going up a steep incline                   | Use low range. See warnings on page 90.  |
| Driving at low RPM or ground speed (3-7 MPH/ 5-11 km/h) | Drive at a higher speed or use low range more frequently. See the Gear Selector section for details.   |
| Insufficient warm-up at 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.  |
| Hauling heavy cargo/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. <b>WARNING!</b> Excessive throttle may cause loss of control and vehicle rollover.             |
| 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 rollover.            |

# TROUBLESHOOTING

| POSSIBLE CAUSE   | SOLUTION  |
|--|---|
| Belt slippage from water or snow ingestion into the PVT system | Dry out the PVT (see page 161). Prevent water from entering the PVT outlet duct (see page 158). Inspect clutch seals for damage if repeated leaking occurs.   |
| Clutch malfunction   | Your POLARIS dealer can assist.   |
| Poor engine performance  | Check for fouled plugs or foreign material in gas tank or fuel lines. Your POLARIS dealer can assist.   |
| Slippage from failure to warm up belt                          | Always warm up the belt by operating below 30 MPH (48 km/h) for one mile (1.5 km) and for 5 miles (8 km) or more when temperature is below freezing.  |
| Wrong or missing belt  | Install the recommended belt.   |
| Improper break-in  | Always break in a new belt and/or clutch. See page 79.  |
| Failed belt  | Remove the belt and clean away any debris from the clutch box, clutch duct and engine compartment. Install a new belt.  WARNING! Failure to remove ALL debris when replacing the belt could result in vehicle damage and severe injury or death. See the Belt Replacement / Debris Removal section for details. |

# **ENGINE DOESN'T TURN OVER**

| POSSIBLE CAUSE                           | SOLUTION  |
|--|---|
| Low battery voltage                      | Recharge the battery to 12.8 VDC  |
| Loose battery connections                | Check all connections and tighten   |
| Loose solenoid connections               | Check all connections and tighten   |
| Loose electronic control box connections | Inspect, clean, reinstall connectors; blow on EFI fuse to remove impurities |
| Mechanical failure                       | Your POLARIS dealer or other qualified person can assist.                   |

# **ENGINE TURNS OVER, FAILS TO START**

| POSSIBLE CAUSE                  | SOLUTION  |
|---------------------------------|---|
| Out of fuel                     | Refuel  |
| Clogged fuel filter             | Your POLARIS dealer or other qualified person can assist. |
| Water is present in fuel        | Drain the fuel system and refuel                          |
| Old or non-recommended fuel     | Replace with fresh recommended fuel                       |
| Fouled or defective spark plugs | Inspect plugs and replace if necessary                    |
| No spark to spark plug          | Inspect plugs and replace if necessary                    |
| Water or fuel in crankcase      | Your POLARIS dealer or other qualified person can assist. |
| Low battery voltage             | Recharge the battery to 12.8 VDC                          |
| Loose ignition connections      | Check all connections and tighten                         |
| Mechanical failure              | Your POLARIS dealer or other qualified person can assist. |

## **TROUBLESHOOTING**

# **ENGINE BACKFIRES**

| POSSIBLE CAUSE                         | SOLUTION  |
|--|---|
| Out of fuel                            | Refuel  |
| Weak spark from spark plug             | 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 fresh recommended fuel                       |
| Incorrectly installed spark plug wires | Your POLARIS dealer or other qualified person can assist. |
| Incorrect ignition timing              | Your POLARIS dealer or other qualified person can assist. |
| Loose ignition connections             | Check all connections and tighten                         |
| Water present in fuel                  | Replace with fresh recommended fuel                       |
| Exhaust leak                           | Check all connections                                     |
| Mechanical failure                     | Your POLARIS dealer or other qualified person can assist. |

# **ENGINE PINGS OR KNOCKS**

| POSSIBLE CAUSE                         | SOLUTION  |
|--|---|
| Poor quality or low octane fuel        | Replace with recommended fuel                             |
| Incorrect ignition timing              | Your POLARIS dealer or other qualified person can assist. |
| Incorrect spark plug gap or heat range | Set gap to specs or replace plugs                         |

# **ENGINE RUNS IRREGULARLY, STALLS OR MISFIRES**

| POSSIBLE CAUSE   | SOLUTION  |  |
|--|---|--|
| Loose, missing or kinked boost reference lines   | Replace boost reference lines                     |  |
| Loose or missing intake system sensor connections  | Inspect connections, tighten or replace as needed |  |
| Fouled or defective spark plugs  | Inspect, clean and/or replace spark plugs         |  |
| Worn or defective spark plug wires   | Your POLARIS dealer can assist.                   |  |
| 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 tank vent line or filter  | Inspect and replace                               |  |
| Incorrect fuel   | Replace with recommended fuel                     |  |
| Clogged air filter   | Inspect and replace                               |  |
| Clogged intake pre-filter  | Inspect and clean (with soapy water) or replace   |  |
| Other mechanical failure   | Your POLARIS dealer can assist.                   |  |
| Possible Lean Fuel Cause   | Solution  |  |
| Low or contaminated fuel   | Add or change fuel, clean the fuel system         |  |
| Low octane fuel  | Replace with recommended fuel                     |  |
| Clogged fuel filter  | Your POLARIS dealer can assist.                   |  |
| Low fuel pressure  | Your POLARIS dealer can assist.                   |  |
| Loose, missing, torn or kinked boost reference line from manifold to fuel pressure regulator or blow-off valve | Replace boost reference line                      |  |

# **ENGINE STOPS OR LOSES POWER**

| POSSIBLE CAUSE   | SOLUTION  |
|--|---|
| Out of fuel  | Refuel  |
| Kinked or plugged fuel tank vent line or filter  | Inspect and replace   |
| Water is present in fuel   | Replace with new fuel   |
| Fouled or defective spark plugs  | Inspect, clean and/or replace spark plug  |
| Worn or defective spark plug wires   | Your POLARIS dealer can assist.   |
| Incorrect spark plug gap or heat range   | Set gap to specs or replace plug  |
| Loose ignition connections   | Check all connections and tighten   |
| Low battery voltage  | Recharge the battery to 12.8 VDC  |
| Incorrect fuel   | Replace with fresh recommended fuel   |
| Clogged air filter   | Inspect and replace   |
| Clogged intake pre-filter  | Inspect and clean (with soapy water) or replace   |
| Other mechanical failure   | Your POLARIS dealer can assist.   |
| Overheated engine  | Clean radiator screen and core, clean engine exterior, check coolant level. Your POLARIS dealer can assist. |
| Loose, missing, torn or kinked boost reference line from manifold to fuel pressure regulator or blow-off valve | Replace boost reference line  |
| Loose, missing, torn or kinked boost reference line from turbo compressor to boost control valve               | Replace boost reference line  |
| Loose intake system connections  | Inspect connections, tighten or replace as needed   |

# **TROUBLESHOOTING**

| POSSIBLE CAUSE                               | SOLUTION  |
|--|---|
| Worn or defective wastegate actuation system | Your POLARIS dealer can assist.   |
| Overheated intake air system                 | Inspect intercooler water lines for leaks or kinks, repair or replace as needed |

## WARRANTY

### LIMITED WARRANTY

POLARIS Industries Inc., 2100 Highway 55, Medina, MN 55340 (POLARIS) gives a SIX MONTH LIMITED WARRANTY on all components of your POLARIS vehicle against defects in material or workmanship. POLARIS further warrants that the spark arrester in this product will meet the efficiency requirements of USFS standard 5100-1C for at least 1000 hours when subjected to normal use and when maintenance and installation are in accordance with POLARIS recommendations.

This warranty covers parts and labor charges for repair or replacement of defective parts and begins on the date of purchase by the original retail purchaser. This warranty is transferable to another owner during the warranty period through a POLARIS dealer, but any such transfer will not extend the original term of the warranty. The duration of this warranty may vary by international region based upon local laws and regulations.

## REGISTRATION

At the time of sale, the Warranty Registration Form must be completed by your dealer and submitted to POLARIS within ten days of purchase. Upon receipt of this registration, POLARIS will record the registration for warranty. No verification of registration will be sent to the purchaser as the copy of the Warranty Registration Form will be your proof of warranty coverage. 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 VEHICLE 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.

## WARRANTY COVERAGE AND EXCLUSIONS

### LIMITATIONS OF WARRANTIES AND REMEDIES

This POLARIS limited warranty excludes any failures that are not caused by a defect in material or workmanship. THIS WARRANTY DOES NOT COVER CLAIMS OF DEFECTIVE DESIGN. This warranty also does not cover acts of God, accidental damage, normal wear and tear, abuse or improper handling. This warranty also does not cover any vehicle, component, or part that has been altered structurally, modified, neglected, improperly maintained or used for racing, competition or purposes other than for which it was designed.

This warranty excludes damages or failures resulting from improper lubrication; improper engine timing; improper fuel; surface imperfections caused by external stress, heat, cold or contamination; operator error or abuse; improper component alignment, tension, adjustment or altitude compensation; snow, water, dirt or other foreign substance ingestion/contamination; improper maintenance; modified components; use of aftermarket or unapproved components, accessories, or attachments; unauthorized repairs; or repairs made after the warranty period expires or by an unauthorized repair center.

This warranty excludes damages or failures caused by abuse, accident, fire, or any other cause other than a defect in materials or workmanship and provides no coverage for consumable components, general wear items, or any parts exposed to friction surfaces, stresses, environmental conditions and/or contamination for which they were not designed or not intended, including but not limited to the following items:

- · Wheels and tires
- Suspension components
- · Brake components
- Seat components
- · Clutches and components
- · Steering components
- Batteries
- Light bulbs/Sealed beam lamps
- Filters
- Lubricants
- Bushings

- · Finished and unfinished surfaces
- Carburetor/Throttle body components
- · Engine components
- · Drive belts
- Hydraulic components and fluids
- · Circuit breakers/Fuses
- Electronic components
- · Spark plugs
- Sealants
- Coolants
- Bearings

### **LUBRICANTS AND FLUIDS**

- Mixing oil brands or using non-recommended oil may cause engine damage.
   We recommend the use of POLARIS engine oil.
- Damage or failure resulting from the use of non-recommended lubricants or fluids is not covered by this warranty.

This warranty provides no coverage for personal loss or expense, including mileage, transportation costs, hotels, meals, shipping or handling fees, product pick-up or delivery, replacement rentals, loss of product use, loss of profits, or loss of vacation or personal time.

THE EXCLUSIVE REMEDY FOR BREACH OF THIS WARRANTY SHALL BE, AT POLARIS' OPTION, REPAIR OR REPLACEMENT OF ANY DEFECTIVE MATERIALS, 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. THIS EXCLUSION OF CONSEQUENTAL, INCIDENTAL, AND SPECIAL DAMAGES IS INDEPENDENT FROM AND SHALL SURVIVE ANY FINDING THAT THE EXCLUSIVE REMEDY FAILED OF ITS ESSENTIAL PURPOSE.

THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS EXCLUDED FROM THIS LIMITED WARRANTY. ALL OTHER IMPLIED WARRANTIES (INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY) ARE LIMITED IN DURATION TO THE ABOVE SIX MONTH WARRANTY PERIOD. POLARIS DISCLAIMS ALL EXPRESS WARRANTIES NOT STATED IN THIS WARRANTY. SOME STATES DO NOT PERMIT THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR ALLOW LIMITATIONS ON THE DURATION OF IMPLIED WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU IF INCONSISTENT WITH CONTROLLING STATE LAW.

## **HOW TO OBTAIN WARRANTY SERVICE**

If your vehicle requires warranty service, you must take it to a POLARIS Servicing Dealer. 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.

### In the Country where your product was purchased:

Warranty or Service Bulletin repairs must be done by an authorized POLARIS dealer. If you move or are traveling within the country where your product was purchased, Warranty and Service Bulletin repairs may be requested from any authorized POLARIS dealer that sells the same line as your product.

### Outside the Country where your product was purchased:

If you are traveling temporarily outside the country where your product was purchased, you should take your product to an authorized POLARIS dealer. You must show the dealer photo identification from the country of the selling dealer's authorized location as proof of residence. Upon residence verification, the servicing dealer will be authorized to perform the warranty repair.

### If you move:

If you move to another country, be sure to contact POLARIS Customer Assistance and the customs department of the destination country before you move. Product importation rules vary considerably from country to country. You may be required to present documentation of your move to POLARIS in order to continue your warranty coverage. You may also be required to obtain documentation from POLARIS in order to register your product in your new country. You should warranty register your product at a local POLARIS dealer in your new country immediately after you move to continue your warranty coverage and to ensure that you receive information and notices regarding your vehicle.

### If you purchase from a private party:

If you purchase a POLARIS product from a private party, to be kept and used outside of the country in which the product was originally purchased, all warranty coverage will be denied. You must nonetheless register your product under your name and address with a local POLARIS dealer in your country to ensure that you receive safety information and notices regarding your product.

## NOTICE

If your product is registered outside of the country where it was purchased and you have not followed the procedure set above, your product will no longer be eligible for warranty or service bulletin coverage of any kind, other than safety bulletins. Products registered to government officials or military personnel on assignment outside of the country where the product was purchased will continue to be covered by the Limited Warranty.

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

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state or in different countries. If any of the above terms are void because of federal, state, local law, all other warranty terms will remain in effect.

### For questions call POLARIS Customer Assistance:

United States & Canada: 1-800-POLARIS (1-800-765-2747)

French: 1-800-268-6334

## **U.S.A. EPA EMISSIONS LIMITED WARRANTY**

This emissions limited warranty is in addition to the POLARIS standard limited warranty for your vehicle. POLARIS Industries Inc. warrants that at the time it is first purchased, this emissions-certified vehicle is designed, built and equipped so it conforms with applicable U.S. Environmental Protection Agency emission regulations. POLARIS warrants that the vehicle is free from defects in materials and workmanship that would cause it to fail to meet these regulations.

The warranty period for off road vehicles 100cc or greater emissions-certified vehicles starts on the date of purchase by original retail purchaser and continues for a period of 500 hours of engine operation, 5000 kilometers (3100 miles) of vehicle travel, or 30 calendar months from the date of purchase, whichever comes first. The warranty period for ATVs less than 100cc emissions-certified vehicles starts on the date of purchase by original retail purchaser and continues for a period of 250 hours of engine operation, 2500 kilometers (1550 miles) of vehicle travel, or 30 calendar months from the date of purchase, whichever comes first. This EPA emissions warranty period is extended for at least as long as the standard factory warranty that Polaris provides on the vehicle as a whole. The EPA emissions warranty period does not further extend if you purchase additional warranty coverage in the form of a service contract or other paid warranty extension, but emission-related parts may be covered subject to the terms of any such paid service contract or paid warranty extension.

This emissions limited warranty covers components whose failure increases the vehicle's regulated emissions, and it covers components of systems whose only purpose is to control emissions. Repairing or replacing other components not covered by this warranty is the responsibility of the vehicle owner. This emissions limited warranty does not cover components whose failure does not increase the vehicle's regulated emissions.

For exhaust emissions, emission-related components include any engine parts related to the following systems:

- Air-induction system
- · Fuel System

- · Ignition system
- · Exhaust gas recirculation systems

The following parts are also considered emission-related components for exhaust emissions:

- · After treatment devices
- Crankcase ventilation valves
- Sensors
- · Flectronic control units

The following parts are considered emission-related components for evaporative emissions:

- Fuel Tank
- · Fuel Cap
- Fuel Line
- · Fuel Line Fittings
- · Clamps\*
- Pressure Relief Valves\*
- Control Valves\*
- Control Solenoids\*
- · Electronic Controls

- · Vacuum Control Diaphragms\*
- · Control Cables\*
- · Control Linkages\*
- · Purge Valves
- · Vapor Hoses
- · Liquid/Vapor Separator
- · Carbon Canister
- Canister Mounting Brackets
- · Carburetor Purge Port Connector

Emission-related components also include any other part whose only purpose is to reduce emissions or whose failure will increase emissions without significantly degrading engine/equipment performance. The exclusive remedy for breach of this limited warranty shall be, at the exclusive option of POLARIS, repair or replacement of any defective materials, components or products. THE REMEDIES SET FORTH IN THIS LIMITED 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. THIS EXCLUSION OF CONSEQUENTIAL, INCIDENTAL, AND SPECIAL DAMAGES IS INDEPENDENT FROM AND SHALL SURVIVE ANY FINDING THAT THE EXCLUSIVE REMEDY FAILED OF ITS ESSENTIAL PURPOSE.

ALL IMPLIED WARRANTIES (INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) ARE LIMITED IN DURATION TO THE WARRANTY PERIOD DESCRIBED HEREIN. POLARIS 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 if it is inconsistent with the controlling state law.

This limited warranty excludes failures not caused by a defect in material or workmanship. This limited warranty does not cover damage due to accidents, abuse or improper handling, maintenance or use. This limited warranty also does not cover any engine that has been structurally altered, or when the vehicle has been used in racing competition. This limited warranty also does not cover physical damage, corrosion or defects caused by fire, explosions or other similar causes beyond the control of POLARIS.

Owners are responsible for performing the scheduled maintenance identified in the owner's manual. POLARIS may deny warranty claims for failures that have

<sup>\*</sup>As related to the evaporative emission control system.

### WARRANTY

been caused by the owner's or operator's improper maintenance or use, by accidents for which POLARIS has no responsibility, or by acts of God.

Any qualified repair shop or person may maintain, replace, or repair the emission control devices or systems on your vehicle. An authorized POLARIS dealer can perform any service that may be necessary for your vehicle. POLARIS also recommends POLARIS parts, however equivalent parts may be used for such service. It is a potential violation of the Clean Air Act if a part supplied by an aftermarket parts manufacturer reduces the effectiveness of the vehicle's emission controls. Tampering with emission controls is prohibited by federal law.

## CALIFORNIA RESIDENTS

Certain POLARIS Off-Road Vehicles are available in 49-state and 50-state versions. Only the 50-state models are certified for sale in California. The 50-state models available for sale in California are identified by the letter "B" in the ninth position of the model number (e.g., R16RTE87B). The POLARIS 50-state models are designed and built with features such as a reduced cargo box capacity. Any modifications to these features may be a violation of the applicable California regulations and may void this limited emissions warranty offered by the manufacturer.

The California evaporative emissions control system limited warranty statement below applies to your Off Highway Recreational Vehicle in California if the vehicle is equipped with an evaporative emission control system and is labeled with a Vehicle Evaporative Emissions Control Information label indicating that the vehicle conforms to California evaporative emissions regulations applicable to new off-road sport vehicles, all-terrain vehicles, or off-road utility vehicles. These vehicles are referred to as "OHRV-EVAP" below.

### CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and Polaris Industries Inc. is pleased to explain the emission control system warranty on your model year 2018 and newer Off Highway Recreational Vehicle. In California, new off-highway recreational vehicles must be designed, built and equipped to meet the State's stringent anti-smog standards. Polaris must warrant the emission control system on your OHRV-EVAP for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your OHRV-EVAP.

Your emission control system may include parts such as the carburetor or fuel injection system, fuel tank, fuel hoses, carbon canister, engine computer and Evaporative Emissions Control System parts listed in the U.S.A. EPA Emissions Limited Warranty. Also included may be hoses, belts, connectors and other emission-related assemblies. Where a warrantable condition exists, Polaris will repair your OHRV-EVAP at no cost to you including diagnosis, parts and labor.

#### MANUFACTURER'S WARRANTY COVERAGE:

For model year 2018 and newer OHRV-EVAP models.

For 30 months, or 2500 miles, or 250 hours, whichever comes first, except for evaporative components over the OHRV high-priced warranty value, which is covered for 60 months, or 5000 miles, or 500 hours, whichever comes first.

If any emission-related part on your OHRV-EVAP is defective, the part will be repaired or replaced by Polaris.

#### OWNER'S WARRANTY RESPONSIBILITIES:

As the OHRV-EVAP owner, you are responsible for the performance of the required maintenance listed in your owner's manual. Polaris recommends that you retain all receipts covering maintenance on your OHRV-EVAP, but Polaris cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of a scheduled maintenance.

As an owner you are responsible for presenting your OHRV-EVAP to a Polaris dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

As an OHRV-EVAP owner, you should also be aware that Polaris may deny you warranty coverage if your OHRV-EVAP or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

#### ADD-ON OR MODIFIED PARTS

An add-on or modified part must be compliant with applicable CARB emission control standards. A violation of this requirement is punishable by civil and/or criminal punishment.

If you have any questions regarding your warranty rights and responsibilities, you should contact Polaris Customer Assistance at 1-800-POLARIS (1-800-765-2747) or the California Air Resources Board at 9528 Telstar Avenue, El Monte, CA 91731.

United States & Canada: 1-800-POLARIS (1-800-765-2747)

French: 1-800-268-6334

# **MAINTENANCE LOG**

# **MAINTENANCE LOG**

Use the following chart to record periodic maintenance.

| DATE | MILES (KM)<br>OR HOURS | TECHNICIAN | SERVICE PERFORMED /<br>COMMENTS |
|------|------------------------|------------|---------------------------------|
|      |                        |            |                                 |
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|      |                        |            |                                 |
|      |                        |            |                                 |
|      |                        |            |                                 |

| A   | U   |
|---|---|
| Adding or Changing Coolant 155 Air Box Caution 15 | Demand Drive<br>Fluid Change                                    |
| Air Filter  | Fluid Check   |
| All Wheel Drive (AWD) System 47                   | Gearcase) 148   |
| Auxiliary Outlets                                 | Descending Hills Improperly 24                                  |
| Axle and Wheel Nut Torque                         | Diagnostic Display Code   |
| Specifications                                    | Definitions   |
|   | Display Units, Standard/Metric 55<br>Drive Belt Wear / Burn 195 |
| В   | Drive Responsibly Warning 13                                    |
| В   | Driving Downhill  |
| Battery 179                                       | Driving in Reverse95  |
| Battery Charging 180                              | Driving on a Sidehill (Sidehilling) 91                          |
| Battery Installation 179                          | Driving on Slippery Surfaces 89                                 |
| Battery Removal                                   | Driving Over Obstacles  |
| Battery Storage 180                               | Driving Through Water   |
| Belt Debris Warning                               | Driving Uphill  |
| Belt Replacement / Debris Removal                 | Driving With Passengers 88                                      |
| Brake Fluid                                       |   |
| Brake Inspection 167                              | E   |
| Brake Pedal44                                     | -   |
| Brakes 166  | Electromagnetic Interference 111                                |
| Braking 85  | Electronic Power Steering (EPS) 34                              |
|   | Engaging AWD47 Engine Backfires198                              |
| С   | Engine Doesn't Turn Over 197                                    |
| C   | Engine Pings or Knocks  |
| Cab Doors 21, 42                                  | Engine Runs Irregularly, Stalls                                 |
| California Residents211                           | or Misfires 199   |
| Carrying Multiple Passengers                      | Engine Stops or Loses Power 200                                 |
| (2-Seat)  | Engine Turns Over, Fails to                                     |
| Carrying Multiple Passengers (4-Seat)22           | Start   |
| Check Engine Indicator                            | Error Codes, Engine57   |
| Component Locations31                             | Exhaust Emission Control  |
| Coolant   | System111   |
| Adding or Changing 155                            | Exposure to Exhaust   |
| Cooling System                                    |   |
| System111   | -   |
| Crossing Hillsides                                | F   |
| =   | Factory Default Preload   |
|   | Settings 171  |

| Failure to Inspect Before   | K                                       |
|---|---|
| Operating         20           Fluid Change         147           Foot Pedals         44           Front / Rear Shock   | Know Your Riding Area / Tread Lightly85 |
| Compression Adjustment  | Lights                                  |
| Gear Selector   | Maintenance Charts                      |
| Hauling Cargo.       97         Headlight Beam Adjustment.       177         Headlight Replacement.       176         Headlight Switch       33         Hood       38         Hot Exhaust Systems       29         How To Obtain Warranty         Service       206 | New Operator Driving Procedures         |
| _   | 0                                       |
| Ignition Switch   | Oil and Filter Change                   |
| Jumps and Stunts24  | Operating on Public Roads               |

| Operation on Public Lands in   | Seat Belt   | 41  |
|--|---|---|
| the U.S.A111   | Seat Belt Inspection  |   |
| Operator Restrictions/ Age   | Seat Belt Warning   | 13  |
| Restrictions19   | Seat Belts  | 21  |
|  | Seats   | 36  |
|  | Service Access Panels   | 42  |
| Р  | Shock Adjustment  |   |
| Г  | Recommendations   | . 169   |
| Parking on an Incline 96   | Shock Loading the Winch   | 109   |
| Parking the Vehicle85  | Signal Words  | 4   |
| Passenger Hand Hold37  | Skidding or Sliding   |   |
| Passengers in the Cargo Box 23   | Spark Arrester  |   |
| Periodic Maintenance Chart113  | Spark Plug Condition  | 152   |
| Polaris Products   | Spark Plug Gap / Torque   |   |
| POLARIS Variable   | Spark Plug Removal and  | . 101   |
| Transmission (PVT) System 158  | Replacement   | 151   |
| Polishing the Vehicle  | Specifications  | 180   |
| Pre-Ride Inspection81  | Stalling While Climbing a Hill  | 25  |
| Pressure Tank Coolant Level 157  | Starting the Engine   |   |
| Programmable Service Interval 56   | Steering Wheel  |   |
| Proper Use Warning12   | Steering Wheel Inspection   | 178   |
| Protective Apparel   | Stopping the Engine   | . 170   |
| PVT Drying   | Storage Tips  |   |
| 1 VI Dryllig 101   | Suspension Mode Switch  |   |
|  | Switches  | 55  |
| В  | Mode Button   | 40  |
| R  | wode bullon   | 45  |
|  |   |   |
| Radiator Coolant Level /   |   |   |
| Radiator Coolant Level /   | <b>T</b>  |   |
| Changing Coolant 156   | Т   |   |
| Changing Coolant   | -   | 40  |
| Changing Coolant   | Tachometer  | 49  |
| Changing Coolant156Radiators and Cooling Fan155Refueling28Registration203  | TachometerTaillight / Brake Light   |   |
| Changing Coolant156Radiators and Cooling Fan155Refueling28Registration203Rider Information Center51  | Tachometer Taillight / Brake Light Replacement  | . 176   |
| Changing Coolant156Radiators and Cooling Fan155Refueling28Registration203Rider Information Center51Riders Warning12  | Tachometer Taillight / Brake Light Replacement Throttle Pedal   | . 176<br>44   |
| Changing Coolant   | Tachometer Taillight / Brake Light Replacement Throttle Pedal Tire Rotation   | . 176<br>44<br>. 174  |
| Changing Coolant       156         Radiators and Cooling Fan       155         Refueling       28         Registration       203         Rider Information Center       51         Riders Warning       12         Rollover Protective Structure       (ROPS)         45-46  | Tachometer Taillight / Brake Light Replacement Throttle Pedal Tire Rotation Tires   | . 176<br>44<br>. 174<br>. 173   |
| Changing Coolant   | TachometerTaillight / Brake Light ReplacementThrottle PedalTire RotationTiresTowing   | . 176<br>44<br>. 174<br>. 173<br>99   |
| Changing Coolant       156         Radiators and Cooling Fan       155         Refueling       28         Registration       203         Rider Information Center       51         Riders Warning       12         Rollover Protective Structure       (ROPS)         45-46  | Tachometer Taillight / Brake Light Replacement Throttle Pedal Tire Rotation Tires Towing Towing a RZR   | . 176<br>44<br>. 174<br>. 173<br>99   |
| Changing Coolant       156         Radiators and Cooling Fan       155         Refueling       28         Registration       203         Rider Information Center       51         Riders Warning       12         Rollover Protective Structure       (ROPS)         45-46       Roof Warning       16  | Tachometer Taillight / Brake Light Replacement Throttle Pedal Tire Rotation Tires Towing Towing a RZR Trail Etiquette   | . 176<br>44<br>. 174<br>. 173<br>99   |
| Changing Coolant       156         Radiators and Cooling Fan       155         Refueling       28         Registration       203         Rider Information Center       51         Riders Warning       12         Rollover Protective Structure       (ROPS)         45-46  | Tachometer Taillight / Brake Light Replacement Throttle Pedal Tire Rotation Tires Towing Towing Trail Etiquette Transmission  | . 176<br>44<br>. 174<br>. 173<br>99<br>. 100<br>87                                  |
| Changing Coolant       156         Radiators and Cooling Fan       155         Refueling       28         Registration       203         Rider Information Center       51         Riders Warning       12         Rollover Protective Structure       (ROPS)       45-46         Roof Warning       16  | Tachometer Taillight / Brake Light Replacement Throttle Pedal Tire Rotation Tires Towing Towing a RZR Trail Etiquette Transmission Fluid Check  | . 176<br>44<br>. 174<br>. 173<br>99<br>. 100<br>87                                  |
| Changing Coolant       156         Radiators and Cooling Fan       155         Refueling       28         Registration       203         Rider Information Center       51         Riders Warning       12         Rollover Protective Structure       (ROPS)       45-46         Roof Warning       16     Safe Operation Practices     83  | Tachometer Taillight / Brake Light Replacement Throttle Pedal Tire Rotation Tires Towing Towing a RZR Trail Etiquette Transmission Fluid Check Transmission (Main Gearcase)                                       | . 176<br>44<br>. 174<br>. 173<br>99<br>. 100<br>87                                  |
| Changing Coolant       156         Radiators and Cooling Fan       155         Refueling       28         Registration       203         Rider Information Center       51         Riders Warning       12         Rollover Protective Structure       (ROPS)       45-46         Roof Warning       16         S         Safe Operation Practices       83         Safe Riding Gear       10  | Tachometer  | . 176<br>44<br>. 174<br>. 173<br>99<br>. 100<br>87<br>. 146<br>. 146                |
| Changing Coolant       156         Radiators and Cooling Fan       155         Refueling       28         Registration       203         Rider Information Center       51         Riders Warning       12         Rollover Protective Structure       (ROPS)       45-46         Roof Warning       16     Safe Operation Practices  83  Safe Riding Gear  10  Safety Labels and Locations  12  | Tachometer Taillight / Brake Light Replacement Throttle Pedal Tire Rotation Tires Towing Towing a RZR Trail Etiquette Transmission Fluid Check Transmission (Main Gearcase) Transporting the Vehicle Turbo System | . 176<br>44<br>. 174<br>. 173<br>99<br>. 100<br>87<br>. 146<br>. 146<br>. 186<br>38 |
| Changing Coolant       156         Radiators and Cooling Fan       155         Refueling       28         Registration       203         Rider Information Center       51         Riders Warning       12         Rollover Protective Structure       (ROPS)       45-46         Roof Warning       16     Safe Operation Practices  83  Safe Riding Gear  10  Safety Labels and Locations  12  Safety Symbols  4   | Tachometer  | . 176<br>44<br>. 174<br>. 173<br>99<br>. 100<br>87<br>. 146<br>. 146<br>. 186<br>38 |
| Changing Coolant       156         Radiators and Cooling Fan       155         Refueling       28         Registration       203         Rider Information Center       51         Riders Warning       12         Rollover Protective Structure       (ROPS)         45-46       Roof Warning         S         Safe Operation Practices       83         Safe Riding Gear       10         Safety Labels and Locations       12         Safety Symbols       4         Safety Training       9 | Tachometer Taillight / Brake Light Replacement Throttle Pedal Tire Rotation Tires Towing Towing a RZR Trail Etiquette Transmission Fluid Check Transmission (Main Gearcase) Transporting the Vehicle Turbo System | . 176<br>44<br>. 174<br>. 173<br>99<br>. 100<br>87<br>. 146<br>. 146<br>. 186<br>38 |
| Changing Coolant       156         Radiators and Cooling Fan       155         Refueling       28         Registration       203         Rider Information Center       51         Riders Warning       12         Rollover Protective Structure       (ROPS)       45-46         Roof Warning       16     Safe Operation Practices  83  Safe Riding Gear  10  Safety Labels and Locations  12  Safety Symbols  4   | Tachometer Taillight / Brake Light Replacement Throttle Pedal Tire Rotation Tires Towing Towing a RZR Trail Etiquette Transmission Fluid Check Transmission (Main Gearcase) Transporting the Vehicle Turbo System | . 176<br>44<br>. 174<br>. 173<br>99<br>. 100<br>87<br>. 146<br>. 146<br>. 186<br>38 |

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Part No. 9929465 Rev 02 Printed in USA

