

A card containing important ATV safety information should be attached to the owner's manual on the next page. If you cannot located this card, or if it has been removed, please call 1–800–342–3764 for assistance.

## **M** WARNING

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



## 2018 Owner's Manual

ACE 500 ACE 570

## **IMPORTANT SAFETY INFORMATION**

Scan this QR code with your smartphone to see an important Safety Video regarding your Polaris ACE vehicle.

This safety video can also be found at http://www.polaris.com/en-us/rider-support/safety. If you are on the homepage of the Polaris website, click on the Rider Community heading and select "Product Safety and Training Information" from the dropdown menu to access this page.



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

2018 ACE 500 / ACE 570 Owner's Manual

9928117

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.

- Snowmobiles
- All-terrain vehicles (ATVs)
- 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

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

For safe and enjoyable operation of your vehicle, be sure to follow the instructions and recommendations in this owner's manual. Review the safety DVD that came with your vehicle. POLARIS also recommends that all drivers take the ROHVA safety e-course and a ROHVA hands-on safety training course. Visit www.rohva.org or call 866-267-2751.

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.

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## INTRODUCTION

### **▲** WARNING

WARNING indicates a hazardous situation that, if not avoided, may result in death to the operator, bystanders or person(s) inspecting or servicing the vehicle.

#### CAUTION

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

## **A** CAUTION

SAFETY ALERT CAUTION indicates a potential hazard that may result in minor personal injury or damage to the vehicle.

#### **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.



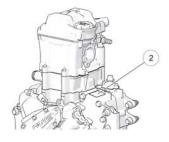
The Mandatory Action Sign indicates an action that NEEDS to be taken to avoid a hazard.

## **VEHICLE IDENTIFICATION NUMBERS**

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



① Vehicle Identification Number (VIN)



② Engine Serial Number

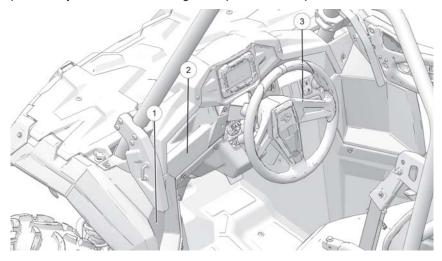
Vehicle Model Number:	
Vehicle Identification Number (VIN):	
Engine Serial Number:	
Key Number	

## **SAFETY**

## SAFETY LABELS AND LOCATIONS

Warning labels 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.



- 1 Seat Belt / Driver Warning
- 3 Maximum Payload Warning
- ② Proper Use Warning

## **SEAT BELT / DRIVER WARNING (7185102)**

#### WARNING

#### Improper vehicle use can result in SEVERE INJURY or DEATH

#### Be Prepared

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

#### **Drive Responsibly**

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).



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

#### Be Sure to 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 and brace yourself.
- Do not put any part of your body outside of the vehicle for any reason.

## PROPER USE WARNING (7185101)

#### WARNING

## Require Proper Use of Your Vehicle

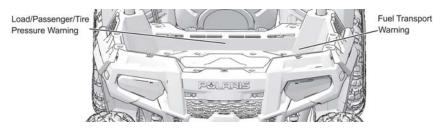
Do your part to prevent injuries:

- · 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 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.
- Do not exceed seating capacity: 1 occupant.



## MAXIMUM PAYLOAD WARNING (7186123) WARNING

Never exceed 35 mph (56 kph) if total payload exceeds 245 lbs (111 kg).



# LOAD/PASSENGER/TIRE PRESSURE WARNING (7186083) WARNING

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

#### WARNING

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.

	ACE
MAXIMUM CARGO BOX LOAD	240 lbs. (108 kg)
TIRE PRESSURE IN PSI (KPa)	FRONT 7 (48) REAR 7(48)
MAXIMUM WEIGHT CAPACITY INCLUDES WEIGHT OF OPERATOR, CARGO AND ACCESSORIES	575 lbs. (260 kg)

Read Operation and Maintenance Manual for more detailed loading information.

## HITCH CAPACITY LABEL (7170509)

TRAILER MAX WEIGHT: 1500 LBS. (682 KG) ON LEVEL GROUND 850 LBS. (386 KG) UP TO 15 DEGREES 850 LBS. (386 KG) UP TO 15 DEGREES

## **FUEL TRANSPORT WARNING (7186122)**

#### **WARNING**

NEVER carry fuel or other flammable liquids on this vehicle

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



## **PVT SYSTEM WARNING (7177469)**

#### 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 clutch and vent system when replacing belt.

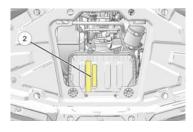
Read owner's manual or see authorized Polaris dealer.



1 PVT System Warning

# AIR BOX CAUTION (7181728) CAUTION

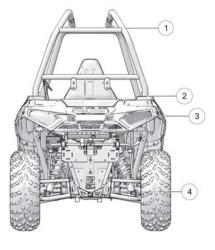
Use a Polaris approved air filter. The use of a non-Polaris approved air filter may cause engine damage. Before installing filter, ensure there is no dirt or debris in the clean side of the intake tube. The air filter must be properly seated before the lid is reinstalled. Please reference your owner's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

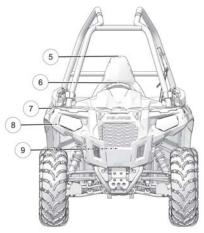


(2) Air Box Caution

# FEATURES AND CONTROLS

## **COMPONENT LOCATIONS**





- 1) ROPS Frame
  - ② Cargo Box
  - 3 Tail Lights
- (4) Receiver Hitch
- Single-Rider Seat
- 6 Steering Wheel

- ① Front Box Cover
  - 8 Headlights
    - (9) Radiator
- 10 PVT Intake Pre-Filter
- 11 Engine Intake Pre-Filter
- ② Cab Doors (If Equipped)





## TRAILER RECEIVER HITCH BRACKET

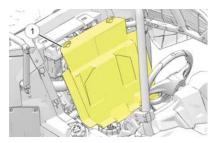
This vehicle is equipped with a receiver hitch bracket for a trailer hitch. Trailer towing equipment is not supplied with this vehicle.

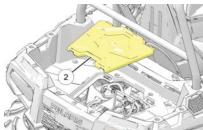
To avoid injury and property damage, always heed the warnings and towing capacities outlined in the Hauling Cargo section of your Rider's Manual.

## SERVICE ACCESS PANELS

Access serviceable engine components through the engine access panel 1 behind the seat. Remove the seat and release the access panel latches to remove the access panel.

Remove the rear access panel ② to access the air box, oil fill cap and spark plugs. The rear access panel is located in the bed of the cargo box. Pull the rear edge of the access panel upward to remove it.

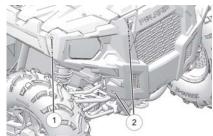




## RADIATOR ACCESS/BUMPER REMOVAL

The front bumper can be removed to clean debris from the radiator.

- 1. Remove the two (2) plastic rivets ① and four (4) torx screws②.
- 2. Lift the front bumper to remove it from the vehicle

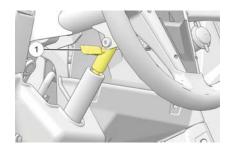


## STEERING WHEEL

Always make sure the steering wheel position does not impede proper operation of the brake pedal, throttle pedal and all other controls.

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.

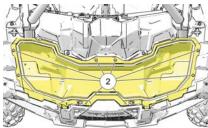


### FRONT BOX COVER

Open the front box cover and remove the access panel to access the radiator cap, coolant overflow bottle and brake master cylinder reservoir.

- 1. Turn the box cover fasteners ① 1/4 turn.
- 2. Lift the rear edge of the box cover.
- Using the pliers provided in the tool kit, remove the 8 push darts ② from the access panel.
- Remove the panel.





#### FEATURES AND CONTROLS

## **CAB NETS**

This vehicle is equipped with cab nets. Riding in this vehicle without using the cab nets (or doors, if equipped) increases the risk of serious injury or death in the event of an accident or rollover. Cab nets (or doors) must be used at all times. Make sure all latches on both sides of the vehicle are secure before operating the vehicle.

Always inspect cab nets and latches for tightness, wear and damage before each use of the vehicle. Use the strap adjusters to tighten any loose straps.

Promptly replace worn or damaged cab nets and latches with new cab nets and latches. Your POLARIS dealer can assist.

#### EXTREME USE BATTERY

An optional extreme use battery may be available for your model. If the performance of the factory-installed battery is inadequate due to operation in extreme cold or due to extended use of multiple electrical accessories, your POLARIS dealer can assist. Your dealer can provide any installation procedures that may differ for an extreme use battery.

## **ELECTRONIC POWER STEERING (EPS)**

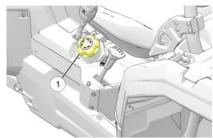
Electronic power steering (EPS), if equipped, engages when the ignition key is turned to the ON position. EPS remains engaged whether the vehicle is moving or idle. See page 25 for EPS Warning Indicator information.

## **FUEL CAP**

## NOTICE

Never use fuel blends with more than 10% ethanol. Engine damage could occur.

The fuel tank filler cap ① is located on the right side of the vehicle near the seat. Use only unleaded gasoline with a minimum pump octane number of 87 R+M/2 octane. Unleaded fuel blends with up to 10% ethanol can be used.

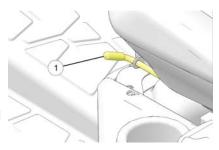


### **SEAT**

## **SEAT ADJUSTMENTS**

Always make sure the seat position allows for proper access and operation of the brake pedal, throttle pedal and all other controls.

The seat release lever ① is located at the left side of the seat. Push the release lever downward and slide the seat forward or rearward to the desired position. Release the lever. The seat will lock into the new position.



#### **SEAT REMOVAL**

- Push the seat release lever downward and slide the seat forward until it slides off the frame.
- 2. Lift the seat away from the vehicle.
- 3. Reverse the procedure to reinstall the seat.

#### **SEAT BELT**

This POLARIS vehicle is equipped with three-point lap and diagonal seat belts. Always secure the seat belt before riding.

To wear the seat belt properly, follow this procedure:

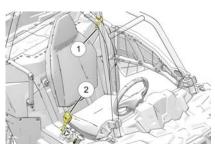
- Pull the seat belt latch downward and across your chest toward the buckle at the inner edge of the seat. The belt should fit snugly across your hips and diagonally across your chest. Make sure the belt is not twisted.
- 2. Push the latch plate into the buckle until it clicks.
- 3. Release the strap, it will self-tighten.
- 4. Press the red release latch on the buckle to release the seat belt.

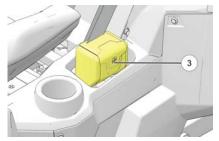
#### FEATURES AND CONTROLS

#### **SEAT BELT INSPECTION**

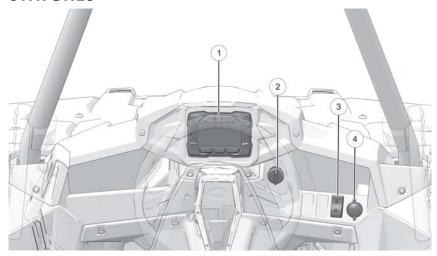
Inspect all seat belts for proper operation before each use of the vehicle.

- Push the latch plate ① into the buckle until it clicks. The latch plate must slide smoothly into the buckle. A click indicates that it's securely latched.
- 2. Push the red release latch ② in the middle of the buckle to make sure it releases freely.
- 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 an authorized POLARIS dealer.
- 4. 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. Use a garden hose to flush out the retractor ③ and latch housing ② regularly.





## **SWITCHES**



- 1) Instrument Cluster
- 3 Drive Mode (AWD) Switch
- ② Ignition Switch/Light Switch
- 4 12V Accessory Outlet

## **IGNITION SWITCH/LIGHT SWITCH**

Use the ignition switch to start the engine and to turn the lights on or off. The key can be removed from the switch when it is in the OFF position.



OFF	Turn the key to the OFF position to stop the engine. Electrical circuits are off.
LIGHTS ON	The lights are on. Electrical circuits are on. Electrical equipment can be used.
LIGHTS OFF	The lights are off. Electrical circuits are on. Electrical equipment can be used.
START	Turn the key to the START position to engage the electric starter. See the Starting the Engine section of your Rider's Manual for starting procedures.

## **DRIVE MODE (AWD) SWITCH**

The drive mode switch controls the All Wheel Drive (AWD/4X4) system. Use this switch to engage AWD (4X4) or 2X4. The vehicle automatically engages 4X4 when operating in reverse if the drive mode is set to AWD (4X4). See page 20 for drive mode (AWD) operating instructions.

#### **AWD**



2WD

**AWD** 

#### **AUXILIARY OUTLET**

The vehicle is equipped with a 12-volt accessory outlet on the dash. Use the outlet to power an auxiliary light or other optional accessories or lights. For service, the dash outlet connection is under the dash.

## ALL WHEEL DRIVE (AWD) SYSTEM

The drive mode switch controls the All Wheel Drive (AWD/4X4) system.

- Press and release the top of the switch to toggle through the drive mode options, which display in the information center of the gauge for several seconds.
- Press and release the bottom of the switch to toggle to a previous option.
- When the switch is released, the drive mode displayed in the information center is the active drive mode.

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.



2WD

#### **ENGAGING AWD**

AWD can be engaged or disengaged 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 disabled with the drive mode switch.

Engage AWD 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.

## **GEAR SELECTOR**

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.

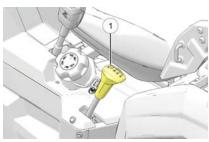
P: Park

R: Reverse

N: Neutral L: Low Gear

H: High Gear





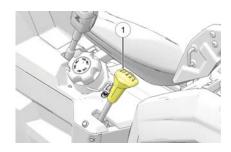
## **NOTICE**

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
- Towing heavy loads
- Operating consistently at speeds below 15 MPH (24 kmph)

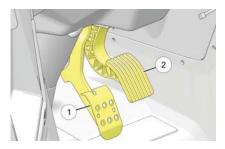


## **BRAKE PEDAL**

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

When the brake pedal is depressed, the brake light comes on. Check the brake light before each ride.

- 1. Turn the ignition switch to the LIGHTS ON position.
- Apply the brakes. The brake light should come on after about 10 mm (0.4 in.) of pedal travel.



## THROTTLE PEDAL

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

## TIP

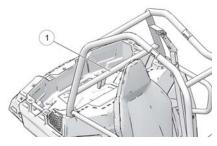
If the throttle pedal and brake pedal are applied simultaneously, engine power may be limited.

## **A** WARNING

Never start or operate this vehicle if it has a sticking or improperly operating throttle pedal. Immediately contact your POLARIS dealer or other qualified person for service if throttle problems arise.

## **ROLLOVER PROTECTIVE STRUCTURE (ROPS)**

The Rollover Protective Structure (ROPS) on this vehicle meets OSHA 1928.53 rollover performance requirements. Always have your authorized POLARIS dealer thoroughly inspect the ROPS if it ever becomes damaged in any way. 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.



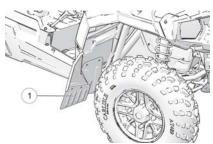
ROPS label ① located on ROPS behind cab.

## **A** WARNING

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

## MUD GUARDS (IF EQUIPPED)

If your vehicle comes pre-equipped with mud guards ①, see your certified dealer for proper disassembly and reassembly.



## INSTRUMENT CLUSTER

#### **OVERVIEW**



## NOTE

The use of a high pressure washer may damage the instrument cluster. Wash the vehicle by hand or with a garden hose using mild soap. 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 Gear Indicator	H = High Gear L = Low Gear N = Neutral R = Reverse Gear P = Park - = Gear Signal Error (or shifter between gears)
② Display Area 2	This area displays odometer, trip meter, trip meter 2, voltage, engine temperature, engine hour meter, programmable service hour interval, ground speed, or engine RPM.
③ Display Area 1	This area displays engine RPM, ground speed, or coolant temperature.
(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. All segments including the fuel icon will flash. Refuel immediately.
⑤ Service 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 33 for more information.
6 Clock	The clock displays time in a 12-hour or 24-hour format. See page 30 for more information.
① AWD Indicator	Segments of the indicator illuminate based on drive mode engaged.

## **INDICATOR LAMPS**



① 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 POLARIS dealer can assist.
② EPS Warning (if equipped)		This indicator illuminates when a fault has occurred in the EPS system. Your authorized POLARIS dealer can assist. EPS operation is possible with key on/engine off for up to 5 minutes.
③ Engine Hot		This lamp illuminates to indicate an overheated engine. If the indicator flashes, a severe overheating condition exists.
④ Neutral	Z	This lamp illuminates when the transmission is in neutral and the ignition key is in the ON position.
⑤ Helmet/Seat 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.
6 High Beam		This lamp illuminates when the headlamp switch is set to high beam.
① Chassis Fault	A	If applicable.
Performance     Limited	*	If applicable.

## **DISPLAY AREA 1**



Pressing the MODE button will change the information displayed in Area 1 ①.

Speed



Engine Temperature



RPM



Ambient Temperature (Optional)



## **DISPLAY AREA 2**



Toggle the Up/Down buttons to change the information displayed in Area 2 2.

Odometer	01 2 63 N 1234	Engine Temperature	ENG 179F N 12:34
Trip 1	1 1 957. N 1234 .	Ambient Temperature (Optional)	1795   1756   1834
Trip 2	179F   12   15 1 N 1234 (	RPM	RPM 179F 1 N 12:34
Voltage	VOL 15 12 1 N 12:34	Speed	MPH 179F 1 N 12:34
Engine Hours	ENG 2467 N 1234 B	Service Hours	5RV 35.1 N 1234 <b>70</b> .

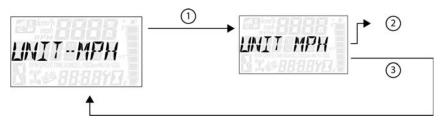
## **OPTIONS MENU**



Press and hold the MODE button to enter the Options Menu.

OPTIONS MENU	NOTES
Diagnostic Codes	(Only if fault codes are present or stored)
Units - Distance	
Units - Temp	
Clock	
Backlight Color	
Backlight Level	
Service Hours	
Exit Menu	

#### UNIT SELECTION DISTANCE



1. Press and hold the MODE button to enter the Options Menu.

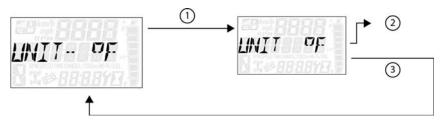
# NOTE "OPTIONS" will display on the screen for 3 seconds before showing first menu item

Select "Units-Distance" from the Options Menu by pressing the MODE button.

Reference the image shown above:

- 1) Press the MODE button.
- ② Toggle the Up/Down Buttons to change the units (MPH or KPH)
- ③ With the correct unit displayed, Press the mode button which will set the unit and return to the Options Menu.
- 3. To exit the Options Menu the user can select Exit Menu function from Options Menu, can hold Mode Button and exit out of Options Menu, or not press any button for 10 seconds, which will exit out of the Options Menu.

#### UNIT SELECTION TEMPERATURE



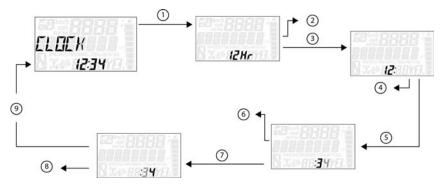
1. Press and hold the MODE button to enter the Options Menu.

#### **NOTE**

"OPTIONS" will display on the screen for 3 seconds before showing first menu item

- Select "Units Temp" from the Options Menu by pressing the MODE button. Reference the image shown above:
  - 1) Press the MODE button.
  - ② Toggle the Up/Down Buttons to change the units (°F or °C)
  - ③ With the correct unit displayed, Press the mode button which will set the unit and return to the Options Menu.
- To exit the Options Menu the user can select Exit Menu function from Options Menu, can hold Mode Button and exit out of Options Menu, or not press any button for 10 seconds, which will exit out of the Options Menu.

#### **CLOCK**



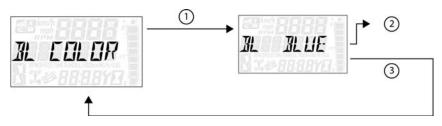
1. Press and hold the MODE button to enter the Options Menu.

## NOTE

"OPTIONS" will display on the screen for 3 seconds before showing first menu item

- 2. Select "Clock" from the Options Menu by pressing the MODE button. Reference the image shown above:
  - 1) Press the MODE button.
  - 2 Toggle the Up/Down Buttons to change the units (12H or 24H)
  - ③ With the correct unit displayed, Press the mode button which will set the unit.
  - 4) Toggle the Up/Down Buttons to change the units (Cycles Hours)
  - ③ With the correct unit displayed, Press the mode button which will set the unit.
  - ⑥ Toggle the Up/Down Buttons to change the units (Cycles 10s of Minutes)
  - ① With the correct unit displayed, Press the mode button which will set the unit.
  - ® Toggle the Up/Down Buttons to change the units (Cycles 1s of Minutes)
  - With the correct unit displayed, Press the mode button which will set the unit and return to the Options Menu.
- 3. To exit the Options Menu the user can select Exit Menu function from Options Menu, can hold Mode Button and exit out of Options Menu, or not press any button for 10 seconds, which will exit out of the Options Menu.

#### **BACK LIGHT COLOR**



Press and hold the MODE button to enter the Options Menu.

#### **NOTE**

"OPTIONS" will display on the screen for 3 seconds before showing first menu item

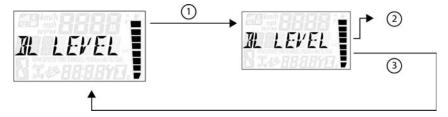
#### FEATURES AND CONTROLS

Select "Backlight Color" from the Options Menu by pressing the MODE button.

Reference the image shown above:

- 1) Press the MODE button.
- ② Toggle the Up/Down Buttons to change the units (Blue or Red)
- ③ With the correct unit displayed, Press the mode button which will set the unit and return to the Options Menu.
- To exit the Options Menu the user can select Exit Menu function from Options Menu, can hold Mode Button and exit out of Options Menu, or not press any button for 10 seconds, which will exit out of the Options Menu.

#### BACK LIGHT LEVEL



1. Press and hold the MODE button to enter the Options Menu.

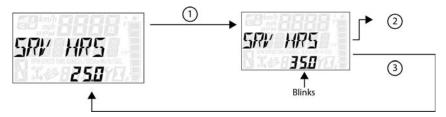
# NOTE "OPTIONS" will display on the screen for 3 seconds before showing first menu item

Select "Backlight Level" from the Options Menu by pressing the MODE button.

Reference the image shown above:

- 1) Press the MODE button.
- ② Toggle the Up/Down Buttons to change the units (Increase or Decrease Level)
- ③ With the correct unit displayed, Press the mode button which will set the unit and return to the Options Menu.
- 3. To exit the Options Menu the user can select Exit Menu function from Options Menu, can hold Mode Button and exit out of Options Menu, or not press any button for 10 seconds, which will exit out of the Options Menu.

#### SERVICE HOURS



1. Press and hold the MODE button to enter the Options Menu.

#### NOTE

"OPTIONS" will display on the screen for 3 seconds before showing first menu item

- 2. Select "Service Hours" from the Options Menu by pressing the MODE button. Reference the image shown above:
  - 1) Press the MODE button.
  - ② Toggle the Up/Down Buttons to change the units (0, 5, 10, 95,100)
  - ③ With the correct unit displayed, Press the mode button which will set the unit and return to the Options Menu.

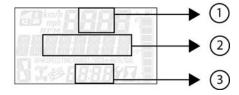
### **NOTE**

To reset service hours after they have counted down to "0.0" reselect the existing setpoint or select a new service hour value.

3. To exit the Options Menu the user can select Exit Menu function from Options Menu, can hold Mode Button and exit out of Options Menu, or not press any button for 10 seconds, which will exit out of the Options Menu.

#### DIAGNOSTIC CODE





## NOTE

Diagnostic Code Screen will show available MIL that has come on during that ignition cycle.

1. Press and hold the MODE button to enter the Options Menu.

#### NOTE

"OPTIONS" will display on the screen for 3 seconds before showing first menu item

Select "Diagnostic Codes" from the Options Menu by pressing the MODE button.

Toggle the Up/Down Buttons to cycle through Code(s).

## **NOTE**

This option will only be available if a fault code was set or is active during the current ignition key 'on' cycle. Turning off the ignition will clear any save fault codes from the gauge.

Reference the image shown above:

- ① Area A will Display FMI (XX)
- ② Area B will Display SPN (XXXXXX)
- 3 Clock Area will Display Count (XXX)
- To exit the Options Menu the user can select Exit Menu function from Options Menu, can hold Mode Button and exit out of Options Menu, or not press any button for 10 seconds, which will exit out of the Options Menu.

# **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. 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 PS-4 Full Synthetic 5W-50 4-Cycle Oil is specifically formulated for your 4-cycle engine.

### ENGINE AND DRIVETRAIN BREAK-IN

- Fill the fuel tank with gasoline. Use only unleaded gasoline with a minimum pump octane number of 87 R+M/2 octane. Unleaded fuel blends with up to 10% ethanol can be used. See the Fuel Cap section of your Vehicle Manual for the fuel tank's location. Always exercise extreme caution whenever handling gasoline.
- 2. Check the oil level. See the Engine Oil section of your Vehicle Manual for more information about this procedure. Add the recommended oil as needed to maintain the oil level in the safe operating range.
- Complete the New Operator Driving Procedures outlined in the Ace Safety Manual.
- 4. Avoid aggressive use of the brakes.
- 5. Vary throttle positions. Do not operate at sustained idle.
- 6. Pull only light loads.
- 7. Perform regular checks on fluid levels, controls and areas outlined on the daily pre-ride inspection checklist. See page 37.
- 8. 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. Break in the clutches and belt by operating at slower speeds during the break-in period as recommended. Pull only light loads. Avoid aggressive acceleration and high speed operation during the break-in period.

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

# 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
Brake system/pedal travel	Ensure proper operation
Brake fluid	Ensure proper level
Front suspension	Inspect, lubricate if necessary
Rear suspension	Inspect, lubricate if necessary
Steering	Ensure free operation
Tires	Inspect condition and pressure
Wheels/fasteners	Inspect, ensure fastener tightness
Frame nuts, bolts, fasteners	Inspect, ensure tightness
Fuel and oil	Ensure proper levels
Coolant level	Ensure proper level
Coolant hoses	Inspect for leaks
Throttle	Ensure proper operation
Indicator lights/switches	Ensure proper operation
Intake pre-filters	Inspect, clean
Headlamps	Check operation, apply POLARIS dielectric grease when lamp is replaced
Brake light/tail lamps	Check operation
Seat Latch	Push down on the seat back to ensure the latch is secure
Seat Belt	Check length of belt for damage, check latches for proper operation
Cab Doors (If equipped)	Check doors and latches for wear or damage.

### STARTING THE ENGINE

- Position the vehicle on a level surface outdoors or in a well ventilated area.
- 2. Sit in the driver's seat and fasten the seat belt. Secure the cab nets.
- Place the transmission in PARK.
- 4. Apply the brakes. Do not press the throttle pedal while starting the engine.
- Turn the ignition key to the START position. Engage the starter for a maximum of five seconds. Release the key when the engine starts. Turn the key to either LIGHTS ON or LIGHTS OFF.
- 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.
- Vary the engine RPM slightly with the throttle to aid in warm up until the engine idles smoothly.



### **NOTICE**

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

### **COLD WEATHER OPERATION**

If the vehicle is used year-round, check the oil level frequently. A rising oil level could indicate the accumulation of contaminates such as water or excess fuel in the bottom of the crankcase. Water in the bottom of the crankcase can lead to engine damage and must be drained. Water accumulation increases as outside temperature decreases.

### STOPPING THE ENGINE

- Release the throttle pedal completely and brake to a complete stop.
- Place the transmission in PARK.
- 3. Turn the engine off.
- Slowly release the brake pedal and make sure the transmission is in PARK before exiting the vehicle.

### **A** WARNING

A rolling vehicle can cause serious injury. Always place the transmission in PARK when stopping the engine.

### BRAKING

- Release the throttle pedal completely. (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.

### TIP

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

### 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.
- Turn the engine off.
- 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.

### TURNING THE VEHICLE

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

To turn the vehicle, rotate the steering wheel in the direction of the turn.

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

### **▲** WARNING

Turning improperly can result in vehicle rollover. Never turn abruptly or at sharp angles. Never turn at high speeds.

### HAULING CARGO

Your POLARIS vehicle has been designed to carry or tow specific capacities. 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. See the Specifications chapter of your Vehicle Manual.

### TIP

To extend belt life, use low gear when hauling or towing heavy cargo.

## 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
- Frequent or prolonged operation in dusty environments
- Short trip cold weather operation
- Racing or race-style high RPM use
- Prolonged low speed, heavy load operation
- · Extended idle

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 can assist.

# MAINTENANCE CHART KEY

SYMBOL	DESCRIPTION
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.

# **A** WARNING

Improperly performing the procedures marked with a **D** could result in component failure and lead to serious injury or death. Have an authorized POLARIS dealer or other qualified person perform these services.

Perform all services at whichever maintenance interval is reached first. Record maintenance and service in the Maintenance Log.

		MAINTENANCE INTERVAL (WHICHEVER COMES FIRST)			
ITEM		HOUR- S	CALENDAR	MILES (KM)	REMARKS
	Steering				
	Front Suspension				
	Rear Suspension				
	Tires				
	Brake Fluid Level				Inspect and make adjustments as
	Brake Lever Travel		Pre-Ride		needed. See the Pre-Ride Inspections section
	Brake System				of your Rider's Manual.
	Wheels / Fasteners				
	Frame Fasteners				
	Engine Oil Level				
	Intake pre-filters				
	Coolant	-	Daily	-	Check level daily, change coolant every two years
	Head Lights / Tail Lights	-	Daily	-	Check operation; apply dielectric grease if replacing
	Power Steering unit (If equipped)	-	Daily		Inspect daily, clean often
χU	Air Filter (main element)	-	Weekly	-	Inspect; replace as needed
XU D	Brake Pad Wear	10 H	Monthly	100 (160)	Inspect periodically
χU	Engine Breather	25 H	Monthly	150 (250)	Inspect, clean, replace if necessary
	Battery	25 H	Monthly	250 (400)	Check terminals; clean; test

	MAINTENANCE INTERVAL (WHICHEVER COMES FIRST)				
ITEM	ITEM		CALENDAR	MILES (KM)	REMARKS
XU	Engine Oil Change	25 H	1 M	-	Break-in oil and filter change
ΧU	Front Gearcase Fluid	25 H	1 M	-	Break-in fluid level check
χU	Transmission Fluid	25 H	1 M	250 (400)	Break-in fluid level check
	Fuel System	25 H	1 M	-	Inspect; cycle key to pressurize fuel pump; check lines and fittings for leaks and abrasion
ΧU	General Lubrication	50 H	3 M	500 (800)	Lubricate all fittings, pivots, cables, etc.
	Shift Linkage	50 H	3 M	500 (800)	Inspect
D	Steering	50 H	6 M	500 (800)	Lubricate
ΧU	Front/Rear Suspension	50 H	6 M	500 (800)	Lubricate
χU	Throttle Cable	50 H	6 M	500 (800)	Inspect; adjust; lubricate; replace if necessary
	Throttle Body Intake Duct	50 H	6 M	500 (800)	Inspect ducts for proper sealing / air leaks
χU	Engine Oil Change	100 H	6 M	1000 (1600)	Change the oil and filter
ΧU	Front Gearcase Fluid	100 H	12 M	-	Change fluid
XU	Transmission Fluid	100 H	12 M	-	Change fluid
XU D	Fuel System	100 H	12 M	600 (1000)	Cycle key to pressurize fuel pump; check for leaks at fill cap, fuel lines/ rail and fuel pump; replace lines every two years
ΧU	Engine Mounts	100 H	12 M	1000 (1600)	Inspect
	Exhaust Pipe / Silencer	100 H	12 M	1000 (1600)	Inspect
χU	Spark Plug	100 H	12 M	600 (1000)	Inspect; replace as needed
χU	Radiator	100 H	12 M	1000 (1600)	Inspect; clean external surfaces
	Cooling System	100 H	12 M	1000 (1600)	Inspect coolant strength seasonally; pressure test system yearly
XU	Cooling Hoses	100 H	12 M	1000 (1600)	Inspect for leaks
XU	Wiring	100 H	12 M	1000 (1600)	Inspect for wear, routing, security; apply dielectric grease to connectors subjected to water, mud, etc.

	MAINTENANCE INTERVAL (WHICHEVER COMES FIRST)				
ITEM		HOUR- S	CALENDAR	MILES (KM)	REMARKS
	Drive belt	100 H	12 M	1000 (1600)	Inspect; replace as needed
D	Clutches (Drive/ Driven)	100 H	12 M	1000 (1600)	Inspect; clean; replace worn parts
D	Front Wheel Bearings	100 H	12 M	1000 (1600)	Inspect; replace as needed
D	Brake Fluid	200 H	24 M	2000 (3200)	Change every two years
ΧU	Valve Clearance	200 H	-	2000 (3200)	Inspect; adjust as needed
	Spark Arrestor	300 H	36 M	3000 (4800) Clean out; or remove clean out plu	
χU	Coolant	- 60 M -		-	Replace coolant (50/50 Extended Life Coolant)
D	Toe Adjustment	-			Inspect periodically; adjust as needed
	Headlight Aim	-			Adjust as needed

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

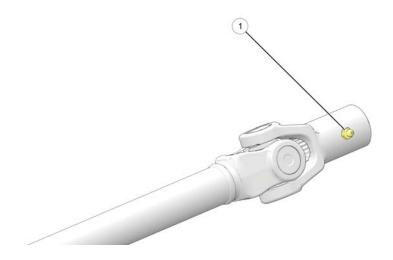
**D** Have an authorized Polaris dealer or other qualified person perform these services.

# **LUBRICATION RECOMMENDATIONS**

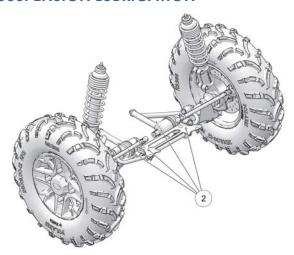
Check and lubricate all components at the intervals outlined in the Periodic Maintenance Chart beginning on page 42, or more often under severe use, such as wet or dusty conditions. Items not listed in the chart should be lubricated at the general lubrication interval.

ITEM	LUBE	METHOD
Engine Oil	PS-4 5W-50 4-Cycle Oil	Add to proper level on dipstick. See page 47.
Brake Fluid	DOT 4 Brake Fluid	Maintain level between fill lines. See page 63.
Transmission Oil (Main Gearcase)	AGL Gearcase Lubricant & Transmission Fluid	See page 51.
Demand Drive Fluid (Front Gearcase)	Demand Drive Fluid	See page 50.
Prop Shaft ①	U-Joint Grease	Locate fittings and grease.
Rear Control Arm Pivot Bushings ③	All Season Grease or grease conforming to NLGI No. 2	Locate fittings and grease.
Stabilizer Bar Bushings ②,④, Tie Rod Bushings, Ball Joint Boots	All Season Grease or grease conforming to NLGI No. 2	Locate fittings and grease.

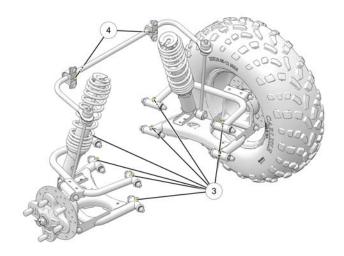
# **PROP SHAFT LUBRICATION**



# FRONT SUSPENSION LUBRICATION



# **REAR SUSPENSION LUBRICATION**



### **ENGINE OIL**

Always check and change the oil at the intervals outlined in the Periodic Maintenance Chart beginning on page 42. Always use the recommended engine oil. Always change the oil filter whenever changing oil.

### **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.

#### OIL RECOMMENDATIONS

POLARIS recommends the use of POLARIS PS-4 5W-50 4-Cycle Oil or a similar oil. Refer to the specifications section beginning on for capacities.

Oil may need to be changed more frequently if POLARIS PS-4 engine oil is not used. Follow the manufacturer's recommendations for ambient temperature operation. See the Lubricants / Service Products section of your Rider's Manual for the part numbers of POLARIS products.

### **NOTICE**

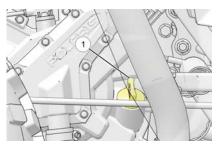
Mixing brands or using a non-recommended oil may cause serious engine damage. Always use the recommended oil. Never substitute or mix oil brands.

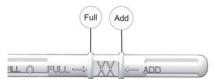
### **OIL CHECK**

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. Maintain the oil level in the safe range between the FULL and ADD marks on the dipstick.

The oil dipstick and fill tube ① is located on the engine, behind the passenger seat. Access the dipstick through the right rear wheel well.

- Position the vehicle on a level surface.
- 2. Place the transmission in PARK.
- Always clean away all dirt and debris from the dipstick area before removing the dipstick. Remove the dipstick. Wipe it dry with a clean cloth.
- 4. Reinstall and tighten the dipstick.
- 5. Remove the dipstick and check the oil level.
- Add the recommended fluid as needed. Maintain the oil level in the safe range between the FULL and ADD marks. Do not overfill.
- 7. Reinstall and tighten the dipstick.





#### **OIL AND FILTER CHANGE**

Always check and change the oil at the intervals outlined in the Periodic Maintenance Chart beginning on page 42. Always change the oil filter whenever changing oil.

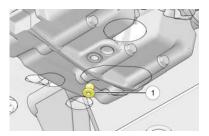
The engine drain plug ① is located on the bottom of the crankcase.

- Position the vehicle on a level surface. Place the transmission in PARK. Apply the brakes.
- 2. Start the engine. Allow it to idle for two to three minutes. Stop the engine.
- 3. Clean the area around the drain plug.

### **A** CAUTION

Hot oil can cause burns to skin. Do not allow hot oil to contact skin.

 Place a drain pan under the engine crankcase and remove the drain plug. Allow the oil to drain completely.





5. Reinstall the sealing washer on the drain plug.

### TIP

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

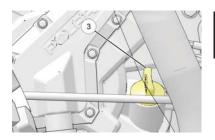
6. Reinstall the drain plug. Torque to specification.

### **TORQUE**

Drain Plug: 12 ft. lbs. (16 Nm)

- 7. Using a cap-style oil filter wrench, turn the filter ② counter-clockwise to remove it.
- 8. Using a clean dry cloth, clean the filter sealing surface on the crankcase. Make sure the old filter o-ring is completely removed.
- 9. Lubricate the o-ring on the new filter with a film of fresh engine oil. Check to make sure the o-ring is in good condition.
- 10. Install the new filter and turn by hand until the filter gasket contacts the sealing surface, then turn an additional 3/4 turn.

11. Always clean away all dirt and debris from the dipstick area before removing the dipstick ③. Remove the dipstick and fill the sump with two quarts (1.9 l) of recommended oil.



### **FLUID CAPACITY**

Capacity: 2.0 quarts (1.9 I)

- 12. Reinstall and tighten the dipstick.
- 13. Make sure the transmission is in PARK. Apply the brakes.
- 14. Start the engine. Allow it to idle for one to two minutes.
- 15. Stop the engine. Inspect for leaks.
- 16. Re-check the oil level on the dipstick and add oil as necessary to bring the level to the upper mark on the dipstick.
- 17. Dispose of used filter and oil properly.

# **DEMAND DRIVE UNIT (FRONT GEARCASE)**

Always check and change the fluid at the intervals outlined in the Periodic Maintenance Chart beginning on page 42. Refer to the Gearcase Specifications Chart on page 52 for recommended lubricants, capacities and torque specifications.

### **FLUID CHECK**

The fill plug ① is located on the bottom right side of the demand drive unit. Access the fill plug through the right front wheel well. Maintain the fluid level even with the bottom thread of the fill plug hole.

- 1. Position the vehicle on a level surface.
- 2. Remove the fill plug. Check the fluid level.
- 3. Add the recommended fluid to the bottom thread of the fill plug hole.
- 4. Reinstall the fill plug. Torque to specification.



#### **FLUID CHANGE**

The drain plug ② is located on the bottom of the gearcase.

- 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. If the o-ring is damaged, install a new o-ring.
- 5. Reinstall the drain plug. Torque to specification.
- 6. Add the recommended fluid to the bottom thread of the fill plug hole.
- 7. Reinstall the fill plug. Torque to specification.
- 8. Check for leaks. Discard used fluid properly.

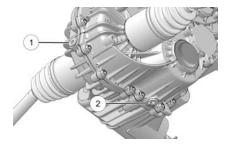
# TRANSMISSION (MAIN GEARCASE)

Always check and change the fluid at the intervals outlined in the Periodic Maintenance Chart beginning on page 42. Refer to the Gearcase Specifications Chart on page 52 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.

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



### **FLUID CHANGE**

The drain plug ② is located on the bottom of the gearcase between the rear tires. 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. Remove the drain plug. Allow the fluid to drain completely.
- 3. Clean the drain plug. Reinstall the drain plug with a new o-ring. Torque to specification.
- 4. Add the recommended fluid to the bottom of the fill plug hole. Do not overfill.

- 5. Reinstall the fill plug. Torque to specification.
- 6. Check for leaks. Discard used fluid properly.

# **GEARCASE SPECIFICATION CHART**

Use of other fluids may result in improper operation of components. See page 45 for the part numbers of POLARIS products.

GEARCASE	LUBRICANT	CAPACITY	FILL PLUG TORQUE	DRAIN PLUG/ LEVEL CHECK PLUG TORQUE
Transmission (Main Gearcase)	AGL Gearcase Lubricant & Transmission Fluid	44 oz. (1300 ml)	10-14 ft. lbs. (14-19 Nm)	10-14 ft. lbs. (14-19 Nm)
Demand Drive Unit (Front Gearcase)	Demand Drive Fluid	9 oz. (265 ml)	8-10 ft. lbs. (11-13.6 Nm)	8-10 ft. lbs. (11-13.6 Nm)

# **SPARK PLUGS**

# **SPARK PLUG RECOMMENDATIONS**

Refer to the specifications section beginning on for the recommended spark plug type for your vehicle. Always torque spark plugs to specification.

### **NOTICE**

Using non-recommended spark plugs can result in serious engine damage. Always use POLARIS-recommended spark plugs or their equivalent.

### **SPARK PLUG GAP / TORQUE**

MODEL	ELECTRODE GAP	NEW PLUG TORQUE	USED PLUG TORQUE
ACE 500	0.85 +/- 0.08mm	9 ft. lbs. (12 Nm)	9 ft. lbs. (12 Nm)
ACE 570	0.8 +/- 0.1 mm	without anti-seize	without anti-seize

#### 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.

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. General causes of fouling are excessive oil, use of non-recommended oil or poor fuel quality.

#### SPARK PLUG INSPECTION

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 plugs for correct color. See page 53.

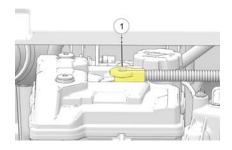
### **A** CAUTION

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

#### **CAUTION**

Engine must be cool before removing spark plug boot. Removing spark plug boot while engine is warm may cause damage.

- 1. Remove the cargo box access panel.
- 2. Remove the spark plug cap ①.
- Using the spark plug wrench provided in the tool kit, remove a plug by rotating it counterclockwise.
- 4. Reverse the procedure for spark plug installation.
- 5. Torque to specification. See page 52.

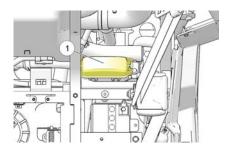


### **FUSES**

If the engine stops or will not start, 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.

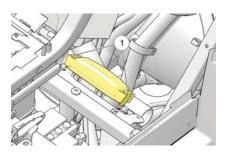
MAIN FUSE	FEATURE SUPPORTED
20 A	Lights: Headlights, Taillights
20 A	Drive: AWD
20 A	Accessory: Winch Switch, 12V Power Receptacle
10 A	Fuel Pump
10 A	EFI
20 A	Electronic Engine Control, Starting
30 A	Engine Control
30 A	EPS (Optional)
10 A	Constant Vehicle Power
15 A	Fan Circuit Braker - Auto Reset

The fuse box ① is located under the seat. Spare fuses are provided in the fuse box.



#### **FUSF BOX**

- Remove the seat to access the fuse box.
- Squeeze the cover release tabs ① inward and remove the fuse box cover
- Remove the suspect fuse from the fuse panel. If the fuse is blown, install a new fuse with the same amperage rating.
- 4. Reinstall the fuse box cover.
- Reinstall the seat.



### **POWER STEERING UNIT**

If your model is equipped with power steering, frequently clean the areas around and on the power steering unit to allow proper cooling. Clean these areas thoroughly.

# **COOLING SYSTEM**

#### **OPERATION**

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

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

#### TIP

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

### 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 Lubricants / Service Products section of your Rider's Manual for the part numbers of POLARIS products.

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.

#### RADIATOR AND COOLING FAN

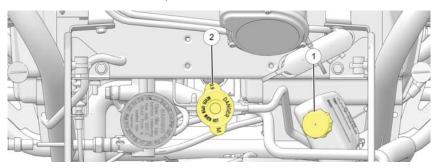
Always check and clean the screen and radiator fins at the intervals outlined in the Periodic Maintenance Chart beginning on page 42. Do not obstruct or deflect air flow through the radiator by installing unauthorized accessories in front of the radiator or behind the cooling fan. Interference with the radiator air flow can lead to overheating and consequent engine damage.

### **NOTICE**

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

#### RADIATOR COOLANT LEVEL

This procedure is required only if the cooling system has been drained for maintenance and/or repair. But if the overflow bottle ① has run dry, the level in the radiator should also be inspected.



### **A** 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. Open the front box cover and remove the storage bin. See page 15.
- 2. Slowly remove the radiator cap ②.
- 3. View the coolant level through the opening.
- 4. Use a funnel and slowly add coolant as needed.

### TIP

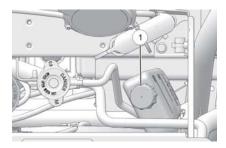
Use of a non-standard pressure cap will not allow the recovery system to function properly. Your POLARIS dealer can provide the correct replacement part.

#### COOLANT LEVEL

Always check and change the coolant at the intervals outlined in the Periodic Maintenance Chart beginning on page 42.

Maintain the coolant level between the minimum and maximum marks on the bottle (when the fluid is cool). The coolant level in the bottle can be viewed through the left front wheel well or in the compartment in the front box.





- Position the vehicle on a level surface.
- 2. View the coolant level in the overflow bottle ①.
- 3. If the coolant level is below the safe operating range, remove the cap and use a funnel to add coolant through the opening. Reinstall the cap.

#### TIP

If coolant must be added often, or if the overflow bottle 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 POLARIS dealer, or other qualified person, for service and repair assistance.
- 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 REPLACEMENT / DEBRIS REMOVAL**

If a belt fails, always clean any debris from the PVT intake and 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 clutch cover screws and open the clutch cover. Remove all debris wrapped in and around the PVT system.
- 3. Remove all debris from the entire clutch air duct passage.
- Check for signs of damage to seals on the transmission and engine. If any seals appear to be damaged, your vehicle requires prompt service that your POLARIS dealer can provide.

### 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.).

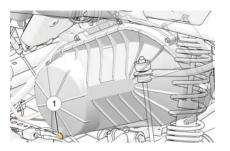
#### **PVT DRYING**

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 in your Rider's Manual for recommended washing procedures.

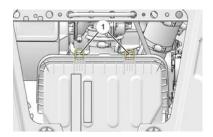
- Remove the drain plug ① from the bottom of the clutch box. Allow the water to drain. Reinstall the drain plug securely.
- 2. Place the transmission in PARK. Apply the brakes. Start the engine.
- Apply varying throttle for seconds to expel the moisture and air-dry the belt and clutches. Do not hold the throttle wide open for more than 10 seconds.
- Allow the engine RPM to settle to idle speed. Apply the brakes. Shift the transmission to the lowest available range.
- 5. Test for belt slippage. If the belt slips, repeat the process.
- Your vehicle requires service as soon as possible, which your POLARIS dealer can provide.

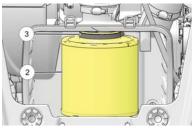


### **AIR FILTER**

Always clean all dirt and debris away from the air box area before servicing the air filter. Always change the air filter at the intervals outlined in the Periodic Maintenance Chart beginning on page 42.

- 1. Remove the cargo box access panel.
- 2. Clean all dirt and debris from the air box area.
- 3. Unlatch the cover clips (1) and carefully remove the air box cover.





4. Loosen the air filter clamp 3 and remove the filter 2.

### **NOTICE**

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

- Inspect the air box for dirt, debris, oil or water. Compress the edges of the air box drain to drain any water. Clean the air box thoroughly and wipe it well with a clean, dry cloth.
- Reinstall the filter. Install a new filter if needed. Do not attempt to clean the air filter. Tighten the clamp.
- 7. Reinstall the air box cover and secure the cover clips.
- 8. Reinstall the access panel.

# **HEAT SHIELDING**

### **A** WARNING

Your vehicle is equipped with heat shielding. Do not remove heat shielding. If heat shields become loose, or are removed, see your dealer to have shielding re-installed properly.

### **BREATHER HOSE INSPECTION**

- 1. Remove the breather hose clamp at the engine (near the exhaust outlet).
- 2. Pull the other end of the breather hose assembly away from the airbox.
- 3. Remove the breather hose assembly from the vehicle.
- Inspect the hoses for debris. Blow gently through the hoses to check for clogging. Replace a damaged or clogged hose.
- Check hoses for cracks, deterioration, abrasions or leaks. Replace as needed.
- 6. Reinstall the hose assembly and secure the clamp at the engine. Push the other end of the hose firmly into the airbox fitting.

### **NOTICE**

Operation of the vehicle without breather hoses can cause engine damage.

Always reinstall a breather hose after removing it for service.

### INTAKE PRE-FILTERS

The engine intake pre-filter ② is located on the right side of the cargo box. The PVT intake pre-filter ① is located on the left side of the cargo box.





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

## **NOTICE**

When washing the vehicle, always avoid spraying water directly toward the PVT intake duct. See the Washing the Vehicle section of your Rider's Manual for recommended washing procedures.

# **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.
- Check the air box. If water is present, dry the air box and replace the filter with a new filter.
- 3. Dry the spark plug wells with a clean cloth, then remove the spark plugs.
- 4. Turn the engine over several times.
- 5. Dry the spark plugs and reinstall them, or install new plugs.
- 6. Attempt to start the engine. If necessary, repeat the drying procedure.
- 7. 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 59 for drying.

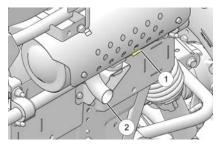
### **SPARK ARRESTER**

### **A** WARNING

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

- Do not perform clean-out immediately after the engine has been run, as the exhaust system becomes very hot. Serious burns could result from contact with the exhaust components. Allow components to cool sufficiently before proceeding.
- Wear eye protection and gloves.
- Never operate without the spark arrester.
- 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

Use the following procedure to periodically purge accumulated carbon from the exhaust pipe/muffler.



- 1. Remove the arrester clean-out plug ① from the bottom of the muffler.
- 2. Place the transmission in PARK. Start the engine.
- 3. Quickly press and release the throttle pedal several times to purge carbon from the system.
- 4. If carbon comes out of the exhaust, cover or plug the exhaust outlet ②. Wear protective gloves.
- 5. Lightly tap on the exhaust pipe with a rubber mallet while repeating step 4.
- 6. If particles are still suspected to be in the muffler, elevate the rear of the vehicle one foot (30 cm) higher than the front. Block the wheels.
- Place the transmission in PARK. Repeat steps 4 to 6 until no more particles are expelled.
- 8. Stop the engine. Allow the arrester to cool.
- 9. Reinstall the arrester plug and remove the exhaust outlet cover or plug.

### **BRAKES**

The front and rear brakes are hydraulic disc type brakes activated by the brake pedal. See page 22.

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. Proceed to the next page for brake fluid information.

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

### **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.

#### **BRAKE FLUID**

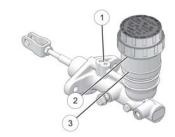
Inspect the level of the brake fluid before each operation. If the fluid level is low add DOT 4 brake fluid only. See the Lubricants / Service Products section of your Rider's Manual for the part numbers of POLARIS products.

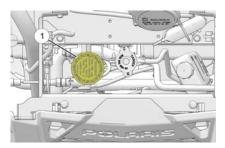
### **A** WARNING

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.

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.

- Position the vehicle on a level surface.
- 2. Place the transmission in PARK.
- Open the front box cover and remove the access panel. See page 15.
- View the brake fluid level in the reservoir ①. The level should be between the maximum ②and minimum ③ level lines.
- If the fluid level is lower than the lower level line, add brake fluid to the upper line.
- Apply the brake forcefully for few seconds and check for fluid leakage around the fittings.



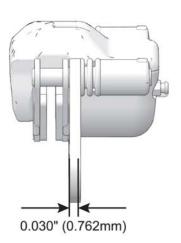


#### **BRAKE INSPECTION**

# **▲** 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).



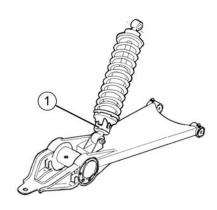
### STEERING WHEEL INSPECTION

Check the steering wheel for specified freeplay and smooth operation at the intervals outlined in the Periodic Maintenance Chart beginning on page 42.

- 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 the steering feels rough or "catchy," have the steering system inspected by an authorized dealer.

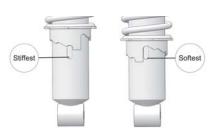
### **REAR SPRING**

The rear shock absorber spring is adjusted by rotating the adjuster ① either clockwise or counter-clockwise to increase or decrease spring tension. Accessory springs are available through your POLARIS dealer.



# SUSPENSION SETTINGS

The rear suspension is preload adjustable. The suspension is set on the lowest (softest) setting at the factory. This setting is appropriate for nearly all riding conditions. If desired, the suspension may be adjusted to maintain vehicle clearance height when carrying loads. Your POLARIS dealer can provide the tool required to make suspension adjustments. Elevate the vehicle slightly for easier adjustment.



Always heed the following rules if you make adjustments to this suspension.

- Always return the suspension to the lowest (softest) setting after the load is removed from the vehicle. The increased suspension height will negatively impact vehicle stability when operating without a load.
- Always apply the same adjustment setting to both rear wheels.
- Never operate the vehicle on the highest (stiffest) or second highest preload settings without a total combined payload in the vehicle of 450 lbs. (204 kg) or more. Payload includes the driver, POLARIS approved accessories and cargo. Never exceed the stated load capacity for this vehicle. See .

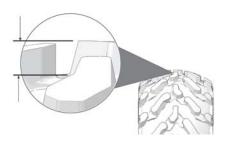
# **TIRES**

### **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) or less.



## **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 (Aluminum Wheels)	Front and Rear	30 ft. lbs. (41 Nm) PLUS 1/4 TURN or 70 degrees
2-Piece Flange Nut (Steel Wheels)	Front and Rear	30 +/- 2 ft. lbs. (40.6 Nm)
	Front	60 ft. lbs. (81 Nm)
Hub Retaining Nut	Rear	110 ft. lbs. (149 Nm)

#### WHEEL REMOVAL

- Position the vehicle on a level surface.
- 2. Place the transmission in PARK. Stop the engine.
- 3. Loosen the wheel nuts slightly.
- 4. Elevate the side of the vehicle by placing a suitable stand under the frame.
- 5. Remove the wheel nuts and washers. Remove the wheel.

#### WHEEL INSTALLATION

- Place the transmission in PARK.
- 2. Place the wheel on the hub with the valve stem toward the outside and rotation arrows on the tire pointing toward forward rotation.

## **A** WARNING

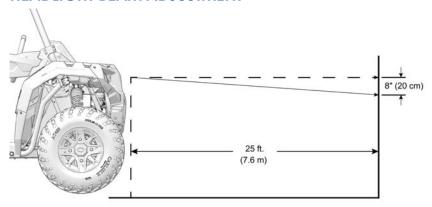
Improperly installed wheels can adversely affect tire wear and vehicle handling, which can result in serious injury or death. Always ensure that all nuts are torqued to specification. Do not service axle nuts that have a cotter pin installed. Your dealer can assist.

- 3. Attach the wheel nuts and washers and finger-tighten.
- 4. Carefully lower the vehicle to the ground.
- 5. Torque the wheel nuts to specification.

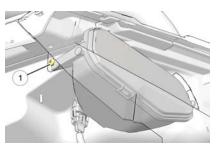
### LIGHTS

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

### **HEADLIGHT BEAM ADJUSTMENT**



- Place the vehicle on a level surface with the headlight approximately 25 ft. (7.6 m) from a wall. Place the transmission in PARK.
- Measure the distance from the floor to the center of the headlight and make a mark on the wall at the same height.
- 3. Apply the brakes. Turn the ignition switch to the LIGHTS ON position.
- 4. Observe the headlight aim. The most intense part of the headlight beam should be aimed 8" (20 cm) below the mark placed on the wall in step 2. Include the weight of a rider on the seat while performing this step.
- If adjustment is necessary, turn the headlight adjustment screw ① to adjust the beam.
- 6. Repeat steps 4-5 until the beam is properly adjusted.

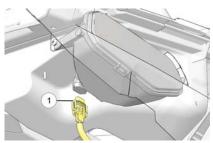


#### **HEADLAMPS**

If a headlight becomes damaged or inoperable, the entire headlight assembly must be replaced. Do not operate the vehicle at night or in low light conditions without properly working headlights.

If a headlamp has moisture or fogging inside, disconnect the wiring harness

① from the headlamp(s) for a few days to allow the moisture to clear out.



### 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.

#### **BATTERY**

#### **A** WARNING

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

Antidote:

External: Flush with water.

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

**Eyes**: Flush with water for 15 minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flame, cigarettes, etc. away. Ventilate when charging or using in an enclosed space. Always shield eyes when working near batteries. KEEP OUT OF REACH OF CHILDREN.

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

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. Be careful not to allow cleaning solution or tap water into a conventional 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.

#### **BATTERY REMOVAL**

- 1. Remove the seat. See page 17.
- 2. Remove the three (3) bolts ① securing the cup holder panel to the frame. Lift the panel to access the battery.
- 3. Remove the battery hold-down strap screws and remove the strap ②.
- 4. On conventional batteries, remove the battery vent tube.
- 5. Disconnect the black (negative) battery cable first.
- 6. Disconnect the red (positive) battery cable last.

#### MAINTENANCE

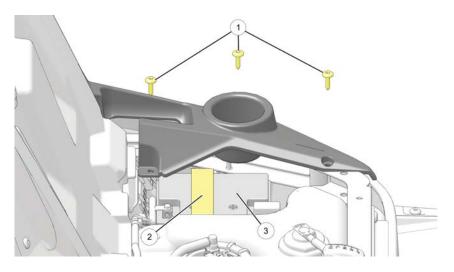
7. Lift the battery ③ out of the vehicle. Be careful not to tip a conventional battery sideways, which could spill electrolyte.

#### NOTICE

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

#### **NOTE**

The battery must be oriented so the battery terminals face toward the left-hand side 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 battery charging instructions on page 74 before installing the battery.

An optional extreme use battery may be available for your model. If the performance of the factory-installed battery is inadequate due to operation in extreme cold or due to extended use of multiple electrical accessories, your POLARIS dealer can assist. Your dealer can provide any installation procedures that may differ for an extreme use battery.

- 1. Ensure that the battery is fully charged.
- 2. Place the battery in the battery holder.

 On conventional batteries, install the battery vent tube (sealed batteries do not have a vent tube). The vent tube must be free of obstructions and securely installed. Route the tube away from the frame and vehicle body to prevent contact with electrolyte.

#### **A** WARNING

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

- 4. Coat the terminals with dielectric grease or petroleum jelly.
- 5. Connect and tighten the red (positive) cable first.
- Connect and tighten the black (negative) cable last.
- 7. Install the battery hold-down strap and tighten the screws.
- 8. Verify that cables are properly routed.
- 9. Reinstall the cup holder panel. Tighten the bolts.
- 10. Reinstall the seat.

#### **BATTERY STORAGE**

Whenever the vehicle is not used for a period of three months or more, remove the battery from the vehicle, ensure that it's fully charged, and store it out of the sun in a cool, dry place. Check battery voltage each month during storage and recharge as needed to maintain a full charge. See page 74.

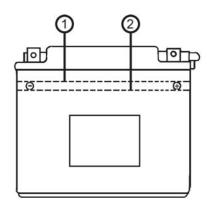
#### TIP

Battery charge can be maintained by using a POLARIS Battery Tender charger or by charging about once a month to make up for normal self discharge. Battery Tender can be left connected during the storage period, and will automatically charge the battery if the voltage drops below a predetermined point. See the Lubricants / Service Products section of your Rider's Manual for the part numbers of POLARIS products.

#### **BATTERY FLUID (CONVENTIONAL BATTERY)**

A poorly maintained battery will deteriorate rapidly. Check the battery fluid level often. Maintain the fluid level between the upper ① and lower level ② marks.

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



#### **BATTERY CHARGING (CONVENTIONAL BATTERY)**

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

#### **BATTERY CHARGING (SEALED BATTERY)**

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

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

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

#### **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.

- 1. Check the battery voltage with a voltmeter or multimeter. A fully charged battery will register 12.8 V or higher.
- 2. If the voltage is less than 12.8 volts, recharge the battery at 1.2 amps or less until battery voltage is 12.8 or greater.

#### TIP

When using an automatic charger, refer to the charger manufacturer's instructions for recharging. When using a constant current charger, use the guidelines on the next page for recharging.

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

STATE OF CHARGE	VOLTAGE	ACTION	CHARGE TIME*
*(USING CONSTANTOP OF BATTERY)	CURRENT CHARGE	R @ STANDARD AMI	PS SPECIFIED ON
100%	12.8-13.0 volts	None, check at 3 mos. from date of manufacture	None required
75%-100%	12.5-12.8 volts	May need slight charge, if no charge given, check in 3 months	3-6 hours
50%-75%	12.0-12.5 volts	Needs charge	5-11 hours
25%-50%	11.5-12.0 volts	Needs charge	At least 13 hours, verify state of charge
0%-25%	11.5 volts or less	Needs charge with desulfating charger	At least 20 hours

# **SPECIFICATIONS**

# **ACE 500**

POLARIS ACE 500		
Gross Vehicle Weight	1479 lbs. (670 kg)	
Dry Weight	842 lbs. (382 kg) (+/- 5%)	
Test GVW - Rollover Protection System (ROPS)	1505 lbs. (682.7 kg) per OSHA 29 CFR 1928.53	
Front Rack/Box Capacity	120 lbs. (54 kg)	
Rear Rack/Box Capacity	240 lbs. (108 kg)	
Maximum Weight Capacity (Payload)	575 lbs. (260 kg) (operator/cargo/accessories/ trailer tongue weight)	
Receiver Hitch Tongue Capacity	150 lbs. (68 kg)	
Receiver Hitch Towing Capacity	1500 lbs. (680 kg)	
Fuel Capacity	5.25 gal. (19.9 l)	
Engine Oil Capacity	2 qts. (1.9 l)	
Coolant System Capacity	96 oz. (2.8 l) excluding coolant bottle	
Coolant Bottle Capacity	8 oz. (237 ml)	
Demand Drive Fluid Capacity	6.75–7.6 oz. (200–225 ml)	
Transmission Oil Capacity	44 oz. (1300 ml)	
Overall Length/Width/Height	90/48/75.5 in. (228.6/122/191.8 cm)	
Wheelbase	61.5 in. (156.2 cm)	
Ground Clearance	10.25 in. (26 cm)	
Engine	4-Stroke SOHC Single Cylinder	
Displacement	500 cc	
Bore x Stroke	93 mm x 73.6 mm	
Alternator Output	560 W @ 7000 RPM	
Compression Ratio	10:1	
Starting System	Electric	
Fuel System	Electronic fuel injection	
Throttle Body Size	46 mm	

#### **SPECIFICATIONS**

POLARIS ACE 500		
Ignition System	ECU	
Ignition Timing	ECU Controlled	
Spark Plug / Gap	Autolite 5923 / 0.85 +/- 0.08 mm	
Front Suspension	MacPherson strut with 8.2 in. (20.8 cm) travel	
Rear Suspension	Dual A-arm, anti-sway bar with 9.5 in. (24.1 cm)	
Lubrication System	Wet Sump	
Engine Oil	PS-4 5W-50	
Driving System Type	Automatic POLARIS Variable Transmission	
Shift Type	Side Lever (H/L/N/R/P)	
Gear Reduction - Low	18.80:1	
Gear Reduction - Reverse	22.92:1	
Gear Reduction - High	10.40:1	
Drive Ratio - Front	3.818:1	
Tire Size - Front	24x8-12	
Tire Size - Rear	24x10-12	
Tire Pressure	Front: 7 psi (48 KPa) Rear: 7 psi (48 KPa)	
Brakes, Park	Park in Transmission	
Brakes, Front/Rear	Foot Activated, 4-wheel hydraulic disc	
Headlights	2 single beam, 55W halogen	
Taillights	2 single beam, 6W	
Brake Lights	2 single beam, 27W	
Instrument Cluster	LCD	
Auxiliary DC Outlet	12V	

# **CLUTCHING**

ALTITUDE		SHIFT WEIGHT	DRIVE SPRING	DRIVEN SPRING
Meters	0-1500 (0-5000)	25-52 5632409	35-240	BLK/ALMOND
(Feet)	1500-3700 (5000 - 12,000)	25-48 5633217	7043594	3235088

# **ACE 570**

POLARIS ACE 570		
Gross Vehicle Weight	1474 lbs. (669 kg)	
Dry Weight	853 lbs. (387 kg) (+/- 5%)	
Test GVW - Rollover Protection System (ROPS)	1505 lbs. (682.7 kg) per OSHA 29 CFR 1928.53	
Front Rack/Box Capacity	120 lbs. (54 kg)	
Rear Rack/Box Capacity	240 lbs. (108 kg)	
Maximum Weight Capacity (Payload)	575 lbs. (260 kg) (operator/cargo/accessories/ trailer tongue weight)	
Receiver Hitch Tongue Capacity	150 lbs. (68 kg)	
Receiver Hitch Towing Capacity	1500 lbs. (680 kg)	
Fuel Capacity	5.25 gal. (19.9 l)	
Engine Oil Capacity	2 qts. (1.9 l)	
Coolant System Capacity	96 oz. (2.8 l) excluding coolant bottle	
Coolant Bottle Capacity	8 oz. (237 ml)	
Demand Drive Fluid Capacity	6.75–7.6 oz. (200–225 ml)	
Transmission Oil Capacity	44 oz. (1300 ml)	
Overall Length/Width/Height	90/48/68 in. (228.6/122/173 cm)	
Wheelbase	61.5 in. (156.2 cm)	
Ground Clearance	10.25 in. (26 cm)	
Engine	4-Stroke DOHC Single Cylinder	
Displacement	567 cc	
Bore x Stroke	99 mm x 73.6 mm	
Alternator Output	560 W @ 7000 RPM	
Compression Ratio	10:1	
Starting System	Electric	
Fuel System	Electronic fuel injection	
Throttle Body Size	46 mm	
Ignition System	ECU	

#### **SPECIFICATIONS**

POLARIS ACE 570		
Ignition Timing	ECU Controlled	
Spark Plug / Gap	MR7F / 0.7-0.8 mm	
Front Suspension	MacPherson strut with 8.2 in. (20.8 cm) travel	
Rear Suspension	Dual A-arm, anti-sway bar with 9.5 in. (24.1 cm)	
Lubrication System	Wet Sump	
Engine Oil	PS-4 5W-50	
Driving System Type	Automatic POLARIS Variable Transmission	
Shift Type	Side Lever (H/L/N/R/P)	
Gear Reduction - Low	28.84:1	
Gear Reduction - Reverse	25.83:1	
Gear Reduction - High	9.65:1	
Drive Ratio - Front	2.989:1	
Tire Size - Front	25x8-12	
Tire Size - Rear	25x10-12	
Tire Pressure	Front: 7 psi (48 KPa) Rear: 7 psi (48 KPa)	
Brakes, Park	Park in Transmission	
Brakes, Front/Rear	Foot Activated, 4-wheel hydraulic disc	
Headlights	2 single beam, 55W halogen	
Taillights	2 single beam, 6W	
Brake Lights	2 single beam, 27W	
Instrument Cluster	LCD	
Auxiliary DC Outlet	12V	

## **CLUTCHING**

ALTITUDE		SHIFT WEIGHT	DRIVE SPRING	DRIVEN SPRING
Meters	0-1500 (0-5000)	25-52 5632409	35-240	BLK/ALMOND
(Feet)	1500-3700 (5000 - 12,000)	25-48 5633217	7043594	3235088

# TROUBLESHOOTING ACE PROBLEMS 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 .
Driving at low RPM or ground speed (3-7 MPH)	Drive at a higher speed or use low range more frequently.
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.
Towing/pushing at low RPM/ low ground speed	Use low range only.
Utility use/plowing	Use low range only.
Stuck in mud or snow	Shift the transmission to low range and carefully use fast, aggressive throttle application to engage clutch.
Stuck III mud of snow	WARNING: Excessive throttle may cause loss of control and vehicle rollover.
Climbing over large objects	Shift the transmission to low range and carefully use fast, brief, aggressive throttle application to engage clutch.
from a stopped position	WARNING: Excessive throttle may cause loss of control and vehicle rollover.
Belt slippage from water or snow ingestion into the PVT system	Dry out the PVT (see the PVT Drying section of your Vehicle Manual). Prevent water from entering the PVT intake duct. See Intake Pre-Filters for more information. Inspect clutch seals for damage if repeated leaking occurs.
Clutch malfunction	Your POLARIS dealer can assist.
Poor engine performance	Check for fouled plug 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 for one mile (5 miles 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 35.

#### TROUBLESHOOTING ACE PROBLEMS

#### **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

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

POSSIBLE CAUSE	SOLUTION
Out of fuel	Refuel
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 plug	Inspect plug and replace if necessary
No spark to spark plug	Inspect plug and replace if necessary
Water or fuel in crankcase	Your POLARIS dealer can assist
Low battery voltage	Recharge the battery to 12.8 VDC
Mechanical failure	Your POLARIS dealer can assist

#### **ENGINE BACKFIRES**

POSSIBLE CAUSE	SOLUTION
Weak spark from spark plug	Inspect, clean and/or replace spark plug
Incorrect spark plug gap or heat range	Set gap to specs or replace plug
Old or non-recommended fuel	Replace with fresh recommended fuel
Incorrectly installed spark plug wires	Your dealer can assist
Mechanical failure	Your dealer can assist
Loose ignition connections	Check all connections and tighten
Water present in fuel	Replace with fresh recommended fuel

#### **ENGINE PINGS OR KNOCKS**

POSSIBLE CAUSE	SOLUTION
Poor quality or low octane fuel	Replace with recommended fuel
Incorrect spark plug gap or heat range	Set gap to specs or replace plug

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

POSSIBLE CAUSE	SOLUTION
Fouled or defective spark plug	Inspect, clean and/or replace spark plug
Worn or defective spark plug wires	Your 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
Water present in fuel	Replace with new fuel
Low battery voltage	Recharge battery to 12.8 VDC
Incorrect fuel	Replace with recommended fuel
Clogged air filter	Inspect and clean or replace
Clogged intake pre-filter	Inspect and clean (with soapy water) or replace
Other mechanical failure	Your dealer can assist

#### **ENGINE STOPS OR LOSES POWER**

POSSIBLE CAUSE	SOLUTION
Out of fuel	Refuel
Kinked or plugged fuel vent line	Inspect and replace
Water is present in fuel	Replace with new fuel
Fouled or defective spark plug	Inspect, clean and/or replace spark plug
Worn or defective spark plug wires	Your 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

#### TROUBLESHOOTING ACE PROBLEMS

POSSIBLE CAUSE	SOLUTION
Low battery voltage	Recharge the battery to 12.8 VDC
Incorrect fuel	Replace with fresh recommended fuel
Clogged air filter	Inspect and clean or replace
Clogged intake pre-filter	Inspect and clean (with soapy water) or replace
Other mechanical failure	Your dealer can assist
Overheated engine	Clean radiator screen and core, clean engine exterior. Your dealer can assist.

# POLARIS PRODUCTS LUBRICANTS / SERVICE PRODUCTS

PRODUCT	SIZE (QUANTITY)	PART NUMBER	
Fagging Oil	12 oz aerosol (12)	2870791	
Fogging Oil	1 qt (12)	2871517	
	1 qt (12)	2876244	
PS-4	2 qt (8)	2877490	
	1 gal (4)	2876245	
	1 qt (12)	2878920	
PS-4 Extreme Duty	2 qt (8)	2878922	
	1 gal (4)	2878919	
401	1 qt (12)	2878068	
AGL	1 gal (4)	2878069	
Pump for Gallon Jug	3.81	2870465	
Demand Drive	1 qt (12)	2877922	
Demand Drive	2.5 gal (2)	2877923	
Antifrance / Content	1 qt (12)	2880514	
Antifreeze / Coolant	1 gal (6)	2880513	
Grease Gun Kit, Premium All Season	_	2871312	
All Cooper Crosse	Four 3 oz packs (6)	2871322	
All Season Grease	14 oz cartridge	2871423	
Premium Starter Grease	_	2871460	
U-Joint Grease	3 oz tube (24)	2871515	
0-30int Grease	14 oz cartridge	2871551	
Dielectric Grease (Nyogel™)	_	2871329	
Carbon Clean	12 oz bottle (12)	2871326	
Fuel Stabilizer	16 oz (12)	2870652	
Fuel Stabilizer	2.5 gal (2)	2872280	
DOT 4 Brake Fluid	_	2872189	
Loctite™ 565 Thread Sealant	_	2871956	
POLARIS Battery Tender™ Charger	_	2859044	

#### 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

- 1. 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 CONSEQUENTIAL, 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.

#### **EXPORTED PRODUCTS**

EXCEPT WHERE SPECIFICALLY REQUIRED BY LAW, THERE IS NO WARRANTY OR SERVICE BULLETIN COVERAGE ON THIS PRODUCT IF IT IS SOLD OUTSIDE THE COUNTRY OF THE SELLING DEALER'S AUTHORIZED LOCATION. This policy does not apply to products that have received authorization for export from POLARIS. Dealers may not give authorization for export. You should consult an authorized dealer to determine this product's warranty or service coverage if you have any questions. This policy does not apply to products registered to government officials or military personnel on assignment outside the country of the selling dealer's authorized location. This policy does not apply to Safety Bulletins.

#### 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:

- Aftertreatment 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.

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

#### WARRANTY

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

If you have any questions regarding your warranty rights and responsibilities, please contact POLARIS Customer Assistance:

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) OR HOURS	TECHNICIAN	SERVICE PERFORMED / COMMENTS

Α	D
ACE 500       77         ACE 500 Clutching       78         ACE 570       79         ACE 570 Clutching       80         Adding or Changing Coolant       55         Air Box Caution       12	Demand Drive Unit (Front Gearcase)
Air Filter	E
Auxiliary Outlet	Electronic Power Steering (EPS) 16 Emissions Limited Warranty 92 Engaging AWD
В	Engine Backfires
Battery       71         Charging       74         Battery Charging (Conventional Battery)       74         Battery Fluid (Conventional Battery)       74         Battery Installation       72         Battery Removal       71         Battery Storage       73         Belt Replacement/Debris Removal       58         Brake Fluid       64         Brake Inspection       65         Brake Pedal       22         Brake System Break-in       36         Brakes       63         Braking       39         Breather Hose Inspection       61	Engine Oil
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