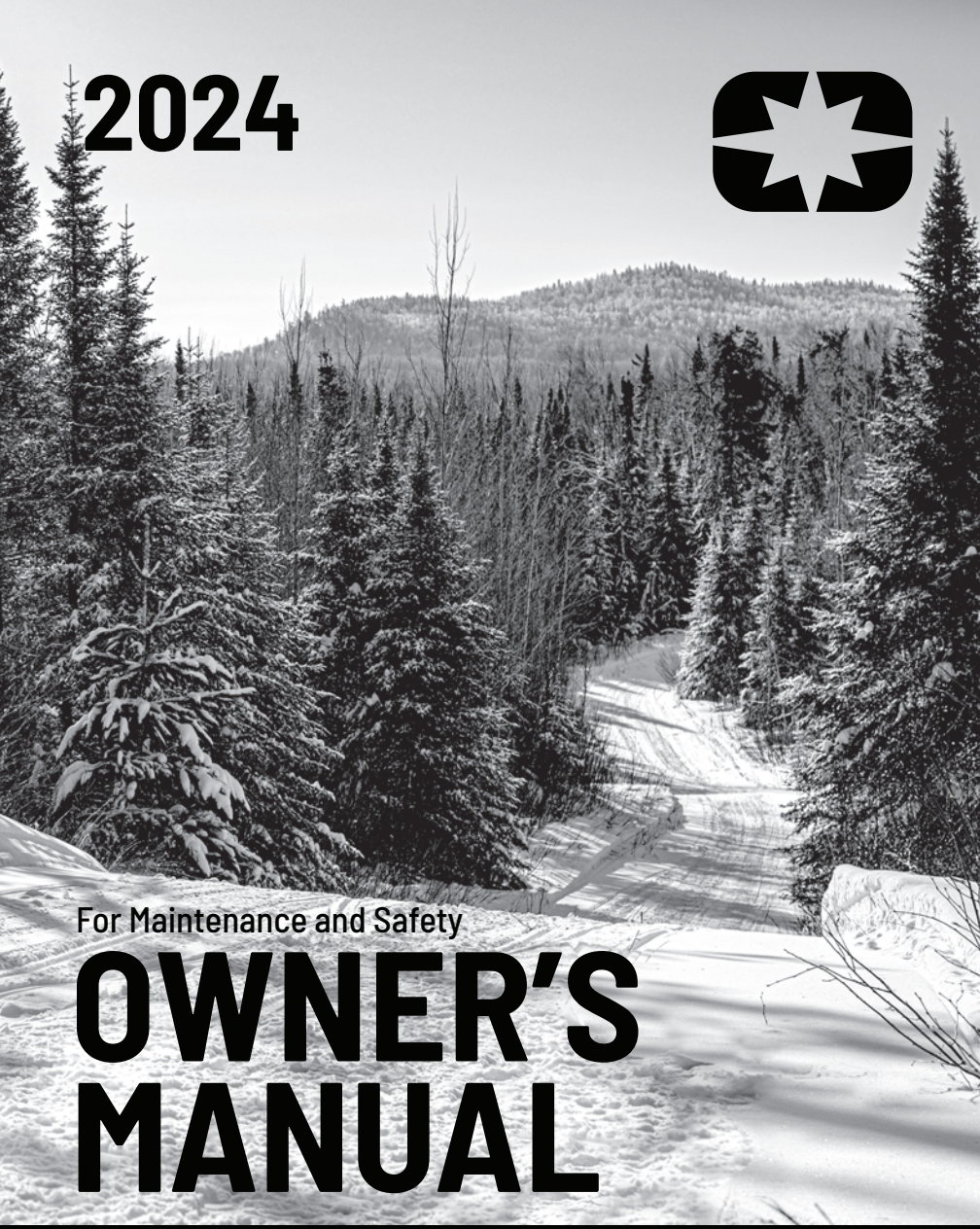
2024



For Maintenance and Safety

OWNER'S MANUAL

550 Indy Sport
550 Voyageur
550 Voyageur LXT
550 Voyageur LXT NorthStar
Indy Evo
550 Switchback
550 Voyageur Adventure
RMK Evo

POLARIS
Think Outside

WARNING

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

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

WARNING

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

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

For videos and more information about a safe riding experience with your Polaris vehicle, scan this QR code® with your smartphone or visit: www.polaris.com/en-us/safety/

POLARIS

2024 Owner's Manual

550 INDY Sport 121
550 Voyageur LXT
550 Voyageur LXT NorthStar
550 Voyageur 144
550 Voyageur Adventure 144
550 Voyageur 155
550 Switchback 144
INDY EVO
RMK EVO

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

Printed in U.S.A.

9941264 R01

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

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

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

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

For the most up-to-date owner's manual visit *https://www. polaris. com/en-us/owners-manuals*.

SAFETY SYMBOLS AND SIGNAL WORDS

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

DANGER

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

WARNING

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

CAUTION

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

NOTICE

NOTICE provides key information by clarifying instructions.

IMPORTANT

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

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.

INTRODUCTION

IMPORTANT NOTES FOR OWNERS AND DRIVERS

After reading this manual, store it in the snowmobile for convenient reference. It should remain with the snowmobile when the snowmobile is sold.

Some of the illustrations and photos used in this manual are general representations. Your model may differ.

Follow the maintenance program outlined in this manual. Preventive maintenance ensures that critical components of the snowmobile are inspected at specific mileage intervals. This service can be performed by your authorized POLARIS dealer.

You and your dealer must complete the registration form included with your snowmobile and forward it to us. This completed form is necessary to ensure warranty coverage.

Protect and preserve your right to ride by joining your local trail riding clubs.

When teaching inexperienced operators to ride, set up a predetermined course for practice. Make sure they know how to drive and control the snowmobile before allowing them to make longer trips. Teach them proper snowmobile courtesy, and enroll them in driver's training and safety courses sponsored by local or state organizations.

PRESERVATION OF THE ENVIRONMENT

POLARIS is committed to supporting an environmental education campaign. We encourage state and provincial governments across the snowbelt to adopt rigorous safety training programs that encourage protection of our environment, including wildlife and vegetation.

Snowmobile clubs and other organizations are working together to protect our environment. Please support their efforts and operate your snowmobile with consideration for the protection and preservation of our environment.

NOISE LEVEL

One of the most publicized issues about snowmobiles is noise. The Society of Automotive Engineers (SAE®), the standard-setting body for snowmobile development, recommends that snowmobiles conform to prescribed sound levels.

POLARIS snowmobiles are engineered to conform to these SAE® standards. Our muffler systems are designed to reduce noise levels and must not be altered or removed. The sound of your snowmobile may not be welcome to non-snowmobilers, so you have a responsibility to operate your snowmobile with concern for others. We do our part by manufacturing quieter machines; we ask your help to further reduce the impact of noise by operating your snowmobile safely and responsibly.

AIR POLLUTION

POLARIS engineers continuously investigate ways to reduce emission levels of two-stroke engines. We expect our efforts to lead to the reduction of potential air pollution.

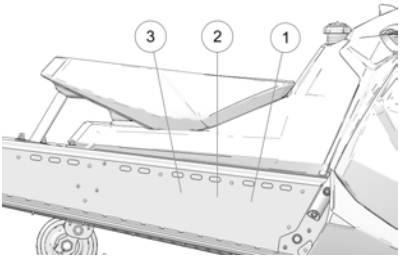
In addition to our technological research, we encourage government agencies, manufacturers, distributors, dealers, ecologists, and other interested parties to work together to develop data on environmental topics.

VEHICLE IDENTIFICATION NUMBERS

Record your snowmobile's identification numbers and key number in the spaces provided.

NOTICE
If installing an aftermarket tunnel wrap, do not cover the tunnel certification, tunnel VIN or emissions certification labels with the wrap. If the tunnel wrap doesn't provide an opening for these labels, remove the section of wrap where the labels are located.

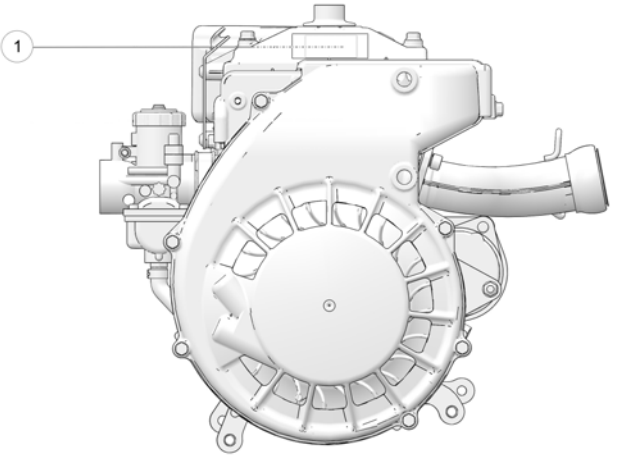
① Emissions Certification Label
② Tunnel VIN
③ Certification Label



VEHICLE MODEL NUMBER:	
TUNNEL VIN (RIGHT SIDE OF TUNNEL):	
ENGINE SERIAL NUMBER (ON RECOIL HOUSING):	
KEY NUMBER:	

ENGINE SERIAL NUMBER

The engine serial number ① is located on the identification label on top of the head cover.



KEY IDENTIFICATION

The ignition keys are etched with an identification number. Remove the spare key and store it in a safe place. Your key can be duplicated only by mating a POLARIS key blank using the same identification number with one of your existing keys, so if both keys are lost, the ignition switch assembly must be replaced.

SAFETY

OPERATOR SAFETY

Follow the recommended maintenance program beginning on page 68 of this manual to ensure that all critical components on the snowmobile are thoroughly inspected at specific mileage intervals. Your dealer can perform this service.

⚠ WARNING

Driving a snowmobile requires your full attention. DO NOT drink alcohol or use drugs or medications before or while driving or riding as a passenger. They will reduce your alertness and slow your reaction time.

Snowmobiles are capable of traveling at high speeds. Use extra caution to ensure operator safety. Make sure your snowmobile is in excellent operating condition at all times. Always check major and vital safety components before every ride.

All POLARIS snowmobiles are designed and tested to provide safe operation when used as directed. Failure of critical machine components may result from operation with any modifications, especially those that increase speed or power. DO NOT MODIFY YOUR MACHINE. The snowmobile may become aerodynamically unstable at speeds higher than those for which it is designed. Loss of control may occur at higher speeds. Modifications may also create a safety hazard and lead to bodily injury.

The warranty on your entire machine is terminated if any equipment has been added, or any modifications have been made, to increase the speed or power of the snowmobile.

STAY CLEAR OF TRACK

Your snowmobile is propelled by a revolving track that must be partially exposed for proper operation. Do not stand on the plastic flap.

⚠ WARNING

Serious injuries may result if hands, feet, or clothing become entangled in the track. Be alert when riding, and remain properly seated to stay clear of the track. Never hold the snowmobile up or stand behind it while warming up the track. A loose track or flying debris could cause serious injury or death. We recommend having your dealer perform all track service and alignment procedures.

STAY CLEAR OF ENGINE

Never attempt adjustments with the engine running. Turn off the ignition, open the side panels or hood, make the adjustment, secure shields and guards, secure the side panels and hood, and then restart the engine to check its operation.

⚠ WARNING

Serious injury can occur if fingers or clothing contact the moving parts of an engine. Always stop the engine before attempting adjustments.

RIDING POSITION

Operating a snowmobile requires skill and balance for proper control. Rider positions may vary with experience and the features available on some snowmobiles, but under many conditions, the proper position is to be seated with both feet on the running boards and both hands on the handlebar grips for proper throttle, brake and steering control.

⚠ WARNING

Improper riding position may reduce control and could result in serious injury or death. Always ride in a position that allows for control of your vehicle.

RIDING APPAREL

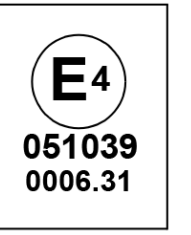
HELMET

Wearing a helmet can prevent a severe head injury. Whenever riding this POLARIS vehicle, always wear a helmet that meets or exceeds established safety standards. Clasp the buckle and pull each strap tight to ensure the helmet is properly secured to the head.

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

DOT

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



EYE PROTECTION

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

CLOTHING

⚠ WARNING

Avoid wearing loose clothing or long scarves, which can become entangled in moving parts and cause serious injury. Always wear an approved helmet and eye protection.

Be prepared, be warm and be comfortable when riding. Be aware of the weather forecast, especially the windchill, and dress accordingly. See page 20.

DISABLED OPERATORS

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

SURVIVAL PREPARATION

For your safety, always ride in a group of other snowmobilers. Always tell someone where you're going and how long you expect to be gone. If it isn't possible to ride with others, and you must travel into remote areas, always carry survival equipment that's appropriate to the conditions you may encounter. Such equipment may include, but is not limited to: extra clothing, a sleeping bag, a flashlight, food and water, a signaling mirror, a means of building a fire, and a two-way radio or cellular telephone.

Always carry the owner’s manual on your snowmobile. For added protection, purchase and carry the following items on your snowmobile as well:

- Spare Drive Belt
- Extra Set of Spark Plugs
- Tow Rope
- Fuel Deicer
- Winter Survival Kit
- Trail Map
- First Aid Kit
- Tool Kit

RIDER CAPACITY

Some POLARIS snowmobiles are designed for a single rider only, while some are designed for up to two riders. A safety label on the vehicle indicates whether the vehicle is designed for a single rider or for two riders.

EXCESSIVE SPEED

⚠ WARNING

High speed driving, especially at night, could result in serious injury or death. Always reduce speed when driving at night or in inclement weather.

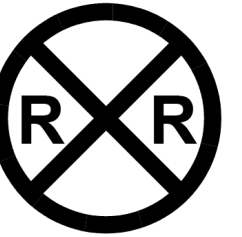
Always observe all state and local laws governing snowmobile operation and speed limits. Always be alert and pay attention to the trail ahead. If your speed is 40 MPH (64 km/h), your snowmobile is traveling about 60 feet (18 m) per second. If you look back for only two seconds, your snowmobile will travel about 120 feet (36 m). If your speed is 60 MPH (96 km/h), your snowmobile will travel about 180 feet (55 m) in two seconds.

Traveling at night requires extra caution. Check headlight and taillight to ensure proper operation, and don't over-drive your headlight beam. Always be able to bring your snowmobile to a stop in the distance illuminated by the headlight.

DRIVER AWARENESS

Slow down when traveling near poles, posts, or other obstacles. Be especially alert if you're snowmobiling after dark. Always be on the alert for wire fences. Single strands are especially dangerous, since there may be a great distance between posts. Guy wires on utility poles are also difficult to distinguish.

Make sure the way is clear before crossing railroads and other roads and highways. The noise of your snowmobile will drown out the sound of approaching vehicles and bare roads limit the effectiveness of the steering system. Look ahead, behind, and to both sides before turning or crossing railroad tracks or highways. Steep embankments may also hide your view. Always leave yourself a way out.



Variances in snow depth and/or water currents may result in uneven ice thickness. You may drown if you break through the ice. Never travel on frozen bodies of water unless you have first verified that the ice is sufficiently thick to support the weight and moving force of the snowmobile, you and your cargo, together with any other vehicles in your party. Always check with local authorities and residents to confirm ice conditions and thickness over your entire route. Snowmobile operators assume all risk associated with ice conditions on frozen bodies of water.

When teaching inexperienced operators to ride, set up a predetermined course for practice. Make sure they know how to drive and control the snowmobile before allowing them to make longer trips. Teach them proper snowmobile courtesy, and enroll them in driver's training and safety courses.

AVALANCHES

Snowmobilers should always be properly trained and equipped before traveling in mountainous terrain:

- Take an avalanche class
- Travel with experienced people
- Travel on designated trails
- Make sure each person is equipped with a shovel, probe and avalanche beacon.

You don't have to be snowmobiling on a slope for an avalanche to occur. Be aware that all of the snow is connected. You may be riding on a flat slope or snow covered road, but if the snowpack above is unstable enough you can trigger an avalanche on a steeper slope above you. Always be aware of snow conditions above you as you travel in mountainous terrain.

Before riding in mountainous terrain, call or log on to your local avalanche advisory to get current weather and snow stability information.

For more information about avalanche training and avalanche conditions, contact local law enforcement in your area, or visit the American and Canadian online avalanche centers at www.avalanche.org.

ICE AND SNOW BUILD-UP

⚠ WARNING

Ice and snow build-up may interfere with the steering of your snowmobile, resulting in serious injury or death. Keep the underhood area free of snow and ice.

Before driving, manually turn the skis to the left and right to be sure ice and snow are not interfering with full left and right steering. If difficulty is encountered, remove ice and snow build-up that may be obstructing the steering linkage.

DRIVING ON SLIPPERY SURFACES

⚠ WARNING

Never attempt an abrupt change of direction when operating on slippery surfaces. Proceed slowly and use extra caution. Driving on ice or hard-packed snow reduces steering and braking control, which may result in loss of control and serious injury or death. Slow down and use extra caution when operating on slippery surfaces.

INADEQUATE SNOW CONDITIONS

Since snow provides the only lubrication for the power slide suspension and, on liquid cooled models, cooling for the engine, adequate snow cover is a requirement for operation of your snowmobile.

NOTICE

Driving in too little snow will result in excessive wear and damage to the slide rail, track and/or engine.

⚠ WARNING

Inadequate cooling and lubrication will lead to overheating of the slide rail and track, causing premature wear, damage and failure, which can result in serious injury. Reduce speeds and frequently drive into fresh snow to allow adequate cooling and polishing of the slide rail and track surfaces. Avoid operating for prolonged periods on ice, hard-packed surfaces or roads.

OPERATING IN DEEP SNOW

If the snowmobile becomes stuck in snow, clear the running board area of snow, then step down the snow in front of the snowmobile so that when the throttle is opened, the snowmobile will be able to climb up and over the snow.

HIDDEN OBSTRUCTIONS

Always be aware of surroundings and terrain when riding your snowmobile. Hazardous obstructions may be hidden beneath the snow. Reduce speed and use extra caution whenever riding off established trails. Striking a hidden obstacle could cause loss of control of your vehicle and lead to severe injury or death. Remain on established trails whenever possible to reduce exposure to hazards.

DRIVING DOWNHILL

When riding downhill, shift your weight to the rear of the snowmobile and reduce your speed to a minimum. Apply just enough throttle to keep the clutch engaged, allowing the engine's compression to help slow the snowmobile and keep it from rolling freely downhill.

⚠ WARNING

When driving on long downhill stretches, pump the brakes. Riding the brakes may cause the brake system to overheat, which may result in brake failure. Excessive or repetitive use of the brakes for high speed stops will also cause an overheated brake system. This condition may lead to a sudden loss of brakes and/or fire and may result in serious injury or death.

DRIVING IN HILLY TERRAIN

⚠ WARNING

Climbing a hill or crossing the face of a slope may result in loss of balance and snowmobile rollover, causing serious injury or death. Use caution and good judgement when driving in hilly terrain.

Use extra caution when operating in hilly terrain. If climbing a hill is unavoidable, keep your weight low and forward. If you must cross the face of a slope, keep your weight on the uphill side of the snowmobile to maintain proper balance and avoid possible roll-over.

Slow down when reaching the crest of a hill. Be prepared to react to obstacles, sharp drops or other people or vehicles that may be on the other side of the hill.

If you're unable to continue up a hill, turn the snowmobile downhill before it loses momentum. If this isn't possible, spin the track just enough to dig in to prevent it from rolling back down the hill. Stop the engine and set the parking brake (if equipped). Keeping away from the downhill side of the snowmobile, pull the rear of the snowmobile around and point the front end and skis downhill. Remount the snowmobile, restart the engine, release the parking brake, and descend the hill carefully.

DRIVE BELT

Do not operate the engine with the drive belt removed.

Any servicing that requires operation without a belt can be performed by your dealer.

⚠ WARNING
Operation of the engine with the belt removed may result in injury or damage to the engine.

INTAKE SILENCER

Do not operate the engine with the intake silencer or filter removed.

NOTICE
Damage to the engine may occur if the intake silencer or filter are removed.

CLUTCHES

Do not attempt to service the clutches.

All clutch service can be performed by your dealer. The clutch is a complex mechanism that rotates at high speeds. Each clutch is dynamically balanced before installation. Any tampering may disrupt this precision balancing and create an unstable condition.

COLD WEATHER DRIVE-AWAY

Whenever your snowmobile has been parked for a length of time, especially overnight, always make sure the skis and track are loosened from ice and snow before attempting to drive. Apply the throttle with enough authority to put the snowmobile into motion, but always operate within safety limits.

On 2-up machines, always operate with respect for a passenger.

MANEUVERABILITY

While much control and maneuverability is achieved through the steering system and skis, maximum control is achieved by the shifting of your body weight. Maneuverability will change based on rider weight and foot position on running boards.

DRIVING RESPONSIBLY

Every snowmobile handles differently, and even the most docile conditions may become dangerous if operators drive improperly. If you're new to snowmobiling, acquaint yourself with the snowmobile and with what it will and won't do under various conditions. Even seasoned drivers should spend some time getting the feel for a snowmobile before attempting ambitious maneuvers.

- A snowmobile depends on the rider's body position for proper balance in executing turns, traversing hills, etc. Always start on a smooth, level area to begin building your operating experience.
- Before allowing someone else to use your snowmobile, know the extent of their operating skills. Check to see if they've taken a snowmobile safety course and have an operator's certificate. For their protection, as well as yours, make sure they take a snowmobile safety course. Everyone can benefit from the course.
- Don't “jump” your snowmobile over large drifts or similar terrain. Jumping may injure your back because of spinal compression that could occur when the snowmobile impacts the ground. The seat and suspension of your snowmobile have been designed to provide protection under normal riding conditions. Your snowmobile is not intended for this kind of use.
- Be courteous to oncoming traffic by dimming your headlights and reducing your speed.
- When traveling in a group of snowmobiles, don't tailgate (follow too closely). Leave enough distance between snowmobiles to provide ample stopping room and to provide protection from flying snow and debris. Allow even more distance when driving on slippery surfaces or when driving in darkness or other low visibility conditions. Be aware of any snowmobile traffic around your vehicle. Drive defensively to avoid accidents.
- Remove the key from the ignition when you leave the snowmobile unattended.

WINDCHILL/TEMPERATURE CHARTS

The following information is provided to help you determine when temperatures become dangerous for riding.

WINDCHILL CHART (°F)

Wind Speed in MPH	Actual Thermometer Reading (°F)																	
	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
	Equivalent Temperature (°F)																	
Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98
Frostbite in >>							30 min.		10 min.		5 min.							

WINDCHILL CHART (°C)

Wind Speed in Km/h	Actual Thermometer Reading (°C)																	
	5	2	-1	-4	-7	-10	-13	-16	-19	-22	-25	-28	-31	-34	-37	-40	-43	-46
	Equivalent Temperature (°C)																	
Calm	5	2	-1	-4	-7	-10	-13	-16	-19	-22	-25	-28	-31	-34	-37	-40	-43	-46
8	3	0	-4	-7	-11	-14	-18	-22	-25	-29	-32	-36	-39	-43	-46	-50	-53	-57
16	2	-2	-6	-10	-13	-17	-21	-24	-28	-32	-36	-39	-43	-47	-50	-54	-58	-62
24	1	-3	-7	-11	-15	-19	-22	-26	-30	-34	-38	-42	-45	-49	-53	-57	-61	-65
32	0	-4	-8	-12	-16	-20	-24	-28	-32	-36	-39	-43	-47	-51	-55	-59	-63	-67
40	-1	-5	-9	-13	-17	-21	-25	-29	-33	-37	-41	-45	-49	-53	-57	-61	-65	-69
48	-1	-5	-9	-13	-18	-22	-26	-30	-34	-38	-42	-46	-50	-54	-58	-62	-66	-70
56	-2	-6	-10	-14	-18	-22	-26	-31	-35	-39	-43	-47	-51	-55	-59	-64	-68	-72
64	-2	-6	-10	-15	-19	-23	-27	-31	-35	-40	-44	-48	-52	-56	-61	-65	-69	-73
72	-2	-7	-11	-15	-19	-23	-28	-32	-36	-40	-45	-49	-53	-57	-61	-66	-70	-74
80	-3	-7	-11	-15	-20	-24	-28	-33	-37	-41	-45	-50	-54	-58	-62	-67	-71	-75
88	-3	-7	-12	-16	-20	-24	-29	-33	-37	-42	-46	-50	-55	-59	-63	-67	-72	-76
96	-3	-8	-12	-16	-21	-25	-29	-34	-38	-42	-47	-51	-55	-60	-64	-68	-73	-77
Frostbite in >>							30 min.		10 min.		5 min.							

SAFETY LABELS AND LOCATIONS

Warning labels are placed on the snowmobile for your protection. Read and follow the instructions of the labels and warnings on the snowmobile carefully. If any of the labels depicted in this manual differ from the labels on your snowmobile, always read and follow the instructions of the labels on the snowmobile.

If any 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.

CLUTCH WARNING/BELT REMOVAL

This warning label is found on the clutch cover. Part number: 7176327.

⚠ WARNING

Do not operate engine with hood or side panels open.

Do not attempt adjustment with engine running.

Do not operate engine with the clutch guard removed.

Never run engine with drive belt removed.

Never service clutches yourself. See your dealer.

BELT REMOVAL - ALL UNITS

1. For electric reverse models, engine must be stopped in forward to allow clutch opening.
2. Install L-wrench from the tool kit into the open threaded hole in the driven clutch.
3. Turn the L-wrench clockwise to open the sheaves and replace the belt. Return the L-wrench to the tool kit.

SEE OWNER'S MANUAL FOR SHEAVE WIDTH ADJUSTMENT PROCEDURE.

NO PASSENGER WARNING

The No Passenger warning label is located near the steering post. Part number: 7172575.

⚠ WARNING
This vehicle is designed for operator only.
"NO PASSENGER"

PASSENGER WARNING

This label is applicable to passenger models only. If equipped, the label is located near the steering post. Part number: 7173385.

WARNING
This vehicle is designed for operator and “ONE” passenger only.

PASSENGER WEIGHT WARNING

The passenger weight warning label is located on the passenger seat, if equipped. Part number: 7179883.

WARNING
Max Passenger Weight 150 lbs (68 kg)
See Owner’s Manual for Required Suspension Adjustment.

OPERATION WARNING

The Operation Warning label is located on either side of the operator seat.

Part Numbers: 7176779 (English), 7176780 (French Canadian).

WARNING

- To avoid serious injury or death, read and understand all warnings and the Owner’s Manual before operation. If manual is missing, contact a POLARIS dealer for a replacement.
- This vehicle is capable of high speeds. Buried objects or uneven terrain can cause loss of control. Reduce speed and use extreme caution when operating in unfamiliar terrain.
- Excessive speed, especially at night or with limited visibility, can result in insufficient time for you to react to terrain changes, to avoid unexpected obstacles, or to stop safely.
- Never consume alcohol or drugs before or while operating this vehicle.
- In an emergency, push down the Auxiliary Shut-Off Switch, located on the top of the throttle control assembly, to stop the engine. Then pull the brake lever to stop.
- Always wear an approved helmet, eye protection, and adequate clothing while operating this vehicle.
- This vehicle is designed for adult use only. Check local laws for age requirements.
- When operating with a passenger (on approved models only), reduce speed and allow extra space for steering and stopping. A passenger reduces your ability to control the vehicle.
- When operating on hard-packed snow, ice, or when crossing roads, steering and braking ability are greatly reduced. Reduce speed and allow extra space to turn or stop.
- To maintain vehicle control on ice or hard-packed surfaces, you should have a proper balance of ski carbides to track studs. See Owner’s Manual for proper use of traction products.
- Repeated stops from high speed may cause fading or sudden loss of braking ability.

- Parking brake may relax when used for long periods. Do not leave brake engaged for more than five minutes.
- Before starting the engine, check throttle, brake, and steering for proper operation. Make sure hood is latched. Be seated and in position to control the vehicle.

Oil injection system: Use unmixed fuel only. Check oil level when refueling.

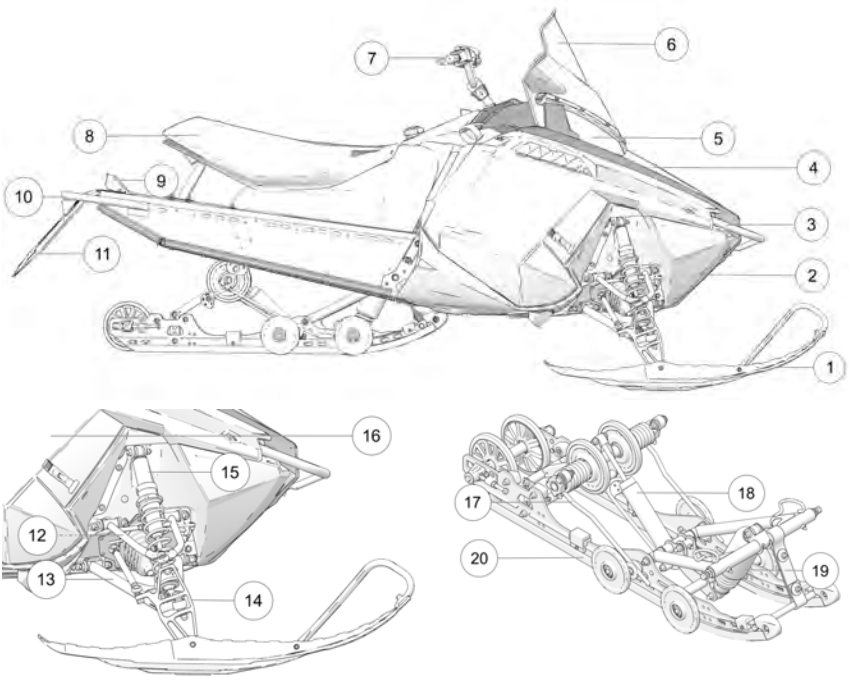
REPORTING SAFETY DEFECTS (CANADA)

To report a safety defect to Transport Canada, you may either fill out an online defect complaint form at their website (English: http://www/tc/gc/ca/recalls, French: http://www.tc.gc.ca/rappels) or contact their Defect Investigations and Recalls Division by calling toll-free 1-800-333-0510 (Canada) or 819-994-3328 (Ottawa-Gatineau area / International).

FEATURES

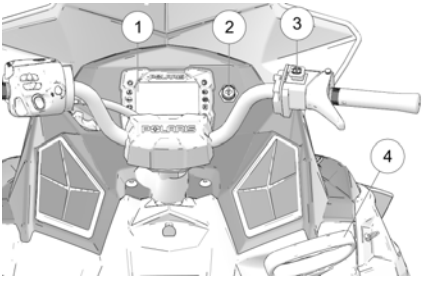
COMPONENT LOCATIONS

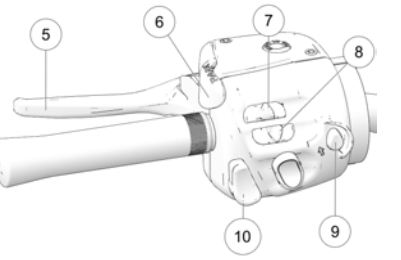
NOTICE
The figures below are for reference only. Your model may differ slightly.



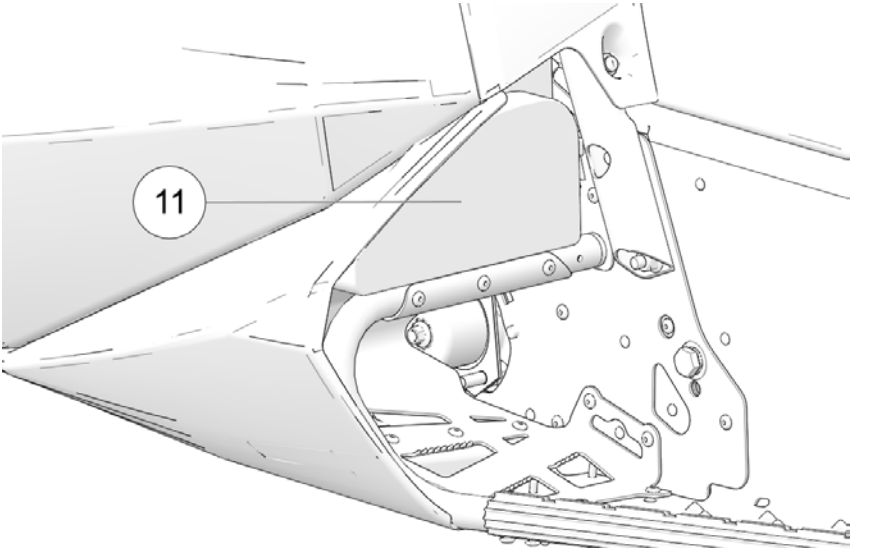
① Skis
② Nosepan
③ Front Bumper
④ Hood
⑤ Headlight
⑥ Windshield (accessory)
⑦ Handlebar
⑧ Operator Seat
⑨ Taillight
⑩ Rear Bumper
⑪ Snow Flap
⑫ Upper Control Arm
⑬ Lower Control Arm
⑭ Spindle
⑮ IFS Shock
⑯ Side Panel
⑰ Torsion Spring
⑱ Rear Track Shock
⑲ Front Track Shock
⑳ Rail

ADDITIONAL COMPONENT LOCATIONS





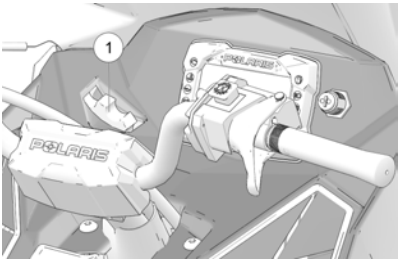
① Instrument Cluster
② Ignition Switch
③ Engine Stop Switch
④ Recoil Starter Handle
⑤ Brake Lever
⑥ Parking Brake Lock
⑦ Handlebar Grip Warmer Switch
⑧ Thumb-warmer Switch
⑨ Electronic Reverse Button
⑩ Headlight Dimmer Switch



⑪ Tool Kit/Storage Bag

ADJUSTABLE HEADLIGHTS

Move the headlight adjuster ① to the left to adjust the headlight beam upward. Move the adjuster to the right to adjust the beam downward.



CARGO STORAGE (IF EQUIPPED)

155 MODELS

The maximum weight capacity for the cargo area is 50 lbs. (23 kg). When combined with hitch tongue weight, the maximum weight capacity is 65 lbs. (29.5 kg). Always secure cargo before operating. Do not exceed the weight limit.

144 MODELS

The maximum weight capacity for the cargo area is 30 lbs. (14 kg). Always secure cargo before operating. Do not exceed the weight limit.

TOOL KIT

The tool kit is located in the toe of the left footwell.

NOTICE
Spare belt and spark plugs are not provided with the snowmobile.

1. Wrench, Spark Plug
2. Wrench, Open End, 9/16 x 1/2
3. Belt Removal Tool
4. Screwdriver

ACCESSORIES

POLARIS offers a wide range of accessories for your snowmobile to help make each ride more enjoyable.

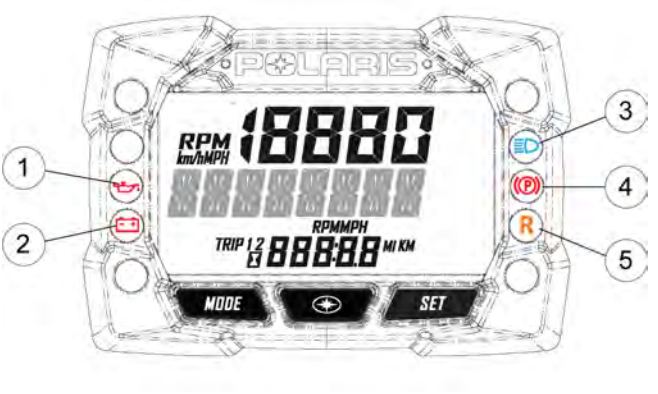
Use only POLARIS parts and accessories on your POLARIS snowmobile. Use of unapproved parts and accessories may result in:

- Non-compliance with government/industry requirements
- Voiding of warranty
- Injury to self or others

This applies to, but is not limited to the following areas: brakes, clutches, fuel systems, and exhaust systems. Exhaust systems are critical safety areas that *must* use approved POLARIS parts. Please see your POLARIS dealer for service.

GAUGE

STANDARD INSTRUMENT CLUSTER



① Low Oil

② Low Battery Voltage

③ High Beam

④ Parking Brake

⑤ Reverse

NOTICE
Certain products will damage the lens and other plastic surfaces. Do not use alcohol to clean the instrument cluster. Immediately clean off any gasoline that splashes on the instrument cluster.

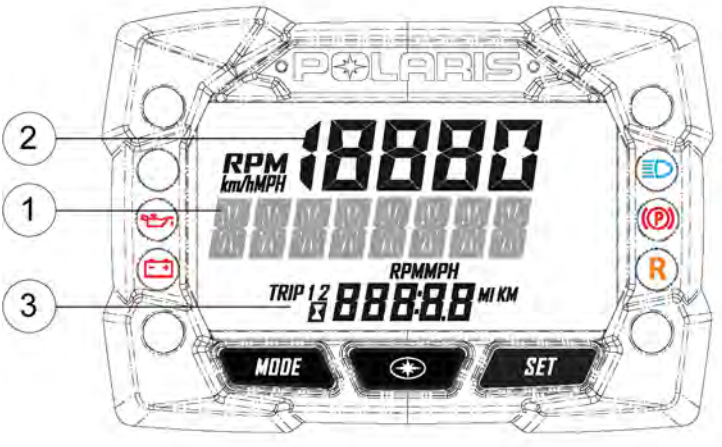
INDICATOR LAMPS

INDICATOR	CONDITION
	The low oil indicator light may flicker at times due to oil movement in the bottle, but when the light comes on and remains on, add the recommended oil before further operation.
	The low battery voltage indicator illuminates when the battery voltage is low.
	The high beam indicator illuminates when the lights are set to high beam.
	The parking brake Indicator illuminates when the parking brake is engaged. It will also illuminate when the service brake is in use.
R	The reverse indicator flashes when the vehicle is in reverse. Slow flash for low elevation. Fast flash for high elevation (above 6000 ft.). To change from low to high elevation. hold the reverse button for 5 seconds.

RIDER INFORMATION CENTER

The rider information center is located in the instrument cluster. The center displays vehicle speed, engine speed, odometer, resettable trip meters (2), total engine hours of operation, fuel level, engine temperature and diagnostic display mode.

Setting changes must be made with the engine running or with the vehicle powered by an external DC power supply connector. The information center is set to display standard units of measurement for distance and temperature.



① **Information Display Area** - This area displays either engine speed or vehicle speed (whichever is not displayed in the speed display), and maximum vehicle speed.

② **Speed Display** - The speed display area displays either vehicle speed or engine speed.

③ **Odometer/Engine Hour Display** - This area displays the odometer, Trip A, Trip B and engine hours.

SPEED DISPLAY AREA

The speed display area displays either vehicle speed or engine speed. Vehicle speed is displayed in either miles per hour (MPH) or kilometers per hour (km/h). Engine speed is displayed in revolutions per minute (RPM).

1. To change which item displays, first make sure the information display area is set to display either engine speed or vehicle speed.
2. *Press and release* the center button.

INFORMATION DISPLAY AREA

This area displays either engine speed or vehicle speed (whichever is not displayed in the speed display), maximum vehicle speed, and speed or RPM. To change the display, *press and release* the MODE button or the MODE switch until the desired item is displayed.

ODOMETER/ENGINE HOUR DISPLAY AREA

This area displays the odometer, Trip 1 meter, Trip 2 meter, CLOCK, and Engine Hours meter.

The odometer displays the total distance traveled by the vehicle since manufacture. Each trip meter records the distance traveled by the vehicle on a trip if the meter is reset before each trip. The CLOCK displays the time, and the engine hour meter displays the total hours the engine has been in operation since manufacture.

To change the display, *press and release* the SET button or SET switch until the desired item is displayed.

To reset a trip meter, *press and hold* the SET button or SET switch until the meter resets to zero.

THE PERFECT FIT

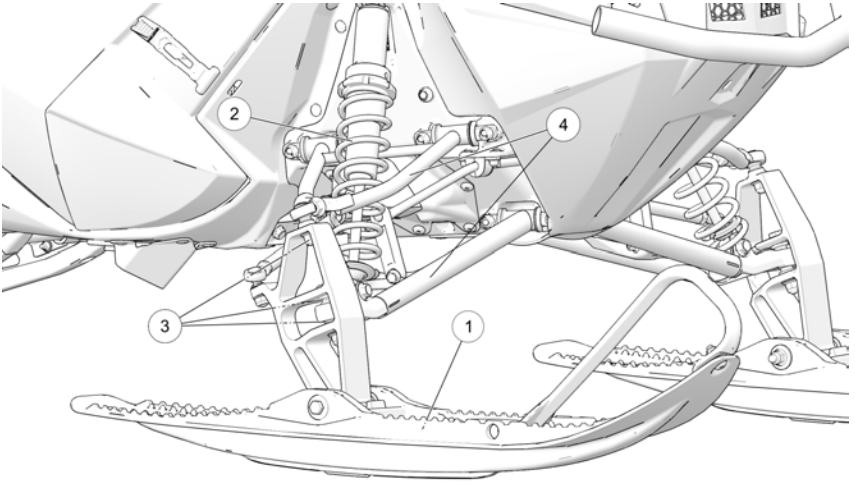
FRONT SUSPENSION ADJUSTMENTS

Factory settings, combined with user adjustments to the rear shock spring, should be all that's necessary to provide the best riding experience for most riders. If all rear shock spring adjustments have been exhausted and rider weight is at the very high or very low weight range for the stock spring, additional adjustments are possible to the IFS,

Settings will vary from rider to rider, depending on rider weight, vehicle speed, riding style, and trail conditions. We recommend starting with factory settings and then customizing each adjustment individually to suit rider preference. The snowmobile should be methodically tested, one change at a time, under the same conditions (trail and snow conditions, vehicle speed, riding position, etc.) after each adjustment until the best ride is achieved.

Break in the suspension for about 150 miles (240 km) before making adjustments to the front suspension.

IFS COMPONENTS



① Skis

② Front Shocks and Springs

③ Rod Ends

④ A-arms

IFS ADJUSTMENT OPTIONS

- Front shock spring preload
- Optional springs

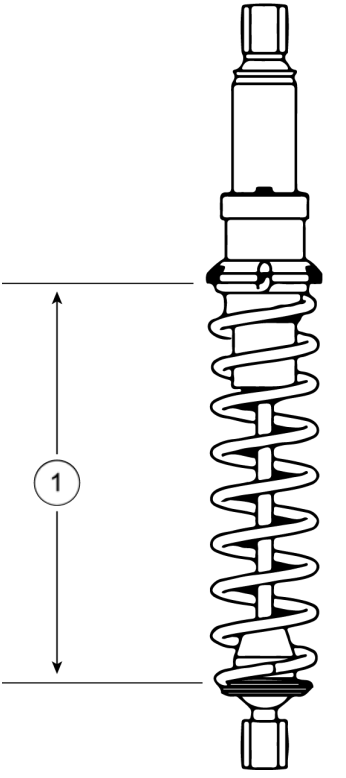
IFS SHOCK SPRING PRELOAD (IF EQUIPPED)

Increasing spring preload increases ski-to-ground pressure. Decreasing spring preload decreases ski-to-ground pressure. When adjusting, ensure the springs on both sides of the machine are set to the same length. To adjust shock spring preload, grasp the spring retainer and rotate it. Some models are not equipped with IFS spring adjuster. Please see your POLARIS dealer for accessory options.

IMPORTANT
Before adjusting, elevate the front end of the snowmobile so the skis are lifted off the ground. All measurements are taken with no pressure on the front suspension.

Factory Installed Spring Length ①	
121 Models (Not Including EVO models)	10.40 in (26.4 cm)
144 Models	10.24 in (26 cm)
155 Models	10.14 in (25.7 cm)
EVO and EVO RMK	7.94 in (20.2 cm)

Never exceed 1 in (2.54 cm) of preload beyond the factory settings. Over-extending the spring preload may adversely affect the handling of the snowmobile and the performance of the suspension.



When decreasing preload, ensure there are at least two full turns of preload holding the spring between the retainer on the top of the shock and the threaded spring preload adjuster nut on the shock body. Failure to do so could cause the retainer to fall off when the suspension is fully extended.

REAR SUSPENSION ADJUSTMENTS

Rider weight, riding style, trail conditions, and vehicle speed all affect suspension action.

Each rear suspension can be adjusted to suit rider preference and deliver excellent performance for a given set of conditions. However, all suspension designs and adjustments involve a compromise, or trade-off. For example, a suspension set up for snowcross racing would provide a very stiff ride on the trail. A suspension set up for trail riding would bottom out harshly on a snowcross course.

Refer to the suspension setup label on your snowmobile, or your POLARIS dealer can provide the initial suspension setup information. Additional adjustments can be made after initial setup. Make adjustments to one area at a time so you can evaluate the change. For further assistance, your dealer can assist.

SUSPENSION PERFORMANCE TIPS

- Rider weight usually determines the position at which the spring preload should be set. However, this may vary with riding style. With a little experimentation, each rider can find a preferred set-up. These adjustments are easy to make, involve very little time or effort, and greatly affect the ride.
- In deep snow, a new rail slide will offer improved performance over a worn rail slide. It can also improve top speed.
- When riding on ice or hard-packed snow, adding a set of bogie wheels to the rail may enhance the snowmobile's performance. Bogie wheel kits are available from your dealer.
- POLARIS offers track kits for improved flotation in deep snow. See your dealer for assistance.

TIP
Keep the suspension pivot points lubricated. This will reduce moisture and rust build-up and ensure proper function of the suspension components. Grease rear suspension pivots before adjusting the rear suspension.

TRACK TENSION

Track adjustment is critical for proper handling. Always maintain correct tension and alignment. Refer to the track tension maintenance section of this manual.

REAR TRACK SHOCK SPRING (144)

Measure the rear track shock spring length and adjust to the appropriate length based on rider weight. Include passenger weight (if applicable) and all riding gear, accessories and cargo weight in the calculation.

⚠ WARNING

Allow a passenger to ride only on models equipped with a passenger seat.

1. Securely elevate and support the rear of the snowmobile to remove the weight from the suspension.
2. Use a tape measure to measure the spring installed length between the two spring retainers.
3. Refer to the chart on the next page to determine the correct spring length for rider weight. If adjustment is needed, clear away any snow or ice trapped within the spring or threads.
4. Using a spanner wrench, rotate the spring to adjust length.

NOTICE

Never adjust a spring beyond the maximum adjustment length shown in the chart. Adjusting beyond maximum adjustment will cause the spring to bottom and result in damage to your rear suspension.

Adjust the rear track shock spring per the charts on below.

EVO RMK MODELS

REAR TRACK SHOCK SPRING (RTSS) SET-UP
(Standard Spring)
Measure spring length with suspension off the ground

Rider Weight(including all riders, gear, cargo, & accessories		**Model**	**Installed Spring Length**(rear suspension off the ground)	
Shaded cells indicate factory settings.				
< 160 lbs	< 73 kg	EVO RMK	9.5 in.	24.1 cm
160-220 lbs	73-100 kg	EVO RMK	9.12 in.	23.2 cm
220-280 lbs.	100-127 kg	EVO RMK	8.75 in.	22.2 cm
*RMK EVO maximum adjustment is 8.5 in. (21.6 cm)				

550 INDY MODELS

REAR TRACK SHOCK SPRING (RTSS) SET-UP (Standard Spring) Measure spring length with suspension off the ground				
Rider Weight (including all riders, gear, cargo, & accessories		**Model**	**Installed Spring Length** (rear suspension off the ground)	
Shaded cells indicate factory settings.				
< 160 lbs	< 73 kg	550 Voyageur / Adventure / LXT	11.125"	28.2 cm
		550 Switchback 144		
160-220 lbs	73-100 kg	550 Voyageur / Adventure / LXT	10.75"	27.3 cm
		550 Switchback 144	10.5"	26.7 cm
220-280 lbs.	100-127 kg	550 Voyageur / Adventure / LXT	10.5"	26.7 cm
		550 Switchback 144	10.125"	25.7 cm
280-340 lbs.	127-154 kg	550 Voyageur / Adventure / LXT	10.125"	25.7 cm
		550 Switchback 144	9.75" Maximum Adjustment	24.7 cm Maximum Adjustment
340-360 lbs.	154-163 kg	550 Voyageur / Adventure / LXT	9.875" Maximum Adjustment	25 cm Maximum Adjustment

INITIAL SPRING PRELOAD SETTING (SAG METHOD)

To set up the rear suspension torsion spring preload, measure the distance between the ground and rear bumper. This is measurement X.

Take the first measurement with no rider and with the rear suspension at full extension.

TIP
The rear bumper may need to be lifted upward slightly to fully extend the suspension.

Next, have the rider drop down hard on the seat and bounce up and down several times, collapsing the rear suspension. With the rider seated, measure the distance between the ground and the rear bumper at the exact location used for measurement X. This is measurement Y.

To determine sag, commonly referred to as ride-in, subtract measurement Y from X (sag=X-Y). If the measured sag is incorrect, adjust the FRA position and/or rear torsion spring preload.

SUSPENSION	RECOMMENDED SAG	ADJUSTMENT	SEE PAGE
INDY Sport 121	3-4 inches (7.5-10 cm)	Torsion Spring Preload	page 39
Voyageur 155	4 inches (10 cm)	Torsion Spring Preload	page 39
INDY EVO	1.5-2.5 inches (3.8-6.3 cm)	Torsion Spring Preload	page 39

TIP
This is only an initial setup, and final spring preload may vary based on rider preference and riding conditions. Accessory springs with a higher load rating are available for some models. Please see your dealer for availability.

TORSION SPRING PRELOAD (121)

To adjust rear torsion spring preload, rotate the three-position cam using the engine spark plug tool. Adjustment is easiest when the cam is rotated from low to medium, and then to high. Rotating directly from low to high will require significantly more effort.

Different rate torsion springs are available if a firmer ride is desired. See your dealer for more information.

Low

Medium

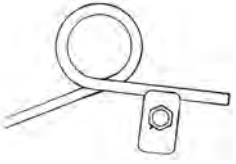
High

TORSION SPRING PRELOAD (155)

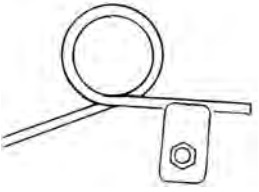
To adjust rear torsion spring preload, rotate the three-position cam using the engine spark plug tool. Different rate torsion springs are available if a firmer ride is desired. See your dealer for more information.

The following information is provided only as a guideline to be used for initial suspension set-up. Your set-up may vary based on your desired riding style.

Soft
(long end of cam to front)

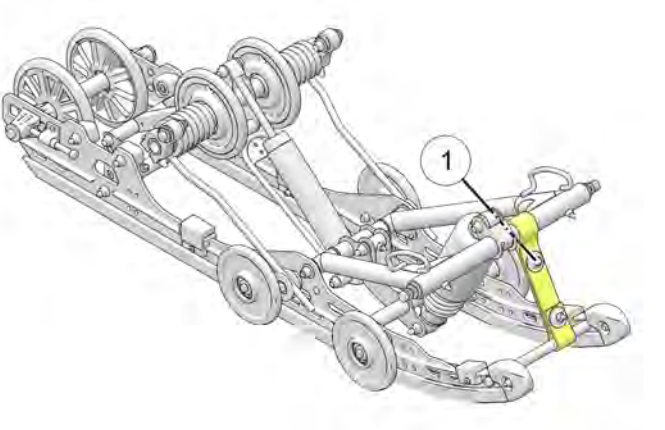


Medium
(short end of cam up)



Firm
(long end of cam up)

LIMITER STRAP POSITION (SKI PRESSURE)



Ski pressure is set at the factory to deliver the optimum balance between ride and handling. If a rider prefers more ski pressure for improved steering performance, adjustments can be made to the front limiter strap ①. Tighten the strap to increase ski pressure. Loosen the strap to reduce ski pressure.

1. Remove the nuts and flat washers from the upper limiter strap.
2. Relocate the strap to the desired position.
3. Reinstall the nuts and washers. Tighten securely.

SUSPENSION COUPLING (121 MODELS ONLY)

On all POLARIS snowmobile rear suspensions, there are two torque arms that control the movement of the rail beam. Prior to the advent of suspension coupling, these torque arms could move independently of each other. Rear suspension coupling links the movement of the front and rear torque arms to each other.

There are two types of rear suspension coupling.

FRONT TO REAR COUPLING AND THE FRONT REAR SCISSOR STOP (FRSS)

The front rear scissor stop (FRSS) couples the movement of the front torque arm with the rear torque arm and limits the amount of independence between the movement of the front torque arm and the rear torque arm.

When hitting a bump, the front torque arm starts to compress. The FRSS links the movement to the rear torque arm, causing it to compress and raise the rear suspension up as one, allowing the suspension to hit the bump only once and reducing kickback.

The factory setting is usually adequate for all riders and conditions.

REAR TO FRONT COUPLING AND THE REAR REAR SCISSOR STOP (RRSS)

The rear rear scissor stop (RRSS) couples the movement of the rear torque arm with the front torque arm and limits the amount of independent movement between the rear torque and the front torque arm.

Adjusting the RRSS either allows more weight to transfer to the rear for more traction, or allows less weight to transfer to the rear, resulting in improved cornering performance. An adjustment dot is located on the RRSS. This dot is on the longest end of the scissor stop.

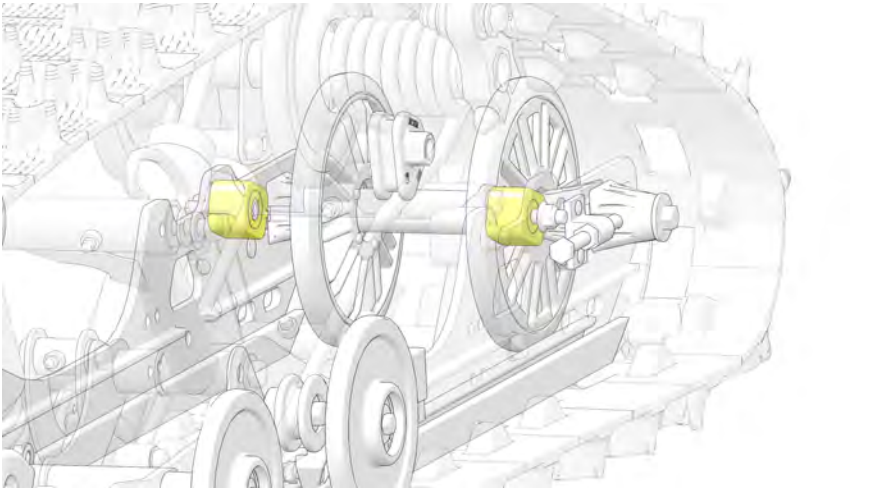
REAR REAR SCISSOR STOP (RRSS) - ATTRIBUTES

Moving the RRSS to a higher position will have the following effects on the suspension:

- Reduced weight transfer
- Improved chatter bump ride
- Improved cornering performance
- Increased load carrying capacity (2–up)

WEIGHT TRANSFER DURING ACCELERATION

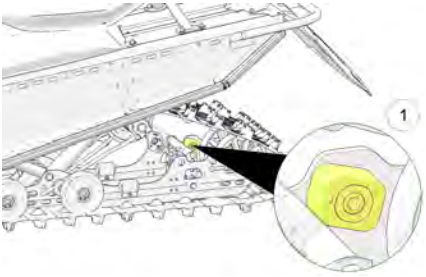
The preferred method for controlling weight transfer during acceleration is by adjusting the rear rear scissor stop (RRSS). The factory setting is the best for most trail riding conditions.



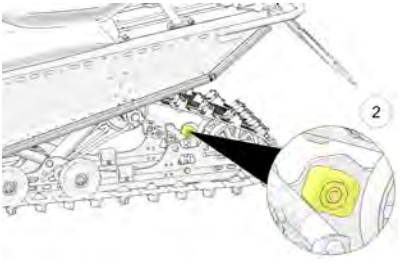
To decrease weight transfer under acceleration (for improved cornering), rotate the RRSS to a higher position.

To increase weight transfer or ski lift during acceleration, rotate the RRSS to a lower position.

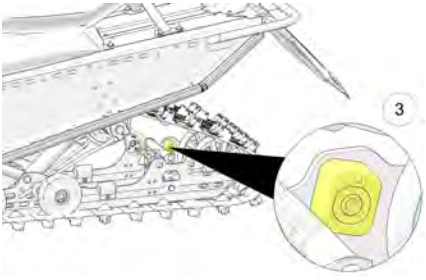
NOTICE
When adjusting for weight transfer, both the left and right rear rear scissor stop adjuster blocks must be adjusted to the same position.



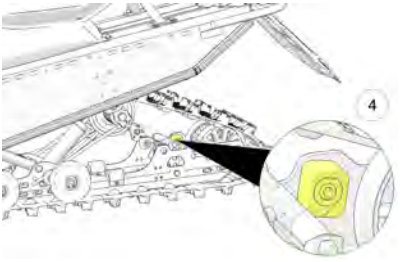
① High



② Medium



③ Low



④ Low

TIP
Your dealer can help you with initial setup and additional setup instructions to help you achieve your optimum ride. A scissor stop tool is also available from your dealer.

TRACTION PRODUCTS

CARBIDE SKAGS

A skag is a replaceable bar attached to the underside of the ski to assist in turning the snowmobile and to prevent ski wear caused by contact with roads and other bare terrain. Use carbide skags with studded tracks to help maintain proper vehicle steering and control. See page 99.

If your snowmobile has carbide skags, it may be necessary to add track studs to maintain proper vehicle control. Maintain a proper balance between the number of studs and the length of carbide on the skags (the more studs you use, the longer the carbide on the skags should be). See your dealer's track studding chart.

Inspect skags frequently. Worn skags may reduce steering and braking control on hard-packed snow and ice. Replace worn skags to maintain proper balance and vehicle control.

⚠ WARNING

Loss of control can result in serious personal injury or death. Proper balance of traction products on the skis and track must be maintained to obtain proper vehicle control on hard-packed snow or ice. See your dealer for assistance.

WEAR STRIPS

To avoid excessive tunnel wear, tunnel wear strips must be installed whenever track studding is used.

Install the appropriate wear strip kit. See your dealer.

Wear strips are designed for a specific stud length. See your dealer's studding chart for recommended traction accessories.

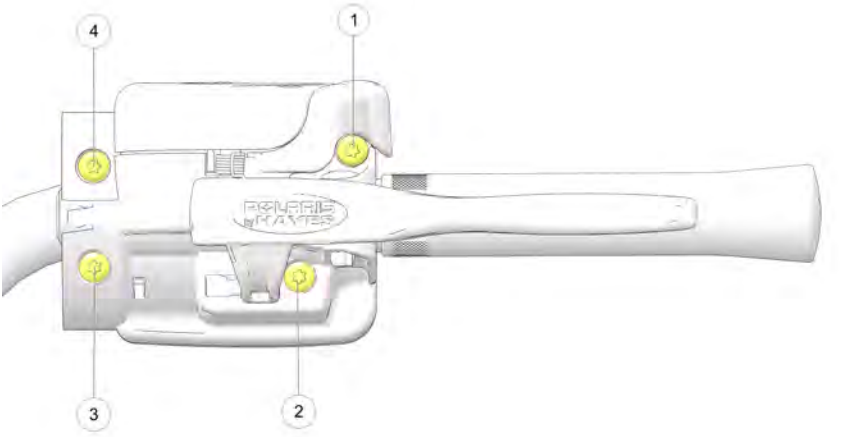
NOTICE

Whenever wear strips are relocated, be sure there's adequate stud clearance to the tunnel. Lack of clearance may result in damage to tunnel.

HANDLEBAR COMPONENT FASTENER TORQUES

COMPONENT	TORQUE *DO NOT OVER-TIGHTEN*
IMPORTANT: Moving a handlebar component without first loosening its screws/set screws may cut grooves into the handlebar, making it difficult to secure the component. Do not move a handlebar component without first loosening its mounting screws/set screws. ***Take care to avoid damaging hand warmer/brake switch wires when moving components.***	
Left Hand Control/Brake Master Cylinder	24 in-lbs (2.7 Nm)
Upper / Lower Handlebar Clamps	7 ft-lbs (9.5 Nm)
Throttle Lever Block Set Screw	35 in-lbs (4 Nm)
Throttle Lever Block Cover Screws	6 in-lbs (0.7 Nm)
Auxiliary Engine Stop Switch Set Screw	12 in-lbs (1.4 Nm)
Hand Guard Mounts (if applicable)	Hand-Tight

LEFT HAND CONTROL ALIGNMENT



1. Loosen the four control block mounting screws.

⚠ CAUTION
Take care to avoid damaging hand warmer/brake switch wires when moving components.

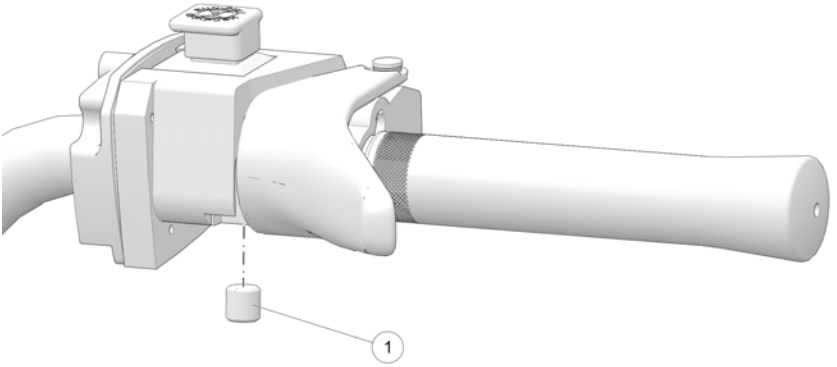
2. Move the control block to the desired position.

NOTICE
If the control is loose and was inadvertently moved without loosening the screws, move the control block slightly to the left or right to relocate the pins.

3. Tighten the screws to specification in the sequence shown in the image. Do not over-torque.

TORQUE
Control Block Mounting Screws **24 in-lbs (2.7 N·m)**

THROTTLE BLOCK ALIGNMENT



⚠ CAUTION
Take care to avoid damaging hand warmer/brake switch wires when moving components.

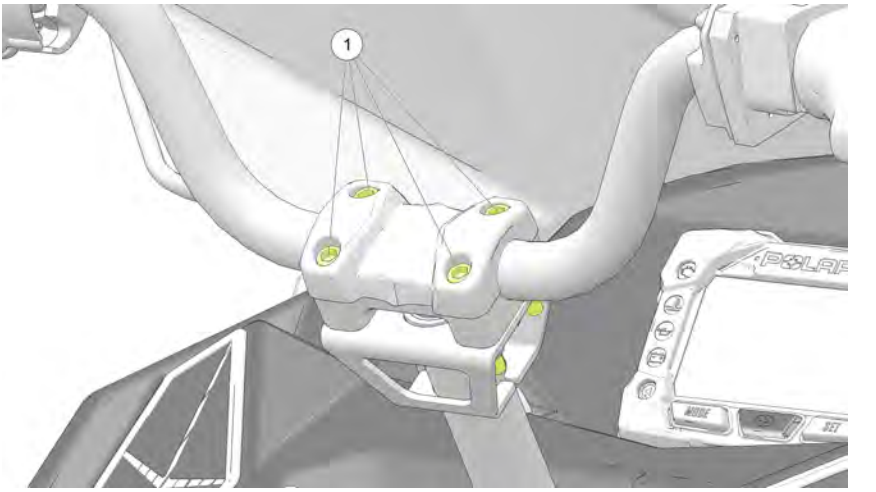
1. Slightly loosen the set screw ① on the bottom of the housing.
2. Move the control block to the desired position.
3. Tighten the screw to specification. Do not over-torque.

TORQUE
Set Screw **35 in-lbs (4 N·m)**

4. With the engine off, test throttle lever movement after tightening the screw. See page 63.

HANDLEBAR ADJUSTMENTS

HANDLEBAR ANGLE



1. Securing the handlebar clamp bolts ① with an Allen wrench, loosen each of the four nuts (located on each bolt's opposite end).

⚠ CAUTION
Take care to avoid damaging hand warmer/brake switch wires when moving components.

2. Adjust the handlebar forward or rearward to the desired angle.
3. Be sure the handlebar, brake lever and throttle lever operate smoothly and do not hit the gas tank, windshield or any other part of the machine when turned fully to the left or right. If necessary, adjust the left and right hand controls. See page 46.
4. Tighten the handlebar clamp nuts. Do not over-torque.

TORQUE
Handlebar Clamp Nuts **7 ft-lbs (9.5 N·m)**

PRE-RIDE INSPECTIONS

PRE-RIDE CHECKLIST

Inspect all items on the checklist for proper operation or condition before each use of the snowmobile. Procedures are outlined on the referenced pages.

ITEM	SEE PAGE
Drive Belt Condition	page 88
Steering System	page 53
Recoil Rope	page 54
Chaincase Oil Level	page 76
Engine Oil Level	page
Parking Brake Lock/Brake Lever/Brake System	page 52, page 51, page 85
Auxiliary Shut-Off Switch (Engine Stop Switch)	page 54
Ignition Switch	page 54
Headlight/Taillight/Brake Light	page 54
Suspension Mounting Bolts	page 50
Skags (Wear Bars)	page 99
Ski Saddle and Spindle Bolts	page 92
Hood and Side Panel Fasteners	page 74
Throttle Lever/Safety Switch	page 51
Rear Wheel Idler Bolts	page 92
Tether Switch/Strap (if equipped)	page 54
Track Alignment/Condition	page 96
Rail Slide Condition	page 100

PRE-RIDE SUSPENSION INSPECTION

Loose nuts and bolts can reduce your snowmobile's reliability and cause needless repairs and down time. Before beginning any snowmobile trip, a visual inspection will uncover potential problems. Check the following items on a weekly basis or before any long trip.

ITEM	SEE SECTION
Check suspension mounting bolts for tightness.	-
Check rear idler wheel bolts for tightness.	page 35
Check rear idler adjusting bolt locknuts for tightness.	-
Check torque arm bolts for tightness.	-
Check carrier and bogie wheel bolts for tightness.	-
Check front torque arm limiter strap condition.	-
Check rail slide condition.	page 100
Check track tension.	page 35
Check lubrication on all rear suspension components.	-
Check ski runner/skag condition.	page 99
Check ski spindle bolts for tightness.	-
Check tie rod end nuts for tightness.	-

BEFORE STARTING THE ENGINE

Before starting the engine, always refer to all safety warnings pertaining to snowmobile operation. Never start the engine without checking all vehicle components to be sure of proper operation.

⚠ WARNING

Operating the vehicle with worn, damaged, contaminated, or malfunctioning components could result in serious injury or death. Never start the engine without checking all vehicle components to be sure of proper operation.

READ AND UNDERSTAND YOUR OWNER'S MANUAL

Read the Owner's Manual completely and refer to it often. The manual is your guide to safe and enjoyable snowmobiling experience.

THROTTLE LEVER

The throttle and brake are the primary controls of your snowmobile. Always make sure both are functioning properly.

Squeeze the throttle lever to make sure it compresses evenly and smoothly. When released, the lever should immediately return to the idle position without binding or hesitation. If the throttle does not function smoothly, or if you discover excessive lever freeplay, DO NOT start the engine. Have the throttle serviced immediately.

THROTTLE SAFETY SWITCH

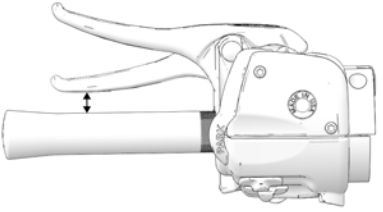
Test the throttle safety switch system before the snowmobile is operated.

BRAKES

Always check the following items for proper operation before starting the engine.

BRAKE LEVER TRAVEL

Squeeze the brake lever. It should move no closer to the handgrip than 0.5 inch (1.3 cm). A smaller distance indicates low brake fluid level or air in the hydraulic system. See page 87 or see your dealer for service.



LEVER FEEL

If the brake lever feels “spongy” when squeezed, check the brake fluid level and condition. Add fluid as needed. See the Brake Fluid section for details.

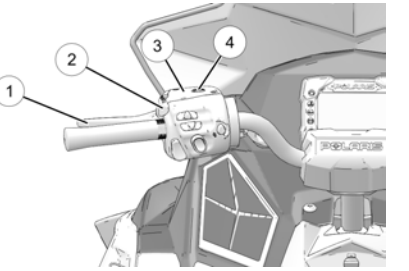
WARNING

Continued use of “spongy” brakes may cause a complete loss of brakes, which could result in serious injury or death. Always have the brakes serviced at the first sign of sponginess.

PARKING BRAKE LEVER LOCK

Use the brake lever lock only when you want the snowmobile to remain stationary; for example, when parked on an incline for a period of five minutes or less.

① Brake Lever
② Parking Brake Lever Lock
③ Master Cylinder Reservoir/Cover
④ Fluid Level Indicator



LOCK ENGAGEMENT

To engage the lock, squeeze the brake lever tightly and push forward on the lock. Hold the lock forward while releasing the brake lever.

NOTICE

If the brake lever is squeezed tightly enough, the lock will move freely into place. Do not force the lock or it may break.

The parking brake light on the gauge will light up if the parking brake lever lock is set while the engine is running. It will also be lit when the service brake is in use. If the parking brake light does not come on when the parking brake or service brake is in use, have it serviced by your dealer.

LOCK RELEASE

To release the lock, squeeze the brake lever tightly. The lock will return to the unlocked position.

WARNING

If the parking brake lever lock is partially or entirely engaged while riding, the brakes may overheat, resulting in brake damage. In extreme cases it could cause a fire, which could result in serious injury or death. Always ensure that the lever lock is completely disengaged before operating the snowmobile.

STEERING SYSTEM

WARNING

Ice and snow build-up may interfere with the steering of your snowmobile, resulting in serious injury or death. Keep the underhood area free of snow and ice.

Before driving, manually turn the skis to the left and right to be sure ice and snow are not interfering with full left and right steering. If difficulty is encountered, remove ice and snow build-up that may be obstructing the steering linkage.

TRACK

Track damage or failure caused by operation on ice or poor lubrication conditions voids the track warranty.

WARNING

Operating the snowmobile with a damaged track increases the possibility of track failure, which could cause loss of control resulting in serious injury or death. Always inspect the track for damage before using the vehicle.

WARNING

Use of traction products such as studs increases the possibility of track damage and/or failure. Driving at high speeds for extended periods of time in marginal lubrication could severely damage track rods, break track edges, and cause other track damage. Examples of marginal lubrication would include frozen bodies of water without snow cover, icy trails, and no-snow conditions.

SEAT LATCHES

If your snowmobile is equipped with a removable or tip-up seat, ensure that the seat latches are securely in place before every use of the snowmobile.

HOOD AND SIDE PANEL FASTENERS

⚠ CAUTION

The hood and side panels of the snowmobile protect the operator from moving parts. Never operate a snowmobile with the hood or side panels open or removed. Always ensure that the hood and side panels are securely in place before starting the engine.

RECOIL ROPE

Inspect the recoil rope and handle for excessive wear, and make sure the knot securing the rope inside the handle is secure. If excessive wear is found, your POLARIS dealer can provide a replacement.

START THE ENGINE AND CHECK

Before starting the engine, always refer to all safety warnings pertaining to snowmobile operation. Never engage the starter when the engine is running. Never start the engine without checking all vehicle components to be sure of proper operation. See page 51.

ENGINE STOP SWITCH

Check the auxiliary shut-off switch for proper operation. Push the switch down to stop the engine. Pull it up to allow restarting.

IGNITION SWITCH

Make sure the engine stops when the ignition switch is turned to OFF.

TETHER SWITCH (IF EQUIPPED)

If your snowmobile has a tether switch, remove the tether from the switch to make sure the engine stops immediately.

LIGHTING

Check the headlight (high and low beam), taillight, and brake light. Replace burned out lamps before operating.

MIRRORS (IF EQUIPPED)

Adjust the mirrors so they can be used to their full advantage.

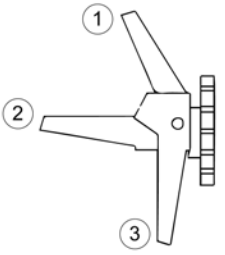
OPERATING AREA

Before driving away, check your surroundings. Be aware of obstacles and make sure bystanders are a safe distance from the snowmobile.

OPERATION

STARTING THE ENGINE

① FULL CHOKE
② 1/2 CHOKE
③ OFF



⚠ CAUTION

Engaging the starter when the engine is running WILL result in serious engine damage, especially if the transmission is in reverse. Never engage the starter when the engine is running.

1. Turn the fuel valve on. See page 60.
2. Turn the key to the ON position
3. Pull the engine stop switch up to the RUN position.
4. If starting a cold engine, flip the choke toggle to FULL CHOKE. Do not use the choke if starting a warm engine. Do not depress the throttle until the engine starts.

⚠ CAUTION

To avoid injury and/or engine damage, do not operate the electric starter or pull-rope starter while the engine is running.

NOTICE

Don't pull the starter rope to the fully extended position and don't allow it to snap back into the housing. Damage may result.

5. If equipped with electric start, turn the key to START to crank the engine. Release the key to the ON position when the engine starts.
6. If not equipped with electric start, grasp starter handle and pull slowly until the recoil engages, then pull abruptly to crank the engine.
7. Repeat the cranking procedure as needed until the engine starts.

8. After the engine starts, flip the choke toggle to the OFF position. If the engine slows or wants to stop, use intermittent choking to the HALF CHOKE position.
9. Before turning the engine off, operate the choke intermittently to draw moisture out of the choke plunger area and reduce the possibility of the choke becoming frozen.

EMERGENCY STOPPING

The following chart lists methods for stopping the snowmobile in the event of an emergency. See page 54 for more information about the engine stop switch and throttle safety switch.

SYSTEM	WHAT IT DOES	THROTTLE CONDITION
Ignition Switch	Interrupts ignition circuit	All
Brake	Slows jackshaft	All
Choke	Floods engine	Half throttle or less
Engine Stop Switch	Interrupts ignition circuit	All
Throttle Safety Switch	Interrupts ignition circuit	All
Tether Switch (accessory)	Interrupts ignition circuit	All

BREAK-IN PERIOD

ENGINE BREAK-IN

Polaris recommends the use of POLARIS Blue 2-Cycle Semi-Synthetic Oil for your snowmobile, including extreme arctic conditions with a sustained temperature at or below -40° F (-40° C).

NOTICE
Use of any lubricants other than those recommended by POLARIS may cause serious engine damage. We recommend the use of POLARIS lubricants, or an equivalent product, for your vehicle.

Always follow these recommended break-in procedures for new or rebuilt engines. The first tank of fuel is considered the break-in period for the engine. Premix the first tank of fuel and fill the oil bottle with the recommended oil. Oil added to the fuel and oil injection systems will provide the necessary engine lubrication.

INITIAL FUEL PREMIX

The first tank of fuel should contain a 40:1 ratio of fuel to oil premix.
NEVER mix oil brands. Serious chemical reactions can cause injection system blockage, resulting in serious engine damage. Oils may be incompatible and the result could be sludge formation, filter blockage, and reduced cold weather flow rates. All POLARIS oils are compatible with each other.

Always premix fuel in 5 gal (19 L) increments in a separate fuel container. Never add oil directly to the fuel tank.

FUEL	POLARIS BLUE 2-CYCLE SEMI-SYNTHETIC OIL	RATIO
Each 5 gal (19 L)	16 oz (473 mL)	40:1

FIRST THREE HOURS OF ENGINE USE

Excessive heat build-up during the first three hours of operation will damage close-fitted engine parts. Do not operate at full throttle or high speeds for extended periods during the first three hours of use. Vary the throttle openings and vehicle speeds to reduce friction on all close-fitting machined parts, allowing them to break in slowly without damage.

Drive with extra caution during the break-in period. Perform regular checks on fluid levels, lines, and all other important areas of the snowmobile.

OIL INJECTION SYSTEM

Always check and fill the oil bottle during pre-ride inspection and refueling.

NOTICE

Serious engine damage can occur without the proper lubrication. Check the oil bottle level often during the first tank of fuel. If the oil level doesn't go down, contact your dealer or other certified technician immediately.

DRIVE BELT BREAK-IN

The break-in period for a new drive belt is 30 miles (48 km). During this time, vary the throttle position under 50% and limit full throttle use.

New drive belts should be washed with warm, soapy water and allowed to air dry prior to use.

Always take time to warm up the belt and driveline prior to operating the snowmobile. Free the track and skis from the ground before engaging throttle.

TRACK WARM-UP

⚠ WARNING

A loose track or flying debris could cause serious injury or death. Stand clear of the front of the snowmobile and the moving track. Never hold the snowmobile up or stand behind it while warming up the track. Do not use excessive throttle during warm-up or when the track is free-hanging. Use a stable rear support.

⚠ WARNING

Use of traction products such as studs, ice growsers, etc. will increase the possibility of track damage and/or failure. This could cause loss of control, resulting in serious injury or death. Always inspect for track damage before operating the snowmobile.

Follow these steps to ensure proper warm-up of the engine, drive train and track.

1. Use an appropriate stand to securely support the rear of the snowmobile at the rear bumper. The track should be about 4 inches (10 cm) off the ground.
2. Start the engine and allow it to warm up two to three minutes.
3. Depress the throttle abruptly and allow the track to rotate several revolutions.

TIP

It will take longer to warm up the track sufficiently during colder outdoor temperatures.

4. Release the throttle, apply the brakes, shut off the engine and lower the snowmobile to the ground.
5. Grasp the skis by their front loops and move them from side to side to loosen snow and ice.

SLIDE RAIL AND TRACK COOLING

NOTICE

Inadequate cooling and lubrication will lead to overheating of the slide rail and track, resulting in premature wear and failure. Reduce speeds and frequently drive into fresh snow to allow adequate cooling and polishing of the slide rail and track surfaces. Avoid operating on ice, hard-packed surfaces or roads.

FUEL

WARNING

Gasoline is highly flammable and explosive under certain conditions.

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

WARNING

The engine exhaust from this product contains chemicals known to cause cancer, birth defects or other reproductive harm. Operate this vehicle only outdoors or in well-ventilated areas.

FUEL RECOMMENDATION

Your POLARIS engine is designed to run on 87 octane non-oxygenated or 89 octane oxygenated pump gasoline. There's a great deal of variability in the quality of the 87 octane gasoline available across the country, so we encourage the use of premium fuel when possible. *Do not use fuel containing more than 10% ethanol (including E85)*.

NOTICE
Using fuels with a lower than recommended octane or operating with obstructed fuel systems will result in serious and costly engine damage. Always use the recommended fuels for your machine.

FUEL SYSTEM DEICERS

If you use non-ethanol fuel (sometimes labeled “non-oxygenated”), POLARIS recommends the regular use of isopropyl-based fuel system deicer. Add 1-2 ounces per gallon (8-16 ml per liter) of gasoline to prevent damage resulting from fuel system icing. Never use deicers or additives containing methanol. POLARIS recommends the use of Carbon Clean.

IMPORTANT
If you use fuel with up to 10% ethanol (sometimes labeled “oxygenated”) do not add deicers or additives that contain any form of alcohol. Adding deicer to oxygenated fuels could result in severe engine damage.

FUEL VALVE

The fuel valve is located near the lower rear area of the oil bottle. Turn the fuel valve off whenever the snowmobile is stored, parked or transported.

Turn the fuel valve clockwise to OFF to shut off the fuel supply.

Turn the valve counter-clockwise to ON to turn the fuel supply on.

LOW OIL LEVEL

Always maintain the oil level between the “add” mark and the bottle neck. *Do not fill the bottle neck*. See page 57 for oil recommendations.

1. *Immediately* stop the engine if the low oil indicator light comes on.
2. Open the right side panel.
3. View the oil level in the oil bottle.
4. Add oil as needed before operating.

NOTICE
Operating the snowmobile without adequate engine lubrication can result in serious engine damage. Always check the oil level when refueling. Add oil as needed.

The oil bottle cap is vented to allow proper oil flow. See your POLARIS dealer for recommended replacement parts.

LOW OIL INDICATOR LIGHT

The low oil indicator light may flicker at times due to oil movement in the bottle, but when the light comes on and remains on, add the recommended oil before further operation. See the Engine Break-in section for oil recommendations.

CARBURETION

NOTICE
Making non-recommended adjustments could result in vehicle or engine damage as well as denial of warranty claims. Your Polaris dealer can assist with any carburetor adjustments.

Proper carburetor adjustment is critical. A lean mixture (too much air, too little fuel) may result in piston burning, bearing failure, or complete engine failure. A rich mixture (too much fuel, too little air) may foul plugs and cause generally poor engine performance.

A lean mixture may be caused by things like fuel line restrictions, foreign matter in the carburetor or clogged fuel filters. A rich mixture may be caused by snow build-up on the pre-filter in the air intake system. Either condition may be caused by improper carburetor adjustment.

JETTING GUIDELINES

Changes in altitude and temperature affect air density, which is the amount of oxygen available for combustion. In low elevations and cold temperatures, the air has more oxygen. In higher elevations and higher temperatures, the air is less dense.

The carburetors are calibrated for an altitude of 0-2000 ft. (0-600 m) and ambient temperatures of -15° to +5° F (-26° to -15° C). Carburetors must be re-calibrated if the snowmobile is operated outside this production temperature and/or altitude range. The main jet installed in production is not correct for all altitudes and/or temperatures. See page 82 for more information.

NOTICE
A main jet that's too small will cause a lean operating condition and may cause serious engine damage. Jet the carburetors carefully for elevation and temperature according to the jetting charts.

TIP
It's the owner's responsibility to ensure that the correct jets are installed in the machine for a geographical area. Be very careful when jetting down in warm weather. As the weather turns colder it will be necessary to re-jet to prevent engine damage. When selecting the proper main jet always use the lowest elevation and temperature that is likely to be encountered.

ENGINE STOP SWITCH

Push down on the engine stop switch ① to ground out the ignition and stop the engine quickly. Pull the switch up to the ON position to allow restarting.

THROTTLE SAFETY SWITCH

⚠ WARNING

Operating the snowmobile with a faulty throttle safety switch can result in serious injury or death in the event of an accident. If the throttle safety switch does not shut off the engine during a carburetor/throttle system malfunction, immediately push down the engine stop switch. Do not start the engine again until the malfunction has been corrected by your dealer.

The throttle safety switch is designed to stop the engine whenever all pressure is removed from the throttle lever and the throttle cable or valves do not return to the normal closed position.

Test the throttle safety switch system daily before operation.

1. Sit on the seat.
2. Start the engine and allow it to idle.
3. Hold the throttle lever pin stationary by exerting pressure on the pivot pin in the direction shown in the illustration.
4. Apply a slight amount of throttle. A properly functioning switch must shut down the engine.

THROTTLE LEVER

WARNING

An improperly functioning throttle lever may cause erratic snowmobile behavior and loss of control, which could result in serious injury or death. If the throttle lever does not work properly, DO NOT start the engine.

If the engine stops abruptly when the throttle lever is released:

1. Turn the ignition switch to OFF.
2. Visually inspect the throttle cable and carburetor/throttle body to determine what caused the safety switch to activate.
3. Test the throttle lever by compressing and releasing it several times. The lever and cable must return to the idle position quickly and completely.
4. If the throttle lever operates properly, turn the ignition switch on and go through normal starting procedures.
5. If the engine doesn't start, your authorized POLARIS dealer can perform this service.

Excessive freeplay in the throttle cable may cause the safety switch to activate, preventing the engine from starting. If this occurs, return the snowmobile to an authorized POLARIS dealer for service.

If an emergency exists and it's necessary to start the engine, the throttle safety switch and engine stop switch may be disconnected from the wire harness. When these switches are disconnected, the ignition key switch must be used to shut off the engine. DO NOT continue to operate the snowmobile with the throttle safety switch disconnected. Return the snowmobile to an authorized POLARIS dealer for service as soon as possible.

POLARIS ELECTRONIC REVERSE CONTROL (PERC)

WARNING

Improper reverse operation, even at low speeds, may cause loss of control, resulting in serious injury or death. Damage will occur to the chaincase or transmission if shifting is attempted when the engine is operating above idle speed.

- Shift to or from reverse only when the snowmobile is stopped and when engine speed is at idle.
- Look behind the vehicle before and while backing.
- Avoid sharp turns.
- Apply throttle slowly.

Electronic reverse will activate only if the engine RPM is below 4000.

⚠ CAUTION

Engaging the starter when the engine is running WILL result in serious engine damage, especially if the engine is in reverse. Never engage the starter when the engine is running.

ENGAGING REVERSE

1. Stop the snowmobile and leave the engine idling.
2. Make sure the area behind your vehicle is clear.
3. Push the yellow reverse button on the left-hand control for one second, then release. The engine will automatically reduce RPM and start a reverse rotation. A flashing reverse light on the instrument panel will indicate that the vehicle is in reverse.

TIP

If the engine stops running, the snowmobile will be in forward gear when it's restarted.

DISENGAGING REVERSE

1. Stop the snowmobile and leave the engine idling.

⚠ CAUTION

Engaging the starter when the engine is running WILL result in serious engine damage, especially if the engine is in reverse. Never engage the starter when the engine is running.

2. Push the reverse button for one second and release. The engine will slow and begin to rotate forward. The light on the instrument panel will shut off.
3. Apply the throttle slowly to make sure the vehicle is in forward.

HIGH ALTITUDE SETTING

At altitudes above 6000 feet (1800 m), the engine will require a different ignition setting to improve the success of the reverse system. To set for a higher altitude, start the engine and hold the reverse button down until the light on the gauge flashes rapidly, then release the button.

To set the reverse for lower elevations, continue holding the button down until the reverse indicator light blinks slowly. Once set, it’s stored in memory until changed, whether the machine is running or not.

DAILY STORAGE

At the end of each ride, park the snowmobile on a level surface and support it at the rear with an appropriate track stand. The track should be suspended approximately 4 inches (10 cm) off the ground.

Remove the key and cover the snowmobile.

TOWING

For your safety, do not attempt to use a tow hitch until you've read the following warnings and understand the proper hitch functions.

⚠ WARNING

Objects towed with a rope have no braking power and can easily collide with the rear of the snowmobile or other objects, resulting in serious injury or death. DO NOT tow toboggans, sleds, saucers, or any type of vehicle with a rope. Only a stiff metal pole connecting the towed object and the tow hitch on the snowmobile should be used. If passengers are to be towed on a toboggan or sled, make sure the pole is at least four feet (1.2 meters) long to prevent any possibility of contact between the snowmobile's track and a person riding in the towed object.

⚠ WARNING

Braking distances increase when towing loads. Slow down to maintain control of the snowmobile.

If the snowmobile becomes inoperable and must be towed, and if it isn't possible to use a rigid tow bar, attach the tow rope to the ski spindles (not to the ski loops) to prevent damage to the steering components. Remove the drive belt before towing, and have someone ride on the towed snowmobile to operate the brake and steering when necessary.

NOTICE

Towing a disabled snowmobile with the drive belt in place can result in serious damage to the engine and drive system. Always remove the drive belt from a disabled snowmobile before towing.

MAINTENANCE

EMISSION CONTROL INFORMATION

Any qualified repair shop or qualified person may maintain, replace, or repair the emission control devices or systems on your snowmobile. 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 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.

EMISSION CONTROL LABEL

Your snowmobile is equipped at the time of sale with an emission control information (ECI) label and a factory-installed emissions information hangtag. These items are required by U.S. Environmental Protection Agency regulations. The ECI label is permanently affixed to either the right side of the tunnel or the engine recoil cover. The ECI label should not be removed, even after you purchase the snowmobile. You may remove the factory-installed emissions information hangtag, which is intended solely for your use in making a purchasing decision.

EMISSION CONTROL MAINTENANCE REQUIREMENTS

Your snowmobile is certified to operate on gasoline with a minimum octane level of 87 (R+M)/2. If your snowmobile is equipped with a check engine light and it comes on, you must take your snowmobile to a qualified dealer for diagnostic service. Specifications and adjustments for engine tune-ups are located in the Service Manual, which is available to your qualified service technician. Reverse (if equipped) must not be engaged during engine tune-ups.

OWNER'S RESPONSIBILITIES

Please read the Snowmobile Engine Emissions Limited Warranty, and read the maintenance section of your owner's manual. You are responsible for ensuring that the specified maintenance is performed. POLARIS recommends that you contact an authorized POLARIS dealer, or other qualified person, to perform any service that may be necessary.

NON-IONIZING RADIATION

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

POLARIS RECOMMENDED MAINTENANCE PROGRAM

NOTICE

Hot components can cause damage to plastic. Always make sure the exhaust system and engine have cooled before tipping the snowmobile on its side for service or inspection.

To ensure many trouble-free miles of snowmobiling enjoyment, follow recommended regular maintenance and perform service checks as outlined in this manual. Record maintenance and service in the Maintenance Log beginning on page 147.

The recommended maintenance schedule on your snowmobile calls for service and maintenance inspections at 150 miles (240 km), 500 miles (800 km) and 1000 miles (1600 km). These inspections should be performed by a qualified service technician. For continued optimum performance and component life, continue maintenance checks at 1000 mile (1600 km) intervals.

All necessary replacement parts and labor incurred, with the exception of authorized warranty repairs, become the responsibility of the registered owner. If, during the course of the warranty period, part failures occur as a result of owner neglect in performing recommended regular maintenance, the cost of repairs are the responsibility of the owner.

Personal safety is critical when attempting to service or make adjustments to your snowmobile. If you're not familiar with safe service or adjustment procedures and the use of tools, or if you don't feel comfortable performing these tasks yourself, your authorized POLARIS dealer can provide any needed service.

PERIODIC MAINTENANCE INTERVAL TABLE

The following chart is a guide based on average riding conditions. You may need to increase frequency based on riding conditions. When inspection reveals the need for replacement parts, always use genuine POLARIS parts, available from your POLARIS dealer.

I - INSPECT (CLEAN, ADJUST, TIGHTEN, LUBRICATE, REPLACE IF NECESSARY)
C - CLEAN, R - REPLACE, L - LUBRICATE

ITEM	FREQUENCY				
	150 MI. (240 KM)	500 MI. (800 KM)	1000 MI. (1600 KM)	2000 MI. (3200 KM)	PRE- SEASON
CLUTCH					
Drive Belt Condition (See page 88)		I	I	I	I
Clutches		C	C	C	
Belt Tension		I	I	I	I
Clutch Sheaves		I	I	I	I
ENGINE/COOLING					
Engine Mounts		I	I	I	I
Engine Torque Stop (See page 88)		I	I	I	I
Recoil Rope		I	I	I	I
Cylinder Head Bolts		I	I	I	
Cylinder Base Nuts		I	I	I	
Ignition Timing BTDC		I	I	I	
Spark Plugs (See page 78)		I	I	R	I
Exhaust Pipe (See page 81)				I	I
Exhaust Retaining Springs (See page 81)		I	I	I	I

I - INSPECT (CLEAN, ADJUST, TIGHTEN, LUBRICATE, REPLACE IF NECESSARY)
C - CLEAN, R - REPLACE, L - LUBRICATE

ITEM	FREQUENCY				
	150 MI. (240 KM)	500 MI. (800 KM)	1000 MI. (1600 KM)	2000 MI. (3200 KM)	PRE- SEASON
BRAKES					
Hose Routing		I	I	I	I
Hose Condition		I	I	I	I
Fluid Leaks		I	I	I	I
Brake Pads (See page 85)		I	I	I	I
Brake Disc		I	I	I	I
Parking Brakes (See page 52)		I	I	I	I
Brake System (See page 85)					I
Brake Fluid (See page 51, page 86)				I	
FUEL MANAGEMENT					
Carburetor (synchronize) (See page 81)		I	I	I	
Idle RPM		I	I	I	
Throttle Lever (See page 63)	I	I	I	I	I
Oil Pump Lever (synchronize)		I	I	I	
Choke		I	I	I	
Vent Lines		I	I	I	I
Fuel / Vent Hoses	I	I	I	I	I
Fuel Filter	R – Every 2000 mi. (3200 km) or Every 2 years				
Oil Filter (See page 80)				R	

I - INSPECT (CLEAN, ADJUST, TIGHTEN, LUBRICATE, REPLACE IF NECESSARY) C - CLEAN, R - REPLACE, L - LUBRICATE					
ITEM	**FREQUENCY**				
	150 MI. (240 KM)	**500 MI. (800 KM)**	**1000 MI. (1600 KM)**	**2000 MI. (3200 KM)**	**PRE- SEASON**
Oil Lines			I	I	I
Air Box	I	I	I	I	I
Drain and Water Traps (See page 82)		I	I	I	
ELECTRICAL					
Auxiliary Shut-Off (See page 54)	I	I	I	I	I
Throttle Safety Switch	I	I	I	I	I
Ignition Switch	I	I	I	I	I
Taillight (See page 54)	I	I	I	I	I
Brakelight (See page 54)	I	I	I	I	I
Headlight (See page 54)	I	I	I	I	I

I - INSPECT (CLEAN, ADJUST, TIGHTEN, LUBRICATE, REPLACE IF NECESSARY) C - CLEAN, R - REPLACE, L - LUBRICATE					
ITEM	**FREQUENCY**				
	150 MI. (240 KM)	**500 MI. (800 KM)**	**1000 MI. (1600 KM)**	**2000 MI. (3200 KM)**	**PRE- SEASON**
CHASSIS					
Ski Toe Alignment		I	I	I	
Suspension Mounting Bolts	I	I	I	I	I
Bolt Torques	See your dealer every 1000 mi. (1600 km) for inspection				
Steering Fasteners	I	I	I	I	C
Rear Suspension Fasteners	I	I	I	I	I
Cooling Fan / Ducts / Bulkhead Vent (See page 81)		I	I	I	I
Skags (Wear Bars) (See page 99)	I	I	I	I	I
Ski Saddle/Spindle Bolts	I	I	I	I	I
Steering Arm(s)					I
Drive Chain Tension (See page 84)	I	I	I	I	I
Hood and Side Panel Fasteners (See page 54)	I	I	I	I	I
Rear Wheel Idler Bolts	I	I	I	I	I
Idler Bolt Jam Nut	I	I	I	I	I
Handlebar Centering					I
Tether Switch and Strap (See page 54)	I	I	I	I	I
Track Tension	I	I	I	I	I

I - INSPECT (CLEAN, ADJUST, TIGHTEN, LUBRICATE, REPLACE IF NECESSARY) C - CLEAN, R - REPLACE, L - LUBRICATE					
ITEM	**FREQUENCY**				
	150 MI. (240 KM)	**500 MI. (800 KM)**	**1000 MI. (1600 KM)**	**2000 MI. (3200 KM)**	**PRE- SEASON**
CHASSIS					
Track Alignment (See page 96)	I	I	I	I	I
Front Limiter Strap	I	I	I	I	I
Rail Slide Condition (See page 100)					I
Chaincase Oil	I	R	I	R	I

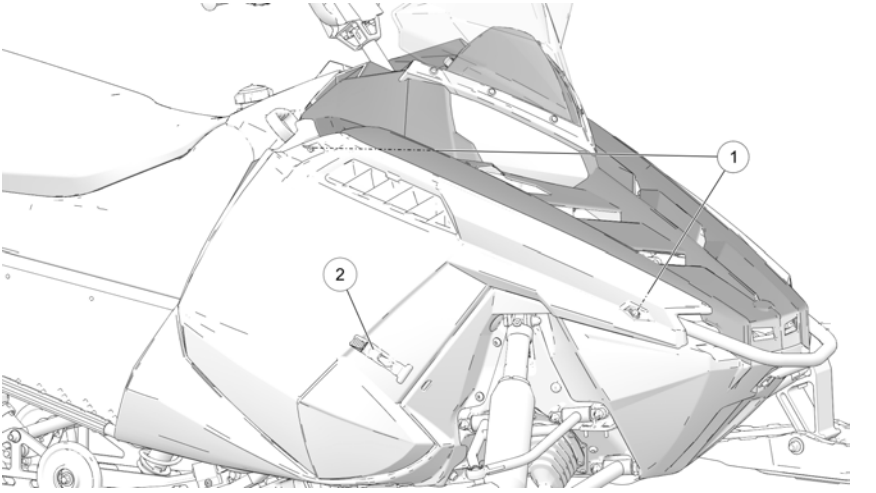
BOLT TORQUE INSPECTION

To maintain proper chassis performance, see your POLARIS dealer, or equivalent, for a bolt torque inspections every 1000 miles (1600 km).

ITEM	DESCRIPTION
Engine Mounting Bolts	Remove drive clutch and resonator for access to all bolts
Chaincase Mounting Bolts	Two (2) TORX-head bolts on forward side of chaincase
	Four (4) rear chaincase nuts

HOOD/SIDE PANEL

The hood and side panels of the snowmobile protect the operator from moving parts. Never operate a snowmobile with the hood or side panels open or removed. Always ensure that the hood and side panels are securely in place before starting the engine.



To open a side panel, do the following:

1. Rotate the two 1/4-turn fasteners, located at the upper edges of the side panel ①, counterclockwise.
2. Release the side panel strap at the lower edge of the panel ②.

To remove an open side panel:

1. Pull the panel outward to release the tabs at the lower edge of the panel.

NOTICE
Removing the hood is not recommended. Any service requiring the removal of the hood should be performed by an authorized POLARIS dealer, or equivalent person.

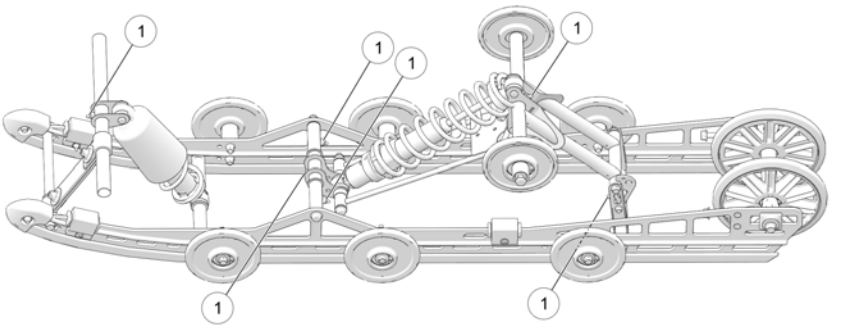
LUBRICATION

REAR SUSPENSION

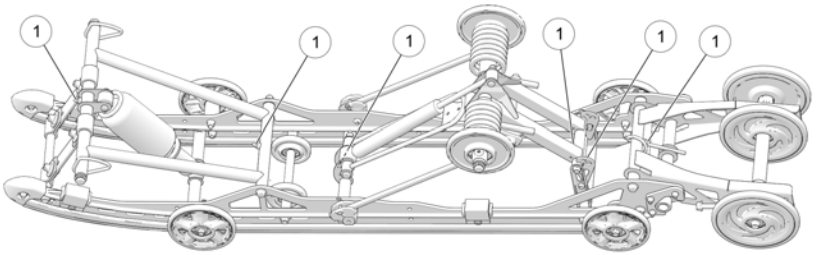
Lubricate the suspension pivot shafts with POLARIS All Season Grease at the intervals outlined in the Periodic Maintenance Table and before seasonal storage. When operating in heavy, wet snow conditions, lubricate every 500 miles (800 km).

Lack of lubrication will adversely affect your ride and the life of the suspension. For more information about suspension lubrication and adjustments, see your POLARIS dealer.

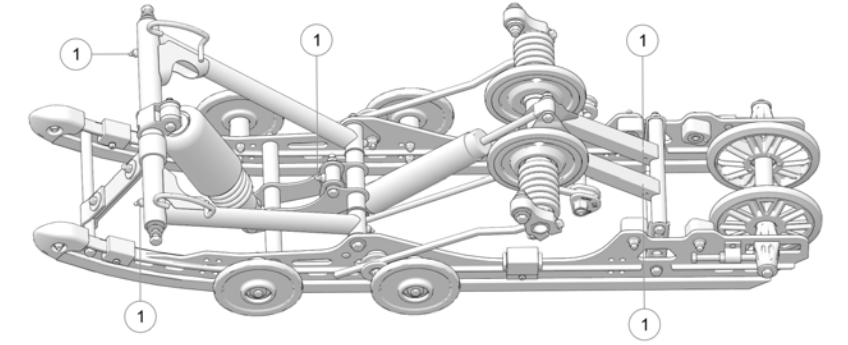
REAR SUSPENSION (144)



REAR SUSPENSION (155)



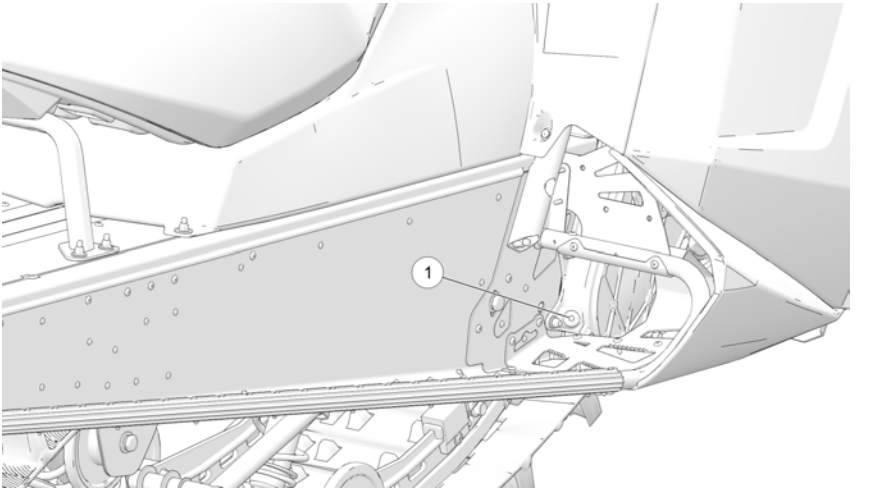
REAR SUSPENSION (INDY 121 & EVO)



CHAINCASE OIL

Check and change the chaincase oil at the intervals outlined in the maintenance charts beginning pages. Maintain the oil level at the top of the fill plug hole. POLARIS recommends the use of POLARIS Synthetic Chaincase Lube, or equivalent product.

OIL LEVEL



1. Position the vehicle on a level surface.
2. Remove the fill plug ①.
3. Using a funnel, slowly add the recommended oil until the fluid begins to overflow.

4. Wipe the fill area with a clean cloth.
5. Reinstall the fill plug.

TORQUE
Fill Plug **6-10 ft-lbs (8-13 N·m)**

OIL CHANGE

1. Position the vehicle on a level surface.
2. Place a drain pan under the drain plug. Remove the drain plug. Allow the oil to drain completely.
3. Clean off all metal shavings from the plug.

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

4. Reinstall the drain plug.

TORQUE
Drain Plug **6-10 ft-lbs (8-13 N·m)**

5. Remove the fill plug. Clean off all metal shavings from the plug.
6. Using a funnel, slowly add the recommended oil until the fluid begins to overflow. Fluid capacity is 9 oz. (266 ml).
7. Wipe the fill area with a clean cloth.
8. Reinstall the fill plug.

TORQUE
Fill Plug **6-10 ft-lbs (8-13 N·m)**

SPARK PLUG

SPARK PLUG RECOMMENDATIONS

It's very important to use the correct spark plug for your machine. A spark plug with a heat range too high will cause engine damage. A spark plug with a heat range too low will cause excessive fouling and engine malfunctioning. Change the spark plugs every 2000-2500 miles (3200-4000 km)

NOTICE
A spark plug with a heat range too high will *always* cause engine damage if the engine is operated in conditions more severe than intended for that plug. Always use the spark plugs recommended for your snowmobile.

A new engine can cause temporary spark plug fouling due to the preservative added during the assembly process. Avoid prolonged idle speeds, which cause plug fouling and carbonization.

- Use recommended spark plugs with the proper gap.
- Use only resistor-type spark plugs.
- Torque spark plugs to specification.

TORQUE
Spark Plug **18-22 ft-lbs (24-30 N·m)**

- Always carry spare spark plugs.

SPARK PLUG CONDITION

NORMAL PLUG

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

TIP
The tip should not be white. A white insulator tip indicates overheating, caused by use of an improper spark plug or incorrect carburetor/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 or use of non-recommended injection oil.

SPARK PLUG REMOVAL AND REPLACEMENT

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

TIP

Incorrect fuel mixture can often cause a spark plug to appear too dark or too light in color. Before changing spark plug heat ranges, be sure the correct main jet is installed in the carburetor(s).

⚠ WARNING

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

1. Remove the left side panel.
2. Remove the spark plug cap.
3. Using the special wrench provided in the tool pouch, rotate the spark plug counter-clockwise to remove it.
4. Reverse the procedure for park plug installation.

TORQUE

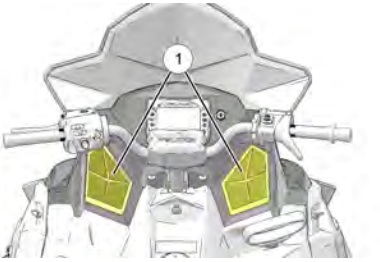
Spark Plug
18-22 ft-lbs (24-30 N·m)

5. Reinstall the spark plug cap.

INTAKE FILTERS

NOTICE
Operating the snowmobile with the intake filters removed may cause carburetor icing. The result will be poor fuel economy or carburetor malfunction. Always reinstall the intake filters before operating the snowmobile.

The intake filters on the left and right console limit snow ingestion into the intake system. When operating in loose powder snow, check the filters periodically to remove any accumulation of snow.

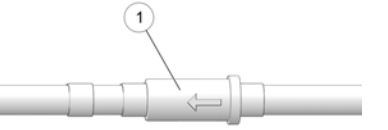


OIL LINES

Inspect oil line condition every 1000 miles (1600 km).

OIL FILTER

The oil filter is located in-line between the oil tank and oil pump. Have your dealer change the oil filter and bleed the system at the intervals outlined in the Periodic Maintenance Table.



TIP
The direction of the arrows indicates the direction of flow through the filter.

FUEL PUMP

All fuel pump service must be performed by an authorized POLARIS dealer. Do not attempt to service the fuel pump.

FUEL FILTER / FUEL LINES

This snowmobile is not equipped with an in-line fuel filter. The fuel pump uses a sock-type pickup filter located within the fuel tank. This filter should only require maintenance if debris or foreign material enters the fuel tank. An authorized dealer can provide service.

Contaminated or poor quality fuel may shorten the life of fuel system components and result in poor engine performance. Always store fuel in clean fuel containers. If low fuel pressure or reduced engine performance occurs, the filter may need replacement. An authorized dealer can assist.

Inspect the fuel lines regularly for signs of deterioration or damage. Always check fuel line condition after periods of storage. Normal deterioration from weather and fuel compounds may occur. Replace worn or damaged fuel lines promptly.

NOTICE

Kinking the fuel lines or using a pliers or similar tools to remove fuel lines may cause damage to the lines. If a fuel line has been damaged or kinked, replace it promptly.

COOLING SYSTEM

Inspect the fan intake and outlet ducts for cracks, blockage, obstructions, damaged seals or loosening of the ducts. Make any necessary repairs promptly.

EXHAUST SYSTEM

Check the exhaust system for wear or damage at approximately 2000 miles (3200 km). Always allow the engine and exhaust system to cool completely before inspecting.

⚠ WARNING

Hot exhaust system parts can cause burns. Allow adequate time for the exhaust system to cool. Never perform this procedure with the engine running.

1. Open the side panels and remove the hood. See page 74
2. Inspect the muffler and pipes for cracks or damage.
3. Check for weak or missing retaining springs or damper/support grommets.

CARBURETOR

The number stamped in the end of the main jet indicates the jet size. The jet installed at the time of manufacture is not necessarily correct for your elevation. It's your dealer's responsibility to make sure the correct main jet is installed.

NOTICE

Operating the snowmobile with incorrect jetting can result in serious engine damage. Have your POLARIS dealer perform all carburetor adjustments to ensure all adjustments are done correctly.

CARBURETOR ADJUSTMENTS

The frequency at which the carburetors are synchronized or balanced is important. Properly adjusted carburetors can greatly improve engine performance, fuel economy, engine life, and reliability.

If you notice any of the following conditions, the carburetor may need adjustment:

- Hard starting
- Poor idle
- Overheated pistons and cylinder walls
- Plug fouling
- Poor engine response to various throttle valve openings

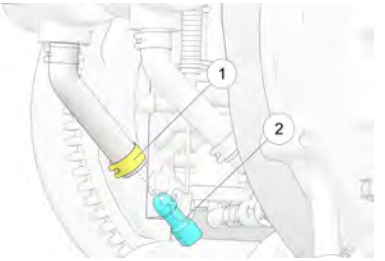
CARBURETOR WATER/SEDIMENT TRAP

Most POLARIS snowmobiles contain patented carburetor bowl water/ sediment traps located at the bottom of each carburetor. The trap, consisting of a hose with a plug, should be drained about every 1000 miles (1600 km) and inspected for contamination.

⚠ WARNING

When draining the traps, fuel spillage will occur. Always work in a well ventilated area away from anything that may cause the fuel to ignite, such as open flames, sparks, heaters, trouble lights, cigarettes, etc. Review the fuel warnings on page 59.

CLEANING PROCEDURE

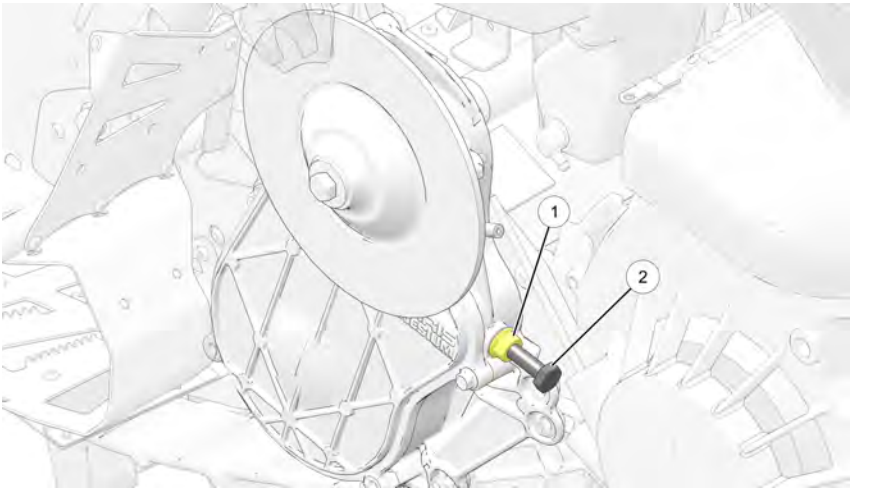


1. Turn the fuel valve off.
2. Position a container or shop towel below the plug to catch drained fuel.
3. Slide the clamp ① away from the drain plug ② and remove the drain plug from the sediment tube.
4. Wipe residue from the plug and reinstall it.
5. Reposition the clamp (with the clasp facing outward) and tighten.
6. Repeat the draining procedure for any remaining traps.

DRIVE CHAIN TENSION

Check drive chain tension weekly and before each long trip.

1. Remove the side panels.
2. Rotate the driven clutch counter-clockwise to move all chain slack to the tensioner side. Lock the brake lever lock, or have an assistant hold the brake lever firmly.
3. Loosen the adjuster bolt jam nut ①.



4. Finger tighten the adjuster bolt ② until it can no longer be adjusted by hand, then back off 1/4 turn.
5. Tighten the jam nut while holding the adjuster bolt.

TORQUE
Jam Nut **21 ft-lbs (28 N·m)**

6. Reinstall the side panels.
7. Release the brake lever lock.

BRAKES

HYDRAULIC BRAKE INSPECTION

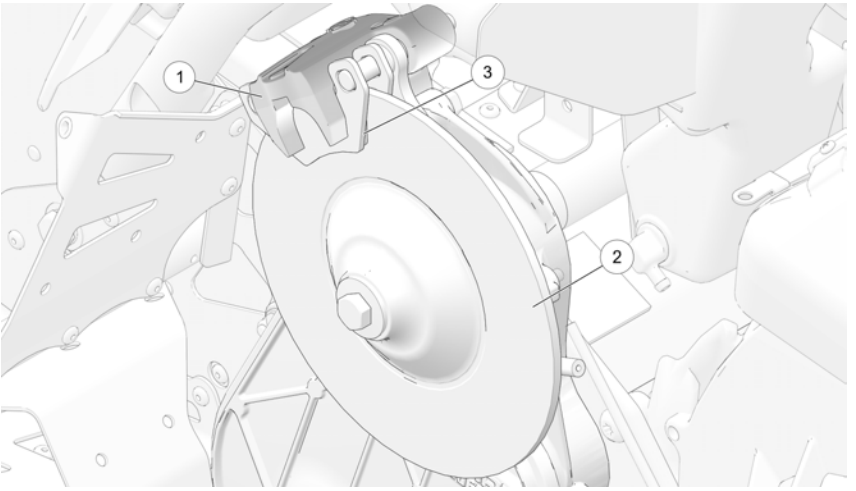
Inspect the brake lever reserve before each use of the snowmobile. See page 51.

Brake pads must be replaced when the brake pad material becomes thinner than the backing plate (approximately 1/16 inch or 1.5 mm). A kit is available for replacing brake pads. See your dealer.

⚠ WARNING

Brake failure during operation can result in serious injury or death. Properly functioning brakes are vital to your safety. Be sure the brake pads do not drag on the disc and that brake lever travel is not excessive. Always replace brake pads when the brake pad material becomes thinner than the backing plate (approximately 1/16 inch or 1.5 mm).

BRAKE COMPONENTS



① Brake Caliper

② Brake Disc

③ Brake Pad Material (replace when thickness is less than 1/16 in. or 1.5 mm)

EXCESSIVE LEVER TRAVEL

Hydraulic brakes are self-adjusting, but if excessive brake pad clearance develops, bring the snowmobile to an authorized POLARIS dealer for inspection and adjustment.

BRAKE FLUID

Replace brake fluid at least every two years with POLARIS DOT 4 high temperature brake fluid, or an equivalent product.

⚠ 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 serious injury.

⚠ WARNING

Keep the master cylinder cover free of dirt and debris. The vent slits allow for diaphragm movement, and if they become plugged, movement of brake fluid below the diaphragm may be restricted, altering brake function.

NOTICE

Brake fluid will damage labels, paint and some plastics. Always wipe up spills immediately.

BLEEDING THE HYDRAULIC BRAKE SYSTEM

Air in the hydraulic brake system will cause spongy brake lever action. Bleed the system before operating the snowmobile.

⚠ WARNING

Operating the vehicle with a spongy brake lever can result in loss of brakes, which could cause an accident and lead to serious injury or death. Never operate the vehicle with a spongy-feeling brake lever.

⚠ CAUTION

Hot exhaust system parts can cause burns. Allow adequate time for the exhaust system to cool. Never perform this procedure with the engine running.

During the bleeding procedure, keep the brake handle as level as possible. The reservoir must be in this position to minimize the possibility of air entering the system through the reservoir vent.

1. Remove the brake master cylinder reservoir cover and gasket.
2. Fill the master cylinder reservoir to 1/4-5/16 inch (.6-.8 cm) below the lip of the reservoir opening. Reinstall the gasket and cover.
3. Slip a rubber tube over the ball of the bleeder valve and direct the flow of fluid into an approved container.
4. Squeeze the brake lever a full stroke. Then unscrew the bleeder valve 3/4 of a turn to release air.
5. Close the bleeder valve and release the brake lever.
6. Repeat steps 4–5 until fluid flows from the bleeder valve in a solid stream free of air bubbles.

⚠ WARNING

Overfilling the master cylinder leaves no room for fluid expansion and may cause the brakes to lock, resulting in serious injury or death. Always add brake fluid to the fill line as recommended.

7. After bleeding is complete, refill the reservoir to the proper level. See page 86.
8. Reinstall the gasket and cover.

LIGHTS

When servicing a halogen lamp, avoid touching the lamp with bare fingers. Oil from your skin leaves a residue, causing a hot spot that will shorten the life of the lamp. If fingers do touch a lamp, clean it with denatured alcohol.

HEADLIGHT LAMP REPLACEMENT

1. Peel back the foam shield covering the headlight assembly.
2. Remove the wire harness connector from the back of the headlight.
3. Grasp the bulb housing and turn it *counter-clockwise* to remove the bulb.
4. Apply dielectric grease to the socket and install the new bulb. Rotate the bulb 1/4 turn clockwise to secure it.
5. Reinstall the connector to the back of the headlight.
6. Secure the foam shield.

TAILLIGHT/BRAKE LIGHT REPLACEMENT

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

CLUTCH SYSTEM

Periodically inspect clutch sheaves for damage, wear or belt residue. To maintain optimum performance, clean with non-oil based cleaners such as isopropyl alcohol.

⚠ WARNING

If you become aware of higher than normal clutch engagement or an unusual vibration or shift pattern, see your dealer or qualified person immediately. Do not operate the snowmobile until repairs have been made.

All clutch maintenance and repairs can be performed by an authorized POLARIS dealer. Any unauthorized modifications to clutches, such as adding or removing weights, will void the warranty.

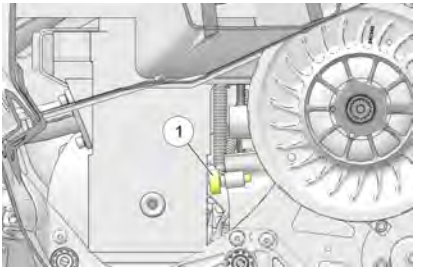
NOTICE

The slider blocks and bushings of the 550 clutches are made of a material that may be damaged if lubricated. Do not lubricate bushings or slider blocks.

TORQUE STOP

Periodically check torque stop ① clearance. With clutches in proper alignment, the torque stop clearance should be .010-.030 inch (.25-.75 mm) from the engine case.

Adjust if necessary, and lock the jam nut.



DRIVE BELT CONDITION

Periodically check the condition and tension of the drive belt. Inspect the belt for signs of excessive wear: frayed edges, missing cogs, cracks and excessive looseness. Replace the belt if any of these conditions exist.

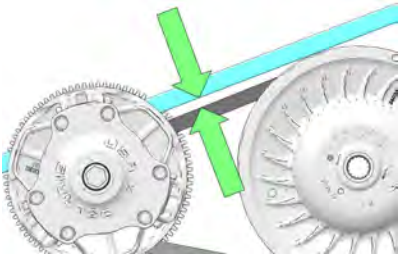
Always carry a spare drive belt. Store the spare belt in the belt clip located under the left side of the hood.

For improved drive-away during extremely cold temperatures, remove the belt and warm it to room temperature. Reinstall it before starting the snowmobile.

DRIVE BELT DEFLECTION

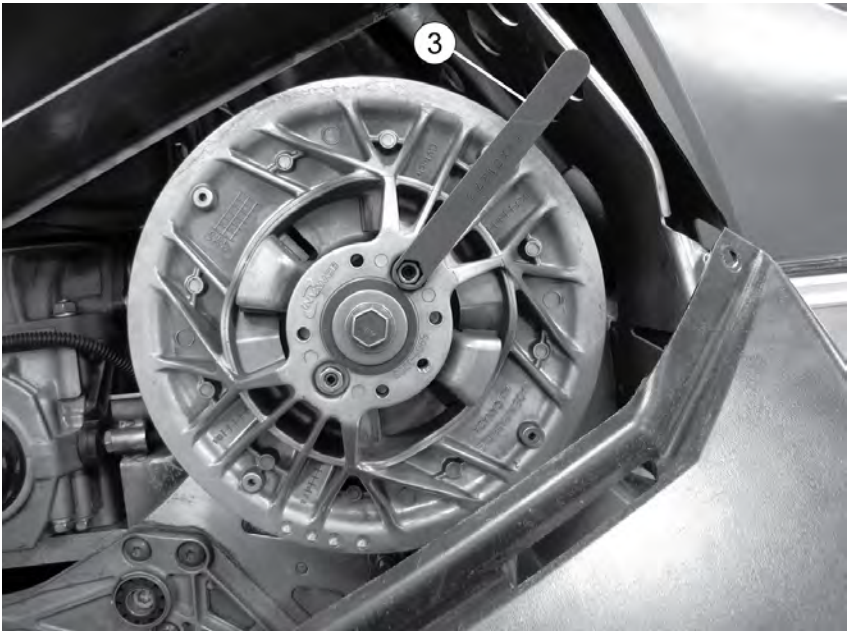
Measure belt deflection with both clutches at rest and in their full neutral position.

Place a straight edge on the belt and apply downward pressure while measuring at point. This measurement should be 1 1/8 - 1 1/4 in. (2.85 - 3.2 cm).



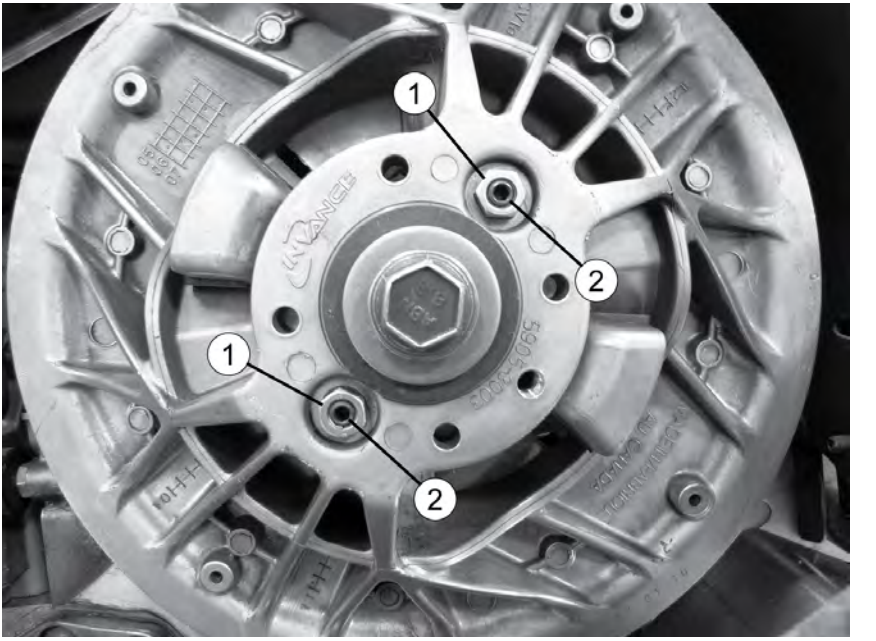
DRIVE BELT DEFLECTION ADJUSTMENT

Adjusting the drive belt deflection is accomplished by turning the driven clutch offset screws inwards to increase deflection, or outwards to decrease deflection. Use the Belt Tension Adjuster Tool to loosen, hold, and tighten the jam nuts.



Belt Tension Adjuster Tool
PN: PS-51272

1. Loosen the two 6 mm jam nuts ① using the Belt Tension Adjuster tool ③. The adjuster tool is designed to allow access to the adjuster screw while holding the jam nut.



NOTICE
Both adjuster screws will need to be turned outwards (counter-clockwise) to decrease deflection. When making adjustments, only adjust one of the screws.

2. To increase belt deflection, use a 3 mm Allen wrench to turn one of the adjuster screws ② inwards (clockwise). To decrease belt deflection, turn the set screw outwards (counter-clockwise).
3. Make adjustments until drive belt deflection is set to specification.

Drive Belt Deflection
1.13-1.25 in (2.85-3.2 cm)

4. After achieving the desired belt deflection, tighten the jam nut to specification while holding the adjuster screw stationary.
5. Turn the remaining adjuster screw inwards until it makes contact with the spacer washer. Turn screw inwards slightly, and then tighten jam nut to specification while holding the adjuster screw stationary.

TORQUE
Driven Clutch Adjustment Screw Jam Nuts 57.5-75 in-lbs (6.5-8.5 N·m)

DRIVE BELT REMOVAL

NOTICE
Do not attempt to remove the drive belt after operating in reverse. The snowmobile must be stopped after forward motion to prevent damage to components during belt removal. Rotate the driven clutch counter-clockwise 1/4 turn by hand to ensure forward engagement before attempting to remove the belt.

1. Stop the engine after operating in a forward motion.
2. Turn the ignition key off. Wait for the engine to come to a complete stop.
3. Lock the parking brake.
4. Remove the left side panel.
5. Rotate the driven clutch counter-clockwise 1/4 turn by hand to ensure forward engagement.
6. Locate the L-wrench in the tool kit. Install the wrench into the open threaded hole in the outer sheave of the clutch.
7. Turn the wrench clockwise until the sheaves open far enough to remove the belt. If the wrench does not turn readily, rotate the driven clutch counter-clockwise an additional 1/4 turn by hand and try again.
8. Remove the belt from the driven clutch.

DRIVE BELT INSTALLATION

1. With the L-wrench inserted into the threaded hole and the sheaves in the open position, install the drive belt.

TIP
Install the belt so that the numbers can be read correctly on the left side of the vehicle, or in the direction in which the belt was originally installed.

2. Wiggle the belt to remove slack while removing the L-wrench.
3. Reinstall the side panel.
4. Break in the new belt. See page 58.

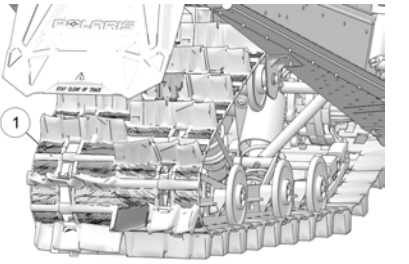
TRACK

TRACK INSPECTION

⚠ WARNING
Broken track rods can cause a rotating track to come off the snowmobile, which could cause serious injury or death. Never operate with a damaged track. Never rotate a damaged track under power.

NOTICE
The figures below are for reference only. Your model may differ slightly.

1. Using a hoist, safely lift and support the rear of the snowmobile off the ground.
2. Rotate the track by hand to check for damage.
3. Carefully examine the track along the entire length of each rod ①. Bend the track to check for breakage.
4. Replace the track if any rod damage is found.



TRACK LUBRICATION

The slide rail needs snow for lubrication. Excessive wear indicates insufficient lubrication. A new rail slide can cause faster heat build-up in limited lubrication, resulting in excessive wear.

⚠ WARNING

Operating with insufficient lubrication between the rail slide and track guide clips can cause track failure, loss of vehicle control and loss of braking ability, which can result in serious injury or death. Avoid operating for extended periods on ice and other surfaces that have little or no snow for lubrication.

If excessive rail slide wear occurs due to poor snow conditions, additional wheel kits are available. Your dealer can provide more information.

Track damage or failure caused by operation on ice or under other poor lubrication conditions will void the track warranty.

TRACK TENSION

⚠ WARNING

Moving parts can cut and crush body parts. When performing the checks and adjustments recommended on the following pages, stay clear of all moving parts. Never perform track measurement or adjustments with the engine running.

Track adjustment is critical for proper handling. Always maintain correct tension and alignment.

TRACK TENSION DATA CHART

Suspension	Weight	Measurement Location	Slack Measurement
144	10 lbs. (4.54 kg)	16 in. (40 cm) ahead of rear idler shaft	7/8-1 1/8 in. (2.2-2.9 cm)
155	10 lbs. (4.54 kg)	16 in. (40 cm) ahead of rear idler shaft	3/8-1/2 in. (1.0-1.3 cm)

TRACK TENSION DATA CHART			
INDY (121)	10 lbs. (4.54 kg)	16 in. (40 cm) ahead of rear idler shaft	7/8-1 1/8 in. (2.2-2.9 cm)
INDY EVO	10 lbs. (4.54 kg)	16 in. (40 cm) ahead of rear idler shaft	7/8-1 1/8 in. (2.2-2.9 cm)

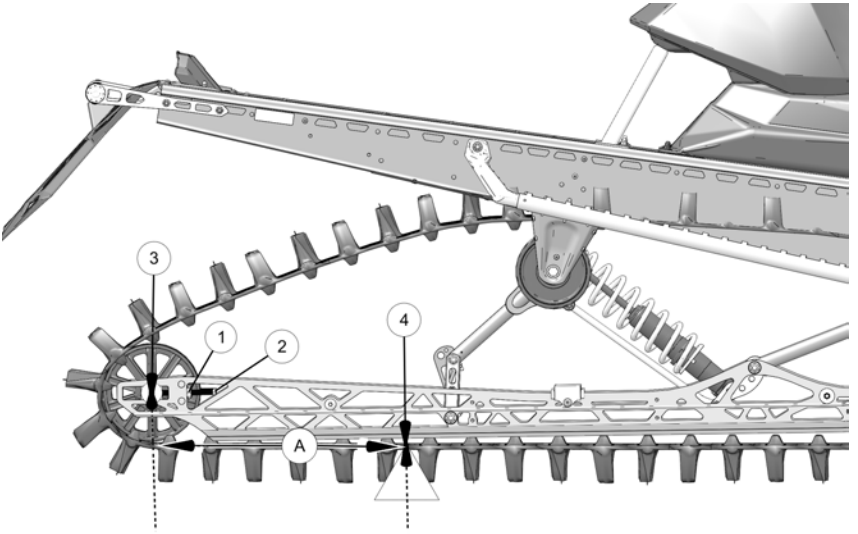
TIP
Tension adjustments should be made only after the track is warmed up and limber.

1. Turn the engine off.
2. Lift the rear of the snowmobile and safely support it off the ground.
3. Place the recommended weight or downward pressure on the track at the specified distance (see chart) ahead of the center of the rear idler wheel.
4. Measure at the point where the weight is hanging.
5. Check for specified slack between the wear surface of the track clip and the plastic slider.

   If the track needs adjustment:

6. Loosen the rear idler shaft bolt ③.

7. Loosen the locknuts ①.



8. Tighten or loosen the track adjusting screws to provide equal adjustment on both sides of the track.
9. Repeat the measurement on the other side of the track.

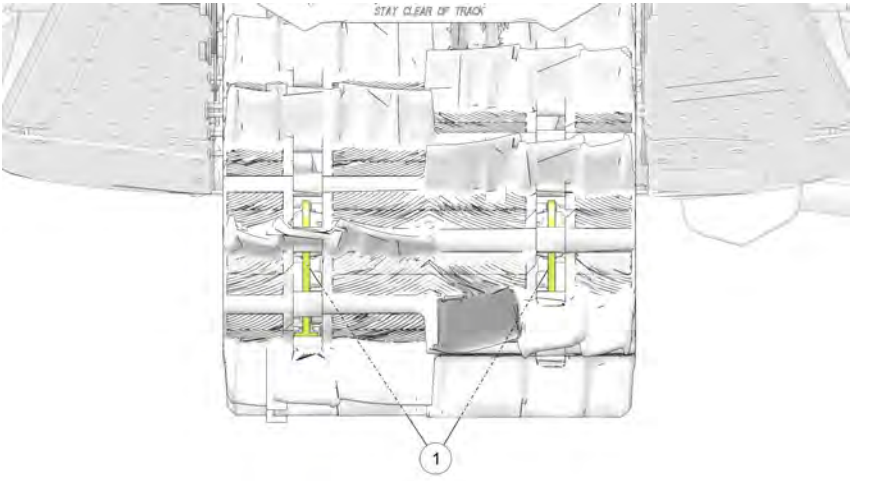
TIP
Check more frequently when the snowmobile is new.

10. Start the engine and slowly rotate the track at least five revolutions. Let the track come to a stop (do not apply brakes).
11. Check track alignment (see page 96) and adjust as necessary.
12. Tighten the locknuts.
13. Tighten the idler shaft bolts.

TORQUE
35 ft. lbs. (47.5 Nm)

TRACK ALIGNMENT

Periodically check that the track is centered and running evenly on the slide rails ①. Misalignment will cause excessive wear to the track and slide rail.



1. Safely support the rear of the snowmobile with the track off the ground.
2. Start the engine and apply a small amount of throttle until the track turns slowly at least five complete revolutions. Stop the engine and let the track come to a stop (do not apply brakes).
3. Inspect track alignment by looking through the track window to make sure the rails are evenly spaced on each side. If the track runs to the left, loosen the idler shaft bolt, then loosen the left locknut and tighten the left adjusting bolt. If the track runs to the right, loosen the idler shaft bolt, then loosen the right locknut and tighten the right adjusting bolt.
4. After adjustments are complete, tighten the locknuts.

TORQUE
Locknuts **35 ft-lbs (47.5 N·m)**

5. Repeat steps 2–3 to verify proper alignment.

STEERING SYSTEM

STEERING INSPECTION

Each week, or before a long ride, check all steering system fasteners and tighten if necessary.

SKI ALIGNMENT

WARNING

Improper ski alignment or adjustment may cause loss of steering control, resulting in serious injury or death. Do not attempt to change the ski alignment or camber adjustment. Your POLARIS dealer can perform this service.

If the steering feels heavy, or if the snowmobile seems to pull or dart to the side, ski alignment may need adjustment. Refer to the service manual, or your dealer, to perform this service.

SKI TOE SETTINGS

WARNING

Improper ski toe adjustment may cause loss of steering control, resulting in serious injury or death. Do not attempt to change toe adjustment. Your POLARIS dealer can perform this service.

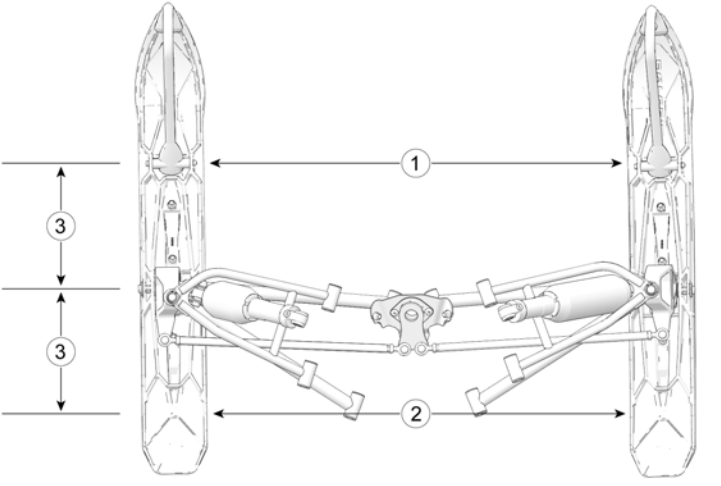
The skis on your snowmobile are set with a small amount of toe-out at the factory. You can inspect the toe setting by following the procedure below.

SKI TOE MEASUREMENT TABLE

Model	Skis Off Ground (Yes/No)	Difference Between ① and ② Measurements
550 Switchback 144 550 Voyageur 144 550 Voyageur LXT 550 Voyageur LXT NorthStar 550 Voyageur Adventure 144	Yes	0-1/8 in. (0-3 mm)
550 Voyageur 155	No	1/8-1/4 in. (3-6 cm)

SKI TOE MEASUREMENT TABLE		
550 INDY Sport 121	Yes	0-1/8 in. (0-3 mm)
INDY EVO EVO RMK	Yes	5/16-3/8 in. (8-9.5 mm)

1. On some models, measuring ski toe must be done with the skis off the ground. Refer to the ski toe measurement table above.
2. If your model requires lifting the skis off the ground, safely elevate the front end of the snowmobile using a floor jack.
3. If your model does not require lifting the skis, make sure only vehicle weight is compressing the suspension when measuring.
4. Place the handlebars in a straight-ahead position.
5. Measure 10 inches (25.4 cm) forward from the center of the ski mounting bolt③. At this point, measure between the skis. This is measurement ①.
6. Perform the same measurement rearward from the center of the ski mounting bolt. This is measurement ②.
7. The ① measurement should be greater than the ② measurement by the amount shown in the ski toe measurement table. If the skis are misaligned, or if ski toe requires adjustment, your dealer can assist.



SKI SKAGS

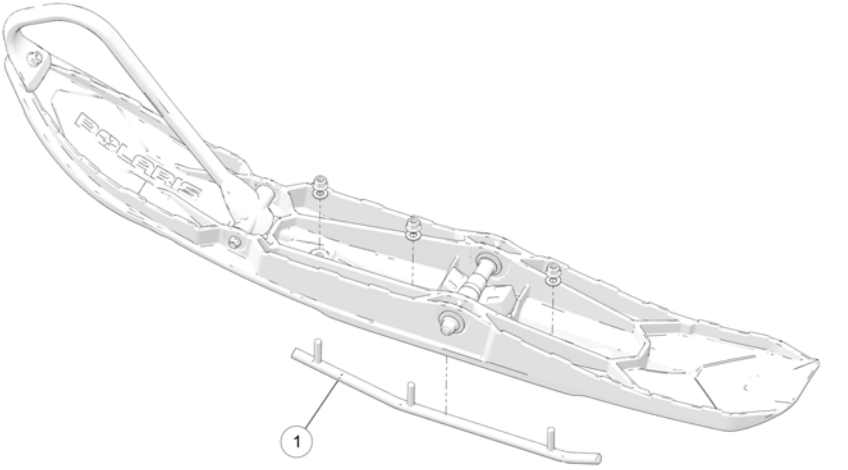
See your dealer's studding chart for recommended skags. If you install longer or more aggressive carbide skags than the original equipment, it may also be necessary to add track studs to maintain proper vehicle control while turning on hard-packed snow or ice.

WARNING

Worn skis and/or skags will adversely affect handling. Loss of vehicle control may result, causing serious injury or death.

Check skags before each use of the snowmobile to ensure positive steering characteristics. Skags must be replaced when worn to half their original diameter. Carbide skags must be replaced if any abnormal wear or chipping is found.

SKAG REPLACEMENT

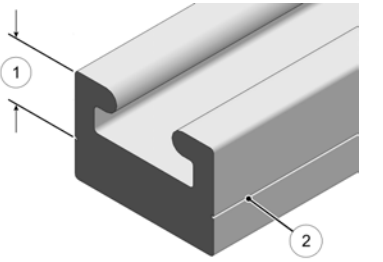


To replace the skag, do the following:

1. Raise and support the front of the snowmobile so the skis are approximately 6 inches (15.2 cm) from the ground.
2. Remove the attaching hardware and pry the skag ① downward.
3. Remove the front end of the skag.
4. Remove the rear end of the skag.
5. Reverse the steps to install a skag.

RAIL SLIDE WEAR

For ease of inspection, all POLARIS rail slides have a wear limit indicator groove to indicate the minimum permissible slide thickness ①. Replace the rail slides if they are worn to the top of the groove ② at any point along their length. Failure to do so may result in permanent damage to the track or rails.



BATTERY MAINTENANCE

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.

⚠ WARNING

CALIFORNIA PROPOSITION 65 WARNING:

Batteries, battery posts, terminals and related accessories can expose you to chemicals including lead, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

⚠ 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.

BATTERY REMOVAL

1. Remove the right side panel to access the battery. See page 74.
2. Disconnect the black (negative) battery cable first.
3. Disconnect the red (positive) battery cable last.
4. Remove the battery.

BATTERY INSTALLATION

When installing a new battery, make sure it's fully charged prior to its initial use. 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 outlined in this owner's manual before installing the battery.

1. Ensure that the battery is fully charged.
2. Set the battery in the battery holder.
3. Connect and tighten the red (positive) cable first.
4. Connect and tighten the black (negative) cable last.
5. Verify that cables are properly routed.
6. Re-install the battery cover.
7. Reinstall the side panel.

BATTERY IDENTIFICATION

IMPORTANT

It is important to identify what type of battery is installed in the vehicle. Different types of batteries require different service procedures. Proper servicing and upkeep of the battery is very important for maintaining long battery life.

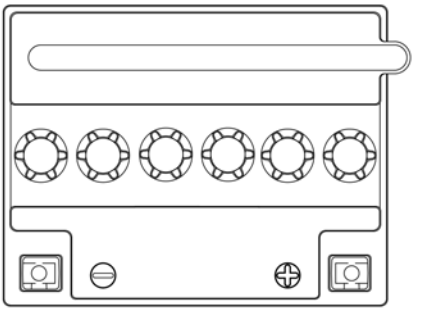
The types of batteries are:

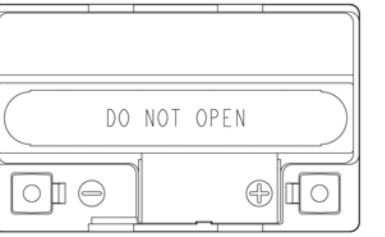
- Lead Acid Conventional
- Dry Shipped Absorbed Glass Mat (AGM)
- Lead Acid Low Maintenance
- AGM Low Maintenance

Refer to the examples below to identify the type of battery in your vehicle.

LEAD ACID CONVENTIONAL / DRY SHIPPED AGM BATTERY

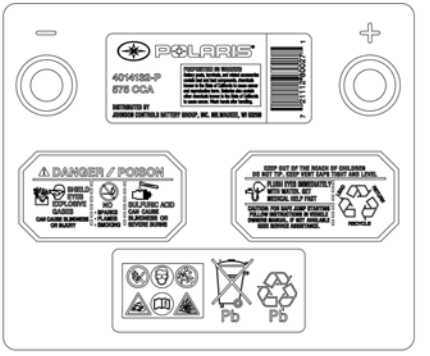
- The battery is NOT activated when packaged
- A removable cap plugs / strip is located on top of the battery
- Distilled water is added as required (Lead Acid only)
- A vent tube is located on the side of battery (Lead Acid only)

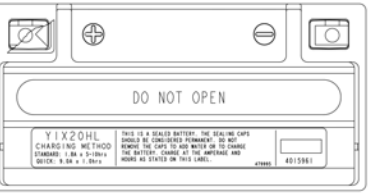




LOW MAINTENANCE BATTERY

- The battery is activated when packaged
- Non removable cap(s) is / are located on top of the battery
- Distilled water or electrolyte is NEVER added

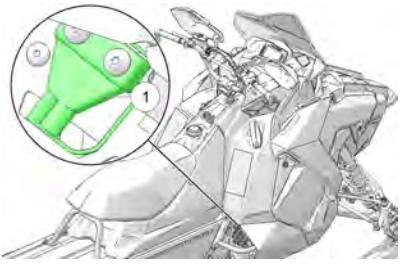




BATTERY CHARGING

To ensure your battery maintains its level of charge, the battery should be connected to a battery trickle charger using the battery charge port ①.

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 the battery voltage is 12.8 or greater using the battery charge port ①.



RESTRICTION

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

⚠ 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.

TIP

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

State of Charge	Voltage	Action	Charge Time*
100%	12.8-13.0 volts	None, check at 3 mos. from date of manufacture	None required
75%-100%	12.5-12.8 volts	May need slight 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
*Using constant current charge @ standard amps specified on top of battery.			

OFF SEASON STORAGE

NOTICE
If the battery is stored during the winter months, electrolyte will freeze at higher temperatures as the battery discharges. The chart below indicates freezing points by specific gravity.

SPECIFIC GRAVITY OF ELECTROLYTE	FREEZING POINT
1.265	-75° F
1.225	-35° F
1.200	-17° F
1.150	+5° F
1.100	+18° F
1.050	+27° F

LEAD ACID CONVENTIONAL BATTERY MAINTENANCE

Recharge the battery to its full capacity every 30 to 60 days.

If the battery is stored or used in a partially charged condition, hard crystal sulfation will form on the plates, reducing the efficiency and service life of the battery.

⚠ CAUTION
NEVER add electrolyte to the battery once the battery is in service. If necessary, only add distilled water to the battery .

Store the battery in the vehicle with the cables disconnected, or store the battery in a cool / dry location. Batteries will self discharge more rapidly when stored in extreme temperatures.

DRY SHIPPED AGM BATTERY MAINTENANCE

⚠ CAUTION
NEVER add electrolyte or distilled water to the battery once the battery is in service.

If you do not drive the vehicle for more than TWO weeks, maintain the Absorbent Glass Mat (AGM) battery with the BatteryMINDer® 2012 AGM - 2 AMP charger (or a similar charger).

BatteryMINDer® 2012 AGM - 2 AMP battery charger
2830438

If you plan to store the vehicle for ONE month or longer, remove the battery from the vehicle and store the battery in a cool / dry location. Continue to maintain the battery with the 2 AMP charger and inspect the battery every 60 days.

LEAD ACID LOW MAINTENANCE BATTERY MAINTENANCE

Recharge the battery to its full capacity every 30 to 60 days.

If the battery is stored or used in a partially charged condition, hard crystal sulfation will form on the plates, reducing the efficiency and service life of the battery.

⚠ CAUTION

NEVER add electrolyte or distilled water to the battery. Doing so will damage the case and shorten the life of the battery.

Store the battery in the vehicle with the cables disconnected, or store the battery in a cool / dry location. Batteries will self discharge more rapidly when stored in extreme temperatures.

AGM LOW MAINTENANCE BATTERY MAINTENANCE

⚠ CAUTION

NEVER add electrolyte or distilled water to the battery. Doing so will damage the case and shorten the life of the battery.

If you do not drive the vehicle for more than TWO weeks, maintain the Absorbent Glass Mat (AGM) battery with the BatteryMINDer® 2012 AGM - 2 AMP charger (or a similar charger).

BatteryMINDer® 2012 AGM - 2 AMP battery charger
2830438

If you plan to store the vehicle for ONE month or longer, remove the battery from the vehicle and store the battery in a cool / dry location. Continue to maintain the battery with the BatteryMINDer® 2012 AGM - 2 AMP charger (or a similar charger) and inspect the battery every 60 days.

FALL TUNE-UP

For maximum performance, your POLARIS dealer can perform a fall service tune-up. Their experienced and trained service technicians will keep your snowmobile in peak operating condition.

TRANSPORTING THE SNOWMOBILE

Whenever the snowmobile is transported:

1. Turn the fuel valve off. See page 60.
2. Be sure the fuel cap and oil cap are installed correctly.
3. Always tie the snowmobile to the transporting unit securely using suitable straps.
4. Remove the ignition key to prevent loss.

SUMMER STORAGE GUIDE

TREATING THE FUEL SYSTEM

As the riding season draws to a close, Polaris recommends riders begin treating their snowmobile's fuel system with Polaris Carbon Clean or similar commercially-available fuel stabilizer.

Treating the fuel system with Carbon Clean during the last few rides of the season ensures the entire fuel system is treated. Then, when it comes time to store the snowmobile, all the rider has to do is completely fill the fuel tank with fresh, non-oxygenated fuel and treat the new fuel with Carbon Clean.
It is also recommended riders use non-oxygenated fuel during the last rides of the season as non-oxygenated fuel stores better than oxygenated fuel and resists water vapor absorption.
If the rider was unable to treat the fuel system and/or use non-oxygenated fuel at the end of the riding season, the rider should do the following:

1. The rider should consume as much fuel in the fuel tank as possible during the last rides of the season.
2. When performing the summerization storage procedures, fill the fuel tank completely with non-oxygenated fuel. Note that most oxygenated fuels contain ethanol. Since ethanol is hydroscopic, oxygenated fuel will absorb a small amount of water vapor during the storage season and more so in humid locations. Completely filling the tank with non-oxygenated fuel minimizes water vapor absorption during the storage period and limits the amount of air and water vapor that can accumulate in the tank.
3. Treat the fuel in the fuel tank with the recommend amount of Polaris Carbon Clean. The recommended mixing ratio is outlined on the bottle label.

4. Position the snowmobile outside in a well-ventilated area.
5. Start and run the engine for 10-15 minutes to distribute the treated fuel throughout the fuel system.

NOTICE
On Carbureted engines (550cc / 120 Youth), run the engine for 10-15 minutes and then turn the fuel shut off valve to 'OFF'. Continue to run the engine until the engine stalls and turns off. Doing this drains the carburetors of fuel.

FOGGING THE ENGINE

Fogging the engine with Polaris fogging oil or similar commercial alternative is probably the most important storage step a rider can do to ensure the internal parts of their snowmobile's engine do not rust and corrode during the storage season.

To fog the engine, do the following:

1. Remove the spark plugs from the engine.
2. Liberally spray fogging oil into each spark plug hole. If possible, have an assistant slowly pull on the recoil rope to rotate the engine while spraying the oil into each cylinder.
3. Loosely install the spark plugs.

NOTICE
Do not install new spark plugs after fogging the cylinders. Fogging oil prevents the formation of rust / corrosion by sticking to the internal engine components – including the spark plug electrodes. Replace these spark plugs the following season after all of the fogging oil has been burned out of the engine.

DRIVE BELT STORAGE

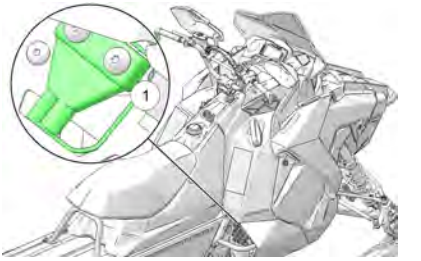
Never leave the drive belt installed in the clutches as oxidation may form where the belt contacts the aluminum clutch sheave faces.

To clean the drive and driven clutches, do the following:

1. Remove the primary and spare drive belt from the snowmobile.
2. Inspect the drive belt for wear and glazing. Compare the primary belt with the spare belt. Decide if a new belt is needed next season and note the primary belt can now be used as the spare belt next season.
3. Clean the drive and driven clutch sheaves with Isopropyl Alcohol. Allow the alcohol to air dry. Continue cleaning the sheave faces until all belt residue is removed.

BATTERY/ELECTRICAL SYSTEM STORAGE

Never leave a battery unattended during the storage season. Snowmobile batteries are small and cannot maintain their charge over the storage season. To ensure your battery maintains its level of charge, the battery should be connected to a battery trickle charger using the battery charge port ①.



1. While the battery can remain installed on the snowmobile, it is recommended the battery be removed from the snowmobile and stored in a cool, and dry location. Removing the battery from the snowmobile facilitates off-site storage of the snowmobile where electricity may not be available to connect a battery charger. In addition, removing the battery allows access to other maintenance items, such as the chaincase chain tensioner bolt.
2. Connect a Polaris battery charger or equivalent commercially available charger to the battery.
3. Inspect the electrical connections and wire harnesses throughout the snowmobile. If damage is found, make a note of the damage so that you and your authorized Polaris dealer can address the concern.

CHAINCASE

Never leave ‘used’ lubricant in the chaincase during the storage season. Doing so may leave water present in the chaincase which may cause corrosion and rust.

1. Follow the Owner’s Manual procedures and drain / fill the chaincase with new Polaris SCL (Synthetic Chaincase Lubricant). All Polaris PRO-RIDE, AXYS, and MATRYX snowmobile feature ‘fill-to-spill’ lubricant fill specifications which makes it relatively ‘easy’ to re-fill the chaincase.
2. Rotate the driven clutch in the direction of forward vehicle travel to move the chain slack to the tensioner-side of the drive system. Lock the parking brake.
3. Loosen the drive chain adjuster lock nut. Turn the adjuster screw inwards until it can no longer be turned by hand.
4. At this point, turn the adjuster nut ¼ turn counter clockwise.
5. Tighten and then torque the jam nut to the specification listed in the Owner’s Manual. Release the parking brake.

NOTICE
If the snowmobile is equipped with a transmission (Titan / WideTrak snowmobiles), there is not a drive chain adjustment procedure.

CLEANING THE SNOWMOBILE

Snowmobiles, especially those transported on sled decks and open trailers can accumulate a lot of water and road dirt / salt during the riding season. The snowmobile must be thoroughly washed and cleaned to prevent corrosion and rust formation.

1. Wash the snowmobile with a garden hose and a solution of soapy water. Note that if a pressure washer is used, care should be taken to not point the pressure washer nozzle close to the snowmobile which may force high pressure water into suspension / shock shaft seals and exposed electrical connectors.
2. Dry the snowmobile with a lint-free towel. Allow the entire snowmobile to air dry afterwards.
3. Clean the engine compartment. Use a shop vacuum if required to remove dirt, leaves, cat tails, etc. from within the engine compartment.
4. Hand wash the exhaust system and dry the pipe and silencer with a clean shop towel.
5. Apply “spray” metal protectant on exposed metal components, such as the exhaust pipe, silencer, shock shafts, and suspension springs / pivots.

IMPORTANT
Do not spray metal protectant on the drive or driven clutches.

LUBRICATE THE PIVOTS

After washing the snowmobile, it is important to use Polaris Premium All Season grease to lubricate the various suspension / steering pivot points. Doing so forces any water accumulated within the joints out which prevents the formation of corrosion and rust.

1. Use a grease gun and Polaris Premium All Season Grease. Reference the appropriate Owner’s Manual to locate any / all grease zerks on the steering and suspension systems.
2. Pump fresh grease into all zerks until the grease can be seen purging out of each joint.
3. Use a paper towel to clean up and remove all of the residual purged grease from the joints.

STORING THE SNOWMOBILE

Never store the snowmobile in a hot, humid location if possible. Try to store the snowmobile away from direct sunlight.

1. Cover the snowmobile with a Polaris cover or after-market equivalent cover.
2. Store in a location away from water, tall grass, and direct sunlight. The storage location should have some level of ventilation to prevent stagnant, humid air from accumulating in and around the snowmobile.

WINTER RIDE PREPARATION

Preparing a snowmobile for in-season service is basically performing some of the summer storage procedures in reverse order.

1. Move the snowmobile outside to a well-ventilated area. Raise the rear suspension up, off the ground. Remove the engine compartment side panel and hood.
2. Prep the primary and back up (secondary) for winter use. It is recommended the belts be washed with a solution of warm, soapy water and allowed to air dry.
3. If the snowmobile is equipped with electric start or a PIDD on-board battery, remove the battery from the battery charger and re-install it back into the battery box. Follow the owner's manual for battery installation procedures.
4. Verify the spark plugs are installed and torqued. Re-install the spark plug wires.

NOTICE
Verify you hear an audible "click" when pushing the spark plug caps down onto the spark plugs. This ensures the plug caps are seated properly.

5. If you placed dryer sheets inside the engine compartment, remove them.
6. Using clean and dry shop towel, wipe down the exhaust pipe , silencer, and clutch sheaves.
7. Install the primary drive belt onto the clutches with the "Polaris" writing readable from the outside of the snowmobile.
8. Install the back-up (secondary) drive belt into the belt holder.
9. On the carbureted snowmobiles, turn the fuel shut-off valve to the ON position.
10. With the track suspended up, off the ground, follow the track tension adjustment procedure as outlined in your owner's manual.

11. Start and run the engine. Allow the engine to run for at least 15 minutes. Occasionally “blip” the throttle to rev the engine.

NOTICE
The exhausted may emit more smoke than usual as the fogging oil is burned out of the engine.

12. While the engine is running, verify there are no coolant leaks (on liquid cooled engines). After engaging the throttle a few times to spin the track, verify the track is aligned with the slide rails.
13. Turn off the engine. If the track requires, re-align the track at this time.
14. After adjusting the track or allowing the engine to cool down. Add coolant to reservoir bottle if required.
15. Re-start the engine and allow it to run for another 15 minutes. After 15 Minutes, shutoff the engine and allow the exhaust pipe to cool.
16. Remove and discard the spark plugs. Install new spark plugs into the engine. Obtain two more new spark plugs and install them into the spark plug holders or storage bag.
17. Inspect the ski wear bars/carbides. Now is the time to replace the wear bars if damage if found or carbides are worn.
18. Add Carbon Clean to the fuel tank.
19. Log onto www.ridecommand.com and download the latest TRAILS PIDD update files. Update the PIDD (if equipped) with the latest TRAILS update file.
20. Grease the rear suspension grease zerks with Polaris Premium All Season grease just enough to push out any water that may have accumulated in the suspension pivot points.

SPECIFICATIONS

INDY SPORT 121
SWITCHBACK 144
VOYAGEUR ADVENTURE 144
VOYAGEUR LXT
VOYAGEUR LXT NORTHSTAR
VOYAGEUR 144

CAPACITIES AND DIMENSIONS	
Body Style	PRO-RIDE
Coolant Capacity	N/A
Rider Capacity	1 Rider Adventure Models: 2 Riders
Chaincase Oil Capacity	8.96 oz (265 mL)
Fuel Capacity	11.5 gal (43.5 L)
Oil Capacity	3.05 qt (2.89 L)
Gearcase Oil Capacity	N/A
Height	48.75 in (123.2 cm)
Length	114 in (289 cm)
Designed Width	48 in (122 cm)
Brake Type	Hayes® Phantom Lite DOT 4
Drive Clutch Center Distance	10.63 in (27 cm)
Drive Belt P/N	3211154
Drive Clutch Type	CVTech PB50®
Driven Clutch Type	CVTech Invance®
Reverse Transmission	Electronic Reverse

ENGINE AND COOLING	
Engine Model Number	S8756-5555-LR5T
Displacement	544 cc
Cylinders	2
Bore x Stroke (mm)	73.0 x 65.0
Alternator Output	280 watt
Carburetor/Throttle Body	2-Mikuni®
Carburetor Model	VM34
Idle RPM (+/- 200)	1700
Rated Operating RPM (+/- 200)	7000
Cooling	Fan Air
Ignition Type	Kokusan® 16 Bit ER
Ignition Timing	15° BTDC @ 1600 RPM / 14° BTDC @ 6500 RPM
Spark Plug / Gap	NGK® BR9ES / 0.028 in (0.70 mm)
Recommended Engine Oil	Polaris Blue 2-Cycle Semi-Synthetic Oil
Recommended Fuel Octane	Minimum 87 non-oxygenated
CARBURETOR SETTINGS	
Main Jet	220
Pilot Jet	45
Jet Needle/Clip Position	6BGY48/#4
Needle Jet	Q-0 (480)
Cutaway	3
Throttle Gap Under CA	0.275 in (6.98 mm)
Fuel Screw (from fully seated)	N/A
Air Screw (from fully seated)	1.5 Turns Fixed
Pilot Air Jet	2.5

FEATURES	
Electric Fuel Gauge	N/A
Low Oil Light	Standard
Parking Brake	Standard
Speedometer	Standard
Tachometer	Standard

CARBURETOR JETTING

CARBURETOR JETTING – ALL MODELS									
*SHADED CELLS INDICATE FACTORY SETTINGS									
ALTITUDE METERS (FEET)	AMBIENT TEMPERATURE								
	°F	BELOW -30	-30 TO -10	-15 TO +5	0 TO +20	+15 TO +35	+30 TO +50	+45 TO +65	ABOVE +65
	°C	BELOW -34	-34 TO -23	-26 TO -15	-18 TO -7	-9 TO +2	-1 TO +10	+7 TO +18	ABOVE +18
0-600 (0-2000)	Main Jet	240	230	220	220	210	210	195	185
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#5	#4	#4	#4	#3	#3	#2	#1/2
600-1200 (2000-40-00)	Main Jet	230	220	210	210	200	190	190	175
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#4	#4	#3	#3	#2	#2	#1
1200-18-00 (4000-60-00)	Main Jet	210	200	200	195	190	180	180	170
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#4	#3	#3	#2	#2	#2	#1
1800-24-00 (6000-80-00)	Main Jet	200	190	185	180	170	165	160	160
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#4	#3	#3	#2	#2	#1	#1

CARBURETOR JETTING – ALL MODELS									
*SHADED CELLS INDICATE FACTORY SETTINGS									
ALTITUDE METERS (FEET)	AMBIENT TEMPERATURE								
	°F	BELOW -30	-30 TO -10	-15 TO +5	0 TO +20	+15 TO +35	+30 TO +50	+45 TO +65	ABOVE +65
	°C	BELOW -34	-34 TO -23	-26 TO -15	-18 TO -7	-9 TO +2	-1 TO +10	+7 TO +18	ABOVE +18
2400-30-00 (8000-10000)	Main Jet	190	180	170	165	160	155	150	150
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#3	#3	#2	#2	#1	#1	#1
3000-37-00 (10000-12000)	Main Jet	170	160	160	155	155	150	145	145
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#3	#2	#2	#1	#1	#1	#1
The carburetor jetting chart above is consistent with the provisions of U.S.A. federal regulation 40 CFR 1051.115(d)(3) and is an acceptable alternative to the use of tamper-resistant features.									

CLUTCHING AND GEARING

INDY 121					
ALTITUDE Meters (Feet)	**Drive Clutch Shift Weight**	**Drive Clutch Spring**	**Driven Clutch Spring**	**Driven Helix**	**Chaincase Gearing/ Pitch**
**Shaded cells indicate factory settings*					
0-600 (0-2000)	2205307-43 gr (1 ea) 2205309-3.2 g (3 ea)	7044154 202-292 CVT 1151-1135	7044155 90-112 CVT 5951-1006	Fixed	18:42 72P
600-1200 (2000-4000)					
1200-1800 (4000-6000)	2205308-21 gr (1 ea) 2205309-3.2 g (8 ea)				
1800-2400 (6000-8000)	2205308-21 gr (1 ea) 2205309-3.2 g (7 ea)				
2400-3000 (8000-10000)	2205308-21 gr (1 ea) 2205309-3.2 g (6 ea)				
3000-3600 (10000-1200-0)	2205308-21 gr (1 ea) 2205309-3.2 g (5 ea)				

LXT AND 144 MODELS					
ALTITUDE Meters (Feet)	**Drive Clutch Shift Weight**	**Drive Clutch Spring**	**Driven Clutch Spring**	**Driven Helix**	**Chaincase Gearing/ Pitch**
**Shaded cells indicate factory settings*					
0-600 (0-2000)	2205307-43 gr (1 ea) 2205309-3.2 g (3 ea)	7044154 202-292 CVT 1151-1135	7044155 90-112 CVT 5951-1006	Fixed	18:42 72P
600-1200 (2000-4000)					
1200-1800 (4000-6000)	2205308-21 gr (1 ea) 2205309-3.2 g (8 ea)				
1800-2400 (6000-8000)	2205308-21 gr (1 ea) 2205309-3.2 g (7 ea)				18:43 72P
2400-3000 (8000-10000)	2205308-21 gr (1 ea) 2205309-3.2 g (6 ea)				
3000-3600 (10000-1200-0)	2205308-21 gr (1 ea) 2205309-3.2 g (5 ea)				

VOYAGEUR 155

CAPACITIES AND DIMENSIONS	
Body Style	PRO-RIDE
Rider Capacity	1 Rider (Voyageur) 2 Riders (Indy Adventure)
Coolant Capacity	N/A
Chaincase Oil Capacity	8.96 oz (265 mL)
Fuel Capacity	11.5 gal (43.5 L)
Oil Capacity	3.05 qt (2.89 L)
Gearcase Oil Capacity	N/A
Height	52 in (132 cm)
Length	133 in (338 cm)
Width	48 in (122 cm)
Brake Type	Hayes® Phantom Lite DOT 4
Drive Clutch Center Distance	10.63 in (27 cm)
Drive Belt P/N	3211174
Drive Clutch Type	CVTech® PB50
Driven Clutch Type	CVTech® Invance
Reverse Transmission	Electronic Reverse
ENGINE AND COOLING	
Engine Model Number	S8756-5555-LR5T
Displacement	544 cc
Cylinders	2
Bore x Stroke (mm)	73.0 x 65.0
Alternator Output	280 watt
Carburetor/Throttle Body	2-Mikuni®
Carburetor Model	VM34
Idle RPM (+/- 200)	1700

Rated Operating RPM (+/- 200)	7000
Cooling	Fan Air
Ignition Type	Kokusan® 16 Bit ER
Ignition Timing	15° BTDC @ 1600 RPM / 14° BTDC @ 6500 RPM
Spark Plug / Gap	NGK® BR9ES / 0.028 in (0.70 mm)
Recommended Engine Oil	Polaris Blue Synthetic Blend 2-Cycle Oil
Recommended Fuel Octane	Minimum 87 non-oxygenated
CARBURETOR SETTINGS	
Main Jet	220
Pilot Jet	45
Jet Needle/Clip Position	6BGY48/#4
Needle Jet	Q-0 (480)
Cutaway	3
Throttle Gap Under CA	0.275 in (6.98 mm)
Fuel Screw (from fully seated)	N/A
Air Screw (from fully seated)	1.5 Turns Fixed
Pilot Air Jet	2.5
FEATURES	
Electric Fuel Gauge	N/A
Low Oil Light	Standard
Parking Brake	Standard
Speedometer	Standard
Tachometer	Standard

CARBURETOR JETTING

CARBURETOR JETTING									
VOYAGEUR 155									
* SHADED CELLS INDICATE FACTORY SETTINGS									
ALTI-TUDE METERS (FEET)	AMBIENT TEMPERATURE								
	°F	BE-LOW - 30	-30 TO - 10	-15 TO +5	0 TO +20	+15 TO +35	+30 TO +50	+45 TO +65	ABO-VE +65
	°C	BE-LOW - 34	-34 TO - 23	-26 TO - 15	-18 TO - 7	-9 TO +2	-1 TO +10	+7 TO +18	ABO-VE +18
0-600 (0-2000)	Main Jet	240	230	220	220	210	210	195	185
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#5	#4	#4	#4	#3	#3	#2	#1/2
600-1200 (2000-40-00)	Main Jet	230	220	210	210	200	190	190	175
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#4	#4	#3	#3	#2	#2	#1
1200-18-00 (4000-60-00)	Main Jet	210	200	200	195	190	180	180	170
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#4	#3	#3	#2	#2	#2	#1
1800-24-00 (6000-80-00)	Main Jet	200	190	185	180	170	165	160	160
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#4	#3	#3	#2	#2	#1	#1
2400-30-00 (8000-10000)	Main Jet	190	180	170	165	160	155	150	150
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#3	#3	#2	#2	#1	#1	#1

CARBURETOR JETTING									
VOYAGEUR 155									
* SHADED CELLS INDICATE FACTORY SETTINGS									
ALTI-TUDE METERS (FEET)	AMBIENT TEMPERATURE								
	°F	BE-LOW - 30	-30 TO - 10	-15 TO +5	0 TO +20	+15 TO +35	+30 TO +50	+45 TO +65	ABO-VE +65
	°C	BE-LOW - 34	-34 TO - 23	-26 TO - 15	-18 TO - 7	-9 TO +2	-1 TO +10	+7 TO +18	ABO-VE +18
3000-37-00 (10000-12000)	Main Jet	170	160	160	155	155	150	145	145
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#3	#2	#2	#1	#1	#1	#1
The carburetor jetting chart above is consistent with the provisions of U.S.A. federal regulation 40 CFR 1051.115(d)(3) and is an acceptable alternative to the use of tamper-resistant features.									

CLUTCHING AND GEARING

CLUTCHING CHART					
VOYAGEUR 155					
ALTITUDE Meters (Feet)	Drive Clutch Shift Weight	Drive Clutch Spring	Driven Clutch Spring	Driven Helix	Chaincase Gearing/ Pitch
Shaded cells indicate factory settings					
0-600 (0-2000)	2205308-21 gr (1 ea) 2205309-3.2 g (8 ea)	7044161 112-247 CVT 1151-1120	7044162 157-180 CVT 5951-1009	Fixed	18:44 72P
600-1200 (2000-4000)					
1200-1800 (4000-6000)	2205308-21 gr (1 ea) 2205309-3.2 g (6 ea)	7044187 135-247 CVT 1151-1125			
1800-2400 (6000-8000)					
2400-3000 (8000-10000)	2205308-21 gr (1 ea) 2205309-3.2 g (4 ea)	7044190 157-247 CVT 1151-1129			
3000-3600 (10000-1200-0)					

INDY EVO
RMK EVO

CAPACITIES AND DIMENSIONS	
Body Style	PRO-RIDE
Rider Capacity	1 Rider
Chaincase Oil Capacity	8.96 oz (265 mL)
Fuel Capacity	10 gal. (37.85 l) 10 gal (37.85 L)
Oil Capacity	3.05 qts. (2.89 l) 3.05 qt (2.89 L)
Gearcase Oil Capacity	N/A
Height	41 in (104.14 cm)
Length	INDY EVO: 114 in (289 cm) EVO RMK: 124.5 in (316.23 cm)
Designed Width	44 in (111.76 cm)
Brake Type	Hayes® Phantom Lite DOT 4
Drive Clutch Center Distance	10.63 in. (27 cm) 10.63 in (27 cm)
Drive Belt P/N	3211154 (INDY EVO Models) 3211174 (EVO RMK Models)
Drive Clutch Type	CVTech PB50®
Driven Clutch Type	CVTech Invance®
Reverse Transmission	Electronic Reverse

ENGINE AND COOLING	
Engine Part Number	Indy EVO: 1208630 RMK EVO: 1205790
Engine Model Number	Indy EVO: S8630-5555-LR5T RMK EVO: S5790-55555-LR5T
Displacement	544 cc
Cylinders	2
Bore x Stroke (mm)	73.0 x 65.0
Alternator Output	280 watt
Carburetor/Throttle Body	2-Mikuni®
Carburetor Model	VM34
Idle RPM (+/- 200)	1700
Rated Operating RPM (+/- 200)	7000
Cooling	Fan Air
Ignition Type	Kokusan® 16 Bit ER
Ignition Timing	15° BTDC @ 1600 RPM / 14° BTDC @ 6500 RPM
Spark Plug / Gap	NGK BR9ES / .028 in (0.70 mm)
Recommended Engine Oil	Polaris Blue 2-Cycle Semi-Synthetic Oil
Recommended Fuel Octane	Minimum 87 non-oxygenated
CARBURETOR SETTINGS	
Main Jet	220
Pilot Jet	45
Jet Needle/Clip Position	6BGY48/#4
Needle Jet	Q-0 (480)
Cutaway	3
Throttle Gap Under CA	6.98 mm / .275 in.
Fuel Screw (from fully seated)	N/A
Air Screw (from fully seated)	1.5 Turns Fixed
Pilot Air Jet	2.5

FEATURES	
Electric Fuel Gauge	N/A
Low Oil Light	Standard
Parking Brake	Standard
Speedometer	Standard
Tachometer	Standard

CARBURETOR JETTING

CARBURETOR JETTING									
*SHADED CELLS INDICATE FACTORY SETTINGS									
ALTITUDE METERS (FEET)	AMBIENT TEMPERATURE								
	°F	BELOW -30	-30 TO -10	-15 TO +5	0 TO +20	+15 TO +35	+30 TO +50	+45 TO +65	ABOVE +65
	°C	BELOW -34	-34 TO -23	-26 TO -15	-18 TO -7	-9 TO +2	-1 TO +10	+7 TO +18	ABOVE +18
0-600 (0-2000)	Main Jet	240	230	220	220	210	210	195	185
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#5	#4	#4	#4	#3	#3	#2	#1/2
600-1200 (2000-4000)	Main Jet	230	220	210	210	200	190	190	175
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#4	#4	#3	#3	#2	#2	#1
1200-1800 (4000-6000)	Main Jet	210	200	200	195	190	180	180	170
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#4	#3	#3	#2	#2	#2	#1
1800-2400 (6000-8000)	Main Jet	200	190	185	180	170	165	160	160
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#4	#3	#3	#2	#2	#1	#1

CARBURETOR JETTING									
*SHADED CELLS INDICATE FACTORY SETTINGS									
ALTI-TUDE METERS (FEET)	AMBIENT TEMPERATURE								
	°F	BE-LOW - 30	-30 TO - 10	-15 TO +5	0 TO +20	+15 TO +35	+30 TO +50	+45 TO +65	ABO-VE +65
	°C	BE-LOW - 34	-34 TO - 23	-26 TO - 15	-18 TO - 7	-9 TO +2	-1 TO +10	+7 TO +18	ABO-VE +18
2400-30-00 (8000-10000)	Main Jet	190	180	170	165	160	155	150	150
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#3	#3	#2	#2	#1	#1	#1
3000-37-00 (10000-12000)	Main Jet	170	160	160	155	155	150	145	145
	Pilot Jet	45	45	45	45	45	45	45	45
	Clip Position	#4	#3	#2	#2	#1	#1	#1	#1
The carburetor jetting chart above is consistent with the provisions of U.S.A. federal regulation 40 CFR 1051.115(d)(3) and is an acceptable alternative to the use of tamper-resistant features.									

CLUTCHING AND GEARING

INDY EVO					
ALTITUDE Meters (Feet)	**Drive Clutch Shift Weight**	**Drive Clutch Spring**	**Driven Clutch Spring**	**Driven Helix**	**Chaincase Gearing/ Pitch**
**Shaded cells indicate factory settings*					
0-600 (0-2000)	2205308-21 gr (1 ea.) 2205309-3.2 g (8 ea.)	7044161 112-247 CVT 1151-1120	7044203 135–157 CVT 5951-1008	Fixed	17:44 72P
600-1200 (2000-4000)					
1200-1800 (4000-6000)	2205308-21 gr (1 ea.) 2205309-3.2 g (7 ea.)	7044187 135-247 CVT 1151-1125			
1800-2400 (6000-8000)	2205308-21 gr (1 ea.) 2205309-3.2 (6 ea.)	7044190 157-247 CVT 1151-1129			
2400-3000 (8000-1000-0)	2205308-21 gr (1 ea.) 2205309-3.2 g (5 ea.)				
3000-3600 (10000-120-00)					

RMK EVO					
ALTITUDE Meters (Feet)	**Drive Clutch Shift Weight**	**Drive Clutch Spring**	**Driven Clutch Spring**	**Driven Helix**	**Chaincase Gearing/ Pitch**
*Shaded cells indicate factory settings					
0-600 (0-2000)	2205308-21 gr (1 ea.) 2205309-3.2 g (8 ea.)	7044188 135-292 CVT 1151-1126	7044203 135–157 CVT 5951-1008	Fixed	17:44 72P
600-1200 (2000-4000)					
1200-1800 (4000-6000)	2205308-21 gr (1 ea.) 2205309-3.2 g (7 ea.)				
1800-2400 (6000-8000)	2205308-21 gr (1 ea.) 2205309-3.2 (6 ea.)	7044190 157-247 CVT 1151-1129			
2400-3000 (8000-1000-0)	2205308-21 gr (1 ea.) 2205309-3.2 g (5 ea.)				
3000-3600 (10000-120-00)					

POLARIS PRODUCTS

POLARIS PRODUCTS

PART NO.	DESCRIPTION
	Engine Lubricants
2870791	Fogging Oil (Aerosol)
2882201	Oil - Polaris Blue SYN qt. (12)
2882202	Oil - Polaris Blue SYN gal. (6)
2882204	Oil - Polaris Blue SYN 2.5 gal. (2)
	Gearcase/Transmission Lubricants
2873105	SCL - Synthetic Chaincase Lubricant qt. (.95 l)
2873106	SCL - Synthetic Chaincase Lubricant gal (3.8 l)
	Grease/Specialized Lubricants
2871312	Grease Gun Kit, All Season (3 oz./89 ml)
2871322	All Season Grease (3 oz./89 ml cartridge)
2871423	All Season Grease (14 oz./414 ml cartridge)
2871329	Dielectric Grease (Nyogel®)
	Additives/Miscellaneous
2871326	Carbon Clean
2870652	Fuel Stabilizer
2872893	Engine Degreaser
2870505	Isopropyl
2878018	Shock Thread Spray Lubricant

TROUBLESHOOTING

ENGINE TROUBLESHOOTING

Unless you have experience and training in two-cycle engine repair, your dealer can assist if technical problems arise.

PROBLEM	PROBABLE CAUSE	SOLUTION
Erratic engine operating RPM during acceleration or load variations	Drive clutch binding	Your dealer can perform this service.
	Driven clutch malfunction	Your dealer can perform this service
Harsh drive clutch engagement	Drive belt worn or too narrow	Replace the drive belt.
	Excessive belt/sheave clearance	Your dealer can perform this service.
Drive belt turns over	Wrong belt for application	Replace the drive belt.
	Clutch alignment out of spec	Your dealer can perform this service.
	Engine mount broken or loose	Inspect and replace. Your dealer can perform this service.
Machine fails to move	Clutch jammed	Check for twisted belt or broken spring. Your dealer can perform this service.
	Track jammed	• Foreign object may be caught or the rail slide melted to the track clips due to lack of lubrication. • Track may be iced up or frozen to the ground.
	Chaincase sprocket or chain jammed or broken	Chain is loose or broken or chain tightener is loose. Your dealer can perform this service.

PROBLEM	PROBABLE CAUSE	SOLUTION
Noise in drive system	Broken drive clutch components	Your dealer can perform this service.
	Bearing failure/ chaincase, jackshaft, or front drive shaft	Your dealer can perform this service.
	Drive belt surface flat spots	Inspect and replace as needed.
	Drive chain loose	Inspect and adjust (or replace).
	Drive chain worn, sprocket teeth broken	Your dealer can perform this service.
Poor low RPM performance	Worn drive belt	Inspect and replace as needed.
	Excessive belt/sheave clearance	Your dealer can perform this service.
	Sticky clutch	Your dealer can perform this service.
	Poor fuel quality	Use 87-91 octane fuel (or higher).
Engine doesn't turn	Seized engine	Your dealer can perform this service. Seizure is a result of poor lubrication, inadequate fuel supply, broken parts or improper cooling.
	Hydrostatic lock	Fuel may have entered the crankcase while the vehicle was standing or being transported. Drain plug(s) are located on the lower crankcase for emergency draining. Your dealer can perform this service

PROBLEM	PROBABLE CAUSE	SOLUTION
Engine turns but fails to start	Faulty ignition	Install new spark plug(s). If engine still fails to start, check for spark. If there's no spark, Your dealer can perform this service.
	No fuel to engine	• Make sure the fuel valve is on. • Make sure tank contains fuel. • Ice may be in the fuel line, filter or pump. Add isopropyl alcohol to the fuel system. • Your dealer can perform this service.
	Poor engine compression	This indicates a major engine problem that must be repaired before operating. Your dealer can perform this service.
Engine lacks power	Fouled or defective spark plug(s)	Replace the plug(s).
	Fuel filter (loss of high RPM power)	Your dealer can perform this service.
	Plugged fuel filter or tank pick-up sock	Your dealer can perform this service.
	Incorrect clutching	Your dealer can perform this service.
Engine continually backfires	Faulty plug(s)	Change plug(s), ensure caps are seated.
	Fuel System	Dirt or ice may be in the fuel system (deicer should be added to non-ethanol fuel at all times for assurance against fuel line icing).

PROBLEM	PROBABLE CAUSE	SOLUTION
	Incorrect throttle freeplay or faulty switch	Your dealer can perform this service.
Engine requires more than normal pulls to start	Poor fuel	Replace with fresh winter fuel.
	Not enough fuel getting to engine	Your dealer can perform this service.
	Plugged fuel filter or tank pick-up sock	Your dealer can perform this service.

REAR SUSPENSION TROUBLESHOOTING

Problem	Solution
Rear suspension bottoms too easily	• Refer to the suspension adjustment and set-up information beginning on page 35.
Rides too stiff in rear	• Refer to the suspension adjustment and set-up information beginning on page 35. • Check for binding suspension shafts and grease all pivot points.
Machine darts from side to side	• Your dealer can perform a ski alignment inspection. • Make sure spindles and all steering components turn freely. • Check for excessive play in steering assembly (your dealer can perform this service). • Ensure skags are straight on skis. • Check rail slide/replace if worn (see page 100).

Front end pushes	• Check for worn skags. • Check for binding front suspension shafts and steering components, grease all pivot points (elevate front of machine). • Increase IFS preload (if equipped).
Steering is heavy	• Make sure spindles and all steering components turn freely. • Your dealer can perform a ski alignment inspection. • Check skags and skis for damage.

DRIVE BELT TROUBLESHOOTING

BELT WEAR/BURN DIAGNOSIS	
CAUSES	**SOLUTIONS**
Driving at low RPM	Drive at higher RPMs. Gear the machine down. Check belt deflection.
Insufficient warm-up	Warm the engine at least five minutes. Take the drive belt off the snowmobile in extremely cold weather and warm it up. Break snowmobile loose from the snow.
Towing at low RPM	Do not tow in deep snow. Use fast, aggressive throttle to engage clutch.
Riding with high RPM and slow speed (8000 RPM/10 MPH/16 km/h)	Lower the gear ratio. Reduce RPM. Avoid riding in high ambient temperatures. Check for snow ingestion.
Ice and snow build-up between track and tunnel	Warm the engine at least five minutes. Take the drive belt off the snowmobile in extremely cold weather and warm it up. Break snowmobile loose from the snow.
Poor engine performance	Check for fouled plugs and water, ice or dirt in the fuel tank or fuel line.
Loading snowmobiles onto trailers	Skis may gouge into trailers and prevent the drivetrain from spinning properly. Use enough speed to drive the snowmobile completely onto the trailer. Push and pull it to finish loading if necessary.

BELT WEAR/BURN DIAGNOSIS	
CAUSES	**SOLUTIONS**
Clutch malfunction	Inspect clutch components. Your dealer can perform this service.
Slow, easy clutch engagement	Use fast, aggressive throttle to engage clutch.

WARRANTY

SERVICE AND WARRANTY INFORMATION

OBTAINING SERVICE AND WARRANTY ASSISTANCE

Read and understand the service data and the POLARIS warranty information contained in this manual. Contact your POLARIS dealer for replacement parts, service or warranty. Your dealer receives frequent updates on changes, modifications and tips on snowmobile maintenance, which may supersede information contained in this manual. Your dealer is also familiar with POLARIS policies and procedures and will be happy to assist you.

When contacting us about parts, service, or warranty, always provide the following information:

1. Serial number
2. Model number
3. Dealer name
4. Date of purchase
5. Details of trouble experienced
6. Length of time and conditions of operation
7. Previous correspondence

Use the page provided near the front of your owner's manual to record the identification numbers of your snowmobile and its engine.

POLARIS CUSTOMER SERVICE

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

French: 1-800-268-6334

LIMITED WARRANTY

POLARIS Industries Inc., 2100 Highway 55, Medina, MN 55340 (POLARIS) gives a 12 MONTH LIMITED WARRANTY on all components of your POLARIS vehicle against defects in material or workmanship. 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. The duration of this warranty may vary by international region based upon local laws and regulations.

THIS WARRANTY MAY BE VOIDED BY ANY UNAPPROVED MODIFICATIONS TO THIS VEHICLE THAT ALTER, DAMAGE OR AFFECT POWERTRAIN, EXHAUST, CHASSIS OR SUSPENSION.

Promotional warranties are sometimes offered by POLARIS, including but not limited to:

- Two-year extended engine coverage
- Two-year powertrain coverage
- Extended service contract

See your dealer for details and separate terms and conditions for any promotional warranties.

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. Initial dealer preparation and set-up of your vehicle is very important in ensuring trouble-free operation.

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 damage to any vehicle, component or part as a result of being structurally altered, modified, neglected, improperly maintained or used for racing, competition or purposes other than for which it was designed.

This warranty also excludes 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; failure due to snow, water, dirt or other foreign substance ingestion/contamination; improper maintenance; modified components; use of aftermarket components; unauthorized repairs; repairs made after the warranty period expires or by an unauthorized repair center; use of the product in competition or for commercial purposes. Warranty will not apply to any product which has been damaged by abuse, accident, fire or any other casualty not determined a defect of materials or workmanship.

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:

Skis
Tracks
Suspension components
Brake components
Seat components
Clutches and components
Steering components
Batteries
Light bulbs/Sealed beam lamps
Idler wheels
Sealants
Coolant
Fuel
Ski wear rods
Slide rails
Finished and unfinished surfaces
Carburetor/Throttle body components
Engine components
Drive belts
Hydraulic components
Circuit breakers/Fuses
Electronic components
Spark Plugs
Lubricants
Filters

LUBRICANTS AND FLUIDS

1. Mixing oil brands or using non-recommended oil may cause engine damage. We recommend the use of POLARIS engine oil.

2. Damage or failure resulting from the use of non-recommended lubricants or fluids is not covered by this warranty.

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

THE EXCLUSIVE REMEDY FOR BREACH OF THIS WARRANTY SHALL BE, AT POLARIS' OPTION, REPAIR OR REPLACEMENT OF ANY DEFECTIVE MATERIALS, COMPONENTS, OR PRODUCTS. THE REMEDIES SET FORTH IN THIS WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON FOR BREACH OF THIS WARRANTY. POLARIS SHALL HAVE NO LIABILITY TO ANY PERSON FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY DESCRIPTION, WHETHER ARISING OUT OF EXPRESS OR IMPLIED WARRANTY OR ANY OTHER CONTRACT, NEGLIGENCE, OR OTHER TORT OR OTHERWISE. THIS EXCLUSION OF CONSEQUENTAL, INCIDENTAL AND SPECIAL DAMAGES IS INDEPENDENT FROM AND SHALL SURVIVE ANY FINDING THAT THE EXCLUSIVE REMEDY FAILED OF ITS ESSENTIAL PURPOSE.

THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS EXCLUDED FROM THIS LIMITED WARRANTY. ALL OTHER IMPLIED WARRANTIES (INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY) ARE LIMITED IN DURATION TO THE ABOVE 12 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

You are responsible for presenting your vehicle to an authorized POLARIS Dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. However any damage caused to the product by you or any non-authorized third party may void this warranty. Warranty or Service Bulletin repairs must be done by an authorized POLARIS Dealer, or other qualified person authorized by POLARIS.

IN THE COUNTRY WHERE YOUR PRODUCT WAS PURCHASED:

Warranty or service bulletin repairs must be done by an authorized POLARIS dealer, or other qualified person authorized by POLARIS. If you move or are traveling within the country where your product was purchased, warranty and service bulletin repairs may be requested from an authorized POLARIS dealer, or other qualified person authorized by POLARIS.

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.

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. However, we encourage you to register your product at a local authorized POLARIS dealer promptly to receive safety information and notice 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 this emissions-certified vehicle starts on the date the vehicle is first purchased and continues for a period of 200 hours of engine operation; 4,000 kilometers (2,485 miles) of vehicle travel; or 30 calendar months from the date of purchase, whichever comes first.

This Emissions Limited Warranty covers components if their failure increases the vehicle's regulated emissions, and it covers components of systems if their 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 if their 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
- Electronic 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

*As related to the evaporative emission control system.

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 damage to any engine as a result of being structurally altered, or when the vehicle has been used in racing competition. This Limited Warranty also does not cover physical damage, corrosion or defects caused by fire, explosions or other similar causes beyond the control of POLARIS.

Owners are responsible for performing the scheduled maintenance identified in the owner’s manual. POLARIS may deny warranty claims for failures that have 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. POLARIS recommends that you contact an authorized POLARIS dealer to perform any service that may be necessary for your vehicle. POLARIS also recommends that you use only 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.

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) or visit polaris.com.

French: 1-800-268-6334

MAINTENANCE LOG

MAINTENANCE LOG

Present this section of your manual to your dealer each time your snowmobile is serviced. This will provide you and future owners with an accurate log of maintenance and services performed on the snowmobile.

DATE	MILES (KM)	TECHNICIAN	SERVICE PERFORMED / COMMENTS
	150 mi. (240 km)		
	500 mi (800 km)		
	1000 mi (1600 km)		
	2000 mi (3200 km)		

DATE	HOURS	TECHNICIAN	SERVICE PERFORMED / COMMENTS

A

B

C

D

E

F

H

I

J

K

L

M

N

O

P

R

S

T

V

W

For your nearest Polaris dealer,
call 1-800-POLARIS (765-2747)
or visit www.polaris.com

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