PMS 419

2017

POLARIS®

The Way Out.

600 IQ® Widetrak

Snowmobile Owner's Manual

for Maintenance and Safety

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⚠ 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

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

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or visit www.polarisindustries.com
Polaris Sales Inc.,
2100 Hwy. 55, Medina, MN 55340
Phone 1-888-704-5290
Part No. 9923387 Rev 01
Printed in USA

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WELCOME

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

- Snowmobiles
- All-terrain vehicles (ATVs)
- *RANGER*® utility vehicles
- Victory Motorcycles®
- Low emission vehicles (LEVs)

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

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

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

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

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The Way Out.

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Copyright 2011 POLARIS Sales Inc. All information contained within this publication is based on the latest product information at the time of publication. Due to constant improvements in the design and quality of production components, some minor discrepancies may result between the actual vehicle and the information presented in this publication. Depictions and/or procedures in this publication are intended for reference use only. No liability can be accepted for omissions or inaccuracies. Any reprinting or reuse of the depictions and/or procedures contained within, whether whole or in part, is expressly prohibited.

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

Printed in U.S.A.

2012 600 IQ Widetrak Owner’s Manual

P/N 9923387

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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 by your dealer at specific mileage intervals.

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.

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INTRODUCTION

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

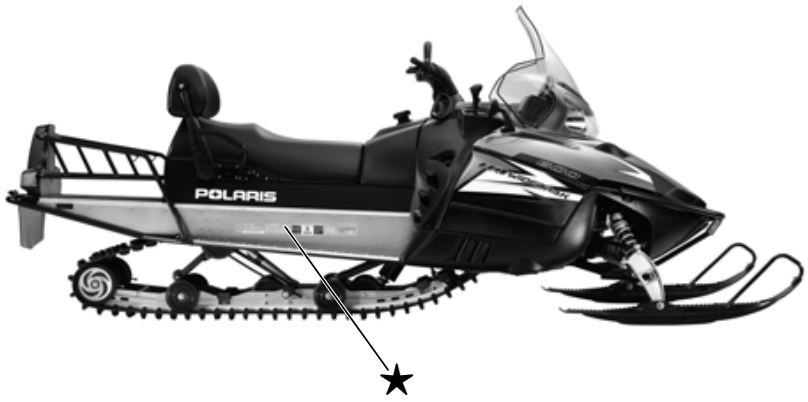
POLARIS engineers continuously investigate ways to reduce emission levels of two-stroke engines. We expect our efforts to lead to the reduction of potential air pollution.

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.

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Vehicle Identification Numbers

Record your snowmobile's identification numbers and key number in the spaces provided. Remove the spare key and store it in a safe place. Your key can be duplicated only by mating a POLARIS key blank with one of your existing keys, so if both keys are lost, the ignition switch must be replaced.



Vehicle Model Number: _____

Tunnel VIN (★): _____
(right side of the tunnel)

Engine Serial Number (on valve cover): _____

Key Number: _____

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SAFETY

Operator Safety

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



The safety alert symbol indicates a potential personal injury hazard.

WARNING

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

CAUTION

A CAUTION indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

A NOTICE indicates a situation that may result in property damage.

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Operator Safety

Follow the recommended maintenance program outlined beginning on page 77 of this manual to ensure that all critical components on the snowmobile are thoroughly inspected by your dealer at specific mileage intervals.

⚠ 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.

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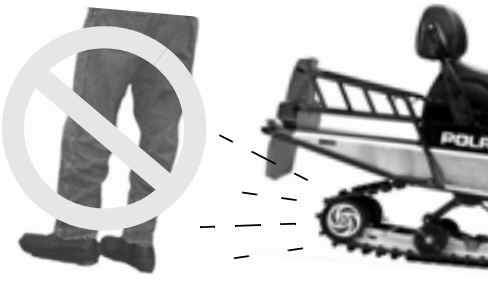
SAFETY

Operator Safety

Stay Clear of Track

Your snowmobile is propelled by a revolving track that must be partially exposed for proper operation.

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, raise the hood, make the adjustment, secure shields and guards, secure the 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.

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Operator Safety

Riding Position

Operating a snowmobile requires skill and balance for proper control. Rider positions may vary with experience; 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.

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
- Extra Oil
- Fuel Deicer
- Winter Survival Kit
- Trail Map
- First Aid Kit
- Tool Kit

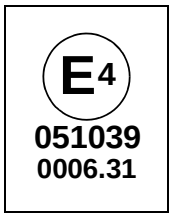
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SAFETY
Operator Safety
Riding Apparel
Helmet

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

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

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



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

Be prepared, be warm and be comfortable when riding. Be aware of the weather forecast, especially the windchill, and dress accordingly. See the chart on page 23.

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.



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Operator Safety

Rider Capacity

Your snowmobile is designed for up to two riders. A decal on the *console* indicates that the vehicle is designed for one operator and one passenger only.

WARNING! Operating improperly with a passenger could cause loss of control and result in serious injury or death. Control becomes more difficult with two people on board. More space is required to make turns, and longer distances are needed for stopping. Make sure the passenger remains seated behind the driver, facing forward, with both feet placed firmly on the running boards. Slow down and avoid “jumping” the snowmobile.

Snowmobiles designed for two riders should never be operated with more than two people on board. *Slow down!* Control becomes more difficult with two people on board. More space is required to make turns, and longer distances are necessary for stopping.

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SAFETY

Operator Safety

Cargo Capacity

See page 32 for cargo loading information.

WARNING! Overloading the cargo carrier can cause loss of control resulting in severe injury or death. The maximum cargo carrier capacity is 75 lbs. (34 kg). Never exceed the cargo carrier capacity.

Disabled Operators

Safe operation of this rider-active vehicle requires good judgement and physical skills.

WARNING! Operators with cognitive or physical disabilities have an increased risk of loss of control, which could result in serious injury or death. Do not allow disabled persons to operate this vehicle.

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Operator Safety

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.

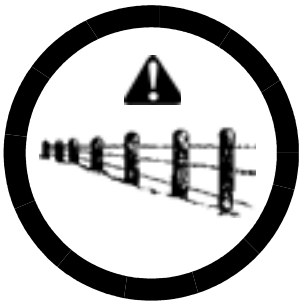
Always observe all state and local laws governing snowmobile operation and speed limits. Always be alert and pay attention to the trail ahead. If your speed is 40 MPH (64 km/h), your snowmobile is traveling about 60 feet (18 m) per second. If you look back for only two seconds, your snowmobile will travel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

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SAFETY
Operator Safety
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. 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 sponsored by local or state organizations.

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Operator Safety

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.

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SAFETY

Operator Safety

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 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.

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Operator Safety

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.

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 rollover.

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.

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SAFETY

Operator Safety

Drive Belt

Do not operate the engine with the drive belt removed.

CAUTION! Operation of the engine with the belt removed may result in personal injury or damage to the engine.

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

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 must 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. Warm the drive belt by allowing the engine to idle in neutral for several minutes. Apply the throttle with enough authority to put the snowmobile into motion, but always operate within safety limits and, on 2-up machines, 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 for lighter operators or snowmobiles designed to carry a load or a passenger.

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Operator Safety

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.

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SAFETY
Operator Safety
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 machine and with what it will and won't do under various conditions. Even seasoned drivers should spend some time getting the feel for a machine 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.

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Operator Safety

Windchill/Temperature Charts

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

WIND CHILL 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.							

WIND CHILL CHART (°C)

Wind Speed in KPH	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.							

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SAFETY

Safety Decals and Locations

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

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

Clutch Warning

This warning decal is found under the hood on the air plenum:

WARNING

Do not operate with hood open.

Do not attempt adjustment with engine running.

Do not operate engine with plenum/belt guard removed.

Never run engine with drive belt removed.

Never service clutches yourself. See your dealer.

Pressure Cap Warning

This warning decal is found under the hood on the pressure cap of applicable liquid cooled models:

WARNING

Do not open hot. Test or replace when changing coolant. Press down and turn to release cap. 13 PSI

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Safety Decals and Locations

Passenger Warning

Snowmobiles designed for an operator and one passenger have a warning decal on the console. For more information on operating with a passenger, see page 13.

WARNING

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

Track Warning

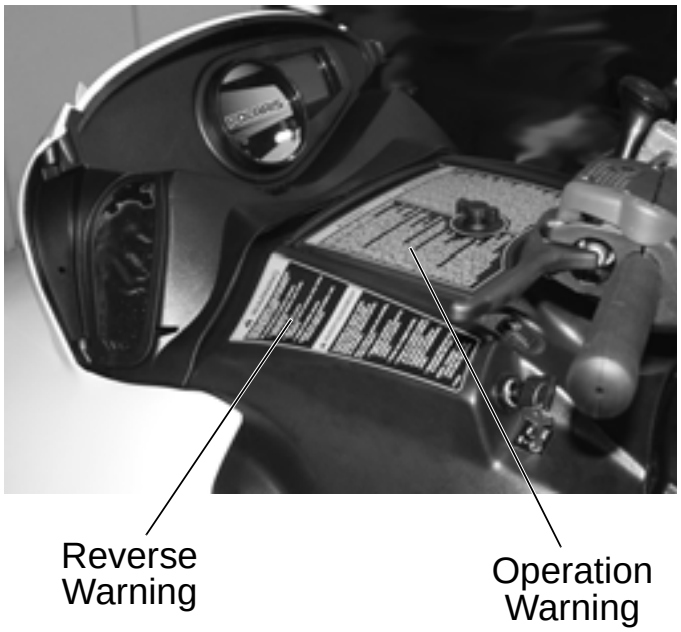
WARNING

Stay clear of track. Do not sit on seat back. Entanglement with the track or a fall from seat back may result in severe injury or death.



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SAFETY
Safety Decals and Locations



Reverse Warning

POLARIS snowmobiles equipped with standard reverse and will have this decal on the console:

WARNING

Reverse operation, even at low speeds, can cause loss of control resulting in serious injury or death. To avoid loss of control, always:

- **Look behind before and while backing up.**
- **Avoid sharp turns.**
- **Shift to or from reverse only when stopped.**
- **Apply throttle slowly.**

NOTE: For more information, see Owner's Manual.

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Safety Decals and Locations

Operation Warning

An operation warning decal is present on the console of all POLARIS snowmobiles:

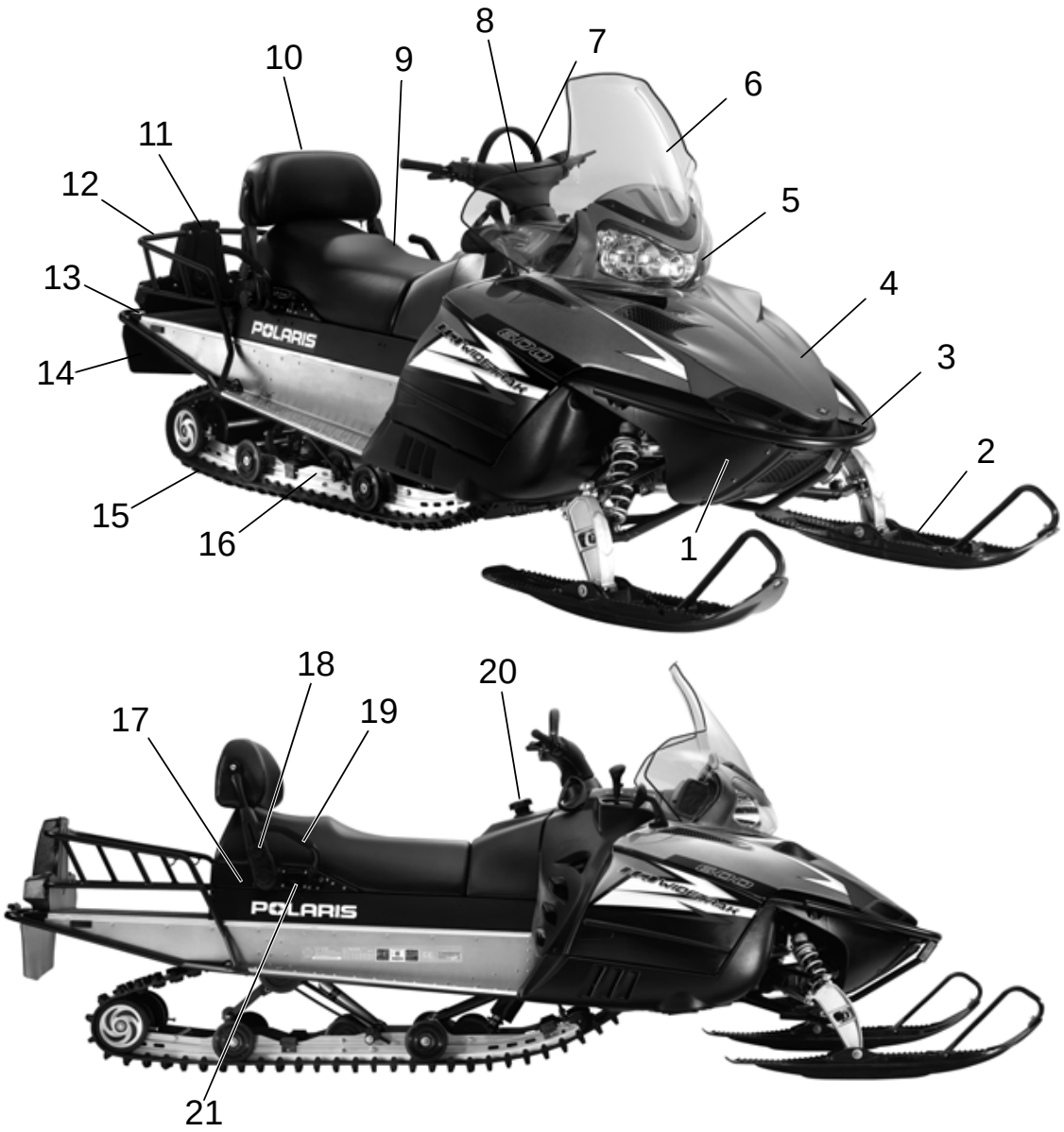
WARNING

- **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.

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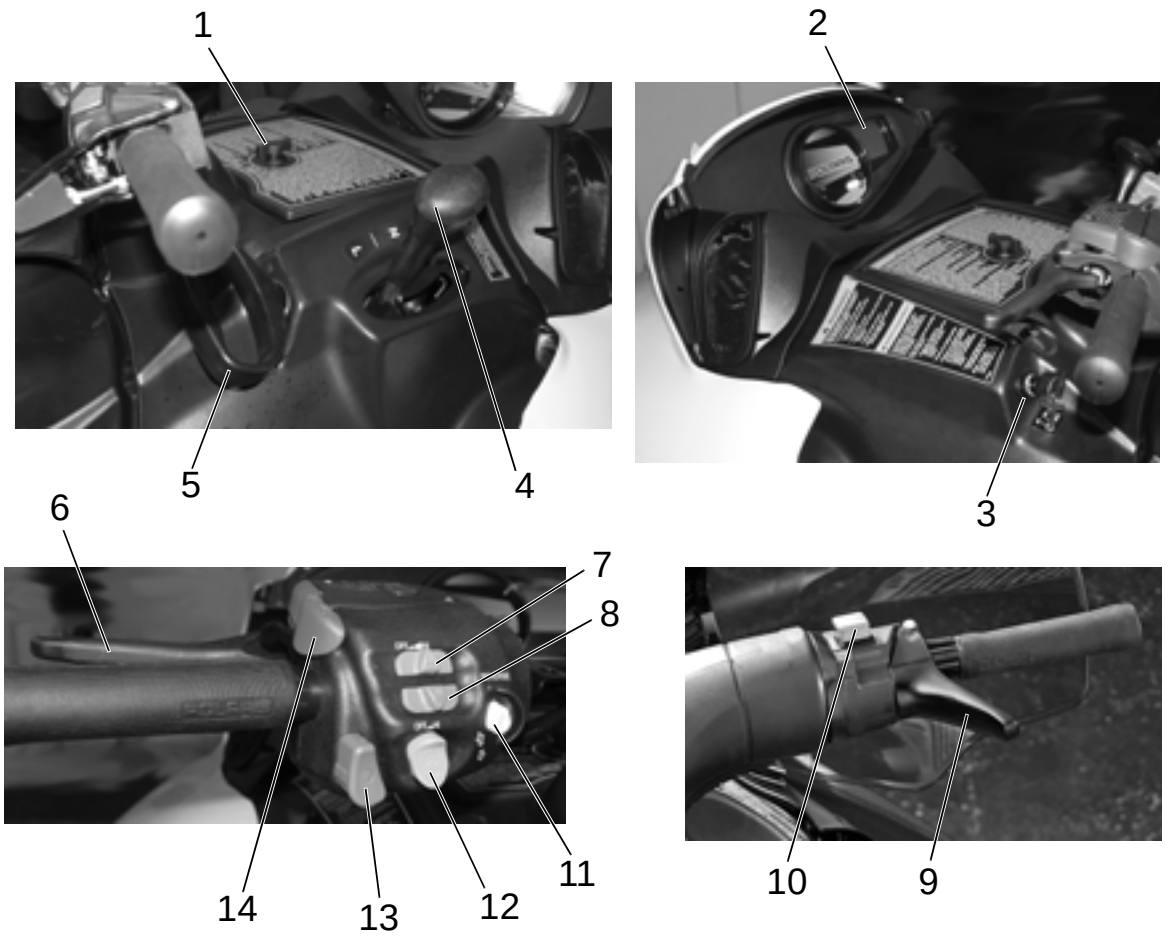
FEATURES



1. Nosepan
2. Skis
3. Front Bumper
4. Hood
5. Headlight
6. Windshield
7. Mountain Bar
8. Handlebar
9. Seat
10. Backrest
11. Taillights
12. Cargo Carrier
13. Rear Bumper
14. Snow Flap
15. Track
16. Suspension
17. Grab Handle Heater Switch
18. Backrest Adjustment Knob
19. Passenger Grab Handle
20. Fuel Filler Cap
21. Seat Latch

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FEATURES



1. Glove Box
2. MFD Display
3. Ignition Switch
4. Shifter
5. Recoil Starter Handle
6. Brake Lever
7. Handlebar Grip Warmer Switch
8. Thumbwarmer Switch
9. Throttle Control
10. Engine Stop Switch
11. Electronic Reverse Button
12. MFD Control Switch
13. Headlight Dimmer Switch
14. Parking Brake Lock

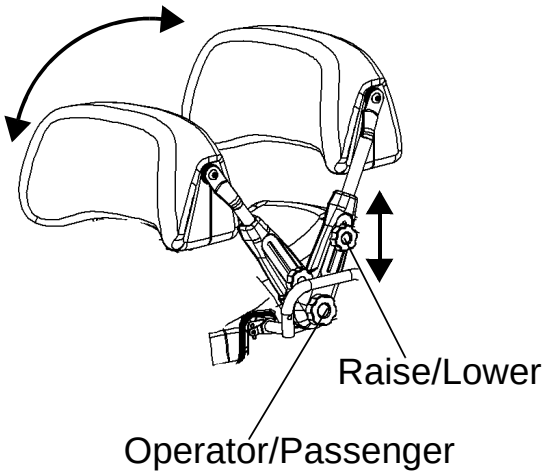
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FEATURES

Backrest

The backrest is adjustable for either operator or passenger use.

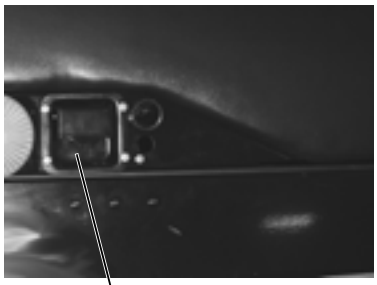
1. Loosen the upper adjustment knobs to raise or lower the backrest.
2. Loosen the lower adjustment knobs to move the backrest forward for operator use or rearward for passenger use.
3. Always tighten the knobs securely after adjusting.



Seat Latch

Release the seat latch and raise the seat to access the battery and under-seat storage area.

Check the seat latch before each use of the snowmobile. Push downward on the seat near the seat latch, then attempt to raise the seat by pulling upward on the right-hand passenger grab handle. Make sure the latch is secure before riding.



Under-Seat Storage

When using the under-seat storage area to transport supplies and other items, pack the items securely to prevent them from moving around in the storage area. Smaller items should be placed in bags or containers to keep them secure.



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Adjustable Headlights

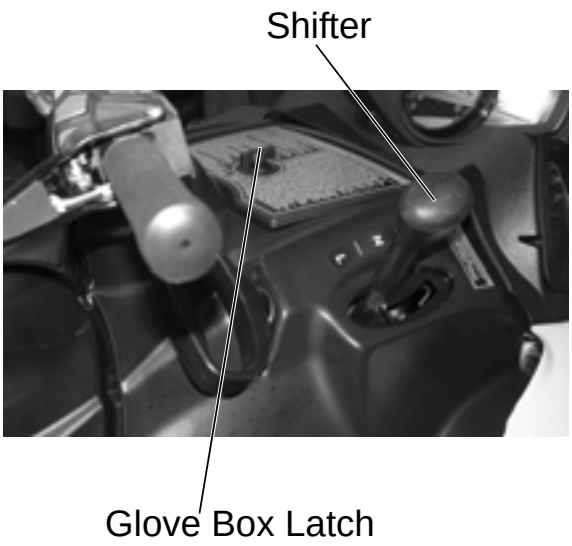
Move the headlight adjuster to raise or lower the headlight beam.



- Move the adjuster to the left to lower the beam.
- Move the adjuster to the right to raise the beam.

Shifter

For normal operation, place the transmission in high gear. Whenever towing or operating with a heavy load, place the transmission in low gear. See page 75. When operating in low gear, vehicle speed will be limited to protect the drive train.



Glove Box

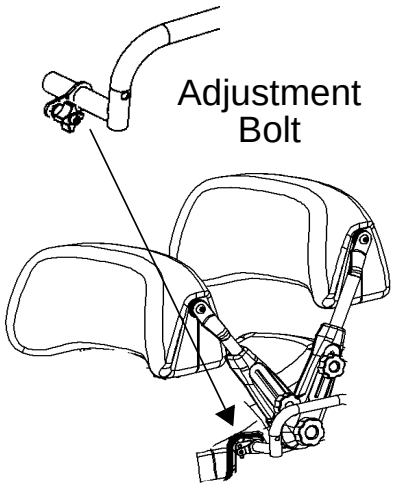
The glove box is a heated dry storage area intended for drying wet gloves. *Do not use the glove box for items that could be damaged by heat.*

Turn the knob to release the glove box cover latch and open the cover.

Passenger Grab Handle

The position of the passenger grab handles can be adjusted for rider preference.

1. Remove the adjustment bolt.
2. Reposition the grab handles to one of the two adjustment positions on the grab handle tube between the operator seat and the passenger seat.
3. Reinstall the adjustment bolt and tighten securely.



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FEATURES

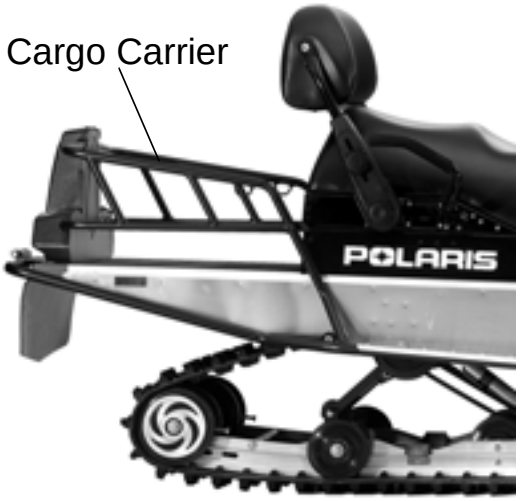
12-Volt DC Outlet

Use the 12-volt DC outlet to power a global positioning sensor (GPS), heated helmet shield, utility light, cell phone or other accessories. The outlet is located on the console near the ignition switch.

Cargo Carrier

Whenever towing or operating with a heavy load, place the transmission in low gear. See page 75.

WARNING! Overloading or towing improperly can alter vehicle handling and can cause loss of control.



- Do not exceed the cargo carrier capacity.
- Always reduce speed and allow greater distance for braking and turning when carrying cargo or a passenger, or when towing.
- Always secure cargo before operating vehicle.
- Overloading or carrying tall, off-center, or unsecured loads will increase your risk of losing control. Loads should be centered, carried as low as possible, and firmly secured to the carrier.
- Be careful if load extends over the side of the carrier.

The maximum weight capacity for the cargo carrier is 75 lbs. (34.1 kg). Do not allow a passenger to sit on the seat back or in the cargo carrier.

NOTICE: Do not drive aggressively or jump your vehicle when operating with heavy loads in the cargo carrier. This may cause vehicle damage.

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Fuel Resistor

This snowmobile is equipped with a feature that allows the engine controller to select the proper operating software based on the type of fuel being used. See pages 64-65 for fuel information and recommendations.

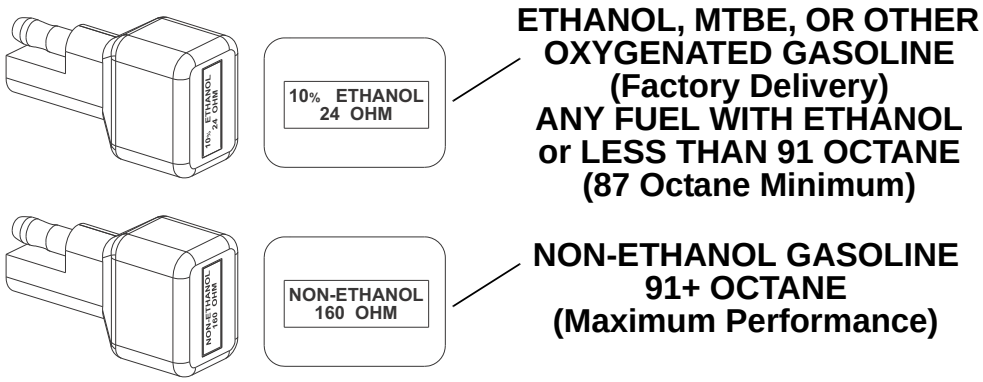
The ECU fuel designation connector must have the “NON-ETHANOL 160 OHM” resistor installed when using non-ethanol gasoline.

When using ethanol, MTBE, or other forms of oxygenated gasoline, the “10% ETHANOL 24 OHM” resistor must be connected.

Whenever in doubt of your fuel purchase, use the “10% ETHANOL 24 OHM” resistor as a safeguard.

The resistor is installed into the wiring harness on the left side of the snowmobile just above the top of the oil bottle (see photo).

NOTICE: Engine damage may occur if ethanol fuel is used while the non-ethanol fuel resistor is installed. The check engine light may also display in this condition as this could cause detonation.





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FEATURES

Detonation Elimination Technology (DET)

The DET system prevents damage to the engine from detonation by going into an engine protection mode whenever the DET system is active. When excessive detonation is detected, the check engine light will illuminate, flicker or flash momentarily..

Check Engine Light Status	Indicates
Solid or Flickering	Detonation detected
Flashing	Severe detonation detected, RPM will be limited

You may notice decreased engine RPM and performance when DET is activated, but in most cases DET activation is temporary, and the timing will return to normal automatically.

If *severe* detonation occurs, the check engine light will begin to flash. The engine will enter a *limp home* mode (and RPM will be limited to 6500 RPM) and stay in this mode until the engine is shut down and restarted.

The most likely causes of severe detonation are shown in the table below. Refer to the table for troubleshooting information.

DET Troubleshooting

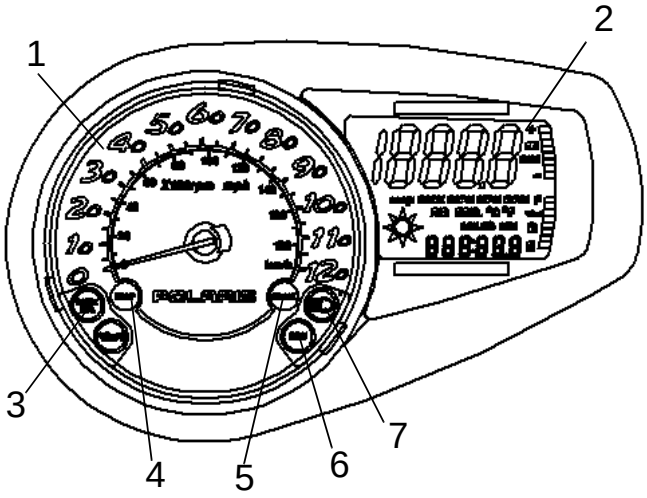
Cause of DET Activation	Solution
Poor quality fuel	Replace with higher quality fuel
Incorrect ethanol/non-ethanol fuel resistor installed	Verify correct fuel resistor for fuel type in tank
Low fuel/no fuel in tank	Refuel with recommended fuel
Water in fuel	Replace with recommended fuel
Plugged fuel filter or tank pick-up sock	See your POLARIS dealer for service
Alcohol-based fuel additive used with Ethanol fuel	Do not add de-icers or additives that contain any form of alcohol while using up to 10% ethanol fuel
Improper engine modifications	Do not modify the engine

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Instrumentation

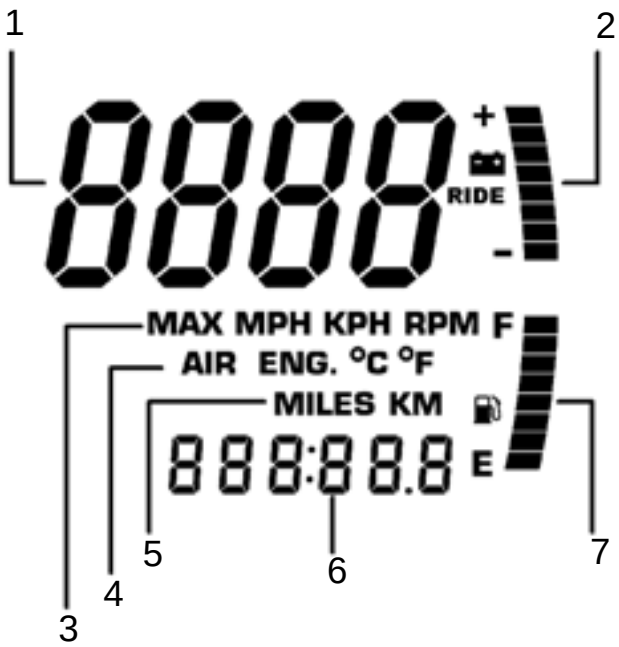
MFD Component Identification

Item	
1	Analog Gauge (if equipped)
2	Digital Gauge
3	Check Engine Indicator
4	High Temp Indicator
5	Brake Indicator
6	Reverse Indicator
7	High Beam Indicator



Digital Display Identification

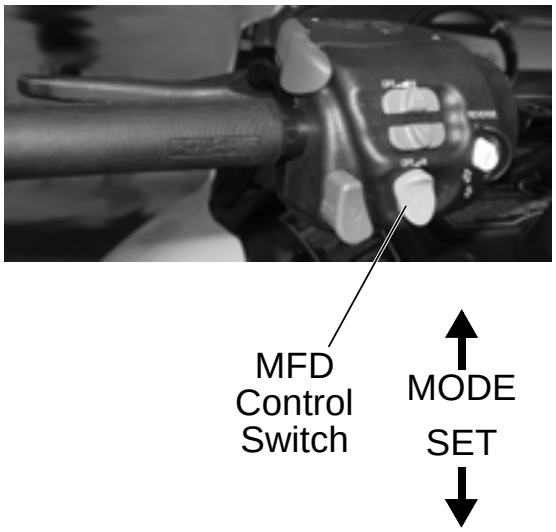
Item	
1	RPM or Speed Altitude (if equipped) Service Interval
2	Electrical System Voltage Level
3	MAX - Maximum MPH/ KPH or RPM MPH - Miles per hour KPH - Kilometers per hour RPM - Engine crankshaft revolutions per minute
4	Air Temp (if equipped) Engine Temp Degrees Celsius Degrees Fahrenheit
5	Miles/Kilometers
6	Hours Trip 1/Trip 2/Trip F Service Label Altitude Label
7	Fuel Level



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FEATURES
Instrumentation
MFD Settings

The MFD control switch allows you to set the MFD display to your preferences. The rocker switch has a MODE button (top) and a SET button (bottom). Specific instructions are outlined on the following pages.



MFD settings can be made with the engine running or with the engine off. If the engine is off, make sure the stop switch is pressed down, and turn the ignition key to the START position briefly to activate the gauge. The gauge will illuminate for about 90 seconds.

Standard vs. Metric

The MFD will display either standard or metric units of measurement. While viewing a screen that displays measurements (MPH, km/h or temperatures), press and hold the MODE switch until the unit of measurement changes (about 10 seconds).



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Instrumentation

MFD Settings

Speedometer/Tachometer

If your model is equipped with both analog and digital displays, the speedometer and tachometer can be viewed in either display. If the analog display is set to show speedometer readings, the digital screen will automatically display the tachometer (option 1). If the analog is set to show the tachometer, the digital screen will show the speedometer (option 2).

To change viewing preferences, press and hold the MODE button for three seconds. When the button is released, the new setting becomes active and screen colors change. See table below.

Option	Analog Display	Digital Display	Analog Screen	Digital Screen
1	Speed	RPM	Blue “MPH”	Blue Backlight
2	RPM	Speed	Red “X100RPM”	Red Backlight

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FEATURES
Instrumentation
MFD Digital Display Programs

Press and release the MODE button to cycle through the three MFD programs: Performance, Engine and History. Each program remains active until you cycle to the next program. While any program is active, press and release the SET button to cycle through the program's screens.

Performance Program

Press and release the MODE button until the performance program screen is active. The default display for this screen includes electrical system voltage (unless equipped with ACE suspension adjustment), fuel level (if equipped) and either speed or tachometer, whichever is selected. See page 37.

Press and release the SET button to cycle through the following screens: odometer, trip 1 odometer, trip 2 odometer, fuel trip odometer (if fuel is low) and clock (if equipped). Use the following procedures to make changes to these screens.

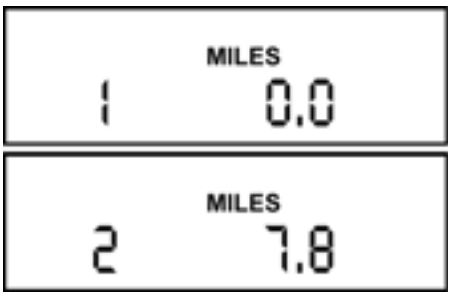
Odometer Setting

The odometer records the vehicle's total distance traveled since manufacture. The odometer cannot be reset.



Trip Settings

Trip 1 and Trip 2 are odometers used to check fuel mileage or to keep track of distance traveled. Both odometers can be reset to zero.



1. Enter the Performance Program.
2. Press and release the SET button until the desired trip screen is active.
3. Press and hold the SET button for two seconds to reset the trip odometer to zero.
4. Press and release the SET button to cycle through additional screens.

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Instrumentation

MFD Digital Display Programs

Performance Program

Trip Settings



Trip F automatically displays when the fuel level is low if the snowmobile is equipped with an electronic fuel gauge. The fuel symbol and the last fuel bar on the MFD gauge (if equipped) will blink when the fuel level reaches 1/8 of a tank.

The Trip F odometer records distance traveled, and the fuel symbol continues to blink, until enough fuel is added to raise the level above 1/4 of a tank. The Trip F odometer will automatically reset to zero after refueling.

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FEATURES
Instrumentation
MFD Digital Display Programs
Performance Program
Clock Setting (if equipped)



1. Enter the Performance Program.
2. Press and release the SET button until the clock screen is active.
3. Press and hold the SET button for five seconds.
4. When the hour starts flashing, press the SET switch *once* to advance one hour. (*Press and hold* the SET button to advance the hours quickly.)
5. Press and release the MODE button to save the hour. The minutes will begin flashing.
6. Set the minutes in the same manner.
7. When finished, press and release the MODE button to save the new setting. If the MODE button is not pressed within ten seconds, the gauge will automatically save the new entry.

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Instrumentation

MFD Digital Display Programs

Engine Program

Press and release the MODE button until the engine program screen is active. The default display for this screen includes engine hours, electrical system voltage level, fuel level (if equipped) and either engine coolant temperature, air temperature (accessory) or altimeter (accessory).

Press and release the SET button to cycle through the following screens: hour meter, engine temperature, air temperature (available as an accessory), altimeter (available as an accessory) and turbo boost (if equipped).

Hour Meter



The hour meter records the total hours of engine operation since manufacture. This meter cannot be reset.

Engine Temperature

A thermometer measures water temperature, giving an indication of engine temperature.

Air Temperature (if equipped)



The MFD displays actual air temperature in either standard or metric units.

1. Enter the Engine Program.
2. Press and hold the MODE switch for ten seconds to switch between standard and metric units of measurement.

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FEATURES
Instrumentation
MFD Digital Display Programs
Engine Program
Altitude (if equipped)



The rider can calibrate the altimeter for current atmospheric conditions. Altimeter accuracy will be +/-300 ft. (91 m) after adjustment.

1. Enter the Engine Program.

Tip: Press and hold the MODE switch for ten seconds to switch between standard and metric units of measurement. When "ALt" displays, the program is in the metric mode.

2. Press and release the SET button until the altimeter screen is active.
3. Press and hold the SET button for five seconds. When the digits begin to flash, release the button.
4. Press and release the SET button *once* to advance 50 feet (15 m).

Tip: *Press and hold* the SET button to advance quickly by 100-foot (30 m) increments.

5. Adjust the altitude display to within 50 ft. (15 m) of current altitude.

Tip: The gauge reads barometric pressure and allows the rider to compensate for daily fluctuations in air pressure. The gauge can adjust the displayed altitude to +/- 1300 ft. (396 m) from the preset value. It will adjust up to +1300 ft. (396 m) above the calibrated altitude. Once the +1300 ft. (396 m) offset has been reached, the next adjustment is -1300 ft. (396 m) from the calibrated altitude, and 50 ft. (15 m) will be added to the altitude each time the SET button is pressed.

6. Press and release the MODE button to set the reading at the adjusted value. If the MODE button is not pressed within ten seconds, the gauge will automatically save the new entry.

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Instrumentation

MFD Digital Display Programs

History Program

Press and release the MODE button until the history program screen is active. This screen will always display electrical system voltage level and fuel level (if equipped).

Press and release the SET button to cycle through the Maximum Vehicle Speed, Maximum Engine RPM and Service Interval Reminder screens.

Maximum Speed/Maximum RPM

The gauge automatically logs the maximum speed and engine RPM even if the history program is not active in the display.



1. Enter the History Program.
2. Press and release the SET button until one of the two screens is active.

Tip: The MPH and RPM values are both reset at the same time. Reset the values before each run to obtain accurate readings.

3. Press and hold the SET button for three seconds to reset the recorded maximum values for both MPH and RPM.

Tip: Due to electrical noise, the MFD may occasionally display MAX MPH/RPM values that are not representative of actual values.

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FEATURES
Instrumentation
MFD Digital Display Programs
History Program
Service Interval Reminder



The gauge logs the number of engine hours accumulated between service reminders. When the logged hours reaches the designated service interval (set by the user), the gauge provides a reminder that service is due. "SErVCE" will flash in the odometer area and "ENG" will flash in the icon area for five seconds each time the engine is started (until the service reminder is reset.) Use the following procedures to reset the reminder.

To reset the reminder at the existing interval:

1. Enter the History Program.
2. Press and release the SET button until the service interval screen is active.
3. Press and hold the SET button for *ten* seconds, continuing to hold even after the display begins to flash.
4. When the display stops flashing, release the button. The service interval has been reset.

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Instrumentation

MFD Digital Display Programs

History Program

Service Interval Reminder

To reset the reminder at a new interval:

1. Enter the History Program.
2. Press and release the SET button until the service interval screen is active.
3. Press and hold the SET button for *five* seconds, until the hours begin to flash. Immediately release the button.
4. Press the button again, up to five times, to advance the reminder in 50-hour increments.

Tip: The maximum interval is 250 hours.

5. Press and release the MODE button to save the new settings.

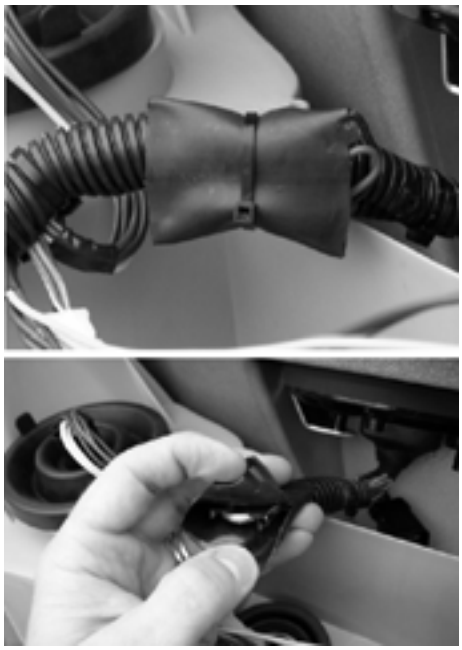
To disable the service interval reminder:

1. Press the SET button once after reaching 250 hours on the display. The gauge will display "OFF".

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FEATURES
Instrumentation
MFD Battery Replacement

Models equipped with the clock feature have a battery to power the clock. If the clock function of the MFD isn't working properly, replace the battery. Replacement batteries are available from your dealer.



1. Remove the plenum from the underside of the hood.
2. Locate the black battery compartment. It has a red wire and a brown wire with a white stripe. It's located about three inches down the main harness from the point where the harness connects to the MFD.
3. Cut the plastic cable tie from the outside of the compartment.
4. Carefully cut the bottom of the compartment (opposite the wires) to separate the heat-sealed seams. Squeeze the corners of the compartment inward so the battery is visible.

Tip: Note the orientation of the battery before removing it. An incorrectly installed battery will not maintain the clock.

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Instrumentation

MFD Battery Replacement

5. Using needle-nose pliers, grasp the battery and rotate it so the leading edge of the battery is raised away from the battery holder. Pull the battery out gently.

Tip: The battery will not come out of the holder unless the leading edge of the battery is raised. Hold the battery compartment, not the wires, while removing the battery. Pulling on the wires will separate them from the battery holder.

6. Install a new battery with fingers only.
7. Seal the end of the battery compartment using high strength double-sided tape between the two compartment halves or high strength single-sided tape around the outside of the compartment.
8. Make sure the taped seam of the compartment faces the downward side of the wire harness.
9. Install a cable tie to secure the compartment to the wire harness in the same location where the previous cable tie was located. Make sure the battery wires are not stretched tight.

Gauge Cleaning

1. Wipe the gauge face as needed using a clean cloth and a mild soap and water solution. Wipe dry with clean, soft cloth.
2. Clean the back side of the gauge using a clean cloth and a mild soap and water solution. Do not remove the electrical connectors or protective rubber boot. Do not spray the back side of the gauge or the wire harness with a pressure washer or other water source.

NOTICE: To prevent damage to the lens, do not use alcohol for cleaning. Do not allow chemicals or sprays to contact the lens. Immediately clean off any gasoline that splashes on the gauge during refueling.

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THE PERFECT FIT

IQ Front Suspension Adjustments

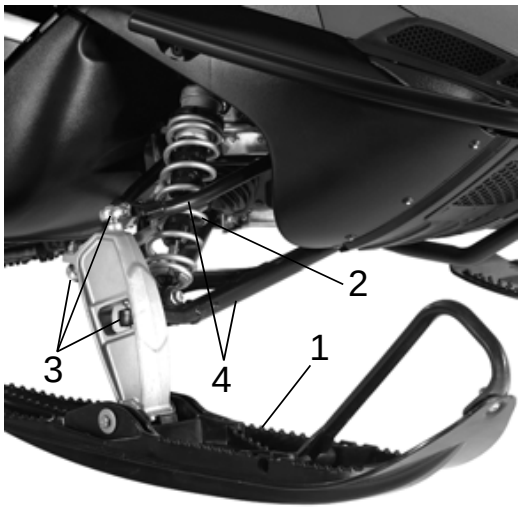
Independent Front Suspension (IFS)

Break in the suspension for approximately 150 miles (240 km) before making any fine-tuning adjustments.

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.

IFS Components

1. Skis
2. Front shocks and springs
3. Rod ends
4. A-arms



IFS Adjustment Options

- Front shock spring preload
- Optional springs
- Toe (ski alignment) (see page 108)
- Camber (see your dealer)

Front Shock Spring Preload

The factory preload setting should be appropriate for most riders and conditions. Please see your POLARIS dealer for assistance before attempting to adjust preload.

Increasing the spring preload too much may adversely affect the handling of the snowmobile and the performance of the rear suspension.

Decreasing the spring preload too much may allow the lower spring retainer to fall off.

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Rear Suspension Adjustments

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

Each rear suspension can be adjusted to suit rider preference and deliver the best 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 snow-cross racing would provide a very stiff ride on the trail. A suspension set up for trail riding would bottom out harshly on a snow-cross course.

Make adjustments to one area at a time so you can evaluate the change. For further assistance, please see your POLARIS dealer.

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 slide. It can also improve top speed.
- 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. Refer to the suspension lubrication information beginning on page 82.

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THE PERFECT FIT

Rear Suspension Adjustments

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.

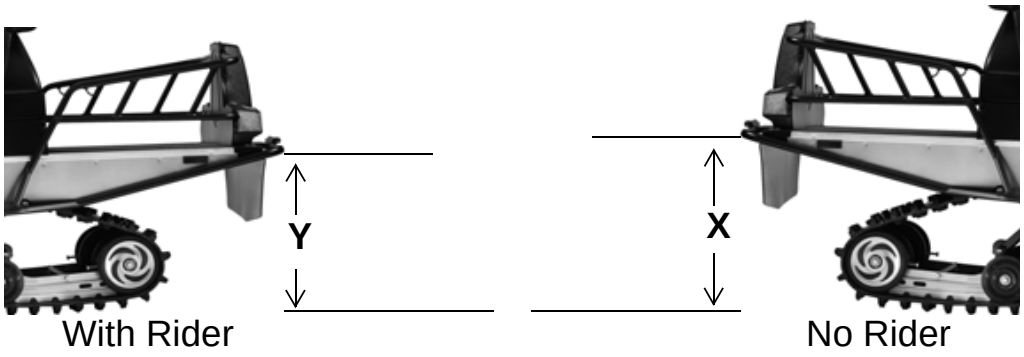
Take the first measurement with no rider and with the rear suspension at full extension.

Tip: The rear bumper may need to be raised slightly to fully extend the rear 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). Adjust sag by rotating the torsion spring preload cams located on the rear torque arm. See page 51.

The ideal amount of sag for this rear suspension is 2.5 inches (6.4 cm) (X-Y=2.5 in./6.4 cm).



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Rear Suspension Adjustments

Torsion Spring Preload

To adjust rear torsion spring preload, rotate the three-position cam using the engine spark plug tool. This adjustment is easier to make if tension is relieved from the spring. Exercise extreme caution if you use this method of adjustment, and follow the steps below carefully.

WARNING! A sudden release of tension from a spring could result in serious injury. Wear eye protection and maintain a firm grip on the spring when removing and installing it.

1. Grasp the spring firmly with both hands.
2. Maintain a firm grip on the spring and carefully remove the long leg from the guide block. Be prepared for a sudden release of tension.
3. Carefully allow the leg to unwind and relieve tension from the cam.
4. Rotate the cam to the desired setting.
5. Rewind the long leg of the spring. Maintain a firm grip on the spring while reinstalling it into the guide block.

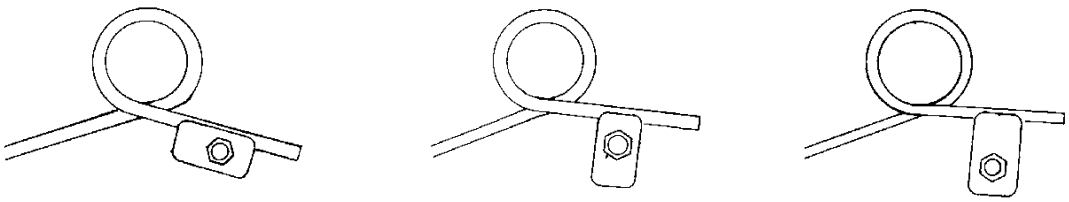
Tip: Different rate torsion springs are available if a firmer ride is desired. Contact your dealer for more information.

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)



Soft Medium Firm

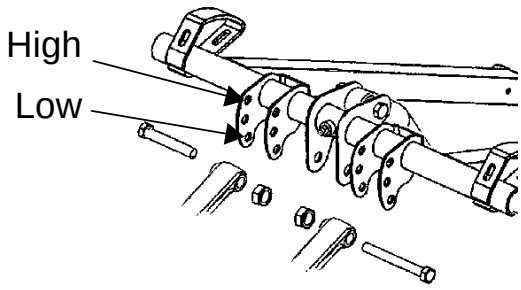
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THE PERFECT FIT

Rear Suspension Adjustments

Limiter Strap Position (Ski Pressure)

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.



High: Limiter strap in high position increases ski pressure

Low: Limiter strap in low position decreases ski pressure

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Rear Suspension Adjustments

Shock Compression Valving

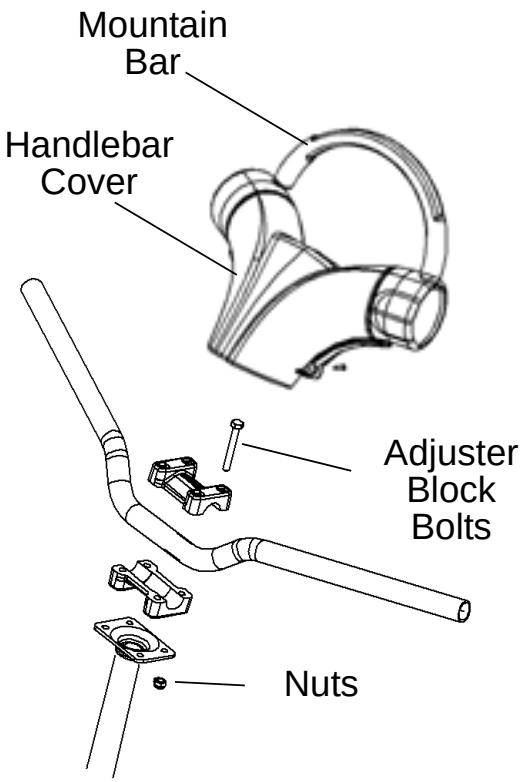
The rear track shocks for this model are gas charged shocks. The valving on the gas charged shocks is pre-set.

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THE PERFECT FIT
Handlebar Adjustments

Use the following steps to adjust handlebar angle at the handlebar block.

1. Remove the mountain bar.
2. Remove the handlebar cover.
3. Using a 7/16" wrench, loosen the four nuts on the bottom of the adjuster block. Turn the handlebar to the left or right for access to the back nuts. If necessary, pry the blocks apart with a screwdriver.
4. Adjust the handlebar to the desired height. 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.
5. Torque the front bolts first, then torque the rear bolts. Torque the bolts to 15-17 ft. lbs. (20-23 Nm).
6. Reinstall the handlebar cover.
7. Reinstall the mountain bar.



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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, 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.

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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. Look for a checkmark (n) on the referenced pages to locate the pre-ride inspection items.

Item	See Page
Drive Belt Condition	98
Steering System	58
Brake Fluid	59
Brake Lever/Parking Brake Lock	59, 60
Brake System	91
Throttle Lever	57
Throttle Safety Switch	57
Auxiliary Shut-Off Switch (Engine Stop Switch)	63, 72
Ignition Switch	63, 69
Taillight/Brakelight/Headlight	63
Coolant Level	88
Gearcase Oil Level	81
Injection Oil Level	70
Radiator/Cooling Fins (clean and remove any debris)	--
Suspension Mounting Bolts	62
Skags (Wear Bars)	62, 109
Ski Saddle and Spindle Bolts	62
Hood Straps/Latches	58
Seat Latches	57
Rear Wheel Idler Bolts	62, 105
Track Alignment/Condition	61, 106
Rail Slide Condition	106

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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, 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.

n 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.

n Throttle Safety Switch

Test the throttle safety switch system before the snowmobile is operated. See page 72 for procedure.

n Seat Latch

Check the seat latch before each use of the snowmobile. Push downward on the seat near the seat latch, then attempt to raise the seat by pulling upward on the right-hand passenger grab handle. Make sure the latch is secure before riding.

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PRE-RIDE INSPECTIONS

Before Starting the Engine

n Hood Latches

The hood of the snowmobile protects the operator from moving parts as well as aiding in sound emission control and other functions. Under no circumstances should your snowmobile be operated with the hood open or removed. Always ensure that the hood straps are in good condition and that the latches are securely in place before operating the snowmobile.

n Steering System

WARNING! Ice and snow build-up may interfere with the steering of your snowmobile, which could cause loss of control 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.

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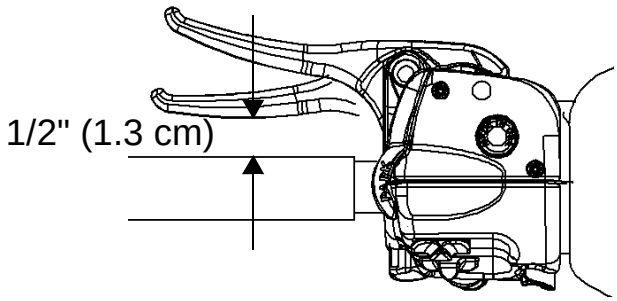
Before Starting the Engine

n 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 1/2" (1.3 cm). A smaller distance indicates low brake fluid level or air in the hydraulic system. See pages 91-93 or see your dealer for service.



Brake Lever Feel

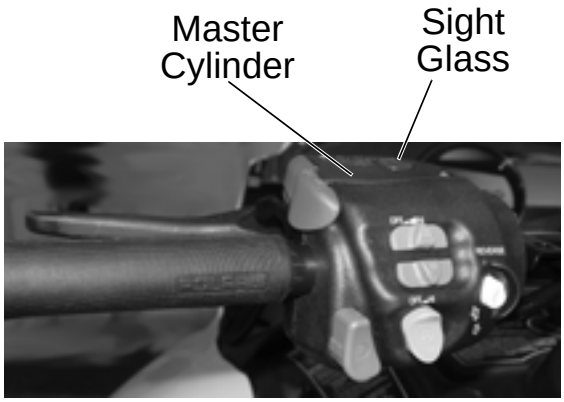
If the brake lever feels “spongy” when squeezed, check the brake fluid level and condition. Check for the presence of air in the fluid system. See pages 91-93 or see your dealer for service.

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.

n Brake Fluid

Check the brake fluid in the master cylinder before each ride.

View the brake fluid level through the sight glass on the top of the master cylinder. The eye will appear dark when the fluid level is full. If the sight glass is any color other than black, add brake fluid. See page 92.



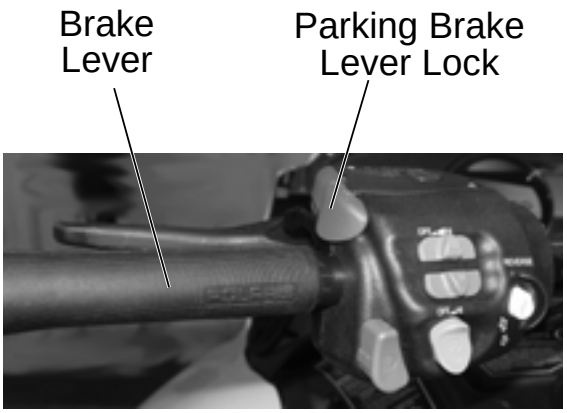
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PRE-RIDE INSPECTIONS

Before Starting the Engine

n Parking Brake Lever Lock

Use the parking 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.



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.

Tip: 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.

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Before Starting the Engine

n Track Inspection

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.

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

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PRE-RIDE INSPECTIONS

Before Starting the Engine

n 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	Check	Page
Suspension mounting bolts	Tightness	--
Rear idler wheel bolts	Tightness	105
Rear idler adjusting bolt locknuts	Tightness	--
Torque arm bolts	Tightness	--
Carrier and bogie wheel bolts	Tightness	--
Front torque arm limiter strap	Condition	--
Rail slide	Condition	106
Track	Tension	104
All rear suspension components	Lubrication	83
Ski runner/skag	Condition	--
Ski spindle bolts	Tightness	--
Tie rod end nuts	Tightness	--

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Start the Engine and Check

n 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.

n Ignition Switch

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

n Lighting

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

n Mirror Adjustment

If equipped, adjust your mirrors so they can be used to their full advantage.

n Operating Area

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

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OPERATION
Fuel Safety

⚠ 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.

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Fuel Recommendation

For peak performance, POLARIS recommends the use of 91 octane fuel or higher. Although 87 octane fuel is usable, some engine performance will be lost and fuel economy will decrease. Do not use lower than 87 octane fuel. *Do not use fuel containing more than 10% ethanol. Never use E85 in your snowmobile).*

NOTICE: Operating with obstructed fuel systems will result in serious engine damage. Always perform maintenance as recommended.

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

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 one to two 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 also recommends the use of Carbon Clean Plus. See page 116 for the part numbers of POLARIS products.

If you use fuel with up to 10% ethanol (sometimes labeled “oxygenated”) do not add deicers or additives that contain any form of alcohol.

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OPERATION
Break-In Period
Engine Break-In

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 as outlined below. Oil added to the fuel and oil injection systems will provide the necessary engine lubrication.

Oil Recommendations	
First Tank of Fuel:	POLARIS Premium 2-Cycle Semi-Synthetic Oil
After Break-in:	POLARIS VES Gold Plus Oil

Tip: The semi-synthetic oil will seat the rings faster than the VES Gold Plus oil.

See page 116 for the part numbers of POLARIS products.

Never mix brands of oil. Serious chemical reactions can cause injection system blockage, resulting in serious engine damage. Oils may also 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.

Initial Fuel Premix

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

Fuel	Semi-Synthetic Oil	Ratio
Each 5 gal. (19 l)	16 oz. (473 ml)	40:1

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Break-In Period

Engine Break-In

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.

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

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 when refueling. See page 70.

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 immediately.

Never mix brands of oil. Serious chemical reactions can cause injection system blockage, resulting in serious engine damage. They may also 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. See page 66 for oil recommendations.

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 that feature a sanded finish should be first 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.

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OPERATION
Starting the Engine

1. Turn the key to the ON position.

NOTICE: 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.

2. Pull the engine stop switch up to the RUN position.
3. 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.
4. If not equipped with electric start, grasp the starter handle and pull slowly until the recoil engages; then pull abruptly to crank the engine.

TIP: 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 the engine does not start after several attempts, slightly depress the throttle (no more than 1/4 l open) while cranking the engine. When the engine starts, *immediately* release the throttle.

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

NOTICE: Operating the vehicle immediately after cold starting could cause engine damage. Allow the engine to warm up for several minutes before operating the vehicle. If cold drive-away is attempted, the engine RPM may stumble slightly to protect the engine.

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Restarting an Engine

If the rider stops the engine by pushing the engine stop switch down, restart the engine using the normal starting procedure. If the engine fails to start using the normal procedure:

1. Push the engine stop switch down to the OFF position.
2. Turn the key to the OFF position.
3. With both switches OFF, squeeze and hold the throttle in the wide open position.
4. Crank the engine several times to clear the engine.
5. Release the throttle.
6. Restart the engine using the normal starting procedure.

n Stopping the Snowmobile

The following chart lists methods for stopping the snowmobile. See page 72 for more information about the engine stop switch.

SYSTEM	WHAT IT DOES	THROTTLE CONDITION
Ignition Switch	Interrupts ignition circuit	All
Brake	Slows jackshaft	All
Engine Stop Switch	Interrupts ignition circuit	All

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OPERATION

n Oil

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.

Visually check the oil level in the bottle. The engine may be operated as long as oil is visible in the oil tank. If oil is not visible, continued operation may cause serious engine damage.

Low Oil Level

Maintaining the proper oil level will prevent system aeration and possible loss of pumping action, which could result in engine damage. This is especially important when the machine is operated in mountainous terrain.

Always check the oil level when refueling. When the oil reaches the low level mark, add one quart (.9 liters) of recommended oil to the tank. See page 66 for oil recommendations.

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

Always maintain the oil level between the “add” mark and the bottle neck. Do not fill the bottle neck. See page 66 for oil recommendations.



1. *Immediately* stop the engine if the low oil indicator light comes on.
2. Open the left 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.

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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. Be sure the rear support is stable.

⚠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 approximately 4" (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.

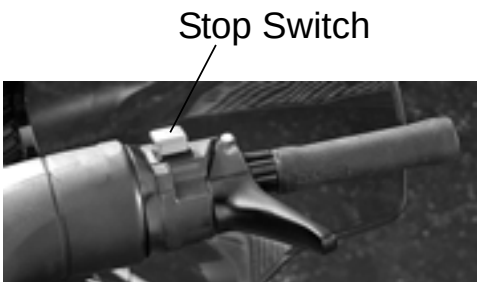
Tip: It will take longer to warm up the track sufficiently during colder outdoor temperatures.

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.

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OPERATION

n Engine Stop Switch

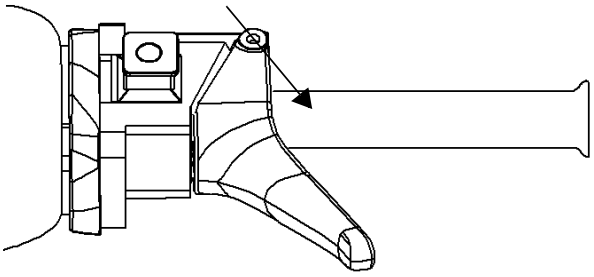


Push down on the engine stop switch to ground out the ignition and stop the engine quickly. Pull the switch up to the RUN position to allow restarting.

n Throttle Safety Switch

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.

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.



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.

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n Throttle Lever

WARNING! An improperly functioning throttle lever may cause erratic machine 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 speed limits at 2400 RPM when the throttle lever is released:

1. Turn the ignition switch to OFF.
2. Visually inspect the throttle cable and 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, take the snowmobile to an authorized POLARIS dealer for service.

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OPERATION
Electronic Reverse (PERC t)

⚠ WARNING

Improper reverse operation, even at low speeds, may cause loss of control, resulting in serious injury or death. Damage will occur to the gearcase 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.

Engaging Reverse

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

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 transmission is in reverse.
4. Apply the throttle slowly to make sure the transmission is in reverse.The maximum engine RPM will be 6000 when 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.

NOTICE: 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.

2. Push the yellow 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 transmission is in forward.

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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" (10 cm) off the ground.

Remove the key and cover the snowmobile.

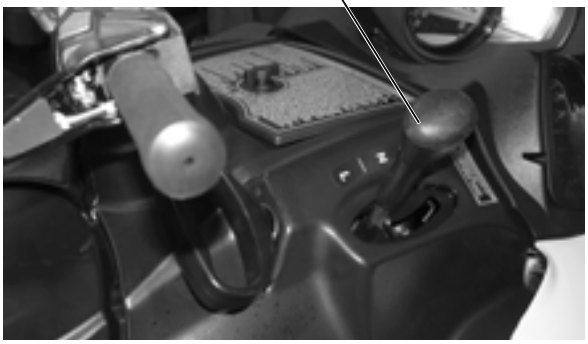
Towing

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

Whenever towing or operating with a heavy load, place the transmission in low gear. Towing in high gear can result in belt damage. When operating in low gear, vehicle speed will be limited to protect the drive train.

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. Place the transmission in neutral, and have someone ride on the towed snowmobile to operate the brake and steering when necessary.



NOTICE: Towing a disabled snowmobile with the transmission in gear can result in serious damage to the engine and drive system. Always place the transmission of the disabled snowmobile in neutral before towing.

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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.

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 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.

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POLARIS Recommended Maintenance Program

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 131.

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, contact an authorized POLARIS dealer for service.

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.

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MAINTENANCE
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.

Item	See Page	Frequency				
		150 mi. (240 km)	500 mi. (800 km)	1000 mi. (1600 km)	2000 mi. (3200 km)	Pre-Season
CLUTCH						
Clutch Alignment Offset (without belt)	97		**I**	**I**	**I**	
Clutches	97		**I**	**I**	**I**	**I**
Drive Belt	98		**C**	**C**	**C**	
Belt Tension	--		**I**	**I**	**I**	**I**
Clutch Sheaves	99		**I**	**I**	**I**	**I**
ENGINE/COOLING						
Engine Mounts	--		**I**	**I**	**I**	**I**
Recoil Rope	--		**I**	**I**	**I**	**I**
Cylinder Head Bolts	--		**I**	**I**	**I**	
Cylinder Base Nuts	--	**I**	**I**	**I**	**I**	
Ignition Timing BTDC	--		**I**	**I**	**I**	
VES System	--		**C**	**C**	**C**	**I**
Coolant Level	88		**I**	**I**	**R**	**I**
Coolant Hose	--		**I**	**I**	**I**	**I**
Coolant Circulation	--		**I**	**I**	**I**	
Coolant Leaks	--		**I**	**I**	**I**	**I**
Spark Plugs	84	**I**	**I**	**I**	**R**	**I**
Exhaust Pipe	87				**I**	**I**
Exhaust Retaining Springs	87		**I**	**I**	**I**	**I**

I - Inspect (clean, adjust, tighten, lubricate, replace if necessary)
C - Clean R - Replace L - Lubricate

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Periodic Maintenance Interval Table

Item	See Page	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	91		I	I	I	I
Brake Disc	--		I	I	I	I
Parking Brakes	60		I	I	I	I
Brake System	59, 91					I
Brake Fluid	59				I	
FUEL MANAGEMENT						
Idle RPM	--		I	I	I	
Throttle Lever	57, 73	I	I	I	I	I
Oil Pump Lever (synchronize)	--		I	I	I	
Throttle Cable	82		L	L	L	
Throttle Position Sensor	--		I	I	I	
Fuel Lines	86	I	I	I	I	I
Fuel Filter	86	EVERY 2000 (3200) or EVERY 2 YEARS				
Oil Filter	87			R	R	
Oil Lines	--			I	I	I
Air Box	--	I	I	I	I	I
ELECTRICAL						
Auxiliary Shut-Off Switch	63	I	I	I	I	I
Throttle Safety Switch	72	I	I	I	I	I
Ignition Switch	--	I	I	I	I	I
Taillight	63	I	I	I	I	I
Brakelight	63	I	I	I	I	I
Headlight	63	I	I	I	I	I

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MAINTENANCE
Periodic Maintenance Interval Table

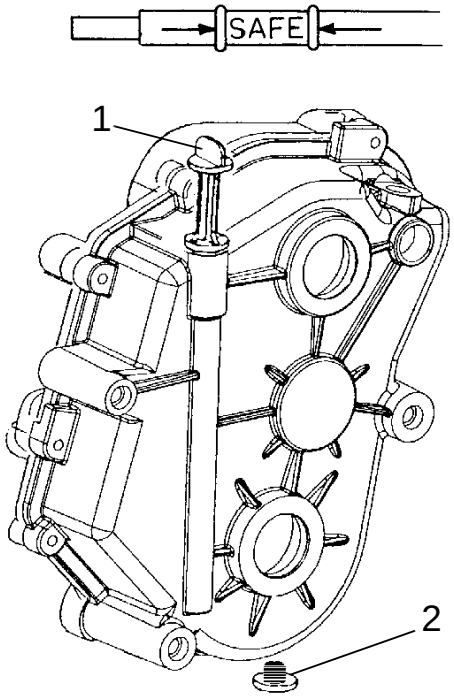
Item	See Page	Frequency				
		150 mi. (240 km)	500 mi. (800 km)	1000 mi. (1600 km)	2000 mi. (3200 km)	Pre-Season
CHASSIS						
Ski Toe Alignment	--		**I**	**I**	**I**	
Suspension Mounting Bolts	--	**I**	**I**	**I**	**I**	**I**
Steering Fasteners	--	**I**	**I**	**I**	**I**	**C**
Rear Suspension Fasteners	--	**I**	**I**	**I**	**I**	**I**
Drive Shaft Bearing	82		**L**	**L**	**L**	**I**
Skags (Wear Bars)	109	**I**	**I**	**I**	**I**	**I**
Ski Saddle/Spindle Bolts	--	**I**	**I**	**I**	**I**	**I**
Hood Straps	58	**I**	**I**	**I**	**I**	**I**
Rear Wheel Idler Bolts and Nuts	105	**I**	**I**	**I**	**I**	**I**
Camber Alignment	--		**I**	**I**	**I**	
Handlebar Centering	--					**I**
Track Alignment	106	**I**	**I**	**I**	**I**	**I**
Track Tension	104	**I**	**I**	**I**	**I**	**I**
Front Limiter Strap	--	**I**	**I**	**I**	**I**	**I**
Rail Slide Condition	104					**I**
Gearcase Oil	81	**I**	**R**	**I**	**R**	**I**

I - Inspect (clean, adjust, tighten, lubricate, replace if necessary)
C - Clean R - Replace L - Lubricate

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Lubrication

n Gearcase Oil Level



Check the gearcase oil level at the intervals outlined in the maintenance charts beginning on page 77. Change the gearcase oil after the first 500 miles (800 km), then every 1000 miles (1600 km) or seasonally.

To check the oil level, place the snowmobile on a level surface. The oil level should be between the “safe” marks on the dipstick (1). See your POLARIS dealer for the recommended oil for your snowmobile. *Do not overfill*.

Clean the magnetic plug (2) every 500 miles (800 km) and whenever changing lubricant.

POLARIS recommends the use of POLARIS Synthetic Chaincase Lube. See page 116 for the part numbers of POLARIS products.

NOTICE: Mixing brands or using non-recommended lubricants could result in excessive wear to chain, sprockets and bearings. Always use POLARIS-recommended products for your vehicle.

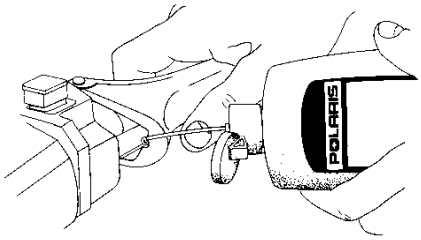
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MAINTENANCE

Lubrication

Throttle Cable

Lubricate the throttle cable lightly with grease or oil. With the engine off, turn the handlebars to the left and lubricate liberally as shown.

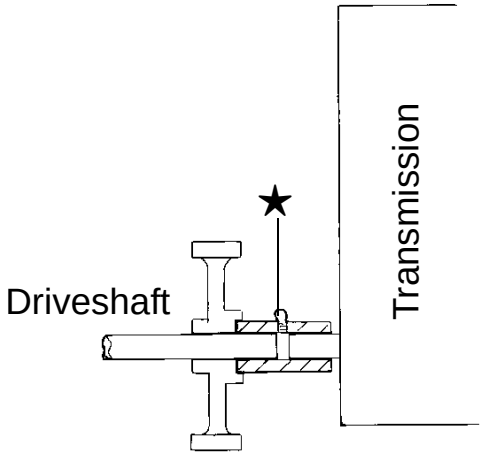


Front Suspension

The front suspension and steering components do not require lubrication.

Coupler Lubrication

Using a needle-point grease gun, grease the *driveshaft* coupler only. The jackshaft on this model is a one-piece jackshaft that requires no lubrication.



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Lubrication

Rear Suspension

Lubricate the suspension pivot shafts with POLARIS Premium All Season Grease at the intervals outlined in the Periodic Maintenance Table beginning on page 78 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.

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MAINTENANCE
Spark Plugs

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.

NOTICE: Using non-recommended spark plugs can result in serious engine damage. 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.

- Use recommended spark plugs with the proper gap.
- Use only resistor-type spark plugs.
- Torque spark plugs to 18-20 ft. lbs. (24-27 Nm).

Check the spark plug firing end condition after the engine has been warmed up and the vehicle has been driven at higher speeds. If a plug is fouled, replace the plug with a new plug.

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

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Spark Plugs

Normal Spark Plug

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

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

Wet Fouled Spark 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 rich fuel mixture.

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MAINTENANCE
Intake Filters

The intake foam filters limit snow ingestion into the intake system. When operating in loose powder snow, check the foam filters periodically to remove any accumulation of snow.

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



Intake 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

See your POLARIS dealer for replacement of the fuel filter at the intervals outlined in the Periodic Maintenance Table beginning on page 78.

Contaminated or poor quality fuel will shorten the life of the fuel filter and result in poor engine performance. Always store fuel in clean fuel containers. If low fuel pressure or reduced engine performance occurs between the recommended fuel filter service intervals, the filter may need replacement. See your dealer.

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.

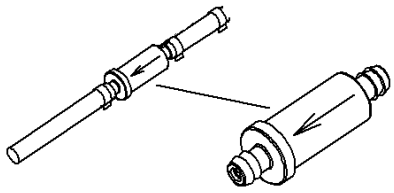
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Oil Lines

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

Oil Filter

The oil filter is located at the side of the oil tank. Have your dealer change the oil filter and bleed the system annually or every 1000 miles (1600 km). Have your dealer inspect the return check valve as well.



Tip: The direction of the arrows indicates the direction of flow through the filter.

Exhaust System

Check the exhaust system for wear or damage at the intervals outlined in the Periodic Maintenance Table beginning on page 78.

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.

1. Allow the engine and exhaust system to cool completely.
2. Open the hood.
3. Inspect the muffler and pipes for cracks or damage. Check for weak or missing retaining springs or damper/support grommets.
4. Replace any damaged or missing components.
5. Clean the plastic surfaces next to the muffler with aerosol Carburetor and Throttle Body Cleaner. See page 116 for the part numbers of POLARIS products.
6. Close the hood.

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MAINTENANCE
Cooling System
Coolant

The coolant supplied in the system is a 60/40 mixture of ethylene-glycol and distilled water. This mixture provides protection against freezing. Contact your dealer if greater protection is required.

Use Premium 60/40 anti-freeze coolant, which is already premixed and ready to use. Do not dilute with water. Never exceed a 60% antifreeze/ 40% water mixture. See page 116 for the part numbers of POLARIS products.

Tip: Never add tap water to the cooling system. Minerals cause deposits and may react adversely with the metals in the engine and cooling system.

Use of a non-standard pressure cap will not allow the recovery system to function properly. If the pressure cap needs replacement, contact your dealer for the correct part.

CAUTION! Steam and hot liquids will cause burns to your skin. Never remove the pressure cap when the engine is warm or hot.

n Coolant Level

The engine coolant level is controlled by the recovery system. The recovery system components are:

- Coolant recovery bottle
- Coolant reservoir
- Pressure cap
- Connecting hoses

Always maintain the coolant level at the “COLD FILL” mark on the coolant recovery bottle (when the engine is cold).

NOTICE: Operating the snowmobile with insufficient coolant will result in overheating and serious engine damage. Always maintain the coolant level as recommended.

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Cooling System

Coolant High Temperature Indicator Light

The high temperature indicator light will illuminate when engine coolant temperature becomes too hot for safe continued operation of the engine. If you must drive your machine after the high temperature indicator light has come on, drive slowly and stop frequently to allow the engine to cool down. Driving in deep snow will also help cool the engine. See your dealer for service.

Add coolant if the level is low. Engine performance will be reduced if you continue operating when the high temperature light is on.

Flushing the Cooling System

To ensure that the coolant maintains its ability to protect the engine, the system should be completely drained every two years and a fresh mixture of antifreeze and distilled water should be added. Have your POLARIS dealer perform this service.

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MAINTENANCE
Cooling System
Bleeding the Cooling System

CAUTION! Steam and hot liquids will cause burns to your skin. Never bleed the cooling system or remove the pressure cap when the engine is warm or hot.

Use of a non-standard pressure cap will not allow the recovery system to function properly. If the pressure cap needs replacement, contact your dealer for the correct part.

NOTICE: If coolant flow becomes restricted or plugged, coolant loss, air lock or engine damage may result. Most cooling systems are equipped with a filter that should be periodically inspected or replaced.

Perform the bleeding procedure when the engine is cold.

1. Position the vehicle so that the top of the tunnel is level. Elevate the front of the vehicle slightly if necessary.
2. Place the transmission in neutral.
3. Remove the pressure cap and fill the coolant bottle with properly mixed coolant to the maximum mark.
4. Remove the bleed screw from the water outlet manifold and/or the thermostat housing. Allow the coolant to bleed through the system until it runs out the bleed holes. Reinstall the bleed screw into the manifold.
5. Add coolant to the coolant bottle to the maximum mark.
6. Start the engine and run at a fast idle for two to three minutes. Loosen the bleed screw occasionally to purge any trapped air.
7. Stop the engine and check the coolant bottle level. Fill as required.
8. Feel the heat exchangers under the tunnel. If the system is bled properly, they'll be warm to the touch. If they're not, repeat step 6. Lift the front of the machine slightly to assist in the bleeding.
9. Replace the pressure cap and carefully lower the front end of the machine.

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Brakes

n Hydraulic Brake Inspection

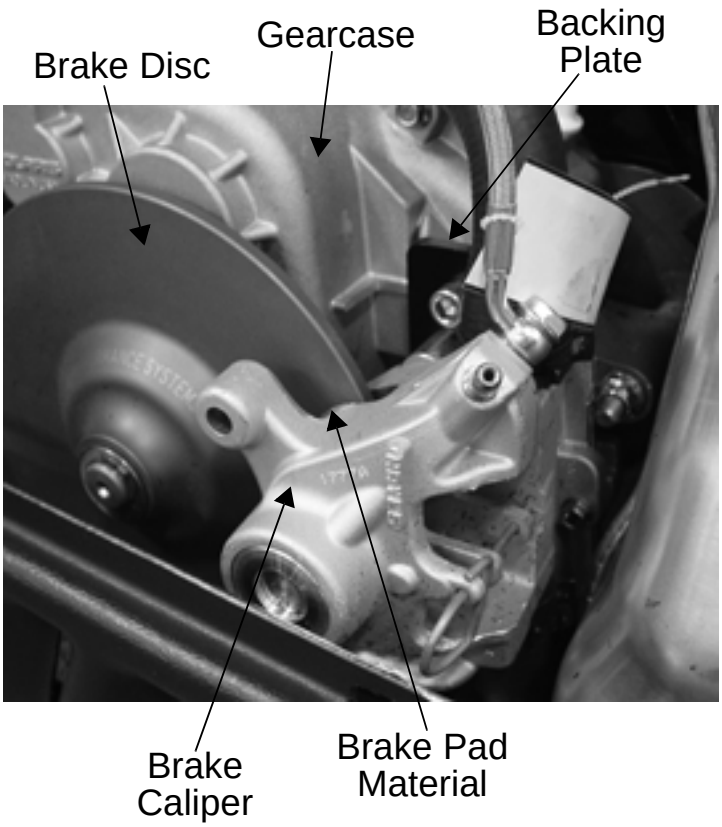
Inspect the brake lever reserve before each use of the snowmobile. See page 59.

Brake pads must be replaced when the brake pad material becomes thinner than the backing plate, approximately 1/16" (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. 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" (1.5mm).

Brake Components

- Brake Caliper
- Gearcase
- Brake Disc
- Backing Plate
- Brake Pad Material - Replace when thickness is less than 1/16" (1.5 mm).



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MAINTENANCE

Brakes

n Brake Fluid

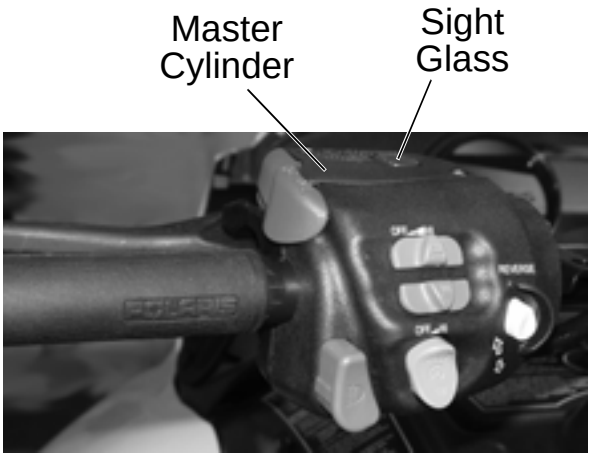
WARNING

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.

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 decals, paint and some plastics. Always wipe up spills immediately.

Check the brake fluid in the master cylinder before each ride.



View the brake fluid level through the sight glass on the top of the master cylinder. The eye will appear dark when the fluid level is full. If the sight glass is any color other than black, add brake fluid.

1. Position the handlebars so the master cylinder is level.
2. Remove the master cylinder cover.
3. Add DOT 4 brake fluid only. Do not overfill. See page 116 for the part numbers of POLARIS products.

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Brakes

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.

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 brake master cylinder reservoir cover and gasket.
2. Fill the master cylinder reservoir to between the MIN and MAX marks or 1/4"-5/16" (.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 and 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.

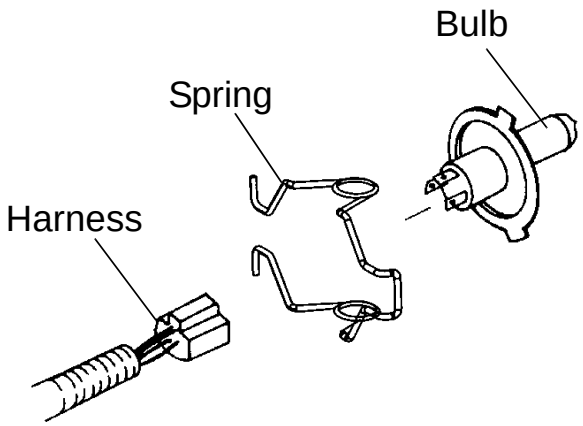
7. After bleeding is complete, refill the reservoir to the proper level. See page 59.
8. Reinstall the gasket and cover.

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MAINTENANCE
Lights
Removing Halogen Bulbs

Tip: Do not touch a halogen bulb with bare fingers. Oil from skin leaves a residue, causing a hot spot that will shorten the life of the lamp. If fingers do touch the bulb, clean it with an alcohol-moistened towel.

1. Remove the plenum covering from the headlight assembly. Lift the rubber boot to expose the bulb.
2. Push down on the spring to release it from the housing.
3. With the wire harness attached to the bulb, withdraw the bulb from the housing.
4. Grasp the bulb by its metal base and carefully separate the bulb from the harness.



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Lights

Installing Halogen Bulbs

1. Hold the bulb by its metal base and install it into the wire harness.
2. Insert the bulb into the housing.
3. Connect the spring to the housing.
4. Carefully flip the spring back into the housing, placing it around the wire harness.
5. Reinstall the plenum covering on the headlight assembly.
6. Adjust headlight aim. See page 31.

Replacing Taillight Bulbs

1. Remove the screws securing the taillight cover and remove the cover.
2. Remove the taillight lens.
3. Push the bulb in and twist it counterclockwise to remove it.
4. Install the new bulb.
5. Reinstall the taillight lens.
6. Reinstall the taillight cover.

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RELAY LABEL	FUSE LABEL	ITEM POWERED
START SOLENOID RELAY		Ground side of start solenoid
CHASSIS RELAY	SPARE 20A	None
	ACCESSORY EMERGENCY SPARE 30A	Accessory plugs
	CHASSIS 30A	High beams
		Low beams
		Handwarmers
		Thumbwarmer
		Passenger handwarmers
		Work light
		Tail lamp
		Brake lamp
		Alternator coils
EFI RELAY	EX. SENSOR GAUGE 20A	Exhaust sensor
		Gauge
		Accessory projector beam relay
		Diagnostic plug
	IGNITION 20A	Ignition relay power
	EFI 20A	Cam phase sensor
		ECU hold-on power
		Forward limit switch
		Start relay coil
		Chassis relay coil
		Ignition relay coil
		Fuel pump relay coil
		Fan relay coil
		Fuel pump relay power
		PTO injector
		MAG injector
IGNITION RELAY		PTO ignition coil
		MAG ignition coil
FUEL PUMP RELAY		Fuel pump
FAN RELAY		Radiator fan

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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 immediately. Do not operate the snowmobile until repairs have been made.

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

NOTICE: The bushings in the weights and rollers of POLARIS clutches are made of a material that may be damaged if lubricated. Do not lubricate clutch bushings.

Clutch Alignment Offset

Clutch alignment offset is important for maintaining optimum performance.Please see your POLARIS dealer if you experience a decrease in performance.

Clutch Center Distance

See your Owner's Manual Supplement for recommended center distance for your machine. If adjustment is necessary, see your dealer.

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MAINTENANCE
Clutch System
n Drive Belt Condition

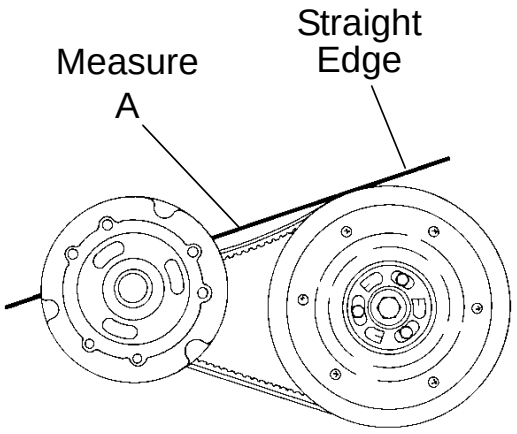
Periodically check the condition and tension of the drive belt, and always carry a spare. Inspect the belt for signs of excessive wear: frayed edges, missing cogs, cracks and excessive looseness. Replace the belt if any of these conditions exist. See Drive Belt Troubleshooting on page 121.

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

n 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 A. This measurement should be 1 1/4" (3.2 cm).



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Clutch System

Drive Belt Adjustment

1. Install the L-wrench into the open threaded hole in the outer sheave of the clutch (see page 100). Turn the wrench clockwise *slightly* to remove pressure from the sheaves.
2. Loosen the 7/16-inch jam nut.
3. Using a 1/8-inch Allen wrench, aturn the set screw inward (clockwise) to increase the distance between the sheaves or outward (counterclockwise) to decrease the distance.
4. Tighten the jam nut. Remove the L-wrench and store it in the tool kit.

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MAINTENANCE
Clutch System
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 counterclockwise 1/4 turn by hand to ensure forward engagement before attempting to remove the belt.

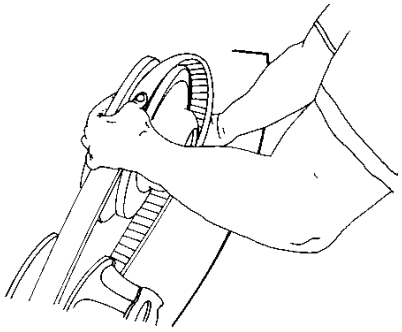
1. Stop the engine after operating in a forward motion.
2. Turn the ignition key off. Wait for the engine to come to a complete stop.
3. Lock the parking brake.
4. Open the hood and remove the left side panel.
5. Rotate the driven clutch counterclockwise 1/4 turn by hand to ensure forward engagement.
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 counterclockwise an additional 1/4 turn by hand and try again.
8. Grasp the belt at the lower edge and remove it.

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Clutch System

Drive Belt Installation

1. Drop the drive belt over the drive clutch and pull back the slack. The belt cord line should be flush with, or slightly above, the outer circumference of the driven clutch sheaves. The belt will seat itself in the driven clutch during the break-in period. Adjust the belt ride-out after the break-in period by readjusting belt deflection.



2. To ensure satisfactory belt life, install belts so they operate in the same direction of rotation by positioning the identification numbers so that you can read them from the left side of the vehicle. If required, separate the sheaves as outlined in the belt removal procedures.
3. Rotate the L-wrench counter-clockwise to tighten the sheaves while working the belt to the outer edge of the sheaves.
4. Remove the L-wrench and store it in the tool kit.
5. Reinstall the side panel.
6. Close and secure the hood.
7. Break in the new belt. See page 67.

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MAINTENANCE

Track Replacement

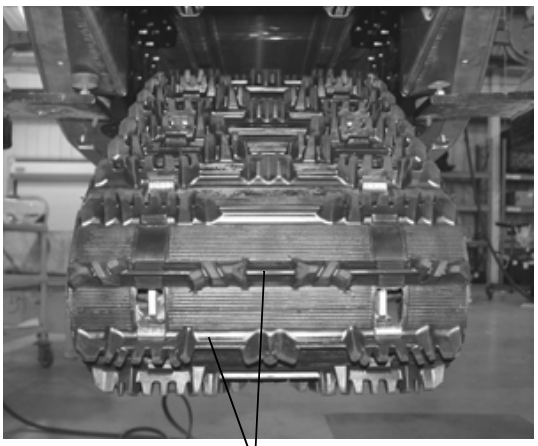
When replacing the track, always install a track having the lug size recommended for your model. See your POLARIS dealer.

NOTICE: Installing tracks with larger lugs on machines equipped with coolers will result in damage to the cooler or tunnel. Always install a track having the lug size recommended for your model.

Track Inspection

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

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. Bend the track to check for breakage.
4. Replace the track if any rod damage is found.



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Track Lubrication

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.

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

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

NOTICE: High speed use on hard-packed surfaces is not recommended for models equipped with a deep lug track. Track lug damage may occur. Keep high speed use to a minimum, including frequent slow-speed intervals for track cooling.

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MAINTENANCE
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.

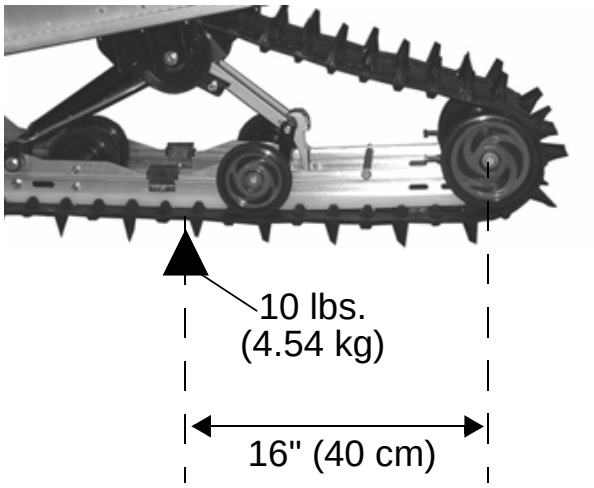
Track adjustment is critical for proper handling. Always maintain correct tension and alignment.

TRACK TENSION DATA CHART			
Suspension	**Slack Measurement**	**Weight**	**Measurement Location**
Widetrak IQ	3/4"-1" (19-25 mm)	10 lbs. (4.54 kg)	16" (40 cm) ahead of rear idler shaft

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.

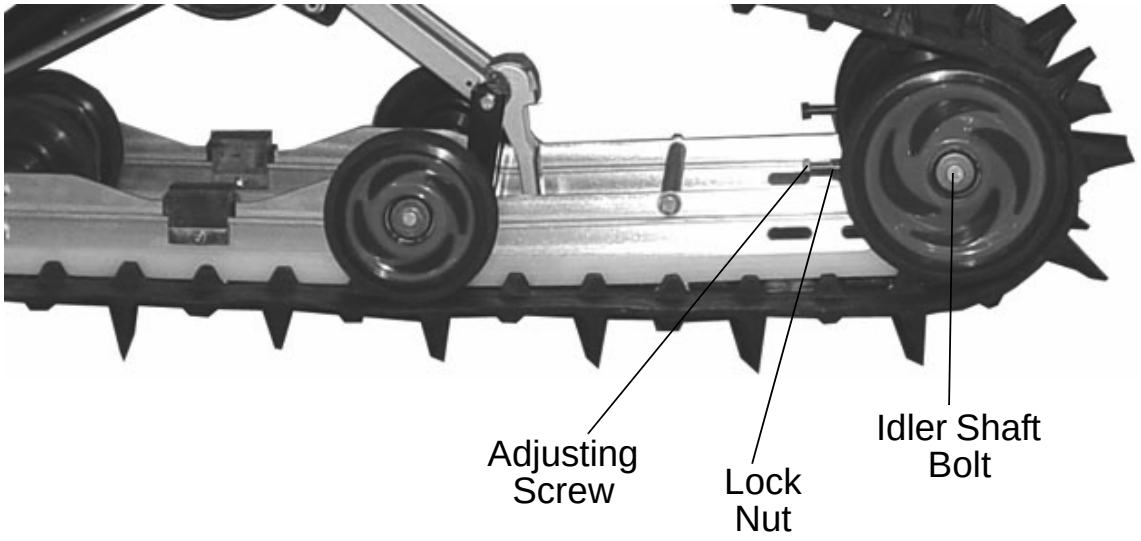
Tip: Measure at the point where the weight is hanging.



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Track Tension

4. Check for specified slack between the wear surface of the track clip and the plastic rail slide.



If the track needs adjustment:

5. Loosen the rear idler shaft bolt.
6. Loosen the lock nuts.
7. Tighten or loosen the track adjusting screws as necessary to provide equal adjustment on both sides of the track.
8. Repeat the measurement on the other side of the track.

Tip: Check more frequently when the snowmobile is new.

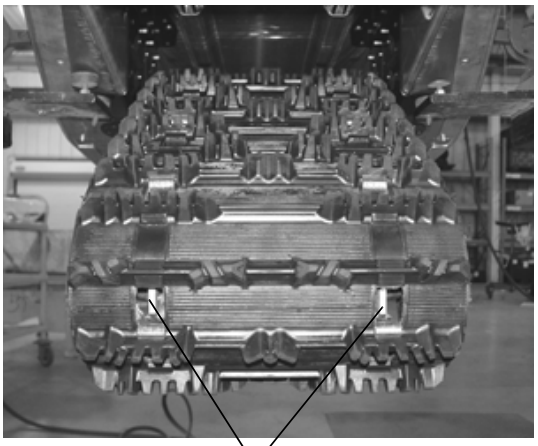
9. Start the engine and slowly rotate the track at least five revolutions. Let the track come to a stop (do not apply brakes).
10. Check track alignment (see page 106) and adjust as necessary.
11. Tighten the lock nuts.
12. Tighten the idler shaft bolts. Torque to 35 ft. lbs. (47.5 Nm).

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MAINTENANCE

n Track Alignment

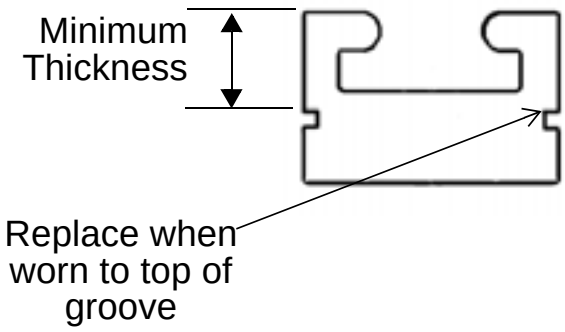
Periodically check that the track is centered and running evenly on the slide rails. Misalignment will cause excessive wear to the track and slide rail.



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 left locknut and tighten the left adjusting bolt. If the track runs to the right, loosen right locknut and tighten the right adjusting bolt.
4. After adjustments are complete, tighten locknuts and torque idler shaft bolts to 35 ft. lbs. (47.5 Nm).
5. Repeat steps 2 and 3 to verify proper alignment.

n Rail Slide Wear

For ease of inspection, all POLARIS rail slides have a wear limit indicator groove to indicate the minimum permissible slide thickness. Replace the rail slides if they are worn to the top of the groove at any point along their length.



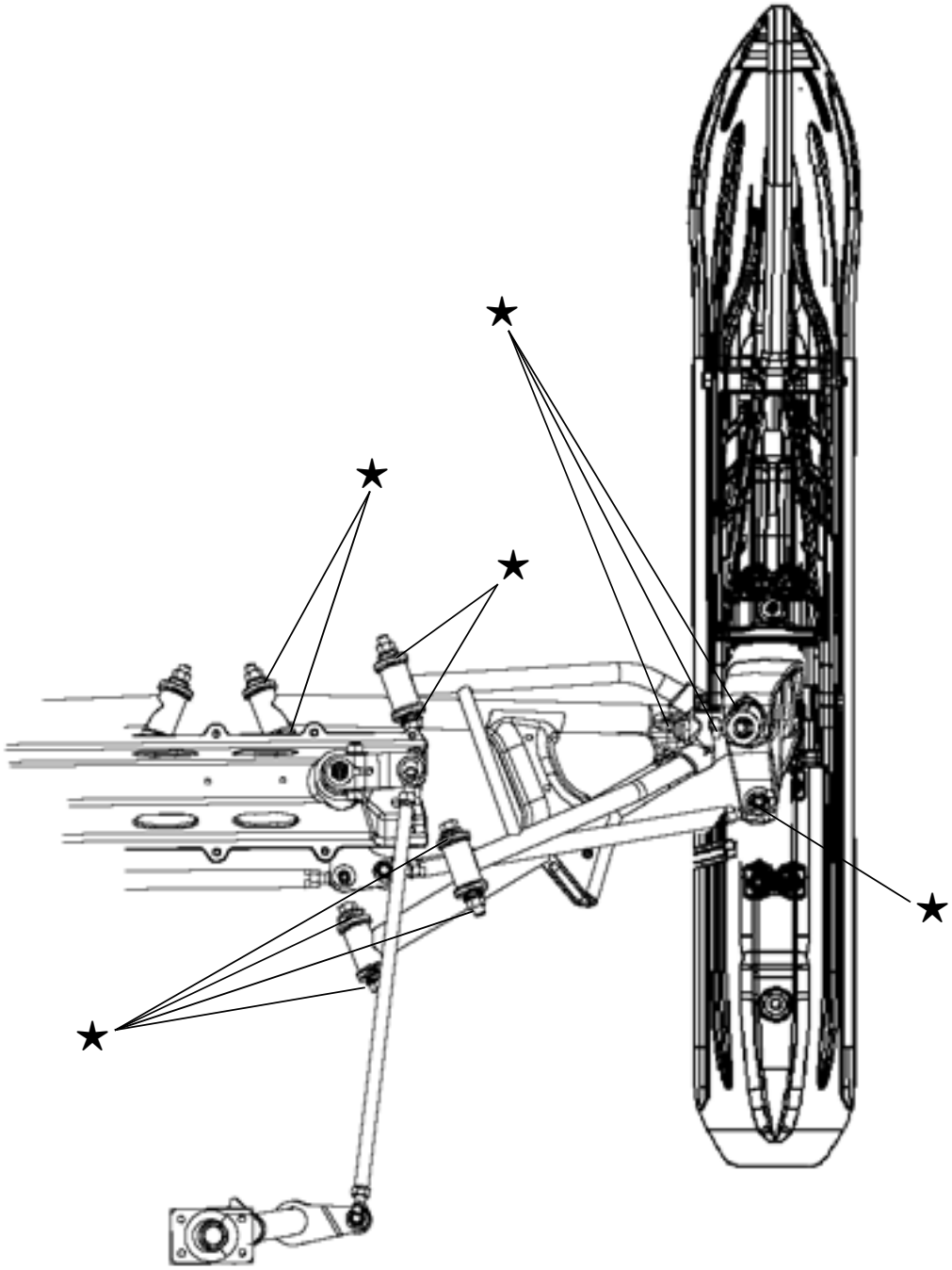
NOTICE: Failure to replace worn rail slides may result in permanent damage to the track or rails.

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Steering System

Steering Inspection and Adjustment

Check all steering system fasteners weekly and before a long ride. Tighten any loose fasteners.



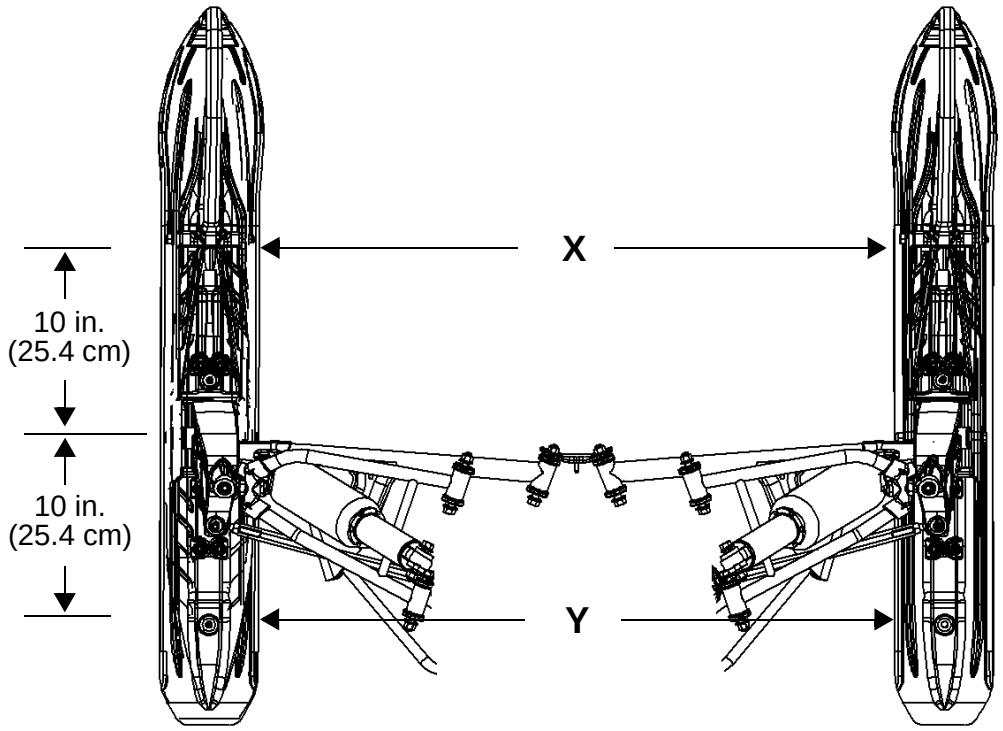
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MAINTENANCE
Steering System
Ski Alignment

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. See your POLARIS dealer.

With the handlebars in a straight ahead position, and with vehicle weight compressing the suspension, measure from the straight edge of the skis at the center of the ski mounting bolt. The measurement between the skis at point X should be 1/8" to 1/4" (3-6 mm) greater than the measurement at point Y.

Tip: If the skis are misaligned, we recommend that your dealer correct the alignment, since camber adjustment may also be affected.



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Steering System

n Ski Skags

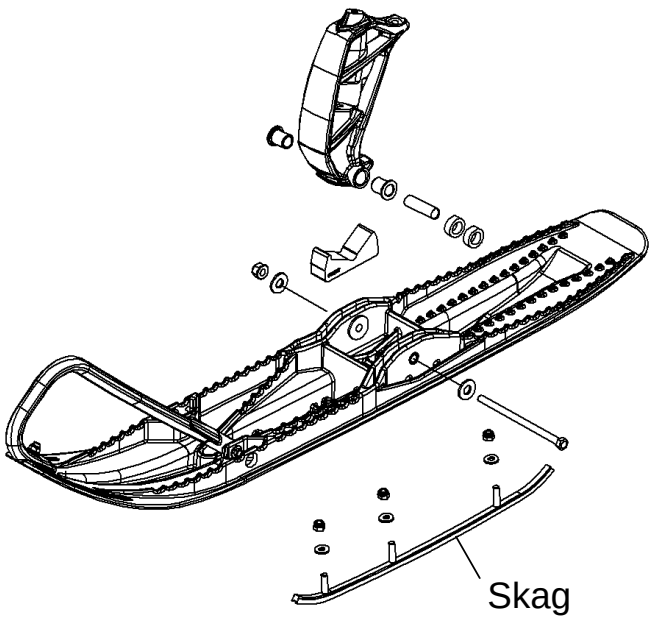
WARNING! Worn skis and/or skags will adversely affect handling. Loss of vehicle control may result, causing serious injury or death. See your dealer's studding chart for recommended skags. If you install longer or more aggressive carbide skags than the original equipment, it may also be necessary to add track studs to maintain proper vehicle control while turning on hard-packed snow or ice.

Check skags before each use of the snowmobile to ensure positive steering characteristics. Skags must be replaced when worn to half their original diameter.

Tip: Carbide skags must be replaced if *any* abnormal wear or chipping is found.

Skag Replacement

1. Raise and support the front of the snowmobile so the skis are approximately 6 inches (15 cm) from the ground.
2. Remove the attaching nuts and pry the skag 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.



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MAINTENANCE

Battery

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

Battery Removal

1. Release the seat latch and raise the seat to access the battery.
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 on page 112 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. Lower the seat and secure the latch.

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Battery

Battery Storage

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

Tip: Battery charge can be maintained by using a POLARIS Battery Tender t charger (PN 2871076) or by charging about once a month to make up for normal self-discharge. Battery Tender t can be left connected during the storage period, and will automatically charge the battery if the voltage drops below a pre-determined point.

Battery Charging

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

The sealed battery is already filled with electrolyte and has been sealed and *fully charged* at the factory. *Do not ever pry the sealing strip off* or add any other fluid to this battery.

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

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MAINTENANCE

Battery

Battery Charging

For a refresh charge, follow all instructions carefully.

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

Tip: When using an automatic charger, refer to the charger manufacturer's instructions for recharging. When using a constant current charger, use the 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 (Using constant current charger @ standard amps specified on top of battery)
100%	12.8-13.0 volts	None, check at 3 mos. from date of manufacture	None required
75%-100%	12.5-12.8 volts	May need slight charge, if no charge given, check in 3 months	3-6 hours
50%-75%	12.0-12.5 volts	Needs charge	5-11 hours
25%-50%	11.5-12.0 volts	Needs charge	At least 13 hours, verify state of charge
0%-25%	11.5 volts or less	Needs charge with desulfating charger	At least 20 hours

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Matte Clear Coat Cleaning (if equipped)

Matte finish products are prone to trapping dirt, oils and other contaminants. POLARIS Industries recommends cleaning with warm water and a mild dish detergent. Use a soft sponge to gently rub the surface and rinse with clean warm water. For stubborn stains such as grease or oil use a citrus based cleaner (3M Citrus Base Cleaner recommended). Spray onto the area to be cleaned and rub with a soft sponge. Allow to sit for a couple of minutes and wash away with clean warm water. Repeat as necessary to clean the surface.

NOTICE: Never use a polishing/buffing wax or any sponge that has an abrasive surface. These products will buff the matte surface of the finish resulting in a glossy finish. It is not recommended that you clean matte finishes with a pressure washer as this will further imbed contaminants into the clear coat and possibly damage the decals.

Extended Storage

Off-season or extended storage of your snowmobile requires preventive measures to aid against deterioration and to prolong the useful life of many components. See page 116 for the part numbers of POLARIS products.

Cleaning and Preservation

Proper storage starts with cleaning, washing, and waxing the hood, chassis, and plastic parts. Wipe down remaining surfaces with a damp cloth. Clean and touch up with paint any rusted or previously painted surfaces. Be sure that corrosive salt and acids are removed from surfaces before beginning preservation with waxes and rust inhibitors (grease, oil or paint).

The snowmobile should be stored in a dry garage or shed, out of direct sunlight, and covered with a fabric snowmobile cover. Plastic tarp may cause condensation to form and damage snowmobile components.

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MAINTENANCE

Extended Storage

Battery Maintenance

Remove the battery and recharge it as outlined on page 112. Store the battery in a cool, dry place.

Controls and Linkage

Lubricate all bushings and cables at the intervals outlined in the Periodic Maintenance Table beginning on page 78.

Bearings

Grease the jackshaft and drive shaft clutch side bearings with POLARIS Premium All-Season Grease or a similar high quality grease to prevent corrosion.

Clutch and Drive System

Remove the drive belt and store in a cool dry location. Do not lubricate clutch components, except the driven clutch shaft bushing as outlined in the service manual. See your dealer.

Engine Protection

Proper preparation of the engine and fuel system is vital to the prevention of rust and corrosion on precision engine parts during storage. Whenever the snowmobile is stored for a period of more than 60 days, the engine must be fogged with fogging oil. Follow the engine fogging instructions provided on the container.

Always add Premium Carbon Clean or a fuel conditioner/stabilizer to the fuel tank. Follow the instructions on the container, running the engine for five minutes to get additives through the entire fuel system. Top off with fresh fuel. *Do not allow the snowmobile to run out of fuel.*

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Extended Storage

Electrical Connections

Replace worn or frayed electrical wire and connectors. Be sure wiring harness is properly secured away from sharp edges, steering linkage, moving parts, and hot exhaust parts.

Track and Suspension

Moderate track tension should be maintained during summer storage. The snowmobile should be supported off the ground to allow the track to hang freely.

Transporting the Snowmobile

Whenever the snowmobile is transported:

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

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POLARIS PRODUCTS

Part No.	Description
Engine Lubricants	
2870791	Fogging Oil (12 oz. Aerosol)
2875035	Premium 2-Cycle Semi-Synthetic Oil (qt./.95 l) (break-in only)
2875036	Premium 2-Cycle Semi-Synthetic Oil (gal./3.8 l) (break-in only)
2877882	VES Gold Plus 2-Cycle Oil (qt./.95 l)
2877953	VES Gold Plus 2-Cycle Engine Oil (2 qt./1.9 l)
2877883	VES Gold Plus 2-Cycle Engine Oil (gal./3.8 l)
2877884	VES Gold Plus 2-Cycle Engine Oil (2.5 gal./9.5 l)
2877887	VES Gold Plus 2-Cycle Engine Oil (ltr)
2877888	VES Gold Plus 2-Cycle Engine Oil (4 ltr)
Chaincase Lubricants	
2873105	Synthetic Chaincase Lubricant (qt./.95 l)
2872951	Synthetic Chaincase Lubricant (12 oz./355 ml)
Grease/Specialized Lubricants	
2871312	Grease Gun Kit, Premium All Season (3 oz./89 ml)
2871322	Premium All Season Grease (3 oz./89 ml cartridge)
2871423	Premium All Season Grease (14 oz./414 ml cartridge)
2871329	Dielectric Grease (Nyogel™)
Coolant	
2871323	Anitfreeze, 60/40 Premix (gal./3.8 l)
2871534	Anitfreeze, 60/40 Premix (qt./.95 l)
Additives/Miscellaneous	
2871326	Carbon Clean Plus
2870652	Fuel Stabilizer
2872189	DOT4 Brake Fluid
2872893	Engine Degreaser
2870505	Isopropyl
2872889	Brake and Clutch Cleaner
2872890	Carburetor and Throttle Body Cleaner

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Engine Troubleshooting

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

Problem	Probable Cause	Solution
Erratic engine operating RPM during acceleration or load variations	Drive clutch binding	• SEE YOUR DEALER.
	Driven clutch malfunction	• SEE YOUR DEALER.
Harsh drive clutch engagement	Drive belt worn or too narrow	• Replace the drive belt.
	Excessive belt/ sheave clearance	• SEE YOUR DEALER.
Drive belt turns over	Wrong belt for application	• Replace the drive belt.
	Clutch alignment out of spec	• SEE YOUR DEALER.
	Engine mount broken or loose	• Inspect and replace. SEE YOUR DEALER.
Machine fails to move	Clutch jammed	• Check for twisted belt or broken spring. SEE YOUR DEALER.
	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. SEE YOUR DEALER.
	Transmission is in neutral	• Place the transmission in gear.

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TROUBLESHOOTING
Engine Troubleshooting

Problem	Probable Cause	Solution
Noise in drive system	Broken drive clutch components	• SEE YOUR DEALER.
	Bearing failure/ gearcase, jackshaft, or front drive shaft	• SEE YOUR DEALER.
	Drive belt surface flat spots	• Inspect and replace as needed.
	Drive chain loose	• Inspect and adjust (or replace).
	Drive chain worn, sprocket teeth bro-ken	• SEE YOUR DEALER.
Poor low RPM performance	Worn drive belt	• Inspect and replace as needed.
	Excessive belt/ sheave clearance	• SEE YOUR DEALER.
	Sticky clutch	• SEE YOUR DEALER.
	Poor fuel quality	• Use 87-89 octane fuel.
Engine doesn't turn	Seized engine	• SEE YOUR DEALER. Seizure is a result of poor lubrication, inade-quate fuel supply, broken parts or improper cooling.
	Hydrostatic lock	• Fuel may have entered the crankcase while the vehicle was standing or being transported. SEE YOUR DEALER to correct the cause. Drain plug(s) are located on the lower crankcase for emergency draining.

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Engine Troubleshooting

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, SEE YOUR DEALER.
	No fuel to engine	• Make sure the fuel valve is on. • Make sure the fuel tank contains fuel. • Ice may be in the fuel line, filter or pump. Add isopropyl alcohol to the fuel system.
	Poor engine compression	• This indicates a major engine problem that must be repaired before operating. SEE YOUR DEALER.
Engine lacks power	Fouled or defective spark plug(s)	• Replace the plug(s).
	Fuel filter (loss of high RPM power)	• SEE YOUR DEALER.
	Plugged fuel filter or tank pick-up sock	• SEE YOUR DEALER.
	Incorrect clutching	• SEE YOUR DEALER.
Engine continually backfires	Faulty plug(s)	• Change plug(s).
	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).
	Incorrect throttle freeplay or faulty switch	• SEE YOUR DEALER.
Engine requires more than normal pulls to start	Poor fuel	• Replace with fresh winter fuel.
	Not enough fuel getting to engine	• SEE YOUR DEALER.
	Plugged fuel filter or tank pick-up sock	• SEE YOUR DEALER.

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TROUBLESHOOTING
Suspension Troubleshooting

Problem	Solution
Rear suspension bottoms too easily	• Set static sag (see page 50). Adjust torsion spring blocks or install optional torsion springs to achieve correct sag dimensions.
Rides too stiff in rear	• Check for binding suspension components and grease all pivot points. • Set static sag (see page 50). Adjust torsion spring blocks or install optional torsion springs to achieve correct sag dimensions.
Too much weight transfer when climbing	• Set static sag (see page 50). Adjust torsion spring blocks or install optional torsion springs to achieve correct sag. • Move limiter strap to high position (see page 52).
Too little weight transfer when climbing	• Set static sag (see page 50). Adjust torsion spring blocks or install optional torsion springs to achieve correct sag. • Move limiter strap to low position (see page 52).
Front end pushes	• Check for worn skags. • Check for binding front suspension shafts/steering components, grease all pivot points (elevate front of machine). • Set static sag (see page 50). Adjust torsion spring blocks or install optional torsion springs to achieve correct sag. • Increase IFS preload (if equipped) (see page 48). • Move limiter strap to high position (see page 52).
Steering is heavy	• Make sure spindles and all steering components turn freely. • Check ski alignment (see page 108). • Check skags and skis for damage. • Set static sag (see page 50).
Machine darts from side to side	• Check ski alignment (see page 108). • Check for binding front suspension shafts/steering components, grease all pivot points (elevate front of machine). • Check for excessive play in steering assembly (see dealer). • Ensure skags are straight on skis. • Set static sag (see page 50). • Check rail slide/replace if worn (see page 106).

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Drive Belt Wear/Burn

Cause	Solution
Driving at low RPM	Drive at higher RPM. Gear the machine down. Check belt deflection.
Insufficient warm-up	Warm the engine at least five minutes. Take the drive belt off the machine in extremely cold weather and warm it up. Break machine loose from the snow.
Towing at low RPM	Do not tow in high gear. Do not tow in deep snow. Use fast, aggressive throttle to engage clutch.
Riding with high RPM and slow speed (8000 RPM/ 10 MPH)	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 machine in extremely cold weather and warm it up. Break machine loose from the snow.
Poor engine performance	Check for fouled plugs or water, ice, or dirt in the gas tank or fuel line.
Loading machines onto trailers	Skis may gouge into trailers and prevent the drivetrain from spinning properly. Use enough speed to drive the machine completely onto the trailer. Push and pull it to finish loading if necessary.
Clutch malfunction	Inspect clutch components. See your dealer.
Slow, easy clutch engagement	Use fast, aggressive throttle to engage clutch.
Wrong or missing belt	Always use the recommended belt.
Improper break-in	Always break in a new belt and/or clutch by avoiding aggressive or high speed operation during the break-in period.

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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: 1-888-704-5290

Canada: 1-204-925-7100

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Service And Warranty Information

POLARIS Anti-Theft System

The POLARIS anti-theft system (PATS) monitoring program is designed to aid owners of registered snowmobiles in recovery of stolen machines.

Administration

1. POLARIS snowmobile owner reports theft.

   A. In addition to notifying the proper law enforcement officials, the owner must call POLARIS Customer Service.

   B. Owners must provide their name, address, telephone number and the model and serial number of stolen machines.

2. POLARIS warranty will provide all dealerships with a monthly updated list of all stolen units to further monitor thefts.
3. POLARIS warranty will aid in notifying the proper owner when a unit is recovered

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WARRANTY

Limited Warranty

POLARIS Sales Inc., 2100 Highway 55, Medina, MN 55340, provides a ONE YEAR LIMITED WARRANTY on all components of the POLARIS snowmobile against defects in material or workmanship. This warranty covers the parts and labor charges for repair or replacement of defective parts that are covered by this warranty. The warranty begins on the date of purchase. This warranty is transferable to another consumer, during the warranty period, through a POLARIS dealer.

Registration

At the time of sale, the Warranty Registration Form must be completed by your dealer and submitted to POLARIS within ten days. Upon receipt of this registration, POLARIS will record the registration for warranty. No verification of registration will be sent to the purchaser as the copy of the Warranty Registration Form will be the warranty entitlement. If you have not signed the original registration and received the customer copy, please contact your dealer immediately. NO WARRANTY COVERAGE WILL BE ALLOWED UNLESS THE SNOWMOBILE IS REGISTERED WITH POLARIS.

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

Warranty Coverage and Exclusions

Limitations of warranties and remedies

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

This warranty does not cover the use of unauthorized lubricants, chemicals, or fuels that are not compatible with the snowmobile.

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

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Limitations of warranties and remedies

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

Promotional Warranties

Promotional warranties are sometimes offered by POLARIS. These warranties can be, but are not limited to:

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

If you selected any type of extended warranty coverage as part of a POLARIS retail program, please contact any authorized POLARIS dealer for additional information.

How to Obtain Warranty Service

If your snowmobile requires warranty service, you must take it to a POLARIS dealer authorized to repair POLARIS snowmobiles. When requesting warranty service you must present your copy of the Warranty Registration form to the dealer. (The cost of transportation to and from the dealer is YOUR responsibility). POLARIS recommends that you use your original selling dealer; however, you may use any POLARIS Servicing Dealer to perform warranty service.

Please work with your dealer to resolve any warranty issues. Your dealer will contact the appropriate personnel at POLARIS if additional assistance is needed.

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

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

Engine Oil

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

2. Damage resulting from the use of non-recommended lubricants may not be covered by warranty.

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WARRANTY

Conditions and Exclusions

In order to qualify for warranty, the product must have been properly set up and tested by a POLARIS Dealer (if applicable). Failure of any dealer to perform the required vehicle Pre-Delivery Inspection, perform all applicable service bulletins and have the consumer sign the PDI form prior to delivery may void the warranty. Failure to provide proof of required periodic maintenance upon request may result in denial of warranty coverage. Use of the recommended POLARIS products for lubrication and maintenance as directed by the Owner's manual is highly recommended. Should a failure occur during the warranty period resulting from the use of non-recommended products, warranty coverage may be denied.

Warranty does not apply to parts exposed to friction surfaces, stresses, environmental conditions and/or contamination. The following items are excluded from warranty consideration if the failure was due to wear or not the direct result of a defect:

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

Warranty applies to the product only and does not allow for coverage of personal loss. Some items are considered "consumable," meaning they are considered part of normal maintenance or part of completing an effective repair. The following items are excluded from warranty coverage in the event of a warranty claim:

Spark Plugs	Lubricants such as oil, grease, etc.
Filters	Batteries (unless defective)
Fuel	Cosmetic damage/repair
Sealants	Coolants
Hotel fees	Meals
Towing charges	Shipping/ handling fees
Mileage	Product pick-up/delivery
Rentals/Loss of product use	Loss of vacation/personal time

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 resulting in failure; 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.

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Exported Vehicles

EXCEPT WHERE SPECIFICALLY REQUIRED BY LAW, THERE IS NO WARRANTY OR SERVICE BULLETIN COVERAGE ON THIS VEHICLE IF IT IS SOLD OUTSIDE THE COUNTRY OF THE SELLING DEALER'S AUTHORIZED LOCATION.

This policy does not apply to vehicles that have received authorization for export from POLARIS Industries. Dealers may not give authorization for export. You should consult an authorized dealer to determine this vehicle's warranty or service bulletin coverage if you have any questions.

This policy does not apply to vehicles 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.

How to Get Service

In the Country where your vehicle was purchased:

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

Outside the Country where your vehicle was purchased:

If you are traveling temporarily outside the country where your vehicle was purchased, you should take your vehicle 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. Vehicles importation rules vary considerably from country to country. You may be required to present documentation of your move to POLARIS Industries in order to continue your warranty coverage. You may also be required to obtain documentation from POLARIS Industries in order to register your vehicle in your new country. You should warranty register your vehicle at a local POLARIS dealer in your new country immediately after you move to continue your warranty coverage and to ensure that you receive safety information and notices regarding your vehicle.

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WARRANTY

How to Get Service

If Purchased From A Private Party:

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

Notice

If your vehicle is registered outside of the country where it was purchased, and you have not followed the procedure set out above, your vehicle will no longer be eligible for warranty or service bulletin coverage of any kind, other than *safety* bulletins. (Vehicles registered to Government officials or military personnel on assignment outside of the country where the vehicle was purchased will continue to be covered by the basic warranty.)

For questions call POLARIS Customer Assistance (see page 122).

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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, 4000 kilometers (2485 miles) of vehicle travel, or 30 calendar months from the date of purchase, whichever comes first.

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

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

- Air-induction system
- Fuel system
- Ignition system
- Exhaust gas recirculation systems

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

- Aftertreatment devices
- Crankcase ventilation valves
- Sensors
- 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.

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WARRANTY

U.S.A. EPA Emissions Limited Warranty

The exclusive remedy for breach of this limited warranty shall be, at the exclusive option of POLARIS, repair or replacement of any defective materials, components or products. THE REMEDIES SET FORTH IN THIS LIMITED WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON FOR BREACH OF THIS WARRANTY. POLARIS SHALL HAVE NO LIABILITY TO ANY PERSON FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY DESCRIPTION,WHETHER ARISING OUT OF EXPRESS OR IMPLIED WARRANTY OR ANY OTHER CONTRACT, NEGLIGENCE OR OTHER TORT OR OTHERWISE. THIS EXCLUSION OF CONSEQUENTIAL, INCIDENTAL, AND SPECIAL DAMAGES IS INDEPENDENT FROM AND SHALL SURVIVE ANY FINDING THAT THE EXCLUSIVE REMEDY FAILED OF ITS ESSENTIAL PURPOSE.

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

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

Owners are responsible for performing the scheduled maintenance identified in the owner's manual. POLARIS may deny warranty claims for failures that have 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 Pure POLARIS parts. 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 the POLARIS Warranty Department at 1-888-704-5290.

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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)		
	1500 mi. (2400 km)		

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MAINTENANCE LOG

DATE	MILES (KM)	TECHNICIAN	SERVICE PERFORMED / COMMENTS

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