

ski-doo®

REV™ G4

Deep Snow Series

Operator's Guide 2020

Includes
Safety, Vehicle
and Maintenance Information



WARNING

Read this guide thoroughly.
It contains important safety information.
Minimum recommended operator's age: 16 years old.
Keep this Operator's Guide in the vehicle.

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Original Instructions


WARNING

Disregarding any of the safety precautions and instructions contained in this Operator's Guide, *SAFETY VIDEO* and on-product safety labels could cause injury including the possibility of death!

WARNING

This vehicle may exceed the performance of other vehicles you may have ridden. Take time to familiarize yourself with your new vehicle.

CALIFORNIA PROPOSITION 65 WARNING

 **WARNING:** Operating, servicing and maintaining an off-road vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. For more information go to www.p65warnings.ca.gov/products/passenger-vehicle.



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Model	Package	Engine
Freeride	-	850 E-TEC
Summit	SP	600R E-TEC
		850 E-TEC
	X	850 E-TEC
	X Expert	850 E-TEC
		850 E-TEC Turbo

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GENERAL INFORMATION

FOREWORD

Congratulations on your purchase of a new Ski-Doo® snowmobile. Whatever model you have chosen, it is backed by the Bombardier Recreational Products Inc. (BRP) warranty and a network of authorized Ski-Doo snowmobile dealers ready to provide the parts, service or accessories you may require.

Your dealer is committed to your satisfaction. He has taken training to perform the initial set-up and inspection of your snowmobile as well as completed the final adjustment required to suit your specific weight and riding environment before you took possession.

At delivery, you were informed of the warranty coverage and signed the *PREDELIVERY CHECK LIST* to ensure your new vehicle was prepared to your entire satisfaction.

Know Before you Go

To learn how to reduce the risk for you, your passenger or bystanders being injured or killed, read the following sections before you operate the vehicle:

- SAFETY INFORMATION
- VEHICLE INFORMATION.

Also read all safety labels on your snowmobile and watch attentively your *SAFETY VIDEO* located at www.ski-doo.com/safety.




BRP highly recommend that you take a safety riding course. Please check with your dealer or local authorities for availability in your area.

Failure to follow the warnings contained in this Operator's Guide can result in **SERIOUS INJURY** or **DEATH**.

The proper functioning of a snowmobile depends in part on the surface on which it is driven. See *RIDING CONDITIONS AND YOUR SNOWMOBILE* for details.

Safety Messages

The types of safety messages, what they look like and how they are used in this guide are explained as follows:

The safety alert symbol  indicates a potential injury hazard.

WARNING

Indicates a potential hazard, if not avoided, could result in serious injury or death.

CAUTION

Indicates a hazard situation which, if not avoided, could result in minor or moderate injury.

NOTICE Indicates an instruction which, if not followed, could severely damage vehicle components or other property.

About this Operator's Guide

This Operator's Guide has been prepared to acquaint the owner /operator and passenger with this snowmobile and its various controls, safe riding and maintenance instructions.

The following terminology in regards to operator, passenger and vehicle configuration is used as follows throughout this guide:

- **Operator** : refers to the person being behind the controls and driving the snowmobile.
- **Passenger** : refers to a person sitting behind the operator.
- **1-UP** : refers to a model designed for an operator only.
- **2-UP** : refers to a model designed to accommodate **one** passenger.

Keep this Operator's Guide in the vehicle as you can refer to it for things such as maintenance, troubleshooting and instructing others.

Note that this guide is available in several languages. In the event of any discrepancy, the English version shall prevail.

If you want to view and/or print an extra copy of your Operator's Guide, simply visit the following website **www.operatorsguides.brp.com** .

The informations contained in this document are correct at the time of publication. BRP, however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured. Due to late changes, some differences between the manufactured product and the descriptions and/or specifications in this guide may occur. BRP reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring any obligation upon itself.

This Operator's Guide should remain with the vehicle when it's sold.

SAFETY INFORMATION

GENERAL PRECAUTIONS

Avoid Carbon Monoxide Poisoning

All engine exhaust contains carbon monoxide, a deadly gas. Breathing carbon monoxide can cause headaches, dizziness, drowsiness, nausea, confusion and eventually death.

Carbon monoxide is a colorless, odorless, tasteless gas that may be present even if you do not see or smell any engine exhaust. Deadly levels of carbon monoxide can collect rapidly, and you can quickly be overcome and unable to save yourself. Also, deadly levels of carbon monoxide can linger for hours or days in enclosed or poorly ventilated areas. If you experience any symptoms of carbon monoxide poisoning, leave the area immediately, get fresh air and seek medical treatment.

To prevent serious injury or death from carbon monoxide:

- Never run the vehicle in poorly ventilated or partially enclosed areas such as garages, carports or barns. Even if you try to ventilate engine exhaust with fans or open windows and doors, carbon monoxide can rapidly reach dangerous levels.
- Never run the vehicle outdoors where engine exhaust can be drawn into a building through openings such as windows and doors.

Avoid Gasoline Fires and Other Hazards

Gasoline is extremely flammable and highly explosive. Fuel vapors can spread and be ignited by a spark or flame many feet away from the engine. To reduce the risk of fire or explosion, follow these instructions:

- Use only an approved gasoline container to store fuel.
- Strictly adhere to instructions in *VEHICLE FUELING PROCEDURE*.
- Never start or operate the engine if the fuel cap is not properly installed.

Gasoline is poisonous and can cause injury or death.

- Never siphon gasoline by mouth.
- If you swallow gasoline, get any in your eye or inhale gasoline vapor, see your doctor immediately.

If gasoline spills on you, wash with soap and water and change your clothes.

Avoid Burns from Hot Parts

The exhaust system and engine become hot during operation. Avoid contact during and shortly after operation to avoid burns.

Accessories and Modifications

Do not make unauthorized modifications, or use attachments or accessories that are not approved by BRP. Since these changes have not been tested by BRP, they may increase the risk of crashes or injuries, and they can make the vehicle illegal.

Tunnel accessories must be loaded onto vehicle as per instructions provided for each accessories.

Accessory passenger seats approved by BRP and conforming to SSCC standards may be available for certain models. If such a seat is used, you must follow the guidelines and recommendations in regards to a passenger in this guide.

WARNING

Passenger seat must have a strap or handholds and must meet SSCC standards.

See your authorized Ski-Doo dealer for available accessories for your vehicle.

SPECIAL SAFETY MESSAGES

SEVERE INJURY OR DEATH can result if you do not follow these instructions:

- Always make a pre-ride inspection BEFORE you start the engine.
- Throttle mechanism should be checked for free movement and return to idle position before starting engine.
- Always attach tether cord eyelet to clothing before starting the engine.
- Never operate the engine without belt guard and brake disk guard securely installed or, with hood or side panels opened or removed. Never run the engine without drive belt installed. Running an unloaded engine such as without drive belt or with track raised, can be dangerous.
- Always engage parking brake before starting the engine.
- Everyone is a beginner the first time he sits behind the controls of a snowmobile regardless of previous experience in driving any other type of vehicle. The safe use of your snowmobile depends on many conditions such as visibility, speed, weather, environment, traffic, vehicle condition and the condition of the operator.
- Basic training is required for the safe operation of any snowmobile. Study your operator's guide paying particular attention to cautions and warnings. Join your local snowmobile club: its social activities and trail systems are planned for both fun and safety. Obtain basic instructions from your snowmobile dealer, friend, fellow club member or enroll in your state or provincial safety training program.
- Any new operator must read and understand all safety labels on the snowmobile, the Operator's Guide and watch the *SAFETY VIDEO* at www.ski-doo.com/safety before operating the snowmobile. Only allow a new operator to operate the snowmobile in a restricted flat area, at least until he is completely familiar with its operation. If snowmobile operator's training course is offered in your area, have him enroll.
- The performance of some snowmobiles may significantly exceed that of other snowmobiles you have operated. Therefore, use by novice or inexperienced operators is not recommended.
- Snowmobiles are used in many areas and in many snow conditions. Not all models perform the same in similar

conditions. Always consult your snowmobile dealer when selecting the snowmobile model for your particular needs and uses.

- Injury or death may result to the snowmobile operator, passenger or bystander if the snowmobile is used in risky conditions which are beyond the operator's, passenger's or snowmobile's capabilities or intended use.
- BRP recommends the operator has at least 16 years old of age. Verify also your local laws for age and training requirements.
- It is very important to inform any operator, regardless of his experience, of the handling characteristics of this snowmobile. The snowmobile configuration, such as ski stance, ski type, suspension type, track length, width and type vary from a model to another. The snowmobile handling is greatly influenced by these characteristics.
- The novice operator should become familiar with the snowmobile through practice on a level area at slow speeds before venturing far afield.
- Know your local laws. Federal, state, provincial and local government agencies have enacted laws and regulations pertaining to the safe use and operation of snowmobiles. It is your responsibility as a snowmobiler to learn and obey these laws and regulations. Respect and observance will result in safer snowmobiling for all. Be aware of the liability property damages and insurance laws regarding your equipment.
- Speeding can be fatal. In many cases, you cannot react or respond quickly enough to the unexpected. Always ride at a speed which is suitable to the trail, weather conditions and your own ability. Know your local rules. Speed limit may be in effect and meant to be observed.
- Always keep right hand side of the trail.
- Always keep a safe distance from other snowmobiles and bystanders.
- Remember, promotional material may show risky maneuvers performed by professional riders under ideal and/or controlled conditions. You should never attempt any such risky maneuvers if they are beyond your level of riding ability.

- Never use this vehicle with drugs or alcohol. They slow reaction time and impair judgement.
- Your snowmobile is not designed to be operated on public streets, roads or highways.
- Avoid road traveling. If you must do so, and it is permitted, reduce speed. The snowmobile is not designed to operate or turn on paving. When crossing a road, make a full stop, then look carefully in both directions before crossing at a 90° angle. Be wary of parked vehicles.
- Snowmobiling at night can be a delightful experience but because of reduced visibility, be extra cautious. Avoid unfamiliar terrain and be sure your lights are working. Always carry a flashlight and spare light bulbs.
- Never remove any original equipment from your snowmobile. Each vehicle has many built in safety features. Such features include various guards and consoles, plus reflective materials and safety labels.
- Nature is wonderful but don't let it distract your attention from driving. If you want to truly appreciate winter's scenery, stop your snowmobile on the side of the trail so that you don't become a hazard to others.
- Fences represent a very serious threat for both you and your snowmobile. Give a wide berth to telephone poles or posts.
- Hidden wires unseen from a distance can cause serious accidents.
- Always wear an approved safety helmet, eye protection and a face shield. This also applies to your passenger.
- Be aware of inherent risks associated with riding off trails, such as avalanche and other natural or man made hazards or obstacles.
- Tailgating another snowmobile should be avoided. If the snowmobile in front of you slows for any reason, its operator and passenger could be harmed through your neglect. Maintain a safe stopping distance between you and the snowmobile in front of you. Depending on the terrain condition, stopping may require a little more space than you think. Play it safe. Be prepared to use evasive driving.
- Venturing out alone with your snowmobile could also be hazardous. You could run out of fuel, have an accident, or damage your snowmobile. Remember, your snowmobile

is capable of traveling further in half an hour than you may be able to walk in a day. Use the “buddy system”. Always ride with a friend or member of your snowmobile club. Even then, tell someone where you are going and the approximate time you plan to return.

- Meadows sometimes have low areas where water accumulate and freezes over in winter. This ice is usually glare ice. Attempting to turn or brake on this surface could cause your vehicle to spin out of control. Never brake or attempt speeding or turning on glare ice. If you do happen to travel over such a condition, reduce speed by carefully releasing the throttle.
- Never “jump” with your snowmobile.
- While on safari, do not “gun” the throttle. Snow and ice can be thrown back into the path of a following snowmobile. In addition, when “gunning” the throttle, the vehicle digs into and leaves an irregular snow surface for others.
- Safaris are both fun and enjoyable but don't show off or overtake others in the group. A less experienced operator might try to do the same as you and fail. When riding with others, limit your abilities to the experience of others.
- In an emergency, the snowmobile engine can be stopped by pressing down on the emergency engine stop switch or by pulling the tether cord cap from the engine cut-off switch, while applying brake.
- Always engage parking brake when vehicle is not in use.
- Never run the engine in a non-ventilated area and/or if vehicle is left unattended.
- Electric start models only: Never charge or boost a battery while installed on snowmobile.
- E-TEC engines: Never attempt any fuel system or electrical system maintenance or repair. Any maintenance or repair of these systems must be performed by an authorized Ski-Doo dealer.
- Never attempt any fuel system or electrical system maintenance or repair. Any maintenance or repair of these systems must be performed by an authorized Ski-Doo dealer.
- Ensure the path behind is clear of obstacles or bystanders before proceeding in reverse.

- Always remove the tether cord cap from engine cut-off switch when vehicle is not in operation in order to prevent accidental engine starting, to avoid unauthorized use by children or others or theft.
- NEVER stand behind or near a rotating track. Debris could be projected causing severe injuries. To remove packed snow or ice, stop engine, tilt and hold vehicle on its side and use wrench tool on the belt guard.
- Do not stud the track unless it has been approved for studs. At speed, a studded track that has not been approved for studs could tear and separate from vehicle. See an authorized Ski-Doo dealer for current specific studding availability and applications.
- You may stud the track on this vehicle model. However, you MUST only use the BRP approved type stud for use on Ski-Doo snowmobiles. DO NOT EVER use conventional studs because the track thickness is thinner than our standard tracks. The stud could tear off of track and separate from vehicle.
- Always wear an approved helmet and follow the same dressing guidelines as those recommended for the operator and described in this guide.
- Make sure that you are able to achieve a stable stance, both feet resting positively on the footboards of footrests with good grip, and that you are able to hold on firmly to the handholds.
- Do not forget, with 2-UP models, the operator is responsible for the safety of the passenger. Always remember that the snowmobile handling, stability and braking distance may be affected when riding with a passenger.
- Before riding the vehicle, ask your passenger to inform you to slowdown or stop immediately if he feels uncomfortable or insecure during the ride. Keep a watchful eye on your passenger while riding.

RIDING THE VEHICLE

Each operator has a responsibility to ensure the safety of other recreationists or bystanders.

You are responsible for proper operation of your vehicle as well as training those whom you allow to ride or drive. There may be noticeable handling and performance differences from one snowmobile to the other.

A snowmobile is relatively simple to operate but like any other vehicle or mechanical equipment, it can be hazardous if you or a passenger are reckless, thoughtless or inattentive. We encourage you to have an Annual Safety Inspection of your snowmobile. Please contact an authorized Ski-Doo dealer for further details. Though not required, it is recommended that an authorized Ski-Doo dealer performs the preseason preparation of your snowmobile. Each visit to your authorized Ski-Doo dealer is a great opportunity for your dealer to verify if your snowmobile is included in any safety campaign. We also urge you to visit your authorized Ski-Doo dealer in a timely manner if you become aware of any safety related campaigns.

See an authorized Ski-Doo dealer for available accessories you may require.

Before venturing on the trails, operate the snowmobile in a restricted flat area until you are completely familiar with its operation and feel comfortable that you can safely tackle a more demanding task. Have an enjoyable and safe ride.

Topic PRE-RIDE INSPECTION moved into its own new SECTION L2

How to Ride

Riding Gear

Proper snowmobile clothing should be worn. It should be comfortable and not too tight. Always check the weather forecast before going on a ride. Dress for the coldest weather expected. Thermal underwear next to the skin also provides a good insulation.

Wear an approved helmet at all times for safety and comfort. They provide both warmth and reduce injury. A stocking type cap, balaclava and face mask should always be carried or worn. Goggles or a face shield that attach to the helmet are indispensable.

Hands should be protected by a pair of snowmobile gloves or mitts which have sufficient insulation and allow use of thumbs and fingers for operation of controls.

Rubber bottom boots with either a nylon or a leather top, with removable felt liners are best suited for snowmobiling.

You should keep yourself as dry as possible when snowmobiling. When you come indoors, take your snowmobile suit and boots off and make certain they dry properly.

Do not wear a long scarf or loose apparels that could get caught in moving parts.

Carry colored lens goggles.

What to Bring

First aid kit	Provided tool kit
Mobile phone	Knife
Spare spark plugs	Flashlight
Friction tape	Trail map
Spare drive belt	Snack

Rider Position (Forward Operation)

Your riding position and balance are the two basic principles of making your snowmobile go where you want it to. When turning on the side of a hill, you and your passenger must be ready to shift body weight to help it turn in the desired direction. Operator and passenger must never attempt this maneuvering by placing feet outside of the vehicle. Experience will teach you how much lean to put into turns at different speeds and how much you will have to lean into a slope to maintain proper balance.

Generally, the riding position for best balance and control is sitting. However, the posting, kneeling or standing positions are also used under certain conditions.

⚠ WARNING

Do not attempt any maneuvers if they are beyond your abilities.

Sitting

Feet on the running boards, body midway back on seat is an ideal position when operating the snowmobile over familiar, smooth terrain. Knees and hips should remain flexible to absorb shocks.



mmo2008-003-001

Posting

A semi-sitting position with the body off the seat and the feet under the body in a sort of squatting posture, thus allowing the legs to absorb the shocks when traveling over uneven terrain. Avoid abrupt stops.



mmo2008-003-002

Kneeling

This position is achieved by placing one foot firmly on the running board and the opposite knee on the seat. Avoid abrupt stops.



mmo2008-003-003

Standing

Place both feet on the running boards. Knees should be flexed to absorb the shock from surface bumps. This is an effective position to see better and to shift weight as conditions dictate. Avoid abrupt stop.



mmo2008-003-004

Rider Position (Reverse Operation)

We recommend sitting on your snowmobile when operating in reverse.

Avoid standing up. Your weight could shift forward against throttle lever while operating in reverse, causing an unexpected acceleration.

⚠ WARNING

Unexpected acceleration when snowmobile operates in reverse can cause a loss of control.

Carrying a Passenger

Certain snowmobiles are designed for an operator only (1-UP), and others can allow one passenger (2-UP). Make sure to identify and respect the warnings according to your specific models.

Even when a passenger is allowed, this person must be physically fit for snowmobiling.

WARNING

Any passenger must be able to firmly lay his feet on the footrests and keep his hands on the handholds or seat strap at all times when seated. Respecting those physical criteria is important to ensure that the passenger is stable and to reduce the risks of ejection.

The operator has a responsibility to ensure the safety of his passenger and should inform the passenger about snowmobiling basics.

WARNING

- **Passenger must only sit on designated passenger seat. Never allow anyone to sit between the handlebar and the operator.**
- **Passenger and operator must always wear an approved helmet and warm clothing appropriate for snowmobiling. Make sure that no skin is exposed.**
- **If the passenger feels uncomfortable or insecure for any reason, he must right away inform the operator to slowdown or stop.**

Riding with a passenger on board is different than riding alone. The operator has the benefit of knowing what will be the next maneuver and is able to prepare himself accordingly. The operator also benefits from the support of his grip on the handlebar. In contrast, the passenger has to rely on

the operator's careful and safe operation of the vehicle. In addition, "body english" is limited with a passenger, and the operator can sometimes see more of the trail ahead than the passenger. Therefore, smooth starting and stopping are required with a passenger, and the operator must slow down. The operator must also warn the passenger about side hills, bumps, branches, etc. An unforeseen bump can leave you passenger-less. Remind your passenger to lean into the turn with you, without causing the vehicle to topple. Be extremely careful, go more slowly and check the passenger frequently.

 **WARNING**

When riding with a passenger:

- Braking ability and steering control are reduced. Decrease speed and allow extra space to maneuver.
- Adjust suspension according to weight.

For complete information on how to adjust the suspension, please refer to *TUNE YOUR RIDE*.

Riding with a Child

On snowmobiles allowing two passengers (with optional seat), if you have an adult and a child for passenger, BRP recommends that the child sits in the center location. This allows an adult sitting in the rear seat to keep a visual contact with the child and hold him if necessary. In addition, the child is best protected against the wind and cold temperature if seated in the center location.

Use extra caution and go even more slowly with a young passenger. Check frequently to make certain the child has a firm grip and is properly positioned with his feet on the running boards.

Terrain/Riding Variations

Groomed Trail

On a maintained trail, sitting is the most preferred riding position. Do not race and, above all, keep to the right hand side of the trail. Be prepared for the unexpected. Observe all trail signs. Do not zigzag from one side of the trail to the other.

Ungroomed Trail

Unless there has been a fresh snowfall you can expect “washboard” and snowdrift conditions. Taken at excessive speeds, such conditions can be physically harmful. Slow down. Hold on the handlebar and assume a posting position. Feet should be under the body assuming a crouched position to absorb any jarring effect. On longer stretches of “washboard” trails, the kneeling position of one knee on the seat can be adopted. This provides a certain amount of comfort, while at the same time keeps the body loose and capable of vehicle control. Beware of hidden rocks or tree stumps partially hidden by a recent snowfall.

Deep Snow

In deep “powder” snow, your vehicle could begin to “bog” down. If this occurs, turn in as wide an arc as possible and look for a firmer base. If you do get “bogged”, and it happens to everyone, do not spin your track as this makes the vehicle sink deeper. Instead, turn the engine off, get off and move the back of the vehicle onto new snow. Then tramp a clear path ahead of the vehicle. A few feet will generally suffice. Restart the engine. Assume the standing position and rock the vehicle gently as you steadily and slowly apply the throttle. Depending on whether the front or rear end of the vehicle is sinking, your feet should be placed on the opposing end of the running boards. Never place foreign material beneath the track for support. Do not allow anyone to stand in front of, or to the rear of, the snowmobile with the engine running. Stay away from the track. Personal injury will result if contact is made with the revolving track.

Frozen Water

Traveling frozen lakes and rivers can be fatal. Avoid waterways. If you are in an unfamiliar area, ask the local authorities or residents about the ice condition, inlets, outlets, springs, fast moving currents or other hazards. Never attempt to operate your snowmobile on ice that may be too weak to support you and the vehicle. Operating a snowmobile on ice or icy surfaces can be very dangerous if you do not observe certain precautions. The very nature of ice is foreign to good control of a snowmobile or any vehicle. Traction for starting, turning or stopping is much less than that on snow. Thus, these distances can be multiplied manyfold. Steering is minimal, and uncontrolled spins are an ever present danger. When operating on ice, drive slowly with caution. Allow yourself plenty of room for stopping and turning. This is especially true at night.

Hard Packed Snow

Don't underestimate hard packed snow. It can be difficult to negotiate as both skis and track do not have as much traction. Best advice is to slow down and avoid rapid acceleration, turning or braking.

Uphill

There are two types of hills you can encounter — the open hill on which there are few trees, cliffs or other obstacles, and a hill that can only be climbed directly. On an open hill, the approach is to climb it by side hilling or slaloming. Approach at an angle. Adopt a kneeling position. Keep your weight on the uphill side at all times. Maintain a steady, safe speed. Continue as far as you can in this direction, then switch to an opposite hill angle and riding position.

A direct climb could present problems. Choose the standing position, accelerate before you start the climb and then reduce throttle pressure to prevent track slippage.

In either case, vehicle speed should be as fast as the incline demands. Always slow down as you reach the crest. If you cannot proceed further, don't spin your track. Turn the engine off, free the skis by pulling them out and downhill, place the rear of the snowmobile uphill restart the engine and ease it

out with slow even throttle pressure. Position yourself to avoid tipping over, then descend.

Downhill

Downhill driving requires that you have full control of your vehicle at all times. On steeper hills, keep your center of gravity low and both hands on the handlebar. Maintain slight throttle pressure and allow the machine to run downhill with the engine operating. If a higher than safe speed is reached, slow down by braking but apply the brake with frequent light pressure. Never jam the brake and lock the track.

Side Hill

When crossing a side hill or traversing up or downhill, certain procedures must be followed. All riders should lean towards the slope as required for stability. The preferred operating positions are the kneeling position, with the knee of the down hill leg on the seat and the foot of the uphill leg on the running board, or the posting position. Be prepared to shift your weight quickly as needed. Side hills and steep slopes are not recommended for a beginner or a novice snowmobiler.

Avalanche Hazard

When riding on mountainous terrain, you should be aware of the risk of avalanches. Avalanches vary in size and shapes and generally occur in steep terrain and on unstable snow.

New snow, animals, people, wind and snowmobiles can all trigger an avalanche. Avoid high marking or traversing steep terrain when avalanche conditions are possible. When in unstable snow conditions, travel should be restricted to lower angle slopes. Wind formed cornices should be avoided. Staying off unstable conditions is the key to safe mountain riding. Probably most important is to be aware of the conditions and dangers on a daily basis when in the mountains. Check local avalanche forecasts and threats each day before heading out to ride and heed forecasters advice.

You should always carry a snow shovel, probe and avalanche beacon while riding on mountains. We recommend that all mountain riders take a local avalanche safety training course

to become more familiar with snow conditions and learn how to properly use their equipment.

Here are some web sites that can help you finding important information:

- US: www.avalanche.org
- Europe: www.avalanches.org
- Canada: www.avalanche.ca

Slush

Slush should be avoided at all times. Always check for slush before starting across any lake or river. If dark spots appear in your tracks, get off the ice immediately. Ice and water can be thrown rearward into the path of a following snowmobile. Getting a vehicle out of a slush area is strenuous and in some cases, impossible.

Fog or Whiteout Conditions

On land or water, fog or visibility-limiting snow can form. If you have to proceed into the fog or heavy snow, do so slowly with your lights on and watch intently for hazards. If you are not sure of your way, do not proceed. Keep a safe distance behind other snowmobilers to improve visibility and reaction time.

Unfamiliar Territory

Whenever you enter an area that is new to you, drive with extreme caution. Go slow enough to recognize potential hazards such as fences or fence posts, brooks crossing your path, rocks, sudden dips, guy wires and countless other obstacles which could result in a termination of your snowmobile ride. Even when following existing tracks, be cautious. Travel at a speed so you can see what is around the next bend or over the top of the hill.

Bright Sunshine

Bright sunny days can considerably reduce your vision. The glare from sun and snow may blind you to the extent that you cannot easily distinguish ravines, ditches or other obstacles. Goggles with colored lenses should always be worn under these conditions.

Unseen Obstruction

There may be obstructions hidden beneath the snow. Driving off established trails and in the woods requires reduced speed and increased vigilance. Driving too fast in an area can make even minor obstacles very hazardous. Even hitting a small rock or stump could throw your snowmobile out of control and cause injury to its riders. Stay on established trails to reduce your exposure to hazards. Be safe, slow down and enjoy the scenery.

Hidden Wires

Always be on the lookout for hidden wires, especially in areas that may have been farmed at one time or another. Too many accidents have been caused by running into wires in the fields, guy wires next to poles and roads, and into chains and wires used as road closures. Slow speeds are a must.

Obstacles and Jumping

Unplanned jumps of snowdrifts, snowplow ridges, culverts or indistinguishable objects can be dangerous. You can avoid them by wearing the proper color lenses or face shields and by operating at a lower speed.

Jumping can be a hazardous situation. Be prepared before landing to absorb the shock and brace yourself for the impact. Knees must be flexed to act as shock absorbers. If the trail does suddenly drop away from you, crouch (stand) towards the rear of the vehicle and keep the skis up and straight ahead. Apply partial throttle and brace yourself for the impact. Knees must be flexed to act as shock absorbers.

Turning

Depending on terrain conditions, there are two preferred ways to turn or corner a snowmobile. For most snow surfaces, “body english” is the key to turning. Leaning towards the inside of the turn and positioning body weight on the inside foot will create a “banking” condition beneath the track. By adopting this position and positioning yourself as far forward as possible, weight will be transferred to the inside ski.

On occasion, you will find that the only way to turn the vehicle about in deep snow is to pull the snowmobile around. Do not over-exert yourself. Get assistance. Remember to always lift using your legs as opposed to your back.



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Road Crossing

In some cases, you will be approaching the road from a ditch or snowbank. Choose a place where you know you can climb without difficulty. Use the standing position and proceed with only as much speed needed to crest the bank. Stop completely at the top of the bank and wait for all traffic to clear. Judge the drop to the roadway. Cross the road at a 90° angle. If you encounter another snowbank on the opposite side, position your feet near the rear of the vehicle. Remember, your

snowmobile is not designed to operate on bare pavement and steering on this type of surface is more difficult.

Railroad Crossing

Never ride on railroad tracks. It is illegal. Railroad tracks and railroad rights-of-way are private property. A snowmobile is no match for a train. Before crossing a railroad track, stop, look and listen.

Night Rides

The amount of natural and artificial light at a given time can effect your ability to see or to be seen. Nighttime snowmobiling is delightful. It can be a unique experience if you acknowledge your reduced visibility. Before you start, make certain your lights are clean and work properly. Drive at speeds that will allow you to stop in time when you see an unknown or dangerous object ahead. Stay on established trails and never operate in unfamiliar territory. Avoid rivers and lakes. Guy wires, barbed wire fences, cabled road entrances and other objects such as tree limbs are difficult to see at night. Never drive alone. Always carry a flashlight. Keep away from residential areas and respect the right of others to sleep.

Riding in a Group

Before starting out, designate a "trail boss" to lead the party and another person to follow-up at the end of the party. Ensure that all members of the party are aware of the proposed route and destination. Make certain that you are carrying all necessary tools and equipment and that you have sufficient fuel to complete the trip. Never overtake the trail boss or, for that matter, any other snowmobile. Use down-the-line hand signals to indicate hazards or intent of direction change. Assist others whenever necessary.

It is always IMPORTANT to keep a safe distance between each snowmobile. Always maintain a safe interval and allow sufficient stopping distance. Don't be a tailgater. Know the position of the machine ahead.

Signals

If you intend to stop, raise either hand straight above your head. A left turn is indicated by extending your left hand straight out in the proper direction. For right turns, extend the left arm and raise the hand to a vertical position so it forms a right angle at the elbow. Every snowmobiler should relay any signal to the ones behind.

Trail Stops

Whenever possible, pull off the trail when you stop. This will reduce the hazard to other snowmobilers using the trail.

Trails and Signs

Trail signs are used to control, direct or regulate the use of snowmobiles on trails. Become familiar with all signs used in the area where you are snowmobiling.

Environment

Wildlife compliments your snowmobiling day. Snowmobile tracks provide firm ground over which animals can travel from area to area. Do not violate this privilege by chasing or harassing wildlife. Fatigue and exhaustion can lead to animal's death. Avoid areas posted for the protection or feeding of wildlife.

If you happen to be fortunate enough to see an animal, stop your snowmobile and observe quietly.

The guidelines that we support are not designed to limit your snowmobiling fun, but to preserve the beautiful freedom that you can experience only on a snowmobile! These guidelines will keep snowmobilers healthy, happy and able to introduce others to what they know and enjoy about their favorite winter pastime. So, the next time you hit the trails on a cool, crisp and clear winter day, we ask you to remember that you are paving the way for the future of our sport. Help us lead it down the right path! From all of us at BRP, thank you for doing your share.

There is nothing more exhilarating than snowmobiling. Venturing onto snowmobile trails that cross wild areas is an exciting and healthy winter sport. However, as the number of people

using these recreational parks increases, so does the potential for damage to the environment. Abuse of land, facilities and resources inevitably leads to restrictions and closures of both private and public land.

In essence, the greatest threat to our sport, is all around us. Which leaves us with one logical choice. When we snowmobile, we must always ride responsibly.

The vast majority respect the law and the environment. Each of us must set an example for those who are new to the sport, young and old alike.

It is in every one's best interest to tread lightly into our recreational areas. Because, in the long run, to protect the sport we must preserve the environment.

Recognizing the importance of this issue and the need for snowmobilers to do their share in preserving areas that make it possible to enjoy our sport, BRP has developed the "Light Treading Is Smart Sledding" campaign for snowmobilers.

Light Treading refers to more than the tread of our tracks. It's a statement of concern, respect and willingness to take the lead and take action. It applies to the environment in general, its proper care and maintenance, its natural inhabitants and all enthusiasts and the public at large who enjoy the great outdoors. With this theme, we invite all snowmobilers to remember that respecting the environment is not only critical to the future of our industry but to future generations.

Light Treading in no way suggests you should curb your appetite for snowmobiling fun! It simply means tread with respect!

The fundamental objective of Light Treading is one of respect for where and how you ride a snowmobile. You're a light treader when you follow the principles below.

Become informed. Obtain maps, regulations and other information from the Forest Service or from other public land agencies. Learn the rules and follow them and that goes for speed limits, too!

Avoid running over young trees, shrubs, and grasses and don't cut wood. On flatlands or areas where trail riding is popular, it's important to ride only where authorized. Remember, there

is a link between protecting your environment and your own safety.

Respect wildlife and be particularly sensitive of animals that are rearing young or suffering from food shortage. Stress can sap scarce energy reserves. Refrain from riding in areas where only animals are intended to tread!

Obey gate closures and regulatory signs and remember, light treaders don't litter!

Stay out of wilderness areas. They're closed to all vehicles. Know where the boundaries are.

Obtain permission to travel across private land. Respect the rights of landowners and other people's privacy. Remember, snowmobile technology has lowered the noise factor considerably, but you still shouldn't rev your engines where quiet "is the order of the day".

Snowmobilers know all too well the efforts that have been made throughout the sport's history to enjoy access to areas where people can snowmobile safely and responsibly. This effort continues today, as strong as ever.

Respecting the areas where we ride... wherever they may be... is the only way to ensure their future enjoyment. That's one major reason why we know you'll agree that Light Treading is smart sledding! And there are more.

Enjoying the opportunity to see winter and all its natural majestic wonders, is an experience cherished by snowmobilers. Light Treading will preserve this opportunity and will make it possible for us to expose others to the beauty of winter and the unique thrill of our sport! Light Treading will help our sport to grow!

Finally, Light Treading is the sign of a smart snowmobiler. You don't have to leave big tracks or careen through a virgin forest to show you can ride. So whether you're driving a high performance Ski-Doo snowmobile or any other make or model, show you know what you're doing. Show you know how to send snow flying and make tracks with a light touch!

TRACTION ENHANCING PRODUCTS

Important

- *DEEP SNOW SERIES* snowmobiles are not meant to be used with any type of traction enhancing products such as, adjustable or more aggressive ski carbide runners and/or track studs.
- BRP does not recommend the installation and use of such products on your *DEEP SNOW SERIES* snowmobile.

WARNING

Never stud a track that has not been approved for studs. Installing studs on an unapproved track could increase the risk of the track tearing or severing.

Although not recommended, the installation of more aggressive carbide ski runners still possible.

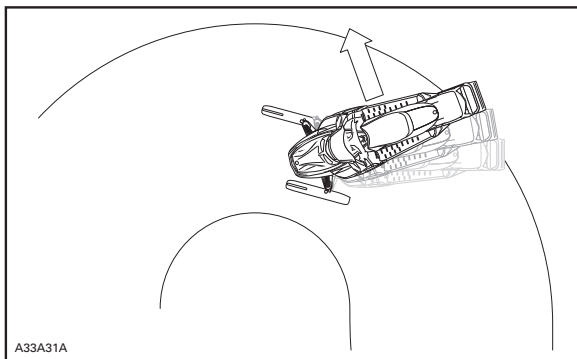
Using more aggressive than original carbide ski runners gives a better grip on packed snow and ice, but has no noticeable effect on soft snow. For this reason, driving a snowmobile equipped with aggressive carbide runners requires a certain adaptation period. If your snowmobile is equipped with aggressive carbide runners, be sure to take plenty of time to get used to the way it handles when turning. Refer to *MANOEUVRABILITY*.

Manoeuvrability

Using more aggressive ski carbide runners makes the snowmobile grip the ground better at the front. This could unbalance the front and rear of the snowmobile.

WARNING

If the front and rear of the snowmobile are out of balance due to the use of aggressive carbide runners the snowmobile may tend to oversteer which could lead to a loss of control.



OVERSTEERING

SAFETY INFORMATION ON THE VEHICLE

Hang Tag(s)

VEHICLE ENGINE DESCRIPTION:
XXXXX

EPA CERTIFIED

NER (NORMALIZED EMISSION RATE) =
ON A 0 TO 10 SCALE, 0 BEING THE CLEANEST

***NOT TO BE REMOVED PRIOR TO SALE**



704901107

EN-vmo2006-005-009-Dec

TYPICAL

⚠ WARNING. Operating, servicing and maintaining an off-road vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm.

To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle.

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



704906872

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Have you asked your dealer to adjust your suspension to **YOUR** riding style?

- Limiter strap length
- Spring preload

for more details.

See the operator's guide

- Tune your ride section

*This hangtag may **ONLY** be removed by the customer.



516004302

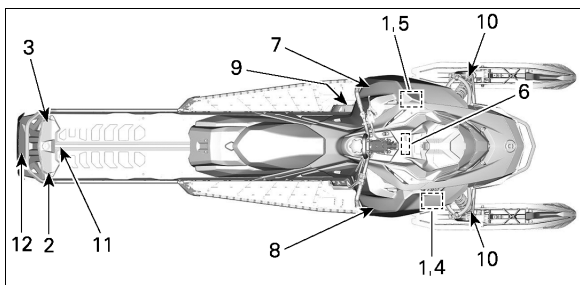
mmo2010-003-100_en

Vehicle Safety Labels

These labels are affixed to the vehicle for the safety of the operator, passenger or bystanders.

The following labels are on your vehicle and they should be considered permanent parts of the vehicle. If missing or damaged, the decals can be replaced free of charge. See an authorized Ski-Doo dealer.

Note: In the event of any discrepancy between this guide and the vehicle, the safety labels on the vehicle have precedence over the labels in this guide.

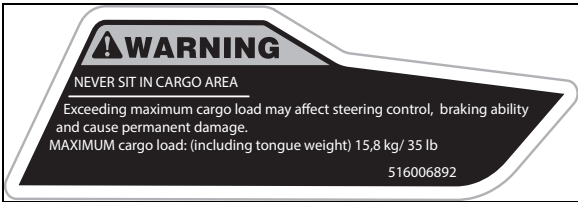


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516005280

LABEL 1



EN-516006892-DEC
LABEL 2



EN-516008594-DEC
LABEL 3



mmo2008-003-007
LABEL 4 - COOLANT BOTTLE CAP



516005904A

LABEL 4 - ON COOLANT BOTTLE


<p>⚠ WARNING</p> <p>This guard must ALWAYS be in place when engine is running beware of rotating parts they could cause injuries or catch your clothing.</p>	<p>NOTICE</p> <p>Drive pulley bolt recommended torque 85-92 lbf·ft / 115-125N·m</p> <p>Not applying the recommended torque may result in a major failure of the drive pulley and the engine. Refer to the shop manual for the complete assembly procedure.</p>
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516007667

EN-516007667A-DEC

LABEL 5

Toujours débrancher les connecteurs électriques des deux injecteurs d'essence avant de vérifier la production d'étincelles. Autrement, une étincelle pourrait allumer des vapeurs d'essence, ce qui représenterait un risque de feu.

AVERTISSEMENT 

! WARNING

Always electrically disconnect both fuel injectors prior to testing for ignition spark. Otherwise, fuel vapors may ignite in presence of a spark creating a fire hazard.

516007661

EN-516007661-DEC
LABEL 6

⚠ WARNING

Read and understand all safety labels, locate and read operator's guide and watch the safety video (using the QR code link or visit Ski-Doo web site) before operation.



- Get familiar with your vehicle. Inexperienced riders may overlook risks and be surprised by vehicle's specific behavior and terrain conditions. Ride slowly.
- Excessive speed and reckless driving can kill !

ALWAYS adjust your speed according to snow conditions and circumstances.

- Steering control and braking ability may be reduced on hard-pack snow, ice or roads. Reduce speed & allow more space to stop or turn.
- Respect laws on minimum operator age. Manufacturer recommends a minimum operating age of 16 years old.
- Never open side panels or hood while engine is running or if vehicle is in motion. Ensure to remove DESS key before opening those.

BEFORE STARTING :

1. Attach tether cord to your clothing.
2. Check proper operation of the throttle and brake levers each time before starting. They must return to their initial position when released.
3. Apply parking brake.
4. Turn handlebars all the way in both directions to check for interference and insure free operation.

AFTER STARTING :

1. Pull-out tether cord to check if engine shuts off.
2. Re-start and push in the emergency engine stop switch to check if engine shuts off.
3. Disengage parking brake before riding to avoid brake fading.



516009232

EN-516009232-DEC_a

LABEL 7

▲ WARNING

This vehicle is designed for one (1) operator and as many passengers as there are seats with straps or handgrips installed on the vehicle conforming to SSCC standards.

Ce véhicule a été conçu pour un (1) conducteur et autant de passagers qu'il y a de sièges avec courroies ou poignées installés sur le véhicule et rencontrant la norme SSCC.

When riding with a passenger:

- Braking ability and steering control are reduced.

Decrease speed and allow extra space to maneuver.

- Adjust suspensions according to weight.

REMEMBER: YOU ARE RESPONSIBLE FOR THE SAFETY OF YOUR PASSENGER!

ALL DRIVERS AND PASSENGERS MUST READ THE FOLLOWING:

Avoid surprises!

BE ON THE LOOK-OUT for the unexpected.

Operate defensively.

- Scan constantly for people, objects, conditions and upcoming vehicles.
- Avoid thin ice / open water.
- Use extra caution whenever off-trail.



ALWAYS wear a DOT approved **HELMET** and clothing appropriate for snowmobiling.



NEVER ride under the influence of alcohol or drugs even as a passenger.



Patent: www.bjz.com/en/about/bjz/patents.html

516009520

EN-516009520-DEC
LABEL 8



EN-516007652-DEC

LABEL 9



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LABEL 10 - ON GAS CHARGED SHOCK ABSORBERS

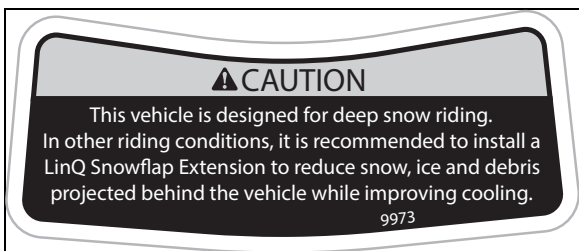
On 175 tunnel



EN-516006866-DEC

LABEL 11 - ON TOP OF REAR TUNNEL

On Summit Expert models

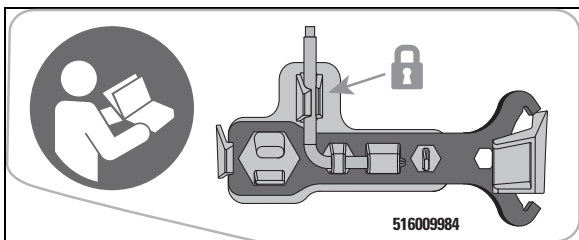


EN-516009973-DEC

LABEL 12 - ON TOP OF SNOW GUARD

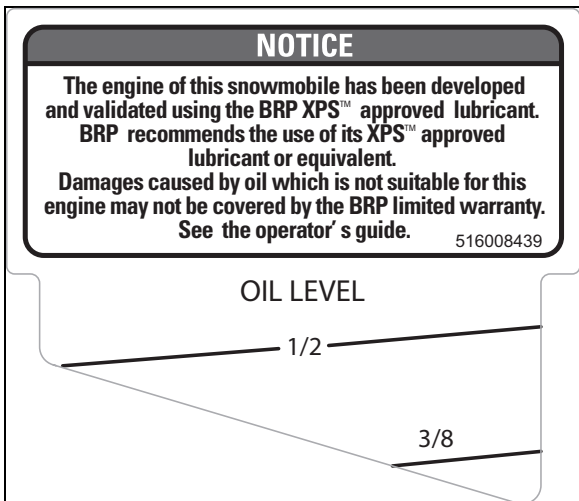
Technical Information Labels

- Install Suspension adjustment tool 1st (illustrated Red on label).
- Install Pulley Expander and Headlight adjustment tool 2nd (illustrated Blue on label).
- Refer to your operator's guide.



EN-516009984-DEC

LOCATED ON BELT GUARD



EN-516008439-DEC

ON OIL RESERVOIR



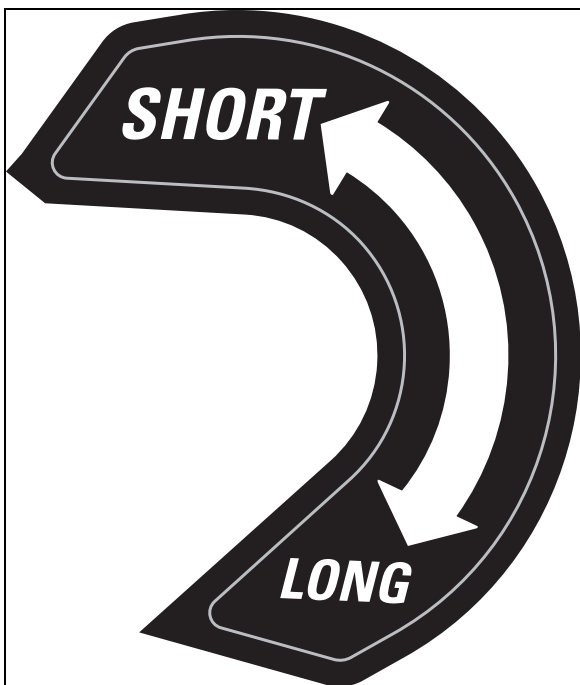
mmo2013-002-002

ON FUEL CAP - IN COUNTRIES USING PUMP POSTED AKI
(RON+MON)/2 OCTANE RATINGS



DEC 513033943 EN-FR

ON FUEL CAP - IN COUNTRIES USING RON OCTANE RATINGS



EN-516009897-DEC

ON SIDE OF TUNNEL, FOR ADJUSTABLE STOPPER STRAP



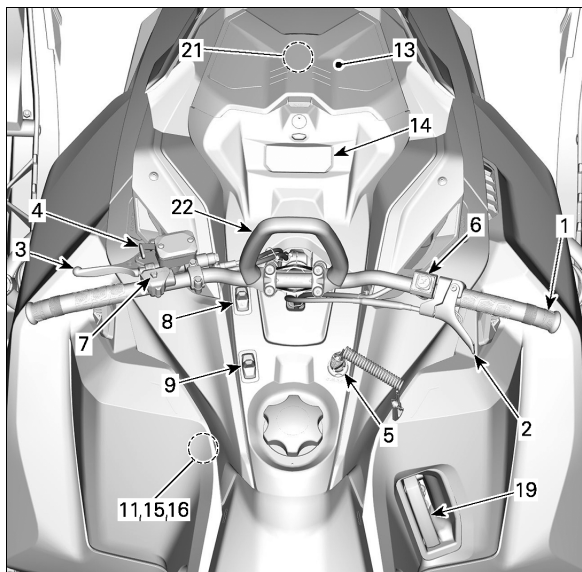
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VEHICLE INFORMATION

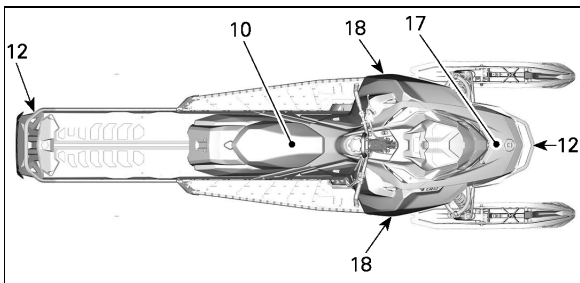
CONTROLS, INSTRUMENTS AND EQUIPMENT

Note: Some features may not apply to your model or could be optional.

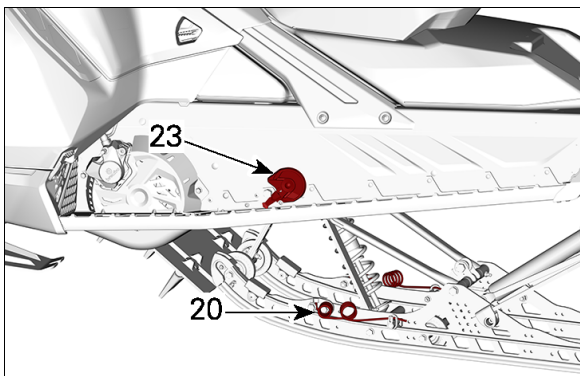
Note: Some vehicle safety labels are not shown on illustrations. For information on vehicle safety labels, refer to *IMPORTANT ON-PRODUCT LABELS*.



520002104-003



520001496-101_c



520002139-001

Handlebar

The handlebar controls the steering of the snowmobile. As the handlebar is rotated to right or left, the skis are turned right or left to steer the snowmobile.

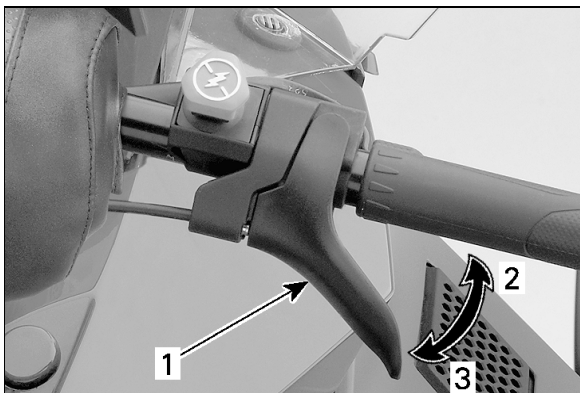
WARNING

Fast reverse while turning, could result in loss of stability and control.

Throttle Lever

Throttle lever is located on the RH side of handlebar.

Designed to be thumb activated. When squeezed, it increases the engine speed. When released, engine speed returns automatically to idle.



mmo2008-008-011_b

TYPICAL

1. Throttle lever
2. To accelerate
3. To decelerate

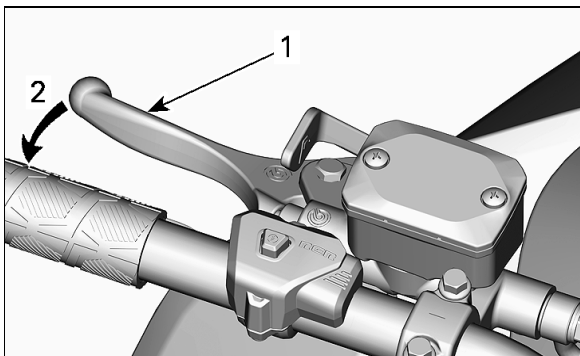
WARNING

Test the throttle lever operation each time before starting the engine. The lever must return to the rest position once released. Otherwise, do not start engine.

Brake Lever

Brake lever is located on the LH side of handlebar.

When squeezed, brake is applied. When released, it automatically returns to the rest. Braking effect is proportional to the pressure applied on the lever and to the type of terrain and its snow coverage.



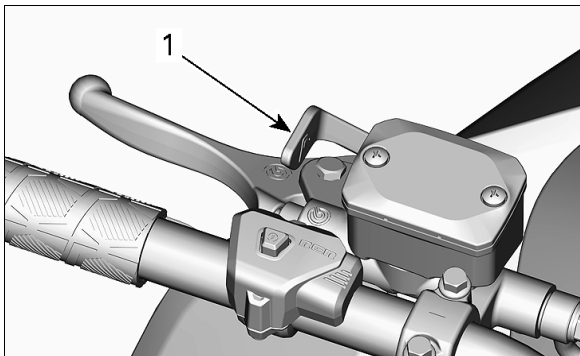
520001496-001_a

1. Brake lever
2. Apply brake

Parking Brake Lever

Parking brake lever is located on the LH side of handlebar.

Parking brake should be used whenever snowmobile is parked.



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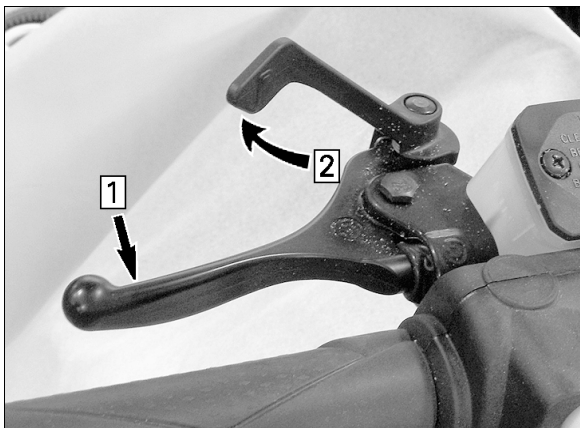
1. Parking brake lever

⚠ WARNING

Make sure parking brake is fully disengaged before operating the snowmobile. When you ride the vehicle, brake pads that are caused to drag by a continuous pressure on the lever may cause damage to the brake system and cause loss of braking capacity and/or fire.

To Engage Parking Brake

Apply and hold brake, then lock brake lever using the parking brake lever as shown.



mmo2009-005-006_a

TYPICAL — ENGAGE MECHANISM

Step 1: *Apply and hold brake*

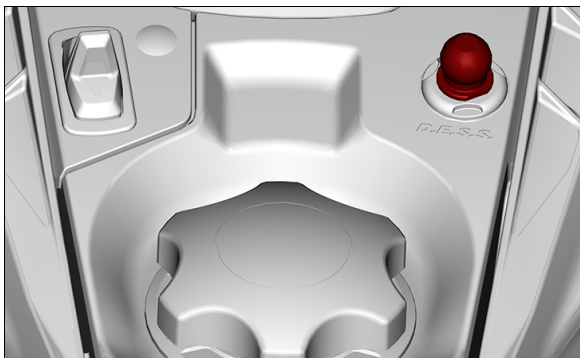
Step 2: *Lock brake lever using parking brake lever*

To Release Parking Brake

Squeeze brake lever. Parking brake lever will automatically return to its original position. Always release parking brake before riding.

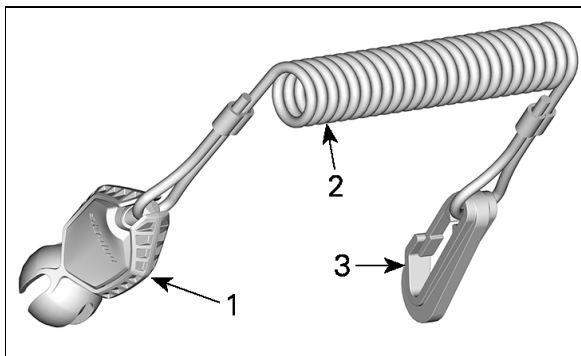
Engine Cut-off Switch (D.E.S.S. Post)

The engine cut-off switch, also known as D.E.S.S.post, is located on the console.



520002095-004

The D.E.S.S.key must be securely snapped on the engine cut-off switch to allow vehicle operation.



520002095-005_a

1. D.E.S.S. key
2. Tether cord
3. Tether cord eyelet

Note: After engine starting, 2 short beeps should be heard if a programmed D.E.S.S. key (tether cord cap) is correctly snapped on engine cut-off switch. If another beep code is heard, refer to *MONITORING SYSTEM* for D.E.S.S. malfunction codes information.

Pulling the D.E.S.S. from the post shuts the engine off.

WARNING

Always attach the tether cord eyelet to clothing before starting the engine.

D.E.S.S. (Digitally Encoded Security System)

The D.E.S.S. key provides your snowmobile with the equivalent security of a conventional lock key.

The D.E.S.S. key contains an electronic chip which features a unique permanently memorized digital code.

Your authorized Ski-Doo dealer has programmed the D.E.S.S. of your snowmobile to recognize the D.E.S.S. key to allow vehicle operation.

If another D.E.S.S. key is used without programming the D.E.S.S., the engine will start but will not reach drive pulley engagement speed to move vehicle.

Make sure the D.E.S.S. key is free of dirt or snow.

D.E.S.S. Flexibility

The D.E.S.S. of your snowmobile can be programmed by your authorized Ski-Doo dealer to accept up to 8 different keys.

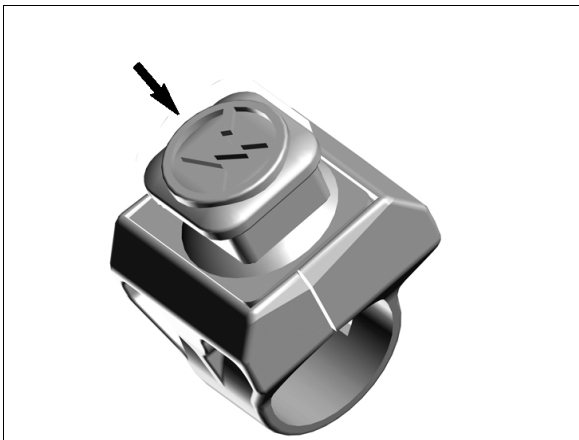
We recommend the purchase of an additional D.E.S.S. key from your authorized Ski-Doo dealer.

If you have more than one D.E.S.S. equipped Ski-Doo snowmobile, each can be programmed by your authorized Ski-Doo dealer to accept other vehicles D.E.S.S. keys.

Emergency Engine Stop Switch

The emergency engine stop switch is located on the RH side of handlebar.

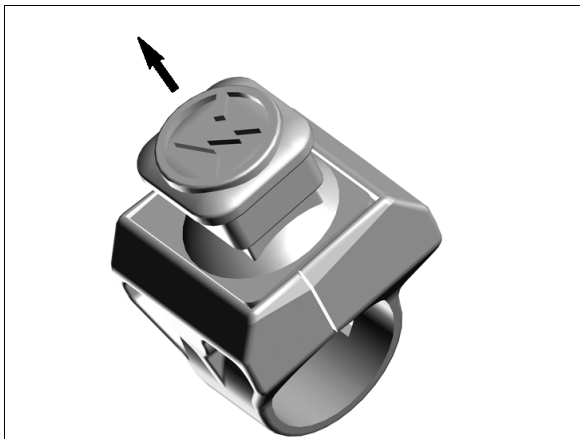
To stop the engine in an emergency, push the switch down in OFF position and simultaneously apply the brake.



mmo2016-008-202_a

OFF POSITION

To allow engine starting, pull the switch up in the ON position.



mmo2016-008-201_a

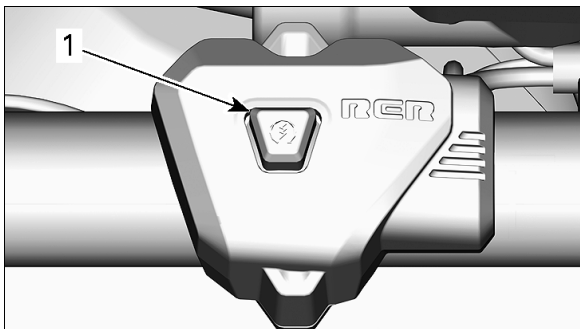
ON POSITION

All operators of the snowmobile should familiarize themselves with the function of the emergency engine stop switch by using it several times on first outing and whenever stopping the engine thereafter. This engine stopping procedure will become a reflex and will prepare operators for emergency situations requiring its use.

WARNING

If the switch has been used in an emergency caused by a suspected malfunction, the source of the malfunction should be determined and corrected before restarting engine. See an authorized Ski-Doo dealer for servicing.

SHOT/ Electric Start/ Electronic Reverse (RER) Button



520001496-002_a

1. Start / RER button

On SHOT and electric start models, press to start engine.

Once engine is started, press to engage the electronic reverse.

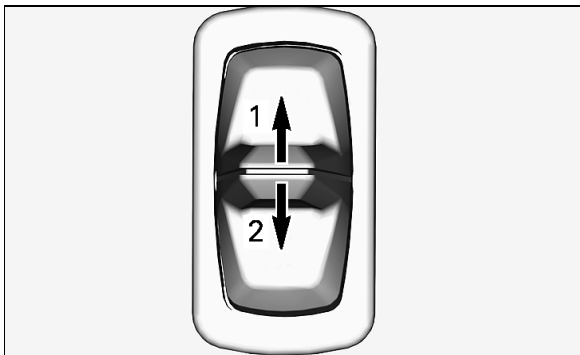
Refer to *BASIC PROCEDURES* for instructions on how to use:

- SHOT system (if equipped)
- Electric starter (if equipped)
- Electronic Reverse (RER)

Headlights Dimmer Switch

Push the switch forward to select high beam.

Push the switch backwards to select low beam.



520001496-004_a

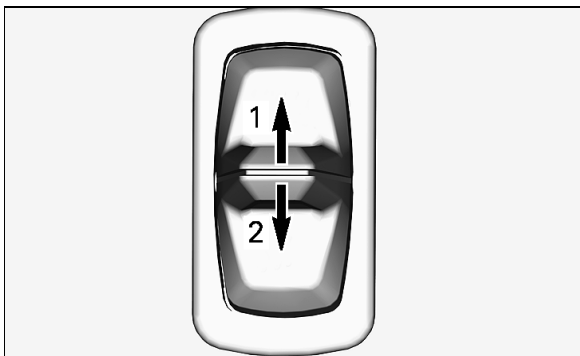
1. *High beam*
2. *Low beam*

Heated Grips and Throttle Lever Switch

Note: Under 2000 RPM, heated grips will be limited at 50%.

The heated throttle lever **and** heated grips are adjusted simultaneously using the switch.

There are 4 intensity settings. To set, press and release the switch repeatedly until the desired setting is obtained.



520001496-004_a

1. *Increase heat*
2. *Decrease heat*

The setting is displayed on the bar gauges of the multifunction digital gauge. See *MULTIFUNCTION DIGITAL GAUGE* in this section.

To shut off, press the button down until the bar gauge is empty.

Note: If the balance between the temperature of the throttle lever and the grips does not suit you, it is possible to adjust it. Contact an authorized Ski-Doo dealer.

Seat

Seat Removal

Roll up the front of the foam.

While pushing seat forward, pull up the latch.



520001496-003_b

1. *Seat latch*

Slide seat rearwards to remove it.

Seat Installation

NOTICE Riding the vehicle with any objects between the seat and the fuel tank could damage the fuel tank. NEVER place any objects between seat and fuel tank.

Place seat over the hooks, then slide it forward.

Securely engage latch.

WARNING

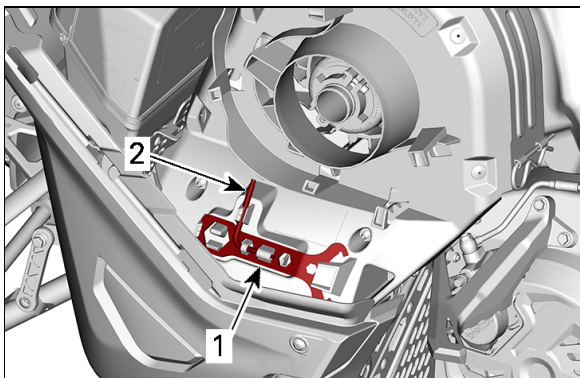
Make sure seat is securely latched before riding.

Tools

A part of the drive belt guard is designed to hold the tools allowing for basic maintenance.

The tools are supplied with the vehicle. They should always be installed in their proper location and orientation.

NOTICE Make sure tools are secured properly.



520001897-001_a

DRIVE BELT GUARD TOOLS LOCATION

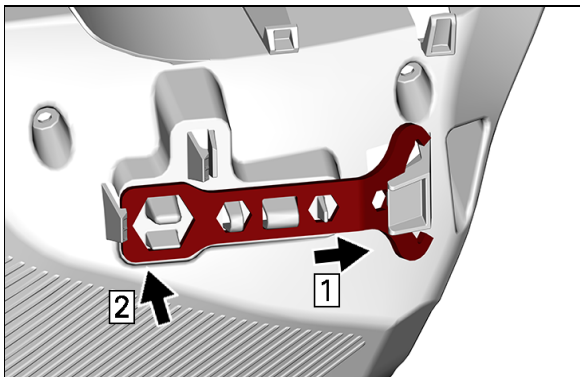
1. *Suspension adjustment tool*
2. *Pulley expander*

Install in the following sequence:

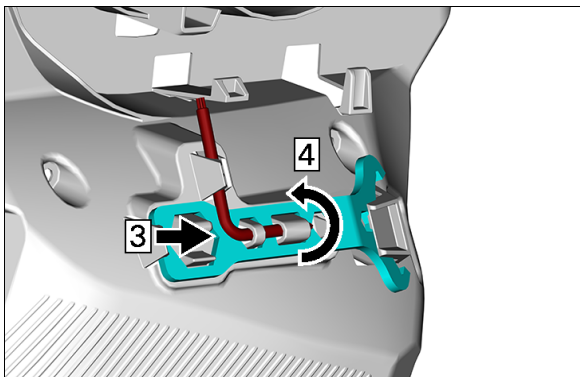
1. Slide the Suspension adjustment tool open end under retaining tab.
2. Press the closed end on the retaining tabs.
3. Slide the Pulley expander and headlight adjustment tool short end into hole.
4. Rotate and clip long end in place.

⚠ CAUTION

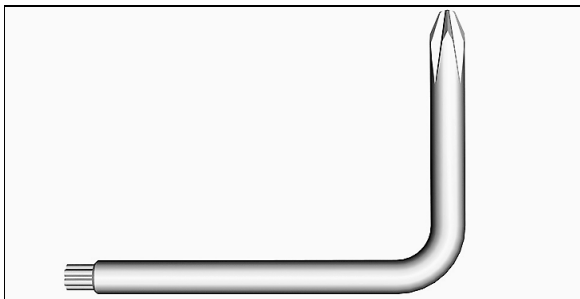
Make sure tools are secured properly. Tools may detach and cause damage to rotating parts.



520002104-500

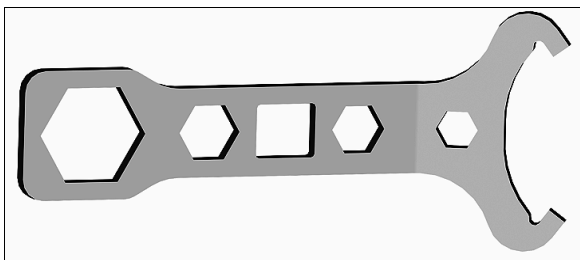


520002104-501



520001798-008

PULLEY EXPANDER



520001663-022

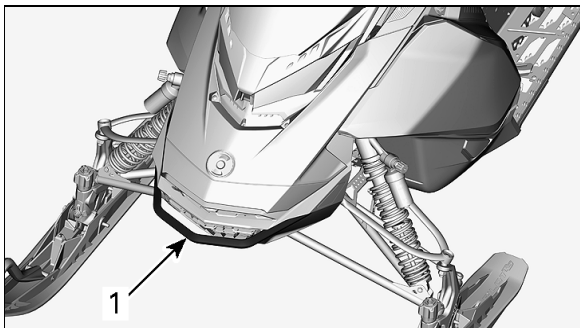
SUSPENSION ADJUSTMENT TOOL

Front and Rear Bumpers

To be used whenever snowmobile requires manual lifting.

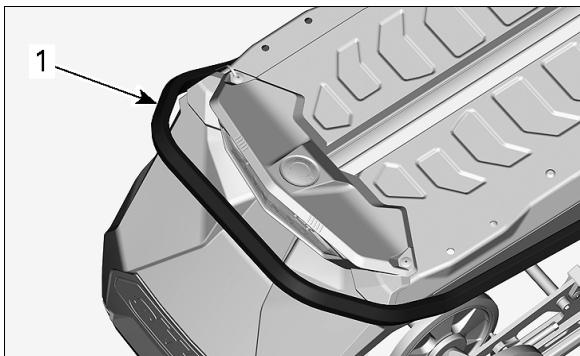
CAUTION

Beware of injuries by using proper lifting techniques, notably by using your legs to lift instead of your back. Do not attempt to lift the rear of vehicle if it is above your limits. Use appropriate lifting device or have assistance to share lifting stress if possible.



520001663-004_a

1. Front bumper



520001663-005_a

1. Rear bumper

NOTICE Do not use skis to pull or lift snowmobile.

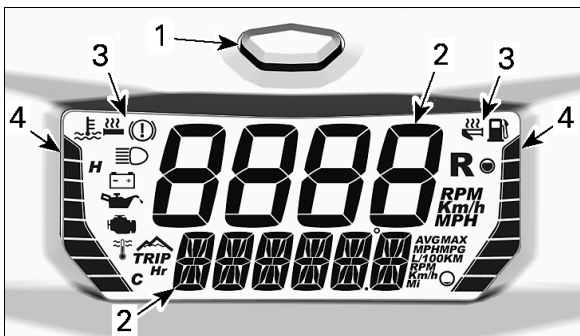
Multifunction Digital Gauge

WARNING

Reading the gauge digital display can distract from the operation of the vehicle, particularly from constantly scanning the environment.

Note: The gauge is factory preset in Imperial units and in English. To change units or language, contact an authorized Ski-Doo dealer.

Gauge Features



520001496-010_a

MULTIFUNCTION DIGITAL GAUGE

1. Mode button
2. Digital displays
3. Icons
4. Bar gauges

The gauge also has a built-in beeper.

Digital Display

⚠ WARNING

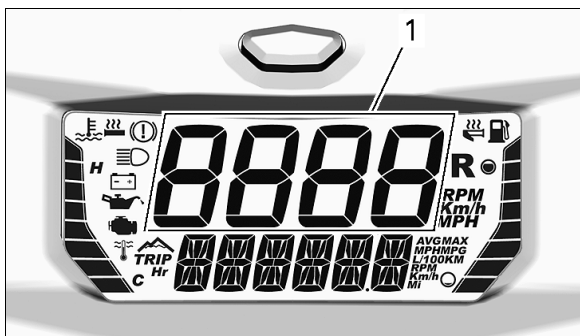
Never adjust or set functions on the multifunction gauge while riding the vehicle.

To set the displays to your preference, see *DISPLAY COMBINATION SELECTION*.

Upper Display

The upper display is used to display:

- Vehicle speed.
- Engine speed (RPM).



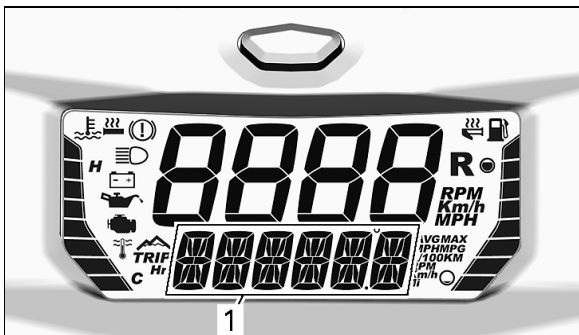
520001496-010_b

1. Upper Display

Lower Display

The lower display is used to display

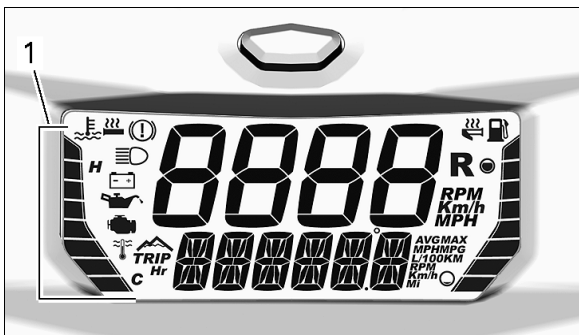
- Various information (in combination with the upper display)
- Messages, see *ICONS AND MESSAGES* and *MONITORING SYSTEM* for details.
- Fault codes, see *MONITORING SYSTEM* for details.



520001496-010_e

1. Lower display

LH side Bar Gauge



520001496-010_c

1. LH bar gauge

LH Bar Gauge Information

Engine coolant temperature
Heated grips level
Lap (in lap record mode - if equipped)

The LH side bar gauge displays the engine coolant temperature except while adjusting the heated grips.

NOTICE If engine overheats, stop vehicle in a safe place. Refer to *TROUBLESHOOTING*.

For details on heated grips operation, see *HEATED GRIPS AND THROTTLE LEVER SWITCH* in this section.

RH Side Bar Gauge



520001496-010_d

1. RH bar gauge

LH Bar Gauge Information

Fuel level

Heated throttle lever level

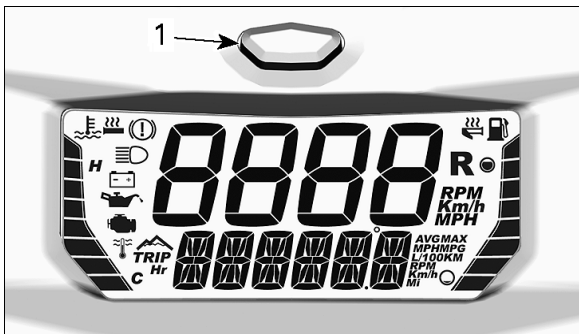
Record or playback telltale (in lap record mode - if equipped)

The RH side bar gauge displays the fuel level except while adjusting the heated throttle lever.

For details on heated throttle lever operation, see *HEATED AND THROTTLE LEVER SWITCH* in this section.

Display Combination Selection

To scroll through the information options, press and release the mode button repeatedly until the desired information is displayed.





520001496-010_f

1. Gauge mode button

The upper and lower displays can be set as combinations only. They cannot be set separately.

See the following table for available combinations.

Available Display Combinations				
	Upper Display	Icon/ Specific Info	Lower Display	Icon/ Specific Information
1	Engine speed (RPM)	RPM	Vehicle speed	Km/h or MPH
2	Vehicle speed	Km/h or MPH	Engine speed (RPM)	RPM
3	Engine RPM	RPM	Altitude	 M or F
4	Vehicle speed	Km/h or MPH	Altitude	 M or F
5			Odometer	Km or MI





Available Display Combinations				
	Upper Display	Icon/ Specific Info	Lower Display	Icon/ Specific Information
6	Vehicle speed	Km/h or MPH	Trip odometer A(1)	TRIP Km or MI
7			Trip odometer B (1) (2)	TRIP Km or MI
8			Trip hour (1)	TRIP Hr
9			Top speed (1)	MAX Km/h or MPH
10			Average speed (1)	AVG Km/h or MPH
11	Vehicle speed	Km/h or MPH	Top RPM (1)	MAX RPM
12			Average fuel consumption	AVG L/100Km or MPG
13			Engine coolant temperature	E C or F
(1) Press and hold the mode button to reset				
(2) Resetting the trip odometer B also resets the average fuel consumption				

Note: Make sure to display the vehicle speed whenever this information is necessary.

Icons and Messages

See table below for usual icons and messages.

For details on malfunction pilot lamps and messages, refer to *MONITORING SYSTEM*.

Icon	Beeper	Message Lower Display	Description
—	2 Short beeps	GOOD KEY	At power up, with a good key. Vehicle ready for use.
—	—	BREAK-IN	Displayed during break-in period. See <i>BREAK-IN PERIOD</i>
	4 short beeps every 5 minutes	LOW OIL	Injection oil level is low. Stop vehicle in a safe place then, replenish injection oil reservoir.
 (blinking)	—	—	Low fuel level. No bar left in fuel level display. Replenish fuel tank as soon as possible.
	Long beeps repeating slowly	REVERSE	Reverse is selected.
	3 short beeps	REV. FAIL	Reverse did not engage, try again.
	—	—	High beam headlights are selected.
—	—	WARM UP	Engine and/or injection oil need to warm-up before normal operation. The engine's RPM is limited until desired temperature is reached (up to 10 minutes when driving). Warm-up period may occur after a restart in very cold weather.

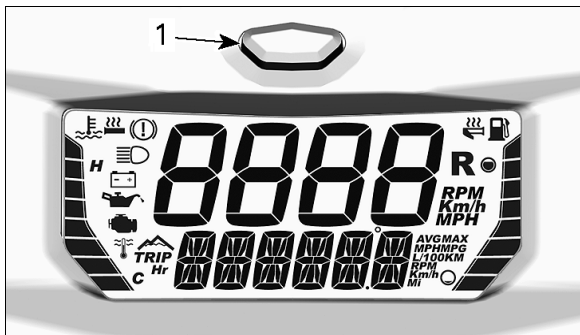
Note: Additional function may be available for your vehicle, see the appropriate Ski-Doo accessory catalog.

Lap Record Mode (if equipped)

Entering Lap Record Mode

To enter the lap record mode:

- Select the odometer. Refer to *DISPLAY COMBINATION SELECTION*
- Press and HOLD the mode button.

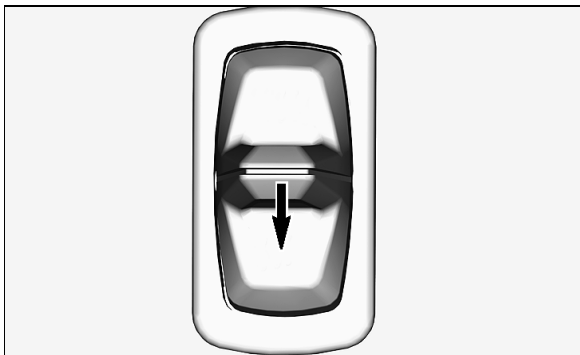


520001496-010_f

1. Gauge mode button

To navigate through the functions (RECORD, PLAY or SELECT), repeatedly push DOWN on the heating elements (heated grips and throttle lever) switch.

Note: It is not possible to adjust the heating elements level while in **Lap Record Mode** .



520001496-004_c

PUSH DOWN TO NAVIGATE THROUGH FUNCTIONS

Exiting Lap Record Mode

To exit the lap record mode, press the mode button.

Selecting Information on Lower Display (SELECT)

The information recorded by default are:

- Engine speed (RPM) on the upper display
- Vehicle speed on the lower display.

The upper display always records the engine speed (RPM) but the lower display can record one of the following:

- Odometer (resets to 0 each new recording)
- Vehicle speed
- Top speed (resets to 0 each new recording)
- Top RPM (resets to 0 each new recording)
- Engine coolant temperature (if equipped).

To change the information to be recorded on the lower display:

- Enter the lap record mode
- Choose the SELECT function, by repeatedly pushing DOWN the heating elements switch.
- Push the heating elements switch UP once to activate the SELECT mode.

- To choose the information to be recorded, repeatedly push DOWN the heating elements switch.
- To confirm the selection, push UP the heating elements switch (the word "SELECT" will be displayed to confirm the selection).

Note: Once the selection is made, you have 15 seconds to confirm it. Otherwise, the selection will be cancelled.

You can now record the selected information.

Recording Information (RECORD)

To record information:

- Enter the lap record mode
- Enter the RECORD function, by repeatedly pushing DOWN the heating elements switch
- To start recording, push UP the heating elements switch
- To pass to the following lap (following recording), push UP the heating elements switch
- To stop recording, push DOWN the heating elements switch.

While recording, one bar of the RH bar gauge constantly moves upwards to indicate the gauge is currently recording.

The LH bar gauge acts as a lap counter. One bar means first lap, two bars means second lap, and so on. A maximum of 8 laps can be recorded.

If the memory reaches its maximum capacity, the recording will stop by itself.

Playing Back a Recorded Lap (PLAY)

To playback a recording:

- Enter the lap record mode
- Enter the PLAY function, by repeatedly pushing DOWN the heating elements switch
- To start a playback, push UP the heating elements switch
- To pass to the following lap (following recording), push UP the heating elements switch

- To stop a playback, push DOWN the heating elements switch.

If no action is taken during playback, each turn will be displayed one after the other until the end of the recordings.

While playing back, one empty bar of the RH bar gauge constantly move upwards to indicate the gauge is currently playing back.

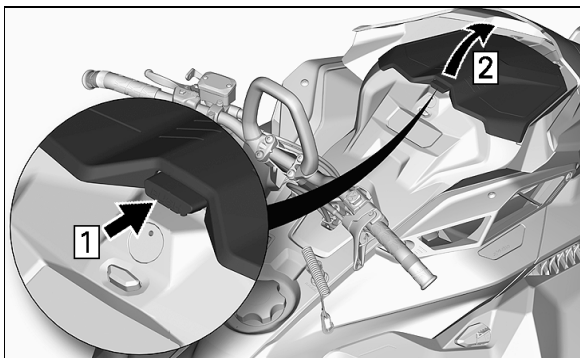
The LH bar gauge acts as a lap counter. One bar means first lap, two bars means second lap, and so on.

Storage Compartment

A storage compartment is located at the front of the vehicle, above the gauge.

The Operator's Guide and the emergency starter rope are in the front storage compartment.

To open, push the button and lift the cover.



520001496-005_a

Note: When closing, make sure cover is secured properly. You will hear a "clit".

Drive Belt Guard

Drive Belt Guard Removal

WARNING

NEVER operate engine:

- Without shields and belt guard securely installed.
- With hood and/or side panels opened or removed.

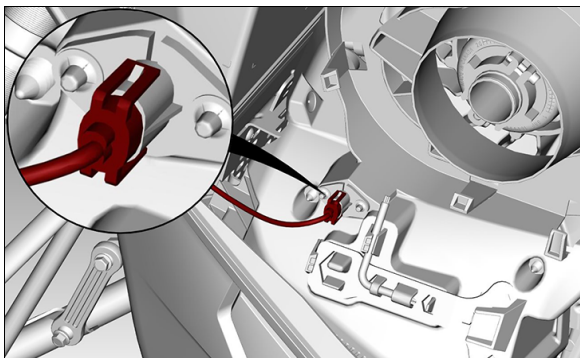
NEVER attempt to make adjustments to moving parts while engine is running.

Note: Belt guard is purposely made slightly oversize to maintain tension on its pins and retainers preventing undue noise and vibration. It is important that this tension be maintained when reinstalling.

1. Remove tether cord cap from engine cut-off switch.
2. Open the LH side panel. See procedure in this section.

Model with 850 E-TEC Turbo

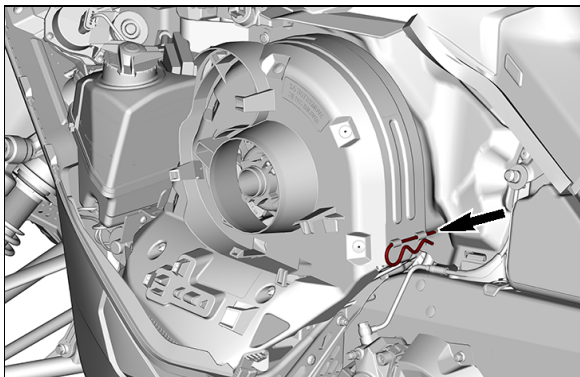
3. Disconnect the drive belt temperature sensor.



520002095-001

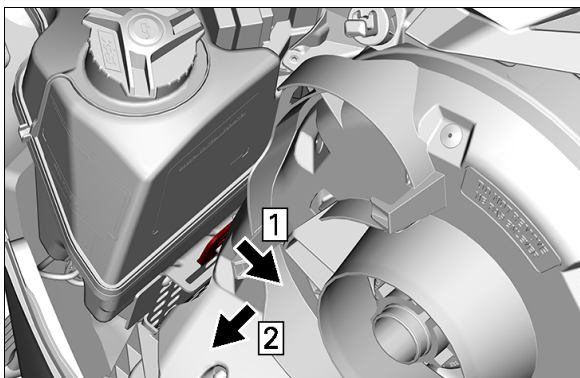
All Model

4. Remove retaining pin.



520002104-200

5. Slide belt guard rear and outward.



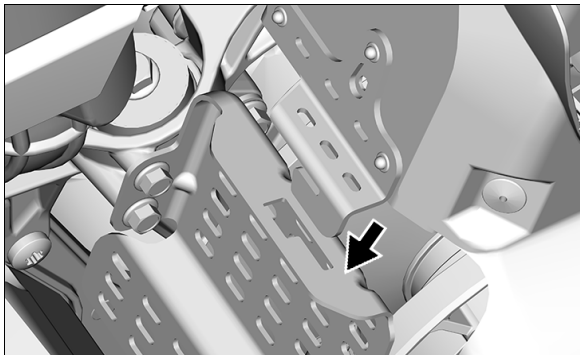
520002104-201

- Step 1: Slide rearward
Step 2: Slide outward

6. Lift belt guard out.

Drive Belt Guard Installation

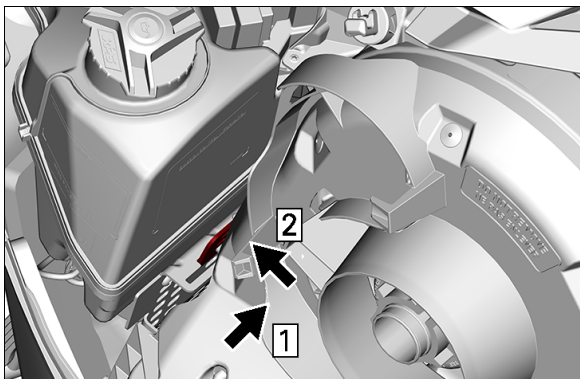
1. Insert belt guard tab in front support slot.



219100985-017-001_a

PARTS REMOVED FOR CLARITY

2. Push drive belt guard toward engine then toward front of vehicle.

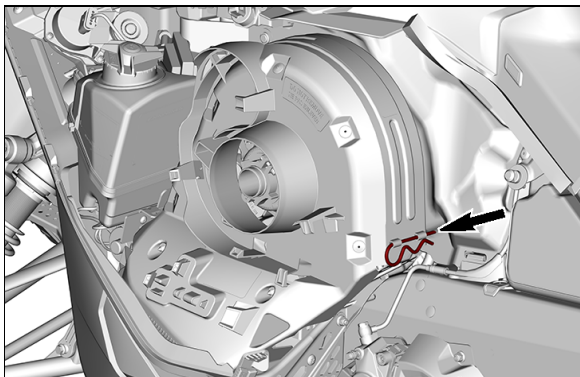


520002104-202

Step 1: Slide toward engine

Step 2: Slide toward front of vehicle

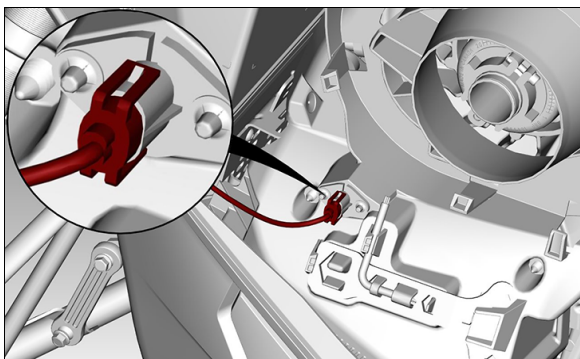
3. Position the rear portion of the belt guard over the retainer and secure it using the retaining pin.



520002104-200

Model with 850 E-TEC Turbo

4. Reconnect the drive belt temperature sensor.

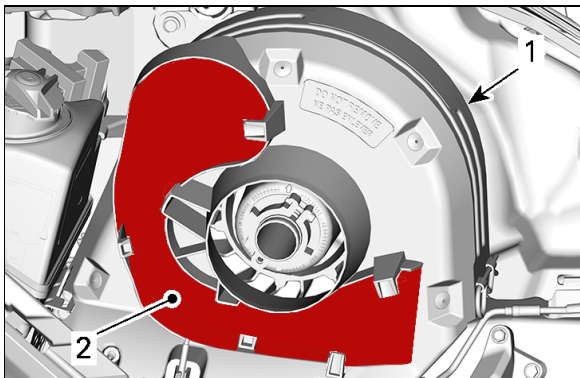


520002095-001

Spare Drive Belt Holder

A spare drive belt can be stored in a holder located on the drive belt guard.

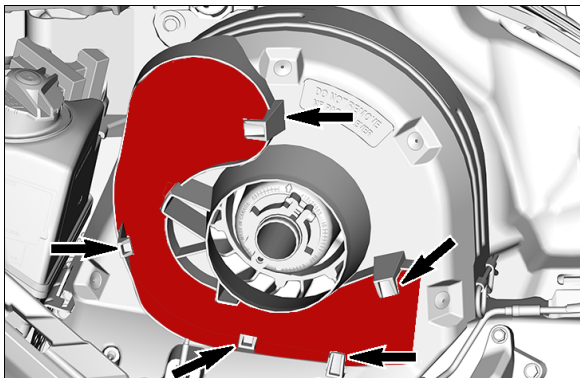
Note: The spare drive belt is not supplied with the snowmobile.
Position spare drive belt into drive belt guard slot.



520001897-002_a

1. Drive belt guard
2. Slot

Secure in place by sliding it behind the tabs.



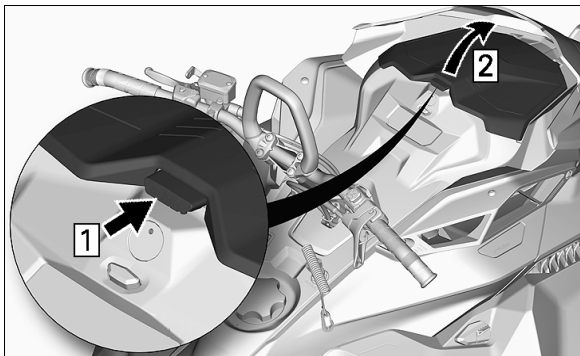
520001897-002_b

Upper Body Module (Hood)

Upper Body Module Removal

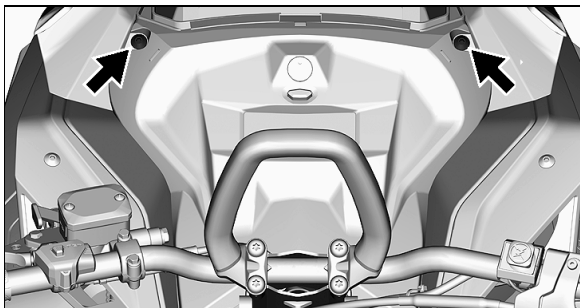
All Models Except with 850 E-TEC Turbo

1. Remove the windshield.
2. Open the storage compartment.



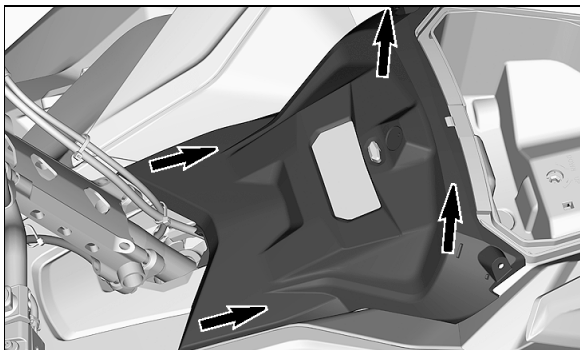
520001496-005_a

3. Remove the gauge support retaining screws.



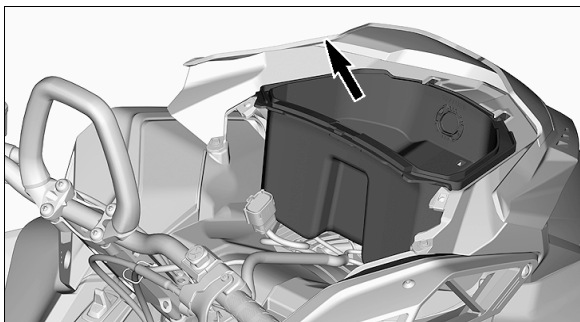
520001496-006_a

4. Lift the front of the gauge support, then slide it forward to remove it.



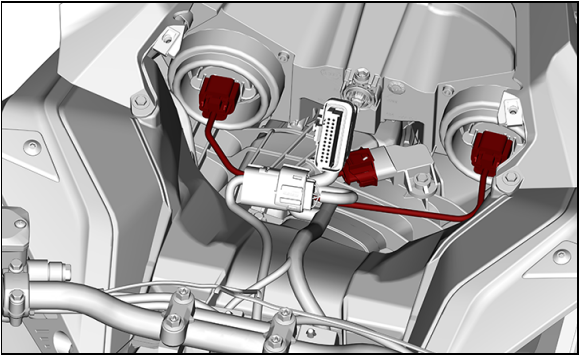
520001496-007_b

5. Disconnect the gauge and remove the gauge support from vehicle.
6. Remove the storage compartment.



520001496-009_a

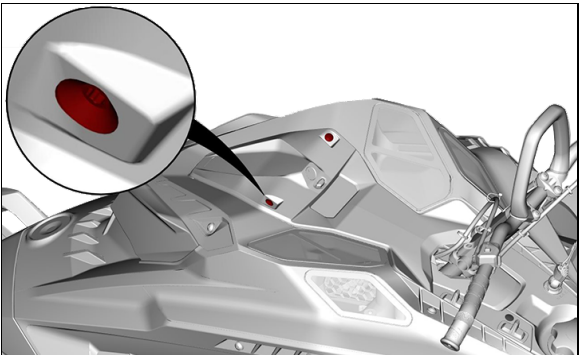
7. Disconnect the MAPTS and headlight connectors.



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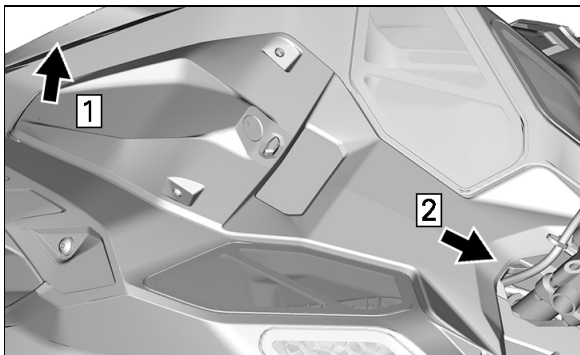
Models with 850 E-TEC Turbo

8. Remove the gauge support retaining screws.



520002095-002

9. Remove the gauge support as per the illustration.

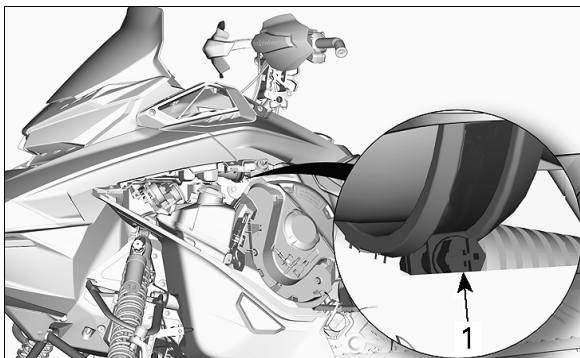


520002095-003_a

10. Disconnect the gauge and remove the support from the vehicle.
11. Disconnect the headlight connectors.

All Models

12. Loosen the air intake duct clamp.

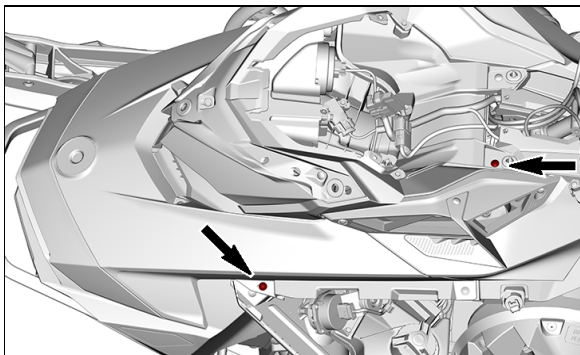


520001663-026_a

TYPICAL

1. *Clamp*

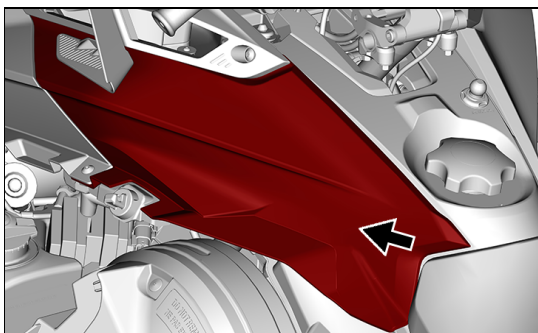
13. Remove the upper body module retaining screws on both sides.



mmr2017-051-014_a

TYPICAL

14. Remove the upper body module.
 - 14.1 Grab the upper body module in the gauge support section.
 - 14.2 Pull the module forward.
 - 14.3 Make sur to release the rear tabs from console slots.



mmr2017-051-015_a

TYPICAL

- 14.4 Remove the module from the vehicle.

Upper Body Module Installation

1. At front, insert the upper body module tabs into the upper bottom pan openings.



mmr2017-051-016

2. Lower the rear end of the upper body module.
3. Insert the rear end hooks of the upper body module into the slots in the console.

Make sure the air intake silencer is correctly inserted in the duct.

4. Tighten air intake duct clamp.
5. On both sides, install the upper body module retaining screws.

Tightening Torque	
Upper body screws	1.8 ± 0.2 Nm (16 ± 2 lbf-in)

6. Connect the headlight connectors.

All Models Except with 850 E-TEC Turbo

7. Connect the manifold air pressure and temperature sensor (MAPTS) connector.
8. Install the storage compartment but leave the cover open.

All Models

9. Install the gauge support.

Tightening Torque	
Gauge support screws	2.3 ± 0.2 Nm (20 ± 2 lbf-in)

10. Install the windshield and the side panels

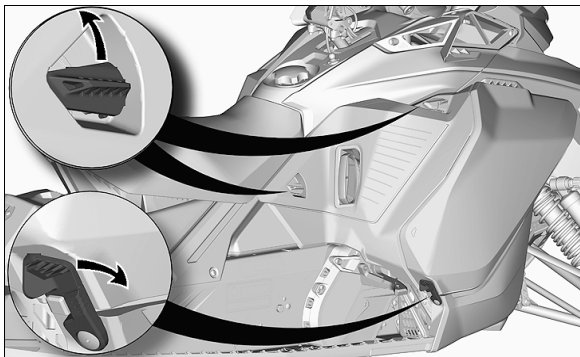
Side Panels

WARNING

Never operate engine with side panels opened or removed from vehicle.

Side Panels Opening and Closing

Unlock all latches, then open panel.



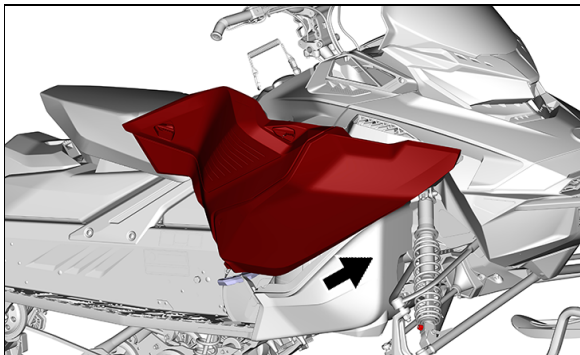
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When closing panel, make sure latches are locked securely.

Side Panels Removal

Open side panel.

Pull the hinges off the bottom pan.



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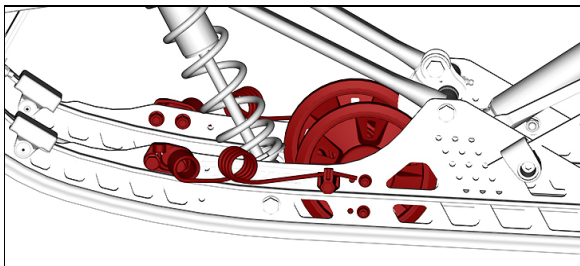
Rewind Starter Handle (if equipped)

Auto-rewind type located on right hand side of snowmobile. To engage mechanism, pull handle slowly until a resistance is felt then pull vigorously. Slowly release handle.

Note: The maximum torque that can be transmitted to the engine by the rewind starter is 80 Nm (59 lbf-ft). The maximum force that can be exerted on the rope is 2 200 N (494.6 lbf).

Ice Scratchers

Summit models are factory equipped with 2 idler wheels, and 2 ice scratchers which provide lubrication and cooling to slides and track guides for **short rides** on ice and hard packed trails.



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Ice scratchers must be used whenever the vehicle is operated on a trail, hard snow or ice.

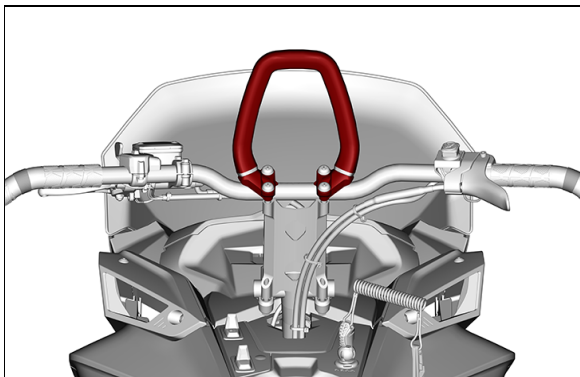
BRP ice scratchers are designed to be used in forward or reverse.

Operator's Guide

The Operator's Guide should be stored in the *STORAGE COMPARTMENT*.

Mountain Strap

The handlebar strap shall be used only to provide additional pulling force when snowmobile is stuck in a slanted position. On an exceptional basis it can be used at very slow speed only, when standing on the right running board to bring the vehicle back on its desired path. When riding, both hands should remain on the handlebar grips to provide braking capability, as well proper steering and directional control. Do not use handlebar strap for towing, lifting or side hilling.



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⚠ WARNING

Do not use the handlebar strap while riding at speed. Steering control is highly reduced and brake control is not possible.

Adjustable Stopper Strap (if equipped)

Can be used to adjust the stopper strap length. refer to *TUNE YOUR RIDE.*

FUEL

Fuel Requirements


NOTICE Always use fresh gasoline. Gasoline will oxidize; the result is loss of octane, volatile compounds, and the production of gum and varnish deposits which can damage the fuel system.

Alcohol fuel blending varies by country and region. Your vehicle has been designed to operate using the recommended fuels, however, be aware of the following:

- Use of fuel containing alcohol above the percentage specified by government regulations is not recommended and can result in the following problems in the fuel system components:
 - Starting and operating difficulties.
 - Deterioration of rubber or plastic parts.
 - Corrosion of metal parts.
 - Damage to internal engine parts.
- Inspect frequently for the presence of fuel leaks or other fuel system abnormalities if you suspect the presence of alcohol in gasoline exceeds the current government regulations.
- Alcohol blended fuels attract and hold moisture which may lead to fuel phase separation and can result in engine performance problems or engine damage.

Recommended Fuel

Use unleaded gasoline containing MAXIMUM 10% ethanol. The gasoline must have the following minimum octane requirements.

fuel type	engine	min. octane rating
Fuel with NO ethanol	850 E-TEC 850 E-TECTurbo 600R E-TEC	91 AKI (RON+MON)/2 95 RON
Fuel which may contain up to 10% MAX ethanol	850 E-TEC 850 E-TECTurbo 600R E-TEC	91 AKI (RON+MON)/2 95 RON 

NOTICE Never experiment with other fuels. Engine or fuel system damages may occur with the use of an inadequate fuel.

NOTICE Do NOT use fuel from fuel pumps labeled E85.

Use of fuel labeled E15 is prohibited by U.S. EPA Regulations.

Fuel Antifreeze Additives

When using oxygenated fuel, additional gas line antifreeze or water absorbing additives are not required and should be not used.

When using non-oxygenated fuel, isopropyl base gas line antifreeze can be used in a proportion of 150 ml (5 fl oz (US)) of gas line antifreeze added to 40 l (10.6 U.S. gal.) of gas.

This precaution is in order to reduce the risk of frost buildup in fuel system components which may lead, in certain cases, to severe damage to engine.

Note: Use only methyl hydrate free gas line antifreeze.

Vehicle Fueling Procedure

WARNING

Always stop engine before refueling.

WARNING

- Fuel is flammable and explosive under certain conditions.
- Never use an open flame to check fuel level.
- Never smoke or allow flame or spark in vicinity.
- Always work in a well-ventilated area.

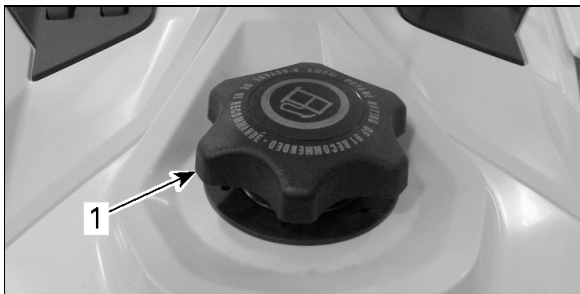
1. Stop engine.
2. Have operator and passenger get off vehicle.

WARNING

Do not allow anyone seated on the vehicle while fueling.

3. Unscrew slowly the fuel reservoir cap counterclockwise to stabilize pressure before removing it.

Note: A short whistling sound is normal.



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TYPICAL

1. Fuel tank cap
4. Insert the spout into the filler neck.
5. Pour fuel slowly so that air can escape from the tank and prevent fuel flow back. Be careful not to spill fuel.
6. Stop filling when the fuel reaches the bottom of filler neck. **Do not overfill.**

WARNING

Never top up the fuel tank before placing the vehicle in a warm area. As temperature increases, fuel expands and may overflow.

7. Fully tighten fuel reservoir cap clockwise.

WARNING

Always wipe off any small fuel spillage from the vehicle. If a major spillage occurs, remove side panels to remove fuel vapors from engine compartment before starting.

Note: Do not sit or lean on seat when fuel tank cap is not properly installed.

INJECTION OIL

Recommended Injection Oil

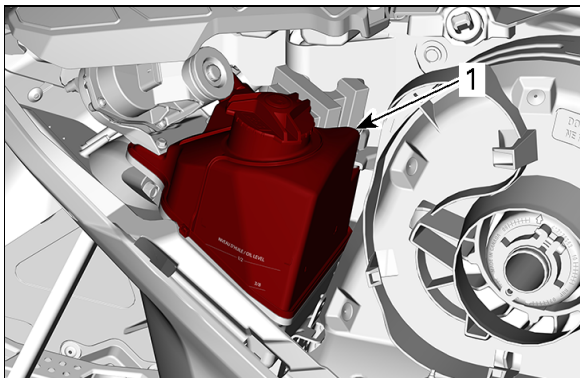
Rotax® engines were developed and validated using the XPS™ oil. BRP recommends the use of its XPS injection oil or an equivalent at all time. Damages caused by the use of an injection oil not suitable for this 2-stroke direct fuel injection engine may not be covered by the BRP Limited Warranty.

Recommended Injection Oil
XPS 2T E-TEC Synthetic Oil
IF THE RECOMMENDED XPS ENGINE OIL IS NOT AVAILABLE
Use a 2-stroke lubricant designed for snowmobiles meeting or exceeding the following lubricant industry specifications: <ul style="list-style-type: none">- JASO FD (M345-2004)- SAE Grade 4 (F / M 4)

Injection Oil Level Verification

The injection oil reservoir is located behind the LH side panel. See *CONTROLS, INSTRUMENTS AND EQUIPMENT* for opening procedure.

Always maintain a sufficient amount of recommended injection oil in the injection oil reservoir.



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1. Oil reservoir

Marks on the tank indicates "3/8" and "1/2" of the total amount of oil.

NOTICE Check level and refill every time you refuel.

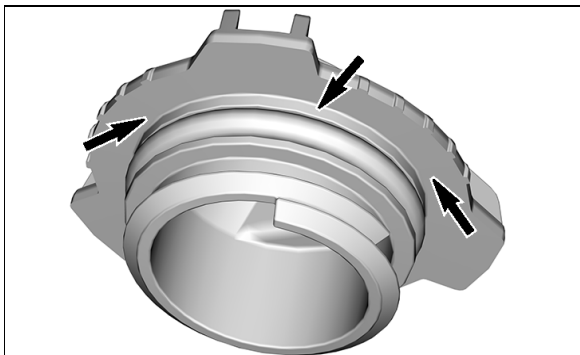
To Add Injection Oil

Remove injection oil reservoir cap.

Add injection oil.

Note: Do not overfill.

Wipe the reservoir cap seal and flange area.



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Reinstall cap.

NOTICE Do not overtighten.**⚠ WARNING**

Wipe off any oil spills. Oil is highly flammable when heated.

BREAK-IN PERIOD

Operation During Break-In

Engine

During the break-in period:

- Avoid prolonged full throttle operation.
- Avoid sustained accelerations.
- Avoid prolonged cruising speeds.
- Avoid engine overheating.

However, brief accelerations and speed variations contribute to a good break-in.

During a predetermined period, the engine management system controls some engine parameters.

The duration is based on fuel volume. It will take approximately two fuel tanks to complete the break-in.

During this period:

- The engine performance and behavior will not be optimal.
- The fuel and oil consumption will be higher.

Drive Belt

A new drive belt requires a break in period of 50 km (30 mi).

During the break-in period:

- Avoid strong acceleration and deceleration.
- Avoid pulling a load.
- Avoid high speed cruising.

If the vehicle creeps, lower the drive belt height from the preliminary setting. Refer to *DRIVE BELT* in *MAINTENANCE PROCEDURE*.

BASIC PROCEDURES

Engine Starting Procedure

Procedure

1. Apply parking brake.
2. Check throttle control lever operation.
3. Put your helmet on.
4. Ensure that the tether cord cap (D.E.S.S. key) is installed on the engine cut-off switch (D.E.S.S. post) and that the cord is attached to your clothing eyelet.
5. Ensure that the emergency engine stop switch is in the ON position (up).



WARNING

Never depress throttle while starting engine.

6. Release parking brake.

Note: For an initial cold start, do not release parking brake. Perform the *VEHICLE WARM-UP* procedure as explained below.

Manual Start Models

Grab rewind starter handle, pull handle slowly until a resistance is felt, then hold handle firmly and pull vigorously to start engine.

Note: The maximum torque that can be transmitted to the engine by the rewind starter is 80 Nm (59 lbf-ft). The maximum force that can be exerted on the on the rope is 2 200 N (494.6 lbf).

SHOT Models

The SHOT system uses an ultracapacitor instead of a battery as an energy source.

To enable the SHOT system:

- Start engine manually as explained above
- Let the engine run for at least 2 minutes.

Note: If engine temperature is below 0 °C (32 °F), it may have to run longer than 2 minutes.

Once the engine is turned off, the system will be able to start the engine for the next 30 minutes.

Depress the START/RER button to start the engine. Release button immediately when engine has started.

After 30 minutes, with the engine off, the system loses power and may not be able to start the engine. In such case, start engine manually and the system will be enabled again.

Electric Start Models

Depress the START/RER button to engage the electric starter and start the engine. Release button immediately when engine has started.

NOTICE Do not engage electric starter for more than 10 seconds at a time. A rest period should be observed between the cranking cycles to allow electric starter to cool down.

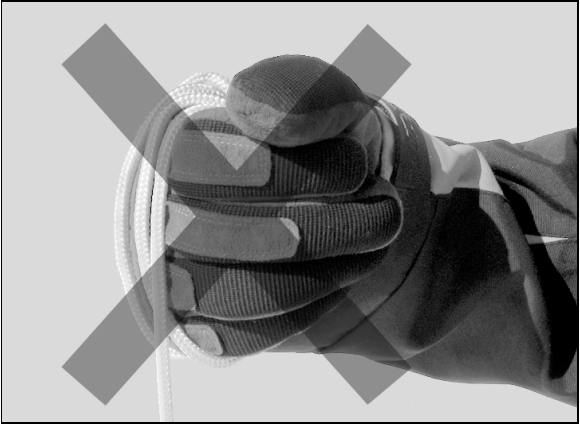
Emergency Starting

The engine can be started with the emergency starter rope supplied in the storage compartment, see *CONTROLS, INSTRUMENTS AND EQUIPMENT*.

Remove the drive belt guard, see *CONTROLS, INSTRUMENTS AND EQUIPMENT*.

WARNING

Do not wind starting rope around your hand. Hold rope by the handle only. Do not start the engine by the drive pulley unless it is a true emergency situation. Have the snowmobile repaired as soon as possible.

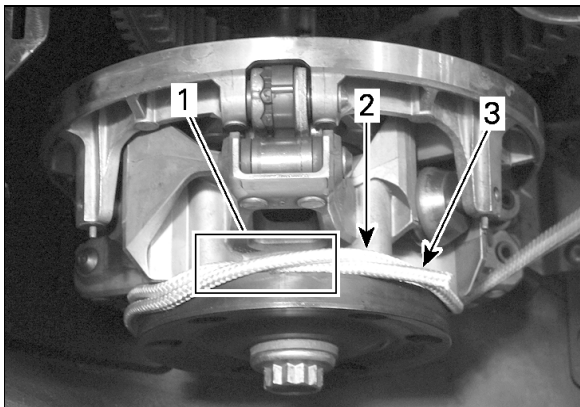


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Attach one end of emergency rope to the rewind handle.

Note: The suspension adjustment tool can be used as an emergency handle.

Cross the rope on the first turn as shown.

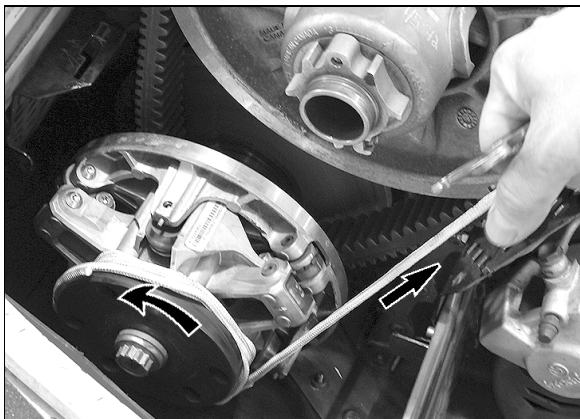


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1. *Rope crossed*
2. *Rope to be winded*
3. *Rope end*

Wind rope two turns counterclockwise tightly around the drive pulley where shown.

Pull the rope using a sharp, crisp pull so the rope comes free of the drive pulley.



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Start engine as per usual manual starting.

WARNING

When starting the snowmobile in an emergency situation, using drive pulley, do not reinstall the belt guard and return slowly to have snowmobile repaired.

Vehicle Warm-Up

Before every ride, vehicle has to be warmed up as follows.

1. Start engine as explained in *ENGINE STARTING PROCEDURE* above.
2. Allow engine to warm up one or two minutes at idle speed.

Note: Engine will shut down after approximately 5 minutes of idling.

3. Disengage parking brake.
4. Apply throttle until drive pulley engages. Drive at low speed the first two or three minutes.

NOTICE If vehicle does not move when throttle is applied, stop engine, remove tether cord cap from the engine cut-off switch, then do the following.

- Check if skis are stuck on the ground. Lift one ski at a time by the handle, then put it down.
- Check if track is stuck on the ground. Lift rear of snowmobile enough to clear track from the ground, then drop.
- Check rear suspension for hard snow or ice accumulation that could interfere with track rotation. Clean the area.

 **CAUTION**

Beware of injuries by using proper lifting techniques, notably by using your legs to lift instead of your back. Do not attempt to lift the rear of vehicle if it is above your limits.

 **WARNING**

Make sure tether cord cap is removed before standing in front the vehicle, getting close to the track or rear suspension components.

Note: Warm-up is electronically controlled. During this period (up to 10 minutes depending on ambient temperature), engine RPM is limited.

Reverse (RER)

When the engine is running, depressing the RER button will slow down engine RPM to almost a stop and advance the ignition timing to invert crankshaft rotation.

- Engine will automatically shift into forward when restarting after stopping or stalling.
- Shifting procedure will take place only when the engine is running.
- If engine is running at a speed above 4300 RPM, the function of the RER button is disabled.
- It is recommended to warm up the engine to its normal operating temperature before shifting.

Shifting in Reverse

1. Bring vehicle to a complete stop.
2. Apply and hold brake. Remain seated, refer to *RIDER POSITION (REVERSE OPERATION)* in *RIDING THE VEHICLE* for posture information.
3. With engine at idle speed, press and release the RER button.
4. Wait until reverse beeper sounds, then gently depress throttle lever.

WARNING

Engaging the reverse mode is done by depressing the RER button when the engine is running. Wait until the reverse alarm sounds and the RER pilot lamp comes on in the digital gauge before operating throttle to proceed in reverse. The reverse speed is not limited. Always proceed with caution as fast reverse could result in loss of vehicle stability. Come to complete stop before depressing RER button. Always remain seated and apply the brake before shifting. Ensure the path behind is clear of obstacles or bystanders before proceeding.

Shifting in Forward

1. Bring vehicle to a complete stop.
2. Apply and hold brake.
3. Press and release the RER button.
4. RER pilot lamp will stop.
5. Apply throttle slowly and evenly. Allow drive pulley to engage then accelerate carefully.

Shutting Off the Engine

Release throttle lever and wait until engine has returned to idle speed.

Shut off the engine using either the emergency engine stop switch or by pulling off the tether cord cap from the engine cut-off switch.

WARNING

Always remove the tether cord cap from engine cut-off switch when vehicle is not in operation in order to prevent accidental engine starting or to avoid unauthorized use by children or others or theft.

RIDING CONDITIONS AND YOUR SNOWMOBILE

Altitude

At factory, your snowmobile was calibrated to be used within an altitude range (relative to sea level).

A new snowmobile has a tag attached to the handlebar indicating its calibration. See *IMPORTANT ON-PRODUCT LABELS*.

If for any reason you don't know your snowmobile calibration, contact an authorized Ski-Doo dealer.

If your snowmobile is to be used at an altitude outside the specified range, have it calibrated accordingly by an authorized Ski-Doo dealer.

NOTICE An inappropriate altitude calibration would decrease performance and may cause serious damage to the snowmobile.

Temperature

The engine management of these engines provides the optimum air/fuel ratio for all temperatures.

Hard Packed Snow

The models covered in this guide are built for deep snow conditions and should never be used during prolonged time in marginal or hard packed snow conditions.

NOTICE Using mountain models in marginal or hard packed snow conditions could reduce drastically the lifetime of specific wear items.

BRP does **not recommend** to ride a snowmobile equipped with high lug profile track at **high speed** in a trail, on hard packed surfaces or ice for an extended period of time.

In the event that you have to; **reduce your speed** and minimize the distance you ride on those surfaces.

NOTICE Running those tracks at high speed in a trail, on hard packed surfaces or ice put more stress on the lugs, which tend to heat up as a result. To avoid potential degradation or

damage to the track, reduce your speed, then minimize the distance you ride on those surfaces.

Vehicles Equipped with Ice Scratchers

Ice scratchers are equipped on the vehicle to increase engine cooling efficiency, to lubricate and to cool track clips and sliders. They must be used whenever on ice, hard packed snow, or any conditions that do not lift enough snow particles into the rear suspension/tunnel.

NOTICE Although it is not recommended to ride Summit and Freeride in trail or hard snow conditions, it is highly suggested to combine idler wheels with ice scratchers if the vehicle is used in those conditions.

SPECIAL OPERATION

Towing an Accessory

Always use a rigid tow bar to tow an accessory. Any towed accessory should have reflectors on both sides and at the rear. Check local laws for brake light(s) requirements.

WARNING

Never tow an accessory with a rope. Always use a rigid tow bar. Using a rope would result in a collision between the object and the snowmobile and possibly in a tip over in case of a rapid deceleration or on a downward slope.

Towing Another Snowmobile

If a snowmobile is disabled and must be towed use a rigid tow bar. Remove the drive belt from disabled snowmobile, refer to *DRIVE BELT* in *MAINTENANCE PROCEDURES* and tow at moderate speed.

NOTICE Always remove the drive belt of the snowmobile that is to be towed to prevent damage to its belt and drive system.

In an emergency situation only, if a rigid tow bar is not available, a rope can be used. Proceed with extra caution. In some areas, it may be illegal to do so. Check with state or local authorities.

Remove the drive belt, attach the rope to the ski legs (spindles), have someone sit on the towed snowmobile to activate the brake, and tow at low speed.

NOTICE In order to prevent damage to the steering system, never attach the tow rope to the ski loops (handles).

WARNING

Never ride at high speed when towing a disabled snowmobile. Proceed slowly with extra caution.

TUNE YOUR RIDE

Snowmobile handling and comfort depend upon multiple adjustments.

WARNING

Suspension adjustment could affect vehicle handling. Always take time to familiarize yourself with the vehicle's behavior after any suspension adjustment have been made. Always adjust LH and RH suspension components to the same setting.

Choice of suspension adjustments vary with carrying load, operator's weight, personal preference, riding speed and field condition.

Note: Some adjustments may not apply to your snowmobile.

WARNING

Before proceeding with any suspension adjustment, remember:

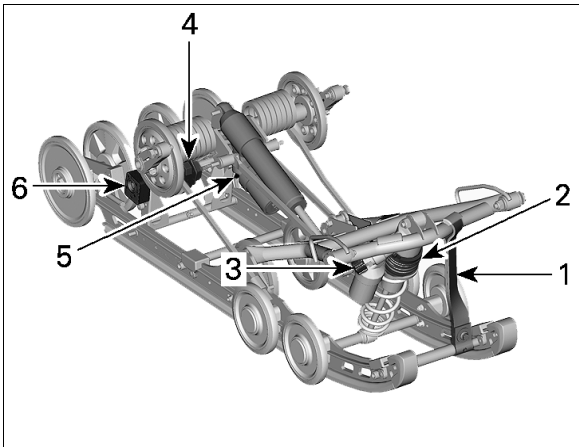
- Park in a safe place.
- Remove the tether cord cap from the engine cut-off switch.
- Use appropriate lifting device or have assistance to share lifting stress. If a lifting device is not used, use proper lifting techniques, notably by using your legs to lift instead of your back.
- Do not attempt to lift the front or rear of vehicle if it is above your limits.
- Support front of vehicle off the ground with a suitable device before adjusting suspension.
- Support rear of vehicle off the ground with a wide-base snowmobile stand with a rear deflector panel.
- Make sure support device is stable and secure.

The best way to set up the suspension is to customize each adjustment one at a time. Various adjustments are interrelated. It may be necessary to readjust center spring after adjusting front springs for instance. Test run the snowmobile under the

same conditions; trail, speed, snow, operator riding position, etc. Proceed methodically until you are satisfied.

Following are guidelines to fine-tune suspension. Use suspension adjustment tool provided in the tool kit.

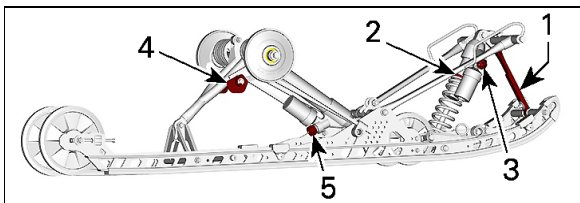
Rear Suspension Adjustments



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RMOTION ADJUSTABLE COMPONENTS

1. Stopper strap
2. Center spring
3. Center shock absorber
4. Rear spring
5. Rear shock absorber
6. Coupling blocks (RH side shown)



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TOTION ADJUSTABLE COMPONENTS

1. Stopper strap
2. Center spring
3. Center shock absorber
4. Rear spring
5. Rear shock absorber

NOTICE Whenever adjusting rear suspension, check track tension and adjust if necessary.

Stopper Strap

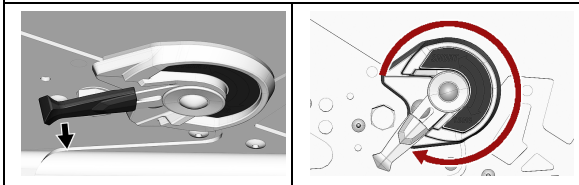
Stopper strap length has an effect on the amount of weight the center spring has to carry especially during acceleration, therefore on the front end uplift.

Stopper strap length also has an effect on center spring travel.

When operating the snowmobile in deep snow or hill climbing, it may be necessary to vary stopper strap length and/or riding position, to change the angle at which the track rides on the snow. Operator's familiarity with the various adjustments as well as snow conditions will dictate the most efficient combination.

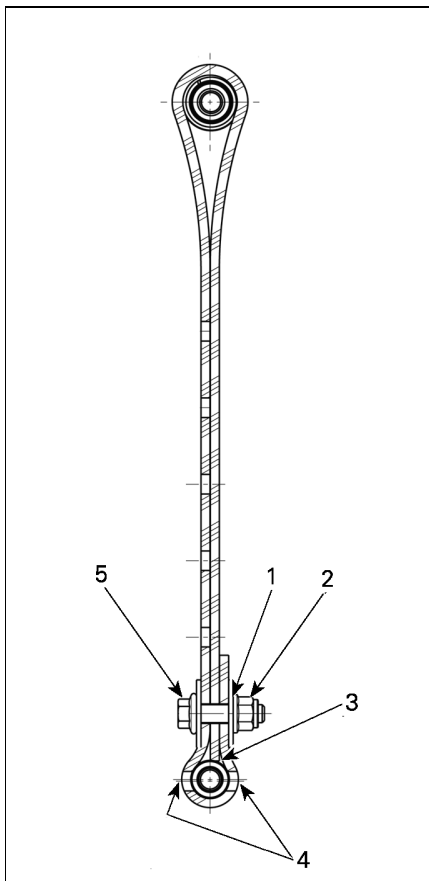
Generally, a longer stopper strap setting gives better performance in deep snow on a flat landscape and a shorter setting will improve handling in steep hill climbing conditions.

On models equipped with a quick adjust stopper strap system, the lever position can be changed at any time. The crank mechanism will switch position when tension on strap is released, i.e. when front portion of suspension is slightly compressed.

From short to long**Stopper Strap Setting**

Position	use
1	Longest strap position for optimal bump absorption
2	Boon docking: <ul style="list-style-type: none"> - Better boon docking manoeuvrability - Better bump absorption - Better deep snow starts (forward and reverse)
3	Factory setting: Best overall setting (general use)
4	Hill climb: <ul style="list-style-type: none"> - Better track attack angle for hill climbing
5	Steep hill climb: <ul style="list-style-type: none"> - Better track attack angle for hill climbing - Less transfer - Lower ride height

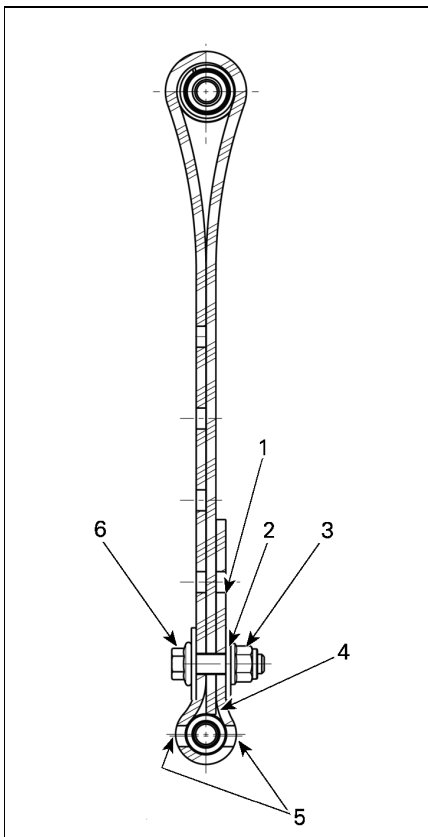
Note: Illustrations below are for position 1, 2 and 3.



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STOPPER STRAP POSITION 1 (LONGEST, 1ST HOLE)

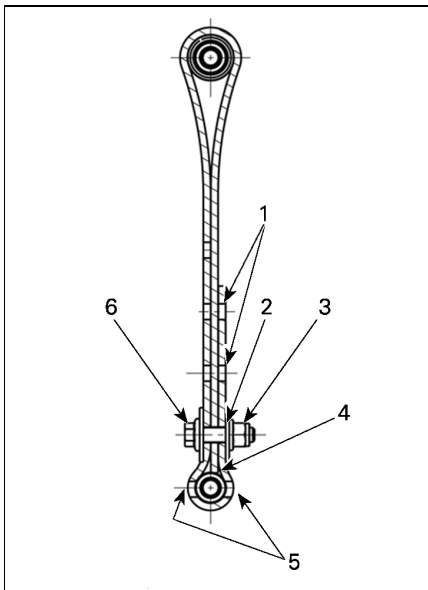
1. 1st hole from end
2. Towards rear
3. Tip of strap touching strap axis
4. Two holes left open between screw head and nut
5. Towards front



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STOPPER STRAP POSITION 2 (2ND HOLE)

1. *Free hole*
2. *2nd hole from end*
3. *Towards rear*
4. *Tip of strap touching strap axis*
5. *Two holes left open between screw head and nut*
6. *Towards front*

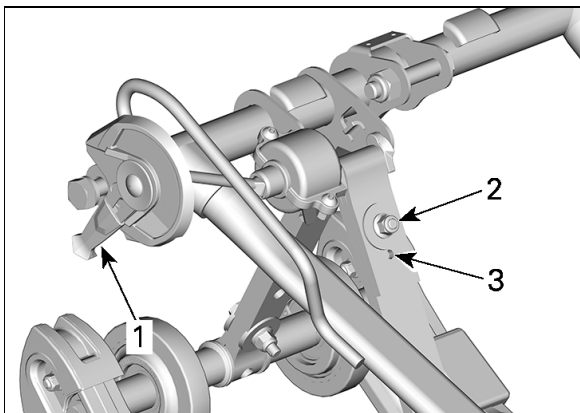


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STOPPER STRAP IN POSITION 3 (3RD HOLE)

1. *Free holes*
2. *3rd hole from end*
3. *Towards rear*
4. *Tip of strap touching strap axis*
5. *Two holes left open between screw head and nut*
6. *Towards front*

From factory, the quick adjust stopper strap system is set in the way where the "long" position = setting #3 on regular stopper strap. The "short" position = setting #5 on the regular position. You also have the possibility to adjust the stopper strap bolt to long position (see picture) and the regular strap to setting #2. Then the "long" position will = setting #2 and the short position = setting #4



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QUICK ADJUST STOPPER STRAP SYSTEM

1. Handle
2. Short position (Position 3 to 5) (factory setting)
3. Long position (Position 2 to 4)

Note: Smaller numbers correspond to a longer strap setting.

Note: Decreasing the stopper strap length may reduce comfort. Always install stopper strap bolt as close as possible to the lower shaft (two holes left open between screw head and nut).

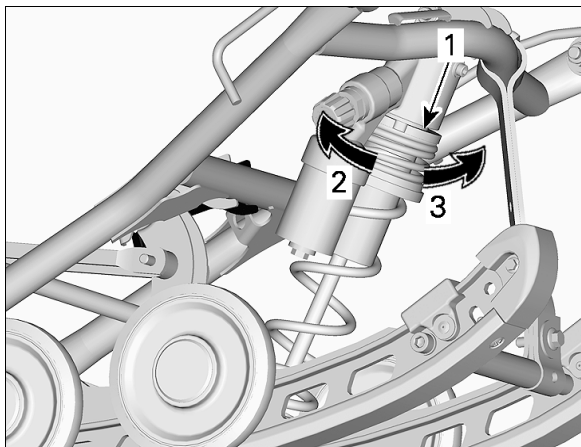
Center Spring

Center spring preload has an effect on steering effort, handling and bump absorption.

Also, since center spring preload adjustment puts more or less pressure on the front of the track, it has an effect on the performance in deep snow.

Action	Result
Increasing preload	Lighter steering
	More bump absorption capability
	Better deep snow starts

Action	Result
Increasing preload	Better deep snow performance and handling
Decreasing preload	Heavier steering
	Less bump absorption capability
	Better trail handling



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TYPICAL - RING TYPE

1. *Spring preload adjustment ring*
2. *Increase preload*
3. *Decrease preload*

Note: For cam type or ring type preload adjuster, use the suspension adjustment tool provided in the tool kit.

Rear Springs

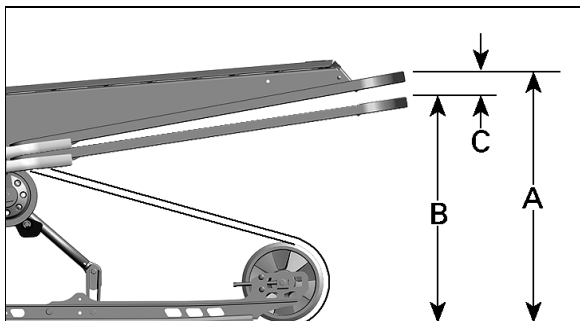
Rear spring preload has an effect on comfort, ride height and load compensation.

Also, adjusting rear spring preload shifts more or less weight to the snowmobile front end. As a result, more or less weight is applied to the skis. This has an effect on performance in deep snow, steering effort and handling.

Slight suspension bottoming occurring under the worst riding conditions indicates a good choice of spring preload.

Action	Result
Increasing preload	Firmer rear suspension
	Higher rear end
	More bump absorption capability
	Heavier steering
Decreasing preload	Softer rear suspension
	Lower rear end
	Less bump absorption capability
	Lighter steering
	Better deep snow performance and handling

Refer to the following to determine if preload is correct.



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TYPICAL - PROPER ADJUSTMENT

- A. Suspension fully extended
 B. Suspension has collapsed with operator, passenger and load added
 C. Distance between dimension "A" and "B", see table below

"C"	What to do
65 mm to 100 mm (2.5 in to 4 in)	No adjustment required
More than 100 mm (4 in)	Adjusted too soft. Increase preload
Less than 65 mm (2.5 in)	Adjusted too firm. Decrease preload

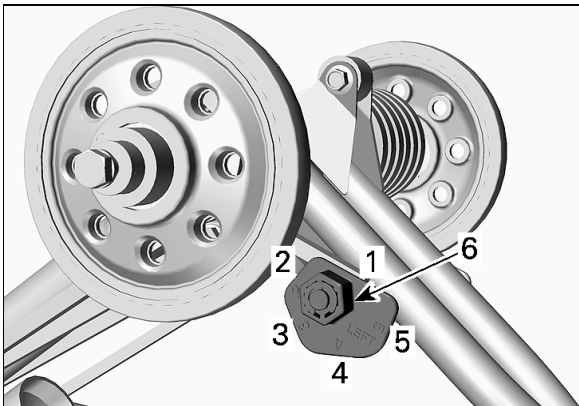
Note: If the specification is unattainable with the original springs, see an authorized Ski-Doo dealer for other available springs.

To increase spring preload, using tool, always turn the left side adjustment cam in a clockwise direction, and the right side cam in a counterclockwise direction.

⚠ CAUTION

Never set preload cams directly from position 5 to 1 or directly from position 1 to 5.

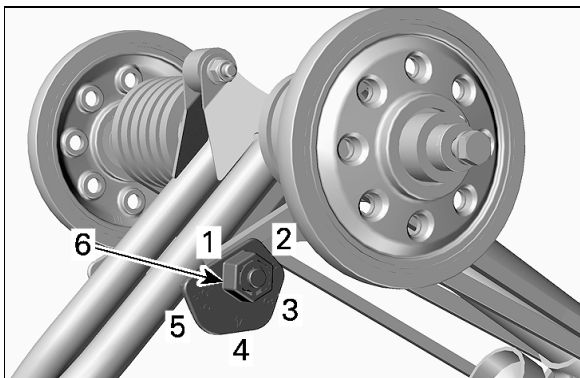
The adjustment cams have 5 different settings, 1 being the softest.



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LH SIDE

1. *Position 1*
2. *Position 2*
3. *Position 3*
4. *Position 4*
5. *Position 5*
6. *Adjustment nut*



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RH SIDE

1. *Position 1*
2. *Position 2*
3. *Position 3*
4. *Position 4*
5. *Position 5*
6. *Adjustment nut*

Center and Rear Shock Absorber

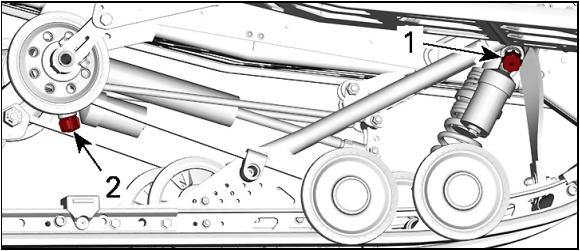
Compression Damping (KYB PRO Series Only)

Note: Both low and high speed compression damping are adjusted simultaneously.

Low speed compression damping controls how the shock absorber reacts to a low suspension velocity (slow compression strokes, in most cases when riding at lower speeds).

High speed compression damping controls how the shock absorber reacts to a high suspension velocity (quick compression strokes, in most cases when riding at higher speeds).

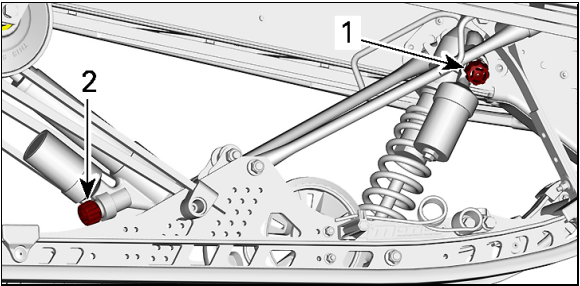
To adjust, turn the adjuster button located on the reservoir.



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RMOTION

1. Center shock button
2. Rear shock button



520001799-002_a

TMOTION

1. Center shock button
2. Rear shock button

Turning	Action	Result on big and small bumps
Clockwise	Increasing compression damping force	Firmer compression damping
Counter Clockwise	Decreasing compression damping force	Softer compression damping

Front Suspension Adjustments

Ski Stance

Ski stance can be set to two different width.

For the narrow setting, install the spacer inside the ski leg.

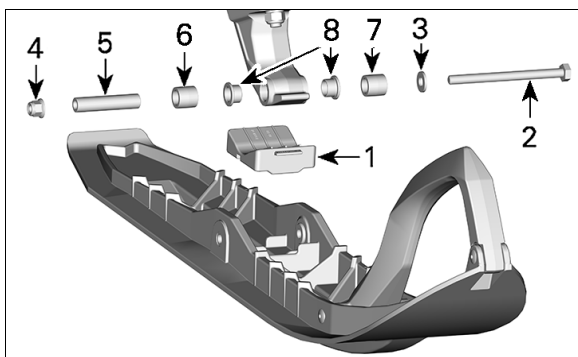
For the wide setting, install the spacer outside the ski leg.

Proceed as follows to change the stance setting:

1. Lift the front of vehicle.
2. Remove the ski bolt.
3. Place the spacer according to the desired stance see illustration.

WARNING

Proceed to the same setting for both skis.



mbl2015-002-013_a

LH SIDE SHOWN

1. Ski stopper (typical)
2. M10 x 130 screw
3. M10 flat washer
4. M10 flanged nut
5. Ski axle
6. Narrow adjustment
7. Wide adjustment

4. Tighten nut to the specified torque.

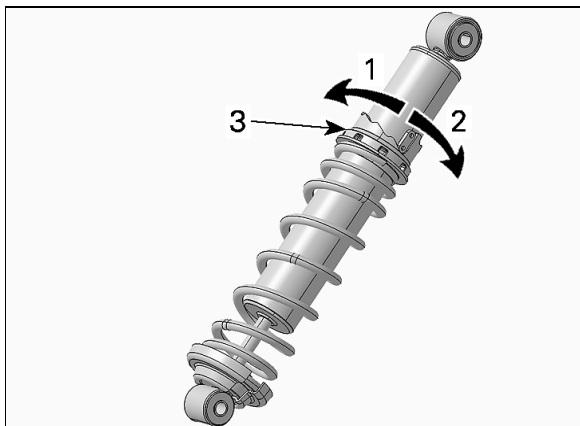
Tightening Torque	
Ski nut	48 ± 6 Nm (35 ± 4 lbf-ft)

Front Springs

Front spring preload has an effect on front suspension firmness.

Front spring preload also has an effect on the steering behavior.

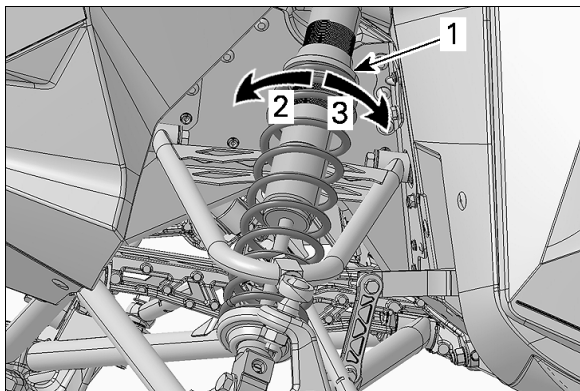
Action	Result
Increasing preload	Firmer front suspension
	Higher front end
	More precise steering
	More bump absorption capability
Decreasing preload	Softer front suspension
	Lower front end
	Lighter steering
	Less bump absorption capability



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CAM TYPE - HPG SHOCK ABSORBER

1. *Decrease preload*
2. *Increase preload*
3. *Spring preload adjustment cam*



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TYPICAL - RING TYPE

1. *Spring preload adjustment ring*
2. *Increase preload*
3. *Decrease preload*

Front Shock Absorber

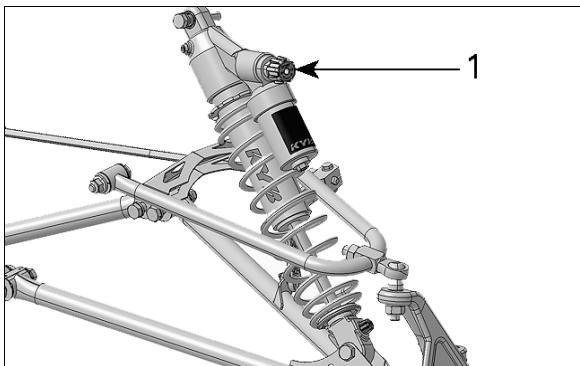
Front Shock Compression Damping (KYB PRO Series Only)

Note: Both low and high speed compression damping are adjusted simultaneously.

Low speed compression damping controls how the shock absorber reacts to a low suspension velocity (slow compression strokes, in most cases when riding at lower speeds).

High speed compression damping controls how the shock absorber reacts to a high suspension velocity (quick compression strokes, in most cases when riding at higher speeds).

To adjust, turn the adjuster button located on the reservoir.



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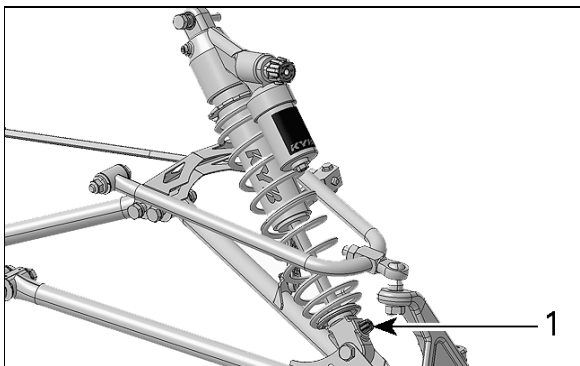
1. Compression damping adjuster button

Turning	Action	Result on big and small bumps
Clockwise	Increasing compression damping force	Firmer compression damping
Counter Clockwise	Decreasing compression damping force	Softer compression damping

Shock Rebound Damping (KYB PRO R Series Only)

Rebound damping controls how the shock absorber restrains the extension stroke.

To adjust, turn the adjuster button or slot located at the bottom of the shock absorber.



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1. Rebound adjuster button

Turning	Action	Result on big and small bumps
Clockwise	Increasing rebound damping force	Firmer rebound damping (slower extension speed)
Counter Clockwise	Decreasing rebound damping force	Softer rebound damping (faster extension speed)

Note: In repetitive short small bumps (ripple), it is recommended to use a lower rebound damping setting.

Adjustment Tips According to Vehicle Behavior

Problem	Corrective measures
Front suspension darting	Check ski alignment. - Reduce front suspension spring preload. - Increase center spring preload. - Reduce rear spring preload.
Steering feels too heavy at steady speeds	- Reduce front suspension spring preload. - Increase center spring preload.
Steering feels too heavy during acceleration	- Reduce rear spring preload. - Lengthen limiter strap.
Too much ski lift during cornering or acceleration	- Shorten limiter strap. - Increase rear spring preload.
Rear of snowmobile seems too stiff	- Reduce rear spring preload. - Reduce compression damping adjustment if equipped
Rear of snowmobile seems too soft	- Increase rear spring preload.

Problem	Corrective measures
Rear suspension is frequently bottoming	<ul style="list-style-type: none">- Increase compression damping adjustment if equipped.- Increase rear spring preload.- Increase center spring preload.- Lengthen limiter strap.- Increase compression damping adjustment if equipped.
Snowmobile seems to pivot around its center	<ul style="list-style-type: none">- Reduce center spring preload.- Increase rear spring preload.- Increase front suspension spring preload.- Shorten limiter strap.
Track spins too much at start	<ul style="list-style-type: none">- Lengthen limiter strap.
Ski diving in deep snow	<ul style="list-style-type: none">- Install ski tip enlarger.

VEHICLE TRANSPORTATION

Make sure that oil reservoir and fuel tank caps are properly installed.

Tilt bed trailers can easily be equipped with a winch mechanism to afford maximum safety in loading. Simple as it may seem, never drive your snowmobile onto a tilt bed trailer or any other kind of trailer or vehicle. Many serious accidents have resulted from driving up and over a trailer. Anchor your vehicle securely, front and rear, even on short hauls. Be certain all equipment is securely fastened. Cover your snowmobile when trailering to prevent road grime from causing damage.

Be certain your trailer meets state or provincial requirements. Ensure the hitch and safety chains are secure and the brake, turn indicators and clearance lights all function.

WARNING

Do not tow the vehicle facing backwards. If the vehicle is towed facing backwards, the wind may cause damage to the windshield or even loss of the windshield.

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PRE-RIDE INSPECTION

PRE-RIDE INSPECTION

WARNING

The pre-operation check is very important prior to operating the vehicle. Always check the proper operation of critical controls, safety features and mechanical components before starting.

Before Starting the Engine

1. Remove snow and ice from body including lights, seat, footrests, controls and instruments.
2. Verify that air silencer prefilter is free of snow.
3. Verify that skis and steering operate freely. Check corresponding action of skis versus handlebar.
4. Check fuel and injection oil (if applicable) for levels and leaks. Replenish if necessary and in case of any leaks; you should seek service from an authorized Ski-Doo dealer, repair shop, or person of your own choosing for maintenance, repair, or replacement. Please refer to the *US EPA EMISSION-RELATED WARRANTY* contained herein for information about warranty claims.
5. All storage compartments must be properly latched and they must not contain any heavy or breakable objects. Hood and side panels must be also properly latched.
6. Activate the throttle control lever several times to check that it operates easily and smoothly. It must return to idle position when released.
7. Activate the brake lever and make sure the brake fully applies before the brake control lever touches the handlebar grip. It must fully return when released.
8. Apply parking brake and check if it operates properly. Leave parking brake applied.
9. Inspect drive belt condition and height, refer to *DRIVE BELT* in *MAINTENANCE PROCEDURES*.

After Engine is Started


For proper engine starting procedure, refer to the appropriate *ENGINE STARTING PROCEDURE*.

1. Check headlights high beam and low beam, taillight, stop light and pilot lamps operation.

Note: You may need to detach tether cord from your clothes to check lights. In such a case, attach cord as soon as you get back at the controls of the snowmobile.

2. Check the engine cut-off switch (by pulling tether cord cap) and emergency engine stop switch operation.
3. Release parking brake.
4. Refer to *VEHICLE WARM UP* and follow instructions.

Pre-Ride Check List

ITEM	OPERATION	
Body including seat, footrests, lights, air filter, controls and instruments	Check condition and remove snow or ice.	
Skis and steering action	Check for free movement and proper operation.	
Fuel and injection oil	Check for proper level and no leaks.	
Coolant	Check for proper level and no leaks.	
Brake fluid	Check for proper level and no leaks.	

Storage compartment	Check for proper latching and no heavy or breakable objects.	
Track	Check condition and remove snow or ice.	
Throttle lever	Check for proper operation.	
Brake lever	Check for proper operation.	
Parking brake, Brake	Check for proper operation.	
Emergency engine stop switch and engine cut-off switch (D.E.S.S. key)	Check for proper action. Tether cord must be attached to operator clothing eyelet.	
Lights	Check for proper operation.	
Ski runners	Check for proper operation.	
Slider shoes	Check for proper operation.	
Drive belt	Check for cracks, fraying or abnormal wear and proper height.	

MAINTENANCE

MAINTENANCE SCHEDULE

Maintenance is very important for keeping your vehicle in safe operating condition.

The maintenance schedule does not exempt the pre-ride inspection.

WARNING

Failure to properly maintain the vehicle according to the maintenance schedule and procedures can make it unsafe to operate.

EPA Regulation - Canadian and USA Vehicles

A repair shop or person of the owner's choosing may maintain, replace, or repair emission control devices and systems. These instructions do not require components or service by BRP or authorized Ski-Doo dealers.

Although an authorized Ski-Doo dealer has an in-depth technical knowledge and tools to service your vehicle, the emission-related warranty is not conditioned on the use of an authorized Ski-Doo dealer or any other establishment with which BRP has a commercial relationship.

Proper maintenance is the owner's responsibility. A warranty claim may be denied if, among other things, the owner or operator caused the problem through improper maintenance or use.

For emission-related warranty claims, BRP is limiting the diagnosis and repair of emission-related parts to the authorized Ski-Doo dealers. For more information, please refer to the *US EPA EMISSION-RELATED WARRANTY* contained in the *WARRANTY* section.

You must follow the instructions for fuel requirements in the fueling section of this manual. Even if gasoline containing greater than ten volume percent ethanol is readily available, the US EPA issued a prohibition against the use of gasoline containing greater than 10 vol% ethanol that applies to this vehicle. The use of gasoline containing greater than 10 vol% ethanol with this engine may harm the emission control system.

During the first 1 500 km (1,000 mi)Adjust drive chain **after the first 75 km (50 mi)**Adjust drive chain **every 500 km (300 mi)**Adjust and align track **after the first 75 km (50 mi)**Verify track tension and alignment **every 500 km (300 mi)**
adjust if required**Every 1 500 km (1,000 mi)**

Adjust drive chain

Verify track tension and alignment. Adjust if required

**Every 100 Hours or 3 000 km (2,000 mi)
(Whichever Comes First)**

Replace spark plugs (850 E-TEC Turbo)

**Every Year at Preseason or 3 000 km
(2,000 mi)
(Whichever Comes First)**

Perform pre-ride inspection

Check fault codes

Charge battery (if equipped)

Adjust drive chain

Verify track tension. Adjust and align if required

Inspect brake hose, pads and disk

Check coolant density

Verify coolant level in upper tank (850 E-TEC Turbo)

Inspect drive belt

Visually inspect and clean drive pulley

Inspect and clean driven pulley

Lubricate rear suspension. Lubricate whenever the vehicle is used in wet conditions (rain, puddles)

**Every Year at Preseason or 3 000 km
(2,000 mi)
(Whichever Comes First)**

Inspect exhaust system and check for leaks

Tighten exhaust manifold screws to specified torque

Inspect fuel lines, oil lines and connections

Inspect front suspension

Inspect rear suspension (including stopper straps and slider shoes)

Inspect tie-rod ends and ski alignment

Adjust headlight beam aiming

**Every 2 Years or 6 000 km (4,000 mi)
(Whichever Comes First)**

Replace brake fluid

Inspect throttle cable

Clean and lubricate rewind starter (manual start models)

Replace chaincase oil

Inspect engine rubber mounts

**Every 3 Years Or 10 000 km (6,000 mi)
(Whichever Comes First)**

Replace spark plugs (except 850 E-TEC Turbo)

Inspect oil injection pump strainer and clean if needed

Clean Rave valves

Every 5 Years

Replace engine coolant

Replace in-line fuel filter

MAINTENANCE PROCEDURES

This section includes instructions for basic maintenance procedures.

WARNING

Turn off the engine, remove tether cord cap and follow these maintenance procedures when performing maintenance. If you do not follow proper maintenance procedures you can be injured by hot parts, moving parts, electricity, chemicals or other hazards.

WARNING

Should removal of a locking device be required (e.g. lock tabs, self-locking fasteners, etc.) when undergoing disassembly/assembly, always replace with a new one.

Engine Coolant

WARNING

Never open coolant tank cap when engine is hot.

Engine Coolant level Verification

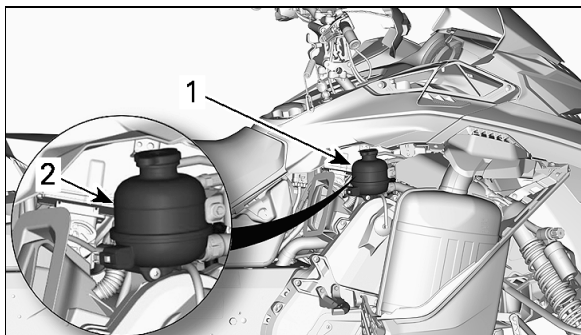
All Models

Open the RH side panel, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.

Check coolant level at room temperature with the cap removed. Liquid should be at cold level line of coolant tank.

Note: When checking level at low temperature it may be slightly lower than the mark.

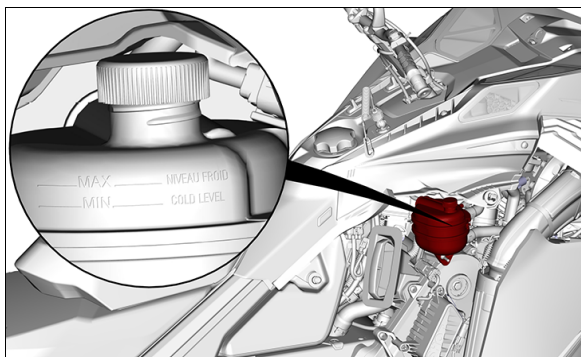
If additional coolant is necessary or if entire system has to be refilled, refer to an authorized Ski-Doo dealer, repair shop or person of your own choosing.



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EXCEPT 850 E-TEC TURBO

1. Coolant reservoir
2. COLD line



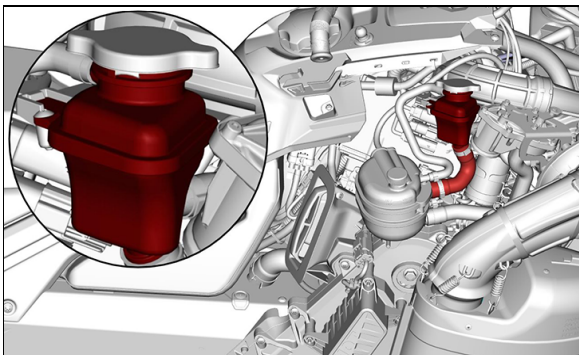
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850 E-TEC TURBO

Models with 850 E-TEC Turbo

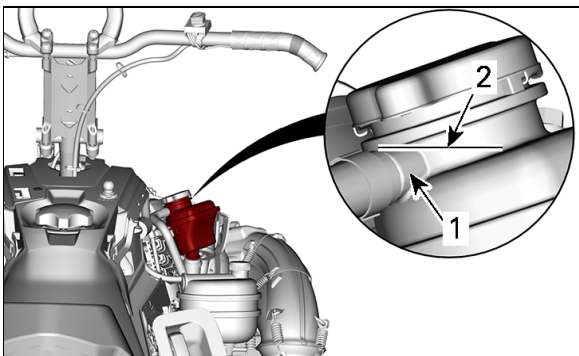
Remove the upper body module. Refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.

Check coolant level of the upper coolant tank at room temperature with the cap removed. Liquid should be at top of filler neck nozzle.



520002095-007

UPPER COOLANT TANK



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UPPER COOLANT TANK

1. Filler neck nozzle
2. Coolant level

Recommended Engine Coolant

Recommended Coolant
Extended life pre-mixed coolant
Alternative, or if not available
Distilled water and antifreeze solution (50% distilled water, 50% antifreeze)

NOTICE Always use ethylene-glycol antifreeze containing corrosion inhibitors specifically for internal combustion aluminum engines.

Exhaust System

Exhaust System Verification

The muffler tail pipe should be centered with the exit hole in the bottom pan. Exhaust system must be free of rust or leaks. Make sure that all parts are securely in place.

Check retaining springs condition and replace if necessary.

The exhaust system is designed to reduce noise and to improve the total performance of the engine. Modification may be in violation of local laws.

NOTICE If any exhaust system component is removed, modified or damaged, severe engine damage may result.

Spark Plugs

Spark plugs inspection or replacement may be performed by an authorized Ski-Doo dealer, repair shop, or person of your own choosing. Spark plugs inspection or replacement requires an in-depth technical knowledge. Though not required, it is recommended that an authorized Ski-Doo dealer performs spark plugs inspection or replacement.

Brake Fluid

Recommended Brake Fluid

Use only DOT 4 brake fluid from a sealed container. An opened container may be contaminated or may have absorbed moisture from the air.

WARNING

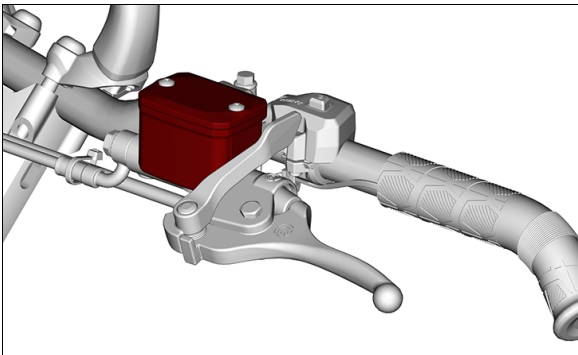
Use only DOT 4 brake fluid from a sealed container. To avoid serious damage to the braking system, do not use fluids other than the recommended one, nor mix different fluids for topping up.

NOTICE Brake fluid can damage painted and plastic parts. Handle with care. Rinse thoroughly in case of spillage.

Brake Fluid Level Verification

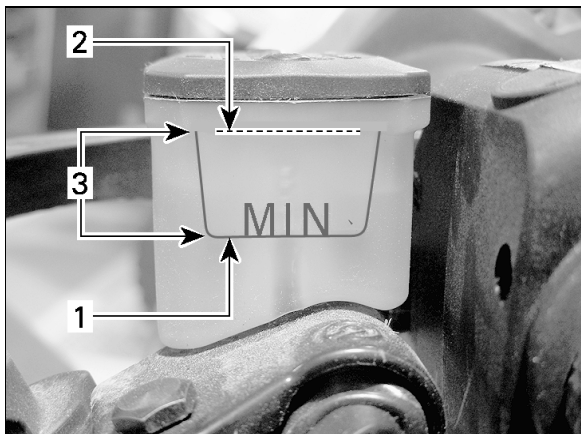
NOTICE Vehicle must be on a level surface before checking any fluid levels.

Check brake fluid (DOT 4) in reservoir for proper level. Add fluid (DOT 4) as required.



520002095-006

BRAKE FLUID RESERVOIR



mmo2008-008-018_a

1. *Minimum*
2. *Maximum*
3. *Operating range*

! CAUTION

Avoid getting brake fluid on skin or eyes - it may cause severe burns. In case of contact skin, wash thoroughly. In case of contact with the eyes, immediately rinse with plenty of water for at least 10 minutes and then consult a doctor immediately.

NOTICE Avoid spilling brake fluid on plastic, rubber or painted parts. Brake fluid is highly corrosive for these types of parts. Wipe up any brake fluid spillage.

Chaincase Oil

Recommended Chaincase Oil

Recommended Chaincase Oil
XPS Synthetic chaincase oil
Alternative, or if not available
Use a 75W140 gear oil that meets the API GL-5 specification

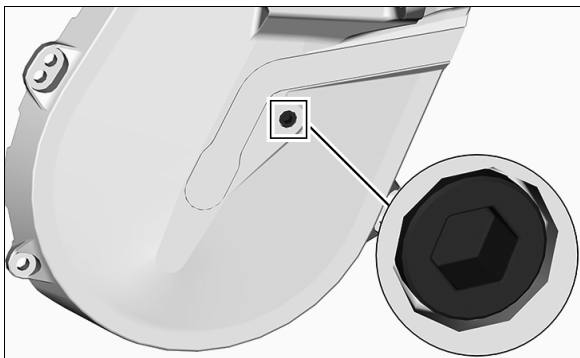
NOTICE The chaincase of this snowmobile has been developed and validated using the XPS™ synthetic chaincase oil. BRP strongly recommends the use of its XPS synthetic chaincase oil at all times. Damages caused by oil which is not suitable for the chaincase will not be covered by the BRP limited warranty.

Access to Chaincase

Open RH side panel, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.

Chaincase Oil Level Verification

With the vehicle on a level surface, check the oil level by removing the check plug.



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CHECK PLUG

Oil level must reach the threaded hole.

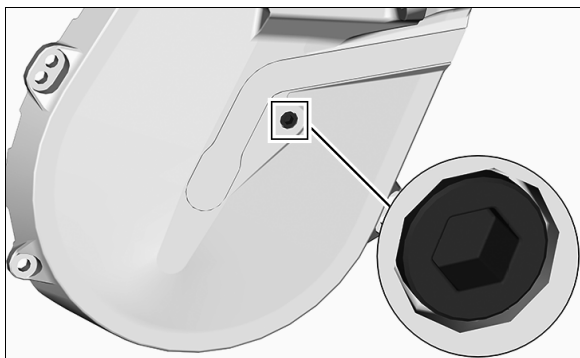
If level is correct, reinstall check plug and tighten to the specified torque.

Tightening Torque	
Check plug	6 ± 1 Nm (53 ± 9 lbf-in)

If level is insufficient, See *CHAINCASE FILLING PROCEDURE*.

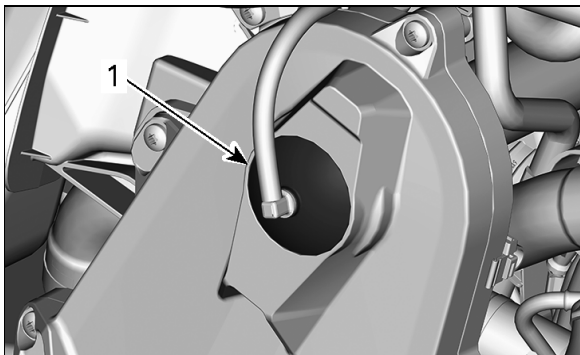
Chaincase Filling Procedure

Remove the check plug.



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CHECK PLUG

Remove the filler cap.



520001663-010_a

TOP OF CHAINCASE

1. Filler cap

Pour recommended oil in the filler hole until oil comes out by the check plug hole.

Reinstall check plug and tighten to specification.

Tightening Torque	
Check plug	$6 \pm 1 \text{ Nm}$ $(53 \pm 9 \text{ lbf-in})$

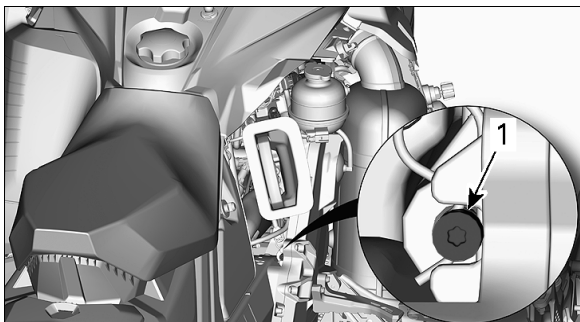
Reinstall the filler cap.

Drive Chain**Access to Chaincase**

Open RH side panel, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.

Drive Chain Adjustment

Using the Torx end of the driven pulley expander, GENTLY turn tensioner clockwise to eliminate the play.



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TYPICAL

1. Tensioner

Do not force the tensioner in.

Note: Do not remove the hair cotter pin.

NOTICE Overtightening the drive chain could result in severe damage to the chaincase components.

Drive Belt

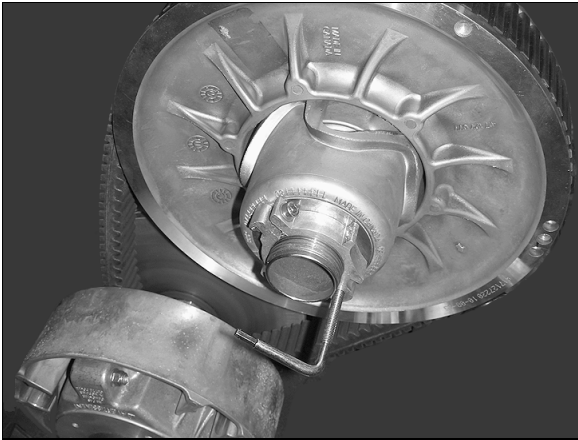
Drive Belt Inspection

Inspect belt for cracks, fraying or abnormal wear (uneven wear, wear on one side, missing cogs, cracked fabric). If abnormal wear is noted, probable cause could be pulley misalignment, excessive RPM with frozen track, fast starts without warm-up period, burred or rusty sheave, oil on belt or distorted spare belt. Contact an authorized Ski-Doo dealer.

Drive Belt Replacement

Drive Belt Removal

1. Remove tether cord cap from engine cut-off switch.
2. Remove drive belt guard, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.
3. Insert the driven pulley expander provided in the threaded hole on the adjuster hub as shown.



mmo2012-005-980

PULLEY EXPANDER INSTALLED ON ADJUSTER HUB

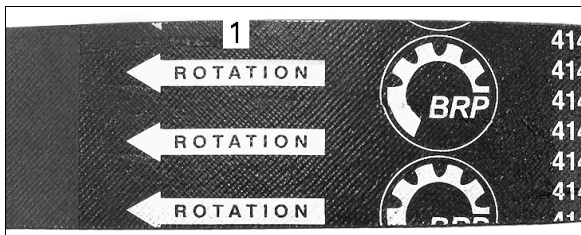
4. Open the driven pulley by screwing the tool in.
5. Remove the drive belt by slipping it over the top of the driven pulley, then over the drive pulley.

Drive Belt Installation

1. If necessary, open the driven pulley, refer to *DRIVE BELT REMOVAL* above.
2. Slip the belt over the drive pulley, then over the driven pulley.

NOTICE Do not force or use tools to pry the belt into place, as this could cut or break the cords in the belt.

Note: The maximum drive belt life span is obtained when belt is installed with arrows in the direction of rotation.



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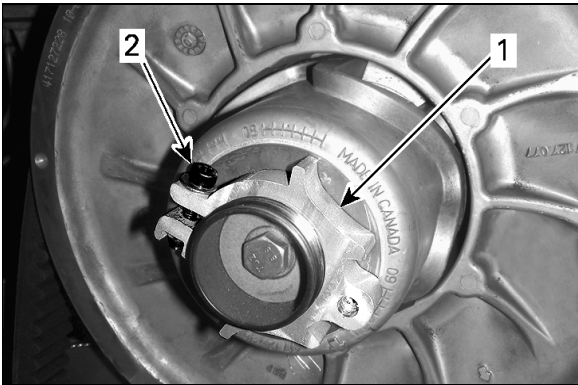
1. To be pointed in the direction of rotation
3. Unscrew and remove the driven pulley expander from the pulley.
4. Rotate the driven pulley several times to properly set the belt between the sheaves.
5. If a new belt was installed, an adjustment will be required for the proper belt height. Refer to *DRIVE BELT HEIGHT ADJUSTMENT* below.
6. Install belt guard, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.
7. Close side panel, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.

Drive Belt Height Adjustment

The drive belt height must be checked every time a new drive belt is installed and as part of the pre-ride inspection.

To adjust the drive belt height, proceed as follows:

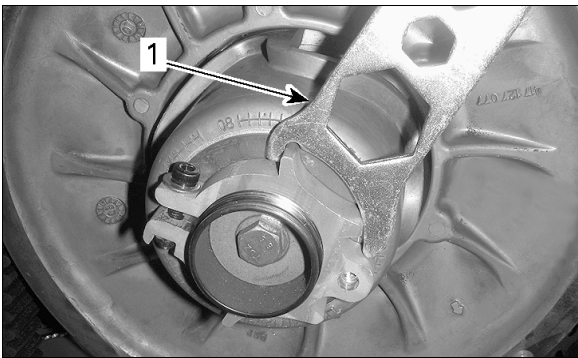
1. Remove tether cord cap from engine cut-off switch.
2. Remove drive belt guard.
3. Loosen the clamping bolt.



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1. Adjuster hub
2. Clamping bolt

4. Using the suspension adjustment tool provided, turn the ring 1/4 turn at a time then rotate the driven pulley to properly set the drive belt between the pulley sheaves.



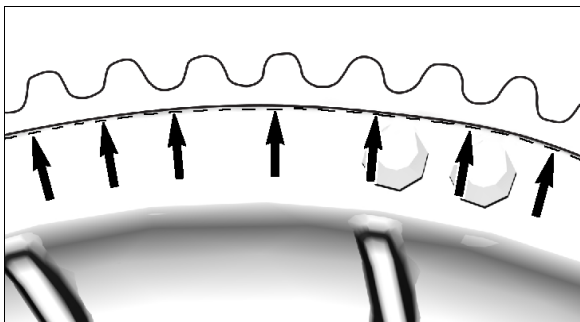
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1. Suspension adjustment tool

Note: The adjustment ring has left hand treads.

850 E-TEC

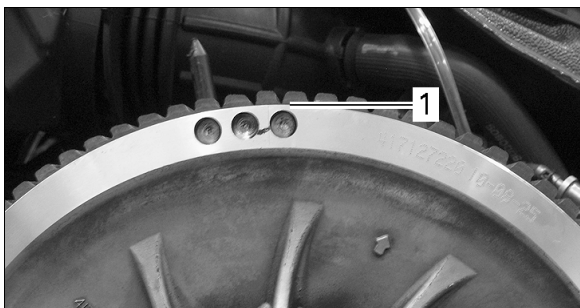
Repeat step 4 until the cord of drive belt is just hidden by the driven pulley edge.



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All Other Engines

Repeat step 4 until the lowest portion of the cogs on the external surface of drive belt is even with the driven pulley edge.



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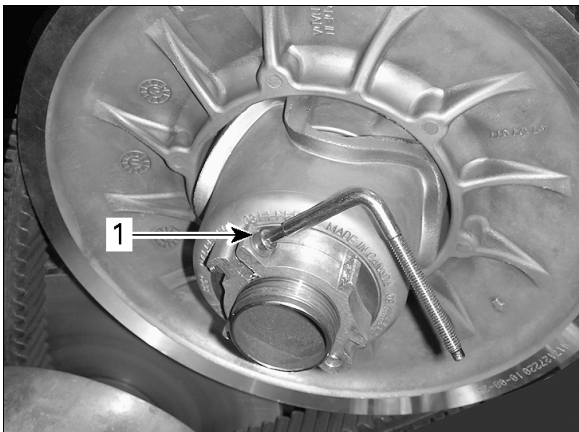
PRELIMINARY SETTING

1. *Lowest portion of cogs even with external surface of drive belt*

Note: Turning the ring counterclockwise lowers the drive belt in the pulley. Turning the ring clockwise raises the drive belt in the pulley.

5. Firmly tighten the clamping bolt. If possible, tighten to specification using a torque wrench.

Tightening Torque	
Clamping bolt	5.5 ± 0.5 Nm (49 ± 4 lbf-in)



mmo2012-004-903_a

1. *Clamping bolt*

6. Install drive belt guard.
7. Install side panel.

Note: These settings are correct as a preliminary adjustment for most models. In some cases, when starting the engine, the vehicle could creep, indicating that the drive belt is too tight.

If the vehicle creeps, lower the drive belt height from the preliminary setting. Repeat procedure until creeping stops.

Reverse Activation

Note: The reverse may not activate if the belt is positioned too high in the driven pulley. If reverse activation does not work properly, ensure the drive belt is properly adjusted. Adjust the drive belt lower in the driven pulley if needed.

Drive Pulley

Drive Pulley Adjustment

WARNING

Remove tether cord cap from engine cut-off switch before performing any adjustment. Vehicle must be parked in a safe place, away from the trail.

WARNING

NEVER disassemble or modify the drive pulley. Improper assembly or modifications could cause the pulley to explode violently under the stress generated by the high rotational speed. See your Ski-Doo dealer to maintain or service the drive pulley. Improper servicing or maintenance may affect performance and reduce belt life. Always respect maintenance schedules.

The drive pulley is factory calibrated to transmit maximum engine power at a predefined RPM. Factors such as ambient temperature, altitude or surface condition may vary this critical engine RPM thus affecting snowmobile efficiency.

This adjustable drive pulley allows setting maximum engine RPM to maintain maximum power.

Ramp cams should be adjusted so that actual maximum engine RPM matches the maximum horsepower RPM. Refer to *SPECIFICATIONS (ENGINE)*.

Note: Use a precision digital tachometer for engine RPM adjustment.

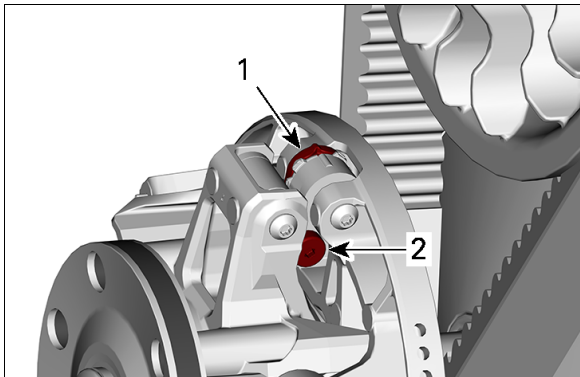
There are 5 positions in which the ramp cam can be set.

Each position modifies the maximum engine RPM by about 200 RPM.

Lower position numbers decrease engine RPM in steps of 200 RPM and higher position numbers increase it in steps of 200 RPM.

Procedure

1. Refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT* and remove:
 - LH side panel
 - Drive pulley guard
2. Locate the cam and the pivot screw on the drive pulley.

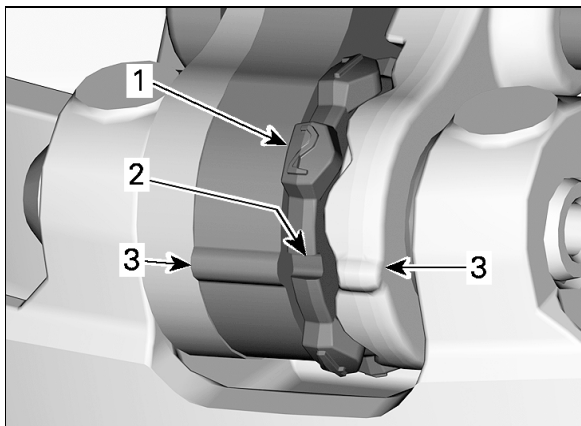


520001896-023_a

1. *Cam*
2. *Pivot screw*

The cam position is identified as follows:

- Positions 1, 2, 4 and 5 are numbered.
- Position 3 (middle) is identified by a notch.
- There are notches on each side of the cam used as pointers.

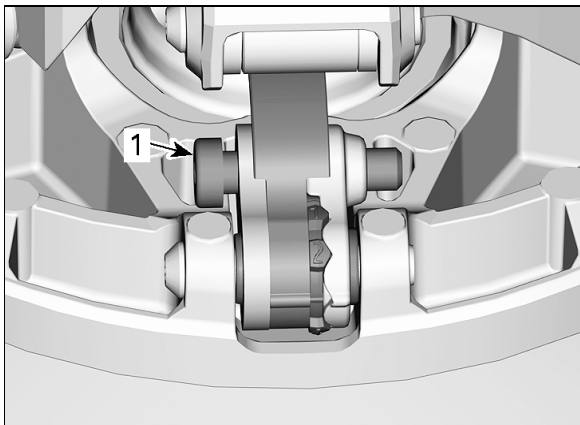


mmc2016-001-118_b

1. *Numbered position*
2. *Position 3 - Notch*
3. *Pointers*

To adjust, proceed as follows for all 3 cams:

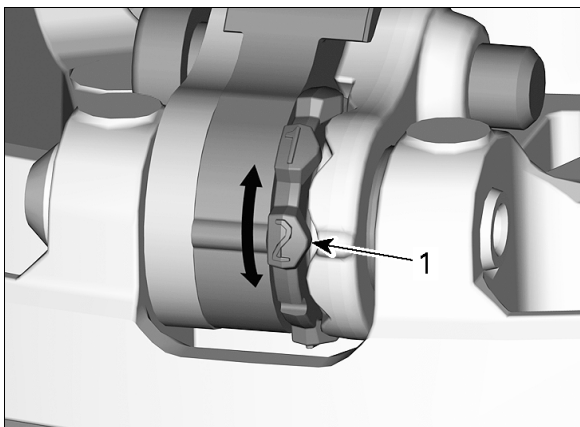
3. Using the Torx end of the driven pulley expander, loosen the pivot screw.



mmc2016-001-116_a

1. *Pivot screw*

4. Move the right lever aside to be able to turn the cam.
5. Turn cam to the desired position.



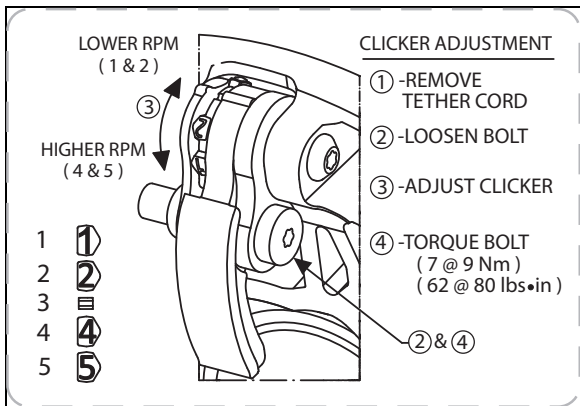
mmc2016-001-117_a

1. *Desired cam position (here #2)*

6. Tighten the pivot screw.

Tightening Torque	
Pivot	8 ± 1 Nm (71 ± 9 lbf-in)

NOTICE Always adjust all 3 cams to the same setting.



DEC-516009265-EN

Track

Track Condition

⚠ WARNING

Remove tether cord cap from engine cut-off switch before performing any maintenance or adjustment, unless otherwise specified. Vehicle must be parked in a safe place, away from the trail.

Remove tether cord cap from engine cut-off switch.

Lift the rear of the snowmobile and support it with a wide-base snowmobile mechanical stand with a rear deflector panel. With the engine off, rotate the track by hand, and inspect condition. If worn or cut, or if track fibers are exposed, or if missing or

defective inserts or guides are noted; contact an authorized Ski-Doo dealer.

Snowmobiles Equipped with Traction Enhancing Products

Look for any defects, such as:

- Perforations in the track
- Tears in the track
- Lugs that are broken or torn off, exposing portions of rods
- Delamination of the rubber
- Broken rods
- Missing track guide(s).

Deep snow snowmobiles are not meant to receive pre-studded or studdable track.

For complete information on traction enhancing products, refer to *TRACTION ENHANCING PRODUCTS in SAFETY INFORMATION* at the beginning of this Operator's Guide.

Track Tension and Alignment

Note: Track tension and alignment are interrelated. Do not adjust one without the other.

WARNING

To prevent serious injury to individuals near the snowmobile:

- NEVER stand behind or near a moving track.
- Always use a wide-base snowmobile stand with a rear deflector panel if it is necessary to rotate track.
- When the track is raised off the ground, only run it at the lowest possible speed.

Centrifugal force could cause debris, damaged or loose studs, pieces of torn track, or an entire severed track to be violently thrown backwards out of the tunnel with tremendous force, possibly resulting in the loss of a leg or other serious injury.

Track Tension Verification

Note: Ride the snowmobile in snow about 15 to 20 minutes prior to adjusting track tension.

1. Remove tether cord cap from engine cut-off switch.
2. Lift rear of vehicle and support it off the ground.

 **CAUTION**

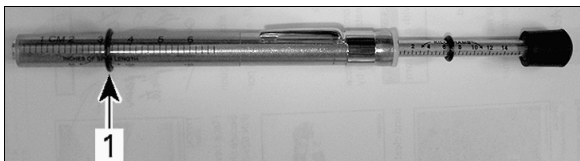
Use proper lifting techniques, notably by using your legs to lift instead of your back. Do not attempt to lift the rear of vehicle if it is above your limits.

3. Allow rear suspension to fully extend.
4. Use the Tensiometer (P/N 414 348 200).



414348200

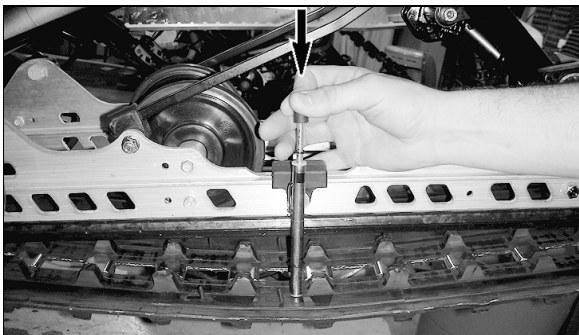
5. Set deflection between 30 mm and 35 mm (1-3/16 in and 1-3/8 in) using bottom O-ring.



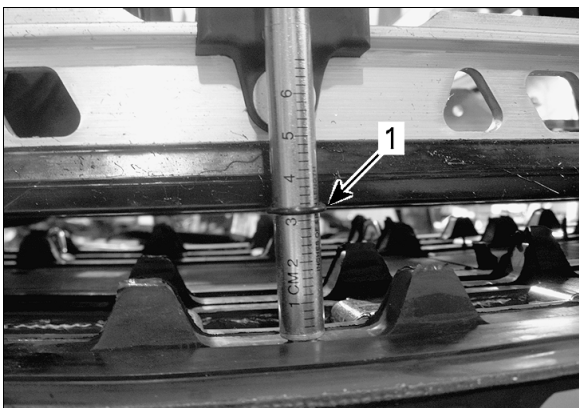
mnr2009-133-003_b

DEFLECTION SETTING

1. *Bottom O-ring set to specification*
6. Place upper O-ring to 0 kgf (0 lbf).
7. Position the tensiometer on track, halfway between front and rear idler wheels.
8. Push the tensiometer downwards until bottom O-ring (deflection set earlier) be aligned with the bottom of slider shoe.

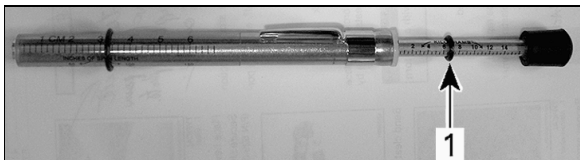


mnr2009-133-001_a



mnr2009-133-002_a

1. Deflection O-ring aligned with slider shoe
9. Read load recorded by the upper O-ring on the tensiometer.



mnr2009-133-003_a

LOAD READING

1. Upper O-ring

10. Load reading must be as per the following table.

Track Adjustment Specification	
Track deflection setting	3.2 cm (1.26 in)
Track load reading	6 kgf to 8.5 kgf (13 lbf to 19 lbf)

11. If load reading is not in accordance with the specification, adjust track tension. Refer to *TRACK TENSION ADJUSTMENT*.

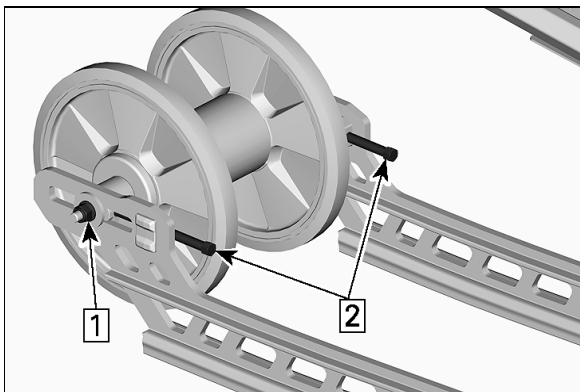
Track Tension Adjustment

1. Remove tether cord cap from engine cut-off switch.
2. Lift rear of vehicle and support it off the ground.

CAUTION

Use proper lifting techniques, notably by using your legs to lift instead of your back. Do not attempt to lift the rear of vehicle if it is above your limits.

3. Loosen the rear axle nut.
4. Tighten or loosen both adjustment screws (equally) to increase or decrease track tension.



520001496-023_a

Step 1: Loosen the axle nut

Step 2: Tighten or loosen the adjustment screws

5. If correct tension is unattainable, contact an authorized Ski-Doo dealer.
6. Retighten the rear axle nut to specification.

Tightening Torque	
Rear idler wheel retaining nut and screw	24.5 ± 3.5 Nm (18 ± 3 lbf-ft)

7. Check track alignment as described below.

Track Alignment

WARNING

Before checking track alignment, ensure that the track is free of all particles which could be thrown out while track is rotating. Keep hands, tools, feet and clothing clear of track. Always lift the snowmobile on a wide-base stand with a rear deflector panel. Ensure no one is standing in close proximity to the snowmobile, especially at the rear of the track. Never rotate track at high speed.

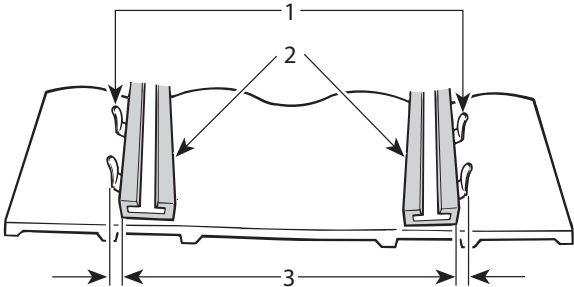
Centrifugal force could cause debris, damaged or loose studs, pieces of torn track, or an entire severed track to be violently thrown backwards out of the tunnel with tremendous force.

1. Lift rear of vehicle and support it off the ground.

CAUTION

Use proper lifting techniques, notably by using your legs to lift instead of your back. Do not attempt to lift the rear of vehicle if it is above your limits.

2. Start engine and accelerate slightly so that track slowly turns. This must be done in a short period of time (15 to 20 seconds).
3. Check that the track is well centered; equal distance on both sides between edges of track guides and slider shoes.

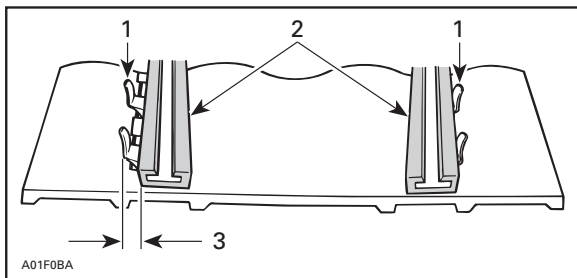


1. Guides
2. Slider shoes
3. Equal distance
4. To correct track alignment:
 - 4.1 Stop engine.
 - 4.2 Remove tether cord cap from engine cut-off switch.

! WARNING

Remove tether cord cap from engine cut-off switch before performing any maintenance or adjustment, unless otherwise specified. Vehicle must be parked in a safe place, away from the trail.

- 4.3 Loosen the rear axle nut.
- 4.4 Tighten adjustment screw on side where the slider shoe is the farthest from the track insert guides.



1. Guides
2. Slider shoes
3. Tighten on this side

5. Tighten the rear axle nut.

⚠ WARNING

Properly tighten wheel retaining bolt, otherwise wheel may come off and cause track to “lock”.

6. Restart engine and rotate track slowly to recheck alignment.
7. Tighten the rear axle nut to specified torque.

Tightening Torque

Rear idler wheel retaining nut and screw	24.5 ± 3.5 Nm (18 ± 3 lbf-ft)
--	----------------------------------

8. Reposition snowmobile on the ground.

Suspension

Rear Suspension Condition

Visually inspect all suspension components including slider shoes, springs, wheels, etc.

Note: During normal driving, snow will act as a lubricant and coolant for the slider shoes. Extensive riding on ice or sanded snow, will create excessive heat build-up and cause premature slider shoe wear.

Suspension Stopper Strap Condition

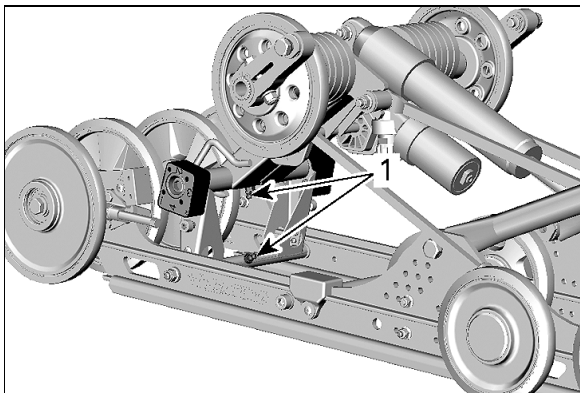
Inspect stopper strap for wear and cracks, bolt and nut for tightness. If loose inspect holes for deformation. Replace as required. Tighten nut to specification.

Tightening Torque	
Stopper strap nut	10 ± 1 Nm (89 ± 9 lbf-in)

Suspension Lubrication

Lubricate the following suspension pivots at grease fittings. Refer to *MAINTENANCE SCHEDULE* for maintenance frequency.

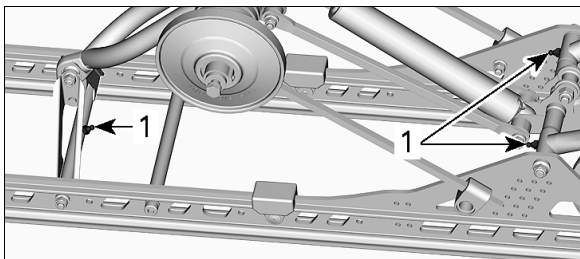
Service Product
XPS synthetic suspension grease



mnr2012-005-001_a

RMOTION

1. Grease fitting



520001496-019_b

TMOTION

1. Grease fitting

Steering and Front Suspension Condition

Visually inspect steering and front suspension for tightness of components (steering arms, control arms and links, tie rods, ball joints, ski bolts, ski legs, etc.). If necessary, contact an authorized Ski-Doo dealer.

Skis

Wear and Condition of Skis and Runners

Check the condition of the skis and ski runner carbides. If worn, contact an authorized Ski-Doo dealer.

WARNING

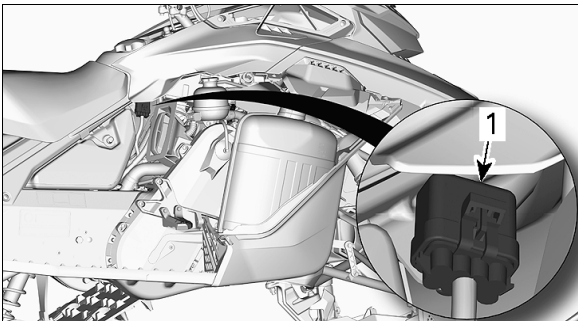
Excessively worn skis and/or ski runners will adversely affect snowmobile control.

Fuses

Access to Fuse Block

Open RH side panel, refer to *CONTROLS, INSTRUMENTS AND EQUIPMENT*.

Fuses Location



520001663-024_a

1. Fuse block

Unlock fuse block from its cover.

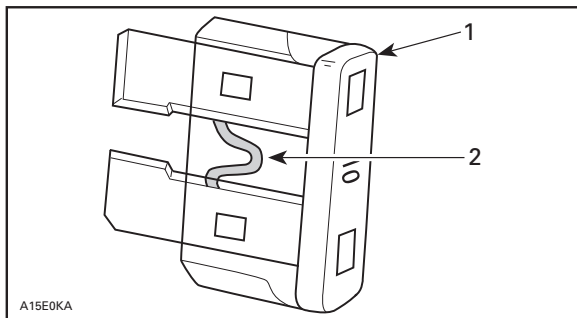
Fuse Identification	Amperage Rating
Start/RER	5 A
Battery	30 A

Fuse Identification	Amperage Rating
Accessories	15 A
Loads	25 A

Fuse Inspection

Check fuse condition and replace it if necessary.

To remove fuse from holder, pull fuse out. Check if filament is melted.



1. Fuse
2. Check if melted

WARNING

Do not use a higher rated fuse.

WARNING

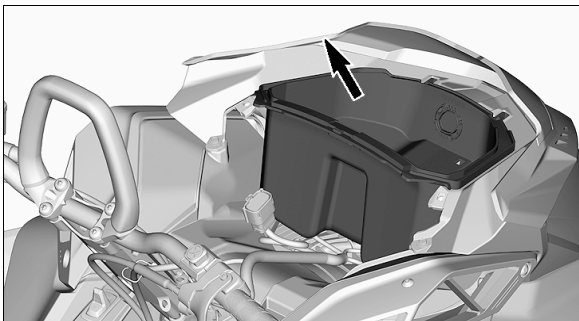
If fuse has burnt out, source of malfunction should be determined and corrected before restarting. See an authorized Ski-Doo dealer for servicing.

Headlights

Headlights Bulb Replacement

All Models Except with 850 E-TEC Turbo

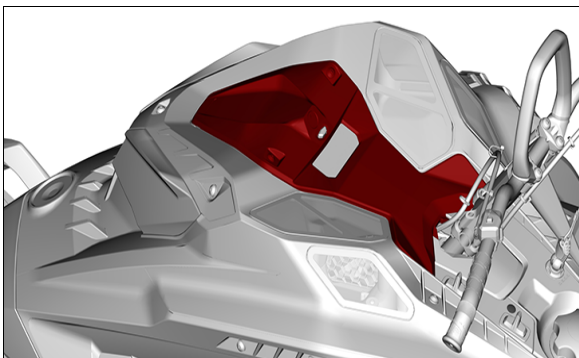
1. Remove the storage compartment. Refer to *UPPER BODY MODULE REMOVAL* in *CONTROLS, INSTRUMENTS AND EQUIPMENTS*.



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Models with 850 E-TEC Turbo

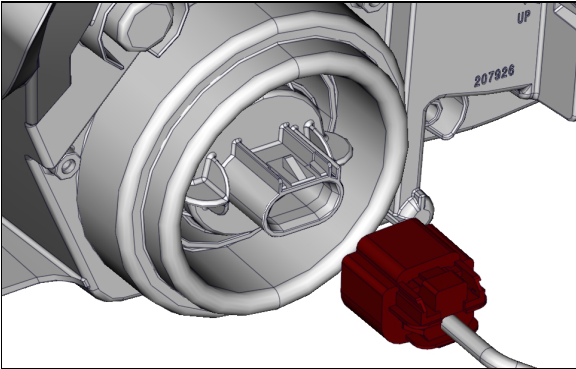
2. Remove the gauge support. Refer to *UPPER BODY MODULE REMOVAL* in *CONTROLS, INSTRUMENTS AND EQUIPMENTS*.



520002095-008

All Models

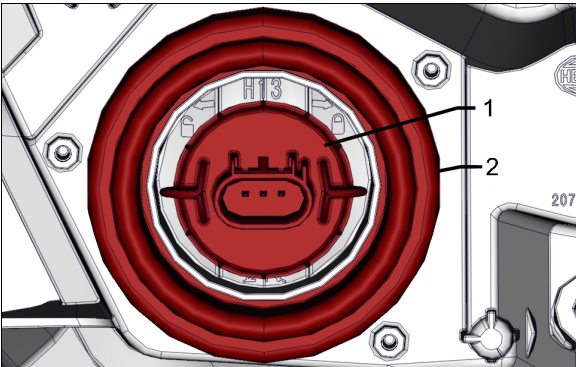
3. Disconnect bulb connector.



mnr2017-036-006

4. Unlock bulb by turning it counterclockwise.
5. Pull bulb out.

Note: Ensure bulb seal stays in place.



mnr2017-036-008

1. Bulb
2. Bulb seal

Install a new bulb using the reverse of the removal procedure.

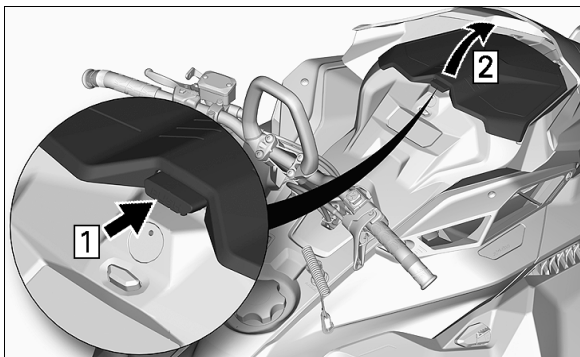
NOTICE Never touch glass portion of an halogen bulb with bare fingers, it shortens its operating life. If glass is touched, clean it with isopropyl alcohol which will not leave a film on the bulb.

Check headlights operation.

Headlights Beam Aiming

All Models Except with 850 E-TEC Turbo

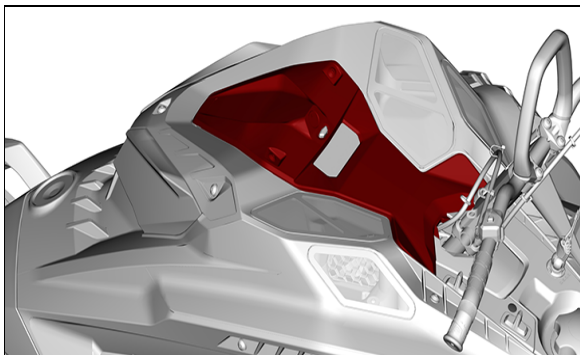
Open the storage compartment.



520001496-005_a

Models with 850 E-TEC Turbo

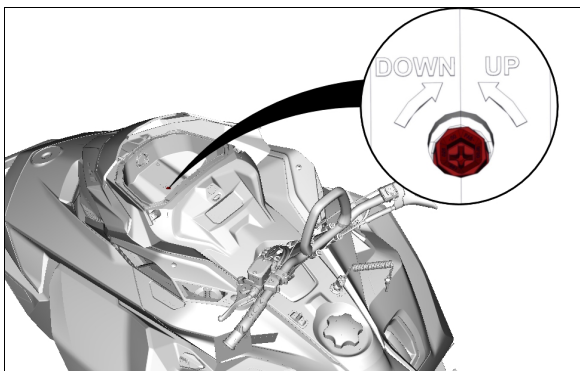
Remove the gauge support. Refer to *UPPER BODY MODULE REMOVAL* in *CONTROLS, INSTRUMENTS AND EQUIPMENTS*.



520002095-008

All Models

Turn the adjustment screw to reach desired beam height.

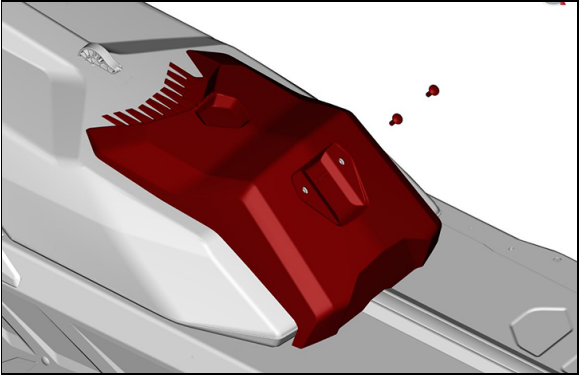


mnr2017-036-005

TYPICAL

Removing the Battery

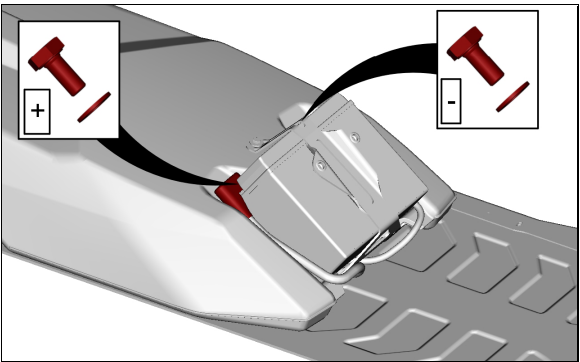
1. Remove seat.
2. Remove battery cover.



520002104-301
TYPICAL

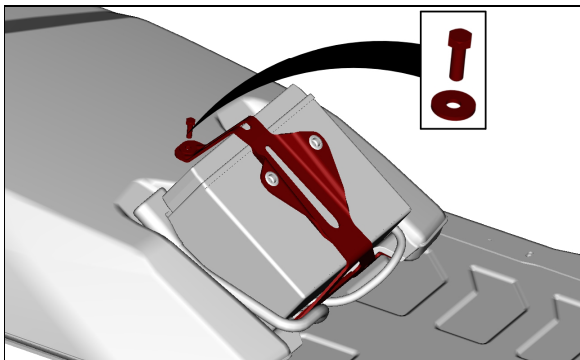
3. Disconnect negative before positive terminal.

NOTICE Battery BLACK (-) cable must always be disconnected first and connected last. Never charge or boost battery while installed on vehicle.



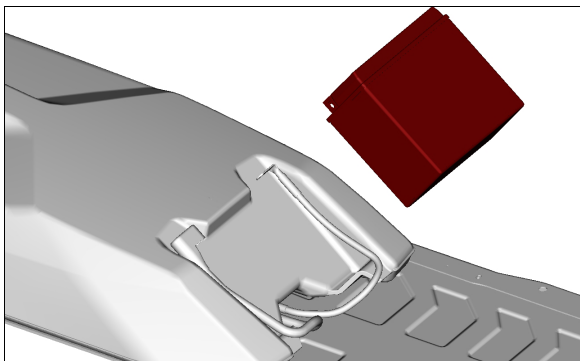
mmr2017-032-002

4. Remove battery hold down bracket.



mmr2017-032-003

5. Remove battery.



mmr2017-032-004

The installation is the reverse of the removal procedure.

Tightening Torque	
Battery bracket screw	5 ± 0.5 Nm (44 ± 4 lbf-in)
Battery post screw	10 ± 1 Nm (89 ± 9 lbf-in)
Battery cover screw	7 ± 1 Nm (63 ± 9 lbf-in)

VEHICLE CARE

Post-Operation Care

Remove snow and ice from rear suspension, track, front suspension, steering mechanism and skis.

WARNING

Make sure D.E.S.S. key is removed from D.E.S.S. post before standing in front the vehicle, getting close to the track or rear suspension components.

Always cover your snowmobile when leaving it outside overnight or during extended periods of inactivity. This will protect it from frost and snow as well as help retain its appearance.

Vehicle Cleaning and Protection

Wash snowmobile with water mixed with a mild detergent. Use only microfiber cloths or an equivalent.

NOTICE Never use a high pressure washer to clean the vehicle. **USE LOW PRESSURE ONLY (like a garden hose).**

NOTICE Never use XPS Brake and Parts Cleaner or any petroleum based cleaners on plastic parts.

Non Compatible Cleaning Products

material type	non-compatible cleaning Products
All plastics, vinyls, painted steel and aluminium.	BRAKE AND PARTS CLEANER OR ANY PETROLEUM BASE CLEANING PRODUCTS

Compatible Cleaning Products

material type	cleaning Product
All plastics, vinyls, painted steel and aluminium.	Soapy water XPS Spray Cleaner and Polish XPS All Purpose Cleaner

For more information and products, Visit the XPS Products website at www.xpslubricants.com

STORAGE

During summer, or when a snowmobile is not in use for more than three months, proper storage is necessary.

Storage
Clean the vehicle
Add fuel stabilizer to fuel following the product manufacturer recommendations. Run the engine after adding the product to the fuel
Lubricate engine
Lubricate brake lever pivot
Lubricate rear suspension
Charge battery monthly to keep it fully charged during storage (if equipped)
Block muffler outlet with rags
Lift rear of vehicle until track is clear of the ground. Do not release track tension

CAUTION

Use appropriate lifting device or have assistance to share lifting stress. If a lifting device is not used, use proper lifting techniques, notably by using your legs to lift instead of your back. Do not attempt to lift the rear of vehicle if it is above your limits.

NOTICE The snowmobile has to be stored in a cool and dry place and covered with an opaque but ventilated tarpaulin. This will prevent sun rays and grime from affecting plastic components and vehicle finish.

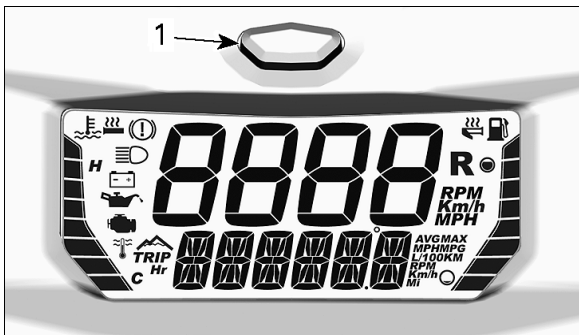
NOTICE Fuel stabilizer should be added prior to engine lubrication to ensure fuel system protection against varnish deposits.

Engine Storage Mode

Like other engines, the E-TEC has to be properly lubricated at storage for internal parts protection. The E-TEC system offers a built-in engine storage lubrication function (summerization) that can be initiated by the operator.

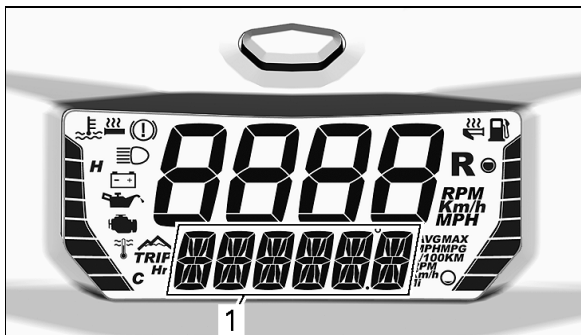
To engage procedure, do the following:

1. Place the vehicle in a well ventilated area.
2. Start the engine and let it run at idle speed until it reaches its operating temperature (watch the coolant temperature on the display or verify the rear heat exchanger becomes warm).
3. Press and release the mode button on the gauge until the odometer is displayed on the lower display.



520001496-010_f

1. Gauge mode button

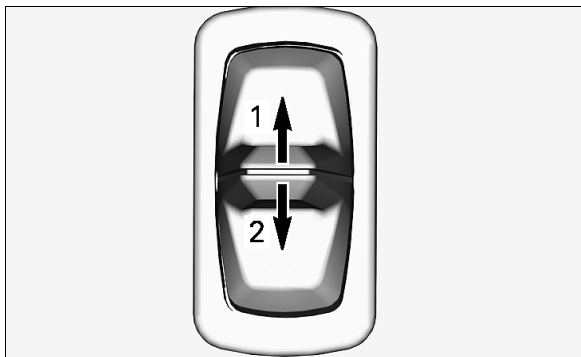


520001496-010_e

1. Lower display

Note: The storage mode does not function in other modes (trip A, trip B and hr trip).

4. While holding the mode button on the gauge, rapidly switch from HIGH to LOW beam until the gauge displays **PRESS/HOLD BUTTON FOR OIL INJECTION**.



520001496-004_a

1. High beam
2. Low beam

5. Release all buttons.
6. Again, press and hold the mode button for 2 - 3 seconds.

7. When gauge displays **OIL** , release button and wait for the lubrication function to end.

Do not touch anything during engine lubrication cycle.

The engine lubrication function takes approximately 1 minute. During this time the engine RPM will increase slightly to approximately 1600 RPM and the oil pump will "oil flood" the engine.

At the end of engine lubrication procedure, the ECM will turn the engine off.

Remove tether cord cap from engine cut-off switch.

NOTICE Do not start the engine during storage period.

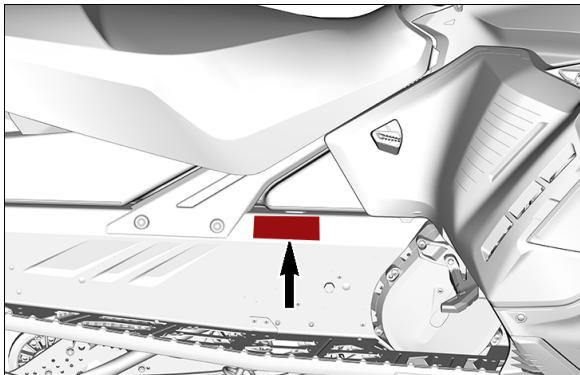
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TECHNICAL INFORMATION

VEHICLE IDENTIFICATION

Vehicle Description Decal

Vehicle description decal is located on right hand side of tunnel.



520002114-103

TYPICAL VEHICLE DESCRIPTION DECAL

BOMBARDIER RECREATIONAL PRODUCTS Inc. Date <input type="text"/>	
VIN. / NIV. <input type="text"/>	<input type="text"/>
Description <input type="text"/>	Type: SNO/MNG <input type="text"/>
<input type="text"/>	
ASSEMBLED IN CANADA / ASSEMBLÉ AU CANADA	

516009002

EN-516009003-DEC

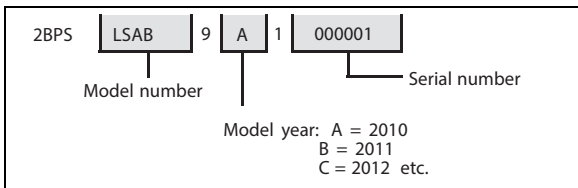
Identification Numbers

The main components of your snowmobile (engine and frame) are identified by different identification numbers. It may sometimes become necessary to locate these numbers for warranty purposes or to trace your snowmobile in the event of loss. These numbers are required by the authorized Ski-Doo dealer to complete warranty claims properly. We strongly recommend that you take note of all the identification numbers on your snowmobile and supply them to your insurance company.

Vehicle Identification Number (VIN)

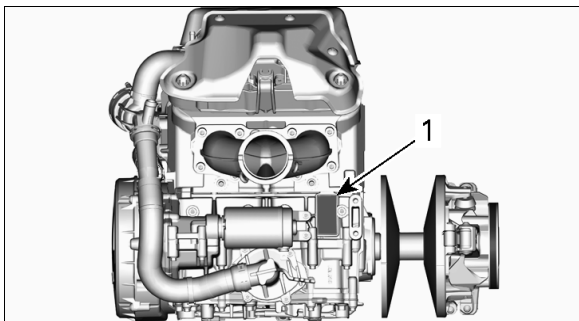
VIN is scribed on vehicle description decal. See above. It is also engraved on tunnel near vehicle description decal.

Model number and model year are part of the information found in the VIN. See illustration.



520002095-010

Engine Identification Number Location

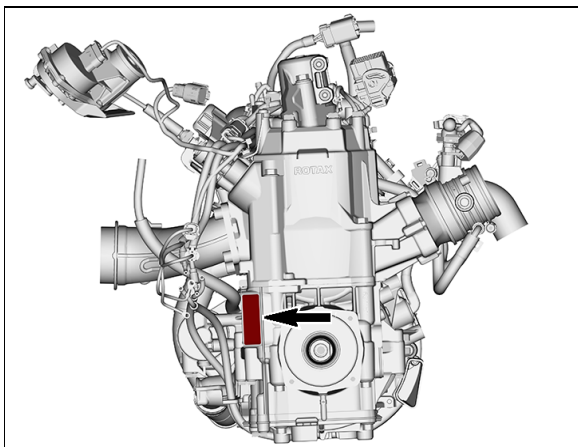


520001663-025_a

1. *Engine identification number*


Regulation (EU) 2016/1628 applicable for Non-Road Mobile Machineries

Vehicles who comply to Regulation (EU) 2016/1628 (NRMM) are identified on the engine.



NRMM_E-TEC_MY20

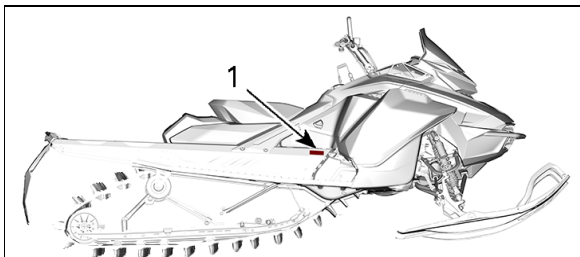
TYPICAL

	Rotax	#	M#####
		Prod. date:	MM-YYYY
		Family type:	#####
		e13	SMB/P V-####

EN-516009861-DEC

NRMM IDENTIFICATION LABEL

Depending on your particular vehicle configuration, an additional NRMM identification decal may be installed on the tunnel, near the chaincase.



520002104-001

RH SIDE OF TUNNEL

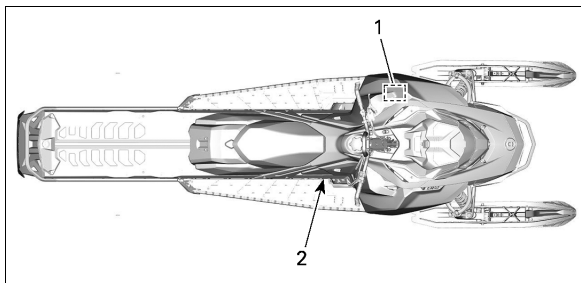
1. **NRMM label**

  	Bombardier Recreational Products Inc. 565 de la Montagne, Valcourt, QC, Canada J0E 2L0 BRP Europe N.V. Skaldenstraat 125, Gent Belgium, 9042	#	M#####
		Prod. date:	MM-YYYY
		Family type:	#####
			SMB/P V-####
		Rotax	

EN-516009917-DEC



NRMM IDENTIFICATION ON VEHICLE

VEHICLE COMPLIANCE LABELS



520001496-101_b

EPA Compliance Label

	EMISSION CONTROL INFORMATION		
	THIS VEHICLE IS CERTIFIED TO OPERATE ON UNLEADED GASOLINE AND MEETS XXXX U.S. EPA REGULATIONS FOR SNOWMOBILE SI ENGINES.		
ENGINE FAMILY	XXXXXXXXXXXX	FAMILLE DE MOTEUR	
PERMEATION FAMILY	XXXXXXXXXXXX	FAMILLE DE PERMÉATION	
FEL	XX g/kW-hr HC XXX g/kW-hr CO X.X g/ m ² / day	LIMITE DES ÉMISSIONS DES FAMILLES	
ENGINE DISPLACEMENT	XXX cm ³	CYLINDRÉE	
EXHAUST EMISSION CONTROL SYSTEM	XXXX	SYSTÈME DE CONTRÔLE DES ÉMISSIONS	
RENSEIGNEMENTS SUR LE DISPOSITIF ANTIPOLLUTION			
CE VÉHICULE EST CERTIFIÉ POUR FONCTIONNER À L'ESSENCE SANS PLOMB ET IL RÉPOND AUX NORMES XXXX DE L'EPA DES É.-U. POUR LES MOTONEIGES À MOTEUR SI.			
SEE OPERATOR'S GUIDE FOR MAINTENANCE SPECIFICATIONS VOIR GUIDE DU CONDUCTEUR POUR LES SPÉCIFICATIONS D'ENTRETIENS			
BOMBARDIER RECREATIONAL PRODUCTS INC. 6865			

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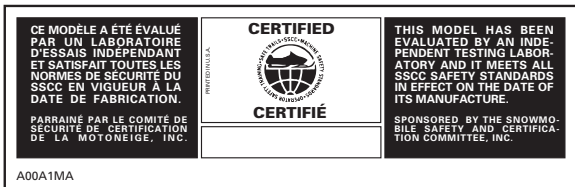
LABEL 1 - IN ENGINE COMPARTMENT

SSCC Label

Safety standards for snowmobiles have been adopted by the Snowmobile Safety and Certification Committee (SSCC) of which BRP is a proud participating member. Assurance that your snowmobile meets these standards is easily checked by

locating the Certification Label on a right vertical portion of the vehicle.

The following label shows that an independent testing laboratory has verified compliance with the SSCC safety standards.



LABEL 2

NOISE EMISSION AND VIBRATION VALUES (ALL COUNTRIES EXCEPT CANADA/UNITED STATES)

MODEL		850 E-TEC	600R E-TEC
NOISE EMISSION AND VIBRATION VALUES ¹			
Noise	Sound power level (L_{WA})	100 dB (Uncertainty (K_{wa}) 3 dB)	98.3 dB (Uncertainty (K_{wa}) 3 dB)
	Sound pressure (L_{pA})	86 dB (Uncertainty (K_{pA}) 3 dB)	86.2 dB (Uncertainty (K_{pA}) 3 dB)
Vibration	Hand-arm system	<2.5 m/s ²	3.11 m/s ²
	Whole body at seat	<0.5 m/s ²	<0.5 m/s ²
¹ : Noise emission and Vibration values are measured in accordance with Standard ISMA 1, annexes A and B, v.1 (2014) to v.4 (2018) on a grass surface, at neutral or without belt.			

EC DECLARATION OF CONFORMITY

The EC-Declaration of Conformity does not appear in this version of the Operator's Guide.

Please refer to the printed version that was delivered with your vehicle.

EAC DECLARATION OF CONFORMITY

*Left blank for Eurasian Conformity
mark where applicable*

EPA CERTIFIED ENGINES

Engine Emissions Information

Manufacturer's Responsibility

Beginning with **2007 model year engines**, snowmobile manufacturers of snowmobile engines need to determine the exhaust emission levels for each engine horsepower family and certify these engines with the United States of America Environmental Protection Agency (EPA). An emissions control information label, showing emission levels and engine specifications, must be placed on each vehicle at the time of manufacture.

Dealer's Responsibility

When performing service on a certified Ski-Doo snowmobiles that carry an emissions control information label, adjustments must be kept within published factory specifications.

Replacement or repair of any emission related component must be executed in a manner that maintains emission levels within the prescribed certification standards.

Dealers are not to modify the engine in any manner that would alter the horsepower or allow emission levels to exceed their predetermined factory specifications.

Exceptions include manufacturer's prescribed changes, such as altitude adjustments for example.

Owner Responsibility

The owner/operator is required to have engine maintenance performed to maintain emission levels within prescribed certification standards.

The owner/operator is not to, and should not allow anyone to modify the engine in any manner that would alter the horsepower or allow emissions levels to exceed their predetermined factory specifications.

EPA Emission Regulations

All Ski-Doo snowmobiles manufactured by BRP are certified to the EPA as conforming to the requirements of the regulations for the control of air pollution from new snowmobile engines. This certification is contingent on certain adjustments being set to factory standards. For this reason, the factory procedure for servicing the product must be strictly followed and, whenever practicable, returned to the original intent of the design.

The responsibilities listed above are general and in no way a complete listing of the rules and regulations pertaining to the EPA requirements on exhaust emissions for snowmobile products. For more detailed information on this subject, you may contact the following locations:

MAIL:

U.S. Environmental Protection Agency
Certification Division
Gasoline Engine Compliance Center
2000 Traverwood Drive
Ann Arbor MI 48105
USA

INTERNET WEB SITE:

www.epa.gov/otaq/

RADIO FREQUENCY DIGITALLY ENCODED SECURITY SYSTEM (RF D.E.S.S. KEY)

This device complies with FCC Part 15 and Industry Canada license exempt RSS standard(s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IC Registration Number: 12006A-M01456

FCC ID: 2ACERM01456

We, the party responsible for compliance, declare under our sole responsibility that the device is in conformity with the provisions of the following Council Directive: 2014/53/EU. To which this declaration relates is in conformity with the essential requirements and other relevant requirements. The product is in conformity with the following directives, harmonized standards and regulations:

Radio Equipment Directive (RED) 2014/53/EU and Harmonized Standards:

EN 300 330-2, EN 60950-1

SPECIFICATIONS ENGINE

Engine	850 E-TEC 850 E-TEC Turbo
Engine type	Rotax 850 E-TEC liquid cooled with reed valves and electronic RAVE
Number of cylinder	2
Bore	82 mm (3.228 in)
Stroke	80.4 mm (3.165 in)
Displacement	849 cm ³ (51.81 in ³)
Maximum power engine speed	7900 ± 100 RPM

Engine	600R E-TEC
Engine type	Rotax 600R E-TEC liquid cooled with reed valves and electronic RAVE
Number of cylinder	2
Bore	72.3 mm (2.85 in)
Stroke	73 mm (2.87 in)
Displacement	599.4 cm ³ (36.6 in ³)
Maximum power engine speed	8100 ± 100 RPM

Fuel System		
Fuel delivery	850 E-TEC 850 E-TEC Turbo	E-TEC direct injection with integrated auxiliary injection system
	600R E-TEC	E-TEC direct injection
Idle speed (not adjustable)		1200 ± 200 RPM

Electrical System		
Lighting system output		30 A @ 14.5 V 1340 W @ 6000 RPM
Spark plug	Type	NGK ILKR8Q7 (engine and spark plug threads are indexed)
	Gap ⁽¹⁾	Not adjustable 0.6 mm to 0.7 mm (.024 in to .028 in)

Lubrication System			
Oil injection pump type			Electronic oil injection pump
Injection oil	Type ⁽²⁾	Scandinavia	2T E-TEC synthetic oil (Eur) (P/N 779281)

Lubrication System			
Injection oil	Type ⁽²⁾	All other countries	2T E-TEC synthetic oil (P/N 779126)
	Quantity		3.4 l (3.6 qt(liq.,US))

SPECIFICATIONS VEHICLE

Cooling System		
Coolant type		Extended life pre-mixed coolant
		If not available: Coolant specifically formulated for aluminum engines Ethyl glycol and distilled water (50%/50%).
Coolant capacity	137" models	7.1 l (7.5 qt(liq.,US))
	146" models	7.3 l (7.7 qt(liq.,US))
	154" models	7.5 l (7.9 qt(liq.,US))
	165" except 850 E-TEC Turbo models	7.7 l (8.1 qt(liq.,US))
	165" 850 E-TEC Turbo models	7.8 l (8.2 qt(liq.,US))
	175" models	7.9 l (8.3 qt(liq.,US))

Fuel System		
Fuel pump		In-tank electrical fuel pump
Fuel	Type	Premium unleaded gasoline (fuel which may contain up to 10% MAX ethanol)

Fuel System			
Fuel	Octane rating	Inside North America	91 Pump Posted AKI (R+M)/2)
		Outside North America	95 (RON)
Fuel tank capacity			36 l (9.5 U.S. gal.)

Electrical System	
Battery (if equipped)	12 V, 18 A•h
Headlamp	2 x 60/55 W (H-13)
Taillight and stoplight	2.6 W / 139m W LED
Fuses	Refer to <i>FUSES</i> in <i>MAINTENANCE</i>

Drive System		
Chaincase oil	Type	Synthetic chaincase oil
	Quantity	350 ml (12 fl oz (US))
Chain drive ratio	137" models (1.75" track profile)	23/45
	137" models (2.25" track profile)	21/45
	146" 850 E-TEC	21/49
	146" 600R E-TEC 154" 850 E-TEC	21/51

Drive System			
Chain drive ratio	154" 600R E-TEC 165" and 175" models		21/53
Drive pulley type			pDrive with clickers
Drive pulley engagement RPM	Freeride 137"		2900 ± 100 RPM
	Summit SP 600R E-TEC		3400 ± 100 RPM
	All 850 E-TEC Sea level calibration		3300 ± 100 RPM
	146"/154"/165" 850 E-TEC High altitude calibration		3600 ± 100 RPM
	165" 850 E-TEC Turbo		3800 ± 100 RPM
	175" High altitude calibration		3900 ± 100 RPM
Driven pulley type			QRS
Pulley distance	Z		Not adjustable 20.9 mm (.823 in)
	X		Not adjustable 41.1 mm ± 1.8 mm (1.618 in ± .071 in)
Offset	Y - X	New	Not adjustable 3 mm (.118 in)

Drive System			
Offset	Y - X	After break-in	Not adjustable 2 mm ± .5 mm (.079 in ± .02 in)
Drive belt	Width		38.3 mm (1.508 in)
	Wear limit		35.9 mm (1.413 in)
Drive sprocket number of teeth		137", 146" models	8
		All others	6
Track dimensions (Width x Length x Profile Height)		137" models	40.6 cm (16 in) X 348.7 cm (137 in) X 44.5 cm (1.75 in)
			40.6 cm (16 in) X 348.7 cm (137 in) X 57.2 cm (2.25 in)
		146" models	40.6 cm (16 in) X 370.5 cm (146 in) X 63.5 cm (2.5 in)
		154" models	40.6 cm (16 in) X 392 cm (154 in) X 63.5 cm (2.5 in)
			40.6 cm (16 in) X 392 cm (154 in) X 76.2 cm (3.0 in)

Drive System		
Track dimensions (Width x Length x Profile Height)	165" models	40.6 cm (16 in) X 419 cm (165 in) X 63.5 cm (2.5 in)
	175" models	40.6 cm (16 in) X 419 cm (165 in) X 76.2 cm (3.0 in)
Track adjustment (3)	Deflection	3.2 cm (1.26 in)
	Force	6.0 kgf to 8.5 kgf (13 lbf to 19 lbf)

Brake System		
Brake	Type	Single 200 mm cross drilled carbon steel disc
Brake fluid	Type	DOT 4
	Quantity	65 ml (2.2 fl oz (US))
Caliper		Fixed twin pistons (2 x 40mm)
Brake pad material		Organic
Minimum brake pad thickness (includes backing plate)		5 mm (.197 in)
Minimum brake disc thickness		4.5 mm (.177 in)
Maximum brake disc warpage		0.25 mm (.01 in)

Front Suspension		
Suspension type		RAS 3
Suspension maximum travel	Freeride 137" Freeride 146"	220 mm (8.7 in)
	Freeride 154" Freeride 165"	215 mm (8.5 in)
	All Summit	215 mm (8.5 in)
Shock absorber type	All Freeride	KYB PRO 36 R EA
	Summit SP	HPG
	Summit X	HPG Plus
	Summit X Expert	HPG Plus Kashima coated
Stabilizer bar type		Link

Rear Suspension			
Suspension type	Freeride 137"	rMotion	
	All Freeride (except 137") All Summit	tMotion	
Suspension maximum travel	Freeride 137"	270 mm (10.6 in)	
	All Freeride (except 137")	239 mm (9.4 in)	
	All Summit	239 mm (9.4 in)	
Shock ab- sorber type	Cen- ter	All Freeride	KYB PRO 40 EA
		Summit SP	HPG
		Summit X	HPG Plus
	Rear	All Freeride	KYB PRO 40 EA

Rear Suspension			
Shock ab- sorber type	Rear	Summit SP	HPG
		Summit X	HPG Plus
		Summit X Expert	KYB PRO 36 EA

Weight and Dimensions		
Mass (dry)	Freeride 137"	215 kg (473 lb)
	Freeride 146"	213 kg (469 lb)
	Freeride 154"	205 kg (451 lb)
	Freeride 165" Summit SP 165" Summit X 175"	208 kg (458 lb)
	Summit SP 146" 850 E-TEC Summit SP 154" 850 E-TEC Summit X 165"	204 kg (449 lb)
	Summit SP 146" 600R E-TEC Summit SP 154" 600R E-TEC Summit X 154"	201 kg (442 lb)
	Summit SP 175"	211 kg (465 lb)
	Summit X Expert 154"	200 kg (440 lb)
	Summit X Expert 165"	203 kg (448 lb)
	Overall length	137" models
146" models		311.0 cm (122.4 in)

Weight and Dimensions		
Overall length	154" models	331.2 cm (130.4 in)
	165" models	344.5 cm (135.6 in)
	175" models	350.3 cm (137.9 in)
Overall width	Freeride 137 Freeride 146	114 cm to 118.4 cm (44.9 in to 46.6 in)
	Freeride 154 Freeride 165 All Summit	108 cm to 111 cm (42.5 in to 43.7 in)
	Freeride 137" Freeride 146	134.8 cm (53.1 in)
	Freeride 154" Freeride 165"	136.8 cm (53.9 in)
	Summit SP Summit X	138.6 cm (54.6 in)
	Summit X Expert	129.2 cm (50.9 in)
Ski stance	Freeride 137 Freeride 146	97.5 cm to 102 cm (38.4 in to 40.2 in)
	Freeride 154 Freeride 165 All Summit	91 cm to 95 cm (35.8 in to 37.4 in)

- (1) **NO-TICE** Do not attempt to adjust gap on this spark plug.
- (2) Refer to *INJECTION OIL* for detailed information.
- (3) Measure gap between slider shoe and bottom inside track when exerting a downward pull to the track.

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TROUBLE- SHOOTING

TROUBLESHOOTING GUIDELINES

Electric starter does not work

1. Emergency engine stop switch in OFF position or tether cord cap not installed on engine cut-off switch.
 - *PLACE THE EMERGENCY ENGINE STOP SWITCH IN THE ON POSITION AND INSTALL TETHER CORD CAP (ON ENGINE CUT-OFF SWITCH).*
2. Throttle applied while attempting an engine start.
 - *RELEASE THROTTLE WHILE CRANKING.*

Engine is cranked but fails to start

1. No fuel to the engine.
 - *CHECK FUEL TANK LEVEL, ADD FUEL IF NECESSARY.*
2. System voltage too low.
 - *CONTACT AN AUTHORIZED SKI-DOO DEALER.*

Engine RPM does not reach clutch engagement point

1. D.E.S.S. did not read D.E.S.S. key code in the tether cord cap. D.E.S.S. pilot lamp blinks (slow short beeps/repetitive).
 - *PROPERLY INSTALL TETHER CORD CAP.*
2. D.E.S.S. has read a different code than the one programmed. D.E.S.S. pilot lamp blinks rapidly (fast short beeps/repetitive).
 - *INSTALL A TETHER CORD CAP FOR WHICH THIS SNOWMOBILE WAS PROGRAMMED.*
3. ECM does not recognize the D.E.S.S. key.
 - *REFER TO AN AUTHORIZED SKI-DOO DEALER.*

Engine lacks acceleration or power

1. Engine warm-up in progress.

- *DRIVE VEHICLE AT LOW SPEEDS FOR A FEW MINUTES.*
- 2. Engine break-in period not completed.
 - *COMPLETE BREAK-IN PERIOD.*
- 3. Drive and driven pulleys require servicing.
 - *CONTACT AN AUTHORIZED SKI-DOO DEALER.*
- 4. Engine overheats.
 - *CHECK COOLANT LEVEL, SEE MAINTENANCE PROCEDURES.*

 - *CHECK HEAT EXCHANGERS CLEANLINESS. CLEAN IF NECESSARY.*
- 5. Drive belt worn too thin.
 - *IF THE DRIVE BELT HAS LOST MORE THAN 3 MM (1/8 IN) OF ITS ORIGINAL WIDTH, IT WILL AFFECT VEHICLE PERFORMANCE.*

 - *REPLACE DRIVE BELT.*
- 6. Incorrect track adjustment.
 - *SEE MAINTENANCE PROCEDURES AND/OR AN AUTHORIZED SKI-DOO DEALER FOR PROPER ALIGNMENT AND TENSION ADJUSTMENTS.*
- 7. R.A.V.E. valves problem.
 - *SEEK SERVICE FROM AN AUTHORIZED SKI-DOO DEALER, REPAIR SHOP, OR PERSON OF YOUR OWN CHOOSING FOR MAINTENANCE, REPAIR, OR REPLACEMENT. PLEASE REFER TO THE US EPA EMISSION-RELATED WARRANTY CONTAINED HEREIN FOR INFORMATION ABOUT WARRANTY CLAIMS.*
- 8. Fuel pressure too low.
 - *SEEK SERVICE FROM AN AUTHORIZED SKI-DOO DEALER, REPAIR SHOP, OR PERSON OF YOUR OWN CHOOSING FOR MAINTENANCE, REPAIR, OR REPLACEMENT. PLEASE REFER TO THE US EPA EMISSION-RELATED WARRANTY*

CONTAINED HEREIN FOR INFORMATION ABOUT WARRANTY CLAIMS.

Engine backfires

1. Engine is running too hot.
 - *SEE ITEM 4 OF ENGINE LACKS POWER.*
2. Ignition timing is incorrect or there is an ignition system failure.
 - *SEEK SERVICE FROM AN AUTHORIZED SKI-DOO DEALER, REPAIR SHOP, OR PERSON OF YOUR OWN CHOOSING FOR MAINTENANCE, REPAIR, OR REPLACEMENT. PLEASE REFER TO THE US EPA EMISSION-RELATED WARRANTY CONTAINED HEREIN FOR INFORMATION ABOUT WARRANTY CLAIMS.*
3. Exhaust system leak.
 - *SEEK SERVICE FROM AN AUTHORIZED SKI-DOO DEALER, REPAIR SHOP, OR PERSON OF YOUR OWN CHOOSING FOR MAINTENANCE, REPAIR, OR REPLACEMENT. PLEASE REFER TO THE US EPA EMISSION-RELATED WARRANTY CONTAINED HEREIN FOR INFORMATION ABOUT WARRANTY CLAIMS.*
4. Fuel pressure too low.
 - *SEEK SERVICE FROM AN AUTHORIZED SKI-DOO DEALER, REPAIR SHOP, OR PERSON OF YOUR OWN CHOOSING FOR MAINTENANCE, REPAIR, OR REPLACEMENT. PLEASE REFER TO THE US EPA EMISSION-RELATED WARRANTY CONTAINED HEREIN FOR INFORMATION ABOUT WARRANTY CLAIMS.*

Engine misfires

1. Water in fuel.
 - *DRAIN FUEL SYSTEM AND REFILL WITH FRESH FUEL.*
2. RAVE valves malfunction.

- *HAVE RAVE VALVES SYSTEM INSPECTED. SEEK SERVICE FROM AN AUTHORIZED SKI-DOO DEALER, REPAIR SHOP, OR PERSON OF YOUR OWN CHOOSING FOR MAINTENANCE, REPAIR, OR REPLACEMENT. PLEASE REFER TO THE US EPA EMISSION-RELATED WARRANTY CONTAINED HEREIN FOR INFORMATION ABOUT WARRANTY CLAIMS.*

Heated grips/thumb warmers are not working

1. Engine RPM is too low.
 - *MAKE SURE ENGINE RPM IS ABOVE 2000.*

Engine has shut down

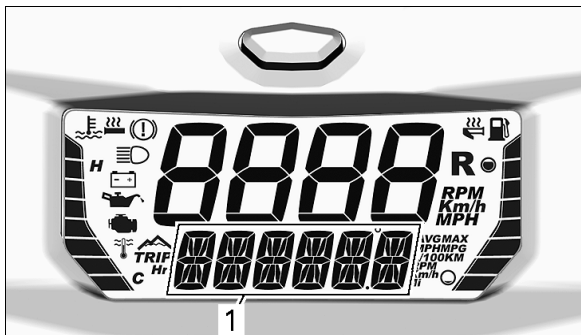
1. The engine shuts down after long periods of idling.
 - *DO NOT LET ENGINE IDLE TOO LONG. REFER TO VEHICLE WARM-UP IN OPERATING INSTRUCTION.*

MONITORING SYSTEM

Icons, Messages and Beeper Codes

The gauge icons inform you of an anomaly or a particular condition.

Icons can come on or blink alone or in combination with others.









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1. Lower display




In addition to the icons, messages are displayed along with a beep code.

See table below for details.

Icon ON	Beeper	Mes- sage	Description
	4 short beeps every 30 seconds	ENGINE OVER-HEAT	Engine is overheating, reduce snowmobile speed and run in loose snow or stop engine immediately and let engine cool down. Check coolant level, refer to <i>MAINTENANCE</i> . If coolant level is correct and overheating persists, contact an authorized Ski-Doo dealer. Do not run the engine if condition persists.
		MUFFLER	Reduce speed or stop engine. Let engine cool down and restart. If overheating persists, contact an authorized Ski-Doo dealer. Do not run the engine if condition persists.
		ECM	
	Short beeps repeating rapidly	OVER-HEAT In combination with "ENGINE OVER-HEAT" above	Critical overheat. Stop engine immediately and let engine cool down. Check coolant level, refer to <i>MAINTENANCE</i> . If coolant level is correct and overheating persists, contact an authorized Ski-Doo dealer. Do not run the engine if condition persists.

Icon ON	Beeper	Message	Description
	Short beeps repeating rapidly	OVER-HEAT In combination with "MUFFLER" OR "ECM"	Critical overheat. Stop engine immediately and let engine cool down. If overheating persists, contact an authorized Ski-Doo dealer. Do not run the engine if condition persists.
	4 short beeps every 5 minutes	LOW BAT	Indicate a low or high battery voltage condition. See an authorized Ski-Doo dealer as soon as possible.
		HIGH BAT	
	4 short beeps	CHECK ENGINE	Engine fault, see an authorized Ski-Doo dealer, repair shop or person of your own choosing as soon as possible.
	4 short beeps	—	Displayed when brake is applied for more than 15 seconds while throttle lever is squeezed and vehicle is moving at more than 5 km/h (3 mi/h).
(blinking)			

Icon ON	Beeper	Mes- sage	Description
—	4 short beeps every 8 seconds	KNOCK	Engine detonation (RPM is limited when this condition occurs). <ul style="list-style-type: none"> - Ensure recommended fuel is used. - Check fuel quality, replace if necessary. - If fault still occurs, contact an authorized Ski-Doo dealer, repair shop, or person of your own choosing.
—	4 short beeps every 5 minutes	REV LIMIT	Engine RPM limited for protection when certain faults occur.
—	—	OVER REV	Indicates that maximum engine RPM is reached. Check clutch calibration.
—	Short beeps repeating rapidly	SHUT DOWN	Shutdown procedure in force due to engine overheating or fuel pump problem.

Icon ON	Beeper	Message	Description
—	—	COMMUNICATION	Communication problem between ECM and gauge. Stop engine, remove tether cord cap. Wait a few minutes, then start engine. If problem persists, contact an authorized Ski-Doo dealer.
—	Short beeps, repeating slowly	CHECK KEY	Unable to read key (bad connection). Make sure the key is clean and correctly snapped on post.
	Short beeps repeating rapidly	BAD KEY	Invalid key or key not programmed. Use the proper key for the vehicle or have the programmed.
	—	—	Fuel level sensor problem.
			
			

Icon ON	Beeper	Message	Description
(All blinking)	—	—	Fuel level sensor problem.
—	Short beeps repeating rapidly	BELT OVERLOAD	Displayed when belt reaches limit. Risk of belt failure if riding behavior is sustained. (if available and activated on your model).

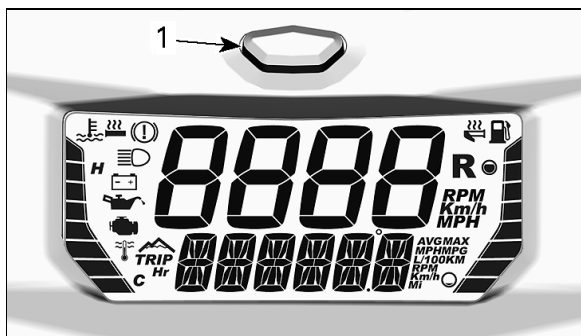
Fault Codes

If the check engine icon is ON, it is possible to read fault code(s) on the gauge.

To read active fault code(s), select the vehicle speed and engine RPM display combination, see *MULTIFUNCTION DIGITAL GAUGE*.

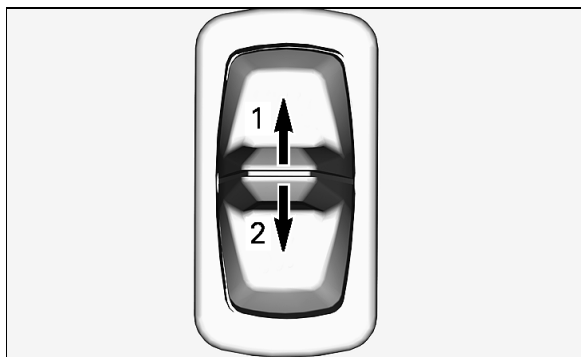
Note: Make sure to select actual vehicle speed and actual engine RPM (not "top" or "average" values).

Press and hold the gauge mode button and simultaneously switch from HIGH to LOW beam repeatedly several times until a code is displayed.



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1. Gauge mode button



520001496-004_a

1. High beam
2. Low beam

If two or more codes are registered, use the gauge mode button to scroll.

To exit the fault codes mode, press and hold the gauge mode button.

Contact an authorized Ski-Doo dealer for code signification.

WARRANTY

BRP LIMITED

WARRANTY USA AND CANADA: 2020 SKI-DOO® SNOWMOBILES

SCOPE OF THE LIMITED WARRANTY

Bombardier Recreational Products Inc. (“**BRP**”)* warrants its 2020 Ski-Doo snowmobiles sold by authorized BRP dealers (as defined below) in the United States of America (“USA”) and in Canada from defects in material or workmanship for the period and under the conditions described below. This limited warranty will become null and void if: (1) the snowmobile was used for racing or any other competitive activity, at any point, even by a previous owner; or (2) the snowmobile has been altered or modified in such a way so as to adversely affect its operation, performance or durability, or has been altered or modified to change its intended use.

Non-factory installed parts and accessories are not covered under this limited warranty. Please refer to the applicable parts and accessories limited warranty text.

LIMITATIONS OF LIABILITY

THIS WARRANTY IS EXPRESSLY GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT THAT THEY CANNOT BE DISCLAIMED, THE IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIFE OF THE EXPRESS WARRANTY. INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE EXCLUDED FROM COVERAGE UNDER THIS WARRANTY. SOME STATES/PROVINCES DO NOT ALLOW FOR THE DISCLAIMERS, LIMITATIONS AND EXCLUSIONS IDENTIFIED ABOVE, AS A RESULT, THEY MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS, AND YOU MAY ALSO HAVE OTHER LEGAL RIGHTS WHICH MAY VARY FROM STATE TO STATE, OR PROVINCE TO PROVINCE.

Neither the distributor, any BRP dealer nor any other person has been authorized to make any affirmation, representation or warranty regarding the product, other than those contained in this limited warranty, and if made, shall not be enforceable

against BRP. BRP reserves the right to modify this limited warranty at any time, being understood that such modification will not alter the warranty conditions applicable to the products sold while this warranty is in effect.

EXCLUSIONS – ARE NOT WARRANTED

The following are not warranted under any circumstances:

- Normal wear and tear;
- Routine maintenance items, tune ups, adjustments;
- Damage caused by failure to provide proper maintenance and/or storage, as described in the Operator's Guide;
- Damage resulting from removal of parts, improper repairs, service, maintenance, modifications or use of parts or accessories not manufactured or approved by BRP or resulting from repairs done by a person that is not an authorized servicing BRP dealer;
- Damage caused by abuse, abnormal use, neglect, use of the product on surfaces other than snow, or operation of the product in a manner inconsistent with the recommended operation described in the Operator's Guide;
- Damage resulting from accident, submersion, fire, theft, vandalism or any act of God;
- Operation with fuels, oils or lubricants which are not suitable for use with the product (see the Operator's Guide);
- Snow or water ingestion;
- Incidental or consequential damages, or damages of any kind including without limitation towing, storage, telephone, rental, taxi, inconvenience, insurance coverage, loan payments, loss of time, loss of income; and
- Damage resulting from studs installed on tracks if the installation does not conform to BRP's instructions.

WARRANTY COVERAGE PERIOD

This limited warranty will be in effect from the date of delivery to the first retail consumer or the date the product is first put into use, whichever occurs first and for the following period:

TWELVE (12) CONSECUTIVE MONTHS, for private or commercial use owners. However, the warranty coverage period

on a snowmobile delivered between June 1st and December 1st of a given year will expire November 30th of the following year.

For emission-related components; please also refer to the *US EPA EMISSION-RELATED WARRANTY* contained herein.

The repair or replacement of parts or the performance of service under this warranty does not extend the life of this warranty beyond its original expiration date.

CONDITIONS REQUIRED FOR WARRANTY COVERAGE

This warranty coverage is available **only** if each of the following conditions has been fulfilled:

- The 2020 Ski-Doo snowmobile must be purchased as new and unused by its first owner from a BRP dealer authorized to distribute Ski-Doo snowmobiles in the country in which the sale occurred (“**BRP dealer**”);
- The BRP specified pre-delivery inspection process must be completed and documented and signed by the purchaser;
- The 2020 Ski-Doo snowmobile must have undergone proper registration by an authorized BRP dealer;
- The 2020 Ski-Doo snowmobile must be purchased in the country in which the purchaser resides; and
- Routine maintenance outlined in the Operator’s Guide must be timely performed in order to maintain warranty coverage. BRP reserves the right to make warranty coverage contingent upon proof of proper maintenance.

BRP will not honor this limited warranty to any private use owner or commercial use owner if one of the preceding conditions has not been met. Such limitations are necessary in order to allow BRP to preserve both the safety of its products, and also that of its consumers and the general public.

WHAT TO DO TO OBTAIN WARRANTY COVERAGE

The customer must cease using the snowmobile upon the appearance of an anomaly. The customer must notify a servicing BRP dealer within three (3) days of the appearance of a defect, and provide it with reasonable access to the product and reasonable opportunity to repair it. The customer must also present to the authorized BRP dealer, proof of purchase of the product and must sign the repair/work order prior to starting the repair in order to validate the warranty repair. All parts replaced under this limited warranty become the property of BRP.

WHAT BRP WILL DO

BRP's obligations under this warranty are limited to, at its sole discretion, repairing parts found defective under normal use, maintenance and service, or replacing such parts with new genuine Ski-Doo parts without charge for parts and labor, at any authorized BRP dealer during the warranty coverage period under the conditions described herein. No claim of breach of warranty shall be cause for cancellation or rescission of the sale of the snowmobile to the owner.

In the event that service is required outside of the country of original sale, the owner will bear responsibility for any additional charges due to local practices and conditions, such as, but not limited to, freight, insurance, taxes, license fees, import duties, and any and all other financial charges, including those levied by governments, states, territories and their respective agencies.

BRP reserves the right to improve or modify products from time to time without assuming any obligation to modify products previously manufactured.

TRANSFER

If the ownership of a product is transferred during the warranty coverage period, this limited warranty, subject to its terms and conditions, shall also be transferred and be valid for the remaining coverage period provided BRP or an authorized Ski-Doo Distributor/Dealer receives a proof that the former

owner agreed to the transfer of ownership, in addition to the co-ordinates of the new owner.

CONSUMER ASSISTANCE

In the event of a controversy or a dispute in connection with this limited warranty, BRP suggests that you try to resolve the issue at the dealership level. We recommend discussing the issue with the authorized dealer's service manager or owner.

If the matter still remains unresolved, contact BRP by filling out the customer contact form at www.brp.com or contact BRP by mail at one of the addresses listed under the *CONTACT US* section of this guide.

* In the USA, products are distributed and serviced by BRP US Inc.

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US EPA EMISSION-RELATED WARRANTY

Bombardier Recreational Products Inc. ("BRP")† warrants to the ultimate purchaser and each subsequent purchaser that this new engine, including all parts of its exhaust emission-control system and its evaporative emission-control system, meets two conditions:

1. It is designed, built, and equipped so it conforms at the time of sale to the ultimate purchaser with the requirements of 40 CFR 1051 and 40 CFR 1060.
2. It is free from defects in materials and workmanship that may keep it from meeting the requirements of 40 CFR 1051 and 40 CFR 1060.

Where a warrantable condition exists, BRP will repair or replace, as it elects, any part or component with a defect in materials or workmanship that would increase the engine's emissions of any regulated pollutant within the stated warranty period at no cost to the owner, including expenses related to diagnosing and repairing or replacing emission-related parts. All defective parts replaced under this warranty become the property of BRP.

For all emission-related warranty claims, BRP is limiting the diagnosis and repair of emission-related parts to the authorized Ski-Doo dealers, unless for emergency repairs as required by item 2 of the following list.

As a certifying manufacturer, BRP will not deny emission-related warranty claims based on any of the following:

1. Maintenance or other service BRP or BRP's authorized facilities performed.
2. Engine/equipment repair work that an operator performed to correct an unsafe, emergency condition attributable to BRP as long as the operator tries to restore the engine/equipment to its proper configuration as soon as possible.
3. Any action or inaction by the operator unrelated to the warranty claim.
4. Maintenance that was performed more frequently than BRP specify.

- Anything that is BRP fault or responsibility.
- The use of any fuel that is commonly available where the equipment operates unless BRP written maintenance instructions state that this fuel would harm the equipment's emission control system and operators can readily find the proper fuel. See maintenance information section and fuel requirements of fueling section.

Emission-Related Warranty Period

The emission-related warranty is valid for the following period whichever comes first:

	hours	months	Kilo me- ters
Exhaust emission-related components	200	30	4000
Evaporative emission-related components	N/A	24	N/A

Components Covered

The emission-related warranty covers all components whose failure would increase an engine's emissions of any regulated pollutant, including the following listed components:

- 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
3. 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

4. Emission-related components also include any other part whose only purpose is to reduce emissions or whose failure will increase emissions without significantly degrading engine/equipment performance.

Limited Applicability

As a certifying manufacturer, BRP may deny emission-related warranty claims for failures that have been caused by the owner's or operator's improper maintenance or use, by accidents for which the manufacturer has no responsibility, or by acts of God. For example, an emission-related warranty claim need not be honored for failures that have been directly caused by the operator's abuse of the engine/equipment or the operator's

use of the engine/equipment in a manner for which it was not designed and are not attributable to the manufacturer in any way.

If you have any question regarding your warranty rights and responsibility, you should contact Bombardier Recreational Products at 1-888-272-9222.

† In the USA, products are distributed and serviced by BRP US Inc.

BRP INTERNATIONAL LIMITED WARRANTY: 2020 SKI-DOO® SNOWMOBILES

SCOPE OF THE LIMITED WARRANTY

Bombardier Recreational Products Inc. ("BRP")* warrants its 2020 Ski-Doo snowmobiles sold by distributors or dealers authorized by BRP to distribute SKI-Doo snowmobiles ("**Ski-Doo Distributor/Dealer**") outside of the fifty United States, Canada, members of the European Economic Area (which is comprised of the member states of the European Union plus Norway, Iceland and Liechtenstein) ("**EEA**"), members states of the Commonwealth of the Independent States (including Ukraine and Turkmenistan) ("**CIS**") and Turkey, from defects in material or workmanship for the period and under the conditions described below.

Non-factory installed parts and accessories are not covered under this limited warranty. Please refer to the applicable parts and accessories limited warranty text.

This limited warranty will become null and void if: (1) the snowmobile was used for racing or any other competitive activity, at any point, even by a previous owner; or (2) the snowmobile has been altered or modified in such a way so as to adversely affect its operation, performance or durability, or has been altered or modified to change its intended use.

LIMITATIONS OF LIABILITY

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY IS EXPRESSLY GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT THAT THEY CANNOT BE DISCLAIMED, THE IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIFE OF THE EXPRESS WARRANTY. INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE EXCLUDED FROM COVERAGE UNDER THIS WARRANTY. SOME JURISDICTIONS DO NOT ALLOW FOR THE DISCLAIMERS, LIMITATIONS AND EXCLUSIONS IDENTIFIED ABOVE, AS A RESULT, THEY MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU

SPECIFIC RIGHTS, AND YOU MAY ALSO HAVE OTHER LEGAL RIGHTS WHICH MAY VARY FROM COUNTRY TO COUNTRY. (FOR PRODUCTS PURCHASED IN AUSTRALIA SEE CLAUSE 4 BELOW).

Neither the Ski-Doo Distributor/Dealer nor any other person has been authorized to make any affirmation, representation or warranty regarding the product, other than those contained in this limited warranty, and if made, shall not be enforceable against BRP.

BRP reserves the right to modify this warranty at any time, being understood that such modification will not alter the warranty conditions applicable to the products sold while this warranty is in effect.

EXCLUSIONS – ARE NOT WARRANTED

The following are not warranted under this limited warranty under any circumstances:

- Normal wear and tear;
- Routine maintenance items, tune ups, adjustments;
- Damage caused by negligence or failure to provide proper maintenance and/or storage, as described in the Operator's Guide;
- Damage resulting from removal of parts, improper repairs, service, maintenance, modifications or use of parts or accessories not manufactured or approved by BRP which in its reasonable judgement are either incompatible with the product or adversely affect its operation, performance and durability, or resulting from repairs done by a person that is not an authorized servicing Ski-Doo Distributor/Dealer;
- Damage caused by abuse, abnormal use, neglect, racing or operation of the product on surfaces other than snow, or operation of the product in a manner inconsistent with the recommended operation described in the Operator's Guide;
- Damage resulting from accident, submersion, fire, snow or water ingestion, theft, vandalism or any act of God;
- Operation with fuels, oils or lubricants which are not suitable for use with the product (see the Operator's Guide);
- Damage resulting from rust, corrosion or exposure to the elements;

- Incidental or consequential damages, or damages of any kind including without limitation towing, storage, transportation expenses, telephone, rental, taxi, inconvenience, insurance coverage, loan payments, loss of time, loss of income; or time missed for downtime experience due to service work.
- And damage resulting from studs installed on tracks if the installation does not conform to BRP's instructions.

WARRANTY COVERAGE PERIOD

This warranty will be in effect from (1) the date of delivery to the first retail consumer or (2) the date the product is first put into use, whichever occurs first and for a period of:

TWELVE (12) CONSECUTIVE MONTHS, for private or commercial use owners. However, the warranty coverage period on a snowmobile delivered between June 1st and December 1st of a given year will expire November 30th of the following year.

The repair or replacement of parts or the performance of service under this warranty does not extend the life of this warranty beyond its original expiration date.

Note that the duration and any other modalities of the warranty coverage are subject to the applicable national or local legislation in the customer's country.

FOR PRODUCTS SOLD IN AUSTRALIA ONLY

Nothing in these Warranty terms and conditions should be taken to exclude, restrict or modify the application of any condition, warranty, guarantee, right or remedy conferred or implied under the Competition and Consumer Act 2010 (Cth), including the Australian Consumer Law or any other law, where to do so would contravene that law, or cause any part of these terms and conditions to be void. The benefits given to you under this limited warranty are in addition to other rights and remedies that you have under Australian law.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation

for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

CONDITIONS TO HAVE WARRANTY COVERAGE

This warranty coverage is available **only** if each of the following conditions has been fulfilled:

- The 2020 Ski-Doo snowmobile must be purchased as new and unused by its first owner from a Ski-Doo Distributor/Dealer authorized to distribute Ski-Doo snowmobiles in the country in which the sale occurred;
- The BRP specified pre-delivery inspection process must be completed and documented;
- The product must have undergone proper registration by an authorized Ski-Doo Distributor/Dealer;
- The 2020 Ski-Doo snowmobile must be purchased in the country or union of countries in which the purchaser resides.
- Routine maintenance outlined in the Operator's Guide must be timely performed in order to maintain warranty coverage. BRP reserves the right to make warranty coverage contingent upon proof of proper maintenance.

BRP will not honour this limited warranty to any private use owner or commercial use owner if one of the preceding conditions has not been met. Such limitations are necessary in order to allow BRP to preserve both the safety of its products, and also that of its consumers and the general public.

WHAT TO DO TO OBTAIN WARRANTY COVERAGE

The customer must cease using the snowmobile upon the appearance of an anomaly. The customer must notify a servicing Ski-Doo Distributor/Dealer within two (2) days of the appearance of a defect, and provide it with reasonable access to the product and reasonable opportunity to repair it. The customer must also present to the authorized Ski-Doo

Distributor/Dealer, proof of purchase of the product and must sign the repair/work order prior to starting the repair in order to validate the warranty repair. All parts replaced under this limited warranty become the property of BRP.

Note that the notification period is subject to the applicable national or local legislation in customer's country.

WHAT BRP WILL DO

To the extent permitted by law, BRP's obligations under this warranty are limited to, at its sole discretion, repairing parts found defective under normal use, maintenance and service, or replacing such parts with new genuine Ski-Doo parts without charge for parts and labour, at any authorized Ski-Doo Distributor/Dealer during the warranty coverage period under the conditions described herein. BRP's responsibility is limited to making the required repairs or replacements of parts. No claim of breach of warranty shall be cause for cancellation or rescission of the sale of the snowmobile to the owner. You may have other legal rights which may vary from country to country.

In the event that service is required outside of the country of original sale, the owner will bear responsibility for any additional charges due to local practices and conditions, such as, but not limited to, freight, insurance, taxes, license fees, import duties, and any and all other financial charges, including those levied by governments, states, territories and their respective agencies.

BRP reserves the right to improve or modify products from time to time without assuming any obligation to modify products previously manufactured.

TRANSFER

If the ownership of a product is transferred during the warranty coverage period, this limited warranty, subject to its terms and conditions, shall also be transferred and be valid for the remaining coverage period provided BRP or an authorized Ski-Doo Distributor/Dealer receives a proof that the former owner agreed to the transfer of ownership, in addition to the co-ordinates of the new owner.

CONSUMER ASSISTANCE

In the event of a controversy or a dispute in connection with this limited warranty, BRP suggests that you try to resolve the issue at the Ski-Doo Distributor/Dealer level. We recommend discussing the issue with the authorized Ski-Doo Distributor/Dealer's service manager or owner.

If the matter still remains unresolved, contact BRP by filling out the customer contact form at www.brp.com or contact BRP by mail at one of the addresses listed under the *CONTACT US* section of this guide.

* For the territory covered by this limited warranty, products are distributed and serviced by Bombardier Recreational Products Inc. or its affiliates.

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BRP LIMITED WARRANTY FOR THE EUROPEAN AND THE COMMONWEALTH OF THE INDEPENDENT STATES (CIS) AREAS AND TURKEY: 2020 SKI-DOO® SNOWMOBILES

SCOPE OF THE LIMITED WARRANTY

Bombardier Recreational Products Inc. ("BRP")* warrants its 2020 Ski-Doo snowmobiles sold by distributors or dealers authorized by BRP to distribute Ski-Doo snowmobiles ("Ski-Doo Distributor/Dealer") in member states of the European Economic Area (which is comprised of the member states of the European Union plus Norway, Iceland and Liechtenstein) ("EEA"), in member states of the Commonwealth of the Independent States (including Ukraine and Turkmenistan) ("CIS") and Turkey from defects in material or workmanship for the period and under the conditions described below.

Non-factory installed parts and accessories are not covered under this limited warranty. Please refer to the applicable parts and accessories limited warranty text.

This limited warranty will become null and void if: (1) the snowmobile was used for racing or any other competitive activity, at any point, even by a previous owner; or (2) the snowmobile has been altered or modified in such a way so as to adversely affect its operation, performance or durability, or has been altered or modified to change its intended use.

LIMITATIONS OF LIABILITY

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY IS EXPRESSLY GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT THAT THEY CANNOT BE DISCLAIMED, THE IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE LIFE OF THE EXPRESS WARRANTIES. INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE EXCLUDED FROM COVERAGE UNDER THIS WARRANTY. SOME JURISDICTIONS DO NOT ALLOW FOR THE DISCLAIMERS, LIMITATIONS AND EXCLUSIONS

IDENTIFIED ABOVE, AS A RESULT, THEY MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS, AND YOU MAY ALSO HAVE OTHER LEGAL RIGHTS WHICH MAY VARY FROM COUNTRY TO COUNTRY.

Neither the Ski-Doo Distributor/Dealer nor any other person has been authorized to make any affirmation, representation or warranty regarding the product, other than those contained in this limited warranty, and if made, shall not be enforceable against BRP.

BRP reserves the right to modify this warranty at any time, being understood that such modification will not alter the warranty conditions applicable to the products sold while this warranty is in effect.

EXCLUSIONS – ARE NOT WARRANTED

The following are not warranted under this limited warranty under any circumstances:

- Normal wear and tear;
- Routine maintenance items, tune ups, adjustments;
- Damage caused by negligence or failure to provide proper maintenance and/or storage, as described in the Operator's Guide;
- Damage resulting from removal of parts, improper repairs, service, maintenance, modifications or use of parts or accessories not manufactured or approved by BRP which in its reasonable judgement are either incompatible with the product or adversely affect its operation, performance and durability, or resulting from repairs done by a person that is not an authorized servicing Ski-Doo Distributor/Dealer;
- Damage caused by abuse, abnormal use, neglect, racing or operation of the product on surfaces other than snow, or operation of the product in a manner inconsistent with the recommended operation described in the Operator's Guide;
- Damage resulting from accident, submersion, fire, snow or water ingestion, theft, vandalism or any act of God;
- Operation with fuels, oils or lubricants which are not suitable for use with the product (see the Operator's Guide);

- Damage resulting from rust, corrosion or exposure to the elements;
- Incidental or consequential damages, or damages of any kind including without limitation towing, transportation expenses, storage, telephone, rental, taxi, inconvenience, insurance coverage, loan payments, loss of time, loss of income or time missed for downtime experience due to service work;
- and damage resulting from studs installed on tracks if the installation does not conform to BRP's instructions.

WARRANTY COVERAGE PERIOD

This warranty will be in effect from (1) the date of delivery to the first retail consumer or (2) the date the product is first put into use, whichever occurs first and for a period of:

TWENTY-FOUR (24) CONSECUTIVE MONTHS, for private use owners and TWELVE (12) CONSECUTIVE MONTHS for commercial use owners. However, the warranty coverage period on a snowmobile delivered between June 1st and December 1st of a given year will expire November 30th of the applicable year. A snowmobile is used commercially when it is used in connection with generating income or any work or employment during any part of the warranty period. A snowmobile is also used commercially when, at any point during the warranty period, it has commercial tags or is licensed for commercial use.

The repair or replacement of parts or the performance of service under this warranty does not extend the life of this warranty beyond its original expiration date.

Note that the duration and any other modalities of the warranty coverage are subject to the applicable national or local legislation in the customer's country.

CONDITIONS TO HAVE WARRANTY COVERAGE

This warranty coverage is available **only** if each of the following conditions has been fulfilled:

- The 2020 Ski-Doo snowmobile must be purchased as new and unused by its first owner from a Ski-Doo Distributor/Dealer authorized to distribute Ski-Doo products in the country in which the sale occurred;
- The BRP specified pre-delivery inspection process must be completed and documented;
- The product must have undergone proper registration by an authorized Ski-Doo Distributor/Dealer;
- The 2020 Ski-Doo snowmobile must be purchased within the EEA by an EEA resident, in the CIS for residents of the countries comprised in such area and in Turkey for residents of Turkey; and
- Routine maintenance outlined in the Operator's Guide must be timely performed in order to maintain warranty coverage. BRP reserves the right to make warranty coverage contingent upon proof of proper maintenance.

BRP will not honour this limited warranty to any private use owner or commercial use owner if one of the preceding conditions has not been met. Such limitations are necessary in order to allow BRP to preserve both the safety of its products, and also that of its consumers and the general public.

WHAT TO DO TO OBTAIN WARRANTY COVERAGE

The customer must cease using the snowmobile upon the appearance of an anomaly. The customer must notify a servicing Ski-Doo Distributor/Dealer within two (2) months of the appearance of a defect, and provide it with reasonable access to the product and reasonable opportunity to repair it. The customer must also present to the authorized Ski-Doo Distributor/Dealer, proof of purchase of the product and must sign the repair/work order prior to starting the repair in order to validate the warranty repair. All parts replaced under this limited warranty become the property of BRP.

Note that the notification period is subject to the applicable national or local legislation in customer's country.

WHAT BRP WILL DO

To the extent permitted by law, BRP's obligations under this warranty are limited to, at its sole discretion, repairing parts found defective under normal use, maintenance and service, or replacing such parts with new genuine Ski-Doo parts without charge for parts and labour, at any authorized Ski-Doo Distributor/Dealer during the warranty coverage period under the conditions described herein. BRP's responsibility is limited to making the required repairs or replacements of parts. No claim of breach of warranty shall be cause for cancellation or rescission of the sale of the snowmobile to the owner. You may have other legal rights which may vary from country to country.

In the event that service is required outside of the EEA, CIS or Turkey, the owner will bear responsibility for any additional charges due to local practices and conditions, such as, but not limited to, freight, insurance, taxes, license fees, import duties, and any and all other financial charges, including those levied by governments, states, territories and their respective agencies.

BRP reserves the right to improve or modify products from time to time without assuming any obligation to modify products previously manufactured.

TRANSFER

If the ownership of a product is transferred during the warranty coverage period, this limited warranty, subject to its terms and conditions, shall also be transferred and be valid for the remaining coverage period provided BRP or an authorized Ski-Doo Distributor/Dealer receives a proof that the former owner agreed to the transfer of ownership, in addition to the co-ordinates of the new owner.

CONSUMER ASSISTANCE

In the event of a controversy or a dispute in connection with this limited warranty, BRP suggests that you try to

resolve the issue at the Ski-Doo Distributor/Dealer level. We recommend discussing the issue with the authorized Ski-Doo Distributor/Dealer's service manager or owner.

If the matter still remains unresolved, contact BRP by filling out the customer contact form at www.brp.com or contact BRP by mail at one of the addresses listed under the *CONTACT US* section of this guide.

* In the EEA, products are distributed and serviced by BRP European Distribution S.A. and other affiliates or subsidiaries of BRP.

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ADDITIONAL TERMS AND CONDITIONS FOR FRANCE ONLY

The following terms and conditions are applicable to products sold in France only:

The seller shall deliver goods that are complying with the contract and shall be responsible for defects existing upon delivery. The seller shall also be responsible for defects resulting from packaging, assembling instructions or the installation when it is its responsibility per the contract or if accomplished under its responsibility. To be compliant with the contract, the good shall:

Be fit for normal use for goods similar thereto and, if applicable:

- Correspond to the description provided by the seller and have the qualities presented to the buyer through sample or model;

- Have the qualities that a buyer may legitimately expect - considering the public declarations of the seller, the manufacturer of its representative, including in advertising or labeling; or

Have the characteristics mutually agreed upon as between the parties or be fit for the specific use intended by the buyer and brought to the attention of the seller and which accepted

The action for failure to comply is prescribed after two years after delivery of the goods. The seller is responsible for the warranty for hidden defects of the good sold if such hidden defects are rendering the good unfit for the intended use, or if they diminish its use in such a way that the buyer would not have acquired the good or would have given a lesser price, had he known. The action for such hidden defects shall be taken by the buyer within 2 years of the discovery of the defect.

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CUSTOMER INFORMATION

PRIVACY INFORMATION

BRP wishes to inform you that your coordinates will be used for safety and warranty related purposes. Furthermore, BRP and its affiliates may use its customer list to distribute marketing and promotional information about BRP and related products.

To exercise your right to consult or correct your data, or to be removed from the addressee-list for direct marketing, please contact BRP.

By E-
mail: **privacyofficer@brp.com**

By
mail: BRP
Senior Legal Counsel-Privacy Officer
726 St-Joseph
Valcourt QC
Canada
J0E 2L0

CONTACT US

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Belgium
Itterpark 11
D-40724 Hilden
Germany
ARTEPARC Bâtiment B
Route de la côte d'Azur, Le Canet
13590 Meyreuil
France
Ingvald Ystgaardsvei 15
N-7484 Tronheim
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Isoaavantie 7
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Spinnvägen 15
903 61 Umeå

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Parque Ind. Querétaro, Lote2-B

76220

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Sturtevant, Wisconsin, U.S.A.

10101 Science Drive

Sturtevant, Wisconsin

53177

U.S.A.

Oceania

6 Lord Street

Lakes Business Park

Botany, NSW 2019

Australia

3B Echelon Place, East Tamaki,

Auckland 2013,

New Zealand

South America

Rua James Clerck Maxwell, 230

TechnoPark Campinas SP 13069-380 Brazil

CHANGE OF ADDRESS/OWNERSHIP

If your address has changed or if you are the new owner of the Snowmobile, be sure to notify BRP by either:

- Notifying an authorized Ski-Doo dealer.
- **North America Only:** calling at 1 888 272-9222.
- Mailing one of the change of address cards on the following pages at one of the BRP addresses indicated in the *CONTACT US* section of this guide.

In case of change of ownership, please join a proof that the former owner agreed to the transfer.

Notifying BRP, even after the expiration of the limited warranty, is very important as it enables BRP to reach the Snowmobile owner if necessary, like when safety recalls are initiated. It is the owner's responsibility to notify BRP.

STOLEN UNITS: If your personal Snowmobile is stolen, you should notify BRP or an authorized Ski-Doo dealer. We will ask you to provide your name, address, phone number, the vehicle identification number and the date it was stolen.

CHANGE OF ADDRESS/OWNERSHIP

CHANGE OF ADDRESS <input type="checkbox"/>	CHANGE OF OWNERSHIP <input type="checkbox"/>	
VEHICLE IDENTIFICATION NUMBER		
Model Number	Vehicle Identification Number (V.I.N.)	
OLD ADDRESS OR PREVIOUS OWNER:	_____ NAME	
	NO.	STREET
	APT	
	CITY	STATE/PROVINCE
	ZIP/POSTAL CODE	
	COUNTRY	TELEPHONE
NEW ADDRESS OR NEW OWNER:	_____ NAME	
	NO.	STREET
	APT	
	CITY	STATE/PROVINCE
	ZIP/POSTAL CODE	
	COUNTRY	TELEPHONE
	E-MAIL ADDRESS	

Iv00A2F

CHANGE OF ADDRESS <input type="checkbox"/>	CHANGE OF OWNERSHIP <input type="checkbox"/>	
VEHICLE IDENTIFICATION NUMBER		
Model Number	Vehicle Identification Number (V.I.N.)	
OLD ADDRESS OR PREVIOUS OWNER:	_____ NAME	
	NO.	STREET
	APT	
	CITY	STATE/PROVINCE
	ZIP/POSTAL CODE	
	COUNTRY	TELEPHONE
NEW ADDRESS OR NEW OWNER:	_____ NAME	
	NO.	STREET
	APT	
	CITY	STATE/PROVINCE
	ZIP/POSTAL CODE	
	COUNTRY	TELEPHONE
	E-MAIL ADDRESS	

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EN-V00A2F-DEC

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CHANGE OF ADDRESS/OWNERSHIP

CHANGE OF ADDRESS <input type="checkbox"/>	CHANGE OF OWNERSHIP <input type="checkbox"/>	
VEHICLE IDENTIFICATION NUMBER		
Model Number	Vehicle Identification Number (V.I.N.)	
OLD ADDRESS OR PREVIOUS OWNER:	_____ NAME	
	NO.	STREET
	APT	
	CITY	STATE/PROVINCE
	ZIP/POSTAL CODE	
	COUNTRY	TELEPHONE
NEW ADDRESS OR NEW OWNER:	_____ NAME	
	NO.	STREET
	APT	
	CITY	STATE/PROVINCE
	ZIP/POSTAL CODE	
	COUNTRY	TELEPHONE
	E-MAIL ADDRESS	

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CHANGE OF ADDRESS <input type="checkbox"/>	CHANGE OF OWNERSHIP <input type="checkbox"/>	
VEHICLE IDENTIFICATION NUMBER		
Model Number	Vehicle Identification Number (V.I.N.)	
OLD ADDRESS OR PREVIOUS OWNER:	_____ NAME	
	NO.	STREET
	APT	
	CITY	STATE/PROVINCE
	ZIP/POSTAL CODE	
	COUNTRY	TELEPHONE
NEW ADDRESS OR NEW OWNER:	_____ NAME	
	NO.	STREET
	APT	
	CITY	STATE/PROVINCE
	ZIP/POSTAL CODE	
	COUNTRY	TELEPHONE
	E-MAIL ADDRESS	

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⚠ WARNING

BEFORE YOU OPERATE THIS VEHICLE, READ THIS OPERATOR'S GUIDE, ALL ON-PRODUCT SAFETY LABELS AND WATCH THE SAFETY VIDEO.



ski-doo LYNX SEA-DOO EVINRUDE ROTAX can-am

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