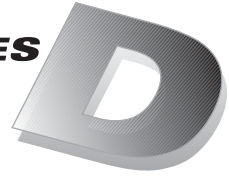




SNOWMOBILES
PREDELIVERY
Bulletin



Date: **August 2nd, 2007**

Subject: **RF Platform**
Predelivery Inspection

No. **2008-2**

YEAR	MODEL	MODEL NUMBER	PREDELIVERY KIT P/N	SERIAL NUMBER
2008	FREESTYLE™ Session™	JA8B	549 011 283	All
	FREESTYLE Park™	JC8B		
	FREESTYLE Backcountry™	JD8A / JD8B / JD8C / JD8D / JD8E		
	TUNDRA® STD	GA8A / GA8B / GA8C	549 011 287	
	EXPEDITION® Sport	KA8A / KB8A		
	TUNDRA LT	GD8A / GE8A	549 011 309	
	LEGEND™ Touring	NB8A / NB8B	549 011 311	

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IMPORTANT NOTICE

This bulletin must be used in conjunction with the check list enclosed in the bag with the *OPERATOR'S GUIDE*. Make sure that *PREDELIVERY CHECK LIST* is completed and signed.

WARNING

To obtain limited warranty coverage, predelivery procedures must be performed by an authorized BRP Ski-Doo snowmobile dealer/distributor. Apply all necessary torques as indicated.

NOTE: The information and components/system descriptions contained in this document are correct at the time of publication. However, Bombardier Recreational Products inc. (BRP), 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, there might be some differences between the manufactured product and the descriptions and/or specifications in this document.

BRP reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations in this document show the typical construction of the different assemblies and may not reproduce the full detail or exact shape of the parts. However, they represent parts that have the same or similar function.

The content of this bulletin is designed as a guideline only. All mechanics performing predelivery procedures should have attended the current model year service training.

Further information or inquiries should be directed to your distributor service representative and/or specific *SHOP MANUAL* sections.

Please complete the *PREDELIVERY CHECK LIST* for each snowmobile and retain a customer signed copy.

Make sure the customer receives the *OPERATOR'S GUIDE*, *PREDELIVERY CHECK LIST* signed copy and *SAFETY VIDEOCASSETTE*.

There is a tag attached to the ignition key, only the customer must remove it. This tag will remind the customer to ask dealer/distributor to perform suspension adjustments according to riding style and vehicle load.

PREDELIVERY KITS**Parts List**

Freestyle Session / Freestyle Park / Freestyle Back country / Tundra STD549 011 283						
Expedition Sport549 011 287						
Tundra LT549 011 309						
Legend Touring.....549 011 311						
ITEM	P/N	DESCRIPTION	QTY			
1	414 916 600	Nylon Cap	2	2	2	2
2	236 282 084	M8 x 20 Torx [†] Head Screw	4	4	4	4
3	233 281 414	M8 Flanged Elastic Nut		2		
4	503 189 564	M10 Flat Washer		2		
5	207 205 586	M10 x 55 Hexagonal Screw (with Scotch-Grip ^{††})		2		
6	570 063 600	Wheel Cap	2	2	2	2
7	505 072 018	Ski Stopper	2			
8	505 070 978	Ski Stopper		2	2	2
9	234 001 410	Flat Washer	2			
10	224 002 251	Flat Washer	4	4	4	4
11	232 500 416	M10 Elastic Stop Nut (thin)	2	2	2	2
12	233 201 414	M10 Flanged Elastic Nut	4	4	4	4
13	207 662 084	M6 x 20 Flanged Hexagonal Screw		1		1
14	506 152 156	Bushing		1		1
15	233 261 494	M6 Flanged Elastic Nut		1		1
16	570 023 800	Windshield Latches	4	4	4	4
17	517 303 197	Windshield Support		2		2
18	510 004 481	Trim Ring		2	2	
19	250 100 053	M8 J-Nut		2	2	
20	510 004 713	Cover		2	2	
21	510 004 883	Spacer (LH Side)	1			
22	510 004 884	Spacer (RH Side)	1			
23	510 004 565	Clamp	2		2	
24	250 000 220	M8 x 45 Socket Head Screw (with nylon patch)	2	2	2	
25	250 000 197	M8 x 30 Torx Head Screw	4	4	4	
26	520 000 272	Bumper End Cap	2	2	2	2

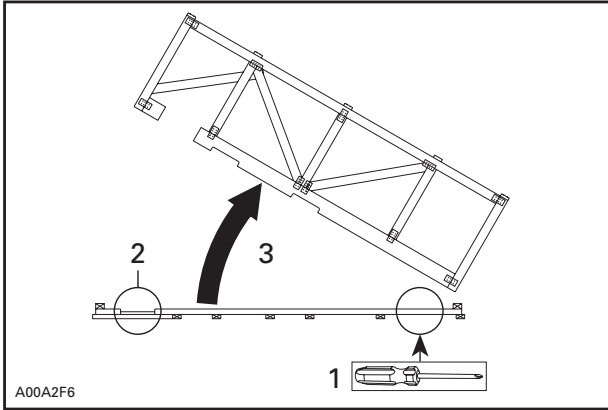
† Torx is a trademark of Textron Inc.
†† Scotch-Grip is a trademark of 3M

UNCRATING

Crate Cover

- Carefully lay the crate on its bottom.

CAUTION: Allowing the crate to drop may cause serious damage to the vehicle.



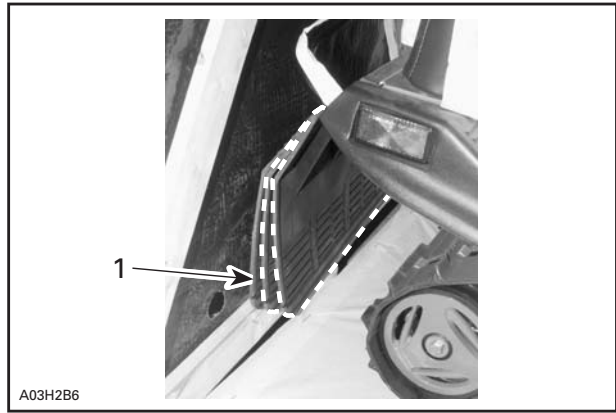
- Remove all screws [1] retaining crate cover to crate base.

NOTE: Screws that are used are Robertson† #2 type that require the use of an appropriate bit (Scrulox #2 from Snap-on†† Tools or ECAR.1 from Facom††† Tools).

- Tilt [3] the crate cover toward the front or the rear of the vehicle.

NOTE: There is a notch [2] at one end of the crate that indicates the front of the vehicle.

- Lift the crate cover slowly to avoid damaging the vehicle.



NOTE: On some models, if cover is tilted toward the front of the vehicle, snow guard may interfere with crate cover, push on snow guard [1] when lifting cover. For crating purpose, snow guard is not installed on Freestyle Session and Freestyle Park.

- Remove protective sheets.
- If applicable, remove from vehicle or crate base:
 - drive belt (engine compartment)
 - windshield
 - bumper
 - skis (discard bolts and washers)
 - steering cap
 - any or all other parts that are not already installed (if applicable).

Crate Brackets

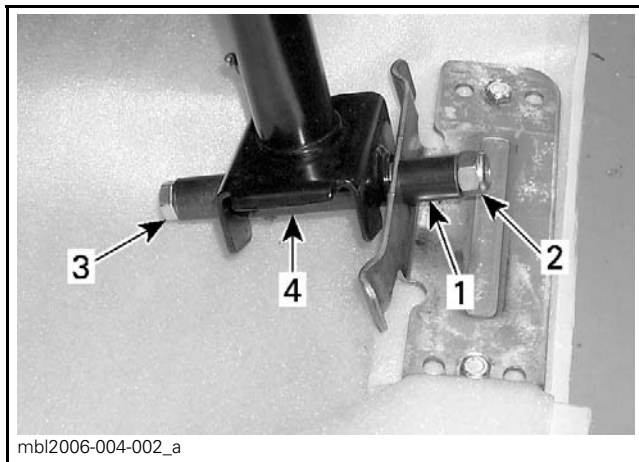
CAUTION: Make sure vehicle is properly supported before removing ski legs and rear suspension from crate brackets.

- Detach ski legs from crate shipping brackets.

† Robertson is a registered trademark of Robertson Inc.

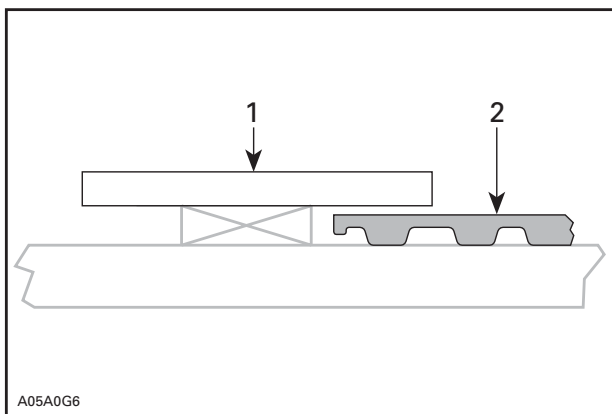
†† Snap-on is a trademark of Snap-on Inc.

††† FACOM is a brand of the International tools Group, subsidiary of FIMALAC.



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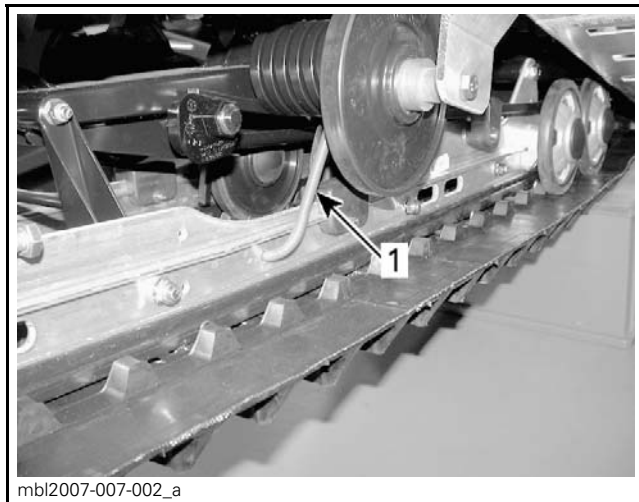
- Discard shipping spacers [1] and nuts [2].
- Keep ski leg bolts [3] and bushings [4].



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- Using a pry bar, remove wood blocks [1] retaining the track [2] to the crate base.
- Remove the vehicle from the crate base.

Model(s): Expedition Sport



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NOTE: Left side torsion spring is not secured onto rail to allow positioning of shipping hook [1].



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- Remove left torsion spring support block from rail; slide onto torsion spring, ensure torsion spring is properly secured at top and then, secure support block back onto rail.

Model(s): Tundra LT

- Reinstall torsion spring support blocks using new M8 flanged elastic nuts (item 3 in *PARTS LIST* of page 3).
- Reinstall both torsion springs back in place using new M10 x 55 hexagonal screws (with scotch-grip), (item 5 in *PARTS LIST* of page 3), with M10 flat washers, (item 4 in *PARTS LIST* of page 3).
- Torque from 42 to 54 N•m (31 to 40 lbf•ft).

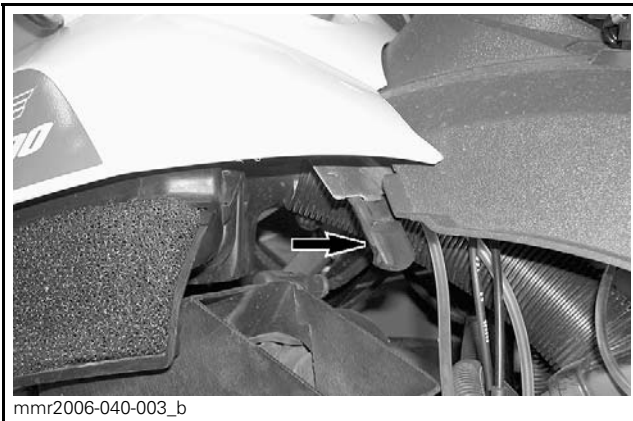
SET-UP

Hood and Side Panels Removal



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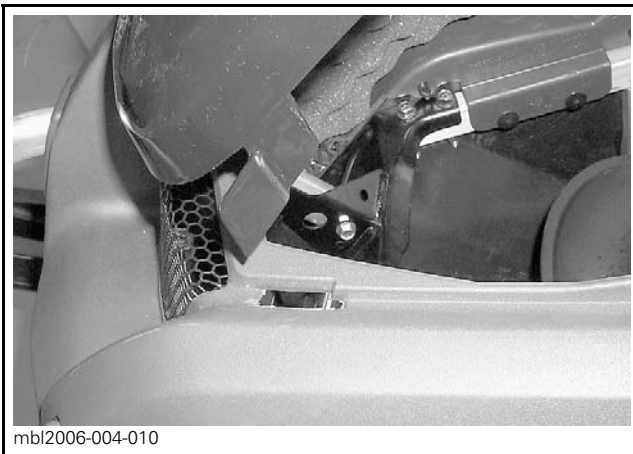
- Unlatch side panels.



- Unlatch hood (one latch on each side).

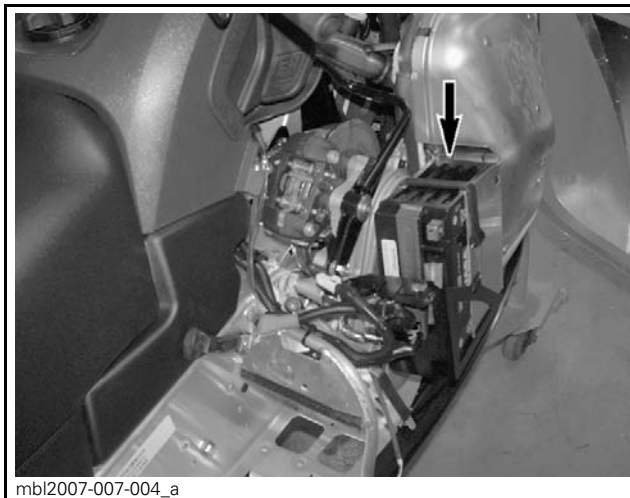


- On right side, unplug hood harness then remove hood from vehicle and set it aside for now.



NOTE: The hood does not have hinges. Lift out hood tabs from bottom pan to remove hood.

Battery (if so equipped)



- Remove battery from its position and proceed with its activation.

Model(s): All except North American

These models are equipped with a sealed valve regulated lead acid (VRLA) battery. It is non-spillable and maintenance reduced — no electrolyte level to be checked and readjusted. The electrolyte is already in the battery.

SUPPLIER P/N	BRP P/N
YTX20L-BS	410 301 203

This 18 amps battery requires a specific charging procedure at predelivery.

- Follow the appropriate procedure as described below.

⚠ WARNING

Always wear safety glasses and charge in a ventilated area. Never charge or boost battery while installed on vehicle. Do not open the sealed caps during charging. Do not place battery near open flame.

CAUTION: If battery becomes hot, stop charging and allow it to cool before continuing.

NOTE: Sealed VRLA batteries have an internal safety valve. If battery pressure increases due to overcharging, the valve opens to release excess pressure, preventing battery damage.

An automatic charger is the fastest and most convenient way for error-proof charging.

Battery Voltage below 12.8 V and above 11.5 V

STANDARD CHARGING (recommended)		
BATTERY TYPE	TIME	CHARGE
YTX20L-BS	4 – 9 hours	2 A
QUICK CHARGING		
BATTERY TYPE	TIME	CHARGE
YTX20L-BS	50 minutes	10 A

Battery Voltage below 11.5 V

Batteries with voltage below 11.5 V require a special procedure to recharge. In charging an overdischarged battery, its internal resistance may be too high to charge at a normal charging voltage. Therefore, it may be necessary to raise the voltage of the battery initially to 25 V as a maximum, and charge for approximately 5 minutes.

If the charger ammeter shows no change in current after 5 minutes, a new battery is needed. Current flowing into the battery at high voltage can become excessive. Monitor amperage and adjust voltage as necessary to keep current at the battery's standard amp rating. Charge for approximately 20 hours.

Model(s): North American

These models are equipped with a sealed valve regulated lead acid (VRLA) battery. It is non-spillable and maintenance reduced — no electrolyte level to be checked and readjusted. This 21 amps battery is not activated and comes with its electrolyte container.

SUPPLIER P/N	BRP P/N
YTX24HL-BS	515 176 448



NOTE: Ensure number on electrolyte dispenser matches battery number before removing strip of caps from dispenser.

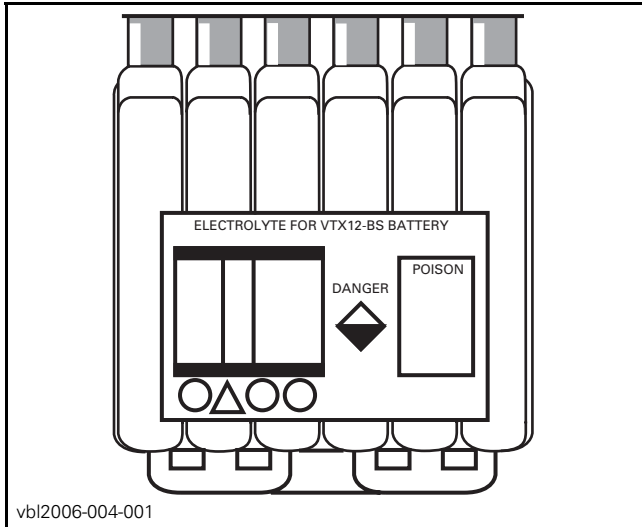
This is a dry type battery that requires no maintenance. An activation and charging of the new battery is necessary.

Activating a sealed VRLA battery is easy, although a little different from conventional activation.

Here are a few things to keep in mind before starting:

- Store the battery in a cool, dry place out of direct sunlight.
- Do not remove the foil sheet covering the filler port until activation.
- After removing the electrolyte container cap strip, do not peel, pierce or otherwise open the sealed electrolyte receptacles. Do not separate the individual cells.

Read electrolyte handling instruction and precautions on the label.



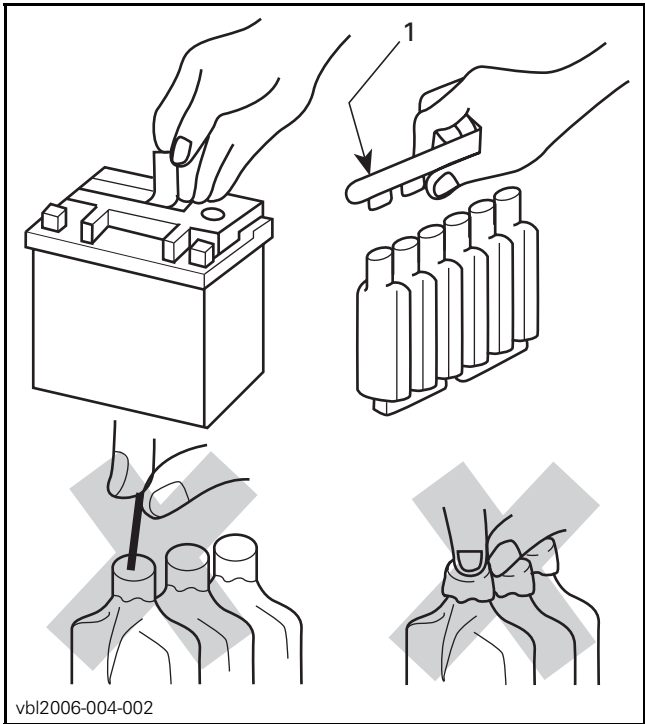
Use only the electrolyte container that comes with the battery. Sealed VRLA battery electrolyte is a higher concentration of sulfuric acid. All sealed VRLA battery electrolyte containers are not the same. Each contains the proper amount of electrolyte for its specific battery.

⚠ WARNING

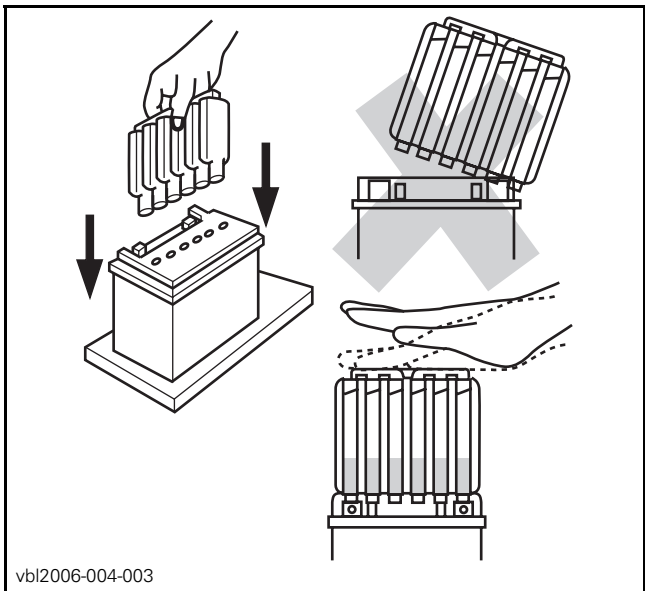
Always wear appropriate gloves and protective goggles. No Smoking. Do not forget safety precautions when storing or handling electrolyte solution.

Activating Battery

- Place the battery on a level surface. Battery must be out of the vehicle.



- Remove electrolyte container from vinyl bag. Remove the strip of caps [1].
- Put the strip aside (will be used later as the battery sealing plug).



- Place electrolyte container, sealed top of the cells down, into the filler ports of the battery.
- Hold the container level, push down to break the seals. You'll see air bubbles as the ports fill. Do not tilt or compress the electrolyte container.

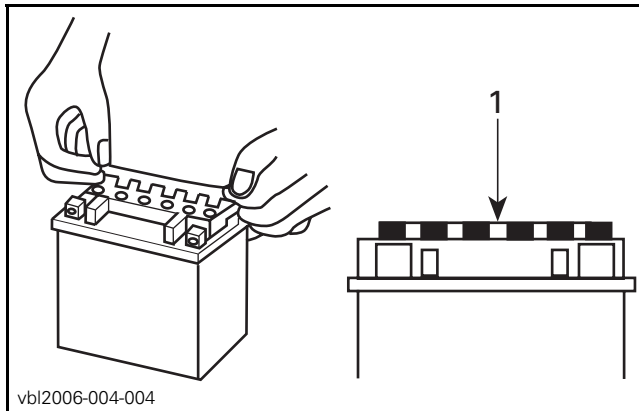
⚠ WARNING

Improper activation or excessive over charging (possibly by equipment failure) could cause damage to the battery or vehicle by forcing acid out of the safety vent.

- Check the electrolyte flow. **Keep the container in place for 20 minutes or longer until it empties completely.** If no air bubbles are coming up from the filler ports, or if container cells have not emptied completely, tap the container a few times. Do not remove the container from the battery until it is empty. The battery requires all the electrolyte from the container for proper operation.
- Remove the container. This allows the electrolyte to permeate into the plates for optimum performance. Yuasa[†] sealed VRLA batteries have the amp hours printed right on the front of the battery.

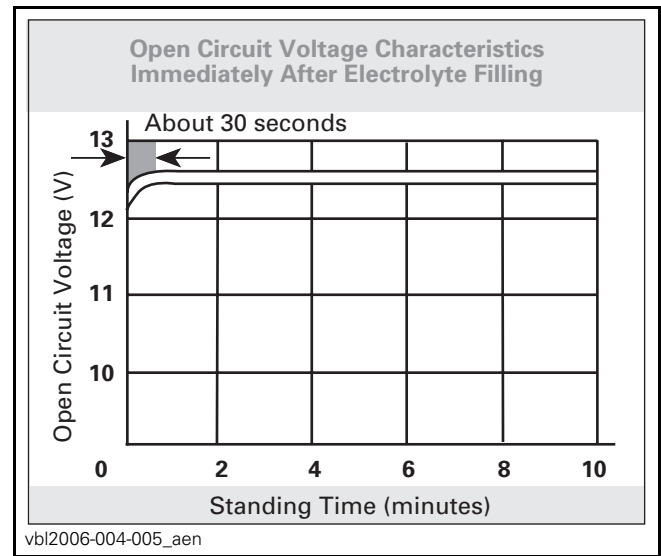
For batteries 3 - 12 A and greater than 12 A, let stand for at least 1 HOUR.

NEWLY ACTIVATED SEALED VRLA BATTERIES REQUIRE AN INITIAL CHARGE. After adding electrolyte, a new battery is approximately 80% charged.



- Place cap strip [1] loosely over the filling holes as shown. Immediately charge the battery after the "stand" period, to bring it to a full state of charge. Refer to "Charging a Newly Activated Sealed VRLA Battery" below.
- After charging is completed, press down firmly with both hands to seat the caps (do not pound or hammer).

The battery is sealed. There is no need to remove the strip of caps or add electrolyte for the life of the battery.

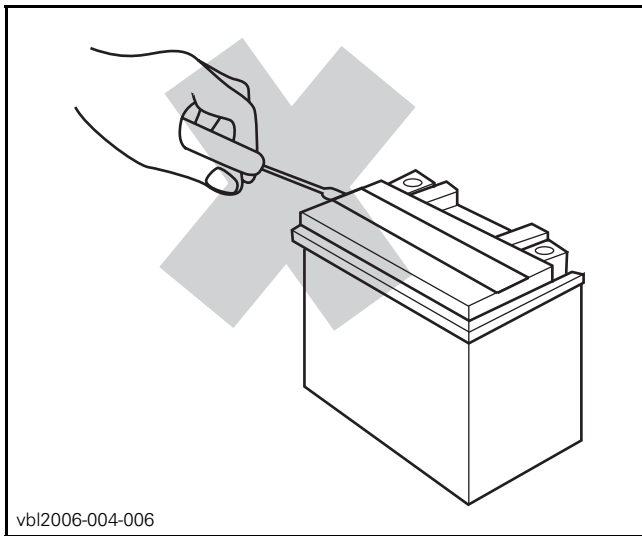


The graph shows an open circuit voltage characteristic of a sealed VRLA battery just after the electrolyte is filled.

If the battery is only filled with electrolyte, but not being given a supplementary charge, the open circuit voltage will be somewhere around 12.5 to 12.6 V, as shown in the graph. The reasons for the voltage being low are that:

- The capacity reached by filling with electrolyte is about 80% of the fully charged capacity.
- The electrolyte around the plates gets its concentration lowered temporarily.

[†] Yuasa is a registered trademark of Yuasa Battery Inc.



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CAUTION: Remember that unlike a conventional battery, the sealed VRLA battery won't be topped off during its life. Never pry off sealing caps: it is dangerous and damaging.

Charging a Newly Activated Sealed VRLA Battery

Sealed VRLA batteries require an initial charge.

- If you are using a constant current charger, refer to the standard (STD) charging method printed on the battery.



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- If you are using an automatic type taper charger, check to make sure that the charger current (amps) is equal to or greater than the standard (STD) charging method listed on the battery.

NOTE: These batteries are a sealed VRLA construction; **NEVER REMOVE THE SEALING STRIP AFTER CHARGING IS COMPLETED!** If the battery gets very hot to the touch, cease charging and allow battery to cool down. Check voltage using a voltmeter. Reading for a charged, newly-activated battery should be 12.8 volts or higher after the battery is charged and **sits for at least 1 – 2 hours.** If less, it needs an additional charge.

Sealed VRLA Battery Routine Charging

The single most important thing to maintaining a VRLA battery is *not to let it sit discharged*. Keep it fully charged. A sealed VRLA battery should be kept to near fully charged for peak performance. In fact, it could need charging more often than a car battery because it's probably not used routinely and, therefore, not "automatically" charged.

Use the following guidelines for boost charge. Always verify battery condition before charging, and 30 minutes after charging.

- A fully charged battery should read 12.8V or higher after battery has been off the charger 1 - 2 hours.

CAUTION: Overcharging can harm the battery beyond recovery.

It is not recommended to overcharge sealed VRLA batteries. Because of their characteristics, too much of a boost charge will decrease the volume of electrolyte. The longer the overcharge time, the greater the drop in electrolyte – and starting power.

Stage of charge	Voltage	Action	Charging time*
100%	12.8 – 13.0	None Check at 3 months from date of manufacture	None required
75% – 100%	12.5 – 12.8	May need slight charge, if no charge given, check in 3 months	3 – 6 hours
50% – 75%	12 – 12.5	Need charge	5 – 11 hours
25% – 50%	11.5 – 12	Need charge	At least 13 hours verify state of charge
0% – 25%	11.5 or less (see instructions below)	Need charge	20 hours

* Using a constant current charger at standard amps specified on the battery. Charging times can vary depending on type of charger. Follow the charger's instructions.

CAUTION: Water cannot be added to the sealed VRLA battery to make up the difference. Overcharging can warp plates, making future charging difficult or impossible. Watch charging times carefully, or ideally, use a Yuasa Automatic Charger. Always stop charging if the battery becomes really warm to the touch. Let it cool down 6 - 12 hours and resume charging.

WARNING

Always wear protective goggles and charge in a well ventilated area. If battery gets really warm to the touch, discontinue charging and allow battery to cool down. No sparks, flames or smoking when charging.

Charging Instructions for Sealed VRLA Batteries with Voltage of 11.5 or Less

Batteries with voltage below 11.5 V may require special equipment and procedures to recharge. In charging an over discharged battery having a terminal voltage of 11.5 V or lower, its internal resistance may be too high to charge at a normal charge voltage.

Therefore, it may be necessary to raise the voltage of the battery initially (25 V as a maximum), and charge for approximately 5 minutes. If the ammeter shows no change in current after 5 minutes, a new battery is needed. Current flowing into the battery at high voltage can become excessive. Monitor amperage and adjust voltage as necessary to keep current at the battery's standard amp rating. Charge for approximately 20 hours.

- Clean battery post with a wire brush (if necessary).
- Secure RED (+) cable to battery post.

WARNING

Always connect RED (+) cable first.

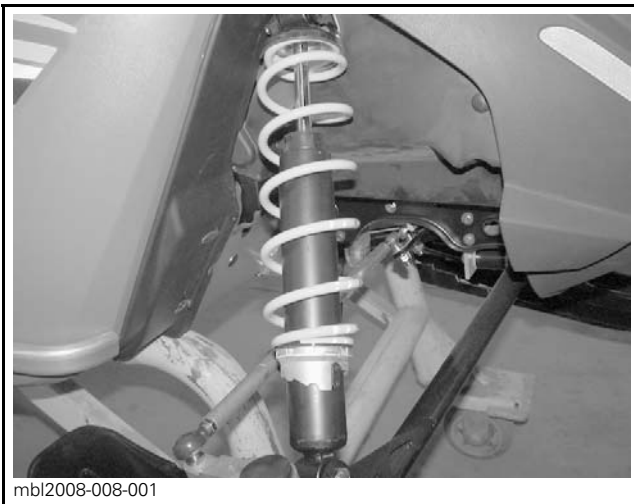
- Apply dielectric grease on post to protect against oxidation.
- Cover battery positive post with rubber boot.
- Secure BLACK (-) cable to battery post.
- Apply dielectric grease on post to protect against oxidation.

Front Shock Absorbers

Model(s): All



- Remove and keep upper and lower bolts.
- Discard circlip and steel bar.



RIGHT SIDE SHOWN

- Install shock absorbers using kept bolts and M10 flanged elastic nuts (item 12 in *PARTS LIST* of page 3).

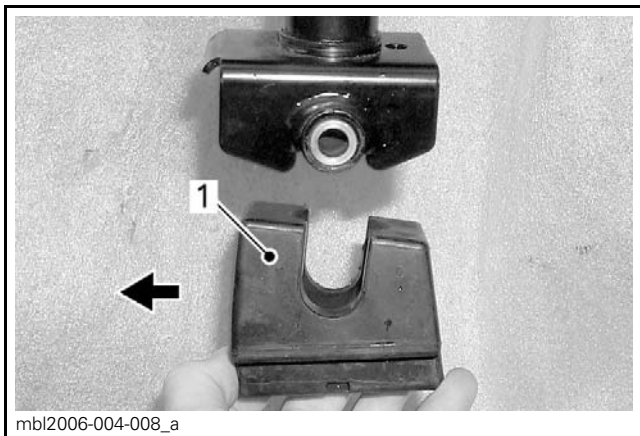
NOTE: Install bolts with head pointing toward the front of vehicle.

- Torque flanged elastic nuts to 48 N•m (35 lbf•ft).



- Inside front compartment, install nylon caps (item 1 in *PARTS LIST* of page 3), to block hole left open to reach front shock absorber upper bolt.

Skis



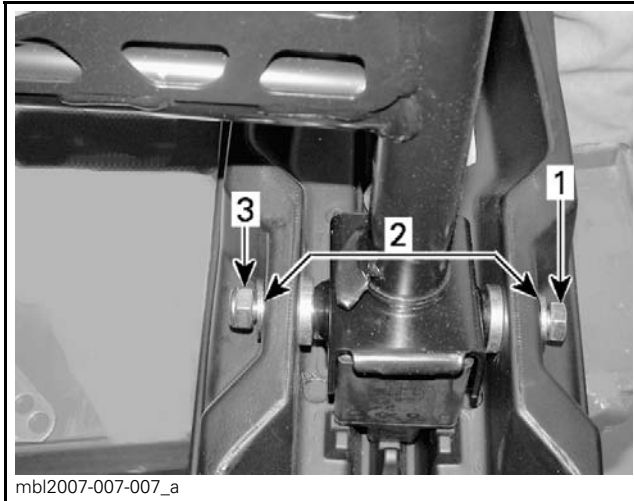
Model(s): All except Legend Touring

- Position ski stoppers (item 8 in *PARTS LIST* of page 3) under ski legs, with longer side [1] towards front (bold arrow points toward front).

Model(s): Legend Touring

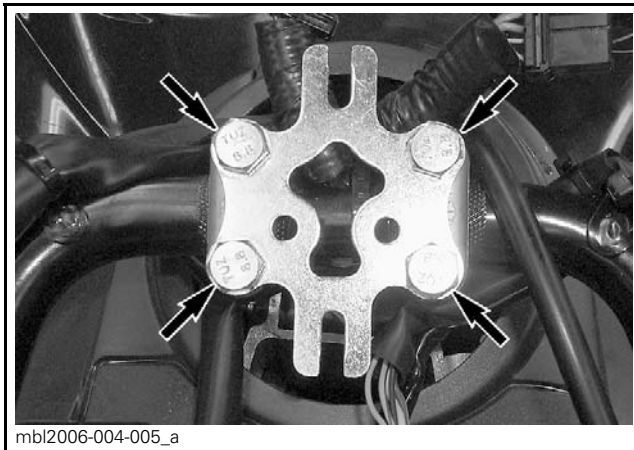
- Position ski stoppers (item 7 in *PARTS LIST* of page 3) under ski legs, with longer side [1] towards front (bold arrow points toward front).

Model(s): All

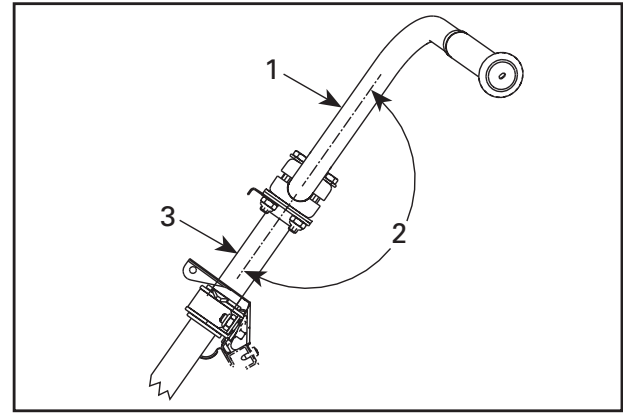


- Secure skis to ski legs using:
 - 2 hexagonal bolts M10 x 110 [1] (previously removed) with flat washers [2] (item 10 in *PARTS LIST* of page 3), one under bolt head and one before elastic stop nut.
 - 2 M10 elastic stop nuts [3] (item 11 in *PARTS LIST* of page 3).
- Torque elastic stop nuts [3] to 32 N•m (24 lbf•ft).

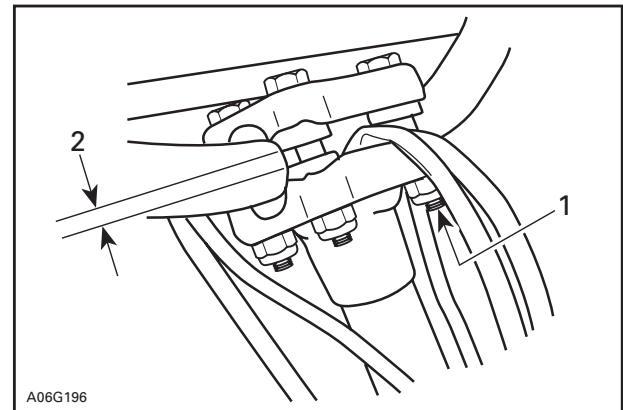
Handlebar



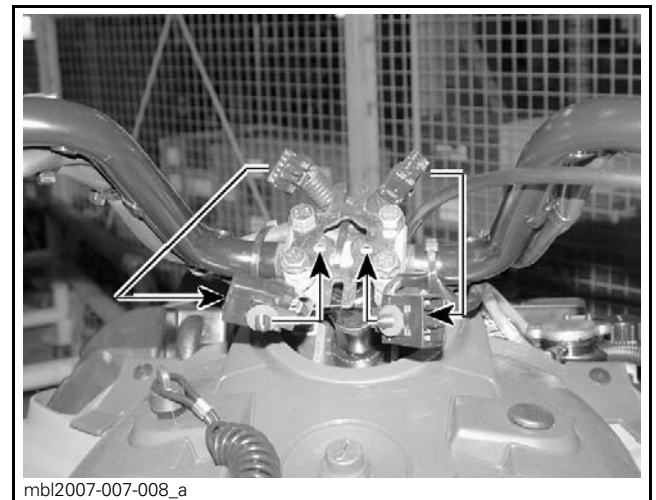
- Loosen 4 handlebar bolts.



- Rotate the handlebar [1] upward until it is aligned [2] with the steering shaft [3].



- Torque handlebar nuts [1] to 26 N•m (19 lbf•ft).
- NOTE:** Gap [2] must be equal on both sides (both clamps).



- Connect and install connectors on reinforcement plate. Insert connector pins into plate holes.

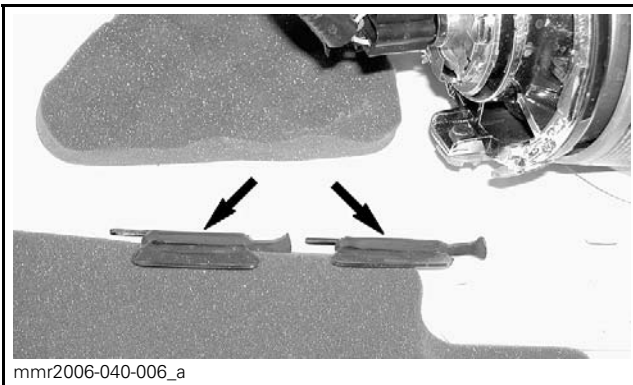
Steering Cover



- Install the steering cover on the handlebar.

Windshield

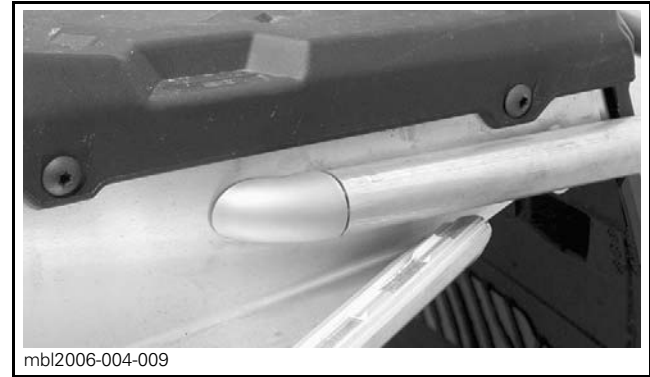
- Get hood (previously set aside).
- Install windshield by pushing its plastic pins through rubber grommets on hood.



- Turn hood up side down and install windshield latches (item 16 in *PARTS LIST* of page 3).
- Reinstall hood.

Rear Bumper

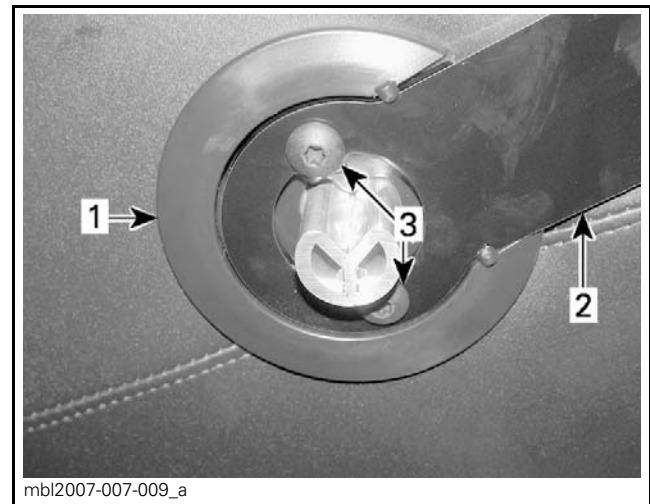
Model(s): All



- Insert caps (item 26 in *PARTS LIST* of page 3) in both rear bumper end openings.
- Using four (4) M8 x 20 Torx head screws (item 2 in *PARTS LIST* of page 3), secure rear bumper to frame.
- Torque M8 x 20 Torx head screws to 15 N•m (133 lbf•in).

Seat Backrest

Model(s): Expedition Sport / Tundra LT

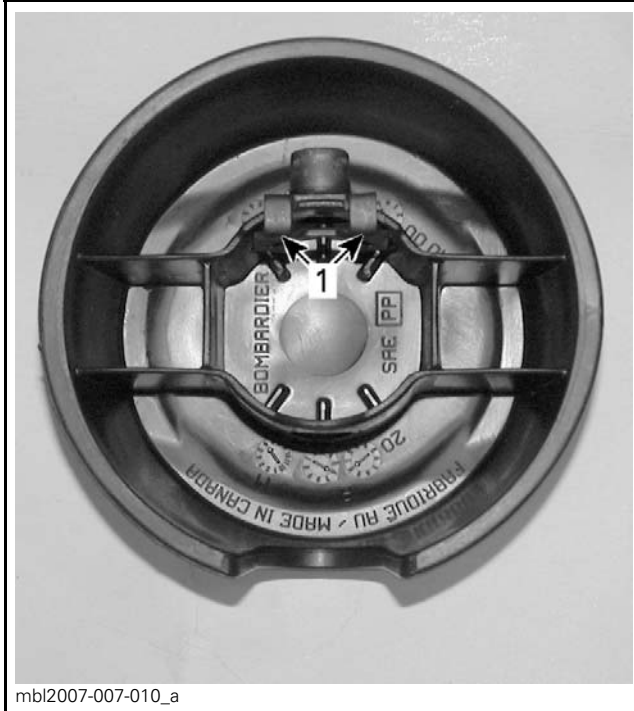


- Index trim ring [1], (item 18 in *PARTS LIST* of page 3), onto backrest arm [2] on both sides and align arms at their proper position on each side of the seat.

Model(s): Expedition Sport / Tundra LT / Legend Touring

- Secure backrest in place using M8 x 30 Torx head screws, (item 25 in *PARTS LIST* of page 3), 2 on each side.

Model(s): Expedition Sport / Tundra LT



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- Insert an M8 J-nut [1], (item 19 in *PARTS LIST* of page 3), inside each cover (item 20 in *PARTS LIST* of page 3).

Model(s): Expedition Sport / Legend Touring

- Install cover on each side using a clamp, (item 23 in *PARTS LIST* of page 3), retained to backrest shaft by an M8 x 45 socket head screw (with nylon patch), (item 24 in *PARTS LIST* of page 3), screwed in by underneath.

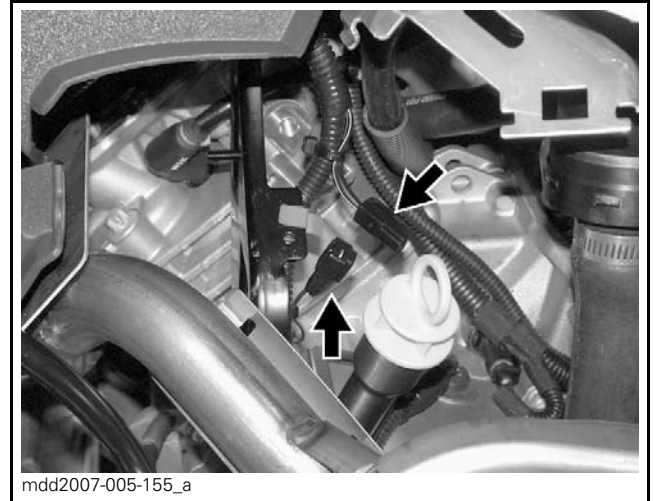
NOTE: It might be required to slightly widen clamp opening so it sits properly inside cover.

Snow Guard

Model(s): Freestyle Session / Freestyle Park

- Install snow guard in place, using rivets by underneath with flat washer outside.

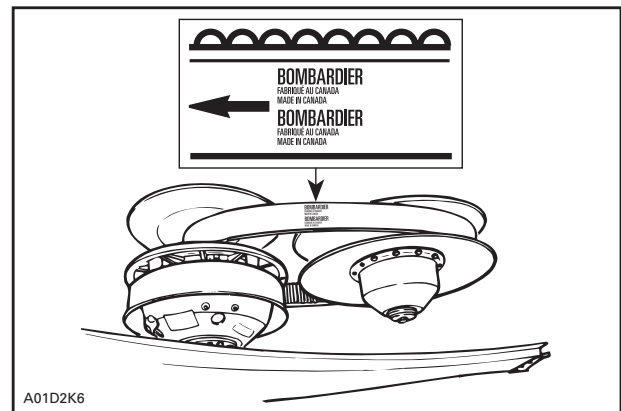
Ending a B.U.D.S Session



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Since there is no DESS, it is recommended to disconnect the «track connector» to end a B.U.D.S. session quicker. It could also be ended without disconnecting the «track connector» but it will then take longer (approximately 45 seconds longer).

Drive Belt



At factory a protective coating for shipping purpose is applied on pulleys and disc brake. This protective coating must be removed at predelivery.

- Clean pulleys and brake disc with a suitable cleaner such as pulley flange cleaner (P/N 413 711 809) before installing drive belt.
- Make sure that drive belt entire travel surface is clean; open and separate driven pulley halves as required for cleaning.

CAUTION: Do not install a new drive belt without properly cleaning pulleys; arrow on drive belt indicates direction of rotation.

FINAL PREPARATION

Break-In Period

Model(s): with a 2-stroke engine

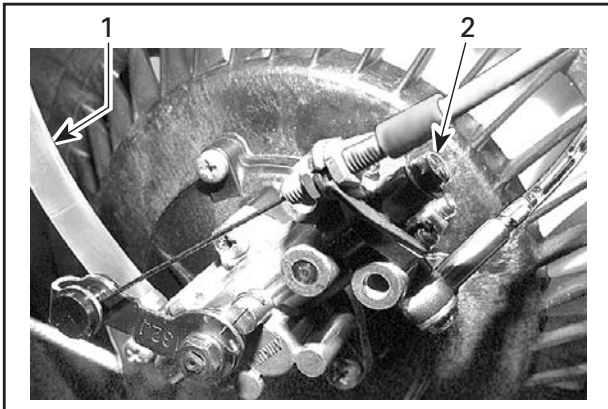
To assure additional protection during initial engine break-in, 500 mL (18 imp. oz) of XP-S mineral injection oil (P/N 413 802 900) should be added to fuel for first full filling of fuel tank.

NOTE: Always remove and clean spark plugs after engine break-in.

Oil Pump Bleeding Procedure

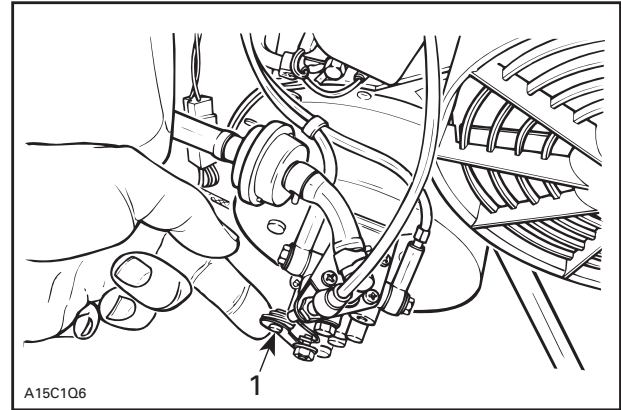
Model(s): with a 2-stroke engine

NOTE: Oil pump bleeding have been performed at factory. However, it is recommended to verify that no air bubble remains in lubrication system.



- Bleed main oil line [1] (between tank and pump) by loosening bleeder screw [2] until all air has escaped from line.

CAUTION: If air remains in lines, oil may not flow freely and thus, damages to engine will occur.



- Bleed small line between pump and intake manifold by running engine at idle while holding pump lever in fully open position [1].
- Check also for proper oil level adjustment.
- Mark on oil pump lever must stand from 0 to 2 mm (0 to 5/64 in) over mark on pump body when throttle lever is activated just enough to take all cable play.

Speedometer

Speedometer configuration for RF platform, V-800 engine units, is in kilometers; should it be requested in miles, here is the procedure to modify configuration.



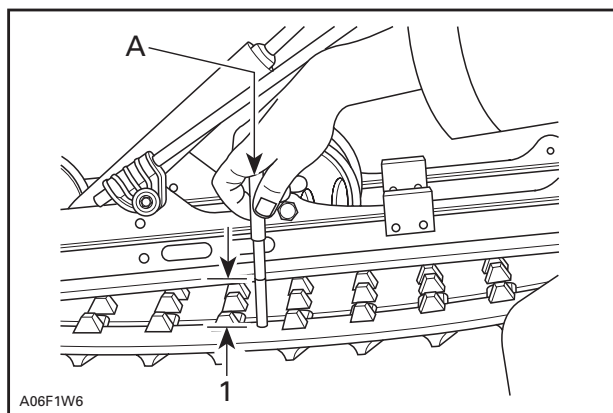
In engine compartment near gauges, a black connector is **CONNECTED**, therefore, offering the speedometer reading in kilometers. Should reading be requested in miles, simply **DISCONNECT** the black connector.

Track Adjustment

NOTE: It is recommended to ride the snowmobile in snow 15 to 20 minutes prior to adjusting track tension.

- Lift rear of vehicle and support with a mechanical stand.
- Allow the suspension to extend normally.

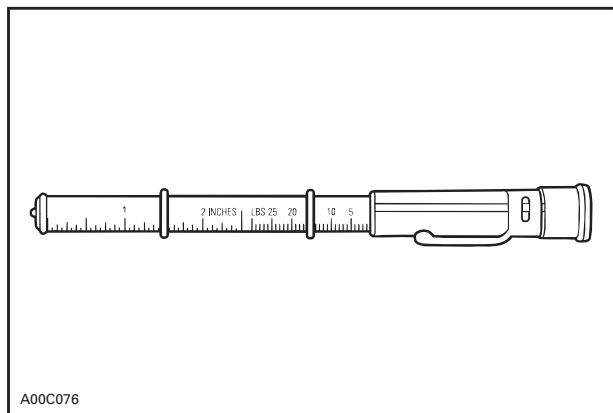
NOTE: If track is too loose, it will have a tendency to thump.



- With a force [A] of 7.4 kg (16 lb), check track deflection [1] half-way along slider shoe.

Track deflection	minimum 30 mm (1.181 in) — maximum 35 mm (1.378 in)
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CAUTION: Too much tension will result in power loss and excessive stresses on suspension components.



NOTE: A belt tension tester (P/N 414 348 200) may be used to measure deflection as well as force applied.

If track adjustment is needed proceed as follows:

- Loosen rear idler wheel retaining bolts.
- Turn adjustments screws to adjust.

- Retighten idler wheel bolts.
- Install idler wheel caps (item 6 in *PARTS LIST* of page 3).

DELIVERY TO CUSTOMER

Vehicle Cleaning

Model(s): All

- Wash and dry the vehicle.

CAUTION: Never use a high pressure washer to clean the vehicle. The high pressure can cause electrical or mechanical damages.

- Clean vinyl or plastic parts, using flannel clothes with BRP Vinyl & Plastic Cleaner (P/N 413 711 200).

CAUTION: It is necessary to use flannel clothes on plastic parts to avoid damaging surfaces. Never clean plastic parts with strong detergent, degreasing agent, paint thinner, acetone, products containing chlorine, etc.

- To clean the entire vehicle, including metallic parts use BRP Cleaner (P/N 293 110 001 (400 g) or 293 110 002 (4 L)).

Vehicle Delivery

Model(s): All

- Complete the *PRE DELIVERY CHECK LIST*.
- Test run the vehicle.
- Give *OPERATOR'S GUIDE* and *SAFETY DVD* to customer.
- The customer must read and sign the *PRE DELIVERY CHECK LIST*.

SPECIFICATIONS

Technical Data

MODEL		Freestyle	Tundra
		Session (JA8B)	STD (GA8A/GA8B/GA8C)
		300 F	
ENGINE			
Engine type		277	
Number of cylinder		1	
Displacement		cm ³ (in ³) 268.70 (16.397)	
Compression ratio		11.2 ± 0.5	
Maximum power engine speed		± 100 RPM 6950	
COOLING SYSTEM			
Type		Fan	
Axial fan belt adjustment	Deflection	mm (in)	9.5 ± 1.5 (.374 ± .059)
	Force	kgf (lbf)	5.0 (11.0)
LUBRICATION SYSTEM			
Injection oil	Type	XP-S mineral injection oil	
	Quantity	L (U.S. oz)	3.5 (118.4)
FUEL SYSTEM			
Carburetor type		VM34	
Idle speed		± 200 RPM 1650	
Gas type		Unleaded	
Pump octane number	Inside North America ((R+M)/2)		87 or higher
	Outside North America (RON)		92 or higher
Fuel tank capacity		L (U.S. gal)	34 (9)
ELECTRICAL SYSTEM			
Magneto generator output		340 W @ 6000 RPM	
Ignition type		CDI	
Spark plug	Make and type		NGK BR9ES
	Gap	mm (in)	0.40 to 0.50 (.016 to .020)
Battery		12 V, 18 A•h (if applicable)	
Headlamp		W	60/55 (H4)
Taillight and stoplight		W	8/26
Fuse	Starter solenoid	A	30 (if applicable)

MODEL		Freestyle	Tundra
		Session (JA8B)	STD (GA8A/GA8B/GA8C)
		300 F	
DRIVE SYSTEM			
Chaincase oil	Type	XP-S synthetic chaincase oil	
	Quantity	mL (U.S. oz) 250 (8.5)	
Drive pulley type		Bombardier Lite	
Drive pulley calibration	Clutch engagement	± 100 RPM 3300	
Driven pulley	Type	LPV 27	
Drive belt adjustment	Deflection	mm (in) 32 ± 5 (1.260 ± .197)	
	Force	kgf (lbf) 11.34 (25)	
Track	Width	mm (in) 381 (15)	406.4 (16)
	Length	m (in) 3.08 (121)	3.46 (136)
	Profile height	mm (in) 18.4 (.725) (EUR): 22.2 (.875)	31.8 (1.25)
Track adjustment	Deflection	mm (in) 30 to 35 (1.181 to 1.378)	
	Force	kgf (lbf) 7.3 (16)	
BRAKE SYSTEM			
Brake fluid	Type	DOT 4	
	Quantity	mL (U.S. oz) 60 (2.0)	
SUSPENSION			
<i>FRONT</i>			
Suspension type		Single A-arm	
Shock absorber type		Motion control	
REAR			
Suspension type		SC 4	SC 136
Shock absorber type	Center	Motion control	
	Rear	Motion control (EUR): H.P.G.	H.P.G.
STEERING SYSTEM			
Toe-out		mm (in) 5 (.197)	
Camber		0°	
VEHICLE INFORMATIONS			
Mass (dry)	kg (lb)	167 (368)	172 (379)
Length	m (in)	2.85 (112)	3.03 (119) (EUR): 3.09 (122)
Width	m (in)	0.97 (38)	1.00 (39.4)
Height	m (in)	1.17 (46)	1.30 (51)
Ski stance (carbide to carbide)		m (in) 0.82 (32)	
MATERIAL			
Frame		Aluminum	
Bottom pan / Trunk		Polypropylene	
Hood / Side panels / Console		Polyethylene HDPE	

SPECIFICATIONS

MODEL	Freestyle		Tundra	Expedition
	Park (JC8B)	Back country (JD8A/JD8B/JD8C/ JD8D/JD8E)	LT (GD8A)	Sport (KA8A)
	550 F			
ENGINE				
Engine type	552			
Number of cylinder	2			
Displacement	cm ³ (in ³)	553.40 (33.771)		
Compression ratio	10.50 ± 0.5			
Maximum power engine speed	± 100 RPM	6900	6950	
COOLING SYSTEM				
Type	Fan			
Axial fan belt adjustment	Deflection	mm (in)	9.5 ± 1.5 (.374 ± .059)	
	Force	kgf (lbf)	5.0 (11.0)	
LUBRICATION SYSTEM				
Injection oil	Type	XP-S mineral injection oil		
	Quantity	L (U.S. oz)	3.5 (118.4)	
FUEL SYSTEM				
Carburetor type	VM30			
Idle speed	± 200 RPM	1650		
Gas type	Unleaded			
Pump octane number	Inside North America ((R+M)/2)		87 or higher	
	Outside North America (RON)		92 or higher	
Fuel tank capacity	L (U.S. gal)	34 (9)		
ELECTRICAL SYSTEM				
Magneto generator output	340 W @ 6000 RPM			
Ignition type	CDI			
Spark plug	Make and type		NGK BR9ES	
	Gap	mm (in)	0.40 to 0.50 (.016 to .020)	
Battery	12 V, 18 A•h (if applicable)			
Headlamp	W	60/55 (H4)		
Taillight and stoplight	W	8/26		
Fuse	Starter solenoid	A	30 (if applicable)	

MODEL	Freestyle		Tundra	Expedition
	Park (JC8B)	Back country (JD8A/JD8B/JD8C/JD8D/JD8E)	LT (GD8A)	Sport (KA8A)
	550 F			
DRIVE SYSTEM				
Chaincase oil	Type	XP-S synthetic chaincase oil		
	Quantity mL (U.S. oz)	250 (8.5)		
Drive pulley type	Bombardier Lite			
Drive pulley calibration	Clutch engagement \pm 100 RPM	3300	2700	
Driven pulley	Type	LPV 27		
Drive belt adjustment	Deflection mm (in)	32 \pm 5 (1.260 \pm .197)		
	Force kgf (lbf)	11.34 (25)		
Track	Width mm (in)	381 (15)	406.4 (16)	
	Length m (in)	3.08 (121)	3.46 m (136 in)	
	Profile height mm (in)	31.8 (1.25)	31.8 (1.25)	
Track adjustment	Deflection mm (in)	30 to 35 (1.181 to 1.378)		
	Force kgf (lbf)	7.3 (16)		
BRAKE SYSTEM				
Brake fluid	Type	DOT 4		
	Quantity mL (U.S. oz)	60 (2.0)		
SUSPENSION				
<i>FRONT</i>				
Suspension type	Single A-arm			
Shock absorber type	H.P.G.	Motion Control	H.P.G.	Motion Control
<i>REAR</i>				
Suspension type	SC 4	SC 136		
Shock absorber type	Center	H.P.G.	Motion Control	H.P.G. Motion Control
	Rear	H.P.G.	Motion Control	H.P.G. Motion Control
STEERING SYSTEM				
Toe-out mm (in)	5 (.197)			
Camber	0°			
VEHICLE INFORMATIONS				
Mass (dry) kg (lb)	186 (410)	197 (434)	188 (414)	218 (481)
Length m (in)	2.85 (112)	3.03 (119) (EUR) 3.09 (122)	3.03 (119) (EUR) 3.09 (122)	
Width m (in)	1.13 (44.6)			
Height m (in)	1.14 (45)	1.17 (46)	1.14 (45)	1.30 (51)
Ski stance (carbide to carbide) m (in)	0.99 (39) (EUR) 0.96 (37.7)	0.99 (39)	0.99 (39) (EUR) 0.96 (37.7)	
MATERIAL				
Frame	Aluminum			
Bottom pan / Trunk	Polypropylene			
Hood / Side panels / Console	Polyethylene HDPE			

SPECIFICATIONS

MODEL	Legend		Tundra	Expedition	
	Touring (NB8A/NB8B)		LT (GE8A)	Sport (KB8A)	
	V-800				
ENGINE					
Engine type	ROTAX V-810 4-stroke, Single Over Head Camshaft (SOHC), liquid cooled				
Number of cylinders	2				
Displacement	800 cm ³ (48.82 in ³)				
Compression ratio	10.3:1				
Maximum HP RPM	RPM	7250			
COOLING SYSTEM					
Coolant	Type	Ethyl glycol and distilled water (50%/ 50%). Use premix coolant from BRP (P/N 219 700 362) or coolant specifically formulated for aluminum engines			
	Quantity L (U.S. gal.)	4.00 (1.06)	3.8 (1)	4.00 (1.06) 4.00 (1.06)	
LUBRICATION SYSTEM					
Lubrication	Type	Wet sump. Replaceable oil filter			
	Oil filter	BRP Rotax paper type, replaceable			
	Engine oil	Capacity (oil change with filter)	2 L (2.11 quarts)		
		Recommended	XP-S 0W40 synthetic oil or an equivalent		
FUEL SYSTEM					
Throttle body type	Dell'Orto				
Idle speed	± 200 RPM	1400			
Gas type	Unleaded				
Pump octane number	Inside North America ((R+M)/2)	87 or higher			
	Outside North America (RON)	92 or higher			
Fuel tank capacity	L (U.S. gal)	34 (9)			
ELECTRICAL SYSTEM					
Magneto generator output	W	420 @ 6000 RPM			
Ignition type	CDI (Capacity Discharge Ignition)				
Spark plug	Make and type	NGK DCPR8E			
	Gap mm (in)	0.75 (.0303)			
Battery	12 V, 18 A•h (with electric starter)				
Headlamp	W	60/55 (H4)			
Taillight and stoplight	W	8/26			
Fuse	Starter solenoid	A	30 (if applicable)		

MODEL	Legend		Tundra	Expedition		
	Touring (NB8A/NB8B)		LT (GE8A)	Sport (KB8A)		
	V-800					
DRIVE SYSTEM						
Chaincase oil	Type	XP-S synthetic chaincase oil				
	Quantity	mL (U.S. oz)	250 (8.5)			
Drive pulley type	TRA IV					
Drive pulley calibration	Clutch engagement	± 100 RPM	2100			
Driven pulley type	Type	LPV VSA				
Drive belt adjustment	Deflection	mm (in)	32 ± 5 (1.260 ± .197)			
	Force	kgf (lbf)	11.30 (24.91)			
Track	Width	mm (in)	381 (15) (EUR): 406.4 (16)	381 (15)	406.4 (16)	406.4 (16)
	Length	m (in)	3.46 (136)	3.07 (121)	3.46 (136)	3.46 (136)
	Profile height	mm (in)	22.2 (.874) (EUR): 31.8 (1.25)	22.2 (.874)	31.8 (1.25)	31.8 (1.25)
Track adjustment	Deflection	mm (in)	30 to 35 (1.181 to 1.378)			
	Force	kgf (lbf)	7.3 (16)			
BRAKE SYSTEM						
Brake fluid	Type	DOT 4				
	Quantity	mL (U.S. oz)	60 (2.0)			
SUSPENSION						
<i>FRONT</i>						
Suspension type	Single A-arm					
Shock absorber type	Motion control					
<i>REAR</i>						
Suspension type			SC-136	SC-4	SC-136	SC-136
Shock absorber type	Center	Motion control				
	Rear	H.P.G.	Motion control	H.P.G.	Motion control	
STEERING SYSTEM						
Toe-out	mm (in)	5 (.197)				
Camber	0°					
VEHICLE INFORMATIONS						
Mass (dry)	kg (lb)	231 (509)	222 (489)	222 (489)	231 (509)	
Length	m (in)	3.03 (119) (EUR): 3.09 (122)	2.85 (112)	3.03 (119)	3.03 (119)	
Width	m (in)	1.13 (44.6) (EUR): 1.17 (45.9)	1.13 (44.6)			
Height	m (in)	1.30 (51)	1.245 (49)	1.30 (51)		
Ski stance (carbide to carbide)	m (in)	0.99 (39)		0.82 (32)	0.99 (39)	
MATERIAL						
Frame	Aluminum					
Bottom pan / Trunk	Polypropylene					
Side panels / Hood Console	Polyethylene HDPE					