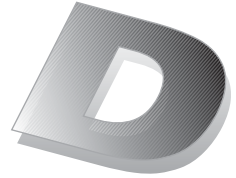




ATV
PREDELIVERY
Bulletin



June 9, 2010

Subject: **Predelivery Inspection Can-Am™**
Outlander™ and Renegade™ Series
(except Outlander X™ mr)

No. **2011-4**

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2011	Outlander Series (except X mr)	Refer to table on next pages for complete listing	All
	Renegade Series		

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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 warranty coverage, pre delivery procedures must be performed by an authorized BRP Can-Am ATV 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. 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, 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 pre delivery procedures should have attended the current model-year service training.

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

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

Make sure the customer receives the *OPERATOR'S GUIDE*, *PRE DELIVERY CHECK LIST* signed copy and *SAFETY DVD*.

WARNING

Torque wrench tightening specifications must be strictly adhered to. Where specified, install new locking devices (e.g. lock tabs, elastic stop nuts). If the efficiency of a locking device is impaired, it must be renewed.

MODEL LISTING

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2011	Outlander 400	5ABA / 5ABB / 5ABC / 5ABD	All
	Outlander 400 XT	5BBA / 5BBB	
	Outlander 400 MAX	5CBA / 5CBC / 5CBD	
	Outlander 400 MAX XT	5DBA / 5DBB / 5DBC / 5DBD	
	Outlander 500	2TBC / 2TBD	
	Outlander 500 XT	2UBA / 2UBB / 2UBC / 2UBD / 2UBE	
	Outlander 500 MAX	2WBB	
	Outlander 500 MAX XT	2XBA / 2XBB / 2XBC / 2XBD / 2XBE	
	Outlander 650	2NBC / 2NBD / 2NBE	
	Outlander 650 XT	2PBA / 2PBB / 2PBC / 2PBD / 2PBE / 5GBA / 5GBB	
	Outlander 650 MAX	2RBB / 2RBC / 2RBD	
	Outlander 650 MAX XT	2SBA / 2SBB / 2SBC / 2SBD / 2SBE / 2SBF / 5HBA / 5HBB	
	Outlander 800R	2HBD / 2HBE	
	Outlander 800R XT	2JBA / 2JBB / 2JBC / 2JBD / 5EBA / 5EBB / 5EBC / 5EBD	
	Outlander 800R X _{xc}	5RBA / 5RBB / 5RBC	
	Outlander 800R MAX	2KBB	
	Outlander 800R MAX XT	2LBA / 2LBB / 2LBC / 2LBD / 2LBF / 5FBA / 5FBB / 5FBC / 5FBD / 5FBE	
	Outlander 800R MAX LTD	2MBA / 2MBB / 2MBC	
	Renegade 500	4EBB / 4EBC / 4EBD / 4EBE	
Renegade 800R	4BBA / 4BBB / 4BBC / 4BBD		
Renegade 800R X _{xc}	4DBA / 4DBB / 4DBC		

UNCRATING

WARNING

Never stand at front or at rear of the vehicle while straps are being cut.

NOTICE Allowing the crate to drop may cause serious damages to vehicle.

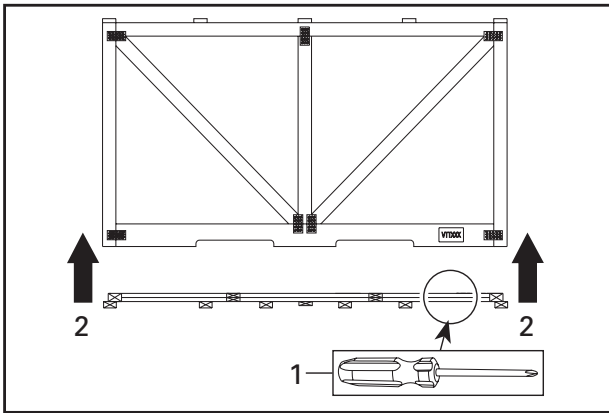
NOTICE While manipulating to cut, take care not to damage trim components with blade.

NOTICE Never tip cover toward the front or rear of the vehicle while lifting it.

NOTE: Screws that are used are Robertson† #2 type that require the use of an appropriate screwdriver.

1. Carefully lay the crate on its bottom.
2. Remove all screws retaining crate cover to crate base.
3. Assisted by another person, lift up crate cover.
4. Raise cover vertically from both ends at the same time.

† Robertson is a registered trademark of Robertson Inc.



1. Screw
2. Lift up crate cover

5. Remove protective wrapping from the vehicle.
6. Remove boxes from crate base.
7. Remove parts and equipments from crate base.
8. Remove straps, hooks and brackets retaining vehicle to crate base.
9. Move vehicle out of the crate base.
10. Ensure that the crate includes the following items:

LTD Models

ITEM	DESCRIPTION	QTY
1	Handlebar guard with fasteners kit	1
2	Front bumper with fasteners kit	1
3	Winch kit (already installed on front bumper)	1
4	Mudguard kit	1

XT Models

ITEM	DESCRIPTION	QTY
1	Handlebar guard with fasteners kit	1
2	Front bumper with fasteners kit (1-UP models only)	1
3	Winch kit (already installed on front bumper)	1

MAX Models

ITEM	DESCRIPTION	QTY
1	Rear backrest	1

CE Models

ITEM	DESCRIPTION	QTY
1	Mirror	2
2	Locking device keys	2
3	Flag holder kit	1

Renegade X xc Models

ITEM	DESCRIPTION	QTY
1	Wind deflector with fasteners kit	2
2	Central skid plate with fasteners kit	1

Outlander X xc (CAN/US) Models

ITEM	DESCRIPTION	QTY
1	Front bumper with fasteners kit	1
2	Headlight with fasteners kit	2
3	Wind deflector with fasteners kit	2
4	Central skid plate with fasteners kit	1

Outlander X xc (CE) Models

ITEM	DESCRIPTION	QTY
1	Front bumper with fasteners kit	1
2	Headlight with fasteners kit	2
3	Turn signal light with fasteners kit	2
4	Wind deflector with fasteners kit	2
5	Central skid plate with fasteners kit	1

NOTE: This vehicle comes with a hang tag and labels containing important safety information. Do not remove hang tag from vehicle, they are considered permanent parts of the vehicle.

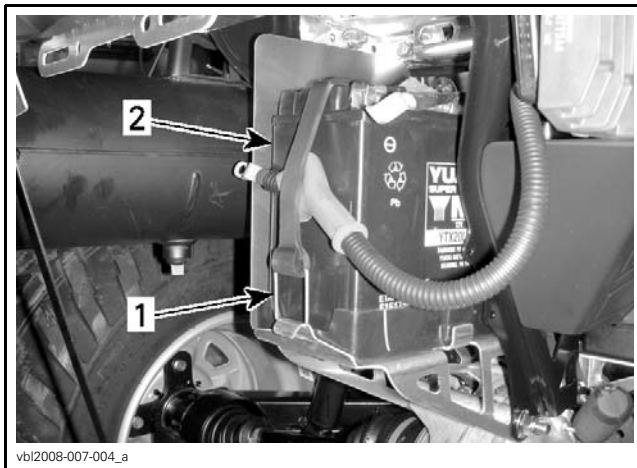
PARTS TO BE INSTALLED

Battery

Battery Installation

Outlander Models

1. Unhook battery retaining strap.



1. Retaining strap
2. Battery

Renegade Models

2. Unscrew battery retaining rod.



BATTERY RETAINING ROD

All Models

3. Remove battery from vehicle.
4. Charge battery. Refer to *CAN-AM ATV BATTERIES SERVICE BULLETIN* for proper activating, charging and maintenance procedures.

CAUTION Never charge or boost battery while installed on vehicle.

5. Install charged battery on vehicle.
6. Properly route battery cables. Refer to *BATTERY CABLE ROUTING* below.

NOTICE Make sure not to squeeze battery cables between vehicle components.

7. Apply DIELECTRIC GREASE (P/N 293 550 004) on battery posts.

8. Connect RED positive cable to positive battery post.
9. Connect BLACK negative cable to negative battery post.

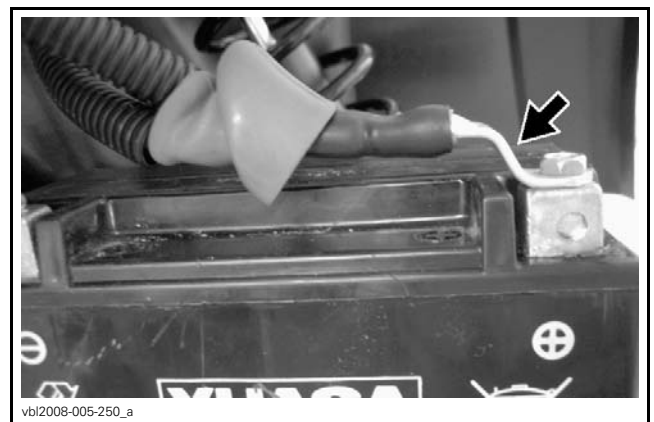
NOTICE Always connect RED positive cable first and then BLACK negative cable.

10. Cover positive post with rubber boot.

Battery Cable Routing

NOTICE Always respect the specific cable routing. Refer to the following illustrations.

1. Ensure that the cable end is installed as illustrated and the cable is routed over the battery.

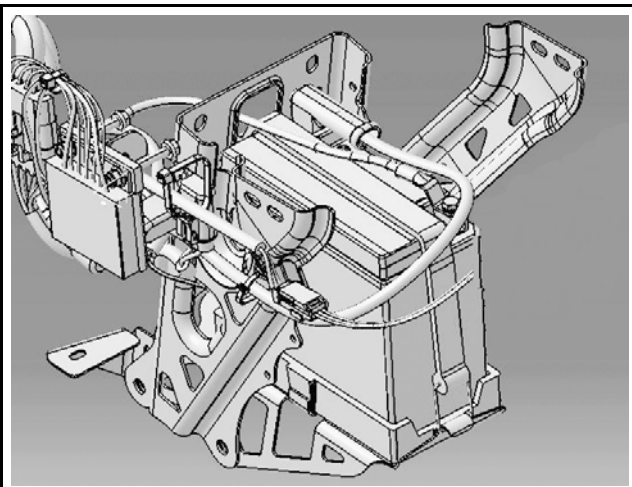


CORRECT WAY OF SECURING POSITIVE (+) POST



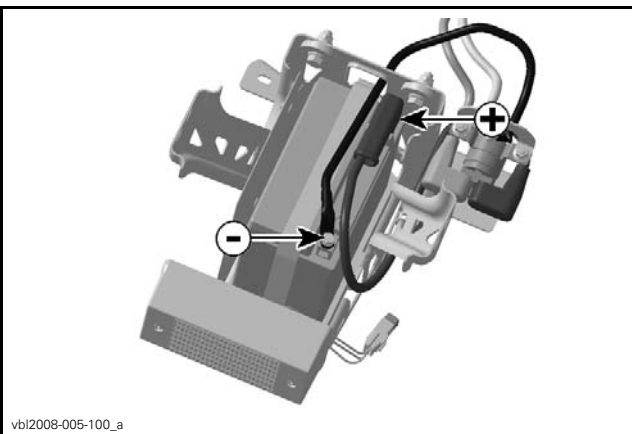
WRONG WAY OF SECURING THE POSITIVE (+) POST

2. Ensure that the cables is routed as per the following illustrations.



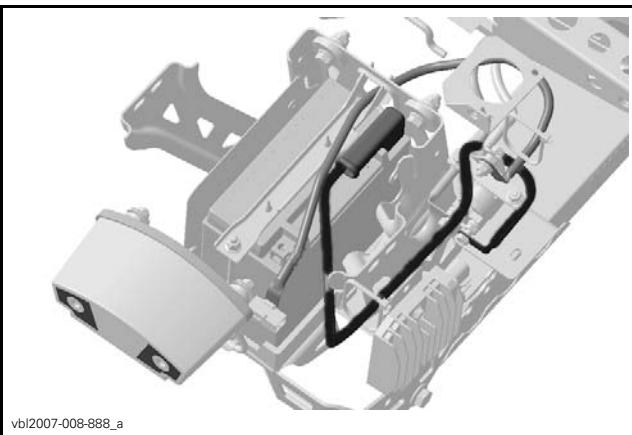
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OUTLANDER 400



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OUTLANDER 500-650-800R



vbi2007-008-888_a

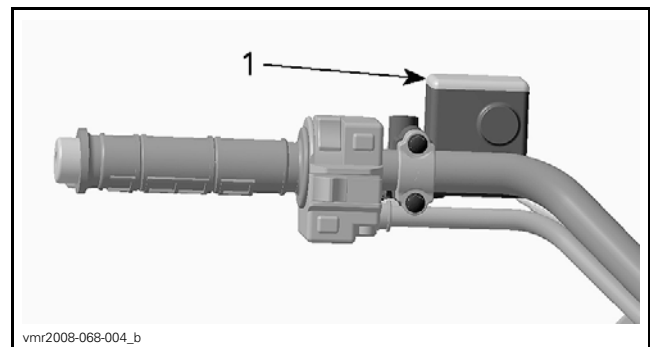
RENEGADE 500-800R

Handlebar

All Models Except Outlander 400 series

NOTE: Some air bubbles may be present in the brake lines due to the handlebar's disposition within the crate. Installing the handlebar as early as possible will allow the air bubbles to move from the brake lines to the master cylinder. The brake system does not need to be bled, the brake system pressurization will be completed further.

1. Place vehicle on a level surface.
2. Adjust both front wheels straight.
3. Carefully move handlebar upwards.
4. Adjust handlebar so the TOP of brake fluid reservoir (s) is (are) level with the ground.

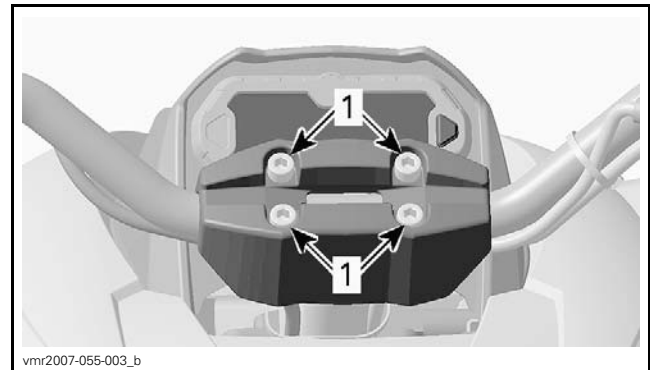


vmr2008-068-004_b

BRAKE FLUID RESERVOIR

1. Must be level

5. Verify that handlebar is centered on vehicle (right/left).
6. Torque handlebar retaining screws to 31 N•m (23 lbf•ft).



vmr2007-055-003_b

TYPICAL - RENEGADE MODEL SHOWN

1. Handlebar retaining screws

7. Reinstall handlebar cover (if applicable).
8. Confirm that handlebar is properly tightened and does not rotate.
9. Turn handlebar completely from one side to the other making sure it does not exert an unwanted tension on throttle cable, brake hoses, and other wires.

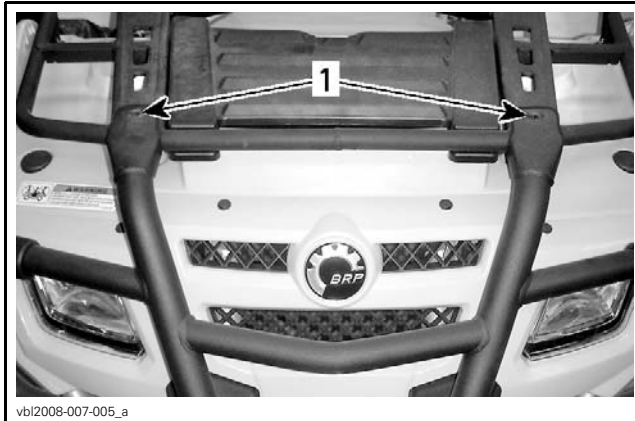
⚠ WARNING

Make sure cables, wires and hoses are not squeezed between the handlebar and vehicle components.

Front Bumper (Outlander XT)

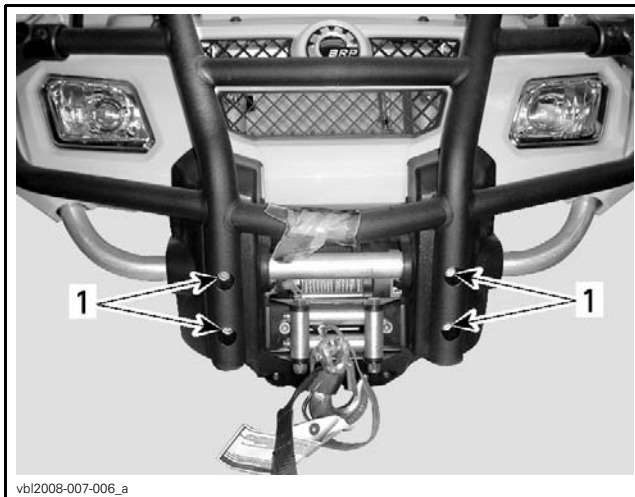
Outlander XT Models except MAX XT

1. Install upper part of the bumper with:
 - 2x M8 x 20 bolts
 - 2x M8 flat washers
 - 2x M8 nuts



1. Upper retaining bolts

2. Do not torque upper retaining M8 nuts yet.
3. Install lower part of the bumper with four M8 x 40 screws.



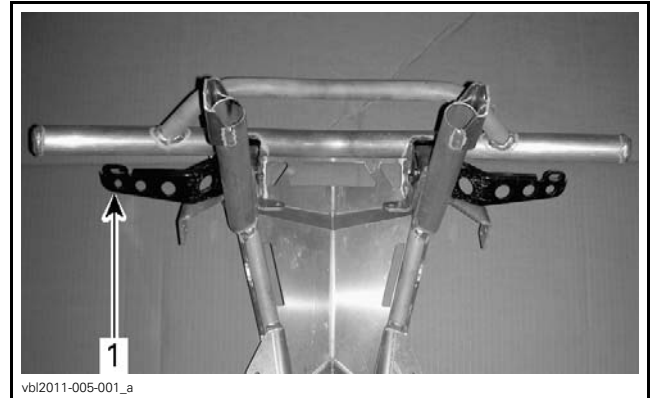
1. Lower retaining screws

4. Secure upper retaining nuts to 11 N•m (97 lbf•in).
5. Secure lower retaining screws to 25 N•m (18 lbf•ft).

Front Bumper (Outlander X xc)

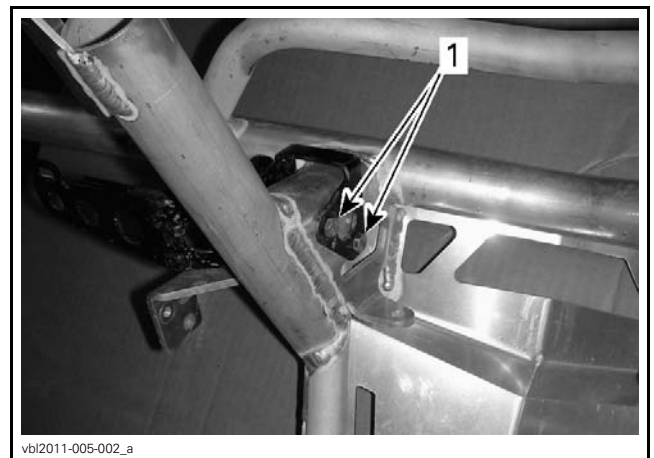
Outlander X xc Models

1. Install upper brackets on front bumper as follows:
 - 1.1 Align bracket on bumper as illustrated.



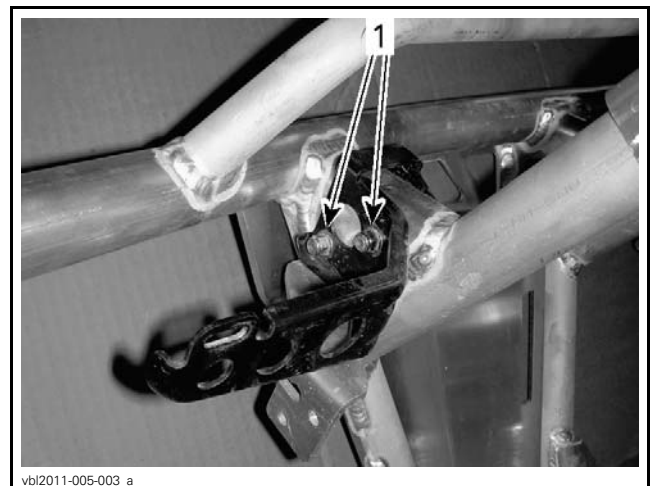
1. LH upper bracket

- 1.2 From inside bumper, install M6 x 60 bolts.



1. M6 x 60 bolts (P/N 207 066 044)

- 1.3 Secure bracket using M6 nuts.

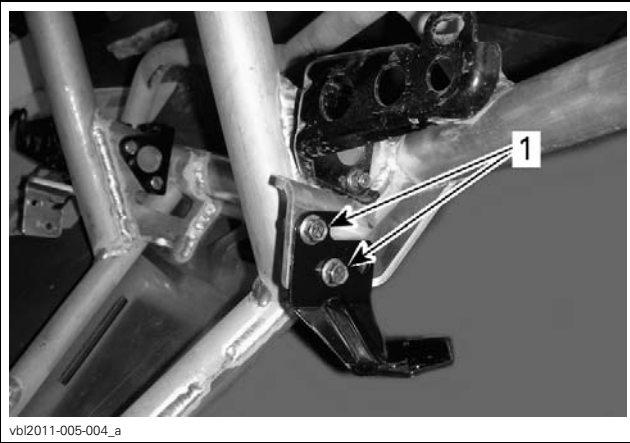


1. M6 nuts (P/N 233 261 414)

PARTS TO BE INSTALLED

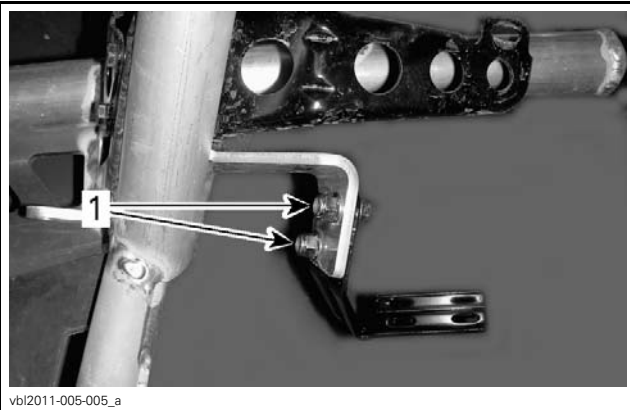
2. Install lower brackets on front bumper as follows:

- 2.1 Align bracket on bumper as illustrated.
- 2.2 From outside bumper, install M6 x 16 bolts.



1. M6 x 16 bolts (P/N 207 661 644)

2.3 Secure bracket using M6 nuts.



1. M6 nuts (P/N 233 261 414)



FINAL ASSEMBLY

3. Disassemble front fascia from vehicle by removing upper plastic rivets.



1. Front fascia



4. Install masking tape on front fascia as illustrated.



NOTICE If this precaution is not taken, scratch on the fascia may occur during its reassembly and will not be covered under warranty.

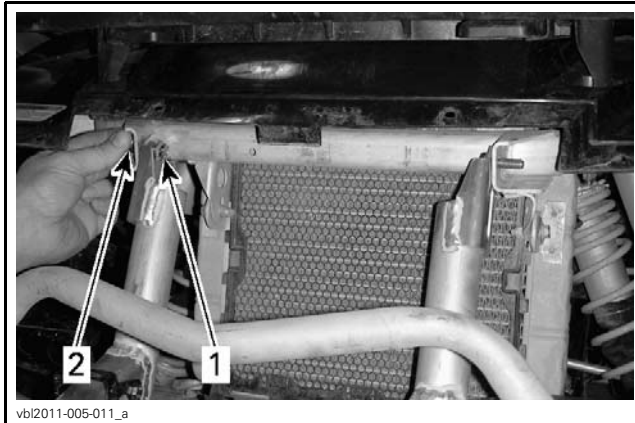
5. Place front fascia over front rack to avoid to damage it.



1. Front fascia

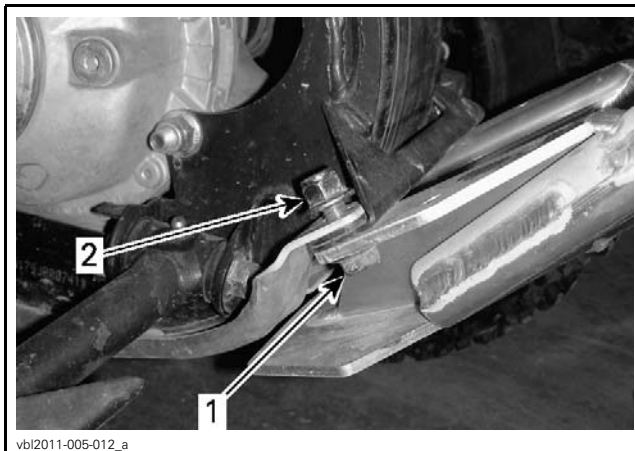
6. Install front bumper on vehicle as follows:

- 6.1 From inside bumper, install upper M8 x 20 bolts.
- 6.2 Install and slightly tighten upper M8 nuts.



1. M8 x 20 bolt (P/N 207 682 044)
2. M8 nut (P/N 233 281 414)

- 6.3 From underneath bumper, install lower M10 x 30 bolts.
- 6.4 Install lower M10 nuts.



1. M10 x 30 bolt (P/N 207 603 044)
2. M10 nut (P/N 233 201 414)

- 6.5 Tighten all nuts to properly secure bumper to vehicle.

NOTE: If front bumper does not fit properly on vehicle, refer to *VEHICLE ADJUSTMENT TO FIT BUMPER*.

7. Carefully install front fascia on vehicle by moving it downward.



8. Install **new** plastic rivets to secure fascia to vehicle.

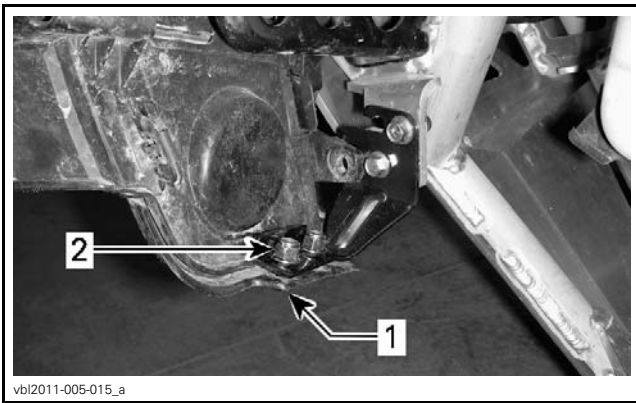
9. Ensure that bumper lower tab is over the bracket.



1. Lower tab

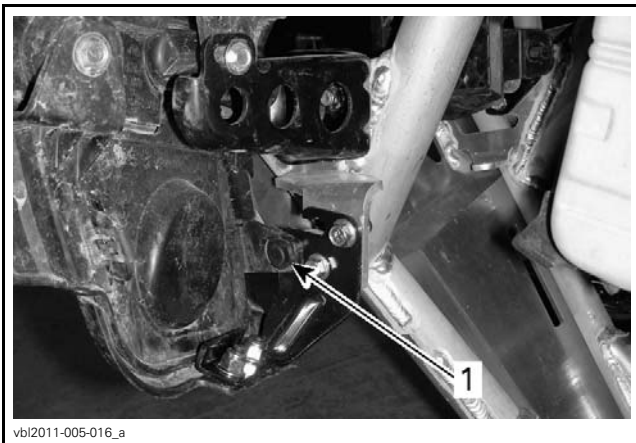
10. From underneath, secure lower ends of fascia as follows:

- 10.1 Install M6 x 16 bolts.
- 10.2 Install then tighten M6 nuts.



1. M6 x 16 bolt (P/N 250 000 261)
2. M6 nut (P/N 233 261 414)

11. Install plastic rivets as illustrated (one each side).

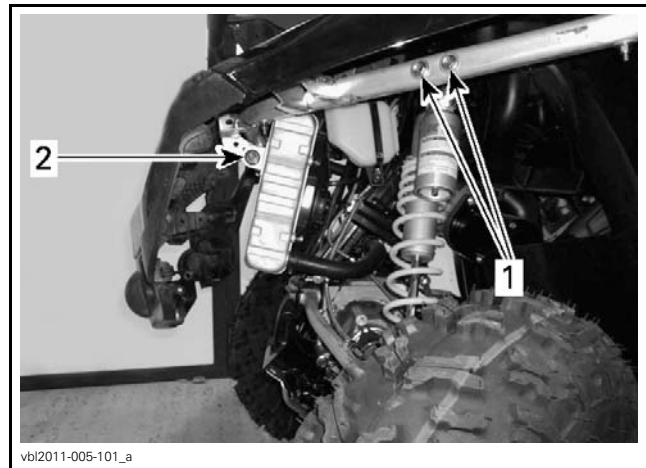


1. Plastic rivet

12. Remove masking tape from fascia.

Vehicle Adjustment to Fit Bumper

1. Loosen bolts securing front support to shock towers (two on each side).
2. Loosen bolts securing radiator to vehicle (one on each side).
3. Install front bumper as per the previous procedure, refer to *FRONT BUMPER (OUTLANDER X XC)*.
4. Tighten bolts to secure front support on shock towers (two on each side).
5. Move radiator downward until it make contact with grommets.
6. Tighten bolts to secure radiator on vehicle (one on each side).

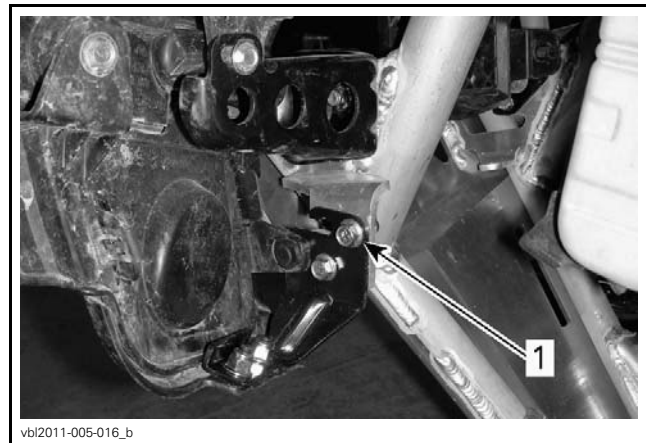


1. Bolts securing front support to shock tower
2. Bolt securing radiator to vehicle

Turn Signal Light

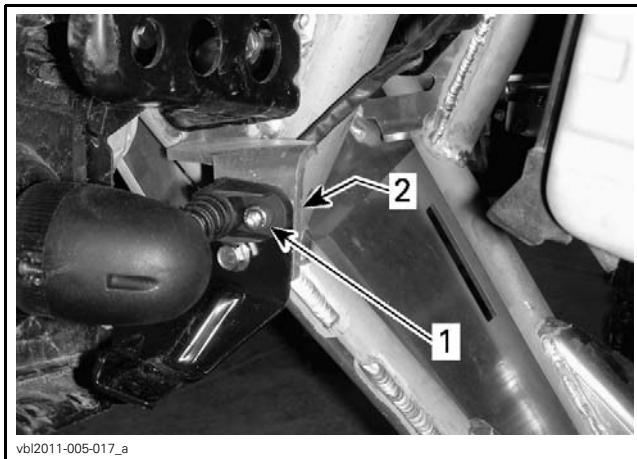
Outlander X xc CE Models

1. Remove upper bolt and nut from front bumper bracket.



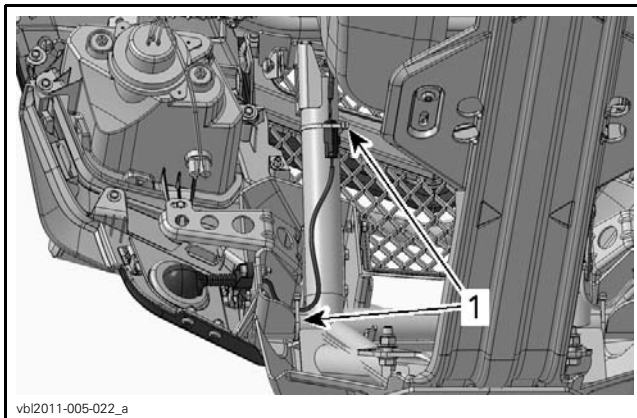
1. Bracket upper bolt

2. Align turn signal light on upper hole.
3. Install M6 x 25 bolt.
4. Secure turn signal light using M6 nut.



- vbi2011-005-017_a
1. M6 x 25 bolt (P/N 205 062 544)
 2. M6 nut (P/N 233 261 414) (not shown)

5. Route turn signal harness as illustrated.
6. Connect turn signal harness connector to vehicle.
7. Secure turn signal harness to vehicle using locking tie.



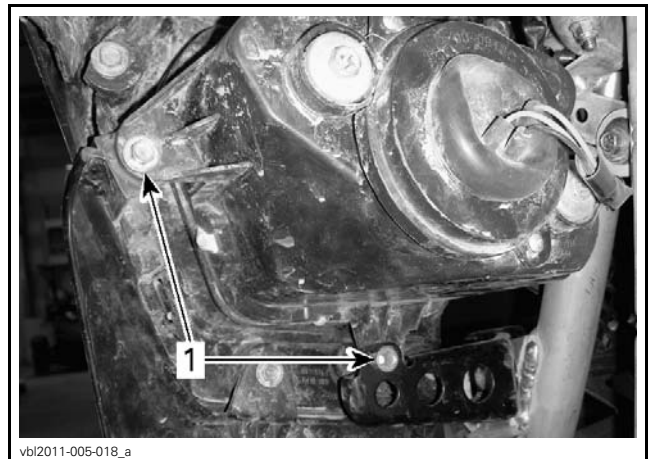
- vbi2011-005-022_a
1. Locking tie

8. Carry out same steps for the other side.

Headlight

Outlander X xc Models

1. From inside fascia, position headlight.
2. Secure headlight using M4 x 25 screws (3x).
3. Torque M4 screws to 1.5 N•m (13 lbf•in).

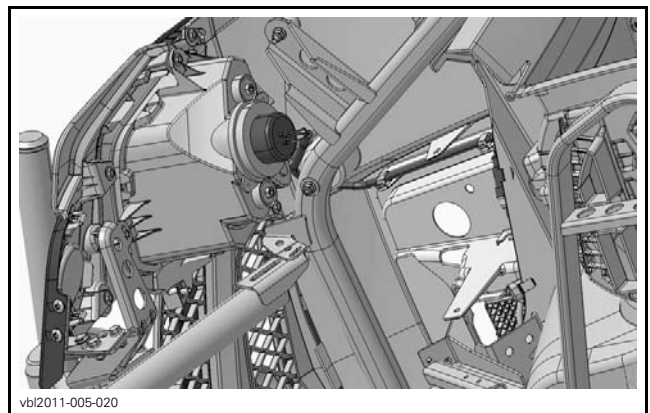


- vbi2011-005-018_a
1. M4 x 25 screws (P/N 250 000 101)

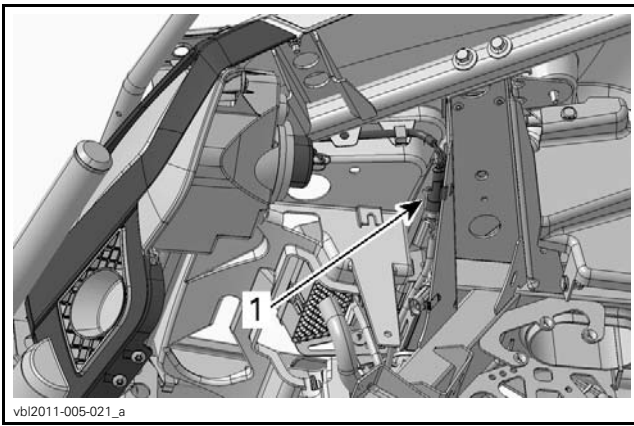


- vbi2011-005-019_a
1. M4 x 25 screw (P/N 250 000 101) (not shown)

4. Route and secure headlight harness as illustrated.



- vbi2011-005-020
5. Connect headlight harness connector then secure it to vehicle.



1. Headlight harness connector

6. Carry out same steps for the other side.

Mirrors

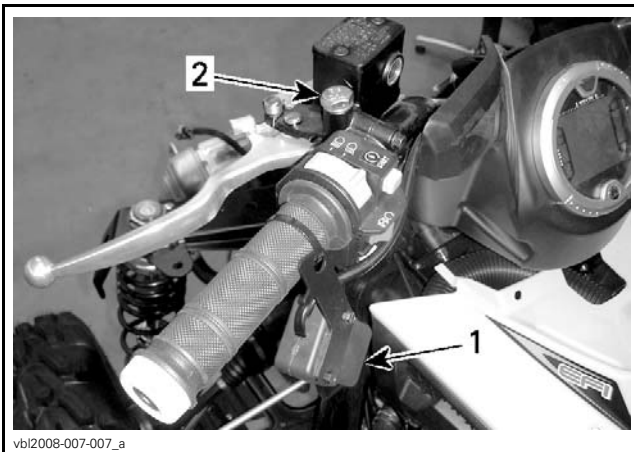
CE Models

1. Remove mirrors from the storage compartment.
2. Install mirrors on their supports.

Winch Switch

Outlander XT and LTD Models

1. Remove winch switch from vehicle by cutting retaining locking tie.
2. Remove bolt from brake housing.

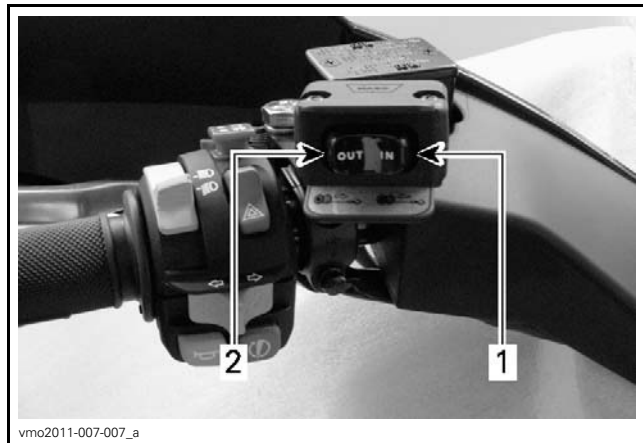


1. Winch switch
2. Brake housing bolt

3. Secure winch switch to the brake housing with the existing bolt.

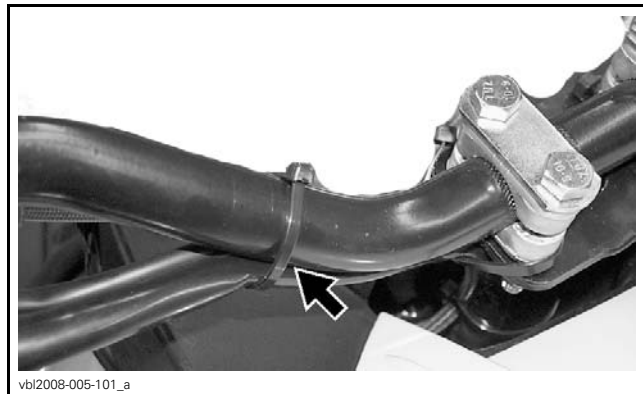


OUTLANDER XT AND LTD



OUTLANDER XT AND LTD (CE)

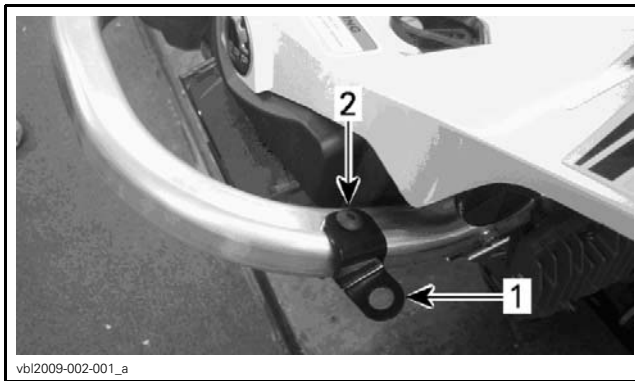
4. Attach wires to handlebar, using a locking tie.



Flag Holder

CE Models

1. Position flag holder on vehicle rear support.
2. Install retaining bolt.
3. Tighten retaining nut.



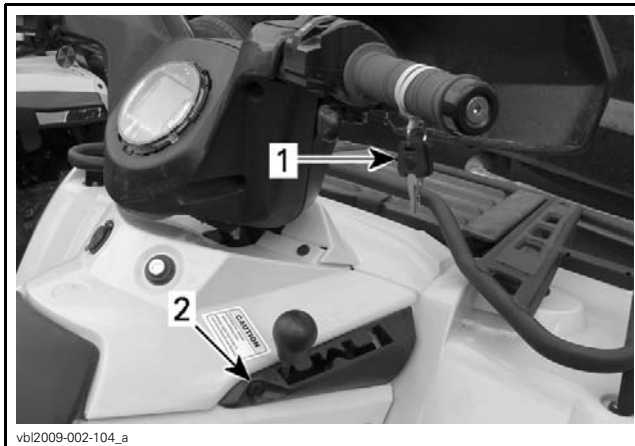
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TYPICAL

1. Flag holder
2. Retaining bolt

Locking Device**CE Models**

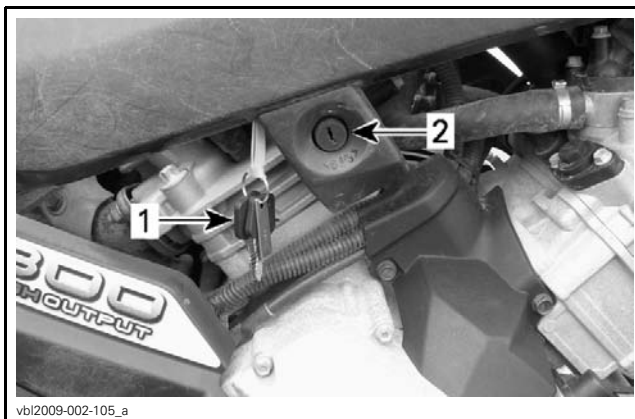
For the European Community models a locking device is required to avoid vehicle from moving when needed. This locking device is located on the transmission lever. Refer to the following pictures.



vbi2009-002-104_a

OUTLANDER 400 SERIES

1. Keys
2. Locking device



vbi2009-002-105_a

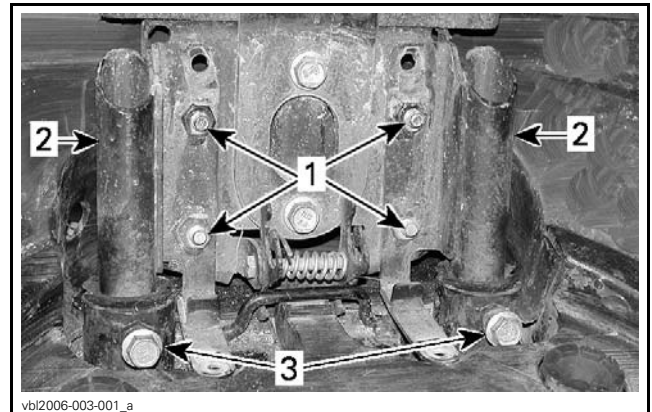
OUTLANDER AND RENEGADE 500-650-800R SERIES

1. Keys
2. Locking device

Backrest**Outlander MAX Models**

Install the backrest on passenger's seat as per the following steps :

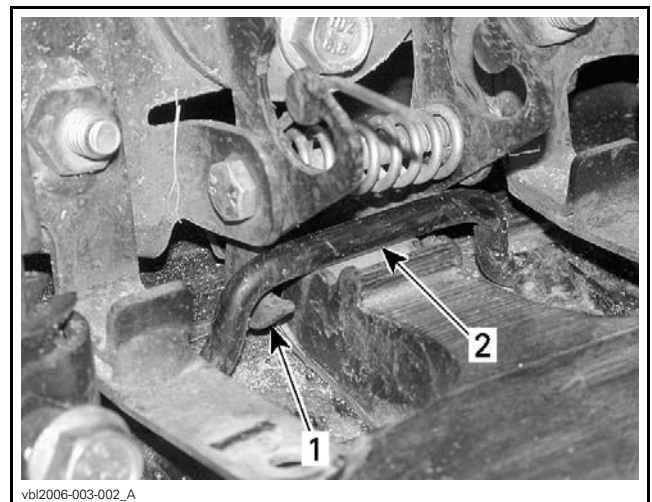
1. Loosen bolts holding backrest plate to backrest support.
2. Install the backrest tubes into their locations in frame.
3. Install backrest tube bolts.
4. Do not torque bolts for the moment.



vbi2006-003-001_a

1. Backrest holding bolts
2. Backrest tubes
3. Backrest tube bolts

5. Check if the latch hooks are inserted under attachment rod.
6. Tighten backrest tube bolts to prevent back and forth movements.
7. Do not torque bolts for the moment.

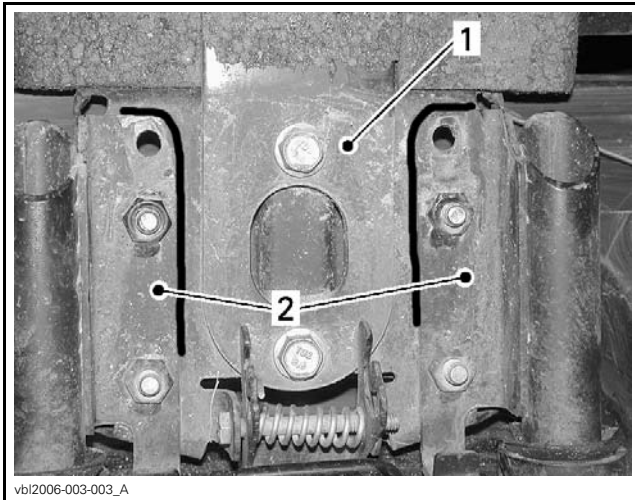


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1. Latch hooks
2. Attachment rod

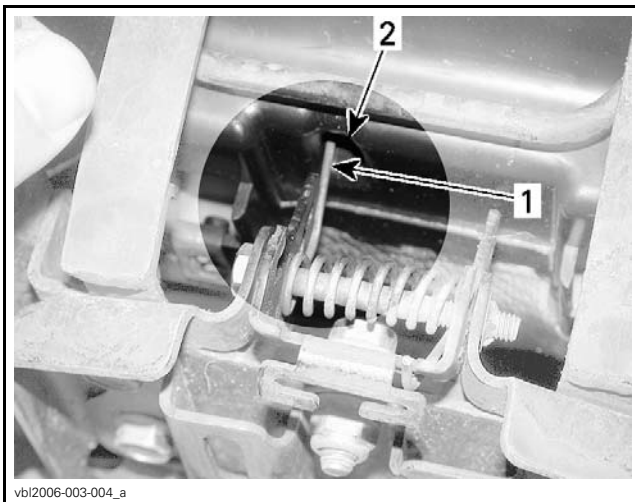
8. Mark the position of backrest plate on the backrest support using a marker.
9. Remove backrest from vehicle.

10. Align backrest support with the mark on backrest plate.
11. Torque bolts to 25 N•m (18 lbf•ft).



1. Backrest plate
2. Backrest support

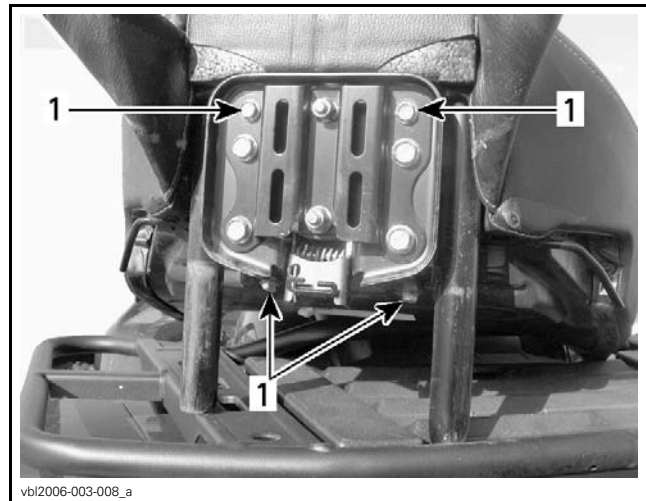
12. Place the long end of spring in the seat recess.
13. Position the seat release rod into the backrest latch slot.



1. Long end of spring
2. Seat recess

14. Secure backrest to passenger's seat.
15. Torque to 5 N•m (44 lbf•in).

NOTE: If required, you may add a very small amount of general purpose grease on the backrest tubes insertion plastic guides to ease tubes insertion.

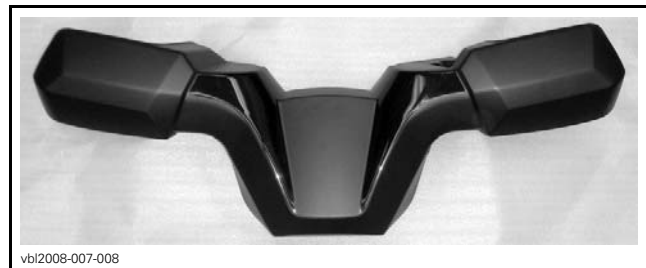


1. Screw-in backrest

Handlebar Guard

Outlander 400 XT Models

1. Remove handlebar guard from its box.



vbl2008-007-008

2. Install handlebar guard to the steering cover.
3. Secure handlebar guard using the 4 retaining screws.

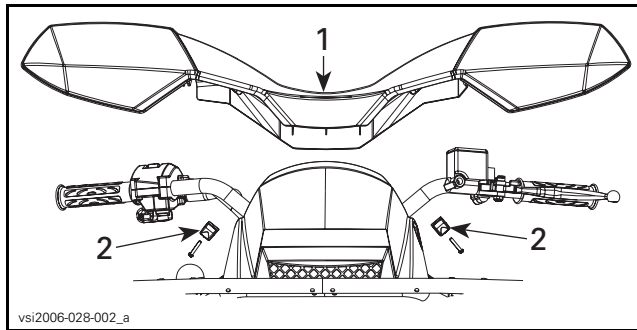


1. Retaining screws location

NOTE: The retaining screws are included in the handlebar guard box.

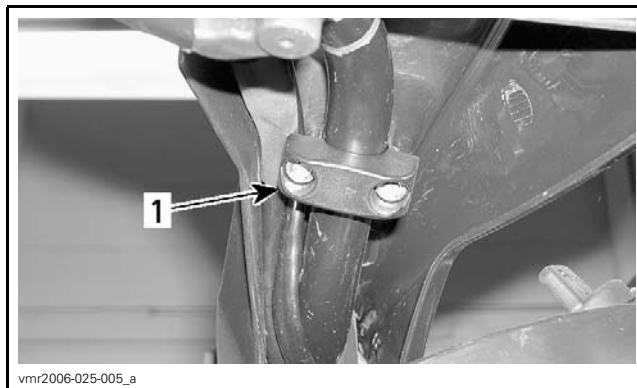
Outlander 500 XT / 650 XT / 800R XT / 800R LTD

1. Remove handlebar guard from its box.
2. Install handlebar guard to the handlebar.



1. Handlebar guard
2. U-clamps

3. Install U-clamps with the arrows pointed toward the front of vehicle.
4. Secure handlebar guard using U-clamps and retaining screws.



1. U-clamp

NOTE: The U-clamps and retaining screws are included in the handlebar guard box.

Mudguard

LTD Models

1. Install mudguard kit as per their installation instructions (included in the kit).

Accessories Installation

1. Install accessories (if any) as per their installation instructions (included in each kit).
2. Install any other equipment required by law (if any).

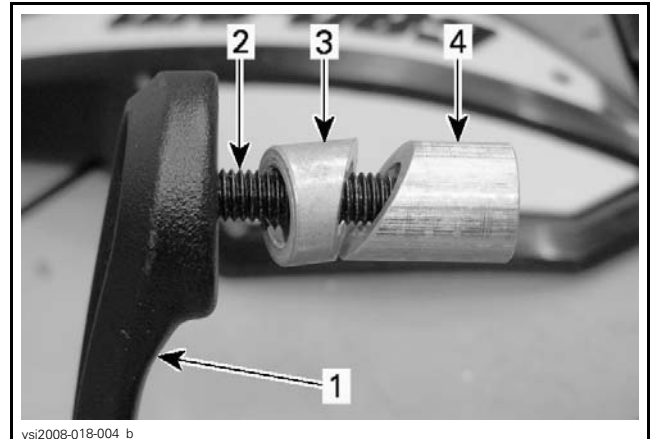
Vehicle Decals

1. Install decals on vehicle according to customer country language and local legislation.
2. Ensure that the new decals are installed at the same location and over the factory installed decals.

Wind Deflector

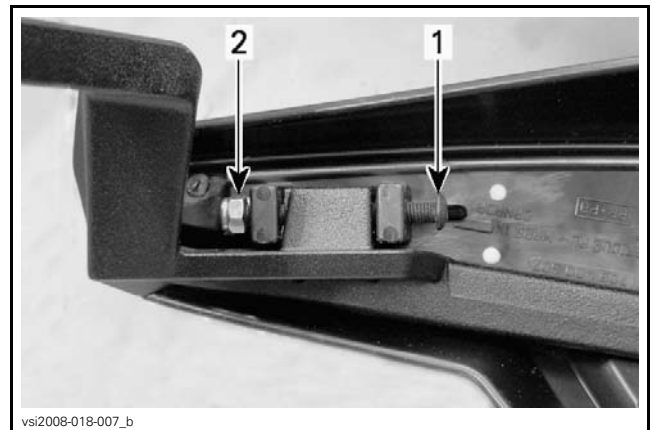
X xc Package

1. Install M8 screw in full wrap support.
2. Insert beveled bracket in M8 screw.
3. Screw on threaded beveled bracket into M8 screw.



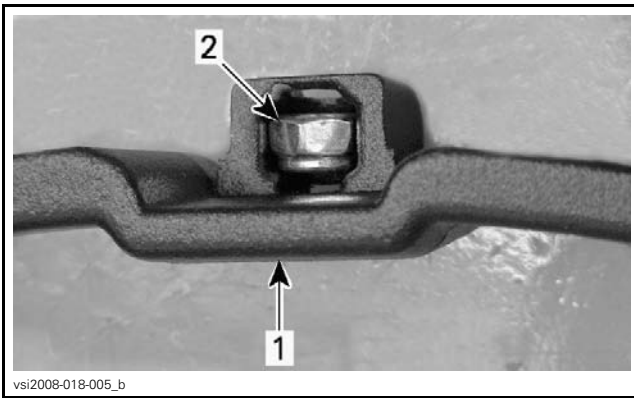
1. Full wrap support
2. M8 screw
3. Beveled bracket
4. Threaded beveled bracket

4. Align wind deflector on full wrap support
5. Install M4 bolt and M4 nut.
6. Torque M4 nut to 3 N•m (27 lbf•in).

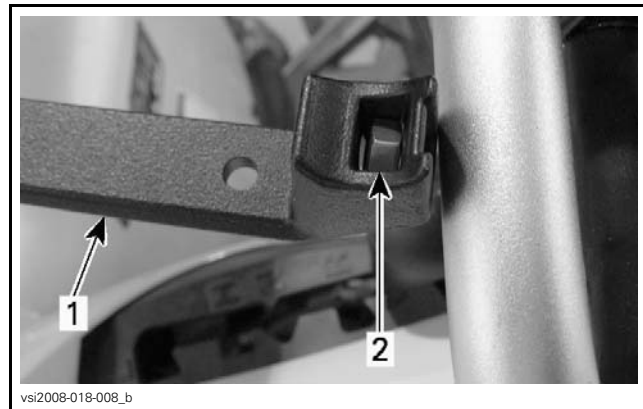


1. M4 bolt
2. M4 nut

7. Insert M5 nut in full wrap support middle housing.



1. Full wrap support
2. M5 nut

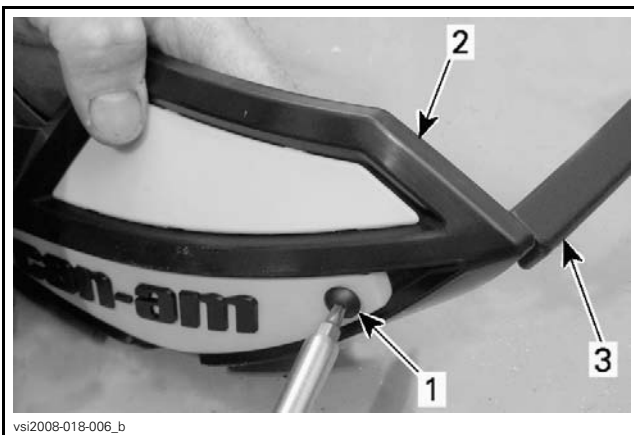


1. Full wrap support
2. M6 nut

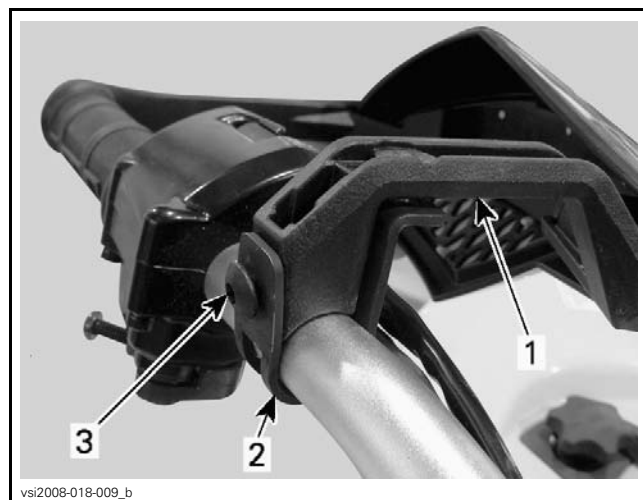
8. Align wind deflector on full wrap support.
9. Using support as a guide, drill a $\varnothing 6$ mm hole through wind deflector.
10. Install and tighten M5 bolt.

15. Install full wrap support on handlebar using U-clamp.
16. Install M6 x 16 bolt.

NOTE: For an easier installation, as per the following illustration, completely rotate support to install bolt, and then, reposition at the normal position.



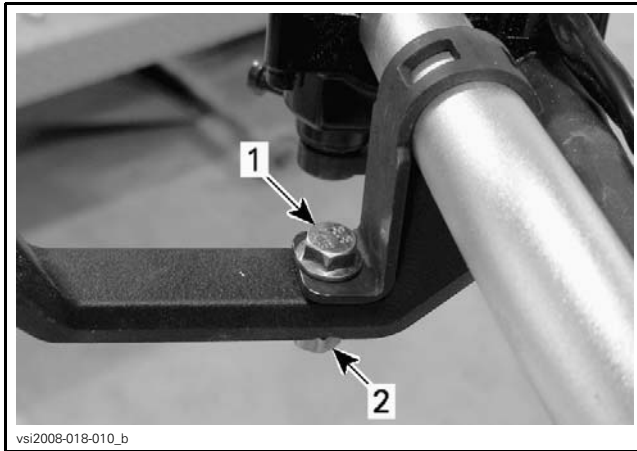
1. M5 bolt
2. Wind deflector
3. Full wrap support



1. Full wrap support
2. U-clamp
3. M6 x 16 bolt

11. If necessary, loosen brake lever(s) to make sure that there is enough space to install support bolts.
12. Remove existing handlebar end caps.
13. Insert the beveled brackets inside the handlebar end.
14. Insert M6 nut in full wrap support end housing.

17. Install M6 x 20 bolt and M6 nut.
18. Adjust wind deflector horizontally.
19. Torque M6 nut to 10 N•m (89 lbf•in).
20. Torque M8 bolt to 24 N•m (18 lbf•ft).



- 1. M6 x 20 bolt
- 2. M6 nut

21. Reposition brake lever (s) as previously set then tighten bolt.

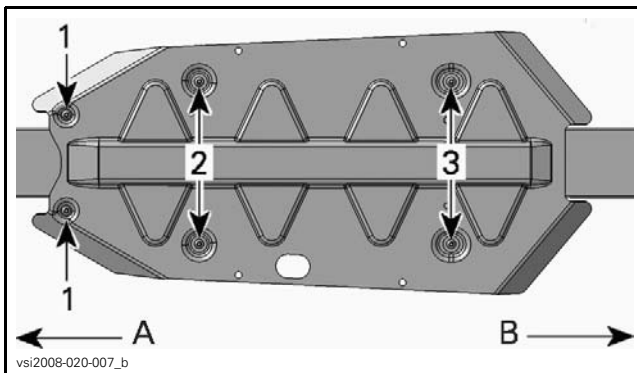
⚠ WARNING
Make sure that there is clearance at all time between the deflectors and the brake lever (s) and all other moving components.

⚠ WARNING
Make sure brake lever (s) is properly secured in place and will not rotate by pushing it downward and upward.

Central Skid Plate

X xc Package

1. Put skid plate in place.



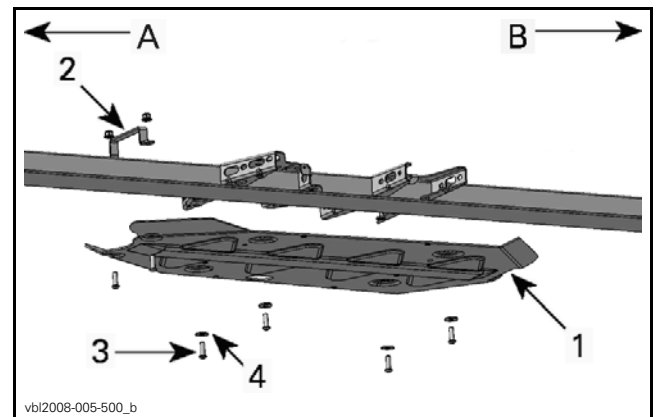
- A. Front of vehicle
- B. Rear of vehicle
- 1. Front holes
- 2. Middle holes
- 3. Rear holes

2. Place skid plate bracket on vehicle frame.
3. Align skid plate front holes with skid plate bracket holes.
4. Assemble skid plate using front M8 retaining bolts and M8 nuts.

5. Do not tighten front bolts for the moment.
6. Align M8 U-nuts with skid plate middle holes.
7. Insert M8 U-nuts on vehicle frame.
8. Assemble skid plate using middle M8 retaining bolts, M8 flat washers and M8 U-nuts.
9. Do not tighten middle bolts for the moment.
10. Align M8 U-nuts with skid plate rear holes.
11. Insert M8 U-nuts on vehicle frame.
12. Assemble skid plate using rear M8 retaining bolts, M8 flat washers and M8 U-nuts.

NOTE: Washers must be installed between retaining bolts and skid plate.

13. Torque all M8 retaining bolts to 11 N•m (97 lbf•in).



- A. Front of vehicle
- B. Rear of vehicle
- 1. Skid plate
- 2. Skid plate bracket
- 3. M8 retaining bolt
- 4. M8 flat washer

FLUIDS

General Guidelines

All fluids (except fuel) have already been filled at factory, it is only necessary to validate them. However, if refill is needed, refer to the appropriate *ATV SHOP MANUAL* for the proper procedure.

Fuel

1. Add fuel in the fuel reservoir.

NOTICE Never mix oil with fuel, these vehicles are equipped with a 4-stroke engine.

NOTICE Never place anything over fuel tank cap as this could block the vent hole, leading to engine misfire.

⚠ WARNING

Always stop engine before refueling. Open cap slowly. If a differential pressure condition is noticed (whistling sound heard when loosening fuel tank cap) have vehicle inspected and/or repaired before further operation. 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. Never top up the fuel tank before placing the vehicle in a warm area. As temperature increases, fuel expands and may overflow. Always wipe off any fuel or oil spillage from the vehicle.

Recommended Fuel

Use regular unleaded gasoline or oxygenated fuel containing less than 10% of ethanol or methanol. Refer to the following table for recommended minimum octane number:

OCTANE RATING	
Inside North America	87 (R + M)/2
Outside North America	92 RON

NOTICE Never experiment with other fuels. The use of non-recommended fuels can result in vehicle performance deterioration and damage to critical parts in the fuel system and engine components.

Engine Oil

NOTICE Do not overfill. Operating the engine with an improper oil level may severely damage engine. Wipe off any oil spillage.

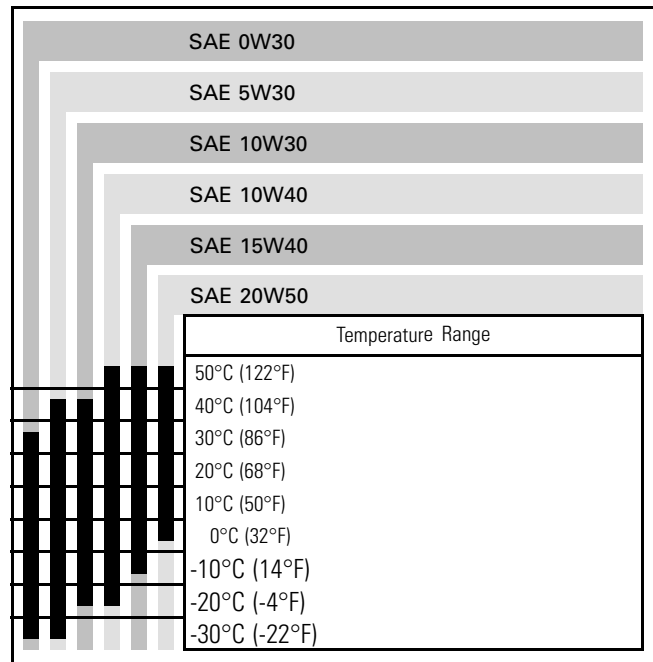
Recommended Engine Oil

For the summer season, use XPS SYNTHETIC BLEND OIL (SUMMER GRADE) (P/N 293 600 121).

For the winter season, use XPS SYNTHETIC OIL (WINTER GRADE) (P/N 293 600 112).

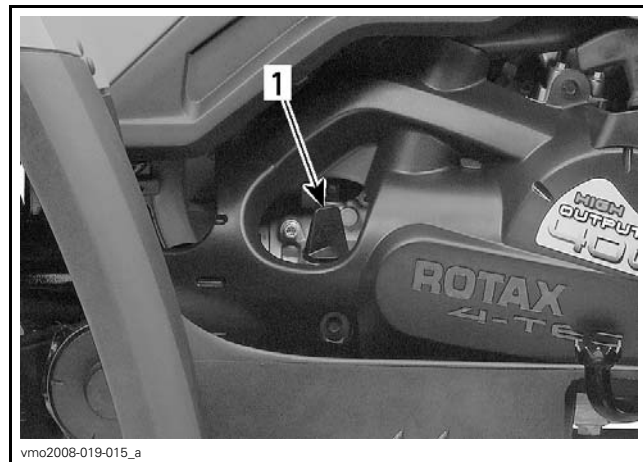
NOTE: The XPS oil is specially formulated and tested for the severe requirements of this engine.

If not available, use 4-stroke SAE 5W30 engine oil that meets or exceeds the requirements for API service classification SM, SL or SJ. Always check the API service label certification on the oil container it must contain at least one of the above standards. Refer to the viscosity chart for details.



Engine Oil Level Verification

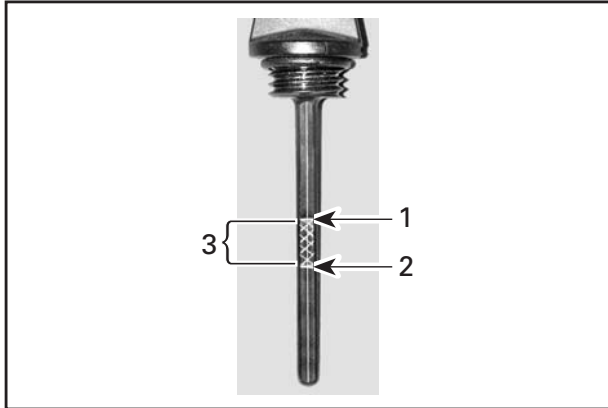
1. Ensure that engine is cold and not running.
2. Park vehicle straight on a level surface.
3. Unscrew and remove oil dipstick.



TYPICAL - RH SIDE OF ENGINE

1. Oil Dipstick

4. Wipe dipstick.
5. Reinstall and screw in the dipstick completely.
6. Unscrew and remove the dipstick.
7. Check oil level as per the following illustration.



OIL DIPSTICK

- 1. Full
- 2. Add
- 3. Operating Range

- 8. Ensure that oil level is between ADD and FULL marks.
- 9. If necessary, add recommended engine oil.
- 10. Reinstall and screw in the dipstick completely.

Gearbox Oil

NOTE: For Outlander 400 series, the same oil lubricates both engine and transmission. Refer to *ENGINE OIL*.

Recommended Gearbox Oil

All Models except Outlander 400 Series

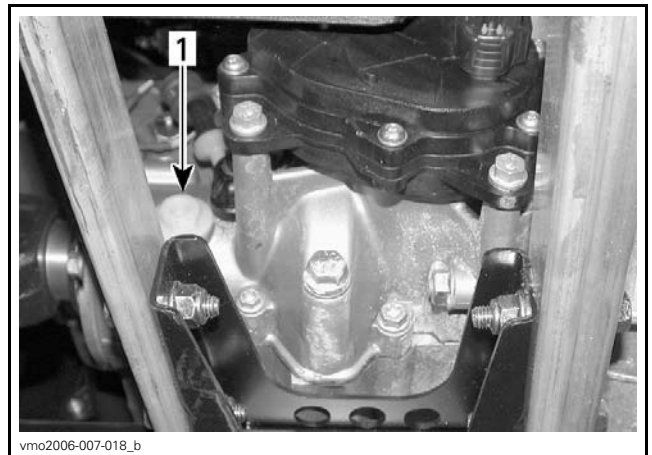
Use XPS CHAINCASE OIL (P/N 415 129 500).

NOTICE Do not use non recommended types of oil when servicing. Do not mix with other types of oil.

Gearbox Oil Level Verification

NOTICE Do not overfill. Operating the gearbox with an improper level may severely damage gearbox. Wipe off any oil spillage.

- 1. Park vehicle straight on a level surface.
- 2. Select transmission lever to NEUTRAL position.
- 3. Apply parking brake.
- 4. Check oil level by removing the gearbox oil level plug.



1. Oil level plug

- 5. Ensure that gearbox oil is level with the bottom of the oil plug hole.
- 6. If necessary, add recommended gearbox oil.
- 7. Reinstall and screw in the gearbox oil level plug.

Engine Coolant

Recommended Coolant

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

Cooling system must be filled with water and antifreeze solution (50% water, 50% antifreeze) or with BRP PREMIXED COOLANT (P/N 219 700 362).

Coolant Level Verification

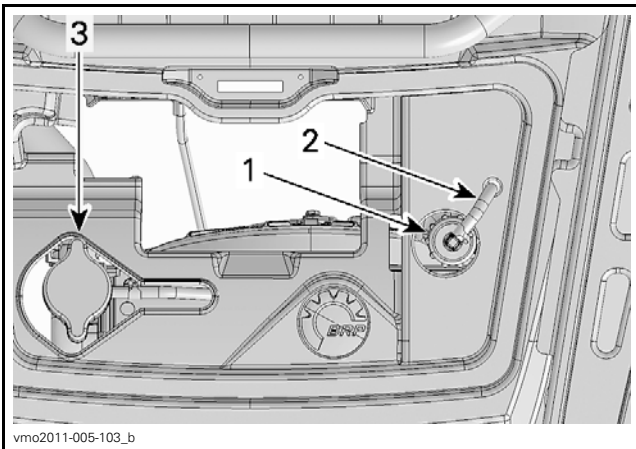
⚠ WARNING

Check coolant level with engine cold. Never add coolant in cooling system when engine is hot.

NOTICE Do not overfill coolant reservoir.

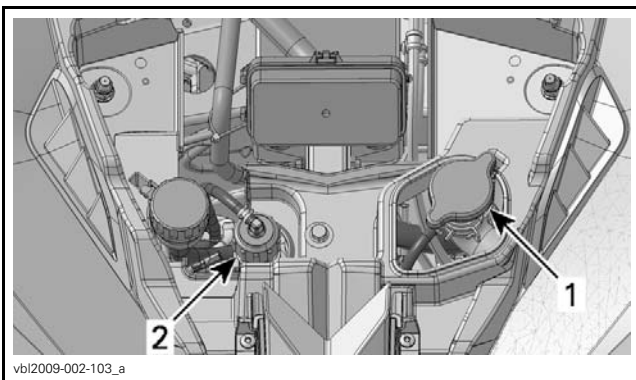
- 1. Park vehicle straight on a level surface.
- 2. Remove front service compartment panel.
- 3. Check that radiator is filled with coolant by removing the radiator cap.
- 4. If necessary, add recommended coolant.
- 5. Reinstall radiator cap.

NOTE: For Outlander models, ensure coolant reservoir hose is properly routed as per the above illustration to avoid any interference, when closing cover, with the winch remote control.



OUTLANDER SERVICE COMPARTMENT

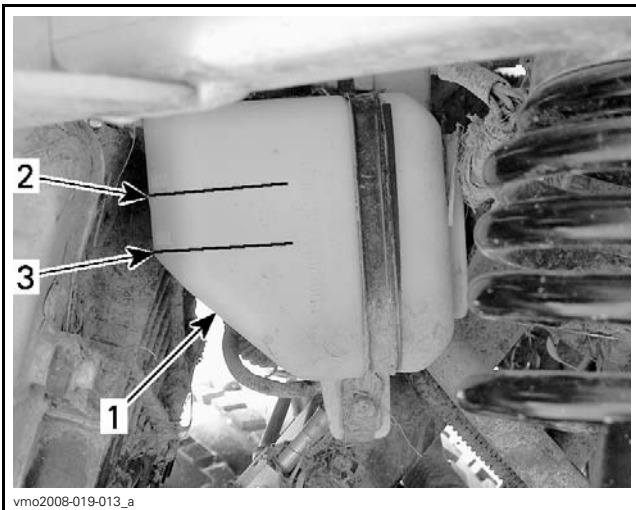
1. Coolant reservoir cap
2. Coolant reservoir hose
3. Radiator cap



RENEGADE SERVICE COMPARTMENT

1. Radiator cap
2. Coolant reservoir cap

6. From underneath LH front fender, remove plastic cover.
7. Check the coolant reservoir level.
8. Ensure that fluid is between MIN. and MAX marks.



TYPICAL - UNDERNEATH LH FRONT FENDER

1. Coolant reservoir
2. MAX. level mark
3. MIN. level mark

9. If necessary, add recommended coolant.

NOTICE Do not overfill coolant reservoir.

10. Reinstall plastic cover

11. Reinstall front service compartment panel.

NOTE: When checking level at temperature lower than 20°C (69°F), it may be slightly lower than MIN. mark.

Brake Fluid

NOTICE Be sure to clean reservoir caps before removing it to avoid contaminating the oil.

Recommended Fluid

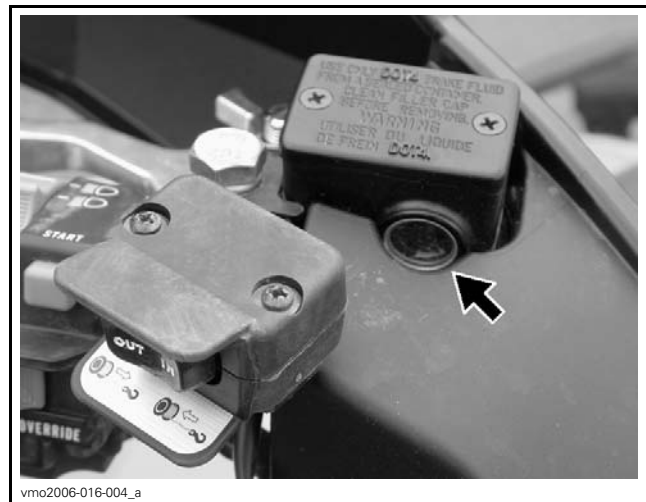
Use BRAKE FLUID (P/N 293 600 131).

Always use brake fluid meeting the specification DOT 4, from a sealed container.

NOTICE To avoid serious damage to the braking system, do not use fluids other than the recommended one, nor mix different fluids for topping up.

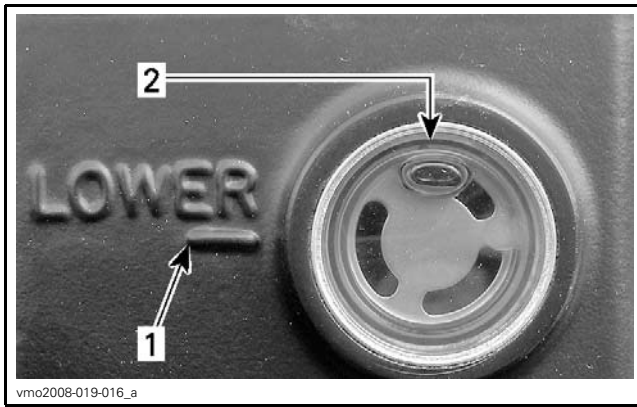
Brake Lever Fluid Level Verification

1. Park vehicle straight on a level surface.
2. Turn steering in the straight-ahead position to ensure reservoir is level.



TYPICAL

3. Check brake fluid level in reservoir.



vmo2008-019-016_a
 1. MIN. mark
 2. MAX. mark

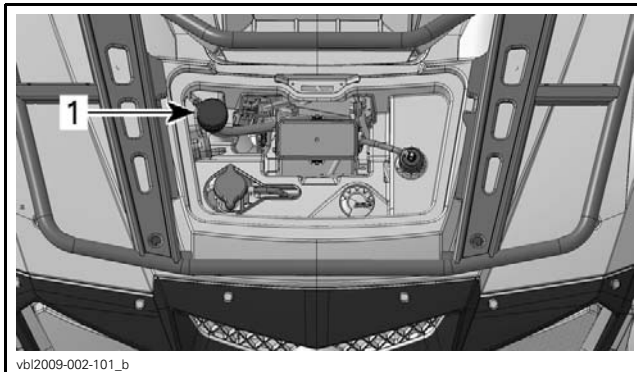
4. Ensure that fluid reaches top of window.
5. If necessary, add recommended brake fluid.

NOTICE Do not overfill brake fluid reservoir.

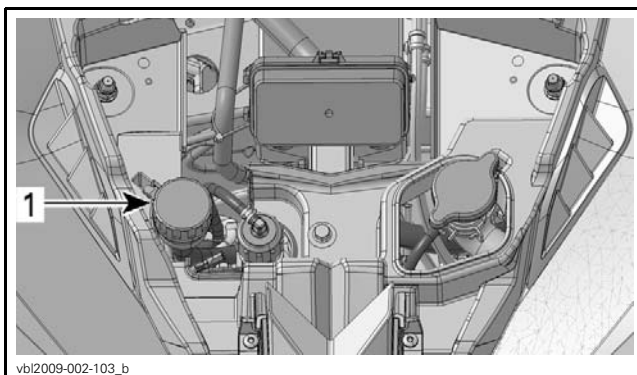
NOTICE Be careful not to damage the diaphragm while removing and installing handlebar reservoir caps.

Brake Pedal Fluid Level Verification

1. Park vehicle straight on a level surface.
2. Remove front service compartment panel.

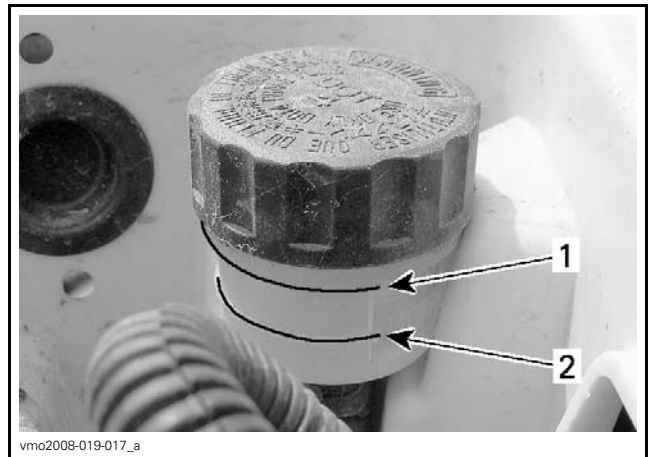


vbi2009-002-101_b
OUTLANDER SERVICE COMPARTMENT
 1. Brake pedal reservoir



vbi2009-002-103_b
RENEGADE SERVICE COMPARTMENT
 1. Brake pedal reservoir

3. Check the brake fluid level.



vmo2008-019-017_a
TYPICAL
 1. MAX. mark
 2. MIN. mark

4. Ensure that fluid is between MIN. and MAX. marks.
5. If necessary, add recommended brake fluid.
6. Reinstall front service compartment panel.

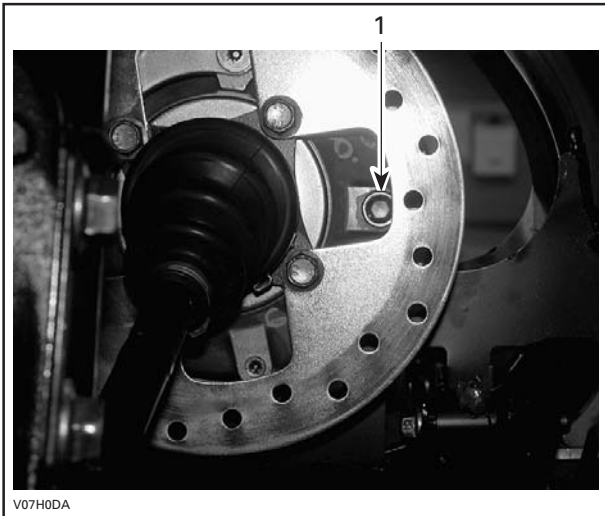
Front and Rear Differential Oil

Recommended Oil

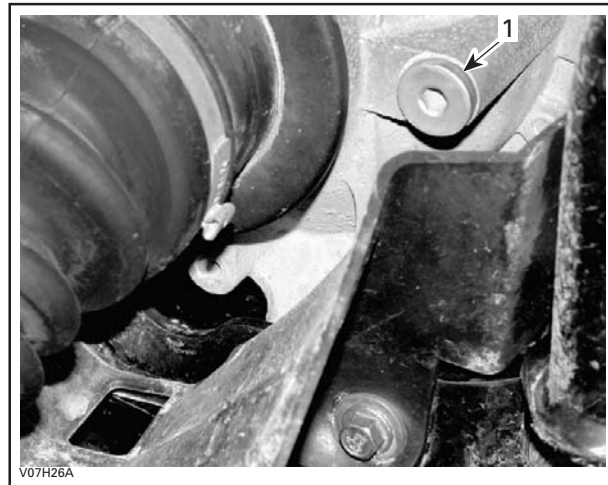
Use XPS SYNTHETIC GEAR OIL (75W 90) (P/N 293 600 043).

Front Differential Oil Level Verification

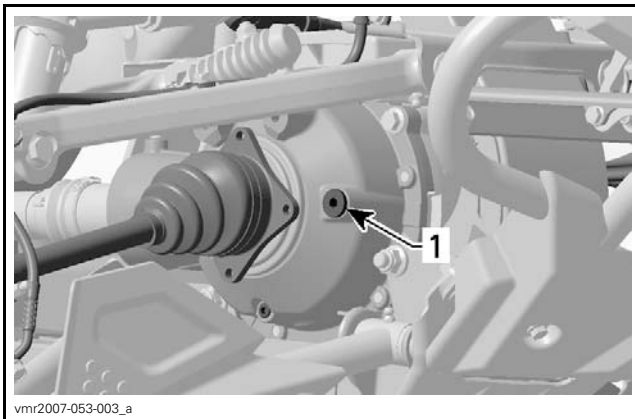
1. Park vehicle straight on a level surface.
2. Clean filler plug.
3. Remove filler plug.
4. Check front differential oil level.
5. Ensure that oil reaches the lower edge of filler hole.
6. If necessary, add recommended oil.
7. Install filler plug then torque to 22 N•m (16 lbf•ft).



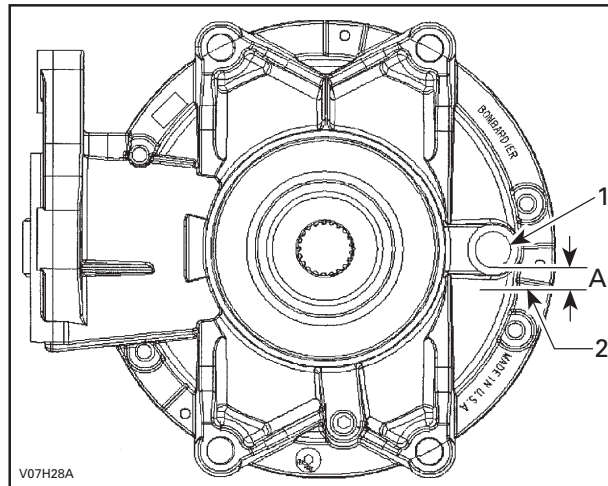
OUTLANDER SERIES
1. Filler plug



1. Filler plug



RENEGADE SERIES
1. Filler plug



TYPICAL
A. 25 mm to 32 mm (1 in to 1-1/4 in)
1. Filler plug
2. Oil level

Rear Differential Oil Level Verification

NOTE: The rear differential oil is not level with the filler hole.

1. Park vehicle straight on a level surface.
2. Clean filler plug.
3. Remove filler plug.
4. Check rear differential oil level by inserting a wire with a 90° bend through oil filler hole.
5. Ensure that oil is between 25 mm to 32 mm (1 in to 1-1/4 in) from the bottom of oil filler hole.
6. If necessary, add recommended oil.
7. Install filler plug then torque to 22 N•m (16 lbf•ft).

SET-UP

Tires Pressure

NOTICE Inflate tires at 200 kPa (30 PSI) THEN set tire to vehicle specification. This will ensure proper seating of the tire bead.

Initial Inflating

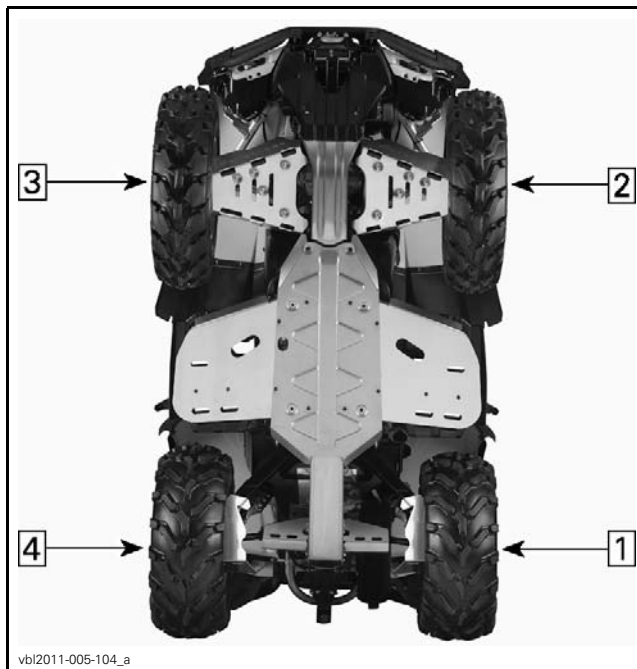
1. Read and remove hang tag from tire valve.



vbl2011-005-102

HANG TAG - TYPICAL (OUTLANDER SHOWN)

- Inflate tires at 200 kPa (30 PSI) according to the following sequence.



vbl2011-005-104_a

TYPICAL (OUTLANDER SHOWN)

- Step 1: Inflate LH rear tire
 Step 2: Inflate LH front tire
 Step 3: Inflate RH front tire
 Step 4: Inflate RH rear tire

- Refer to *INFLATING TO SPECIFICATION* to complete inflating procedure.

Inflating to Specification

- Set tires to specification using the same sequence than the initial inflating, refer to the following table.

TIRE PRESSURE (ALL MODELS)		
	FRONT	REAR
MAX	48.3 kPa (7 PSI)	48.3 kPa (7 PSI)
MIN	34.5 kPa (5 PSI)	34.5 kPa (5 PSI)

NOTICE Always check pressure when tires are cold.

NOTICE Low pressure may cause tire to deflate and rotate on wheel. Overpressure may burst the tire. Always follow recommended pressure. Since tires are low-pressure type, a manual pump should be used.

NOTE: Tire pressure varies with temperature and altitude.

NOTE: A pressure gauge is supplied in the tool kit.

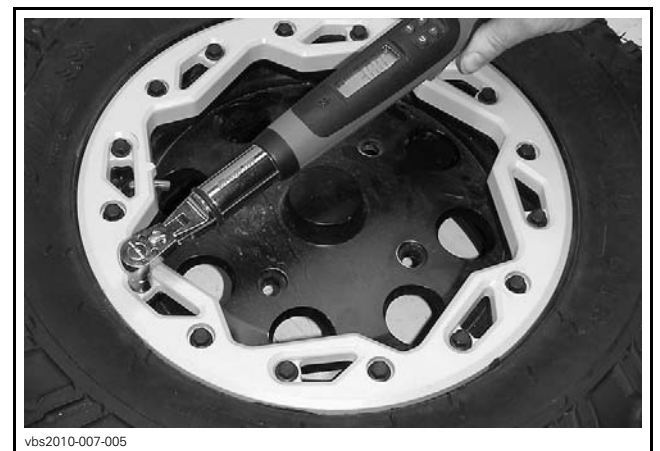
Wheel Beadlock

Wheel Beadlock Retorque

X xc Package

NOTICE Do not use an impact wrench for tightening beadlock screws in order to avoid to damage them.

- Retorque all screws to 6 N•m (53 lbf•in) in a criss-cross sequence.
- Tighten screws a few turns at a time to ensure even pressure on the beadlock clamp ring.



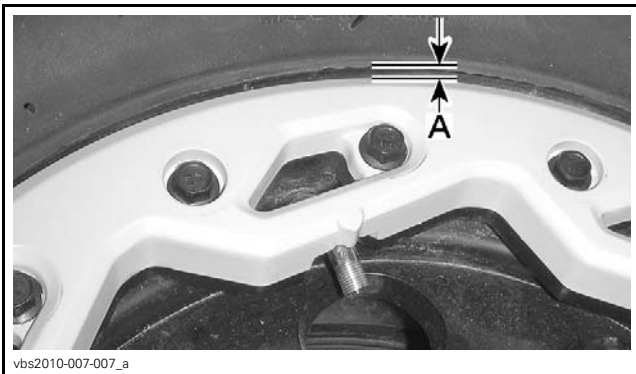
vbs2010-007-005

NOTE: It is normal that the beadlock clamp ring flexes slightly to match the tire bead.

Wheel Beadlock Gap Verification

X xc Package

- Verify the gap between tire and beadlock clamp ring, it should be practically equal all around the ring.



A. Gap equal all around bead lock clamp ring

Readjust if required.

Brake Disk Cleanup

1. Clean front and rear brake discs using PULLEY FLANGE CLEANER (P/N 413 711 809).

NOTICE A thin layer of anticorrosion product can be present on the brake disc and must be removed before using the vehicle. Not conforming to this procedure may lead to a brake chattering and the brake pads replacement would be necessary to solve the problem.

Protective Materials

1. Ensure that all protective materials are removed from vehicle.

ADJUSTMENTS

General Guidelines

All adjustments have already been performed at factory, it is only necessary to validate them. However, if readjustment is needed, refer to the appropriate *ATV SHOP MANUAL* for the proper procedure.

Transmission Lever

1. Verify that transmission lever works properly and adjust if required.



TYPICAL - TRANSMISSION LEVER

Suspension

⚠ WARNING
 Left and right adjusting cams must always be set at the same position. Never adjust one adjusting cam only. Uneven adjustment can cause poor handling and loss of stability, which could lead to an accident.

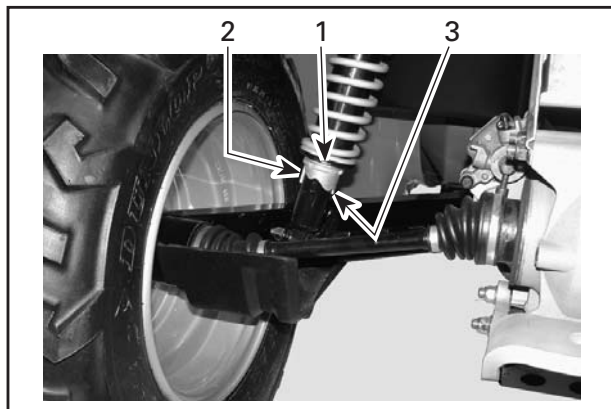
NOTE: The front suspension of Outlander 400 series and Outlander 500 series are not adjustable.

Front and Rear Suspension

1. Adjust the spring preload as per the owner's preference.
2. Refer to the following table for proper adjustment.

ACTION	SPRING LENGTH	RIDE TYPE	ROAD CONDITION
Turn adjusting cam clockwise	Shorten the spring	Firmer ride	Rough road condition
Turn adjusting cam counterclockwise	Lengthen the spring	Softer ride	Smooth road condition

It is recommended to shorten the spring length when carrying cargo or pulling a trailer.



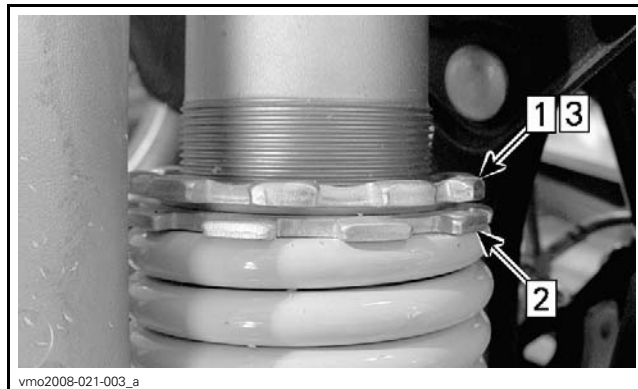
TYPICAL

1. Adjusting cam
2. Lengthen the spring
3. Shorten the spring

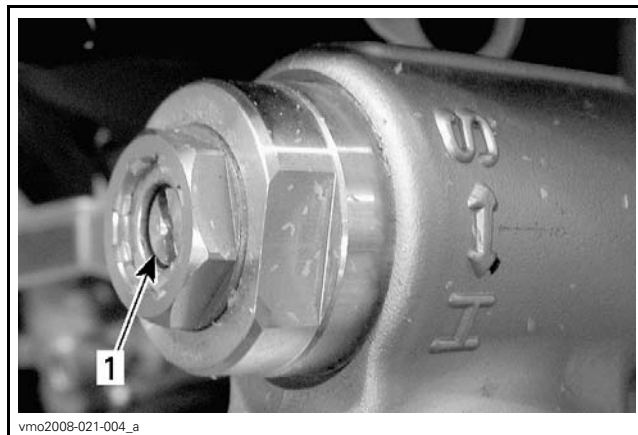
X xc Package

3. Adjust the suspension as per the owner's preference.
4. Refer to the following table for proper adjustment.

ADJUSTMENT	ACTION	RIDE TYPE
Spring Preload	Shorten the spring	Firmer ride
	Lengthen the spring	Softer ride
Low Speed Compression	Turning it clockwise (H)	Stiffer (increases shock damping action)
	Turning it counterclockwise (S)	Softer (decreases shock damping action)
High Speed Compression	Turning it clockwise (H)	Stiffer (increases shock damping action)
	Turning it counterclockwise (S)	Softer (decreases shock damping action)
Rebound	Turning it clockwise (H)	Stiffer (increases shock damping action)
	Turning it counterclockwise (S)	Softer (decreases shock damping action)



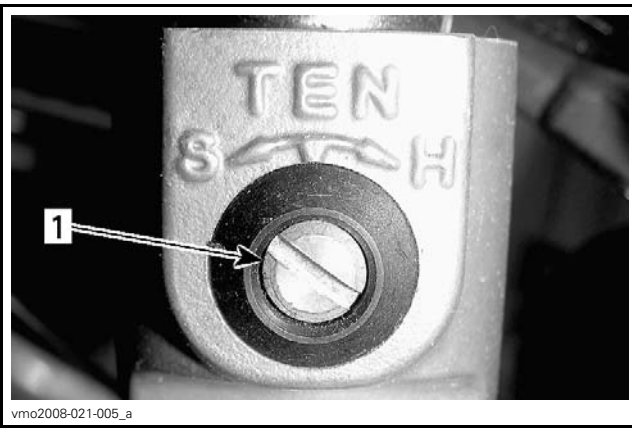
PRELOAD ADJUSTMENT
 Step 1: Loosen top locking ring
 Step 2: Turn adjusting ring accordingly
 Step 3: Tighten top locking ring



COMPRESSION - LOW SPEED
 1. Compression adjuster (flat screwdriver)



COMPRESSION - HIGH SPEED
 1. Compression adjuster (17 mm wrench)

**REBOUND**

1. Rebound adjuster (flat screwdriver)

Brake System Pressurization

1. Activate handlebar brake lever (s) as well as the foot pedal.
2. If the brakes feel spongy, pump the handlebar brake lever (s) as well as the pedal.
3. Continue until brakes have a firm feel and work properly.

B.U.D.S. Programming

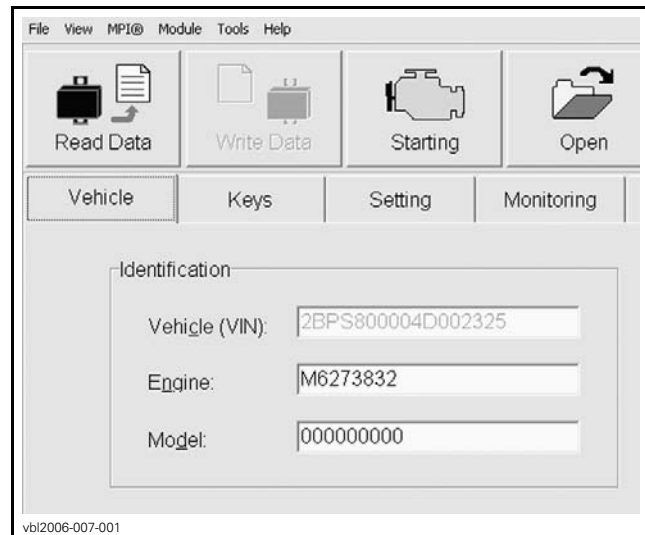
Connecting a PC to Vehicle

1. Connect the PC to vehicle. Refer to the latest edition of *CAN-AM ATV B.U.D.S. SOFTWARE AND COMMUNICATION TOOLS* for the proper connecting procedure.
2. Ensure that the status bar shows the proper protocol and the proper number of modules.
3. Press the READ DATA button from the tool bar to initiate communication with the vehicle.

Entering Customer's Name

NOTE: When starting the vehicle, the multifunction display will show the name of the customer.

1. Click on the VEHICLE tab to open the vehicle information page.

**VEHICLE TAB**

2. Type the name of the customer.



3. Click on WRITE DATA to save the information in the vehicle's ECM.

NOTE: After you are finished typing the name, B.U.D.S. automatically updates the Delivery Date on the screen.

Resetting Trip Hours and Trip Distance

1. Ensure that the VEHICLE tab is selected.
2. Click on the RESET TRIP buttons to reset the information.

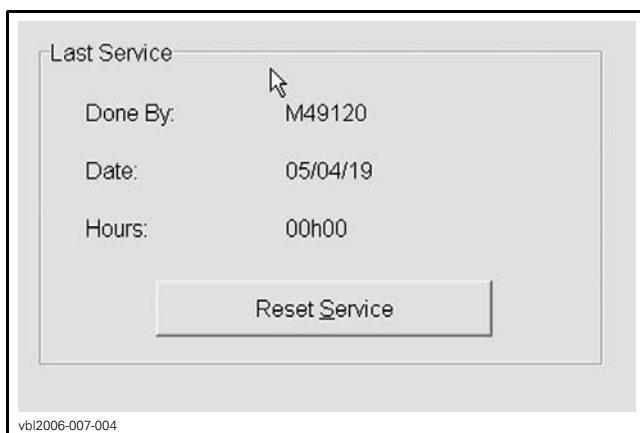


RESET TRIP BUTTONS

NOTE: It can also be done directly on the info-center, using the selector button.

Resetting Last Service

1. Click on the RESET SERVICE button to reset the informations.

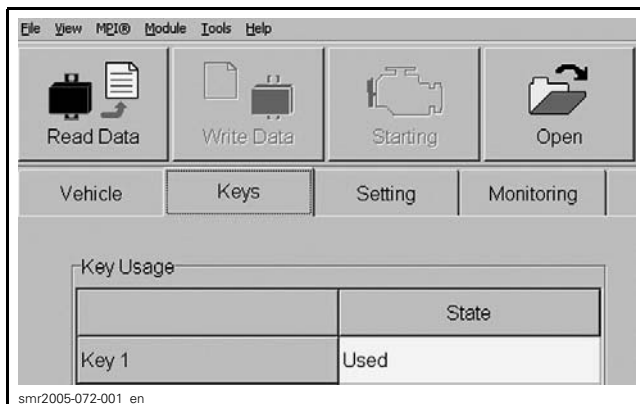


RESET SERVICE BUTTON

After each maintenance service, last service should be reset to keep a good tracking of the vehicle service history.

Programing Keys

1. Click on KEYS tab.



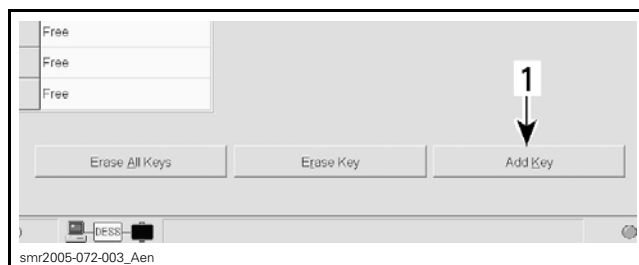
KEYS TAB

2. Click on ERASE ALL KEYS button.
3. Insert ignition key in the ignition switch.



D.E.S.S. IGNITION KEY

4. Turn ignition switch to any ON position.
5. Click on ADD KEY button.



1. Add Key Button

6. Repeat to program more keys.
7. Click on WRITE DATA to save the information in the vehicle's ECM.

Speedometer Reading

The speedometer is factory preset in miles but it is possible to change it to kilometer reading. Any unit modification is applied to the speedometer, odometer and trip meter.

1. Select SETTING tab in B.U.D.S.
2. Select Miles or Kilometers from the CLUSTER SCALE section.

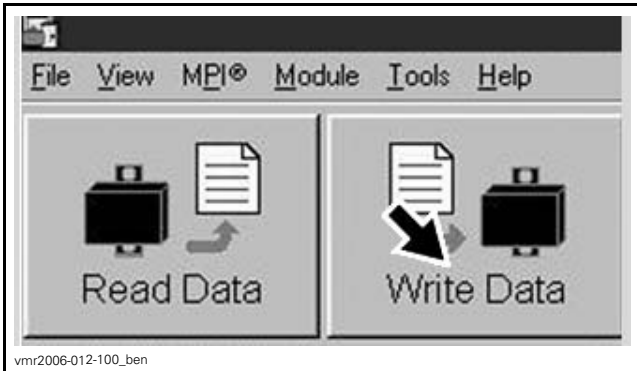
NOTE: No data will be lost when changing this setting.

Ending a B.U.D.S. Session

1. Click on FAULT tab and check if there are active faults.
 - If so, service vehicle then clear the faults in B.U.D.S.

NOTICE After a problem has been solved, ensure to clear the fault(s) in the ECM. This will properly reset the appropriate counter(s). This will also records that the problem has been fixed in the ECM memory.

- Click on WRITE DATA button to transfer new settings and information to the ECM.



WRITE DATA BUTTON

- Click on EXIT button to end session.
- Disconnect all cables and hardware from vehicle.
- Ensure to reinstall the cap over the vehicle's communication connector.

ASSEMBLY INSPECTION

Inspect the following parts to make sure that the vehicle is properly assembled.

- Handlebar tightness
- Wheel nut torque
- Tubes/hoses routing and condition
- Steering column cotter pin
- Suspension arm ball joint cotter pins
- Tie rod end nuts and cotter pins
- Wheel nuts and cotter pins
- Complete applicable recall or factory-directed modification.

FINAL INSPECTION

Vehicle Test Run

- Ride the vehicle to ensure proper operation of all systems and components.

Vehicle Cleaning

- Wash and dry the vehicle.

NOTICE Never use a high pressure washer to clean the vehicle. USE LOW PRESSURE ONLY (like a garden hose). The high pressure can cause electrical or mechanical damages.

NOTICE 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.

- Remove any dirt.
- Clean vinyl and plastic parts, using flannel clothes with XPS MULTI-PURPOSE CLEANER (P/N 219 701 709).
- Clean the entire vehicle, including metallic parts, with BRP HEAVY DUTY CLEANER (P/N 293 110 001).
- Painted parts which are damaged should be properly repainted to prevent rust.

Delivery To Customer

Oiling Air Filter

Ask to owner if the vehicle will be used in severe dusty environments.

- If not, complete with *BEFORE DELIVERY THE VEHICLE*.
- If the answer is positive or if the situation is possible, advise the owner to clean the air filter element more frequently as recommended in the Operator's guide to ensure proper engine performances and durability. Then using the service bulletin 2009-10, oil the foam element of the air filter before delivery the vehicle.

Before Delivery the Vehicle

Complete the *PREDELIVERY CHECK LIST*.

The customer must read and sign the *PREDELIVERY CHECK LIST*.

Give *OPERATOR'S GUIDE* and *SAFETY DVD* to customer.

NOTE: Hang tag is to be removed by the owner only.

Any person who rides this vehicle should read and understand all the information given on hang tag and safety labels before riding.

TECHNICAL DATA*Outlander 400 series*

MODEL		OUTLANDER™ 400 EFI	
ENGINE			
Engine type		ROTAX 400, 4-stroke, Single Over Head Camshaft (SOHC), liquid cooled	
Number of cylinder		1	
Number of valves		4 valves (mechanical adjustment)	
Bore		91 mm (3.58 in)	
Stroke		61.5 mm (2.42 in)	
Displacement		400 cm ³ (24 in ³)	
Compression ratio		10.3:1	
Decompressor type		Automatic	
Maximum HP RPM		7500 RPM	
Lubrication	Type	Wet sump with replaceable oil filter	
	Oil filter	BRP ROTAX paper type, replaceable	
	Engine oil	Capacity (oil change with filter)	3 L (3.2 qt (U.S. liq.)) (engine/transmission)
		Recommended	For the summer season, use XPS SYNTHETIC BLEND OIL (SUMMER GRADE) (P/N 293 600 121) For the winter season, use XPS SYNTHETIC OIL (WINTER GRADE) (P/N 293 600 112) see <i>OIL VISCOSITY CHART</i>
Exhaust system		Spark arrestor approved by USDA Forest Service	
Air filter		Synthetic paper filter with foam	
GEARBOX			
Type		Dual range (HI-LO) with park, neutral and reverse	
COOLING SYSTEM			
Coolant	Type	Ethyl glycol/water mix (50% coolant, 50% water). Use premixed coolant sold by BRP (P/N 219 700 362) or coolant specifically designed for aluminum engines	
	Capacity	2.5 L (2.6 qt (U.S. liq.))	
ELECTRICAL SYSTEM			
Magneto generator output		400 W	
Ignition system type		CDI (Capacity Discharge ignition)	
Ignition timing		Not adjustable	
Spark plug	Quantity	1	
	Make and type	NGK DCPR8E	
	Gap	0.7 mm to 0.8 mm (.028 in to .031 in)	
Engine RPM limiter setting	Forward	8000 RPM	
	Reverse	4000 ± 100 RPM	
Battery	Type	Dry battery type	
	Voltage	12 volts	
	Nominal rating	18 A•h	
	Power starter output	0.7 KW	
Headlight		2 x 35 W	

MODEL			OUTLANDER™ 400 EFI	
Taillight/Brake light			8/27 W	
Fuses	Front fuse box	Accessories	Aux. supply	20 A
			Diagnostic	
			Headlight	
			Power outlet	
			Winch (XT)	
		4 x 4		
	ECM	5 A and 7.5 A		
	Fuel pump	7.5 A		
Gauge				
Taillight				
Diagnostic				
Fan	20 A			
Fuses	Rear fuse holder	Main	30 A	
		Accessories	Fan	30 A
	Acc. items in fuse box			
FUEL SYSTEM				
Fuel delivery		Type	Electronic Fuel Injection (EFI), Dell'Orto 46 mm throttle body	
Fuel pump		Type	Bosch	
		Model	Electrical (in fuel tank)	
Idle speed			1300 ± 50 RPM	
Fuel		Type	Unleaded gasoline	
		Minimum octane	Inside North America	87 (R+M)/2 or higher
			Outside North America	92 RON or higher
Fuel tank capacity			16.3 L (4 U.S. gal.)	
Fuel tank reserve			± 2 L (.5 U.S. gal.)	
DRIVE SYSTEM				
Front differential			Shaft driven/auto-lock differential (Visco-Lok)	
Front differential ratio			3.6:1	
Rear axle			Shaft driven/locked differential	
Rear axle ratio			3.6:1	
Differential oil		Capacity	Front	500 ml (17 U.S. oz)
			Rear	250 ml (8.5 U.S. oz)
		Recommended	BRP differential oil (P/N 293 600 043)	
CV joint grease			CV joint grease (P/N 293 550 019)	
Propeller shaft grease			XPS synthetic grease (P/N 293 550 010)	
TRANSMISSION				
Type			CVT (Continuously Variable Transmission)	
Engagement RPM			2000 ± 100 RPM	
STEERING SYSTEM				
Turning radius		1-UP	1.8 m (5.9 ft)	
		2-UP	2 m (6.6 ft)	

MODEL		OUTLANDER™ 400 EFI		
Total toe (vehicle on ground)		0 mm ± 4 mm (0 in ± .157 in)		
FRONT SUSPENSION				
Suspension type		MacPherson		
Suspension travel		178 mm (7 in)		
Preload adjustment		N.A.		
REAR SUSPENSION				
Suspension type		TTI™ independent		
Suspension travel		203 mm (8 in)		
Shock absorber	Qty	2		
	Type	Oil		
Preload adjustment		5 settings		
BRAKES				
Front brake	Type	Hydraulic, 2 discs		
Rear brake	Type	Hydraulic, single disc		
Brake fluid	Capacity	180 ml (6.1 U.S. oz)		
	Type	DOT 4		
Parking brake		Hydraulic lock-4 wheels		
Brake pad material	Front	Organic		
	Rear	Metallic		
Minimum pad thickness		1 mm (.039 in)		
Minimum brake disc thickness	Front	3.5 mm (.138 in)		
	Rear	4.3 mm (.169 in)		
Maximum brake disc warpage		0.2 mm (.008 in)		
TIRES				
Pressure	1-UP Models	Front	Max.	48 kPa (7 PSI)
			Min.	34.5 kPa (5 PSI)
		Rear	Max.	48 kPa (7 PSI)
			Min.	34.5 kPa (5 PSI)
	2-UP Models	Front	Max.	48 kPa (7 PSI)
			Min.	34.5 kPa (5 PSI)
		Rear	Max.	48 kPa (7 PSI)
			Min.	34.5 kPa (5 PSI)
Minimum tire thread depth		3 mm (.118 in)		
Size	Front	25 x 8 x 12 (in)		
	Rear	25 x 10 x 12 (in) XT: 25 x 11 x 12 (in)		

MODEL		OUTLANDER™ 400 EFI
WHEELS		
Size	Front	12 x 6 (in)
	Rear	12 x 7.5 (in)
Wheel nuts torque	Steel Wheel	70 N•m (52 lbf•ft)
	Aluminum Wheel	100 N•m (74 lbf•ft)
DIMENSIONS		
Overall length	1-UP	218 cm (86 in)
	2-UP	239 cm (94 in)
Overall width		117 cm (46 in)
Overall height		114 cm (45 in)
Wheelbase	1-UP	124 cm (49 in)
	2-UP	145 cm (57 in)
Wheel track	Front	96.5 cm (38 in)
	Rear	91.4 cm (36 in)
Ground clearance		23.6 cm (9 in)
WEIGHT AND LOADING CAPACITY		
Dry weight	1-UP	286 kg (630 lb)
	2-UP	308 kg (680 lb)
Weight distribution	Front/rear	1-UP: 49/51 2-UP: 46/54
Rear storage box (included with rear rack weight)		10 kg (22 lb)
Rack	Front	45 kg (99 lb)
	Rear (including rear storage box and tongue weight)	90 kg (198 lb)
Total vehicle load allowed (including driver, all other loads and added accessories)	1-UP	227 kg (500 lb)
	2-UP	235 kg (518 lb)
Gross vehicle weight rating	1-UP	460 kg (1,014 lb)
	2-UP	554 kg (1,221 lb)
Towing capacity		500 kg (1,102 lb)
Tongue capacity (included with rear rack weight)		14 kg (31 lb)

Outlander 500-650-800R series (except X xc Models)

MODEL		OUTLANDER 500	OUTLANDER 650	OUTLANDER 800R
ENGINE				
Engine type		ROTAX V490	ROTAX V660	ROTAX V810
		4-stroke, Single Over Head Camshaft (SOHC), liquid cooled		
Number of cylinders		2		
Number of valves		8 valves (mechanical adjustment)		
Bore		82 mm (3.23 in)		91 mm (3.58 in)
Stroke		47.3 mm (1.86 in)	61.5 mm (2.42 in)	
Displacement		499.6 cm ³ (30.5 in ³)	649.6 cm ³ (39.64 in ³)	799.9 cm ³ (48.81 in ³)
Compression ratio		10.7:1	10.3:1	
Maximum HP		7400 RPM	7700 RPM	7250 RPM
Lubrication	Type	Wet sump. Replaceable oil filter		
	Oil filter	BRP Rotax paper type, replaceable		
	Engine oil	Capacity (oil change with filter)	2.2 L (2.3 qt (U.S. liq.))	
		Recommended	For the summer season, use XPS SYNTHETIC BLEND OIL (SUMMER GRADE) (P/N 293 600 121) For the winter season, use XPS SYNTHETIC OIL (WINTER GRADE) (P/N 293 600 112) see <i>ENGINE OIL VISCOSITY CHART</i>	
Exhaust system		Spark arrestor approved by USDA Forest Service		
Air filter		Synthetic paper filter with foam		
COOLING SYSTEM				
Coolant	Type	Ethyl glycol/water mix (50% coolant, 50% water). Use premixed coolant sold by BRP (P/N 219 700 362) or coolant specifically designed for aluminum engines		
	Capacity	2.5 L (2.6 qt (U.S. liq.))		
ELECTRICAL SYSTEM				
Magneto generator output (except XT, XT-P and LTD)		400 W		
Magneto generator output (XT, XT-P and LTD models)		650 W		
Ignition system type		IDI (Inductive Discharge Ignition)		
Ignition timing		Not adjustable		
Spark plug	Quantity	2		
	Make and type	NGK DCPR8E		
	Gap	0.6 mm to 0.7 mm (.024 in to .028 in)		
Engine RPM limiter setting	Forward	8000 RPM		
	Reverse	3200 RPM		
Battery	Type	Dry battery type		
	Voltage	12 volts		
	Nominal rating	18 A•h		
	Power starter output	0.7 KW		
Headlight		2 x 35 W		
Taillight		7/29 W		
Indicator lamps		LEDS, 0.7 V approximately (each)		

MODEL			OUTLANDER 500	OUTLANDER 650	OUTLANDER 800R
Fuses	Front fuse box	Ignition coils	5 A		
		Fan	20 A		
		Fuel injectors	5 A		
		Speedometer/speed sensor/taillight	7.5 A		
		Fuel pump	7.5 A		
		Engine control module (ECM)	5 A		
		Accessories	20 A		
		Air controlled suspension (ACS) (if applicable)	20 A		
	Rear fuse holder	Main	30 A		
		Fan/Accessories	30 A (40 A for LTD models)		
Dynamic power steering (DPS) (if applicable)		40 A			
FUEL SYSTEM					
Fuel delivery		Type	Electronic Fuel Injection (EFI), Dell'Orto 46 mm throttle body, 1 injector per cylinder		
Fuel pump		Type	Electrical (in fuel tank)		
		Model	Bosch		
Idle speed			1250 ± 50 RPM (not adjustable)		
Fuel	Type		Regular unleaded gasoline		
	Octane no.	Inside North America	87 ((R+M)/2) or higher		
		Outside North America	92 RON or higher		
Fuel tank capacity			16.3 L (4.3 U.S. gal.)		
Remaining fuel in fuel tank when display light turns ON			± 2 L (.5 U.S. gal.)		
CVT TRANSMISSION					
Type			CVT (Continuously Variable Transmission)		
Engagement RPM			1750 ± 100 RPM		
GEARBOX					
Type			Dual range (HI-LO) with park, neutral and reverse		
Gearbox oil	Capacity		400 ml (14 U.S. oz)		
	Recommended		XPS chaincase oil		
DRIVE SYSTEM					
Front drive			Shaft driven/auto-lock differential (shear pump)		
Front drive ratio			3.6:1		
Rear drive			Shaft driven/locked differential		
Rear drive ratio			3.6:1		
Differential oil	Capacity	Front	500 ml (17 U.S. oz)		
		Rear	250 ml (8.5 U.S. oz)		
	Recommended		BRP differential oil (P/N 293 600 043)		
CV joint grease			CV joint grease (P/N 293 550 019)		
Propeller shaft grease			XPS synthetic grease (P/N 293 550 010)		

MODEL		OUTLANDER 500	OUTLANDER 650	OUTLANDER 800R
STEERING SYSTEM				
Turning radius	1-UP	2.1 m (7 ft)		
	2-UP	2.4 m (7.9 ft)		
Total toe (vehicle on ground)		0 mm (0 in)		
FRONT SUSPENSION				
Suspension type		MacPherson	Double A-arm	
Suspension travel		178 mm (7 in)	203 mm (8 in)	
Shock absorber	Qty	2		
	Type	Oil		
Front preload adjustment		—	5 settings	
REAR SUSPENSION (except ACS)				
Suspension type		TTI™ independent		
Suspension travel		229 mm (9 in)		
Shock absorber	Qty	2		
	Type	Oil		
Rear preload adjustment		5 settings		
REAR SUSPENSION (ACS)				
Suspension type		—	—	TTI™ independent
Shock absorber type		—	—	High pressure gas shock
Pneumatic pressure range		—	—	0.35 bar to 6.90 bar (5 PSI to 100 PSI)
Ride height adjustment		—	—	6 preset modes
BRAKES				
Front brake	Type	Hydraulic, 2 discs		
Rear brake	Type	Hydraulic, single disc		
Brake fluid	Capacity	180 ml (6 U.S. oz)		
	Type	DOT 4		
Parking brake		Hydraulic lock-4 wheels		
Caliper		Floating		
Brake pad material	Front	Organic		
	Rear	Metallic		
Minimum brake pad thickness		1 mm (.039 in)		
Minimum brake disc thickness	Front	3.5 mm (.138 in)		
	Rear	4.3 mm (.169 in)		
Maximum brake disc warp		0.2 mm (.008 in)		
TIRES				
Pressure	Front	Maximum	48.3 kPa (7 PSI)	
		Minimum	34.5 kPa (5 PSI)	
	Rear	Maximum	48.3 kPa (7 PSI)	
		Minimum	34.5 kPa (5 PSI)	
Minimum tire thread depth		3 mm (.118 in)		
Size	Front	25 x 8 x 12	26 x 8 x 12	
	Rear	25 x 11 x 12	26 x 10 x 12	

TECHNICAL DATA

MODEL		OUTLANDER 500	OUTLANDER 650	OUTLANDER 800R
WHEELS				
Size	Front	12 x 6 (in)		
	Rear	12 x 7.5 (in)		
Wheel nuts torque	Steel Wheel	70 N•m ± 7 N•m (52 lbf•ft ± 5 lbf•ft)		
	Aluminum Wheel	100 N•m ± 10 N•m (74 lbf•ft ± 7 lbf•ft)		
DIMENSION				
Overall length	1-UP	218 cm (86 in)		
	2-UP	239 cm (94 in)		
Overall width	117 cm (46 in)			
Overall height	114 cm (45 in)			
Wheelbase	1-UP	130 cm (51 in)		
	2-UP	150 cm (59 in)		
Wheel track	Front	96.5 cm (38 in)		
	Rear	91.4 cm (36 in)		
Ground clearance		27.9 cm (11 in)	30.5 cm (12 in)	30.5 cm (12 in)
LOADING CAPACITY AND WEIGHT				
Weight	1-UP	293 kg (646 lb)	299 kg (659 lb)	301 kg (664 lb)
	2-UP	312 kg (688 lb)	322 kg (710 lb)	323 kg (712 lb)
Weight distribution	Front/rear	1-UP	51/49	
		2-UP	48/52	
Rear storage box (included with rear rack weight)	10 kg (22 lb)			
Rack	Front	45 kg (99 lb)		
	Rear (including rear storage box and tongue weight)	90 kg (198 lb)		
Total vehicle load allowed (including driver, all other loads and added accessories)	1-UP	235 kg (518 lb)		
	2-UP	272 kg (600 lb)		
Gross vehicle weight rating	1-UP	553 kg (1,219 lb)	584 kg (1,287 lb)	
	2-UP	558 kg (1,230 lb)	649 kg (1,431 lb)	
Towing capacity	591 kg (1,303 lb)			
Tongue capacity (included with rear rack weight)	23 kg (51 lb)			

Outlander 800R X xc Models

MODEL		OUTLANDER 800R X XC	
ENGINE			
Engine type		4-stroke, Single Over Head Camshaft (SOHC), liquid cooled	
Number of cylinders		2	
Number of valves		8 valves (mechanical adjustment)	
Bore		91 mm (3.58 in)	
Stroke		61.5 mm (2.42 in)	
Displacement		799.9 cm ³ (48.81 in ³)	
Compression ratio		10.3:1	
Maximum Horsepower RPM		7250 RPM	
Lubrication	Type	Wet sump. Replaceable oil filter	
	Oil filter	BRP Rotax® paper type, replaceable	
	Engine oil	Capacity (oil change with filter)	2.2 L (2.3 qt (U.S. liq.))
		Recommended	For the summer season, use XPS SYNTHETIC BLEND OIL (SUMMER GRADE) (P/N 293 600 121). For the winter season, use XPS SYNTHETIC OIL (WINTER GRADE) (P/N 293 600 112). See <i>OIL VISCOSITY CHART</i>
Exhaust system		Spark arrestor approved by USDA Forest Service	
Air filter		Synthetic paper filter with foam	
COOLING SYSTEM			
Coolant	Type	Ethyl glycol/water mix (50% coolant, 50% water). Use premixed coolant sold by BRP (P/N 219 700 362) or coolant specifically designed for aluminum engines	
	Capacity	2.5 L (2.6 qt (U.S. liq.))	
ELECTRICAL SYSTEM			
Magneto generator output		650 W	
Ignition system type		IDI (Inductive Discharge Ignition)	
Ignition timing		Not adjustable	
Spark plug	Quantity	2	
	Make and type	NGK DCPR8E	
	Gap	0.6 mm to 0.7 mm (.024 in to .028 in)	
Engine RPM limiter setting	Forward	8000 RPM	
	Reverse	3200 RPM	
Battery	Type	Dry battery type	
	Voltage	12 volts	
	Nominal rating	18 A•h	
	Power starter output	0.7 KW	
Headlight		2 x 35 W	
Taillight		7/29 W	
Indicator lamps		LEDS, 0.7 V approximately (each)	

MODEL			OUTLANDER 800R X XC
Fuses	Front fuse box	Ignition coils	5 A
		Fan	20 A
		Fuel injectors	5 A
		Speedometer/speed sensor/taillight	7.5 A
		Fuel pump	7.5 A
		Engine control module (ECM)	5 A
		Accessories	20 A
	Rear fuse holder	Main	30 A
		Fan/Accessories	30 A
Dynamic power steering (DPS)		40 A	
FUEL SYSTEM			
Fuel delivery		Type	Electronic Fuel Injection (EFI), Dell'Orto 46 mm throttle body, 1 injector per cylinder
Fuel pump		Model	Electrical (in fuel tank)
Idle speed			1250 ± 50 RPM (not adjustable)
Fuel	Type		Regular unleaded gasoline
	Minimum octane	Inside North America	87 (R+M)/2 or higher
		Outside North America	92 RON or higher
Fuel tank capacity			16.3 L (4 U.S. gal.)
Remaining fuel in fuel tank when display light turns ON			± 2 L (.5 U.S. gal.)
CVT TRANSMISSION			
Type			CVT (Continuously Variable Transmission)
Engagement RPM			1600 ± 100 RPM
GEARBOX			
Type			Dual range (HI-LO) with park, neutral and reverse
Gearbox oil	Capacity		400 ml (14 U.S. oz)
	Recommended		XPS chaincase oil (P/N 413 801 900)
DRIVE SYSTEM			
Differential oil	Capacity	Front	500 ml (17 U.S. oz)
		Rear	250 ml (8.5 U.S. oz)
	Recommended		BRP differential oil (P/N 293 600 043)
Front drive			Shaft driven/single Auto-lock differential (pump driven)
Front drive ratio			3.6:1
Rear drive			Shaft driven/single differential
Rear drive ratio			3.6:1
CV joint grease			CV joint grease (P/N 293 550 019)
Propeller shaft grease			XPS synthetic grease (P/N 293 550 010)
STEERING			
Turning radius			2.1 m (7 ft)
Total toe (vehicle on ground)			0 mm (0 in)
Camber angle			0°
Front sway bar			Yes

MODEL		OUTLANDER 800R X XC
SUSPENSION		
<i>FRONT</i>		
Suspension type		Double A-Arm
Suspension travel		216 mm (8.5 in)
Shock absorber	Qty	2
	Type	HPG Clicker
<i>REAR</i>		
Suspension type		TTI™ independent
Suspension travel		mm (in) 229 mm (9 in)
Shock absorber	Qty	2
	Type	HPG Clicker
BRAKES		
Front brake	Type	Hydraulic, 2 discs
Rear brake	Type	Hydraulic, single disc
Brake fluid	Capacity	250 ml (8.5 U.S. oz)
	Type	DOT 4
Parking brake		LH brake lever includes a lock on rear wheels
Caliper		Floating
Brake pad material	Front	Metallic
	Rear	Metallic
Minimum bake pad thickness		1 mm (.039 in)
Minimum brake disc thickness	Front	4.3 mm (.169 in)
	Rear	4.3 mm (.169 in)
Maximum brake disc warpage		0.2 mm (.008 in)
TIRES AND WHEELS		
<i>TIRES</i>		
Pressure	Front	Maximum: 48.3 kPa (7 PSI) Minimum: 34.5 kPa (5 PSI)
	Rear	Maximum: 48.3 kPa (7 PSI) Minimum: 34.5 kPa (5 PSI)
Minimum tire thread depth		3 mm (.118 in)
Size	Front	25 x 8 x 12 (in)
	Rear	25 x 10 x 12 (in)
<i>WHEELS</i>		
Size	Front	12 x 6 (in) Beadlock wheels
	Rear	12 x 7.5 (in) Beadlock wheels
Wheel nuts torque		100 N•m ± 10 N•m (74 lbf•ft ± 7 lbf•ft)
DIMENSIONS		
Overall length		218 cm (86 in)
Overall width		117 cm (46 in)
Overall height		114 cm (45 in)
Wheelbase		129.5 cm (51 in)
Wheel track	Front	96.5 cm (38 in)
	Rear	91.4 cm (36 in)

TECHNICAL DATA

MODEL		OUTLANDER 800R X XC
Ground clearance		30.5 cm (12 in)
LOADING CAPACITY AND WEIGHT		
Dry weight		338 kg (745 lb)
Weight distribution	Front/rear	51/49
Rear storage box		3.7 L (1 U.S. gal.)
Rack	Front	45 kg (99 lb)
	Rear	90 kg (198 lb)
Total vehicle load allowed (including driver, all other loads and added accessories)		235 kg (518 lb)
Gross vehicle weight rating		584 kg (1,287 lb)

Renegade series

MODEL		RENEGADE 500	RENEGADE 800R / 800R XXC
ENGINE			
Engine type		4-stroke, Single Over Head Camshaft (SOHC), liquid cooled	
Number of cylinders		2	
Number of valves		8 valves (mechanical adjustment)	
Bore		82 mm (3.23 in)	91 mm (3.58 in)
Stroke		47 mm (1.85 in)	61.5 mm (2.42 in)
Displacement		499.6 cm ³ (30.49 in ³)	799.9 cm ³ (48.81 in ³)
Compression ratio		10.3:1	
Maximum Horsepower RPM		7400 RPM	7250 RPM
Lubrication	Type		Wet sump. Replaceable oil filter
	Oil filter		BRP Rotax® paper type, replaceable
	Engine oil	Capacity (oil change with filter)	2.2 L (2.3 qt (U.S. liq.))
		Recommended	For the summer season, use XPS SYNTHETIC BLEND OIL (SUMMER GRADE) (P/N 293 600 121). For the winter season, use XPS SYNTHETIC OIL (WINTER GRADE) (P/N 293 600 112). See <i>OIL VISCOSITY CHART</i>
Exhaust system		Spark arrestor approved by USDA Forest Service	
Air filter		Synthetic paper filter with foam	
COOLING SYSTEM			
Coolant	Type		Ethyl glycol/water mix (50% coolant, 50% water). Use premixed coolant sold by BRP (P/N 219 700 362) or coolant specifically designed for aluminum engines
	Capacity		2.5 L (2.6 qt (U.S. liq.))
ELECTRICAL SYSTEM			
Magneto generator output (Except X xc)		400 W	
Magneto generator output (X xc)		650 W	
Ignition system type		IDI (Inductive Discharge Ignition)	
Ignition timing		Not adjustable	
Spark plug	Quantity		2
	Make and type		NGK DCPR8E
	Gap		0.6 mm to 0.7 mm (.024 in to .028 in)
Engine RPM limiter setting	Forward	8000 RPM	
	Reverse	3200 RPM	
Battery	Type		Dry battery type
	Voltage		12 volts
	Nominal rating		18 A•h
	Power starter output		0.7 KW
Headlights		4 x 60 W	
Taillight		8/26 W	
Indicator lamps		LEDS, 0.7 V approximately (each)	

MODEL			RENEGADE 500	RENEGADE 800R / 800R XXC
Fuses	Front fuse box	Ignition coils	5 A	
		Fan	20 A	
		Fuel injectors	5 A	
		Speedometer/speed sensor/taillight	7.5 A	
		Fuel pump	7.5 A	
		Engine control module (ECM)	5 A	
	Accessories	20 A		
	Rear fuse holder	Main	30 A	
		Fan/accessories	30 A	
Dynamic power steering (DPS) (if applicable)		40 A		
FUEL SYSTEM				
Fuel delivery	Type	Electronic Fuel Injection (EFI), Dell'Orto 46 mm throttle body, 1 injector per cylinder		
Fuel pump	Model	Electrical (in fuel tank)		
Idle speed		1250 ± 50 RPM (not adjustable)		
Fuel	Type	Regular unleaded gasoline		
	Minimum octane	Inside North America	87 (R+M)/2 or higher	
		Outside North America	92 RON or higher	
Fuel tank capacity		16.3 L (4 U.S. gal.)		
Remaining fuel in fuel tank when display light turns ON		± 2 L (.5 U.S. gal.)		
CVT TRANSMISSION				
Type		CVT (Continuously Variable Transmission)		
Engagement RPM		1600 ± 100 RPM		
GEARBOX				
Type		Dual range (HI-LO) with park, neutral and reverse		
Gearbox oil	Capacity	400 ml (14 U.S. oz)		
	Recommended	XPS chaincase oil (P/N 413 801 900)		
DRIVE SYSTEM				
Differential oil	Capacity	Front	500 ml (17 U.S. oz)	
		Rear	250 ml (8.5 U.S. oz)	
	Recommended	BRP differential oil (P/N 293 600 043)		
Front drive		Shaft driven/single Auto-lock differential (pump driven)		
Front drive ratio		3.6:1		
Rear drive		Shaft driven/single differential		
Rear drive ratio		3.6:1		
CV joint grease		CV joint grease (P/N 293 550 019)		
Propeller shaft grease		XPS synthetic grease (P/N 293 550 010)		
STEERING				
Turning radius		2.1 m (7 ft)		
Total toe (vehicle on ground)		0 mm (0 in)		
Camber angle		0°		
Front sway bar		No	Standard (800R X xc)	

MODEL		RENEGADE 500	RENEGADE 800R / 800R XXC
SUSPENSION			
<i>FRONT</i>			
Suspension type		Double A-Arm	
Suspension travel		216 mm (8.5 in)	
Shock absorber	Qty	2	
	Type	Oil 5 settings	HPG XXc : HPG Clicker
<i>REAR</i>			
Suspension type		TTI independent	
Suspension travel		229 mm (9 in)	
Shock absorber	Qty	2	
	Type	Oil 5 settings	HPG XXc : HPG Clicker
BRAKES			
Front brake	Type	Hydraulic, 2 discs	
Rear brake	Type	Hydraulic, single disc	
Brake fluid	Capacity	250 ml (8.5 U.S. oz)	
	Type	DOT 4	
Parking brake		LH brake lever includes a lock on rear wheels	
Caliper		Floating	
Brake pad material	Front	Metallic	
	Rear	Metallic	
Minimum brake pad thickness		1 mm (.039 in)	
Minimum brake disc thickness	Front	4.3 mm (.169 in)	
	Rear	4.3 mm (.169 in)	
Maximum brake disc warp		0.2 mm (.008 in)	
TIRES AND WHEELS			
<i>TIRES</i>			
Pressure	Front	Maximum: 48.3 kPa (7 PSI) Minimum: 34.5 kPa (5 PSI)	
	Rear	Maximum: 48.3 kPa (7 PSI) Minimum: 34.5 kPa (5 PSI)	
Minimum tire thread depth		3 mm (.118 in)	
Size	Front	25 x 8 x 12 (in)	
	Rear	25 x 10 x 12 (in)	
<i>WHEELS</i>			
Size	Front	12 x 6 (in)	12 x 6 (in) Beadlock wheels (800R X xc)
	Rear	12 x 7.5 (in)	12 x 7.5 (in) Beadlock wheels (800R X xc)
Wheel nuts torque		100 N•m ± 10 N•m (74 lbf•ft ± 7 lbf•ft)	
DIMENSIONS			
Overall length		218 cm (86 in)	
Overall width		117 cm (46 in)	
Overall height		114 cm (45 in)	

TECHNICAL DATA

MODEL		RENEGADE 500	RENEGADE 800R / 800R XXC
Wheelbase		129.5 cm (51 in)	
Wheel track	Front	96.5 cm (38 in)	
	Rear	91.4 cm (36 in)	
Ground clearance		30.5 cm (12 in)	
LOADING CAPACITY AND WEIGHT			
Dry weight		275 kg (606 lb)	
Weight distribution	Front/rear	51/49	
Rear storage box		3.7 L (1 U.S. gal.)	
Rack	Rear	16 kg (35 lb)	
Total vehicle load allowed (including driver, all other loads and added accessories)		141 kg (311 lb)	
Gross vehicle weight rating		476 kg (1,049 lb)	
Towing capacity		590 kg (1,301 lb)	