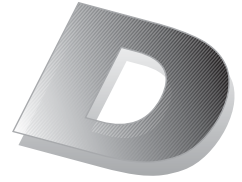




ATV
PREDELIVERY
Bulletin



June 01, 2008

Subject: **Can-Am™ Outlander™ and Renegade™**
Predelivery Inspection

No. **2009-2**

REVISION 1
February 19, 2009

⇨ UNDERLINED TEXT(S) BETWEEN ARROWS IS (ARE) ADDED ELEMENT(S) TO THE ORIGINAL PUBLICATION. ⇩

YEAR	MODEL	MODEL NUMBER	SERIAL NUMBER
2009	Outlander 400 EFI / 500 EFI / 650 EFI / 800R EFI	Refer to table on next pages for complete listing	All
	Renegade 500 EFI / 800R EFI / 800R EFI X™		

TABLE OF CONTENTS

IMPORTANT NOTICE	2	Brake Fluid	16
MODEL LISTING	3	Front and Rear Differential Oil	17
UNCRATING	4	SET-UP	18
PARTS TO BE INSTALLED	5	Tires Pressure	18
Battery	5	Brake Disk Cleanup	18
Handlebar<=	6	Protective Materials	18
Front Bumper	7	ADJUSTMENTS	19
Mirrors	7	General Guidelines	19
Winch Switch	7	Transmission Lever	19
Flag Holder	8	Suspension	19
Locking Device	8	Brake System Pressurization<=	20
Backrest	9	B.U.D.S. Programming	20
Handlebar Guard	10	ASSEMBLY INSPECTION	22
Mudguard	10	FINAL INSPECTION	22
Accessories Installation	10	Vehicle Test Run	22
Vehicle Decals	10	Vehicle Cleaning	23
Wind Deflector	11	Delivery To Customer	23
Central Skid Plate	12	TECHNICAL DATA	24
FLUIDS	13		
General Guidelines	13		
Fuel	13		
Engine Oil	13		
Gearbox Oil	14		
Engine Coolant	15		

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	CE MODEL NUMBER	SERIAL NUMBER
2009	Outlander 400	5A9A / 5A9B / 5A9C	5A9D	All
	Outlander 400 XT	5B9A / 5B9B / 5B9C	5B9F	
	Outlander 400 MAX	5C9A / 5C9B	5C9C	
	Outlander 400 MAX XT	5D9A / 5D9B / 5D9C / 5D9D	5D9F	
	Outlander 500	2T9A / 2T9B	---	
	Outlander 500 XT	2U9A / 2U9B / 2U9C / 2U9D / 2U9E	2U9F	
	Outlander 500 MAX	2W9A	---	
	Outlander 500 MAX XT	2X9A / 2X9B / 2X9C / 2X9D / 2X9E	2X9F	
	Outlander 650	2N9A / 2N9B / 2N9C	2N9D	
	Outlander 650 XT	2P9A / 2P9B / 2P9C / 2P9D / 2P9E / 2P9G	2P9H	
	Outlander 650 MAX	2R9A / 2R9B / 2R9C	2R9D	
	Outlander 650 MAX XT	2S9A / 2S9B / 2S9C / 2S9D / 2S9E / 2S9G	2S9H	
	Outlander 800R	2H9E / 2H9F / 2H9G	---	
	Outlander 800R XT	2J9J / 2J9K / 2J9L / 2J9M / 2J9N	---	
	Outlander 800R MAX	2K9A / 2K9B / 2K9C	2K9D	
	Outlander 800R MAX XT	2L9A / 2L9B / 2L9C / 2L9D / 2L9E / 2L9F	2L9G	
	Outlander 800R MAX LTD	2M9A / 2M9B / 2M9D / 2M9E	2M9C / 2M9F	
	Renegade 500	4E9A / 4E9B / 4E9C	4E9D	
	Renegade 800R	4B9A / 4B9B / 4B9C / 4B9E	4B9D / 4B9F	
	Renegade 800R X	4C9A / 4C9B	4C9C	

UNCRATING

⚠ WARNING

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

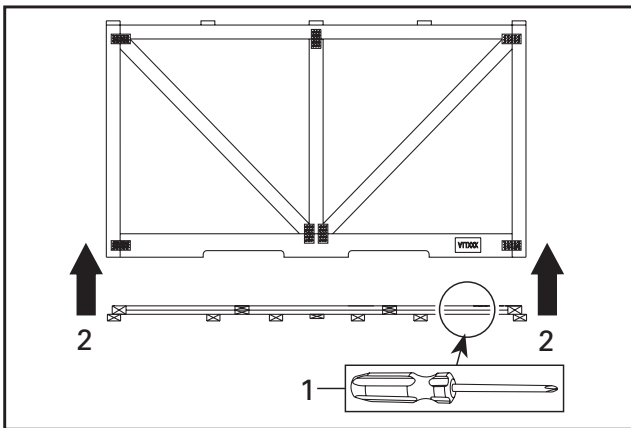
NOTICE Allowing the crate to drop may cause serious damages to vehicle.

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 bit (Scrulox #2 from Snap-on†† Tools or ECAR.1 from Facom††† Tools).

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.



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
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

X Models

ITEM	DESCRIPTION	QTY
1	Wind deflector with fasteners kit	2
2	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.

† 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.

PARTS TO BE INSTALLED

Battery

⚠ WARNING

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

⚠ CAUTION Never charge or boost battery while installed on vehicle.

NOTICE Always charge battery before its installation on the vehicle.

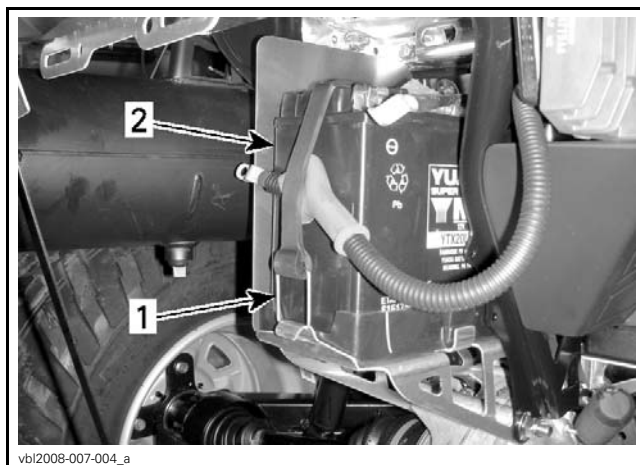
NOTICE Make sure not to squeeze battery cables between vehicle components.

Battery Installation

1. Refer to the latest edition of *CAN-AM ATV BATTERIES SERVICE BULLETIN* for proper activating, charging and maintenance procedures.

Outlander Models

2. Unhook battery retaining strap.



1. Retaining strap
2. Battery

Renegade Models

3. Unscrew battery retaining rod.



BATTERY RETAINING ROD

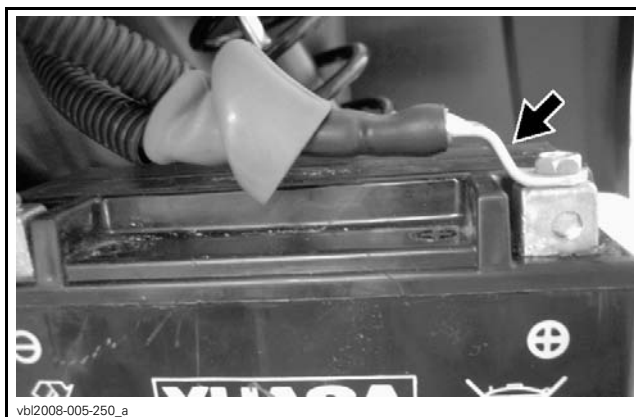
All Models

4. Remove battery from vehicle.
5. Charge battery. Refer to *CAN-AM ATV BATTERIES SERVICE BULLETIN*.
6. Install charged battery on vehicle.
7. Properly route battery cables. Refer to *BATTERY CABLE ROUTING* below.
8. Connect RED positive cable to positive battery post.
9. Connect BLACK negative cable to negative battery post.
10. Apply dielectric grease (P/N 293 550 004) on battery posts.
11. 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.

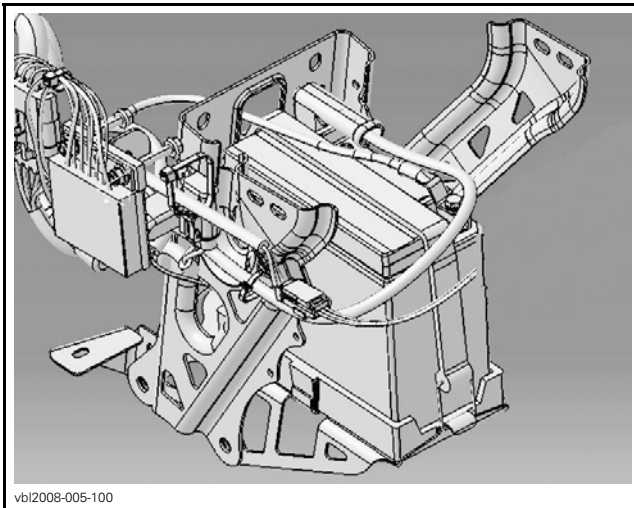


CORRECT WAY OF SECURING POSITIVE (+) POST

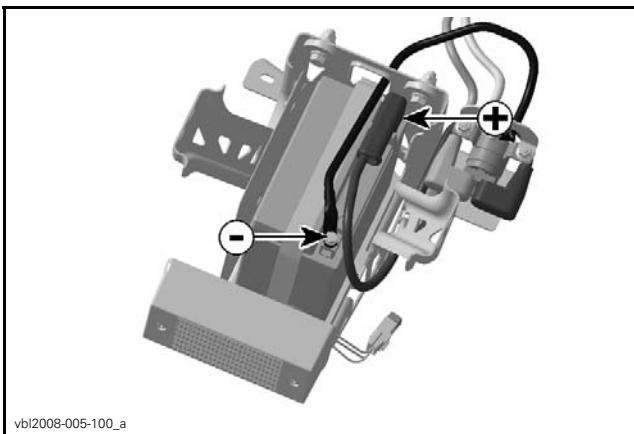


WRONG WAY OF SECURING THE POSITIVE (+) POST

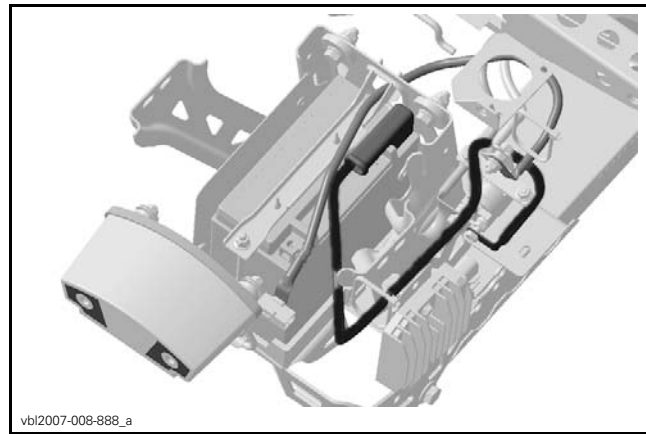
2. Ensure that the cables is routed as per the following illustrations.



OUTLANDER 400



OUTLANDER 500-650-800R



RENEGADE 500-800R

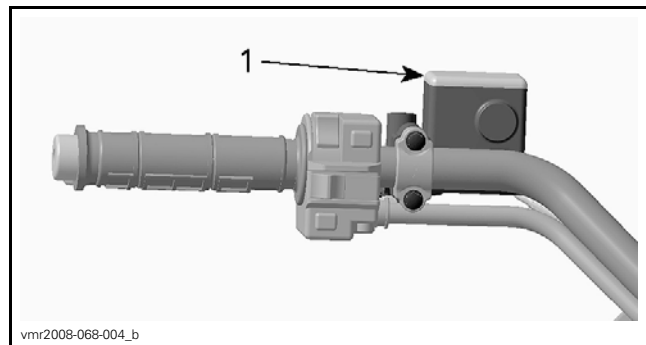
Handlebar<=

All Models Except Outlander 400 series<=

NOTE: ➡ There was a running change in production, vehicles produced after February 13, 2009 will need their handlebars adjusted.

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.

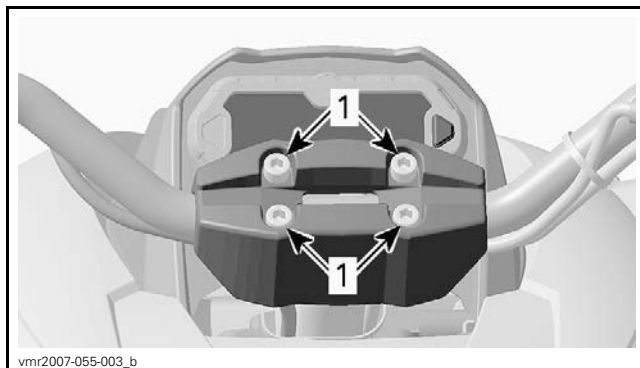
1. Place vehicle on a level surface.
2. Adjust both front wheels straight.
3. Carefully move handlebar upwards.
4. Adjust handlebar so the TOP of brake fluid reservoir (s) is (are) level with the ground.



BRAKE FLUID RESERVOIR

1. *Must be level*

5. Verify that handlebar is centered on vehicle (right/left).
6. Torque handlebar retaining screws to $31.5 \pm 3.5 \text{ N}\cdot\text{m}$ ($22.5 \pm 2.5 \text{ lbf}\cdot\text{ft}$).



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. ←

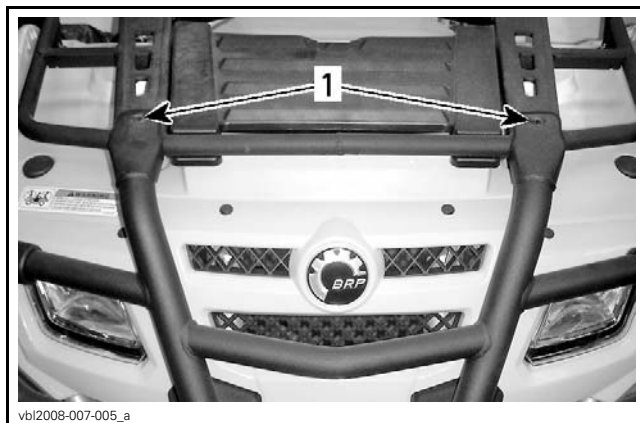
⚠ WARNING

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

Front Bumper

Outlander XT Models

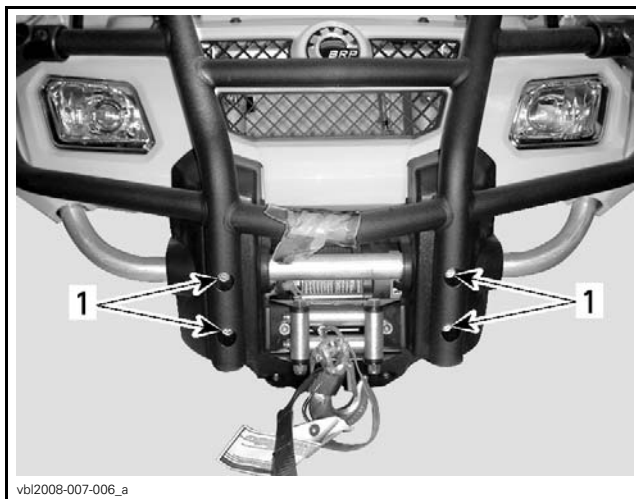
1. Install upper part of the bumper with:
 - 2x M8 x 20 bolts
 - 2x M8 flat washers
 - 2x M8 nuts



vbl2008-007-005_a

1. Upper retaining bolts

2. Do not torque upper retaining M8 nuts yet.
3. Install lower part of the bumper with :
 - 4x M8 x 40 screws



vbl2008-007-006_a

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).

Mirrors

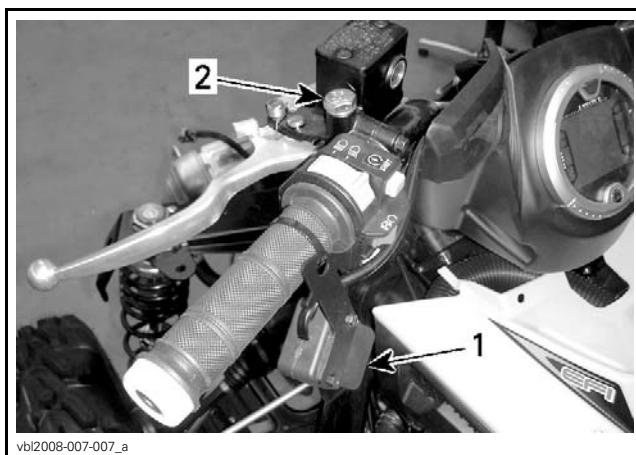
Outlander CE Models

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.



vbl2008-007-007_a

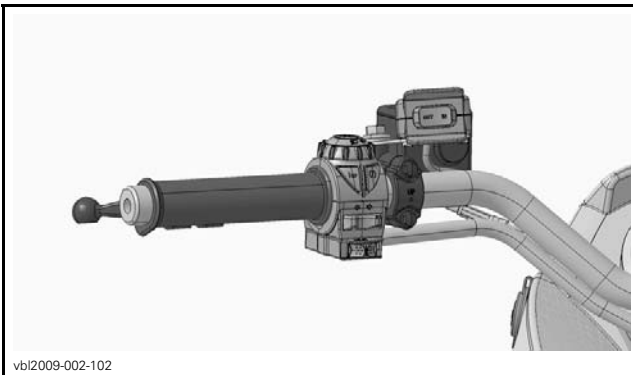
1. Winch switch
2. Brake housing bolt

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



vdd2006-001-017

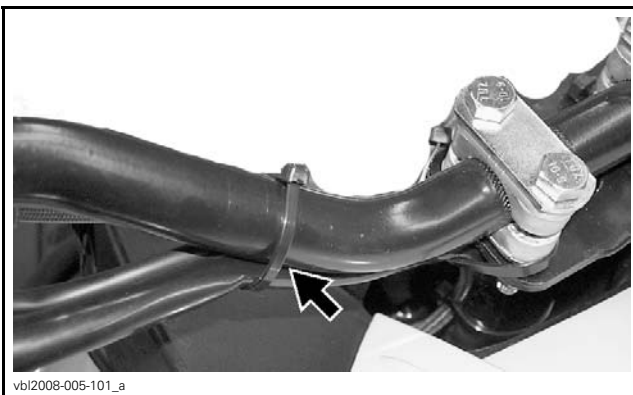
OUTLANDER XT AND LTD



vbi2009-002-102

OUTLANDER XT AND LTD (CE)

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

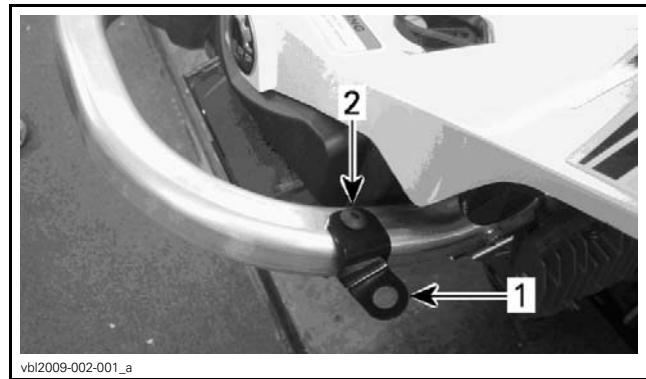


vbi2008-005-101_a

Flag Holder

Renegade CE Models

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



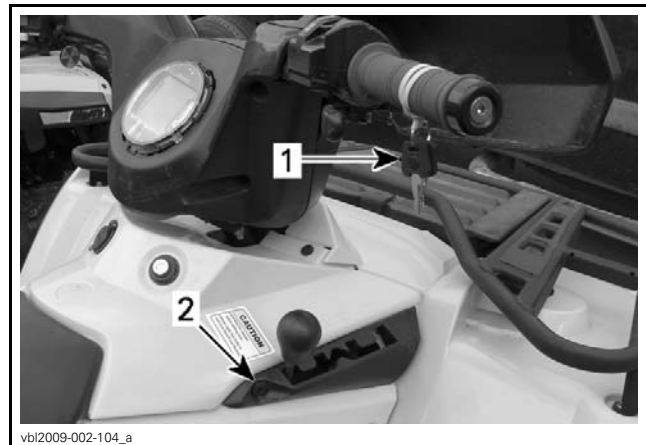
vbi2009-002-001_a

1. Flag holder
2. Retaining bolt

Locking Device

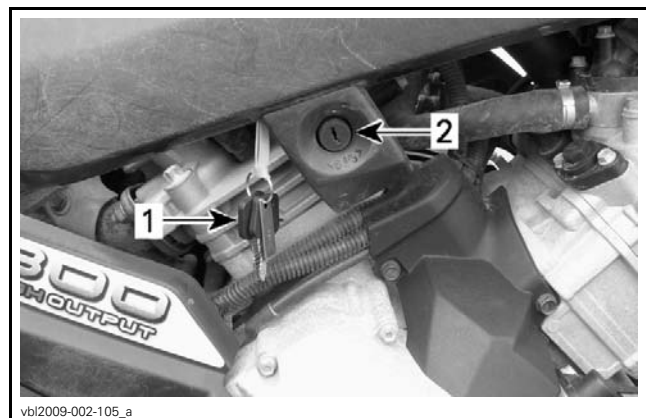
CE Models

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

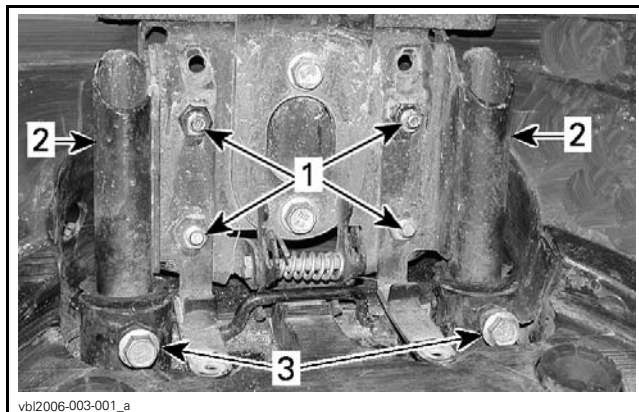
- OUTLANDER AND RENEGADE 500-650-800R SERIES
1. Keys
 2. Locking device

Backrest

Outlander MAX Models

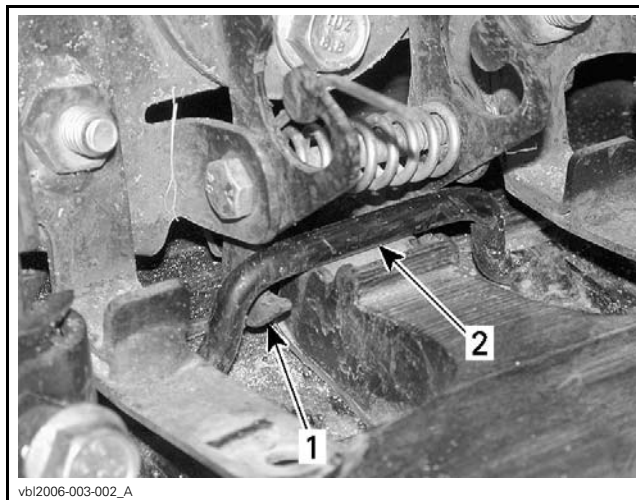
Install the backrest on passenger's seat as per the following steps :

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.



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

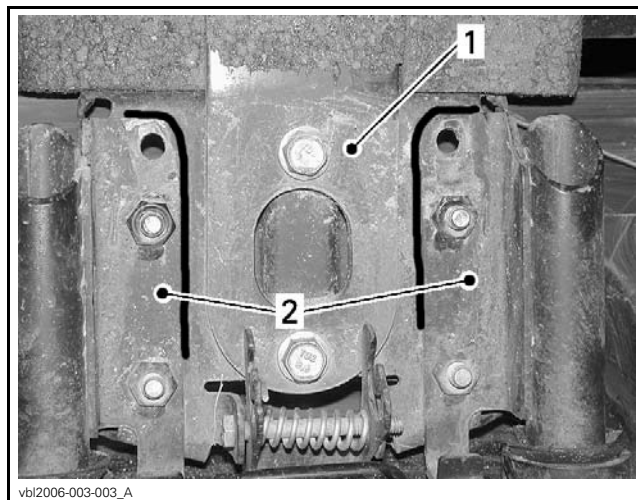
5. Check if the latch hooks are inserted under attachment rod.
6. Tighten backrest tube bolts to prevent back and forth movements.
7. Do not torque bolts for the moment.



1. Latch hooks
2. Attachment rod

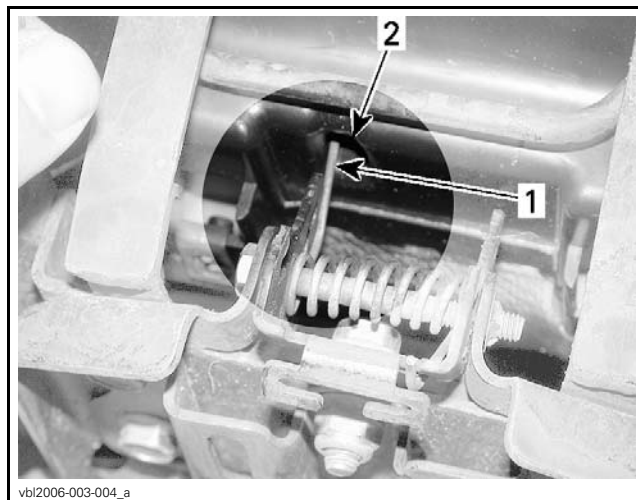
8. Mark the position of backrest plate on the backrest support using a marker.
9. Remove backrest from vehicle.

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

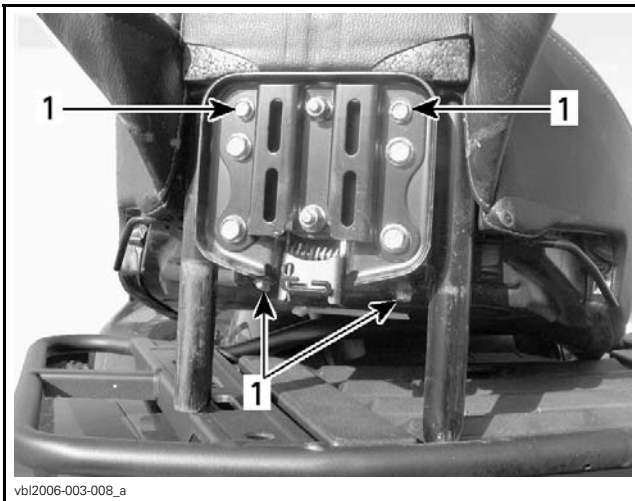
12. Place the long end of spring in the seat recess.
13. Position the seat release rod into the backrest latch slot.



1. Long end of spring
2. Seat recess

14. Screw-in 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.



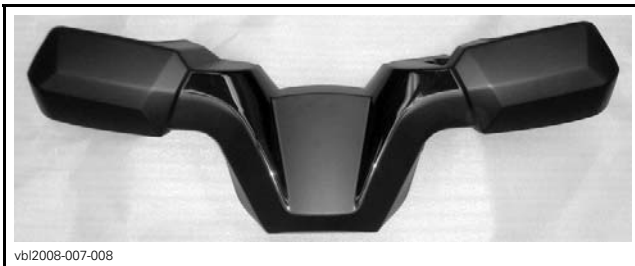
vbi2006-003-008_a

1. Screw-in backrest

Handlebar Guard

Outlander 400 XT Models

1. Remove handlebar guard from its box.



vbi2008-007-008

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



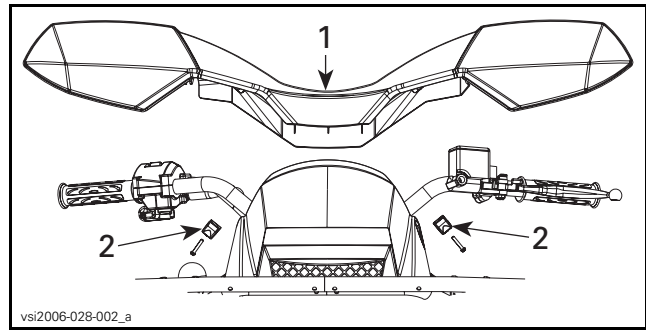
vbi2008-007-009_a

1. Retaining screws location

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

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

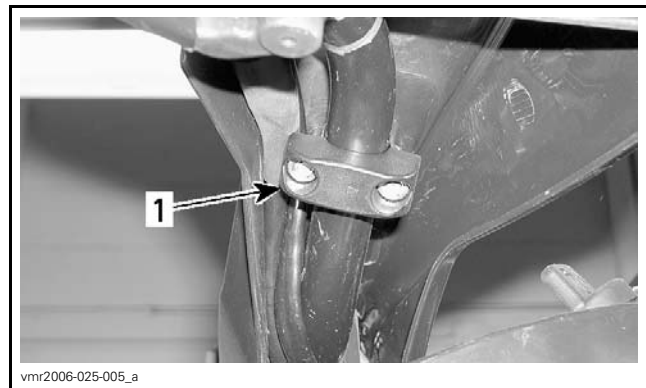
4. Remove handlebar guard from its box.
5. Install handlebar guard to the handlebar.



vsi2006-028-002_a

1. Handlebar guard
2. U-clamps

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



vmr2006-025-005_a

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).

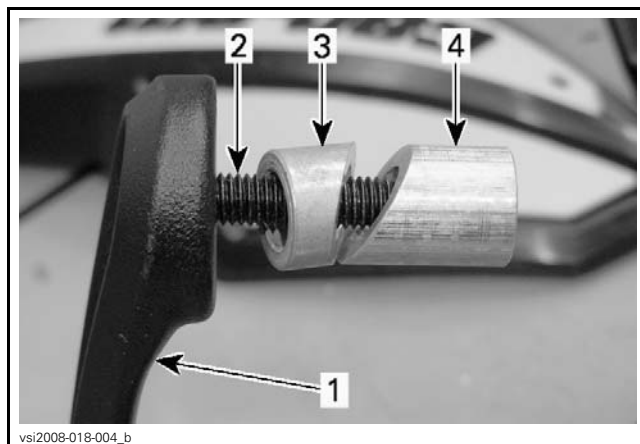
Vehicle Decals

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

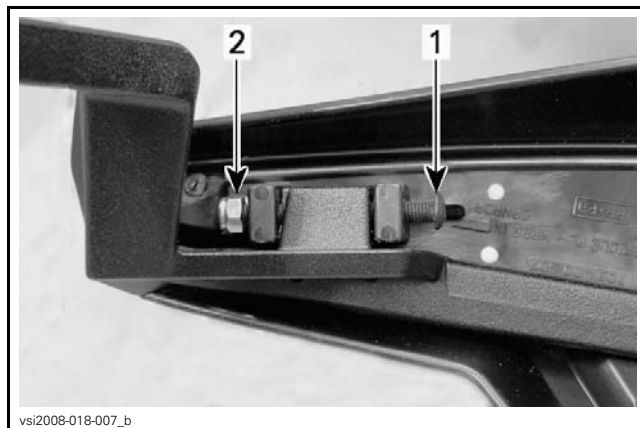
X Models

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



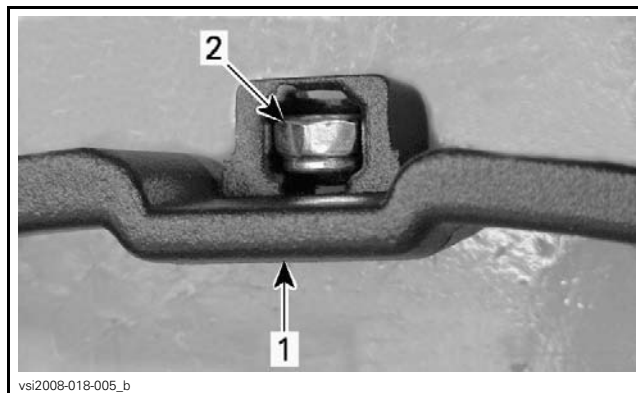
- vsi2008-018-004_b
1. Full wrap support
 2. M8 screw
 3. Beveled bracket
 4. Threaded beveled bracket

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).



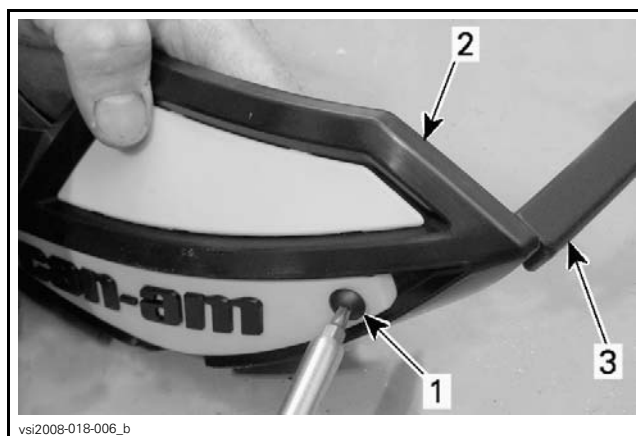
- vsi2008-018-007_b
1. M4 bolt
 2. M4 nut

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



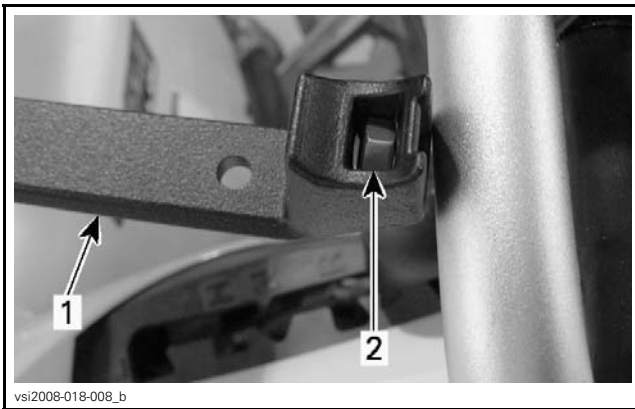
- vsi2008-018-005_b
1. Full wrap support
 2. M5 nut

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.



- vsi2008-018-006_b
1. M5 bolt
 2. Wind deflector
 3. Full wrap support

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.



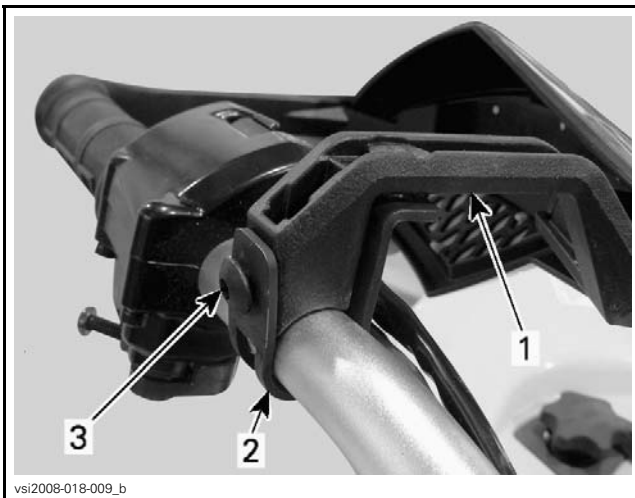
vsi2008-018-008_b

1. Full wrap support
2. M6 nut

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.



vsi2008-018-009_b

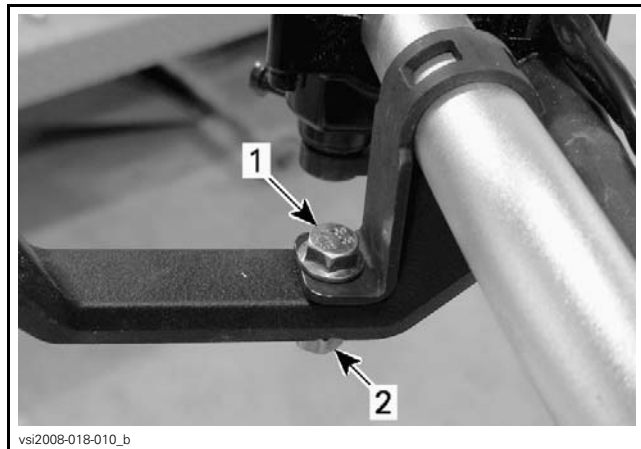
1. Full wrap support
2. U-clamp
3. M6 x 16 bolt

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).



vsi2008-018-010_b

1. M6 x 20 bolt
2. M6 nut

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

⚠ WARNING

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

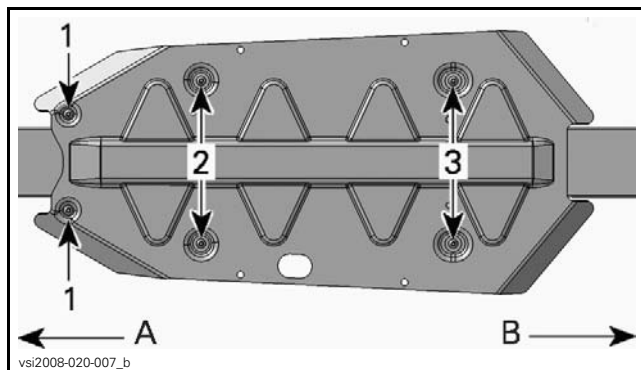
⚠ WARNING

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

Central Skid Plate

X Models

1. Put skid plate in place.



- A. Front of vehicle
- B. Rear of vehicle

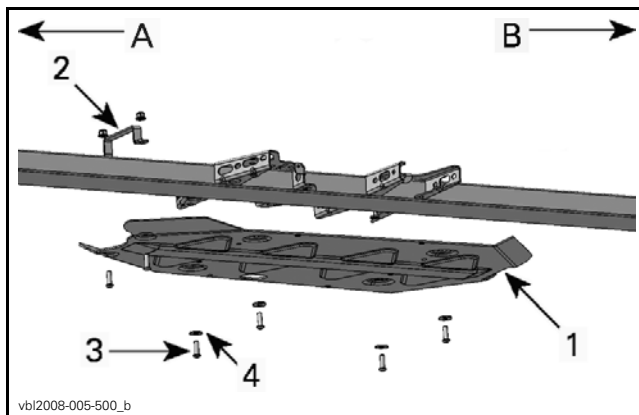
1. Front holes
2. Middle holes
3. Rear holes

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).



vbl2008-005-500_b
 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 a small amount of fuel in the fuel reservoir.

Recommended Fuel

Use regular unleaded gasoline or gasohol containing less than 10% of ethanol or methanol, available from most service stations.

Refer to the following table for recommended minimum octane number:

LOCATION	MINIMUM OCTANE NUMBER
North America	87 (RON + MON) / 2
Elsewhere	92 RON

⚠ 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.

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

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.

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

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

Use a 5W 30 4-stroke engine oil that meets or exceeds the requirements for API service classification SM, SL or SJ. Refer to label on the oil container.

The XP-S 5W 30 4-stroke oil (P/N 219 700 706) is recommended for all seasons.

For improved overall performance and all season application, use XP-S 5W40 synthetic oil (P/N 293 600 039).

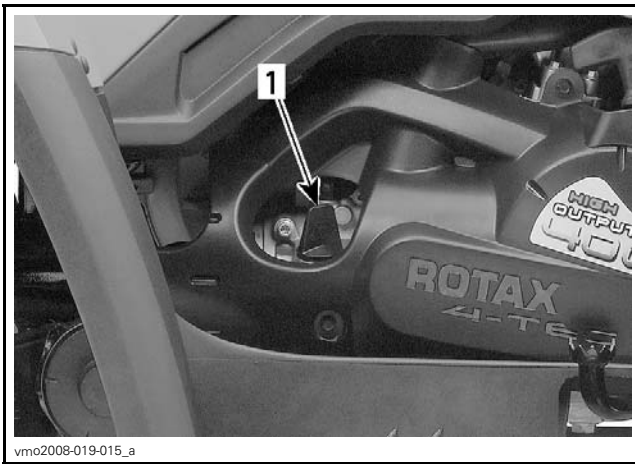
NOTE: For Outlander 400 series, the same oil lubricates both engine and transmission.

NOTE: Other viscosity should be used if the average temperature is outside the range of the recommended oil. Refer to the following table.

XP-S 5W40 Synthetic Oil (P/N 293 600 039)	
XP-S 5W30 Mineral Oil (P/N 219 700 706)	
XP-S 10W40 Mineral Oil (P/N 219 700 346)	
Temperature Range	
50°C (122°F)	
40°C (104°F)	
30°C (86°F)	
20°C (68°F)	
10°C (50°F)	
0°C (32°F)	
- 10°C (14°F)	
- 20°C (- 4°F)	
- 30°C (- 22°F)	

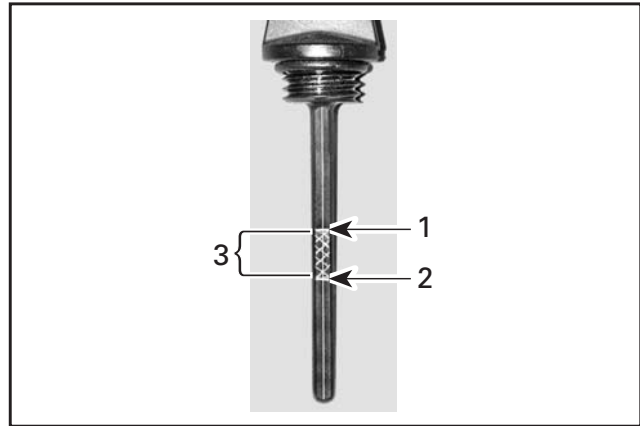
Engine Oil Level Verification

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

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

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

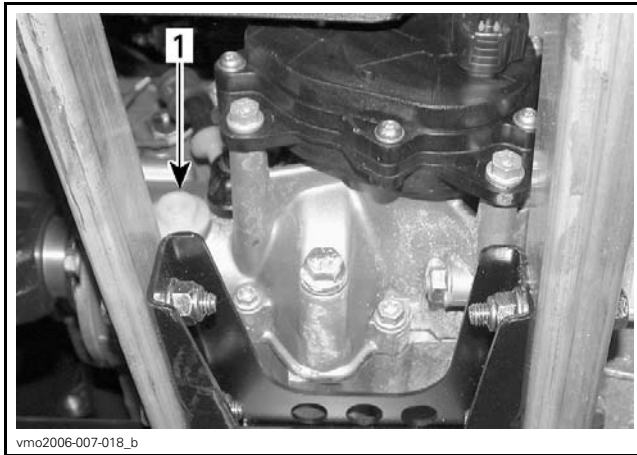
NOTE: For Outlander 400 series, the same oil lubricates both engine and transmission. Refer to *ENGINE OIL*.

Recommended Gearbox Oil

Use XP-S chaincase oil (P/N 413 801 900).

Gearbox Oil Level Verification

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

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

NOTICE Do not overfill coolant reservoir.

Recommended Coolant

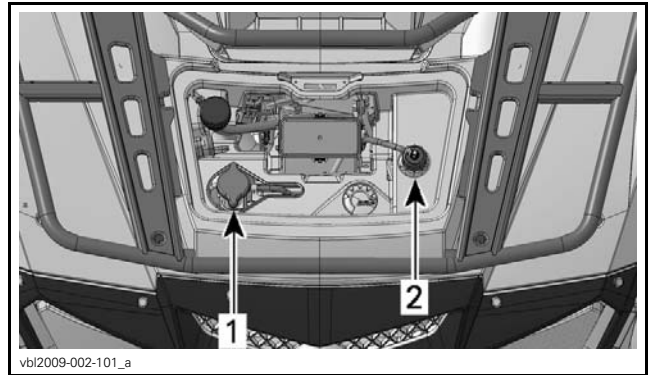
Always use ethylene-glycol antifreeze containing corrosion inhibitors specifically for internal combustion aluminum engines.

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

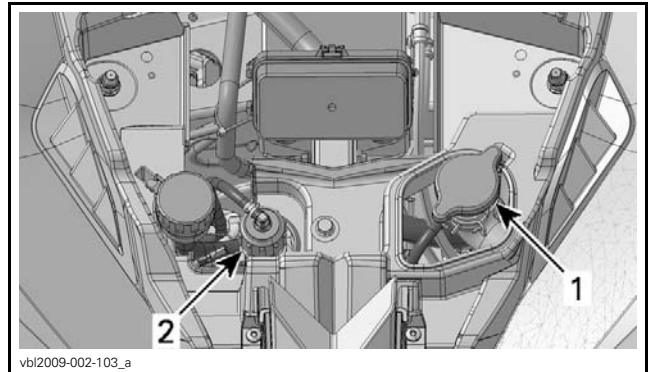
Coolant Level Verification

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.

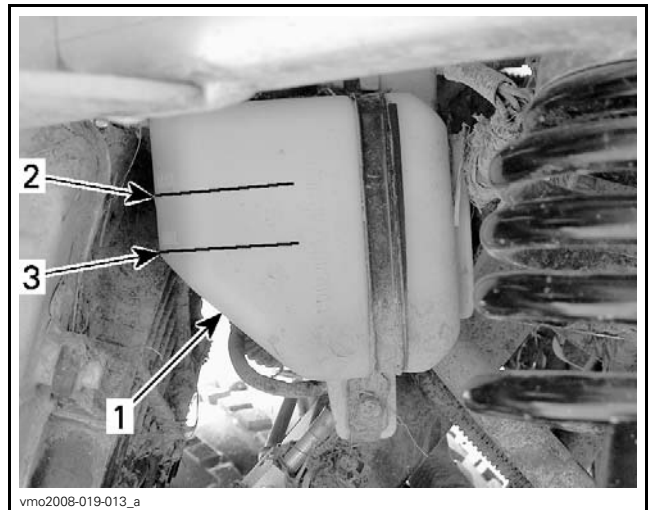


OUTLANDER SERVICE COMPARTMENT
 1. Radiator cap
 2. Coolant reservoir cap



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.

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

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

NOTICE Be careful not to damage the diaphragm while removing and installing hand-lebar reservoir caps.

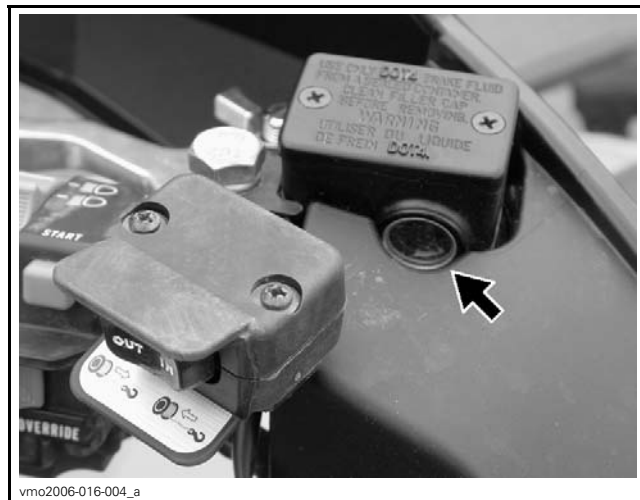
NOTICE Do not overfill brake fluid reservoir.

Recommended Fluid

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

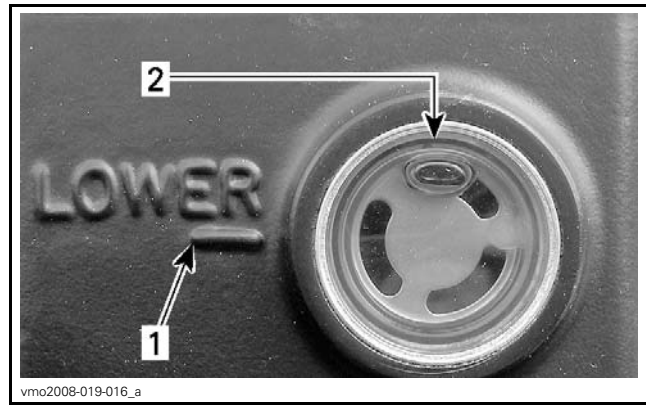
Brake Lever Fluid Level Verification

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.

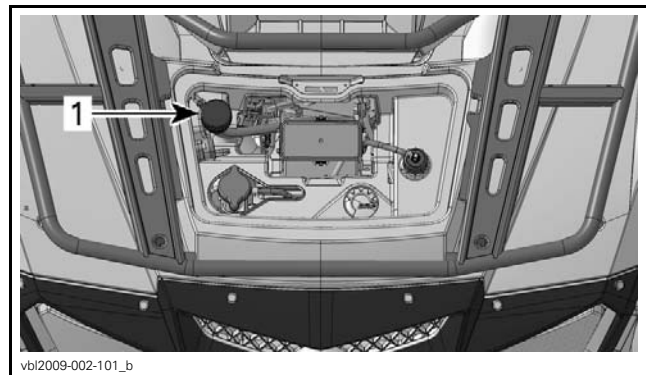


1. MIN. mark
2. MAX. mark

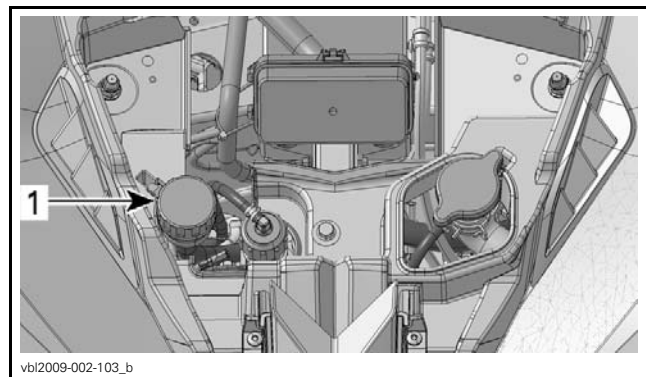
4. Ensure that fluid reaches top of window.
5. If necessary, add recommended brake fluid.

Brake Pedal Fluid Level Verification

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

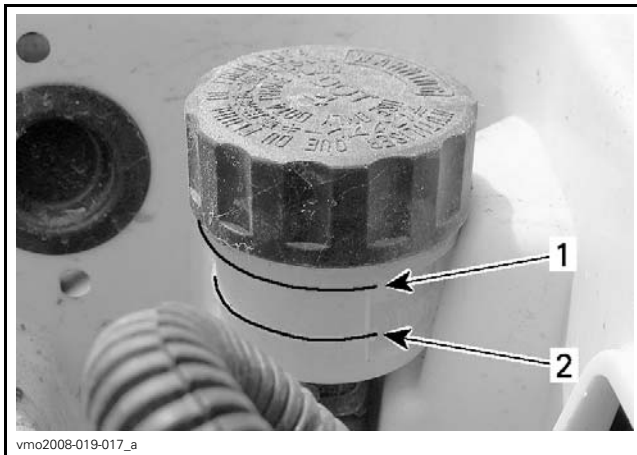


OUTLANDER SERVICE COMPARTMENT
1. Brake pedal reservoir



RENEGADE SERVICE COMPARTMENT
1. Brake pedal reservoir

3. Check the brake fluid level.



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.

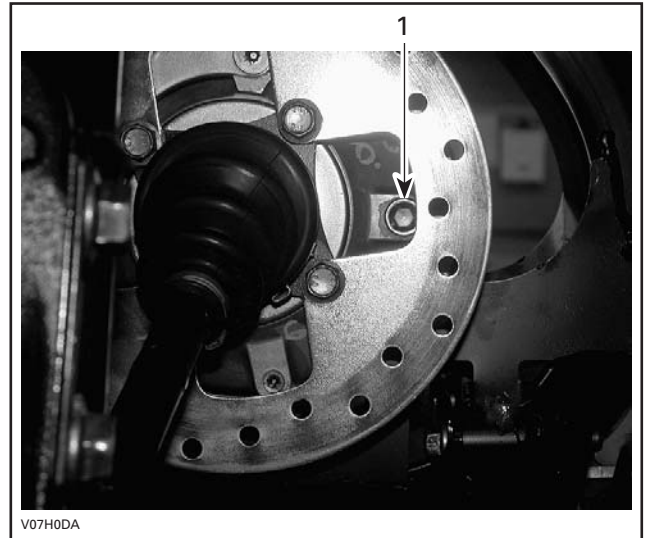
Front and Rear Differential Oil

Recommended Oil

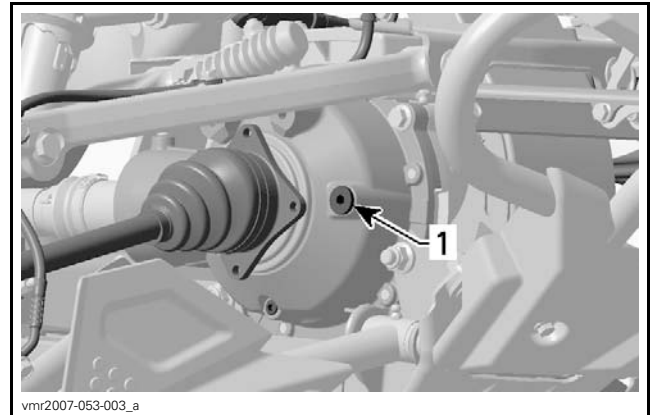
Always use XP-S synthetic gear oil (P/N 293 600 043) or a 75W90 synthetic oil (API GL-5).

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

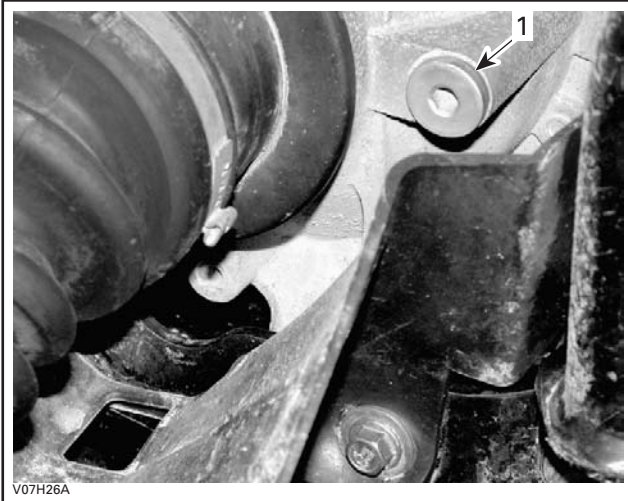


RENEGADE SERIES
 1. Filler plug

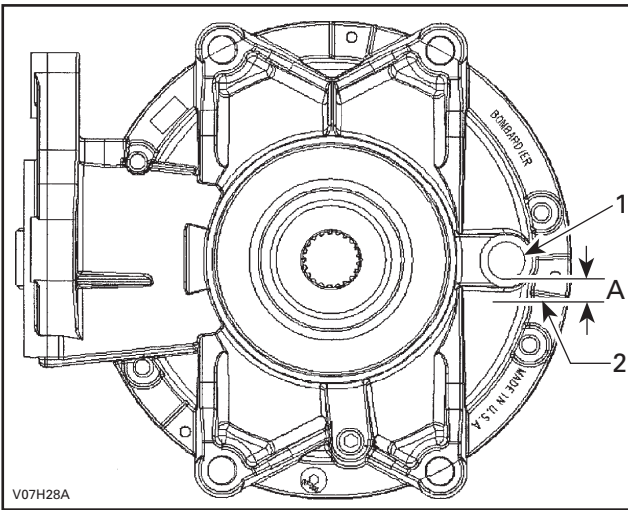
Rear Differential Oil Level Verification

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 to 32 mm (1 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).



1. Filler plug



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

SET-UP

Tires Pressure

NOTICE For transportation purpose, tires are deflated at the factory, make sure to inflate them at the recommended air pressure before riding the vehicle.

NOTICE Always check pressure when tires are cold.

⚠ WARNING

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.

1. Inflate tires to the specified air pressure. Refer to the following table.

RECOMMENDED AIR PRESSURE			
		FRONT	REAR
Outlander 400 Series	Maximum	34.5 kPa (5 PSI)	34.5 kPa (5 PSI)
	Minimum	31 kPa (4.5 PSI)	31 kPa (4.5 PSI)
Outlander MAX 400 Series	Maximum	34.5 kPa (5 PSI)	34.5 kPa (5 PSI)
	Minimum	31 kPa (4.5 PSI)	31 kPa (4.5 PSI)
Outlander 500 Series	Maximum	34.5 kPa (5 PSI)	34.5 kPa (5 PSI)
	Minimum	31 kPa (4.5 PSI)	31 kPa (4.5 PSI)
Outlander MAX 500 Series	Maximum	34.5 kPa (5 PSI)	34.5 kPa (5 PSI)
	Minimum	31 kPa (4.5 PSI)	31 kPa (4.5 PSI)
Outlander 650 / 800R Series	Maximum	48.3 kPa (7 PSI)	48.3 kPa (7 PSI)
	Minimum	31 kPa (4.5 PSI)	31 kPa (4.5 PSI)
Outlander MAX 650 / 800R Series	Maximum	48.3 kPa (7 PSI)	48.3 kPa (7 PSI)
	Minimum	31 kPa (4.5 PSI)	34.5 kPa (5 PSI)
Renegade Series	Maximum	48.3 kPa (7 PSI)	48.3 kPa (7 PSI)
	Minimum	34.5 kPa (5 PSI)	37.9 kPa (5.5 PSI)

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.

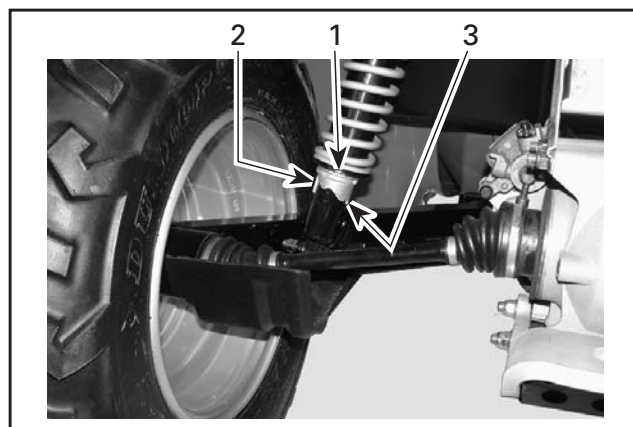
NOTE: The front suspension of Outlander 400 series and Outlander 500 series are not adjustable.

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

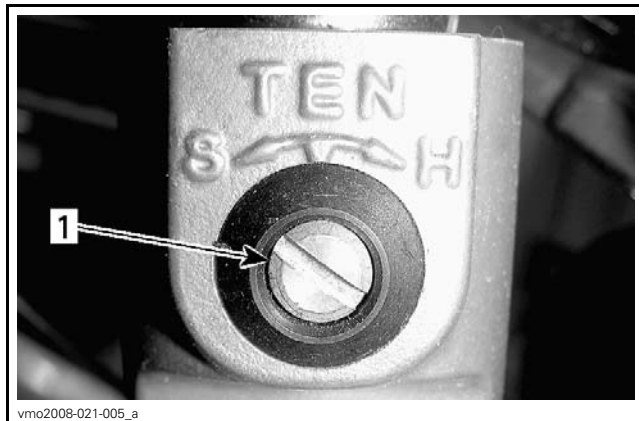
X Package Model

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

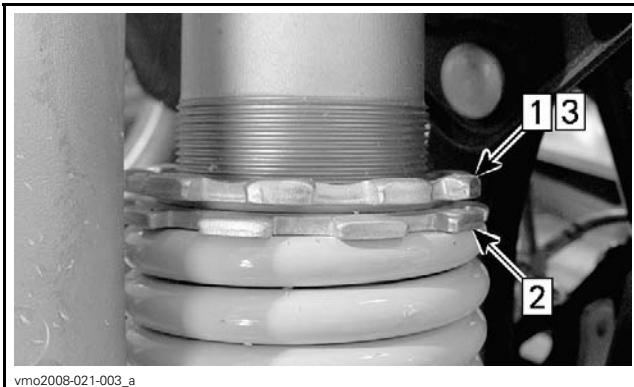
ADJUSTMENT	ACTION	RIDE TYPE
Spring Preload	Shorten the spring	Firmer ride
	Lengthen the spring	Softer ride
Low Speed Compression	Turning it clockwise (H)	Stiffer (increases shock damping action)
	Turning it counterclockwise (S)	Softer (decreases shock damping action)
High Speed Compression	Turning it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



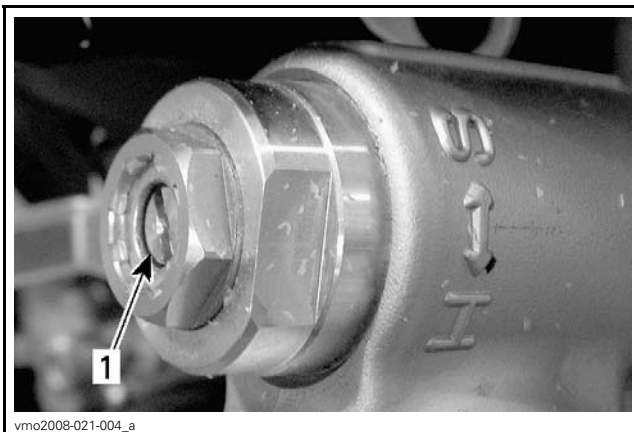
COMPRESSION - HIGH SPEED
1. Compression adjuster (17 mm wrench)



REBOUND
1. Rebound adjuster (flat screwdriver)



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)

Brake System Pressurization<=>

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

B.U.D.S. Programming

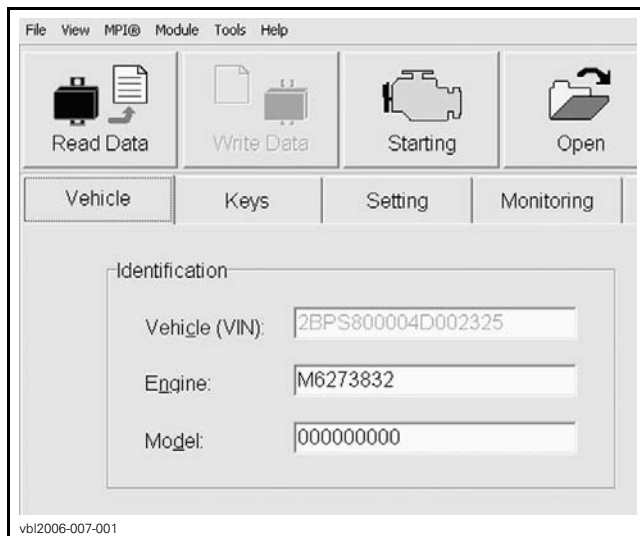
Connecting a PC to Vehicle

- 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.
- Ensure that the status bar shows the proper protocol and the number 2 is displayed.
- Press the READ DATA button from the tool bar to initiate communication with the vehicle.

Entering Customer's Name

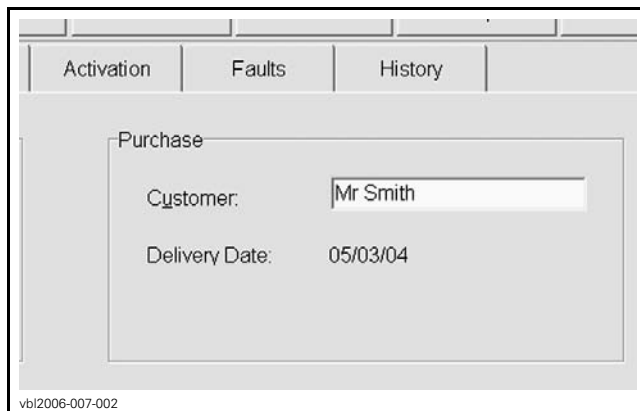
NOTE: When starting the vehicle, the multifunction display will show the name of the customer; for example: "HI JOHN SMITH". If the customer's name is not programmed, only "HI" will be visible when turning the vehicle ON.

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



VEHICLE TAB

2. Type the name of the customer.

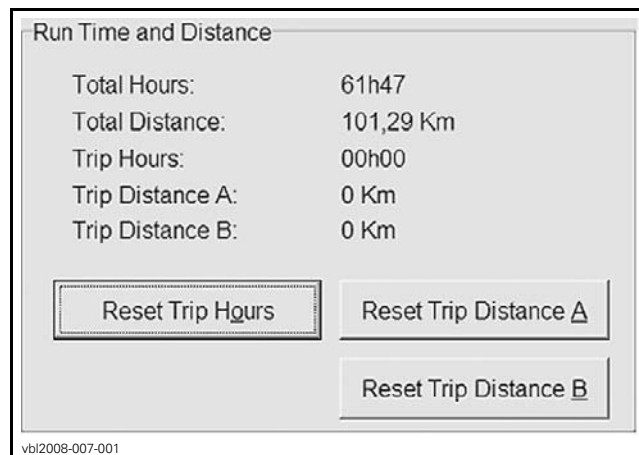


3. Click on WRITE DATA to save the information in the vehicle's ECM.

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.

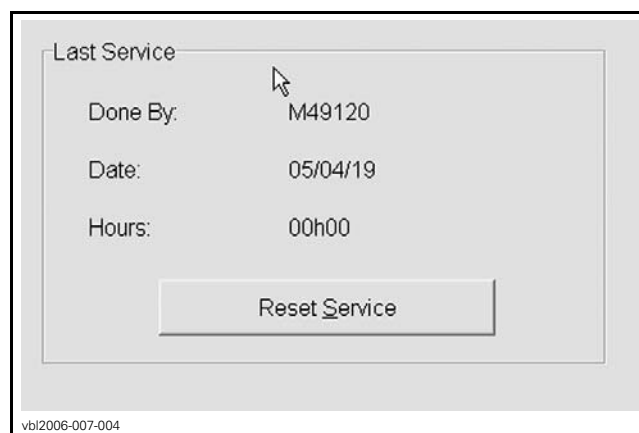


RESET TRIP BUTTONS

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.

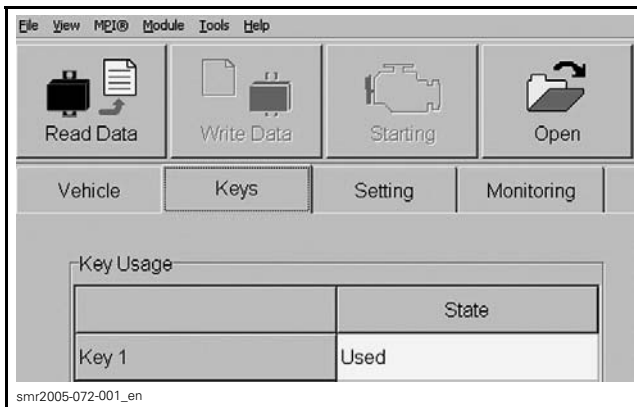
Programing Keys with B.U.D.S.

Outlander 400 series

The Outlander 400 HO EFI does not have DESS, therefore the key does not have to be programmed.

All except Outlander 400 series

1. Click on KEYS tab.



KEYS TAB

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



D.E.S.S. IGNITION KEY

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



1. Add Key Button

- Repeat to program more keys.
- 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.

- Select SETTING tab in B.U.D.S.
- 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

- 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 MPEM 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

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.

1. Wash and dry the vehicle.
2. Remove any dirt.
3. Clean vinyl and / or plastic parts, using flannel clothes with BRP Vinyl & Plastic Cleaner (P/N 413 711 200).
4. Clean the entire vehicle, including metallic parts, with BRP Cleaner (P/N 293 110 001) (400 g).

Delivery To Customer

1. Complete the *PREDELIVERY CHECK LIST*.
2. Give *OPERATOR'S GUIDE* and *SAFETY DVD* to customer.

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

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

NOTE: 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	mm (in)	91 (3.58)	
Stroke	mm (in)	61.5 (2.42)	
Displacement		400 cm ³ (24.41 in ³)	
Compression ratio		10.3:1	
Decompressor type		Automatic	
Maximum HP RPM		RPM 7500	
Lubrication	Type	Wet sump with replaceable oil filter	
	Oil filter	BRP ROTAX paper type, replaceable	
	Engine oil	Capacity (oil change with filter)	3 L (3.17 quarts) (engine/transmission)
		Recommended	SAE 5W 30 API classification SM, SL or SJ see <i>RECOMMENDED ENGINE OIL</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 (2.65 quarts)	

MODEL				OUTLANDER 400 EFI	
ELECTRICAL SYSTEM					
Magneto generator output				400 W @ 6000 RPM	
Ignition system type				CDI (Capacity Discharge ignition)	
Ignition timing				Not adjustable	
Spark plug	Quantity		1		
	Make and type		NGK DCPR8E		
	Gap		0.6 to 0.7 mm (.024 to .027 in)		
Engine RPM limiter setting	Forward	RPM	8000		
	Reverse	RPM	4000 ± 100		
Battery	Type		Dry battery type		
	Voltage		12 volts		
	Nominal rating		18 A•h		
	Power starter output		0.7 KW		
Headlight			W	2 x 35	
Taillight/Brake light			W	8/27	
Turn signal lights			W	10	
Fuses	Fuse box	Access.	Aux. supply	20 A (F6)	
			Diagnostic		
			Headlight		
			Power outlet		
			Winch (XT)		
			4 x 4		
	ECM		5 A (F1) and 7.5 A (F3)		
	Fuel pump		7.5 A (F5)		
	Gauge		7.5 A (F4)		
	Tail light				
	Diagnostic				
	Fan		20 A (F2)		
	Rear fuse holder	Main		30 A	
		Access.	Fan	30 A	
Acc. items in fuse box					

MODEL			OUTLANDER 400 EFI
FUEL SYSTEM			
Fuel delivery	Type	Electronic Fuel Injection (EFI), Del' Orto 46 mm throttle body, 1 injector	
Fuel pump	Type	Electrical (in fuel tank)	
Idle speed		RPM \pm 50	1300 (Not adjustable)
Fuel	Type	Unleaded gasoline	
	Octane no.	Inside North America (R+M)/2	87 or higher
		Outside North America RON	92 or higher
Fuel tank capacity	20 L (5.3 U.S. gal)		
Fuel tank reserve	\pm 6 L (1.6 U.S. gal)		
CVT TRANSMISSION			
Type	CVT (Continuously Variable Transmission)		
Engagement RPM	\pm 100 RPM		1450
GEARBOX			
Type	Dual range (HI-LO) with park, neutral and reverse		
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) or synthetic oil 75W 90 (API GL5)	
CV joint grease	CV joint grease (P/N 293 550 019)		
Propeller shaft grease	XP-S synthetic grease (P/N 293 550 010)		
STEERING SYSTEM			
Turning radius	m (ft)	1.83 (6)	
Turning radius (MAX)	m (ft)	2.0 (6.6)	
Total toe (vehicle on ground)	mm (in)	0 \pm 4 (0 \pm .157)	
FRONT SUSPENSION			
Suspension type	MacPherson		
Suspension travel	mm (in)	178 (7)	
Front preload adjustment	N.A.		

MODEL		OUTLANDER 400 EFI	
REAR SUSPENSION			
Suspension type		TTI™ independent	
Suspension travel		mm (in)	203 (8)
Shock absorber	Qty	2	
	Type	Oil	
Rear preload adjustment		5 settings	
BRAKES			
Front brake	Type	Hydraulic, 2 discs	
Rear brake	Type	Hydraulic, 1 disc	
Brake fluid	Capacity	125 mL (4.3 U.S. oz)	
	Type	DOT 4	
Parking brake		Hydraulic lock-4 wheels	
Brake pad material	Front	Organic	
	Rear	Metallic	
Minimum pad thickness		mm (in)	1 (.04)
Minimum brake disc thickness	Front	mm (in)	3.5 (.138)
	Rear	mm (in)	4.3 (.17)
Maximum brake disc warpage		mm (in)	0.2 (.01)
TIRES			
Pressure	Front	Max.	34.5 kPa (5 PSI)
		Min.	31 kPa (4.5 PSI)
	Rear	Max.	34.5 kPa (5 PSI)
		Min.	31 kPa (4.5 PSI)
Minimum tire thread depth		mm (in)	3 (1/8)
Size	Front	25 x 8 x 12	
	Rear	25 x 10 x 12 XT: 25 x 11 x 12	
WHEELS			
Size	Front	12 x 6	
	Rear	12 x 7.5	
Wheel nuts torque	Standard	70 N•m (52 lbf•ft)	
	XT	100 N•m (74 lbf•ft)	
DIMENSION			
Overall length		m (in)	2.18 (86)
Overall length (MAX)		m (in)	2.39 (94)
Overall width		m (in)	1.17 (46)
Overall height		m (in)	1.14 (45)
Wheelbase		m (in)	1.24 (49)
Wheelbase (MAX)		m (in)	1.45 (57)
Wheel track	Front	mm (in)	965 (38)
	Rear	mm (in)	914 (36)
Ground clearance		mm (in)	236 (9.3)

MODEL		OUTLANDER 400 EFI	
LOADING CAPACITY			
Weight distribution	Front/rear	%	49/51
Weight distribution (MAX)	Front/rear	%	46/54
Rear storage box (included with rear rack weight)		kg (lb)	10 (22)
Rack	Front	kg (lb)	45 (100)
	Rear (including rear storage box and tongue weight)	kg (lb)	90 (200)
Total vehicle load allowed (including driver, all other loads and added accessories)		kg (lb)	227 (500)
	(MAX)	kg (lb)	235 (517)
Gross vehicle weight rating		kg (lb)	460 (1014)
	(MAX)	kg (lb)	554 (1219)
Towing capacity		kg (lb)	500 (1100)
Tongue capacity (included with rear rack weight)		kg (lb)	14 (30)

Outlander 500-650-800R series

MODEL		OUTLANDER 500 EFI	OUTLANDER 650 EFI	OUTLANDER 800R EFI
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	mm (in)	82.03 (3.23)		91 (3.58)
Stroke	mm (in)	47.3 (1.86)	61.5 (2.42)	
Displacement		500 cm ³ (30.51 in ³)	650 cm ³ (39.67 in ³)	800 cm ³ (48.82 in ³)
Compression ratio		10.7:1	10.3:1	10.3:1
Maximum HP	RPM	7250		6750
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		SAE 5W30 API classification SM, SL or SJ 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 (2.65 quarts)		

MODEL		OUTLANDER 500 EFI	OUTLANDER 650 EFI	OUTLANDER 800R EFI
ELECTRICAL SYSTEM				
Magneto generator output		400 W @ 6000 RPM		
Ignition system type		IDI (Inductive Discharge Ignition)		
Ignition timing		Not adjustable		
Spark plug	Quantity	2		
	Make and type	NGK DCPR8E		
	Gap	0.6 to 0.7 mm (.024 to .027 in)		
Engine RPM limiter setting	Forward RPM	8000		
	Reverse RPM	3200		
Battery	Type	Dry battery type		
	Voltage	12 volts		
	Nominal rating	18 A•h		
	Power starter output	0.7 KW		
Headlight	W	2 x 35		
Taillight	W	7/29		
Director indicator (European models only)	W	10		
Indicator lights		LEDS, 0.7 V approximately (each)		
Fuses	Accessories	20 A		
	Fan	20 A		
	Main (rear)	30 A		
	Ignition coils	5 A		
	Fuel injectors	5 A		
	Speedometer/speed sensor/tail light	7.5 A		
	Fuel pump	7.5 A		
	Engine control module (ECM)	5 A		
	Main accessories (rear)	30 A		

MODEL			OUTLANDER 500 EFI	OUTLANDER 650 EFI	OUTLANDER 800R EFI
FUEL SYSTEM					
Fuel delivery		Type	Electronic Fuel Injection (EFI), DeLorto 46 mm throttle body, 1 injector per cylinder		
Fuel pump		Type	Electrical (in fuel tank)		
		Model	Bosch		
Idle speed		RPM \pm 50	1250 (not adjustable)		
Fuel	Type	Regular unleaded gasoline			
	Octane no.	Inside North America (R+M)/2	87 or higher		
		Outside North America RON	92 or higher		
Fuel tank capacity		20 L (5.3 U.S. gal)			
Remaining fuel in fuel tank when display light turns ON		\pm 6 L (1.6 U.S. gal)			
TRANSMISSION					
Type		CVT (Continuously Variable Transmission)			
Engagement RPM		\pm 100 RPM	1750		
GEARBOX					
Type		Dual range (HI-LO) with park, neutral and reverse			
Gearbox oil	Capacity		400 ml (14 U.S. oz)		
	Recommended		XP-S 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) or synthetic oil 75W90 (API GL5)		
CV joint grease		CV joint grease (P/N 293 550 019)			
Propeller shaft grease		Suspension synthetic grease (P/N 293 550 033)			
STEERING					
Turning radius		2.16 m (7 ft)			
Turning radius (MAX)		2.4 m (7 ft 9 in)			
Total toe (vehicle on ground)		mm (in)	0 (0)		
FRONT SUSPENSION					
Suspension type		MacPherson	Double A-Arm		
Suspension travel		mm (in)	178 (7)	203 (8)	
Shock absorber	Qty		2		
	Type		Oil		
Preload adjustment		N.A.	5 settings		

MODEL		OUTLANDER 500 EFI	OUTLANDER 650 EFI	OUTLANDER 800R EFI
REAR SUSPENSION				
Suspension type		TTI™ independent		
Suspension travel		mm (in) 229 (9)		
Shock absorber	Qty	2		
	Type	Oil		
Preload adjustment		5 settings		
BRAKES				
Front brake	Qty	2		
	Type	Hydraulic, 2 discs		
Rear brake	Qty	1		
	Type	Hydraulic, single disc		
Brake fluid	Capacity	180 ml (6.1 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		mm (in) 1 (.04)		
Minimum brake disc thickness	Front	mm (in) 3.5 (.138)		
	Rear	mm (in) 4.3 (.17)		
Maximum brake disc warpage		mm (in) 0.2 (.01)		
TIRES				
Pressure	Front	Maximum	34.5 kPa (5 PSI)	48 kPa (7 PSI)
		Minimum	31 kPa (4.5 PSI)	31 kPa (4.5 PSI)
	Rear	Maximum	34.5 kPa (5 PSI)	48 kPa (7 PSI)
		Minimum	31 kPa (4.5 PSI)	31 kPa (4.5 PSI)
	Front (MAX)	Maximum	34.5 kPa (5 PSI)	48 kPa (7 PSI)
		Minimum	31 kPa (4.5 PSI)	31 kPa (4.5 PSI)
	Rear (MAX)	Maximum	34.5 kPa (5 PSI)	48 kPa (7 PSI)
		Minimum	31 kPa (4.5 PSI)	34.5 kPa (5 PSI)
Minimum tire thread depth		mm (in) 3 (0.118)		
Size	Front	25 x 8 x 12	26 x 8 x 12	
	Rear	25 x 10 x 12 XT: 25 x 11 x 12	26 x 10 x 12	
WHEELS				
Size	Front	12 x 6		
	Rear	12 x 7.5		
Wheel nuts torque	Standard	70 N•m (52 lbf•ft)		
	XT	100 N•m (74 lbf•ft)		
	CAMO XT	70 N•m (52 lbf•ft)		
	LTD	70 N•m (52 lbf•ft)		

TECHNICAL DATA

MODEL		OUTLANDER 500 EFI	OUTLANDER 650 EFI	OUTLANDER 800R EFI
DIMENSION				
Overall length	m (in)	2.18 (86)		
Overall length (MAX)	m (in)	2.39 (94)		
Overall width	m (in)	1.17 (46)		
Overall height	m (in)	1.14 (45)		
Wheelbase	m (in)	1.30 (51)		
Wheelbase (MAX)	m (in)	1.50 (59)		
Wheel track	Front	mm (in)	965 (38)	
	Rear	mm (in)	914 (36)	
Ground clearance	mm (in)	279 (11)		
LOADING CAPACITY				
Weight distribution	Front/rear	%	51/49	
Weight distribution (MAX)	Front/rear	%	48/52	
Rear storage box (included with rear rack weight)		kg (lb)	10 (22)	
Rack	Front	kg (lb)	45 (100)	
	Rear (including rear storage box and tongue weight)		90 kg (200 lb)	
Total vehicle load allowed (including driver, all other loads and added accessories)		kg (lb)	227 (500)	235 (517)
	MAX	kg (lb)	235 (517)	272 (600)
Gross vehicle weight rating		kg (lb)	553 (1220) XT: 584 (1287)	584 (1287)
	MAX	kg (lb)	558 (1228)	649 (1430)
Towing capacity		kg (lb)	591 (1300)	
Tongue capacity (included with rear rack weight)		kg (lb)	23 (50)	

Renegade series

MODEL		RENEGADE 500	RENEGADE 800R/800R X
ENGINE			
Engine type	4-stroke, Single Over Head Camshaft (SOHC), liquid cooled		
Number of cylinders	2		
Number of valves	8 valves (mechanical adjustment)		
Bore	mm (in)	82 (3.23)	91 (3.58)
Stroke	mm (in)	47 (1.85)	61.5 (2.42)
Displacement	500 cm ³ (30.51 in ³)		800 cm ³ (48.82 in ³)
Compression ratio	10.3:1		
Maximum Horsepower	RPM	7250	6750
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		SAE 5W 30 API classification SM, SL or SJ see <i>OIL VISCOSITY CHART</i>	
Exhaust system	Spark arrester approved by USDA Forest Service		
Air filter	Synthetic paper filter with foam		

MODEL			RENEGADE 500	RENEGADE 800R/800R X
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 (2.65 quarts)	
ELECTRICAL SYSTEM				
Magneto generator output			400 W @ 6000 RPM	
Ignition system type			IDI (Inductive Discharge Ignition)	
Ignition timing			Not adjustable	
Spark plug	Quantity		2	
	Make and type		NGK DCPR8E	
	Gap		0.6 to 0.7 mm (.024 to .027 in)	
Engine RPM limiter setting	Forward	RPM	8000	
	Reverse	RPM	3200	
Battery	Type		Dry battery type	
	Voltage		12 volts	
	Nominal rating		18 A•h	
	Power starter output		0.7 KW	
headlights		W	4 x 60	
taillight		W	8/26	
Director indicator (European models only)		W	10	
Fuses	Accessories		20 A	
	Fan		20 A	
	Main		30 A	
	Ignition coils		5 A	
	Fuel injectors		5 A	
	Speedometer/speed sensor/taillight		7.5 A	
	Fuel pump		7.5 A	
	Engine control module (ECM)		5 A	
	Main accessories		30 A	
FUEL SYSTEM				
Fuel delivery	Type		Electronic Fuel Injection (EFI), Dell'Orto 46 mm throttle body, 1 injector per cylinder	
Fuel pump	Type		Bosch	
	Model		Electrical (in fuel tank)	
Idle speed			± 50 RPM	1250 (not adjustable)
Fuel	Type		Regular unleaded gasoline	
	Octane no.	Inside North America	(R+M)/2	87 or higher
		Outside North America	RON	92 or higher
Fuel tank capacity			20 L (5.3 U.S. gal)	
Remaining fuel in fuel tank when display light turns ON			± 6 L (1.6 U.S. gal)	

TECHNICAL DATA

MODEL		RENEGADE 500	RENEGADE 800R/800R X
CVT TRANSMISSION			
Type		CVT (Continuously Variable Transmission)	
Engagement RPM		± 100 RPM 1600	
GEARBOX			
Type		Dual range (HI-LO) with park, neutral and reverse	
Gearbox oil	Capacity	400 ml (14 U.S. oz)	
	Recommended	XP-S 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) or synthetic oil 75W 90 (API GL5)	
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		XP-S synthetic grease (P/N 293 550 010)	
STEERING			
Turning radius		2.16 m (7 ft)	
Total toe (vehicle on ground)		0 mm (0 in)	
Camber angle		0°	
SUSPENSION			
<i>FRONT</i>			
Suspension type		Double A-Arm	
Suspension travel		mm (in) 216 (8.5)	
Shock absorber	Qty	2	
	Type	Oil 5 settings	HPG X: HPG Clicker
<i>REAR</i>			
Suspension type		TTI™ independent	
Suspension travel		mm (in) 229 (9)	
Shock absorber	Qty	2	
	Type	Oil 5 settings	HPG X: HPG Clicker

MODEL		RENEGADE 500	RENEGADE 800R/800R X
BRAKES			
Front brake	Type	Hydraulic, 2 discs	
Rear brake	Type	Hydraulic, single disc	
Brake fluid	Capacity	125 ml (4.3 U.S. oz)	
	Type	DOT 4	
Parking brake	LH brake lever includes a lock on rear wheels		
Caliper	Floating		
Brake pad material	Front	Organic	
	Rear	Metallic	
Minimum brake pad thickness	mm (in)	1 (.04)	
Minimum brake disc thickness	Front	mm (in)	3.5 (.138)
	Rear	mm (in)	4.3 (.17)
Maximum brake disc warp	mm (in)	0.2 (.01)	
TIRES AND WHEELS			
<i>TIRES</i>			
Pressure	Front	Maximum: 48 kPa (7 PSI) Minimum: 34.5 kPa (5 PSI)	
	Rear	Maximum: 48 kPa (7 PSI) Minimum: 38 kPa (5.5 PSI)	
Minimum tire thread depth	mm (in)	3 (0.118)	
Size	Front	25 x 8 x 12	
	Rear	25 x 10 x 12	
<i>WHEELS</i>			
Size	Front	12 x 6	
	Rear	12 x 7.5	
Wheel nuts torque	100 N•m (74 lbf•ft)		
WEIGHT AND DIMENSION			
Overall length	m (in)	2.18 (86)	
Overall width	m (in)	1.17 (46)	
Overall height	m (in)	1.14 (45)	
Dry weight	kg (lb)	275 (607)	
Wheel base	m (in)	1.30 (51)	
Wheel track	Front	mm (in)	965 (38)
	Rear	mm (in)	914 (36)
Ground clearance	mm (in)	305 (12)	
LOADING CAPACITY			
Weight distribution	Front/rear	%	51/49
Rear storage box	L (U.S. gal)		3.7 (1)
Rack	Rear	kg (lb)	16 (35)
Total vehicle load allowed (including driver, all other loads and added accessories)	kg (lb)		141 (310)
Gross vehicle weight rating	kg (lb)		476 (1050)
Towing capacity	kg (lb)		591 (1300)