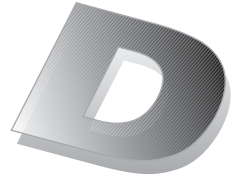




**SIDE-BY-SIDE
VEHICLES**
**PREDELIVERY
Bulletin**



**September 19th,
2013**

Subject: **Predelivery Inspection Can-Am™
Commander™ with an Electrically
Controlled Locking Rear Differential**

No. **2014-4**

COMMANDER				
YEAR	ENGINE	MODEL	MODEL NUMBER	SERIAL NUMBER
2014	800R	STD	6WEB/6WEC/6WEJ	All
		XT	6WED	
	1000	DPS	6WEF/6WEG	
		XT-P	6WEA/6WEE/6WEH	

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IMPORTANT NOTICE

NOTE: The models covered in this bulletin are equipped with an electrically controlled locking rear differential.

To obtain warranty coverage, predelivery inspection must be performed by an authorized BRP Can-Am SSV dealer/distributor.

About this bulletin:

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.

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.

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.

UNCRATING

Crate Cover Removal

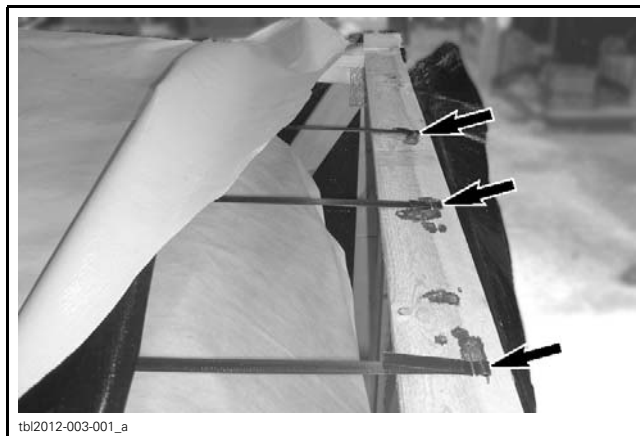
1. Carefully lay the crate on its bottom on a firm, level surface.

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

2. Remove all screws retaining crate cover to crate base. Use a Robertson screwdriver #2 (square tip).



3. Carefully cut both ends of crate tarpaulin to locate the rear of vehicle.
4. Cut straps on the top of crate on both ends.



5. Cut tarpaulin at the end where the rear of vehicle is located.



1. Cut tarpaulin

6. At the same end, cut the wood piece at top corners using a jig saw.
7. Cut nails along vertical post retaining rear end of crate to the side panels.



1. Cut top corner
2. Cut nails along vertical post

8. Pull out the end cover.



tbl2013-009-003_a

PULLING OUT REAR END COVER

NOTICE Removing the crate end at the rear of vehicle allows crate removal without damaging vehicle.

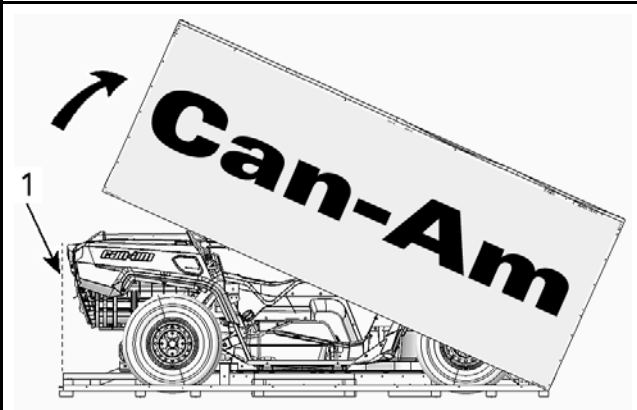
9. Assisted by another person, tilt the crate.



tbl2013-009-004_a

NOTICE

Remove rear end cover BEFORE top cover.



1. Rear end cover removed

Vehicle Removal from Crate

1. Remove protective wrapping from the vehicle.



tbl2012-003-002_a

1. Protective wrapping

2. Remove both sections of the cage from vehicle.

2.1 Cut locking ties securing the rear and the front sections of the cage to the wood frame.



tbl2011-001-005_a

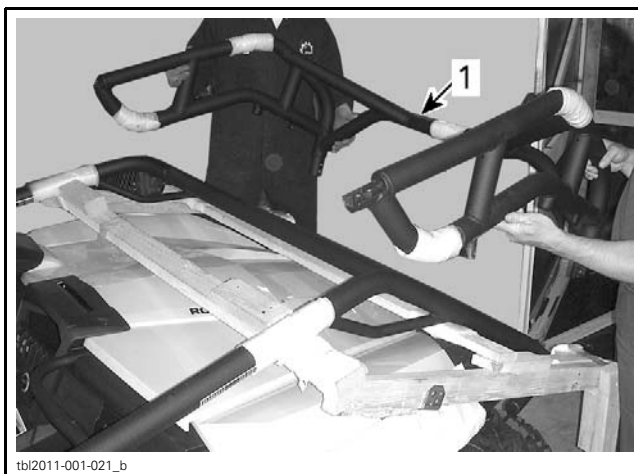
2.2 Remove screws securing the rear section of the cage to wood frame.



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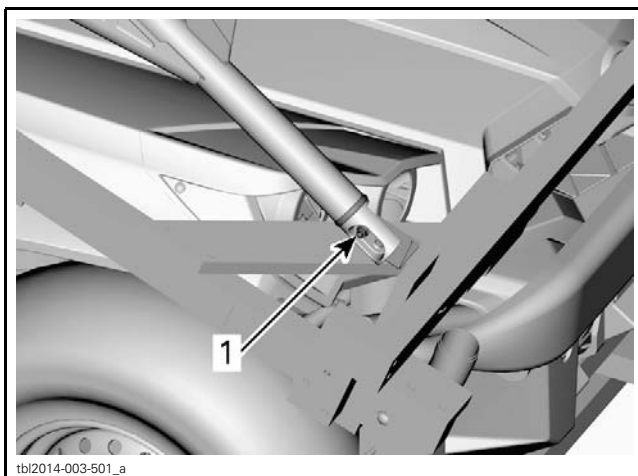


2.3 Remove rear sections of cage from the wood frame.



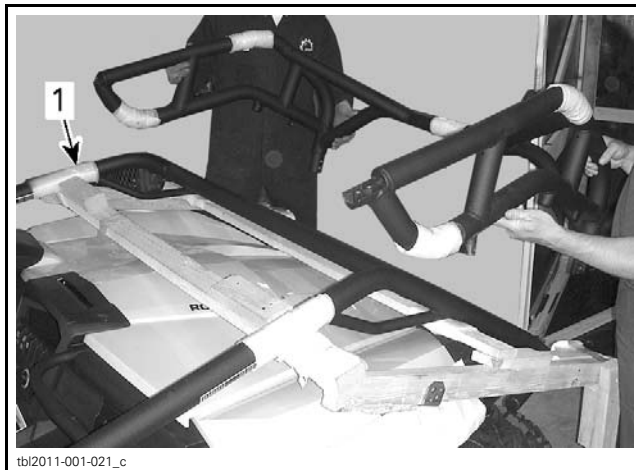
1. Rear section of cage

2.4 Remove carriage bolts securing the front section of cage to steel support.



1. Carriage bolt

2.5 Remove front section of cage from the wood frame.



1. Front section of cage

3. Remove screws retaining wood frame to steel supports.



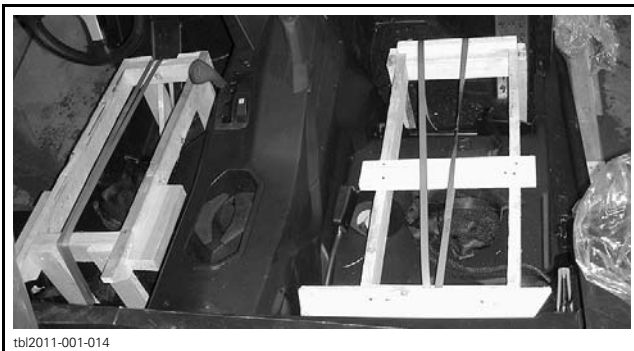
4. Move the wood frame forward and remove it.
5. Remove steel supports from the front fenders. Discard bolts and support.



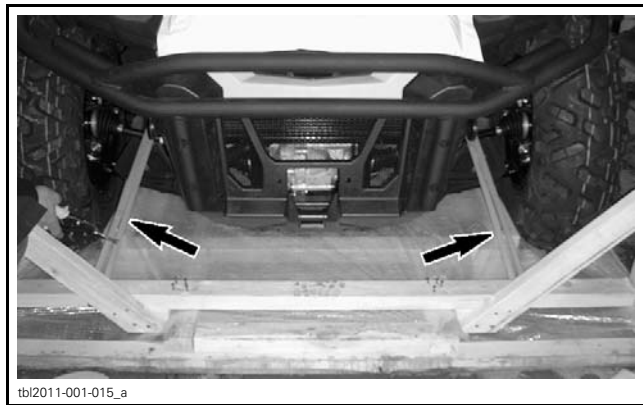
- 6. Remove seats from vehicle.
 - 6.1 Remove screw securing the top of the backrest to wood support.



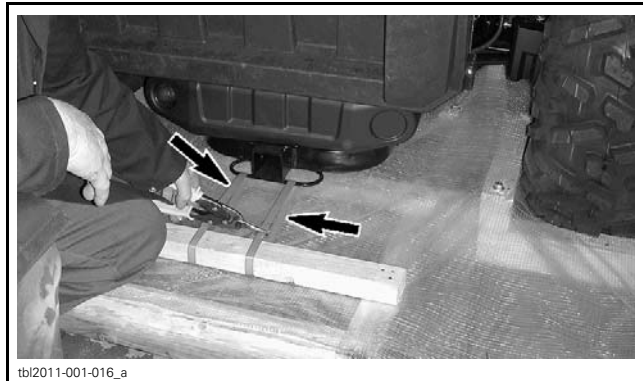
- 6.2 Lift the bottom of the seat and remove seat from vehicle.
- 7. Cut retaining straps and remove wood support.



- 8. Cut front and rear straps retaining the vehicle to crate base.



FRONT OF VEHICLE



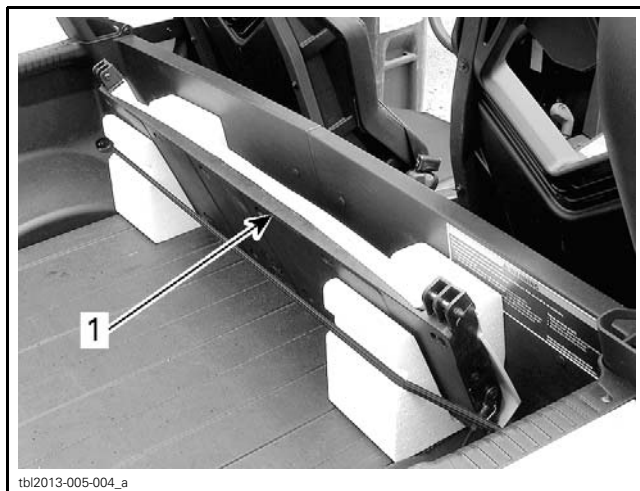
REAR OF VEHICLE

- 9. Remove parts from the rear cargo lower compartment.



TYPICAL

- 10. Unlatch tail gate and discard bungee cord and packing material.
- 11. Remove tail gate from cargo box.



1. Tail gate

12. Cut the front and rear of crate base.



FRONT OF VEHICLE



REAR OF VEHICLE

13. Prepare the following wood studs:

STUD SIZE	STUD LENGTH	QUANTITY
2 x 6	1.80 m (70 in)	2
2 x 6	1.30 m (50 in)	2

14. Install the jack under a frame member, in line with a suspension arm.

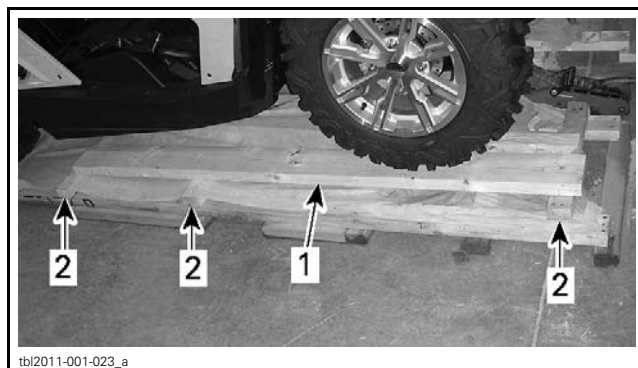


tbi2011-001-057

15. Lift the front of vehicle until tires are 8 cm (3 in) off the ground.

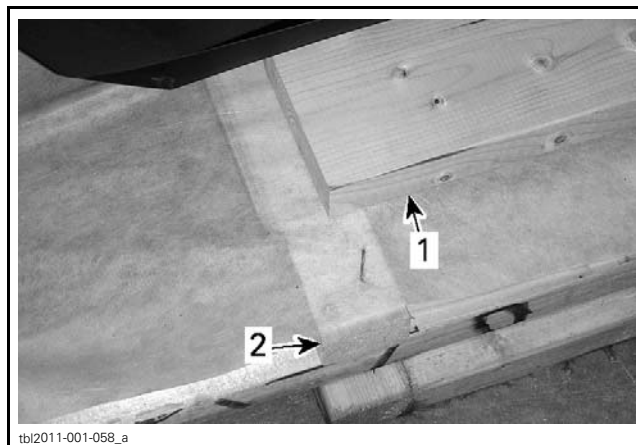
16. Position the 2 x 6 longer studs (1.80 m (70 in)) over crate braces underneath tires.

NOTE: The rear of the 2 x 6 studs must be halfway on braces.



1. 2 x 6 longer stud (1.80 m (70 in))
2. Crate braces

NOTE: Position the 2 x 6 stud over crate braces. The rear of the 2x6 stud must be halfway on brace.



1. 2 x 6 longer stud
2. Crate braces

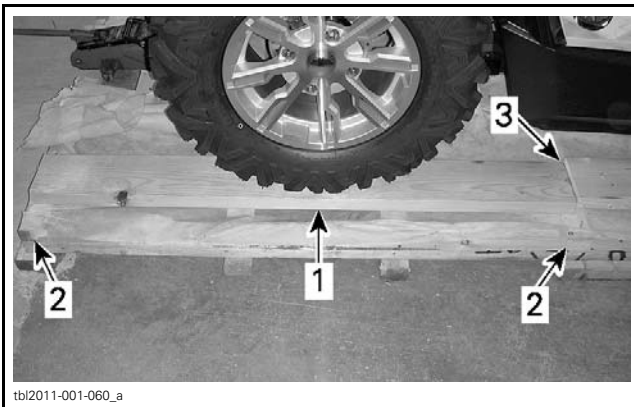
17. Lower the front of the vehicle and repeat the procedure at the rear.

PARTS TO BE INSTALLED

18. Place the jack under the hitch to lift the rear of the vehicle.



19. Position the 2 x 6 shorter studs (1.27 m (50 in)) on crate braces. Place both 2 x 6 studs end to end.



1. 2 x 6 shorter studs (1.27 m (50 in))
2. Crate braces
3. Studs positioned end to end

20. Lower the vehicle.

21. Place the shift lever on N position and carefully move the vehicle forward out of the crate base.

22. Position the shifter lever on PARK and install the required parts and accessories. Refer to *PARTS TO BE INSTALLED*.

PARTS TO BE INSTALLED

Ensure that the following parts are provided with the vehicle.

DESCRIPTION	QTY
Tail gate	1
Front shock absorber kit	1
Rear shock absorber kit	1
Shoulder guard	2

DESCRIPTION	QTY
Predelivery kit	1
Can-Am decal (XT/XT-P models only)	1
Mirrors	1

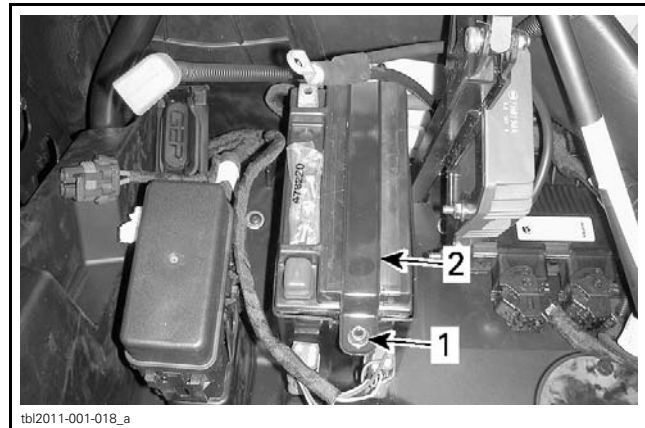
Battery

Battery Removal

⚠ WARNING

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

1. From underneath dash, unscrew battery holder retaining nut.
2. Remove battery holder.



1. Bracket retaining nut
2. Battery holder

3. Remove the battery. Keep the bag with battery fastener for installation.

Battery Preparation

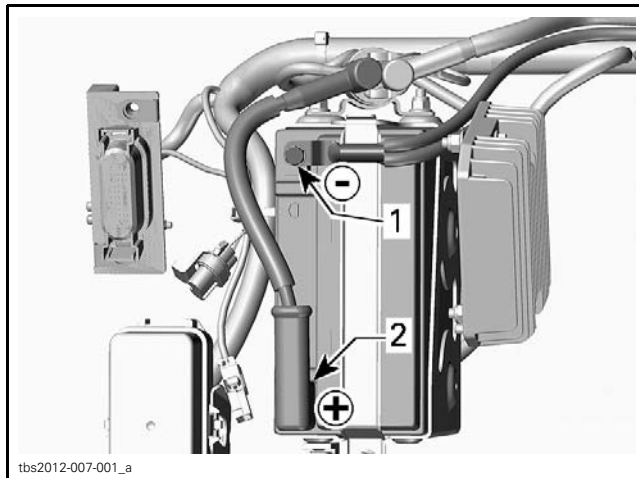
Refer to the ***CAN-AM SIDE-BY-SIDE VEHICLES BATTERIES ACTIVATION, CHARGING AND MAINTENANCE BULLETIN (2014-1)*** and to instructions notice attached to battery for proper activating, charging and maintenance procedure.

Battery Installation

NOTE: The battery should be installed only when properly activated and charged.

1. Install the battery in its rack.

NOTE: The battery negative post must be upwards.



1. Negative cables (Black)
2. Positive cable (Red)

2. Install battery holder and tighten the retaining nut.

PARTS	TORQUE
Battery holder nut	10 N•m (89 lbf•in)

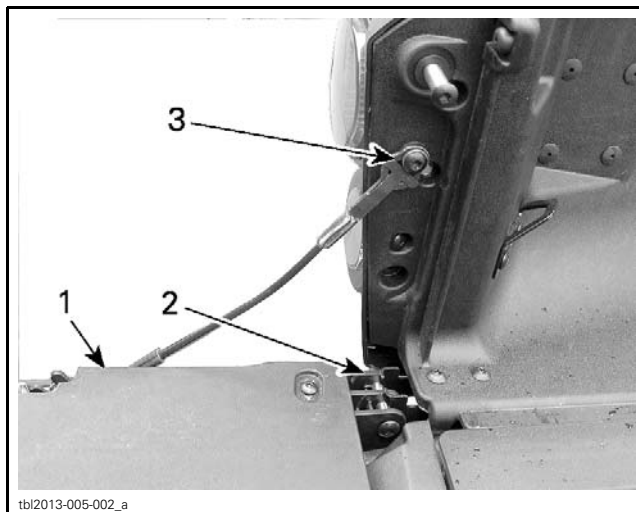
3. Connect the RED (+) lead using provided screw and nut.

4. Connect the BLACK (-) lead on the top post.

Tail Gate Installation

Install tail gate to cargo box.

Secure tail gate to cargo box hooks.



1. Tail gate
2. Secure into hooks
3. Secure both straps

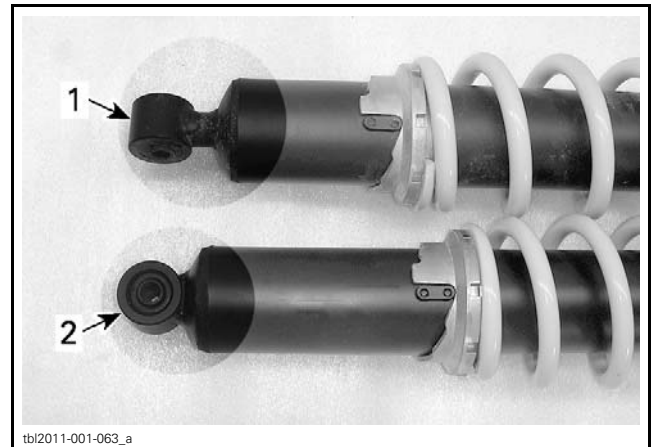
Shock Absorber Installation

Shock Absorbers Identification

When installing shock absorbers, make sure not to mix front and rear shock absorbers.

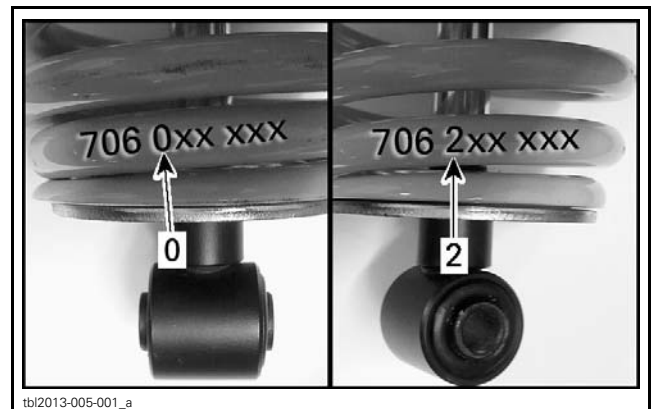
All Except XT-P Model

Front and rear shock absorbers can be easily identified by comparing the lower attachment point.



1. Rear
2. Front

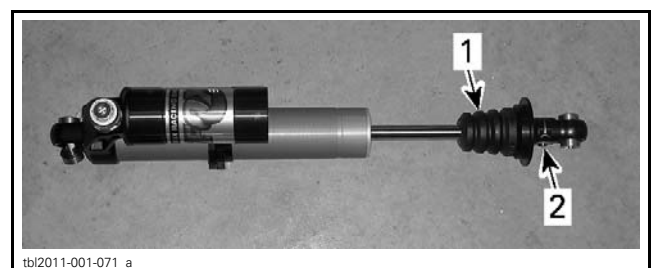
Also, the 4th digit of the spring part number indicates its mounting location.



- 0 = Rear
- 2 = Front

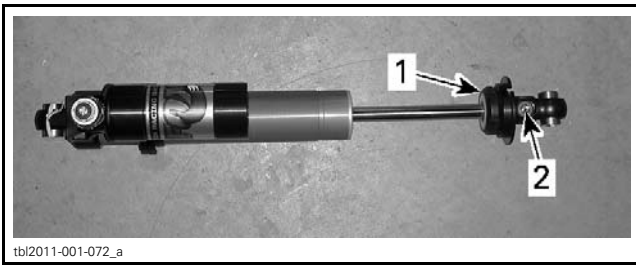
XT-P Model

Front and rear shock absorbers can be easily identified by comparing the bottom bumper and the position of the low speed compression adjuster.



FRONT – SPRING REMOVED FOR CLARITY

1. Long bumper
2. Low speed compression adjuster on the side



REAR – SPRING REMOVED FOR CLARITY

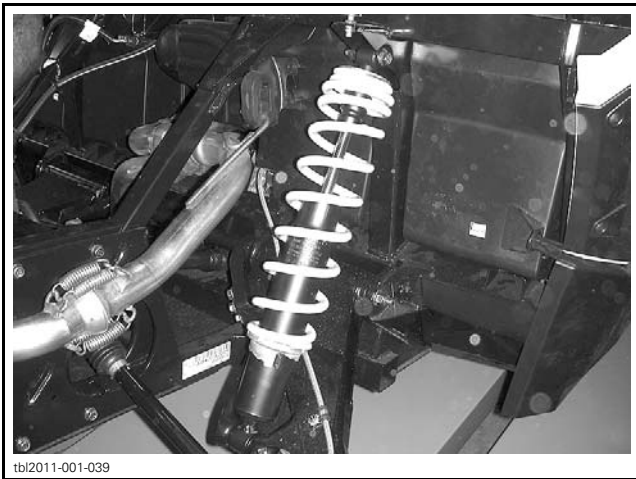
1. Short bumper
2. Low speed compression adjuster on the top

Rear Shock Absorber Installation

1. Block front wheels.
2. Loosen wheel lug nuts.
3. Open cargo box.
4. Place the jack under the hitch and lift the rear of vehicle.
5. Install jack stands to support the vehicle.
6. Remove wheels.
7. Remove the suspension bracket. Discard bolts and nuts.
8. Install shock absorbers.

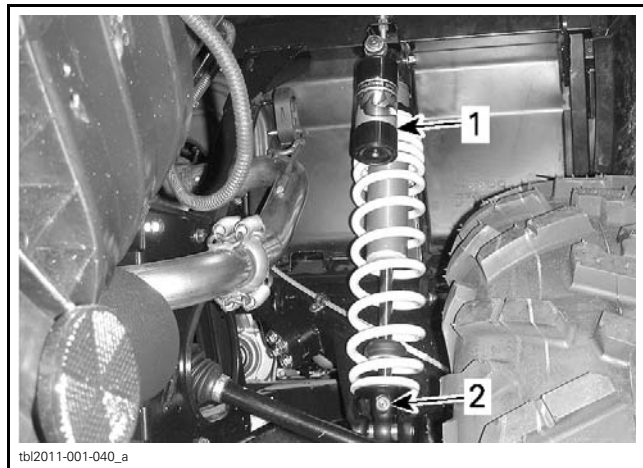
PDI KIT PARTS	QTY
M10 x 55 hexagonal flange bolts	4
M10 elastic flange nuts	4

All Except XT-P



XT-P Model

Place the reservoir rearwards.



1. Reservoir facing rearward
2. Low speed compression adjuster facing rearward

All Models

PARTS	TORQUE
Shock absorber nuts	48 N•m (35 lbf•ft)

9. Clean brake disc. Use the XPS BRAKES AND PARTS CLEANER (USA) (P/N 219 701 705) and a clean rag.

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.

10. Install wheels.
11. Lower the vehicle and remove the jack.
12. Tighten wheel lug nuts as per the following sequence.

PARTS	TORQUE
Wheel lug nuts	100 N•m (74 lbf•ft)



TYPICAL

13. Close the cargo box.

Front Shock Absorber

1. Block rear wheels.
2. Loosen wheel lug nuts.
3. Lift the front of vehicle and support it securely.
 - 3.1 Insert the jack under the vehicle by the side, behind front wheels.
 - 3.2 Place the jack under the central beam.
 - 3.3 Lift the front of vehicle.
4. Remove front wheels.

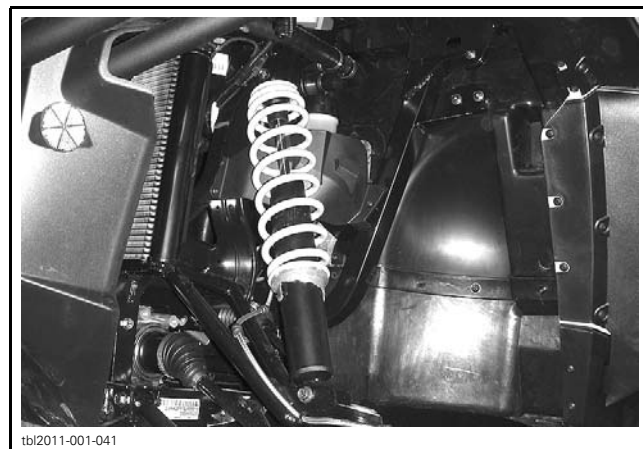
NOTE: Wheels removal is not necessary but allows more room.

5. Remove the suspension brackets. Discard bolts and nuts.

6. Install shock absorbers.

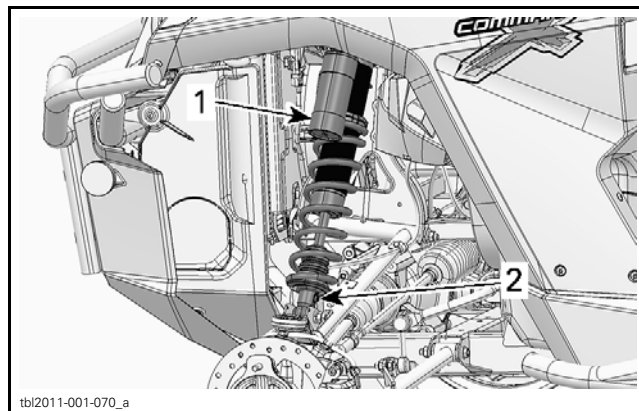
NOTE: Make sure to position nuts rearward.

PDI KIT PARTS	QTY
M10 x 55 hexagonal flange bolts	4
M10 elastic flange nuts	4



STD, DPS AND XT MODELS

NOTE: On XT-P model, place the reservoir outwards.



XT-P MODEL — LH SIDE OF THE VEHICLE

1. Reservoir facing outside
2. Low speed compression adjuster facing rearward

PARTS	TORQUE
Shock absorber nuts	48 N•m (35 lbf•ft)

7. Clean brake disc. Use the XPS BRAKES AND PARTS CLEANER (USA) (P/N 219 701 705) and a clean rag.

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.

8. Install wheels.

9. Lower the vehicle.

10. Tighten wheel lug nuts as per the following sequence.

PARTS	TORQUE
Wheel lug nuts	100 N•m (74 lbf•ft)



TYPICAL

Cage Installation

1. Assemble the cage.

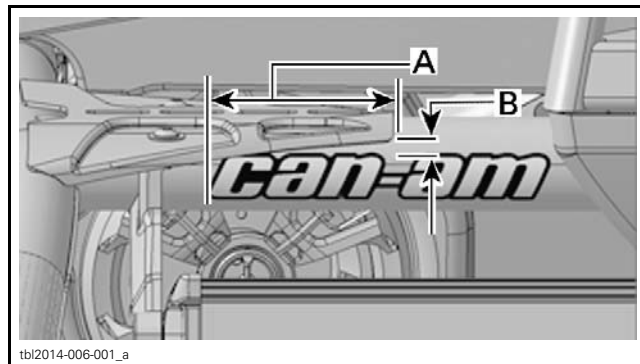
PARTS TO BE INSTALLED

PDI KIT PARTS	QTY
M10 x 30 TORX screws (P/N 250 000 624)	4
M10 nut	4

NOTE: DO NOT TIGHTEN screws until installation is completed.

2. On **XT-P model**, install the Can-Am decal on the front tube of cage.
 - 2.1 Clean the right portion of the front tube.
 - 2.2 Install the decal.

DECAL POSITION
100 mm (4 in) from right tube



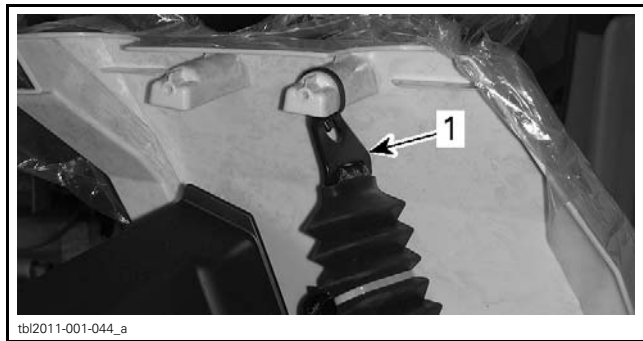
A. 100 mm (4 in)
B. 5 mm (0.2 in)

3. Open the rear cargo box.
 4. On both side of vehicle, remove support plates.
- NOTE:** Keep screws for reinstallation.



LH SIDE OF VEHICLE SHOWN
1. Support plate

5. Cut locking ties securing the seat belts.



LH SIDE OF VEHICLE SHOWN
1. Seat belt attachment

6. Using a hoist, lift the cage assembly over the vehicle and carefully position it on vehicle. Insert the rear of cage first.

NOTE: As an alternate method, one person at each attachment point can position the cage on the vehicle.

CAUTION To avoid injury or vehicle damages, never handle the cage alone.



7. Secure the cage to vehicle.

PDI KIT PARTS	QTY
M10 x 30 TORX screws	8



TYPICAL — RH FRONT CAGE ATTACHMENT POINT



TYPICAL — RH REAR CAGE ATTACHMENT POINT
1. M10 x 30 TORX screws

8. Tighten all cage screws.
- Front attachment points
 - Rear attachment points
 - Joints between front and rear portion of cage.

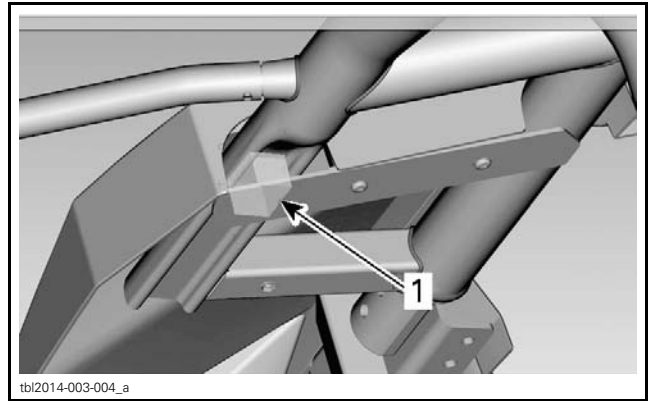
PARTS	TORQUE
M10 x 30 TORX screws	▶ 65 N•m to 70 N•m (48 lbf•ft to 52 lbf•ft) ◀

9. Secure rear lateral panels using **NEW** push nuts (from PDI kit).



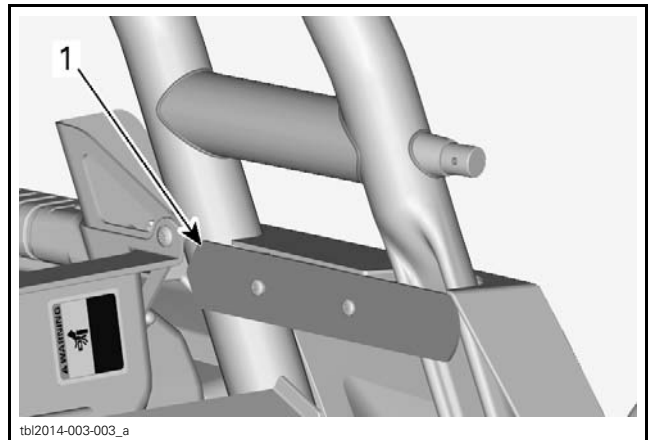
TYPICAL
1. Push nuts

10. Install support plates to retain the top of the rear lateral panels. Make sure to install square foam behind support plate.



TYPICAL
1. Foam

PARTS	TORQUE
K50 x 16 TORX screws (previously removed)	Hand torque only



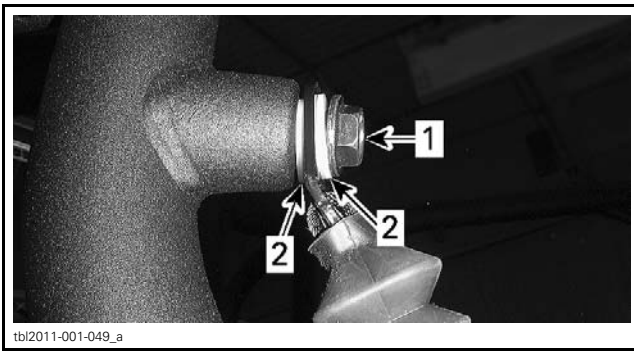
LH SIDE OF VEHICLE SHOWN
1. Support plate

Seat Belt Installation (All Except CE and Israel Models)

1. Cut locking tie attaching seat belt.
2. Secure the seat belt to cage post.

PDI KIT PARTS	QTY
7/16-20 x 1 shoulder bolts	2
7/16-20 elastic nuts	2
Nylon flat washers	4

NOTICE Make sure belt is not twisted.



1. Shoulder bolt
2. Nylon flat washer

PART	TORQUE
7/16-20 x 1 shoulder bolts	60 N•m (44 lbf•ft)

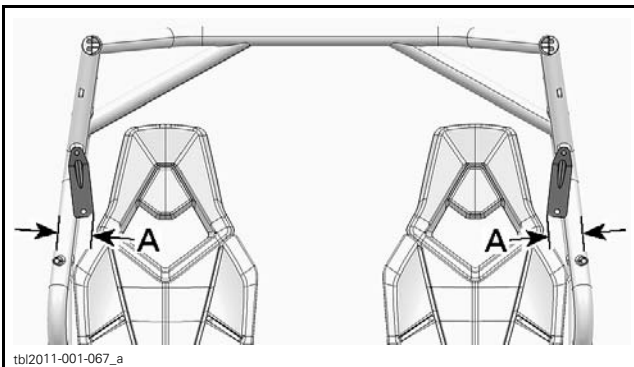
Seat Belt Installation (CE and Israel Models)

1. Cut locking tie attaching seat belt.
2. Secure the seat belt to cage post.

PDI KIT PARTS	QTY
7/16-20 x 1 hexagonal flange bolts	2
7/16-20 elastic nuts	2

NOTICE Make sure belt is not twisted.

Position seat belt bracket as per the following illustration.



A. Approximately 90 mm (3-17/32 in)

PART	TORQUE
7/16-20 x 1 hexagonal flange bolts	60 N•m (44 lbf•ft)

3. Remove and discard the elastic retaining seat belt.



1. Remove and discard this elastic

Shoulder Guard installation

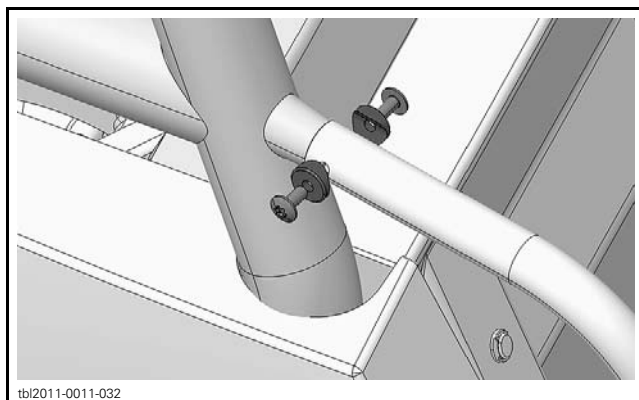
1. Slide shoulder guard into lateral net hoops.



2. Install shoulder guard to frame.

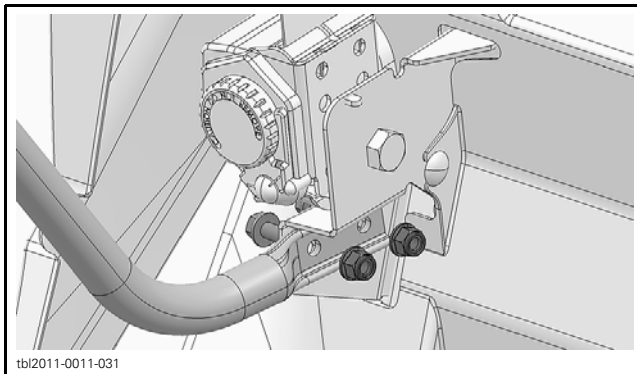
- 2.1 Secure the top of the shoulder guard.

PDI KIT PARTS	QTY
M6 x 14 TORX screws	2
Support washers	2



- 2.2 Secure the bottom of the shoulder guard to seat belt mechanism bracket.

PDI KIT PARTS	QTY
M8 x 20 hexagonal flange bolts	2
M8 elastic flange nuts	2



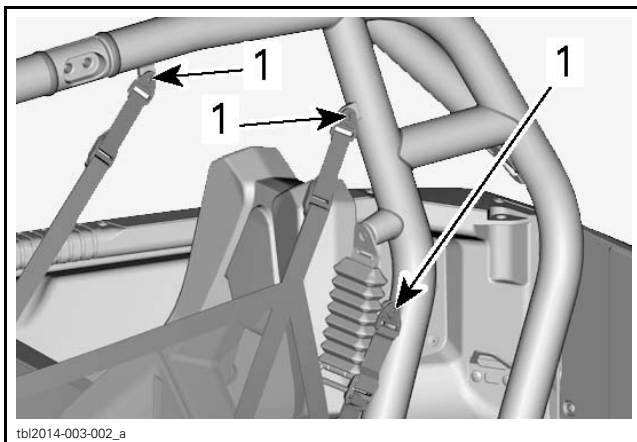
Lateral Net Installation

1. Buckle the lateral net.



2. Attach the top of lateral net to the cage.

PDI KIT PARTS	QTY
M5 x 14 TORX screws	6



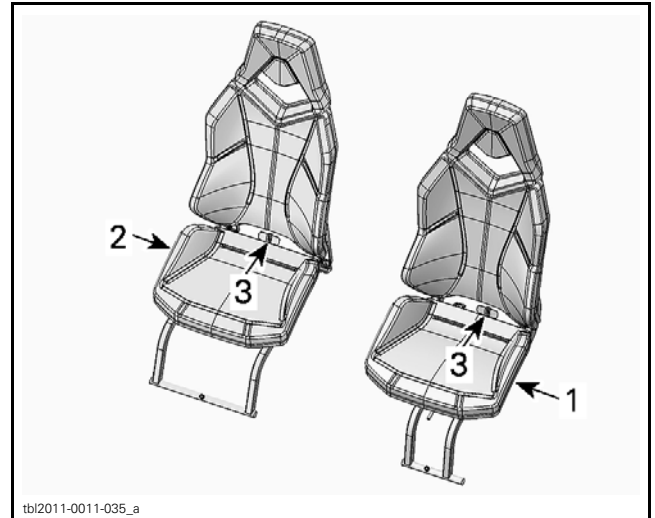
TYPICAL

1. M5 x 14 TORX screws

TIGHTENING TORQUE	
M5 x 14 Torx screw	4.5 N•m (40 lbf•in)

3. Adjust the length of the lateral net straps.
4. Buckle off the lateral net.

Seats



1. Driver's seat
2. Passenger's seat
3. Latch to release the seat

1. Insert the seat in the cockpit.
2. Install the seat support into retaining brackets.
3. Push down the backrest to latch the seat.

Seat Latch Adjustment

If the seat is hard to lock, the seat latch pin must be readjusted.

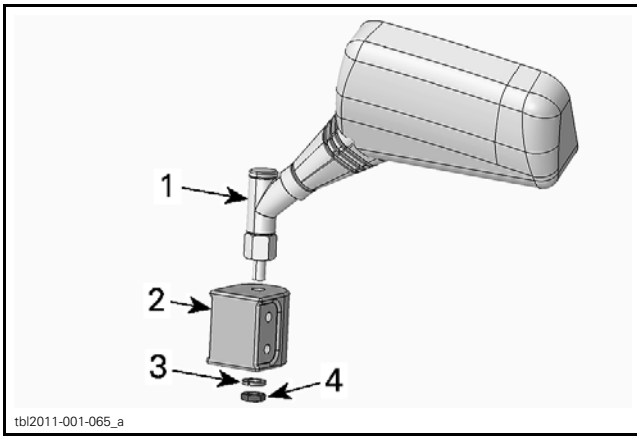
Loosen retaining screws and reposition the seat latch pin.



Mirrors (CE Models and Israel)

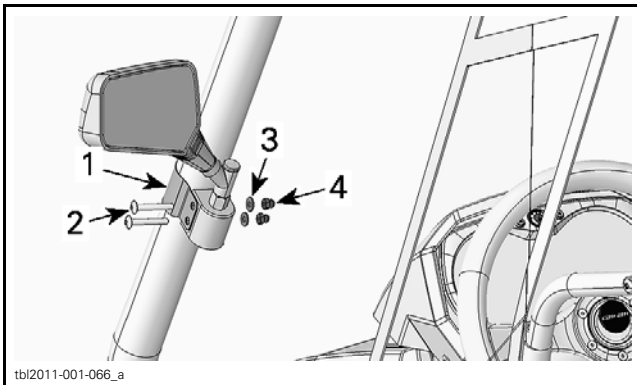
LH Mirror

1. Assemble the LH mirror on its adaptor.
 - 1.1 Insert threaded rod of mirror into adaptor hole.
 - 1.2 Secure mirror using M8 lock washer and M8 nut. Do not torque yet.



1. LH mirror
2. Adaptor
3. M8 lock washer
4. M8 nut

2. Install the LH mirror on cage post.
 - 2.1 Install the U bracket around the LH cage post.
 - 2.2 Install the mirror between U bracket ends.
 - 2.3 Secure them using M6 x 45 Torx screws, M6 flat washers and M6 cap nuts. Do not torque yet.



1. U bracket
2. M6 x 45 Torx screw
3. M6 flat washer
4. M6 cap nut

3. Position mirror as per owner preference and tighten all nuts.

PART	TORQUE
Mirror nut	24.5 N•m (18 lbf•ft)
M6 cap nut	10 N•m (89 lbf•in)

Central Mirror

1. Install the U bracket in center of the front transversal cage tube.
2. Install the central mirror.
3. Secure them using M6 x 45 Torx screws, M6 flat washers and M6 cap nuts.
4. Tighten cap nuts.

PART	TORQUE
M6 cap nut	10 N•m (89 lbf•in)

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.

FLUIDS

All fluids (except fuel) have already been filled at factory, it is only necessary to validate some of them. If refill is needed, use the provided procedure.

Fuel

1. Add fuel in the fuel reservoir.

⚠ WARNING

- Always stop engine before refueling. Open reservoir cap slowly.
- If a differential pressure condition is noticed (whistling sound heard when loosening fuel reservoir 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 spillage from the vehicle.

Recommended Fuel

Use common unleaded gasoline containing MAXIMUM 10% of ethanol with the following minimum octane rating.

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

NOTICE Never experiment with other fuels. The use of non recommended fuel 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

RECOMMENDED OIL	
SEASON	TYPE
Summer	XPS 4-STROKE SYNTH. BLEND OIL (SUMMER) (P/N 293 600 121)
Winter	XPS 4-STROKE SYNTHETIC OIL (ALL CLIMATE) (P/N 293 600 112)

NOTE: The XPS oil is specially formulated to meet the lubrication requirements of this engine. BRP strongly recommends the use of its XPS 4-stroke oil.

NOTICE Damages caused by the use of oil not suitable for this engine will not be covered by the BRP limited warranty.

If XPS oil is not available, use 4-stroke SAE 5W 40 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.

Engine Oil Level Verification

1. Unscrew dipstick then remove it and wipe clean.



1. Dipstick

2. Reinstall dipstick, screw in it completely.
3. Remove and check oil level. It should be near or equal to the upper mark.



TYPICAL
1. MIN
2. MAX
3. Operating range

To add oil, remove the dipstick. Place a funnel into the dipstick tube.

Add a small amount of recommended oil and recheck oil level.

Repeat the above procedures until oil level reaches the dipstick upper mark.

NOTE: Do not overfill. Wipe off any spillage.

Properly tighten dipstick.

Engine Coolant

Recommended Engine Coolant

COOLANT HEADER	
BRP recommended product	LONG LIFE ANTIFREEZE (P/N 219 702 685)
Alternative if not available	Distilled water and antifreeze solution (50% distilled water, 50% antifreeze)

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

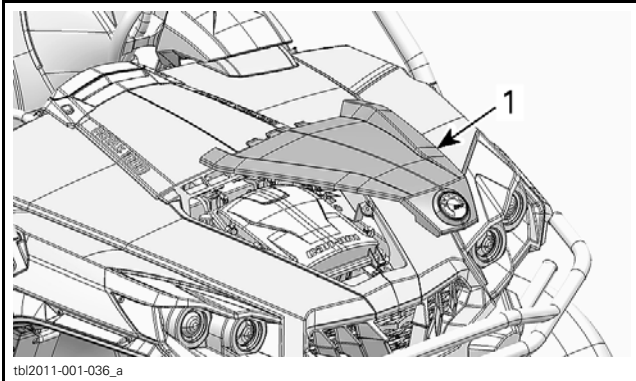
Engine Coolant Level Verification

⚠ WARNING

Check coolant level with engine cold.

Place vehicle on a level surface.

Open service cover.



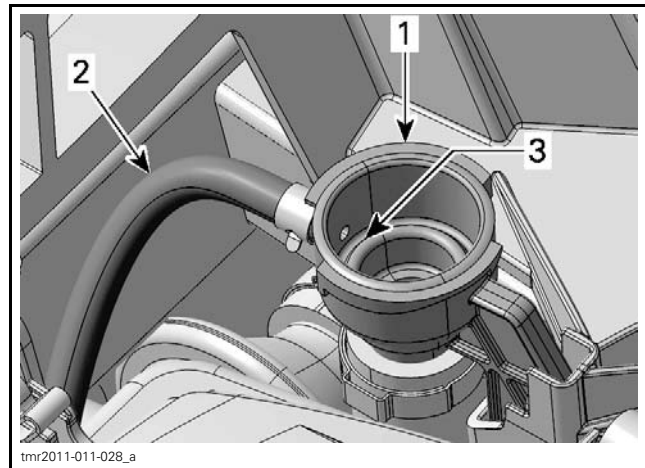
1. Service cover

Remove radiator pressure cap.



1. Air filter housing cover
2. Coolant expansion tank cap
3. Radiator pressure cap

Ensure cooling system is full up to the pressure cap seat.



1. Cooling system refill adapter
2. Expansion tank hose
3. Coolant system full level (pressure cap seat)

Add coolant in system if necessary.

Reinstall radiator pressure cap.

Check coolant level in expansion tank by looking at the side of the coolant expansion tank under the RH front fender.

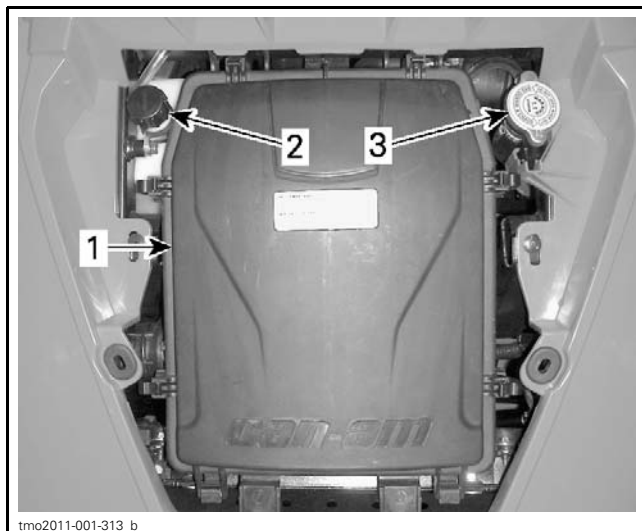
Coolant should be at the **MIN** mark when engine is **COLD**.



COOLANT EXPANSION TANK
1. MIN level

Add coolant if required.

Locate coolant reservoir cap.



- 1. Air filter housing cover
- 2. Coolant reservoir cap
- 3. Radiator cap

Remove filler cap.
 Add coolant up to **MIN** mark.
 Use a funnel to avoid spillage. **Do not overfill.**
 Reinstall filler cap.
 Reinstall service cover.

SET-UP

Tires Pressure

From factory, tires air pressure could be different from the recommended air pressure. To ensure proper seating of the tire bead, inflate tires at 200 kPa (29 PSI) **THEN** set tire pressure to vehicle specification. Refer to the following table.

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.

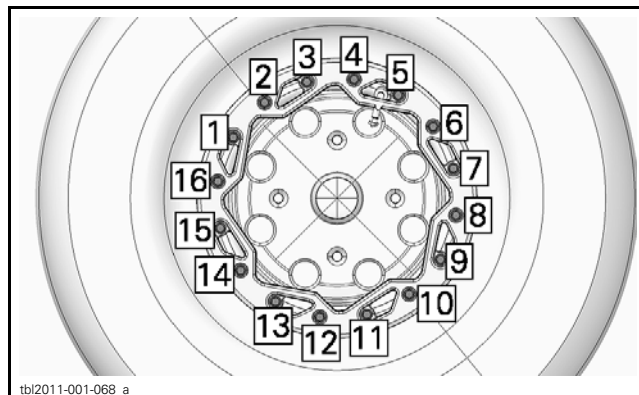
TIRE PRESSURE	FRONT	REAR
MINIMUM	69 kPa (10 PSI)	83 kPa (12 PSI)
MAXIMUM (USE WHEN TOTAL LOAD IS GREATER THAN 180 KG (397 LB))	83 kPa (12 PSI)	152 kPa (22 PSI)

Wheel Beadlock (XT-P Model)

Wheel Beadlock Tightening

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

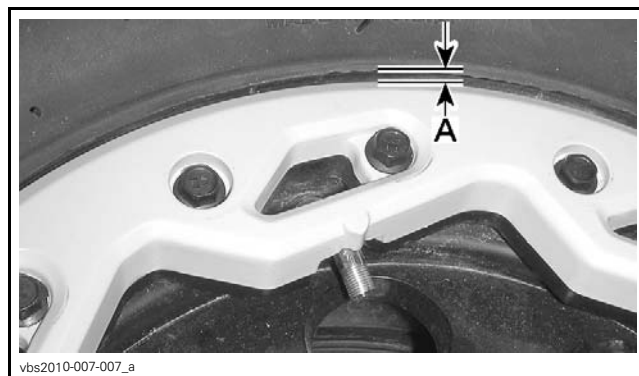
Check beadlock screws tightening as per the following sequence.



PART	TORQUE
Beadlock screws	8 N•m (71 lbf•in)

Wheel Beadlock Gap Verification

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. Refer to proper shop manual for complete procedure.

Protective Materials

Ensure that all protective materials are removed from vehicle.

Recall or Factory-directed Modification

Complete applicable recall or factory-directed modification.

B.U.D.S. PROGRAMMING

Diagnostic Connector Location



The diagnostic connector is located under the dashboard on the driver's side. It is stored in its protective cap on the lower RH side of the battery rack.



1. Diagnostic connector

NOTE: Do not mismatch the diagnostic connector with the one on the LH side of the battery rack. This connector has 2 wires and is for manufacturer use only.

Connecting the PC to the Vehicle

REQUIRED TOOLS	
MPI-2 DIAGNOSTIC CABLE (P/N 710 000 851)	
MPI-2 INTERFACE CARD (P/N 529 036 018)	

1. Locate the 6-pin diagnostic connector, refer to *DIAGNOSTIC CONNECTOR LOCATION*.
2. Disconnect the 6-pin diagnostic connector from its holder (protective cap).
3. Connect one end of the MPI-2 diagnostic cable to the vehicle connector.

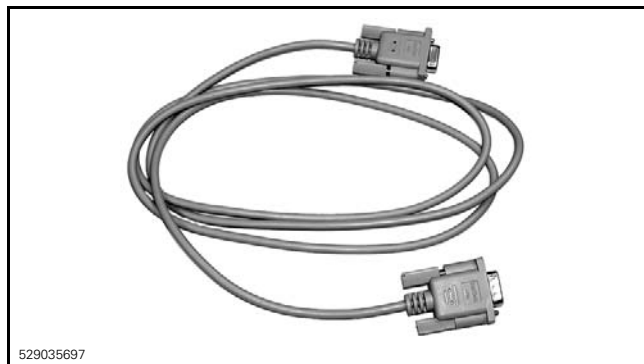


4. Connect the other end of diagnostic cable to the MPI-2 interface card.



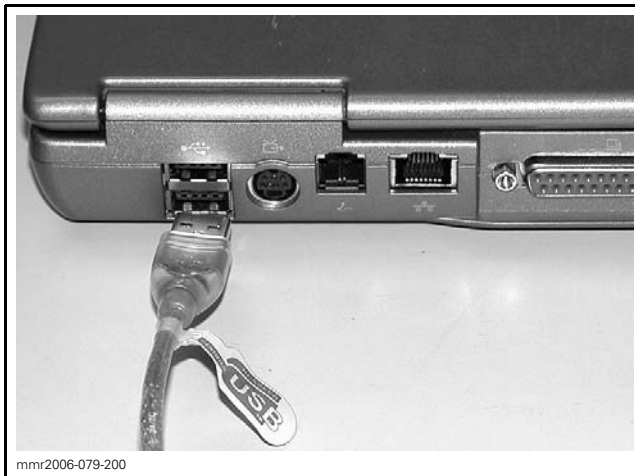
DIAGNOSTIC CABLE CONNECTED TO MPI-2 INTERFACE CARD

NOTE: An optional MALE-FEMALE EXTENSION SERIAL CABLE (P/N DB9) available at electronic retail outlets can be used between diagnostic cable and MPI-2 interface. Do not exceed 7.6 m (25 ft).



OPTIONAL MALE-FEMALE EXTENSION SERIAL CABLE

5. Connect the MPI-2 interface card to the USB port of a PC (personal computer).



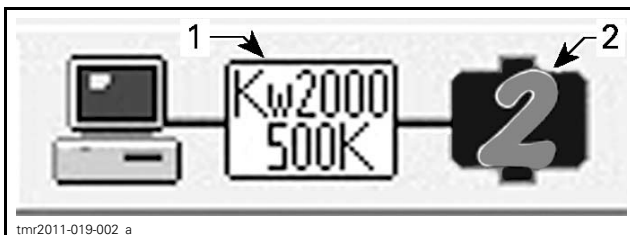
mnr2006-079-200
MPI-2 INTERFACE CARD CONNECTED TO USB PORT

How to Establish Communication Using B.U.D.S. Software

NOTE: Before beginning, check if the latest version of B.U.D.S., available on BOSSWeb for this vehicle, is installed on your computer.

IMPORTANT: Ensure all connections have been made **before starting B.U.D.S.** to allow proper operation.

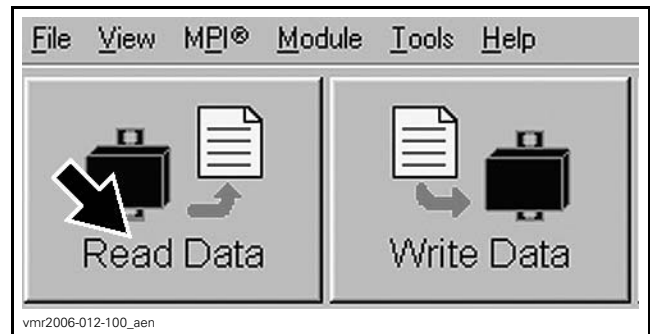
1. Turn ignition switch to ON using any of the key provided with the vehicle. **DO NOT** start the engine.
2. Start B.U.D.S. and logon.
3. Wait during detection setup.
4. Ensure the status bar shows the Kw2000 protocol and the appropriate number of modules to its right according to the vehicle model.



tmr2011-019-002_a
TYPICAL - SUCCESSFUL CONNECTION

1. Connection protocol
2. Number of modules read

5. Click the **Read Data** button.



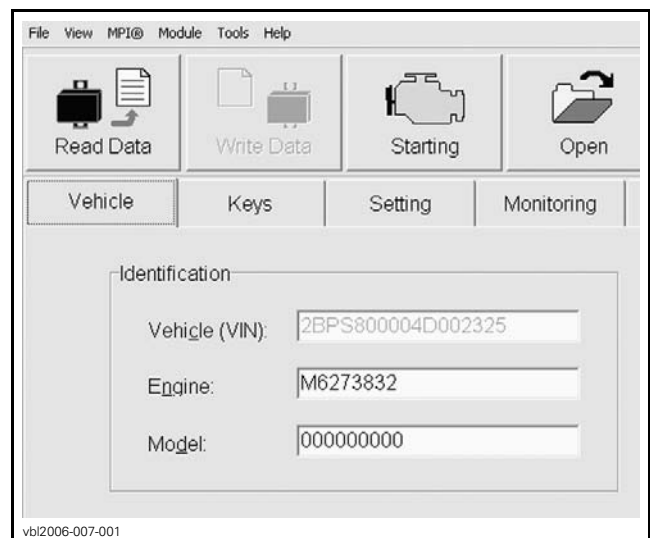
B.U.D.S. is now ready for edition, programming and for diagnostics.

Entering Customer's Name

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

To set the customer name in the multifunction display:

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



vb12006-007-001
VEHICLE TAB

2. Type the name of the customer.



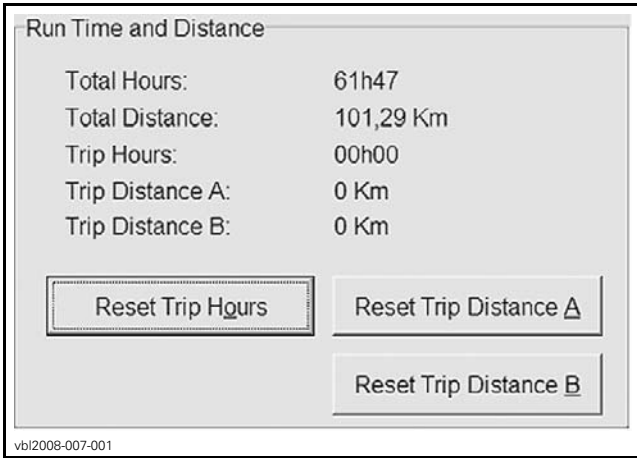
vb12006-007-002

3. Click on **WRITE DATA** to save the information in the 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.

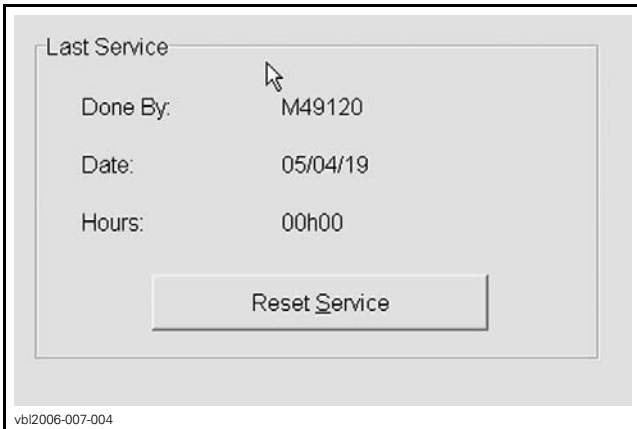


RESET TRIP BUTTONS

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.

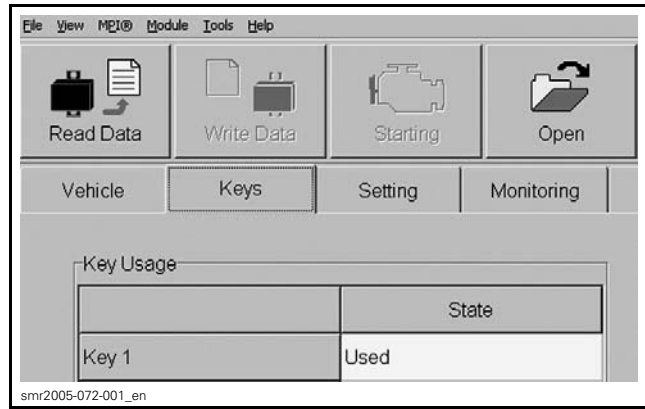


RESET SERVICE BUTTON

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

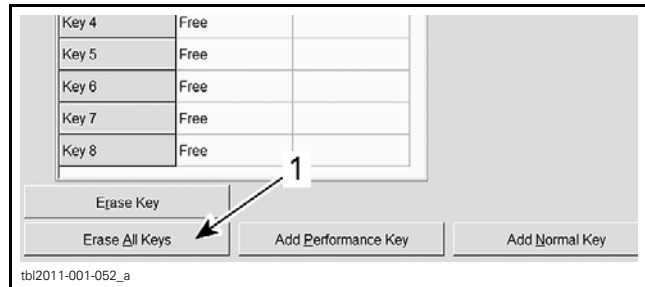
Programing Keys

1. Click on KEYS tab.



KEYS TAB

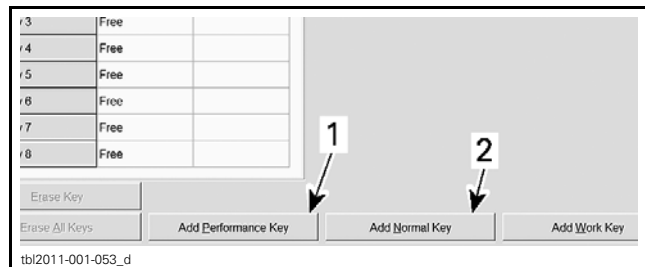
2. Click on ERASE ALL KEYS button.



1. Click here to erase all keys

3. Click "YES" to confirm the action.
4. Confirm key color in ignition switch.
5. Program the key by selecting the right type according to chart.

KEY	KEY TYPE
BLACK key	Performance key
GRAY key	Normal key



1. Add Performance Key button
2. Add Normal Key button

6. Turn ignition switch to OFF. Remove the key.
7. Install the other key.
8. Turn ignition key to ON position.
9. Program the other key by selecting the right type according to above chart.
10. Repeat steps 6 to 9 to program other keys (8 maximum).

NOTE: The Work key (ORANGE key) is optional.

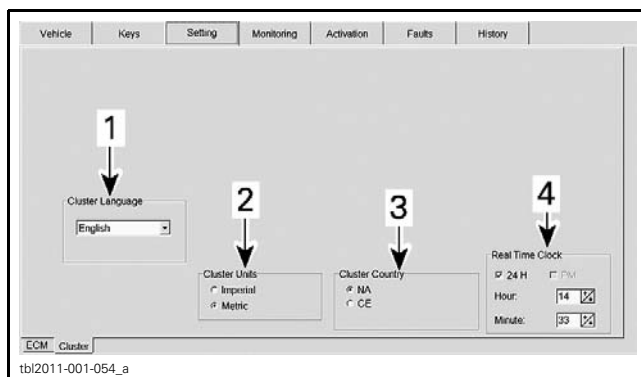
Language and Speedometer Reading

Gauge settings can be changed to accommodate the owner preferences:

- Language (English, French, Spanish, Dutch, etc.)
- Units (Miles or Kilometers)
- Country (NA or CE)
- Time clock (12hr or 24hr)

1. Select SETTING tab in B.U.D.S.
2. Modify the selections in accordance with the owner preferences.

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



1. Language
2. Units
3. Country
4. Time clock

Checking for Fault Codes

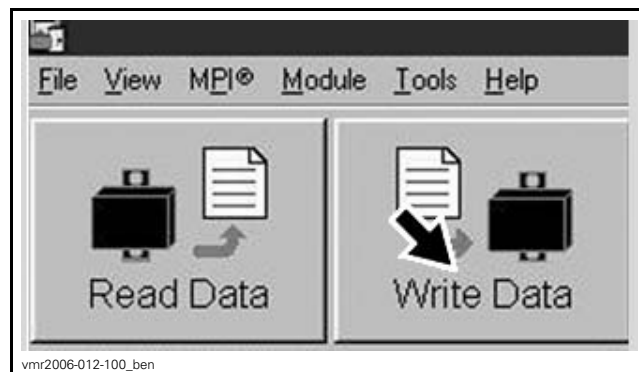
Click on FAULT tab and check if there are active faults.

- 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.

Saving Changes and Exiting the B.U.D.S. Session

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



WRITE DATA BUTTON

2. Click on EXIT button to end session.
3. Disconnect all cables and hardware from vehicle.
4. Ensure to reinstall the connector into its housing.

ADJUSTMENTS

All adjustments have already been performed at factory, it is only necessary to validate them.

Suspension Adjustments Guideline

Vehicle handling and comfort depend upon suspension adjustments.

WARNING

Suspension adjustment could affect vehicle handling. Always take time to familiarize yourself with the vehicle behavior after any suspension adjustment has been made.

Choice of suspension adjustments vary with vehicle load, personal preference, riding speed and terrain condition.

The best way to set up the suspension, is to start from factory settings, then customize each adjustment one at a time.

Front and rear adjustments are interrelated. It may be necessary to readjust the rear shock absorbers after adjusting front shock absorbers for instance.

Test run the vehicle under the same conditions; trail, speed, load, etc. Change one adjustment and retest. Proceed methodically until you are satisfied.

Following are guidelines to fine-tune suspension.

Suspension Factory Settings

For adjustment procedures, refer to *SPRING PRELOAD ADJUSTMENT (FRONT AND REAR)* and *SHOCK DAMPING ADJUSTMENTS (FRONT AND REAR)* in this section.

To adjust compression and rebound to factory settings, proceed as follows:

1. Turn adjuster clockwise until it stops.
2. Turn adjuster counter clockwise by the specified amount, see table below.

FRONT SUSPENSION FACTORY SETTINGS		
ADJUSTMENT	MODEL	FACTORY SETTING
Spring preload	Base DPS XT	Cam position 1 (soft)
	X-TP	Spring length 310 mm (12.2 in)
Compression damping (low speed)	X-TP	12 positions
Compression damping (high speed)		
Rebound damping		

REAR SUSPENSION FACTORY SETTINGS		
ADJUSTMENT	MODEL	FACTORY SETTING
Spring preload	Base DPS XT	Cam position 1 (soft)
	X-TP	Spring length 362 mm (14.3 in)
Compression damping (low speed)	X-TP	12 positions
Compression damping (high speed)		
Rebound damping		

Spring Preload Adjustment (Front and Rear)

Shorten the spring for a firmer ride and rough riding condition or when pulling a trailer.

Lengthen the spring for a softer ride and smooth riding condition.

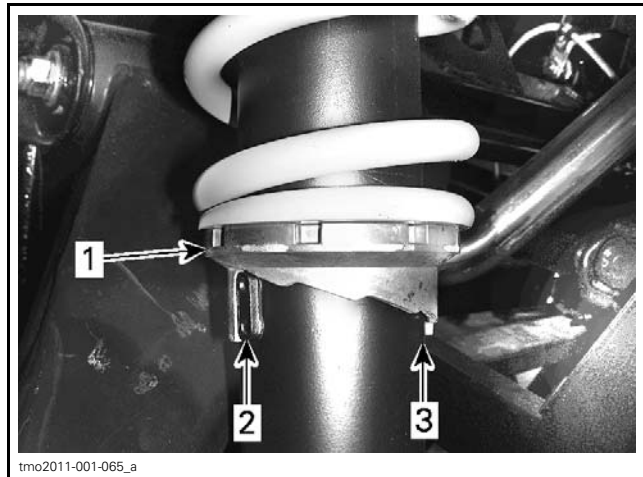
⚠ WARNING

The left and right shock adjustment on front or rear suspension must always be set to the same position. Never adjust one shock only. Uneven adjustment can cause poor handling and loss of stability, which could lead to an accident.

Lift the vehicle. Spring length should be measured without load on the wheels.

All Except X-TP Model

Adjust by turning adjusting cam. Use tool from vehicle tool kit.



TYPICAL

1. Turn adjusting cams
2. Smooth adjustment
3. Hard adjustment

X-TP Model

Adjust by loosening lock ring and turning adjuster ring accordingly. Use tool from vehicle tool kit.



TYPICAL - SPRING NOT SHOWN

1. Loosen top lock ring
2. Turn adjuster ring accordingly

Front and Rear Shock Damping Adjustments (XT-P Model)

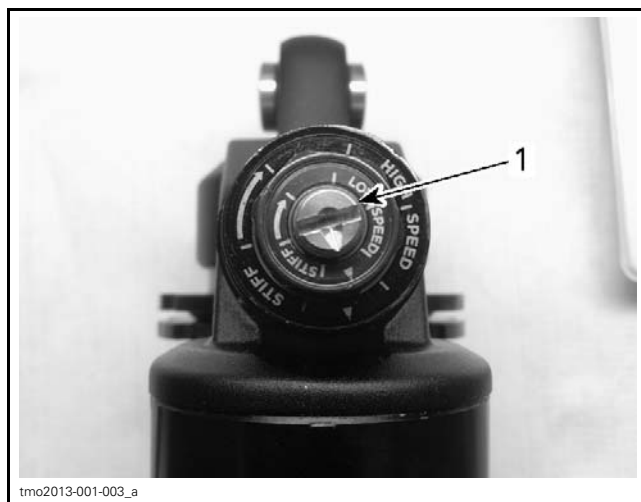
Perform adjustments **one** position (click) at a time. Test run the vehicle under the same conditions. Proceed methodically until you are satisfied.

Low Speed Compression Damping

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

ACTION	RESULT ON BIG BUMPS
Increasing low speed compression damping force	Firmer compression damping (slow compression)
Decreasing low speed compression damping force	Softer compression damping (slow compression)

Use a flat screwdriver to adjust it.



TYPICAL
1. Low speed compression adjuster

Turning it clockwise (H) **increases** shock damping action (stiffer).

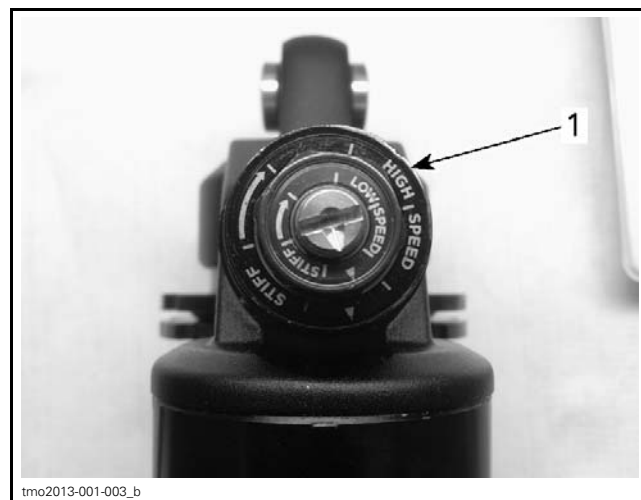
Turning it counterclockwise (S) **decreases** shock damping action (softer).

High Speed Compression Damping

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

ACTION	RESULT ON SMALL BUMPS
Increasing high speed compression damping force	Firmer compression damping (fast compression)
Decreasing high speed compression damping force	Softer compression damping (fast compression)

Use a 17 mm wrench to adjust it.



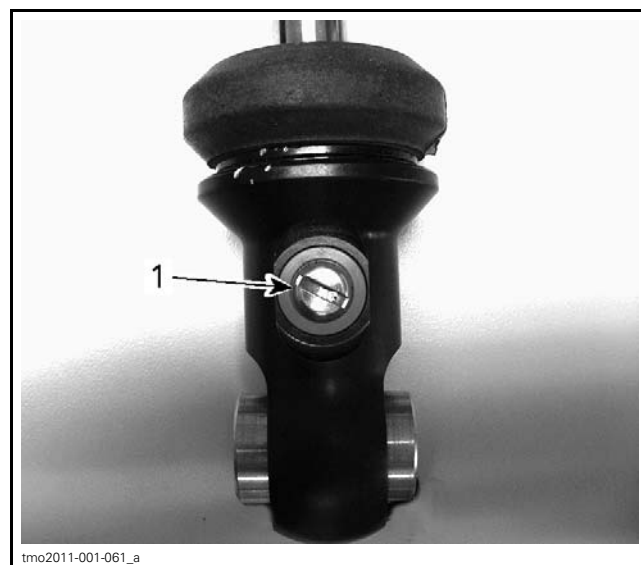
TYPICAL
1. High speed compression adjuster (17 mm socket)

Turning it clockwise (H) **increases** shock damping action (harder).

Turning it counterclockwise (S) **decreases** shock damping action (softer).

Rebound Damping

Use a flat screwdriver to adjust it.



1. Rebound adjuster

Turning it clockwise (H) **increases** shock damping action (harder).

Turning it counterclockwise (S) **decreases** shock damping action (softer).

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

ASSEMBLY INSPECTION

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

1. Chassis
2. Steering operation
3. Suspension arm ball joint cotter pins
4. Tie rod end nuts and cotter pins

FINAL INSPECTION

Vehicle Test Run

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

Vehicle Cleaning

1. 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.

2. Remove any dirt.
3. Clean vinyl and plastic parts, using a chamois, a flannel cloth or a microfiber cloth with XPS ALL PURPOSE CLEANER (P/N 219 701 709).

NOTICE It is necessary to use a chamois, a flannel cloth or a microfiber cloth on plastic parts to avoid damaging surfaces. Never clean plastic parts with strong detergent, degreasing agent, paint thinner, acetone, products containing chlorine, etc.

4. Clean the entire vehicle, including metallic parts, with XPS ATV WASH (P/N 219 701 702).
5. Painted parts which are damaged should be properly repainted to prevent rust.

Delivery To Customer

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.

TECHNICAL SPECIFICATIONS

MODEL		800R	1000
ENGINE			
Engine type		ROTAX® 810	ROTAX® 1010
		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)	91 mm (3.58 in)
Stroke		61.5 mm (2.42 in)	75 mm (2.95 in)
Displacement		799.9 cm ³ (48.81 in ³)	976 cm ³ (59.56 in ³)
Exhaust system		Spark arrestor approved by USDA Forest Service	
Engine air filter		Synthetic paper filter	
LUBRICATION SYSTEM			
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 4-STROKE SYNTH. BLEND OIL (SUMMER) (P/N 293 600 121). For the winter season, use XPS 4-STROKE SYNTHETIC OIL (ALL CLIMATE) (P/N 293 600 112). If not available, use a 5W 40 motor oil that meets the requirements for API service classification SM, SL or SJ	
COOLING SYSTEM			
Coolant	Type	Ethyl glycol/water mix (50% coolant, 50% water). Use long life antifreeze sold by BRP (P/N 219 702 685) or coolant specifically designed for aluminum engines	
	Capacity	3.9 L (1 U.S. gal.)	4.3 L (1.1 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	450 ml (15 U.S. oz)	
	Recommended	XPS synthetic gear oil (P/N 293 600 140) or a 75W 140 API GL-5	
ELECTRICAL SYSTEM			
Magneto generator output		625 W @ 6000 RPM	
Ignition system type		IDI (Inductive Discharge Ignition)	
Ignition timing		Not adjustable	
Spark plug	Quantity	2	
	Make and type	NGK DCPR8E	
	Gap	0.7 mm to 0.8 mm (.028 in to .031 in)	
Engine RPM limiter setting		8000 RPM	
Battery	Type	Maintenance free type	
	Voltage	12 volts	
	Nominal rating	18 A•h	
	Power starter output	0.7 KW	

TECHNICAL SPECIFICATIONS

MODEL			800R	1000
ELECTRICAL SYSTEM (cont'd)				
Headlights			4 x 60 W	
Taillight			2 x 8/26 W	
Fuses	F1	Differential switch	15 A	
	F4	Speedometer/tail lamp	10 A	
	F5	Ignition/injection/ speed sensor	7.5 A	
	F6	Engine control module (ECM)	5 A	
	F7	4WD Actuator (winch if equipped)	5 A	
	F8	Key switch	5 A	
	F9	Fan (fuse breaker)	25 A	
	F10	European component	5 A	
	F11	Head lamp	30 A	
	F12	DC outlet	15 A	
	F13	Relay driver	5 A	
	F14	Accessories	15 A	
	F15	Fuel pump	5 A	
FUEL SYSTEM				
Fuel delivery		Type	Electronic fuel injection (EFI) with iTC	
Throttle body			54 mm with ETA	
Fuel pump		Type	Electric (in fuel tank)	
Idle speed			1250 ± 100 RPM (not adjustable)	
Fuel	Type		Regular unleaded gasoline (which may contain up to 10% MAX ethanol)	
	Minimum octane	Inside North America	87 (AKI (R+M)/2)	
		Outside North America	92 RON	
Fuel tank capacity			37.8 L (10 U.S. gal.)	
Fuel remaining when low fuel light turns ON			± 12 L (3.2 U.S. gal.)	
DRIVE SYSTEM				
Drive system type			Selectable 2WD/4WD	
Differential oil	Capacity	Front	500 ml (17 U.S. oz)	
		Rear	850 ml (28.7 U.S. oz)	
	Type	Front	XPS synthetic gear oil (75W 90 API GL-5) (P/N 293 600 043)	
		Rear	XPS synthetic gear oil (75W 90 API GL-5) (P/N 293 600 043)	
Front drive			Visco-lokt front differential	
Front drive ratio			3.6:1	
Rear drive			Shaft driven/single differential	
Rear drive ratio			3.6:1	

MODEL		800R	1000
STEERING			
Steering wheel		Adjustable tilt steering	
Turning radius		240 cm (94.5 in)	
Total toe (vehicle on ground)		0° ± 0.2° (±)	
Camber angle (vehicle on ground)		0.7° positive	
FRONT SUSPENSION			
Suspension type	Base DPS XT		Double suspension-arm with dive-control geometry
	XT-P		Double suspension-arm with dive-control geometry with external sway-bar
Suspension travel		254 mm (10 in)	
Shock absorber	Qty	2	
	Type	Base	Oil/5 spring preload settings
		DPS	Oil/5 spring preload settings
		XT	Oil/5 spring preload settings
XT-P		HPG shock with remote reservoir. Dual speed compression damping and rebound damping adjustments	
REAR SUSPENSION			
Suspension type	Base DPS XT XT-P		Torsional Trailing arm Independant (TTI) with external sway bar
	XT-P		
Suspension travel		254 mm (10 in)	
Shock absorber	Qty	2	
	Type	Base	Oil/5 spring preload settings
		DPS	Oil/5 spring preload settings
		XT	Oil/5 spring preload settings
XT-P		HPG shock with remote reservoir. Dual speed compression damping and rebound damping adjustments	
BRAKES			
Front brake	Type	Dual 214mm ventilated disc brakes with hydraulic twin-piston calipers	
Rear brake	Type	Dual 214mm ventilated disc brakes with hydraulic twin-piston calipers	
Brake fluid	Capacity	125 ml (4.2 U.S. oz)	
	Type	DOT 4	
Caliper		Floating	
Brake pad material	Front	Metallic	
	Rear	Metallic	
Minimum bake pad thickness		1 mm (.039 in)	
Minimum brake disc thickness	Front	4.1 mm (.161 in)	
	Rear	4.1 mm (.161 in)	
Maximum brake disc warpage		0.2 mm (.001 ft)	

TECHNICAL SPECIFICATIONS

MODEL			800R	1000
TIRES				
Pressure	Front	Maximum: 83 kPa (12 PSI) Minimum: 69 kPa (10 PSI)		
	Rear	Maximum: 152 kPa (22 PSI) Minimum: 83 kPa (12 PSI)		
Minimum tire thread depth		3 mm (.118 in)		
Tire size	Front	Base/XT-P	27 x 9 x 12 (in)	
		DPS/XT	27 x 9 x 14 (in)	
	Rear	Base/XT-P	27 x 11 x 12 (in)	
		DPS/XT	27 x 11 x 14 (in)	
WHEELS				
Type	Base		Steel	
	XT-P		Aluminum beadlock wheels	
	DPS/XT		Cast Aluminum	
Rim size	Front	Base	12 x 6 (in)	
		XT-P	12 x 6 (in)	
		DPS/XT	14 x 7 (in)	
	Rear	Base	12 x 8 (in)	
		XT-P	12 x 7.5 (in)	
		DPS/XT	14 x 8.5 (in)	
Wheel nuts torque		100 N•m ± 10 N•m (74 lbf•ft ± 7 lbf•ft)		
CHASSIS				
Cage type		50 mm (2 in) diameter, high strength steel, ROPS-approved cage		
Hitch support		50.8 mm (2 in) x 50.8 mm (2 in)		
DIMENSIONS				
Overall length		300.4 cm (118.3 in)		
Overall width		148.9 cm (58.6 in)		
Overall height		182.9 cm (72 in)		
Wheelbase		192.4 cm (75.7 in)		
Wheel track	Front	125.7 cm (49.5 in)		
	Rear	121.9 cm (48 in)		
Ground clearance		27.9 cm (11 in)		
LOADING CAPACITY AND WEIGHT				
Dry weight (models without accessories)		610 kg (1,344.8 lb)	635 kg (1,399.9 lb)	
Weight distribution (front/rear)		44 / 56		
Cargo box capacity	Total	272 kg (600 lb)		
	Upper	181 kg (400 lb)		
	Lower	272 kg (600 lb)		
Total vehicle load allowed (including driver, passenger, all other loads and added accessories)		363 kg (800 lb)		
Gross vehicle weight rating		990 kg (2,183 lb)		
Towing capacity	All except CE model	680 kg (1,500 lb)		
	CE model	270 kg (600 lb)		