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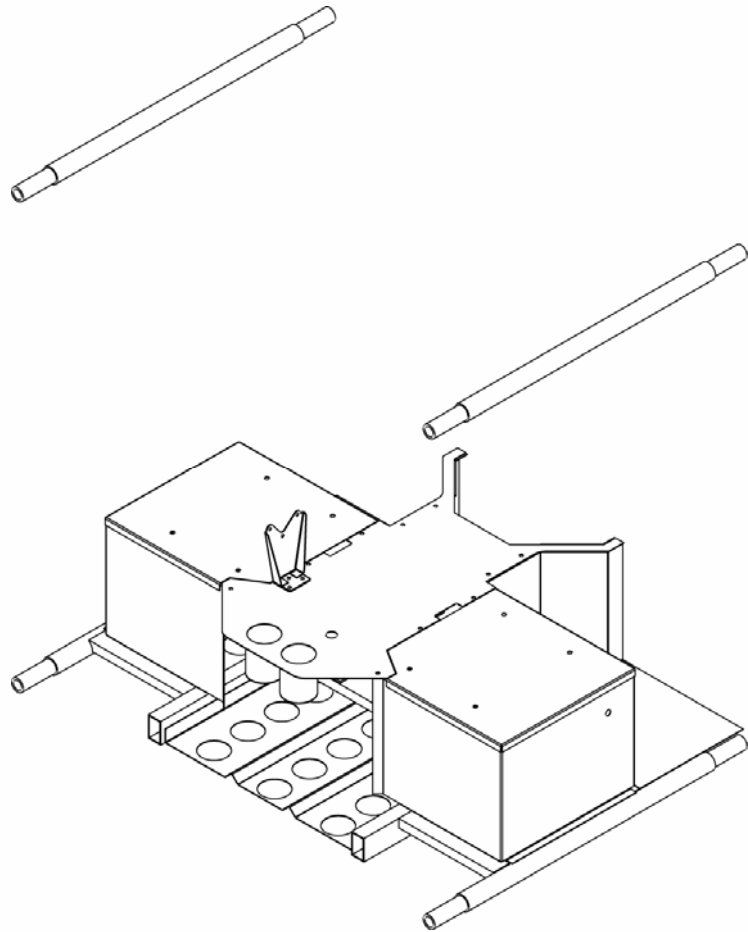
Beaver Pro™

Owner's Manual

Model:
Yamaha Rhino
Stretch Kit *

Caution:

Before using this product, read this manual and follow all Safety Instructions.



Yamaha Rhino Stretch Kit*

- Safety Instructions
- Stretch Kit Contents
- Stretch Kit Assembly
- Replacement Parts

*The Beaver Pro cabs and accessories are in no way affiliated with the Yamaha Motor Corporation. Any use of the Yamaha name is only to identify their utility vehicle as it pertains to our accessories. Yamaha and Rhino are registered trademarks of the Yamaha Motor Corporation.

Warning: Failure to heed all safety and operating instructions and warnings regarding use of this product can result in serious bodily injury.

SAFETY INSTRUCTIONS

Note: Cutting or modifying your Rhino roll bar voids any Yamaha factory warranties and safety certification. LB Manufacturing assumes absolutely no responsibility for any injury or loss either directly or indirectly from the installation of the Rhino Stretch Kit.

All welds performed during the installation of the Rhino Stretch Kit must meet AWS D14.3/D14.3M:2005 or equivalent. All welds to be performed by a certified welder.

Note: Although the Rhino Stretch Kit has been designed to make assembly easy with a minimum amount of labor, installation still requires knowledge of welding, metal fabrication, automotive finishing and painting, general ATV maintenance and electrical circuits. If you are uncomfortable with this type of work, please contact your dealer or local resources such as an auto body shop,

metal fabricator and/or automotive sound system installer.

Install all parts indicated in assembly instructions. Failure to fully assemble product before use could result in personal injury.

Assembly of product requires use of hand or power tools. If you are not experienced in using these types of tools, have product dealer do the install for you.

Some parts contain sharp edges as indicated in the manual. Wear protective gloves if necessary.

Dress for safety. DO NOT wear loose clothing, gloves, neckties or jewelry if using power tools to assemble this product.

Always keep your assembly area clean, uncluttered and well lit.

Keep visitors and children a safe distance away from the assembly area. Visitors should wear the same safety equipment described above.

STRETCH KIT CONTENTS

Your BeaverPro™ Yamaha Rhino Stretch Kit should contain the parts listed below. Separate all parts from packing materials. Do not discard packing material until assembly is complete. Item quantities are listed in parenthesis below.

- Welded Frame Assembly (x1)
- Roll Bar Extension (x2)
- Driveshaft Cover (x1)
- Rear Driver Floor Mat (x1)
- Rear Pass. Floor Mat (x1)
- Shifter Bracket (x1)
- Extended Throttle Cable (x1)
- Extended Brake Line (x1)
- Transmission Coolant Line (x2)
- Engine Coolant Line (x2)
- Extended Drive Shaft (x1)
- Extended Shift Lever Rod (x1)
- Seat Belt Set (x2)
- ½" Washer (x6)
- ½"-13 x 1 ½" Long Bolt (x4)
- ½"-13 Lock Nuts (x4)
- ¼"-20 x ½" Long Screw (x21)
- 3/16" Rivet (x24)
- 1½" x 5/8" Spacer (x2)
- 1 ½" Hose Clamp (x4)
- 5/8" Hose Clamp (x4)
- #10-13 Self Tapping Screws (x20)
- Wire Spools (x6)
- Crimp Connectors (x100)
- Roll Electrical Tape (x2)
- Hook Up Wire 18 Gauge Brown (1 Roll)
- Hook Up Wire 18 Gauge Red (1 Roll)
- Hook Up Wire 18 Gauge Black (1 Roll)
- Hook Up Wire 18 Gauge Blue (1 Roll)
- Hook Up Wire 18 Gauge Yellow (1 Roll)
- Hook Up Wire 18 Gauge Green (1 Roll)
- Hook Up Wire 18 Gauge White (1 Roll)
- 4 Gauge Starter wire (2 x 3ft)
- 4 Gauge Butt Connectors (x4)
- Air Breather Extension (3ft) with 2 clamps (2008 only)

TOOLS REQUIRED FOR ASSEMBLY

Ensure that you have the following tools available before you begin the assembly of your BeaverPro™ Yamaha Rhino cab kit. Note: Assembly requires two people.

- Electric Welder
- Reciprocating Saw With Metal Blade or Hacksaw
- Angle Grinder
- Paint Spray Gun or Can of Black Spray Paint
- Wire Cutters
- Wire Strippers
- Crimp Tool
- (2x) 3/4" Wrench or Socket
- 7/16" Wrench
- Electric drill
- 5/32" drill bit
- Utility knife
- Rubber Mallet

INSTALLATION INSTRUCTIONS

For the steps involving dismantling or assembling OEM parts on your Rhino, please refer to service manual for full instructions. Note: Save all hardware for re-assembly.

1. **Disconnect battery**
2. **Remove both seats**
3. **Remove engine cover**
4. **Remove shift lever and shift link rod**
5. **Remove plastic covers in front of seat brackets**
6. **Remove plastic floor (Do not cut until later step)**
7. **Remove driveshaft**
8. **Drain transmission and engine coolant**
9. **Remove transmission cooling lines**
10. **Remove engine cooling lines**
11. **Remove throttle cable**
12. **Drain brake fluid**
13. **Remove rear brake line**

14. Cut Factory Harness

- a) Unwrap the electrical tape on the factory harness running above the floor pan of the UTV.
- b) Label each end of the separate wire bundles with marking tape and a marker. Cut between pieces of masking tape.
- c) Repeat previous instruction until all circuits have been cut.

15. Cut Roll Bar and Frame

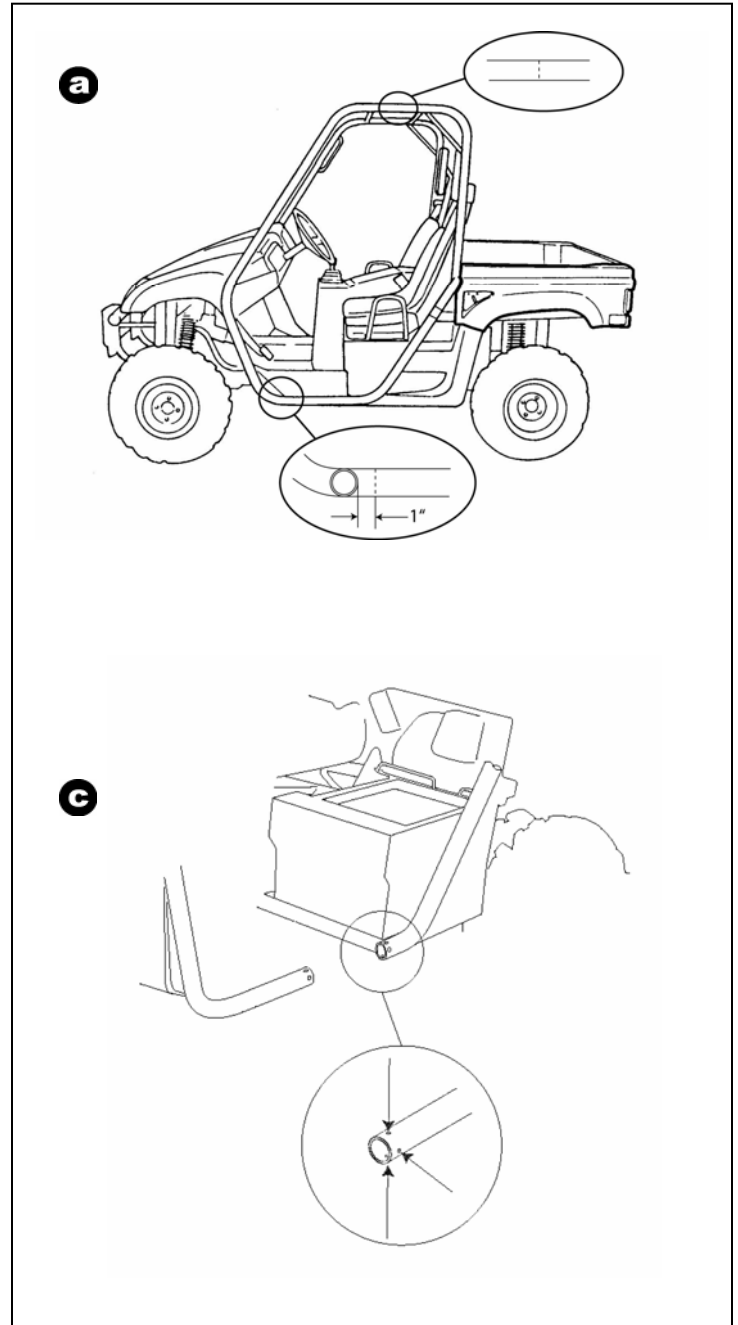
Note: To prevent injury, support the underside of frame on either side of cut with jack stands or other appropriate support.

a) Cut the lower frame and metal floor pan in the location shown at right. The cut is 1" from the inside of the round cross member at the front of the UTV. Cut upper frame in the straight section of the top of the roll bar. Ensure that all cuts are square to roll bar and frame tubing.

b) Cut airbox tube above floor pan leaving a minimum 3" straight section of tube on either side of cut.

c) Separate both parts of ATV so that you have a gap of about 40" between the two parts.

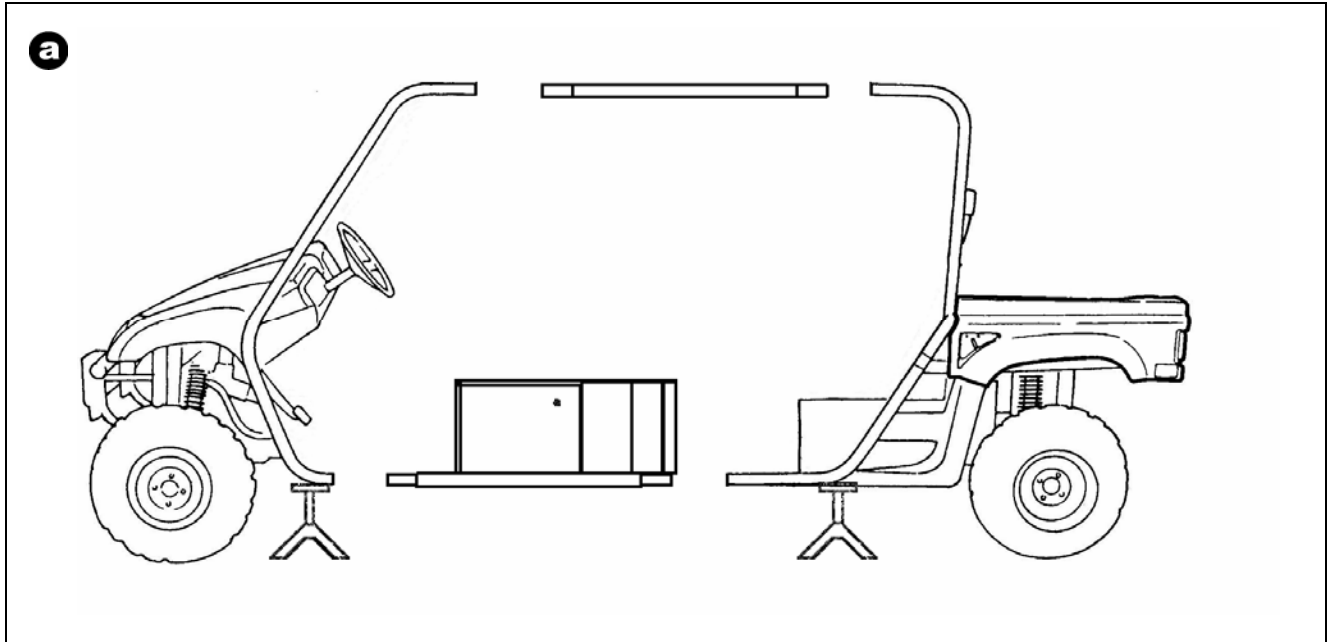
d) Drill three $\frac{1}{4}$ " holes on end of cut roll bar tubes as shown on right. These holes are used to hole weld assembly in next step.



16. Install Frame Assembly

a) Install the provided frame assembly and roll bar extenders between both ATV halves. Support, brace and jig so that all frame and roll bar tubes are aligned and square.

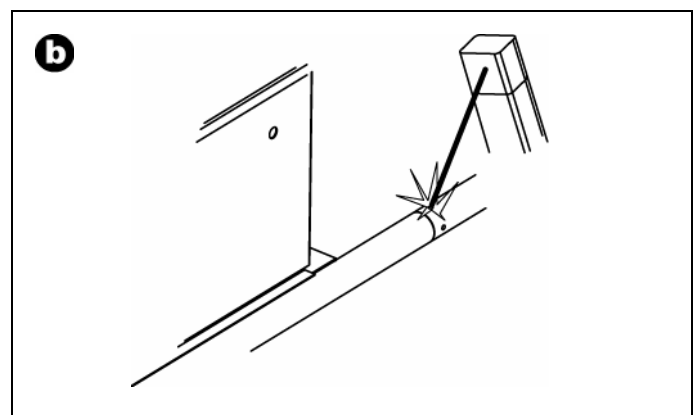
NOTE: This is the most critical assembly step of the entire installation. Any misalignment here can result in handling and steering problems later. **Carefully check alignment before continuing to step 17.**



b) Hole weld frame assembly in holes drilled in frame in step 15c.

c) Recheck alignment and square of all tubes.

d) If a misalignment needs to be corrected, re-drill holes and reposition frame in step 16a.



17. Fillet weld 4 cut roll bars on either end.

18. Fillet weld 2 cut frame rectangular tubes on either end.

19. Stitch weld new floor pan to existing floor pan.

20. Grind all welds if cosmetic appearance is required.
21. Paint all welds using textured black paint.
22. Extend factory harness.
 - a. Extend each wire of the factory harness with a 32" piece of wire (provided) and two butt connectors (also provided).
 - b. Repeat previous step until all circuits have been extended by 32".
 - c. When all wires have been extended, rewrap the harness with the electrical tape provided.

Note: Use 4 gauge wire and connectors provided to extend the two conductors coming on the battery.

23. Install transmission cooling lines using provided 3/8" ID hose and 5/8" hose clamps.
24. Install engine cooling lines using provided 7/8" ID hose and 1 1/2" hose clamps.
25. Fill and bleed cooling system.
26. Install extended brake line.
27. Fill and bleed hydraulic brake system.
28. Install extended throttle cable and adjust per instructions in factory service manual.
29. Install new shift lever bracket with 1/4"-20 screws provided (x3).
30. Reinstall shift lever.
31. Install extended shifting rod. Adjust per instructions in factory service manual.
32. Reconnect the battery.
33. Start ATV, check for leaks, operation of throttle cable and electrical system, tighten clamps and fittings and correct leaks and electrical problems as required.
34. Measure and cut plastic floor pan previously removed from ATV so that it fits snugly against the front of the frame extension.
35. Install cut plastic floor pan using either rivets or self-tapping screws provided.
36. Install new rear driver and passenger side floor pan using 1/4"-20 screws and 3/16" rivets provided.
37. Reinstall plastic covers under the rear seats.

38. Cut hole in engine cover to fit over shifting rod

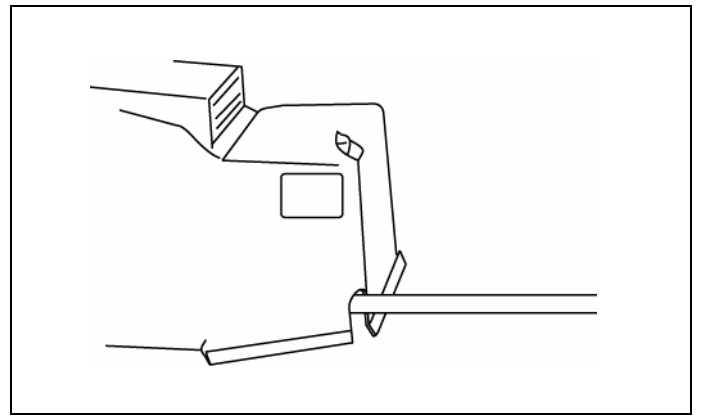
39. Install engine cover.

40. Install both rear seats.

41. Install provided seat belts as shown on right.

42. Install both front seats.

43. Install driveshaft cover as shown on right with ¼-20 screws provided.



OPERATION

Before using your new stretched Rhino, test drive at low speeds to familiarize yourself with the new handling characteristics of the modified ATV.

REPLACEMENT PARTS

Use this parts list to order replacement parts from BeaverPro.

10076	1 ½" Hose Clamp
10482	Extended Brake Line
10483	Brake Fitting
10486	Transmission Cooling Hose
10487	Engine Cooling Hose
10488	Rear Driver Floor Mat
10489	Driveshaft Cover
10490	Rear Pass Floor Mat
10491	Shifter Bracket
10492	Extended Drive Shaft
10498	Seat Belt (For One Seat)
10499	5/8" Hose Clamp
10501	Extended Throttle Cable
10551	Extended Shifting Rod
10552	Shift Lever Cover

To order replacement parts, contact the Parts Department at:

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671 Babin Street, Dieppe Industrial Park,
N.B. Canada E1A 5M7
Ph: (506) 388-3335 Fax (506) 388-3325
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