

INSTALLATION INSTRUCTIONS BUMPER KIT

Part Number: 87722

Application: Polaris Ranger RZR 900 2011+

GENERAL SAFETY PRECAUTIONS

Your safety, and the safety of others, is very important. To help you make informed decisions about safety, we have provided installation and operating instructions and other information on labels and in this guide. This information alerts you to potential hazards that could hurt you or others. It is not possible to warn you about all potential hazards associated with this product, you must use your own good judgment.

CARELESS INSTALLATION AND OPERATION CAN RESULT IN SERIOUS INJURY OR EQUIPMENT DAMAGE. READ AND UNDERSTAND ALL SAFETY PRECAUTIONS AND OPERATING INSTRUCTIONS BEFORE INSTALLING AND OPERATING THIS PRODUCT.

This guide identifies potential hazards and has important safety messages that help you and others avoid personal injury or death. WARNING and CAUTION are signal words that identify the level of hazard. These signal words mean:

AWARNING signals a hazard that could cause serious injury or death, if you do not follow recommendations. **ACAUTION** signals a hazard that may cause minor to moderate injury, if you do not follow recommendations.

This guide uses NOTICE to call attention to important mechanical information, and Note: to emphasize general information worthy of special attention.

A WARNING

IMPACT AND MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to severe injury or death

- Always use extreme caution when drilling on any vehicle. Make sure that all fuel lines, brake lines, electrical wires, and other objects are not punctured or damaged when / if drilling on the vehicle. Thoroughly inspect the area to be drilled (on both sides of material) prior to drilling, and relocate any objects that may be damaged. Failure to inspect the area to be drilled may result in vehicle damage, electrical shock, fire or personal injury.
- Always wear safety glasses when installing this kit. A drilling operation will cause flying metal chips. Flying chips can cause eye injury.
- · Always use extreme caution when cutting and trimming during fitting.
- Always remove jewelry and wear eye protection.
- Never lean over battery while making connections.
- Never route electrical cables:
 - Across any sharp edges.
 - Through or near moving parts.
 - Near parts that become hot.
- Always insulate and protect all exposed wiring and electrical terminals.
- · Always install terminal boots as directed in installation instructions.
- · Always use appropriate and adequate care in lifting components into place.
- Always insure components will remain secure during installation and operation.
- Always tighten all nuts and bolts securely, per the installation and operation.
- Always perform regular inspections and maintenance on the winch, winch mount and related hardware.
- · Never operate this WARN product with damaged or missing parts.

Read installation and operating instructions thoroughly.

WARN INDUSTRIES, INC. 12900 S.E. Capps Road, Clackamas, OR USA 97015-8903, 1-503-722-1200, FAX: 1-503-722-3000 Customer Service: 1-800-543-9276 Dealer Locator Service: 1-800-910-1122 International Sales/Customer Service: 1-503-722-3008 International Fax: 1-503-722-3005

A CAUTION

MOVING PARTS ENTANGLEMENT HAZARD

Failure to observe these instructions could lead to minor or moderate injury

Always take time to fully read and understand the installation and Operations Guide included with this product.

• Never operate this product if you are under 16 years of age.

Never operate this product when under the influence of drugs, alcohol or medications.

Read installation and operating instructions thoroughly.

NOTICE

EQUIPMENT DAMAGE

Always refer to the Installation and Specification Guide, supplied in the winch kit, for all wiring schematics and specific details on how to wire this WARN product to your vehicle.

Read installation and operating instructions thoroughly.

NOTES

NOTE: This bumper includes mounting holes for WARN winch and trail lights, which are sold separately

TABLE OF CONTENTS

Parts List	page x
Tools Required	page x
Torque Specifications	page x
Installation	page x
Tips/Troubleshooting	page x
Parts List Tools Required Torque Specifications Installation Tips/Troubleshooting Maintenance/Care	page x

TOOLS REQUIRED

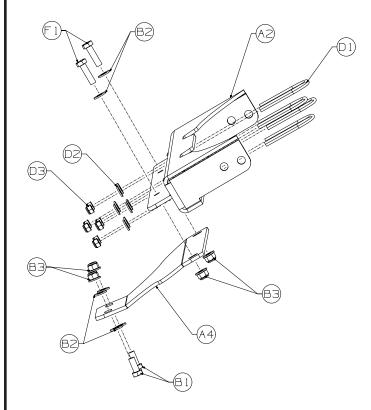
- 13mm, 9/16" socket
- 7/16" deep socket
- 13mm wrench
- 9/16" wrench
- socket wrench
- Phillips screw driver
- 10mm socket
- 10 mm wrench

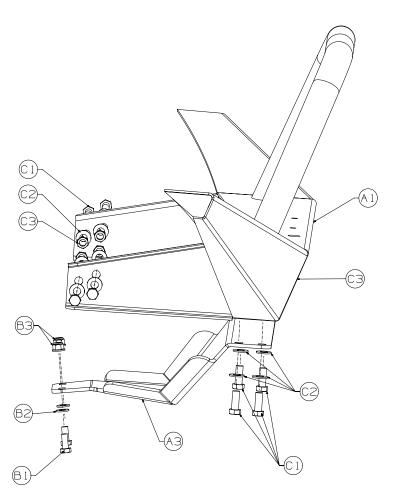
TORQUE SPECIFICATIONS

1/48 lb. ft. (10.8 N-m)5/1617 lb. ft. (12.5 N-m)3/830 lb. ft. (40.7 N-m)7/1650 lb. ft. (67.8 N-m)1/275 lb. ft. (101.7 N-m)

PARTS LIST						
Part Number	<u>Qty</u>	Description	Part Number	Qty	Description	
A1	1	Bumper	D1	4	1/4 - 20 U-Bolt	
A2	1	Rear Cross Bar	D2	8	1/4" Flat Washer	
A3	1	Front Armor Plate	D3	8	1/4-20 Nylon Lock Nut	
A4	1	Cross Bar Support				
			E1	2	3/8 Black Plastic Conduit (not shown)	
B1	2	M8 x 1.25 x 20mm Hex Head Bolt	E2	2	1/4 Black Plastic Conduit (not shown)	
B2	2	5/16" Flat Washer				
B3	2	M8 x 1.25 Nylon Lock Nut with Flange				
	-					

- 3/8-16 x 1" Hex Head Bolt 8
- C1 C2 C3 16 3/8" Flat Washer
- 8 3/8 - 16 Nylon Lock Nut





1. Remove winch mount access cover on front of vehicle by removing four fasteners, as show, in Figure 1.

Remove left and right wheel well guards at this time.



Figure 1

 Locate mounting holes to attach front support plate (A3) to frame as shown in Figure 2.



Figure 2

3. Attach front support plate (A3) to frame, as shown in Figure 3. Use M8 x 1.25 x 20mm hex head bolts and 5/16" flat washers on front side and M8-1.25 nylon lock nuts on back side. Loosely secure hardware using 13mm socket and wrench.



Figure 3

 Install rear crossmember behind two vertical frame supports as shown in Figure 4. Gusseted corner of crossmember should face up. Use 1/4-20 u-bolts, flatwashers and lock nuts to loosely attach to frame. A 7/16" deep socket will be used to tighten in place later.



Figure 4

5. Set bumper on top of front armor plate as shown in Figure 5. Loosely attach with four 3/8-16" hex head bolts, flat washers and lock nut. A flat washer should be used under head of bolt and on top of locknut. A 9/16" socket and wrench can be used to loosely secure. This will help you to level the crossmember before you tighten the hardware.



Figure 5



Figure 6

- 6. Align holes in frame mount bracket of bumper weldment with holes in wings of rear crossmember, as shown in Figure 7. Loosely attach with four 3/8-16" hex head bolts, flat washers and lock nut. A flat washer should be used under head of bolt and on top of locknut. A 9/16" socket and wrench can be used to loosely secure.
- 7. Tighten all hardware, making sure that u-bolts are not binding on frame tubes. Check for adequate clearance with radiator hose and rear crossmember on passenger side of vehicle.



Figure 7

8. After all other fastners have been tightened, install cross member support bracket (A4). It attaches to the back side of the (A2) and then to the frame of the vehicle. Refer to the exploded view for attachment.

Torque u-bolt nuts, as shown in Figure 4, to recommended specifications of 8lb. ft (10.8 N-m). Torque M8 x 1.25 hardware on bottom of front armor plate, as shown in Figure 3, to recommended specifications of 17lb.ft. (12.5 N-m).



Figure 8

- 9. Torque 3/8-16 hardware on bottom of bumper weldment and joint between frame brackets/rear crossmember, as shown in Figure 5 and 6 to recommended specifications of 30 lb. ft. (40.7 N-m).
- 10. See Figure 9 for view of completed installation.



Figure 9

VI. Optional Winch and Light Installation (Refer to these tips if winch and /or lights are added to bumper)

 WARN winch mounting holes are shown in Figure 10. Pull yellow cable through front hole and blue cable through rear hole after sliding conduit over top both cables. 1/4" ID conduit is to be used for RT/ XT25 winches; 3/8" ID conduit is to be used for RT/ XT30 winches.

Bumper to be used with 2500 and 3000 lb. winches only. Do not attempt to mount 4000 lb. winch on this application, vehicle damage and operator injury or death may result.

2. If no winch is mounted on bumper the set of holes, as shown in Figure 10, can be used to mount a set of lights on top of bumper. If winch is used, there are holes on bottom of bumper, as shown in Figure 11, that can be used to mount a set of lights.

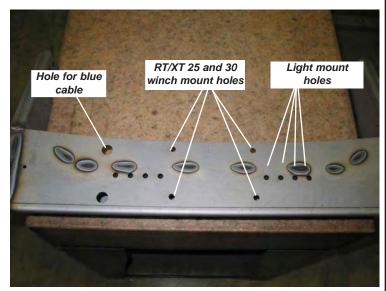


Figure 10



Figure 11

FAILURE TO SECURELY TIGHTEN ALL BOLTS ON THE BUMPER CAN RESULT IN PRODUCT FAILURE WHICH MAY RESULT IN VEHICLE DAMAGE AND OPERATOR INJURY OR DEATH. DOUBLE CHECK THAT ALL BOLTS ARE SE-CURELY TIGHTENED PRIOR TO USE.

MAINTENANCE / CARE

- Inspect all parts on the bumper and related hardware prior to each use. Replace all hardware that appears rusted or deformed.
- 2. Inspect all nuts and bolts on the bumper, and related hardware prior to each use. Tighten all nuts that appear to be loose. Stripped, fractured, or bent bolts or nuts need to be replaced.
- 3. Check all moving or rotating parts. Remove debris that may inhibit the part from moving freely.

PERFORM REGULAR INSPECTIONS ON THE BUMPER AND RELATED HARDWARE. FAILURE TO FOLLOW THIS WARNING MAY CAUSE VEHICLE DAMAGE AND OPERATOR INJURY OR DEATH.

CARELESS INSTALLATION AND OPERATION CAN RESULT IN SERIOUS INJURY OR EQUIPMENT DAMAGE. READ AND UNDERSTAND ALL SAFETY PRECAUTIONS AND OPERATING INSTRUCTIONS BEFORE INSTALLING AND OPERATING THIS PRODUCT.



8