

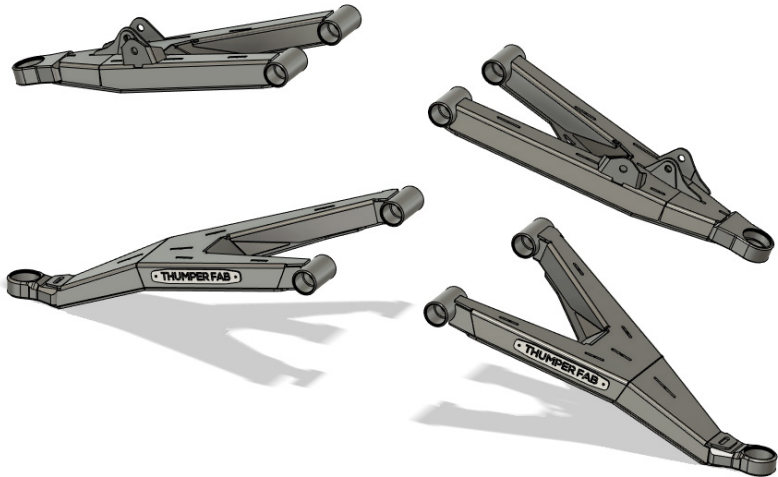


THUMPER FAB

Aluminum Audio Roofs ♦ Roll Cages ♦ UTV Accessories

Polaris Ranger Front Forward Arms

SKU: TF011201



Thumper Fab

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Customer Service: 903-472-0928

www.thumperfab.com

Ver. 1122

Polaris Ranger

Front Forward Arms

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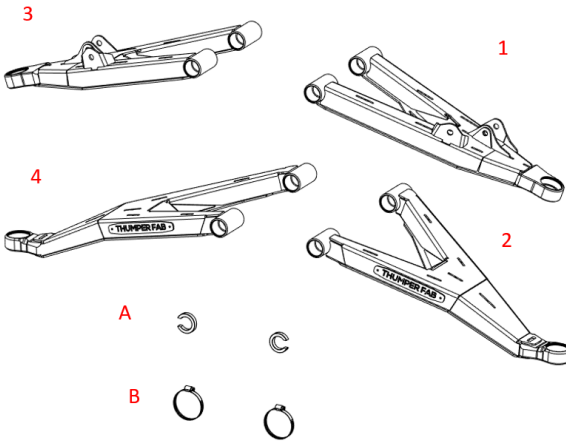


PARTS

| REF | QTY | DESCRIPTION |
|--------------|-----|-------------------------------------|
| 1 | 1 | Driver Upper Forward Control Arm |
| 2 | 1 | Driver Lower Forward Control Arm |
| 3 | 1 | Passenger Upper Forward Control Arm |
| 4 | 1 | Passenger Lower Forward Control Arm |
| HARDWARE KIT | | |
| A | 2 | Steering Stops |
| B | 2 | 9mm Clamp |
| C | 2 | Zip Ties |

TOOLS

- 15mm Socket
- 18mm Socket
- 27mm Socket
- 15mm Wrench
- 18mm Wrench
- Ratchet
- Snips
- Die Grinder
- Carbide Burr

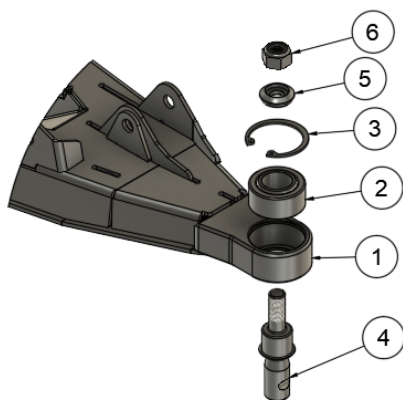


BEFORE YOU BEGIN

If you do not feel comfortable installing your **Thumper Fab** FRONT FORWARD ARMS, please see your nearest POLARIS® Dealer for installation.

INSTALLATION INSTRUCTIONS FOR BALL JOINTS

UNIBALL



| PARTS LIST | |
|------------|----------------------------------|
| ITEM | DESCRIPTION |
| 1 | CONTROL ARM / BALL JOINT HOUSING |
| 2 | UNIBALL |
| 3 | RETAINING RING |
| 4 | UNIBALL PIN |
| 5 | UNIBALL CAP |
| 6 | LOCK NUT |

1. Press UNIBALL into BALL JOINT HOUSING
2. Install RETAINING RING into BALL JOINT HOUSING
3. Insert UNIBALL PIN into UNIBALL
4. Slide UNIBALL CAP over UNIBALL PIN
5. Install LOCK NUT over UNIBALL PIN

UNIBALL - TAPERED



| PARTS LIST | |
|------------|----------------------------------|
| ITEM # | DESCRIPTION |
| 1 | CONTROL ARM / BALL JOINT HOUSING |
| 2 | SOCKET CAP SCREW |
| 3 | UNIBALL CAP |
| 4 | RETAINING RING |
| 5 | UNIBALL - SPHERICAL BEARING |
| 6 | UNIBALL PIN |

1. Press UNIBALL - SPHERICAL BEARING into CONTROL ARM / BALL JOINT HOUSING.
2. Install RETAINING RING into CONTROL ARM / BALL JOINT HOUSING.
3. Install UNIBALL PIN into UNIBALL - SPHERICAL BEARING.
4. Install UNIBALL CAP into UNIBALL - SPHERICAL BEARING.
5. Thread and tighten SOCKET CAP SCREW into UNIBALL PIN.

INSTALLATION INSTRUCTIONS

Secure the Ranger on Jack Stands

With the Ranger secured on the jack stands, remove the front bumper and tires. Remove the brake line mounting bolts from the factory control arms and remove the brake caliper, hub, knuckle, and control arms. Retain factory hardware for installation of forward arms (**FIG 1**).



FIG 1 - Retain factory hardware

Install the Lower Front Forward Arm

Using the factory hardware install the TF lower front forward arm. Tighten (**FIG 2**). Use the die grinder with a carbide burr to clearance the knuckle in the area shown until the lower uniball pin slips into the knuckle (**FIG 3**).



FIG 2 - Mount Lower Control Arms using factory hardware



FIG 3 - Clearance knuckle for lower uniball pin

INSTALLATION INSTRUCTIONS

Using an 18mm socket, tighten the lower uniball pin to knuckle (**FIG 4**).



FIG 4 - Tighter Lower uniball pin to Knuckle

Mount the upper arm using factory hardware. Tighten using a 18mm socket and 18mm wrench. Be sure to properly route brake line to be attached to bottom of upper arm by zip ties (**C**) (**FIG 5**).

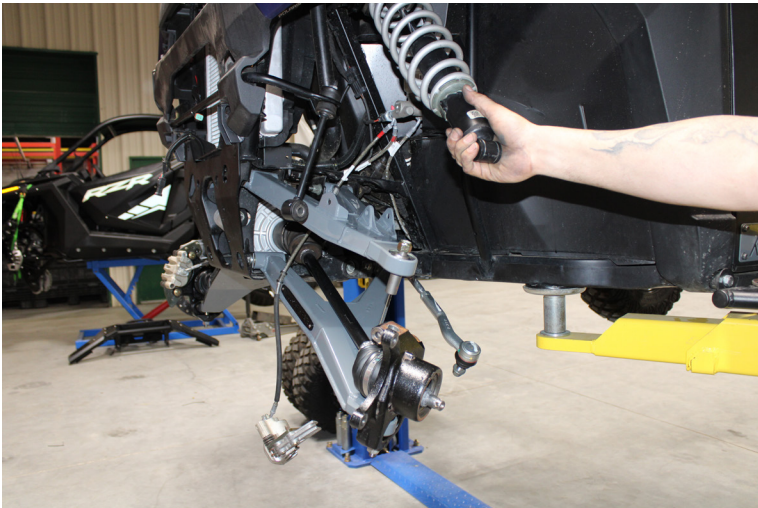


FIG 5 - Mount Upper Arm using Factory Hardware

INSTALLATION INSTRUCTIONS

Using an 15mm socket and 15mm wrench, tighten factory cross bolt to secure upper uniball pin to the knuckle (**FIG 6**).



FIG 6 - Tighter pper uniball pin to knuckle using factory cross bolt

Apply anti seize to the splined end of the axle, then slide the hub assembly over the axle (**FIG 7**).



FIG 7 - Slide hub assembly over axle after removing axle nut with 27mm Socket

INSTALLATION INSTRUCTIONS

Using an 15mm socket and the factory hardware with blue loctite applied to threads to mount the brake caliper to the knuckle (**FIG 8**).

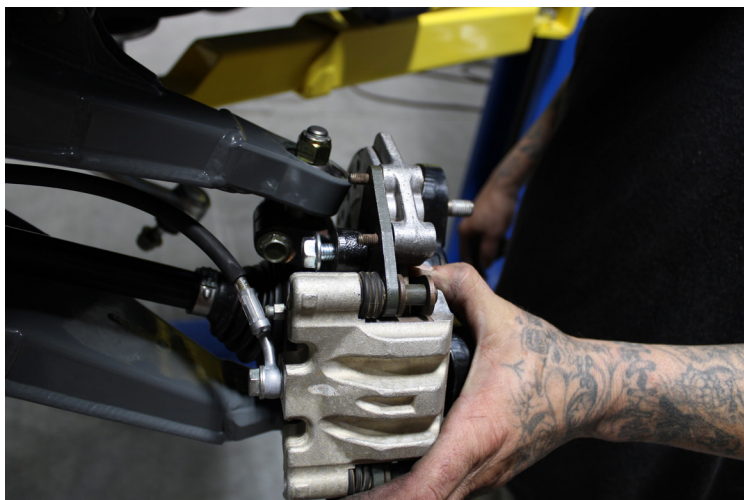


FIG 8 - Mount brake caliper to knuckle using factory bolts and a 15mm Socket

Mount sway bar and shock to upper control arm using factory hardware with 15mm socket and 15mm wrench (**FIG 9**).



FIG 9 - Fasten sway bar and shock to upper arm using factory hardware and 15mm Socket

INSTALLATION INSTRUCTIONS

Install Steering Stop

Locate and cut the inner clamp that holds the steering boot onto the steering rack (FIG 10). Slide the boot back and install the steering stop (A) onto the worm gear on both sides of the steering rack. Use the provided 9mm clamps (B) to reseal the steering boot (FIG 11).



FIG 10 - Cut clamp and slide Boot back



FIG 11 - Slide steering stop onto worm gear

Fasten outer tie rod end to knuckle using factory nut and 18mm socket. Tighten factory axle nut and washer using 27 mm socket, install cotter pin through factory axle nut (FIG 12).



FIG 12 - Fasten tie rod to knuckle using 18mm Socket

INSTALLATION INSTRUCTIONS

Clamp Brake Lines

Use the provided zip ties to attach the brake line to the underside of the upper control arm at the provided brake line tab. Pay special attention to make sure brake line will not contact axle (**FIG 13**).



FIG 13 - Zip Tie brake lines to underside of upper control arm

IF YOU ARE USING A FACTORY BUMPER

Reinstall the front bumper to mark the front bumper to show where to lower control arm would contact factory bumper use a grinder/cutoff wheel to trim to allow for maximum control arm travel. Apply touch up paint if necessary (**FIG 14**).



FIG 14 - Mark front bumper for clearancing with grinder

INSTALLATION INSTRUCTIONS

Remove bumper, once the material has been removed from the bumper, reinstall bumper and verify adequate clearance to allow for maximum control arm extension without bumper contact (**FIG 15**).

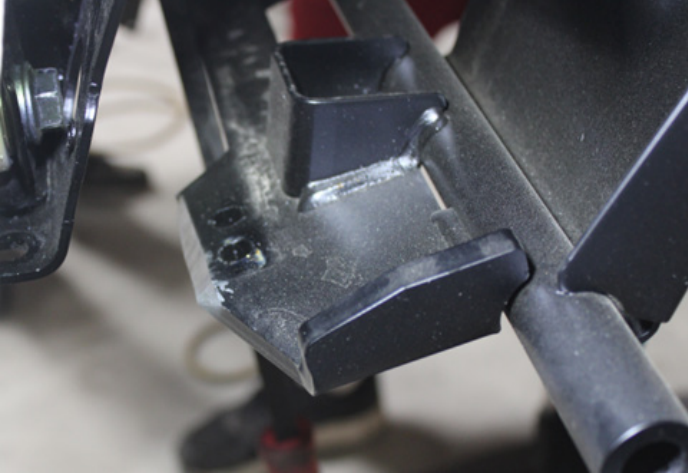


FIG 15 - Use Grinder to clearance Front Bumper

Reinstall wheels and bumper, lower the unit to the ground and adjust toe as needed (**FIG 16**).



FIG 16 - Lower vehicle and adjust toe as needed

INSTALLATION INSTRUCTIONS

The installation of products sold or manufactured by Thumper Fab including, but not limited to suspension components such as lift kits, control arms, frame stiffener kits, roofs, roll cages, and tires that exceed the original specifications for the vehicle, may change the vehicle's center of gravity and handling characteristics both on- and off-road. You are aware that the installation of tires that are larger than original vehicle specifications may reduce the effectiveness of the braking system. Use of these products may place added stress to the original factory vehicle components which could cause them to weaken or possibly fail.

Products sold or manufactured by Thumper Fab are intended for off-road use only. Operation of a vehicle modified with these products on a road could result in serious bodily injury or death, and such operation may violate the laws of your state or municipality. You agree to operate your vehicle exclusively in the manner intended by the vehicle manufacturer. You agree that failure to safely and reasonably operate your vehicle could result in serious bodily injury or death, and that, as a result of installation of this product(s) to your vehicle, extreme care must be taken to prevent vehicle rollover or loss of control, which may be more likely to occur as a result of said modifications. You will avoid unsafe maneuvers, including sudden sharp turns or other abrupt maneuvers, which could make a vehicular accident more likely. You understand that Thumper Fab is not responsible or liable for any damages or any injuries to yourself or your passengers that could occur upon possible accidents due to driver error, incorrect installations, bad judgment, incompatibility with other aftermarket accessories or natural disasters to the fullest extent allowable by law. You will have all vehicle occupants fasten seatbelts, if equipped, and wear proper safety equipment, such as DOT approved helmet and eye protection prior to operating the vehicle. You understand and acknowledge that failure to wear proper safety equipment may increase the risk of serious bodily injury or death to yourself and any passengers.

INSTALLATION INSTRUCTIONS

Proper installation of products sold or manufactured by Thumper Fab requires knowledge of the factory recommended procedures for removal and installation of original equipment components. Installation of these products without proper knowledge and experience may affect the performance of these components and the safety of the vehicle and cause serious bodily injury or death. It is strongly recommended that a certified mechanic familiar with the installation of similar components perform the product(s) installation.

Prior to installing any products sold or manufactured by Thumper Fab, you will perform or cause to be performed an inspection of their vehicle to confirm its condition is suitable for the installation of these products. A proper inspection of the vehicle includes confirmation that the vehicle has not been in a collision and is free of corrosion. If the vehicle is suspected to have been in a collision or misused, or is otherwise unsuitable for modification, you will not install the product(s). You will continue to inspect the vehicle prior to each use to confirm its condition is suitable for its intended use, and you acknowledge that the failure to do so may result in serious bodily injury or death, as well as damage to the vehicle itself.

You will install any warning labels provided with the product so it may be prominently seen by yourself and all passengers. You will notify all passengers of the modifications performed to your vehicle prior to operation.

Insurance companies may handle coverage of a modified vehicle differently. Please check with your insurance carrier prior to modifying the vehicle to ensure your coverage remains sufficient.

Installation of this product(s) may void your vehicle warranty. If this is a concern, please check with the manufacturer or dealer before purchase or installation of this product(s).



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