



# Polaris Predator 90

## Widening Kit using Non-Stock Shocks

### Preparing the ATV

Support the ATV so the front tires are at least 2 to 3 inches from the ground with a strong, solid support. Do not simply support it with a jack that might tip or fall.

#### Remove the tires, front bumper, shocks, steering tie rods & a-arms:

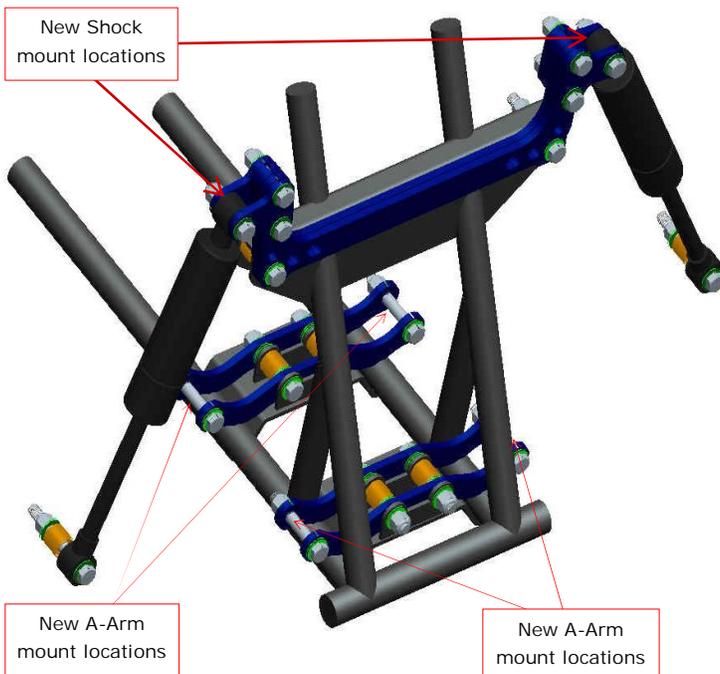
\*Refer to manufactures instructions for removing tires, bumpers, shocks and a-arms.\*

- Removing the tires and bumpers will make handling the suspension components easier.

*We have found that it works best to lie each of the tires down under the hub on each side. When you disconnect the a-arms, you can lay them on top of the tires so they don't hang by the brake lines.*

- Remove the bolts on the top and bottom of each shock and remove shocks.
- Remove tie rods by loosening the jam nuts on each end at the ball joints. Rotate them until they come off at the ball joint.
- Remove the two bolts that attach each a-arm to the frame and remove a-arms. Try to keep pressure off the break line. We suggest you do not remove the break line. However, if you feel that you need more length added to your brake lines, you can consider detaching them at the spindles and rerouting them. They can be rerouted around the top frame member, you may have to disconnect one of the intermediate support clamps to accomplish this.

### Kit Installation



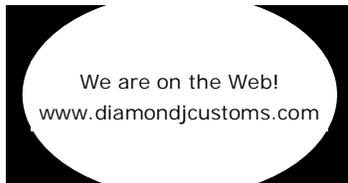
#### KIT INCLUDES:

- |                                    |                 |
|------------------------------------|-----------------|
| 4- A-Arm Brackets                  | 8- Bushings     |
| 2- Shock Brackets (long)           | 6- 2.0" Bolts   |
| 4- Shock Brackets (small T-shaped) | 12- 2.5" Bolts  |
| 2- Small Two-Hole Strap            | 18- Nylok Nuts* |
| 2- Tie Rod Extensions (with nuts)  | 50- Washers*    |



\*Nuts and washers sorted by weight, you may have extras of these items.\*

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We advise assembling the entire kit onto the ATV and only loosely attaching bolts/nuts. After all parts are reassembled; make sure everything is centered left to right, go back and tighten all bolts.



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### Attaching A-Arm extension plates:

Refer to extension plate diagrams on Page 3.

- It is easiest to feed the plates in from the side. The a-arm extension plates should all be on the rear-end side of the frame mounting tabs which maintains proper spacing for the a-arms.
- All the bolt heads will need to point towards the rear-end of the ATV. This is important so the bolts clear the steering stem.
- The extension plates will need several washers and spacer bushings to keep proper spacing. Use the diagram below to place the appropriate number of washers and bushings. It is very important to use the correct number of washers in the designated places or spacing will not be maintained and may affect performance. Use the locking nuts to secure the bolts.
- Attach the a-arms to the extension plates.
- Reattach the tie rods. Install a tie rod extension to one end of each tie rod, this extends the tie-rod 3 inches. Tighten the jam nut on your tie rod so it secures the tie rod extension in place. Repeat for the other sides. Reattach the tie rods with the extensions back onto the ball joints.

In order to reattach the tie rods, the ball joint ends have to flipped up-side-down on each side. This means that the ball joint on the wheel hub is flipped over and attached to the ATV frame and the ball joint that was attached to the ATV frame is now attached to the wheel hub.



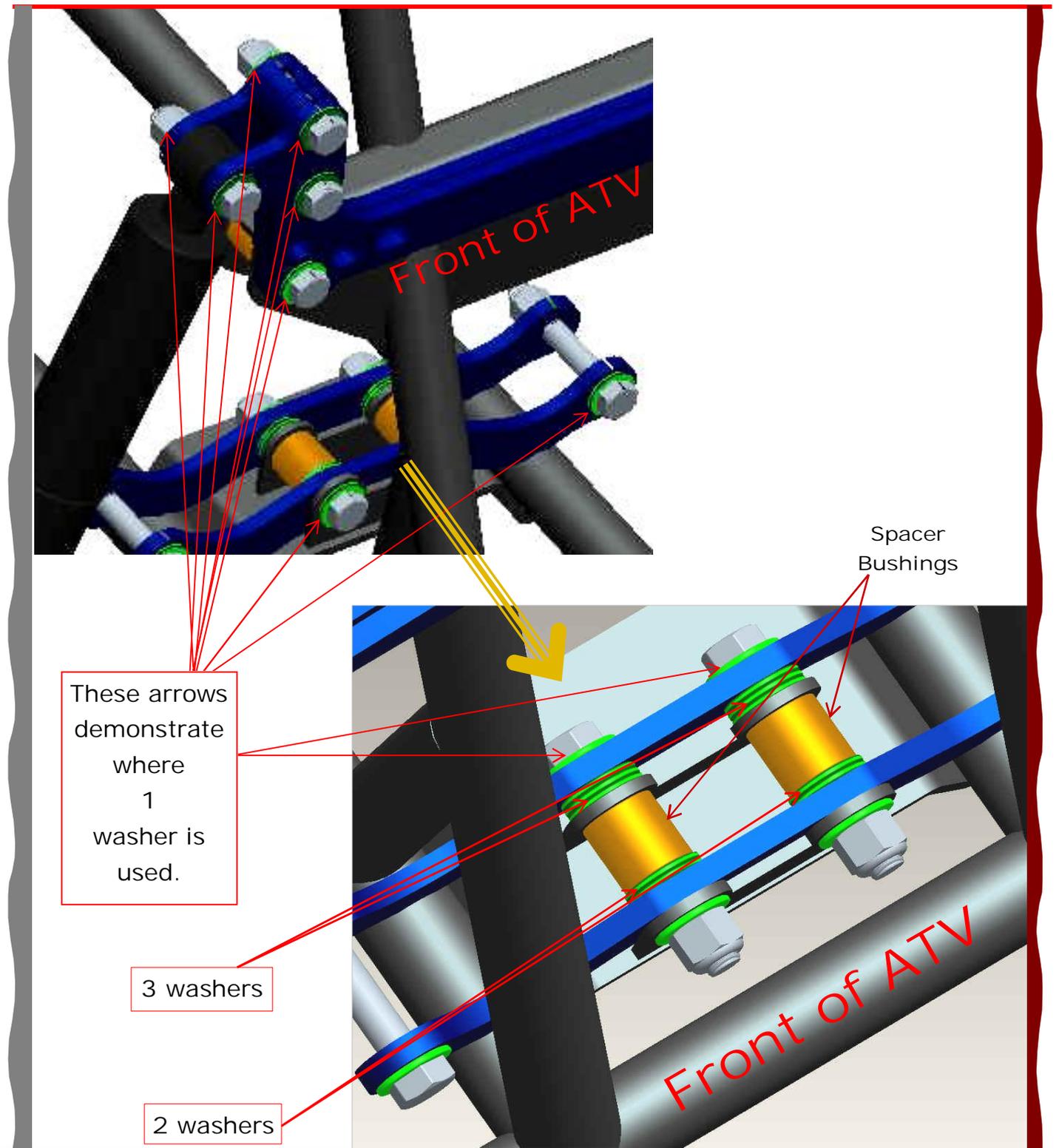
*\*The tie rods need to be flipped because the a-arms will interfere with the tie rod extensions. The tie rods function normally in this flipped position, but you will not be able to reinstall the cotter pins.*

*Make sure the bolts on the ball joints are fastened securely.  
Lock-tight can be used for added protection against loosening.\**

- Align as needed and tighten all bolts.

## A-Arm extension plates Diagram:

Correct number and placement of bushings and washers is very essential to the assembly of the kit on your ATV for proper spacing and fit.



Before you ride—download suggested [Toe-in Adjustment](http://www.diamondjcustoms.com) instructions from [www.diamondjcustoms.com](http://www.diamondjcustoms.com).

## Reattaching the non—stock shocks:

\*\*\*We recommend using Honda 300EX shocks. They are abundantly found on *ebay* and are excellent for Polaris 90's. They are the softest shock we have found for the best price. \*\*\*

- The new stock extensions come fully assembled.
- Install the long, c-shaped extension bracket to the stock shock mount tabs, on the outside of the shock mount towards the front of the ATV (follow the diagram below).
- Install the shocks using the supplied mounting bolts and nuts. For the lower shock mount, the new shock is attached to the front of the a-arms shock mounts. Place one of the supplied bushings between the tabs so everything can be tightened down.
- Once all the pieces are in place, make sure all of the parts are centered from left to right in the slots before tightening nuts. Systematically tighten all nuts and bolts to make sure none are missed. The locking Nylok Nuts are designed to hold everything in place, so exact torque isn't critical—just tighten firmly.
- Re-install the front tires and reassemble the bumper. Make sure all bolts are fastened securely. You can adjust the alignment and toe-in at this point. Put on your helmet and give the ATV trial run. After the first ride, make sure the hardware is tight in case parts have shifted during riding.
- ENJOY!

