

WARRIORS OFF ROAD

Heavy duty tie rod installation instructions.



As with any service or repair, please take caution and use proper safety equipment during repair or installation of parts and or accessories.

It is recommended to use jack stands for this installation in order to remove the front wheels to gain access to the tie rods.

- Once UTV is secured, remove both front wheels.
- Remove the stock tie rods by removing them from the steering knuckles first.
- Then to remove the middle sections, remove the bolt holding down the steering bracket that the tie rods are attached to at the steering box and remove it as a whole unit and slide it out.
- Remove the tie rods from the steering bracket.
- Replace the tie rods at the steering bracket with the tie rod end with the gold colored nut (see pic) these ends have two washers to use as the steering bracket is not tapered and the tie rods go through more than at the wheel knuckles, don't forget to use the cotter pins and secure the castle nuts down.
- The tie rod ends with the gold colored jam nuts go into the steering bracket facing downwards.
- The tie rod ends with the silver colored jam nuts will go into the steering knuckles facing upwards.

Gold colored jam nut
end



Silver colored
jam nut end



- Remember to keep the jam nuts loose at this point until you are ready to do the alignment.
- Making sure the steering wheel is straight, slide the tie rods attached to the steering bracket back over the steering box shaft and install so that it is centered. (see pic)
- Once the tie rods are secured in the steering box side, then install the silver-colored jam nut side into the steering knuckles with the tie rods facing upwards.
- Tighten the castle nuts on the silver jam nut side at the steering knuckle and install the supplied cotter pins.
- Now you are ready to do the alignment



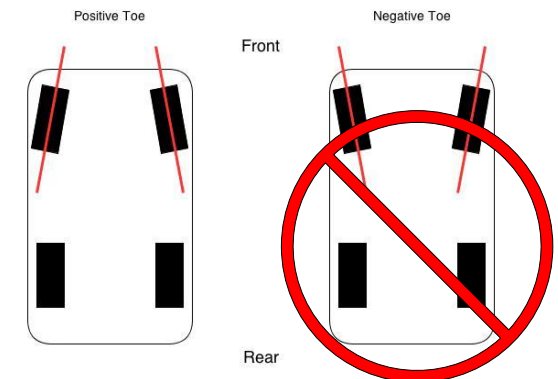
The tie rods attached to the steering bracket. The steering bracket should be pointing straight towards the steering shaft with the steering wheel straight as well.

You might need the help of an assistant at this point.

- You will need to install the wheels now and lower the unit off the jack stands and onto the ground.
- Once on the ground ensure the steering wheel is centered
- Bounce the front end up and down slightly with pressure on the front bumper. This is done to settle the suspension.
- Now measure the distance at the center of the front tires front and back. (see pic 3) This will let you know how far the front end is out of alignment. You will turn each tie rod the same number of turns in or out to obtain the correct toe in.
- You should have the toe in no more than $\frac{1}{4}$ ". You need the front tire to slightly toe inwards. **If they are equal or toe out occurs, then you will have very touchy steering which might cause hard to handle issues resulting in a dangerous driving condition.**
- Once correct toe in is reached, tighten down the jam nuts on the inside and outside of the tie rods and double check to make sure the steering wheel is still centered. You should now be ready to go have some fun.
- We have a video showing how to do the alignment on our YouTube page, call for more support if needed. 562-682-7859

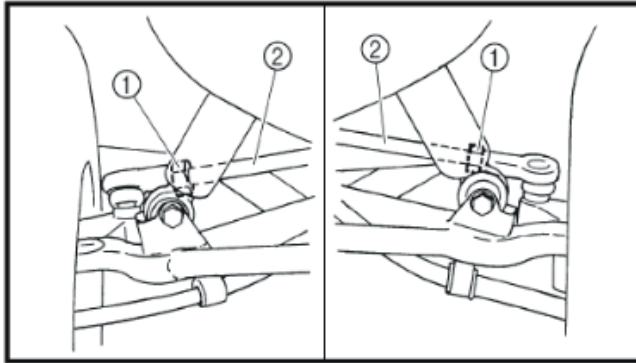
Measure the center of the front tires at the front and rear to get proper toe in

Pic 3

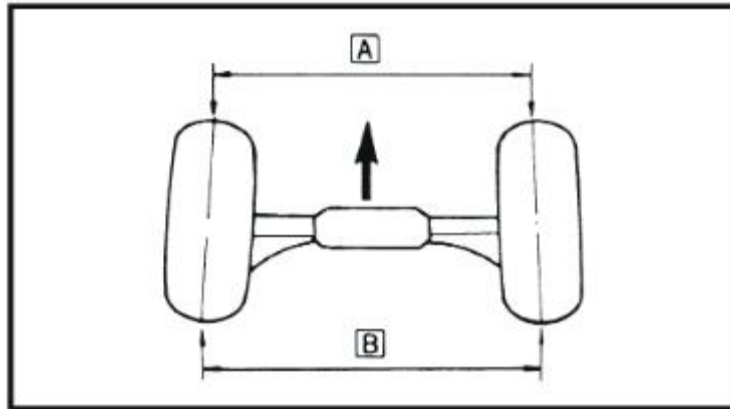


MAINTENANCE AND ADJUSTMENT OF THE UTV

Jam nuts



make , sure if the Steering bar is normal , if not , adjust the tension rod left or right within the specification .



- Mark both tie-rods ends. This reference point will be needed during adjustment.
- Loosen the locknut (tie-rod end) ① on each tie-rod.
- The same number of turns should be given to both the right and left tie-rods ② until the specified toe-in is obtained. This is to keep the length of the rods the same.
- Tighten the rod end locknut on each tie-rod.