



## **Installation: Front XP (Extreme Performance) Tie Rod (outer)**

**Important: before you start.** The removal of the factory tie rod and installation of the new XP tie rod will effect the alignment of the car. That is why we suggest that the installation of this part is done at a location where the car can be aligned right after installation. It is also recommended to have the other suspension and steering parts inspected for wear at the same time. This is a good time to replace the inner tie rod as well. Read all the instructions and refer to your factory service manual before you start.

**Step 1:** Make sure your car is on level ground, your parking brake is engaged and you have the rear wheels blocked to prevent rolling. Use a floor jack to elevate the front end of the car one side at a time (in accordance with the owners manual). Use jack stand to hold it elevated. Remove both front wheels.

**Step 2:** Locate the outer tie rod that attaches the steering rod to the rear facing arm on the front knuckle. At this point is a good idea to take some precise measurements on the distance from the center of the tie rod ball joint to the jam nut on the steering arm. Remove the cotter pin and nut from the ball joint on the end of the tie rod. Use a ball joint separator to loosen the taper from the knuckle.

**Step 3:** While holding the jam nut on the steering shaft stationary, use a second wrench to rotate the oem outer tie rod counter-clockwise slightly until the tie rod is loose from the jam nut. Un-thread the tie rod making sure to keep the jam nut in it's original position. This will assist in re-installation. Repeat steps 2 and 3 for the other side.

**Step 4:** Place the oem tie rod next to the XP tie rod to compare the overall length from the center of the taper to the end. Adjust the overall length to match by turning the heim joint on the end in or out. Once you have that adjusted, tighten the jam nut on the heim joint against the gold barrel to secure.

**Step 5:** Re-install the XP tie rod in the reverse order they were removed. Again, pay close attention to the location of the jam nut on the steering shaft to make sure it does not move. Once the XP tie rod is threaded snug to the jam nut, use a wrench to hold the nut steady and another to tighten the barrel of the XP tie rod against it. \*By using the aforementioned procedure, the XP Tie rod should be very close to the overall length of the oem that was removed.

**Step 6:** Re-install the bolt and tapered end of the XP Tie rod into the knuckle from the bottom upward so the taper of the XP tie rod seats correctly in the knuckle. Install the washer and Nyloc nut on the top. Using a wrench to hold the bolt from the bottom, tighten the Nyloc nut at the top to 29 ft/lb.

**Step 7:** (Optional but recommended) Apply some grease to the heim joint ball surface on that top and bottom. Install the split rubber boot over the end of the joint and secure with cable ties. One on the shaft and one on the taper sleeve. Be aware, the boot is very tight fit.

**Step 8:** Re-install wheel/tires and torque in accordance with your wheel manufacturer or service manual. Remove car from jack stands.

**Step 9:** It is very important to have the vehicle aligned properly at this point. \*Driving the car with improper alignment can be dangerous and unpredictable. Also, inspect all suspension and steering components before driving.

**Enjoy!**