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GM 10 Bolt and Dana 44
Crossover Steering Instructions

If you ordered our complete crossover steering kit, you should have received:

#U9004 - Pitman arm – The pitman arm bolts onto the sector shaft of your steering box.

#U9010 - RH D44 Steering arm – The steering arm bolts to the top of your passenger side steering knuckle. The arm is drilled with a 4th hole in front for the extra attachment point on our Reid Racing HD knuckles. The RH arms also come with 2 tapered holes in the front so you can run the tie rod over the leaf springs using our High Steer conversion. The draglink will attach to the front hole.

 # U9011 – D44 High Strength stud kit - 3 studs for stock knuckles, 4 for HD Reid Racing knuckles.

#U9015 Draglink - The threaded tube that links the pitman arm and steering arm. It may or may not be bent depending on application.

 # U9016 - Tie rod ends. Tie rod ends that screw into your draglink to attach to the steering arms and pitman arm. The same end kit is used for the High Steer tie rod. The ends should come with the jam nuts and castle nuts in the package. 1 right hand thread and 1 left hand thread.

For taller trucks, we include a riser block (#U9013-3") and a longer stud kit (#U9011-6.5") to go under the passenger side steering arm. This improves steering geometry and helps with leaf spring clearance.

If you ordered the crossover and high steer kit, you will have the above listed parts plus the driver's side steering arm (U9010-LH), a second tie rod end kit, a second stud kit and the high steer tie rod.

You must have a passenger side knuckle that you can bolt a steering arm to.
Some Dana 44 knuckles have material that can be machined and drilled/tapped (for Chevy's, those are '76 and older axles). We also carry aftermarket HD knuckles if you don't want to machine yours or if your axle doesn't have a "flat top" knuckle. Check out our website or give us a call for more information.

Make sure you have the correct steering gear box

'67-'91 (straight axle body style only) Chevy's will need to have a 2wd GM steering box in order to use the crossover steering conversion. The year breaks for steering boxes are:

'67-'76 (flare fitting, 36 spline input)
'77-'79 (flare fitting, 30 spline input)
'80-'91 (o-ring, 30 spline input)

As long as you get a 2wd box from a truck in your vehicle's year group, it should be a 100% bolt on installation.

For 88-98 Chevy trucks (IFS style), the factory box will work regardless of whether the truck was 2WD or 4WD.

For non-Chevy applications, as long as it's a domestic power steering box it will likely work as-is but check with us to confirm.

For '93 and older Dodge applications, the existing steering box works but will need to be relocated to the 2WD location. That is further back on the frame, the holes are usually already drilled in the frame. The bracket that the steering box used to bolt to is no longer used, the box is bolted directly to the side of the frame. You may need to shorten the steering column shaft.

1. Put the front axle on jack stands and remove the wheels. You can remove the factory sway bar at this point also (if there is one), you will not be able to re-install it due to interference with the crossover steering. If using a sway bar is critical, give us a call and we'll walk through the options. Remove the factory draglink and replace the steering box if necessary (see above)

2. The steering arm is built to attach to the passenger knuckle with our new high strength stud kit. The short threaded end goes into the knuckle.
   We do recommend a thread locking compound on the threads in the knuckle to

make sure they stay in the knuckle. Hand tight is enough here, forcing them in further doesn't make the assembly any stronger.

3. Put the steering arm over the studs, then install the conical washers and torque the nuts to 110 ft-lb. If you have a High Steer kit, the left arm will install with the same procedure. Re-check the torque on the studs after use, this is a good procedure to get in the habit of checking every so often (along with torque on u-bolts).

4. To install the pitman arm on the steering box, center the box in its travel by turning it all the way one direction, then count the turns to the stop the other direction. Come back half that number and you're there. Most of the time the crossbar in the steering wheel will be level at this point.

5. Once the box is centered, you can bolt the pitman arm on with the arm pointing straight back and torque the nut to the factory spec of 192 ft-lb with no lubrication. If you need a nut, it's a thin nut (like a jam nut), 7/8"-14 thread.

6. Make sure each tie rod end has a jam nut on it and thread the tie rod ends into the draglink, one is right hand thread and one is left hand thread.

7. Point the wheels straight ahead and adjust the draglink until the ends drop into the holes in the pitman arm and steering arm. If your draglink is bent on one end, the bent end of the draglink will install nearest the pitman arm and the straight end of **the draglink will drop into the farthest forward hole** on the steering arm. If you use the High Steer conversion, **the tie rod will drop into the rearward tapered hole**.

8. Install the castle nuts on the tie rod ends and tighten to approximately 40 ft. lbs., then continue tightening the nut until the hole in the tie rod end lines up with a gap in the castle nut. DO NOT loosen the nut to make the holes line up, if you over-shot the hole, back everything all the way off and start over. Install the cotter key through the nut and tie rod and and fold it over to insure that the nut can't come loose.

9. You do not need to take your truck to an alignment shop to make the steering wheel straight. The best way to adjust the draglink is to drive the truck (make sure the jam nuts are snug) and pay attention to the position of the steering wheel when the truck is going straight down the road. Now park it with the steering wheel at that same position. Loosen the jam nuts on the draglink and adjust it one way or the other (making the draglink shorter moves the wheel to the right and vice versa) until the steering wheel is straight. Repeat until the steering wheel is straight. For finer adjustments on bent draglinks, you can take one of the tie rod ends loose and rotate it one turn.

10. If you have the High Steer conversion, leave your factory tie rod on the knuckles and adjust the new tie rod to drop into the holes in the High Steer arms, this will let you retain your toe in adjustment. You will need to move your steering stabilizer, simple tabs on one of the u-bolt plates works fine. If you're mounting a hydro assist ram, you'll need a short tower coming off the axle tube near the leaf

spring mount for the fixed end of the cylinder.

Once installed, your crossover steering system should look similar to this:

We build the draglinks to operate with the ends almost all the way in so you probably won't see many extra threads showing. If you need to adjust the draglink longer, there's enough thread to add about 2" to the overall length. If it turns out that you need the draglink to be shorter, we thread the tube extra deep so there's room to cut some off the ends to shorten it up without bottoming the threads. If the draglink needs to be shorter by more than 1", call us and we'll get you a different draglink instead of cutting that much off.

We understand that our customers have varying levels of experience and that you may have questions about your installation that are not covered in the instructions. As usual, if you have any questions, call us and we'll be happy to help you out.