NOTICE: This is NOT an all-inclusive kit. Prior to installation please have prepared solutions to possible modifications not included in the TeraFlex High Steer System. These modifications may include but are not limited to the front sway bar links/mounting points and the front track bar mount. Included at the end of these instructions are possible solutions to these issues.

Take every precaution to make this installation a safe procedure. Make safety the number one priority with any suspension or lift installation. This kit was designed for the Dana 30 front axle, models 1992 and newer; and the 2003 + Rubicon front 44.

NOTE: The High Steer Kit (HSK) was designed to work with a 1992 and newer brake caliper mounting design so on older Dana 30 axles (84-91) it will be necessary to update the caliper, the rotor and possibly the unibearing to the later design. Factory offset wheels will not clear the HSK arm without using wheel spacers. A better choice is aftermarket wheels with 3.5 inches or less of backspacing. HSK-LCG includes a drop pitman arm.

Before Installing the Kit:

1. Raise and support the front axle so that the front tires are off of the ground. Remove wheels.
2. Measure the tie rod from center of mounting point to center of mounting point on each knuckle. Write this measurement down, you will use this to help approximate the new toe-in on reassembly.
3. Remove steering components from the vehicle; tie rod and drag link.
FRONT TRACKBAR MODIFICATIONS:
Using the HSK on a vehicle that still runs a track bar brings up some issues that must be resolved:
A drop pitman arm is no longer needed. Moving the knuckle end of the drag link up higher with the HSK eliminates the need to drop down the steering box end of the drag link. Using a drop pitman arm in this configuration will result in bump steer (Refer to figure 1).
The shape of the high steering arm interferes with the factory sway bar links and link mounts so a new way to mount the sway bar links on the axles was developed. These new Sway Bar Brackets (TeraFlex part number TF990-SBM L&R) require the use of shorter sway bar links.
In some cases it might also be necessary to relocate the axle end of the track bar to minimize the side-to-side movement of the axle during suspension cycling.
Guideline 1: If a track bar is used in the front suspension, the track bar and drag link must be parallel (Refer to figure 2).
Guideline 2: With leaf springs or a triangulated 3 or 4 link front suspension the tie rod and drag link must be parallel (Refer to figure 3).
High Steer Knuckle
Track Bar Modifications

**FIGURE 1.**
Incorrect set up with vehicle at ride height (4.5" approx. lift)

**FIGURE 2.**
Correct set up with vehicle at ride height (4.5" approx. lift)

**FIGURE 3.**
Correct 4-link set up with vehicle at ride height (4.5" approx. lift)
The 990 High Steer Knuckle from TeraFlex is going through some changes. The original purpose of this knuckle was to allow a flat drag link when installing a TeraFlex LCG suspension system. Since we introduced the knuckle many of you have found additional applications for this TeraFlex product. The original design (figure 1) included a much longer steering arm, raised above the stock location. The length of the arm was intended to allow use of stock locations for the sway bar links. The longer steering arm required the use of a much longer pitman arm to allow full lock-to-lock steering.

What we found out is virtually all installations require some modification of the sway bar mounting point, particularly if a 975 S/T sway bar is installed. In the latest production run of the 990 knuckle, which will be shipping starting the first of April, the steering arm length has been reduced to allow use of a stock length pitman arm. When installing the LCG system a regular TJ drop pitman arm will give the correct drag link angle (parallel to the tie rod) and when using the High Steer 990 knuckle in tall lifted vehicles a stock pitman arm will be used (drag link parallel to the track bar).

The new 990 knuckle (figure 2) will ship without a pitman arm. It will include the tapered split sleeves as in the past to allow placing the drag link end either in from the top or in from the bottom of the steering arm, depending on the application. When buying a 990 knuckle be sure to have the correct pitman arm on hand for your application. TeraFlex will be happy to sell you a drop pitman arm if needed, and we have a limited supply of factory pitman arms that we can sell. Remember that a pitman arm will no longer be automatically supplied with the knuckle only. Some suspension systems may include a pitman arm as they have in the past. HSK-LCG includes a drop pitman arm.