



Rev 8-2018

INSTALLATION INSTRUCTIONS For P-30KB14

Parts Needed:	
31-140	SAFE T PLUS Unit (Silver)
P-30KB14	Mounting Hardware Kit consists of:
	25-301 Anchor Bracket
	25-311B Angle Bracket
	25-421 Tie Rod Bracket
	14-325 7/16-14 Top Lock Nut
	15-250 7/16 SAE Flat Washer
	16-100 1/2" X 1-1/2" X 1/4" Spacer
	10-3-350 7/16-14 X 3-1/2" Bolt
	12-516-1250K U-bolt Kit (5/16" X 1-1/4")

NOTE: The Original Factory Dampener must be removed prior to installing Safe T Plus. Also, thoroughly clean the section of Tie Rod before installing Tie Rod bracket.

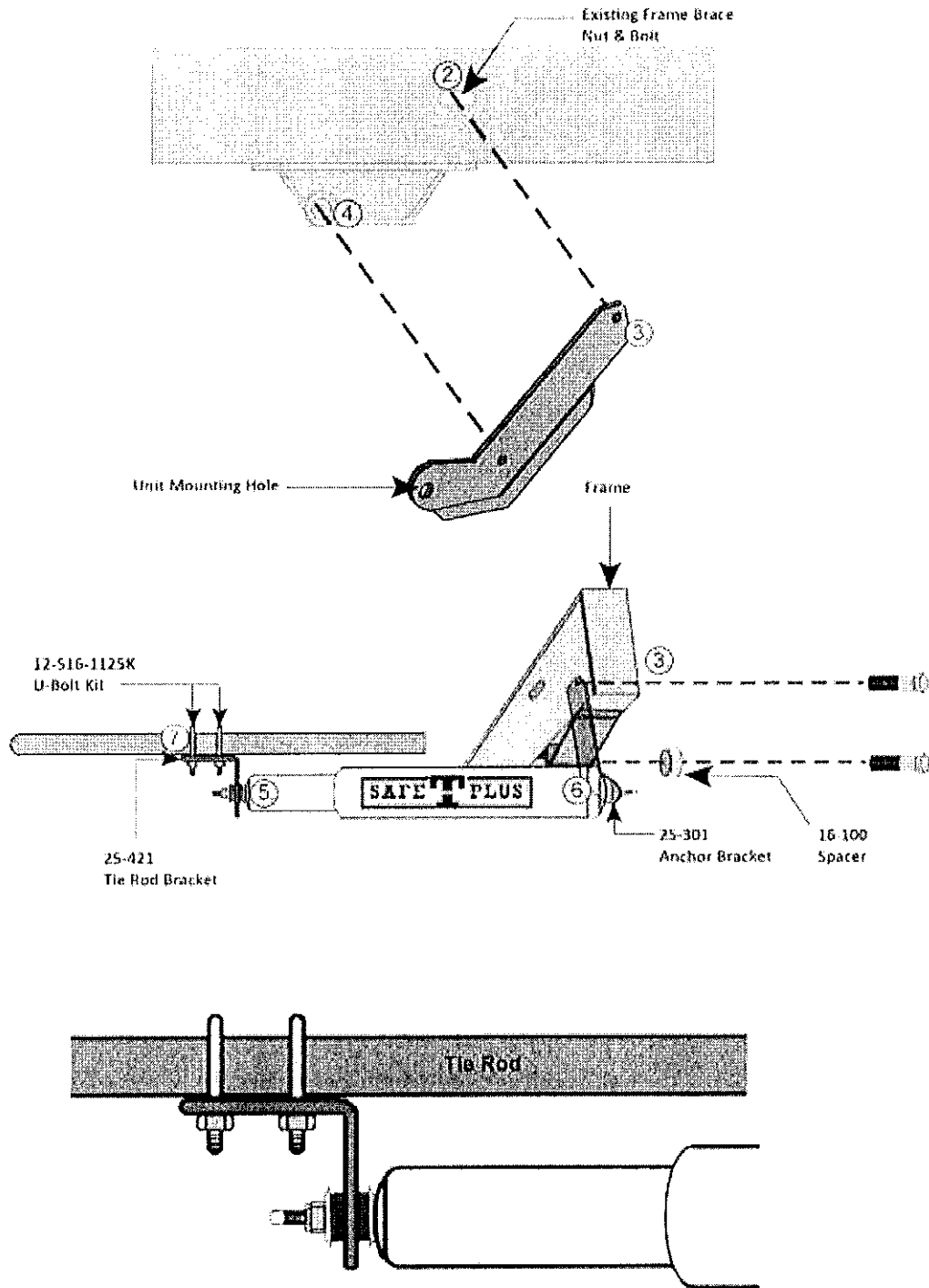
1. Set front wheels of vehicle to a straight-ahead position. **THIS IS IMPORTANT.** Later adjustment of the Tie Rod Bracket may be avoided if front wheels are set perfectly straight.
2. Remove nut from frame brace bar on passenger's side of frame. Discard washer.
3. Position 25-301 Anchor Bracket on frame brace bar bolt. Reinstall nut but **do not tighten at this time.**
4. The 25-311B is mounted to the sway bar bracket in order to capture / sandwich against the anchor bracket using the 7/16 X 3 1/2 bolt and space as shown. Hook 25-311B Angle Bracket on the inside rear of sway bar bracket, placing 1/4" spacer washer between anchor bracket and outside rear of sway bar bracket. Insert bolt through diameter hole in Anchor Bracket and install flat washer and nut onto bolt. Tighten all nuts at this time.
5. Place steel retainer cap and rubber grommet on threaded rod end of the Small end of the SAFE T PLUS unit and insert through mounting hole in Tie Rod Bracket. (Shoulder of grommet towards bracket.) Install other grommet shoulder of grommet toward bracket), steel cap and nut and tighten, (see NOTE on page 2 of these instructions). Install locking PAL nut (flat side against nut) and tighten. (Tie Rod Bracket will be fastened to tie rod later.)

NOTE: All grommets are to be tightened until they bulge over the edge of the steel caps or until they are approximately 1/4" thick.

6. Insert **large diameter end** SAFE T PLUS unit through mounting hole in Anchor Bracket. Follow same procedures as described in Step 5 for grommet installation.
7. Using the U-Bolts and nuts provided, attach Tie Rod Bracket to Tie Rod. **Thoroughly clean the section of Tie Rod where bracket is to be attached.** Rotate Tie Rod Bracket around Tie Rod so the small diameter end of unit is approximately 1/2" lower than large end. Note: Unit can be inverted to accomplish proper positioning when necessary. When positioned, tighten the four U-Bolt nuts to 20 foot pounds of torque while maintaining an even amount of threads extending past each nut.
8. Check to be sure installed unit clears all other parts of vehicle by turning steering wheel to both extreme right and left positions. If unit scrapes or binds at any point, review the instructions and make necessary corrections by rotating unit on the tie rod to obtain the necessary clearance.
9. **ROAD TEST AND ADJUSTMENT PROCEDURES:** See Attached Documents.

After your first road trip with Safe T Plus Steering Control installed, please let us know how Safe T Plus performed. We enjoy hearing from our clients. You may contact us at support@safe-t-plus.com or (800) 872-7233.

Safe T Plus Installation Diagram





Road Test & Centering/Adjustment Procedures

To ensure proper alignment and installation of the SAFE-T-PLUS unit, the vehicle should be road tested. Take along a **9/16" deep well socket wrench** to fit the U-bolts on the tie rod. While driving on a straight stretch of road, vehicle should easily follow a straight course, if not, adjustment is necessary.

To adjust Safe-T-Plus Steering Control follow the below instructions:

1. **After installation, test drive the vehicle**
2. Try to test with the most perfect conditions: straight road, no crown, limited wind (if possible), freeways seem to work best or large parking lots.
3. Hold steering wheel in a **straightforward position** to determine if the vehicle is tracking straight or pulling to the left or the right.
4. Stop vehicle, and set brakes.
5. Take note of where the steering wheel **must be held** to track straight down the road, and mark it accordingly. Pull in somewhere, and with the motor, steering pumps, all running. Have someone hold that steering wheel firmly in exactly the proper position.*
6. Underneath the vehicle, slightly loosen nuts on tie rod U-bolts and allow unit to self-center. tap the Safe-T-Plus unit a few times with your fist, or a rubber mallet, and let the internal spring push / pull the tie rod bracket into a neutral position. (Frequently this slight movement is not noticeable)
7. At this point, take a moment to square-up the U-bolts as they lay up and across the tie rod. If you've left them askew, they may pull the bracket out of position as they tighten.
8. **Retighten the U-bolt nuts (only 20 lbs. of torque)**
9. Now test drive again.
10. Repeat this step if necessary until vehicle will hold a straight line**

Note:

*Be mindful that if you are holding 2 to 3 inches of steering wheel against the spring to track straight, it's only 1/16 to 1/8 of an inch down below on the tie rod bracket.

**Repeat if necessary, until you're satisfied. Once completed you should be able to achieve holding your lane position for a 1/2 mile or so at freeway speeds, with hand gently resting on the steering wheel without correcting.

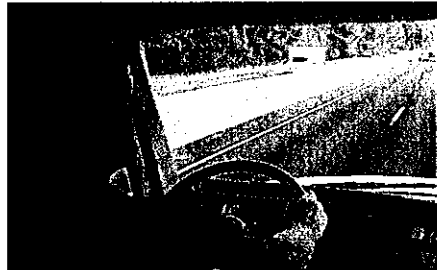
Extra Detail on Final Adjustments (Tips)

- Using tape, you can stick a ruler or pencil to the dash to act like a centering indicator for more accuracy.
- Another trick is marking the left and right limits of any inherent slop in the center of the steering wheel operation. At the shop, line up the center marks, and do the install.
- Be patient, be precise when moving the tie rod bracket, as just a 1/16 of an inch will make the difference in drifting off half a lane in 100 yards or less.

When making very small adjustments, (1 ½ inches of steering wheel displacement or less) it may be necessary to hold the steering wheel in the direction of correction just a little beyond the required (¼ to ½ inch more) in order to "load up" the internal spring just a little and let the unit help with the relocation of the tie rod bracket. There really isn't any other way to move the tie rod bracket without having some assistance holding the steering wheel while adjustments are being made down below.

If overshooting the desired results, mark a line a set distance from the tie rod bracket so that they can measure in what direction, and how far each adjustment was made.

A "how-to" properly center/adjust Safe-T-Plus Steering Control video is available on our website to help guide you through the adjustment procedures. Feel free to check out video at www.safe-t-plus.com (bottom right).



If you need additional assistance, please call us toll-free (800) 872-7233 or email us at support@safe-t-plus.com and technical support will be happy to assist.