

# INSTALLATION INSTRUCTIONS FOR

### 2005 - 2013

# Chevrolet / GMC

# 3500-4500 Cutaway Express Chassis

#### PARTS NEEDED:

3-2013

31-140 SAFE-T-PLUS unit (Silver)
C-354K14 Mounting Hardware Kit consists of:

1 25-354 Anchor Bracket 1 25-405 Tie Rod Bracket

1 12-56-1250K 5/16 X 1-1/4" U-Bolt Kit

#### TOOLS NEEDED:

Open-Box Combination 1/2" Wrench

9/16".Deep Well Socket and Ratchet open end wrench for U-bolt nuts.

#### DIRECTIONS:

- Step 1. Set front wheels of vehicle to a straight-ahead position. This is <u>IMPORTANT</u>.

  Later centering adjustment of the Tie Rod Bracket may be avoided if front wheels are set perfectly straight.
- Step 2. Remove the lower control arm nut and washer on passenger side.
- Step 3. Install 25-354 Anchor Bracket on 11/16" hole in bracket. Reinstall washer and nut, but do not tighten all the way until Safe-T-Plus unit has been installed and squared up on bracket.
- Step 4. Install 25-405 Tie Rod Bracket with U-bolt holes turned under Safe-T-Plus on large end of unit.
- Step 5. Install SAFE-T-PLUS unit (small end) to Anchor Bracket with grommets and nuts provided.
- Step 6. Install 5/16" x 1 1/4" U-bolts on tie rod with Safe-T-Plus unit to rear of the vehicle.
- Step 7. Rotate unit on tie rod to help square Safe-T-Plus on Anchor Bracket and tighten U-bolts. Next tighten lower control arm nut back to factory specifications.

# Step 8. (This step is very critical for this application.)

Check to be sure installed unit clears all other parts of vehicle by turning steering wheel to both extremes right and left positions. If unit scrapes or binds at any point, review these instructions and make necessary corrections by rotating unit on the tie rod to obtain necessary clearance.

Step 9. **ROAD TEST & ADJUSTMENT PROCEDURES** – Step-by-Step instructions are provided herewith separately.

If you need additional technical assistance, please call our technical support team us toll—free at (800) 872-7233 or email us at <a href="mailto:support@safe-t-plus.com">support@safe-t-plus.com</a>.





## **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 <u>straightforward</u> 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 25-30lbs. 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.