

INSTALLATION INSTRUCTIONS
FOR UNIT 35001LOCATION

Safe T Plus is mounted either behind or in front of the front axle depending on the location of the Tie Rod. The proper position is determined on the Tie Rod side of the axle in the location having adequate clearance for the cylinder throughout both extremes of the steering radius. No part of the cylinder is to touch any part of the vehicle or the brackets except the mounting bushings at the ends of the cylinder.

The large end of the cylinder should be mounted slightly higher than the small end to ensure that moisture and dirt will not accumulate in the dust seal area.

PROCEDURE

1. Mount the Anchor Bracket on the vehicle securely in the best position (either right or left side of vehicle), ~~whichever position allows the most clearance on the~~ working parts of the steering. NOTE: Occasionally the bracket selected is not adequate to provide proper clearance and operation of the Safe T Plus. If the Anchor Bracket should interfere with other steering components, please contact United Safety Apparatus, Inc., 2150 Moreland Ave. S.E. Atlanta, Ga. 30315 PHONE: 1-800-USA-SAFE. Usually the large end of the Safe T Plus is installed to the Anchor Bracket, however, in some cases the small end may be installed to the Anchor Bracket. Use the grommet kit provided being sure that the shoulder on the bushing faces the bracket on both sides (see package instructions). Tighten the nuts until the bushings expand to the outer diameter of the steel washer or until the bushings are about $\frac{1}{4}$ " thick. Install the locking PAL nuts.

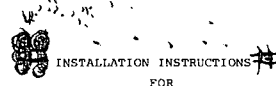
2. Mount the Tie Rod Bracket to the end of the Safe T Plus, opposite the Anchor Bracket, using the grommet kit as described above. Mount the Tie Rod Bracket on the Tie Rod with the U-Bolts enclosed. Choose the U-Bolts fitting tightest on the Tie Rod. Straighten the steering wheel on the vehicle by sighting the front wheels in line with the rear wheels. Tighten the Tie Rod bracket U-Bolts to 12 to 14 foot pounds of torque. Rotate the steering wheel through the entire steering radius, left and right, while watching to be certain there is no interference with the bracket or other vehicle structures. If interference occurs, stop immediately and either move the obstruction or reposition the Safe T Plus so there is no interference.

3. ~~Drive the vehicle to a selected section of street, highway, or parking lot,~~ and determine whether or not the steering tracks straight. If not, drive the vehicle in a straight line (follow a center line, curb, asphalt seam in a parking lot) and bring it to a stop holding the steering wheel in the straight position, set the brakes. Loosen the Tie Rod U-Bolts and allow the Safe T Plus Steering Control to seek its own center. (Frequently the movement is not noticeable). Retighten the U-Bolts being sure all clearances to structures and brackets are maintained. Test the steering again. If vehicle does not track straight repeat this procedure.

Good preventive maintenance and regular inspections are an important part of the safe operation of your vehicle. Continue these practices to insure that the Safe T Plus benefits will be yours. Installation of the Safe T Plus does not change these obligations.

NOTE: If the Safe T Plus is ever removed from the vehicle be sure to remove the locking PAL nuts first to avoid damage to the Safe T Plus threaded studs.

1. Right Side Frame
2. Anchor Bracket
3. Axle Brace Nut
4. 9/16" Axle Bolt Hole
5. 3/8" Frame Bolt Hole
6. 3/8" Frame Bolt Hole
7. Stabilizer Bracket
8. 7/16" Clamp Bolt Hole
9. 3/4" Unit Mounting Hole
10. Shimmy Dampner
11. Stabilizer Bar



Chevy P-30 Motor Home Chassis
Parts Needed - 35001 Safe-T-Plus Unit
25311 A & B Anchor Bracket
25401 Tie Rod Mounting Kit

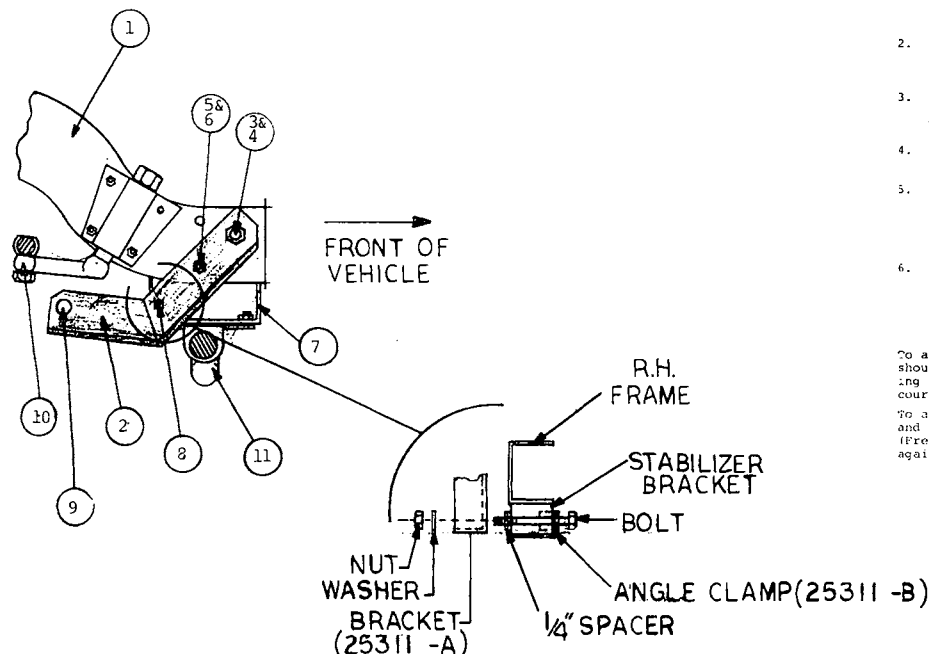
Included in package with unit: Rubber Bushing kit & instructions

1. Anchor bracket 25311 A & B mounts to RIGHT hand frame with flange of bracket to outside.
(A) Remove axle brace nut (3).
(B) Place 9/16" hole (4) on axle brace bolt and replace nut (3). Do not tighten.
(C) Align 3/8" bolt hole (5) with hole already in frame (6). Insert bolt from inside, attach lockwasher and nut. Do not tighten.
(D) Angle clamp 25311B - hook on inside rear of vehicle stabilizer bracket (7). Place 1/4" spacer provided between outside rear of stabilizer bracket (7) and 25311A (2). Insert bolt through 7/16" hole in (8). Place lockwasher and nut. Tighten.
(E) Tighten all nut in steps B, C, & D above.
2. Tie Rod Bracket 25401. Using U-bolts provided install tie rod bracket on tie rod - see sketch B. Do not tighten. Thoroughly clean this section of tie rod before attaching bracket.
3. 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.
4. Install unit to anchor bracket (9) and tie rod bracket using rubber bushing kit provided. NOTE!!! SMALL DIAMETER END OF SAFE-T-PLUS UNIT ATTACHED TO ANCHOR BRACKET 25311A.
5. (A) Adjust tie rod bracket by rotating around tie rod to the point necessary to bring small diameter end of unit to a point 1/2" to 1" lower than large end.
(B) When positioned tighten the four U-bolt nuts to 12 foot pounds of torque. Remember - Large diameter end of the Safe-T-Plus Unit goes to tie rod bracket 25401.
6. Check to be sure installed unit clears all other parts of vehicle by turning steering wheel to both extreme right and extreme left positions. If unit scrapes or binds at any point, review these instructions and make necessary corrections by rotating unit on tie rod to obtain necessary clearance.

ROAD TEST & ADJUSTMENT

To assure proper alignment and installation of the SAFE-T-PLUS Unit the vehicle should be road tested. (Take along a 1/2" deep well socket wrench). While driving on a straight stretch of road vehicle should easily follow a straight course, if not, adjustment is necessary.

To adjust, hold steering wheel in a straight forward position, stop vehicle, and set brakes. Loosen nuts on tie rod U-bolts and allow unit to self-center. (Frequently, this movement is not noticeable). Retighten nuts and test drive again. Repeat this step if necessary until vehicle will hold a straight line.



INSTALLATION INSTRUCTIONS FOR

Chevrolet C-20, C-30, G-30 Van
Parts Needed - 35001 Safe-T-Plus Unit
25302 A & B Anchor Bracket
25401 Tie Rod Mounting Kit

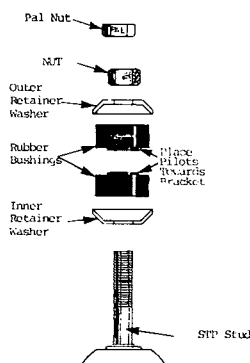
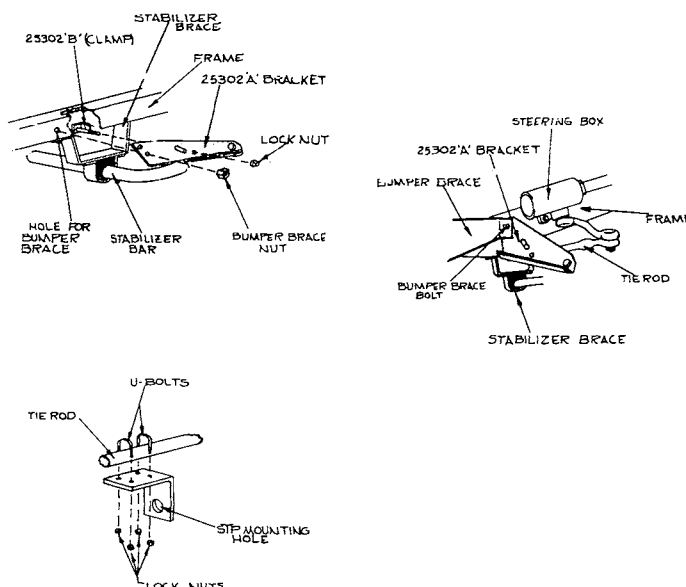
Included in package with unit: Rubber bushing kit & instructions

1. Anchor bracket 25302 A & B mounts on left hand frame, in front of steering box. (Refer to sketch).
(A) Remove Bumper Brace Bolt.
(B) Place 25302A, with flanged side facing outward, into position. Note: If no bumper brace a 1/2" x 1" bolt is needed.
(C) Replace bolt, lock washer and nut. Tighten lightly.
(D) Install 25302B. Make sure flange lays over the bottom shelf of the vehicle frame. Tighten.
(E) Tighten Bumper Brace Bolt Nut tightly. (See Step C Above)
2. Tie Rod Bracket 25401. Using U-Bolts provided, install tie rod bracket on tie rod - see sketch. Leave bracket loose.
Thoroughly clean this section of tie rod before attaching bracket.
3. 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.
4. Install unit to anchor bracket and tie rod bracket using rubber bushing kit provided.
5. (A) Adjust tie rod bracket by rotating around tie rod to the point necessary to bring small diameter end of unit to a point 1/2" to 1" lower than large end.
(B) When positioned tighten the four U-bolt nuts to 12 foot pounds of torque.
6. Check to be sure installed unit clears all other parts of vehicle by turning steering wheel to both extreme right and extreme left positions. If unit scrapes or binds at any point, review these instructions and make necessary corrections by rotating unit on tie rod to obtain necessary clearance.

ROAD TEST & ADJUSTMENT

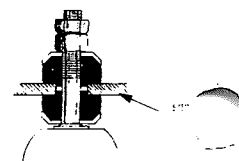
To assure proper alignment and installation of the SAFE-T-PLUS Unit the vehicle should be road tested. (Take along a 1/2" deep well socket wrench). While driving on a straight stretch of road vehicle should easily follow a straight course, if not, adjustment is necessary.

To adjust, hold steering wheel in a straight forward position, stop vehicle, and set brakes. Loosen nuts on tie rod U-bolts and allow unit to self-center. (Frequently, this movement is not noticeable). Retighten nuts and test drive again. Repeat this step if necessary until vehicle will hold a straight line.



IMPORTANT INSTALLATION INSTRUCTIONS

1. Place inner retainer washer on STP Stud as shown on left.
2. Place rubber bushing on STP Stud with Pilot Towards the outer part of Stud.
3. Insert S-T-P Stud through mounting hole in bracket.
4. Place 2nd rubber bushing on STP Stud, with Pilot towards bracket.
5. Place outer retainer washer on Stud.
6. Tighten nut on STP Stud until bushings bulge almost to outer edge of retainer. DO NOT TIGHTEN EXCESSIVELY.
7. Place Pal Nut and tighten firmly.



Jim Phillips in Atlanta, Ga. SafeT Plus (called on 14 June)
Distributor in Indianapolis
is Truck Parts Specialist
317-247-5821

SAFET PLUS®

Steering Control

Specifications

We have a P-32 chassis
(They call it a P chassis)

	* <u>Model #35001</u>	* <u>Model #45005</u>	* <u>Model #45006</u>
Overall length (w/o brackets)	25.75"	33.00"	33.00"
Diameter	2.5"	3.25"	3.25"
Weight (w/o mounting hardware)	8 lbs.	19.25 lbs.	19.25 lbs.
Pre-load (center point)	120 lbs.	230 lbs.	140 lbs.
Material-case	D.O.M.	D.O.M.	D.O.M.
Steering Type	Manual/Power	Power	Manual/Light Power
Travel-at Tie-Rod (Overall)	8.75"	12.00"	12.00"
(Each way)	4.375"	6.00"	6.00"
Installation	(Ordinary Shop Tools)		
Lubrication	Permanent	Permanent	Permanent
Mounting Hardware	Included	Included	Included
Warranty	24 Months	24 Months	24 Months

*Model 35001 - WHITE - **SAFET PLUS** unit designed to fit Class 1,2,3,4 & 5 vehicles with **manual or power** steering and having total tie rod travel of 8 inches or less.

*Model 45005 - BLUE - **SAFET PLUS** unit designed to fit Class 6,7, & 8 vehicles with **power** steering and having a total tie rod travel of 12 inches or less.

*Model 45006 - RED - **SAFET PLUS** unit designed to fit Class 6, 7, & 8 vehicles with **manual or light power** steering and having a total tie rod travel of 12 inches or less.

United Safety Apparatus, Inc.

2150 Moreland Avenue S.E. / Atlanta, Georgia 30315 / (404) 622-1341

1-800-USA-SAFE



Steering Control

WARRANTY INFORMATION

The product you have purchased is warranted by the manufacturer for two years from the date of purchase against defects in workmanship and/or materials.

The hardware furnished by U.S.A. is of special steel and specifications. **NO SUBSTITUTE** to be used under this warranty.

Should repair or replacement become necessary during the warranty period, send your product, U.P.S. or freight **prepaid**, to U.S.A., Inc., 2150 Moreland Avenue S.E., Atlanta, Georgia 30315.

This warranty does not apply unless installed per factory instructions or if failure is due to accident damage, improper use, external damage, abusive use, unauthorized repairs attempted, or consequential damages.

Warranty card must be filled out completely and mailed to USA, Inc. within thirty (30) days of installation to validate warranty.

Retain for you file

Date **SAFE T PLUS** *Installed* _____

SAFE T PLUS Ser. # 911 _____

Veh. # 90119543460149