‘33-‘34 Ford Car & Truck Chassis
Custom IFS & 4-Link
Install Instructions

Tech Line: 1-855-693-1259

www.totalcostinvolved.com

Read and understand these instructions before starting any work!

USE THE PARTS LIST BELOW TO MAKE SURE YOUR KIT IS COMPLETE BEFORE INSTALLATION.
IF ANY PIECES ARE MISSING, PLEASE CONTACT: Total Cost Involved Engineering 1-855-693-1259

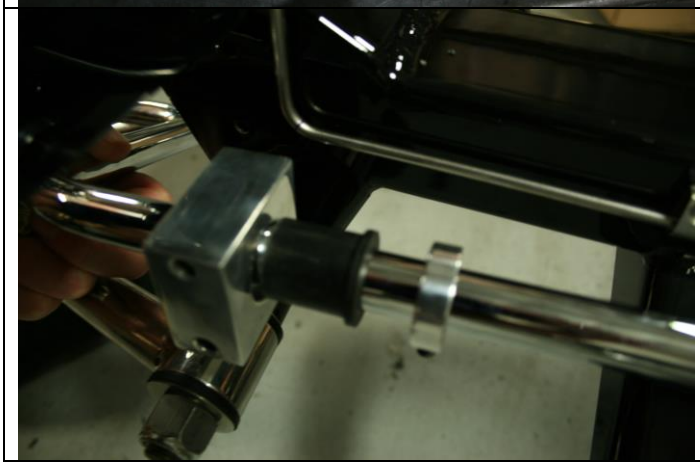
Installing the Custom IFS

Installing the lower control arms:

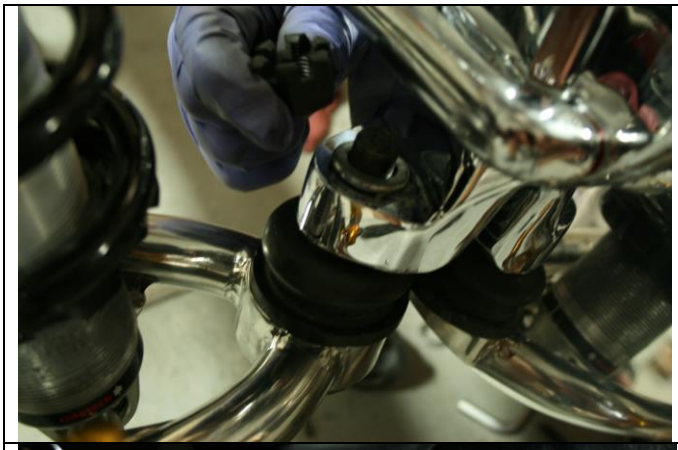
NOTE The acorn side of the 5/8” shaft faces forward.
The shock tabs face down. Place one washer onto the 5/8” control arm shaft and push it through the front bushing of the control arm. Place a 2nd washer behind the bushing and push the 5/8” shaft into the front of the cross member.

NOTE Driver side control arm is pictured

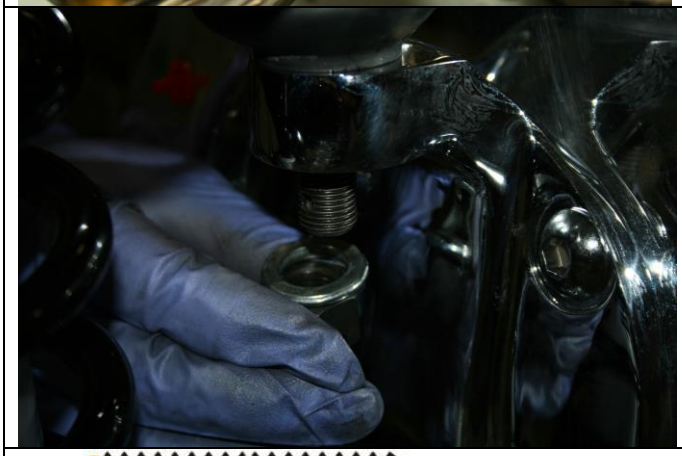
	Place the 3rd washer in between the bushing and the pin as shown. Push the 5/8” shaft all the way through the pin and bushing. You may need a little elbow grease to get the shaft all the way through. ***NOTE*** Driver side control arm is pictured
	The 4th and final washer can now be placed on the 5/8” shaft and the Nylock can be installed. Torque to 75 ft lbs ***NOTE*** Driver side control arm is pictured
	**Installing the upper control arms:** ***NOTE*** The acorn side of the 5/8” shaft faces forward. Slide the Eccentric into the housing with the holes towards the front of the vehicle Place one washer onto the 5/8” control arm shaft and push it through the front bushing of the control arm. Place a 2nd washer behind the bushing and push the 5/8” shaft into the front of the eccentric housing. ***NOTE*** Driver side control arm is pictured
	Place the 3rd washer in between the bushing and the eccentric as shown. Push the 5/8” shaft all the way through the eccentric and bushing. You may need a little elbow grease to get the shaft all the way through.

	The 4th and final washer can now be placed on the 5/8” shaft and the Nylock can be installed. Torque to 75 ft lbs
	Install the ½-20 set screws into the Eccentric housing and tighten. Final alignment will be done once vehicle is finished.
	**Installing the anti-sway bar:** Slide the lock ring collar over the bar on each side first. The split bushings go over the bar and then the aluminum blocks slide on over the bushings.
	The anti-sway bar mounts to the rear of the cross member above the lower control arm pins. Use the supplied hardware to install the aluminum blocks onto the cross member. Torque to 35 ft lbs.Center the anti-sway bar and lock down the set screws against the bushings.

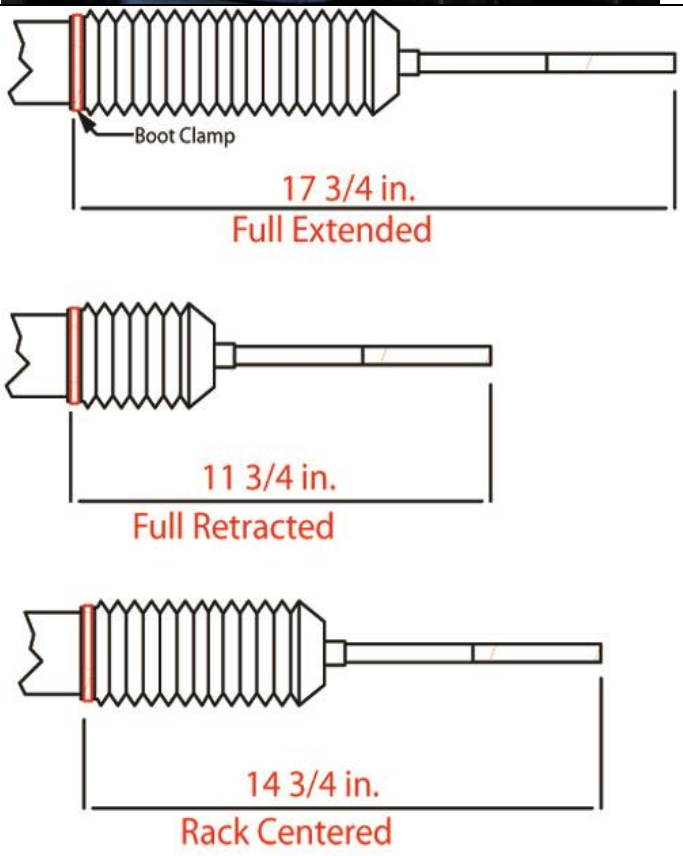
	The lower shock bolt also holds the anti-sway bar heim joint. Install the bolt from the back going forward. There will be two ½" spacers that will go on either side of the shock head between the control arm tabs. There is one more spacer to be installed once the bolt is in place. ***see below***
	Once the special bolt and spacers are installed you can now attach the anti-sway bar rod ends.
	We run the female rod end on the top to decrease the chance of condensation building up on the threads. ***NOTE*** You can adjust the preload(or lack thereof) once the vehicle is ready to be driven. To do this, disconnect one bolt on any heim, place the driver in the driver's seat, adjust the loose heim until it goes onto the anti-sway bar with zero load.
	**Installing the Coil-overs:** Place the top of the shock into the top mount on the cross member. The adjustment knob should be facing outward as shown. Use the ½" button head bolt and short nylock to attach the shock. ***NOTE*** Threaded side of the shock body goes down



Installing the spindle assemblies:
Place the spindle onto the lower ball joint with the steering arm facing forward with the large I/D tie rod end taper facing down.(The tie rod end goes up into the steering arm)
Place the ball joint washer first and then the castle nut. Torque the lower ball joint to 90 ft. lbs and install the cotter pin. The lower ball joint is a **MOOG K719**



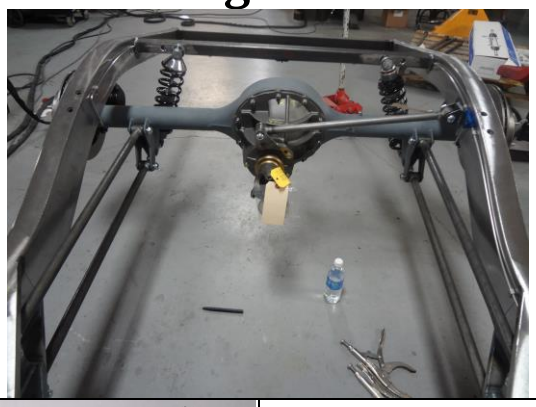
Pull the upper control arm down onto the spindle. Place the ball joint washer first and then the castle nut. Torque the upper ball joint to 70 ft. lbs and install the cotter pin. The upper ball joint is a **MOOG K772**
***NOTE* Caliper Fittings:**
GM Calipers = 10mm x 1.5
Wilwood Calipers = 1/8" NPT

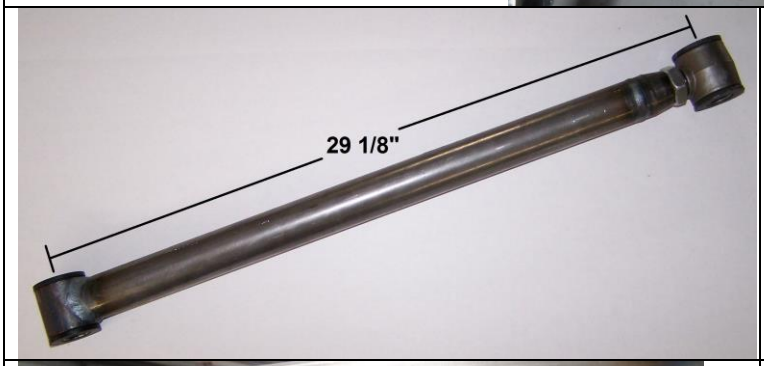


Centering the rack assembly:
The rack needs to be centered to allow equal steering left to right. On a bench, turn the pinion out to lock one way. Measure from a convenient point to the end of the inner tie rod. (This rack was 17 ¾). Turn the pinion of the opposite lock position and measure from the same point to the end of the same tie rod (11 ¾). 17 ¾ minus 11 ¾ = 6. Divided by 2 = 3 Add that number to the smallest measurement (11 ¾" + 3" = 14 ¾") and turn the pinion back till you get that measurement and your rack is centered.

	**Installing the rack and pinion:** Place the rack on the cross member brackets as shown. Use the supplied hardware to fasten it into place. ***NOTE*** Passenger side shown
	***NOTE*** Driver side shown
	Install the jam nut and outer tie rod end onto both sides of the rack. With the rotors pointing straight ahead(0 toe) install the tie rod ends into the bottom of the steering arm. Torque the tie rod ends to 60 ft. lbs. and install the cotter pin. ***NOTE* Rack & Pinion output shaft:** Manual rack = 9/16”-26 spline
	**Alignment specifications** **Caster:** Power rack 4-6 degrees positive Manual rack 2-4 degrees positive **Camber:** 0 Degree **Toe-in:** 1/32 to 1/16 inch The lower control arms should be level to the ground or within a degree or two once the vehicle is at full weight. You can then perform the final alignment. **AXLE STUD SIZES:** 4.5” Bolt circle rotors = ½”x20(’75-’80 Ford Granada) 4.75” Bolt circle 10.5” rotors = 12mmx1.5(’82-’87 Camaro) 4.75” Bolt circle 11” rotors = 7/16”x20(’75-’80 Granada redrilled) ALL Wilwood hubs = 1/2”x20

Installing the 4-Link



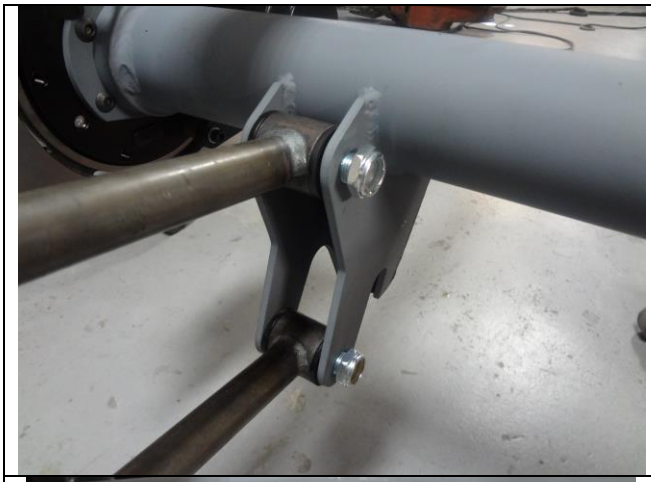
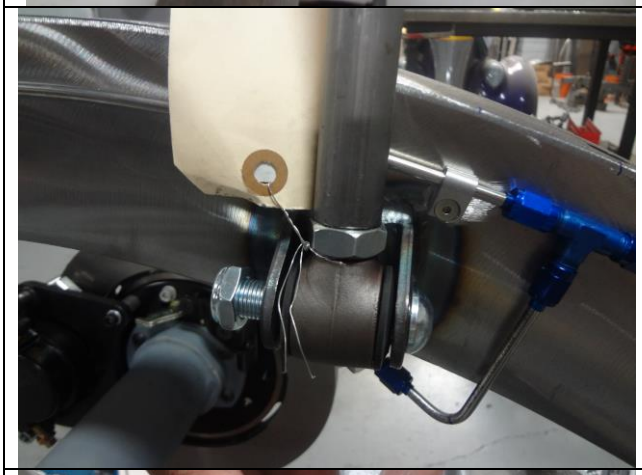
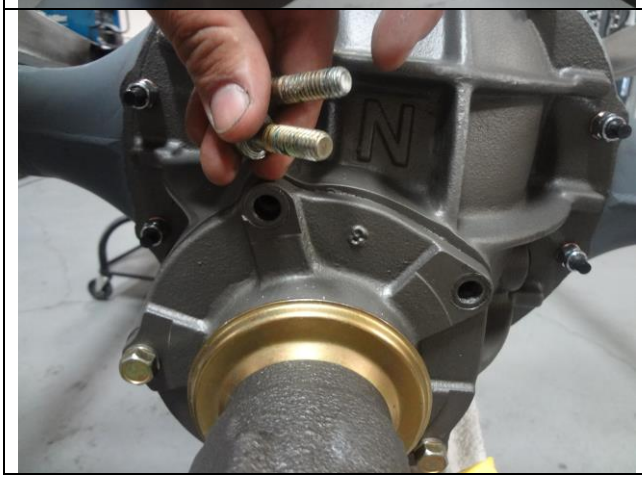


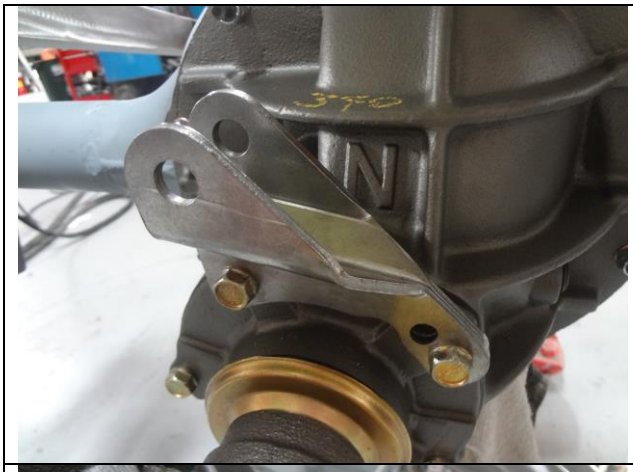
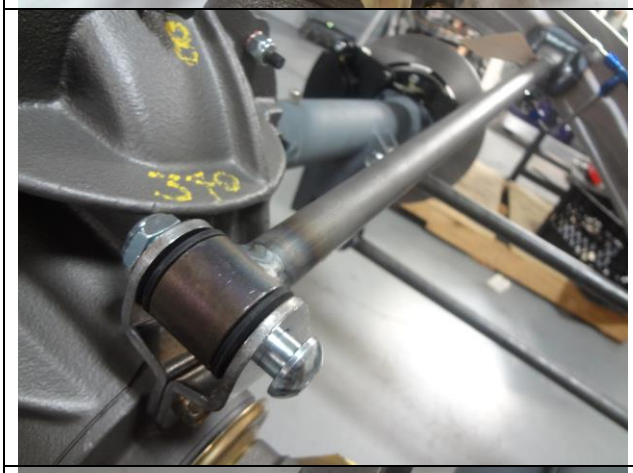
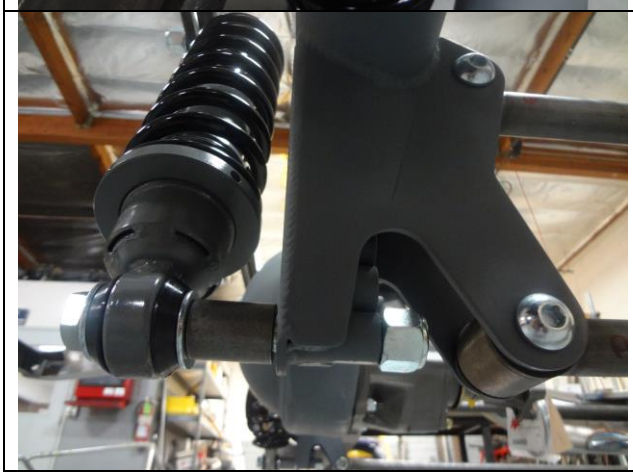
Adjust all the 4-link bars to 29 1/8” center to center and tighten the jam nuts.

NOTE It might be necessary to adjust the 4-link bars later to center the tires in the wheel wells.

Install the 4-link bars with the adjuster side onto the frame using the provided 5/8” hardware. The upper bolt goes in from the inside and the lower bolt goes in from the outside as shown.

Place the rear axle onto a jack and roll it under the frame just behind the Link bars

	***NOTE*** The 4-link bars are welded on at a slight angle because the axle bracket centers are wider than the frame bracket centers. Keep this in mind when installing the link bars onto the axle housing as they will bind if they are wrong. Install each link bar onto the axle housing. ***NOTE*** If you purchased the optional anti-sway bar you will need to install the provided shoulder bolt into the upper axle bracket at this time. *see next step*
	***NOTE* For Optional Anti-Sway bar only** Install the shoulder bolt onto the upper link bar axle bracket with the 3/8” side facing inwards. You will end up with two extra 5/8” bolts from this step. ***NOTE*** Passenger side shown Torque all 5/8” hardware to 125 ft lbs
	Install the adjuster side of the panhard bar onto the chassis bracket as shown using the provided hardware.
	Remove these two bolt from the pinion support on your new 9” axle housing.

	Install the pinion mounted panhard bracket onto the 3rd member as shown. ***NOTE*** The unused hole is only used on 8” rear axles.
	Pull the panhard bar down into place and install the provided hardware. Torque both ends to 100 ft lbs
	You can now install the coil-overs using the provided 5/8” hardware. One washer goes against the bolt head and the other goes against the nylock. ***NOTE*** The bolt should be installed front to back as shown ***NOTE*** If you purchased the optional anti-sway bar you will need to install the splined bar & crossmember at this time. *skip forward to Anti-Sway bar installation ***NOTE*** For the optional Ridetech shocks please proceed to the next page.
	The threaded side goes down as shown. Install the provided spacer up against the back of the axle bracket. We chose the bottom hole of the axle bracket for this application which will give the vehicle the lower stance possible. There are 3 holes total in 1” increments for fine tuning ride height. The provided washers go up against both sides of the bushings on the shock. Torque the 5/8” shock bolts to 125 ft lbs

NOTE Installing the optional Ridetech adjustable shocks.

NOTE If you purchased the optional anti-sway bar you will need to install the splined bar & crossmember at this time. *skip forward to Anti-Sway bar installation

You can now install the coil-overs using the provided 5/8" hardware with the adjuster at the top and the threaded body at the bottom. One washer goes against the bolt head and the other goes against the nylock. The bolt should be installed front to back as shown

Install the provided spacer up against the back of the axle bracket.

We chose the bottom hole of the axle bracket for this application which will give the vehicle the lower stance possible. There are 3 holes total in 1" increments for fine tuning ride height.

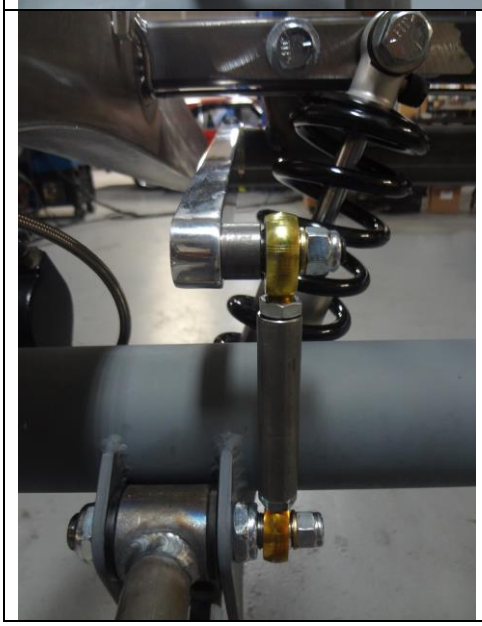
The provided washers go up against both sides of the bushings on the shock.

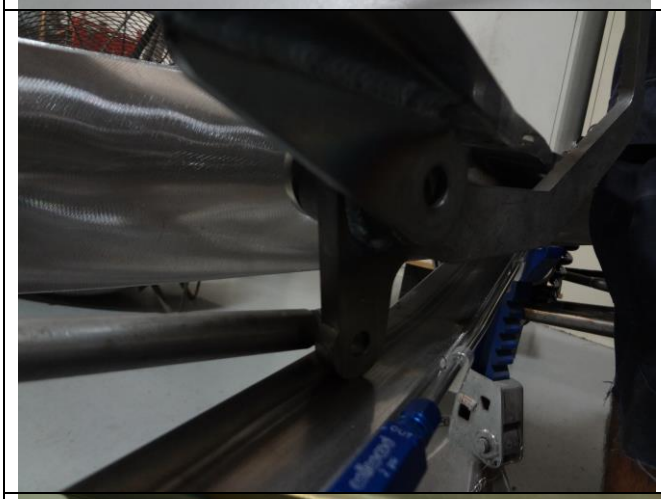
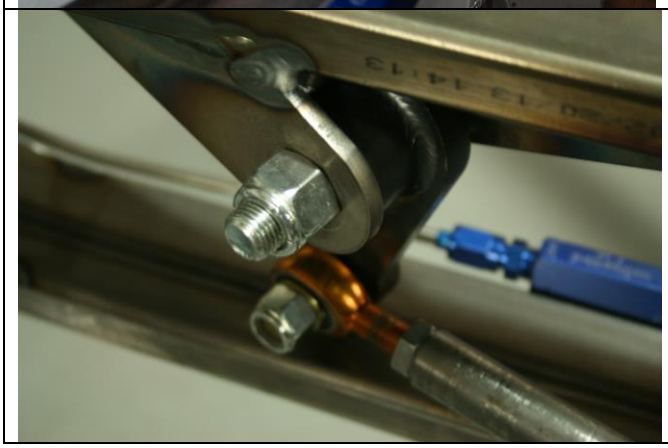
Torque the 5/8" shock bolts to 125 ft lbs

Installing the optional Anti-Sway bar:

Place the splined bar into the housing.

SEQUENCE OF INSTALLATION PER SIDE:
1. Nyliner (fits into cross tube around the splined bar)
2. Washer (goes up against the shoulder of the nyliner)
3. Aluminum arm (countersunk end facing out as pictured)

	The flat head bolt goes in from the outside to match the taper of the countersunk end of the aluminum arm. The spacer goes next, followed by the rod end and nylock
	Place the anti-sway bar crossmember up to the back of the coil-over crossmember lining up the two sets of holes on either side of the crossmember ***NOTE*** Passenger side shown from the rear
	The lower 3/8" rod end connects to the upper 4-link bolt. This is where the special shoulder bolt should be installed. If you haven't installed this bolt already during the 4-link process you will need to remove the upper link bolt and replace it with the provided shoulder bolt. The shoulder side should face inwards. Install the short 5/8" nylock and then tighten it down. The rod end goes on next and the the 3/8" nylock onto the small end of shoulder bolt. Duplicate the process for the other side of the vehicle making sure the extension rods are sitting vertical. Adjust the extension rod as needed to have zero preload.
	Here is how the finalized installation of the anti-sway bar will look.

	Install the transmission mount as shown. Your crossmember may sit closer or farther away from the chassis cross bar depending on which transmission you are using.
	The existing bolt and inner sleeve will have to be removed before installation. Take care when removing the inner sleeve as it is reused on the pedal arm itself.
	Insert the pivot pin into the bottom of the brake pedal arm Installing the Pedal assembly: Thread the R/H end of the provided rod into the back side of the booster. Leave the jam nut loose
	Install the provided hardware into the frame mount and through the pivot pin of the pedal arm. The heim joint goes on the outboard side of the pedal arm. You can tighten this bolt at this time.

Leave the jam nut loose. Final adjustment will be done once the body is installed and carpet is in place.

WARNING!!!!

The Currie 9” rear axle and master cylinder are void of fluids upon delivery. Make sure to install the provided fluids prior to usage.

No returns or exchanges without a RMA#.

Packages must be inspected upon receipt & be reported within 10 days.
If you are missing parts from your kit, TCI Engineering will send the missing parts via FedEx or U.S. mail ground.
Returned packages are subject to inspection before replacement/refund is given.(Some items will be subject to a 15% restocking fee)

Thank you for your business!