



# 1928-1936 Chevy Car/Truck - Independent Front Suspension

Installation Instructions

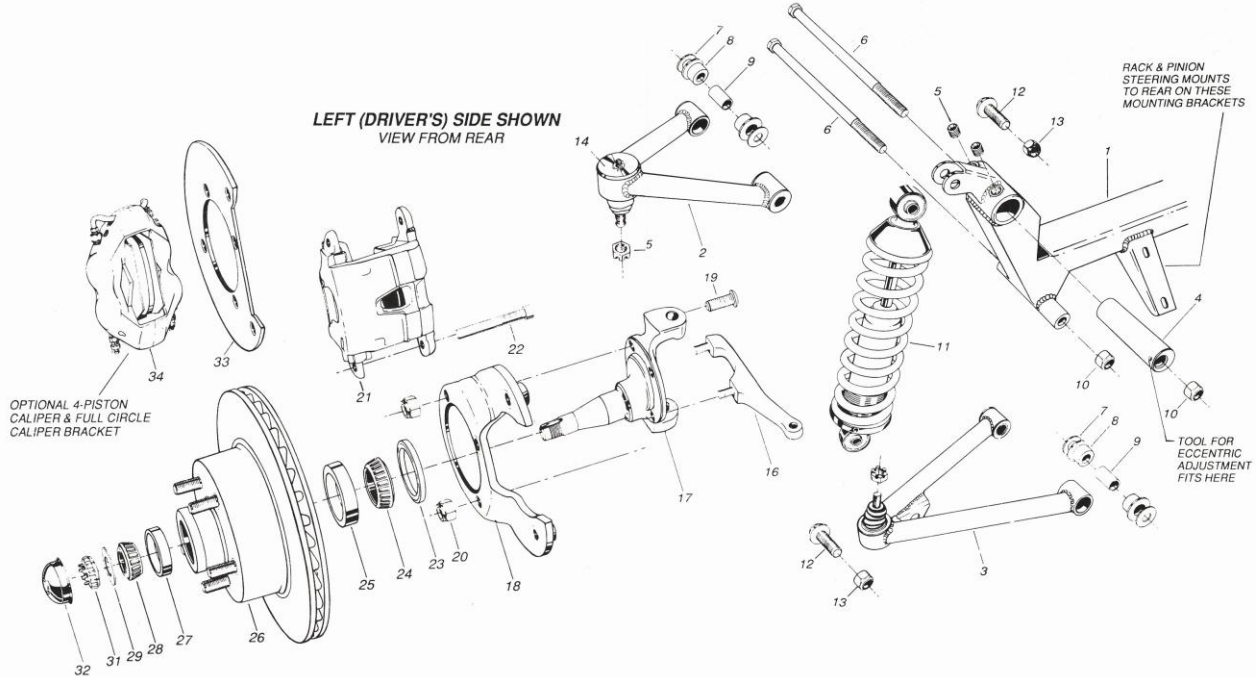
Tech line: 1-855-693-1259

[www.totalcostinvolved.com](http://www.totalcostinvolved.com)

**Read and understand these instructions before starting any work!**

**CHECK ALL PARTS INCLUDED IN THIS KIT TO THE PARTS LIST BEFORE INSTALLATION.**

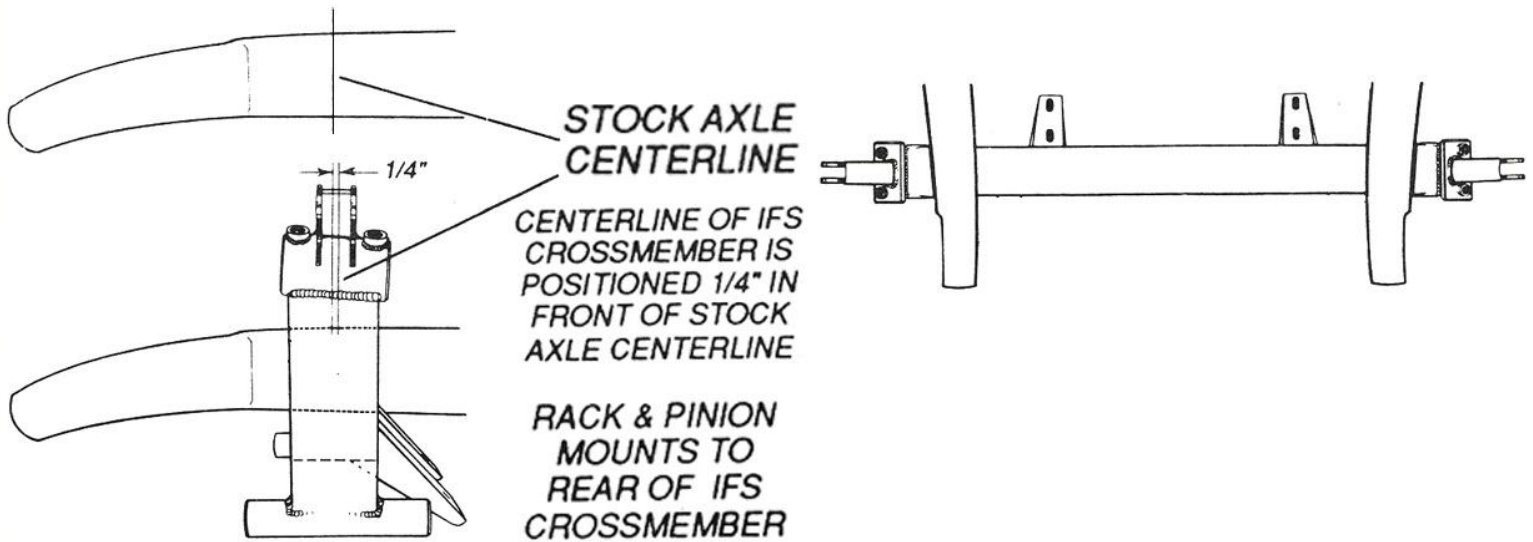
**IF ANY PIECES ARE MISSING, PLEASE CONTACT: TOTAL COST INVOLVED 866-925-1100**



## PREPARING THE FRAME

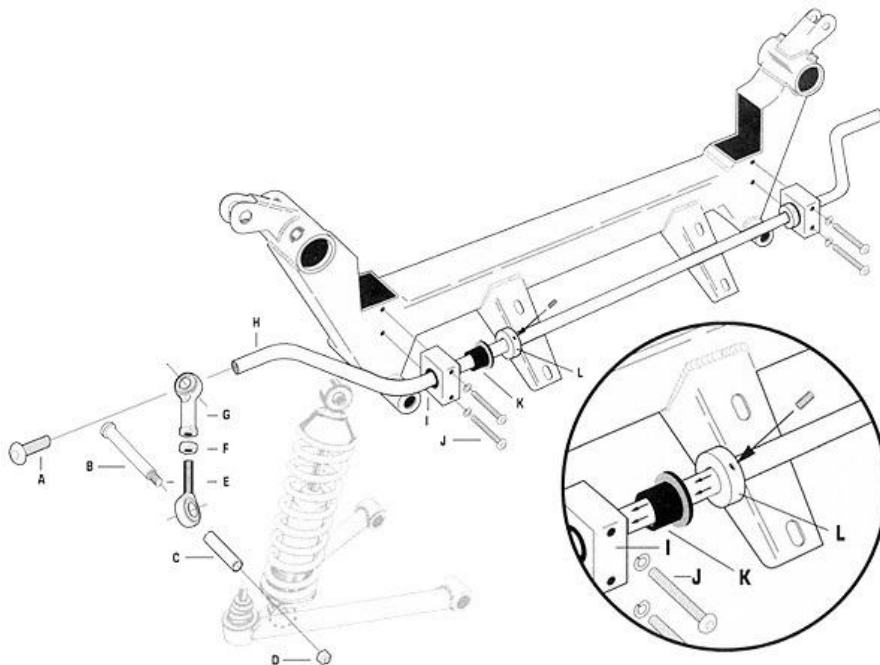
- Place vehicle on jack stands preferably with roughly 2-3 degree ride rake
- Mark the factory axle centerline. An old trick we use is to drill a very small hole at the axle centerline so no amount of grinding will remove the mark.
- Remove all of the old steering and suspension components;
- Tack weld two braces to the top and bottom of the frame rails in front of the original cross member to insure that frame rails do not move
- Remove original cross member by drilling out the rivets
- It is a good idea to box the frame rails (boxing plates not included)
- Weld up all the rivet holes left by the original crossmember
- Finish grind all welds

# 1928-1936 Chevy Cars/Trucks IFS



## INSTALLING THE IFS CROSS MEMBER

- Mark your new axle centerline on the frame rails as per the diagram above
- Fit IFS cross member squarely on rails, top and bottom, with the centerline of the cross member located 1/4' forward of the stock axle centerline.
- This is where the frame being at ride rake will be important. With the frame sitting at roughly 2-3 degrees the crossmember needs to be level to the ground.
- In some cases you may need to trim our crossmember to fit it into place in other cases metal may need to be added
- Tack weld IFS cross member to boxed frame rails
- Recheck all measurements, including vehicle wheel base. (Check measurements diagonally to check for squareness).
- Weld cross member to rails on all sides

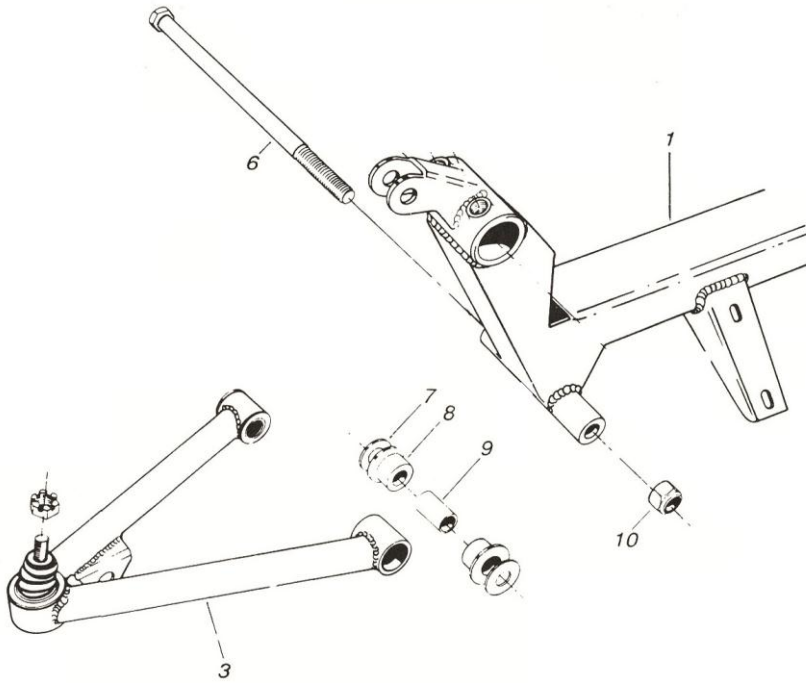


## Anti-Sway bar installation

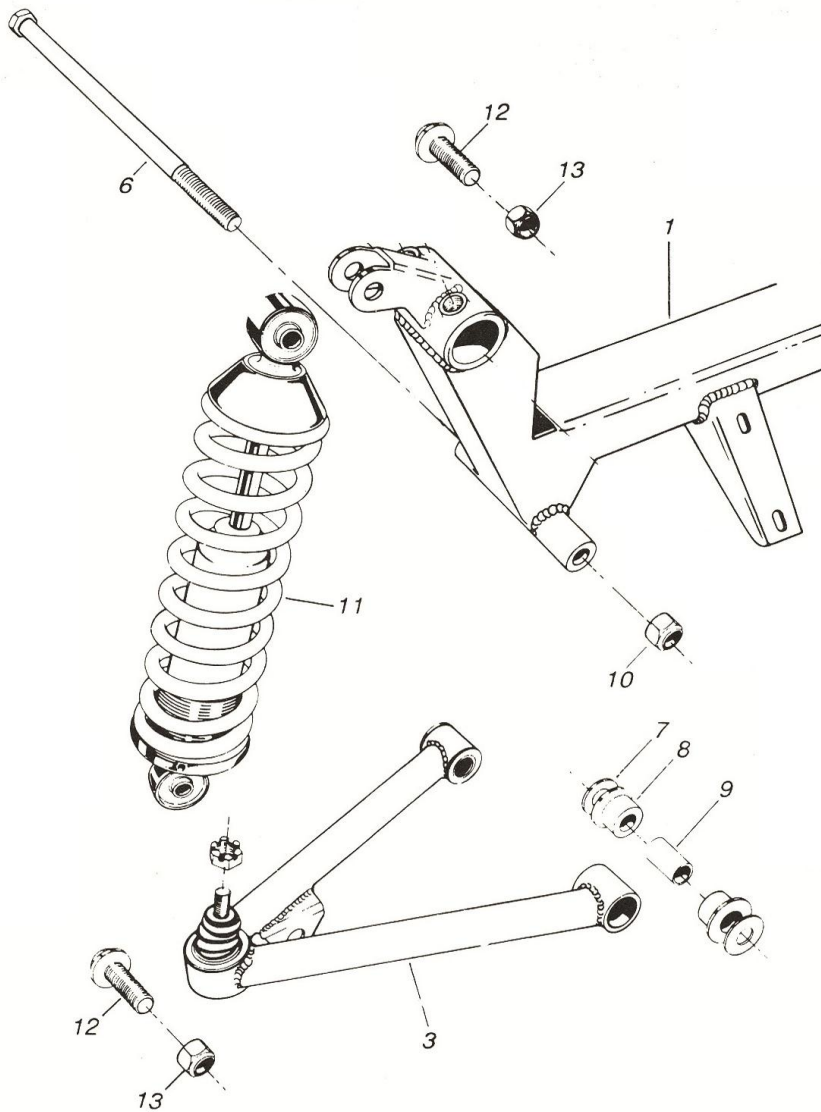
- Install both lock rings onto the bar (Item L)
- Install the urethanes onto the bar as pictured (Item K)
- Install both aluminum pillow blocks onto the bar (Item I)
- Mount the aluminum pillow blocks
- Slide the urethanes into the pillow blocks
- Push the lock rings over to the shoulder of the urethane and tighten them down
- Assemble the male and female rod ends using the provided jam nut
- Center the bar
- Attach the female rod end to the bar itself
- The lower anti-sway bar bolt will be attached later

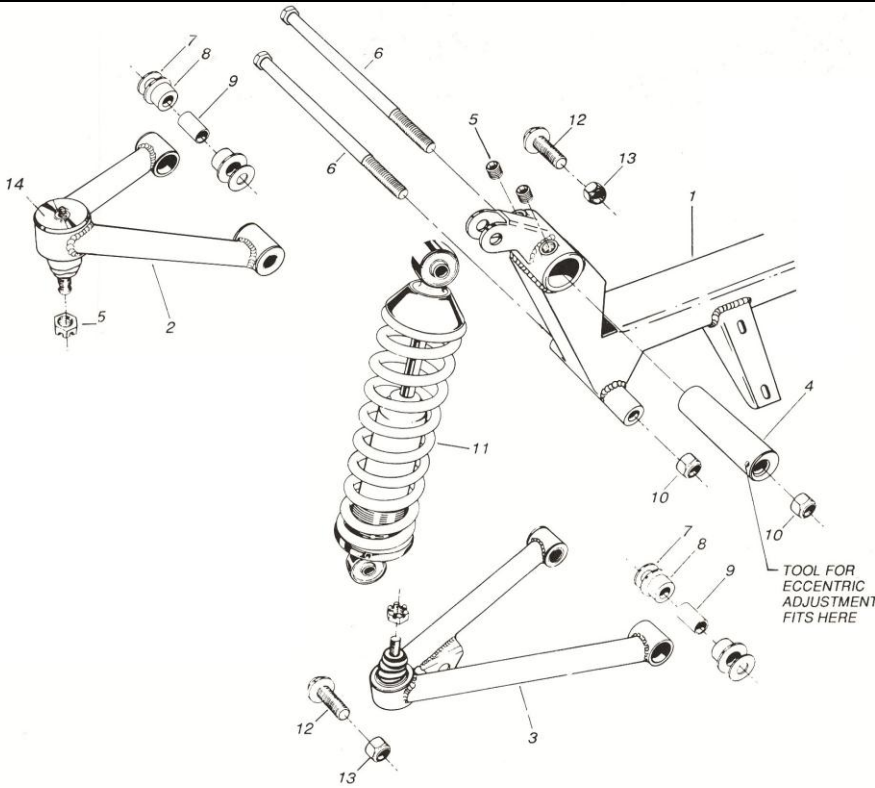
**Lower Control Arm Installation**

- The lower arms are identical, so there is not a left or a right
- The shock tabs face down.
- The acorn side of the bolt faces forward

**Installing the Coil-Overs**

- The threaded end goes on the bottom
- The lower bolt also holds the anti-sway bar using a special shoulder bolt(see image on page 2)

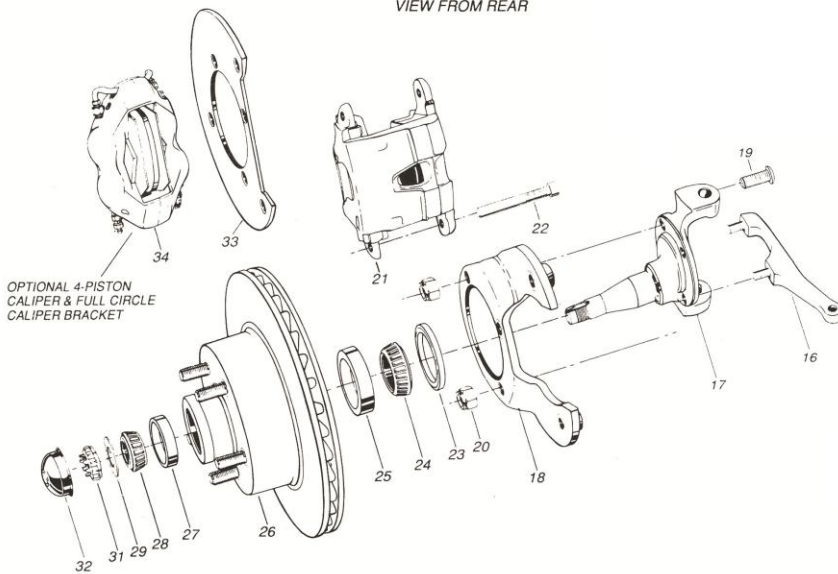




### Installing the Upper Control Arms

- Install the eccentric (Item 10) into the cross member and center it into the housing
- Install the two allen heads into the cross member (Item 5) and tighten them down
- The Acorn side of the bolt faces forward

LEFT (DRIVER'S) SIDE SHOWN  
VIEW FROM REAR



### 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**

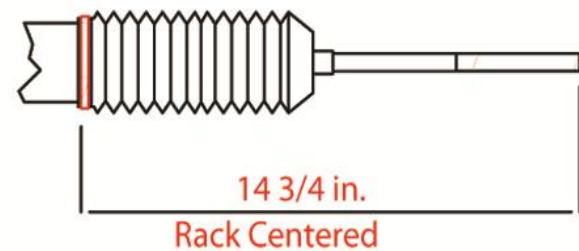
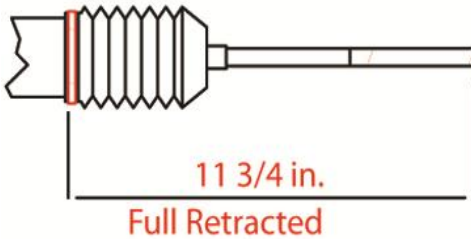
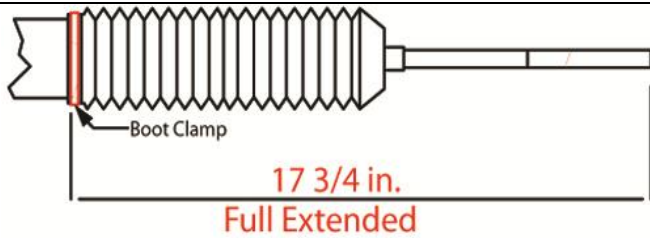
Pull the upper control arm down onto the spindle. Place the ball joint washer first and then the castle nut. Torque the upper ball joint to 70 ft. lbs and install the cotter pin. The upper ball joint is a **MOOG K772**

#### \*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  $17 \frac{3}{4}$ ). Turn the pinion of the opposite lock position and measure from the same point to the end of the same tie rod ( $11 \frac{3}{4}$ ).  $17 \frac{3}{4}$  minus  $11 \frac{3}{4}$  = 6. Divided by 2 = 3. Add that number to the smallest measurement ( $11 \frac{3}{4}$  + 3" =  $14 \frac{3}{4}$ ") and turn the pinion back till you get that measurement and your rack is centered.



### Installing the rack & pinion steering gear

-place the rack onto the existing crossmember mounts and install the provided hardware

-connect the tie rod ends to the spindles

\*NOTE\* For the optional power rack users  
High Pressure Line (Inlet): 9/16-18 Teflon Style  
Low Pressure Line (Return): 5/8-18 Teflon Style

Mopar Power Rack:  $\frac{3}{4}$ -46 Spline

Mopar Manual Rack: 9/16-26 Spline

Mopar Omni Rack: 5/8-36 Spline

### SETTING RIDE HEIGHT

-With full car weight on suspension. Lower control arm pivot should be  $\frac{1}{2}$ ' to 1" lower than the center of the ball joint sleeve. To adjust, jack up the car to remove the weight and then turn the lower rings on the coil-overs. The lower control arms will angle slightly uphill towards the wheels when properly set

### SETTING CAMBER

-Loosen set screw locks on eccentric housing

-Rotate eccentric by inserting the provided tool or an equivalent  $\frac{1}{4}$ " diameter object (Phillips screwdriver) into the hole on the side of the eccentric. Rotating eccentric is easier with car jacked up, but camber must be checked at ride height.

-Camber should be set at  $\frac{1}{4}$  degree negative

### SETTING CASTER

- With set screw locks still loose, caster is set by sliding eccentric slightly fore or aft within its housing. Gentle tapping with a soft hammer may be required.
- Set caster at 2-3° positive with a manual rack or 4-6° positive with a power rack, making sure that both left and right sides are set the same.
- Tighten set screws to lock in caster and camber settings

### SETTING TOE-IN

- Set toe-in by adjusting the tie rod ends on the rack & pinion steering gear
- Toe-in should be set at 1/32" for radial tires and 1/16" to 1/18" for bias-ply tires

### AXLE STUD SIZES:

- 4.5" Bolt circle rotors = 1/2"x20('75-'80 Ford Granada)
- 4.75" Bolt circle rotors = 12mmx1.5('82-'87 Camaro)
- ALL Wilwood hubs = 7/16"x20

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!

