

# INSTRUCTIONS

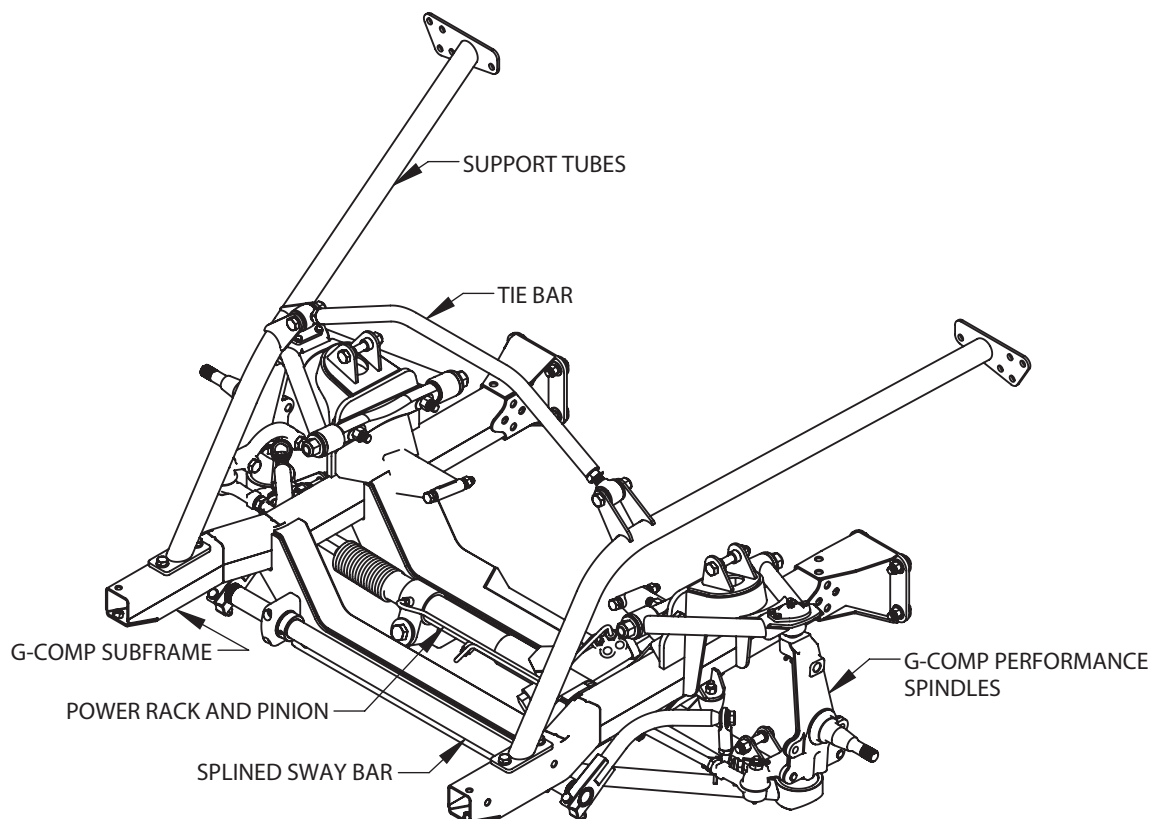
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## 350-1002

G-Comp Front Suspension  
62-67 Chevy Nova

Kit Contents:	
350-100.2	G-Comp Camber Shim Kit
350-101.2	G-Comp Support Tubes
910-35000	G-Comp 2 Inch Drop Spindles
910-35010	G-Comp Nova Steering Arms
910-35100	G-Comp Nova Sway Bar
910-35250	G-Comp Front Sway Bar Arms
910-35345	G-Comp Nova Power Steering Rack
910-35500	G-Comp Nova Upper Control Arms
910-35600	G-Comp Nova Lower Control Arms
350-1002.1	G-Comp Bare Subframe
910-35702	G-Comp Front Subframe Hardware Kit
910-35900	G-Comp Sway Bar Mount Kit



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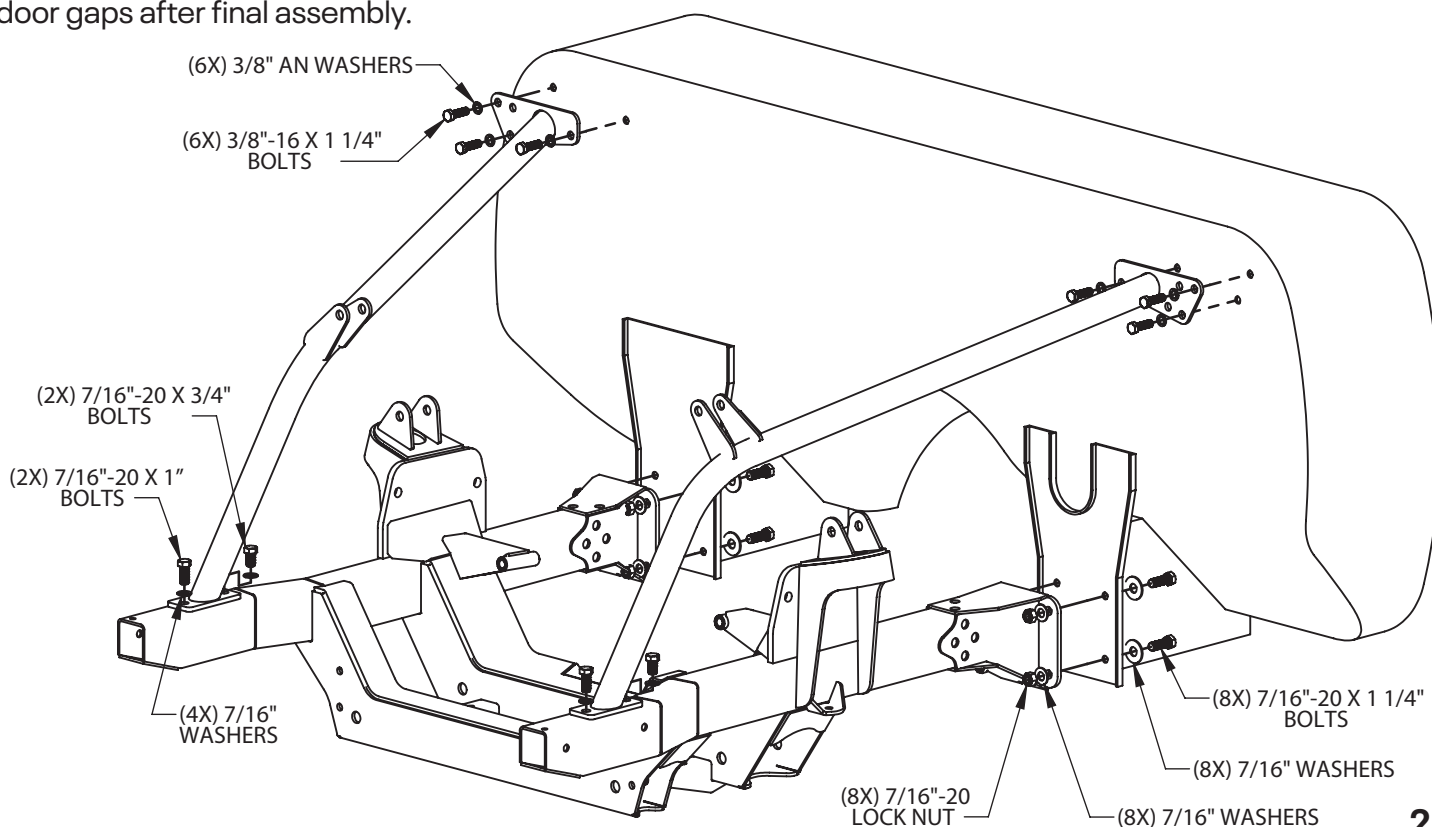
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### G-Comp Front Suspension 62-67 Chevy Nova

1. Support the car on jack stands or hoist. The front stands must be located on the main floor just behind the firewall. Do not support the car on the front sub-frame.
2. Remove the hood, hinges, and front fenders. Disconnect all electrical components from the firewall forward. Remove the front bumper, brackets, grill, and lights. Retain all hardware to be used during re-assembly. Remove the core support and radiator. The lower section of the core support is riveted to the sub-frame. Drill out the rivets and remove the core support. Remove the engine, transmission, and accessories. Remove the OEM steering column. Support the sub-frame with a floor jack. Unbolt the sub-frame from the firewall and lower it down until the weight is supported by the front tires. The sub-frame with the inner fenders can now be rolled out of the way.
3. Install the G-Comp sub-frame. Using a floor jack, raise the new G-Comp sub-frame into position, lining up the holes in the sub-frame with the holes in the firewall. Bolt the sub-frame to the firewall using the eight supplied 7/16"-20 x 1-1/4" bolts, washers, and lock nuts. **NOTE:** The bolts and washers will need to be installed from the back side of the fire wall. **DO NOT FULLY TIGHTEN THESE BOLTS AT THIS TIME.** Support the front of the sub-frame with jack stands and remove the floor jack. Install the support tubes to the sub-frame using two 7/16"-20 x 1" and two 7/16"-20 x 3/4" bolts and four AN washers. Use the shorter (3/4" long) bolts behind the support tubes and the longer (1" long) bolts on the front side. **DO NOT FULLY TIGHTEN YET.** Install the support tube to the fire wall with the six 3/8"-16 x 1-1/4" bolts and AN washers. You can now fully tighten the sub-frame and support tube bolts. **NOTE:** upper support firewall shims can be used to set your door gaps after final assembly.



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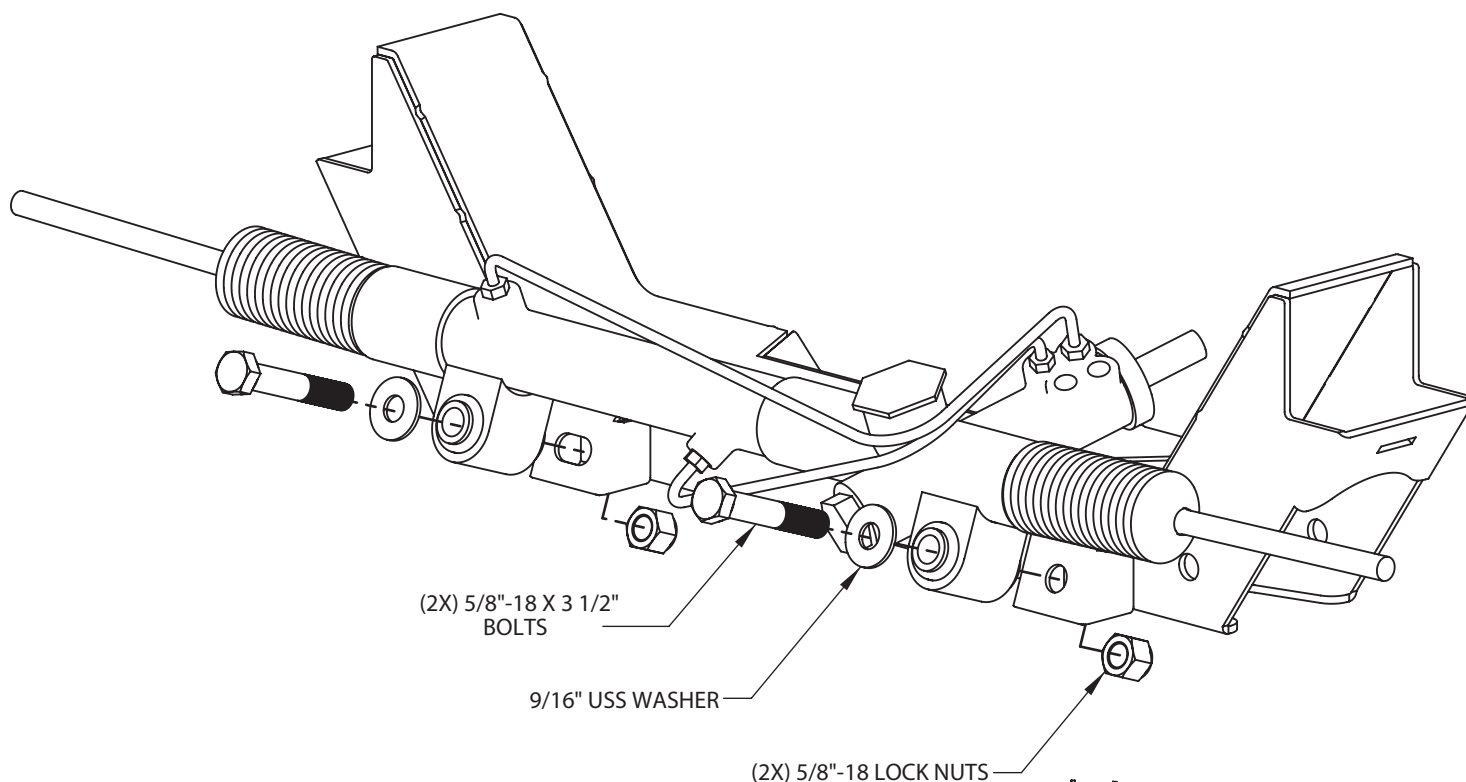
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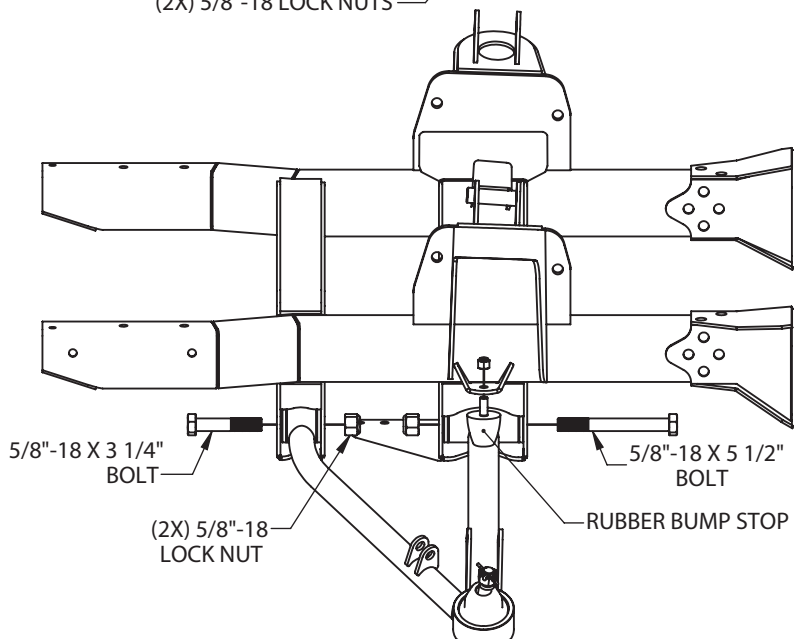
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### G-Comp Front Suspension 62-67 Chevy Nova

- 4. Steering Rack.** This G-comp front suspension kit is designed to use a narrowed thunderbird style rack. Install the steering rack as shown, using the two 5/8"-18 x 3 1/2" bolts, washers and lock nuts.



- 5. Install the lower control arms into the crossmember.** Align the control arm bushings with the lower control arm holes in the cross-member. The front bolts, 5/8"-18 x 3-1/4" are to be installed from the front side. The rear bolts, 5/8"-18 x 5-1/2" are to be installed from the rear. Install the 5/8"-18 lock nuts and tighten. Install the lower control arm bump stops to the sub-frame using the supplied 3/8" lock nuts as shown.



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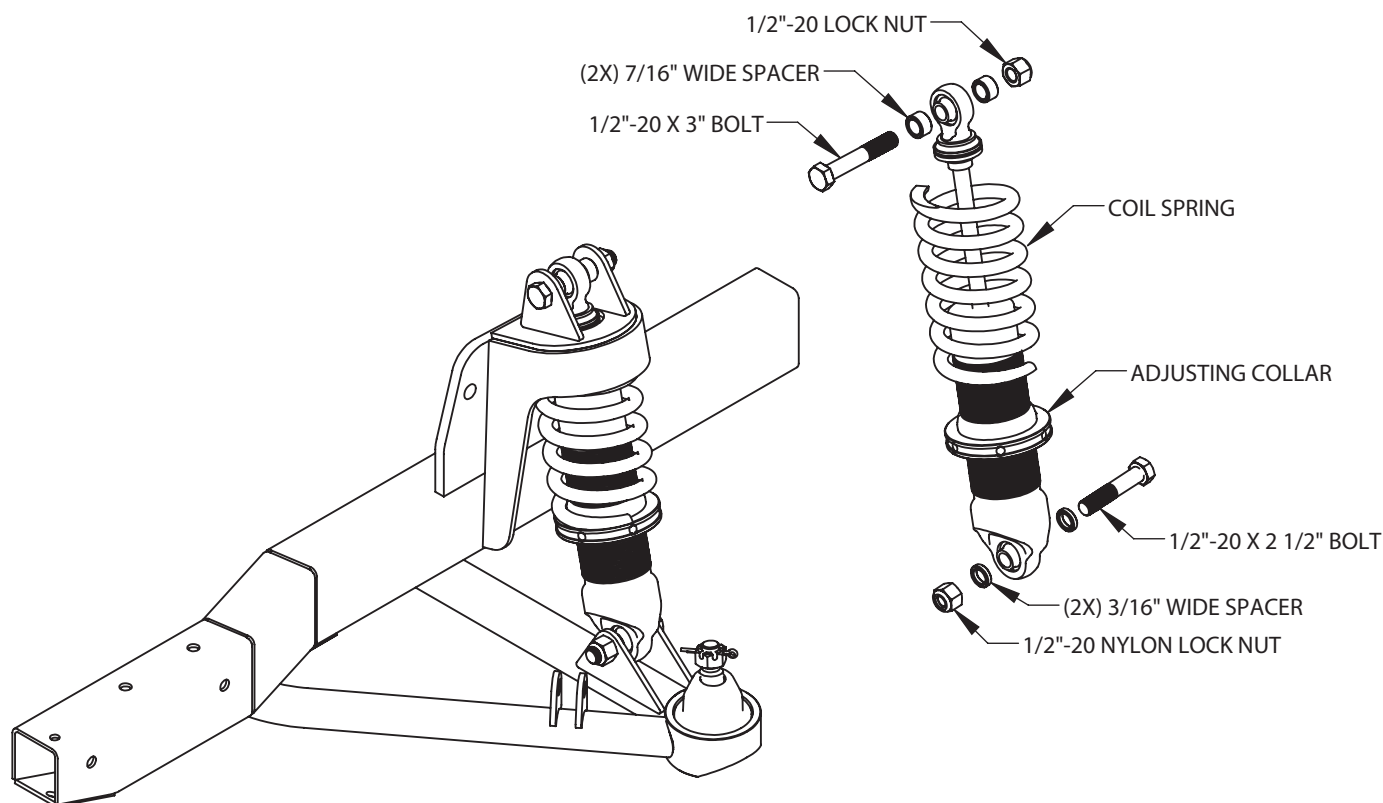
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### G-Comp Front Suspension 62-67 Chevy Nova

**6.** Install the shocks. This procedure may vary slightly depending on the shocks used. Spin the adjusting collar onto the threaded shock body. Adjust the collar all the way to the bottom of the threads. Install the spring over the shock body. **NOTE:** The G-Comp sub-frame has the upper spring retainer built into the sub-frame so the upper coil-over shock spring retainer is not used. Using the 1/2"-20 x 2-1/2" bolt and two 3/16" wide spacers, install the shock into the lower mount on the control arm. Secure it with a 1/2"-20 lock nut. Fully extend the shock and raise the lower arm so the upper shock mount and spring align with the shock mount and spring pocket on the sub-frame. Install the 1/2"-20 x 3" upper shock bolts and 7/16" wide spacers. Secure it with a 1/2"-20 lock nut. **NOTE:** This kit is designed to use shocks with a compressed length of 10" and an extended length of 14". Shock ends should be 1/2" bearings with a mounting width of 1". For recommended part numbers, please visit our website or contact one of our tech experts.



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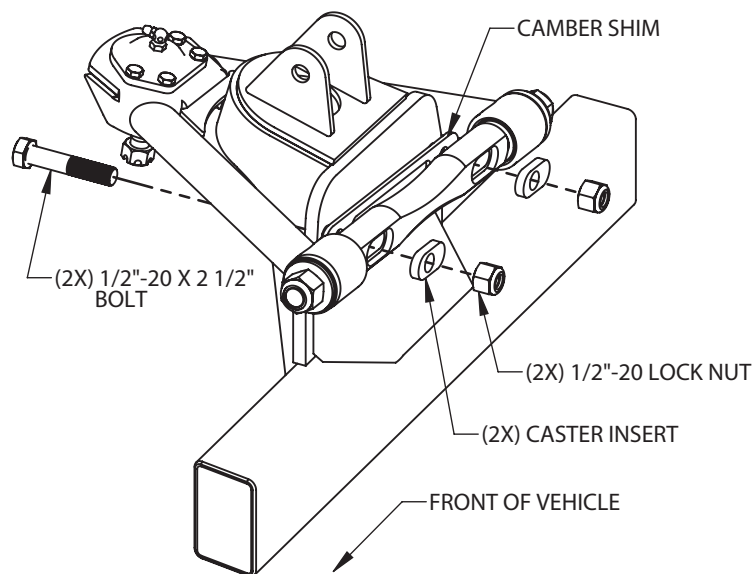
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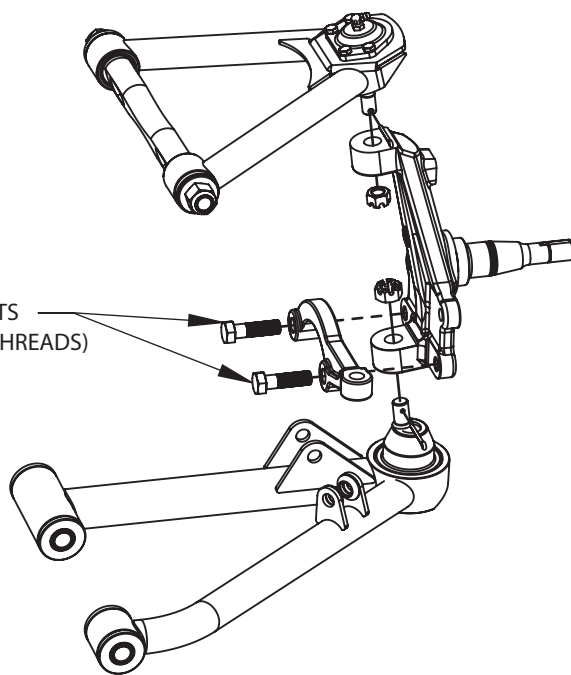
### G-Comp Front Suspension 62-67 Chevy Nova

**7.** Mount the upper control arms to the sub-frame using the 1/2"-20 x 3" bolts and lock nuts. Rotate the cross shafts so the caster shim pockets are facing toward the center of the vehicle. Install the bolts through the caster shims, cross shafts, and the sub-frame as shown. Then secure with the 1/2"-20 locknuts. For initial installation, install the #2 caster shim with the hole positioned to the front of the pocket. This should give a good initial starting point for alignment.



**8.** Install the spindles and steering arms. Place the ball joint boots over the ball joints and install the spindle onto the lower ball joint. Install and tighten the supplied castle nut. Repeat with the upper ball joints and install the cotter pins. Bolt the steering arms to the spindles using the 1/2"-20 x 1-3/4" bolts. NOTE: Make sure to use Loctite on the threads.

1/2"-20 X 1.75 BOLTS  
(USE LOCTITE ON THREADS)



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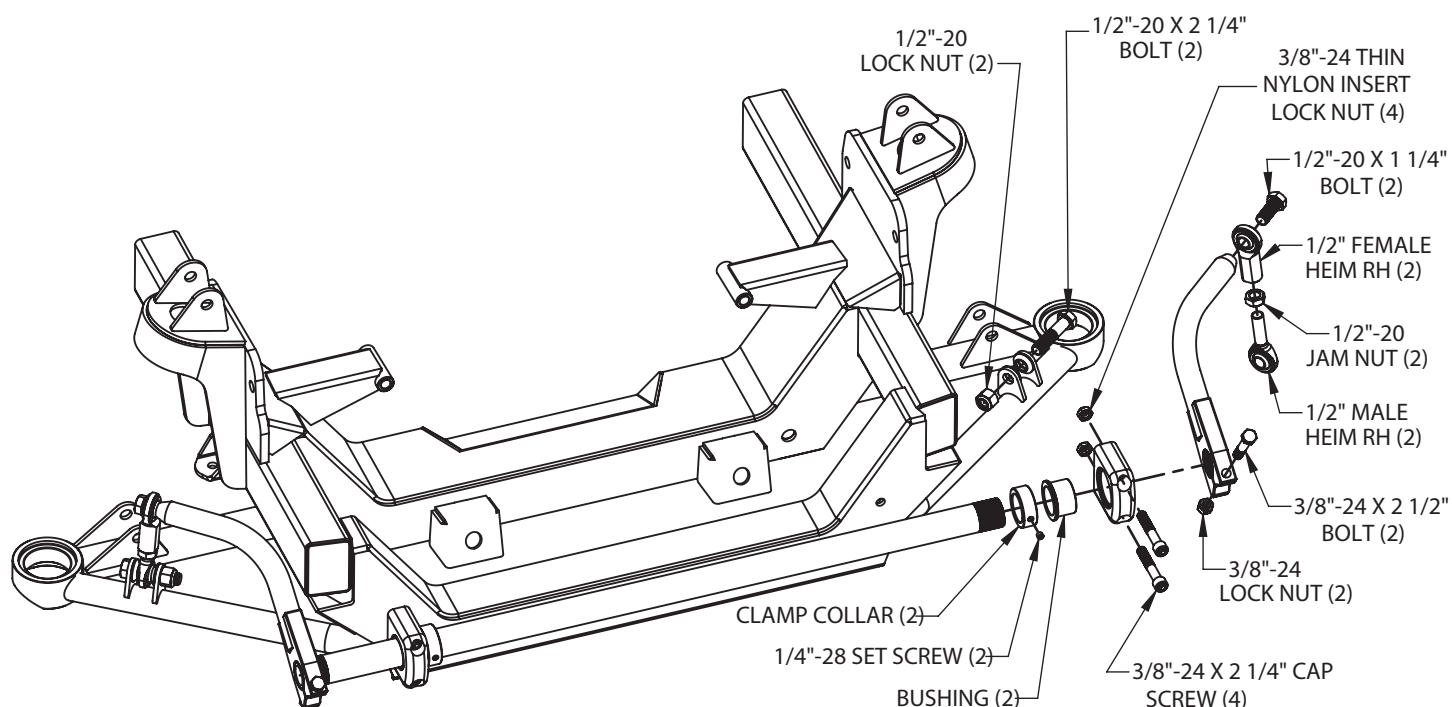
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### G-Comp Front Suspension 62-67 Chevy Nova

**9.** Install the outer tie rod ends and jam nuts onto the inner tie rods of the rack. Thread both tie rod ends on equally. Attach the tie rod ends to the steering arms using the castle nuts supplied with the tie rod ends. Tighten and install the cotter pins. Final alignment is to be done at a later time.

**10.** Sway bar assembly: Press the bushings into the aluminum pillow-blocks and install the pillow-blocks to the front crossmember with the bushing shoulder to the inside. Use the four 3/8"-24 x 2-1/4" socket head cap screws and secure them with the 3/8"-24 thin lock nuts. Slide the sway bar through the bushings, installing the two clamp collars to the inside of both pillow blocks. Center the sway bar between the pillow blocks. Slide one clamp collar up against the bushing shoulder in the pillow block and tighten the set screw. Slide the second clamp collar up to the opposite bushing in the pillow block, leaving about .075" of side clearance between the clamp collar and the bushing. Tighten the set screw. **NOTE:** A nickel is about .075" thick and can be used as a spacer between the clamp collar and the bushing to provide the proper side clearance. Assemble the sway bar links as shown, leaving roughly 1/4" of threads showing. Slide the sway bar arms onto the splined ends of the sway bar aligning them flush with the end of the bar. Make sure they are parallel or "clocked" to one another, then tighten the 3/8"-24 x 2-1/2" pinch bolts and lock nuts. Slide the 1/2"-20 x 1-1/4" bolts through the female heim joints, and thread them into either end of the sway bar arms, making sure to use Loctite on the threads. Mount one of the lower links into the bracket on the lower control arm, using 1/2"-20 x 2-1/4" bolt and secure it with the 1/2"-20 lock nut. Leave the bolt out of the lower link on one side at this time. The second bolt/nut will be installed after the ride height is set and the car is sitting on level ground. This will ensure that there is no preload on the sway bar at ride height.





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### G-Comp Front Suspension 62-67 Chevy Nova

- 11.** Install the brake kit to the spindle per the instructions included with your brake kit. **NOTE:** For recommended part numbers please visit our website or contact one of our tech experts.
- 12.** Install the engine and transmission. The front jack stands can now be moved to support the front of the new sub-frame. The G-Comp sub-frame was designed to use stock type GM motor mounts (910-18012) or Speedway's Prothane mounts (910-18015). **NOTE:** The original drive train in the 62-67 Nova was offset 1/2" to the passenger side. On the G-Comp sub-frame the drive train is in the center and will require the use of a centered transmission cross-member. An OEM transmission cross member can be modified to work or use one of Speedway's transmission cross-members.
- 13.** Install the tie bar using the 1/2"-20 x 2-1/2" bolt, lock nuts and spacers provided with the kit.
- 14.** Install the core support, radiator, grill and fenders. Check the front fender gaps at the door. It may be necessary at this time to shim the upper support tube mounts at the firewall to align the front fender gaps at the door. This kit contains two thick shims and four thin shims to adjust these gaps. Additional shims can be used if needed. The upper support tube bolts can be fully tightened once the fender gap is set. All accessories and other components can now be installed.
- 15.** The lower control arms should be level, with all the weight on the car. To adjust the ride height, take the weight off the suspension and turn the threaded adjusters on the bottom of the coil over shocks. Turning the adjusters clockwise will raise the ride height. Once the ride height has been set, place the car back down on level ground. Adjust the free heim end on the sway bar link so that it lines up with the bracket in the lower control arm. Keep adjusting the heim end until the remaining 1/2"-20 x 2-1/4" bolt will slide through easily. Secure it with the 1/2"-20 lock nut and tighten.

Set the alignment to the following initial settings:

- 16.** Caster adjustments are made by changing the caster inserts. The caster inserts are identified with numbers indicating the distance of the hole from the center of the insert in 1/8" increments.
- 17.** Camber is adjusted using the included A-arm shim plates. Additional shim plates can be purchased separately if desired, under SpeedwayPart #917-21005. These are available in thicknesses ranging from 1/8" to 1/2".

**Caster = 5°**

**Camber = negative .25°-.5°**

**Toe = 0"-1/8" Toe Out**

# IMPORTANT

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