# **AMC INSTRUCTIONS** INDEPENDENT FRONT SUSPENSION SYSTEMS





1964-69 AMERICAN 1967 MARLIN 1967-69 REBEL 1967-69 AMBASSADOR 1968-70 AMX 1968-74 JAVELIN AMC AUSTRALIA 1970-71 REBEL 1970 REBEL MACHINE 1970-77 HORNET 1970-78 GREMLIN 1974-78 MATADOR 1978-83 CONCORD 1979-83 SPIRIT

Includes Front Sway Bar Kit Installation Instructions

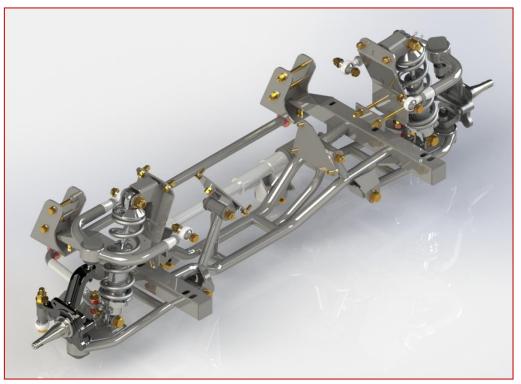


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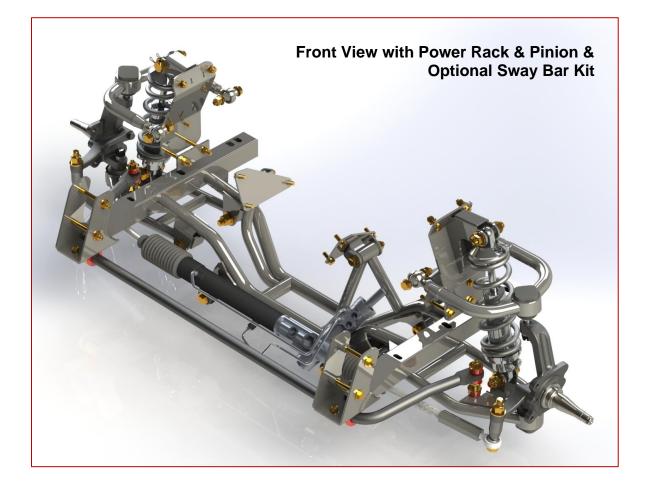


Front View with Manual Rack & Pinion & Optional Sway Bar Kit



Rear View with Manual Rack & Pinion & Optional Sway Bar Kit









# **Installation Instructions**

AMC Independent Front Suspension Systems

#### **IFS System Contents**

- Tubular K-Member (1)
- Upper Control Arms with Custom Ball Joints (2)
- Lower Control Arms with Screwin Ball Joints (2)
- Viking Double Adjustable Coil Over Shocks (2)
- Viking High Tensile Coil Over Springs (2)
- Wilwood Forged Pro-Spindles (2)
- New Flaming River Manual Rack & Pinion (1)
- Polygraphite Offset Steering Rack Bushings (4)

- DD Stainless Steering Shaft (1)
- Steering U-Joints (2)
- Custom Machined Adjustable Tie Rod Kit (1)
- Wilwood Forged Steering Arms (2)
- Upper Control Arm Chromoly Adjustable Rod End Kit (1)
- Custom Upper Coil Over Mounts (2)
- All New Grade 8 Hardware
- Custom Sway Bar Kit (Optional)
- Wilwood Brake Kit (Optional)
- Powdercoat (Optional)

#### Fabrication Note

We have done our best to accommodate multiple engine, transmission, header and oil pan applications, but it would be impossible to test every potential combination. We guarantee the fit of AMC V8 engines. Some applications, however, may require fabrication by the installer due to the poor tolerances to which these early AMC vehicles were built, movement of the unitized body over many years, or mishaps, such as accidents. Other factors affecting some installations are engine / transmission / equipment combinations that may not fit well in the given engine bay due to space or location of accessories, lines and wiring. An example would be a Mopar Gen III 6.4 engine which has a large runner flow control valve on the rear of the intake and sticks out a few inches, creating space issues with the firewall and some accessories. It is the responsibility of the purchaser to make all the adjustments necessary to ensure a safe and proper fit. We encourage you to contact us for free technical support.

#### Call (407) 878-0697 or via email to tech@FreakRide.com



Thank you for purchasing a world-class Control Freak Suspensions<sup>©</sup> Independent Front Suspension System (IFS) manufactured in DeBary, Florida. We believe this system is the best available at any price. As with any aftermarket performance product, this system is recommended for off road use only.

This system is typically subjected to uses that may exceed its mechanical limits, so there is no warranty, expressed or implied. Blue Moon Services LLC and its Control Freak Suspensions brand cannot control how this product is installed or used. By purchasing this product, you are assuming all risks associated with its installation and use. You agree to possess appropriate skills for its installation and use. Blue Moon Services LLC and its Control Freak Suspensions brand, our vendors and suppliers will not be held responsible, liable or accountable for any injury, damage, loss, penalties or fines that occur, directly or indirectly, from the installation and use of this product.

Please note that while installation is relatively easy for those with mechanical skills and moderate experience, novices should employ a professional for installation. Fit is guaranteed on vehicles that are unmolested...that is cars that have not suffered any chassis or front-end damage. Such damage can bend or alter the unitized body or chassis, making installation more difficult and may require chassis adjustment.

Some of the components, such as the control arms, ball joints and coil over shocks, may have already been assembled for you.

#### Read all of the instructions before starting installation.

#### **IMPORTANT NOTES:**

- 1. Installation of this K-Member system is relatively straight-forward. We use many of the same factory bolt holes that hold the stock K-Member/Engine Brace in place. The hardware we supply is all new Grade 8 product but hold on to the original hardware. You never know when you may need it.
- 2. Some parts are threaded to receive bolts. Be careful not to cross thread the bolt threads into these machined parts. We are not responsible for any cross threaded parts.
- 3. We do not provide you with upper control arm bolts. Use the stock bolts because they are aircraft grade. Some vehicles had upper control arm cam (eccentric) bolts, and you can re-use them. If you do not have these bolts, you can get them through your local auto parts store.
- 4. Installation of this IFS system does not require an aftermarket oil pan, except for the 1964-69 Rambler American. If you have an American, or if you wish to put an aftermarket pan on your V8 engine, we recommend the Canton Oil Pan (Part #15-554) and matching Oil Pickup (Part #15-555). These parts are available directly from Canton. Milodon also has similar oil pans.
- 5. It is recommended that the engine and transmission are removed for this installation. At a minimum, employ an engine bridge above the motor to suspend it in place prior to removing the lower engine brace and stock front suspension.



- 6. Use extra caution in jacking and stabilizing the vehicle for this installation. A lift is highly recommended.
- 7. The custom Polygraphite bushings we use on the control arms and engine mounts are readily available from Control Freak Suspensions. While we do not expect these items to wear out, replacements are available.

All of our systems have a unique stamped Serial Number on the underside of the passenger side square rail. Your Invoice also carries the same unique Serial Number.

#### What Else Do I Need?

Rambler American vehicles will need an aftermarket oil pan. See Note 4 above. Just about everything else is included in the purchase price. Our options for most AMC vehicles include Wilwood brakes, sub-frame connectors, 4-link rear coil over suspension systems, sway bar kits, a complete power steering kit with new rack & pinion, steering columns and steering wheels. Ask about all our AMC go-fast stuff.

#### Unpacking the I.F.S.

Your I.F.S. system arrives in a large sealed carton wrapped in blue shrink wrap on a pallet. Some parts may be assembled. Please note that any attached bolts **may not torqued to specification. The control arm ball joints may also be loose if they are installed.** These instructions will aid you through the installation process. If you ordered brakes with your system, the brake kit has its own set of instructions as provided by the manufacturer. Other parts/systems you may have ordered will also have their own instructions

Once the pallet is unwrapped and box contents emptied, study any hand tightened components prior to taking apart. Take pictures to aid you in later assembly. The ball joints may not be torqued to specifications. If you remove the ball joints for any reason, be certain to hand start the threads when reassembling and use anti-seize lubricant. We will not warranty cross-threaded ball joints.

Once all components are removed from the packaging, you are now ready to begin installation preparation.

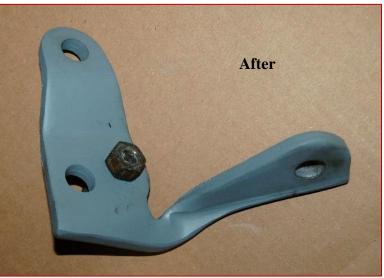
#### Preparing for I.F.S. Installation

- 1. Remove original front suspension assembly, steering box and steering linkage. If you are using a lift, with the help of a few friends and tall jacks, you can remove the whole front suspension system as a unit. Be careful...it is heavy and bulky. Make certain that you leave the steering shaft connected to the steering column. Just disconnect it from the steering gear box to remove the box.
- 2. **Save the upper control arm bolts.** These are aircraft quality hardware and are extremely tough. Today's aftermarket replacements are not as good, so we recommend cleaning the original bolts and re-using them.



- 3. On some cars, there is a small sheet metal shield below the upper control arms that is held in place with a few sheet metal screws. Remove the shields.
- 4. Now is the perfect time to clean up the vehicle underside and engine bay of debris, oil or other unsightly elements.
- 5. Examine the front rails on the car. Over the years, the vehicle may have been incorrectly jacked up in some areas which can slightly "mushroom" or otherwise move the rails slightly out of line. This is an opportunity to straighten or adjust the rails prior to putting the cage in place. Please note that the tolerances to which 1960's unified body vehicles were manufactured often varied by as much as <sup>1</sup>/<sub>4</sub>" on each side. Our cage mounts are designed to accommodate slight deficiencies.
- 6. If you have a manual transmission vehicle, you will need to trim the bracket holding the pivot ball for the clutch rod. Mark the bracket and cut as shown in the pictures below. Reinstall the cut bracket with the original bolts.







#### Installation of the I.F.S.

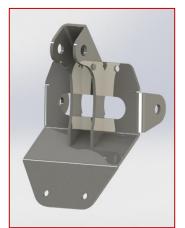
1. With the assistance of a helper, place the K-Member up to the rails. Push upwards so the mount holes line up. You will be using the six bolts provided to mount the cage to the chassis using the three factory holes. NOTE: The cage for the American requires drilling a new front mount hole. You have been provided with a <sup>3</sup>/<sub>4</sub>" x 2-1/2" steel sleeve that will be inserted into the <sup>3</sup>/<sub>4</sub>" hole you will drill as the front mounting hole. The sleeve will prevent crushing of the rail when the bolt is torqued down.



Picture Note: Some brackets may differ from model to model, so this may not be exact for your application

- 2. Once in place, hold the cage in place with the aid of a helper or a jack. Loosely install the six bolts. The front hole is either 5/16" or 3/8", the middle hole is ½" fine thread and the rear hole is a ½" or 7/16" through hole using the 6" bolt inserted from the bottom. Center the cage by lining up the square tube mounts to the chassis rail. Torque to spec as provided on Page 25 of this booklet.
- 3. With the K-Member in place, locate the left and right upper coil over mount plates. Depending on your vehicle and IFS system, the upper coil over mounting plates will differ:





For most Trunnion vehicles (1969 and earlier), each plate

has a set of tabs that slide into the upper control arm mounting location. There is no left or right plate, except on 1970+ vehicles. Put the plate into place and run two upper control arm bolts through the tabs to hold the plate in place. With a 3/8" drill bit, drill through the frame rail using the existing holes as a guide. Once through, install the pillow block bracket on the driver side and the flat bar on the passenger side with the provided 3/8" bolts, washers and Nylock nuts. Now drill the upper holes and install the bolts, washers and nuts. **NOTE: 1967-69 Rebel & Ambassador, and 1967 Marlin vehicles have a 3/16" thick shim that slips between the upper part of the mount and shock tower.** 



# The Rambler American uses an upper shock mount plate with ears, but there is a left and right side. Each is marked.

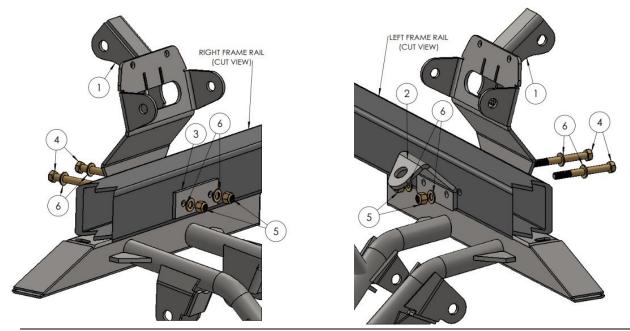
**For Non-Trunnion vehicles (1970 & later),** there is a left and right upper coil over mounting plate, with the arrow facing the front of the car. You will notice the plate has five holes with one of them being out of line with the others. This is an alignment hole with an existing bump-stop bolt on the chassis. Mount the plate to the bolt to align. Once aligned, drill the holes with a 3/8" drill bit. Drill through the frame rail using the existing holes as a guide. Once through, install the pillow block bracket on the driver side (as shown) and the flat bar on the passenger side with the provided 3/8" bolts, washers and Nylock nuts. Now drill the upper holes and install the bolts, washers and nuts.



LEFT SIDE

PARTS & HARDWARE			
ITEM PART NUMBER DESCRIPTION QU		QUANTITY	
1	-	UPPER COILOVER MOUNT - LEFT	1
2	-	UPPER COILOVER MOUNT - RIGHT	1
3	IFS-1629	PILLOW BLOCK BRACKET	1
4	IFS-1630	ANTI-CRUSH BRACKET	1
5	37C350HCS8Z	3/8" - 16 x 3.50" HEX HEAD BOLT GR8 YZ	2
6	37CNN8Z	3/8" - 16 NYLOCK NUT GR8 YZ	2
7	37CNWSHZ	3/8" SAE FLAT WASHER	4





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- 4. Tighten the bolts. Install the <sup>3</sup>/<sub>4</sub>" x <sup>3</sup>/<sub>4</sub>" Heim Joint provided into the pillow block bracket and hand tighten the nuts. **You will need to adjust this later.** On the previous page is an exploded view of the upper shock mounts and hardware.
- 5. Locate left and right Lower Control Arms. Ball joint installations require anti-seize compound on the screw-in ball joint threads. WE DO NOT WARRANTY CROSS-THREADED BALL JOINTS. The lower control arms are not universal. The coil over mounting tabs on the top of the lower control arms go towards the rear of the vehicle, and the single sway bar mounting hole is on the front of the coil over mounting plate. The Control Freak Sticker (if applied) is designed to face forward. Place each control arm in place and install the supplied bolts. Snug the bolts but do not torque them yet.

# **NOTE:** Some of the mounts may appear a little tight when installing a part with a bushing installed. You must grease the outside of the bushing and work into place. You may need to use a rubber mallet to assist you.



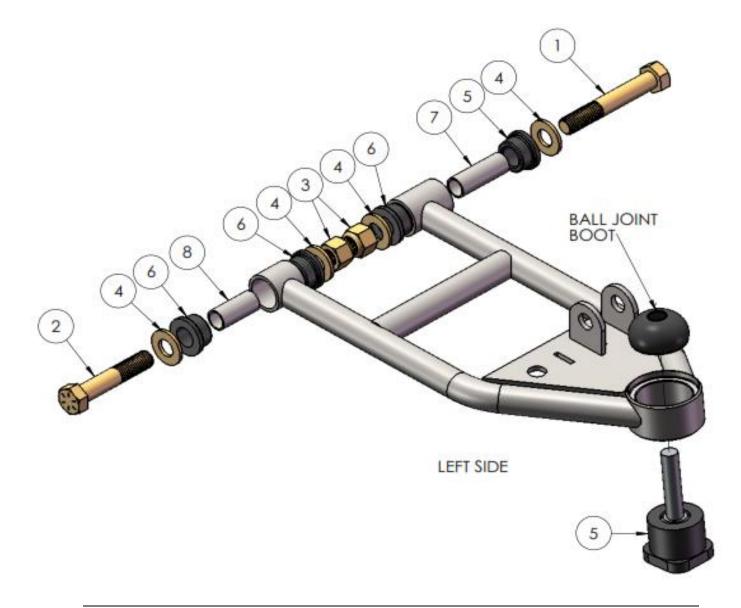
# **NOTE: Exploded views of the upper and lower control arms are on the following pages**

6. Locate the left and right Upper Control Arms. Each has a small stamped "L" or "R" on the face of the ball joint sleeve. It is visible through the powder coat. "R" refers to the passenger side and "L" refers to the driver side. The letters will be right side up when installed. If the letters are upside down, the arms are incorrectly installed. Ball joints may have been installed, but if you need to install them, coat the ball joint sleeve with anti-seize compound and carefully hand screw the ball joint into the spindle. Once seated, torque to specification on Page 25 of this booklet. WE DO NOT WARRANTY CROSS-THREADED BALL JOINTS.

Revised 4-2023



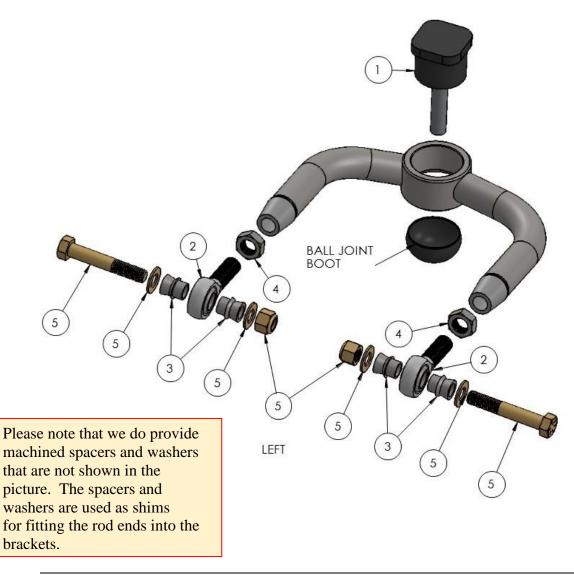
LCA HARDWARE			
ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	62C400HCS8Z	5/8" - 11 X 4.00" HEX HEAD BOLT GR8 YZ	2
2	62C325HCS8Z	5/8" - 11 X 3.25" HEX HEAD BOLT GR8 YZ	2
3	62CNN8Z	5/8" - 11 NYLOCK NUT GRADE 8	4
4	62NWSHZ	5/8" SAE FLAT WASHER	8
5	K-772	THREADED BALL JOINT	2
6	60348-BL	LOWER CONTROL ARM BUSHING	8
7	IFS-1611	REAR BUSHING SLEEVE 0.75" X0.058" DOM CL: 2.180"	2
8	IFS-1612	FRONT BUSHING SLEEVE 0.75" X0.058" DOM CL: 1.673"	2





7. Each upper control arm is held in place with two stock bolts (cam, or eccentric, bolts in some cases). Install the bolts and snug them, but do not yet torque the bolts. An exploded view of all components is below.

UCA HARDWARE			
ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	20034-2LF	BALL JOINT	2
2	XMR-10	5/8" CHROMOLY ROD END - 5/8"-18 RH THREAD	4
3	HMS 08-10	HIGH MISALIGNMENT SPACER	8
4	62FNFJ5Z	5/8"-16 JAM NUT GR8 RH THREAD	4
5	STOCK BOLTS & WASHERS	STOCK 1/2" BOLTS 1/2" WASHERS (CAM BOLTS ON SOME MODELS)	4
	STOCK WASHERS	STOCK 1/2" WASHERS (CAM BOLTS ON SOME MODELS)	8

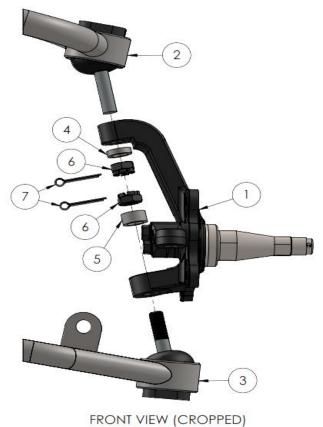




8. Unpack each Wilwood Pro Spindle with steering arm. There is no left or right spindle. Install the lower control arm into the spindle first. Place the <sup>1</sup>/<sub>2</sub>" supplied spacer onto the ball joint followed by the castle nut. Hand tighten the castle nut on the lower ball joint. Next install the upper ball joint into the spindle. Place the 1/4" supplied spacer onto the ball joint followed by the castle nut. Hand tighten the castle of the castle nut. Hand tighten the castle nut. Hand to the spindle spacer onto the ball joint followed by the castle nut. Hand tighten the castle nut. Repeat on the other side of the car. Once both spindles are in place, torque the castle nuts to the specs located on the back page of this booklet. Install the cotter pins once the castle nuts are torqued.



PARTS & HARDWARE			
ITEM	DESCRIPTION	QUANTITY	
1	WILWOOD PRO SPINDLE	1	
2	UPPER CONTROL ARM & BALL JOINT	1	
3	LOWER CONTROL ARM & BALL JOINT	1	
4	UPPER BALL JOINT SPACER – 0.20" THICK	1	
5	LOWER BALL JOINT SPACER – 0.50" THICK	1	
6	9/16" CASTLE NUT	2	
7	COTTER PIN	2	





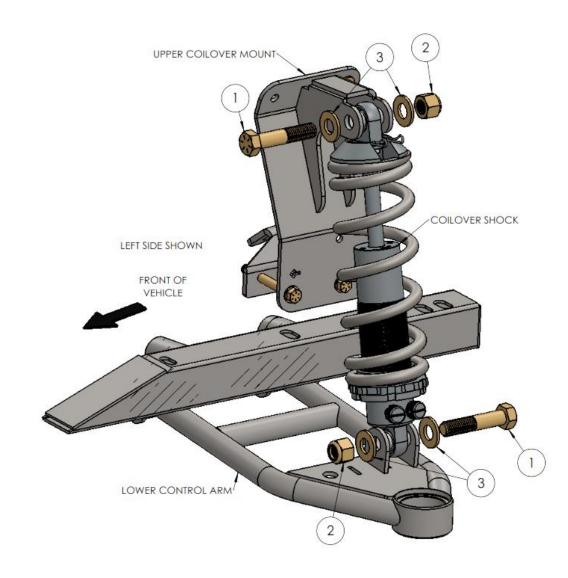
9. Attach the steering arm to each spindle on the inside face of the spindle with the supplied bolts and spacers. The steering arm should face forward. Torque to the specifications on Page 25.



10. Unpack each coil over shock and install, adjustment valve-side down. Prior to installation, and after installing the spring, you will screw the coil over adjustment nut up until snug and hand tightened. This is a perfect starting point for setting ride height. Install the lower mount first and torque the bolt to spec as provided on the back page of this booklet.

11. With the aid of a jack placed under the spindle and lower control arm, align the upper coil over hole to the hole in the upper coil over mount. Install the bolt and torque to the bolt to spec as provided on the back page of this booklet. Now you can torque all of the upper and lower control arm mounting bolts to the specs provided on Page 25.

COILOVER MOUNTING HARDWARE			
ITEM	PART NUMBER	DESCRIPTION	QUANTITY (PER SYSTEM)
1	62C300HCS8Z	5/8" - 11 x 3.00" HEX HEAD BOLT GR8 YZ	4
2	62CNN8Z	5/8" - 11 NYLOCK NUT GR8 YZ	4
3	62NWSHZ	5/8" SAE FLAT WASHER	8



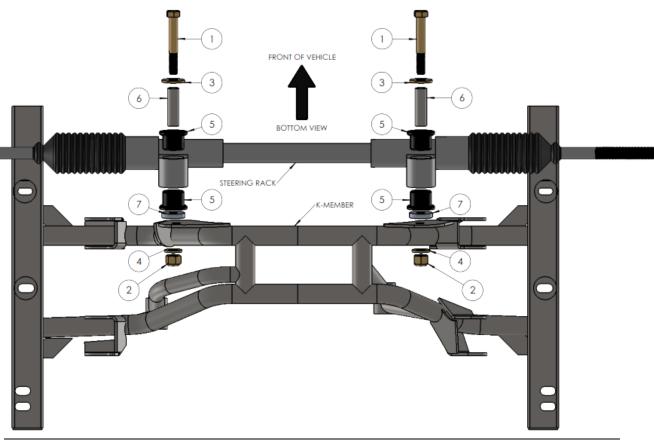
control freak



12. If you ordered a power rack & pinion, remove the sleeves and bushings installed in the rack. You will replace them with the offset bushings & sleeves provided in the Bolt Kit.

Place the Rack & Pinion into position, making certain the bushings have been greased and installed, and the steel sleeve is greased and placed in the bushings. Place the rack up to the installed K-Member mounts. Torque to spec as provided on the back page of this booklet. It is important to center the rack at this point. Turn the pinion all the way to the left and then count the number of turns while turning to the right. The center is half of the turns. Set the rack in the centered position before attaching any of the rod ends. Go to the next page for a picture of how to index the offset bushings.

STEERING RACK MOUNTING HARDWARE			
ITEM	PART NUMBER	DESCRIPTION	QUANTITY (PER SYSTEM)
1	56C475HCS8Z	9/16" - 12 x 4.5" HEX HEAD BOLT GR8 YZ	2
2	62CNN8Z	9/16" - 12 NYLOCK NUT GR8 YZ	2
3	62NWUHZ	9/16" USS FLAT WASHER	2
4	62NWSHZ	9/16" SAE FLAT WASHER	2
5	U-61110BL	OFFSET STEERING RACK BUSHINGS	4
6	IFS-1799	BUSHING SLEEVE 3/4" x 0.083" DOM CL: 2 + 7/16"	2
7	ACC-9007	STEERING RACK SPACER - 0.3" THICK	2





13. The pictures below indicate how the offset steering rack bushings should be inserted and indexed for both power and the manual rack & pinion. The indexing is important in order to ensure the rack is properly centered there will not be any bump-steer in the system.







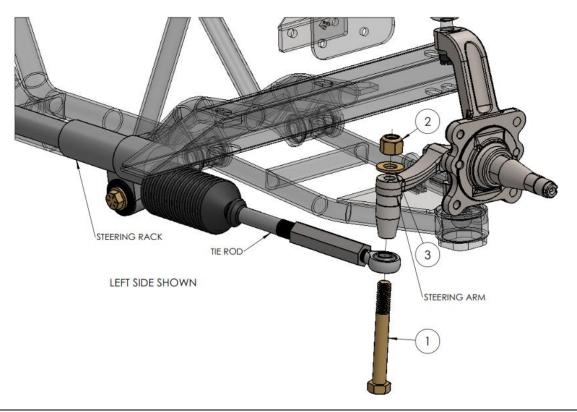


14. The picture to the left shows the steering shaft and U-joints already in position. Remember, there's plenty of adjustment to enable the steering without any bind.

15. Install the jam nuts and steering tie rod adjusters onto the steering arms if not already attached. Thread the rod ends into the steering tie rod adjuster if not already done and connect to the spindle-mounted steering arm on each side. The threaded steering rods of the rack and pinion my need to be trimmed at this point. For power rack, trim  $\sim^{3}/4$ "

off each end. For manual steering, trim 5/8" off each end. Once trimmed, hand tighten the steering arms adjusters as these bolts will be loosened to do a final alignment. Once an alignment is completed, torque to spec as provided on Page 25.

	TIE ROD MOUNTING HARDWARE			
		QUANTITY (PER SYSTEM)		
1	62C475HCS8Z	5/8" - 11 x 4.75" HEX HEAD BOLT GR8 YZ	2	
2	62CNN8Z	5/8" - 11 NYLOCK NUT GR8 YZ	2	
3	62NWSHZ	5/8" SAE FLAT WASHER	2	

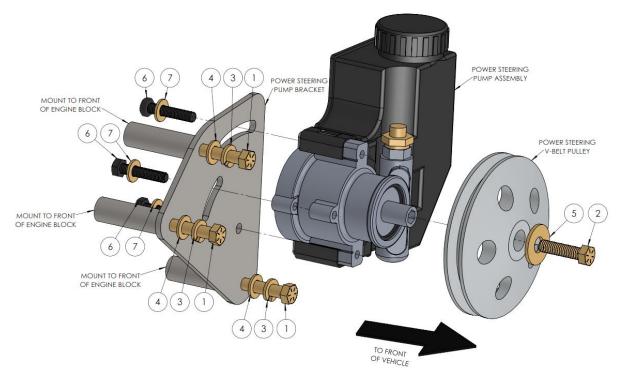




16. Install the appropriate splined steering joint onto the rack and pinion steering stub shaft. This is Flaming River FR1709DD for manual steering and FR1715DD for power steering. Cut the supplied steering shaft to length so it attaches to the steering joint and goes through the <sup>3</sup>/<sub>4</sub>-inch rod end (also called the pillow block) and attaches to the black double <sup>3</sup>/<sub>4</sub>" DD to <sup>3</sup>/<sub>4</sub>" DD joint (Flaming River Part # FR2805).

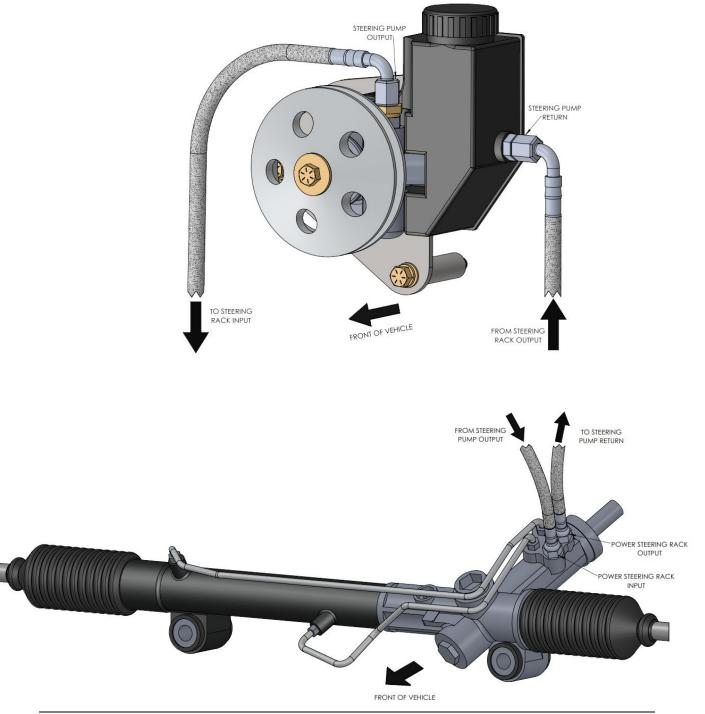
The second steering joint goes from the black double  $\frac{3}{4}$ " DD to  $\frac{3}{4}$ " DD joint (Flaming River Part # FR2805) to the factory  $\frac{3}{4}$ " DD steering Shaft that is attached to your steering column. You will have to determine where this shaft needs to be cut to accommodate the new connections. Look, we all know men are experts on estimating and measuring, but for this next step it is a great idea to **MEASURE THREE TIMES** and cut once. And when you make the cut, leave a little bit extra just in case. You can always cut material away, but you cannot put it back on. The length of each of these pieces varies from vehicle to vehicle.

POWER STEERING PUMP MOUNTING			
ITEM	PART NUMBER	DESCRIPTION	QUANTITY (PER SYSTEM)
1	37C325HCS8Z	3/8" - 16 x 3.25" HEX HEAD BOLT GRADE 8 YZ	3
2	37C150HCS8Z	3/8" - 16 x 1.50" HEX HEAD BOLT GRADE 8 YZ	1
3	37LOHZ	3/8" LOCK WASHER	3
4	37NWSHZ	3/8" SAE FLAT WASHER	3
5	37NWUHZ	3/8" USS FLAT WASHER	1
6	.8C40BTAZ/8.8	M8 - 1.25 x 40mm HEX HEAD BOLT BLACK OXIDE	3
7	31NWSHZ	5/16" SAE FLAT WASHER	3





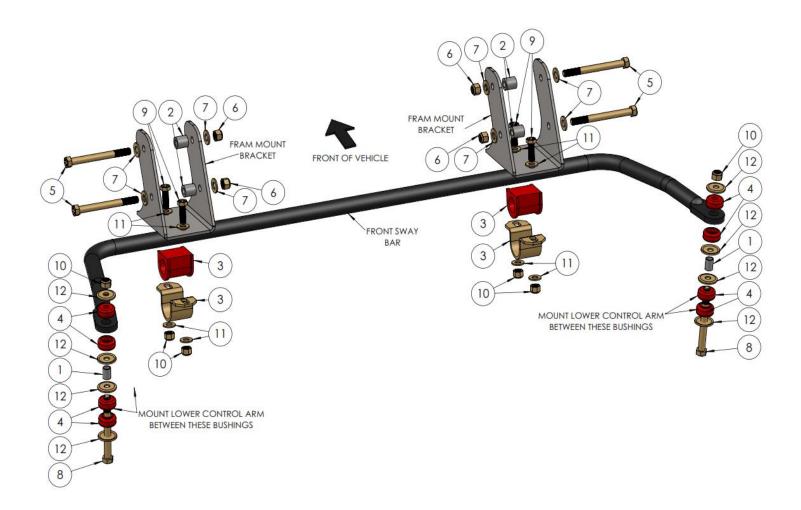
17. If you have purchased the Power Steering system for your suspension system, it will install similarly to the manual rack and pinion. Of course, you will have to run the supplied high and low-pressure hoses to the steering pump. Here's a look at the optional power steering pump & power rack & pinion. The pump is mounted to its custom bracket with the PTFE braided stainless lines running from the pump to the rack





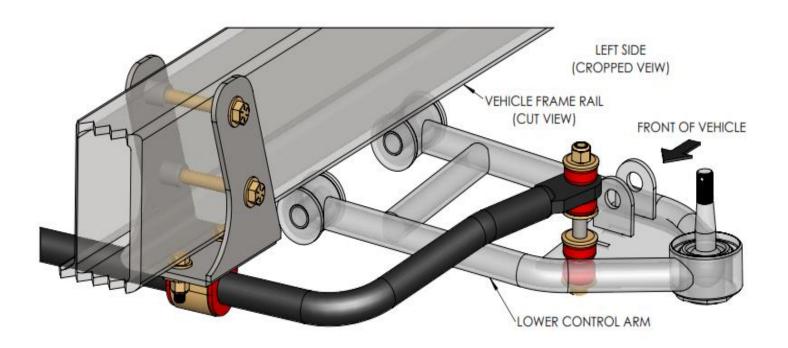
If you have purchased the optional front sway bar kit, now is the time to install it. If not, skip to Step 21.

FRONT SWAY BAR HARDWARE			
ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	IFS-1649	SWAY BAR LINK SPACER	2
2	ACC-1813	FRAME MOUNT SPACER	4
3	ACC-1834	SWAY BAR MOUNT BUSHING & U BRACKET	2
4	U-60352	SWAY BAR LINK BUSHING	8
5	43C425HCS8Z	7/16" - 14 x 4.25" HEX HEAD BOLT GRADE 8 YZ	4
6	43CNN8Z	7/16" - 14 NYLOCK NUT GR8 YZ	4
7	43NWSHZ	7/16" SAE FLAT WASHER	8
8	37C450HCS8Z	3/8" - 16 x 4.50" HEX HEAD BOLT GRADE 8 YZ	2
9	37C100HCS8Z	3/8" - 16 x 1.00" HEX HEAD BOLT GRADE 8 YZ	4
10	37CNN8Z	3/8" - 16 NYLOCK NUT GR8 YZ	6
11	37NWSHZ	3/8" SAE FLAT WASHER	8
12	WASH-1130	3/8" DISHED WASHER	8





**Close-up of sway bar bracket and end link mounting:** 



- 18. Get the sway bar kit parts together and lay them out on the bench. You will have two (2) large brackets in black powdercoat, four (4) small <sup>3</sup>/<sub>4</sub>" long spacers, four (4) 5-inch x 7/16" bolts with nuts and washers, a coated sway bar, two (2) steel sway bar brackets with red bushings, two end link sets already put together, four (4) short 3/8" bolts with nuts and washers, and two tubes of bushing grease. The pictures on the previous page provide a view of the bar, its components and hardware.
- 19. Place the brackets over the front rail with two spacers on the inside of each rail. Line up the existing holes in the chassis and feed the long bolts through the bracket and spacers through to the other side and attach washer and nut on each. Snug them down but do not torque yet.
- 20. Place the sway bar into position and under each bracket. Attach the steel sway bar brackets with bushings to the bar and then align the holes for the short, 3/8" bolts, washers and nuts. Be sure that the bushings are lubricated with the supplied gel, and that the bar is centered. Now attach the end links to the bar ends and through the hole in the lower control arm plate.

Once the end links are in place, tighten all bolts.



21. You can now install brakes and wheels. Use the brake manufacturer instructions to complete the installation. If using large brakes, be certain your wheels will clear the calipers. We recommend using wheels that are 17" in diameter or greater in order to clear large disc brakes (12", 13" & 14" rotors) which may have been supplied as an option with this IFS unit. Make certain to measure for correct spacing on your wheels.

# You are responsible for determining the correct wheel size and backspacing for your application.





- 22. Before lowering the vehicle to the ground, be certain you have tightened all bolts, except for the steering rod ends which should only be hand tight. The alignment folks will take care of tightening those. You can now make adjustments for a visual alignment only. A final alignment can only be accomplished once the vehicle is completed and has all of its components in place.
- 23. When you are ready for a final alignment, our recommended alignment specifications are listed below. Depending on the type of driving you will be doing, specifications will change.
- 24. Street specifications are:
  - a. Caster: +1.5 to +3.5 Degrees. This is dictated by driver feel and what you are most comfortable with. We recommend 2 to 3 degrees of positive caster.
  - b. Camber: -0.125 to -0.250 degrees. Our preference has been -0.125 degrees. Any more than -.500 degrees may result in premature wear on tires.
  - c. Toe: 0 to 1/16"
- 25. Make certain all jam nuts are secured.
- 26. Recheck all fasteners for proper torque.

We strongly recommend that all fasteners are re-torqued between 50 and 75 miles of driving. Your Alignment should also be re-checked after retorqueing all fasteners. Drive carefully.



# **AMC Independent Front Suspension Torque Specifications**

DESCRIPTION	TORQUE SPECIFICATIONS	SPECIAL INSTRUCTIONS
K-Member to Chassis – Three bolts on each side	60 ft-lbs for 1/2" & 7/16" Bolts (30 ft-lbs for the small front bolt)	Med. Strength Thread Locker
Upper Coil Over Mount Through Bolts	50 ft-lbs	
Spindle to Ball Joints	40 ft-lbs	
Lower Control Arm to Cage	70 ft-lbs	Med. Strength Thread Locker
Upper Control Arm to Chassis	70 ft-lbs	
Steering Rack Frame Mounts	30-35 ft-lbs	Med. Strength Thread Locker
Steering Arm to Spindle	45-50 ft-lbs	Med. Strength Thread Locker
Steering Arm to Tie Rod	45 ft-lbs	
Upper Coil Over Mount	50 ft-lbs (Top) 40 ft-lbs (Bottom)	Med. Strength Thread Locker
Lower Coil Over Mount	50 ft-lbs	Med. Strength Thread Locker
Machined Screw-in Upper Ball Joint to Upper Control Arms	90-100 ft-lbs	Anti-Seize
Lower Screw-In Ball Joint to Lower Control Arms	90-100 ft-lbs	Anti-Seize



#### WILWOOD BRAKES

We are a distributor for Wilwood Engineering brakes and accessories, and offer very competitive pricing.

As experts in combining appropriate brakes with our front and rear suspension systems, we will always offer our best advice on appropriate brakes for your vehicle, based on expected usage, wheel size and other factors.

What we cannot control is the final wheel selection you make. We will provide you with brake kit numbers appropriate for your vehicle, wheel size and application, but it is up to you to determine whether the wheels will fit the brakes. Every Wilwood kit has a brake profile providing measurements required for wheel clearance. Before finalizing your wheel purchase, check the brake profile at <u>www.Wilwood.com</u> to be certain it will accommodate your chosen wheel.

If using large brakes, we recommend using wheels that are 17" in diameter or greater in order to clear 13" and larger rotors which may have been supplied as an option with this IFS unit. Make certain to measure for correct spacing on your wheels. We can advise you on appropriate brakes for your vehicle. **BUT**, you are responsible for determining the wheel size and backspacing for your application.



Kit 140-9801-DR



# IMPORTANT

**DISCLAIMER** In an effort to offer our customers value and service, Blue Moon Services LLC d/b/a Control Freak Suspensions (herein referred to as Control Freak) reserves the right to change suppliers, specifications, colors, prices, materials. Each of the previous items is subject to change without notice. Control Freak is not responsible for any typographical errors or misinterpretations. Quantities are limited on some items.

**WARRANTY DISCLAIMER** The purchaser understands and recognizes that racing parts, specialized high performance equipment, and all parts and services sold by Control Freak, are exposed to many and varied conditions due to the manner in which they are installed and used. Control Freak makes no warranties, either expressed or implied, including any warranty of merchantability or fitness for a particular purpose other than those contained in its current catalog with respect to the goods identified on the face of the invoice. There is no warranty expressed or implied as to whether the goods sold hereby will protect purchaser or ultimate user of such goods from injury or death. Control Freak assumes no liability for these suspension products.

**DAMAGE CLAIMS** Always inspect your package upon delivery. Inspect all packages in the presence of the delivery driver. The driver must note any damage. Ask the driver the Carrier's procedures for handling damage claims. You must hold the original box, packing material and damaged merchandise for inspection or the carrier will not honor the claim. Notify Control Freak for instructions on returning damaged goods. Control Freak is not responsible if no notification is given within two (2) days of receipt. **SHORTAGES** Always check the contents of your delivery to insure all the parts that you ordered were received. Please read the invoice and Pack Lists. Double check all packing materials, small items may be wrapped inside with these products. Shortages may occur from damage to the box, so save all packing materials. Inspect the box for holes that would allow parts to fall out. If you are missing any item(s) be sure to check your invoice and/or Pack List for back orders or canceled items before calling the customer service department. If Control Freak has to split a shipment into multiple boxes, packages may be delivered on different days. You need to contact the customer service department within 5 days of delivery to assure the prompt replacement. Control Freak assumes no liability after this period.

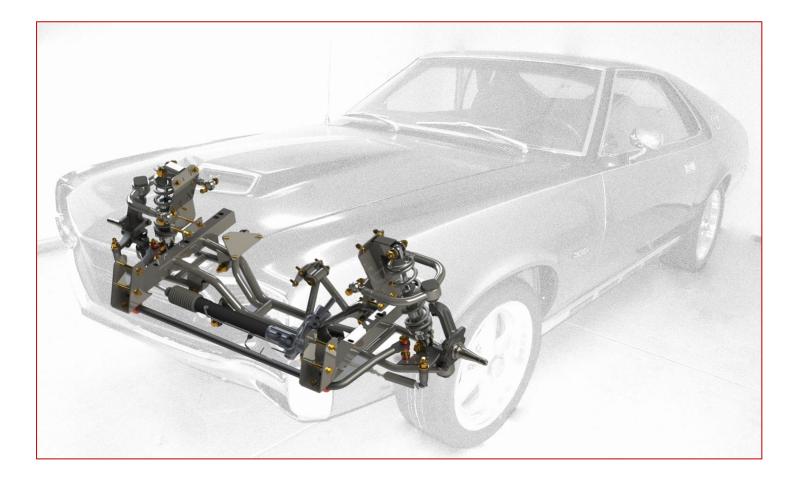
<u>WARRANTY CLAIMS</u> If an item has a manufacturer's warranty as being free from defects we will exchange that item. If the item has been used and you are requesting warranty work, Control Freak will determine the validity of the claim. If you have any questions, please contact customer service.

**<u>RETURNS</u>** Our return policy applies to all suspension systems *except* Independent Front Suspension (IFS) systems. Control Freak wants you to be satisfied with your purchase. If within five (5) days after you receive your shipment you are not satisfied, you may return the item for refund, exchange or credit. **This does not apply to any IFS systems**. All exchanged or returned merchandise must be in original factory condition with no modifications or alterations. Returned merchandise must include all original packaging materials, warranty cards, manuals, and accessories. If the items being returned need to be repackaged there will be a re-packing charge of 15%. Pack the item in a sturdy box and include a copy of your invoice and notify us of the return. You must ship orders back **PRE-PAID. WE DO NOT ACCEPT COD SHIPMENTS**. All exchanges need to have reshipping charges included. Items that are returned after 5 days are subject to 15% restocking charges. **Absolutely no returns on custom built suspension systems or other special-order merchandise. All IFS systems are considered custom builds. All exchange and/or repair is at the discretion of Control Freak Suspensions.** 

Some items may not be street legal in some countries but may be legal for racing vehicles only, which may not be used upon a public roadway.

# **AMC INSTRUCTIONS** INDEPENDENT FRONT SUSPENSION SYSTEMS





# **Control Freak Suspensions**

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