

MOPAR

INSTRUCTIONS

INDEPENDENT FRONT SUSPENSION SYSTEM

control freak
suspensions™

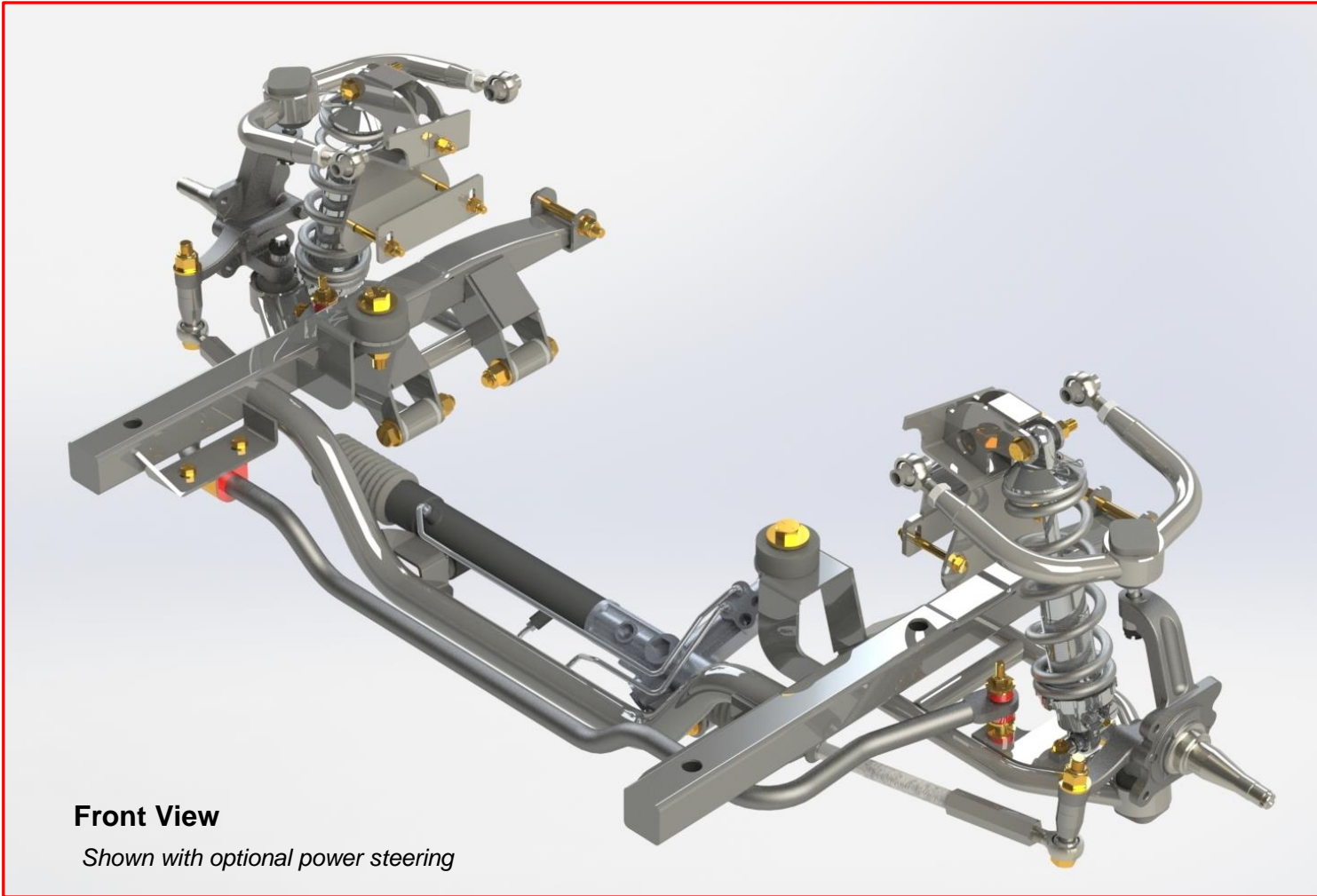
www.FreakRide.com



FOR MOPAR MUSCLE CARS:
1967- 1976 A-Body Dart/Swinger/GTS
1967 – 1976 Valiant
1967 – 1969 Barrcuda
1970 - 1976 Duster
1971 – 1972 Demon
1962 - 1972 B-Body
1970 - 1974 E-Body
Australian A-Body RHD

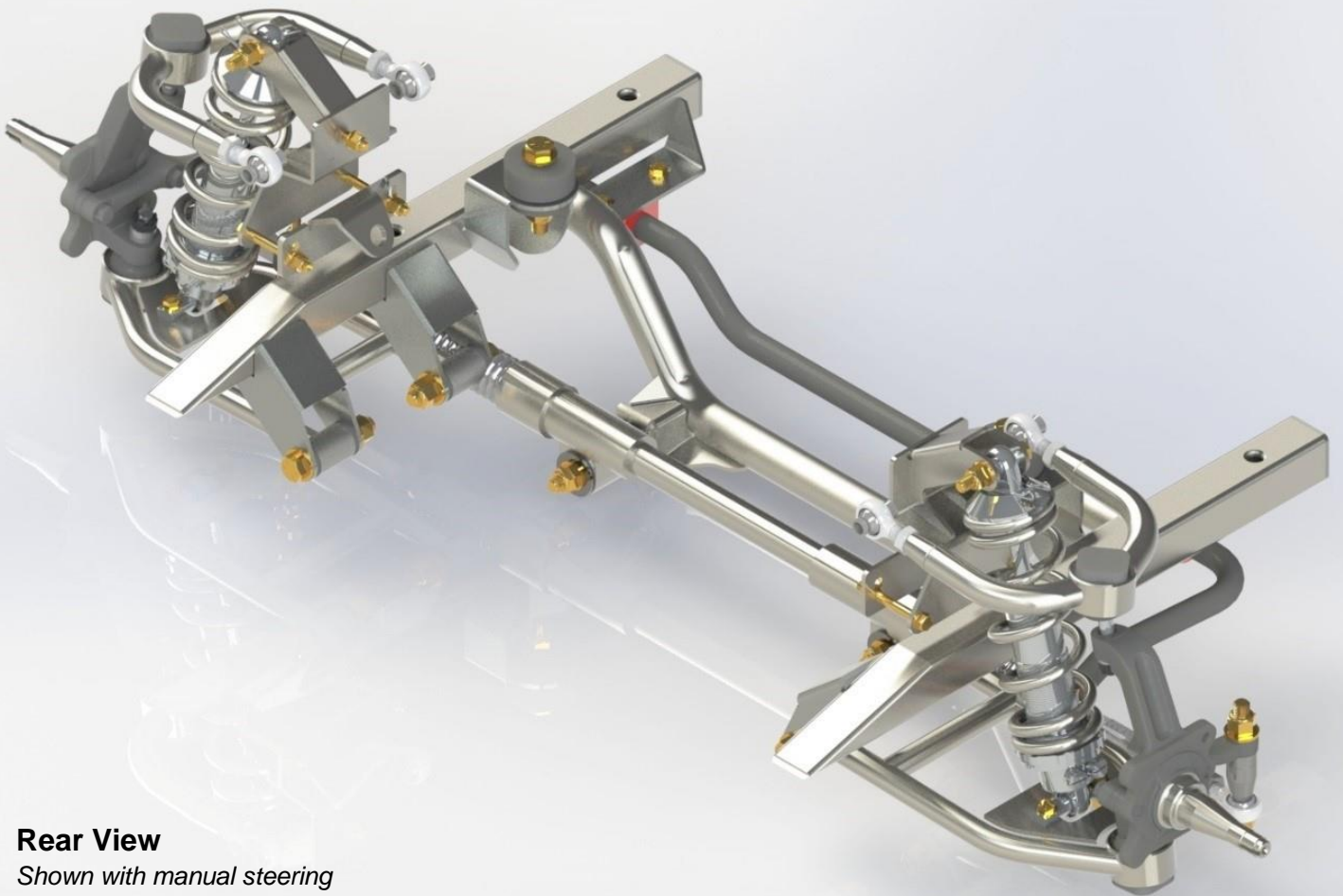
Revised: 11-2023





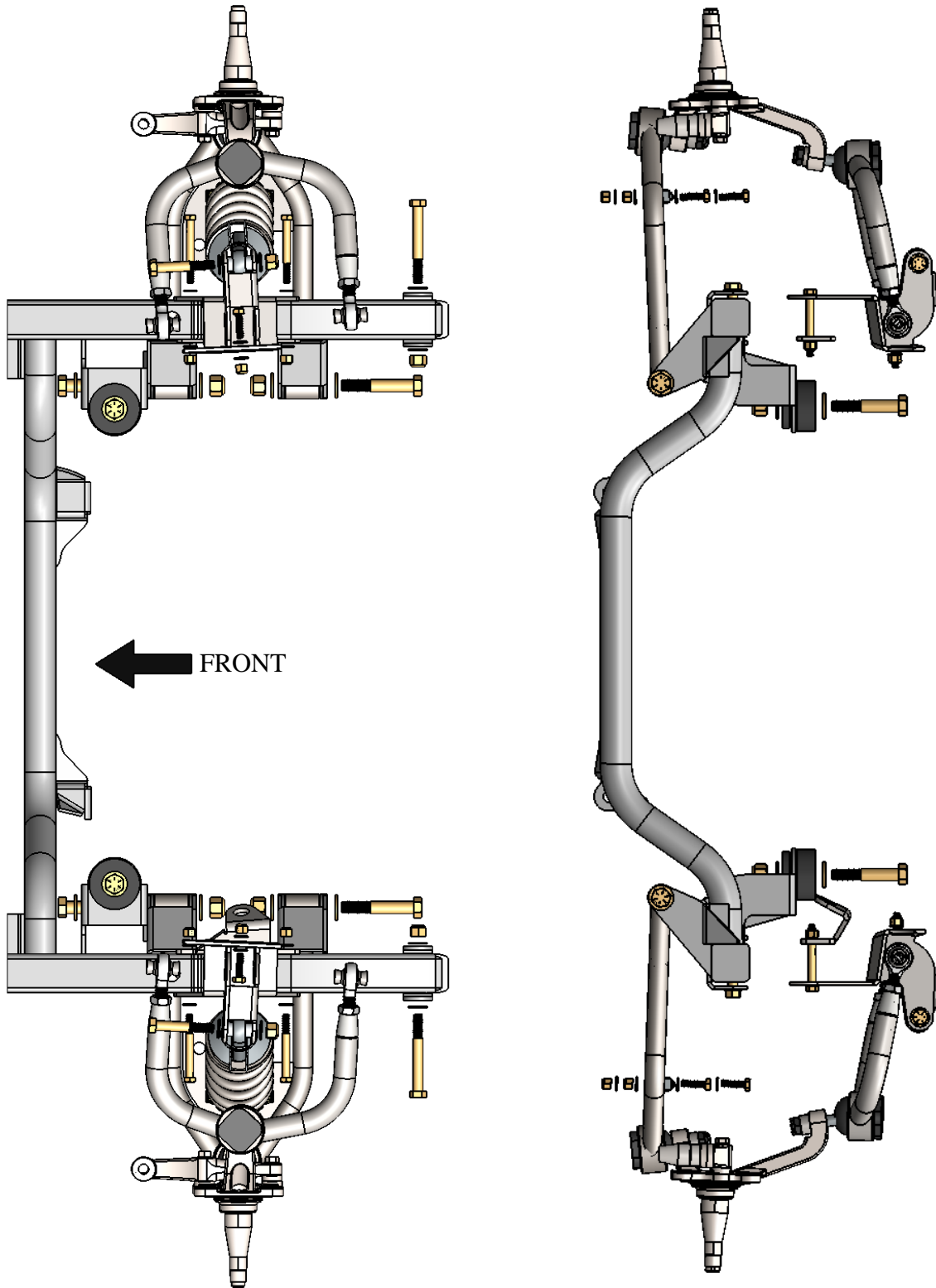
Front View

Shown with optional power steering



Rear View

Shown with manual steering



Installation Instructions

Independent Front Suspension Systems
Mopar Vehicles

IFS System Contents

- Tubular K-Member (1)
- Upper Control Arms Assembled with Ball Joints (2) (*Powder coated Systems Only*)
- Lower Control Arms Assembled with Ball Joints (2) (*Powder coated Systems Only*)
- Viking Double Adjustable Coil-over Shocks (2)
- Viking High Tensile Coil-over Springs (2)
- Wilwood Forged Pro Spindles (2)
- New Flaming River Manual Steering Rack (1)
- Polygraphite Offset Steering Rack Bushings (4)
- Steering Shaft (1), U-Joints (3), Splined Stub (1)
- Upper Control Arms Rod End Kit
- Lower Control Arms Bushings & Sleeves
- Custom Sway Bar with Bushing Kit
- All Grade 8 Hardware
- Brake Kit (If Ordered)
- Powder coat (If Ordered)

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 possible combination. Some applications may require fabrication by the installer due to the poor tolerances to which these early Mopar 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 Gen III 6.4 or Hellcat engine, both of which have a large control valve on the rear of the intake that sticks out more than two 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. You can call direct at 407-696-2772, toll free at 888-325-6462 or via email to tech@FreakRide.com .

Thank you for purchasing this Independent Front Suspension (IFS) system from Control Freak Suspensions®, manufactured in Sanford, 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. It is up to you to determine how the products will be used.

Because this system is typically subjected to uses that exceed its mechanical limits, 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, and agree to have 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 straight-forward 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, making installation more difficult and may require chassis adjustment.

Some components, such as ball joints, may have already been assembled for you.

Read all instructions before starting installation.

IMPORTANT NOTES:

- 1. Installation of this K-Member system is relatively straight-forward. The same four (4) bolts that hold the stock K-Member in place are used to hold the new system in place. Do not throw these bolts away. If you do not have these bolts, contact your local Dodge/Chrysler dealer.**
- 2. Some parts may be threaded to receive bolts. Be careful not to cross thread the bolt 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 cam (eccentric) bolts that are on your vehicle. If you do not have these bolts, you can get them through your local parts store...Raybestos Part # 616-1013**
- 4. It is recommended that the engine and transmission are removed for this installation, but the system can be installed with an engine in place. You will need an engine bridge across the top of the motor to relieve stress and raise it slightly.**
- 5. Use extra caution in jacking and stabilizing the vehicle for this installation. A lift is highly recommended.**

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

Oil Pans

Our Mopar IFS systems **require aftermarket oil pans**. The pan and engine combinations below have been fitted and tested with our Gen II Mopar IFS systems, and these are the oil pans and pickups we recommend:

GEN III HEMI (5.7, 6.1 and 6.4):

- Rear Sump Oil Pan: Control Freak Suspensions Road Race or Prot Touring Pan Kit, with pickup, gasket, bolts, windage tray & dip stick. ACC-MH6.4-KIT



Control Freak Gen 3 Road Race & Pro-Touring Pan

GEN II HEMI (426):

- Milodon 30930 Mid-Sump oil pan with 18335 (1/2-inch) Oil Pickup and Gasket Set



Milodon 30930 Mid-Sump Big Block & 426 Hemi

BIG BLOCK (383, 440):

- Milodon 30930 Mid-Sump oil pan with 18325 (3/8-inch) Oil Pickup and Gasket Set

SMALL BLOCK (340, 360):

- Rear Sump Oil Pan
 - Control Freak Rear Sump Oil Pan 340 M321 Kit w/Windage Tray, Gasket & Pickup
 - Control Freak Rear Sump Oil Pan 360 M322 Kit w/Windage Tray, Gasket & Pickup

**This pan may require side modification for headers to fit correctly depending on headers selected.*



Control Freak Rear Sump Small Block 340 & 360

NOTE FOR HELLCAT MOTORS: The Hellcat motor requires a rear-sump oil pan. They are available through the Mopar Pro Shop in Columbia, SC at 803-461-7700. Ask for Frog...yup, Frog. That's his name.

NOTE FOR POWER RACK & PINION: If you ordered a power rack & pinion, it may arrive with bushings and steel sleeves already installed. They will not work with our system. **Remove the steel sleeves and bushings and use the offset bushings and steel sleeves provided in your bolt kit box.** To remove the 2-part steel sleeves we use channel locks and pull each side out, then push the bushings out.

Reference Materials

Towards the rear of this instruction book are several reference pages, including:

- Motor mount bushing configuration – Page 20
- Power steering installation – Page 21
- Header Identification – Page 22
- Header installation & modification (A-Body only) – Page 23
- Complete bolt identification for this system – Pages 24-25
- Torque specifications for this system – Page 26
- Wilwood Brakes – Page 27
- Right-hand drive steering installation – Pages 28--29

The reference materials will provide you specific instructions in the areas listed. The bolt identification chart easily guides you to what bolts are used for what purpose, just in case you mix a few up during the installation process.

We are always open to hearing from you on how we can improve our instructions to make installation easier. Feel free to contact us with your suggestions and changes by calling 888-325-6462, or email to tech@freakride.com.

Air Conditioner Compressor Note – Gen III Hemi Motors:

Once you mount your Gen III Hemi motor A/C compressor, it will appear that the upper fitting will not fit because the motor mount looks like it is in the way. A 45-degree fitting will work, and based on our experience, it is the only fitting that will work. They are available through Bouchillon Performance, <http://www.bouchillonperformance.com/> Telephone: 843-744-6539

Unpacking the I.F.S.

Your I.F.S. system arrives packaged in a cardboard crate with foam-in-place, strapped to a pallet and wrapped in shrink wrap for protection. If ball joints are installed, do not remove them. They are installed and already torqued by our staff. We will not warranty cross-threaded ball joints. If ball joints are not installed, be sure to use anti-seize on the ball joint sleeve and ball joint prior to installation. Note that the ball joints may be tight due to high tolerance machining and slight welding distortion of the ball joint sleeve. This requires the ball joint to be properly coated with anti-seize and installed with an appropriate ball joint socket.

Be certain to check all contents with the Pack List enclosed in the white envelope. Note any shortages and contact us immediately so we can correct the problem.

Preparing for I.F.S. Installation

1. If your motor is in the vehicle, install an engine bridge above the motor, resting it on the upper shock towers. This will enable you to raise your motor slightly so suspension can be removed.
2. Once the engine is safely braced, you can now remove original K-Member assembly, control arms, spindles, brakes, torsion bars, steering box, steering shaft and steering linkage. You can also remove the engine mounts from the engine block
3. Cut off the various bump stops that are attached to the outside of the front chassis rails. Do not remove the brake line holder.
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 k-member in place. This is often accomplished by simply and carefully hammering the lower part of the rails for realignment. Please note that the tolerances to which 1960s and 1970s unitized body vehicles were manufactured often varied by as much as ¼” on each side. The K-Member mount brackets are designed to accommodate slight deficiencies.

Installation of the I.F.S.

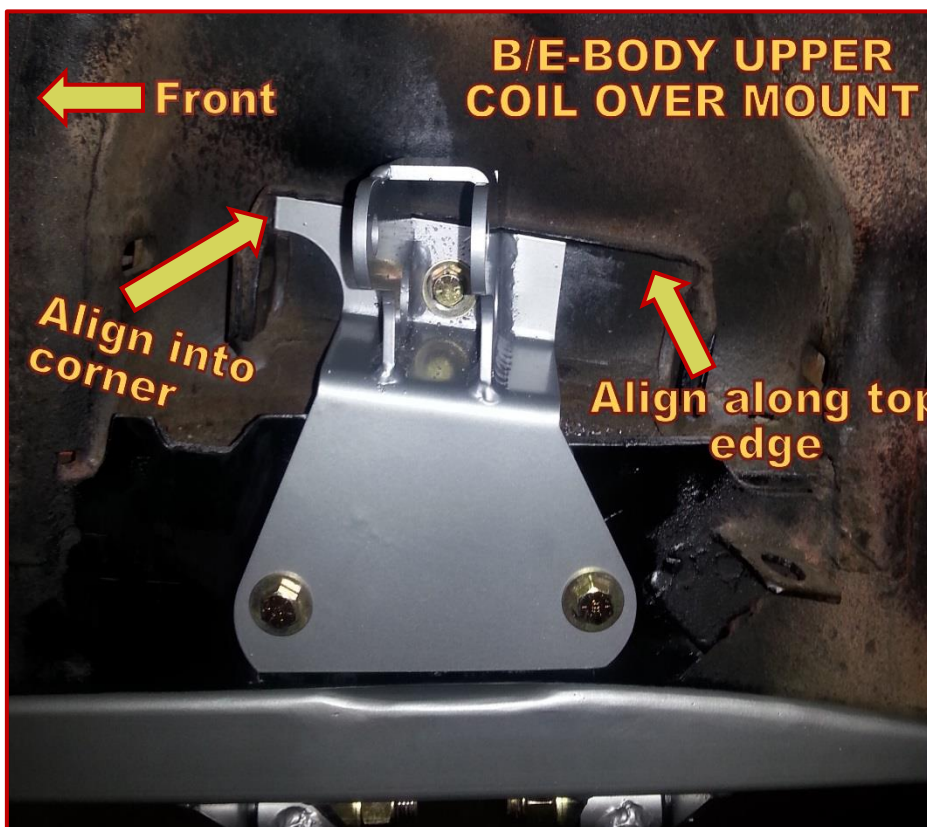
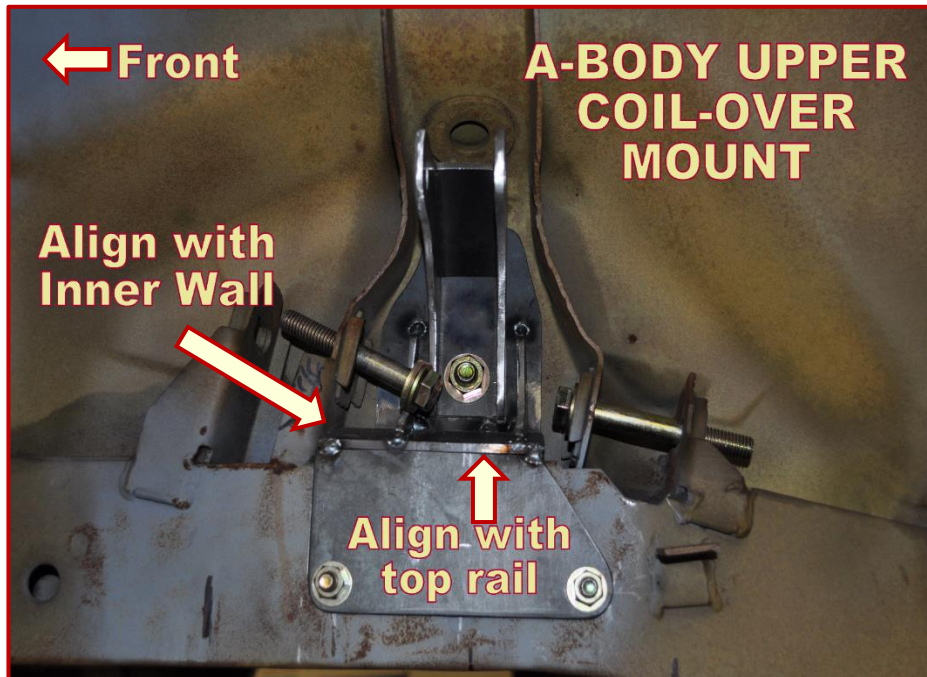
1. With the assistance of a helper, place the K-Member up to the rails. Push upwards so the mount holes line up. If the chassis is straight, the k-member will easily align. Once in position, hold the cage in place with the aid of a jack. Loosely install the four **supplied** K-Member bolts. It may be necessary to shorten the forward bolts by ½” on some vehicles. When all four bolts are in, snug them into position. For A-Body vehicles, you can now torque the bolts to spec as provided on Page 26 of this booklet. We recommend the use of medium strength thread locker on each bolt.



For B- and E-Body vehicles, there is a U-bracket welded at the rear of the square chassis bars with a ½” hole. This is for a ½” through bolt for extra support. You will need to drill through so you can insert the provided ½” bolt with washers and Nylock nuts. Once you have bolted this through, you can torque the four (4) K-member bolts to spec as provided on Page 26 of this booklet.



2. There are two upper coil-over mounts, one left (driver side) and one right (passenger side). The mounts are self-aligning, meaning that you position them as shown and mark the holes to be drilled. There is no measuring required. Aligning the mounts is easy as shown in the pictures below. Both mounts shown are on the left (driver) side of the vehicle.



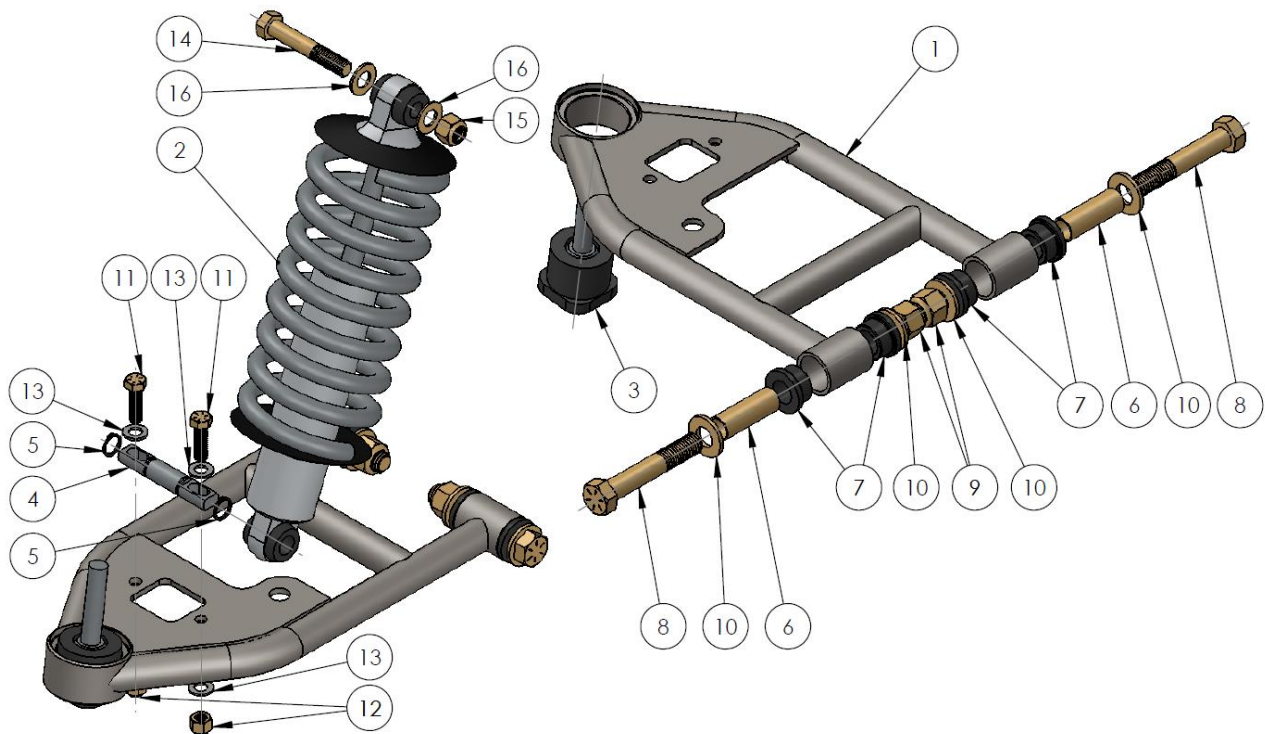
3. When installing the upper coil-over mounts you will also be installing parts on the inside of the chassis rails using the lower two bolts of the upper coil-over mount. These longer bolts are drilled through the chassis rail. On the left (driver) side of the car, the two lower bolts mount the steering pillow block bracket, as shown below. On the right (passenger) side of the car, the two lower bolts mount the flat anti-crush bracket, as shown below in the second picture.

NOTE: On installations with TTI headers, it may not be necessary to have a pillow block and bracket. With certain motors and TTI headers you can get a straight run from the rack & pinion to the bottom of your steering column without an intermediate joint. In those cases, **you will be provided with two (2) flat anti-crush plates** instead and will not receive the pillow block bracket and center u-joint because it will not be necessary. An additional plate is provided instead.



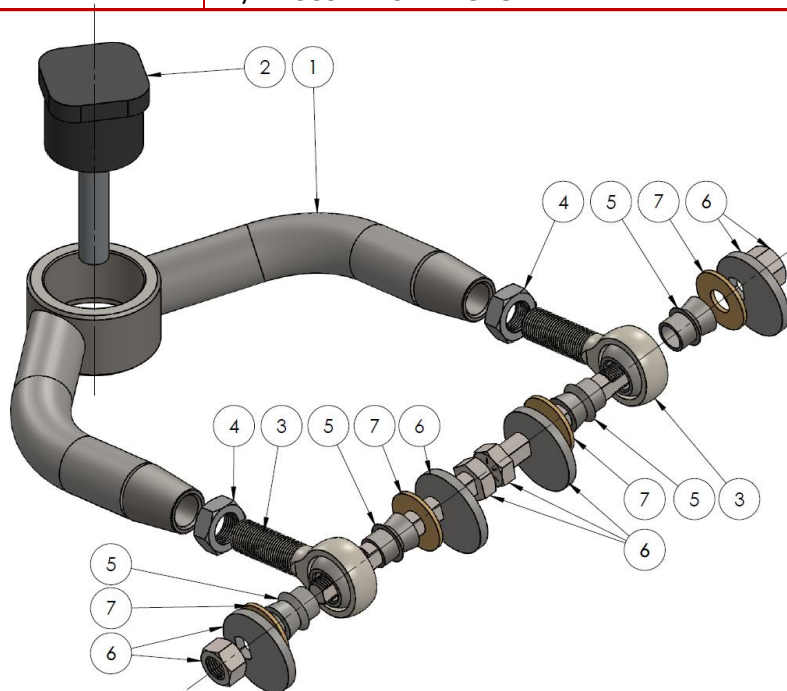
- Locate left and right Lower Control Arms (LCA). If the ball joints did not come installed, use anti-seize compound inside each ball joint sleeve and ball joint threads on the upper and lower control arms. Carefully install the ball joints with the supplied spacers. **We do not warranty cross-threaded ball joints.** The LCAs are easy to identify for left and right placement: The sway bar mount hole is to the front of the control arm. Place each control arm in place and install the supplied bolts, washers and Nylock nuts **per the picture**. Torque to spec as provided on Page 26 of this booklet.

LCA HARDWARE			
ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	-	LOWER CONTROL ARM	2
2	-	COILOVER	2
3	K772	BALL JOINT	2
4	7935-104	T-BAR	2
5	-	T-BAR RETAINING CLIPS	4
6	IFS-5736	BUSHING SLEEVE	4
7	CA-2007	LOWER CONTROL ARM BUSHING	8
8	62C375SHCS8Z	5/8"-11X3.75" HEX HEAD BOLT GR8 YZ	4
9	62CNN9Z	5/8"-11 GRADE 8 NYLOCK NUT	4
10	62NWSHZ	5/8" SAE FLAT WASHER	8
11	37C125HCS8Z	3/8"-16X1.25" HEX HEAD BOLT GR8 YZ	4
12	37CNN9Z	3/8"-16 GRADE 8 NYLOCK NUT	4
13	37NWSHZ	3/8" SAE FLAT WASHER	8
14	50C300HCS8Z	1/2"-13X3.00" HEX HEAD BOLT GR8 YZ	2
15	50CNN8Z	1/2"-13 GRADE 8 NYLOCK NUT	2
16	50NWSHZ	1/2" SAE FLAT WASHER	4



5. Locate the Upper Control Arms (UCA). Apply anti-seize compound to each of the Upper Control Arm threaded rod ends, and then install the rod ends leaving about three (3) threads showing on the outside of the jam nut. This is a good starting point. Your alignment will result in a final adjustment. You may need to use some of the supplied washers as shims when installing the upper control arm with the stock cam bolts into the mounting brackets on the shock tower.

UCA HARDWARE			
ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	-	UPPER CONTROL ARM	2
2	20034-2LF	BALL JOINT	2
3	XMR-10	5/8" CHROMEOLY ROD END - 5/8"-18 RH THREAD	4
4	62FNFJ5Z	5/8"-16 JAM NUT GR8 RH THREAD	4
5	HMS 08-10	HIGH MISALIGNMENT SPACER	8
6	-	STOCK CAM BOLTS	4
7	50NWUHZ	1/2" USS WASHER GR8 YZ	8



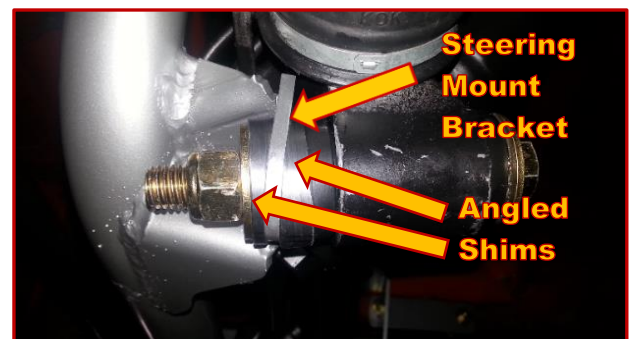
The upper control arms look alike, but they are not. Each has a small stamped “L” or “R” on the outside face of the ball joint sleeve. It is visible through the powder coat. “R” refers to the passenger side and “L” refers to the driver side. Because the arms look alike, make sure you install them on the correct side of the car and with the “L” and “R” right side up. Look carefully and you will see it.” If installed incorrectly, the vehicle will not align correctly. Each upper control arm is held in place with the **original two (2) cam bolts**. If you don’t have them, you can buy Raybestos Part #616-1013. Install the cam bolts and tighten each control arm

- locating it in the center position of the eccentric hole. This will be a good starting point for alignment. Torque to spec as provided on Page 26 of this booklet.
6. You should now connect the Wilwood Pro Spindles to the control arms. The spindles are identical and can go on either side of the vehicle. The spacers included with the ball joints go between the spindle and castle nut. Hand tighten the castle nuts over the spacer until everything is installed and then it can be torqued to the specs on Page 26.
 7. Attach the steering arm to each spindle. The spindles and steering arms are bi-directional, so there is no left or right. The steering arm should face forward with the extended nipple facing down. Torque to the specifications on Page 26 of this booklet.
 8. Unpack each coil-over shock and assemble. You will need to install the T-bar in the bottom bearing. For this you will need to have C-clip pliers. Be sure to put anti-seize on the lower half of the threads on the coil-over body. This will prevent the large nut from binding (galling) on the shock body. After putting the spring on, screw the coil-over adjustment nut up by hand until the spring is hand tight. Now install the assembled shock, T-bar down and plunger side up. This is a good starting point for setting ride height. Torque to spec as provided on Page 26 of this booklet. Do not be concerned if the upper control arm rests on the spring when the suspension is hanging freely. It will be right when the car is on the ground with full weight.
 9. If your engine is not already installed in the vehicle, skip to Step 10.
 10. If your motor is in the vehicle, you can now attach the motor mounts and motor mount bushings. Go to Page 20 for pictures of your engine mount and the bushing installation. Attach the supplied motor mounts to the engine block. Then install the motor mount bushings. You will notice that only the Gen II 426 Hemi has the motor mount bushings installed in a different configuration than all the other motors. Refer to Page 20.



11. Place the steering rack into position, making certain the bushings have been lubricated and installed, and the steel sleeve is lubricated prior to pressing into the bushings. Correct Teflon grease has been provided. Carefully rotate the offset bushings to accommodate the bolts so as to align them with the bolt hole. Place the rack up to the installed K-Member mounts and hand tighten the bolts. For manual steering, you have been supplied with two (2) 5/8" thick steel bushings that fit

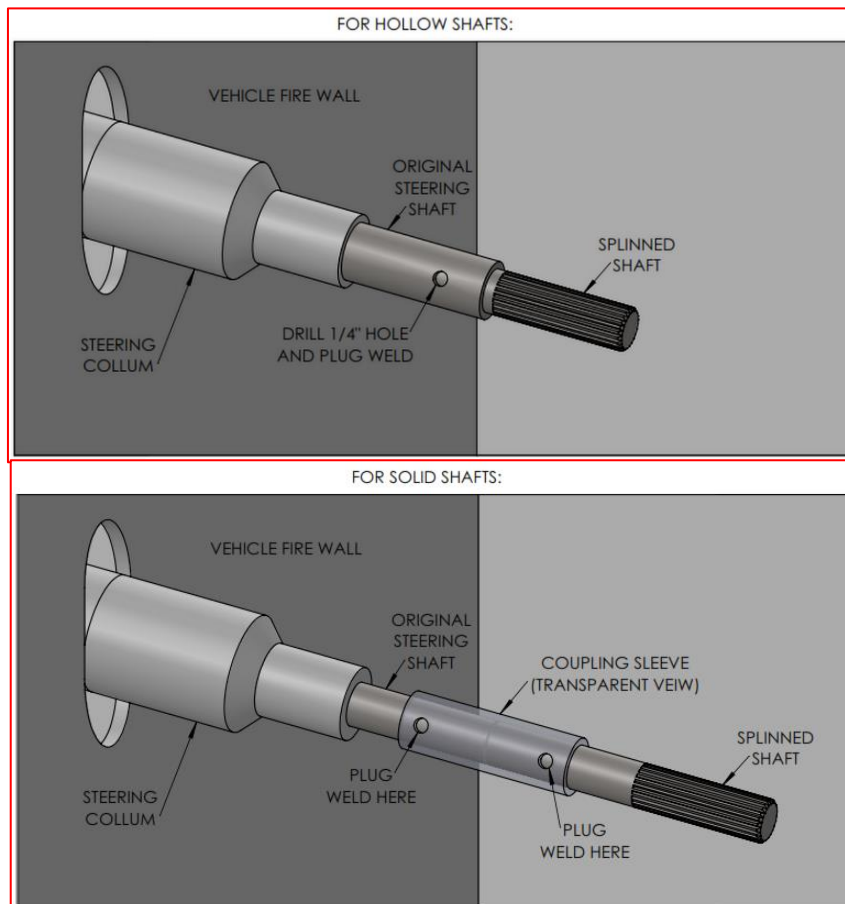
between the bushings and the steering mount on the k-member. If you have power steering you have been supplied with four (4) angle cut shims that are placed on each side of the steering mounting bracket as shown in the picture to the right. These are designed to provide the proper alignment for your power rack. The index marks on the outside edge of the bushings make correct alignment easy...just line up the marks. Torque to spec as provided on Page 26 of this booklet.



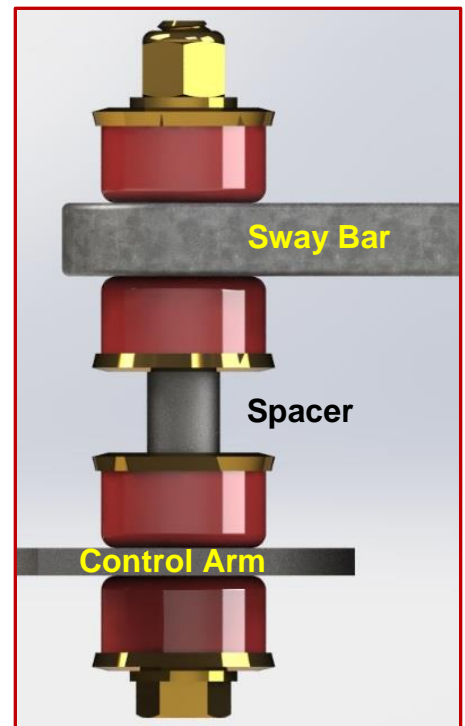
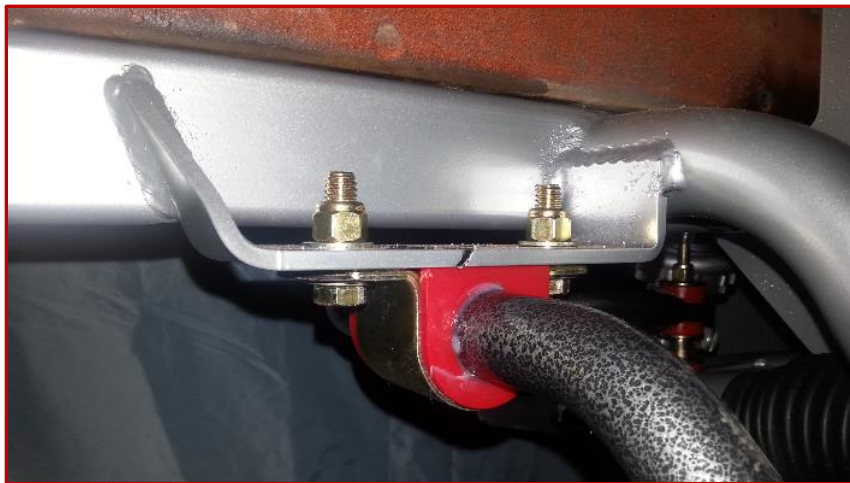
12. Make certain the steering rack is in its true center position. Do this by turning the pinion all the way to the left and then to the right, counting the revolutions. Return the rack to the left and go one-half of the total revolutions counted. That will center the rack for you.
13. Install the jam nuts and steering tie rod adjusters onto the steering arms as shown below. Thread the rod ends into the steering tie rod adjuster and connect to the spindle-mounted steering arm on each side. Be certain to use anti-seize before threading the adjusters onto the steering shaft. This will prevent galling the threads. Hand tighten only as these bolts will be loosened to do a final alignment. Once an alignment is completed, torque to spec as provided on Page 26 of this booklet. **If you have purchased a power steering rack, please see Page 21 for fitting and plumbing instructions.**



14. The steering shaft extending from your steering column at the firewall will need to be trimmed and a hole drilled. Follow the drawings below. The splined shaft and the coupling sleeve are provided with the DD steering shaft.



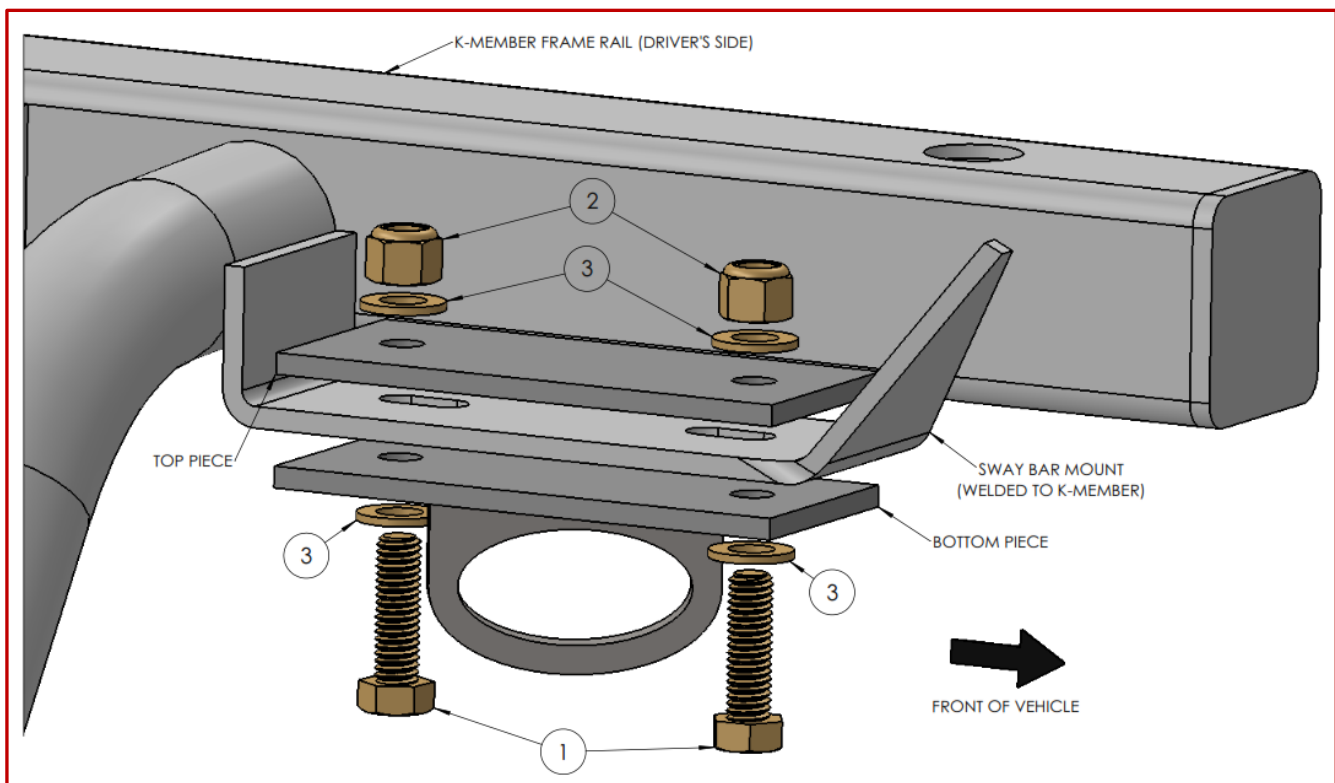
15. Install the splined steering joint onto the splined rack and pinion steering shaft, also known as the pinion. Run the supplied double D (DD) steering shaft towards the steering column shaft that comes through the firewall. Depending on engine and header combinations, you may get a straight shot to the bottom of your modified column, but you will have to trim the supplied DD shaft to size. If so, use the supplied Flaming River splined joint (FR1715DD) to attach the DD steering shaft to the splined column shaft installed in the previous step. If a straight run is not possible, we have supplied you with a pillow block bracket (installed with the upper coil-over shock mounts in Step 3) and rod end. Run the steering shaft through the pillow block and add the second steering joint (FR1716DD). You will have to cut the DD shaft to size and make certain to bevel the edges after cutting. The length of each of these pieces depends upon engine configuration and column configuration. Run another small piece of double D shaft from the intermediate joint to the steering column splined end at the firewall. Attach by using the supplied joint (FR1715DD).
16. Install the sway bar frame mount bushings (D-shaped red bushings) onto the sway bar as shown. Make certain they are lubricated with the supplied white Teflon grease. Align the mounts and torque to spec as provided on Page 26 of this booklet.



17. Install the sway bar end links onto each lower control arm. The end link centers will have a spacer. The end links come assembled in the pouch so make note of how they go back together. See the picture to the right. In the picture, the thick bar on top represents the sway bar. The thin plate on the bottom bushings represents the lower control arm. Tighten securely.

18. If you chose not to have a sway bar, such as in drag race applications, you may want our optional tie-down / tow rings (Part #ACC-4850) which bolt directly to the sway bar mounts as shown below. It consists of two flat plates and two flat plates with a tow hook welded into position. Depending on which way you want your tie-down straps to run will determine which side the tow rings are mounted. The straps can crisscross or go outboard.

TOW RING MOUNTING HARDWARE			
ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	37125HCS8Z	3/8"-16 X 1.25" HEX HEAD BOLT GRADE 8 YZ	4
2	37CNN8Z	3/8" -16 GRADE 8 NYLOCK NUT	4
3	37NWSHZ	3/8" SAE FLAT WASHER	8



19. Now would be a good time to install your engine, if you have not already done so. Go to Page 20 for pictures of your mounts and the bushing installation. Attach the supplied motor mounts to the engine block. Then install the motor mount bushings. You will notice that only the Gen II 426 Hemi has the motor mount bushings installed in a different configuration than all the other motors. Refer to Page 20.

20. Make adjustments for a visual alignment only. A final alignment can only be accomplished with the full weight of the car once the vehicle is completed and has all of its components in place.

21. 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. Street specifications are:
 - a. **Caster: +2.5 to +3.5 Degrees.** This is dictated by driver feel and what you are most comfortable with. We recommend 3 degrees of positive caster as a good starting point.
 - b. **Camber: 0 to -0.5 degrees.** Our preference has been -0.25 degrees. Any more than that can result in premature wear on tires on pro-touring vehicles.
 - c. **Toe: 0 to 1/16"**
22. Make certain all jam nuts are secured.
23. Recheck all fasteners for proper torque.

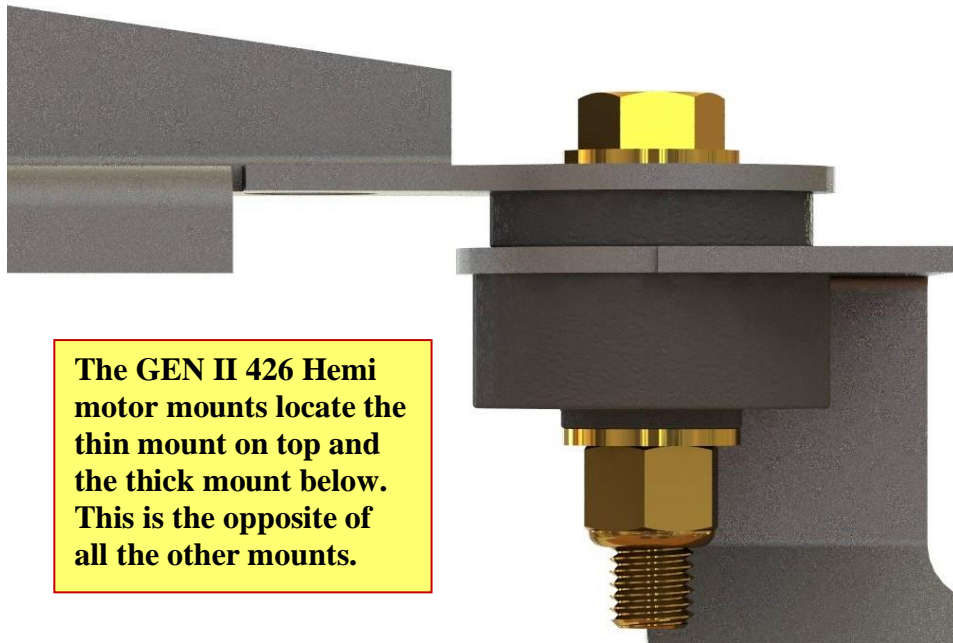
Congratulations. You have just completed installation of your Independent Front Suspension system.

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

MOTOR MOUNT INSTALLATION

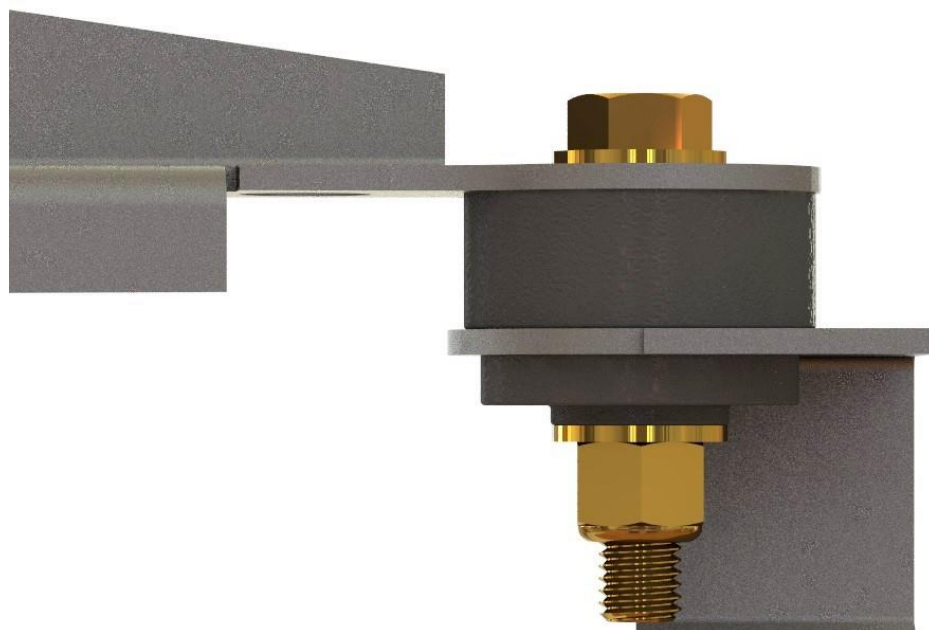
Motor mount bushings are installed the same way for Small Block, Big Block and Gen III Hemi engines. The Gen II 426 Hemi engine motor mounts are installed differently.

Gen II 426 Hemi Configuration



The GEN II 426 Hemi motor mounts locate the thin mount on top and the thick mount below. This is the opposite of all the other mounts.

Big Block, Small Block & Gen III Hemi Configuration



POWER RACK & PINION SYSTEMS

For those with the power steering option, plumbing and correct hookup is essential. Your kit came with custom starter lines necessary to hook it up. You may have to purchase other fittings, hoses and clamps depending on the style of power steering pump.

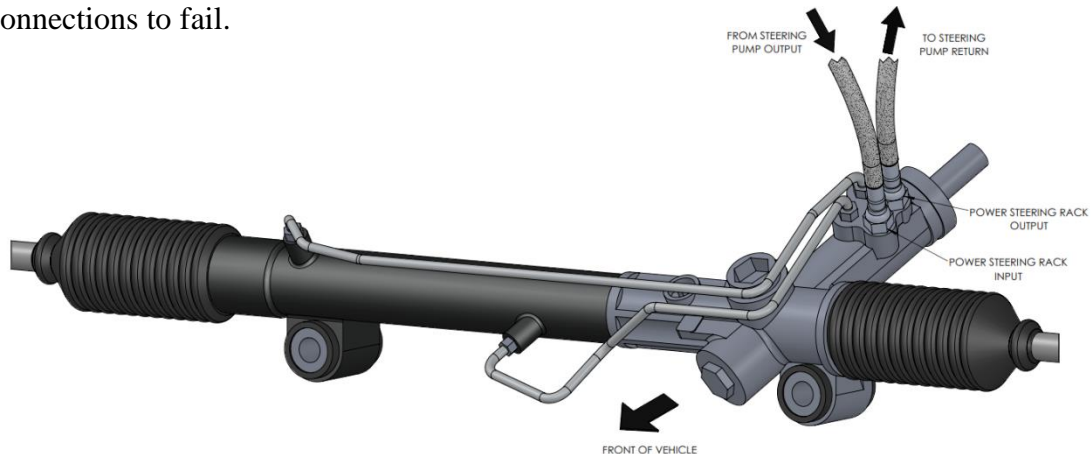
Remove the sleeves and bushings installed in the rack. You will replace them with the offset bushings & sleeves provided in the Bolt Kit.

Pump Note: Our power rack and pinion is a new unit that requires a high volume pump (up to 1200 psi). We recommend installing a small cooler for the steering system, just like today's modern high-performance vehicles.

Included with your power rack and pinion are two AN fittings.

Follow these easy steps to install the hoses:

1. Lightly lubricate the threads on each fitting with a drop of power steering fluid.
2. Install the fittings onto the appropriate port, being careful not to damage the fitting by cross-threading. Tighten.
3. These fittings are designed to provide an excellent seal, so be careful not to over-tighten the fittings. Over-tightening can strip the threads and/or cause the connections to fail.



4. For the high-pressure side, you will need PTFE-rated stainless braided line. We can supply this for you upon request. For the low pressure, or return, side, good quality power steering or fluid hoses can be used. Once you have measured and correctly cut each hose for the high pressure and return lines, you will need to attach the fittings.
5. Once attached to your steering pump, fill the reservoir with power steering fluid. Start the vehicle, turn the steering wheel left to right and back several times. This allows the fluid to flow into the system and bleeds the air out. Open the reservoir and add fluid as needed.

HEADERS

Headers are an important part of performance, allowing your engine to breathe freely and perform better. There are many headers in the marketplace. We have fit headers from Tube Technologies to all of our systems and highly recommend them. TTI only does Mopar headers, so they are experts at what they do. Just tell them you have our tubular front suspension setup and they will take care of you.

TTI Headers: Web: www.ttiexhaust.com - Phone: 951-371-4878 Pacific

For our Mopar IFS systems we recommend:

GEN III HEMI (5.7, 6.1 & 6.4):

- TTI 2" Headers (TTI64LHCA-CO) Great Fit, OR
- TTI 1-3/4" Headers for Left Hand Starter (TTI61HCA-CO).
A-Body will need passenger frame rail notched – See Instructions
- May require slight oil pan modification depending on pan selected.



Gen III Hemi-5.7-6.1/6.4

GEN II HEMI (426):

- TTI Headers (TTIB2HEMI-XXXX) – A-Body needs passenger frame rail notched – See Instructions on Page 23.



Gen II 426 Hemi

BIG BLOCK (383, 440):

- Any of the TTI big block headers for our tubular front suspension



Big Block 383/440

SMALL BLOCK (318, 340, 360):

- Any of the TTI small block headers for our tubular front suspension

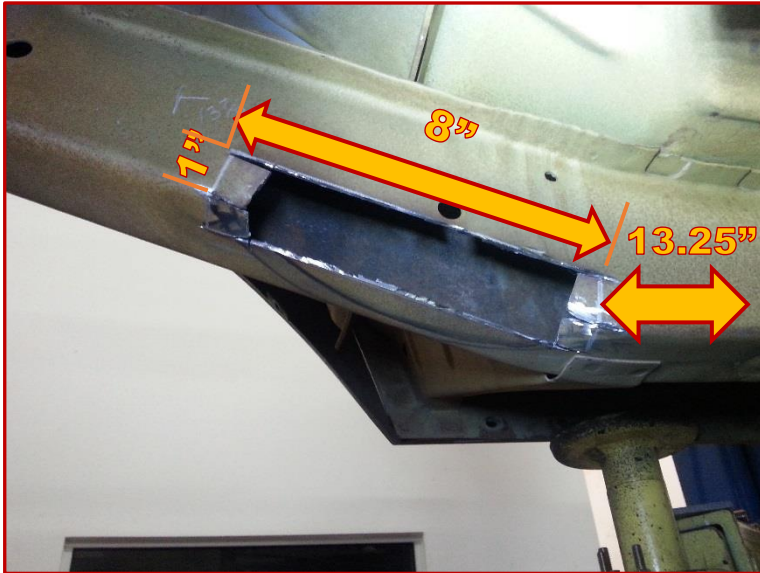


Small Block 340/360

Headers for A-Bodies

A-Body vehicles that will be using TTI headers for a Gen II (426) Hemi (TTIB2HEMI), or Gen III (5.7, 6.1 or 6.4) Hemi (TTI61HCA-CO), will require a small angled notch on the right side (passenger) chassis rail. The notch is a simple modification but is necessary because the TTI headers for these applications have one tube that swings a little wide. The notch is in the same location for either engine application and will allow a comfortable air gap around the header tube so it won't burn your chassis finish.

The next page shows the measurements and steps for notching the A-Body passenger chassis for header clearance.



Measure forward 13-1/4" from the torsion bar cross member to the rear edge of the notch. The length of the notch is 8" but leave about 3/4" of material as shown on both ends. Measure one (1") inch from the bottom of the rail as shown. With a cutting wheel or other controllable metal cutting tool, cut the material as in the photo to the left.

Cut a piece of sheet metal and tack weld into place so it forms a wedge, as shown in the photo to the right. Once you're satisfied on position of the filler piece, weld it into position.



Once welded, clean the welds up by sanding smooth with a disc sander. Prime to prevent rust or oxidation. The cleared area is now ready for paint.

MOPAR IFS SYSTEM HARDWARE			
DESCRIPTION	PART NUMBER	DESCRIPTION	QUANTITY
LOWER CONTROL ARMS TO K-MEMBER	62C375SHCS8Z	5/8"-11X3.75" HEX HEAD BOLT GR8 YZ - (CUT HEAD)	2
	62C375SHCS8Z	5/8"-11X3.75" HEX HEAD BOLT GR8 YZ	2
	62NWSHZ	5/8" SAE FLAT WASHER	8
	62CNN8Z	5/8"-11 NYLOCK NUT GR8 YZ	4
	CA-2007	POLYGRAPHITE BUSHING 60348-BL	8
	IFS-5736	LCA BUSHING SLEEVE 0.75"X0.053 DOM CL: 2.070"	4
	K-772	SMALL CHRYSLER BALL JOINT (SCREW IN)	2
	IFS-9016	LOWER BALL JOINT SPACER 1.0"X0.156 DOM CL: 0.500"	2
UPPER CONTROL ARM TO FRAME	STOCK BOLTS	STOCK CAM BOLTS AND HARDWARE	2
	XMR-10	5/8" CHROMEOLY ROD END - 5/8"-18 RH THREAD 5/8" ID	4
	HMS 08-10	HIGH MISALIGNMENT SPACER - CLEAR ZINC STEEL OD: 5/8" ID: 1/2	8
	20034-2LF	SMALL CHRYSLER BALL JOINT (SCREW IN)	2
	IFS-9017	UPPER BALL JOINT SPACER 1"X0.156 DOM CL: 0.25"	2
	50NWUHZ	1/2"USS WASHER GR8 YZ	4
	62FNFJ5Z	5/8"-18 JAM NUT GR8 RH THREAD	4
K-MEMBER TO FRAME	62C150HCS8Z	5/8"-11X1.50" HEX HEAD BOLT GR8 YZ	4
	50C350HCS8Z	1/2"-13X3.50" HEX HEAD BOLT GR8 YZ (B- & E-BODY ONLY)	2
	50NWSHZ	1/2" SAE FLAT WASHER (B- & E-BODY ONLY)	4
	50CNN8Z	1/2"-13 NYLOCK NUT GR8 YZ (B- & E-BODY ONLY)	2
UPPER COILOVER MOUNT TO K-MEMBER	37C125HCS8Z	3/8"-16X1.25" HEX HEAD BOLT GR8 YZ	2
	37C325HCS8Z	3/8"-16X3.25" HEX HEAD BOLT GR8 YZ	4
	37CNN8Z	3/8"-16 NYLOCK NUT GR8 YZ	6
	37NWSHZ	3/8" SAE FLAT WASHER	12
COILOVER	50C300HCS8Z	1/2"-13X3.0" HEX HEAD BOLT GR8 YZ	2
	50CNN8Z	1/2"-13 NYLOCK NUT GR8 YZ	2
	50NWSHZ	1/2" SAE FLAT WASHER	4
	37C125HCS8Z	3/8"-16X1.25" HEX HEAD BOLT GR8 YZ	4
	37CNN8Z	3/8"-16 NYLOCK NUT GR8 YZ	4
	37NWSHZ	3/8" SAE FLAT WASHER	8
	7935-104	T-BAR & HARDWARE	2
SWAY BAR TO K-MEMBER & LOWER CONTROL ARM	37C125HCS8Z	3/8"-16X1.25" HEX HEAD BOLT GR8 YZ	4
	37CNN8Z	3/8"-16 NYLOCK NUT GR8 YZ	4
	37NWSHZ	3/8" SAE FLAT WASHER	8
	U-60352	SWAY BAR END LINK BUSHING 5/8"X1.15 OD X 3/8" ID	8
	WASH-1130	SWAY BAR END LINK WASHER - DISHED	8
	CF-BRK-10062	SWAY BAR B-BRACKET	2
	CF-U-60210	SWAY BAR BUSHING ID: 1"	2
	37C450HCS8Z	3/8"-16X4.50" HEX HEAD BOLT GR8 YZ	2
	37CNN8Z	3/8"-16 NYLOCK NUT GR8 YZ	2
IFS-5751	SWAY BAR SPACER 1/2"X0.050 DOM CL: 0.50"	2	

MOPAR IFS SYSTEM HARDWARE			
DESCRIPTION	PART NUMBER	DESCRIPTION	QUANTITY
STEERING RACK TO K-MEMBER	56C450HCS8Z	9/16"-18X4.50" HEX HEAD BOLT GR8 YZ	2
	56NWU8Z	9/16" USS FLAT WASHER	4
	56CNN8Z	9/16-18 NYLOCK NUT GR8 YZ	2
	CF-6-704-BL	OFFSET STEERING BUSHING	4
	IFS-1799	STEERING RACK BUSHING SLEEVE 3/4"X0.830 DOM CL: 2.438	2
	IFS-5756	Spacer - 1.62" OD x 0.625" Thick x 0.57" ID (MANUAL STEERING)	2
	IFS-5757-A	Spacer - Angled Outer Spacer (POWER STEERING)	2
	IFS-5757-B	Spacer - Angled Inner Spacer (POWER STEERING)	2
STEERING TO STEERING ARMS & COLUMN	RS-9010	ROD END - 5/8' X 5/8" LH THREAD	2
	IFS-9009	RUBBER BOOT - 5/8" ROD END	4
	62FNFJL5Z	5/8"-16 LH JAM NUT	2
	56FNFJZ	9/16"-18 RH JAM NUT	2
	IFS-9011	STEERING ARM ADJUSTER 9/16"-18 RH & 5/8-16 LH THREAD	2
	FR1716DD	3/4" DD TO 3/4" DD STEERING U-JOINT	1
	FR1709DD	9/16"-26 SPLINE TO DD U-JOINT (MANUAL RACK ONLY)	1
	FR1706DD	3/4" X 3/4" DD STEERING JOINT	1
	XMR-12	3/4" CHROMEOLY ROD END - 3/4"-16 RH THREAD	1
	75FNFJ5Z	3/4"-16 RH JAM NUT	2
	IFS-5711-M OR P	STEERING ARM NIPPLE MACHINED (M=MANUAL P=POWER)	2
	62C500HCS8Z	5/8"-11X5.00" HEX HEAD BOLT GR8 YZ	2
	62CNN8Z	5/8"-11 NYLOCK NUT GR8 YZ	2
	62NWSHZ	5/8" SAE FLAT WASHER	4

NOTES:

- All hardware is Grade 8 unless otherwise noted.
- Some hardware differs from A-Body to B/E-Body Differences are noted in the chart.
- Do not substitute hardware with any grade lower than Grade 8. Check with us first by calling our Tech line at 888-325-6462.

IFS SYSTEM TORQUE SPECIFICATIONS		
DESCRIPTION	TORQUE (FT/LBS)	SPECIAL INSTRUCTIONS
K-Member to Chassis – Stock Bolts	80 ft-lbs	Med. Strength Thread Locker
K-Member Rear Cross Bolts (B/E-Body Only)	30 ft-lbs	
Ball Joints to Control Arms	60 ft-lbs	Anti-Seize Compound
Lower Control Arm to Chassis	60 ft-lbs	
Upper Control Arm to Chassis - Stock Cam Bolts	60 ft-lbs	
Steering Rack Frame Mounts	30-35 ft-lbs	
Steering Arm to Spindle	30-35 ft-lbs	
Steering Arm to Tie Rod	30-35 ft-lbs	
Upper Coil Over Mount	40 ft-lbs	
Lower Coil Over Mount T-Bar	40 ft-lbs	
Sway Bar Frame Mounts	40 ft-lbs	
Sway Bar End Links	20 ft-lbs	Don't overtighten. Tighten bushings but don't flatten.
Bolt-On Steering Arm	40 ft-lbs	

**For technical support, please call 888-325-6462
or via e-mail to: tech@FreakRide.com**

RIGHT-HAND DRIVE

Australian, European and Asian customers receiving the optional right hand drive system are getting the most adjustable rack and pinion system available. The steering rack, manual or power, is prepared for Control freak Suspensions by Flaming River Industries. The specialty billet brackets were designed and machined by Control Freak Suspensions.

Installation is relatively easy, requiring only two Allen wrenches, an accurate tape measure or ruler, and some blue thread locker.

When you unpack the rack and pinion, you will also unpack the two billet brackets. They have been wrapped for protection.

1. Carefully measure to find the center of the cross member and mark it.
2. Make sure the steering rack has been centered. It usually arrives that way from the factory, but it is better to check. Turn the pinion all the way in one direction. Then, counting each full turn of the pinion, go the other way until it comes to a stop. Now go back half the distance and the rack will be centered. For example, if you had three full turns, go the other way one-and-one-half turns and the rack will be centered.
3. Find and mark the center of the steering rack with a removable marker. You can find the physical center by measuring from end to end and marking the mid-point.
4. Attach the clamps to the billet section of the steering rack as shown in the picture below. Do not tighten the clamps, just position them.



5. Attach the clamps to the cross member making certain the center line on the cross member matches the center line on the rack. Tighten the clamps just until you feel a little resistance. Do not tighten all the way. The brackets should be positioned as shown in the picture below, in an upward position.



6. You can now rotate the steering rack to place the angle of the pinion where you need it to be for optimum clearance and steering shaft angle. Once completed, snug the cap screws just enough to hold the rack in position.
7. Now rotate the brackets on the cross member to get the best alignment between the steering rack and the steering arms. This will position the rack higher up and very near the oil pan.
8. Once everything is in its best operating position, snug down on the set screws so they leave a mark on the rack and the cross member. Now remove the set screws and dimple the cross member and the rack exactly on the set screw marks. The dimple does not need to be large...just enough so the point of the set screw sits in it. We recommend making a slight indentation with a 1/8" drill bit. Replace the set screws after adding a drop of blue thread locker.
9. Remove each of the bracket cap bolts one at a time. Remove one, add blue thread locker and then snug into position. Repeat this with all four bolts. Once done, go back and torque each bolt to 25 ft./pounds of torque. Torque the set screws to 14 ft./pounds of torque.
10. Your rack is now installed correctly.

NOTES:

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.

WARRANTY CLAIMS 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.

RETURNS 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. Such items may be legal for racing vehicles only which may not be used upon a highway

MOPAR

INSTRUCTIONS

INDEPENDENT FRONT SUSPENSION SYSTEM

control freak
suspensions[™]

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