

MOPAR

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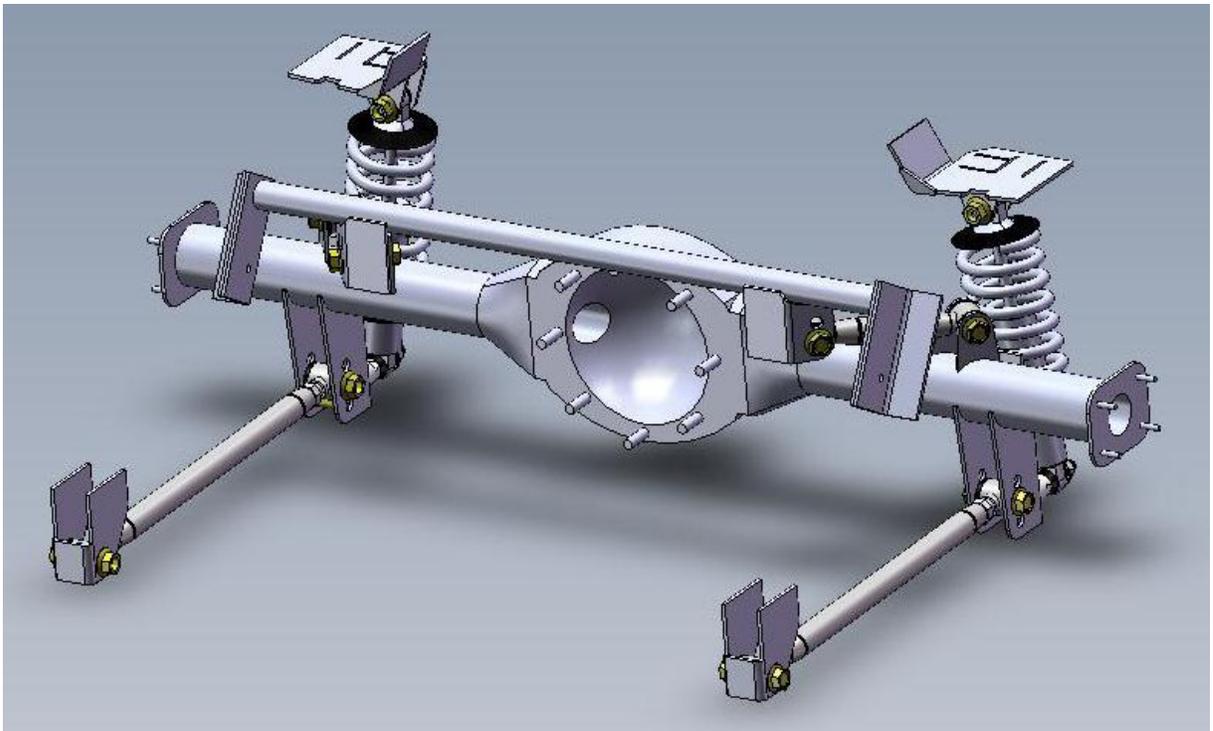
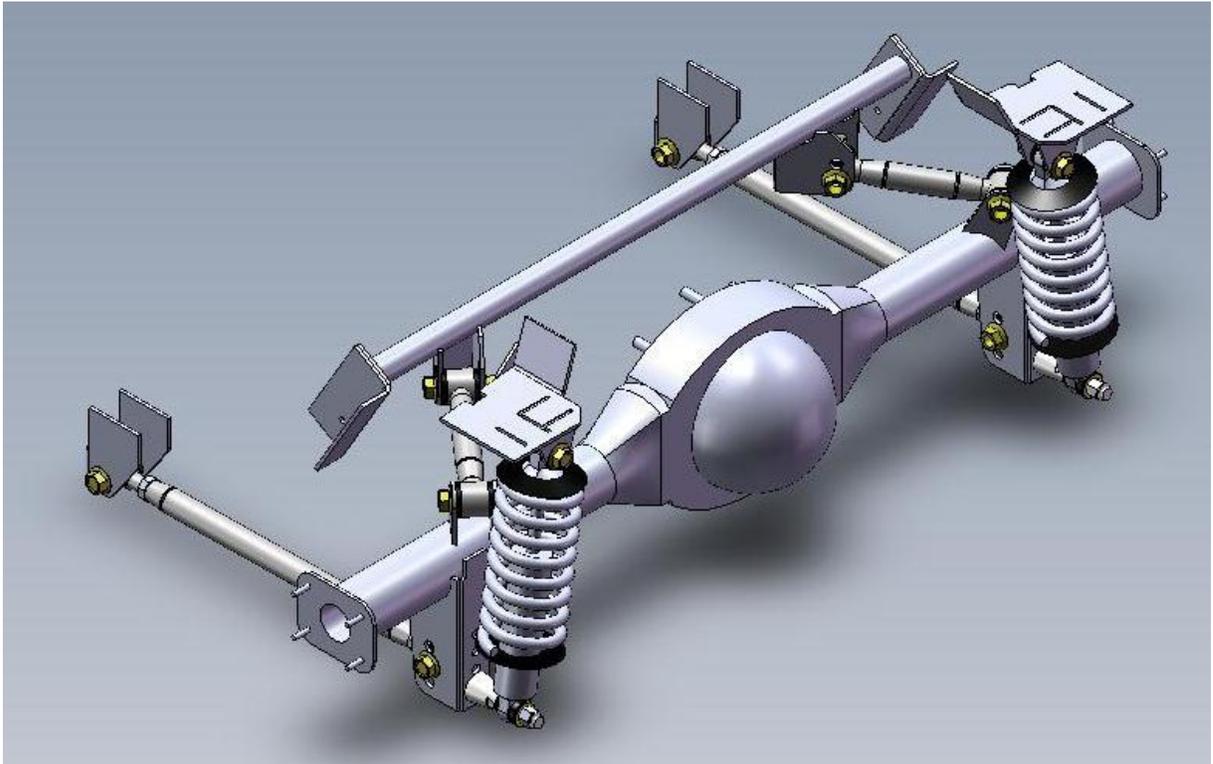
INSTRUCTIONS

4-Link Triangulated Rear Suspension Systems

**FOR MOPAR MUSCLE CARS:
1970-1974 E-BODY (RS-5470)**

Revised: 4-1-2011





Installation Instructions

Triangulated 4-Link Rear Suspension System – Part # RS-5470
Mopar E-Body Vehicles

System Contents

- Lower Forward Trailing Link Brackets (1 Left and 1 Right)
- Lower Trailing Link Spacers (2)
- Lower Rear Trailing Link Brackets (2)
- Upper Forward Trailing Arm Bracket Bar
- Upper Rear Trailing Arm Differential Mount Tabs (2 Short, 2 long)
- Lower Trailing Arm Set w/Adjustable Rod Ends
- Lower Trailing Arm Mounting Hardware Kit
- Upper Trailing Arm Set w/Adjustable Rod Ends
- Upper Trailing Arm Mounting Hardware Kit
- Upper Coil Over Mount Brackets (1 Left and 1 Right)
- Lower Coil Over Mount Machined Studs w/Hardware (2)
- Coil Over Shocks w/ Springs (2 Each)
- Coil Over Mounting Hardware Kit

Thank you for purchasing this Triangulated 4-Link Rear Suspension System for Mopar E-Body Vehicles. This system is manufactured by Blue Moon Services LLC d/b/a Control Freak Suspensions™ in Winter Springs, Florida. We believe this system is the best available at any price. As with most aftermarket performance suspension products, this system is not DOT approved. The end user is solely responsible for determining the suitability of any and all such products, regardless of manufacturer.

Because this system and others like it are typically subjected to uses that could exceed its mechanical limits, there is no warranty, expressed or implied. Blue Moon Services LLC d/b/a Control Freak Suspensions™ 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 having appropriate skills for its installation and use. Blue Moon Services LLC d/b/a Control Freak Suspensions™, 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 this system includes components that must be welded accurately into place. While installation is relatively easy for those with appropriate skills and experience, novices or those who question their abilities should employ a professional for installation. Fit is guaranteed on vehicles that are unmolested...that is cars that have not suffered any chassis or unitized body damage. Such damage can bend or alter the unitized chassis, making installation more difficult and may require chassis adjustment and/or straightening by professionals before installation.

Read all of the instructions before starting installation.

IMPORTANT NOTES:

1. All brackets in this kit must be welded into place.
2. Be certain to remove carpeting, insulation or other flammables from the area being welded or subjected to welding heat.
3. Installation of this rear suspension system is straightforward, but ease of installation is based upon your level of experience and ability.
4. By following these instructions and measuring accurately, we strongly recommend that all welded parts get **tack welded** into place **prior to final welding**. This allows you to fit the entire system **before** final welding is done.
5. Some parts of this system may have been accurately threaded by our CNC machine shop to receive the supplied adjustable rod and/or bushing ends. Be careful not to cross thread the rod ends into these machined parts. We are not responsible for any cross threaded parts.
6. All rod ends that are threaded into tubes must use the supplied jam nuts for safety.
7. Use extra caution in jacking and stabilizing the vehicle for this installation. The differential will need to be removed and reinstalled, so **we strongly recommend the use of a professional lift to make the job easier and safer.**
8. An assistant is recommended during parts of this installation.

What Else Do I Need?

Everything you need is included in the purchase price. Installation requires welding. Disconnect your battery BEFORE welding. If you don't, you run the risk of ruining electronic ignition and entertainment components in the car.

IMPORTANT NOTES:

Unpacking the System

Your rear suspension system arrives boxed but only partially assembled. Since this system requires all brackets to be welded into place we are unable to pre-assemble much of the product. While some parts may arrive assembled, please note that the assembled parts may not be appropriately installed or tightened for actual use. You are responsible for making certain all fasteners are installed correctly and appropriately tightened. If you ordered brakes with your system, the brake kit is boxed separately and has its own set of instructions provided by brake manufacturer.

Carefully open all boxes and remove all components. Lay out all of the components and familiarize yourself with them using the CAD drawings on page 2 as your guide. This

will make installation quicker and easier. Read through the entire instruction book and familiarize yourself with the steps before beginning installation.

Once you have read through the instructions and identified all of the parts, prepare your tools for installation. You are now ready to begin installation.

Preparing for Installation

1. Measure the ride height of the vehicle by taking measurements from the rocker panel to the ground. Take a front and rear measurement on each side and note it in a notebook. We recommend using masking tape at all four measuring points and writing the measurement so it can always be seen. This is your baseline stock ride height.
2. Support the differential with jacks. If you are using a lift, support with tall jacks. With the differential safely supported, remove the sway bar and the end brackets holding it in place against the frame.
3. Remove any exhaust components that may interfere with removing the rear differential.
4. Disconnect the driveshaft from the differential.
5. Remove the shocks from both sides of the differential.
6. Making certain the differential is supported by jacks, with a helper remove the front and rear leaf spring bolts, keeping the differential from turning while doing so. You will remove the entire differential assembly.
7. Once the differential has been removed, take this opportunity to clean it up. After the upper and lower trailing arm brackets have been welded into place, and the original spring perches removed (if you choose to do so), you can paint the rear before reinstalling with the new suspension system.
8. Examine the 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 rear suspension brackets in place.
9. Prior to installing the brackets, the area around each bracket must be sanded to raw metal and cleaned. We use an air die grinder with a 3” RoLok sanding disc. 80 grit works fine. Clean at least 1/2” beyond the bracket, leaving ample clean metal for a good weld.



Installation of the Rear Suspension Brackets



The picture to the right is the inside of the rail. The bracket sits squarely against the parking brake cable clip.

The picture to the left shows the bracket on the outside of the rail, firmly against the sheet metal lip.



1. Place the forward frame brackets into place. There is a right and left bracket. Correct placement is shown from the inside of the rail and the outside of the rail in the photos below. Make certain the area around the perimeter is cleaned to bare metal allowing a good welding surface. The forward edge of the brackets should be perpendicular to the chassis.

2. Measure the distance from the forward frame bracket mounting hole to the forward face of the differential as shown in the picture below. It should measure 20.500". Measure both sides to make certain the differential is square.



3. Get both upper and lower trailing arms and screw the rod ends in until about three threads are showing between the jam nut and the body of the rod end. Only hand tighten the jam nut. The length of both

- upper trailing arms should match each other as should the lower trailing arms.
4. Attach the lower trailing arms to the forward frame brackets. Hand tighten the bolts.
 5. Attach the rear lower trailing arm brackets to the lower trailing arms as shown in the picture to the right. Only hand tighten the bolts. This provides the initial tack weld position for the lower trailing arm brackets on the differential.

6. When you are satisfied that the bracket is in the appropriate location, place a tack weld in the corners of the bracket just to hold it into position. If you need to make an adjustment later you will only have to cut through a few tack welds.



7. Place the upper trailing arm mounting bar into position. You can see the position by viewing the CAD drawing on page 2. You will notice two holes drilled into the end plates. These holes will line up with holes in the chassis rail. Use the two snubber bolts you removed earlier to hold the bar into place. Some shims may have been supplied with the kit just in case the fit was a little loose. We clamp the bar into place so we can apply some tack welds to secure it. Make sure you tack weld in places where you can cut through them if you need to.



8. Prepare the vehicle for installation of the upper coil over mounts. This step will require a little fabrication and some minor cutting of the edge of a sheet metal bracket. The first picture shows where to mark the sheet metal to trim it. You can use the bracket as a template to get a nice, even cut. The second picture shows the sheet metal after trimming. We use an air die grinder with a 3" cutting wheel. Regardless of what you use, make sure you have the right lines before cutting. Measure twice. Be certain to wear safety equipment such as face shield, eye protection and leather welding gloves.



9. Place the left and right upper coil over brackets into



position as shown in the picture to the left. Carefully tack weld the parts into place by placing tack welds where you can get to them should you need to shift bracket position. Again, double check before placing the tack welds. It is better to get it right the first time, even if it takes longer to do.

10. You are now ready to attach the upper trailing arms to the upper trailing mounting bar. Just hand tighten the bolts. Attach the upper trailing arm differential tabs to the differential end of the upper trailing arm. Each side gets one long tab and one short tab. The longer tabs go inboard. Hand tighten the bolts. Swing the upper trailing arm above the differential and allow the tabs to sit onto the differential tubes. You can now tack weld the tabs into place.

11. After checking all of the tack welds, and being sure that everything is evenly installed, you can remove the trailing arms.
12. The differential snubbers that are located on either side of the vehicle on the upper part of the chassis rail can now be trimmed. You will leave about 1" of the snubber in place. The cut is easily made with a hack saw as shown in the picture.
13. Before welding brackets to the differential, loosen the axles so heat does not build up and melt the axle seals. Weld a little at a time and alternate from side to side.
14. Weld all of the tack welded brackets and parts under the vehicle into place.



- NOTE: Before final welding of the under-vehicle parts, remove carpeting and anything flammable from the interior of the vehicle.**
15. Once welded and cooled, take the opportunity to prime and paint the welded brackets and the areas around the welds.
 16. You can now reinstall the trailing arms and differential, making certain to tighten all bolts.
 17. Prepare the coil over shocks for assembly. Paint some silver anti-seize compound onto the bottom half of the threads on the coil over body. This will ensure that when the coil over is assembled and under load that the nut will still turn without galling. Thread the lower nut onto the body, install the spring and attach the hat to hold the spring.
 18. Install the coil over shocks. We recommend adjusting the coil over shocks with about 1/2" to 3/4" of threads showing under the nut on the coil over body as a starting point. Coil overs will settle about 3/4" after ten or fifteen miles of driving. So set the height of your vehicle about 3/4" higher than you want it. It will settle.
 19. That's it. You are done. Drive carefully.

We strongly recommend that all fasteners are re-torqued at between 25-50 miles of driving.

Disclaimer of Warranty

THE PURCHASER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF ANY AND ALL PRODUCTS MANUFACTURED BY CONTROL FREAK SUSPENSIONS

Purchaser understands and recognizes that racing parts equipment and services provided by, manufactured and/or sold by Blue Moon Services LLC d/b/a Control Freak Suspensions under the Control Freak Suspensions label, are subject to varied conditions due to the manner in which they are installed and used. Purchaser further recognizes and agrees that suitability of any part sold or manufactured by Blue Moon Services LLC d/b/a Control Freak Suspensions under the Control Freak Suspensions label for a particular application is the purchasers decision and that the purchaser is not relying on the skill or judgment of Blue Moon Services LLC d/b/a Control Freak Suspensions under the Control Freak Suspensions label regarding suitability of any product or service. Blue Moon Services LLC d/b/a Control Freak Suspensions under the Control Freak Suspensions label, makes no warranties whatsoever, expressed or implied, oral or written to purchasers. There is no warranty of merchantability made to purchasers with regard to off road, racing and racing equipment.

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