

Moser Super Fox Package Assembly Instructions



Moser Super Fox (79-93)

Part # M9/7280CSFP

**** Be sure to retain all packaging until after installation is complete****

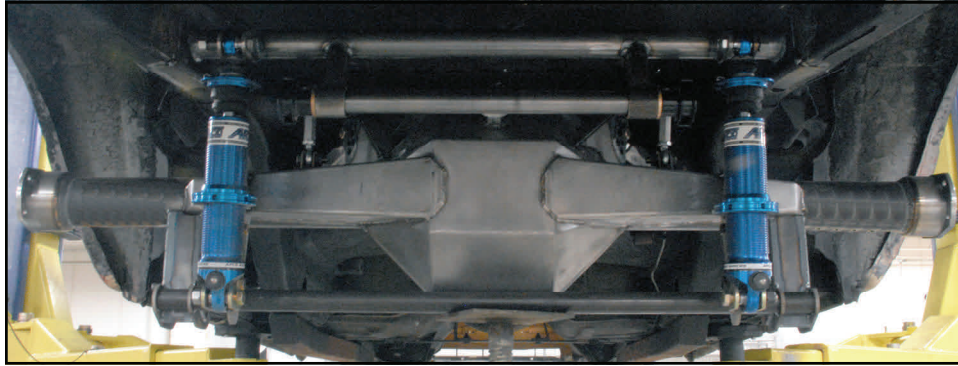
****No parts may be returned if they are not in original packaging
or have been modified or damaged****

The following instructions are for the Moser Engineering Super Fox. This kit was designed to be used for racing purposes where the factory rears won't hold up to the higher horsepower outputs of today's modern engines especially when power adders are used. This kit is of modular design and requires above average fabrication & welding skills. There is welding that needs to be done to complete this project that should only be done by a qualified welder.

These Instructions are supplied as a guideline for assembly and require that you supply a clean and safe working environment to avoid damage to yourself, others, your new components or your car. If you have any questions during the installation of this product you can contact Moser Engineering and talk to any of our qualified technicians.

Safety precautions should be followed at all times!

Assembly Instructions



This kit is designed for Fox body owners wanting to run a bigger rear tire, upgrade from the stock rear suspension, also allowing the possibility of mini tubbing the rear wheel openings. It allows for greatly increased suspension adjustment at the housing. The included anti roll bar allows the racer to preload the rear suspension for differing track conditions. Also included are adjustable coil over shock mounts, adjustable shocks & their springs are available at an additional cost.

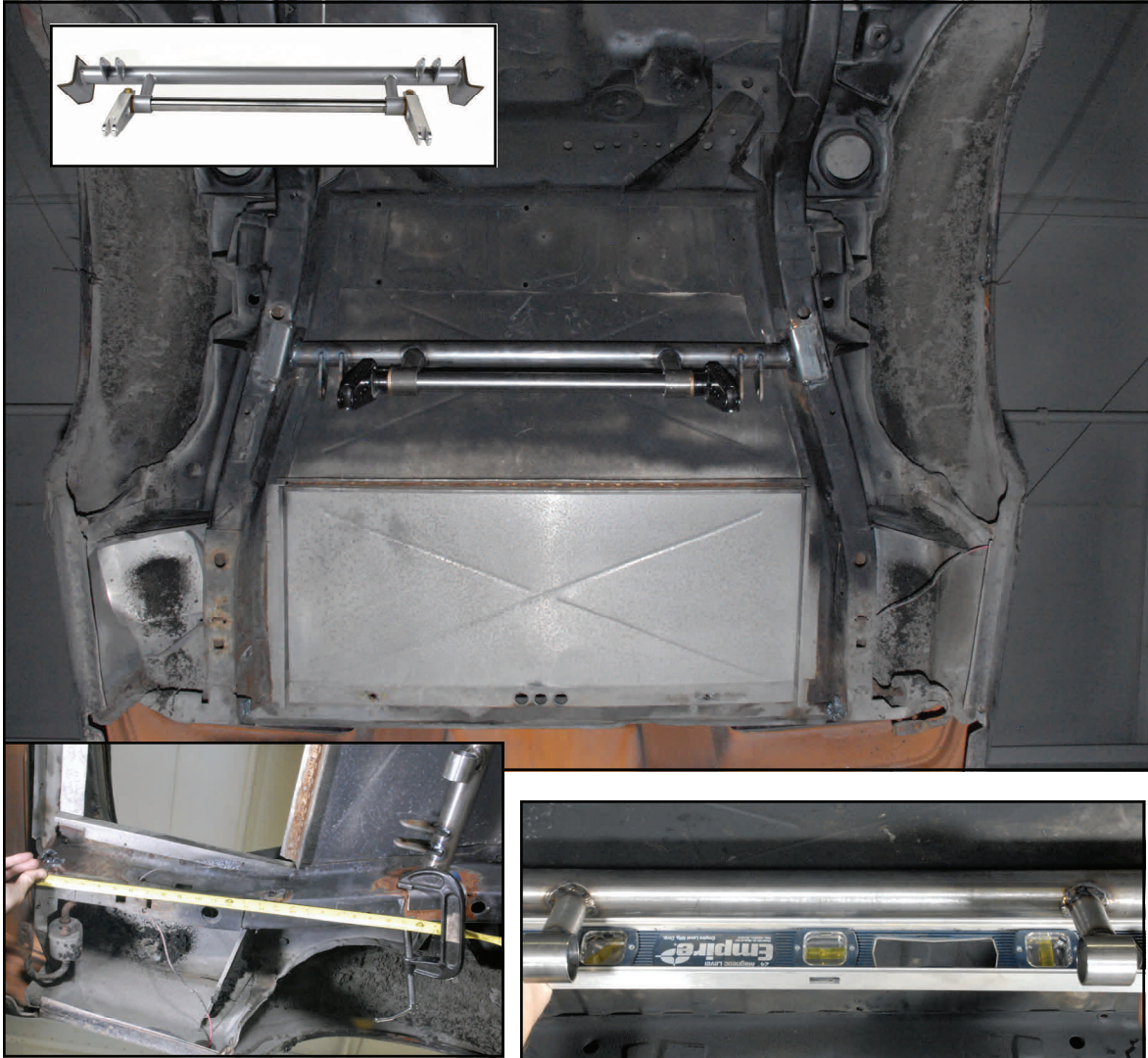


In this kit is the housing assembly, upper cross member, upper and lower control arms and the associated hardware to install the aforementioned parts. There is some welding and fabrication required. The upper cross member needs to be welded in between the frame rails to complete this project. The spare tire well must be removed or modified for cross member and shock clearance. An aftermarket fuel tank/cell will also be required to complete this project. It is recommended that the cell is installed per NHRA general regulations.

Make sure all flammable materials are removed before any cutting or welding is done. All welded areas must be free of oil, grease, undercoating or paint. Weld only to clean bare steel. It is recommended that the upper cross member is welded in using a Mig or Tig welding process. Jack the car up on all 4 corners, making sure the car is level from side to side and front to rear. This should be done on a hard, level surface. The car needs to be supported so that the existing rear end assembly can be removed without disturbing the car.

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Remove the existing driveshaft, shocks, springs, rear axle assembly, gas tank and any other part required to complete this project. Make sure if any fuel or brake lines are left that they are securely capped to prevent any fire. Also remove or modify the spare tire well at this time.

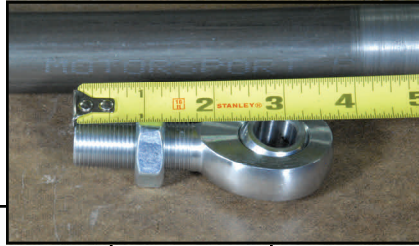


The rear cross member is designed to install between the frame rails, level from side to side and parallel to the rear axle. Measure from the rear bumper shock absorber mounting surface 23" forward on the inside of both frame rails and mark with a marker or soap stone. This is where the back edge of the weld plates on each end of the upper rear cross member will set. An alternate location to measure from would be the bottom corners of where the B-pillar attaches to the rocker. Drop plumb bobs from these corners on both sides and strike a chalk line between these two marks. Set the cross member parallel with this line. Also make sure it is level from side to side. At this point, securely tack the cross member in place. Double check dimensions and once you are satisfied with your results, weld permanently.

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Install the center section studs and locknuts at this time. Make sure the inside of the housing is clean and ready for assembly. Install the outer axle seals if needed. The center section may be installed at this time.

Pre assemble the upper and lower control arm assemblies next. Thread the left and right handed jam nuts onto the corresponding 5/8"x 3/4" heims. The nut needs to be set at 7/8" from the threaded end of the heim to the nut. Apply an anti seize lubricant to the threads of the heims and install the heims into the ends of the upper and lower control arms until the nut just seats against the tube adapter.



Install the front upper control arms into the chassis by using 2 each of the upper heim adapters , using the existing hardware. The left handed heims attach to the chassis on both the upper and lower control arms. Attach the lower control arms in the same fashion using the lower front heim adapters.

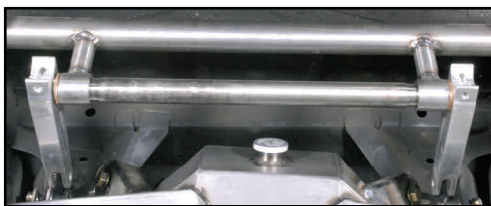
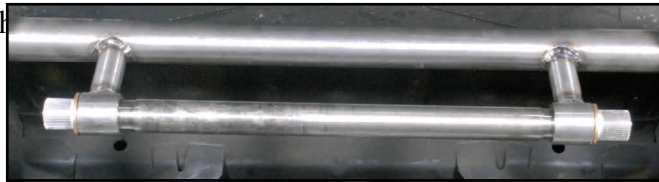


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Using a jack and jack stands to support the housing, install the upper rear control arms using the rear heim spacers, 2 of the 2 1/2"x 1/2" bolts, 2 flat washers and 2 top lock nuts. Start in the midpoint adjustment on both sides on the housing. Install the rear lower control arms using the 4 rear high mis-alignment bushings, 2 of the 3"x 1/2" bolts, 2 flat washers and 2 top lock nuts. Start with the rear of the bar in a midpoint adjustment on the housing as well. The pictures below show where the initial install point for the arms.



Thread the 4, 3/8" jam nuts onto their corresponding 3/8" left hand and right hand heims as far as they will go. Use anti seize lubricant on the threads and thread them into the 3/4" hex anti roll adjuster links. Use the 4- 1 1/4"x 3/8" bolts, 4 flat washers and 4 Nylock nuts to attach the links to the anti roll arms and the anti roll tabs on the housing. Make sure the links adjust in the same direction by attaching the left hand heims to the anti roll arms. This will be important when adjusting preload. Now install the oillite bushing from the outside in to the crossmember bar and then slide the Anti-roll bar into the oillite bushings. Now install the antiroll arms with

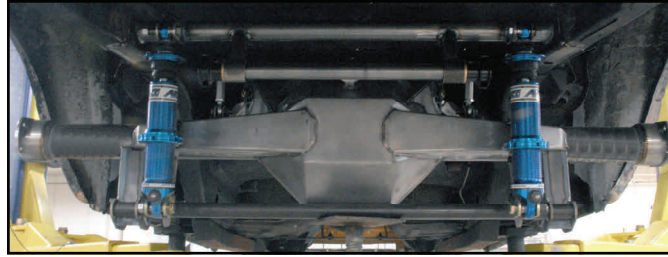


The adjustable lower shock mounts attach to the housing using 4 1 1/4"x3/8" bolts, 4 flat washers and 4 Nylock nuts. Start with the brackets one hole up from the bottom initially. Install both sets of mounts in the middle of their adjustment range. The shocks (not included in kit) mount to the upper cross member and the lower adjustable mounts using the 4, 2 1/4"x 1/2" bolts, 4 flat washers and 4 Nylock nuts. Install the shocks without springs for the initial lower shock mount adjustment.



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At this time the rear end assembly, Shocks, springs brakes and all associated parts can be completed. Preliminary adjustments will be made after the vehicle is completed.



NOTE; the housing will need to be squared in the vehicle, ride height and pinion angle will need to be set before the driveshaft is measured. Weight must be on all 4 wheels as well. First thing that must be done in the preliminary adjustments is the squaring of the housing in the vehicle. As mentioned before, the point that the B pillar attaches to the rocker makes an excellent point to measure for perpendicular to the vehicle centerline. Drop a plumb bob down on both sides of the vehicle at the bottom of the B pillar and make a mark on the floor. Strike a chalk line between the marks. Drop the plumb bobs over the front of the axle tubes as far towards the outside ends of the housing as possible. Measure from the plumb bobs to the chalk line, this measurement needs to be the same on both sides. Make sure that the wheel is centered in the opening when you're making these adjustments. Typically, most adjustments will need to be double checked throughout the process.

Ride height is next. Start by making sure that you have adequate clearance between wheel opening and the tire when the shock is fully compressed. Mount the shocks without springs and jack the rear end assembly with the tires installed up into the vehicle to insure there is no contact between the tire and wheel opening or wheel tub. If there is contact, move the adjustable lower shock mounts up on the housing until there is no contact. Install the springs on the shocks and set the weight of the vehicle on the rear axle. Measure the center to center dimension of the $\frac{1}{2}$ " shock mounting bolts, it should be $13 \frac{1}{2}$ " to $13 \frac{3}{4}$ " at ride height. Adjust the lower adjustable spring seats to accomplish this.

The lower control arm angle should be set so that it is level at ride height. This is a preliminary setting and may need to be adjusted according to your application.

Pinion angle and side to side adjustment are set with the upper control arms. Recommended pinion angle would be at 2 degrees more than your engine angle. (Example; if the engine is set at a 3 degree downward angle towards the rear, the pinion would point up 1 degree at ride height.)

This dimension is subject to change dependent on your application. Tuning both upper control arms in the same direction either increases or decreases the pinion angle (depending on which direction you turn the bars) turning them opposite directions moves the housing side to side. The side to side adjustment should be used to center the wheels in the openings from side to side. Once side to side and pinion angle is set, make sure the upper control arms are neutral so there is no unintended preload in the chassis.

With all of the above adjustments being made, driver in the seat and all fluids topped off, set the anti roll. Check that the anti roll links and upper control arms are free. Wiggle them with your hand to see if they are free. Once you're satisfied they are neutral set the right aide adjuster link $\frac{1}{2}$ turn longer than neutral. This should be a good starting point. Make sure once all of the aforementioned adjustments have been made tighten all of the jam nuts.

Safety precautions should be followed at all times!

Initial Setup:

Once you make it to the track, final adjustments can be determined. If the car launches either left or right, the anti roll can be adjusted to compensate. If the car launches to the left, decrease preload in the anti roll, if it launches to the right, increase preload.

Typically the lower control arm will be set level at ride height. Lowering the control arm at the housing decreases squat, raising it increases squat.

The upper control arm housing adjustment will control tire "hit". Moving it up on the housing upper ear increases hit, lowering the control arm on the housing upper ear decreases hit. The determination on which way to go can be made with the shocks. If tightening the rebound on the shocks makes the car work better, decrease hit. If loosening the rebound makes the car work better, increase hit.

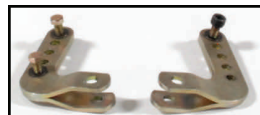
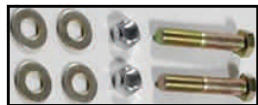
The shocks can also be used to control body roll. Tightening the bump on the right rear shock and tightening the rebound on the left rear shock will help with body roll.

Material List

M9 HOUSING



LOWER SHOCK MOUNT HARDWARE



765-1450X	Lower Shock Mounts, PR.	2
718836XX	3/8 - 24 x 1 1/4" Bolts	4
737304XX	3/8 - 24 Top Lock Nuts	4
838FW	3/8" Flat Washers	8
718915XX	1/2 - 20 x 2 1/4" Bolts	2
737577XX	1/2 - 20 Nylock Nuts	2
733817XX	1/2" SAE Flat Washers	4

Material List

UPPER CONTROL ARM HARDWARE



72310021	Upper Control Arm	2
72310022	Upper Front Heim Adapter	4
72310023	Upper Rear Heim Adapter	4
73416MHJ	5/8"x 3/4 - 16 RH Moly Heim	2
73416MHJL	5/8"x 3/4 - 16 LH Moly Heim	2
73416JNL	3/4 - 16 LH Jam nut	2
73416JNR	3/4 - 16 RH Jam Nut	2
718916XX	1/2 - 20 x 2 1/2" Bolts	2
737577XX	1/2 - 20 Nylock Nuts	2
733817XX	1/2" Flat Washers	4

LOWER CONTROL ARM HARDWARE



73416MHJ	5/8"x 3/4 - 16 RH Moly Heim	2
73416MHJL	5/8"x 3/4 - 16 LH Moly Heim	2
73416JNL	3/4 - 16 LH Jam nut	2
73416JNR	3/4 - 16 RH Jam Nut	2
72310024	Mis-alignment Spacer (5/8"x 1/2" HMS)	4
72310025	Lower Front Heim Adapter	4
718918XX	1/2 - 20 x 3" Bolts	2
737577XX	1/2 - 20 Nylock Nuts	2
733817XX	1/2" Flat Washers	4

Material List

UPPER CROSSMEMBER



72310037	Anti-Roll Bar	1
72310038	Oillite Bushing	2
618841XX	3/8 - 24 x 2 1/4" Arm Clamp Bolt	2
737304XX	3/8 - 24 Top Lock Nut	2
838FW	3/8" Flat Washer	2
72310039	Anti Roll Arm	2
718915XX	1/2 - 20 x 2 1/4" Bolts	2
737577XX	1/2 - 20 Nylock Nuts	2
733817XX	1/2" SAE Flat Washers	4

ANTI-ROLL LINK HARDWARE



72310032	Anti Roll Adjuster Link	2
72310033	3/8 - 24 RH Heim (Cut 3/8" Off Each Heim)	2
72310034	3/8 - 24 LH Heim (Cut 3/8" Off Each Heim)	2
72310035	3/8 - 24 RH Jam Nut	2
72310036	3/8 - 24 LH Jam Nut	2
718838XX	3/8 - 24 x 1 1/2" Bolts	4
737082XX	3/8 - 24 Nylock	4
838FW	3/8" Flat Washer	8

Notes: