



Technical Support Line: (952) 985-5675 Email: sales@QA1.net

### INSTALLATION INSTRUCTIONS

MUSTANG K-MEMBER P/N MUK01 '79-'93 Mustang P/N MUK02 '94-'04 Mustang

### NOTICE- THIS K-MEMBER REQUIRES THE USE OF COIL OVER SUSPENSION. K-MEMBER WILL NOT WORK WITH FACTORY STYLE SPRINGS.

### **TOOLS AND SUPPLIES REQUIRED**

• Floor Jack • Jack Stands • Spring Compressor • QA1 Engine Mounts

Wrench Set
 Socket Set
 Engine Hoist
 Tape Measure

### **PRE-INSTALLATION NOTES**

'93-'04 Cobra requires the use of an oil filter relocation kit to fit QA1 K-member. Customers report that the STP Extended Life Oil Filter S2XL clears the k-member without a relocation kit.

K-member requires the use of QA1 engine mounts purchased separately.

52113 engine mounts for 5.0 raise engine  $\frac{1}{2}$ " from original location for header and rack clearance.

Motor mounts for 5.0 engine will need "nub" removed to work with QA1 Engine Mounts

QA1 Engine Mounts	Part Number
5.0 Engine Mounts (fits 79-95 Mustangs)	52113
4.6 Engine Mounts (fits 96-04 Mustangs)	52114
LS Engine Mounts	52115

QA1 does not recommend driving the vehicle until it has been properly aligned due to changes in suspension geometry that will affect the handling characteristics of the vehicle. A front end alignment should be performed by a qualified alignment shop after any changes to the suspension system.

### Removal:

- 1. Raise the front of the car and place it on jack stands. **SEE YOUR CAR'S OWNER'S MANUAL FOR PROPER**JACKING LOCATIONS AND SUSPENSION DISASSEMBLY. DEATH OR SERIOUS INJURY CAN RESULT IF
  INSTRUCTIONS ARE NOT CORRECTLY FOLLOWED.
- 2. Start QA1 Mustang K-member installation by inspecting chassis components. Look for worn out bushings, ball joints, etc. If anything looks suspicious, now is the time to replace it.
- 3. Remove the wheels and then unbolt the brake calipers. Tie them up out of way. Do not hang by brake line.

- 4. Remove the sway bar end link bolts and bushings.
- 5. Use the jack to support one of the A-arm assemblies. Raise the A-arm up just enough to take the load off of the strut and the spindle. Loosen and remove the nut at the upper strut mount. Slowly, CAREFULLY, let the A-arm assembly down until the spring is free and can be removed. (This may require the use of a spring compressor.) Repeat the procedure for the both sides
- 6. Remove struts from spindles. Assemble coil-over hardware onto struts and bolt to spindles. With all coil-over hardware and spring installed on strut, bolt coil-over into upper strut mounting point. See instructions included with coil-over struts.
- 7. Remove the lower control arm pivot bolts using 21mm socket. To eliminate the need to remove the lower ball joint and tie rod ends the coil-over struts should be fully installed during this step.
- 8. After checking to ensure the wheels and steering wheel are straight, mark the steering shaft linkage to assure same position upon reassembly. Disconnect the shaft to rack steering joint. (*Figure 1*)
- Remove the steering rack bolts and pull the rack forward off of factory K-member stud mounts.
   Temporarily support steering rack with tie wrap.
- Support the engine with an engine hoist or suitable support fixture, taking pressure off of factory Kmember. Whichever method used to support the



engine weight, DO NOT REMOVE ENGINE SUPPORT UNTIL NEW K MEMBER IS INSTALLED AND TORQUED.



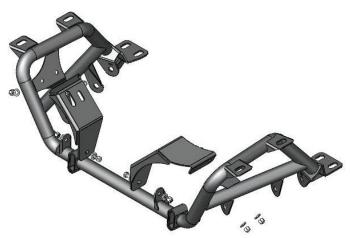
- 11. Using a 21mm socket, remove and retain the motor mount bolts from the stock K-member.
- 12. Supporting the stock K-member with a floor jack (during removal process a couple helpers will be needed. One on each side of the K-member and one operating the floor jack), remove and retain the four (4) bolts in the rear of the K-member using a 15mm socket.
- 13. Remove and retain the four (4) bolts in the front upper mounting area using an 18mm socket.
- 14. Carefully lower the K-member and slide from under the car. **Installation:**

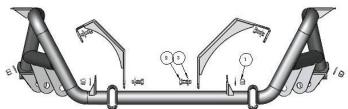
1. In preparation for the new K-member install you should first re-align the receiving nuts of the upper K-member mount (figure 2) using a screwdriver. This will ease the reinstallation of the mounting bolts. The engine mounting plates should be bolted to the K-member at this time using the supplied hardware. Torque to 24 lb-ft (figure3)





Part #	Description	Qty
1	3/8 NYLON LOCKNUT ZINC	6
2	3/8-16 HEX HEAD GRADE 5 ZINC	6
3	3/8 SAE WASHER ZINC	12





# ENGINE MOUNT INSTALLATION DIAGRAM

2. Slide new K-member into position and temporarily snug all eight (8) K-member mounting bolts.

## **Squaring Up the K-Member**

- 3. To square up the new K-member, take a measurement from both rear K-member mounting tabs and measure back to a stationary chassis item like the lower trailing arm mounting bolts. Also take a cross measurement and adjust K-member accordingly so that the measurement is square to the car.
- 4. Re-install the control arm pivot joints to the new K-member using the supplied hardware (MUST USE LOCTITE). Note that the supplied 1.8" dia. stainless washer will need to be installed in the correct position (*figure 4*) dependent on whether the factory or QA1 Street Series arms will be used. If using QA1 Race Series arms, refer to instructions included with arms. Torque control arms to 130 lb-ft \*WHILE VEHICLE IS AT RIDE HEIGHT\*.

Part #	Description	Qty
1	5/8 X 4 1/2 HEX HEAD GRADE 5 ZINC	4
2	5/8 NYLOCK ZINC LOCKNUT	4
3	5/8 SAE FLAT WASHER ZINC	6
4	INSERT, MUK RACK MOUNT	4
5	WASHER, .63" I.D. X 1.80" O.D.	6
6	5/9 Y 6 HEY HEAD GRADE 5 7ING	2

# CONTROL ARM INSTALLATION DIAGRAM

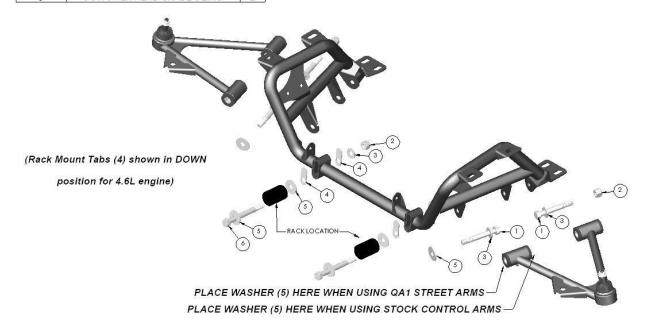
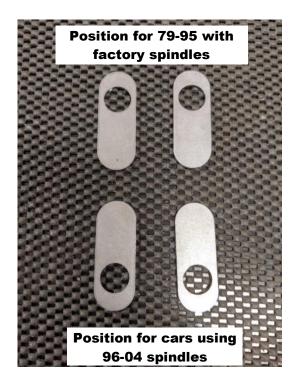


Figure 4

- 5. Install the steering rack to the new K-member. The new QA1 K-member will come with four stainless steering rack tabs to ensure proper rack alignment with the tie rods. Install two tabs into the front of the K-member steering mount and two in the back of the steering mount. IT IS VERY IMPORTANT THE TABS ARE INSTALLED WITH THE CORRECT HOLE ORIENTATION FOR YOUR VEHICLE TO AVOID UNWANTED BUMPSTEER.
  - '79-'95 cars using stock spindles: TAB HOLES UP
  - '96-'04 cars using stock spindles: TAB HOLES DOWN
  - '79-'93 Fox body using SN95 spindles from 94/95 model: TAB HOLES UP
  - '79-'93 Fox body using SN95 spindles from '96-'04 model: TAB HOLES DOWN

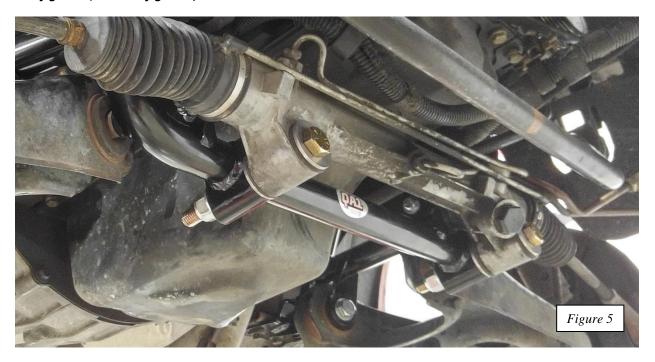




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Make sure the front wheels are straight and loosley reassemble the steering joint using the factory hardware. In some cases the intermediate shaft at the firewall may have to be moved forward (pulled out) to mate up with the steering joint. Because these vehicles have collapsible steering columns, it is common to extend the intermediate shaft to attach the rack & pinion.

- 6. Check factory rack bushings for inner steel sleeve. If the factory rack bushings did not come with a 5/8" I.D. sleeve you will need to use the provided sleeves in the 3/4" I.D. rack bushings. If your mustang came with factory 5/8" I.D. sleeves in the rack bushings they will work with your QA1 K-member. If replacing bushings and sleeves, use Moog part number K8422.
- 7. Tighten both steering rack mounts using the provided hardware. The (2) 1.8" dia. stainless washers should be installed on both sides of the rack bushings, with a 5/8 washer on the backside of the K member mount. (Parts List- figure 4 / Picture figure 5)



- 8. Tighten rack mounts using 15/16" socket/wrench until bushing diameter expands to same as washer.
- 9. Tighten your loosely installed steering linkage
- 10. Evenly torque all eight K-Member bolts (4 upper mounting bolts (89 lb-ft) and 4 rear chassis bolts (72 lb-ft) to the given specifications.
- 11. Release engine support and realign the engine mounts. Torque to 50 lb-ft.
- 12. Re-install the brake calipers and wheels.
- 13. Now that your installation is complete, the first stop must be to a front-end alignment shop for alignment of the vehicle.



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READ ALL INSTRUCTIONS CAREFULLY AND THOROUGHLY PRIOR TO STARTING INSTALLATION. PRODUCTS THAT HAVE BEEN INSTALLED ARE NOT ELIGIBLE FOR RETURN. USE THE PROPER JACKING LOCATIONS. DEATH OR SERIOUS INJURY CAN RESULT IF INSTRUCTIONS ARE NOT CORRECTLY FOLLOWED. A GOOD CHASSIS MANUAL, AVAILABLE AT YOUR LOCAL PARTS STORE, MAY ALSO AID IN YOUR INSTALLATION.

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