Innovative Performance Technologies, LLC
660 Andico Road, Suite A
Plainfield, IN 46168

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Lower Chassis Brace
1979-2004 Mustangs
(LCB-M03)

This lower chassis brace is designed especially to work with **aftermarket tubular K-members** to stiffen and strengthen the front tunnel area, minimizing flex to help maintain correct front suspension geometry. Adding this brace results in tighter steering response and more predictable handling under cornering and braking. Combine with our ***Spider Brace*** to completely integrate the front and rear chassis sections for unprecedented car control.

(Please read all instructions prior to beginning installation. Contact your dealer with any questions.)

Kit Includes:

1	Lower Chassis Brace
2	Front Tube Assembly
2	Threaded Bung
2	Mounting Bracket
2	12x1.75 x 140mm Bolt
2	12mm Spring Washer
4	3/8-16 x 1.250 Bolts
4	3/8" SAE Washer
4	3/8-16 Pinch Nut
2	½-20 Jam Nut (RH)
2	½-20 Jam Nut (LH)
2	Cleves - ½-20 x 3/8 Bore (RH)
2	Cleves - ½-20 x 3/8 Bore (LH)

Required Tools: Basic hand tools
MIG Welder

Install Time: Approximately 2 hrs.

NOTE: *This brace may not work with some long-tube headers.*

Installation:

1. Raise vehicle to allow access for installation. [*NOTE: It is recommended the vehicle's weight be supported by the suspension during installation. This can be accomplished by using a drive on style lift, ramps or raising the car and positioning jackstands under the suspension.*]
2. Disconnect battery.
3. At rear mounting location of K-member, locate the four bolts (two per side) which secure the K-member to unibody, remove inner most bolt on each side.
4. Using supplied 12x1.75x140mm bolts and spring washers install lower chassis brace in place as shown (Fig.1). Torque bolts to 45~50 ft-lbs.
5. Thread jam nuts completely onto both RH (right hand) and LH (left hand) clevises. Install the proper clevis (RH or LH) into each of the front tubes and threaded bungs. Leave ¼" of thread showing at each end. ***[NOTE: LH threaded bung is identified by machined groove (Fig.2).]***
6. Temporarily insert clevis/bung assembly into open end of tube. Measure center-to-center distance between holes as shown (Fig.2). Round this number to the nearest ¼" and **record here.** _____ _____
7. Remove clevis/bung assembly from tube. Loosely fasten to mounting bracket by placing one 3/8" washer between clevis and bracket and installing bolt (Fig.3).

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Mounting Bracket Placement

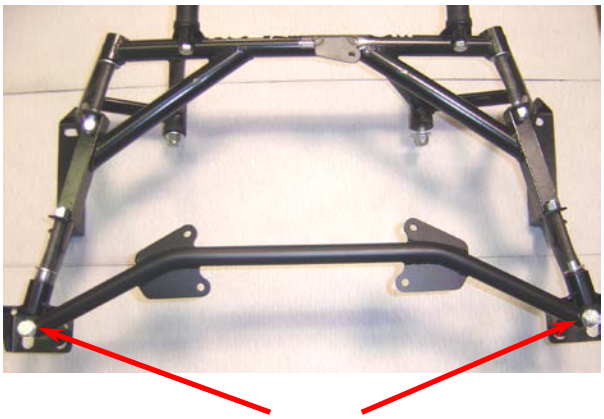
Placement of front mounting bracket will vary from car-to-car depending on K-member style, oil pan and other items. To get the most support from the system we recommend placing bracket on the bottom side of the K-member main tube. However, if this is not possible for your application good results will still be had by positioning to a gusset tube. (See Fig.4, 5 and 6 for example mounting locations.) To make installation easy the bracket is intended to be welded from the bottom only; doing this eliminates the need to work inside the engine compartment.

8. Decide best placement option for your bracket as discussed above. Confirm adequate clearance to surrounding parts for both the bracket and tube. ***Don't forget about tool clearance***; use a socket to confirm clearance to the nut/bolt before welding. Grind paint from K-member at desired bracket location (Fig.4,5,6).
9. Temporarily clamp or spot weld bracket into position. Measure distance between holes (Fig.7). Round this number to the nearest ¼" and **record here** _____ _____.
10. Remove bracket.
11. Subtract measured length in Step 9 from one in Step 6; this is the amount to cut from the tube.
12. Measure, mark and cut extra length from tube (Fig.8).
13. Insert clevis/bung/bracket assembly into tube. **DO NOT WELD.**
14. **To ensure proper alignment of bracket for welding fasten tube assembly to forward tab on lower chassis brace**. Place one 3/8" washer between clevis and bracket and install bolt from the top down (Fig.9).
15. Re-position bracket and spot weld into desired location. Remove tube assembly and fully weld bracket in place. Fully weld bung to tube assembly.
16. Repeat steps 6-15 for remaining bracket and tube assembly.
17. Clean weldments with wire brush. Spray all bare metal areas with rust preventative paint. If color matching is desired, use Textured Matte Black paint.

Final Adjustments

18. Loosely reinstall tube assemblies. **Lengthen** tube by rotating it ***by hand*** until a firm resistance is felt. Do not use a wrench for this, the tube does not have to be overly tight, just enough force to push out slightly against both brackets. Tighten 3/8" bolts and jam nuts on clevises.
19. Lower vehicle and reconnect battery.

Fig.1



VIEWING K-MEMBER FROM BOTTOM SIDE

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Fig.2

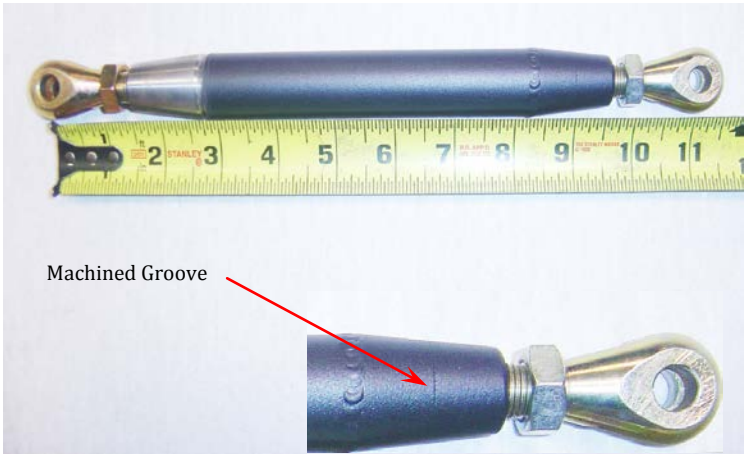


Fig.3

Fig.4

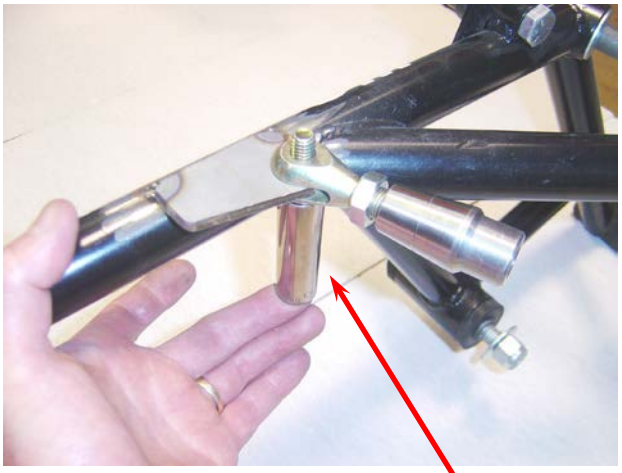
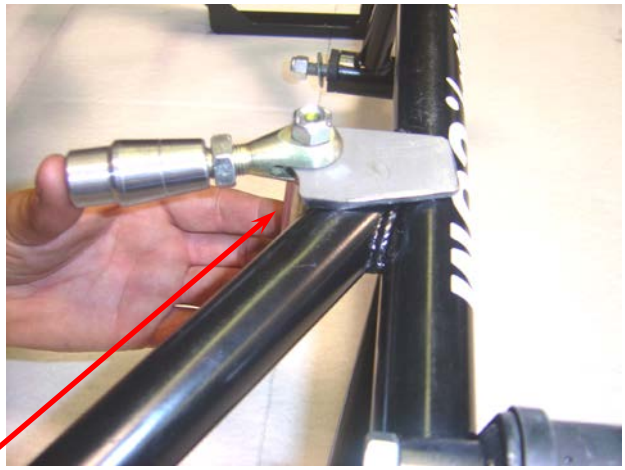


Fig.5



Use socket to confirm tool clearance before welding in place.

Fig.6

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Fig.7

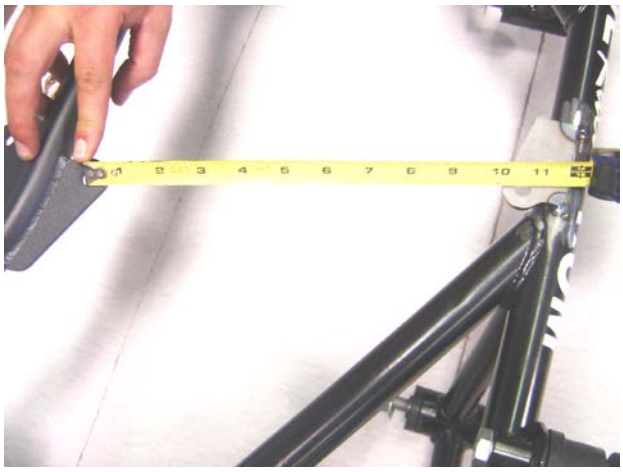

Fig.8

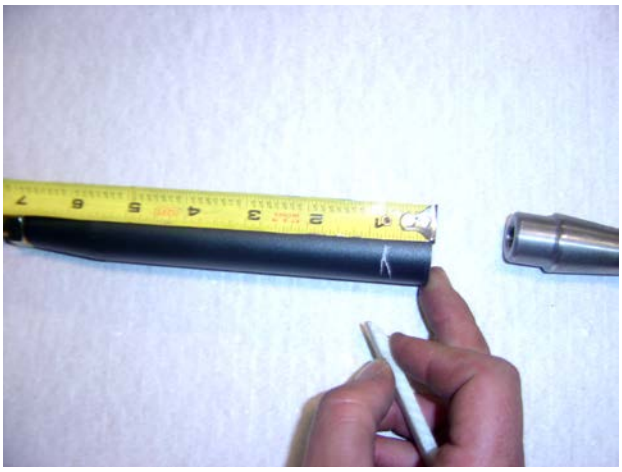

Fig.9