



Spider Brace 1999-2004 Mustangs (SPD-M01)

The Spider brace works with our Lower Chassis brace to completely integrate the K-member and subframe system to eliminate unwanted movement of the front frame rails caused by launching, cornering and braking. Acting as a lower frame rail, this system gives your unibody car the benefits of a tube chassis by greatly increasing front end rigidity and transferring those loads to the strongest part of the car, the subframe system.

*To achieve the ultimate in chassis stiffness, go with Stiffeners' **Fully Integrated Technology (FIT)** System!
See buystiffeners.com for more details or ask your dealer!*

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

Kit Includes:

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|------------------------------|---------------------|
| 2 Front Tube Assembly (long) | 4 10x1.5x40mm Bolts |
| 2 Rear Tube Assembly (short) | 8 3/8-16x1.25 Bolts |
| 1 Driver Trans. Brkt. | 8 3/8-16 Pinch Nuts |
| 1 Passenger Trans. Brkt. | 12 3/8 SAE Washers |
| 1 Driver Rear Brkt. | |
| 1 Passenger Rear Brkt. | |
| 4 Clevis (Right Hand) | |
| 4 Clevis (Left Hand) | |
| 4 Jam Nut (Right Hand) | |
| 4 Jam Nut (Left Hand) | |

Required Tools: Floor Jack
MIG Welder
Basic Hand Tools

Install Time: Approximately 1 hr.

NOTES:

Must have subframe connectors installed to use this kit, most any manufacturer's square or rectangular connectors will work. Also requires Stiffeners Lower Chassis Brace (LCB-M01) to be present prior to installation.

Installation:

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| <ol style="list-style-type: none">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. <u>Disconnect battery.</u>3. Support transmission with floor jack under cross-member, leaving access to outer mounting bolts (A) as shown in Fig.1.4. Remove driver's side mounting bolts (A), they will not be reused. | <ol style="list-style-type: none">5. Located driver's side transmission bracket supplied with kit, designated by a RED paint dot.
[NOTE: These brackets are not the same side to side, be certain you have the Driver's side bracket.]6. With RED dot facing up, position bracket into place as shown in Fig.2. Install using two 10mm bolts and 3/8 washers provided in kit. Loosely secure in place, allowing bracket to still have movement.7. Repeat step 6 for passenger side; make sure the mount tabs are angled downward. |
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8. Locate bag containing Left Hand (LH) clevises and jam nuts, identified by "LH" on bag. Thread nut completely onto clevis. *[NOTE: These are LH threads, turn nut **COUNTER-CLOCKWISE** to install.]*
 9. Repeat step 8 with Right Hand (RH) clevises & jam nuts.
 10. Install one RH & LH clevis into each tube assembly leaving half the thread length showing. *[NOTE: LH thread on tube is identified by machined groove. (Fig.3)]*
 11. Using supplied 3/8" hardware; loosely fasten Front Tubes (the long ones) to transmission brackets as shown in Fig.5. *[NOTE: Confirm bolts are not touching bottom of car. If so, loosen bracket and install bolt from the top side to gain clearance.]*
 12. Position clevis on opposite end of tube over mount located on Lower Chassis brace. (Fig.3)
 13. While clevis remains positioned on bracket as shown, rotate tube until holes align. Place one 3/8" washer between clevis and bracket (Fig.3) and fasten with 3/8" hardware.
 14. Repeat steps 12-13 for remaining front tube.
 15. Loosely fasten rear tubes to transmission brackets using supplied 3/8" hardware as shown in Fig.5.
 16. Attach passenger rear bracket to remaining clevis on rear tube. Place one 3/8" washer between clevis and bracket as did in step 13. Fig.4 shows proper orientation for passenger side bracket.
 17. Place rear bracket against side of subframe connector as shown (Fig.4) and trace along bottom and both sides. The bracket is to be slightly inclined toward the front so the clevises do not bind. Location on the rail should be just in front of subframe connector seat bracing.
 18. Grind paint from marked location on SFC. Reposition bracket and tack-weld the bottom and both ends into place, **keeping tube assembly connected to assist in alignment.**
 19. Remove tube and fully weld bottom and both ends of brackets. *[NOTE: Use caution around fuel and brake lines.]*
 20. Repeat steps 16-19 for driver side rear bracket.
 21. Clean weldments with wire brush. Spray all bare metal areas with rust preventative paint. If color matching is desired, use Textured Matte Black paint.
 22. Loosely reconnect both tubes to rear brackets.
 23. Transmission brackets supplied with this kit are slotted to allow for minor installation adjustments. Position brackets to obtain best clearance to exhaust pipes and final tighten driver and passenger transmission brackets into place. *[NOTE: It may be necessary to adjust the tube lengths for best fit. This is done by simply rotating the tube.]*
- Final adjustments – Please follow these steps.**
24. Beginning with either rear tube, **lengthen** tube assembly 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 against both brackets. Tighten 3/8" bolts and jam nuts. Repeat for remaining rear tube.
 25. Repeat this same procedure for both front tubes. As with the rear, make sure you are lengthening the tubes, pushing out against both brackets. Tighten 3/8" bolts and jam nuts. Your Spider system has now been properly adjusted for best performance.
 26. Lower vehicle and reconnect battery.

Fig. 1

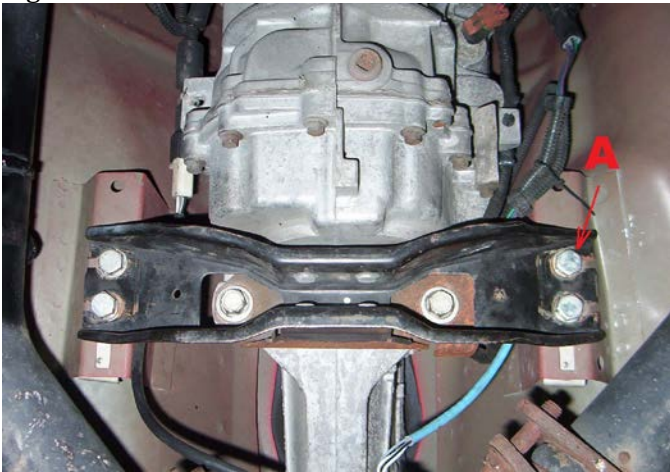


Fig. 2

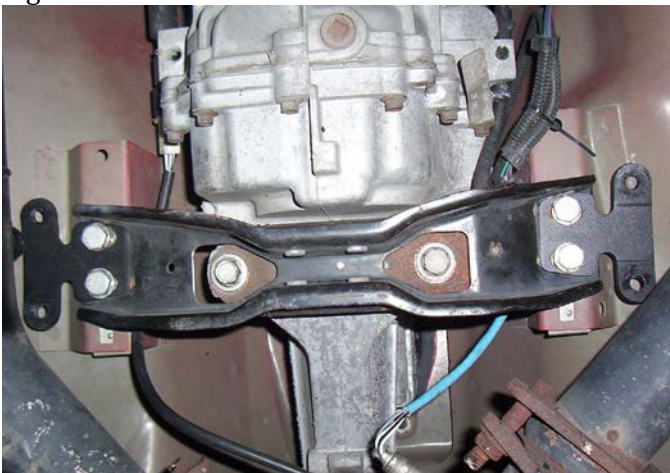


Fig. 3



Fig. 4



Fig. 5

