

*MM Strut Tower Brace, 2003-04 Cobra w/ Kenne Bell/Whipple (MMSTB-8)*



The Maximum Motorsports MMSTB-8 is the first Strut Tower Brace made to clear the Kenne Bell Superchargers made for the 2003-04 Ford Mustang Cobra. While noticeably reducing cowl movement present in Mustang convertibles, it provides the maximum engine clearance possible.

*Read all instructions before beginning work. Following instructions in the proper sequence will ensure the best and easiest installation.*

1. Remove the windshield wiper arms. Lift the arm and pull on the release tab.



2. Raise the hood.

3. Disconnect the negative battery terminal.



4. Disconnect the two wiring harness connectors located at the passenger side firewall. Move the wiring harness so that it is resting across the driver side fender.





5. Unclip the wiring harness and the cruise control cable from the pinch weld seam at the firewall.
6. Using a screw driver, release the tab holding the electrical panel in front of the passenger side strut tower and rest the box on the frame rail. Also, disconnect the two electrical connectors attached to the rubber intake next to the passenger side strut tower.



7. Unbolt the pressure sensor located on the driver side of the supercharger and remove the two vacuum lines and electrical connector that are attached to it. The pressure sensor needs to be bolted on the opposite side of the mounting bracket to provide clearance for the strut tower brace.



8. Push the studs out of the sheet metal bracket that were used to secure the pressure sensor. Place a small socket over the head of the stud and use a large pair of pliers to push the stud into the socket.



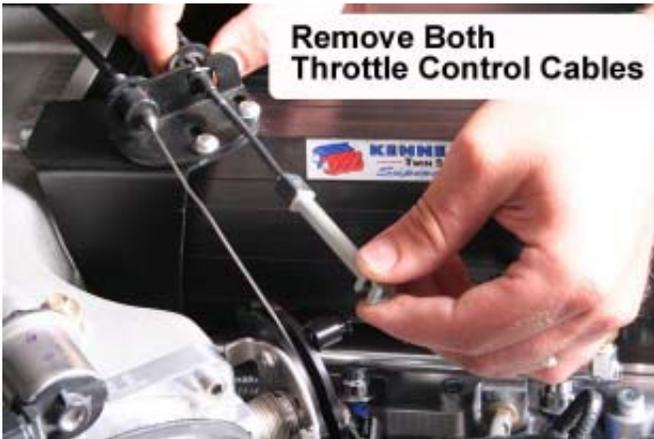
9. Use the provided 5mm hardware to attach the sensor on the inboard side of the bracket. Place a washer under each nut and tighten to 7 lb-ft. Do NOT overtighten, damage to the sensor may occur.



10. Reattach the vacuum lines and the electrical connector to the switch. Be sure to connect the large vacuum line to the large port on the sensor and the small vacuum line to the small port on the sensor.



11. Disconnect the throttle and cruise control cables from the throttle body.



12. Set the MM Strut Tower Brace into position. The brace will settle into position on the strut towers and the firewall when it is positioned evenly side to side.

13. Check for clearance around the throttle body and air inlet tube. There should be at least 1/4" between the MM Strut Tower Brace and the throttle body. If necessary, shift the brace towards the passenger side to provide clearance.

NOTE: When standing at the front of the vehicle, the engine rocks counter-clockwise as the throttle is applied. If there is less than 1/4" of clearance on the driver side of the vehicle, check that the engine will not touch the Strut Tower Brace by starting the vehicle and revving up the engine. If necessary the brace can be shimmed up at the strut towers using flat washers.

NOTE: Check that the hood can be closed before continuing. If the brace is shifted too far towards the passenger side, it may interfere with the hood.





14. Be sure that both firewall mounts of the brace are held down against the firewall pinch weld. Mark the position of the firewall mounts on the plastic firewall cover. The cover will be trimmed in Step 17.

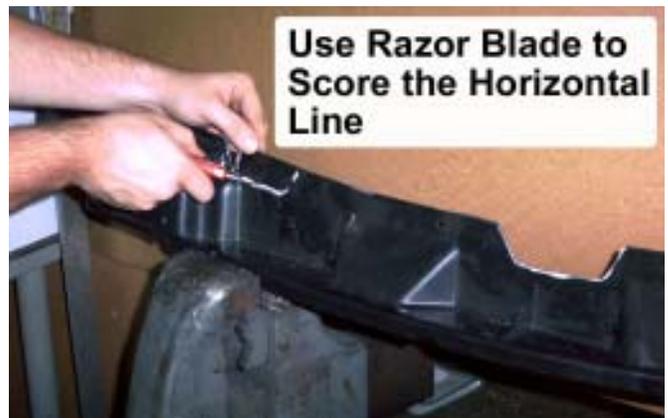


15. Remove the Strut Tower Brace.
16. Remove the alarm siren (if so equipped) from the firewall. Remove the hood seal from the cowl. Then remove the plastic firewall cover. It is held on with several small sheet metal screws.



17. Cut out the portion of the plastic firewall cover you marked in Step 14.

*Tip:* use a hacksaw on the vertical cuts. Use a utility knife to score the plastic on the horizontal cut, then bend and break the plastic on the scored line.



18. Put the plastic firewall cover back into position on the firewall. Set the Strut Tower Brace back into position and check that it is notched correctly.
19. Jack the front of the car up and set it securely on stands.
20. Position the Strut Tower Brace. Hold the brace downwards and rearwards. Mark the position of one hole on the passenger side strut tower top using a center punch. Remove the Strut Tower Brace for drilling.



21. Drill a 1/8" pilot hole. Drill out to 5/16". Deburr the hole.



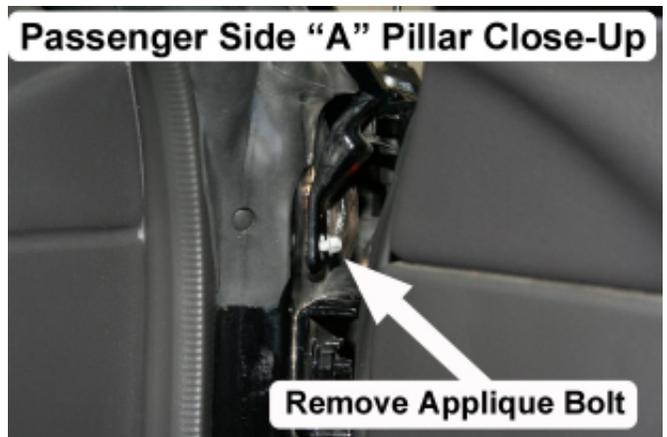
22. Set the Strut Tower Brace back into place. Insert a 5/16" x 1" long bolt into the hole to hold the brace in position. Hold it both downwards and rearwards. Mark the positions of all of the other holes on both strut towers. Unclip the relay box from the driver side inner fender panel to provide access for marking and drilling the hole. Remove the Strut Tower Brace before drilling.

23. Center punch each mark. Drill a 1/8" pilot hole. Drill out to 5/16". Deburr the holes.

24. Remove the plastic firewall cover.

25. Remove the 5/16" bolt securing the 'A' pillar applique. It is located above the door hinge. The door must be open to access the bolt. Do this on both the driver and passenger sides of the car.

NOTE: Do NOT remove the applique. Gently move it away just enough to open a small gap for removal of the plastic cowl at the base of the windshield.



26. Remove the plastic cowl cover at the base of the windshield. It is held on with clips. Remove it by gently prying it upwards. When it is loose, disconnect the hose to the windshield washer nozzles (pointed to, below).



27. Place the Strut Tower Brace back into position. Place flat washers under the heads of (6) 5/16" x 1" long bolts. Place the bolts through each of the holes at the strut towers. This is for positioning only. Do not install the nuts.

28. Hold the brace down and rearwards. Mark the position of the 8 holes at the firewall.

29. Remove the 6 bolts at the strut towers. Remove the Strut Tower Brace.

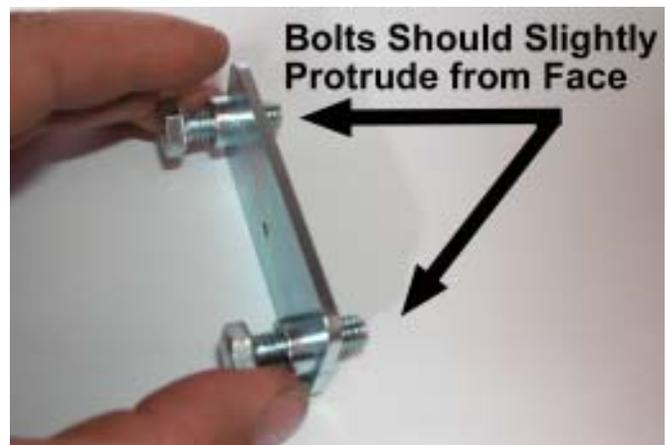
30. Center punch each mark. Drill the holes at the firewall. Start with a 1/8" pilot bit. Drill out to 5/16". Debur the holes.

NOTE: Hold the hood vertical when drilling downwards into the pinch weld. Doing so will provide clearance for the drill motor.

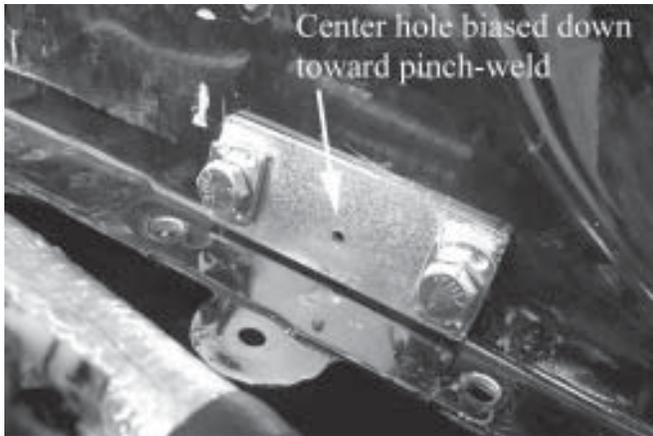
*Tip:* Remove the hood or hold it upright by using a rope or strap to tie the hood to the steering wheel.



31. Install the 3/4" long 5/16-18 bolts in the nut plate. Thread them through so that they protrude on the flat side of the nut plate. It is not necessary to thread the bolts all the way in.



32. Line up the nut plate on the 5/16" holes drilled in the firewall in Step 30. Use the bolts installed in the previous step as guide pins. Make sure that the small hole in the plate is biased downward.



33. Using the nut plate as a template, mark the location of the small hole using a scribe or punch.
34. Remove the nut plate from the firewall.
35. Drill a 1/8" pilot hole on your mark.
36. Drill the hole out to 3/16".
37. Debur the hole.
38. Remove the 5/16-18 bolts from the nut plates.
39. Install the nut plates behind the firewall. The flat side should be against the firewall, with the nuts toward the rear of the car. Make sure the small hole lines up with the 3/16" hole drilled in Step 36. Thread the 5/16-18 bolts into the nut plate to keep it from rotating when the sheet metal screw is installed in the next step.



*Tip:* On the Driver's Side, tape the nut plate to a screwdriver to help hold it in position behind the firewall while installing the bolts.



40. Install the #8 sheet metal screw into the small hole in the nut plates. Remove the 5/16-18 bolts.

**NOTE:** This will secure the nut plate to the firewall, making future removal and reinstallation of the Strut Tower Brace significantly easier. The head of the sheet metal screw should line up with the hole at the back of the strut tower brace mounting pad.



41. Set the Strut Tower Brace back into position.

**NOTE:** Make sure that the wiring harness disconnected in Step 3 is resting on the driver side fender until you are told to reconnect it. The harness **MUST** pass over the Strut Tower Brace rear mounting legs for final installation.

42. Insert all of the attachment bolts into position and start the nuts before tightening any bolt.

43. Torque the 5/16" x 3/4" long bolts into the nut plates at the firewall to 24 lb-ft.
44. Torque the 5/16" x 1" long bolts at the pinch weld to 24 lb-ft.
45. Torque the 5/16" x 1" long bolts at the strut towers to 24 lb-ft.
46. Reconnect the hose for the windshield washer nozzles. Reinstall the plastic cowl cover at the base of the windshield by gently snapping it back into position on its clips. Make sure the outer edge of the plastic cowl cover slips past the 'A' pillar applique and into its correct position. Reinstall the 'A' pillar applique bolts previously removed in Step 25.
47. Reinstall the plastic firewall cover. Put the passenger side into position first, making sure to place it into proper position underneath the ground strap. Secure with the retaining screws.
48. Reinstall the rubber weather stripping.
49. Reinstall the alarm siren if equipped.
50. Reinstall the throttle control cables.
51. Connect the wiring harness disconnected in Steps 4 and 6 along with the electrical panel located in front of the passenger and driver side strut tower.
52. Reinstall the negative battery cable.
53. Carefully lower the car to the ground.

#### Hardware Kit

- 10 5/16" x 1" Hex Bolt
- 4 5/16" x 3/4" Hex Bolt
- 24 5/16" G8 Washer
- 10 5/16" Nylock Nut
- 2 Nut Plate
- 2 Sheetmetal Screw
- 2 Metric Washer
- 2 Metric Bolt
- 2 Metric Nut