K-Member Installation Instructions

Required Tools:

- Engine Support Brace
- Assorted sockets and wrenches
- Trim Clip Tool
- Basic Hand Tools



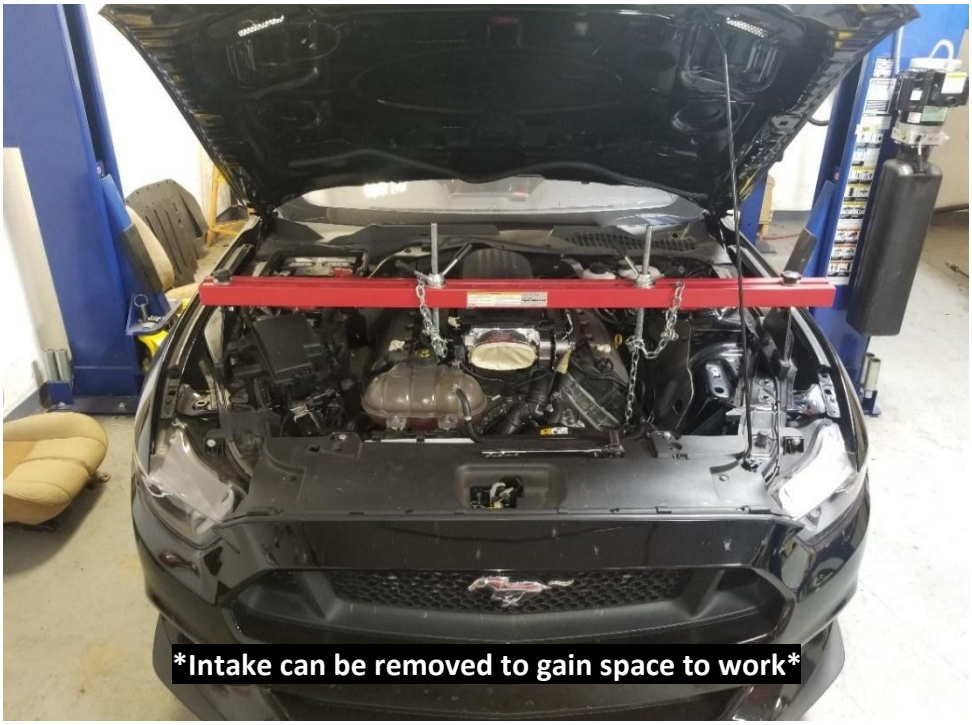
IMAGE 1

K-Member Removal:

1. Disconnect the battery.

2. Using masking tape, tape the steering wheel to the steering column as shown in **IMAGE 1**. This will help preserve the clock spring when you remove your steering shaft.

3. Support motor using a support bar shown in **IMAGE 2**. It is recommended that you support the engine off of the headers if possible but you can also use bolts for the alternator, AC compressor or a super-charger pulley.



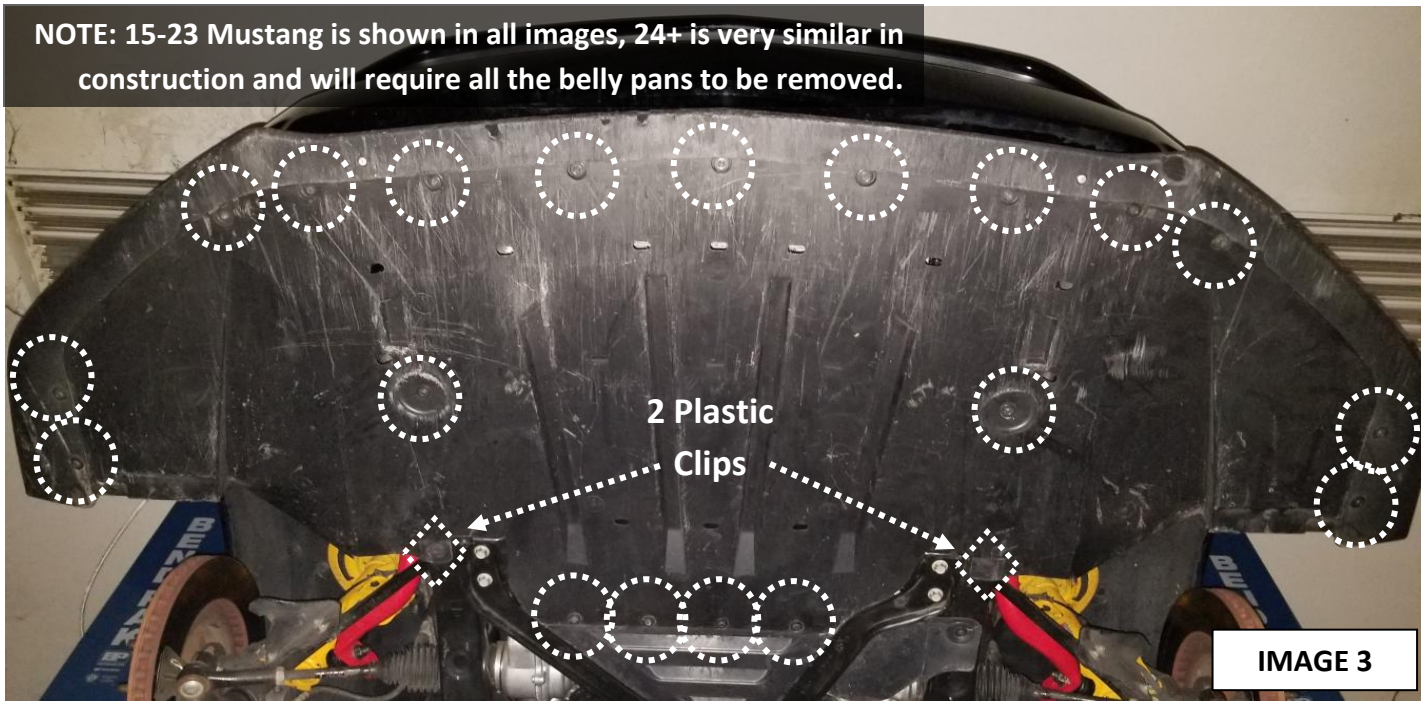
Intake can be removed to gain space to work

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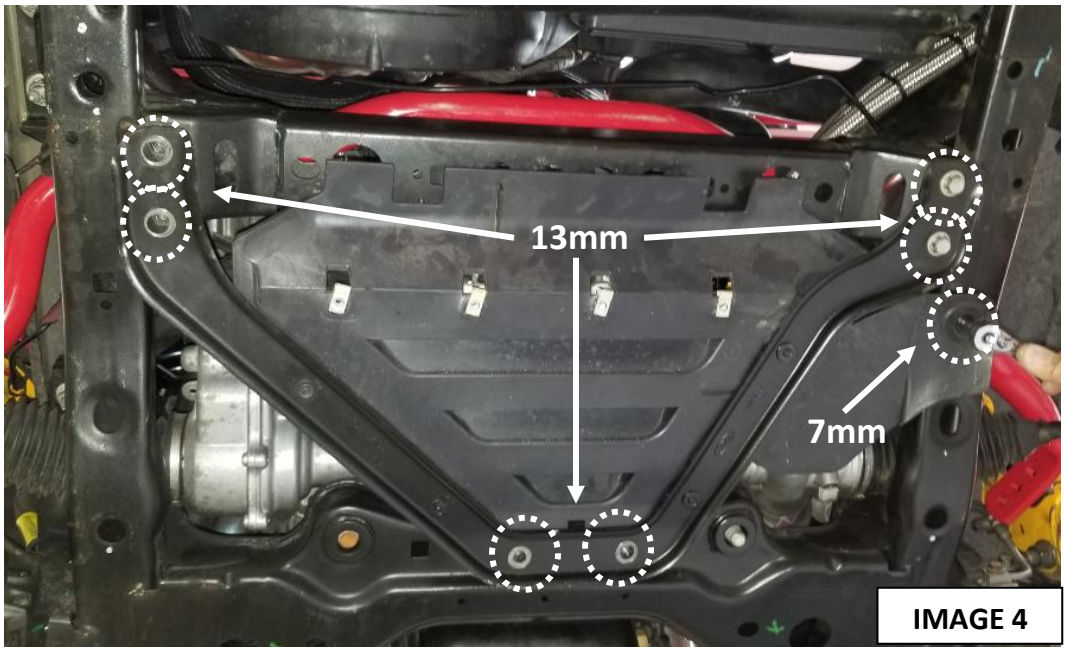
NOTE: 15-23 Mustang is shown in all images, 24+ is very similar in construction and will require all the belly pans to be removed.



4. Raise vehicle off the ground, you will need at least 24" of work space beneath the vehicle. Make sure vehicle is stable and secure.

5. Using a **7mm** socket, remove the nineteen (19) fasteners and the two (2) plastic clips holding the belly pan onto the subframe of the car. **IMAGE 3**

6. Using a **7mm** and a **13mm**, remove the reinforcement tray from the factory K-member. **IMAGE 4**



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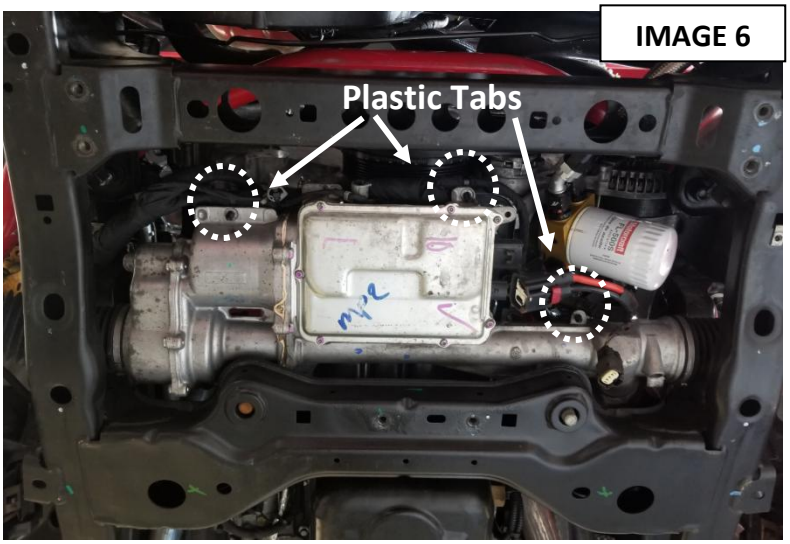
7. Disconnect the electrical connectors from the steering rack as shown in **IMAGE 5.**

8. Remove the 3 plastic tabs holding the wiring harness to the front of the steering rack shown in **IMAGE 6** using a trim tool.

IMAGE 5



IMAGE 6



9. Using a **T40** Torx socket, remove the screw holding the steering shaft to the input shaft on the steering rack. **IMAGE 7**

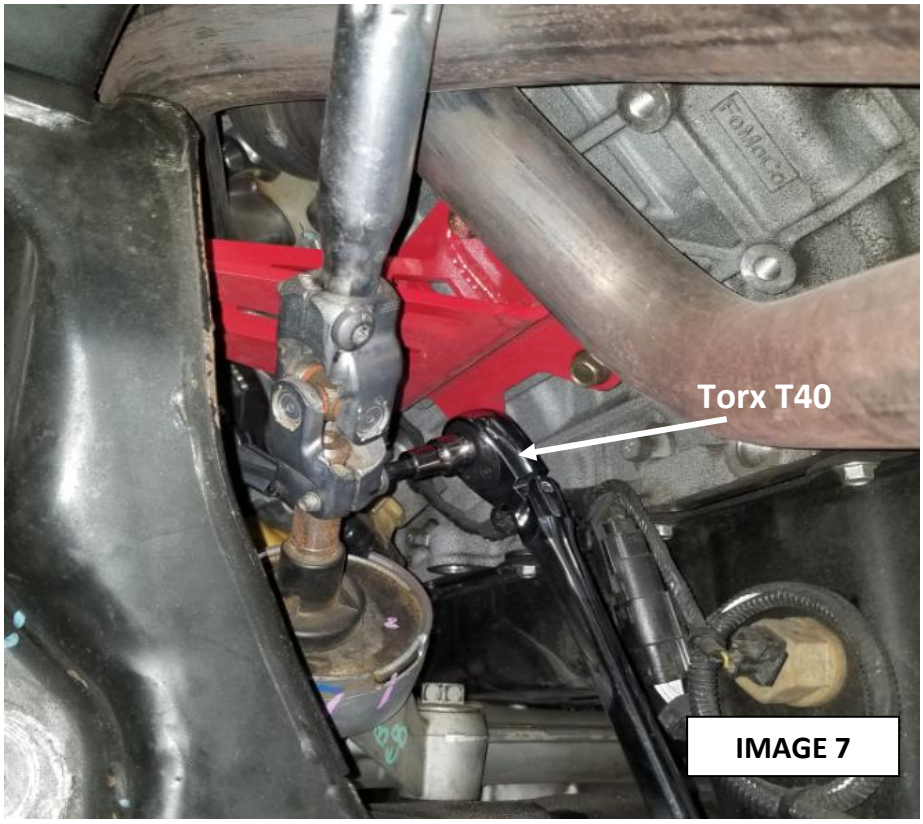


IMAGE 7

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K-Member Installation Instructions

10. Remove the outer tie rods from the spindle as shown in **IMAGE 10** using a **18mm** wrench**.** Use a brass or non-marring hammer to break the balljoint loose from the spindle.

11. Using a trim tool, disconnect the two clips holding the wheel speed sensor to the strut as shown in **IMAGE 8.**

12. Using a **10mm** socket, remove the wheel speed sensor from the hub. **IMAGE 9**

13. Using a ratchet strap, support the radiator and AC condenser as shown in **IMAGE 11**. Be careful not to over tighten the strap and damage the radiator or condenser. If you prefer to completely remove radiator, remember to refill your coolant and re-charge your AC system.

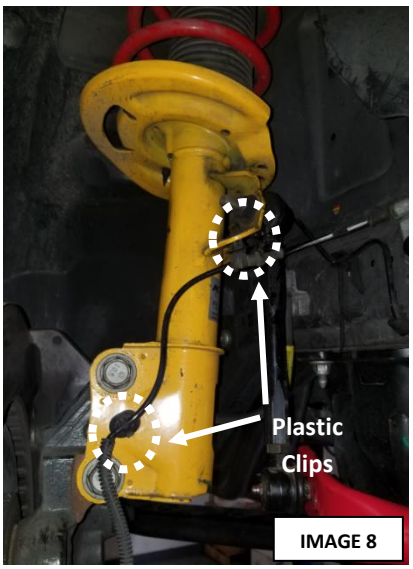


IMAGE 8



IMAGE 9

IMAGE 10

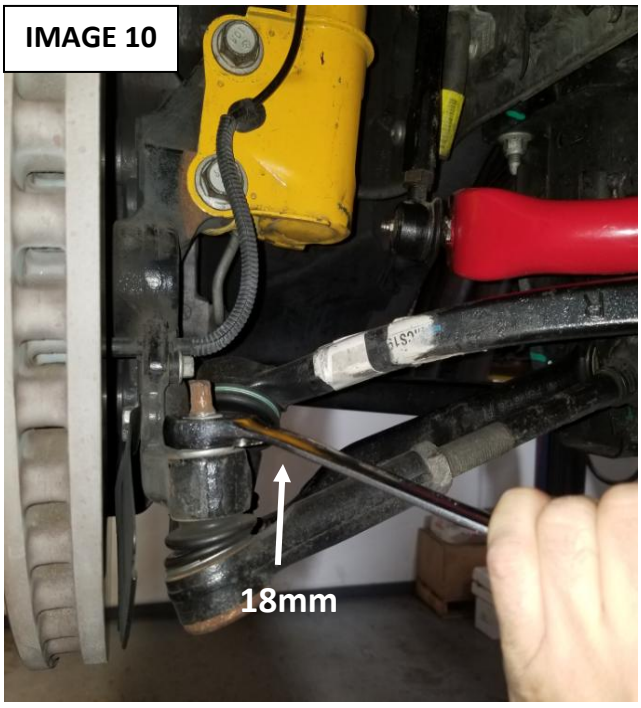




IMAGE 11

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K-Member Installation Instructions

14. Using a **19mm** and thin **14mm** wrench remove the sway bar end links form from the sway bar as in **IMAGE 12**. Remove the lower control arm and radius rod bolts from the factory k-member using a **21** and **24mm**. It is easiest to leave the lower control arm and radius rod connected to the spindle and leave the spindle and strut installed.

NOTE: It is easiest to leave the steering rack and front sway bar attached to the cradle while it is being removed.

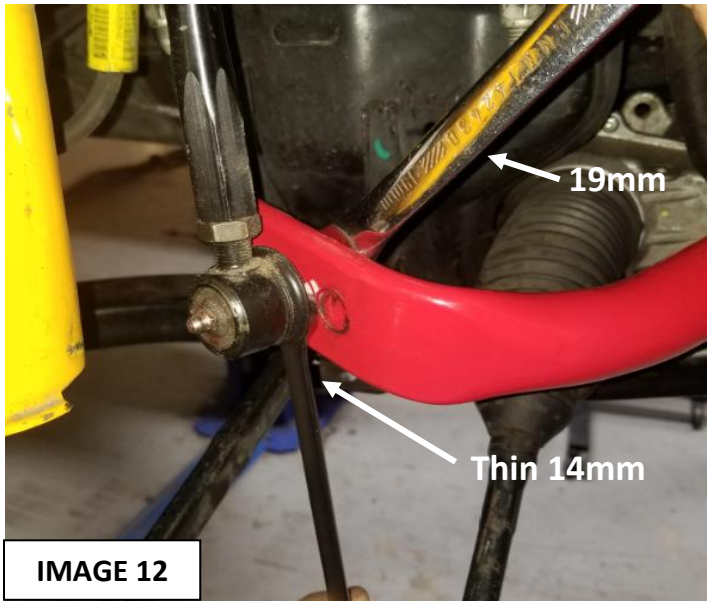


IMAGE 12

15. Using a **21** and **24mm**, remove the bolts holding the lower control arm and radius rod to the factory K-Member as shown in **IMAGE 13**. You can leave to control arms attached to the spindle, and leave the spindle mounted to the strut in the vehicle. Tuck them out of the way of the rack and sway bar.

16. With the motor properly supported, use a **15mm** socket, remove bolts from motor mount that secures it to the factory K-Member or remove the **15mm** nut connecting the motor mount to the motor stand.

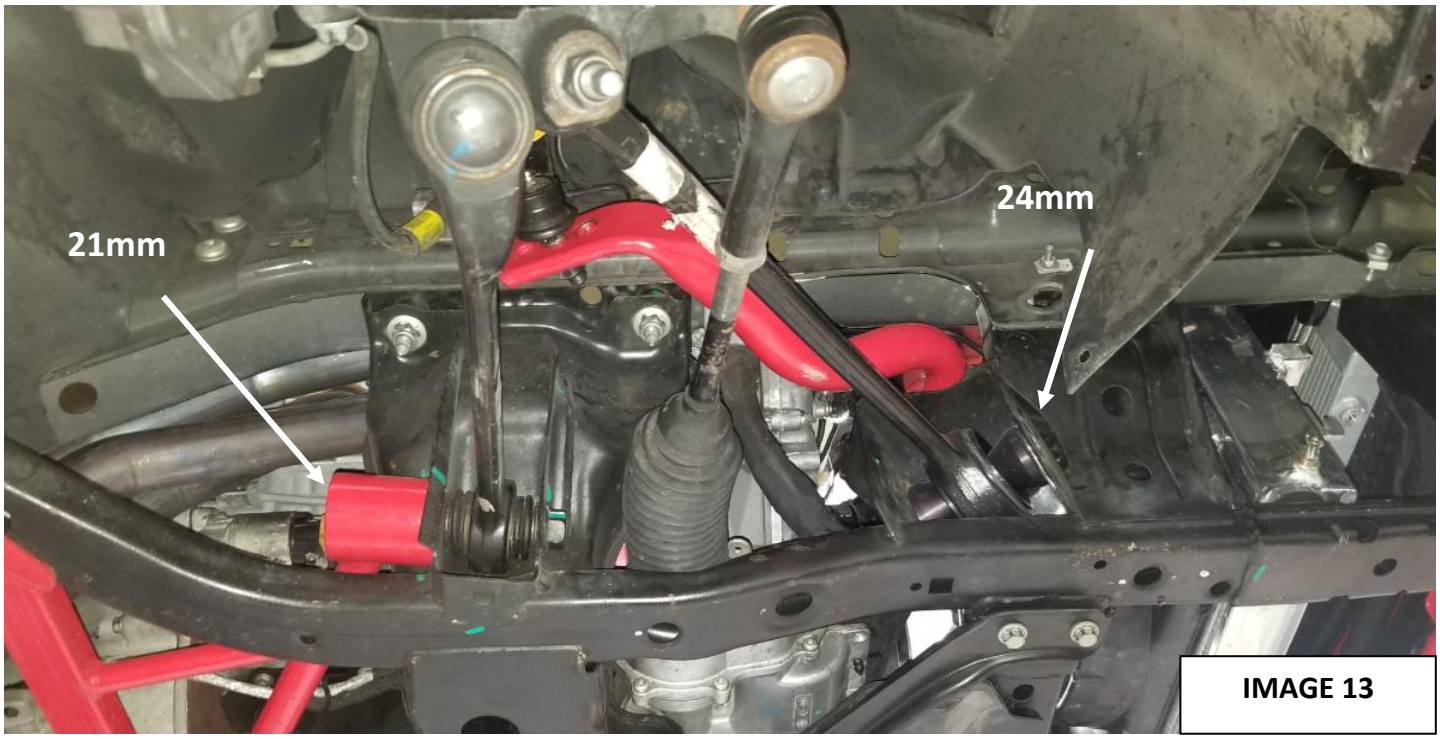


IMAGE 13

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K-Member Installation Instructions

17. Before removing the K-member, ensure that there is nothing attached to the factory K-member. Check for wiring harnesses, coolant lines, or anything that may get in the way of removing the K-member

18. Using an **18mm**, remove the four (4) bolts holding the rear legs of the k-member in place. **IMAGE 14**

19. Using a **18mm**, loosen all eight (8) main nuts holding the k-member in place.

20. With an assistant, remove all eight (8) nuts and slowly lower the K-member.

21. If reusing the factory steering rack, remove it from the K-Member using a **21mm** socket as in **IMAGE 15**

NOTE: THESE BOLTS ARE EXTREMTLY TIGHT AND THE FACTORY USES A LOT OF THREAD LOCKER. YOU WILL MOST LIKELY NEED AN EXTRA SET OF HANDS AND A LONG BREAKER BAR.

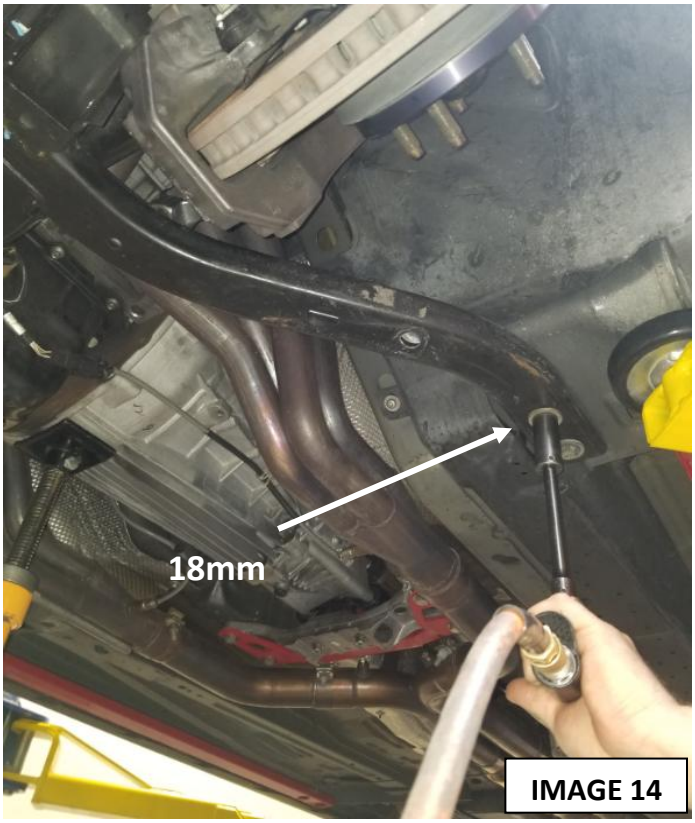


IMAGE 14

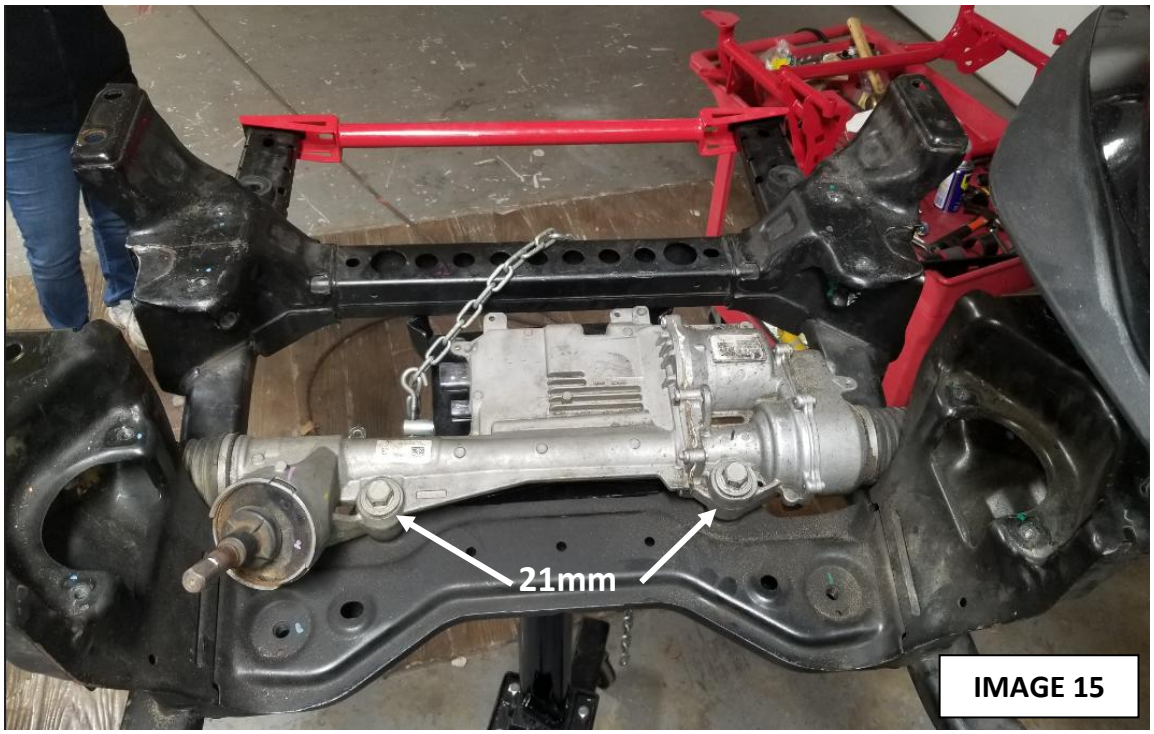


IMAGE 15

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K-Member Installation Instructions

22. On the new K-member, use the provided **5/8”** bolts, nuts and washers, re-install the steering rack with the nuts on top as shown in **IMAGE 17**. Torque to **180 ft lbs**. You can also install the steering rack after the K-member is in the vehicle to if you are installing the K-member by yourself.


IMAGE 17

23. Using a **18mm** socket, remove the factory sway bar saddles and install them on the new k-member using the supplied **M12** flanged bolt and poly-lock nut, torque to **95 ft lbs**. You can also install the swaybar after the K-member is in the vehicle to if you are installing the K-member by yourself.

24. Install the motor mounts on to the k-member using the provided hardware but leave the bolts loose until the K-member is fully installed.

25. Insert the radiator bushings into the front ears of the K-member, it helps installation to spray a light oil on the bushings, like WD-40.

26. Raise the your BMR K-member back onto the stud frames ensuring that the radiator bushings and motor mount studs are lined up. Use the factory nuts to retain the K-member, *do not torque these nuts yet*.

27. With the K-member still loose, loosely bolt together the rear legs on to the K-member. Use the supplied flanged metric bolts and the large washers for the rear mounts and the small eight (8) **5/16”** nuts, bolts and washers to join the legs to the main weldment.

28. Depending and clearance requirements, you may need to trim the plastic panel covering the fuel and brake lines as shown.

29. With everything lined up and all the bolts started, torque the **5/16”** bolts to **18 ft lbs**

30. Now that the rear legs are installed to the k-member and everything is lined up, torque all twelve (12) mounting nuts and bolts to **80 ft lbs**

31. Torque the lower motor mount bolts to **40 ft lbs**. Torque the upper motor mount nut to **40 ft lbs**

32. Using the supplied **M16** flanged nuts, re-install the lower control arm and radius rod. Torque both to **184 ft lbs.** The BMR K-Member comes with multiple lower control arm mounting holes for roll center adjustability. The lower mount hole is most similar to the the stock mounting location.

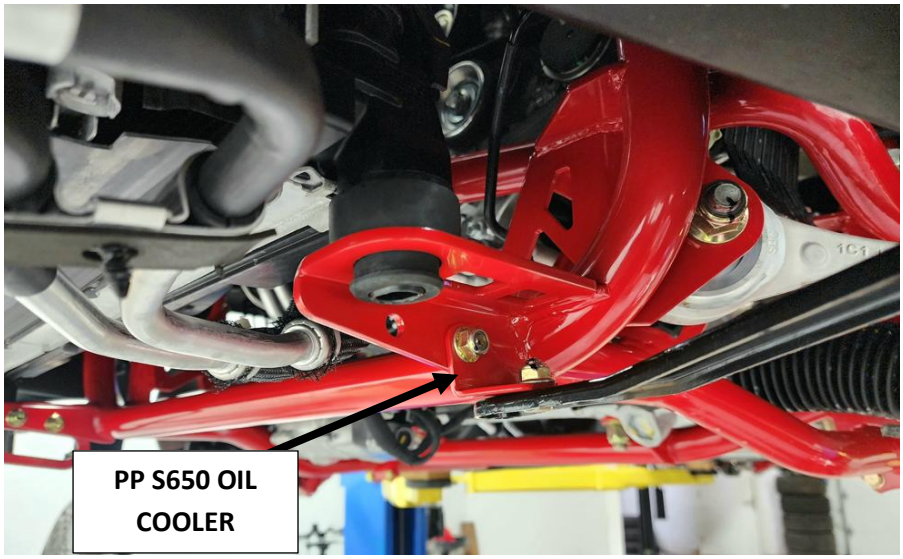
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K-Member Installation Instructions

33. Re-install the sway bar endlinks

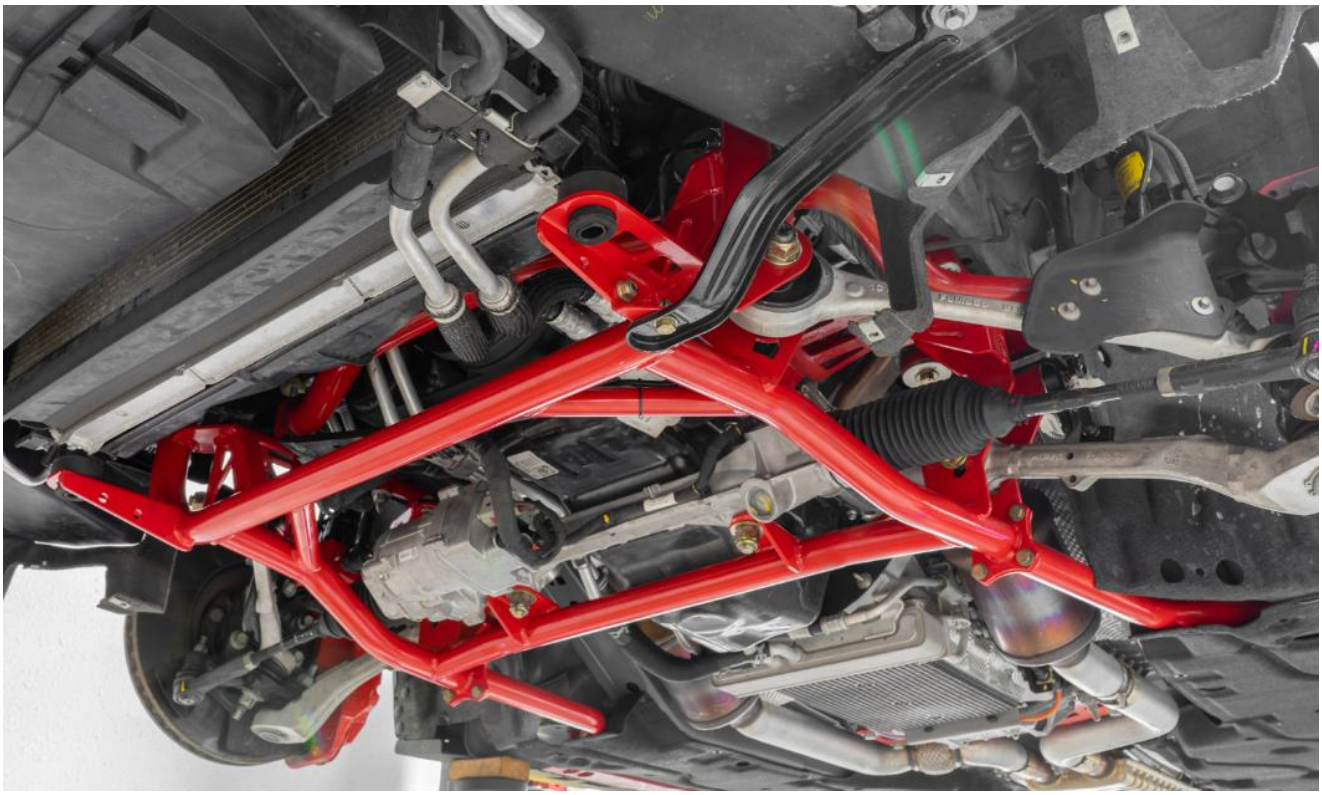
34. Re-attach all connectors and ensure all wiring harnesses are secured with zip ties and re-install the wheel speed sensors.

35. If you have a performance pack S650, you will need to support to oil cooler using the supplied bracket and the flanged **3/8”** hardware.



36. **If you wish to retain the vehicles belly pan, use a ¼” drill bit and drill holes on each side of the main tube so that a zip-tie can wrap around the tube and secure the belly pan.**

37. It is recommended that you have your car professionally aligned



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