Drag K-Member Installation Instructions

Required Tools:

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

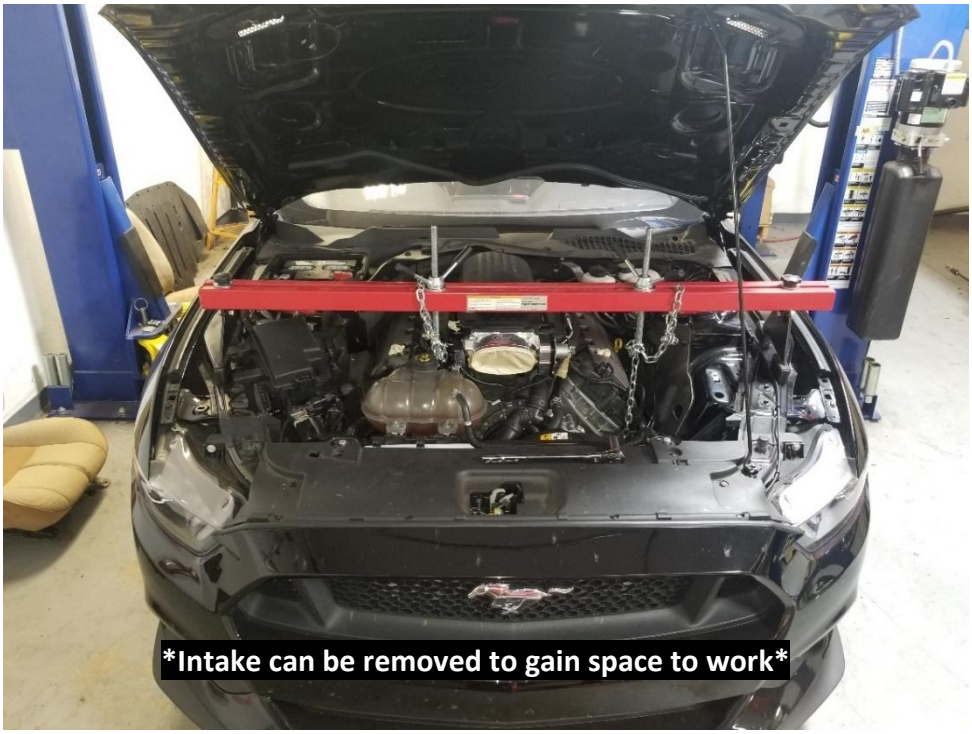
IMAGE 1

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 supercharger pulley.



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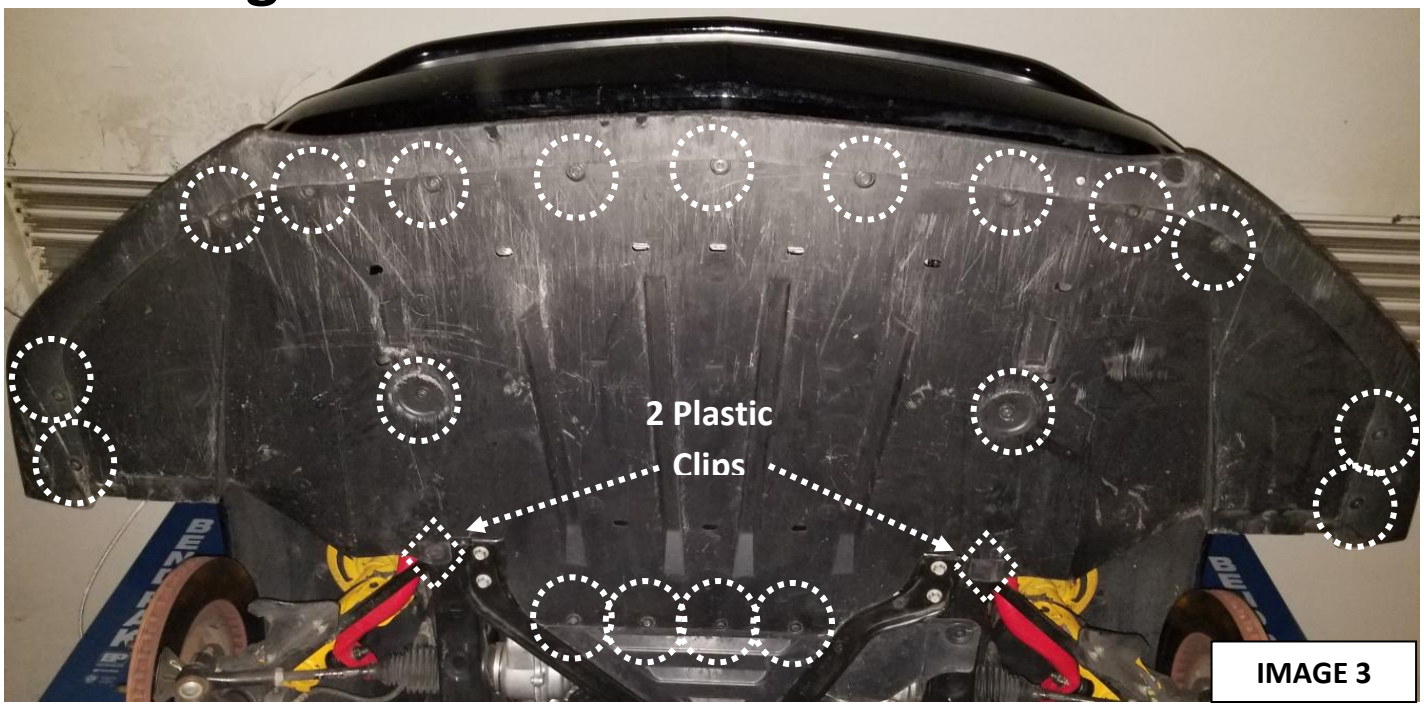

IMAGE 3

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. Shown in **IMAGE 3.**

6. Using a 7mm and a 13mm, remove the reinforcement tray from the factory K-Member as shown below in **IMAGE 4**.

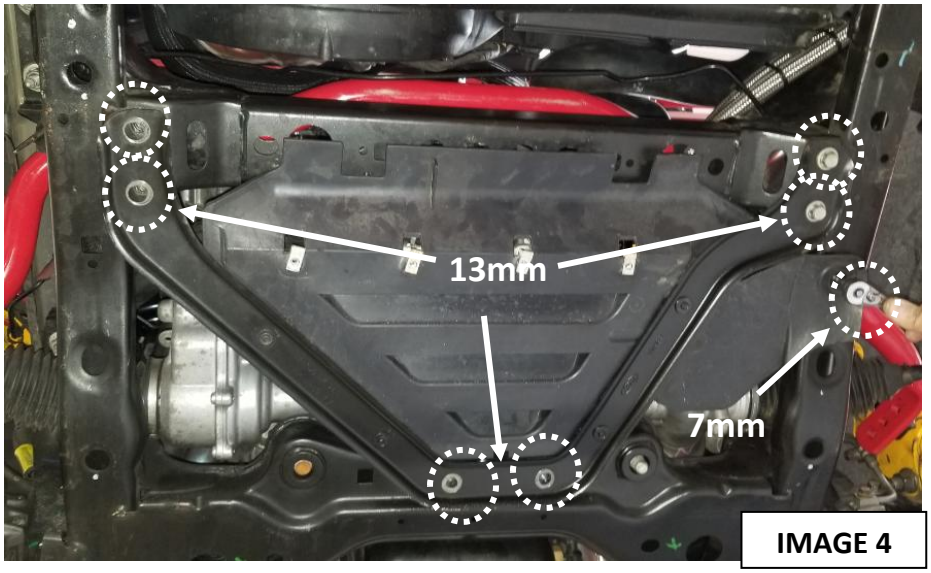

IMAGE 4

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IMAGE 5

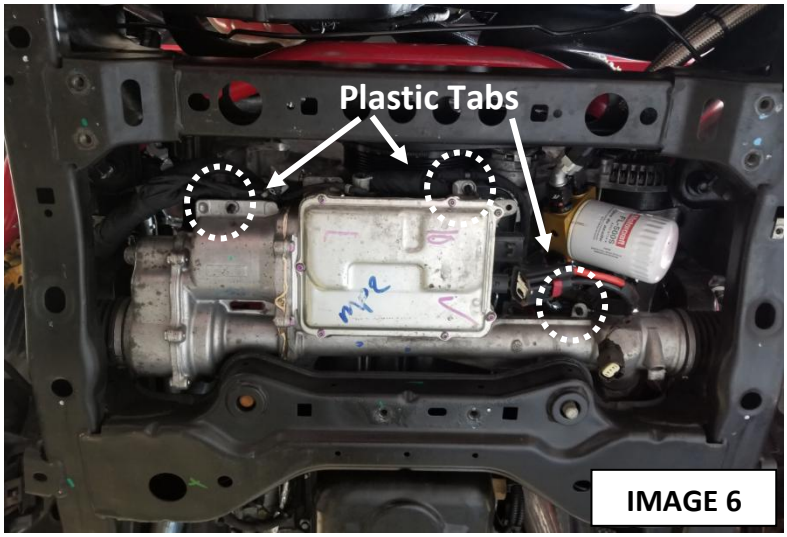

IMAGE 6

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.

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

10. Remove the outer tie rods from the spindle as shown in **IMAGE 8** using a 18mm wrench**.** Use a brass or non-marring hammer to break the seal of the ball joint and the spindle.

11. Using a trim tool, disconnect the two clips holding the wheel speed sensor to the strut as shown in **IMAGE 9.**

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

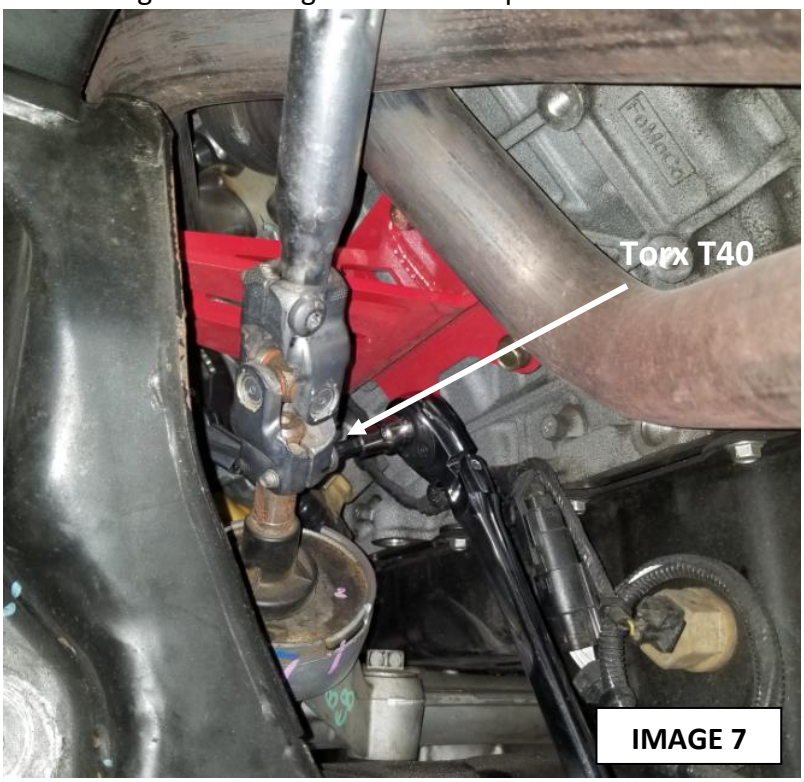

IMAGE 7

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Drag K-Member Installation Instructions

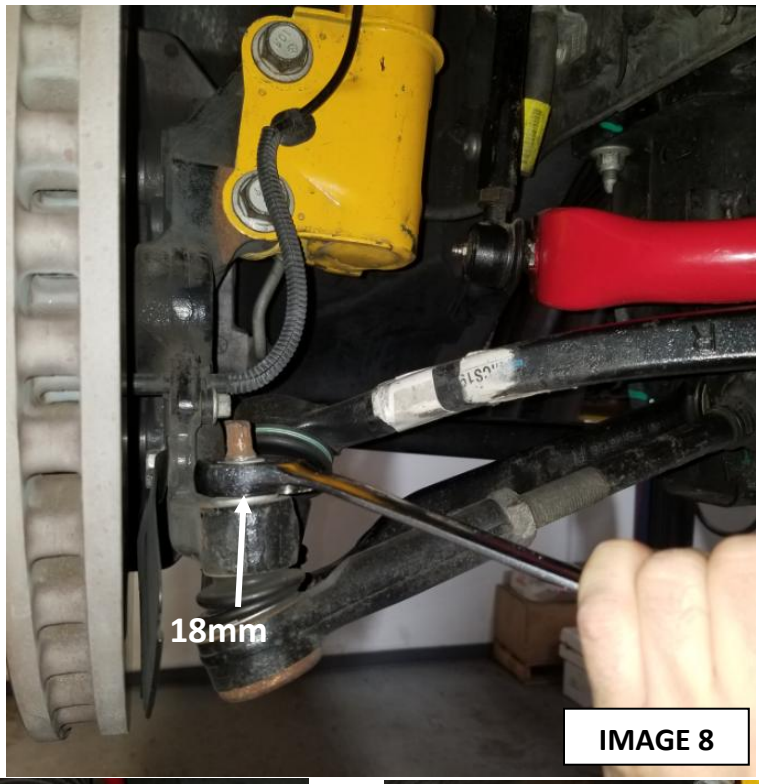

IMAGE 8

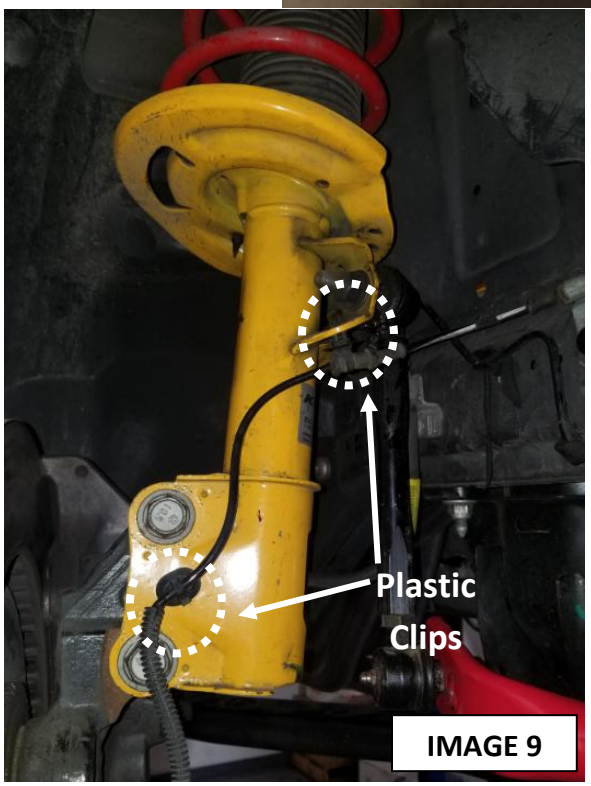

IMAGE 9

IMAGE 10

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Drag K-Member Installation Instructions

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 11

14. Using a **19mm** and thin **14mm** wrench remove the sway bar end links form from the sway bar and from the strut. Remove the lower control arm and radius rod bolts from the factory k-member using a **21mm** 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 as shown in **IMAGE 12 and 13**.

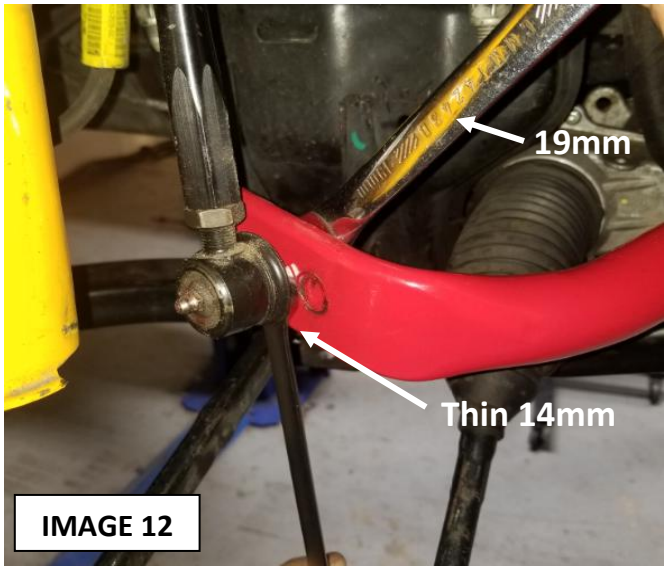

IMAGE 12

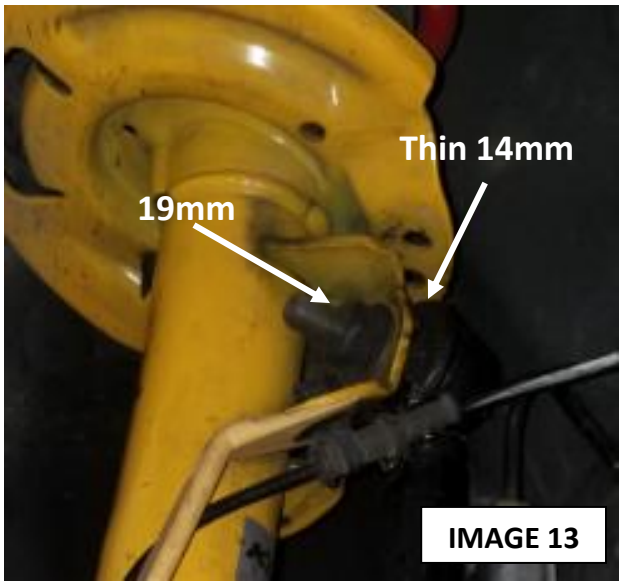

IMAGE 13

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Drag K-Member Installation Instructions

15. Using an **18mm**, loosen and remove the sway bar saddles and remove the sway bar from the vehicle.

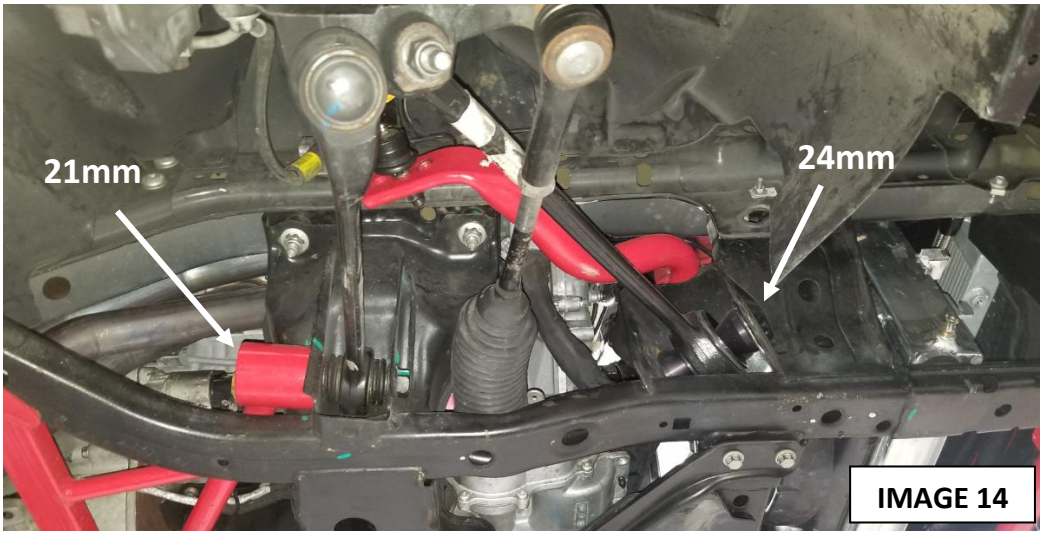

IMAGE 14

16. Using a **21mm** and **24mm**, remove the bolts holding the lower control arm and radius rod to the factory K-Member as shown in **IMAGE 14**. You can leave to control arms attached to the spindle, and leave the spindle mounted to the strut in the vehicle.

17. Using a **15mm** socket, bolts from motor mount that secures it to the factory K-member

18. Place a jack under the transmissions bellhousing to help support the drivetrain as you remove the K-Member.

19. 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.

20. Using an **18mm**, remove the four (4) bolts holding the rear legs of the k-member in place as in **IMAGE 15**.

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

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

IMAGE 15

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Drag K-Member Installation Instructions

23. If reusing the factory steering rack, remove it from the K-Member using a **21mm** socket as in **IMAGE 16.**

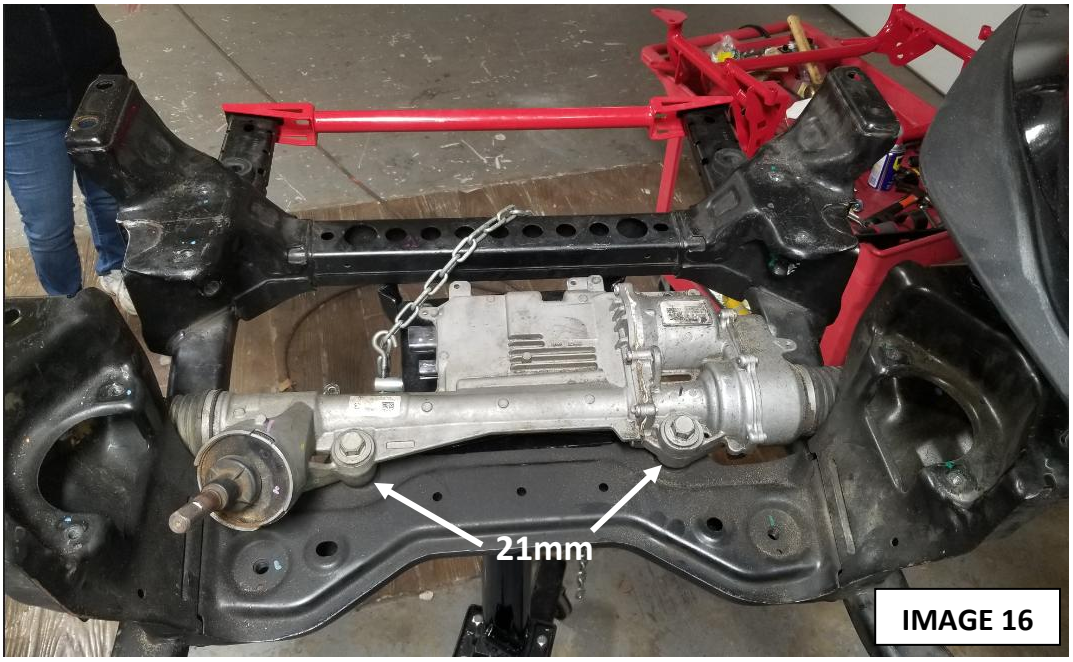

IMAGE 16

24. Using the provided **5/8"** bolts, nuts and washers, reinstall the steering rack 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.

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 Drag K-Member back onto the stud frames ensuring that the radiator bushings are lined up. Use the factory nuts to retain the K-Member, *do not torque these nuts yet*.

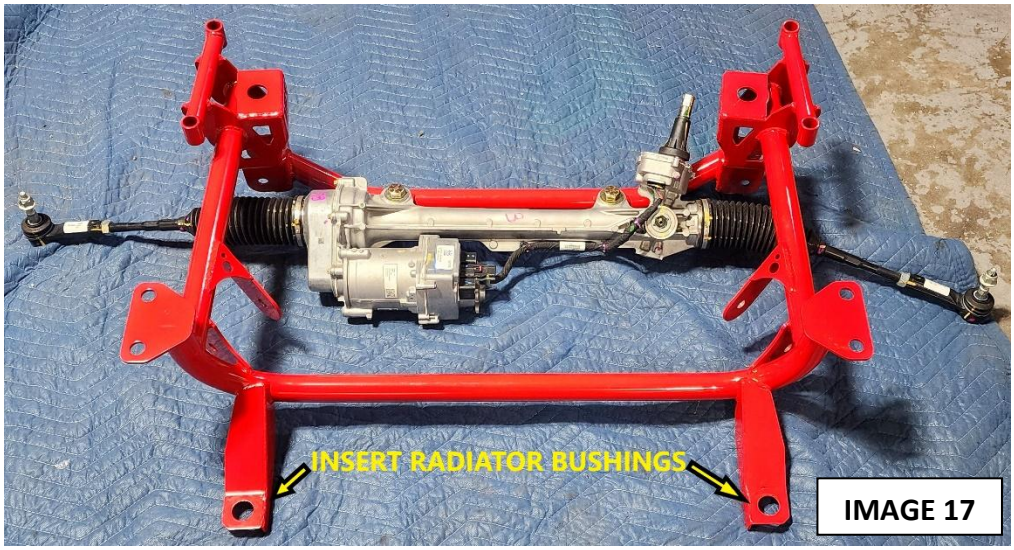

IMAGE 17

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Drag K-Member Installation Instructions

27. Assemble the motor mount bushings as shown in **IMAGE 18**. The BMR Drag K-Member will lower your motor **½"**. If you wish to retain the factory motor height use two (2) supplied **¼"** aluminum washers on top of each motor mount.

NOTE: BMR also offers Adjustable Steel Motor Mount Brackets (MM008) that allow you to lower motor ½" from stock height. You will need to use the shorter 3/8" bolt with these brackets.

- *MM008 lowers your motor ½" from factory height if you do not use any of the supplied ¼" spacers with the factory motor mounts.*
- *<u>Your</u> KM761 BMR Drag K-Member will also lower your motor ½" if you do not use any of the supplied ¼" spacers with the factory motor stands.*
- *The fully lowered adjustment of both components <u>cannot</u> be used together.*
- ***If you are using both a MM008 and a KM761 it is recommended that you use two (2) ¼" spacers on top of each motor mount, this will only lower your motor ½" from stock.***
- ***If you are using the factory motor stand, it is recommended that you <u>do not use</u> any of the supplied washers, this will also lower your motor ½".***
- *If you wish to raise or lower your motor for additional clearance, please ensure that you have enough room in the direction you wish to go.*

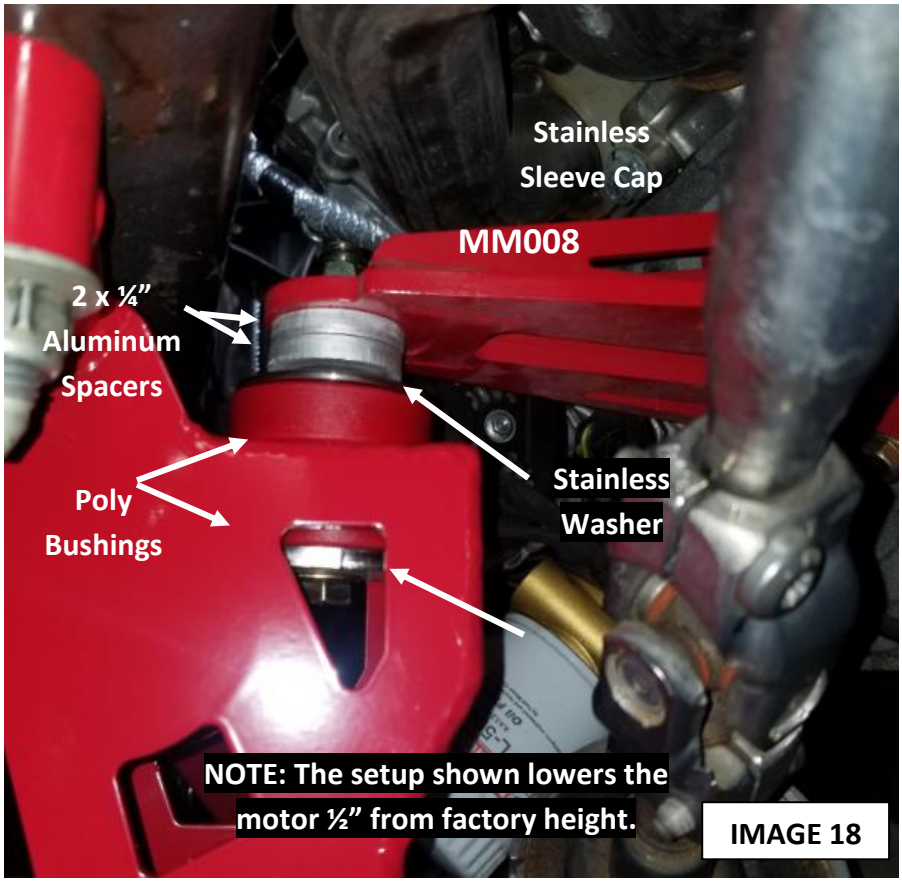

IMAGE 18

28. With the motor mounts assembled, center and torque the K-Member to the frame. Torque all eight (8) nuts to **70 ft lbs** each.

29. Torque the motor mount bolts to **40 ft lbs.**

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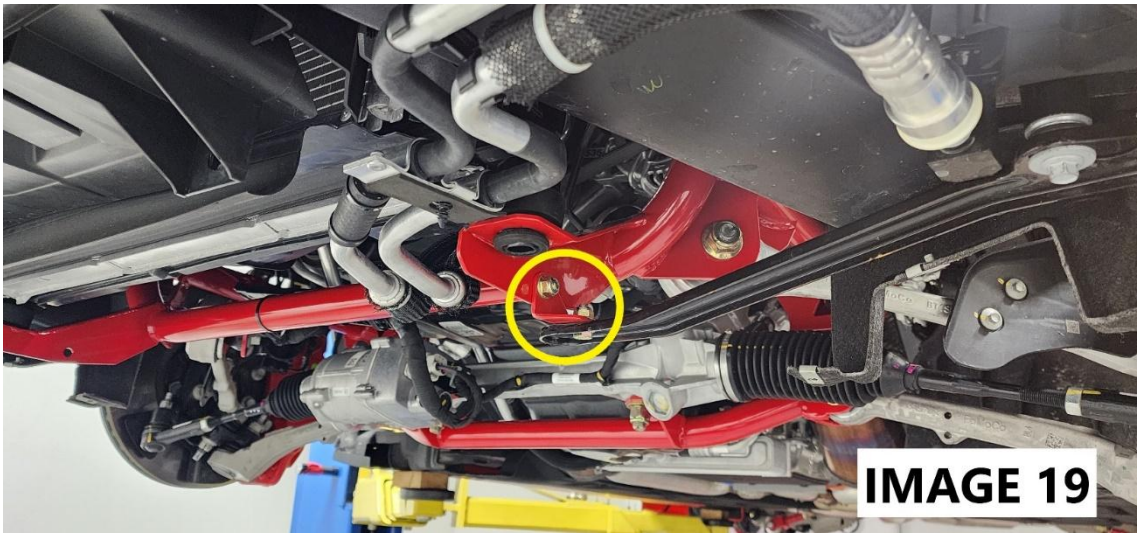

30. Using the supplied **M16** Flanged Nuts, re-install the lower control arm and radius rod and torque both to **184 ft lbs**.

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

32. If your vehicle is equipped with an oil cooler, Use the supplied bracket and bolt to connect the support to the K-Member. **IMAGE 19**

33. If you wish to retain the vehicles belly pan on a S650, mount the front using the factory hardware and use three zip ties to support the rear of the belly pan to the main tube of the K-member as shown in **IMAGE 20**.

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Drag K-Member Installation Instructions

34. For S550, use a **¼”** drill bit as shown in **IMAGE 21** and drill three holes. These holes should be about 3” from the slots.

35. Re-install the factory belly pan. Tighten bolts until they are snug and re-attach all clips.

36. Using three (3) **12**” long zip ties, secure the belly pan to the main cross tube as in **IMAGE 22**. Use the slotted holes in addition to the holes you have drilled to support the rear of the belly pan shown in **IMAGE 23**. Ensure that there is no wiring in between the zip tie and the tube.

    It is recommended that you have your car professionally re-aligned.

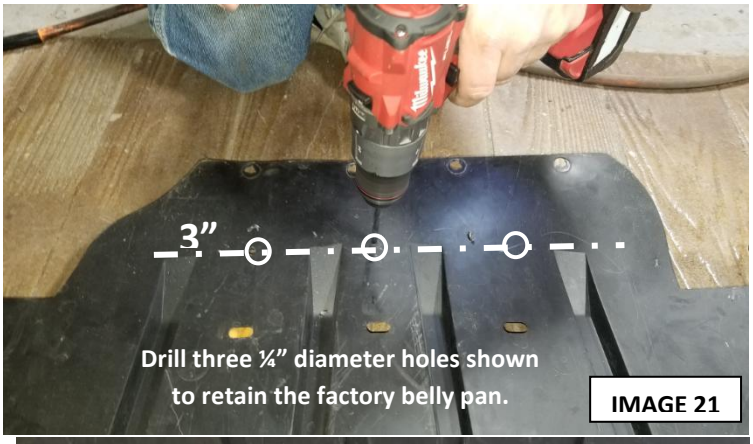

IMAGE 21

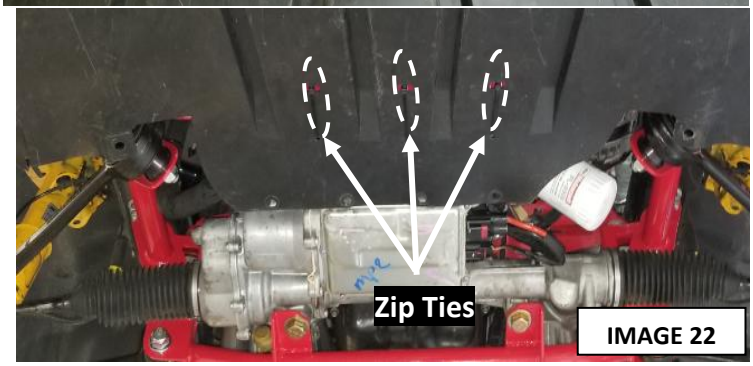

IMAGE 22

NOTE: This K-Member is designed to be used as a lightweight drag racing component, prolonged street driving is not recommended as we have removed the front sway bar mount.

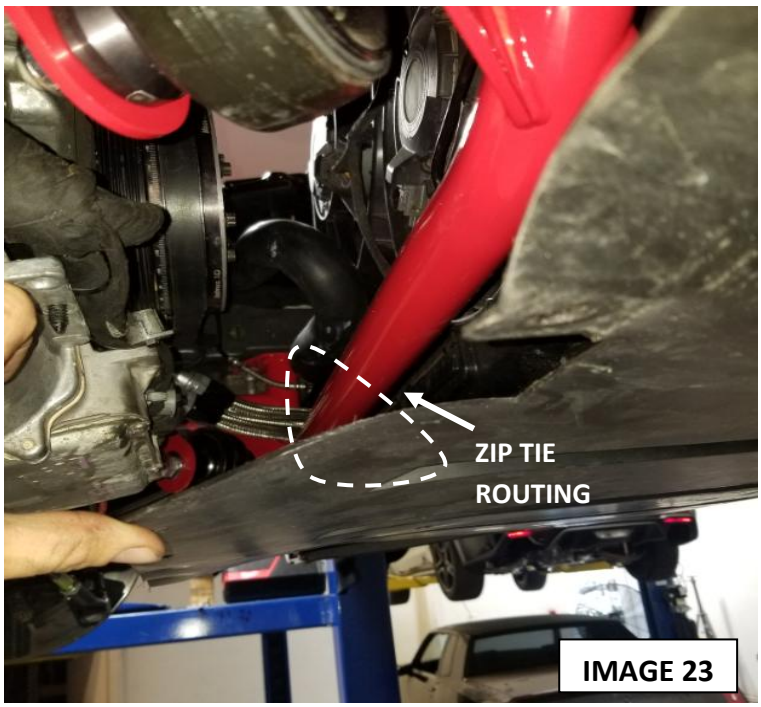

IMAGE 23

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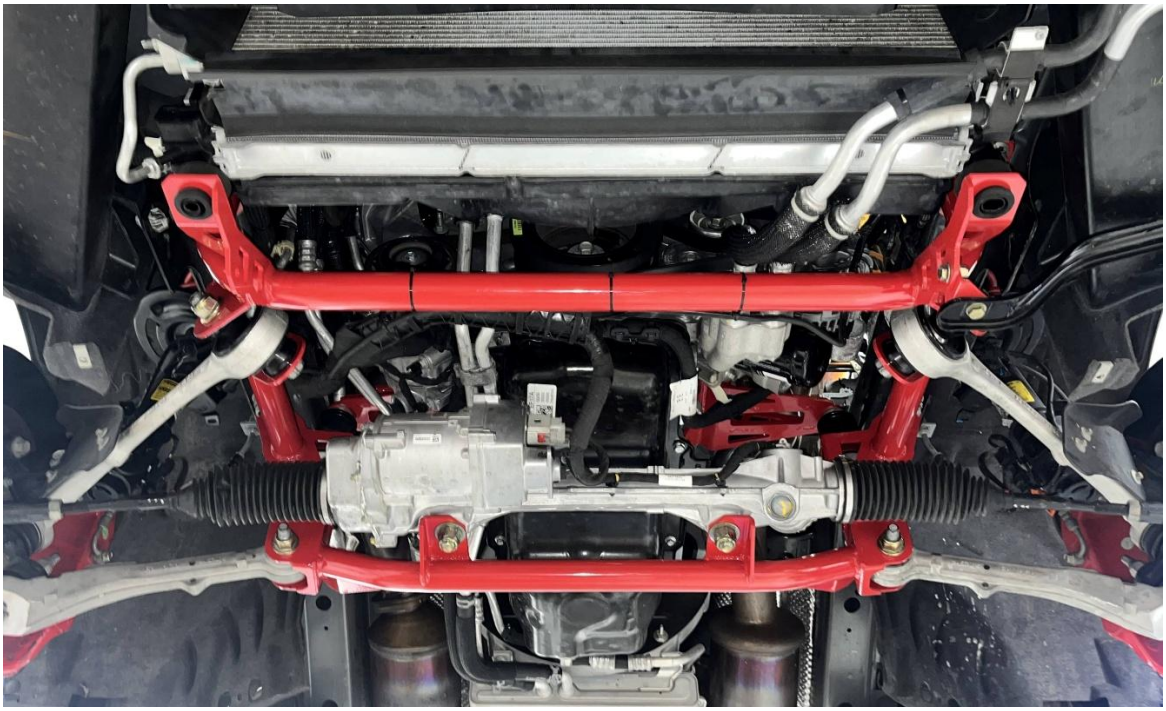

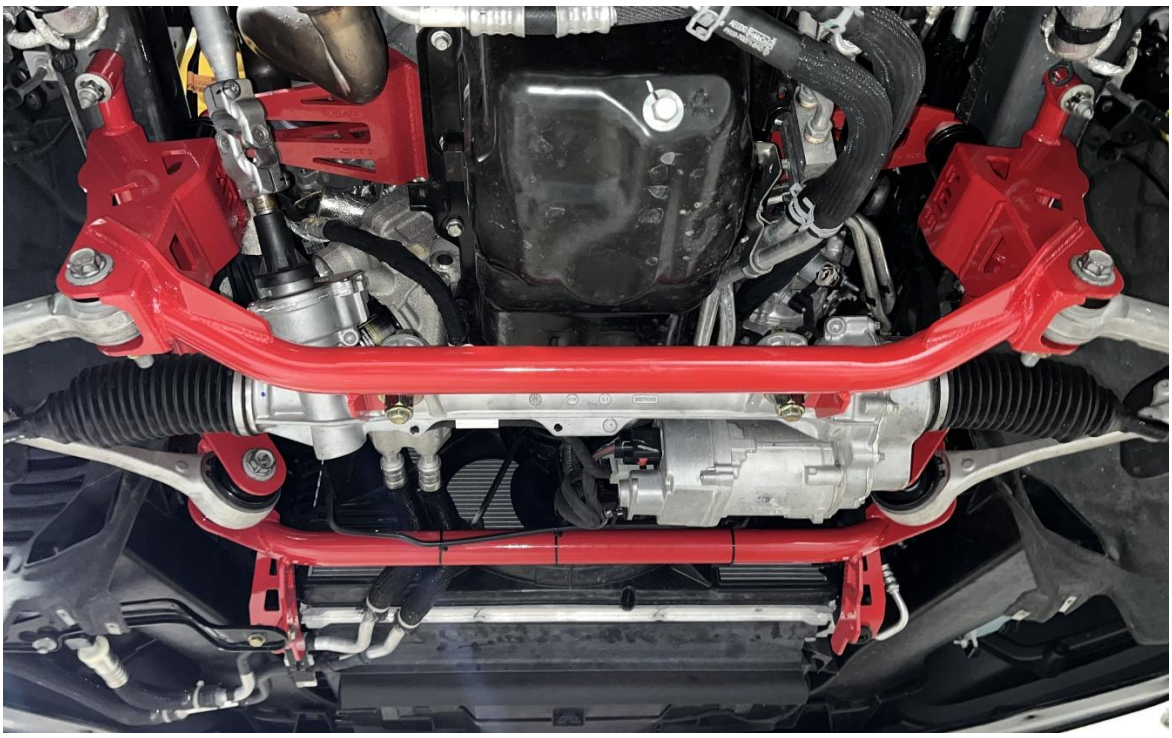

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Attention: Polyurethane and Delrin bushings must be properly lubricated with a <u>full synthetic grease</u> only

A full synthetic grease must be used to lubricate the inner sleeve via the grease fitting, contact points such as the outside faces of the polyurethane bushing must also be greased. We recommend Green Grease/Super Lube <u>full synthetic grease</u> for best results.

<u>Do not install bushings dry</u>. Lack of proper lubrication may cause squeaking, binding, premature wear, reduced performance, or damage to the bushings and related components. Bushings should be inspected and re-greased as needed, especially in harsh driving conditions or high-use applications.

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