



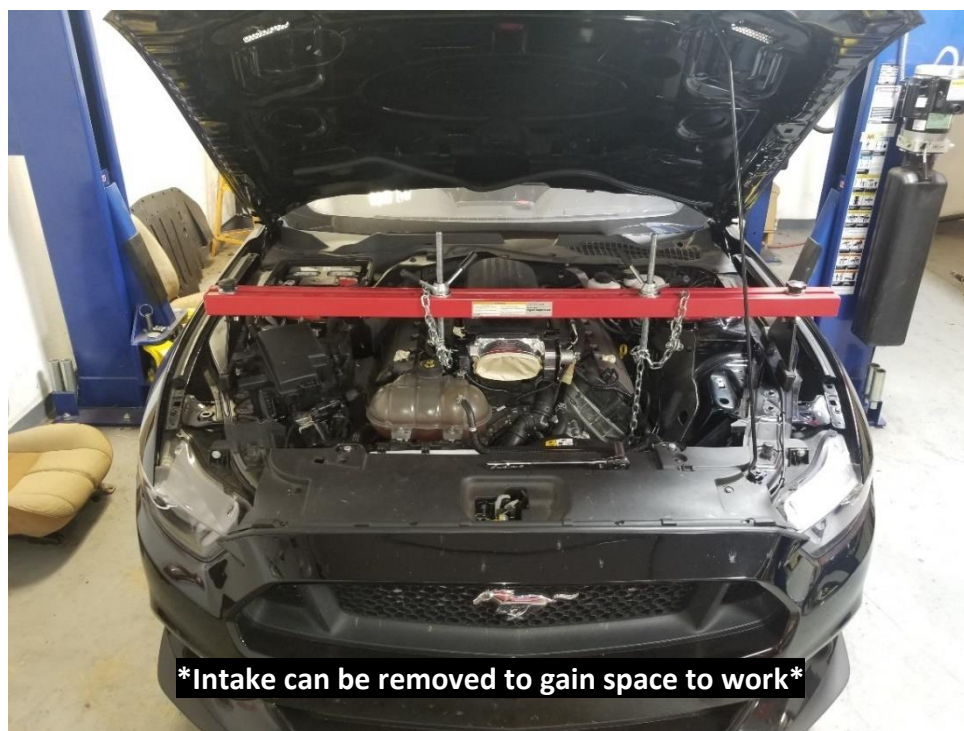
KM760 – Lightweight K-Member for 2015-2024+ S550/S650 Mustang

REQUIRED TOOLS:

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

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.

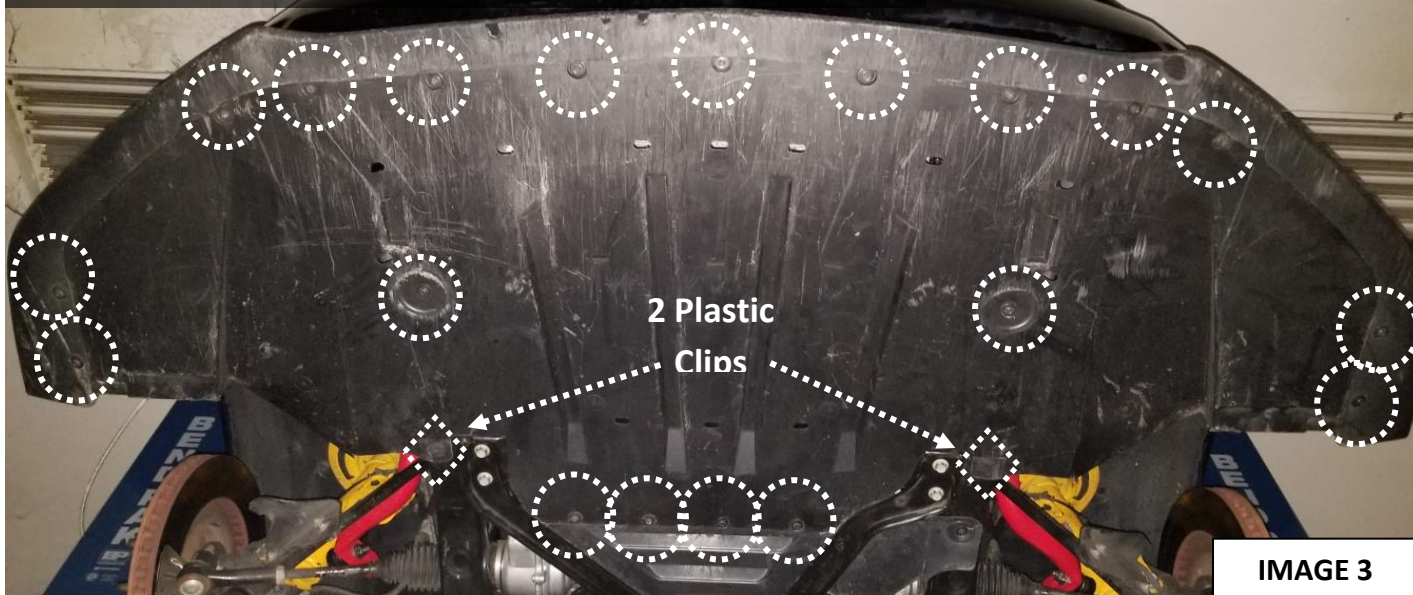


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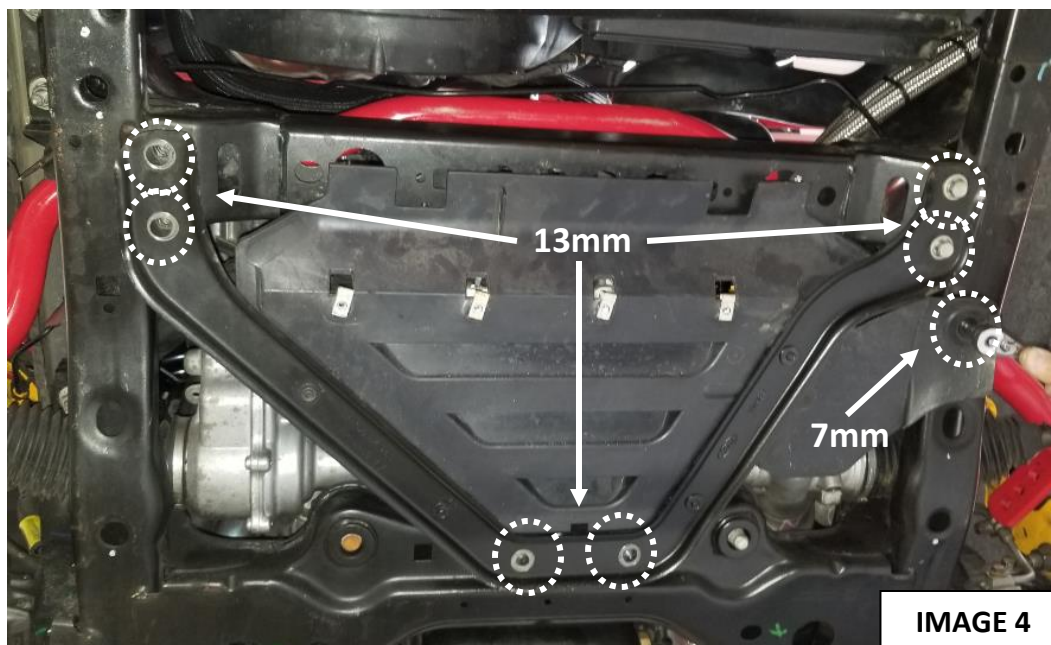
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NOTE: 15-23 Mustang is shown in all images, 24+ is very similar in construction and will require all the belly pans to be removed.



- 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. 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**.

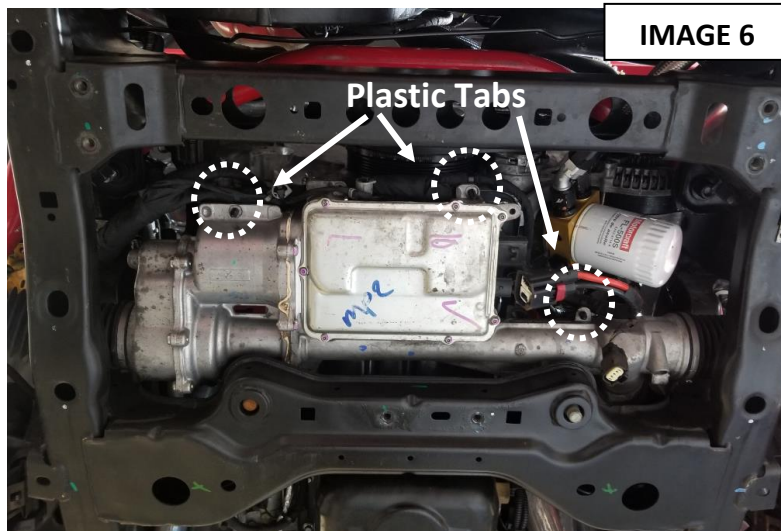


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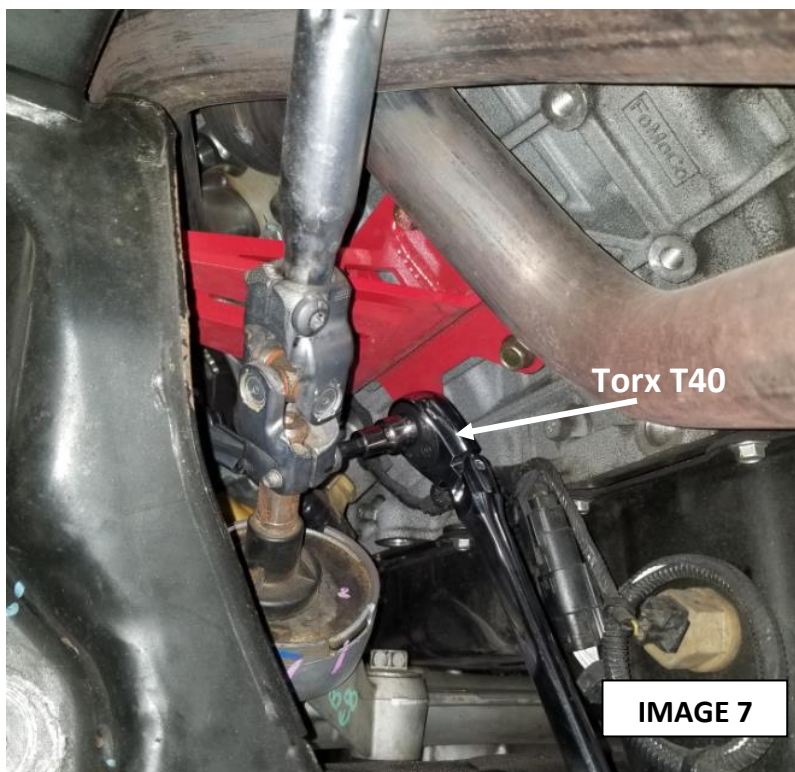
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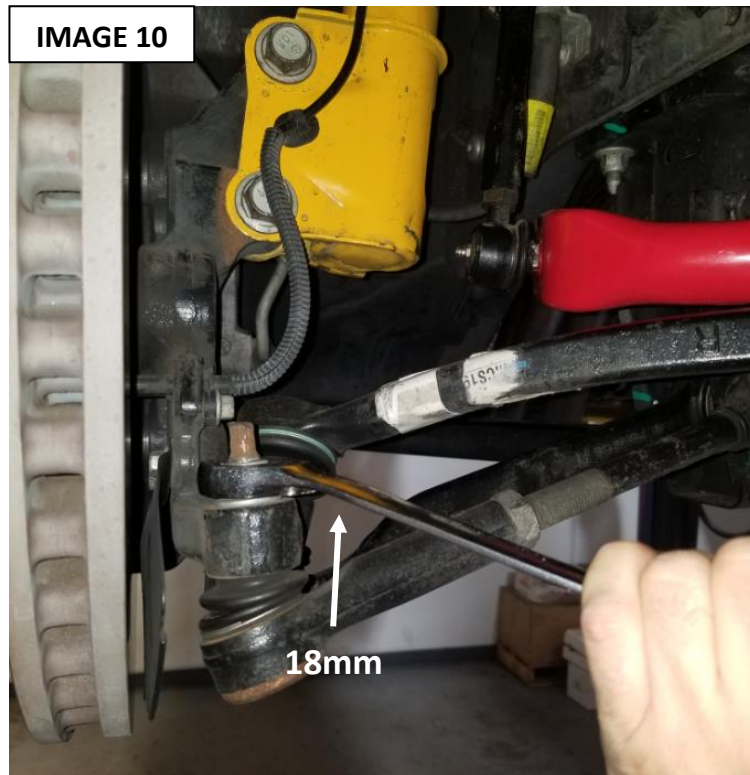
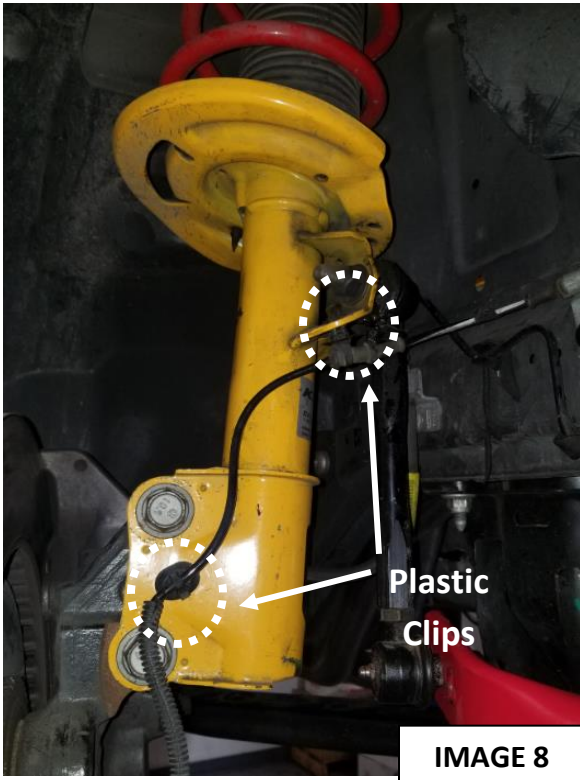
- 7) Disconnect the electrical connectors from the steering rack as shown in **IMAGE 5**.
- 8) Remove the 3 plastic tabs holding the wiring harness to the front of the steering rack shown in **IMAGE 6** using a trim tool.



- 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 10** 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 8**.
- 12) Using a 10mm socket, remove the wheel speed sensor from the hub as in **IMAGE 9**.



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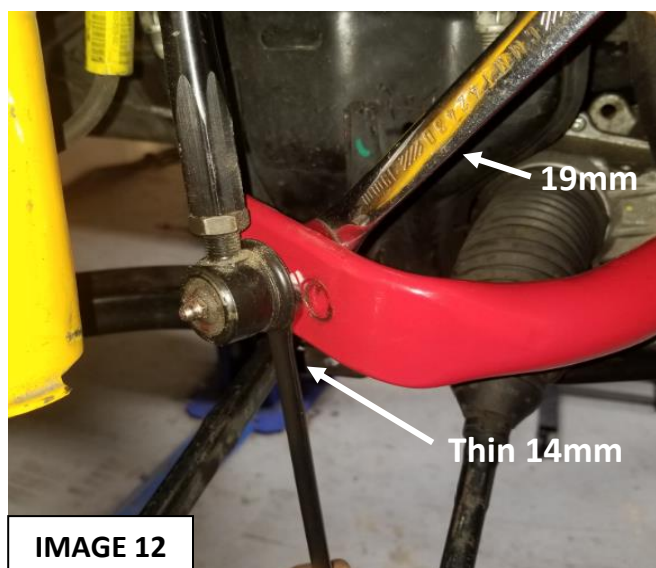
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- 13) Using a ratchet strap, support the radiator and AC condenser as shown in **IMAGE 11**. Be careful not to over tighten the strap and damage the radiator or condenser. If you prefer to completely remove radiator, remember to refill your coolant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



- 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.



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- 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.

- 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 as in **IMAGE 14**.

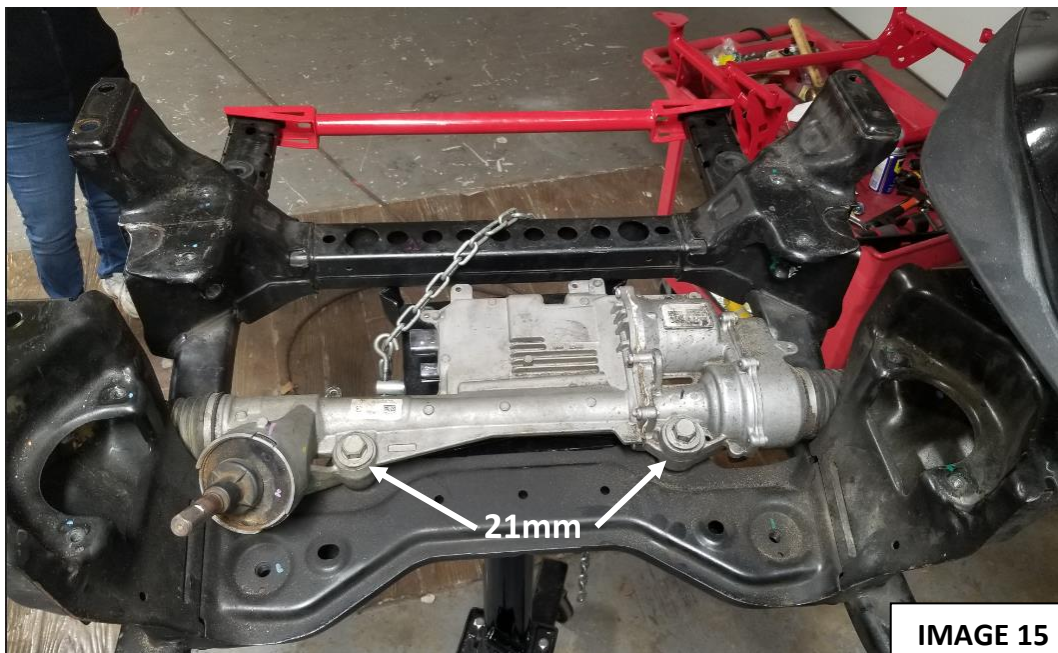
- 19) Using a 18mm, loosen all eight (8) main nuts holding the k-member in place.

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



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- 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 EXTREMELY 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.

- 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 180ftlbs. 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.
- 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 95ftlbs. 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 install.
- 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*.

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- 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 on 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 18ftlbs.
- 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 80ftlbs.
- 31) Torque the lower motor mount bolts to 40ftlbs. Torque the Upper motor mount nut to 40ftlbs.
- 32) Using the supplied M16 Flanged Nuts, re-install the lower control arm and radius rod and torque both to 184ftlbs.
- 33) Re-install the sway bar end links.
- 34) Re-attach all connectors and ensure all wiring harnesses are secured with zip ties with zip ties, re-install the wheel speed sensors and ensure.
- 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 1/4" 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.

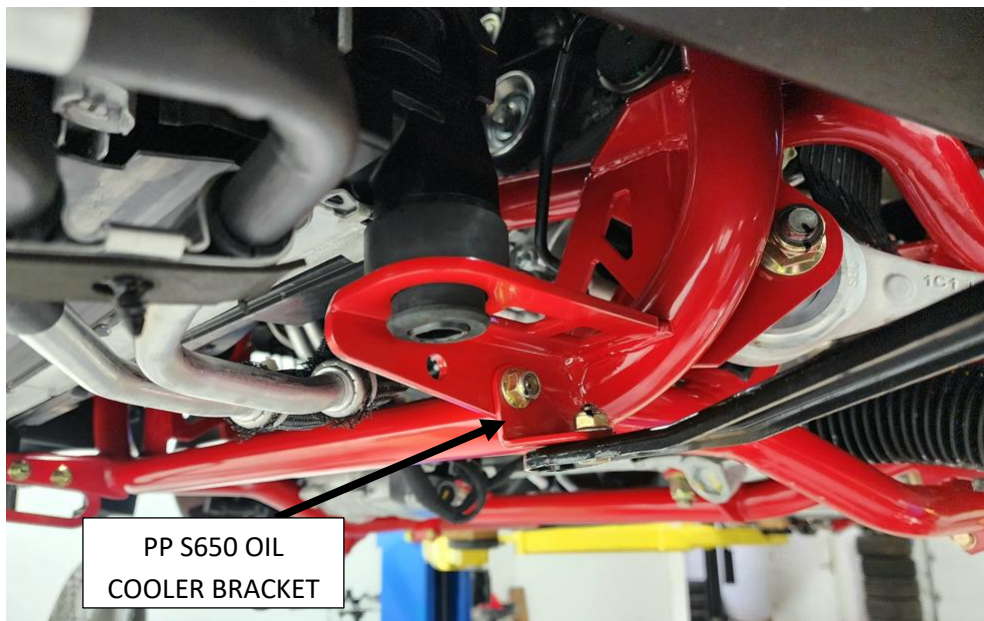


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PP S650 OIL
COOLER BRACKET

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