



CAK689R-OE Cylinder Assist™ Kit

**All Jeep Wrangler JLs & Gladiator JTs
with Stock OE Axles & Tie Rods**



INSTALLATION GUIDE

CAK689R-OE PARTS LIST

6.75" Single-Ended Steering Cylinder

Stock Tie Rod Mounting Bracket Kit

- (1) Tie Rod End-Cylinder Mount Bracket
- (2) M12-1.5x55mm Hex Head Bolts to mount the to the tie rod
- (2) M12-1.5 Lock Nut for tie rod hex head bolts

Axle Mounting Bracket Kit

- (1) Axle-Cylinder Mount Bracket
- (1) 2-Piece U-Clamp Block
- (4) 3/8-16x4.5" Hex Head bolt for the U-Clamp Block
- (8) 3/8 SAE Flat Washer for the U-Clamp Block bolts
- (4) 3/8-16 SAE Lock Nut for U-Clamp Block bolts

Cylinder Tie Rod Ends & Hardware Kit

- (1) 5/8-18x5/8" Male Rod End
- (1) 3/4-16x5/8" Female Rod End
- (1) 5/8-18 SAE Right Hand Jam nut
- (1) 3/4-16 SAE Right Hand Jam nut
- (1) 5/8-18x2" Hex Head bolt for MC37-cylinder male rod end
- (1) 5/8-18x2-3/4" Hex Head bolt for MC36-cylinder female rod end
- (2) 5/8-18 SAE Lock Jam Nut for the cylinder-bracket bolts

High Pressure Gear-to-Cylinder Hoses

- (1) HA-H2038D—31-1/2" Driver-side gear-to-cylinder hose
- (1) HA-H2038P—39" Passenger-side gear-to-cylinder hose

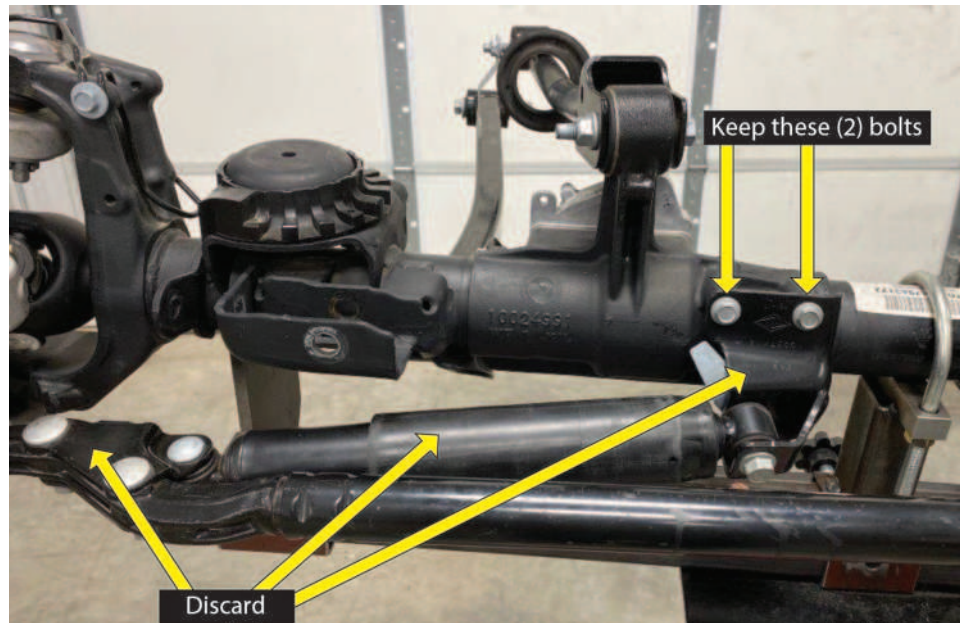
NOTE: Use medium grade thread locker compound on all bolts without lock washer or lock nut. Use hydraulic thread sealant on all hydraulic fittings and hose couplings.



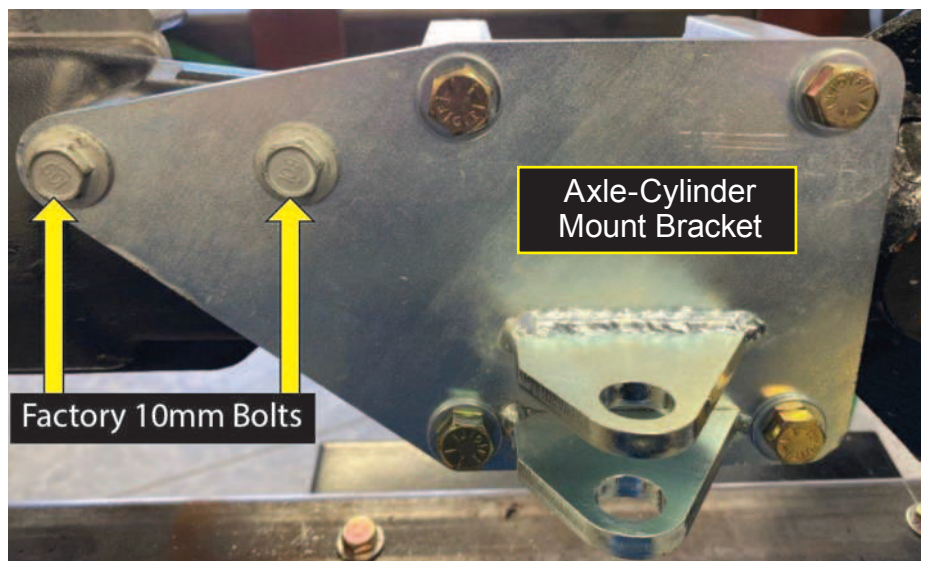
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- 1) Start by removing factory steering stabilizer shock and brackets. Retain the (2) 10mm bolts holding bracket to differential housing for later use.



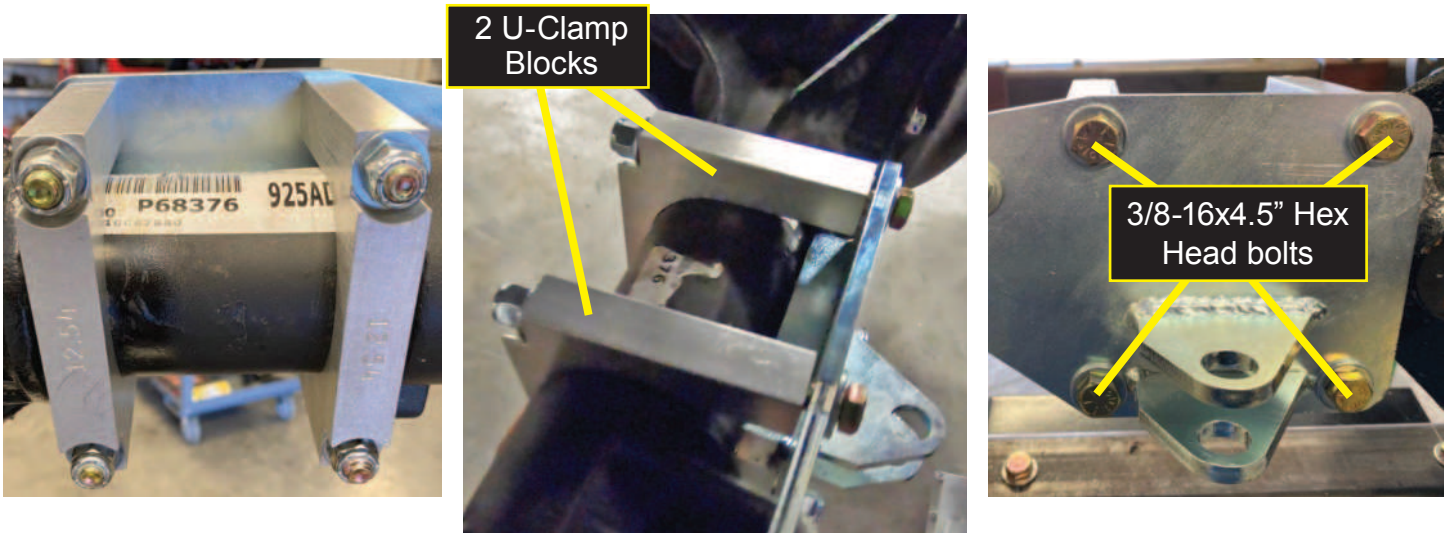
- 2) Next loosely install the Axle-Cylinder Mount Bracket using (2) 10mm bolts retained from last step.





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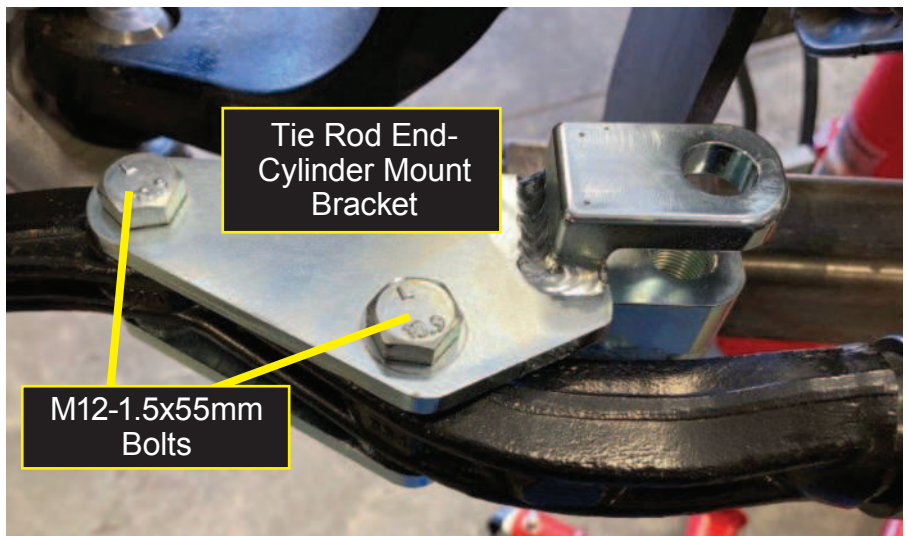
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- 3) Then install the (2) U-Clamp blocks around the axle tube to back side of cylinder mount bracket. Use (4) 3/8" x 4.5" bolts with (8) flat washers and (4) nylon lock nuts. Tighten (2) 10mm bolts first then the (4) 3/8" clamp bolts.

- 4) Next install Tie Rod End-Cylinder Mount Bracket to tie rod arm. Use (2) M12-1.5x55mm bolts with the (2) M12-1.5 nylon lock nuts.

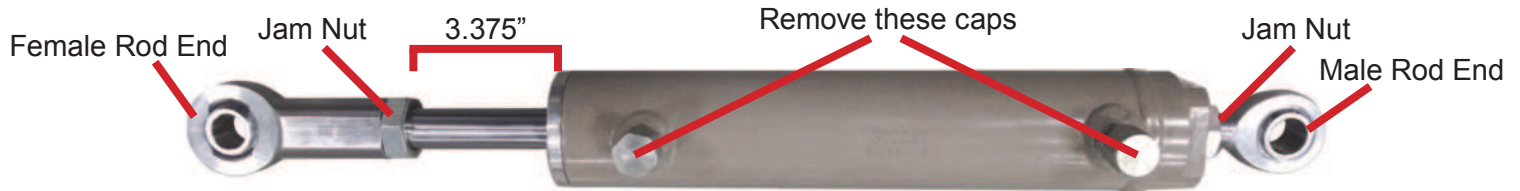
NOTE: You may need to drop the tie rod down by loosening the nut on the passenger side tie rod ball joint in order to have space to insert the MB36 bolts.





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- 5) Install rod ends to the cylinder with the jam nuts. Thread rod ends all the way down then back off just enough so that rod end holes are about horizontal to cylinder ports as shown in picture. Do not tighten jam nuts yet.

Un-cap both of the cylinder ports and pull out the piston halfway (with this 6.75" cylinder that would be 3.375 or 3-3/8"). If the tires are straight, this will make the final steps to get everything centered easier.



- 6) Install the cylinder to brackets as shown in picture. Use (1) 5/8" x 2-3/4" bolt into Tie Rod End-Cylinder Mount Bracket. After that bolt is tightened, thread 5/8" nylon lock nut onto 5/8" bolt protruding out from bottom side of Tie Rod End-Cylinder Mount Bracket and tighten. Use the 5/8"x 2" bolt through the Axle-Cylinder Mount Bracket and rod end at the other end of the cylinder with 5/8" nylon lock nut.



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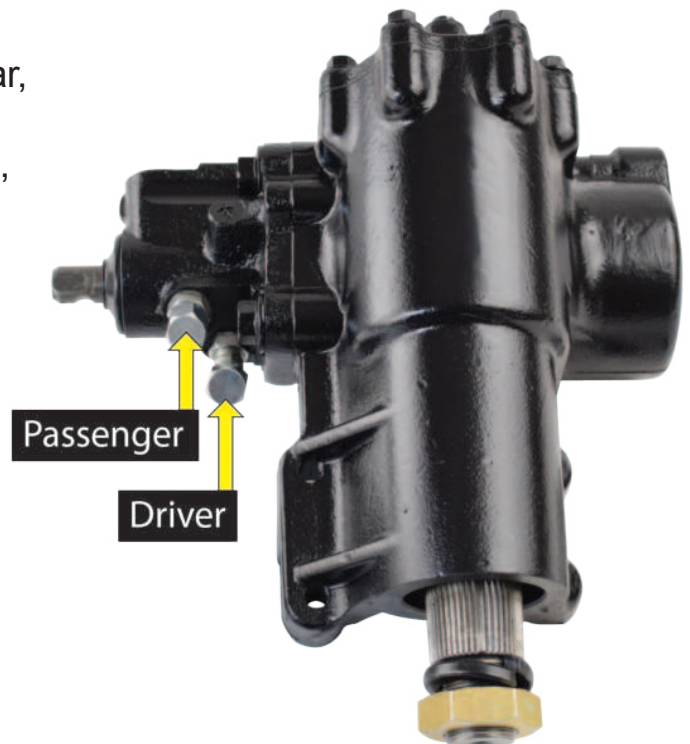
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- 7) Install HA-H2038D (shorter) high-pressure hose to driver-side of the cylinder. Next install HA-H2038P (longer) high-pressure hose to passenger side of the cylinder.

Now rotate the cylinder to achieve proper position and clearance of hoses and ports on top of cylinder, then tighten the (2) jam nuts on the rod ends to lock cylinder into position.



- 8) Remove the port caps on the steering gear, then attached the cylinder hoses to the respective "Passenger" and "Driver" ports, as pictured to the right.





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- 9) Reconnect the track bar to the frame and drag link to the pitman arm.

**Return to the Adventure Kit Installation Guide
to finish your steering system install.**