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GM Steering Upgrade Kit

Upgrade Tie Rods and Center link for 2001-2010 GM Trucks

1032150	2001-2010 GM Center Link & Tie Rod Kit
1032160*	2001-2010 GM Steering Upgrade Kit

Heavy Duty Center link and Tie Rods create a stronger more reliable steering assembly.

**Kit contains a 3 spline pitman arm. 4 spline pitman arm needs to be purchased separately*

1032150 Kit Contents			
1302123-CK	1302125	FT-0496013	1302126
			
Center Link Qty: 1	Tie Rod Assembly Qty: 2	Grease Fitting Qty: 2	End Link Qty: 2

1032160 Kit Contents			
1302123-CK	1302125	FT-0496013	1302126
			
Center Link Qty: 1	Tie Rod Assembly Qty: 2	Grease Fitting Qty: 2	End Link Qty: 2

1302120	1302121
	
Pitman Arm Qty: 1	Idler Arm Qty: 1

Related Parts & Kits

BD Diesel also manufactures kits and replacement parts related to GM Steering assemblies. The following kits and parts are also available for individual purchase.

1032125	1032126
	
2001-10 GM HD Tie Rods	2001-19 GM Sway Bar End Links

Introduction

2001-2010 GM HD series truck have a Parallelogram steering linkage, containing a center link (or relay rod) attached to pitman and idler arms, and use tie rods to connect the center link to the steering knuckles. This linkage allows for accurate movement of the system and works well for the independent front suspension (IFS) found on GM trucks. However, the systems many links and joints create places for flex and movement, causing toe-in while accelerating in four-wheel drive. To help solve this, the BD steering upgrade kit contains a stiffer H-beam center link, and larger diameter tie rods, with larger and stronger ball joints. This assembly helps hold the wheels straight when experiencing increased loads!

Installation

Secure the vehicle, and ensure it cannot move during install process.

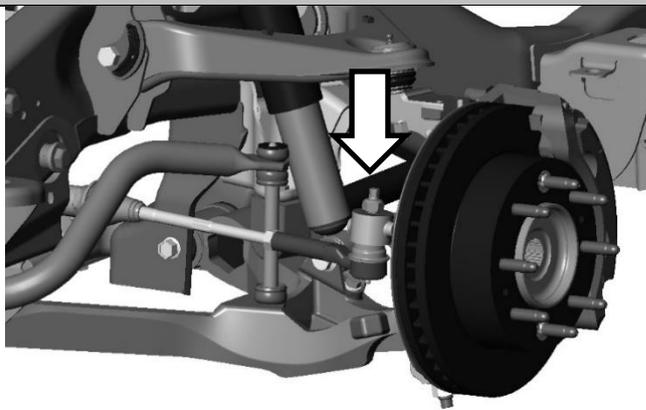


Note: It's highly recommended to have the vehicle aligned after installing new steering components.

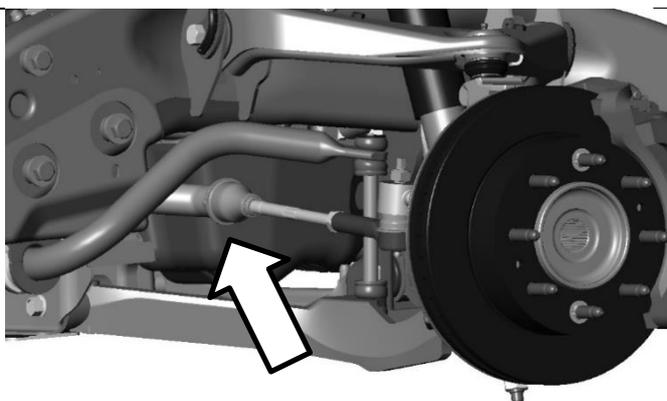
Tie Rod Removal

Remove the nut retaining the outer stud into the steering knuckle, and remove outer stud from knuckle.

Note: ball joint puller may be required.



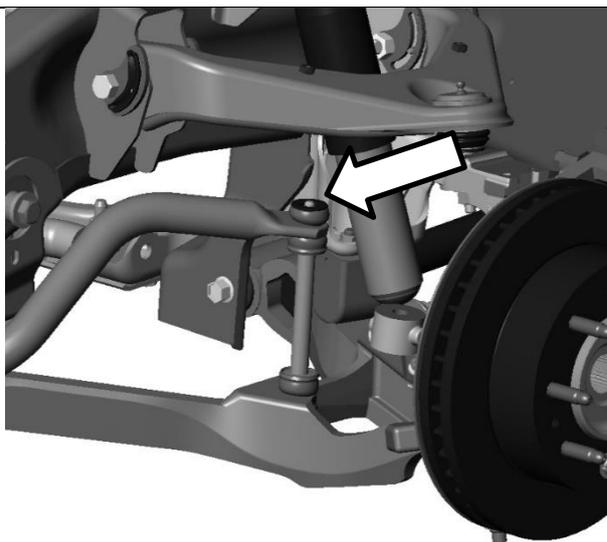
Unscrew inner tie rod from center link by unscrewing inner ball joint.



Remove sway bar end link by removing upper nut (arrow shown). Slide out bolt from below lower control arm.

Caution: Bushings and spacer tube will become loose and fall when bolt is removed.

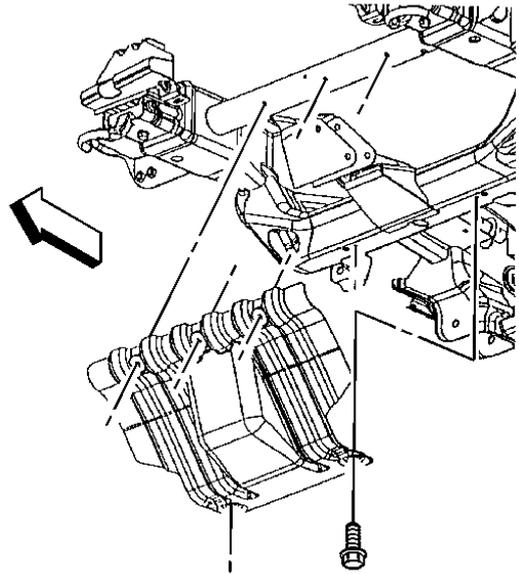
Note: Replace sway bar end links with longer units like BD1302126.



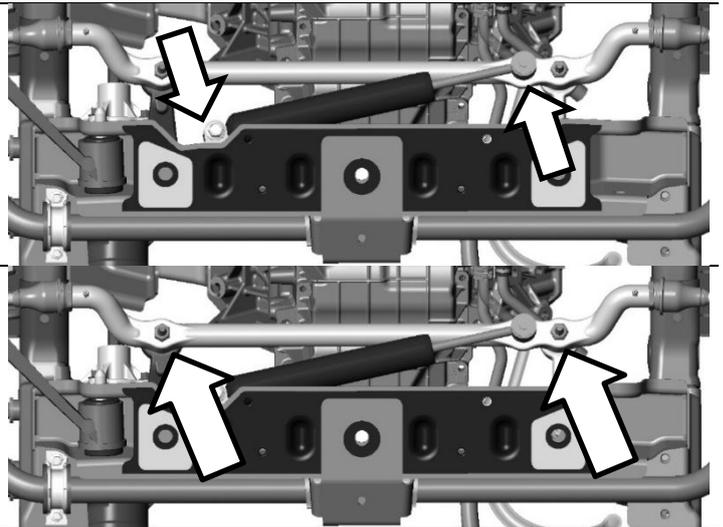
Repeat the above steps for removing the tie rod and sway bar end link on the opposite side of the vehicle.

Center Link Removal & Install

Removing the OEM skid plate may be helpful, for easier access to steering components.



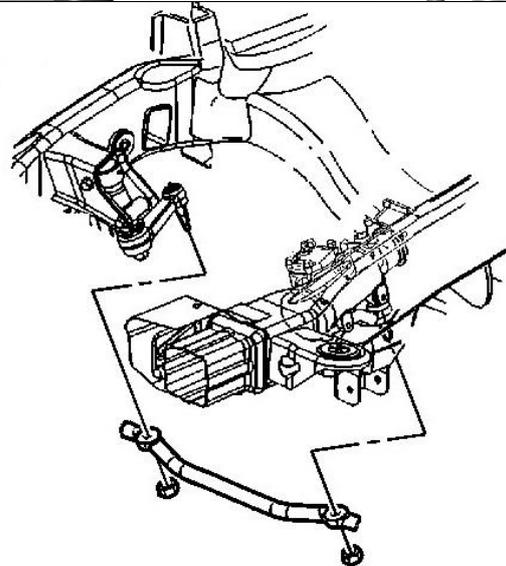
Disconnect steering damper from the Center Link.



Remove nuts found on the Pitman arm stud and idler arm stud retaining center link.

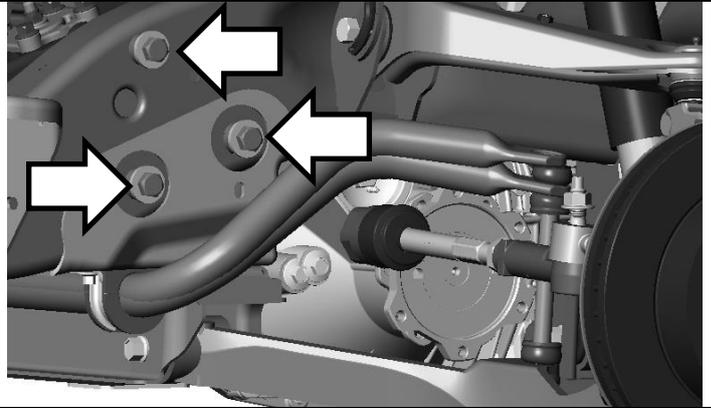
Remove center link from Pitman arm and Idler stud.

Note: Use of a puller may be required.

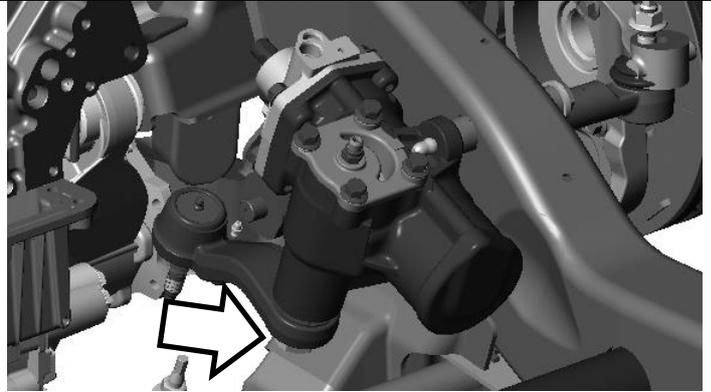


Inspect idler and pitman arms for wear or damage. Replace if necessary. If not replacing idler and pitman arms, skip to page 8.

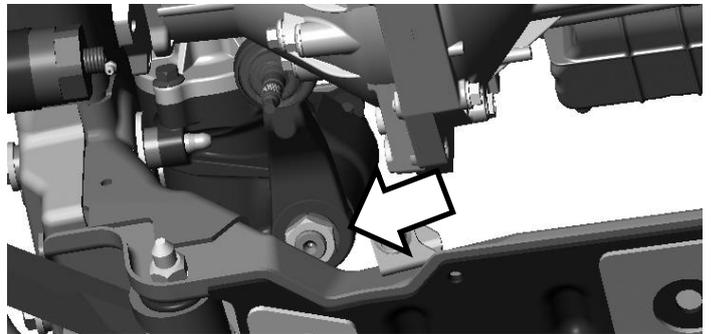
Remove the lower two steering box bolts and loosen the top bolt located on the driver side frame rail.



Remove the Pitman arm by removing the nut and washer (arrow shown) and using a puller tool to remove from steering gear.



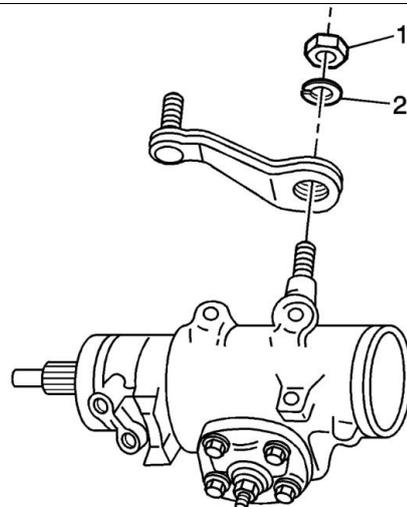
Top View of Pitman Arm



Bottom View of Pitman Arm

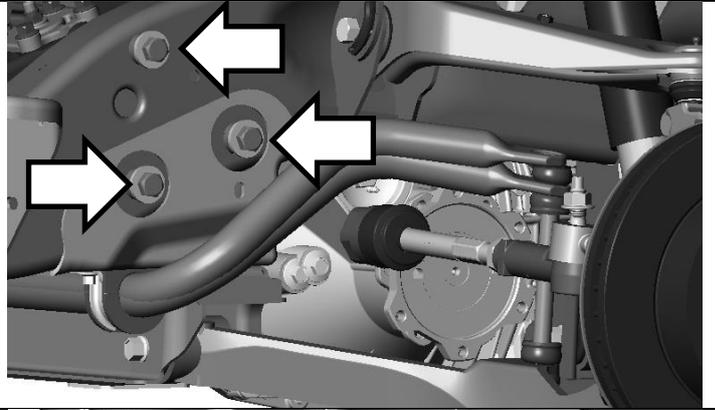
Install the new Pitman arm onto the steering gear using the nut and washer. Torque to spec.

Torque Spec: 184 ft-lbs

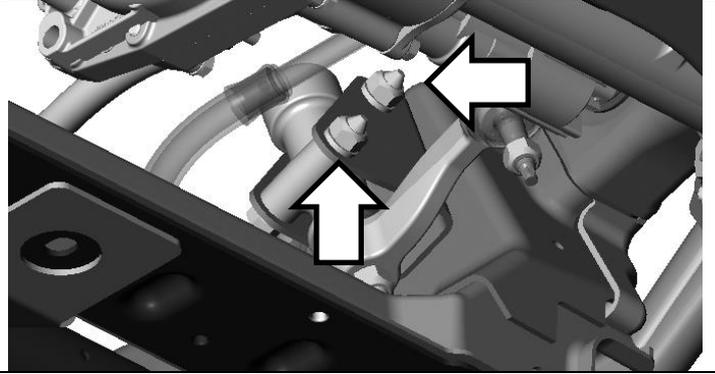


Reinstall the steering box bolts.

Torque Spec: 110ft-lbs



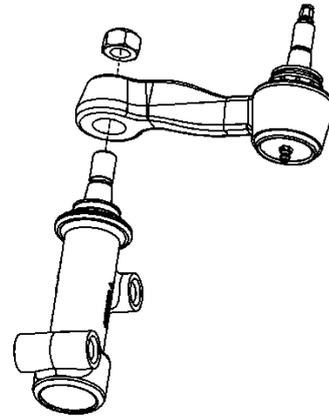
Remove the Idler arm bracket by removing the two nuts, washers, and bolts from the inside of the frame.



Inspect Idler arm bracket for wear or damage. Replace if necessary.

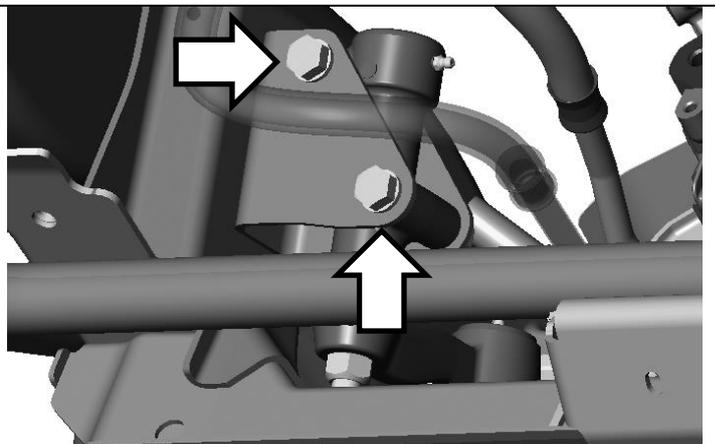
Install the new Idler arm onto the Idler arm bracket using the nut and torque to spec.

Torque Spec: 184 ft-lbs



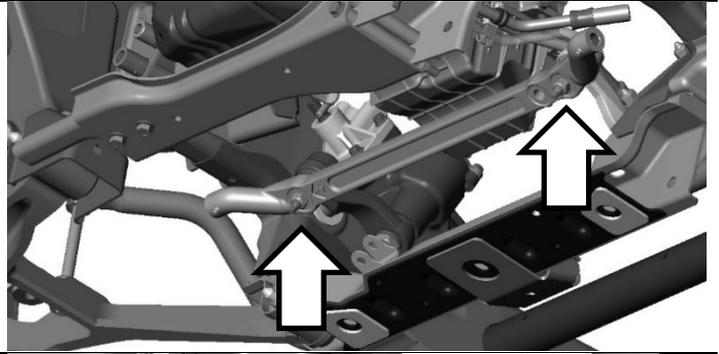
Reinstall the Idler arm assembly into the frame and torque to spec.

Torque Spec: 78 ft-lbs

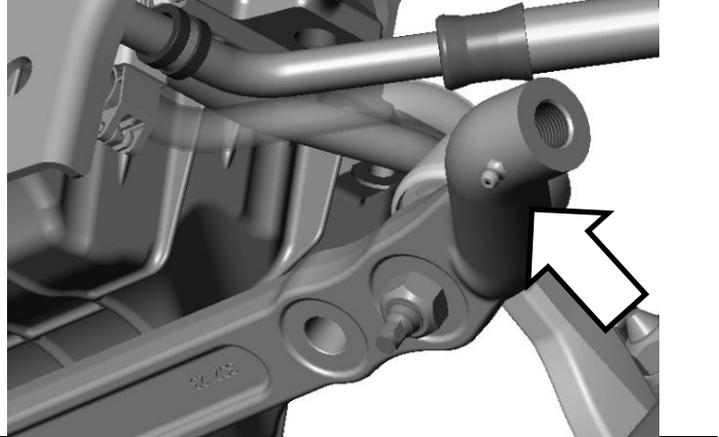


Install BD Center link onto Pitman and Idler arm studs, torque nuts to specification.

Torque Spec: 46 ft-lbs

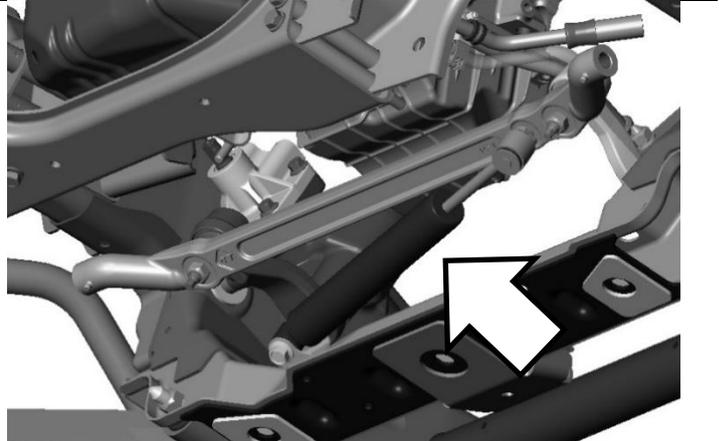


Install supplied grease fittings into both grease holes in BD Center Link.



Reinstall the steering damper, and torque nuts to specification.

Torque Spec: 30 ft-lbs

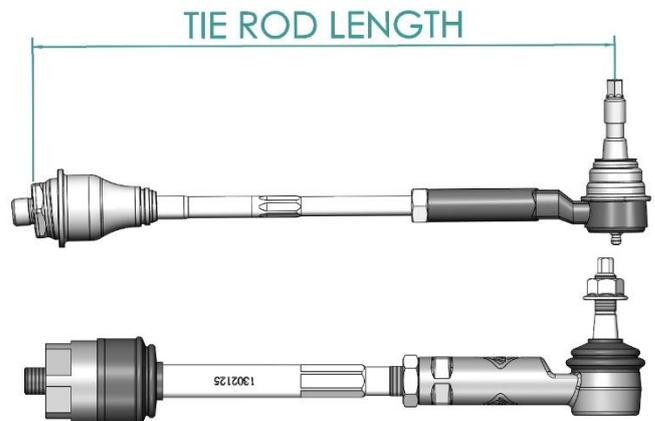


Tie Rod Install

Measure the length of the tie rods removed from the vehicle, and record the values.

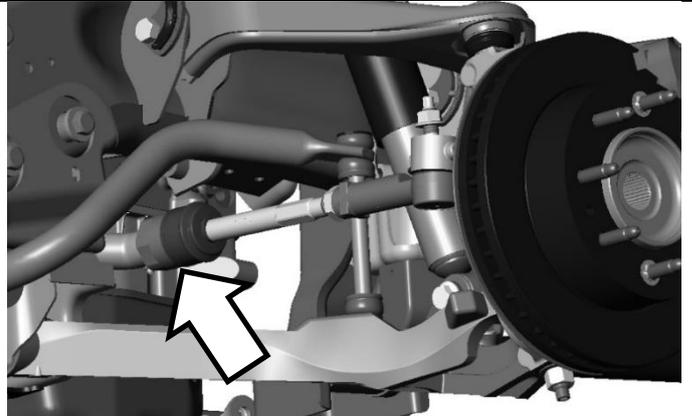
Set the length of the BD Tie Rod to the same value as the removed old tie rods. Tighten the jam nut hand tight.

Note This will setup the steering to be close to the old dimensions. Allowing the vehicle to be driven safely until an alignment can be completed.



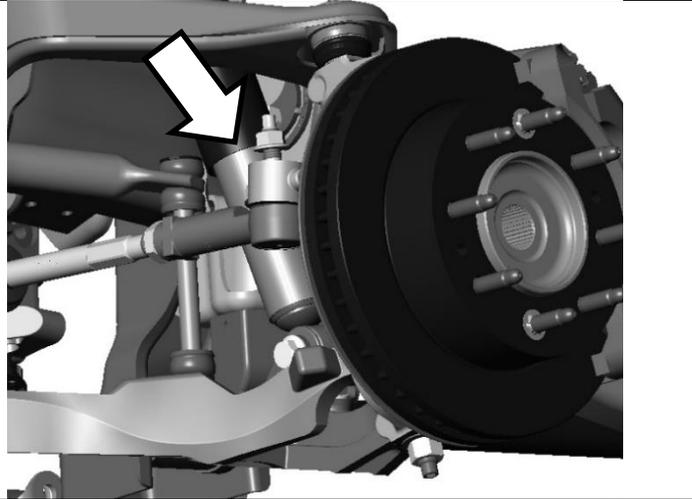
Install the inner tie rod onto the BD Center Link by threading into the link and tightening to spec.

Torque Spec: 74 ft-lbs

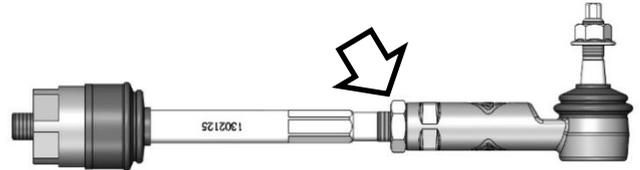


Slip outer tie rod stud into steering knuckle from below, and torque nut to specification.

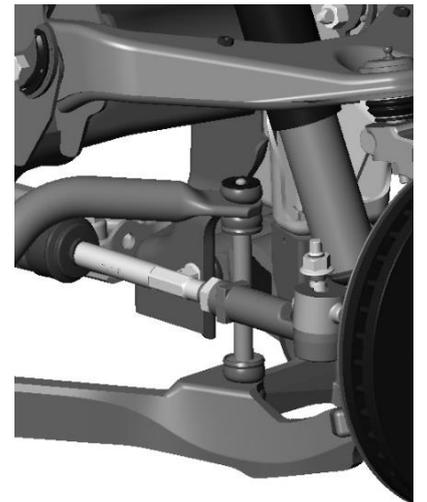
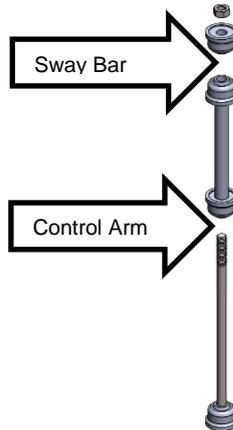
Torque Spec: 48 ft-lbs



Ensure the tie rods remain near the length set earlier, and tighten the adjustment jam nut.



Install sway bar end link by installing a bushing onto the bolt, and inserting into the lower control arm from below. Stack bushings and spacer tube as shown, finishing with the nut on top.



Repeat the above steps for installing the other tie rod and sway bar end link on the opposite side of the vehicle.



Ensure all nuts are tightened to specification, and grease all joints in the steering assembly.

Reassemble any skid plates, covers, or other components removed during install. Installation is now complete, and the vehicle is now ready for a wheel alignment.

Troubleshooting

Tie-Rod Interference

While visually similar, the idler and pitman arms in 2007+ vehicles are angled slightly differently than earlier years. Using incorrect idler/pitman arms for your model year can cause tie-rods to interfere with the CV axle. Ensure you have the correct idler/pitman arms installed for your model year.