

#### Pitman and Idler Arm Support Kit 93-98

# **INSTALL INSTRUCTIONS:**

Pitman and Idler Arm Support Kit 93-98 SKU: 110-90245

PARTS LIST FOR SKU: 110-90245		
QTY	PART#	DESCRIPTION
2	HARDWARE-33628	Lock Washer
4	HARDWARE-36264	Jam Nut
1	THREADLOCK-10743- 03270	Thread Locker
1	8197	93-98 Pitman Arm Bracket
1	8198	93-98 Idler Arm Bracke
2	5402	M14X2.0 Steering Nut
2	5449	9/16-18 Steering Nut
2	RODEND-CM12T-5/8-18	Rod End



## **WARNING**

Please read this entire instruction sheet before beginning installation. Proper installation of these components requires a qualified mechanic. Always wear safety glasses when using power tools, and take appropriate precautions when working under a vehicle. If these instructions are not properly followed you may jeopardize your, and your passenger's safety, and severe frame, suspension or tire damage may also result from improper installation.

Modification of vehicle suspension can interfere with ride-height sensors, active suspension, lane departure features, semi-autonomous, and autonomous driving features. It is the responsibility of the mechanic to determine feature compatibility prior to installation. Recalibration of sensors may be required in the event of any modification.



## **INTRODUCTION**

Thank you for purchasing the Cognito Pitman Idler Arm Support Kit.

Pitman and Idler arms have been an inherent wear problem within the steering systems of Chevy and GMC trucks and SUVs for decades.

The Cognito PISK (Pitman and Idler Arm Support Kit) replaces the problem components that plague OE and aftermarket steering systems on several models and years of GM trucks and SUVs.

These improvements are accomplished through application of Cognito's innovative, patented design, by providing additional support to the vehicle's pitman and idler arms, which eliminate the forward and rearward movement of the center-link.

# **REQUIREMENTS**

- Installation requires a qualified mechanic.
- Follow the OE specifications when replacing or re-installing OE fasteners, retainers, and hardware specified in the OEM manual.
- Always wear safety glasses when using power tools.
- When a lift is required to perform the installation of these products and always ensure the vehicle is properly supported before attempting installation or serious injury may occur.

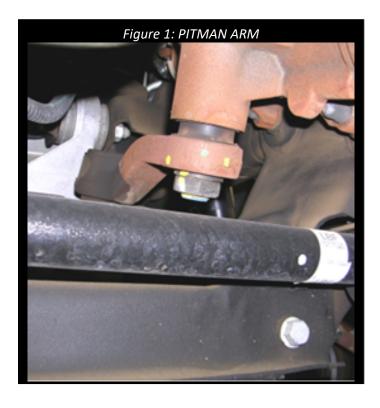
# **TECH NOTES**

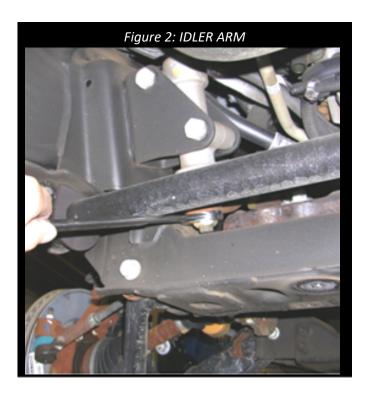
- Read instructions carefully and study the pictures (if included) before attempting installation.
- If this product was purchased as part of a bundle/package. Familiarize yourself with <u>each</u> set of instructions included with the bundle/package before beginning.
- Check the parts and hardware packages against the parts list to assure that your kit is complete before starting.
- Tools: 1 5/16" box end wrench, 24mm end wrench, qty. 2 of 15/16" box end wrench, 15mm socket, 7/8" socket or box end wrench.



## **INSTALLATION**

- 1. If there is an existing skid plate and shroud at the front cross member of the vehicle, underneath the front of the engine, they should be removed to access the pitman and idler arms and set aside for re-installation later.
- 2. Unbolt the sway bar frame clamps with a **10 mm** socket. Let the sway bar drop down and rest on the crossmember just below. This will allow ample room to install the pitman and idler arm support brackets.
- 3. Unscrew the factory lock nuts that hold the drag link to the pitman and idler arms, using a **21mm** socket, and discard them.
- 4. Unscrew the large nut holding the pitman arm to the steering box using a **1-5/16**" boxed end wrench. Remove it and the large lock washer, see **Figure 1**.
- 5. Remove the nut holding the idler arm to the idler arm pivot with a 24mm boxed end wrench. Figure 2





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6. Apply a small amount of thread locker on all the threads on both 5/8"x ¾" rod ends, then thread one 5/8" jam nut all the way on to both of the rod ends. Then insert the rod end through the 5/8" diameter hole on both the pitman and idler arm brackets as shown in Figure 3. Now thread a second jam nut on to both rod ends, but do not tighten at this time.

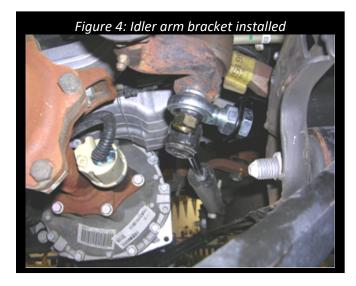


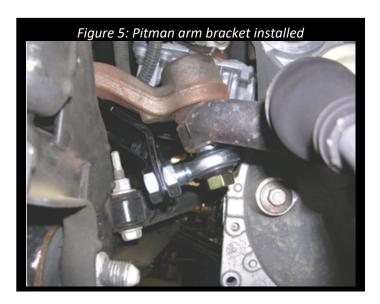
- 7. Insert one lock washer over each of the drag link studs, and then install the pitman and idler arm brackets on to the pivot ends where hardware was previously removed in **steps 4 and 5**, at the same time place the rod end which is connected to the Cognito Motorsports brackets over the drag link studs so that the lock washer is in between the Cognito rod end and the drag link.
- 8. Re-install the factory lock nut on the pivot stud of the idler arm that was removed in **step 5**. Reinstall the factory lock washer and nut on the pivot shaft of the steering box that was removed in **step 4**. Do not tighten yet.

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9. The gold shank nuts are for factory or coarse thread arms, and the silver shank nuts are for aftermarket or fine thread arms. Apply a small amount of thread locker on the threads of the shank nuts and insert a shank nut on to each of the drag link studs, passing through the rod ends and locking against the lock washer and drag link. Jam each support bracket in between the jam nuts. Tighten shank nuts with 7/8" socket and jam nuts with both 15/16" boxed end wrenches, to 60 ft-lb. Figure 4 & 5





- 10. Tighten the factory hardware mentioned in Steps 4, 5 and 8 at this time. Hardware in step 5 should be tightened to 85 ft-lb. Hardware in Step 8 may not accommodate clearance to use a torque wrench, but need to be tightened as tight as possible with the box end of an end wrench, roughly 85 ft-lb on the idler arm side, and 150 ft-lb on the large pitman arm nut.
- 11. Re-install the sway bar frame brackets to **50 ft-lb**. and any other hardware or skid plate/shroud previously removed and tighten to factory specification.

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## WARRANTY / RETURN POLICY / SAFETY

#### **Cognito Limited Lifetime Warranty**

Cognito Motorsports, Inc. hereinafter "Cognito," warrants to the original retail purchaser, that its suspension products are free from workmanship and material defects for as long as the purchaser owns the vehicle on which the product(s) were originally installed. This warranty will be void if any modifications are made to the components, including alterations to the surface finish, i.e.; painting, powder coating, plating, and/or welding, or if they are improperly installed. Cognito truck suspension products are not designed nor intended to be installed on "competition" vehicles used in race applications, stunt or for exhibition purposes that are outside of the intended operating conditions specified by the manufacturer. Racing and competition are defined as any contests between two or more vehicles; or vehicles competing individually on off road circuits in timed events (whether or not such contests are for an award or prize).

This warranty does not include coverage for police, taxi, government or commercial vehicles, and the warranty does not cover Cognito products sold outside of the USA. Cognito's obligations under this warranty are specified and applied at its sole discretion, and warranty coverage is limited to repair or replacement of the defective product(s). Any and all costs of removal, installation or reinstallation; freight charges, incidental or consequential damages associated with the covered products are expressly excluded from this warranty.

The following items are exempt from Cognito limited warranty coverage: bushings, bump stops, tie-rod ends (Heim joints) and limiting straps. These parts are "consumables" and designed to wear as a normal part of their duty cycle, therefore they are not considered defective when worn. The aforementioned products are warrantied separately against defects in workmanship, for 60 days from the date of purchase. As a condition of warranty validation, respective Cognito suspension components must be installed as a complete system (not combined with non-Cognito hardware or ancillary parts). Any substitutions or omission of required components will void the warranty. Some minor cosmetic wear and imperfections may occur to parts during shipping, which is not covered under this warranty. This limited warranty does not apply to any components that have been subjected to collision damage, negligence, alteration, abuse, or misuse, and coverage does not extend to products manufactured by third-party companies. Cognito reserves the right to supersede, discontinue, or change the design, finish, part number and/or application of its parts when deemed necessary, without notice.

#### **Return Policy**

Product returns will not be accepted without prior written approval from an authorized Cognito representative. All products being returned must be shipped via trackable, prepaid freight. Returned products are subject to a 25% percent restocking fee. The eligible return period for products purchased directly from Cognito is 30 days from the verified date when the product(s) were originally received by the purchaser.

#### **Product Safety Advisory**

The installation of Cognito steering and suspension components will modify your vehicle's original factory equipment and geometry, which may cause it to handle differently than a stock (unaltered) vehicle. Installation of these components is not intended to strengthen nor reinforce the vehicle's frame, nor are they designed to increase rollover protection. It is necessary to periodically inspect all suspension and drive train components for proper attachment, torque specifications, operation, and for any potential unusual wear or damage. Installation of these parts will modify the height of the vehicle and may raise the center of gravity. Modifying vehicle height combined with off road operation may increase your vehicle's susceptibility to rollover conditions, which may cause serious injury or death. Many states regulate allowable vehicle height modifications, and it is your responsibility to know and comply with the legal requirements specified by the laws where you reside. Modifications to your vehicle's ride height may also affect the ride quality, driver input response, trackability and handling, and wear to your vehicle's suspension components and tires.