

Cognito 4-Inch Standard Lift Kit with Fox 2.0 Performance Series Shocks for 11-16 Ford F-250/F-350 4WD

# **INSTALL INSTRUCTIONS:**

Cognito 4-Inch Standard Lift Kit with Fox 2.0 Performance Series Shocks for 11-16 Ford F-250/F-350 4WD SKU: 120-P1204

PARTS LIST FOR SKU: 120-P1204				
QUANTITY	PART #	DESCRIPTION		
1	120-70079	2011-2016 FSD Radius Arm Drop Bracket Component Box		
1	120-70080	2011-2016 FSD 4-Inch Lift Component Box		
1	120-70085	2011+ FSD 4" Coil Spring Kit		
1	120-90331	5" Block and 15" U-Bolt Kit (fab/tapered)		
2	220-90340	Fox Performance Series Front 2.0" Mono Tube Shock		
2	220-90341	Fox Performance Series Rear 2.0" Mono Tube Shock		

PARTS LIST FOR SKU: 120-70079				
QTY	PART # DESCRIPTION			
2	8305	2011-2016 FSD Radius Arm Drop Bracket		
1	HP9128	128 FSD Radius Arm Drop Hardware		

PAR	PARTS LIST FOR SKU: 120-70080			
QTY	PART #	DESCRIPTION		
2	8310	2005-2016 FSD Bump Stop Spacer		
1	8313	2011+ FSD 4" Sway Bar Drop Bracket Driver		
1	8314	2005-2016 FSD Steering Stabilizer Drop Bracket		
1	8317	2011-2016 FSD Front Brake Line Bracket, Driver		
1	8318	2011-2016 FSD Front Brake Line Bracket, Passenger		
1	8319	2011-2016 FSD Rear Brake Line Bracket		
1	8547	2011+ FSD Front Track Bar Drop Bracket		
1	8582	2011+ FSD 4" Sway Bar Drop Bracket Passenger		
1	HP9129	FSD Steering/Sway Bar Hardware Pack		
1	HP9130	FSD Bump Stop Hardware Pack		
1	HP9133	FSD Carrier Bearing Hardware Pack		
1	PITMAN-ARM- FORD-1	2005+ Ford F250 And F350 4" Dropped Pitman Arm		



# **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.

PARTS LIST FOR SKU: HP9128				
QTY	PART #	DESCRIPTION		
8	HARDWARE-M18-FW	M18 DIN 125 Zinc Steel Flat Washer		
4	HARDWARE-M18X2.5- LOCKNUT	M18-2.5 Gr 10 Zinc Steel Hex Nut Top Lock		
4	HARDWARE- M18X2.5X130	M18-2.5 X 130mm DIN 931 Class 10.9 Yellow Zinc Hex Head Cap Screw		

PARTS LIST FOR SKU: HP9129				
QTY	PART#	DESCRIPTION		
5	HARDWARE-15157	7/16"-14 X 1-1/4" Grade 8 Yellow Zinc Hex Cap Screw		
10	HARDWARE-33084	7/16" SAE Zinc Flat Washer		
5	HARDWARE-37266	7/16"-14 Grade C Zinc Lock Nut		
4	HARDWARE-M12-FW	M12 DIN125 Zinc Flat Washer		
1	HARDWARE-M12X1.75- LOCKNUT	M12-1.75 Class 10 Zinc Nylock Nut		
1	HARDWARE- M12X1.75X70	M12-1.75 X 70mm Gr 10.9 Yellow Zinc DIN 933 Hex Head Cap Screw		



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PARTS LIST FOR SKU: 120-70085				PARTS LIST FOR SKU		
QTY	PART #	DESCRIPTION		QTY	PART#	
2	COIL-SPRING- 3004	2005-2016 FSD 4" Lift Coil Springs		2	HARDWARE-33080	
	3004		]	2	HARDWARE-33620	

PARTS LIST FOR SKU: 120-90331				
QTY	PART #	DESCRIPTION		
1	HP9325	FSD Lift Block Pin Spacers		
1	BLOCK-	2005+ FSD 5" Lift Block, Driver		
	30050T-DR	(fab/taper)		
1	BLOCK-	2005+ FSD 5" Lift Block, Passenger		
	30050T-PAS	(fab/taper)		
4	UB-FSD-15	FSD 15" U-bolt		

PAR	PARTS LIST FOR SKU: HP9130				
QTY	PART#	DESCRIPTION			
2	HARDWARE-33080	5/16" SAE Zinc Flat Washer			
2	HARDWARE-33620	5/16" Zinc Split Washer			
2	HARDWARE- M8X1.25X100	M8-1.25 X 100mm Gr 10.9 DIN 931 Zinc Hex Head Cap Screw			

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PARTS LIST FOR SKU: HP9133				
QTY	PART#	DESCRIPTION		
4	5567	Spacer, 1.25" X .405" X 0.500"		
2	HARDWARE-15161	7/16"-14 X 2" Grade 8 Yellow Zinc Hex Cap Screw		
2	HARDWARE-15163	7/16"-14 X 2-1/2" Grade 8 Yellow Zinc Hex Cap Screw		
2	HARDWARE-33084	7/16" SAE Zinc Flat Washer		
2	HARDWARE-33624	7/16" Zinc Split Washer		

# **INTRODUCTION**

We have bundled everything you need in a lift kit for your Ford F-250/F-350 with high quality Cognito components. There is no guesswork. Cognito components are engineered, manufactured, and assembled in the USA.

The Cognito front lift components are designed and engineered to correct steering and suspension geometry while offering superior ride quality. This kit includes everything needed to achieve 4-inches of front lift for 2011-2016 trucks with level rake front to rear.

The Fox 2.0 Performance Series shocks contain the latest in shock technology to transform the performance of your truck. The Fox 2.0 Performance Series IFP front shocks are rust resistant and have a metal impact extruded aluminum body to increase cooling capacity. The IFP eliminates oil aeration allowing maximum performance from the factory-tuned, precision valving. They're easy to install and provide a comfortable on-road ride and predictable off-road handling in even the toughest conditions.

## **TECH NOTES**

- Read instructions carefully and study the pictures (if included) before attempting installation.
- If this product was purchased as part of a kit each kit, and options to kits, are packaged separately. Therefore installation procedures are covered in separate instructions. Familiarize yourself with each specific set of instructions before beginning.
- Check the parts and hardware packages against the parts list to assure that your kit is complete before starting.

# REQUIREMENTS

- Installation requires a qualified mechanic.
- This kit requires advanced mechanical procedures that should only be performed by a qualified mechanic.
- Only the shocks supplied in this kit can be used with this lift package.
- This lift kit may only be installed on a truck that has not already been lifted or leveled. You cannot stack leveling kits or shock spacers.
- 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.





# **INSTALLATION**

- 1. Rack the vehicle and lift it off the ground, or if no hoist is available then jack the vehicle off the ground and support properly with jack stands. Remove the tires and set them aside.
  - NEVER WORK ON AN UNSUPPORTED VEHICLE.
- 2. Install the track bar drop bracket:

Locate 8547, track bar drop bracket, out of component box 120-70080.

Remove the hardware restraining the track bar into the **frame mount bracket**, retain the hardware for reuse later. Remove the hardware restraining the OEM track bar mount bracket to the frame, retain the hardware for reuse later. The OEM mount bracket may be discarded.

Install the track bar drop bracket on to the frame using the OEM hardware removed prior.

Torque hardware to 129 ft-lbs.

#### NOTE:

The track bar should not be reinstalled into the drop bracket at this time and the track bar may stay connected to the axle, there is no need to remove it for this install.







**3.** Install the steering stabilizer drop bracket:

Locate <u>8314</u>, steering stabilizer drop bracket, out of component box <u>120-70080</u>.

Remove the hardware restraining the steering stabilizer damper to the frame, this hardware may be discarded. Remove the hardware restraining the OEM steering stabilizer bracket to the frame, retain the hardware for reuse

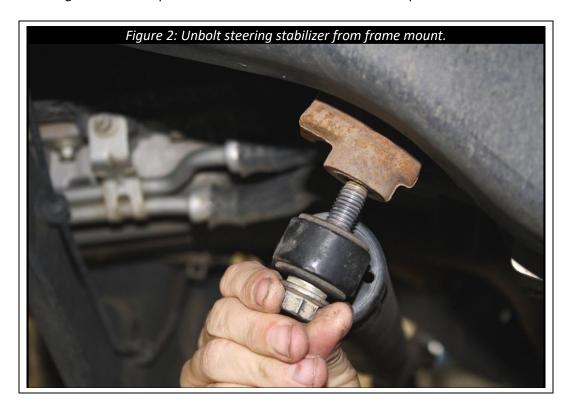
The OEM bracket may be discarded.

Install the steering stabilizer drop bracket onto the frame using the OEM hardware removed prior.

Torque hardware to 52 ft-lbs.

#### NOTE:

The steering stabilizer damper should not be reinstalled onto the drop bracket at this time.



### **4.** Install the sway bar drop brackets:

Locate <u>8313</u>, driver side sway bar drop bracket, and <u>8582</u>, passenger side sway bar drop bracket out of component box <u>120-70080</u>.

Locate **HP9129**, remove 8x 7/16" flat washers, 4x 7/16" nuts 4x 7/16" bolts.

Remove the hardware restraining the sway bar to the frame, retain the hardware for reuse later.

Install the drop brackets onto the frame using the OEM hardware removed prior, ensure **8313** is installed on the driver side and **8582** is installed on the passenger side.

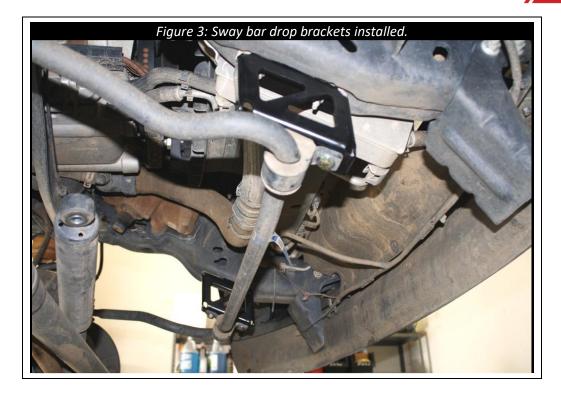
Install the sway bar onto the drop brackets using the 7/16" hardware from the hardware pack.

Torque all hardware to 35 ft-lbs.

#### NOTE:

The sway bar end links may stay connected, there is no need to remove them for this install.





5. Separate the pitman arm from the steering drag link:
Remove the nut holding the pitman arm to the steering link and retain for reuse later.
Use a joint separator tool to remove the pitman arm from the tapered seat of the steering link.

## • NOTE:

If a joint separator is not available a hammer may be used in one of two ways listed below.

- Use the hammer to hit the tapered receptacle of the steering link, the shock should break the joint loose, multiple firm hits may be needed.
- Thread the nut back on to the joint, make sure no threads are sticking out of the end of the nut. Hit the nut with the hammer to dislodge the joint from the tapered receptacle of the steering link.

Use of a *pickle fork is not recommended* as the joint will be reused.









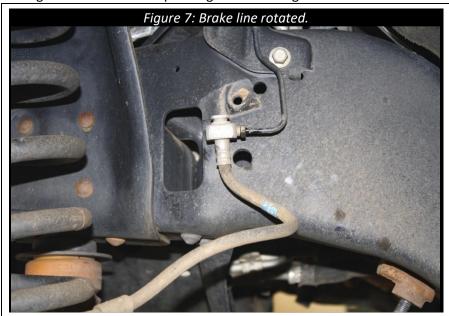
6. Adjust front brake line mounting on both sides of the vehicle:

Remove the clip retaining the brake line to the OEM mounting bracket, retain the clips for reinstallation later.



Remove the bolt restraining the mounting bracket to the frame, the bracket may be discarded but retain the hardware for reuse later.

Using a line wrench, slightly loosen the hardline fitting going into the soft line. Rotate the soft line fitting until the soft line is pointing down at the ground.



Using a line wrench, tighten the hardline fitting going into the soft line.





Remove the clips restraining the wire harness to the radius arms.

Disconnect the wire harness from the sensor, wrap up the wiring harness and hang it out of the way.

## **8.** Lower the front axle:

Support the front axle.

Remove the hardware restraining the shocks to the frame on both sides of the vehicle, retain the hardware for reuse later

Remove the hardware restraining the shocks to the axle on both sides of the vehicle, the OEM shocks may be discarded but retain the hardware for reuse later.

Lower the front axle until the coil springs can be removed, the OEM springs may be discarded but retain the rubber isolators for reuse later.

Remove the bump stops underneath both the driver and passenger side frame rails.

With the bump stop removed, loosen the bolt, and remove the bump stop mount from the frame rails.

Install **8310** using hardware from **HP9130** and the OEM bump stop mounts.

Torque hardware to 15 ft-lbs.

Reinstall OEM bump stop rubber onto OEM bump stop mount.

**9.** Install the radius arm drop brackets on both sides of the vehicle:

Locate the 2x 8305, radius arm drop brackets out of component box 120-70079.

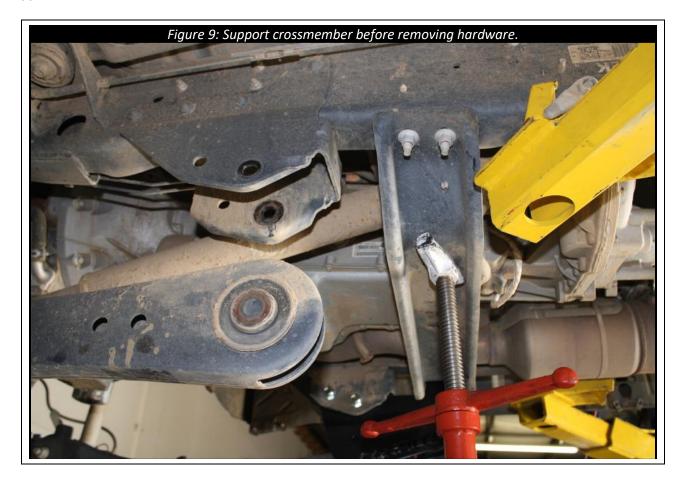
Locate **HP9128**, remove all hardware for the hardware pack.

Remove the hardware restraining the radius arms to the frame, retain the hardware for reuse later.



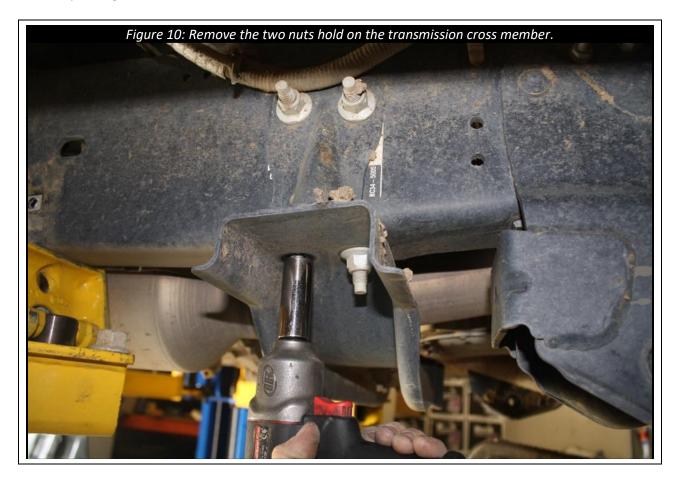


Remove any plastic clips that may be protruding into the mounting cavity that the radius arms were removed from. Support the transmission crossmember.





Remove the nuts restraining the crossmember to the frame, retain the hardware for reuse later. The two nuts on the side of the passenger side frame rail do not need to be removed for this installation.





Install the drop brackets into the mounting cavity that the radius arms were removed from using the 18mm hardware removed from the HP9128.





Reinstall the crossmember mounting nuts removed prior.



Install the radius arms into the drop brackets using the OEM hardware removed prior.

Reinstall any plastic clips that were removed prior.

Torque the crossmember nuts to 81 ft-lbs.

Remove the transmission crossmember support.

Torque the drop bracket and radius arm hardware to 222 ft-lbs.

## **10.** Install the drop pitman arm:

Locate the drop pitman arm out of component box 120-70080

Remove the large nut retaining the pitman arm to the steering box, retain the hardware for reuse later. Using an automotive puller, remove the OEM pitman arm, it may be discarded as it will not be reused. Install the drop pitman arm onto the steering box using the hardware removed prior.

Torque the retaining nut to 350 ft-lbs.

NOTE:

Specialty Tooling Required: 46mm or 1-13/16" Deep Socket Specialty Tooling Required: Automotive Puller





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Locate the 2x extended length coil springs out of component box 120-70085.

Locate the 2x 220-90340, front FOX shocks.

Locate the rubber isolators removed from the OEM springs and install them on top of the new springs.

Install the spring and isolator onto the axle.

Install the shocks into the upper frame mounts using the OEM hardware removed prior.

Lift the axle back up until the shock can be attached to the axle, using the OEM hardware removed prior attach the shock to the axle.

Torque the frame mounting hardware to 46 ft-lbs.

Torque the axle mount hardware to 111 ft-lbs.

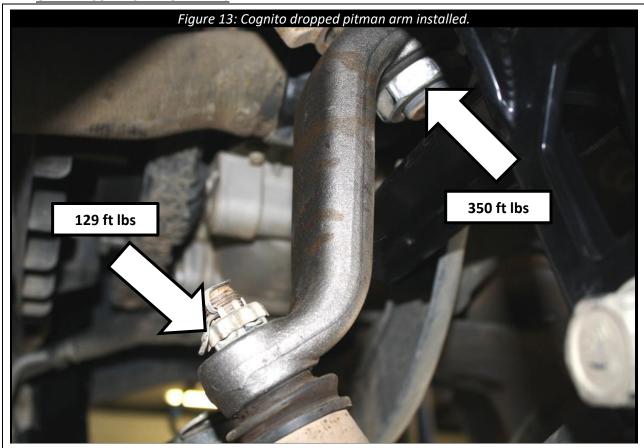
## **12.** Attach the steering link to the drop pitman arm:

Attach the steering link to the drop pitman arm using the OEM hardware removed prior.

Torque hardware to 129 ft-lbs.

Install cotter pin and bend to lock into place.

• If the castellations in the castle nut and the hole in the pin do not align once torqued to 129 Ft.-lbs continue tightening the nut until the two are aligned and the cotter pin can be installed. **NEVER LOOSEN THE NUT TO GET THE CORRECT ALIGNMENT!** 





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13. Reinstall the steering stabilizer damper to the steering stabilizer drop bracket:

Locate HP9129, remove the M12 hardware. (4x M12 flat washers, 1x M12 nut, and 1x M12 by 70mm long bolt)

Attach the damper to the drop bracket using the hardware removed from the hardware pack prior. The damper must be spaced off the drop bracket by using two of the flat washer between the damper and bracket.

If installed correctly the stack should be like this: nut, washer, drop bracket, washer, washer, damper, washer and bolt head.

Torque hardware to 66 ft-lbs.

**14.** Reinstall the track bar into the track bar drop bracket:

Locate the OEM mounting hardware removed prior.

Attach the track bar to the drop bracket using the OEM hardware.

Torque the hardware fastening the track bar to the fame to **406 ft-lbs** (torque ball joint hardware to **184 ft-lbs** if removed previously).

**15.** Install the front brake line drop brackets:

Locate <u>8317</u>, driver side brake line drop bracket, and <u>8318</u>, passenger side brake line drop bracket out of component box <u>120-70080</u>.

Locate the OEM mounting hardware removed prior.

Install the drop brackets onto the frame using the OEM hardware removed prior, ensure **8317** is installed on the driver side and **8318** is installed on the passenger side.

Install the brake line into the drop brackets using the OEM mount clip removed prior.

Torque the hardware to 8 ft-lbs.







### **16.** Reroute the ABS wiring harness and attach to sensor:

Route the wiring harness to run inside the frame rail and out the hole in the frame.

Plug the wire harness into the sensor.

Attach the plastic wire harness restraining clips back into the radius arms.



#### 17. Locate and refer to INST7024 located in 120-90331.

Follow the instructions until instructed to install the rear shocks.

At this point remove the stock rear brake bracket and install the Cognito rear brake line extension bracket <u>8319</u>. Bolt the brake line extension bracket to the rear axle housing with the stock vent fitting bolt.

Bolt the stock brake line bracket to the extension with the remaining 7/16" bolt, nut, and 2 washers in **HP9129**. Reconnect the vent tube to the fitting.

NOTE: For Dual Rear Wheel (DRW) models only. Use of HP9325 may be needed to ensure proper fit of block to

shackle. When instructed to check U-bolt clearance verify that the block pin rests within the shackle without excessive movement. Likewise verify that the leaf spring center pin fit completely within the

block hole.

If needed: install the block pin spacer onto the block pins and drill out the hole on the top of the block to

3/4".

NOTE:

**HP9133** is the carrier bearing spacer and hardware. There may or may not be a carrier bearing spacer needed depending on the rear lift height and the model of the truck.

Extended cab trucks and shorter do not have a carrier bearing so no spacers are needed.

Crew-cab short bed models also have 1-piece rear driveline thus no carrier bearing.

F350 long bed needs no spacer for the 5" block and a ½" spacer for the 6" block.

F250 long bed needs ½" spacer for 5" block and 1" spacer for 6" block.

Use the ½" spacers provided along with the bolts to replace the factory ones that bolt the carrier bearing to the chassis. If 1" is needed, stack 2 of the ½" spacers.



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- **18.** Return to **INST7024** and follow to completion.
- **19.** Adjust the headlights per owner's manual.

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- **20.** Check the front brake lines and ABS cables to make sure there is no binding and rubbing throughout the suspension and turning cycle.
- **21.** Alignment should not change, but the steering wheel may need to be straightened out. Either have a professional shop do this or adjust the drag link length so that the steering wheel is straight. If the truck pulls left or right, then a professional alignment will be required.



# 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.

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