

PARTS LIST FOR SKU: 199-90722 / 199-90804

QTY	PART #	DESCRIPTION
1	199-90722	Bolt-In Ball Joint (M12 Thread)
199-90722 ↑ or 199-90804 ↓		
1	199-90804	Bolt-In Ball Joint (M14 Thread)
PLUS HARDWARE ↓		
4	HARDWARE-15057	5/16"-18 X 1-1/4" Grade 8 Yellow Zinc Hex Head Cap Screw
8	HARDWARE-33080	5/16" SAE Zinc Flat Washer
4	HARDWARE-37262	5/16"-18 Grade C Zinc Top Lock Nut

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.

BALL JOINT WARNING

The ball joint / upper control arm can no longer be used as the droop limiter of the front suspension. A shock or limit strap is required to be the limiter. It is required that the proper length shock from Cognito or a limit strap kit from Cognito be installed to prevent failure which could cause an accident and serious injury. If you have questions, please contact the Cognito's sales team to have you questions or concerns addressed.

REQUIREMENTS

- **These ball joints are used in several different Cognito control arm kits and depending on the application will drop thru the hole and bolt to the top of the arm, or mount from underneath the arm. Refer to the instructions for your control arm kit to determine which side of the arm the ball joint needs to bolt to. This is very important!**
- 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.
- Read instructions carefully before attempting installation.
- Check the parts and hardware packages against the parts list to assure that your kit is complete before starting.

INSTALLATION

1. Rack the vehicle and lift it off the ground, or if no hoist is available then jack front of truck off the ground and support properly with jack stands. Remove the front tires and set them as side.
 - **NEVER WORK ON AN UNSUPPORTED VEHICLE.**
2. Support the lower control arms with a floor jack or stand prior to removing the upper control arms (UCAs).
3. Loosen the ball joint nut of the upper control arm enough until the nut can be spun by hand, but do not remove totally. Use a pickle fork to separate the ball joint from the spindle or tap on the side of the spindle next to the ball joint stud. When the tapered seat of the ball joint breaks loose remove the ball joint nut, and separate the upper control arm from the spindle.
4. Prior to removing the ball joint from the control arm, note if the ball joint is top mounted or bottom mounted on the control arm. The replacement ball joint must be mounted the same way.
 - **NOTE:**
It is critical that the ball joint is mounted correctly. If the ball joint is not mounted in the correct way it can be hyper extended which could cause damage to the joint or an accident and or serious injury due to the ball joint failing.
If unsure what the proper mounting location is for your application is contact the Cognito Sales Team to have you questions or concerns addressed.
Warranty on Cognito products will be void if damage occurs due to improper installation.
5. Unbolt the ball joint from the upper control arm.
6. Clean up all mating surfaces before bolting on the new upper ball joint.
7. Use new mounting hardware to bolt the ball joint to the upper control arm.
Torque the bolts to **22 ft-lbs.**
 - **NOTE:**
Be advised that different arm kits have the ball joint bolt to the top or the bottom of the control arm. Take the time to make sure you are bolting the new joint to the proper side of the arm for your application. This is very important for alignment and for clearance.
8. Mount the ball joint stud to the spindle with supplied hardware. Use the flat washers if the castle nut needs to be spaced down in order for the cotter pin to engage, and tighten castle nut to the following torque spec's based on stud size:
 - i. M12 or 1/2" threads (**70 ft-lbs.**)
 - ii. M14 or 9/16" threads (**100 ft-lbs.**)

INSTALLATION – CONT.

9. Insert the cotter pin and bend ends around the nut to secure.
 - **NOTE:**
If the castle nut and the hole in the ball joint pin do not align once torqued 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!***
10. (If equipped with Zerk fitting(s)) Grease the ball joint until the dust boot starts to swell. If these items are not greased, premature wear will result on these items! It is highly recommended to grease the ball joints every 3-5K miles.

(If equipped with Zerk fitting(s)) Grease the a-arm pivot bushing. If these items are not greased, premature wear will result on these items! Its highly recommend to grease the pivot bushings every 3-5K miles.
 - **NOTE:**
Warranty on Cognito products will be void if damage occurs due to negligence in servicing the ball joints and pivot bushings every 3-5K miles with fresh grease.
11. Ensure that all bolts are properly torqued. Ensure there are no rubbing or loose cables anywhere after the installation. Use cable ties to restrain any cables from interfering with any other part. Check that all lines are free of stress or interference while the vehicle is in full droop, full bump, and throughout the complete steering cycle.
12. Install front wheels and tires and torque lug nuts to factory manufacturer's specifications.
13. Have the vehicle professionally aligned.
 - **NOTE:**
Reference the installation instructions that originally came with the Cognito UCA Kit for alignment recommendations.

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.