

CAUTION: Observe proper safety and repair procedures for installation of all chassis parts. Some chassis parts require specialized tools and experience and therefore **MUST** be installed by a qualified technician otherwise an unsafe vehicle and/or personal injury could result. Wear safety glasses and other protection.

WARNING: Before beginning, check for any damaged or loose ball joint connections (steering tie rod end and upper and lower ball joints). Loose connections here indicate the ball joint taper and/or the knuckle tapers are either worn or broken and **MUST BE REPLACED**. Failure to replace a damaged or worn steering knuckle may cause loss of steering due to ball joint breakage and will cause the wheel to separate from the vehicle, possibly resulting in serious personal injury.

NOTE: These parts are intended for use in vehicles with abnormal alignment and are designed to replace the non-adjustable factory equipment. These parts are not designed for installation on vehicles with suspension and/or steering systems modified for racing, competition or any other non-standard purpose.

Overview

This kit requires removing the OEM lower front ball joint. The OEM ball joint is re-installed on a sliding plate that allows camber adjustment.

Removal Instructions

1. Raise front of vehicle in a safe manner and support vehicle on jack stands under the vehicle. The rim/tire assembly can be removed to aid installation, but it is not necessary.
2. Remove the lower front ball joint from the steering knuckle assembly – remove lock nut and break ball stud taper free. (It is possible to do this installation without removing the ball joint from the steering knuckle, but it is more difficult.)
3. Remove the ball joint from the lower control arm assembly – Loosen and remove the 3 M8 bolts and nut plate.
4. Check the ball joint for damage (worn boot, free play, etc.). If damaged, replace ball joint.

Assembly & Installation Instructions

1. Attach the OE ball joint to the sliding bracket. Insert 3 the M8 bolts up through the bottom so that the flat washers and lock nuts are on the top side of the ball joint. The heads of the hex bolts must line up with the scribes provided on the bottom side of the sliding bracket. If the heads of the bolts are not lined up with scribed they will bind in the slots of the forged base. Torque bolts to 20 ft*lbs.



2. Place the triangular spacer inside the control arm (where the ball joint was mounted).
3. Attach the forged metal base to the top of the control arm. Using 3 M8 bolts with 3 M8 ribbed lock washers thread them up from the bottom, through control arm and the triangular spacer into the threaded holes in the forged base. Torque bolts to 20 ft*lbs.
4. Using 3 M8 bolts and 3 M8 ribbed lock washers attach the ball joint/sliding bracket assembly over the forged base by threading the bolt/lock washers through all 3 slots (2 located on the side and one on the top). Only snug the bolts, but do not torque at this point.
5. Install ball joint to steering knuckle, torque locking nut to manufacturer specifications.
6. Reinstall the tire wheel assembly, Install alignment equipment and adjust camber by sliding bracket in for positive adjustment or out for negative adjustment. Using a jack to slightly lift or lower the vehicle to increase or reduce weight on the wheel will help to allow the assembly to slide.
7. Once the correct position is obtained, torque the 3 M8 bolts between the sliding plate and forged metal base to 20 ft*lbs to lock the assembly in place.
8. Check and set toe to specifications, road test vehicle and make further adjustments as needed.

Complete Kit Contents



Full Assembly attached to Control Arm



ALWAYS CHECK FOR SUSPENSION CLEARANCE

Modifying any suspension component may change other part clearances and cause binding or interferences. After installing any Ingalls' product, the suspension must be checked for binds or interference between all components, other arms and the chassis. Be sure that all control arms, struts and steering ends move freely through the full movement of the suspension (springs may need to be removed to fully check component travel). Installing any Ingalls' product on a modified vehicle (lowered or raised) from the original factory design requires a detailed check of all suspension components and their movements. Ingalls recommends that a trained technician install all products.

Limited Warranty

Subject to Disclaimer. All Ingalls products are warranted against defects in materials and workmanship for ninety (90) days from date of purchase. During the warranty period, Ingalls will repair, or at its option replace at no charge, components that prove to be defective. The product must be returned, shipping prepaid, to Ingalls facility. This limited warranty does not apply if the product is damaged by accident or misuse. The foregoing warranty is in lieu of all other warranties expressed or implied including but not limited to any implied warranty of merchantability, fitness, or adequacy for any particular purpose or use. Ingalls shall not be liable for any special, incidental or consequential damages whether in contract, tort, or otherwise resulting from the use of the inability to use the product.

Warranty Disclaimer

Use of this product in competition, or use on vehicles altered from original manufacturer's specifications or settings, EXPRESSLY VOIDS WARRANTY. The user is urged to inspect for suspension binding or interference when the product is used in these manners. However, due to the varying conditions and manner of use which the product will be subjected to in such uses, Ingalls Engineering Co., Inc. makes no warranties, either express or implied, including any warranty of merchantability or fitness for a particular purpose for use in competition or with specifications or settings other than those specified by the original manufacturer's specifications.