

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 suspension connections. Loose connections here indicate worn or broken parts which MUST BE REPLACED. Failure to replace a damaged or worn spindle and/or link may 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.

Instructions

1. Before starting alignment, complete inspection checklist and determine the amount of change needed.
2. Raise the rear of the vehicle and support body on jack stands in a safe manner. Remove rear tire and wheel assembly.
3. Remove the bolt from the inner end of the aft lower OE support arm near the rear differential unit (work on one arm at a time).
4. Remove the nut from the OE support arm at the spindle and slide the arm off the stud. On many vehicles, rust may be a problem and this could be a long step.
5. The SmartArm™ consists of left (LH) and right (RH) hand threaded parts to form a turnbuckle arrangement. Match the LH end of the tube (denoted by a groove just behind the wrench flats on one end) with the silver zinc plated jam nut and the LH threaded end piece (denoted by the missing last thread on the end). Match the RH end of the tube (no groove) with the black zinc plated jam nut and the RH threaded end piece.
6. Ensure both jam nuts are threaded all the way against their respective end pieces and thread each end piece into its correct end of the center tube until the threads of each end piece are no longer visible. Note that there are two dimples on each end piece that will indicate the minimum thread engagement allowable on this part.
7. With the SmartArm™ now assembled, install one end into the body frame bracket using the existing OE bolt and nut but do not tighten at this time.
8. Install the other end of the new SmartArm™ onto the spindle using the O.E. washer and nut but do not tighten at this time.
9. Remove the wire clips holding the cable on the forward lower support arm.
10. Remove the forward lower OE support arm in the same manner as instructed in steps 3 and 4.
11. Assemble the second SmartArm™ as instructed in steps 5 and 6.
12. Install the second SmartArm™ in the same manner as instructed in steps 7 and 8 using the existing OE bolt and nut but do not tighten at this time. Repeat step 8 for the other end of the new SmartArm™.
13. Replace the tire and wheel assembly and lower the vehicle so the weight is on the wheels. Rotate the OE toe adjuster bolts to their neutral position and torque the nuts on each end of the arms to 55-65 ft-lbs (75-88 N-m).
14. Adjust the wheel camber first by turning both center tubes to contract (for positive camber) or expand (for negative camber) until the desired camber is achieved. Adjust both center tubes in and out as needed to set toe. Recheck camber. When expanding the SmartArm™, ensure that the end link dimples are not visible outside the center tube. DO NOT exceed the minimum allowable thread engagement or damage to the part/vehicle/occupants may occur. Check for suspension clearance (see note below).
15. Place a wrench on the center tube flats and tighten the jam nuts against the center tube. Torque to 80 ft. lbs (108 N.M.) and verify camber and toe readings. It may be necessary to use the opposite end wrench flats to tighten the nut at the body mount.
16. Using the included wire ties attach the cables to the forward arms.
17. Road test vehicle and make modifications as necessary.

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 or 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.