

Installation Instructions

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.

1. Determine the amount of camber change needed for correct alignment.
2. Refer to the Left and Right Wheel charts below to determine which setting is needed for proper adjustment.
3. Remove the upper ball joint cotter pin and nut.
4. To help prevent a tight steering condition, loosen the lower ball joint nut.
5. Strike the inside of the spindle near the upper and lower ball joints to break the spindle loose from the ball joint studs.
6. Remove the old upper bushing using a forked bushing removal tool.
7. Tighten the lower ball joint stud nut to 35 ft lbs.
8. Choose the camber correction required and rotate the inner sleeve so the correct upper box letter is aligned with the outer bushing slot.
9. Install the adjustable bushing with the selected lower letter facing the **FRONT** of the vehicle.
10. Install the upper ball joint nut, hold bushing from rotating and torque nut to 85-110 ft lbs.
11. Finish tightening the lower ball joint stud nut to 104-146 ft lbs.

Passenger Side

(-)		(Right Front Wheel)																(+)	
2-1/4°	2°	1-3/4°	1-1/2°	1-1/4°	1°	3/4°	1/2°	1/4°	0°	1/4°	1/2°	3/4°	1°	1-1/4°	1-1/2°	1-3/4°	2°	2-1/4°	
A	A	F	E	R	Q	P	P	L	M	N	O	P	I	R	G	T	U	X	
F	E	J	F	C	C	B	D	L	M	N	O	N	W	O	V	P	Q	T	

Driver Side

(+)		(Left Front Wheel)																(-)	
2-1/4°	2°	1-3/4°	1-1/2°	1-1/4°	1°	3/4°	1/2°	1/4°	0°	1/4°	1/2°	3/4°	1°	1-1/4°	1-1/2°	1-3/4°	2°	2-1/4°	
A	A	F	E	R	Q	P	P	L	M	N	O	P	I	R	G	T	U	X	
F	E	J	F	C	C	B	D	L	M	N	O	N	W	O	V	P	Q	T	

NOTE: Excessive spindle turning effort or poor steering returnability **MAY** be the result of not following the proper tightening sequence or worn/bent ball joints.

Example - For LF Wheel, 1° positive camber change

1°	◀	Amount of change
Q	◀	On the Inner part of the bushing, align the letter from this box to the slot on the outer part of the bushing
C	◀	Using the letter from this box, Install the bushing with the letter pointed towards the front of the vehicle.

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.