

INSTALLATION INSTRUCTIONS



REAR UPPER CONTROL ARM SET

84-92 Lincoln Mark VII

PART #:CHE2WA, CHE2WB, CHE2WC

Kit Contents:

4ea M12x90 Flange Bolts	4ea M12 Flange Locknuts
2ea 1/4" Studs	2ea 1/4" Flange Nuts
1ea Assembly Lube Vial	1ea Assembly Lube Brush
Pinion Angle Instructions: For Adjustable Uppers Only	

Use caution and common sense while working on the vehicle. If you lack the necessary equipment or expertise to perform this operation, have the Control Arms installed by a mechanic with the proper tools and experience. Failure to follow safe practices may result in injury.

1. **Disable Air Ride Control-** Disable the air ride system by shutting it off using the switch located in the trunk of the vehicle.
2. **Raise the vehicle-** With the front wheels properly blocked and a jack placed under the rear differential; raise the rear end of the vehicle as high as safely possible. Place jack stands on a solid area under the *frame* of the car, not the rear end. Remove the wheels at this time.
 - a. **Tip:** Place the jack stands slightly forward of the control arm mounting bolt or on the mounting plate of the subframe connectors if you have them.
3. **Raise rear axle-** Using a floor jack under the center section of the rear end, raise the rear axle of the vehicle until the rear axle is supported by the jack and the shocks are not topped out (approximately 2 inches). The rear axle of the vehicle should not be carrying the weight of the vehicle.
4. **Support rear end-** Place jack stands securely under the axle for support.

Note: to ease installation, only work on one side at a time

5. **Disconnect Ride Height Sensor-** Remove the ride height sensor from the passenger side control arm. Only the control arm side of the sensor needs removed, it does not need to be disconnected from the body side.
6. **Remove mounting bolts-** Remove the 2 control arm mounting nuts and bolts securing the stock control arm.
7. **Remove control arm-** Remove the control arm from the vehicle.
8. **Clean & inspect mounting points-** Fully inspect all mounting points and remove any debris. Apply a light coating of the supplied synthetic grease to all surfaces that will be in contact with the bushings. At this time, also coat the outside of the bushings themselves with the same supplied grease.
9. **Install ride height sensor bracket-** Remove the ride height sensor bracket from the stock control arm. The bracket is installed on the new control arm using the supplied hardware as shown in the photo below on the back of the page.



- 10. Install control arm-** Install the new control arm using the reverse procedure of removal, remembering to reconnect the ride height sensor.
 - a. Tip:** Because the new Polyurethane bushings are much firmer than the stock rubber, it may be necessary to gently persuade the control arm into the mount using a rubber mallet or other suitable tool, taking care not to damage the finish. It may also be helpful to place the jack under the front of the differential, just behind the driveshaft flange if the axle has rotated during disassembly.
- 11. Tighten hardware-** At this time; tighten both mounting bolts to 70-80 lb-ft.
- 12. Install 2nd control arm-** repeat this procedure for the other side.
- 13. Inspect installation-** Inspect the installation, insuring that suspension is free to travel. At this time, install the wheels and lower the vehicle.
- 14. Adjust Ride Height-** It may be necessary to adjust the rear air ride sensor to establish proper ride height. Follow the factory specifications for accomplishing this task.

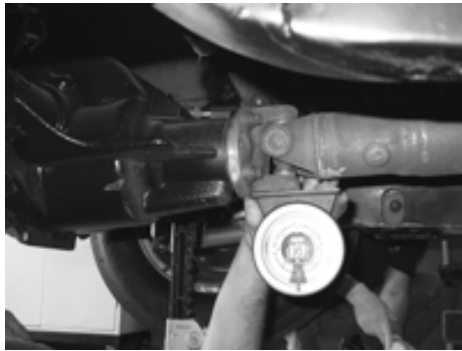
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Follow these steps to adjust the pinion angle after installation of both of the adjustable upper control arms.

- A. **Level car-** To properly set the pinion angle, the vehicle must be level both front to back and side to side. The vehicle **must** be properly supported at the wheels and be sitting at ride height
 - a. **Tip-** Automotive ramps under the front tires and jack stands under the rear axle is recommended.
- B. **Loosen jam nuts-** Loosen the 2 jam nuts on each of the control arms.
- C. **Mark starting point-** To properly set the pinion angle, both control arms must be the same length or undesirable effects will occur. To assist in ensuring both arms are equal, mark the double adjuster with a marker to establish a reference.



- D. **Set pinion angle-** Turn the double adjusters in full revolutions (using the mark as a reference) until the proper pinion angle is achieved. There is no recommended angle, although 2-4 degrees down is a good starting range.



The pinion angle is the difference in angle between the pinion gear in the axle housing and the driveshaft.

The pinion angle is determined by subtracting the angle of the pinion from horizontal from the angle of the driveshaft from horizontal.

Although there are a number of dedicated devices available for checking pinion angle, a simple angle finder available at most hardware stores will perform this task sufficiently.



The pinion gear angle can be measured from any surface that is either exactly parallel or exactly perpendicular to the pinion, such as the pinion flange or a bearing cap.

The driveshaft angle is simply measured directly from the driveshaft.

Subtract the 2 angles to arrive at the pinion angle.

- E. **Tighten jam nuts-** Tighten the jam nuts on both control arms. If you have the rod end (heim joint) control arms, make sure that the rod end is in proper alignment and not twisted or suspension binding or damage may occur.

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