

INSTALLATION INSTRUCTIONS
GUIDE D'INSTALLATION
INSTRUCCIONES DE INSTALACIÓN

MAY 2006
MAI 2006
MAYO 2006

FORM NUMBER
4502

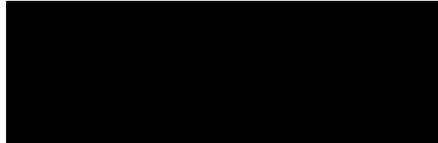
P.O. Box 7224, St. Louis, MO 63177 Printed in U.S.A.

The lower control arm must be replaced in any and all cases of broken, bent, or loose ball joint studs in knuckle.

 **CAUTION:** Proper service and repair procedures are essential for safe and reliable installation of chassis parts, and require experience and tools specially designed for the purpose. These parts **MUST** be installed by a qualified mechanic in accordance with the vehicle's **SERVICE MANUAL**, otherwise an unsafe vehicle and/or personal injury could result.

 **WARNING:** Before attempting to remove the stud from the lower control arm, make sure the stud of the old ball joint was firmly seated in the tapered hole of the lower control arm. If the ball joint stud was loose in the lower control arm, or if any out-of-roundness, deformation, or damage is observed, the **LOWER CONTROL ARM MUST BE REPLACED**. Failure to replace a damaged or worn lower control arm may cause loss of steering ability since the ball joint **STUD MAY BREAK** and cause the wheel to separate from the vehicle.

1. Raise and support the vehicle under the frame and remove wheel and tire.
2. Remove brake hose bracket mounting bolt. Remove caliper bracket mounting bolts. Remove



caliper assembly from the knuckle. To prevent damage to the caliper assembly or brake hose, use a short piece of wire to hang the caliper assembly from the undercarriage. Do not twist the brake hose.

3. Remove spindle nut.
4. Remove flange bolt and wheel sensor from the knuckle. Do not disconnect the wheel sensor connector.
5. Disconnect stabilizer link from the lower control arm and tie rod end from the strut.
6. Remove slotted nut from the lower ball joint stud. Using suitable tool, separate the stud from the lower control arm tapered hole (**never strike lower control arm with a hammer**).

 **WARNING: For safety reasons support the lower control arm and leave nut threaded on a few threads on the stud.**

7. Remove bolts and nuts attaching strut to the steering knuckle. Remove the driveshaft outboard joint from the knuckle by tapping the driveshaft end with a plastic hammer while pulling knuckle outward, then remove the knuckle.

 **WARNING: Do not pull the driveshaft end outward. The driveshaft joint may come off.**

8. Press out old ball joint using T40192 C Clamp Press or equivalent.
9. Inspect ball joint contact area of the steering knuckle and make sure it is clean and free of cracks.

 **WARNING: If any cracks are found, **STEERING KNUCKLE MUST BE REPLACED**.** Failure to replace a cracked or damaged steering knuckle may cause loss



of steering ability because the **STEERING KNUCKLE MAY BREAK** and cause the wheel to separate from the vehicle.



10. Clean the lower control arm tapered hole. Insert new ball joint stud through the arm tapered hole by hand and check fit of the stud taper to the arm. Stud should seat firmly without any rocking. Only threads of the stud should extend through the arm. If these parts do not meet these requirements either lower control arm is worn and needs replacement or incorrect parts are being used.
11. Position ball joint against steering knuckle with such way that the words "MOUNT INBOARD" on dust boot positioned directly away from wheel towards engine. Press new ball joint squarely into steering knuckle until shoulder on housing is firmly seated against knuckle. **DO NOT** exert pressing force on ball joint cover plate. **Be careful** not to damage the ball joint boot. Use T40192 C Clamp Press or equivalent to press ball joint into knuckle. **NEVER USE A HAMMER!**
12. Reinstall steering knuckle with new ball joint on the vehicle.
13. Thoroughly clean the tapered hole of the lower control arm before assembly of the stud with the arm. Insert the stud of the new ball joint through the tapered hole of the lower control arm and install new slotted nut supplied. **Be careful** not to damage the ball joint boot.
14. Torque the slotted nut to 43-51 lb. ft. (59-69 Nm). Continue to tighten the slotted nut to the next available slot. **Never back off the slotted nut to achieve alignment with the hole in the**

stud. Install and spread the cotter pin.

15. If grease hole in the ball joint and grease fitting are provided, install the grease fitting into the ball joint away from wheel and lubricate with a good grade of chassis grease.
16. Reassemble all the components. Install wheel and tire and torque nuts to factory specifications. Lower vehicle to floor.
17. Align the front end of the vehicle to specifications. A check of the wheel balance is recommended.

NOTE: The parts in this kit are designed to replace the worn or non-functioning original equipment parts in the vehicle as produced by the car factory. These parts are not designed for installation on vehicles where the suspension and/or steering systems have been modified for racing, competition, or any other purpose.

SPECIAL NOTICE

STEERING KNUCKLE WEAR CAN CAUSE BALL JOINT STUD BREAKAGE

NOTE SPÉCIALE

L'USURE DU PORTE-FUSÉE DE DIRECTION PEUT ENTRAÎNER LE BRIS DU PIVOT DU JOINT À ROTULE.

NOTA ESPECIAL

UN NUDILLO, O MUÑÓN DIRECCIONAL PUEDE CAUSAR LA RUPTURA DEL TORNILLO, O MONTANTE CAUSANDO LA SEPARACION DEL MONTANTE Y EL NUDILLO DE LA DIRECCIÓN.

THE STEERING KNUCKLE MUST BE REPLACED IN ANY AND ALL CASES OF BALL JOINT STUD BREAKAGE.

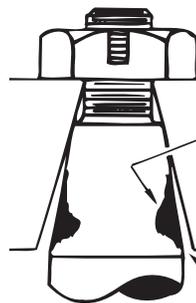
LE PORTE-FUSÉE DE DIRECTION DOIT ÊTRE REMPLACÉ DANS TOUS LES CAS OÙ LE PIVOT DU JOINT À ROTULE EST BRISÉ.

EL NUDILLO DIRECCIONAL TIENE QUE SER REEMPLAZADO EN CUALQUIER CASO DE ROMPIMIENTO DEL TORNILLO DE AJUSTE DE ARTICULACIÓN DE BOLA.

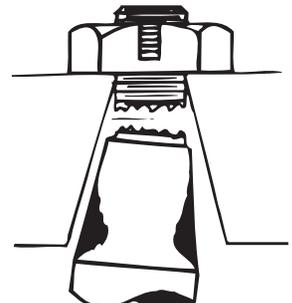
THE STEERING KNUCKLE MUST BE REPLACED IF ANY TEST INDICATES AN "OUT-OF-ROUND" OR "FRETTED" TAPER.

LE PORTE-FUSÉE DE DIRECTION DOIT ÊTRE REMPLACÉ DÉS QU'UN EXAMEN INDIQUE QUE LE TROU CONIQUE EST OVALISÉ OU ÉRODÉ.

EL NUDILLO DIRECCIONAL TIENE QUE SER REEMPLAZADO SI MOSTRARA SEÑAS DE DESGASTE, FALTA DE REDONDEZ O AMELLAMIENTO EN EL ANILLO DE SELLADO.



POLISHED SPOTS SHOW MOVEMENT LES ENDOITS POLIS INDIQUENT UN JEU AREAS BRILLANTES MUESTRAN MOVIMIENTO



TAPER DOES NOT FIT MAUVAISE CONICITÉ EL PERNO ACONADO NO ENCAJA

**NOTE: THIS KIT MAY CONTAIN SELF TAPPING GREASE FITTING(S) FOR THREADED OR NON-THREADED HOLES.
NOTA: CE JEU PEUT COMPRENDRE UN OU DES GRAISSEURS AUTOTARAUDEURS POUR TROUS FILETÉS OU NON FILETÉS.
NOTA: ESTE JUEGO PUEDE CONTENER ACCESORIO(S) PARA GRASA AUTORROSCANTE(S) PARA AGUJEROS CON O SIN ROSCA.**