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## 1998-2011 KORE HP LEVELING KIT INSTRUCTIONS

Please read all instructions from start to finish before beginning installation

### Parts List:

<u>Description</u>	<u>Qty</u>
Bilstein 5100 Series shock with stem mount (6681)	2
Hot-wound custom coil spring	2
Billet Drop Block	2
Billet Drop Block bolts	4
Billet Drop Block washers	4

### BE ADVISED:

- This suspension system is designed to give a smoother, more controlled ride over rough or unimproved surfaces. It will also give a more controlled, balanced ride over pavement. Whatever the conditions, KORE INC. suspension may permit you to attain speeds that are faster than an unmodified vehicle over the same terrain. KORE INC. suspension is so good that the driver may not even realize how fast he or she is driving, thereby exceeding the limitations of his or her skill. The user assumes all liability for this increase in speed. KORE INC. suggests a slow and gradual adaptation to the increased capabilities of the vehicle.
- Please remember that KORE INC. is only improving the suspension. Other drive train components remain the same. Although our suspension will allow fewer impacts to be transmitted to the chassis, we do not guaranty that your truck will remain intact if you abuse it beyond the protection our system inherently provides. You can still roll your truck or break it in half if you try hard enough or are simply not paying attention to what you are doing.
- KORE INC. suspension permits jumping the truck. Many have seen the photos. It takes a lot of skill to do this without damaging or destroying your vehicle and/or being injured or killed. Please do not try to imitate these photos. It looks easy, but it's not, SO DON'T DO IT. If you attempt something like this you could find yourself way over your head and you probably won't recover. We are professionals with many years of experience. We have done our very best to provide you with the finest suspension money can buy. Please also be a professional and learn to use it carefully and responsibly. Remain within your personal limitations and the limitations of your vehicle.
- Before installing this suspension system, have your alignment checked. Make absolutely sure that your

alignment falls within factory specifications. It has been our experience that some Dodge trucks, even new ones, cannot be aligned to OE specs. If your vehicle cannot be aligned to factory specifications, do not install this suspension system.

- Before installation, have a certified mechanic carefully check your vehicle for any signs of damage or severe, structural corrosion. If your truck exhibits any structural weakness whatsoever, do not install this system.
- Compare the parts you have against the parts in the list. If any parts are missing or damaged, please call 760-855-1219. KORE will take care of it immediately. Do not attempt to substitute any part or fastener with anything from any other source but KORE INC.
- During assembly use blue (medium strength) thread locking compound on every nut and bolt, both OE and KORE.
- Never use an impact wrench on any component. Always use a torque wrench. If it's a factory part you must remove and reinstall, then put blue thread locking compound on it and torque it to the factory specifications. If it's a KORE INC. part, then put blue thread locking compound on it and torque it to our specifications. Don't try to guess. Use the correct tools, take your time and do the job right. These are high-quality parts that will last a long time if you install them correctly.
- Do not plate, chrome, anodize, polish or otherwise change the finish or surface of any KORE INC. part. You may weaken the structure. Call us if you want something special done to your parts. We'll either do it for you or point you in the right direction.
- Do not alter any parts in our system. Do not add anything to what we offer. Do not fabricate anything you think will work better. Do not mix any factory or after-market parts with our system. If you do any of the aforementioned things, KORE INC. will take no responsibility for your system and your warranty will be immediately voided. If you have an idea concerning a future modification of your KORE INC. system, just call us first. We will be glad to discuss the consequences and the correct use of our product from an engineering standpoint.
- KORE INC. developed this system to use no larger than 37 x 12.50 tires on wheels with the OE backspace and offset. This tire size will not fit without body modifications. A 35 x 12.50 tire on the OE wheel should work without any body trimming or modifications – as long as it is used with a wheel of OE backspace and offset. We say "should work" because your truck may differ due to production variances or consumer modifications such as nonstandard control arms. Please note that the OE wheel on the 2003 Dodge Ram has a very large 6.25" backspace and a positive 40mm offset. This is a very deep set wheel. Most wheel sizes currently offered will not work correctly.
- In general, oversize tire and wheel combinations may increase stress and wear on steering components leading to increased maintenance and greater risk of component failure, including loss of steering control. Property damage or personal injury may result. Large tire and wheel combinations may also alter speedometer calibration, reduce braking effectiveness and alter vehicle center of gravity. KORE INC. suggests you choose your tire and wheel combination very carefully in order to ensure full suspension articulation without interference with suspension or body components.
- For trucks carrying loads under 1000 lbs we recommend cold pressures of 40 psi in front and 30 in the rear. Due to their thick sidewall construction, heavy duty off-road tires such as the "General Grabber", "Goodyear Wrangler MTR" or the "Toyo Mud Terrain" may require even less pressure to provide the best performance. Try to experiment to find the tire pressures that work best for you. If you are running pressures above 40 psi to attain longer tire life or better gas mileage, please be aware that your suspension will not function optimally. Higher tire pressures may only increase tire life and gas mileage by 1-2%. Lowering your tire pressures will permit your tires to absorb initial impacts more efficiently, transmit the correct secondary impact velocity to the springs and shocks, provide better resistance to cuts and abrasions and increase your traction – especially during braking. At low speeds, due to increased rolling resistance, your steering will feel slower, but at high speeds you will perceive greater

steering precision due to better traction. When you are towing or carrying heavy loads, use appropriately higher tire pressures, then air down when empty.

- This suspension system has been designed for installation on vehicles with standard, OE equipment in the engine compartment. If you have added extra or oversized accessory items, mounting the front shocks may be more difficult or, in extreme situations, impossible without modification. If in doubt, please don't hesitate to call us; we will be glad to provide as much assistance as required to fit your system.
- **DO NOT, UNDER ANY CIRCUMSTANCES, DISASSEMBLE YOUR SHOCK ABSORBERS IN ANY WAY. YOUR SHOCKS ARE FILLED WITH OIL AND PURGED OF AIR. OPENING THEM UP ANYWHERE WILL DAMAGE THEM AND VOID YOUR WARRANTY. THEY ARE ALSO FILLED WITH 200 PSI OF NITROGEN AND CAN BE DANGEROUS IF OPENED INCORRECTLY.**
- KORE INC. recommends this system be installed by a certified technician. In addition to the following instructions, professional knowledge of disassembly/reassembly procedures as well as post installation checks must be known and understood. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle. Our warranty does not cover abuse or mistreatment of our product during installation, nor does it cover any personal injury, damage to the vehicle or equipment due to improper, careless or slipshod mechanical technique. **IF YOU DOUBT YOUR ABILITY TO INSTALL OUR PRODUCT, HAVE SOMEONE QUALIFIED DO IT.**
- Steam cleaning your undercarriage before installation will make the job more pleasurable.
- KORE recommends wearing mechanic's gloves and safety glasses at all times.

## HP LEVELING KIT INSTALLATION INSTRUCTIONS rev. 1

1. KORE RECOMENDS WEARING SAFETY GLASSES AND GLOVES AT ALL TIMES
2. DISCONNECT BATTERIES.
3. PARK TRUCK ON A CONCRETE OR ASPHALT SURFACE, SET PARKING BRAKE AND CHOCK THE FRONT AND REAR OF BOTH REAR WHEELS.
4. FROM THE MIDDLE OF THE FRONT AXLE HOUSING LIFT FRONT OF TRUCK WITH A LARGE HYDRAULIC FLOOR JACK UNTIL BOTH TIRES ARE WELL OFF THE GROUND.
5. SUPPORT FRAME WITH JACK STANDS PLACED ON THE FLAT PART OF FRAME IMMEDIATELY BEHIND LOWER CONTROL ARMS ("RADIUS ARMS").
6. MAKE SURE WEIGHT OF TRUCK REMAINS ON FRAME BUT KEEP AXLE SUPPORTED BY FLOOR JACK.
7. REMOVE FRONT WHEELS.
8. REMOVE PLASTIC SPLASH GUARDS FROM UNDER FENDERWELLS.
9. TO ACCESS PASSENGER SIDE UPPER SHOCK MOUNT, REMOVE AIRBOX.
10. REMOVE NUTS ON SHOCK STEMS. AN AIR TOOL WORKS BEST FOR THIS, BUT, IN ORDER TO PREVENT SHOCK FROM SPINNING, YOU CAN ALSO HOLD THE TOP OF THE SHOCK WITH A SMALL WRENCH, VICE GRIPS OR PLIERS AND USE A WRENCH TO REMOVE NUT
11. REMOVE NUTS FROM BASE OF UPPER SHOCK MOUNTS.
12. REMOVE TIE ROD ENDS WHERE THEY CONNECT TO STEERING KNUCKLES. DO NOT HAMMER STUDS! ALWAYS HAMMER HOUSING SO THE VIBRATION BREAKS CONICAL STUD LOOSE WITHOUT DAMAGING THE COMPONENT.
13. REMOVE BOTTOM SHOCK MOUNT BOLTS.
14. PULL SHOCK BRACKETS AND SHOCKS UP AND OUT OF TRUCK.
15. REMOVE NUTS SECURING ANTI-SWAY BAR ENDS.
16. DISCONNECT BRAKE LINE MOUNTING BRACKETS FROM AXLE HOUSING.
17. LOOSEN ALL CONTROL ARM (RADIUS ARM) MOUNTING BOLTS.
18. REMOVE DRIVER SIDE TRACK BAR WHERE IT MOUNTS TO FRAME – HAMMER THE HOUSING; DON'T HAMMER THE STUD! ON 2003 AND LATER MODELS, JUST REMOVE THE BOLT.
19. BE CAREFUL NOT TO STRETCH BRAKE LINES AND SLOWLY LOWER THE AXLE.
20. REMOVE OE COILS AND RUBBER SPRING ISOLATORS.
21. INSTALL OE STUD RING WITH NUTS FINGER-TIGHT.
22. **IMPORTANT FOR DIESEL MODELS: INSTALL COIL MARKED "PASSENGER" ON PASSENGER SIDE AND "DRIVER" ON DRIVER SIDE. ENSURE RUBBER ISOLATOR IS ON TOP OF COIL. TIP: INSTALL THE TOP OF THE COIL FIRST, AND THEN TWIST THE BOTTOM OF THE COIL INTO PLACE.**
23. **TRUCKS EQUIPPED WITH HEMI MOTORS DO NOT USE SIDE-SPECIFIC COILS UNLESS THE COIL IS A NON-VR. IN THAT CASE THE COIL WITH THE PART NUMBER "DGD 310" GOES ON THE DRIVER SIDE AND THE "DGP 310" GOES ON THE PASSENGER SIDE. PART NUMBERS ARE FOUND IN WHITE LETTERS ON THE COIL ITSELF.**

24. MAKE SURE SPRING ISOLATOR IS ALIGNED AND EVERYTHING LOOKS PROPER.
25. INSTALL BILSTEIN 5100 SHOCKS ON OE SHOCK MOUNTS – SANWICH SUPPLIED WASHERS AROUND RUBBER CUSHIONS, ONE CUSHION AND WASHER UNDER MOUNT AND ONE CUSHION AND WASHER ON TOP OF MOUNT. TIGHTEN LOCK NUT UNTIL 3/8 INCH OF STEM SHOWS. DO NOT OVER TIGHTEN!
26. FROM UNDER HOOD, SLIDE SHOCK ASSEMBLIES INTO PLACE.
27. PUSH SHOCK BOLTS THROUGH LOWER SHOCK BUSHINGS AND TORQUE TO FACTORY SPECS.
28. PUSH SHOCK AND MOUNT ASSEMBLY DOWN UNTIL NUTS CAN BE INSTALLED ON STUD RING. TIGHTEN TO FACTORY SPECS.
29. PLACE FLOOR JACK UNDER PASSENGER SIDE OF AXLE HOUSING. LIFT IN SMALL INCREMENTS UNTIL TRACK BAR ALIGNS WITH DRIVER SIDE MOUNT. REINSTALL AND HAND TIGHTEN.
30. PLACE JACK IN CENTER OF AXLE HOUSING.
31. REMOVE ANTI-SWAY BAR AND INSTALL KORE BILLET DROP BLOCKS USING STAINLESS KORE HARDWARE. FACE KORE LOGO OUTBOARD. USE BLUE LOCK TITE AND TORQUE BOLTS TO 32 FT LBS.
32. ALIGN THE ANTI-SWAY BAR END LINKS WITH THEIR MOUNTING HOLES AND RAISE AXLE ENOUGH TO SETTLE SPRINGS IN THEIR NATURAL POSITIONS.
33. ATTACH ANTI-SWAY BAR END NUTS – TORQUE TO FACTORY SPECS.
34. ATTACH TIE ROD ENDS AND TORQUE TO FACTORY SPECS.
35. LOWER AXLE HOUSING AS FAR AS IT WILL GO.
36. ATTACH BRAKE LINE BRACKETS TO AXLE HOUSING. ENSURE THAT WITH THE AXLE HOUSING DROPPED AS FAR AS IT CAN GO, FULL STEERING SWEEP IS POSSIBLE WITHOUT PRESSURE BEING APPLIED TO BRAKE LINES. IF ANY PRESSURE EXISTS, EITHER ADJUST BRAKE LINES OR REPLACE WITH LONGER BRAKE LINES.
37. INSTALL PLASTIC FENDERWELLS.
38. INSTALL WHEELS.
39. LIFT TRUCK, REMOVE JACK STANDS, AND LOWER TRUCK TO THE GROUND.
40. TIGHTEN CONTROL ARM MOUNTING BOLTS AND TRACK BAR MOUNTING BOLTS TO FACTORY TORQUE SPECS.
41. ADJUST HEADLIGHTS TO DODGE SPECIFICATIONS AND HAVE YOUR FRONT END ALIGNMENT CHECKED.
42. CHECK AND RETORQUE ALL FASTENERS AFTER 100 MILES OF USE – ESPECIALLY U BOLTS.

## **KORE INC. USA LIMITED WARRANTY**

**KORE INC.** warrants the listed products for the listed time period. This warranty does not apply to products which have been improperly applied or installed. The consumer will be responsible for removing from the vehicle and returning any items, shipping prepaid, and for the reinstallation of the part upon return. A copy of the sales receipt is required. **KORE INC.** will repair or replace at its option, defective products or components. Exclusions from this warranty are the finish, any condition(s) caused by abnormal use or service, and product-specific limitations, if any, listed below.

The loss of use of the product, loss of time, inconvenience, commercial loss or consequential damages are not covered. **KORE INC.** reserves the right to change the design of any product without assuming any obligation to modify any product already manufactured. This warranty gives you specific legal rights and you may also have other rights which may vary from state to state. There are no warranties, expressed or implied including any implied warranties of merchantability and fitness, which extend beyond this warranty period. There are no warranties that extend beyond the face hereof. Seller disclaims implied warranty of merchantability. This warranty shall not apply to any product sold by **KORE INC.** which has been modified, customized or improperly installed.

No warranty applies to any part that is designed to be sacrificial and periodically replaced. Examples of these parts are spherical bearings found in shock absorbers, rubber bushings found in control arms, and rod ends found in end links. **KORE** parts are the finest quality possible. But these are high-performance, race-derived parts and therefore have limited life spans that are, like brake pads and clutch surfaces, dependent upon use and environmental conditions.

### **LIMITED LIFETIME WARRANTY ON PARTS MANUFACTURED BY KORE INC.**

**KORE INC.** warrants any part it manufactures against defects, material, workmanship, or failure of any kind (except for finish or other cosmetic problems) for as long as it is in use on the vehicle for which it was designed, regardless of the owner.

### **LIMITED LIFETIME WARRANTY ON COIL SPRINGS SOLD BY KORE INC.**

**KORE INC.** warrants any coil spring it sells against defects in material, workmanship, including sagging or reduction in static height for as long as it is in use on the vehicle for which it was designed. This does not cover trucks equipped with a snow plow. This warranty applies to the original purchaser and is non-transferable.

### **LIMITED WARRANTY ON SHOCK ABSORBERS SOLD BY KORE INC.**

Fox Racing Shox warrants absorbers against factory defects in material and workmanship (except finish) for 12 months regardless of mileage. "Finish" applies to shock shafts damaged by exposure to corrosive chemicals or abrasives. This warranty applies to the original purchaser and is non-transferable. For all Fox shock warranties, call 619-768-1800. For all Bilstein shock warranties, call 858-386-5900.

### **RIGHTS RESERVED**

**KORE INC.** reserves the right to make changes in design, material and specification or to make product changes as deemed necessary without prior notice. Obligations or liabilities will not be assumed with respect to similar products previously advertised.