



4/03/03

**'94-'01 4WD DODGE 1500
3" SUSPENSION LIFT KIT**

P/N 10-46094

NOTE: Each lift kit, and options to lift kits, are packaged separately. Therefore installation procedures are covered in separate instructions. Familiarize yourself with each specific set of instructions before beginning.

PART LIST

ITEM	DESCRIPTION	QTY.	ILLUS.
<u>Box 1 of 2</u>			
20-20114	3" Spring Spacer	2	6
20-56094-7	Lower Control Arm	2	5
15-10992	Dodge Bumpstop	2	4
13-90360	U-Bolts, 9/16" x 13" Lg.	4	8
13-70052-1	Add-A-Leaf	2	8 , 9
20-65913	Hardware Pack Containing:		
20-56094-10	Spacer, 2-1/2" x 5/8" x 6"	2	8
13-21560	Screw, 3/8"-24 x 4-1/2" Socket Head	2	8
13-10579	Nut, 3/8"-24 High	2	8
13-30408	Washer, 3/8" Flat	2	8
20-68188	Hardware Pack Containing:		
13-30330	Washer, 9/16" Flat	8	8
13-10423	Nut, 9/16" High	8	8
20-67720	Hardware Pack Containing:		
13-20142-Z	Hex Bolt, 7/16"-14 x 1-1/4"	6	6
13-30101-Z	Washer, 7/16" Split Lock	6	6
20-68305	Hardware Pack Containing:		
13-20447-Z	Unslot Hex Screw, #10 x 1/2"	4	
15-10966	Clamp, 3/8" x 3/8" x .203	4	
15-11395	Wire Tie, 6"	4	
15-11447	Wire Tie, 8"	2	
15-11460	Wire Tie, 11"	2	
20-65965	Hardware Pack Containing:		
20-832465	Sleeve, 7/8" x .156 x 2.75"	4	5
15-10979	Tapered Bushing	8	5
20-832478	Sleeve, 7/8" x .188 x 2.75"	4	5
13-30056-Z	14 GA. Washer, 2"OD x 1/2" ID	8	5

ITEM	DESCRIPTION	QTY.	ILLUS.
<u>Box 2 of 2</u>			
BE5-6681-H5	Front Shock	2	6
BE5-6682-H5	Rear Shock	2	

BEFORE YOU BEGIN:

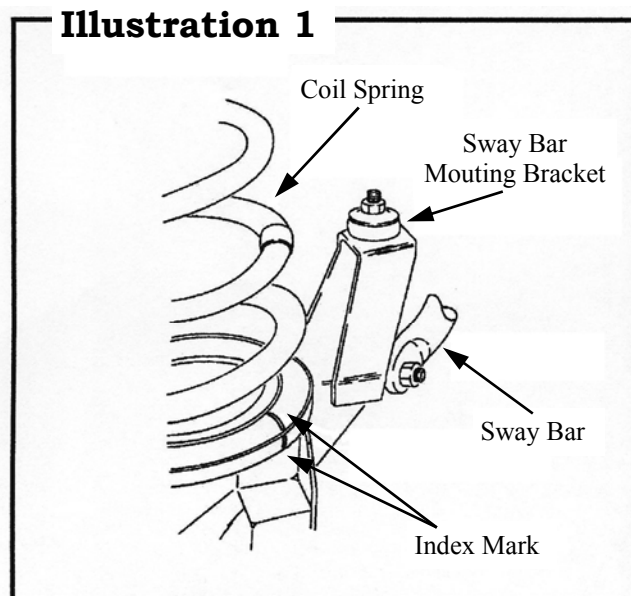
- Installation requires a professional mechanic.
- Prior to installation, carefully inspect the vehicle’s steering and drive train system. Pay close attention to the Tie Rod ends, Pitman arm, Ball Joints and wheel bearing preload. Also check steering-to-frame and suspension-to-frame attaching points for stress cracks. The overall vehicle must be in excellent working condition; repair or replace worn parts.
- Foot pound torque readings are listed on Torque Specification Chart at the end of the instructions unless specifically stated in the instruction. Apply loctite retaining compound on specified bolts during installation. **DO NOT USE AN IMPACT WRENCH TO TIGHTEN ANY OF THE BOLTS.**
- Read the instructions carefully and study the illustrations before attempting installation. *RCD Suspension* is not responsible for damage, failure or injury resulting from improper installation or parts substitution of this kit.
- Check all parts and hardware against parts list to assure that your kit is complete. The supplied parts and hardware are of high-grade material and must not be replaced by inferior parts or failure may result.
- This kit is supplied as a bolt-on assembly. Do not weld anything to the components and do not weld the components to vehicle.
- All components in this kit come with a protective coating. Do not plate (i.e. chrome, cadmium, zinc etc.) or otherwise alter the finish in any way. This could weaken the structural strength of the components.
- Secure and properly block vehicle before beginning installation.
- Always wear safety glasses when using power tools.

PLEASE NOTE

- ❑ **Required Wheel Size:** 15" to 16" with a 4" offset from the inward side.
- ❑ **Maximum Wheel Width:** 8"
- ❑ **Maximum Tire Size:** 35" x 12.50"
- ❑ **NOTE:** Purchase lower control arm adjustment cam-bolt kit from your Dodge dealer before starting this installation.
- ❑ System is designed for models built on/or after 2/9/1994.
- ❑ Front end realignment is necessary.
- ❑ Speedometer recalibration is necessary if bigger tires (10% more then stock diameter) are installed.
- ❑ When working with rear leaf springs you need two large C-Clamps or a large vise to contain the elastic potential energy stored in the leaf spring when removing and installing the center bolt.

INSTALLATION

- 1) Raise the vehicle. If working without a shop hoist, support vehicle with suitable safety jack stands. Put vehicle in gear, set emergency brake and block rear wheels, in front and behind tires. Loosen lug nuts. Lift vehicle with floor jack and place safety jack stands under frame rails, behind front wheel wells, and lower frame onto stands. Remove the front tire/wheel assemblies.
- 2) Support front axle with a suitable floor jack near the spring seat. Raise the jack just enough to support axle's weight.
- 3) Unbolt both brake line brackets from front axle to allow free movement of the suspension components.
- 4) For installation reference scribe matching index marks on bottom of the coil spring and the lower spring pocket. **(Illustration 1)**
- 5) On front of the lower control arm locate the adjustment cam-bolt



bracket. For installation reference scribe matching index marks across the two as shown in **Illustration 2**.

- 6) From within the engine compartment locate the upper shock bracket and remove the nut, retainer and grommet from shock.
- 7) Remove the three nuts securing upper shock bracket (**Illustration 3**). Remove the bracket and set aside.
- 8) Unbolt the lower shock bolt from bracket attached to front axle. Remove shock absorber through the engine compartment.
- 9) Carefully lower the floor jack until springs are free from upper spring pocket. Remove the springs.
- 10) Remove the upper rubber isolation pad and stud ring from spring pocket.

NOTE: You will use isolation pad during installation but not the stud ring.

- 11) Locate front rubber Bumpstop mounted on frame near the coils. Use channel lock pliers with a back and forth motion to pry Bumpstop from it's pocket.

- 12) Apply soapy solution to base of new Bumpstop (15-10992) and press Bumpstop into existing Bumpstop pocket (**Illustration 4**).

- 13) Note the location of index marks on adjustment cam-bolt to bracket. Remove nut, washer and cam-bolt.

- 14) Remove hardware from frame bracket that holds lower control arm in place. Remove lower control arm.

- 15) Install bushings (15-10979) and sleeves (20-832478 or 20-832465)

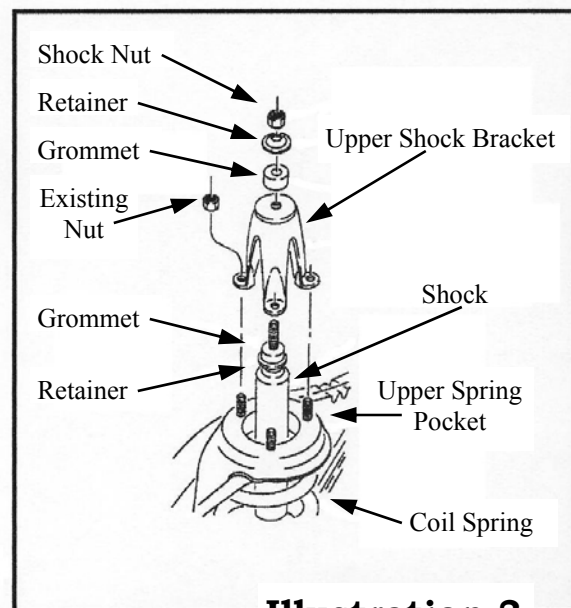
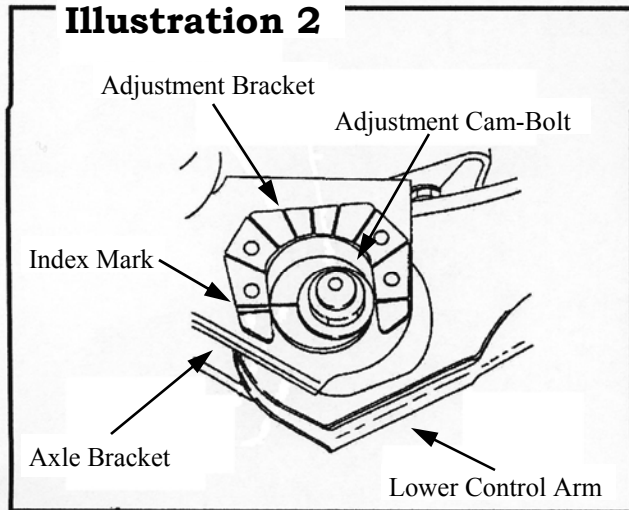


Illustration 3

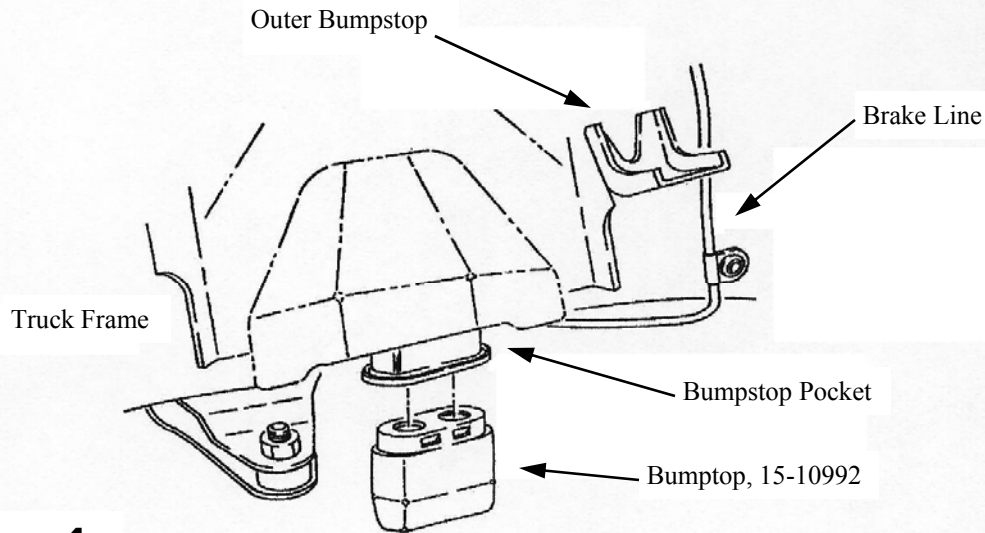


Illustration 4

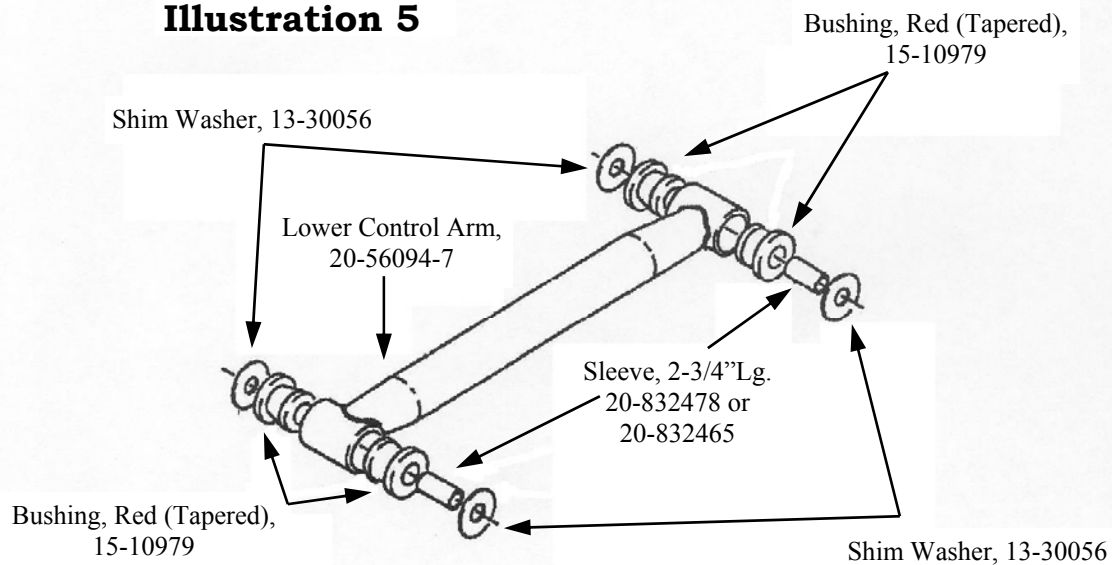
into new lower control arm (20-56094-7) as shown in **Illustration 5**. Lubricate components.

- 16) Install new lower control arm. Install with one large shim washer (13-30056) on both ends of the control arm between bushing and frame bracket, at each bushing to frame contact point. Install a new factory adjustment cam-bolt and nut. Do not tighten bolts at this time.

WARNING: Do not use original adjustment cam-bolt.

- 17) Repeat steps 4 through 16 on opposite side of vehicle.

Illustration 5



- 18) Place spring spacer (20-20114) into frame's upper spring pocket (Illustration 6). Align holes and install the 7/16" hardware provided. Do not tighten hardware at this time.
- 19) Insert existing rubber isolation pad inside recess of spring spacer.

- 20) Place a bottle jack between the outer Bumpstop to assist in the installation of the springs (Illustration 7). Extend the jack until there is enough clearance to place the coil spring between the spring spacer and lower spring pocket. Align index marks on bottom of the coil spring to index on lower spring pocket and remove bottle jack.

- 21) Use a floor jack to raise front axle just enough to compress the front coil spring. Remove the 7/16" hardware from spring spacer.

- 22) From the engine compartment, insert shock absorber (BE5-6681-H5) through the coil spring. Install lower shock bolt and torque to 135 ft. lbs.

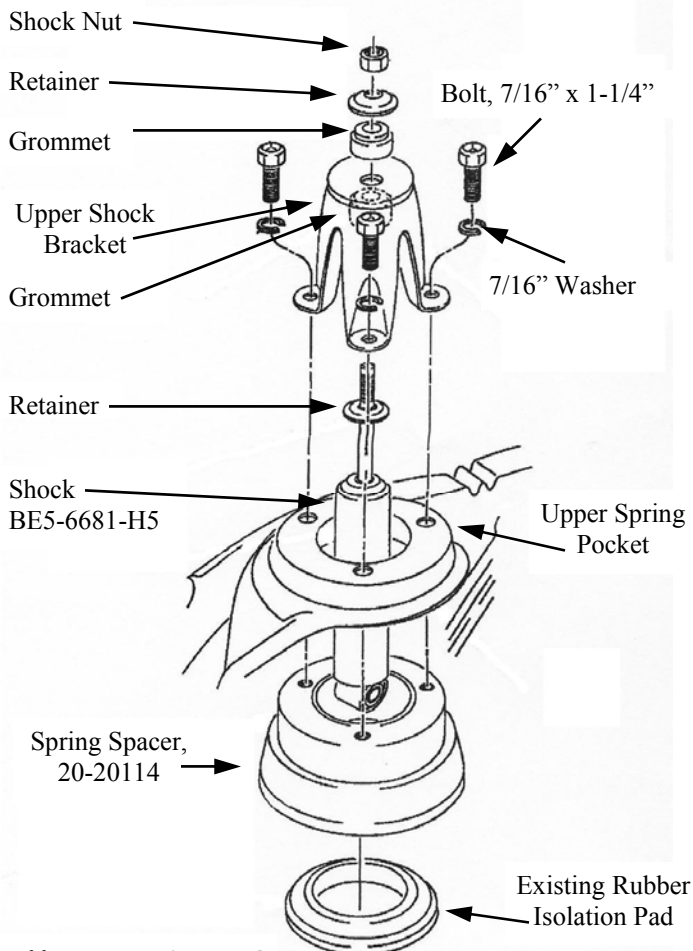


Illustration 6

- 23) Install original upper shock bracket. Align mounting holes and install 7/16" hardware-

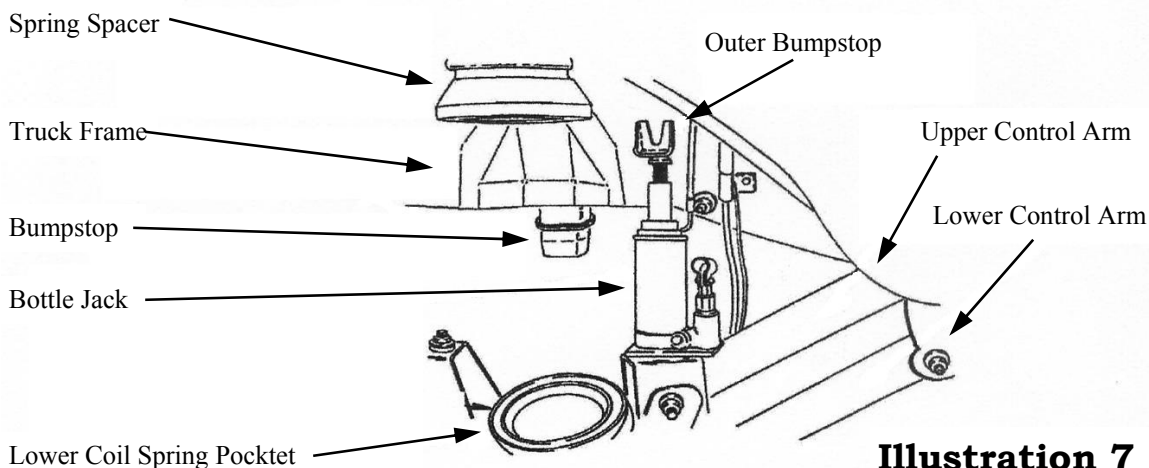


Illustration 7

ware with bolts passing through mounting holes of the bracket, upper spring pocket and spring spacer. Torque fasteners to 55 ft. lbs.

- 24) Install upper shock grommet, retainer and nut.
- 25) Repeat steps 18 to 24 on opposite side of vehicle.
- 26) Attach both brake line brackets to front axle.
- 27) Install tire/wheel assemblies and lower vehicle.

REAR INSTALLATION

- 1) Raise the vehicle. If working without a shop hoist, support vehicle with suitable safety jack stands. Put vehicle in gear, set emergency brake and block front wheels, in front and behind tires. Remove rear tire and wheel assembly.

- 2) With a floor jack, raise the rear axle just enough to relieve tension on the shock absorbers and remove shocks.

- 3) With suitable floor jack supporting the axle, remove spring U-Bolts and hardware (**Illustration 8**).

- 4) Remove bolt from spring shackle. Remove bolt from spring frame bracket and remove spring.

- 5) Install two C-Clamps onto spring pack assembly to hold the assembly securely together (**Illustration 9**). Place one C-Clamp on each side, and evenly spaced from the center bolt.

- 6) Use vise-grips to hold the center bolt head while removing center bolt nut. Remove the center bolt. If bolt has rusted, use a hammer and drift to drive it out. Carefully remove C-Clamps.

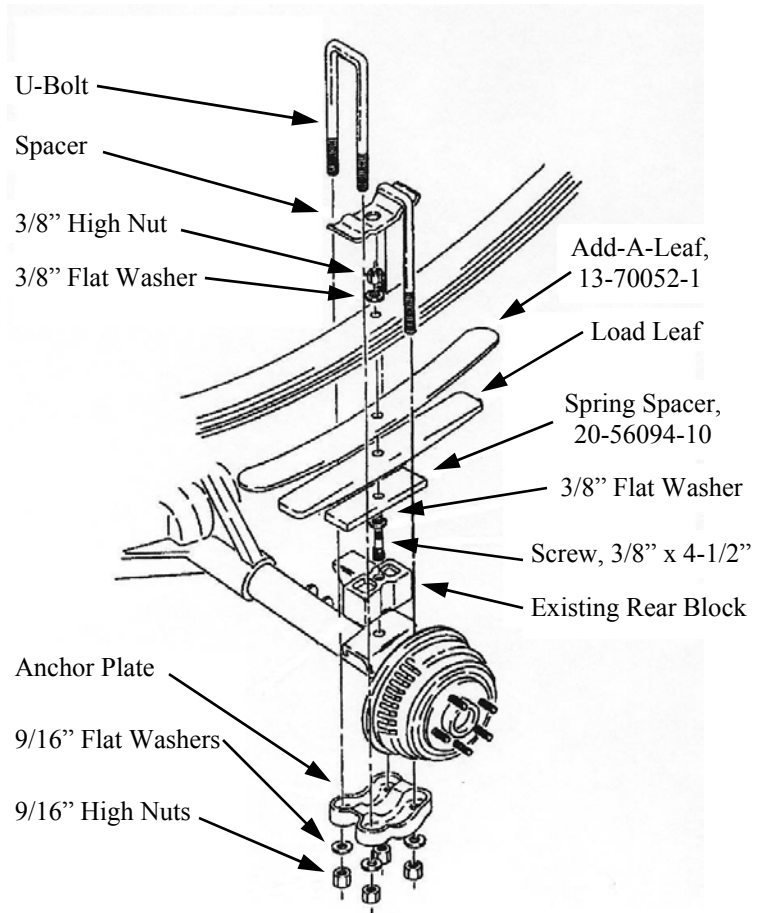
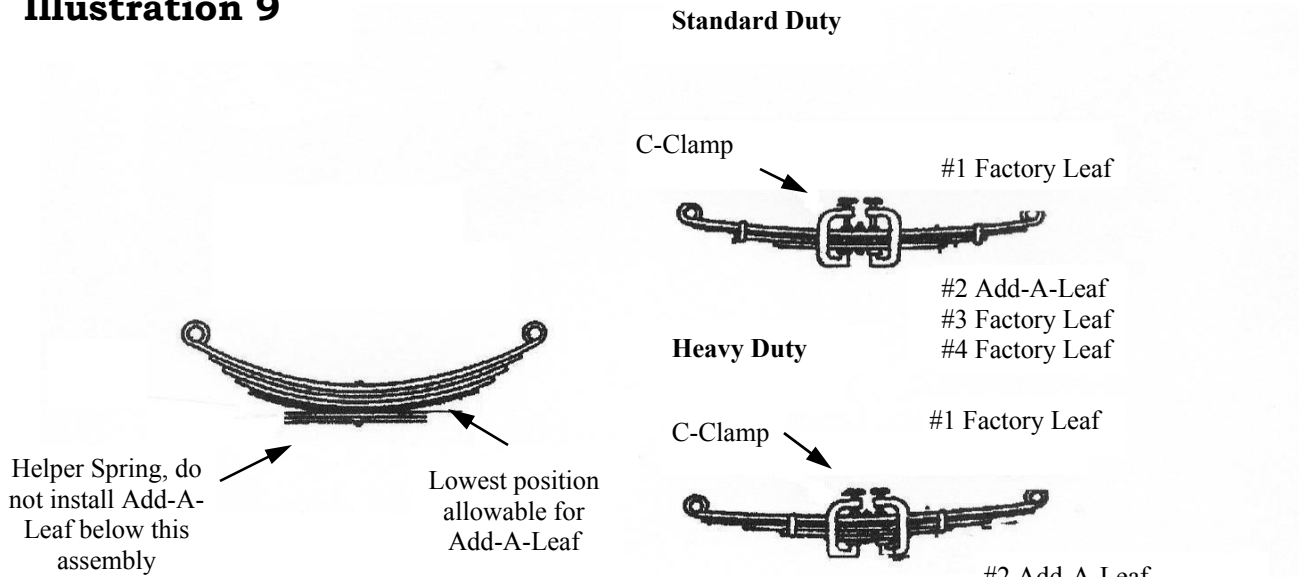


Illustration 8

Illustration 9



- 7) Apply small amount of grease to ends of Add-A-Leaf (13-70052-1) and hold it centered under the spring pack– concave side up. Hold rear spring spacer (20-56094-10) under middle of the Add-A-Leaf and load leaf, if so equipped.

NOTE: Add-A-Leaf will be placed in the spring assembly progressively according to length. For example, if existing leaves are 32” long and the next is 25” long, and the new Add-A-Leaf is 28” long, place Add-A-Leaf between these existing leaves.

NOTE: If vehicle is equipped with a thick load leaf at the bottom of the spring pack, insert Add-A-Leaf between it and the spring pack. Do not install Add-A-Leaf below this thick helper leaf.

- 8) Install socket head screw (13-21560) through the rear spring spacer, load leaf (if equipped), Add-A-Leaf and spring pack. Install flat washer and finger tighten with the 3/8” high nut (13-10579).

NOTE: Do not attempt to draw spring leaves together with the socket head cap bolt. Failure of any component can cause an explosive disassembly and possibly injury.

- 9) Make sure rear spring spacer, load leaf (if equipped), Add-A-Leaf and spring pack are centered and aligned. Place one C-Clamp on each side of, and evenly spaced from, the socket head screw. Tighten each C-Clamp.

10) Tighten the socket head screw high nut to 30-35 ft. lbs.

11) Remove C-Clamps.

- 12) Carefully raise rear axle until spring pad makes contact with leaf spring. Make sure socket head cap bolt is aligned with hole in rear axle tube spring pad.
- 13) Re-mount axle to spring using new U-Bolts and hardware supplied with existing anchor plates. Cross torque U-Bolt nuts to 90 ft. lbs.
- 14) Install new shock absorbers (BE5-6682-H5).
- 15) Repeat steps 4 through 14 on opposite side.
- 16) Install wheel/tire assemblies and lower vehicle.

SOME FINAL NOTES:

- After installation is complete, double check that all nuts and bolts are tight. Refer to torque specifications chart on last page.
- With vehicle on the floor, cycle steering lock to lock and inspect steering, suspension and driveline systems for proper operation, tightness and adequate clearance. Check brake hose fittings for leaks and make sure all hoses are long enough.
- Have headlights readjusted to factory specifications.
- Have front end aligned to factory specifications.

TORQUE SPECIFICATIONS: Grade 8

5/16" NUTS	20 FT. LBS.	M6	9 FT. LBS.
3/8" NUTS	35 FT. LBS.	M8	23 FT. LBS.
7/16" NUTS	60 FT. LBS.	M10	45 FT. LBS.
1/2" NUTS	90 FT. LBS.	M12	75 FT. LBS.
9/16" NUTS	160 FT. LBS.	M14	120 FT. LBS.
5/8" NUTS	175 FT. LBS.	M16	165 FT. LBS.

EXISTING HARDWARE

Upper Control Arm Axle Bracket Nut	89 ft. lbs.
Upper Control Arm Frame Bracket Nut	62 ft. lbs.
Lower Control Arm Rear Nut	88 ft. lbs.
✦ Lower Control Arm Cam-Nut	95 ft. lbs.

- ✦ **Replace Cam-Bolts**, Failure of Cam-Bolt may occur if original Cam-Bolt and nut are re-used.