



INSTALLATION INSTRUCTIONS

300 W. Pontiac Way Clovis, CA 93612 toll free: 1-800-445-3767 web: www.belltech.com

6911 & 6926 FLIP KIT CHEVY C-3500 EXT. CAB, CREW CAB, & DUALY

Thank you for being selective enough to choose our high quality BELLTECH PRODUCT. We have spent many hours developing our line of products so that you will receive maximum performance with minimum difficulty during installation.

- Note: Confirm that all of the hardware listed in the parts list is in the kit. **Do not** begin installation if any part is missing. Read the instructions thoroughly before beginning this installation.
- Warning:** **DO NOT** work under a vehicle supported by only a jack. Place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.
- Warning:** **DO NOT** drive vehicle until all work has been completed and checked. Torque all hardware to values specified.
- Reminder: Proper use of safety equipment and eye/face/hand protection is absolutely necessary when using these tools to perform procedures!
- Note: It is very helpful to have an assistant available during installation.

RECOMMENDED TOOLS:

- Properly rated floor jack, support stands, and wheel chocks
- Combination wrench set
- Torque wrench: 0-75 lb ft. range
- Ratcheting socket wrench and socket sets
- Air Chisel / Die grinder W/ cut off wheel
- Heavy Duty Drill
- Safety Glasses

Important: This procedure is an extremely involved process. Use of the right tools and equipment is important. You may want to consult a professional near you for installation. This kit also requires some leaf spring removal, c-clamps will be necessary to hold the leaves in compression. For kit #6911 for '88-'89 models the rear axle saddle **must** be welded into place on the axle so the drive shaft is positioned in the correct angle, before the vehicle can be moved.

KIT INSTALLATION

1. Open the hardware kit and remove all of the contents. Refer to the part list (Page 3) to verify that all parts are present.
2. For better access to the rear suspension and to simplify the procedure, we recommend disconnecting the gas filler neck from the bed, the two ground straps front and back, tail light harness, and then remove the bed from the frame. Block the front wheels and raise the back of the truck off the ground using a floor jack rated for this use. (PHOTO 1)
3. Support the vehicle by using jack stands rated for the weight of the truck. The stands should be placed in a stable position on both the ground and on the chassis. The stands should be just forward of the

front spring hanger and at the rear by the rear shackle hanger. (PHOTO 2) Remove the rear wheels and tires from the truck.

4. Jack up the rear axle housing with a hydraulic floor jack. The jack must be rated for this operation or jack failure can result. The axle should be positioned so all tension is taken off the leaf springs.
5. Place the rear housing on jack stands at this height. The uses of stands under the rear axle tubes are to help in the leaf spring relocation.
6. Remove the U-bolts one side at a time. (PHOTO 3) Adjust the height of the floor jack positioned under the rear axle housing to remove tension on the leaf springs to allow for the easy removal of spring and shackle bolts. **CAUTION: Leaf springs are under tension use caution when disconnecting.** Remove the mounting bolts from the front spring hanger and the bottom of the rear shackle. Loosen but do not remove the shackle from the spring. (PHOTO 4)
7. Remove the springs from the vehicle; you may need some assistance because of the extreme weight of the springs. Be sure to mark the springs left and right, front and rear for reference during reassembly.
8. At this point the upper overload spring and spacer block must be removed. The entire spring assembly should be clamped together, except the upper overload leaf. Clamp the spring pack on both sides of the spring center bolt to maintain spring alignment. **NOTE:** The removal of the upper overload spring will also improve the ride quality of the truck by not allowing the upper overload to come in contact with the stops in the early stages of suspension travel. If you have purchased a LOJACK Air Spring Suspension System, now is the time to begin its installation.
9. Remove the spring center bolt, allowing you to remove the upper overload leaf and the spacer block positioned directly under the overload leaf. (PHOTO 5 & 6) Install the new spring center bolt, supplied, up through the spring pack. (PHOTO 7) Install the new long nut on the top of the spring where the spacer and overload were positioned and tighten securely. (PHOTO 8) Using a hacksaw or a die grinder, cut off the excess length of the bolt and long nut, leaving approximately ½". (PHOTO 9 & 10) **CAUTION: Always wear eye protection when using power tools.**
10. Remove the spare tire from the vehicle. There is a rear support brace where the tire was removed. This must be removed in order for the c-section to slide into place. (PHOTO 11) The stock bump stop must be removed. This can be done by chiseling or grinding off the rivets holding it in place. (PHOTO 12)
11. You are now ready to install the C-section. **IMPORTANT:** Remove the wiring and brake lines mounted to the inside of the frame rail. This operation will serve to prevent their being damaged during drilling, and to provide you with holes with which to align the upper bracket template. This can be accomplished by unscrewing the two bolts used to mount the nylon brackets to the inside frame rail. (PHOTO 13) **NOTE:** Remove and discard the plastic spacer between the frame and bed rail.
12. Using the template supplied, align the guide holes in the template with the corresponding holes in the chassis. There are bolts in the holes that hold the brake line on the drivers' side, removed in step nine. These can screw back in both sides, which help in the alignment of the template. (PHOTO 14)
13. Mark the frame with a punch at the designated locations on the template. Move the template and drill a 1/2" hole in the frame at the four points. (PHOTO 15)
14. Using a marker or scribe, draw a line between each hole on the frame. Mark the line to the center of the hole. Do this so that there is a round corner at each point. This will prevent the possibility of stress cracks at the end of each cut line. (PHOTO 16)

15. There are several methods in which the notch can be cut. The method shown is a die grinder with a cut-off saw blade. (PHOTO 17 & 18) A Sawzall or plasma cutter will also work. **DO NOT** use a cutting torch. **CAUTION: Always wear eye protection when using power tools.**
16. The edges of the notch should now be deburred and the sharp edges ground away. **CAUTION: Always wear eye protection when using power tools.**
17. Each insert is fastened to the frame by ten mounting bolts. Four on each side of the cutout and two underneath the frame. Drill a ¼" pilot hole then use a ½" drill bit to drill the side mounting holes. (PHOTO 19 & 20) The use of c-clamps on the rails will help in the drilling and fitting operation. Install and tighten the hardware in the side mounting holes first. (PHOTO 21) Now the bottom two mounting holes can be drilled and hardware attached, and tightened. **NOTE:** Make sure the top of the C-section is flat against the top of the frame when drilling and attaching the eight side mounting bolts and nuts.
18. Once the C-sections are in place, the brake lines and electrical wires should be wire tucked into the frame rails securely. The bracket holding the rubber line will be reused. Adjust the bracket so the top hole aligns itself with the hole in the C-section. Remove the bottom ½" hardware from the C-section. The bottom hole in the bracket must be drilled out to ½" and uses one of the C-section mounting bolts. (PHOTO 22) Install the urethane bump stops in the middle of the C-section in the hole supplied.
19. Re-install the leaf springs onto the truck. Jack the rear axle up to the point where you can slide the springs under the axle.
20. Attach the front spring eye into its location in the front spring hanger. Swing the rear of the spring up and lower the shackle into place on the rear hanger. Do **not** tighten this hardware yet.
21. Place the saddle into position on the axle tube with the offset hole for the center bolt to the front, so the axle is positioned slightly to the rear of the truck. Place the 4° shim, supplied, on top of the leaf spring with the thick end of the shim toward the rear of the truck. (PHOTO 23) Make sure the slot in the shim is completely against the spring nut. Lower the axle housing so the saddle positions into place on the spring and the long nut. (PHOTO 24)
22. Install the U-bolts and lower spring plates, again the offset hole in the plate goes toward the front of the truck. Install the nuts and washers. Securely tighten the U-bolts to a torque rating of 95 to 110 ft. lbs. At this time, tighten the front hanger and rear shackle bolts completely. (PHOTO 25 & 26)
23. Once the assembly is securely bolted into place, **we recommend** that the saddles be welded into place on the axle tube. (PHOTO 27, arrow) This is to prevent the axle from twisting due to the weight of the vehicle and the extreme torque on the rear end. This welding is **mandatory** on 88 and some 89 models, because there is no actual perch on the stock housing for the ears of the new saddle to locate into. **NOTE:** If you purchased Belltech Flip Kit Model #6911 for your '88 or '89 model truck, please refer **NOW** to the last page of this instruction sheet for some special notes.
24. The new shock extension brackets attach to the existing shock mounts on the axle housing. Loosely bolt the extension bracket in place with two 9/16" by 3 ½" bolts. The kit comes with an extra pair of shock mount sleeves. The sleeve fits into the area between the ears of the stock shock mount. Slide the bolt thru the shock mount and the shock sleeve. (PHOTO 28) The factory E-brake bracket must be bolted into place on the outside upper shock extension hole before tightening the mounting hardware. Mark and drill an additional 5/16" hole through the gusset of the existing mount. (PHOTO 29) Install the remaining hardware and tighten all bolts. (PHOTO 30) Correct length after market shocks should be installed at this time, as the stock units are extremely long and may bottom out.
25. The drive shaft center support bearing must be spaced up slightly at this point. We have supplied the spacer. Unbolt the center support bearing and install the 2" spacer between the bearing plate and the frame cross member using the longer bolts also supplied in the kit, and tighten securely. (PHOTO 31)

26. There is a horizontal brace underneath the bed that runs directly above the rear axle and must be modified for clearance. Remove a 12" long, 1 1/2" deep section from the center using a Sawz-all, saber saw or plasma cutter. Doing this while the bed is off simplifies the operation. (PHOTO 32) This will

prevent the rear axle from coming in contact with the bed when the suspension is in full compression.

CAUTION: Always wear eye protection when using power tools.

27. Re-check all mounting hardware for tightness. If the bed was removed it can now be installed onto the truck. Be sure to replace all electrical wires, filler neck(s) and hardware.

28. Install the wheels and tires, lift the truck from the jack stands and remove them. Lower the vehicle to the ground. **NOTE:** It is important to check and re-torque the U-bolts after 100, 500 and 1,000 miles.

29. **SPECIAL NOTE:** For the Belltech Flip Kit Model #6911: On '88 and some '89 model trucks the spring perch has no provision for the ears of the saddle to locate into. You have two options at this point in the procedure. One is to evenly space the ears of the saddle away from the cast perch of the housing, weld them into place on the axle tubes on both sides of the saddle (PHOTO 27, arrow) and then install the 4° shims, with the thick portion facing the rear of the truck. The second is to bolt the assembly together as explained in step #20, without the shim. Finish the installation completely thru step #21. Pre load the spring to the point where the entire weight of the rear of the truck is on the springs. Set the drive shaft angle using an angle finder on the rear of the shaft at the U-joint by turning the rear end housing in the saddles. Then completely weld the saddles into place on the axle tubes. (PHOTO #27, arrow) The drive shaft angle at the rear joint should be 0-3 positive.

**PART LIST FOR 6911 & 6926
CHEVY C-3500 FLIP KIT**

| PART No. | DESCRIPTION | QTY. |
|-----------------|---------------------------------|-------------|
| 6911-001 | C Section, LH | 1 |
| 6911-002 | C-Section, RH | 1 |
| 6925-005 | Saddles | 2 |
| 6550-050 | Shock Extensions | 2 |
| 404094 | Shock Sleeves | 2 |
| 6600-010 | U Bolt Plates | 2 |
| 6925-003 | U-Bolts | 4 |
| 110505 | 5/8-18 Nylon Lock Nuts | 8 |
| 110502 | Flat Washer 5/8" | 8 |
| 4918-001 | Bump Stop | 2 |
| 4977-001 | 4° Pinion Shim | 2 |
| 110252 | Spring Center Bolt 3/8"-24 x 5" | 2 |
| 110257 | Coupling Nuts 3/8"-24 x 1-1/8" | 2 |
| 6925-010 | 2" Carrier Bearing Spacer | 1 |
| 110319 | 7/16"-14 x 3" Cap Screws | 2 |
| 110645 | Flat Washer | 4 |
| 110309 | 7/16 Nylon Lock Nuts | 2 |
| 110408 | 1/2"-20 x 1-1/4" Cap Screws | 20 |
| 110402 | 1/2-20 Lock Nuts | 20 |
| 110660 | Flat Washers | 44 |
| 110456 | 9/16-18 x 3.5" Cap Screws | 2 |
| 110455 | 9/16 Nylon Lock Nuts | 2 |
| 110459 | Flat Washer | 4 |
| 110201 | 5/16 x 1" Cap Screw | 2 |
| 110203 | 5/16 Nylon Lock Nuts | 2 |
| 6911-T | Template | 1 |







