

INSTALLATION INSTRUCTIONS

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## 6620 FLIP KIT **CHEVY SUBURBAN / GMC YUKON**

## 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.
- **DO NOT** work under a vehicle supported by only a jack. Place support stands securely under Warning: the vehicle in the manufacturer's specified locations unless otherwise instructed.
- DO NOT drive vehicle until all work has been completed and checked. Torgue all hardware to Warning: values specified.
- Proper use of safety equipment and eve/face/hand protection is absolutely necessary when Reminder: using these tools to perform procedures!
- It is very helpful to have an assistant available during installation. Note:

#### **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
- Safety Glasses

## **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. Block the front wheels and raise the rear of the truck using a hydraulic floor jack under the center of the rear axle. Place the frame on jack stands ahead of the front spring hangers, and just behind the rear shackle hangers. Remove the wheels from the truck. IMPORTANT: the jack stands must be used as shown. This is mandatory when installing c-sections in the frame. It must be supported on both sides of the spring hangers to avoid frame damage while installing the c-sections. (Photo 1 & 2)
- 3. Lower the jack so that all the pressure is off of the leaf spring assemblies. CAUTION: Leaf springs are under tension use caution when disconnecting. (Photo 3)
- 4. Detach the shock absorbers at the lower shock mounts. Remove the nuts on the stock U-bolts that hold the axle to the springs. Remove the U-bolts and spring plates. (Photo 4)
- 5. Loosen and remove the bolts attaching the leaf spring to the front spring hangers. (Photo 5)
- 6. Loosen and remove the bolts attaching the rear shackles to the hanger on the chassis. (Photo 6)

- **7.** Remove the stock leaf springs from the truck and set aside to reassemble later. Be sure to mark the springs right and left, front and rear for reassembly. (Photo 7)
- **8.** The stock front spring hangers must be removed at this point to allow installation of the new front hangers.
- **9.** Cut a slot in the hanger where the E-brake cable passes. **Use caution** as not to cut the cables. Free the cables from the hanger. (Photo 8)
- **10.** The rivets must be removed from the stock hanger. This can be done several ways. Shown is the use of an air chisel. Cutting a slot in the head of the rivet aids in the removal of the rivet head. Grinding the heads off the rivets is an alternative method. **CAUTION: Always wear eye protection when using power tools**. (Photo 9 & 10)
- **11.** Remove the stock hanger from the frame; make sure all the rivets are out of the frame. (Photo 11)
- **12.** Install the new Belltech Hangers on the frame using the hardware supplied and tighten securely. (Photo 12)
- **13.** The new E-brake bracket attaches to the new hanger on the drivers side. It mounts on the front upper corner of the hanger with the new 7/16" bolt. (Photo 13)
- **14.** If so equipped, remove the mounting hardware on the brackets holding the sway bar mounts to the frame. These will be reattached later. (Photo 14)
- 15. Lower the jack and rear end assembly to provide room to work before installing the C-sections. There are nylon clamps holding the steel brake line, fuel lines and electrical wires to the frame. Remove these to free the lines and wires. CAUTION: Do not let the rear axle drop to the point where the brake lines and/or drive shaft are strained. You may want to use jack stands to support the rear end housing at this point. (Photo 15)
- 16. Remove the bolts holding the rubber snubber to the chassis. (Photo 16)
- **17.** You are now ready to install the C-section frame rails. The frame rails should be cleared of all brake lines and electrical wiring. They should be loosened from their attaching hardware and moved away to avoid damage.
- **18.** Using the template supplied, align the guide holes in the template with the corresponding holes in the chassis. (Photo 17)
- **19.** 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 18)
- **20.** 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 19)
- 21. There are several methods in which the notch can be cut. The method shown is a plasma cutter. A sawz-all, or a die grinder with a cut-off saw blade will work also. DO NOT use a cutting torch. CAUTION: Always wear eye protection when using power tools. (Photo 20)
- **22.** The edges of the notch should now be debarred and the sharp edges ground away. On each side of the chassis just above the notch, you will find a flange protruding from a hole in the frame, just cut.

Grind this area flat. **CAUTION: Always wear eye protection when using power tools**. (Photo 21 & 22)

- **23.** There is a rivet on the bottom of the chassis just behind the C-notch. Remove this rivet. It will be replaced by one of the C-section bolts.
- 24. Each insert is fastened to the frame by fourteen mounting bolts. Ten on the side, and four underneath the frame. Again using the template supplied, mark the side mounting holes to be drilled using a center punch at the marked locations. (Photo 23)
- **25.** Drill a 1/4" pilot hole then use a 7/16" bit to drill the side mounting holes. The use of c-clamps on the rails will help in the drilling and fitting operation. Install the side mounting hardware. Now the bottom rear two mounting bolts can be attached. Two must be drilled and two go in the holes left by the removal of the rivets in step #22 (Photo 24 & 25)
- **26.** Once the C-sections are in place, the brake lines and electrical wires should be wire tied and tucked into the frame rails securely. Install the urethane bump stops in the holes located in the middle of the C-sections.
- **27.** 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. (Photo 26)
- 28. Attach the front spring eye into its location in the new front spring hanger. Swing the rear of the spring up and attach it to the rear hanger and shackle on the frame. DO NOT tighten this hardware yet. (Photo 27 & 28)
- **29.** The saddle for the axle we supply has an offset hole for the spring center bolt. The offset hole goes toward the front of the truck. (Photo 29)
- **30.** Place the new saddles on the springs with the hole over the spring center bolt. Slowly lower the rear axle down onto the saddles. The ears will slip into the stock spring perch on the axle tubes. Make sure both ears on the saddle locate completely into the perch.
- **31.** New U-bolts and spring plates are provided. The spring plate also has an offset hole that must be installed with the hole toward the front of the truck. (Photo 30)
- **32.** Slide the U-bolts down over the axle tubes into the spring plate as shown. Install the new Nylon lock nuts and tighten completely. Once again making sure the ears of the saddles locate completely into place in the spring perches. (Photo 31 & 32)
- **33.** Install the lower shock extensions onto the lower shock mounts. The hardware supplied is a 3 ½" long 9/16 bolt and washers, nut and a shock sleeve. Make sure you place the shock sleeve inside the stock shock mount on the rear end when sliding the bolt through the extension. Once the extensions are bolted securely in place, drill through the hole in the extensions and into the stock mount. Install and tighten the hardware provided to prevent the extension from rocking when in use. (Photo 33 & 34)
- **34.** Re-install the shock absorbers at the lower shock mount. Upgraded shocks should be installed to replace the stock shock absorbers at this time. (Photo 35)
- **35.** If the vehicle is equipped with a factory Sway Bar, re-install it at this time. Align the brackets under the front of the C-section in the holes provided and secure into place with the new hardware through the holes and tighten securely.

- **36.** Once the U-bolts are secure, jack up the rear end just until the jack begins to lift the vehicle off the stands. Now tighten the front and rear spring eye bolts on the hangers and shackles. (Photo 36)
- **37.** At this time re-check all the mounting hardware to make sure every thing is tightened.
- **38.** Check that all components and fasteners have been properly installed, tightened and torqued.
- **39.** Check brake hoses, and other components for any possible interference.
- 40. Lift vehicle and remove support stands. Carefully lower vehicle to ground.
- **41.** Immediately test-drive the vehicle in a remote location so that you can become accustomed to the revised driving characteristics and handling. Be aware that the vehicle will handle substantially different now that it has been modified.
- 42. NOTE: It is important to check and re-tighten the U-bolts after 100, 500, and 1,000 miles. (Photo 37)

PART No.	DESCRIPTION	QTY.
6620-001	Hanger Front Spring	2
6650-003	U-Bolts 5/8"-18 x 9	4
110502	Flat Washer 5/8"	8
110505	5/8"-18 Ny Lock Nut	8
110650	7/16"-20 x 1-1/4" HHCS	28
110303	7/16"-20 Stover Nut	28
110645	Flat Washer 7/16"	56
110201	5/16"-18 x 1" HHCS	2
110203	5/16"-18 Ny Lock Nut	2
110456	9/16"-12 x 3-1/2"	2
110670	Flat Washer 9/16"	4
110454	9/16"-12 Ny Lock Nut	2
110408	1⁄2"-20 x 1-1/4" HHCS	8
110402	1/2"-20 Stover Nut	8
110660	Flat Washer 1/2"	16
4918-001	Bump Stop	2
110204	Flat Washer 5/16	4
7000-880	Spacer Tube .75" x .085" x 1.625"	2
6620-003	Emergency Brake Cable Bracket	1
6550-050	Shock Extension	2
6600-005	Saddle	2
6600-010	U-Bolt Plate	2
6620-010	C-Section L.H.	1
6620-011	C-Section R.H.	1
6620-889	Template	1

# PART LIST

































