

6523 & 6524 C-NOTCH KIT 07&UP CHEVROLET SILVERADO / GMC SIERRA 1500 REQUIRES MODIFIED EXHAUST

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:	<u>DO NOT</u> 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!
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RECOMMENDED TOOLS:

- Properly rated floor jack and six (6) support stands
- Wheel chocks
- Grinder equipped with abrasive cut-off wheel
- ¹/₂" drive torque wrench
- Standard and Metric socket wrench set
- Standard and Metric wrench set
- Safety glasses
- Power drill and drill bits
- Large C-Clamp
- Tape measure
- Steel construction square
- Medium weight ball peen hammer / center punch
- Marking pen

KIT INSTALLATION

As this is a relatively involved installation, **we recommend** that a qualified mechanic at a properly equipped facility perform it. **We also recommend** that the installation be performed on a firm, flat and level surface, such as seasoned asphalt or concrete. <u>The use of safe and properly maintained equipment is very important!</u>

Exhaust should be modified prior to installation as this kit will allow the axle to travel upward far enough to contact the factory exhaust system. An example of a possible modification would be to have the exhaust terminate in front of the axle. Please refer to local emissions laws and vehicle codes to ensure modifications are compliant.

1. JACKING, SUPPORTING AND PREPARING THE VEHICLE

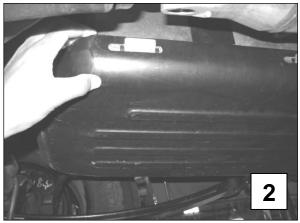
- 1a) Block the front wheels of the vehicle with appropriate wheel chocks. Make sure the vehicle's transmission is in "Park" (automatic) or 1st gear (manual). Activate the parking brake.
- 1b) Loosen, but DO NOT REMOVE the rear lug nuts.
- **1c**) Lift the rear of the vehicle off the ground using a properly rated floor jack. Lift the vehicle so that the rear tires are approximately 6-8 inches off the ground surface.
- 1d) Support the vehicle using four (4) support stands, rated for the vehicle's weight. The stands should be positioned, two on each of the frame rails, just forward of the front leaf spring hangers and just below the rear leaf spring shackle hangers. Prior to lowering the vehicle onto the stands, make sure the supports will securely contact the straight, flat portions of the frame area. It is very important that the vehicle is properly supported during this installation to prevent frame damage and personal injury! Make sure that the support stands are properly placed prior to performing the following procedures.
- **1e**) Lower the vehicle onto the stands slowly and before placing the vehicle's weight on them, again check that they properly and securely contact the frame rails described above. Check for possible interference with any lines, wires or cables.
- **1f**) Place a support stand under each side of the axle to support the weight of the axle. Make sure these are only supporting the weight of the axle and allowing the other 4 support stands to support the frame.
- 1g) Remove the rear wheels.
- 1h) Remove the rear shocks.
- **SAFETY REMINDER**: Check for safe vehicle stability before proceeding under the vehicle to begin the following procedures. Never work under a vehicle supported by only a jack. Always use properly rated support stands to support the vehicle.

2. GAS TANK REMOVAL

NOTE: This step would be easier to do if the GAS TANK was near empty. Otherwise, moving a tank with more fuel will be more difficult.

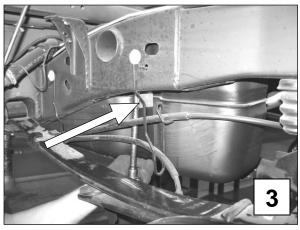
- 2a) Remove and set aside the bolts securing the PROTECTIVE SHIELD that shrouds the GAS TANK. There are three (3) mounting bolts on one side (driver's side), that mount directly to the frame. (Photo 1)
- 2b) Lift the opposite side of the protective shield up to clear the rectangular hooks (Photo 2). You should now be able to remove the PROTECTIVE SHIELD. Set this aside.





Place the three (3) mounting bolts back in their respective mounting holes for safe keeping.

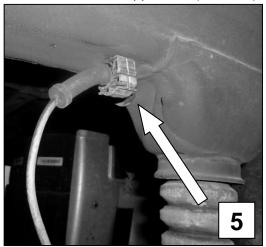
- **2c)** Support the GAS TANK from underneath.
- 2d) Remove the two mounting bolts holding the GAS TANK straps that are mounted at each end of the TANK (**Photo 3**). These are located on the driver's side of the TANK itself and the inside part of the frame chassis. Each strap is mounted directly to the frame on one end only. The opposite end is attached primarily by a hook attachment.
- **2e)** Pull the straps down from the driver's side and un-hook the straps from the other end
- **2f)** Remove the 3 mounting bolts that secure the GAS NOZZLE INTAKE (**Photo 4**).
- **2g)** Support the GAS TANK from underneath and slowly lower it six 6 to 12 inches, pulling the rubber gas neck down as the GAS TANK travels down. When lowering the tank, ensure there are no hoses or lines that are under tension. Unclip hoses and lines if necessary to ensure the lines are not damaged.

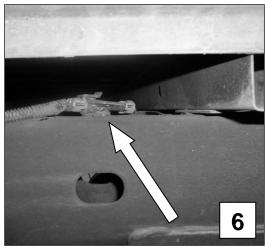




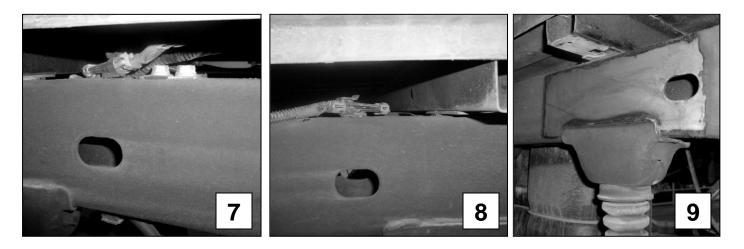
3. FRAME PREPERATION

3a) Remove the (2) abs line clips from the frame on each sides of the vehicle. One is located behind the bump stop bracket below the frame (Photo 5). The other is on top of the frame just behind the bed support rail (Photo 6).





3b) Unbolt the brake line bracket from the top of the frame on the driver's side (Photo 7).



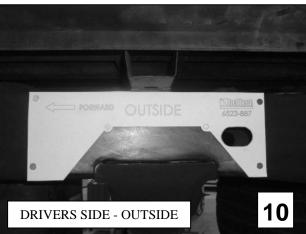
- 3c) Remove the clips that hold the brake lines and wire loom in front of the bed rail on the driver's side (**Photo 8**).
- **3d**) Pull all lines and wires away from the frame and secure them a safe distance from the frame to make sure they are not damaged.
- 3e) Clean both sides of each frame rail above and around the bump stop bracket (Photo 9).
- **3f**) Bend or trim the heat shield on the passenger side near the frame. Clearance should be 1-2 inches from the frame and 4-5 inches beyond either side of the bump stop bracket. This allows room for the c-notch to be installed.

4. FRAME NOTCH INSTALLATION

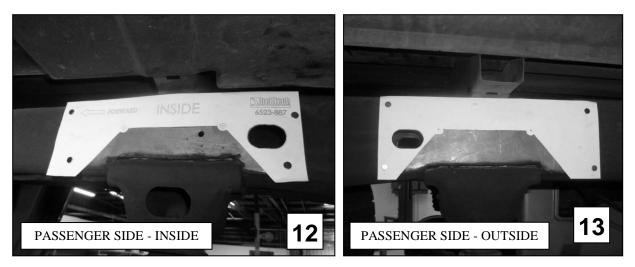
Due to the design of the included Frame Notch Supports (heretofore referred to as "C-sections"), pickup box removal is not required with this kit. However, some installers may prefer to remove the box to facilitate access to the frame. If it is decided to remove the vehicle's bed assembly, please refer to the appropriate *General Motors Service Manual* for recommendations regarding *Pickup Box Removal Procedures*. **Proper use of safety equipment and eye/face/hand protection is absolutely necessary when performing the following procedures!**

To avoid chassis damage, perform the following procedures to only ONE frame rail at a time.

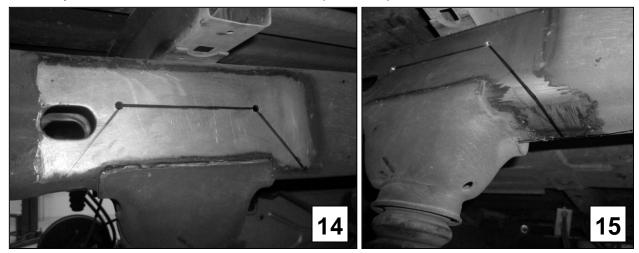
4a) Secure the template for the side of the vehicle you are working on labeled "OUTSIDE" on the outside of the frame rail with the notch portion just above the bump stop bracket. Align the oval on the template with the oval hole on the frame. The upper line should align with the top of the frame with the forward arrow pointing toward the front of the vehicle. It is very important that the template be positioned exactly as shown/described, so that the C-Section Assembly fits over the frame rail properly. Check for proper alignment PRIOR to cutting frame! (Photos 10 & 13)







- **4b)** Mark and center punch the corners of the notch template. Mark the "cut lines" for the notch, making sure each corner ends at the center punched corners. Remove the template. Drill the corners with a ¹/₄" drill bit (**Photo 14**).
- 4c) Secure the template for the side of the vehicle you are working on labeled "INSIDE" on the inside of the frame rail with the notch portion just above the bump stop bracket. Align the oval on the template with the oval hole on the frame. The upper line should align with the top of the frame with the forward arrow pointing toward the front of the vehicle. It is very important that the template be positioned exactly as shown/described, so that the C-Section Assembly fits over the frame rail properly. Check for proper alignment PRIOR to cutting frame! (Photos 11 & 12)
- **4d)** Mark and center punch the corners of the notch template. Mark the "cut lines" for the notch, making sure each corner ends at the center punched corners. Remove the template. Drill the corners with a ¹/₄" drill bit (**Photo 14**)



4e) Connect the lines marked for the inner and outer templates across the bottom of the frame.(**Photo 15**)

Due to the close proximity of fuel tank to this area, <u>we DO NOT recommend using a flame-</u> <u>cutting torch or plasma cutter</u> when performing these operations. Also, excess heat can easily damage the frame rail and other adjoining components.

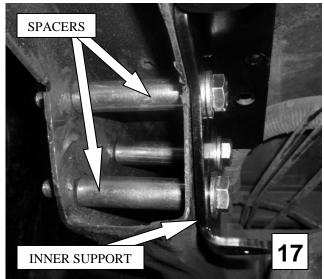
4f) Cut along the marked lines carefully. Be careful when cutting the frame rail. **DO NOT** remove any material from the frame rail that is not shown or described here. Be careful

not to damage any lines or other components located behind the frame rail. Avoid creating any sharp corners or other defects that may cause unnecessary stress-concentrated areas in the frame rail. Avoid overheating frame rail.

- 4g) Deburr all cut edges. Paint cut edges and bare metal to prevent rust.
- **4h)** Slide the outer notch over the frame.). It may be necessary to use a soft-faced hammer to position the C-Section shell over frame rail.
- **4i)** Install the inner support and install the supplied (4) 7/16"-20 X 1" and (1) 3/8"-24 X 1" with washers and lock nuts. Secure the two pieces together and to the frame with a large c-clamp. Tighten bolts but do not torque. (**Photo 16**)

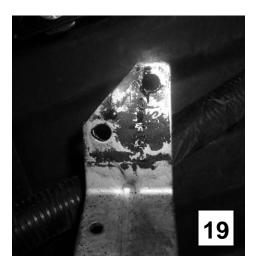


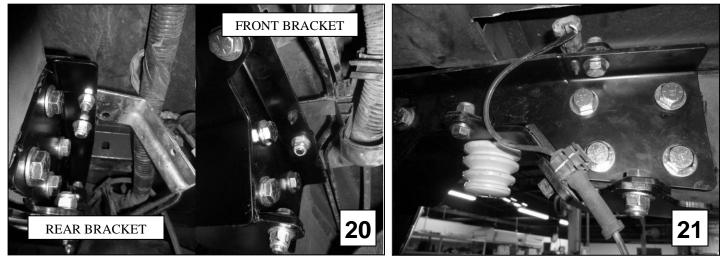
- 4j) With the C-section installed tightly against the outside face of frame rail, use the drill and a 1/2" drill bit, to transfer the (7) (drivers side), or (8) (passenger side)) ½" holes to the frame rail. Use the C-section holes to locate the drill bit. Repeat the drilling process on the inside of the frame.
- 4k) Remove the C-section from the frame. Place the inner support on the inside of the frame rail. Insert the supplied ½"-20 X 4.5" bolts from the inside of the frame. Insert the supplied spacers onto each bolt <u>inside</u> the frame rail as the bolts are installed (Photo 17).
- **4I)** Install the outer portion on the C-section once all of the bolts and spacers have been installed. Carefully slide the outer support over the bolts making sure not to push the bolts out of the holes (if this happens the spacer may fall off the bolt inside the frame.) Install the washers and lock nuts onto the bolts but do not tighten. (**Photo 18**)
- 4m) Install the (4) 7/16"-20 X 1" and (1) 3/8"-24 X 1" with washers and lock nuts into the tabs to connect the inner and outer C-section supports. The 3/8"-24 bolt should be installed in the lower front tab.
- **4n)** Torque the $\frac{1}{2}$ "-13x4.5" bolts to 60 ft./lbs. Torque the 7/16" bolts to 52 ft./lbs., and the 3/8" bolt to 33 ft. lbs.



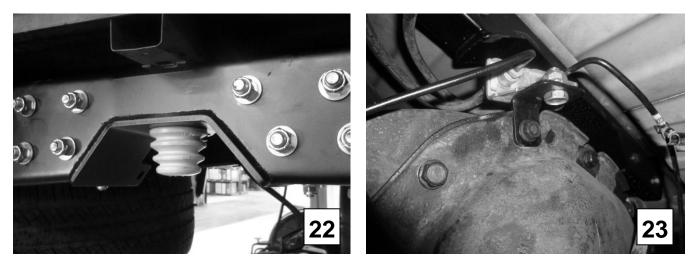


- 40) Repeat steps 4A-4N for the other side.
- **4p)** Trim the brake line bracket to allow for mounting on the C-section (**Photo 19**). Mount the bracket to the c-notch using the 5/16"-18 X 1" bolt provided.
- 4q) Install the lower abs line on each side in the provided location on the notch. Install the upper abs line clip into the hole provided in the inner C-section support. (Photo 20)
- 4r) Install the brake line and wire loom clips on the driver's side into the holes provided in the C-section. (Photo 21)





- 4s) Install the supplied bump stops (Photo 22).
- **4t)** Remove Factory brake line bracket from differential cover. Install supplied bracket facing rearward and attach using original differential cover bolt, original bracket bolt, and supplied nut (**Photo 23**)



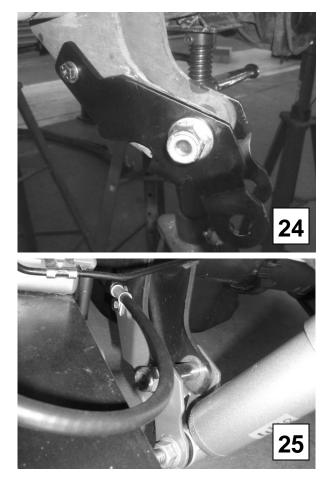
4u) Reinstall gas tank and shield. Make sure all hoses and clips are reattached.

5. BED CROSSMEMBER NOTCH INSTALLATION

5a) Please refer to 6655 instructions to install the Bed Crossmember Notch.

6. SHOCK INSTALLATION

- 6a) Install the shock extension on the driver's side axle shock mount. The passenger side does not require a shock extension. Install the 5/16"-18x1" bolt, washers and lock nut into the existing hole but do not tighten. Install the supplied 9/16"-13x2.5" bolt, washers, lock nut and spacer into the original shock mount location. Torque the 5/16" bolt to 18 ft./lbs. and the 9/16" bolt to 70 ft./lbs. (Photo 24). Note: On vehicles equipped with rear disc brakes, remove the original emergency brake cable from the OEM shock bracket on the drivers side and use the supplied clamp to replace the OEM line clamp. Attach supplied clamp to the shock extension. (Photo 25)
- **6b)** Install Belltech Street Performance or Nitro Drop 2 shock to each side and torque to OEM specifications. See the current Belltech Application Guide or contact you nearest Belltech dealer for the appropriate part numbers for your application.



7. COMPLETING INTALATION

- **7a)**All hardware being fastened to the vehicle's original fastening points should be torqued to the proper specifications. To prevent chassis damage, never over-torque the hardware.
- 7b) Check that all components have been properly installed, tightened and torqued.
- 7c) Reinstall the rear wheels.
- 7d) Lift vehicle and remove support stands. Carefully lower vehicle to ground.
- **7e)** 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
- **7f)** Installation is complete. Check <u>all</u> of the hardware and re-torque at intervals for the first 10, 100, 1000 miles.

Parts List: 6523 C-Section kit

Part #	Description	Quantity
6523-001	C-Section LH	1
6523-003	C-Section RH	1
6523-008	C-Section Support LH	1
6523-010	C-Section Support RH	1
6523-050	Shock Extension	1
6523-887	Template	1
6612-016	Bed Cross-member Notch	1
110301	7/16"-20 X 1" HHCS	8
110201	5/16"-18 X 1 HHCS	2
110251	3∕₃"-24 X 1" HHCS	2
110427	1⁄2"-20 X 41⁄2" HHCS	15
110456	9/16"-12 X 3½" HHCS	1
110645	Flat Washer 7/16"	16
110204	Flat Washer 5/16"	4
110625	Flat Washer ¾"	4
110660	Flat Washer 1/2"	30
110670	Flat Washer 9/16"	2
110305	Nylon Lock Nut 7/16"-20	8
110203	Nylon Lock Nut 5/16"-18	2
110254	Nylon Lock Nut 3/3"-24	2
110403	Nylon Lock Nut 1/2"-20	15
110454	Nylon Lock Nut 9/16"-12	1
112470	Spacer	15
4923	Bump Stop	2
7000-880	Shock Extension Spacer	1
6655-777	Bed Cross-member Notch Hardware	1
6655-888	Bed Cross-member Instructions	1
6680-010	Brake Line Bracket	1
112280	Flange Nut M8-1.25	1