



INSTALLATION INSTRUCTIONS

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6655

BED CROSS-MEMBER C-NOTCH CLEARANCE SUPPORT 1999-UP CHEVROLET SILVERADO/GMC SIERRA 1500

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 hardware listed is included in the parts list. **Do not** begin the installation if any part is missing. Read the instructions thoroughly before beginning the installation.
- Warning:** **DO NOT** work under a vehicle supported only by a jack. Place support stands securely under the vehicle in the manufacturer's specified location.
- Warning:** **DO NOT** drive the 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 tools to perform procedures
- Note:** It is very helpful to have an assistant available during installation

This kit has been specifically engineered for the 1999 to current GMT 800 series ½ Ton trucks. Please note that this *Belltech* Bed Cross-member C-section Clearance Support Assembly helps to prevent the center-section of the rear axle housing from coming in contact with the underside of the bed. It also strengthens the central area of the bed so that loads can be carried while reducing the possibility of damage occurring to the bed floor.

In order to properly lower your truck, **we recommend** using only high quality *Belltech* lowering coil springs, spindle kits, rear axle flip-kits and Nitro-Drop® or Nitro-Active® shock absorbers. Note that shorter shocks are required following installation of many of our kits.

We recommend that you install *Belltech* front and rear Anti-Sway Bars to further improve your vehicles handling and performance.

IMPORTANT NOTE:

In order to properly install the BED CROSS-MEMBER C-NOTCH CLEARANCE SUPPORT, we find it important to follow, in sequential order, the step-by-step procedures listed on the following pages. BellTech R & D Techs have simplified the step-by-step installation to minimize any difficulties that may arise during installation.

RECOMMENDED TOOLS:

- Properly rated floor jack and two (2) support stands
- Wheel chocks
- Die grinder equipped with abrasive cut-off wheel
- Angle drill motor with 5/16" twist drill bit
- Socket wrench set, including:
 - 9/16", 10mm
 - Standard 9/16" box wrench
 - 3/8" drive torque wrench
- Tape measure (inches).
- Steel construction square.
- Tin snips or sheet metal sheers.
- Cleaning solvent / Safety glasses
- Medium weight ball peen hammer / center punch
- Metal file
- Marking pen

KIT INSTALLATION

As this installation requires specialized skills, **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. The use of safe and properly maintained equipment is very important!

1. JACKING, SUPPORTING AND PREPARING THE VEHICLE

- a) 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.
- b) Following the Manufacturer's instructions (see Owner's Manual), remove spare tire from vehicle. Note: *Now would be a great time to check spare tire for damage and wear. Check that tire is inflated to proper pressure.*
- c) Using a properly rated floor jack, lift the rear of the vehicle off the ground. Lift the vehicle so that the rear tires are approximately 6-8 inches off the ground surface.
- d) Support the vehicle using two (2) support stands, rated for the vehicle's weight. The stands should be positioned, one on each frame rail, just forward of the front leaf spring hangers. Prior to lowering the vehicle onto the stands, make sure the supports will securely contact the straight, flat portions of the frame rails.

! 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.

- e) Slowly lower the vehicle onto the stands and, before placing the vehicle's weight on them, again check that they properly and securely contact the frame rails as described above. Check for possible interference with any lines, wires, or cables.

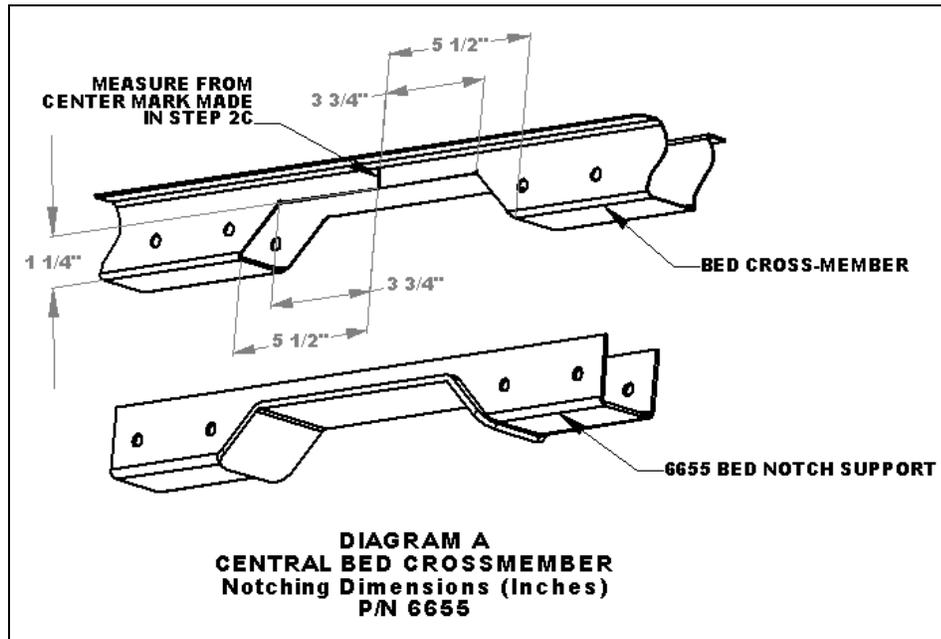
SAFETY REMINDER: Check for safe vehicle stability before proceeding under the vehicle to begin the following procedures. Never work under a vehicle supported by only a jack. Always use properly rated support stands to support the vehicle.

2. BED CROSS-MEMBER NOTCHING

Due to the design of the included Bed Cross-member C-notch Clearance Support, pickup box removal is not required with this kit. However, some installers may prefer to remove the box to facilitate access to the cross-member. 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*.

Safety Reminder: Proper use of safety equipment and eye/face/hand protection is absolutely necessary when performing the following procedures!

- a) Using wrench and 10mm socket, remove 8 hex-head screws retaining aluminum exhaust shield to underside of bed floor (Photo 1). Retain these parts for later reinstallation. Note: ***Dislodging the shield from the frame can be tricky; slide the shield to the left, then pull front down below underside of cab and pull slightly forward. Next, shift shield back to right, pull rear down and remove from rear of vehicle.***
 - b) Clean the center portion of the central bed cross-member (located directly above center-section of rear axle housing) using solvent soaked rag. **CAUTION: DO NOT use flammable solvents around sparks or open flames.**
 - c) Measure the overall length (O.A.L.) of the cross-member using a tape measure. Divide the O.A.L. by two, measure out that distance from one end, and mark the center of the cross-member with a felt-tipped pen (Photo 2). To double check, measure from the other end of the cross-member to the mark you just made. This measurement should equal the previous measurement (O.A.L./2). Visually verify that this mark corresponds with the center of the vehicle and center-section of axle.
 - d) Using the square and felt-tipped pen, mark the center of the cross-member on both the front and rear faces.
 - e) Referring to Diagram A (below), mark out the cut-lines on both faces of the cross-member as shown (Photo 3). Make sure the cut-lines are centered on cross-member.
 - f) Using tape measure, verify that the marks you have made exactly match the information provided on Diagram A.
 - g) Using square, transfer and mark the lower ends of the layout lines to underside surface of the cross-member (Photo 4). Make sure the lines are perpendicular (90 degrees) to outer faces of cross-member.
- ! It is very important that the layout marks be made exactly as shown, so that the C-notch Support fits over the cross-member properly. Check for proper alignment PRIOR to cutting!
- h) As gasoline fumes are extremely explosive, check to make sure the fuel tank cap is properly installed and secured, and that the fuel tank is fully sealed.



- ! Check the backsides of the cross-member to be sure that all lines, electrical wiring, control cables and other components are cleared from this area to avoid damaging them in the following steps. Be sure to wear proper safety protection when using power tools! **DO NOT** create sparks near flammable or explosive materials.
- i) Use the die-grinder equipped with a cut-off wheel (or body saw) to cut the C-Notch opening along the marked lines (Photo 5) on the front and rear faces. If required, a reciprocating saw may be used to cut through the cross-member in difficult to reach areas. Now cut along the marks made on the underside surface of the cross-member in Step 2f. Remove the cutout C-notch section and discard (Photo 6).
- ! Be careful when cutting the cross-member. **DO NOT** remove any material that is not shown. Be careful not to damage any lines or other components located behind the cross-member. Avoid creating any sharp corners or other defects that may cause unnecessary stress-concentrated areas.

SAFETY RECOMMENDATION:

Due to the close proximity of fuel tank to this area, we **DO NOT RECOMMEND** using a flame-cutting torch or plasma cutter when performing these operations. Also, excessive heat can easily damage the painted surfaces within the pickup box and other adjoining components.

- j) Deburr all freshly cut edges using hand file or grinder.
- k) Test fit the Bed Cross-member C-notch Clearance Support into the opening. Verify that the Support fits completely into opening so that underside of cross-member contacts inner surface of Support. If necessary, relieve interfering areas with file or grinder.
- l) Paint all bare metal surfaces and edges to prevent rust. Let paint air dry according to the manufacturer's recommendations.

3. BED CROSS-MEMBER C-NOTCH CLEARANCE SUPPORT INSTALLATION

- a) Install the Bed Cross-member C-notch Clearance Support into the opening made above. While holding Support in position, mark eight (8) holes (4 per side) onto cross-member (Photo 7). Remove Support.
- b) Using center punch and hammer mark the centers of each hole.
- c) Using angle-style drill motor equipped with 5/16" drill bit, drill eight (8) holes through front and rear faces of cross-member at marks made in Step 3a (Photo 8). Drill four (4) holes through rear face,

then move to holes in front face. We **do not recommend** attempting to drill the holes through both faces at one time.

- ! Be cautious when drilling the LH (driver's side) holes, as the fuel tank is located directly behind this area. While drilling, we recommend placing a protective metal plate in the fuel tank area to prevent puncture and/or other damage.
- d) Install the Bed Cross-member C-notch Clearance Support into the opening, aligning holes in Support with those just made in cross-member.
- f) Working from the rear of the cross-member, insert four (4) 5/16-18 x 3" H.H.C.S. with washers through the holes (Photo 9). Secure these bolts with washers and locknuts. Tighten and torque these bolts to 25 lb ft.
- g) Locate hole in exhaust shield (removed in Step 2a) that corresponds with threaded hole removed with notch-section removed in Step 2i. This area of shield needs to be marked and trimmed as follows:
 - Using tape measure, pen and straight edge, mark a line 3 ¼" from and parallel to notched edge (Photo 10).
 - Mark two parallel lines, perpendicular to notched edge, centered at bolt hole, 3" apart (Photo 11). Photo 12 shows the proper layout
 - Using tin snips, trim aluminum exhaust shield as shown (Photo 13).
- h) Re-install exhaust shield to underside of bed floor using original hardware.
- i) Bend notched corners of exhaust heat shield up (Photo 14) to avoid snagging any lines or hoses.
- j) If the pickup box was removed, it can now be re-installed according the Manufacturer's recommendations. Be sure to re-install/connect all electrical wires, fuel filler components and other hardware. Check that the tail/brake/reverse lights function properly.

4. **FINALIZING THE INSTALLATION**

- a) Check that all components and fasteners have been properly installed, tightened and torqued.
- b) Lift vehicle and remove support stands. Carefully lower vehicle to ground.
- c) Check brake hoses, cables and other components for any possible interference.
- d) Check for axle to body interferences.
- e) Following Manufacturer's instructions, re-install spare tire.
- f) Immediately test-drive the vehicle in a remote location to verify that axle does not contact underside of pickup box.
- g) Check all of the hardware and re-torque at intervals for the first 10, 100, and 1000 miles.

PARTS LIST FOR 6655 BED CROSSMEMBER

C-NOTCH CLEARANCE SUPPORT

Part #	Description	Quantity
6612-016	Bed Cross-Member Support	1
110209	5/16-18 x 3 H.H.C.S. Grade 8	4
110203	5/16-18 Locknut	4
110204	5/16" AN Washer A325	8

