



## INSTALLATION INSTRUCTIONS

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6963

### 04-UP CHEVROLET COLORADO / GMC CANYON TRANSMISSION CROSSMEMBER INSTALLATION FOR NON-TORSION BAR SUSPENSION ONLY

#### CONGRATULATIONS!

You were selective enough to choose a 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 this 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 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 these tools to perform procedures!
- Note:** It is very helpful to have an assistant available during the installation process.
- Note:** We **DO NOT RECOMMEND** using wheel ramps while performing this installation.

#### RECOMMENDED TOOLS:

- Blocks and Wheel chocks
- Ratcheting Socket Wrench
- Safety Glasses
- Sawzall
- Torque wrench 10-75lb.ft range
- Properly rated floor jacks and support stands
- Combination Wrench set
- Abrasive cutting wheel
- Air Ratchet

#### 1. KIT INSTALLATION

- 1a.** Open the hardware kit and remove all the contents. Refer to the parts list (Page 4) to verify all parts are present.
- 1b.** Park the vehicle on a smooth, level concrete / asphalt surface and put the vehicle in gear or park. Place a block in front of and behind the front wheels. Jack up the rear of the vehicle and place the jack stands in the factory specified locations. Refer to the Owner's Manual.
- 1c.** Using a properly rated floor jack, lift the front wheels of the vehicle off the ground. Place the support stands, rated for the vehicle's weight in the factory specified locations. Refer to the vehicle Owner's Manual. Prior to lowering the vehicle onto the stands, make sure the supports will securely contact the chassis.
- 1d.** Slowly lower the vehicle onto the stands and, before placing the vehicle's entire weight on them, again check that they properly and securely contact the chassis as described above. Check for possible interference with any lines, wires, cables, or other easily damaged components.

## 2. REMOVING THE O.E.M. CROSSMEMBER

Prior to removing the O.E.M. Cross-member, support the rear of the transmission housing with an adjustable jack stand (Photo 1)

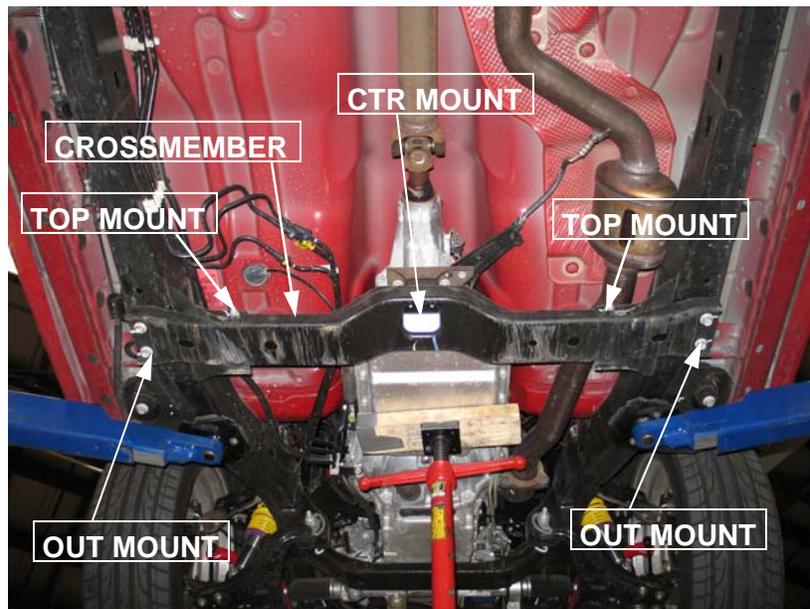
- 2a. Using an 18mm and 15mm wrench or socket head, remove the top mount hardware that attaches the O.E.M. Cross-member to the underside frame chassis (Photo 2).
- 2b. Using an 18mm wrench or socket head, remove the four outer O.E.M. mounting bolts (Photo 3).
- 2c. Using an 18mm wrench or socket head, remove the two center mount hardware (Photo 4).
- 2c. Once all the hardware has been removed, carefully remove the O.E.M. Cross-member from its original position and set aside.

## 3. REMOVING THE MUFFLER (CATALYTIC CONVERTER END)

- 3a. To gain access to the passenger side bracket, the muffler will need to be removed. This is the section the catalytic converter is attached to. Three bolts mount the engine end (front end), with two bolts mounting up to the muffler end (rear end).
- 3b. First, disconnect the electrical wiring connector (Photo 5).

**NOTE: Use of a pneumatic ratchet can be used if accessible.**

- 3c. Using a 15mm wrench or ratchet with a 15mm socket head, remove the mounting bolts (front end) completely (Photo 6).
- 3d. Using a 15mm wrench or ratchet with a 15mm socket head, remove the mounting nuts (rear end) completely (Photo 7).
- 3e. Remove the muffler (catalytic converter) section from the vehicle (Photo 8).



#### 4. REMOVING THE O.E.M. BRACKETS

- 4a. With a white marking pen, mark the areas where the cuts will be made (**Photo 9, 10, 11**).
- 4b. The horizontal cut-line is measured at 35mm (1.37in), as shown in (**Photo 12**), from the top of the lip of the bracket.
- 4c. Mark both brackets.
- 4d. To avoid damage to any brake or electrical lines, we recommend moving them slightly out of the way (**Photo 13**). Disengage the lines from the clips and tie aside out of the way.
- 4d. Using a cutting wheel, begin cutting the bracket where you had marked (**Photo 14, 15**).
- 4e. Remove the discarded bracket. Do this to both sides.
- 4f. Once you have removed the O.E.M. Cross-member brackets (**Photo 16**), grind the remaining pieces left on the chassis, smooth. For a finished look, you may spray the newly cut areas, black.

#### 5. INSTALLING THE NEW CROSS-MEMBER

- 5a. Holding the new cross-member up to the mounting points, finger-tight the mount hardware only (**Photo 17**).
- 5b. With the new cross-member up in its position, install the center mount hardware (**Photo 18**), but **do not** fully tighten.
- 5c. Using a 18mm wrench or a ratchet with a 18mm socket head, tighten the outer mount hardware (**Photo 19**). Once that is done, tighten the center mount hardware.
- 5d. Torque all mounting hardware to manufacturer's specs.

#### 6. RE-INSTALLING & CHECKING FOR MUFFLER-TO-CROSS-MEMBER INTERFERENCE

If for any reason the muffler pipe actually touches the top of the new cross-member, once it has been installed, follow the steps below to rectify the problem.

- 6a. Install the O.E.M. muffler (catalytic converter section) back up into its original position (**Photo 20**). This will be located above the new cross-member. Attach all the respective mounting hardware and finger-tight only.
- 6b. Once you begin tightening the hardware, keep pressure on the muffler (**Photo 21**), pushing it upward to the underside of the vehicle cab. Torque the mount hardware (while still pushing upward) to the manufacturer's specs.
- 6c. There should be a minimum clearance of 3/8" between the top of the new cross-member to the muffler (**Photo 22**).

**10. FINALIZING THE INSTALLATION**

- 10a.** 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.
- 10b.** Check that all components and fasteners have been properly installed, tightened and torqued.
- 10c.** Check brake hoses and other components for any possible interference.
- 10d.** Lift the vehicle and remove the support stands. Carefully lower the vehicle to the ground.
- 10e.** 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.
- 10f.** Installation is complete. Check all of the hardware and re-torque at intervals for the first 10, 100, 1000 miles.

**PARTS LIST FOR 6963 KIT**

<b>PART No.</b>	<b>DESCRIPTION</b>	<b>QTY.</b>
<b>6963-020</b>	<b>CROSS-MEMBER TRANSMISSION</b>	<b>1</b>
<b>112050</b>	<b>M12x 1.75 x 35 HEX HEAD BOLT</b>	<b>4</b>
<b>110665</b>	<b>LOCK WASHER</b>	<b>4</b>



JACK STAND

PHOTO 1

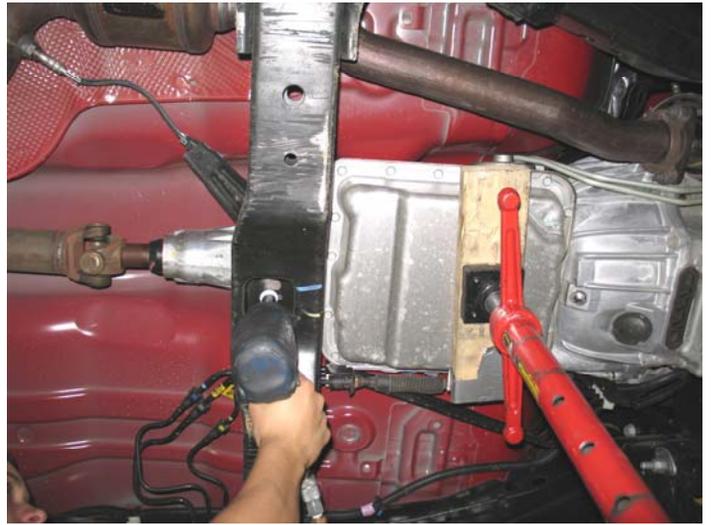


PHOTO 4



PHOTO 2



PHOTO 5



PHOTO 3



PHOTO 6



PHOTO 7



PHOTO 10



PHOTO 8

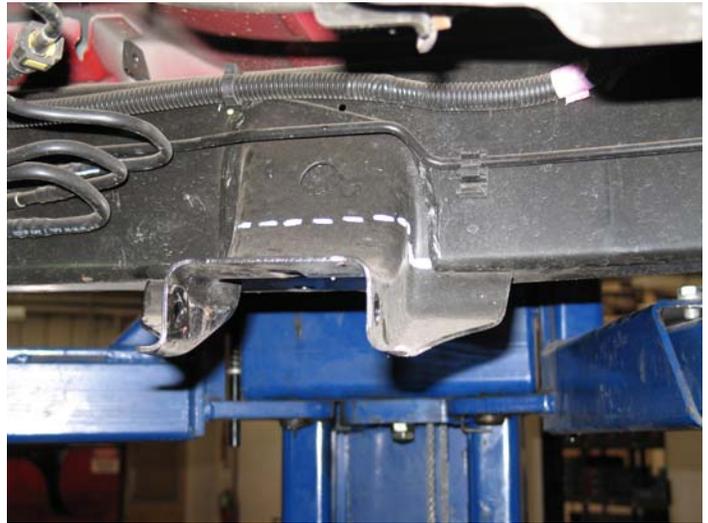


PHOTO 11



PHOTO 9

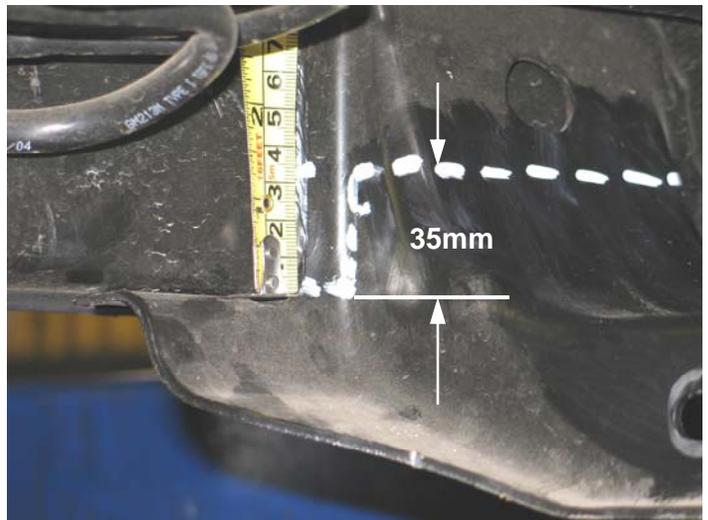


PHOTO 12



**PHOTO 13**



**PHOTO 16**



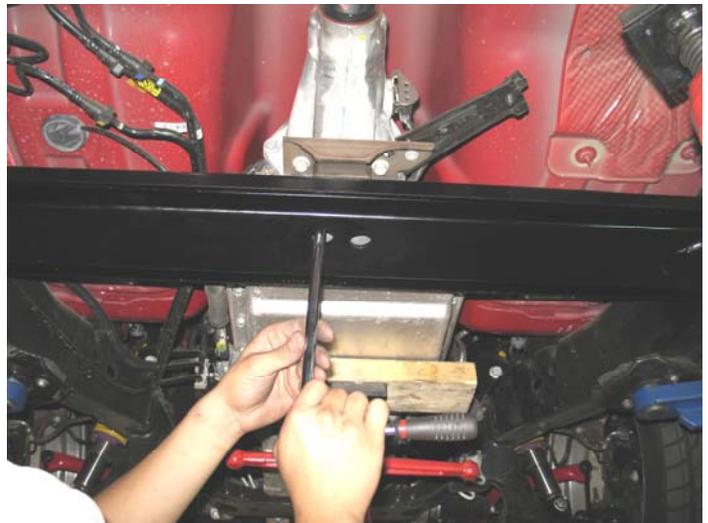
**PHOTO 14**



**PHOTO 17**



**PHOTO 15**



**PHOTO 18**



**PHOTO 19**



**PHOTO 22**



**PHOTO 20**



**PHOTO 21**