



## INSTALLATION INSTRUCTIONS

6545

### 4" REAR AXLE FLIP-KIT

2015+ COLORADO / CANYON

EXT AND CREW CAB SHROT BED

NOTE: REQUIRES EXHAUST MODIFICATION

**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 (page 6) 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 and six (6) support stands
- Wheel chocks
- Metric socket set up to 27mm
- Metric combination wrench set up to 27mm
- Impact wrench
- C-clamps
- Abrasive cutter
- Safety Glasses

### **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 1<sup>st</sup> gear (manual). Activate the parking brake.
- b) Loosen, but **DO NOT REMOVE**, the rear wheel lug nuts.
- c) 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.
- d) 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 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) Lower the vehicle slowly 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.
- f) Remove the rear wheels from the vehicle.

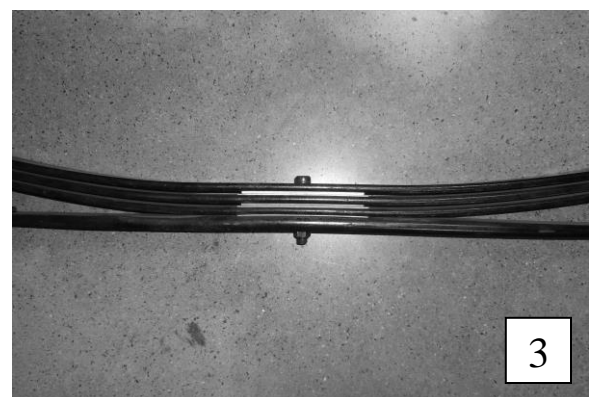
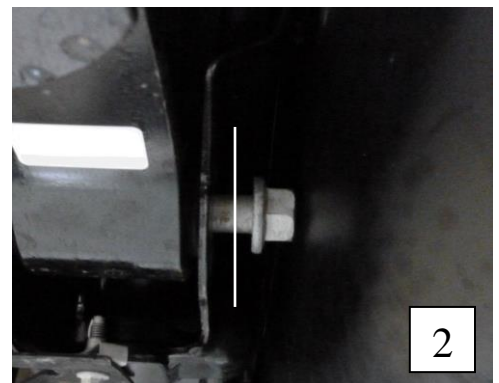
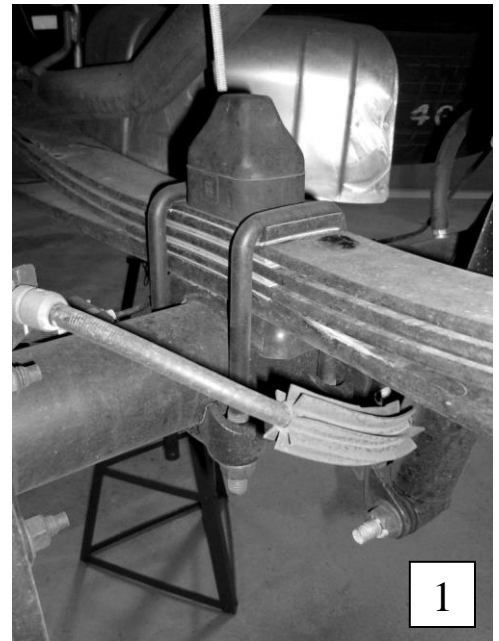
**SAFETY REMINDER:** Check for safe vehicle stability before proceeding under the vehicle to begin the following procedures. Never work under a vehicle supported by only a jack. Always use properly rated support stands to support the vehicle.

## 1. DIS-ASSEMBLY

- 1a) Remove both rear shocks

**Warning:** Leaf springs may be under tension. Springs under tension store a great amount of energy. Use caution during the following steps to avoid personal injury and/or damage to vehicle. Be careful not to damage the brake hoses and/or driveline while relocating rear axle assembly.

- 1b) Properly support the axle using a jack or lifting device so that it can be raised and lowered. Also support the rear axle near the rear u-joint to keep the axle from rotating once unbolted.
- 1c) Remove the U-bolts and OEM bump stop. **(Photo 1)**
- 1d) Mark the leaf springs "Left" and "Right". Also mark each forward spring end with a forward pointing arrow so that the springs can be properly reinstalled into their original locations.
- 1e) Loosen the front spring hanger nuts and bolts. Back the bolt and nut off sufficiently to expose the bolt shank. Due to the fuel tank and exhaust locations, both front spring hanger bolt needs to be cut off. Cut off the head of the bolts, being careful not to damage the fuel tank, exhaust, or frame. **(Photo 2)**
- 1f) Remove the upper shackle bolt that connects it to the frame.
- 1g) Remove both leaf springs from under the vehicle. It might be necessary to lower the axle before they can be removed. Be careful to not damage or stretch any brake or ABS lines during removal.



## 2. LEAF SPRING PREPARATION

- 2a) Remove and reverse the direction of the center bolts on the leaf springs. **WARNING:** The leaf spring pack may be under tension. Use C-clamps to hold the spring pack together while you reverse the center bolt. The thin metal piece on top of the leaf spring can be removed. Tighten the center bolts using pliers to hold the round head of the bolt. **(Photo 3)**

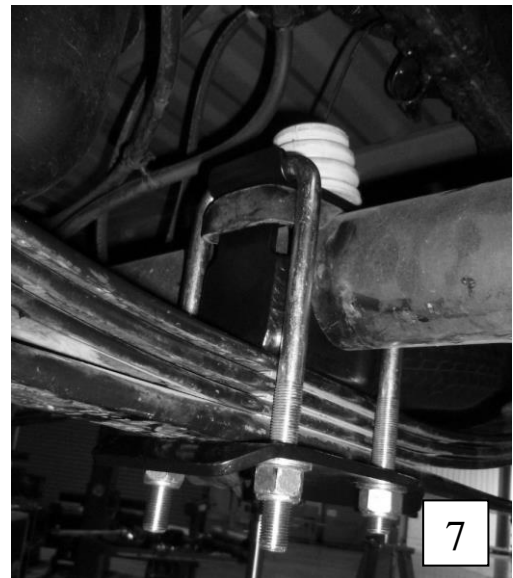
- 2b) Remove the stock shackle. Note the direction of the bolt head as the bolt will need to be reinstalled the same direction.
- 2c) Install the supplied Belltech shackle onto the leaf spring. The Shackle should be installed with the portion connecting the 2 sides towards the rear of the vehicle. **(Photo 4)** Do not tighten the shackle in place it will be tightened after the vehicle has been set down.
- 2d) Repeat this process on the other leaf spring.



### 3. LEAF INSTALLATION

**Note: The exhaust tip originally routed under the OEM leaf spring will need to be modified and rerouted or shortened to allow clearance below the original leaf spring position. Make the necessary modification prior to steps in section 3. (Photo 5)**

- 3a) Raise the axle upward into the vehicle so the springs may pass under the axle and bolt onto the chassis.
- 3b) Start from the passenger side. Place the leaf spring in the front spring hanger and insert the supplied M16x2.0x100mm bolt, washer and nylon lock nut from the outside. Once in, rotate the spring back and insert the upper shackle bolt in the rear hanger. **(Photo 4)** Torque the front spring hanger bolt to **95 ft lb**; leave the rear shackle bolt loose it will be tightened after the vehicle has been set down.



- 3c) Repeat this process on the other side leaf spring.
- 3d) Install the two axle saddles onto the leaf springs. The saddle should be placed on the leaf spring so that the taller tabs are toward the rear of the vehicle.
- 3e) Lower the axle into the saddles ensuring the two tabs are positioned up inside the factory spring mount.

- 3f) Install the supplied Belltech bump stop assembly on top of the axle, centering it atop the mount surface. **(Photo 6)**
- 3g) Install the supplied U-bolts and U-bolt plates onto the axle loosely threading the hardware in place. **(Photo 7)**
- 3h) Tighten all the U-bolts to 100 ft/lbs.
- 3i) Install shorter length shock absorbers. **THE OEM LENGTH SHOCKS ARE TOO LONG AND WILL NOT ALLOW FOR TRAVEL.** We recommend the Belltech Street Performance **(2209FF)** or Nitro Drop 2 **(8510)** lowering shocks. The shoulder at the end of each lower shock bolt may need to be trimmed to avoid contact with the leaf spring. **(Photo 8)**



#### 4. **FINALIZING THE INSTALLATION**

- 4a) Re-install wheels and torque to the Manufacturer's specifications.
- 4b) Check that all components and fasteners have been properly installed, tightened and torqued.
- 4c) Lift vehicle and remove support stands. Carefully lower vehicle to ground.
- 4d) Check brake hoses, cables and other components for any possible interference.
- 4e) Check for wheel/tire to chassis/body interference.
- 4f) Once vehicle has been lowered to the ground securely fasten the shackle bolts in place to **100 ft-lb.**
- 4g) 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 lowered.
- 4h) Take the vehicle to a qualified shop for 4-wheel alignment.
- 4i) Check all of the hardware and re-torque at intervals for the first 10, 100, and 1000 miles.

The front of the vehicle **MUST BE** lowered accordingly for proper handling and performance and also to maintain warranty. See the current *Belltech Application Guide* or contact you nearest *Belltech Dealer* for the appropriate part numbers for your application.

**The axle adapter saddles have been design to properly position the rear axle pinion shaft relative to the driveline, so that vibrations can be eliminated. If driveline vibrations are experienced, take the vehicle to a driveline service shop immediately for driveline angle inspection and necessary adjustments. DO NOT drive vehicles exhibiting extreme driveline vibrations, as U-joint wear could occur prematurely. Be sure to lubricate the U-joints if deemed necessary.**

#### **Parts List: 6545**

| <b>Part #</b> | <b>Description</b>                | <b>Quantity</b> |
|---------------|-----------------------------------|-----------------|
| 6545-001      | Axle Saddle                       | 2               |
| 6545-100      | Shackle                           | 2               |
| 6545-010      | U-bolt Plate                      | 2               |
| 6545-200      | Bump Stop / Spring Plate Assembly | 2               |
| 3910-003      | U-Bolt                            | 4               |
| 110275        | HHCS M16-2.0x100mm                | 2               |
| 11J216        | M16-2.0 Nylon Lock Nut            | 2               |
| 110502        | Flat Washer                       | 4               |
| 110455        | 9/16"-18 Nylon Lock Nut           | 8               |
| 110670        | Flat Washer                       | 8               |