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INSTALLATION INSTRUCTIONS

15103 LEVELING COILOVER

# 2019+ GM1500 4WD LEVELING COILOVER

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: DO NOT drive vehicle until all work has been completed and checked. Torque all hardware to specified values.
- 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.

Not all possible wheel sizes and backspacing can be tested. Cautiously check Warning: wheel assembly to spindle, suspension component, and fender/body clearance before tightening lug nuts and rotating the wheel assembly. Belltech is not responsible for any wheel, tire, suspension component, and/or body damage caused by failure to check for interference.

### RECOMMENDED TOOLS

- Properly rated floor jack and support stands
- Combination wrench set
- Ratcheting socket wrench and socket set
- Safety glasses
- Torque wrench
- Wheel chocks
- Tape measure
- Marking pen
- Strut Spring Compressor

DIFFICULTY:



INSTALLATION TIME: 2-4hrs + Alignment

### KIT INSTALLATION

WE RECOMMEND that a qualified mechanic, at a properly equipped facility, perform this installation.

WE RECOMMEND that the installation be performed on a firm, flat, and level surface such as seasoned asphalt or concrete.

#### The use of safe and proper equipment is very important!

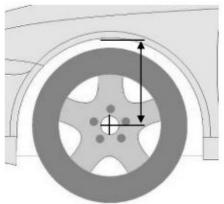
**Note:** Before making any adjustments to your new Belltech coilover, please be sure to loosen the set screw. Failure to do so will damage the threads. After the adjustments are made, you may then tighten the set screw to keep the settings in place.

#### KIT PRERPERATION

a) Before beginning the install process, measure the hub to fender heights for your vehicle so you can compare the resulting height to the original. Measure vertically from the center of the wheel to the inner edge of the fender. Record results here.

LF:\_\_\_\_\_ RF:\_\_\_\_\_

LR:\_\_\_\_\_ RR:\_\_\_\_\_



### 1) JACKING, SUPPORTING AND PREPARING THE VEHICLE

- **a)** Block the rear 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) Loosen, but DO NOT REMOVE the front wheel lug nuts.
- c) Lift the front of the vehicle off the ground using properly rated floor jack. Lift the vehicle so that the front tires are approximately 6-8 inches off the ground surface.
- d) Place support stands rated for the vehicles weight. The stands should be positioned in the factory specified locations. (Refer to owners manual). Prior to lowering the vehicle onto stands, make sure the support stands will contact the chassis. It is very important that the vehicle is properly supported to prevent any harm to ones self or to the vehicle.
- e) Lower the vehicle slowly onto the stands, checking that they properly and securely contacting the frame rails as described above before placing the vehicles weight completely on them.
- f) Remove the front wheels.

#### **<u>ISAFETY REMINDER!</u>**

Check for safe vehicle stability before proceeding under the vehicle to begin the following procedures. <u>Never</u> work under a vehicle supported by ONLY a jack. Always use properly rated support stands to support the vehicle.



## 2) <u>OEM Strut Removal</u>

- a) Locate the top three mounting bolts of the front spring/ strut assembly and remove the nuts using a 18mm wrench. (Photo 1)
- b) Remove the bottom bolts on the OE strut on the lower control arm using a 15mm wrench. (Photo 2)
- c) Remove the mounting nuts from the end links. Remove the end links completely.
- d) Push the lower control arm down to provide enough room to pull the OE strut from the vehicle. (Photo 3)

### 3) OEM Strut Disassembly

**!Caution!** The coil spring is held in place under extreme compression. BELLTECH recommends the use of a heavy duty spring compressor suitable for truck springs to perform the following steps. If unsure of your spring compressor capabilities, take your struts to a professional installer. Use caution during the following steps to avoid personal injury and/or damage to the vehicle.

- a) Mark the orientation of the strut top mount relative to the strut body
- b) Mount the spring/strut assembly into a spring compressor and compress the spring to alleviate the tension on the strut. (Photo 4)
- c) Using a wrench (**DO NOT USE AN IMPACT**) remove the strut top nut from the assembly. The strut will need to be supported when the nut is removed so it doesn't fall.
- d) Separate all components from the OE top mount as this will be the only component being reused. (Photo 5)









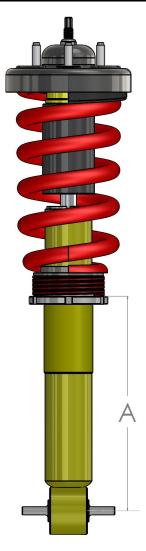


Difficulty: Installation Time: 2-4hrs + Alignment

## 3) Coilover Setup/Assembly

- a) Refer to the vehicle lowering height table below to determine the spring perch height and the quantity of spacers for the desired drop.
- b) Loosen the set screw in the spring perch.
- c) Using the provided spanner wrench, turn the bottom spring perch to obtain the desired spring perch height measuring from the top of the perch to the center of the bushing. Tighten the set screw once perch adjustment is complete.

Vehicle Lowering Height Table (GET TABLE FROM TIM)			
Vehicle Height	Spring Perch Height ("A" Measurement)	Packers	
OEM	282mm	0	
1" Drop	265mm	0	
2" Drop	244mm	0	
3" Drop	226mm	0	
3.5" Drop	213mm	0	





# 4) Coilover Installation

- a) Install the Belltech coilover into the frame strut tower. Secure the top mount with the OEM flanged nuts and torque to factory specifications. (**Photo 4**)
- b) Attach the lower strut mount to the lower control arm using the supplied bolts, washers, and Nylon-lock nuts in hardware kit 150210E-777. Torque to factory specifications. (Photo 5)
- c) Reinstall the end OE end link using the factory hardware.

## 5) Finalizing the Installation

- a) Re-install the wheels and torque to OEM specifications.
- b) Check that all components and fasteners have been properly installed and torqued.
- c) Lift the vehicle and remove the support stands. Carefully lower the vehicle to the ground.
- d) Check brake hoses, cables, and other components for possible interference.
- e) Check for wheel/tire to chassis/body interference.
- f) Test-drive the vehicle in a remote location so that you can be accustomed to the revised driving characteristics and handling. Be aware that the vehicle will handle substantially different.
- g) Check all of the hardware and re-torque at intervals for the first 10, 100, and 1000 miles.

### NOTE: Front end alignment is required immediately following the installation.







Kit Contents			
P/N	ITEM DESCRIPTION	QTY	
15103-134	Belltech Leveling Coilover	2	
70150-330	Linear Spring	2	
4001-001	Helper Spring	2	
15103-103	Upper Spring Adapter	2	
65245814	Intermediate Ring	2	
65050018	Bump Stop	2	
65210800	Dust Boot	2	
15002105	Vent Disk	2	
4935-001	15mm Packer	4	
68510039	Spanner Wrench	1	
150210E-777	Hardware Kit	1	

150210E-777 Hardware Kit			
P/N	ITEM DESCRIPTION	QTY	
110237	Bolt M10 x 1.50 –70mm	4	
110238	Nylock Nut M10 x 1.50	4	
110239	Washer M10	8	