



INSTALLATION INSTRUCTIONS

25028
LOWERING STRUT

300 W. Pontiac Way Clovis, CA 93612 toll free: 1-800-445-3767 web: www.belltech.com

2021+ FORD F150 2WD EXT/CREW CAB OE - 3.5" LOWERING STRUT

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.

Exceptional Customer Experience Guarantee:

STOP! We strive for an exceptional experience for all of our valued customers. If, for any reason, you need assistance with your Belltech products, please do not return the products to the store or website you purchased from. Please call our dedicated experts at

(1-800-445-3767) from 7am to 5pm PST.

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.

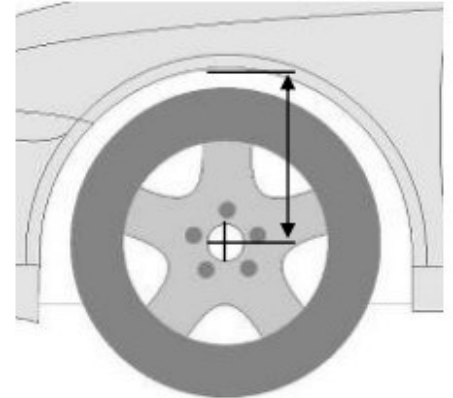
The use of safe and proper equipment is very important!

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**

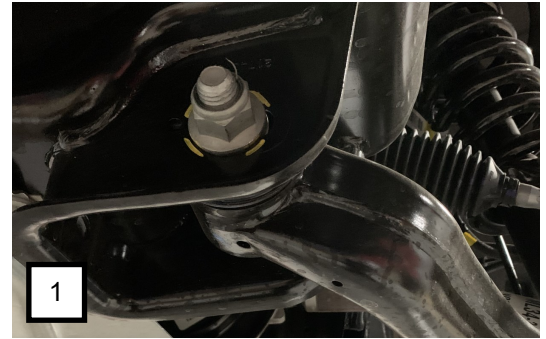
- a) Block the rear wheels of the vehicle with appropriate wheel chocks. Make sure the vehicle's transmission is in "PARK" (automatic) or 1st gear (manual). Activate the parking brake.
- b) Loosen, but **DO NOT REMOVE** the front wheel lug nuts.
- c) Lift the front of the vehicle off the ground using 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.

!SAFTEY 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) OEM Strut Removal

- a) Before removing any component, mark your current alignment settings. **(Photo 1)**
- b) Working on one side at a time, loosen and remove both of the lower control arm bolts that connect the lower control arm to the frame. **(Photo 1)**
- c) Loosen and remove the nuts securing the lower strut mount to the control arm. **(Photo 2)**
- d) Push the lower control arm down until the lower strut studs are clear from the lower control arm. **(Photo 3)**
- e) Remove the 3 flanged nuts, using a 18mm wrench, securing the top of the strut to the chassis. **(Photo 4)**
- f) Drop the old strut out of the strut tower. **(Photo 5)**



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.

- Mark the orientation of the strut top mount relative to the strut body
- Mount the spring/strut assembly into a spring compressor and compress the spring to alleviate the tension on the strut. **(Photo 6)**
- Using a 17mm wrench (stock nut size), remove (DO NOT USE AN IMPACT) the strut top nut from the assembly. The strut will need to be supported as when the nut is removed it will fall if not supported. **(Photo 7)**
- Remove the shock and bump stop from the assembly. You will reuse the OEM top mount, dust boot, rubber isolator and the spring. **(Photo 8)**

4) Lowering Strut Setup/Assembly

- Using the table below, put the specified rings onto the Belltech lowering strut. If a half inch increment is desired, remove one 10mm ring from the next highest drop height. For example, if a 1.5" drop is desired, remove a 10mm ring from the 1" Drop for a total of 2 x 16mm ring and 0 x 10mm rings.

Vehicle Lowering Height Table		
Vehicle Height	Ring Quantity	Packers
OE Height	1 x 10mm 3 x 16mm	2
1" Drop	1 x 10mm 2 x 16mm	2
2" Drop	1 x 10mm 1 x 16mm	1
3" Drop	1 x 10mm 0 x 16mm	0
3.5" Drop	0 x 10mm 0 x 16mm	0

- Transfer plastic lower spring isolator from OE perch to the new Belltech perch. Place the spring perch on top of the ring stack **(Photo 9)**



- c) Slide on the vent disk and the specified packers using the vehicle lowering height table on the previous page.
- d) Slide the bump stop onto the strut ensuring that the flat part is facing away from the bottom spring perch.
- e) With the OEM spring still compressed, slide the strut back into the spring and put the strut top back on.



4) Lowering Strut Installation

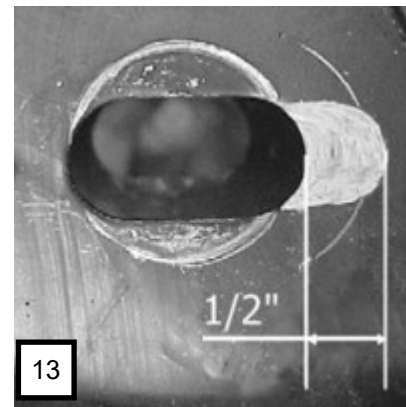
- a) Install the strut into the frame strut tower. Secure the top mount with the OEM flanged nuts and torque to factory specifications. **(Photo 10)**
- b) Attach the lower strut mount to the lower control arm using the supplied flanged bolts and flanged nylock nuts. Torque to factory specifications. **(Photo 11)**



5) Alignment Modification

If lowering more than 1", you may need to extend your lower control arm mounting slots to retain factory camber and caster adjustability . This section is not required if only lowering up to 1", or if lowering more than 1" and installing drop spindles (Belltech part number 2353).

- a) Scribe a line 1/2" inward from the edge of the factory alignment slot in the chassis. This will need to be done to all four slots, on each side of the vehicle. **(Photo 13)**
- b) Use a die grinder with a carbide cutting tip to carefully extend the hole. Do not extend the slot more than 1/2", as doing so will allow the control arm to contact the frame.
- c) Remove any burs after grinding and paint the exposed surfaces the prevent corrosion.



6) Lowering Strut Installation Continued

- a) Attach the lower control arm back to the frame using the OEM alignment hardware. **(Photo 12)**
- b) Set alignment settings to the markings made before removal. Torque to factory specifications. **(Photo 12)**

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

7) 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.

Parts List		
P/N	ITEM DESCRIPTION	QUANTITY
25028-200	Lowering Strut	1
112292	12mm-1.5mm Nylon Lock Nut	1
25003-016	16mm Spacer	3
25003-010	8mm Spacer	1
26021-003	Strut Spring Perch	1
65210031	Vent Disk	1
4935-001	15mm Packer	2
4927-001	Bump Stop	1
25007-777	Hardware Kit	2

Hardware Kit Contents (25007-777)		
P/N	ITEM DESCRIPTION	QUANTITY
112307	M14x1.5-75mm Flanged Bolt	2
112308	M14x1.5 Flanged Nylock Nut	2