belltech®

INSTALLATION GUIDE

PART NUMBER: 16001
FRONT COILOVER KIT
FORD F-150 2WD / 4WD | 2015-2020

-1” TO -3.5” HEIGHT ADJUSTABLE LOWERING

300 W. PONTIAC WAY. CLOVIS, CA 93612
PHONE: 800-445-3767 | EMAIL: INFO@BELLTECH.COM

THANK YOU

Thank you for choosing our high quality Belltech product. We have spent a great deal of time developing our line of products so that you will receive maximum performance with minimal difficulty during installation. Soon your vehicle will be on the road looking and feeling much improved.

Please take a moment to read all instructions and warnings prior to installation of your new Belltech product and before operating your vehicle. If you have any questions or concerns regarding any step in the installation process, please do not hesitate to call or email our customer support specialists who are trained to help you through any portion of this process.

Before You Begin:

It is of the utmost importance that you confirm all of the components listed on the parts list is in the kit. You can find this list located on the last page(s) of your instructions. Do not begin installation if any part is missing. Instead, please call our Belltech customer service specialists.

Belltech Customer Support:

Phone: 1-800-445-3767

Email: info@belltech.com

Safety Information:

Warning: Do not work under a vehicle supported only by a jack. Place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.

Proper use of safety equipment and eye/face/hand protection is absolutely necessary when performing any of the following instructions.

We strive for an exceptional experience for all our valued customers. If for any reason you need assistance with your Belltech products, please do not return the product to the store you purchased from, but rather call our dedicated customer service experts, from 7am to 5pm PST.

We recommend that a qualified mechanic, at a properly equipped facility, perform this installation.

It is very helpful to have an assistant available during installation.

Before Driving Your Vehicle:

It is important to double check all brake hoses, cables, and other components to be sure there is no interference. You must also check for wheel/tire to chassis/body interference. If any issues are found, review your installation instructions to be sure no steps were missed and any problems are corrected.

Make sure your vehicle is aligned immediately following installation.

Check all hardware and re-torque at intervals for the first 10, 100, and 1000 miles.

Some of Belltech's products are designed to improve your vehicle's off-road performance. Leveling/lifting your vehicle may result in an altered center of gravity. It is crucial to use extreme care when operating your vehicle to prevent rollover and/or loss of control.

Any changes in your vehicle's suspension may result in transformed handleability. Please test-drive your vehicle in a remote location so you can become accustomed to the revised driving characteristics.

Perform headlight check and adjustment.

Failure to drive any modified vehicle in a safe manner may result in harm or death.

Never operate your modified vehicle under the influence of drugs, alcohol, or lack of adequate sleep.

Always wear your seatbelt.

DIFFICULTY:

INSTALLATION TIME: 2-4 Hours + Alignment

RECOMMENDED TOOLS:

- Properly rated floor jack
- Support stands
- Wheel chocks
- Metric socket wrench set
- Metric wrench set up to 27mm
- SAE wrench set up to 3/4”
- Hex bit socket set
- Tape measure
- Marking Pen

SPECIALTY TOOLS:

- High quality spring compressor
- Torque wrench up to 150 ft lbs.
- Ball joint separator tool
- Die grinder with carbide metal cutting bit

Technician note:

Before making any adjustments to your new Belltech coilover, please be sure to loosen the set screw on the lower spring perch. 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.

INSTALLATION PREPARATION:

Before beginning the installation process, measure the hub to fender heights for your vehicle and record them in the “Before” section. After your vehicle has been modified, record the new measurements in the, “After” section. This way, you can compare the resulting height to the original. When taking the measurements, measure vertically from the center of the wheel to the inner edge of the fender.

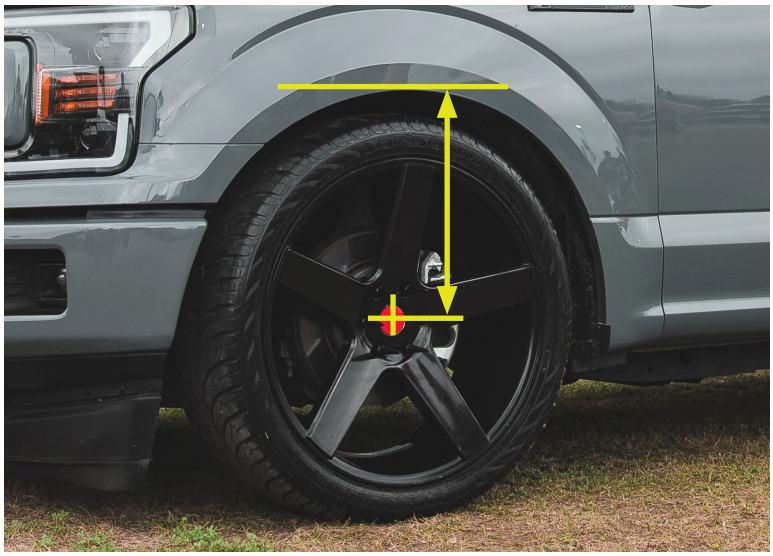
Before:

LF:_____

RF:_____

LR:_____

RR:_____



After:

LF:_____

RF:_____

LR:_____

RR:_____

JACKING, SUPPORTING, AND PREPARING THE VEHICLE

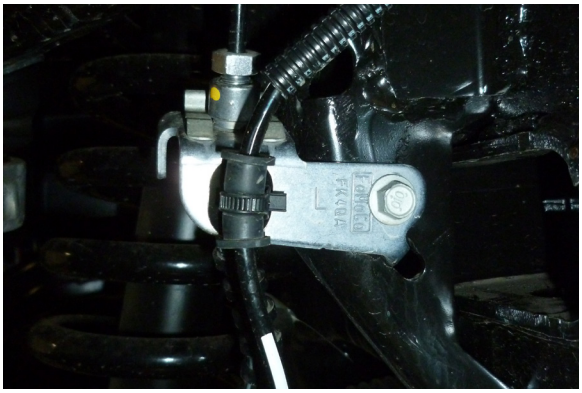
1. Park your vehicle on a smooth, level, concrete or seasoned asphalt surface.
2. Block the rear wheels of the vehicle using wheel chocks. Make sure the vehicle's transmission is in "PARK" (automatic) or 1st gear (manual).
3. Activate the parking brake.
4. Break loose, but do not spin the wheel lug nuts to ease in removal when the wheels are in the air.
5. Lift the front of the vehicle off the ground using a properly rated floor jack. Lift the vehicle so the front tires are approximately 6-8 inches off the ground.
6. Place support stands rated for the vehicles weight. The stands should be positioned in the factory specified locations (Refer to the 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.
7. Lower the vehicle slowly onto the stands.
8. Remove the front wheels.

Technician reminder:

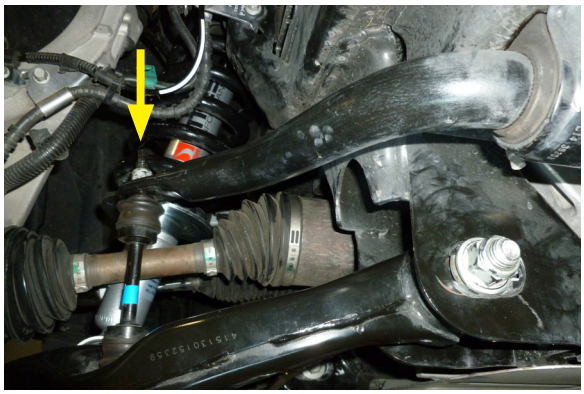
Never work under a vehicle supported only by a jack. It is necessary to place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.

OEM STRUT REMOVAL

9. Remove the 8mm and 10mm bolts from the brackets holding the ABS and brake lines to the spindle and the frame. Ensure no damage to any of the lines.



10. Remove the upper nuts from the sway bar end links with a 8mm and 19mm wrench to detach the sway bar.



11. Remove the two 18mm nuts securing the lower strut mount to the control arm.

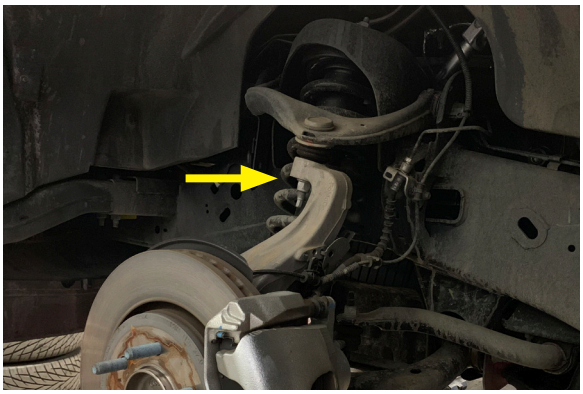
OEM STRUT REMOVAL CONTINUED

13. Remove the 21mm nut securing the tie rod end to the spindle and detach the tie rod end. This may require tapping the side of the tie rod end boss with a hammer to unseat the taper.

14. Remove the 21mm nut securing the upper ball joint to the spindle. Ensure to not allow the brake or ABS lines to be over stretched or damaged during this process. Break the ball joint free from the steering knuckle using the proper ball joint puller.

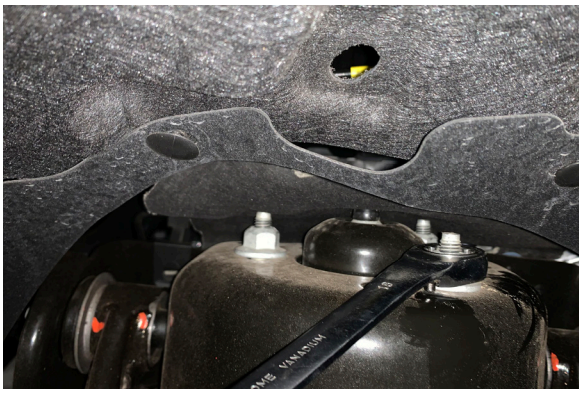
Technician reminder:

The upper control arm may be under tension, after removing the ball joint, the lower control arm will no longer be supported and may drop downward. Support the lower control arm with a jack or other lifting device.



15. Push the spindle and lower control arm down until the lower strut studs are clear from the control arm. Again, do not allow the brake or ABS lines to be over stretched or damaged during this process.

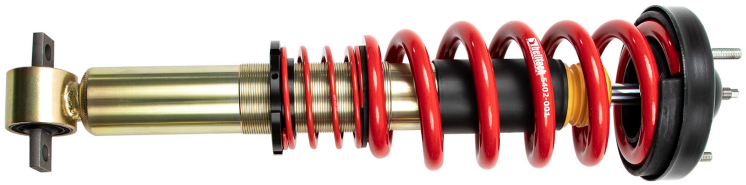
16. Remove the three top mount 15mm nuts that secure the top of the strut to the chassis.



15. To ease the installation of the new coilover, mark the position of the top mount in relationship to the upper spring isolator and strut body, then remove the strut from the chassis.

BELLTECH COILOVER HEIGHT SETUP AND ASSEMBLY

16. The coilover is delivered as shown below.



Technician note:

When lowering your vehicle more than 1”, OE camber may not be achievable. After installation a final shop alignment procedure is recommended to minimize tire wear.

17. Loosen the set screw on the spring perch.

18. Use the provided spanner wrench to turn the bottom spring perch to obtain desired spring perch height. Measure from the top of the perch to the center of the lower mount bushing. Find the appropriate spring perch height by referencing the table below. We do not recommend adjusting outside of the specified height range as the performance of the shock may decrease greatly.

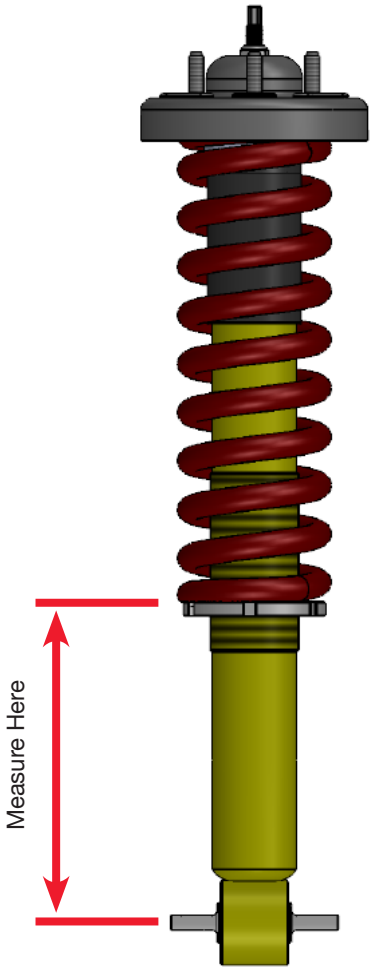
2015-2020 F-150 2WD / 4WD		
Drop (Inches)	“A” Measurement Perch Height	“B” Measurement Wheel Hub To Fender
3.5”	88.9mm	210mm
3”	63.5mm	225mm
2”	38.1mm	240mm
1”	25.4mm	250mm

Technician note:

Your vehicle’s exact ride heights may vary due to differences in chassis and trim levels. The perch heights depicted on our tables are a suggested starting point.

It is recommended to preset a higher “A” measurement and adjust down, clockwise, to the desired vehicle height once the coilover is installed.

Belltech does not recommend lowering beyond what is advertised in the table above as the performance of the shock may be greatly decreased.



19. Tighten the set screw. Do not over tighten the set screw. Max torque is 1-2 Nm (1.5 ft lbs.)

20. Torque the supplied Nyloc nut onto the strut. Torque to 41 ft lbs.

BELLTECH COILOVER REBOUND AND COMPRESSION ADJUSTMENT

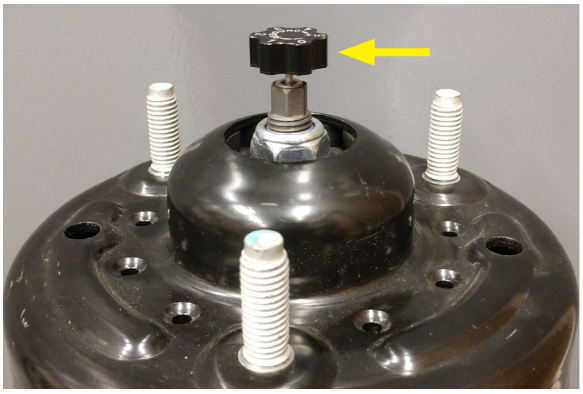
Technician note:

Tuning the rebound and compression valves will alter the vehicles' driving characteristics. Please adjust all settings safely and in small increments to get familiar with the new handling and performance of the vehicle. The coilover is delivered preset with the base settings in the table below.

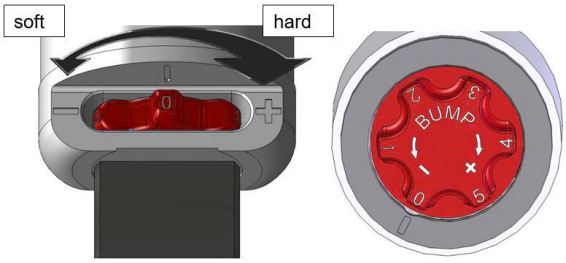
21. All adjustments must be done based on a closed valve (max. hard). The closed valve can be reached by turning the adjustment wheel completely to hard (+) then open to the desired setting.

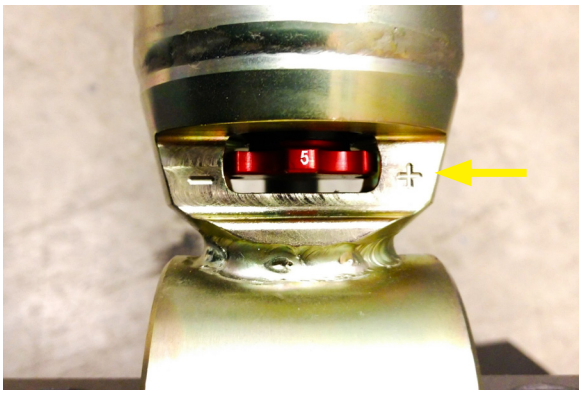
2015-2020 F-150 2WD / 4WD		
Stroke	Setting	Adjustment
Rebound	6 Clicks	Open
Compression	7 Clicks	Open

22. Please use the supplied adjustment knob to adjust the upper rebound valve, turn clockwise to close or counter clockwise to open.



23. Turn the bottom, built in, knob to adjust the compression. Turn clockwise to close or counter clockwise to open.

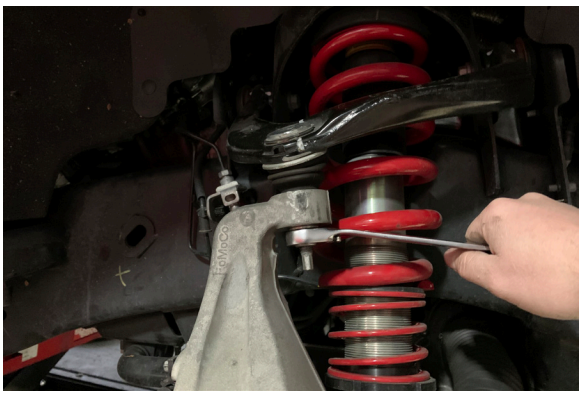




24. Install the strut assembly into the chassis strut tower and secure using the three OE nuts. Torque to 52 ft lbs.

25. Attach the lower strut mount to the lower control arm using the supplied flanged nuts and bolts. Torque to 66 ft lbs.

26. Attach the upper ball joint to the spindle with the original hardware. Torque to 46 ft lbs.



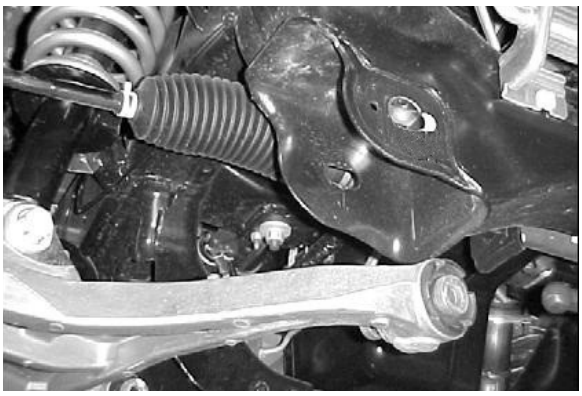
27. Attach the tie rod end to the spindle with the original hardware. Torque to 76 ft lbs.
28. Attach the upper end link to the sway bar and torque to 59 ft lbs.
29. Attach the ABS line bracket to the spindle, torque the 8mm bolt to 106 *in lbs.*
30. Attach the brake line brackets to the spindle and frame with the 10mm bolts, torque to 22 ft lbs.

ALIGNMENT MODIFICATION

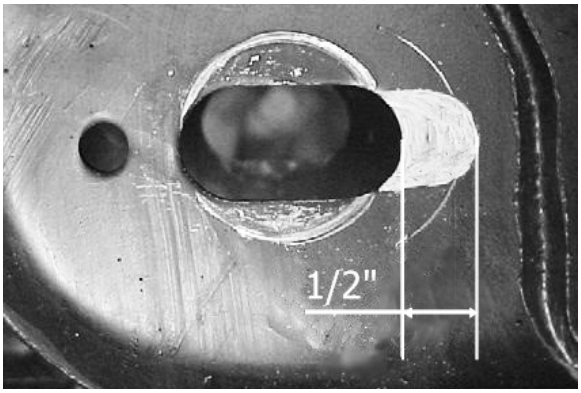
Technician note:

This process is not required for lowering from 1” to 1.5” however it is recommended for lowering more than 1.5”. This process will allow additional adjustment to obtain factory spec alignment. If you are lowering the vehicle less than 2”, please skip to page 9.

1. Remove the lower control arm bolts with a 21mm and 11/16” wrench and detach the lower control arm.



2. Scribe a 1/2” line inward from the edge of the factory alignment slot in the chassis. This must be done to all four slots on each side of the vehicle.



3. Use a die grinder with a carbide cutting tip to carefully elongate the slat towards the center of the vehicle. Do no elongate beyond the 1/2” outlined as this will allow the control arm to contact the frame.

4. Remove any burs after grinding and paint the exposed surfaces to prevent corrosion.

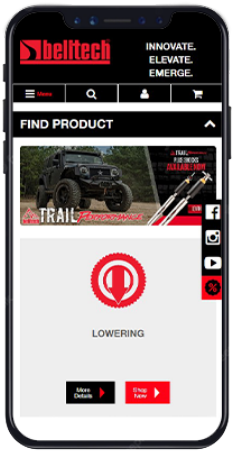
5. Attach the lower control arms with the original hardware and torque to 258 ft lbs. Torque the control arms with the suspension loaded or with the weight of the vehicle resting on the wheels and tires, otherwise incorrect clamp load and bushing damage may occur.

FINALIZING THE INSTALLATION

31. Mount the wheels and tighten the lug nuts.
32. Lift the vehicle and remove the support stands.
33. Carefully lower the vehicle onto the flat ground.
34. Torque the lug nuts to 150 ft lbs.
35. Check that all components and fasteners have been properly installed and torqued.
36. Re-read and perform all tasks in the “Before Driving Your Vehicle” section of page 1 of your instructions.

THANK YOU FOR CHOOSING BELLTECH.

You are now a part of the Belltech family and we are eager to catch a glimpse of your newly modified vehicle. Give us a shout out and let us know how much you love our product. Don’t forget, we offer other Belltech related merchandise for you and your vehicle on our website www.belltech.com



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Belltech Suspension

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If you have any questions, concerns, or warranty related issues regarding your Belltech product, please call or email our experienced customer service specialists.

Belltech Customer Support:

Phone: 1-800-445-3767

Email: info@belltech.com

KIT CONTENTS

16001		
Part number	Description	Qty
16001-100	BELLTECH COILOVER	1
68510039	SPANNER WRENCH	1
68525101	BLACK ADJUSTMENT KNOB	1
25007-777	HARDWARE KIT	2

25007-777 Hardware Kit		
Part number	Description	Qty
112307	M14 FLANGED BOLT	2
112308	M14 FLANGED NYLOC NUT	2

16001-100		
Part number	Description	Qty
64130136	THREADED DAMPER	1
NUT	NYLOC NUT M12X 1.25	
65210799	BUMP STOP	1
65210800	DUST BOOT	1
65245814	INTERMEDIATE RING	1
60140122	HELPER SPRING	1
5402-001	MAIN SPRING	1
15001265	UPPER SPRING SEAT	1
15001275	TOP MOUNT	1
65210803	VENT DISC	1
68320103	SET SCREW M5X12	1
65050018	THREADED SPRING PERCH	1