



# NSTALLATION EUIDE

PART NUMBER: 154301 LIFT KIT TOYOTA TACOMA 4WD | 2016-2021

+4" TO +6" LIFTED RIDE HEIGHT

300 W. PONTIAC WAY. CLOVIS, CA 93612 Phone: 800-445-3767 | Email: Info@belltech.com



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 the installation of your new Belltech product and before operating your vehicle. For any questions or concerns regarding the steps in the installation process, please do not hesitate to call or email our customer support team 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.







#### **RECOMMENDED TOOLS:**

- Properly rated floor jack
- Support stands
- Wheel chocks
- Safety glasses
- Ratcheting socket wrench and socket set
- Metric wrench set
- Allen Wrench Set
- Phillips head screwdriver
- Flat head screwdriver or pry tool
- Tape measure
- Paint Pen
- Black spray paint
- Vice
- Hammer
- Rubber Mallet
- Brass punch
- Large zip ties

## **SPECIALTY TOOLS:**

- High quality spring compressor
- Torque wrench up to 200 ft lbs.
- Reciprocating saw and/or angle grinder with metal cutting



16" minimum wheel diameter

5" maximum back spacing

Fits up to a 35" tire at a 6" lift

#### **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: **RF:**\_\_\_\_\_

No.	

After:

LF:\_\_\_\_

**RF:\_\_\_\_** 

LR:\_\_\_\_

RR:

#### **JACKING, SUPPORTING, AND PREPARING THE VEHICLE**

- Park your vehicle on a smooth, level, concrete or seasoned asphalt surface.
- Block the rear wheels of the vehicle using wheel chocks. Make sure the vehicle's transmission is in "PARK" (automatic) or 1st gear 2. (manual).
- Activate the parking brake. 3.
- Break loose, but do not spin the wheel lug nuts to ease in removal when the wheels are in the air. 4.
- 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.
- 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.
- Lower the vehicle slowly onto the support stands.
- Remove the front wheels.

#### Technician Reminder:

Jupported only by
Jupported only by 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.

## FRONT REMOVAL

- 9. Remove the four 12mm bolts holding the skid plate. Next, remove the seven 17mm bolts holding the two front support brackets attached to the radiator support and crossmember.
- 10. Remove the ABS brackets from the upper control arms, using a 10mm socket. Keep the hardware to use later.



- 11. Using a panel popper, remove the clip holding the ABS sensor wire to the bracket on the spindle.
- 12. Remove the ABS bracket from each spindle, using a 12mm socket.
- 13. Remove the ABS sensor using a 10mm socket.



14. Remove the cotter pin and the 19mm castle nut to detach the tie rod. Strike the side of the spindle to dislodge the tie rod. Repeat this step for the opposite side of the vehicle.



15. Using a 17mm wrench, detach the sway bar end link from the spindle.

16. Remove the 17mm brake caliper bolts. Use a large zip tie to secure the caliper out of the way. Ensure you do not overstretch the brake line.



17. Remove the brake rotors from the vehicle.



18. Remove the outer dust cap with a small flat head screw driver or pry tool.



19. Remove the cotter pin, pull off the castle washer, and remove the axle nut with a 35mm socket.



20. Loosen the four 17mm bolts that are holding the hub to the spindle and detach the hub and brake dust cover.



21. Remove the cotter pin from the upper ball joint. Break loose, but do not remove the 19mm upper control arm ball joint nut.





22. Strike the spindle with a hammer to dislodge the spindle from the upper ball joint.

23. Remove the two lower 19mm control arm ball joint bolts.



- 24. Carefully push the axle out of the spindle. Ensure there is no damage to the axle seal pressed in the spindle during this process.
- 25. Remove the upper control arm ball joint nut and spindle assembly from the vehicle.



26. Carefully, remove the axle seal from the spindle by prying against the metal flange with a flat head screw driver or small pry tool. It may be necessary to gently tap the tool with a hammer to get it started.



27. Place the Belltech lifted spindle face down and carefully tap the OE axle seal into the lifted spindle. It may help to use a brass punch against the metal flange to press it into place.



28. Place a floor jack or jack stand below the lower control arm and remove the top three strut 14mm nuts.



29. Remove the 19mm lower strut mount bolt to remove the strut assembly from the vehicle.



30. Remove the sway bar brackets from the chassis with a 14mm socket.



31. Using a paint pen, mark the alignment of the camber and caster adjustment bolts securing the lower control arms to the frame. Remove the lower control arms bolts with two 22mm wrenches and detach the lower control arms from the vehicle.





32. Disconnect the driveline from the differential with a 14mm socket.



- 33. Unplug the vent tube hose and remove the four 12mm bolts to detach the differential actuator from the housing. Detach the wiring harness on the passenger side.
- 34. Ensure the differential is properly supported with a jack, then remove the driver and passenger side differential brackets with a 22mm socket on the chassis side and a 19mm socket on the differential side.



36. Remove the rear differential mount with a 12mm hex key socket. Use the jack to lower the differential and remove it from the vehicle.



## FRONT CROSSMEMBER CUTTING

37. On the back side of the rear crossmember, begin measurement from the edge of the lower control arm mounting plate, use a paint pen to mark a cutting line at 3.25" and another cutting line at 10.5"



38. Cut through the lines using a reciprocating saw or angle grinder with cutting blades.



39. Grind or sand down any rough edges or burrs then use black spray paint to spray over any exposed bare metal.



#### FRONT INSTALLATION

40. Grease and install the Belltech cross member bushings into the Belltech differential drop brackets. To assist, you may use a vice or a rubber mallet to help ease them into their proper positions. Install the rubber bushings before the metal sleeves.









#### Technician Note:

When mounting the differential, front crossmember, and rear crossmember; the order of installation is subjective and may be performed in any order that bests suits the installer and the equipment/space available.

- 41. Raise the jack to place the differential back into its approximate location while the new differential components are being installed around it.
- 42. Mount the front and rear crossmembers on the chassis using the supplied bolts, washers, and Nyloc nuts. Only hand tighten the hardware to ease the installation of the remaining components, torque setting will be at a later step.

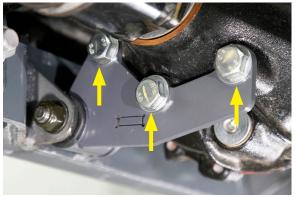




43. Lower the jack to mount the differential into the rear cross member. Hand tighten the original 12mm hex key bolt.



44. Using the supplied 25mm M14 bolts and washers, secure the front driver differential drop bracket to the differential and torque to 138 ft lbs.



45. Use the 90mm M14 hex bolts, washers, and nuts to mount passenger side differential bracket to the front and rear crossmembers. Hand tighten, do not torque yet.



46. Use the original passenger side 19mm bracket bolts and secure the drop bracket to the differential. Torque to 118 ft lbs.



47. Mount the differential actuator in its original location with the 12mm bolts. Plug the vent tube and connect the wiring harness. Ensure the vent hose and wiring have enough slack and are not contacting on any moving parts.









It may be necessary to bend the vent tube bracket to fit properly. Please use the images above for reference.

- 48. Attach the driveshaft to the differential using the original 14mm bolts.
- 49. Place both lower control arms onto the Belltech crossmembers and hand tighten using the original cam bolts. These will be torqued to OE specifications once they are under the weight of the truck.



- 50. Torque all the differential bolts that where hand tightened to OE specifications.
- 51. Torque the crossmember bolts to 180 ft lbs.

52. Mount the Belltech sway bar relocation brackets onto the frame with the supplied bolts. Ensure the two threaded studs on the relocation bracket are towards the front of the vehicle. Install the sway bar brackets onto the studs with provided nuts. Torque to 37 ft lbs.







#### **Installation Note:**

For Strut Spacer Installation:

Please refer to the included instructions for strut spacer 154301-120 or 154302-121

For Trail Performance Strut or Coilover Installation:

- Please refer to the included instructions for strut 28015 or coilover kit 15306.
- 53. Mount the new Belltech lift spindle by attaching the upper control arm ball joint with the original hardware. Torque the castle nut to 81 ft lbs. and secure it with the cotter pin.



54. Place the CV axle through the hub opening in the spindle then slide the supplied steering stop brackets over the front lower ball joint. Secure the lower ball joints and steering stops to the lower control arm with the original bolts, torque to 118 ft lbs.



- 55. Attach the original hub and dust shield to the Belltech lift spindle with the original 17mm bolts, torque to 59 ft lbs.
- 56. Ensure to align the CV axle shaft splines with the hub as you center the axle through the hub. Fasten the 35mm axle nut and torque to 173 ft lbs. Secure the nut with the cotter pin and press in the outer dust cap.



57. Remove the 12mm bolt holding the OE brake line bracket and attach the supplied brake line drop bracket with the original bolt. With the supplied hardware, attach the original brake line bracket to the brake line drop bracket.



- 58. Mount the brake rotor and brake caliper assembly to the Belltech lift spindle. Torque the caliper two bolts to 91 ft lbs.
- 59. Install the ABS sensor and bracket to the Belltech lift spindle with original 10mm bolt. Torque to ABS sensor to 73 in lbs. and the bracket to 10 ft lbs. Press the ABS line clip into the bracket.



60. Install the brake line bracket to the Belltech lift spindle with the original 12mm bolt. Torque to 10 ft lbs.



61. Using a 10mm wrench, remove the ABS line from the brake line bracket. Add the extension bracket to the OE bolt then attach the ABS line to the extension bracket with the provided hardware. Torque to 10 ft lbs.



62. Attach the upper sway bar end link through the Belltech lift spindle and secure it using the original hardware. Torque to 52 ft lbs.



63. Place the tie rod end into the Belltech lift spindle and tighten the original 19mm castle nut. Torque to 67 ft lbs. and secure it with the cotter pin.

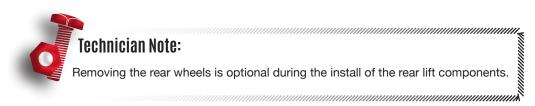


64. Using the supplied hardware, secure the Belltech differential skid plate to the front and rear crossmembers. Torque to 22 ft lbs.



- 65. Attach the front support brackets with the original hardware, torque to factory specs.
- 66. Attach the skid plate with the original hardware, torque to 22 ft lbs.
- 69. Mount the front wheels and tighten the lug nuts.
- 70. Lift the vehicle and remove the support stands.
- 71. Carefully lower the vehicle onto the flat ground.
- 72. Torque the lower control arm cam bolts to 135 ft lbs.
- 73. Check that all components and fasteners have been properly installed and torqued.

#### **REAR INSTALLATION**



74. Remove the 14mm upper shock nut, you may need pliers to hold the stud from spinning. Next, remove the lower 17mm bolt using socket and wrench.



75. Detach the brake line and E-brake brackets from the axle and springs using a 12mm socket.







76. Support the rear axle with a floor jack. Remove the rear U-bolt 19mm nuts.



77. Lower the jack rear and slowly rest the axle onto two jack stands. Allow enough room for the rear lift blocks to be installed.

#### **REAR INSTALLATION CONTINUED**

78. Install the rear lift block between the leaf spring and the axle spring perch with the taller side toward the rear of the vehicle. Ensure the blocks are sitting flat on the spring perch and the springs.



- 79. Lift the rear axle up to install the Belltech U-bolts. Tighten the U-bolt nuts in a "X" pattern and torque to 90 ft lbs.
- 80. Install the new Belltech rear shocks with the original hardware on the bottom and the supplied nuts on top. Tighten the 16mm top nuts and torque to 15 ft lbs. Torque the lower shock nut to 43 ft lbs.
- 81. Locate the brake line clamps towards the front of the leaf springs. Carefully pry open the clamp and slide the brake line slightly to the rear. Clasp the bracket around the front portion of the metal piece on the brake line. The image below shows its new position.



82. Using a 12mm and 13mm wrench, install the brake line relocator brackets by attaching the new bracket to the original location with the original hardware. Then, Install the original bracket to the relocator bracket using the supplied hardware.



## **REAR INSTALLATION CONTINUED**

83. Attach the brake line extension bracket to the driver side of the axle with the original 12mm bolt. Next, attach the original bracket to the extension bracket using the supplied bolt, washer, and Nyloc nut.



84. Position the bracket on top of the differential pointing upward and secure it in that position with the original hardware.



85. Ensure the rear axle is still supported, use a 14mm wrench to loosen the two bolts holding the carrier bearing. Remove one of the carrier bearing bolts completely and slide the Belltech carrier bearing spacer between the chassis and the bracket. Replace the original bolt with the supplied 17mm M10 bolt. Once the bolt is in place and secure, repeat the process for the other side. Torque the carrier bearing bolts to 27 ft lbs.



# FINALIZING THE INSTALLATION

- 86. Mount the wheels and tighten the lug nuts.
- 87. Lift the vehicle and remove the support stands.
- 88. Carefully lower the vehicle onto the flat ground.
- 89. Torque the lug nuts to 83 ft lbs.
- 90. Check that all components and fasteners have been properly installed and torqued.
- 91. 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









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:** 

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# KIT CONTENTS



	154301 Kit	
Part number	Description	Qty
LK2016	Lift Spindle Set	1
LK40000	Component Kit Front	1
LK40001	Component Kit Rear	1
LK40002	Component Kit	1

	LK2016	
Part number	Description	Qty
154301-103L-982	Driver Side Lift Spindle	1
154301-103R-982	Passenger Side Lift Spindle	1

# KIT CONTENTS

	LK40000	
Part number	Description	Qty
154301-101-992	Front Crossmember	1
154301-102-992	Rear Crossmember	1
154301-108-992	Differential Skid Plate	1
154301-129L-992	Left Steering Stop	1
154301-129R-992	Right Steering Stop	1
154301-131-992	Sway Bar Mount Re-locator	2
LK40000A	Sub Kit A (Front)	1

	LK40001	
Part number	Description	Qty
154301-201-992	Lift Block	2
154301-202-951	U-Bolt	4
154301-216-992	Carrier Bearing Spacer	2
154301-225-951	Rear Brake Caliper Relocator	2
154301-227-951	Rear Brake Hose Relocator	1
154301G-777	Hardware Kit	1
154301E-777	Hardware Kit	1

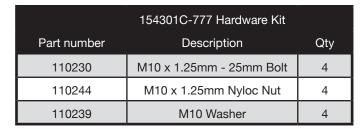
	LK40002	
Part number	Description	Qty
154301-104L-992	Left Side Differential Drop	1
154301-104R-992	Right Side Differential Drop	1
154301B-777	Hardware Kit	1

	LK40000A	
Part number	Description	Qty
154301-226-951	Front Brake Drop Bracket	2
154301-128-951	Front ABS Bracket	2
154301A-777	Hardware Kit	1
154301C-777	Hardware Kit	1
154301D-777	Hardware Kit	1
154301F-777	Hardware Kit	1
154301H-777	Hardware Kit	1

	154301A-777 Hardware Kit	-
Part number	Description	Qty
112169	M22 x 2.5mm - 120mm Bolt	2
112172	M22 x 2.5mm Nyloc Nut	2
112175	M22 Washer	4
110281	M16 x 2mm - 140mm Bolt	2
110242	M16 x 2mm Nyloc Nut	2
110219	M16 Washer	4

	154301B-777 Hardware Kit	
Part number	Description	Qty
112103	M14 x 1.5mm - 90mm Hex Bolt	3
110292	M14 x 1.5mm Nyloc Nut	3
110223	M14 Washer	9
112177	M14 x 1.5mm - 25mm Bolt	3

# KIT CONTENTS



	154301D-777 Hardware Kit	'
Part number	Description	Qty
112142	M10 x 1.5mm - 25mm Serrated Bolt	4

154301E-777 Hardware Kit		
Part number	Description	Qty
112179	M10 x 1.25mm - 50mm Bolt	2
112180	M10 Large OD Washer	2

-	154301F-777 Hardware Kit	
Part number	Description	Qty
110232	M8 x 1mm - 16mm Bolt	5
110233	M8 x 1mm Nyloc Nut	5
110245	M8 Washer	10
110234	M6 x 1mm - 16mm Bolt	2
110235	M16 x 1mm Nyloc Nut	2
110117	M6 Washer	4

	154301G-777 Hardware Kit	
Part number	Description	Qty
110292	M14 x 1.5mm Nyloc Nut	8
110223	M14 Washer	8

154301H-777 Hardware Kit		
Part number	Description	Qty
9999-001	Loctite 271 Red Threadlocker	1
9999-028	Loctite 242 Blue Threadlocker	1