



INSTALLATION GUIDE

PART NUMBER: 2400
DROP SPINDLE SET
GM C-1500 REGULAR CAB | 1988-1991

-2" FRONT LOWERED RIDE HEIGHT

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 the components listed on the parts list are 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 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, in 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 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:

2-3 Hours + Alignment

RECOMMENDED TOOLS:

- Properly rated floor jack
- Support stands
- Wheel chocks
- Metric and standard socket wrench set
- Metric and standard wrench set
- Hex key set
- Tape measure
- Hammer and rubber mallet
- Safety glasses
- Paint or marking pen
- Spray paint
- Torque wrench rated up to 150 ft lbs.

SPECIALTY TOOLS:

- Angle grinder or reciprocating saw
- Tie-rod end removal tool
- Ball joint removal tool
- Caliper spreader

FITMENT NOTE:

Not all possible wheel sizes and backspacing can be tested. Cautiously check the wheel assembly to the spindle, suspension component, and fender/body clearance before tightening the 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.

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.

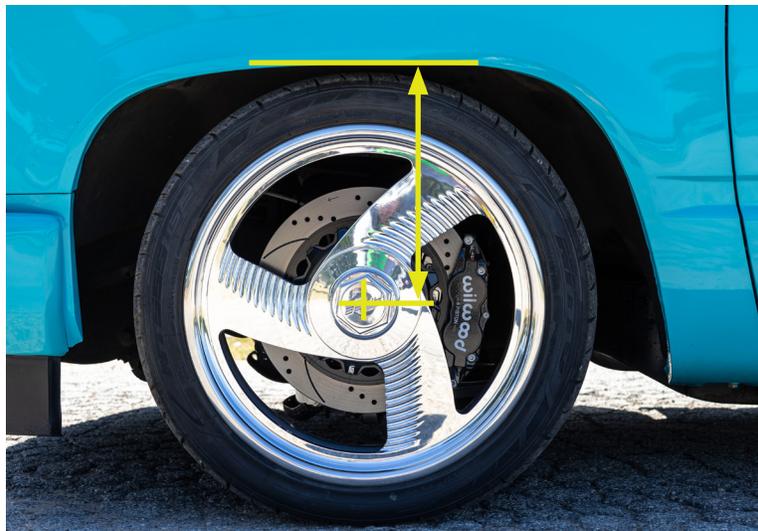
Before:

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 first gear (manual).
3. Activate the parking brake.
4. Loosen, but do not remove, the front wheel lug nuts.
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 vehicle's weight. The stands must be positioned in the factory specified locations. (Refer to the owner's 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 oneself 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 SUSPENSION REMOVAL

9. Remove the 9/16" end link nuts to detach the end links from the lower control arm and sway bar.
10. Remove the two 11mm upper control arm brake line and ABS line bracket bolts to detach the lines from the upper control arm.
11. Remove the two 3/8" hex caliper bolts to detach the caliper from the spindle. Slide the caliper up and away from the brake motor, ensure not to stretch or damage the rubber brake hose. When the brake caliper is removed, do not allow it to hang unsupported from the brake line. Support the caliper with a piece of wire or cord to prevent damage to the brake line.



12. Remove the hub and rotor assembly from the spindle by removing the grease cap, cotter pin, and the nut from the spindle pin. Carefully slide the rotor assembly off the spindle pin, do not let the outer bearing fall out of the hub.
13. Remove the cotter pin from the nut on the tie rod end. Loosen the 3/4" nut, but don't remove it completely. Use a tie rod puller or use a hammer to strike the side of the steering arm until the tie rod end is dislodged; swing the rod end out of the way.



Technician reminder:

Do not strike the nut or the tie rod end itself as this may damage the steering components.

14. Detach the dust shield by removing the three 1/2" bolts on the face of the spindle.



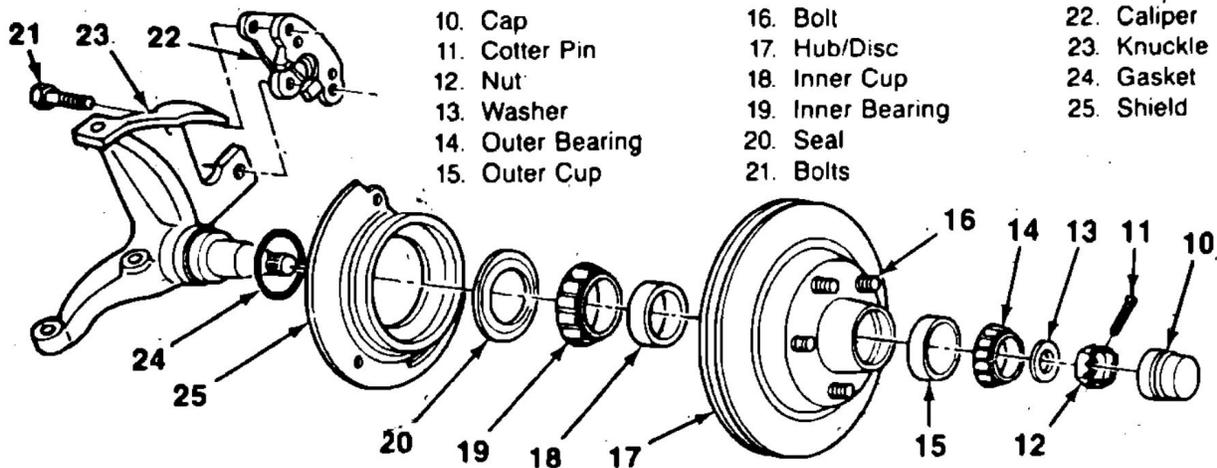
15. Place a floor jack under the lower control arm and lift until a slight compression of the suspension is achieved. Turn the spindle to access the lower ball joint without interference.
16. Remove the cotter pin and loosen but do not remove the 1" lower ball joint nut. Strike the lower portion of the spindle beside the ball joint, this will dislodge it from the taper.
17. Remove the cotter pin and loosen but do not remove the 1" upper ball joint nut. Strike the lower portion of the spindle beside the ball joint, this will dislodge it from the taper.
18. Once both ball joints are dislodged, remove the upper nut and lift the control arm to free the spindle. Remove the lower nut and slide the spindle off the lower ball joint.

BELLTECH SPINDLE INSTALLATION

19. With the lower control arm supported to control the height of the suspension during the installation, place the new Belltech drop spindle on the lower control arm ball joint and secure it with the castle nut. Lift the upper control arm and place the upper ball joint into position on the spindle. Torque the upper ball joint nut to 74 ft lbs and the lower ball joint nut to 94 ft lbs. Secure them with the supplied cotter pins.



20. Place the tie rod end into the steering arm on the new spindle and torque the nut to 46 ft lbs. Install a new cotter pin.
21. Place the dust cover gasket on the spindle shaft and attach the brake dust shield to the face of the spindle using the original bolts; torque to 19 ft lbs.
22. Before mounting the hub and rotor assembly, take time to determine that the seal and bearings are in good condition and are packed with enough grease. Inspect the inner bearing cavity of the rotor to determine that it is sufficiently coated with grease. When in doubt, repack the bearings and coat the inner bearing cavity. Apply grease to the spindle at the inner and outer bearing seat, shoulder, and seal seat.
23. Mount the hub and rotor assembly onto the new Belltech spindle. Ensure the bearing, washer, and nut are in the correct position.



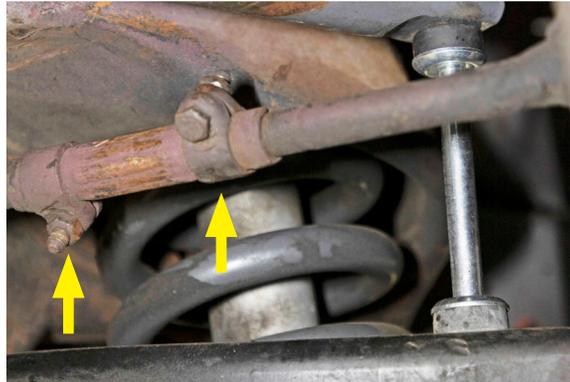
24. Torque the spindle nut to 12 ft lbs. While turning the rotor forward by hand to seat the bearings. Back the nut off to a "just loose" position. Hand-tighten the spindle nut to align the nearest hole in the spindle pin with the slots in the nut.
25. Insert the cotter pin into the hole in the spindle pin. Bend the ends of the cotter pins against the nut and cut them off; install the dust cap.

BELLTECH SPINDLE INSTALLATION CONTINUED

26. Mount the brake caliper onto the new spindle. Ensure the brake pads are in their correct position, if needed, compress the piston with a spreader tool. Insert the caliper guide bolts and torque to 28 ft lbs. Turn the rotor assembly left and right to make sure there is no interference between the brake lines and other components.



27. The brake line elbow must be gently bent by hand to allow the brake line to clear the upper ball joint. Ensure not to damage the line or fittings. Do not use pliers or similar tools as they are more likely to cause damage.
28. Attach the brake line and ABS line brackets to the upper control arm using the original hardware; torque to 13 ft lbs.
29. Attach the lower end link to the lower control arm; torque to 13 ft lbs.
30. Mount the wheels and tires onto the truck, tighten but do not torque the lug nuts. Turn the wheels left and right by hand to ensure the wheel and tire does not contact any suspension components.
31. If there is severe "toe-out" in the wheel positioning, loosen the two 13mm nuts on the tie rod adjusting sleeves and turn them approximately 2 to 2.5 turns or until wheels appear straight. This will temporarily adjust the toe-in of the vehicle to enable you to drive the vehicle to an alignment shop. Tighten the tie rod clamp bolts and torque to 14 ft lbs.



LOWER CONTROL ARM MODIFICATION



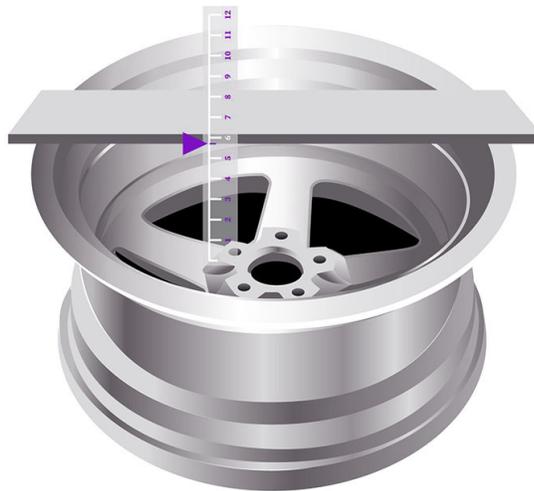
Technician warning:

We recognize that it is common practice to trim the lower arm to eliminate wheel contact areas and to gain clearance for wheels with more than 3-1/2" inches of backspacing. We have not determined the impact of such modifications on the structural strength of the lower control arm or the risks of such modifications. Any person modifying stock components does so at their own risk and does so against our recommendation.

Wheels with more than 3-1/2" inches of backspacing, including the factory 7" inch steel and aluminum wheels, will interfere with the lower control arm which impairs the vehicle's steering and are strongly cautioned against.

Care must be exercised in the selection of wheel and tire size combinations to determine there are no wheel or tire clearance problems.

Backspacing dimensions are calculated by measuring from the wheel mounting pad to the top of the inboard flange. If your wheel measures 3-1/2" inches or more of backspacing, it will likely interfere with the lower control arm.



The area of the lower control arm marked in yellow indicates where contact will occur when wheels with more than 3-1/2" inches of backspacing are used. The lower control arm had this area removed to gain clearance for non-recommended wheels.

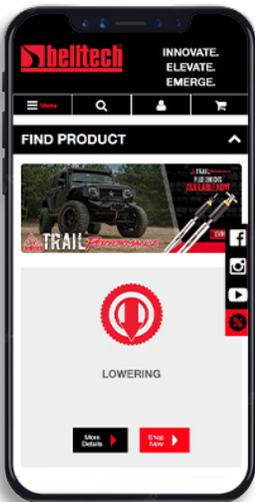


FINALIZING THE INSTALLATION

32. Lift the vehicle and remove the support stands.
33. Carefully lower the vehicle onto flat ground.
34. Torque the lug nuts to 125 ft lbs.
35. Check that all components and fasteners have been properly installed and torqued.
36. 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



belltechsuspension



Belltech Suspension



@belltechsuspension

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



2400		
Part number	Description	Qty
2400-350	LH MACHINED SPINDLE	1
2400-450	RH MACHINED SPINDLE	1
2100-110	COTTER PIN PACK	1