belltech®

INSTALLATION GUIDE

PART NUMBER: 350R01
4-LINK AXLE KIT AND C-NOTCH
GM C-1500 | 1988-1998

-4” TO -7” ADJUSTABLE 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: 5-6 Hours + Alignment

RECOMMENDED TOOLS:

- Properly rated floor jack
- Support stands
- Wheel chocks
- Metric socket wrench set
- Metric wrench set
- Pliers
- Tape measure
- Hammer and rubber mallet
- Black spray paint
- Metal paint marker
- Safety glasses
- Torque wrench rated up to 150 ft lbs.

SPECIALTY TOOLS:

- Angle grinder or die grinder equipped with cutoff wheel
- Air hammer with chisel set
- Face shield
- C-clamp
- Drill with drill bit set
- Pin punch set

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.

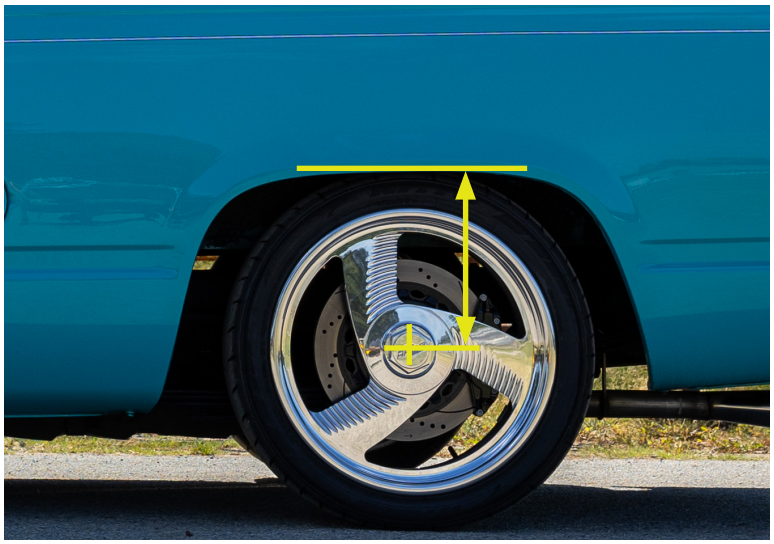
Before:

LF:_____

RF:_____

LR:_____

RR:_____



After:

LF:_____

RF:_____

LR:_____

RR:_____

JACKING, SUPPORTING, AND PREPARING THE VEHICLE

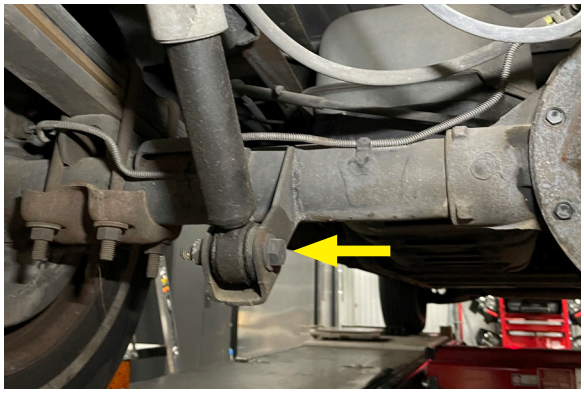
1. Park your vehicle on a smooth, level, concrete or seasoned asphalt surface.
2. Block the front wheels of the vehicle using wheel chocks. Make sure the vehicle's transmission is in "PARK" (automatic) or 1st gear (manual).
3. Activate the parking brake.
4. For easier access to the suspension and to simplify the installation, we recommend removing the bed from the vehicle. This is accomplished by disconnecting the gas filler neck, two ground straps, unplugging the taillight harness, and removing the 8 bolts that attach the bed to the chassis.
5. Loosen, but do not remove, the rear wheel lug nuts.
6. Lift the rear of the vehicle off the ground using a properly rated floor jack. Lift the vehicle so the rear tires are approximately 6-8 inches off the ground.
7. Place support stands rated for the vehicles weight. The stands should 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.
8. Lower the vehicle slowly onto the stands.
9. Remove the rear 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.

REAR OEM SUSPENSION REMOVAL

10. Support rear axle with the appropriately rated jack stand.
11. To detach the rear shock absorbers, remove the upper 13mm nuts and bolts. Also remove lower 21mm nuts and bolts.

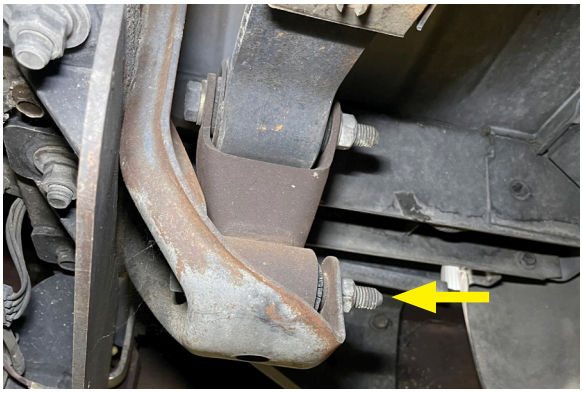


12. Place a jack stand on the rear driveshaft pinion to prevent “pivot” in doing the following step.
13. Remove the eight 21mm U-bolt nuts. Detach the U-bolts from the leaf springs and the lower brackets from the axle.
14. With the leaf springs free from the axle, remove the 21mm bolts connecting the front of the leaf springs to the front OEM hangers.

15. Remove the lower 21mm shackle bolts from the rear OEM hangers and detach the leaf spring and shackle assemblies from the vehicle; they will not be used for the remainder of the installation.

Technician reminder:

It may help to break loose the 21mm upper shackle bolt but do not remove it.

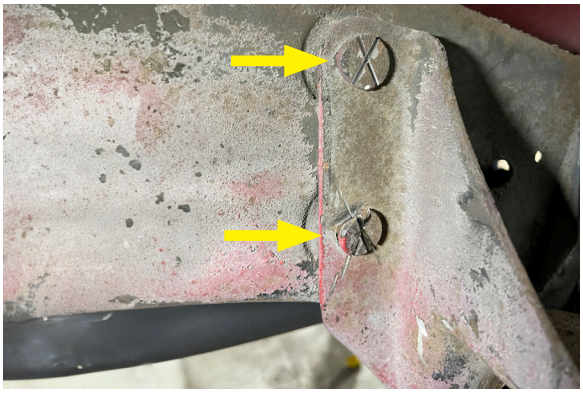


REAR OEM SUSPENSION REMOVAL CONTINUED

Technician reminder:

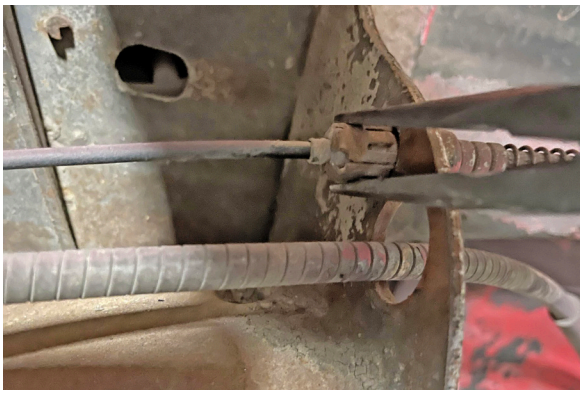
Always wear eye protection when using cutting or grinding power tools.

16. To remove the OEM front passenger side (RH) hanger, use a chisel or a grinder to mark an “X” on each of the rivet bolt heads, this makes it easier to cut off the rivet bolt head.




17. Cut or grind off the rivet bolt heads. Once the bolt heads are removed, use a hammer to knock the rivets out from the hanger.


18. To remove the OEM front driver side (LH) hanger, the emergency brake lines need to be unclipped, and the hanger must be cut to remove the lines from the hanger.




19. Use a chisel or a grinder to mark an “X” on each of the rivet bolt heads, this makes it easier to cut off the rivet bolt head.
20. Cut or grind off the rivet bolt heads. Once bolt heads are removed, use a hammer to push the rivet out from the hanger.

FRAME AND BED RAIL MODIFICATIONS

Technician warning:

Before continuing with the following procedure, ensure the frame is supported in the front and the rear of where the frame will be cut for the C-notch. Failure to do this may cause the frame to bend. Belltech recommends working on the cut and installation one side at a time.

21. Remove the bolts that secure the brake line and wiring harness to the inside of the driver side (LH) frame rail. There are two 13mm bolts securing the brake line transition bracket to the frame and two 13mm bolts securing the rigid brake line and electrical wiring harness brackets to the frame. Detach the plastic clips and secure the lines away from the frame while the modification of the C-notch is performed.

22. Use the provided Belltech template (7300-887); align the template with the holes on the frame directly above the rear axle.

Technician reminder:

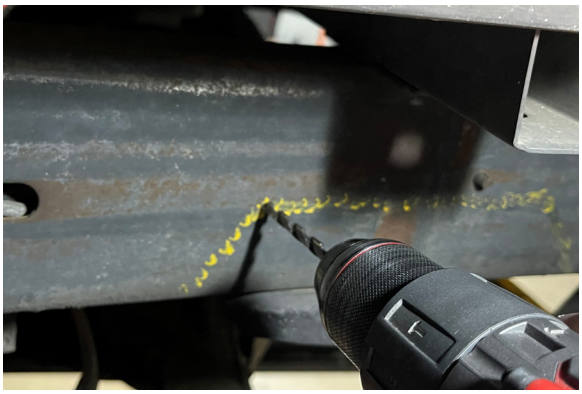
Ensure the template is in the correct orientation to mark the frame. The template has an arrow facing the **FRONT** of the vehicle.

23. Use a center punch to mark the corners of the notch template. Mark the frame with a paint marker or a scribe to make a line connecting the center-punched locations where the notch will be cut out. For the lower hole locations that are at the bottom of the frame rail, mark the lower hole locations along the angled lines on the template.

24. For the marked lines at the bottom of the frame rail, use a square to help mark and connect a parallel line across the bottom of the frame.

FRAME AND BED RAIL MODIFICATIONS CONTINUED

25. Drill 1/4” holes on the center-punched corners.

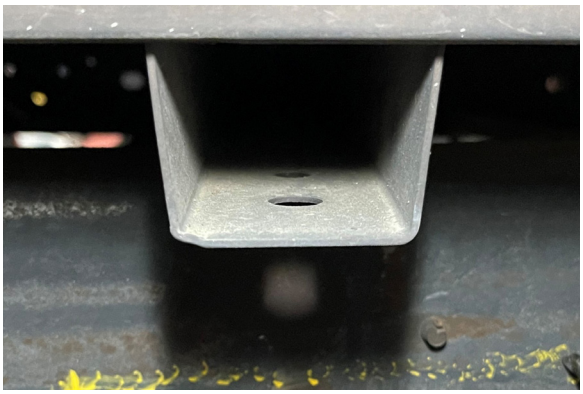


26. Use a die grinder with a cutoff wheel, or Sawzall, or a plasma cutter to cut the chassis along the marked lines. Cutting to the center of the holes leaves the radius of the hole intact. This reduces the possibility of a stress crack developing at the end of the cutting line. The OEM bump stop brackets will be cut off with the notch.

Technician warning:

DO NOT use a cutting torch on the vehicle frame.

27. The section of bed rail directly above the location where the C-notch cut was made must be cut out for additional clearance.

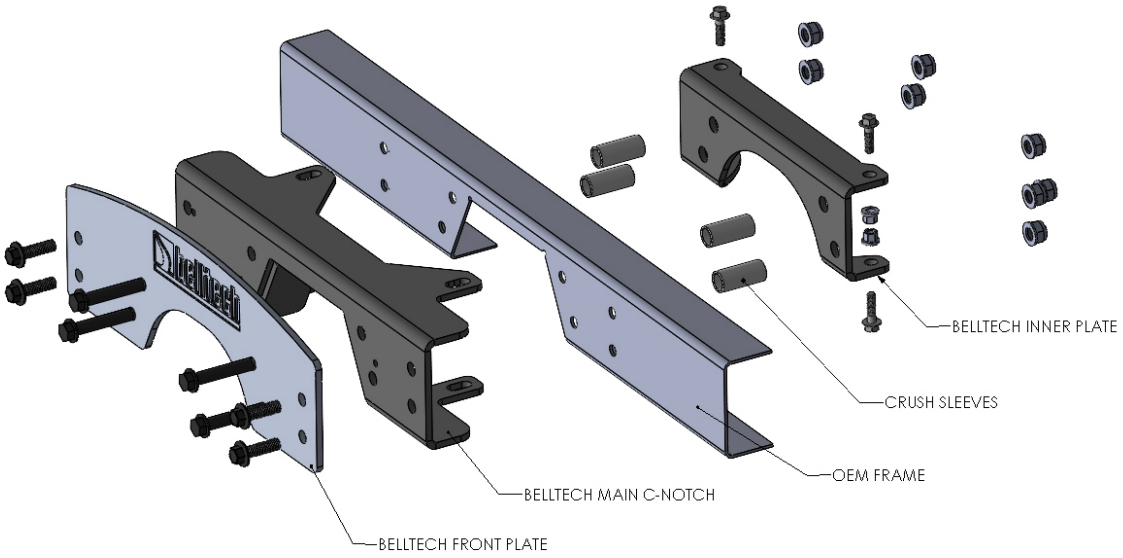


28. Deburr the edges of the cutouts on the frame and bed rail using a grinder or other suitable tool. To prevent corrosion, spray paint any bare metal surfaces.

BELLTECH C-NOTCH BRACKET INSTALLATION

Technician note:

The Belltech C-notch consist of three components. When installed, these components create a “Box-style” system that reinforces the frame.



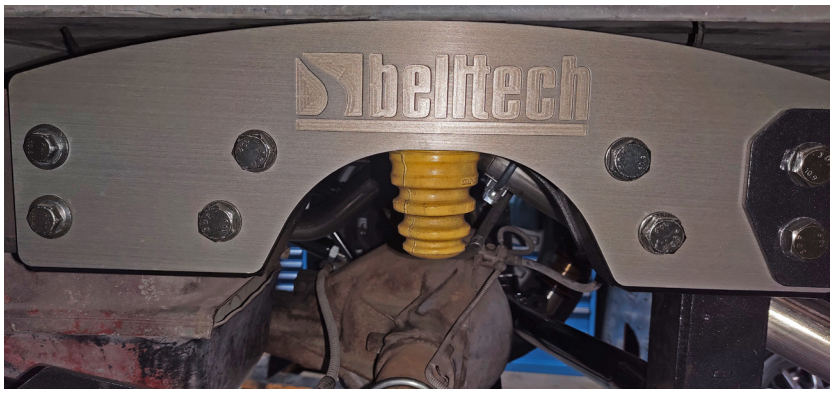
29. Attach the supplied bump stop to the bottom of the outer C-notch bracket by threading it directly into the backet.

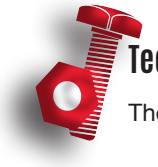
30. Slide the outer C-notch bracket over the outside face of the frame. It may be necessary to use a soft face hammer to position the bracket over the frame. Ensure the C-notch bracket top flange is in contact with the top of the frame rail, then clamp the bracket into place using C-clamps or another suitable tool.

BELLTECH C-NOTCH BRACKET INSTALLATION CONTINUED

31. With the C-notch bracket installed against the outside face of the frame rail, use the 1/2” holes in the bracket as guides to mark the eight bolt holes onto the face of the frame with a paint marker or center punch. Drill the eight 1/2” bolt holes onto the face of the frame. Deburr and spray paint the new holes after the drilling operation is complete.

32. Place the Belltech front plate onto the outer C-notch bracket using four M14 x 2.0-120mm bolts and M14 washers closer to the center of the front plate and four M14 x 2.0-45mm flange bolts closer to the outer edges of the front plate.

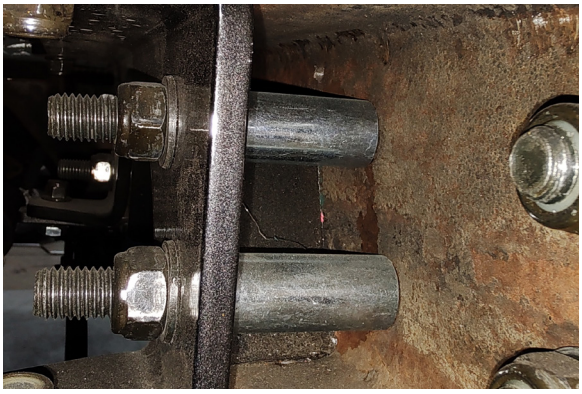




Technician warning:

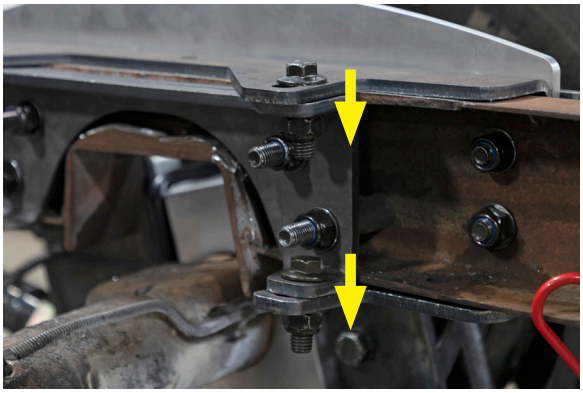
The bolt must be fastened with heads on the outside of the C-NOTCH. Do not fasten them backwards.

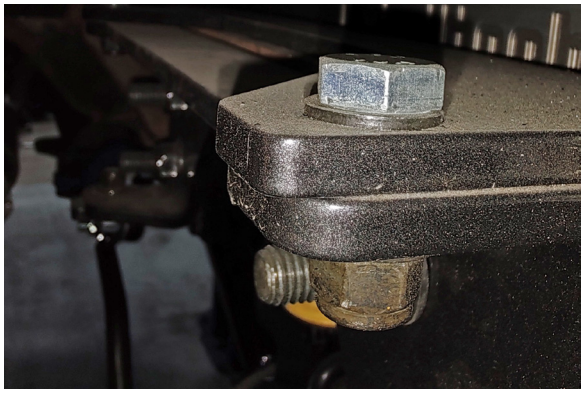
33. Install the crush spacer tubes (four per side) on the M14 x 2.0-120mm bolts in between the inner frame rail and the Belltech inner plate. With the Belltech inner plate positioned, hand tighten the M14 nuts and washers but do NOT over tighten.



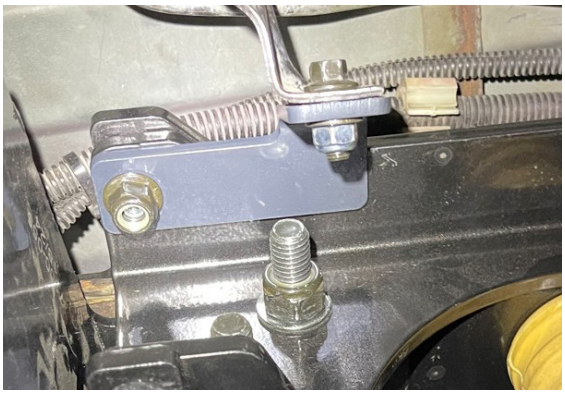
BELLTECH C-NOTCH BRACKET INSTALLATION CONTINUED

34. Install the four M10 x 1.5-35mm bolts on the Belltech C-notch bracket tabs. The bolts on the top of the bracket must be facing down, and the bolts on the bottom should be facing upward.

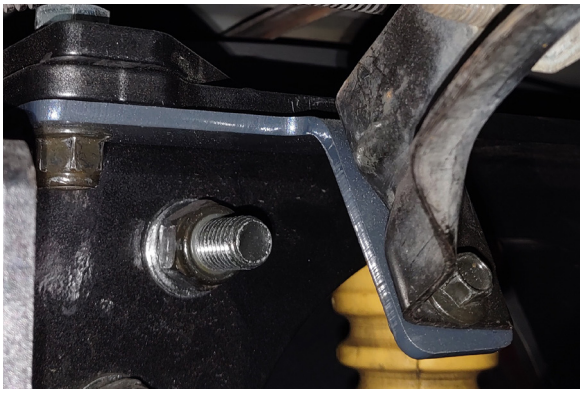




35. On the driver side, attach harness bracket #7100-013-99S onto the Belltech C-notch bracket tab as shown below.



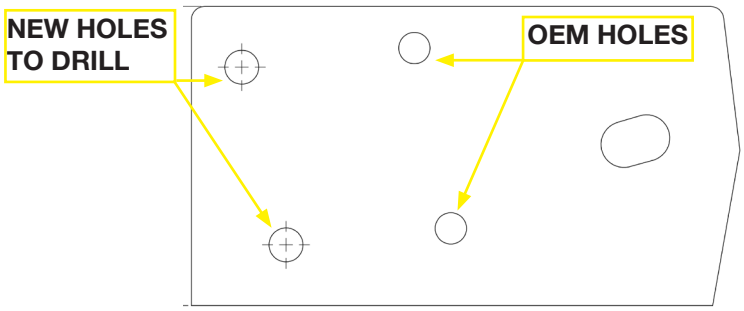
36. Attach the original harness bracket onto the supplied Belltech bracket.



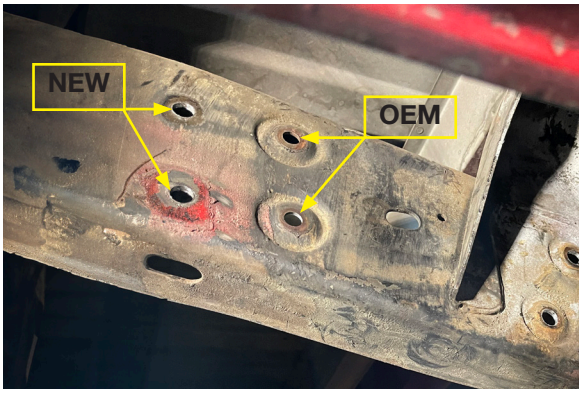
37. With all the bolts in place, torque the M10 bolts to 60 ft lbs. and the M14 bolts to 100 ft lbs.

BELLTECH FRONT HANGER INSTALLATION

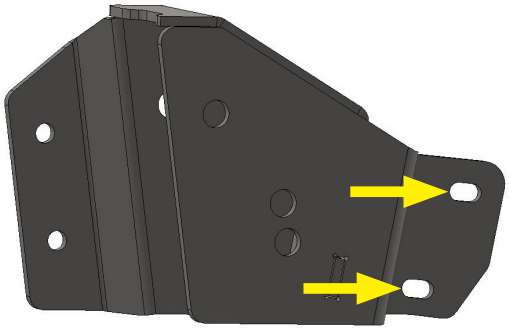
38. Use the provided Belltech hanger template (7100-887); align the template to mark and drill the new holes on the chassis.



39. Align the two holes on the template with the holes towards the rear of the vehicle.



40. Use a center punch to mark and punch the center of the cross hairs on the template for the new holes to be drilled.
41. Drill out the two new holes using a 1/2” or 12mm drill bit.
42. The two holes from the OEM hanger, towards the front, need to be enlarged to 1/2” or 12mm.



Technician note:

Installing the hanger on the driver side is more difficult, in some cases, it may be easier to remove or shift the fuel tank aside to install the new bolts.

BELLTECH FRONT HANGER INSTALLATION CONTINUED

43. Position the Belltech front hanger on the chassis. Loosely fasten the original bolt holes first using the supplied M12 x 1.75mm bolts and M12 nuts. Do not torque yet.

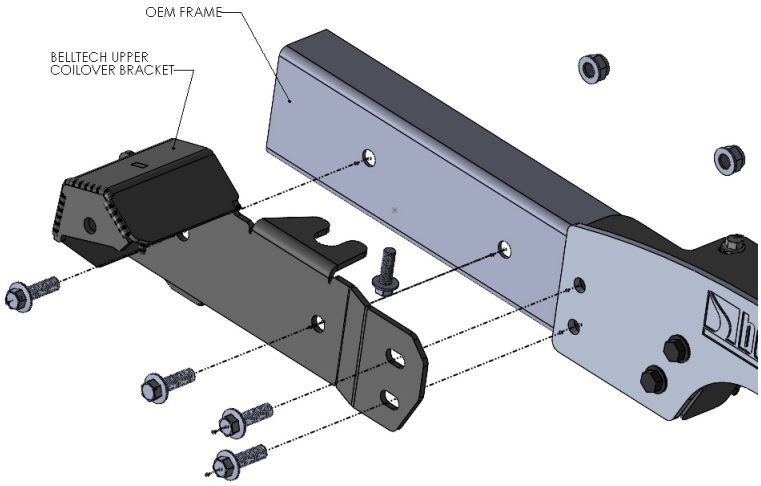
44. Align the Belltech hanger slots towards the rear of the vehicle.

45. Place the supplied M12 x 1.75mm bolts into the hanger and chassis.

46. Fasten the hanger with the M12 nuts and washers on the inside of the chassis. Torque to 100 ft lbs.

BELLTECH UPPER COILOVER BRACKET INSTALLATION

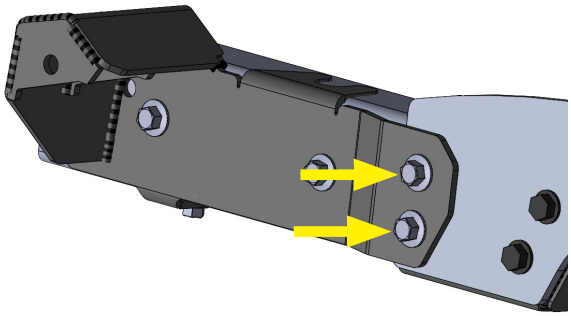
47. Begin on the passenger side (RH); mount the Belltech upper coilover bracket and align with the two existing holes on the OEM chassis. Fasten the bracket with the two M14 x 2.0-45mm flanged bolts, M14 washers and nuts.



48. Two M14 x 2.0-45mm flanged bolts, M14 washers and nuts are used through the Belltech upper coilover bracket and Belltech C-notch kit.

Technician note:

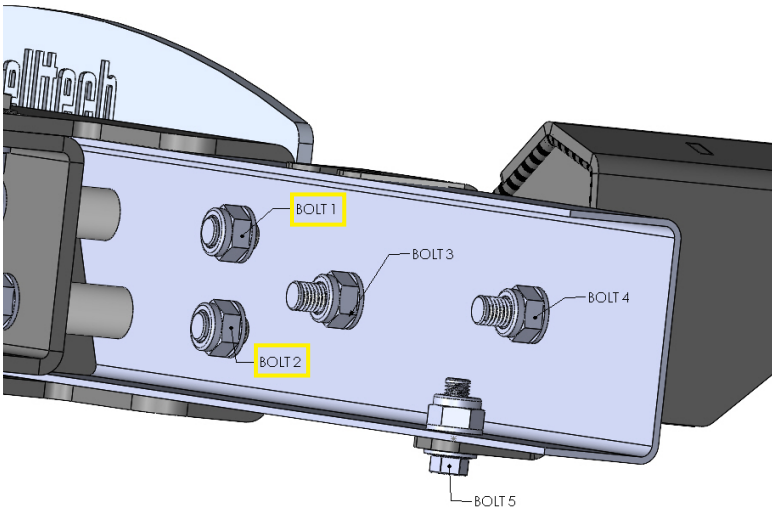
Two M14 bolts are used in the Belltech C-notch kit and may have duplicate hardware for this reason.



49. Install a M12 x 1.75-35mm flanged bolt, M12 washer and nut from the bottom of the chassis.
50. Torque all Belltech upper coilover bracket bolts to 80 ft lbs.
51. The driver side (LH) Belltech upper coilover bracket is installed in the same order as above.

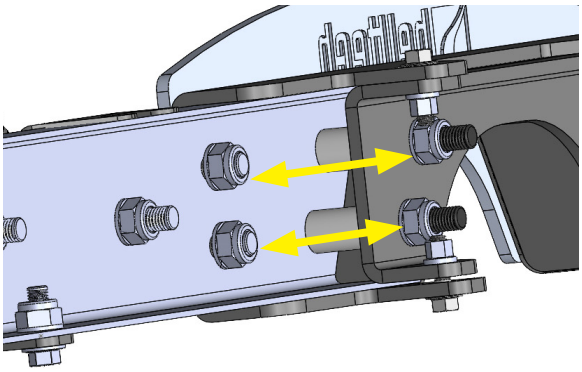
Technician note:

On the driver side (LH) bracket, leave BOLT 1 and BOLT 2 loose as they will be used to install the Belltech track bar bracket.

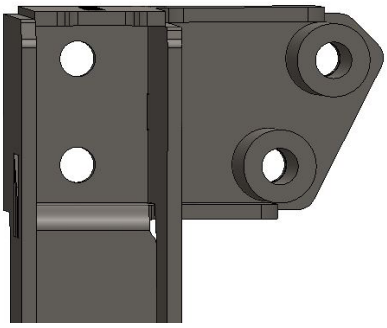


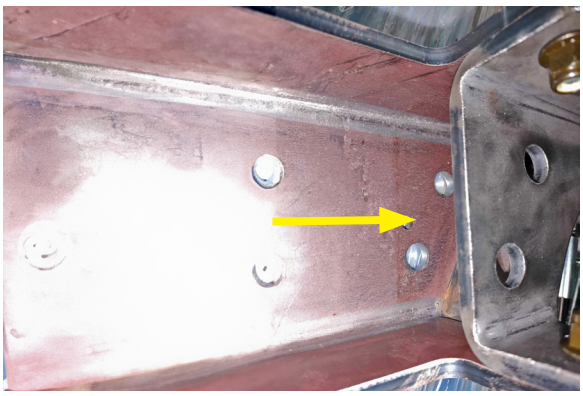
BELLTECH TRACK BAR BRACKET INSTALLATION

52. If they are not already loose, remove the four M14 bolts towards the rear of the truck from the Belltech C-notch on the driver side (LH) chassis. Remove the crush tubes being used on the C-notch, they will not be used with the Belltech track bar bracket.



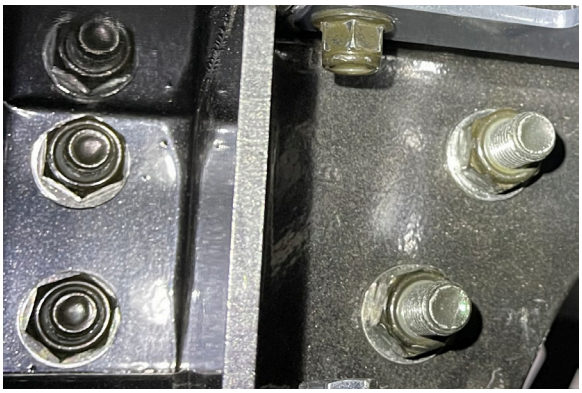
53. Slide the Belltech track bar bracket into the C-notch, between the chassis surface and the Belltech inner C-notch plate.





54. Align the four holes and secure the track bar bracket with the same M14 bolts that were removed.

55. Torque the M14 bolts to 100 ft lbs.



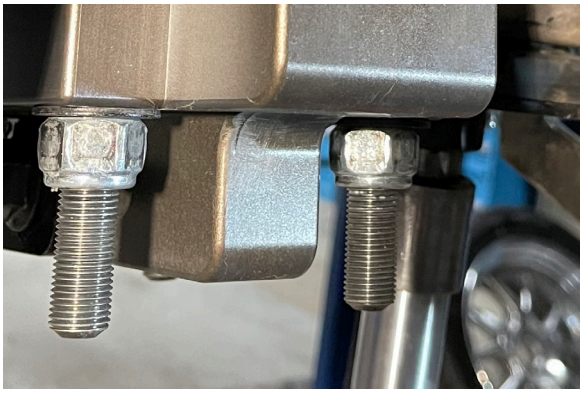
BELLTECH 4-LINK AXLE KIT INSTALLATION

56. Place the Belltech upper axle clamp the OEM axle spring pad and slide the provided U-bolts over the upper axle clamp.

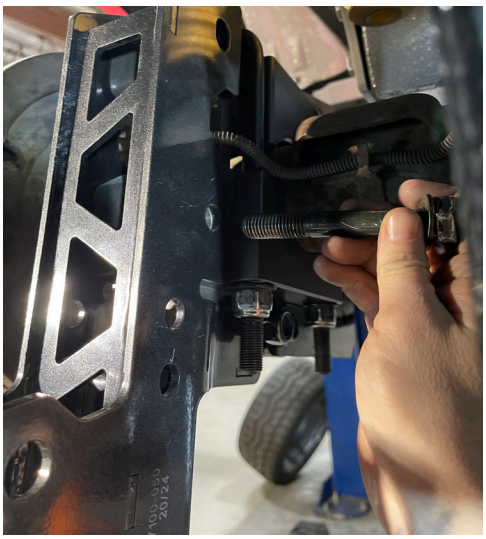
57. Attach the Belltech lower axle clamp and slide the 9/16 U-bolts through it. Fasten the lower axle clamp with the supplied 9/16 nuts and washers.

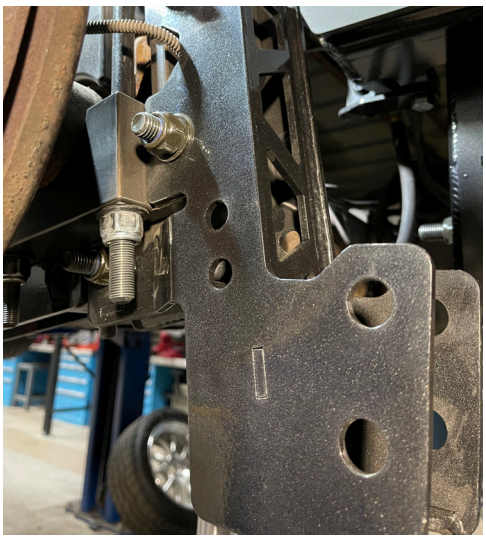
Technician reminder:

Tighten the U-bolts until snug but do not torque yet.



58. Attach the Belltech lower coilover bracket on the rear side of the axle clamps. Fasten the bracket with two M14 x 2.0-100mm bolts, four M14 washers, and two M14-2.0 nuts on the upper holes.





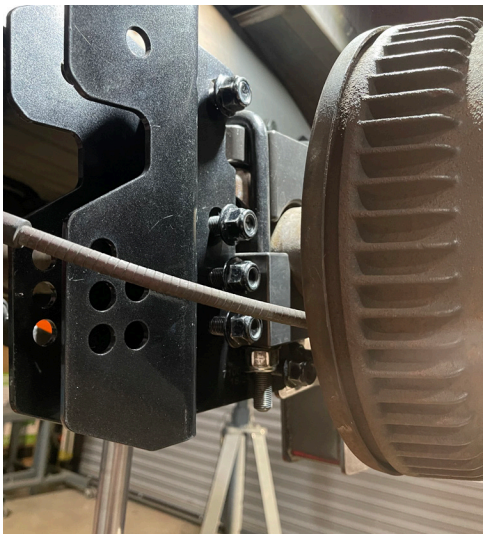
BELLTECH 4-LINK AXLE KIT INSTALLATION CONTINUED

59. For the bottom of the Belltech lower coilover bracket, use one M14 x 1.5-75mm flange bolt and M14 nut under the clamps.

Technician reminder:

Hand tighten the lower coilover bracket bolts but do not torque yet.

60. Attach the Belltech 4-link plates part numbers 7100-005 and 7100-001 to the Belltech aluminum axle clamp shell. Place with the flat plate, part number 7100-005 on the inside of the vehicle and the bent/jog plate, part number 7100-001, on the outside of the vehicle. Fasten the plates with the supplied M14 x 1.5-75mm flanged bolts and flanged M14 nuts.



Technician warning:

The flanged bolt heads must face the inside of the vehicle. If installed incorrectly, the bolts may run into other components such as the C-notch.

61. Repeat the 4-link plate process on opposite side of the vehicle. Note that plate 7100-001 is for the LH side and plate 7100-002 is for the RH side.

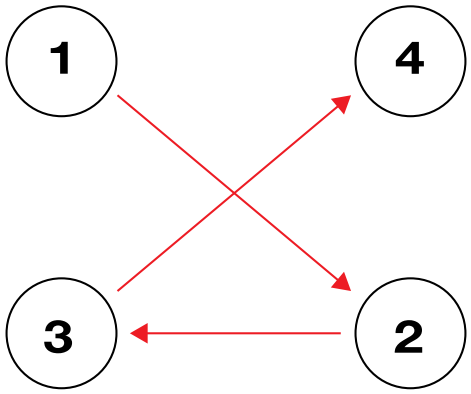
62. Place the M14 flanged bolt and flanged nut at the bottom of the Belltech aluminum axle shell clamp.

Technician reminder:

Hand tighten the 4-link arm plate bolts but do not torque yet.

BELLTECH 4-LINK AXLE KIT INSTALLATION CONTINUED

63. The U-bolts must be torqued in the cross pattern below.



64. Start at 80 ft lbs. then up to 90 ft lbs. and finish with 100 ft lbs. Ensure the same amount of turns is applied for each side.

65. Torque all rear lower coilover bracket bolts to 80 ft lbs.

BELLTECH 4-LINK CONTROL ARM INSTALLATION

66. Locate the rear upper control arms part number 7100-211 and the rear lower control arms part number 7100-212.

67. With the chassis secured, axle secured, and drive shaft secured, the original “hub to fender” measurements recorded in page 2 will be used to raise the axle to set the desired ride height.

68. Set the drive shaft pinion as desired; this should be withing 1 degree off the transfer case or transmission at ride height.

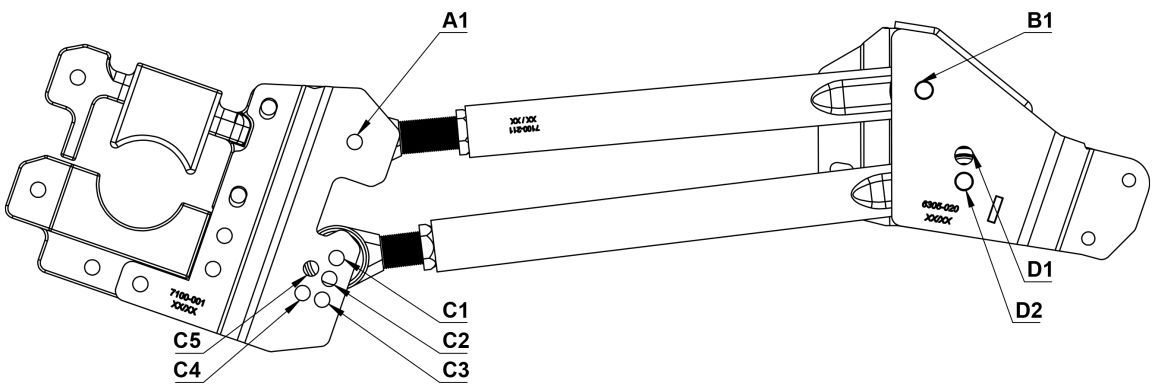
69. Position the axle as centered as possible within the wheel well.

Technician note:

The Belltech 4-link system was designed to provide your vehicle with multiple anti-squat options at the rear. The range is from 60% to 120% of anti-squat arm settings. Please see the table and diagram below.

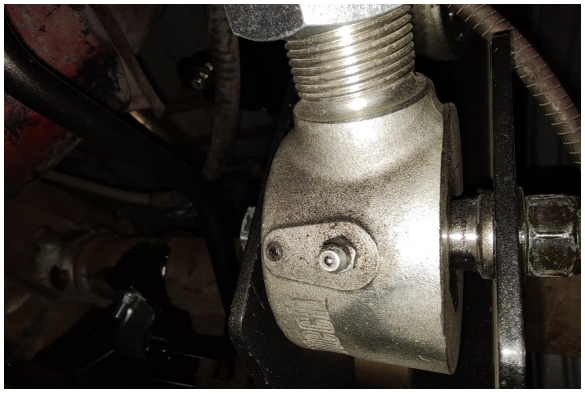
Vehicle heights, weight and other components will make the numbers vary from application to application.

ANTI-SQUAT ARM SETTINGS		
AXLE LOCATING POINT	HANGER LOCATING POINT	ANTI-SQUAT PERCENTAGE
C1	D2	60%
C2	D1	70%
C2	D2	80%
C4	D2	90%
C3	D2	100%
C3	D1	120%



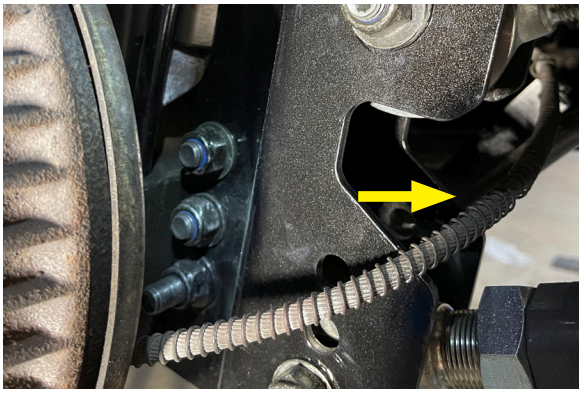
BELLTECH 4-LINK CONTROL ARM INSTALLATION CONTINUED

70. Refer to the control arm diagram on page 16 for reference. Place the Belltech adjustable upper control arm with the Heim joint on the axle side and set the distance from the axle locating point (A1) to the hanger locating point (B1) on the front hanger. On the hanger side only, the oversized washers supplied in the kit must be placed between the M14 x 2.0-120mm bolt head and the hanger. Fasten the bolt with a M14 washer and nut on the back of the hanger.



71. Refer to the control arm diagram on page 16 to choose the desired anti-squat setting. Place the Belltech adjustable lower control arm with the Heim joint on the axle side. On the hanger side only, the oversized washers supplied in the kit must also be placed between the M14 x 2.0-120mm bolt head and the hanger. Fasten the bolt with a M14 washer and nut on the back of the hanger.

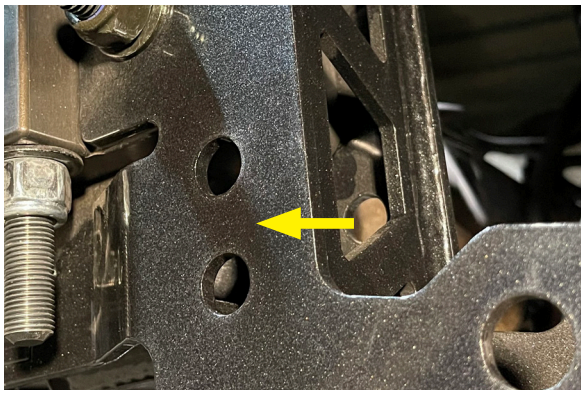
72. Ensure the emergency brake line is between the upper and lower control arms on the axle side to prevent damage from kinks or pinched lines.



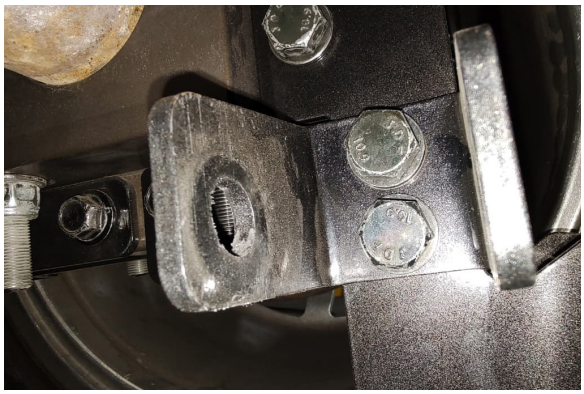
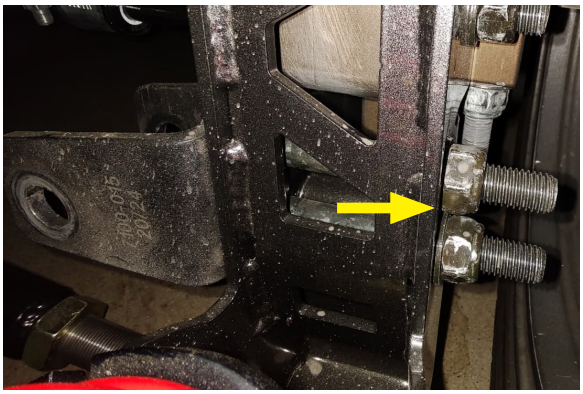
73. Attach the supplied brake cable bracket onto the emergency brake cable. Install the brake cable bracket to the bottom of the front hanger with the supplied M12x 35mm flanged bolt.

BELLTECH 4-LINK CONTROL ARM INSTALLATION CONTINUED

74. Locate the two holes on the passenger side (RH) lower coilover bracket and align the Belltech track bar clevis bracket with the two holes.




75. Attach the clevis bracket with two M14 x 2.0-100mm bolts, four M14 washers, and two M14-2.0 nuts. Ensure the bolts through the lower coilover bracket. Torque to 50 ft lbs.

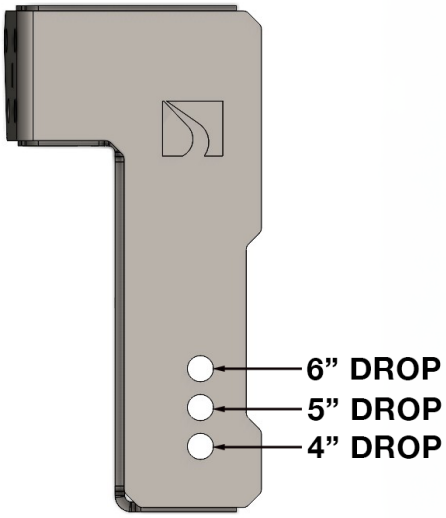



76. Locate Belltech track bar part number 7100-215 and ensure the bushings are pressed into the bar.


77. Ensure the Belltech track bar has the spacers attached to the Heim joint before installation.

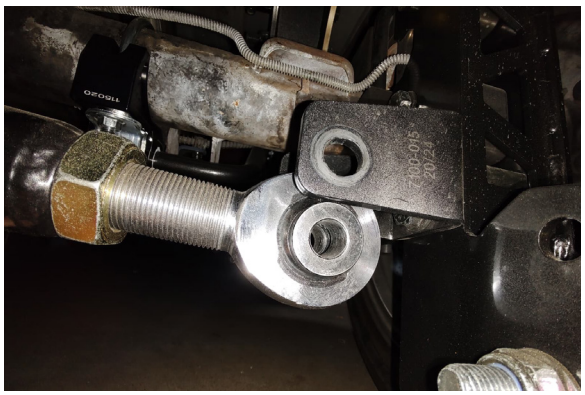

BELLTECH 4-LINK CONTROL ARM INSTALLATION CONTINUED

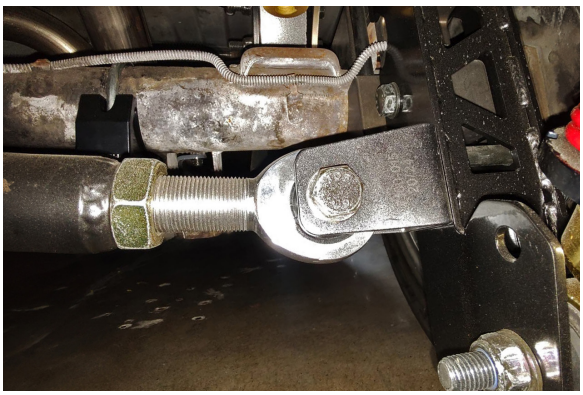
78. Use diagram below to select the desired ride height setting on the Belltech track bar drop down bracket.



79. Attach the bushing end of the Belltech track bar to the Belltech track bar drop down bracket with the M16 x 2.0-110mm bolts, M16 washers, and nuts supplied in hardware kit 7100-055-777.

80. Adjust the track bar Heim length to attach the Heim end of the bar to the clevis bracket on the passenger side lower coilover bracket. Fasten with M16 x 2.0-110mm bolts, M16 washers, and nuts.





Technician note:

Hand tighten but do not torque yet. The track bar length will be adjusted when the vehicle is on the ground and an alignment is performed.

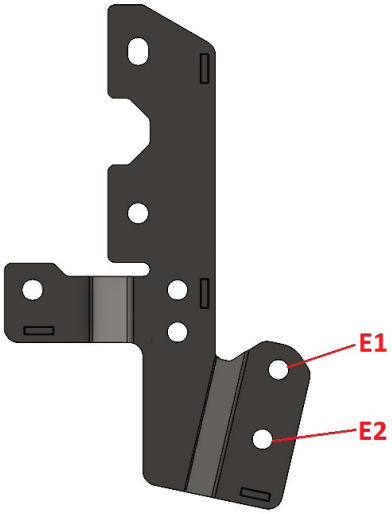
BELLTECH REAR COILOVER HEIGHT SETUP

81. The coilover is delivered as shown below.

82. Loosen the set screw on the spring perch.

83. Find the appropriate spring perch height by referencing the table and bracket diagram below. The rear coilover height is based on the bracket hole used.

1988-1998 GM C1500 2WD		
Drop (Inches)	“A” Measurement Spring Perch Height	Coilover Bracket Mount
4.0”	4.90” (125mm)	E1
5.0”	4.125” (105mm)	E1
6.0”	4.90” (125mm)	E2
7.0”	4.125” (105mm)	E2



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.

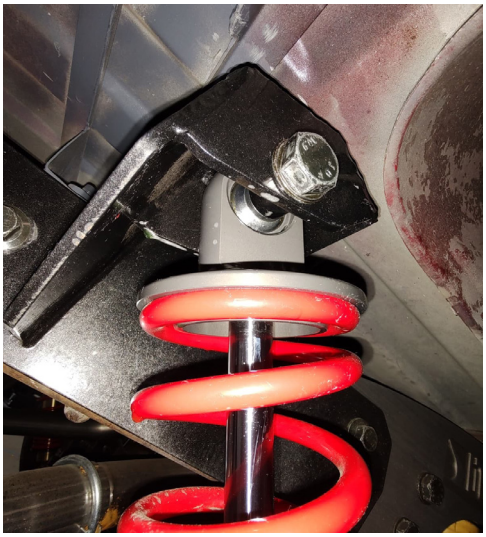
Belltech does not recommend lowering beyond what is advertised in the table above as the performance of the shock may be greatly decreased.

84. 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.

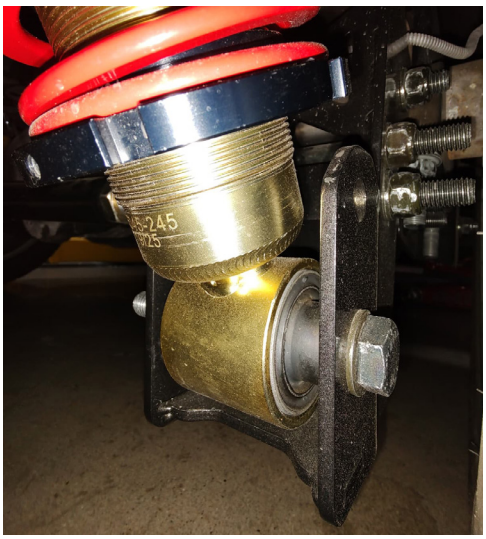
85. Tighten the set screw. Do not over tighten the set screw. Max torque is 1-2 Nm (1.5 ft lbs.)

BELLTECH REAR COILOVER INSTALLATION

86. Attach the Belltech coilover onto the chassis side upper coilover bracket. Fasten with an M14 x 2.0-100mm bolt, M14 washers, and nut to hand tighten the coilover.

87. Attach the Belltech coilover onto the axle side, lower coilover bracket. Fasten with an M14 x 2.0-100mm bolt, M14 washers, and nut. Torque the upper and lower coilover bolts to 88 ft lbs.

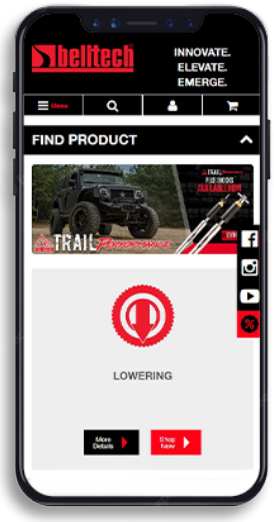



FINALIZING THE INSTALLATION

88. Mount the wheels and tighten the lug nuts.
89. Lift the vehicle and remove the support stands.
90. Carefully lower the vehicle onto the flat ground.
91. Torque the lug nuts to 125 ft lbs.
92. Place and fasten the bed onto its original position on the chassis.
93. Check that all components and fasteners have been properly installed and torqued.
94. 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

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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

350R01		
Part number	Description	Qty
350R00-A	4-LINK KIT	2
350R00-B	4-LINK KIT	2
15045	BELLTECH COILOVER KIT	1
7300	C-NOTCH KIT	1

350R00-A		
Part number	Description	Qty
7100-211	REAR UPPER CONTROL ARM	2
7100-212	REAR LOWER CONTROL ARM	2
7100-215	ADJUSTABLE TRACK BAR	1

350R00-B		
Part number	Description	Qty
6305-010-99S	ADJUSTABLE HANGER (LH)	1
6305-020-99S	ADJUSTABLE HANGER (RH)	1
750100-001	UPPER CLAMP SHELL	1
750100-002	LOWER CLAMP SHELL	1
7100-001-99S	OUTER ARM PLATE (LH)	1
7100-002-99S	OUTER ARM PLATE (RH)	1
7100-005-99S	INNER ARM PLATE	2
7100-012-99S	E-BRAKE BRACKET	1
7100-013-99S	E-BRAKE BRACKET (LH)	1
7100-014-99S	HARNESS BRACKET (LH)	1
7100-016-99S	E-CABLE J-HOOK BRACKET	1
7100-055-99S	TRACK BAR BRACKET	1
6305-777	HANGER HARDWARE KIT	1
7100-055-777	TRACK BAR BRACKET HARDWARE KIT	1
750100-777	U-BOLT HARDWARE KIT	1
7100-001-777	4-LINK HARDWARE KIT	1
7100-777A	AXLE BRAKE LINE BRACKET HARDWARE KIT	1

350R00-B HARDWARE KITS

6305-777		
Part number	Description	Qty
110218	M16 X 2.0 - 120MM BOLT	4
110225	M12 X 1.75 - 30MM BOLT	8
112050	M12 X 1.75 - 35MM BOLT	1
112165	M12 X 1.75 NYLOC NUT	8
110242	M16 X 2.0 NYLOC NUT	4
110228	M12 WASHER	17
110223	M14 WASHER	8
112627	M14 - 6.25MM WASHER	4

7100-055-777		
Part number	Description	Qty
112307	M14 X 1.5 - 75MM BOLT	2
112125	M16 X 2.0 - 110MM BOLT	2
110292	M14 X 1.5 NYLOC NUT	2
110242	M16 X 2.0 NYLOC NUT	2
110223	M14 WASHER	2
110502	5/8” FLAT WASHER	4

750100-777		
Part number	Description	Qty
11U1013-955	9/16 - 18 X 3 X 8 U-BOLT	4
110455	9/16 - 18 NYLOC NUT	8
110223	M14 WASHER	8

7100-001-777		
Part number	Description	Qty
112307	M14 X 1.5 - 75MM FLANGED BOLT	10
110292	M14 X 1.5 NYLOC NUT	10
110220	M14 X 2.0 - 100MM BOLT	4
110222	M14 X 2.0 NYLOC NUT	4
110223	M14 WASHER	18

7100-777A		
Part number	Description	Qty
112177	M14 X 1.5 - 25MM BOLT	2
110292	M14 X 1.5 NYLOC NUT	2
110223	M14 WASHER	4
110232	M8 X 1.0 - 16MM BOLT	2
110245	M8 WASHER	4
110233	M8 X 1.0 NYLOC NUT	2
5008-301	1/2” INSULATED CLAMP	1

15045 HARDWARE KITS

15045		
Part number	Description	Qty
15045-100	BELLTECH REAR COILOVER	2
7100-040-991	UPPER COILOVER BRACKET (LH)	1
7100-030-991	UPPER COILOVER BRACKET (RH)	1
7100-050-991	LOWER COILOVER BRACKET	2
7100-015-991	TRACK BAR CLEVIS BRACKET	1
7100-050-777	LOWER COILOVER BRACKET HARDWARE KIT	1
7100-030-777	UPPER COILOVER BRACKET HARDWARE KIT	1

7100-050-777		
Part number	Description	Qty
112307	M14 X 1.5 - 75MM FLANGED BOLT	2
110220	M14 X 2.0 - 100MM BOLT	10
110222	M14 X 2.0 NYLOC NUT	10
110223	M14 WASHER	22
110292	M14 X 1.5 NYLOC NUT	2

7100-030-777		
Part number	Description	Qty
112050	M12 X 1.75 - 35MM FLANGED BOLT	2
112296	M12 X 1.75 NYLOC NUT	2
110283	M14 X 2.0 - 45MM FLANGED BOLT	8
110223	M14 WASHER	12
110222	M14 X 2.0 NYLOC NUT	10
110220	M14 X 2.0 - 100MM BOLT	2
110228	M12 WASHER	2

7300 HARDWARE KITS

7300		
Part number	Description	Qty
7300-010-99S	MAIN C-NOTCH (LH)	1
7300-020-99S	MAIN C-NOTCH (RH)	1
7300-003-99S	SUPER-C ARCH PLATE	2
7300-007-99S	C-NOTCH SITFFENING PLATE (LH)	1
7300-008-99S	C-NOTCH SITFFENING PLATE (RH)	1
7300-887	TEMPLATE	1
7300-777	HARDWARE KIT	1

7300-777		
Part number	Description	Qty
112083	3/8”-16 x 1” SCREW	2
112309	M10 X 1.5 - 35MM BOLT	8
110283	M14 X 2.0 - 45MM BOLT	8
110221	M14 X 2.0 - 120MM BOLT	8
110280	M10 X 1.5 NYLOC NUT	8
110222	M14 X 2.0 NYLOC NUT	16
110223	M14 WASHER	24
150200-100-HW-B	2” SPACER TUBE	8
4924-001	BUMP STOP	2

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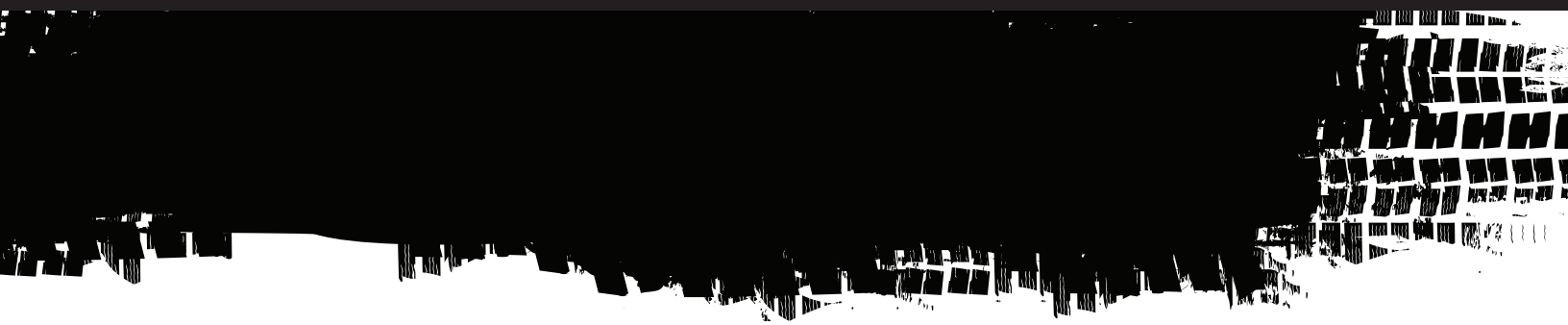
belltech.com



belltech®

INSTALLATION GUIDE

PART NUMBER: 350F04
FRONT LOWER CONTROL ARM AND COILOVER KIT
GM C-1500 | 1988-1998

-2” TO -3” ADJUSTABLE 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 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 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: 3-4 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
- Torque wrench rated up to 150 ft lbs.

SPECIALTY TOOLS:

- 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.

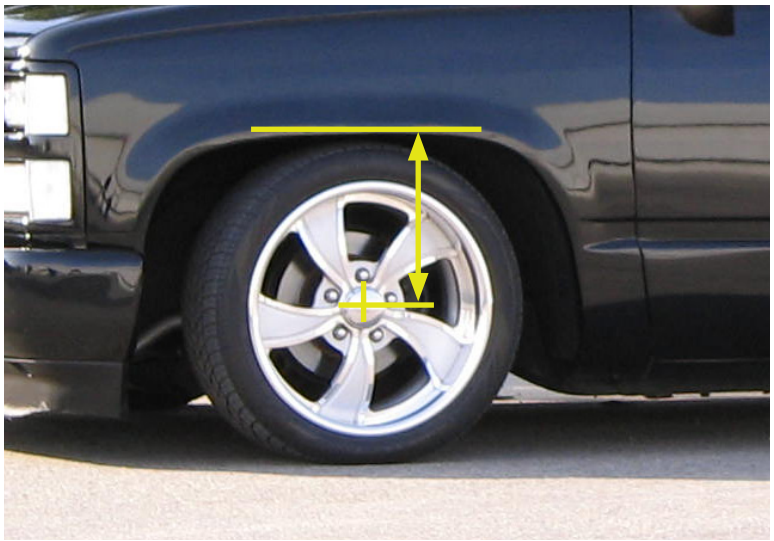
Before:

LF:_____

RF:_____

LR:_____

RR:_____



After:

LF:_____

RF:_____

LR:_____

RR:_____

JACKING, SUPPORTING, AND PREPARING THE VEHICLE

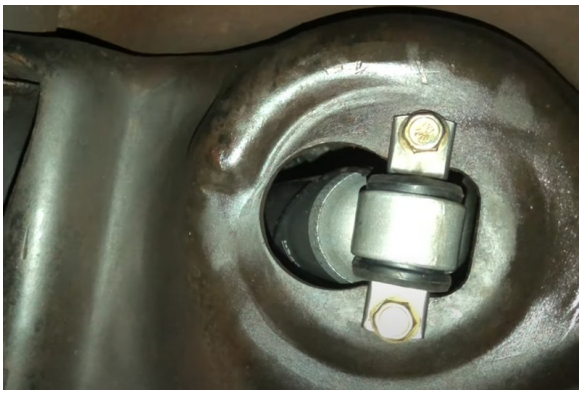
1. Park your vehicle on a smooth, level, concrete or seasoned asphalt surface.
2. Block the rear wheels of the vehicle using wheel chocks. Make sure the vehicle's transmission is in "PARK" (automatic) or 1st gear (manual).
3. Activate the parking brake.
4. Loosen, but do not remove, the front wheel lug 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 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 SUSPENSION REMOVAL

9. Remove the two 13mm bolts holding the bottom of the original shock to the lower control arm.

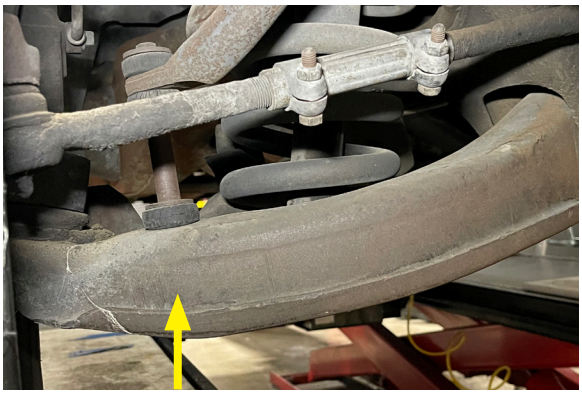


10. Remove the 14mm nuts from upper shock piston rod.

Technician note:

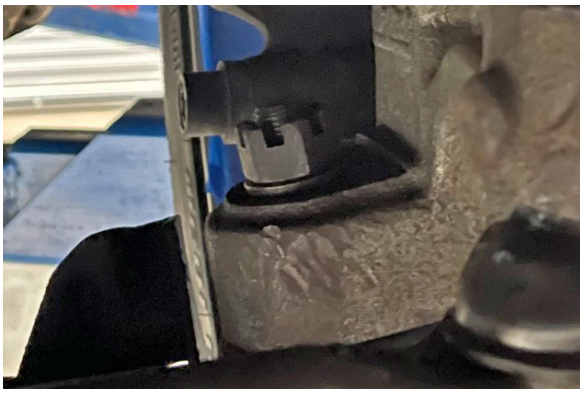
Penetrating fluid may be required to loosen the piston rod nuts.

11. Slide the original shock out through the bottom of the lower control arm.
12. Repeat these same steps on the opposite side of the vehicle.
13. Place properly rated floor jacks under the original lower control arms.
14. Remove the 15mm nuts that secure the end links to the control arms. Detach both end link assemblies from the vehicle.



OEM SUSPENSION REMOVAL CONTINUED

15. Remove the cotter pin and loosen but do not remove the 1” lower ball joint Castle nut.



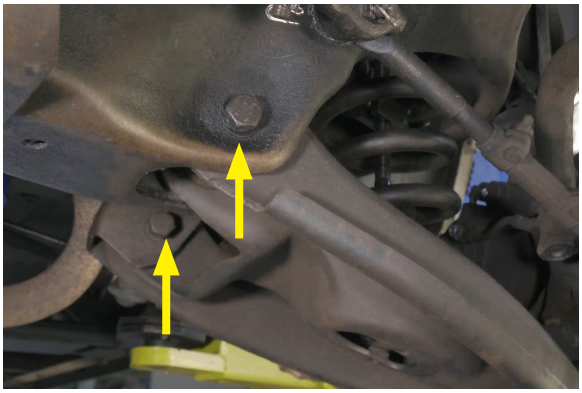
Technician warning:

The lower control arm is under extreme tension due to the coil spring. Use caution when the lower ball joint nut is loosened as the spring WILL expand and push the lower control arm out of the spindle. This can CAUSE HARM and/or INJURY.

16. Use a ball joint puller to dislodge the original lower ball joint from the taper then remove the castle nut.

17. Lower the floor jack slowly to lower the control arm and relieve the tension on the coil spring until it can be removed from the spring pocket. If necessary, pry down on the lower control to gain further clearance.

18. To detach the lower control arm, remove the 24mm nuts and tap the bolts out of the frame. Remove the control arm assembly from the vehicle.

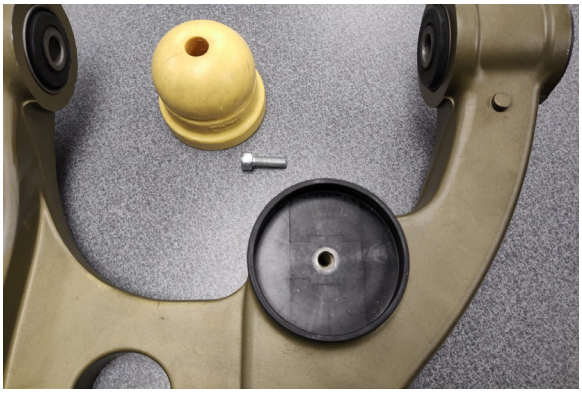


19. Repeat these same steps on the opposite side of the vehicle.

BELLTECH LOWER CONTROL ARM BUMP STOP ASSEMBLY

20. Locate the Belltech bump stops, bump stop cup, and M8 socket head screws supplied in hardware kit 250006-777.

21. Place a bump stop cup on to the new Belltech lower control arm.



22. Fasten the bump stop cup with a supplied M8 socket head screw and tighten it.

23. To attach the Belltech bump stop 4929-001, the bump stop needs to be pressed in one side at a time, see the examples below.

BELLTECH LOWER CONTROL ARM BUMP STOP ASSEMBLY CONTINUED

24. Slowly work around the bump stop cup, pressing in the sides of the bump stop.

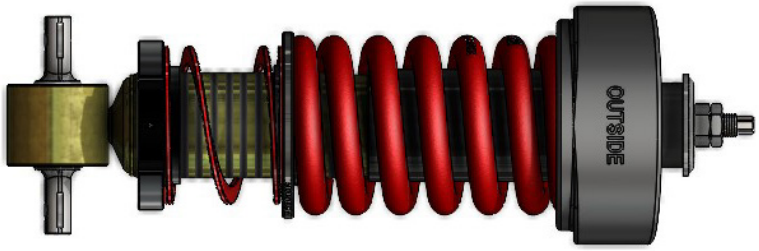
25. Continue pressing around the entire Belltech bump stop until it is fully seated inside the cup.

26. The Belltech lower control arm is ready to be installed. (BLCA-Bump Stop 10)

27. Repeat these same steps on the opposite side control arm.

BELLTECH FRONT COILOVER HEIGHT SETUP AND ASSEMBLY

28. The coilover is delivered as shown below and must be set to the desired ride height.



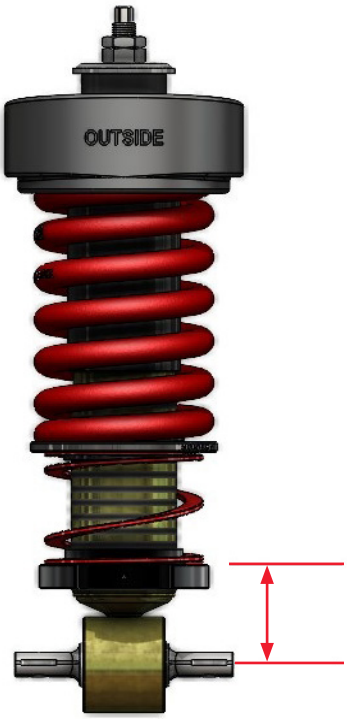
Technician note:

When lowering your vehicle more than 1”, a final shop alignment procedure is recommended to minimize tire wear.

29. Loosen the set screw on the spring perch.

30. 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.

1988-1998 GM C1500 2WD	
Drop (Inches)	“A” Measurement Spring Perch Height
2.0”	3.15” (80mm)
2.5”	2.90” (73.65mm)
3.0”	2.65” (67.3mm)



Technician note:

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

The height table is ONLY for the Belltech coilover, any additional lowering components installed will result in a different final ride height.

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.

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

Ensure the vent disk is placed under the bump stop.

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

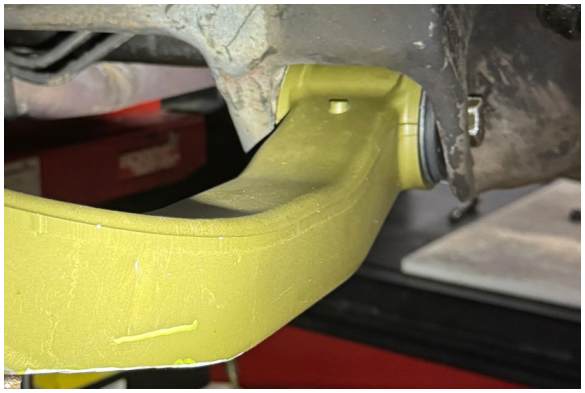
BELLTECH LOWER CONTROL ARM AND COILOVER INSTALLATION

32. Remove the upper jam nuts, cup washer, and rubber grommet. Set them to the side as they will be used for installation.

33. Place the Belltech lower control arms to the frame. Fasten the arms with the supplied M16 x 2.0-120mm bolts, M16 Nyloc nuts, and washers for the bushings at the front. For the rear bushings use the M16 x 2.0-110mm bolts, M16 Nyloc nuts, and washers. Hand tighten the bolts but DO NOT TORQUE YET.

Technician note:

Ensure the control arm is installed in the correct orientation, as a reference, the bump stop will be towards the rear of the vehicle.



34. Place the coilover assembly through the shock tower on the frame. Ensure the coilover upper spring adapter is in the correct orientation. The word “OUTSIDE” is marked on upper spring adaptor must face directly towards the outside of the vehicle. Ensure the marking does not face the front or rear of the vehicle.

35. The spring pocket in the shock tower has notches for the original upper spring seat. The Belltech coilover upper spring adapter accounts for this and will sit securely when its clocked correctly.

BELLTECH LOWER CONTROL ARM AND COILOVER INSTALLATION CONTINUED

36. When the piston rod protrudes past the frame and is exposed, attach the second rubber grommet and cup washer, facing down. Thread on the first supplied piston rod nut.

37. Tighten the first jam nut until the rubber grommet expands to the diameter of the cup washer. Fasten the second jam nut and torque to 10 ft lbs.

38. Lift the Belltech lower control arm up to the Belltech coilover and align the lower bushing mount.

BELLTECH LOWER CONTROL ARM AND COILOVER INSTALLATION CONTINUED

39. Fasten the coilover to the lower control arm with the supplied M14 bolts and nuts. Run the hardware through the bar pin pushing on the lower coilover mount and control arm. Torque to 45 ft lbs.

40. Attach the Belltech lower control arm ball joint onto the spindle. Fasten with the provided castle nut. Torque to 95 ft lbs.

Technician note:

Continue tightening until the slots align and secure it with a cotter pin.

41. Attach the sway bar end link onto the Belltech lower control arm and sway bar with the original hardware. Torque to 13 ft lbs.

Technician note:

If Belltech sway bar part# 5400 or any other front sway bar is also being installed, please follow the supplied instructions and torque to the specifications provided.

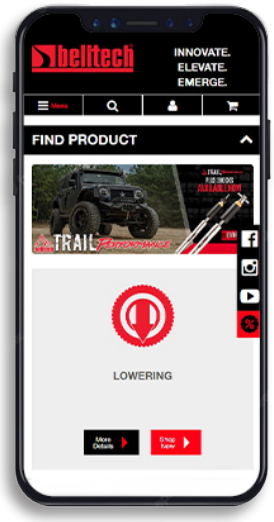
42. Mount the wheels and tires onto the truck, tighten but do not torque the lug nuts. Turn the wheels left and right by hand to ensure the wheel and tire do not contact any suspension components.

FINALIZING THE INSTALLATION

43. Lift the vehicle and remove the support stands.
44. Carefully lower the vehicle onto flat ground.
45. Torque the lug nuts to 125 ft lbs.
46. Roll the vehicle back and fourth to settle the newly installed suspension.
47. Torque the lower control arm bolts to 114 ft lbs.
48. Check that all components and fasteners have been properly installed and torqued.
49. 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

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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

350F04		
Part number	Description	Qty
250006-A100L	LOWER CONTROL ARM LH	1
250006-A100R	LOWER CONTROL ARM RH	1
250006-777	HARDWARE KIT	1
15044-100	BELLTECH COILOVER	2
68510039	SPANNER WRENCH	1

250006-777		
Part number	Description	Qty
112151	M12 X 1.75 - 55MM BOLT	2
112165	M12 X 1.75 NYLOC NUT	2
110228	M12 WASHER	4
112125	M16 X 2.0 - 110MM BOLT	2
110218	M16 X 2.0 - 120MM BOLT	2
110219	M16 WASHER	8
110242	M16 X 2.0 NYLOC NUT	4
4929-010	BUMP STOP CUP	2
4929-001	BUMP STOP	2
112006	M8 X 1.25 - 25MM SOCKET HEAD BOLT	2

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300 W. Pontiac Way
Clovis, CA 93612
Phone: +1-559-875-0222
Toll Free: 1-800-445-3767

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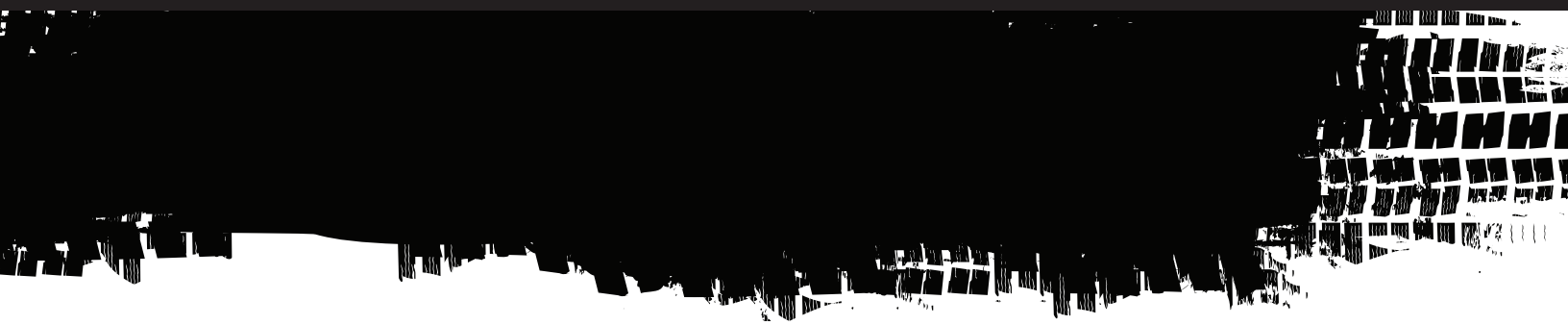


belltech®

INSTALLATION GUIDE

PART NUMBER: 2503
DROP SPINDLE SET
GM C-1500 REGULAR CAB | 1992-1998
GM C-1500 EXTENDED CAB | 1988-1998

-3” FRONT LOWERED RIDE HEIGHT

****REQUIRES A MINIMUM 1.25” BRAKE ROTOR****
****MUST USE 18” WHEELS OR LARGER, FITS MOST 18” WHEELS. MUST CHECK FOR INTERFERENCE****

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
- Cutt-off tool
- 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.

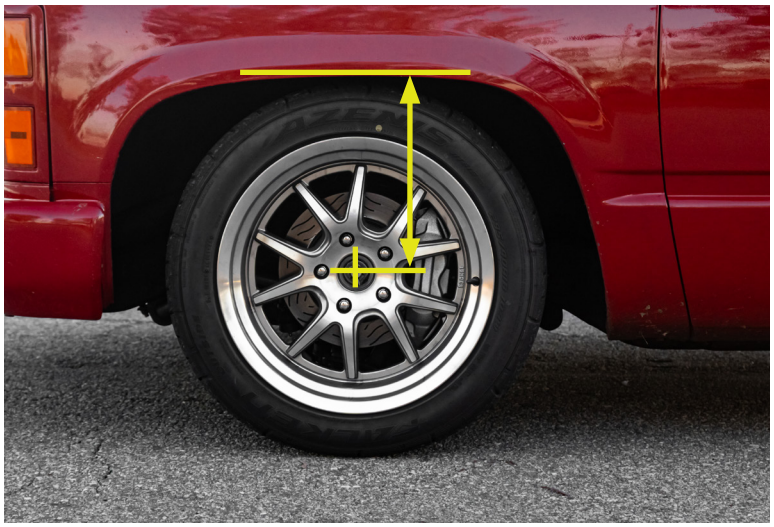
Before:

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 SPINDLE 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 speed sensor 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 rotor, 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.

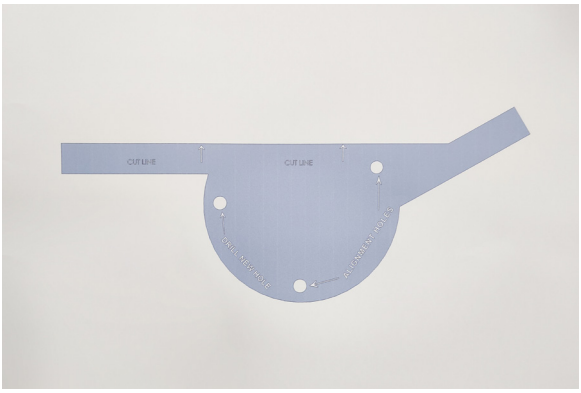
16. Remove the cotter pin and loosen but do not remove the 1” lower ball joint nut. Strike the lower portion of the spindle beside the ball joint, this will dislodge it from the taper.

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.

OEM DUST SHIELD MODIFICATION

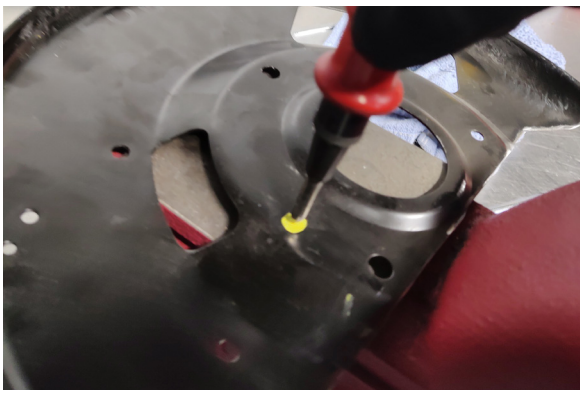
19. The original dust shield must be modified to fit the new spindle. Cut out the supplied template and overlay it across the dust shield. Ensure the two existing holes are lined up with the template.



20. Mark the cut line area and the new hole to be drilled.

21. Use a cut-off tool to remove the marked area of the dust shield. Use a grinder to smooth the edges of the cut line.

22. Use a punch tool to mark the center of the new hole to be drilled and drill the hole.



SPEED SENSOR MODIFICATION

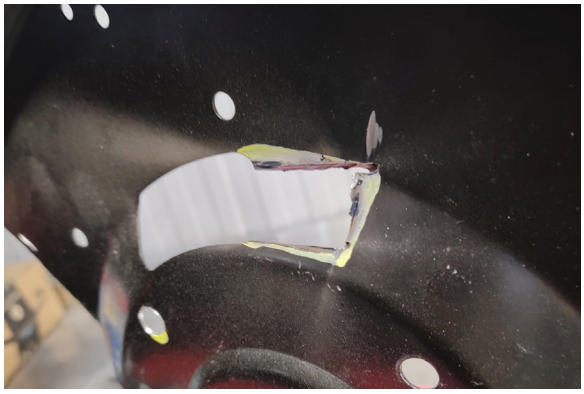
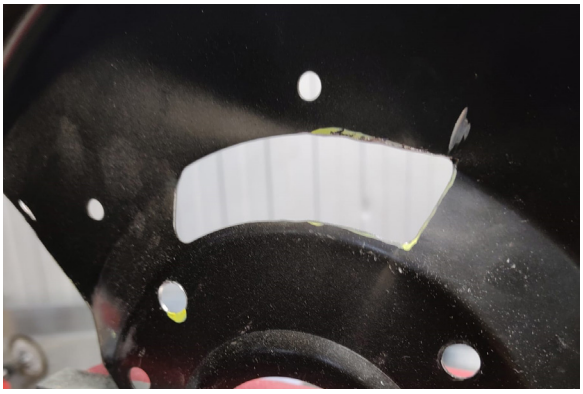
Technician note:

For later model trucks equipped with speed sensors, please continue with the following modification steps. If your vehicle is not equipped with speed sonsors please skip the following steps.

23. Use cutting pliers to cut the locating hook off the speed sensor bracket.

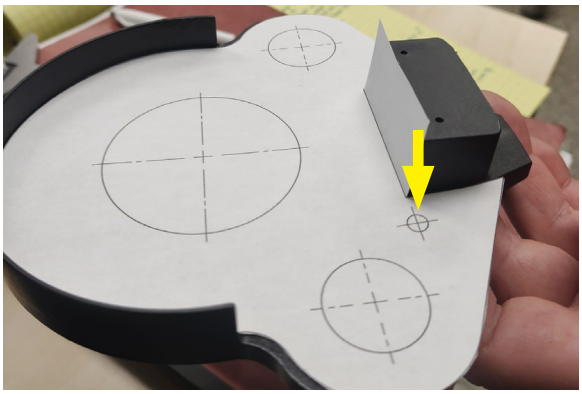

24. Measure and mark 1 inch to the elongated slot on the dust shield to increase the slot size for the speed sensor.


25. Cut the measured section on the slot. Deburr the edges to ensure there is a smooth suface around the wire that will pass through.

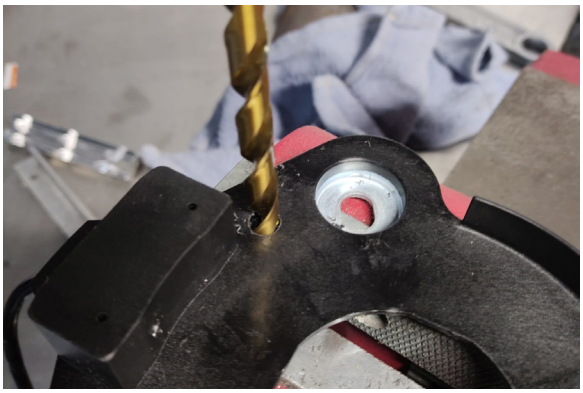



SPEED SENSOR MODIFICATION CONTINUED

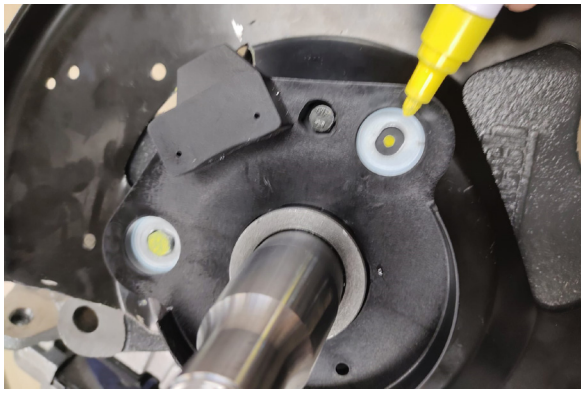
26. A new hole will need to be drilled out on the speed sensor bracket. Use template 2503B-887 to mark the hole to be drilled.

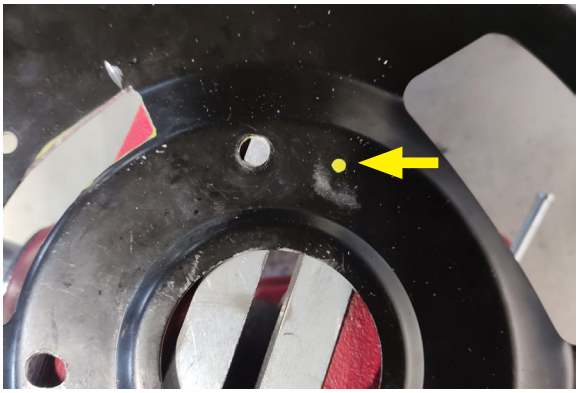


27. Start with a smaller drill bit, then increase up to a 8mm drill bit (5/16in).



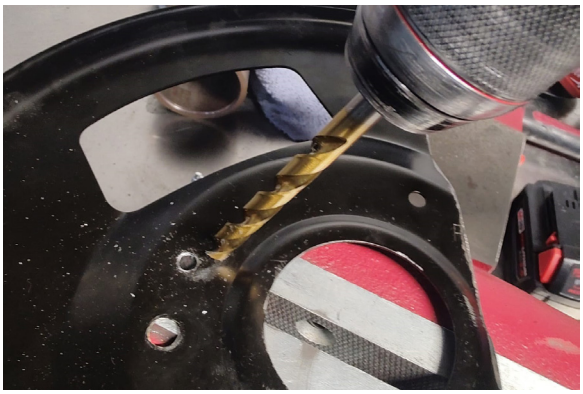
28. Use the speed sensor bracket as a guide to mark where a new bolt hole needs to be drilled out on the dust shield.





SPEED SENSOR MODIFICATION CONTINUED

29. Use a center punch to mark and center where the 6mm (1/4”) hole will be drilled out.

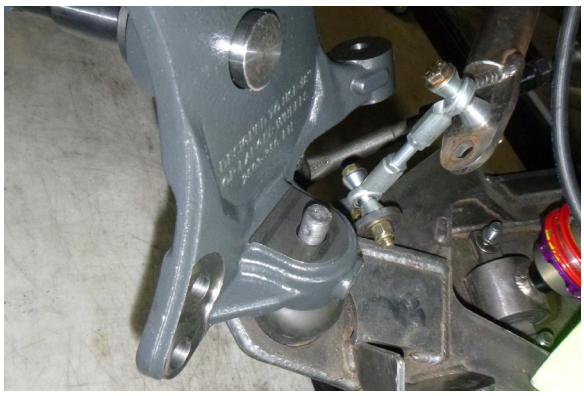



30. Feed the speed sensor cable through the elongated opening in the dust shield.

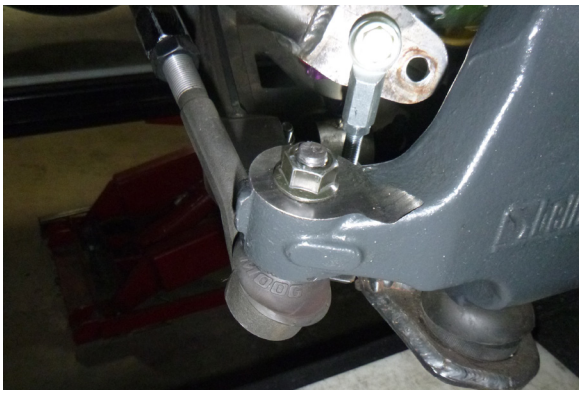
31. Use the original bolt and nut to attach the speed sensor bracket to the dust shield at the new bolt hole.


BELLTECH SPINDLE INSTALLATION

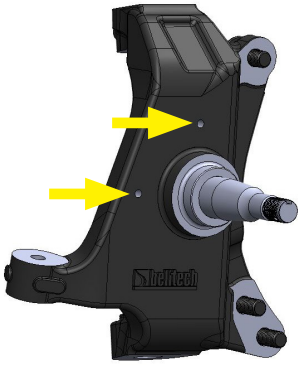
32. With the lower control arm supported to control the height of the suspension during the installation, place the new Belltech drop spindle on the lower control arm ball joint and secure it with the castle nut. Lift the upper control arm and place the upper ball joint into position on the spindle. 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.



33. 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.



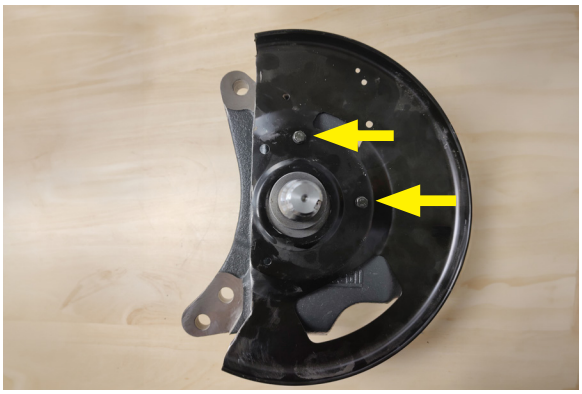
34. Attach two 10mm male to female hex standoff adapters to the face of the spindle, above and to the side of the shaft. Apply the supplied threadlocker to the threads and torque to 5 ft lbs.



BELLTECH SPINDLE INSTALLATION CONTINUED

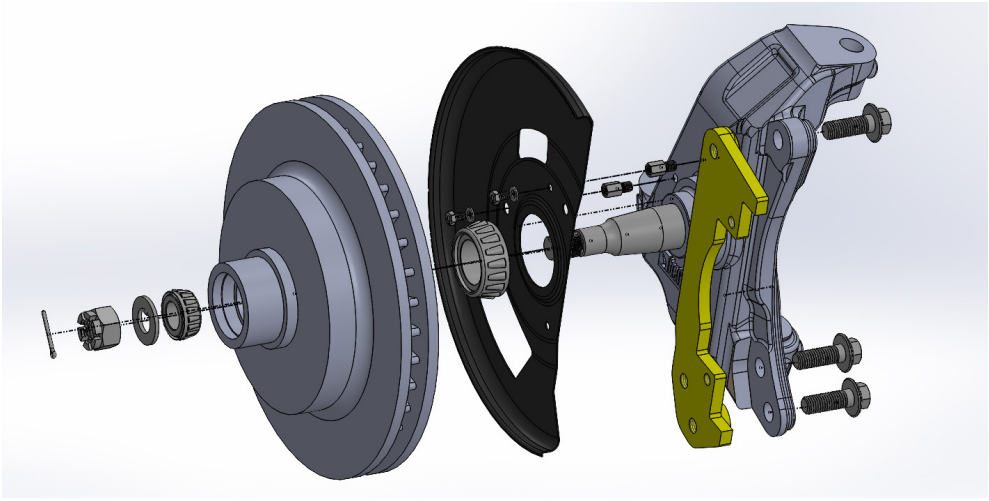
35. Attach the left and right hand side caliper adapters to the corresponding spindles with the M14-2.0 x 45mm flange bolts. Apply the supplied threadlocker to the threads and torque to 100 ft lbs.

36. Place the dust cover gasket on the spindle shaft and attach the brake dust shield to the hex standoff adapters with the supplied M6 x 1.0 - 10mm bolts and M6 washers; torque to 5 ft lbs.



37. 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.

38. Mount the hub and rotor assembly onto the new Belltech spindle. Ensure the bearing, washer, and nut are in the correct position.

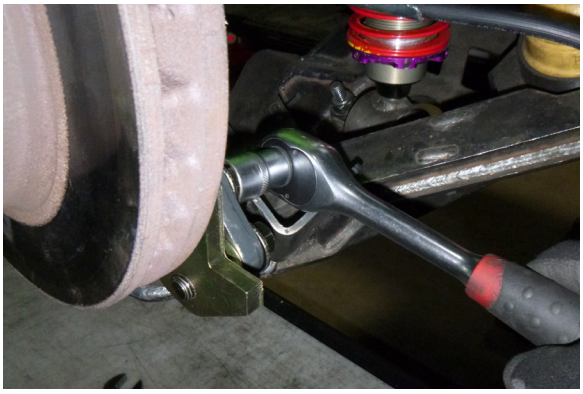


BELLTECH SPINDLE INSTALLATION CONTINUED

39. 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.

40. 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.

41. Mount the brake caliper onto the new spindle brackets. 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.

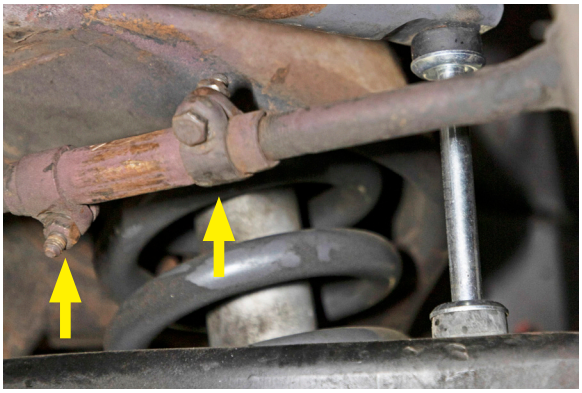


42. Attach the brake line and ABS line brackets to the upper control arm using the original hardware; torque to 13 ft lbs.

43. Attach the lower end link to the lower control arm; torque to 13 ft lbs.

44. 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.

45. 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.

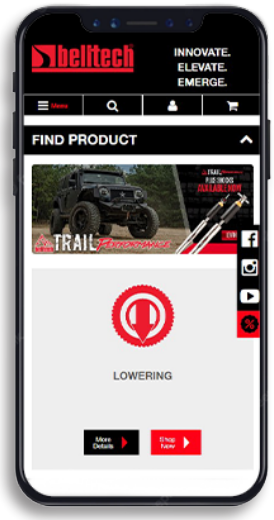


FINALIZING THE INSTALLATION

46. Lift the vehicle and remove the support stands.
47. Carefully lower the vehicle onto flat ground.
48. Torque the lug nuts to 125 ft lbs.
49. Check that all components and fasteners have been properly installed and torqued.
50. 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 Customer Support:

Phone: 1-800-445-3767

Email: info@belltech.com

KIT CONTENTS

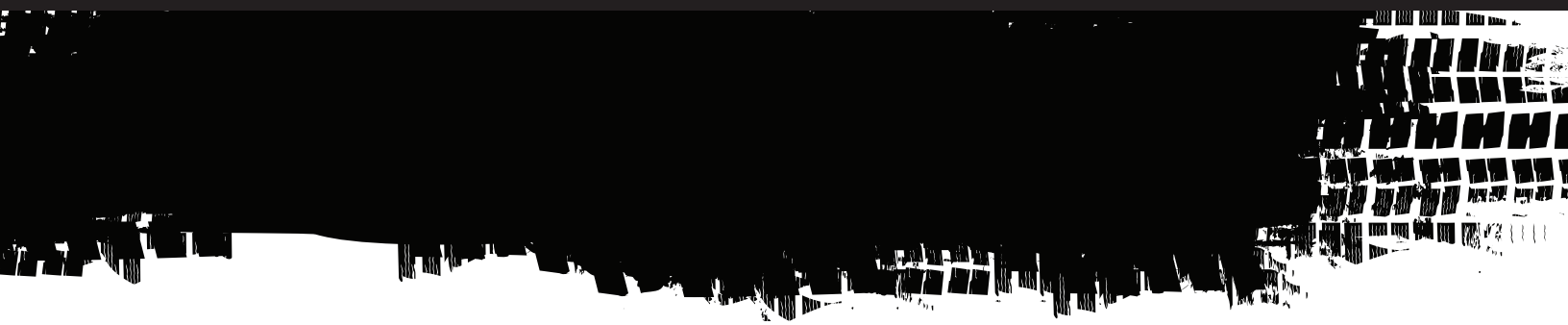
2503		
Part number	Description	Qty
2503-350-982	LH MACHINED SPINDLE	1
2503-450-982	RH MACHINED SPINDLE	1
2503-008-955	LH CALIPER BRACKET	1
2503-010-955	RH CALIPER BRACKET	1
2100-110	COTTER PIN PACK	1
2503-777	HARDWARE KIT	1
2503B-777	HARDWARE KIT	1
2503-887	DUST SHIELD TEMPLATE	1
2503B-887	SPEED SENSOR TEMPLATE	1

2503-777		
Part number	Description	Qty
110010-954	M8 X 1.25 MALE TO M6 X 1.0 FEMALE HEX ADAPTOR	4
110267	M6-1.0 X 10MM BOLT	4
110117	M6 WASHER	4
9999-001	RED THREADLOCKER	1

2503B-777		
Part number	Description	Qty
110283	M14-2.0 X 45MM FLANGE BOLT	6

KW automotive North America, Inc.
300 W. Pontiac Way
Clovis, CA 93612
Phone: +1-559-875-0222
Toll Free: 1-800-445-3767

belltech.com



belltech®

INSTALLATION GUIDE

PART NUMBER: 250005
FRONT UPPER CONTROL ARM KIT
GM C-1500 | 1988-1998

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 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/lowering 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.

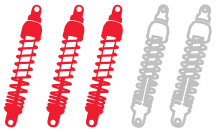
Perform headlight check and adjustment.

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
- 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 cut-off wheel
- Ball joint removal tool

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.

JACKING, SUPPORTING, AND PREPARING THE VEHICLE

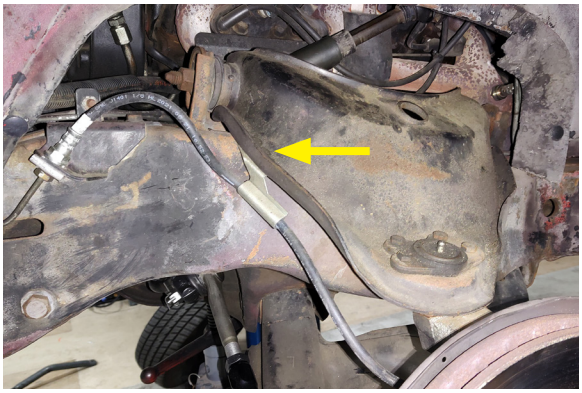
1. Park your vehicle on a smooth, level, concrete or seasoned asphalt surface.
2. Block the rear wheels of the vehicle using wheel chocks. Make sure the vehicle's transmission is in "PARK" (automatic) or 1st gear (manual).
3. Activate the parking brake.
4. Loosen, but do not remove, the front wheel lug 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 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:

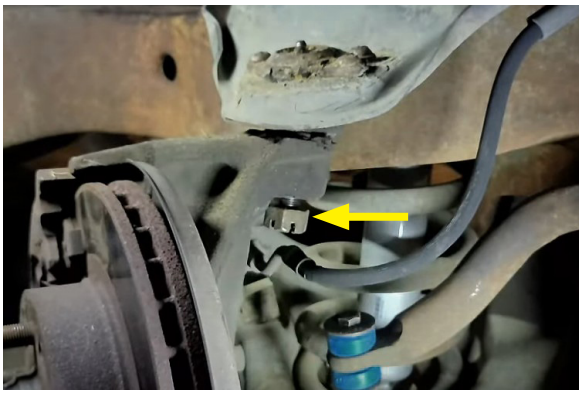
Never work under a vehicle supported only by a jack. It is necessary to place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.

OEM SUSPENSION REMOVAL

9. Place jack stands under the lower control arms to prevent them from moving during installation.
10. Remove the two 11mm upper control arm brake line bracket bolts to detach the brake line from the upper control arm.



11. Remove the cotter pin from the original upper control arm ball joint. Loosen the castle nut from upper control arm ball joint but do not remove the nut.



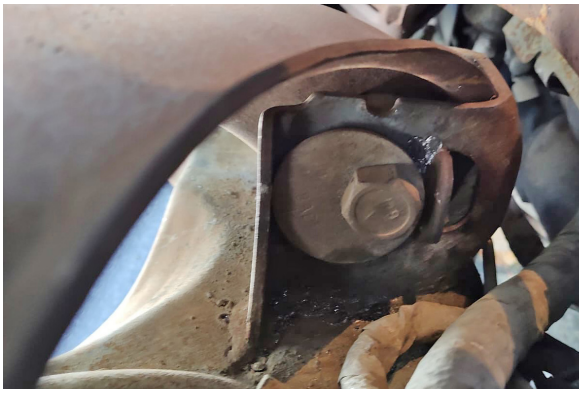
12. Unset the upper ball joint using the proper ball joint puller or pickle fork separator.

OEM SUSPENSION REMOVAL CONTINUED

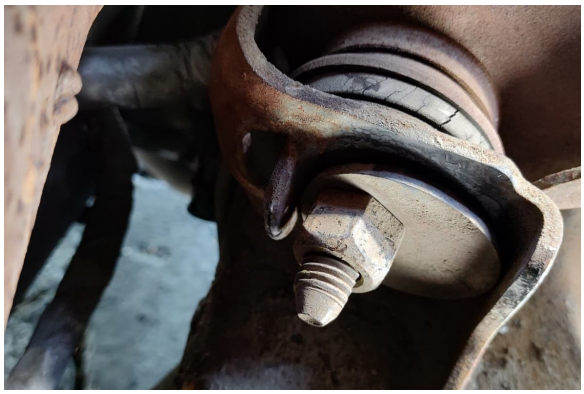
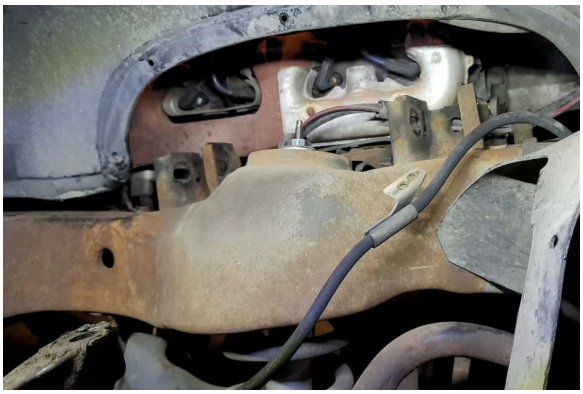
13. Once the upper ball joint is unset, remove the castle nut and lift the control arm to detach it from the spindle.


14. Remove the front most cam bolt, connecting the original upper control arm and the frame.


15. Hold the inside portion of the bolt so the cam bolt does not rotate.



16. Remove the rear most cam bolt from upper control arm and remove the upper control arm from the frame.

INNER FENDER MODIFICATION

Technician note:

The inner fenders must be modified to clear the suspension travel of the new Belltech control arm system. **Begin the modification on the driver side.**

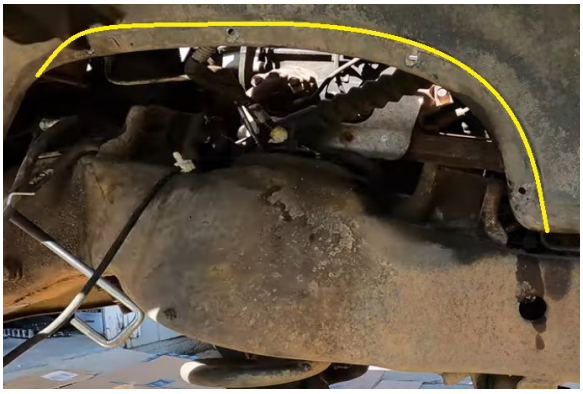
17. Use a marker or paint pen to mark a cut line along the radius line running along the inner fender. Please see the image below for reference.

Technician warning:

Locate any lines/wires or cables behind the fender before cutting.

We recommend using a cut-off wheel.

DO NOT use any type of plasma cutter or torch.



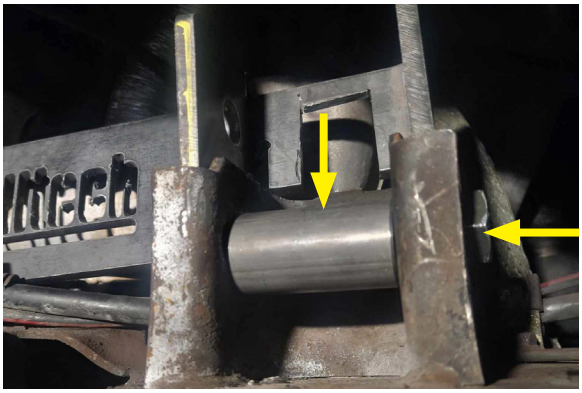
18. Do not cut more than the 30mm (1-3/16”).

19. Use a file to clean and remove any sharp edges. Finish the newly cut surfaces with a thin coat of paint to prevent rust.

BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION

20. The Belltech upper control arm brace goes around the front most upper control arm mount pivot point on the frame. At the rear, it is placed in front of pivot point.

21. Locate hardware kit 250005-777 and place the supplied 2.25” spacer tube in the original bolt hole location on the front pivot point. Fasten the spacer and upper control arm brace with the supplied M14 x 2.0-100mm bolt, M14 Nyloc nut, and washers. Run the bolt through the outside of the Belltech brace, passing through the spacer tube and out the opposite end. Do not torque yet.



Technician note:

The Belltech upper control arms are not pre-adjusted for camber or caster.

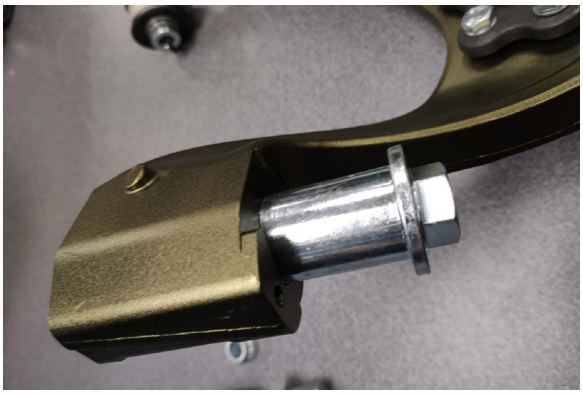
We recommend matching the length to the factory upper control arms and adjust when the vehicle is aligned.

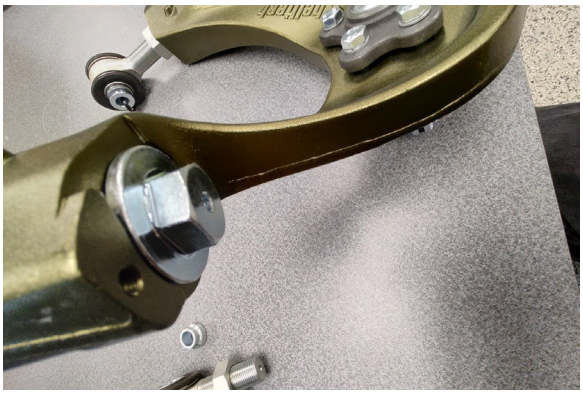
22. The Belltech upper control arms need to be assembled and set to the starting length. Begin with one side of the Belltech upper control arm.

BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION CONTINUED

23. Locate the adjuster sleeve for the control arm.

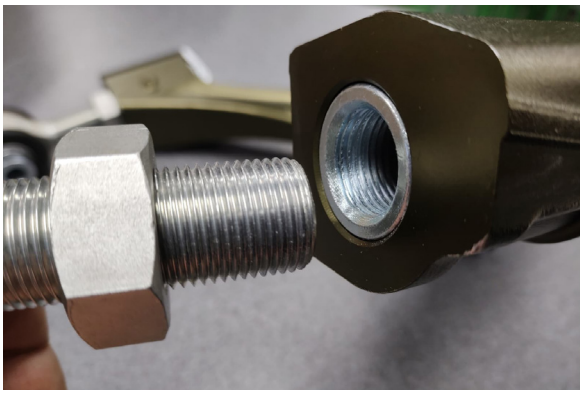
24. Slide the adjuster sleeve into the Belltech upper control arm.

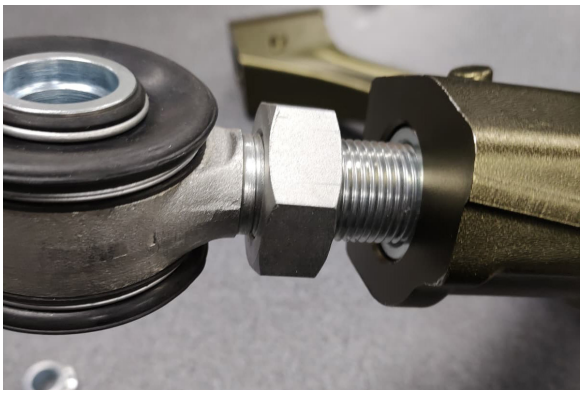




25. Locate the Belltech sealed rod ends.

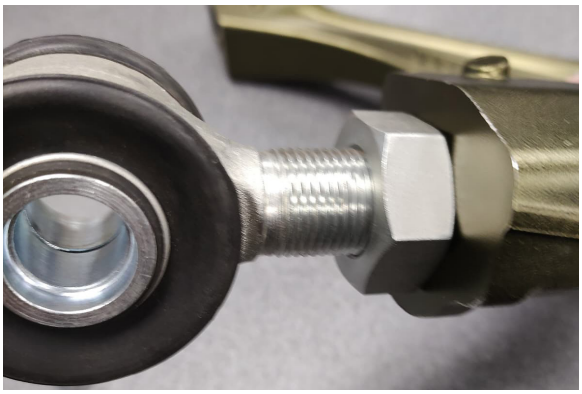
26. Attach the Belltech sealed rod ends onto the Belltech upper control arm adjuster sleeves. Add anti-seize on the threads of the rod end.





BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION CONTINUED

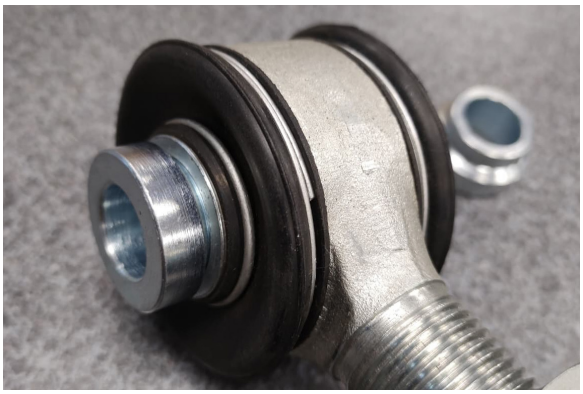
27. Hand tighten the jam nut on the Belltech sealed rod end onto the Belltech upper control arm. DO NOT TORQUE YET.



28. Locate the supplied Belltech CAM Lock plate, part# 250005-015, and attach it to adjuster sleeve hex head on the Belltech upper control arm.

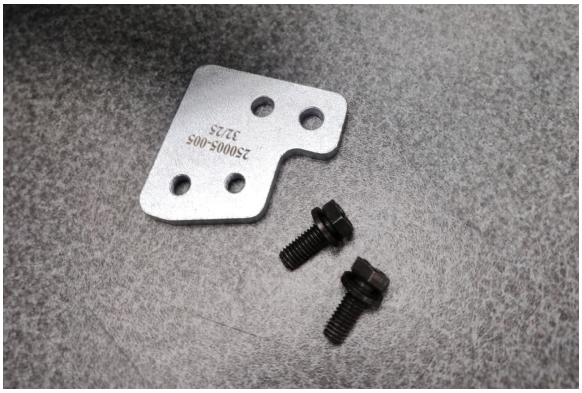
29. Fasten the CAM lock plate onto the control arm with the supplied M6 bolt and washer. Hand tighten the bolt onto the Belltech upper control arm. DO NOT TORQUE YET.

30. Locate the rod end spacers, part# 119011-954, two per side. Slide the spacers onto the Belltech sealed rod end.



BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION CONTINUED

31. Locate the control arm brake line bracket, part# 250005-005-954 along with the supplied M6 bolt and washers.



32. Attach the control arm brake line bracket onto the Belltech upper control arm. Torque to 10 ft lbs.

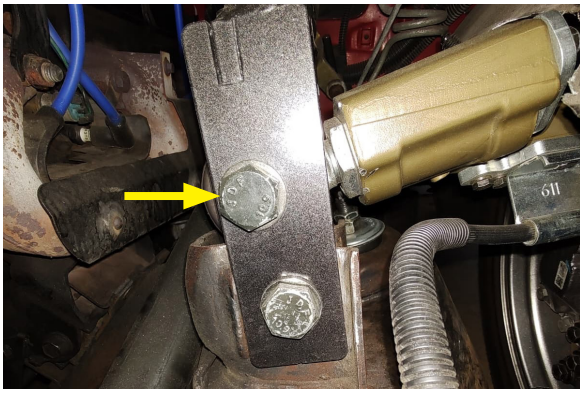
33. The Belltech upper control arm is assembled and ready to install.

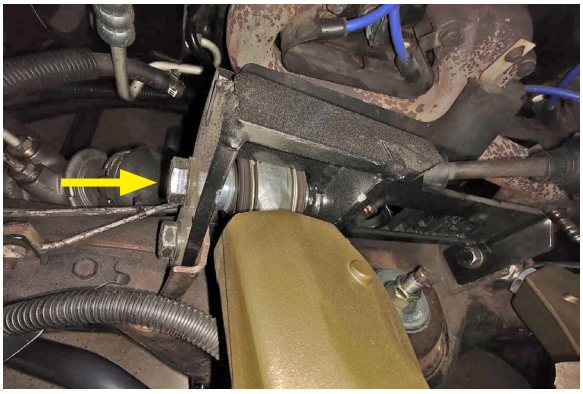
Technician note:

We recommend matching the length to the factory upper control arms and adjust when the vehicle is aligned.

BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION CONTINUED

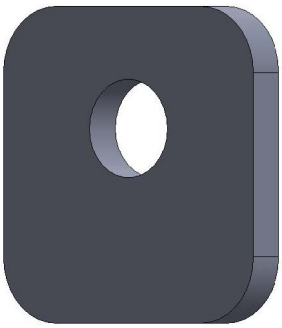
34. Attach the Belltech upper control arm sealed rod end onto the Belltech upper brace on the forward most mount of the brace. Fasten the rod end to the brace with the supplied M14 x 2.0-100mm bolt. Slide the bolt through the Belltech brace and Belltech sealed rod end. Hand tighten only.





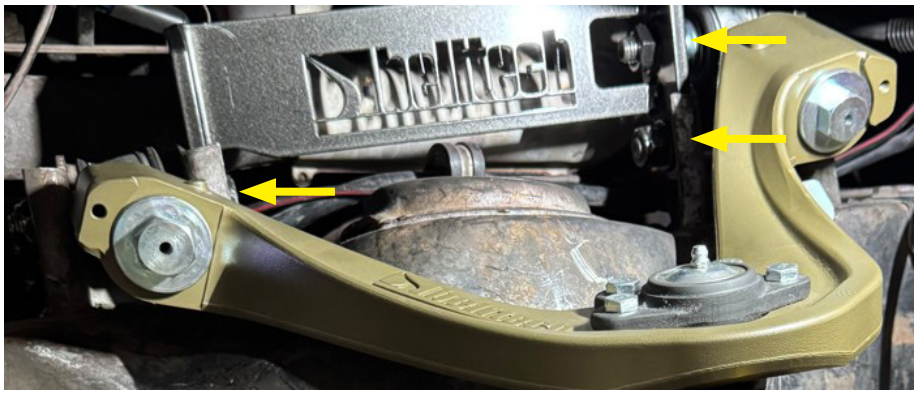
35. Attach the opposite side of the control arm with the supplied M14 x 2.0-100mm and washer, sliding them through the Belltech brace and Belltech sealed rod end, DO NOT ATTACH the outer washer or nut yet.

36. Place the supplied CAM plate, part# 250005-010-99S, toward the rear of the vehicle at the factory CAM tabs. Fasten the CAM and bolt with the supplied M14 Nyloc nut and outer washer.



BELLTECH UPPER BRACES AND CONTROL ARMS INSTALLATION CONTINUED

37. Torque down the three (3) M14 bolts securing the Belltech upper control arm to the Belltech brace and factory locations. Torque to 100 ft lbs.



38. Attach the Belltech upper control arm onto the spindle. Use the supplied Castle nut. Torque to 74 ft lbs. and continue tightening until cotter pin can slide through.

39. Attach the brake line bracket onto the Belltech upper control arm using the supplied M6 bolts.

Technician note:

Some aftermarket brake lines have slightly different brackets. Modifications may need to be made to the brackets for proper installation.

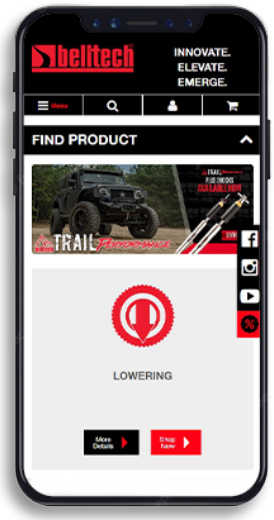
40. Lower the jack stands from supporting the lower control arms.

FINALIZING THE INSTALLATION

41. Mount the wheels and tighten the lug nuts.
42. Lift the vehicle and remove the support stands.
43. Carefully lower the vehicle onto flat ground.
44. Torque the lug nuts to 125 ft lbs.
45. Check that all components and fasteners have been properly installed and torqued.
46. 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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Email: info@belltech.com

POST-INSTALLATION WHEEL ALIGNMENT

Technician reminder:

After installation, a final shop alignment procedure is required.

To perform the wheel alignment using the adjuster sleeves on the Belltech upper control arm, the CAM lock plates need to be removed from the adjuster sleeve hex heads first. The jam nuts on the sealed rod ends need to be pushed away from the arm.

When the vehicle is on turn plates, the sleeves can be turned to adjust camber and caster.

Once desired alignment is achieved, fasten the CAM lock plate onto the control arm with the M6 bolt and washer. Hand tighten the bolt onto the Belltech upper control arm.

Tighten the sealed rod end jam nut against the Belltech upper control arm to finalize the adjustment.

KIT CONTENTS

250005		
Part number	Description	Qty
250005-A100L	CONTROL ARM (LH) (UPPER)	1
250005-A100R	CONTROL ARM (RH) (UPPER)	1
250005-001-99S	CONTROL ARM BRACE (LH)	1
250005-002-99S	CONTROL ARM BRACE (RH)	1
250005-777	HARDWARE KIT	1

250005-777		
Part number	Description	Qty
110220	M14 X 2.0 - 100MM BOLT	6
110222	M14 X 2.0 NYLOC NUT	6
110223	M14 WASHER	12
112476-954	2.25” SPACER TUBE	2
250005-010	SQUARED CAM PLATE	2
119011-954	ROD END SPACER	2
250005-005	BRAKE LINE BRACKET	2

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