



## INSTALLATION INSTRUCTIONS

6529

FLIP KIT & C-NOTCH KIT

### 2019 CHEVROLET SILVERADO 4WD CREW CAB

**Thank you for being selective enough to choose our high quality BELLTECH PRODUCT. We have spent many hours developing our line of products so that you will receive maximum performance with minimum difficulty during installation**

**Note:** Confirm that all of the hardware listed in the parts list is in the kit. **Do not** begin installation if any part is missing. Read the instructions thoroughly before beginning this installation.

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

**Warning:** **DO NOT** drive vehicle until all work has been completed and checked. Torque all hardware to values specified.

**Reminder:** Proper use of safety equipment and eye/face/hand protection is absolutely necessary when using these tools to perform procedures!

**Note:** It is very helpful to have an assistant available during installation. Some provided images may show addition holes / hardware, if instructions do not reference discrepancies please continue with the provided steps.

#### **RECOMMENDED TOOLS:**

- Properly rated floor jack and six (6) support stands
- Wheel chocks
- Grinder equipped with abrasive cut-off wheel
- 1/2" drive torque wrench
- Standard and Metric socket wrench set
- Standard and Metric wrench set
- Power drill and drill bits
- Large C-clamp
- Tape measure
- Steel construction square
- Medium weight ball peen hammer/ center punch
- Marking pen

## **KIT INSTALLATION**

As this is a relatively involved installation, **WE RECOMMEND** that a qualified mechanic, at a properly equipped facility, perform such installation. **WE RECOMMEND** that the installation be performed on a firm, flat and level surface such as seasoned asphalt or concrete.

**The use of safe, and properly equipment, is very important!**

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

- a) Block the front wheels of the vehicle with appropriate wheel chocks. Make sure the vehicle's transmission is in "PARK" (automatic) or 1st gear (manual). Activate the parking brake.
- b) Loosen, but **DO NOT REMOVE** the rear wheel lug nuts.
- c) Lift the rear of the vehicle off the ground using properly rated floor jack. Lift the vehicle so that the rear tires are approximately 6-8 inches off the ground surface.
- d) Support the vehicle using four (4) support stands, rated for the vehicle's weight. The stands should be positioned, two on each of the frame rails, just forward of the front leaf spring hangers and just below the rear leaf spring shackle hangers. Prior to lowering the vehicle onto the stands, make sure the supports will securely contact the straight, flat portions of the frame area. **It is very important that the vehicle is properly supported during this installation to prevent frame damage and personal injury! Make sure that the support stands are properly placed prior to performing the following procedures.**
- e) Lower the vehicle onto the stands slowly and check for possible interference with any brake lines, wire and or cables.
- f) Place support stands under each side of the axle to support the weight of the axle. Make sure these are only support the weight of the axle and allowing the 4 other support stands to support the frame.
- g) Remove the rear wheels
- h) Remove the rear shocks (dampers)

### **!SAFTEY REMINDER!**

**Check for safe and vehicle stability before proceeding under the vehicle to the begin the following procedures. Never work under a vehicle supported by **ONLY** a jack. Always use properly rated support stands to support the vehicle.**

**NOTE:**

**DUE TO THE DESIGN OF THE INCLUDED FRAME NOTCH SUPPORTS, HERE-TO-FORE REFERRED TO AS “C-NOTCH”, SOME INSTALLERS MAY PREFER TO REMOVE THE BOX TO FACILITATE ACCESS TO THE FRAME. REFER TO THE APPROPRIATE *GENERAL MOTORS SERVICE MANUAL* FOR RECOMMENDATIONS REGARDING *PICKUP BOX REMOVAL PROCEDURE*.**

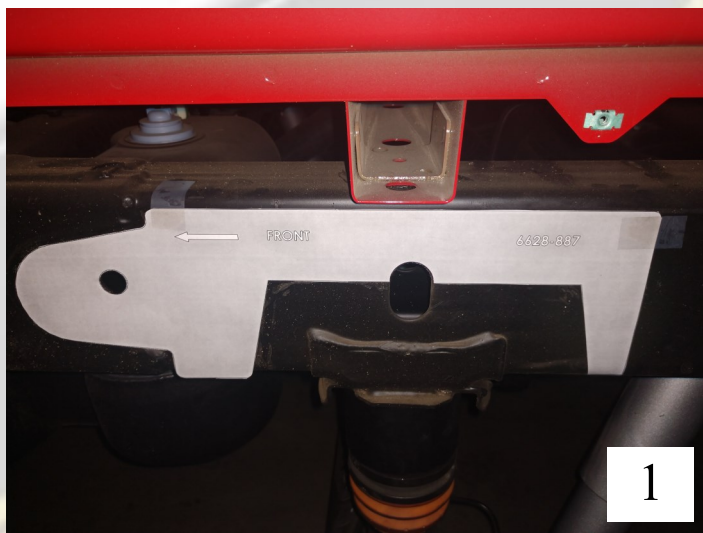
**PROPER USE OF SAFETY EQUIPMENT AND EYE/FACE/HAND PROTECTION IS ABSOLUTELY REQUIRED WHEN PERFORMING THE FOLLOWING PROCEDURES.**

**\*\*To avoid chassis damage, perform the following procedures to only ONE frame rail at a time. \*\***

**2) C-NOTCH INSTALLATION**

- a) Use template 6628-887, provided in the kit, with the notch portion just above the bump stop bracket and align the half circle with the vertical oval on the frame. The upper line should align with the top of the frame with the forward arrow pointing towards the front of the vehicle. There is a secondary front hole to align to get as accurate as possible. **(Photos 1 & 2)**
- b) Clean the surface where the notch will be made so that using a permanent marker to mark the frame is visible.
- c) Trace the notch on the template, onto the frame . Marking the corners and drilling each corner with a 1/4” drill bit will make cutting more efficient.

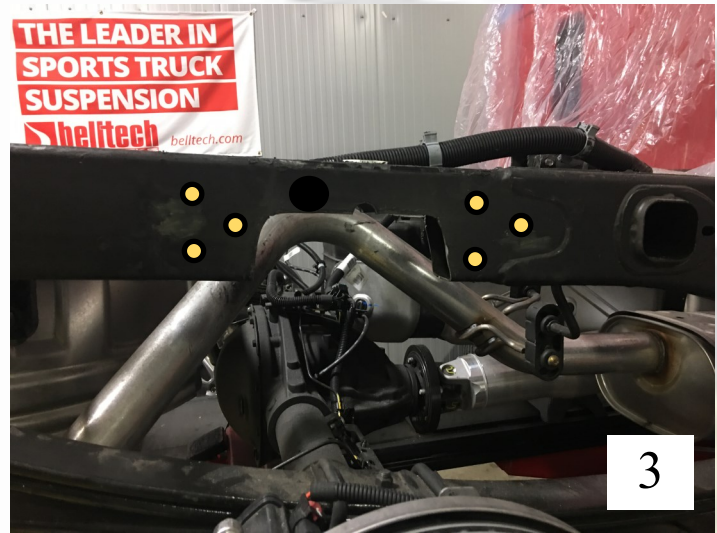
**\*\* Due to the close proximity of the fuel tank to this area, we DO NOT recommend using a flame-cutting torch or plasma cutter when performing these operations. Excess heat can easily damage the frame rail and other adjoining components. \*\***



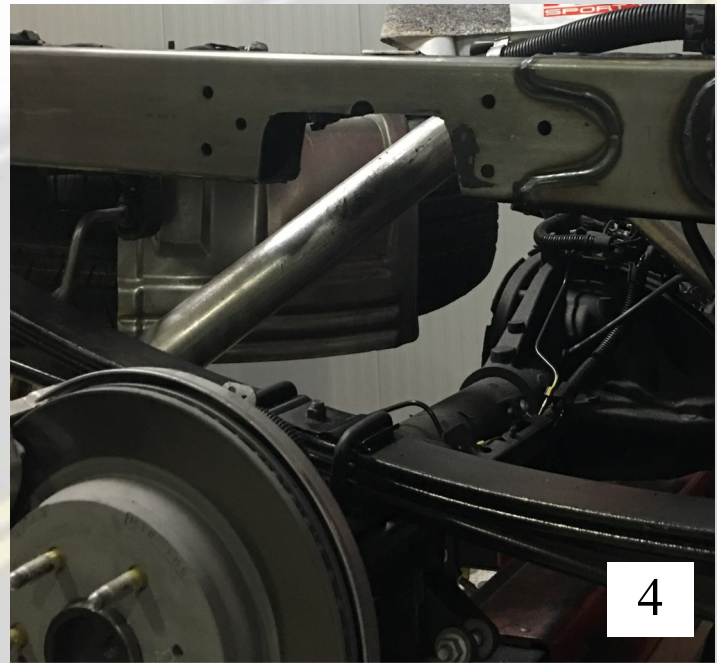
- d) Cut along the marked lines carefully, **DO NOT** remove any material from the frame rail that is not shown or described here.
- e) Deburr all cut edges, paint cut edges and bare metal to prevent rust
- f) Slide the outer notch over the frame. It may be necessary to use a soft face hammer to position the C-Notch shell over the frame

**\*\* Some adjustments may be done to the frame after using the template as some frames vary from vehicle to vehicle and adjust accordingly until the C-Notch shell fits over the frame. \*\***

- g) With the C-Notch installed against the outside face of the frame rail and use a paint marker, or center punch, to mark all the holes onto the frame using the C-Notch to locate the holes. **(Photo 3)**
- h) Drill the holes using a 1/2" (50.2mm) drill bit. On both sides of the frame rail. **(Photo 4)**
- i) Install the C-Notch outer shell with the inner support bracket using the 1/2"-20 X 4.5" bolts provided using a washer on either side and using the corresponding Nylon-lock Nut Torque to 60ft/lbs. **(Photo 5)**
- j) Install the four 1/2"-20 X 1-1/2" bolts, washer and Nylon-lock Nut on both the top tabs and bottom tabs. Torque to 40 ft/lbs.
- k) Repeat steps 2a-2j for the other side.



3



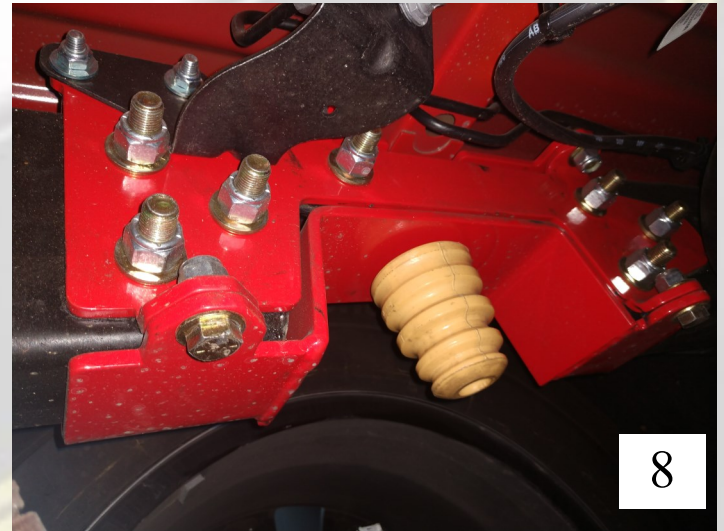
4



- l) On the driver side, mount the OEM brake bracket onto the inner C-Notch using the OEM 8MM-1.25, thread directly onto the C-Notch Inner support bracket. **(Photo 6)**

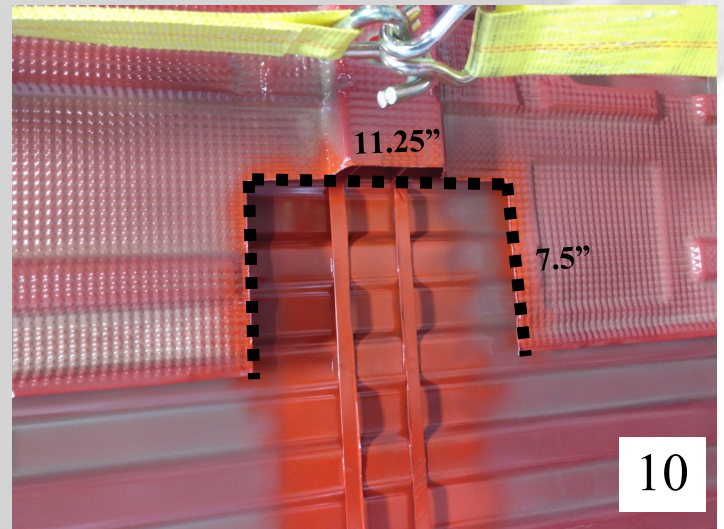
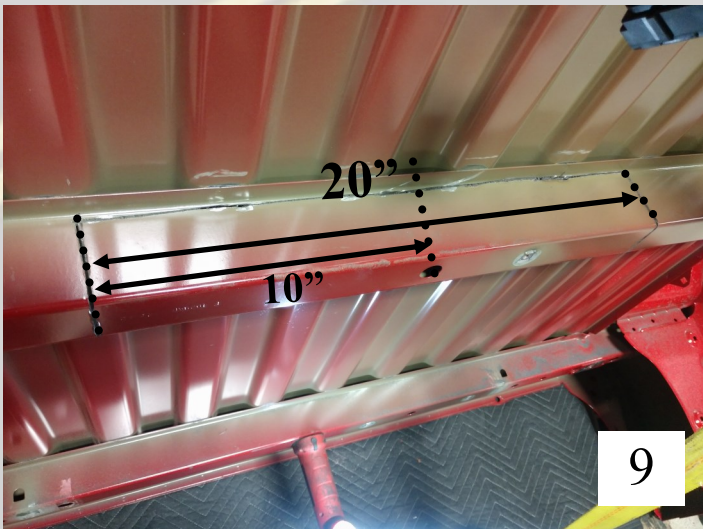
**\*\* May need to bend portions the brake lines to clear the bed support frame, make sure not to over extend/ bend the brake lines \*\***

- m) Install the OEM wire loom on the **PASSANGER SIDE** using the two holes on the inner support bracket and the supplied zip tie. **(Photo 7)**
- n) Install the supplied Bump Stop ( 5922-001) **(Photo 8)**



### 3) BED CROSSMEMBER NOTCH

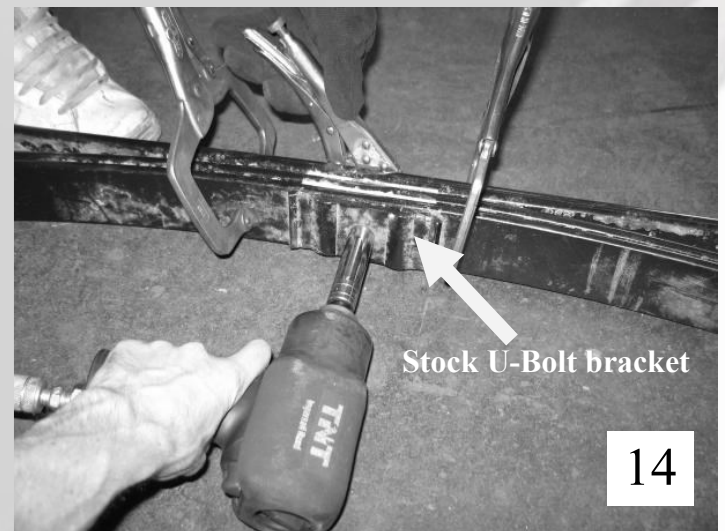
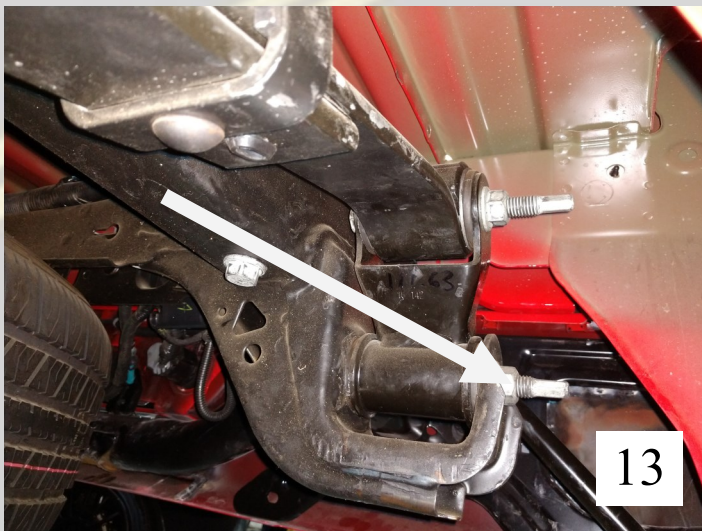
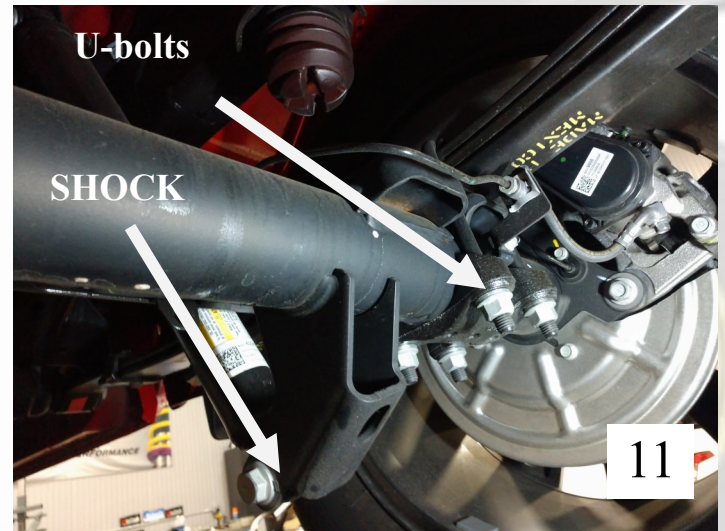
- a) Mark , using a permanent marker, where the cross-member is to be cut. **(Photo 9)**
- b) The heat shield will need to be cut also, 11.25" X 7.5" **(Photo 10)**



## FLIP KIT INSTALLTION

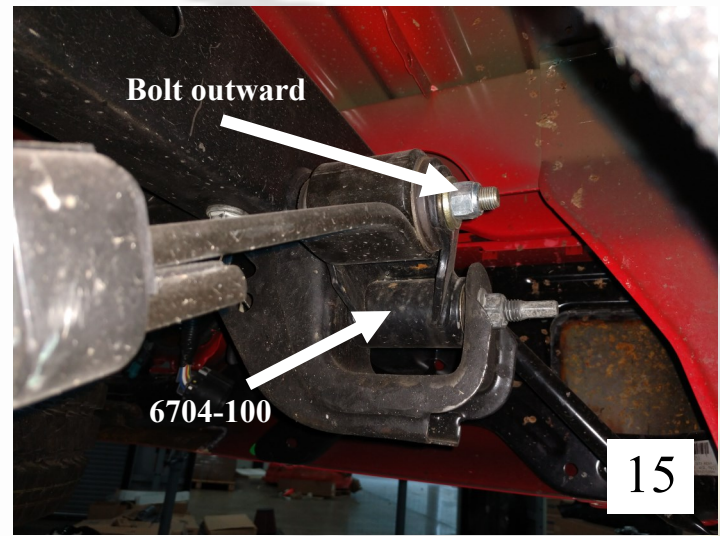
### 4) LEAF SPRING REMOVAL

- a) Remove the rear shocks
- b) Make sure the axle is supported before removing the U-bolts.
- c) Remove the U-Bolts (two per each LEAF SPRING) that are attached to the rear axle and brake lines, **(Photo 11)**
- d) Lower the axle from the leaf spring and support it; make sure not to put tension on any electrical or brake lines/hoses that are attached to it.
- e) Loosen, but do not remove the rear leaf spring mounting bolts as well as the shackle mounting bolts.
- f) Remove the front leaf spring mounting bolt. Once the bolt is removed, the LEAF SPRING should be able to atop of the rear axle. **(Photo 12)**
- g) Remove the bolts securing the rear shackle to the hanger. Carefully remove the leaf spring. **(Photo 13)**
- h) Mark each leaf spring LEFT, RIGHT and FRONT side . So they are installed correctly.
- i) Reverse the center bolt pin direction on both the LEAF SPRINGS for proper installing. Use a C-Clamp to keep the leaf spring assembly in tack while reversing the center bolt. While the center pin is removed , remove the stock U-bolt positioning bracket as it will not be used with this Belltech Kit.



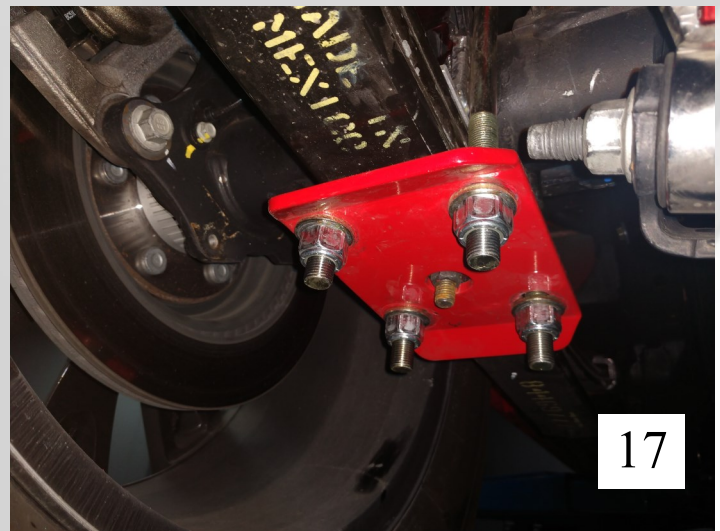
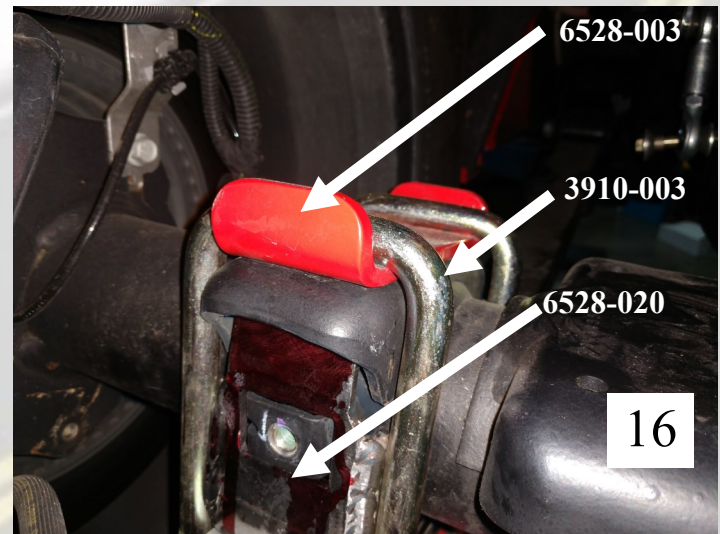
## 5) LEAF SPRING INSTALLATION

- a) Raise the axle so you have plenty of room to place the leaf spring under the axle and room to bolt leaf spring in its OEM position.
- b) Install the supplied Belltech Shackle 6704-100 with its hardware on to the rear of the leaf spring with the bolt in the outward position. **(Photo 15)**
- c) Install the front of the leaf spring first using the original hardware. Start to tighten but do not tighten completely.
- d) Attach the rear Belltech Shackle to the OEM rear leaf spring hanger using the OEM bolt for the hanger. The Leaf spring will now be located underneath the rear axle. **(Photo 15)**



## 6) AXLE SADDLE AND U-BOLT INSTALLATION

- a) Place the Belltech Saddles, **6528-020**, on top of the springs with the hole over the head of the spring center belt. To properly position the axle, the window of the saddle sits towards the rear of the vehicle slides over and under, back to front, positioning the brake line bracket inside the saddle window. **(Photo 16)**
- b) Lower the axle onto the saddles slowly. The ears should fit into the stock spring perches on the axle tubes. Make sure both ears on each saddle locate completely in the perches.
- c) Place the Belltech U-bolt spring pad, **6528-003**, on top of the spring pad and using the provided U-Bolts, **3910-003**, place them on the spring pad with the U-Bolt inside the two bent flanges so they are locked into position. **(Photo 16)**
- d) Install the Belltech U-Bolt Plate, **6545-010**, under the leaf spring with the offset holes forward, so the U-Bolts pass through the appropriate slots. Attach the plate using washers and locknuts. Tighten and torque locknuts to 90 ft/lbs **(Photo 17)**
- e) Install the brake lines and electrical brackets (if any removed)
- f) Install rear shocks



## 7) 2WD TRANSMISSION SPACER

Transmission spacer , **6529-040** works in tandem with our provided saddle to correct a small vibration.

- a) Locate the OEM transmission spacer and remove the two nuts securing it to the frame with a 18mm socket. **(Photo 18 / 19)**
- b) Using a jack stand, carefully raise the transmission to create a gap between the frame and the OEM transmission mount. **Be careful to not pinch or crush any of the wiring connectors above the transmission.**
- c) Slide the 6529-040 transmission spacer between the two studs, then turn to locate them within the spacer. The spacer should run parallel with the frame
- d) **Reinstall the two nuts to properly sandwich the spacer between the frame or transmission mount.**





<b>PARTS LIST</b>		
<b>PART #</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
6628-001	C-NOTCH (LH)	1
6628-008	C-NOTCH STIFFENING PLATE (LH)	1
6628-003	C-NOTCH (RH)	1
6628-010	C-NOTCH STIFFENING PLATE (RH)	1
6545-010	U-BOLT PLATE	1
6528-003	U-BOLT SPRNG PAD	1
6529-020	AXLE SADDLE	1
110660	1/2" FLAT WASHER	48
110424	HH CAP SCREW 1/2"-20 x 3-3/4"	12
110409	HH CAO SCREW 1/2" - 20 x 1-1/2"	8
110403	NYLON LOCK NUT 1/2"- 20	20
3910-003	U-BOLT 9/16"-18 x 2.6" x 7.8"	4
110455	NYLON LOCK NUT 9/16" - 18	8
4924-001-BN	BUMP STOP	2
6704-100	LIFTING SHACKLE ASSEMBLY	2
6529-040	TRANSMISSION SPACER	1



## INSTALLATION INSTRUCTIONS

### STREET PERFORMANCE & NITRO DROP 2 SHOCKS

**Congratulations! You were selective enough to choose a BELLTECH PRODUCT.**

**Belltech Shocks for truck suspensions are designed for easy installation. If not otherwise stipulated in these instructions, all suspension components are installed and removed in accordance with the manufacturer's specifications for installing and removing standard damper components.**

#### **Construction Lube**

When you install your Belltech Street Performance or Nitro Drop 2 Shock you may notice a slight oil drip down the side. **The shock is not leaking.** This is oil lubrication used in the construction assembly of the shock. Simply wipe the oil off with a damp cloth.

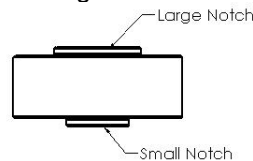
#### **Nitro Drop 2 Shocks**

Your Nitro Drop 2 Shock is a low pressure oil shock. If the shock is compressed the rod will not return to an extended position on its own. ***The shock's performance relies on the internal Belltech valving technology which is not affected by the relative pressure of the shock.***

#### **Pin Bushings**

Your Belltech Street Performance or Nitro Drop 2 Shocks may be fitted with a Pin Bushing. If so it is necessary to properly fit the bushing to your vehicle by choosing the correct notch on the Pin Bushing.

1. Remove OE shock from vehicle.
2. Examine OE pin bushing and measure diameter of notch.
3. Compare to the 2 different notch sizes on the top and bottom of the supplied Belltech Pin Bushing and use the notch that most closely matches your OE pin bushing.



4. Install the shock with the selected notch sandwiching the shock mount of the vehicle.

## Dust Cover

Your Belltech Street Performance Shocks may be fitted with a removable dust cover. Some vehicle applications may require you to remove the dust cover for more clearance.



1. Check vehicle to see if there is enough clearance for dust cover. If there is not enough clearance, remove the dust cover by removing the pin bushings and washers and then remove the dust cover.
2. Install included 10mm (0.39in), part number 112445, dust cover spacer.



3. Install washer and bottom pin bushing, with selected notch facing up (see Pin Bushing section, above), then install on vehicle with top pin bushing, with selected notch facing down (see Pin Bushing section, above) and washer.



## INSTALLATION INSTRUCTIONS

**25019**

**LOWERING STRUT**

**2019 2WD/4WD SILVERADO, SIERRA 1500**

**IMPORTANT NOTE**

**THIS STRUT GIVES YOU THE OPTION OF A 0" TO 3" DROP  
IN 0.5" INCREMENTS.**

**Thank you for being selective enough to choose our high quality BELLTECH PRODUCT.  
We have spent many hours developing our line of products so that you will receive  
maximum performance with minimum difficulty during installation.**

**Note:** Confirm that all of the hardware listed in the parts list is in the kit. **DO NOT** begin this installation if any part is missing. Read the instructions thoroughly before beginning this installation.

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

**Warning:** **DO NOT** drive the vehicle until all work has been completed and checked. Torque all hardware to values specified.

**Reminder:** Proper use of safety equipment and eye/face/hand protection is absolutely necessary when using these tools to perform procedures!

**Note:** It is very helpful to have an assistant available during the installation process.

**Note:** We **DO NOT RECOMMEND** using wheel ramps while performing this installation.

**Note:** **On some vehicles when using the full 2" or 3" drop it might not be possible to get the vehicle into OE camber specifications.**

**RECOMMENDED TOOLS:**

- Blocks and Wheel chocks
- Ratcheting Socket Wrench
- Safety Glasses
- Floor jack and Jack Stands
- Torque Wrench 10-180 lb./ft. range
- Properly rated floor jacks and support stands
- Combination Wrench

**KIT INSTALLATION**

**1a.** Open the hardware kit and remove all the contents. Refer to the parts list (Page 6) to verify that all parts are present.

**1b.** Park the vehicle on smooth, level concrete or seasoned asphalt surface and activate the parking brake. Block the REAR wheels of the vehicle with appropriate wheel chocks; making sure the vehicle's transmission is in 1st gear (manual) or "Park" (automatic).

**1c.** Using a properly rated floor jack, lift the FRONT wheels of the vehicle off the ground. Place support stands rated for the vehicle's weight and in the factory specified locations. Refer to the vehicle Owner's Manual. Prior to lowering the vehicle onto the stands, make sure the supports will securely contact the chassis.

**1d.** It is very important that the vehicle is properly supported during this installation to prevent personal

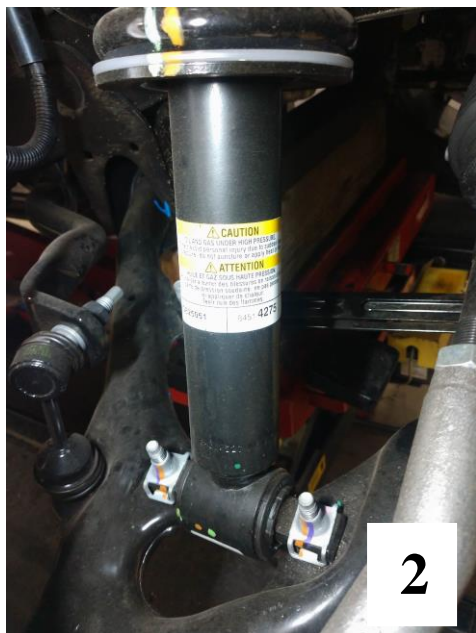
injury and chassis damage. Make sure that the support stands are properly placed prior to performing the following procedures. We **DO NOT RECOMMEND** using wheel ramps while performing this installation.

### **REMOVING THE O.E.M. FRONT STRUT**

2a. Locate the top three mount bolts of the front spring/strut assembly.

2b. Remove all three mounting nuts that attaches the top of the spring/strut assembly to the chassis (**Photo 1**)

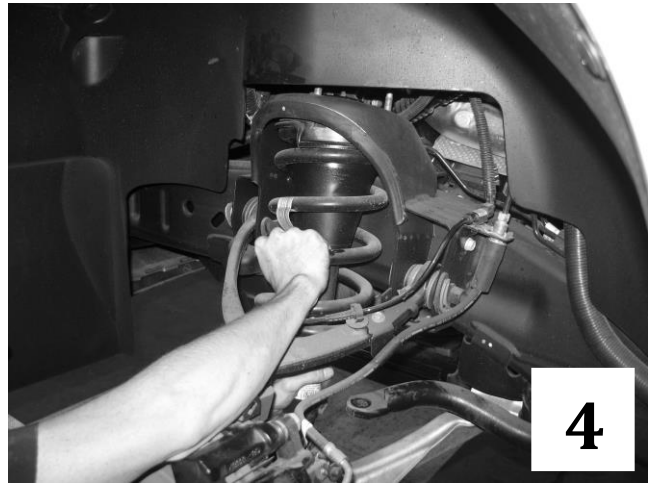
2c. Remove the two bottom mounting nuts of the spring/strut assembly (**Photo 2**)



2d. Remove the mount nuts from the end links. Detach the sway bar from the end link. (**Photo 3**)



2e. Once all mounts have been un-bolted, hold the spindle assembly while slightly pushing down, dislodging the bottom spring/strut assembly from its bottom mounts dislodging the entire spring/strut assembly from its perch (**Photo 4**)



**Coil springs may be under tension. Springs under tension store a great amount of energy. Use caution during the following steps to avoid personal injury and/or damage to vehicle. Be careful not to damage the brake hoses.**

### **STRUT DISASSEMBLY**

The installation pictures shown have been done at a professional installation shop. **It is important to use a spring compressor to compress the spring before removing the top mount bolt or serious injury may occur.**

3a. Mount the entire spring/strut assembly in the fixture. (**Photo 5**) To ease the installation of the new strut, mark a white line down the center of the assembly for alignment purposes.

3b. Compress the spring until tension is relived from the top mount.

3c. Remove the top mount nut and top spring perch.

3e. Remove the OEM strut, and bump stop.



**STRUT ASSEMBLY**

4a. Install your required spacers for the desired height onto the BELLTECH shock. See table below.

2WD APPLICATION					
		NUMBER OF RINGS TO PUT ON STRUT			
PART #	ITEM DESCRIPTION	LOWERING HEIGHT 3" (76.2mm)	LOWERING HEIGHT 2" (50.8mm)	LOWERING HEIGHT 1" (25.4mm)	OEM HEIGHT
25003-075	7.5mm (0.29in)	1	1	1	1
25003-015	15mm (0.59in)	0	1	2	3
4WD APPLICATION					
		NUMBER OF RINGS TO PUT ON STRUT			
PART #	ITEM DESCRIPTION	LOWERING HEIGHT 3" (76.2mm)	LOWERING HEIGHT 2" (50.8mm)	LOWERING HEIGHT 1" (25.4mm)	OEM HEIGHT
25003-075	7.5mm (0.29in)	0	0	0	0
25003-015	15mm (0.59in)	1	2	3	4

4b. Install BELLTECH spring perch onto strut once the desired combination of rings is installed.

4c. Insert the BELLTECH bump stop and vent disc.

4d. Insert the BELLTECH strut into the OEM spring.

4e. Complete the assembly using the OEM spring isolator, top mount, and supplied nut. **(Photo 6)**



**INSTALL THE FRONT SHOCK/SPRING**

5a. Re-install on the new assembly in reverse order of disassembly. You will re-use the OEM nut clips to install the new BELLTECH strut.



**Note it may be necessary to unbolt the upper control arm from the spindle to fit the strut into the mounted position. If this is necessary, remove the upper ball joint nut from the spindle and disconnect the ball joint from the spindle. (Photo 7) Install the Belltech strut following Step 4e. Reinstall the upper ball joint to the spindle and tighten all the fasteners to factory specifications.**

5b. Re-install the sway bar end links to 18ft-lbs.

### **FINALIZING THE INSTALLATION**

All hardware being fastened to the vehicle's original fastening points should be torqued to the factory specifications (Reference Service Manual for Specifications). To prevent chassis damage, never over-torque the hardware.

**7a.** Check that all components and fasteners have been properly installed, tightened and torqued.

**7b.** Check brake hoses and other components for any possible interference.

**7c.** Lift the vehicle and remove the support stands. Carefully lower the vehicle to the ground.

**7d.** Immediately test-drive the vehicle in a remote location so that you can become accustomed to the revised driving characteristics and handling. Be aware that the vehicle will handle substantially different now that it has been modified.

**7e.** Installation is complete. Check all the hardware and re-torque at intervals for the first 10, 100, 1000 miles. If deemed necessary, have vehicle aligned to account for ride height and camber changes.

<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QTY</b>
<b>25019</b>	SHOCK	1
<b>25003-075</b>	7.5 mm SPACER	1
<b>25003-010</b>	15 mm SPACER	4
<b>4926-001</b>	Belltech Bump Stop	1
<b>65210031</b>	Vent Disc	1
<b>25003-002</b>	Belltech Spring Perch	1





## INSTALLATION INSTRUCTIONS

2519

### 2" DROP STEERING KNUCKLE

## 2019 CHEVROLET SILVERADO 2WD CREW CAB

(Must use 18" or larger wheels)

**Thank you for being selective enough to choose our high quality BELLTECH PRODUCT. We have spent many hours developing our line of products so that you will receive maximum performance with minimum difficulty during installation**

**Note:** Confirm that all of the hardware listed in the parts list is in the kit. **Do not** begin installation if any part is missing. Read the instructions thoroughly before beginning this installation.

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

**Warning:** **DO NOT** drive vehicle until all work has been completed and checked. Torque all hardware to values specified.

**Reminder:** Proper use of safety equipment and eye/face/hand protection is absolutely necessary when using these tools to perform procedures!

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

### RECOMMENDED TOOLS:

- Properly rated floor jack and six (6) support stands
- Wheel chocks
- 1/2" drive torque wrench up to 200 ft/lbs range
- Standard and Metric socket wrench set
- Standard and Metric wrench set
- Tape measure
- Pliers
- Steel construction square
- Medium weight ball peen hammer/ center punch
- Marking pen
- Safety Glasses

## 1) KIT PREPERATION

- a) Open the hardware kit and remove all of the contents. Refer to the parts list ( Page #) to verify that all parts are present.
- b) Park the vehicle on a smooth, level concrete or seasoned asphalt surface and activate the parking brake. Block the REAR wheels of the vehicle with appropriate wheel chocks; making sure the vehicle's transmission is in 1st gear ( manual) or “ Park” (automatic).

! It is very important that the vehicle is properly supported during this installation to prevent personal injury and chassis damage. Make sure that the support stands are properly placed prior to performing the following procedures. We **DOT NOT RECOMMEND** using wheel ramps while performing this installation. !

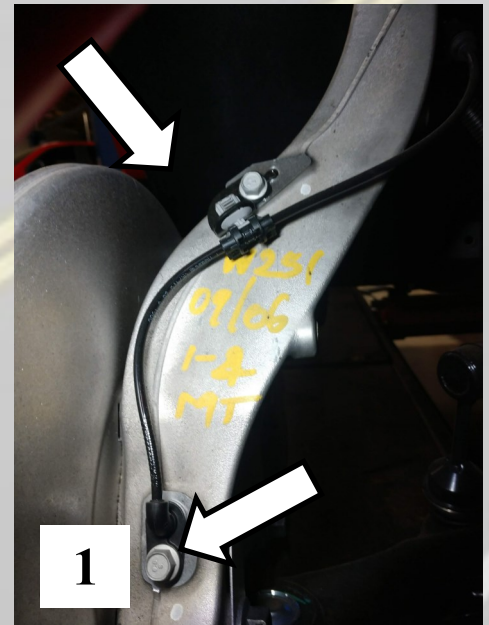
- c) Slowly lower the vehicle onto the stands and before placing the vehicle's entire weight on them. Again, check that they are properly and securely contact the chassis as described above. Check for possible interference with any lines, wires, cables, or other easily damaged components.

## 2) STEERING KNUCKLE REMOVAL

- a) Starting on the passenger side of the vehicle, remove the wheel from the hub assembly. Unbolt the brackets connecting the hydraulic brake line/ ABS sensor on the side of the steering knuckle and top control arm using a 10mm socket. (PHOTO 1 & 2)

(HINT: Removing the strut will allow easy installation of the steering knuckle. Using an 18mm wrench, remove the 3 top cap nuts of the strut. A 15mm socket will release the struts two mounting bolts from the lower control and allow the strut assembly to drop between the control arm. Disconnecting sway bar linkages from the lower control arms and will allow more movement when removing the steering knuckle.

- b) Remove the brake caliper assembly from the steering knuckle with an 18mm socket. Use a zip tie or wire hook ti hold the caliper to the chassis so that it doesn't dangle and damage the brake line.
- c) Using the appropriate TORX key, remove the brake rotor retaining bolt and slide the brake rotor off the hub.



- d) Loosen the upper control arm ball joint nut with a 18mm wrench; make sure to keep the ball joint nut partially threaded on to the ball joint. This will keep the arm from swinging up and to hold everything in place while losing the remaining ball joints. Using a ball joint removal tool, free the upper control arm ball joint from the steering knuckle.
- e) Using a 21mm wrench, loosen the tire rod ball joint nut and again keep the nut partially threaded onto the ball joint, free the ball joint from the steering knuckle using the same ball joint tool.

**\*\* !! If the coilover assembly is still installed, its helpful to use a jack or lifting device to support the lower control arm while removing the ball joints. Be very cautious when lifting the lower control arm as it is under extreme load from the spring. Make sure the lifting device base is stable and portion connected to the lower control arm is not going to slip out. !! \*\***

- f) Loosen the lower ball joint nut for the ball joint removal using a 24mm socket. It may be helpful to use an Allen wrench inserted in to the lower ball joint to prevent spinning.

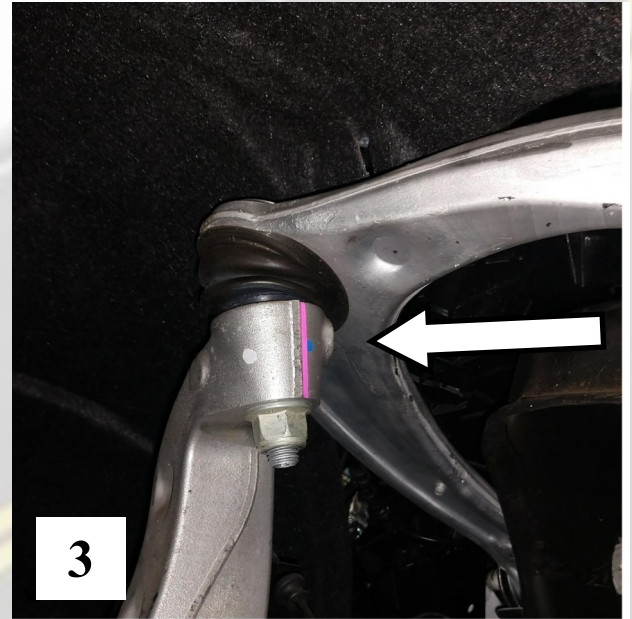
**\*\* !! In some cases it may be necessary to break the ball joint free from the seat in the taper. A firm, forceful strike to the upper and lower boss usually will allow the ball joint to pop free. OEM and Belltech have provided striking locations on the upper and lower bosses. (Photo 3)!! \*\***

- g) Remove the steering knuckle from the vehicle.

### 3) STEERING KNUCKLE INSTALLATION

**NOTE: When using 18" wheels you must use the supplied nut and lock washer on the lower ball joint. Trim the ball joint stud for adequate clearance. (Illustration 1). The supplied lock washer and nut should be installed and torqued to 60 ft/lb. Before the ball joint stud is trimmed, it is recommended that when you remove the lower portion of the stud to leave 1/16" of the stud extended out from the nut and using a chisel or punch to score the edge of the threads to prevent any possibility of the nut coming loose ( Illustration 1).**

- a) Remove the three bolts on the backside of the hub assembly, disconnecting it from the OEM steering knuckle. Remove the hub assembly and backing plate ( backing plate is usually associated with some aluminum steering knuckles set ups only. ) (Photo 4)



b) Re-install the hub assembly and backing plate on the Belltech steering knuckle and torque the stock hub bolts to 130 ft-lbs. ( Make sure the dust plate is aligned as in OEM position.) Re use the two O-Rings from the OEM spindle and place them on the Belltech steering knuckle. **(Photo 5)**

c) Attach the new steering knuckle to the upper and lower ball joints and loosely thread the nuts in place. **(Photo 6)**

**! It is helpful to use a jack or lifting device to raise the lower control arm while re-attaching the spindle ball joints. Be cautious while lifting the control arm as it is under load. Make sure the lifting device base is stable and properly connected to the control arm so it does not slip out of place !**

**\*\* IF THE MOUNTING BOLTS FOR THE STRUT WERE PREVIOUSLY LOOSENED AND OR REMOVED, REINSTALL BEFORE TIGHTENING BALL JOINTS AND SWAYBAR ENDLINKS. \*\***

d) Tighten the upper ball joint nut in place and torque to 37 ft-lbs.

e) Tighten the lower ball joint. Torque the lower ball joint to 92 ft-lbs for the OEM nut or 60 ft-lbs for the supplied half nut.

f) Tighten the steering tie rod end of the steering knuckle and torque to 37 ft-lbs.

g) Install the ABS sensor on the side of the Belltech steering knuckle.

h) Install the disk break onto the hub and tighten the torx bolt onto the Belltech steering knuckle.

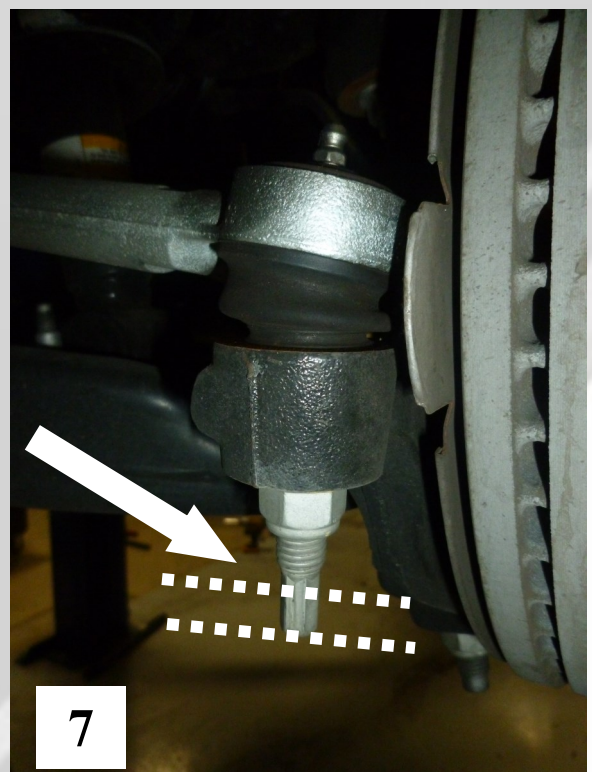
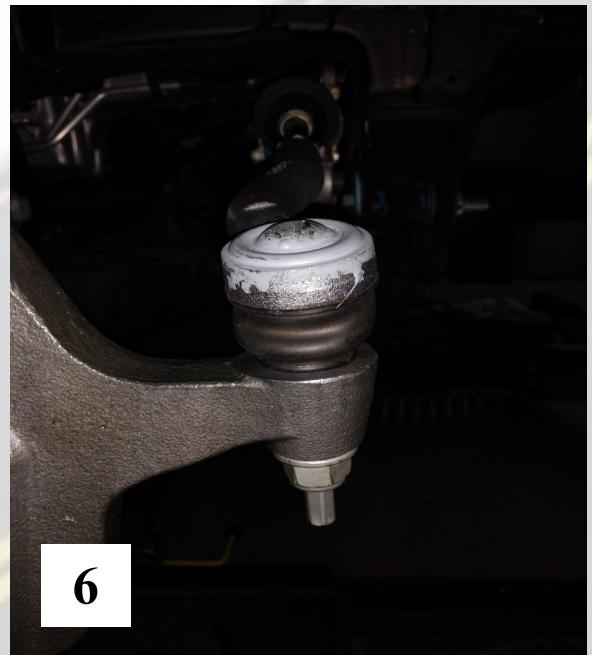
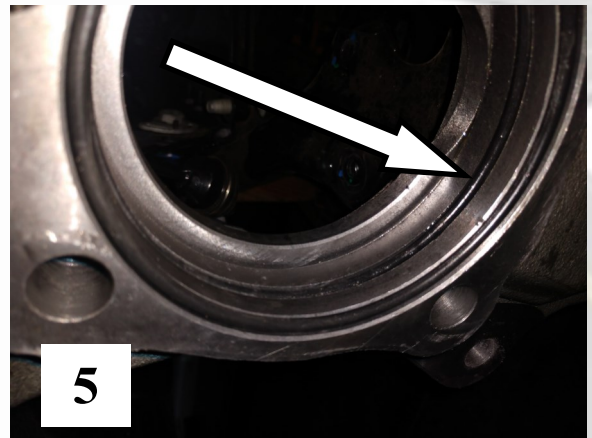
i) Install the break caliper assembly onto the Belltech steering knuckle and torque OEM bolts to 130 ft-lbs.

j) Re-attach the brake line brackets to the side of the Belltech steering knuckle. Re-use the OEM 10mm bolts .

k) Rotate the steering knuckle left and right to full lock and confirm that the break lines cables have sufficient slack.

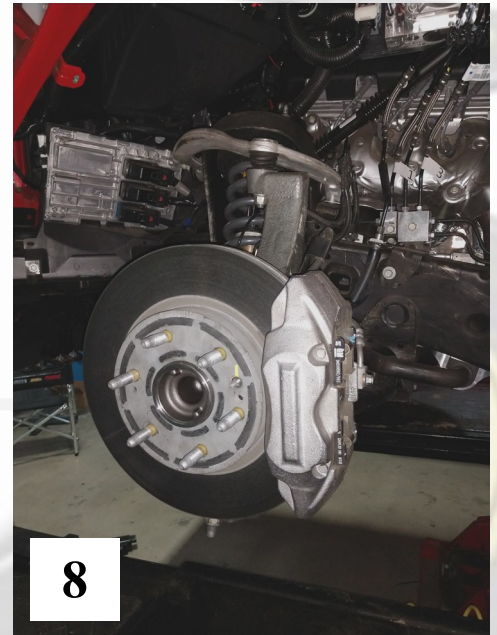
l) Repeat the process for the other side of the vehicle.

**\*\* When using 18" wheel, it may be necessary to also trim some of the lower hex portion of the tie rod. DO NOT cut all the hex! \*\* (Photo 7)**

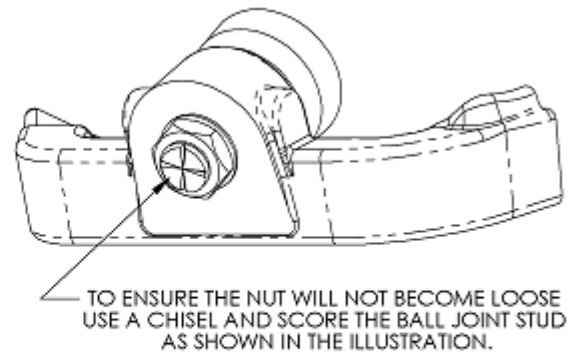
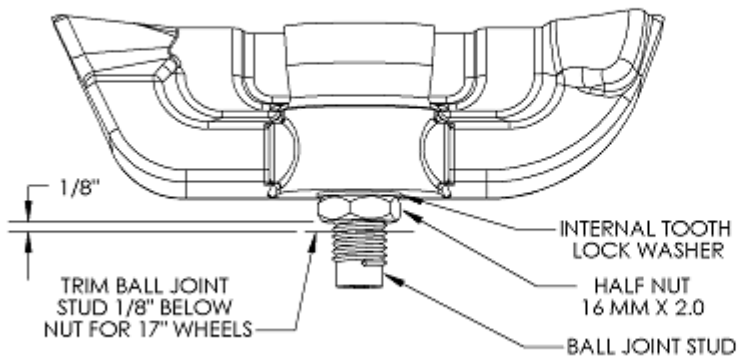


#### 4) FINALIZING INSTALLATION

- a) Check that all components and fasteners have been properly installed, tightened and torqued.
- b) Check break hoses, and other components for any possible interference. **(Photo 8)**
- c) Reinstall both front wheels and torque lug nuts to OEM ( factory) specifications.
- d) Lift the vehicle and remove stands. Carefully lower the vehicle to the ground.
- e) Test drive the vehicle in a remote location so that you can become accustomed to the revised driving characteristics and handling. Be aware that the vehicle will handle substantially different now that it has been modified.
- f) We recommend the vehicle be taken to a qualified wheel alignment facility to be realigned to factory specifications. This should be done after the vehicle has been test driven and all modifications have been completed.
- g) Installation is complete. Check ALL of the hardware and re-torque at intervals for the first 10, 100, 1000 miles



#### **FOR 18" WHEELS ONLY:**



**ILLUSTRATION (1)**

<b>PARTS LIST</b>		
<b>PART #</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
2519-325 LH	BELLTECH STEERING KNUCKLE LEFT HAND	1
2519-425 RH	BELLTECH STEERING KNUCKLE RIGHT HAND	1
115007	HALF NUT 16mm X 2.0	2
115009	INTERNAL TOOTH-LOCK WASHER 5/8"	2