



Part # 12180110 - 2004-2008 Ford F150 2WD 4"/6" Drop Kit

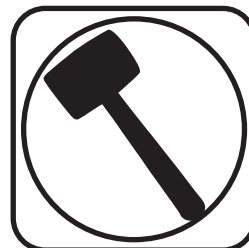
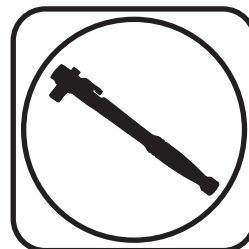
Front Components

12189300 Drop Spindles
12183110 Front CoilOver Kit

Rear Components

12189512 Rear Flip Kit
22189883 Rear HQ Series Shocks

Recommended Tools



04-08 Ford F150 4"/6" Drop Kit

Installation Instructions

Table of contents

Page 2-11.....Front CoilOvers
Page 11-17.....Drop Spindles
Page 18-27..... Rear Flip Kit
Page 28..... CoilSpring Adjustment & Alignment
Page 29..... Shock Adjustment

MUST USE 20" OR LARGER WHEELS!!!

FORD RECOMMENDS REPLACING THE SPINDLE NUT ANYTIME IT IS REMOVED. THE FORD PART NUMBER IS 6L3Z-3C294-AA OR NEW NUTS CAN BE PURCHASED AT YOUR LOCAL AUTO PARTS STORE.

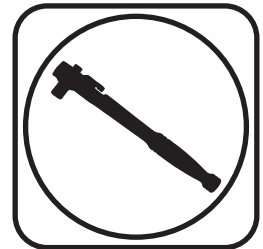
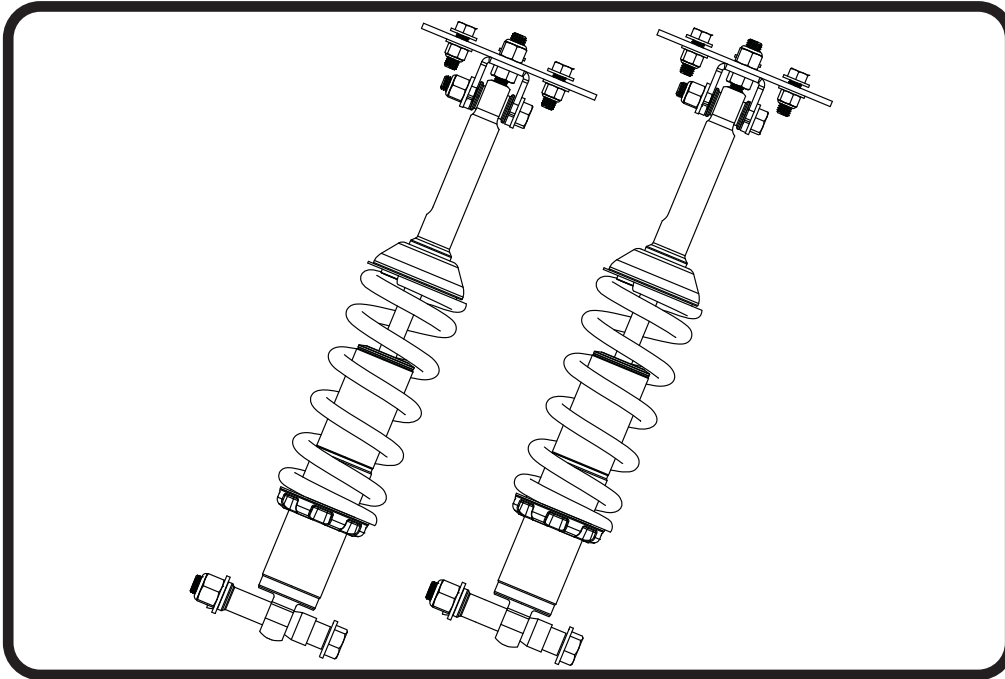
We recommend installing some components in conjunction with each other. On the front, the CoilOvers and Spindles should be installed at the same time. In the rear, install the flip kit before installing the HQ Series Shocks.





Part # 12183110 - 2004-2008 Ford F150 HQ Front CoilOvers

Recommended Tools



2004-2008 Ford F150 Front CoilOvers Installation Instructions

Table of contents

Page 3-4.....	Included Components
Page 5.....	Disassembly and Getting Started
Page 6.....	Assembling Upper Mount
Page 7.....	Assembling CoilOver
Page 8-10.....	Installation of CoilOver Assembly
Page 11.....	CoilSpring and Shock Adjustment

THIS KIT IS DESIGNED TO REPLACE THE OEM SHOCK/SPRING SETUP.





Major ComponentsIn the box

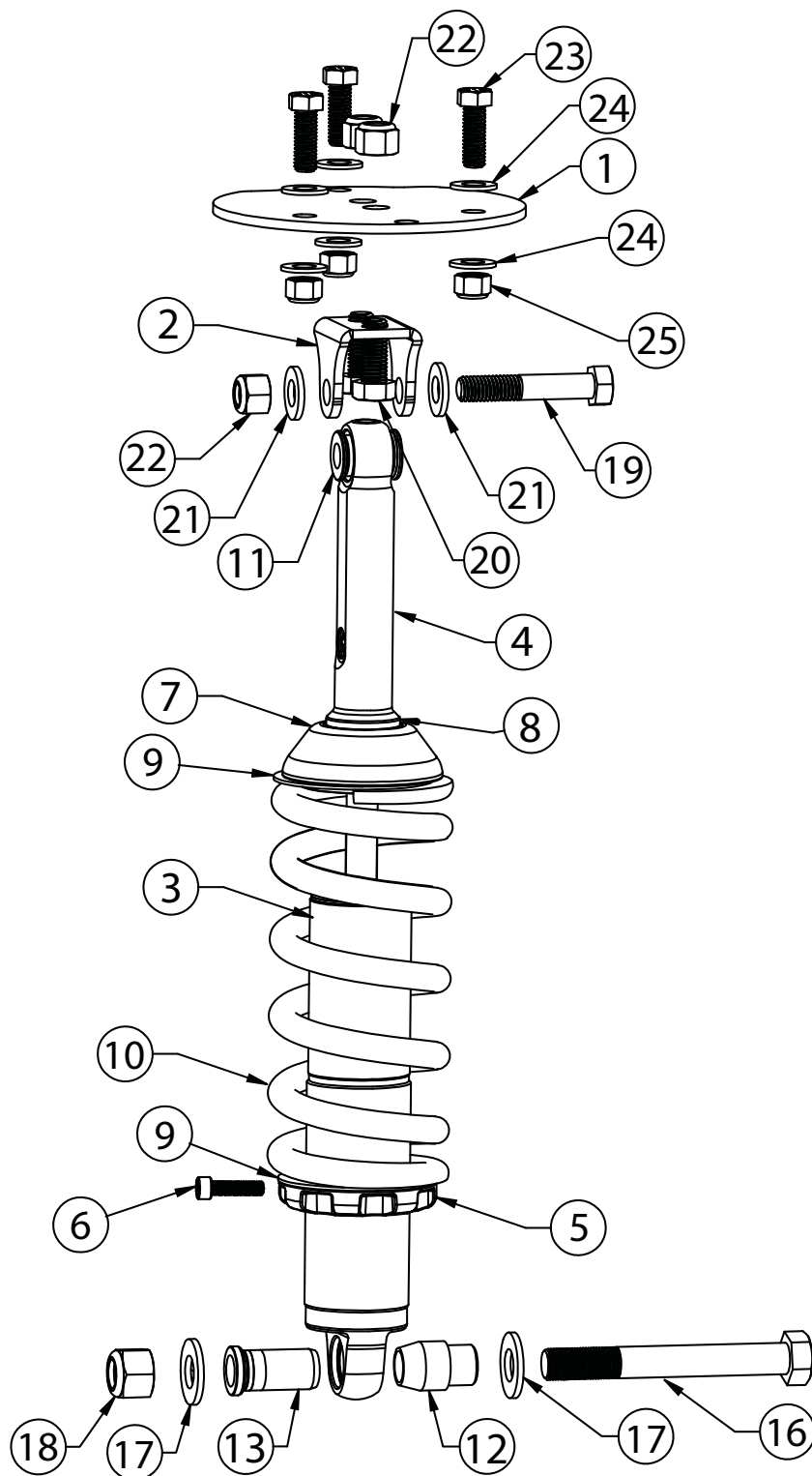
Item #	Part #	Description	QTY
1	90001381	Upper CoilOver Mounting Flange	2
2	90002158	Upper CoilOver Mounting Bracket	2
3	982-10-805	5.2" Stroke HQ Series Shock	2
4	90002156	+3" Shock Eyelet Assembly	2
5	803-00-199(kit)	Lower Spring Adjuster Nut	2
6	803-00-199(kit)	Adjuster Nut Locking Screw	2
7	90002070	Dropped CoilSpring Cap	2
8	803-00-199(kit)	CoilSpring Plate Retaining Ring	2
9	70010828	Delrin Spring Washer	4
10	59100800	CoilSpring 10" 800lb	2
11	90002043	.500 x .365 Upper Shock Bearing Spacer	4
12	90001382	Lower CoilOver Bolt Adapter - T-Bushing	2
13	90001383	Lower CoilOver Bolt Adapter - Push Through	2
14	90001994	5/8" ID Bearing (installed in shock eyelet/body)	4
15	90001995	Bearing Snap Ring (installed in shock eyelet/body)	8

HARDWARE LIST - Kit # 99010143

Item #	QTY	Part Number	Description
FRONT LOWER SHOCK MOUNT			
16	2	99621007	5/8"-18 x 5" Hex Bolt
17	4	99623010	5/8" SAE Flat Washer
18	2	99622001	5/8"-18 Nylok Nut
FRONT UPPER SHOCK MOUNT			
19	2	99501064	1/2"-13 x 2 3/4" Hex Bolt
20	4	99501062	1/2"-13 x 1 1/2" Hex Bolt
21	4	99503014	1/2" SAE Flat Washer
22	6	99502009	1/2"-13 Nylok Nut
23	6	99431021	7/16"-14 x 1 1/4" Hex Bolt
24	12	99433005	7/16" SAE Flat Washer
25	6	99432010	7/16"-14 Nylok Nut



Major ComponentsIn the box





Disassembly

This CoilOver System is Designed to replace the factory Shocks and Springs.

The front OEM Shock and Spring assemblies will need to be removed from the front of the truck. **DO NOT DISASSEMBLE THE SHOCK/SPRING ASSEMBLY, THE COILSPRING IS UNDER COMPRESSION AND COULD CAUSE BODILY INJURY!**

1. Raise the vehicle and support it by the frame, allowing the suspension to hang freely. Remove the wheels.
2. Remove the shock/spring assembly from both sides of the truck. **DO NOT DISASSEMBLE THE SHOCK/SPRING ASSEMBLY, THE COILSPRING IS UNDER COMPRESSION AND COULD CAUSE BODILY INJURY!**
3. Disconnect the sway bar from the control arms. This allows the lower control arm to move easier during the CoilOver installation.
4. If replacing the spindles, remove them at this time (refer to pages 12-18).

Getting Started.....

5. The CoilOvers need to be assembled before putting the shocks in the mounts. Assemble the shocks and springs using the instructions below.

CoilOver Assembly...



6

First, using the supplied lower adjuster nut (803-00-199) thread the nut onto the shock from the bottom side as seen in figure 6. Remove the plastic pellet that is in the split of the adjuster nut.



9

Once the knob is removed slide a Delrin washer over the eyelet. Next, slide the upper spring mount (803-00-199) over eyelet as seen in figure 9.



7

Next, install a delrin washer then coil spring over the top of the shock as seen in figure 7.



10

Install upper spring mount retainer clip (803-00-199) into the groove on the upper eyelet as seen in figure 10. Then, reinstall adjuster to complete assembly.



8

Before the upper spring mount can be installed screw the adjuster knob on the upper eye mount to the firmest setting (clockwise) as seen in figure 8. Then remove the Knob by holding it while removing the center screw.

Install the locking screw in the adjuster nut before setting spring preload, but DO NOT tighten until the spring preload has been set. Set the spring preload after the CoilOver has been installed.

NOTE: Remember to adjust the shock valving before driving, the shock is currently set to full stiff.



Assembling Upper Mount

11.



11. Line up the 2 mounting holes in the Upper Mounting Flange with the 2 holes of the Mounting Bracket. It doesn't matter which side of the Upper Mounting Flange that the Upper Bracket is bolted to.

NOTE: The Upper Mounts are not side specific so they are the same for both sides of the truck.

12.



12. Insert a 1/2"-13 x 1 1/2" bolt through each hole of the flange/mount. The bolts need to be installed with the bolt head in the upper bracket. Refer to **Images 12 & 13**.

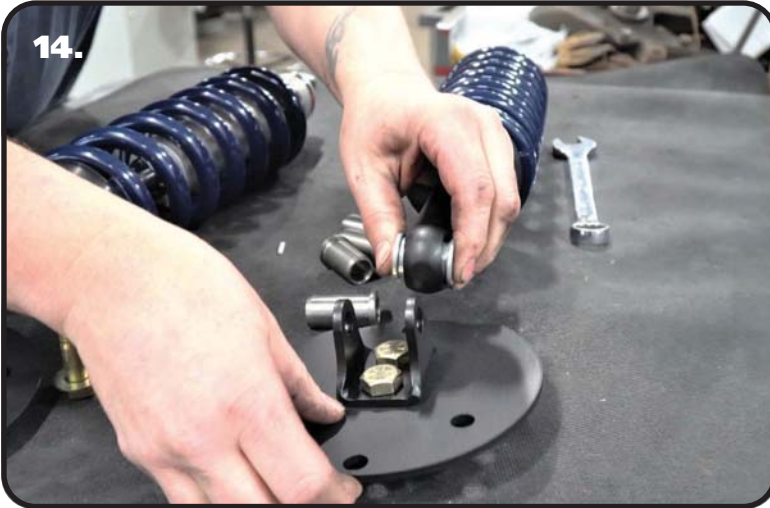
13.



13. Install a 1/2"-13 nylok nut on the threads of each bolt that is sticking through the mount. Torque to 75 ftlbs.



Assembling CoilOver



14. Install the 1/2" I.D. bearing spacers into the bearing in the shock eyelet. These spacers have a through hole that is 1/2" diameter. The small diameter of the spacers will insert into the shock bearing.



15. Insert the shock eyelet into the upper mount. **Install each CoilOver in the upper mount with the Adjusting Knob on opposite sides of each other.** Line up the shock bearing/spacers hole with the mounting holes of the upper mount. Install a 1/2" flat washer on a 1/2"-13 x 2 3/4" bolt. Insert a bolt/washer through the mount/shock. Install a 1/2" flat washer and 1/2"-13 nylok nut on the threads of the bolt that are sticking through the mount. Torque the upper mounting hardware to 75 ftlbs.



16. The upper mount has 4 holes in the perimeter of the flange. 3 of these holes are mounting holes, 1 is a locating hole. The flange is also notched out on the side opposite of the locating hole. The upper mount needs to be installed in the truck with the locating hole toward the wheel of the truck. The notch will be to the frame.



Installation of CoilOver Assembly



17. Position the mount/coilover in the truck. It will be placed in the OEM location. Line up the locating hole and 3 mounting holes.



18. Install a 7/16" flat washer on each of (3) 7/16"-14 x 1 1/4" hex bolts. Install the bolt/washer in the frame/mount from the top side with the threads pointing down. Install a 7/16" flat washer and 7/16"-14 nylok nut on the threads of each bolt sticking through the frame. Torque the hardware to 50 ftlbs. Repeat steps 11-18 on the remaining side.



19. Insert the T-Bushing (90001382) into the front side of the REAR TAB of the OEM shock mount. The REAR TAB IS THE THICKER TAB. This T-bushing is Tapered on the CoilOver side. Insert the small OD into the control arm with the taper away from the control arm.



Installation of CoilOver Assembly



20. The T-bushing should look just like **Image 20** after it is installed.



21. The kit includes a 2nd T-bushing (90001383) that has a long straight OD. This bushing goes in from the front side of the front tab of the OEM shock mount. The larger OD at the very end will be to the front of the truck.



22. You will need to jack up the lower control arm to do the next few steps. Jack up the control arm until the bottom bearing of the coilover is aligned with the rear t-bushing.



Installation of CoilOver Assembly



23. Slide the front t-bushing in as far as you can by hand.



24. Install a 5/8" flat washer on a 5/8"-18 x 5" hex bolt. Insert the bolt in from the front side with the threads to the rear of the truck. Insert it through the t-bushings and shock bearing.



25. Install a 5/8" flat washer and 5/8-18" nylok nut on the threads of the bolt that are sticking out of the rear control arm tab. Torque to 115 ftlbs.

26. Repeat steps 19-25 on the other side of the truck.

27. Verify all the hardware is tight before continuing to coilspring adjustment.



CoilSpring Adjustment

28. Preload the springs of the CoilOver 5/8" to start. **Steps 28a - 28e** will assist you with preloading the coil spring. You may need to adjust the amount of preload in the spring, but this will be determined after the truck has been sat on the ground.

28a. Verify the adjuster nut locking screw is installed in the adjuster nut, but not tight.

28b. Screw the spring adjuster nut up the shock body until it is snug against the spring. You should NOT be able to move the spring up and down on the shock (0 preload). Verify the dropped upper coil spring cap is seated correctly on the upper shock eyelet.

28c. Measure from the bottom of the adjuster nut to the flat of the shock. You may want to write the measurement down.

28d. Using a spanner wrench, thread the adjuster up the shock an additional 5/8" (from the measurement you took in step 2) to preload the spring.

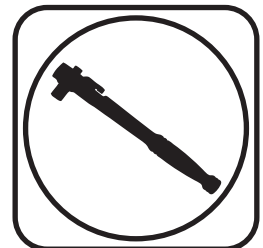
28e. Lock the adjusting nut in place by tightening the adjuster nut locking screw.

29. Continue with the drop spindle installation.

Part # 12189300 - 2004-2008 Ford F150 Drop Spindles



Recommended Tools



Major ComponentsIn the box

1 12189300 Pair of 04-08 Ford F150 drop spindles



2351

2" DROP SPINDLE 2WD ONLY

>>> **CANNOT USE STOCK WHEELS you MUST use 20" wheels or larger see instructions on pg. 14 <<<**
**04'- UP FORD F-150 Regular Cab, Extended Cab, Super Cab,
Lincoln Mark LT, Harley Davidson, Expedition**

Congratulations! You were selective enough to choose a 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, support stands, and wheel chocks
- Combination wrench set
- Screwdriver set
- Pliers
- Chisel or punch and hammer
- Torque wrench: *0-300 lb ft. range*
- Ratcheting socket wrench and sockets sets
- Safety Glasses

KIT INSTALLATION

1. Open the hardware kit and remove all of the contents. Refer to the part list (**Page 14**) to confirm that all parts are present.
2. 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).
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, 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.

! 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. Slowly lower the vehicle onto the stands and, before placing the vehicles entire weight on

them, again check that they properly and securely contact the chassis as described above. Check for possible interference with any lines, wires, cables, or other easily damaged components.

1. STEERING KNUCKLE REMOVAL

- a) Starting on the passenger's side of the vehicle remove the wheel from the vehicle **(Photo 1)**.
- b) Remove the brake caliper assembly from the steering knuckle **(Photo 2)**. With a metal hook or wire attach the caliper to chassis so that it doesn't dangle and damage the brake line.
- c) Remove the sensor from the steering knuckle with a socket or wrench **(Photo 3)**.
- d) Remove the bearing cap, cotter pin, and nut from the spindle pin **(Photo 4)**.
- e) Remove the brake rotor.
- f) Remove the backing plate by removing the three screws from the steering knuckle **(Photo 5)**.
- ! Belltech recommends using a lever style or puller style ball joint removal tool. In the case these tools are not available it is helpful to use a large hammer and forcefully strike the ball joint boss. This striking action will usually free the ball joint with one swing. We do not recommend the use of a fork style ball joint separator because they can damage the ball joint and cut the grease cup.
- g) Remove the steering arm tie rod end **(Photo 6 & 7)**.
- h) Unthread the upper control arm ball joint nut using a socket or wrench. It is helpful to keep the ball joint nut partially threaded on to keep the arm from swinging up and to keep it in place while removing the lower ball joint. Use one of the above removal methods to remove the ball joint from the steering knuckle.
- i) Partially unthread the lower ball joint nut for ball joint removal using a socket. Use one of the above removal methods to remove the ball joint from the steering knuckle.
- j) Finally remove upper and lower ball joint nuts to free the steering knuckle from the vehicle.

2. STEERING KNUCKLE INSTALLATION

- a) Locate the new Belltech steering knuckle and install it onto the upper, lower and steering arm ball joints. **(Photo 8 & 9)**
 - a1) Tighten and torque the **lower ball joint to 95 ft lbs. (See wheel fitment instructions and illustration 17)**
 - a2) Tighten and torque the **upper ball joint to 85 ft lbs.**
 - a3) Tighten and torque the **steering arm ball joint (tie-rod end) to 100 ft lbs.**
- b) Re-install the backing plate to the steering knuckle using the three stock bolts.
- c) Install the rotor and thread the **wheel hub nut** onto the spindle then torque to **296 ft lbs (Photo 10)**. Install the lock clip and new cotter pin onto the wheel hub nut.
- d) Install the **brake caliper** onto the steering knuckle with the two stock bolts. Torque the bolts to **148 ft lbs. (Photo 11)**
- e) Re-install the sensor to the steering knuckle with the stock bolt **(Photo 12)**.
- f) Rotate the steering knuckle in both directions to check if the brake line and sensor cable have proper clearance.
- g) When passenger side installation is complete repeat the above steps for driver's side.

IMPORTANT NOTE:

INSTRUCTIONS FOR WHEEL FITMENT

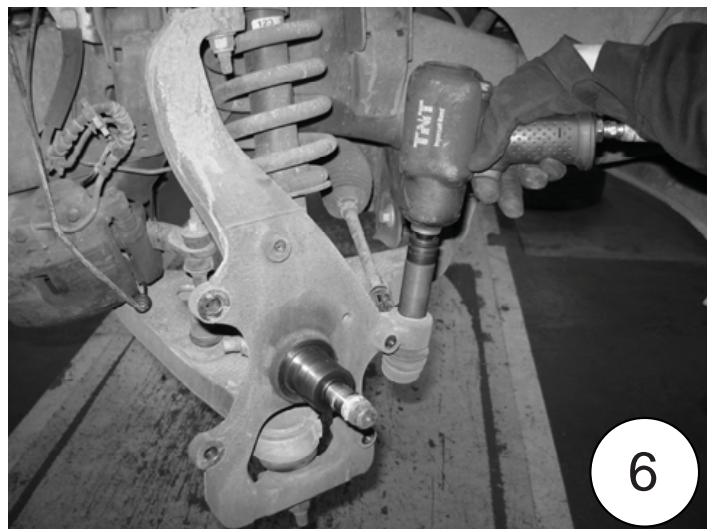
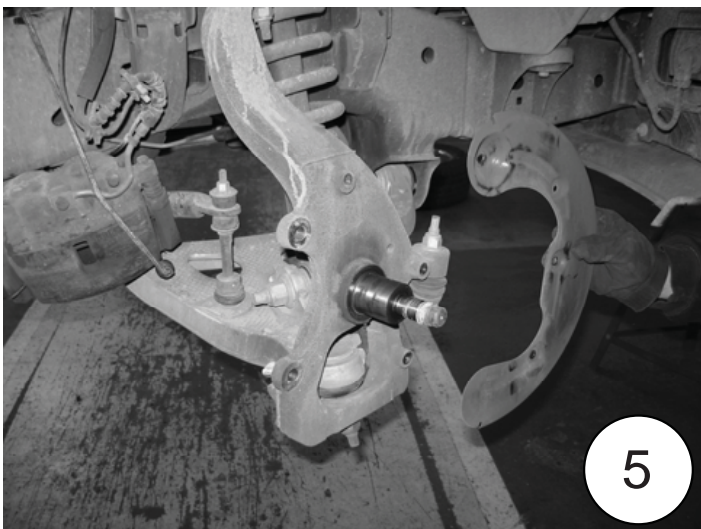
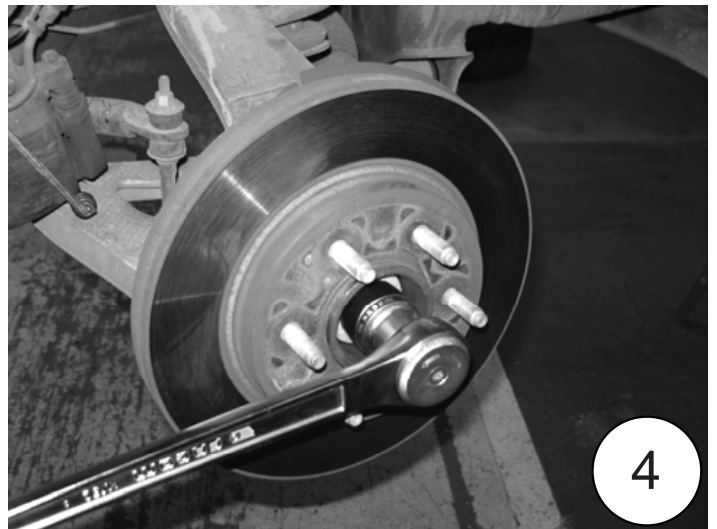
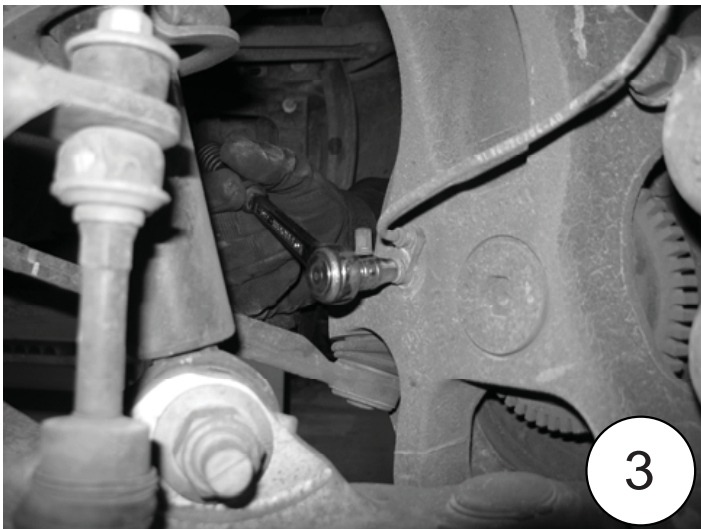
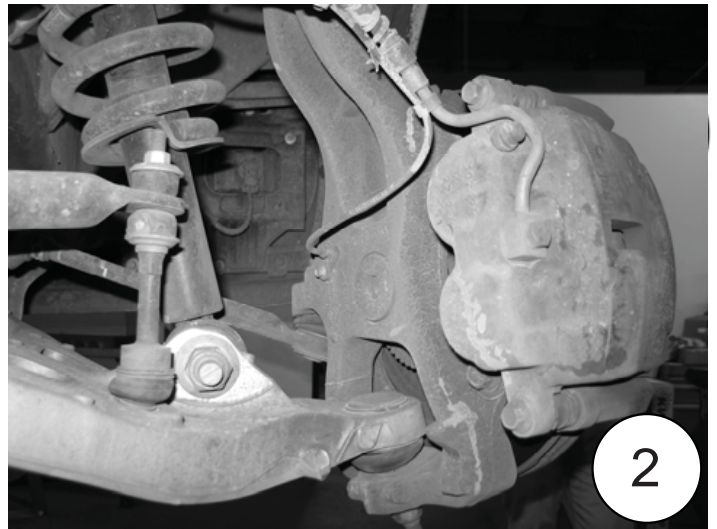
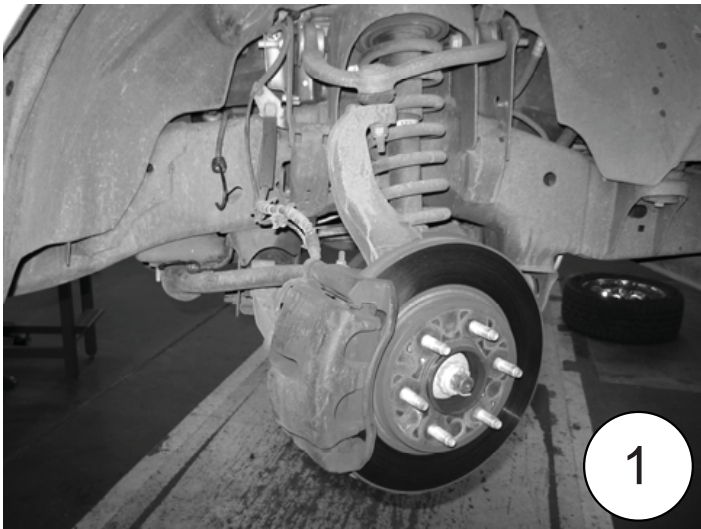
! This Belltech spindle was designed to use only 20" wheels and larger. When using 20" wheels you must use the supplied nut and lock washer on the lower ball joint, then trim the ball joint stud for adequate clearance (**illustrations 17**). The supplied lock washer and nut should be installed and torque to **95 ft. lbs.** before the ball joint stud is trimmed. It is recommended that when you remove the lower portion of the stud you leave at least 1/16" of the stud extended out from the nut. It is also recommended that once the stud is trimmed off you use a chisel or punch to score the edge of the threads to prevent any possibility of the nut coming loose (**illustration 17**).

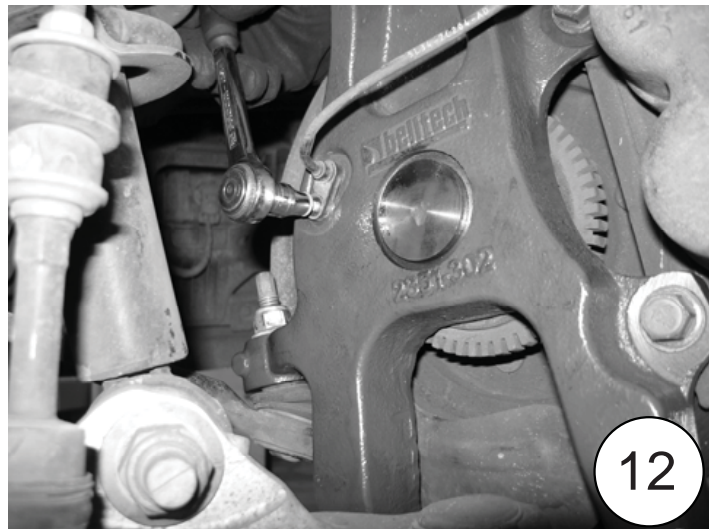
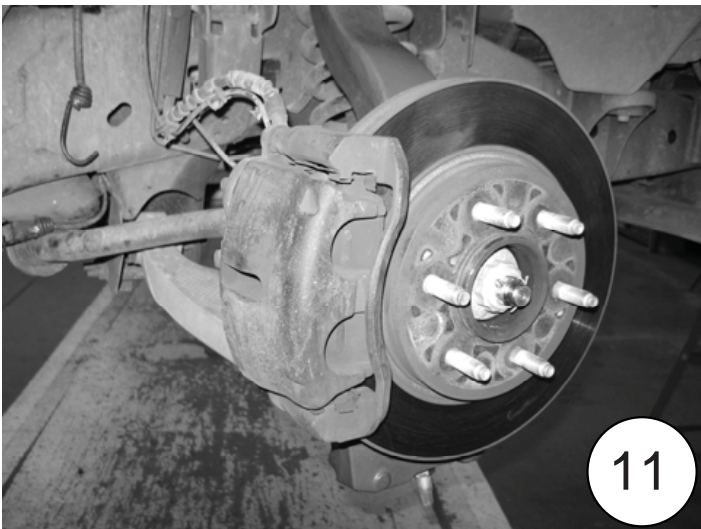
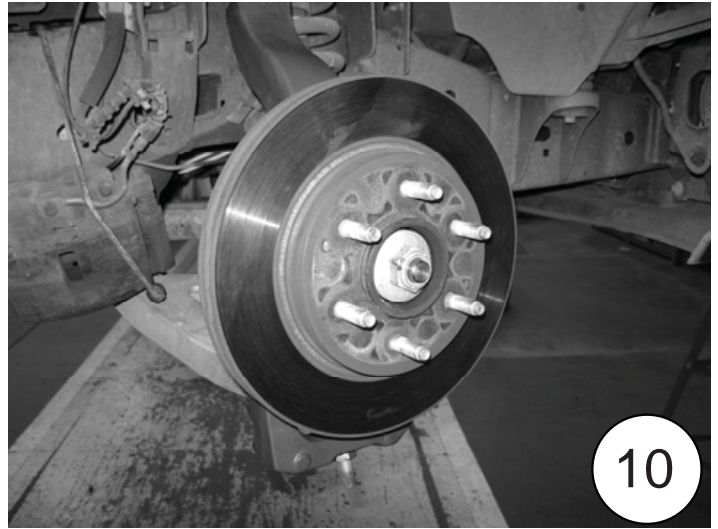
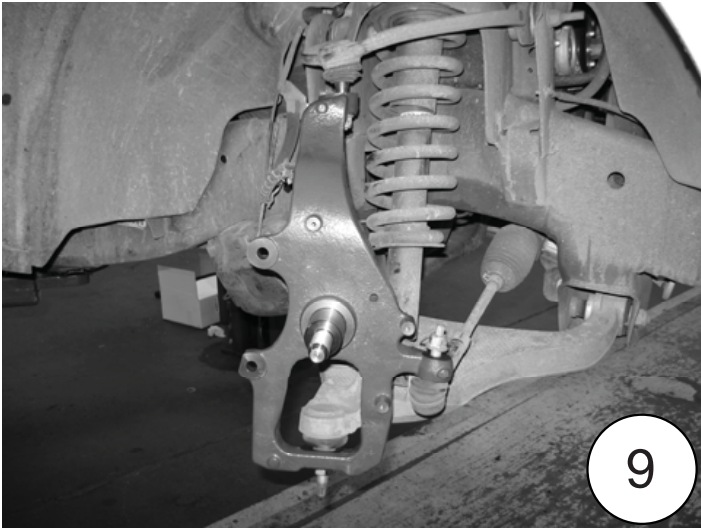
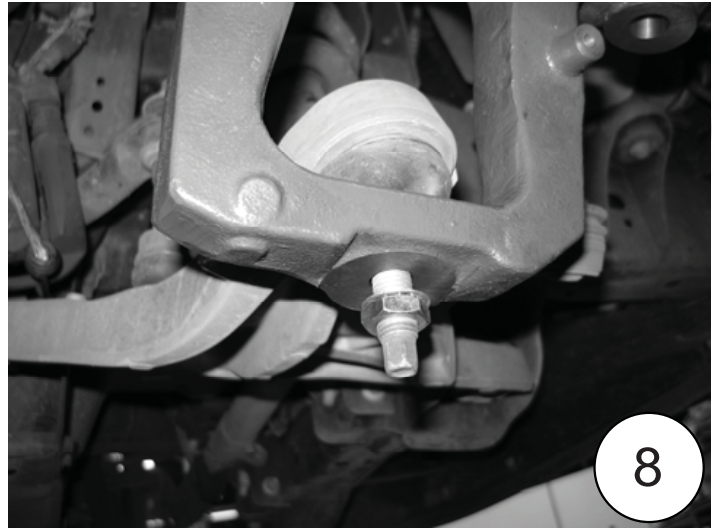
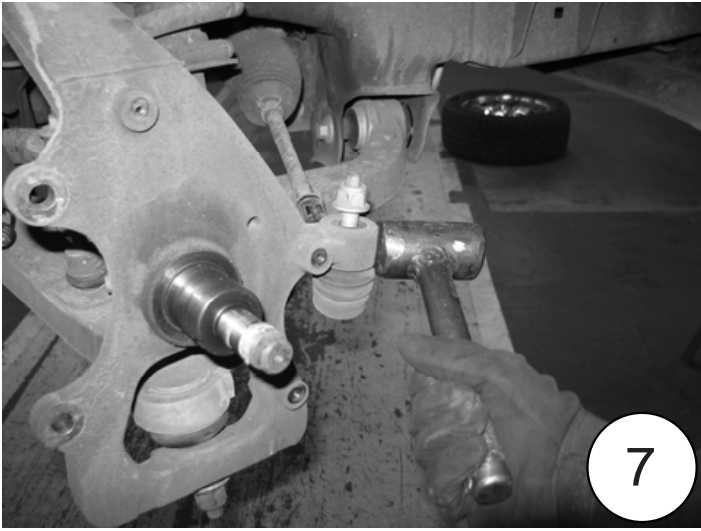
3. FINAL ASSEMBLY AND ADJUSTMENTS

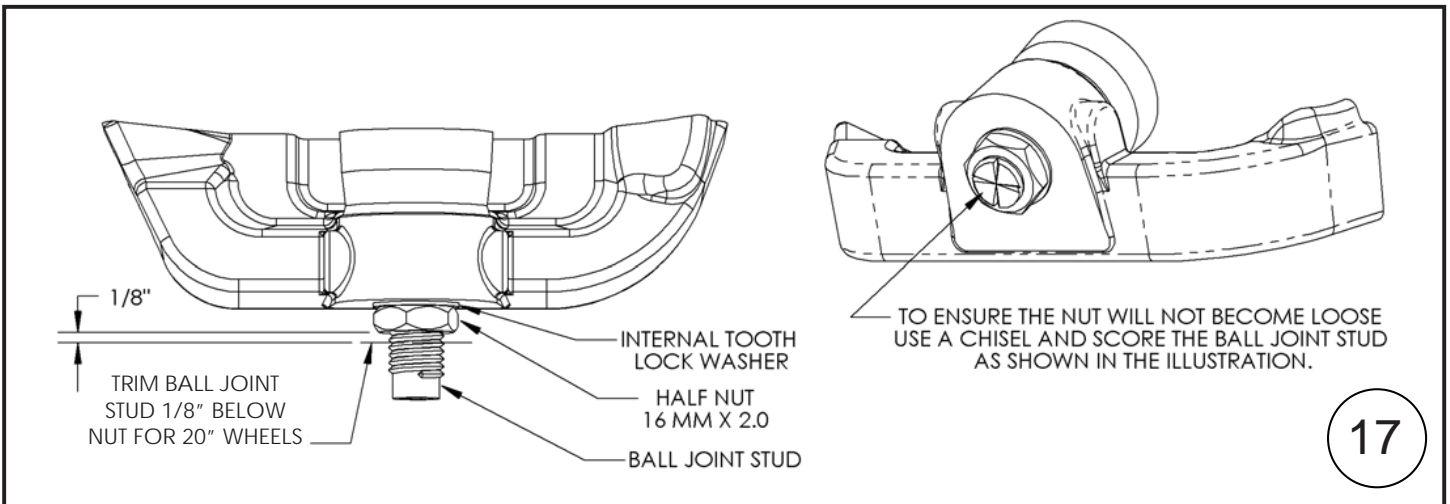
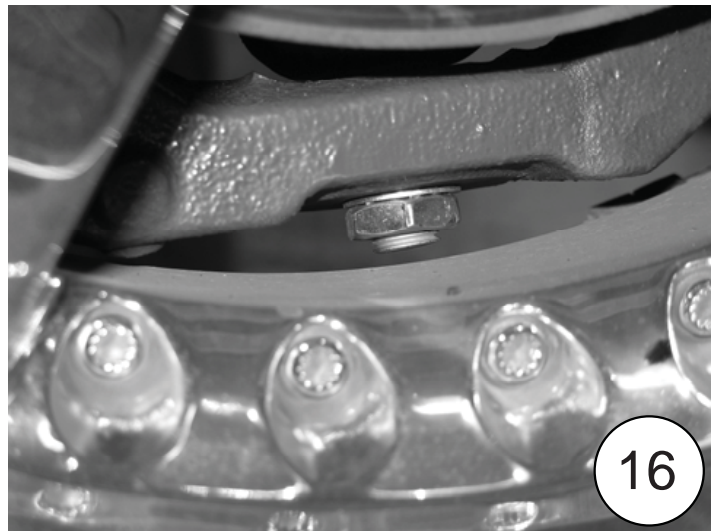
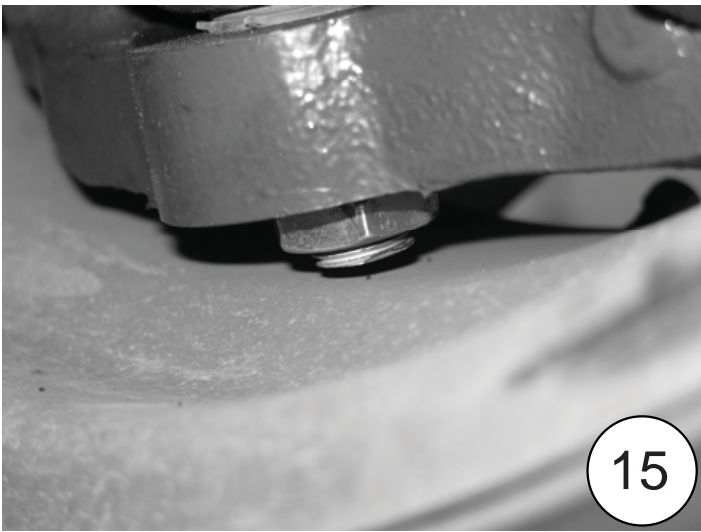
- a) Check that all components and fasteners have been properly installed, tightened and torque.
- b) Check the brake hoses, and other components for any possible interference.
- c) Lift the vehicle and remove the support stands. Carefully lower the vehicle to the ground.
- d) Visually inspect the wheel alignment after the vehicle has been set down and rolled to relieve any pressure. It might be necessary to manually adjust the toe on the steering arms before the vehicle is driven.
- e) 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.
- f) We recommend the vehicle be taken in 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.

BELL TECH PART LIST FOR 2351 DROPPED SPINDLE KIT

PART#	DESCRIPTION	QTY
2351-350	Steering Knuckle LH	1
2351-450	Steering Knuckle RH	1
110910	Cotter Pins 1/8" x 1-1/2	2
115009	Internal Tooth Lock Washer 5/8"	2
115012	Half Nut 16mm x 1.5	2





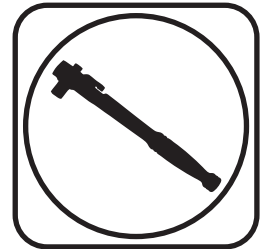


Continue with the Rear Flip Kit installation.



Part # 12189511 - 2004-2008 Ford F150 Axle Flip Kit

Recommended Tools



2004-2008 Ford F150 Axle Flip Kit Installation Instructions

Table of contents

Page 19.....	Included Components & Getting Started
Page 20-23.....	Disassembly
Page 24.....	Shackle & Hanger Installation
Page 25-26.....	Flip Bracket Installation
Page 27.....	Shock Installation





Major ComponentsIn the box

Item #	Part #	Description	QTY
1	90001386	Rear Shackle	2
2	90001387	Shackle Inner Sleeve - Installed in shackle	2
3	70012461	Shackle Bushing - Installed in shackle	4
4	90001384	Flip Bracket	2
5	90001385	Clamp Plate	2
6	99626004	U-Bolt - 3.375" W x 7.00" L x 5/8"-18	4
7	90002640	Bump Stop	1
12189511 KIT SHOCKS (Shock are NOT included with 12189512 Kit)			
2	986-10-020	7.55" Stroke Shock	2
4	70011138	3/4" ID Shock Bushing	4
4	70011193	Inner Sleeve .472ID x .750OD x 1.500L	4

HARDWARE LIST - Kit # 99010136

QTY	Part Number	Description	QTY	Part Number	Description
REAR SHACKLE			U-BOLT		
4	99561004	9/16-18 x 5" Hex Bolt	8	99622013	5/8-18 High Nut
4	99562001	9/16-18 Nylok Nut	8	99623001	5/8" SAE Flat Washer
8	99563003	9/16" SAE Flat Washer	REAR BUMP STOP		
			2	99372009	3/8-16 U-NUT,

Getting Started.....

THIS KIT CAN BE SETUP TO LOWER THE REAR OF YOUR TRUCK 2 DIFFERENT HEIGHTS. THERE IS 3/4" DIFFERENCE BETWEEN THE 2 SETTINGS. THIS HEIGHT ADJUSTMENT IS BUILT INTO THE REAR SPRING SHACKLE. THE PICKUP STYLE AND ACCESSORIES WILL AFFECT WHICH HOLE IS THE BETTER CHOICE. IF YOU HAVE A REGULAR CAB SHORT BED, WE SUGGEST STARTING WITH THE LOWEST SETTING(LONGEST SETTING ON THE SHACKLE). IF YOU HAVE A CREW OR EXTENDED CAB, START WITH THE HIGHEST SETTING(SHORTEST SETTING ON THE SHACKLE). BEFORE YOU START THE INSTALL, MEASURE THE HEIGHT OF YOUR TRUCK TO HELP DETERMINE HOW YOU WANT IT TO SIT. THE RIDETECH FRONT KIT HAS SOME ADJUSTMENT TOO. THE FRONT KIT WILL LOWER THE TRUCK 3"-4". YOUR TIRE HEIGHT WILL PLAY A FACTOR ON HOW LOW YOU CAN SET THE FRONT SUSPENSION.

1. Using a floor jack placed under the center of the rear axle, raise the vehicle to a safe and comfortable working height.
2. Support the frame accordingly with jack stands or a lift. Keep in mind, you will need to be able to move the rear differential up and down.
3. Jack up the rear end accordingly to relieve the tension on the shock bolts to be removed. Remove the shock absorbers.



Disassembly

4. Lower the jack to relieve the tension on the rear springs, but keep the jack touching the rear axle.
5. Remove the u-bolts and axle clamps to disengage the axle from the leaf springs.
6. Lower the axle to get clearance on the leaf springs, but **DO NOT** strain the brake lines.
7. The rear of the leaf springs will need to be disconnected to install the new shackle and to move the springs under the axle.
8. Support the rear of the leaf spring and remove the leaf spring shackle bolt.

Repeat Steps 4 - 7 on the 2nd leaf spring.



9. The OEM bump stop mount will need to be removed.



10. Remove the OEM u-nut from the frame and replace it with the 3/8"-16 u-nut supplied in the kit.



Disassembly



11. Install the supplied bump stops by threading them into the previously installed u-nut.



12. The emergency brake cables will need to be disconnected to flip the leaf springs under the axle. The emergency brake needs to be off to unhook the cable. The emergency brake cable will need to be disconnected to allow the leaf springs to be moved under the rear differential. Pull out on the cable. It should pull out of the sheath that goes to the front of the truck. With the cable pulled out, clamp the cable right where it goes into the forward sheath.



13. Disconnect the rear cable from the front cable at the connector. This is done by sliding the rear cable forward in the connector.



Disassembly



14. Disconnect the passenger side cable from the bracket that is made into the driver side emergency brake cable.



15. Unbolt the brake line bracket from the inside of the drivers side frame rail. This will help provide enough slack in the lines to be able to flip the leaf springs on the bottom side of the axle. Retain the hardware, this bracket will be reinstalled later.



16. Remove the rear shackle from the hanger. After removing the shackle from the hanger, remove the shackle from the leaf spring.



Disassembly



17. The leaf springs can be flipped to the bottom side of the axle without removing the axle or the front of the leaf spring. Start by pushing the axle to one side. **Avoid excessive force on the brake lines and ABS wires.** Grab the rear of the leaf spring that is on the side that is opposite of the direction you pushed the axle. Push the leaf spring over to clear the end of the axle. While pushing the leaf spring over, move the leaf spring down to get below the axle. Repeat for the second spring, pushing the axle the opposite direction.



18. The leaf spring locating pins need to be flipped over. Currently, the nuts for the pins are on the top side of the leaf spring pack. The nuts will need to be on the bottom side for proper location of the flip bracket. The u-bolt locating plate will need to be removed and discarded. To remove the pin and u-bolt locator, clamp the leaf springs together in front of the u-bolt locator. With the leaf spring clamped, remove the nuts from the locating pins. Next, remove the u-bolt locator and discard it.



19. Remove the locating pins from the leaf spring pack. Reinstall the locating pins from the TOP side. Reinstall the nuts on the BOTTOM side and tighten. With the nuts tight, remove the clamps. Repeat on the second spring.



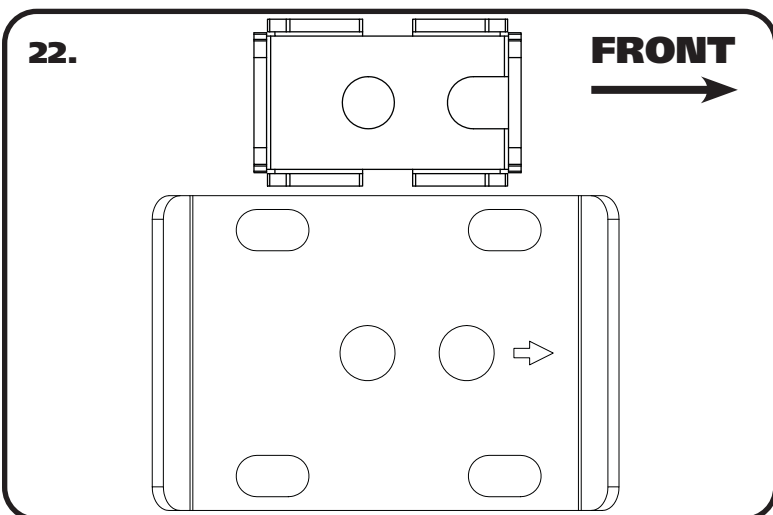
Shackle & Flip Bracket Installation



20. The shackle will need to be bolted to the leaf spring with the OPEN side to the FRONT of the truck. Use the info on **Page 20** to help determine which holes to use. Line up the holes in the shackle with the through hole of the leaf spring. Install a 9/16" flat washer on a 9/16"-18 x 5" hex bolt. Insert the bolt/washer through the leaf spring and shackle FROM THE FRAME SIDE. The threads MUST point to the outside of the truck for clearance reasons. Install a 9/16" flat washer and 9/16"-18 nylok nut on the threads of the bolt. Do not tighten the hardware at this time.



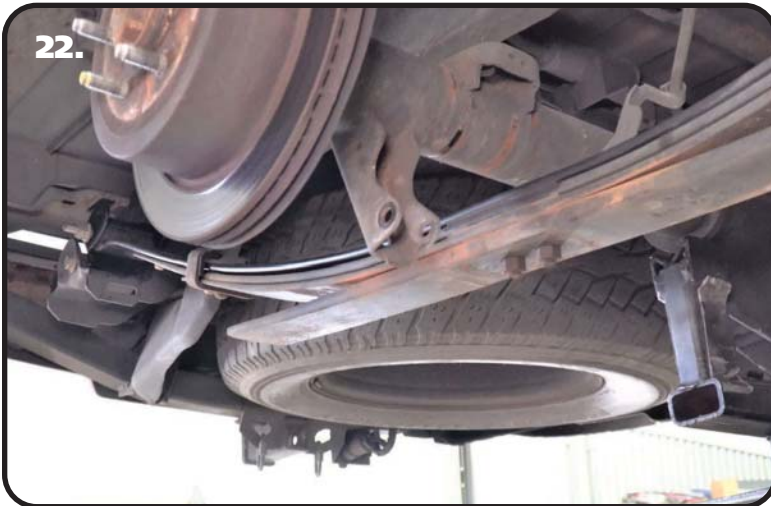
21. Insert the Shackle into the leaf spring hanger. Line up the holes in the hanger with the inner sleeve of the shackle. Install a 9/16" flat washer on a 9/16"-18 x 5" hex bolt. Insert the bolt/washer through the frame and shackle. Install a 9/16" flat washer and 9/16"-18 nylok nut on the threads of the bolt. **Do not tighten the hardware at this time.**



22. The Flip Kit has the locating holes offset to center the wheel in the wheel opening. **Image 22** illustrates a top view of the Flip Bracket and the Leaf Spring Plate. Notice the HOLES are offset to the FRONT of the truck. The ARROW in the plate needs to point to the front of the truck.



Flip Bracket Installation



23. Raise the axle high enough to get the Flip Bracket positioned on the leaf spring.



24. The Flip Bracket is positioned on the leaf spring locating pins. the locating pin holes will need to be positioned to the front of the truck.



25. Position the Flip Bracket on the locating pins. Again, the locating pin holes go to the front of the truck.



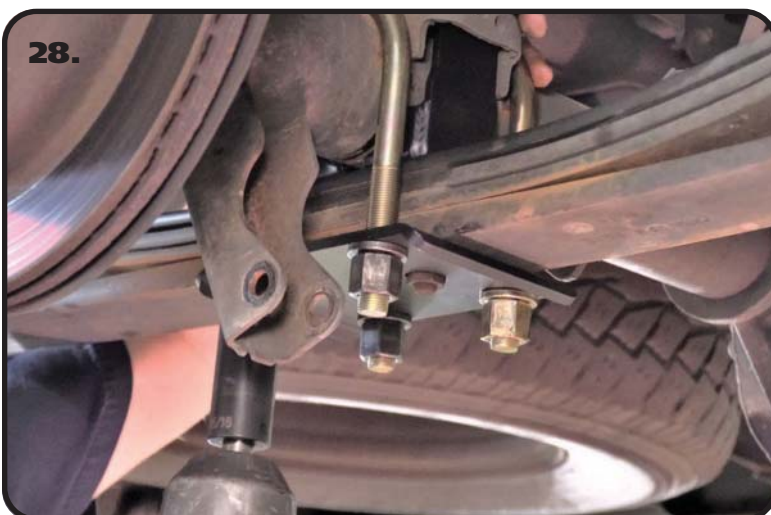
Flip Bracket Installation



26. Slowly lower the axle into the Flip Bracket, making sure the tabs go up into the leaf spring saddle. THE FLIP BRACKET WILL POSITION THE PINION AT THE CORRECT ANGLE.



27. Slip the U-Bolts over the axle tube with the threads pointing down.



28. Slip the Leaf Spring Bracket up onto the U-Bolts WITH THE OFFSET HOLES FORWARD. THE ARROW ON THE BRACKET SHOULD POINT TO THE FRONT OF THE TRUCK. Hold the Leaf Spring Bracket in place and install a 5/8" Flat Washer & 5/8"-18 High Nut on the threads of the u-bolts. Snug the nuts down evenly and tighten them in a criss-cross fashion to 130 ftlbs.

29. Reattach the brake line to the frame. Reconnect the emergency brake cables.



Shock Installation



30. Install the BODY of the shock in the OEM frame mount using the OEM hardware.



31. Attach the EYELET of the Shock in the OEM mount that is on the axle housing. Attach the shock using the OEM hardware. Position the Shock with the Adjuster Knob pointing out, away from the axle.

32. Check the tightness of all hardware.

33. Set the truck on the ground. Torque the leaf spring and shackle hardware to 90 ftlbs.



CoilSpring Adjustment

34. Reinstall the wheels and tires and set the truck back on the ground.
35. After entire weight of truck is on the wheels, jounce the suspension and roll the truck forward and backward to alleviate suspension bind. **THIS IS NECESSARY BEFORE MEASURING RIDE HEIGHT.**
36. If you determine you need to adjust the ride height of the front suspension after getting the truck on the ground, **Steps 36a - 36e** will assist you in adjusting the ride height.
 - 36a. Raise the vehicle and support it by the frame, allowing the suspension to hang freely. You do NOT need to remove the front wheels, but you may want to turn the steering wheel to gain better access to the CoilOver.
 - 36b. Loosen the locking screw in the adjuster nut, but do not remove the locking screw.
 - 36c. Measure from the bottom of the adjuster nut to the flat of the shock. You may want to write the measurement down.
 - 36d. Using a spanner wrench, thread the adjuster up or down the shock to obtain the correct ride height. One complete revolution of the adjuster nut is approximately 1/8" at the wheel. Threading the adjuster nut up the shock will raise the ride height, threading it down will lower the ride height.
 - 36e. Lock the adjusting nut in place by tightening the adjuster nut locking screw.
37. Turn the steering wheel until the front wheels are straight and set the front of the truck back on the ground.
38. After entire weight of truck is on the wheels, jounce the suspension and roll the truck forward and backward to alleviate suspension bind. **THIS IS NECESSARY BEFORE MEASURING RIDE HEIGHT.**
39. Recheck your ride height. If you need to readjust, repeat **Steps 36-38**.

Alignment

40. Any time you replace front suspension or alter the ride height of your truck, you should have the alignment checked.

Suggested Alignment Specs:

Camber:	-5 degrees
Caster:	+3.0 to + 5.0 degrees
Toe:	1/16" to 1/8" toe in

RECHECK ALL HARDWARE.



Shock Adjustment

Shock Adjustment 101- Single Adjustable

Rebound Adjustment:

How to adjust your new shocks.

The rebound adjustment knob is located on the top of the shock absorber protruding from the eyelet.

You must first begin at the ZERO setting, then set the shock to a medium setting of 12.



-Begin with the shocks adjusted to the ZERO rebound position (full stiff). Do this by rotating the rebound adjuster knob clockwise until it stops.



-Now turn the rebound adjuster knob counter clock wise 12 clicks. This sets the shock at 12. (settings 21-24 are typically too soft for street use).

Take the vehicle for a test drive.



-if you are satisfied with the ride quality, do not do anything, you are set!



-if the ride quality is too soft increase the damping effect by rotating the rebound knob clock wise 3 clicks.

Take the vehicle for another test drive.



-if the vehicle is too soft increase the damping effect by rotating the rebound knob clock wise 3 additional clicks.



-If the vehicle is too stiff rotate the rebound adjustment knob counter clock wise 2 clicks and you are set!

Take the vehicle for another test drive and repeat the above steps until the ride quality is satisfactory.

Note:

One end of the vehicle will likely reach the desired setting before the other end. If this happens stop adjusting the satisfied end and keep adjusting the unsatisfied end until the overall ride quality is satisfactory.