



Part # 11380110 - 1999-2006 GM 1500 2WD Drop Kit

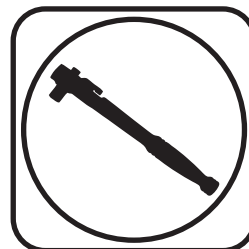
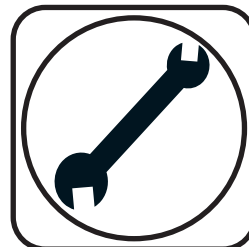
Front Components

11389300	Drop Spindles
11382310	Front Coil Spring Kit
22169847	HQ Series Front Shock Kit

Rear Components

11389611	C-Notch Kit
11389511	Rear Flip Kit
11389510	Rear HQ Series Shock Kit

Recommended Tools



1999-2006 GM 1500 Drop Kit

Installation Instructions

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MUST USE 17" OR LARGER RIMS

We recommend installing some components in conjunction with each other. On the front, the spindles, coil springs, and shocks should be installed at the same time. In the rear, install the c-notches and flip kit before installing the HQ series shocks.

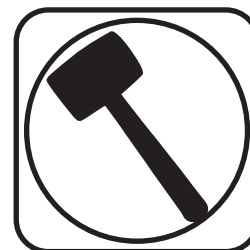
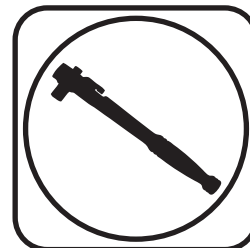
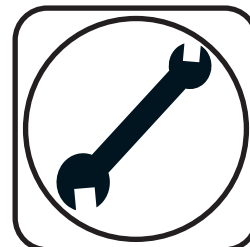




Part # 11389300 - 1999-2006 Silverado Drop Spindles



Recommended Tools



1999-2006 Silverado Drop Spindles Installation Instructions

Installation

MUST USE 17" OR LARGER RIMS

IF INSTALLING COIL SPRINGS, INSTALL THEM IN CONJUNCTION WITH THE DROP SPINDLES.





Installation Instructions



2" DROP SPINDLE 2WD (Must Use 17" Wheels or larger) 99-06 CHEVY 1500

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
- Hex Key (Allen) wrench set
- Screwdriver set
- Pliers
- Chisel or punch and hammer
- Abrasive cutter or grinder
- Torque wrench: *0-200 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 5**) to verify 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 supports 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 vehicle's 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 side of the vehicle, remove the wheel from the steering knuckle. Unbolt the brackets connecting the hydraulic brake line to the top of the steering knuckle and on the upper control arm using a 10mm socket (**Photo 1**). Disconnect the electronic ABS sensor from the connector behind the shock. Using a screwdriver and/or pliers disconnect the plastic hold down clips on the frame, control arm, and brake line bracket freeing the sensor wire from the suspension (Photo 1).
- b) Remove the brake caliper assembly from the steering knuckle with an 18mm socket. 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 brake rotor.
- d) Unthread the three bolts on the backside of the hub assembly with a 15mm wrench or socket disconnecting it from the steering knuckle (**Photo 2**). Remove the hub assembly and backing plate (Photo 3).
- e) Unthread the upper control arm ball joint using a 15mm wrench and it's also 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. Using a ball joint removal tool, free the upper control arm ball joint from the steering knuckle. (**Photo 4**).

! It is helpful to use a jack or lifting device to raise the lower control arm while removing the spindle ball joints. Be very cautious when lifting the lower control arm because it is under extreme load. Make sure the lifting device base is stable and the portion connected to the lower control isn't able to slip out.

- f) Remove the tie rod end using the same 15mm wrench and removal tool. Disconnect it from the steering knuckle.
- g) Partially unthread the lower ball joint nut for ball joint removal using a 24mm socket. Depending on the type of ball joint removal tool you have available, it might be necessary to devise a tool to free the lower ball joint (**Photo 5**).

! If you decide to use this method, it is advised you use extra caution to avoid damage to the ball joint stud and threads.

- h1) Unthread the lower ball joint nut about ½ inch.
- h2) Find a piece of thick wall tubing or solid stock with a relieved hole for the ball joint stud.
- h3) Hold the tool up to the bottom of the nut and forcefully strike the tool in an upward motion. It should only take one blow to break the ball joint loose so check if it has been loosened before another blow is taken (**Photo 5**).

! Another known way to remove the lower ball joint is to use a large hammer and forcefully strike the lower ball joint boss. This striking action will usually free the ball joint with one swing.

h) Remove the steering knuckle from the vehicle (**Photo 6**).

2. Steering Knuckle Installation

a) Locate the new Belltech passenger side steering knuckle.

b) Insert the upper hub bolt in from the back of the new Belltech steering knuckle. This needs to be done before the upper ball joint is attached.

c) Attach the new steering knuckle to the upper and lower ball joints and loosely thread the nuts in place. Make sure to place the drive shaft end inside the hub opening.

! It is helpful to use a jack or lifting device to raise the lower control arm while re-attaching the spindle ball joints. Be very cautious while lifting the lower control arm because it is under extreme load. Make sure the lifting device base is stable and the portion connected to the lower control isn't able to slip out.

d) Before attaching the hub assembly, secure the upper ball joint nut in place and torque to 20 ft-lbs.

e) With an impact gun, secure the lower ball joint and tie rod end in place (**Photo 7**). Once secure, torque the lower ball joint to 75 ft-lbs.

f) Secure the steering tie rod end and torque to 20 ft-lbs.

g) Install the backing plate and hub assembly back onto the splined drive shaft.

h) Install the brake rotor.

i) Install the brake caliper assembly and torque bolts to 90 ft-lbs (**Photo 9**).

j) Re-attach the brake line brackets to the top of the steering knuckle and to the control arm (**Photo 10 & 11**).

k) Re-attach the ABS sensor connector and the hold down clips (**Photo 10 & 11**).

l) Rotate the steering knuckle in both directions to check if the brake line and ABS cable have enough slack (**Photo 10**). If one or the other seems to be too tight, then you should pull it thru the bracket to give it the proper amount of slack.

m) The installation is complete on one side (**Photo 12**) follow the previous steps for other side.

Final assembly and adjustments

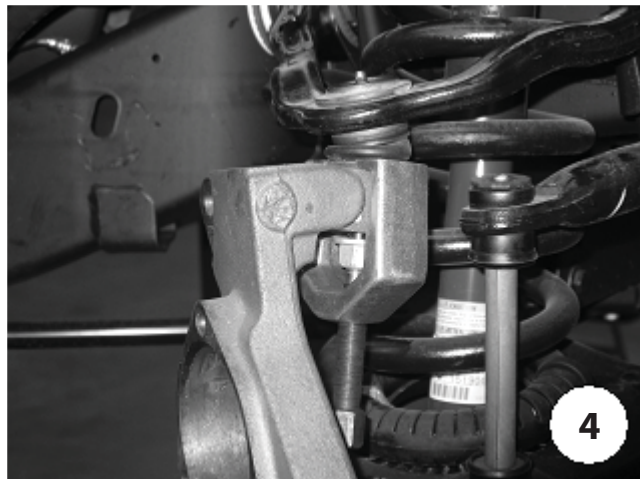
! **When using 17" wheels you must use the supplied nut and lock washer on the lower ball joint then trim the ball joint stud for adequate clearance (illustration 14). Photo 12 shows the backside of the 2508 steering knuckle with a stock 17" wheel. The supplied lock washer and nut should be installed and torqued to 60 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 14).**

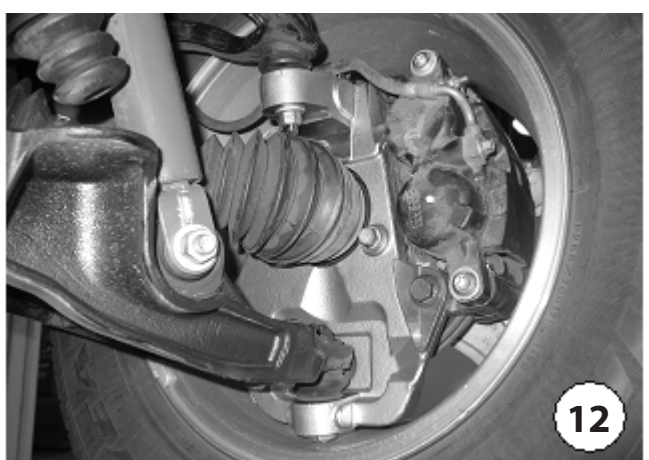
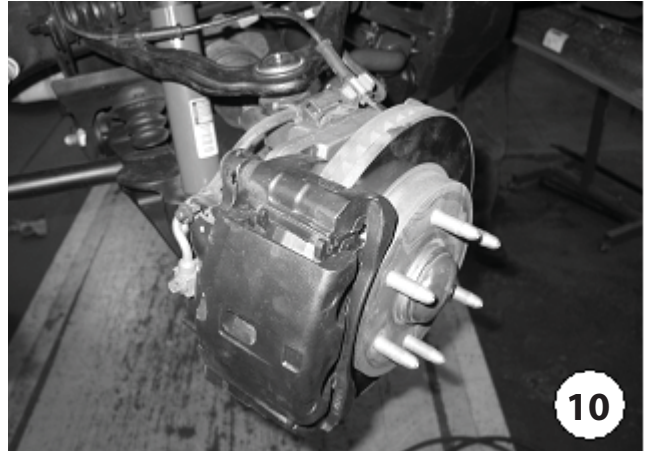
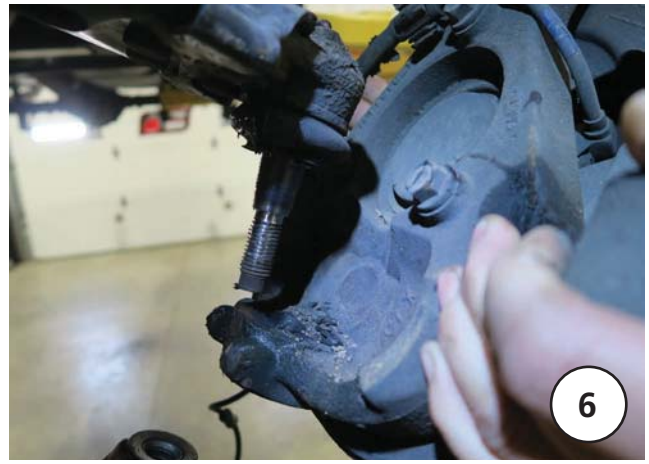
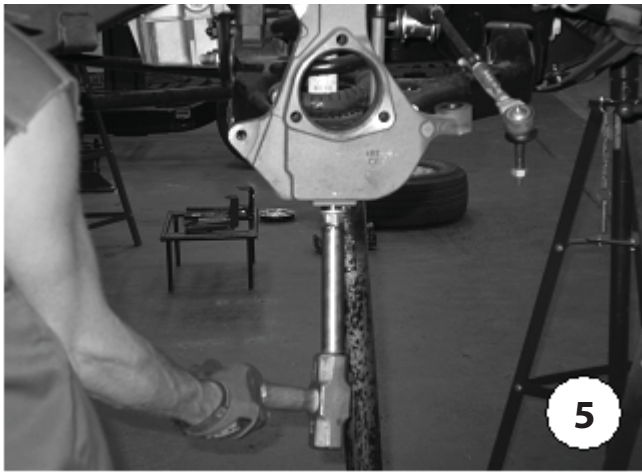
NOTE: Some vehicles may be equipped with a larger brake caliper & backing plate. If vehicle has the backing plate that is shown in photo 13 it will need to be trimmed as shown.

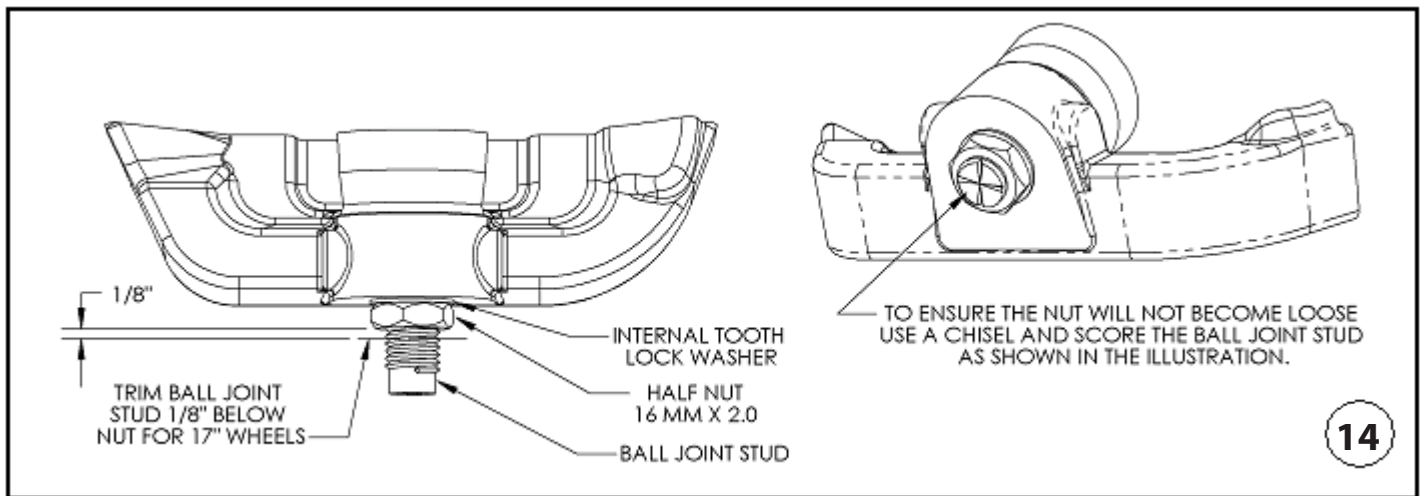
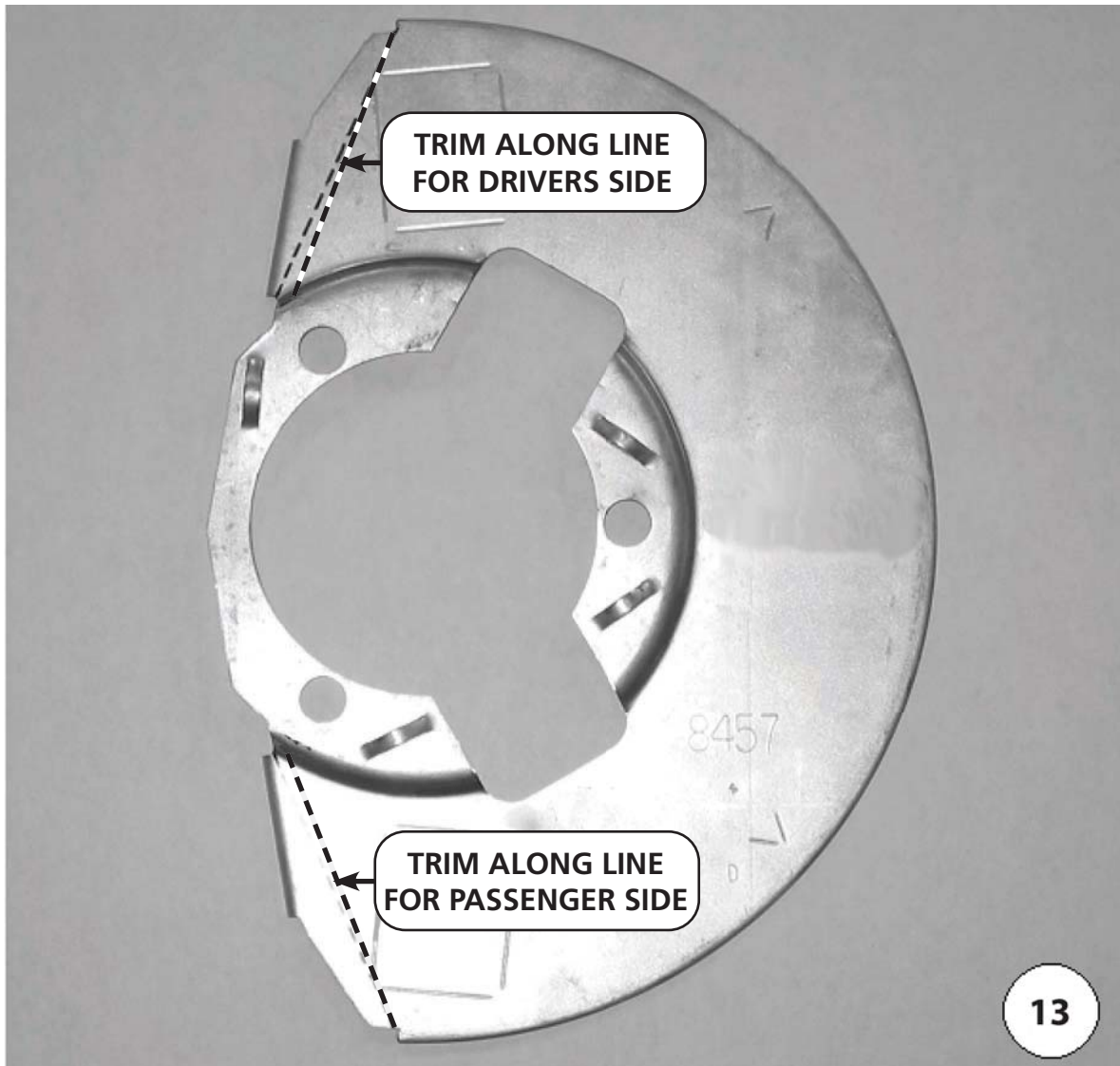
- n) Check that all components and fasteners have been properly installed, tightened and torqued.
- ! All hardware being fastened to the vehicle's original fastening points should be torqued to the proper specifications. To prevent chassis damage, never over-torque the hardware.
- o) Check brake hoses, and other components for any possible interference.
- p) Lift vehicle and remove support stands. Carefully lower vehicle to ground.
- q) 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.
- r) 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.
- s) 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 2508 DROPPED SPINDLE KIT

PART#	DESCRIPTION	QTY
2508-350	Steering Knuckle LH	1
2508-450	Steering Knuckle RH	1
115007	Half Nut 16mm x 2.0	2
115009	Internal Tooth Lock Washer	2





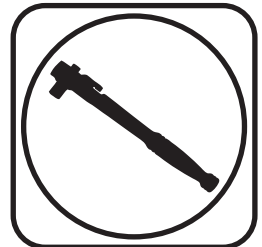




Part # 11382310 - 1999-2006 Silverado Front Coil Spring



Recommended Tools



1999-2006 Silverado Front Coil Springs Installation Instructions

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Page 10.....	Included Components & Getting Started
Page 11-12.....	Coil Spring Installation

INSTALL THE DROP SPINDLES IN CONJUNCTION WITH THE COIL SPRINGS.

! 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 and/or ABS harness while removing/installing the coil springs.



Major ComponentsIn the box

Part #	Description	QTY
54140880	Front Coil Springs	2
90003255	Front Coil Spring Seat	2
90003254	Coil Spring Spacer	4

Getting Started.....

If installing drop spindles, they should be installed while installing springs. The front suspension should be assembled with the upper ball joint disconnected from the spindle.

The Silverado StreetGrip Coil Spring utilizes an adjustable upper spring seat setup. This spring seat setup allows the height of the truck to be adjusted by shimming the spring. The kit comes with 2 shims per side, additional shims can be purchased through Ridetech or an authorized Ridetech Dealer. Each shim will affect the front ride height approximately 3/8". We provided some recommendations on the shim setup we used depending on the truck setup. This could vary depending on your wheel/tire combination.

Regular Cab Short Bed V6 - Spring Seat Only, No Shims

Regular Cab Short Bed V8 - Spring Seat & 1 Shim per side

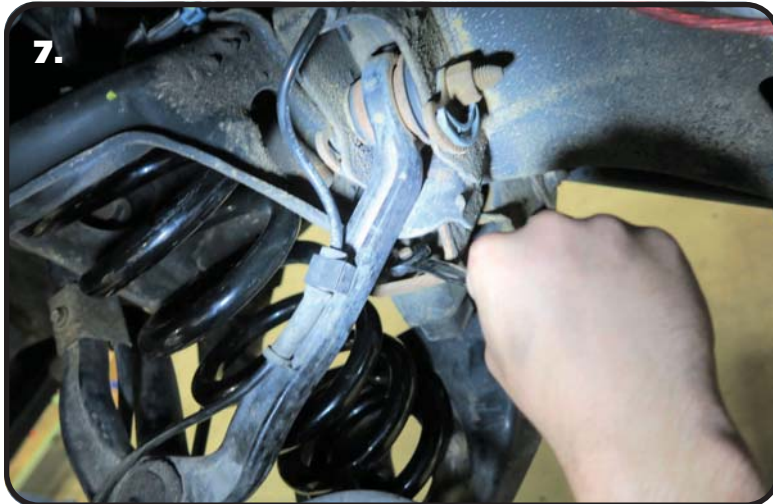
Crew Cab Short Bed V8 - Spring Seat & 2 Shims per side

Disassembly

1. Jack the truck up and support it with jacks stands. The truck needs to be high enough to allow the lower control arm to swing down to remove the spring.
2. Remove the brake line bracket that attaches to the top of the spindle. You will need to remove the ABS wire from the brake house bracket.
3. Remove the brake caliper and hang it off the frame. Do not let the caliper hang from the brake hose, this can damage the hose.
4. Disconnect the ABS sensor wire and remove it from the clips on the upper control arm.
5. Disconnect the sway bar linkage from the lower control arm.
6. Remove the OEM shock. Retain the lower control arm hardware.



Coil Spring Installation



7. Remove the OEM bumpstop from the frame.



8. Support the lower control arm with a jack and disconnect the upper ball joint from the spindle, SLOWLY lower the control arm to relieve tension from the coil spring. Remove the coil spring from the truck.

IF YOU ARE INSTALLING A SPINDLE ALONG WITH THE COIL SPRING, NOW IS A GOOD TIME TO INSTALL IT. LEAVE THE UPPER BALL JOINT DISCONNECTED TO INSTALL THE COIL SPRING.



9. Remove the spring rubber from the OEM spring and install it on the new coil spring.



Coil Spring Installation



10. The coil spring seat is positioned on the top of the coil spring with the center ring inserted into the coil spring. Use the guide on Page 2 for determining if you should install spacer(s).



11. Insert the coil spring/seat combo into the OEM coil spring pocket. Twist the spring on the upper seat to get the bottom of the coil spring lined up with the receiver in the control arm. The end of the coil spring needs to be nested into the receiver area of the control arm. Slowly jack the control arm up.



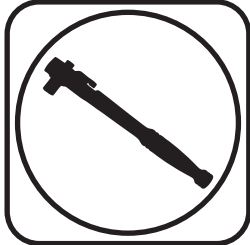
12. With the control arm jacked up into position, install the top of the Spindle onto the ball joint pin. Torque the ball joint nut to 20 ftlbs.



Part # 22169847 - 5.75" Stroke HQ Series Shocks



Recommended Tools



Stud/Wide Trunnion HQ Series Installation Instructions

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5.75" HQ Series Smooth Body Shocks

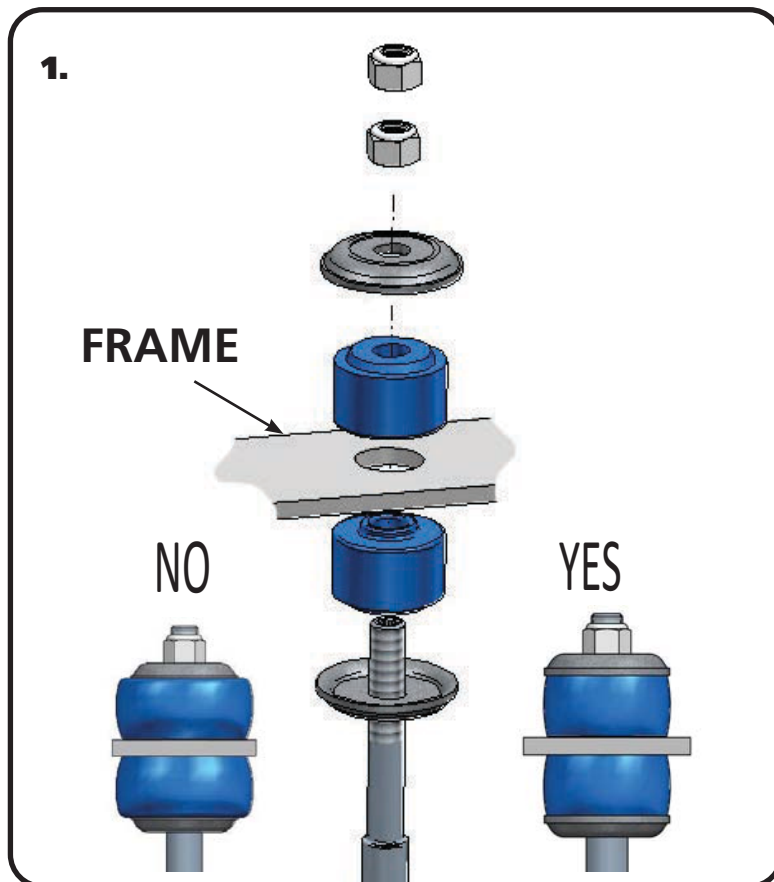
Major ComponentsIn the box

Part #	Description	QTY
986-10-044	5.75" Stroke Shock, Short Knob	2
70011139	5/8" ID Shock Bushing (Installed in Shock)	2
90002068	Wide Trunnion (Installed in Shock)	2
70011141	Bushing Support Washer	4
70011140	Stem Bushing	4
99372006	3/8"-24 Thin Jam Nut	4



Shock Installation

Before installing the shocks, the drop spindles and coil springs should be installed.



1. With the OEM shock removed, install the Ridetech shock. Remove the adjuster knob by loosening the set screw using the supplied Hex Key. Install a Bushing Support Washer on to the shock shaft followed by a Shock Stem Bushing. Insert the assembly through the factory shock hole in the frame. With the shock stud sticking through the frame, install a Shock Stem Bushing on to the shock stud followed with a Bushing Support Washer. Install a 3/8"-24 Thin Jam nut onto the threads and tighten to 35 inlbs. The Bushing should be tight, but not to the point that the bushing is bulging past the Support Washer. Install the 2nd 3/8-24 Thin Jam nut and tighten it against the first nut. Reinstall the Adjuster Knob, align the set screw with the FLAT side of the adjuster shaft that is sticking out of the top of the shock shaft.

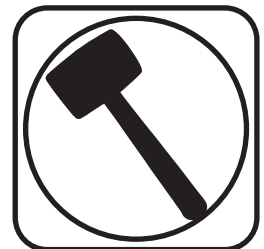
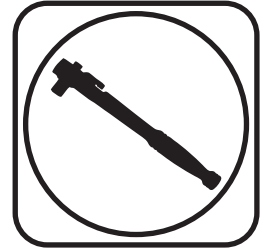


2. Attach the Trunnion to the OEM Control arm using the OEM hardware. It may be necessary to rotate the Trunnion to get it in the correct position. This can be done by sticking a screwdriver in one of the slots and spinning the trunnion in the shock bushing.



Part # 11389611 - 1999-2006 Silverado 1500 Rear C-Notch Kit

Recommended Tools



1999-2006 Silverado Rear C-Notches Installation Instructions

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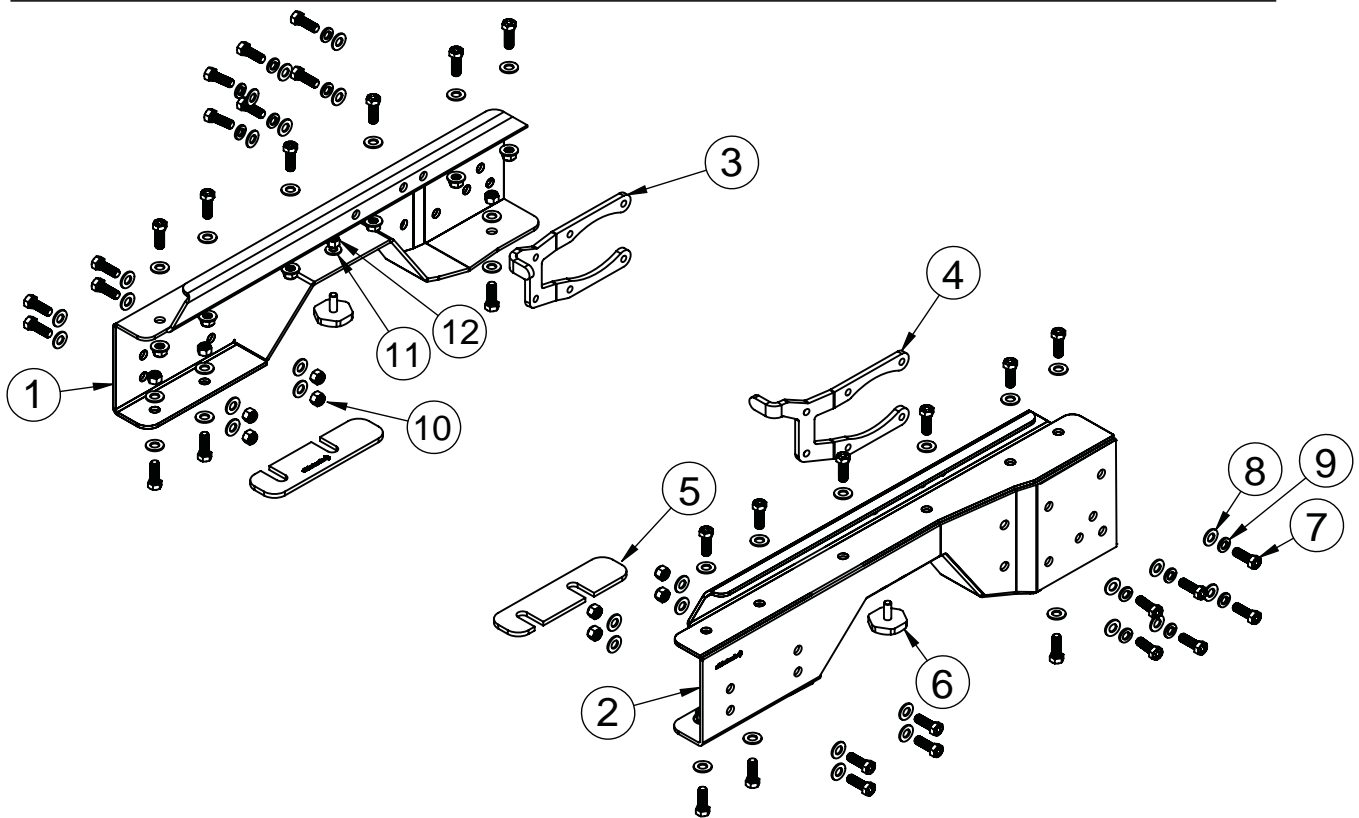
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Page 22-23.....	Bed Modification





Major ComponentsIn the box

Item #	Part #	Description	QTY
1	90003244	Driver C-Notch	1
2	90003245	Passenger C-Notch	1
3	90002804	C-Notch Nut Plate - Driver	1
4	90002805	C-Notch Nut Plate - Passenger	1
5	90000311	C-Notch Spacer Plate - 1999 & 2000 Trucks	2
6	70013322	Short Bumpstops with Hardware	2



Hardware ListIn the box (Kit# 99010167)

The Hardware Kit contains bags to help aid in selecting the correct hardware for the component being installed. The hardware list shows how the hardware is bagged.

Item #	Part Number	Description	QTY	Item #	Part Number	Description	QTY
"C" NOTCH MOUNTING -				BUMPSTOP			
7	99431021	7/16" x 1 1/4" USS Bolt	38	11	99373003	3/8" SAE Flat Washer	2
8	99433005	7/16" SAE Flat Washer	26	12	99372002	3/8"-16 Nylok Nut	2
9	99433003	7/16" Split Lock Washer	12				
10	99432010	7/16" USS Nylok Nut	26				



Disassembly

1. Raise the vehicle to a safe and comfortable working height and support it by the frame. You will need to be able to move the rear differential up and down. Use a jack under the rear axle so it can be raised and lowered as needed during the install.
2. **Remove the bed, retaining the hardware for reassembly. This kit can NOT be installed with the bed on. The bed requires minor modifications before reinstalling it.**
3. Refer to the factory service manual for proper disassembly procedures.



4. The Brake Line Bracket will need to be removed from the top of the driver side frame rail. This will be reattached later.



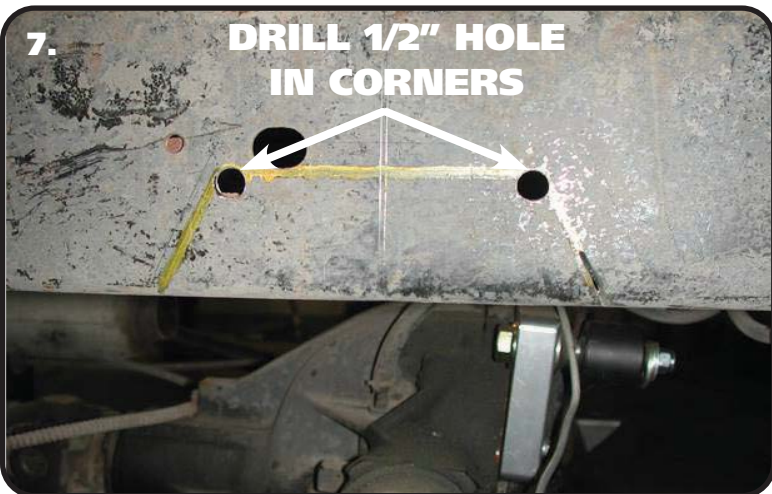
5. Unbolt the emergency brake cable bracket from the driver side frame rail. It is located between the axle and the front leaf spring hanger. Retain the hardware for reassembly.



"C" Notch Installation



6. To allow maximum drop on this truck, the frame must be notched. The template for the notch will locate off of the 2 large oval holes. Use the supplied "C" Notch template to mark out the frame for cutting. Before cutting out the frame, support the frame in front of and behind the "C" Notch area. We suggest doing one side at a time. The tall end of the template is located to the front of the truck.



7. Use the supplied Template to mark the cut lines on the frame, then drill out the two corners with a 1/2" drill bit. This will give the cut a round edge and eliminate the possibility for stress fractures. Then cut the notch with a saw-z-all, cutoff wheel, or plasma cutter. Grind all edges smooth. Check the inside of the frame for wires or lines before drilling or cutting.



99 ONLY!!!

8. We have come across some frames that have a protrusion stamped in the frame above the axle. This will need to be flattened out to get the c-notch fitting tightly. We did this by extending the horizontal cut forward to the end of the protrusion then cutting straight down to the bottom of the frame. After the frame is cut, use a hammer or vise grips to bend the protrusion flat. Refer to **Image 8**.



"C" Notch Installation



9. After cutting, slip the c-notch over the frame to check the fitment.



10. The front edge of the C-Notch should be 4 1/2" from the oval hole in front of it. Trim the opening to move the c-notch forward or backward to achieve 4 1/2".



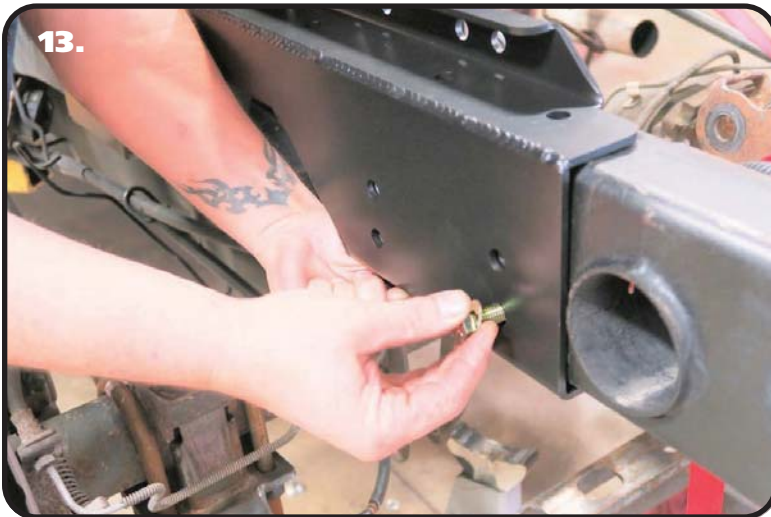
11. Use a 7/16" Drill bit to drill the holes in the side of the frame. DO NOT DRILL THE HOLES WHERE THE EMERGENCY BRAKE CABLE BRACKET IS BOLTED OR THE TOP AND BOTTOM OF THE C-NOTCH. There are 10 holes in the side that need to be drilled.



"C" Notch Installation

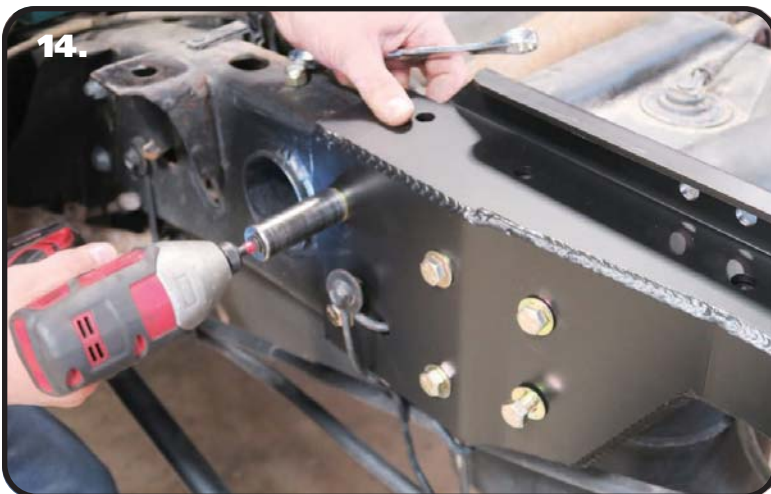


12. After drilling the holes in the side for the frame, remove the C-notch to insert the front nut plate. **Image 12** shows the Driver Nut Plate. The top tab is bent to the inside of the frame to allow it to be held in place. After inserting the nut plate, reinstall the C-notch. Install a 7/16" Lock Washer, & 7/16" Flat Washer on (6) 7/16" x 1 1/4" Bolts. Hold the nut plate in place and insert the bolts/washer through the c-notch and frame threading them into the nut plate. Repeat on the other side. LEAVE THE HARDWARE LOOSE.



13. Install a 7/16" Lock Washer, & 7/16" Flat Washer on (4) 7/16" x 1 1/4" Bolts. Install them in the rear 4 holes of the c-notch. Install a 7/16" Flat Washer and 7/16" Nylok Nut on each bolt sticking through the frame. Repeat on the other side. LEAVE THE HARDWARE LOOSE.

Repeat Steps 6-13 on the other side.



14. Tighten all of the c-notch side bolts. After tightening the side bolts, tighten the crossmember bolts. Torque to 50 ftlbs.



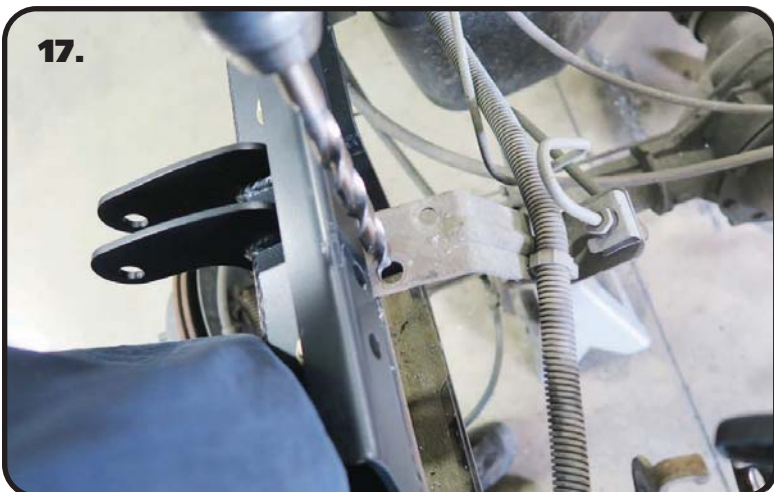
"C" Notch Installation



15. Reinstall the emergency brake cable bracket using the OEM hardware.



16. Use a 7/16" Drill bit to drill the remaining holes in the top and bottom of the frame. Install a 7/16" Flat Washer on the remaining 7/16" x 1 1/4" Bolts. Insert bolt/washers in the drilled holes of the c-notch. Install a 7/16" Flat washer and 7/16" Nylok Nut on the threads sticking through the c-notch/frame. **DO NOT TIGHTEN.**



17. Use a 7/16" drill bit to drill out the rear hole of the OEM Brake Line Bracket.



"C" Notch Installation & Bed Modification

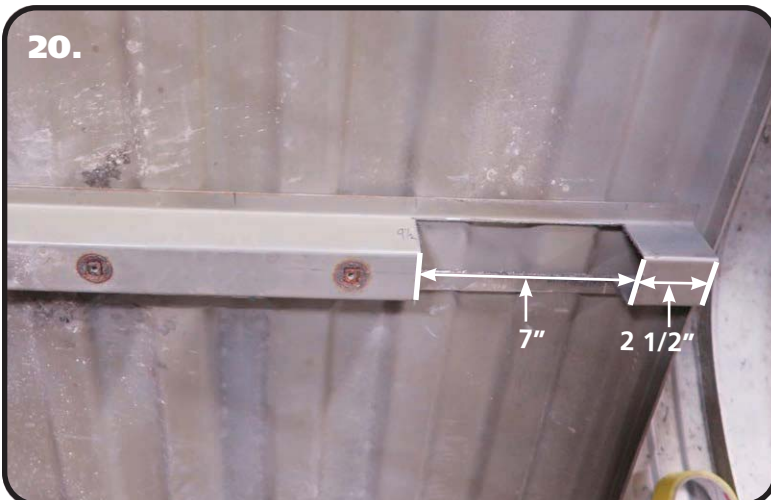


18. Remove the nut and washer from the 2nd from rear top bolt of the driver side c-notch. Install the brake line bracket on the bolt and reinstall the nut and washer. **If 1999 - 2000, continue on step 20.** If your truck is 2001 and newer, tighten the top and bottom c-notch hardware to 50 ftlbs then skip to step 21. If 1999 - 2000, continue on step 20.



1999-2000 ONLY

19. The 1999 & 2000 model year trucks have a slightly shorter frame rail height than the newer trucks. The kit includes (2) spacers to fill the gap that is on the bottom rear of the c-notch. Insert a spacer in the gap of the driver and passenger side c-notches. Tighten the top and bottom hardware to 50 ftlbs.



20. Trimming of the bed brace that is in between the wheel wells is necessary to clear the c-notches and wishbone. We cut ours with a die-grinder. **Image 54** shows the passenger side, the dimensions are the same for both driver and passenger. The first notch starts 2 1/2" from the end of the brace. The notch is 7" long. Trim the driver and passenger side using these dimensions. **Image 55** shows the driver and passenger sides cut out.



Bed Modification & Bumpstop Installation



21. Your bed brace should look like **Image 21** after cutting.



22. Install the Bumpstops into the C-Notch above the axle using the 3/8" Flat Washer and 3/8"-16 Nylok Nut supplied. A bumpstop will need to be installed in each c-notch.

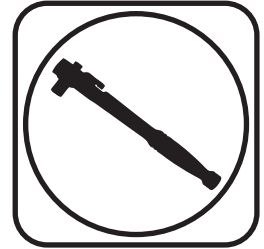
23. Reinstall the bed.

24. Verify all hardware is tight.



Part # 11389511 - 1999-2006 (2007 Classic) Silverado Axle Flip Kit

Recommended Tools



1999-2006 Silverado Axle Flip Kit Installation Instructions

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Page 34.....	Carrier Bearing Mount





Major ComponentsIn the box

Part #	Description	QTY
90001363	Rear Shackle Frame Mount	2
90001364	Rear Shackle	2
90002672	Shackle Inner Bushing Sleeve - Installed in shackle	2
70012461	Shackle Bushing - Installed in shackle	4
90001402	Flip Bracket	2
90003084	Clamp Plate	2
99626004	U-Bolt - 3.120" W x 7.50" L x 9/16"-18	4
90000209	Carrier Bearing Spacer	1
90000310	Transmission Spacer	

Hardware ListIn the box (Kit# 99010166)

The Hardware Kit contains bags to help aid in selecting the correct hardware for the component being installed. The hardware list shows how the hardware is bagged.

QTY	Part Number	Description
REAR SHACKLE		
2	99561012	9/16-18 x 4 1/2" Hex Bolt
2	99562001	9/16-18 Nylok Nut
4	99566003	9/16" SAE Flat Washer
REAR FRAME BRACKET		
6	99431021	7/16-14 X 1 1/4" Hex Bolt
6	99432010	7/16-14 Nylok Nut
12	99433005	7/16 SAE Flat Washer

QTY	Part Number	Description
CARRIER BEARING SPACER		
4	99371003	3/8"-16 X 1" Hex Bolt
4	99372002	3/8"-16 Nylok Nut
8	99373003	3/8" SAE Flat Washer
U-BOLT		
8	99562010	9/16"-18 High Nut
8	99566003	9/16" SAE Flat Washer

Getting Started.....

THIS KIT CAN BE SETUP TO LOWER THE REAR OF YOUR TRUCK 3 DIFFERENT HEIGHTS. IT CAN BE SET TO LOWER THE REAR OF THE TRUCK 5 1/2", 6" OR 6 1/2". THIS HEIGHT ADJUSTMENT IS BUILT INTO THE REAR SPRING HANGER. 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. Raise the vehicle to a safe and comfortable working height and support it by the frame. You will need to be able to move the rear differential up and down. Use a jack under the rear axle to raise and lower it during the install.
2. Jack up the rear end slightly to remove the tension from the rear shocks. Remove the shock absorbers. For proper function, they should be replaced with the Ridetech HQ Series Shock Kit 11389510.
3. Lower the jack to relieve the tension on the rear springs, but keep the jack touching the rear axle.



Disassembly



4. Remove the u-bolts and axle clamps to disengage the axle from the leaf springs. Lower the axle to get clearance on the leaf springs, but **DO NOT** strain the brake lines.



5. Loosen the front leaf spring bolts. You don't need to remove the nut and bolt.



6. The rear of the leaf springs will need to be disconnected to install the new hanger setup and to move the springs under the axle. Support the rear of the leaf spring and remove the leaf spring shackle bolt. If your truck has a hitch on it, you will find it easier to cut the bolt to remove it from the shackle/hanger.



Disassembly



7. Unbolt the emergency brake cable bracket from the driver side frame rail. It is located between the axle and the front leaf spring hanger. Retain the hardware for reassembly.



8. 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.



9. The rear leaf spring hanger will need to be removed from the frame. It is held on by (1) bolt and (3) rivets. Remove the bolt from the top rear hanger hole. We remove the rivets by cutting a " + " in the rivet head and chiseling it off. After chiseling the head off, drive the rivet out of the hanger/frame with a punch.



Disassembly



10. The OEM leaf spring hanger includes a second bracket that is riveted to the bottom of the frame. Again, cut a " + " in the head of the rivet and chisel it off. After removing the head of the rivet, drive it out of the frame/bracket with a punch. Repeat steps 9-10 on the second hanger.



11. The leaf spring locating pin needs to be flipped over. Currently, the nut for the pin is on the top side of the leaf spring pack. The nut 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 and behind the u-bolt locator. With the leaf spring clamped, remove the nut from the locating pin. Next, remove the u-bolt locator and discard it.



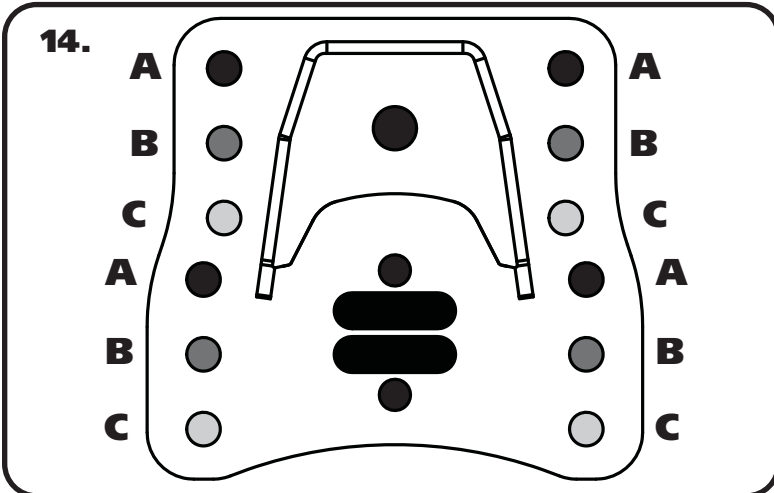
12. Remove the locating pin from the leaf spring pack. Reinstall the locating pin from the TOP side. Reinstall the nut on the BOTTOM side and tighten. With the nut tight, remove the clamps. Repeat on the second spring.



Shackle & Hanger Installation



13. Assemble the hangers and shackles. The hangers and shackles are the same for both sides. What determines driver from passenger is which direction the open side of the shackle is facing. **Image 13** is of the DRIVER side. Insert the delrin end of the shackle into the hanger, paying attention to the open side of the shackle. Line up the hole of the hanger with shackle's inner sleeve. Install a 9/16" flat washer on a 9-16"-18" x 4 1/2" bolt. Insert the bolt/washer in the aligned hole of the shackle and hanger. Install a 9/16" flat washer and 9/16"-18 nylok nut on the threads of the bolt that are sticking through the hanger. Repeat on other shackle/hanger with the open side of the shackle facing the opposite direction of the one just assembled. Do not tighten hardware at this time.



14. The hanger can be bolted to the truck at (3) different heights. Position A = 5 1/2" drop, Position B = 6" drop, Position C = 6 1/2" drop. If you are unsure where to set it at this time, install the hanger in position B.



15. Determine the set of holes that you are going to be using to attach the hanger. The hanger is bolted to the frame in the OEM location with the open side of the shackle to the front of the truck. The REAR UPPER hole reuses the OEM bolt that was removed earlier. Install the OEM bolt in the rear upper hole. This will help hold the hanger while inserting the remaining bolts.



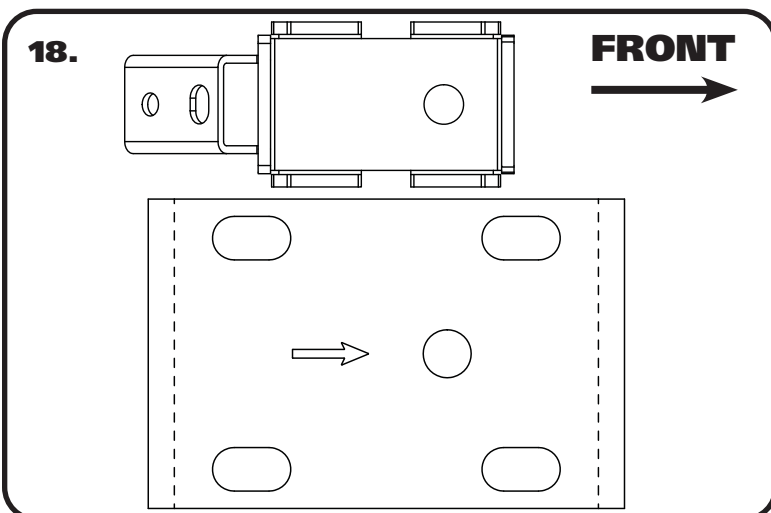
Hanger & Flip Bracket Installation



16. Install a 7/16" flat washer on each of (3) 7/16"-14 x 1 1/4" bolts. Align the correct holes of the hanger with the OEM holes in the frame. Install a bolt/washer in each one. Install a 7/16" flat washer and 7/16"-14 nylok nut on the threads of the bolts that are sticking through the frame. Torque the hardware to 70 ftlbs.



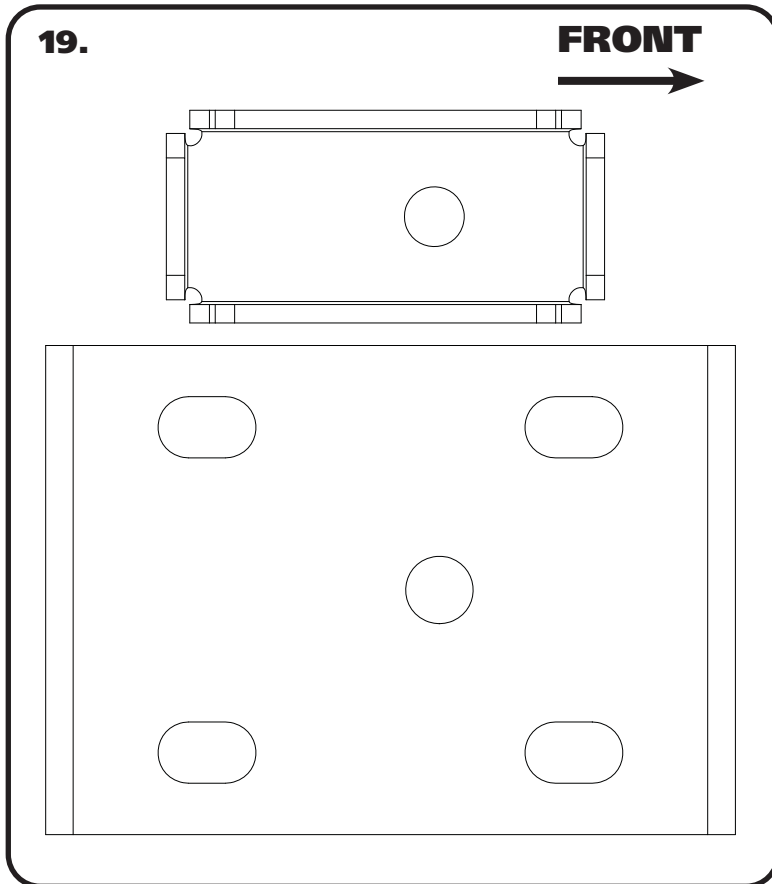
17. Raise the rear of the leaf spring up until it lines up with the rear shackle. You may have to jack up the rear differential. Install the OEM hardware that was removed earlier. Repeat on the second spring. Do not tighten the hardware at this time.



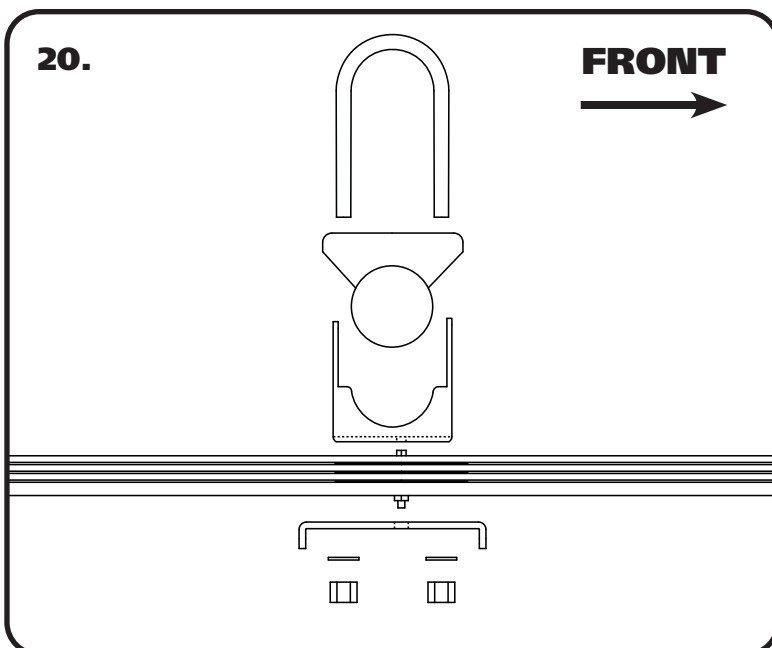
18. The flip kit has the locating holes offset to center the wheel in the wheel opening. **Image 18** illustrates a top view of the flip bracket and the leaf spring plate. Notice the CENTER hole is offset to the FRONT of the truck. The flip bracket has a brake line tab that will need to be positioned to the rear of the truck. The ARROW in the plate needs to point to the front of the truck.



Flip Bracket Part Orientation



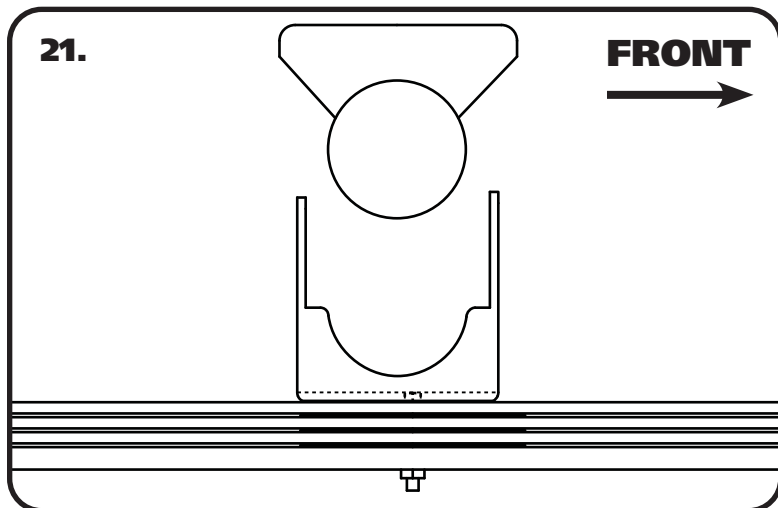
19. The flip kit has an offset locating hole to center the wheel in the wheel opening. **Image 19** illustrates a top view of the flip bracket and the leaf spring plate. Notice the **CENTER** hole is offset to the **FRONT** of the truck. This kit will move the axle rearward.



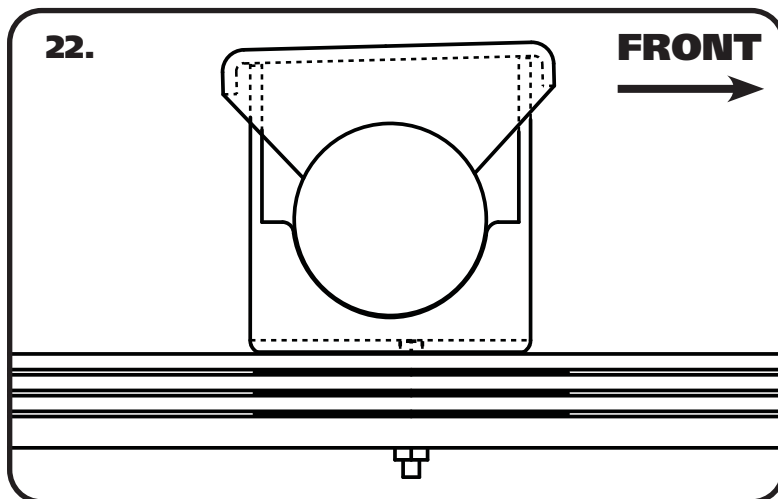
20. **Image 20** illustrates the included parts exploded to assist you in the location and orientation of the parts included.



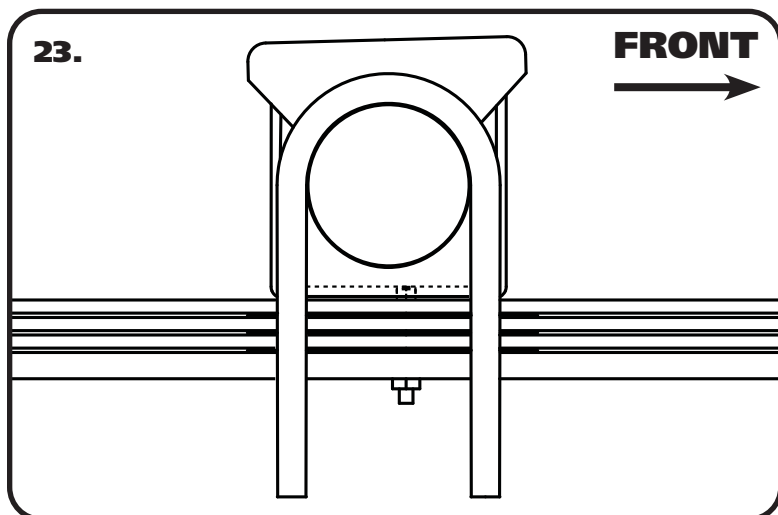
Flip Bracket Installation



21. Set the flip bracket onto the leaf spring with the CENTER HOLE OFFSET TO THE FRONT OF THE TRUCK.



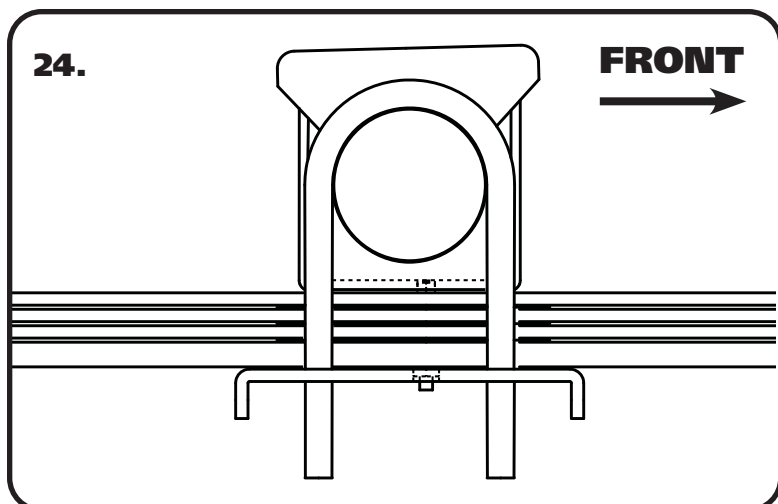
22. Slowly lower the axle into the flip bracket making sure the tabs go up into the leaf spring saddle.



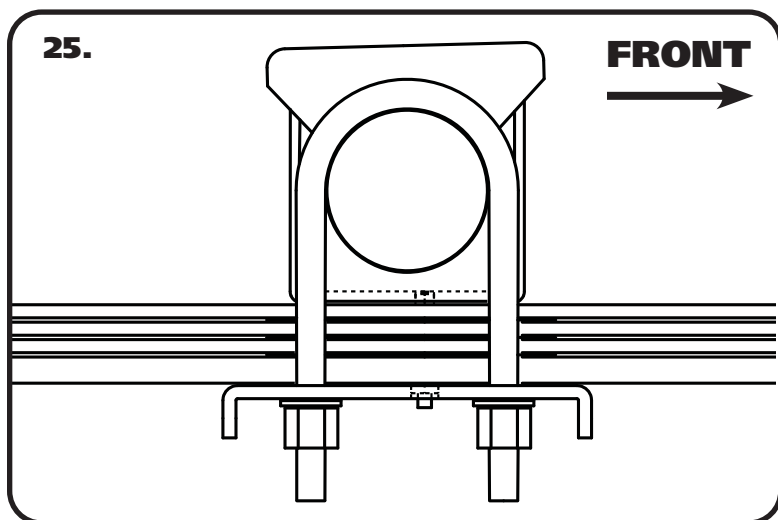
23. Slip the u-bolts over the axle tube with the threads pointing down.



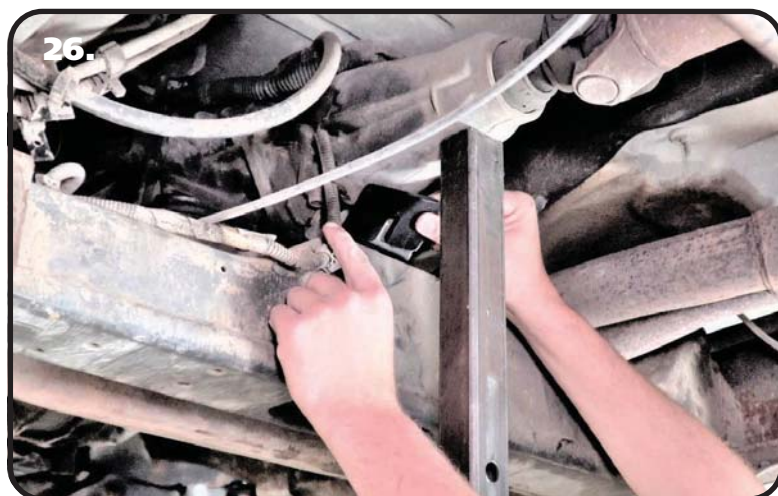
Flip Bracket Installation & Transmission Spacer



24. Slip the leaf spring bracket up onto the u-bolts WITH THE OFFSET HOLE FORWARD.



25. Hold the leaf spring bracket in place and install (4) 9/16" flat washer & (4) 9/16" high nuts on the threads of the u-bolts. Snug the nuts down evenly and tighten them in a crisscross fashion to 90 ftlbs.



26. The kit includes a transmission spacer that will need to be used to help with driveline angles. Install it by loosening the hardware that attaches the transmission mount to the transmission crossmember. Jack up the rear of the transmission just enough to slide the spacer in and tighten the hardware.

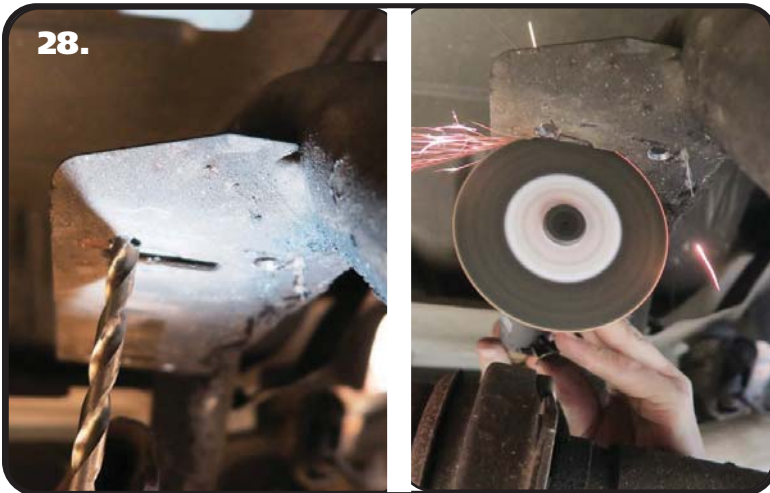


Carrier Bearing Mount

TRUCKS WITH CARRIER BEARINGS ONLY!



27. The driveshaft carrier bearing will need to be relocated to optimize driveline angles at your new lower ride height. Refer to steps 27-29 for carrier bearing mount installation. Unbolt the carrier bearing retaining the OEM hardware. Center the new mount on the OEM mount. Use the OEM slots as a reference. Mark the holes and the inner edge of the mount.



28. **Image 28** illustrates drilling and cutting the OEM carrier bearing mount. Drill the (4) marked holes using a 3/8" drill bit. Cut along the line that was marked along the inner edge of the new mount. This will remove the center of the OEM mount.



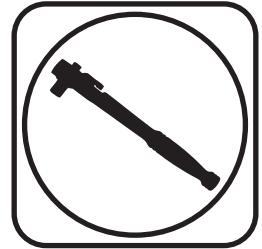
29. The new carrier bearing bracket is then bolted onto the remaining tabs. Attach the bracket using 3/8"-16 x 1" bolts, flat washers, & 3/8"-16 nylok nuts. The carrier bearing mount is rotated 180 degrees and attached to the supplied bracket with the OEM hardware as shown in the picture in **Image 29**.



Part # 11389510 - 99-06 Silverado Rear Shock Kit for Flip Kit



Recommended Tools



99-06 Silverado HQ Series Shock Kit Installation Instructions

Table of contents

- Page 36..... Components
- Page 37..... Lower Mount Installation
- Page 38..... Shock Installation





6.65" HQ Series Smooth Body Shocks

Major ComponentsIn the box

Part #	Description	QTY
986-10-032	6.65" Stroke Shock	2
70011138	3/4" ID Shock Bushing	4
90002102	1/2" ID Shock Sleeve (Installed in Shock Eyelet)	2
70011186	9/16" ID Shock Sleeve Half (Installed in Shock Body)	4
90003243	Lower Shock Relocation Bracket	2
90002103	Shock Relocation Bracket Spacer	2

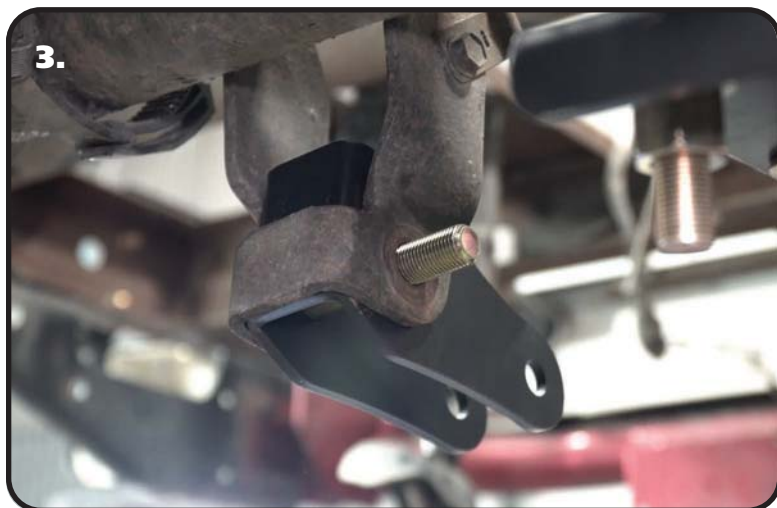
HARDWARE KIT # 99010165

Part #	Description	QTY
Rear Upper Shock Mount		
99561013	9/16"-18 x 3" Hex Bolt	2
99566003	9/16" SAE Flat Washer	4
99562001	9/16"-18 Nylok Nut	2
Rear Lower Shock Mount		
99501064	1/2"-13 x 2 3/4" Hex Bolt	2
99502009	1/2"-13 Nylok Nut	2
99503014	1/2" Flat Washer	4

Part #	Description	QTY
Rear Lower Shock Bracket		
99561008	9/16"-18 x 3 1/4" Hex Bolt	2
99566003	9/16" SAE Flat Washer	4
99562001	9/16"-18 Nylok Nut	2
99311030	5/16"-18 x 1" Hex Bolt	2
99312002	5/16"-18 Nylok Nut	2
99313001	5/16" SAE Flat Washer	4

The Rear Shocks will be installed after the Flip Kit is installed.

1. Install the Rear Flip Kit.
2. If you haven't already, remove the rear shocks from the truck.



3. This kit includes new lower shock mounts to correct the angle of the shocks. They attach to the OEM shock mounts. Slip the lower mount into the OEM shock mount lining up the 2 side holes with the OEM shock hole. You will need to drill the rear hole into the OEM mount. Use the bracket as a template to mark the location of the hole that will need to be drilled.



Lower Shock Mount Installation



4. You will need to remove the new mount to be able to drill the hole in the OEM mount. Use a 5/16" drill bit to drill the hole.



5. Reinstall the new shock mount, aligning the holes. Install a 5/16" Flat Washer on a 5/16"-18 x 1" Bolt and insert in through the small hole with the bolt head on the INSIDE of the new shock mount. Install a 5/16" flat washer followed by a 5/16"-18 Nylok Nut on the threads of the bolt sticking through the bracket. Do not tighten at this time.



6. Insert the spacer (1.312" Long) into the new shock mount. Align the center hole with the OEM shock holes.



Shock Installation



7. Install a 9/16" flat washer on a 9/16"-18 x 3 1/4" Bolt, insert the bolt/washer through the lower mount, OEM mount, and spacer. Install a 9/16" Washer and 9/16"-18 Nylok Nut on the threads sticking through the mounts/spacer. Tighten the 5/16" hardware to 25 ftlbs. Tighten the 9/16" hardware to 100 ftlbs. Repeat for the other shock bracket.



8. Insert the shock into the OEM upper mount. Install a 9/16" flat washer on a 9/16"-18 x 3" bolt, insert the bolt/washer through the upper mount. Install a 9/16" Washer and 9/16"-18 Nylok Nut on the threads sticking through the mounts/spacer. Tighten the 9/16" hardware to 100 ftlbs. Repeat for the other shock bracket.



9. Install a 1/2" flat Washer on a 1/2"-13 x 2 3/4" Bolt. Line the center of the inner sleeve of the shock with the mounting holes in the lower shock bracket. Insert the bolt/washer through the lined up holes. Install a 1/2" Flat Washer and 1/2"-13 Nylok Nut on the threads sticking through. Torque to 50 ftlbs.



Alignment

As in anytime you've changed suspension components, have the alignment checked.

Alignment Specs:

Toe: 1/6" - 1/8" Toe In
Camber: -.5°
Caster: +3° - +5°

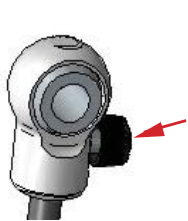
Shock Adjustment

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 or stud top. You must first begin at the ZERO setting, then set the shock to a street setting of 12 or handling setting of 8.



-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 clockwise 12 clicks. This sets the shock at 12 for a street setting. If you are after a handling setting only go 8 clicks.

Take the vehicle for a test drive.



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

-if the vehicle is too soft increase the damping effect by rotating the rebound knob clockwise 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.