

## Installation



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



#### **Recommended Tools**







# 1999-2006 Silverado Axle Flip Kit **Installation Instructions**



### Table of contents

Page 2..... Included Components & Getting Started

Page 3-5..... Disassembly

Page 6..... Shackle & Hanger Installation Page 7..... Hanger & Flip Bracket Installation

Page 8-10..... Flip Bracket Installation

Page 11..... Carrier Bearing Mount







## **Major Components** .....In 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 List .....In 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.

		Γ			
QTY	Part Number	Description			
REAR	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	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.....

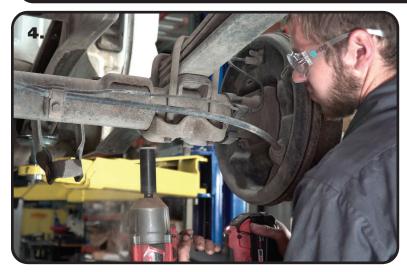
THIS KIT CAN BE SETUP TO LOWER THE REAR OF YOUR TRUCK 3 DIFFERENT HEIGHTS. IT CAN BET SET TO LOWER THE REAR OF THE TRUCK 5 1/2", 6" OR 6 1/2". THIS HEIGHT ADJUSTMENT IS BUILT INTO THE REAR SPRING HANGER. BEFORE YOU START THE INSTALL, MEASURE THE HEIGHT OF YOUR TRUCK TO HELP DETERMINE HOW YOU WANT IT 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.

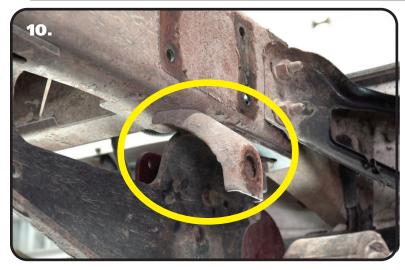


**9.** The rear leaf spring hanger will need to be removed from the frame. It is held on by (1) bolt and (3) rivets. Remove the bolt from the top rear hanger hole. We remove the rivets by cutting a " + " in the rivet head and chiseling if off. After chiseling the head off, drive the rivet out of the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



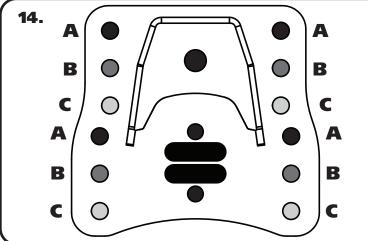
**12.** Remove the locating pin from the leaf spring pack. Reinstall the locating pin from the TOP side. Reinstall the nut on the BOTTOM side and tighten. With the nut tight, remove the clamps. Repeat on the second spring.





## **Shackle & Hanger Installation**





- **13.** Assemble the hangers and shackles. 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  $A = 5 \frac{1}{2}$ " drop, Position B = 6" drop, Position  $C = 6 \frac{1}{2}$ " 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.





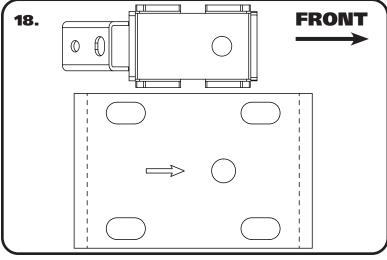
## **Hanger & Flip Bracket Installation**



**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.

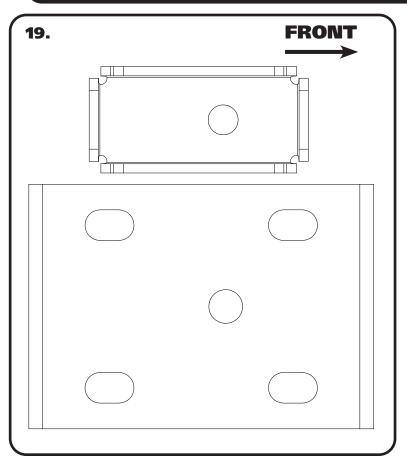


**18.** The flip kit has the locating holes offset to center the wheel in the wheel opening. **Image 18** illustrates a top view of the flip bracket and the leaf spring plate. Notice the CENTER hole is offset to the FRONT of the truck. The flip bracket has a brake line tab that will need to be positioned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

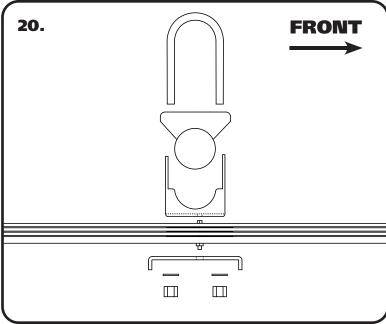




## **Flip Bracket Part Orientation**



**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.

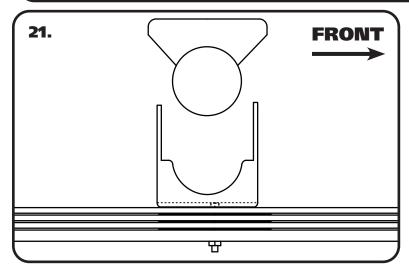


**20. Image 20** illustrates the included parts exploded to assist you in the location and orientation of the parts included.

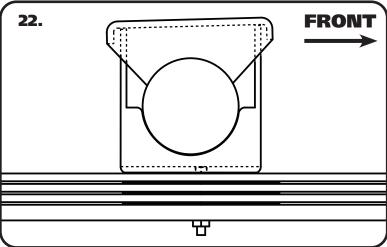




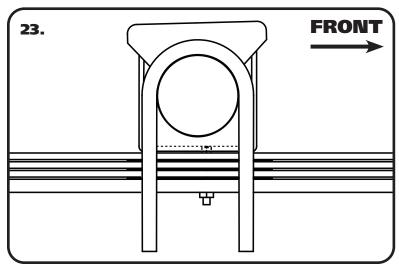
## **Flip Bracket Installation**



**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.

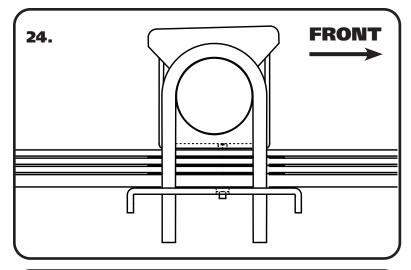


**23.** Slip the u-bolts over the axle tube with the threads pointing down.

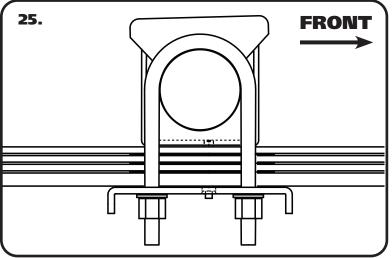




## Flip Bracket Installation & Transmission Spacer



**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.

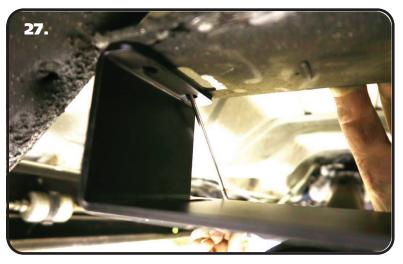


**26.** The kit includes a transmission spacer that will need to be used to help with driveline angles. Install it by loosening the hardware that attaches the transmission mount to the transmission crossmember. Jack up the rear of the transmission just enough to slide the spacer in and tighten the hardware.





## **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**.