

Part #	Description
WFO SF-CHD-KIT	2000 – 2010 GM HD Shackle Flip

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#### **WFO SF-CHD-KIT**

BILL OF MATERIALS		
Qty. 1 - WFO SF-CHD-D	Driver Side Mount	
Qty. 1 - WFO SF-CHD-P	Passenger Side Mount	
Qty. 4 - DAY M02153BK	Main Bushings	
Qty. 2 - WFO 4261	3/4" Bushing Sleeve for a 9/16" Bolt	
Qty. 4 - WFO 610x	4", 5", or 6" Depending on Purchase Length	
Qty. 2 - WFO 4263	Center Shackle Bar (5" & 6" Shackles Only)	
Qty. 8 - 7/16" Bolt Kits	7/16"x1.5" Grade 8 Bolts, Washers, & Nuts	
Qty. 4 - ½" Bolt Kits	½"x1.25" Grade 8 Bolts, Washers, & Nuts	
Qty. 2 - ½" Bolt Kits	½"x4.5" Grade 8 Bolts, Washers, & Nuts	
Qty. 4 - 9/16" Bolt Kits	9/16"x5" Grade 8 Bolts, Washers, & Nuts	

## **TOOLS NEEDED**

Grinder

Standard Socket Set Standard Wrench Set

21mm Socket and Wrench

Impact Gun

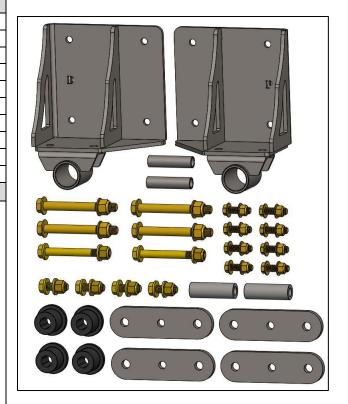
Grease

Flat Head Chisel

Pry Bar

Sledge Hammer

**Rubber Mallet** 



### WARNING!

- \*\*\* Read all instructions thoroughly from start to finish before beginning the job! If these instructions are not properly followed, severe frame, suspension, tire, or body damage may result to the vehicle!
- \*\*\* WFO Concepts recommends that you exercise extreme caution when working under vehicles supported by jack stands.
- \*\*\* WFO Concepts recommends all installation to be performed by a professional shop/service technician. Product failure due to improper installation will not be covered under WFO's warranty policy.

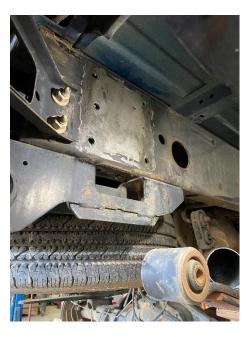
#### **TECH NOTES:**

- Depending on which length shackle you choose, this shackle flip kit will net you the following lift heights: 4" Shackle = 3.75" of Lift 5" Shackle = 4.25" of Lift 6" Shackle = 4.75" of Lift
- Modification to the exhaust tail pipe we be needed. Install of the shackle flip drops the eyelet of the spring lower on the
- Depending on which driveline your truck has, CV or U-joint to U-joint, an added axle degree shim might be needed.
- The shackle flip will push your axle forward roughly ½" to 1". Purchasing a WFO 1700-2.5-KIT to relocate and center your axle in the wheel well may be needed.
- Re using old U-bolts isn't recommended. If possible, purchasing newer 5/8" U-bolts will be necessary.

# REMOVAL:

- Start by supporting the rear frame with jack stands so the rear suspension can fully droop. Make sure to chock the front tires if working from the ground. Also support the axle with jack stands. And the use of a floor jack will be necessary for moving the axle and leaf springs into place.
- 2. Remove tires.
- 3. You will only need to remove the rear section of the leaf spring and shackle.
- 4. There are 2 ways of removing the rear bracket and shackle. Due to the factory bolts being installed backwards it makes removal tricky.
  - a. 1st option is to remove the rear hitch. Once removed you can access the lower bolt head to remove the lower shackle bolt. A 21mm Socket and wrench is used for this bolt. Then you can swing the springs up to access the rivets on the bracket. Use a grinder to grind the heads of the rivets off. Then use a chisel and sledge hammer to knock the bracket off the frame.
  - b. 2<sup>nd</sup> option is to leave the hitch attached and remove the factory spring hanger bracket from the frame. This method is easier with an air chisel and/or torch. Removing the 6 rivets per side allows you to knock the bracket off the frame, allowing you to then pivot the bracket down to access the shackle bolts.
- Once bracket is removed, clean the frame up of any excess undercoating and/or dirt.



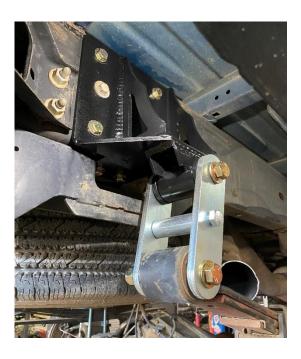


# **INSTALL:**

- Before install, make sure to paint all raw WFO brackets with a quality grade paint or powder coat.
- 2. Using good quality grease, install bushings (DAY M02153BK) and center bushing sleeves (WFO 4261) into each bracket.
- 3. Using the (4) 7/16" G8 bolts, washers, and nylock nuts, start by installing them in the face of the bracket. Leave loose.
- 4. Using the (2) ½" G8 bolts, washers, and nylock nuts, install them in the bottom of the frame.
- Snug up all hardware, making sure bracket is tight up against the frame.
- 6. Taking (1) of the 9/16"x5" G8 Bolt and hardware, loosely bolt up a pair of shackles on each side of the bushing.
- 7. Only on the 5" & 6" shackles, use the ½"x4.5" G8 Bolt and hardware and bolt the Center Shackle Bar (WFO 4263) in between the shackles. Leave loose.
- Swing your springs up into place and use the remaining 9/16" bolt. Tighten all hardware. Refer to Torque Table below.

Torque Table		
7/16" Bolts	36 Ft. Lbs.	
½" Bolts	55 Ft. Lbs.	
9/16" Bolts	85 Ft. Lbs.	

9. Once everything has been torqued on the frame and shackle hanger, you might need to adjust the pinion angle. Do to altering the angle of the spring, it will cause the axle to bolt up at a different angle. Also, if you have a CV style or U-Joint to U-Joint style driveline, this will determine which degree shim you will need to install. Ask your local driveline supplier or give us a call to help you figure out the best option.





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