

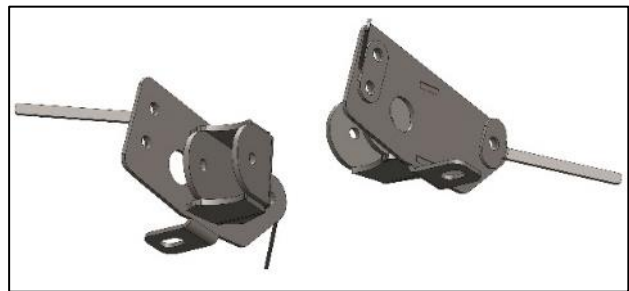
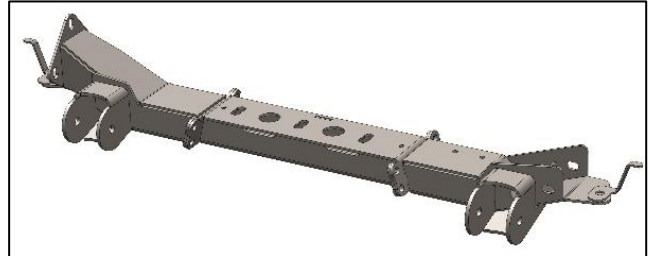


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WFOI 8203 – INSTALLATION INSTRUCTIONS	
Part #	Description
WFO 8203	2018+ Jeep JL / 2020+ JT Gladiator Front Crossmember Upper Link Mounts

WFOI 8203 – INSTALLATION INSTRUCTIONS

BILL OF MATERIALS	
Qty. 1	Complete 3-piece crossmember
Qty. 1	Pair of Front Upper Link Mounts
TOOLS NEEDED	
Jack and/or Transmission Jack Metric Socket Set: 10mm, 13mm, 16mm, 18mm, 21mm, 24mm Metric Wrench Set: 13mm, 17mm, 18mm, 21mm, 24mm Standard Socket Set: 11/16", 13/16", 3/4", Standard Wrenches: 11/16", 13/16", 3/4", Allen Wrench Set: 6mm Impact Gun Torque Wrench Cutoff wheels / Sawzall / Plasma Cutter Grinder Semi-Flat Black Spray Paint Tape Measure Blue Loctite	



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:

- 1) This kit will fit the following Jeep Models only:
 - **2018+ Jeep JL:** I4-2.0L Turbo (Gasoline), I4-2.2L Turbo (Diesel), V6-3.0 Turbo EcoDiesel, and V6-3.6L Pentastar. **It will fit the 2021+ V8 392 models but will need extensive exhaust work to fit lift kit.** On all V6 engine models we recommend installing an exhaust loop delete from AFE. **Part #48-48024.** You will **not need** it for the 3.0 Diesel engine, but you might have to remove some of the exhaust system in order to install the link mount and links.
 - **2020+ Jeep JT Gladiator:** V6-3.6L Pentastar and the V6-3.0 Turbo Diesel.
- 2) On the 2023+ JL and JT's, you will need to remove the preventive rollover plate just behind the Passengerside tire. Directions are further in the instruction sheet.
- 3) WFO Suspension Components should be installed on a well-supported vehicle. Either supported by using appropriately rated jack stands under the front and rear frame rails OR by using an automotive lift.
- 4) This kit retains some of the factory jeep axle and frame hardware, keep all parts till the end.
- 5) This suspension kit requires removal of factory mounted suspension brackets. Returning back to stock suspension will **not** be possible.
- 6) WFO recommends replacing the stock driveline. With added travel, the stock driveline will bind in articulation. Aftermarket driveline will need to be purchased in order to get optimal suspension travel.
- 7) **As a safety precaution we recommend removing the fuel tank before any plasma cutting is done. Removal of the fuel tank isn't necessary for the front crossmember, but if doing the full WFO Long Arm kit in the rear, it will need to be removed.**

REMOVAL:

1. Support the jeep by either using jack stands under the frame or using an automotive lift, to allow the suspension to droop. These directions are for complete removal of the axle. If re using the factory Rubicon Axle, it is not necessary to fully remove it, it just makes it easier to cut, grind, and paint with the axle out of your way.
 - a. Support the front axle with a floor jack while you remove stock items: **Remember to save all hardware!**
 - b. Disconnect front sway bar links using a 18mm wrench and 6mm Allen Wrench.
 - c. A 15mm socket to remove the 4 driveline bolts at the axle.
 - d. Use a 10mm socket to remove the nut holding the brake line tab to the lower link.
 - e. A 21mm socket and wrench to remove the upper and lower track bar bolts. The lower nut is a flag nut that doesn't require a wrench.
 - f. 18mm socket and wrench to remove the top and bottom shock bolts. The top has a blind welded nut, so it's only a long bolt you will remove.
 - g. With the shocks out and brake lines loose, you are now able to droop the axle a little more to remove the coils. You may have to remove the lower draglink joint from the knuckle in order for the axle to droop enough.
 - h. You will need a 10mm socket to remove the heat shields that protect the upper link on the inside of the frame, 2 bolts on each side.
 - i. 18mm socket and wrench remove both the upper and lower bolts on the upper links.
 - j. A 24mm socket and wrench will remove the lower link hardware.
 - k. For the brake lines, do not un bolt the line from the caliper. Instead remove the entire caliper using a 21mm socket. Then take a wire or a strap and hang it from the frame rail. If re installing your stock Rubicon Axle, then you will not need to re bleed your brakes later. If installing a Dana 60 axle, you can swap the lines over later.
 - l. Un-clip the locker wire harness as well as the breather from the center of the axle housing. Also, un clip the 4wd actuator plug on the Passengerside tube.
 - m. Unplug the ABS sensors at the connector just inside the frame rails directly behind the coils.

Step 2A through 2E is for 2020+ JL & JT Gladiator DIESELS ONLY. Skip to step 3 for all other models.

Removal of the exhaust isn't always necessary. It allows you to gain a little more room for cutting and grinding when not in the way.
This kit **CAN** be installed with all Diesel exhaust still installed. But if needed follow these steps:

2. Removal of the Passengerside exhaust down pipe and DEF system. **Fig. A**
 - a. Using a 17 mm wrench start by removing the front 2 sensor tube nuts. **Fig. B**
 - b. The third solid tube and tube nut with a 16 mm.
 - c. And the plastic clip holding the DEF injection line on the thin inlet tube.

Fig. A

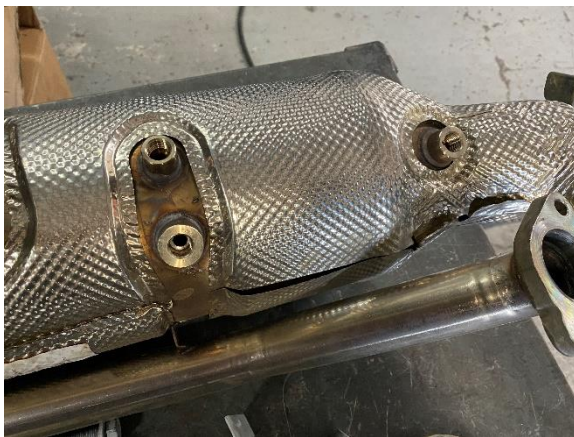
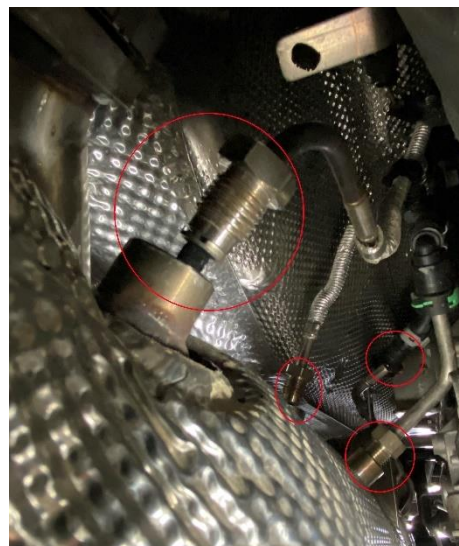


Fig. B



- d. Using a 5 mm allen socket, remove the bushing mount coming off near the rear of the transmission, as well as the front mount nut with a 17 mm socket. You can also loosen up and remove the nut with a 13 mm socket from the V-band clamp coming from the down pipe. Slip the stud out of the V-band clamp so it's easier to remove. **Fig. C**

Fig. C



- e. And last remove the 3 bolts with a 13 mm socket from the flange on the rear, **Fig. D**. You can now drop this exhaust section and store it in a safe space. Keep all the sensors together and wrap up out of the way to not damage them until re install. Make note on the orientation and location of where these sensors came out so you don't re install them in the wrong location. **Fig. E**

Fig. D

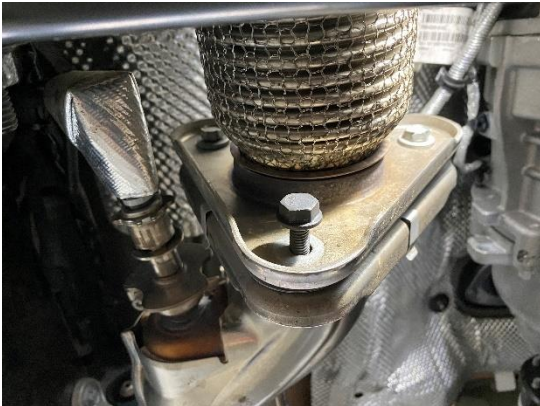


Fig. E



3. If your Jeep JL or JT is equipped with a Preventive Rollover Plate, you must remove it now. **Fig. F** If your jeep isn't equipped with the plate you can skip to step 4.

Fig. F



- a. Start with a 18mm socket and remove the 3 bolts just inside the wheel well.
- b. Using a 18mm wrench unthread the 2 inner bolts as far as you can into the body. You will have to use a Sawzall or a cutoff wheel and remove as much as the bolt as possible. Once cut you should be able to knock the bracket free.
- c. Once removed, cut the rest of the bracket off from under the frame, grind smooth of any debris, and paint. **Fig. G**

Fig. G



4. Remove Stock Crossmember. **You will be reusing all Stock Crossmember Hardware**
 - a. First support the tail housing of the transfer case.
 - b. Remove the 3 transmission mount nuts in the center using a 21mm socket.
 - c. On the gas model JL/JT's only, remove the 2 exhaust hanger bolts on top of the crossmember on the driver side with a 13mm socket.
 - d. The **JL** model Jeeps will have 3 bolts on the outside of the frame on the Passenger side that thread into the factory aluminum crossmember, remove them using an 18mm socket.
 - e. Also on the **JL** models, remove the 2 bolts on the inside of the Driverside frame rail using an 18mm socket and 18mm wrench.
 - f. On the **JT** model jeeps, you will need to remove each of the 2 bolts on the inside of the Driverside and Passengerside frame rail using an 18mm socket and 18mm wrench.
 - g. Using a pry bar and/or a hammer, remove the factory crossmember from the jeep.
 - h. For the Diesel model **JT's**, remove the 2 nuts on the DEF module from the frame with a 10 mm socket. Tuck up and out of the way. You will also need to remove the front most stud that the module was bolted to. You can leave the rear stud to bolt the module back onto. **Fig. H**
5. With all suspension components, crossmember, and if equipped, DEF Exhaust system removed, it is now time to cut off your factory frame upper and lower link mounts **Fig. I**. It's easiest using a plasma cutter, but can be done with a grinder and cut-off wheel. **Be sure to protect all wiring and hoses, and cover anything you think can get harmed in the cutting process.** Cut off both upper and lower mounts from frame.

Fig. H



Fig. I



6. On some models of the JT Gladiator, you also need to remove the factory tube stud that's welded to the inside of the frame.
Fig. J.
7. On the **PASSENGERSIDE ONLY**, the factory crossmember mount will need to be removed. **Fig. K.** You will use the provided WFO 8401 frame sleeve kit on the Passengerside when installing your new Crossmember.
8. On the Driverside you will re-use the frame mount as is, **DO NOT CUT OFF.**

Fig. J



Fig. K



9. Once all brackets are removed, grind clean, and touch up with a semi flat black paint **Fig. L**

Fig. L



INSTALLATION:

10. On the V6 gas JL & JT models **only**, it is now a good time to install the AFE exhaust loop delete, **Part #48-48024**, with everything out of the way. Follow their instructions before moving on.
11. On all V8 392 JL Models you will need new custom exhaust work done. Remove the factory exhaust from the manifolds all the way back to the X-pipe just after the transfer case. This is the section that will need to be rerouted in order to fit the suspension kit.
12. Start with the driver side of your new WFO Crossmember. Slip it over the Driverside factory 2 bolt bracket and insert the factory bolts in the direction of front to back. So, the head of the bolt will be inside the new lower link mount bracket, leave Loose. **Fig. M**. On some newer models we've noticed you will need to grind off the bottom of the factory bracket so the crossmember sits flat up against the frame. **Fig. N**

Fig. M



Fig. N

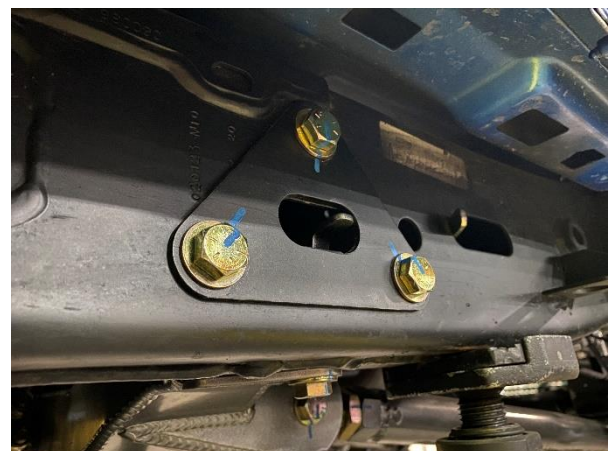


13. On the Passenger side of a **JL**, you will re-use the factory M12x1.5 bolts and supplied M12x1.5 Nylock Nuts, leave loose. See **Fig. O**.
14. On the Passenger side of a **JT**, you will use the **WFO 8401** frame sleeve kit. Reference the directions that come with that kit for install. **Fig. P**

Fig. O



Fig. P



15. Slide the Center section up, making sure the transmission studs are lined up correctly in the top plate. Use the provided ½”-13x1.5” Grade 8 bolts, washers and nylocks to secure it to the side mounts, 8 total bolts. On the Passengerside you will take one of the Z shaped nut plates, see **Fig. Q**, and slip it into the outside of the frame through the slot in the middle of the 3 crossmember bolts. Use the supplied ½”-13x1.75” G8 bolt, Lock Washer, and Washer to secure the Z shaped nut plate. **We suggest using a drop of blue Loctite on the threads.** See **Fig. R** for final fitment. On the driver side you will need to drill a ½” hole from the bottom side of the frame rail, **it may be easier to drill the hole after all the crossmember bolts are tight.** Once drilled use the other Z shaped nut plate and ½”-13x1.75” G8 bolt, Lock Washer, and Washer. You may now tighten up all the bolts making sure the new crossmember is tight up against the bottom of the frame. Refer to **Torque Table 1** for specifications.

Fig. Q

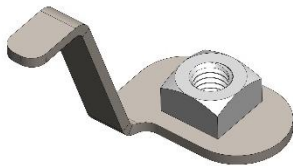


Fig. R



Torque Table 1	
Description:	Torque Spec:
Center Crossmember - Qty. 8 - Supplied ½”-13x1.5” G8 bolt & nylock	56 Ft. Lbs.
Driverside – Qty. 2 - Factory M10 bolt and nut	85 Ft. Lbs.
Passengerside – Qty. 3 – ½”-13 x 3.5” G8 Bolts and supplied Nylock nuts	56 Ft. Lbs.
Center Transmission Nuts – Qty. 3 – Factory M14 nuts	22 Ft. Lbs.
Upper Link Mounts – Qty. 6 – Supplied ½”-13x1.75” G8 bolt, lock washer, & washer	55 Ft. LBS.
Upper Link Mounts – Qty. 2 – Factory M12 – Under Frame	52 Ft. Lbs.
Driver & Passenger Under Frame – Qty. 2 – Supplied ½”-13x1.75” G8 bolt, lock washer, & washer	55 ft. LBS.

16. Lower the Transmission onto the crossmember and re install the 3 Transmission nuts, **Refer to Torque Table.**
17. If you have a 2023 and newer JL or JT with the Preventive Rollover Plate, follow these next steps. Due to the added bracing on the inside of the frame, you will need to access the provided nut plates differently. If you have a 2019 – 2022 JL or JT, you will need to jump to step 20
18. Installing the front upper link mounts, blue lock tight is recommended on all hardware. You will use one factory bolt that held in the front most x-member brace into the bottom of the frame. See **Fig. S**. Loosely snug it up to the frame. Again, if your Jeep JL or JT was equipped with the Tire Deflector Plate, follow the next steps. If not then skip to step 20. From the bottom side of the frame rail, you will need to make 2 measurements. From the center of the previously installed bolt, measure forward 3-1/4” and 4-1/2”. Then measure outwards from the inside of the frame rail ¾”. You will drill (2) ½” holes on those marks. Then using a cut off wheel, cut the material between the holes creating a slot. See **Fig. T**.

Fig. S



Fig. T



19. Insert the Vertical 2 bolt plate, **Fig. U**, in through the previously cut slot. Using one of the provided $\frac{1}{2}$ " bolts, thread only the top hole. There is internal bracing from the Deflector plate so the new vertical dual nut plate will need to pivot of the top hole. You will need to Dremel open the lower hole in the frame as well as the WFO Upper Link Bracket in order to bolt it in. See **Fig V**. Once there is enough clearance for the nut plate, remove and paint the frame.

Fig. U



Fig. V



20. If your JL or JT does not have a Preventive Rollover Plate, you will use the other T shaped 2 nut plate. This dual nut plate will go in the hole just under the front body mount. **Fig. W**

Fig. W



21. Using one of the single nut plates with an angled tail, the nut plate will go through the oval hole on the outside of the frame rail between the link mount and crossmember. See **Fig. X**. All will use ½"-13x1.75" G8 bolt, Lock Washer, and Washer

Fig. X



22. See **Fig. Y & Z** for final result.

Fig. Y



Fig. Z



1. Double check all hardware is tight, **Refer to Torque Table 1**, and that all wire harnesses, brake lines, and fuel lines are re secured.
2. On **JL & JT Diesel** models only, you must wait till you install the front upper links into the brackets before you re install the DEF Exhaust System.
3. Continue on with the rest of the install. You may now roll your axle back under, if you removed it, and reference the WFO 4110/4111 Link Directions.

FINAL NOTES:

4. Be careful when finalizing up the front end that you may need to extend certain components.
 - a. For the ABS lines. On the inside of the frame rails, Jeep gave extra room in the harness for you to extend. Just unclip the lower half of the loop from the frame to gain a few more inches.
 - b. When using stock brake lines in front, we recommend on cutting of the small bolt bracket that was previously attaching the brake line to the lower link.
 - c. It is commended to purchase a new driveline if installing a 3" or more lift kit. You will not have enough angle in your upper CV joint on the driveline to accommodate the droop in suspension.





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