

JK Wrangler Long Arms and Brackets

**Important Notes:**

Prior to beginning this installation read these instructions to familiarize yourself with the required steps and evaluate if you are experienced and capable to personally perform these modifications. Installation of this kit requires removal of the factory control arm mounts from the frame. The preferred removal method is a combination of a Oxygen/Acetylene Torch and cut-off wheel and/or plasma cutter. Cleanup grinding will be required. The new brackets must be welded in place as part of the installation of the kit.

Refer to the parts list to ensure that all necessary components and hardware has been included. If any parts are missing please contact your local retailer for assistance. Estimated time for install is 20 hours.

Kit Contents

Item ID	Item Name	Quantity
600193	Instructions	1
5028	Hardware Pack	1
953010-20	Front Passenger & Driver Frame Brackets	2
954010-20	Rear Passenger & Driver Frame Brackets	2
954021-22	Rear Passenger & Driver Bracket Gusset	2
653719	Front Lower Passenger & Driver FlexArms	2
654719-29	Rear Lower Passenger & Driver Flexarms	2
654819	Rear Upper Passenger & Driver FlexArms	2
657839	Front Upper Passenger & Driver Flexarms	2
308	Zerk	8
3088	Zerk Flush Style	2

Tools Needed

- Cutting Torch (or equivalent)
- Welder
- Grinder with Flapper Wheel
- Sockets - 21mm, 18mm, 19mm, 16mm
- Wrenches - 21mm, 19mm, 18mm, 10mm
- Regular (flat) Screwdriver

TERRAFLEX PRODUCT INSTALLATION GUIDE

TeraFlex, Inc.

5680 W Dannon Way
West Jordan, UT 84081
Phone/801.288.2585
Fax/801.713.2313
www.teraflex.com

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- Please Check out our video of this install at www.TeraFlex.biz. Click videos at the top of the screen and under video categories, select Teraflex Install. Here you will find helpful tips and suggestions to help with the install of your new TeraFlex JK Long Arm Kit.

Note :This installation will be much easier if the Jeep is low on gas as you will be removing the fuel tank. If you have access to a lift, the best place to position the lift arms is directly under the body mounts to allow access for cutting, welding and placement of your new brackets. We suggest adding a jack stand to the rear for extra support.

1. **Disconnect the negative battery cable from the battery.** Raise the Jeep in the air, making sure it is secure for you to be underneath and that you will have room for the axles to droop several inches. Begin with removing the tires.
2. Remove the transercase skid plate and the exhaust skid plate/crossmember and set them aside. The exhaust crossmember will not be re-used due to driveline clearance.
3. **This step can be skipped if you are not replacing the factory driveline with an aftermarket driveline.** Remove the rear driveline by loosening the 8 bolts at each end. Begin by taking the driveline off from the axle side. Notice the access ports on the rear flange that allow you to use a punch to free the driveline from the axle. Be careful not to let the axle hang on the front joint after removing the rear joint from the axle flange. This will cause damage to the inside seal and can cause damage to the joint.



4. Next, loosen the clamp on the fuel tank fill tube and remove from the tank. Also remove the smaller vent tube using the quick disconnect. **2012 and newer Jeeps will have additional EVAP tubes to disconnect.**

Note : If you have been driving prior to this install, it is suggested that you remove your gas cap to release any built up pressure.

5. Move to the front of the tank and disconnect the supply and return lines using the quick disconnects. **Caution!** The supply line may still may be under pressure. Have a shop rag ready to absorb any fuel leaks.

Note : Make sure to cap/protect any open fuel lines. On most models, the supply and return lines can be snapped together to prevent debri from entering your fuel system while the fuel tank is absent.



6. Support your fuel tank with a jack. Loosen the 8 bolts supporting the tank and slowly lower it. Beware of electrical/fuel lines that are still connected. Once you have access to the top of the tank, remove remaining electrical connections. Completely remove fuel tank.



7. Support the rear axle and remove all four control arms.

Helpful Tip : Use a motorcycle strap around the pinion to support the front of the rear axle. This will keep your axle in place and aid in installation of your new long arms. You can use this same method for the front axle with the exception of placing the strap on the front of the axle, instead of the pinion.

8. Support the front axle and un-bolt the bottom of the shocks. Remove/un-clip all hoses and electrical that may bind while lowering the axle. With the axle still supported, remove the control arms.

9. Unclip wire loom(s) from the inside frame rails around where you will be welding and cutting. Tuck them above the frame or where they will not be damaged. Repeat with fuel/brake lines.

2010-2011 JK's : You will need to remove and reposition your catalytic converter. This is helpful to do before you begin cutting and welding to give you more room. Please refer to TeraFlex Install: JK Long Arm Kit Part 5 of 7 video on TeraFlex.Biz for further information on this procedure.

2012 and newer JK's: To make room to cut and weld on the front driver side frame, remove the center section of the exhaust system. This section is un-bolted from the flanges on both the driver and passenger side headers, and will slide out of the rear tailpipe, by loosening the clamp located next to the front output of the transference. When beginning re-installation of this section of exhaust, make sure to install the new exhaust spacers. See exhaust spacer instructions for further details.

Note: This is a good time to clean up any gas spills. Soak shop rags with water to put over electrical lines or plastic that will be exposed to sparks and extreme heat.

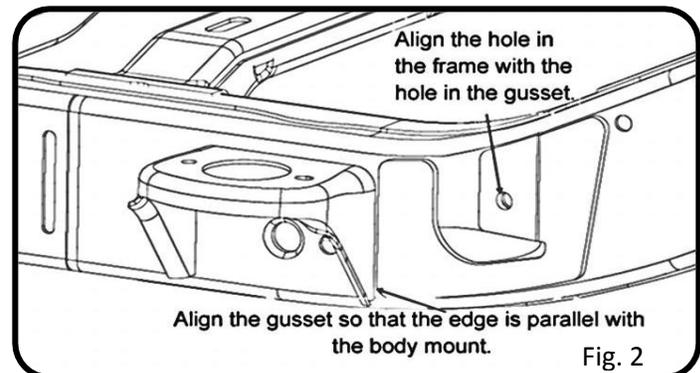
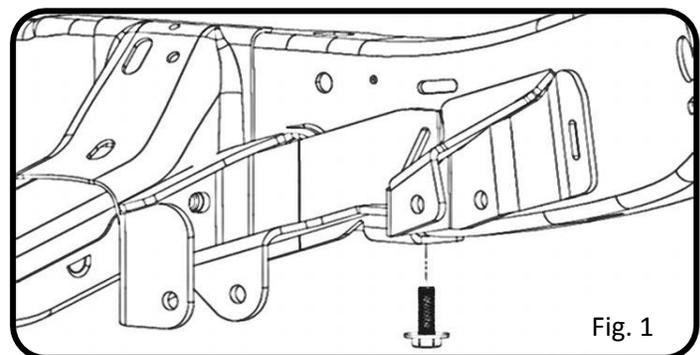
10. When all control arms are removed, begin cutting and removing control arm brackets, taking extra care to not cut into the frame. Pay special attention to the direction of your flames and sparks and also to any wiring or hoses that could be effected by the heat. Be aware of the brake lines above the upper control arm mount on the driver side as well. See TeraFlex Install: JK Long Arm Kit Part 3 of 7 on TeraFlex.Biz for helpful tips on removal.

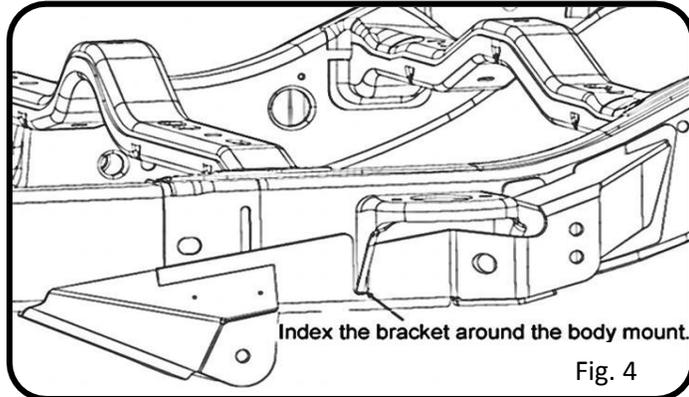
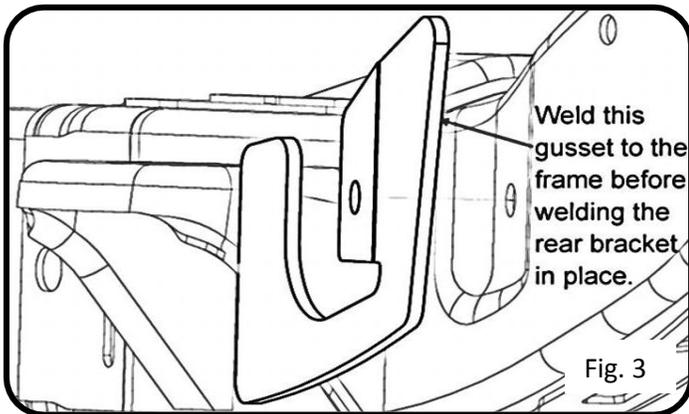


11. After cutting is completed, grind down all remaining slag and metal to make a smooth surface for mounting of the new brackets. We suggest using a flapper wheel on a 4" grinder.



12. Begin test fitting all brackets. The front brackets will bolt to the cross member and have one bolt coming from the bottom up into the frame (Fig. 1). The rear gusset will index over the hole in the frame (Fig. 2) and the bracket will index around the body mount (Fig. 4). Mark where the brackets and gussets will contact the frame and be welded. Remove paint and powdercoat, from the frame and the brackets, about 1 inch around your marks for a clean, un-contaminated weld. **This is key in having a strong, long lasting suspension!**





Helpful Tip : Use C-Clamps to get the brackets really "snug" to the frame. Do several tack welds all around the bracket to keep your bracket from warping when you begin welding. The closer the bracket is to the frame, the better the welds will be.

13. Weld the rear frame gusset on first. The rear bracket will be welded to the new gusset. Proceed to bolt, clamp and/or tack weld all other brackets to the frame to eliminate gaps before beginning final welding.
14. When all brackets are welded on to the frame, take some time to clean these sections up and coat any bare metal with a good layer of paint to prevent rust.
15. Begin installing your new Long arms. New hardware will be installed in the new brackets and original hardware will be installed in the original brackets. Notice the white sticker on the new control arms, they will tell you how to mount the arms. The rear upper arms will be mounted in the lower bolt hole position on the frame bracket for most applications.

Note: Make sure not to completely tighten any joint/bushing until the Jeep is on the ground. This is important for bushing life, flex and ride quality. If the arms are tightened at full droop, the joints will be under load at ride height. Do a final check and torque of all suspension components at ride height.



16. Begin re-installation of the front shocks, drivelines (if applicable) along with the gas tank and all connectors and lines.
17. The installation of your new TeraFlex JK Long Arms and Brackets is complete! Enjoy the ride!

Torque Specs

- Control Arms: 125 Ft. Lbs
- Cross Member Bolts: 90 Ft. Lbs
- Transfer Case Skid Plate Bolts: 48 Ft. Lbs
- Shocks: Front Upper 20 Ft. Lbs
 - Front Lower 56 Ft. Lbs
 - Rear Upper 37 Ft. Lbs
 - Rear Lower 56 Ft. Lbs
- Drivelines: Front Axle End 81 Ft. Lbs
 - Transference End 15 Ft. Lbs
 - Rear Axle and Transference Ends 15 Ft. Lbs

Suggested Starting Measurements for Arms

(Measured center to center)(Numbers based on a 4" Lift)

All lift kits must have alignment after installation!

This is crucial for a great driving Jeep!

- Front Uppers: 27 3/4"
- Front Lower: 33 11/16"
- Rear Uppers: 19 1/2"
- Rear Lower: 35 1/8"



PRODUCT INFORMATION

MAINTENANCE INFORMATION:

It is the buyer's responsibility to have all suspension, drivetrain, steering, and other components checked for proper tightness and torque after the first 100 miles and every 3000 miles after that.

NOTICE TO INSTALLER:

The enclosed "Warning to Driver" sticker must be installed in the vehicle in driver's view. This sticker is to act as a constant safety reminder when operating the vehicle. It is your responsibility as the equipment installer to install the provided sticker and to forward the product instructions to the vehicle's owner for review. If a "Warning to Driver" sticker or product installation guide were not included in the kit, FREE replacement stickers and instructions are available by request. It is the installer's duty to ensure a safe and controllable vehicle after the modifications have been performed.

WARNING:

Neither the seller nor the manufacturer will be liable for any loss, damage, or injury directly or indirectly arising from the use of or inability to determine the use of these products. Before using, the user shall determine the suitability of the products for its intended use, and the user shall assume all responsibility and risk in connection therewith.

WARNING TO DRIVER:

This vehicle has been modified to enhance off road performance and has unique handling characteristics. Use in harsh environments can cause extreme stress on the components. Vehicle should be inspected after being off road to make sure that all the components are in working order and safe to travel on the highway. All fasteners should be checked so that they are at the correct torque specifications as the vibration and stresses from off-roading may cause critical fasteners to work loose. Extra care should be taken to inspect the critical components, steering, and brake systems. During each oil change components such as arms, tie rod ends, etc. should be greased and checked for excessive wear. Any worn components should be replaced. When returning to the pavement always set or restore tire air pressure to the factory recommendation and connect or engage any disabled sway bar mechanisms. Because of the higher center of gravity and larger tires, this vehicle handles and reacts differently than many passenger cars, both on and off road. You must drive it safely! Extreme care should be taken to prevent vehicle rollover or loss of control, which can result in serious injury or death. Avoid sudden sharp turns or abrupt maneuvers. Generally, braking performance and capabilities are decreased when significantly larger/heavier tires are used, especially when used in combination with transfer case low-range reduction kits. Take this into consideration while driving. Do not add, alter or fabricate any factory or aftermarket parts to increase vehicle height over the intended height of the TeraFlex product purchased. Mixing component brand is not recommended. TeraFlex Inc. will not be responsible for any altered product or any improper installation or use of our products. We will be happy to answer any questions concerning the design, function, and correct use of our products. It is ultimately the buyer's responsibility to have all bolts/nuts checked for tightness after the first 100 miles and then every 3000 miles. Wheel alignment, steering system, suspension and drive line systems must be inspected by a qualified professional mechanic at least every 3000 miles.

TERAFLEX PRODUCT WARRANTY:

Tera Manufacturing warrants TeraFlex Suspension products to the original retail purchaser to be free of defects in material and workmanship for as long as the original purchaser owns the vehicle on which products were originally installed. Failure to complete regular maintenance (grease every 3000 miles) on TeraFlex FlexArms will void this warranty. All other conditions of the standard TeraFlex product warranty apply.

All TeraLow products are covered by TeraFlex's two (2) year warranty to be free of defects in material and workmanship for two years from date purchased. Tera axles are covered by a 12-month warranty to be free of defects in materials and workmanship. This warranty does not cover or include product finish, improperly installed or applied products, improperly maintained products, products or components used for racing or competition or damage due to abuse or neglect, products that fail due to the use of larger tire and wheel combinations.

All returns must be accompanied by an original invoice. It is the customer's responsibility to remove the product from the vehicle. Shipping charges are the responsibility of the customer. Tera Manufacturing will pay the return freight if the product meets the terms of warranty.

This warranty is for the replacement or repair of defective TeraFlex products only and does not include freight charges, labor charges for removal of or installation of TeraFlex or related products or components, costs incurred due to down time of the vehicle, or lost profits due to vehicle down time.

A returned goods authorization number (RGA#) must accompany any returned products. For more information please contact a TeraFlex customer service representative.

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