

PVG Owners/Service Manual Production Standards

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**DIRECT-REPLACEMENT
INSTALLATION AND SET-UP GUIDE**

**JEEP JL/JLU WRANGLER (2018-ON)
JEEP JT GLADIATOR (2020-ON)**

JEEP QSE-LINKS

883-02-221 – Kit: 18-ON Jeep Wrangler JL, 20-ON Jeep Gladiator JT, QSE-Links, R/R, 2-3.5" Lift
883-02-225 – Kit: 18-ON Jeep Wrangler JL, 20-ON Jeep Gladiator JT, QSE-Links, R/R, 0-1.5" Lift



FOX products are subject to continuous development and improvement. To find the most up to date product information such as color installation manuals, videos, and FAQs please visit:

<http://ridefox.com/manuals>

To locate the correct installation manual, use the 8-digit part number found on the end of the packaging box (see illustration below):



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INTRODUCTION

Thank you for choosing FOX QSE-Links for your vehicle. FOX products are designed, tested, and manufactured by the finest professionals in the industry.

Please read the entire manual before attempting to install the QSE-Links on your vehicle. If you have any questions call the FOX service center at 831.740.4619.

FOX recommends that you become completely familiar with the handling characteristics of your adjusted vehicle before operating it under rigorous conditions, helping to avoid potential loss of control events. FOX further recommends that you use appropriate protective equipment at all times when operating your vehicle.

To achieve the best performance and product longevity, periodic service and maintenance is required. Please refer to the MAINTENANCE section for more information.



SAFETY INSTRUCTIONS

- FOX QSE-Links are designed to fit and allow proper clearance with the stock components. If aftermarket components are installed, it is the customer's responsibility to ensure that interference between the FOX products and other vehicle components does not occur at any point in the shock stroke.
- FOX QSE-Links should always be installed as a set for maximum performance.
- Proper installation and service procedures are essential for the safe and reliable operation of the suspension components, requiring the experience and tools specially designed for this purpose. Installation and maintenance procedures for this product must be performed by a qualified service technician, to avoid potentially unsafe vehicle handling characteristics, which may result in SERIOUS INJURY or DEATH.
- Adjusting your suspension will change the handling characteristics of your vehicle. Under certain conditions, your adjusted vehicle may be more susceptible to loss of control, which can result in SERIOUS INJURY or DEATH. Thoroughly familiarize yourself with the adjusted vehicle handling characteristics before any rigorous vehicle operation. Wear protective body gear and a helmet when appropriate.
- Any attempt to misuse, misapply, modify, or tamper with any FOX product voids any warranty and may result in SERIOUS INJURY or DEATH.

COMPATIBILITY CHARTS

IMPORTANT: Due to the complexity of the Jeep Wrangler/Gladiator aftermarket space, the compatibility charts below should be considered a general fitment reference only, not a fully comprehensive resource. Please follow these compatibility guides for best fitment results.

LIFT COMPATIBILITY

The Lift Compatibility chart below outlines general fitment guidelines for Rubicon and Non-Rubicon models of the Jeep JL Wrangler and JT Gladiator. This is a quick reference for whether QSE Links can be installed on a given vehicle setup. This kit is NOT compatible with high steer kits, drag link flips, aftermarket knuckles, or aftermarket axles (unless they utilize OE knuckles).

LIFT COMPATIBILITY								
LIFT HEIGHT	NON-RUBICON				RUBICON			
	0-1.5 inch	2-3 inch	3.5 inch	>3.5 inch	0-1.5 inch	2-3 inch	3.5 inch	>3.5 inch
COMPATIBILITY	YES	YES	YES	NO	YES	YES	YES	NO
RECOMMENDED QSE LINK KIT	883-02-225	883-02-221		---	883-02-225	883-02-221		---
RECOMMENDED BUMP STOP SPACER	1 inch	2 inch	3 inch	---	1 inch	2 inch	3 inch	---
WHEEL BACKSPACING REQUIREMENT	See Table 2				See Table 2			
INCLUDED STEERING STOP SPACER REQUIREMENT	0.200 inch			---	0.200 inch			---
RECOMMENDED FLOATING EYELET POSITION	---	1st Snap Ring Groove	2nd Snap Ring Groove	---	---	1st Snap Ring Groove	2nd Snap Ring Groove	---
RECOMMENDED SWAY BAR ANGLE AT RIDE HEIGHT	5-15°			---	12-19°			---
HIGH CLEARANCE FENDERS REQUIRED	YES			---	YES			---
TIRE WIDTH ASSUMPTION	12.5 inch			---	12.5 inch			---

WHEEL COMPATIBILITY

The Wheel Compatibility and Backspacing Requirements chart below provides more detailed specifications for backspacing requirements based on shock extended length. This table ensures you match your wheels, spacers, and steering setup to maintain safe clearances between tires, suspension components, and bodywork.

WHEEL COMPATIBILITY AND BACKSPACING REQUIREMENTS								
SHOCK MOUNTING LENGTH (OEM MOUNTS)	NON-RUBICON MINIMUM BACKSPACING REQUIREMENTS				RUBICON MINIMUM BACKSPACING REQUIREMENTS			
	Included Steering Stop Spacer	Example: AM Wheel Backspacing	Example: Wheel Spacer Added	Total MINIMUM Backspacing Requirement	Included Steering Stop Spacer	Example: AM Wheel Backspacing	Example: Wheel Spacer Added	Total MINIMUM Backspacing Requirement
29.00-30.00 inch	0.2 inch	4.25 inch	2.0 inch	2.25 inch	0.2 inch	4.25 inch	1.25 inch	3.0 inch
28.25-29.00 inch	0.2 inch	4.25 inch	1.5 inch	2.75 inch	0.2 inch	4.25 inch	0.75 inch	3.5 inch
24.75-28.25 inch	0.2 inch	4.25 inch	1.25 inch	3.0 inch	0.2 inch	4.25 inch	0.5 inch	3.75 inch



INSTALLATION GUIDELINES

- DO NOT install any FOX product without the necessary special tools and expertise or you will subject yourself to the risk of SERIOUS INJURY or DEATH. Ensure that the vehicle is:
(1) on level ground, (2) that the wheel not in use during installation is supported to prevent unsafe movement of the vehicle, (3) and that adequately secured stabilizer straps are used to support the vehicle while it is elevated. NEVER work on the vehicle until you have checked to ensure that the vehicle will be stable during installation.
- FOX QSE-Links are designed to fit your vehicle without cutting any structure on the vehicle.

TOOLS REQUIRED

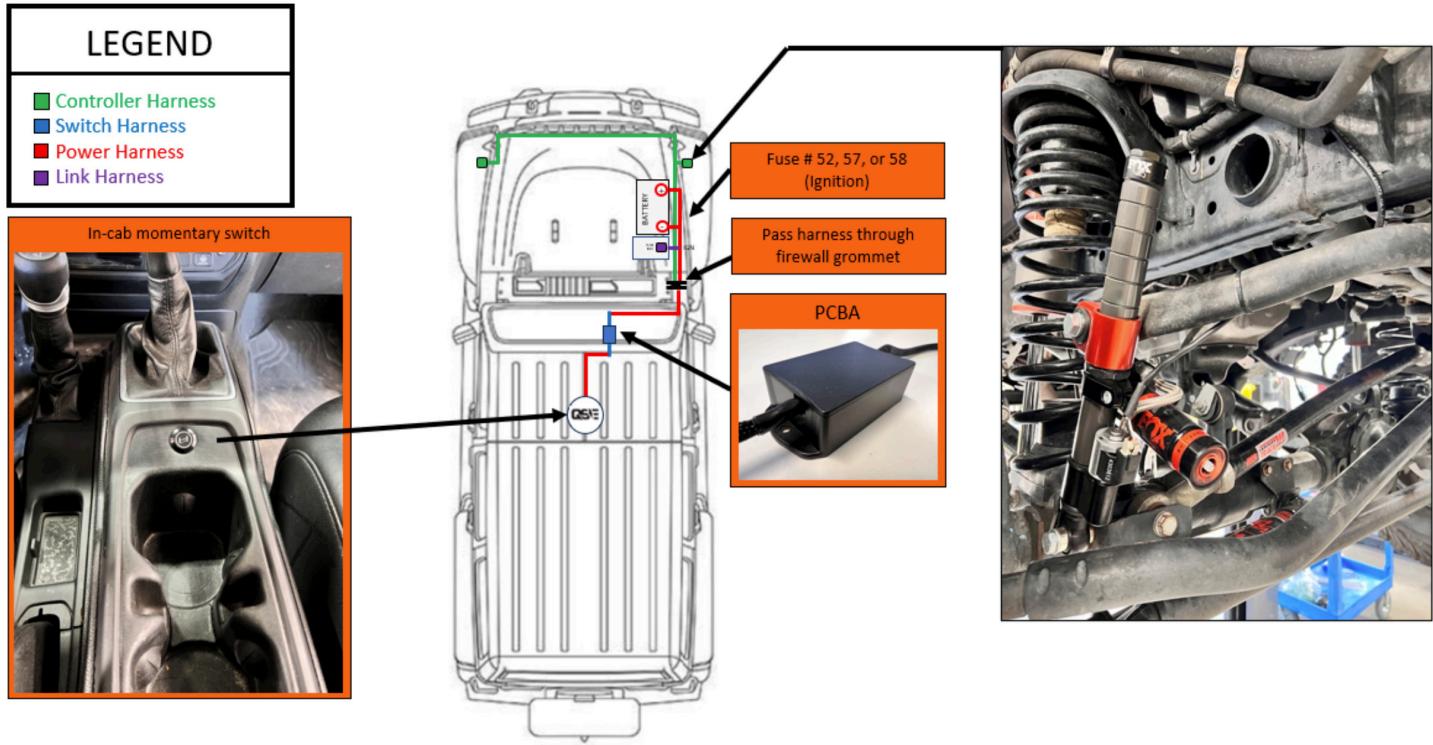
- Gloves
- Safety glasses
- Plastic trim removal tool
- Plastic clip removal tool
- Utility knife
- Vehicle manufacturer's workshop manual for torque specifications
- Ratchet and assorted sockets or wrenches sized appropriately to your mounting hardware
- Torque wrench
- 19 mm drill bit or stepper bit
- Red Loctite 263
- Blue Loctite 242

Required tools and supplies may change over time. Visit ridefox.com or contact a representative for the most up-to-date details.

ESTIMATED INSTALLATION TIME:

3 - 3.5 hours

HARNESS OVERVIEW



SUPPLIED PARTS

MOUNTING HARDWARE			
FOX PN	DESCRIPTION	QTY	NOTES
018-00-070	NUT: M12x1.75x12mm	4	*Upper and Lower Link Mounts
018-04-036	BOLT: M12x1.75x65mm	2	*Lower Link Mount ONLY
018-04-049	BOLT: M12x1.75x75mm	2	*Upper Link Mount ONLY
018-05-026-A	WASHER: M12, 13mm ID x 20mm OD x 2mm THK	8	*Upper and Lower Link Mounts
233-00-696	SPACER: [.404 OD, .625 OD, .200 TLG] STEEL, ZINC	2	*Steering stop spacer for driver and passenger side

*Please see the instructions and images in this manual for mounting hardware orientation.

STEERING STOP SPACER INSTALLATION

1. The steering stops are located on the backside of the each steering knuckle, facing inward as shown (Fig. 1).
2. Remove the stock steering stops. Place the supplied steering stop spacers (P/N 233-00-696) onto the stock steering stop bolts. With the spacer against the head of the bolt, apply a small amount of blue Loctite 242 to the exposed threads (Fig. 2).
3. Torque the steering stop bolt/spacer assembly onto their respective knuckles to OE specifications (45 ft-lb).
4. Carefully cycle your suspension and steering after you complete the link installation to ensure there is no rubbing or interference on your specific set-up before driving. Always heed to the safety instructions and warnings provided earlier in this guide.

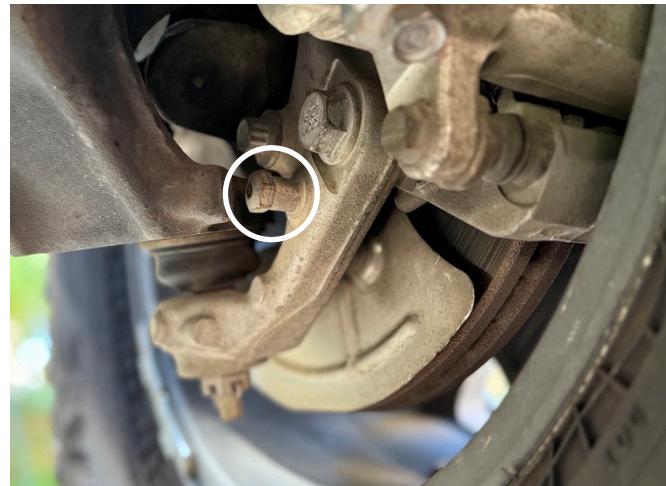


Fig. 1: Steering stop facing inward (circled area).

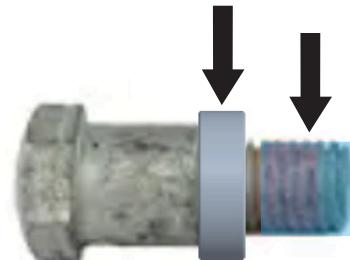


Fig. 2: Steering stop bolt with spacer (left arrow). Apply blue Loctite 242 to threads (right arrow).



Fig. 3: Torque steering stop/spacer assembly (circled area).

LINK INSTALLATION

1. Remove the existing stock swaybar end links. With the vehicle on the ground, remove the hardware on each side of the stock end links. Remove the end links.
2. Install the new FOX QSE-Links with the reservoir (Schrader valve) facing the front of the vehicle. Start at the upper mount, and make sure to use the longer bolt, two washers, and a nut, included with the kit. Use a torque wrench to torque the hardware to OE specifications.
3. Install the lower link mount using the shorter bolt, two washers, and a nut, included with the kit. Torque to OE specifications.
4. **IMPORTANT:** The sway bar at the vehicle's ride height should be angled upwards. Reference the Lift Compatibility chart on page 3 for recommended sway bar angle range (Fig. 4, indicated by "X°") for your vehicle's lift height.

If you need to adjust the floating eyelet to accommodate your vehicle's lift height:

- First, loosen the two bolts for the reservoir clamp (Fig. 4 arrow) to slide the reservoir assembly downward.
- Turn the nut beneath the floating eyelet clockwise to loosen it.
- Remove the lower retaining ring and slide the eyelet downward.
- Move the upper retaining ring to the appropriate groove to ensure the sway bar sits correctly at ride height.
- Place the lower retaining ring in the groove at the bottom of the floating eyelet.
- Ensure both retaining rings are fully seated in the grooves before re-torquing (Fig. 5).
- Torque the nut counter-clockwise to 75 ft-lbs. No Loctite is required.
- Then, apply Red 263 Loctite to the two reservoir clamp bolts, and torque to 30 ft-lbs.

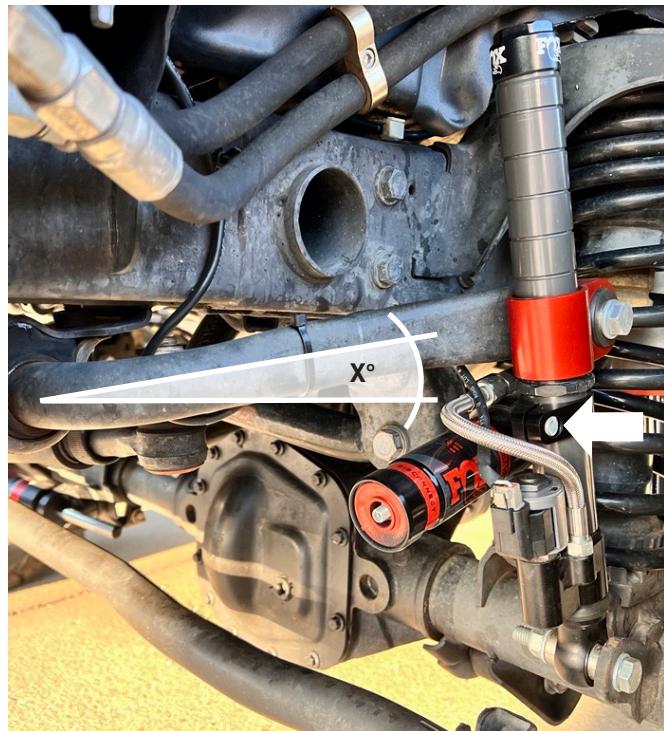


Fig. 4: Installed FOX QSE-Link. Reservoir clamp (arrow).



Fig. 5: Grooves (upper small arrows); eyelet nut (lower large arrow).

CABLE HARNESS INSTALLATION

The FOX QSE-Links Kit comes with 4 harnesses (Fig. 6).

1. Switch Harness
2. Controller Harness
3. Power Harness
4. Link Harness

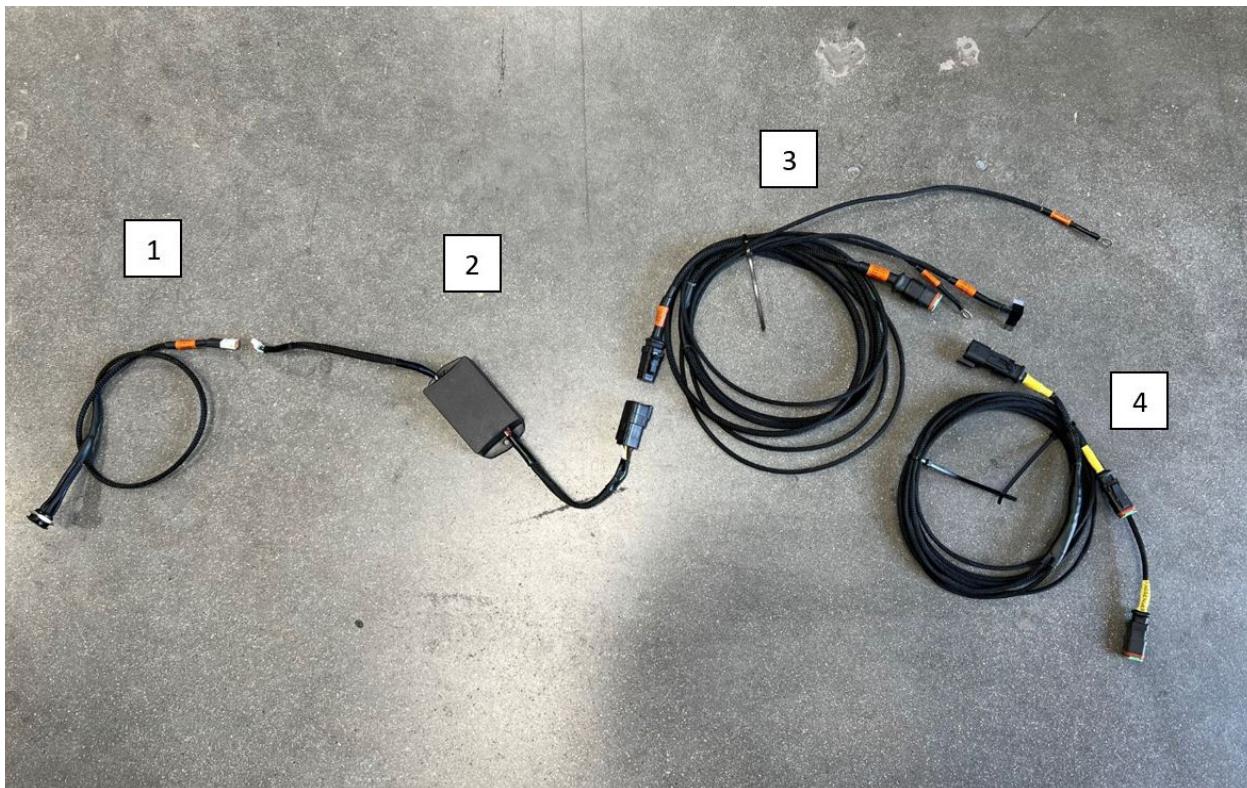


Fig. 6: FOX QSE-Links Kit harnesses.

SWITCH HARNESS INSTALLATION

1. Remove the cup holder / shifter trim by pulling straight up. Start with the cupholder section first (Fig. 7).
2. Carefully mark the location, and drill a 19 mm diameter hole in the cupholder trim. Make sure the hole is centered left to right, but closer toward the shifter than the cup holder (Fig. 8).



Fig. 7: Remove cup holder trim.



Fig. 8: Drill a hole in the cup holder trim.

3. Remove the nut from the bottom of the switch on the Switch Harness and feed the Switch Harness through the drilled hole. Position the switch into the proper orientation and hand tighten the nut on the backside of the trim to secure the switch in place (Fig. 9-11).
4. Route the white 4-pin connector on the Switch Harness through the center console trim (Fig. 12).



Fig. 9: Route Switch Harness.



Fig. 10: Orient the switch.



Fig. 11: Secure the switch in place.

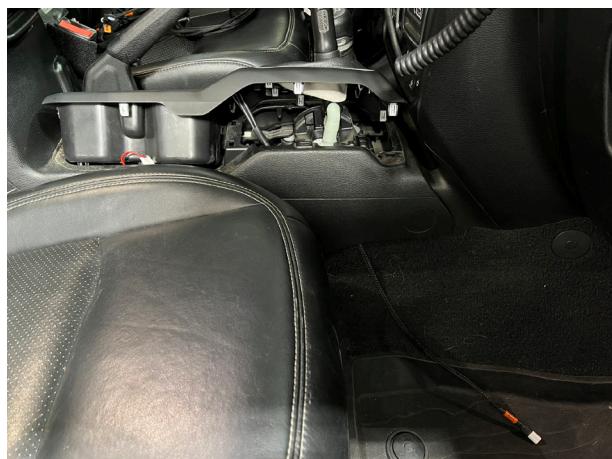


Fig. 12: Secure the switch in place.

CONTROLLER HARNESS INSTALLATION

1. Connect the Controller Harness to the Switch Harness (Fig. 13).
2. Lift the carpet as needed to route the Controller Harness (Fig. 14-15).
3. Route the harness behind the center console trim. Then, push the controller enclosure in between the bracket.
Optional: Place a zip tie around the bracket to secure the enclosure in place.
4. With the 6-pin connector still visible, reinstall the carpet (Fig. 16).



Fig. 13: Connect Controller to Switch Harness.



Fig. 14: Lift the carpet to route Controller Harness.



Fig. 15: Route Controller Harness.

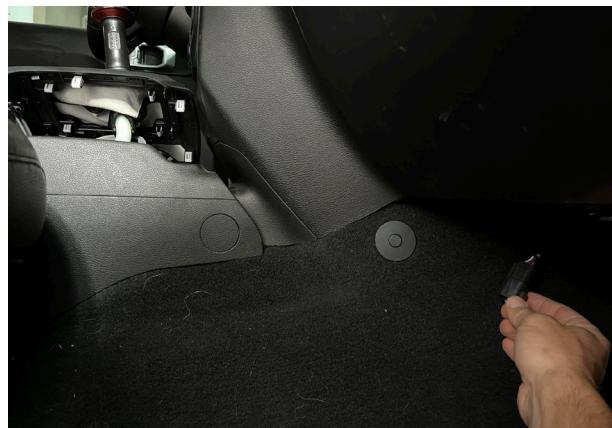


Fig. 16: 6-pin connector during carpet reinstallation.

POWER HARNESS INSTALLATION

1. Cut a slit in OEM firewall grommet underneath the passenger footwell (Fig. 17).
2. Route the 6-pin connector from the Power Harness through the firewall grommet, starting from behind the fender liner and routing into the cab. Pull the Power Harness through just enough to connect it to the mating connector on the Controller Harness (Fig. 17-18).
- NOTE:** Removing the tire/wheel and fender liner will make this step easier.
3. Connect the 6-pin connector from the Power Harness to the mating connector on the Controller Harness. Then, zip tie the harness to the OE harness every 6-12" (Fig. 18).

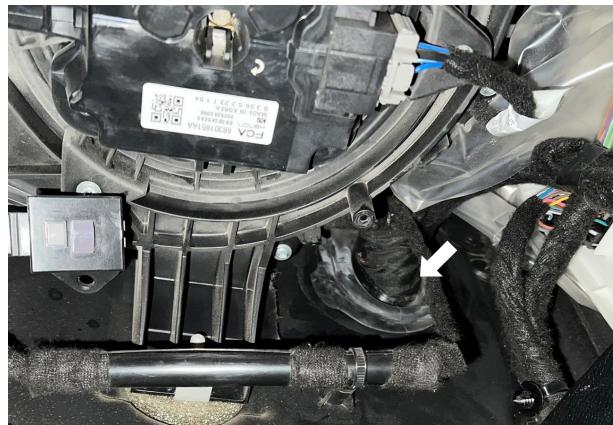


Fig. 17: Cut a slit in the OEM firewall grommet.

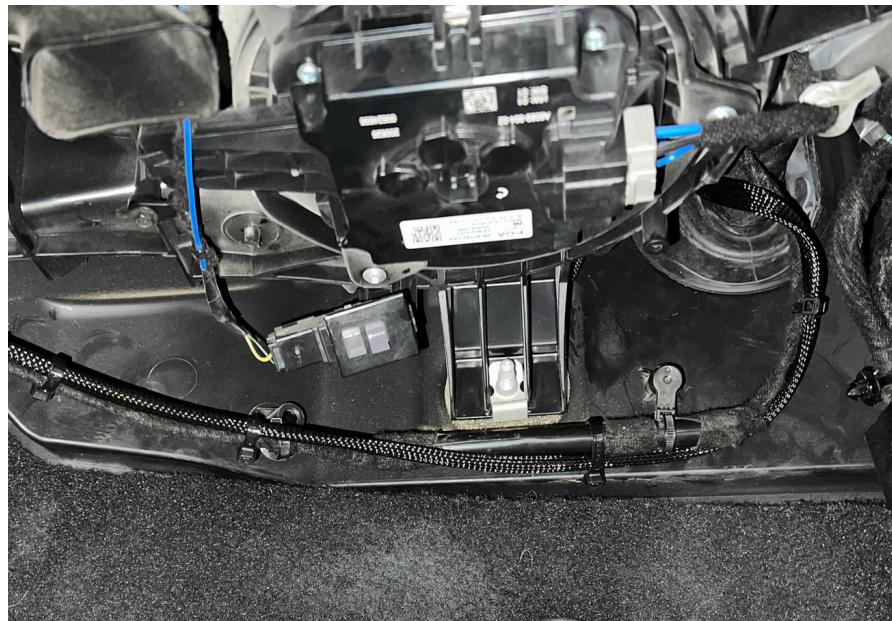


Fig. 18: Install harness in passenger footwell.

4. From the firewall grommet in the engine bay, route the Power Harness up through the passenger side of the engine bay fusebox (Fig. 19).
5. Use a 10mm wrench or socket to disconnect the negative terminal on the battery (Fig. 20).
6. Continue to the Link Harness Installation section.



Fig. 19: Route the Power Harness.

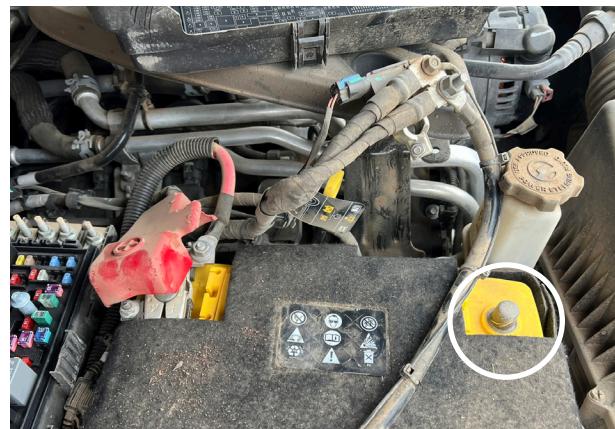


Fig. 20: Disconnect negative terminal on battery.

LINK HARNESS INSTALLATION

1. Connect the 3-pin connector on the Link Harness to the mating connector on the Power Harness (Fig. 21).



Fig. 21: Connect 3-pin connector to Link Harness.

2. Route the Link Harness along the OE harnesses close to the fender in the engine bay, underneath the air intake/filter to the grill trim (Fig. 22).
3. Route the Link Harness connectors down the grill trim and out through the fender liner (Fig. 23).
4. Route the passenger side connector on the Link Harness along the sway bar. Then, zip tie the harness to the sway bar as shown. Make sure to leave extra slack (loop) on both sides of the harness for articulation of the swaybar. Connect the harness to the mating connector on the QSE-Link (Fig. 24).

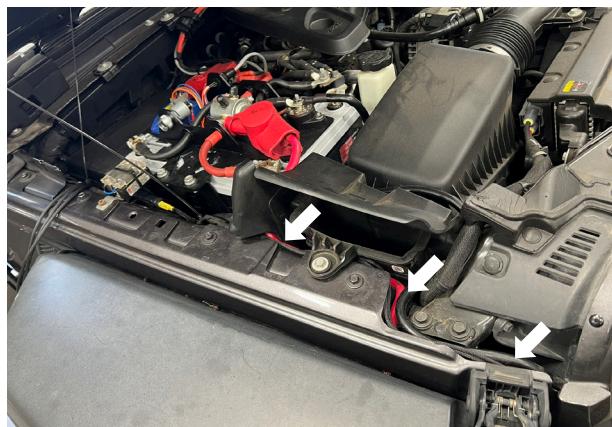


Fig. 22: Route the Link Harness connectors.

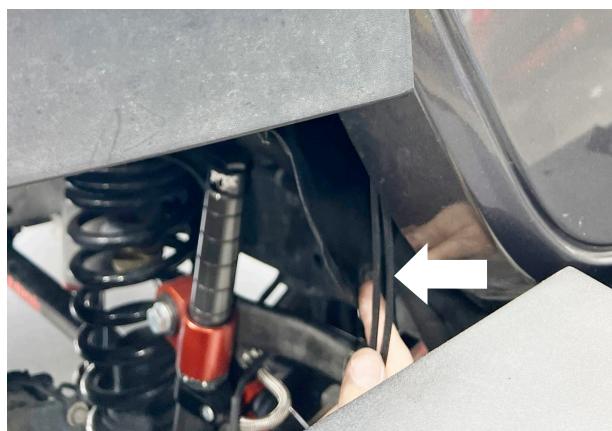


Fig. 23: Route the Link Harness connectors.

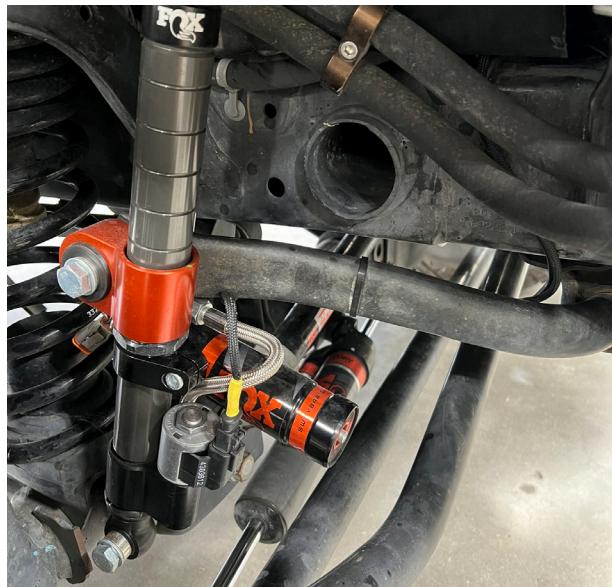


Fig. 24: Route the passenger side Link Harness.

5. Route the driver side Link Harness along the lines behind the front bumper.
6. Continue to route the driver side connector on the Link Harness along the sway bar (Fig. 25). Then, zip tie the harness to the sway bar as shown (Fig. 26-27). Make sure to leave extra slack (loop) on both sides of the harness for articulation of the swaybar. Connect the harness to mating connector on the QSE-Link (Fig. 28).



Fig. 25: Route the driver side Link Harness.



Fig. 26: Route the driver side Link Harness.

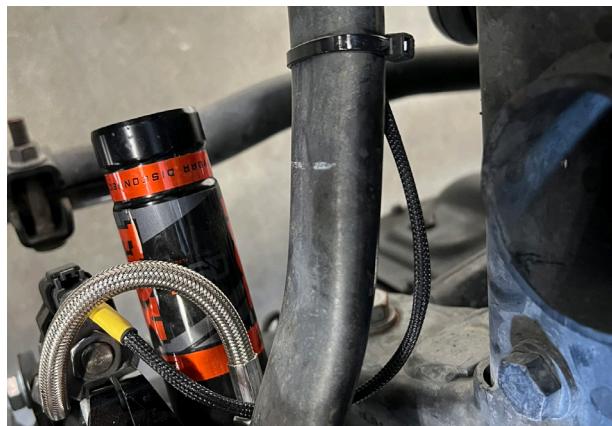


Fig. 27: Zip tie the harness to the sway bar.



Fig. 28: Connect harness to QSE-Link mating connector.

7. Returning to the Power Harness, remove the yellow 20A Fuse #F52 from the engine bay fuse box (Fig. 29-30).
8. Install the 20A fuse in the lower slot of the FOX supplied Micro3 fuse tap (Fig. 31).
9. Install the 5A fuse in the upper slot in the Micro3 fuse tap (Fig. 31).
10. Install the FOX supplied Micro3 tap into the empty slot for fuse #F52 located in the engine bay fuse box (Fig. 31).
11. Connect the 12V_CONSTANT ring terminal to the positive battery terminal (Fig. 31).



Fig. 29: Remove the yellow fuse from the fuse box.



Fig. 30: Remove the yellow fuse from the fuse box.



Fig. 31: Install the Micro3 tap into the lower slot and the 5A fuse into the upper slot; install Micro3 tap into empty slot for fuse #F52; connect two terminals.

12. Install the 7.5A ATC fuse in the 12V CONSTANT in-line fuse holder (Fig. 32).
13. Reconnect the battery ground cable and torque to OE specifications. Connect the GND_BATTERY ring terminal to the battery's ground cable (Fig. 33-34).



Fig. 32: Install the fuse in the fuse holder.



Fig. 33: Connect battery ground cable and GND_BATTERY ring terminal.



Fig. 34: Connect battery ground cable and GND_BATTERY ring terminal.

14. Secure the harnesses using the supplied zip ties, and attach zip ties every 6-12 inches. Secure the harness to the OE harness, where possible.
15. Loop any excess harness cable length and secure it with zip ties so it is out of the way. Pull any extra harness inside the cab and zip tie it up and under the passenger footwell.
16. Reinstall the cup holder/shifter trim (Fig. 35).



Fig. 35: Reinstall the cup holder/shifter trim.

OPERATION

NOTE: QSE-Links technology works when the vehicle ignition is ON, and when the vehicle is running.

The button is a momentary switch. When it is pressed while the vehicle is ON, the switch will light up, and the QSE-Links will UNLOCK. This effectively disconnects the sway bar, allowing the suspension to articulate.

NOTE: There is an audible click that can be heard from the solenoid when activating the system.

If the switch is pressed again, the light will turn off and the QSE-Links will naturally reach their locked state on flat ground, or when the vehicle suspension is not articulated.

Functionality of the QSE-Links technology can be tested by articulating the suspension and then activating the switch. It is safe to activate while the suspension is articulated.

The system will revert to the LOCKED position upon power cycle.

⚠️ WARNING: Use caution while driving with QSE-Links in the unlocked state. Driving at high speeds while QSE-Links are unlocked should be avoided as body roll increases dramatically. This significantly affects both vehicle handling and stability, especially while cornering and making abrupt maneuvers at high speeds. QSE-Links operation is intended for off-road use only.

MAINTENANCE

PROPER INSPECTION AND MAINTENANCE IS ESSENTIAL TO MAINTAIN THE PERFORMANCE AND RELIABILITY OF YOUR FOX PRODUCTS.

NOTICE: Keep the FOX products clean and free of dirt or water to avoid corrosion. Avoid using a high-pressure washer.

FOX SERVICE AND UPGRADES

HAVE YOUR FOX PRODUCTS SERVICED OR UPGRADED BY FOX TECHNICIANS. CALL OUR SERVICE CENTER AT 831.740.4619 TO GO OVER THE SERVICE AND UPGRADE OPTIONS AVAILABLE FOR YOUR FOX PRODUCTS. ONCE YOU'VE SETUP YOUR SERVICE AND/OR UPGRADES, YOU WILL RECEIVE A RETURN AUTHORIZATION NUMBER AND SHIPPING INSTRUCTIONS.

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visit ridefox.com/service



WARNING: Cancer and
Reproductive Harm –
www.P65Warnings.ca.gov

WARRANTY INFORMATION

FOX LIMITED WARRANTY

FOX Factory, Inc., a Georgia corporation having an office at 2055 Sugarloaf Circle Suite 300. Duluth, GA 30097 ("FOX"), makes the following LIMITED WARRANTY with respect to its suspension products: LIMITED ONE (1) YEAR WARRANTY ON SUSPENSION PRODUCTS.

Subject to the limitations, terms and conditions hereof, FOX warrants, to the original retail owner of each new FOX suspension product, that the FOX suspension product, when new, is free from defects in materials and workmanship. Unless otherwise required by law, this warranty expires one (1) year from the date of the original FOX suspension product retail purchase from an authorized FOX dealer or from a FOX authorized Original Equipment Manufacturer where FOX suspension is included as original equipment on a purchased vehicle. If law requires a warranty duration of greater than one (1) year, then, subject to the other provisions hereof, this warranty will expire at the end of the minimum warranty period required by such law.

TERMS OF WARRANTY

This warranty is conditioned on the FOX suspension product being operated under normal conditions and properly maintained as specified by FOX. This warranty is only applicable to FOX suspensions purchased new from an authorized FOX source and is made only to the original retail owner of the new FOX suspension product and is not transferable to subsequent owners. This warranty is void if the FOX suspension product is subjected to abuse, neglect, improper or unauthorized repair, improper or unauthorized service or maintenance, alteration, modification, accident or other abnormal, excessive, or improper use.

Should it be determined by FOX in its sole and final discretion, that a FOX suspension product is covered by this warranty, it will be repaired or replaced, by a comparable model, at FOX's sole option, which will be conclusive and binding. THIS IS THE EXCLUSIVE REMEDY UNDER THIS WARRANTY. ANY AND ALL OTHER REMEDIES AND DAMAGES THAT MAY OTHERWISE BE APPLICABLE ARE EXCLUDED, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR PUNITIVE DAMAGES.

This limited warranty does not apply to normal wear and tear, malfunctions or failures that result from abuse, improper assembly, neglect, alteration, improper maintenance, crash, misuse or collision. This limited warranty gives the consumer specific legal rights. The consumer may also have other legal rights which vary from state to state or country to country. Some states and countries do not allow the exclusion or limitation of incidental or consequential damages or warranties, and if dictated by law the above limitations or exclusions may not apply to you. If it is determined by a court of competent jurisdiction that a certain provision of this limited warranty does not apply, such determination shall not affect any other provision of this limited warranty and all other provisions shall remain in full effect.

THIS IS THE ONLY WARRANTY MADE BY FOX ON ITS SUSPENSION PRODUCTS AND COMPONENTS, AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION HEREIN. ANY WARRANTIES THAT MAY OTHERWISE BE IMPLIED BY LAW INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED.

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