

DIRECT-REPLACEMENT INSTALLATION GUIDE

**FORD RANGER PX3 (2019-ON)** 

# PERFORMANCE ELITE 2.5 DUAL SPEED COMPRESSION

883-06-239 - Kit: 19-ON Ford Ranger, PX3, Front 2.5 Truck PES, R/R, 1–3"Lift, DSC 883-26-154 - Kit: 19-ON Ford Ranger, PX3, Rear, 2.5 Truck PES, P/B, 0-1.5" Lift, DSC

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# INTRODUCTION

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

FOX recommends that you become completely familiar with the handling characteristics of your modified vehicle before operating it under rigorous conditions, helping to avoid potential rollover situations and other 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 Service and Upgrades section for more information.

#### IN THE BOX

- · Front Shocks or Rear Shocks
- Supplied Hardware
- · Installation Guide

# **SUPPLIED PARTS**

FRONT SHOCK ASSEMBLY				
FOX PN	DESCRIPTION	QTY	NOTES	
883-06-239	LEFT/RIGHT SHOCK	2	N/A	

FRONT RESERVOIR BRACKET ASSEMBLY				
FOX PN	DESCRIPTION	QTY	NOTES	
026-01-116-1	LEFT RESERVOIR BRACKET	1	Brackets mount the	
026-01-116-2	RIGHT RESERVOIR BRACKET	1	remote reservoirs to the vehicle.	
018-01-066	SCREW: 8-32, 3/4"	8		
026-01-167-1	2.5 RESERVOIR CLAMP, TOP	4	Each bracket uses two clamps and	
026-01-167-2	2.5 RESERVOIR CLAMP, BOTTOM	4	a clamp uses two screws.	
018-01-049	FASTENER, STANDARD SCREW [1/4-14 X 1.00 TLG] STEEL, ZINC, SELF-DRILLING	4		

REAR SHOCK ASSEMBLY					
FOX PN	DESCRIPTION	QTY	NOTES		
883-26-154	LEFT/RIGHT SHOCK	2			

#### **A** WARNING

## SAFETY INSTRUCTIONS

- FOX direct-replacement shocks are designed to fit and allow proper clearance with the stock suspension. If aftermarket suspension components are installed it is the customer's responsibility to ensure that interference between the FOX shocks and other vehicle components does not occur at any point in the shock stroke.
- FOX direct-replacement shocks 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.
- Modifying your vehicle's suspension will change the handling characteristics of your vehicle. Under
  certain conditions, your modified vehicle may be more susceptible to loss of control or rollover, which
  can result in SERIOUS INJURY or DEATH. Thoroughly familiarize yourself with the modified vehicle
  handling characteristics before any rigorous vehicle operation. Wear protective body gear and a helmet
  when appropriate. Installation of vehicle roll bars or cage is highly recommended.
- FOX direct-replacement shocks are gas-charged and are highly pressurized. Placing shocks in a vise or clamp, applying heat, or attempting to open or service the shock without the proper tools and training can result in SERIOUS INJURY or DEATH. Do not attempt to modify, puncture or incinerate a FOX direct-replacement shock absorber.
- Any attempt to misuse, misapply, modify, or tamper with any FOX product voids any warranty and may result in SERIOUS INJURY or DEATH.

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#### **A** WARNING

# **INSTALLATION GUIDELINES**

- Always use a chassis lift for the installation of shocks, and make certain that the raised vehicle
  is securely attached to the lift to prevent the vehicle from slipping, falling, or moving during the
  installation process.
- DO NOT install any FOX product without the necessary special tools, expertise and chassis lift or you will subject yourself to the risk of SERIOUS INJURY or DEATH. If you elect to not use a chassis lift (which may result in SERIOUS INJURY or DEATH), ensure that the vehicle is: (1) on level ground, (2) that all tires on the ground during installation are blocked to prevent vehicle movement, (3) that at least two tires are on the ground at all times, and (4) that adequately secured jack stands are used to support the vehicle. NEVER get under the vehicle until you have checked to ensure that the vehicle will be stable during installation.
- FOX direct-replacement shocks are designed to fit your vehicle's shock mounts without modification except the reservoir placement on specific models and applications.
- If a preload adjustment is necessary for your application DO NOT adjust preload with the coil-over on the vehicle. Remove the coil-over from the vehicle and use a spring compressor to remove the lower spring hardware and spring. Once the spring is removed, you can adjust the preload ring.

## FRONT SHOCK INSTALLATION

#### **PREPARATION**

- 1. Please read the INSTALLATION GUIDELINES section for instructions on how to properly lift and secure the vehicle.
- 2. Record the front vehicle ride height to ensure the proper lift is attained after kit is installed. READ INSTALLATION GUIDELINES ON HOW TO PROPERLY ADJUST PRELOAD.
- 3. Measure and record the front vehicle ride height to ensure proper lift is attained after the kit is installed. It is recommended to measure from the center of the wheel to the fender edge. Kits are designed for a 2.5" lift, with some additional weight in accessories.

**NOTICE:** Increasing preload by more than .25" could cause reduced service life on the spring and coil-bind can damage the shock.

**NOTICE:** Medium-strength thread-lock is recommended on all bolts.

**NOTICE:** The spring preload is set by FOX to last the life of the product. If any preload is added, the provided bumpstop spacer must be installed to prevent coilbind and to preserve spring life.

#### STOCK SHOCK REMOVAL

**ANOTICE:** Do not discard any OEM hardware during the following removal steps, as most of the hardware is reused during assembly.

- 1. Remove both front wheels from the vehicle. If equipped, remove the vehicle skid plate.
  - **NOTICE:** Do not discard any OEM hardware, which is reused during assembly.
- 2. Disconnect the sway bar from the spindle on both sides of the vehicle, if equipped (Fig. 1).



Fig. 1: Disconnect sway bar from spindle.

- 3. Disconnect the brake line bracket from the upright (Fig. 2).
- 4. Disconnect the ABS bracket from the upright (Fig. 3).
- 5. Disconnect the outermost ABS wire clip from the upper control arm (Fig. 4).
- 6. If equipped with 4x4: It is recommended that you remove the outer axle nut and push the axle out of the hub to prevent the axle from popping out of the inner CV joing. DO NOT REMOVE THE ENTIRE AXLE, only push the outer portion of the axle out of the hub.

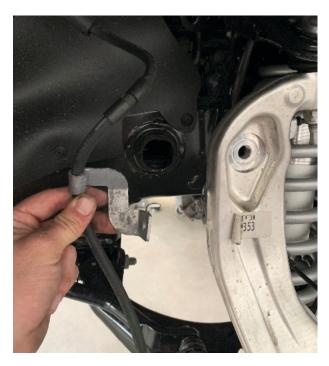


Fig. 2: Disconnect brake line (passenger side shown).



Fig. 3: Disconnect ABS bracket (passenger side shown).



Fig. 4: Disconnect ABS wire clip (passenger side shown).

- 7. Disconnect the outer tie rod end from the upright (Fig. 5).
- 8. Disconnect the upper control arm from the upright (Fig. 6).

**NOTICE:** Prior to completely releasing the nut from the upper control arm ball joint, make sure to support the upright so it does not fall and cause damage.

- 9. Remove the top (3) nuts that secure the top of the stock coilover assembly to the vehicle.
  - **AWARNING:** DO NOT remove the center nut. Removal of the center nut will release the spring from the stock assembly and may result in SERIOUS INJURY or DEATH!
- 10. Remove the bolt/nut connecting the shock to the lower control arm. Remove the stock shock assembly from the vehicle.



Fig. 5: Disconnect the outer tie rod end (passenger side shown).

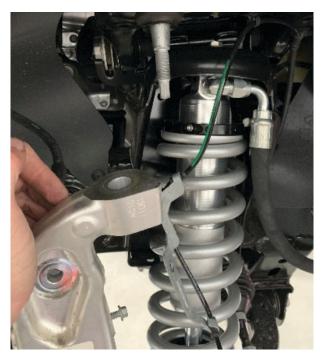


Fig. 6: Disconnect the upper control arm (passenger side shown).

#### **FOX FRONT SHOCK INSTALL**

- Install the FOX coilover front shock assembly into the top mounting location with the hose fitting facing toward the front of the vehicle (Fig. 7). Install the provided top mount nuts and washer, and torque to 24 ft-lbs.
- 2. Connect the coilover to the lower control arm using the OEM lower mount bolt and torque to 50 ft-lbs.

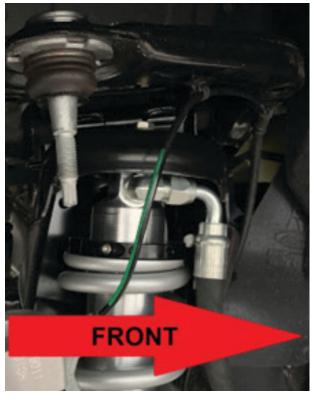


Fig. 7: Front shock top mount and orientation; hose fitting toward vehicle front.

#### **RE-ASSEMBLE THE SUSPENSION**

- 1. Allow the reservoir and hose to hang in a safe location until the reservoir bracket is installed.
- 2. Use OEM instructions and torque values on the following steps of this procedure (Steps 3-14).
- 3. Reconnect the upper control arm to the upright using the original hardware and configuration (Fig. 6).
- 4. Reconnect the outer tie rod end to the upright using the original hardware and configuration (Fig. 5).
- 5. If equipped with 4x4, push the axle back into the hub and reinstall the outer axle nut according to the manufacturer's instructions.
- 6. Reconnect the outermost ABS wire clip using the original hardware and configuration (Fig. 4).
- 7. Reconnect the ABS bracket to the upright (Fig. 3).

- 8. Reconnect the brake line bracket to the upright (Fig. 2).
- 9. Reconnect the sway bar to the spindle on both sides using the original hardware and configuration (Fig. 1).
- 10. If equipped, reinstall the vehicle skid plate using the original hardware and configuration.

#### RESERVOIR BRACKET INSTALLATION

- 1. Install the reservoir bracket (first hole) to the vehicle frame about 3/8" from the frame edge and 1½" from the frame guard as shown (Fig. 8). Pre-drill the hole with a 7/32" drill bit. Drive in a provided 1/4" self-tapping screw to 5 ft-lb.
- 2. Align the bracket with the frame and drill/drive the second 1/4" self-tapping screw. Tighten 1/4" self-tapping screw to 5 ft-lb.
- 3. Mount the reservoirs in the reservoir brackets using the supplied aluminum clamps and screws. The hose fitting on the reservoir should selforient toward the vehicle frame. Torque screws to 19 in-lb evenly between the 4 screws (Fig. 9).

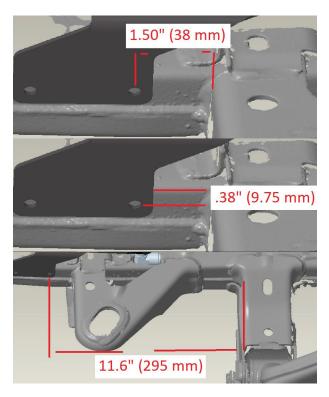


Fig. 8: Driver side bracket in correct position.



Fig. 9: Diagram of reservoir and clamps.

#### **CHECK AND FINAL DETAILS**

- 1. Reinstall the wheels and torque to OEM specifications.
- Set the vehicle back on the ground and drive back and forth several feet to allow the suspension to settle. Now measure ride height and adjust if necessary. READ INSTALLATION GUIDELINES ON HOW TO PROPERLY ADJUST PRELOAD.
- 3. Check that the suspension has proper clearance by steering completely in both directions.
- 4. Measure the vehicle's ride height and adjust if necessary.
- 5. It is highly recommended your wheel alignment is checked.

**WARNING:** Failure to maintain proper wheel alignment will result in premature tire wear and changes in vehicle handling.

# REAR SHOCK INSTALLATION

**NOTICE:** Medium-strength thread-lock is recommended on all bolts.

**WARNING:** Please read the Installation Guidelines of this manual for instructions on how to properly lift and secure the vehicle.

#### STOCK SHOCK REMOVAL

- Remove the lower shock mount nuts and bolts.
   NOTICE: Do not discard any OEM hardware, which are reused during assembly.
- 2. Remove the nut on the upper shock mount bolt.
- 3. Remove the rear stock shocks.



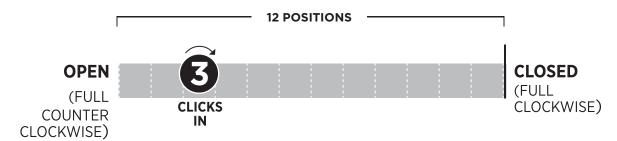
Fig. 10: Install the shock hardware (driver side shown).

#### **FOX REAR SHOCK INSTALL**

- 1. Install the left side FOX shock with the reservoir toward the rear of the vehicle (Fig. 10).
- 2. Install the upper and lower shock mount bolts and nuts. Torque to OEM specifications.
- 3. Install the right side FOX shock with the reservoir toward the rear of the vehicle. The reservoir body should be slightly inward toward the center of the vehicle.
- 4. Install the upper and lower shock mount bolts and nuts. Torque to OEM specifications.

# FOX FACTORY DSC SETTINGS

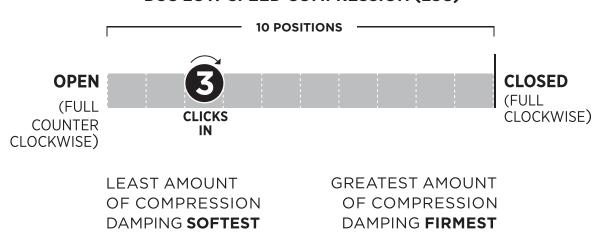
#### **DSC HIGH SPEED COMPRESSION (HSC)**



LEAST AMOUNT
OF COMPRESSION
DAMPING **SOFTEST** 

GREATEST AMOUNT
OF COMPRESSION
DAMPING FIRMEST

#### **DSC LOW SPEED COMPRESSION (LSC)**



### **MAINTENANCE**

PROPER INSPECTION AND MAINTENANCE IS ESSENTIAL TO MAINTAIN THE PERFORMANCE AND RELIABILITY OF YOUR SHOCK ABSORBERS.

To avoid corrosion, you should keep the shocks and springs clean, free of dirt and moisture. The wiper seal will clean deposits from the shaft, but the shock won't necessarily fully compress every time. This means you could accumulate dirt at the bottom of the shaft and underneath the jounce bumper. Make sure you clean these areas completely to prevent shaft corrosion. Avoid using a high-pressure washer near the shaft seals or adjusters, as this could drive dirt inside the shock.

Make sure the ends of the spring and shock threads are clean and free of dirt before adjusting the preload ring. This will make the adjustment easier and reduce wear.

Ideally, the shocks should be clean around the adjusters. Use a small amount of contact cleaner or brake cleaner before making adjustments will keep these parts clean and operating smoothly for years

**NOTICE:** Keep the shock and spring clean and free of dirt or water to avoid corrosion. Keep the shock shaft clean and free of mud. Avoid using a high-pressure washer near the shaft seals and adjusters. Before adjusting preload or the crossover ring, clean the threads of the shock body for easier adjustment and mitigating wear.

#### **FOX SERVICE AND UPGRADES**

HAVE YOUR FOX SHOCKS SERVICED BY FOX TECHNICIANS. CALL OUR OFF-ROAD AND TRUCK SERVICE CENTER AT 619.768.1800 TO GO OVER THE SERVICE AND UPGRADE OPTIONS AVAILABLE FOR YOUR PRODUCT. ONCE YOU'VE SETUP YOUR SERVICE AND/OR UPGRADES YOU WILL RECEIVE A RETURN AUTHORIZATION NUMBER AND SHIPPING INSTRUCTIONS.

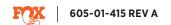
#### **COMPLETE SERVICES**

100% street use: every 50,000 miles 50% street/ 50% off-road use: Every 50,000 miles

#### **SERVICE MENUS AND PRICING**

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### WARRANTY INFORMATION

#### **FOX LIMITED WARRANTY**

FOX Factory, Inc., a California corporation having an office at 750 Vernon Way, Suite 101, El Cajon, CA 92020 ("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.

# **CONTACT**

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A DIVISION OF FOX FACTORY INC.

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