PVG Owners/Service Manual
Production Standards

Cover Stock:	22-24# Matte Cover
Text Stock:	22-24# Matte Book
Cover Ink:	Black
Text Ink:	Black
Size:	8.5"x11" (Portrait)
Bindery:	Staple, upper left corner

Note: Manuals are to be printed Black & White and double sided.

DIRECT-REPLACEMENT
INSTALLATION GUIDE

FORD RANGER (2024-ON)

2.0 PERFORMANCE SERIES
2.5 PERFORMANCE SERIES
2.5 PERFORMANCE ELITE SERIES

987-02-014 - 24-ON (AU 2022-ON PY) Ford Ranger, 4wd, Front Coilover, PS, 2.5 IFP,0-3" (0-76 mm) Lift
987-02-006 - 24-ON (AU 2022-ON PY) Ford Ranger, 4wd, HD, Front Coilover, PS, 2.5 IFP ,0-3" (0-76 mm) Lift
987-24-068 - 24-ON (AU 2022-ON PY) Ford Ranger 4wd, Rear, PS, 2.5, IFP, 0-1" (0-25 mm) Lift
987-24-070 - 24-ON (AU 2022-ON PY) Ford Ranger HD, 4wd, Rear, PS, 2.5, IFP, 1.5-2.5" (40-65 mm) Lift
987-24-073 - 24-ON (AU 2022-ON PY) Ford Ranger, 4wd, Rear, PS, 2.5, IFP, 1.5-2.5" (40-65 mm) Lift

883-06-256 - Kit: 24-ON (AU 2022-ON) Ford Ranger, PY, 4wd, Front Coilover, 2.5 Truck PES, R/R, DSC EVO, 1-3" (25-76 mm) Lift
883-06-261 - Kit: 24-ON (AU 2022-ON) Ford Ranger, PY, 4wd, HD, Front Coilover, 2.5 Truck PES, R/R, DSC EVO, 1.5-3" (38-76 mm) Lift
883-26-170 - Kit: 24-ON (AU 2022-ON) Ford Ranger, PY, 4wd, Rear 2.5 Truck PES, R/R, DSC EVO, 0-1" (0-25 mm) Lift
883-26-181 - Kit: 24-ON (AU 2022-ON) Ford Ranger, PY, 4wd, Rear, 2.5 Truck PES, R/R, DSC EVO, 1.5-2.5" (40-65mm) Lift
883-26-162 - Kit: 24-ON (AU 2022-ON) Ford Ranger, PY, 4wd, HD, Rear, 2.5 Truck PES, DSC EVO, 1.5-2.5" (40-65 mm) Lift

985-02-158 - 24-ON (AU 2022-ON) Ford Ranger, PY, 4wd, Front Coilover, PS, 2.0 IFP, 0-3" (0-76 mm) Lift
985-24-275 - 24-ON (AU 2022-ON) Ford Ranger, PY, 4wd, Rear, PS, 2.0, IFP, 0-1" (0-25 mm) Lift
985-24-279 - 24-ON (AU 2022-ON) Ford Ranger, PY, 4wd, Rear, PS, 2.0, IFP, 0-1" (0-25 mm) Lift

605-01-452 REV A

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:

tech.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):

CONTENTS

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 Maintenance section for more information.

IN THE BOX

- Front or Rear Shocks
- Supplied Hardware
- Installation Guide

SUPPLIED PARTS

For Performance Elite Series Only

FRONT SHOCK KIT			
FOX PN	**DESCRIPTION**	**QTY**	**NOTES**
883-06-256/261	Front Shock Kit		Contains all the below components
026-01-423-1	Left Reservoir Bracket	1 per kit	
026-01-423-2	Right Reservoir Bracket	1 per kit	
018-04-012-A	Self-Tapping Bolt	2 per kit	
803-02-089	Reservoir Clamp Kit	2 per kit	
REAR SHOCK KIT			
FOX PN	**DESCRIPTION**	**QTY**	**NOTES**
883-26-170/181/162	Rear Shock Kit		Contains all the below components
019-01-302	Shim Washer	1 x Left Shock Only	

⚠ 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.

⚠ 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. If you need to exceed the existing preload beyond 0.5 inches, you will need to go up in spring rate or get a longer spring that fits the application.

FRONT SHOCK INSTALLATION

PREPARATION

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

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 proper lift is attained after kit is installed. **READ INSTALLATION GUIDELINES ON HOW TO PROPERLY ADJUST PRELOAD.**

3. Remove both front wheels from the vehicle.

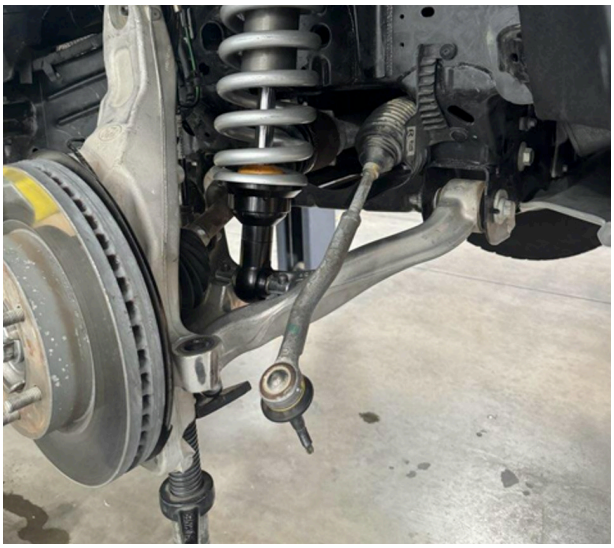

Fig. 1: Detach the tie rod end link.

STOCK SHOCK REMOVAL

1. Detach the tie rod end link at the spindle steering arm for removal and installation clearance (Fig. 1).

2. Remove the nut connecting the upper control arm (UCA) to the upright. Tap the ball joint stem with a hammer to release it from the knuckle. Proceed with caution, the UCA has spring tension (Fig. 2).

   ⚠WARNING: HIGH SPRING TENSION! Springs under tension can store a significant amount of energy, and if released unexpectedly, they can cause damage, SERIOUS INJURY or DEATH.

3. Unbolt the driveshaft at the hub assembly and allow it to move freely so the slip joint near the frame does not separate (Fig. 3).

   NOTICE: Separation of the driveshaft slip joint can be difficult to correct and may require specialized driveline service.

Fig. 2: Separate the steering knuckle.

Fig. 3: Remove nut from drive shaft.

4. Disconnect the sway bar link from the upright (Fig. 4).

5. Unbolt the two lower shock bolts connecting the shock to the lower control arm (Fig. 4, lower arrows). Support the upright with straps or wire to prevent damage to the brake lines.

6. Remove the upper top mount nuts (Fig 5). Front shock can now be removed. **DO NOT remove the center nut that holds the shock assembly together. Removal of the center nut will release the spring from the shock assembly and may result in SERIOUS INJURY or DEATH!**

   ⚠WARNING: HIGH SPRING TENSION! Springs under tension can store a significant amount of energy, and if released unexpectedly, they can cause damage, SERIOUS INJURY or DEATH.

7. If you're installing an aftermarket UCA, install it at this time following the company's required specifications.

Fig. 4: Disconnect the sway bar link.

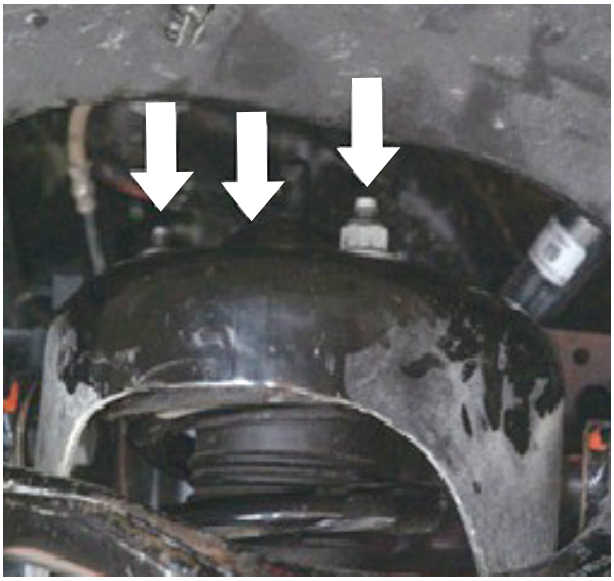

Fig. 5: Remove upper top mount nuts. DO NOT remove the center nut.

SPRING PRELOAD AND RIDE HEIGHT

The total front wheel spring rate is approximately 370 lb/in. Coil-overs are preset for 2.5 in. (64 mm) of lift on a U.S. 4-door model equipped with a 2.7 L engine (development vehicle).

- Heavier front-end configurations will result in reduced lift.
- For 200 lb (91 kg) increase in front-end weight, increase spring preload by 0.3 in. (8 mm) to recover lost height.
- Approximately 0.25 in. (6 mm) of additional preload results in about 0.5 in. (13 mm) of lift.
- Heavy-Duty versions are pre-adjusted for 2.5 in. of lift with 200 lb of added front-end accessories.

FOX COIL-OVER INSTALL

1. Install the coil-over assembly into the top mount (coil bucket). Tighten the provided top-mount nuts to 24 ft-lb (32 N·m). Orient the reservoir so that it routes toward the rear of the fender well (Fig. 6).

2. Connect the lower two shock bolts through lower control arm (Fig 4 lower arrows). Torque to 50 ft-lbs. Allow the reservoir and hose to hang freely (without abrupt pulling) until the reservoir installation phase.

3. Apply medium-strength threadlocker to all OE hardware as recommended in the Ford service manual.

4. Reconnect the upper control arm to the upright and torque to OE specfication (Fig. 7).

5. Reconnect the tie rod end link and torque to OE specification (Fig. 1).

6. Reconnect the sway bar link and torque to OE specification (Fig. 4, upper arrow).

NOTICE: Be aware of ride-height or headlight leveling sensors that vary by region and model. FOX coil-overs extend downtravel by 0.5–1.0 in. (13–25 mm), which may place some sensors or linkages out of range. If needed, install aftermarket sensor extension brackets or perform professional recalibration using the appropriate diagnostic tools.

Fig. 6: FOX shock orientation.

Fig. 7: Reconnect UCA to upright.

FRONT RESERVOIR BRACKET INSTALLATION

1. Remove the 10 mm bolt securing the OE brake-line bracket (Fig. 8A). Slide the FOX reservoir bracket between the OE brake-line bracket and the frame.

2. Two methods can be used to fasten the bracket to the frame:

   Method 1: If not provided in the kit, obtain a stainless-steel zip tie measuring between 23 in. and 29 in. (584–737 mm) long and approximately 0.5 in. (13 mm) wide. Wrap the tie around the frame, ensuring no wiring or brake lines are captured, and feed it through the slot provided in the bracket (Fig. 8C). The bracket fits behind OE brake line bracket and reuses the 8 mm OE bolt (Fig. 8A). Torque to OE specification.

   Method 2: Drill a 21/64 in. (8.5 mm) hole at the location indicated in the FOX bracket (Fig. 8B). When setting bracket rotation, leave the end of the bracket nearest the cab slightly offset from the frame to prevent noise. Install the provided 3/8 in. self-tapping bolt and tighten securely. The bracket fits behind OE brake line bracket and reuses the 8 mm OE bolt (Fig. 8A). Torque to OE specification.

3. Attach the reservoir to the reservoir bracket. Use a plastic zip tie to temporarily hold the reservoir in position while installing the reservoir clamps.

4. Install the reservoir clamps as shown (Fig. 9). Leave the clamps loose for adjustment.

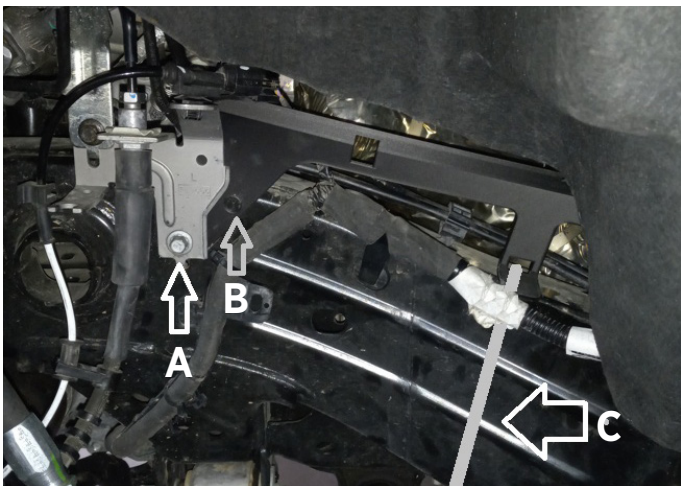

Fig. 8: Reservoir bracket installation.

Fig. 9: Reservoir clamps.

5. Rotate and shift the reservoir to maximize clearance with brake lines and wiring (Fig. 10). It may be necessary to disconnect the ABS wire, route it behind the reservoir assembly, and reconnect it. A hole is provided in the FOX bracket to relocate the ABS connector assembly, which may or may not be needed.

6. Torque the reservoir clamp screws to 19 in-lb (2.1 N·m).

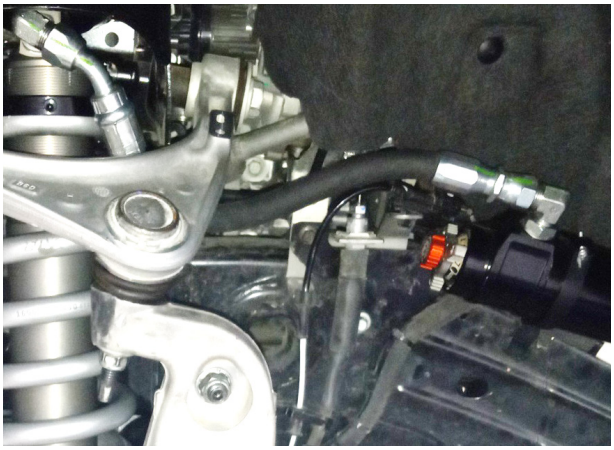

Fig. 10: Reservoir position.

FINAL CHECKS AND DETAILS

1. Reinstall the wheels and torque to OEM specifications.

2. Set the vehicle back on the ground and drive back and forth several feet to allow the suspension to settle.

3. Measure the ride height and adjust if necessary. READ INSTALLATION GUIDELINES ON HOW TO PROPERLY ADJUST PRELOAD.

4. Check that the suspension has proper clearance by steering completely in both directions.

5. It is required to have your wheel alignment checked.

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

REAR SHOCK INSTALLATION

INTRODUCTION TO REAR SUSPENSION LIFT

1. Vehicles equipped with more than 1 in. (25 mm) of lift in the rear require installation of brake line extensions. Install them according to your brake manufacturer's instructions.

   ⚠WARNING: Brake line extensions prevent brake line tension or damage under full suspension droop. Always verify adequate brake line slack after installation. Failure to do so may result in SERIOUS INJURY or DEATH.

2. For vehicles equipped with 1.5 in. (40 mm) or higher rear lifts, install bump stop spacers as follows:

   - When using a 2 in. (50 mm) rear lift spring, install a 1 in. (25 mm) bump stop spacer with the OE bump pad. For PES shocks, use a 0.5 in. (13 mm) spacer.
   - When using a 1.5 in. (40 mm) lift block, install a 0.5 in. (13 mm) bump stop spacer. For PES shocks, no block needed.
   - When using 2 in. (50 mm) or taller lift blocks with the OE spring, no bump stop spacer is required.

3. Lifting the rear suspension may also require installation of a headlight or height sensor adjustment kit on certain vehicle models. Refer to the lift kit instructions that came with your kit for specific requirements.

PREPARATION

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

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 proper lift is attained after kit is installed. READ INSTALLATION GUIDELINES ON HOW TO PROPERLY ADJUST PRELOAD.

3. If vehicle is suspended the rear axle should be supported to prevent damage to brake lines. Support the center of the differential with a jack stand.

STOCK SHOCK REMOVAL

1. Remove the upper and lower shock mount bolts. Remove the stock shock assembly.
   NOTICE: Do not discard any OEM bolts, many are reused with your new FOX coil-over assembly.

FOX REAR SHOCK INSTALLATION

1. Install the right and left rear shocks with the reservoirs oriented toward the rear of the vehicle (Fig. 11).

   ⚠WARNING: Incorrect orientation of the left rear shock may result in brake line interference or damage, which may lead to SERIOUS INJURY or DEATH.

2. For both rear shocks, install the upper shock mounting hardware and torque to OE specification.

   On North American Ranger models: the shock reservoir (left side only) is located close to the frame bracket. During extreme suspension applications, minor contact may occur.

   Optional Clearance adjustments (choose one):

   - Option #1: A washer is included in the shock kit and may be installed on the inboard side of the upper shock mount to increase clearance.
   - Option #2: The frame shock bracket may be slightly shaped for clearance using a die grinder, as shown (Fig. 12). After grinding, apply black spray paint to the cut surface to prevent corrosion.

3. Install the lower shock connection the same as OE shock using the OE hardware and torqued to OE specification.

Fig. 11: Rear shock orientation (right side).

Fig. 12: Optional clearance adjustments

FINAL CHECKS AND DETAILS

1. Set the vehicle back on the ground and drive back and forth several feet to allow the suspension to settle.

2. Check that the suspension has proper clearance by steering completely in both directions.

3. It is required to have your wheel alignment checked.

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

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 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 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.

SERVICE MENUS AND PRICING
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 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.

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