

DIRECT-REPLACEMENT INSTALLATION GUIDE

FORD F-150 (2021-ON)

## FACTORY RACE SERIES 3.0 INTERNAL BYPASS

883-06-191 - Kit: 21+ Ford F150, Front, Internal Bypass, 3.0 Series, R/R, 2.5" Lift, DSC 883-26-121 - Kit: 21+ Ford F150, Rear, Internal Bypass, 3.0 Series, P/B, 0-1" Lift, DSC

605-01-334 REV A

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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**

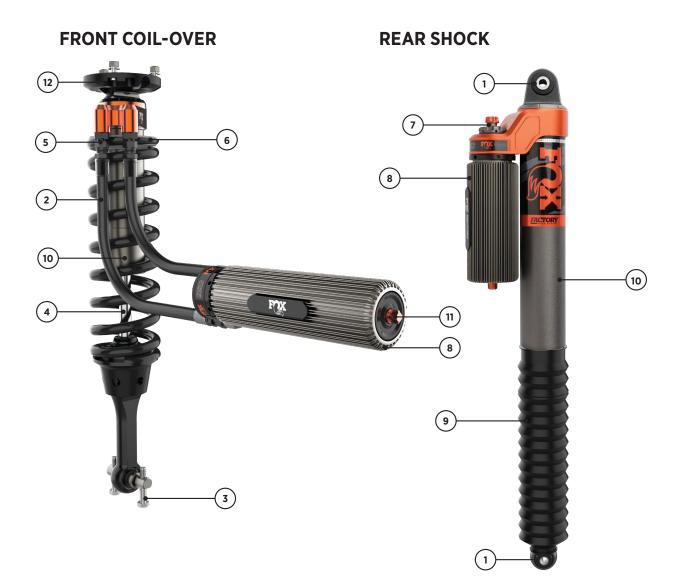
	SHOCK ASSEMBLY				
FOX PN	DESCRIPTION		QTY	NOTES	
983-06-191	FRONT, LEFT COIL-OVER		1	2.5" Lift	
983-06-207	FRONT, RIGHT COIL-OVER	FRONT, RIGHT COIL-OVER			
883-26-122-L/R	REAR, LEFT/RIGHT SHOCK	REAR, LEFT/RIGHT SHOCK			
*FRONT RESERVOIR BRACKET ASSEMBLY					
FOX PN	DESCRIPTION	*HARDWARE REF.	QTY	NOTES	
026-01-232	FRONT RESERVOIR BRACKET	В	2	Brackets mount the remote reservoirs to the vehicle.	
019-01-051-A	BOLT: M10, 1.5"	C1	4	The speed nuts and	
018-00-084	SPEED NUT: M10	C2	4	bolts mount reser- voir brackets to the vehicle's frame.	
018-02-044	HEX SCREW: 1/4-20 X .75	D1	4	The hex screw	
026-01-184	RESERVOIR CLAMP NUT	D2	4	tightens the res- ervoir clamp nut against the dove- tail notches and bracket to secure the reservoir.	
803-02-097	HOSE SEPARATOR KIT	E1	2	Each kit is com- prised of a bot- tom and top hose separator. The two components are clamped together with the supplied screw.	

\*Front Reservoir Bracket Assembly is only included with front shock kits.

\*Hardware Reference is used throughout the installation manual to provide notation of the supplied kit.



## **SHOCK DIAGRAM**



PART NO.	NAME	PART NO.	NAME
1	Eyelet	7	DSC adjuster
2	Hose	8	Reservoir
3	Bar-pin bolt	9	Roost guard
4	Shaft	10	Shock body
5	Hose fitting	11	Schrader valve
6	Preload ring	12	Top hat



#### 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. DO NOT Exceed more the 1/2" of additional preload. If more than 1/2" of preload is required, you will need to go up in spring rate or get a longer spring that fits the application.

## **FRONT SHOCK INSTALLATION**

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

1. Please read the installation guidelines on page 5 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.

#### STOCK SHOCK REMOVAL

- 3. Remove both front wheels from the vehicle.
- 4. Disconnect the brake line bracket from the upright (Fig. 1).
- 5. Detach the tie rod end link at the spindle steering arm for removal and installation clearance (Fig. 2).
- 6. Separate the sway bar end link from both steering knuckles (Fig. 3).



Fig. 1: Brake line bracket.



Fig. 2: Tie rod end link.



Fig. 3: Sway bar end link.



7. Take off the nut connecting the upper control arm (UCA) to the upright. Tap the ball joint stem with a hammer to break it free. Proceed with caution, the UCA has spring tension (Fig. 4).

8. Remove the three top hat nuts that secure the stock shock assembly to the vehicle (Fig. 5). 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!



Fig. 4: Separate the UCA and upright.

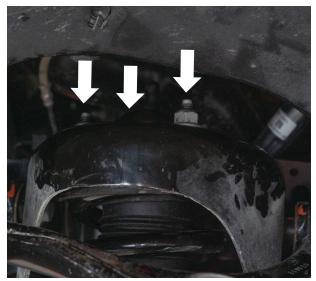


Fig. 5: Remove the three top hat nuts.

9. Free the top of the coil-over from the coil bucket (Fig. 6).

10. Remove the bar-pin bolts connecting the coil-over to the lower control arm (Fig. 7). Remove the stock shock assembly.



Fig. 6: Free the coil-over.

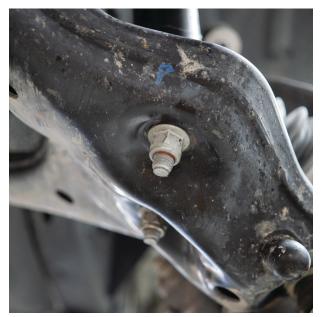


Fig. 7: Remove the bar-pin bolts.



NOTICE: Do not discard any OEM bolts, many are reused with your new FOX coil-over assembly.

11. If you're installing an aftermarket UCA, install now and follow the company's required specifications. After installation, continue to step 12.

#### **RESERVOIR BRACKET INSTALL**

12. If your vehicle is naturally aspirated, use all the provided speed nuts (C2). Install two speed nuts on each frame rail. If your vehicle is turbocharged, install one speed nut in front of the bolt that secures the lower intercooler support bracket on each frame rail (Fig.8).

**NOTICE:** Do not remove both bolts of lower intercooler support bracket at the same time.

13. Install the reservoir bracket between the frame rail and lower intercooler support bracket. Use the supplied bolts (C1) and OEM intercooler hardware to fasten the reservoir bracket (Fig. 9).



Fig. 8: Use a speed nut in front of the bracket.

# TrolA

Fig. 9: Install the reservoir bracket.

#### FOX COIL-OVER INSTALL

14. Install the new coil-over assembly with the hose fitting facing inboard (Fig. 10). Loosely install the provided bar-pin bolts and top cap nuts.

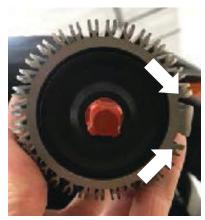
15. Once the shock is oriented, torque the top hat nuts to 24 ft-lbs. Torque the bar-pin bolts to 50 ft-lbs. The truck's frame will have a large amount of play available at the top mount. Take care to center the shock assembly to provide the best clearance between the shock and truck chassis.



Fig. 10: The hose fitting faces inboard.



16. Attach the reservoir to the mounting bracket with the provided reservoir clamp nuts (D2). Use the dovetail notch on the reservoir to marry the bracket and reservoir (Fig. 11a). The reservoir needs at a minimum 1/8" clearance from any surrounding vehicle parts (Fig. 11b).



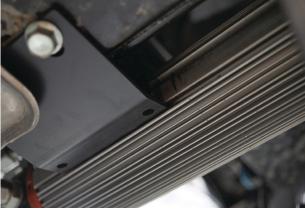


Fig. 11a: Use the dovetail feature.

Fig. 11b: Reservoir interfaced with the bracket.

17. Once the reservoir is oriented, slide the clamp nut into the dovetail notch from the bottom of the reservoir to the far hole on the reservoir bracket (Fig. 12a).



Fig. 12: Slide the clamp nuts into the dovetail.

18. The clamp nut and top of the reservoir bracket must be flush. Loosely install the supplied screw (C1). Next, slide the second clamp nut to the second hole of the reservoir bracket. Loosely install the supplied screw. Torque both screws to 76 in-lbs. (Fig. 13).



Fig. 13: Fasten the reservoir.



19. Install the supplied hose separator clamp (E1) approximately mid-way on the hose between the reservoir and hose fitting (Fig.14). Use the clamp to improve the hose's clearance from the vehicle. Torque the clamp's screw to 76 in-lbs.

17. Reattach the UCA to the upright with the ball joint bolt. Use a pry bar to apply leverage to the UCA and lower it to the upright. Reattach the nut

and torgue to OEM specification (Fig. 15).

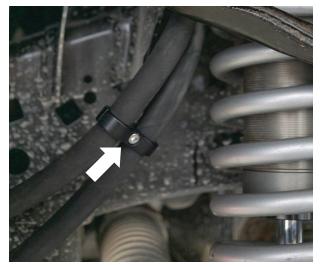


Fig. 14: Hose separator clamps.

Fig. 15: Reattach UCA to the upright.

18. Reinstall the tie rod end link (Fig. 16), sway bar end link (Fig. 17), and brake bracket bolt (Fig. 18). Torque all hardware to OEM specification.



Fig. 16: Tie rod end link.



Fig. 17: Sway bar end link.



Fig. 18: Brake line bracket.



## **REAR SHOCK INSTALLATION**

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

1. Please read the installation guidelines on page 5 for instructions on how to properly lift and secure the vehicle.

#### STOCK SHOCK REMOVAL

2. Remove the upper and lower shock mount bolts (Fig 19 & 20).



Fig. 19: Remove upper shock mount bolt.



Fig. 20: Remove lower shock mount bolt.

3. Remove the rear stock shocks.

4. Orient the FOX shock and install the upper shock mount bolt (Fig. 21).

**NOTICE:** The reservoirs of the rear shocks must point toward the rear of the vehicle.



Fig. 21: Install the upper shock mount.



5. Install the lower shock bolt (Fig. 22a) and torque both bolts to OEM specification. The spacer on the eyelet must be mounted on the inboard side of the vehicle (Fig. 22b).



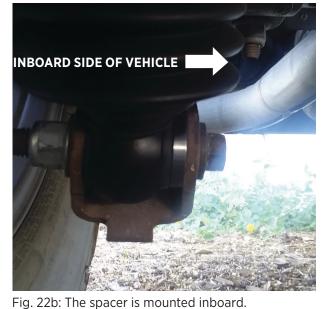


Fig. 22a: Install the lower shock bolt.

#### CHECK AND FINAL DETAILS

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

7. Reinstall the wheels and torque to OEM specifications.

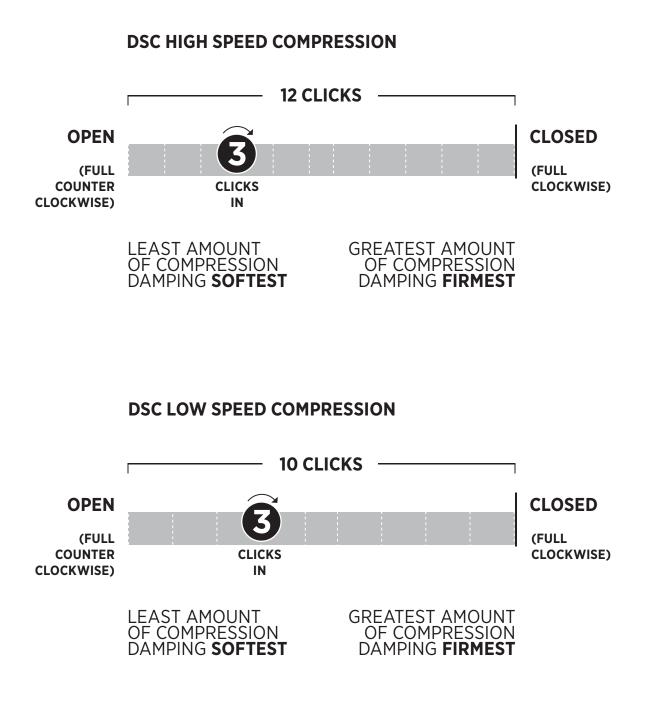
8. Set the vehicle back on the ground and drive back and forth several feet to allow the suspension to settle. Now measure ride height and adjust if necessary. READ INSTALLATION GUIDELINES ON HOW TO PROPERLY ADJUST PRELOAD.

9. It is highly recommended your wheel alignment checked.



## FOX FACTORY DSC

**DUAL SPEED COMPRESSION (DSC) ADJUSTER SETTINGS** 



## WARRANTY INFORMATION

#### FOX LIMITED WARRANTY

FOX Factory, Inc., a Georgia corporation having an office at 6634 Highway 53 Braselton, GA 30517 ("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.



## SHOCKS NEED Love too

#### 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 PROD-UCT. ONCE YOU'VE SETUP YOUR SERVICE AND/OR UPGRADES YOU WILL RECEIVE A RETURN AUTHORIZATION NUMBER AND SHIPPING INSTRUCTIONS.

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