

DIRECT REPLACEMENT INSTALLATION GUIDE

**CHEVROLET CORVETTE C7 (2014-2019)** 

# PERFORMANCE ELITE LOW SPEED COMPRESSION LOW SPEED REBOUND

883-31-000 Kit: MY14-19 Chevrolet Corvette C7, 2.0 On-Road PES, LSC, LSR

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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 and Rear Shocks
- Supplied Hardware
- Installation Guide

**NOTICE:** Your Performance Elite Shocks were tuned with the vehicle dropped 1" from the stock ride height. Installation of these shocks will not automatically lower your vehicle. If you intend to lower your vehicle, please read the owner's manual and follow the instructions on how to achieve your desired ride height.

**WARNING:** If vehicle is equipped with an adaptive damping suspension system from the factory, a suitable delete kit will be required.

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## FRONT AND REAR SHOCK SUPPLIED PARTS

FRONT/REAR SHOCK ASSEMBLY				
FOX PN	DESCRIPTION	QTY	NOTES	
883-31-000	FRONT/REAR SHOCK	4	Front and Rear Shocks	

MOUNTING HARDWARE				
FOX PN	DESCRIPTION	QTY	NOTES	
019-01-232	Bolt: M12 X 1.75 X 40 mm LG	8	Each shock uses two bolts and two washers on the top mount. These replace stock fasteners.	
018-05-065	Washer: M12	8		
019-01-234	Bolt: M14 X 2.0 X 100 mm LG	2	Each rear shock uses	
019-01-231	Washer: M14	4	one bolt, two washers, and one nut on the lower	
019-00-026	Flange Nut: M14X2.0	2	clevis.	

#### **A** WARNING

## SAFETY INSTRUCTIONS

- Installation requires two people for safety purposes.
- 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.

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## FRONT SHOCK INSTALLATION

#### **PREPARATION**

- 1. Before raising the vehicle, if equipped with MagnaRide suspension, disconnect the connector from the inside of the engine bay. Please read the installation guidelines on page 4 for instructions on how to properly raise and secure the vehicle.
- 2. Remove both front wheels from the vehicle.

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

**NOTICE:** The images in this manual are for reference only, and may not depict your exact parts or components. For the latest instructions, visit www.ridefox.com/manuals or talk to your dealer.

**AWARNING:** For safety, two people are recommended for this procedure to prevent any injury.

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#### STOCK SHOCK REMOVAL

- 1. Securely support the suspension with a jack or other support to prevent placing any tension on the brake lines (Fig. 1).
- 2. Use a 13 mm shallow socket or wrench on the bolt head and a deepwell 13 mm socket on the nut to remove the lower shock bolts (Fig. 2).
- 3. Use an 18 mm socket to remove the upper shock bolts (Fig. 3).
- 4. Remove the stock damper (Fig. 4).

**NOTE:** It may be helpful to turn the hub to increase clearance to complete this step.



Fig. 1: Support the suspension.



Fig. 2: Remove the lower shock bolts.



Fig. 3: Remove the upper shock bolts.



Fig. 4: Remove the shock.

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#### **FOX SHOCK INSTALL**

**WARNING:** For safety, two people are recommended for this installation procedure to prevent any injury.

1. Trim 1/2" to 9/16" off of the air deflector, as shown (Fig. 5) to create clearance for the hose.

**NOTICE:** This step will help to prevent any hose interference or damage at large steering angles.

- 2. Install the FOX shock with the rebound adjuster facing away from the frame, and the compression adjuster facing the rear and outboard of the vehicle. Make sure the reservoir is also facing inboard (Fig. 6).
- 3. Hand thread (do not use tools) the supplied bolts and washers through the upper shock mount into the chassis.

**CAUTION:** Do not use any tools, as this could damage the frame threads. Hand thread only.

4. Install the original nuts and bolts of the lower shock through the lower control arm, but do not tighten at this time.



Fig. 5: Trim the air deflector.

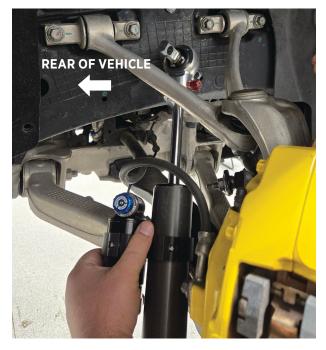


Fig. 6: Install the FOX shock; rebound facing rear/outboard, reservoir facing inboard of the vehicle.

- 5. Use a 19 mm socket to tighten the upper shock bolts to the frame (Fit. 7). Torque to OEM specifications.
- 6. Torque the lower shock bolts. The lower bar pin on the shock mount is slotted to allow for centering of the shock within the upper control arm. Ensure the shock is centered between the legs of the upper control arm (Fig. 8).
- 7. Repeat the steps in this entire section for the opposite side of the vehicle.
- 8. If the vehicle is equipped with MagnaRide suspension, install the appropriate delete kit (sold separately) and ensure it is secure and cannot be pinched or crushed.



Fig. 7: Tighten the upper shock bolts.

#### **CHECK AND FINAL 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. Check that the suspension has proper clearance by steering completely in both directions.
- 4. 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.

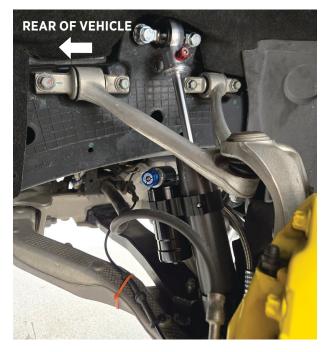


Fig. 8: Installed shock in correct orientation; centered between legs of upper control arm.

## **REAR SHOCK INSTALLATION**

#### **PREPARATION**

1. Please read the INSTALLATION GUIDELINES section for instructions on how to properly raise and secure the vehicle.

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

**NOTICE:** The images in this manual are for reference only, and may not depict your exact parts or components. For the latest instructions, visit www.ridefox.com/manuals or talk to your dealer.

**AWARNING:** For safety, two people are recommended for this procedure to prevent any injury.

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#### STOCK SHOCK REMOVAL

1. Remove the rear wheels from the vehicle.

**IMPORTANT:** There may be tension in the shock caused by preload in the leaf spring. This will make removal of the bolts difficult without supporting the suspension.

**NOTE:** If equipped with MagnaRide, unplug the connectors, and use a trim tool to remove it from the frame (Fig. 9-10).

2. To support the suspension, place a jack or other support under the upright (Fig. 11).

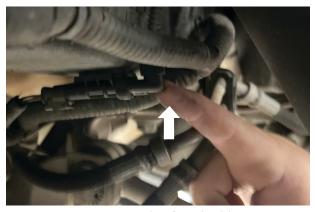


Fig. 9: Remove MagnaRide (if applicable).



Fig. 10: Remove MagnaRide (if applicable).



Fig. 11: Support the suspension.

- 3. Use a 21 mm socket and wrench to remove the stock lower shock bolt (Fig. 12).
- 4. Use an 18 mm socket to remove the upper shock bolts (Fig. 13).
- 5. Remove the stock shock. It may be necessary to lower or remove the support from the suspension to assist in removal.
- 6. Repeat the steps 3-5 of this procedure on the opposite side of the vehicle.



Fig. 12: Remove stock lower shock bolt.



Fig. 13: Remove the stock upper shock bolts

#### **FOX SHOCK INSTALL**

**WARNING:** For safety, two people are recommended for this installation procedure to prevent any injury.

- 1. Install the FOX shock with the rebound adjuster facing away from the frame and with the hose facing outboard of the vehicle (Fig. 14).
- 2. Install the provided lower shock bolt and washer from the rear of the vehicle and hand tighten the provided nut and washer on the front side (Fig. 15).
- 3. Hand-thread (do not use tools) the supplied bolts and washers through the upper shock mount into the chassis (Fig. 16).

**CAUTION:** Do not use any tools, as this could damage the frame threads. Hand thread only.

- 4. Torque the upper shock bolt to OEM specifications.
- 5. Torque the lower shock bolt and nut to 122 ft-lb.
- 6. If the vehicle is equipped with MagnaRide suspension, install the appropriate delete kit (sold separately) and ensure it is secure and cannot be pinched or crushed.

#### **CHECK AND FINAL 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. It is highly recommended to have your wheel alignment checked and adjusted as necessary.

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



Fig. 14: Install the shock; rebound adjuster facing away from frame, hose facing outboard.



Fig. 15: Install the lower shock bolt.



Fig. 16: Hand-thread the hardware into the upper shock mount.

## FOX PERFORMANCE ELITE SERIES LSC/LSR

#### RECOMMENDED STARTING SETTINGS

The recommended settings in this tuning guide are suggested starting points. The is no singular ideal vehicle setup for all conditions. As you drive and begin to familiarize yourself with the handling of your new FOX Factory suspension, adjust your damper settings as needed.

Your FOX dampers perform multiple important functions on your vehicle. At a high level, these functions can be grouped into the categories of grip, driver control, and ride comfort. These functions can often conflict with one another, and the right compromise can vary with track/road conditions, driver preference, and other accompanying vehicle modifications. Your ideal damper setting may vary from street to track, or even track to track. **Take notes!** Don't be afraid to experiment, as this product was tested on your vehicle platform through its entire adjustment range.



Low-Speed Compression (LSC) for general platform control from driver inputs and gradual road inputs. Too little LSC can cause a loose/soft feeling car. Too much LSC can increase harshness and reduce grip (especially in slick conditions). Adjust by turning the knob.



Low-Speed Rebound (LSR) is typically the change drivers will notice the most. LSR increases responsiveness and the "pinned down" feeling many drivers desire. Like LSC, too little LSR can result in a car that feels floaty or bouncy. Too much LSR can result in the car becoming skittish and reduce grip over uneven surfaces. Adjust by turning the knob.

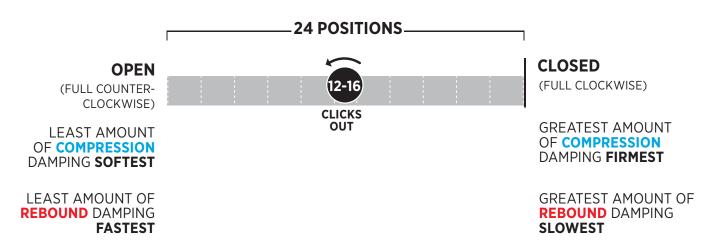
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#### **RECOMMENDED START SETTINGS, CONTINUED**

The ranges in the table below can be considered starting points for damper settings. All adjusters have 24 "clicks" or positions. Adjustments are "clicks out" from zero, with zero position being the adjuster turned full clockwise (closed). All adjusters do not have to be at the same click position. They may need to be in differing positions to reach the optimal setup for your usage and preferences.

Suggested Start Settings				
Driving Style	Adjuster Stating Range			
Comfort	16-20 clicks out			
Sport	12-16 clicks out			
Track	6-12 clicks out			

#### **EXAMPLE DAMPER ADJUSTMENTS**



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### **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.

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## 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.

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A DIVISION OF FOX FACTORY INC.

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