

PVG Owners/Service Manual Production Standards

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White and double sided.



**DIRECT-REPLACEMENT
INSTALLATION GUIDE**

TOYOTA TUNDRA 4WD | 2022 - ON

BILLET UPPER CONTROL ARM KIT

803-35-000 - Kit: Control Arm, 2022 - On Toyota Tundra Upper Control Arm, Black
803-35-001 - Kit: Control Arm, 2022 - On Toyota Tundra Upper Control Arm, Orange



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 direct replacement, upper control arms 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.

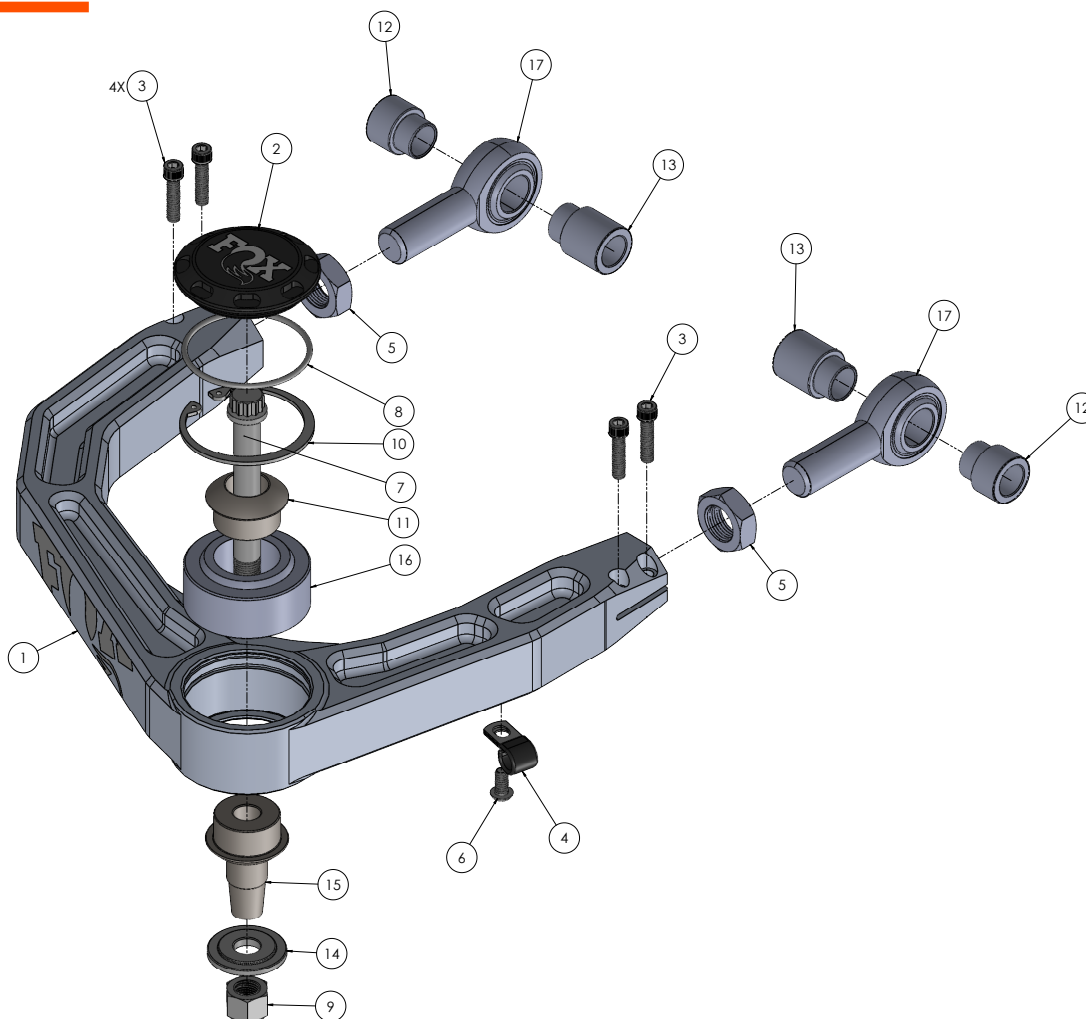
IN THE BOX

- Front Billet Upper Control Arms
- Supplied Hardware
- Installation Guide

UCA SUPPLIED PARTS

FRONT UCA ASSEMBLY			
FOX PN	DESCRIPTION	QTY	NOTES
B1659	Bag Kit: Pivot Hardware	2	
	Misalignment: 1" x .563" x .740" Pivot Misalignment	2	Hardware to mount the billet control arm to the frame
	Misalignment: 1" x .563" x .959" Pivot Misalignment	2	
	Hardware: 3/4"-16 Jam Nut	2	
	Rod End: 3/4"-16 PTFE Lined Rod End	2	
	Hardware: : 1/4" -20 x 1" Socket Head Cap Screw	4	Hardware to attach ABS wires to the billet upper control arm
B1660	Bag Kit: Taper Hardware	2	
	Hardware: 1/2"-20 Nylock Nut Clear	1	Hardware to mount the billet control arm to the steering knuckle
	Hardware: 3/8" Loop Clamp	1	
	Misalignment: 1/2" Sunk Misalignment	1	
	Misalignment: 2022+ Toyota Tundra Taper Misalignment	1	
	Hardware: 1/4"- 20 x 1/2" Button Head Hex Drive Screw	1	
	Hardware: 1/2"-20 x 4" Bolt, 12 Point	1	
	Hardware: 1/2" Stepped Washer	1	
	UCA Cap: Spherical Bearing Cap	1	Black: 803-35-008 Orange: 803-35-009
	Hardware: O-Ring Cap Seal	1	O-Ring seal for the cap to billet control arm
A5131-BLK	UCA: 2022+ Toyota Tundra Billet Driver Side Upper Control Arm Assembly	1	Black: 803-35-000
A5132-BLK	UCA: 2022+ Toyota Tundra Billet Passenger Side Upper Control Arm Assembly	1	
A5131-ORG	UCA: 2022+ Toyota Tundra Billet Driver Side Upper Control Arm Assembly	1	Orange: 803-35-001
A5132-ORG	UCA: 2022+ Toyota Tundra Billet Passenger Side Upper Control Arm Assembly	1	

UCA DIAGRAM



PART NO.	NAME	PART NO.	NAME
1	Billet Upper Control Arm	10	Snap Ring
2	Cap	11	Sunk Misalignment
3	Pinch Bolt	12	Outer Pivot Misalignment
4	Wire Clamp	13	Inner Pivot Misalignment
5	Jam Nut	14	Stepped Washer
6	Wire Clamp Bolt	15	Taper Misalignment
7	Uniball Bolt	16	1.25" Spherical Bearing
8	O-Ring	17	3/4" Rod End
9	Nut		

 WARNING

SAFETY INSTRUCTIONS

- FOX direct-replacement UCA's 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 UCA's and other vehicle components does not occur at any point in the shock stroke.
- FOX direct-replacement UCA's 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.
- 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 any aftermarket parts, 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.
- Do NOT hit the aluminum knuckle on later model trucks with a hammer to separate the ball joint. Use appropriate ball joint separation tool.

- Service Kit information:

Part Type	Part Number
Single Spherical Rod End Bearing	001-01-003
Single Spherical Uniball Bearing	001-00-015
Pair Spherical Uniball Bearing Cap - Black	006-00-065
Pair Spherical Uniball Bearing Cap - Orange	006-00-066
UCA Complete Rebuild Kit (X2 Control Arms)	803-04-367

- Wheel / Tire Fitment Information:

Wheel Specification	Tire Specification	Fitment Notes
Stock Wheel	Stock Tires	Wider than stock tires on stock wheels may rub on the Billet Fox UCA when turning.
17" x 8.5" 4.5-5.75" Back Spacing	Up to 12.50" Wide Tire	Tire diameter is relative to lift height
18" x 9" 4.5-6" Back Spacing	Up to 12.50" Wide Tire	
20" x 9" 4.5-6" Back Spacing	Up to 12.50" Wide Tire	

UCA INSTALLATION

PREPARATION

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

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

TOOLS REQUIRED

- Manufacturer Torque Specs
- Basic Hand Tools / Socket & Wrench Set
- Jack Stands
- Tape Measure
- Ball Joint Separator Tool
- Medium-Strength Thread Locker
- Torque Wrench

PCM AND AIRBOX REMOVAL

1. Park vehicle on clean, flat, and level surface.
2. Block the rear wheels for safety
3. Disconnect battery.
4. In order to remove driver side UCA(Upper Control Arm) bolt, the factory airbox and PCM must first be removed.
5. Disconnect wire harness from air box. (Fig. 1)
6. Loosen the air hose clamp. (Fig. 2)



Fig. 1: Disconnect wire harness



Fig. 2: Loosen the air hose clamp

7. Remove Air box by pulling up and out. (Fig. 3)
8. Remove PCM(Power Control Module) wire harness clip by pressing out on the clip tabs on both sides using a flat head screwdriver. (Fig. 4A, 4B)
9. Remove the three PCM harness connectors by flipping the 3 gray locking switches. (Fig. 5)



Fig. 3: Remove air box.



Fig. 4A: Remove PCM Clip.



Fig. 4B: Press clip tabs.

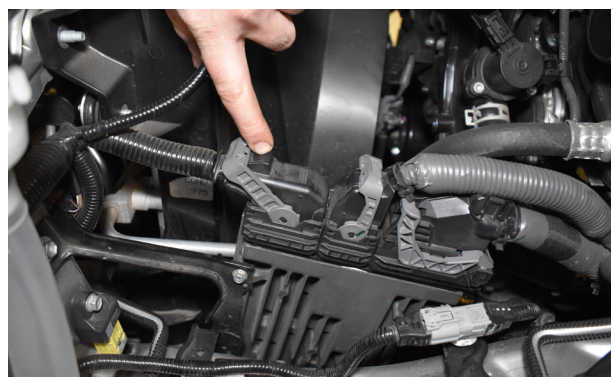


Fig. 5: Flip locking switches.

10. PCM harness connector 2 (Fig. 6)
11. PCM harness connector 3 (Fig. 7)
12. Remove 3 harness clips. (Fig. 8)



Fig. 6: PCM harness connector 2.

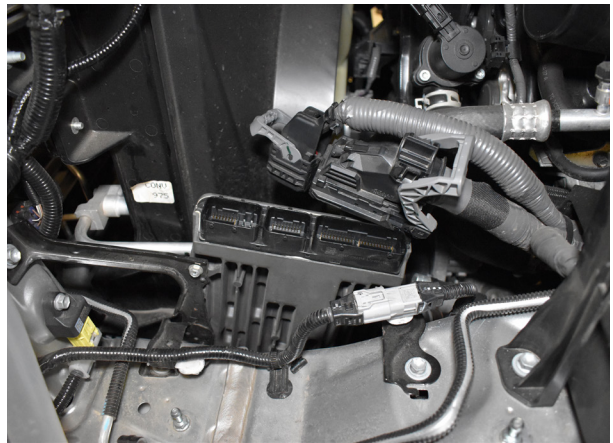


Fig. 7: PCM harness connector 3.



Fig. 8: Remove 3 harness clips.

13. Remove the 3 PCM bracket bolts. (Fig. 9)
14. Carefully remove PCM and set aside in a secure location. (Fig. 10)

UPPER CONTROL ARM REMOVAL

15. Remove the driver side brake line shield by pulling off carefully. (Fig. 11) PCM harness connector 2



Fig. 9: Remove PCM bolts

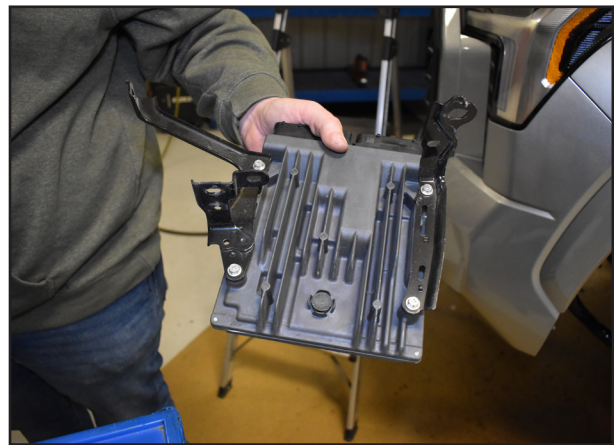


Fig. 10: Remove PCM.



Fig. 11: Brake line shield removal

16. Loosen the UCA bolt and nut. (Fig. 12A,12B)
17. Remove cotter key from ball joint. (Fig. 13)
18. Remove ABS line bracket bolt. (Fig. 14)

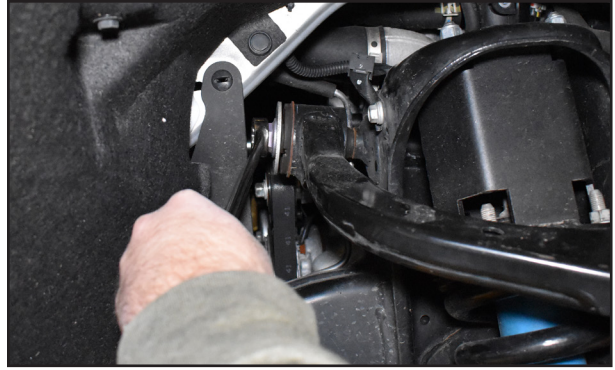


Fig. 12A: Loosen UCA hardware.



Fig. 12B: Loosen UCA hardware.



Fig. 13: Remove cotter key.



Fig. 14: Remove PCM.

19. Remove ball joint castle nut. (Fig. 15)
20. Dislodge ball joint using the recommended Ball Joint Separator, SST: 09628-62011.
21. Remove UCA bolt and feeding bolt out and into the space made by the removal of the PCM and air box. Retain bolt, nut and washers for reuse. NOTE: Bolt can be reinstalled in opposite direction during reassembly to ease any need for future removals. (Fig. 16A,16B)

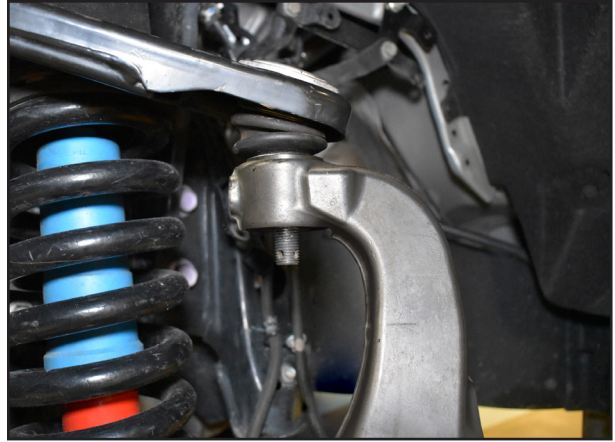


Fig. 15: Remove castle nut.



Fig. 16A: Remove UCA Bolt.



Fig. 16B: UCA Bolt.

UCA ASSEMBLY

22. Assemble heims by installing jam nut. Anti-seize is recommended - (Fig. 17A, 17B)
23. Install heims into arms, measure from the arm to the end of threads should be $\frac{3}{4}$ " (Fig. 18)



Fig. 17A: Install jam nut.



Fig. 17B: UCA Bolt.

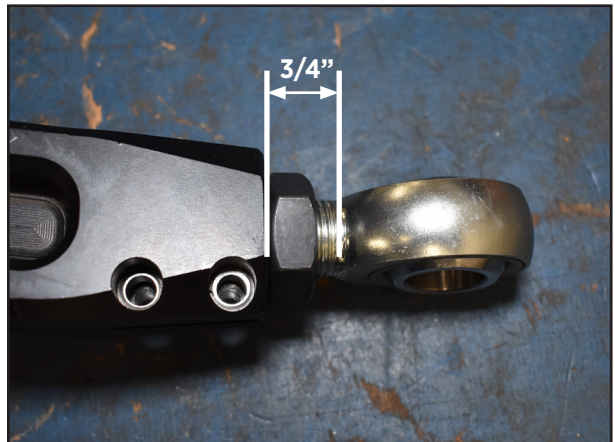


Fig. 18: Install heims.

24. The wider Inner pivot misalignments are installed on the inside of the arms. (Fig. 19A, 19B)

25. Using the OE UCA Bolt, temporarily install through the arm ends to keep the from spinning when being tightened the jam nut. (Fig. 20A, 20B)

26. Using blue thread locker, install the (4) 1/4"-20 bolts into the pinch joints onto the control arm and torque to 107 in-lbs at this time. After the 1/4" pinch bolts are torqued, tighten the jam nuts to 90 ft-lbs. (Fig. 21A, 21B)



Fig. 19A: Misalignment.



Fig. 19B: Misalignment.



Fig. 20A: Use OE UCA.



Fig. 20B: Tighten jam nut.



Fig. 21A: Loctite pinch bolt threads.



Fig. 21B: Install pinch bolts.

UPPER CONTROL ARM INSTALLATION

27. Install new UCA using factory bolt and nut. NOTE: DO NOT RE-USE OE WASHERS. (Fig. 22)
28. Insert the sunk misalignment and 12 pt. bolt through the top of the uniball joint. Install the longer bottom taper misalignment to the other end of the bolt with the taper side down to fit into the steering knuckle.
29. Angle the joint misalignments in order to help attach the upper control arm to the steering knuckle. Initial movement of the uniball joint will be stiff until the joint is installed on the vehicle. Inserting the bolt into the misalignment and moving it may help to break free the uniball joint from its installed position.
30. Attach the taper misalignment joint to the upper control arm taper on the steering knuckle. Use the provided 1/2" 12 point bolt through the misalignments and attach to the steering knuckle using the stepped washer and nylock nut. Torque the upper uniball nut to 80 ft-lbs. (Fig. 23)
31. Remove ABS line from the ABS bracket by bending the bracket loop tabs. Discard bracket. (Fig. 24A, 24B)

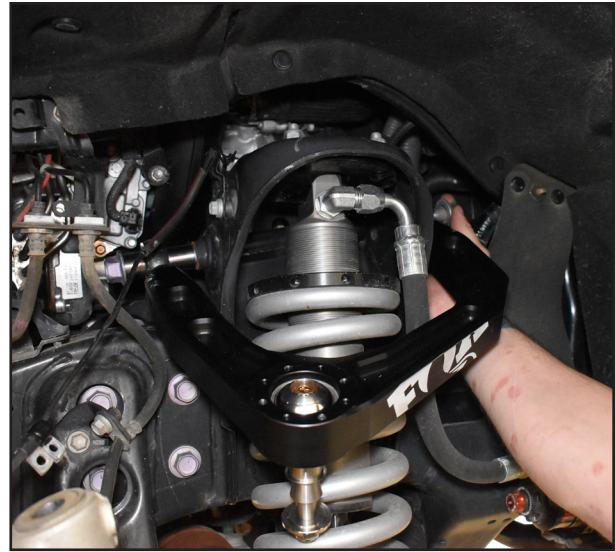


Fig. 22: Install Upper Control Arm.



Fig. 23: Attach Upper Control Arm to knuckle.

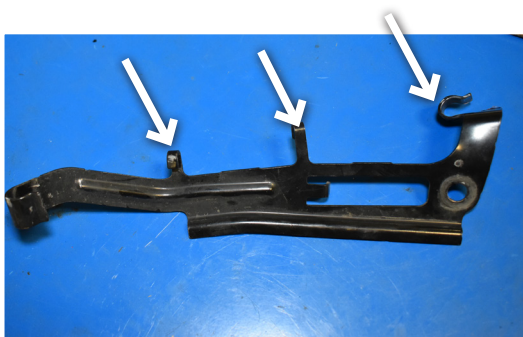


Fig. 24A: Bend tabs to remove ABS line.



Fig. 24B: ABS line bracket.

32. Attach the brake line and ABS wires to the factory position on the knuckle if equipped. Attach ABS line to UCA using provided cable loops, bolt and washer found in bolt pack 390. Slide line up to so that sheathing is held by the clamp. Torque this 1/4" hardware to 76 in-lbs. Check for enough slack in the wires and adjust as necessary (Fig. 25A,25B)

33. Install the O-ring onto the cap and lightly grease the O-ring to help seal the cap to the control arm. Line up the groove on the cap towards the inside of the vehicle, such that the FOX logo is facing outwards towards the tire. Re-install the brake line shield.

34. Re-install PCM by reversing steps 14-8. Torque PCM bolts to OE specifications.

35. Re-install Airbox and Airbox Hose by reversing steps 7-5

36. If installing with FOX Coil-overs, install the coil-overs at this time. Follow instructions included with the coilovers or reference the coil-over install instructions on FOX's website.

37. Reinstall wheels and torque lug nuts to factory specifications.

38. Lower the vehicle to the ground and torque upper control arm hardware to OE specifications.

POST INSTALLATION INSTRUCTIONS

39. Check all hardware for proper torque.

40. Check hardware after 500 miles.

41. Adjust headlights.

42. The vehicle will need a complete front end alignment.

43. Cycle the steering to check for adequate ABS slack, adjust as necessary.

Recommended Alignment Specifications:
Please follow MFG recommended process by calculating Vehicle Height Type. Recommended to use a Vehicle Height Type of "V":

Camber: $0.66^{\circ} \pm 0.75^{\circ}$

Caster: $4.0^{\circ} \pm 0.75^{\circ}$

Toe: $-0.24^{\circ} \pm 0.16^{\circ}$



Fig. 25A: ABS line hole.



Fig. 25B: Loop clamp.

MAINTENANCE

PROPER INSPECTION AND MAINTENANCE IS ESSENTIAL TO MAINTAIN THE PERFORMANCE AND RELIABILITY OF YOUR BILLET UPPER CONTROL ARMS.

To avoid corrosion, you should keep the billet upper control arms, free of dirt and moisture. The spherical bearing and rod ends are lined with a PTFE lubricant for long life when kept clean. Make sure you clean these areas completely to prevent corrosion on the joints. Avoid using a high-pressure washer near the O-ring cap seals, as this could drive dirt and moisture inside the cap.

Make sure the O-ring seal is lubricated with grease to prevent moisture from entering the sealed cavity and causing corrosion on the spherical bearing.

Clean the pockets of the control arm to prevent dirt from scratching the anodized coating to ensure a long life of the coating.

FOX SERVICE AND UPGRADES

CALL OUR CUSTOMER SERVICE CENTER AT 800.269.7469 EXT. 2 OR EMAIL US AT ORSALES@RIDEFOX.COM TO GO OVER THE SERVICE OPTIONS AVAILABLE FOR YOUR BILLET UPPER CONTROL ARM.

COMPLETE SERVICES

ALL OF OUR SPHERICAL BEARINGS COME WITH A LUBRICANT INFUSED LINER, IT IS NOT RECOMMENDED TO FURTHER LUBRICATE THESE SPHERICAL BEARINGS AS THIS COULD CAUSE PREMATURE FAILURE

INSPECT FOR PLAY IN THE SPHERICAL BEARINGS AND SPHERICAL ROD END AFTER ANY OFF-ROAD USE

CLEAN OFF DIRT FREQUENTLY FOR LONGEST LIFE

INSPECT JAM NUTS AT LEAST ONCE EVERY THREE MONTHS



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

WARRANTY INFORMATION

BILLET UPPER CONTROL ARMS

- Additionally, Fox Factory, Inc. offers a lifetime warranty except for (i) all serviceable components of the Upper Control Arms including spherical bearings, rod ends, other fabricated hardware and (ii) appearances and finishes based on issues with workmanship. Serviceable components and appearances/finishes are limited to a twelve (12) month warranty. Damage by use and abuse is not covered.
- Please note that certain sounds, including those resembling a “race car” noises such as squeaks or creaks, may be normal for specific models or configurations. These sounds are often associated with the design and operation of the vehicle and do not necessarily indicate a mechanical issue. However, if you hear noises such as clunks or thuds please bring your vehicle to a qualified mechanic for review.
- This warranty covers any repair or replacement necessary for defects in materials or workmanship, excluding sounds that result from standard operation of the vehicle’s performance features

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