

**Vorsprung**

*Secus*

FORK AIR SPRING UPGRADE KIT

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INSTALLATION MANUAL - FOX A1

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REVISION B



## TOOLS REQUIRED

NOTE: Do not proceed unless you have the following tools and supplies on hand.

- 10mm shaft clamps
- Torque wrench (+4mm hex attachment)
- 12mm spanner
- 11mm socket
- Slickoleum (Slick Honey) grease
- Red Loctite
- Secus Body
- Secus Footstud
  - Installation spacer
  - Footnut
  - 3x additional footstud o-rings  
(as spares, in case of damage during assembly)



## ASSEMBLY

There are 3 main sections to installing the SECUS:

PART 1 - Replacing the stock footstud from your fork

PART 2 - Installing and positioning the Secus on your fork

PART 3 - Inflation & equalization process

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## PART 1 - REPLACING THE STOCK FOOTSTUD FROM YOUR FORK

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- 1.1** See manufacturer's service instructions for disassembling the stock air spring and removing it completely from your fork.

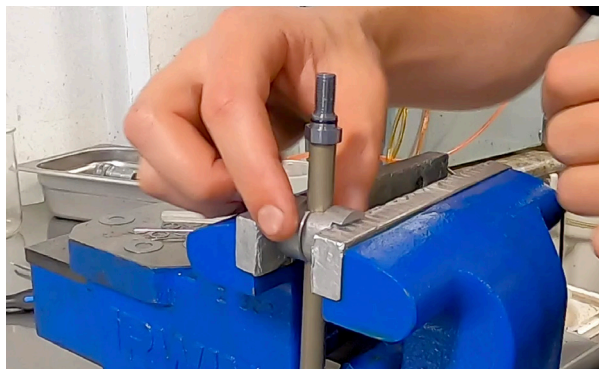
Refer to the relevant factory service instructions up until you have removed the air spring from the stanchion.

**FOX:** <https://www.ridefox.com/fox17/help.php?m=bike&listall=service>

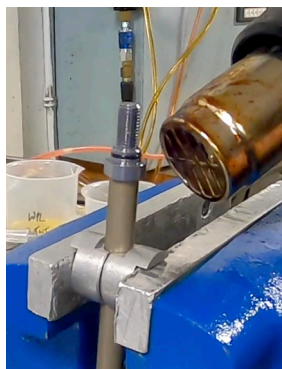
Refer to the factory service instructions for torque specifications, lubrication specifications and general disassembly/reassembly.

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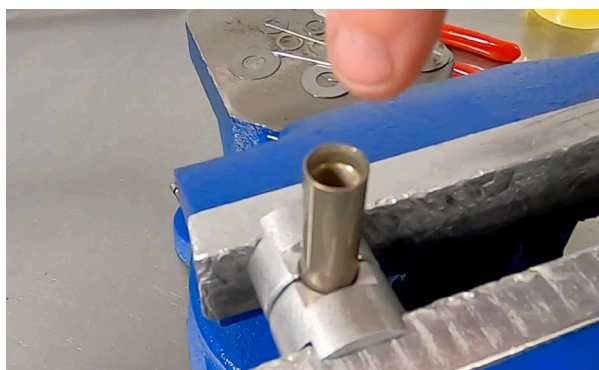
- 1.2** Secure shaft firmly using 10mm shaft clamps. Ensure you are not clamping too close to the footstud and potentially onto the threads internally, allow approx 1 inch/25mm.



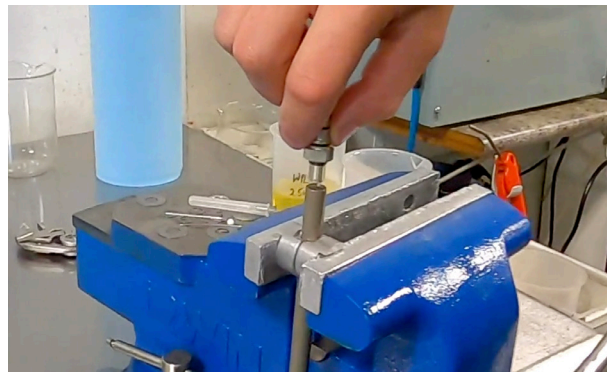
- 1.3** Heat area with heat gun. Remove foot stud from shaft using 12mm wrench or knipex, do not use multigrips.



- 1.4** Clean Loctite residue from shaft thoroughly, particularly from seal gland that could potentially compromise the seal on footstud



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- 1.5** Place a drop of red Loctite onto Secus foot-stud thread. Do not get any on the o-ring. Thread it down on to the shaft by hand



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**1.6 USE A TORQUE WRENCH.**

Torque using 4mm hex attachment.  
Torque to 40in.lbs or 4.4Nm.

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- 1.7** See manufacturers' service instructions for re-assembling the air spring & your lowers.

**FOX:** <https://www.ridefox.com/fox17/help.php?m=bike&listall=service>

Refer to the factory service instructions for torque specifications, lubrication specifications and general disassembly/reassembly.

Refer to the relevant factory service instructions up until you have torqued the damper side and you are ready to torque the spring side.

**Note: Place an additional 5ml of oil in the spring side.**

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**1.8** When spring side is filled with oil & ready to torque, note the protrusion of foot stud. The third o-ring should be barely sticking out from the lowers. Use installation tool (plastic cylindrical spacer) to pull the shaft through into the lowers & engage the press-fit.



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**1.9** Place installation tool over footstud & wind down nut. Use an 11mm socket to pull the shaft through until you feel minor resistance. Don't do it up tight. Remove installation tool.



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## PART 2 - INSTALLING THE SECUS BODY

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**2.1** Ensure o-rings are lubricated on footstud with Slickoleum (also sold as Slick Honey, SRAM Butter etc).



**2.2** Slide Secus body over foot stud. Place footnut on by hand.



**2.3 Use a torque wrench** to torque the footnut to 50in.lbs (5.6Nm) in order to fully seat the assembly. **Do not exceed 50in.lbs or you will break things. DO NOT tighten without a torque wrench or you will break things.**



**2.4 Install the fork back onto your bike at this stage. Also install your front wheel & ensure brake caliper is aligned as per normal.**

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**2.5** Slightly loosen the footnut so Secus body can rotate. Position the Secus close to the brake mount, ideally with a 2mm gap.

Note - if you leave less than 1mm gap, the flex in the system may mean that the Secus can rattle against the caliper.



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**2.6 Using the torque wrench,** torque to 50in/ lbs (5.6Nm) whilst holding the Secus in place. You can loosen the footstud at any time to relocate it - the rotational position does not matter for function, only for clearance and minimising protrusion of the Secus.



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## PART 3 - INFLATION & EQUALIZATION PROCESS

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**3.1** It is recommended that you inflate to 20% higher pressure to what you previously ran, as a starting point. You may wish to run more or less pressure than this - it is only a starting point. At this point, the fork will be extremely stiff and it will be topping out hard - this is normal.



**3.2** Push down slowly onto fork to equalize (this will be difficult - you can do it at a lower pressure initially). You will hear a hissing sound as the air from the positive chamber passes through the ports into the negative chamber. As this occurs, the pressure in the positive chamber will drop.



**3.3** Continue the process of adding more air & pushing down again to equalize the fork pressure to your desired pressure.



**3.4** Push the GOLD button on the bottom of the Secus. This charges the Midstroke Support Valve with the correct amount of pressure. It only needs to be pushed once, but pressing more times won't alter anything. If you are changing pressures (up or down), be sure to push it.



**INSTALLATION COMPLETE. Now go ride your bike!**



# Tuning your fork with air volume tokens

See below for recommended starting points for setting up your Secus with air volume tokens.  
Add one volume spacer for e-bike fitments.

		Fork								
		Rockshox				Fox				
Travel		Boxxer	Zeb	Lyrik/Yari	Pike/ Revelation	40	38	36 / Z1 / 36 Rhythm	34 / 34 Rhythm	32
200		1				1				
190		1	0			1				
180		2	0	0			0	0		
170			1	0			1	0		
160			1	1	0		2	1	0	
150				1	0		3	1	0	
140				2	1			2	1	0
130					1				1	0
120					2				2	1
110									2	1
100										2

## THINGS TO NOTE:

### **Deflation/ depressurization**

If you are fully deflating the fork, ensure the gold button is held down while releasing air slowly from top cap. This will ensure the negative chamber is fully discharged while depressurising.

If the fork sucks down more than 20mm while depressurising, that means the air piston has come past the equalization ports too fast and air is still trapped in the negative chamber, unable to equalize and escape via the positive chamber. In this case, re-inflate the fork (or forcibly extend it by placing your foot on the wheel and pulling on the bars), re-equalize it, then let air out more slowly.

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**NOTE: You must depressurize the fork fully if you wish to take the lowers off. Do not remove the lowers without depressurizing the air spring.**

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### **Flying with your Secus**

Pay special attention when boxing/bagging your bike - ensure the fork is supported by the axle and not resting on the Secus when flying.

### **Be aware - there is now an additional part on your fork.**

Please do not lean the Secus on the floor (especially while the front wheel is off, or if you are packing your bike into a box), or against anything. Likewise, be careful when carrying the bike on a truck tailgate - ensure the Secus is not contacting the bumper or other bikes.

### **12 Month Crash Replacement Guarantee**

We will replace any damaged parts of your Secus in the event of a crash or accident for the first 12 months of ownership, free of charge. Just send through pictures to the email below so we can help you ascertain which parts require replacement.

### **Questions?**

Email [steve@vorsprunguspension.com](mailto:steve@vorsprunguspension.com)  
[www.vorsprunguspension.com](http://www.vorsprunguspension.com)