

Vorsprung

Luftkappe

INSTALLATION MANUAL

LUFTKAPPE AIR PISTON UPGRADE

Fox LK-36-SL
2026+



The Luftkappe can be installed by anyone who already possesses the tools and the know-how to service their own fork - or by anybody who has the tools and can follow instructions closely.

Key things to note before you start:

1. You **need** a torque wrench. Don't try it without one. Beg, borrow, rent, buy or steal one from a friend.

2. You need to remove a roll pin from the old piston. We make a tool to make your life much easier here, that is an option to purchase with the Luftkappe. We take no responsibility for anything you damage if you attempt installation without this tool.

3. We refer to the Fox service manuals for all aspects of the servicing OTHER than the specific installation of the Luftkappe to the air shaft.

4. Record your air pressure and rebound settings before you start doing anything else.

5. The Luftkappe only replaces the piston - not the entire air shaft. We will be removing the existing piston from the air shaft, and replacing it with the Luftkappe.

TOOLS REQUIRED:

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

- 10mm shaft clamps
- Roll pin tool
- Torque wrench
- 12mm wrench
- 10mm socket
- 15mm socket
- 26mm socket
- Ratchet
- Bench vise
- 2mm hex wrench
- Shock pump
- Slickoleum (Slick Honey) grease
- 20wt WPL ShockBoost oil or Fox 20wt Gold oil
- Blue Loctite 243
- Red Loctite 263
- Isopropyl alcohol
- Clean, lint-free shop towels.

INSTALLATION

- 1 See manufacturer's service instructions for disassembling the stock air spring and removing it completely from your fork: <https://www.ridefox.com/fox17/help.php?m=bike&id=1058>

Follow the Fox 36SL NA3 air spring service guide until the end of Step 9 when the shaft is removed.

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

- 2 **WITH THE AIR SHAFT ASSEMBLY:**
Press out roll pin from old piston using roll pin tool.

Remove old piston.

Leave the topout bumper and spacer in place.



- 3 Clean shaft with isopropyl alcohol.



- 4 Take the old piston assembly apart as you will reuse the piston, locking collar and roll pin.

Clean the piston, and ensure both O-rings and the X-ring stay are not damaged.

Apply Slickoleum on the O-rings and re-install them.



5 Slide the piston and locking collar onto the new stud.

Push the pin back in the locking collar to get it started.

Do not push it all the way through as it will need to be installed on the shaft first.

Once the pin is in the locking collar, Slide the air shaft in and align the holes. The pin can now be fully pressed in.



6 With the LK stud now in place, grease the -021 O-ring that goes onto the stud.

The LK dome can now be threaded on.



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- 7** Thread dome on to piston by hand, firmly.

Thoroughly coat piston with Slick Honey & install shaft back into fork as per manufacturer instructions. Continue servicing the fork as per Fox's instructions if you are servicing the damper or replacing the wiper seals, or skip to the reassembly instructions

LUFTKAPPE INSTALLATION COMPLETE.



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- 8** Follow the Fox 36 NA3 air spring service guide from Step 9 onwards.
<https://www.ridefox.com/fox17/help.php?m=bike&id=1058>

NOTE:

Make sure the spring shaft is fully extended before reinstalling the foot stud at Step 19. If it's pushed a long way into the air spring tube you can trap too much air in the negative chamber, which will result in your fork "sucking down" even when pressurized as it is not able to extend far enough to equalize pressures between positive and negative chambers.

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- 9** Remove two bottomless tokens if they are installed.

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- 10** Follow the Fox 36SL NA3 air spring service guide from Step 19, to to the end of the guide. Only add about 20psi to the air spring at Step 22, we'll set up the fork correctly once the fork is reinstalled.

NOTE:

Ensure foot bolts are done up with the fork fully extended. If they're done up with it partly or completely compressed, the fork will suck down into its travel.

SETUP

STEP ONE

Your token configuration should start with two tokens less than you had previously. The maximum number of tokens you can safely run is **TWO LESS** than what is specified by Fox for the configuration of fork you have, when it is in stock guise.

36SL Volume Spacer Configurations			
Travel	Volume Spacers Factory Installed	Max Factory Volume Spacers	Max Volume Spacers with LuftKappe installed
140	1	6	4
130	2	7	5
120	4	8	6

STEP TWO

Your starting air pressure should be approximately 10% higher than your air pressure was before installing the Luftkappe, however we need to get there in a few steps:

- a)** Pressurize the fork to roughly 1/3 of the final pressure you are aiming for. You will notice the fork is now very stiff at the start of the travel, and is topped out very hard.
- b)** Compress the fork several times, very slowly, to allow pressure to equalize between the positive and negative chambers. You will feel a soft notch in the motion near the start of the stroke - if you hold the fork at that position you will feel it get softer over the space of a few seconds.
- c)** Once the two chambers are equalized fully, the fork will top out pneumatically (not hard contact between two surfaces).
- d)** After the two chambers are equalized, pump the fork up to roughly 2/3 the pressure you are aiming for and repeat the equalization process there.
- e)** Repeat equalization process at full pressure.

STEP THREE

Ride your bike and adjust pressure and volume configurations as you see fit.

After installing my Luftkappe, the fork is not extending to full travel, what is happening?

After installation, the fork should extend to within about 2mm of its original travel when the fork is unweighted (lift front wheel off the ground to allow weight of wheel to pull on fork). If it doesn't, this is a sign that one or more of the following things has happened:

1. The foot bolts were not done up with the fork at full extension. This must be done or the fork will have a vacuum in the lowers that sucks it down. Undo the foot bolts and tap them loose, then do them back up at full extension.
2. The piston was inserted too far into the chamber before the seal head was installed, trapping a lot of air in the negative chamber that the air in the positive chamber is not able to overcome in order to reach the equalisation port. You can try forcibly extending the fork to reach the equalisation point, and/or use higher pressure in there to assist you. If it does equalise but still stays sucked down, this is not the cause.
3. You do not have the correct air shaft in there. If you have changed the shaft, this is very likely the cause - there are multiple variants of a "150mm" air shaft for example, depending on your wheel size and which fork you have (Lyrik/Yari or Pike). Replace the shaft with the correct one.
4. There is excessive grease in the negative chamber, or the topout bumper was not removed. Make sure these are removed.
5. There is some fault with the main piston quad ring that is preventing it from sealing properly, such as debris jamming in between it and the stanchion. This will typically cause complete collapse of the fork.

My fork sags just under the weight of the bike, why?

It should sag a couple of mm, because the bike has weight. If your suspension does not sag at all under the bike's weight then it is excessively sticky or preloaded. Think about it this way - if you, the rider, weigh 90kg (200lbs) and the sprung mass of your bike weighs 10kg (22lbs), your bike's sprung mass constitutes about 10% of the total sprung mass. If you run approximately 20mm sag in the fork when the rider is on the bike, then it makes sense that you'd see roughly 2mm sag with no rider on the bike.

I have to run more pressure now to get the same sag, why?

Part of the point of the Luftkappe is that it reduces the initial stiffness of the air spring. As a result, yes, you'll run more sag. Besides that, measuring sag on a fork is very inconsistent and unreliable - use pressure as a measurement instead. If the fork feels like it's riding too low in the travel due to the extra sag, it may simply be that your handlebars need to be a few millimetres higher.

Questions?

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