



TECH HELP CENTER / BIKE / OWNERS-MANUALS / SHOCK- 2023 FLOAT X2

OWNER'S MANUALS

SHOCK- 2023 FLOAT X2

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For general information and installation instructions click [here »](#)

Installing Your Shock



WARNING: Rear shock setup and configuration varies greatly between different bicycle manufacturers. Be sure to refer to the owner's manual for your bicycle. FOX products should be installed by a qualified bicycle service technician, in accordance with FOX installation specifications. Improperly installed shocks can fail, causing the rider to lose control, resulting in **SERIOUS INJURY OR DEATH**.

CHECK FOR CLEARANCE BEFORE RIDING.

If you are installing your shock on a bike for which the shock was not original equipment, follow the steps below to ensure proper clearance before riding.

1. Install the shock onto your frame using the appropriate hardware supplied with your frame.
2. Remove the air cap, attach a shock pump, then **SLOWLY** release all air out of the main air chamber.
3. Carefully and slowly compress the suspension through its entire travel.
4. Check that no part of your shock contacts any portion of your frame or linkage as it cycles through its travel.
5. Add air pressure to the main air chamber in ~50 psi (3.4 bar) increments, slowly cycling the shock 10-20 times through 25% of its travel after every 50 psi (3.4 bar) addition.

6. Set your main air chamber to between 50-300psi to prepare to set sag as described in the "Setting Shock Air Pressure" section below.

All shock mounting hardware will have some inherent level of axial float which is required to achieve smooth performance. This is normal and is not a safety or performance concern. If your shock mounting hardware exhibits what you believe to be excessive float or makes noise, please contact FOX for assistance. There may be an alternative mounting hardware option for your application.

Before You Ride

MAKE SURE THAT YOUR SHOCK IS READY TO RIDE

1. Clean the outside of your shock with mild soap and water and wipe dry with a soft rag.
 - Do not use any solvents or de-greasers as these products can damage the shock's exterior finish.
 - Do not use a high pressure washer or spray water directly at the seal/shock body junction.
2. Inspect the exterior of your shock. The shock should not be used if any of the exterior parts appear to be damaged
 - Contact your local FOX dealer or FOX directly for further inspection or repair.
3. Make sure that your quick-release levers (or thru-axles) are properly adjusted and tightened.
4. Check your headset adjustment. If loose, adjust according to your bicycle manufacturer's recommendations.
5. Check that all brake cables or hoses are properly fastened.
6. Test the proper operation of your front and rear brakes on level ground.

Using the EVOL Air Sleeve

The EVOL air sleeve is standard on FLOAT X2 shocks. The EVOL air sleeve provides an external negative air chamber added to the main air sleeve to significantly reduce the force to initiate travel, providing excellent small bump performance. The system is also more linear in its progression offering improved mid stroke support and better bottom out resistance. It is important to add or remove air from the EVOL sleeve as detailed below to experience the best possible performance.

When adding air to the air chamber, it is important to equalize the positive and negative air chambers by slowly compressing the shock through 25% of its travel 10-20 times after every 50psi addition.

- Adding air to the shock without periodically equalizing the air chambers can lead to a condition in which the shock has more pressure in the positive chamber than the negative. In this condition the shock will be very stiff and can top-out. You can equalize the air chambers by slowly compressing the shock until you feel and hear a transfer of air. Hold the shock at this point for a few seconds to allow the air to transfer from the positive to the negative chamber.

When releasing air from the air chamber, it is important to do this slowly so the shock can transfer air from the negative to positive chamber and then be released through the Schrader valve.

- Releasing the air pressure too quickly can induce a condition in which the negative chamber has more pressure than the positive chamber. In this condition the shock will compress into its travel and not fully extend. You can remedy this by adding air pressure until the shock extends, then slowly compressing the shock through 25% of its travel 10-20 times.

Setting Shock Air Pressure



FLOAT X2 shocks have a maximum pressure of 300psi (17.2 bar)



NOTE: Pressure measured at an ambient temperature of 70-75°F. Normal operating temperature range for FOX products is 20-140°F.

SAG SHOULD BE SET TO ~30% OF TOTAL SHOCK TRAVEL

To achieve the best performance from your FOX suspension, adjust the air pressure to attain your proper sag setting. Sag is the amount your suspension compresses under your weight and riding gear. Sag should be set to ~30% of total shock travel.

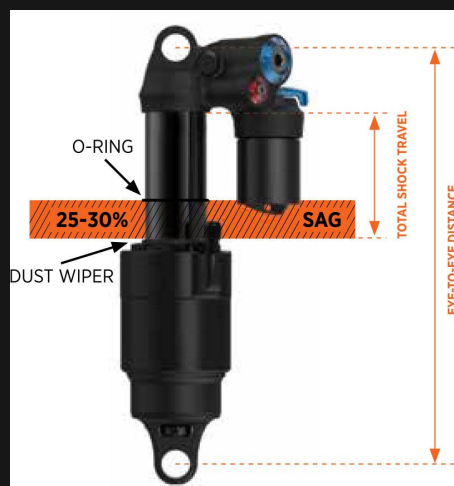
Watch the sag setup video at [ridefox.com/sagsetup](https://www.ridefox.com/sagsetup)

Your shock has a 4 digit ID code on the shock body. Use this number on the Help page at www.ridefox.com to find out more information about your shock, including shock travel.

1. Start by setting the shock air pressure (psi) to match your body weight in pounds. With the air pump attached to the shock valve, slowly cycle your shock through 25% of its travel 10 times as you reach your desired pressure. This will equalize the positive and negative air chambers and will change the pressure on the pump gauge.

DO NOT EXCEED 300 PSI (17.2 BAR), THE MAXIMUM FLOAT X2 AIR PRESSURE!

2. Remove the pump.
3. Sit still on the bike in your normal riding position, using a wall or a tree for support.
4. Pull the sag indicator o-ring up against the rubber air sleeve seal.
5. Carefully dismount the bike without bouncing.
6. Measure the distance between the sag indicator o-ring and the rubber air sleeve seal. Compare your measurement to the 'Suggested Sag Measurements' table.



7. Add or remove air pressure until you reach your desired sag measurement.

SUGGESTED SAG MEASUREMENTS	
Travel	30% Sag
51mm/ 2.00in	15mm/ 0.60in
55mm/ 2.25in	17mm/ 0.68in
65mm/ 2.50in	19mm/ 0.75in
70mm/ 2.75in	21mm/ 0.82in
75mm/ 3.00in	23mm/ 0.90in
89mm/ 3.50in	25mm/ 1.00in

Recommended Damper Settings

After setting shock air pressure by adjusting sag, use your air pressure in the table below to help find the suggested starting damper settings. As you ride and get used to your new shock, adjust your settings as needed.

Turn all damper settings to the closed position (full clockwise) until they stop. Then back them out (counter-clockwise) to the number of clicks shown in the table below.

Air Pressure	LSR	HSR	LSC	HSC
90	16-18	7-8	16-18	7-8
100	15-17	7-8	16-18	7-8
110	14-16	6-7	15-17	7-8
120	13-15	6-7	15-17	7-8
130	12-14	5-6	14-16	6-7
140	11-13	5-6	14-16	6-7
150	10-12	5-6	13-15	6-7
160	9-11	4-5	13-15	6-7
170	8-10	4-5	12-14	5-6
180	7-9	4-5	11-13	5-6
190	7-9	3-4	10-12	5-6
200	6-8	3-4	9-11	4-5
210	6-8	3-4	8-10	4-5
220	5-7	2-3	7-9	4-5
230	4-6	2-3	6-8	4-5
240	3-5	2-3	5-7	3-4
250	2-4	2-3	4-6	3-4
260	2-4	1-2	2-4	3-4
270	1-3	1-2	2-4	3-4
280	1-3	1-2	2-4	2-3
290	1-3	0-1	1-3	2-3
300	1-2	0-1	1-3	2-3
Count clicks out from fully closed (0=Closed)				

Note: HSR and HSC adjustment is only available on Factory Series FLOAT X2 shocks.

Adjusting Rebound

REBOUND CONTROLS HOW FAST THE SHOCK EXTENDS AFTER COMPRESSING

The rebound adjustment is dependent on the air spring pressure. For example, higher air spring pressures require more rebound damping.



*High-speed Rebound (HSR) adjustment is useful to allow the shock to recover from bigger hits and square-edged bumps quickly enough to absorb consecutive hits. Turning the knob clockwise (in) slows down High-speed rebound, turning the knob counter-clockwise (out) speeds up High-speed rebound.

Low-speed Rebound (LSR) adjustment is useful to control shock performance during brake bumps, technical climbing, and offcamber cornering, when extra traction is needed. Turning the 3mm Hex clockwise (in) slows down Low-speed rebound, turning the 3mm Hex counter-clockwise (out) speeds up Low-speed rebound.

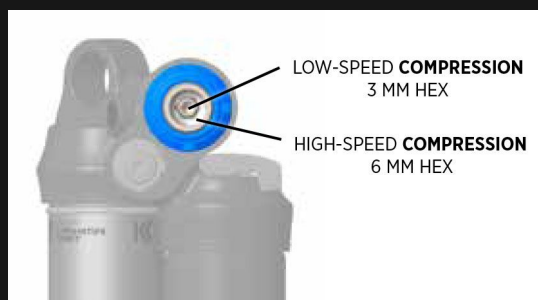
Adjust rebound until when tested, the shock returns quickly but does not top out.

Top out is felt when a shock fully extends too quickly and comes to an abrupt stop when it reaches full extension (you will hear/feel a small noise). Top out should be avoided through proper rebound setting.

*Factory Series only

Adjusting Compression Damping

Adjusting your high and low speed compression setting controls how the shock feels as it's compressed through its travel under various types of hits. Use your high and low speed compression adjusters to tune the fork to meet your riding style and terrain.



*High-speed Compression (HSC) adjustment is useful to control shock performance during bigger hits, landings, and square-edged bumps. Turning the 6mm Hex clockwise (in) adds High-speed compression damping (firmer), turning the 6mm Hex counter-clockwise (out) reduces High-speed compression damping (softer).

Low-speed Compression (LSC) adjustment is useful to control shock performance during rider weight shifts, G-outs, and other slow inputs. Turning the 3mm Hex clockwise (in) adds Low-speed compression damping (firmer), turning the 3mm Hex counter-clockwise (out) reduces Low-speed compression damping (softer).

*Factory Series only

X2 Adjustment Tool

The X2 6mm Hex Wrench (PN: 398-00-746) can be used to hold the High-Speed-Compression (HSC) or High-Speed-Rebound (HSR) adjusters in place while adjusting the Low-Speed-Compression (LSC) or Low-Speed-Rebound (LSR) adjusters. In some cases, adjusting the LSC or LSR adjusters to their minimum or maximum settings can cause the adjuster to stick slightly. If stuck, hold the HSC or HSR in place while adjusting the LSC or LSR with a 3mm hex wrench inserted through the X2 6mm Hex Wrench.

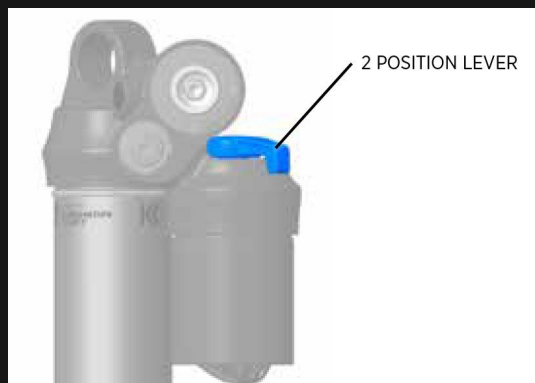
398-00-746
Service Tooling: Float X2 6mm Hex Wrench



Using the 2-Pos Compression Lever

The 2-Position compression lever available on some FLOAT X2 shocks can be used to quickly switch between your pre-set High and Low speed compression settings and a Firm mode for improved climbing.

- Turning the lever clockwise sets the shock in the Firm mode. Firm mode is a very firm low-speed compression setting. This setting is most useful for climbing and sprinting.
- Turning the lever counter-clockwise sets the shock in the Open mode which utilizes your pre-set HSC/LSC setting. The HSC and LSC adjustments only have an affect on compression damping when the 2-Position lever is in the counter-clockwise setting.



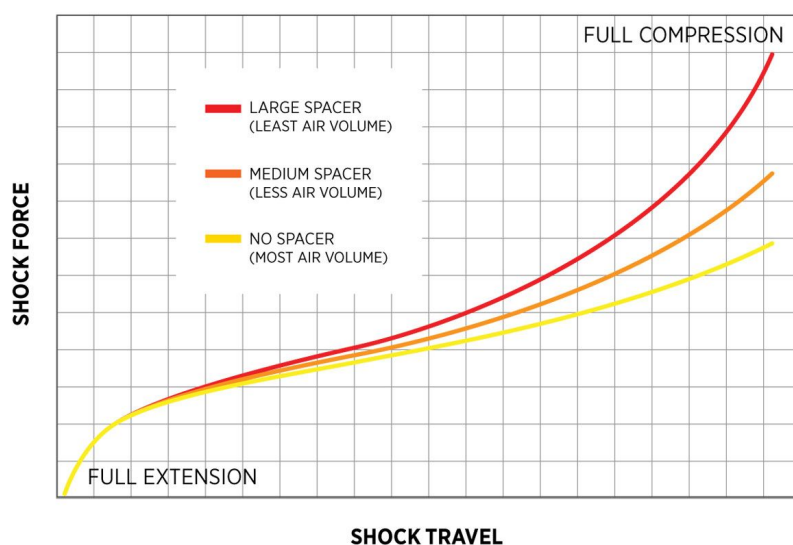
FOX recommends beginning with the 2-position lever in the Open mode.

Tuning with Air Volume Spacers

Changing volume spacers in the shock is an internal adjustment that allows you to change the amount of mid stroke and bottom out resistance.

- If you have set your sag correctly and are using full travel (bottoming out) too easily, then you could install a larger spacer to increase bottom out resistance.
- If you have set your sag correctly and are not using full travel, then you could install a smaller spacer to decrease bottom out resistance.

TYPICAL AIR SPRING CURVES



Shock Size	Maximum Spacer Quantity
7.500, 2.000	1
7.875, 2.000	1
8.500, 2.500	2
9.500, 3.000	3
10.500, 3.500	4
185, 50	1
185, 55	1
205, 60	2
205, 62.5	2
205, 65	2
210, 50	3
210, 55	3
225, 70	3
225, 75	3
230, 57.5	4
230, 60	4
230, 65	4

250, 70	5
250, 75	5

FLOAT X2 Air Spring Volume Spacers each have a volume of 0.25³ (PN: 233-00-240).

- Never install more than the maximum number of air volume spacers listed in the chart above.

Service Intervals

To best maintain the performance and durability of your product under normal use, FOX recommends that you have regular fork and shock maintenance performed according to the service intervals listed below.

Recommended Minimum Shock Maintenance

	Every Ride	Regularly	Every 125 Hours/Yearly, or whichever comes first.*
Clean exterior with mild soap and water only, then wipe dry with a soft towel. Inspect your product for visual damage and function of all controls.	●		
Check sag and damper settings. Inspect your product for visual damage and function of all controls.		●	
Full shock service (Full internal/external inspection, damper rebuild, air seal replacement for air shocks)			●

*Suspension product will require more frequent servicing the harder they are worked. For those who ride lift-accessed DH, Park, or Extreme Freeride or in extremely wet/muddy or dry/dusty environmental conditions where trail debris is sprayed onto the fork or shock while on the trail, or e-mtb's, FOX encourages riders to perform maintenance earlier than recommended above as needed. If you hear, see, or feel something unusual, stop riding immediately and contact a FOX Authorized Service Center for proper servicing.



WARNING: FOX products should be serviced by a qualified bicycle service technician, in accordance with FOX specifications. If you have any doubt whether or not you can properly service your FOX product, then DO NOT attempt it. Improperly serviced products can fail, causing the rider to lose control resulting in SERIOUS INJURY OR DEATH.



WARNING: FOX suspension products contain pressurized nitrogen, air, oil, or all 3. Suspension misuse can cause property damage, SERIOUS INJURY OR DEATH. DO NOT puncture, incinerate or crush any portion of a FOX suspension product. DO NOT attempt to disassemble any portion of a FOX suspension product, unless expressly instructed to do so by the applicable FOX technical documentation, and then ONLY while strictly adhering to all FOX instructions and warnings in that instance.



WARNING: Modification, improper service, or use of aftermarket replacement parts with FOX forks and shocks may cause the product to malfunction, resulting in SERIOUS INJURY OR DEATH. DO NOT modify any part of a fork or shock, including the fork brace (lower leg cross brace), crown, steerer, upper and lower leg tubes, or internal parts, except as instructed herein. Any unauthorized modification may void the warranty, and may cause failure or the fork or shock, resulting in SERIOUS INJURY OR DEATH.



WARNING: Never attempt to pull apart, open, disassemble, or service a FOX shock that is in a "stuck down" condition. A "stuck down" condition results from a failure of the dynamic air seal (located between the positive and negative air

chambers within the non-EVOL shock air sleeve), resulting with the negative chamber retaining a higher pressure than the positive chamber. To test whether the shock is in fact "stuck down":

1. Remove the air cap and depress the Schrader valve, to completely release air pressure from the positive chamber of the shock.
2. If the shock body retracts into the air sleeve near bottom-out after the air is released from the positive chamber, attach a FOX high pressure pump and pressurize the shock to 250psi (17 bar).
3. If the shock does not fully extend, it is in a "stuck down" condition.

Any attempt to service FOX air shocks in the "stuck down" condition can lead to **SERIOUS INJURY OR DEATH**. Contact FOX or an Authorized Service Center for repair.

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