ENGLISH

RS21 VORO COIL

CONTENT

2K25 HIGHLIGHTS / TECHNOLOGY & FEATURES

⚠ WARNING

Carefully read, understand and follow the instructions provided in this manual, and keep it in a safe place for future reference. If you have any doubt whatsoever regarding the use or maintenance of any SR SUNTOUR product, please contact SR SUNTOUR. Failure to follow these warnings and instructions can result in product malfunction, causing an accident, severe injury or death.

IMPORTANT SAFETY INFORMATION

- Read this manual thoroughly before using your suspension system.
- These instructions contain important information about the correct installation, service and maintenance of your suspension shock.Common mechanical knowledge may not be sufficient. Your suspension shock should be only be installed, serviced and/or maintained by a trained and qualified bicycle mechanic with specialized tools.
- Our suspension systems contain fluids and gases under extreme pressure. Never try to open any SR SUNTOUR suspension system! Pieces can be violently ejected.
- SR SUNTOUR suspension shocks are designed as a single integrated system. To avoid product malfunction and an accident, use only genuine SR SUNTOUR spare parts. The use of third-party supplier spare parts also voids the warranty of your suspension system.
- Your suspension shock is not intended for jumps, aggressive downhill rides, freeride or dirt jumping if the warning sticker on your suspension system prohibits these activities. Disregarding these instructions may cause your suspension fork to fail, resulting in an accident, personal injury or death, and will void the warranty.

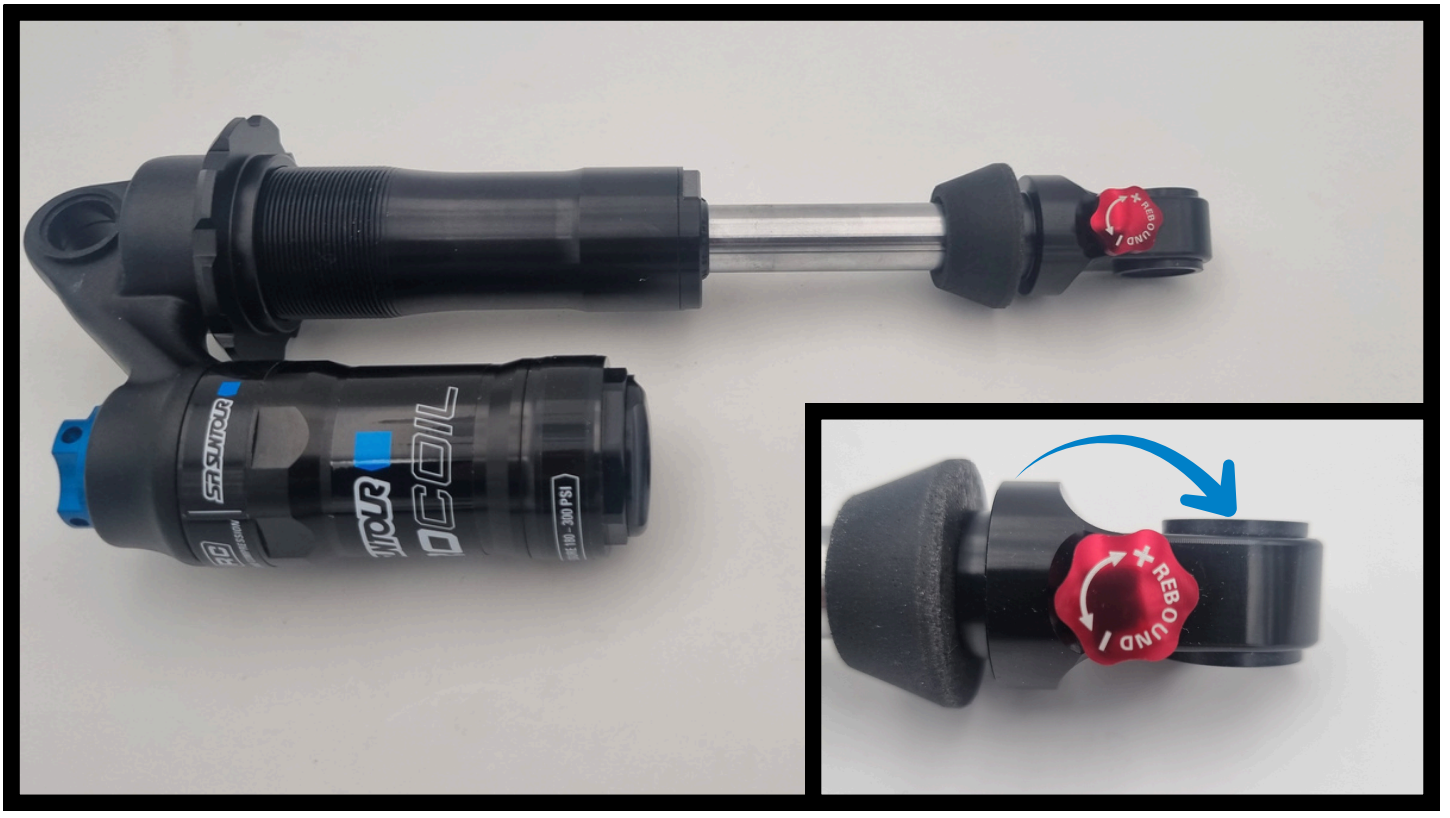
⚠ WARNING

- SR SUNTOUR suspension is designed for use by a single rider.
- Select the correct suspension shock according to your frame's dimensions and your personal riding style. lnstalling a suspension for which does not match the geometry of your frame could result into a failure of the suspension shock or frame could result into a failure of the suspension fork or shock itself and will void the shocks warranty. Failure of the suspension fork or frame ltself and will void the shocks warranty.
- Know the limits of your skill and experience, and never ride beyond them.
- Read, understand and follow all owner's manuals provided with your bike and all of its components.
- Always be equipped with proper safety gear. This includes a properly fitted and fastened helmet.

BEFORE EVERY RIDE

- lnspect your bicycle and suspension system including the handlebars, pedals, crank arms, seat post, saddle, etc. For any cracks, dents, bent or tarnished parts, Also search for any oil leaking out of your shocks. Be sure to check hidden areas on the underside of your bike. lf any condition exists, consult a trained and qualified bicycle mechanic to determine the cause and make any necessary correction.
- Compress your suspension system with your body weight. lf it feels too soft, make the necessary adjustments until you have reached the correct SAG value. Please also see the instruction in this manual regarding SAG.
- Make sure your brakes are properly installed/adjusted and work correctly.
- Spin the wheels. Make sure that wheels are perfectly centered and do not contact the suspension fork or brak es.
- lf you are using a quick release system to fasten your wheel set, make sure that all levers and nuts are properly tightened. In case you are using a through axle system, make sure that all fixing bolts are tightened with the appropriate torque values. Strictly follow the instructions provided by the manufacturer of the quick release or through axle system.

REBOUND ADJUSTMENT AND SET UP

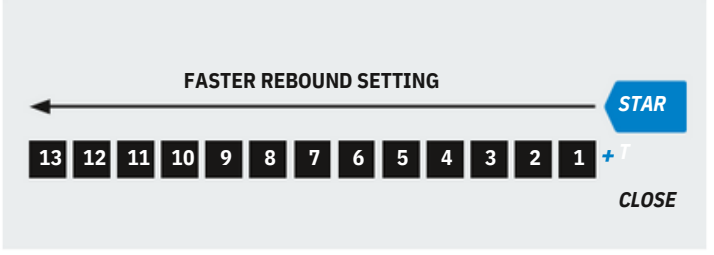


Rebound controls the speed of the shock extension after compression. Always start the rebound setting process with the rebound knob (located at the bottom of the shock) in slowest position by turning the adjuster knob all the way to the end of the clock-wise position (towards “+”).

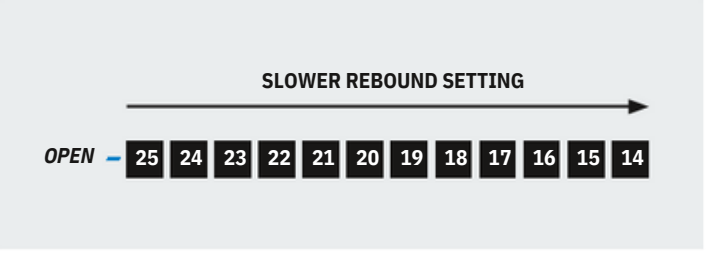
TO OPEN THE REBOUND

Turn the knob counter-clockwise toward the (-) to get a faster rebound. Each click allows the shock rebound faster per progression.

Note: Rebound tuning is relative to spring setting and frame cinematic, higher spring rate should tune toward closed(+) setting. Lower spring rate, in contrast, should set toward faster open setting (-).



For faster rebound, the counter clock-wise tuning should allow rider to stay leveled through fast and continuous bumps, causing compression to sink from mid to end of the stroke, thus increase chances of bottoming out and harsh impact and lost of traction.



For slower rebound, the clock-wise tuning should allow rider to skip over rougher terrain at slower speeds. Eliminating sharper feedback and gaining control in technical routes and jumps.

COMPRESSION ADJUSTMENT AND SET UP

To open the compression:
Turn the blue adjuster knob counter-clockwise towards the “-”.

Result :
Compression is tuned to provide a supple feel with sensitivity on small bumps.

To close the compression:
Turn the blue adjuster knob clockwise toward the “+”.

Result:
By closing the compression, the shock will feel firmer for more predictable and supported ride.

SPRING REPLACEMENT AND STROKE ADJUSTMENT

⚠ WARNING

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⚠ WARNING

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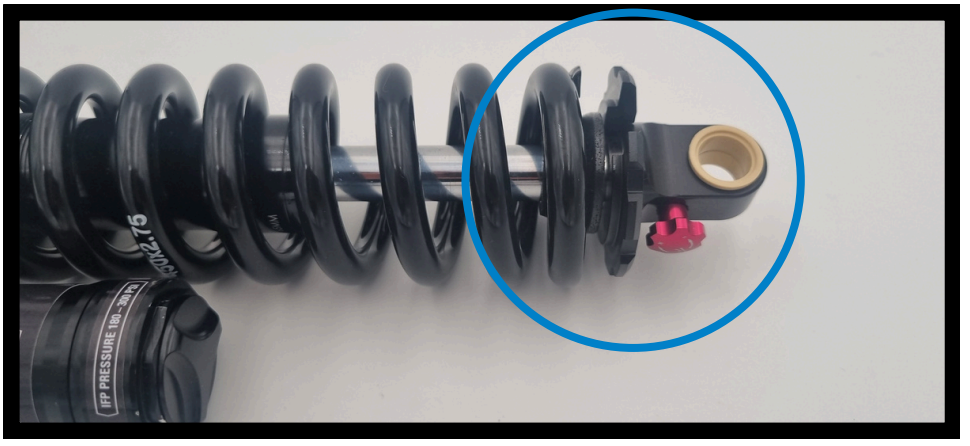
Shock dimension	Max. spring length
200x57 (7.875x2.25")	140mm
216x63.5 (8.5x2.5")	155mm
222x70 (8.75x2.75")	160mm
241x76 (9.5x3.0")	180mm
185x55	150mm
210x55	150mm
205x65	170mm
230x65	170mm
225x75	190mm
250x75	190mm

STEP 1

Remove the shock from the bike, clean it with a rag.

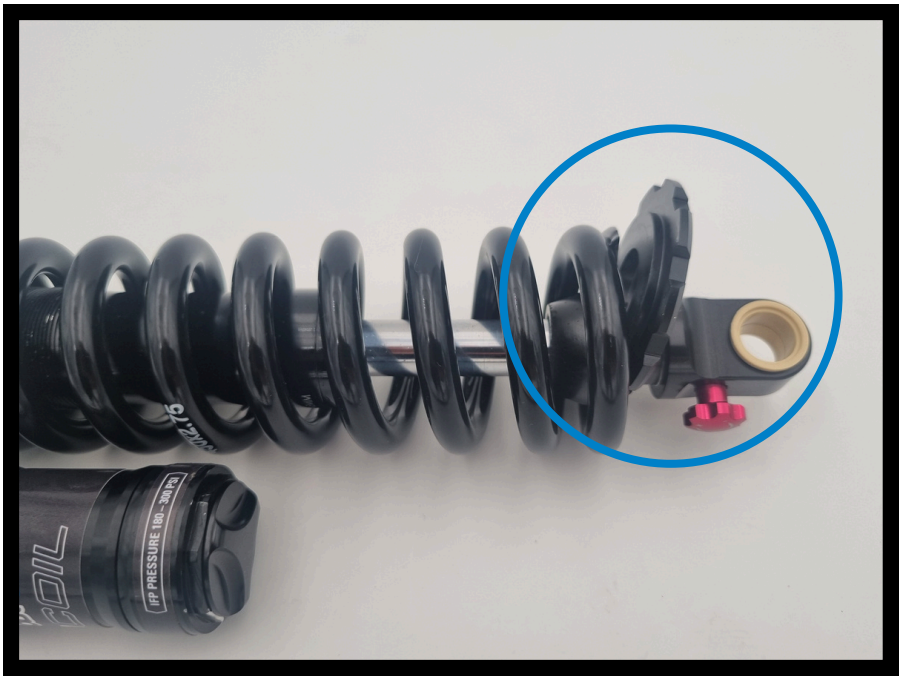
STEP 2

Unscrew the preload ring completly, spring should now be free to move.



STEP 3

Move the spring against the preload ring (towards piggyback side), move the lower ring up (towards the spring) and slide it outside of the shock.



STEP 4

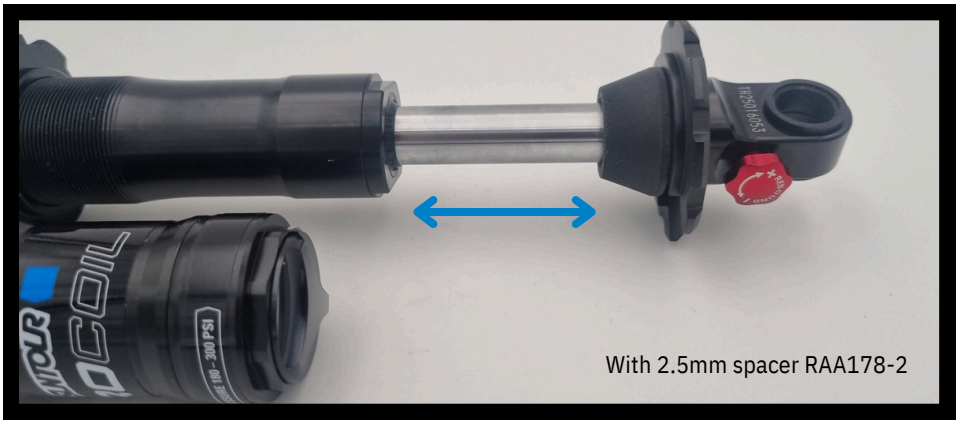
Slide the spring out of the shock. Install the new spring following the previous steps in reverse order.

STEP 5

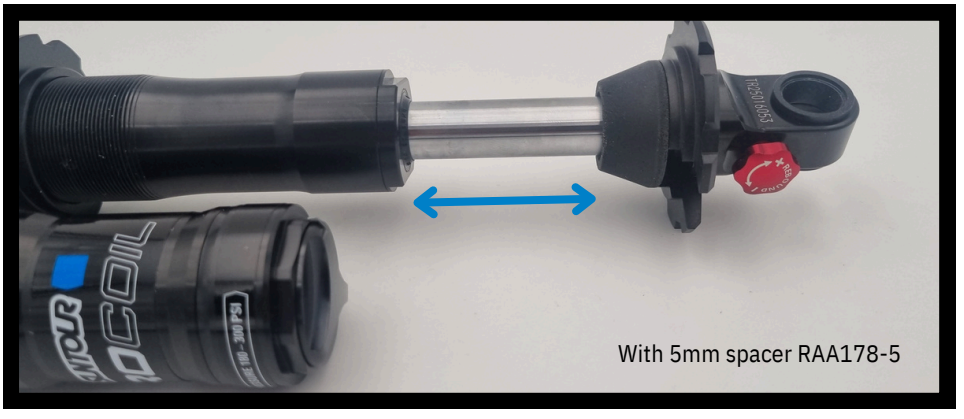
Stroke adjustment : by replacing the lower ring, you can adjust the stroke of you Voro shock.
There is 3 version : 0mm (original), 2.5mm, 5mm and 7.5mm.

Example: you get a 205*65 Voro shock. Your frame is designed to fit a 205*60mm (so 60mm stroke at the shock). You need to swap the original lower ring (0mm) with a 5mm ring. This will reduce the shock stroke capacity by 5mm to get 60mm.

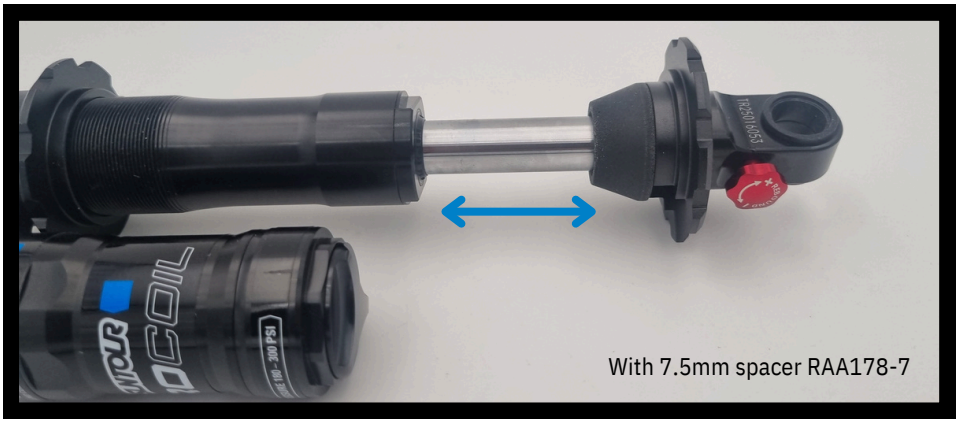
RAA178-7 (7.5mm) RAA178-5 (5mm) RAA178-2 (2.5mm)



With 2.5mm spacer RAA178-2



With 5mm spacer RAA178-5



With 7.5mm spacer RAA178-7

FULL SERVICE

REQUIRED TOOLS & SUPPLIES:

- Vise
- Flat jaw plier
- Strap wrench
- 24mm crowsfoot
- 5WT suspension oil
- 2.5mm allen key
- Torque wrench
- Valve core removal tool
- Rag or workshop towel
- SR SUNTOUR “Low friction” grease
- Brush
- High pressure pump

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FULL SERVICE

STEP 1

Remove the spring. (follow the previous guide “spring removal”)

1

STEP 2

Install the shock in the Vise (use plastic or aluminium clamps).
Open the rebound completely (counter clockwise towards “-”).

1

Remove the piggy back air cap.


2

STEP 3

Deflate the piggy back IFP chamber. Remove the valve core from the piggyback air cap Assy.

STEP 4

Using two strap wrench, attach one on the piggyback, install the second one on the top part then turn it counter clockwise to untighten the piggy back air cap lock nut.
Note: do not apply too much force. There is a risk to distort the nut.

STEP 5

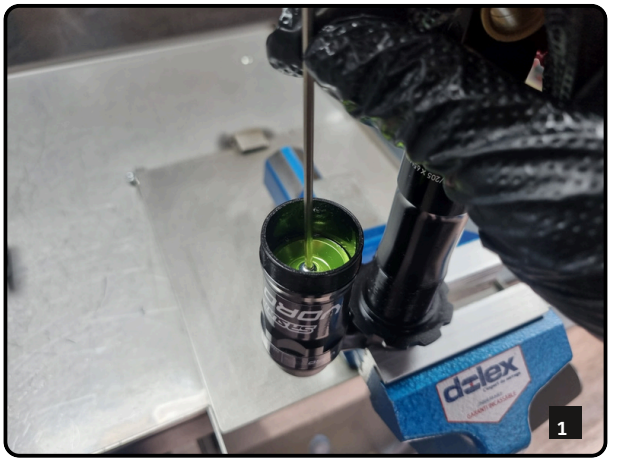
Use a shock pump to pull and remove the air cap Assy.

STEP 6

Compress the main shaft all the way and
check for the IFP (internal floating piston) to lift up.

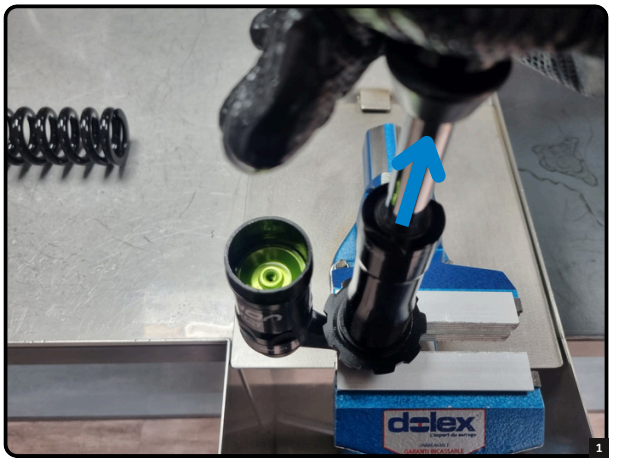
STEP 7

Using a 2.5mm Allen key, turn counter clockwise to remove the IFP bleeding screw.



STEP 8

Pull the main shaft to extend it all the way.

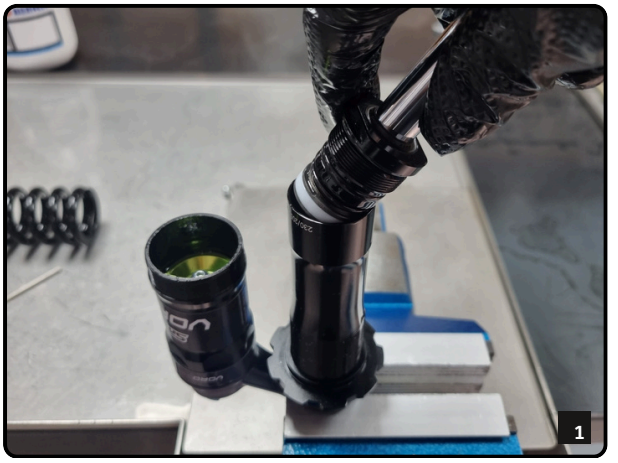


STEP 9

With a flat jaw plier or a flat wrench (24mm), turn counter clockwise to untighten the sealhead.

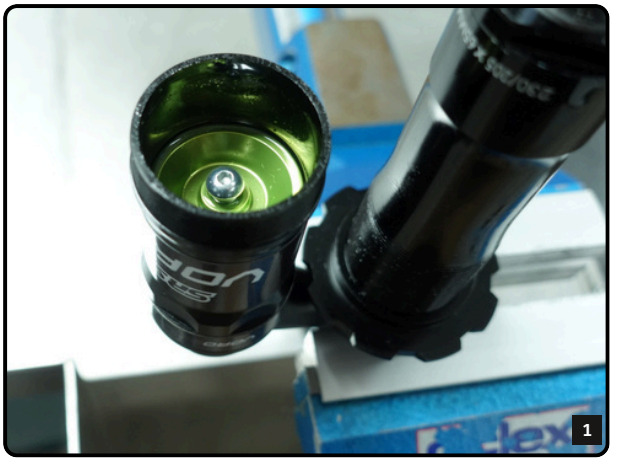
STEP 10

Remove the main shaft assembly from the damper body. Operate gentle circle motions while pulling the shaft out. This will make the removal process easier.



STEP 11

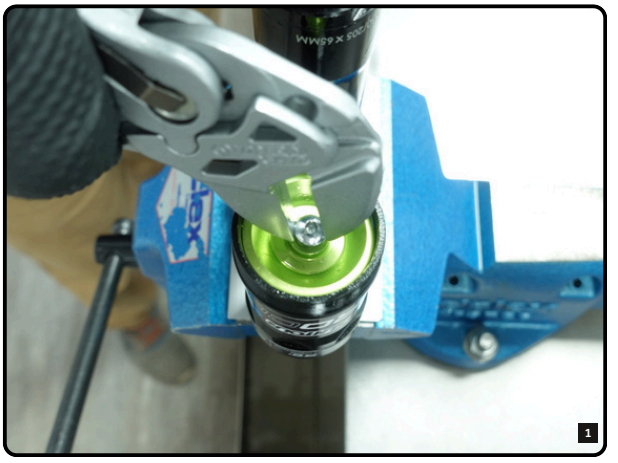
Method 1/ Use a 2.5mm Allen key to re-install the bleeding screw half way.



Method 2/ Use a 2.5mm Allen key to fit a longer M4 screw by 2-3 turns

STEP 12

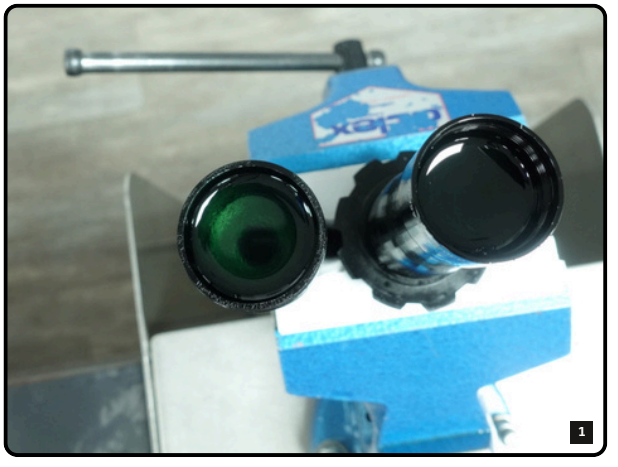
Method 1/ With a flat jaw plier, grab the screw head and pull to remove the IFP (internal floating piston).



Method 2/ Grab the longer M4 screw by hand and pull the IFP out (internal floating piston).

STEP 13

Remove the shock from the Vise and drain the oil out.
Reinstall the shock in the Vise.
Add new 5W oil on both sides. Set the oil level at 2 cm from the top of each tube (picture 1).



FULL SERVICE

STEP 14

Use a nitrile glove to cover the piggy back reservoir. Make sure it is properly sealed and apply pressure with your thumb 2-3 times. Use the same method on the damper body side.

Now manipulate the compression knob all the way toward “-” and “+” several time

Repeat the process with the glove until no air bubbles come out. At the end, set the compression knob on full open position (-).

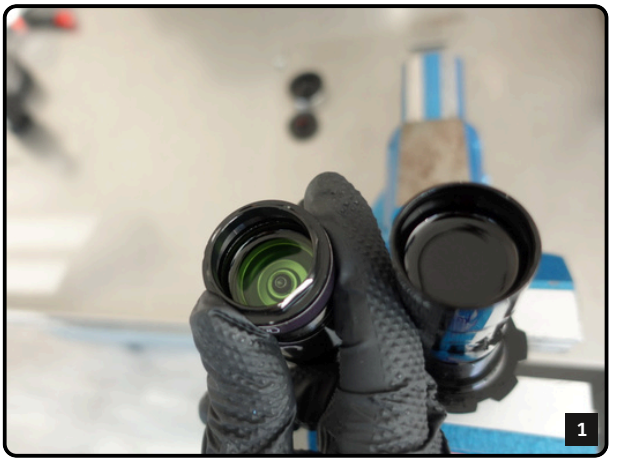
STEP 15

Clean and grease the IFP and put it back in place.

Insert it by 15MM.

STEP 16

Put back in place the IFP screw with a 2.5mm allen key, then the IFP ring. Tighten it all the way by hand.



STEP 17

Fill the damper body with 5W oil to the top.

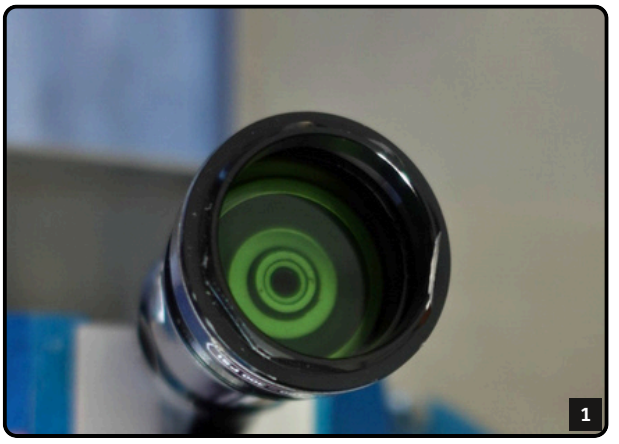
Position the sealhead at the top of the shaft, then gently insert the main piston half way in the damper body. Operate some up and down movement (5mm stroke) with the shaft. This will help air bubbles stuck in the piston/rebound rod to go out.

Fill the damper body with 5W oil to the top again .

Slide the sealhead down and push it against the damper body. Now screw the sealhead by hand and tighten with a 24mm crowfoot and torque to 20Nm.

STEP 18

Remove the IFP screw with a 2.5mm allen key. Leave the IFP lock nut in place.



STEP 19

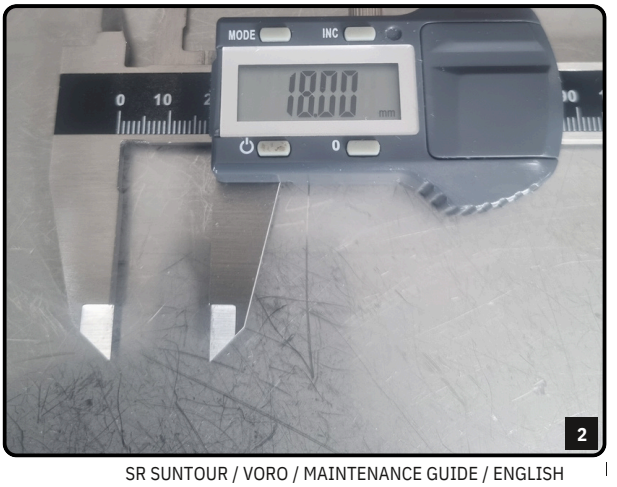
Gently and slowly Compress the main shaft all the way (install a rag or workshop towel on the reservoir as oil will drain out of the IFP bleed port).

STEP 20

Remove the reservoir air cap Assy lock nut and set it aside.

Set the IFP depth to 18mm. This is the distance from the piston outer edge to the top of the reservoir body.

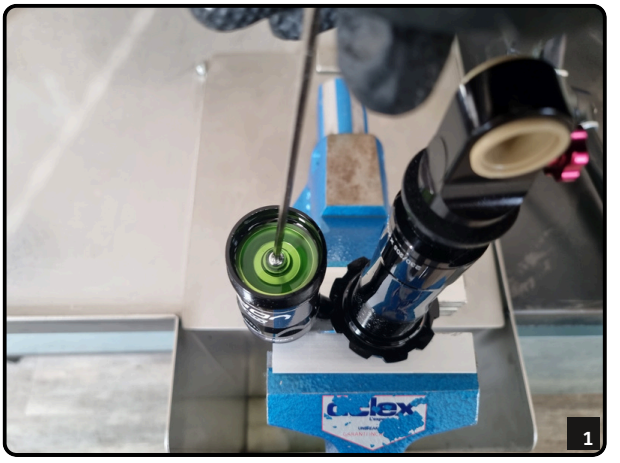
At this stage, to get to the recommanded depth of 18mm, you should normally have to push a bit the piston down



You can use a caliper or a steel ruler to check the depth.

STEP 21

Install the IFP bleeding screw and tighten with a 2.5mm Allen bit. Torque until the piston starts spinning.



STEP 22

Clean, grease and install the piggyback air cap Assy.

Install the Air cap Assy lock nut and tighten to 2Nm. (do not apply thread locker on the lock nut)

STEP 23

Place the valve core

Inflate the piggyback IFP chamber at the recommended pressure (min.180psi - Max. 300psi).

STEP 24

Re-fit the spring following the adequate tutorial.

REFINED SIMPLICITY

SR SUNTOUR is a Japanese owned bicycle component, suspension and drivetrain product manufacturer and distributor. SR SUNTOUR operates factories in Taiwan, China and Vietnam, with R&D and service offices collaborating throughout the world.
Our goal is to be the industry leader in value globally for prominent bicycle suspension components. We strive to produce the highest performing, most durable and reliable and the easiest to service bicycle and ebike suspension components. With roots tracing back to 1912 and SR SUNTOUR itself established in 1988 and continues to innovate and evolve to meet the needs of current bicycle riders and manufacturers.

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