

DVO | DIAMOND

DAMPER SERVICE & BLEED

DVO
DEVELOPED SUSPENSION

DEVELOPED SUSPENSION

FOR RIDERS BY RIDERS

This manual will guide you step by step performing a damper service on a Diamond. Please follow each instruction carefully to achieve the best and safest results.

***Always wear your safety gear while working on suspension products.We care about you, make sure you wear your safety glasses and protective gloves while servicing DVO Suspension Products.**



WEAR SAFETY GEAR!

DEVELOPED SUSPENSION

FOR RIDERS BY RIDERS

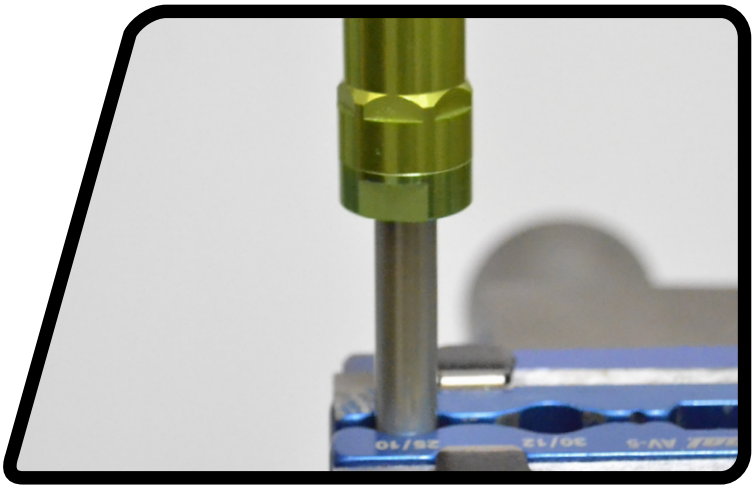
Tools needed:

- Allen key- 2mm/4mm
- Vice & Soft Jaws 10mm & 20mm
- Oil Measuring Container
- Suspension Cleaner
- 2.5 wt Oil
- 18mm/19mm/10mm wrench
- Oil Catch Container
- 22mm Thin Wall Socket

DEVELOPED SUSPENSION

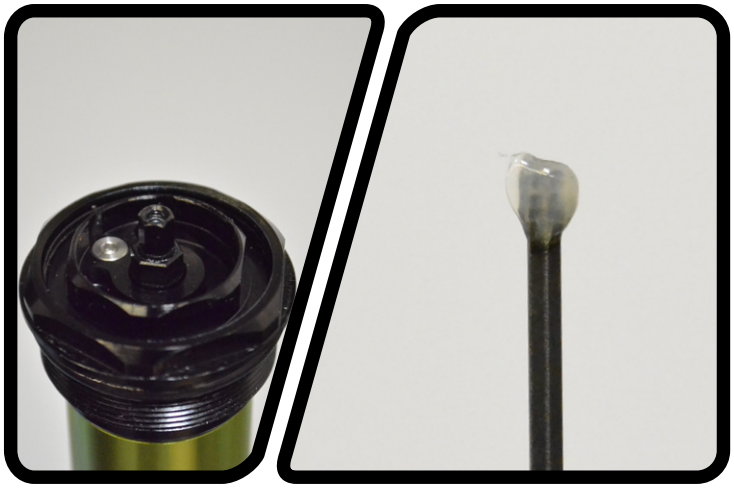
1.

Clamp the shaft of the damper cartridge in 10mm shaft clamps.



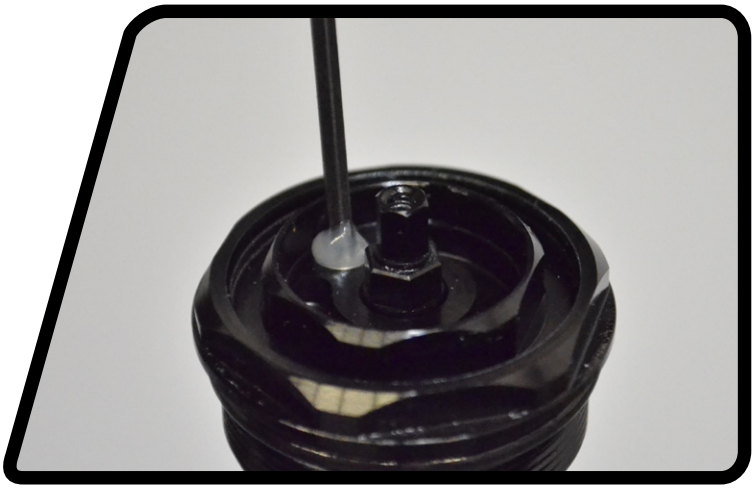
2.

You are going to remove the bleed screw on top of the cartridge. Make this easier by applying a small amount of grease to a 2mm allen key.



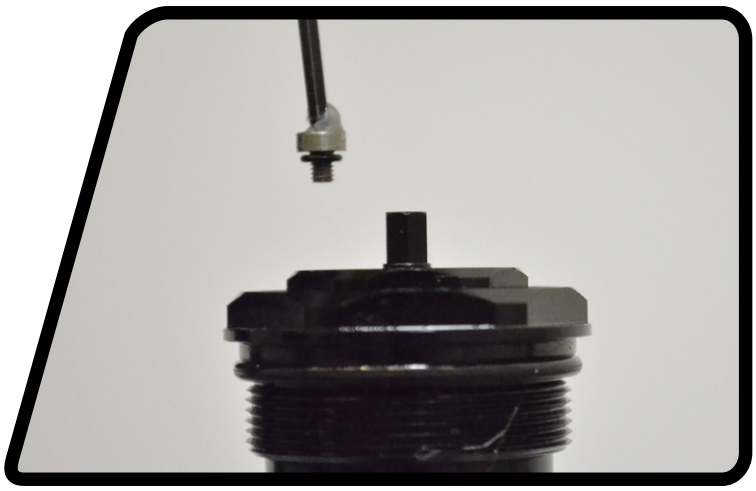
3.

Insert the allen key into the bleed screw.



4.

Remove the bleed screw. The grease will keep the screw stuck to the allen key. Set aside for later re-installation.



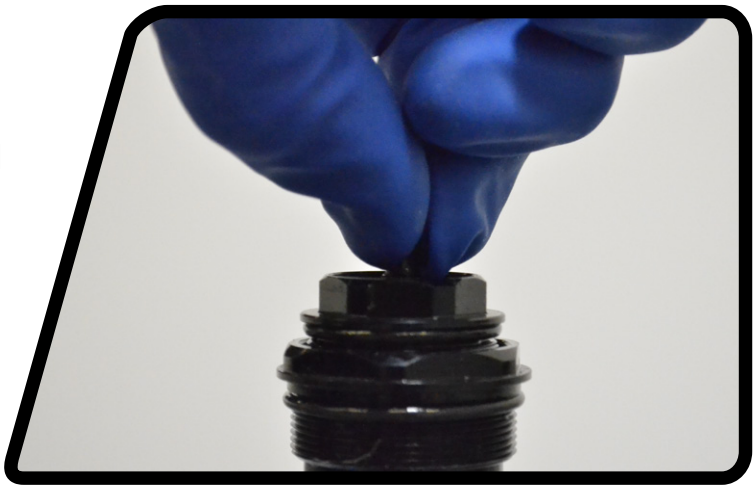
5.

Use a 22mm socket to loosen the bladder top cap.



6.

With your fingers, close the low speed compression. (counter-clockwise)



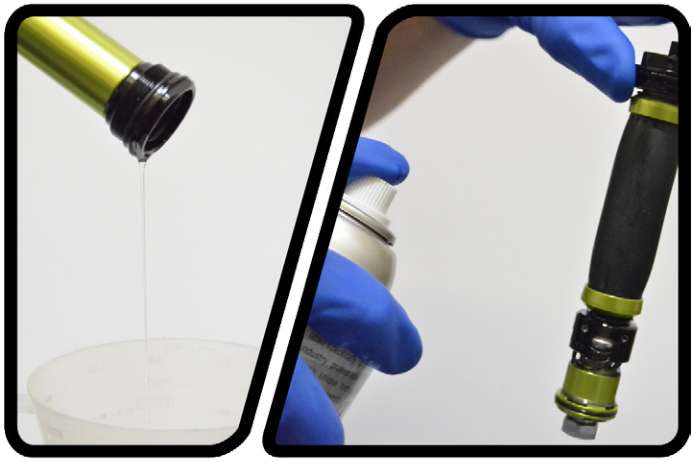
7.

With pliers, pull up on the low speed adjuster needle to expose the compression assembly.



8.

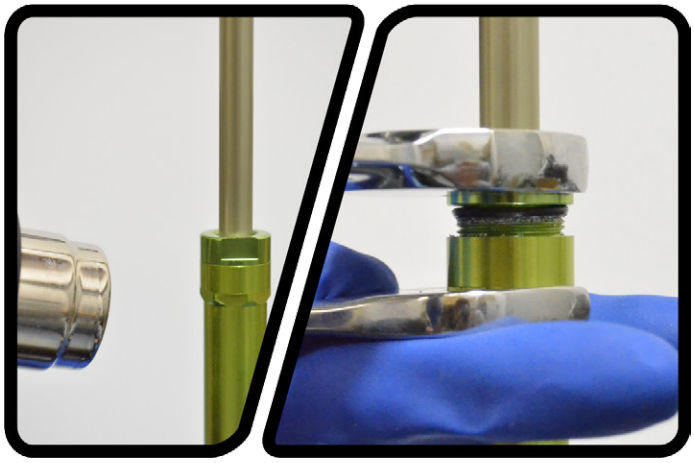
Remove the oil from the cartridge body and clean with suspension cleaner.



9.

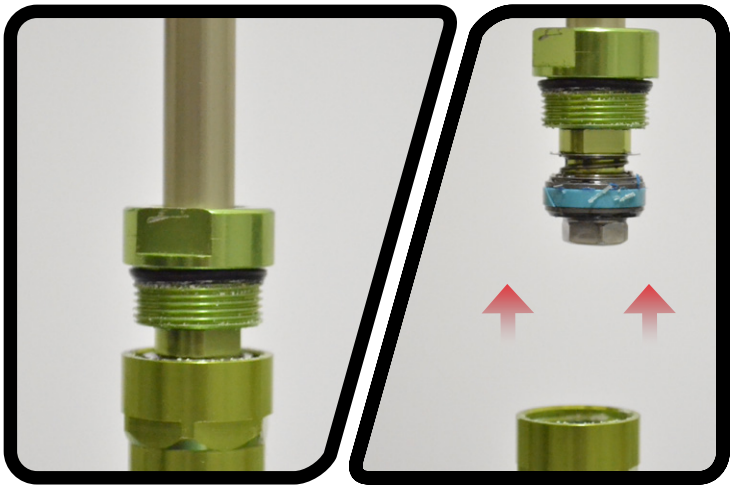
Use a heat gun on the melt the lock tite on the retaining nut.

Loosen with an 18mm wrench on the top and a 19mm wrench on the lower nut.



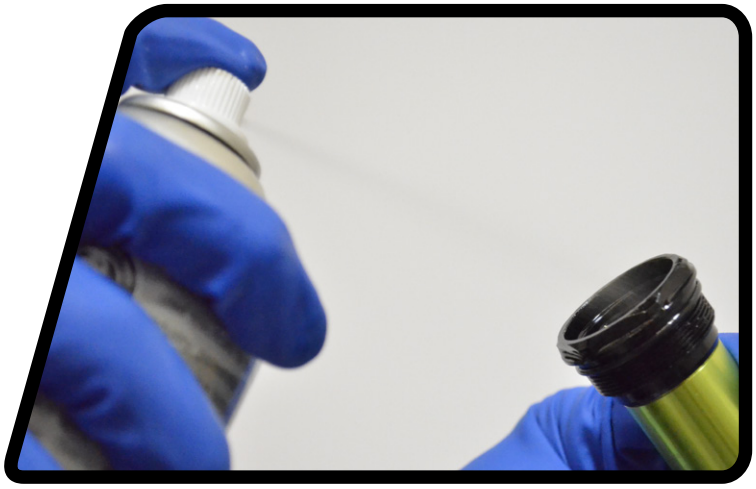
10.

Remove the shaft.



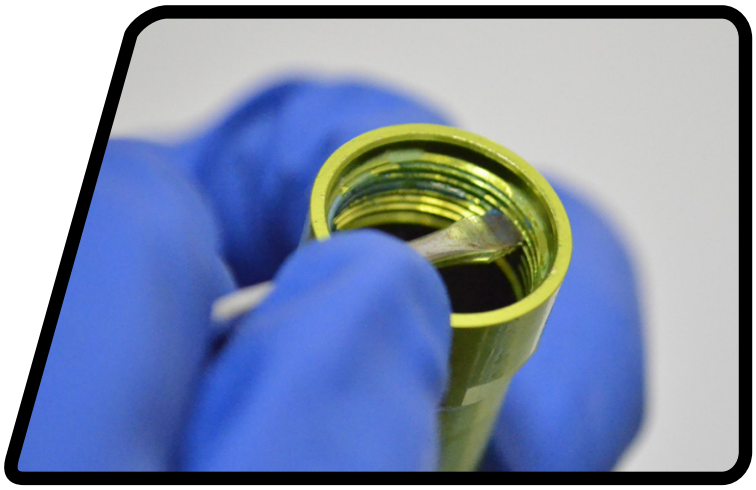
11.

Clean the inside of the cartridge body with suspension cleaner.



12.

Use a flat-head screw drive to clean the inner threads. Make sure to remove all excess loc-tite and contaminants.



13.

Clean the rebound piston with suspension cleaner.



14.

Use the 10mm wrench to loosen the nut on top of the rebound piston.



15.

Completely remove the nut and individually remove the parts in the order shown.



16.

Remove the rebound piston and set aside facing upward. (as shown)



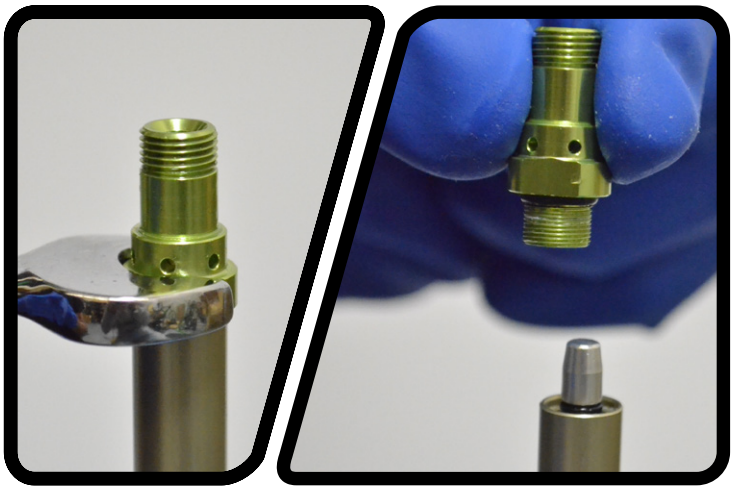
17.

Remove the shims and pressure spring.



18.

Loosen the piston seat with an 10mm wrench and remove as shown.



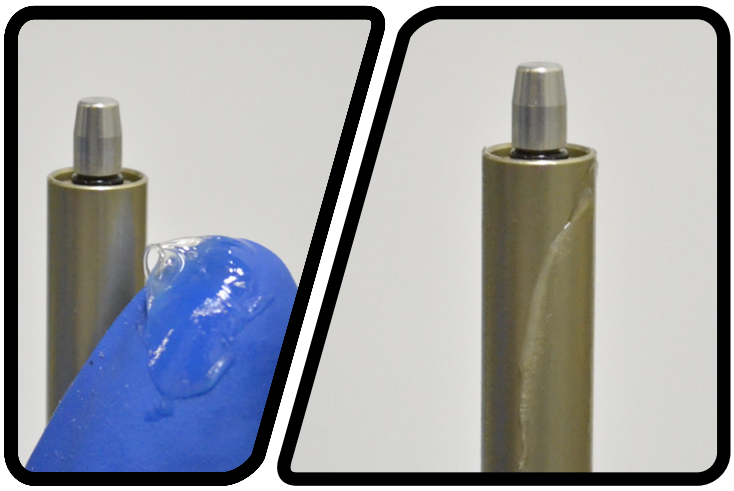
19.

Remove the seal housing and set aside. This is the part you will be replacing.



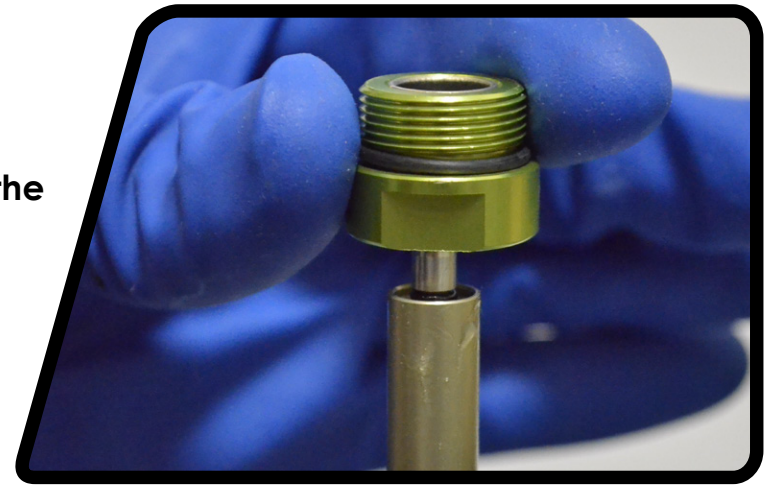
20.

Lightly grease the exterior of the rebound shaft.



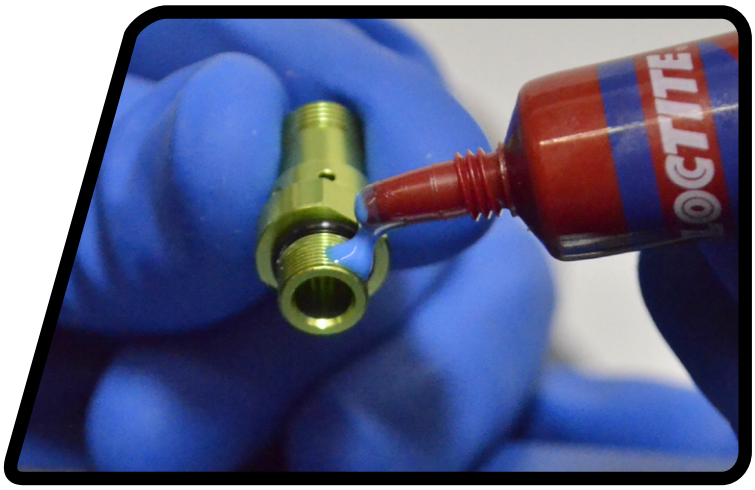
21.

Insert your new main seal housing onto the shaft as shown. Make sure the threads are facing upward.



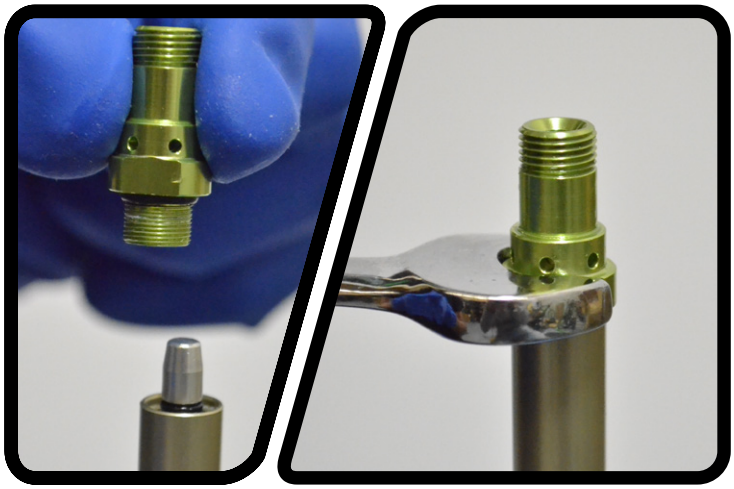
22.

Apply blue loc-tite to the threads of the piston seat.



23.

Install the piston seat onto the rebound shaft and tighten.



24.

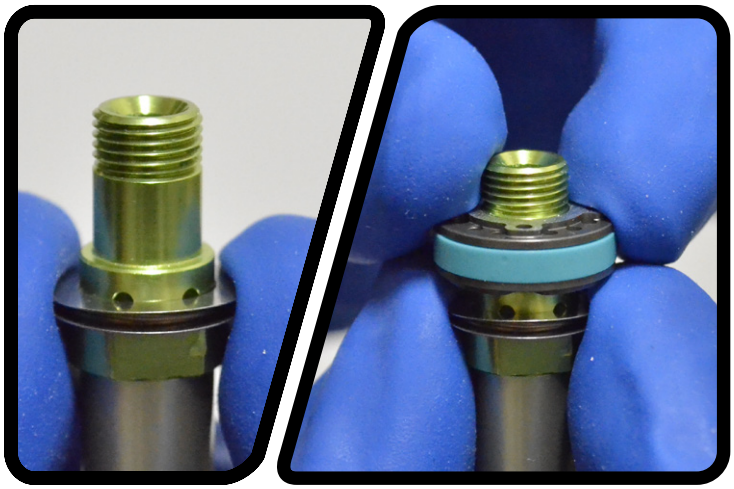
Insert the shims and pressure spring in the order shown.

1. Shim
2. Spring
3. Shim



25.

Pull the top shim downwards to compress the pressure spring. Then install the rebound piston.



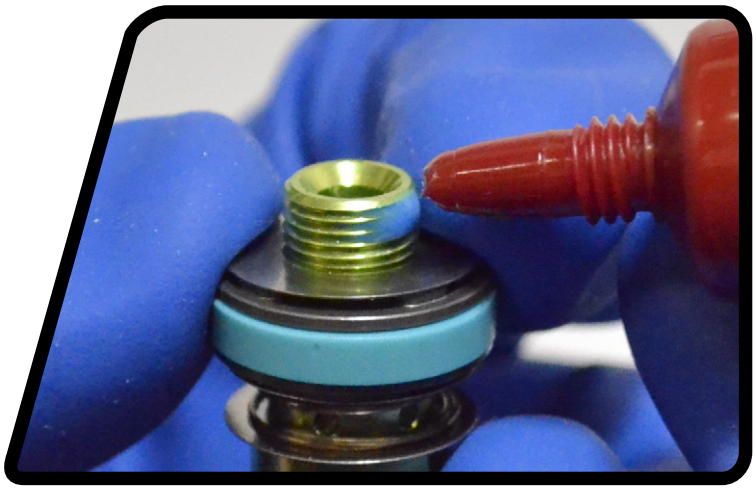
26.

Install the final shim on top of the rebound piston.



27.

Apply blue loc-tite to the threads of the ferrell.



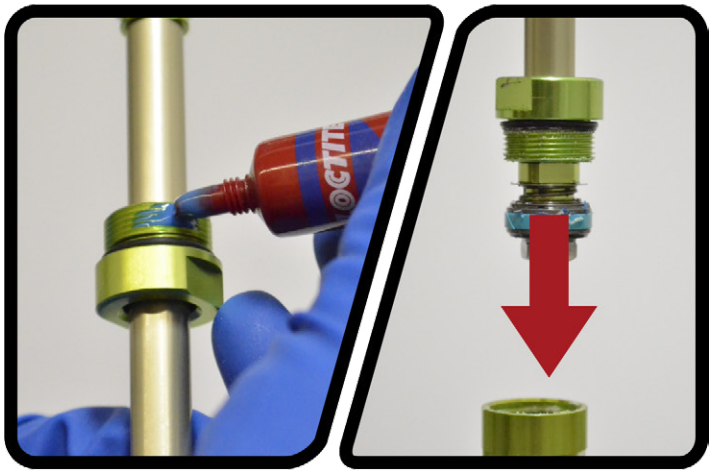
28.

Install the lock nut and tighten.



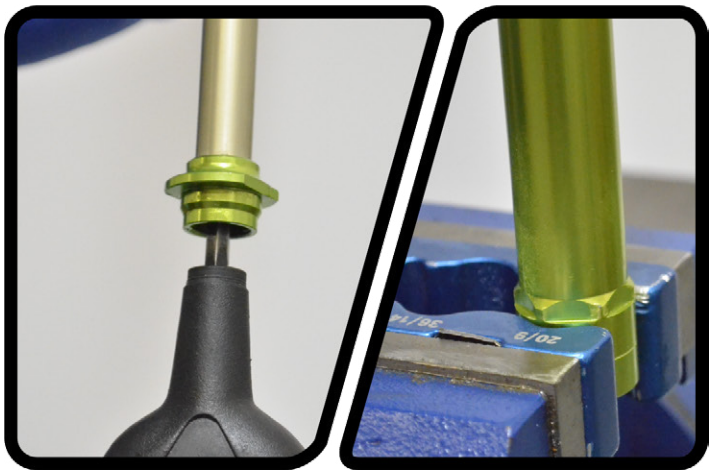
29.

Apply blue loc-tite to the threads of the end cap. Reinstall the rebound assembly into the cartridge body and tighten.



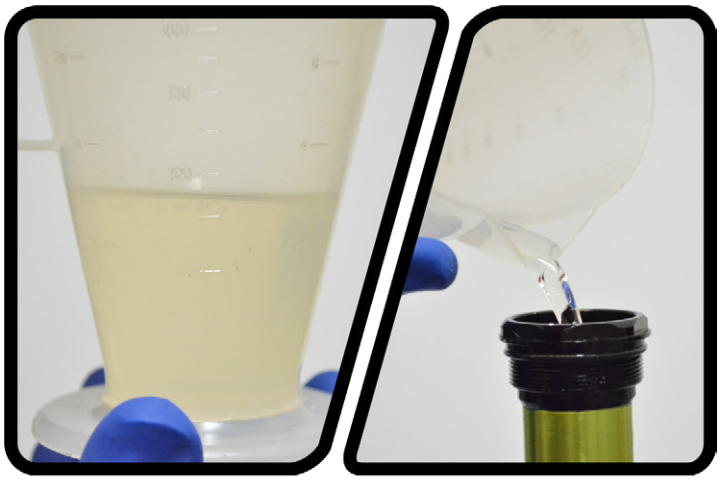
30.

Close the rebound with a 4mm allen key. (clockwise) Clamp the cartridge body with 20mm shaft clamps.



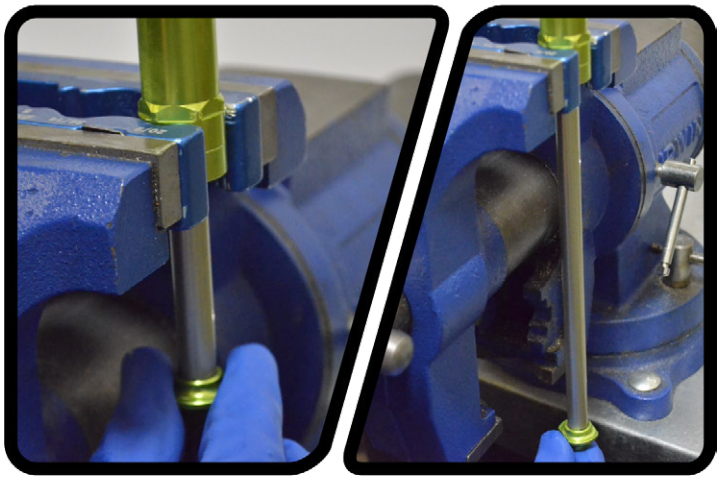
31.

Use a graduated cylinder and measure 80cc's of 2.5 wt. suspension fluid. Pour into the top of the cartridge body.



32.

Pull up and down on the shaft to cycle the oil.



33.

Install the compression assembly into the cartridge body.



34.

Push the compression assembly into the cartridge body until the oil level reaches the top of the cartridge body.



35.

Use the low speed compression adjuster to open the low speed compression.



36.

Insert the remainder of the damper into the cartridge body. Note: oil will over-flow so make sure you have an oil catch container below.



37.

Make sure the damper unit is completely inserted into the cartridge body.



38.

Use the low speed adjuster to close the compression. (counter-clockwise)



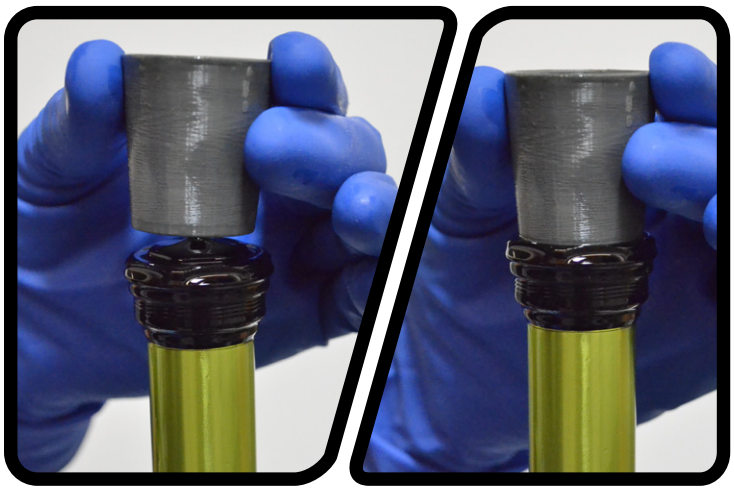
39.

Use a 22mm thin wall socket to tighten the damper unit.



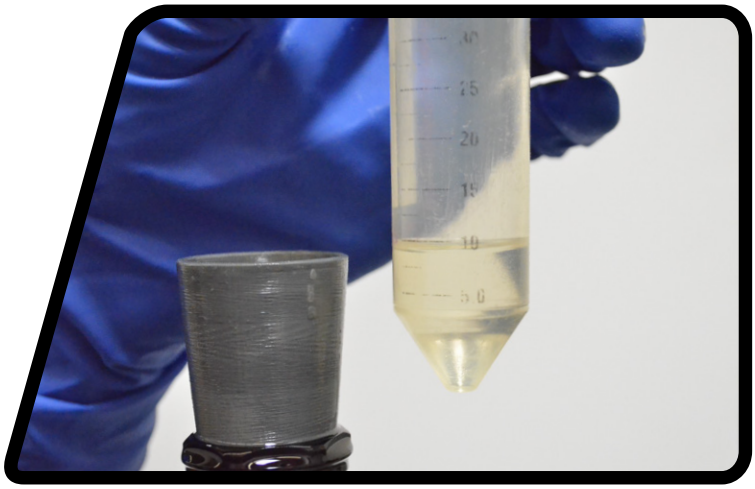
40.

Insert the oil catch container on the top cap.



41.

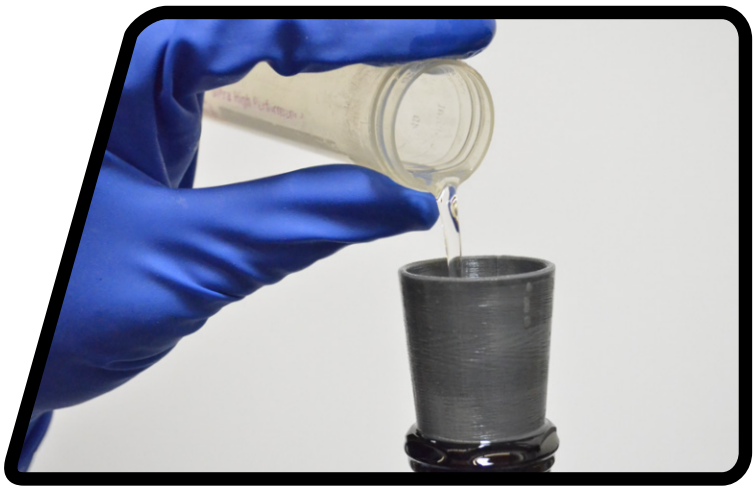
Pour 10cc's of 2.5 wt. suspension oil into a graduated cylinder.



42.

Pour the oil into the oil catch container.

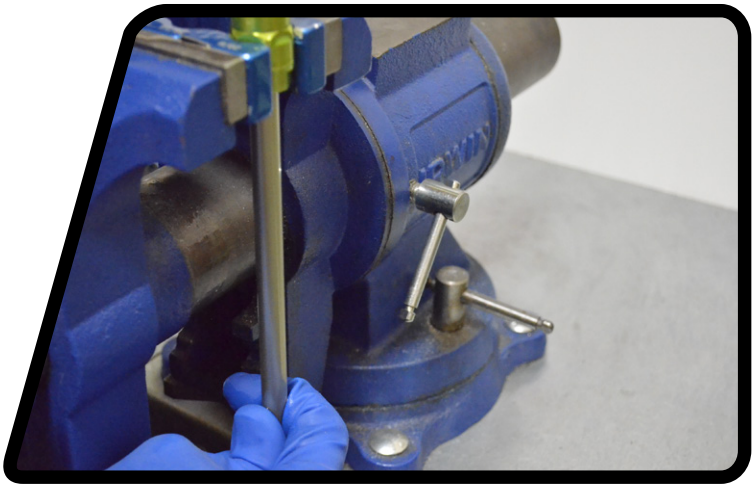
Note: Do not fill to the top. This will cause oil to spill while cycling the cartridge.



43.

Move the shaft up and down to cycle the oil throughout the system. Repeat this process 3-4 times.

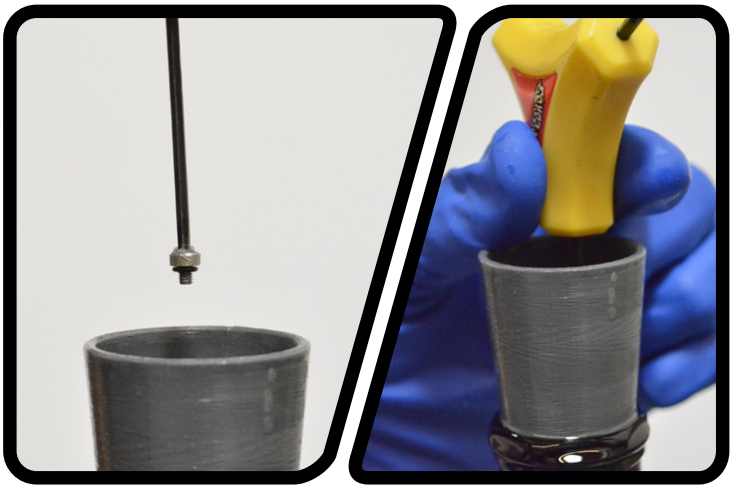
Take 20 second breaks in between each stroke to allow air to surface to the top.



44.

Once you have cycled the oil and the damper is at full extension, re-install the bleed screw into the top cap.

Note: make sure to have grease on the bleed screw to hold it in place.



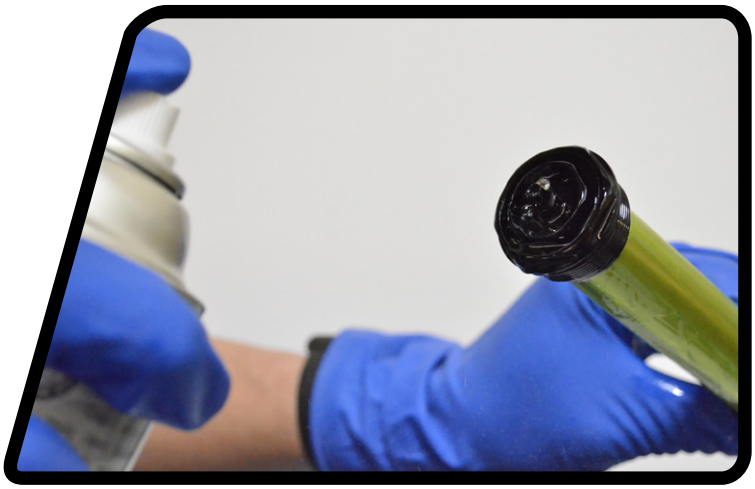
45.

Pour the excess oil out of the container.



46.

Clean off the cartridge with suspension cleaner and you're good to go!



Thank you for choosing DVO Suspension!

If you have any further questions please email **support@dvosuspension.com**

For all other technical information please visit **www.tech.dvosuspension.com**

www.DVOSUSPENSION.COM