

HC97

COMPRESSION SYSTEM



Assembly Instructions for the PUSH HC-97 Kit

Safety Warnings

Warning

The front forks are an important part of your bike. Before installing and using your new HC97 Compression System, please visit <https://www.pushindustries.com/pages/hc97-support> to learn the correct installation and adjustment procedures of the forks. Improperly installed and/or adjusted forks can cause serious harm or death and may severely damage your bicycle. Broken or malfunctioning forks may cause loss of bicycle control and result in SERIOUS INJURY OR DEATH. If the fork ever loses oil, air or makes unusual noises, stop riding and have the fork inspected by PUSH or a PUSH Authorized Tuning Center. Modification, improper service or use of aftermarket replacement parts voids the warranty and may cause the fork to malfunction, resulting in loss of bicycle control and SERIOUS INJURY OR DEATH. Do not modify your bike frame or fork. Use only genuine PUSH HC97 parts. Follow service maintenance recommendations. Fork service should be performed by PUSH or a PUSH Authorized Tuning Center. Visit [pushindustries.com](https://www.pushindustries.com) or contact us at (970)-278-1110 to locate a PUSH Authorized Tuning Center. Never apply heat to any part of the fork. The PUSH HC97 is manufactured exclusively for the fork model for which it is ordered. Switching the fork between different bicycles may not only decrease the fork performance but might also cause damage to the bike and can result in SERIOUS INJURY OR DEATH. Always contact PUSH or a PUSH Authorized Tuning Center to verify compatibility before switching a fork from one bike to another.

Warranty

PUSH Suspension Warranty

PUSH Industries Incorporated, hereafter referred to as PUSH, a Colorado corporation having offices at 1520 Taurus Ct., Loveland, CO 80537. PUSH makes the following LIMITED WARRANTY with respect to its suspension products.

PUSH LIMITED WARRANTY LIMITED ONE (1) YEAR WARRANTY ON SUSPENSION PRODUCTS.

Subject to the limitations, terms and conditions hereof, PUSH warrants, to the original retail owner of each new PUSH suspension product, that the PUSH suspension product, when new, is free from defects in materials and workmanship. This warranty expires one (1) year from the date of the original PUSH suspension product retail purchase from PUSH Industries, any PUSH Authorized Dealer, PUSH Authorized Factory Tuning Center, or PUSH Authorized Distributor unless otherwise dictated by requirement of law.

TERMS OF WARRANTY

This warranty is conditioned on the PUSH suspension product being operated under normal conditions and properly maintained as specified by PUSH. This warranty is only applicable to PUSH suspension products purchased new from an authorized PUSH source and is made only to the original retail owner of the new PUSH suspension product and is not transferable to subsequent owners. This warranty is void if the PUSH suspension product is subjected to abuse, neglect, improper installation, improper or unauthorized repair, improper or unauthorized service, maintenance, alteration, or modification (to include, but not limited to, using any spring that is not PUSH authorized), accident or other abnormal excessive, or improper use. Should it be determined, by PUSH in its sole and final discretion, that a PUSH suspension product is covered by this warranty, it will be repaired or replaced, by a comparable model, at PUSH's sole option, which will be conclusive and binding. THIS IS THE EXCLUSIVE REMEDY UNDER THIS WARRANTY. ANY AND ALL OTHER REMEDIES AND DAMAGES THAT MAY OTHERWISE BE APPLICABLE ARE EXCLUDED, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR PUNITIVE DAMAGES.

This limited warranty gives the consumer specific legal rights. The consumer may also have other legal rights which vary from state to state or country to country. Some states and countries do not allow the exclusion or limitation of incidental or consequential damages or warranties, so the above limitations or exclusions may not apply to you. If it is determined by a court of competent jurisdiction that a certain provision of this limited warranty does not apply, such determination shall not affect any other provision of this limited warranty and all other provisions shall remain in effect.

THIS IS THE ONLY WARRANTY MADE BY PUSH ON ITS SUSPENSION PRODUCTS AND COMPONENTS, AND THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION HEREIN. ANY WARRANTIES THAT MAY OTHERWISE BE IMPLIED BY LAW INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED



Safety First!

Proper safety gear should always be used when servicing or installing suspension components.

Tools Required

- Bench Vise
- Soft Jaw Tube Clamps
- RockShox Bleed Adapter
- T10 Torx Driver
- 10mm Wrench
- 15mm Cone Wrench
- Adjustable Wrench
- 5mm Hex
- 2mm Hex
- 1.5mm Hex
- 10mm Socket
- 32mm Chamferless Socket
- Torque Wrench
- Socket Wrench
- 10" Socket Extension

Safety Equipment

- Safety Glasses
- Nitrile Gloves
- Oil Pan
- Lint-Free Rags

Greases & Fluids

- 5wt Suspension Oil
- PUSH SOS Lube
- Blue Loctite 243



VISUAL



INSTRUCTIONS

STEP 1:

- a. Your new HC-97 Compression assembly comes out of the box partially assembled. Some stock components of your Damper are reused. Refer to the "Charger II Disassembly" procedure for more information.



STEP 2:

- a. Use a 2mm Hex to remove the M3 screw retaining the Blue Low Speed Knob.
- b. Remove and set aside the Low Speed Knob and screw.



STEP 3:

- a. Use a 1.5mm Hex to loosen and remove the two M3 set screws in the Black High Speed Knob.
- b. Remove and set aside the High Speed Knob and screws.



STEP 4:

- a. Unthread the black Top Cap counter-clockwise from the silver Compression Tube.



STEP 5:

- a. Align the stock Bladder with the Compression Tube.
- b. Apply a light film of SOS Lube to the inside of the Bladder.



STEP 6:

- a. Starting at the small diameter end of the Compression Tube, slide the Bladder upwards.
- b. Slide the bladder up until it locks into the gland below the threads on the Compression Tube.



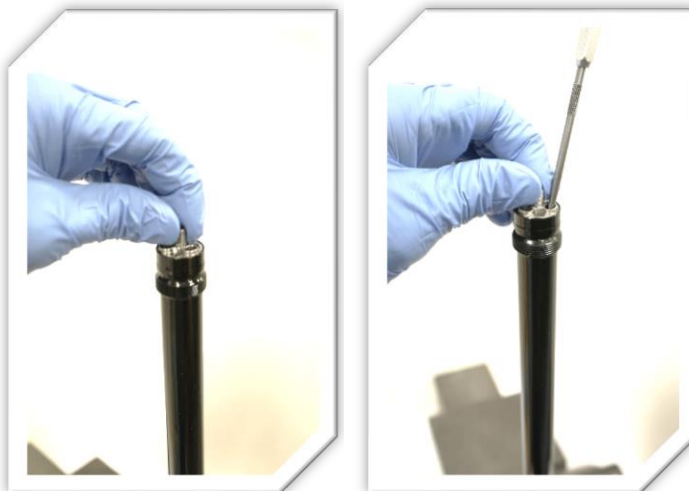
STEP 7:

- Prepare the stock Compression Bolt, Check Shim and Spring for re-assembly.
- Ensure the larger diameter of the conical Check Spring is against the Check Shim as shown in the visual.



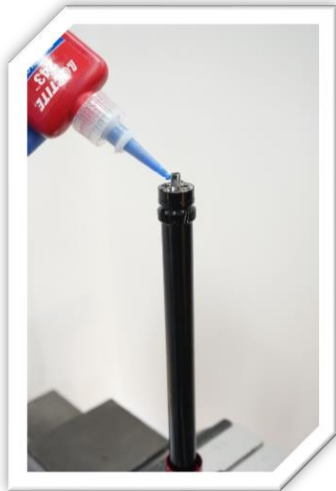
STEP 8:

- Mount a 10" socket extension with a 10mm socket into a vise.
- Place the complete Compression Bolt assembly from **STEP 7** into the socket.
- Slide the Compression Tube over the Bolt and extension.



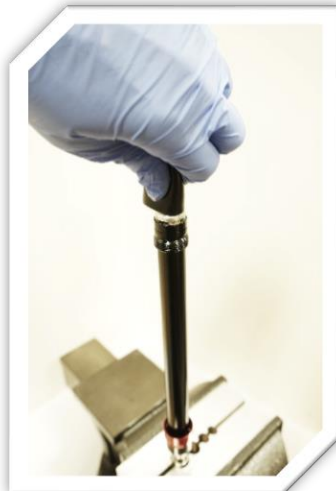
STEP 9:

- Pinch the threaded end of the Compression Bolt with your hand and lift the assembly upwards a few inches.
- Rotate the Cartridge Tube to ensure the Bolt is still fully seated in the Valve.
- Use a dental pick to lightly press the shim downward to ensure the Check Shim can open and is not pinched in the assembly.



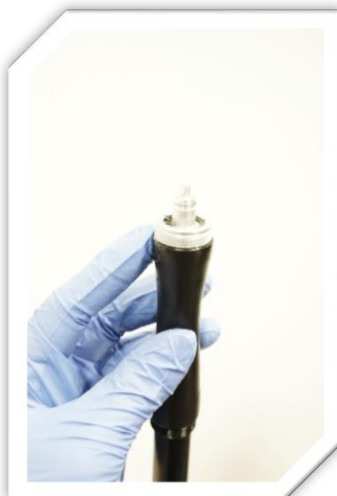
STEP 10:

- Slide the Compression Bolt back into the socket.
- Add a small drop of Blue Loctite 243 to the Compression Bolt
- Thread the HC-97 Compression assembly from **STEP 6** onto the Compression Bolt. Use care in order to avoid cross-threading the bolt.



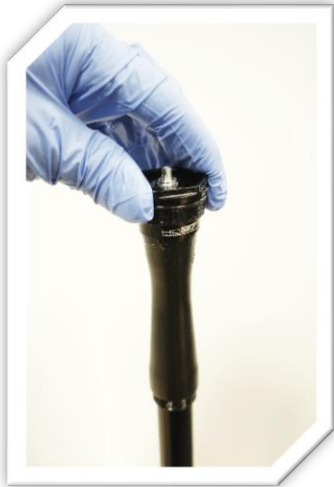
STEP 11:

- Gently pull up the Bladder to expose the wrench flats on the silver HC-97 Compression Tube
- Use a 15mm cone wrench to tighten the Compression Tube until it is snug.



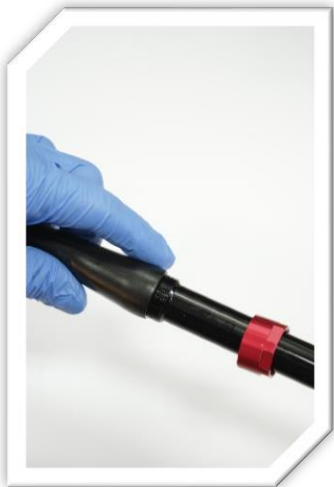
STEP 12:

- Apply a light film of SOS Lube to the Outer Diameter of the Bladder near the top edge.



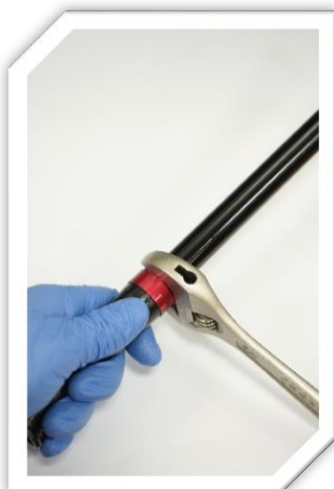
STEP 13:

- a. Push the HC-97 Top Cap onto the assembly and thread the Cap clockwise.
- b. Thread the Top Cap until it has a firm stop.
- c. Use a 32mm chamferless socket to torque the Top Cap to 5.1Nm (45in-lb)



STEP 14:

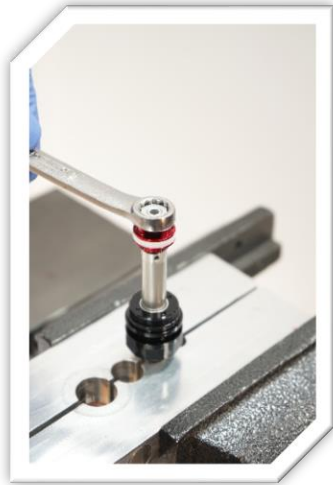
- a. Ensure the bottom of the Bladder is engaged into the gland of the Cartridge Tube.
- b. Apply a light film of SOS Lube to the outside of the Bladder near the bottom edge.



STEP 15:

- a. Hold the Bladder in your hand and thread the Red Lock Ring onto the Cartridge Tube.
- b. Thread the Lock Ring on until there is one thread of the Cartridge Tube showing.

***Note:** there is no hard stop for the Lock Ring, and threading past three visible threads can damage the Bladder.



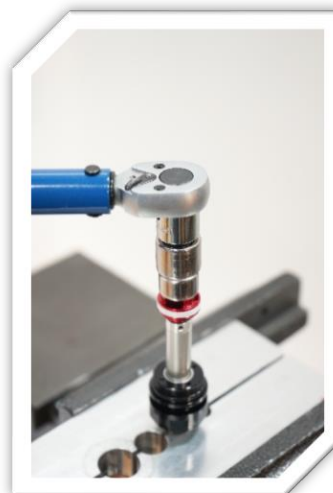
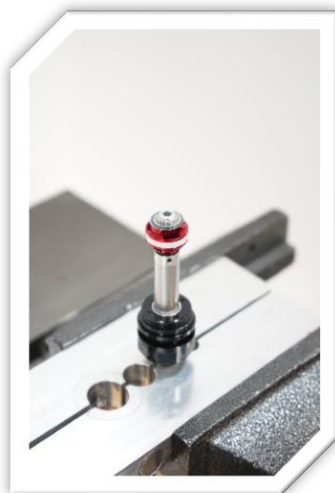
STEP 16:

- a. Clamp the Rebound Assembly into a 10mm soft jaw vise.
- b. Use a 10mm wrench or socket to remove the Piston Nut.
- c. Remove the stock shim stack from the top of the Piston.



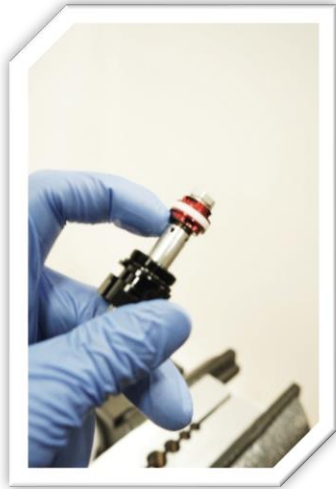
STEP 17:

- a. Select the Rebound code that best matches your rider weight from the Tuning Guide on the PUSH website.
- b. Use a caliper or ruler to identify the shims by the outer diameter.
- c. Align the Shim Stack according to the Tuning Guide.



STEP 18:

- a. Install the Shim stack onto the piston. Ensure the largest diameter shim is against the face of the piston.
- b. Replace the Piston Nut and torque the Nut to 3.7Nm (33in-lb).



STEP 19:

- Ensure that the Check Shim on the opposite side of the Piston is not pinched.
- Use a finger nail to lightly bend open the shim. The opening pressure should be consistent around the whole diameter.



STEP 20:

- Lightly clamp the Cartridge Tube assembly into the vise using the wrench flats.
- Fill the Tube with 5wt suspension oil until it is full.



STEP 21:

- Thread the Rebound assembly into the Cartridge Tube.
- Torque the Seal Head to 5.1Nm (45in-lb)



STEP 22:

- Insert the stock Rebound knob into the end of the Rebound Shaft.
- Turn the Knob counter-clockwise until it stops to fully open the low-speed rebound.
- Remove the Knob



STEP 23:

- Draw 5wt Suspension Oil into the RockShox Bleed syringe until it is half full.

Note: Do not use bleed syringes that have also been used with DOT brake fluid. The brake fluid can break down the internal seals causing the damper to fail.



STEP 24:

- Use a T10 torx driver to remove the Bleed screw in the Seal Head.
- Screw the Bleed Syringe adapter into the bleed port.



STEP 25:

- Pressurize the system by depressing the syringe.
- Continue to apply pressure with the syringe.
- Cycle the Rebound Shaft up and down until all the air bubbles have escaped the Cartridge Tube.



STEP 26:

- Fully extend the Rebound Shaft.
- Release the pressure of the syringe and allow the bladder to equalize and reach a resting position.



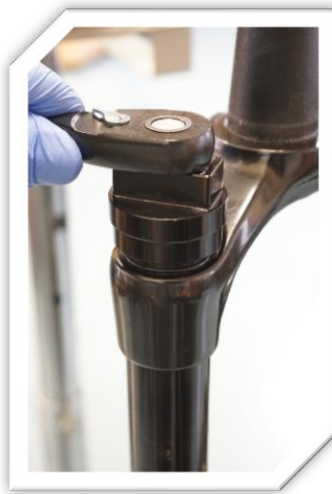
STEP 27:

- Unthread the Bleed Adapter. Caution some oil will escape when the Adapter is removed.
- Insert the Bleed Screw and tighten it to 1.1-2.3Nm (10-20 in-lb)
- Wipe the excess oil with a clean rag.



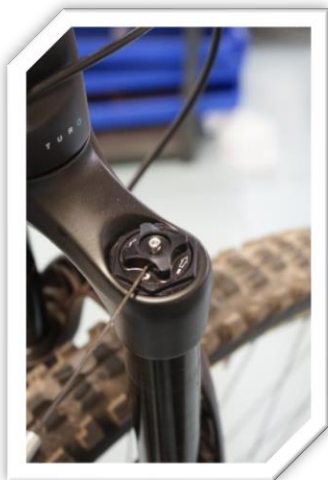
STEP 28:

- a. Remove the Damper from the vise and cycle the Rebound Shaft by hand.
- b. The damping should feel consistent with no gaps in force.
- c. If the Damper feels inconsistent, the bleed process may need to be repeated until all the air is removed.



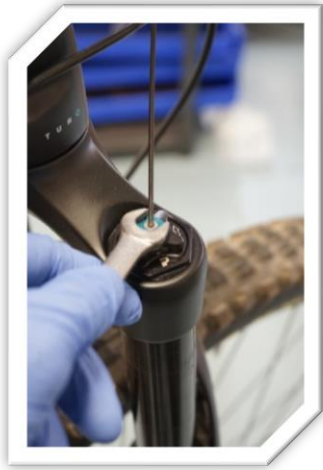
STEP 29:

- a. Thread the Damper into the crown of the fork.
- b. Tighten the Damper with a 32mm chamferless socket.



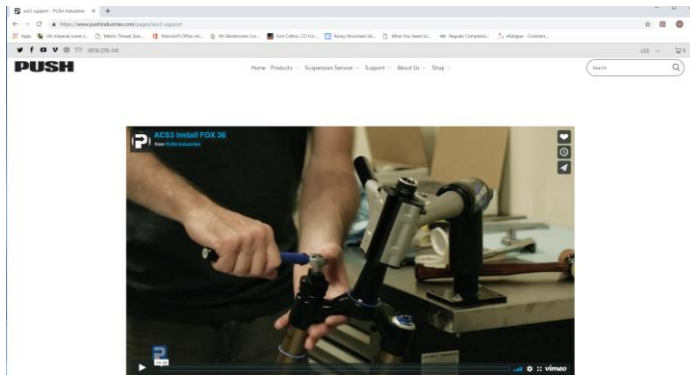
STEP 30:

- a. Re-install the High Speed Knob.
- b. Apply Blue Loctite 243 to the set screws.
- c. Ensure the set screw holes are aligned with the flats on the silver Barrel.
- d. Use a 1.5mm Hex to tighten the set screws with even pressure on both sides.



STEP 31:

- a. Re-install the Blue Low Speed Knob.
- b. Apply Blue Loctite 243 to the counter-sunk screw
- c. Use a 10mm wrench to hold the knob in place, then tighten the screw with a 2mm hex.



STEP 32:

- a. Complete the Lower Fork Service procedure. Refer to the ACS-3 instructional video for details.
- b. To learn more visit:
<https://www.pushindustries.com/pages/acs3-support>