VELKYNE

USER MANUAL

DISC BRAKE PISTON SPREADER

Two wedge-shaped polymer blades to push back the pistons of a hydraulic caliper without scratching or tilting them. Pad change, rubbing brake, lever pulled with the wheel out: the procedure, the precautions, the tricky cases.

ROAD AND MTB HYDRAULIC CALIPERS · 2 BLADES, 106 × 30 × 16.2 MM · POLYMER, 26 G



01 · BEFORE YOU START

CONTENTS, USE, SAFETY

ITEM	QTY	DETAILS
Spreader blades	**2**	Polymer, wedge profile, grip ring. Two different profiles: one has a groove on its face, the other a notch at the tip
Zip pouch	**1**	164 × 100 mm

What this tool does

Slid between the pads or between the pistons, the blade goes in gradually and **pushes both pistons back at the same time, flat**. The polymer does not scratch the pistons or mark the pads, whereas a screwdriver presses on one point, tilts the piston and damages its seal: the leak or the rubbing comes a few weeks later. Try both blades: keep the one that sits flattest in your caliper.

When to push the pistons back

- At every **pad change**: the pistons have moved out to compensate for wear, and the thicker new pads will not go in without pushing them back.
- When the **lever was pulled with the wheel out**: the pistons have moved out and the rotor no longer fits.
- When a brake **rubs constantly** because one piston is further out than the other.



The blade between the pads of a road caliper: the wedge pushes both pistons back together.

SAFETY

- Never touch the pad faces or the rotor with greasy fingers: contaminated pads no longer brake.
- Never use a screwdriver, a tyre lever or any metal tool on a piston: pistons, often ceramic or resin, crack and their seals get cut.
- Never pull the lever with the wheel out unless a spacer is between the pads.
- Brake fluid irritates skin and strips paint: gloves and a rag within reach.

You will also need

- Key or pliers for the pad retaining pin
- Brake cleaner, clean rag, cotton bud
- Caliper transport spacer (keep one after every pad change)
- New pads if that is the purpose of the job

02 · PROCEDURE

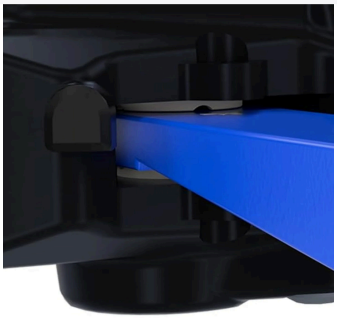
PUSHING THE PISTONS BACK

Pads in place (rubbing brake, pistons out)

1. **Remove the wheel** and look into the caliper: both pads must be visible, with a gap between them.
2. **Slide the tip of the blade** between the two pads, in line with them, bearing on the full width of the pads.
3. **Push in gradually,** by hand, keeping the blade flat. The pads move back and push the pistons into their bores. A slight back-and-forth motion helps a lazy piston.
4. **Stop when it bottoms out:** the pistons are home when the blade no longer advances without effort. Do not insist.

Pads removed (pad change)

5. **Take the pads out** (pin or bolt, spring). Clean around the pistons with a cotton bud and brake cleaner: a clean piston goes back straight.
6. **Lay the blade flat on the pistons,** its wide face covering each piston as fully as possible, never its edge or tip on the rim of a piston.
7. **Push each piston fully home,** slowly. If one piston goes in and the other comes out, hold the first with the second blade while you push the second.
8. **Refit the new pads,** the spring and the pin, then the wheel.



The blade flat between the pads: the wide face spreads the push.

THE PISTONS RESIST

The system holds too much fluid, often because it was topped up with the pistons out. Open the lever's bleed screw (rag around it, the excess drains out), push back, close. Refer to the brake manufacturer's bleeding procedure. Never force: the seal or the lever would suffer.

LAZY PISTON

A piston that goes back reluctantly is often dirty. Clean it with the fluid specified by the brake manufacturer on a cotton bud, never with oil or penetrating spray, then move it out and in two or three times.

03 · TO FINISH

BACK ON THE ROAD, TROUBLESHOOTING, CARE

After the job

1. **Refit the wheel** and tighten the axle to the torque marked on the part.
2. **Pump the lever** several times, until the pistons come back into contact with the pads and a firm bite point returns.
3. **Spin the wheel:** no rubbing. Otherwise, loosen the caliper mounting bolts, squeeze the lever, retighten the bolts to torque while holding the lever.
4. **Bed in new pads:** a dozen progressive stops without coming to a halt, in a safe place, before the first real ride.

If something goes wrong

SYMPTOM	LIKELY CAUSE, FIX
One piston comes out as the other goes in	Normal: block the first with the second blade, push the second back.
The pistons will not go back	Too much fluid in the system (see previous page) or seized piston: clean, then bleed as per the manufacturer.
The brake still rubs	Caliper off-centre or warped rotor. Re-centre the caliper; a warped rotor is trued or replaced.
Brake squeals or brakes poorly	Contaminated pads or rotor: degrease the rotor, replace the pads.
Soft lever after reassembly	Air in the system: bleed as per the manufacturer's procedure.

Caring for the tool

- Wipe the blades after use: no brake fluid in the pouch.
- A split blade or one with a blunted tip must be replaced: it no longer goes in flat.
- The 26 g and the pouch fit in a saddle bag kit: the tool rides with you.

Going further, on video

Independent tutorials on caliper pistons, scan to watch.

Oops! Fix (most) hydraulic disc brakes
Berm Peak · English

Brake Pistons Stuck? Easy Fix & Maintenance Tips for Disc Brakes
Ride OC · English

Need help?

velkyne.com/contact
Our team answers your questions about use and compatibility.

Flat, slowly, never by force.
A piston goes back the way it came out: straight. The rest is cleaning and patience.

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