

hope



CAUTION: READ THIS BEFORE INSTALLING YOUR BRAKES!

Riding bicycles can be dangerous. These instructions should be read thoroughly before installation. Failure to follow these instructions before installing and using Hope Technology Components can result in severe injury or death.

- Don't overestimate your technical capacities. This brake system must be fitted by a competent cycle mechanic using the correct tools. Incorrect installation could result in brake failure that may cause serious or fatal injuries.
- During installation, keep your fingers away from rotating disc brake as it could inflict severe cuts.
- Please refer to our website how to videos and technical documents for more information including servicing and maintenance: www.hopetech.com / Tech support.
- This brake system has been designed to be used only on two-wheel vehicles with human propulsion. Any other application is not advisable and could result in the failure of this product.
- If a brake mount is required, using a Hope Technology 100% CNC machined mount is highly recommended to ensure the best possible brake feel.
- Before each ride always check the brake for proper function, the brake pad for wear (0.5mm of pad material left minimum) and that there is no system damage resulting in fluid leaks.
- Your brake system will generate heat during braking. Never touch either the disc or caliper after long braking period as this could cause severe burns.
- It's common sense to check that your wheel's retention systems and frame components are securely installed and tightened.
- Your braking performance will improve in almost all conditions. Please take time to become familiar with your new brake. Always ride within your own ability.
- Brake pad contaminated with brake fluid, chain lubricant or unsuitable bike cleaner will need replacing because the overall brake performance will be greatly diminished.
- If you have any doubts or questions, please contact your dealer or the appropriate distributor for your country.
- If you decide to ignore these important safety warnings and instructions, you are doing so at your own risk and Hope Technology cannot be held responsible for any consequences resulting from the misuse of the brake system.

hope | TECH FOUR

BOX CONTENTS

- Brake system: Fully bled · M6 x 18mm Caliper bolts · Pads

TOOLS REQUIRED

- Torx T25 driver · 4mm Hex · 5mm Hex
- 8mm Spanner · Flat blade screwdriver

ATTACHING THE ROTOR TO THE HUB

With this brake system it is **highly recommended** that you use only Hope Rotors. Our rotors have been especially developed to work in association with our calipers and brake pads.

- The brake rotor is attached using six bolts (supplied) or Centre Lock lock ring depending on type of rotor.
- Make sure that the laser marked arrow on the rotor is pointing in the same direction as the forward wheel rotation.
- Six Bolt Rotor:** Using a Torx 25 driver, tighten the M5 rotor bolts in a cross pattern. **Recommended tightening torque: 5-6 N.m**
- Centre Lock Rotor:** Using a cassette tool tighten lock ring. **Recommended tightening torque: 40-50 N.m** (Unless otherwise specified)

NOTE: A mild engineering adhesive could be used on the rotor bolts to prevent them from unscrewing. **Do not** use permanent adhesive.

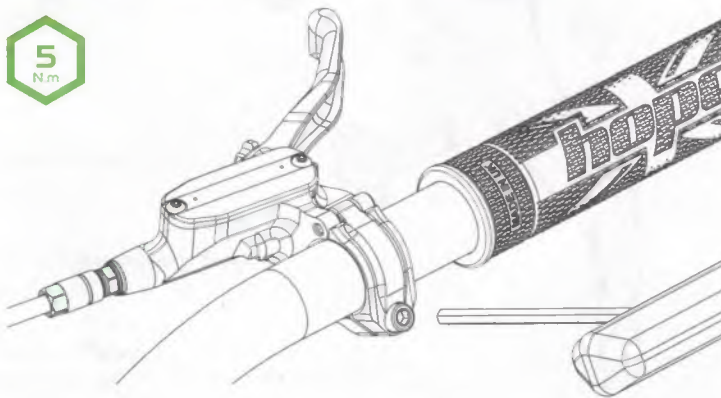
ATTACHING THE LEVER TO BARS

001 Remove the M5 clamp bolt on the brake master cylinder using a 4mm hex. Open the hinged clamp and attach master cylinder to the handlebars. Re-insert the M5 clamp bolt and tighten using the 4mm hex. **Recommended tightening torque: 4-5 N.m.**

002 Both LH and RH brakes are supplied with full length hoses so the front brake hose at least will need to be shortened. In the first instance route the caliper and hose down to the front brake mount or along the frame to the rear brake mount. **Do not** disconnect to route the hose through the frame or attempt to shorten the hose at this point.

003 Before shortening the brake hose make sure the handlebar and stem are adjusted to their final position and there is enough slack in the hose for full steering movement left and right. If in doubt it's better to cut the hose **too long** than too short.

004 Shorten hoses as required. For this operation please follow the instruction videos on our website. **HOW TO:** Shorten a brake hose. hopetech.com/how-to-videos/# During the process of shortening the hose the hose will be disconnected allowing the hose to be internally routed though the frame if required.



ATTACHING THE CALIPER TO THE FORK OR FRAME

To ensure that the caliper is properly aligned and to help avoid squealing or bad lever feel - prior to fitting the brake, it is important that the tabs of your fork or frame are clear of any paint or burrs.

MOUNTING THE CALIPER ON POSTMOUNT TYPE MOUNTS

001 Before attaching the caliper ensure that the brake pads are fully retracted in the caliper. If not, gently push the piston back using a plastic tyre lever or something similar. Beware not to damage the pads. Take them off if necessary. Push on the left hand side pad backplate to push the right hand side piston and vice versa.

002 Mount the wheel fitted with the rotor, ensuring correct fitment in dropouts.

003 Position the caliper on the mount and slightly tighten the two M6 bolts.

004 At both front and rear of the caliper, adjust its position so it is central over the rotor (see arrows on Fig 001) then tighten the two M6 bolts using a 5mm hex. **Recommended tightening torque: 8-9 N.m.**

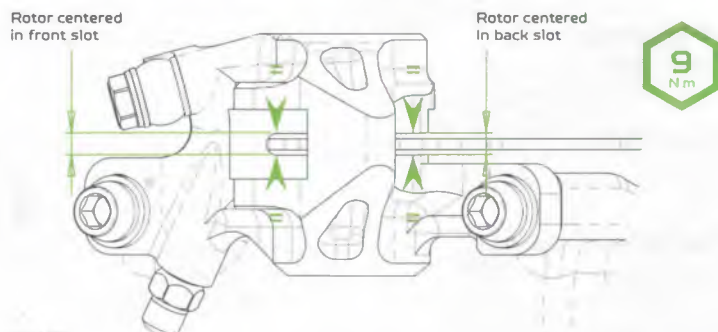


Fig 001

NOTE: We do not recommend pumping the lever to push pads out to align caliper at this point. (See section regarding the alignment of pistons.)

MOUNTING THE CALIPER ON IS TYPE MOUNTS

On **IS mount** you will have to use an adaptor bracket to be able to fit the brake caliper.

001 According to the rotor size and type of mounts, attach the suitable adaptor bracket onto the brake tabs and tighten the two M6 bolts using a 5mm hex. **Recommended tightening torque: 8-9 N.m.** Illustration Fig 002.

002 Follow the same instructions as fitting the brake onto a postmount (See previous section). Illustration Fig 003.

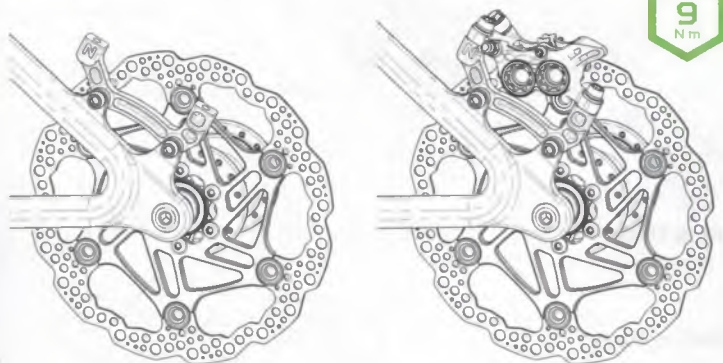


Fig 002

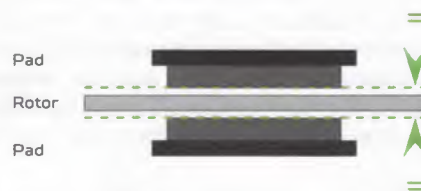
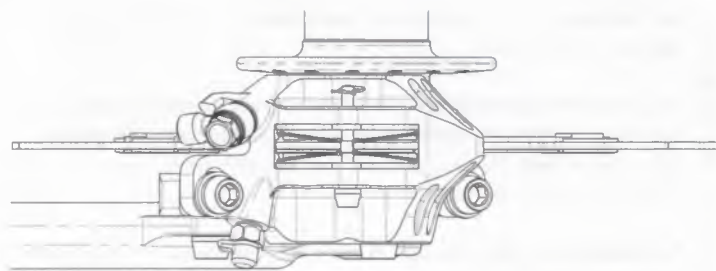
Fig 003

CENTRALISE THE PADS OVER THE ROTOR

THIS STEP IS VERY IMPORTANT AND MUST NOT BE IGNORED!

Gently pump the lever in order to bring the pads closer to the rotor. One pad might enter in contact with the rotor before the other. If this happens, hold the rotor against the pad that is already in contact with the rotor to allow the other one to move.

For an optimised lever feel, both pads must enter in contact with the rotor at the same time and allow the same clearance (See arrows) when retracted. The rotor should not be flexing at any time.



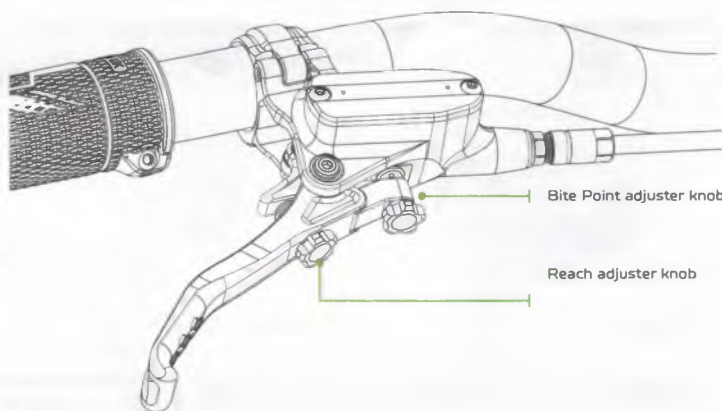
PERSONAL SETTINGS

The Tech 4 lever allows two types of adjustment to suit personal preferences.

001 The **Bite Point** adjustment: This will modify the free stroke of the lever blade before the pads enter in contact with the rotor. With your fingers, turn the bite point adjuster knob clockwise to reduce the free stroke and anti-clockwise to increase the free stroke.

002 **Finger Reach** adjustment: This refers to the position of the lever blade relative to the bars. After adjusting the bite point, you will need to set or re-set your lever reach as it will change when adjusting the BPC. With your fingers, turn the adjuster screw clockwise to increase the reach and anti-clockwise to reduce it.

NOTE: You may have to reproduce step **001** and **002** several times before reaching your optimum setting.



GEAR SHIFTERS DIRECT MOUNTS

Shimano Shifters: You can purchase as an option our SHIMANO EV shifter Direct Mount for Tech 4 master cylinder. SHIMANO version will fit SHIMANO EV shifters **only**. Ref: **HB5P431**

SRAM Shifters: You can purchase as an option our SRAM shifter Direct Mount for TECH4 master cylinder. SRAM version will fit all SRAM shifters with removeable clamp. Ref: **HB5P426**

BED IN PERIOD AND MAINTENANCE

Before riding and before every ride, check the correct action of the brake and that braking effort is applied as the lever is pulled.

To achieve the maximum braking performance, the new pads will need bedding in. Please note that sintered pads take longer to bed in than organic pads.

To bed in the pads, ride a short distance whilst alternately gently applying the brake on and off without attempting to stop. This procedure will achieve good braking performance but will reach its full potential after a few rides.

For maintenance tips refer to our how to videos in the **Tech Support** section of our website.

To optimise the performance of the brake it is important to keep the caliper pistons lubricated using silicon lubricant only. We advise doing this at least at every pad replacement. Check the **How to align and lubricate brakes** video for guidance.

For brake bleeds use **only DOT 5.1 or DOT 4** brake fluid from a clean container. Your brake should not need bleeding more than once every year or two. In 90% of cases, bad brake feel comes from poor brake setup. Bleeding doesn't require any specific bleed kit, but our easy bleed kit can make the process easier. Any waste fluid must be discarded responsibly following your local environment guidelines. Never discard in sewage system or ground. **NEVER USE DOT 5 or Mineral Oil**

BRAKE PADS

Your Hope Tech 4 Brake is supplied with Green compound pads (R) fitted as standard. A pair of Red compound pads (All Conditions) are also supplied in the box. For more information on available pad compounds and their intended use please see our Brake Pad Usage Guide which can be found on line at:

hopetech.com/_repository/1/documents/hope_brake_pad_guide.pdf

COMPATIBLE CALIPERS



X2 Caliper



E4 Caliper



V4 Caliper



Trial Zone Caliper

NOTES:



Traduction Française
Deutsche Übersetzung

HOPE WARRANTY AND SUSTAINABILITY

All Hope Technology disc brake systems are covered for two years from original date of purchase against manufacturer defects in material and workmanship. Proof of purchase is required. Products must be returned to the original place of purchase or to Hope Technology to process any warranty claim. This warranty does not cover any damage caused through misuse or failing to comply by the recommendations given in this manual. To fight against planned obsolescence of products we endeavour to supply spare parts for at least **10 years** after final production. This warranty does not affect your statutory rights.

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TECH 4 MASTER CYLINDER ASSEMBLY

Tech 4 Pivot Bolt
HBSP425

Dome Head Screw
M3 x 8

Tech 4 Lid
HBSP424

Tech 4 MCYL Body
HBSP420

Hinge Clamp
HBSP401

Clamp Bolt
M516AL

Tech 4 MCYL Spring
HBSP386

Spring Top Hat
HBSP412

18mm Grooved Pin
HBSP387

Tech 4 Primary Seal
HBSP408

Tech 4 MCYL Piston
HBSP423

Dome Head Screw
M3 x 6

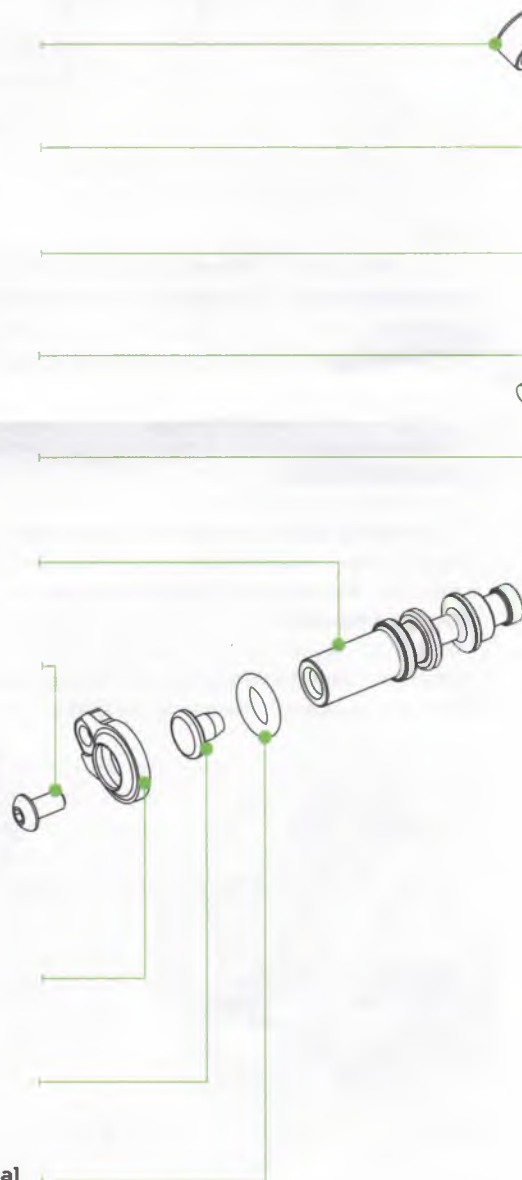
Stop Plate
HBSP326

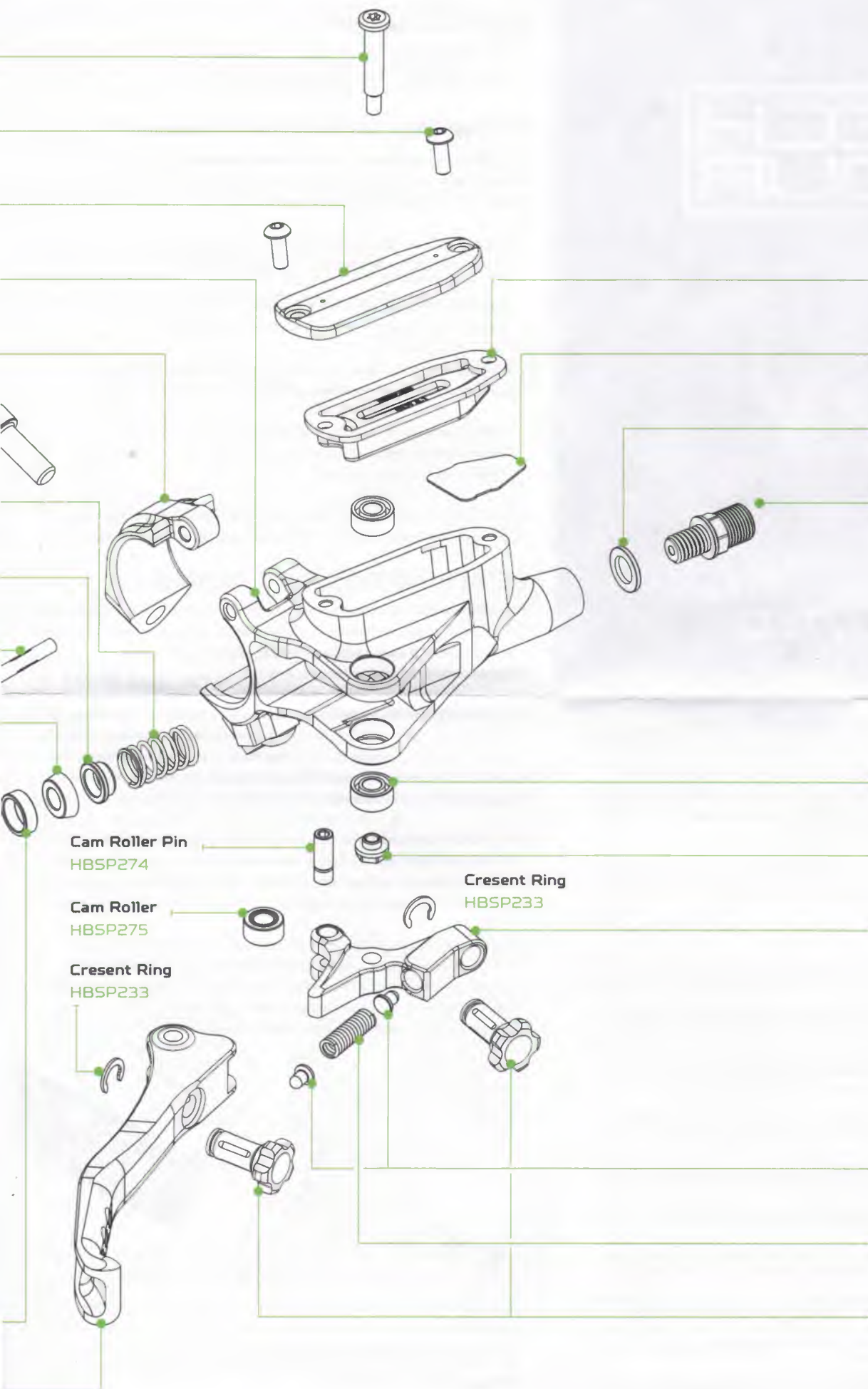
Piston Insert
HBSP272

Tech 4 Secondary Seal
HBSP430

Tech 4 Piston Guide Bush
HBSP407

Tech 4 Lever Blade
HBSP421





Tech 4 Diaphragm
HBSP405

Tech 4 Deflector Plate
HBSP406

M6 Sealing Washer
HBSP026

Straight Connector
HBSP163

**Tech 4 Pivot
Bearing x 2**
S6B42R5

Tech 4 Pivot Nut
HBSP428

Tech 4 Cam
HBSP422

Cam Roller Pin
HBSP274

Cam Roller
HBSP275

Crescent Ring
HBSP233

Crescent Ring
HBSP233

Brass Plunger x 2
HBSP319

Lever Spring
HBSP312

Adjuster Screw x 2
HBSP219