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# **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 sever 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 of the misuse of the brake system.

## **BOX CONTENTS**

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

#### TOOLS REQUIRED

- · Torx T25 driver · Torx T10 driver · 4mm Hex · 5mm Hex
- · 8mm Spanner · Flat blade screwdriver

#### FITTING THE BRAKE SYSTEM

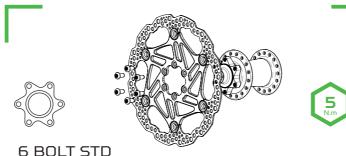
All brakes are supplied with a 2m hose length. This means most brake hoses will need to be shortened during installation. We recommend leaving brake hoses uncut for initial fitting and set-up, once good function is confirmed then proceed to shortening the hose and bleeding the brake system.

# ATTACHING THE ROTOR TO THE HUB

It is highly recommended that you use only Hope disc rotors with this brake system. Our rotors have been developed to work in combination with our calipers and brake pads to give the best overall system performance.

This brake system is compatible with disc thickness from 1.8mm to 2.3 mm only.

- The brake rotor is attached using six bolts or Centre Lock lock ring depending on the type of rotor.
- Make sure that the laser marked arrow on the rotor is pointing in the same direction as the forward wheel rotation

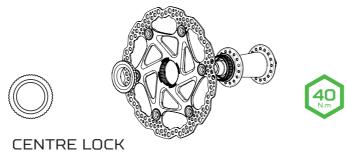


Uses 6x M5 screws on Ø44 PCD to fasten disc on to hub. Using a T25 torx driver, tighten the M5 rotor bolts in a cross pattern.

Recommended tightening torque: 5-6N.m

#### COMPATIBLE OPTIONS:

· Fixed 2.3mm · Floating 1.8mm



Uses a lockring to fasten disc on to hub. Using a cassette tool tighten the lock ring.

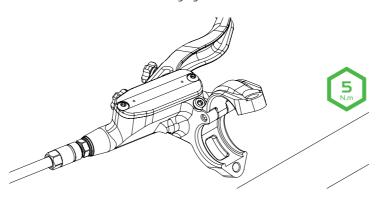
Recommended tightening torque: 40-50N.m (Unless otherwise specified)

#### COMPATIBLE OPTIONS:

· Floating 1.8mm

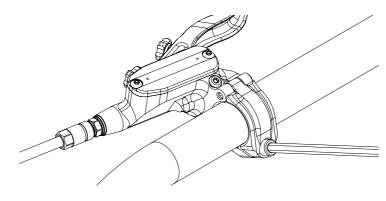
# ATTACHING THE LEVER TO THE HANDLEBAR

001\_Remove the M5 clamp bolt on the brake master cylinder using a 4mm hex. Open the hinged clamp and position over the handlebar. Re-insert the M5 bolt but don't fully tighten.



OO2\_Position the lever close to its final riding position. Take into account if handlebars will be cut down, stem length or stack height will be altered. Once in position fully tighten the M5 clamp bolt.

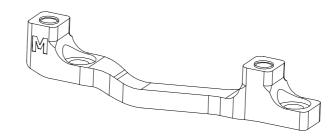
Recommended tightening torque: 4-5 N.m



003\_Route the brake hose as close as possible to its final path while leaving the brake system fully intact. Gather any excess hose at the lever end of the brake, this will be removed later when the hose is shortened.

## MOUNT THE CALIPER

OO1\_To ensure that the caliper is properly aligned and to help avoid squealing, bad lever feel or brake pad rub – prior to fitting the brake, it is important that the tabs of your fork or frame are clear of any paint or burrs. Consider having the brake mounts faced for perfect alignment and the best brake performance.



OO2\_Depending on the type of mount on your frame or forks, you may need to use an adaptor bracket so the caliper fits properly with the selected disc size.

If a brake mount is required, using a Hope Technology CNC machined mount is highly recommended to ensure the best possible brake feel and performance.

Refer to the "Brake Mount Chart" for all Post Mount calipers.

**003**\_Before attaching the caliper ensure that the brake pads or pad spacers are removed, and the pistons are pushed fully back into their housing. This is to facilitate the caliper alignment.

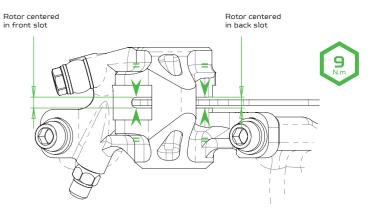
004\_Mount the wheel fitted with the rotor, ensuring correct fitment in dropouts.

005\_Position the caliper on the brake mount and slightly tighten the two bolts.

OO6\_At both front and rear of the caliper, adjust its position so it is central over the rotor (see arrows on figure below) then tighten the two bolts using a 5mm hex.

Recommended tightening torque: 8-9 N.m

For more information see BRAKES\_Tech\_Book 'Setting Up Your Brake'



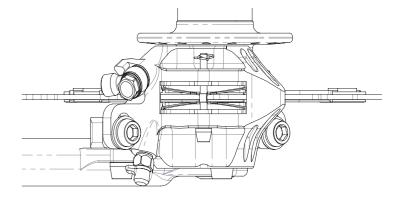
**NOTE**: We **do not recommend** pumping the lever to push pads out to align caliper at this point. (See section regarding the alignment of pads.)

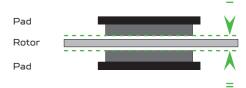
## PAD ALIGNMENT

001 Re-fit the brake pads

OO2\_Gently pump the brake lever to push the pads out until they contact the disc. Each pad should sit away from the disc an equal amount and travel the same amount when the brake is applied. A disc bending when the brake is applied is evidence of badly balanced pads. All parts of both pads should contact the disc simultaneously.

003\_Adjust the pad balance as necessary by levering behind the pads to hold the opposite piston back and allow the opposing piston to come out further.





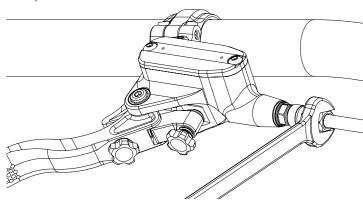
#### CHECK BRAKE FUNCTION

Pull the brake lever and check for solid lever feel. Make note of where the bite point is relative to the bars. These checks will become your reference for checking the brake post bleeding and conforming the bleed has been completed successfully.



# CUTTING AND SHORTENING THE HOSE

001\_Remove the shroud on the master cylinder using an 8mm open ended spanner.

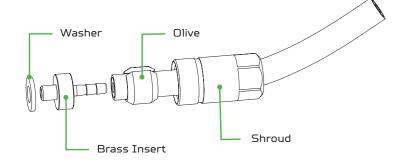


002\_Remove the hose from connector, check for the small copper washer on the end of the hose insert, this should be discarded and not re-used.

003\_Route the free end of the hose as necessary i.e. through the frame if internally routed.

004\_Check the hose length against the end of the master cylinder. Before cutting 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. Cut to the desired length.

005\_Fit new hose fittings (supplied) to the end of the hose. Make sure to assemble the parts in the correct order, the original shroud needs to be fitted over the hose before the new insert is fitted.



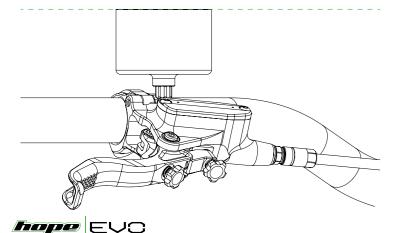
OO6\_Re-attach the hose to the master cylinder and tighten the shroud with the 8mm open ended spanner.

## **BRAKE BLEEDING**

Any brake that has required hose shortening will need bleeding. We recommend using our Tech 4 EVO Easy Bleed Kit for this process.





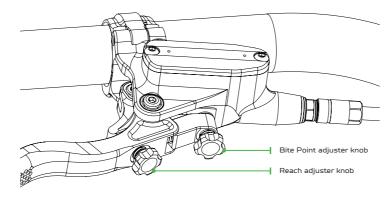


## PERSONAL SETTINGS

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

001 Bite Point Control (BPC): This will modify the free stroke of the lever before the pads contact the rotor. With your fingers, turn the BPC adjuster clockwise to reduce the free stroke and anti-clockwise to increase the free stroke.

002\_Reach: This alters the position of the lever blade relative to the handlebars. After adjust the BPC you will need to set the lever reach as it will change as the BPC is adjusted. With your fingers, turn the adjuster clockwise to increase the reach and anti-clockwise to reduce it.



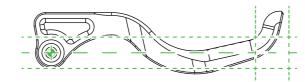
There are three different lever blade options for the EVO brake range, these allow the user to further tune the brake to their personal preferences. Brakes are supplied with Standard lever blades, Power and Control options are available separately.



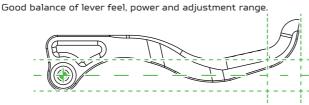
For more information please see 'EVO Lever blade selection guide'

#### CONTROL

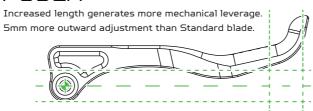
Shape optimised for running closer to the handlebars.



# STANDARD



#### POWER



#### DIRECT MOUNTS

Mounts are available to directly mount gear shifters and/or dropper levers directly to the brake for a cleaner cockpit set-up.

For a full list of available mounts please see 'Direct Shifter Mount Chart'

## PADS

Your new Evo brake is supplied fitted with Hope Racing Compound pads. These are high performance resin-based pads formulated for increased

power, reduced bed-in time and excellent fade resistance. We also offer other brake pad compound options tailored to different use cases. For more details on the pad compounds available for your brake and the intended use please see the 'Brake Pad Usage Guide'

#### **BED IN PERIOD**

To achieve 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 while alternately applying the brake on and off without trying to stop. You will feel the brake power increasing with every cycle, end the procedure when good braking performance is achieved. The brake will reach it's full performance after a few rides.

#### **MAINTENANCE**

Routine maintenance will keep your brakes working optimally, improve life of wearable parts and keep future maintenance to a minimum.

ALWAYS keep your brakes clean. Cleaning minimizes the risk of contamination, removes dirt and debris that can cause reduced brake performance and decrease the life of consumable parts. It will also keep any corrosion to a minimum extending the life of the brake system. Avoid automotive disc brake cleaners for cleaning, look for disc brake friendly bike cleaners without silicon.

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

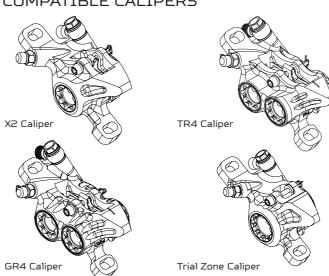
Check master cylinder for signs of damage, smooth operation, correct feel and no excessive lever travel. Check brake lines for signs of damage or fluid leaks, check all connections are tight

Check calipers for signs of damage or fluid leaks, check mounting bolts are tight.

Check rotors for signs of overheating or damage to the braking surface

For more information regarding the on-going maintenance of your brakes please see BRAKES\_Tech\_Book 'On-going Maintenance'

# COMPATIBLE CALIPERS



## 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.

## NOTES:

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| Traduction Francai                        |
| Traduction Françai<br>Deutsche Übersetz   |
| INST053_EN: Instruction - Tech EVO Brakes |
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