hope

www.hopetech.com

HOPE TECHNOLOGY (IPCO) LTD
Hope Mill
Barnoldswick, Lancashire
BB18 5PX, United Kingdom

Technical enquiries :
tel: 00 44 (0) 1282 818 413
e mail: service@hopetech.com

Sales enquiries :
tel: 00 44 (0) 1282 851 200
e mail: info@hopetech.com

RX4 caliper usage chart

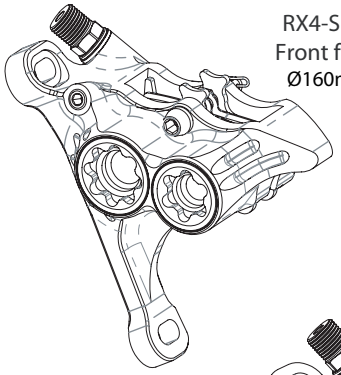
DH / FREERIDE	N/A
ENDURO	N/A
ALL MOUNTAIN	N/A
CROSS COUNTRY	N/A
XC RACING	N/A
TRIALS	N/A
ROAD / CX	

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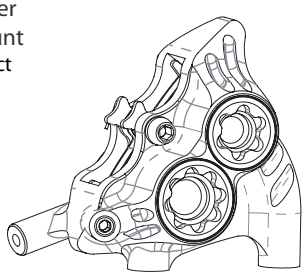
RX4 SH

HYDRAULIC DISC BRAKE CALIPER MODEL YEAR 2017

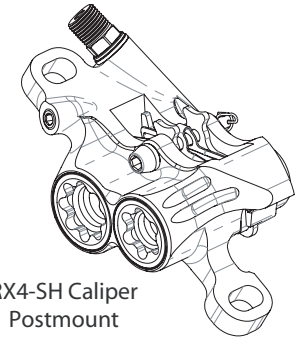
QUICK INSTALLATION GUIDE



RX4-SH Caliper
Front flat mount
Ø160mm direct



RX4-SH Caliper
Rear flat mount
Ø160mm direct



RX4-SH Caliper
Postmount

WARNING PLEASE READ FIRST

The RX4-SH caliper will solely work using mineral oil brake fluid, the use of any other brake fluid will result in brake failure

The RX4-SH caliper must only be paired with a Shimano* drop bar master cylinder

. 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 could cause serious or fatal injuries.
. Please refer to the website videos and technical documents for more information including servicing and maintenance - www.hopetech.com / Tech support section.
The video logo indicates you can find some useful tips on the website
. 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.
. 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.
. Before each ride always check the brake for proper function, the brake pad for wear and that there is no system damage resulting in fluid leaks.
. It's common sense to also check that your wheel's quick release systems 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.

*** this make belongs to a third party and have no relation with Hope Technology**

INTRODUCTION

Congratulations, you have just acquired the road and cyclo cross HOPE hydraulic four piston caliper proudly made in our Barnoldswick factory in Great Britain.

The one piece caliper is machined from a solid billet of aircraft spec aluminium.The caliper is designed to maximise power and stiffness.

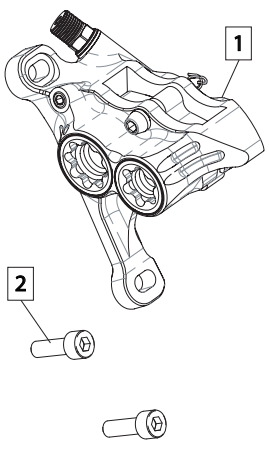
Using the appropriate caliper type for the forks and frame mounts, the system will work with a Ø160mm rotor.

TOOLS REQUIRED

Once again, don't overestimate your technical skills. If you are not familiar with this sort of installation we advise that this brake system should be fitted by a competent cycle mechanic.

+ 5mm Allen key
+ 4mm Allen key
+ 2.5mm Allen key
+ 8mm spanner
+ Flat blade screw driver
+ Appropriate bleed kit (Shimano funnel and bleeding syringe with M5 end)

BOX CONTENTS



1. Brake caliper with pad spacer
visual may change upon model
2. Caliper bolts
size and length may vary
3. Hydraulic fittings
copper washer, brass insert, brass olive, shroud
4. Brake pads
visual may change upon model

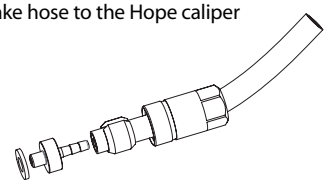
INSTALLATION STEPS

Please refer to the website videos and technical documents if you require more information about setting up this brake system, servicing and maintenance. www.hopetech.com / Tech support section

1. ATTACHING THE CALIPER TO THE BRAKE LINE

Always use the provided Hope hydraulic fittings on the caliper end and original manufacturers fittings at the lever end

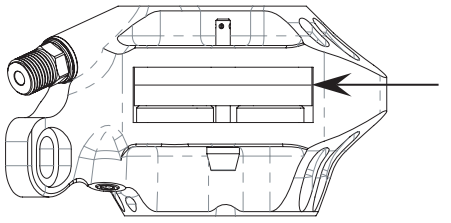
a) Remove the third party caliper if present and disconnect the brake hose
b) Install the hydraulic fittings provided onto the brake hose as shown on figure below
Shroud and olive over the hose, brass insert pushed in the hose, small copper washer
c) Connect the brake hose to the Hope caliper



2. BLEED THE BRAKE SYSTEM - MINERAL OIL ONLY

a) Preliminary check :
- make sure lever reach is fully out to get full lever travel.
- get the caliper at the lowest point, so bleed off the bike. Be wary of air getting trapped around the bottom bracket area if internal hose routing, the caliper is often higher than the bottom bracket.
- make sure the provided bleeding pad spacer blocks are both placed in the pad chamber to avoid soiling brake pads with any uncontrolled spill. Using only one spacer could result in the pistons travelling too far out and loss of brake fluid.

b) Bleeding procedure :
Start with the caliper syringe full and a bit of mineral oil brake fluid in the funnel.
Fill the system from the rear syringe, send fluid back to the lever funnel a few times.
Isolate the caliper by holding the lever with a rubber band or a mate then use the syringe as a vacuum at the caliper to gently draw air out - careful not to pull air past the seals.
Whilst pushing fluid back in the system from the caliper syringe slowly release the lever back to the open position.
Remove the bleed syringe from the caliper and put the bleed port screw back in, encourage one side of the pistons out by holding the opposite side of the caliper pistons back and squeezing the lever (see figure below).
Put the bleed syringe back on and then use a tool to push the caliper pistons back in. Any air trapped behind the pistons will escape through the syringe, repeat the same steps with the other side.
Lock off the caliper and then flick the lever aggressively, fully braking and allowing it to return fast, the brake should feel solid, if it doesn't repeat the bleed procedure.
Finally push the pistons back and remove the lever funnel.
c) Clean the caliper using isopropyl alcool



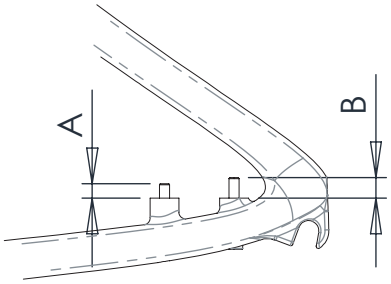
3. ATTACHING THE CALIPER TO THE FORK OR FRAME

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.

Important warning : Full thread engagement is required when installing the caliper on the forks or rear flat mount caliper
- Postmount type caliper : 9 to 10mm of the 2x M6 screw must be engaged in the forks
- Front flat mount caliper : 8 to 9mm of the 2x M5 screw must be engaged in the forks
- Rear flat mount caliper : 7 to 8mm of the 2x M5 screw must be engaged in the caliper body. Beware of this type of fitting as tab thickness can vary from one frame to another, see figure below.

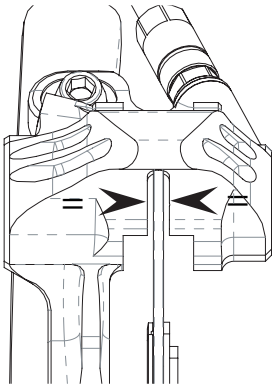
Also pay attention not to bottom out the screw in case they were too long, you may need to use some washers under the bolt head to achieve correct thread length.
We recommend the use of a mild engineering thread lock on caliper bolts to prevent them unscrewing, do not use permanent thread lock!

Lenght of thread showing above rear flat mount tabs
A = 7 to 8mm of thread
B = 10 to 11mm of thread



3.1 MOUNTING THE CALIPER

a) Before attaching the caliper ensure that the brake pads or pad spacers are removed, and the pistons are fully retracted. This is to facilitate the caliper alignement.
b) Mount the wheel fitted with the rotor, ensuring correct fitment in dropouts.
c) Position the caliper on the brake mount and slightly tighten the two bolts.
d) 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 Allen key. Recommended tightening torque 8-9 N.m for M6 bolts, 8 N.m for M5 bolts.
e) Install the pads in the caliper, secure them with pad in and retaining clip.



Note : We do not recommend pumping the lever to push pads out to align caliper at this point. See section 4 regarding the alignment of pistons.

4. CENTRALISE THE PADS OVER THE DISC

This step is very important and mustn't be ignored.
Gently pump the lever to bring the pads closer to the disc. One pad might enter in contact with the disc before the other. If this happens, hold the disc against the pad that is already in contact with the disc to allow the other one to move.
For an optimised lever feel, both pads **must** enter in contact with the disc at the same time and allow the same clearance (see arrows) when retracted. The disc should not be flexing at any time.



BREAK 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 alternatively 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.
About maintenance tips refers to our "how to" videos on the website.
To optimise the performance of the brake it is important to keep the caliper pistons lubricated using silicon lubricant only. We advice doing this at least at every pad replacement.
For brake bleeds use **only mineral oil brake fluid** from a clean container.

WARRANTY

All Hope Technology disc brake systems are covered for 2 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 mis-use or failing to comply by the recommendations given in this manual.

This warranty does not affect your statutory rights.