



eeBrake Direct Mount Instructions:

(Uses Shimano Direct Mount Standard)

Safety Information -

- Warning: Improper use of your bike's brakes may result in loss of control and an accident, resulting in serious injury. Learn to control and use your brakes safely by practicing riding and braking techniques in a safe place. Read and follow these instructions. Keep these instructions for later use.
- Tighten brake nuts and bolts to the specified tightening torque. Over-tightening bolts may result in brake failure.
- Use grease as specified to protect parts against galling, wear and corrosion.
- Plastic bushings are designed to be used dry. Light oil lubricant is optional to facilitate smooth movement and is suggested when riding in wet conditions.
- Brake mounting bolts and nuts must be long enough to provide at least 5 full turns of engagement when mounting the brakes to the bike. Insufficient bolt engagement may result in brake failure, an accident and serious injury.
- Always check your brakes to make sure the quick release is closed before riding your bike.
- Routinely check your brakes ensuring they are in good working condition, checking the bolts for tightness and the cables for rust and fraying.
- Replace cables immediately if problems are found. Never ride your bike with loose, worn or damaged brakes including the pads. This may result in an accident and serious injury.
- Do not allow oil or grease to get on the brake pads as this may result in an accident and serious injury.
- Use caution when riding in wet weather as tire traction is reduced and stopping distances are increased in these conditions. Ride at reduced speeds, apply the brakes gently and allow greater distances to stop.

Pre-Installation: Before starting the mounting procedure.

1. Remove U shaped spring. See Graphic on page 2
2. Remove Cable bolt and plate.
3. Open Quick Release
4. Remove wheels from the bike.
5. Install thin 6mm stainless steel washers provided on the mounting studs.
Grease stud threads.

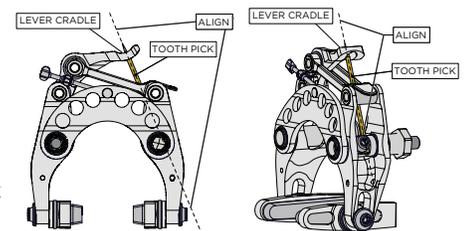
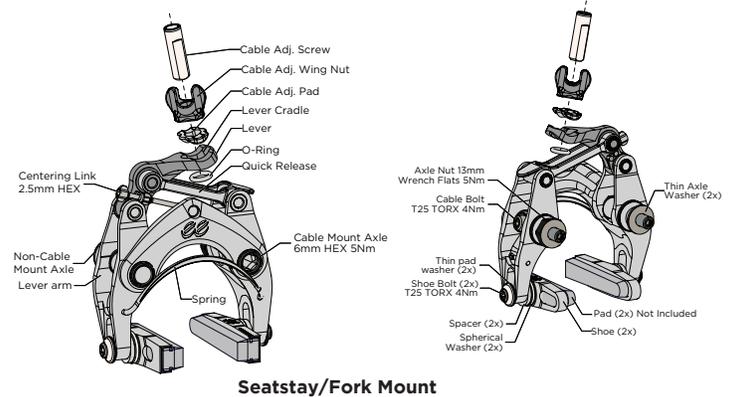
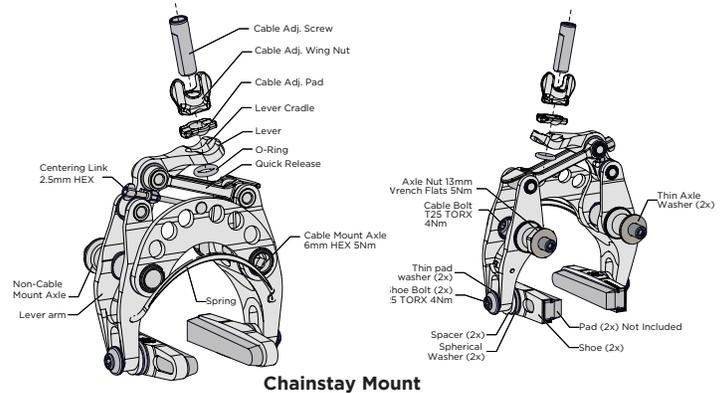
1) Installation: Mounting the eebrake to the fork/frame.

1. Place brake to the fork/frame aligning the mounting studs to the corresponding threaded holes on the frame/fork.
2. Engage a 6mm hex key in hex socket at the end of the cable mount axle. Turn the axle 2 revolutions, screwing the stud into the frame/fork. Perform the same operation on the non-cable mount axle. Continue to screw in the bolts 2 revolutions at a time alternating between the cable mount and non-cable mount axles until the axles bottom out on the frame/fork.
3. Engage the hex key in hex socket at the end of the cable mount axle. Unscrew the axle a partial revolution aligning cable mounting surface with lever cradle. Use the small wood stick (tooth pick) to aid in alignment. Place the stick in the cable mount. Use it to align the cable mount with the lever cradle.
4. Hold the cable mount axle in the correct orientation and keep from rotating, using the hex key engaged in the axle end. Using a 13mm wrench, tighten the axle nut to 5Nm pressing the mounting bolt washer firmly against the frame/fork. Double check the axle orientation and cable mount surface alignment with the lever cradle.
5. Tighten non-cable mount axle with a 6mm allen wrench to 5Nm pressing the mounting bolt washer firmly against the frame/fork
6. Move the lever up and down with your hand - Checking that the brake actuates freely.
7. Install the Cable Bolt with the square washer.
8. Install the spring. Start by inserting the longer end with the flat spot (oriented vertically) in the vertical slot on the quick release side arm. Rotate the spring down into place and insert the short end in the lever arm hole. See graphic on page 2.

2) Cable housing and Cable Installation - Measure and cut the cable and housing to the correct length. When using "Low friction coated cables: Scratch low friction coating off cable surface where it contacts with the brakes prior to attachment.

Cable housing length keys: The housing must be long enough to allow for free movement as the brake is operated (As the eebrake is operated, the cable housing moves toward the brake). Too short of housing will pull against the brake when operated and/or may not allow the brake to fully open when released. The housing alignment / length is to allow the cable adjuster to naturally seat in the lever cradle. Improper alignment / length will 'rack' the cable adjuster in the lever. This hinders smooth brake operation.

Note: When replacing other brakes with eebrakes, the correct length varies. As a guide, the length is often 6-8mm longer than the existing housing. Install the cable/housing into the cable adjust screw and lever. Insert the brake cable into the cable groove under square cable plate and bolt. While holding the brake arms / pads against the rim, tighten the cable bolt to 4Nm.



3) Brake Pad Centering on the Rim - Using the centering link, rotate it using the small handle such that the pads are equal distant from the rim (use fingers or 2.5 hex key). Alternate centering link adjustment and squeezing the brake lever to achieve the correct center adjustment. The centering link is used for fine pad centering over a small range.

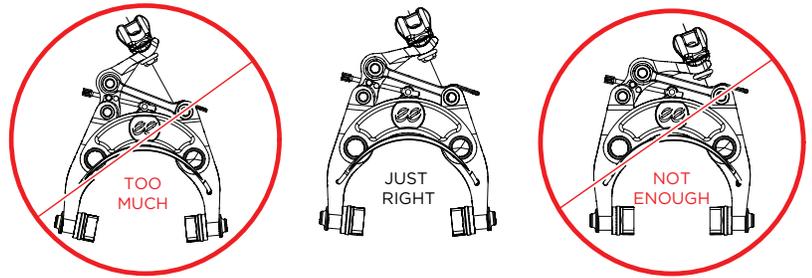
4) Rim Width Setup

- eeBrakes can be optimized to work with Rims from 19mm-28mm wide
- eebrakes come set up for 24mm +/- width (1 spacers on each side installed from Factory).
- Different rim widths are adjusted for through adding or removing spacer washers.
- Pad wear effects this setup. As pads wear, spacers may need to be added.
- The spherical washer must be used in all setups.
- Check that the spacer setup and fastened cable position allows full lever movement without the lever contacting the quick release. See figures for lever angle at resting position to allow for full movement.

General spacer setups.

19-22mm wide rims. Use 2 spacers on each side
 23-25mm wide rims. Use 1 spacers on each side
 26-28mm wide rims. Use 0 spacers on each side

5) Shoe Adjustment - The eebrake pad holder allows for “toe-in” and “Camber”. With the shoes slightly loose, set the pads to correctly contact the rim centering it on the brake track. This can be facilitated by squeezing the brake holding the pads in the correct position on the rim. Then fix the shoes to the arms by tightening the shoe bolts to 4Nm.



6) Pad Clearance Adjustment - The pad clearance is set by turning the cable adjust Wing nut. Detented Adjustments are made in 1/2 turns leaving the Wings always oriented front and back. Set pads to be 1.5mm to 2mm from the rim on each side. Lubricate the adjust pad where it contacts the adjust screw with thin grease or oil.

7) Quick Release - The “quick release” is operated by squeezing the pads against the rim with your hand and lifting up on the quick release lever with the other hand to open the brake. This allows the quick release arm to rotate away from the rim for wheel removal and replacement. The quick release is put back to “ride mode” by squeezing the pads against the rim and pushing the quick release back down to engage with the top of the left brake arm. Note when the quick release is opened, the brake is not functional. Take care the operation of the quick release to make sure it is in the ‘ride mode’ before riding.

Pad Installation - USE SHIMANO STYLE PADS ONLY! PADS MUST FIT SNUGLY. DO NOT USE PADS THAT FIT LOOSE AS THEY MAY FALL OUT WHILE RIDING AND RESULT IN LOSS OF BRAKING.

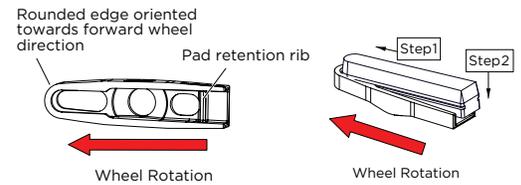
The eebrake uses a patented tool-less design that features a raised boss to retain the pad in the shoe.

Install the pad by sliding the pad from the rear of the shoe to front of the shoe with the pad heel raised above the shoe bottom to clear the raised boss.

Once the pad is slid all the way to the front of the shoe, press the pad firmly, seating it completely in bottom of the shoe.

!The open section of the shoe must face towards the rear of the bike. If installed incorrectly, pads will dislodge from the shoe!

Pad removal - Lift / pry the “heel” of the pad out of the shoe until it clears the raised boss. Then slide the pad out toward the rear of the shoe until the pad is free.



WHEN INSTALLATION OR ADJUSTMENT IS COMPLETE: CHECK THE BRAKES BY SQUEEZING THE BRAKE LEVER 10 TIMES VERY FIRMLY. RECHECK THE PAD CLEARANCE AND THE FASTENERS FOR TIGHTNESS. IMPROPER INSTALLATION CAN RESULT IN SERIOUS INJURY OR DEATH

Spring Loading:

1. Install spring as shown. Spring flat spot fits slot in arm one way.
2. Rotate after fully seated
3. Retain the spring in the cable mount side of the brake while carefully tilting the other end of the spring down to the other arm. Pull the spring away from the brake slightly to avoid scuffing the axle.

