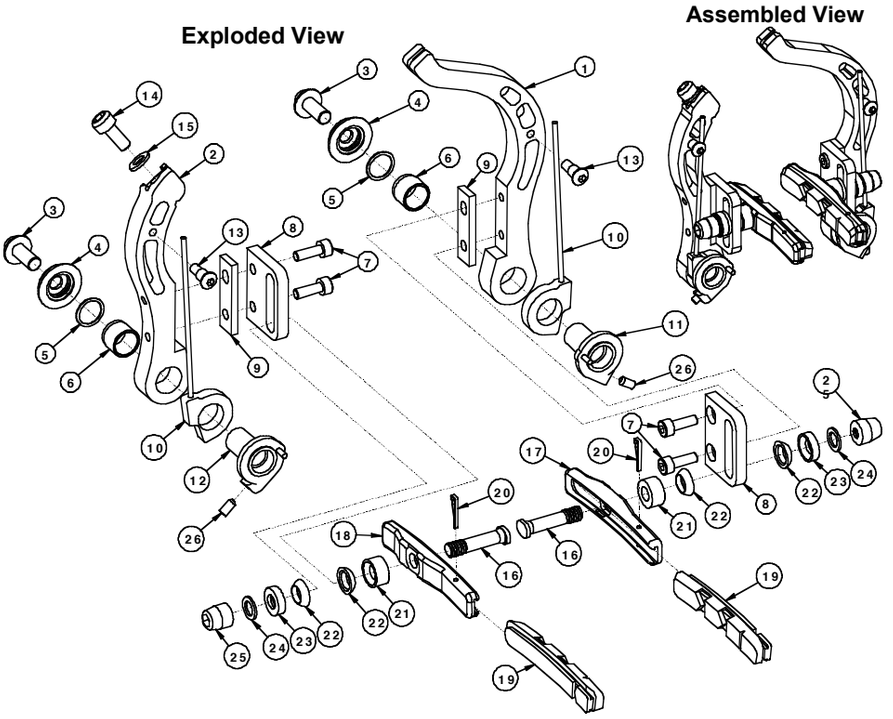
Direct Curve 5 Brake
Installation & Maintenance Instructions

Parts List (each brake position):

Item	Part Name	Qty
1	Long Arm	1
2	Short Arm	1
3	Pivot Bolt, M6x14 mm	2
4	Pivot Cover	2
5	Pivot Washer	2
6	Pivot Bushing	2
7	Mounting Pad Bolt, M4x12 mm socket head	4
8	Mounting Pad	2
9	Spacer Plate	2
10	Linear Spring	2
11	Pivot (left side)	1
12	Pivot (right side)	1
13	Spring Stop Bolt & Sleeve, M4x12 button head	2
14	Cable Anchor Bolt, M5x12 mm socket head	1
15	Cable Anchor Washer	1
16	Pad Stud	2
17	Pad Holder (left)	1
18	Pad Holder (right)	1
19	Brake Pad	2
20	Retention Clip	2
21	Thick Spherical Spacer (concave)	2
22	Spherical Washer (convex)	4
23	Thin Spherical Spacer (concave)	2
24	Pad Washer	2
25	Pad Nut	2
26	Tension Adjustment Screw	2

Exploded View **Assembled View**



The above illustrations depict front brake as viewed from rear, with long arm to right

Tools Required for Installation:

- Cable cutters
- Pliers or crimping tool
- 2 mm hex wrench
- 5 mm hex wrench
- 2.5 mm hex wrench (required only if reversing arms)
- 3 mm hex wrench (required only if reversing arms)

Installation Instructions:

1. Determining Optimum Brake Setup

To optimize braking feel and performance Direct Curve 5 Brakes can be installed in 2 different ways to minimize brake cable bending and the resulting cable friction. The best possible brake cable routing is one with the least bending. Use the tables below to determine the optimum setup and whether or not Step 2 is required.

Front Brake

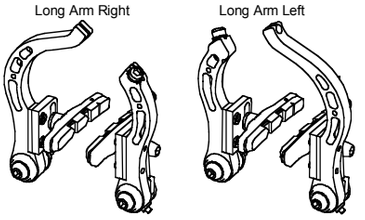
Handlebar Lever Position	Long Arm Position	Special Instructions
Left Side	Right	Proceed to Step 3
Right Side	Left	Reverse Arms (Step 2)

Rear Brake

Cable Routing on Frame	Long Arm Position	Special Instructions
Left Side	Left	Proceed to Step 3
Right Side	Right	Reverse Arms (Step 2)

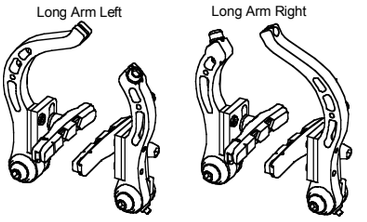
Front Brakes (As Viewed From Front)

Long Arm Right Long Arm Left



Rear Brakes (As Viewed From Rear)

Long Arm Left Long Arm Right



All brakes are shipped with pads assembled as if they are being used as a front brake. The pad assemblies of rear brakes must be switched from left to right before proceeding. Also, all brakes are shipped pre-assembled for the long arm to be on the right side of the front and the left side of the rear. If another configuration is desired the following steps must be taken:

2. Arm Reversing:

For best results complete the steps in the specified order.

a) Using a 2.5 mm hex wrench, remove both spring stop bolts and move to opposite sides of arms before reinstalling.
b) Disassemble each arm from pivot by removing pivot cover, being careful to not lose washer. Swap long and short arms to opposite pivots, making sure to flip arms before re-installing onto pivot. (It may be helpful to use a small flat head screwdriver to pry pivot cover from pivot.)
c) Reassemble pivot washers and pivot covers.
d) Using a 3 mm hex wrench, loosen and remove mounting pad bolts.
e) Rotate mounting pad 180 so that the slot is now on the opposite side of the arm and the counterbores of holes are still facing upward.
f) Reinstall and tighten mounting pad bolts with 3 mm hex wrench.

Notes:

1) *Mounting pads may be used with the slots facing either direction. Typically they are installed such that the slots are between the arms and fork at the front brake and the arms and seat stay at the rear brake. Rotating the mounting pads 180 may enable easier wheelremoval by allowing the arms to open further.*
2) *Pivots are labeled with çRé and çLé. These must be interpreted as right and left when viewing the front brake from the frontof the bike and the rear brake from the rear of the bike.*

3. Bicycle Preparation:

a) Ensure that bicycle is equipped with linear pull brake levers having at least 25 mm of cable pull at the handlebar.
b) For maximum performance use new brake cables and housings.
c) Advance brake lever adjusting barrel in the tightening direction until there is no clearance, then loosen for two complete revolutions. (Enables near maximum use of adjustment barrel for pad wear compensation while allowing for some çlooseningé of the brakes based on ridere preference.)
d) Clean and grease brake pivot stud of fork (front brake) and/or seat stay (rear brake).

4. Arms Installation:

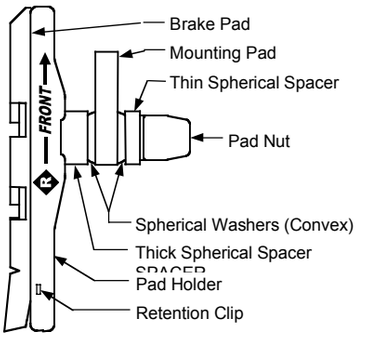
a) Be sure Steps 1, 2 (if required) and 3 have been completed.
b) Ensure that the linear springs are between the stops and the mounting pad.
c) Install the arm sub-assemblies so that each pin inserts into the appropriate spring hole of the bicycleês brake boss. Beginwith the middle hole. When multiple holes are available, the upper hole will reduce tension while the lower increases it. However, the tension adjustment screw should be used for this purpose.
d) Using the supplied M5 bolts and a 5 mm hex wrench, clamp the brake arms to the brake bosses. Torque to 8-10 N*m (70-90 In*lb).

Continued on Back

Installation Instructions (Continued):

5. Brake Pad Setup:

a) Brake pads must be assembled to mounting pads with components arranged as shown. It may be necessary to switch the locations of the thin and thick spherical spacers, but begin with the thick spherical spacer closest to the pad.
b) Each brake pad must be properly positioned vertically and oriented correctly. All adjustments should be done with a wheel in the bicycle and while the brake arm is rotated by hand so that it contacts the braking surface of the rim. Begin with the pad nut slightly loose. It may be helpful to disengage the linear springs while adjusting the pads.
c) Start by moving the pad assembly vertically until its top is approximately 1 mm below the top of the rim.
d) Rotate the stud until the pad curvature is aligned with the wheel rim braking surface.
e) Ensure that the pad (new) is flat against the rim both vertically and horizontally. (With worn pads, it is necessary to toe in the front of the pad, leaving approximately 1 mm gap at the back edge.)
f) While holding the brake pad holder stationary, fully tighten the brake pad nut.
g) Ensure that each linear spring is between the stop bolt and wheel.



6. Cable/Housing Assembly:

a) Using a 5mm hex wrench, loosen the cable anchor bolt on the short arm (at least 2 turns).
b) Insert the cable through the long armês cable/housing stop and through the slot under the anchor bolt.
c) Feed enough cable through the anchor bolt such that the combined gap between both pads and the rim is approximately 2 mm, then tighten the anchor bolt. (Uneven pad clearance will be adjusted in Step 7).
d) If necessary, cut additional cable approximately 25 mm beyond anchor bolt.
e) Crimp an end cap onto the end of the cable.

Note: Final adjustments of pad-to-rim clearance can be made with the handlebar brake lever adjustment barrel.

7. Spring Tension Adjustment:

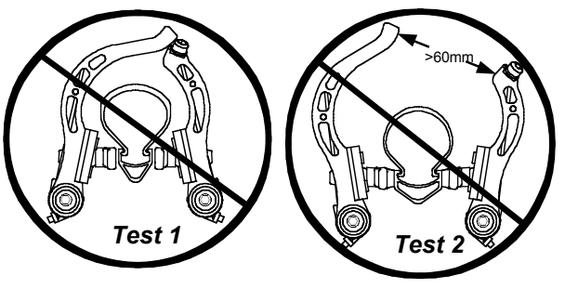
a) Actuate handlebar brake lever a few times to ensure that the pad-to-rim contact occurs simultaneously for right and left pads. If contact is not simultaneous, it may be corrected by using a 2 mm hex wrench to adjust the spring tension screws.
b) Slightly advance (clockwise rotation) the screw on side that contacts first, while backing off the screw on the opposite side by the same amount. Continue this process until pad contact is simultaneous.

8. Frame/Fork Compatibility Test:

IMPORTANT! Some combinations of frames and forks are not compatible with Direct Curve 5 Brakes. The compatibility is dependent upon brake stud horizontal spacing & vertical position, brake pad vertical location, and rim thickness. To verify compatibility, complete the following tests:

Test 1: Remove brake pads from pad holders and ensure that the pad holders contact the rim before the right and left arms contact each other. If the arms contact prior to pad holder-to-rim contact, ensure brake pad are assembled as per step 5 and that the spacer plates are assembled behind the mounting pads. Call Cane Creek Customer Service at 1-800-234-2725 with any problems. (See brake pad replacement instructions below for more details on pad removal and re-installation.)

Test 2: With brake pads reinstalled, and with brake pads in contact with rim, measure distance between arms as shown in illustration. If distance is greater than 60 mm, switch locations of thick and thin spherical spacers and, if necessary, remove spacer plates. If distance is still too large, contact Cane Creek Customer Service at 1-800-234-2725.



Caution: *Direct Curve 5 Brakes must be used with linear pull brake levers with 25 mm cable pull minimum. Consult your local Cane Creek dealer if you are unsure about installation or adjustment of your Direct Curve 5 Brakes. Cane Creek Cycling Components is not liable for damage or injury as a result of improper installation or use.*

Maintenance:

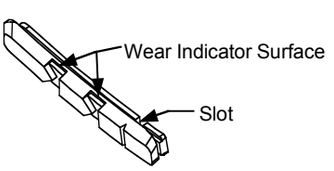
1. Pad Wear Compensation:

As the brake pads wear, the handlebar brake lever adjustment barrel should be used to compensate for the increased gap between the rim and pads. This is accomplished by turning the adjustment barrel counter-clockwise until the desired gap is achieved.

2. Brake Pad Replacement:

Replace pads when they are worn to the bottom of the deepest grooves (see illustration). Always replace with Cane Creek pads whenever possible.

a) Using pliers, remove retention clip, by pulling çUé shaped top away from pad holder.
b) Slide brake pad out toward open end of pad holder (opposite direction of arrow).
c) Slide new brake pad into holder, ensuring it is installed in the correct direction with slot at rear.
d) Align slot in brake pad with hole in holder and replace retention clip.



3. Wheel Removal:

Brake calipers must be opened to remove wheels. This is accomplished by pulling the brake cable housing out of the pocket in the long arm while the arms are pushed slightly toward each other. For some bikes with very wide tires, it may be necessary to tighten the brake lever adjustment barrel as well to achieve sufficient clearance.

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