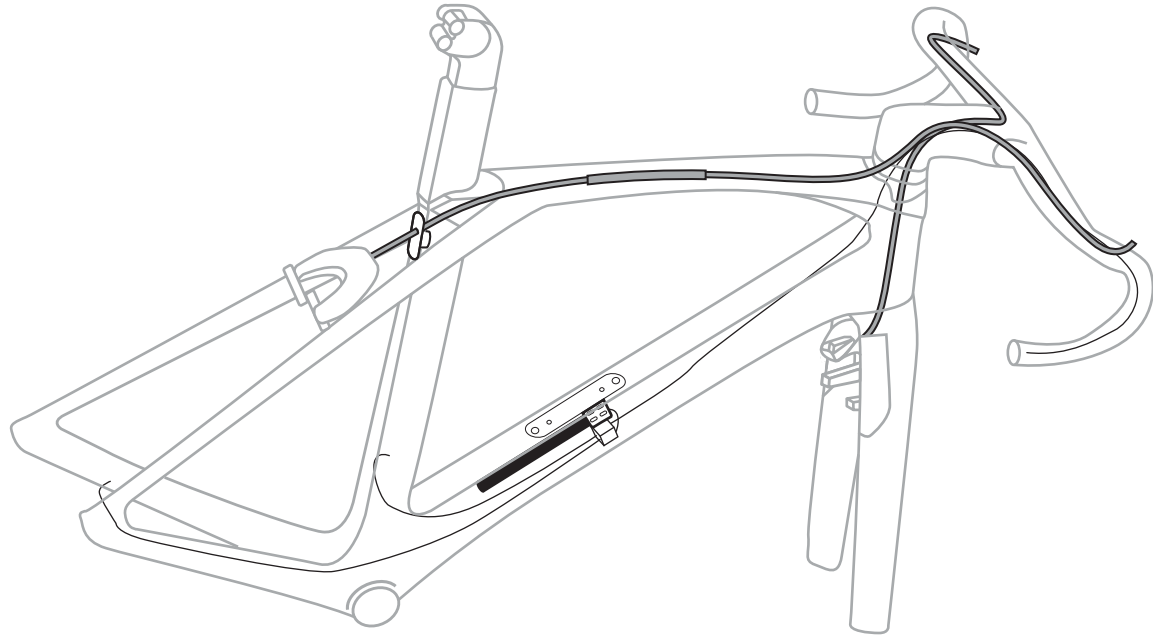




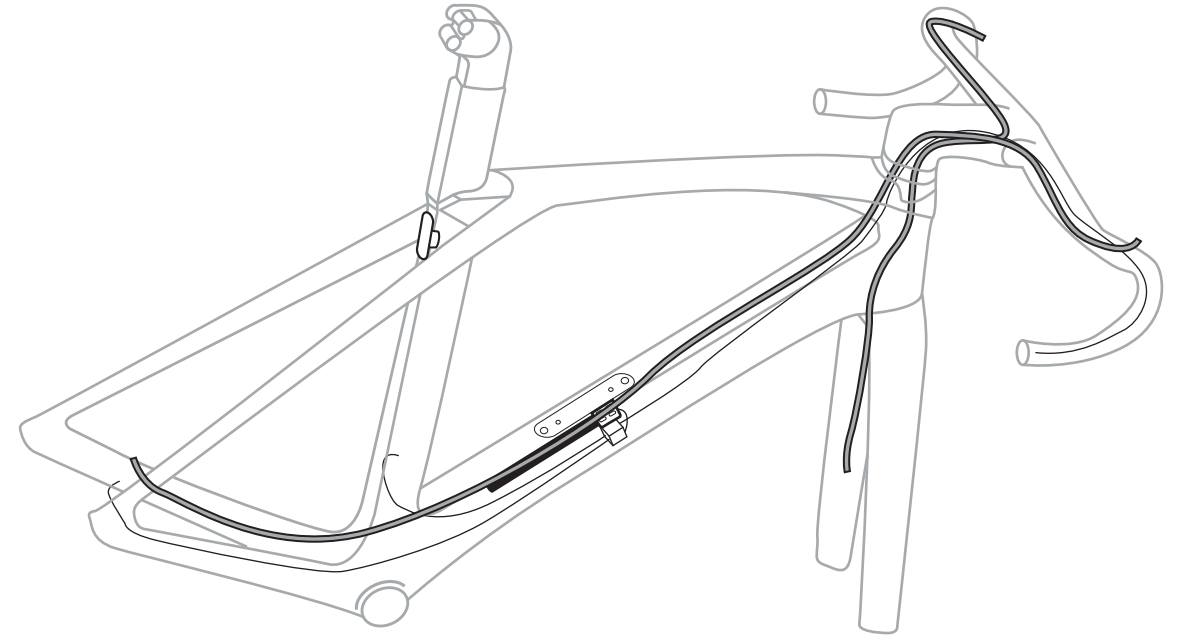
TREK

ISO SPEED

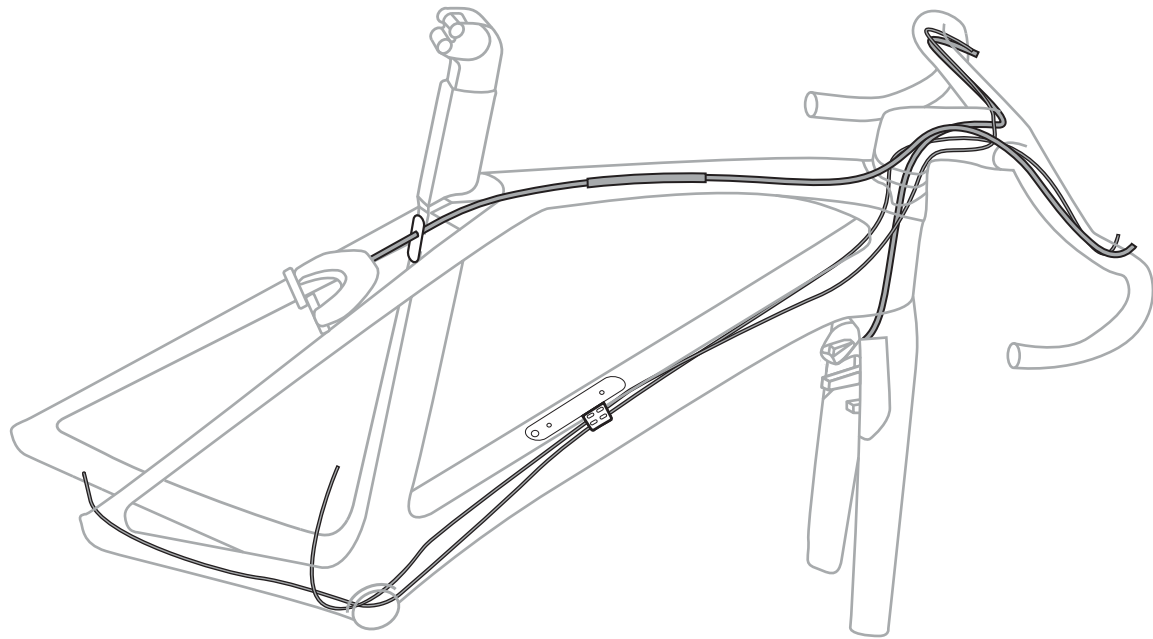
**2019 MADONE
ASSEMBLY MANUAL**



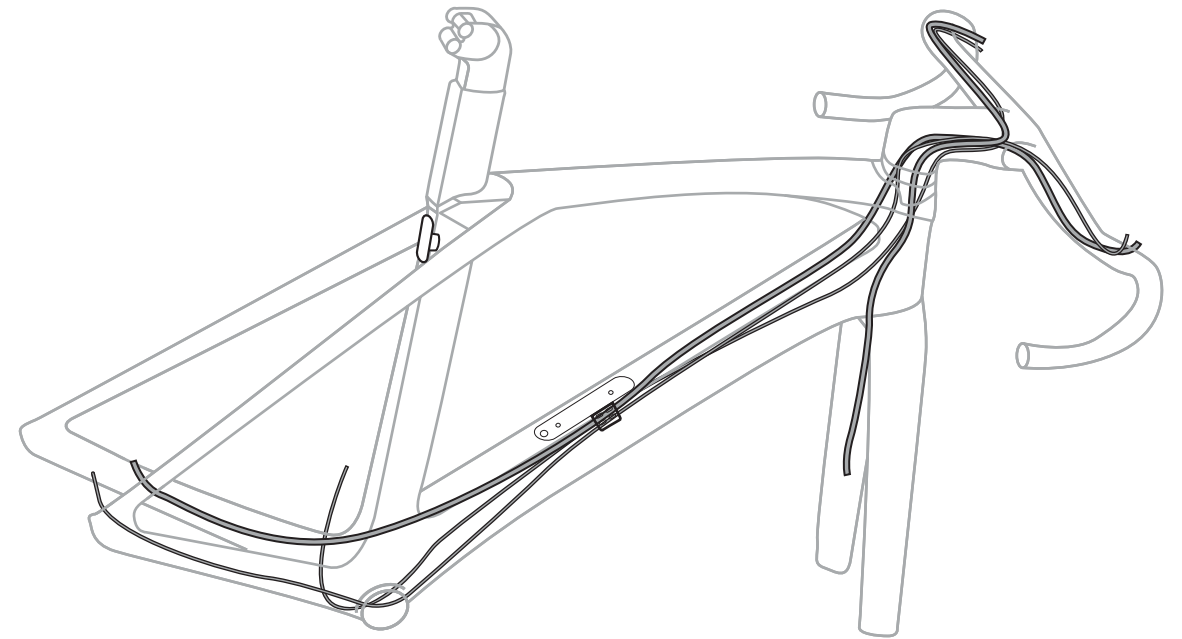
Rim brakes and Di2 drivetrain



Disc brakes and Di2 drivetrain



Rim brakes and mechanical drivetrain



Disc brakes and mechanical drivetrain

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1 PROCEDURES COMMON TO ALL 2019 MADONE MODELS

NOTE There is plastic tubing inside the frame to help with the initial routing of the cables and housings through the frame.

TOOLS AND MATERIALS REQUIRED

- 2 mm hex
- 4 mm hex
- 5 mm hex
- Torque wrenches
- Sockets
- Cable cutter
- Marker

1. Prepare the housings. Cut to length and finish the ends. Do not install the end caps yet.

NOTE The length for each housing by frame size is shown in the table below.

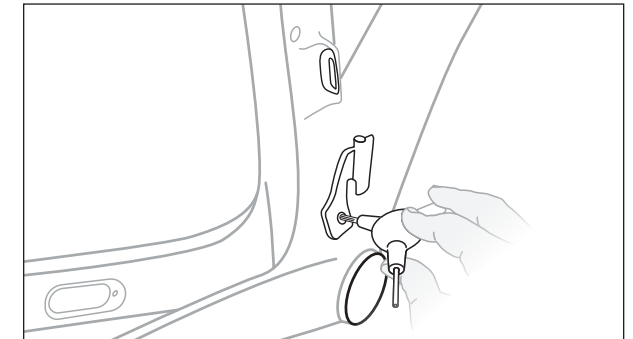
Mechanical build housing lengths for the 2019 Madone Total cable length recommendations

Frame size	Housing specs [w/ 40 mm of stack] are subject to trimming for a proper build				
H1	Stem Size	Bar Size	FB Housing (mm)	RB Housing (mm)	FD/RD Housing (mm)
50	90	40	695	1125	825
52			705	1140	835
54			725	1165	855
56	100	42	755	1185	875
58			785	1210	920
60			815	1235	955
62	690	44	835	1245	980

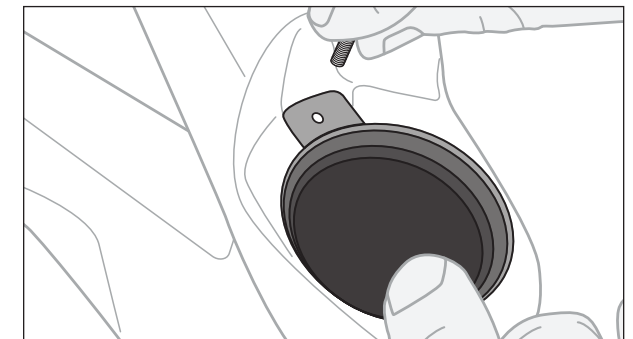
*Notes: 1. Brake housings are intended to have 100 mm of housing protruding from each end (frame/fork and h-bar ends).
2. Derailleur housings are intended to have 100 mm protruding from the h-bar end.
3. Brake housings only represent rim brake builds.

2. Install the chain keeper at the base of the front derailleur hanger. Torque the bolt to 3 Nm.

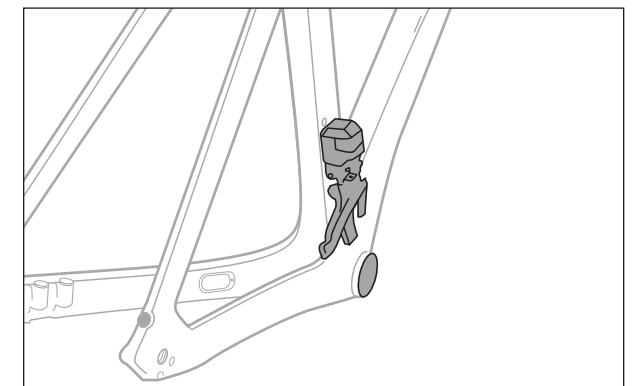
NOTE The secondary wing bolt will be torqued after chain installation.



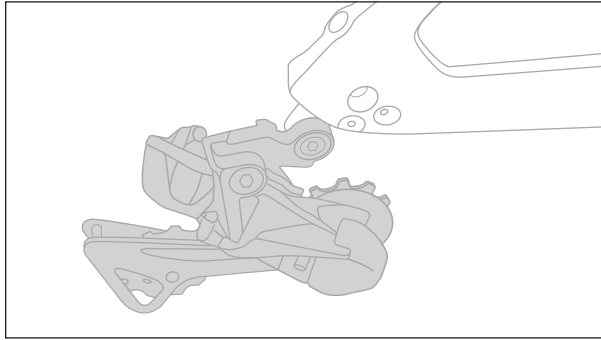
3. Install the steer stop at the top of the head tube bore. Torque the bolt to the recommended torque, but not more than 0.7 Nm.



4. Install the front derailleur at the base of the front derailleur hanger. Tighten the bolt just until the derailleur is held. Do not fully tighten yet.



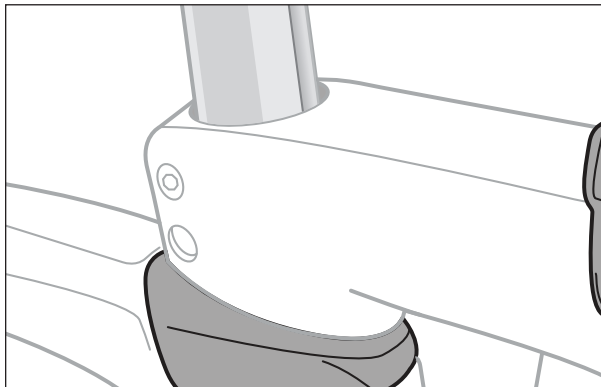
5. Install the rear derailleur on the the rear derailleur hanger. Tighten to the OEM torque spec.



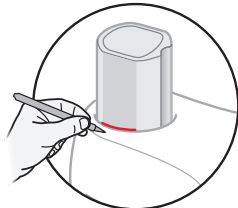
CUT THE FORK STEERER TUBE:

NOTE You will need to temporarily install the fork, headset and stem together to get the correct location for cutting the steerer tube.

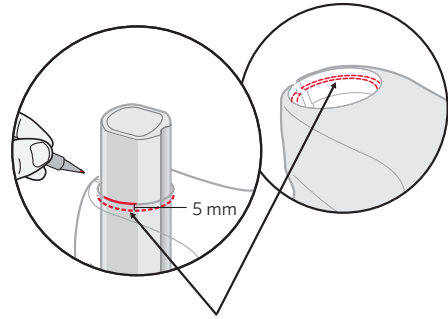
1. Holding the fork legs, slide the stem down the steerer tube until it is firmly seated on top of the bearing top cap or shaped spacers. Lightly tighten the stem pinch bolts.



2. Determine the preferred cut length. Use additional spacers above the stem until you are certain about the desired stack height (handlebar height).
3. Mark a fine line on the flat side of the steerer tube along the top edge of the stem.



4. If you are planning to use the 5 mm spacer recessed in the stem, your actual cutting line should be 5 mm below the pencil mark made in the prior step. If you are planning on using a 5 mm headset spacer above the stem, cut on the line.



5. **IMPORTANT:** There is a 5 mm spacer built into the stem which allows you to install the stem top cap flush with the stem.
6. Disassemble the stem and headset from the steerer tube.
7. Proceed with cutting the steerer at the selected location from Steps 3/4 using a standard carbon steerer cutting process.

If you're building a mechanical drivetrain, go to Step 2. Install the Mechanical Control Centre on page 5. If you're building a Di2 drivetrain, go to Step 3. Install the Di2 Cables and Housings on page 9.

2 INSTALL THE MECHANICAL CONTROL CENTRE

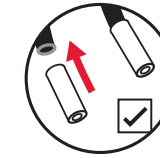
TOOLS AND MATERIALS REQUIRED

- Park Tool Routing Kit
- Marker
- Ferrules
- Mechanical control centre
- Rear derailleur cable stop
- Rear derailleur cable liner
- Cable cutter
- Bottom bracket guide
- Ruler

NOTE There is plastic tubing inside the frame to help with initial cable and wire routing. It is not intended to be left in the frame.

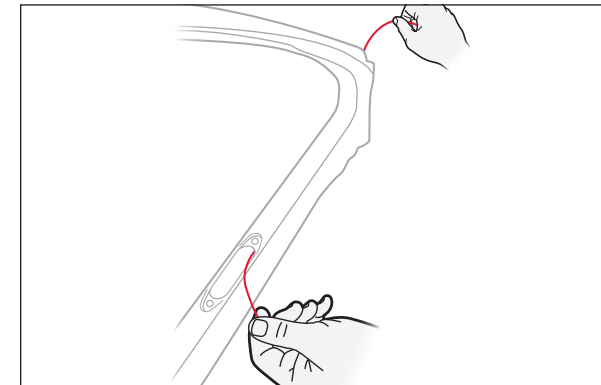
1. Refer to the table at the front of this manual to cut the front and rear derailleur cable housings to the appropriate lengths.

2. Attach ferrules to both ends of the derailleur housings. Route the cables into their housings.

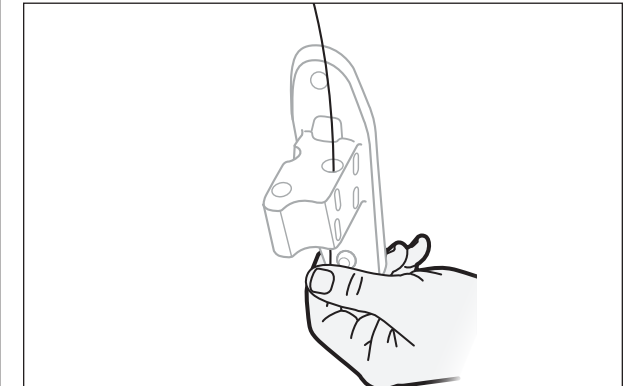


3. Mark the FD housing with tape to identify it.

4. Route the FD cable/housing from the head tube to the cutout in the downtube.

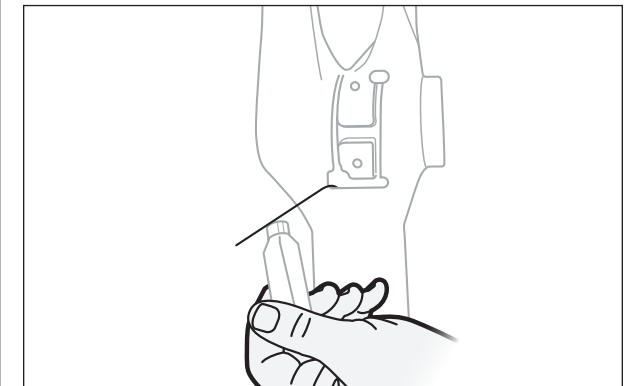


5. Pass the FD cable through the top hole of the control centre.



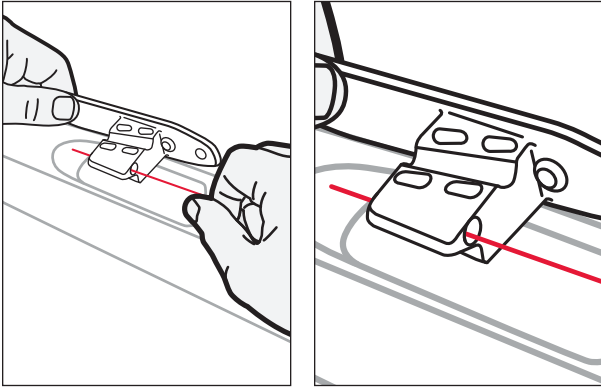
6. Set the control centre loosely in the downtube cutout.

7. Route the FD cable down the downtube and push it through the bottom bracket guide slot.

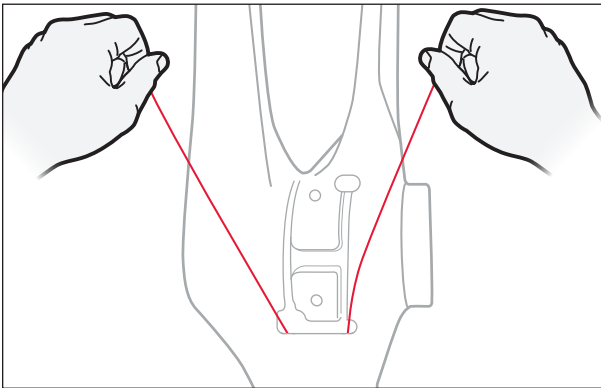


8. Route the RD cable/housing from the head tube to the cutout in the downtube.

9. Pass the RD cable through the bottom hole of the control centre.

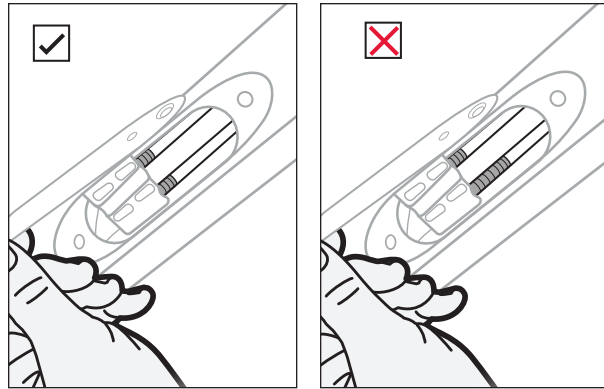


10. Route the RD cable down the downtube and push it through the bottom bracket guide slot.



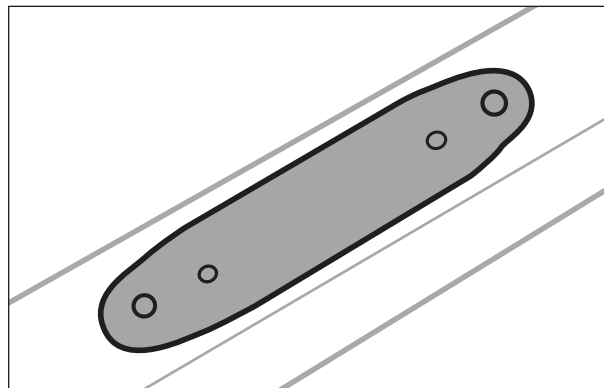
11. Do a visual check to make sure that the cables are not crossed.

12. At the control centre, push the FD and RD housing ferrules into the top and bottom holes of the control centre.

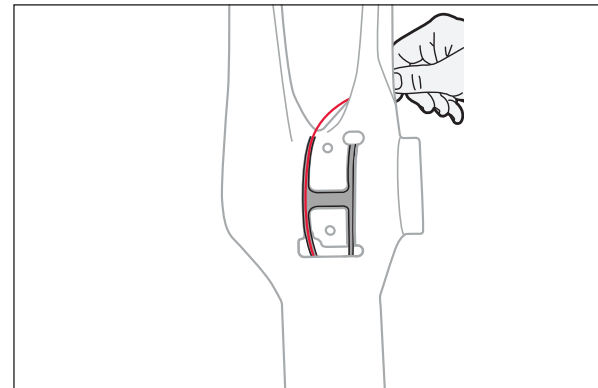


NOTE It is important to have the ferrules fully seated in the control centre.

13. Place the control centre in the downtube, but do not attach the bolts at this time.

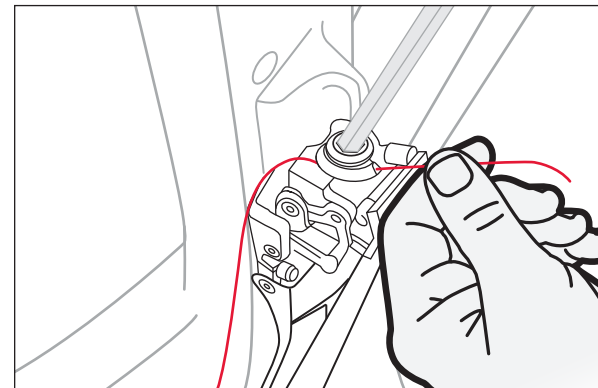


14. Install the bottom bracket guide and hold it in place with the FD cable.

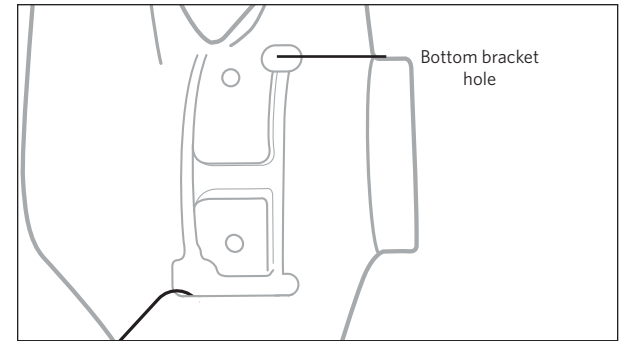


NOTE This is intended to keep the housing secured in the downtube cable stop.

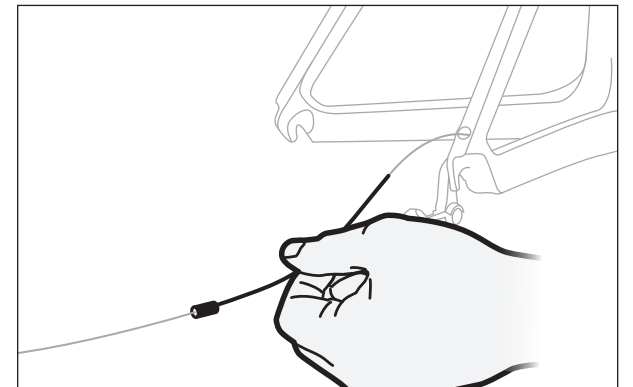
15. Put the FD cable in the front derailleur cable anchor bolt and lightly tighten the bolt to keep the cable in place.



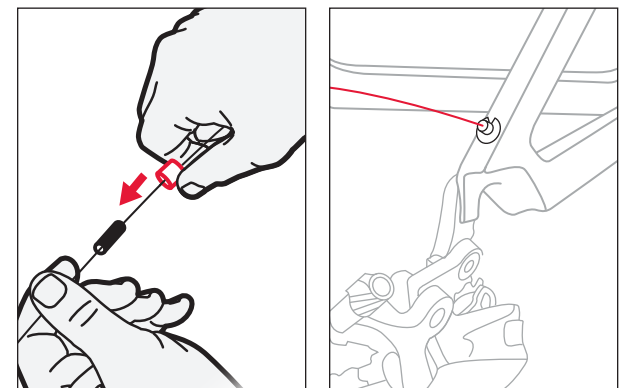
16. Route the RD cable from the bottom bracket hole up through the drive-side chainstay and out the rear hole in the chainstay.



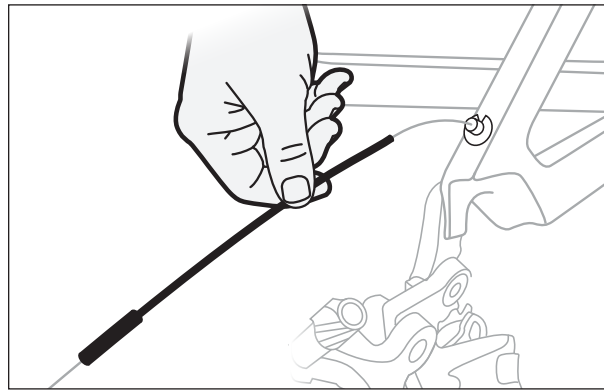
17. Install the RD cable liner on the cable and insert it into the chainstay.



18. Wrap the cable stop around the cable and install it into the drive side dropout exit.

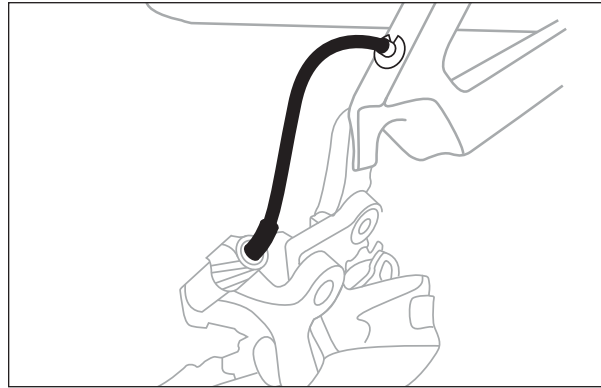


- 19.** Install the short cable housing from the rear derailleur to the chainstay.



NOTE This step may be OEM-specific.

- 20.** Put the RD cable in the rear derailleur cable anchor bolt and lightly tighten the bolt to keep the cable in place.



If you're installing disc brakes (Mechanical Drivetrain), go to Step 4. Install the Rear Disc Brake (Mechanical) on page 11. If you're installing rim brakes, go to Step 7. Route the Rim Brake Housing on page 15.

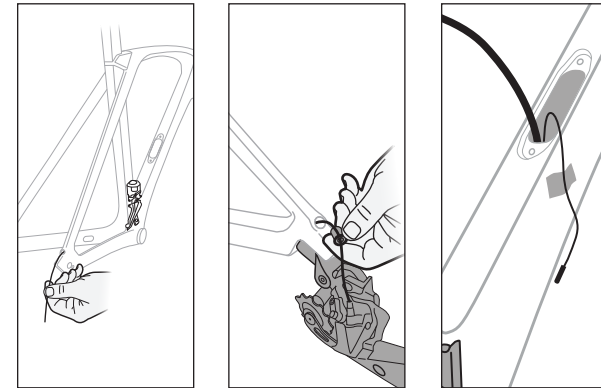
3 INSTALL THE DI2 CABLES AND HOUSINGS

TOOLS AND MATERIALS REQUIRED

- Park Tool - Internal Cable Routing Kit (IR-1 or IR-1.2)
- Junction B Box (SM JC41)
- Electrical tape

1. Rear derailleur

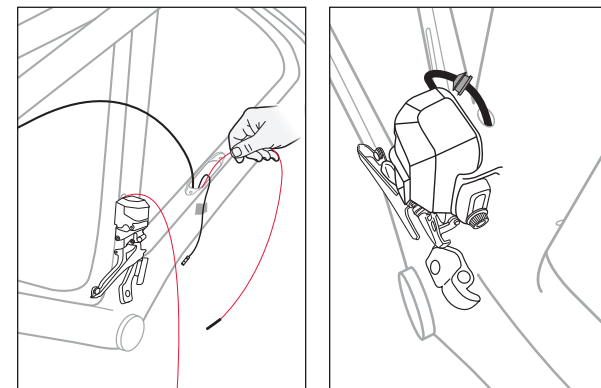
- Use the routing cable to pull the RD Di2 wire forward from the chain stay to the control centre.
- Attach the wire to the rear derailleur.
- Insert the RD wire grommet into the bottom of the drive-side dropout.
- Tape the other end of the RD wire to the downtube to hold it in place.



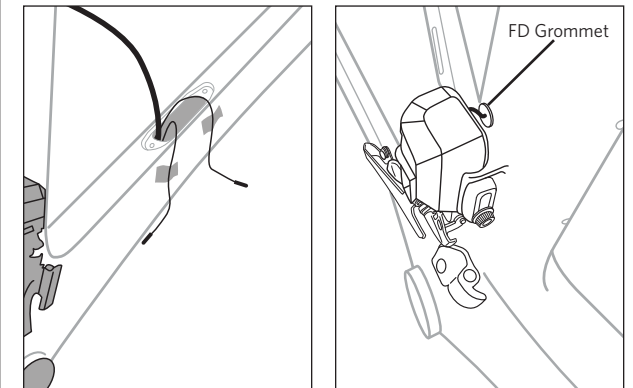
2. Front derailleur

NOTE You may wish to remove the front derailleur to help ease Di2 routing.

- Use the routing cable to pull the FD Di2 wire from the frame hole above the FD to the control centre.
- Plug the wire into the front derailleur.

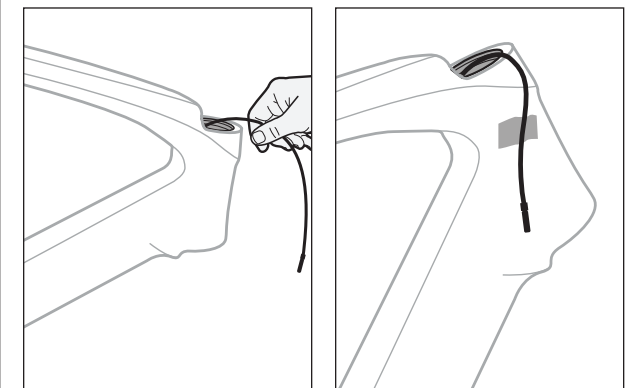


- Tape the other end of the FD wire to the downtube to hold it in place.
- Insert the FD wire grommet.



3. Cockpit to control centre

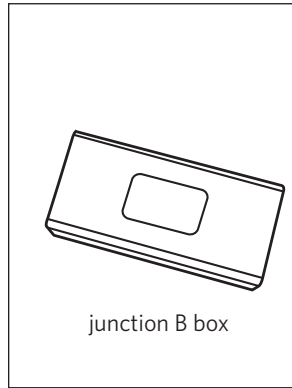
- Use the routing cable to pull the cockpit wire from the upper head tube bore down to the control centre.
- Tape the cockpit wire to the head tube to keep it handy.



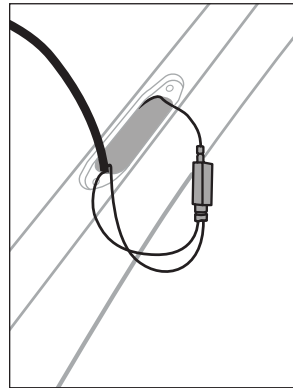
- Connect all three Di2 wires (RD, FD, cockpit) to the junction B box (SM-JC41). See page 10.

The orientation of the junction B box does not matter.

- Pull the tape off all wires from the downtube.
- Plug the RD and FD wires into the bottom (rear) two ports.
- Plug the cockpit wire into the top (forward) side.

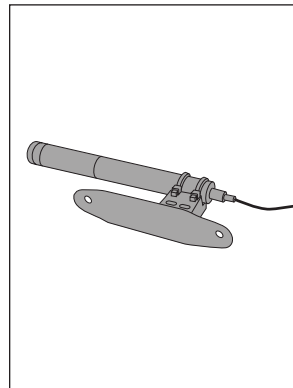
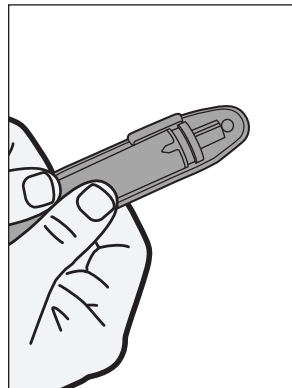


junction B box



4. Di2 battery to control centre

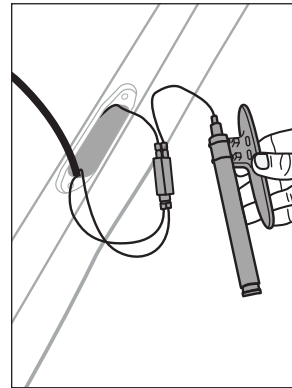
- Connect the battery to the control centre with zip ties. Put one zip tie in the groove at the top of the battery.
- Connect the short Di2 battery wire to the battery.



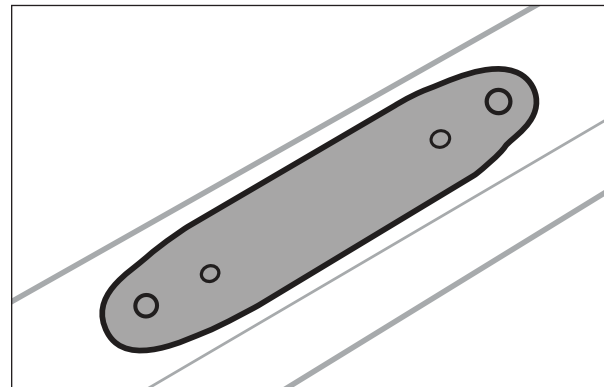
IMPORTANT: The orientation of the battery on the control centre must be aligned as shown.

5. Connect the battery to the junction B box

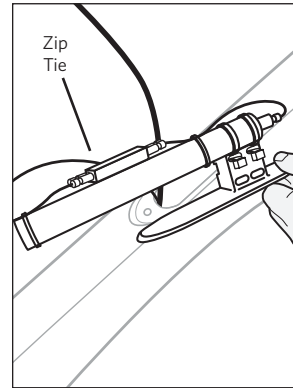
- Connect the battery wire to the remaining junction B box port at the top (forward) side as shown.
- Use a zip tie to connect the junction B box to the battery.



6. Place the control centre in the downtube. Do not install the bolts yet.



If you're installing disc brakes, go to Step 5 - Install Rear Disc Brake (Di2 Drivetrain) on page 13. If you're installing rim brakes, go to Step 7 - Route the Rear Rim Brake Housing on page 15.



Zip Tie

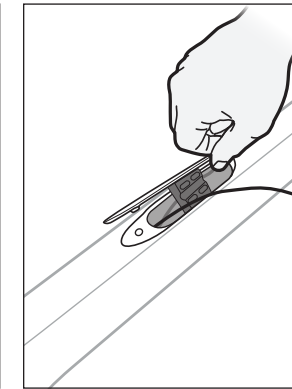
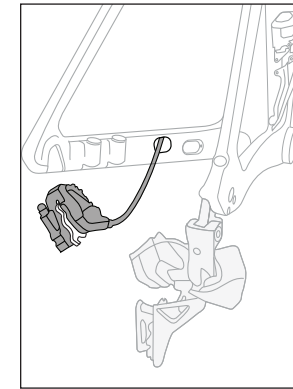
4 INSTALL THE REAR DISC BRAKE (MECHANICAL DRIVETRAIN)

1. Route the rear brake hose

- Slip the rubber grommet onto the brake hose.
- Route the hose from the grommet hole on the non-drive side chainstay to the control centre access hole.

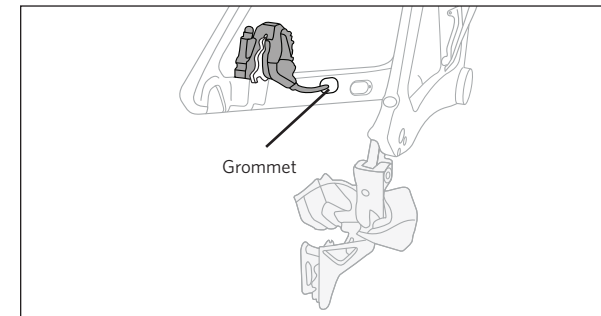
IMPORTANT: After routing, the RB hose must rest above the FD and RD cables inside the frame.

- Pull the hose out of the control centre hole.



2. Install the rear brake

- Connect the rear brake to the non-drive side chainstay. Tighten the bolt just until the brake is snug. Do not fully tighten.
- Install the grommet into the grommet hole on the chainstay.

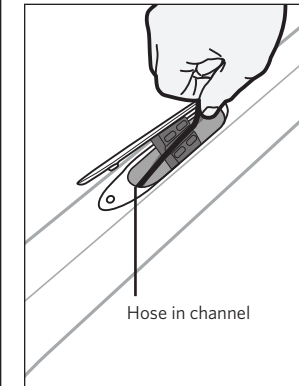


3. Connect the rear brake hose

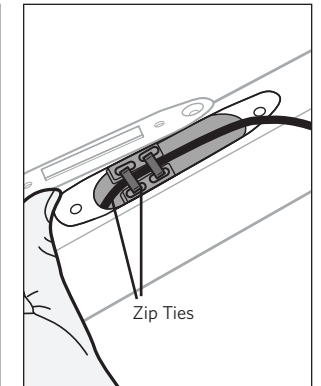
- Use two zip ties to connect the RB hose to the slots in the control centre as shown.

NOTE The brake hose must sit in the control centre channel.

- Do not over-tighten the zip ties. Snug them up enough to stay in the control centre groove, but loose enough so that the hose can slide in the channel.
- Place the control centre assembly into the downtube.



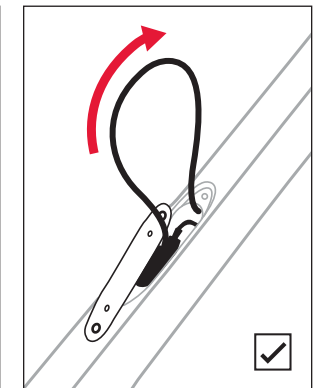
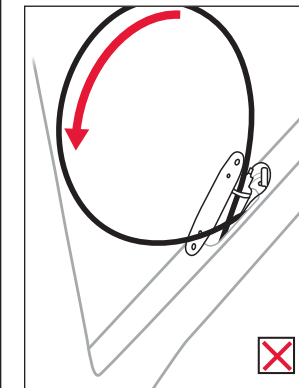
Hose in channel



Zip Ties

4. Feed the RB hose up through the downtube towards the head tube.

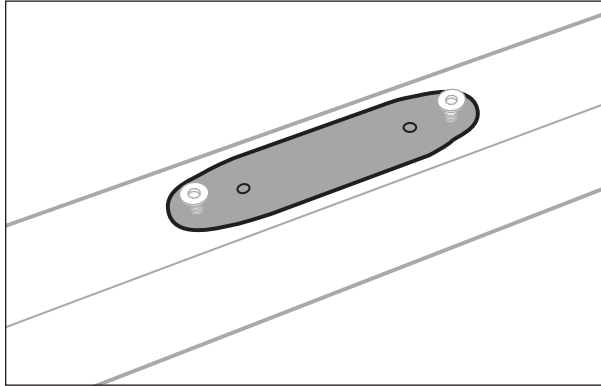
NOTE Make sure you don't kink or coil the brake hose. If the hose is coiled, it will kink



5. Pull the hose out the top of the upper head tube bore.

IMPORTANT: Make sure that the FD and RD housings are seated in the control centre.

- 6.** Connect the control centre to the downtube. Torque the bolts to 3-4 Nm.

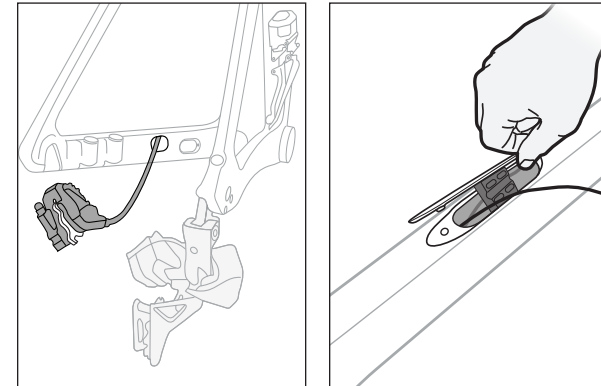


Go to Step 6 - Install the Front Disc Brake on page 14.

5 INSTALL THE REAR DISC BRAKE (Di2 DRIVETRAIN)

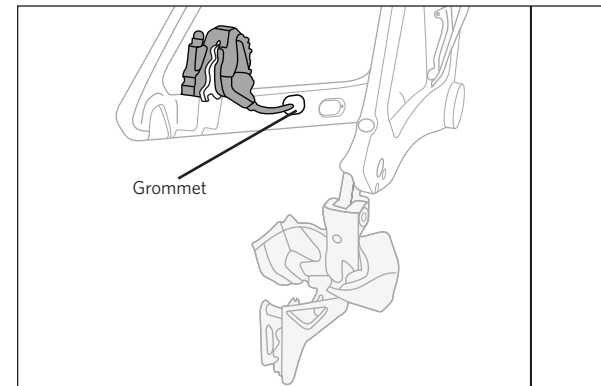
- 1.** Route the rear brake hose

- A. Slip the rubber grommet onto the brake hose.
- B. Route the hose from the grommet hole on the non-drive side chainstay to the control centre access hole.
- C. Pull the hose out of the control centre hole.



- 2.** Install the rear brake

- A. Connect the rear brake to the non-drive side chainstay. Tighten the bolt just until the brake is snug. Do not fully tighten.
- B. Install the grommet into the grommet hole on the chainstay.

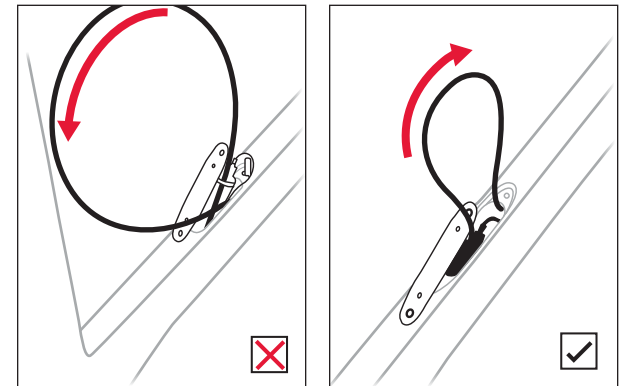


- 3.** Connect the rear brake hose to the rear disc brake.

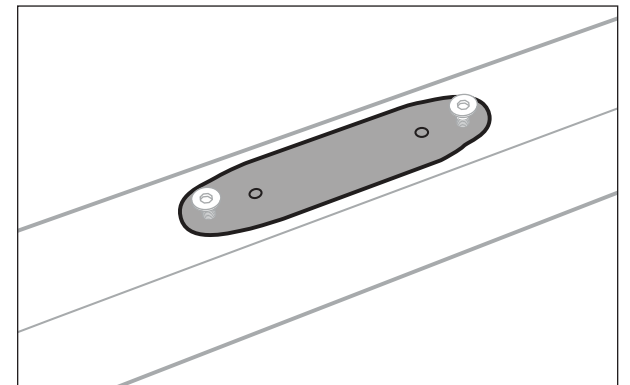
- 4.** Feed the RB hose up through the downtube towards the head tube.

NOTE Make sure you don't kink or coil the brake hose. If the hose is coiled, it will kink.

- 5.** Pull the hose out the top of the upper head tube bore.



- 6.** Connect the control centre to the downtube. Torque the bolts to 3-4 Nm.

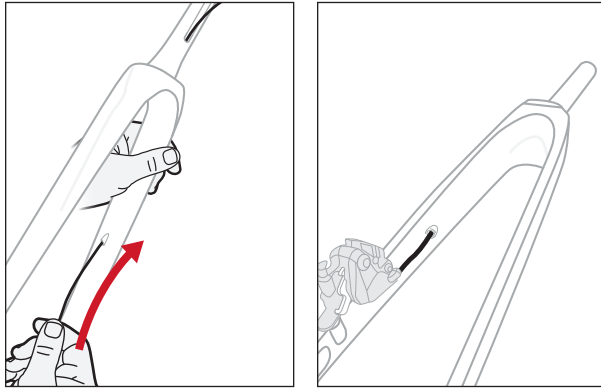


Go to Step 6 - Install the Front Disc Brake on page 14.

6 INSTALL THE FRONT DISC BRAKE

1. Route the front brake hose
 - A. Put soap or grease on the brake hose for ease of installation (approximately 200 mm).
 - B. Route the hose through the fork access hole (non-drive side) and up through the hole at the front of the steerer tube

2. Connect the brake to the fork. Tighten the bolt just until the brake is snug. Do not fully tighten



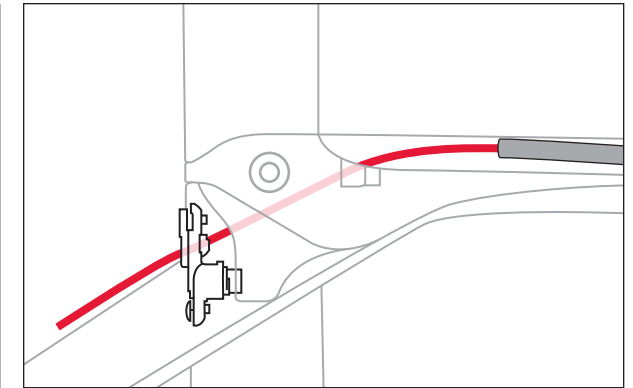
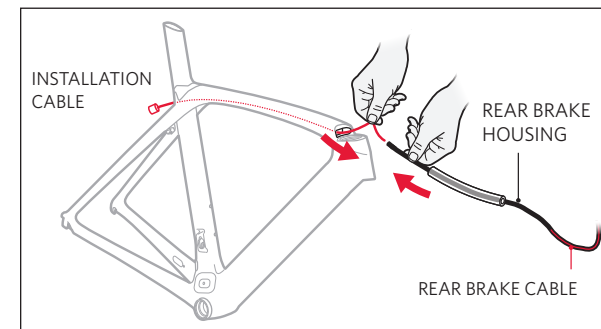
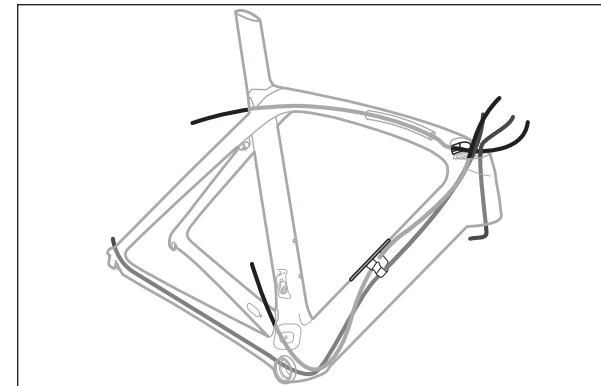
Go to Step 8 - Install the Fork and Headset on page 17.

7 ROUTE THE REAR RIM BRAKE HOUSING

TOOLS AND MATERIALS REQUIRED

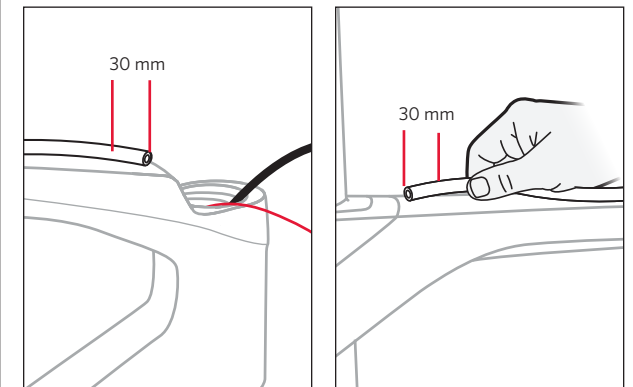
- Park Tool Routing Kit (IR-1 or IR-1.2)
- Foam sleeve
- Electrical tape

1. Feed the routing wire such that you can pull the RB housing from the head tube to the rear of the seatmast.

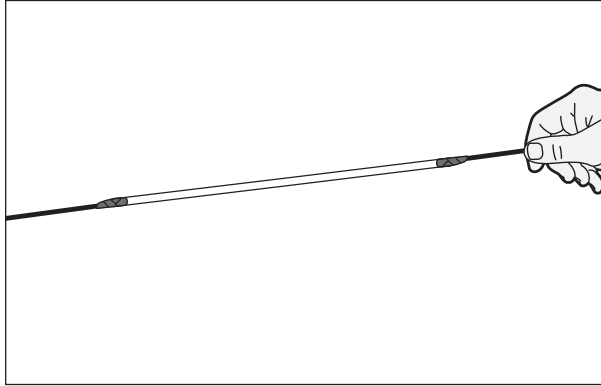


NOTE Be aware that the routing wire needs to pass through three slots to exit out the rear of the seatpost.

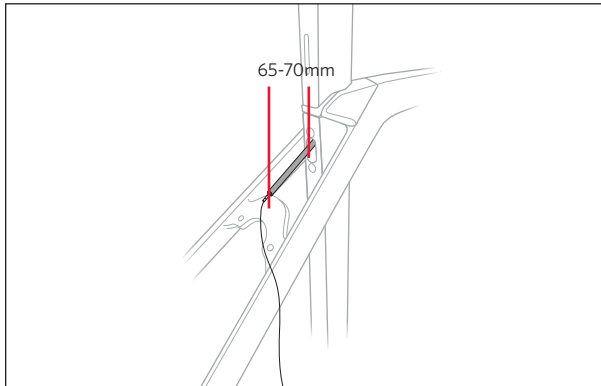
2. Cut the foam sleeve to size. To measure, place the sleeve on the top tube, end to end. Cut off 30 mm from each end.



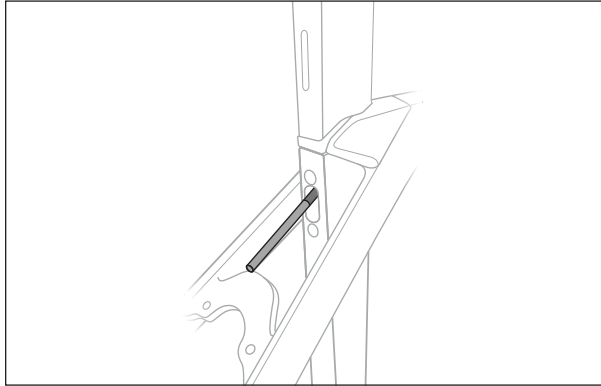
- 3.** Pass the RB housing through the foam sleeve so that there is 200 mm of housing beyond the rear end of the sleeve. Secure the sleeve with electrical tape at both ends.



- 4.** Attach the routing tool to the RB housing and pull the housing back through the head tube and out the RB cable exit hole in the seat tube until 65-70 mm of the housing is visible.



- 5.** Tape the housing flush with the seat tube.



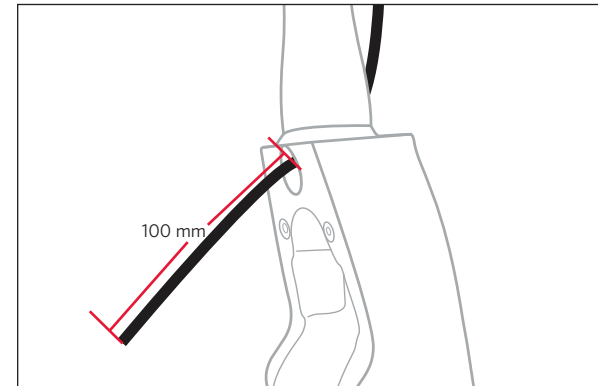
Go to Step 8 - Install the Fork and Headset on page 17.

8 INSTALL THE FORK AND HEADSET

TOOLS AND MATERIALS REQUIRED

- Tape

- 1.** For the rim brake only, route the front brake housing down through the access hole in the steerer tube so that the housing extends out the back of the fork by 100 mm.

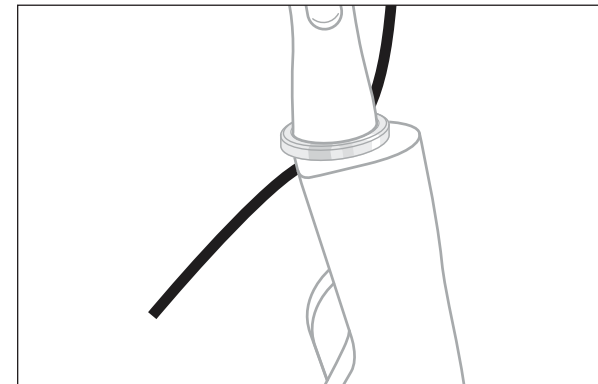


- 2.** For the rim brake only, tape off the housing flush with the fork to ensure that there is no housing movement.

- 3.** For the rim brake only, tape the upper end of the FB housing to identify it.

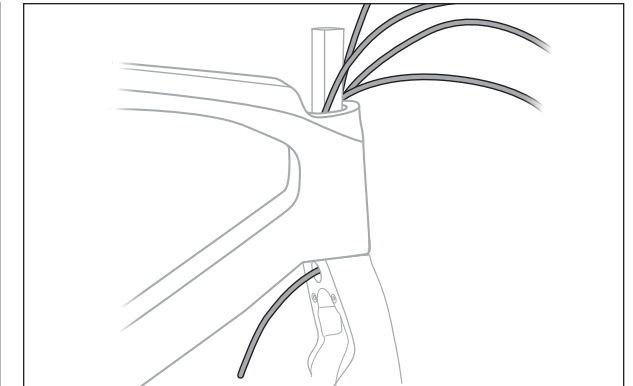
- 4.** Install the lower headset bearing.

- A. Capture the FB hose inside the bearing.
- B. Place the bearing up and over the steerer tube.

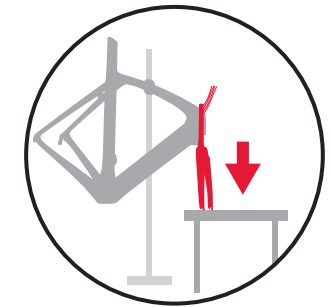


- 5.** Feed the FB housing up through the head tube from below.

- 6.** Push the steerer tube up into the head tube.



- 7.** Support the fork during installation, as shown.



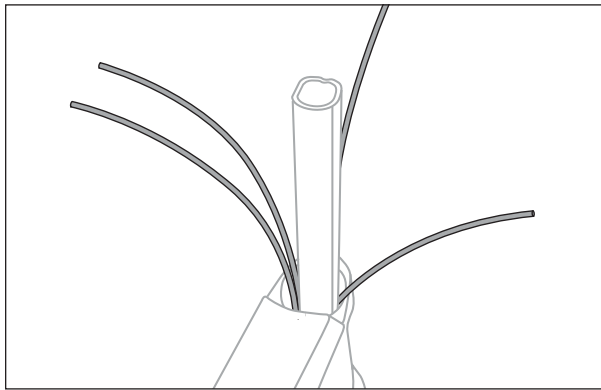
- 8.** For disc brakes, tape the upper end of the brake hose to identify it.



TIP

Build the bike close to a bench to support the fork while installing the cable and housings.

9. Arrange the housings in the head tube prior to installing the upper head tube bearing.



• Non-drive side	RD & RB
• Drive side	FD & FB

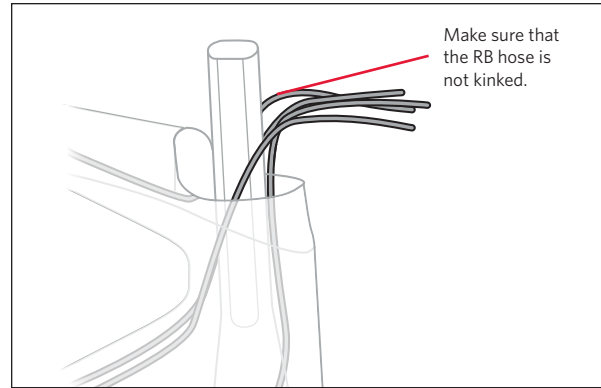
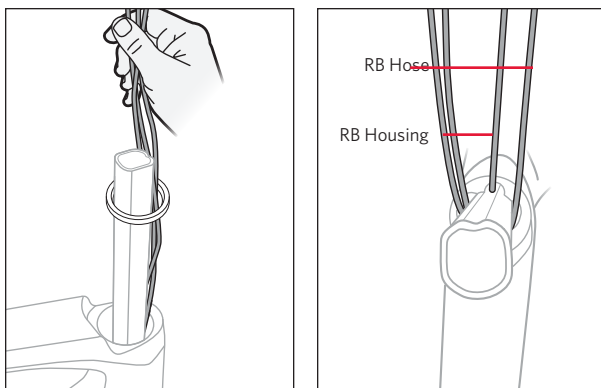
NOTE Make sure that the RB hose is behind - to the rear of - the RD housing.

10. Install the upper head tube bearing.

11. Install the compression ring.

IMPORTANT: The middle notch in the compression ring must align with the groove in the fork steerer tube.

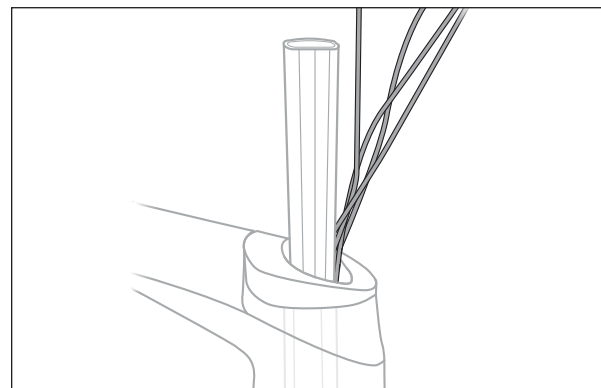
12. As you install the compression ring, be sure to push all housings back into the frame slightly to avoid housing kinks.



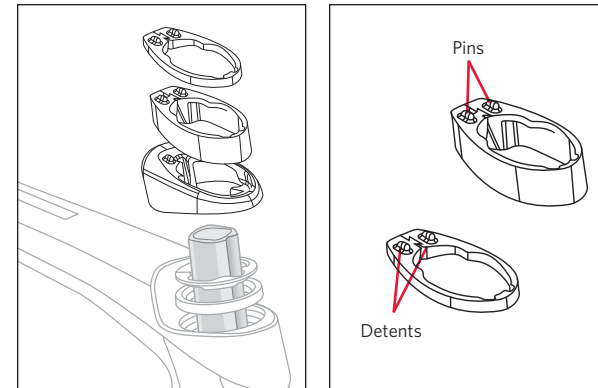
Di2 NOTE Make sure that the Di2 wire is not twisted around either brake housing.

NOTE Make sure that the RB hose is not kinked from the headset compression ring back through the top tube.

13. Install the bearing top cap.



14. Interlock the required spacers and slide them down the steerer tube to interface with the bearing top cap.

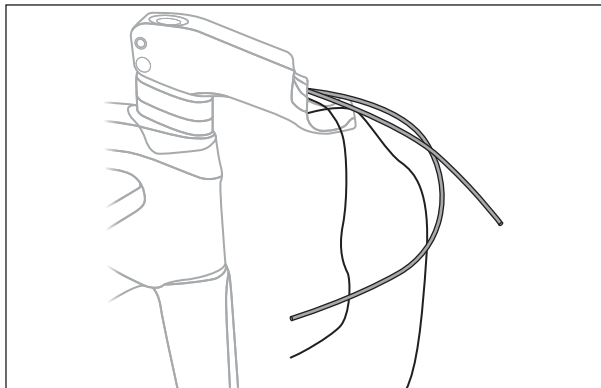


The top caps and shaped spacers have pins and detents that align as they stack.

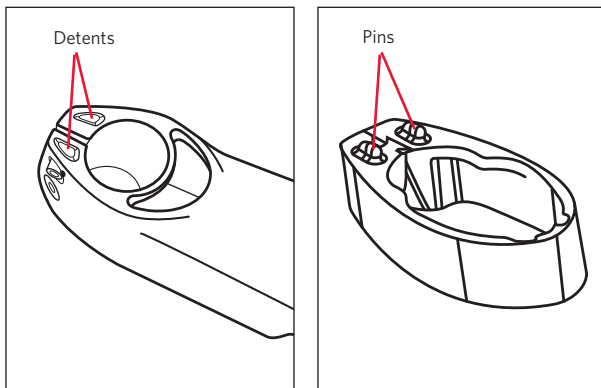
If you're building a mechanical drivetrain, go to Step 9 - Install the Stem (Mechanical Drivetrain) on page 20. If you're building a Di2 drivetrain, go to Step 10 - Install the Stem (Di2 Drivetrain) on page 21.

9 INSTALL THE STEM (MECHANICAL DRIVETRAIN)

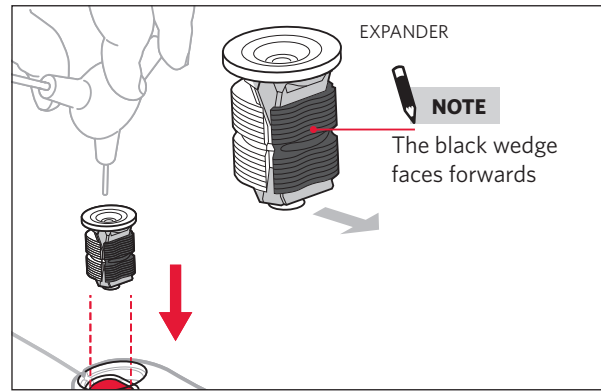
1. Feed the FB & RB hoses and FD & RD housings through the stem.



2. Fit the stem over the steerer tube.
3. As you slide the stem down the steerer tube, align the detents on the spacers or bearing top cap with the detents on the bottom of the stem.



4. Install the expander into the fork. Follow the recommended torque values to properly secure the expander.



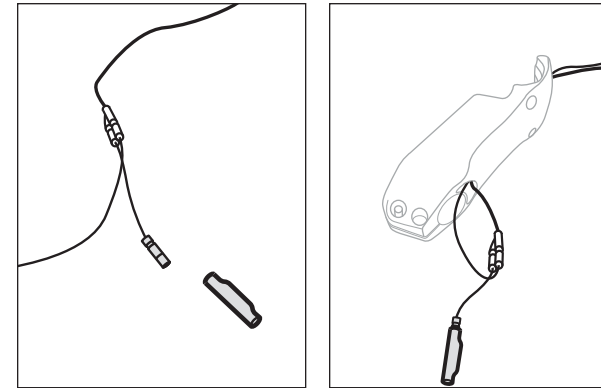
5. If needed, install additional standard-round spacers above the stem.
6. Install the stem cap and preload the headset bearings with a max torque of 4 Nm.
7. Align the stem and tighten the stem pinch bolts to the recommended torque.

The two detents in the bottom of the stem align with the pins on the shaped spacers.

Go to Step 11 - Install the Handlebar and Shift Levers on page 22.

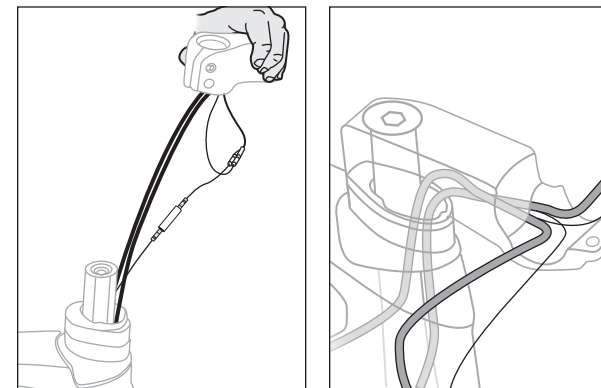
10 INSTALL THE STEM (Di2 DRIVETRAIN)

1. Connect the JC200 connector to the short end of the Y wire.
2. Route the wire assembly through the stem body.



TIP Push the Y end of the wire through the back of the stem and out the stem end.

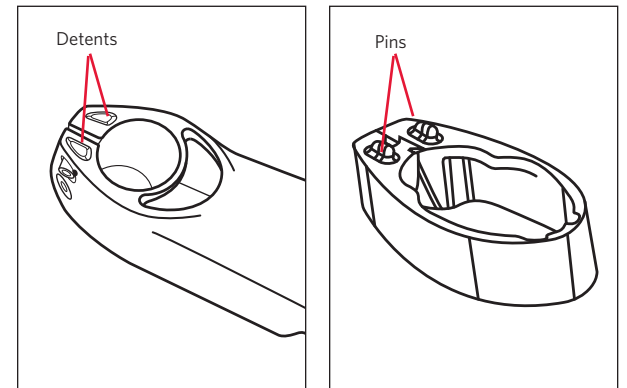
3. Push the FB and RB housings through the stem.
4. Connect the short end of the Y wire to the cockpit wire.
5. Feed the FB and RB housings through the stem as shown.



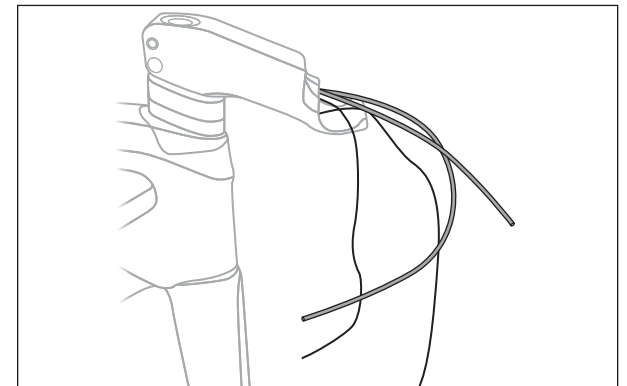
NOTE The JC200 connector must ultimately rest inside the stem.

NOTE Make sure that the Di2 wires and the brake housings are not twisted together.

6. Install the stem onto the steerer tube.
7. Fit the stem over the steerer tube.
8. As you slide the stem down the steerer tube, align the detents on the spacers or bearing top cap with the detents on the bottom of the stem.



9. Install the expander into the fork. Follow the recommended torque values to properly secure the expander.
10. If needed, install additional standard-round spacers above the stem.



11. Install the stem cap and preload the headset bearings with a max torque of 4 Nm.
12. Align the stem and tighten the stem pinch bolts to the recommended torque.

Go to Step 11 - Install the Handlebar and Shift Levers on page 22.

11 INSTALL THE HANDLEBAR AND SHIFT LEVERS

AT THIS POINT, YOU SHOULD HAVE A COMBINATION OF FOUR POSSIBLE CONFIGURATIONS:

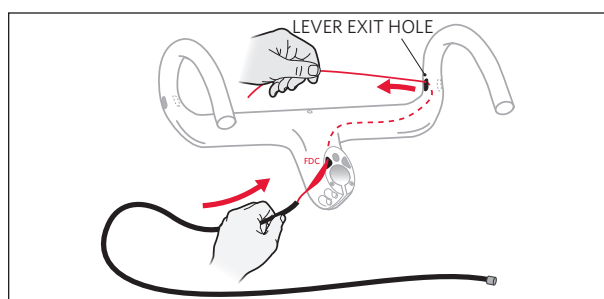
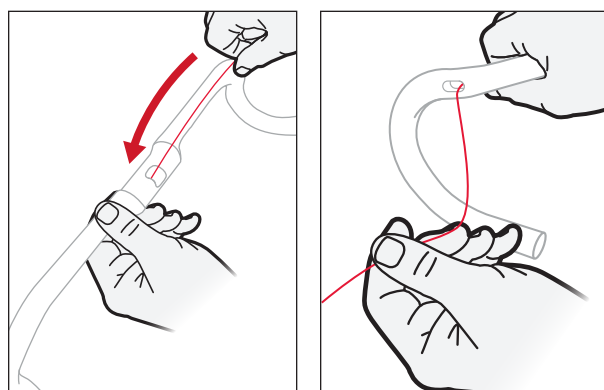
Drivetrain	Brakes	Configuration
Mechanical	Disc	FD housing/cable, RD housing/cable, FB hose, RB hose
Mechanical	Rim	FD housing/cable, RD housing/cable, FB housing, RB housing
Di2	Disc	FD and RD Di2 wires (from the Y wire), FB hose, RB hose
Di2	Rim	FD and RD Di2 wires (from the Y wire), FB housing, RB housing

TOOLS AND MATERIALS REQUIRED

- Park Tool Routing Kit (IR-1 or IR-1.2)
- Shift levers
- Handlebar
- Tape measure

DERAILLEURS

1. Push the routing wire through the bottom of the handlebar toward the FB lever exit hole.
2. Use the routing wire to pull the FD cable through the handlebar.

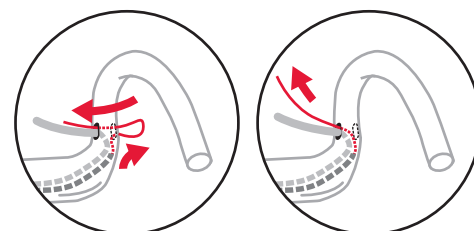


FOR DI2 WIRES

3. Pass the FD Di2 wire through the hole on the outside of the handlebar, and then bend it back into the inner hole, as shown.

4. Tape the FD Di2 wire to the handlebar.

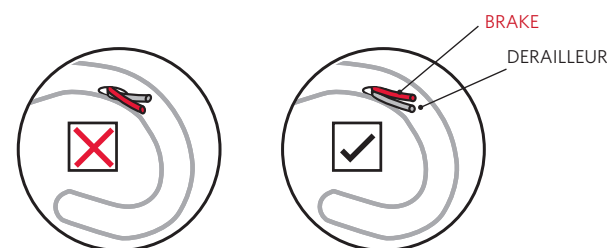
5. Repeat the routing procedure for the RD cable in the RB lever exit hole.



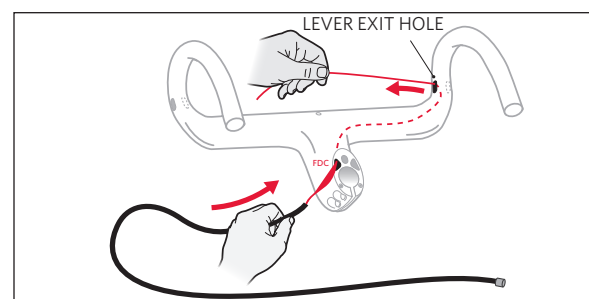
BRAKES

6. Push the routing wire through the centre of the handlebar towards the FB lever exit hole.
7. Use the routing wire to pull the FB housing through the handlebar.
8. When the routing wire exits the lever exit hole, use the wire to pull the housing through the handlebar and out the shifter hole. You can wiggle the housing a bit to help ease it through.

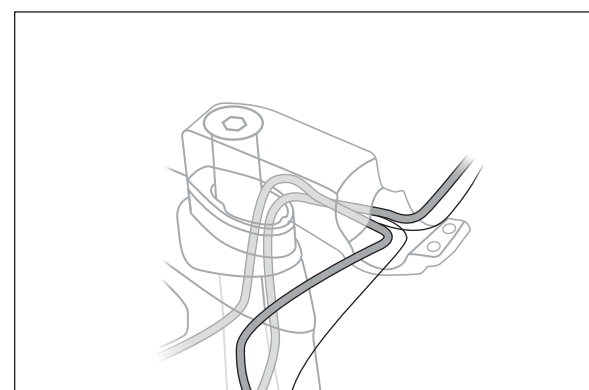
9. As the bike is orientated upright, the RB housing should be on the top of all other housings coming out the handlebar exit hole.



10. Repeat the procedure for the RB housing to the RB lever exit hole.



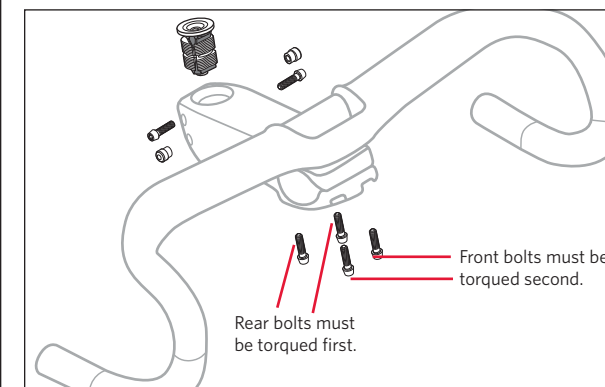
11. Place the handlebar in the stem.



NOTE You may need to pull out the brake and/or derailleur housings from the shift lever holes as you align the handlebar with the stem.

DI2 NOTE Make sure that the JC200 connector is inside the stem and that the wires are not bunched or kinked.

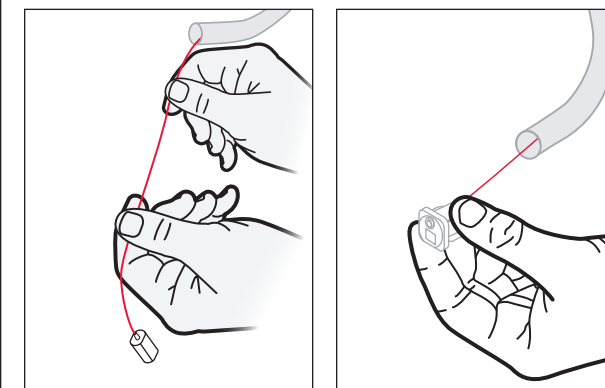
12. Attach the stem faceplate. Install the rear two bolts first.



IMPORTANT: It is critical that the rear two bolts are torqued first; then torque the front two bolts.

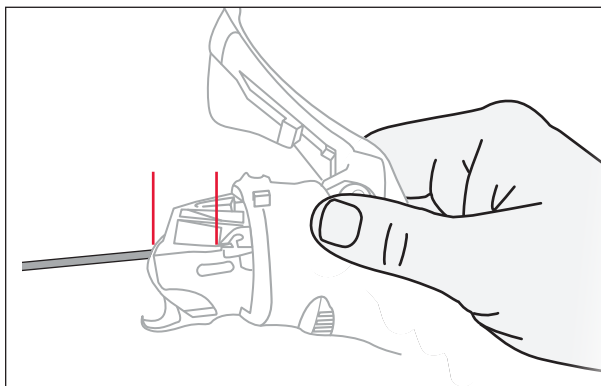
DI2 ONLY

13. Install the Di2 wire for the charge port. One end of the wire plugs into the charge port. The other end connects to the handlebar shifter lever.

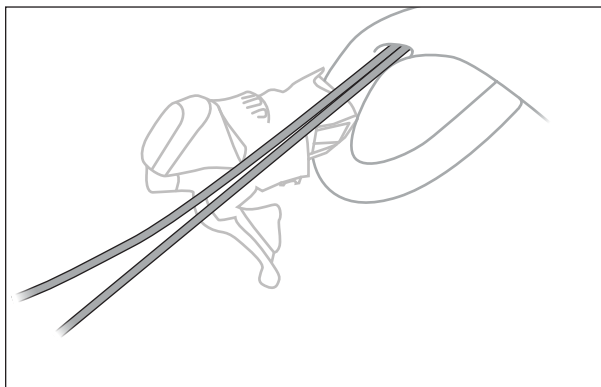


INSTALL THE SHIFT LEVERS

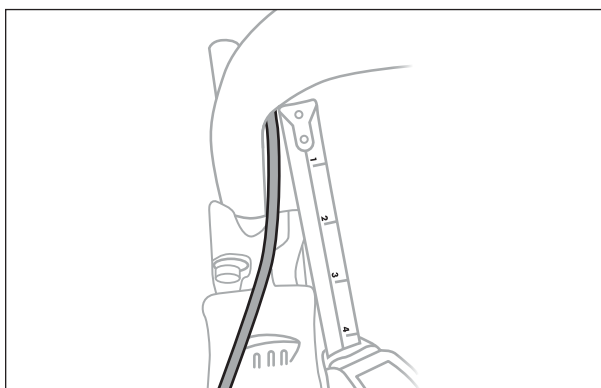
1. On the drive side, insert the RD housing and the RB housing into the applicable locations in the shifter body. Measure the depths of the seated housings. You will use these measurements later in Step 4.



2. Place the drive-side shift lever on the handlebar to the desired location.



3. Take the measurement from the rear of the handlebar exit hole to the housing insertion point on the shift lever.



4. Now add on your insertion depth from Step 1, plus another 10-20 mm.

Example for rear brake:

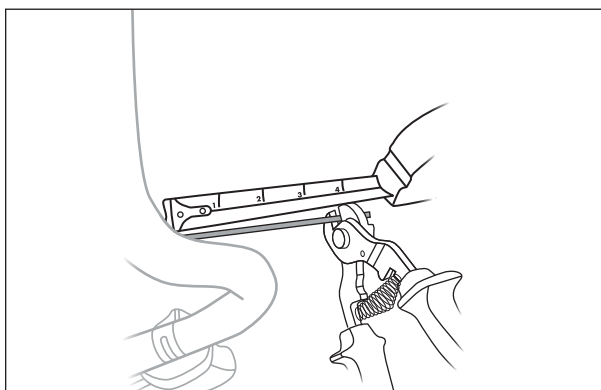
Insertion depth (Step 1) = 40 mm

Rear of exit hole to shifter body (Step 3) = 40 mm

Add an additional 10-20 mm (Step 4) = 15 mm

Total cut length would be 95 mm

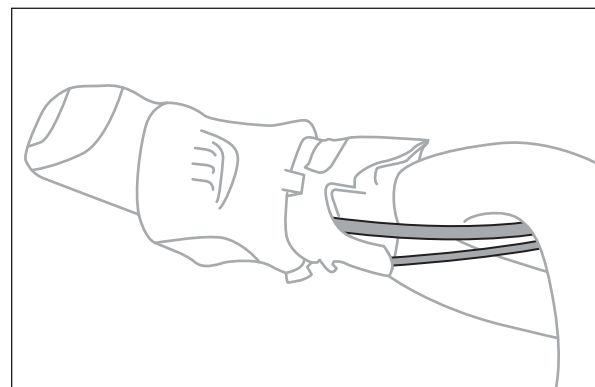
5. Make note of the shift lever location, then move the shift lever down the handlebar to make room for cutting the housing.
6. Measuring from the rear of the handlebar exit hole, cut off the total length from the RD housing.



7. Re-install the RD housing ferrule.
8. Repeat Steps 1-6 for RB, FB and FD housings.

9. Re-install the FD housing ferrule.

10. On the drive side, push the shift lever back up on the handlebar to the desired location while inserting the housings in place in the shifter body. Tighten the bolts to the recommended torque value.



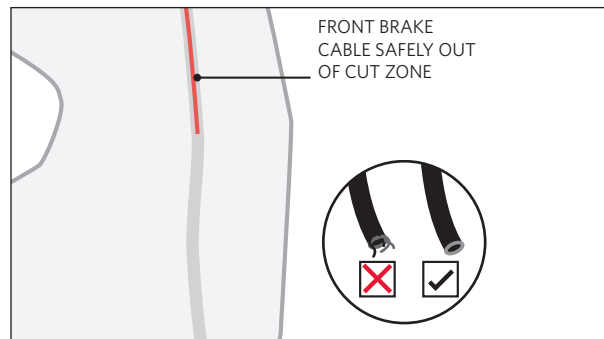
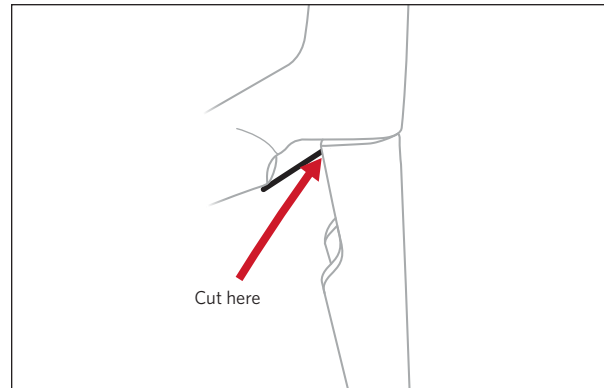
11. Repeat Step 10 for the non-drive-side shift lever.

12. Route the derailleur cables back through the frame to their respective derailleurs.

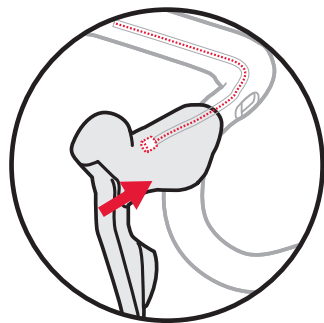
If you're installing rim brakes, go to Step 12 - Install the Front Rim Brake on page 26.
If you have disc brakes, go to Step 15 - Install and Adjust the Seatpost on page 31.

12 INSTALL THE FRONT RIM BRAKE

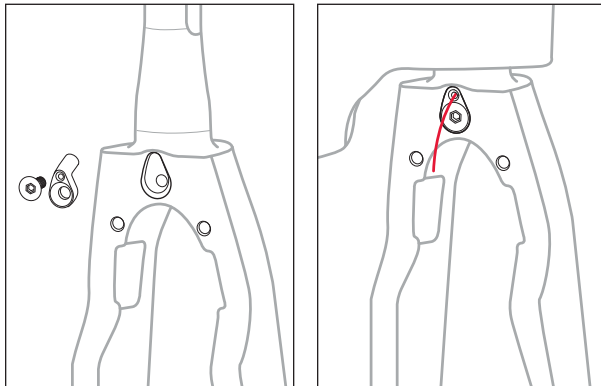
1. Pull the front brake cable a safe distance back from the housing end. Cut the brake housing flush with the rear surface of the fork.



2. Finish the end of the housing so that there are no sharp ends that could rub on the brake cable.
3. Install the brake cable and fully seat the cable end.

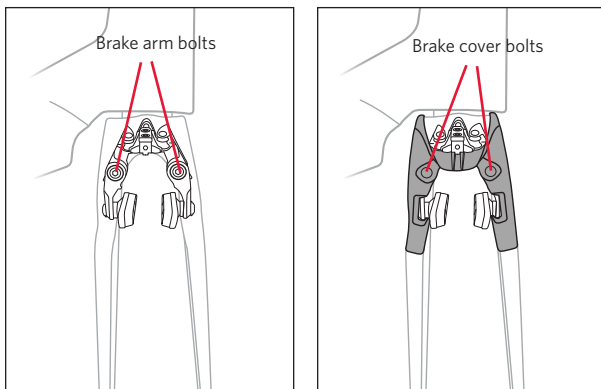


4. With the fork turned to full left, route the brake cable through the housing stop, slip the housing stop up until you can fully seat the brake housing into the stop. Connect the brake housing stop to the fork and tighten the countersunk bolt to 6 Nm.



5. Install the front brake arms and tighten the bolts to the recommended torque.

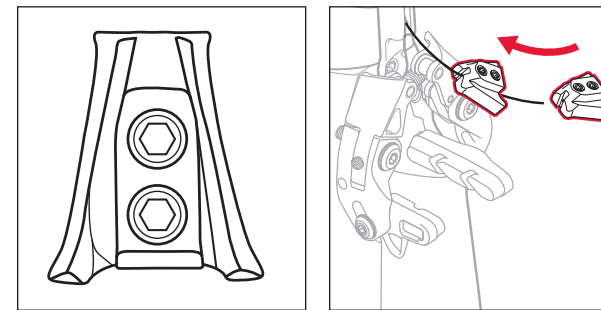
6. Install the brake cover and tighten the bolts to the recommended torque.



Go to Step 13 - Adjust the Front Rim Brake on page 27.

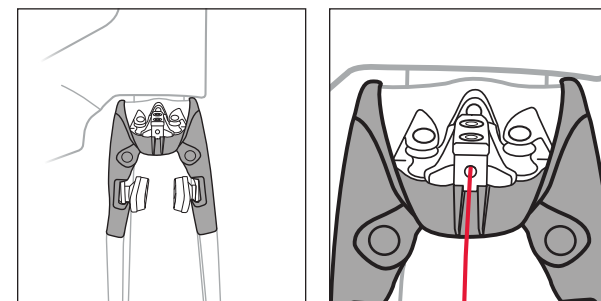
13 ADJUST THE FRONT RIM BRAKE

1. With the fork turned to full left, slide the brake wedge onto the cable. Do not tighten.

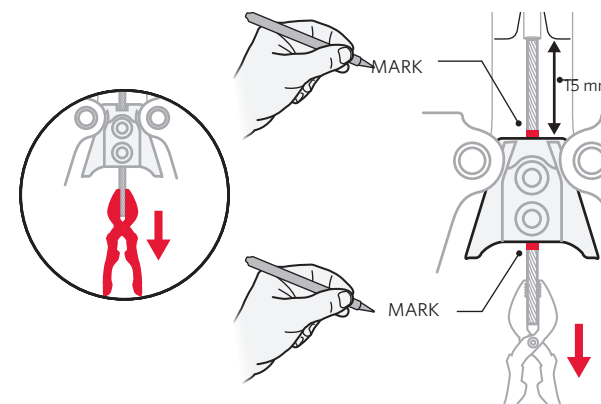


NOTE The front wedge is gold. The rear wedge is black.

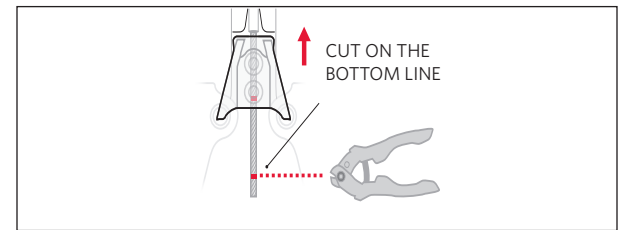
2. Slide the wedge up the brake cable and install it in the rollers of the brake arms at the 'home' location. Make sure that the wedge sits in the brake cover groove.



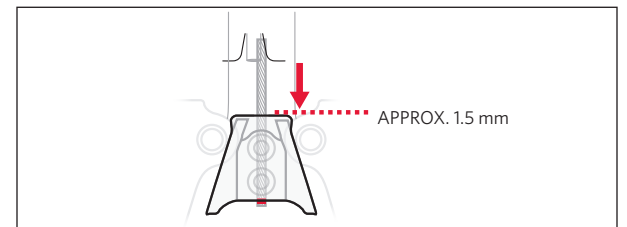
3. While you pull the cable tight, use a marker to draw a line on the brake cable at both the top and bottom edges of the brake wedge.



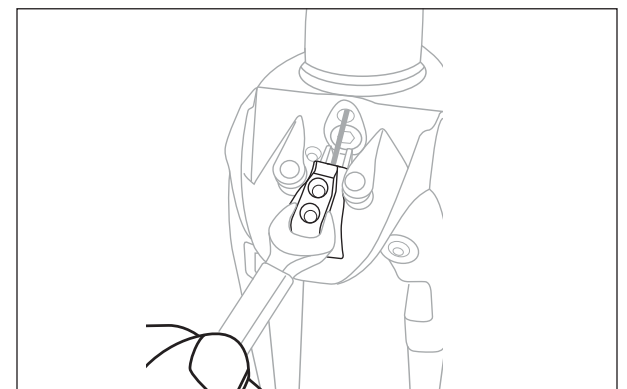
4. Remove the wedge from between the rollers and slide it up the cable (towards the fork). Cut the cable at the bottom line.



5. Slide the wedge back down to just bury the top cable mark inside the wedge, approximately 1.5 mm.



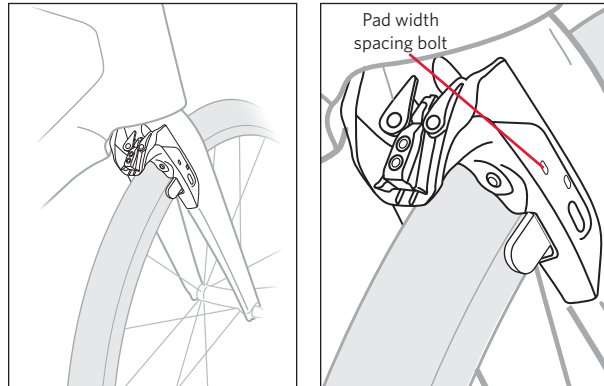
6. While you hold the wedge flat with a 9 mm spanner, tighten the cable clamp screws to the recommended torque.



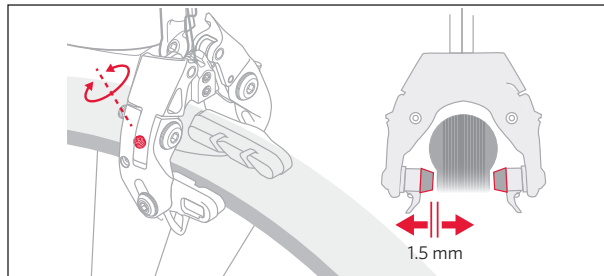
7. Reinstall the wedge between the brake arm rollers.
8. Install the front wheel.
9. If needed, replace the brake pads to correspond with the rim material (carbon vs aluminium). The pad retention screw must be installed to retain the pads.
10. Loosen the pad carrier bolts, lightly engage the brake and position the pads on the rim. Tighten the pad carrier bolts to 5 Nm.

11. Squeeze the brake lever fully to seat the housing and to stretch the brake cable.

12. Symmetrically adjust the spacing between the pads and the rim with the pad width spacing bolts.



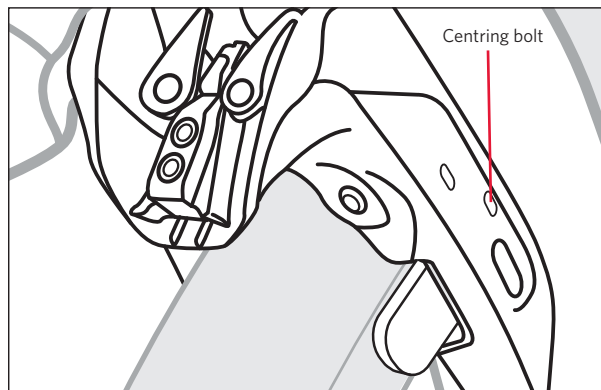
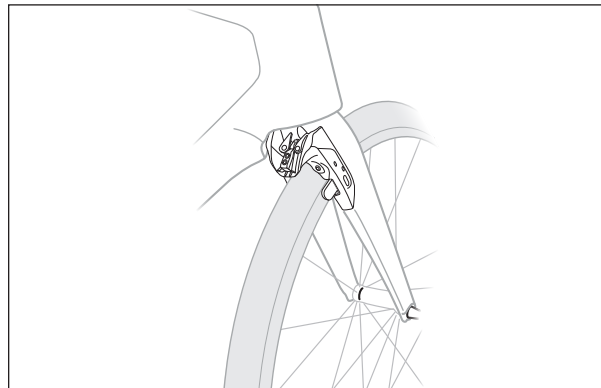
13. Keeping the brake wedge centred, there should be about 1.5 mm clearance between a pad and the rim. You'll centre precisely in the next steps.



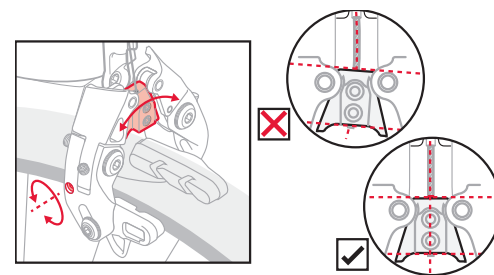
NOTE Do not use the wedge height to adjust for rim width. If the wedge is positioned incorrectly, it may rub on the cover.

14. Symmetrically adjust the centring bolts to adjust the lever feel.

15. Use the appropriate centring bolt to make the final centring adjustment.



NOTE For example, tightening the drive side centring bolt will pull the drive side pad away from the rim and vice versa.



16. Tighten the stem pinch bolts to recommended torque.

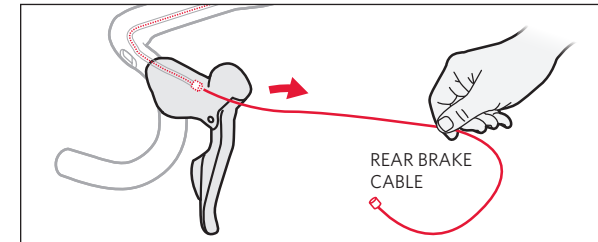
Go to Step 14 - Install the Rear Rim Brake on page 29.

14 INSTALL THE REAR RIM BRAKE

TOOLS AND MATERIALS REQUIRED

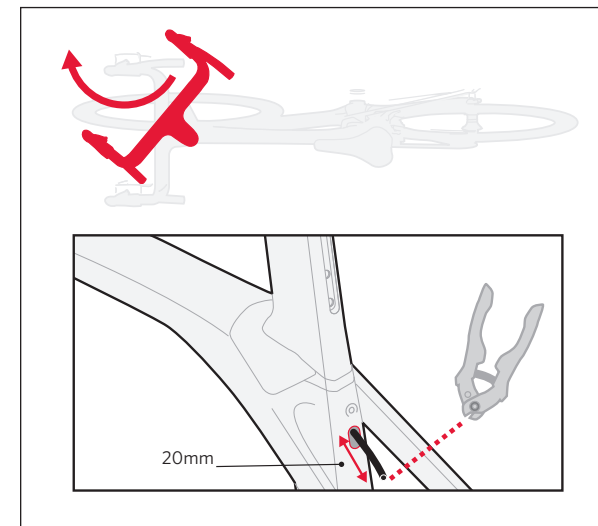
- Housing stop and bolt
- Cable cutter
- Ferrule with integrated liner
- Pliers

1. Pull the rear brake cable slightly out of the lever.



2. Remove the tape from the housing at the frame.

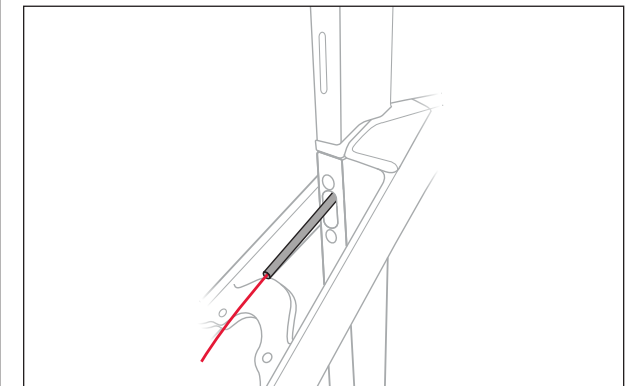
3. With the handlebar rotated all the way to the right, cut the rear brake housing so that it extends 20 mm out the back of the seat tube.



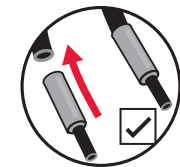
4. Check the RB housing extending from the rear of the frame. If necessary, finish the end of the housing to make sure that there are no sharp ends to rub the brake cable.



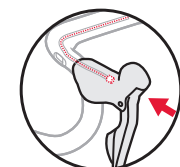
5. Route the rear brake cable through the housing from the drive side shift lever back to the frame exit hole.



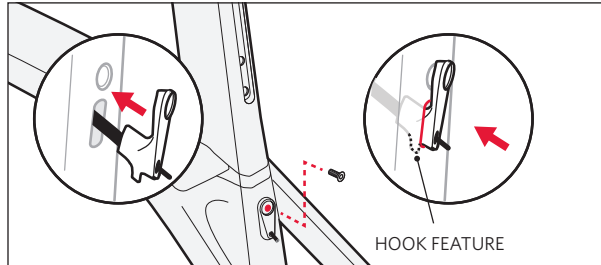
6. Install the end cap with integrated liner.



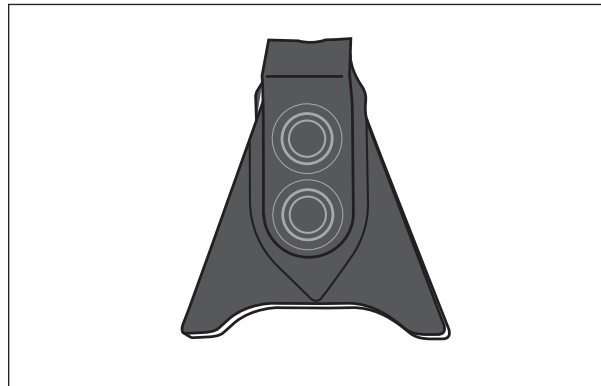
7. Fully seat the brake cable head in the shift lever.



8. Pass the brake cable and lined end cap into the rear brake housing stop.
9. Push the excess housing back into the frame until the hook feature of the housing stop engages the bottom of the slot on the inside of the damper housing.
10. Install the M4 countersunk bolt and torque to the recommended value.



11. Proceed with the same assembly steps used in the set-up of the front rim brake, including wedge installation and brake adjustment.



NOTE The wedge for the rear brake is coloured black.

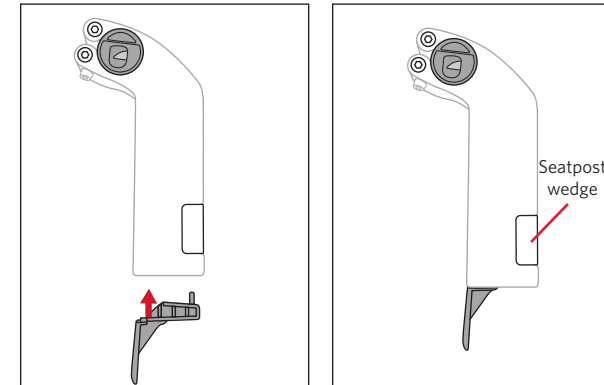
Go to Step 15 - Install and Adjust the Seatpost on page 31.

15 INSTALL AND ADJUST THE SEATPOST

TOOLS AND MATERIALS REQUIRED

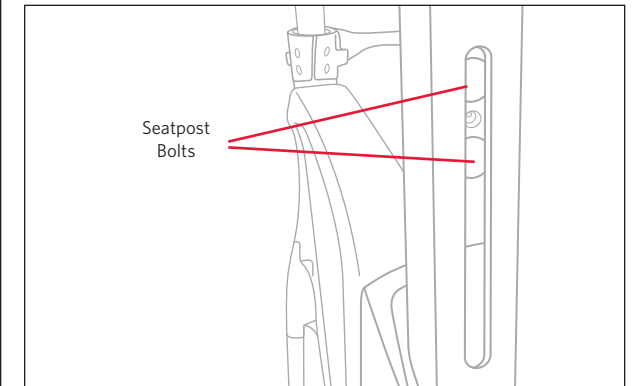
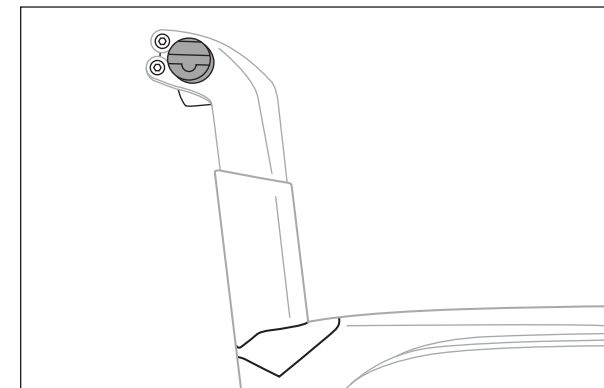
- Saddle
- Seatpost wedge and bolts
- Long stem 5 mm hex wrench
- Seatpost
- Lower seal
- Torque wrench

1. Remove any tape or rubber band from around the seatpost wedge prior to installation.
2. Install the lower seal into the bottom of the seatpost.
3. Insert the seatpost into the seatmast. Be sure to have the wedge placed in the seatpost prior to insertion.
4. Tighten the bolts just until the seatpost and wedge are snug. Do not fully tighten yet.

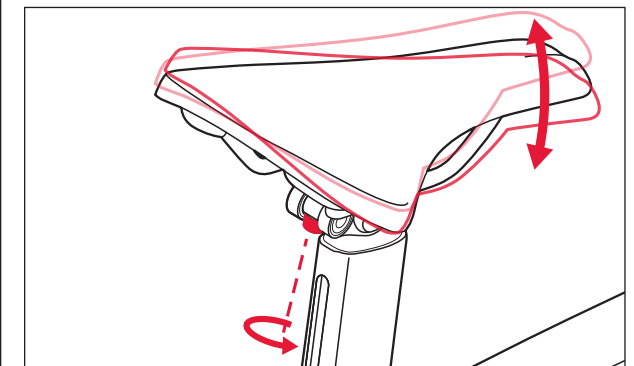


NOTE For full seatpost insertion, you may need to remove the lower seal.

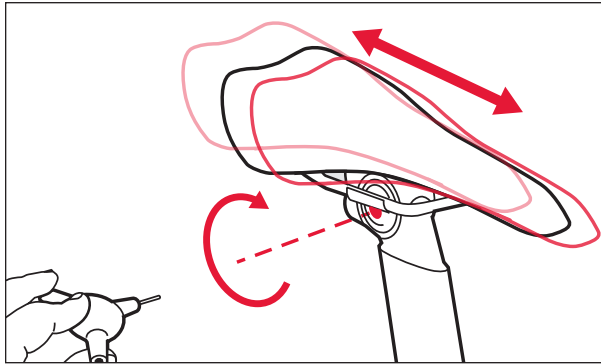
5. Install the saddle. Ensure that the clamp ear correctly fits the saddle rail shape.
6. To adjust the angle of the top of the saddle, loosen the rear pinch bolt, adjust the angle, then re-tighten the bolt.



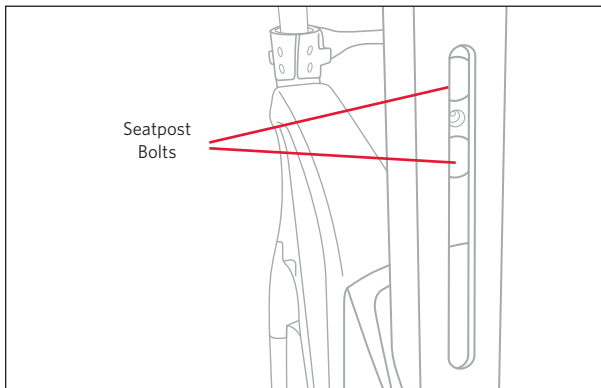
5. Install the saddle. Ensure that the clamp ear correctly fits the saddle rail shape.
6. To adjust the angle of the top of the saddle, loosen the rear pinch bolt, adjust the angle, then re-tighten the bolt.



- 7.** To adjust the fore/aft position of the saddle, loosen the side rail clamp bolt, slide the saddle, then re-tighten the bolt.



- 8.** To adjust the seat height, loosen two seatpost clamp bolts, adjust the height and re-tighten the bolts to the recommended torque value.



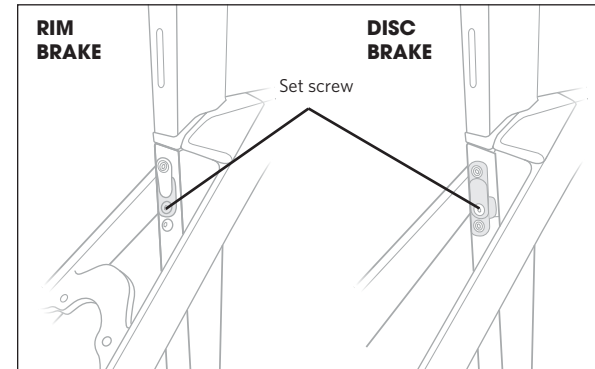
NOTE: Use a long-stem 5 mm socket on your torque wrench to tighten the seatpost bolts. This will allow an improved fit on the bolt and will prevent marks on the bike finish.

16 ADJUST THE ISOSPEED SYSTEM

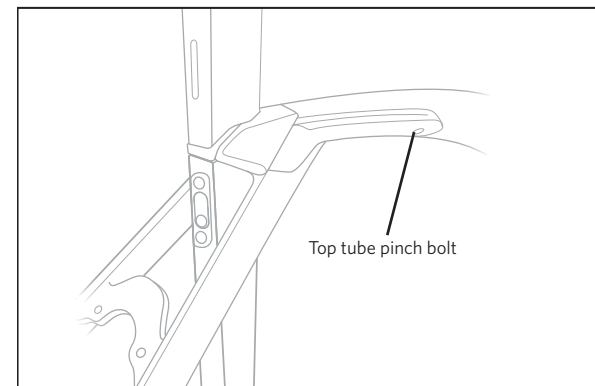
TOOLS REQUIRED

- 2.5mm Allen™ key
- 4 mm Allen™ key

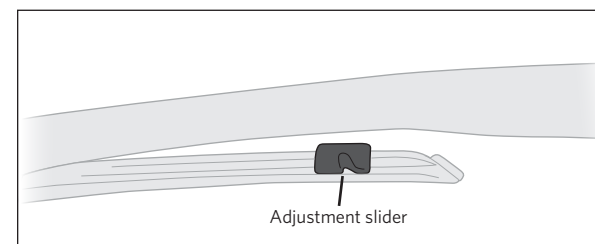
- 1.** From the rear base of the seatmast, use the 2.5mm Allen™ key to loosen the damper preload set screw out 5mm.



- 2.** Under the top tube, use the 4mm Allen™ key to remove the top tube pinch bolt.



The seatmast and decoupler will tip forwards to expose the adjustment slider.



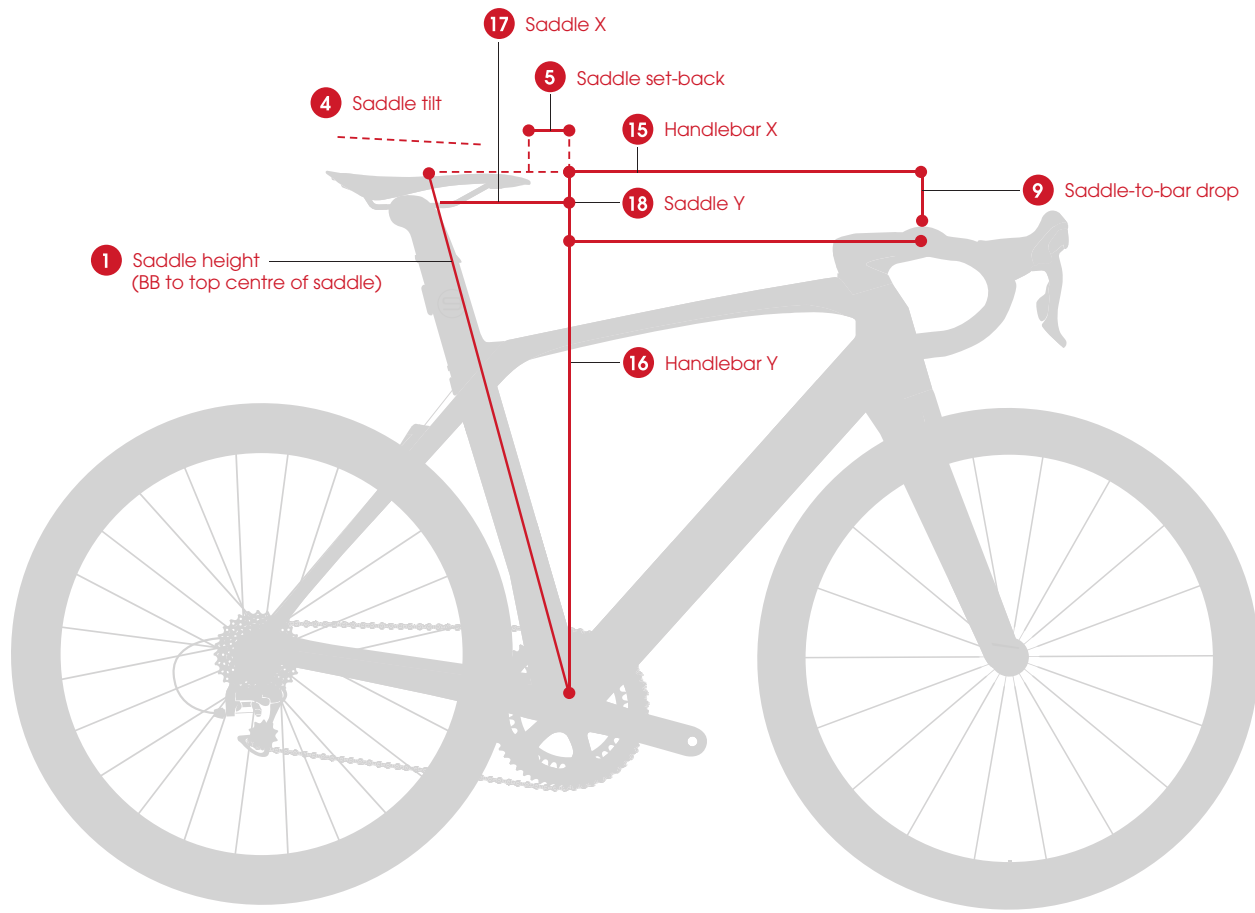
- 3.** Reference the slider decal to help determine the desired setting.

NOTE Moving the slider forwards will allow for more deflection and greater flex. Moving the slider backwards will cause less deflection and a stiffer ride.

- 4.** Tighten the top tube pinch bolt to the value on the top tube decal.

- 5.** Tighten the damper preload set screw to 2Nm.

16 FIT MEASUREMENTS



BIKE MEASUREMENTS (CM)

1	Saddle height		10	Stem length/angle	
2	Saddle model		11	Handlebar width	
3	Saddle size		12	Handlebar model	
4	Saddle tilt		13	Headset spacer height	
5	Saddle set-back		14	Crank arm length (mm)	
6	Seatpost offset		15	Handlebar X coordinate	
7	Saddle tip to bar		16	Handlebar Y coordinate	
8	Saddle tip to shifter		17	Saddle X coordinate	
9	Saddle-to-bar drop		18	Saddle Y coordinate	

17 SERVICE INFORMATION

Di2 Handlebar Specifications for Reference			
Frame Size	Bar Size	Y-Wire Spec	Charge port to DS Shifter
50	40	JC130-SM [350 mm/50 mm/450 mm] JC130-MM [550mm/50 mm/550mm]	SD50 -[350 mm]
52			
54	42		
56			
58	44		
60			
62			

Di2 Frame Specifications for Reference			
Frame Size	Stem to DT Junction B	Battery to DT Junction B	FD to DT Junction B
50	SD50 -[650 mm]	SD50 -[150 mm]	SD50 -[550 mm]
52	SD50 -[650 mm]		
54	SD50 -[700 mm]		
56	SD50 -[700 mm]		
58	SD50 -[750 mm]		
60	SD50 -[750 mm]		
62	SD50 -[800 mm]		

RD to DT Junction B
SD50 -[950 mm]

PN 577340

