

***velo***

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# IMPORTANT INFORMATION

This manual is intended to assist Cervélo retailers in setting up and customizing the P3X bicycle. This manual is not intended for consumer use, and requires the use of the specified tools to ensure proper assembly. This manual also references proprietary parts available only to retailers through direct ordering from Cervélo.

Failure to use the specified parts and to follow the supplied assembly instructions may result in a loss of control while riding and serious injury. This manual is an overview of the steps required to assemble this bicycle and to make any desired modifications as set forth in this manual. This manual assumes that the retailer has the minimum required background and skill level required of all professional bicycle mechanics. See <https://www.probma.org/>

**NOTE:** Cervélo strongly recommends that all assembly and adjustment procedures be performed by an authorized Cervélo retailer. If you are a Cervélo P3X consumer/purchaser reading this manual we suggest that before attempting to undertake any of the procedures in this manual that you consult your authorized Cervélo retailer, or visit us at [www.cervelo.com/support](http://www.cervelo.com/support)

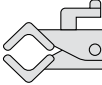
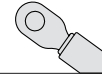
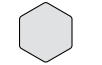




# LIST OF TOOLS & SUPPLIES

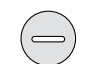





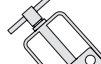

This manual outlines a number of procedures for making optional adjustments to the P3X which differ from the way the bicycle is originally sold by Cervélo. The following tools and parts listed are required for these adjustments. These parts are not available for consumer purchase and are only available for purchase by Cervélo retailers. Cervélo strongly recommends that all assembly and adjustment procedures be performed by an authorized Cervélo retailer.

All parts available for separate purchase are noted in this manual with Cervélo part numbers listed in ALL - CAPS FORMAT, with a full listing provided on page 3. These parts are available by visiting the Cervélo Customer Portal <https://dealers.cervelo.com>

**NOTE:** All non-proprietary components such as those from Shimano or SRAM are available from your local distributor.

**NOTE:** This manual was developed to compliment the Cervélo General User Manual, and is intended as a supplement to the assembly and installation instructions supplied by the component manufacturers (provided with this bicycle).

Tools	
	Bicycle workstand (types which secure bike by the seatpost, or pro-type stand with fork mount)
	Torque wrench(es) with 2.5Nm to 15Nm range and adaptors:
	Allen (Hex) head inserts: 2mm, 2.5mm, 3mm, 4mm, 5mm, 6mm, 8mm, 10mm
	Open ended wrenches: 7mm, 8mm, 10mm, 17mm
	Cable cutters
	Pliers
	Phillips-head screwdriver

Tools	
	Slot-head screwdriver
	Pedal wrench
	Brake rotor lockring tools
	Hydraulic bleed kit
	Di2 wire tool – Shimano
	Good quality bicycle grease & carbon assembly compound
	Saw cutting guide (ParkTool SG-7.2 or equivalent)
	Hacksaw (with carbon specific blade)

# P3X PARTS LIST

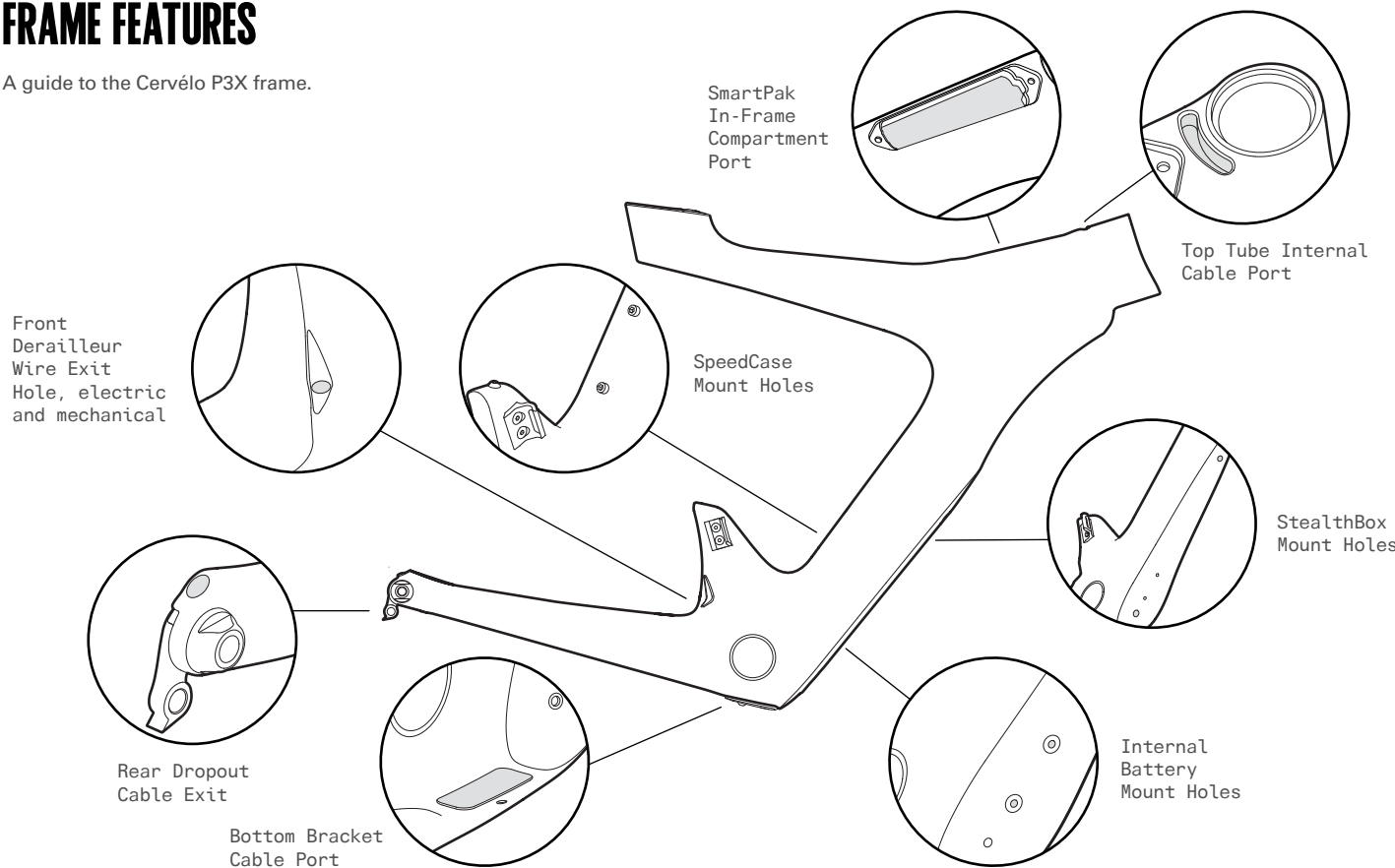
Item Description	Cervélo Part No.
P3X Riser Post Clamp	HBP-P3XCPLP
SpeedCase Assembly	ASY-P5X-DTBOX
Internal Battery Mount Assembly 0E0	MT-BINT
SmartPak w/ Pill Tray	SB-SB02-TT
StealthBox 300 w/ Mount + Bolts	SB-SB01-DT
EX10 Riser Post	HBP-EX10-RISER
EX10 Pad Mount w/ Bolts	HBP-EX10-PADMT
EX10 Tilt Adjust Plate w/ Bolts	HBP-EX10-ADJPL
EX10 Bottle Mount	HBP-EX10-BOTMT

Item Description	Cervélo Part No.
SP21 Carbon Seatpost w/ Head	SP-SP21
P3X/P5X Seatpost Plug	SPP-PX
ST30 Stem Cover for P3X	HBP-HB10-CVR
HB10 Basebar	HB-HB10
HB10 Basebar Mounting Plate	HBP-HB10-BMP
ST30 Stem	ST-ST30
BB Grommet P3X	GR-BB-129
Threaded Axle Fork Insert	QRI-THD
Cervélo Front Aero Through Axle	QRA-AERO-F

Item Description	Cervélo Part No.
Cervélo Rear Aero Through Axle	QRA-AERO-R
Basebar Grips L/R	HBP-GRIPS
EX11 Di2 Riser Post Plug	MT-EX11-DI2
EX11 Riser Post Rests W/ Bolts	HBP-EX11-RESTS
EX11 Riser Post Pads	HBP-EX11-PADS
Disc Brake Hose Guide 0E0	CBG-DBH
Seatpost Waterbottle Mount	MT-WB-SP
SP21/SP23 Saddle Clamp Slug	SPS-SP2123
Stem Cover Access Cap w/ Window	HBP-MPXSCC

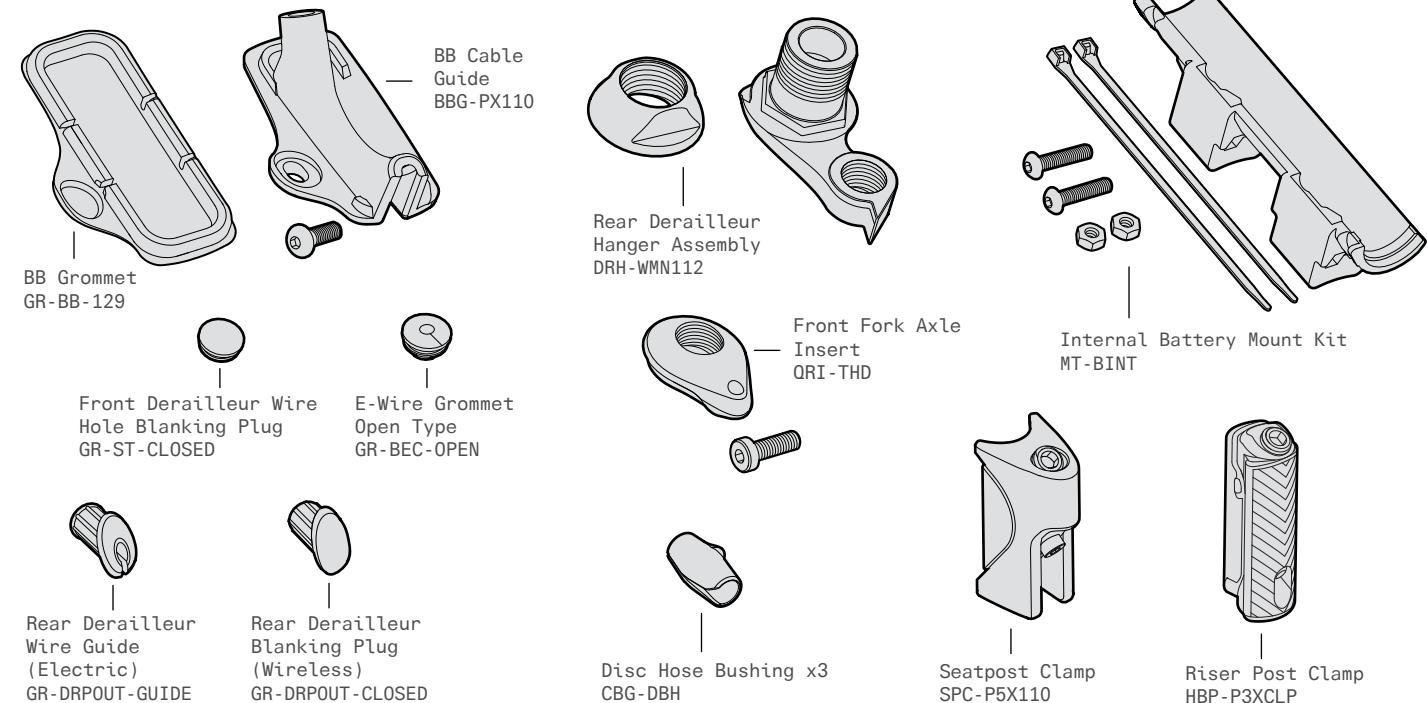
# FRAME FEATURES

A guide to the Cervélo P3X frame.



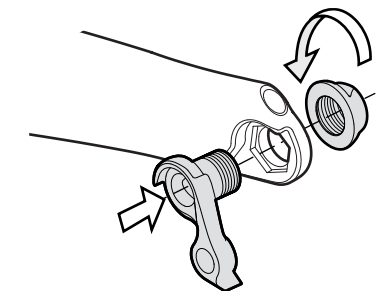
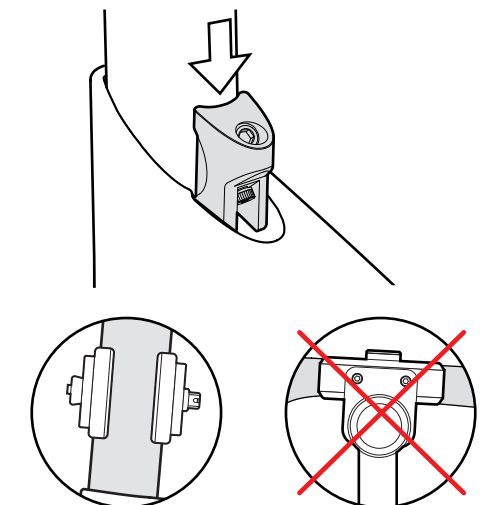
## SMALL PARTS

Designed to accommodate electronic, mechanical and hydraulic controls, the P3X frame is engineered to provide seamless integration of all shifting systems, regardless of method or brand. In order to do so, you will require the parts shown below. Not all parts will be used, depending on the groupset fitted to the bicycle.



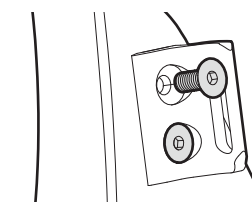
## FRAME PREPARATION

1. Apply carbon assembly compound to both frame and seatpost.
2. Insert Seatpost Clamp (SPC-P5X110) fully into frame so it is fully flush with the top tube.
3. Adjust height and torque to 8Nm maximum.

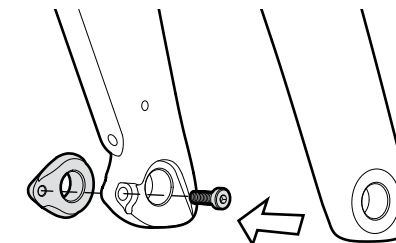


Lightly grease Rear Derailleur Hanger Fixing Nut and install Rear Derailleur Hanger (DRH-WMN112) finger tight. Final tightening will be done after rear wheel installation.

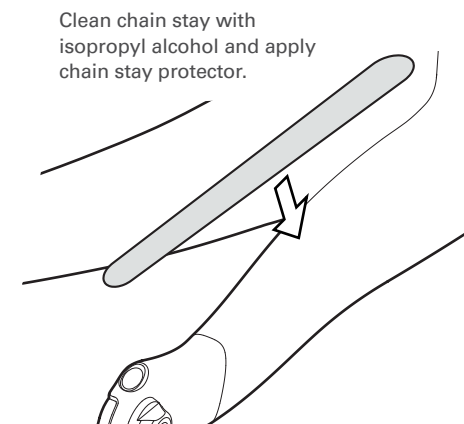
**WARNING**  
Do not final tighten rear derailleur hanger assembly without rear wheel installed. Doing so will result in a misaligned derailleur and poor shifting.



Ensure Front Derailleur Mount fixing screws are torqued to 3Nm.



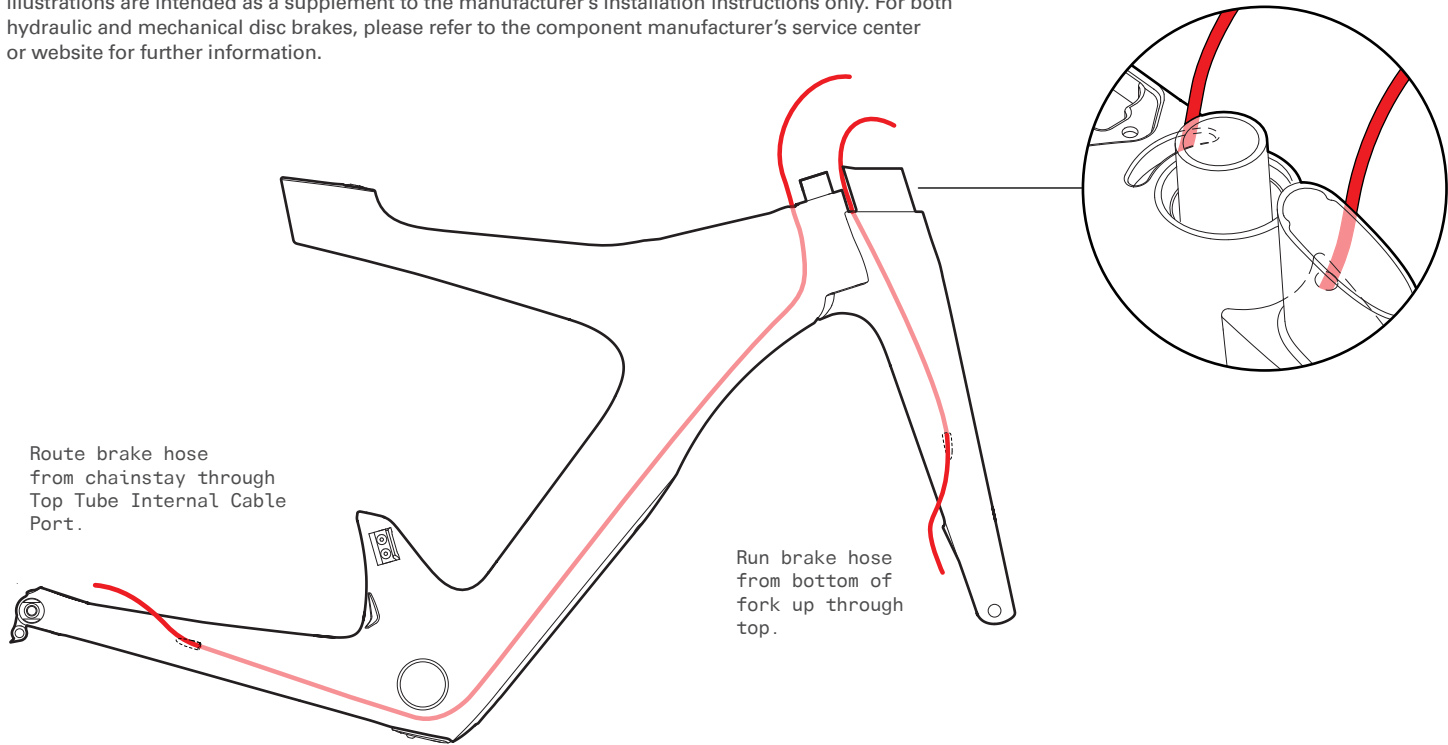
Lightly grease supplied M4 fixing screw, and install the Front Fork Axle Insert (QRI-THD) to the fork. Tighten to 3Nm.





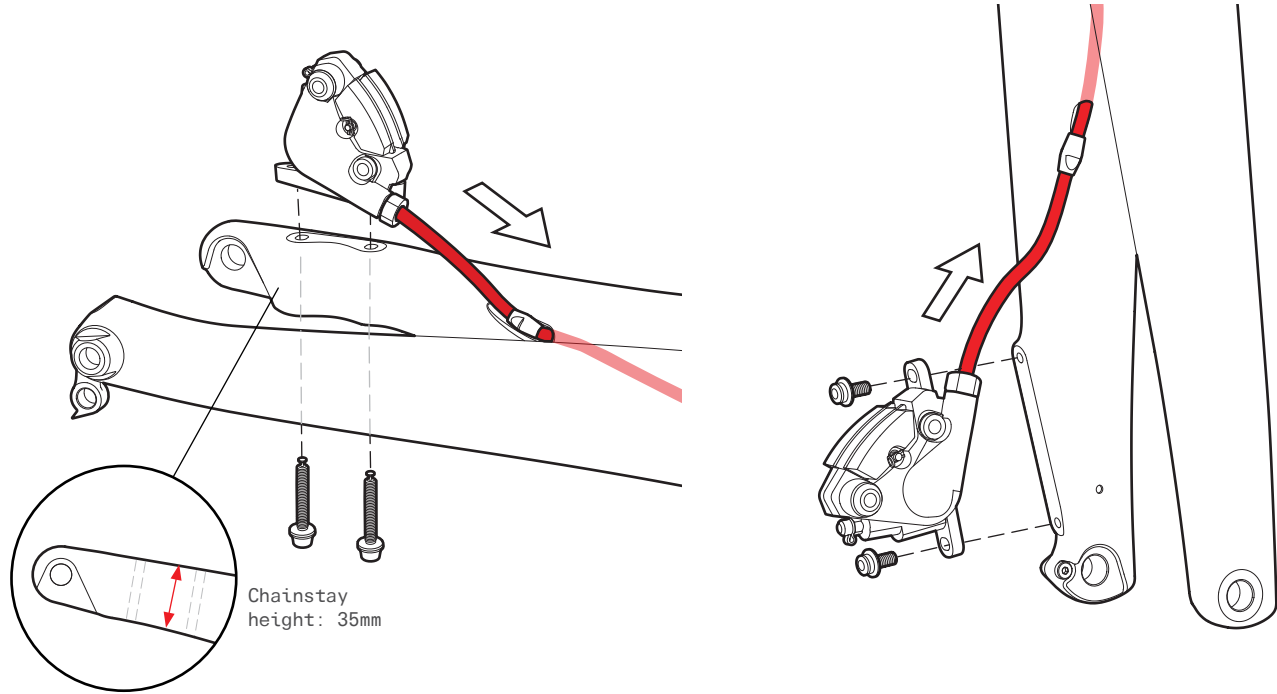
# BRAKE HOUSING ROUTING

It is recommended that the hydraulic brake hoses or brake cable housing is installed first. These routing illustrations are intended as a supplement to the manufacturer's installation instructions only. For both hydraulic and mechanical disc brakes, please refer to the component manufacturer's service center or website for further information.



# BRAKE HOUSING ROUTING

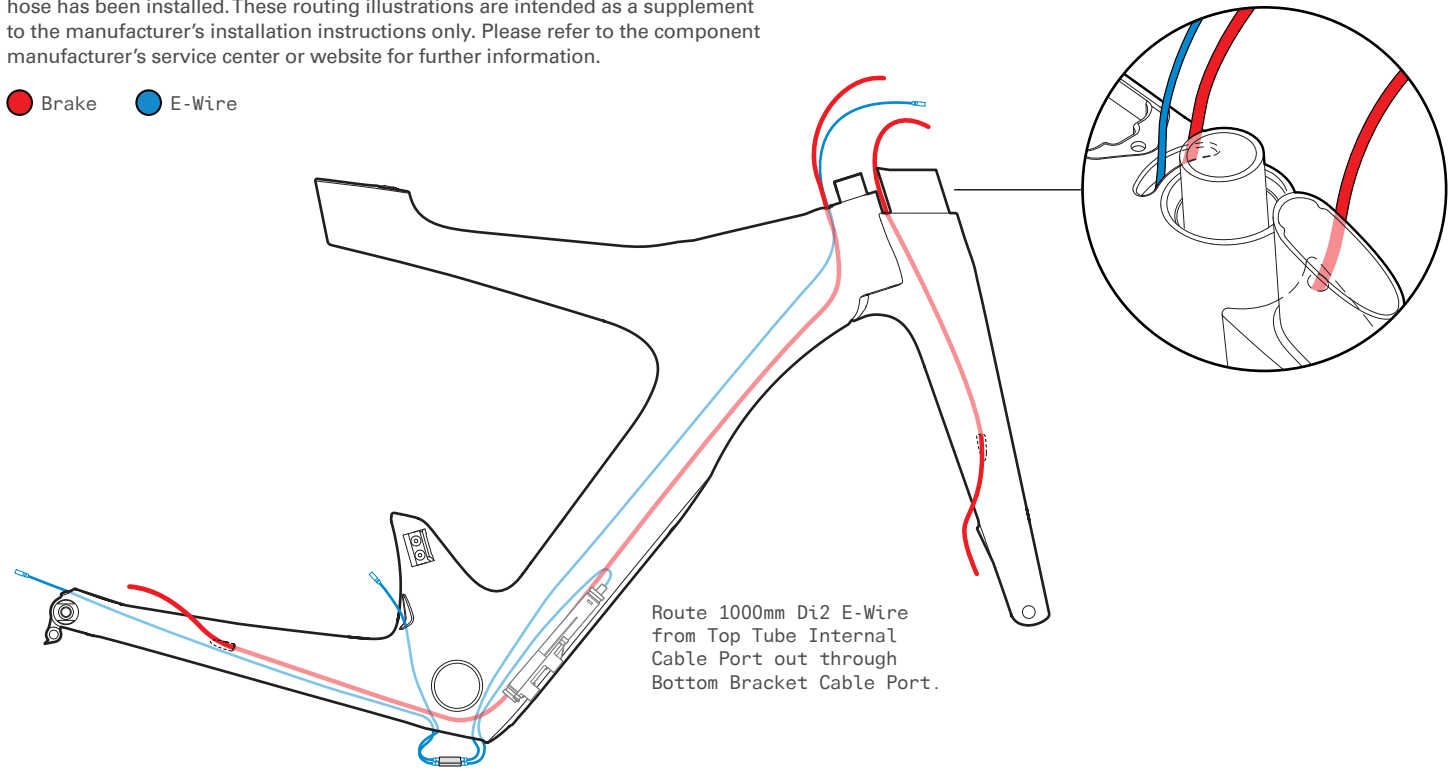
Route hydraulic brake hose or mechanical brake housing through the frame and fork with the Disc Hose Bushings (CBG-DBH). Install and adjust calipers as per manufacturer's instructions.



# ELECTRIC CABLE ROUTING

It is recommended that electric cabling and junction points be installed after the brake hose has been installed. These routing illustrations are intended as a supplement to the manufacturer's installation instructions only. Please refer to the component manufacturer's service center or website for further information.

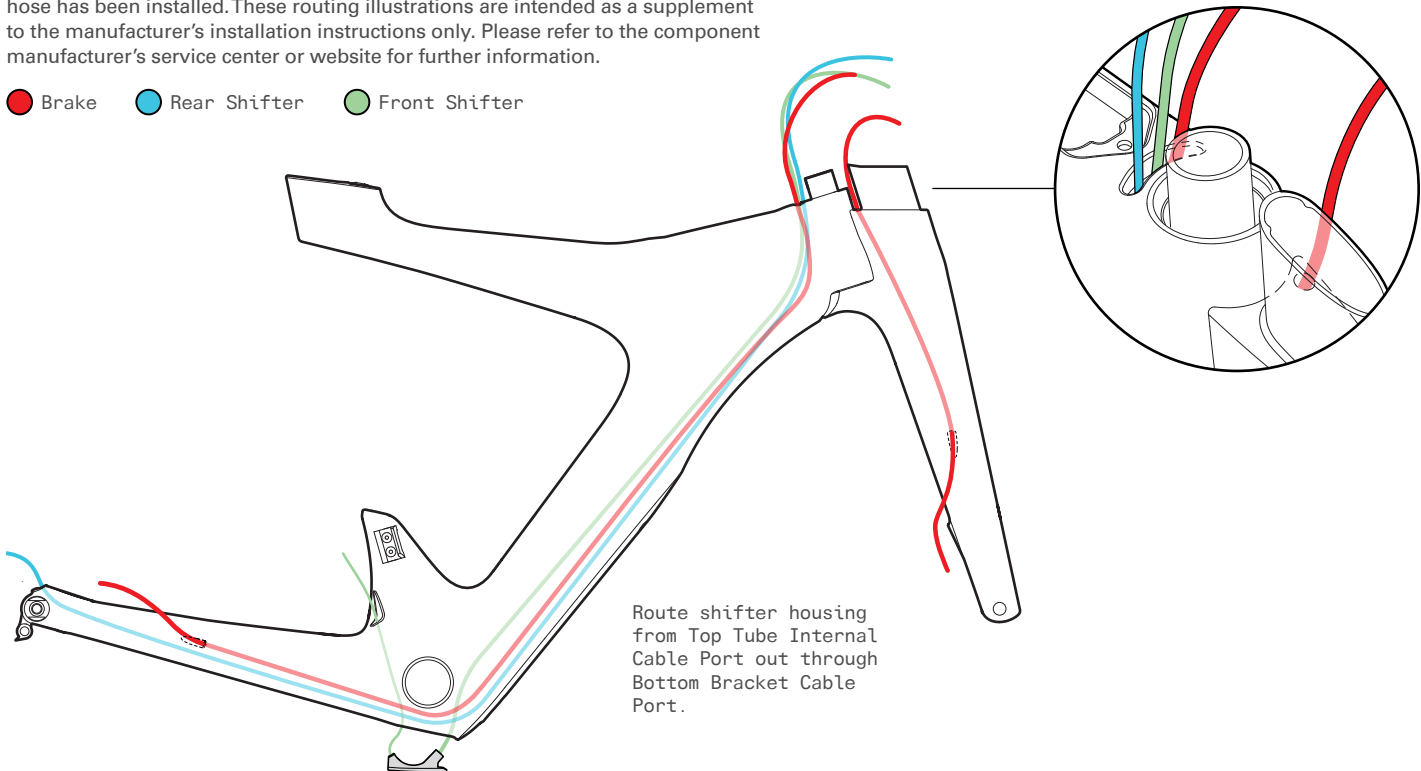
- Brake
- E-Wire



# MECHANICAL CABLE ROUTING

It is recommended that front and rear derailleur cables be installed after the brake hose has been installed. These routing illustrations are intended as a supplement to the manufacturer's installation instructions only. Please refer to the component manufacturer's service center or website for further information.

- Brake
- Rear Shifter
- Front Shifter



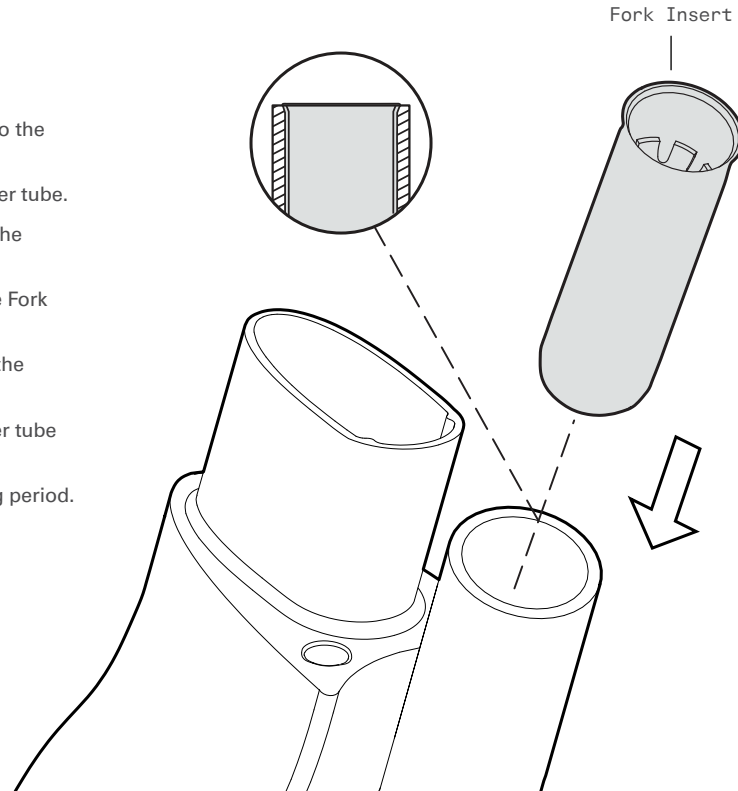
# FORK PREPARATION

**Note:** It is recommended that you familiarize yourself with the steering system before complete installation, by performing a trial assembly without hoses or control cables present.

1. To prepare fork for the glue in Fork Insert, carefully sand a bevel to the inside of the end of the circular steerer tube to fit the insert.
2. Dry fit Fork Insert to check that it is flush with the end of the steerer tube.
3. Use isopropyl alcohol to clean the inside of the steerer tube and the outside of the Fork Insert.
4. Fully mix the two-part epoxy and apply to the outer surface of the Fork Insert with the wooden mixing stick.
5. Slide the Fork Insert into the steerer while rotating it slowly until the flared end sits flush with the top of the steerer.
6. Wipe away any excess glue from the outside surface of the steerer tube with the isopropyl alcohol wipe.
7. Set the fork aside and allow it to sit undisturbed for the full curing period.

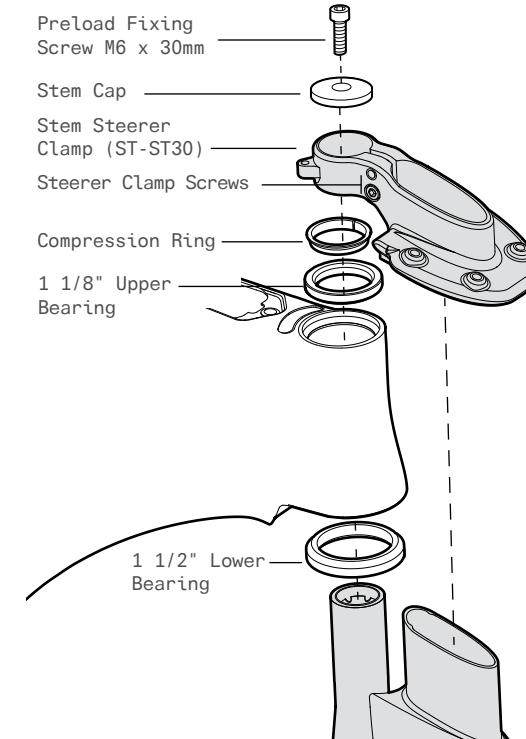
## ⚠ WARNING

Do not attempt to fit the fork into a bike prior to the completion of the full curing period.



# FORK INSTALLATION

**NOTE:** This diagram is for assembly reference only. During complete assembly, hoses and control cables will be present.



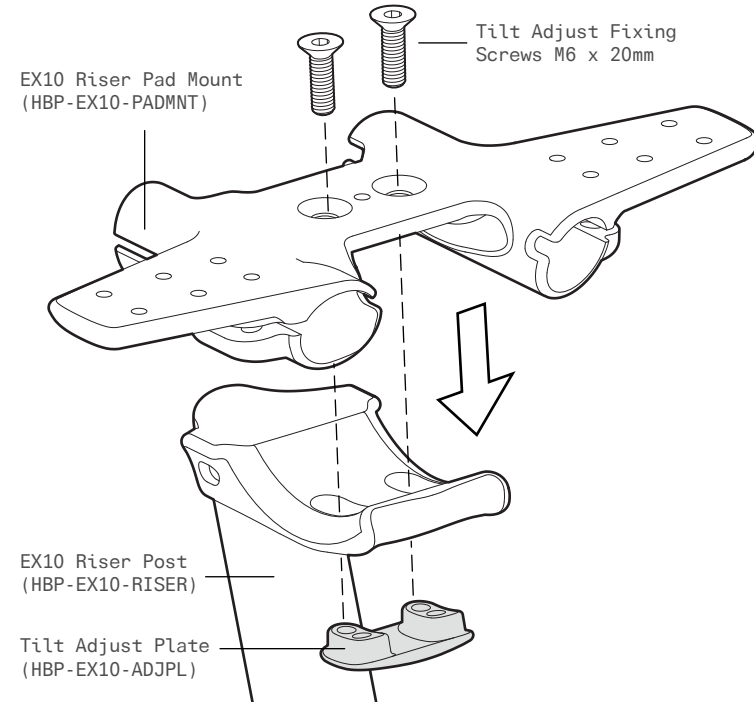
1. Check the Stem Steerer Clamp and headset components to make sure there are no sharp or rough edges on any of the surfaces which could cut or damage the steerer tube. If any rough edges are detected, have the components repaired (sharp edges removed) or replaced before proceeding.
2. Press the upper and lower headset bearings into the frame, and insert the fork into the head tube.
3. Slide the compression ring onto the steerer, and down until it fully seats in the top of the upper headset bearing. The split in the compression ring must be oriented toward to left or right side of the steerer – never towards the front or back.
4. Slide the Stem Steerer Clamp onto the fork steerer oriented as shown. Note the Stem Steerer Clamp must engage both the fork steerer and the external steerer. Do not use grease on the fork steerer. The use of Tacx Carbon Assembly Compound™ or equivalent friction paste is recommended to help secure the Stem Steerer Clamp.
5. Lightly grease the threads of the Stem Cap bolt, and the Steerer Clamp screws.
6. Place the Stem Cap on top of the Stem Steerer Clamp and insert the greased M6 bolt through the cap to engage with the star nut. Tighten the bolt only enough to remove all play from the headset, and ensure that the fork still rotates freely.
7. Tighten the 2 greased Steerer Clamp Screws to the steerer using a torque wrench. Tighten to a maximum of 5Nm.
8. As a final check ensure that the fork rotates freely in the head tube without any play or binding. If any problem is detected, loosen the bolts and perform steps 6) to 7) again.

## ⚠ WARNING

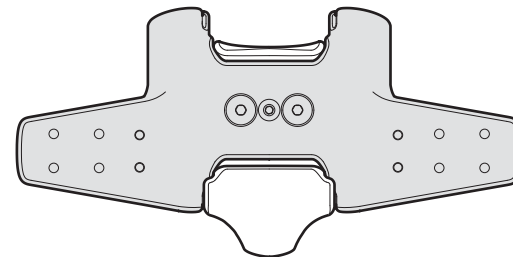
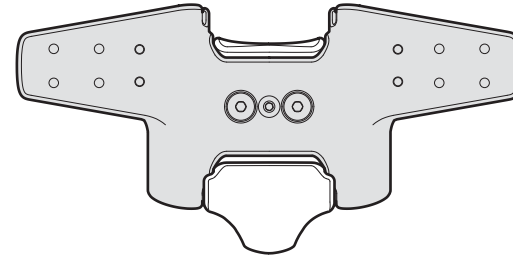
Do not exceed the maximum torque specification for the stem. Correct tightening force on fasteners – nuts, bolts, screws – on your bicycle is very important. Too little force, and the fastener may not hold securely. Too much force, and the fastener can strip threads, stretch, deform or break. Either way, incorrect tightening force can result in component failure, which can cause you to lose control and fall.

## RISER POST

Attach Riser Pad Mount and Riser Post to Tilt Adjust Plate using two lightly greased M6 fixing screws. Torque to 6Nm.



The Riser Pad Mount can be attached in two positions:

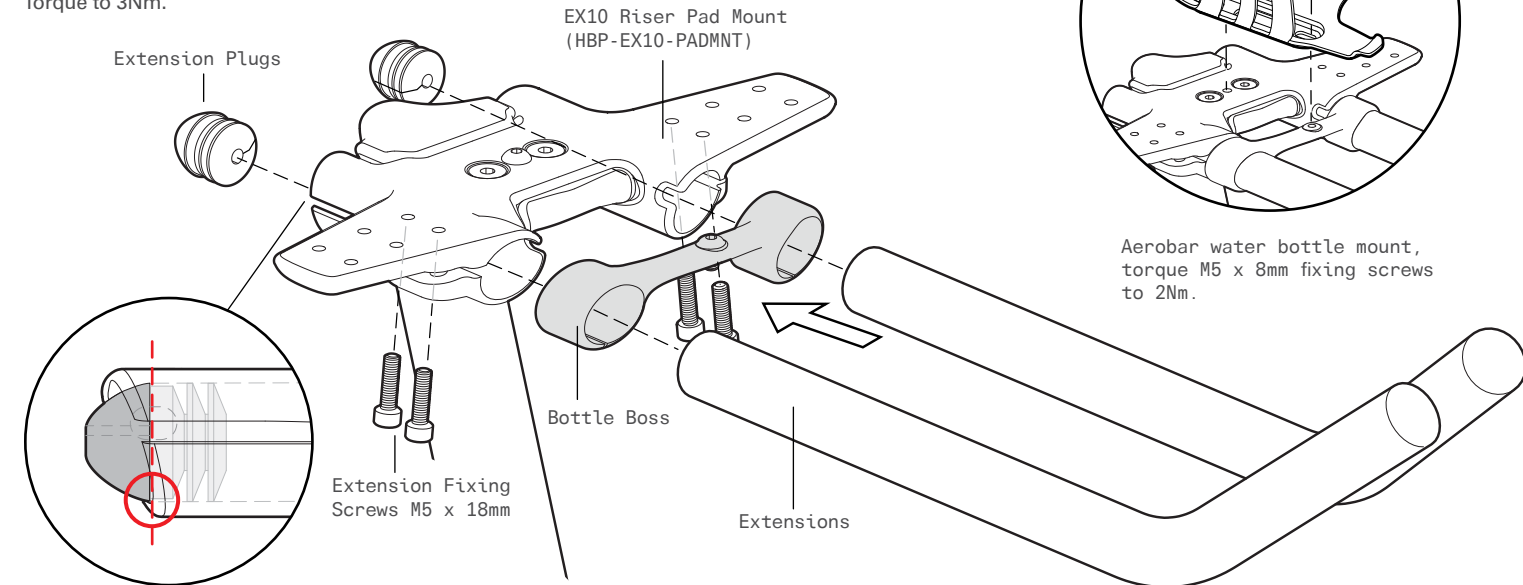


Setback Position

## EXTENSION ASSEMBLY

**NOTE:** This diagram is for assembly reference only. During complete assembly, hoses and control cables will be present.

Install and adjust extensions.  
Torque to 3Nm.

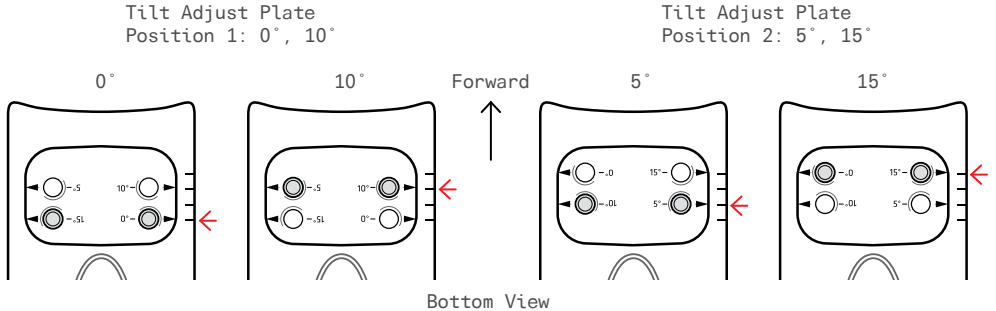
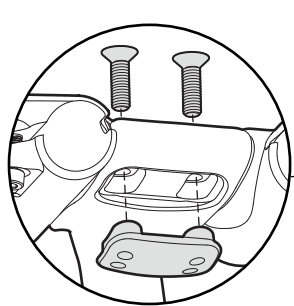
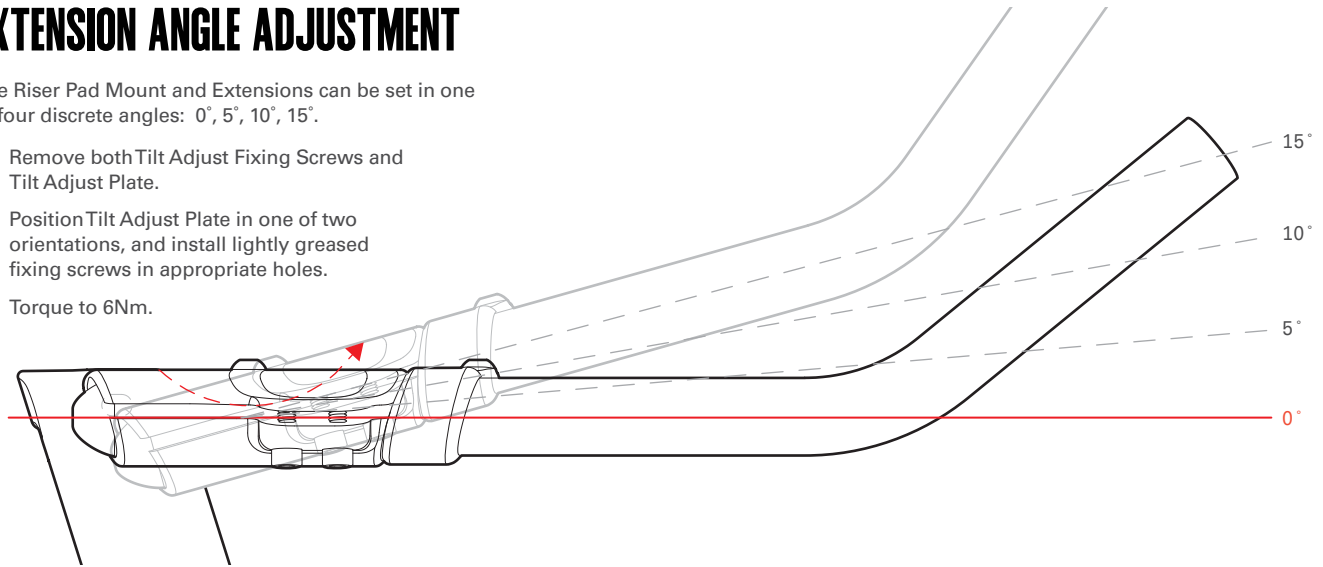


Extensions should be flush with bottom edge Riser Pad Mount for internal Di2 routing.

# EXTENSION ANGLE ADJUSTMENT

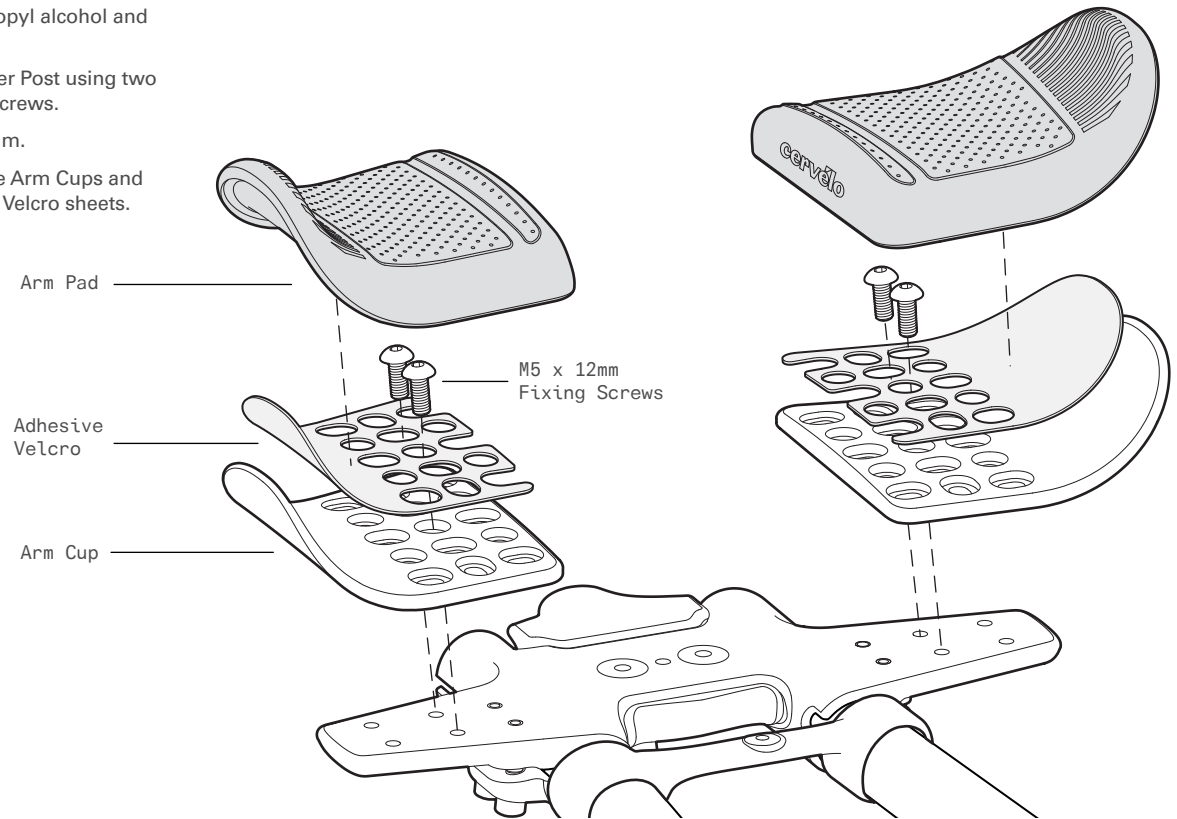
The Riser Pad Mount and Extensions can be set in one of four discrete angles: 0°, 5°, 10°, 15°.

- 1. Remove both Tilt Adjust Fixing Screws and Tilt Adjust Plate.
- 2. Position Tilt Adjust Plate in one of two orientations, and install lightly greased fixing screws in appropriate holes.
- 3. Torque to 6Nm.

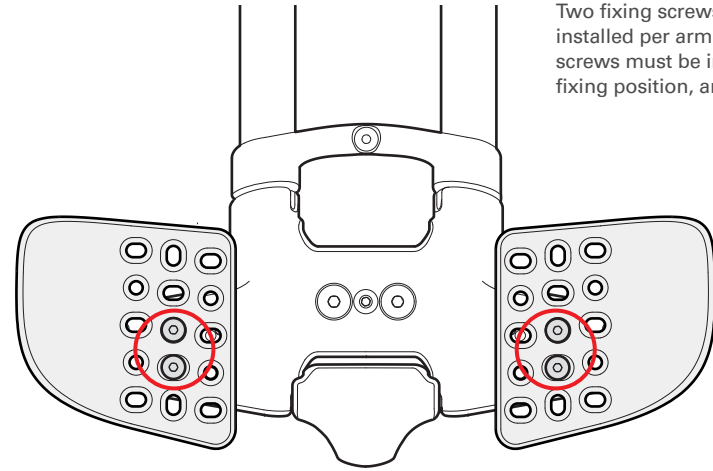


# ARM CUP & PAD INSTALLATION

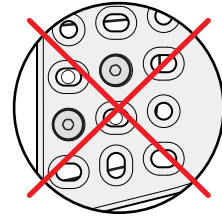
- 1. Clean Arm Cups with isopropyl alcohol and apply Velcro sheets.
- 2. Attach Arm Cups to the Riser Post using two lightly greased M5 Fixing Screws.
- 3. Torque Fixing Screws to 4Nm.
- 4. Align the Arm Pads with the Arm Cups and press to secure them to the Velcro sheets.



## ARM CUP POSITIONS



Two fixing screws must always be installed per arm cup. The fixing screws must be installed in fore-aft fixing position, and not diagonal.

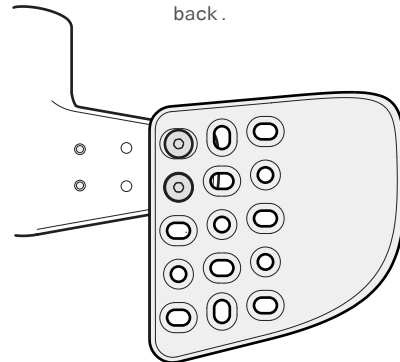
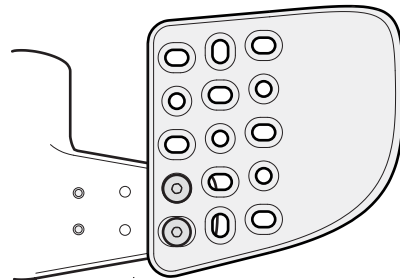


Position: Farthest outside, farthest forward.

Position: Farthest outside, farthest back.

### ⚠ WARNING

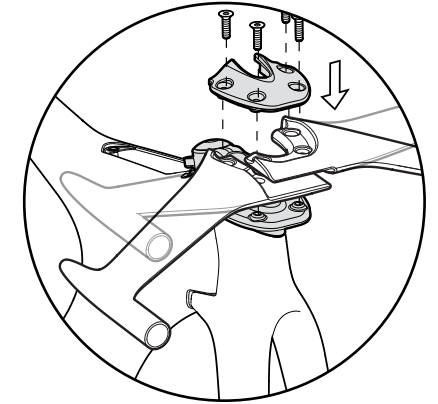
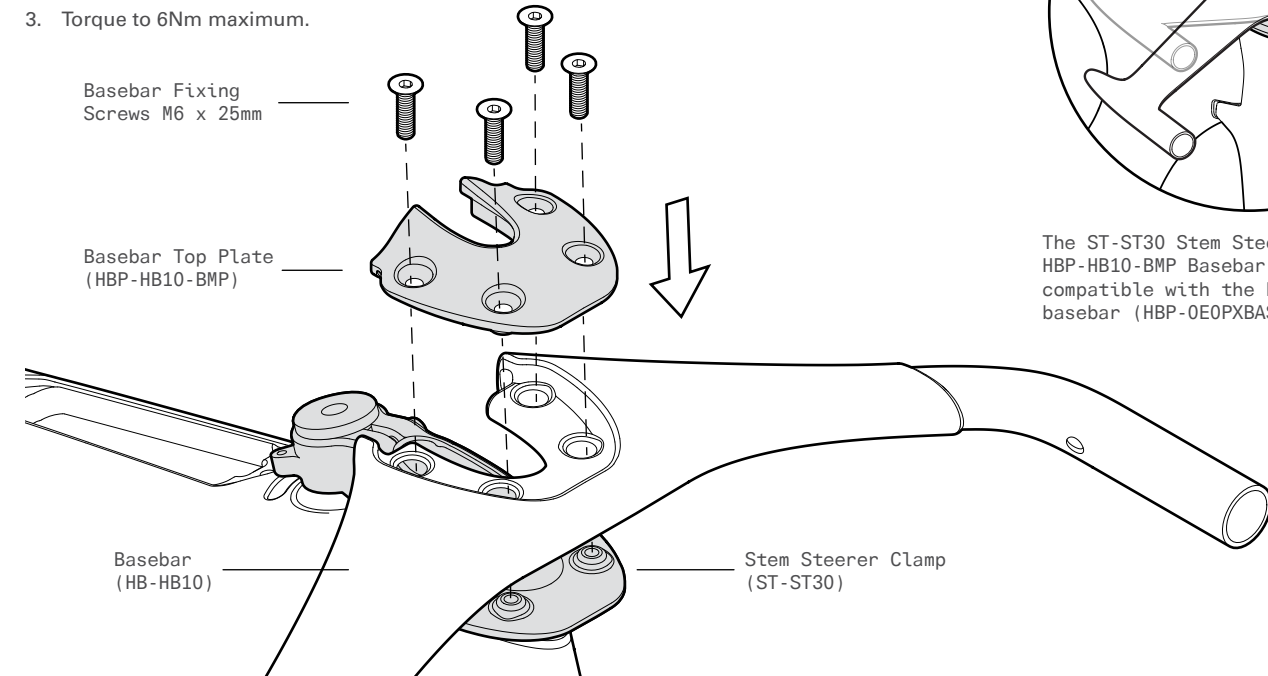
Failure to use the specified parts and to follow the supplied assembly instructions may result in a loss of control while riding and potentially serious injury.



## BASEBAR INSTALLATION

1. Lightly grease the threads of the four M6 Basebar Fixing Screws
2. Install the Basebar Top Plate and insert the four greased M6 Fixing Screws as shown to fix the Basebar into place.
3. Torque to 6Nm maximum.

**NOTE:** This diagram is for assembly reference only. During complete assembly, hoses and control cables will be present.




The ST-ST30 Stem Steerer Clamp and HBP-HB10-BMP Basebar Top Plate are compatible with the P5X two-position basebar (HBP-0E0PXBASR + HBP-0E0PXBASL).

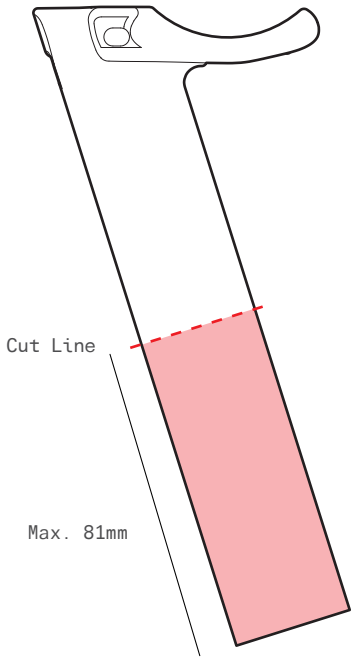
# RISER POST CUTTING INSTRUCTIONS

Achieving the lowest possible stack may require trimming the Riser Post. If using a cut Riser Post ensure there is always a minimum of 70mm inserted inside the frame.

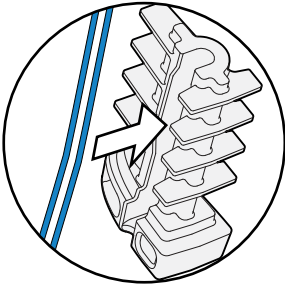
- 1. Use a light coloured grease pencil to accurately mark the cut-off location on the Riser Post. **See table below for the exact number based on frame size.**
- 2. Insert the Riser Post in the ParkTool SG-7.2 Saw Guide (or equivalent) so that the cut-off line can be seen clearly through the blade guide in the tool.
- 3. Using a blade designed specifically for cutting carbon; proceed with cutting the stem steerer (as per ParkTool's instructions).
- 4. Carefully file the cut end removing any rough edges.

Frame Size	Trim Amount for Lowest Stack (w/ riser plug)
S	81mm
M	61mm
L	33mm
XL	3mm

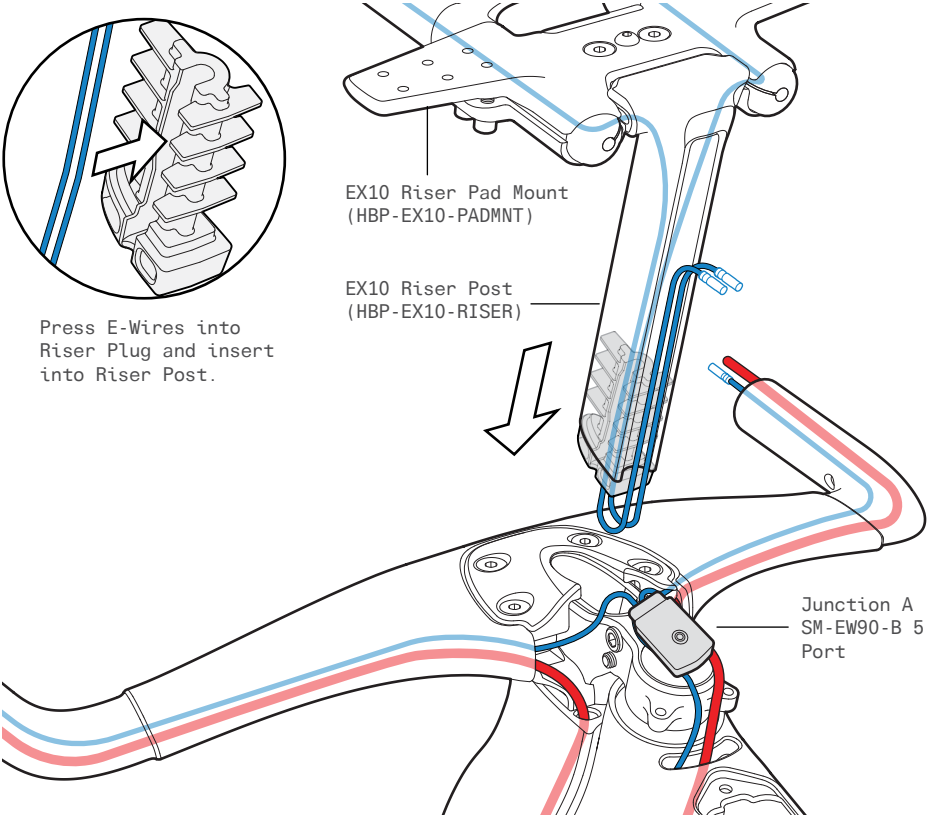
**WARNING**  
If trimming is required, final length should allow for a minimum 70mm of Riser Post remaining in the frame. Failure to meet this requirement, may result in damage to the frame not covered by warranty policy, or serious injury to rider.

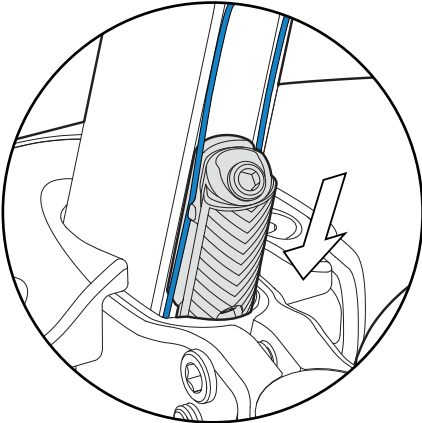


# RISER POST ASSEMBLY




Press E-Wires into Riser Plug and insert into Riser Post.



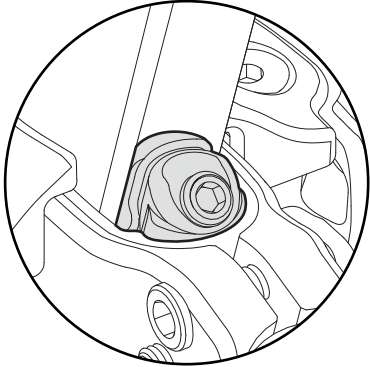
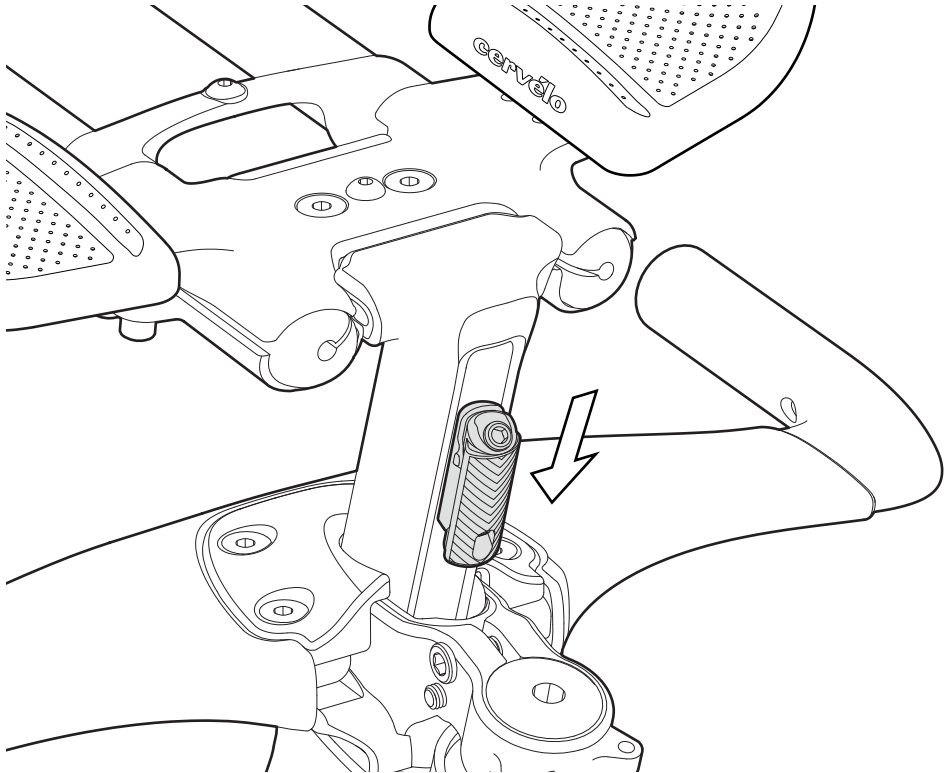


E-Wire should follow Riser Post steerer and exit behind the tabs on the Riser Post Clamp.

**WARNING**  
Ensure wires move freely before tightening the Riser Post Clamp to prevent pinched wires.



# RISER POST ASSEMBLY INSTALLATION

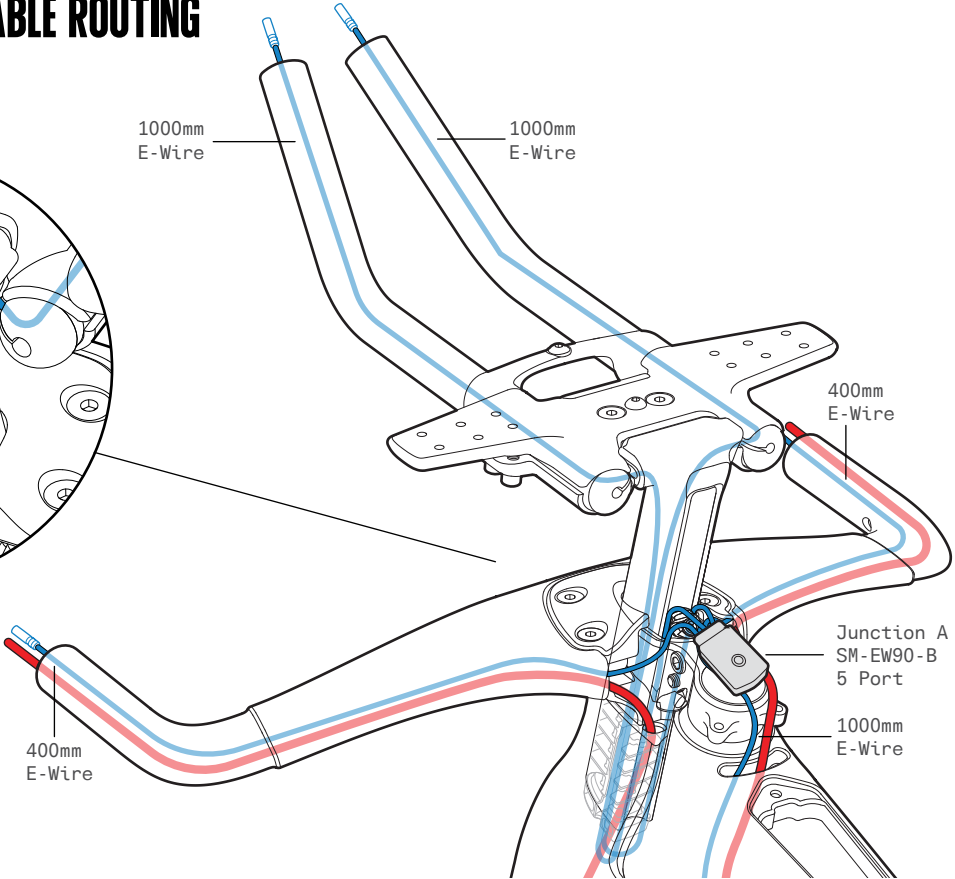
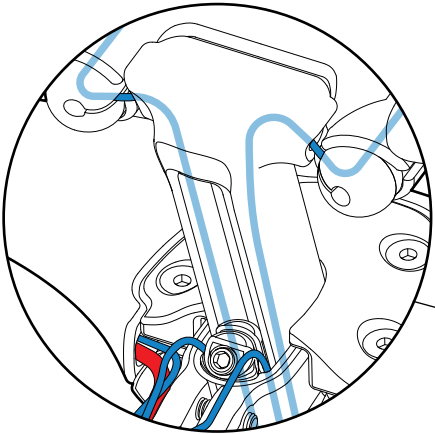


- 1. Apply a light coat of grease to Riser Post, and install into fork.
- 2. Apply a light coat of carbon assembly compound to chevron and rear surfaces of the Riser Post Clamp, and install at rear of Riser Post ensuring that the clamp is fully inserted, and no chevrons are visible.
- 3. Torque to 8Nm.

**NOTE:** This diagram is for assembly reference only. During complete assembly, hoses and control cables will be present.

# EXTENSION & BASEBAR - DI2 CABLE ROUTING

- Brake
- E-Wire

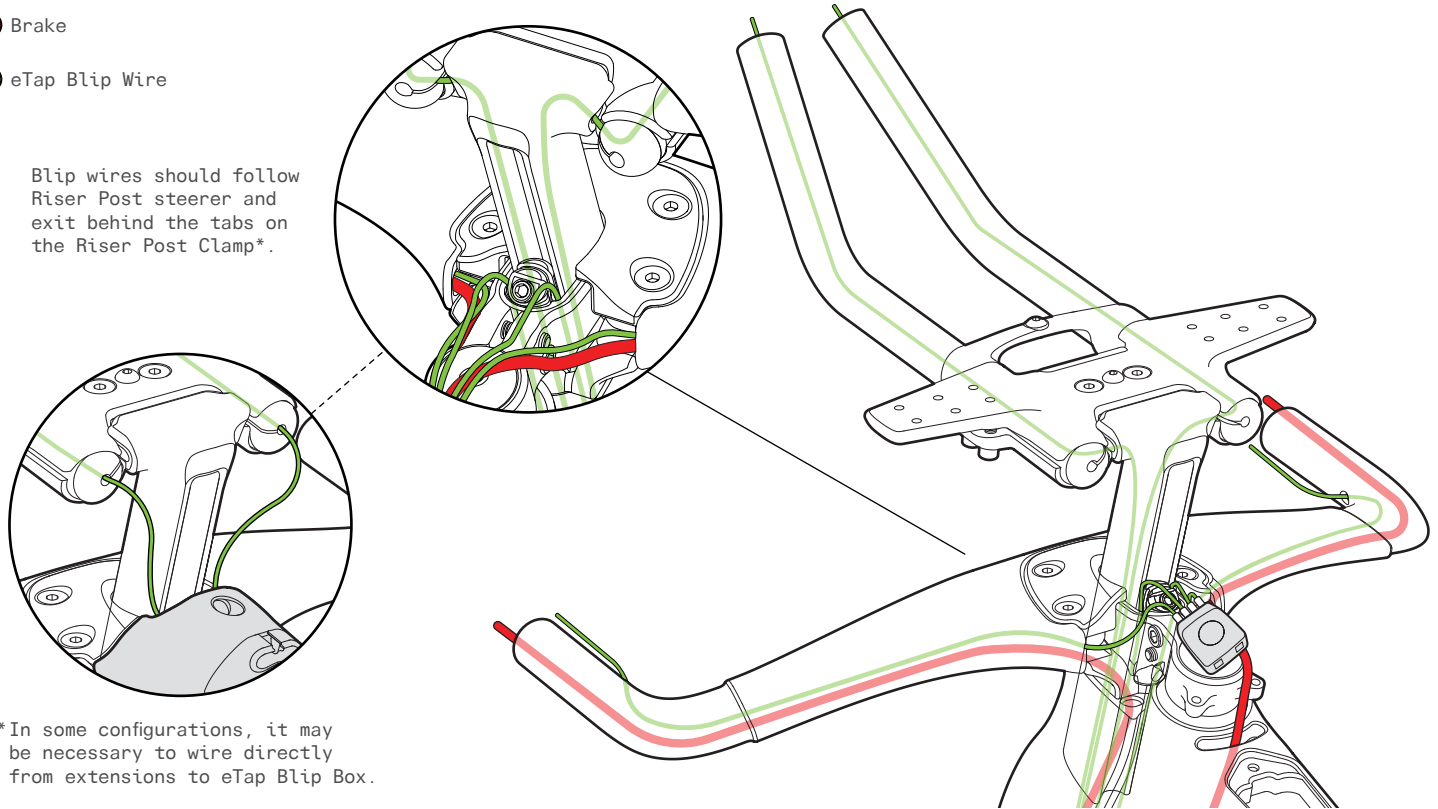




# EXTENSION & BASEBAR - ETAP CABLE ROUTING

- Brake
- eTap Blip Wire

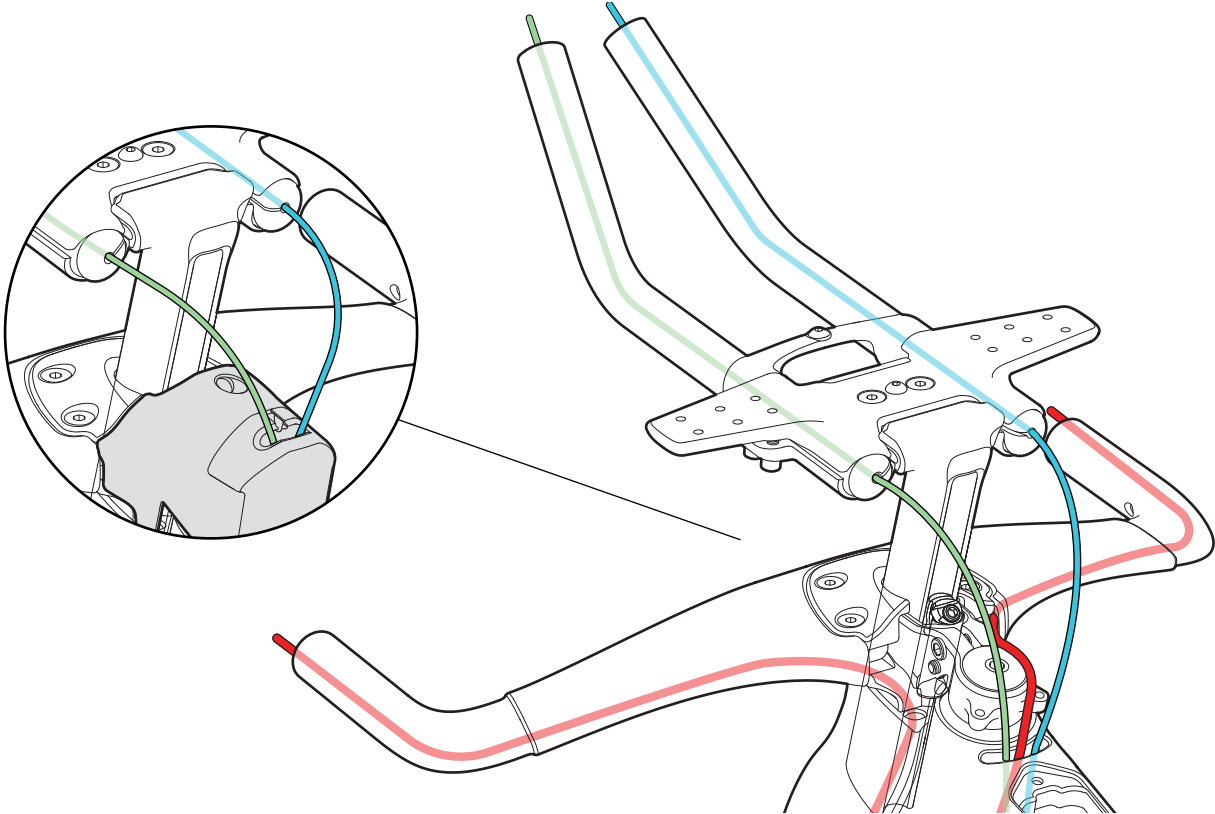
Blip wires should follow Riser Post steerer and exit behind the tabs on the Riser Post Clamp\*.



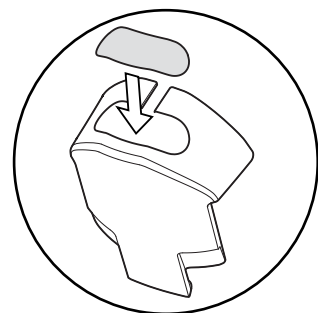
\*In some configurations, it may be necessary to wire directly from extensions to eTap Blip Box.

# EXTENSION & BASEBAR - MECHANICAL CABLE ROUTING

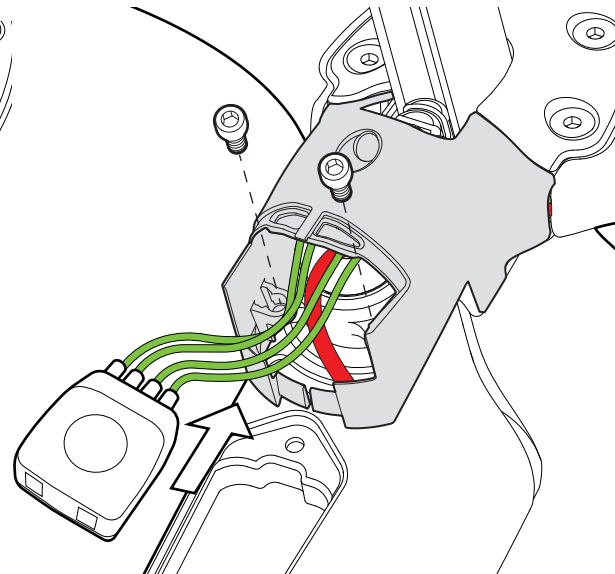
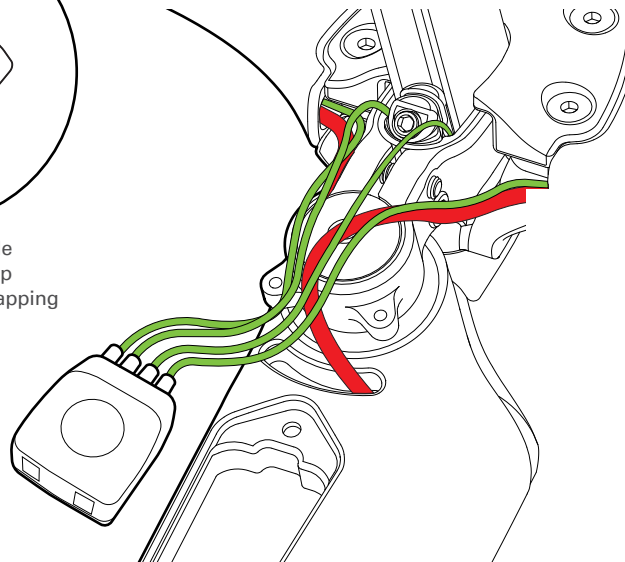
- Brake
- Rear Shifter
- Front Shifter



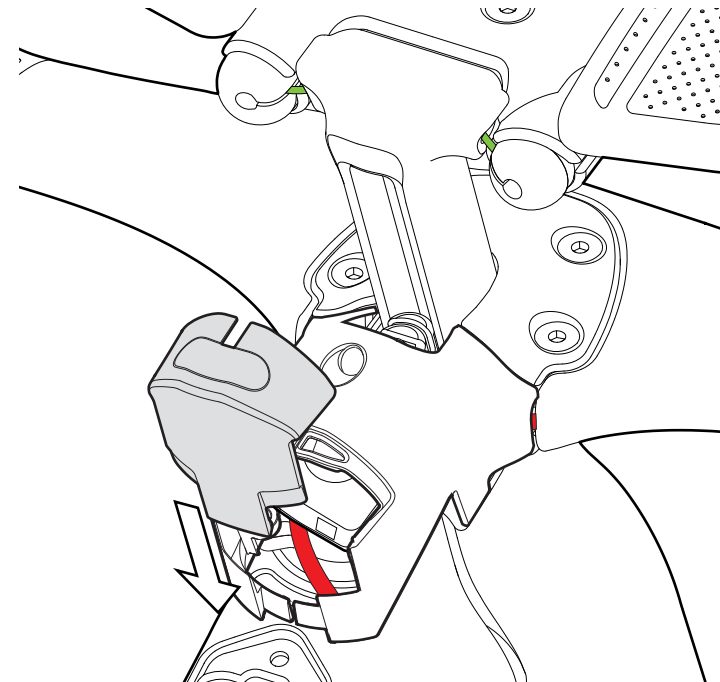
## STEM COVER INSTALLATION



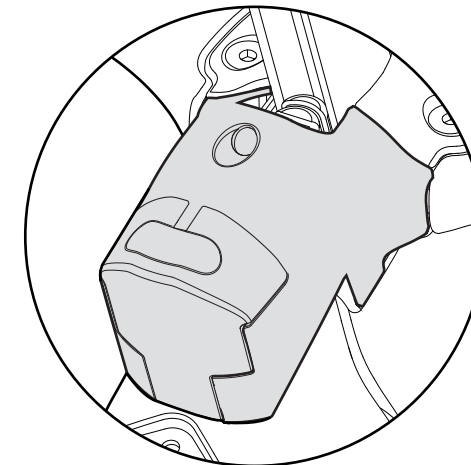
For Di2 / eTap assemble Stem Cover Access Cap (HBP-MPXSCC), by snapping window into place.



Fix the Stem Cover (HBP-HB10-CVR) to stem using the two lightly greased M4 bolts. Torque to 1Nm.

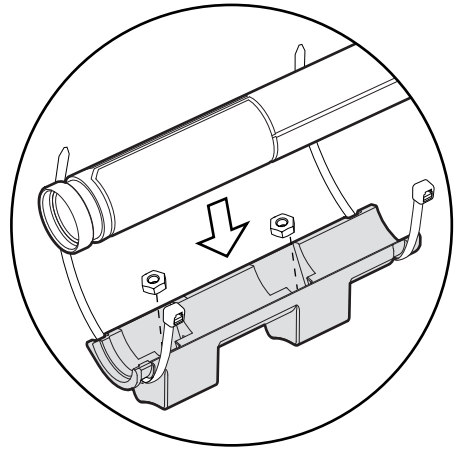


Fit excess wires and Di2 Junction A or SRAM Blip Box inside stem cover. Slide Access Cap down to snap into place.

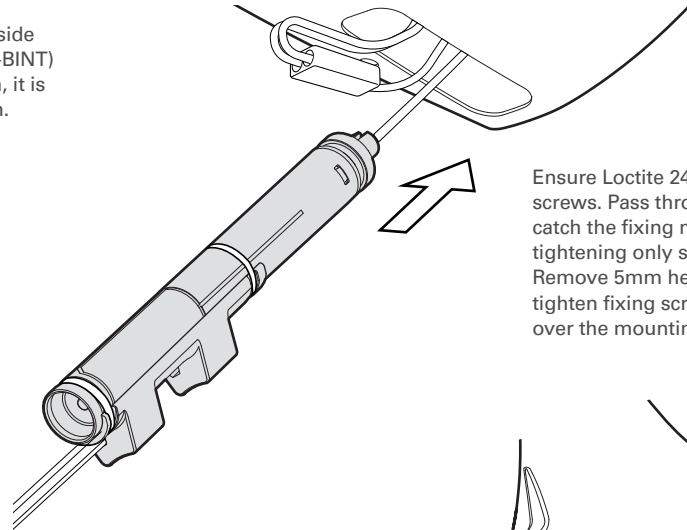


## DI2 BATTERY INSTALLATION

The battery for your Shimano Di2 system mounts inside the down tube using the Internal Battery Mount (MT-BINT) designed to fit this frame. As this is a sealed location, it is important to test the system prior to final installation.



Press the two M3 fixing nuts into the holder through the upper holes. Attach battery to mount using two zip ties, and install.

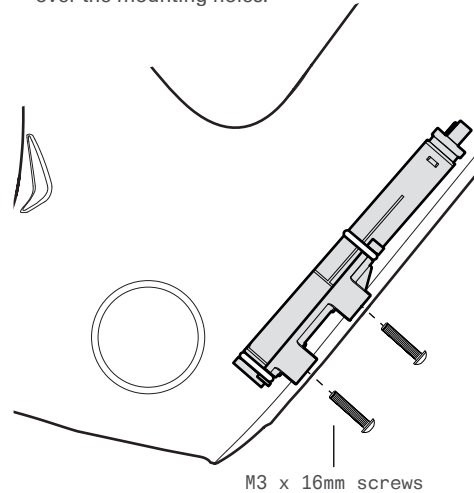


Insert a long 5mm hex key\* into the lower end of the holder to work as an insertion tool.

Pass the battery and holder assembly through the opening in the bottom bracket shell and position it, in the down tube, so that the fixing nuts are located over the mounting holes.

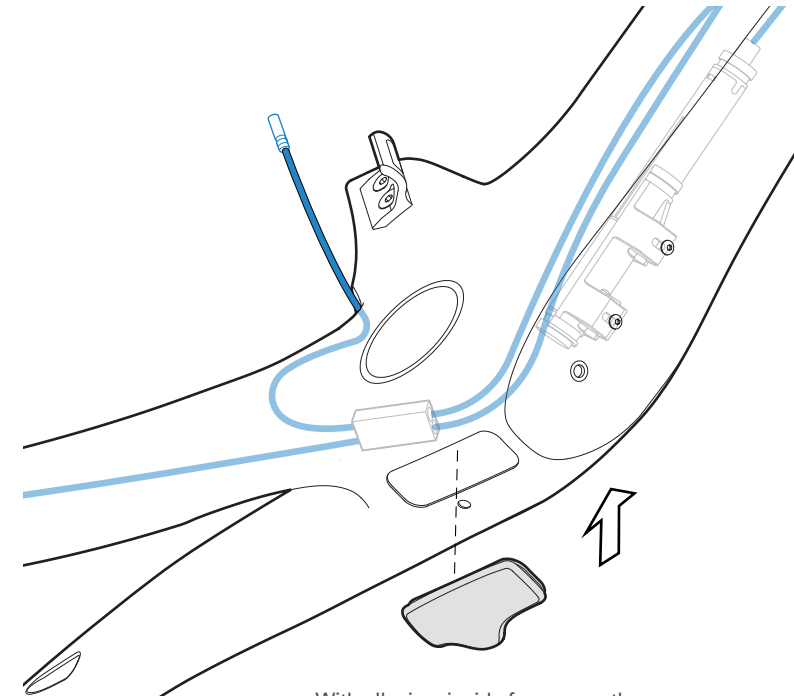
\* For larger sizes, it may be necessary to install the battery holder with the aid of a flexible 5mm tool, rather than a 5mm hex key. A piece of brake housing can be used.

Ensure Loctite 242 is applied to the M3 fixing screws. Pass through the mounting holes to catch the fixing nuts in the battery holder, tightening only slightly to hold in place. Remove 5mm hex key. Using 2mm hex key, tighten fixing screws to maximum of 2.5Nm over the mounting holes.

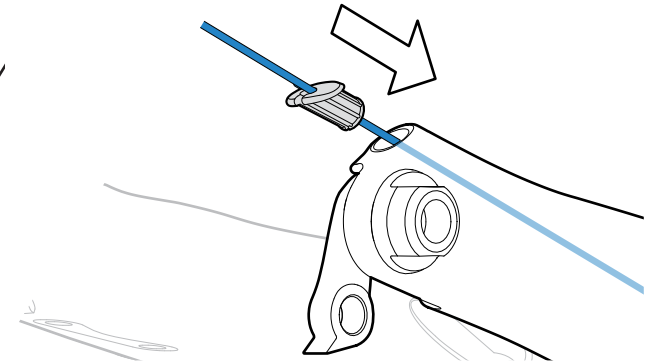


M3 x 16mm screws

## ELECTRIC CABLE INSTALLATION

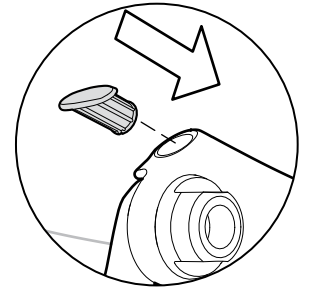


With all wires inside frame, cap the Bottom Bracket Cable Port with the BB Grommet (GR-BB-129).

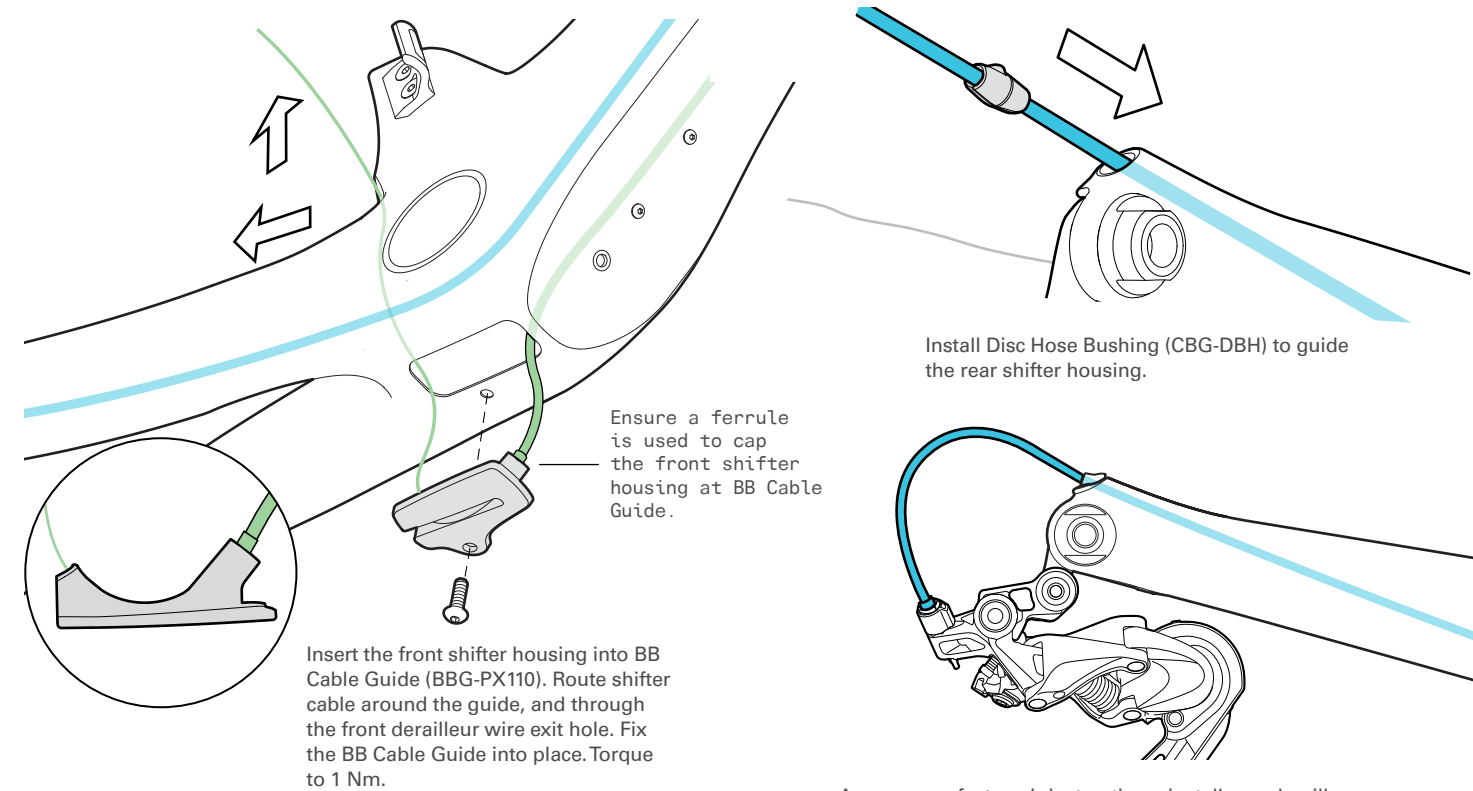


Install the Rear Derailleur Wire Guide (GR-DRPOUT-GUIDE).

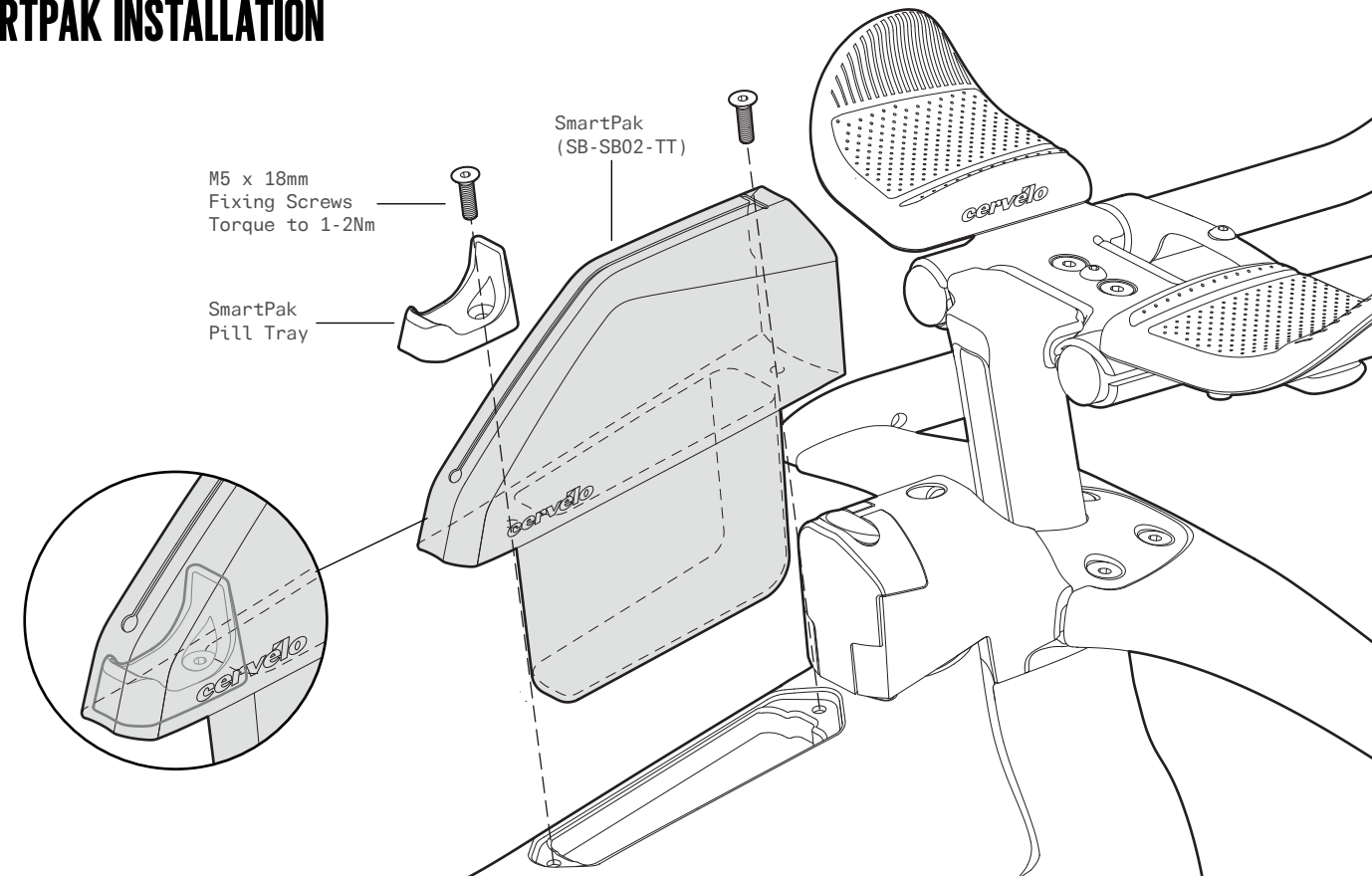
For wireless shifting systems install the Rear Derailleur Blanking Plug (GR-DRPOUT-CLOSED).



## MECHANICAL CABLE INSTALLATION

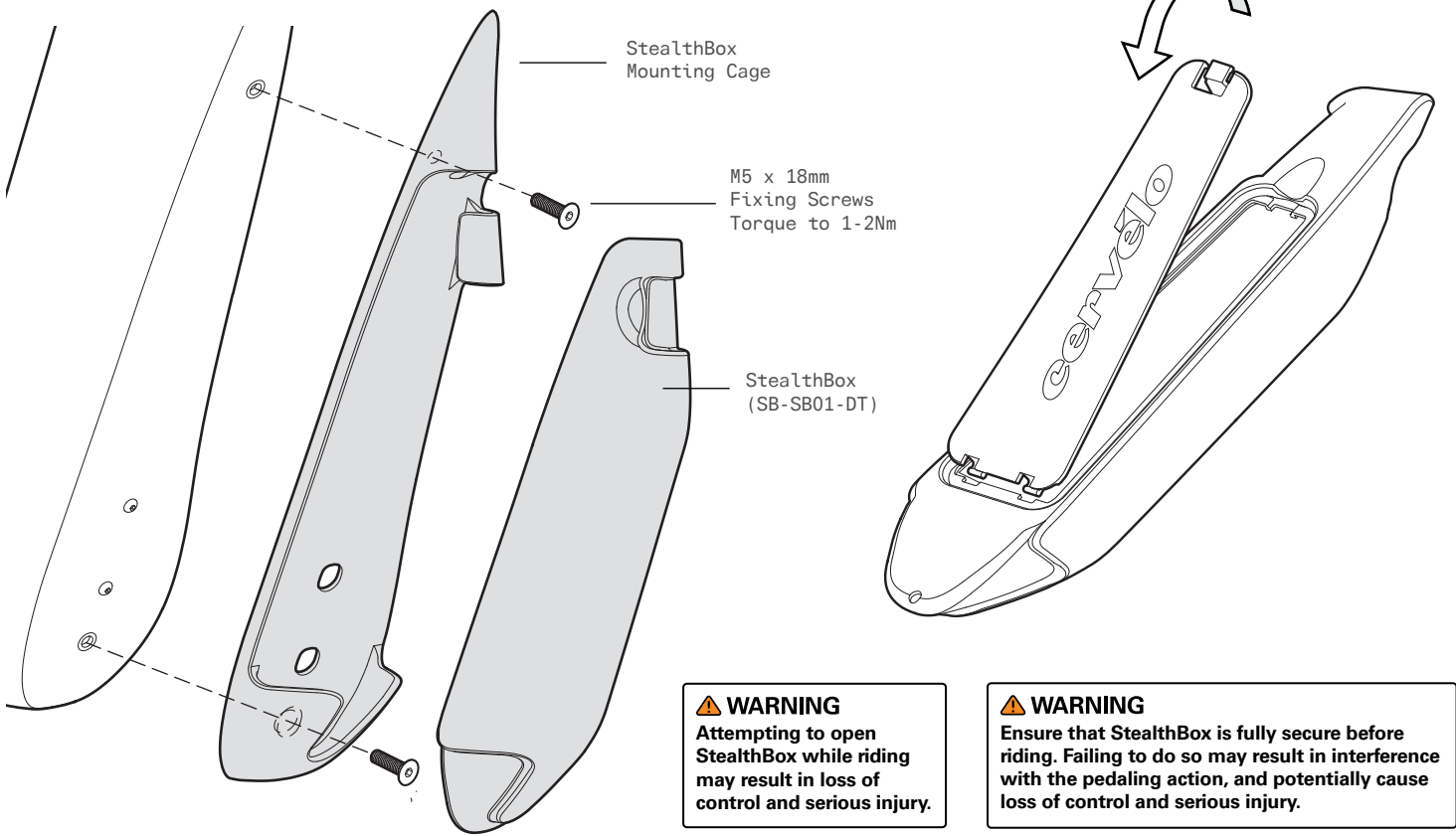


## SMARTPAK INSTALLATION

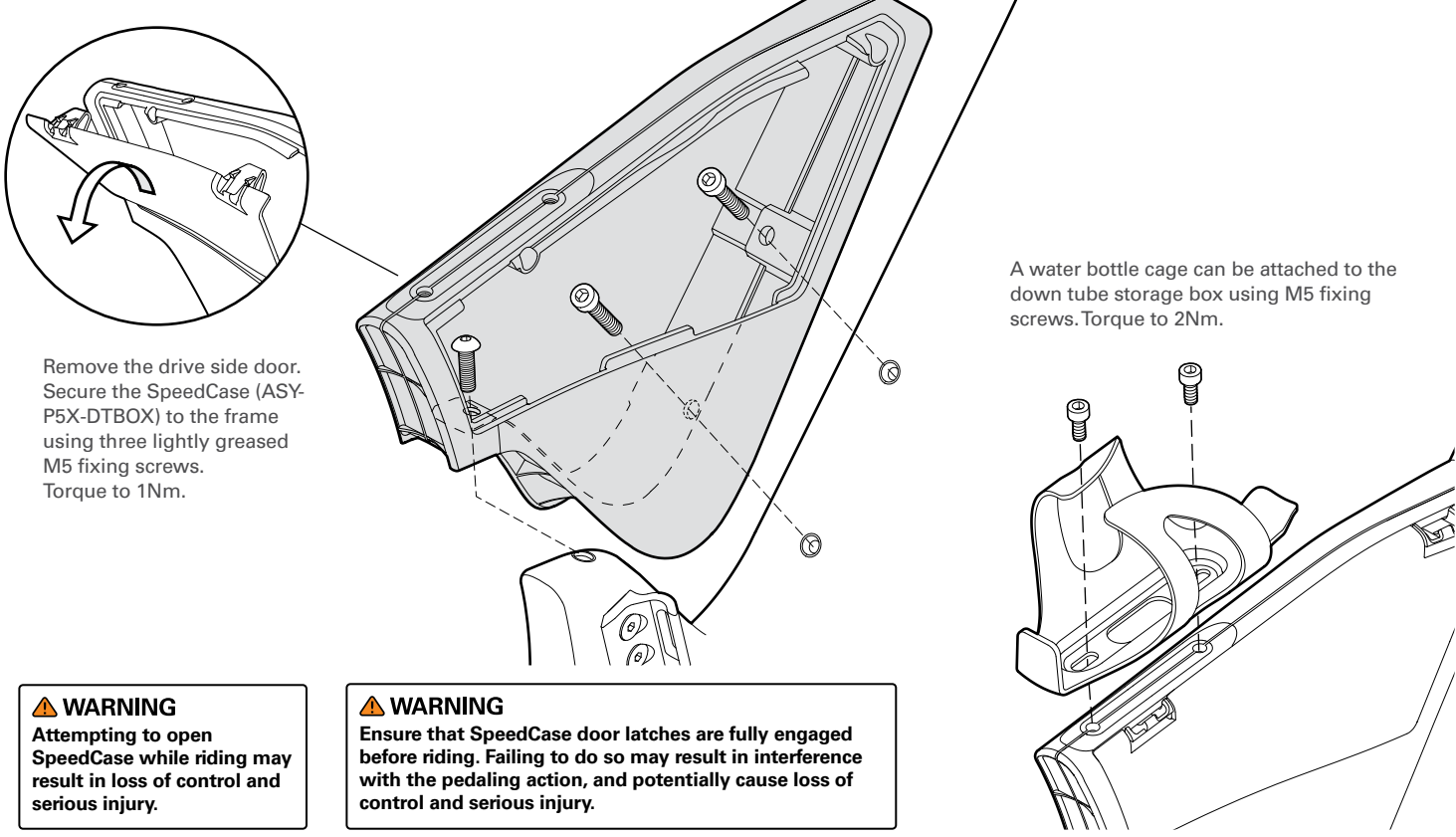


As per manufacturer's instructions, install rear derailleur on rear derailleur hanger, cut appropriate housing length, and attach cable.

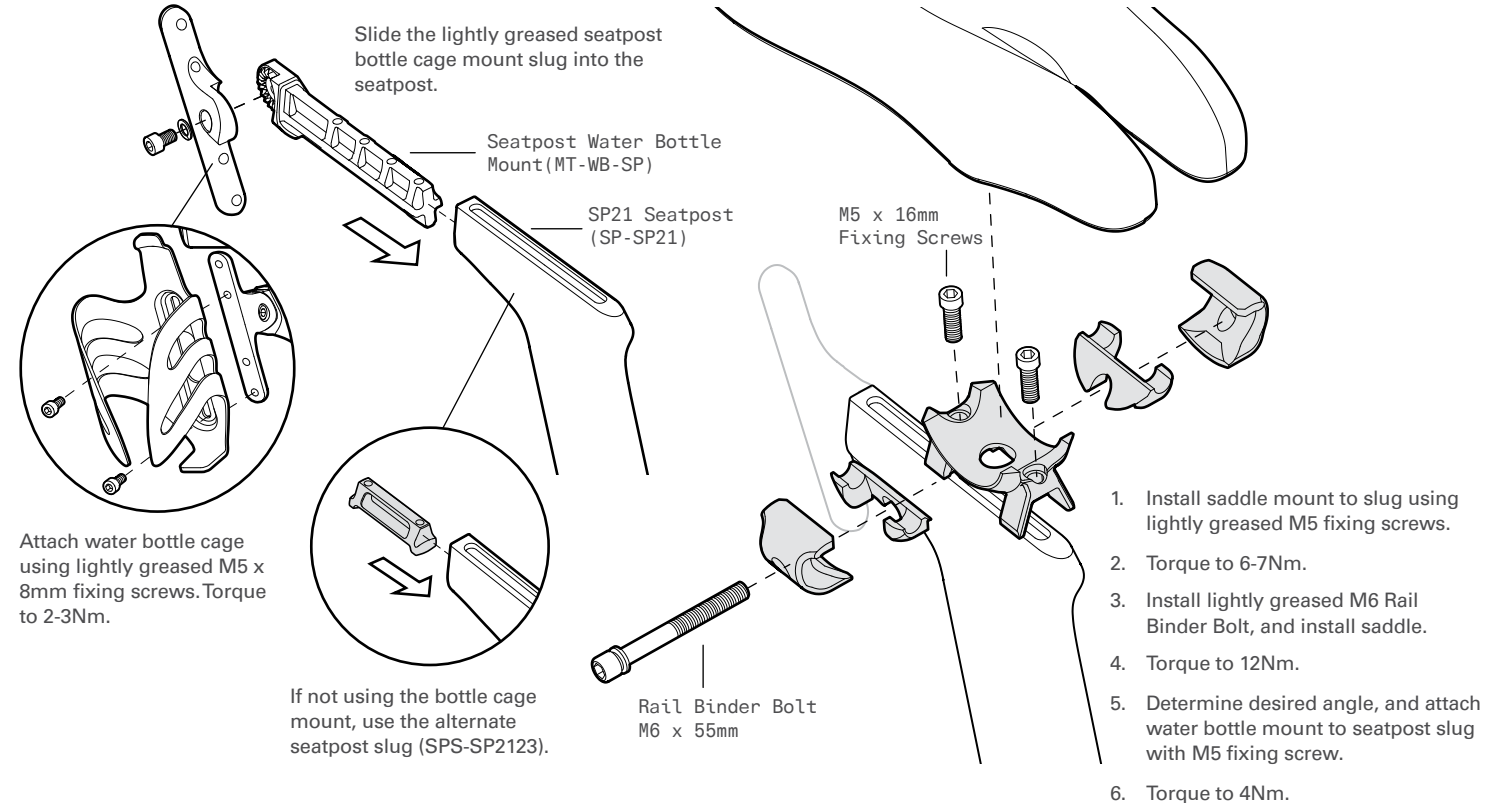
# STEALTHBOX INSTALLATION



# SPEEDCASE INSTALLATION



## SEATPOST ASSEMBLY



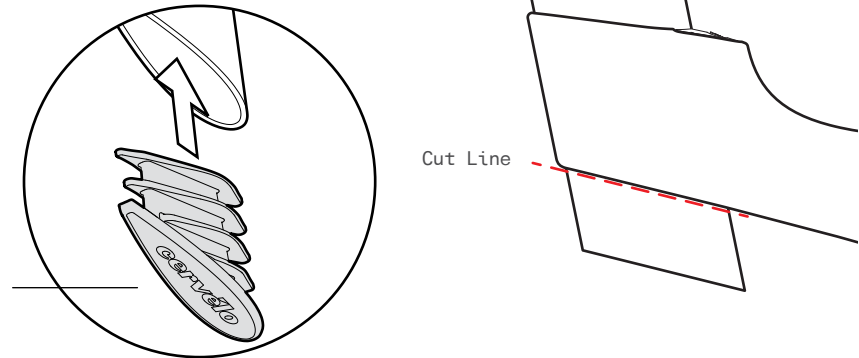
## SEATPOST CUTTING INSTRUCTIONS

1. Ensure that final saddle height is confirmed and tested.
2. Mark the seatpost cutting line, by tracing the lower edge of the seat tube on the seatpost.
3. Remove the seatpost.
4. Insert the seatpost in the Park Tool SG-7.2 Saw Guide (or equivalent) so that the cut-off line can be seen clearly through the blade guide in the tool.
5. Using a blade designed specifically for cutting carbon composite materials (or a fine tooth blade with greater than 32 teeth per inch); proceed with cutting the seatpost (as per Park Tool's instructions). Trim excess seatpost no more than 5mm above marked line.
6. Use fine grit sandpaper to carefully remove any fraying or burring from the cut end. Return to the frame and install PX-Series Seat Post Plug (SPP-PX).

### ⚠ WARNING

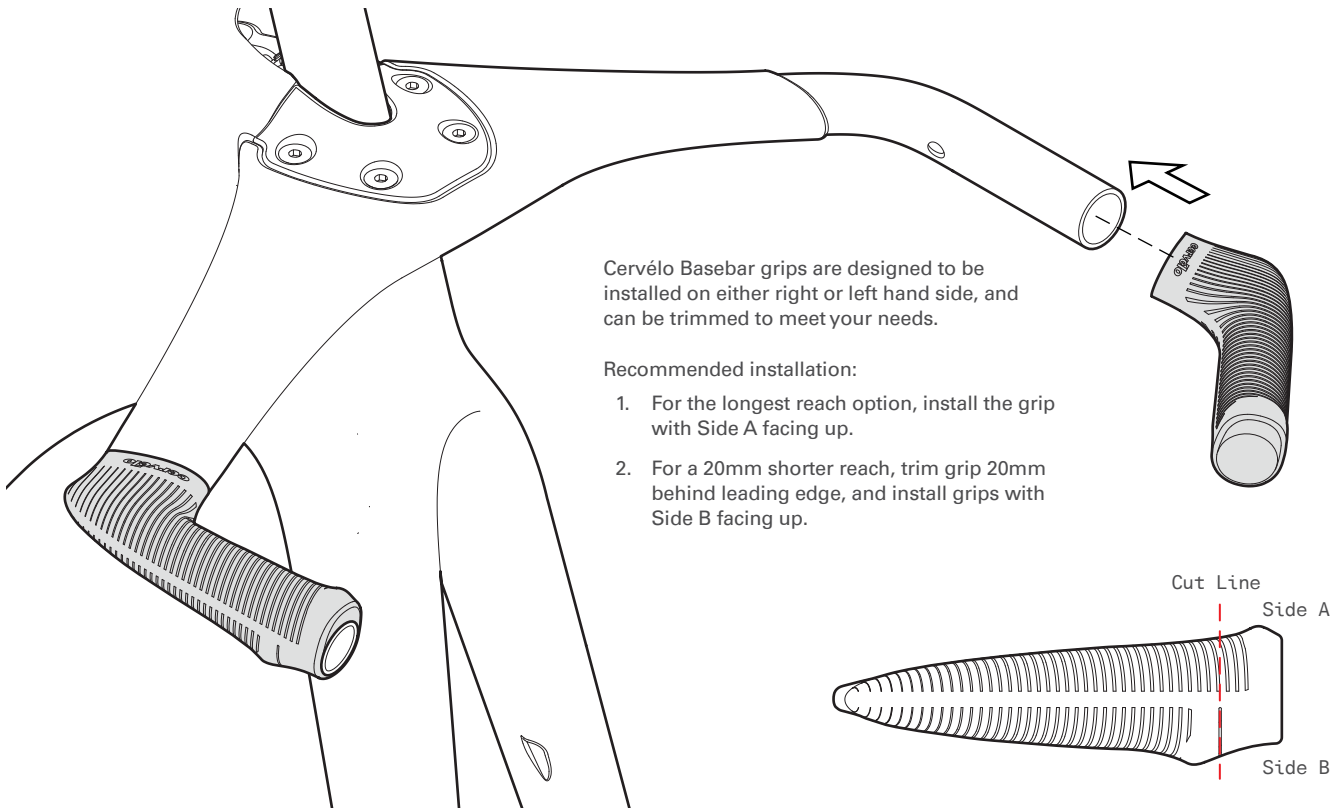
If trimming is required, final length should allow for a minimum 6.5cm of seatpost remaining in the frame. Failure to meet this requirement, may result in damage to the frame not covered by warranty policy, or serious injury to rider.

PX Seatpost Plug (SPP-PX)





# BASEBAR GRIP INSTALLATION



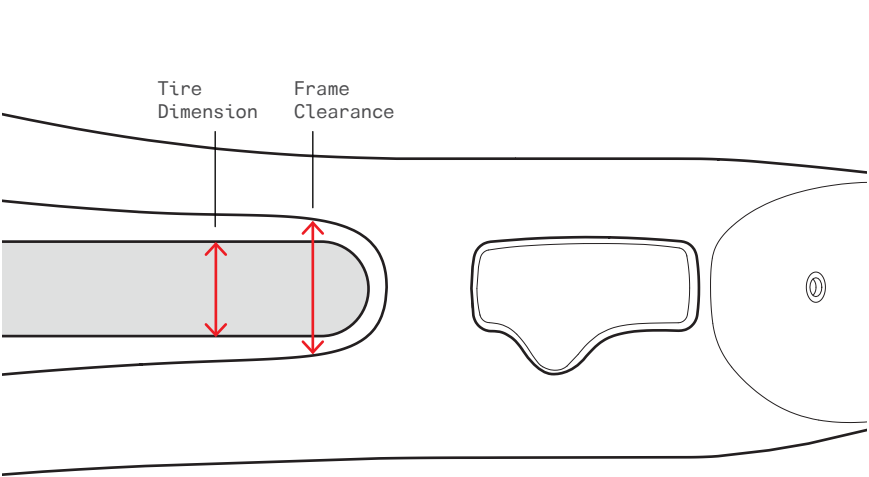
Cervélo Basebar grips are designed to be installed on either right or left hand side, and can be trimmed to meet your needs.

Recommended installation:


- 1. For the longest reach option, install the grip with Side A facing up.
- 2. For a 20mm shorter reach, trim grip 20mm behind leading edge, and install grips with Side B facing up.

# TIRE CLEARANCE

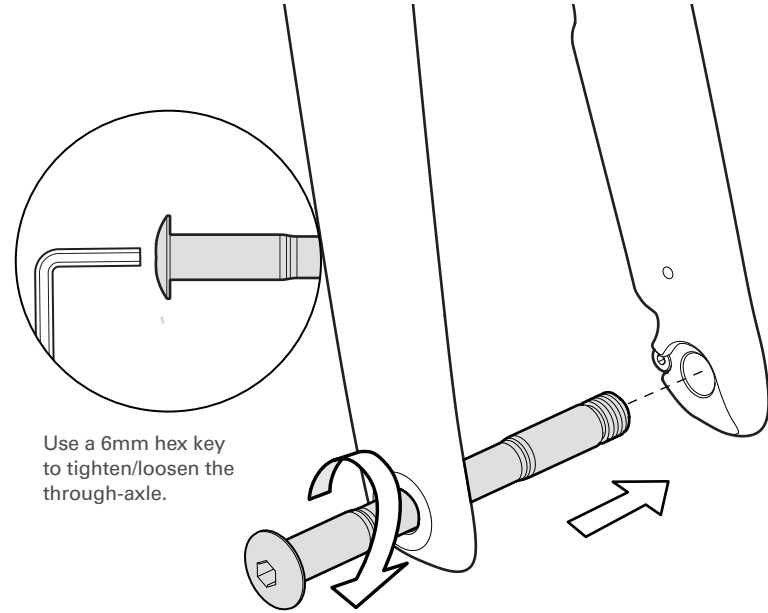
Your Cervélo bicycle complies with the ISO 4210-2:4.10.2 standard for tire clearance. In order to comply with these safety standards and maintain your Limited Lifetime Warranty, a minimum of 4mm of clearance must remain between the tire and any frame element. Due to the growing complexity of tire and rim interfaces, Cervélo recommends identifying the available space before choosing a tire.



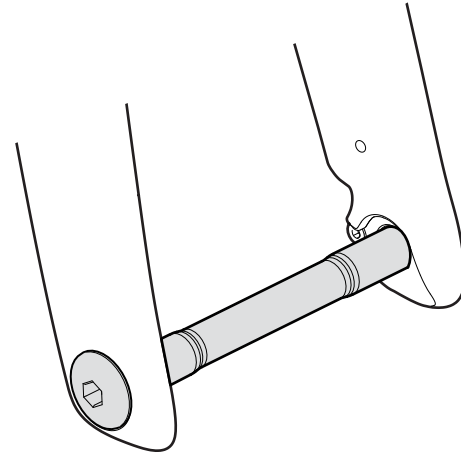
- 1. Measure the space between the chainstays at the bottom bracket junction.
- 2. Measure the space between the seatstays at the top of the tire.
- 3. Using the smallest of those two numbers, subtract 8mm (4mm per side) to determine the remaining space.
- 4. With the tire installed and fully inflated on your wheel, measure the tire width to ensure that it fits.

**WARNING**  
Contact between the tire and the frame or fork may result in a loss of control while riding and potentially serious injury. Failure to follow these guidelines may result in damage to the frame not covered by Cervélo Limited Lifetime Warranty.

## AERO THROUGH-AXLE WHEEL INSTALLATION

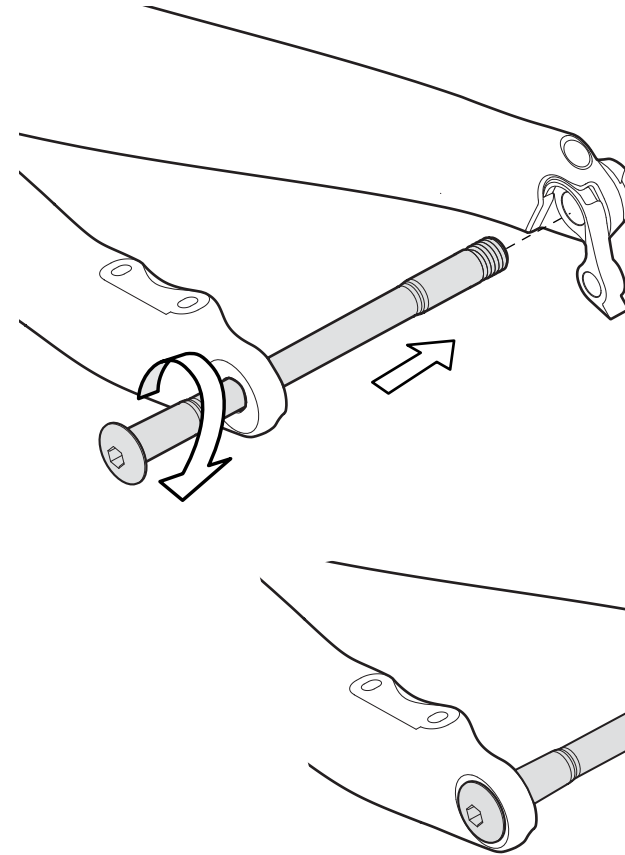


To secure the front wheel, install the greased axle, through the drive side drop out, through the wheel hub, and rotate to thread axle into opposite fork drop out until tight. Tighten to 12-15Nm.

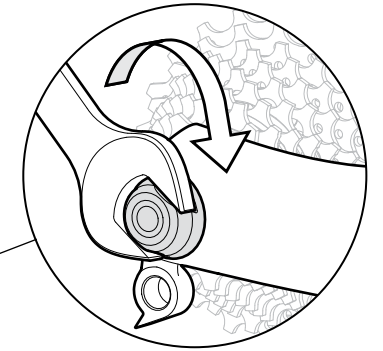


### **WARNING**

To ensure rider safety, it is critical to install the Cervélo Aero Through-Axle correctly. Failure to do so may result in a crash, with potential for serious injury to the rider.



To secure the rear wheel, install the greased axle, through the non-drive side drop out, through the wheel hub, and rotate to thread axle into opposite fork drop out until tight. Tighten to 12-15Nm.



Perform final tightening on Rear Derailleur Hanger Fixing Nut using a 17mm wrench. This action is unique to initial assembly, and should not require adjustment afterwards.

### **WARNING**

Adjust brakes as per manufacturer's instructions.  
Adjust shifting as per manufacturer's instructions.

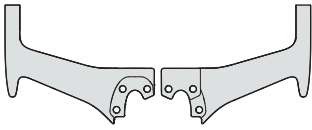
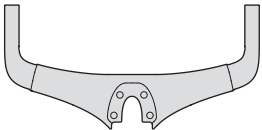


# P3X AEROBAR COMPATIBILITY

EX10   EX11   PX

Basebar

HB-HB10



HBP-0E0PXBASR  
HBP-0E0PXBASL

Riser Post  
Clamp

HBP-P3XCPL



HBP-PXCPL

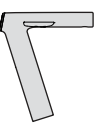


Riser Post  
& Riser Pad  
Mount

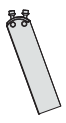


HBP-EX10-RISER

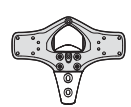
HBP-EX10-PADMT  
& HBP-EX10-ADJPL



HBP-EX11-RISER



HBP-PXEXTU



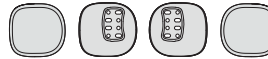
HBP-PXEXTB

Arm Cups  
& Pads

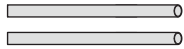
HBP-EX11-RESTS  
HBP-EX11-PADS



HBP-PXPADSET  
HBP-PXPADS



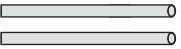
Extensions



Any 22.2mm Extensions



HBP-EX11-EXT(50°, 30°, S-Bend)

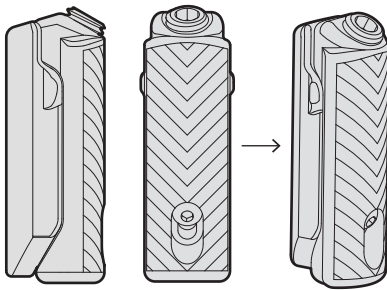


Any 22.2mm Extensions

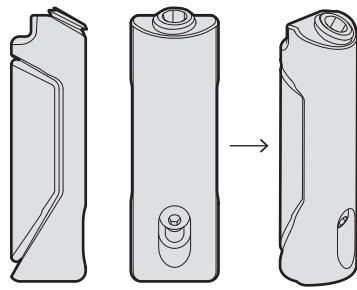
# RISER POST CLAMP GUIDE

## ⚠ WARNING

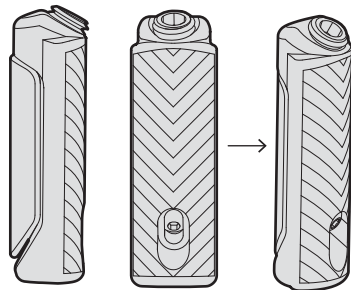
To ensure rider safety, it is critical to install the correct Riser Post Clamp. Failure to do so may result in a crash, with potential for serious injury to the rider.



P3X Riser Post Clamp  
(HBP-P3XCPL)



P5X Riser Post Clamp  
(HBP-PXCPL)



P5 Riser Post Clamp  
(HBP-PCLP)

# ***2019 P3X RETAILER ASSEMBLY MANUAL***

CER-P3X-V1 2019-01-30

# ***cerv***