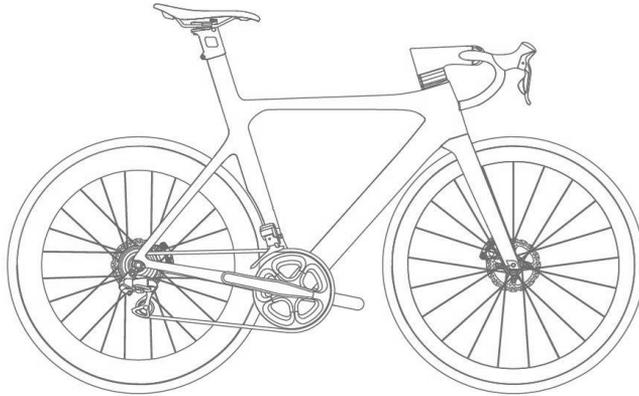


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1 INTRODUCTION



Congratulations on your new Giant high-performance road bicycle equipped with disc brakes! To ensure your safety and to enjoy your new bike to its fullest, we urge you to read this manual. Your best resource for service and technical assistance is your local Giant retailer. To find one, or to learn more about Giant, go to giant-bicycles.com.

2 INTENDED USE OF THIS MANUAL

This manual is intended to be a reference guide to help you become familiar with the technology and custom components on your new Propel disc series bike. Some of the technologies covered in this manual may not be relevant to your particular bike. If you have any questions, please contact your authorized Giant retailer. This manual is not meant to replace the general bicycle owner's manual or the parts manufacturers' technical manuals that also came with your bicycle.

3 PRECAUTION



WARNING: Be sure to thoroughly read and understand the warnings and instructions in this manual before riding your new bicycle. Not every bicycle is built for every activity. An authorized Giant retailer can clarify the intended use of your bicycle.



WARNING: Bicycle assembly is a complicated task and requires training and experience. Please use an authorized Giant dealer for assistance and installation. Failure to follow this warning may cause the bicycle to malfunction, which may result in serious injury or death.



CAUTION: Giant products should be installed by a qualified bicycle mechanic with appropriate tools. Bolts that are too loose or too tight can cause failure. Giant assumes no liability for products that are improperly installed.

4 TAKING CARE OF YOUR COMPOSITE BICYCLE

Propel disc series bicycles feature professional-grade frame technology used by world champion racers. These frames are handcrafted with the most advanced materials, engineering and construction methods.

Composite parts are different from metal parts, therefore the treatment to the composite parts is also different.

1. Prevent composite parts from sharp edges or excessive pressure

Sharp edges or clamping mechanisms can damage carbon fiber composite by creating a stress load or high pressure point. Please follow these procedures to make sure the parts or components are carbon-compatible before installing any carbon fiber part, or attaching any component to an existing carbon fiber part.

It is normal, and no reflection of the strength of the frame, that you may feel movement in the tubes when you squeeze them. However, repeated compression of the sides of the tubes could eventually lead to frame damage. Do not squeeze the frame tubing, and never clamp the tubing in any mechanical device, including car racks.

2. Clean before installation of carbon fiber composite parts

With some interfaces of metal parts, grease is used on the clamping surfaces to prevent corrosion. When adjusting, always grease the bolt threads. Grease reduces corrosion and allows you to achieve the correct tightness without damaging tools.

However, with most carbon parts you should avoid grease. If grease is applied to a carbon part that is clamped, the part may slip in the clamp, even at the recommended torque specification. The carbon part should be assembled in a clean, dry state. Contact an authorized Giant retailer for special carbon prep products recommended by Giant.

3. Never modify the fork, frame or components

The parts of the Propel disc series framesets have been precisely designed to meet strength and function requirements for safe riding. Modifying these parts in any way may make the bike unsafe. Only an authorized Giant dealer should perform some of the modifications illustrated in this manual. For example, cutting the ISP.

Never use suspension forks on a road bike frame. It can add stress and damage the frame. Do not change the style and/or length of forks. If you are unsure if a fork is compatible with a frame, contact your authorized Giant dealer. **Any modification of a frame, fork or components means that the bike no longer meets our specifications and therefore voids the bike's warranty.**

4. Prevent composite expose to constant high temperatures

To avoid damage to your carbon products, please do not store or transport the product in a manner that the product is exposed to constant high temperatures. Excessive heat can damage the resin that joins the carbon fibers. Giant suggests to ensure that the product is kept a minimum of 45cm away from any constant source of heat, for example car exhaust, heaters, open fire, etc. Do not exceed 150°F (65°C) exposure to your carbon products.

5 OVERDRIVE 2 HEADSET INSTRUCTION

Propel disc bikes feature OverDrive 2 to offer unprecedented steering performance with no additional weight. The OverDrive 2 headset features massive 1 1/4-inch top and 1 1/2-inch bottom bearings and provides up to 30 percent more torsional steering stiffness.

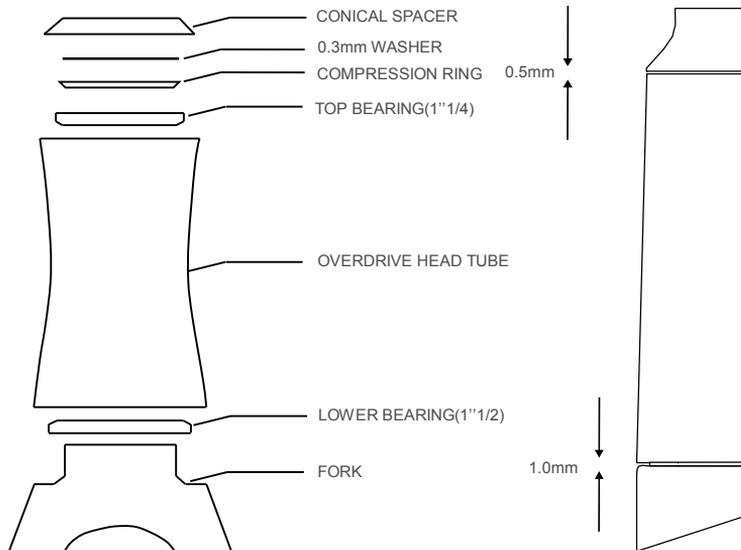
Once the headset assembled, make sure that some play exists between:

- the fork crown and the bottom of the headtube
- the top of the headtube and the conical spacer

So the steer rotates freely and easily without resistance.

There is no minimum clearance value but only a recommended value:

- upper clearance : 0.5mm
- lower clearance : 1.0mm



To learn more about OverDrive 2 technology, please visit the Giant website at giant-bicycles.com.

6 COMPOSITE FRONT FORK

Steering tube

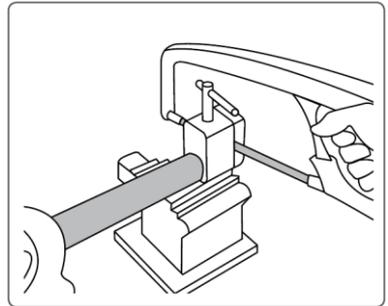
The steering tube of the Propel disc forks are constructed with carbon fiber material for light weight and optimized stiffness.

Please contact your authorized Giant dealer to modify the steer length to your preference. If you are a qualified professional mechanic, please follow these instructions:



CAUTION:

1. Always use a quality hacksaw with a fine-tooth blade when cutting the steer tube. A poor quality blade could damage the steer material.
2. Lay the fork on a flat, stable surface. Use a professional saw guide to help you cut. Measure twice, cut once!
3. Do not clamp the composite steer with more than 8Nm of torque. Over-clamping force could damage the steer tube.
4. A professional saw guide for steer cutting is must to be used. For example: PARK TOOL Oversized Adjustable Saw Guide.



Fork structure

Do not file the fork safety tabs or drill any holes in the fork structure.



WARNING: The fork has been designed to optimize performance. Do not modify the fork by drilling or filing. Any modification will affect the fork structure and damage it. This may result in serious personal injury or death.



WARNING: Any modification of a frame, fork or components means that the bike no longer meets our specifications and therefore voids the bike's warranty.

7 INTEGRATED SEATPOST (ISP) AND SADDLE CLAMP



WARNING: Failure to follow these instructions will void your warranty, and may result in hidden damage to the ISP. Damage to the ISP can cause loss of structural integrity, which may result in serious injury or death.

A proper saddle height is essential for experiencing the best performance and comfort in your bicycle. To meet the correct saddle height, the ISP may have to be cut to a specific length. Cutting the ISP is a complicated task that requires training and experience. Please visit your authorized Giant dealer to perform this sophisticated process.

ISP cutting instructions

Step 1: Determine the length to cut

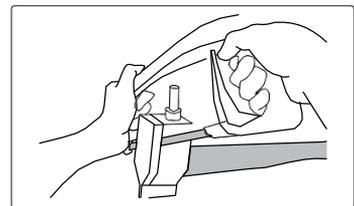
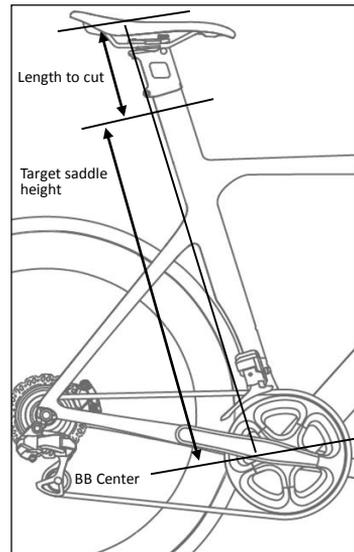
Install the saddle onto the seatpost using the included saddle clamp mechanism. Put the saddle in a horizontal position and then determine the length to be cut.



CAUTION: The additional range of saddle height adjustment (utilizing the included spacers) provides fine-tuning adjustment after the ISP is cut.



WARNING: The final cut length must not exceed the maximum cutting length limits (see chart below). Cutting the ISP length more than this limit may result in the inability to attach the seat clamp and can cause structural failure of the ISP.



Frame Size	Maximum Cutting Length
XS	95mm
S	95mm
M	95mm
M/L	95mm
L	95mm
XL	95mm

Step 2: Disassembling for cutting

Loosen the saddle clamp bolt and remove the saddle.

Step 3: Cutting the seatpost

NOTE: A professional saw guide for seatpost cutting is must to be used. For example: PARK TOOL oversized adjustable saw guide.



CAUTION: Use a fine-tooth (32-tooth) saw blade to avoid fraying the composite fibers. Take care when finishing the cutting process to not splinter the composite.



WARNING: Be sure to wear appropriate safety equipment such as glasses, gloves and a dust mask. Make sure not to inhale any of the dust!

- Lay your frame flat on a clean surface, protecting the finish with a clean soft cloth at points of contact.
- Place the Saw Cutting Guide at the precise location of the desired cut.
- Be sure to double-check your measurement. Measure twice, cut once.



CAUTION: There is no way to restore the frame to a higher saddle height after the ISP is cut. Please make sure your measurement is correct and that you cut precisely.

Step 4: Clean the cut

Remove the saw guide and carefully sand down any burrs with fine emery paper. Clean off the dust with a damp rag and discard it immediately.

Step 5: Assemble the saddle clamp

Install the saddle clamp onto the ISP and tighten the clamp seatpost bolt to standard torque value.

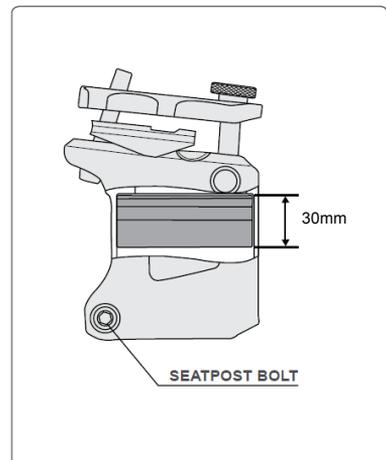


CAUTION: Do not grease the ISP or the inner side of the saddle clamp.

- Adjusting or correcting the saddle height
The saddle height can be corrected with washers.



WARNING: Do not raise the seat clamp without washers or with more than 30mm of washers. This may result in damage to the ISP. ISP failure may result in serious personal injury or death.



Follow this table to determine the appropriate washer combination:

		WASHER						
		1 mm	1 mm	3 mm	5 mm	10 mm	10 mm	10 mm
HEIGHT	1	1						
	2	1	1					
	3			1				
	4	1		1				
	5				1			
	6	1			1			
	7	1	1		1			
	8			1	1			
	9		1	1	1			
	10					1		
	11	1				1		
	12	1	1			1		
	13			1		1		
	14	1		1		1		
	15				1	1		
	16	1			1	1		
	17	1	1		1	1		
	18			1	1	1		
	19		1	1	1	1		
	20					1	1	
	21	1				1	1	
	22	1	1			1	1	
	23			1		1	1	
	24	1		1		1	1	
	25				1	1	1	
	26	1			1	1	1	
	27	1	1		1	1	1	
	28			1	1	1	1	
	29		1	1	1	1	1	
	30					1	1	1

8 ADJUSTING THE SADDLE OFFSET (ISP)

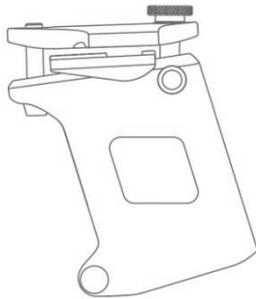
The saddle clamp can be assembled forward or backward. So you can compensate with a +5mm or -15mm position.



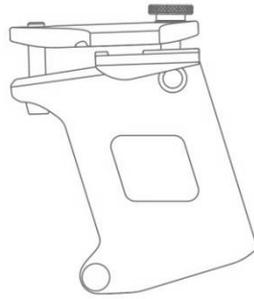
WARNING: Saddle clamps must be assembled as illustrated. If the clamps are not aligned, they may damage the saddle.

This may result in damaging the seatpost, and seatpost failure can result in serious personal injury or death.

Offset: -15mm



Offset: +5mm



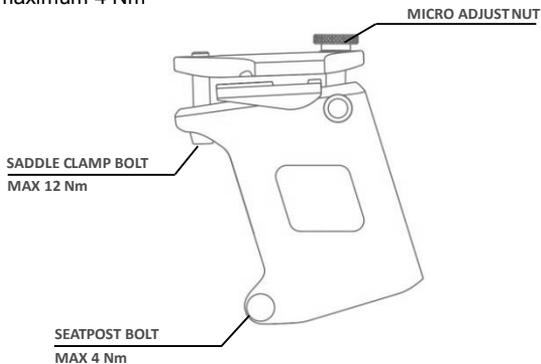
ISP SYSTEM TORQUE VALUE



WARNING: Bolts that are too loose or too tight can cause to lose efficacy of saddle clamp. Do not exceed the maximum torque value. Over-clamping bolts may damage components or frame, which could result in serious personal injury or death.

Saddle clamp bolt: maximum 12 Nm

Seatpost bolt: maximum 4 Nm



9 VECTOR SEATPOST AND SEAT CLAMP (NON-ISP)

The Giant Vector Seatpost is built with Giant Composite Technology for lightweight, aerodynamic performance. To achieve the best riding experience and proper saddle height, the seatpost may need to be cut.



WARNING

- Cutting the seatpost is a complicated task that should be performed by a professional mechanic.
- If you have any doubts about your ability to cut the seatpost correctly, please contact an authorized Giant dealer.
- Failure to follow these instructions will void your warranty, and could damage the frame and/or the seatpost, which may result in severe injury or death.

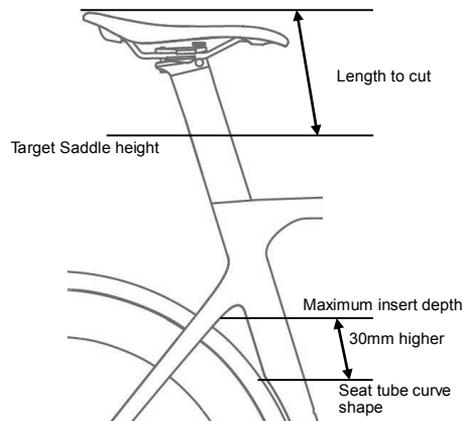


CAUTION: Use the carbon assembly paste for final installation, which could prevent the seatpost from slipping down and damaging the frame. It could also prevent possible creaking due to the friction between the frame and the seatpost.

Seatpost Cutting Procedure

Determine the length to cut

1. Install your saddle to the Giant Vector Seatpost and adjust the saddle to a horizontal position.
2. Adjust the seatpost up and down and determine the correct saddle height. If the saddle cannot be lowered far enough for proper fit, because the seatpost meets the seat tube curve inside the frame, the seatpost must be cut.
3. The seatpost should be cut at a 45-degree angle so that the bottom of the post slopes downward from the rear side to the front. This will help prevent damage to the frame if the seatpost is pushed too far down in the frame.



Note: In original condition, the seatpost length against frame sizes is as follows:

Frame size	Maximum saddle height(mm)	Minimum saddle height(mm)
XS	790	710
S	830	720
M	850	730
M/L	875	750
L	905	765
XL	925	765

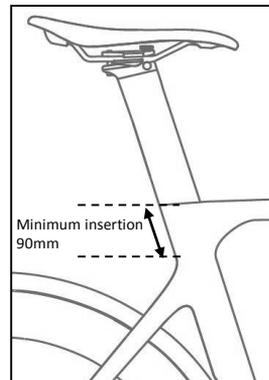
The seatpost should be cut from its original condition when the saddle height that you require is lower than the minimum saddle in the chart above.

Note: The maximum seatpost insert depth is at 30mm above than the seat tube curve. Do not let the seatpost reach the seat tube curve shape when riding the bike.



WARNING:

- Be slow and careful when inserting the seatpost into the seat tube. Too much downward force may damage the frame and/or the seatpost.
- The minimum insertion of the Vector seatpost is 90mm. Do not overcut the seatpost. It is necessary to make a precise measurement before cutting the seatpost.
- If the seatpost reaches the seat tube curve shape when riding the bike, it will damage the frame.



Cutting the seatpost

4. It is recommended that you use a professional saw guide and a fine-tooth saw to cut the seatpost.
5. Place the saw guide at the precise location of the desired cut. Be sure to double-check your measurement.

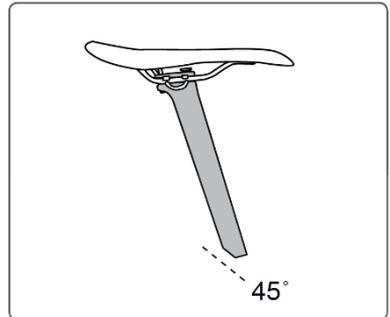
6. Cut the seatpost at a 45-degree angle so that the bottom of the post slopes downward from the rear side to the front side. This will help prevent damage to the frame if the seatpost is pushed too far down.



CAUTION: Use a fine-tooth (32 teeth) saw blade to avoid damaging the composite fibers.



WARNING: Be sure to wear appropriate safety equipment, such as glasses, gloves and a dust mask. Make sure not to inhale any of the dust!



7. Make a clean cut carefully.



CAUTION: Do not splinter the composite when finishing the cutting process.

8. Remove the saw guide and carefully sand-down any burrs with fine emery paper. Clean off the dust with a damp rag and discard it immediately.
9. Install the saddle onto the seatpost and recheck the target saddle height.

Vector Seatpost Clamp

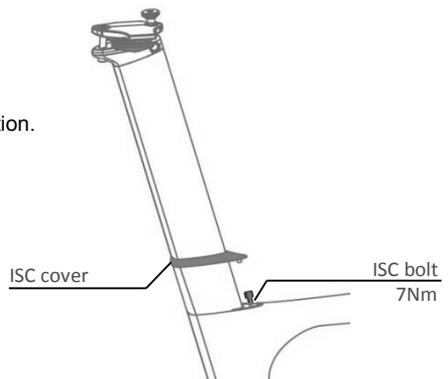
The seat clamp system provides optimal integration with the frame, and also better clamping with the Vector seatpost.

Installation:

1. Ensure the seatpost length is correct before installation.
2. Place ISC cover onto seatpost.
3. Insert seatpost into the frame and tighten bolt.
4. Place the ISC cover onto the frame.



WARNING: Please tighten the bolt to standard torque value (7Nm) to avoid damage or slide down the seatpost.



10 POWERCORE PRESS-FIT BOTTOM BRACKET



WARNING:

- Do not modify the frame. Do not face, grind or cut the bottom bracket shell. Any modification will affect the bottom bracket interface and will void the warranty.
- Failure to follow these instructions may result in hidden damage to the composite frameset. Damage to the frameset may cause loss of structural integrity, which may result in serious personal injury.



WARNING: Installing an unsuitable BB adapter will cause malfunction, which could result in serious injury or death.



CAUTION: There are different types of Press-Fit BB adapters. Be sure to check with the manufacturer before selecting which BB adapter to use. If the BB adapter is not suitable, serious personal injury may result.

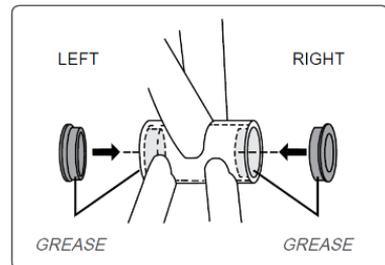


CAUTION: Only proper installation will bring out the best performance and comfort in your frameset. Since the installation of the Press-Fit BB adapter is a complicated task requiring training and experience, only authorized Giant retailers should complete the sophisticated process.

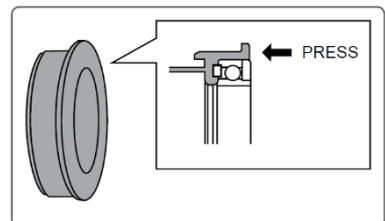
Installation

STEP 1:

- Apply neutral grease inside the frame's bottom bracket cups.
- Then install the left and right-hand press-fit BB adapters.
- Press-fit the adapters by using the appropriate tool, while applying pressure evenly to both sides so that they do not become angled.



CAUTION: When doing this, push only at the points indicated by arrows in the illustration. Pushing anywhere other than these points may damage the ball races of the bearings.

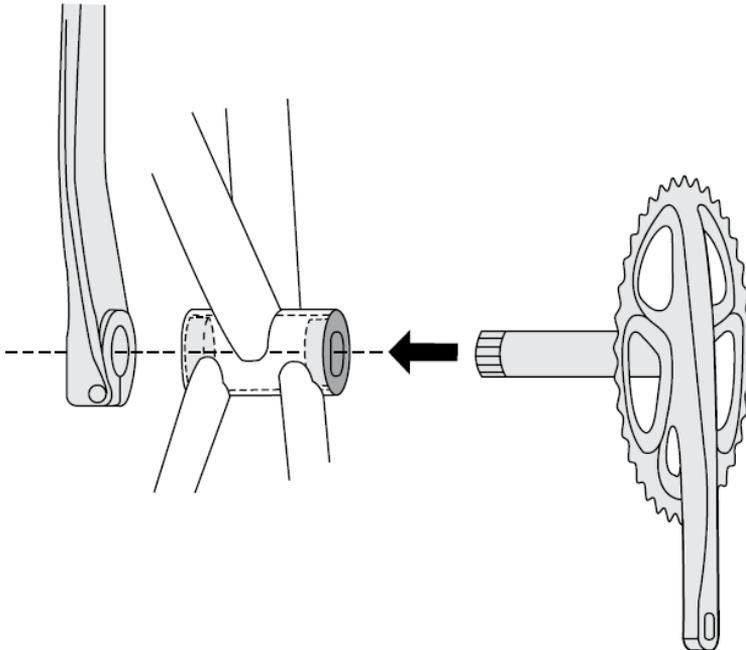


STEP 2:

Installation of the front crankset:

Note: Make sure to follow the installation instructions provided by the manufacturer of the crankset.

Note: This manual is designed to provide information for installation of a bottom bracket into a Giant composite frameset. Please refer to the specific manufacturer's enclosed guide for final crankset installation details.



Removing

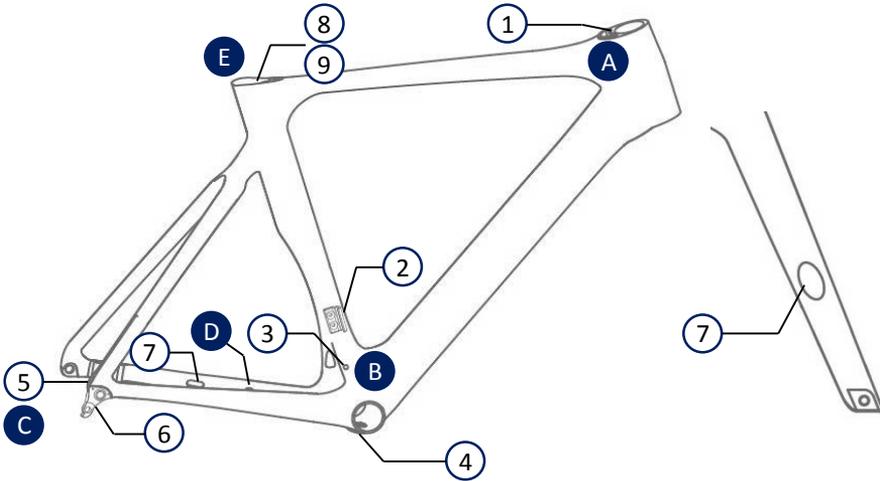
Push out firmly from the inside using a blunt tool.

Note: Do not reuse the adapters as they can be damaged from removal.



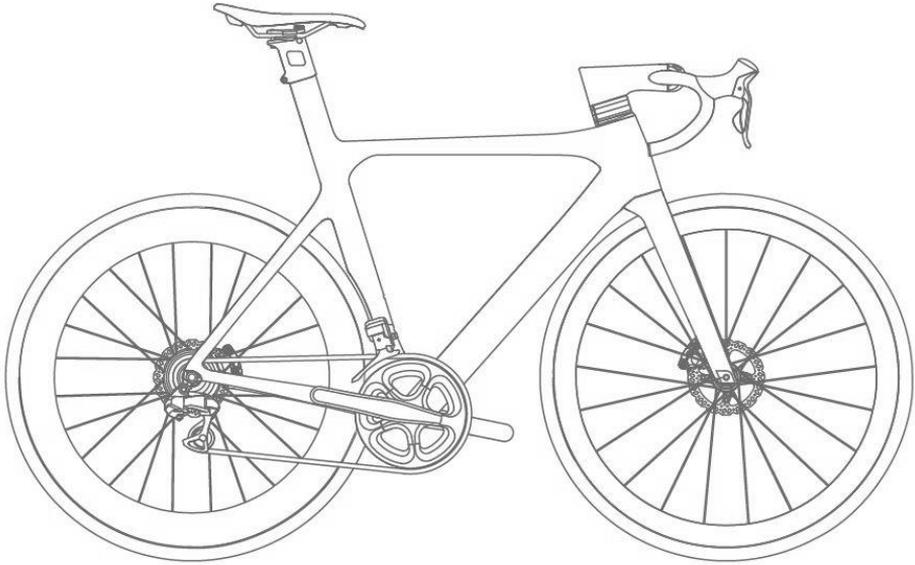
CAUTION: Avoid scratching or damaging the frame/BB shell during the removal of the BB adapters

11 CABLE ROUTING PARTS



No.	Mechanical shifting parts	QTY		No.	Di2 Upgrade parts [put in small box]	QTY	
1	Top tube cable stopper	1		A	Di2 grommet	1	
2	Front Derailleur Plate	1		B	Di2 front derailleur stopper	1	
3	Di2 dust cap	1		C	Di2 rear derailleur stopper	1	
4	BB cable guide	1		E	Di2 seatpost battery holder	1	
5	Derailleur cable stopper	1		No.	Other parts		
6	Rear drop out	1		D	RideSense plug	1	
7	Hydraulic brake hose plug	2					
8	Seatpost waterproof rubber seal	1					
9	ISC clamp	1					

12 FRAME TECHNICAL DATA



Series	Propel Advanced SL Disc					
Head Parts Diameter	Ø42/ Ø47					
Seatpost Diameter	Giant Aero ISP					
Front Derailleur Diameter	Braze on					
Rear O.L.D	142					
RC length	405					
Max Tire Size	700x25C					
Caliper Type	Flat Mount					
Rotor type	Center lock					
Commercial Size	XS	S	M	ML	L	XL
Head Tube Length (mm)	120	135	150	170	185	200
Top Tube Horizontal Length (mm)	515	535	555	570	585	605
Seat Angle (Degrees °)	74.5	73.5	73	72.5	72.5	72
Head Angle (Degrees °)	71	72.5	73	73	73	73