

TRINITY ADVANCED SL

Instruction manual

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General recommendations

Safety warnings

Warning and Caution description

Tools and equipment

We recommend using the following products :

Recommended torque values mustGIANT torque wrenches :

- 4Nm TORQKEY
- 6Nm TORQKEY

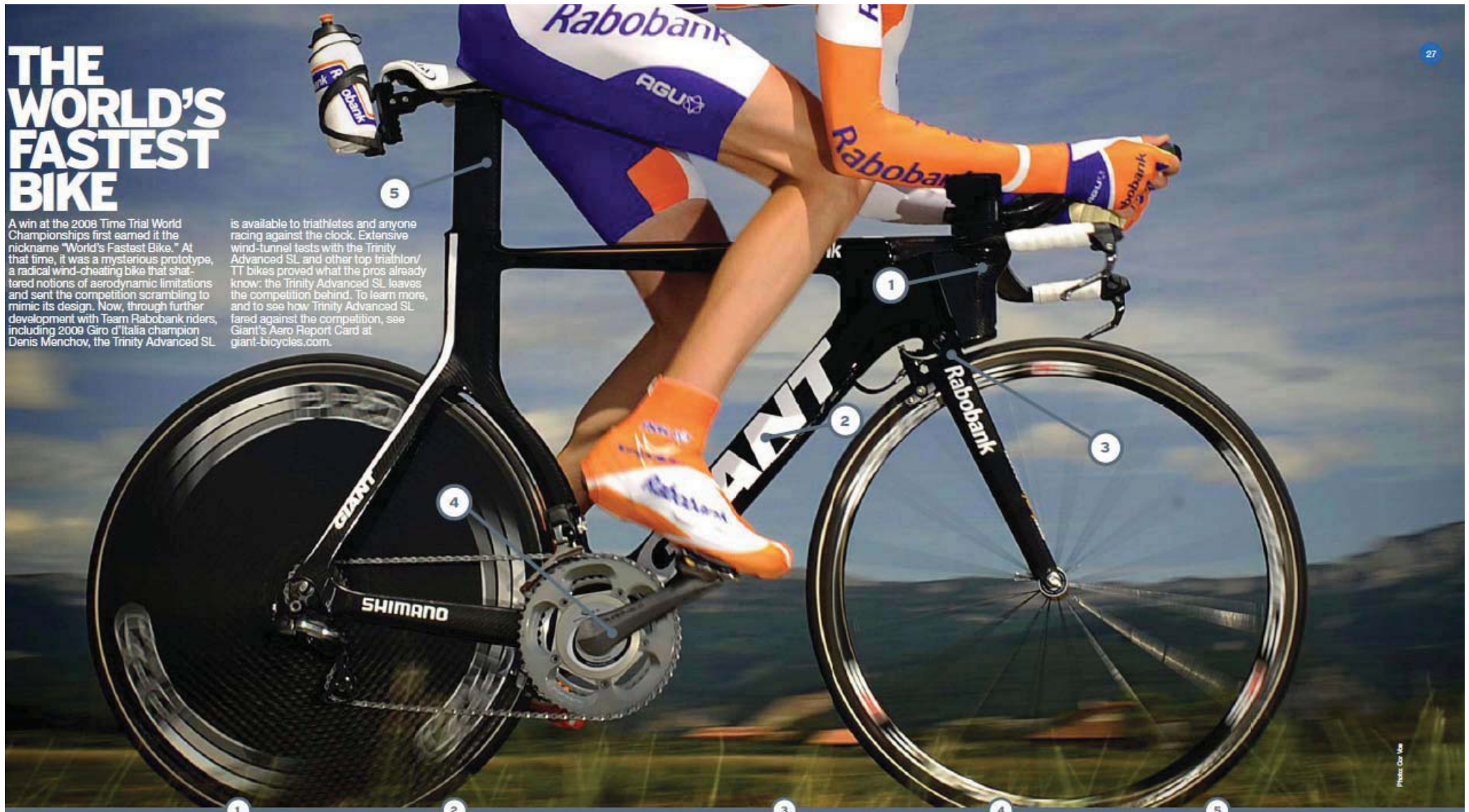
Grease : PTFE

Trinity Advanced SL features

THE WORLD'S FASTEST BIKE

A win at the 2009 Time Trial World Championships first earned it the nickname "World's Fastest Bike." At that time, it was a mysterious prototype, a radical wind-cheating bike that shattered notions of aerodynamic limitations and sent the competition scrambling to mimic its design. Now, through further development with Team Rabobank riders, including 2009 Giro d'Italia champion Denis Menchov, the Trinity Advanced SL

is available to triathletes and anyone racing against the clock. Extensive wind-tunnel tests with the Trinity Advanced SL and other top triathlon/TT bikes proved what the pros already know: the Trinity Advanced SL leaves the competition behind. To learn more, and to see how Trinity Advanced SL fared against the competition, see Giant's Aero Report Card at giant-bicycles.com.



1 AERODRIVE

FEATURES: Trinity Advanced SL's aerodynamic stem-and-fork control center places the rider in the most aerodynamic position of any bike on the market today. Its patent-pending design is the first on the market to solidly interlock the stem, fork steerer tube and fork crown—creating not only the most aerodynamic design but also the stiffest-steering front end.

BENEFITS: The ultra-aero and incredibly stiff AeroDrive control center allows the rider to slice through the wind while also offering complete front-end control—even during hard cornering. A full range of sizing options allows each rider to custom-tune AeroDrive to their specific needs.

2 MEGADRIVE

FEATURES: The massive aerodynamic downtube and highly profiled toptube work in unison to provide unprecedented front-end steering precision—all while in strict observance of the UCI's 3:1 profile rule.

BENEFITS: Both tubes work together to create the most efficient and aerodynamic design on the market.

3 SPEEDCONTROL

FEATURES: Trinity Advanced SL's proprietary braking system provides powerful, aerodynamic stopping power. A custom-designed, reverse-position front brake and chainstay-mounted rear brake help minimize airflow interruption.

BENEFITS: SpeedControl offers a total braking solution that's both powerful and aerodynamic. The system allows you to effectively reduce speed when you need to, while remaining virtually invisible when you're hammering against the clock.

4 POWERCORE

FEATURES: The massively oversize bottom bracket/chainstay area features a fully integrated, 86-millimeter-wide bottom bracket design. Tying the bottom bracket to the rear of the frame are the asymmetrical chainstays, which provide additional stiffness on the driveside and extra stability on the non-driveside.

BENEFITS: The next-generation, fully integrated bottom bracket standard and Intelligent chainstay design provides unprecedented pedaling stiffness.

5 VECTOR SLR

FEATURES: This full-composite, lightweight and highly aerodynamic seatpost is engineered specifically for the demands of the aero rider. A fully enclosed, internal seatclamp system locks the post into position without any disruption to critical airflow. Three offset positions (0, 10 and 23 millimeters) allow for a fine-tuned, perfect fit.

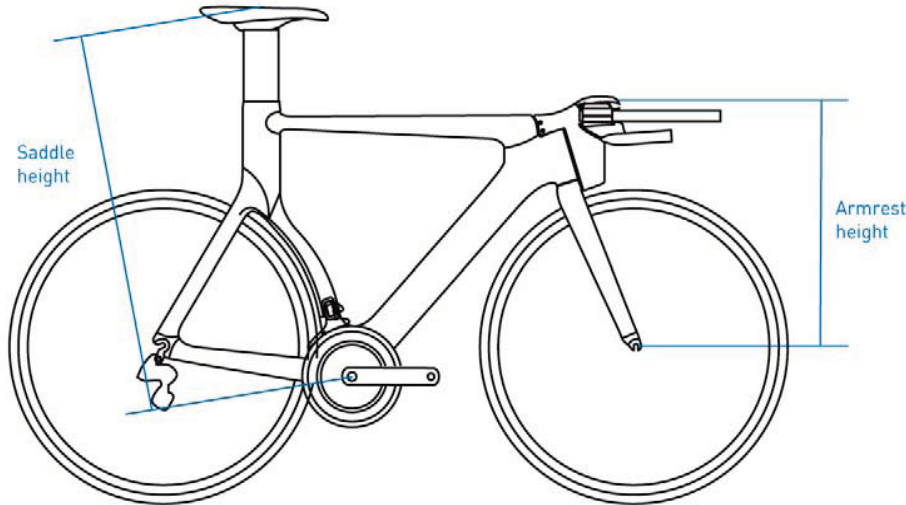
BENEFITS: Increased fore-aft stiffness results in maximum energy transmission, plus outstanding aerodynamic efficiency.

Operations prior to assembly

How to select the right frame size ?

The most accurate way to choose from one of the three sizes available is to refer to the table below.

Please refer to the armrest height to select your frame size.



FRAME SIZE	SADDLE HEIGHT		ARMREST HEIGHT	
	mini	max	Low stem no spacer	High stem 40mm of spacers
	(centimeters)		(centimeters)	
S	65	75	42,9	54,9
M	74	81	45,8	57,8
L	80	89	48,7	60,7

If you are not sure about your armrest height, you can still refer to this basic size table.

This recommendation helps you to select approximately your frame size from:

- your height
- your inseam
- your saddle height
- your actual TCR frame size

RIDER SIZE	INSEAM	SADDLE HEIGHT	TCR	TRINITY ADV SL	
(centimeters)					
159,3	73,0	65,0	XS/43	S	[Diagrammatic representation of frame sizes]
161,0	74,0	65,9			
162,8	75,0	66,8			
164,5	76,0	67,6	S/46,5	S	[Diagrammatic representation of frame sizes]
166,3	77,0	68,5			
168,0	78,0	69,4			
169,8	79,0	70,3	M/50	M	[Diagrammatic representation of frame sizes]
171,5	80,0	71,2			
173,3	81,0	72,1			
175,0	82,0	73,0	M-L/53,5	M	[Diagrammatic representation of frame sizes]
176,8	83,0	73,9			
178,5	84,0	74,8			
180,3	85,0	75,7	L/55,5	L	[Diagrammatic representation of frame sizes]
182,0	86,0	76,5			
183,8	87,0	77,4			
185,5	88,0	78,3	XL/58,5	L	[Diagrammatic representation of frame sizes]
187,3	89,0	79,2			
189,0	90,0	80,1			
190,8	91,0	81,0	[Diagrammatic representation of frame sizes]	[Diagrammatic representation of frame sizes]	[Diagrammatic representation of frame sizes]
192,5	92,0	81,9			
194,3	93,0	82,8			
196,0	94,0	83,7	[Diagrammatic representation of frame sizes]	[Diagrammatic representation of frame sizes]	[Diagrammatic representation of frame sizes]
197,8	95,0	84,6			
199,5	96,0	85,4			
201,3	97,0	86,3	[Diagrammatic representation of frame sizes]	[Diagrammatic representation of frame sizes]	[Diagrammatic representation of frame sizes]
203,0	98,0	87,2			
204,8	99,0	88,1			
206,5	100,0	89,0	[Diagrammatic representation of frame sizes]	[Diagrammatic representation of frame sizes]	[Diagrammatic representation of frame sizes]
208,3	101,0	89,9			

How to achieve the right position?

1. Saddle height

The saddle height is basically determined by this calculation:
 $\text{RIDER INSEAM} \times 0,89 = \text{SADDLE HEIGHT}$

2. AeroDrive

A previous bike setup could be adapted to the Trinity Advanced SL. Otherwise, we do recommend starting with the high position stem and all the highest armrest position.

By setting up the AeroDrive as high as possible, you can progressively lower the position by changing the stem.

Then, you can fine tune your setup by removing some extension spacers.

With this procedure, you will save some time and money by avoiding changing the cables every time you try a new position. -

Once the bar position defined, report to the different parts of this manual to assemble your setup.

Headset Instruction

FSA N°26G2 1"1/8

The TRINITY Advanced SL AeroDrive uses a classic FSA headset but without the conical cap, as the stem integrates it's own top cap.

Please closely follow the assembly instructions. Any failure in the assembly could result in serious injury or death.

Grease elements as indicated on the figure.

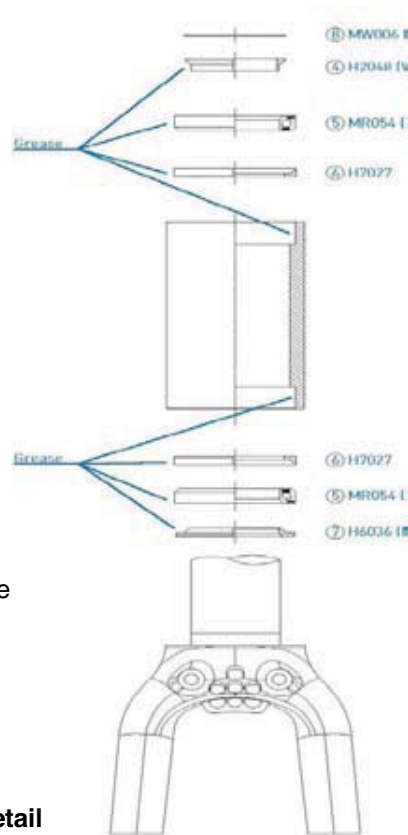


Figure 1 : FSA N°26G2 headset detail

Headset Assembly Instruction

Mounting crown race on fork steerer:

1. Ensure that fork steerer is clean and free of metal chips, dirt and paint.
2. Apply a thin layer of grease to the crown race seat on the fork steerer.
3. Tap the crown race on to the steerer using a crown race installation tool.

Note: Use the correct fitting on the installation tool to ensure no damage is done to the crown race.

4. Apply a thin layer of grease to bearings, cups, races and compression rings.
Integrated models only, insert bearings directly into headtube bearing seat.
5. Slide fork steerer through the headtube.
6. Slide upper bearing race compression ring on to steerer and seat against upper bearing.
7. Slide upper top cap compression ring on to steerer.
8. Slide top cap on to steerer. Ensure that the integrated cable housing stop is facing forward.
9. Install any headset spacers and stem.
10. Install compression device or star-fangled nut and top cap.
Important: A star-fangled nut should never be installed in a carbon steerer, use only a compression device such as the FSA Compressor.
11. Adjust bearing preload by tightening the top screw only until all play is absent from head assembly and bearings spin freely. Important: The top screw is for bearing preload only. It is not a fastening screw. Damage may occur if the top screw is tightened beyond proper bearing preload.
12. Tighten stem bolts according to the AeroDrive stem assembly (report to AeroDrive cockpit instruction).

AeroDrive Cockpit

Overview

AeroDrive is a completely integrated stem, base bar and extension set. None of the parts included are to be substituted.

The stem is the most critical element. It's a set consisting of a lower stem and an upper stem. Three stem sets are provided: low, middle, high.

How to proceed ?

1. Find out your base bar height => select the appropriate AeroDrive stem
2. Find out your armrest height => calculate the spacer height you need to assemble
3. Assemble the AeroDrive cockpit

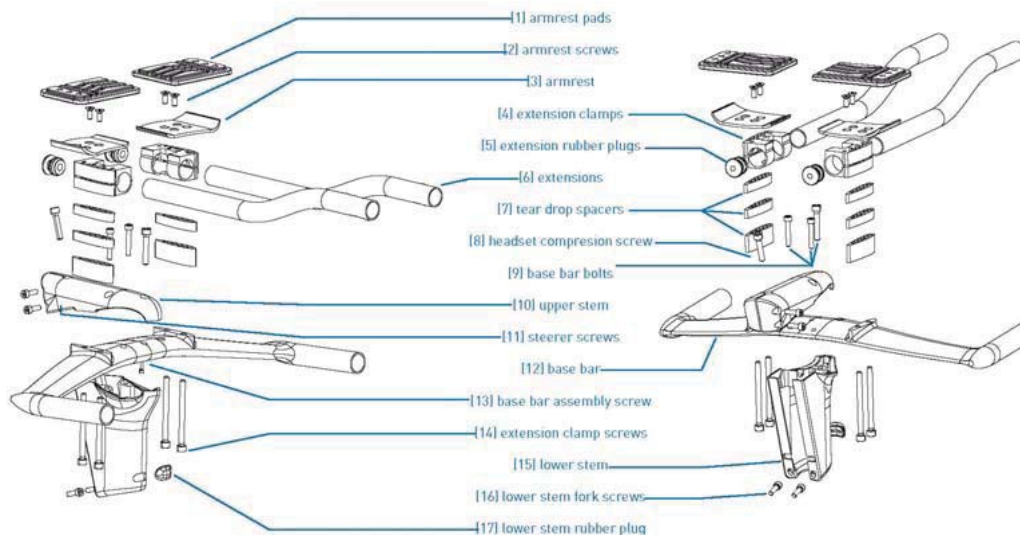


Figure 2 : AeroDrive exploded view & designations

Parts listing

	Specification	Quantity	Torque range
[1] armrest pads		2	-
[2] armrest screws	M5x6 tapered	4	4 Nm
[3] armrest		2	-
[4] extension clamps		2	-
[5] extension rubber plugs		2	-
[6] extensions		2	-
[7] tear drop spacers	10mm	4	-
	20mm	2	-
[8] headset compression screw	M6x30	1x	For bearing adjustment. Report to headset instruction
[9] base bar screws	M5x30	2x	6 Nm
	M6x35	1x	6 Nm
[10] upper stem		3x low + middle + high	-
[11] steerer screws	M5x16	2x	6 Nm
[12] base bar		1	-
[13] base bar assembly screw	M4x30	1x	4 Nm
[14] extension clamp screws	M6x75 (40mm) M6x65 (30mm) M6x55 (20mm) M6x45 (10mm) M6x35 (0mm)	4x	6 Nm
[15] lower stem		3x (low + middle + high)	-
[16] lower stem fork screws	M5x16	2x	6 Nm
[17] lower stem rubber plug		1	-

AeroDrive Stem Introduction

AeroDrive size selection

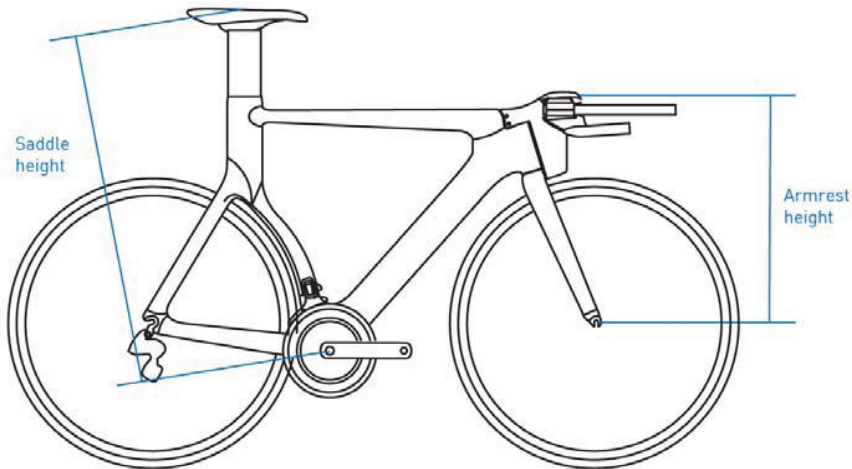
The AeroDrive system is provided with three different stems :

- Low (-40mm)
- Middle (0mm)
- High (+40mm)

With this three stem set, you can adjust your base bar height by +/-40mm. A total range of 80mm for each frame size is possible.

In addition to this, you can add up to 4mm of teardrop washers to space your armrest over the base bar.

Similar to the table used to select the appropriate frame size, here is some additional information to select your stem size.



	LOW POSITION	MIDDLE POSITION	HIGH POSITION
SMALL FRAME			
MEDIUM FRAME			
LARGE FRAME			

Figure 3 : AeroDrive stem range

FRAME SIZE	SADDLE HEIGHT		ARMREST HEIGHT						
	mini	max	LOW STEM		MIDDLE STEM		HIGH STEM		
			min	max	min	max	min	max	
		(centimeters)							
S	65	75	42,9	46,9	46,9	50,9	50,9	54,9	
M	74	81	45,8	49,8	49,8	53,8	53,8	57,8	
L	80	89	48,7	52,7	52,7	56,7	56,7	60,7	

Armrest and extensions

Armrest height adjustment

The armrest supports height can be adjusted up to 40mm with the teardrop spacers.

Depending on the selected height, make sure you are using the correct screw length as detailed.





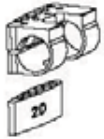

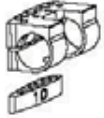



ARMREST HIGHT	SPACERS	SCREWS
40mm		 M6x75
30mm		 M6x65
20mm		 M6x55
10mm		 M6x45
0mm		 M6x35

Figure 4 : Armrest height spacers and screws lengths

Extensions adjustment

First, by swapping the extension clamps, you can choose either a wide extension setup or a narrow setup.

Secondly, you can refine your extension setup by turning the extension's bend inward or outward.

As well, the extensions can slide in the clamps. You can adjust the extensions both fore and aft.

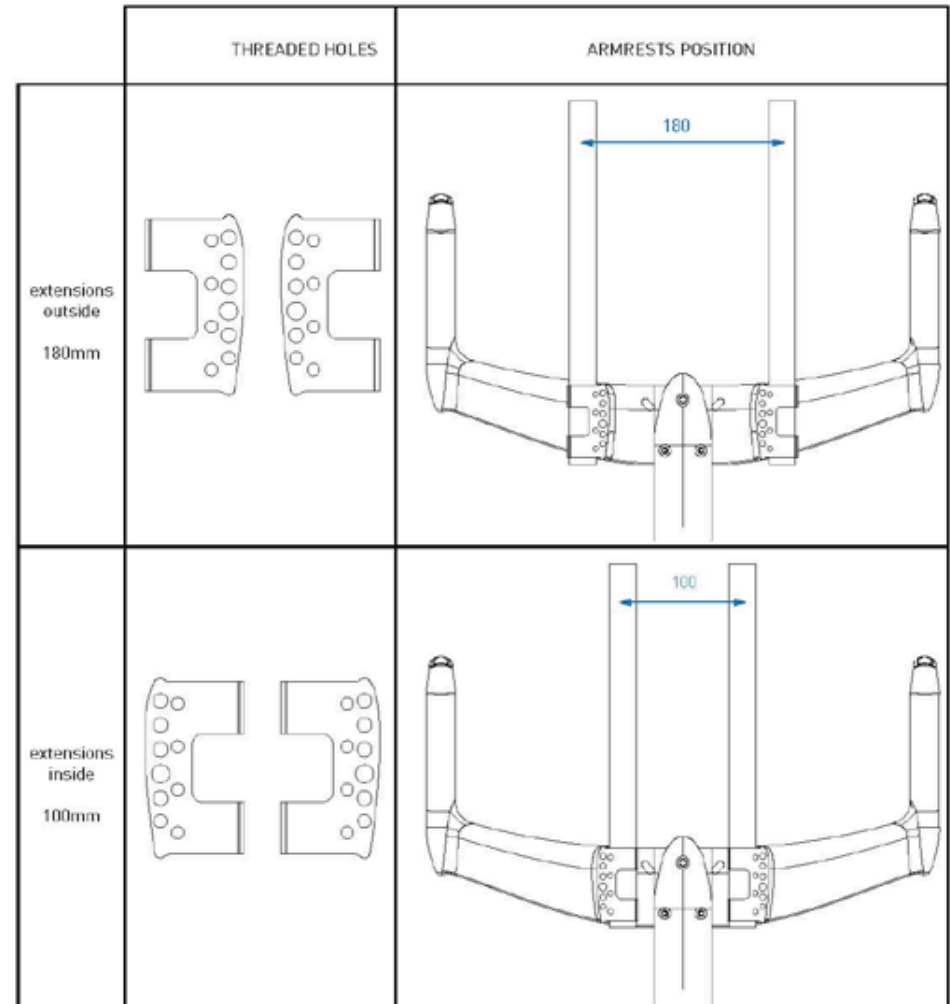


Figure 5 : extensions width adjustment

Armrest pads adjustments

Armrest pads fore and aft adjustment.

The armrest pads can be bolted onto the clamps in 2 positions.

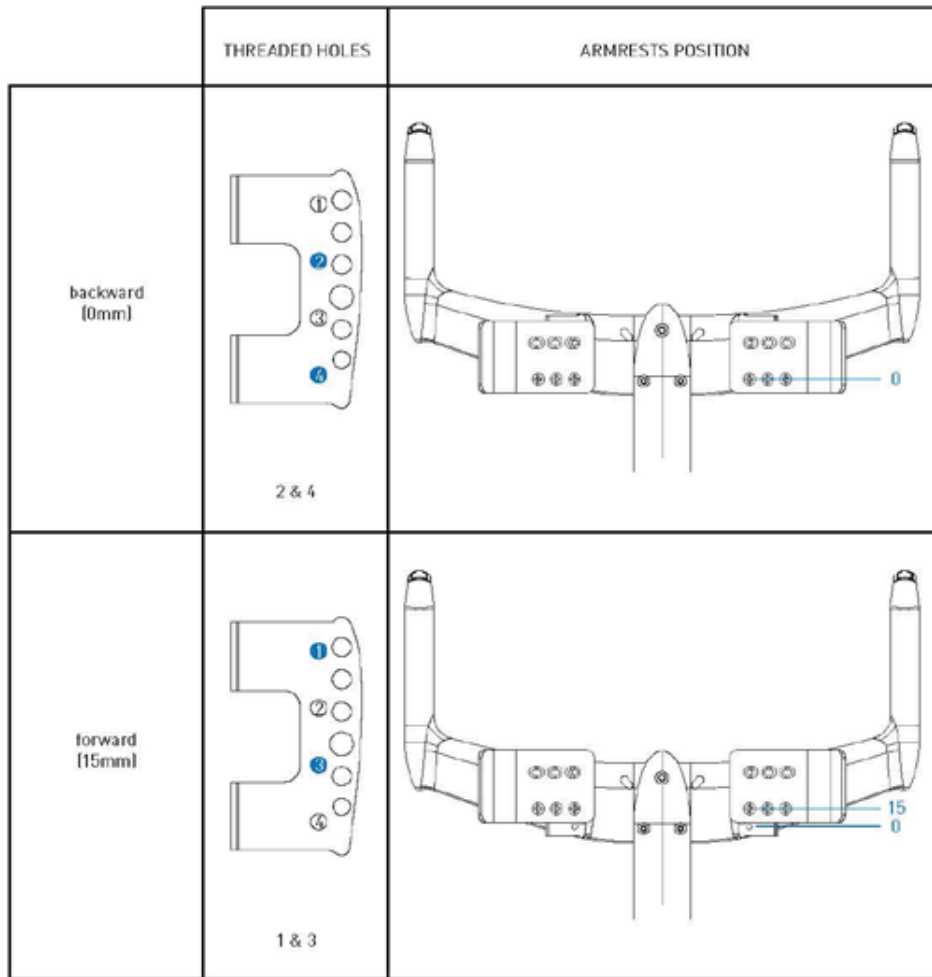


Figure 6 : Armrest pads fore and aft adjustment

Armrest pads width adjustment

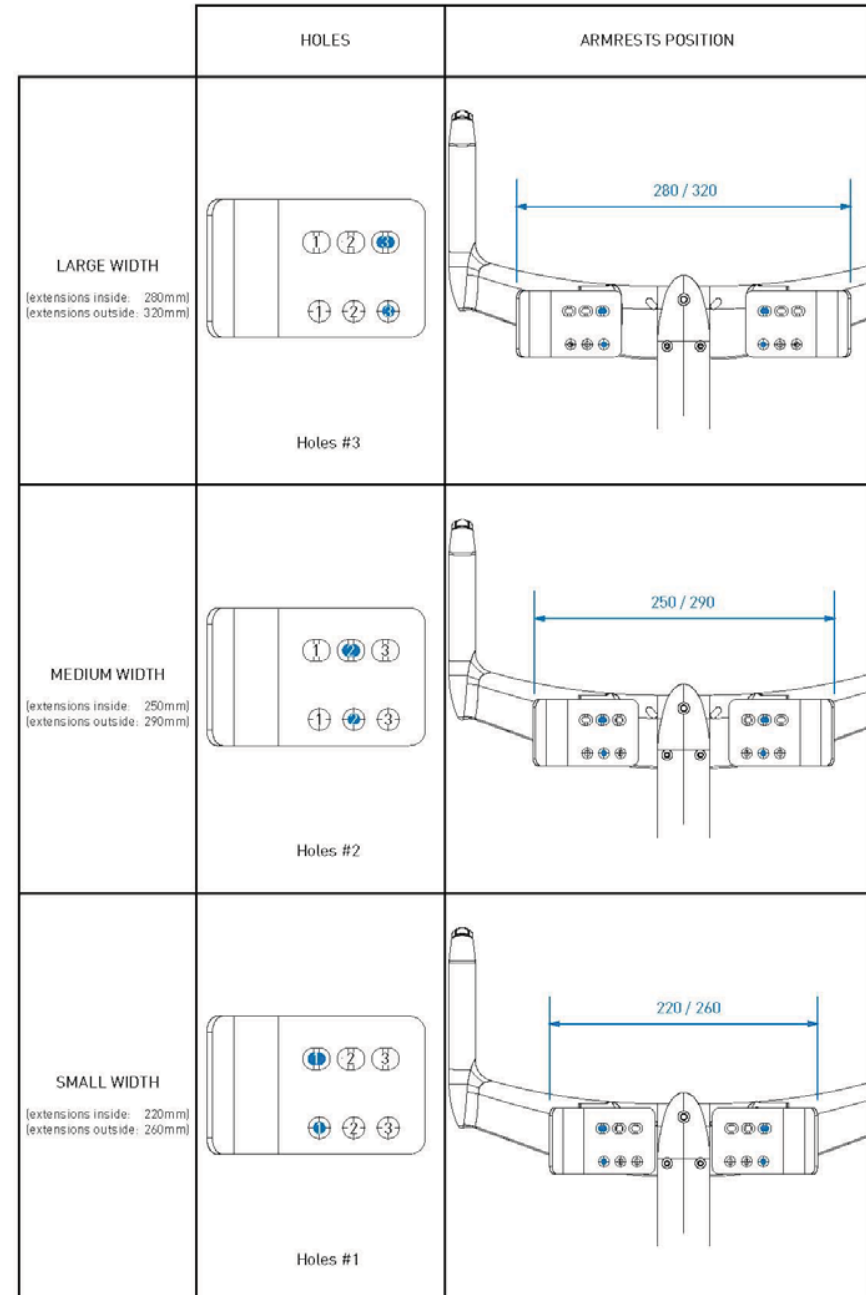


Figure 7 : Armrest pads width adjustment

Armrest pads orientation adjustment

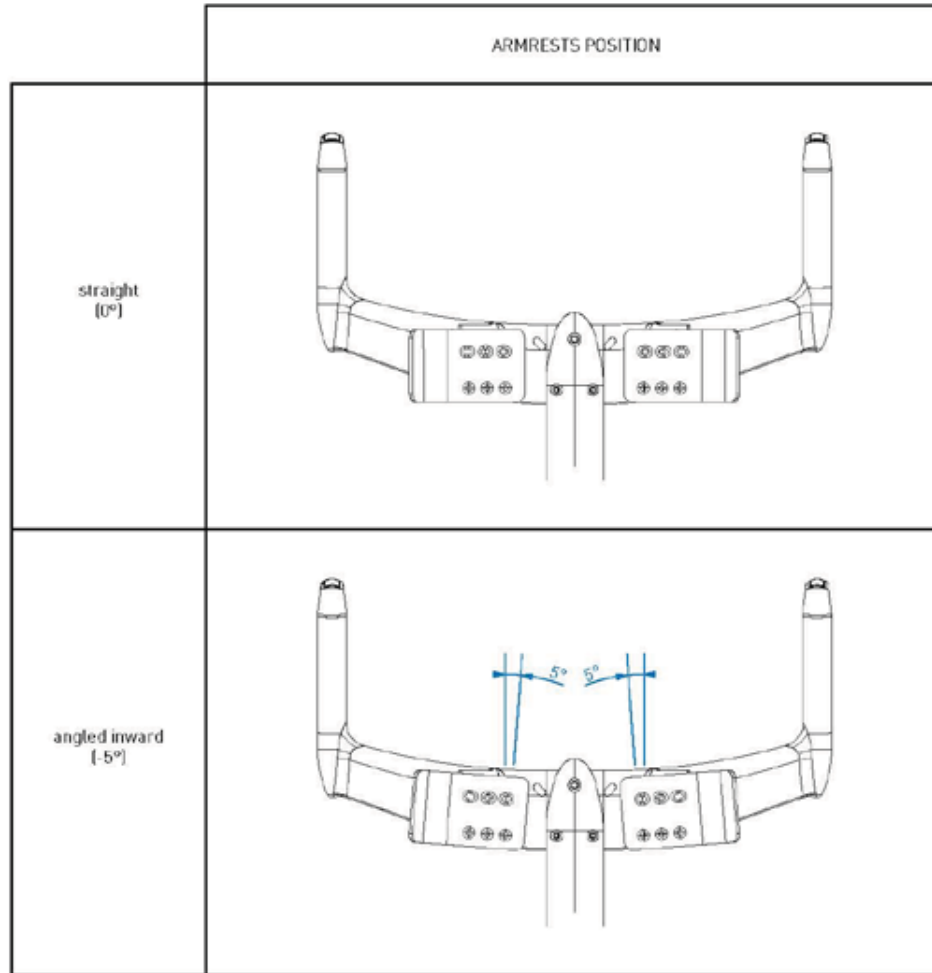


Figure 8 : Armrest pads orientation adjustment

AeroDrive base bar and upper stem preparation

The upper stem is designed with a small thread on its inside. This allows you to steady the base bar during the assembly.
Tighten this bolt to 4 Nm

As soon as you have chosen your stem size, assemble the upper stem with the base bar as shown bellow.

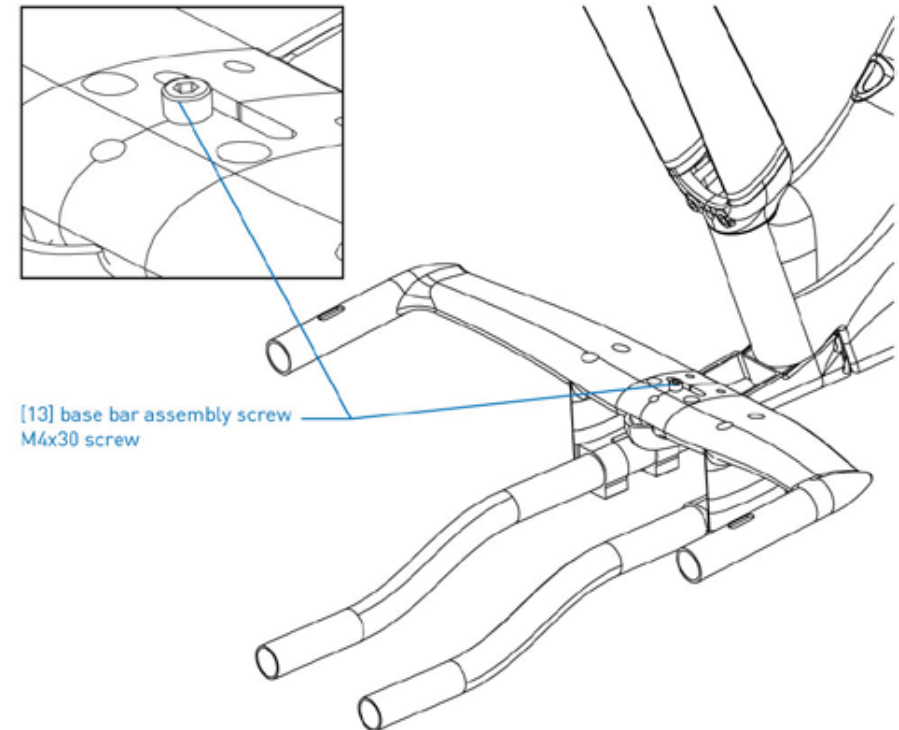


Figure 9 : Base bar and upper stem preparation

Cable specification

The cable routing of Trinity Advanced SL is one of the most innovative. To insure optimized performance, make sure to follow the following instructions.

Fork cable routing

To get the smoother cable routing and make sure to get the lower cable friction, please use the cable routing as shown below.

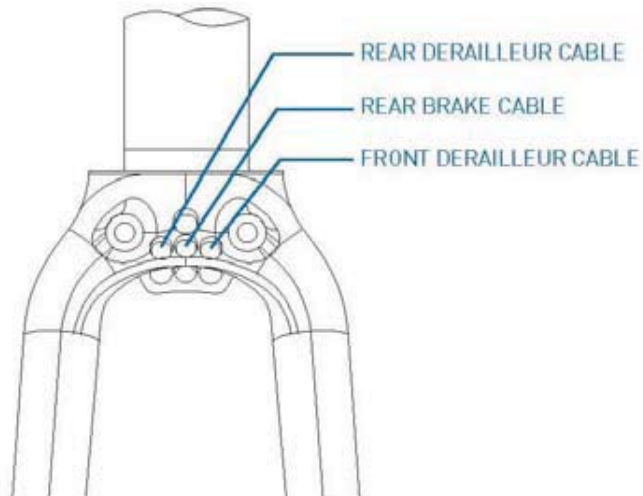


Figure 10 : fork cable routing

Base bar cable routing

To get the smoother cable routing and make sure to get the lower cable friction, please use the cable routing as shown below.

For a traditional cable routing, front brake is mounted on the left, rear brake on the right.

For United Kingdom or Australia, front brake is mounted on the right, rear brake on the left.

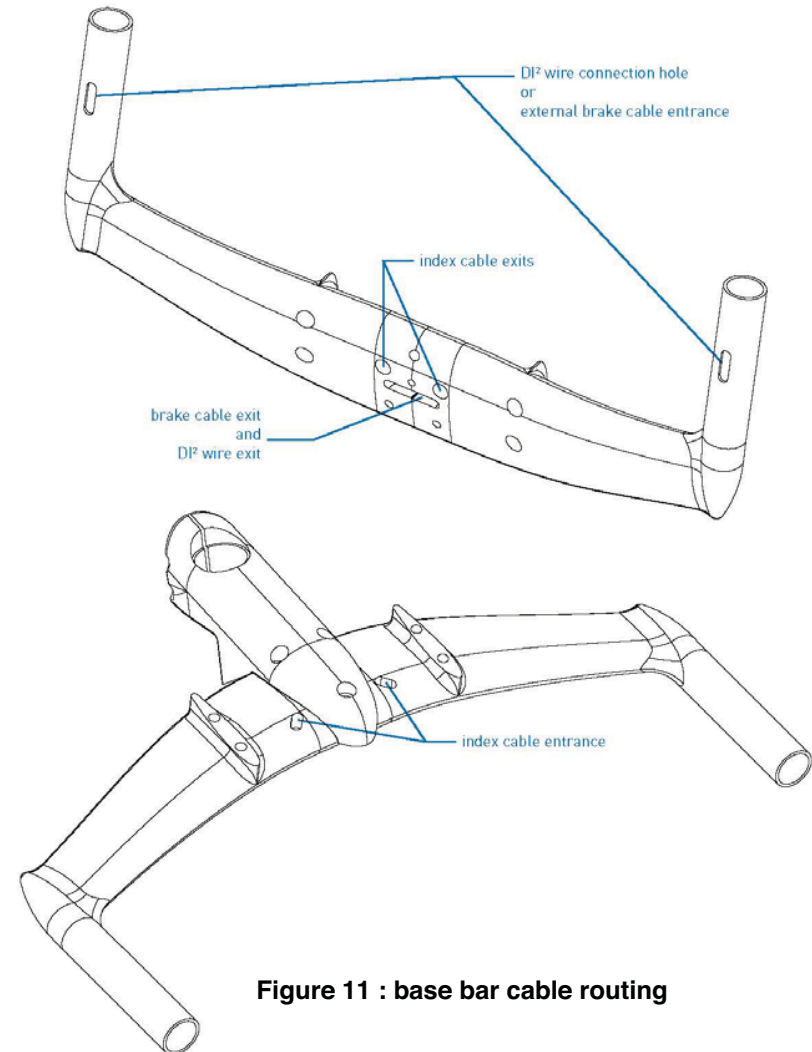


Figure 11 : base bar cable routing

Brake cable and housing

Brake cable and hosing quality is important to insure a correct braking performance.

Giant recommends SHIMANO or JAGWIRE CEX.

As shown on the figure above, a hosing connector is necessary to facilitate maintenance and the AeroDrive cockpit disassembly.

For a traditional cable routing, front brake is mounted on the left, rear brake on the right.

For United Kingdom or Australia, front brake is mounted on the right, rear brake on the left.

— REAR BRAKE CABLE ROUTING
— FRONT BRAKE CABLE ROUTING

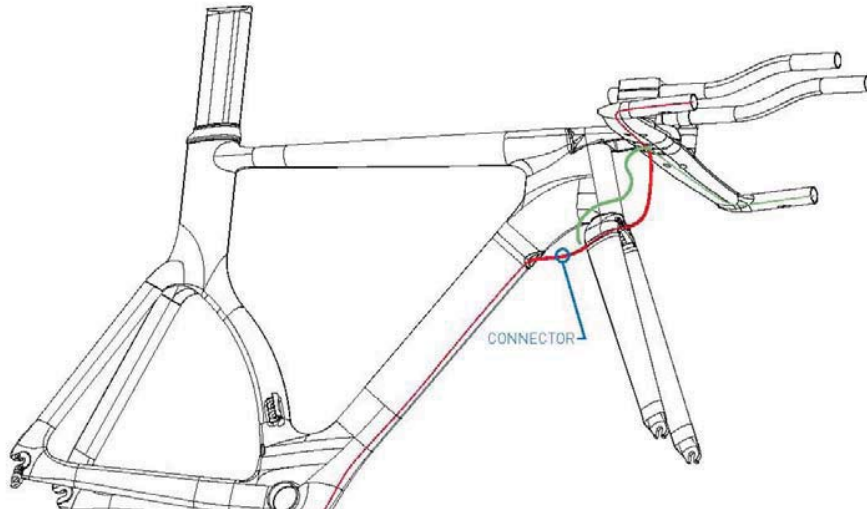


Figure 12 : brake cable routing

Index cable and housing

Giant strongly recommends the following cable routing and following cable and hosing specification.

NOKON Konkavex hosing and liner is necessary in certain area of the frameset.

More info on NOKON products : <http://www.nokon.de>

For “Classic” hosing, SHIMANO SIS-SP41 or JAGWIRE LEX quality is required as it’s assembled on our TRINITY Advanced SL complete bikes.

— REAR DERAILLEUR CABLE = NOKON
— REAR DERAILLEUR CABLE = CLASSIC
— FRONT DERAILLEUR CABLE = NOKON
— FRONT DERAILLEUR CABLE = CLASSIC

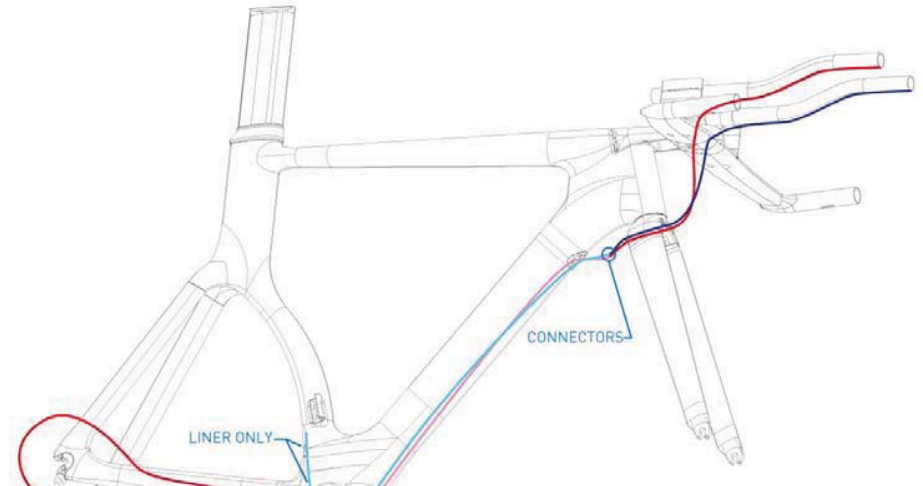


Figure 13: index cable routing

Assembly Instruction

The Giant Trinity Advanced SL is using a traditional headset steering combined with AeroDrive cockpit components. Please closely follow the assembly instructions. Any failure in the assembly could result in serious injury or death.



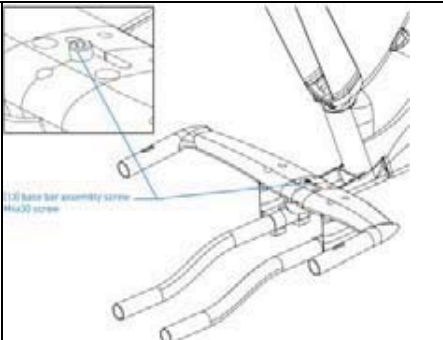
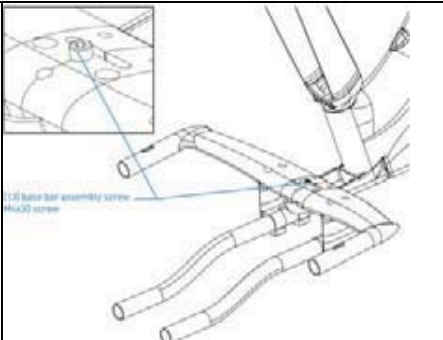
Caution

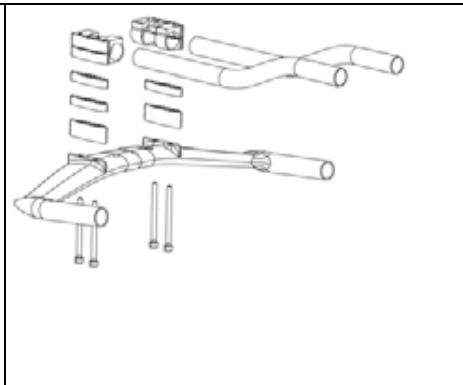
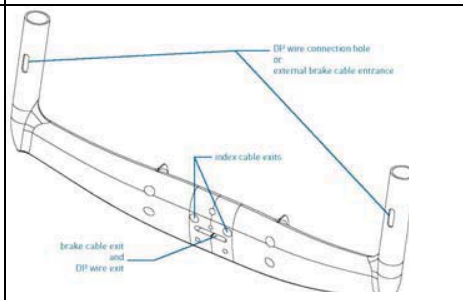
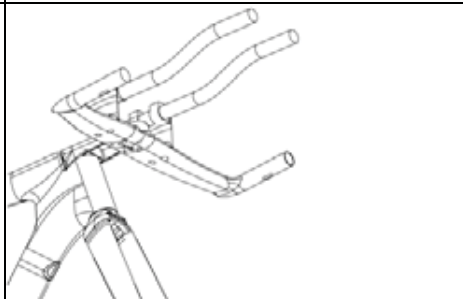

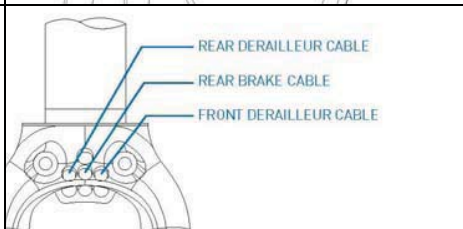
You need to have first proceeded to the part “AeroDrive size selection” before starting executing this instruction. Cable routing and cable length may be compromised if you have not determined correctly your appropriate settings.



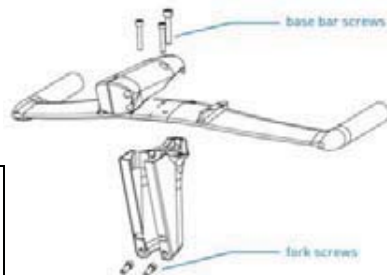
Warning

Grease all thread and screw before assembly.
Do not grease the stem and base bar contact area.
Do not grease the extensions and extension clamps contact areas.

1	Assemble the headset bearings, cups and cones as detailed at Headset Instruction	
2	Fix the base bar to the “upper stem [10]” with the “base bar assembly screw [13]”. Tighten this bolt to 4 Nm CAUTION: this bolt is not designed to clamp firmly the base bar. Do not apply any force to the base bar.	

3	Assemble the extension set to the “base bar [12]” as detailed at Armrest and extensions Armrest includes : <ul style="list-style-type: none"> - extension clamps [4] - extension rubber plugs [5] - extensions [6] - tear drop spacers (depending your necessary adjustment) [7] - extension clamp screws [14] Tighten the extension clamp screws [14] to 6Nm	
4	Assemble the cables by routing them into the “base bar [12]” as detailed at Base bar cable routing <ul style="list-style-type: none"> - assemble the brake cables first with the brake levers - assemble the index cables with the shifters (either for mechanical systems or SHIMANO DI²) 	
5	Install the all cockpit set to the fork steerer tube. Tighten slightly the headset compression screw[8] in addition to the steerer screws to maintain the stem in a stable position. Do not tighten the screws to the recommended torque value yet.	
6	Install front and rear brakes as well as derailleurs	
7	Route the cables through the fork crown as detailed at Fork cable routing	

8	Adjust the cable length by cutting the housing at the appropriate length. The cockpit cable must connect the frame cable just after the front brake. CAUTION: Your cockpit setup must be finalized before adjusting and connecting the cables.
9	Connect the cockpit cables with the frame cables and setup your brakes and derailleurs. CAUTION: Make sure the cable routing is smooth and that cable are sliding in housing with a minimal friction. The cables should not interfere with the headtube significantly: the cables should flex and return free into the frame cable entrance.
10	Attach the lower stem [15] to the fork with the 2 lower stem fork screws [16]. CAUTION: Do not tighten the screws to the recommended torque value yet.
11	Attach the lower stem [15] to the upper stem [10] with the 3 screws base bar screws [9]. CAUTION: Do not tighten the screws to the recommended torque value yet.
12	With the lower stem [15] attached but loose, compress the headset with the headset compression screw [8]. Adjust bearing preload by tightening the headset compression screw [8] only until all play is absent from head assembly and bearings spin freely. CAUTION: The top screw is for bearing preload only. It is not a fastening screw. Damage may occur if the top screw is tightened beyond proper bearing preload.
13	Clamp the upper stem [10] to the fork steerer tube by tightening the steerer screws [11] to 6Nm
14	Clamp the lower stem [15] to the upper stem [10] with the 3 screws base bar screws [9] by tightening to 6Nm
15	Clamp the lower stem [15] to the fork with the 2 lower stem fork screws [16] by tightening to 6Nm
16	Plug the rubber cap lower stem rubber plug [17] by pressing it in place



Disassembly Instruction

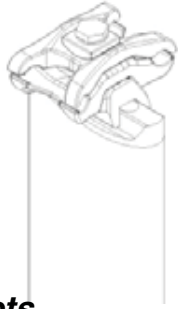
1. Unplug the rubber cap lower stem rubber plug [17]
2. Unscrew the “lower stem [15]” to the fork with the 2 lower stem fork screws [16]
3. Unscrew the “lower stem [15]” to the upper stem [10] with the 3 screws base bar screws [9]
4. Remove the lower stem [15]
5. Detach the cables and remove them from the fork crown (if necessary)
Make sure you are securing the frame cables while removing the inner cables.
6. Unscrew the base bar assembly screw [13] and take off the base bar from the upper stem [10]
7. Remove the cables from the base bar [12] (if necessary)
 - disassemble the brake cables first with the brake levers
 - disassemble the index cables with the shifters (either for mechanical systems or SHIMANO DI²)
8. Disassemble the extensions and armrest from the base bar
9. Unscrew the steerer screws [11] and remove the upper stem [10] from the fork steerer
10. Disassemble the headset bearings, cups and cones

Cable replacement instruction

1. Detach the cable from the derailleur or brake and pull only the inner cable out.
Make sure you are securing the frame cables while removing the inner cables.
2. Insert a new cable from the shifter or brake lever until it shows up at the connector behind the fork. Pull the inner cable all the way out.
3. For derailleurs or rear brake, pull the Nokon housing carefully straight
Make sure that the both housing end will not move and be pulled inside the frame
4. Insert the inner cable into the Nokon or cable housing carefully until it shows up at the other end
5. Pull the inner cables firmly to compress the all cable routing assembly.
Make sure that every ferrule and cable are in place.
6. Attach the cable to derailleur or brake following their respective instruction.

Vector SLR Seat post & seat clamp

The seatpost design is one of the most aerodynamic and light weight designs available.



Saddle clamp offsets

The Vector SL seat post provides 3 offset choices: -20, 0, +20mm.

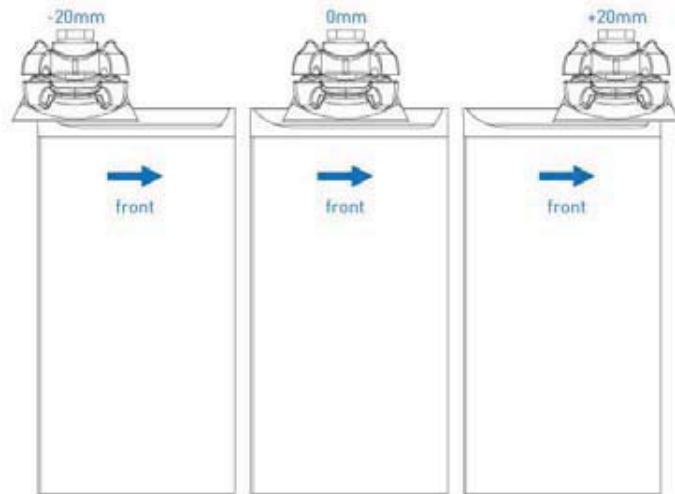


Figure 14 : Vector SLR saddle clamp offsets

For reference, the table below indicates the various effective seat angles at the reference saddle heights:

Frame size	S		M		L	
	E	D1	E	D1	E	D1
Reference saddle height	69 cm		77 cm		85 cm	
P1 (-20mm)	77,535°	502,25	77,495°	524,02	78,535°	534,79
P2 (0mm)	75,644°	519,26	75,823°	539,29	77,009°	549,82
P3 (+20mm)	73,733°	536,33	74,131°	555,60	75,467°	565,21

In addition to the Vector SLR seat post offset adjustments, your saddle rail can slide to achieve your exact saddle position

Vector SLR height adjustment

WARNING To avoid serious injury Vector SLR seat post is designed to be cut at the appropriate length to match your saddle height. Cutting Vector SLR seat post requires extreme caution. For any questions regarding methods of installation, adjustment, maintenance or operation, please contact your Giant dealer.

CAUTION Make sure you have anticipated the saddle offset adjustment as it will influence the saddle height. The seatpost holder is not a traditional seatpost clamp. Pay attention to the recommended torque of 2Nm. Over-tightening the seatpost may result in damaging the frame and the seatpost.

Vector SLR must be cut at the appropriate length and needs to be supported by the frame inner stopper. Once cut, your saddle height can still be increased and be adjusted with the Vector SLR spacers.

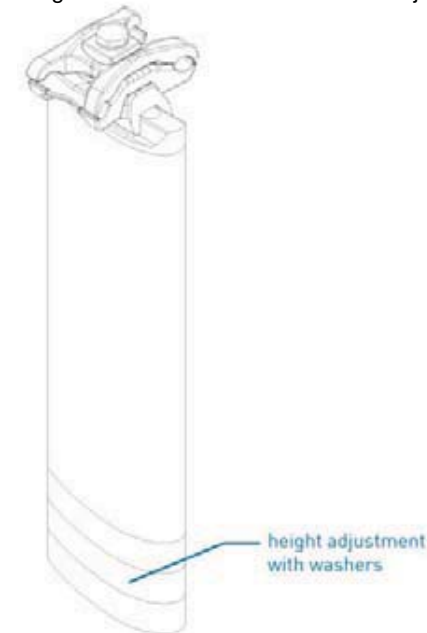


Figure 15 : Vector SLR height adjustment

The rubber seal is necessary to protect dust and projections to get into the clamp mechanism or into the frames tubes. The rubber is not waterproof and will not fully protect against water spray getting into the frame. Make sure to periodically check seatpost, clamp parts and seattube.

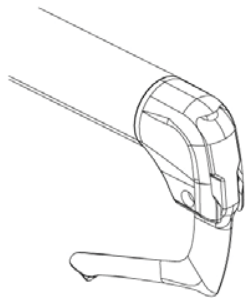
Speed Control braking system

SpeedControl system introduction

SpeedControl is specifically designed for the Trinity Advanced SL. It is impossible to substitute another brake system.

⚠ WARNING To avoid serious injury
Improper use of your bicycle's brake system may result in a loss of control or an accident, which could lead to a severe injury. Because each bicycle may handle differently, be sure to learn the proper braking technique (including brake lever pressure and bicycle control characteristics) with your Trinity Advanced SL. Consult your bicycle dealer and practice your riding and braking technique as necessary.

SpeedControl brake levers



⚠ WARNING To avoid serious injury

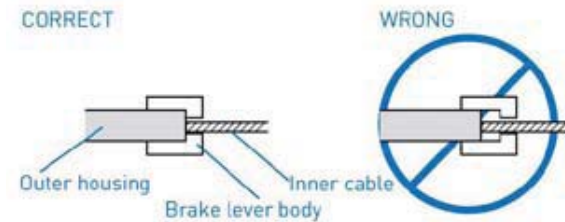
- You must never modify the levers, otherwise the lever may break and the brakes may no longer work as a result.
- Before riding the bicycle, check that there is no damage such as crack or bent. If there is any damage, replace with a new part immediately without trying to repair the damage, otherwise the lever may break and the brakes may no longer work as a result.
- Obtain and read the service instructions carefully prior to installing the parts.

Loose, worn or damaged parts may cause the bicycle to fall over and serious injury may occur as a result.

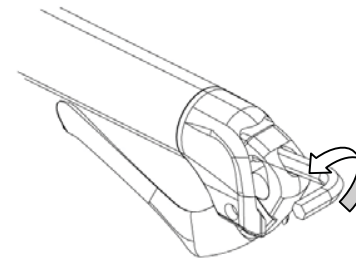
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

Installation instruction:

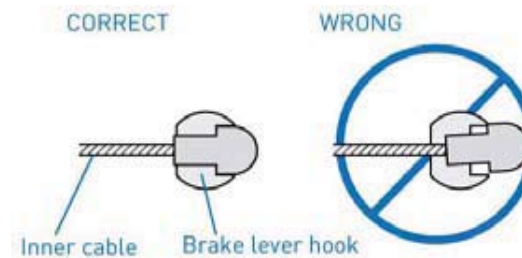
Pass the outer casing through the handlebar, and then adjust its length so that it will fit securely into the outer casing holder when the brake lever is installed.
Report to [Base bar cable routing](#) for additional routing instruction.
Be sure to leave some excess cable, even if cutting it to the full length of the handlebars.



1. Install the brake lever to the handlebar by using a 5 mm Allen key to turn it counterclockwise as shown in the illustration.
Tightening torque: 6 Nm

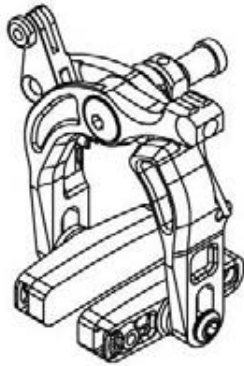


2. Install the inner cable. Make sure that the inner end is firmly seated in the cable hook.

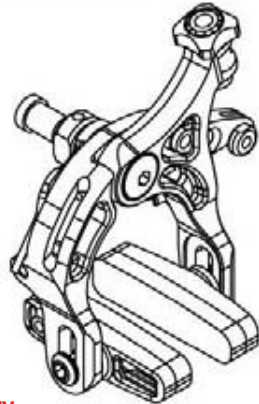


SpeedControl brake calipers

Front brake



Rear brake



! WARNING To avoid serious injury
Securely tighten the caliper brake mounting nuts to the specified tightening torque.
Only use the nuts provided with the SpeedControl brake calipers. Do not use any other nut type.
If the nuts become loose and the brakes fall off, they may get caught up in the bicycle and result in a crash.
Particularly if this happens with the front wheel, the bicycle may be thrown forward and serious injury could result.
Front brake is designed for use as front brake only and rear brake is designed for use as rear brake only. Reversing the brakes main result in poor braking performance and serious injury in case of malfunction.
Obtain and read the service instructions carefully prior to installing the parts.
Loose, worn, or damaged parts may cause serious injury to the rider. We strongly recommend only using genuine GIANT replacement parts. Be careful not to allow any oil or grease to get onto the brake pads. If any oil or grease does get on the pads, you should replace the pads, otherwise the brakes may not work correctly.
Control regularly the rim braking surface as braking safety and performance may be affected. Be careful not to allow any oil or grease onto the rim braking surface. Check and clean the rims frequently respecting the rim manufacturer recommendations.
Check the brake cable for rust and fraying and replace the cable immediately if any such problems are found. If this is not done, the brakes may not work correctly.
Always make sure that the front and rear brakes are working correctly before you ride the bicycle.
The required braking distance will be longer during wet weather. Reduce your speed and apply the brakes early and gently.
If the road surface is wet, the tires will skid more easily. If the tires skid, you may fall off the bicycle. To avoid this, reduce your speed and apply the brakes early and gently.
Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

Installation instruction:

1. Install the brake caliper to the front fork or to the frame with the specific nut.
Tightening torque: 8 – 10 Nm

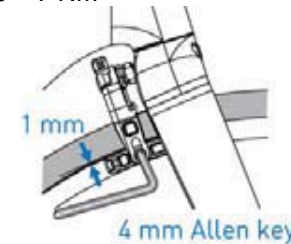
5mm Allen key



5mm Allen key

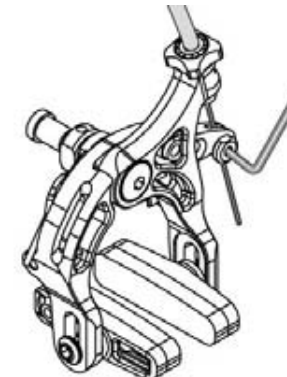


2. Brake pads alignment
After adjusting the brake pads so that the pad surface and the rim surface are as shown in the illustration, tighten the shoe fixing bolt.
Tightening torque: 5 – 7 Nm



3. Inner cable attachment
Adjust the pads clearance (as shown in the illustration below) and secure the cable.
Use the barrel to adjust the shoes clearance and get the appropriate brake feel.
Tightening torque: 6 – 8 Nm

2mm Allen key

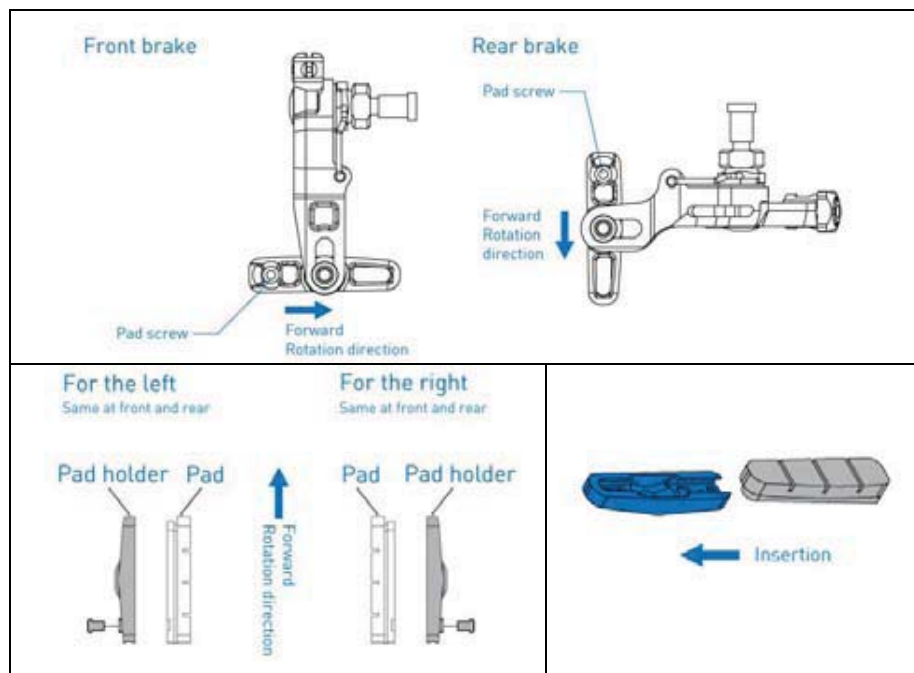


Brake pads replacement instruction:

⚠ WARNING To avoid serious injury
 Brake pads are subject to wear. Before riding the bicycle, check that the pads wear indicator is still visible (grooves). If the brake pads have worn down until the grooves are no longer visible, they should be replaced.

SpeedControl brake pad cartridges are designed following Shimano standards.
 In order to insure the best braking efficiency and to avoid rim damage, please refer to the rim or wheel instruction manual. Carbon or aluminum rims require different pad quality. Make sure you have assembled the correct pads correctly.

There are two different types of pad and pad holder to be used in the left and right positions respectively. Slide the new pads into the grooves on the pad holders while taking note of the correct directions and bolt hole positions. Tightening torque: 1,5 Nm

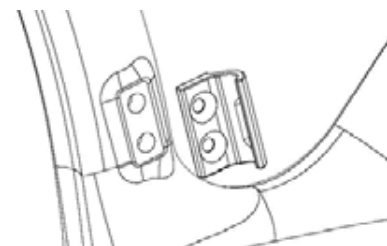


Derailleur hangers

⚠ WARNING To avoid serious injury
 Front and rear derailleur hangers are removable in order to let you replace them after damage.
 • You must never modify the hangers, otherwise the derailleurs mount may be unsecured and result in poor shifting performance. If the hanger or derailleur becomes loose, the parts may fall off and may get caught up into the rear wheel, causing a crash.
 • Before riding the bicycle, check that there is no damage such as crack or bent. If there is any damage, replace the hanger with a genuine GIANT hanger.

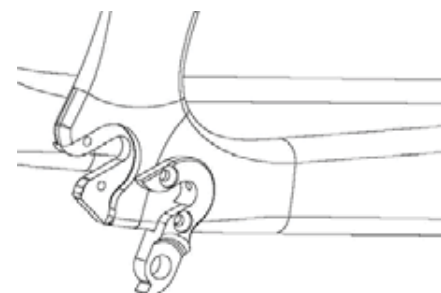
Front derailleur replaceable hanger plate

The front derailleur hanger is assembled with 2 screws.
 Thread compound is recommended to avoid the screws to get loose.
 Tightening torque: 4 Nm



Rear derailleur replaceable dropout hanger

The rear derailleur hanger is assembled with 2 screws.
 Thread compound is recommended to avoid the screws to get loose.
 Tightening torque: 4 Nm



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.

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 Giant authorized dealers should complete the sophisticated process.

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

BB Adapter Model	Chainwheel/Crank Model
SHIMANO ISMC7800P	SHIMANO HollowTech II
FSA BB-AL86	FSA MEGAEXO Alloy Series
FSA BB90-CF86 Ceramic	FSA MEGAEXO Carbon Series
FSA BB90-CF86	FSA MEGAEXO Carbon Series
SRAM BB	SRAM GXP Series
CAMPAGNOLO IC9-RE41	ULTRA TORQUE SERIES

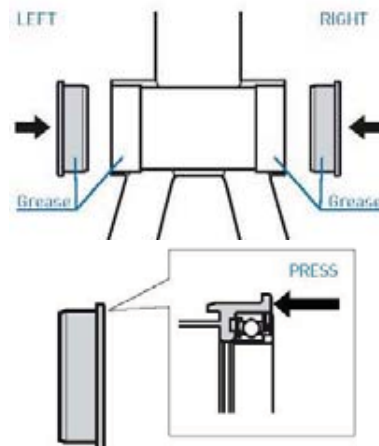
Installation

Step 1:

1. Apply neutral grease inside the frame's bottom bracket cups
2. Then install the left and right-hand press-fit BB adapters
3. Press-fit the adapters by tightening them in a vise, 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.



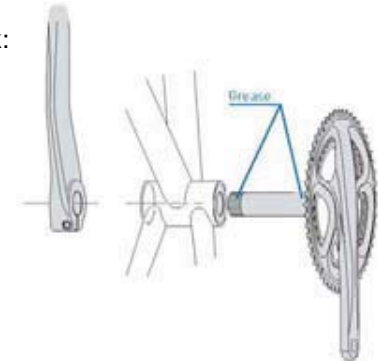
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Step 2:

Installation of the front chainwheel/crank:

NOTE: Make sure to follow the installation instructions provided by the manufacturers of the chainwheel/crank.

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



Removing

Push out firmly from the inside using a blunt tool.

NOTICE: 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

Warranty

Please refer to the Giant Owner's Manual or visit our Web site: www.giant-bicycles.com for complete provisions of the warranty.

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