

TECHNICAL MANUAL

A person wearing a helmet and cycling gear is riding a mountain bike on a rocky trail. The background shows a hilly landscape under a blue sky. The entire image has a blue tint.

BLUE PAPER KERAM BOSCH GEN4

2020

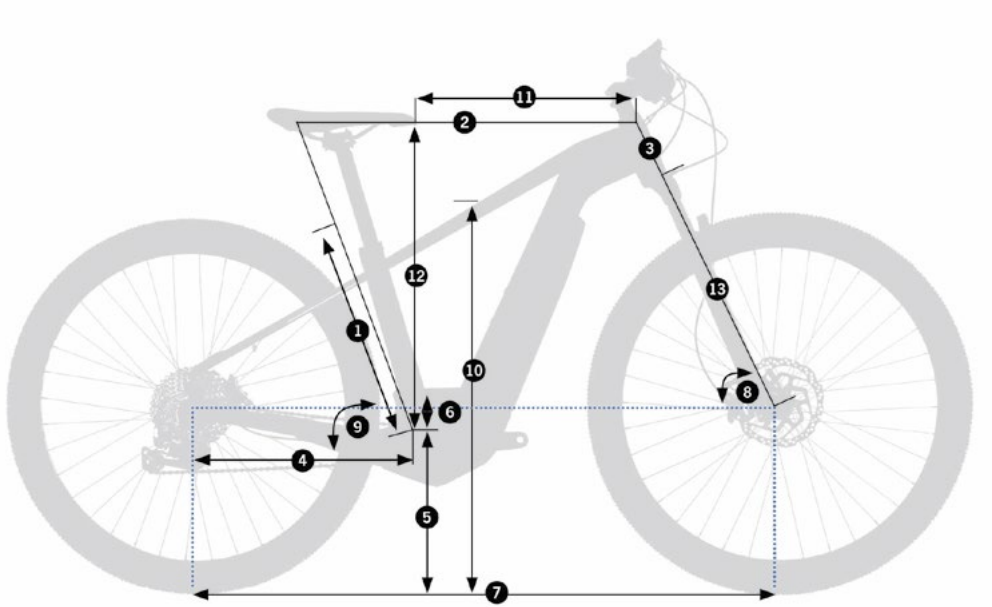
ORBEA



INDEX

GEOMETRY & ERGONOMY	4
TECHNICAL SPECIFICATIONS	6
HEADTUBE AND HEADSET	8
REAR DERAILLEUR	9
PROTECTORS	10
CABLING	13
BOSCH GEN4 MOTOR ASSEMBLY	15
INTERNAL BATTERY ASSEMBLY	16
DUAL BATTERY ASSEMBLY	17
MAINTENANCE	20
ORBEA WARRANTY	22

GEOMETRY & ERGONOMY



SIZE	S-27,5"	M-29"	L-29"	XL-29"
1 - Seat tube (c-t)	400	405	457	515
2 - Top tube (eff)	538	569	603	638.4
3 - Head tube	105	114	133	158
4 - Chainstay	475	475	475	475
5 - Bb height	307	313	313	313
6 - Bb drop	43	63	63	63
7 - Wheelbase	1112	1149	1173	1210
8 - Head angle	67°	67°	68°	68°
9 - Seat angle	73°	73°	73°	73°
10 - Standover heigh	798	825	861	893
11 - Reach	355	375	402	430
12 - Stack	600	636	659	752
13 - Fork length	518	530	530	530

* The headtube angle measurement on MTB, Asphalt and Comfort models may change slightly depending on the travel of the fork specificated.

HEIGHT (CM)	HEIGHT (IN)	SIZE
150-165	59.1"-65.0"	S-27.5"
165-175	65.0"-68.9"	M-29"
175-185	68.9"-72.8"	L-29"
185-195	72.8"-76.8"	XL-29"

* The sizing measurements are orientative.

TECHNICAL SPECIFICATIONS

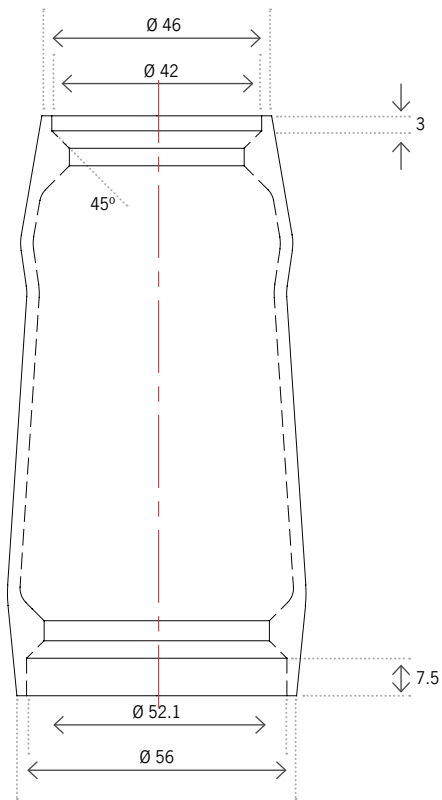
NOTE: This technical document describes the Keram models (MTB, Asphalt and Comfort) equipped with a Bosch Gen4 motor. For 2019 and onwards models equipped with a previous generation Bosch motor, consult the technical document Bluepaper Keram 2019 from the manuals section of the Orbea's website.

FRAME MATERIAL	ALUMINUM
INTENDED USE	MTB: CROSS COUNTRY, TRAIL
	ASPHALT: URBAN, LEISURE
	COMFORT: URBAN, LEISURE
SIZES	S,M,L,XL
FORK TRAVEL	MTB: 100MM O 120MM
	ASPHALT: RIGID FORK
	COMFORT: 63MM
WHEEL SIZE	700C-29"
MAX. TYRE SIZE	29"X2.4
FORK OFFSET	42MM OR 51MM. DEPENDING ON MODEL
BOTTOM BRACKET	MOTOR BOSCH GEN4
HEADSET	INTEGRATED 1 1/8-1 1/2
REAR AXLE STANDARD	135MM X 9MM QR
SEATPOST DIAMETER	31.6MM
SEATPOST CLAMP DIAMETER	34,9MM SPECIFIC KERAM 19 FRAME
FRONT DERAILLEUR	N/A. 1X ONLY
CHAINRING MAXIMUM SIZE	38T
MAXIMUM CRANK LENGHT	170MM
BRAKES	DISCO POST MOUNT *
REAR ROTOR MX. SIZE	180MM
REAR ROTOR MIN. SIZE	160MM

CHAINGUIDE	NO
ICGS	NO
CABLING	INTERNAL (FULL SLEEVE)
LEFT-ROAD CABLING READY	YES. ALL CABLES ENTER THE FRAME ON THE LEFT SIDE
BOTTLE HOLDER	1. ALL SIZES
COMPATIBLE DI2	NO
COMPATIBLE SRAM AXS	YES
DRIVETRAIN COMPATIBILITY	10, 11 AND 12 SPEED
COMPATIBILIDAD POTENCIÓMETRO	NO
INTERNAL BATTERY	YES. IN DOWNTUBE. 400WH OR 500WH. BOSCH POWERPACK
DUAL BATTERY OPTION	YES. ONLY AS A COMPLETE OPTION AT THE MOMENT OF PURCHASE. NOT COMPATIBLE WITH SIZE S FRAME
MOTOR	ONLY BOSCH GEN4 AND GEN3 (USES DIFFERENT MOTOR MOUNTING PLATES)
DISPLAY BOSCH	PURION
MOTOR ASSEMBLY ANGLE	6,5º

** Not all calipers and rotors in the market are compatible with all frames. All componets specificated from Orbea have been tested. For aftermarket options, check componentes dimensions and tolerances before purchasing.*

HEADTUBE AND HEADSET



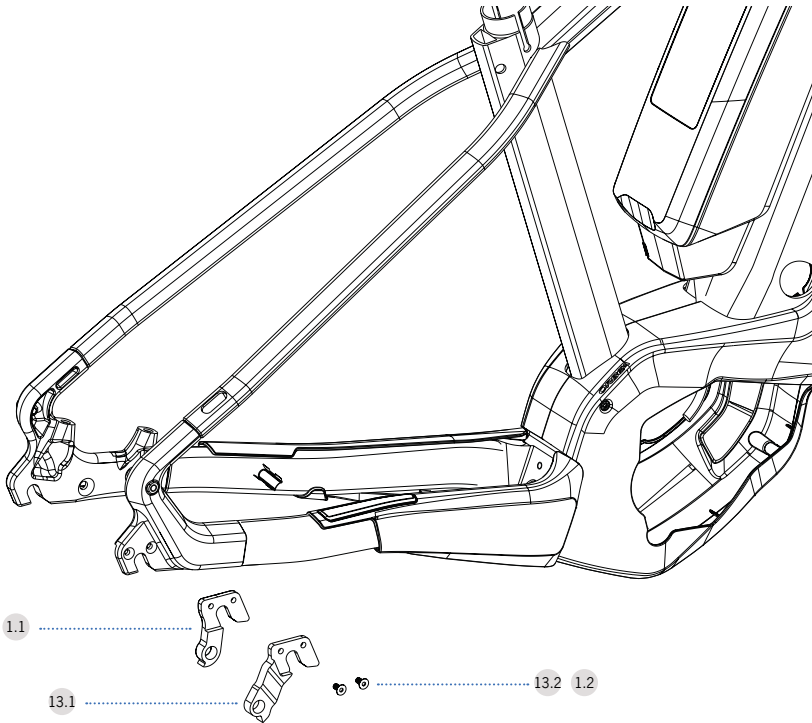
HEADSET 1 1/8-1 1/2 INTEGRATED (INCLUDES TOPCAP AND STARNUT)

KIT N°: Y0000127	QUANTITY
HEADSET 1 1/8-1 1/2 INTEGRATED	1

1 1/8 LOWER BEARING ADAPTOR (FOR 1 1/8 STRAIGHT STEERER TUBE FORKS)

ART N°: 14031591	QUANTITY
1 1/8 LOWER BEARING ADAPTOR	1

REAR DERAILLEUR



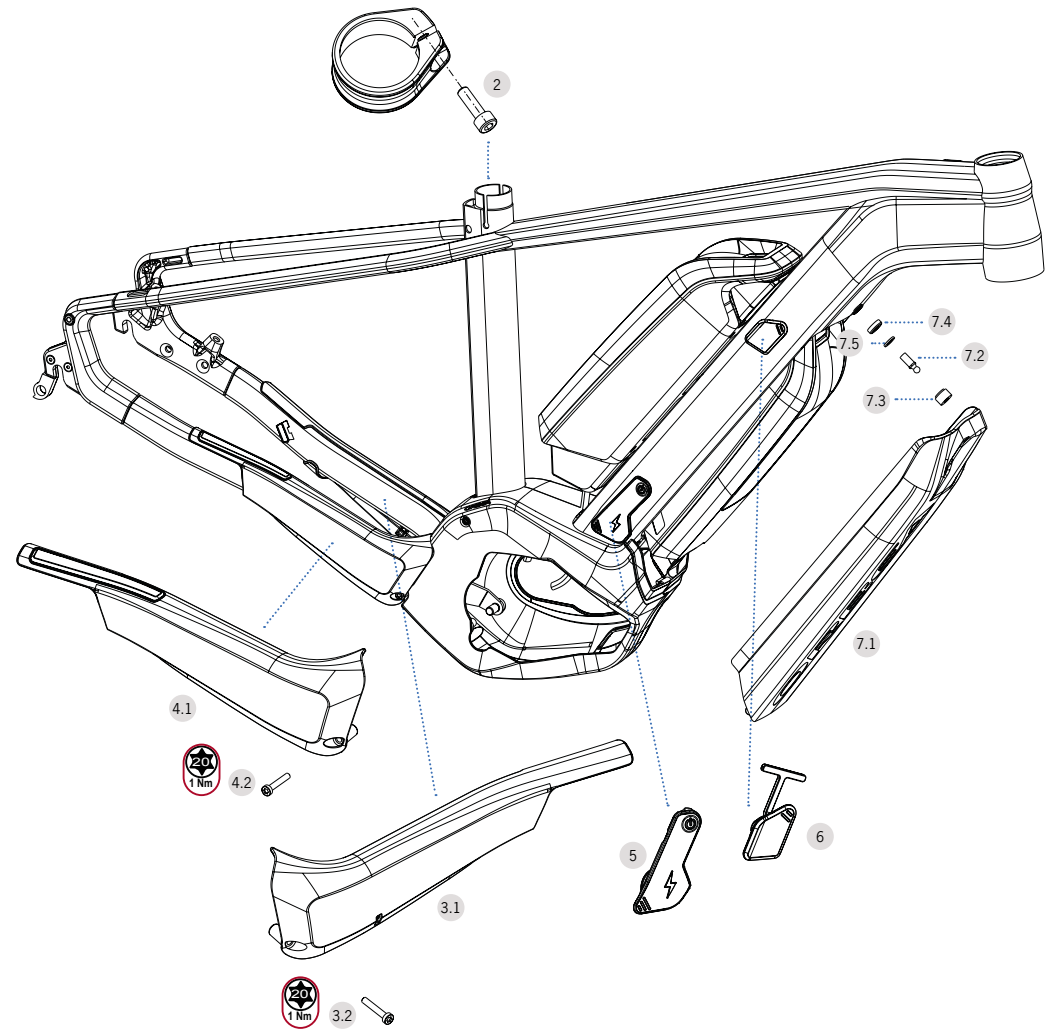
QR STANDARD REAR DER. HANGER

01	KIT N°: Y0000117	QUANTITY
1.1	QR STANDARD REAR DER. HANGER	1
1.2	BOLT M4x9	2

QR DIRECT MOUNT REAR DER. HANGER

13	KIT N°: Y0000118	QUANTITY
13.1	QR DM REAR DER. HANGER	1
13.2	BOLT M4x9	2

PROTECTORS



KERAM 19 SEATPOST CLAMP

02	ART N°: 11160252	QUANTITY
	KERAM 19 SEATPOST CLAMP	1

LEFT CHAINSTAY PROTECTOR

03	KIT N°: Y0000224	QUANTITY
3.1	LEFT CHAINSTAY PROTECTOR	1
3.2	BOLT M4x25	1

RIGHT CHAINSTAY PROTECTOR

04	KIT N°: Y0000225	QUANTITY
4.1	RIGHT CHAINSTAY PROTECTOR	1
4.2	BOLT M4x25	1

CHARGING PORT RUBBER PROTECTOR

05	ART N°: 11000468	QUANTITY
	CHARGING PORT RUBBER PROTECTOR	1

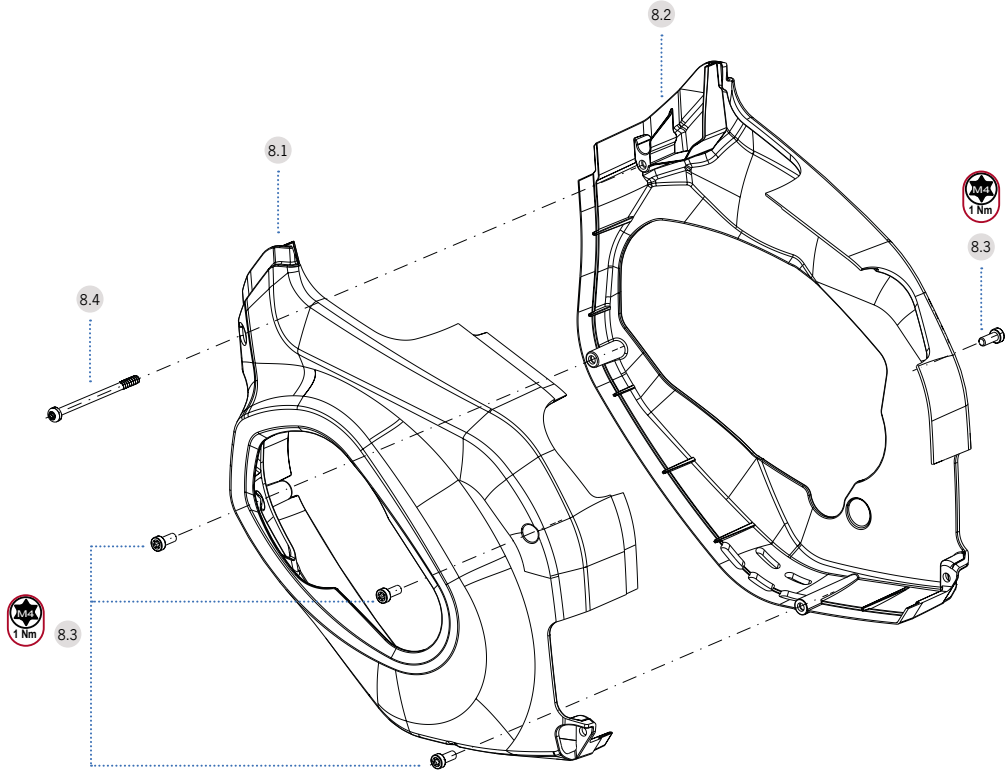
BATTERY KEYHOLE RUBBER PROTECTOR

06	ART N°: 11000467	QUANTITY
	BATTERY KEYHOLE RUBBER PROTECTOR	1

BATTERY COVER KIT

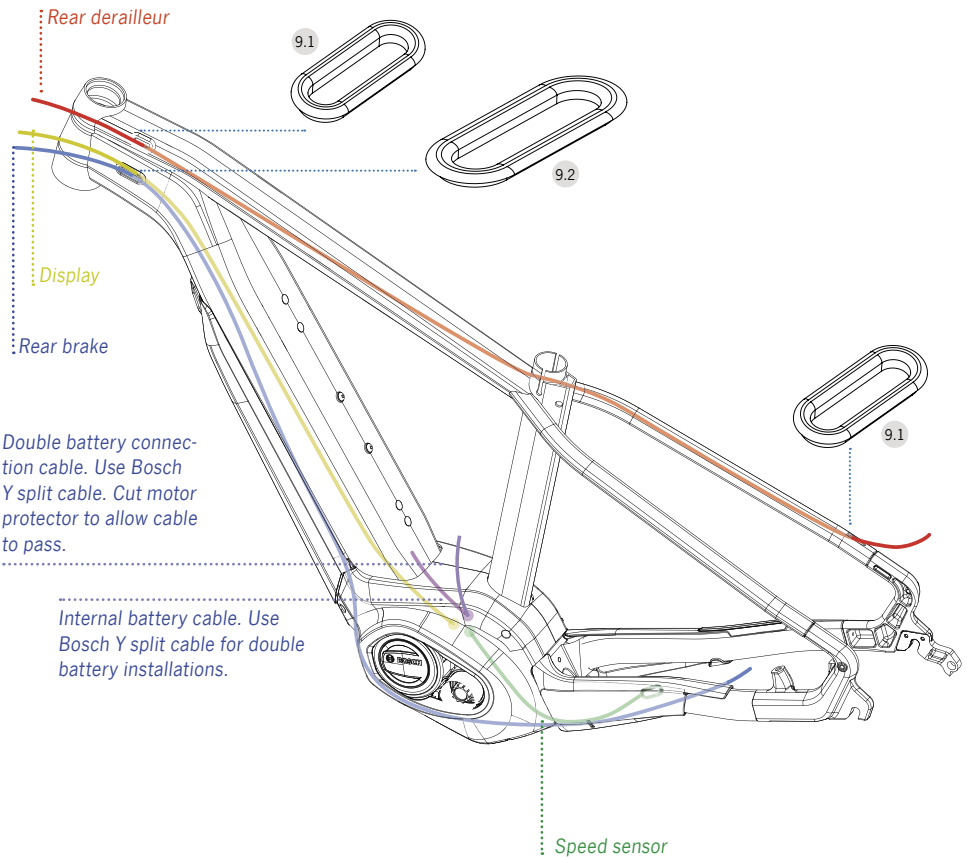
07	KIT N°: Y0000226	QUANTITY
7.1	BATTERY COVER KERAM 19 BLACK	1
7.2	BATTERY COVER LOCK MALE	1
7.3	BATTERY COVER LOCK FEMALE	1
7.4	WASHER 4,5mm	1
7.5	WASHER M6	1

CABLING



KERAM BOSCH GEN4 MOTOR PROTECTOR

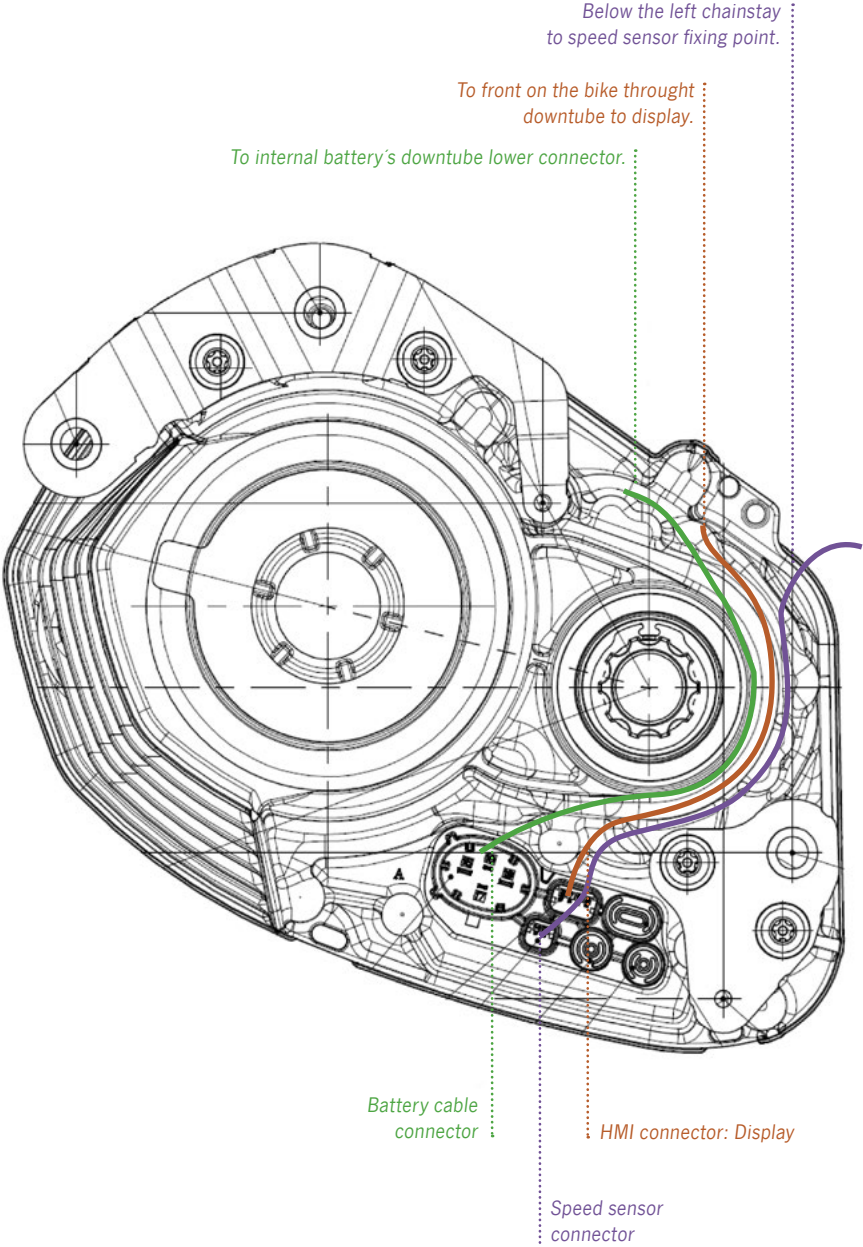
08	KIT N°: Y0000223	QUANTITY
8.1	RIGHT MOTOR PROTECTOR	1
8.2	LEFT MOTOR PROTECTOR	1
8.3	BOLT M4x10	4
8.4	BOLT M4x60	1



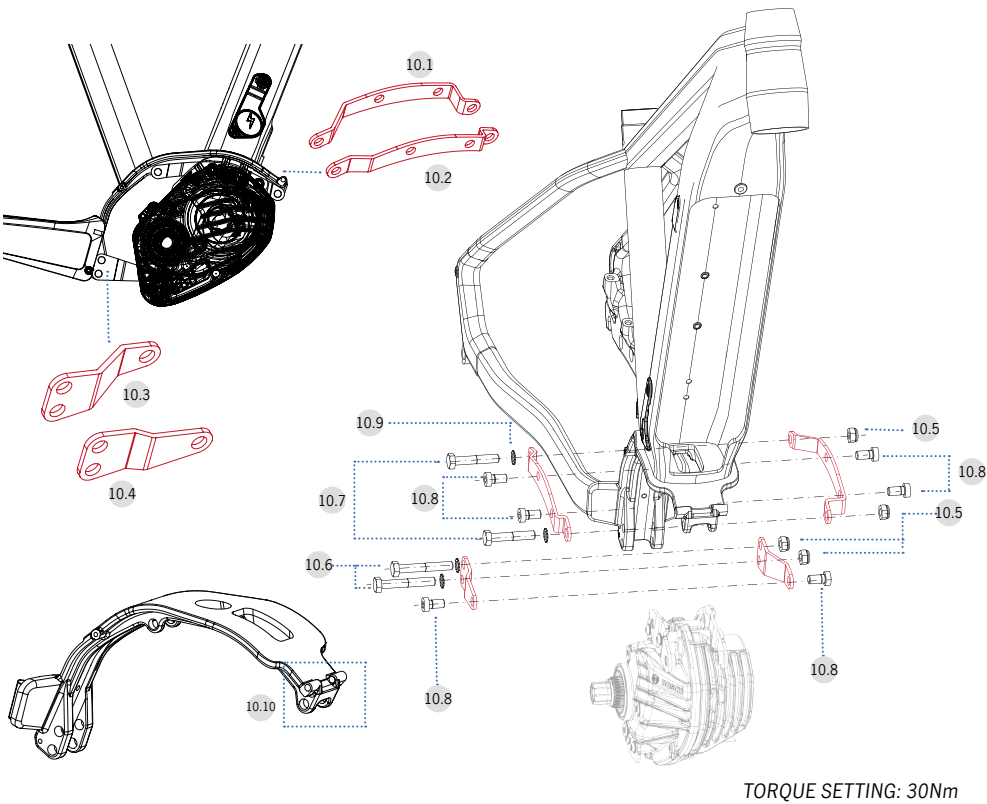
KERAM 19 CABLEGUIDE KIT

09	KIT N°: Y0000227	QUANTITY
9.1	RUBBER GROMMET 2mm 22x8	2
9.2	RUBBER GROMMET 5mm 30x10	1

ALL CONNECTIONS ARE MADE ON THE NON-DRIVE
SIDE OF THE MOTOR



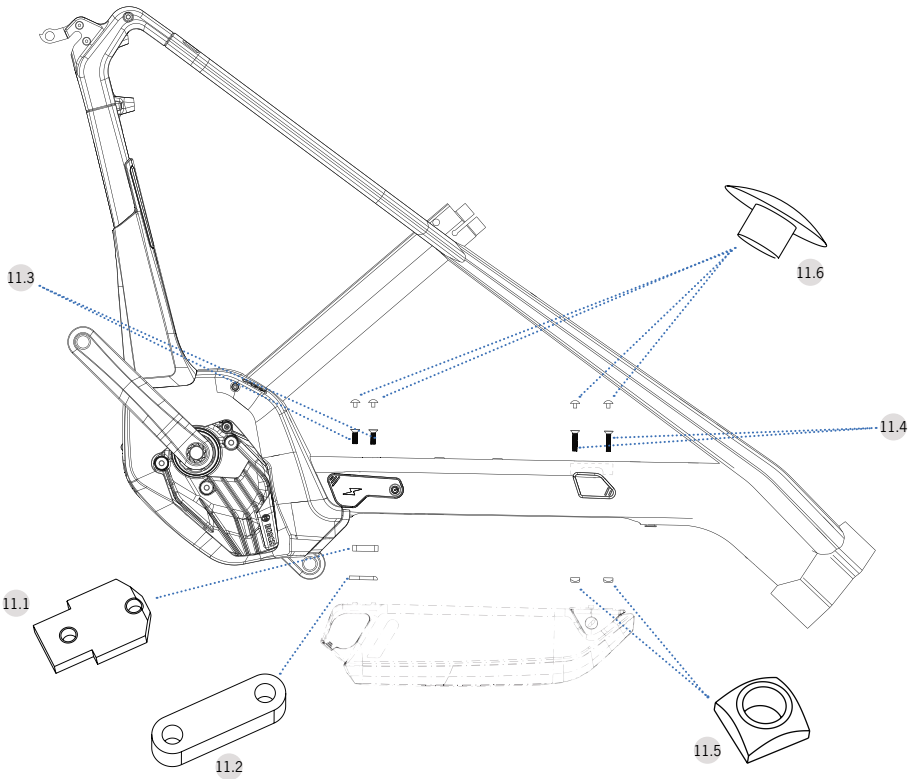
BOSCH GEN4 MOTOR ASSEMBLY



BOSCH GEN4 MOTOR ASSEMBLY KIT

10	KIT N°: Y0000228	QUANTITY
10.1	BOSCH G4 ASSEMBLY PLATE LONG LEFT	1
10.2	BOSCH G4 ASSEMBLY PLATE LONG RIGHT	1
10.3	BOSCH G4 ASSEMBLY PLATE SHORT LEFT	1
10.4	BOSCH G4 ASSEMBLY PLATE SHORT RIGHT	1
10.5	NUT M8	4
10.6	BOLT M8x55	2
10.7	BOLT M8x50	2
10.8	BOLT M8x16	6
10.9	TOOTHED WASHER M8	4
10.10	SPACER 20.2mm	2

INTERNAL BATTERY ASSEMBLY



INTERNAL BATTERY ASSEMBLY HARDWARE KIT
BOSCH OR ABUS COMPONENTS NOT INCLUDED.

11	KIT N°: Y0000229	QUANTITY
11.1	THREADED BATTERY LOWER MOUNT PLATE	1
11.2	SPACER 6,5mm LOWER BATTERY MOUNT	1
11.3	BOLT M5x18	2
11.4	BOLT M5x30	2
11.5	M5 SQUARE NUT	2
11.6	RUBBER ALLEN BOLT HEAD COVER	4

DUAL BATTERY ASSEMBLY

The complete external battery connection kit is only available as an option when purchasing a keram from Orbea.

For bikes that were purchased with the internal battery only, Orbea will facilitate the components that are Orbea's own and specific to the Keram frame for the installation of the external battery. These items are included in the kit Y0000230.

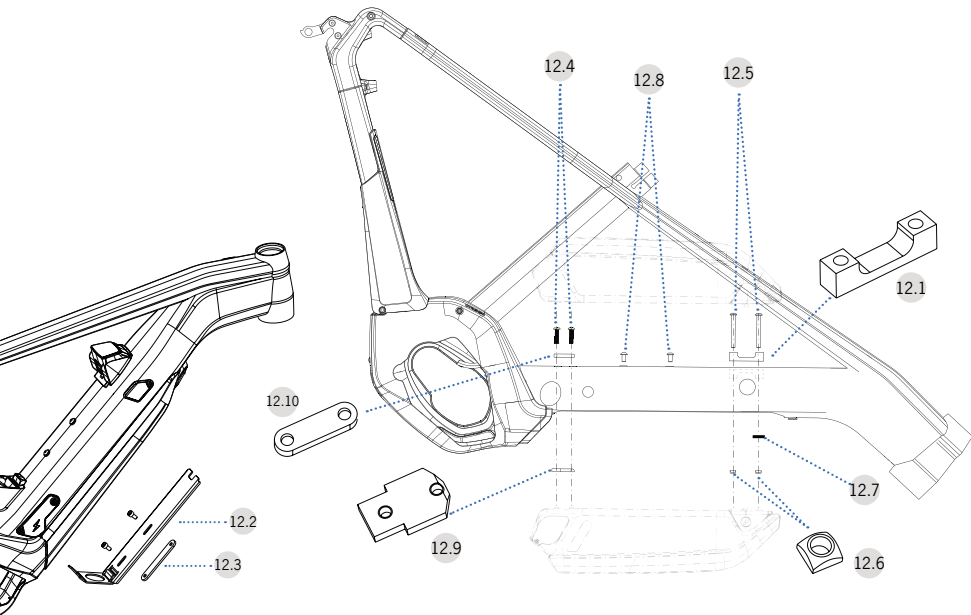
The electric components, like cables and powerpack battery brackets, as well as the locks, may be purchased through a Bosch or Abus distributor. These components are in the next page. Contact your Abus and Bosch ebike dealer to know the exact list of components needed for the installation of a powerpack dual battery system.

The installation of these components needs an advanced mechanical and electrical knowledge and can only be performed by a certified Orbea dealer.

The use of a dual battery requires the electric system to be updated for the correct operation of all components. This update must be carried out by a Bosch ebike dealer.

The dual battery option is not compatible with size S Keram frames.

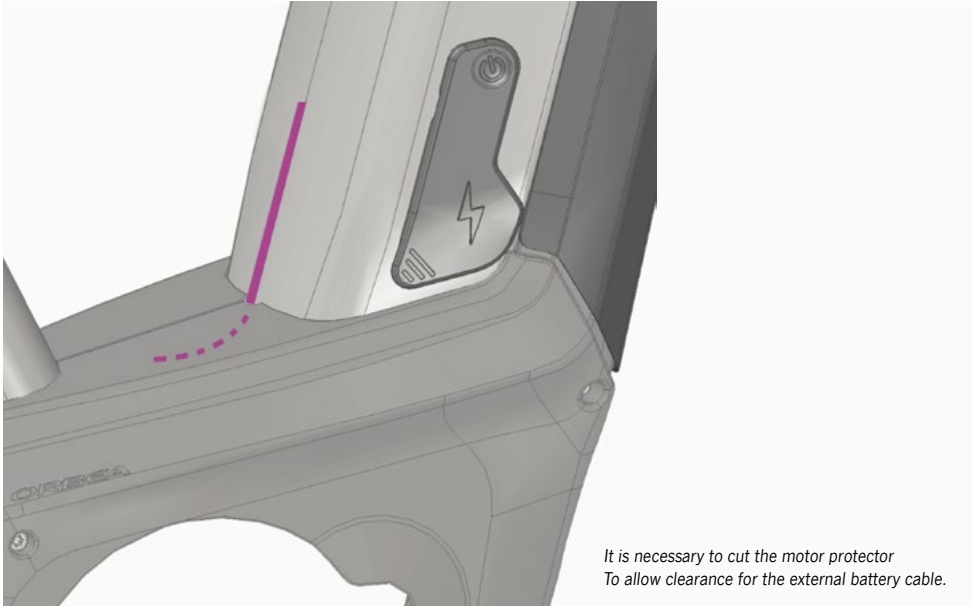
The aftermarket assembly of the dual battery option is only compatible with Keram frames equipped with a Bosch Gen4 motor. Orbea cannot guarantee the components compatibility on Keram frames with a Bosch GEN3 motor.



DUAL BATTERY ASSEMBLY HARDWARE KIT
BOSCH OR ABUS COMPONENTS NOT INCLUDED

12	KIT N°: Y0000230	QUANTITY
12.1	U SHAPED TOP BATTERY BRACKET SPACER	1
12.2	BOTTLE HOLDER PLATE DUAL BATTERY	1
12.3	THREADED PLATE BOTTLE HOLDER	1
12.4	BOLT M5x20	2
12.5	BOLT M5x45	2
12.6	M5 SQUARE NUT	2
12.7	M5 TOOTHED WASHER	1
12.8	BOLT M5x15 BOTTLE HOLDER	2
12.9	THREADED BATTERY LOWER MOUNT PLATE	1
12.10	SPACER 6,5mm LOWER BATTERY BRACKET.	1

* Not included. Already on bike or on internal battery hardware kit.



It is necessary to cut the motor protector
To allow clearance for the external battery cable.

ABUS COMPONENTS	REFERENCE	DESCRIPTION
POWERPACK LOCK PLUS + KEY When ordering the new lock, facilitate your abus distributor the Key number on your wild fs so the new lock is made to match the key, Enabling you to use the same key for both batteries.	33261	BLO BOS DT2 PLUS

BOSCH COMPONENTS	REFERENCE	DESCRIPTION
STANDARD BATTERY CABLE	1.270.015.067	Battery Cable Standard
LOWER POWERPACK BATTERY HOLDER LEFT	0.275.007.425	Battery holder kit
LOWER POWERPACK BATTERY HOLDER RIGHT		
SCREW 3,5x12 (x2)		
ALUMINUM BRACKET HOLDER	0.275.007.426	Mounting set for bracket battery frame
BATTERY BRACKET BOLT (x2)		
PLASTIC CASING LOCK TOP	1.270.020.605	Kit plastic casing lock frame
PLASTIC CASING LOCK BOTTOM		
SCREW 3,5x12 (x1)		
BOLT M5x12 (x2)		
CABLE "Y" DUAL BATTERY 515/430mm	0.275.007.930	Bosch Dual Battery Y-Adapter kit
CHARGING SOCKET BLANK PLUG (x2)		
TAPÓN PIN SOPORTE BATERÍA		

MAINTENANCE

Orbea products are carefully designed to be long-lasting, efficient and easy to maintain. The carbon and aluminum frames on the Keram are extremely corrosion-resistant. However, your Orbea bicycle needs regular maintenance of its components in order to work properly and to ensure their longevity.

1) KEEP YOUR KERAM CLEAN

Washing your bike with mild soap and water will keep you looking stylish and allow you to check the condition of the frame and components. Don't use high water pressure and avoid spraying water into bearings or frame tubes. Citrus degreasers are biodegradable and do a great job of removing dirty grease from gears and chain.

2) KEEP YOUR KERAM LUBED

Once your bike is clean, it's a good time to put fresh lube on the chain. Use only enough to get inside the links and wipe off any excess because it will attract dirt. Headset and pivot bearings should be inspected every few months for smoothness and to ensure that the seals are intact and lube is clean.

3) INSPECT YOUR KERAM BEFORE YOU RIDE

Do a quick check before every ride to make sure your bike is in excellent condition. It is very common to discover small issues at home that can become big problems on the trail. **CHAIN** Is the chain dirty, noisy or dry? Clean and lube your chain before riding. **BRAKES** Check your brakes to make sure they are working correctly. Check for missing/ loose caliper and rotor bolts. **TIRES** Look for damage to the sidewalls of your tires. Check and adjust tire pressure. **WHEELS** Spin the wheels and look for wobbles, check for loose or broken spokes. Check quick release levers to make sure they are functioning properly. **FRONT END** Stand over the saddle, pull on the brakes and rock the bike back and forth. Feel for any play or knocking that might indicate a loose headset, loose brake rotors or calipers, or worn fork bushings.

TEST RIDE Take a quick ride up and down the street to make sure your bike is shifting and braking properly. Listen for unusual noises.

4) BEARINGS

Bearings are one element subject to wear and tear. They must be in good condition to ensure that the other parts of the bicycle work correctly: on the wheels, the steering column and the bottom bracket.

Regularly check to make sure that the bearings turn freely in their housing and there are no signs of lateral play. Bearings that do not turn properly or that have any lateral play must be replaced immediately in order to prevent wear and tear to the parts of the frame. Very damp weather conditions can cause the bearings to wear out faster. Avoid washing your bicycle with pressurized water hoses. If you have any questions, take your bicycle to an Orbea dealer for correct diagnosis and maintenance.

5) BOSCH EBIKE ELECTRIC SYSTEM

Ebikes' electric systems use complex electronic components that require your attention. Always read the available documentation before using your ebike and follow the recommended use and maintenance instructions.

This documentation will allow you to get the maximum performance out of your ebike.

To know more about the Bosch system on your Keram, go to:

<https://www.bosch-ebike.com/>

AFTER A CRASH OR IMPACT

Falling is part of riding and it's impossible to avoid minor accidents. If you crash your Keram, please make sure you are okay and seek medical attention if necessary. If you are not injured, you should check your bike before continuing:

1) Inspect your frame and components for damage.

Do not ride your bike if any problems are detected.

WHAT TO LOOK FOR

Inspect Frame and fork for evidence of cracking or bending. If cracks are discovered, discontinue use immediately.

Check the drivetrain and spin the wheels to make sure components are operating correctly. If you discover damage to your components, discontinue use immediately.

Even if you don't find any damage, pay careful attention to the sound of your bike when you continue riding. Unusual noises can be caused by cracks or other problems. A well-maintained bike will be quiet and free of creaks or squeaks. Investigate and locate the source of any new noises.

2) Bring your bike to your Orbea dealer for professional inspection. Some damage can only be detected by disassembling the bike to check for cracks or other signs of stress.

A crash or impact can put extraordinary stress on your bike and components, causing them to fail or to fatigue prematurely. Failure can happen suddenly with no warning, causing loss of control, serious injury or death.

ORBEA WARRANTY

The constant effort we make every day to produce the highest quality bicycles enables us to offer the following warranty and coverage conditions:

LEGAL WARRANTY

Orbea guarantees its products by law for a period of 2 years or whatever has been stipulated as the legal warranty period in the country where the purchase was made, to the original owner of the bicycle/component.

This warranty covers Orbea products against manufacturing defects and/or lack of conformity and guarantees the repair or replacement of the defective product at no cost to the affected customer. Likewise, this warranty also covers paint, varnish and corrosion defects on all frames and rigid forks assembled on our bicycles during the period specified in the first paragraph of this warranty.

This warranty does not cover in any case damage derived from misuse or the lack of maintenance, or from the normal wear and tear of perishable parts, such as, but not limited to: seals, bearings, handlebar tape, spokes, hub, threads, tires, seat, etc.

See the full description of the coverage and the legal warranty conditions at:
<https://www.orbea.com/int-en/warranty-benefits/>

ORBEA LIFETIME WARRANTY

As a complement to the legal warranty, Orbea offers the original buyer of the bicycle, under the condition of having registered their bicycle on the Orbea website within a period of 30 days following its purchase, the Orbea Lifetime Warranty, which covers the frames and rigid forks we assemble on our bicycles, with no time limit, against manufacturing defects.

This warranty extends the original period of coverage against paint, varnish or corrosion defects on our frames and rigid forks for one additional year after the end of the legal warranty period.

See the full description of the coverage and the Lifetime Warranty conditions at:

<https://www.orbea.com/int-en/warranty-benefits/>

REGISTER YOUR BICYCLE

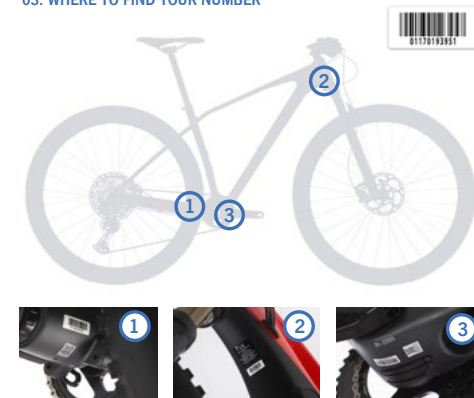
In order to benefit from the extension of the Orbea Lifetime Warranty, register your bike within the first 30 days of having purchased it at www.orbea.com

01. REGISTER YOUR ACCOUNT



02. REGISTRATION NUMBER

03. WHERE TO FIND YOUR NUMBER



WARRANTY CLAIM PROCESS

All warranty claim processes must be processed through an Orbea dealer, who will provide the company with the necessary documentation for the diagnosis of said claim. The dealer will inform the customer of the decision made by Orbea.

BOSCH EBIKE PRODUCTS

Bosch ebike components are covered by a two year warranty from the moment of purchase. Consult the complete warranty terms and conditions on <https://www.bosch-ebike.com/>

For any question or claim about the Bosch system on your Wild HT, contact your Orbea dealer.

ADDITIONAL INFORMATION

ORBEA participates actively on facebook and Twitter with our fantastic global community of riders. Looking to find spots to ride or plan a vacation? Someone will have the answers:

FACEBOOK

www.facebook.com/OrbeaBicycles

TWITTER

www.twitter.com/Orbea/

YOUTUBE

Visit our Orbea Channel on You Tube for a variety of helpful setup and tech videos:

www.youtube.com/user/OrbeaBicycles

INSTAGRAM

www.instagram.com/orbeabicycles

ORBEA CONTENT

View and download photos, videos and documents.

content.orbea.com/us-en/

BLOG ORBEA

www.orbea.com/es-es/blog/

YOUR ORBEA DEALER

Our dealers are experts and should be able to assist you with setting up and maintaining your Orbea bicycle. A complete listing of Orbea dealers and distributors can be located on our website:

www.orbea.com/us-en/dealers/?country=INT

SUPPORT

For technical questions about Orbea products, write to:
support@orbea.com

For any other question:
orbea@orbea.com



ORBEA

WWW.ORBEA.COM