ADDITIONAL INSTRUCTIONS FOR CUBE CARBON FRAME AND (FULL-) CARBON FORKS

C:68X / C:62 / GTC / HPC

ENGLISH

Company details

Manufacturer:

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CUBE
C:68X / C:62 / GTC / HPC

MODEL OVERVIEW

CUBE **LITENING**	**C:68 X**
CUBE **AGREE**	**C:62**
CUBE **ATTAIN**	**GTC**
CUBE **AXIAL**	**C:62 / GTC**
CUBE **AERIUM**	**C:62 / C:68**
CUBE **ELITE**	**C:68 X**
CUBE **REACTION**	**GTC / C:62**
CUBE **ACCESS**	**GTC / C:62**
CUBE **STEREO 120**	**HPC**
CUBE **STEREO 140**	**C:62 / C:68**
CUBE **STEREO 140 HYBRID**	**HPC**
CUBE **STEREO 160**	**C:62 / C:68**
CUBE **STEREO 160 HYBRID**	**HPC**
CUBE **AMS 100**	**C:62 / C:68**
CUBE **AGREE HYBRID**	**C:62**
CUBE **ELITE HYBRID**	**C:62**
CUBE **STEREO 120 HYBRID**	**C:62**
CUBE **NUROAD HYBRID**	**C:62**

and (full-) carbon forks

Status: January 2021

IMPORTANT NOTES!
CUBE C:68X/ C:62 / GTC / HPC

- This document must be read carefully prior to assembly and use of the frame/entire bike and should be observed accordingly.
- These instructions are additional operating instructions for the C:68X / C:62 / GTC / HPC Series and (full) carbon forks.
- Please also observe the main Instruction Manual! If you do not have this please request it from the dealer.

STEREO HYBRID 160 HPC

CUBE LITENING C:68X SLT

Content

Dear Customer

We would like to thank you for your choice of a bike from our Company and thank you for your trust. With this purchase you have a high-quality, environmentally friendly means of travel which will give you a lot of pleasure and at the same time promote your health.
Your cycle dealer is also very important to you for advice and final assembly. He is your point of contact for servicing, inspections, modifications and all types of repairs. Should you have any questions regarding our product please contact your cycle dealer.

1 About this Owner's Manual

1.1 Conventions

1.1.1 Symbol

!	**Note!** Draws your attention to items requiring your particular attention.
	**Warning!** Points out to you the possibility of slight personal injury and possible material damage.
	**Danger!** Points out to you the possibility of grave personal injury even leading to death.
Torque	Also called tightening torque. Indicates how "tight" a screw has been tightened.
Specialist dealer / specialist workshop	In Germany: In this Owner's Manual the term "specialist dealer" and/or "specialist workshop" indicates a dealer trained as a bicycle mechanic and/or cycle mechanic authorised by the competent Chamber of Trade to operate a specialist workshop. Similarly the latter must be authorised by the manufacturer of this cycle to check and confirm correct assembly and roadworthiness of this cycle.
Handforce	The force an average adult human can exert with his hand using low to medium effort.
Nm	Newton meter; unit for torque

2 General Notes

Risk of Personal Injury and Material Damage!

Failure to observe the instructions contained in this Owner's Manual may result in dangerous riding situations, falls, accidents and material damage.

Read through these instructions carefully before using your bicycle for the first time.

- Read through these instructions carefully before using your bicycle for the first time.
- Keep this Owner's Manual and pass it on with the bicycle if you ever sell it or give it as a present.
- It is your responsibility to check your bicycle and to have any necessary work done to it.
- If you do not understand many of the sections of this Owner's Manual consult your cycle dealer.

!

Carbon frames and (full) carbon forks are lightweight construction components which are manufactured in several production steps using modern manufacturing procedures. The light weight is achieved mainly by using high-performance fibre composite materials in conjunction with an appropriate method of fibre construction. Component safety and rigidity, in addition to low mass were important criteria in the design of the carbon frames and forks. Unavoidable irregularities in the fibre orientation arising during manual procedures and small air inclusions in the resin coating layer or surface unevennesses are purely visual in nature and have no influence on the quality and performance of the frame. Differences in finish and "blemishes" do not constitute grounds for complaint.

Risk of Personal Injury and Material Damage!

Irregularities of textile, like near-surface minor air entrapments in the coating resin or unevenness of the surface, which cannot be avoided due to the process of manufacture and handcraft,

are only of optical kind and do not have any effect on quality and performance of the frame. Differences in the finish and disfigurement are not a reason for any warranty claim.

Our carbon frames and integral (full) carbon forks are approved for a maximum system weight of 115 kg

Our MTB Hybrid models with carbon frames are for a maximum weight 125 kg. ROAD Hybrid models with carbon frames and integral (full) carbon forks are approved for a maximum system weight of 115 kg.

A detailed informmation of all models can be found on our homepage in the Service FAQ

Maximum total weight
=
Bicycle including entire additional load and attach parts
+
Body weight incl. clothing and baggage (e.g. backpag)

Loadings deviating from the purpose of use intended (e.g. jumps) may lead to damage and constitute a risk to the user. We accept no liability for damage arising from improper use.

- It is not permissible to fit additional components to any frame or fork tubing which is attached by means of clamping to the tubing in question.
- Undefined stresses in the circumferential direction of the tubing considerable can occur in this way which may cause damage and which may drastically reduce the service life, and may also lead to a risk to the safety of the user.
- Basically every frame including forks must be given a thorough examination at regular intervals in respect of damage (e.g. cracks, visible delamination, discolouration etc.).
- After any accident, crash or other defined or uncontrolled mechanical stresses the frame and forks must not be ridden for reasons of safety and should be sent to us for examination (see also Guarantee).

Shock and impact stresses may cause damage not visible externally such as delamination (separation of fibres from the surrounding plastic matrix) in the bottom laminate layers causing a drastic reduction in performance and consequently safety as well.

- With regard to accessories used the instructions or use and user guide provided by the manufacturer concerned must be followed!

3 Manufacturing process

Twin Mold Technology

The Twin Mould technique uses re-usable cores during the lay-up process to ensure precision frame moulding. Special inserts guarantee optimum ply orientation during the production process to add extra strength at frame points subject to higher loads. This improves the safety of the product and delivers outstanding stiffness characteristics.

Advanced Twin Mold

This technique uses a complete core to provide the perfect frame form during the lay-up process. As with the Twin Mould technology, precise inserts are used to ensure extra strength at high-stress frame points. This combination offers maximum control over fibre orientations during the lay-up and production process. The Advanced Twin Mould high-tech carbon manufacturing process translates to outstanding product safety and quality together with optimum weight and stiffness characteristics.

3.1 Use in competition

Danger of material damage!

Our frames are designed for extreme riding stresses. However during use in competition stresses greater than those occurring during normal riding may arise as a result of collision with objects or other riders. These stresses cannot possibly be foreseen and allowed for in the construction and design of a frame or forks. We therefore accept no liability for any damage resulting from use outside the intended purpose.

Frame and forks must be examined particularly carefully for damage (e.g. cracks, delamination, discolouration etc.) before and after each instance of use in racing. After serious crashes or accidents the frame and forks must not be ridden. The surface of the frame and forks must not be damaged. This includes indentations and large deep scratches which penetrate beyond the first clear coat of lacquer. In case of doubt the frame and forks must be sent in for checking.

3.2 How to use your carbon parts correctly

Risk of Personal Injury and Material Damage!

1. **Do not, under any circumstances, mount brackets, screws, clamps or other elements which exert mechanical pressure on the carbon tube.**
2. **Clamping onto bike stands or other wall brackets:**

- Never clamp your bicycle around the carbon tube or carbon seatpost in the clamping jaws of a bike stand.

3. **Please take care when using shackle locks! These may, under certain circumstances, cause damage to your frame.**

- When using shackle locks, please ensure that these only touch the respective carbon tube at the most, and are not exerting pressure.

3.3 Seat clamp/seat post

Risk of Personal Injury and Material Damage!

The prescribed tightening torque of the saddle clamp bolt is 5-6 Nm.

The seat tube must not be scoured or mechanically processed in any other way.

Please consult your authorised specialist retailer immediately after a fall.

The seatposts and seat tubes must not be lubricated. Only a carbon assembly paste may be used.

Aluminium seatposts may only be mounted using a carbon assembly paste.

The seat clamp may not be closed if the seat post has been removed.

3.4 Front derailleur assembly

Risk of Personal Injury and Material Damage!

Racing bike frames are designed for either a braze-on socket derailleur mounting or for a classic derailleur clamp - MTB frames have either a classic derailleur clamp, direct Mount or an E-type derailleur fitting. No other derailleur mountings may be used.

Maximum torque for fitting the derailleur clamp collar on the seat tube see page 10/11. When fitting a torque wrench it is important to avoid deformation of the seat tube in the vicinity of the clamp.

Damage to the seat tube in the vicinity of the derailleur clamp by excessive tightening or incorrect size of clamp collar may lead to safety-related deformation and damage and must be avoided.

3.5 Headset

Fully or semi-integrated headsets are used in carbon frames for optimum rigidity values and optimum distribution of forces and high levels of security.

Risk of Personal Injury and Material Damage!

Unauthorised milling work is not permissible and will result in the guarantee being invalidated.

- Delivery is with headset installed. Any change of headset must be agreed with the manufacturing company. Press-fitting the headset shell bearings must be performed using a specially designed tool. Press fitting must be performed with caution and it must be ensured that the shell bearings do not twist. The shell bearings must not be greased at points where they are in contact with the frame. The side facing the bearing should be greased to ensure long life of the headset.

3.6 Bottom bracket / crank bearing system

The „Pressfit" bottom bracket must be fitted using a tool specially designed for the task.

Only bottom brackets and cranks designed for „Pressfit" types may be used.
Special tools for assembly and disassembly of „Pressfit" bearings are necessary.

3.7 Rear triangle

Your carbon frame rear assembly has been designed and built for a hub width of 130/142 mm (road racing bike), 142/148 mm (MTB Hardtail and MTB-Fully).

Risk of Personal Injury and Material Damage!

On the rear triangle only hubs of 130 mm (road racing bike) and 142/148 mm (MTB-Hardtail / MTB-Fully) with a quick-release mechanism or 142 mm (road racing bike), 142/148mm (MTB-Hardtail / MTB-Fully) with X12 axle are allowed.

The use of hubs with other dimensions and/or without quick-release mechanism may result in stress and distension conditions, which can lead to serious damage and therefore present a risk to safety. The rear assembly is designed.

Rear triangle is designed for standard road racing brakes or disc brakes. The maximum permissible torque when fitting brakes see page 10/11. The maximum permissible rear wheel disc brake size for a carbon hardtail frame is 160 mm or 180 mm for Elite Hybrid and for a carbon fullsuspension frame 180 mm or 160 mm for AMS 100.

3.8 Dropout

The maximum torque for fitting rear derailleur to hanger see pages 10/11.

3.9 Bottle cage inserts

The threaded inserts on your carbon frame are designed for fixing standard bottle cages with an M5 thread. Other thread sizes are impermissible.

The maximum torque of bottle holder fixing screws see pages 10/11. Carbon frames are approved for bottle holders which can take a 750 ml capacity bottle.

3.10 Roller training

Risk of Personal Injury and Material Damage!

The carbon frame must NOT be used for roller training on so-called fixed rollers (Tacx, Elite, etc.).

- The use of bicycle rollers with fixed clamps is not permitted. By firmly restricting the drop-outs and quick-release hub axles, mechanical stresses occur which strongly exceed those permitted for normal cycling operations. This may result in damage to the bicycle frame.

3.11 Transport

Your carbon frame is a high-performance lightweight product.

Risk of Personal Injury and Material Damage!

When travelling by air or on journeys where the "bicycle" luggage item is not checked with regard to damage-free stowage, adequate protection of the frame and forks must be ensured (e.g. by using suitable hard-top cases etc.)

When transporting with the front or rear wheel removed it is recommended that a distance piece is inserted instead of the hub in the rear assembly (130/142 mm road racing bike, 135/142/148 mm MTB-Fully, MTB-Hardtail) and in the (full) carbon forks (100 mm) in order to prevent damage.

- Due care must be taken when transporting bicycles with carbon frames.
- The frame should particularly be protected against contact with other parts using a cover for example.
- Transporting your carbon frame with carrier systems which use clamping elements for fixing and retaining the frame tubes is impermissible as the clamping forces of the fixing elements can cause damage to the frame/forks tubing

- During transportation do not place any objects on the frame and forks and stow so that they cannot slip.
- Please ensure that the bicycle is in a fixed and stable position during transport.

4 (Full-) carbon forks

Our full carbon forks and carbon forks with aluminium steerer have a shaft diameter of 1 1/8" in the clamp area one of the stem. Near the lower bearing race the forks fits the following headset sizes; 1 1/8", 1 ¼" or 1 ½". Only headsets and stems which are designed or approved according to the frame and fork specification by the bike manufacturer may be used.

⚠ Risk of Personal Injury and Material Damage!

If the headset bearing lower cone ring is driven into the bearing seat with massive force there is a danger of damaging the forks. Fitting a headset must be carried out by a specialist technician. The shaft tube external diameter in the vicinity of the stem is designed for front extensions with a clamp diameter of 1 1/8". Only the handlebar stems with corresponding internal dimensions and cleanly finished interior surfaces may be used. The fitted stem may project no more than a maximum of 2 mm above the edge of the shaft tube end.

- The front brake is fitted to the fork using special screws or nuts supplied by the manufacturer.
- Maximum torque for special screws or nuts see page 11.

⚠ Risk of Personal Injury and Material Damage!

Carbon forks with a steerer made of aluminium may be assembled with a so called "star-nut" in order to adjust the headset . When doing this the fork should not be assembled on hard surface in order not to damage the fork.

In this case the provided so called "expander" or "thread insert " must be used on a full carbon fork. The use of a so called "star-nut" on a full carbon fork will lead to a serious damage of the steerer tube or dangerous failure of the fork. The length of the steerer tube can only be cut to size by a professional bicycle mechanic.

- Ideally a metal saw with low abrasion rate or a metal circular saw with a diamond saw blade and water cooling should be used.
- In the event of dry trimming adequate protection from dust inhalation produced should be ensured. Inhalation protection with a fine dust filter and safety glasses are recommended.

5 Care instructions

! Your carbon frame and your (full) carbon forks should be cleaned regularly. Ordinary paint care products with or without silicon additive and cold to lukewarm water to which may be added ordinary detergent may be used. To be avoided are solvents of any description, alcohols (e.g. ethanol or isopropanol), hot water with alkaline additives or cleaning with steam jets and pressure washers.

6 Guarantee and special ex gratia settlements

Services under the guarantee are provided only in the event of faulty materials or manufacture and never in the event of fatigue or overload stress damage. We provide 3 years guarantee on our frames and forks and we also offer special ex gratia services.

⚠ Risk of Personal Injury and Material Damage!

If you discover damage to your frame and/or forks you may send the damaged frame and/or forks to us for assessment and an estimate of possible repair costs via your dealer.

Transport costs in every case are borne by the customer. Following assessment of repair costs the repair is carried out either free of charge or you will receive an advance estimate of repair costs.

The decision as to whether a repair is to be carried out free of charge rests solely with the manufacturing company and in no circumstances is there any claim to cost-free repair.

The special ex gratia provisions only apply to the first owner.

Only cleaned frames or forks are accepted for guarantee work!

- In the event of frame or fork complaint claims we reserve the right to apply a reduction in value based on the duration of use.

Risk of Personal Injury and Material Damage!

The guarantee is rendered invalid in the case of damage, which is attributable to incorrect assembly, misuse, unauthorised modifications or mechanical working of frames and fork components (drilling, milling, filing, sawing etc, on frames or forks manufactured by us.

The final decision as to what extent a claim under the guarantee exists is a matter for the management of the manufacturing company.

7 Assembly Instructions

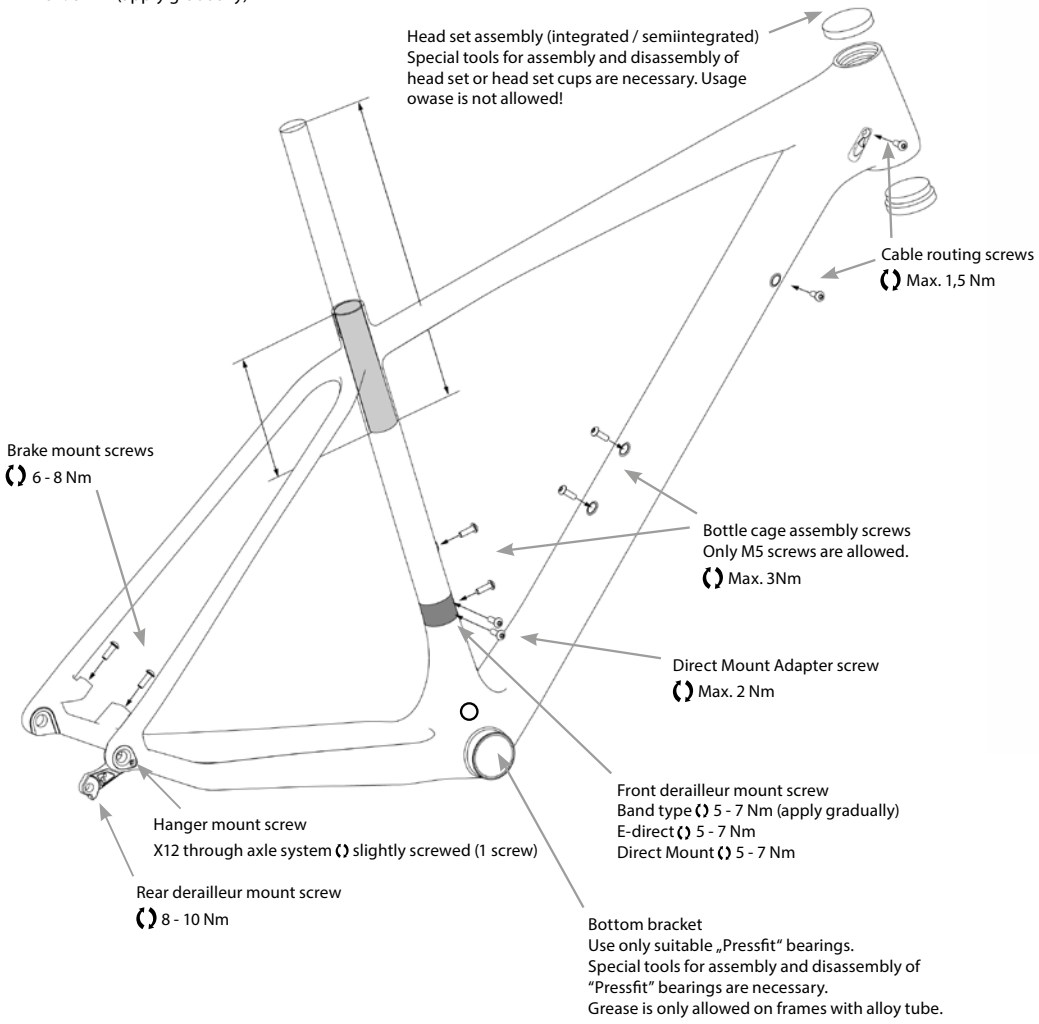
7.1 The MTB bike frame

Seat post assembly

Consider max. allowed seat post length (x) including min. insert length (y):
120 mm (y) at 400 mm (x)
120 mm (y) for adjustable seat post (e.g. RockShox Reverb) with max. 420mm (x)
110 mm (y) at 380 mm (x)
100 mm (y) at 350 mm (x)

For seat post assembly apply carbon assembly paste to seat post and to the inside of seat tube. It is not allowed to use standard grease!

Consider torque on seat clamp and seat post!
Max. 6 Nm (apply gradually)



7.2 The racing bike frame

Seat post assembly

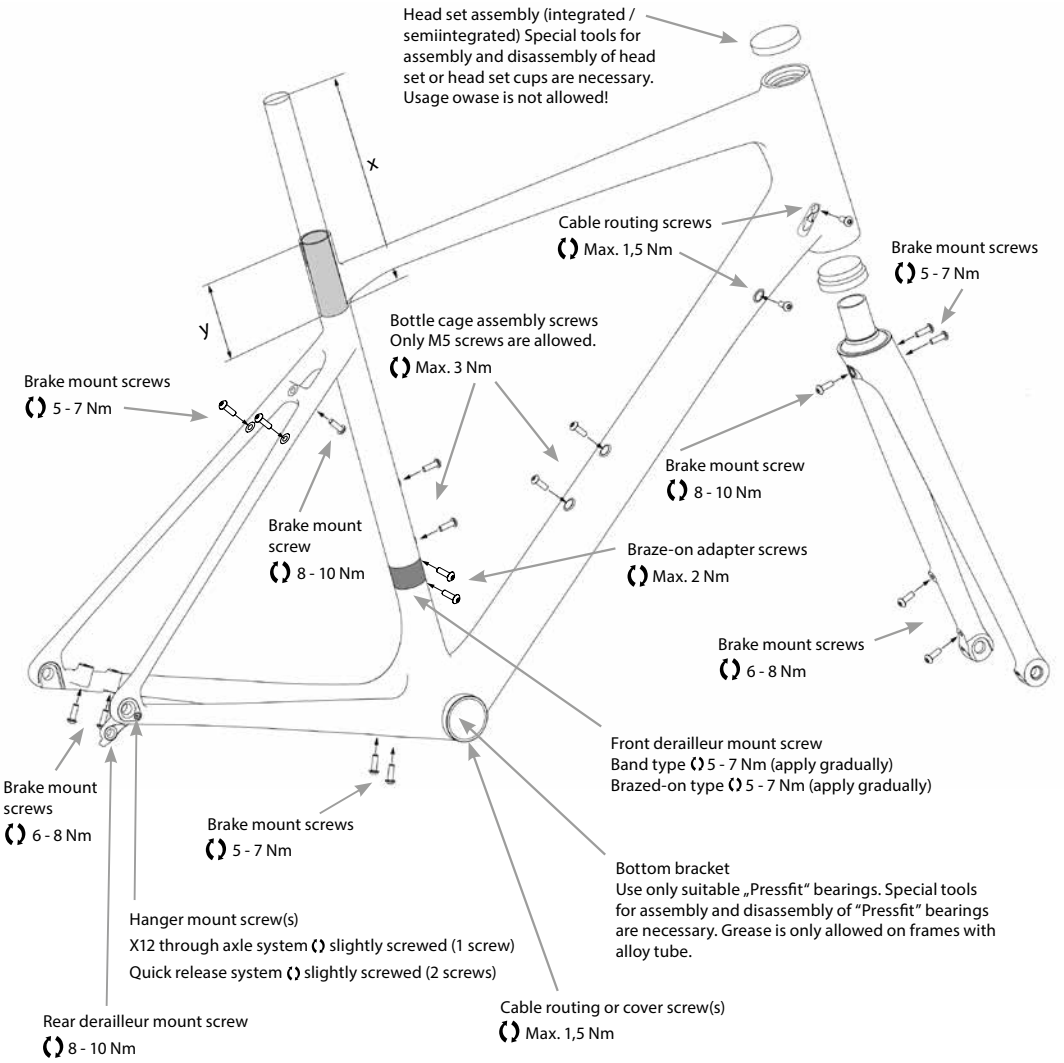
Consider max. allowed seat post length (x) including min. insert length (y):
100 mm (y) at 350 mm (x)

For seat post assembly apply carbon assembly paste to seat post and to the inside of seat tube. It is not allowed to use standard grease!

Consider torque on seat clamp and seat post!
( ) Max. 6 Nm (apply gradually)

INFO

- LITENING stem clamping 4,5-5Nm
- LITENING saddle clamping 5-6Nm
- AERIUM stem clamping 4,5-5Nm
- AERIUM saddle clamping 5-6Nm



8 Liability

Risk of Personal Injury and Material Damage!

The manufacturing company accepts no liability for accident damage or consequential loss. The user bears the risk in the event of personal injury and material damage. The manufacturing company accepts no liability for damage or accidents caused by improper use of the frame and failure to comply with the stipulations indicated here.