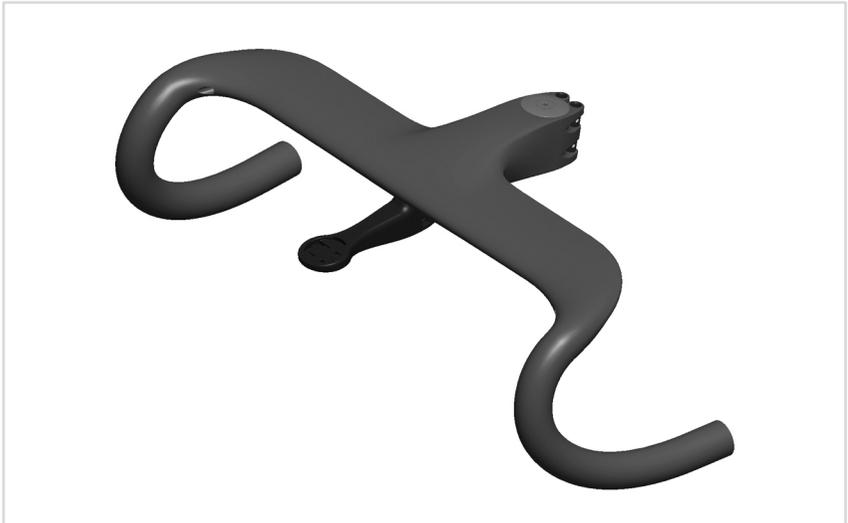




## INSTRUCTION BOOK



**THM** FRONTALE AERO



 Please bear in mind that your THM component is a lightweight construction manufactured from carbon – take this into account for assembly/maintenance work and when handling the product and proceed with caution!

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## Preface

This manual is an integral part of your THM component and it provides you with information regarding the safe operation of your THM-FRONTALE. Read this manual carefully prior to assembling your THM component. Always read and observe all of the assembly and maintenance instructions in this manual, as well as those provided in the manuals of other manufacturers whose products are used on your bicycle (e.g. frame, chainwheels, pedals, ).



### WARNING

Non-observance of the information contained in this manual could result in an accident and death or serious injury.

You will encounter the following symbols and references in this manual:

→ The arrow indicates the consequence of your action.



### WARNING

This safety message indicates a hazardous situation which, if not avoided, could result in death or serious injury.

### NOTICE

This message warns of a risk of material damage.



### INFO

This refers to additional information or tips.

Retain this manual for other users of your THM components. Make sure that all users read, understand and observe this manual. If you ever sell or give away your THM components, this manual should be transferred to the new owner.

We hope you get a lot of joy from your THM components!

Your THM-Carbon Team

## Intended use



### WARNING

The THM stem/handlebar is approved for a total weight (bike+rider+luggage) up to 110 kg (242 lbs.) and must be used on road bikes only. The stem must only be used with steer tubes of  $28.6\pm 0,1$  mm (1 1/8 inch) diameter.

## Fundamental safety precaution

Always remember that riding a bicycle involves potential danger for the rider and other road users, as well as for the bicycle and its components. Even if protective equipment and safety devices are used, accidents resulting in death or serious injury can still occur.

**You should therefore use your common sense and avoid any unreasonable behaviour!**

## Assembly & Maintenance



### WARNING

Risk of accident caused by assembly and maintenance work which has not been conducted in a professional manner.

- Do not overestimate your technical ability. All assembly and maintenance work should be performed by a specialist workshop for bicycles. This is the only way to ensure the work is conducted in a professional manner.
- Always observe all the specified tightening torques for the screw connections.
- Only ever use original THM components which are available from your specialist dealer or directly from THM.
- Never make any modifications to your THM components.
- Check your THM components before each journey to ensure the surfaces are completely undamaged. Send us your THM components for inspection before further use if damage is visible (cracks, fractures, deformations, deep scratches in the paintwork which extend into the carbon structure, large abrasions, etc.) or if you are in any doubt about their functionality.
- Always ensure your bicycle is maintained in a flawless condition. Care and maintenance will prolong the service life of your bicycle and its components and improve your personal safety.

## On the road



### WARNING

Risk of accident caused by erratic riding behaviour or improper equipment.

- Always ride with foresight, attention and a readiness to brake.
- Adjust your speed to the prevailing conditions (traffic, weather, visibility, etc.).
- Do not use your THM-component at ambient temperatures below  $-10^{\circ}\text{C}$  ( $14^{\circ}\text{F}$ ).
- Do not exceed the maximum rider weight for which your THM components have been approved
- Do not perform jumps with your bicycle as this generates an enormous amount of force.
- Always comply with the traffic regulations that are in force in the country where you are using your bicycle.
- When riding your bicycle you should always wear a high quality cycling helmet (e.g. ANSI certified) that is in excellent condition. Your clothing should be close-fitting but not restrictive.
- Only ride your bicycle if you are in good physical condition and your bicycle and all of its components are operating in a flawless manner.
- If you are involved in a fall you should not continue to ride your bicycle. If such a case occurs, send us your THM components for inspection, even if no external damage is visible. In your own interest you should treat all of the components on your bicycle which have been produced by other manufacturers in the same manner.

## Transport & Storage



### WARNING

Risk of accident caused by damaged bicycle components.

- Always transport your bicycle in an appropriate and careful manner.
- Do not store your THM components at an ambient temperature below  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ) or above  $55^{\circ}\text{C}$  ( $131^{\circ}\text{F}$ ).

Risk of accident.

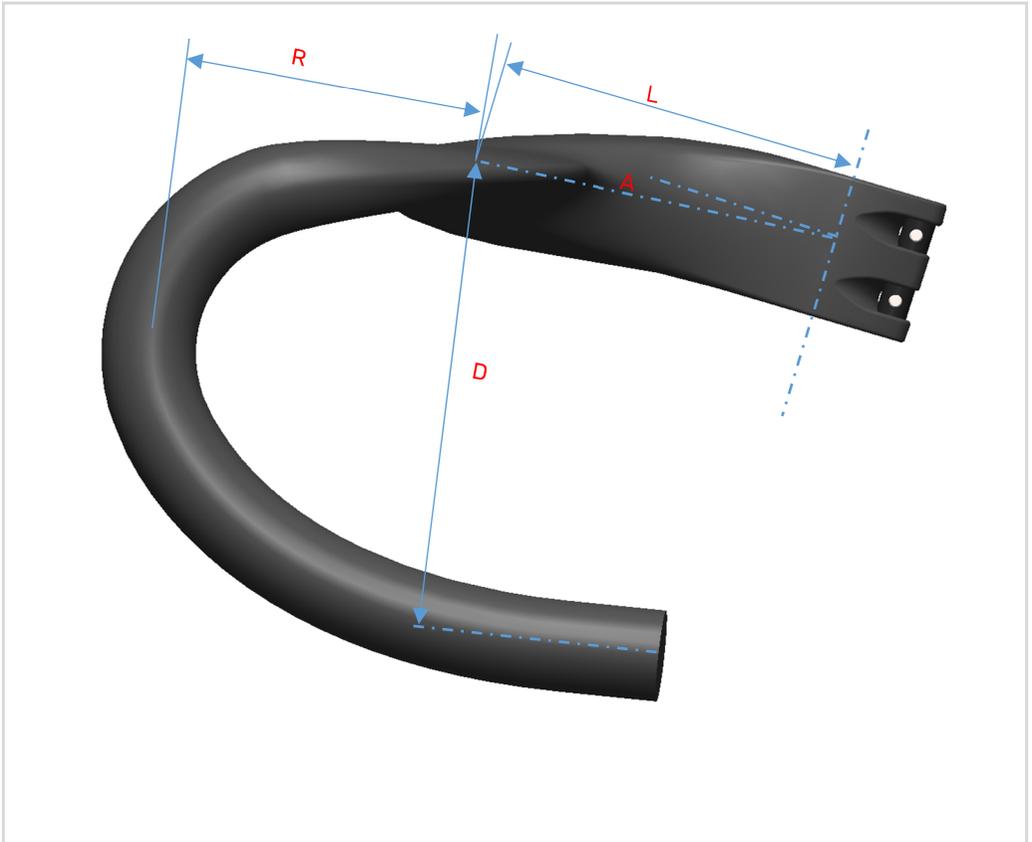
- Do not allow children to play with your bicycle.

## Delivery specifications



- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1 Body THM FRONTEALE</li> <li>2 Clamping bolt M4 (1x)</li> <li>3 Clamping bolt D4 (1x)</li> <li>4 Clamping screw M4 (2x)</li> </ul> | <ul style="list-style-type: none"> <li>5 Topcap + M6 screw</li> <li>M4 screws for computermount (2x)</li> <li>Instruction book</li> <li>Friction past</li> </ul> |
|--|--|

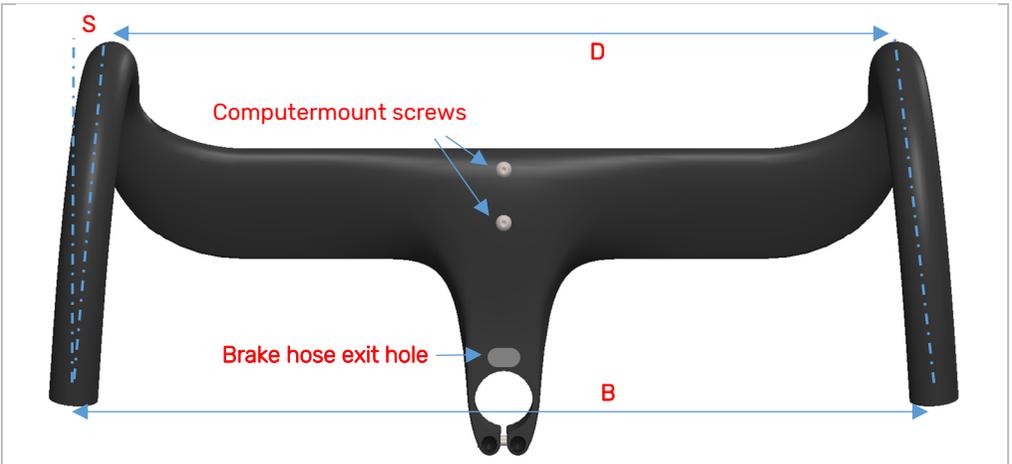
### Technical specifications



<b>L</b> (Stem length)	100, 110, 120 mm
Stack	38 mm
Ø Steerer diameter	1-1/8" (28,6 mm)
<b>A</b> Stem angle	-6°
<b>R</b> Reach	75mm
<b>D</b> Drop	127 mm
Rider weight (including accessories)	110 kg



Holes in the bow for brake tubes	6 mm
T Thickness of the handlebar	15 mm
F Flare	7°



B Bar width center-to-center drops	380, 400, 420 mm
D Bar width center-to-center hoods	340, 360, 380 mm
S Sweep	3°
Computermount Threads	M4

## Tightening torques



### WARNING

Risk of accident caused by a malfunctioning stem system due to loose screw connections.

- Check the required tightening torque of all screw connections after the first 100 km
- Retighten the connections if necessary. Repeat this check every 2500km!

	max. Nm (lbf in)	
Clamping screws	4 (36)	With screw lock
Computer mount screws	2 (18)	With screw lock



## WARNING

**There is a risk of accident due to sudden unexpected failure of the stem while riding if any carbon fibers on the stem are damaged during any installation procedure.**

- Before starting work, make sure that the steer tube is compatible with the stem.
- Remove sharp edges and burrs and any other contamination / grease from the steer tube before starting assembly.
- Be particularly attentive to cutting edges of shortened steer tubes and rework the edges if necessary.
- Never exceed the max. permissible overlap of the top spacer or stem.
- Never exceed the tightening torque of 3 Nm under any circumstances when tightening the top cap adjusting screw.
- Never exceed the tightening torque of 4 Nm when tightening the clamping screws on the stem.

**There is a risk of accident due to sudden unexpected loss of control while riding if the stem slips on the fork steerer.**

- Never apply any lubricant or grease to the steerer tube.



## WARNING

The THM Frontale Aero must be mounted with carbon assembly paste.



## INFO

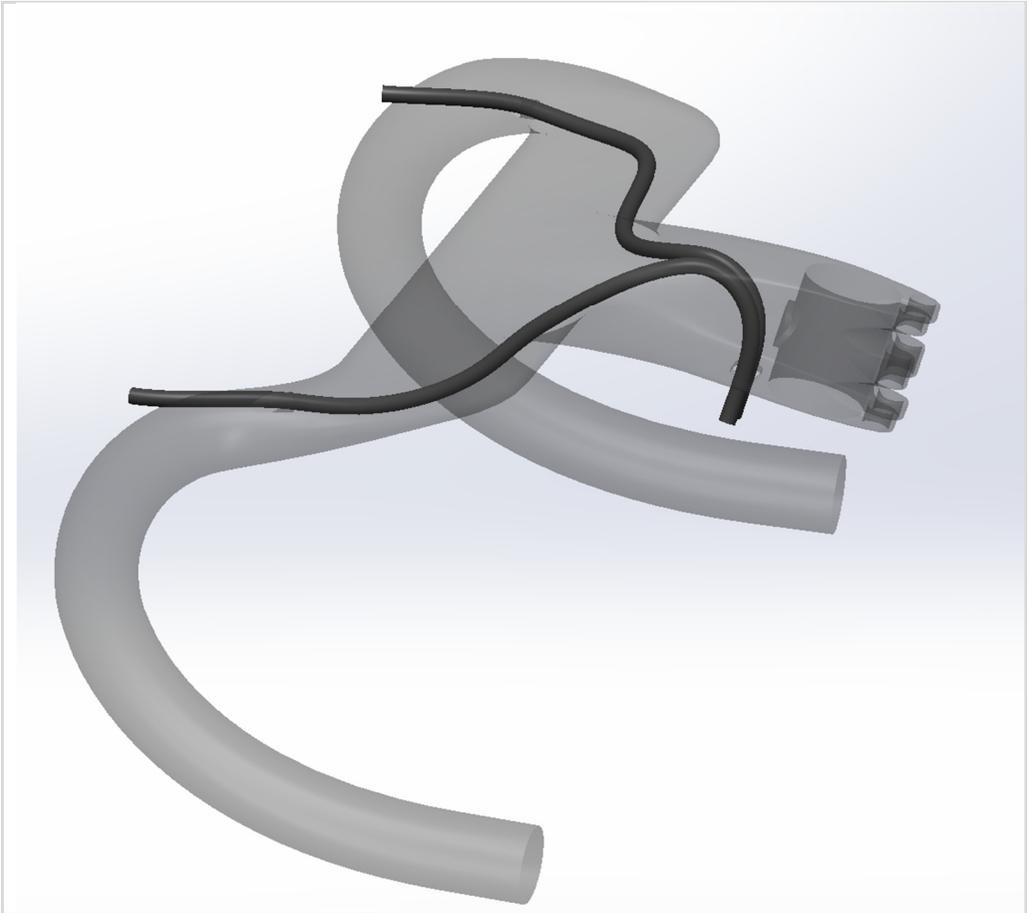
Applying an appropriate carbon assembly paste between the stem clamping area and steerer tube enables the required tightening torque to be reduced to achieve the same clamping force.

## Spacer

There are many different transition spacers available please have a look on our website or contact us.

## Internal cable routing

The THM FRONTALE Aero is ready for internal cable routing. There are two  $\varnothing 6$  mm holes in the bow of the handlebar. On the other end the tube can exit the stem at the bottom or through the wall towards the steerer clamping.

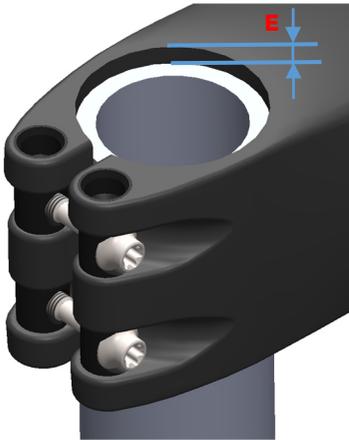


## Assembly on the steerer tube

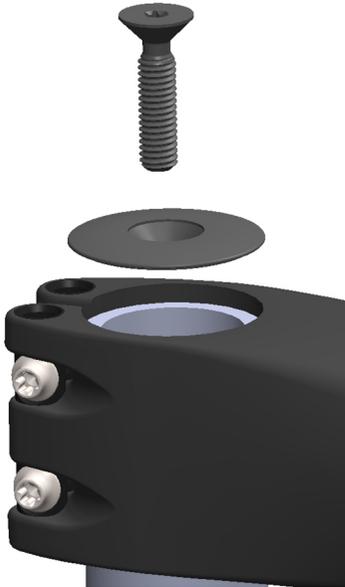


### WARNING

Do only measure the distance **E** from the upper edges of the stem to the actual steerer tube and NOT to the expander!



- If needed place the desired transition spacer for your bike (more Info [www.thm.bike](http://www.thm.bike))
- Install the stem on the steer tube until it audibly contacts the top spacer or the steer bearing.
- Check the distance **E**. The distance **E** between **steerer tube** (NOT expander!) and the upper edge of the stem must be between 2-4 mm.



- Install the topcap and M6 screw (Torx T20).
- Drive in the top cap adjusting screw (clockwise).
- Set the bearing clearance. (approx. 2Nm)
- Align the handlebar stem straight forward in the direction of riding.



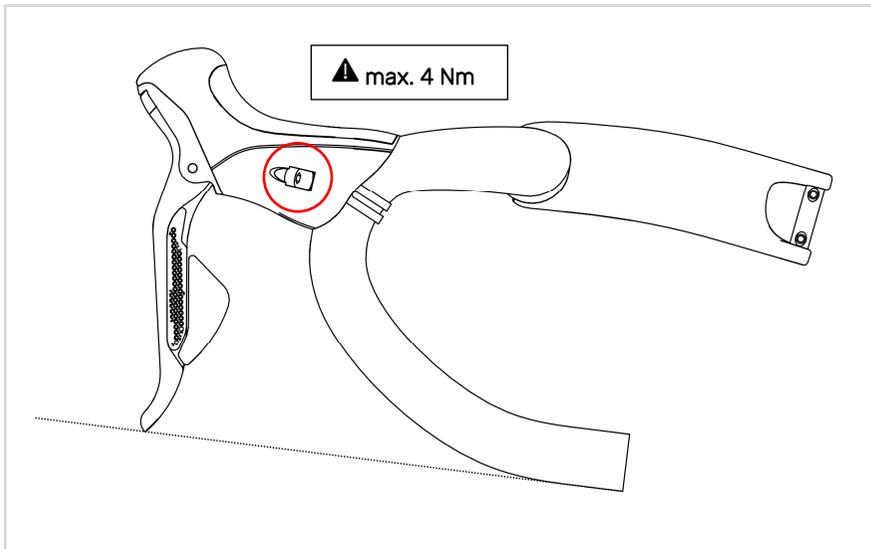
- Tighten the two clamping screws (Torx T20) alternately to a tightening torque up to max. 4 Nm.
- Make sure that the assembly is locked against rotation.
- Loosen the topcap and retighten it to 2Nm.
- The **steerer tube** must overlap at least **34 mm** with the stem clamping area!

## Fixing of shift/brake lever to the handlebar



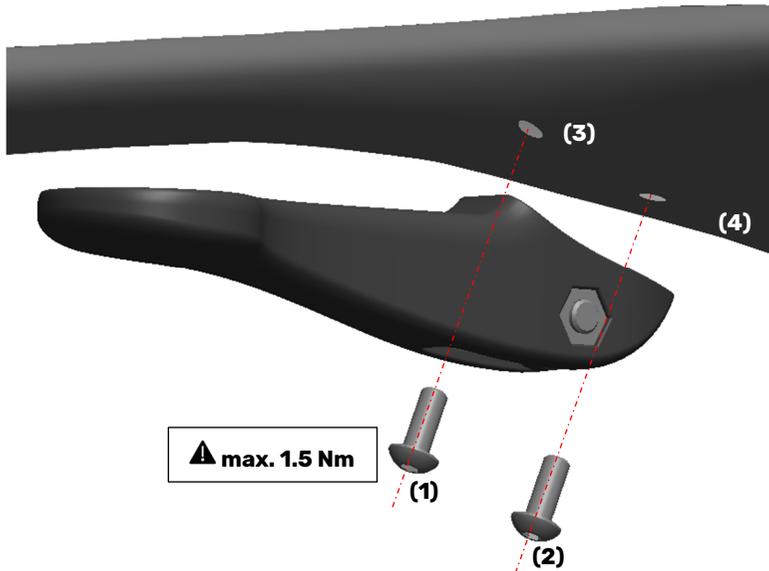
### WARNING

- Remove all sharp edges and burrs from the clamping surface of the shifter and the clamp before starting the assembly. Therefore use a fine grid sandpaper.
- Use isopropyl alcohol or brake degreaser to clean the shift/brake lever body and handlebar surfaces.
- Do not use lubricants at all.
- Make sure you are assembling the brake lever only on the abrasive surface of the handlebar.
- Always use friction enhancer (carbon paste) on clamping surfaces.
- Only use as much tightening torque as needed to fix the shift/brake lever to the handlebar.
- Do not exceed the torque limit for the handlebar or the shift/brake lever. Use maximum 4 Nm of torque for the shift/brake lever clamping at the handlebar.



## Computer mount

The THM computer mount is designed for the FRONTALE AERO. It has an integrated interface for different bike computers as well as a GoPro-Style mount for lights or action cameras. The mount must be fixed with **two M4x10** screws to the FRONTALE AERO.



1. Place the first M4 screw (1) on the head of an Allen Key and insert it into the front screw opening of the computer mount. Then apply medium-strength screw lock to its threads.
2. Now thread screw (1) into the front thread of the handlebar (3) until the mounting surface of the computer mount touches the surface of the handlebar. Do not fully tighten the screw for now.
3. Apply medium-strength screw lock to the threads of the second M4 screw (2), insert it through the rear screw opening of the computer mount and screw it into the rear computer mount thread (4) of the handlebar.
4. Tighten both screws by hand so that the computer mount is evenly pressed against the surface of the handlebar but can still slide from side to side.
5. Check the computer mount for alignment with the stem, then tighten both mounting screws to a **maximum of up to 1.5 Nm** starting at the front (1). Make sure not to lose the correct alignment while tightening.

The maximum tightening torque for the **M5** screw of the GoPro-Style mount is **2.5 Nm**. Do not tighten this screw if no light, action camera or similar is installed.

## Materials defect liability

We provide a 24-month warranty for all THM products which covers material and processing defects. During this period all products accepted to be defective are replaced at no cost to the user. The liability period starts at the time the relevant THM product was purchased. Liability does not extend to any kind of damage caused by accidents, modifications, negligence or improper handling and use. Liability shall expire if repair work or any other work on the THM product has been conducted by unauthorized person. The same shall also apply to any direct or indirect

### INFO

Please contact us **before** returning a defective THM product!

If products are returned without our previous agreement, the shipping costs incurred will be charged to your account!

## Warranty

Minor damage to your THM products will be repaired by our workshop free of charge even after expiration of the 24-month liability period, provided that the work required does not exceed 0.5 hrs. The decision regarding whether or not a repair is to be carried out free of charge rests solely with us.

If the damage has been self-inflicted, there is no entitlement to free repair work! In the event of self-inflicted damage please send us the product concerned for inspection. We will then assess the level of work required and either perform the repair free of charge or send you a quotation. It is then up to you to decide whether or not to go ahead with the repair work. When returning a damaged product to us please ensure adequate postage costs are provided. Any shipment which is not prepaid will be rejected and returned to the sender! In the event of irreparable damage (e.g. caused by an accident) we will provide a 40% discount on the respective list price if you purchase a new THM product as a replacement. The relevant claim must be forwarded directly to THM Faserverbund-Technologie GmbH. The irreparable product shall then remain our property.

The company THM Faserverbund-Technologie GmbH is constantly striving to improve product designs as technical developments continue. We therefore reserve the right to make alterations which must not correspond to the text and illustration contained in this manual, and without incurring obligation to alter any products previously delivered. Technical specifications, dimensions and weights are to be understood with the corresponding allowances. Reproduction or translation of this publication, in whole or in part, is not permitted without the written consent of the company THM Faserverbund-Technologie GmbH. All rights under the provisions of the copyright act are reserved.





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