sync ergonomics

AEROBAR THREE

GENERAL ASSEMBLY – DUAL STACK

INTRODUCTION

We're pleased to welcome you to a global family of athletes embracing more comfortable, more effective time trial positions. Sync Ergonomics recommends the installation of your Sync components to be undertaken by a qualified bicycle mechanic, experienced with time trial and triathlon bicycles. Irrespective of your level of mechanical experience, please read the following guide as it contains information vital for correct setup and use.

This document has been prepared to guide you through the assembly of your Aerobar Three (AB03) ecosystem. Care must be taken during the installation process to ensure proper function and ongoing maintenance must be performed to ensure longevity of your Sync Ergonomics components.

WARNING: In order to be installed correctly, the components of AB03 require specialised knowledge of a time trial bicycle. It is recommended that installation should be performed by a qualified bicycle mechanic. Improper assembly of any of the components of AB03 could cause damage to the product(s) and/or bicycle, may lead to loss of control of the bicycle, and may lead to personal injury, or in severe cases even death. Sync Ergonomics assumes no responsibility for improper assembly and installation of the product(s).

WARNING: Please have your bicycle and Sync Ergonomics products regularly inspected for possible damage from use, especially from instances such as accidents, crashes, and/or impact that occurs with travel. In the event of an accident, crash and/or impact in travel, it is strongly recommended you stop using your bicycle immediately and take your bicycle to a professional bicycle mechanic for inspection to ensure proper function and safety. In the case of damage, replace affected parts immediately. Even when no damage is visible, there may be internal damage to the integrity of a component. Failure to replace damaged parts could result in loss of control, and may lead to personal injury, or in severe cases even death. Sync Ergonomics assumes no responsibility for improper maintenance and inspection of the product(s).

WARRANTY

Sync Ergonomics components are free from material and manufacturing defects for a period of 12 months starting from the original purchase date, unless otherwise stated in our warranty policy, detailed on our website at **www.syncergonomics.com**. This warranty is non-transferable and only applicable to the original customer who purchased this product and this product only. Any modifications to the product, other than for its original intended use, such as drilling, will effectively and immediately void the warranty.

For more information on our warranty policy and instructions for completing a warranty claim, please visit our website for full details at **www.syncergonomics.com**.

REQUIRED TOOLS AND PRODUCTS

Torque wrench (with Hex and Torx drivers)
4 mm T-handle Hex key
T10, and T25 T-handle Torx keys
Isopropyl alcohol
MOTOREX Bike Grease

WARNING: Your bike may require additional tools to what is mentioned above and we cannot guarantee that these recommendations will cover the requirements of all bikes. If in doubt, ensure assembly is handled by a qualified bicycle mechanic, experienced with the assembly and setup of a time trial bicycle.

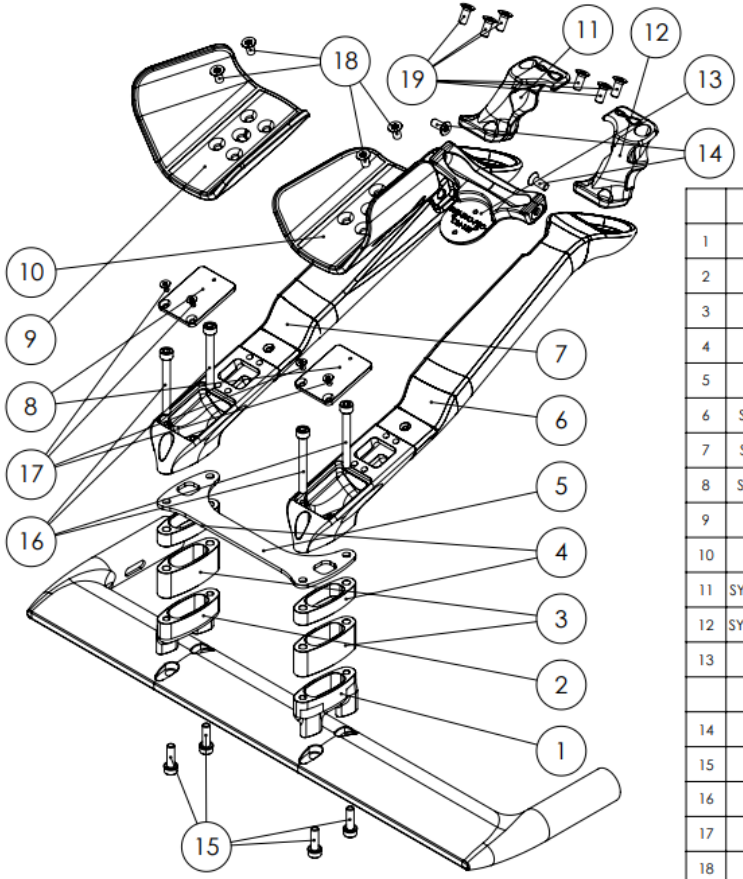
WARNING: Do not attempt to modify your Sync components, outside of what is described within this setup guide as appropriate for assembly. Modification may impact the structural integrity of the components and could result in component failure, or failure of the complete system. Sync Ergonomics is not liable for product damage and/or personal injury resulting from improper assembly.

SETUP GUIDE VISUALISATION

Sync Ergonomics AB03 extensions are compatible with Sync AB02/AB03 fit kits only. The following setup documentation depicts installation on a Giant Trinity basebar, using our Giant Trinity basebar adapters and AB02/AB03 spacer assembly. There will be some variation in the configuration of components between bikes.

For more information and technical resources for the assembly of AB03 systems, bridge, spacer and other setup supplements, please visit **https://www.syncergonomics.com/technical**.

AEROBAR THREE DUAL STACK BOM (EXAMPLE)

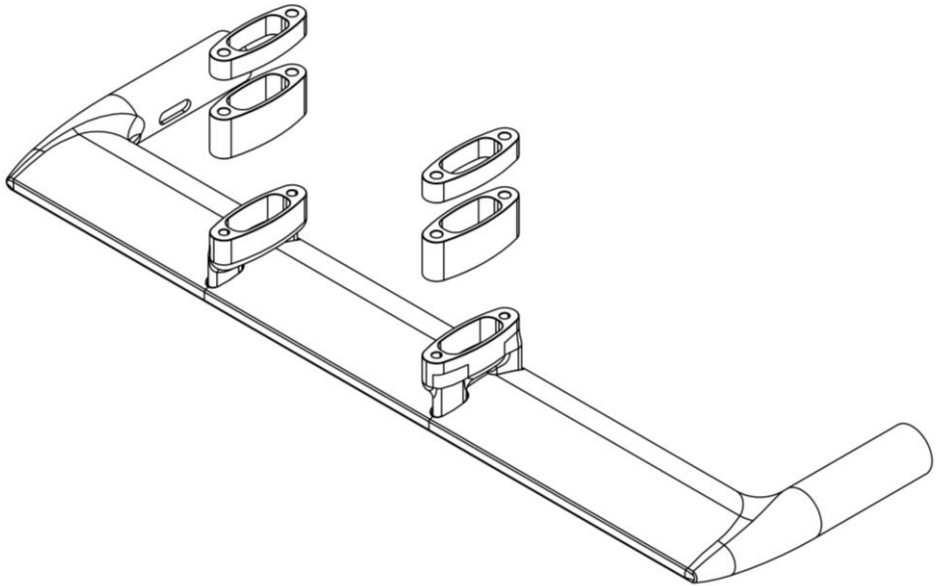


	PART NO.	PART NAME	QTY
1	SYN-EVO-BA-XXX-XXX-RX	SYNC EVO BASEBAR ADAPTER, BIKE SPECIFC	1
2	SYN-EVO-BA-XXX-XXX-LX	SYNC EVO BASEBAR ADAPTER, BIKE SPECIFC	1
3	SYN-EVO-SP-M5-20-40-LW	SYNC EVO SPACER, 20MM	4
4	SYN-EVO-SP-M5-10-40-LW	SYNC EVO SPACER, 10MM	4
5	SYN-EVO-BR-M5-40-125	SYNC EVO BRIDGE, NON UCI	1
6	SYN-EVO-PRO-EXT-XXX-XXX-RX	SYNC EVO PRO EXTENSION RIGHT, BUILD SPECIFIC	1
7	SYN-EVO-PRO-EXT-XXX-XXX-LX	SYNC EVO PRO EXTENSION LEFT, BUILD SPECIFIC	1
8	SYN-EVO-PRO-CL-MED-CVR-LR	SYNC EVO PRO CLAMP COVER, MEDIUM	2
9	SYN-EVO-PRO-CB-CP-95-LX	SYNC EVO PRO CUP 95MM LEFT	1
10	SYN-EVO-PRO-CB-CP-95-RX	SYNC EVO PRO CUP 95MM RIGHT	1
11	SYN-EVO-PRO-GR-XXX-XXX-XX-LX	SYNC EVO PRO GRIP LEFT, BUILD SPECIFIC	1
12	SYN-EVO-PRO-GR-XXX-XXX-XX-RX	SYNC EVO PRO GRIP RIGHT, BUILD SPECIFIC	1
13	SYN-EVO-PRO-CM-XXX	SYNC EVO PRO COMPUTER MOUNT, BUILD SPECIFIC	1
14	-	M5X12MM CSK T25 (ISO14581)	2
15	-	BASE BAR ADAPTER CONNECTION SCREW- BIKE SPECIFC	4
16	-	M5x16MM-75MM SOCKET HEAD CAP SCREW	4
17	-	M3X6MM CSK T10	4
18	-	M5X10MM CSK T25 (ISO10642)	4
19	-	M5X12MM CSK T25 (ISO14581)	6

SPACER INSTALLATION

AB03 extensions have been designed as a direct replacement for our AB02 tube type extension clamps. Being the same stack height and offering the same cup placement, AB03 extensions bolt on directly in place of our standard AB02 extensions, using the same spacer configuration.

NOTE: Please refer to our bike specific BOMs for information on each fit kit.

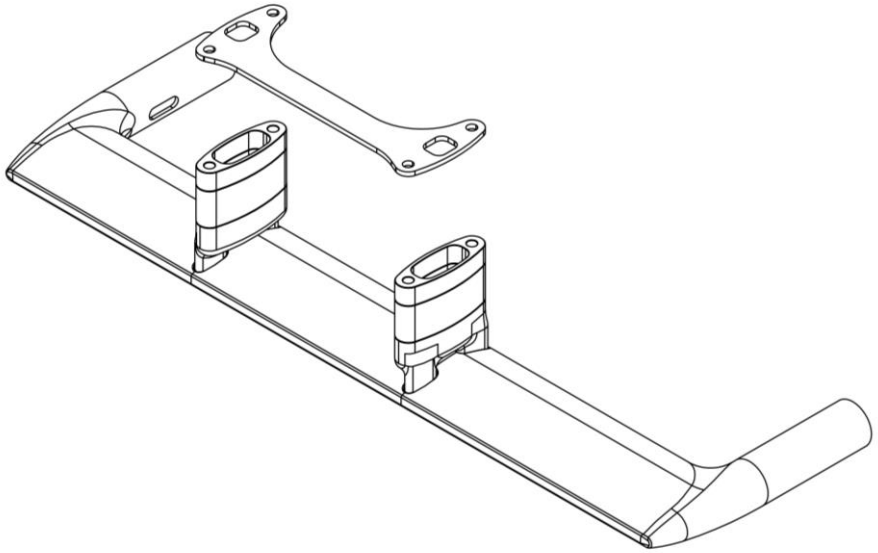


AB03 BRIDGE SELECTION

We recommend the use of a bridge (support brace) on most bikes when your spacer height exceeds 30 mm. The non-UCI bridge can be placed at the top of the spacer stack, below the AB03 extensions.

For UCI application, our UCI bridge must be used. This meets the requirement for being 10 mm thick, where the standard 2.5 mm thick plate is non-compliant.

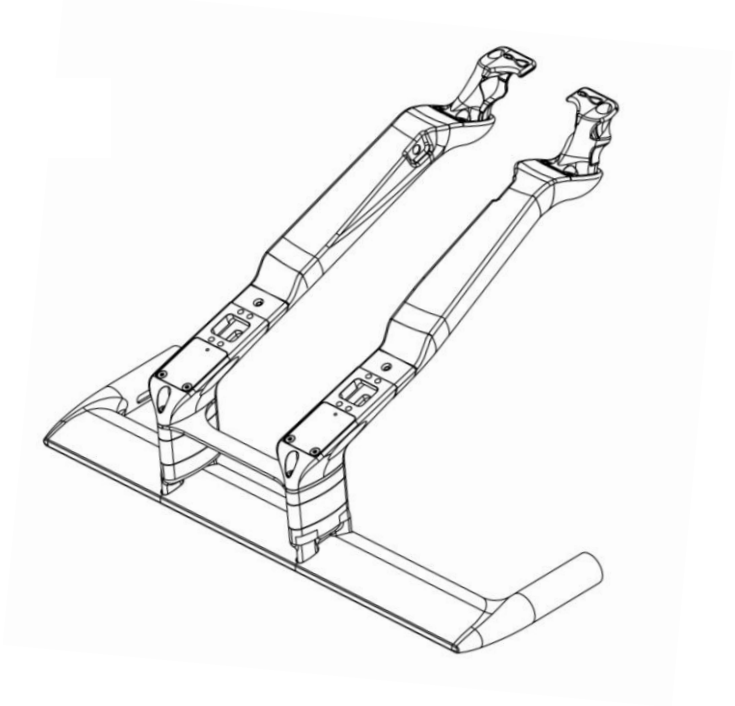
NOTE: Please refer to the following bolt selection tables to ensure you have the correct bolt length for your spacer configuration. There is no change to the bolt length when using the non-UCI bridge. When using a UCI bridge, a change of bolt length is required.

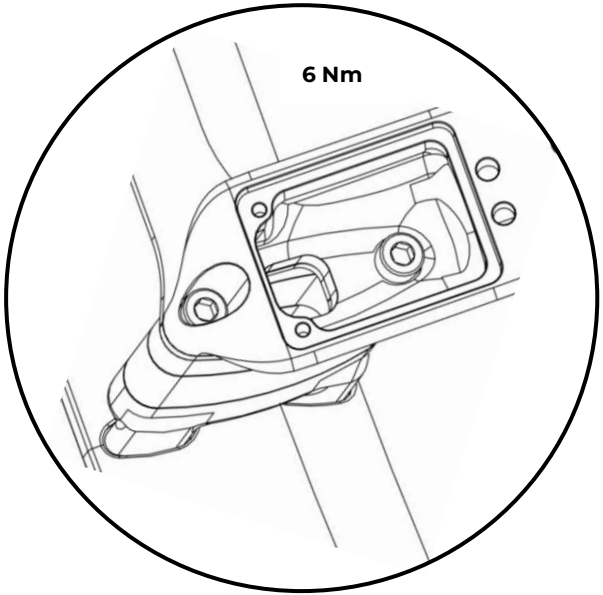


EXTENSION INSTALLATION

The AB03 extension system uses a bolt down arrangement for all compatible bikes. Ensure you select the appropriate bolt length for the spacer stack you have installed (refer to page 8). We recommend the application of **MOTOREX Bike Grease** for the clamp bolts.

NOTE: Torque the AB03 clamp bolts to **6 Nm**.

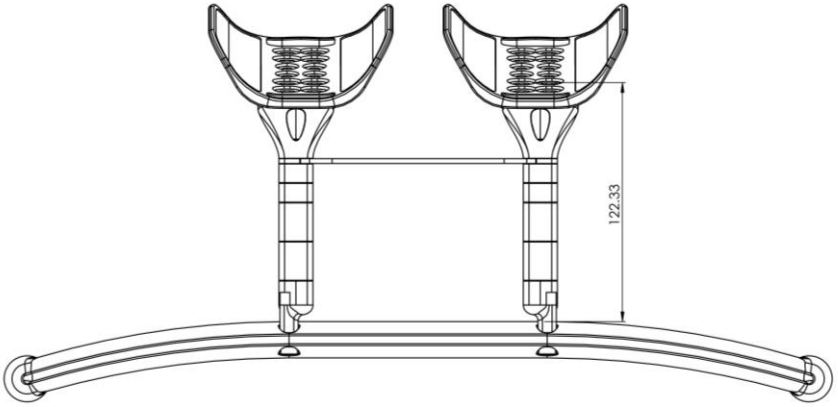




AB03 SPACER AND BOLT CHART

COMPONENTS	SPACER STACK (MM)	BOLT LENGTH (MM)
BASEBAR ADAPTER	0	16
10 MM SPACER	1 X 10 MM	25
20 MM SPACER	1 X 20 MM	35
30 MM SPACER	1 X 20 MM & 1 X 10 MM	45
40 MM SPACER	1 X 40 MM	55
50 MM SPACER	1 X 10 MM & 1 X 40 MM	65
60 MM SPACER	1 X 20 MM & 1 x 40 MM	75

STANDARD SPACER CONFIGURATION STACK HEIGHT

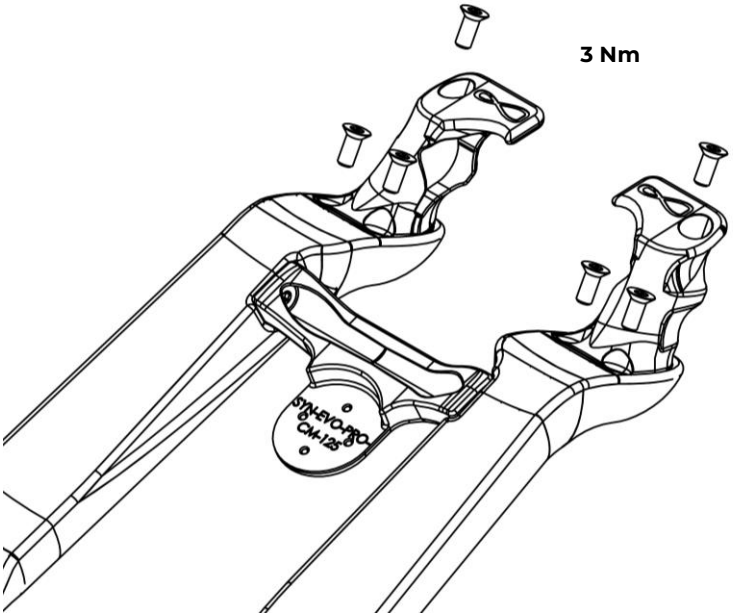


GRIP INSTALATION

Press your shifters into the pockets within the grips. Each type of shifter requires a unique shape pocket, so any change of groupset will require a change of grip.

AB03 grips are secured with three M5 Torx head countersunk screws, per grip. Torque to 3 Nm and periodically check the torque of these screws.

NOTE: Periodically check screw torque.

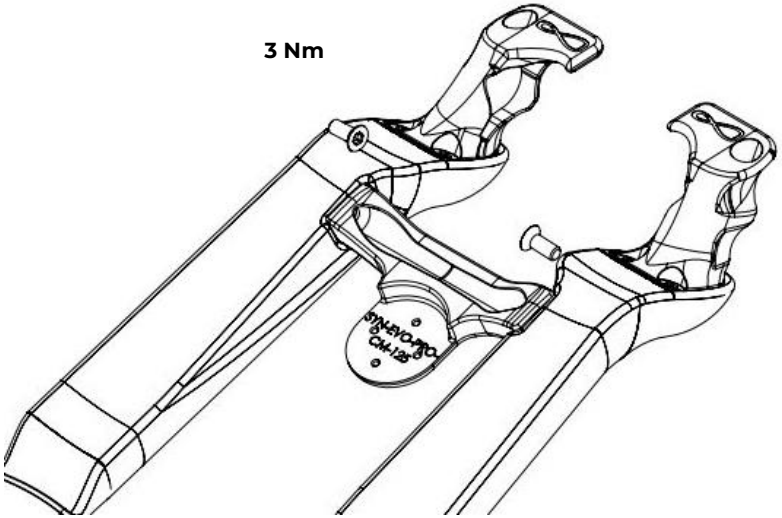


COMPUTER MOUNT

AB03 computer mounts are secured with two M5 Torx head countersunk screws. Torque to 3 Nm and periodically check the torque of these screws.

For UCI application, when using a UCI bridge, a single-sided computer mount is required. This uses a single screw connection on the right-hand side and has a cover (blank) installed on the left-hand side.

NOTE: Periodically check screw torque.



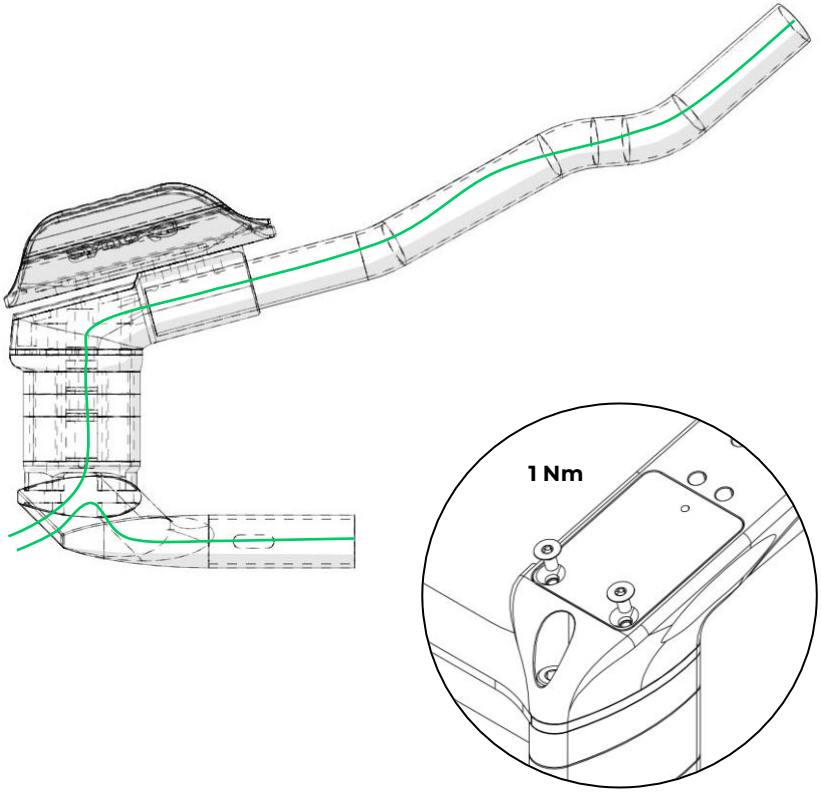
NOTES ON WIRING

SHIMANO DI2 Thanks to the connection at the shifter, you can run the Di2 wires through the spacer stack during assembly, leaving sufficient length to connect the shifters as a final step.

The wires will run through the basebar adapter/s, through the spacers, bridge and into the extension.

SRAM E-TAP AXS is catered for with the wireless blips only. We do not currently provide a SRAM grip that allows for the standard Clics wired shifters.

Once you have completed installation of the extensions and finished wiring the shifters, complete the clamp assembly by securing the top caps, ensuring each top cap screw is torqued to 1 Nm.

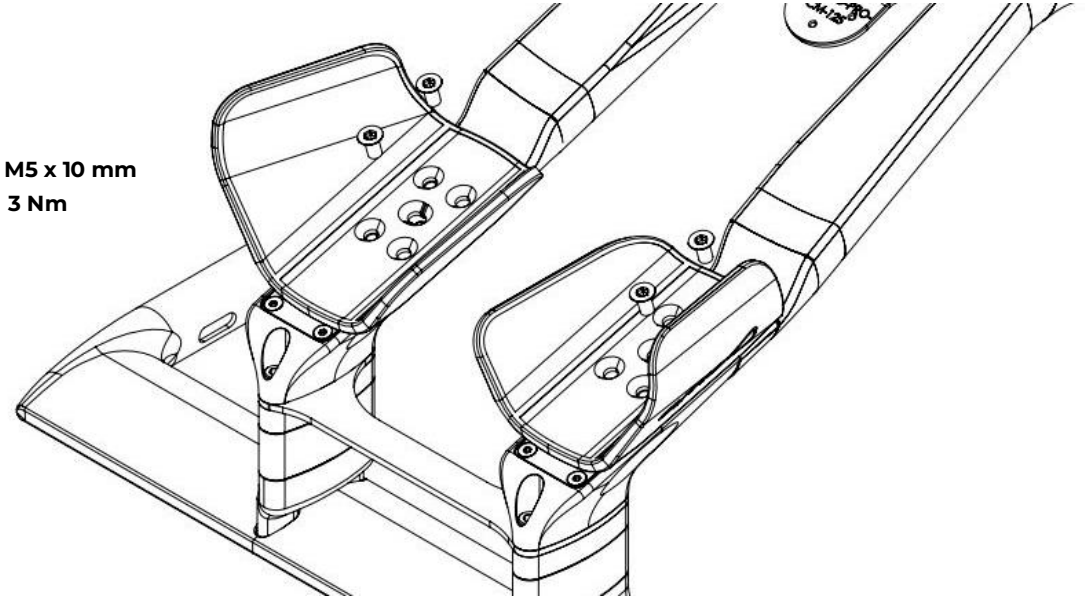


PERFORMANCE CUP INSTALLATION

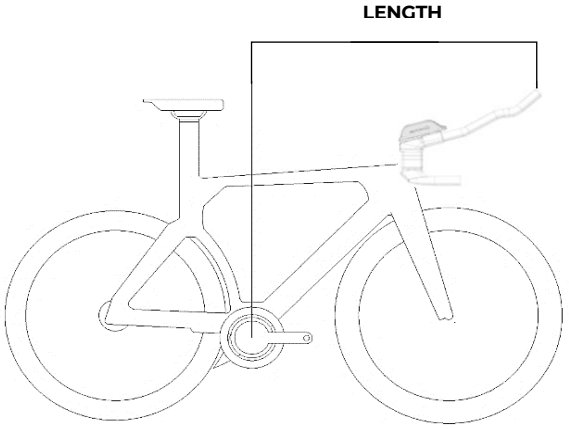
Performance arm cups are directional. Cups should be mounted with the slim end of the arm cup facing forward. For each arm cup, use the supplied Torx countersunk screws for connection to the extension clamp. We recommend the application of a very small amount of **MOTOREX Bike Grease** for the arm cup screws.

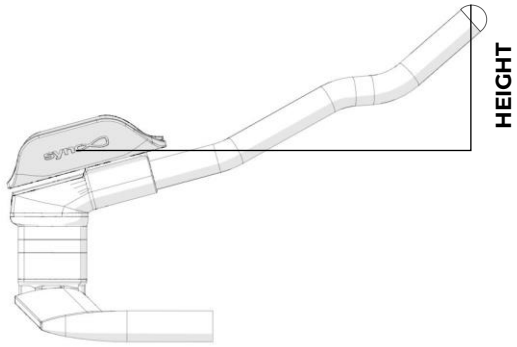
For the absolute minimum amount of thickness, we use an adhesive backed EVA foam backing solution. Apply the final base layer once the cups are in place and the cup screws have been torqued (3 Nm).

WARNING: Over torquing the cup connection screws will lead to permanent damage of the arm cup base plate. Sync Ergonomics is not liable for product damage and/or personal injury resulting from inappropriate product setup.



UCI COMPLIANCE CHECK





CATEGORY X
SADDLE OFFSET - 0-50 MM
LENGTH ALLOWED – 750 MM
HEIGHT ALLOWED – 100 MM
ANGLE SUGGESTED – 15 DEGREES

CATEGORY 1
ATHLETE HEIGHT - <180 CM TALL
SADDLE OFFSET - =/>50 MM
LENGTH ALLOWED – 800 MM
HEIGHT ALLOWED – 100 MM
ANGLE SUGGESTED – 15 DEGREES

CATEGORY 2
ATHLETE HEIGHT - =/>180 CM TALL
SADDLE OFFSET - =/>50 MM
LENGTH ALLOWED – 830 MM
HEIGHT ALLOWED – 120 MM
ANGLE SUGGESTED – 20 DEGREES

CATEGORY 3
ATHLETE HEIGHT - =/>190 CM TALL
SADDLE OFFSET - =/>50 MM
LENGTH ALLOWED – 850 MM
HEIGHT ALLOWED – 140 MM
ANGLE SUGGESTED – 22.5 DEGREES

For clarification of the UCI Technical regulation, please see here:
https://www.uci.org/equipment/bh2JJzw1eB0n876rX2iB1?_ga=2.231545055.1112098212.1671983685-1469624865.1671983685