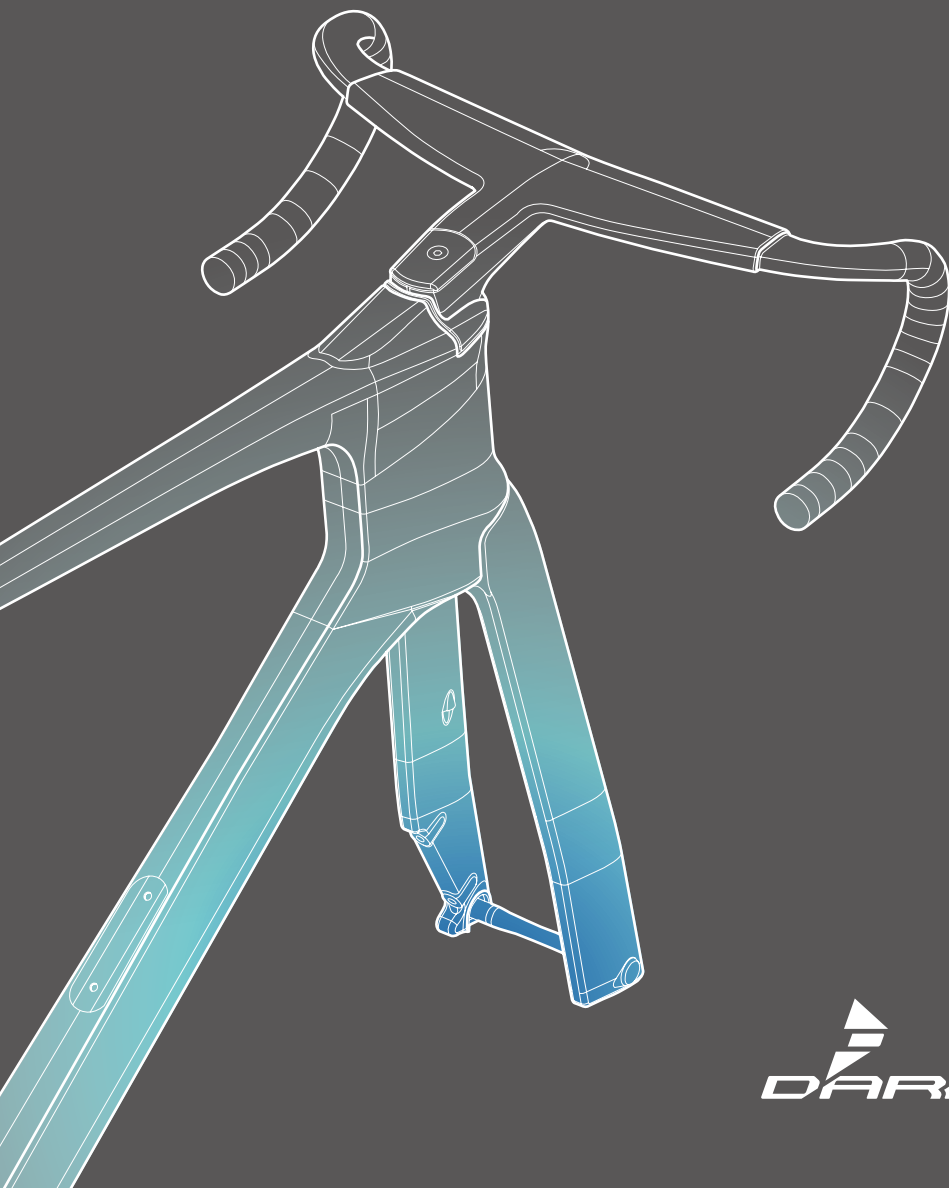


# VA-AFO ASSEMBLY MANUAL



# INTRODUCTION

## Thank you for choosing DARE Bikes!

This technical manual will provide important information regarding the assembly of your bike, please be sure to read it thoroughly. The information provided within is essential to establishing a good understanding of your bike with up-to-date technical knowledge.

To see information regarding correct operation of the bike after full assembly and the parts that need adjustment to maintain rider safety, check out our “Operating Manuals” at [www.dare-bikes.com/download](http://www.dare-bikes.com/download). You can also find care and use instructions for parts on your DARE bike such as wheelsets, transmission systems, and seats on the manufacturer’s website or at official retailers in your country.

- This manual does not cover all technical knowledge regarding bikes, and will not be able to teach you to be a technician.
- The main purpose of this manual is to introduce the fundamentals of bicycle care, and provide other important or cautionary information you need to know about your new DARE bike.
- This manual is not to be used for assembling a complete bike. It does not contain instructions on how to assemble each part onto the bike.
- For information on parts not manufactured by DARE, please refer to manuals from the original manufacturers.
- The technical information in this manual may be updated periodically. For the most up-to-date information, please visit the “Downloads” page of the official DARE website at [www.dare-bikes.com/download](http://www.dare-bikes.com/download).

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# PRODUCT WARRANTY STATEMENT

## 1. Bikes have a finite lifespan

Many people believe that bicycles can be used indefinitely, especially high-end bicycles. In reality, much like cars and motorcycles, bicycles are assembled from multiple parts and each part has a unique material composition and lifespan. Each part requires periodic maintenance and adjustment to ensure correct operation during its lifespan.

## 2. The importance of bike maintenance, repair, and safe operation

The method, intensity, and environment in which you use your bike will all affect the lifespan of your bike and its individual components. That's why regular maintenance and repair is of utmost importance. Proper maintenance, inspection, and repair can guarantee that a bike continues to operate normally, safely, and that its parts maintain their expected service life. Make sure to operate the bike correctly as well: wearing appropriate protection, bringing equipment, and riding in suitable environments. This will protect both your personal safety and the condition of your bike.

## 3. Proper bike storage

UV rays, rainwater, humidity, seawater, mud, sweat, and heat can all cause damage to your bike's paint, frame, or individual parts, and reduce its lifespan. Proper storage of your bike will be away from UV rays, in a clean, cool, and dry environment. If the bike has been used in an environment with high salinity or on a salted road, be sure to clean and dry the bike thoroughly. Your bike should be cleaned and lubricated each time it is placed into storage. Any paint, decals, and finish on a frame could fade over time and with sun exposure. Lubricating products will decrease in effectiveness over time, if your bike has not been used for a long period of time, make sure to properly apply lubricant before riding it again.

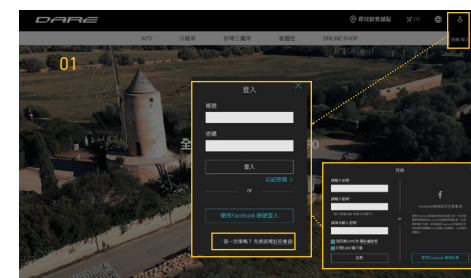
## 4. Warranty claims

All warranty claims must be filed via authorized DARE retailers. DARE and the retailer will diagnose the issue and contact you with a final warranty determination. For the latest warranty details and accidental collision policies, please visit [www.dare-bikes.com/policy](http://www.dare-bikes.com/policy).

## 5. Registering your purchase

To receive DARE's extended warranty, please register your purchase at [www.dare-bikes.com](http://www.dare-bikes.com) within 15 days of receiving the product. There should be a delivery date specified on your proof of purchase, if it is not stated the registration period will begin from the date of purchase.

If you have any questions about your purchase, please contact the authorized DARE retailer that you purchased your product from ([www.dare-bikes.com/retailer](http://www.dare-bikes.com/retailer)). If they are unable to resolve your issue, please email us at [service@dare-bikes.com](mailto:service@dare-bikes.com).



### Registration Process

1. Create a DARE membership account
2. Fill in your personal details, frame information, and proof of purchase details

# INSTRUCTIONAL SYMBOLS

This manual uses the symbols below to bring your attention to information and warnings regarding maintenance and assembly. Please carefully read and follow the instructions provided, this will ensure correct installation and use of parts and prevent potential hazards.

## Safety Instructions

 **Warning**  
Potentially dangerous, could cause serious harm or fatalities if not avoided.

 **Caution**  
Potentially dangerous, could cause minor to moderate harm if not avoided.

 **Notice**  
Assembly tips or cautionary advice, will not cause injury but could result in broken parts.

\* Warning symbols mean that if the situation is not properly handled, it could result in accident or injury. Even if this manual does not specifically mention fatalities, the risk is always present.

## Wrench Sizes and Torque Specs

 **4**  
10 Nm  
Allen key size  
If a diagram specifies an Nm value, that means a torque wrench must be used to ensure the correct torque is applied (for example, the diagram may specify to use a 4mm Allen wrench at 10Nm)

## Assembly Compounds

 **Grease**  
Prevents abnormal sounds

 **Carbon paste**  
Increases surface friction and prevents abnormal sounds

 **Loctite**  
Locks screw threads (prevents loosening)

# FRAMESET SPECS

|                                   |                                                                                                                                                                                                                             |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FRAME                             | DARE VA-AFO DGTM + Torayca® T1100G/M46X carbon frame                                                                                                                                                                        |
| FRAME SIZE                        | 2XS / XS / S / M / L / XL                                                                                                                                                                                                   |
| FORK                              | DARE VA-AFO DGTM + Torayca® T1100G/M46X carbon fork, 32c max tyre clearance, offset 50°                                                                                                                                     |
| SEATPOST                          | DARE V:P1 carbon kammtail shape seatpost 250/300/350mm                                                                                                                                                                      |
| WEIGHT                            | Frame: 938g (M size, raw) + 152g (frame parts)<br>Fork: 446g (raw) + 5g (fork parts)<br>Seatpost: 215g (300mm)                                                                                                              |
| COLORS                            | Swift Black, Silver Lightning, MYDARE custom colors                                                                                                                                                                         |
| HEADSET                           | CeramicSpeed SLT bearings, Ø40xØ52x7mm, -45°x45°                                                                                                                                                                            |
| SPACER                            | Black plastic spacer for V:C1, 1.125", 5mm thick (10 pcs)                                                                                                                                                                   |
| FORK STEERER TUBE                 | Tapered 1 1/8" - 1 1/2"                                                                                                                                                                                                     |
| FORK LENGTH                       | 369mm                                                                                                                                                                                                                       |
| WHEEL SIZE                        | 700C                                                                                                                                                                                                                        |
| MAXIMUM TYRE WIDTH                | 32C                                                                                                                                                                                                                         |
| BOTTOM BRACKET                    | Press Fit 86.5, internal diameter 41mm                                                                                                                                                                                      |
| FRONT DROPOUTS                    | 12x100mm with DARE thru axle 12x116mm, p1.5, max 10Nm                                                                                                                                                                       |
| REAR DROPOUTS                     | 12x142mm with DARE thru axle 12x162mm, p1.5, max 10Nm                                                                                                                                                                       |
| AXLE LEVER                        | DARE carbon hex. 6mm allen key                                                                                                                                                                                              |
| MINIMUM SEATPOST INSERTION        | 90mm                                                                                                                                                                                                                        |
| MAXIMUM SEATPOST INSERTION        | 2XS 140mm, XS 160mm, S 190mm<br>M 210mm, L 220mm, XL 270mm                                                                                                                                                                  |
| FRONT DERAILLEUR MOUNT            | Available remove, 3Nm                                                                                                                                                                                                       |
| MINIMUM CHAINRING (2X)            | Standard FD mount: 30T<br>Large FD mount (additional purchase): 36T                                                                                                                                                         |
| MAXIMUM CHAINRING SIZE RANGE (2X) | Standard FD mount: 46-54T<br>Large FD mount (additional purchase): 52-58T                                                                                                                                                   |
| REAR DERAILLEUR HANGER            | Standard derailleurs, direct mount                                                                                                                                                                                          |
| BRAKE                             | Disc flat mount, 140/160mm (with adapter)                                                                                                                                                                                   |
| CABLE ROUTING                     | Shifter: only available internal electronic (Shimano Di2 or SRAM eTap)<br>Front brake: internal in front of headset and fork steer, and out fork leg<br>Rear brake: internal in front of headset, downtube, and out left CS |
| MUDGUARDS                         | No                                                                                                                                                                                                                          |
| RACKS                             | No                                                                                                                                                                                                                          |
| UCI LEGAL                         | Yes                                                                                                                                                                                                                         |

# COMPONENTS

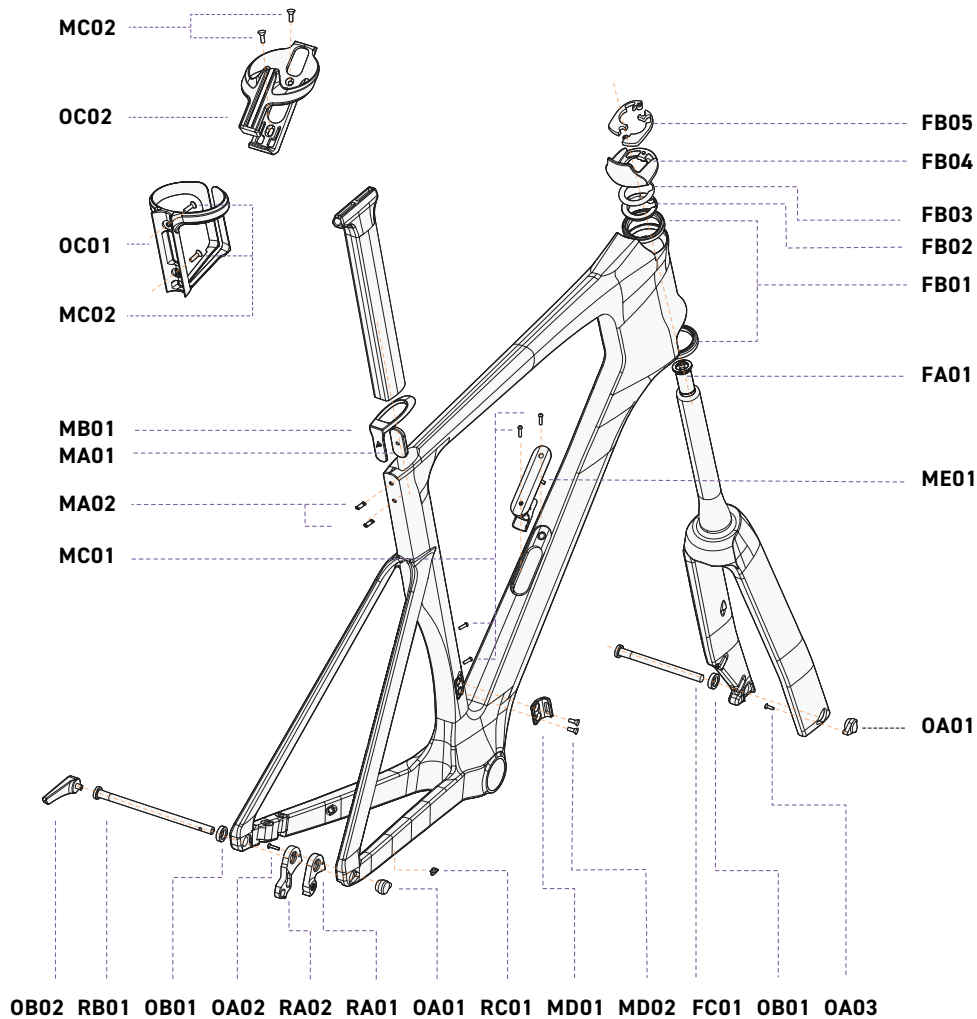
| No.  | Item Name                                            | Qty | No.  | Item Name                                      | Qty |
|------|------------------------------------------------------|-----|------|------------------------------------------------|-----|
| FA01 | Plug expander                                        | 1   | OA01 | Thru axle nut                                  | 2   |
| FB01 | Headset bearing<br>Ø40 * Ø52 * 7 mm                  | 2   | OA02 | Axle mount flat screw<br>M3 * 13 * 11 mm       | 1   |
| FB02 | Headset compression ring                             | 1   | OA03 | Axle mount flat screw<br>M3 * 10 * 8 mm        | 1   |
| FB03 | 0.2mm headset washer                                 | 3   | OB01 | Thru axle spacer                               | 2   |
| FB04 | Headset - SP frame cap                               | 1   | OB02 | Carbon axle lever                              | 1   |
| FB05 | 5mm headset spacer                                   | 10  | OC01 | V:B1 ST aero bottle cage                       | 1   |
| FC01 | Front thru axle                                      | 1   | OC02 | V:B2 DT aero bottle cage                       | 1   |
|      |                                                      |     | OD01 | Churro foam cable sleeve                       | 1   |
| MA01 | Magnetic seatpost clamp                              | 1   | SA01 | Saddle clamp kit                               | 1   |
| MA02 | Seatpost clamp set screw<br>M5 * 10 * 10 mm          | 2   |      |                                                |     |
| MB01 | Seatpost waterproof cover                            | 1   | CA01 | Stem top cap                                   | 1   |
| MC01 | Bottle cage stainless round screw<br>M5 * 15 * 12 mm | 4   | CA02 | Stem flat screw<br>M6 * 35 * 31.5 mm           | 1   |
| MC02 | Bottle cage flat titanium screw<br>M5 * 15 * 12 mm   | 4   | CB01 | Stem socket screw<br>M5 * 21 * 16 mm           | 2   |
| MD01 | FD mount                                             | 1   |      |                                                |     |
| MD02 | FD mount flat screw<br>M5 * 16 * 12 mm               | 2   | EA01 | V:C1 computer mount                            | 1   |
| ME01 | Di2 battery mount                                    | 1   | EA02 | Computer mount adapter                         | 1   |
|      |                                                      |     | EA03 | Adapter flat screw<br>M3 * 8 * 5 mm            | 2   |
| RA01 | Standard hanger                                      | 1   | EA04 | Adapter mount                                  | 1   |
| RA02 | Direct mount hanger                                  | 1   | EA05 | Computer mount socket screw<br>M4 * 20 * 18 mm | 2   |
| RB01 | Rear thru axle                                       | 1   | EA06 | GoPro mount adapter                            | 1   |
| RC01 | Di2 circle grommet                                   | 1   | EA07 | GoPro mount round screw<br>M5 * 23 * 20 mm     | 1   |



• If replacement components are needed, please provide complete component information and contact an official DARE retailer at dare-bikes.com/retailer for purchase.

• The listed components apply to framesets only. For complete bikes, please check the official website or consult an authorized dealer.

• The above diagram is not to scale and is for illustration purposes only.



| No.  | Item Name           | Qty | No.  | Item Name                                            | Qty |
|------|---------------------|-----|------|------------------------------------------------------|-----|
| RA01 | Standard hanger     | 1   | FA01 | Plug expander                                        | 1   |
| RA02 | Direct mount hanger | 1   | FB01 | Headset bearing<br>Ø40 * Ø52 * 7 mm                  | 2   |
| RB01 | Rear thru axle      | 1   | FB02 | Headset compression ring                             | 1   |
| RC01 | Di2 circle grommet  | 1   | FB03 | 0.2mm headset washer                                 | 3   |
|      |                     |     | FB04 | Headset - SP frame cap                               | 1   |
|      |                     |     | FB05 | 5mm headset spacer                                   | 10  |
|      |                     |     | FC01 | Front thru axle                                      | 1   |
|      |                     |     |      |                                                      |     |
|      |                     |     | MA01 | Magnetic seatpost clamp                              | 1   |
|      |                     |     | MA02 | Seatpost clamp set screw<br>M5 * 10 * 10 mm          | 2   |
|      |                     |     | MB01 | Seatpost waterproof cover                            | 1   |
|      |                     |     | MC01 | Bottle cage stainless round screw<br>M5 * 15 * 12 mm | 4   |
|      |                     |     | MC02 | Bottle cage flat titanium screw<br>M5 * 15 * 12 mm   | 4   |
|      |                     |     | MD01 | FD mount                                             | 1   |
|      |                     |     | MD02 | FD mount flat screw<br>M5 * 16 * 12 mm               | 2   |
|      |                     |     | ME01 | Di2 battery mount                                    | 1   |
|      |                     |     |      |                                                      |     |
|      |                     |     | OA01 | Thru axle nut                                        | 2   |
|      |                     |     | OA02 | Axle mount flat screw<br>M3 * 13 * 11 mm             | 1   |
|      |                     |     | OA03 | Axle mount flat screw<br>M3 * 10 * 8 mm              | 1   |
|      |                     |     | OB01 | Thru axle spacer                                     | 2   |
|      |                     |     | OB02 | Carbon axle lever                                    | 1   |
|      |                     |     | OC01 | V:B1 ST aero bottle cage                             | 1   |
|      |                     |     | OC02 | V:B2 DT aero bottle cage                             | 1   |

**i** VA-AFO cables are wired completely internally, so assembly must be done with extra caution. We strongly recommend that you test assemble and complete your bike fitting prior to final bike assembly.

**!** Carbon fiber parts can become damaged due to over-tightened fasteners, resulting in a very dangerous situation for the rider. This is not covered by DARE's warranty, so please be sure to follow the torque specs, use a proper torque wrench, and use the correct compounds when necessary to increase adhesion.

# TORQUE SPECS CHART

| Position  | No.  | Item Name                                          | Allen Key Size (mm) | Torque Value (Nm) | Assembly Compound                                                                   |
|-----------|------|----------------------------------------------------|---------------------|-------------------|-------------------------------------------------------------------------------------|
| Frameset  | MC02 | Bottle cage flat titanium screw<br>M5 * 15 * 12 mm | 3                   | 2                 | *  |
| Frameset  | MC01 | Bottle cage stainless round screw M5 * 15 * 12 mm  | 3                   | 2                 |    |
| Frameset  | MD02 | FD mount flat screw<br>M5 * 16 * 12 mm             | 3                   | 3                 |    |
| Frameset  | RB01 | Rear thru axle                                     | 6                   | 10                |    |
| Frameset  | OA02 | Axle mount flat screw<br>M3 * 13 * 11 mm           | 2.5                 | 1                 |  |
| Frameset  | OA03 | Axle mount flat screw<br>M3 * 10 * 8 mm            | 2.5                 | 1                 |  |
| Handlebar | CA02 | Stem flat screw<br>M6 * 35 * 31.5 mm               | 4                   | 2                 |  |
| Handlebar | CB01 | Stem socket screw<br>M5 * 21 * 16 mm               | 4                   | 4-6 max           |  |

\* To prevent galling of the titanium screws, we recommend applying copper-based anti-seize grease.

| Position       | No.  | Item Name                                      | Allen Key Size (mm) | Torque Value (Nm) | Assembly Compound                                                                     |
|----------------|------|------------------------------------------------|---------------------|-------------------|---------------------------------------------------------------------------------------|
| Fork           | FA01 | Plug expander                                  | 6                   | 10                |    |
| Fork           | FC01 | Front thru axle                                | 6                   | 10                |    |
| Seatpost       | MA02 | Seatpost clamp set screw<br>M5 * 10 * 10 mm    | 2.5                 | 3 max             |    |
| Seatpost       | SA01 | Saddle clamp kit 1                             | 4                   | 5                 |    |
| Seatpost       | SA01 | Saddle clamp kit 2                             | 5                   | 12 max            |  |
| Computer mount | EA03 | Adapter flat screw<br>M3 * 8 * 5 mm            | 2                   | 1                 |  |
| Computer mount | EA05 | Computer mount socket screw<br>M4 * 18 * 14 mm | 3                   | 2                 |  |
| Computer mount | EA07 | GoPro mount round screw<br>M5 * 23 * 20 mm     | 3                   | 2                 |  |

 4

Allen key size

 5 Nm

Torque value

 G

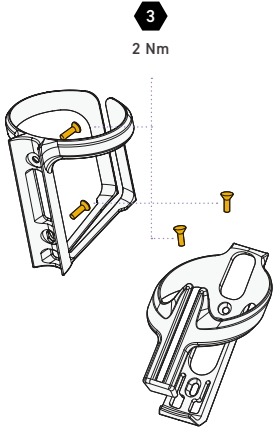
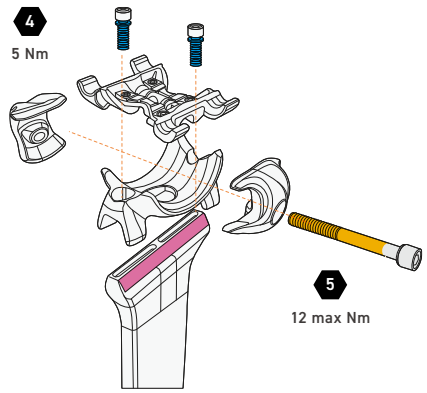
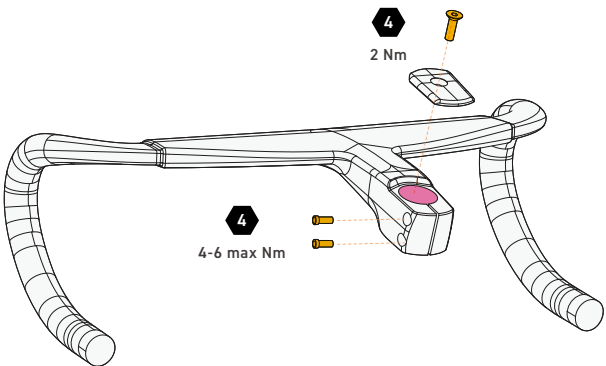
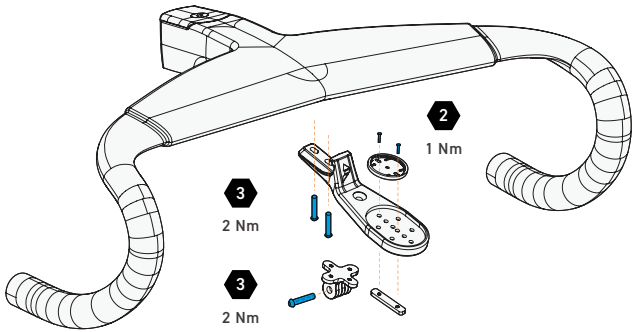
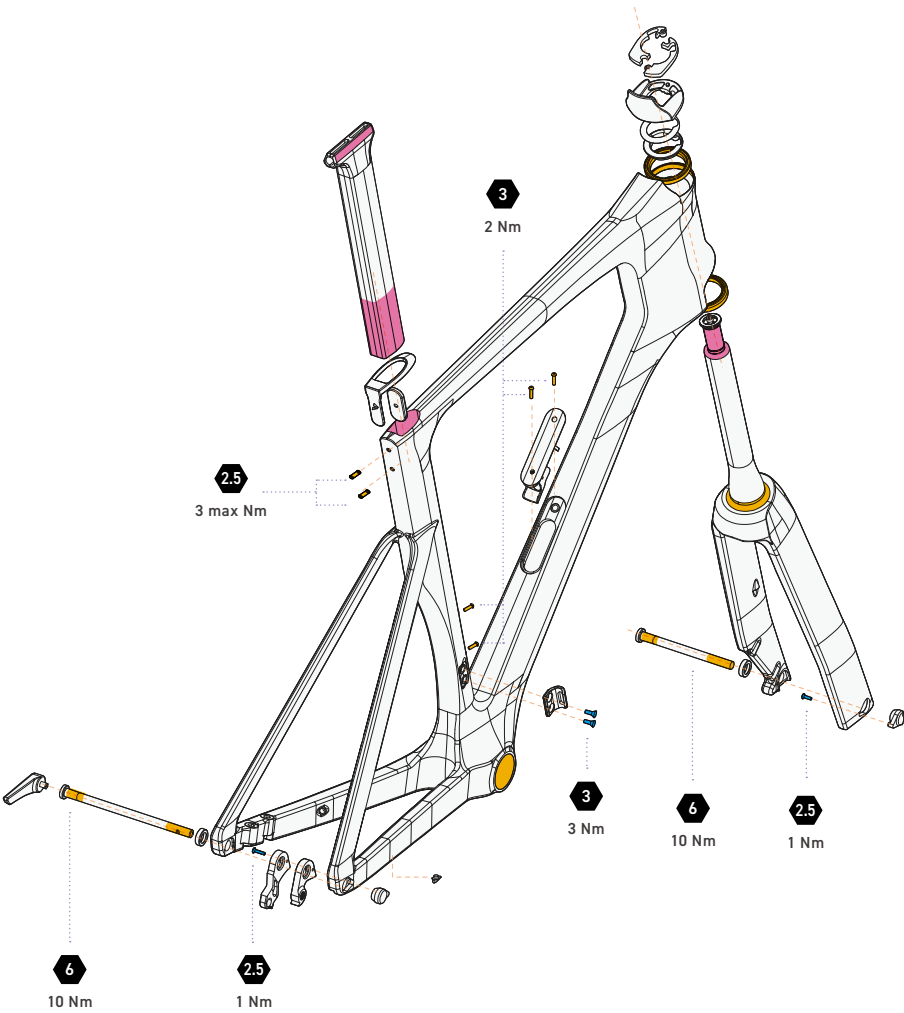
Greasel

 C

Carbon paste

 L

Loctite



 To prevent galling of the titanium screws, we recommend applying copper-based anti-seize grease.

# INTERNAL WIRING DIAGRAM

Based on Shimano Di2 wireless shifting

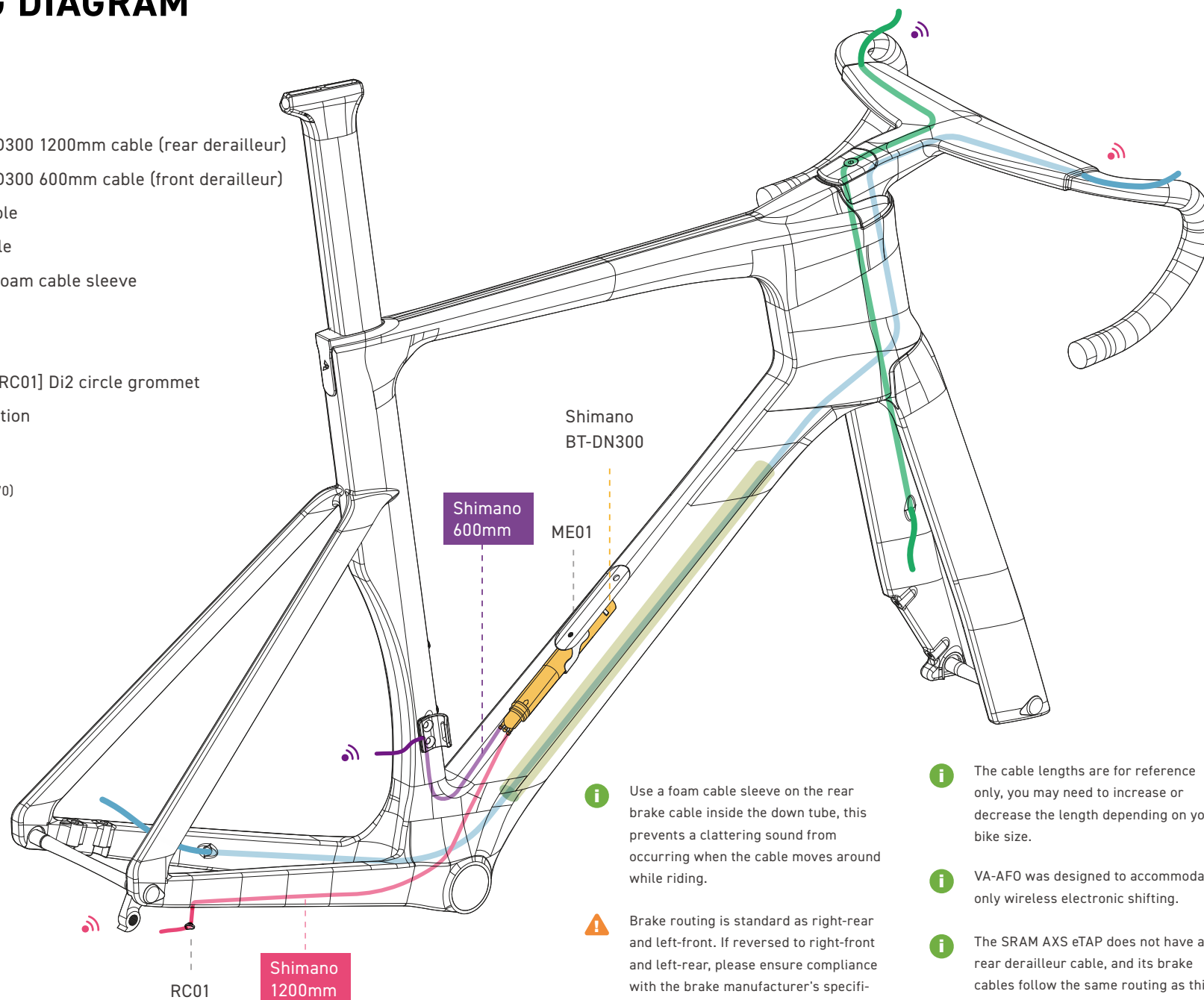
|        |                                                                                                                                   |
|--------|-----------------------------------------------------------------------------------------------------------------------------------|
| Cables |  Shimano EW-SD300 1200mm cable (rear derailleur) |
|        |  Shimano EW-SD300 600mm cable (front derailleur) |
|        |  Front brake cable                               |
|        |  Rear brake cable                                |
|        |  [OD01] Churro foam cable sleeve                 |

Battery Shimano BT-DN300

Other parts [ME01] Di2 battery mount, [RC01] Di2 circle grommet

Icon   Wireless communication

- Electronic shifting only:  
Compatible with Shimano Di2 (R9270, R8170, R7170)  
and SRAM eTap AXS series only.



Use a foam cable sleeve on the rear brake cable inside the down tube, this prevents a clattering sound from occurring when the cable moves around while riding.



Brake routing is standard as right-rear and left-front. If reversed to right-front and left-rear, please ensure compliance with the brake manufacturer's specifications.



The cable lengths are for reference only, you may need to increase or decrease the length depending on your bike size.



VA-AFO was designed to accommodate only wireless electronic shifting.



The SRAM AXS eTAP does not have a rear derailleur cable, and its brake cables follow the same routing as this diagram.

# ASSEMBLY INFORMATION

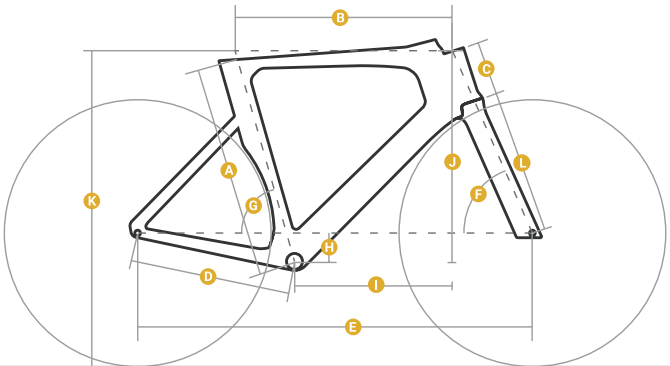
## 1 Tools Needed

- **Bottom bracket bearing press**  
For installing or removing bottom bracket bearings, we recommend Park Tool BBP-1.2
  - **Greasel**  
Prevents abnormal sounds
  - **Carbon paste**  
Increases surface friction and prevents abnormal sounds
  - **Loctite**  
Locks screw threads (prevents loosening)
  - **Gloves and cleaning agents**  
To prevent grease stains
-  All assembly procedures must follow the specified torque values and assembly compound application instructions.



## 2 Sizing

Every DARE model follows a linear reach/stack proportion, providing suitable sizes for every rider. Please have all geometry related information prepared before assembly.

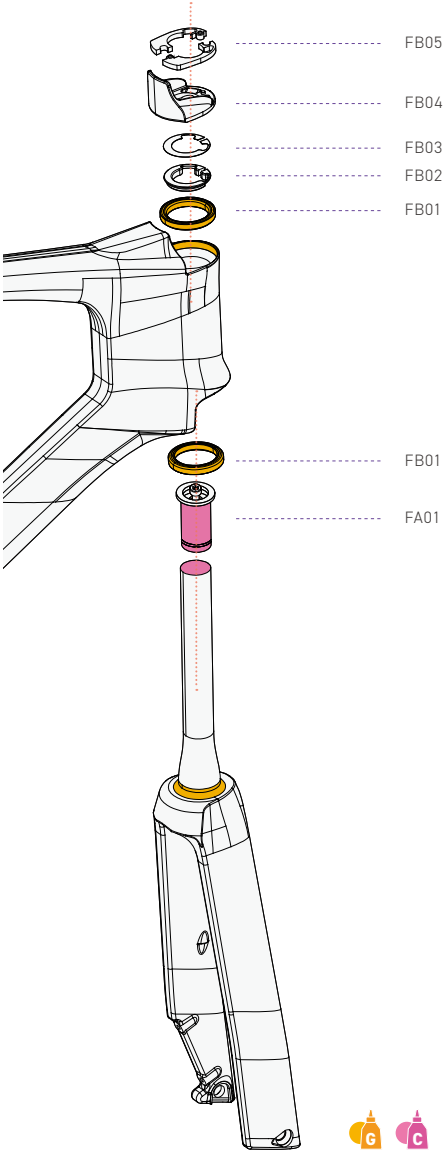


| Frame size            | 2XS | XS   | S   | M    | L    | XL   |
|-----------------------|-----|------|-----|------|------|------|
| Height (cm)           | 158 | 164  | 170 | 175  | 182  | 186  |
|                       | 168 | 174  | 180 | 185  | 192  | 200  |
| <b>A</b> ST length    | 480 | 500  | 520 | 540  | 560  | 580  |
| <b>B</b> Effective TT | 507 | 519  | 544 | 562  | 580  | 598  |
| <b>C</b> HT length    | 77  | 96   | 117 | 138  | 161  | 181  |
| <b>D</b> RC length    | 410 | 410  | 410 | 410  | 410  | 410  |
| <b>E</b> Wheelbase    | 967 | 982  | 997 | 1015 | 1030 | 1048 |
| <b>F</b> HT angle     | 71  | 71.5 | 72  | 72   | 72.5 | 72.5 |
| <b>G</b> ST angle     | 74  | 74   | 74  | 74   | 74   | 74   |
| <b>H</b> BB drop      | 75  | 75   | 73  | 73   | 70   | 70   |
| <b>I</b> Reach        | 372 | 383  | 395 | 407  | 419  | 431  |
| <b>J</b> Stack        | 480 | 500  | 520 | 541  | 561  | 580  |
| <b>K</b> Standover    | 730 | 749  | 770 | 790  | 812  | 831  |
| <b>L</b> Fork length  | 369 | 369  | 370 | 370  | 370  | 370  |



Check out [www.dare-bikes.com/frame-sizing](http://www.dare-bikes.com/frame-sizing) for a quick guide to sizing, but please read and confirm all frame specs carefully before assembly. Contact authorized DARE retailers for professional sizing and fitting services.

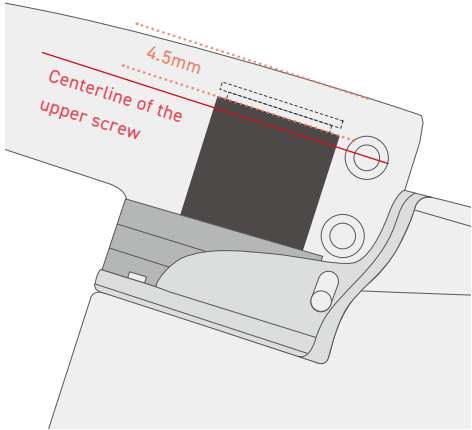
### 3 Fork Length and Headset Components



**Step 3.1** Prepare the frame, fork, headset bearings, headset cap, headset washers, stem, and handlebar, and confirm the number of headset washers needed below the stem.

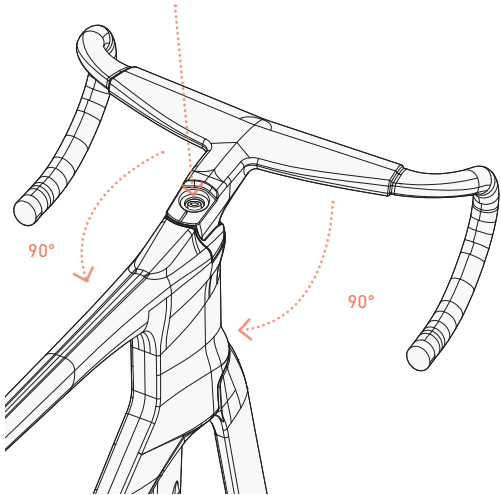
**i** Thin 0.2mm headset washers are provided in case more clearance is needed, they can be excluded or included as the situation requires.

| No.  | Item Name                                                                            | Qty |
|------|--------------------------------------------------------------------------------------|-----|
| FA01 | Plug expander                                                                        | 1   |
| FB01 | Headset bearing $\varnothing 40 * \varnothing 52 * 7$ mm, $-45^{\circ} * 45^{\circ}$ | 2   |
| FB02 | Headset compression ring                                                             | 1   |
| FB03 | 0.2mm headset washer                                                                 | 3   |
| FB04 | Headset - SP frame cap                                                               | 1   |
| FB05 | 5mm headset spacer                                                                   | 10  |



**Step 3.2** Make sure that the fork, headset components, and stem fit together properly. Mark a line on the fork at the top surface of the stem, you'll be trimming the tube at 4.5mm below this line. This leaves just enough space for the headset cap (and includes the height of the fork plug expander).

- !** To ensure a secure grip on the fork, do not trim the steerer tube lower than the center axis of the stem's upper screw.
- i** Test fit the fork and related components before trimming so that you don't potentially over-trim the fork.

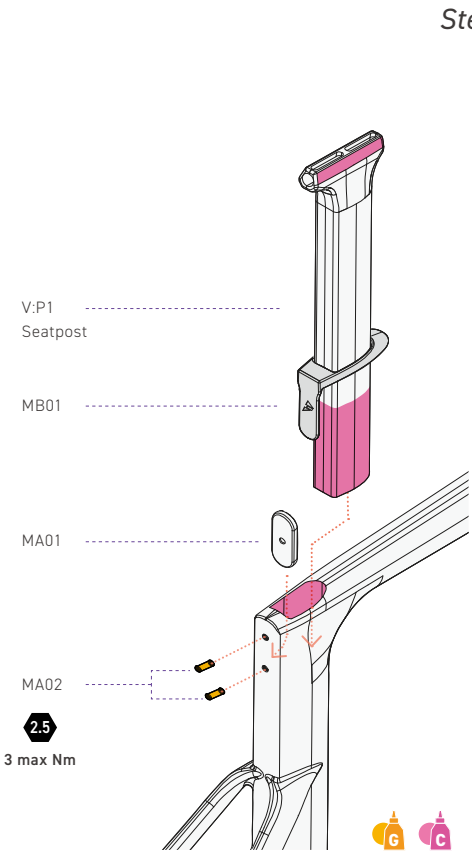


- i** After the handlebar is installed, its turning range is limited to 90 degrees to the left and right relative to the top tube.
- !** The plug expander must be tightened to the specified torque only after the stem has been installed, in order to avoid over-expansion. (For details see Step 6)
- !** Please use the plug expander [FA01] provided and tighten to the specified torque, this plug expander is specifically for carbon tubes. Do not use star nut expanders, as they will damage the carbon fiber tube, which could lead to serious rider injury.

# 4 V:P1 Seatpost Components and Installation

V:P1 is the aerodynamic seatpost for VA-AFO and features a Ritchey single-bolt clamp for easy saddle angle adjustment. It supports a maximum torque of 12 Nm and offers 30 mm of setback adjustment within a 70 to 76 degree range.

## Installing the Seatpost



**Step 4.1** Place the [MB01] seatpost waterproof cover on top of the M:P1 seatpost.

**4.2** [MA01] is a magnetic hidden clip that attaches to the inner rear wall of the seat tube.

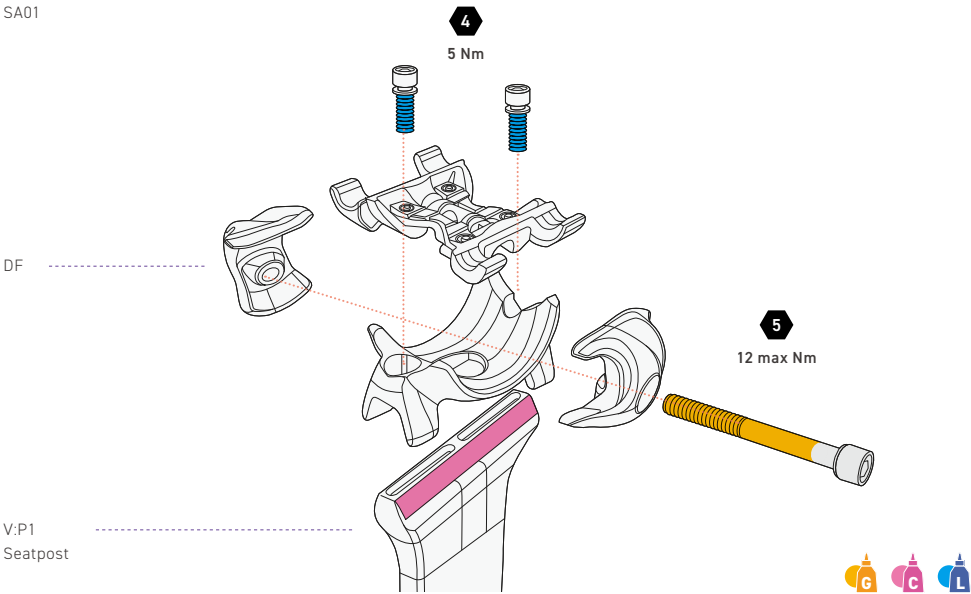
**4.3** After inserting the V:P1 seatpost, it can be secured with the [MA02] headless screw. Maximum torque is 3 Nm.

**!** The seatpost clamp must be tightened to the specified torque, if it is too loose the seatpost may move around, if it is too tight the carbon fiber may crack or become stuck and unable to be removed.

**!** V:P1 must be inserted to a minimum depth of 90mm, make sure to reach at least 90mm for a stable connection.

| No.  | Item Name                                | Qty |
|------|------------------------------------------|-----|
| MA01 | Magnetic seatpost clamp                  | 1   |
| MA02 | Seatpost clamp set screw M5 * 10 * 10 mm | 2   |
| MB01 | Seatpost waterproof cover                | 1   |

## Saddle Clamp Parts



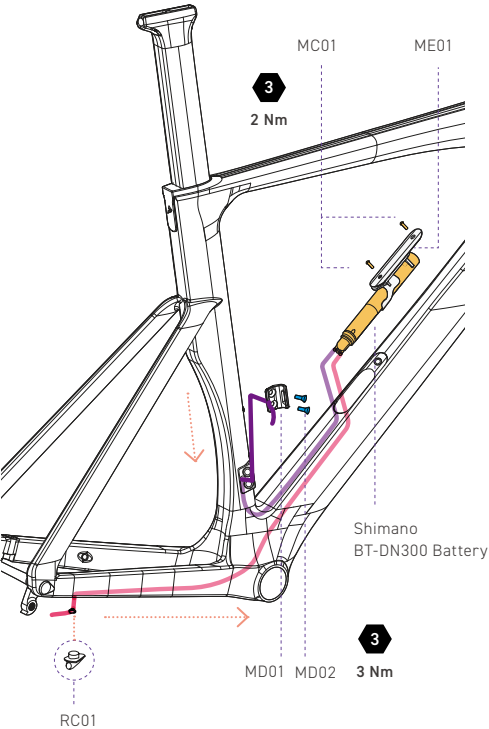
| No.  | Item Name        | Qty |
|------|------------------|-----|
| SA01 | Saddle clamp kit | 1   |

**i** Use the appropriate seat rail clamp for your rail material. The frameset comes with carbon rail inserts (DF). For metal rail inserts (CF), please contact an official DARE retailer.

**!** Tighten the front and rear setback bolts to 5 Nm. Regularly check the torque on both setback and seat rail clamp bolts.

# 5 Installing the Cable Systems

## Shimano Di2 Electronic Shifting Cables



| No.  | Item Name                                            | Qty |
|------|------------------------------------------------------|-----|
| MC01 | Bottle cage stainless round screw<br>M5 * 15 * 12 mm | 2   |
| MD01 | FD mount                                             | 1   |
| MD02 | FD mount flat screw M5 * 16 * 12 mm                  | 2   |
| ME01 | Di2 battery mount                                    | 1   |
| RC01 | Di2 circle grommet                                   | 1   |
|      | Shimano EW-SD300<br>1200mm cable (rear derailleur)   | 1   |
|      | Shimano EW-SD300<br>600mm cable (front derailleur)   | 1   |

**Step 5.1** Rear Derailleur Installation:  
Use the EW-SD300 wire (1200mm), routed through the right chainstay entry port. Insert the [RC01] Di2 circular grommet (EW-GM300-M) at the exit.

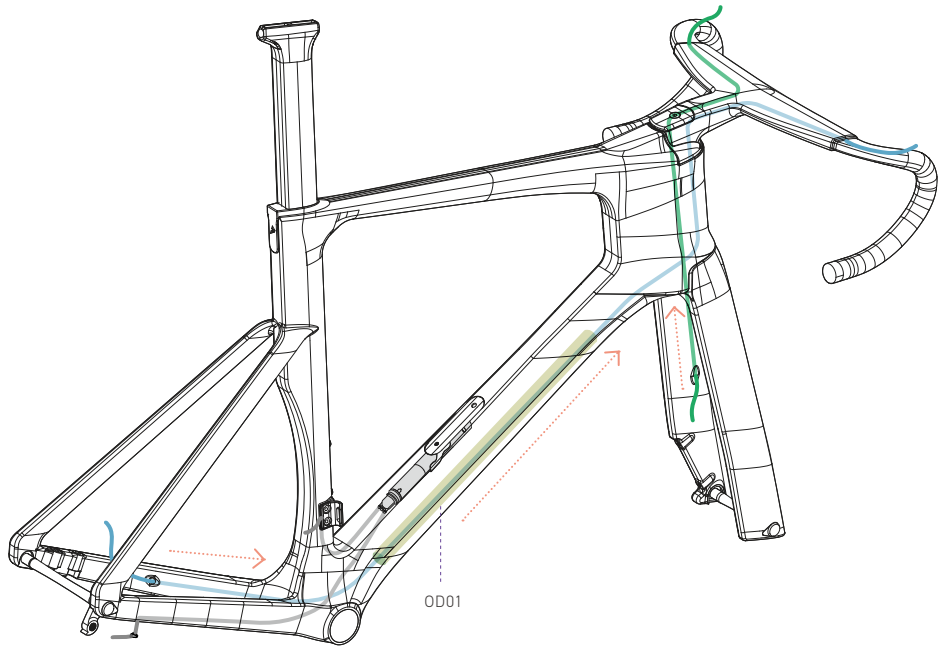
**5.2** Front Derailleur Installation:  
Use the EW-SD300 wire (600mm). Remove the pre-installed [MD01] FD mount, route the wire through the mount's exit port into the downtube, then reattach the [MD01] (recommended torque: 3 Nm).

**5.3** Insert the Shimano BT-DN300 battery into [ME01] battery holder, connect the front and rear derailleur wires, reinstall the holder into the downtube, and tighten the fixing screw (recommended torque: 2 Nm).

**i** Shimano Di2 shifters are wireless, therefore there is no need to connect shifter cables to the handlebars.

**i** SRAM AXS eTap is a fully wireless system, therefore there is no need to install any shifter cables.

## Brake Cables



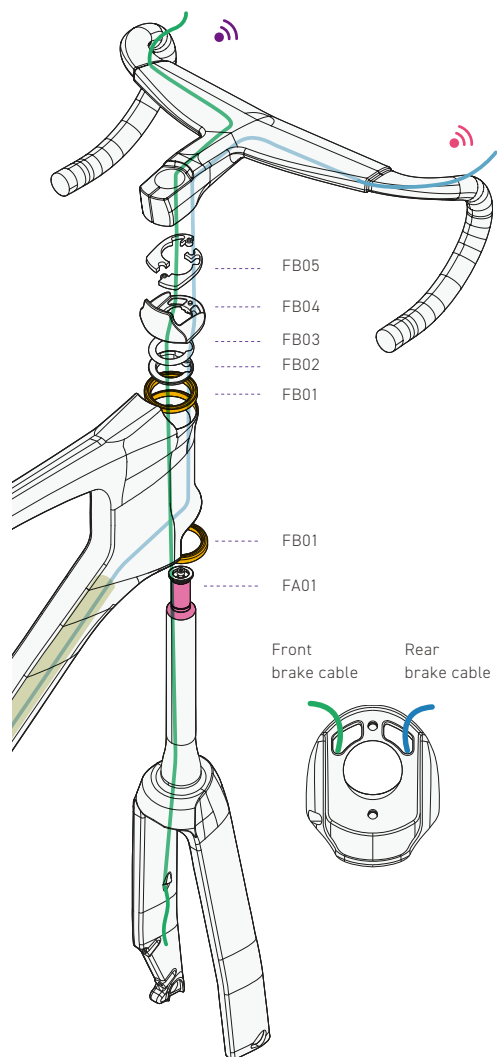
**Step 5.4** Rear brake cable: Route the rear brake cable through the left chainstay, running through the bottom bracket and exiting through the top of the head tube. Cut a [OD01] foam cable sleeve to a similar length as the down tube, slide onto the cable, and adjust the sleeve's position to sit inside the down tube.

| No.  | Item Name                | Qty |
|------|--------------------------|-----|
| OD01 | Churro foam cable sleeve | 1   |
|      | Front brake cable        | 1   |
|      | Rear brake cable         | 1   |

**5.5** Front brake cable: Route the front brake cable through the left fork leg and out the steerer, and then through [FB01] the bottom headset bearing and attach both to the head tube.

**!** Before trimming the brake cables, check that left and right steering is completely smooth and unrestricted by crossed or overly short cables.

**i** The [OD01] foam cable sleeve must be installed to prevent abnormal noise from the cable while riding.



**Step 5.6** In the correct order, thread the [FB01] top headset bearing, [FB02] headset compression ring, [FB04] headset cap, and [FB05] headset spacer onto the steerer tube and brake cables. The brake cables then enter the AERO1v stem from its bottom cable holes, and come out through the ends of each handlebar with the help of a cable routing kit.

The [FB02] headset compression ring, [FB04] headset cap, [FB05] headset spacer, and V:C1 stem all have left and right cable indents. The indents on the left are for the front brake cable, and the indents on the right are for the rear brake cable.

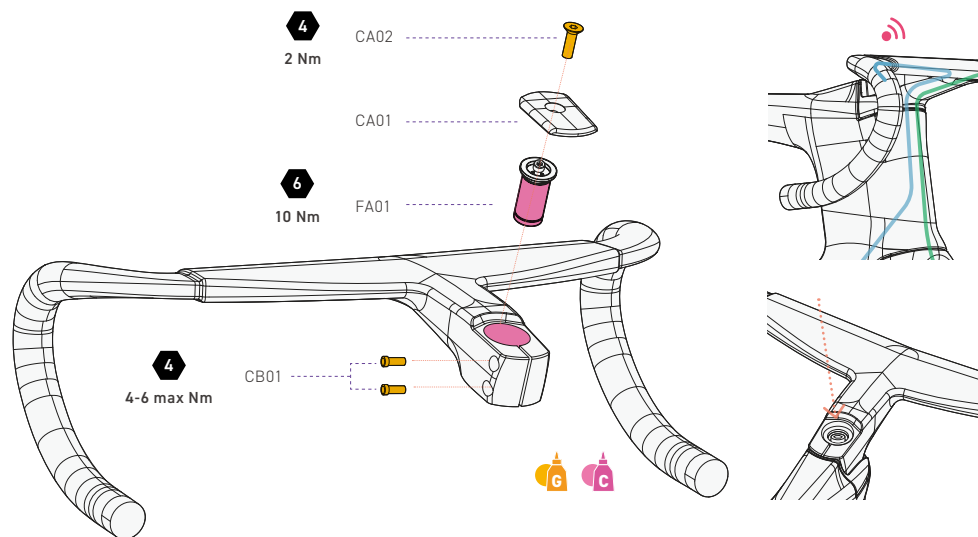
-  Thin [FB03] 0.2mm headset washers are provided in case more clearance is
-  The [FB05] spacer splits left and right, allowing stem height adjustment without rerouting brake cables.
-  VA-AFO comes with CeramicSpeed SLT stainless steel headset bearings that have a lifetime warranty, the dimensions are  $\varnothing 40 \times \varnothing 52 \times 7 \text{ mm}$ ,  $-45^\circ \times 45^\circ$ , 1.5".
-  Shimano 160mm rear rotors are not compatible with XXS and XS sizes due to aero design limits.

 Brake routing is standard as right-rear and left-front. If reversed to right-front and left-rear, please ensure compliance with the brake manufacturer's specifications.



## 6 Installing the V:C1 Integrated Handlebars

DARE aero carbon fiber cockpit is made of DGMT, Torayca® carbon fibers an internal cable hole. It represents an accumulation of precise calculations across each curve, utilizing a flattened top shape that enhances aerodynamic performance while providing more stiffness and comfort for cruising.



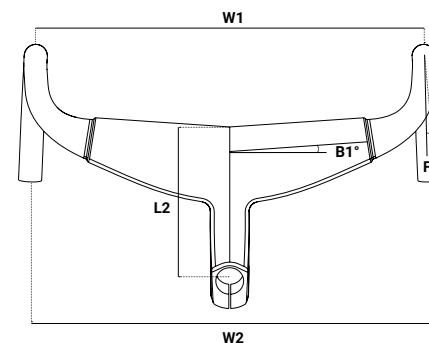
**!** The side bolts for securing the stem should be torqued to 4-6 Nm. The top cap bolt should be tightened to 2 Nm. Grease must be applied to all bolts.

**!** The expander plug is designed specifically for the VA-AFO carbon steerer tube. Do not use expanders from other brands.

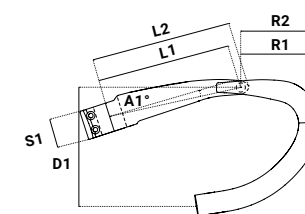
**i** V:C1 only provides internal routing for brake cables and is therefore compatible with wireless shifting systems only. For wired Di2 installation, please consult a certified DARE dealer or technician.

| No.  | Item Name                         | Qty |
|------|-----------------------------------|-----|
| FA01 | Plug expander                     | 1   |
| CA01 | Stem top cap                      | 1   |
| CA02 | Stem flat screw M6 * 35 * 31.5 mm | 1   |
| CB01 | Stem socket screw M5 * 17 * 12 mm | 2   |

### Geometry Code



**i** These handlebars only accommodate electronic shifting.



**i** Please pay special attention when measuring L1.

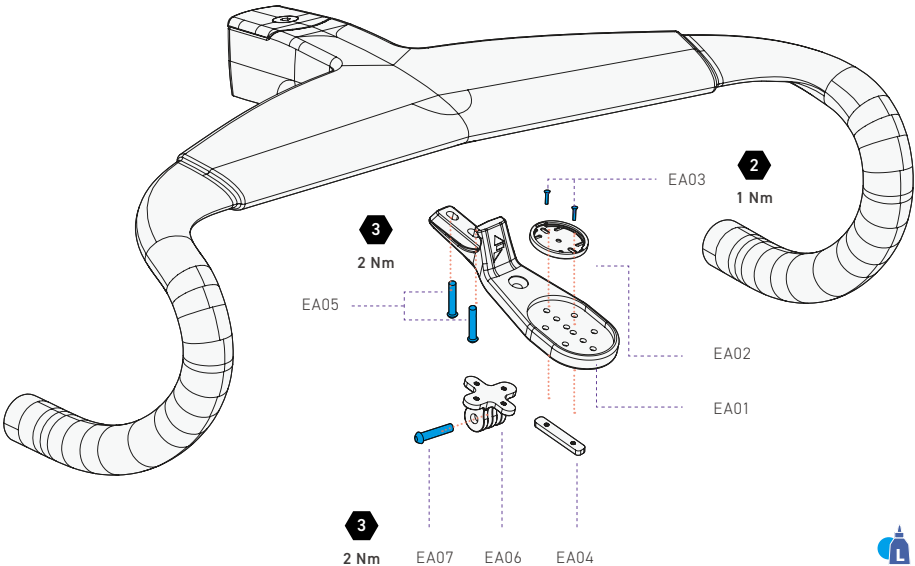
| Size (mm)       | 34                     | 36                                       | 38                                  | 40                                  | 42                                  |
|-----------------|------------------------|------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| W1 Hood-to-hood | 340                    | 360                                      | 380                                 | 400                                 | 400                                 |
| W2 Drop-to-drop | 352                    | 372                                      | 392                                 | 412                                 | 432                                 |
| R1 Reach        | 80                     | 80                                       | 80                                  | 80                                  | 80                                  |
| R2 Reach        | 92                     | 92                                       | 92                                  | 92                                  | 92                                  |
| D1 Drop         | 134                    | 134                                      | 134                                 | 134                                 | 134                                 |
| F1 Drop flare   | 3                      | 3                                        | 3                                   | 3                                   | 3                                   |
| B1 Backsweep    | -4                     | -4                                       | -4                                  | -4                                  | -4                                  |
| A1 Angle        | -6                     | -6                                       | -6                                  | -6                                  | -6                                  |
| S1 Stack        | 33                     | 33                                       | 33                                  | 33                                  | 33                                  |
| L1 Stem length* | 90 · 100<br>110 · 120  | 90 · 100 · 110 · 120<br>130 · 140 · 150* | 100 · 110 · 120<br>130 · 140 · 150* | 100 · 110 · 120<br>130 · 140 · 150* | 100 · 110 · 120<br>130 · 140 · 150* |
| L2 Stem length  | 106 · 116<br>126 · 136 | 106 · 116 · 126<br>136 · 146 · 56 · 166  | 106 · 126 · 136<br>146 · 156 · 166  | 106 · 126 · 136<br>146 · 156 · 166  | 106 · 126 · 136<br>146 · 156 · 166  |

\* L1 stem length = the center of the stem clamp to the center of the handlebar tube at the front, or L2 minus 7mm.

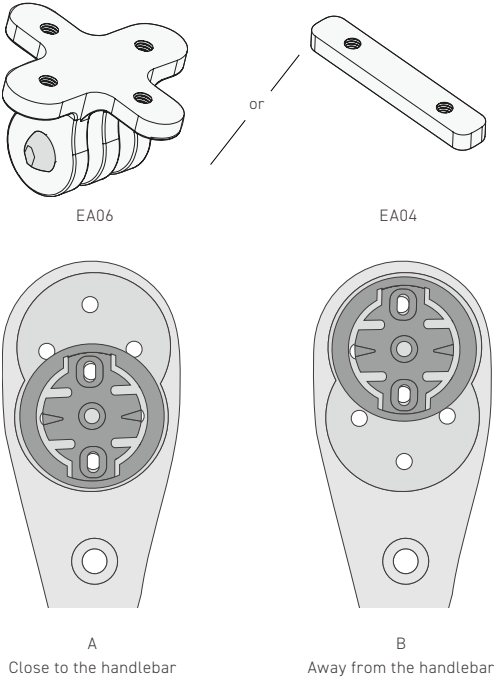
\* L1 stem lengths marked in orange indicate special sizes.

# 7 Installing Mounts on the V:C1 Integrated Handlebars

V:C1 comes standard with a screw-on computer mount (a carbon fiber version is available at additional cost), and is compatible with Garmin/Wahoo/Bryton computers as well as GoPro cameras and lights.

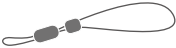


| No.  | Item Name                        | Qty | No.  | Item Name                                   | Qty |
|------|----------------------------------|-----|------|---------------------------------------------|-----|
| EA01 | V:C1 computer mount              | 1   | EA05 | Computer mount socket screw M4 * 20 * 18 mm | 2   |
| EA02 | Computer mount adapter           | 1   | EA06 | GoPro mount adapter                         | 1   |
| EA03 | Adapter flat screw M3 * 8 * 5 mm | 2   | EA07 | GoPro mount round screw M5 * 23 * 20 mm     | 1   |
| EA04 | Adapter mount                    | 1   |      |                                             |     |



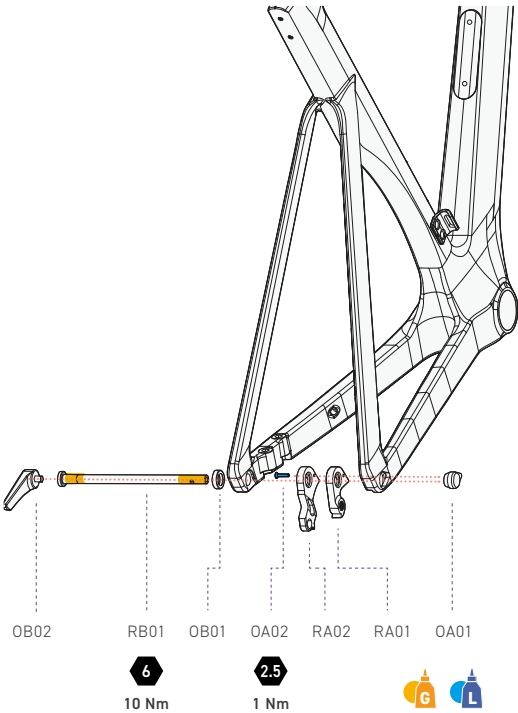
**i** V:C1's standard computer mount may have a slightly different configuration depending on your purchase date, if you need a specific version please contact your local authorized DARE retailer before purchasing.

**!** Please be sure to attach your computer's safety lanyard onto the handlebars, this will help minimize damage to the computer in case of a collision or accident.

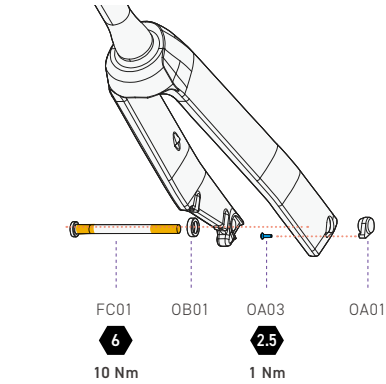


- Step 7.1** VA-AFO comes with a [EA02] computer mount adapter for Garmin systems, Wahoo and Bryton systems are available for purchase as well.
- 7.2** The [EA06] bottom mount adapter fits GoPro cameras or lights, or can also be switched out for [EA04] an adapter mount.
- 7.3** There are two positions to attach the computer depending on its size:  
A: Closer to the handlebars  
B: Farther away from the handlebars (suitable for larger computers such as the GARMIN 1050)
- 7.4** A carbon fiber mount is available at additional cost, please contact DARE or your local authorized DARE retailer if you would like to purchase this version.

# 8 Installing Derailleur Hangers and Thru Axles

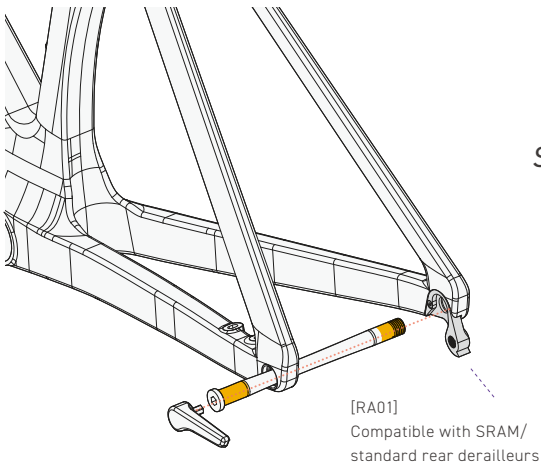


| No.  | Item Name                             | Qty |
|------|---------------------------------------|-----|
| OA01 | Thur axle nut                         | 2   |
| OA02 | Axle mount flat screw M3 * 13 * 11 mm | 1   |
| OA03 | Axle mount flat screw M3 * 10 * 8 mm  | 1   |
| OB01 | Thru axle spacer                      | 2   |
| OB02 | Carbon axle lever                     | 1   |
| RA01 | Standard hanger                       | 1   |
| RA02 | Direct mount hanger (Shimano)         | 1   |

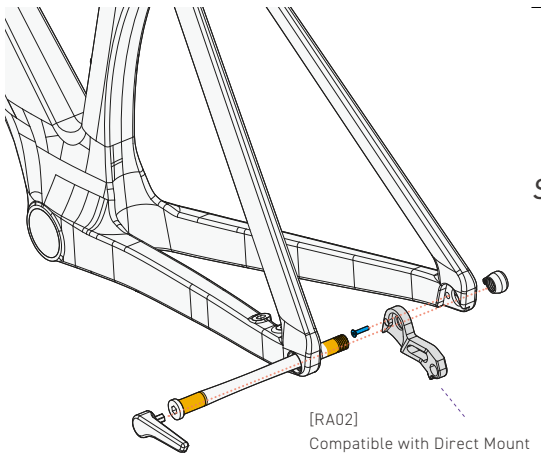


- i** VA-AFO does not have the UDH system.
- i** VA-AFO comes with a carbon fiber thru axle tool, make sure the tool has been removed from the bike before riding to avoid losing it.
- i** When installing or removing the thru axle, make sure the tool is fully inserted before applying torque to avoid thread damage.

| No.  | Item Name                                                  | Qty |
|------|------------------------------------------------------------|-----|
| FC01 | Front thru axle<br>Ø12*116mm P1.5<br>Torque should be 10Nm | 1   |
| RB01 | Rear thru axle<br>Ø12*162mm P1.5<br>Torque should be 10Nm  | 1   |



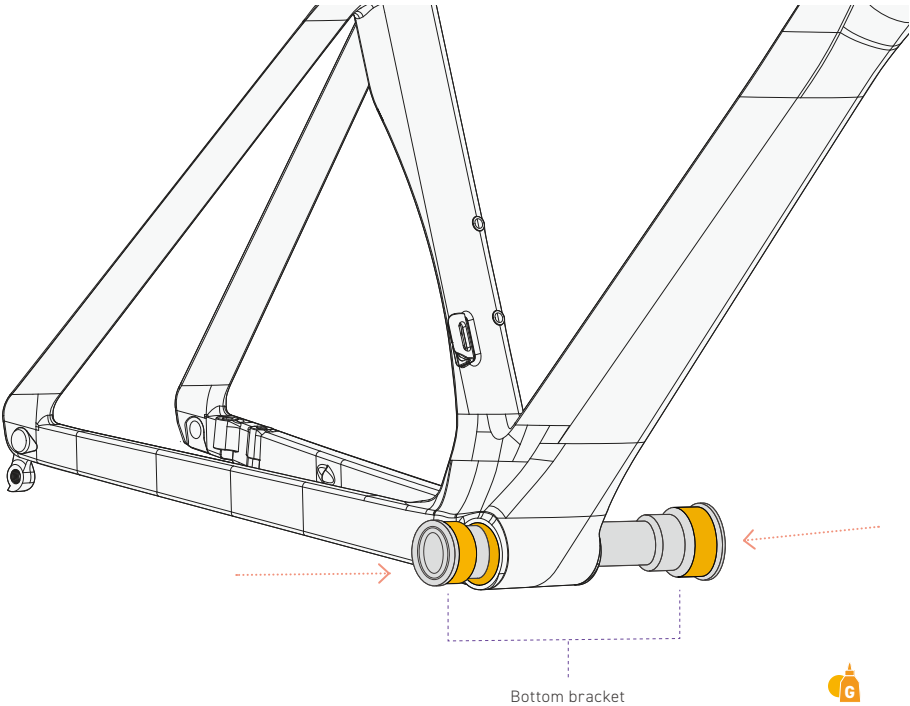
**Step 8** VA-AFO comes with a [RA01] standard hanger compatible with SRAM and other standard rear derailleurs.



**Step 8** We also have [RA02] direct mount hanger option, compatible with Shimano's direct mount rear derailleurs. During installation please refer to Shimano's instruction manual to remove the rear derailleur and its related components.

# 9 Installing the Bottom Bracket

VA-AFO uses a Press Fit bottom bracket (Press Fit 86.5mm).

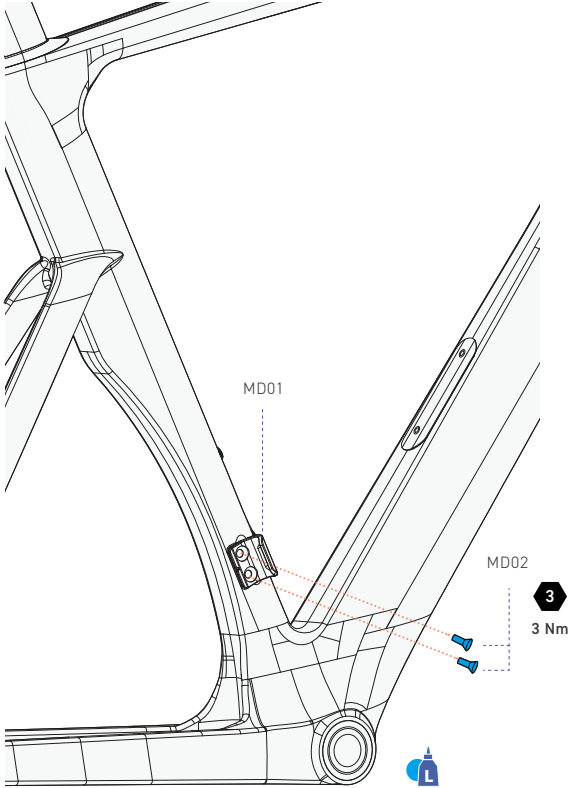


**!** To avoid damaging the frame and bottom bracket, please use a bottom bracket bearing press when installing the bottom bracket. When using the bottom bearing bracket press, follow the press manufacturer's instruction manual.

**!** Please make sure the bottom bracket is completely pressed into the frame and there is no space between the two. We recommend that this part be installed by a professional bike shop.

**i** The precise tolerance between the frame and bottom bracket may cause loud squeaking sounds to occur when installing the Press Fit bottom bracket, this is completely normal.

# 10 Installing the Front Derailleur



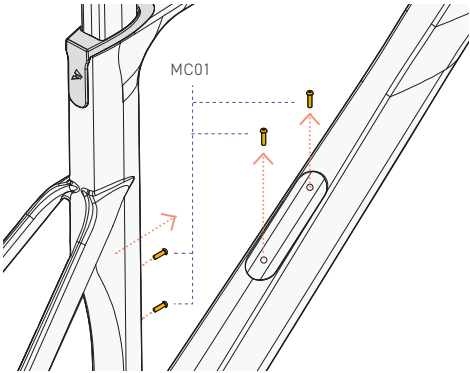
· A front derailleur mount compatible with 58T is also available for purchase.

**!** [MD01] FD mount is compatible with Shimano and SRAM direct mount front derailleurs, please follow the manufacturer's instruction manual to install the front derailleur spacers.

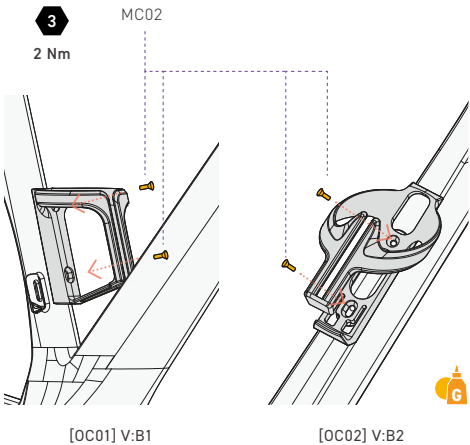
**i** This FD mount is suitable for 46~54T chainrings. You can also purchase our extended FD mount version for 52~58T chainrings, please contact an authorized DARE retailer to purchase.

| No.  | Item Name                           | Qty |
|------|-------------------------------------|-----|
| MD01 | FD mount                            | 1   |
| MD02 | FD mount flat screw M5 * 16 * 12 mm | 2   |

# 11 Installing V:B1/ V:B2 Bottle Cages



**Step 11.1** Before installing, please unscrew the [MC01] bottle cage round stainless screws from the frame.



**11.2** Use the [MC02] bottle cage flat titanium screws and tighten to 2Nm.

**11.3** We recommend installing the [OC01] ST aero bottle cage before the [OC02] DT aero bottle cage, this leaves more space for using the torque wrench.

**i** V:B1/V:B2 are specially designed aero bottle cages, and may not be able to securely fit all types of water bottles. To avoid damage to your water bottle, please make sure fits securely in the V:B1/V:B2 bottle cages before riding.

**!** To prevent galling of the titanium screws, we recommend applying copper-based anti-seize grease.

| No.  | Item Name                                            | Qty |
|------|------------------------------------------------------|-----|
| MC01 | Bottle cage stainless round screw<br>M5 * 15 * 12 mm | 4   |
| MC02 | Bottle cage flat titanium screw<br>M5 * 15 * 12 mm   | 4   |
| OC01 | V:B1 ST aero bottle cage                             | 1   |
| OC02 | V:B2 DT aero bottle cage                             | 1   |

