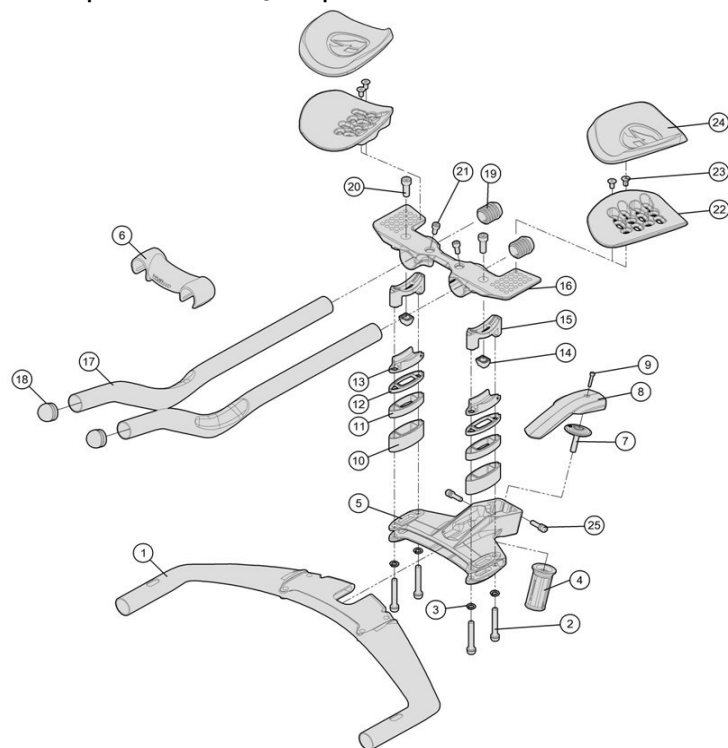




### Introduction

Congratulations on your Vision product. Please read these instructions and follow them for correct use. Failure to follow the warnings and instructions could result in damage to product not covered under warranty, damage to bicycle; or cause an accident resulting in injury or death. Since specific tools and experience are necessary for proper installation, it is recommended that the product be installed by a qualified bicycle technician. FSA & Vision assumes no responsibility for damages or injury related to improperly installed components.

### Warranty

Full Speed Ahead (FSA) warrants all FSA and Vision products to be free from defects in materials or workmanship for a period of two years after original purchase unless otherwise stated in the full warranty policy. The warranty is non-transferable and valid to the original purchaser of the product only. Any attempt to modify the product in any way such as drilling, grinding, and painting will void the warranty. For more information on warranty policy and instructions for completing a warranty claim, check out the Full Warranty Policy found at our website: <https://www.visiontechusa.com/en/technology>

**⚠ WARNING** Always use a calibrated torque wrench to tighten all screws and bolts when assembling and adjusting the vision handlebar to the bicycle. Failure to use a calibrated torque wrench can cause damage to the handlebar making it unsafe to ride and is not covered under warranty. Check bolt and screw torque before each ride to ensure they have not loosened during use.

**⚠ WARNING** Periodically inspect your Aerobars for any cracks, chips, scratches, and any other visible damage. In the event of an accident do not ride the bicycle until the handlebars have been inspected by an experienced mechanic as the aerobars may be damaged or weakened even if no visible damage is apparent. If there is any visible damage, the aerobars should not be used any further and replaced.

**⚠ WARNING** When changing the Armrest Stack spacers (10, 11, 12), use the correct length bolt (2) as per the chart show in Table 1. Use only FSA supplied bolts. Failure to use the correct length bolt can result in thread stripping of the base bar, failure of base bar, and armrest pad and can cause serious accident or injury.

### Specification

The instruction is for the installation and adjustment of the following Vision Brand components only:

Model Name **Metron TFA Aerobar with SnakeBite Stem**

### Components

Follow the assembly order in the illustration:

- |                                        |                                       |                                     |                                      |                                           |
|----------------------------------------|---------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------------|
| ① Metron TFA Base Bar x1               | ⑥ Extension Bridge x1                 | ⑩ Armrest Stack Spacers (20mm) x6   | ⑮ Upper Angle Adjustment Bracket x2  | ⑳ Extension Fixing Bolts (M5x15mm) x2     |
| ② Extension Width Spacer Bolts (M6) x4 | ⑦ Compression Cap & Bolt (M6x25mm) x1 | ⑪ Armrest Stack Spacers (10mm) x2   | ⑯ Bridge x1                          | ㉑ Armrest Pad Plate (Left & Right) x2     |
| ③ Washer x4                            | ⑧ Stem Top Plate x1                   | ⑫ Armrest Stack Spacers (5mm) x2    | ⑰ Aero Extension (Left & Right) x2   | ㉒ Armrest Plate Fixing Bolts (M5x10mm) x4 |
| ④ Expander Assembly (TH-863-1) x1      | ⑨ Stem Top Plate Bolt (M3x16mm) x1    | ⑬ Lower Angle Adjustment Bracket x2 | ⑱ Aero Extension Front Plugs x2      | ㉓ Armrest Pad (Left & Right) x2           |
| ⑤ Stem Body x1                         |                                       | ⑭ Angle Adjustment Grip Nut x2      | ㉙ Aero Extension Rear Plugs x2       | ㉔ Steerer Clamp Bolt (M5x18mm) x2         |
|                                        |                                       |                                     | ㉚ Angle Adjustment Bolt (M7x19mm) x2 |                                           |

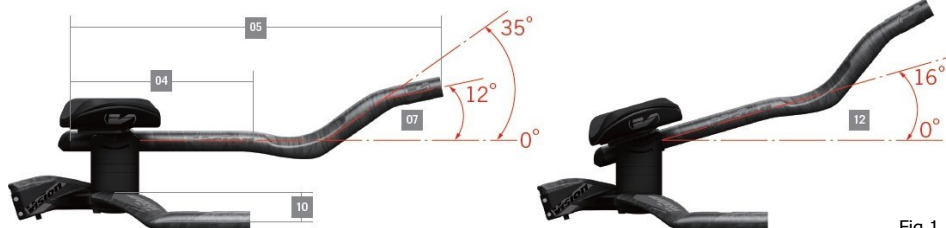


Fig.1



## Aerobar installation

1. Make certain that the diameter of the steerer tube matches the Vision Metron Snakebite Stem Steerer Clamp size 1-1/8" (28.6mm).
2. Brake/electronic wiring should be run through the Metron TFA Aerobar Base Bar ① before installing to stem. The Metron TFA Aerobar Base Bar ① can have a +/-25mm drop or rise depending on which direction it is placed in the Stem Body ⑤.
3. Slide Metron TFA Base Bar ① into the slot on the Stem Body ⑤. Tighten the Steerer Clamp Bolt ②⑤ to finger tight.
4. Use Angle Adjustment Grip Nut ⑭ and Angle Adjustment Bolt ⑳ to install the Upper Angle Adjustment Bracket ⑮ to the Bridge ⑩ to finger tight.
5. Slide Aero Extensions ⑰ into Bridge ⑩. Set to desired length and rotation angle. Tighten Angle Adjustment Bolt ⑳ to torque of 71 kgf.cm / 7 Nm / 62 in.lbs., then tighten Extension Fixing bolts ㉑ to 41 kgf.cm / 4 Nm / 35 in.lbs..
- ⚠ WARNING** Ensure the minimum insertion length indication on the Aero Extensions ⑰ (MIN^INSERT) is flush with the Bridge ⑩ ends. Riding the bar without the "MIN^INSERT" line inside the mount can cause damage and unexpected bar failure causing accident and injury.
6. Place Lower Angle Adjustment Bracket ⑬ under Upper Angle Adjustment Bracket ⑮ making sure to align the wiring grooves. Insert Washiers ③ to Extension Width Spacer Bolts ② and tighten to 81 kgf.cm / 8 Nm / 71 in.lbs.
7. To adjust angle of aerobar extensions ⑰, Use a 5mm hex key loosen two or three full turns all 4 Extension Width Spacer Bolts ② then with a 5mm hex key to loosen the Angle Adjustment Bolt ⑳ until Angle Adjustment Grip Nut ⑭ slides freely. Set to desired angle and tighten Angle Adjustment Bolt ⑳ to 71 kgf.cm / 7 Nm / 62 in.lbs. Torque Extension Width Spacer Bolts ② to 81 kgf.cm / 8 Nm / 71 in.lbs.
8. Install Armrest Pad Plates ㉒ for desired fit position using Armrest Plate Fixing Bolts ㉓. Torque to 41 kgf.cm / 4 Nm / 35 in.lbs. Do not tighten above 41 kgf.cm / 4 Nm / 35 in.lbs.
9. See Table 1 for Stack Spacers ⑩, ⑪, ⑫ and bolt configuration to adjust the Armrest Pad Plates ㉒ to the desired height.
10. Remove the adhesive Velcro Strips from Armrest Pads ㉔ and attach to the top surface of left and right Armrest Pad Plate ㉒.
11. Install the Expander Assembly ④ into the Carbon Steerer. Tighten the Expander Assembly with a 6mm hex wrench to 61-92 kgf.cm / 6-9 Nm / 53-80 in.lbs. of torque.
12. Place the Stem Body ⑤ onto the Carbon Steerer, tighten the Compression Cap & Bolt ⑦ with a 4mm hex wrench to until proper bearing preload is achieved. Note: Proper bearing preload is apparent when there is no "knock" (fore / aft or up / down free play) in the headset assembly, while the bearings rotate freely (free steering motion). Do not tighten above 41 kgf.cm / 4 Nm / 35 in.lbs.
13. Ensure handlebar is aligned straight and gradually tighten the the Steerer Clamp Bolt ②⑤ by alternating turning each screws 1/4 to 1/2 turn at a time so both screws tighten simultaneously to 61 kgf.cm / 6 Nm / 53 in.lbs. DO NOT exceed maximum torque specification. Always use a calibrated torque wrench.
14. Install Stem Top Plate ⑧ to Stem Body ⑤ use Stem Top Plate Bolt ⑨ Torque to 10 kgf.cm / 1 Nm / 9 in.lbs.

## Wiring Installation Tips

1. Brake/electronic wiring should be run through the Metron TFA Aerobar Base Bar ① before installing Stem Body ⑤ or Bridge ⑩.
2. Installation is greatly improved when using a guide cable to gently pull the housing or electronic wires through the base bar from either direction.
3. If Armrest Stack Spacers ⑩, ⑪, ⑫ are being used in conjunction with wired electronic shifting on Lower Angle Adjustment Bracket ⑬, use electrical tape to hold wiring in the guide slots on the spacers. Small ports on either side of the Stem Body ⑤ are designed ONLY to allow electronic shifting wires to be run internally through the Stem Body ⑤ if desired.
- ⚠ WARNING** Never attempt to modify the cable guide holes. Do not drill, saw, or file the holes larger or to a different shape. Modifications will void warranty and may result in failure of the handlebar while riding causing accident, injury, or death.

## Aero Extension Length Adjustment

It may be necessary to trim aero extensions if the rear of the extension protrudes behind the mount. Aerobars can only be cut from the rear. Do NOT cut the aerobars extensions from the front. Cutting aerobars from the front will void the warranty. Make careful measurements before cutting and be sure of the cut location. Cutting an aero extension is a one-time and final adjustment.

- ⚠ WARNING** Do not cut beyond the (MIN^INSERT) line indicators on the extensions. Cutting beyond the line indicators may make it impossible to install shifters into the extensions.
1. Use a sharp hacksaw blade for best results on alloy aerobars. For carbon aerobars, an abrasive blade will work best. Apply a layer of tape around area to be cut to reduce possibility of carbon fraying while cutting.
2. Use a cutting guide for the saw blade to ensure an even cut of the aerobar. Cut the extension to desired length.
3. Remove any burrs or frayed carbon strands with sand paper.
4. Install shifter per shifter manufacturer's instructions.
5. Use Aero Extension Rear Plug ⑰ over cable housing and press into Aero Extension ⑰.
6. Install Extension Bridge ⑥ as desired.

## Armrest Adjustment (Fig.1) (Fig.2)

### SPEC AND ADJUSTABILITY

- 01 **Stack** : 70mm to 145mm (Bottom of stem at center to top of uncompressed pad - 5mm Increments)
- 02 **Reach** : -16.5mm to -106.5mm (Center of Base bar to rear edge of armrest - 7.5mm Increments)
- 03 **Armrest width** : 210mm to 360mm (outside-to-outside - 15mm Increments)
- 04 **Extension length adjustment** : 245mm to 385mm (Center of Base bar to Tip)
- 05 **Extension length** : 412mm
- 06 **Extension height** : 60mm (c-c)
- 07 **Extension angle** : 35° (12° at extension tip)
- 08 **Extension width** : 80mm (c-c)
- 09 **Base bar width** : 400mm (c-c)
- 10 **Base bar drop/rise** : -25mm/+25mm (c-c)
- 11 **Armrest rotation** : 0- 13°
- 12 **Bracket tilt adjustment** : 0 - 16°

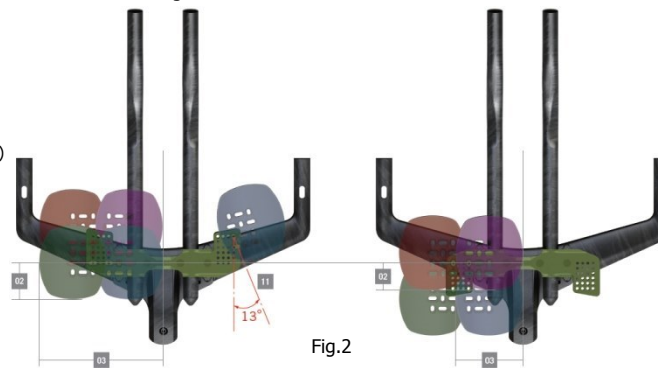


Fig.2

Table 1: Armrest Stack Spacer & Bolt Compatibility

| Spacer |      |      | Stack height | ㉑ Bolt length |
|--------|------|------|--------------|---------------|
| 5mm    | 10mm | 20mm |              |               |
| 0      | 0    | 0    | 0mm          | 35mm          |
| 1      | 0    | 0    | 5mm          | 40mm          |
| 0      | 1    | 0    | 10mm         | 45mm          |
| 1      | 1    | 0    | 15mm         | 50mm          |
| 0      | 0    | 1    | 20mm         | 55mm          |
| 1      | 0    | 1    | 25mm         | 60mm          |
| 0      | 1    | 1    | 30mm         | 65mm          |
| 1      | 1    | 1    | 35mm         | 70mm          |
| 0      | 0    | 2    | 40mm         | 75mm          |
| 1      | 0    | 2    | 45mm         | 80mm          |
| 0      | 1    | 2    | 50mm         | 85mm          |
| 1      | 1    | 2    | 55mm         | 90mm          |
| 0      | 0    | 3    | 60mm         | 95mm          |
| 1      | 0    | 3    | 65mm         | 100mm         |
| 0      | 1    | 3    | 70mm         | 105mm         |

## Contact

If you have questions, please visit our web site technical section: <https://www.visiontechusa.com/en/support> or contact:

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