



Introduction

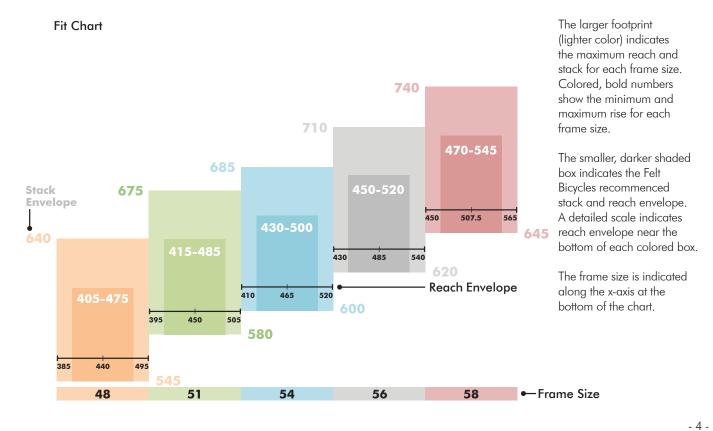
Thank you for buying the fastest triathlon bike available, the Felt IA. Jim Felt has been utilizing the wind tunnel since 1991 and is a pioneer in the advancement of aerodynamic frame design. Using Computational Fluid Dynamics (CFD), Jim Felt and Felt engineers have designed the IA to be the fastest bike possible.

As a result of this research, wind tunnel testing, and feedback from Felt athletes, the IA has been ridden to victory in the world and national championships, as well as the Kona IRONMAN $^{\text{TM}}$.

Please familiarize yourself with the following instructions so you can keep your IA operating at maximum efficiency.

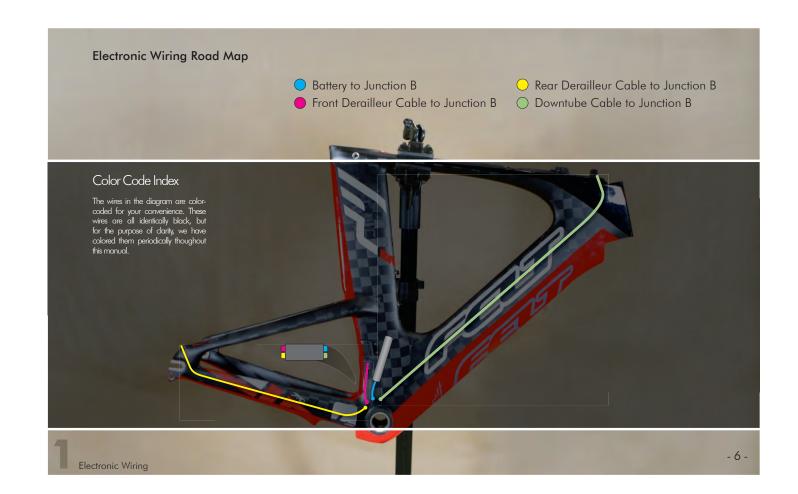
This owner's manual is a resource for the IA and will instruct you on proper set-up of the frame, fork, seatpost, brakes, internal routing in addition to how to optimize the seat and stack height. Additionally, this manual illustrates the features, benefits and technical specifications of the many components which includes the aerodynamic VR seatpost with its 3T DiffLock™ seat clamp and the CalPac, a storage area for energy supplements.

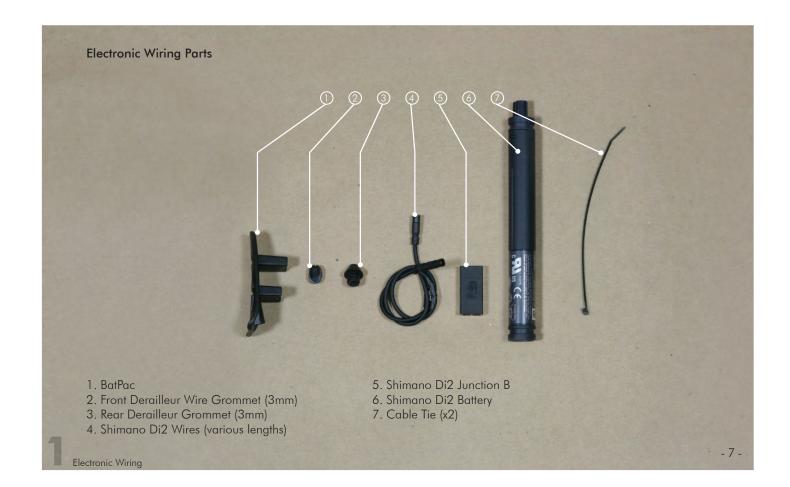
If you need any additional questions answered, visit the nearest authorized Felt Bicycles dealer. Supporting material and a list of authorized Felt Bicycles dealers is available at www.feltbicycles.com.



Fit



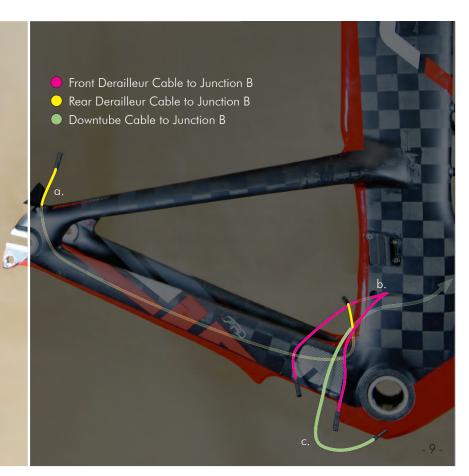






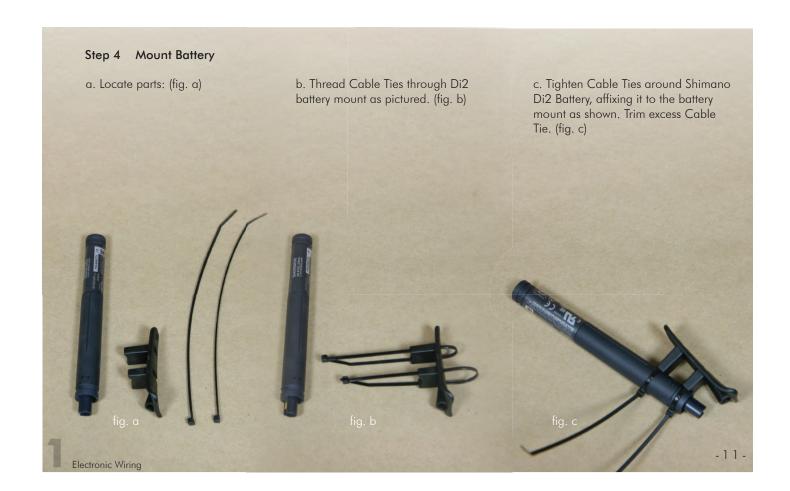


- a. Using the same Tape 'n Pull Method, route the rear derailleur wire through the right dropout hole, chainstay and out the BatPac Opening.
- b. Route the Front Derailleur Di2 Wire through the Front Derailleur Frame Hole and out the BatPac Opening.
- c. Make sure the Downtube Cable is also exiting the BatPac Opening.

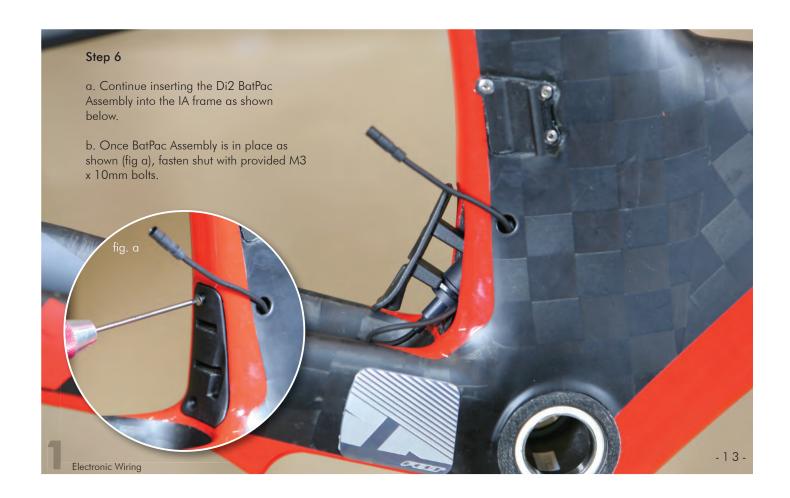


Electronic Wiring

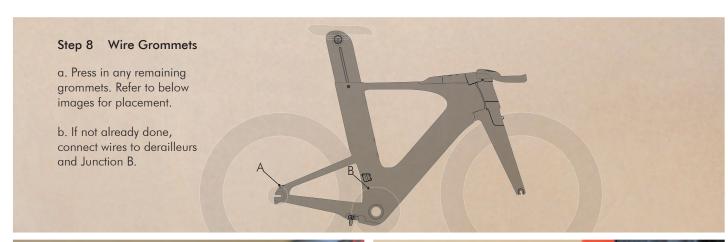








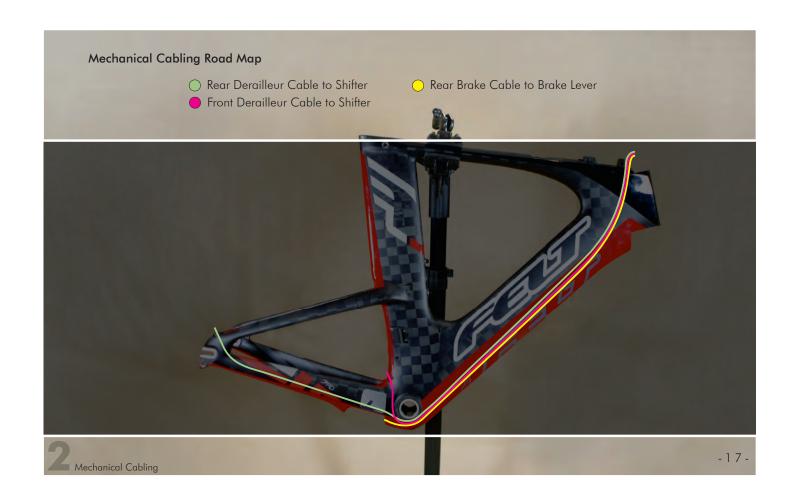




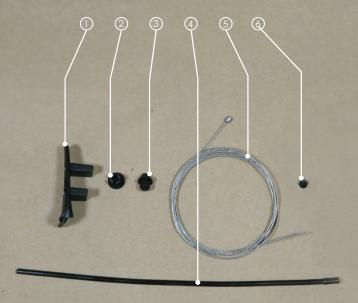






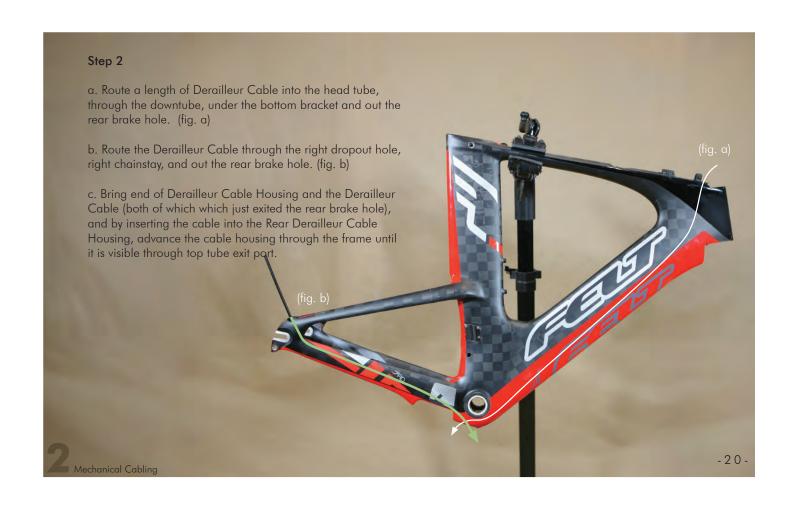


Mechanical Cabling Parts



- BatPac/ Front Derailleur Housing Stop
 Front Derailleur Frame Grommet
- 3. Rear Dropout Cable Grommet (5mm)
- 4. Derailleur Cable Housing5. Derailleur Cables
- 6. BatPac Bolt (x2) M3 x 10mm





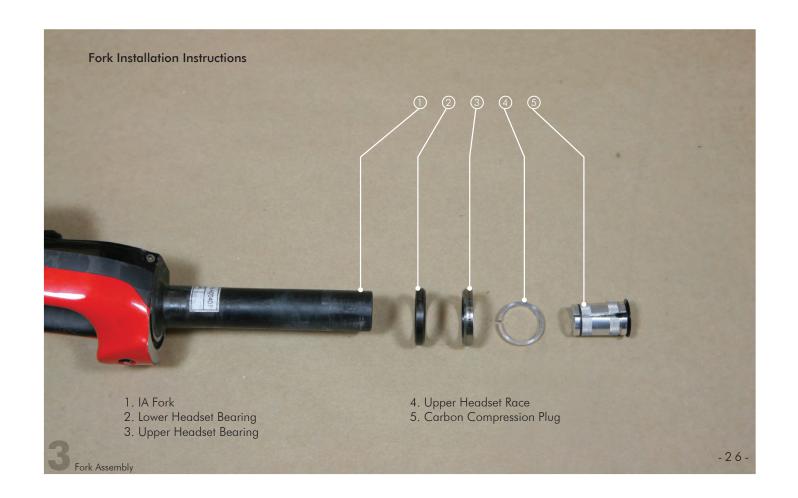


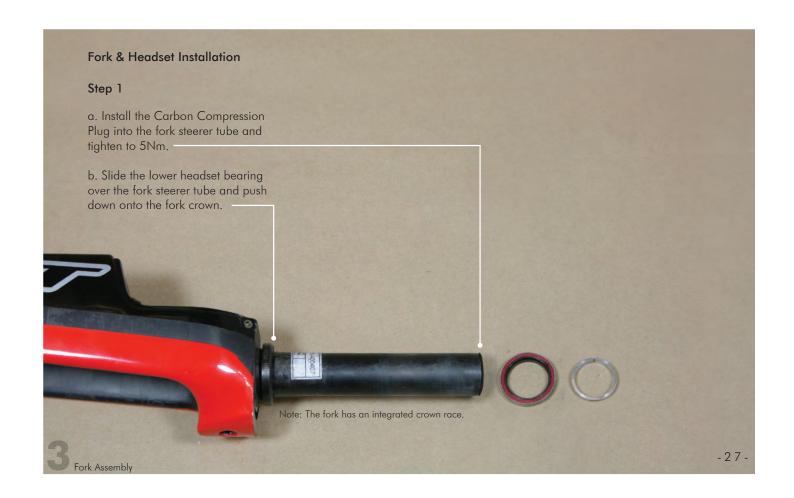


















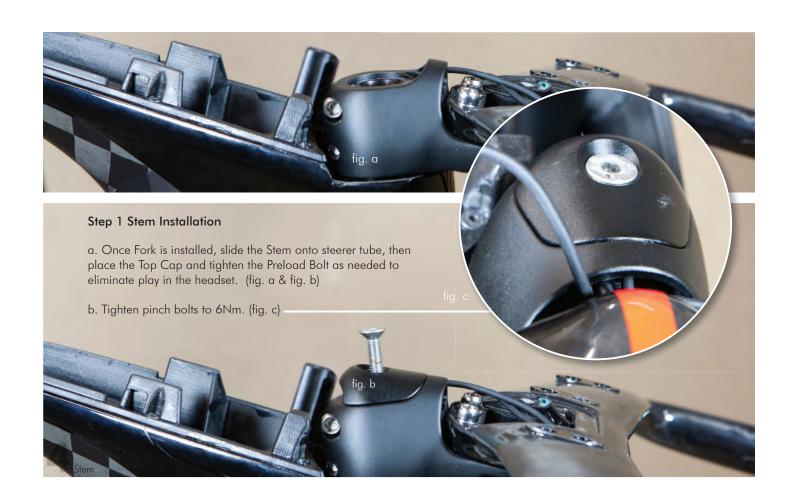
Stem Installation Parts

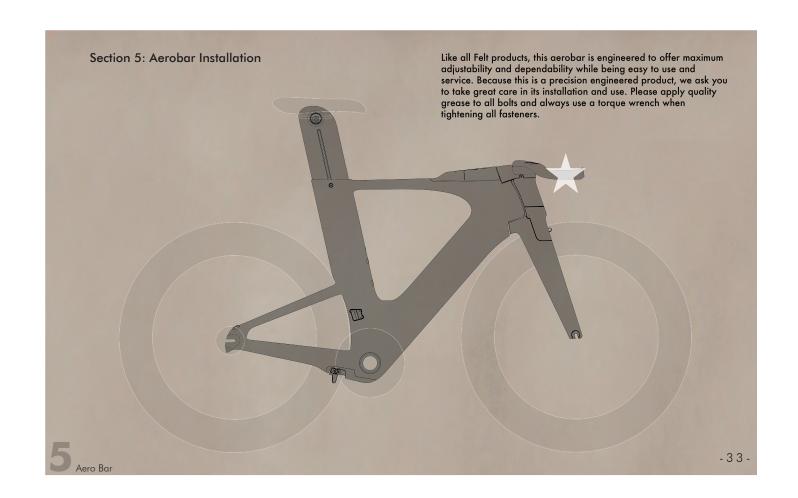


- Headset Preload Bolt
 Fit Washer (x4)
- 3. Stem Top Cap
- 4. Handlebar Bolt
- 25mm M6 (x4) 5. Stem

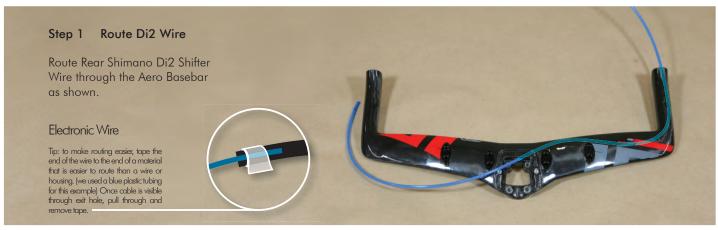
- 6. Handlebar Bolt 40mm M6 (x4)
- 7. 15mm Stem Spacer (Used with 40mm Bolt)
- 8. Handlebar Bolt
 - 55mm M6 (x4)
- 9. 30mm Stem Spacer (Used with 55mm Bolt)





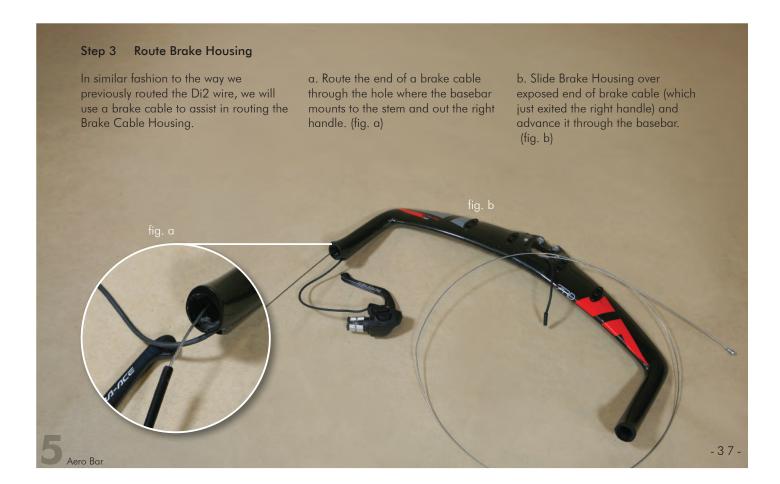












Step 4

After Brake Cable Housing is routed, remove the cable which was used to route the Brake Cable Housing as pictured.

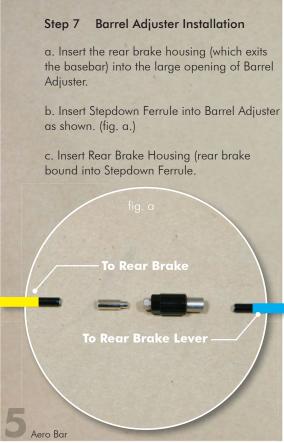


Step 5

- a. Plug handlebar end of Brake Cable Housing into Brake Lever and install Brake Lever into handlebar.
- b. Repeat the previous 4 steps to finish Brake Cable Housing and Di2 Wire for left side of basebar.

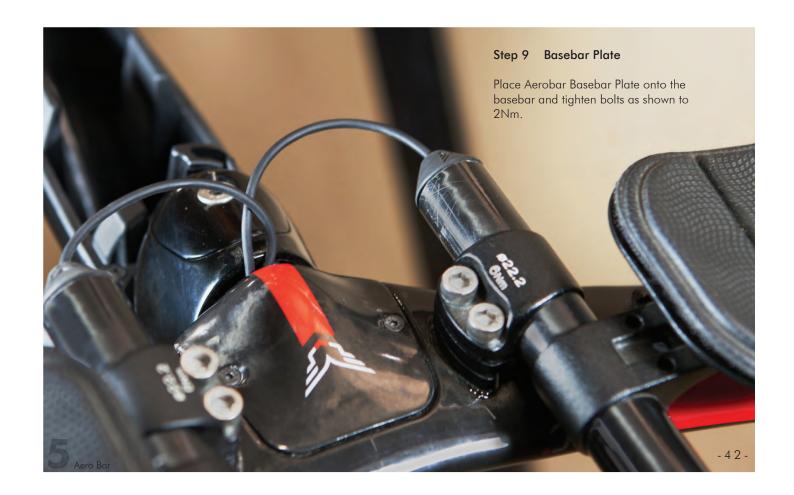












Section 5 Pt. 2: Aerobar Assembly Parts List

QTY.	SIZE - PART NAME	PART
4	M6 x 55mm - Bolt	
4	M6 x 50mm - Bolt	
4	M6 x 45mm - Bolt	
4	M6 x 40mm - Bolt	
4	M6 x 35mm - Bolt	
8	M6 x 30mm - Bolt	
4	M6 x 25mm - Bolt	
4	M6 x 20mm - Bolt	
2	M6 x 15mm - Bolt	
4	M5 x 12mm - Bolt	
2	M3 x 10mm - Bolt	

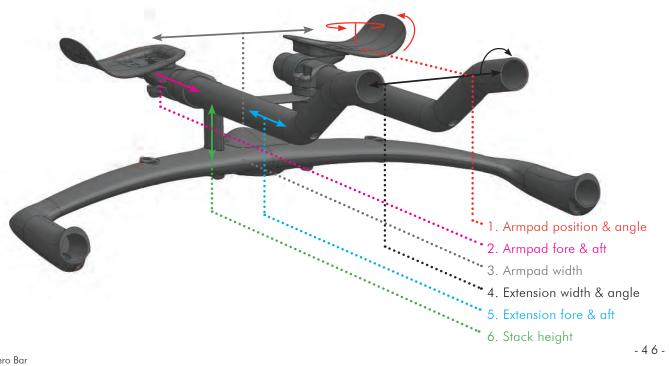
	QTY.	SIZE - PART NAME	PART
	1	Basebar	
	2	Extension	~
	2	Extension Plug	
	2	Extension Bracket	
	2	Armrest Bracket	8
	1	Narrow Fixed Bridge	
	1	Wide Fixed Bridge	
_	2	Armrest	

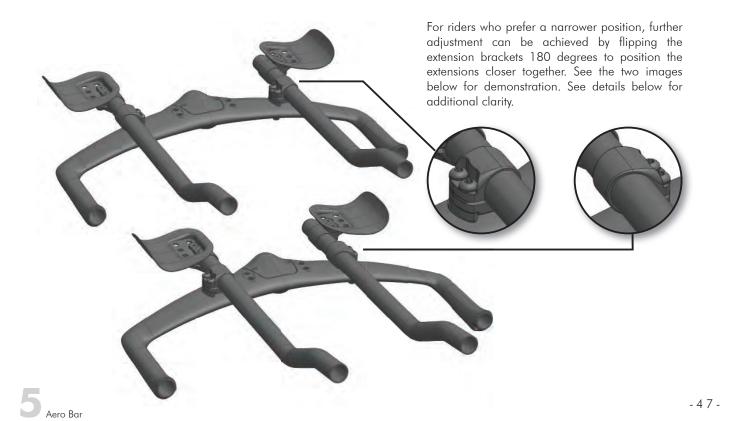
QTY.	SIZE - PART NAME	PART	QTY.	SIZE - PART NAME	PART
40	Fit Washer	9			
2	Bracket Spacer	0	1	Basebar Plate	
2	Armrest Washer	09			
2	Threaded Lower Nut				

QTY.	2	2	2	2	4
SIZE	40mm	30mm	20mm	10mm	5mm
PART	Threaded Spacer	Threaded Spacer	Threaded Spacer	Non-Threaded Spacer	Non-Threaded Spacer
		-			
					5

Adjustability

The below reference highlights the five main areas of adjustment that can be manipulated to achieve the desired configuration.





Shown below is an example of a high-stack configuration with a narrow armpad and extension position which utilizes a narrow fixed bridge for stability.



-48-

Section 5: Pt. 3 Aerobar Configuration Chart

If you know the dimensions that you require while riding a TRI bicycle, the chart below will help you quickly identify the hardware required to achieve your desired stack height.

Use only the specific parts listed for your desired stack height. Using any combination of parts other than those specified can result in suboptimal performance, including causing the bracket or the aerobar to come loose or even break.

Aer facu do not know the dimensions you require, Felt recommends getting fitted by a qualified fit specialist.

	1770 S 2011	7/1/cod/ Height (C.C)	5mm	Tit Wood	20 800 NOV	Bottom (mm)	1 8 11
20	25	Х	5mm	4	45	Х	
25	30	Х	10mm	4	50	Х	
30	35	Χ	5mm + 10mm	6	55	Х	
40	45	20	X		20	30	
	50	20	5mm	6	25	30	
45		20	Fixed Bridge	6	25	30	
50	50	30	X	4	25	30	
50	50	20	Fixed Bridge + 5mm	8	30	30	
50	55	30	Fixed Bridge	6	30	30	
55	60	30	Fixed Bridge + 5mm	8	35	30	
60	65	40	Fixed Bridge	6	35	30	
65	70	40	Fixed Bridge + 5mm	8	35	30	
70	75	40	Fixed Bridge + 10mm	8	40	30	
75	80	40	Fixed Bridge + 10mm + 5mm	10	45	30	

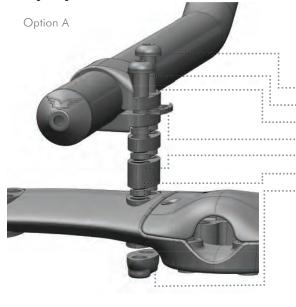
Notes:

When calculating stack height measurement: As the IA uses an integrated stem, the center of the stem is equivalent to that of conventional 70mm X -7 degree stem.

An assembly with stack height of 53mm will be used as an example in the following instructions.

Stack Height & Riser Assembly

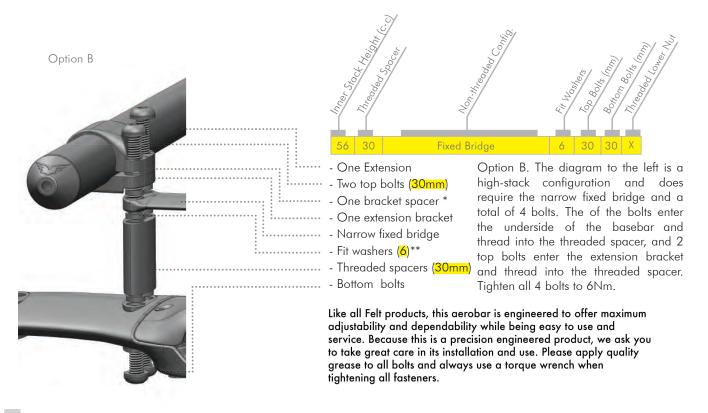
Like all Felt products, this aerobar is engineered to offer maximum adjustability and dependability while being easy to use and service. Because this is a precision engineered product, we ask you to take great care in its installation and use. Please apply quality grease to all bolts and always use a torque wrench when tightening all fasteners.





- One extension
- Two top bolts (55mm)
 - One extension bracket
 - One bracket spacer*
 - Stack height spacers (5mm + 10mm)
 - Fit washers (6)**
 - One threaded lower nut

Option A. The diagram to the left is a low-stack configuration and does NOT require the narrow fixed bridge. Use this example to assist in building low-stack assemblies. Tighten the 2 bolts to 6Nm.



Important!

*BRACKET SPACER

Insert the bracket spacer into the slot located on the extension bracket, making sure to align the holes and leave the long, curved edge flush with the edge of the extenion bracket slot as shown in the illustration to the right.



**FIT WASHERS

Begin with pressing the fit washers into the recessed holes.



Sandwich the fit washer between the bolt, spacer/bridge and a threaded spacer. Tighten the bolt until the fit washer is pressed in. Unthread the bolt and assemble.

Threaded spacer
Threaded lower nut



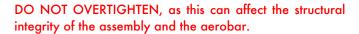
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Arm Rest Assembly

To complete the arm rest assembly, you will need the following:

- Two 12mm Arm Rest Bolts
- One Arm Rest Washer - One Arm Rest
- One Arm Rest Bracket
- One 15mm Bolt

Begin by taking an arm rest bracket and thread a 15mm bolt into the underside and finger-tighten to keep in place. Place the arm rest washer and use two arm rest bolts to fasten in desired position. Finally, slip the arm rest assembly over the extension and tighten the 15mm bolt to 7Nm.

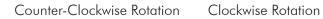


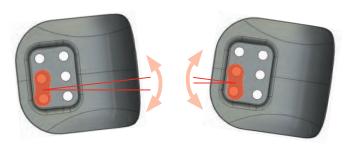


- 53 -

Notice that the diameters of the six holes in the arm rest are each larger than the diameter of the bolt shaft. This allows for fine-tuning to achieve desired arm pad angle. See below for illustrations.

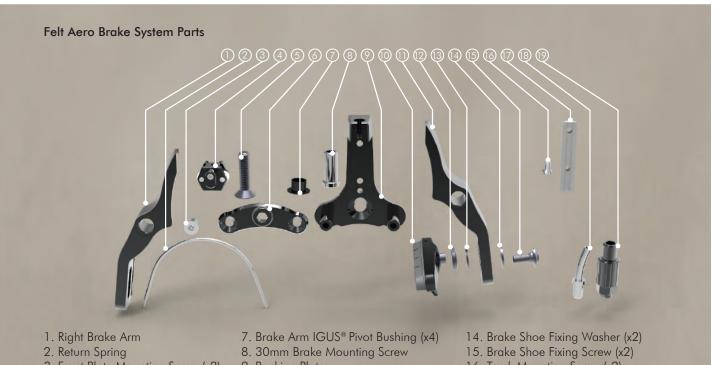
The image below shows the stack assembly and arm rest assembly properly mounted on an extension (actual placement of assemblies in relation to the extension will vary).











- 3. Front Plate Mounting Screw (x2)
- 4. Carriage Assembly
- 5. Brake Mounting Bolt
- 6. Front Plate

- 9. Backing Plate
- 10. Brake Pad & Brake Pad Holder (x2)
- 11. Left Brake Arm
- 12. Brake Pad Spherical Washer (x2)
- 13. 1mm Thick Pad Spacer Washer (x2)
- 16. Track Mounting Screw (x2)
- 17. Track
- 18. Cable Noodle
- 19. Cable Barrel Adjuster

Felt Aero Brake System Torque Values

No.	Part Description	Thread	Allen Key	Recommended
			Size	Torque
1	Front Plate Mounting Screw	M4 x 0.7	3mm	2 Nm
2	Track Mounting Screw	$M3 \times 0.5$	2mm	1Nm
За	Front Brake Mounting Screw	M6 x 1.0	4mm	6-8Nm
3b	Front Brake Mounting Nut	M6 x 1.0	5mm	6-8Nm
4a	Rear Brake Mounting Screw	M6 x 1.0	4mm	6-8Nm
5	Cable Clamping Screw	M4 x 0.7	2mm	1Nm



Felt Aero Brake System Disassembly



Step 1: Begin by removing Cable Barrel Adjuster, Noodle, Brake Pad Assemblies and Mounting Screw.



Step 2: After Removal of initial parts, the remaining brake should look as the sample above does.



Step 3: Remove Front Plate and Mounting Screws.



Step 4: Remove Carriage Assembly.



Step 5: Remove Brake Arms, Mounting Bolt and Spring.



Step 6: Remove Track from Backing Plate.



Felt Aero Brake System Cleaning and Inspection



Step 1: Clean and Inspect Brake Carriage Assembly Rollers and T-Slot



Step 2: Clean and Inspect Brake Arm Cam Surfaces and Spring Pocket



Step 3: Clean and Inspect Brake Arm Bushings.





Step 4:Clean and Inspect Spring

Step 5: Clean Brake Arm Pivots

Cleaners: The Brake Pivots and Cam Follower Rollers incorporate IGUS® lubrication-free polymer bushings, which DO NOT require any form of lubricant to function properly. It should be noted that if these bushings are exposed to harsh chemical cleaners, aerosol cleaners, solvents, or lubricants, they may experience a chemical reaction causing the bushings to swell up and bind and/or eventually break down. (Notes: WD-40 is particularly harmful to these bushings. Petroleum-based prouducts are okay to use. Typically, aerosol cleaners are not acceptable.)

It is recommended that the brake be cleaned with a mild degreaser or soap and water.

Lubricants: As previously noted, the Brake Pivots and Cam Follower Roller Bushings are lubricant-free, and DO NOT require any form of lubricant to function properly.

A Light Waterproof Grease may be applied to the Brake Arm Cam Track and to the Carriage Track if desired.

Felt Aero Brake System Reassembly



Step 1: Remount Track and apply film of light, waterproof grease. Tighten bolts to 1Nm.



Step 2: Apply a thin film of light waterproof grease to Brake Arm Cam surfaces.



Step 3: Apply thin film of light waterproof grease to spring arms.

Brake Installation



Step 4: Preassemble Brake Arms and Spring.



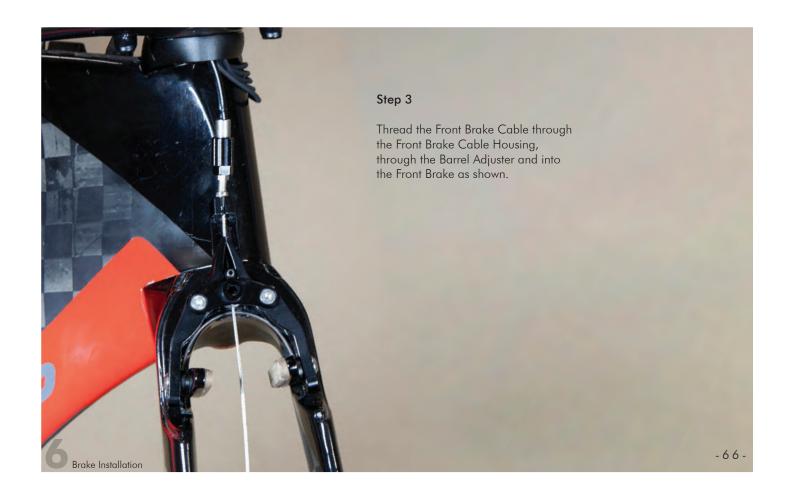
Step 5: Add Bushings to Brake Arms. Slip Brake Arm and Spring Preassembly onto Brake Posts. Add Brake Mount Bolt



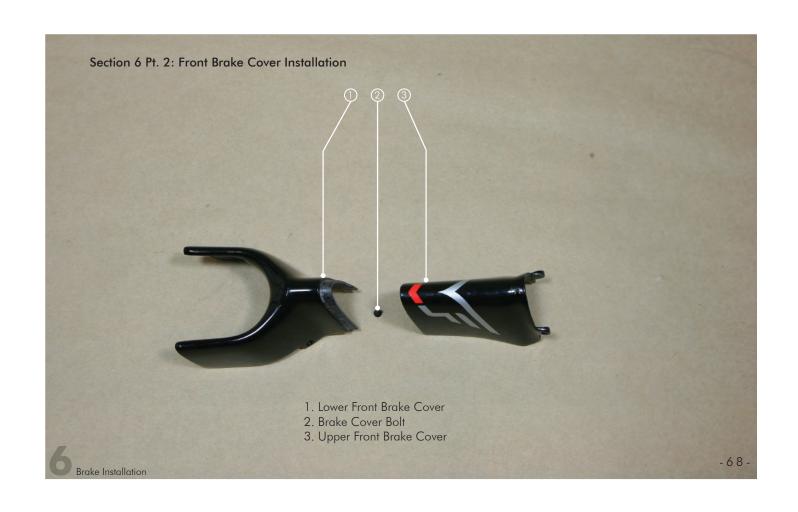
Step 6: Install Carriage Assembly followed by installing the Front Plate and tighten screws to 2Nm.





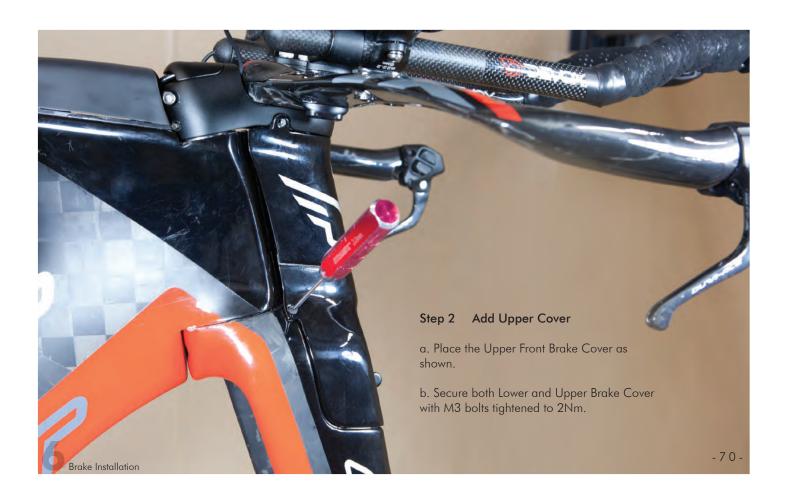


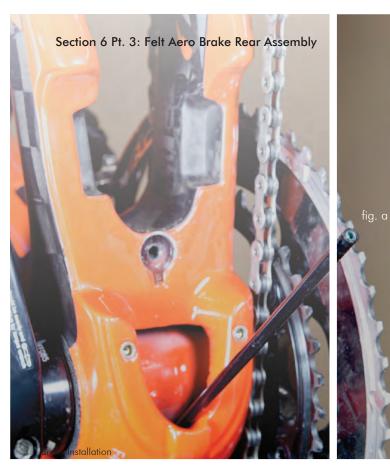




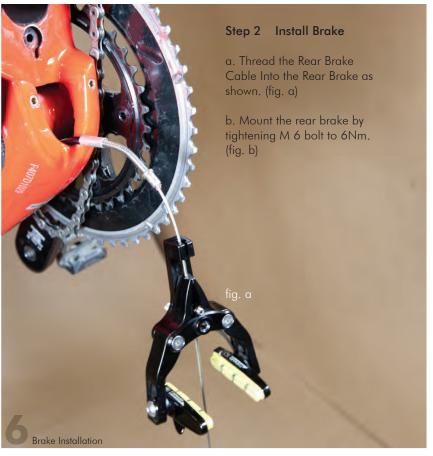


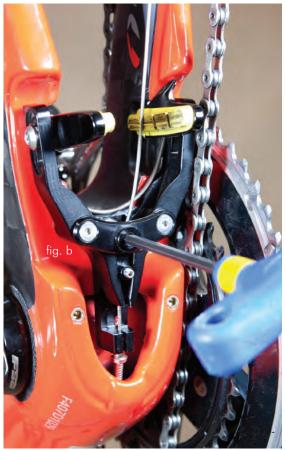


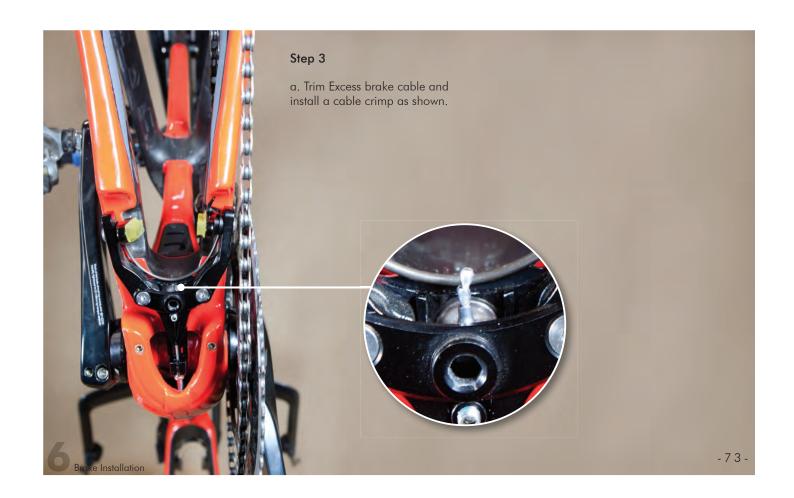




Step 1 Rear Brake Installation a. Locate the Rear Brake Cable Housing currently exiting the hole under the bottom bracket. (fig. a) b. Insert a flexible guide noodle onto Rear Brake Cable Housing and install Rear Brake Cable. -71-

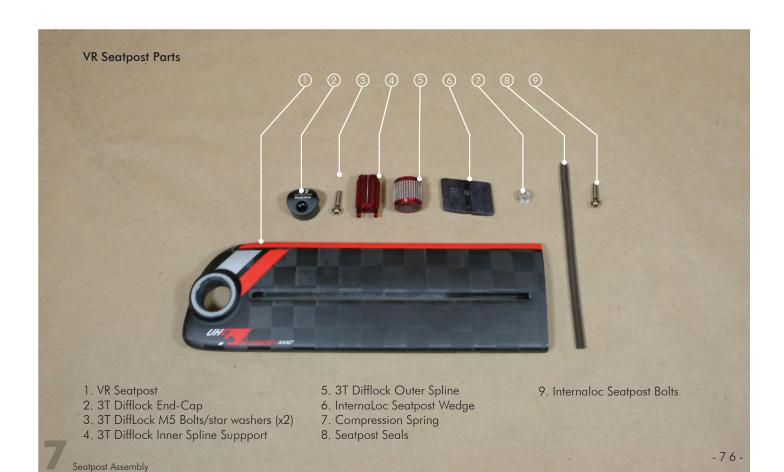












Step 1 Internaloc Seatpost Wedge Assembly

- a. Place Compression Spring between Internaloc Seatpost Wedges. (fig. a)
- b. Place Internaloc Seatpost Wedge on top of other wedge, sandwiching the Compression Spring. (fig. b)
- c. Make sure spring is alined with seatpost wedges. (fig. c)







fia. c

ig. b

fig c



- d. After the Compression Spring is installed in the two halves of the InternaLoc Seatpost Wedge, orient the seatpost so the bottom edge will slant downward toward the ground at the front of the bike. (fig. d)
- e. Apply a thin coat of carbon friction paste on the surface of aluminum InternaLoc Seatpost Wedge that will contact the carbon fiber surface of seatpost to prevent slipping or noise. (fig.e)
- f. Slide the assembly up into the seatpost until the guides on each side of the internal seatpost wedge snap into the slots on each side of the seatpost. Be sure to keep the assembly at the bottom of the seatpost for now. (fig. f)



Seatpost Assembly





Step 2

- a. If not done yet, press-fit the Seatpost Seals into the VR Seatpost Slot. (fig. a)
- b. Apply a thin coat of carbon friction paste on the surface of Seatpost to insertion point and inside seat tube to prevent slipping or noise. (fig. a)
- c. Insert seatpost into frame, thread seatpost binder bolts, but do not tighten completly. (fig. b)
- d. After determining appropriate seatpost insertion, trim silicone slot cover so exposed seatpost slot is entirely covered by slot cover. (fig. b)
- e. After making sure slot cover is entirely covered, tighten seatpost binder bolts to 7Nm.

-80-











Felt Racing, LLC 12 Chrysler Irvine, CA 92618 Industriestr. 39 26188 Edewecht Germany

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