



EZ-TAD SX Supplemental Owner's Manual



CONGRATULATIONS!

Congratulations and welcome to the Sun Seeker family! You have selected one of the most comfortable and advanced recumbents on the market. Please read this manual before riding your Sun Seeker Recumbent. In this manual you will find that we cover the basics for setting up and understanding your new recumbent.

IMPORTANT:

This manual is only a supplement to the main Recumbent Bicycle/Tricycle Owner's Manual. Read it before you take the first ride on your new recumbent bicycle/tricycle, and keep it for reference.

NOTE:

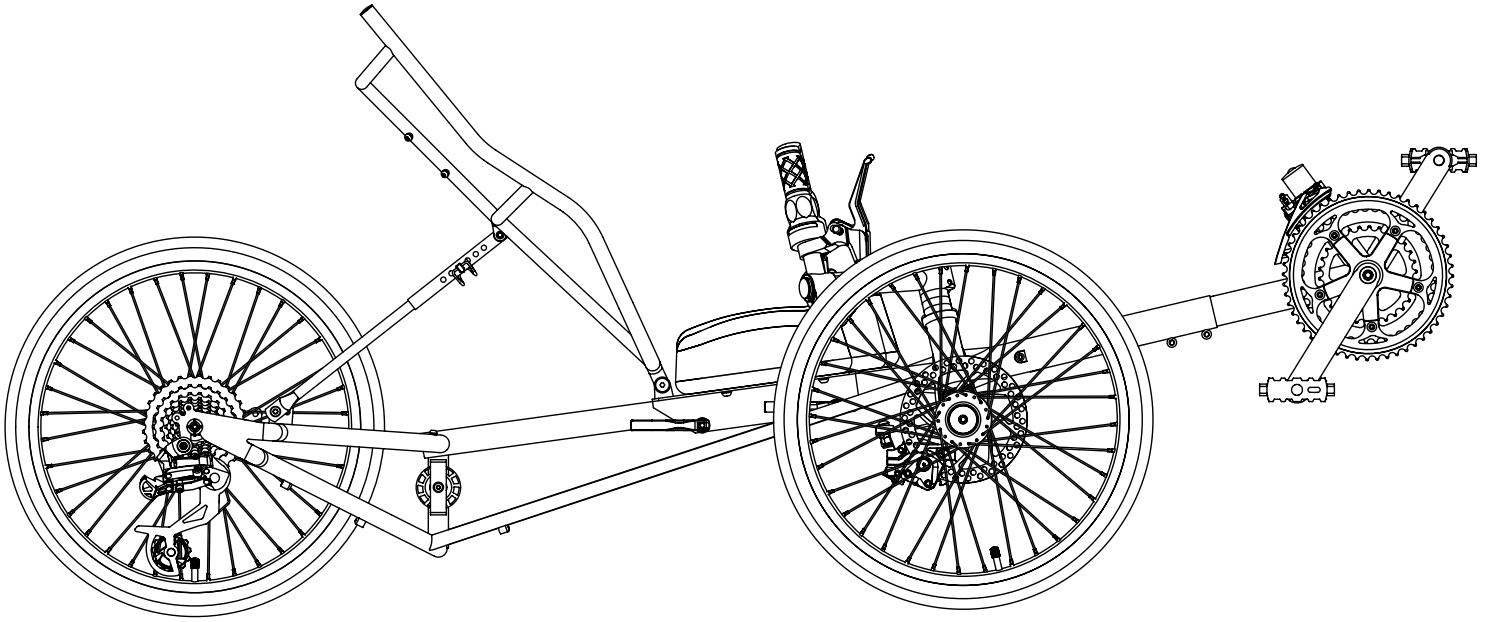
This manual is not intended as a comprehensive use, service, repair or maintenance manual. Please see your dealer for all service, repairs or maintenance. Your dealer may also be able to refer you to classes, clinics or books on bicycle use, service, repair or maintenance.

EZ-TAD SX Specifications

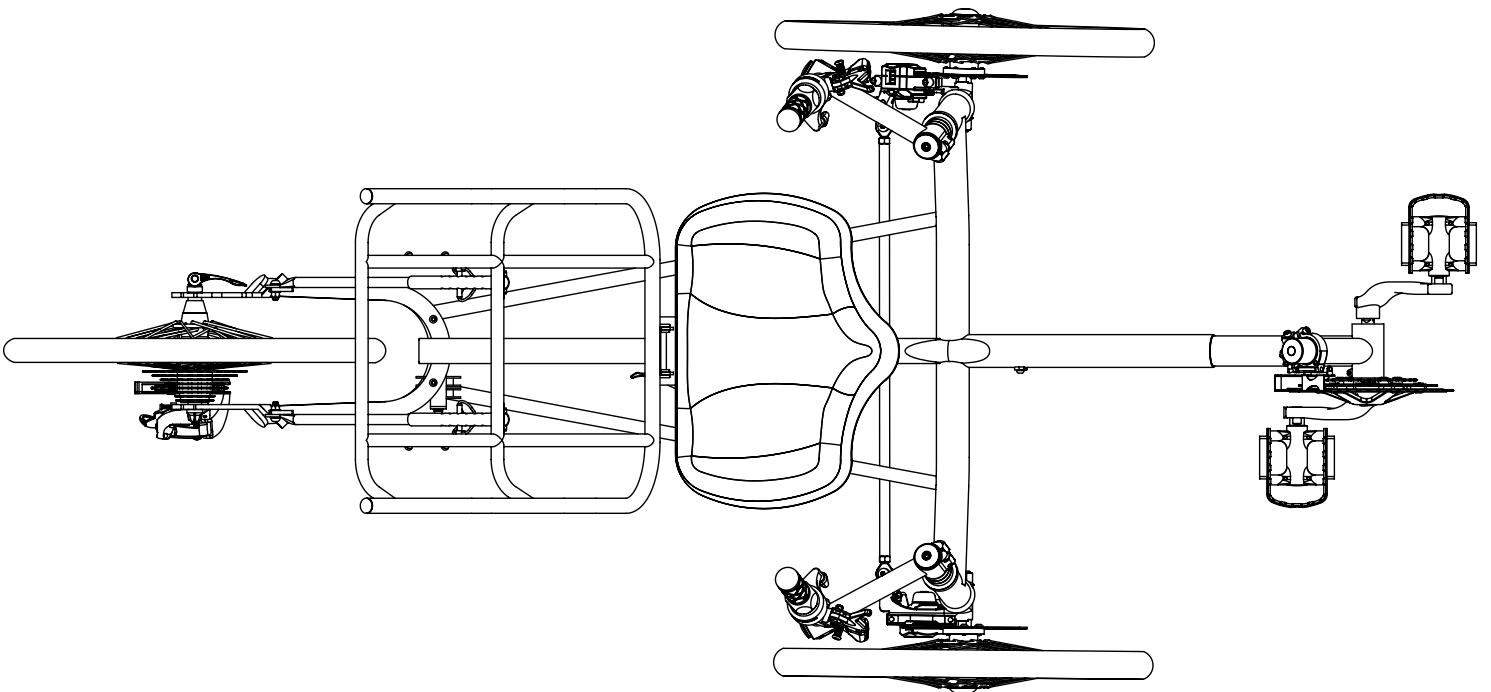
Model:	EZ-TAD SX
Style:	Tadpole Trike
Frame Material:	Custom High-Tensile Steel, TIG Welded
Fork Material:	Custom Cast High-Tensile Steel
Handlebar Material:	Aluminum Alloy
Steering System:	Direct Linkage
Seat Type:	Two-Piece with Cool Back Seat Mesh
Wheelbase:	40" (101.6cm)
Overall Length:	65"-73" (165-185cm)
Width:	32" (81cm)
Seat Height:	14" (35.5cm)
Weight:	48 lbs.
X-Seam :	33"-47" (84-119cm)
Weight Limit:	300 lbs.
Headset:	External Cup 1-1/8", Caged Bearings (S.H.I.S. EC 34/28.6 - EC 34/30)
Drive Type:	24-Speed Derailleur
Pedal Type:	Platform, 9/16"
Crankset:	Alloy 170mm 52-42-30t
Bottom Bracket:	Sealed Cartridge Square Taper
Chain Type:	KMC Z51 1/2" x 3/32"
Front Derailleur:	Microshift Dual-Pull for 31.8mm Seat Tube
Rear Derailleur:	SRAM X3
FW/Cassette Range:	SRAM 8-Speed 11-32T
Shifter Set:	SRAM 3x8 Grip Shift
Brake Levers:	Promax Locking Linear Pull
Brake Caliper Left / Right:	Dual Promax Mechanical Disc w/160mm Rotors
Rims / Spokes:	Alloy Single Wall Rim / 14G Stainless Steel Spokes / 36 Hole
Tires / Size:	Kenda Kwest 20 x 1.5"
Water Bottle Cage Mounts:	Dual Seat-Back Mounts
Note: Specifications subject to change without notice.	

EZ-TAD SX Reference Views

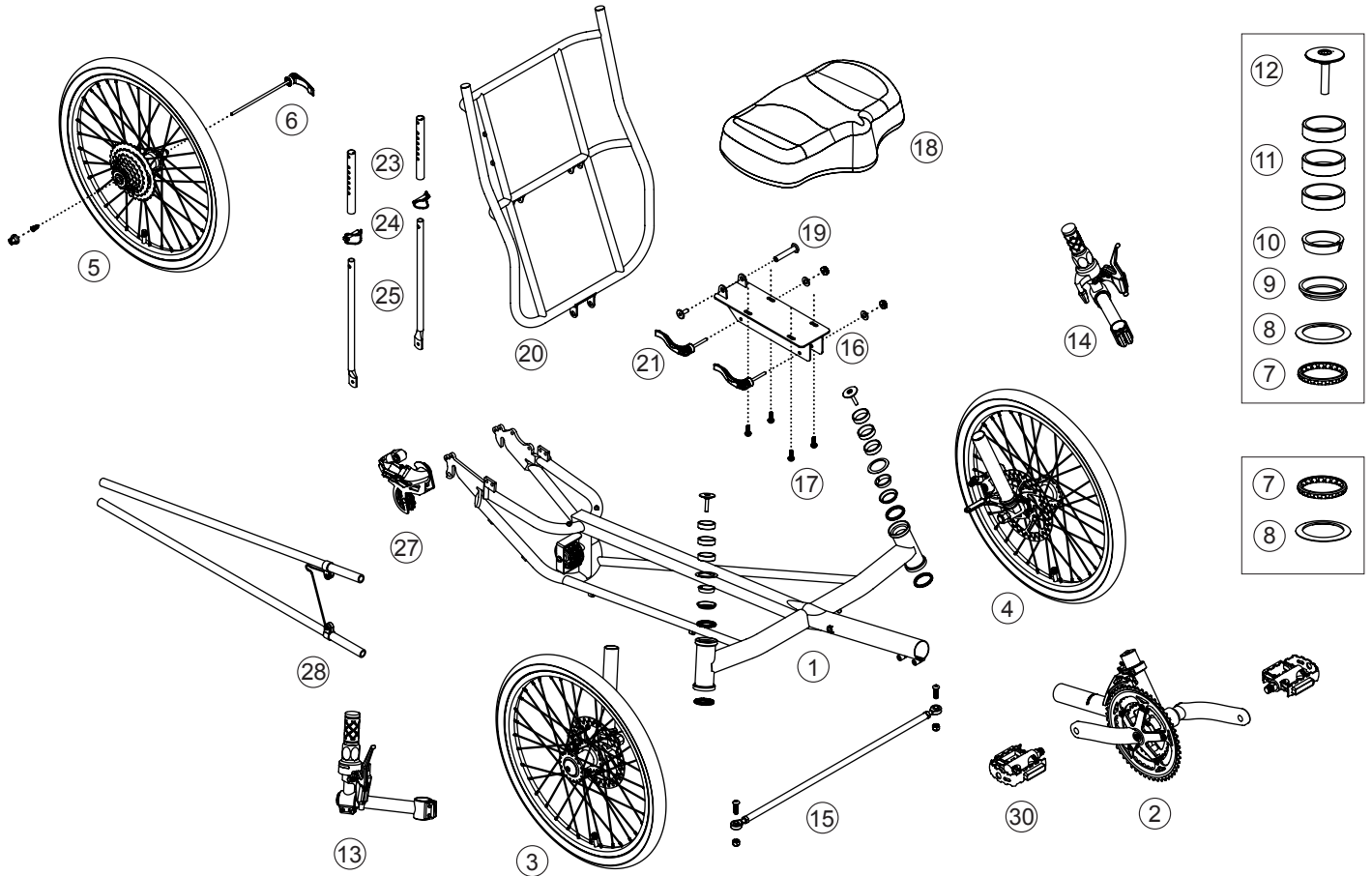
Side View



Top View



EZ-TAD SX Assembly Reference



EZ-TAD SX PARTS LIST

ITEM	DESCRIPTION	QTY
1	Main Frame Assembly	1
2	Crank Boom Assembly	1
3	Right Front Wheel Assembly	1
4	Left Front Wheel Assembly	1
5	Rear Wheel Assembly	1
6	Quick Release for Rear Wheel (M5x165mm)	1
7	Headset Bearing	4
8	Headset Seal	4
9	Headset Adjust Cone	2
10	Headset Compression Ring	2
11	Headset Spacer 10mm	6
12	Headset Top Cap & Bolt	2
13	Right Handlebar Assembly	1
14	Left Handlebar Assembly	1
15	Steering Linkage Assembly	1
16	Seat Mount	1
17	Seat Mount Hardware	1 Set
18	Saddle	1
19	Seat Back Pivot Bolt	1
20	Seat Back Frame	1
21	Quick Release Seat Mount Pins (M6x65mm)	2
22	Seat Mesh (Not Pictured Above)	1
23	Upper Seat Strut (15.9x150mm)	2
24	Seat Strut Pin	2
25	Lower Seat Strut (12.7x295mm)	2
26	Seat Strut Hardware Set with Half-Moon Nylon Washers (Not Pictured Above)	1 Set
27	Rear Derailleur	1
28	Chain Tube Assembly	1
29	Chain (Not Pictured Above)	1
30	Pedals (9/16")	1 Pair

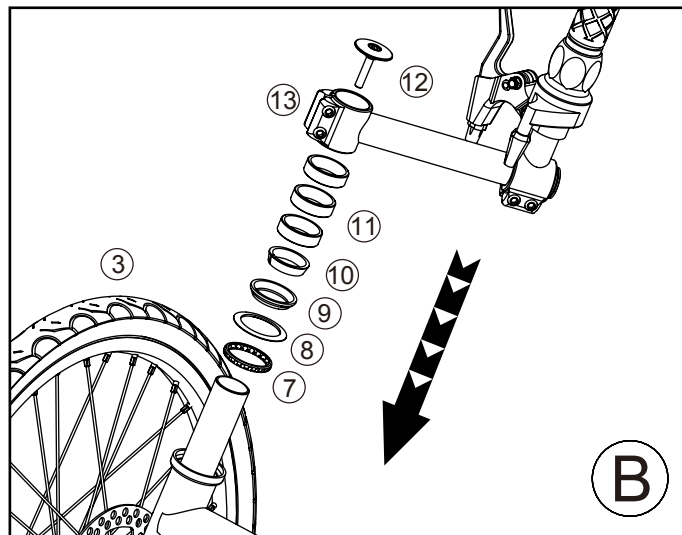
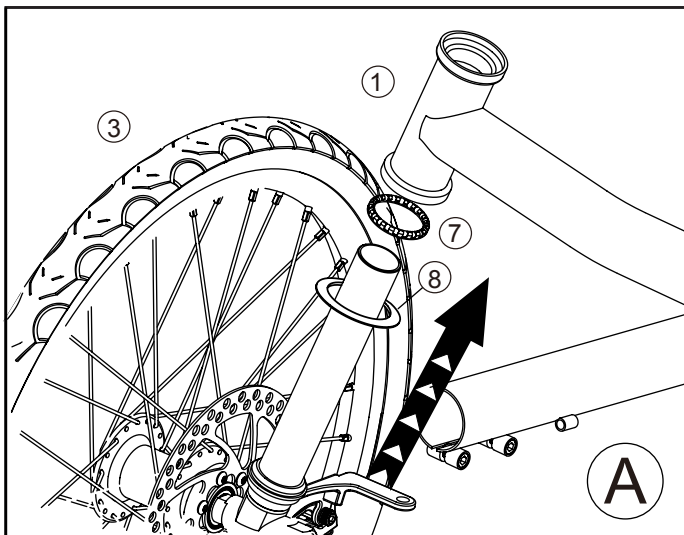
Assembly Guide

Front Wheel and Handlebar Installation

Install #8 Headset Seal and lower #7 Headset Bearing (lubricate bearing with grease) onto steer tube of the #3 Right Front Wheel Assembly. Insert steer tube into right-hand head tube of #1 Main Frame. See Figure A.

Install upper #7 Headset Bearing, #8 Headset Seal, #9 Headset Adjuster Cone, #10 Headset Compression Wedge, #11 Headset Spacer (x3) and #13 Right Handlebar Assembly. See Figure B.

Repeat process using #4 Left Front Wheel Assembly. Finish with #12 Headset Top Cap and Bolt. Check for binding, see Handlebar and Headset Adjustment-Section for final adjustments.

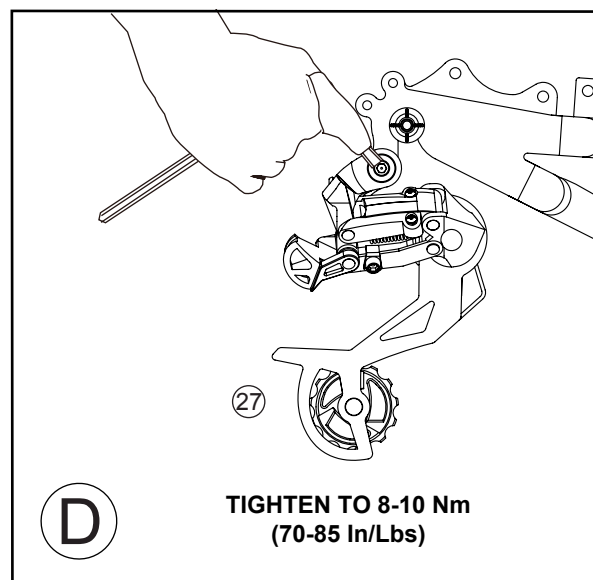
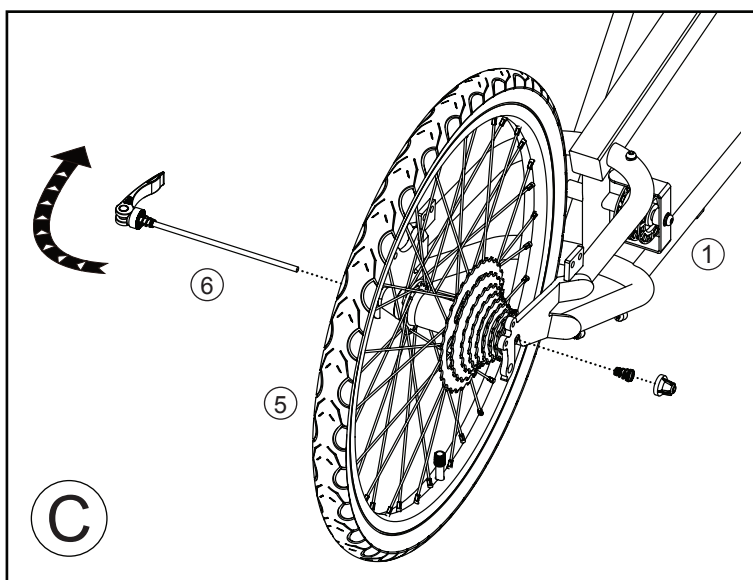


Rear Wheel and Rear Derailleur Installation

Install #5 Rear Wheel Assembly into #1 Main Frame dropouts. Install #6 Rear Wheel Quick Release and tighten securely. See Figure C.

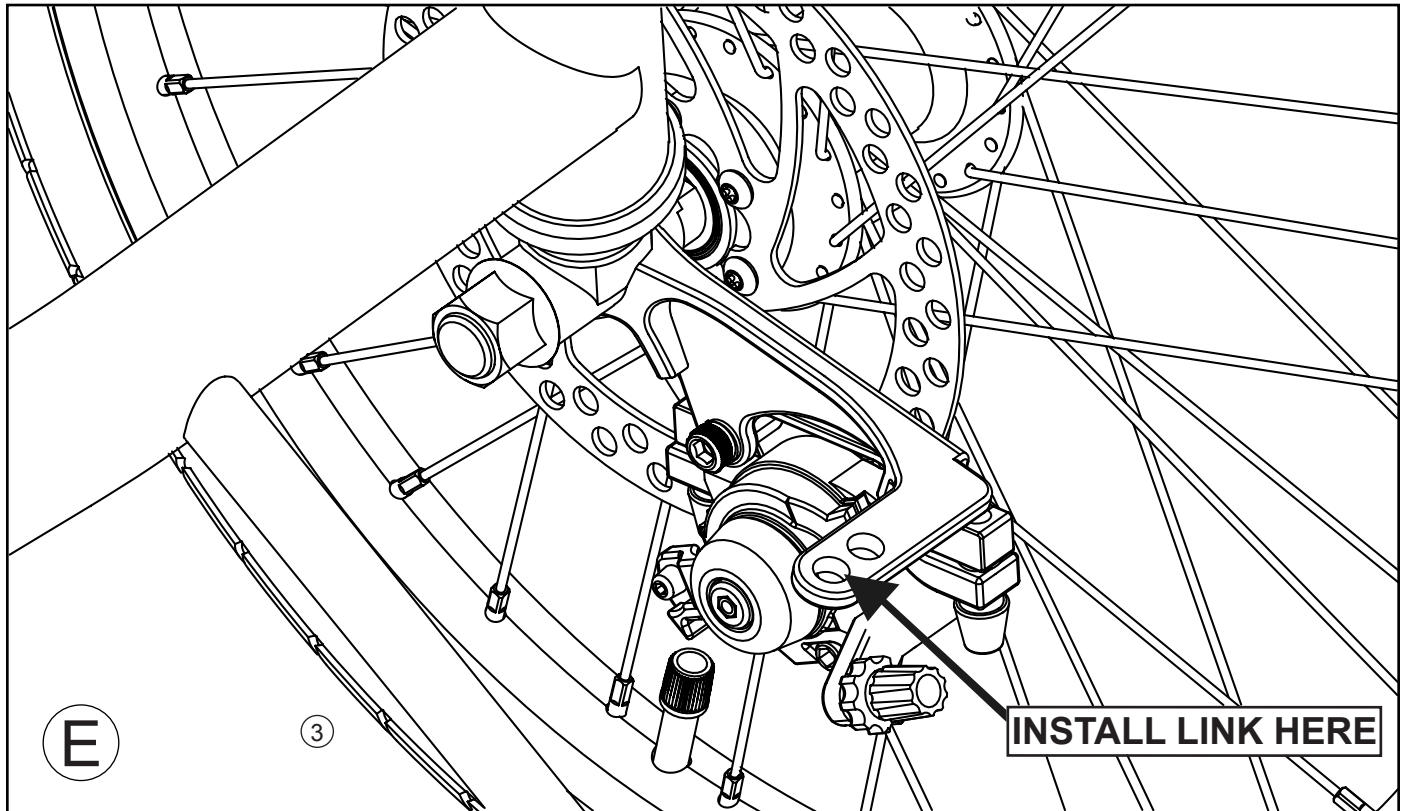
Install #27 Rear Derailleur onto rear derailleur dropout, tighten securely. See Figure D.

NOTE: Refer to Sun Seeker Recumbent Bicycle / Tricycle Owner's Manual for proper quick release operation.



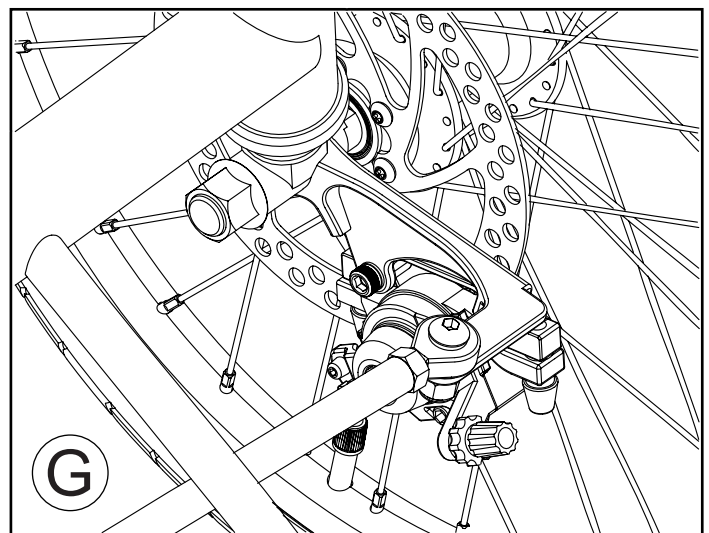
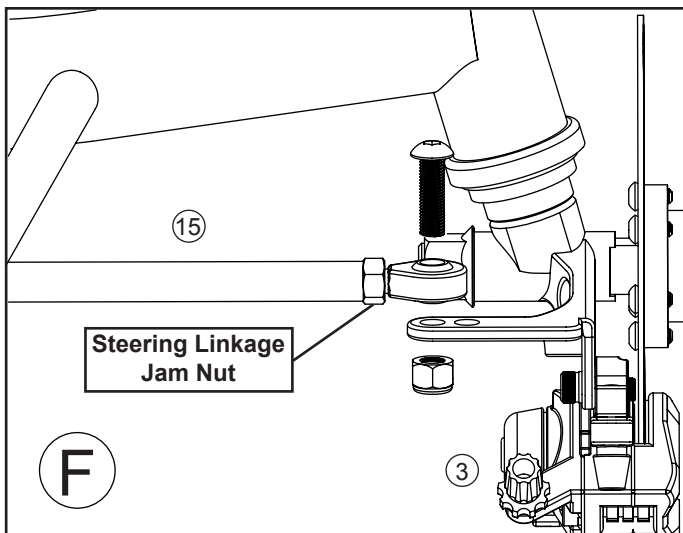
Steering Linkage Installation

Install #15 Steering Link Assembly above steering tabs on #3 Right Front / #4 Left Front Wheel Assemblies and tighten securely. See Figure E.



Steering Linkage Jam Nuts will be used in the next step for toe-in adjustments. See Figure F.

Steering link should be installed above both steering tabs, final installation should be as shown below. See Figure G.



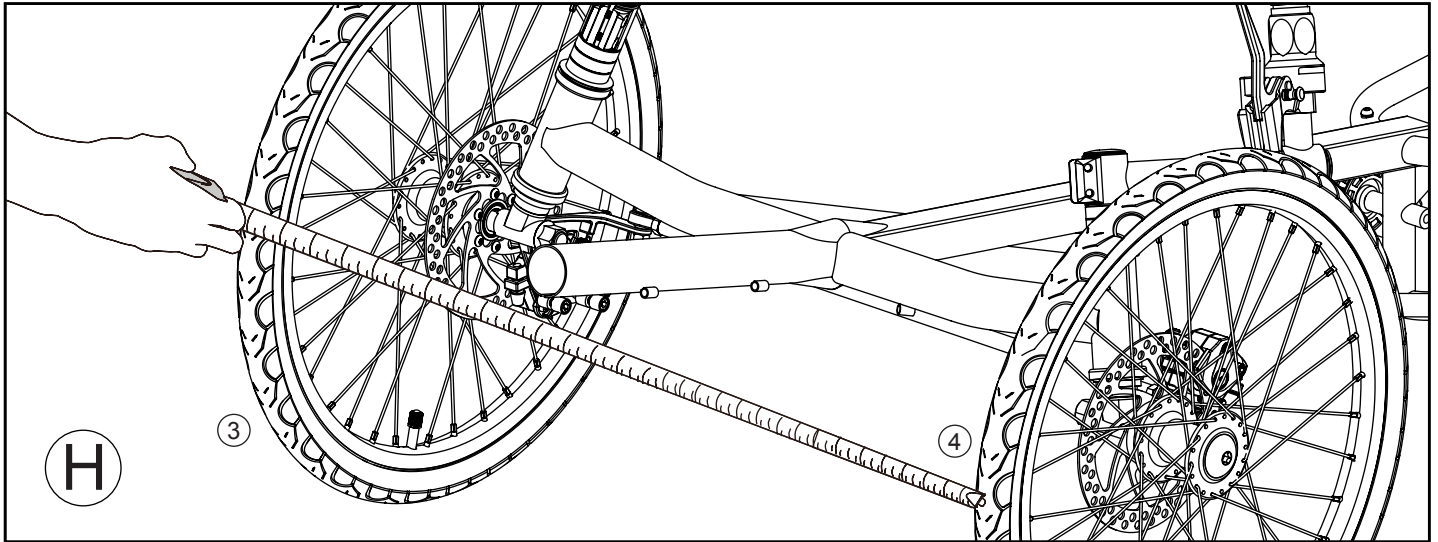
Setting Front Wheel Toe-In Angle

Set toe-in for Tadpole Trikes from 0mm to 3mm toe-in (recommended.)

With the trike on the ground and wheels fixed in a straight-ahead position, measure from the front centerline of the right wheel across to the front centerline of the left wheel. Record your measurement. See Figure H.

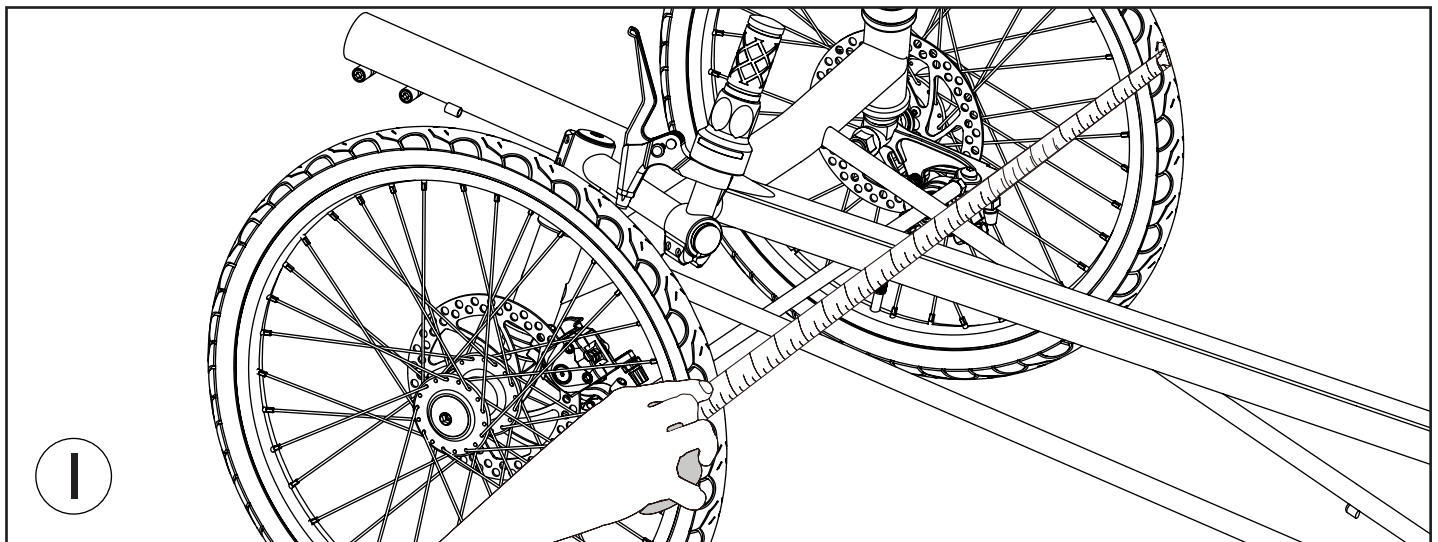
Repeat this process, measuring from the rear centerline of the right wheel to the rear centerline of the left wheel. Record your measurement. The front centerline measurement should be up to 3mm less than the rear centerline measurement. See Figure I.

Another simple measuring technique is to measure from one right spoke nipple to the opposing left spoke nipple.



To adjust toe-in, loosen the Steering Linkage Jam Nuts (See Figure F) on the #15 Steering Linkage Assembly. Turning the #15 Steering Linkage Assembly clockwise or counter clockwise will lengthen or shorten the rod since the rod ends are right hand threaded on one side and left hand threaded on the other.

Tighten the Steering Linkage Jam Nuts (See Figure F) and recheck the toe in. Re-adjust if necessary.

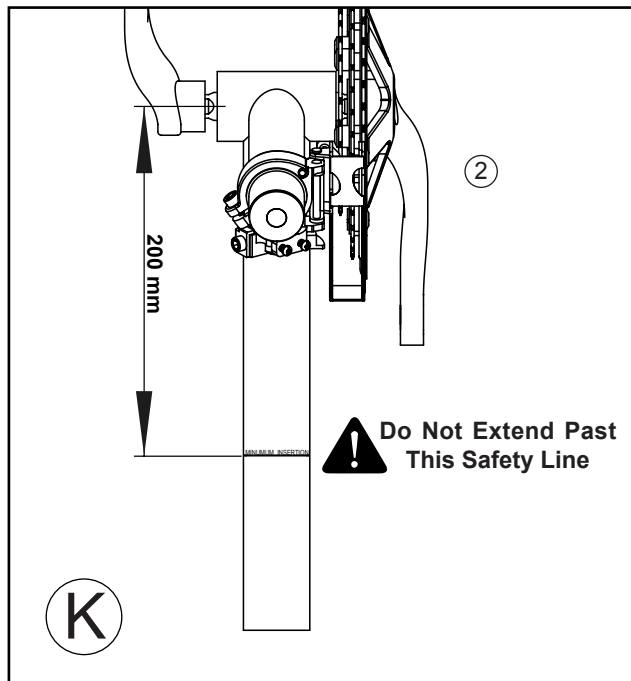
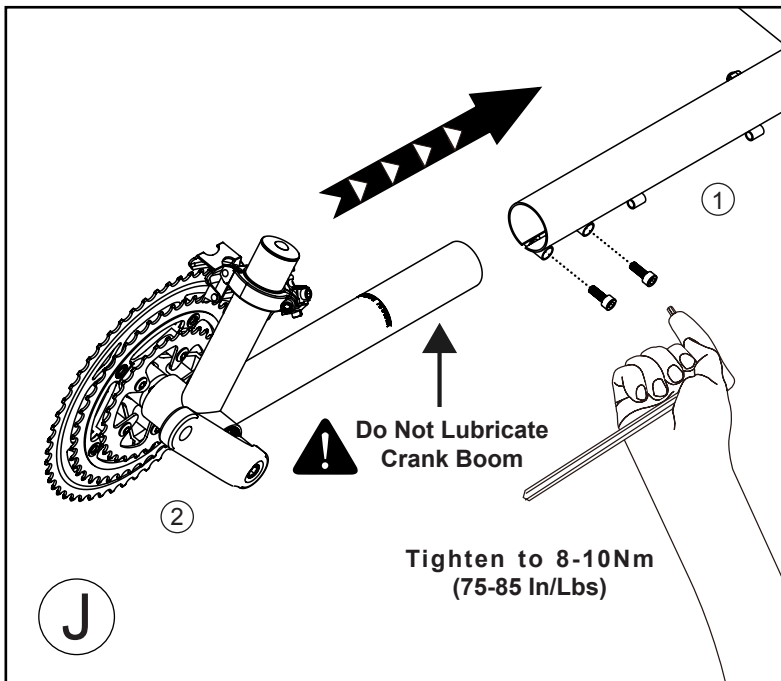


Crank Boom Installation

Install #2 Crank Boom Assembly into the front of #1 Main Frame. For now, insert boom midway between minimum insertion mark and bottom bracket shell, secure crank boom bolts. See Figure J.

Caution: Never lubricate or wax the part of the boom that goes into the frame.

Warning: DO NOT extend #2 Crank Boom Assembly past the minimum insertion line marked clearly on the boom. See Figure K.

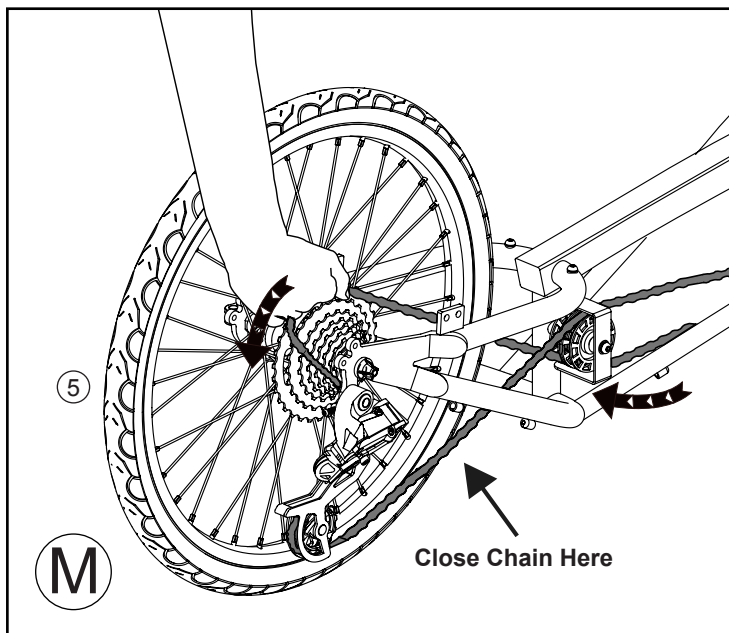
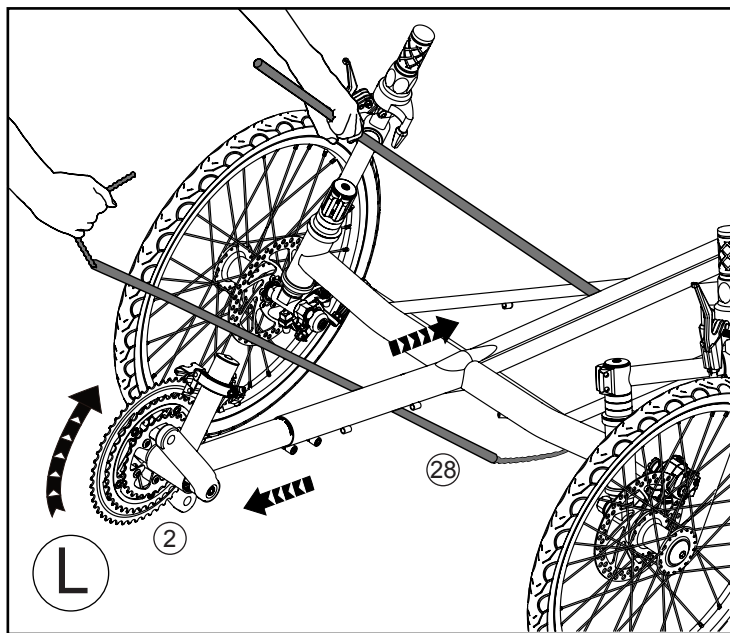


Chain and Chain Tube Installation

Position the lower chain tube beneath the front axle and the top chain tube above the front axle. See Figure L.

Starting at the rear, route the #29 Chain above the outer chain guide wheel. Pull the chain forward through the lower tube of the #28 Chain Tube Assembly, being careful to not twist the chain in the chain tube. Bring chain up around the small chainring and rearward through the front derailleur on the #2 Crank Boom Assembly. See Figure L.

Continue rearward into the upper tube of the #28 Chain Tube Assembly, being careful to not twist the chain in the chain tube. Work the chain rearward out of the upper chain tube and beneath the inner chain guide wheel. Route the chain back over the freewheel on the #5 Rear Wheel Assembly and down through the #27 Rear Derailleur, close chain beneath the rear derailleur using chain tool. See Figure M.

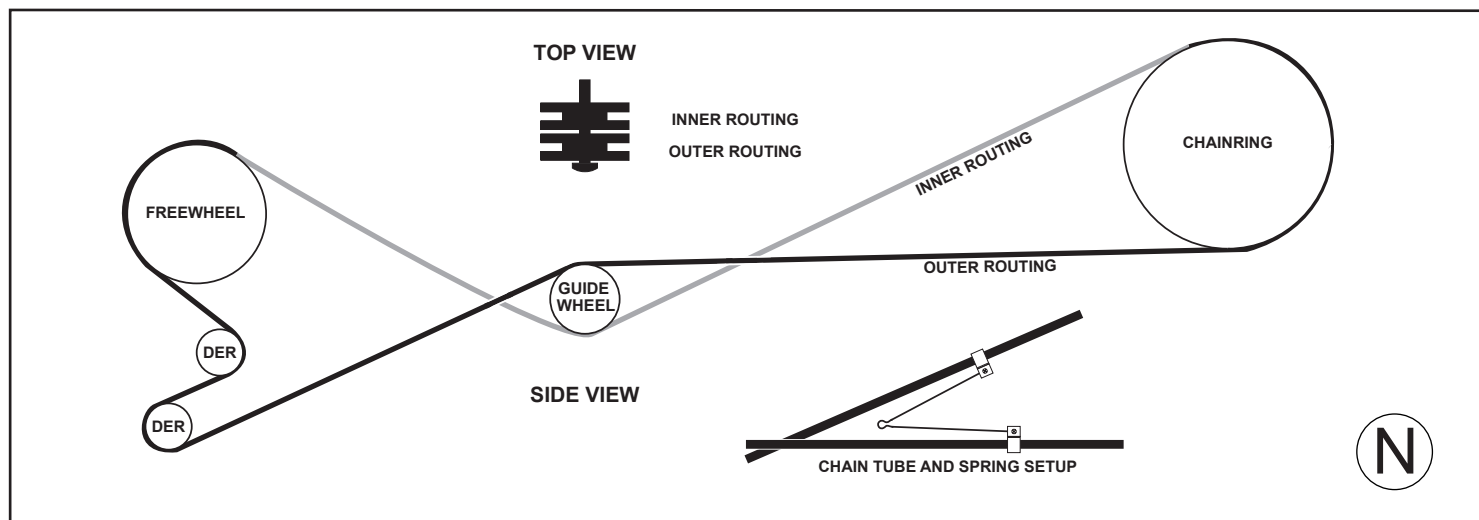


Chain Routing Guide

Final chain routing should be as shown below, noting positions of chain around chain guide wheel. Install the "Y" spring bracket to open toward the front of the trike. See Figure N.

Note: Chain length is set for crank boom at its fully extended position. Chain and chain tubes may have to be shortened as necessary. Do not shorten until the rider has been fitted properly.

Note: After final fit adjustments to #2 Crank Boom, adjust the chain tubes to be close to the largest chainring while not affecting shifting.

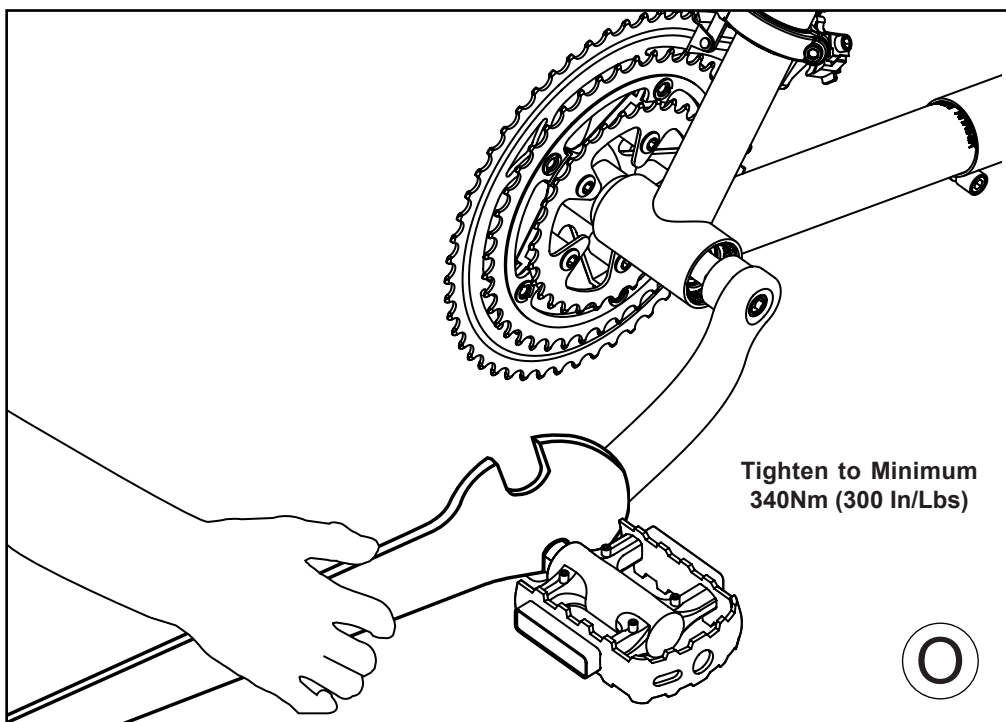


Pedal Installation

Apply grease to the threads of the #30 Pedals. This will protect both the threads of the pedal and the crank arm over time. Use pedal washers where required.

Using your hands, thread the #30 Pedals (marked for L or R) into the respective left or right crank arms by turning them toward the front of the bike. Once the threads catch, use your pedal wrench to finish tightening down the pedals. Tighten the pedals to a minimum of 300 in-lbs. of torque. See Figure O.

Tighten the pedals to a minimum of 34Nm (300 in-lbs.) of torque.



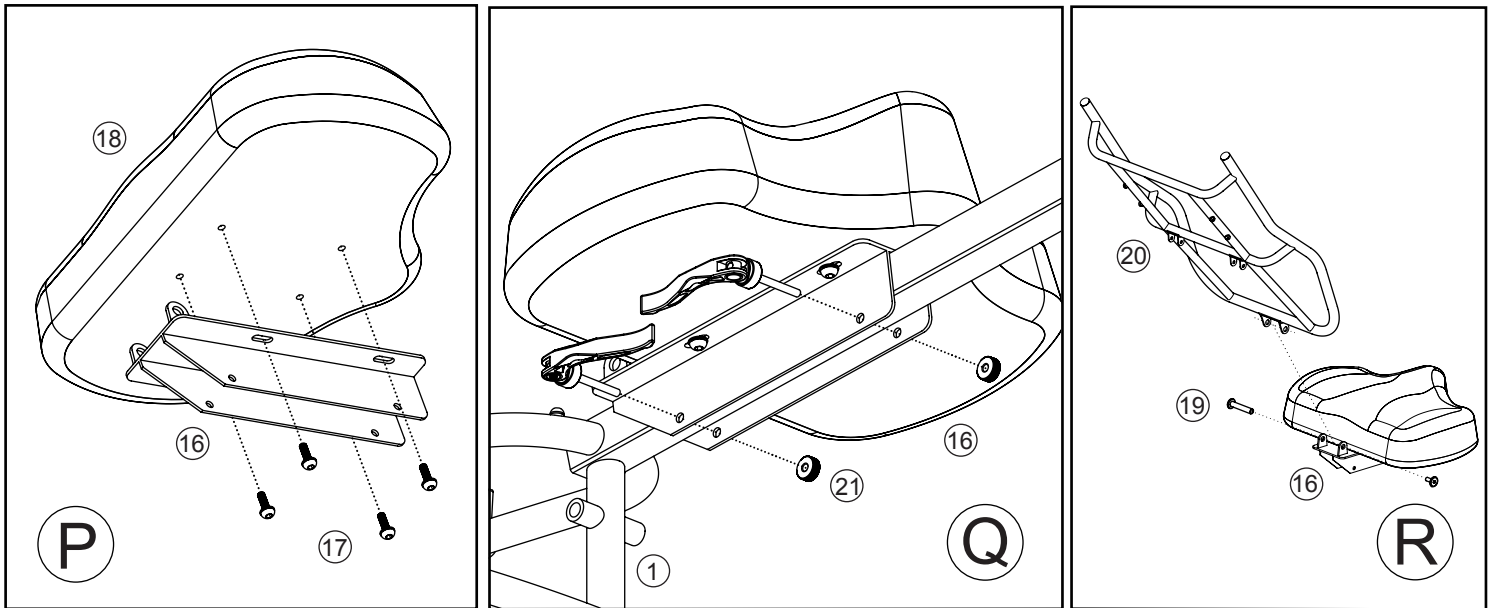
Seat Back Frame, Saddle and Seat Mesh Installation

Install #18 Saddle onto #16 Seat Mount using #17 Seat Mount Hardware. See Figure P.

Install #16 Seat Mount onto #1 Main Frame using #21 Quick Release Seat Mount Pins. See Figure Q.

Install #20 Seat Back Frame onto #16 Seat Mount using #19 Seat Back Pivot Bolt. See Figure R.

NOTE: Refer to Sun Seeker Recumbent Bicycle / Tricycle Owner's Manual for proper quick release operation.

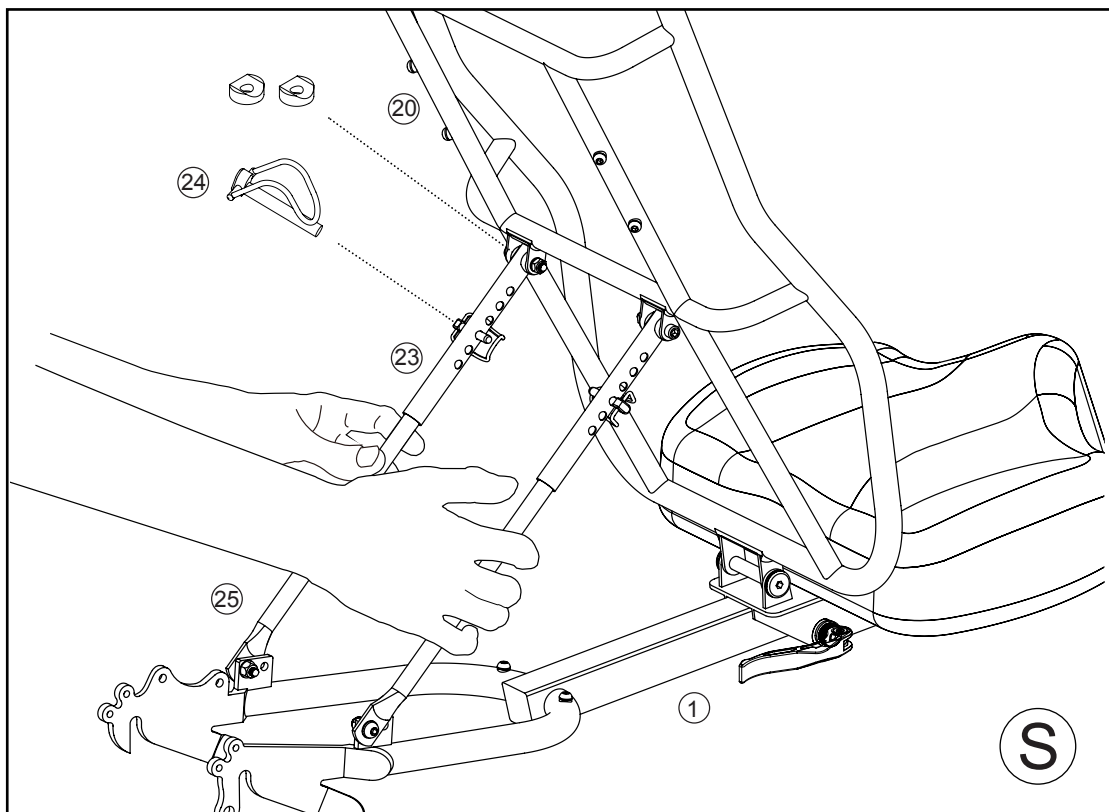


Install #23 Upper Seat Strut with Half-Moon Nylon Washers onto tabs on rear of #20 Seat Back Frame using #26 Seat Strut Hardware Set. Install #25 Lower Seat Strut onto tabs on rear of #1 Main Frame Assembly using #26 Seat Strut Hardware Set. See Figure S.

Insert the lower strut into the upper strut and use #24 Seat Strut Pins to secure the struts. Proceed to adjustments in the next section. See Figure S.

Install #22 Seat Mesh (not shown) onto the #20 Seat Back Frame. Starting from the top edge of the seat back frame, insert upper posts of seat back frame into stitched mesh pockets on square upper corners of seat mesh. Expect a snug fit.

Roll the rounded lower corners of the seat back mesh onto the rounded lower edges of the seat back frame. Finish by buckling and adjusting nylon clips and straps to the rear of the #20 Seat Back Frame.



Seat and Crank Boom Adjustment

The goal is for your seat (and therefore your weight) to be as far back as possible when your setup is complete.

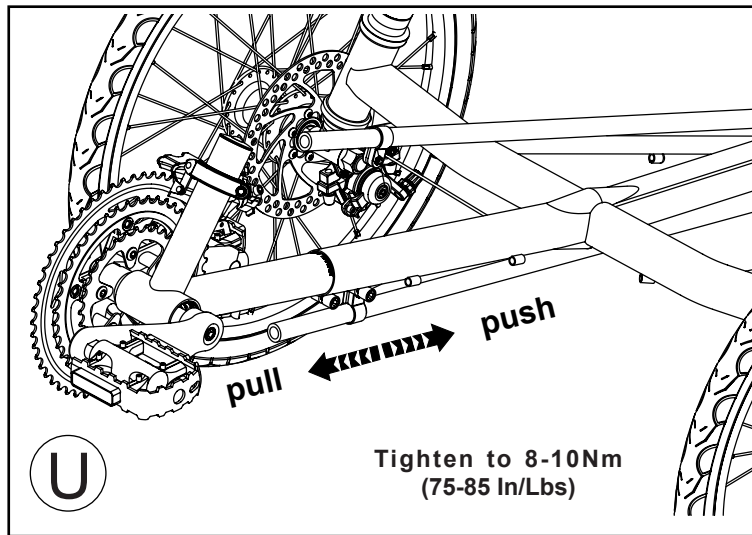
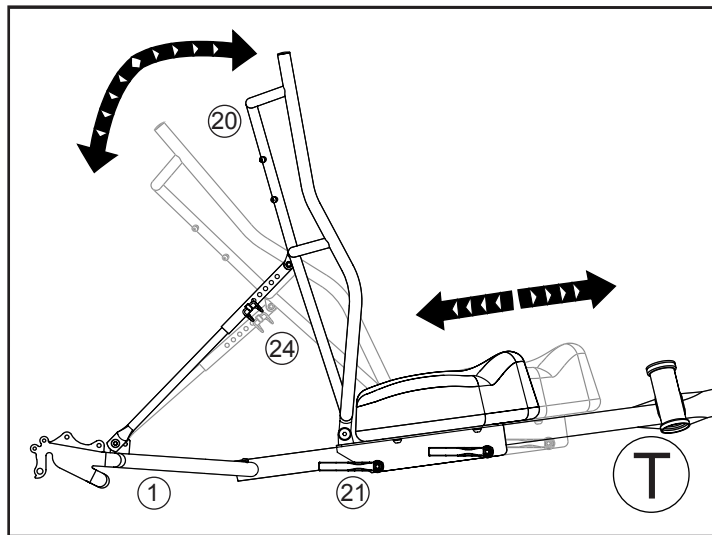
Loosen the #21 Quick Release Seat Mount Pins and slide the #16 Seat Mount rearward on the #1 Main Frame until in a comfortable seating position. Adjust the #20 Seat Back Frame angle by removing and reinstalling the #24 Seat Strut Pins into a new position on the seat struts if necessary. See Figure T.

Position the #16 Seat Mount so that when seated, your knee is slightly bent when your forward foot is in its farthest pedal position.

If pedals are too far forward for a natural pedal stroke, you can slide the #2 Crank Boom rearward to get the proper fit. If the pedals seem too close for comfort, you can slide the #16 Seat Mount rearward for more legroom. A combination of forward Crank Boom and rearward Seat Mount adjustment will provide maximum legroom for taller riders. See Figure U.

NOTE: Refer to Sun Seeker Recumbent Bicycle / Tricycle Owner's Manual for proper quick release operation.

Warning: DO NOT extend #2 Crank Boom Assembly past the minimum insertion line marked clearly on the boom. See Figure K.



Handlebar and Headset Adjustment

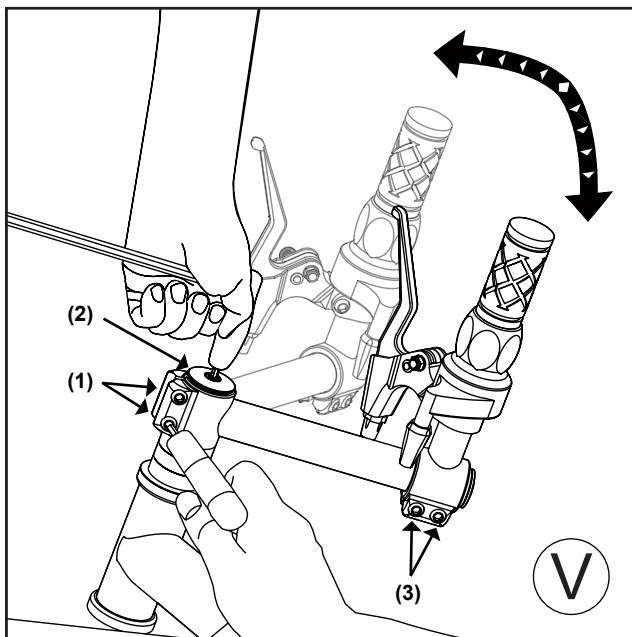
#13 / #14 Handlebar Assemblies are fully adjustable for desired comfort.

Loosen the clamp bolts (1) that secure the Handlebar Assembly to the steering tube. Slightly loosen the Top Cap Bolt (2). See Figure V.

Pivot each Handlebar Assembly to its desired position then carefully retighten the Top Cap Bolt (2) only until play is removed from Headset Bearing Assembly. Check that the Front Wheel Assembly still turns smoothly. Do not over tighten. Tighten clamp bolts (1) on Handlebar Assembly to 5-6Nm.

Once handlebar position is set you can now adjust the brake and shift controls on the Handlebar Assembly. Loosening the clamp bolts (3) on the controls will allow for more adjustment. Pivot each control to its desired position and tighten clamp bolts to 5-6Nm. See Figure V.

WARNING: Make sure once you have made all your handlebar, stem and control adjustments that you do not have any leg, knee or tire interference with the handlebar or controls. Failure to do so may result in loss of control resulting in a serious or fatal accident.

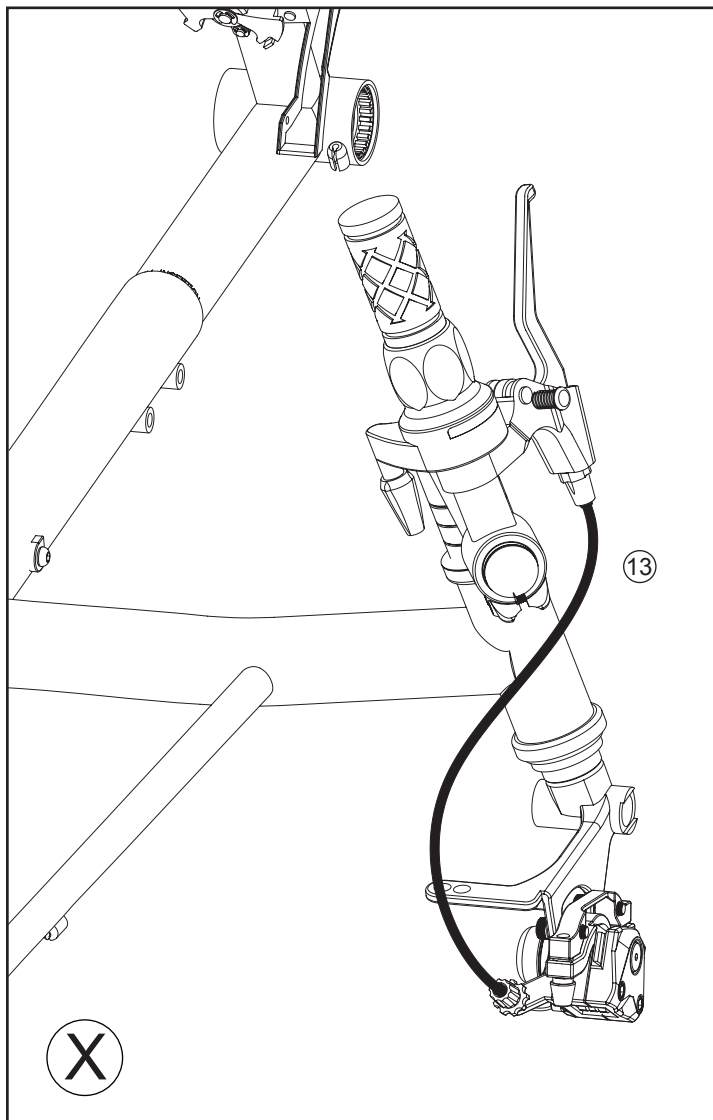
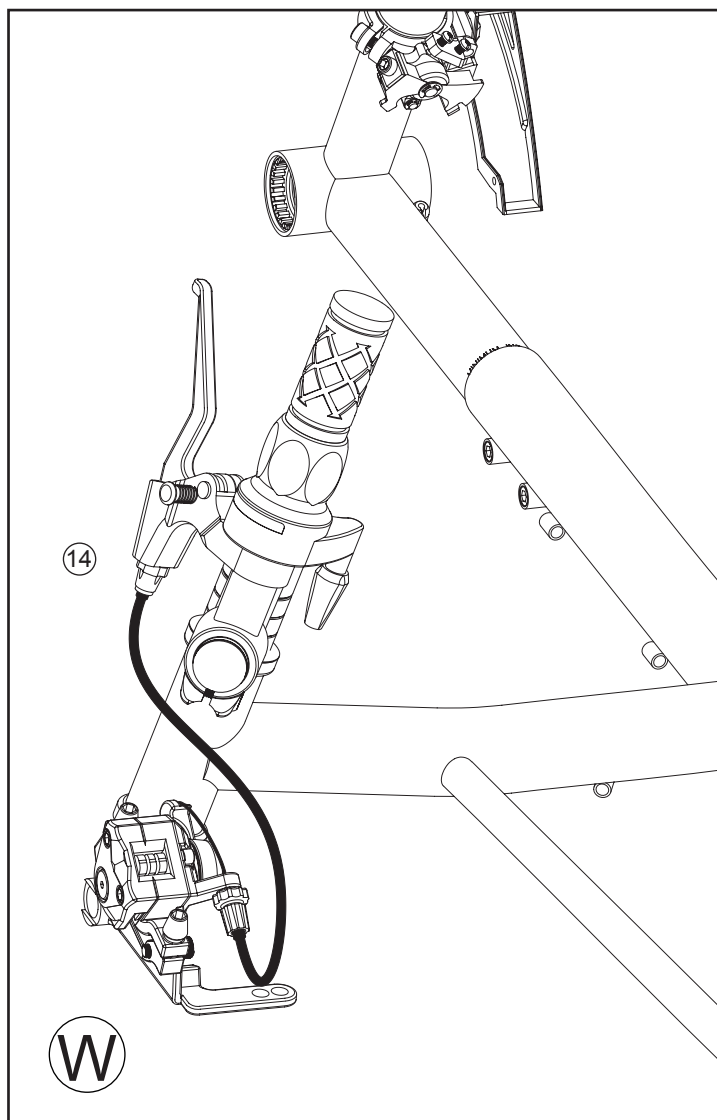


Brake Cable Routing

Route left-hand brake cable and housing from brake lever of #14 Left Handlebar Assembly down into cable adjuster of left brake caliper. Route brake housing smoothly into the caliper to prevent binding. Cut to length only after handlebar and control adjustments are made. See Figure W.

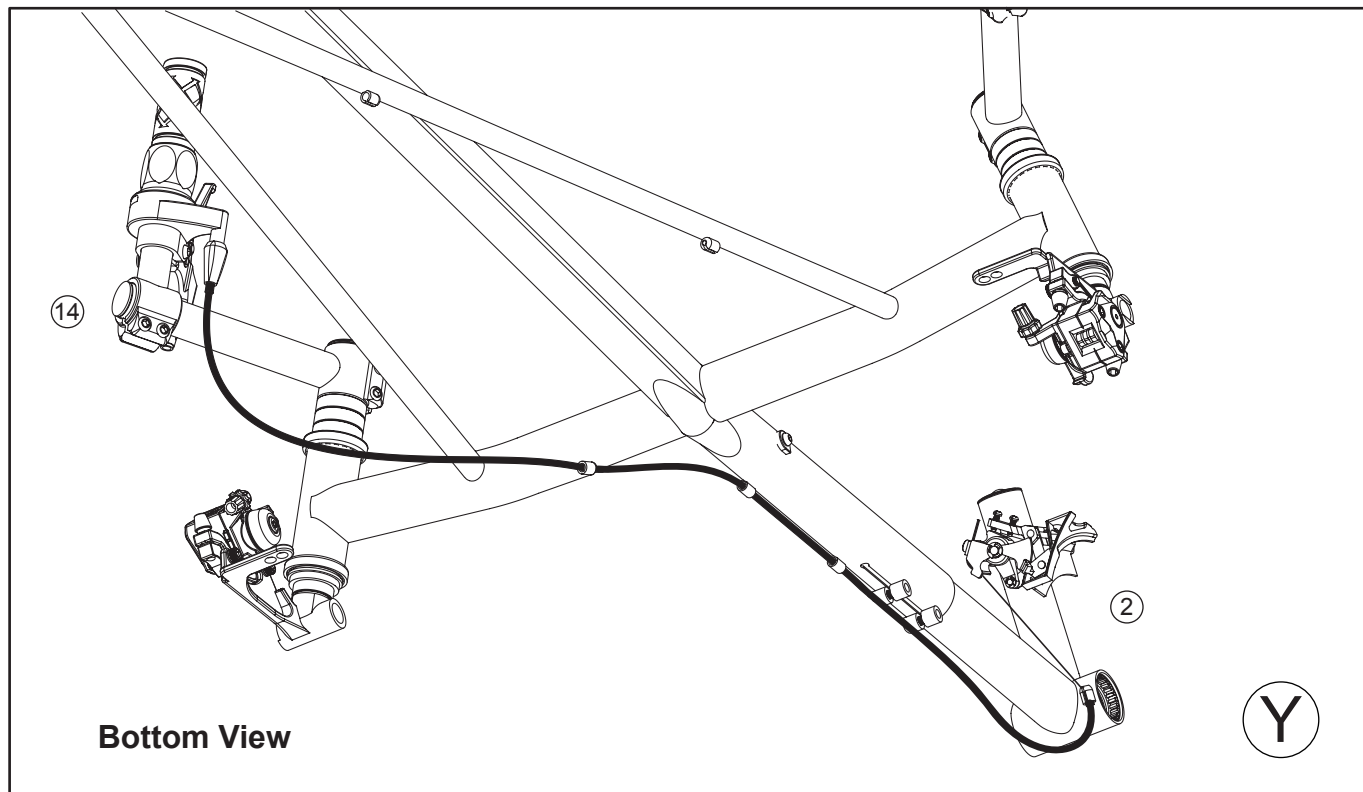
Route right-hand brake cable and housing from brake lever of #13 Right Handlebar Assembly down into cable adjuster of right brake caliper. Route brake housing smoothly into the caliper to prevent binding. Cut to length only after handlebar and control adjustments are made. See Figure X.

Warning: Make sure once you have routed all housings that you do not have any body, tire or pedal interference with the housings. Failure to do so may result in loss of control resulting in a serious or fatal accident.



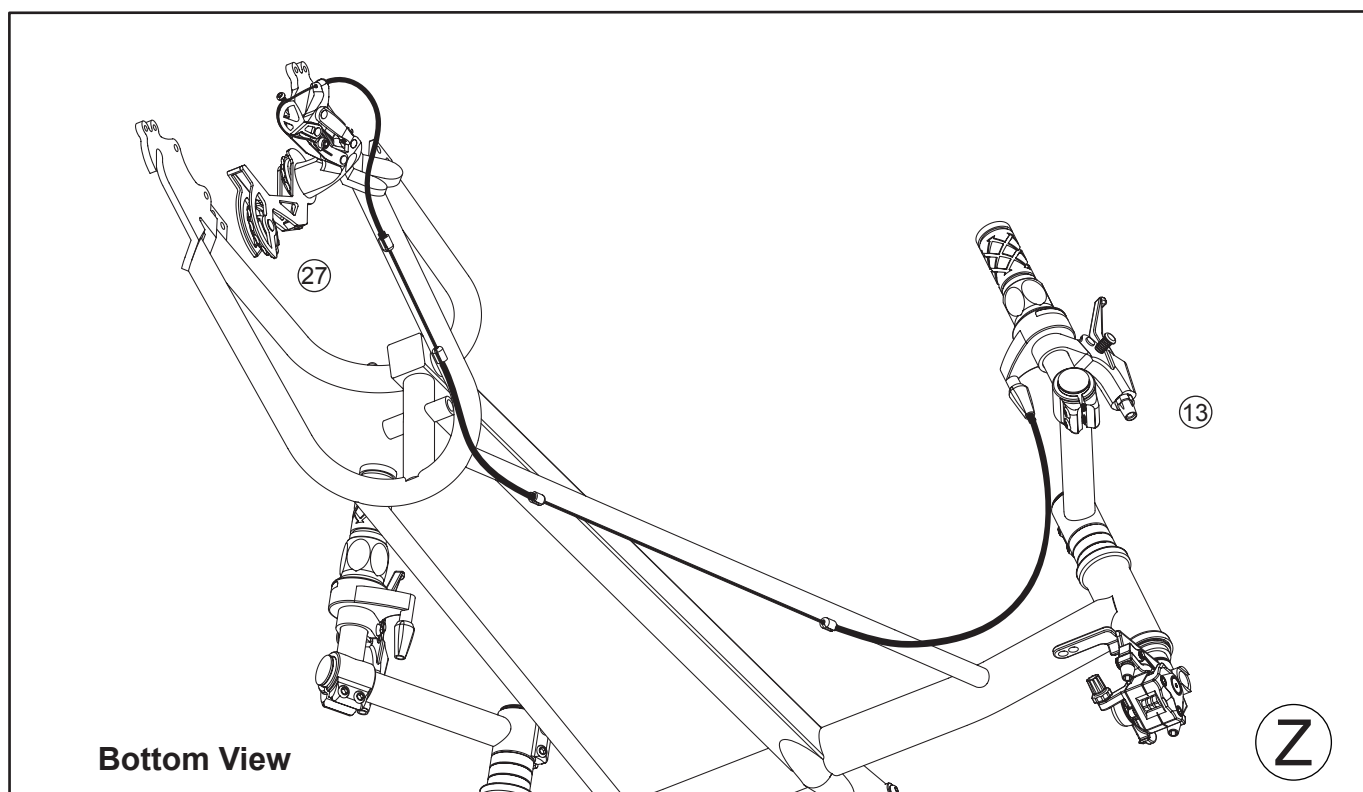
Shift Cable Routing

Route front derailleur cable and housing inward along the axle tube then forward along the main frame and crank boom. Use the provided frame cable guides for routing, finish the housing at the small cable stop located behind the chainrings on the #2 Crank Boom Assembly. Route shift housing smoothly into front cable stop to prevent binding. See Figure Y.



Route rear derailleur cable and housing inward along the axle tube and rearward along the main frame toward the rear derailleur. Use the provided cable guides for routing, use cable stops beneath seat frame assembly and at chainstay to split the housing into smaller sections along main frame. Route shift housing smoothly into #27 Rear Derailleur to prevent binding. See Figure Z.

Warning: Make sure once you have routed all housings that you do not have any body, tire or pedal interference with the housings. Failure to do so may result in loss of control resulting in a serious or fatal accident.



Finishing Touches

Please remember, this manual is only a supplement to the main Recumbent Bicycle/Tricycle Owner's Manual. Please read it in its entirety before taking your first ride on your new recumbent bicycle / tricycle.

As a quick recap: Make all necessary adjustments before riding, adjust front and rear derailleurs as you would on a bicycle. Adjust brakes and check function of parking brake locks on both left and right-hand brake levers. Check carefully for any handlebar / control / cable / housing interference. Secure housings using cable ties if needed to reduce movement and to eliminate contact with any moving parts. Check that chain tubes are positioned so that tubes do not interfere with normal operation. Check quick release seat mount and seat strut pins for security. Always torque fasteners properly and recheck torque values after the first few rides. Routinely check the condition of your recumbent bicycle/tricycle before every ride. Perform a visual and tactile inspection of the whole recumbent bicycle/tricycle before each ride to check for anything that may be unsafe to the operation of your bicycle / tricycle.

If you have any questions, or if you feel anything about your recumbent bicycle / tricycle is not as it should be, consult your dealer before you ride again.



NOTE:

This manual is not intended as a comprehensive use, service, repair or maintenance manual. Please see your dealer for all service, repairs or maintenance. Your dealer may also be able to refer you to classes, clinics or books on bicycle use, service, repair or maintenance.

THANK YOU AGAIN FOR YOUR PURCHASE OF A SUN SEEKER RECUMBENT.

If you have any questions or concerns please feel free to contact us 24hrs a day at info@sunseeker.bike

Notes



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