

STREETSTRIDER®

8s OWNER'S MANUAL

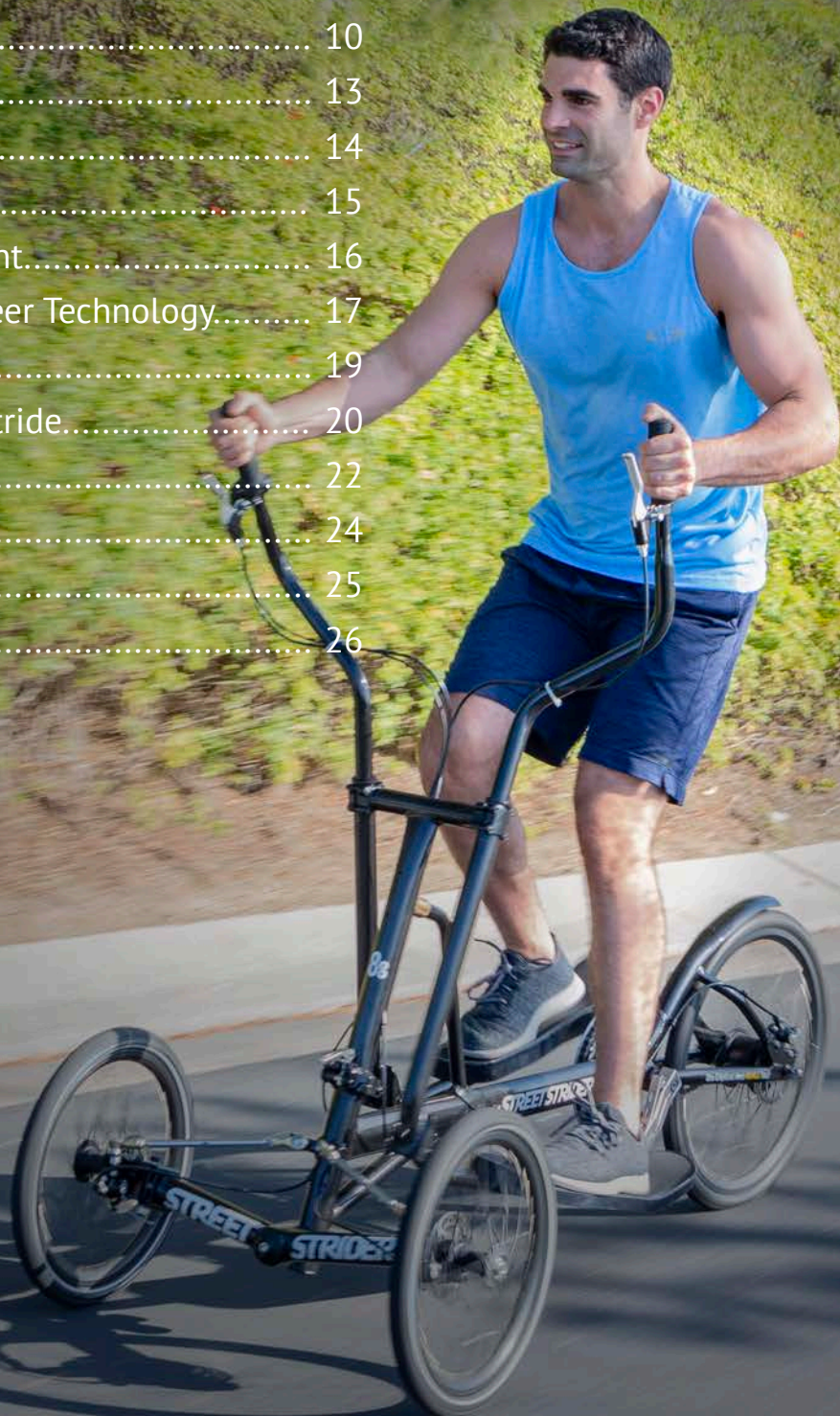


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Records

Record your *StreetStrider* model, serial number (on the frame just behind the underside of the bottom bracket; see photo) and other information below. Retain your sales receipt as proof of purchase.



MODEL _____ COLOR _____ SERIAL NUMBER _____

DATE OF PURCHASE _____ PLACE OF PURCHASE _____

Register your *StreetStrider* online at www.StreetStrider.com so we can notify you about new models, care and maintenance issues, and record your serial number. You may also want to register your serial number with your local police department in the event that your *StreetStrider* is lost or stolen.

1 About This Manual

This *StreetStrider 8s Owner's Manual* contains important assembly, maintenance, safety and performance information. It was written to help you get the most performance, comfort, enjoyment and safety out of your new *StreetStrider*. Keep this manual handy for future reference.

IMPORTANT: If your *StreetStrider* was purchased unassembled, read this manual before you assemble it. The Limited Warranty found in this manual on page 26 applies only to *StreetStriders* that comply with the assembly instructions in this Owner's Manual.

IMPORTANT: You should read this manual before you go out on your first ride.

Riding a *StreetStrider* can be a hazardous activity even under the best of circumstances. It is highly recommended that your first stride on your new *StreetStrider* be taken in a controlled environment, away from cars, obstacles and other cyclists, and wearing your helmet.

Proper maintenance of your *StreetStrider* is your responsibility as it reduces the risk of injury. This manual contains many **IMPORTANT**, **CAUTION** and **WARNING** statements concerning the consequences of failure to maintain or inspect your *StreetStrider*. When inspecting your *StreetStrider*, be certain to secure all parts properly as described in Table 2-1. Under-tightening or over-tightening can result in component damage. *StreetStrider* parts have metric hardware - always use the correct tools.

IMPORTANT: It is impossible to predict every condition that will occur while striding. StreetStrider (the Company) has made no representation about the safe use of the *StreetStrider* under all conditions. There are risks associated with the use of any *StreetStrider* that cannot be predicted or avoided, and the Company recommends safe and cautious striding.

WARNING Failure to read and comply with all assembly, safety, performance and maintenance requirements and warnings, and unsafe or improper use of the StreetStrider could result in serious injury or death.

2 Parts Identification

Figure 2.1 StreetStrider 8s Parts. Refer to Table 2-1 for part numbers and descriptions.



Figure 2.2 StreetStrider 8s Parts. Refer to **Table 2-1** for part numbers and descriptions.



Figure 2-1 StreetStrider 8s Parts List with Hardware Specifications.

#	DESCRIPTION	HARDWARE	SPECIFICATIONS	QTY	STATE
1	Main frame bone		AL 6061 T6	1	
2	Head tube	Bottle cage bosses Strut coupling boss	M5 x P0.8 threads, 2 front side, 1 rear side	2	Tighten to secure cage and coupling
3	Crossbar			1	
4	Front beam	Clevis bracket with adjustable caster angle	Male and female 52 tooth spline M31 x P1.0 lock ring M10 x P1.5 x L20 x W8, center screw	2	Tighten after adjusting caster angle
5	Fold joint	Quick Release clamp stem nylon lock nut	M6 x P1.0 x L20 x H10 x W10	1	Snug to secure
6	Stride pole upper		Left and right side	2	
7	Strider pole lower			2	
8	Frame strut	Coupling at top end Saddle at bottom end	¾" x 11.5 TPI GHT, M5 x P0.8 inner face M5 x P0.8 binding screw w/ nylon washers	1 1	Tighten Snug
9	Strider ski	Composite bushings Roller bearings	OD12 x ID10 x L15 x 17 mm flange, at Joint #2 OD 26 x ID 18 x L 20, at Joint #3	4 4	Grease Grease
10	Foot platform	4 mm hex screw, Grip tape on surface	M5 x P0.8 x L12 x H12 x W4,	12	Tighten
11	Rear fender frame	4 mm hex screw,	M5 x P0.8 threaded hole for luggage rack	1	Tighten
12	Fender stay			2	
13	Chain stay			2	
14	Hand grip		Left and right side, rubber	2	
15	Twist grip shifter	3 mm hex screw	M4 x P0.7 x L16 x W3, clamp	1	Tighten
16	Brake lever	5 mm hex screw Parking pin Cable housing adjuster Cable doubler	M5 x P0.8 x L20 x H10 x W5, clamp OD 10, spring loaded M10 x P2.0 barrel adjuster with lock ring Front brake, with adjuster and lock ring	2 2 2 1	Tighten Adjust-lock Adjust-lock
17	Joint #1, cross bar-pole pivot clamp assembly	4 mm hex screw 3 mm hex set screw 4 mm hex pan head Roller bearings 4 mm flat head screw	M5 x P0.8 x L30 x H8 x W4, clamp cap M6 x P1.0 x L5 x W3, with cup end, cross bar M6 x P1.0 x L10 x W4, lock screw OD26 x ID18 x L20, in cross bar M6 x P1.0 x L20 x W4, inner shaft end	8 8 2 4 2	Tighten evenly to secure pole Tighten Tighten Grease Tighten
18	Joint #2, pole-ski pivot	8 mm hex screw, washer, 17 mm nut	M10 x P1.5 x L75 x H15 x W8 OD16 x ID10 x T1 M10 x P1.5 x L10 x W17, nylon lock	2 2 2	Snug but allow joint movement
19	Joint #3, ski-pedal pivot	6 mm hex spindle	OD18 X L60 x W6, 9/16" x 20 TPI Right threads right, Left threads left, C clip	2	Tighten
20	Front beam pivot	8 mm hex screw 3 mm hex set screw Tapered roller bearing	M10 x P1.5 x L20 x W8, front cap M6 x P1.0 x L5 x W3, rear end OD 47 x ID 20 X T15	1 1 2	Tighten Tighten Grease

#	DESCRIPTION	HARDWARE	SPECIFICATIONS	QTY	STATE
21	Front wheel rim and tire		Rim 36H, Tire 16" x 1 3/8", ISO 37 x 349	2	80-85 psi
22	Front wheel hub	19 mm hex axle nut	M12 x P1.75 x L10 x W19, nylon lock	2	Tighten
23	Steering linkage	Inboard and outboard rod ends Threaded linkage rod	M8 x P1.25 x L20 x W14 flats on stud M8 x P1.25 x L10 x W13 nylon lock nut M8 x P1.25 x L20 rod, right and left thread ends M8 x P1.25 x L5 x W14, right and left jam nuts	4 2 4	Lubricate balls Tighten Tighten Tighten
24	Crank arm set with quick release left side Bottom bracket	8 mm hex screw QR stem Square taper	M8 x P1.0 x L15 x H12 x W8, 18 mm flange M10 x P1.5 x L10 x W17, nylon lock 68 x 122 mm	2 1 1	Tighten Snug Tighten
25	Chain ring with guard		52 T	1	
26	Chain		1/2" x 1/8" x 93 links	1	Lubricate
27	Rear wheel rim and tire		Rim 36 H, Tire 20" x 1 3/8", ISO 37 x 451	1	80-85 psi
28	Internal gear hub	15 mm axle nuts	8 speed, 3/8" x 26 TPI x W15 axle nuts	2	Tighten
29	Front disc brake	5 mm hex mount screw 5 mm hex caliper screw 5 mm hex outer pad 3 mm hex inner pad Cable housing adjuster 4 mm hex cable clamp	M6 x P1.0 x L15 x H10 x W5, through knuckle M6 x P1.0 x L15 x H10 x W5, through bracket W5 outer pad adjuster with 2 mm lock set screw W3 inner pad adjuster, through center screw hole M6 x P1.0 x L15 knurled for fingers with lock ring M5 x P0.8 x L12 x H10 x W4, socket and nut	4 4 2 2 2 2	Tighten Adjust-tighten Adjust-tighten Adjust Adjust-lock Adjust-tighten
30	Steering knuckle w/ lean stop	5 mm hex screw Lean stop disc Composite bushing	M6 x P1.0 x L15 x H10 x W5, socket screw W10 nylon lock nut OD24 x T4 with 6 mm offset hole OD12 x ID10 x L15 x 17 mm flange	2 4	Adjust-tighten Grease
31	King pin bolt in front beam clevis	8 mm hex bolt washer 17 mm nut	M10 x P1.5 x L75 x H15 x W8, socket OD16 x ID10 x T1 M10 x P1.5 x L10 x W17, nylon lock	2 4 2	Snug but allow knuckle swivel
32	Front disc rotor	4 mm hex screw	M5 x P0.8 x L10 x H10 x W4, Rotor 120 mm	12	Tighten
33	Rear disc brake	5 mm hex mount screw 5 mm hex caliper screw 5 mm hex outer pad 3 mm hex inner pad Cable housing adjuster 4 mm hex cable clamp	M6 x P1.0 x L15 x H10 x W5, through drop out M6 x P1.0 x L15 x H10 x W5, through bracket W5 outer pad adjuster with 2 mm lock set screw W3 inner pad adjuster, through center screw hole M6 x P1.0 x L15 knurled for fingers with lock ring M5 x P0.8 x L12 x H10 x W4, socket and nut	2 2 1 1 1 1	Tighten Adjust-tighten Adjust-tighten Adjust Adjust-lock Adjust-tighten
34	Rear disc rotor	4 mm hex screw	M5 x P0.8 x L10 x H10 x W4, Rotor 140 mm	6	Tighten
35	Rear drop out		Dropout slot for rear hub axle Holes for rear brake mounting bracket M5 x P0.8 hole for rear luggage rack screw	2 4 2	

Specification Key	M=OD of threads, mm	L=length	W=wrench fit, mm
	P=pitch, threads/mm	H=OD of head	T=washer thickness, mm

TERMINOLOGY: The right and left sides of the StreetStrider refer to sides when one is striding.
IMPORTANT: Save the box and packing material as they must be used to repack the StreetStrider for any returns.

3 Assembling the *StreetStrider 8s*

To assemble your *StreetStrider 8s*, first follow the steps and photos in this manual and view the *StreetStrider 8s* assembly videos where indicated. Included in the shipping box are the *StreetStrider 8s* in parts, an Owner's Manual [1] and a small bundle in the top tray inside the box containing a tool kit [2] which includes, four open end wrenches 17 x 14, 15 x 13, 14 x 12, and 13 x 10 mm [3], seven hex wrenches 8, 6, 5, 4, 3, 2.5, 2 [4], two tire levers [5], a 19 mm front hub socket [6], and a front wheel caster spanner wrench [7]. The parts bags contain the front beam shaft assembly [8], a right crank arm screw [9], the shifter cassette parts [10], three wheel reflectors [11], two front brake cable tips [12], zip ties [13], touch up paint [14], and two spare inner tubes [15], **Figure 3.1.2**.

3.1 Unpacking and Prep (see video)



Figure 3.1.1 The *StreetStrider* box shows which side is up. You will need a blade or scissors, pliers, tape measure, grease and a rag.



Figure 3.1.2 The top tray in the box holds the parts bundle and the support layers underneath protect the *StreetStrider*.



Figure 3.1.3 The front wheel assembly and rear wheel are the next 2 layers. Remove the wheels and set aside.



Figure 3.1.4 The main frame assembly, padded and secured with zip ties, is on the bottom cardboard panel which has corner cut-outs.



Figure 3.1.5 Grip the corner cut-outs and lift that panel and the folded *StreetStrider* out of the box, set the unit on a table, and remove the remaining zip ties.



Figure 3.1.6 Once all the packing is removed set the foot platform assemblies (lower pole, ski, foot platform, crank arm) aside.

3.2 Front Wheels (see video)



Figure 3.2.1 Lay the frame on it's left side. Retrieve the front beam shaft assembly, take the cap, tapered bearings and back plate off the shaft, and get the 8 and 3 mm hex wrenches.

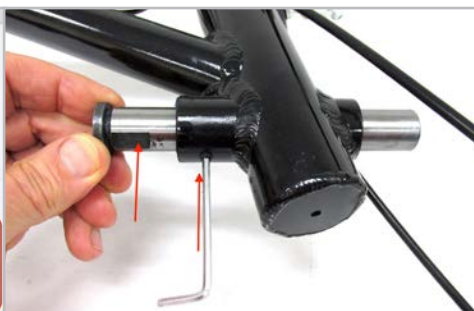


Figure 3.2.2 Loosen the set screw under the front beam shaft tube with a 3 mm hex wrench. Slide the shaft into the tube so that the flat section on the rear end of the shaft fits just above the 3 mm.



Figure 3.2.3 With the shaft inserted all the way forward, secure the shaft by tightening the set screw with the 3 mm hex wrench.



Figure 3.2.4 With the frame upright, slide the back plate and one of the tapered bearings, with taper facing forward, onto the shaft. Grease the bearings.

Figure 3.2.5 Unfold the front wheels on the front beam and set the front wheel assembly in front of the shaft.

Figure 3.2.6 Grease the front bearing race in the front beam.

Figure 3.2.7 Insert the other bearing onto the shaft with the taper facing rearward. Put the cap over the front of the beam shaft, insert the 10 mm screw, and tighten with the 8 mm hex wrench.

IMPORTANT: We recommend adding a liquid thread locker to the threads of the 10 mm screw.



Figure 3.2.8 Lower the left steering linkage so the outboard rod end can be attached to the left steering knuckle.

Figure 3.2.9 Unscrew the 13 mm nylon lock nut from the rod end stud, insert the threaded stud through the hole at the forward end of the steering knuckle, secure the stud with the nylon nut having one washer above and one washer below the knuckle and then hold the stud and tighten the nut using two 13 mm wrenches.

Figure 3.2.10 Repeat steps to attach the right steering linkage.



Figure 3.2.11 Route the front brake cables from the head tube, under the steering linkage and over the front beam. If the cable housing is off of the cables slide it back on. Insert the left and right cable and housing into the barrel adjuster on the left and right brakes, respectively.

3.3 Rear Wheel (see video)



Figure 3.3.1 Remove the silver acorn nut and gray (or yellow) non-turn washer from the right axle end.

Figure 3.3.2 From the parts bag retrieve the shifter cassette parts, the cassette pulley, the driver cap ring (often in the rear side of the pulley), and the lock ring. Press the driver cap over the hub driver until it snaps down.

Figure 3.3.3 Place the cassette pulley over the axle so that the red dots on the washer and the cassette pulley are in line.



Figure 3.3.4 Put the lock ring onto the cassette pulley so that the 2 yellow dots are adjacent.



Figure 3.3.5 Rotate the lock ring 45° clockwise to lock the cassette pulley onto the hub.



Figure 3.3.6 Replace the non-turn washer with tongue pointing rearward, and screw the acorn nut back onto the axle a few turns.



Figure 3.3.7 Remove the plastic brace in the rear drop and loop the chain over the rear drop out and the bottom bracket, BB.



Figure 3.3.8 Unscrew acorn nuts on each end of the axle so there is an exposed section of axle under the non-turn washers that can slide into the dropouts. On the left side, align the brake rotor with the brake caliper gap.



Figure 3.3.9 Slide axle into dropouts all the way forward, align the tongue of the non-turn washers with dropout slots, finger tighten the acorn nuts on both ends, and loop chain around hub sprocket.

IMPORTANT: Inflate tires to 80-85 psi.

3.4 Poles and Skis (see video)



Figure 3.4.1 While the head tube is folded onto the main frame, use the 4 mm hex wrench to remove the 4 screws and caps from the both pole clamps at Joint #1.



Figure 3.4.2 Apply a little grease to the screw heads and threads then set the caps with screws on the table.



Figure 3.4.3 Raise the head tube while sliding the quick release, QR, clamp pin to the right. With the head tube in the full upright position allow the clamp pin to insert into the hole.



Figure 3.4.4 Rotate the QR stem to the vertical position so that the lever is against the head tube then close the lever downward.



Figure 3.4.5 Retrieve the right foot platform assembly (lower pole, ski, foot platform, and crank arm with chain ring) and position next to right side of the frame. Make sure the chain is looped over the BB spindle.

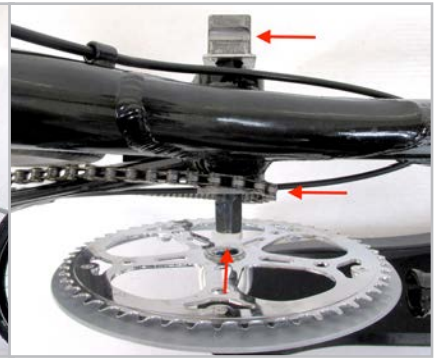


Figure 3.4.6 Rotate the BB spindle so that the upper surface of the left rectangular end piece on the spindle has the shallow channel and is horizontal.



Figure 3.4.7 Lift the right crank arm so it is in the 6 o'clock position and insert it onto the BB square spindle. Using the 8 mm hex wrench, screw the crank bolt into the spindle and tighten to 30 ft lb, then wrap the chain around the chain ring.

Figure 3.4.8 Lift the right lower pole and fit it into the right Joint #1 clamp base. Place the Joint #1 cap with greased screws over the pole and using the 4 mm hex wrench, screw each the 4 caps screws in about 5-10 turns. Add a little grease to the inner surface of the lower pole.

IMPORTANT: Make sure there is a little grease on the spindle so the crank arm slides on firmly.

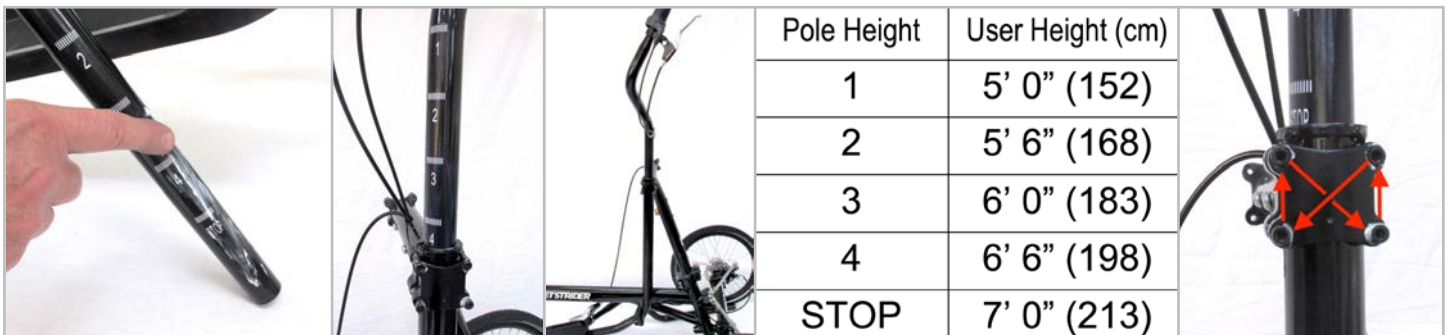


Figure 3.4.9 Apply a little grease to the lower section of the right upper pole, which has a brake lever and shifter, then slide it into the lower pole to a level that fits the height of the user. The upper pole can also be rotated toward the side to provide a comfortable width for the user.

Figure 3.4.10 The pole height lines are used to set the approximate pole height for the height of the user, from < 5' to approximately 7'.

Figure 3.4.11 With the 4 mm hex wrench, carefully tighten the Joint #1 clamp in an X pattern so that all the screws are tightened evenly and the space between the clamp base and cap on the front side of the pole is equal to the space on the rear side.

IMPORTANT: A good starting pole height will position the user's arm to have a 90° elbow bend, with forearm parallel to the ground when standing on the platforms and holding the grips of both poles in vertical position.



Figure 3.4.12 Place the left ski assembly on the left of the frame, rotate the right crank to the 12 o'clock position and rest the left upper pole on the right foot platform.

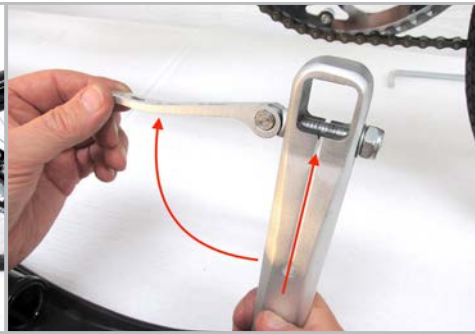


Figure 3.4.13 Lift the left crank arm to to the 6 o'clock position and open the QR lever. Note that the QR stem, visible in the crank arm opening, will fit into the channel of the BB end piece and lock the crank onto the BB.

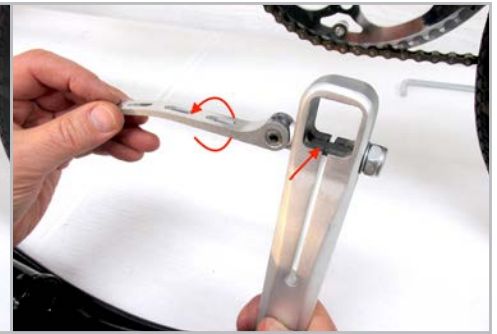


Figure 3.4.14 Rotate the QR lever 180° so the flat face of the QR stem is visible in the crank arm opening, which will allow the opening to slide over the BB end piece.



Figure 3.4.15 Slide the crank arm opening over the BB end piece as far as possible.



Figure 3.4.16 Rotate the QR lever 180° so that the QR stem fits into the BB end piece channel.



Figure 3.4.17 Close the QR lever against the crank arm.



Figure 3.4.18 If the QR lever closes without any resistance open the lever, pull the crank arm off the BB ¼ inch (6 mm), tighten the 17 mm stem nut ¼ turn, push the crank arm back on, and close the QR lever. If needed, repeat until QR closes with some resistance.



Figure 3.4.19 Attach the lower and upper pole on the left side following the procedure used on the right side. Make sure the left and right poles are set to the same height, rotate the poles to approximately shoulder width of the user and also parallel from the side view.

Figure 3.4.20 Rotate the brake levers to a forward position, rotate the shifter so the gear indicator window is seen by the user, tighten the brake lever clamps with the 5 mm hex wrench and the shifter clamp with the 3 mm hex wrench. Use 2 of the zip ties to orderly hold the cables to the poles.

IMPORTANT: A good starting pole height will position the user's arm to have a 90° elbow bend, with forearm parallel to the ground when standing on the platforms and holding the grips of both poles in vertical position.

3.5 Brakes (see video)

Front Brakes



Figure 3.5.1 Make sure the brake rotor is centered in the caliper gap between the pads and the wheel spins freely. If adjustment is needed, loosen the caliper positioning screws with a 5 mm hex wrench, tighten the inner pad with the 3 mm hex wrench, inserted through the caliper lever, and the outer pad with the 5 mm hex wrench to center the rotor in the gap, then tighten the positioning screws. If the rotor is already centered in the caliper gap tighten the pads against the rotor in order to attach the brake cable in the next steps.



Figure 3.5.2 Fold the head tube down and push the cable housing from the left brake lever into the opening at the top of the crossbar so that the base of the cable doubler is visible through the hole in the fold joint. While pulling the cable down at the caliper make sure there is no exposed cable visible at the brake lever by inserting the cable housing ferrules into the brake lever barrel adjuster. Also, insert the cable housing ferrules into the base of the cable doubler using the pliers if needed.

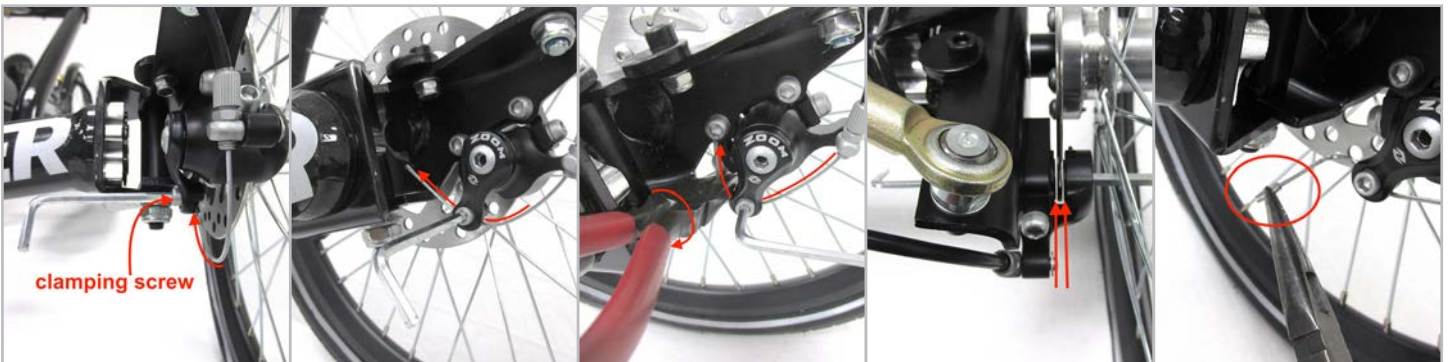


Figure 3.5.3 Loosen the clamping screw with the 4 mm hex wrench so there is space to route the brake cable under the nut. Grip the brake cable end with pliers, rotate the pliers to make the cable taut, then tighten the cable clamping screw. Unscrew the inner and outer brake pads so that a sliver of light can be seen between the rotor and pads and so the wheel spins freely. Bend the cable away from rotor and squeeze a cable tip onto the end of each cable. Repeat on the other brake.

To make sure both front brakes stop equally, stand in front of the StreetStrider, squeeze the left brake lever and pull the StreetStrider forward while slowly easing the brake pressure. If one wheel starts rotating before the other, which begins to turn the StreetStrider, adjust the brake pads and/or the barrel adjuster at the caliper until that wheel begins to rotate with the other wheel.

IMPORTANT: Properly adjusted brakes will clamp the wheels when the brake lever is squeezed and about 1 inch (25 mm) from the rubber grip.

Rear Brake



Figure 3.5.4 With the chain wrapped around both the right crank arm chainring and the rear hub sprocket, pull the rear wheel backwards to make the chain taut, center the front of the wheel in the frame chain stays, and tighten the acorn nuts with the 15 mm wrench, first right side then left. A taut chain should only move about ½” if lifted at a point midway between the chain ring and hub sprocket.

Figure 3.5.5 The rear brake caliper is adjusted exactly as described for a front brake caliper.

Figure 3.5.6 Both brake levers have a parking brake pin to hold the brake lever in a squeezed position. If the parking brake does not hold, unscrew the brake lever barrel adjuster.

Figure 3.5.7 To install the 3 wheel reflectors onto the spokes, position the reflector between spokes and rotate so the reflector ends snap around the spokes.

3.6 Rear Hub Shifter (see video)

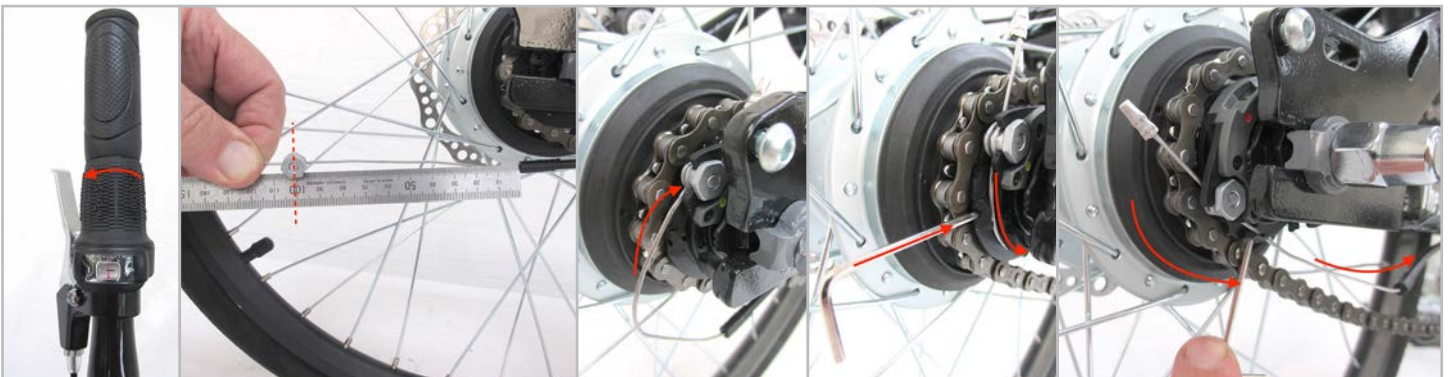


Figure 3.6.1 At the grip on the right pole, twist the shifter to gear 1. At the rear hub, pull the shifter cable taut and make sure the length of cable from the ferrule to the center of the clamping screw is 101 mm (4 in). If not, loosen the nut with the 10 mm wrench, adjust to 101 mm and tighten.

Figure 3.6.2 Slide the flats of the clamping screw with nut facing outward into the oblong slot at the 10 o'clock position of the cassette pulley. Ease the shifter cable housing forward through the frame so the shifter cable lies in the pulley groove from the 10 to 6 o'clock position. Insert the 2 mm hex wrench into the tab with a hole at the 9 o'clock position of the pulley and rotate the spring-loaded cassette pulley ¼ turn counter clockwise.

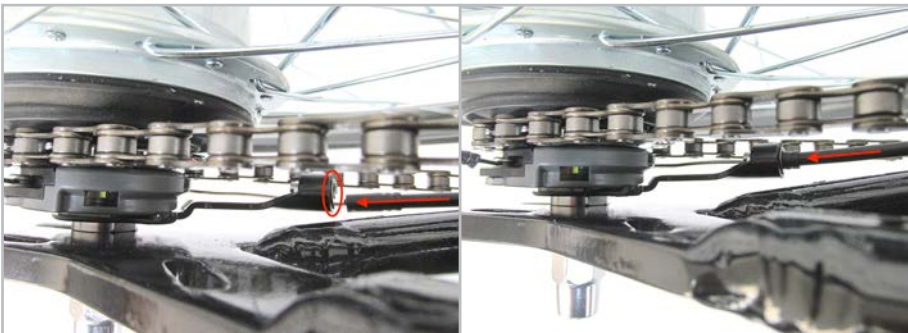


Figure 3.6.3 While holding the wrench at the 6 o'clock position pull the shifter cable housing forward until the cable can be slid into the slot of the arm of the cassette pulley, push the black plastic ferrule on the end of the cable housing into the socket, then return the wrench to the 9 o'clock position making sure the cable lies in the groove under the cassette pulley.

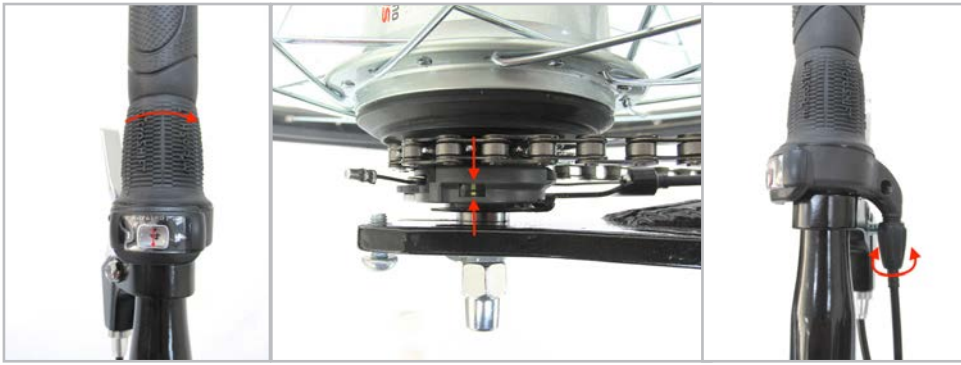


Figure 3.6.4 To check gear alignment, twist the shifter to gear 4 and make sure the 2 yellow lines in the cassette pulley window are in line. If the lines are offset use the barrel adjuster nut at the shifter to move the lines into the correct position.

3.7 Frame Strut (see video)



Figure 3.7.1 Retrieve the frame strut, which has a brass threaded collar at the top and frame saddle at the bottom. Using the 5 mm hex wrench, unscrew and separate the binding screw and the 2 nylon washers. Insert the longer female end of the screw through the hole at the end of the right side of the saddle and add a nylon washer on the inner side of the saddle. Align the saddle and screw with the frame hole and push the screw through the hole until it appears in the frame hole on the left side. Slide the second nylon washer between the saddle and the frame and over the screw end. Insert the male screw and tighten the screw with the 5 mm hex wrench. the receiver and tighten.



Figure 3.7.2 Add some grease to the threads of the brass receiver attached to the rear side of the head tube, press the brass collar over the receiver and tighten. To fold the head tube down the brass collar is disconnected from the receiver and the strut folded backwards pivoting at the saddle screw.

3.8 Front Wheel Alignment (see video)

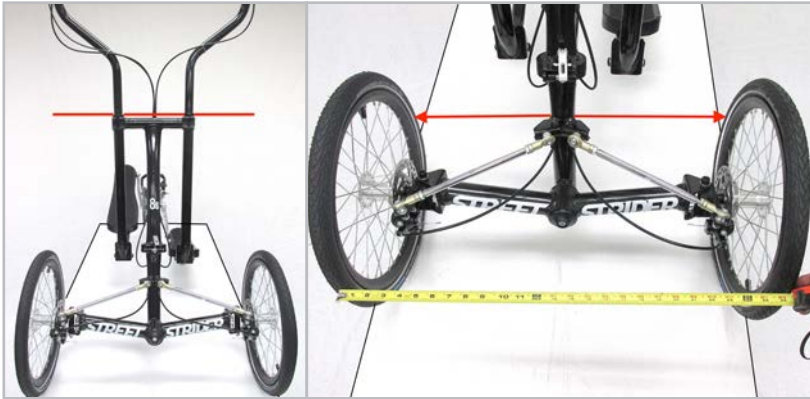


Figure 3.8.1 The front wheels should be aligned/parallel so they do not point in (toe in) or point out (toe out). Alignment is important for performance so take the time to do it correctly. Inflate the tires, 80-85 psi, set the StreetStrider upright, not leaning, on a level surface. Making the crossbar parallel to a horizontal line behind the StreetStrider, such as a shelf or window will ensure it is not leaning. Parallel lines on the surface such as a table edge will help to see if wheels are parallel. Measure the distance from the center rib of one tire to the center rib of the other tire on both the front or leading edge and the rear or trailing edge. The distances should be near 26 inches and should be equal to each other within 1/8" or 3 mm.

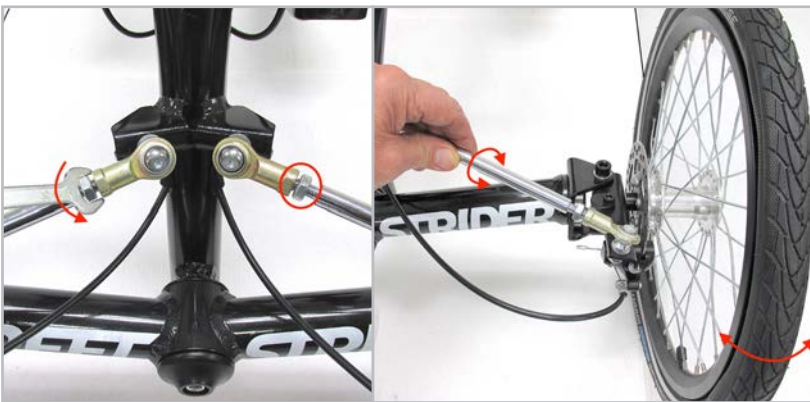


Figure 3.8.2 If the distances are not equal to each other, use the 14 mm open end wrench to loosen the jam nuts that are tightened against the base of each rod end. On each steering linkage, one rod end has right hand threads and the other has left hand threads, so make sure to turn the jam nuts in the correct direction to loosen. Rotate the linkage rod one way or the other - note how the tire angle changes - until the distance between the tire center ribs in the front is equal to that in the rear and the wheels are parallel while making sure that the cross bar stays horizontal. Any adjustment to the right linkage rod should be duplicated on the left linkage rod to maintain symmetry.



Figure 3.8.3 When the wheels are parallel to within 1/8" or 3 mm, tighten the jam nuts against the rod ends. To tighten the jam nuts, first rotate both rod ends as far as possible in the direction that the jam nuts will tighten, then use the 14 mm wrench to tighten the jam nut against the rod end. Check to make sure that each steering linkage rod is free to rotate as the StreetStrider is leaned to each side.

Figure 3.8.4 To increase resistance to leaning, the King Pin bolt (red line) can be tightened with the 8 mm hex and 17 mm open end wrenches. To change the lean angle degree, adjust the position of the lean stop disc (circle) on the steering knuckle with the 5 mm hex and 10 mm open end wrenches. The left lean stop disc regulates the right lean angle and the right stop disc regulates the left lean angle. When adjusting the lean angle make sure the tire clears the pole by 1 inch, 25 mm.

IMPORTANT: Do not over tighten and strip the thin jam nut

3.9 Advanced *Lean-to-Steer* Technology (see video)

Caster Angle and Wheel Camber

To steer vehicles with 2 front wheels, the wheel hub connected to the steering knuckle turns or pivots on a mostly vertical axis/component called the King Pin. The upper end of the King Pin axis can be angled backward and that angle is called the caster angle. At the angle limits, a vertical King Pin would have a caster angle of 0° and a horizontal King Pin would have a caster angle of 90°. The caster angle controls the way a wheel can steer. At 0° caster angle, the wheel pivots on a vertical axis to steer right or left and this type of steering is called toe. At 90° caster angle, the wheel pivots on a horizontal axis and can only lean left or right and this is called camber. As the caster angle is increased the front wheels will steer with less toe and more camber.

In most vehicles with a low center of gravity, such as automobiles and recumbent tricycles, the caster angle is typically about 3-6°, which increases steering stability compared to 0° caster. Large camber lean is not necessary because the center of gravity is low and the probability of tipping over in a turn at speed is low. However, when the center of gravity is higher, as when standing upright on a StreetStrider, being able to lean into a turn at speed is necessary so the StreetStrider lean-to-steer system is designed to combine both toe steering and camber.

The StreetStrider 8s is the first model with a user-adjustable caster angle of the King Pin providing more stability for the novice at low caster angles or more performance at speed for the professional at higher caster angles. At the end of the front beam the King Pin bolt passes through the clevis bracket and steering knuckle. On the 8s the ends of the front beam have a 52 tooth male spline and the clevis bracket fits onto the end of front beam with a 52 tooth female spline. Accordingly, each spline tooth rotation of the clevis bracket is approximately a 7° change in caster angle. A low caster angle, 10 – 20° allows the wheels to mostly toe steer, which provides increased stability at low speed. A higher caster angle, 30-50° allows much more camber, which increases leaning and performance at higher speeds although the trade off is a bit less stability at low speed. The illustrated instructions below show how the StreetStrider 8s caster angle can be adjusted to suit the desire and ability of the user.



Figure 3.9.1 By setting the caster angle at 14° the StreetStrider frame can lean about 15° but the outer front wheel will only camber about 2°. Most of the steering results form a change in toe angle. At 35° caster angle the frame leans about 17° and the outer wheel has more camber to about 10°. At 49° caster angle the lean increases to 22° and the outer front wheel cambers to 18°. In a turn, the inner wheel toe angle and camber lean is a bit more than the outer wheel.



Figure 3.9.2 The caster angle of the King Pin can be set at lower or higher values.

Figure 3.9.3 Lift one side of the front beam so the wheel is off the table. Unscrew the King Pin bolt with the 8 mm hex wrench and the 17 wrench.

Figure 3.9.4 Slide the steering knuckle out of the clevis bracket and move the front wheel assembly forward.

Figure 3.9.5 Unscrew the center bolt with the 8 mm hex wrench. Note that the surface of the clevis bracket on each end of the front beam are parallel.

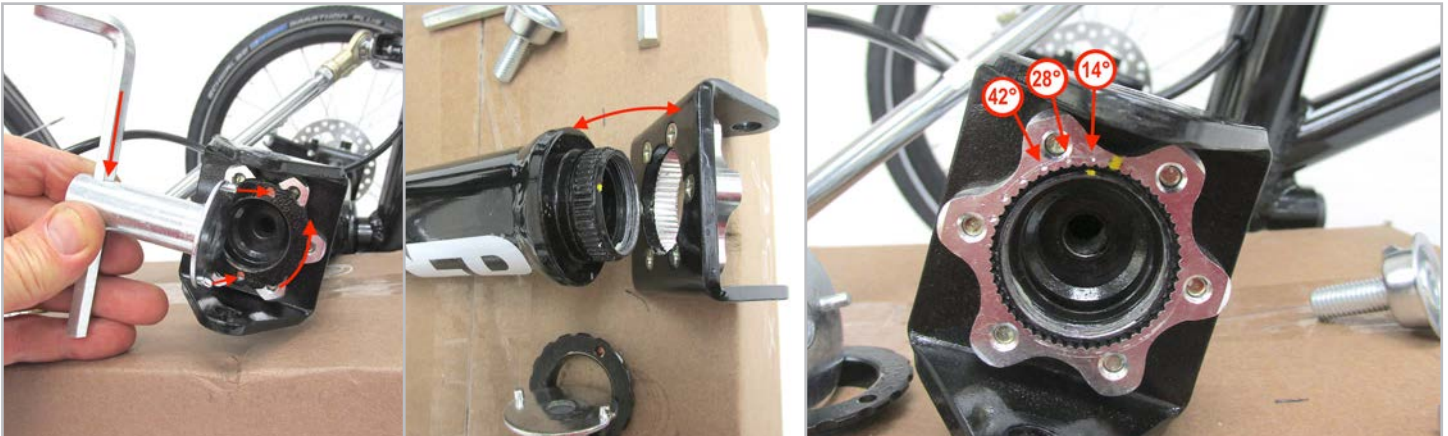


Figure 3.9.6 Use the clevis spanner wrench with the 8 mm hex wrench as lever to unscrew the lock ring.

Figure 3.9.7 Slide the clevis bracket female spline off the male spline.

Figure 3.9.8 On the left side both the male and female splines have a yellow dot at top center. Right side has red dots. If those 2 dots are aligned, the clevis caster angle will equal 0°. Each spline tooth is also a 7° angle change. The small indentations in the female spline are every 2 teeth or 14°. Any adjustment to caster angle on one clevis must be duplicated at the other clevis so they remain parallel.

IMPORTANT: After caster angle adjustment the front wheels **MUST** be realigned

3.10 Folding (see video)



Figure 3.10.1 Stabilize the StreetStrider by engaging the right parking brake pin to lock the rear brake. From the left side of the StreetStrider, rotate the left crank arm to the 6 o'clock position, lift the quick release lever, rotate the lever 180° and lower it to the left side of the crank arm.

Figure 3.10.2 Pull the crank arm off the BB spindle just to where the BB end piece can be rotated 180° so the right crank can also be rotated to the 6 o'clock position. Insert the crank arm over the end piece, lift the QR lever and rotate 180° then push the lever back down the side of the crank arm.

Figure 3.10.3 Unscrew the brass coupling at the top of the strut and fold it back ward to the main frame.



Figure 3.10.4 Rotate the crank arms forward so the foot platforms are horizontal. Lift the QR lever of the head tube fold joint up and rotate the stem forward. With one hand supporting the head tube, pull the QR stem to the right side so the pin disengages from the hole and lower the head tube down. With the rear brake locked the strider can be lifted by the rear fender and rolled or stood up against a wall for storage.



4 Simple Steps to Learn to Stride

STEP 1 Safety first.

Before you stride, wear a CPSC (Consumer Product Safety Commission) approved helmet. Children under 18 years old must wear helmets in some states. At night, make sure to wear light colored and/or reflective clothing and equip your *StreetStrider* with front and rear lights. Before starting any exercise program, check with your doctor to make sure you are physically healthy enough.

STEP 2 Find a safe, flat place.

An ideal location to practice striding is a large flat area such as a parking lot with little to no traffic.

STEP 3 Become familiar with the brakes and grip shifter.

Straddle your *StreetStrider* with both feet on the ground and practice squeezing the front brake lever at the left grip and the rear brake lever at the right grip. At the right grip, rotate the grip shifter clockwise to shift to a lower gear and counter clockwise to shift to a higher gear. To start striding on a flat place, rotate the shifter to a middle gear.

STEP 4 Step on and start rolling.

While straddling the *StreetStrider* and with both hands on the grips, step onto the lowest foot platform, placing your foot near the middle of the platform. With the other foot, give yourself a push forward to start rolling, then place that foot onto its platform. Use your legs to move the platforms in the forward elliptical path and focus on using your arms to move the poles back and forth.

STEP 5 Find the best gear.

As you increase speed, shift to a higher gear in order to get the smoothest arm and leg motion. When climbing a hill, shift to a lower gear. Try different gears to achieve the optimum speed and cadence for your striding style and exercise goals.

STEP 6 Lean to steer.

To make a turn, simply lean or shift your body weight a little bit in the direction of the turn and the *StreetStrider* will begin to turn. The more you lean, the more the *StreetStrider* turns. You can pedal while turning. Practice right and left turns, shifting gears, and braking to a stop while standing on the *StreetStrider*.

STEP 7 Have fun!

Now get out there and enjoy your *StreetStrider*! You'll have a blast and burn calories too!



5 Safety Equipment

WARNING: Many states require specific safety devices. It is your responsibility to familiarize yourself with the laws of the states where you stride and to comply with all applicable laws, including properly equipping yourself and your *StreetStrider* as the law requires.

Helmets

While not all states require bicyclists to wear approved protective headgear, common sense dictates that you should wear a CPSC-approved or other helmet whether the law requires it or not. Most serious vehicular injuries involve head injuries that might have been avoided if the rider had worn a helmet. To do a proper job, your helmet must fit correctly, be worn correctly and be properly secured.

WARNING: Always wear a helmet when riding your *StreetStrider*. Always keep the chinstrap securely buckled. Failure to wear an approved helmet may result in serious injury or death.

Reflectors

Reflectors, an integral part of your *StreetStrider*, are important safety devices designed to reflect street lights and car lights in a way that helps you be seen and recognized as a moving rider. Federal regulations require every *StreetStrider* to be equipped with front and rear wheel and foot platform reflectors. The size, performance and location of each reflector are specified by the U.S. Consumer Products Safety Commission.

CAUTION: Check reflectors and their mounting brackets regularly to make sure they are clean, straight, unbroken and securely mounted. Replace damaged reflectors and straighten or tighten any that are bent or loose.

WARNING: Do not remove the reflectors or reflector mounting brackets from your *StreetStrider* as they are an integral part of the safety system. Removing the reflectors may reduce your visibility to others on the roadway. Being struck by other vehicles often results in serious injury or death.

Lights

If you ride your *StreetStrider* after dusk, it must be equipped with lights so that you can see the road and avoid road hazards, and so that others can see you. Vehicle laws treat *StreetStriders* like any other vehicles, meaning you must have operational white front and red rear lights if you are riding after dusk. Front and rear lights may not be standard equipment on your *StreetStrider*. You can purchase lights and get recommendations from the *StreetStrider* online store or your local bicycle shop.

WARNING: Reflectors are not a substitute for proper lights. It is your responsibility to equip your *StreetStrider* with all state and locally mandated lights. Riding at dawn, dusk, night or any other time of poor visibility without a lighting system that meets your local and state laws or without reflectors is dangerous and may result in serious injury or death. If you intend to ride at any time under poor visibility conditions, you must have front and rear lights and reflectors that are adequate for those riding conditions.

CAUTION: Lights and reflectors may not be adequate to insure that motorists will see you under all conditions.

Eye Protection

It's always a good idea to wear protective eyewear—tinted when the sun is bright, clear when it's not – as any kind of outdoor riding can involve airborne dirt, dust, bugs and other objects. Most bicycle shops carry protective eyewear, some with interchangeable lens systems.

CAUTION: To avoid injury, always wear suitable protective clothing, including footwear.

WARNING: Many states require specific safety devices. It is your responsibility to familiarize yourself with the laws of the states where you stride and to comply with all applicable laws, including properly equipping yourself and your *StreetStrider* as the law requires.

Helmets

While not all states require bicyclists to wear approved protective headgear, common sense dictates that you should wear a CPSC-approved or other helmet whether the law requires it or not. Most serious vehicular injuries involve head injuries that might have been avoided if the rider had worn a helmet. To do a proper job, your helmet must fit correctly, be worn correctly and be properly secured.

WARNING: Always wear a helmet when riding your *StreetStrider*. Always keep the chinstrap securely buckled. Failure to wear an approved helmet may result in serious injury or death.

Reflectors

- Make sure your *StreetStrider* is equipped with correctly positioned and securely mounted reflectors.
- Purchase and install adequate battery or generator powered front and rear lights.
- Wear light colored, reflective clothing and accessories, such as a reflective vest, reflective arm and leg bands, reflective stripes on your helmet and flashing lights.
- Any moving or flashing reflective device or light source will help get the attention of approaching motorists, pedestrians and other traffic.
- Make sure your clothing or anything you may be carrying on the *StreetStrider* does not obstruct a reflector or light
- Stride slowly and avoid areas of heavy traffic, dark areas, and roads with speed limit over 35 mph. Avoid road hazards. If possible, ride on routes already familiar to you.

WARNING: *StreetStriding* under poor visibility conditions without reflectors or a lighting system that meets local and state laws can result in serious injury or death.



6 Mechanical Safety Check and Maintenance

Your *StreetStrider* will perform properly and last longer if it is maintained in a clean, adjusted, and lubricated condition. Here is a list of simple mechanical safety checks that you should get in the habit of making every time you're about to get on a *StreetStrider*. For more details, watch the *StreetStrider* Workshop videos on the Support page of our website www.streetstrider.com.

Nuts and Bolts

Lift the rear wheel off the ground by 2-3 inches, then let it bounce on the ground. If anything sounds, feels or looks loose, do a quick visual and tactile inspection of the whole *StreetStrider*. If any loose parts or accessories are found, secure them. If you're not sure, ask someone with experience to check.

Tires and Wheels

Make sure your tires are inflated to 80-85 psi for stock tires, or adjust inflation according to your non-stock tire specifications. To check if your tires are in good shape, spin each wheel slowly and look for cuts in the tread and sidewall. Replace damaged tires if necessary. To check if your wheels are true, spin each wheel. If a wheel is out of true by $>1/4"$ or 6 mm, this is often the result of loose spokes. You can easily tighten spokes with an inexpensive spoke wrench to true the wheel, or this can be done at a bicycle shop.

Brakes

Squeeze the brake levers. If the brakes do not clamp the wheels properly or you cannot apply full braking force at the lever without having it touch the grip, adjust your brakes. Do not ride the *StreetStrider* until the brakes are properly adjusted.

Lubrication

Depending on how often and hard your *StreetStrider* is used, and the type of road and weather conditions to which it is subjected, it will require lubrication sooner or later. Before applying lubrication, clean the road dirt off the parts. Lubricate the chain with a bicycle chain lubricant when it appears dry and/or is noisy. The pivot joints, rod ends and roller bearings require regular lubrication with light grease. The brake and shifter cables require oil.

WARNING: Riding with improperly adjusted brakes or worn brake pads is dangerous and can result in serious injury or death. Do not attempt to adjust your brakes or wheels while the *StreetStrider* is in motion.

WARNING: Do not engage in any activity that exceeds your riding ability and skill. Practice new *StreetStriding* skills in a safe controlled environment. Keep hands, fingers and feet away from all moving parts while the *StreetStrider* is in motion, including the tires, wheels, brakes and brake cables.

NOTE: Like any sport, *StreetStriding* involves the risk of serious injury, damage and/or death. By choosing to use a *StreetStrider*, you assume the responsibility for the risk, not the people who sold you the *StreetStrider*, nor the people who made it, nor the people who distribute it, nor the people who manage or maintain the roads or trails on which you ride. So you need to know and practice the rules of safe and responsible *StreetStriding*.

Now buckle on your helmet and enjoy your StreetStrider.

7 Return Policy

All new StreetStriders come with a 30-day Satisfaction Guarantee period. Please understand that, under the best circumstances, the StreetStrider provides vigorous exercise that will help you become more fit and/or maintain your fitness level.

If you're not completely satisfied with your StreetStrider for any reason, please call 1-800-348-0998 within 30 days of delivery to ask any questions, as we would like to help you have as satisfactory an experience as possible with your StreetStrider.

If, however, you decide to return it, please call 1-800-348-0998 within 30 days of delivery to request a Return Merchandise Authorization (RMA) number and to set up your return. Products returned without an RMA number will be considered unauthorized and will not be refunded or credited.

Upon receiving your RMA number, your returned product must be received no later than two (2) weeks after we have provided your RMA number.

Process

To return your StreetStrider product, please follow these 4 steps:

1. Repack the product. Products plus all accessories and materials must be returned undamaged in original packaging. You must pack the StreetStrider products and materials in the original packing material so that the parts are disassembled and folded down. Make sure everything is padded and secured. Care must be taken to prevent damage during return shipping. **DAMAGE DURING RETURN SHIPPING WILL RESULT IN AN ADDITIONAL REPAIR FEE.**

To avoid an additional repair fee and to make sure the StreetStrider is returned properly, we encourage you to repack it exactly as it was packed when it arrived. At the bottom of the StreetStrider Support page WATCH THIS 3-PART VIDEO TO REPACK THE 3i AND 7i.

2. Display the RMA number on the box and the address label. No returns will be accepted without the RMA number clearly displayed on the box. Products returned without an RMA number will not be refunded or credited.
3. Send the package to:
StreetStrider
Attn: Returns Department
16331 Gothard St., Suite C
Huntington Beach, CA 92647

You are responsible for the cost of shipping the StreetStrider product back to the company.

4. Email the tracking # to customerservice@streetstrider.com.

Refund

Upon receiving the returned product, the Company will refund all monies to you minus:

- any cost of shipping the product to you;
- a 10% restocking fee - the Company may charge an additional repair fee if the product is returned in a damaged condition;
- and
- any service charge, including White Glove Service.

You can expect your refund within 30 days of our receiving your returned product.

Order Cancellation Policy

After placing your order, it may be possible to cancel your order by calling us directly at 1-800-348-0998. However, once inventory has been allocated to your order, we cannot guarantee that the order will not be shipped. If your order has shipped, you must return any unwanted items in accordance with our Return Policy. If you refuse delivery, your refund will be less shipping and restocking fees.

Damage Upon Delivery

If your StreetStrider product is delivered to you in a damaged condition as a result of faulty shipping, you should call StreetStrider at 1-800-348-0998 or email shipping@streetstrider.com for return instructions. You should also notify the shipper. Photographs documenting the damage are required.

8 Limited Warranty

The specific warranty covering your *StreetStrider* is governed by the law of the state or country in which it was purchased, and applies only to mobile elliptical devices purchased from StreetStrider.com.

Frames (Frame, Strider Skis, Strider Poles)

StreetStrider frames are warranted by *StreetStrider*, 16331 Gothard St., Suite C Huntington Beach, CA 92647, against manufacturing defects in materials and/or workmanship for a period of three (3) years from the date of original purchase.

Components

Components are warranted by their original manufacturer and not by *StreetStrider*. The Shimano internal geared hub is warranted for a period of two (2) years according to the Shimano warranty (<http://bike.shimano.com/content/sac-bike/en/home/news-and-info/warranty.html>). Joint bearings, drive parts, and frame fixtures are warranted against manufacturing defects in materials and/or workmanship for a period of one (1) year and according to the individual components' manufacturers, from the date of the original retail purchase.

Terms of Limited Warranty

This limited warranty is not meant to suggest or imply that the *StreetStrider* cannot be broken or will last forever. It does mean that the *StreetStrider* is covered subject to the terms of the limited warranty.

- This limited warranty applies only to the original owner of a *StreetStrider* and is not transferable to subsequent owners.
- This limited warranty applies only to *StreetStriders* assembled in full compliance with the instructions within this Owner's Manual.
- Damage resulting from normal wear and tear, including the results of fatigue, is not covered. Fatigue damage is a symptom of the frame being worn out through normal use. It is one kind of normal wear and tear, and it is the owner's responsibility to inspect his/her *StreetStrider* on a regular basis.
- This limited warranty is void if the *StreetStrider* is subjected to abuse, neglect, improper repair, improper maintenance, alteration, modification, an accident or other abnormal, excessive, or improper use – to be determined by the Company at its sole discretion.
- Personal injury, *StreetStrider* failure, loss or damage, abuse, neglect, normal wear and tear including the results of fatigue, improper fit or maintenance by anyone other than StreetStrider.com, or use of parts inconsistent with the use originally intended for the *StreetStrider* as sold are not covered by this warranty. In no event shall the Company be liable for incidental or consequential damages that might arise as a result of improper use and/or failure of the *StreetStrider*.
- For any warranty claim to be considered, the *StreetStrider* must be submitted through StreetStrider.com. The *StreetStrider* must be in assembled condition and accompanied by the original, dated sales receipt for the *StreetStrider*. Be sure to keep your receipt in a safe place.
- All labor and transportation charges for warranty service are the responsibility of the *StreetStrider*'s owner.

During the duration of this Limited Warranty, the Company will either repair any defective frame or component, or, at our option, replace any defective frame or component with the same or most nearly comparable model or component then available.

THIS IS THE EXCLUSIVE REMEDY UNDER THIS WARRANTY. ANY AND ALL OTHER REMEDIES AND DAMAGES THAT MAY OTHERWISE BE APPLICABLE ARE EXCLUDED, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR PUNITIVE DAMAGES.

THIS IS THE ONLY WARRANTY MADE BY STREETSTRIDER ON ITS FRAMES AND COMPONENTS, AND THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION HEREIN. ANY WARRANTIES THAT MAY OTHERWISE BE IMPLIED BY LAW INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED. Please refer to the documents included with your *StreetStrider* for possible further restrictions.

NOTICE: *StreetStriding* is potentially a hazardous activity, as is bicycling. The user understands that *StreetStriding*, even under normal circumstances, can be hazardous, and accepts full liability for any injury, accident, or death of the user or other *StreetStrider* occupant that may arise from the use of the *StreetStrider*. The user assumes the risk of any personal injury, damage to or failure of the *StreetStrider* and any other losses if the *StreetStrider* is used in any competitive event, including racing, ramp jumping, stunt riding or similar activities or training for such competitive activities or events. This *StreetStrider* is not manufactured, marketed, designed or intended to be altered in any way or at any time for use in the following ways: stunt riding, curb jumping, hopping, or similar activities, in off-road conditions, or with motors, engines or other power equipment. Use of a *StreetStrider* in any of these or similar ways automatically voids the *StreetStrider* Limited Warranty. The Company, its dealers, affiliates or agents shall not be liable under this warranty nor under any state or federal law or the common law or otherwise for any damage, failure, including personal injury, resulting from such use and/or alteration.

This Limited Warranty gives the consumer specific legal rights. The consumer may also have other legal rights that vary from state to state or country to country. Some states and countries do not allow the exclusion or limitation of incidental or consequential damages or warranties, so the above limitations or exclusions may not apply to you. If it is determined by a court of competent jurisdiction that a certain provision of this Limited Warranty does not apply, such determination shall not affect any other provision of this Limited Warranty and all other provisions shall remain in effect.

NOTICE: *The policy of the Company is one of continued development and improvement. Consequently, we reserve the right to change or amend or discontinue specifications in this publication without prior notice.*



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