



# Sun Atlas Traditional SD Trike Supplemental Owner's Manual



## CONGRATULATIONS!

Congratulations and welcome to the Sun Trike family! You have selected one of the best three-wheeled bicycles on the market. Please read this manual before riding your Sun Trike. In this manual you will find that we cover the basics for setting up and understanding your new trike.

### IMPORTANT:

This manual is only a supplement to the main Sun Bicycle/Tricycle Owner's Manual. Read it before you take the first ride on your new 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.

## Sun Trike Specifications

<b>Model:</b>	Atlas Transit SD
<b>Style:</b>	20" Adult Trike
<b>Frame:</b>	High Tensile Steel
<b>Frame Rear Unit:</b>	High Tensile Steel
<b>Headset:</b>	1-1/8" Steel, Threaded, Caged Bearings,
<b>Handlebar:</b>	Steel, 675mm Wide x 280mm High
<b>Stem:</b>	Alloy, 28.6 x 50 x 22.2mm
<b>Grips:</b>	Kraton
<b>Brake Lever:</b>	Alloy, 3 Finger Lever, Linear Pull W/Parking Lock
<b>Front Brake:</b>	Alloy, 110mm Arms, Linear Pull
<b>Rear Brake:</b>	Optional disc brake available separately
<b>Freewheel:</b>	20T x 1/2" x 1/8"
<b>Seat Clamp / Binder Bolt:</b>	Integrated, Bolt/Nut
<b>Seat Post:</b>	Steel, 28.6mm O.D. x 305mm Length
<b>Saddle:</b>	GS-917-2B2D Saddle Black W/Cushion
<b>Crankset:</b>	Steel, One-Piece, 140mm
<b>Chainwheel:</b>	Steel, 36T x 1/2" x 1/8"
<b>Bottom Bracket:</b>	Steel, For OPC, Caged Bearings
<b>Chain:</b>	1/2" x 1/8"
<b>Chainguard:</b>	Steel
<b>Pedals:</b>	Nylon Platform, 1/2"
<b>Front Hub:</b>	Steel, 3/8" Axle, Bolt-On
<b>Rear Hub:</b>	Steel, Large Flange, W/Sealed Cartridge Bearings
<b>Rims:</b>	Alloy Single Wall, 20" x 2.125" x 36H
<b>Front Wheel:</b>	20" x 2.125" x 36H x 14G Alloy-Trike, Bolt-On
<b>Rear Wheel:</b>	20" x 2.125" x 36H x 14G Alloy-Trike, Bolt-On
<b>Spokes:</b>	14G Stainless Steel with CP Brass Nipples
<b>Tires:</b>	20" x 2.125", Black Wall
<b>Inner Tubes:</b>	20" x 2.125", Schrader Valve
<b>Front Fender:</b>	Steel with Stainless Steel Finish
<b>Basket:</b>	Heavy Duty Steel Wire with Plastic Coated Finish
<b>Weight:</b>	45 lbs
<b>Weight Limit (Rider and Cargo Combined):</b>	250 lbs
<b>Overall Dimensions:</b>	63.5" Long x 30.5" Wide
<b>Standover Height:</b>	13.5" (Measured from the ground to low step through point on frame)

## PLEASE READ THIS BEFORE RIDING YOUR SUN TRIKE

This manual is intended to be read carefully so that you may enjoy your new three-wheeler and be an informed rider aware of the benefits as well as the warnings and safety issues in riding this trike.

A trike handles differently than a bicycle and this manual contains specific information and warnings that will let you enjoy your Sun Trike in comfort and safety.

Tricycling is a sport and a mode of transportation, with it comes the risk of an accident that could result in injury and even death. By riding this trike you personally assume that risk.

We want to give you as much information as possible to make you a safer rider. We cannot cover all contingencies but we can make you more aware and informed. Be aware that:

- Municipal bicycle regulations also apply to tricycles. Most states and municipalities have bike regulations. It's up to you to research those regulations and become informed. Your local dealer will be able to help you with this information. Since you will be sharing the road at times with other vehicles, a good rule to follow is "If you can't do it with a bicycle, don't do it with a trike."
- A trike's widest point is behind you at the rear wheels. If the front goes by an obstacle there is no guarantee that the rear wheels will also clear. When riding, you must give clearance to the edge of the road or sidewalk. Give extra room when passing near pedestrians and obstacles. Stay clear of potholes and be aware that you can lose control if any wheels should drop into a hole or catch an immobile object.

Always ride defensively and watch out for the unexpected. This means everything from cars to kids, pets and rough or hazardous road surfaces. Be prepared to avoid danger and **ALWAYS WEAR A BICYCLE HELMET**. We recommend buying your helmet from a local dealer that can fit and instruct you on the correct way to wear this helmet. Protecting your head is your primary safety responsibility.

Always wear a CPSC, ANZI, ASTM, or SNELL approved bicycle helmet. CPSC approval is the new U.S. Federal Standard to which all helmets must comply.

## PRE-RIDE CHECKLIST

1. Check your tires for proper air pressure. Keep tire pressure between the minimum and maximum air pressure rating printed on the tire sidewall. Do not inflate over the maximum air pressure rating on the tire sidewall.
2. Test your front brake and make sure it stops the trike. If you have any doubts do not ride until such time as the trike can be properly adjusted by a qualified mechanic. All trikes are equipped with a front brake as standard equipment and primary stopping system. This also applies to a trike that may have an optional rear brake. Under no circumstance should the front brake be removed.
3. Check that the handlebar is tight and that the ends are plugged. Check the saddle for tightness.
4. Move the trike forward and back. If you hear or feel any resistance, do not ride. If you feel that something is not right after performing your check. **DO NOT RIDE.** Take your trike to your local dealer for inspection.

## PRECAUTIONS

A trike does not handle like a bicycle. You cannot lean into a turn. Turns must be made more carefully and at a lower speed than a bicycle.

All wheels must be on the ground at all times. Do not make sudden changes of direction that could unbalance the trike and cause an accident.

When beginning to ride, stay at a slow speed. You must acclimate yourself to handling and turning this three-wheeler. If you feel insecure, slow down and proceed at a slower pace. With practice, you will become comfortable riding and stopping.

We recommend that you not ride at night, or at times of reduced visibility.

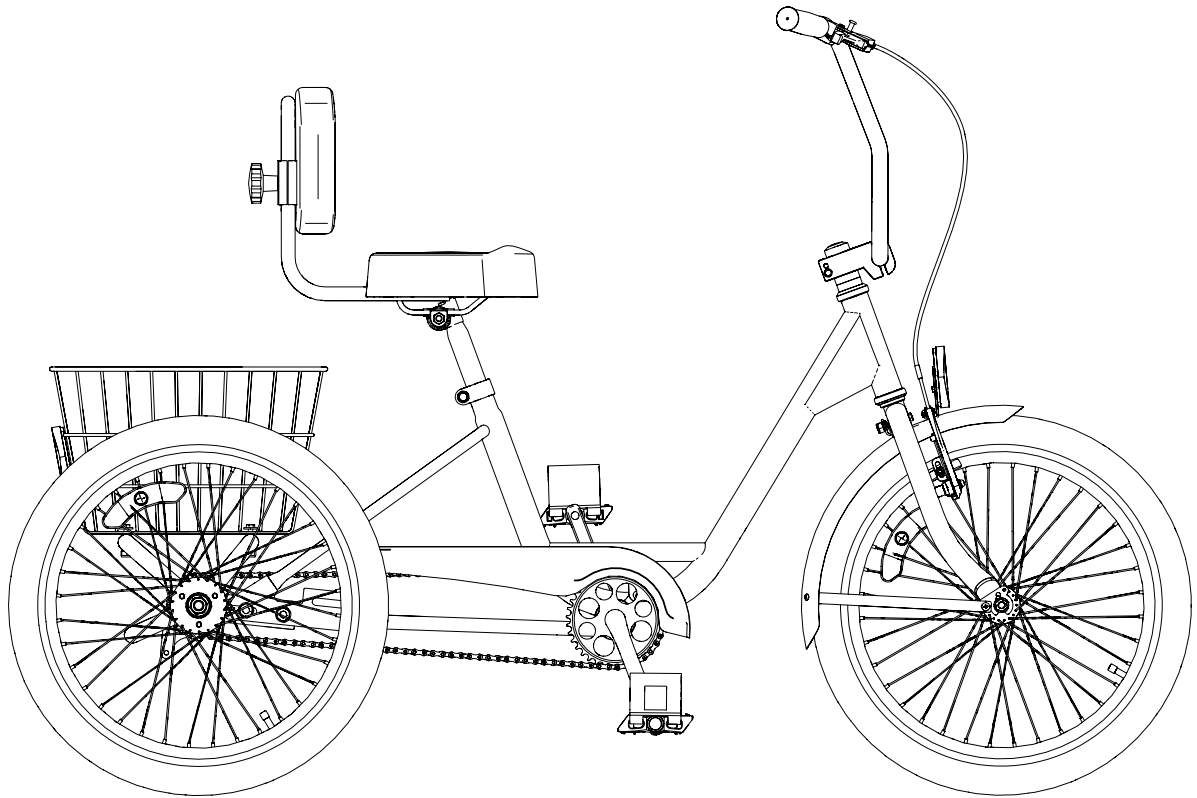
If you must ride at night or during reduced visibility, you must outfit your trike with a white front light and red rear light. Relying on reflectors is not adequate protection. Most municipalities require lights for night riding. Your local bicycle dealer can help you in selecting the correct lighting system for your needs.

The rear basket is only intended for light storage. It is not intended to support or protect a passenger. **NEVER PUT A CHILD OR PET IN THE BASKET!** The turning wheels and/or other moving parts could lead to injury or death. There is also the risk of the passenger falling out of the basket. The trike is made for one person only and the basket is not built to hold a passenger.

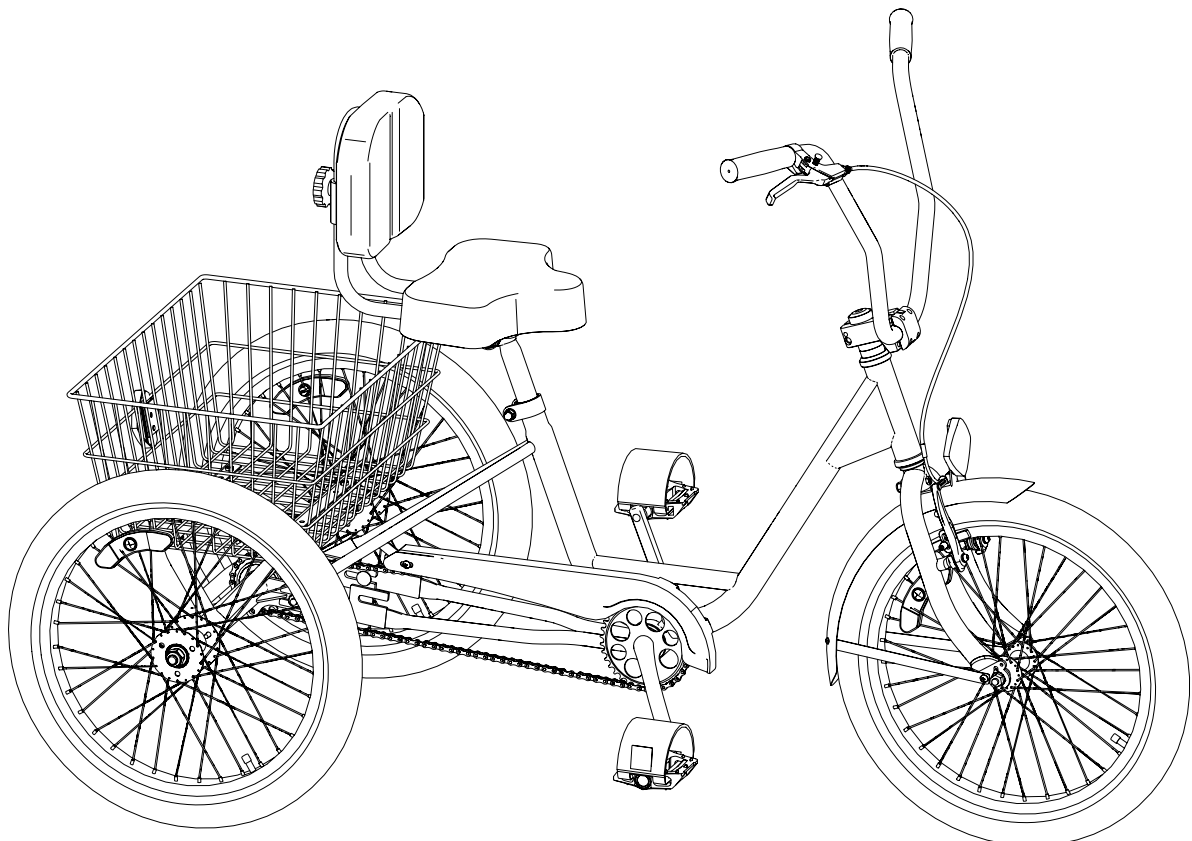
**DO NOT CARRY PASSENGERS.**

# Sun Trike Reference Views

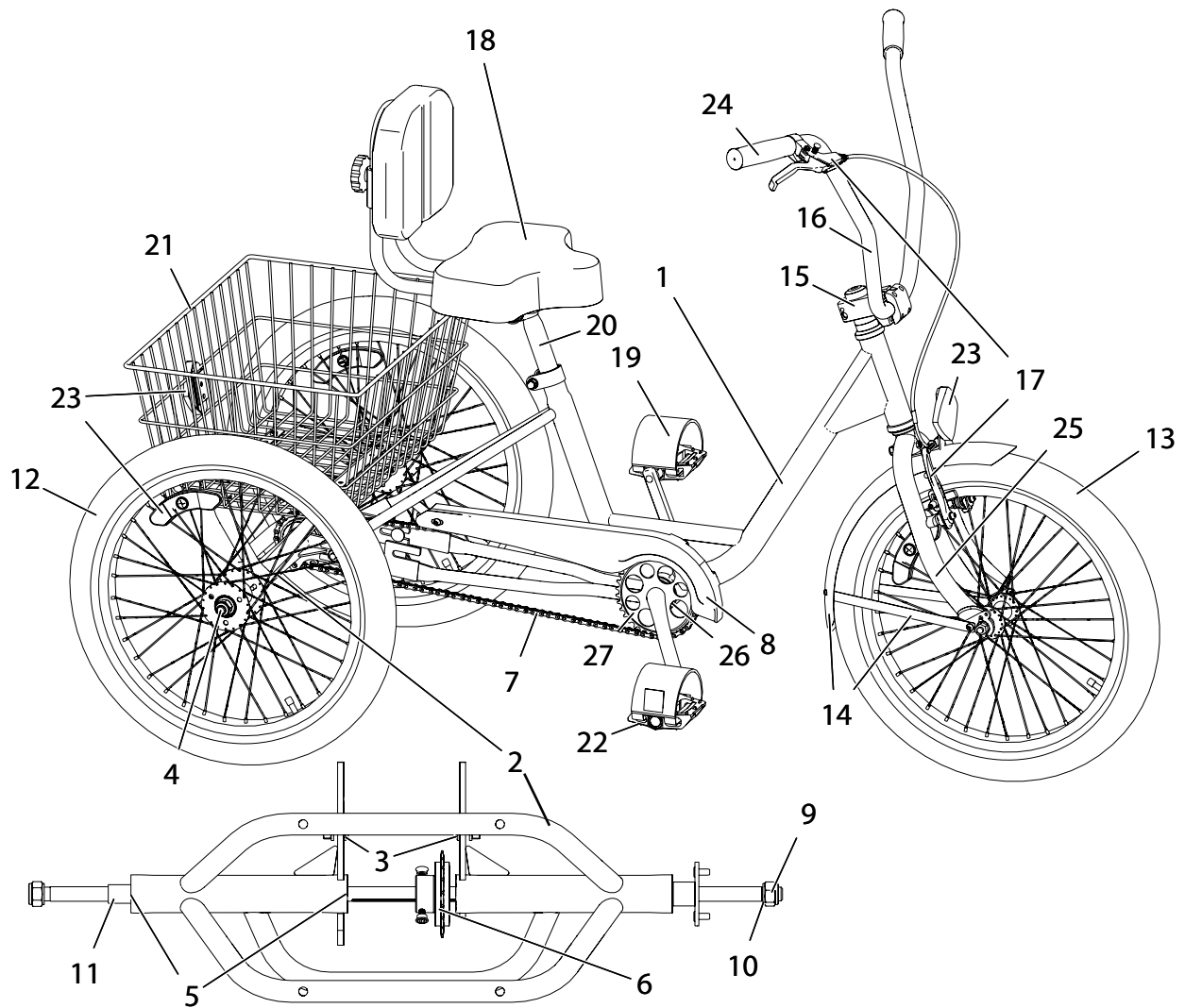
Side View



3/4 View



# Sun Trike Assembly Reference



Sun Trike PARTS LIST		
ITEM	DESCRIPTION	QTY
1	Main Frame Assembly	1
2	Rear Unit Assembly	1
3	Rear Unit Hardware Set (2x long carriage bolts, 2x short carriage bolts, nuts & washers)	1 set
4	Rear Unit Axle Assembly (15mm OD with 4mm keyway)	1
5	Rear Unit Bearings (35mm OD x 15mm ID for 15mm axle)	4
6	Freewheel (20T with keyed adapter for 15mm axle)	1
7	Drive Chain (1/2" x 1/8")	1
8	Chain guard	1
9	Rear Wheel Nyloc Retaining Nut (M14)	2
10	Rear Wheel Washer (M15x2mm)	2
11	Rear Wheel Spacer (Alloy 23mm)	1
12	Rear Wheel (Including tire, tube, and rim strip)	2
13	Front Wheel (Including tire, tube, and rim strip)	1
14	Front Fender with Brace	1
15	Stem	1
16	Handlebar	1
17	Front Brake Assembly with Locking Lever	1
18	Saddle	1
19	Toe Straps	1
20	Seat Post	1
21	Trike Basket (with hardware)	1
22	Pedals (1/2")	1 pair
23	Reflector Kit	1 set
24	Grips	1 set
25	Fork	1
26	Bottom Bracket (B.B)	1
27	Chainring	1

# Assembly Guide

## Rear Unit Installation

Installing rear unit to main frame is a simple matter of attaching two pairs of long & short carriage bolts. Proceed as follows:

Loosely install #2 Rear Unit Assembly onto #1 Main Frame Assembly using #3 Rear Unit Hardware. Use carriage bolts to secure rear unit to the main frame. Carriage bolt heads should rest on the inside of the frame as shown in the diagram. Be sure that drive flange on #4 Rear Unit Axle is to the right side of rear unit and frame. See Figure A

## Chain Installation

Install #7 Drive Chain onto #6 20T Freewheel sprocket. After installation, pull back #2 Rear Unit Assembly to remove slack in the #7 Drive Chain. Loosen and move #6 20T Freewheel to improve chain line if necessary. Tighten #6 20T Freewheel. See Figure A

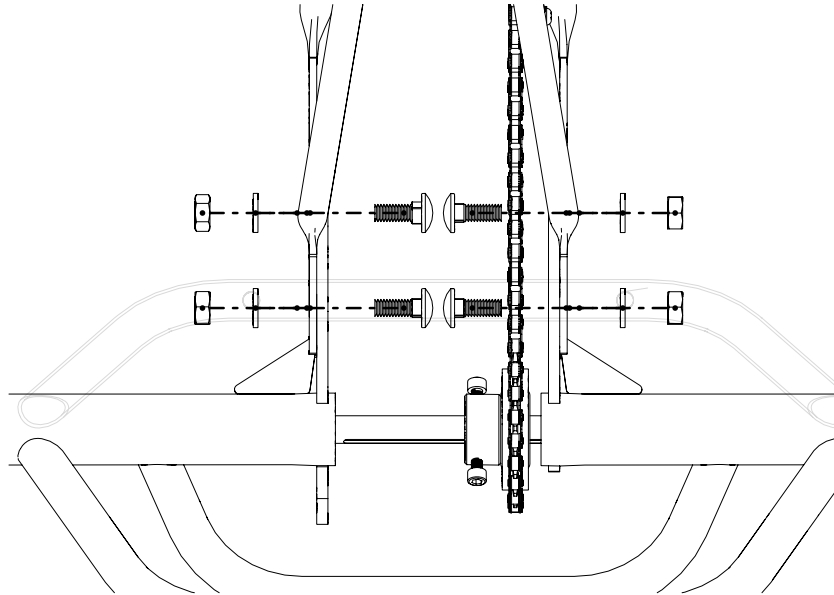


Fig A

## Final Tightening of Rear Unit

Tighten #2 Rear Unit Hardware to 18-20 Nm (160-175 in. lbs.)

## Rear Wheel Installation

Assemble #12 Rear Wheel Assembly, # 10 Rear Wheel Washer and #9 Rear Wheel Nyloc Retaining Nut onto right side (drive side) rear axle. See Figure B

Assemble #11 Rear Wheel Spacer, #12 Rear Wheel Assembly, #10 Rear Wheel Washer and #9 Rear Wheel Nyloc Retaining Nut onto left side (non-drive side) rear axle. See Figure C

**WARNING! OVER-TIGHTENING WILL DAMAGE THE BEARING**

**NOTE: DO NOT OVER TIGHTEN** the Rear Wheel Nyloc Retaining Nuts. The nuts should be tightened then backed off ½ turn to leave approximately 1 to 2mm of side play.

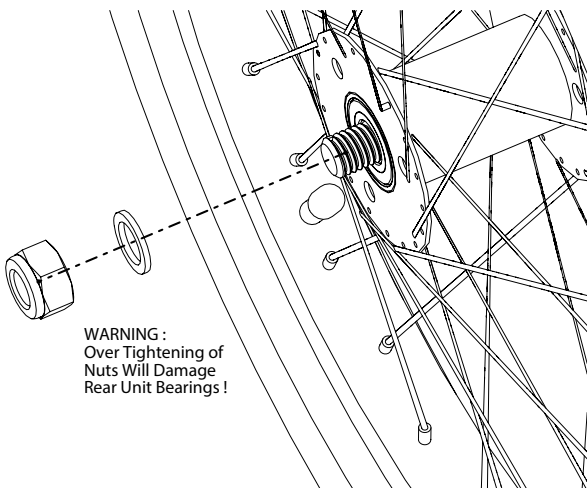


Fig C

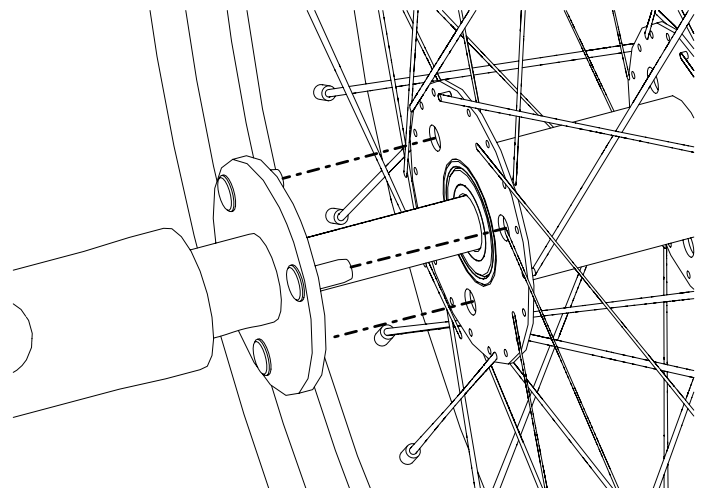


Fig B

## Front Wheel Installation

Insert #21 Reflector and fender are assembled on the front fork. See Figure D,E

Insert #13 Front Wheel Assembly into the fork dropouts. Check to make sure front wheel is centered in fork and tightened securely. See Figure D

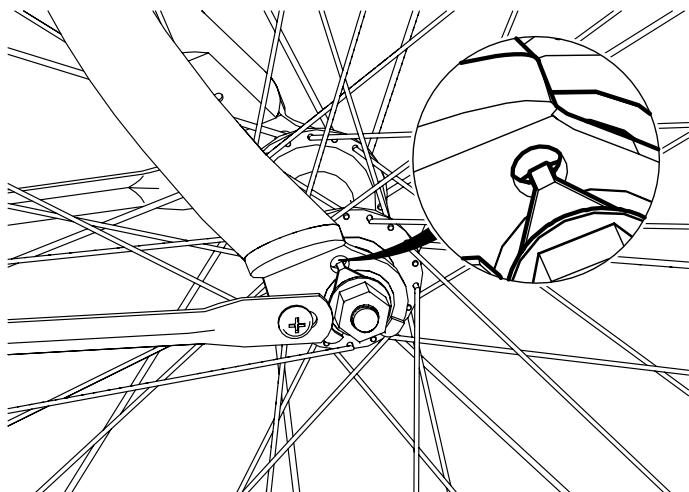


Fig D

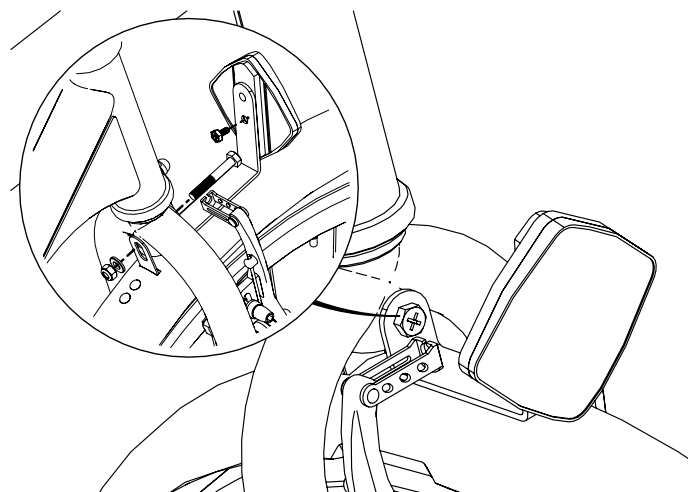


Fig E

## Handlebar Stem Installation

Remove #15 Stem face plate, install #16 Handlebar, adjust to appropriate angle, and tighten securely. See Figure F.

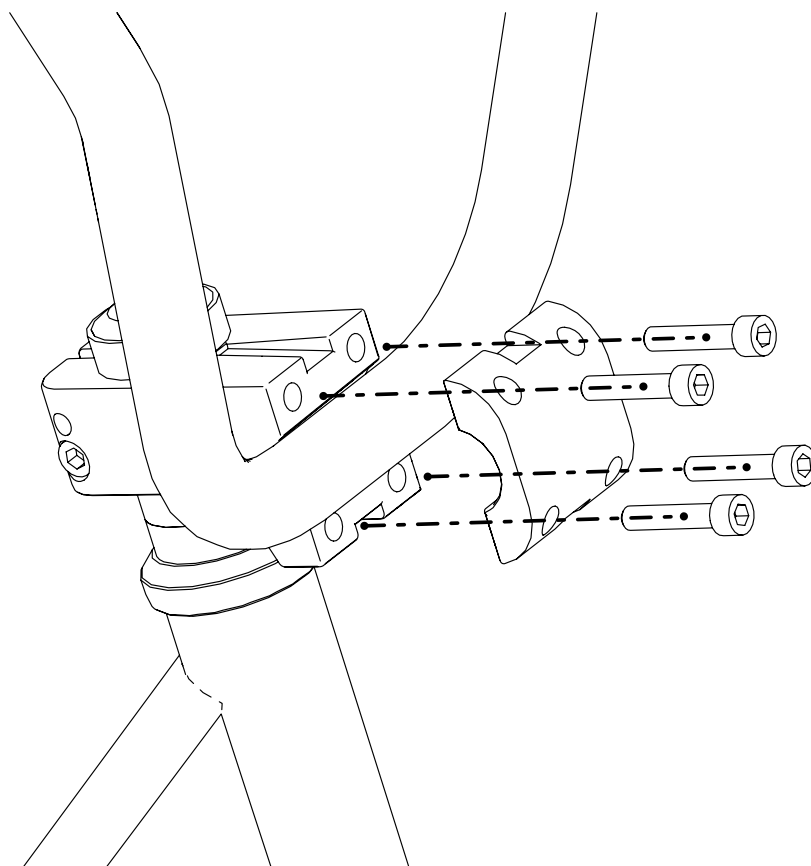


Fig F



## Handlebar Adjustment

#16 Handlebar Assembly can be rotated a slight amount forward or rearward for desired comfort. Once handlebar position is set you can now adjust the brake and shift controls for comfort. See Figure G

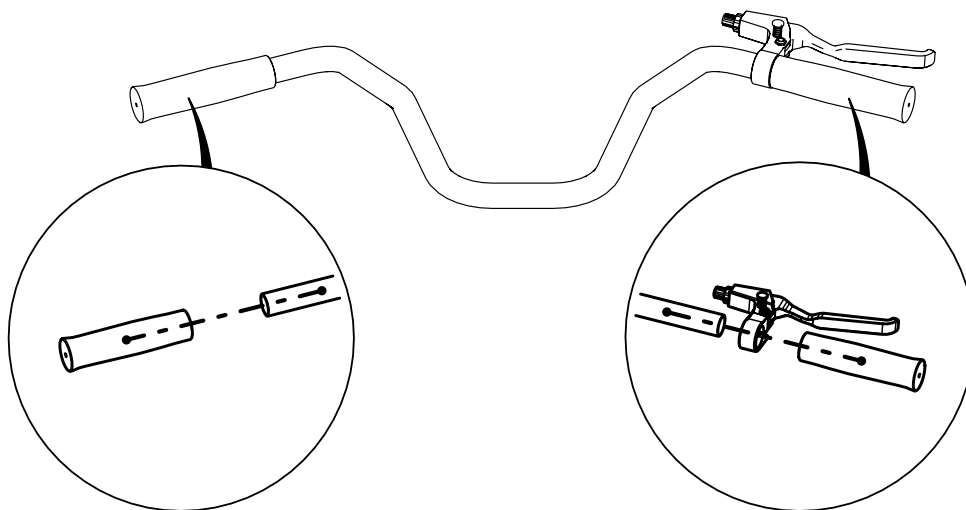


Fig G

## Saddle Installation

Lubricate seat tube with heavy grease, place #20 Seat Post into seat tube of trike and tighten. Place #18 Saddle, in a level position, onto seat post and tighten seat post clamp.

Adjust saddle height, tighten seat post, saddle clamp and seat brace hardware securely. See Figure H

**WARNING! THE SEAT POST MINIMUM INSERT MARK MUST BE BELOW THE SEAT TUBE.**

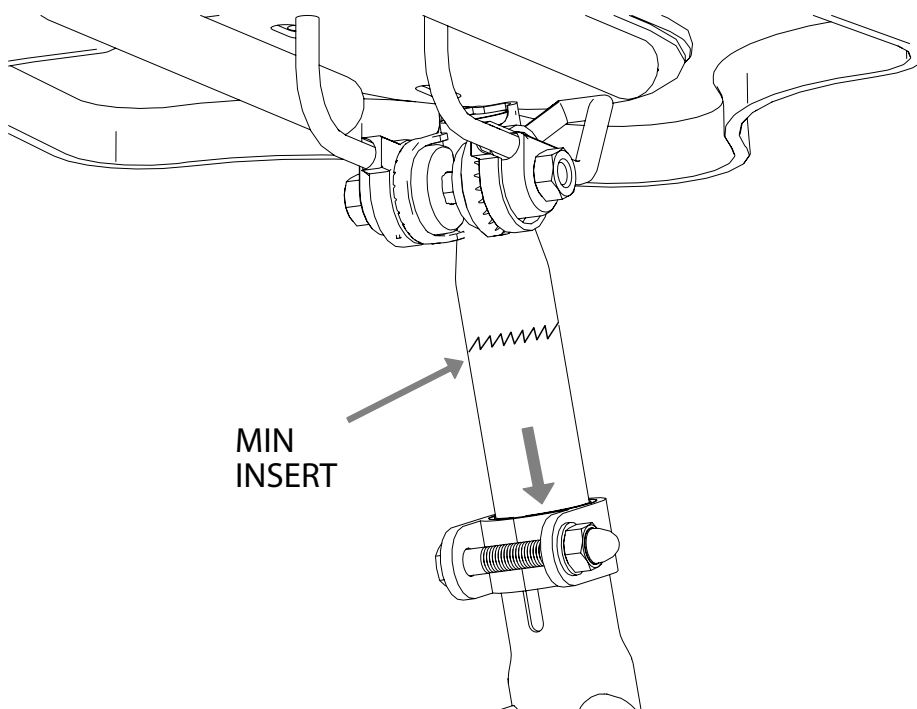


Fig H

## Trike Basket Installation

Place and center the #21 Trike Basket onto the top of the #2 Rear Unit.

Align the first basket attaching brace over the front two holes of the #2 Rear Unit with basket between brace and rear unit. Attach nuts and bolts and finger tighten. Repeat using second basket attaching brace and the rear two holes of the #2 Rear Unit. See Figure I

Recenter basket and tighten all nuts and bolts securely.

**WARNING! THE SEAT POST MINIMUM INSERT MARK MUST BE BELOW THE SEAT TUBE.**

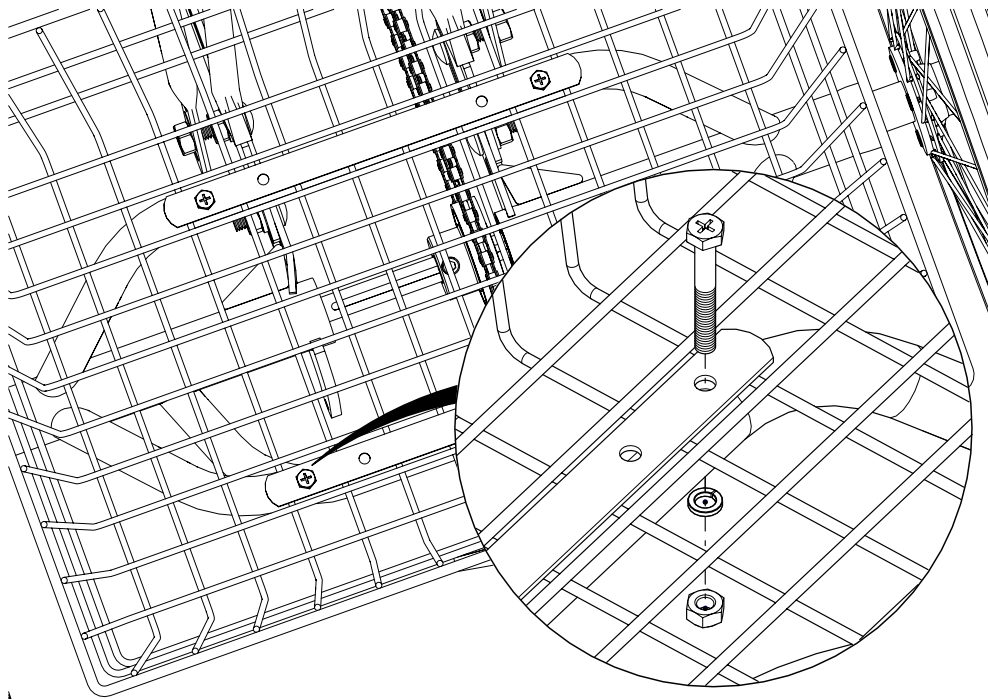


Fig I

## Toe Strap Installation

Insert #19 Toe Straps through the holes of #22 Pedals .See Figure J. Secure velcro ends as shown in Figure K

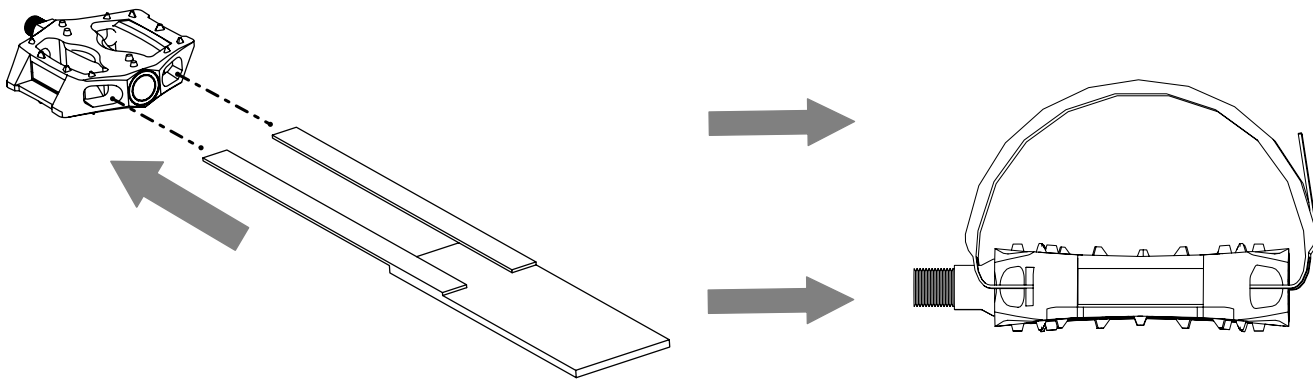


Fig J

Fig K

## Pedal Installation

Apply grease to the threads of the #22 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 #22 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. See Figure L, M

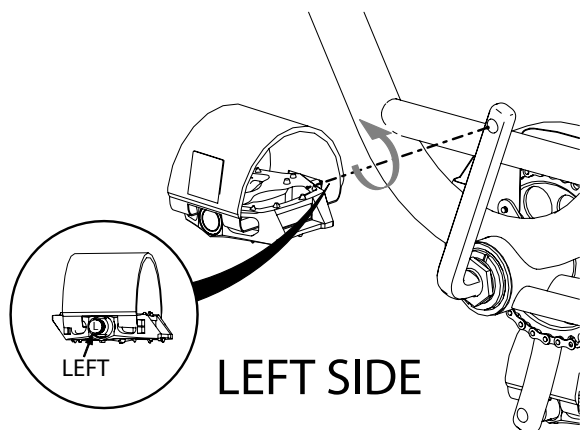


Fig L

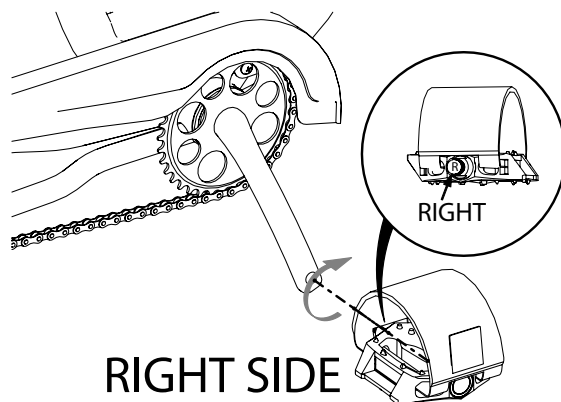


Fig M

## Reflector Kit Installation

Install red rear reflector onto rear of #21 Trike Basket. See figure N

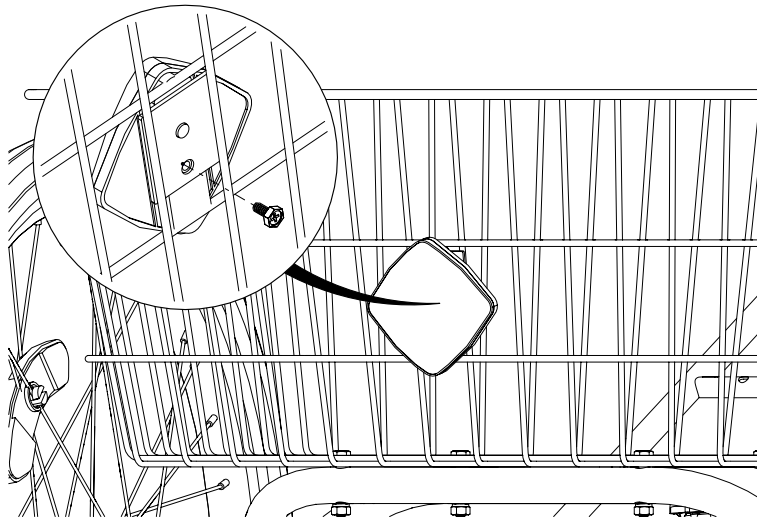
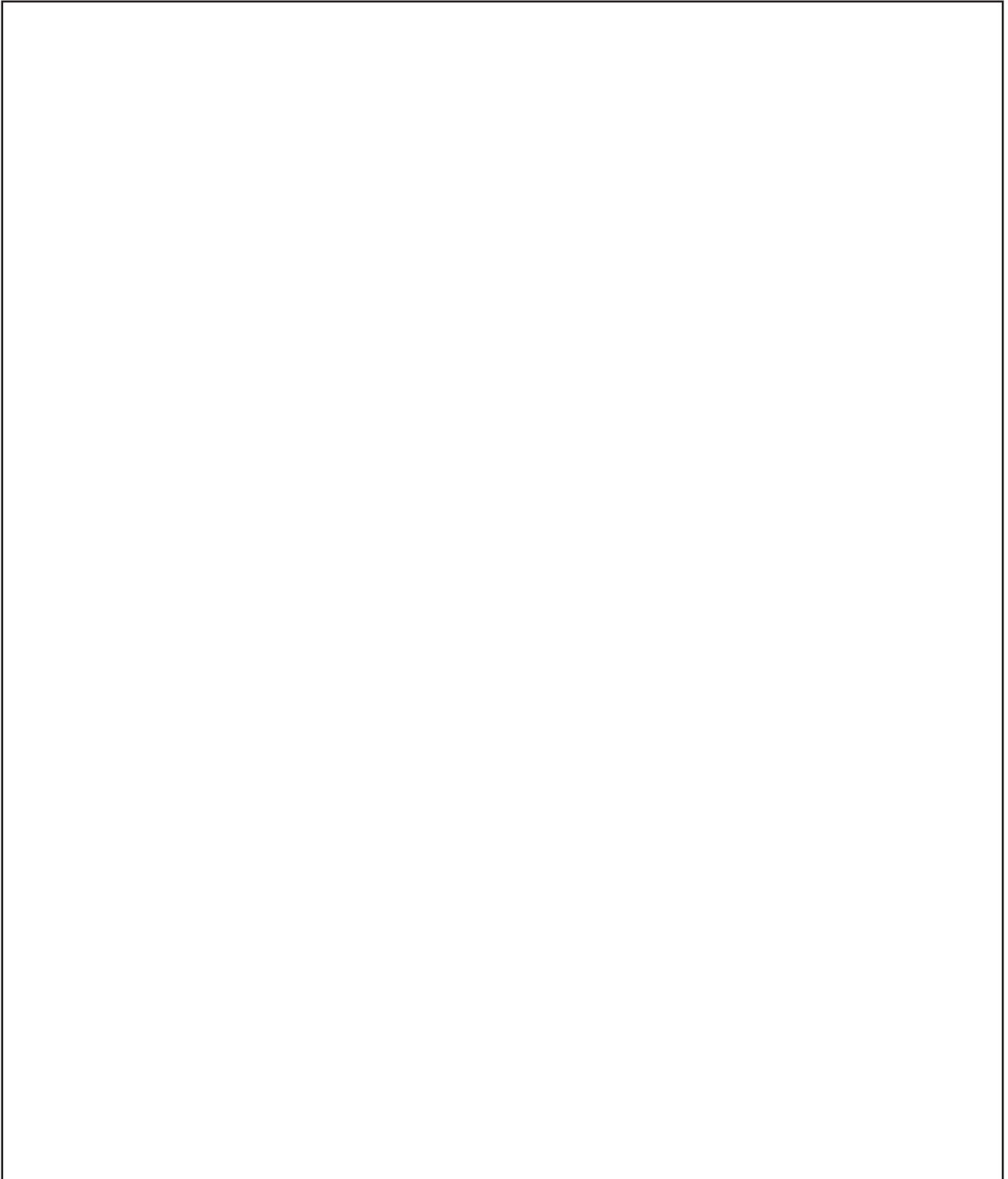


Fig N

**(IT IS ADVISABLE THAT ALL NUTS & BOLTS ARE ONCE AGAIN CHECKED FOR TIGHTNESS & SECURITY)**

## Notes



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