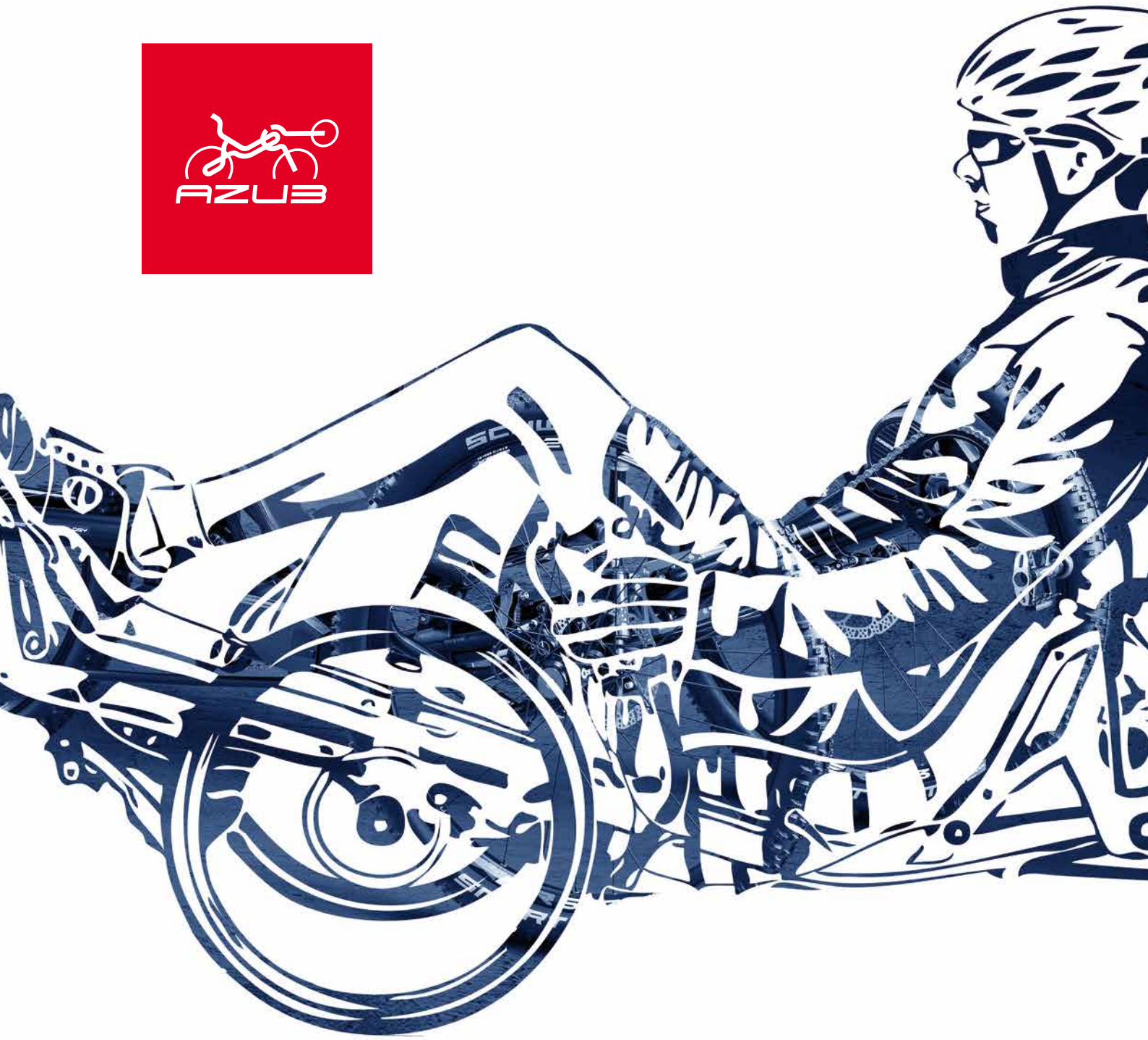


EN

ORIGINAL TRIKE USER GUIDE

ORIGINAL E-TRIKE USER GUIDE

T-Tris 20
T-Tris 26
T-Tris AR
T-Trisek
FAT

TRIcon 20
TRIcon 26
TRIcon GR

Ti-FLY 20
Ti-FLY 26
Ti-FLY X

Content

Dear AZUB trike rider,

We would like to thank you for choosing our brand from the wide selection on the market. Since the beginning, we have aimed to develop our trikes for your satisfaction. We hope that our product meets your expectations and brings you a lot of joy. We recommend you read the entire user guide. It describes the features of your trike and instructs you on its full and safe use, as well as informs you or your local bike shop of the necessary maintenance procedures to ensure the proper function of the trike for the longest period possible. This user guide also explains our warranty program. It should only take about 1 hour to read, surely a time spent wisely where the safe and effective use of your trike is concerned.
We believe that if you are comfortable with the maintenance of an upright bicycle, you can definitely handle the maintenance of a recumbent tricycle. But remember that recumbent trikes also have many parts that require special treatment and care. Always consider your technical skills and in case of doubt, contact your local bike shop, your local dealer or AZUB directly. This user guide mainly describes components from non-standard bicycle production produced by AZUB. Please, use other bicycle components in accordance with the instructions provided by their manufacturers. These can be obtained from manuals available on the manufacturers' websites.
Whether you will be cruising around town, touring around the world or riding with your club, AZUB trikes are tried and tested and ready for whatever adventure you dream of.

Sincerely,
The AZUB Team

1. Overview

You can download the electronic version of this user guide as well as other manuals for the assembly and service of the trike at azub.eu/instructions.

Warning Signs

	**CAUTION!**	**This warning indicates a high-risk threat that results in the most serious injury or death if not avoided.**
	**ATTENTION!**	**This warning indicates a medium and low risk threat that results in a moderate or minor injury if not avoided.**
	**TIP**	**This symbol provides additional information and tips for a set-up or use.**
	**LINK**	**This symbol indicates an option to download an electronic version of a manual.**
	**VIDEO**	**This symbol indicates an option to watch an instructional video.**

Basic Information

Neither AZUB nor a specialized dealer are liable for damage that occurs due to improper use in contradiction with the intended purpose. Only use the trike in a way described in this manual. Any other use of the trike in contradiction with the intended purpose may result in an injury or severe trauma to the user and damage to the trike.
AZUB trikes are intended for use on both paved and unpaved roads. Always adjust the speed to your abilities. Take extra care when riding in adverse conditions. Jumping with the trike is forbidden. Improper use of the trike can lead to irreparable damage to the frame or components.

The equipment on your tricycle corresponds to the configuration you have ordered and might not necessarily correspond to the rules and regulations in force that govern mandatory equipment in your country. Such equipment must be fitted to the (electric) tricycle in order to make it fully roadworthy and may include mudguards, a bell, lights, reflectors and other components. Make sure your tricycle is equipped with all the necessary parts before you set off, whether on the road or a cycle path. It is also essential to familiarise yourself with the rules and regulations concerning the riding of a recumbent tricycle, or an electric bike, as such. In general, both an electric and non-electric version of your tricycle should be treated as a regular bicycle or electric bicycle. Neither a special licence nor insurance should be needed to ride it. However, the rules may vary from country to country.
Please observe the traffic regulations and respect motor vehicles. In a collision with a motor vehicle, you and your bike will always be on the losing side. What is more, pedestrians may be injured at the same time. Stay alert and show consideration to other road users.
A good quality bicycle helmet approved for sale can prevent injury in an accident. Wear it, there's no reason not to.

Basic division of AZUB trikes by type of suspension:
- models without suspension: T-Tris, FAT
- models with rear suspension: TRIcon
- models with full suspension: Ti-FLY

Specifications may differ by the use of 20″ or 26″ wheels

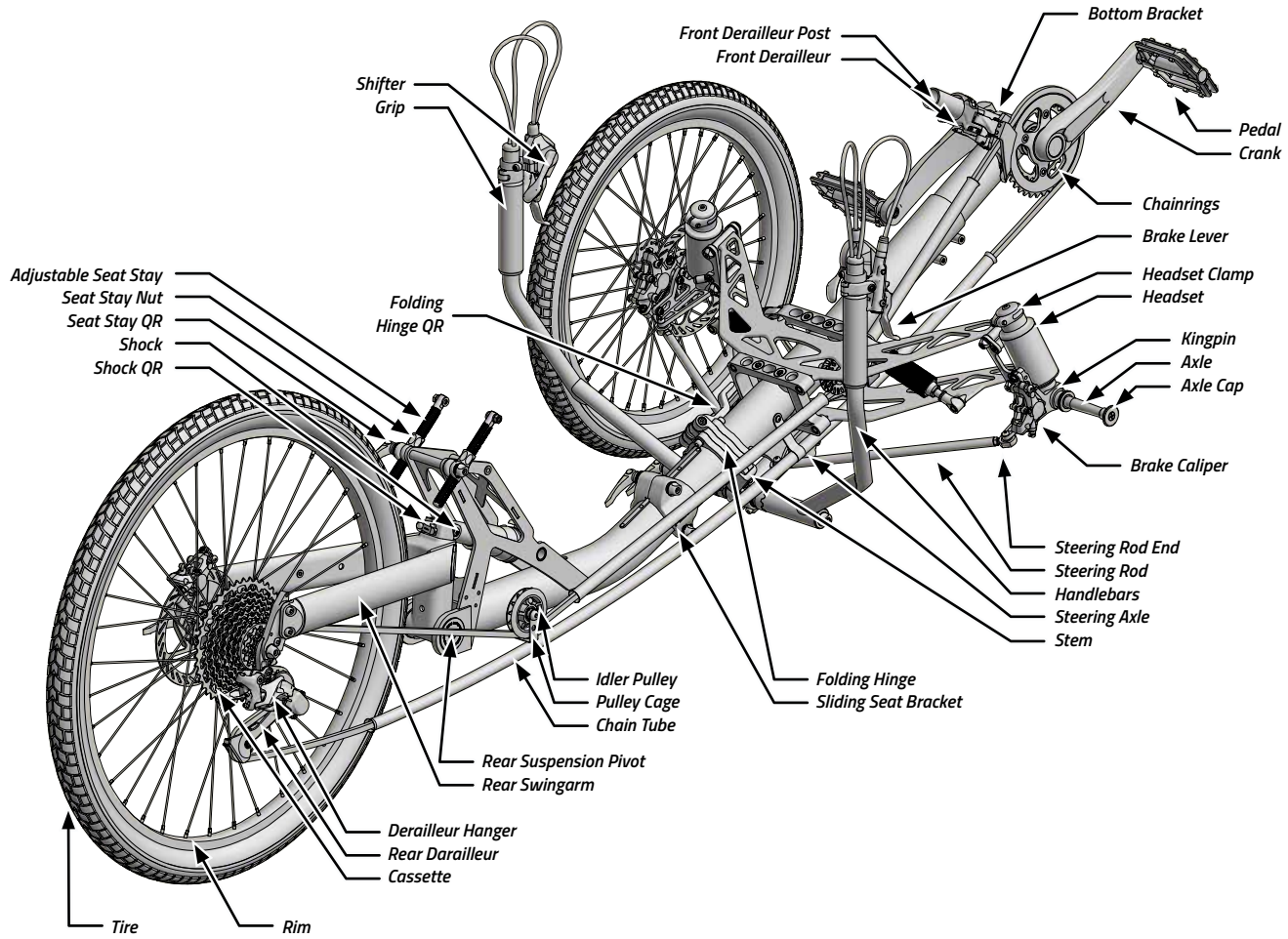
Dimensions of the trike depending on the height of the rider and the trike model:
- length 1690-2250 mm (66.5 to 88.5″)
- height 900-1200 mm (35.4 to 47.2″)
- width 835-910 mm (32.9 to 35.8″)

Maximum total weight of rider and luggage:
- 135 kg without electric motor (298 lb)
- 125 kg with electric motor (276 lb)

Weight of trike:
- 17-25 kg (37-55 lb) without electric motor, depending on the components and accessories fitted
- 23-32 kg (50-70 lb) with electric motor, depending on the components and accessories fitted

Recommended height of rider:
- 150 to 205 cm (4′ 11″ to 6′ 9″)

For precise dimensions of the individual models, see the trikes' technical specifications.



Nomenclature of AZUB tricycle components

Because we build our bikes according to the wishes of every customer, the parts and fittings on each bike vary. In addition to the many options of drivetrain and brake components, we offer a wide range of accessories that increase the functionality of our trikes.

2. Safety Information

Prior to using an AZUB trike, the user must read this „Original Trike User Guide" carefully and familiarize themselves in detail with the principles set out within. Before the first ride and in order to operate an AZUB trike, Chapter 5 „Using the tricycle" is absolutely essential. It stipulates the basic rules that will help you get to know your trike in the best possible way and use it safely.

Likewise, an AZUB trike must be serviced regularly (at least once a year) by a professional service/at a bicycle shop.

An AZUB trike must not be used by persons under the influence of addictive substances (alcohol, drugs) nor under the influence of pharmaceutical or any other drugs that may affect the user's consciousness. In this context, we would like to remind you that both a cyclist and an AZUB trike user are road users who are subject to all generally binding laws and regulations relating to traffic on roads.

Whilst operating an AZUB trike, it is the user's responsibility to be fully aware of all generally binding laws and regulations relating to the operation of an AZUB trike and to being a road user.

AZUB trike are intended strictly for persons over 18 years of age. Only fully legally competent persons may use an AZUB trike independently, regardless of the required minimum age of 18 years.

Should an AZUB trike be used by persons who are not fully legally competent (e.g. children, minors, persons with limited legal capacity) or persons with disabilities, it is always necessary to ensure they are supervised by their legal guardian and/or another fully legally competent person. Such person is responsible for ensuring that the user of an AZUB trike is able to operate it fully, even in critical situations, and that the user has been familiarised with this instruction manual and the principles of using an AZUB trike.

When operating an AZUB trike, the user is responsible for complying with all generally binding laws and regulations, observing the road traffic regulations and operating the AZUB trike with caution and in the safest manner possible.

The basic rule for using an AZUB trike is to be aware that an AZUB trike is lower than an ordinary bicycle, which is why it is always essential to pay great attention to the visibility of the user in traffic on the road. In addition, due to the lower air resistance, it is necessary to take into account higher speed than in the case of an ordinary bicycle.

Further liability issues are set out in the „Terms and Conditions for the supply of AZUB bike s.r.o. goods" (the „TaC"). Compliance with the TaC and this instruction manual is a prerequisite for the exercise of any rights of the user of an AZUB trike against its manufacturer AZUB bike s.r.o.

AZUB bike s.r.o. shall not be liable for any damage resulting from the use of an AZUB trike in violation of this „Original Trike User Guide", the TaC and/or generally binding laws and regulations.

If you have any doubts about the technical state of your trike, do not use it!

If your trike has an electric drive, using non-original parts is forbidden.

The trike can only be used to transport one rider. Transporting more people is forbidden.

Using a child seat is forbidden.

Using a high-pressure cleaner to wash the trike is not recommended.

We recommend using cleaning products intended for the cleaning of bicycles.

3. Assembly

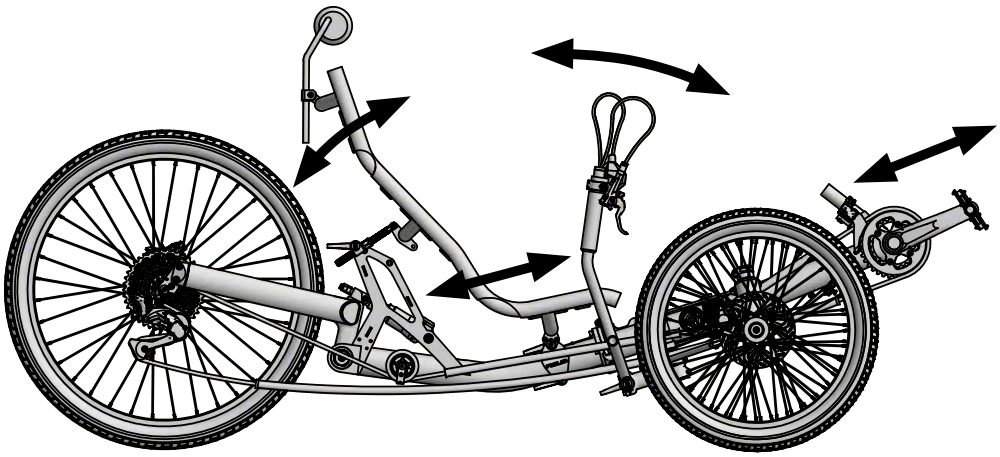
If you got your new AZUB trike from a local dealer, it should be completely assembled and ready for its first run. The dealer should also help you with the initial setup of the trike.

Although this instruction manual includes information how to assemble an AZUB trike, to ensure its safe operation, it is always necessary to have an AZUB trike assembled by a professional service/at a bicycle shop. This is the only way to ensure a trouble-free and safe use of an AZUB trike.

Find the "How to unpack and assemble the AZUB trike" video at azub.eu/instructions

If you had ordered accessories, they should already be installed on your trike, unless their installation was prevented by packaging requirements.

4. Adjusting the Trike for the Rider



Ideal Position System

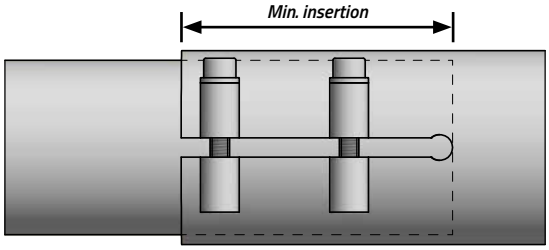
Ideal Position System (IPS)

This system has brought fame to AZUB ever since the brand's foundation in 2000. It allows riders to find the correct position on their AZUB recumbents through a wide range of adjustable seat positions and the option to adjust their steering as well as set their ideal frame length.

Front Boom Adjustment

The most appropriate setting of the front boom depends on many factors. The front boom position determines both the position of the seat and the position of your center of gravity. Moving your position forward increases the trike's stability in corners (you sit closer to the front wheels) but reduces the load on the rear wheel (you may have problems with insufficient traction of rear wheel on slippery surfaces). Moving your position backward is limited by the rearmost position of the seat depending on the seat angle or if your feet hit the frame. For the first ride we recommend using the front boom as already set. After a few rides you may want to try to adjust your position further.
AZUB trikes' front booms are produced in regular and long versions (for very tall riders). Both are equipped with a 68 mm wide ISO (British) standard bottom bracket and a 28.6 mm (1 1/8") derailleur post. The front boom is fixed in the frame by two bolts. You need a 5 mm Allen key to adjust the front boom position. Adjusting the front boom insertion is the first step of finding your ideal riding position. It is necessary to ride with at least the minimum boom insertion in the frame as shown in the picture. After you find the suitable front boom length, visually check the horizontality of the bottom bracket axle and tighten the two screws alternately until you reach the tightening torque of 10-12 Nm. You must check the chain length after every boom adjustment because a 10 mm (0.4") change in boom adjustment means a 20 mm (0.8") change in chain length!

The wrong length of chain can impair the function of the front and rear derailleurs and cause premature wear to the rear derailleur and chain.



Minimum boom insertion

After the boom length is set, the chain length needs adjusting. It is better to have a chain that is slightly too long rather than too short, as a short chain can damage the rear derailleur and lock the drivetrain. With the chain on the largest chainring and sprocket, the chain should be long enough to be redirected around the derailleur pulleys and move freely without any significant drag. Your component warranties may not be fulfilled if damage to the drivetrain occurs from incorrect chain sizing.

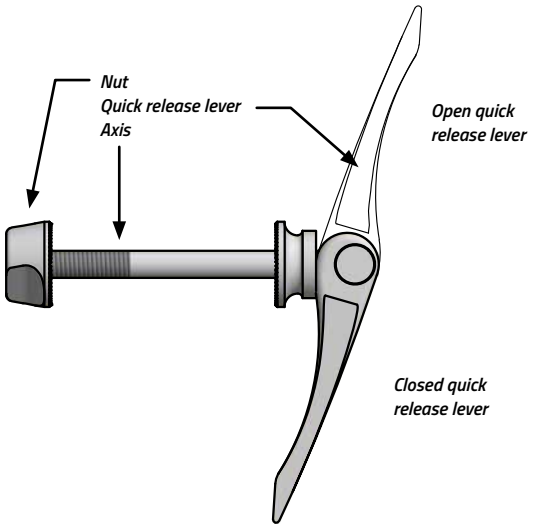
Quick Releases (QR)

Improper handling of the components may cause the material to break

Changing the position of the quick release lever must always be done manually. Never use tools or other devices to change the position of the lever.

The quick release lever is a clamping device with which we can adjust the handlebars, seat and a small rack quickly and without tools. By changing the position of the quick release lever, tension is created due to eccentric mechanism. The quick release is composed of three parts – a lever, nut and axis. When there is no tension while handling the quick release lever, it must be re-set.

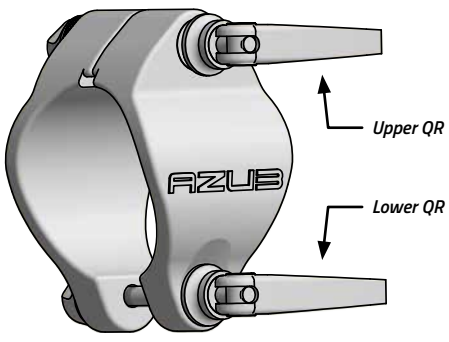
- Either loosen or tighten the nut until you feel tension when moving the lever.
- The required tension can also be achieved by turning the quick release lever when closed.



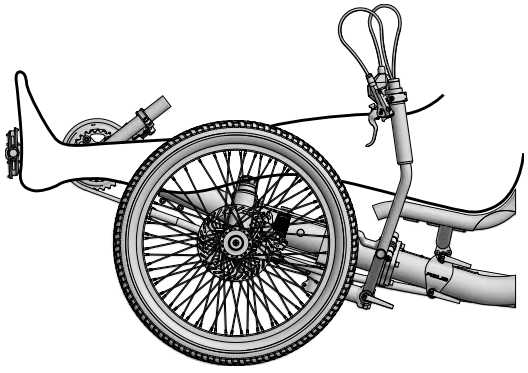
Seat Adjustment

Once you have fixed the position of the front boom, you need to adjust the horizontal seat position. There are two QRs on the sliding seat bracket. The upper one holds the seat, while the lower one secures the bracket on the frame. If you want to remove the seat, open the upper QR. If you want to move the sliding seat bracket (adjust the horizontal seat position), open the lower QR.

Before moving the sliding seat bracket, clean the frame tube to avoid damaging the paint finish.

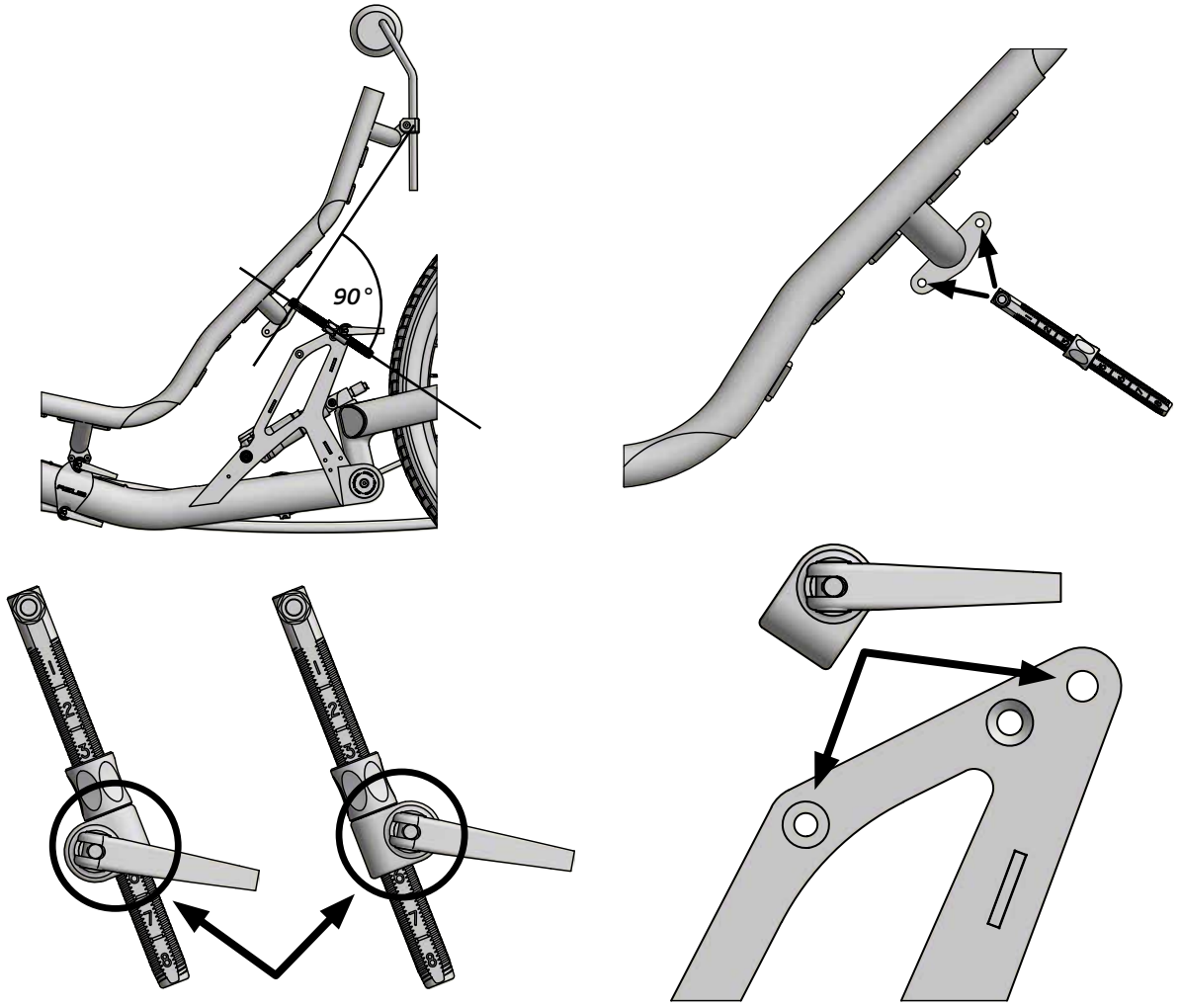


Sliding seat bracket. Nuts must be on the chain side!



Finding the horizontal seat position

To adjust the horizontal seat position, sit on the seat with your leg outstretched and your heel on the pedal in the furthermost position. This is the most important setting. A short setting can cause pain in the knees. A long setting can cause problems with ligaments behind your knees. Use the QR to find the best set-up during your first runs.



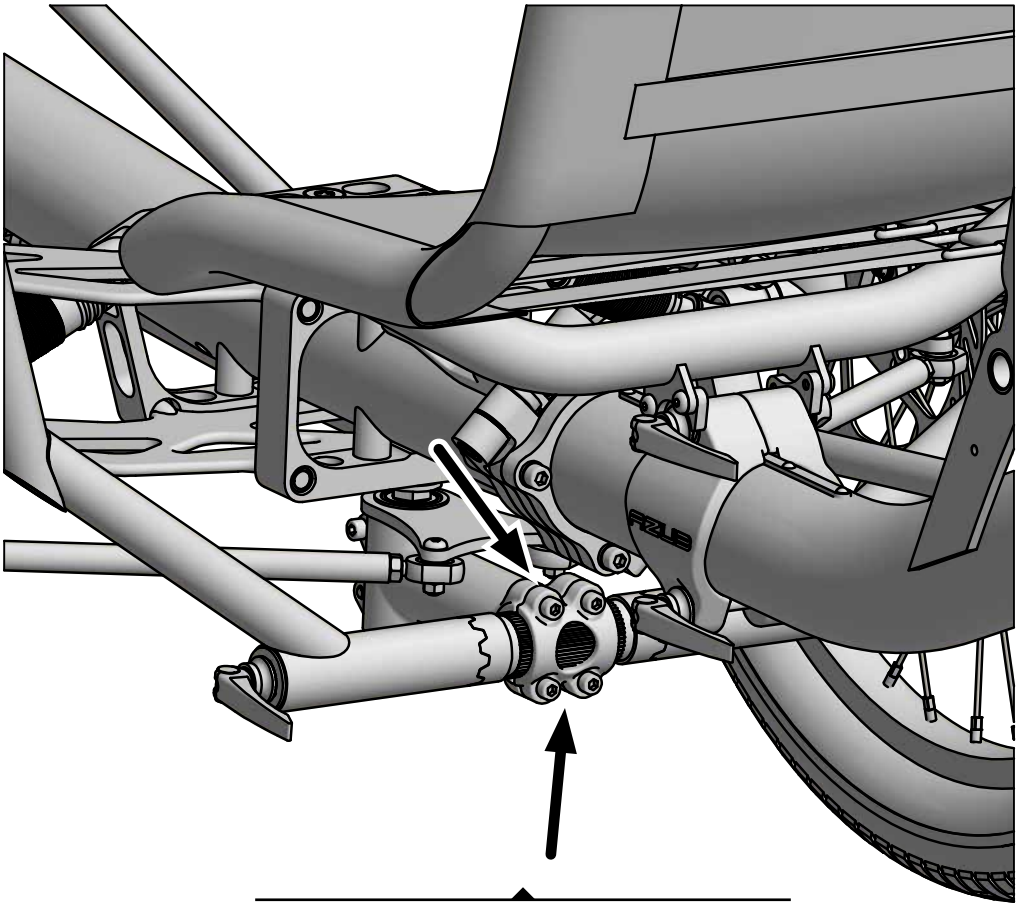
Ideal seat stay position (top left) and possible seat stay adjustments

The seat angle can be adjusted with the seat stays. A more reclined position gives you better aerodynamics, while a more upright position is better for hill climbing and more comfortable for your neck.
The continuously adjustable seat stays allow for precision seat angle adjustment. After loosening the QR, it's possible to move the stays in their clamps and adjust the stay adjustment nuts or completely remove the seat with the stays. The QR and clamps stay mounted on the frame. After the seat position is adjusted, the QR must be tightened to prevent the stays from slipping.
We recommend that you position the seat stays appropriately based on your individual settings. This is the most effective position to support the trike seat. To achieve this angle, there are two different mounts on the frame, two positions of the seat and the seat stay clamps can be flipped, resulting in eight possible configurations shown in the picture.
Occasionally check that the seat mesh is sufficiently taut . If it isn't , your back will touch the seat frame. You can pull the mesh tight again with the straps on the back.

Handlebars Adjustment

The last adjustment is the handlebars. Find the most comfortable position and make sure you are able to reach the handlebars with both hands when the wheels are turned at full lock on both sides. You can also adjust the positions of the brake levers as on a traditional bicycle. To adjust the handlebars, loosen the four (two) bolts on the handlebar stem, move the handlebars and retighten the bolts alternately. The quick release folding mechanism is only for folding, not for adjustment.

Ensure the handlebars are adjusted in such a way that neither the brake levers nor the shifters come into contact with the tires, mudguards or other accessories when cornering, in any position. The same applies to your hands when holding the handlebars. Check that you are able to turn the handlebars to full lock.



Handlebars adjustment

An instructional video on the correct adjustment of an AZUB trike can be found at www.azub.eu/instructions

Front Suspension (Ti-FLY)

We use two variants of hardness of the leaf springs – hard and soft, depending on the rider's weight and riding style. They differ by their thickness and the number of apertures. We have chosen the spring based on your order or weight.

Soft front suspension
- Riders under 100 kg (220 lb) seeking maximum comfort
- All riders under 85 kg (187 lb)

Hard front suspension
- All riders over 100 kg (220 lb)
- Riders over 85 kg (187 lb) looking for a sporty off-road machine
- Riders over 85 kg (187 lb) who prefer precise high-speed handling and want to enjoy fast downhills and sharp curves
- Riders over 85 kg (187 lb) who plan trips with a loaded trike

Rear Suspension (TRIcon, Ti-FLY)

AZUB TRIcon and Ti-FLY feature an adjustable rear suspension with 100 mm (4″) of travel for the 20″ version and 95 mm (3.75″) of travel for the 26″ version. Suspension settings depend on the weight of the rider and luggage as well as on your riding preferences. Sag is the measurement of the used suspension travel when the vehicle is loaded at rest. It is measured as a percentage of total travel. For the most comfortable ride, we recommend adjusting the shock to 50 % sag, for a sportier feeling, use 30 % sag.
With the DNM coil spring shock, you can adjust sag by changing the spring preload. With an air shock, you can adjust sag by changing the pressure. With air shocks you are also able to adjust rebound. Try different rebound settings to find one that fits you best. Air shocks also offer a lock-out option. Use this only on smooth uphill surfaces. Don't forget to unlock the shock before riding downhill or before riding on rough roads. Riding on rough roads with the shock locked can damage the shock.

		20“ rear wheel		26“ rear wheel	
Rider’s weight + luggage (kg)	**Rider’s weight + luggage (lbs)**	**FOX**	**SUNTOUR**	**FOX**	**SUNTOUR**
		(psi / bar)	**(psi / bar)**	**(psi / bar)**	**(psi / bar)**
55 – 65	121–143	90 / 6,2	68 / 4,7	72 / 5,0	54 / 3,7
65 – 75	143–165	105 / 7,2	79 / 5,5	84 / 5,8	63 / 4,3
75 – 85	165–187	120 / 8,3	90 / 6,2	96 / 6,6	72 / 5,0
85 – 95	187–209	135 / 9,3	102 / 7,0	108 / 7,4	81 / 5,6
95 – 105	209–231	150 / 10,3	113 / 7,8	120 / 8,3	90 / 6,2
105 – 115	231–254	165 / 11,4	124 / 8,6	132 / 9,1	99 / 6,8
115 – 125	254–275	180 / 12,4	136 / 9,4	144 / 9,9	108 / 7,4

Table of recommended starting pressures of shocks

5. Using Your Recumbent Trike

Riding Basics

Always try to be visible to other road users. We recommend mounting a highly visible pole with a flag to your trike seat. A pole with a flag can be easily mounted by drilling a hole in the plastic seat frame plug next to the seat pocket zipper. Due to your low seat height, visibility is a concern because you can be hidden to other road users cannot always see you. Ride defensively.

First Ride

We strongly recommend that you take your first ride away from traffic. Don’t hurry. It will take some time to get used to your new trike.
Getting on and off the trike is easier if you are positioned slightly downhill, with the parking brake activated. If you have mechanical brakes (drum or disc), pull the brake levers and then press down the brake lever locking pins. To release the parking brake, pull the brake levers again.
When getting on the trike, stand in front of the frame’s front arms with one leg on each side of the front boom while looking forward, then carefully sit down. Try to avoid pulling on the handlebars. You can grip the front wheels or seat to keep your balance.

Before every ride, test the brakes and steering. Check that all quick releases and screws are tight.

Start riding in low gears and increase your speed slowly; try to get used to handling your trike before riding in traffic. Read this entire guide thoroughly to understand recumbent trike riding techniques and tips.

Do not pull on the handlebars when pedaling, instead focus on pushing back into the seat. Relax and sit back into the seat. Don’t slouch forward.

Keep your feet on the pedals when the trike is moving; never try to use your feet to slow down. Your feet could be caught on the ground and pulled under the frame front arms which could lead to a serious injury. We strongly recommend using clipless pedals with compatible cycling shoes.

Cornering

Despite having three wheels and static stability, you need to lean into turns and cambered roads. On a bicycle, you must lean to turn or balance and the same principle applies on a trike, though it may take more discipline to always include it in your riding.
Do not ride handsfree! You can only control the trike safely with both hands on the handlebars.
Carefully try to find your stability limits while cornering. When you ride too fast in a corner or do not lean enough, the inside front wheel can lift, and in the worst case the trike will roll over. When you feel that the wheel loses contact with the road, you must decrease your turn or your speed. Road cambering and/or bumps can also negatively affect the trike's stability in corners.

Avoid riding the trike on two wheels. While possible, it places severe stress on the wheels and you will not be able to control the trike properly.

The stability of the trike can also be negatively affected by heavy loads on the rear rack. Always try to put heavy loads as low and as forward as possible.

Braking

Although some custom-built trikes have coupled brakes, most AZUB trikes have each brake lever operating its respective brake. The left lever for the left brake, the right lever for the right brake. When you are going straight, use the same braking power on both brakes to obtain the shortest stopping distance. Practice this emergency braking a few times away from traffic. You must remember that it is very easy to skid the inside wheel in a corner. Try to balance the braking power on the outer and inner wheel to reach the shortest stopping distance in a corner.

The brakes are powerful and if applied sharply, the rear wheel can lift. This can result in some loss of directional control.

You may enjoy riding your trike on slippery surfaces such as wet surface, ice and snow. Trikes give you maximum stability but remember that your stopping distance will be much longer and you can't steer when your front wheels are skidding.

Brake drums, calipers and rotors will heat up during use. Do not touch them while riding or immediately after.

Riding Downhill

Use caution on downhill rides. It is not unusual to reach speeds of over 70 km/h (43 mph) on steep descents. You will find that you can go faster with much more confidence once you become used to the way the trike is handled.
Because there is less air resistance in the recumbent position, you will go faster than on an upright bike.

Drum and disc brakes can overheat on long, steep descents. If you feel the brakes start to weaken on a descent, stop and allow the brakes to cool before continuing.

Shifting

With any type of a bicycle, it is a good habit to shift to a low gear before stopping. You can then pull away easily when you start again. While riding, it's recommended to keep your pedaling cadence between 80-100 rpm. Try to look ahead and shift before hills to avoid changing gears under pressure.
Standard shifting systems can only shift when the bike is being pedaled, though internal gear systems can be shifted while stationary, pedaling or coasting.
AZUB trikes can be equipped with many different gearing systems. For further information, read the manuals provided by their manufacturers.

Beginning with Recumbents

Now everything is going well and you can easily ride around your house or block of flats. Perfect. You are planning your first trip. Plan it carefully because you will likely have some problems with long distances or steep hills. Riding too far before your body is trained can result in temporary joint and muscle pain.

Most people new to recumbents go through three phases:

Phase 1
Passion
You can easily ride around the house and a few kilometers on straight roads. You feel that the recumbent is a very good bike and you wonder "How could I have been riding a regular bike for so long?"

Phase 2
Severe Depression
Your first trip with some hills and some more kilometers will completely change your mind. You will have problems pedaling half of your standard distance and the pain in your legs will be terrible. But you have to persevere and practice!

Phase 3
Trained
Now you are definitely a recumbent rider. You can easily cycle long distances. Hills are no problem for you and you once again feel that recumbents are very good, fast and comfortable bikes with many advantages and some disadvantages.

So what is the problem? It's simple. When riding recumbents, you use muscles some of which are different to those used when riding an upright bike and these muscles are not trained. It's the same as starting a new sport. You have to keep practicing, that's all there is to it. Also, you have to get used to a new style of pedaling and a new type of bike. That means that if you would like to go for a long trip soon after buying your first recumbent, we recommend that you use your upright bike and try your recumbent for a long distance only after some time and training.
In addition, you have to keep in mind that you cannot use your body weight when pedaling, so your legs must be well-trained. Saying that, your legs will be trained pretty quickly and will be stronger.

Riding with Cargo & Kids

It is forbidden to break the stipulated loading limits for the trike. Overloading may result in wear of the rack material and bike frame and subsequently lead to their damage. What is more, overloading affects the riding properties and the rider's safety.

Racks and Bags
With our rack and bag selection, you can comfortably carry a significant load on your trike. It's important to keep your heavy cargo as low, forward, and as centered as possible. Remember to allow for longer stopping distances and slower cornering.
The maximum total load capacity of the racks for trikes is 30 kg (66 lb). The weight of the cargo must be distributed across all the racks.

Trailers
Using a trailer is possible and you should follow the instructions for the individual trailer. However, some conditions apply:.
• Only two-wheel trailers are allowed.
• Total weight of the trailer should not exceed 50 kg (110 lbs).
• Use of original coupling is required.
• A trailer cannot be used with King-Rack.
• You must adjust your riding style.

Transporting Children
AZUB trikes and racks are not suitable for a child seat. It can be very dangerous for the child because the high position of the seat can cause the trike become unstable. To transport children and heavy loads, we recommend using a trailer. It will be much safer and more comfortable for your little passengers.

Riding Off-Road

Your trike may not be intended for big drops or harsh descents, but depending on your tires, it is suitable for riding on many dirt or gravel roads. Be aware that with a trike you must lean into cambered trails. On a bicycle, you would do this naturally and you can ride at an angle to the road surface, but trikes can become unstable at high cambers before bikes would have a problem.

6. Folding

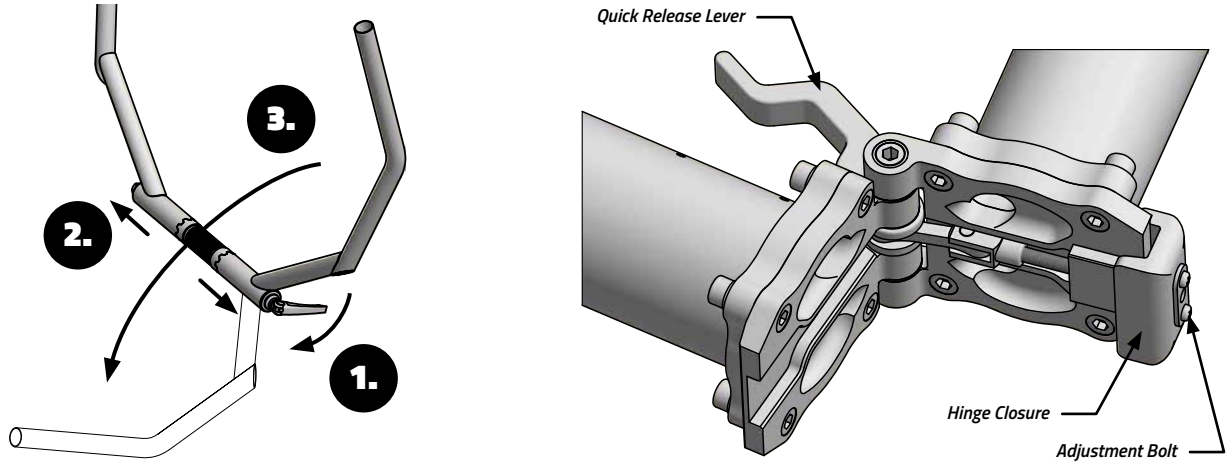
AZUB trikes come with separable frames as standard. Should you decide to upgrade to a folding trike, the folding hinge can be added later. However, mounting a folding hinge onto an electric trike at a later date is very complicated and time consuming due to internal wiring.

Before folding or separating the frame, always set the parking brakes and shift to the smallest sprocket on the cassette.

Keep the mating surfaces of the hinge and handlebars clean to ensure proper operation.

Watch the video demonstrating the folding procedure for your trike at azub.eu/instructions

Folding Hinge and Handlebars



Folding handlebars and frame hinge

To fold the handlebars, you need to open the QR lever, unscrew it a bit (about 10 turns), and then pull the left and right parts of the handlebars from the securing teeth (sometimes this requires a tap with the base of your hand). Then both handles can be rotated separately.
The AZUB trike folding hinge features a large QR lever for easy folding. To fold the frame, simply open the QR. Unfolding is the same in reverse order. If the QR becomes too loose or too tight, the QR length needs to be adjusted. Use an Allen key to adjust the length of the hinge locking mechanism.

T-Tris and FAT Folding

Follow these steps to fold the T-Tris and FAT trikes:

1. Open and loosen the upper seat clamp QR and the seat stay QR, then remove the seat.
2. Open and loosen the handlebars QR and fold the left handlebar backward.
3. Fold the frame using the frame hinge. In some cases, the seat clamps collide with the frame. If that occurs, move the sliding seat bracket forward before folding the frame.
4. Fold the handlebars forward..
5. Optionally, the front wheels can also be removed (see page 18).
6. For 26" rear wheels, removing the rear wheel further reduces the folded size.

T-Tris and FAT folding

Unfolding is the same in reverse order.

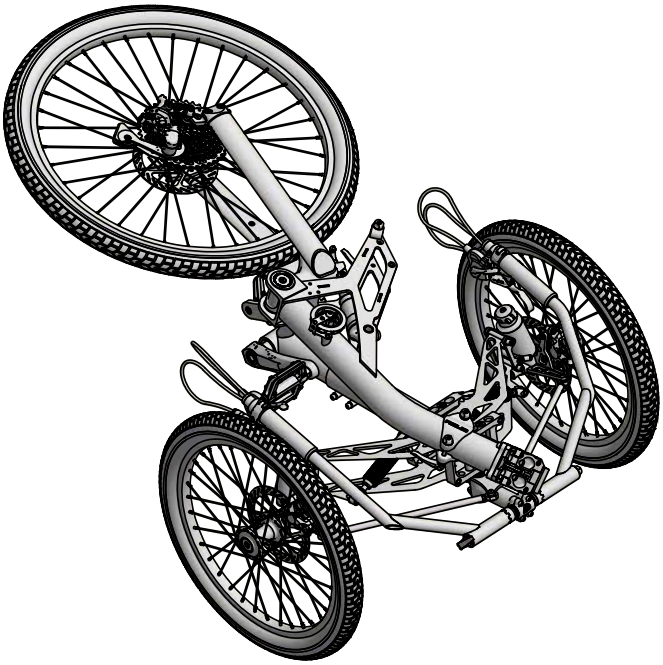
TRIcon and Ti-Fly Folding

There are two options when folding the AZUB TRIcon and Ti-FLY models. The first one is quick folding. In this case, you don't need to remove the rear wheel or the standard rack. To reach the minimum folded size, F2F Ultra feature (Fold to Flat Ultra) can be used. In that case, you will remove all the wheels and fold the rear fork. The rear rack (except for the Lowrider Rack S) and mudguards must be removed as well (if applicable).

See page 20 for how to remove the rear wheel with the Syntace X-12 system.

Follow These Steps for Quick Folding of the Trike:

1. Open and loosen the upper seat clamp QR and the seat stay QR, then remove the seat.
2. Fold the handlebars forward.
3. Fold the frame using the frame hinge. In some cases, the seat clamps collide with the frame. If that occurs, move the sliding seat bracket backward before folding the frame.
4. Optionally, the front wheels can also be removed (see page 18).
5. For 26" rear wheels, removing the rear wheel further reduces the folded size.



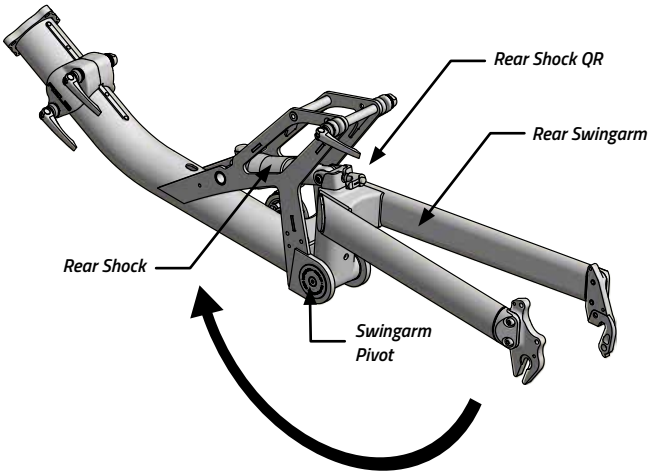
Quickly folded Ti-FLY

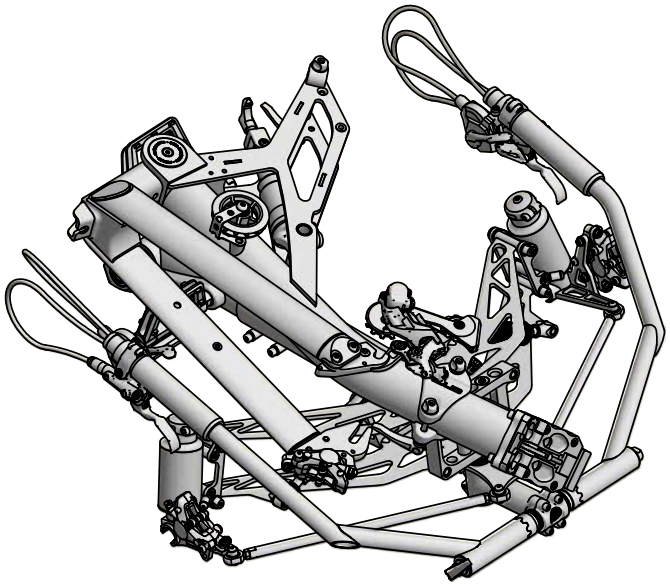
Unfolding is the same in reverse order.

Follow These Steps for F2F Ultra folding of the Trike:

F2F Ultra folding cannot be carried out if the trike is fitted with mudguards or racks. (The Lowrider Rack S may stay.)

1. Remove the seat.
2. Fold the left handlebar backward.
3. Remove the rear wheel (see page 20).
4. Open the rear shock QR, disengage the shock from the swingarm and fold the rear swingarm.
5. Fold the frame using the frame hinge.
6. Fold the handlebars forward.
7. Optionally, the front wheels can also be removed (see page 18).





Unfolding is the same in reverse order.

Transportation

When you want to transport your trike by car, use the folding option. With the seat removed, the trike will be lower and can be transported inside many types of cars. We also recommend removing the seat if you transport the trike on the roof of your car, as well as removing any parts that could come loose during transport. There are special racks for trikes to transport your trike with your car's tow bar or on the roof.

Storage

Before storing your recumbent for more than a few months, we recommend that you clean and dry it and ensure that the cables, chain, and any pivots are lubricated to prevent corrosion and seizure. Bicycles and tricycles should be stored in a clean, dry place to best preserve them for your next ride. Shift to the smallest sprocket and chainring to relax the derailleur system. Ensure that the tires are fully inflated because leaving the trike sitting on flat tires can damage them. Any bike not properly stored can emerge in a condition much worse than bikes ridden for many kilometers over the same time.

Tools and Spares

At AZUB, we take pride in our customers around the world travelling great distances on our bikes and trikes. You can find a link to an interesting article about the tools we recommend you carry for long trips at www.azub.eu/tour. Your needs may be different, this list provides a starting point for your spares and toolkit. Remember to plan ahead and be aware of challenges you may face on your adventures.

7. Mechanical Guide

This section shows how to adjust, assemble and maintain various components of your recumbent. Before your first ride, we strongly recommend you read the manufacturers' instructions related to all the components which are used on your bike, especially the brakes and shifters.
It is common that some components need adjusting after a few hundred or thousand kilometers. If you are not an experienced mechanic, it is often better to go to your favorite bike shop and have the trike serviced by them. There should not be any issues if the bike shop is not associated with recumbents because most of the components are the same as on traditional bikes.

Warranty Inspection

After 200 km (120 miles) or one month after purchase, it is necessary to have your new trike serviced. All the components will be adjusted as necessary, the spokes tightened and the rest of the trike inspected.

Maintenance Schedule

Below you will find a table of the inspections, adjustments and repairs we recommend you carry out as a part of using your new recumbent. Depending on your use and the environment, your trike may require servicing more or less often than suggested here. This is typical for all bicycles, this chart provides a starting point for maintenance. Some of the setting or checking you will be able to do on your own but some are better to be carried out by your local bike shop.

Before every ride
- Check tire pressure (see page 17)
- Check brakes work perfectly
- Check handlebars and steering (headsets) for any play (see page 24)
- Check tightness of all quick releases (QRs) and front wheel axles. Same for the Syntace axle on the rear wheel (if applicable) (see page 18).
- Lift the rear wheel 10 cm/4" of the ground and drop it. Listen carefully. If something shakes or rattles unusually, adjust it before riding.

Every week or every 200 km / 120 miles (whichever comes first)
- Inspect the chain for cleanliness and lubrication
- Check the frame and swing arm for any signs of damage (see page 16)
- Check that all bolts and nuts are tight (see page 17)
- Check the headset (see page 25)
- Check, clean, lubricate and adjust suspension (see page 26)

Every 6 months
- True the wheels
- Clean and lubricate cables
- Adjust derailleurs/shifting
- Inspect and lubricate the headset (see page 25)
- Check the bottom bracket (see page 25)
- Lubricate pedals (if applicable)
- Check the toe-in (see page 26)

Every month or every 1 000 km / 600 miles (whichever comes first)
- Wash and dry the trike (do not use pressure washers)
- Check the chain for wear
- Clean and lube the chain
- Inspect the brake pads for wear
- Inspect the tires for wear or damage (see page 17)
- Check wheel trueness and spoke tightness (see page 17)
- Check that the swing arm pivot is tight
- Check the frame for cracks, warping or change of color.

Every year
- We recommend you have your bike checked and adjusted by your local bike shop or AZUB dealer.

Trike Frame

Check the frame for cracks, warping or change of color.
- Check mainly the welds on the bottom side of the frame, especially around the folding hinge or around the flanges that connect the front and rear part of the frame.
- If the frame shows signs of cracks, warping or color change, contact your dealer or AZUB
- Do not use your trike, there is a risk of accident, serious injury or even death.

Recommended replacements:
- The frame after 50 000 km (31,000 miles) or 5 years. Other components as recommended by the manufacturer.

Accident, collision or crash:
- A check by your local bike shop or AZUB dealer is necessary
- Possible replacement of part of the frame or components

Bolted Joints

Check the tightness of the screws regularly. Tighten loose screws as per the table.
• If you do not have sufficient professional knowledge and the necessary tools, contact a service or a dealer.

Table: Recommended Torque Values

PART	MOUNTING	TORQUE (Nm)	PAGE
Pedals	Mounting screws	35	-
Front wheels	Axle - kingpin	15	18
Rear wheel (Shimano hub)	Internal geared hub (cap nut)	30-45	23
Rear wheel (Sturmey Archer)	Internal geared hub (cap nut)	28	20
Rear wheel (Enviolo)	Internal geared hub (cap nut)	30-40	20
Rear wheel	Syntace through axle	10-16	20
Stem	Clamping screws M5	3-4	8
Derailleur (Sram Eagle)	Mounting screw	10-12	-
Derailleur (Shimano)	Mounting screw	8-10	-
Boom	Mounting screw	10-12	6
Ti-FLY front suspension	Flanges screws	12	26
Ti-FLY front suspension	Caps and screws	5	26
Frame	Connection between the front and rear frames (4xM6)	12	-

Rims and Spokes

Check the front and rear rims for cracks and deformations.
• If any cracks or deformations are found, do not use the trike.
• Have everything checked by your local bike shop or AZUB dealer.

Push on the spokes lightly with your thumb and finger and check that the tension is roughly the same for all spokes. If the tension in the spokes is different or if some are loose, have the spokes tightened by your local bike shop or AZUB dealer.

Tires

AZUB recumbents come only with tires which we have been successfully tried and tested during many trips and expeditions. When changing tires or tubes, note the proper range of tire pressure and the ”drive” direction on the sidewalls of the tires.

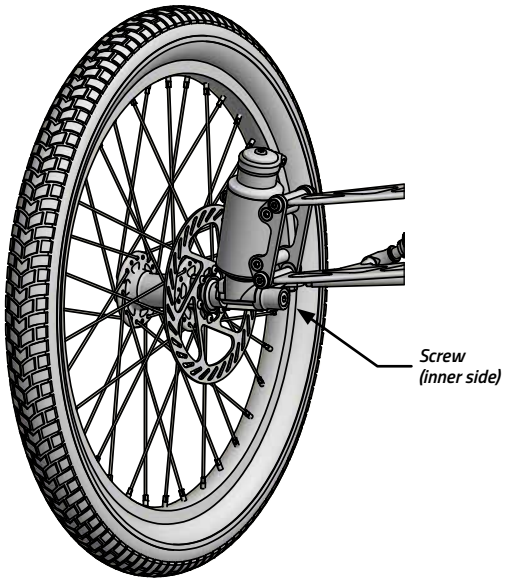
1. Check the tires for correct pressure (The maximum and minimum values for pressure can be found on the sidewall of the tire.)
2. Check the tires for cracks and foreign object damage
3. Check the tires have sufficient tread

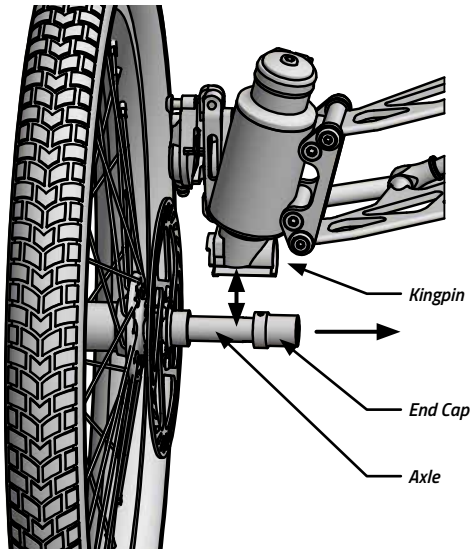
If there are any cracks, damage, or if the tread is not deep enough, change the tire or have it changed by your local bike shop or AZUB dealer.

If your front tyres show signs of wear too quickly, check the toe-in of the front wheels (page 26).

Kingpins

They are part of the trike steering system which holds the front wheel axle. The kingpins sit in the frame on standard semi-integrated A-head 1 1/8″ headsets.
To mount or dismount the front wheels, you need a 5 mm Allen key.
AZUB kingpins allow for either drum or disc brakes. They also allow using the SON hub dynamo (only with disc brakes).



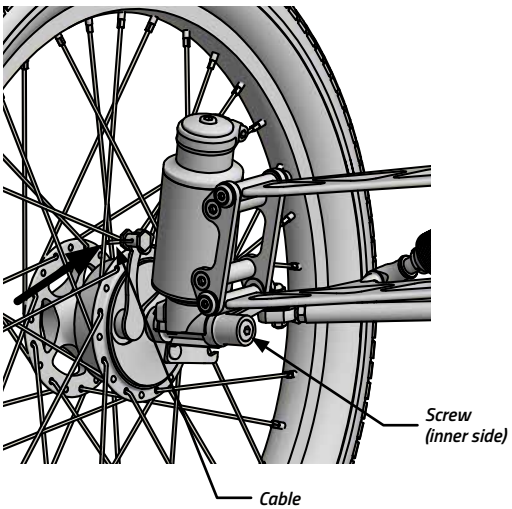


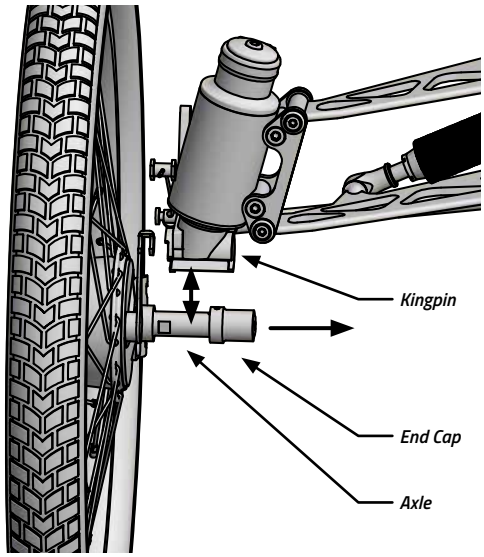
Removing a front wheel with disc brakes:

1. Disconnect the wiring from the hub dynamo, if installed.
2. Using a 5 mm Allen key, loosen the screw in the cap on the inside of the wheel by about 4 turns. Do not unscrew the screw completely. If the axle spins, sit on the trike and loosen the screw whilst sitting down. You can also use a pulsating force, or alternatively, a second Allen key from the outside of the wheel to lock the axle.
3. Push down on the wheel to get the axle out of the kingpin and remove the wheel.
4. If you have hydraulic brakes, we recommend using pad spacers between the brake pads to prevent the aeration of the brake line.

Mounting a front wheel with disc brakes:

1. Remove the pad spacer from the brake caliper (if applicable) and carefully slide the rotor into the brake caliper and the wheel axle into the kingpin.
2. Using a 5mm Allen key, tighten the screw in the cap on the inside of the wheel (15Nm). We recommend using an extra long Allen key. If the axle spins, sit on the trike and tighten the screw whilst sitting down. You can also use a pulsating force, or alternatively, a second Allen key from the outside of the wheel to lock the axle.
3. Connect the wiring from the hub dynamo (if applicable).
4. Always test the brakes and ensure that both front wheels are secure before riding.





Removing a front wheel with drum brakes:

1. Release the tension on the braking cable by pushing the lever and pull the cable out of the lever.
2. Using a 5 mm Allen key, loosen the screw in the cap on the inside of the wheel by about 4 turns. Do not unscrew the screw completely. If the axle spins, sit on the trike and loosen the screw whilst sitting down. You can also use a pulsating force, or alternatively, a second Allen key from the outside of the wheel to lock the axle.
3. Push down on the wheel to get the axle out of the kingpin and remove the wheel.
4. Pull the wheel out to disengage the drum brake from the kingpin's fixing pin.

Mounting a front wheel with drum brakes:

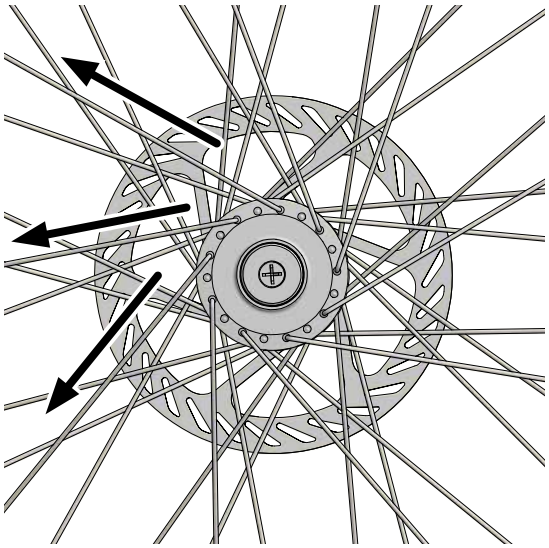
1. Align the rear drum brake on the kingpin'sfixing pin and then the axle in the kingpin.
2. Using a 5mm Allen key, tighten the screw in the cap on the inside of the wheel (15Nm). We recommend using an extra long Allen key. If the axle spins, sit on the trike and tighten the screw whilst sitting down. You can also use a pulsating force, or alternatively, a second Allen key from the outside of the wheel to lock the axle.
3. Reconnect the brake cable to the drumbrakes.
4. Always test the brakes and ensure thatboth front wheels are secure before riding!

Drum brake fixing pin

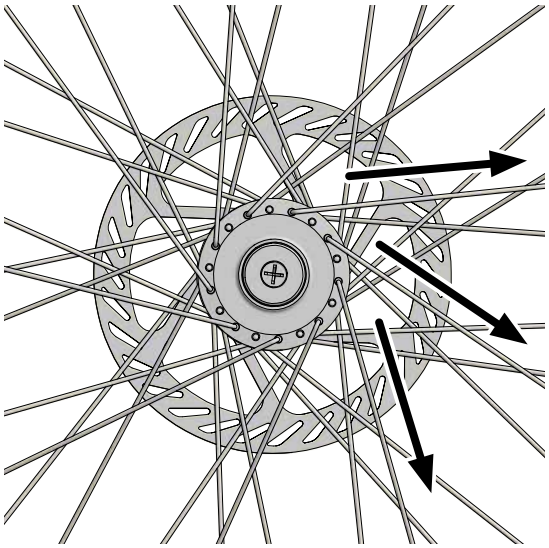
An instructional video on the front wheel removal/mounting can be found at www.azub.eu/instructions

Wheels

Always check that the quick releases or axles are tight when mounting the rear wheels. Most wheels on our bikes are equipped with sealed bearings which are maintenance-free. The Sturmey-Archer, Rohloff, Enviolo and Shimano Nexus hubs require different procedures to remove and install as detailed in this section. For additional information, consult the manufacturers' manuals.
To prolong spoke life, the front wheels should be mounted on their optimal sides. When looking at the outside of the wheel, the outside spokes should match the direction shown.



Left wheel



Right wheel

Spokes must be tight – it is common for them to need retightening after the first 200 km / 125 miles. After spokes are tightened, you need to check if the wheel is true. If not, it needs to be trued which should only be done by an experienced mechanic.

Removing 26" Rear Wheels with Syntace Through Axle

If your trike is equipped with a through-axle 26" rear wheel, the system for removing it may be different than what you are familiar with. With 26" rear wheels on trikes, AZUB uses the Syntace X-12 axle system with an integrated X-Fix tool.

How to remove a rear wheel with the Syntace X-12 system:

1. Locate the tool labeled "Syntace" on the left side of the axle.
2. Using two fingers, pull the tool straight out of the axle. (Note: Wiggle the tool using the exposed handle if it is too difficult to remove.)
3. Insert the 5 mm hex end of the tool in the axle and turn counter-clockwise.
4. Slide the axle out and remove the wheel, taking care to remove it from the chain.

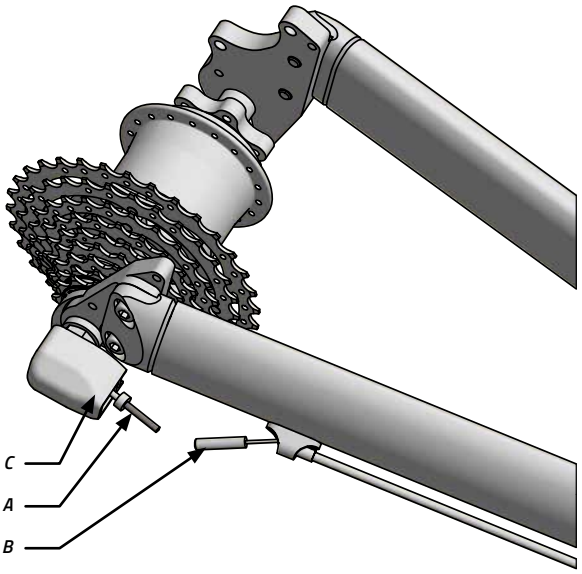
Mounting is the same in reverse order. When placing the tool in the axle, be sure it is properly seated, no turning is necessary.

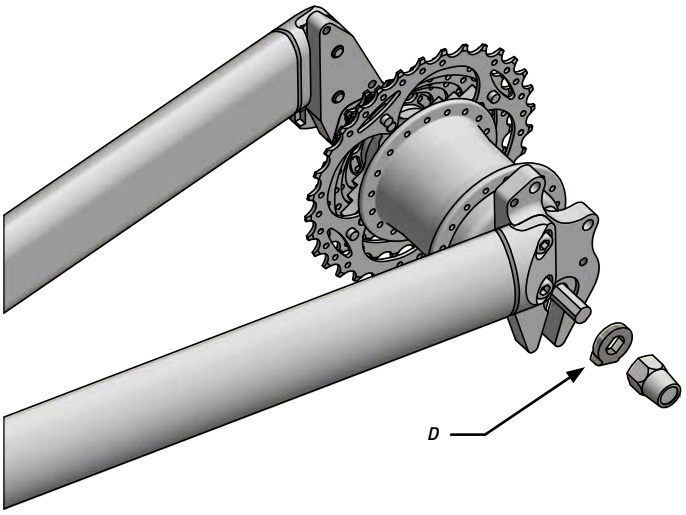
Removing Wheels with Sturmey Archer Hub

How to remove a rear wheel with the Sturmey Archer Hub:

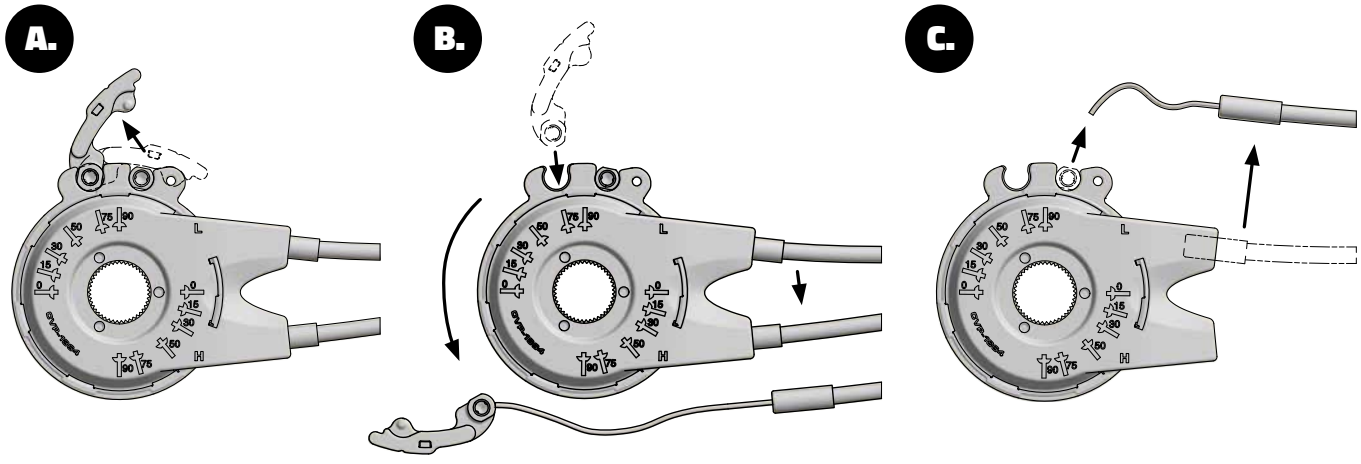
1. Put into 1st gear
2. Disconnect cables (A) and (B).
3. Remove the cap (C).
4. Use a 15 mm spanner to remove the nuts and locking washers (D).
5. Remove the rear wheel from the dropouts.

Mounting is the same in reverse order. Tighten the nuts to 28 Nm.



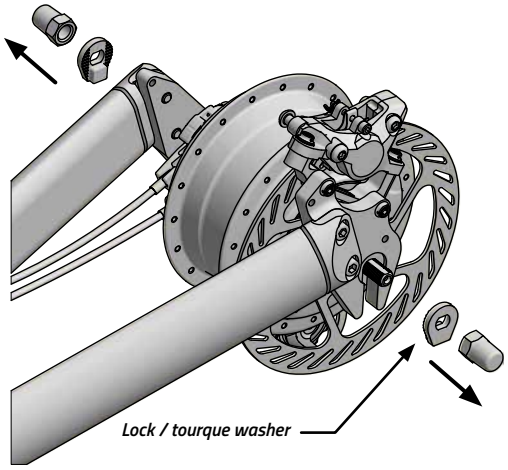


Removing Wheels with Enviolo Hub



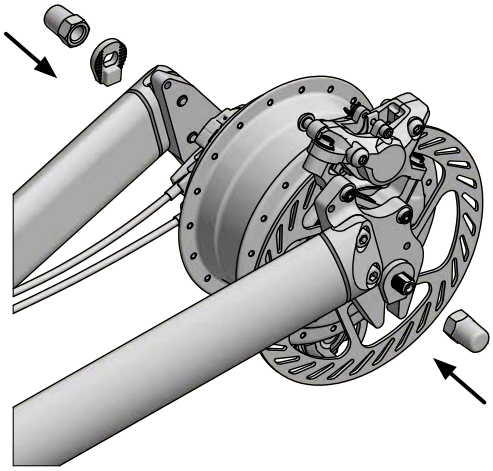
How to remove a rear wheel with the Enviolo Hub:

1. Shift to a position that allows easy access to the shift cable hardware.
2. Remove the shift cable hardware following steps A, B and C.
3. Remove the nuts and locking washers.
4. Remove the rear wheel from the dropouts.

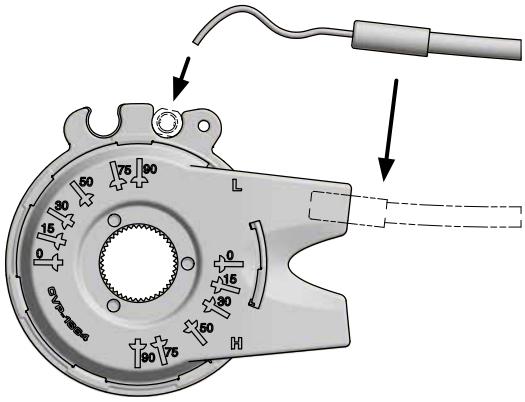


How to mount a rear wheel with the Enviolo Hub:

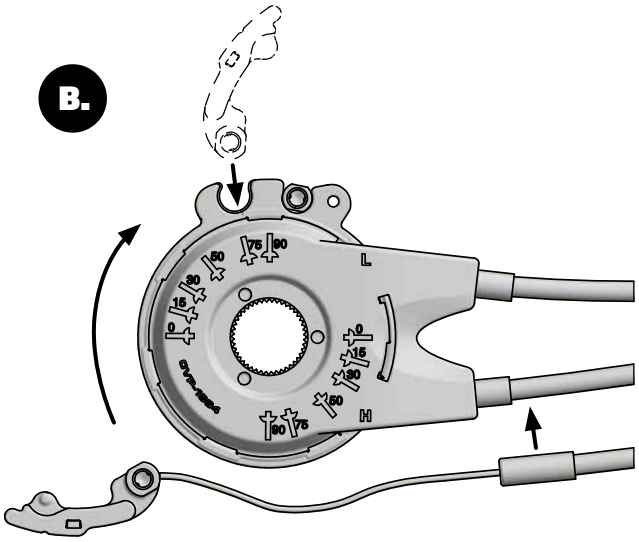
1. Place the rear wheel into the rear frame, making sure not to obstruct the shift cables.
2. Insert the locking washers and nuts and tighten to 30-40 Nm.
3. Connect the cables according to the instructions (A, B and C).



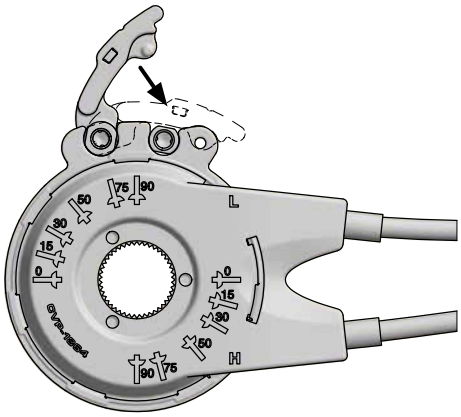
A.



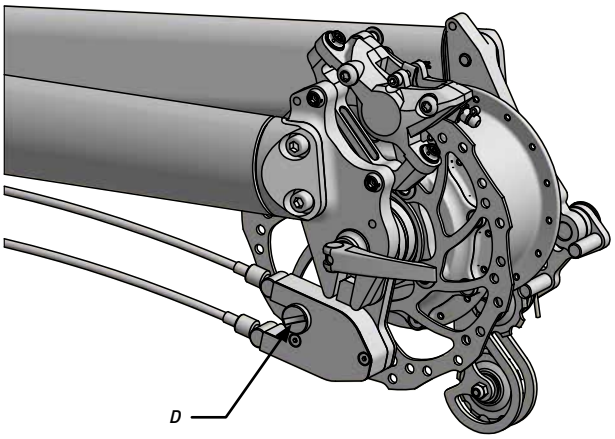
B.

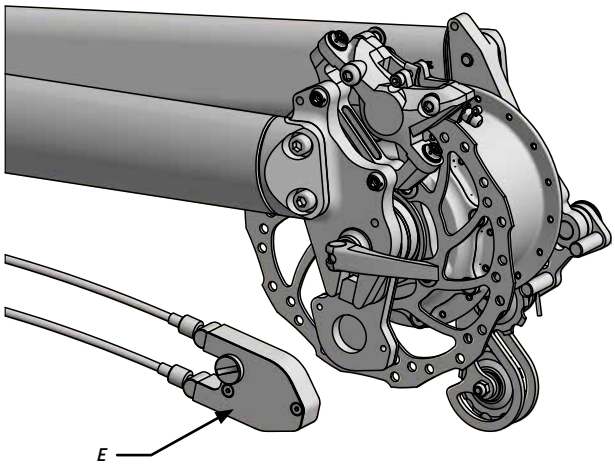


C.



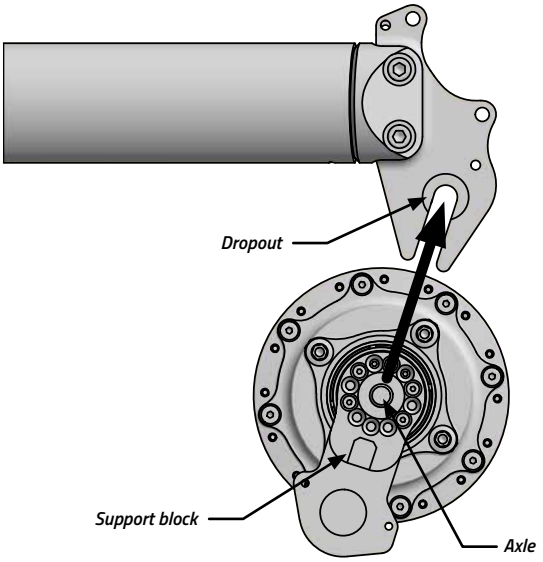
Removing Wheels with Rohloff Speed Hub

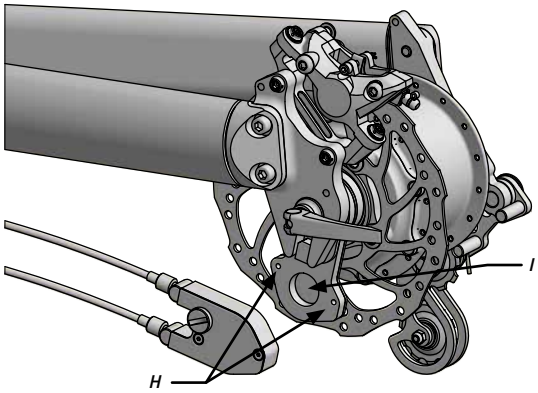


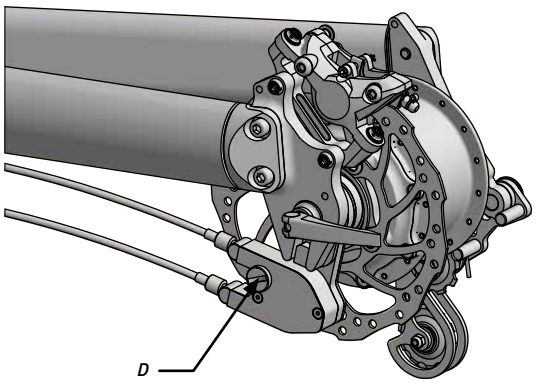


How to remove a rear wheel with the Rohloff Speed Hub:

1. Separating the gear mechanism from the wheel involves removing the cable box. The cable box sits over a hexagonal peg which joins it to the external transfer box. The wheel should be removed in gear #14 to make remounting the wheel easier. Loosen the knurled head screw D and remove cable box E.
2. Open the quick release.
3. Remove the rear wheel from dropouts.





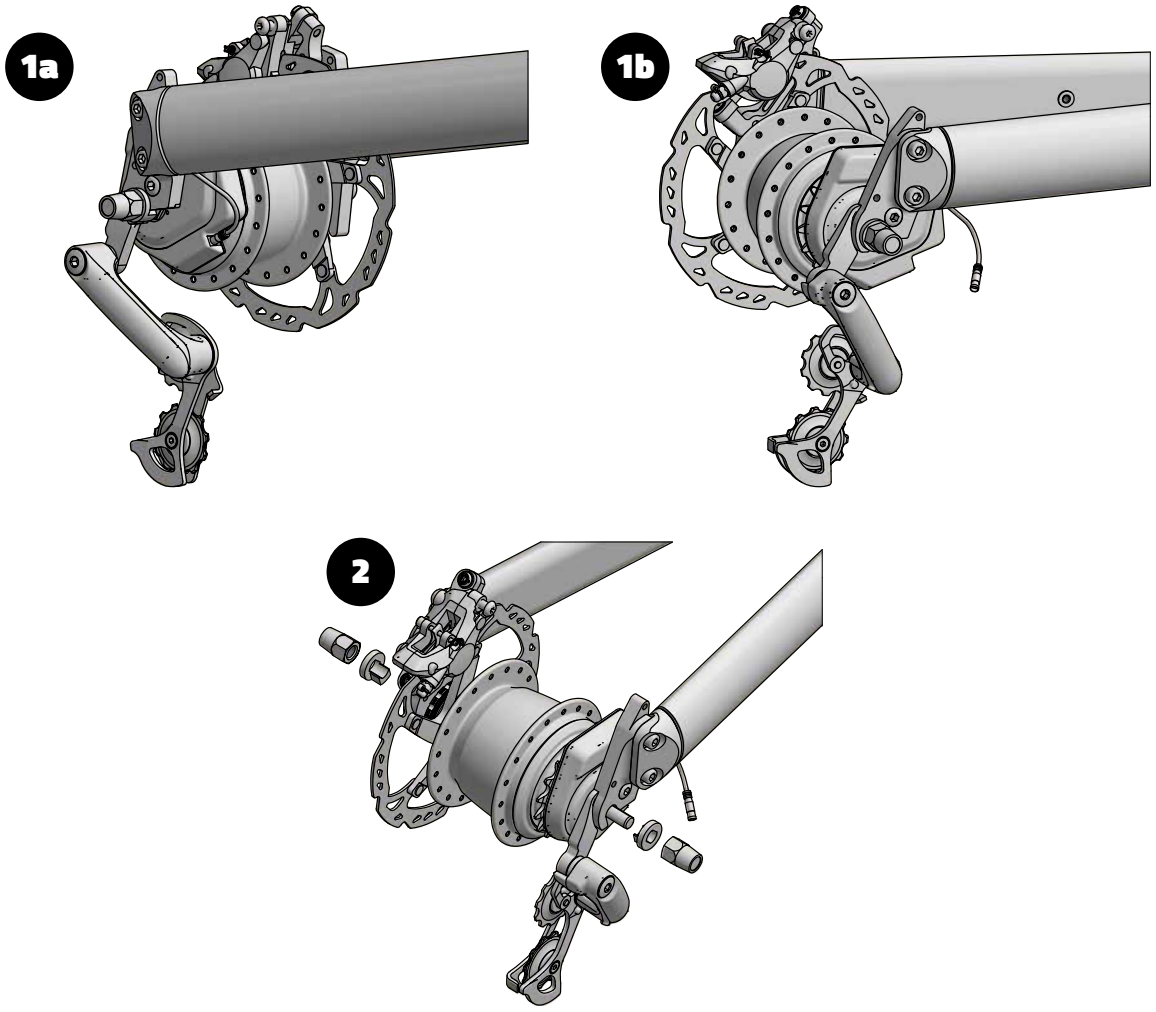


How to mount a rear wheel with the Rohloff Speed Hub:

1. Place the wheel into the dropouts as shown, taking care that the chain is on the sprocket properly.
2. To remount the cable box, place the twist shifter in gear #14, then place the cable box over the hexagonal peg I, so that the two locating pegs H sit in the two holes in the back of the cable box. Turn the twist shifter back and forth around gear #14 until the cable box falls into place over the hexagonal peg.
3. Tighten up the knurled head screw.

Removing Wheels with Shimano Nexus Hub

How to remove a rear wheel with the Shimano Nexus Hub and electronic shifting system Di2:
To remove a rear wheel with the Nexus Di2 electronic shifting system, use the Shimano TLEW02 Di2 E-Tube Plug Tool to remove the electronic cable from the hub(1a, 1b). Loosen the axle and remove the wheel (2). When mounting the wheel, place the wheel in the dropouts, ensuring that the locking washers are in the dropout and the axle nuts are torqued to 30-40 Nm. Then, plug the cable into the hub using the same special tool.



Brakes

Before each ride, check that your brakes function properly. If you find any problem, repair it immediately. Brakes are critical to the safety of your bike, so they must be in proper condition any time you are using your trike. Brake pads wear from use and must be changed according to the brake manufacturer's instructions.

The right brake lever brakes the right front wheel, the left brake lever brakes the left front wheel. Apply the brakes evenly to achieve optimum brake performance.

On request both brakes can be coupled into one brake lever only.

Keep in mind that when the trike is fully loaded or in wet weather, the braking distance increases.

The rear disc brake should be used for parking only!

Disc brakes
You can find several types of disc brakes on our trikes. The service manuals for all types of brakes can be found on their manufacturers' websites. After storage or shipping, hydraulic brakes may need to be "pumped up". To do this, squeeze the brake levers several times until the brakes do not feel spongy.

Do not touch the disc after intense braking – a risk of burning!

If you feel your brakes becoming ineffective, there may be several reasons. Ensure that the brakes function properly before riding your trike.
Lower efficiency of your brakes can be caused by:
- **Insufficient tension of the brake cable of mechanical disc brakes**
  - **Tighten the brake cable**
- **Leakage of brake fluid or aeration of the brake system of hydraulic brakes**
  - **Check the brake system, replace the fluid, if necessary, bleed the brake system**
- **Worn out brake pads**
  - **Replace the brake pads**
- **Worn out brake discs**
  - **Replace the brake discs**

If you do not have sufficient professional knowledge and the necessary tools, contact by your local bike shop or AZUB dealer.

Drum brakes
Sturmey Archer drum brake systems are very reliable and durable. You only need to check the cables and their connection to the brake. You can only adjust the length of the brake lever travel. Be sure that the brake lever does not touch the grip under maximum braking force.

Shifting

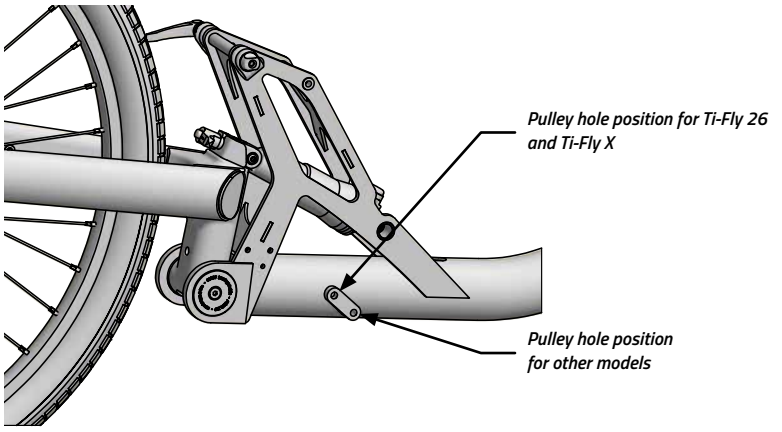
We offer several different shifting systems:
- Shimano or SRAM shifting
- Shimano, Rohloff, Enviolo and Sturmey Archer hubs
- Pinion crankset gearbox
- and others

The service manuals for all shifting systems can be found on their manufacturers' websites.
It is common that after the first 200 km (120 mi.), the shifting cables stretch and need to be readjusted. Your local bike shop should be able to make all the necessary adjustments.
We recommend that you keep all cables clean and occasionally oil them to ensure that the shifting systems function properly.

Chain and Chain Tubes

The chain has to cope with high stress. Because of this, you should maintain the chain and check it for wear. When the chain is worn out, it damages the chainrings, cassette and derailleur. We recommend that you lubricate the chain regularly. How often you lubricate the chain depends on what lube you use, where you ride, if the chain is exposed to water and how far you ride. Some riders clean and lube their chains biweekly, others only lubricate the chain once in a season. If your chain is noisy, then it likely needs to be cleaned and lubricated. When lubricating the chain, you have to clean the chain first, and after the lubricant has soaked into the rollers, wipe the chain side plates dry. Any oil on the outside of the chain only attracts dirt and does not help to lubricate the chain.
Use a chain wear gauge to check the wear on your chain. If the chain is worn out, replace it immediately. Recumbent chains are about 2.5 times the length of the standard chain length sold for traditional bicycles.
Chain tubes protect your legs and trousers from the oil and dirt on the chain. When your chain tubes are worn out, contact AZUB to purchase replacements.

Position of the chain pulley
If you remove the pulley for servicing or thorough cleaning, check its correct position when refitting it.

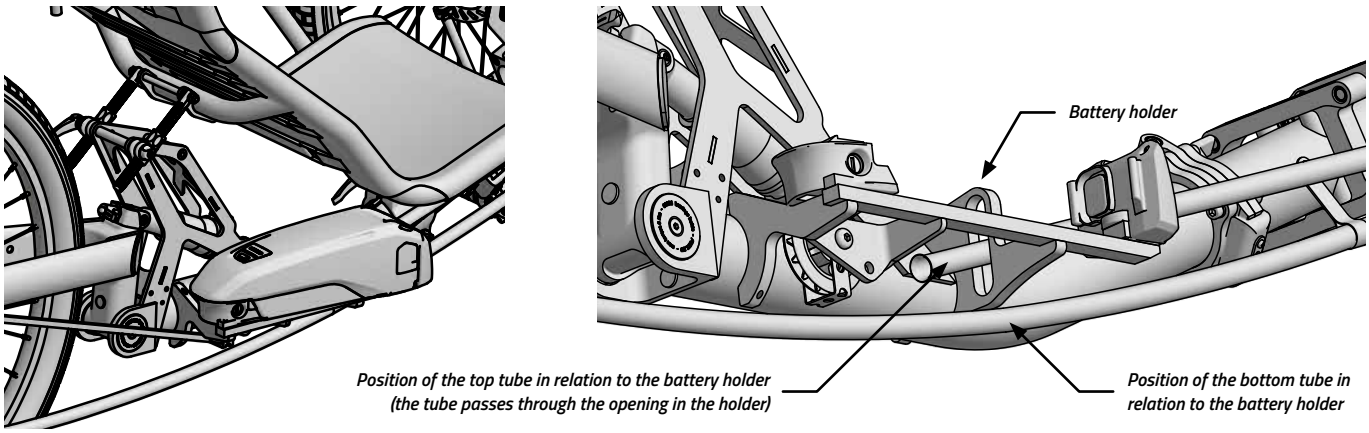


The chain pulley position

Position of the chain tubes

If you are replacing the chain on your trike, or if you receive a trike without the chain fitted, make sure you put the tubes on correctly when fitting the chain. Also, make sure the chain is not twisted in the chain tube.

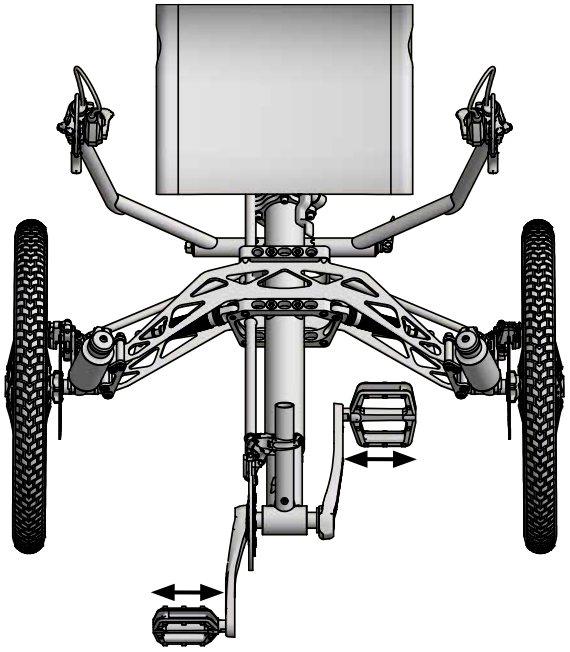
On an e-trike, the top tube must pass through the opening in the battery holder. The bottom tube runs freely below the holder. In the case of gear hubs, the bottom tube is firmly attached to the battery holder.



Position of chain tubes on an e-trike

Bottom Bracket

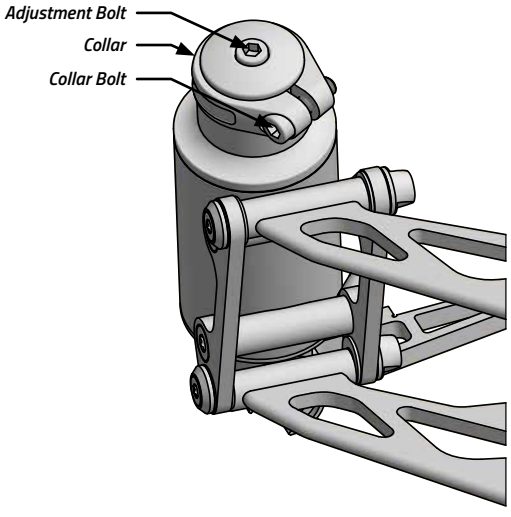
All AZUB recumbents are equipped with sealed cartridge bottom brackets which are maintenance-free. You can check the BB by shaking the pedals, as shown in the picture. If you feel any play, the bottom bracket should be replaced.



Headsets

The kingpins sit in the frame in the headsets. AZUB uses standard semi-integrated A-head 1 1/8″ headsets. The easiest way to check if everything is alright is to hold the brakes and try to rock the trike back and forth. If you feel and see some play between the kingpins and the frame, then the headsets need to be tightened. If you feel some free play in the handlebars, it can be caused by free play in the Steering axle which is also a headset.

When tightening the A-head headsets, you have to loosen the collar first. Then, tighten the screw on the top of the headset until the play is resolved but not so tight as to bind the headset. Retighten the collar and you're done!

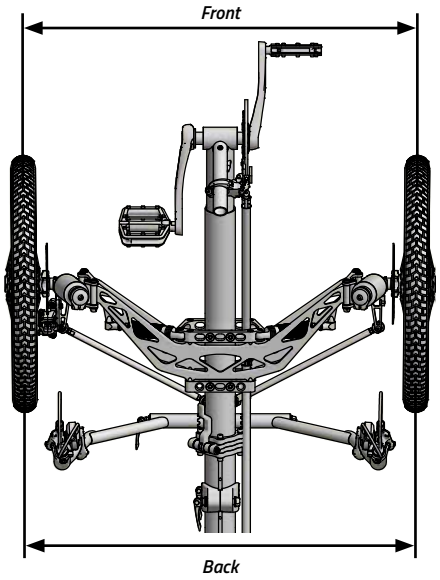


Headset adjustment

Front Wheels Alignment

Uneven or excessive wear on the front tires points to out of spec toe -in. This could be caused by one of the front wheels hitting an obstacle. Before adjusting the toe-in, make sure the track rods are not bent and that the steering rod ends are in good condition. Align the wheels and the handlebars. Use a long ruler or a rod to measure the distance between the inside of the rims at the front of the wheel and then at the rear, both measured at the same axle height. The distance should be the same or up to 2 mm (0.7″), less at the front (toed-in). If the toe-in is out of adjustment, loosen the two lock nuts on one steering rod and rotate the rod (a small rotation gives a fairly large change in track). Tighten the lock nuts when the toe-in is correct.

An instructional video on the front wheel alignment can be found at azub.eu/instructions

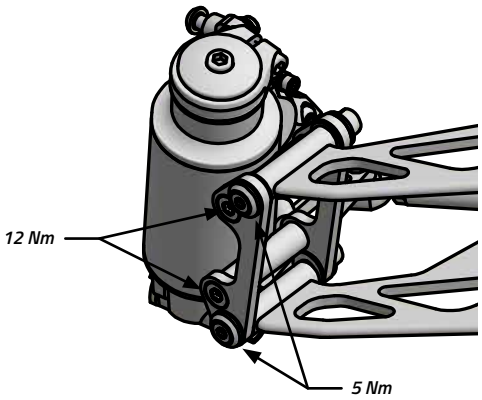


Measuring toe-in

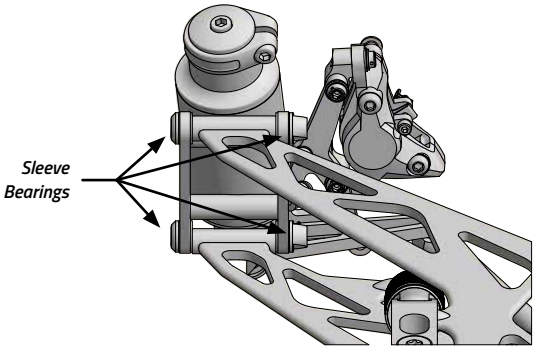
Aligning the Handlebars after Unintentional Twisting

During an impact or careless handling of the trike, the handlebars may twist to the side. When the handlebars are turned to the maximum both to the left and to the right, the distance between the handlebars and seat must be identical. If this is not the case, loosen the screws on the stem on the handlepost. Set the same distance and tighten the screws in accordance with the recommended torque.

Front Suspension (Ti-FLY)



Screws to check for tightness



Sleeve bearings that needs to be checked

Maintenance

- regular inspection of the tightness of the cap screws 5 Nm
- regular inspection of the tightness of the collar screws 12 Nm
- visual inspection of sleeve bearings – check for wear and damage

Instructions for replacing the sleeve bearings can be found at azub.eu/instructions

Rear Suspension (TRIcon & Ti-FLY)

AZUB TRIcon and Ti-Fly frames have a suspended rear wheel. The rear swingarm pivots on sealed bearings and uses a 165 mm air or spring rear shock. A screw with an adjustable clamping lever or a QR near the shock allows easy folding of the swingarm.

Bearings
The rear suspension pivot is equipped with cartridge bearings which require no maintenance. We recommend checking the tightness of the pivot bolt every month. The bearings need to be changed about every 20.000 km / 12,500 miles.

Shocks
Keep your shock clean for maximum longevity. Most rear shocks require special skills to repair or service. Consult their service manuals for proper maintenance. We recommend that you have the suspension checked every year.
Check the shock for signs of damage. Compress and release the shock. If you detect any unusual sounds or if the shock moves without resistance, have it checked by your local bike shop or AZUB dealer.

Pedals

The trike is equipped with classic or clipless pedals according to the customer's specification.

The right pedal is equipped with a right-handed thread, the left pedal with a left-handed thread. The pedal is tightened in the direction of travel and unscrewed in the opposite direction. Each pedal is marked with the right/left direction of the thread.

Classic pedal

When using this type of pedal, there is a risk of the foot accidentally slipping off the pedal and falling under the moving trike with a high risk of injury. We recommend clipless pedals are used.

Clipless pedal
A clipless pedal is fitted with a mechanism allowing a shoe designed for such purpose to attach itself to the pedal. When the footwear fastens in the mechanism, the shoe and the pedal are firmly connected, resulting in better handling and stability.

Before first use, set the tightening torque of the shoe and the pedal. Practice attaching and releasing the shoe from the pedal away from traffic.

Electric Conversion

AZUB trikes may be converted to electric power.
Electric conversion is not recommended for trikes made in and prior to 2017

Converting to an electric trike in AZUB
The conversion will be carried out using the original Shimano STEPS electric kit, with the drive unit located in the cranks. The conversion includes a warranty and a certificate which declares that the electric tricycle meets the conditions for operation on roads.

Converting to an electric trike outside AZUB
The conversion may be carried out using a power unit located in the cranks or in the rear hub, with a nominal power of up to 350 W.
When converting to an electric trike, local requirements for road traffic must be observed.
AZUB accepts no liability for an incorrect installation of an electric conversion kit as well as no liability for any possible damage to the trike and any resulting injury or even death. The responsibility for the installation and operation of an electric conversion kit lies entirely with the owner of the tricycle.

8. Original E-Trike User Guide

Introduction

This part of the manual requires you be completely familiarised with the "Original Trike User Guide".
Neither the manufacturer nor the dealer is liable for damage that arises from improper use.

Overview

EPAC (electrically power assisted cycle)
In our case it is an electric tricycle with an auxiliary electric drive with a maximum output of 250 watts, which provides assistance up to a maximum speed of 25 km/h when actively pedaling. When this speed is reached, the electric drive switches off.
Trikes sold outside the EU may have different specification of the e-assist.

Warning
Only carry out the steps described in the instruction manual if you have the required knowledge and the necessary tools. Otherwise, have the work carried out by a specialist workshop or a dealer.

Symbols on Products
The following symbols are displayed on the packaging of the battery or charger.

Symbol	Description
	This symbol warns that it is necessary to carefully read through the Instruction Manual.
	A designation for electrical devices that must not be disposed of as household or residual waste. Electrical devices with such designation must be taken to suitable waste collection points where environmentally friendly disposal shall be carried out.
	A designation for batteries and storage batteries that must not be disposed of as household or residual waste. Batteries and storage batteries with such designation must be taken to suitable waste collection points where environmentally friendly disposal shall be carried out.
	Designation for recyclable materials that are intended for recycling. Dispose of packaging in accordance with its type. Put cardboard in waste paper and plastic wrapping in recyclable waste.
	Products marked with this symbol comply with all applicable regulations of the European Economic Community.
	Designation for products that may be used indoors only.
	Mains connection 230 V ~/50 Hz protection class II.
	Symbol for direct current (DC).
	Symbol for alternating current (AC).

Description of Electric Drive

The electric trike is equipped with a control unit with the Shimano STEPS or BROSE panel that controls the electric motor. You can choose from several levels of assistance. The level of assistance is variable, adjustable and can be changed by the rider during the ride itself. The assistance is reduced and turned off completely when the rider reaches a speed of 25 km/h (15.5 mph). The trike can be used as normal when the pedal assist system is turned off.

A detailed description of how to control the drive unit can be found in a separate instruction manual. The instruction manual is included in the package and can also be downloaded in electronic form from the manufacturer's website.

Walk Assist

The electric trike is equipped with a walk assist system. Its maximum speed is 6 km/h (4 mph). The lower the selected gear, the lower the speed of assisted walking. This feature is not intended for continuous riding.

Range

Overall range is dependent on various factors. Here you'll find the most important of them:

- Rolling resistance (incorrect tire pressure and using off-road tires may reduce the range)
- Weight (total weight of the trike + rider + load will affect the range)
- Battery status and its age (the longest distance can be ridden with a new and fully charged battery)
- Profile and surface of the road (hilly terrain and unpaved surface will significantly reduce the range)
- The average speed (often start and stop, the average speed will affect the range)
- The weather (headwind, low and high temperature (below +10 °C (50°F) and above +40 °C (104°F)) will reduce the distance you can cycle)
- The level of assistance (higher support means smaller overall range)

Transportation

Find out about specific and regional regulations in your country for transporting and shipping of the storage battery. Observe and follow the manufacturer's instructions for the systems.

Transportation by car

Be careful not to damage the battery by striking and impact. Risk of short circuit and fire!

- **Remove the battery before transporting the electric trike.**
- **Cover the battery contacts to protect them against short circuit.**
- **Store the battery away from sunlight and other sources of heat.**

Transportation by Other Means of Travel

There are special guidelines for transporting bicycles/tricycles with batteries, which are constantly being expanded and updated. The guidelines may vary depending on the means of transport transporting the electric trike.

- **Check in advance with the railway, airline or ferry company about the applicable regulations for the transport of e-bikes/e-trikes.**

Transporting or Mailing the Battery

Lithium-ion batteries transported separately are considered dangerous goods. Undamaged batteries may be transported by private users by road without further regulations.

- **A battery must not be taken on board an aircraft as hand luggage.**
- **Observe the carrier's requirements for packaging and labelling (suitable transport packaging).**
- **The battery must be protected against liquids and short circuit during transport.**
- **Do not use batteries that have suffered an impact or fell. Have them inspected before using them again.**

Safety Notice

Despite following all the safety precautions, the battery can be dangerous, for example if it bursts into flames.
- **In an emergency, act in a way so that you and others are not endangered at any time.**
- **Observe and follow the instruction manuals for the systems.**

The weighted emission sound pressure level (A) on the rider's ears is less than 70 dB (A).

Safety Warning for Use

Risk of accident and injury!
Children or persons who are not legally competent and responsible for their actions or persons who lack experience and knowledge are not authorized and competent to handle the battery and battery charger. They may use them only with the assistance of another authorized and competent person, or after acquiring the necessary knowledge from that person. Otherwise there is a risk of a serious injury due to handling errors and improper use.

Charger Warning

Improper handling of the charger can result in a serious injury caused by an electric shock, in short circuit or fire.
- **Before each use, check the charger, the main cables and the plug for damage.**
- **If you see any signs of damage, do not use the charger!**
- **Use the charger indoors and under supervision.**
- **Only connect the charger to a properly installed outlet that meets the technical specifications of your charger.**
- **Ensure the charger never comes into contact with water or other liquids.**
- **Any repairs to the charger may only be carried out by a specialist dealer.**
- **When charging, place the charger on fireproof material.**
- **Use the charger to charge only the original battery.**
- **Always remove the plug from the socket after using the charger.**
- **Follow the instructions on the charger label.**

Battery Warning

- **Charge the battery only with the original charger.**
- **Keep the battery away from fire and other heat sources and protect it from intense sunlight.**
- **Protect the battery from moisture, never clean it or spray it with liquids.**
- **Do not use the battery if you suspect it is damaged.**

General Measures

If you detect any damage, deformation, odor, leakage, excessive temperature with regard to the battery:
- **Do not use the battery.**
- **In the event of a defective battery, ensure a sufficient supply of fresh air.**
- **Wear protective gloves when touching the battery, wear safety goggles.**
- **Do not breathe in any escaping gases, vapors.**
- **Avoid skin contact with the leaking liquid.**
- **If you can safely remove the battery, remove it and place it in a fireproof, acid-resistant container.**
- **For short-term storage, choose an outdoor fireproof place. Secure the storage location clearly and in a wide area.**
- **Get the battery disposed of immediately by a specialist dealer.**

The First Ride

- Observe the manufacturer's information enclosed with the charger, read the data on the charger label.
- Charge the battery fully.
- Get acquainted with the tricycle, check it, see page 16 of the "Original Trike User Guide".
- Check the battery, drive and cables for signs of damage.
- Check the battery is locked.
- Observe the manufacturer's information on the control units.
- Practice handling the trike with the walk assist.
- Start riding slowly, select the lowest assist on the unit/display to start with.

Key Warning!
Note down the number imprinted on the battery key. If you lose they key, contact your dealer.

Controls

Various drive units are installed in different tricycle models.
• Find out about the drive control before riding.
• Observe and follow the instruction manuals for the systems.
• Ask the dealer to train you to operate the drive.

Switching the Drive on/off
Press the on/off button on the display, controller, or on the battery to switch the drive on and off.

Protecting the Drive from Overheating

Warning about burns.
The drive is automatically protected against damage due to overheating. If the drive temperature is too high, the drive switches off automatically.

• You can prevent overheating, e.g. if you set lower assist when outdoor temperatures are high or on steep climbs.
• If the drive switches off while riding with a charged battery, use the electric trike temporarily as a regular trike to cool the drive. Switch off the assist.
• If the fault is not rectified by cooling, contact the dealer to inspect the trike.

Battery

The following precautions must be observed to ensure rider safety, reliable operation, and long battery life:
• Charge a flat battery immediately.
• Observe the enclosed information provided by the battery manufacturer.
• Particularly high and low temperatures can permanently accelerate the wear of the battery or even damage it.
• If excessive power loss occurs (significantly shorter operating time), have the battery checked by the trike dealer.
• Do not make any changes on the battery yourself.
• If the battery discharges during riding, it is possible to use your electric trike as a regular tricycle.

Protective Feature
The battery or charger is equipped with a temperature control that allows charging only in the temperature range of 0 °C to +45 °C. If the battery is outside this temperature range, charging will cease automatically.

Removing and Installing the Battery
• Switch off the drive before removing the battery. Electronics may be damaged.
• Avoid damaging the battery by dropping it.
• Before use, check if the battery is correctly inserted in the holder and is locked.

Charging the Battery

Warning

Heat, leakage of gases and damage to battery due to incorrect charging
• Do not use or touch the battery and charger if you notice unusual heat, odor, discoloration or obvious damage to the battery.
• Unplug the charger.

Remove the battery from the holder and insert in the charger.
• Only charge the battery in a well-ventilated and dry place.
• Charge the battery under supervision.
• When charging, place the charger on fireproof material.

Maintenance and Cleaning

Warning of injury due to electric shock, short circuit during maintenance and cleaning.
- **Do not touch hot components. Leave the drive and the battery to cool.**
- **Before maintenance or cleaning, remove the battery from the holders on the trike.**
- **Do not clean electrical components under running water or with other liquids.**
- **Do not use high pressure cleaners.**

Checking the Electric Drive System
- Follow the system instruction manuals.
- Check all power cables for damage.
- Check the display for cracks, damage and secure fit.
- Check the control units for cracks, damage and secure fit.
- Check the battery for damage.
- Check the plug-in contacts for correct connection.
- Check the cable bundle and its casing for damage.
- Perform a visual inspection of the auxiliary motor.

Storage

Storing the Battery
If you will not be using the battery for a long time, it is necessary to observe the following storage guidelines:
- Remove the battery from the holder.
- Charge the battery to approx. 60 % of its capacity.
- Store the battery at a temperature of approx. 0 °C (32°F) to +30 °C (86°F) in a well-ventilated, dry place.
- When storing the battery for more than 2 months, recharge the battery to approx. 60% capacity again.
- Store the battery out of the reach of children and animals.

Storing the Electric Trike
If you will not be using the electric trike for a long time, it is necessary to observe the following storage guidelines:
- Store it in a dry room protected from frost and large temperature differences.

Disposal

Do not dispose of electrical devices, batteries or storage batteries in unsorted municipal waste! Store batteries and storage batteries that are no longer needed only in places designated for their collection. Batteries can be handed in at the dealer's as well.

Warranty Limitation for Electric Trikes

Any modifications to the electrical system outside Shimano or BROSE service centers are forbidden.
The use of any third-party devices designed to adjust the maximum speed limiting the assistance of 25 km/h is forbidden.

EC DECLARATION OF CONFORMITY

You can find the Declaration of Conformity in a separate document attached to this manual.

Certificate

You can find the certificate on the penultimate page of this manual.

EPAC Plate

Each electric tricycle has a CE mark on the frame.

9. Important information

Additional Resources

There are recumbent communities and resources such as www.recumbent.news or www.bentrideronline.com which provide comprehensive information from the world of recumbent cycles and host free forums for recumbent riders. These are a great way to connect with the recumbent community. We also recommend you to follow our blog and stories section at www.azub.eu for useful information. You can do so easily by subscribing to our newsletter.

Warranty

The AZUB Bike standard warranty for the original owner of our product is 2 years for the frame, steering and seat components. If the customer completes and submits the included registration form to AZUB Bike, this warranty is extended to 5 years. This warranty covers the frame, steering and seat are free of defective materials and workmanship. This warranty is valid only with the original paint finish and without any modifications.
The warranty for components follows the laws of the country/state where you purchased the bike.
The warranty is not valid for damage due to normal wear and tear, irregular use of the bike or components (includes damage caused by crashes, jumping and other activities for which AZUB trikes are not designed), inadequate care and maintenance, overloading through excess weight, incorrect assembly, modifications to the trike, and failure to follow instructions in this user guide. Warranty is offered to the original owner only and is not transferable.
Some types of trike damage can point to misuse. AZUB Bike reserves the right not to recognize a warranty if the failure or damage hasn't been caused by material or manufacturing defect, and the decision to honor the warranty is at the sole discretion of AZUB Bike. The owner shall be responsible for all shipping costs connected with the repair or replacement of warranted parts. If a warranty is recognized, AZUB Bike will usually consider compensation for reasonable shipping costs associated with warranty claims. If you have a warranty claim, contact your dealer or us! We are proud of our products and our good name, and we will do our best to help you solve your problems with our products.

Register your trike at azub.eu/registration

Liability waiver: Taking part in any activity can result in injury or death. The rider is assuming the risk for any injury and property damage that may result from the use of our product. In no event shall AZUB Bike be liable for incidental or consequential losses, damages or expenses in connection with its products.
You are also responsible for meeting all the legal requirements of the country, state and locality where you are riding your trike. The important areas you need to consider are lights, reflectors and helmet use. Also, the use of an electric version of your trike on cycle paths and/or roads should be considered. You can ask your local bike dealer for information about the legal requirements in your area.

Contact

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688 01 Uhersky Brod
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info@azub.eu
www.azub.eu

Strojírenský zkušební ústav, s.p. (Engineering Test Institute, Public Enterprise)
Certifikační orgán certifikující produkty / Product certification body
Hudcova 424/56b, Medlánky, 621 00 Brno, Česká republika / Czech Republic

CERTIFIKÁT / CERTIFICATE

nařízení vlády č. 176/2008 Sb. a směrnice 2006/42/ES (Strojní zařízení)
Government Regulation 176/2008 Coll. and Directive 2006/42/EC (Machinery)

Číslo: / *Number* **MD-J-01897-21**

Klient – výrobce: *Client – Manufacturer*	AZUB bike s.r.o. Bajovec 2761 688 01 Uherský Brod Česká republika – *Czech Republic*
Výrobek: *Product*	AZUB elektrotříkolka *AZUB Electrically power assisted tricycle*
Typ/Model: *Type/Model*	Ti-Fly 26", Ti-Fly X, Ti-Fly 20", Tricon GR, Tricon 26", Tricon 20", T-Tris 26", T-Tris 20", FAT
Aplikované normy: *Standards applied*	ČSN EN 15194:2019, ČSN EN ISO 12100:2011, ČSN EN ISO 13849-1:2017, ČSN EN 614-1+A1:2009
Podklad pro vydání certifikátu: *Basis of Certificate issuance*	Závěrečný protokol č. 31-10652/JZ ze dne 2021-11-11 *Final Report 31-10652/JZ of 2021-11-11*
Certifikát platí do: *Certificate valid until*	2026-11-11

Strojírenský zkušební ústav, s.p., potvrzuje, že výše uvedený výrobek je ve shodě se základními požadavky stanovenými v příloze 1 a že technická dokumentace odpovídá příloze 7 k nařízení vlády č. 176/2008 Sb. (odpovídá příloze I a VII směrnice Evropského parlamentu a Rady 2006/42/ES). Výsledky přezkoumání technické dokumentace, údaje potřebné k identifikaci výše uvedeného výrobku a závěry přezkoušení jsou obsaženy v závěrečném protokolu. Pravidla pro nakládání s certifikátem jsou uvedena na druhé straně.

Strojírenský zkušební ústav, s.p., Engineering Test Institute, Public Enterprise, confirms that the above-mentioned product is in conformity with the essential requirements set forth in Annex 1 and that the technical documentation conforms to Annex 7 of Government Regulation 176/2008 Coll. (corresponding to Annex I and Annex VII of Directive 2006/42/EC of the European Parliament and of the Council). For the results of the review of the technical documentation, the information necessary to identify the above-mentioned product and the conclusions of testing see the final report. The rules for using the Certificate are specified overleaf.

Použité certifikační schéma:
SZÚ-1a:2020.00 (vychází ze schématu 1a ISO/IEC 17067, založeno na zkoušení a inspekci).

Product certification scheme applied:
SZÚ-1a:2020.00 (based on Scheme 1a of ISO/IEC 17067, which is based on testing and inspection).

Brno, 2021-11-12

STROJÍRENSKÝ ZKUŠEBNÍ ÚSTAV, s.p. CZ

Ing. Pavel Štícha
vedoucí certifikačního orgánu
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