User manual

vanraam
Let's all cycle

Twinny

Twinny Plus

Kivo

Kivo tricycle

CE

Van Raam BV
Aaltenseweg 56
7051 CM Varsseveld
The Netherlands

Version 14.10

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Contact details manufacturer

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Conformity

Van Raam declares as manufacturer that the Tandem bicycles have been produced in accordance with the 93/42/EEC guidelines.

Introduction

This user manual gives important and necessary information about the use of your tandem bicycle.
We ask you to go through the manual thoroughly before using the bicycle.

READ THOROUGHLY

Delivery

- bicycle with possible packaging
- user manual(s)
- possible charger(s), depending on options
- sparekey(s)

Intended usage

The tandem bicycle is designed for normal use on a level and solid surface. The usual bicycle caution should always be taken into consideration. At the same time all safety instructions as described in this manual should be complied with explicitly. Also the local traffic rules should always be complied with.

All other use, including damage or physical injuries due to this, are not the manufacturer's responsibility.

Safety measures

- There should **always** be a responsible supervising person as the main driver of the bike. This main driver is **always** responsible for the safe use of the bike.

- Make sure that no dangerous speed develops when driving downhill and entering tunnels. Brake on time and don't ride faster than 30 kilometres per hour.

- If an electric motor is present on the bicycle: familiarize yourself with the functions of the electric motor. Always pay attention when you turn on the motor and do not be surprised by the sudden behavior of the electric motor. There is a reversing feature present on the Twinny Plus and Kivo tricycle. Practice the reverse function! Please be careful not to switch on the reverse function of the electric motor inadvertently.

- Please ensure you check each time before the bicycle is used, the bike must be in good condition. Before **each** ride, check that the operation of the brakes is working correctly, the lights are functioning well, and make sure there is enough air in the tires.

- Regularly check the wheels, and ensure that the handle bar and the seat is fixed tightly and also that all screw connections are tight enough.

- Only use the bicycle on a **solid and level surface**.

- Make sure that wide trousers or lose hanging clothing don't get caught in the chain, spokes or pedals.

- Do not use a pressure washer or a steam cleaner for the cleaning of the bicycle.

Extra attention is essential if a child is using the bicycle!

- **Never** leave a child alone with the bicycle without supervision!

- **Always** have the child wear a bicycle helmet! Make sure the helmet fits correctly!

Load
The maximum load should not be exceeded. See information in the index of technical details on page 26. By permitted load we mean the total load, including the load on the luggage rack.

Make sure that the permitted load on the luggage rack is not exceeded.

Damaged or worn out parts
The replacement and repair of parts (frame, forks, illumination, brakes, drive mechanism and the handle bars) should **always** be performed by a dealer. If not, the guarantee ceases to be valid and you will be personally responsible in the event of possible damage.

Specific safety parts should **always** be replaced by new parts!

Delivery inspection

Check the delivery immediately after receiving it. In the event of damage or incomplete delivery we ask you to contact your dealer immediately.

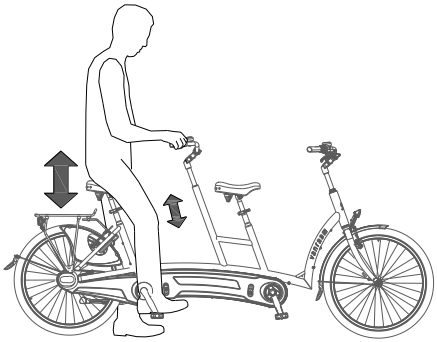
Adjustment of the bicycle

Before using the bicycle, adjust it to the measurements of the cyclists. This is of great importance, especially the saddles and the handlebars.

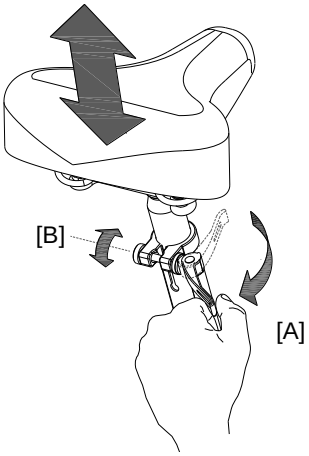
If an optimal adjustment of the bicycle, as defined in the instructions, is not possible, you can contact your dealer for a fitting solution.

The brakes are correctly adjusted as standard and can only be adjusted by the dealer during periodic maintenance.

Saddle height
When the cyclist is sitting on the bicycle and can put a foot on the pedal in the lowest position, the saddle height is correct. Adjust the saddle height in such a way that the leg is stretched but relaxed in that position.



To adjust the saddle:
1. Open the quick-clamp [A].
2. Slide the saddle to the correct height.
3. Close the quick-clamp.

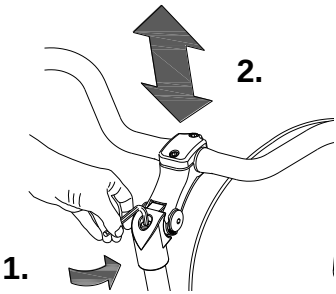


Make sure clothing cannot get caught in the clamp!

If the clamp closes too easily, the clamping force is too low. In this case, open the clamp and tighten the nut (B) a bit more. If a lot of force is necessary to close the clamp, the nut should be loosened slightly.

Do **not** pull out the saddle pin **further** than the marking. The tube will not go into the shank deep enough and will risk coming off. This can lead to serious injuries.

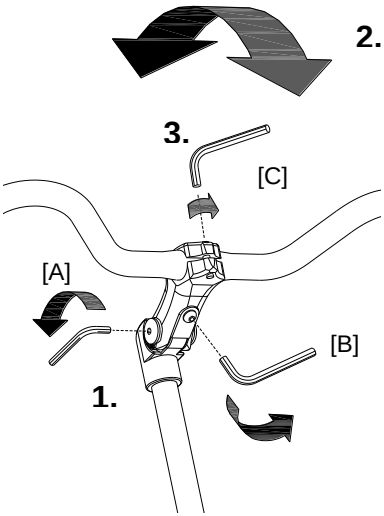
Handle bar height
The height of the handle bars affects the comfort of the ride. It determines the pressure on the hands and the position of the back. Determine your own most comfortable height by using the bike.



To adjust the handle bar:
1. Loosen the screw with an Allen wrench a few turns.
2. Slide the handle bars to the desired height and tighten the screw firmly again.

> Do **not** pull out the handle bars **further** than the mark. Otherwise the tube will not be deep enough in the shaft and will risk coming off, which can lead to serious injuries.

Position handle bars
You can tilt the handle bars. This influences the distance from the handle bars to the upper body. Determine your own most comfortable position by using the bike.

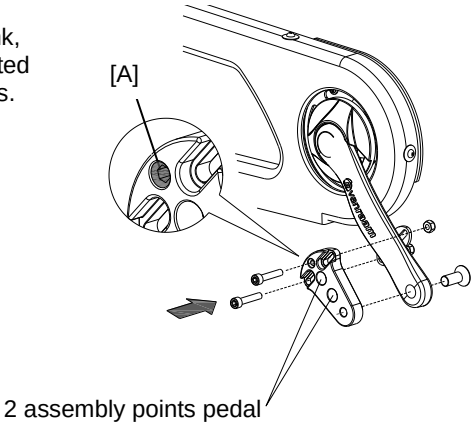


To tilt the handle bars:
1. Loosen the screws [A] and [B] with an Allen wrench a few turns.
2. Place the handle bar in the wanted position and turn the screws tightly again.
3. Turn screw [C] with an Allen wrench a few turns. Place the handle bar in the correct position (straight) position and fix the screws tightly again.

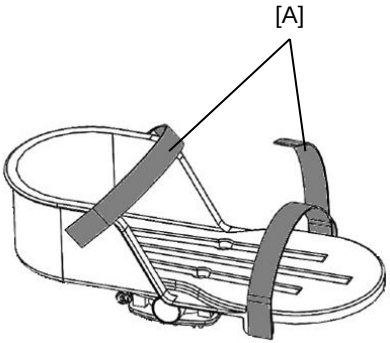
Accessoires

Depending on your order, you can use the accessories as described below.

Crank shortener
The crank shortener is fitted to the crank, as illustrated. The pedal can then be fitted into the crank shortener at two positions. With the socketed screw (A) the crank shortener should be aligned with the crank.



Foot support
The foot support is fitted to the pedal with a balance block. First the pedal spreader must be adjusted.

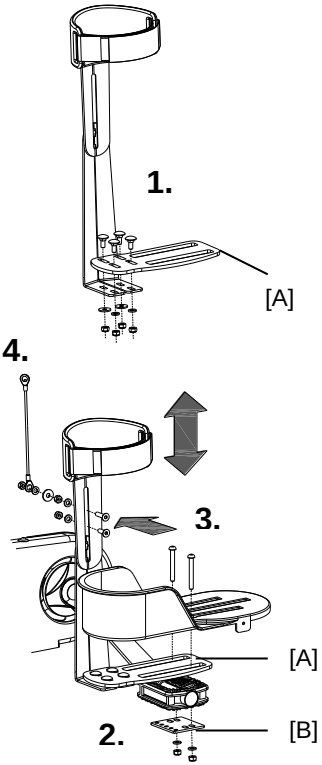


Lower leg support

To fit the lower leg support:

1. First fit the lower leg support to the metal plate (A).
2. The lower leg support is then fitted to the foot support. Make sure that plate (B) is under the pedal and plate (A) is between the pedal and the foot support.
3. Adjust the height of the lower leg support in such a way that it matches the lower leg of the cyclist.
4. Fit the elastic to a point on the frame, so that the lower leg support stays upright in stationary position. Determine by yourself which point is best.

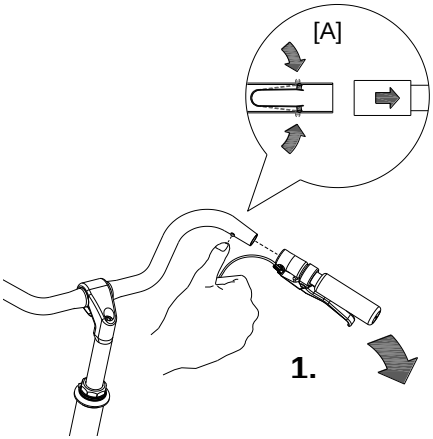
Use the Velcro to secure the lower leg.

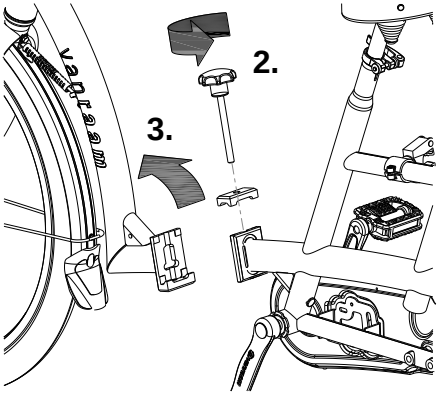


Optional dividable frame (not a standard option with the Kivo)
The bicycle can be divided into 2 parts.

To divide the frame:
1. Put the bicycle on the standard and remove the grip from the handle bars. Push the pellets of the small spring (A) so that the grip can be removed from the handle bars.
2. Loosen the knob.
3. Remove the front part out of the coupling.

To assemble the bicycle again, follow these steps in reverse order.

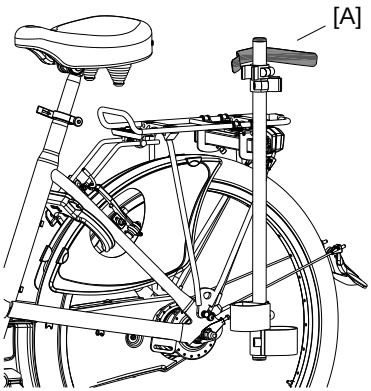




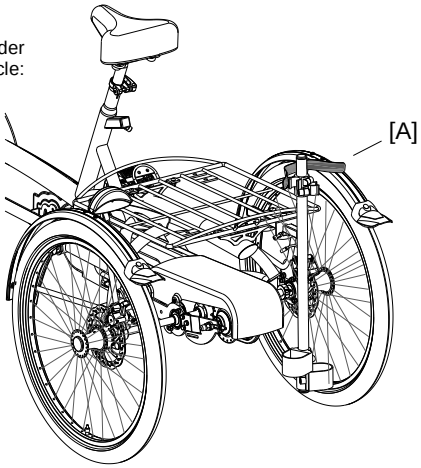
Walking-stick holder

The walking-stick holder is fitted under the luggage rack. The walking-stick should be fastened with Velcro (A).

Walking-stick holder
Twinny and Kivo:



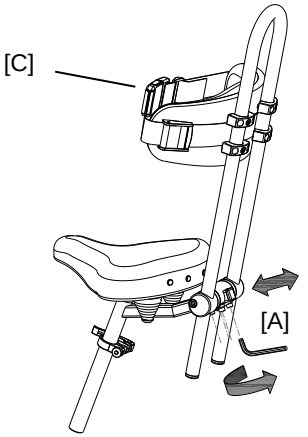
Walking-stick holder
Twinny Plus and Kivo tricycle:

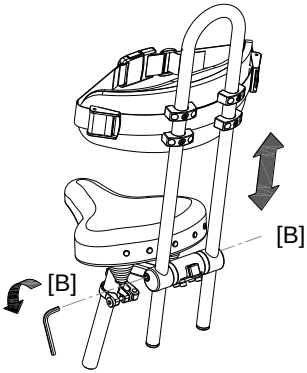


Back support
Set the correct depth, by loosening the four bolts [A] with an Allen wrench, moving the handrail to the correct position and then tighten the screws again.

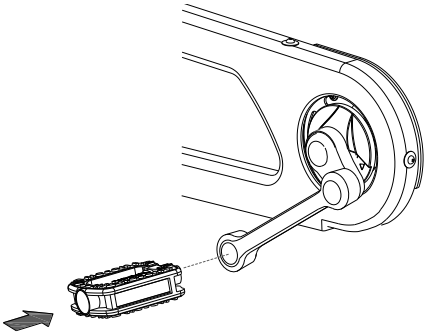
Then set the correct height by loosening the two bolts with an Allen wrench [B] so it can turn, shift the arms into the correct position, and then tighten the screws again.

The back support can be fitted with a belt (C). Use the fastening device to open and close the belt.

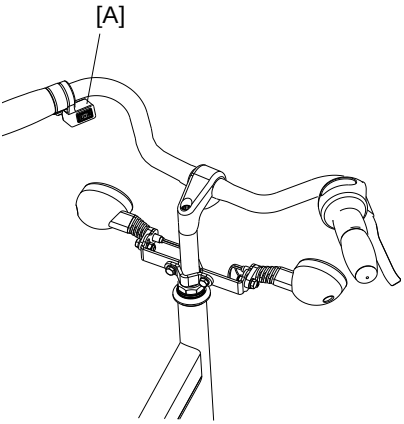




Eccentric crank
The bicycle can be fitted with an eccentric crank on the left and/or right side.

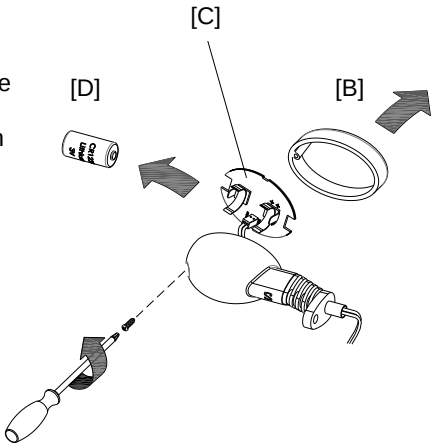


Flashing light system
To use the flashing lights press the switch to left or right.

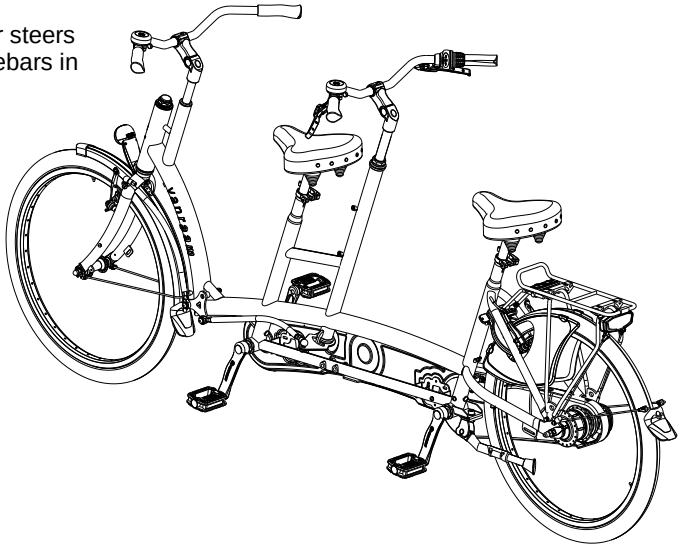


The turn indicators work on batteries located in the two front lights.
To replace the batteries, turn the screw on the cap and take the orange cap [B] away. Then remove the PCB [C] from the holder. You can now replace the battery [D] .

This is a 3-volt lithium battery, CR123A.

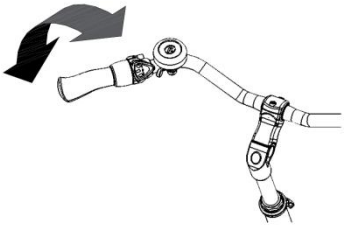


Rear steering
The person in the rear steers the bicycle, the handlebars in the front are fixed.



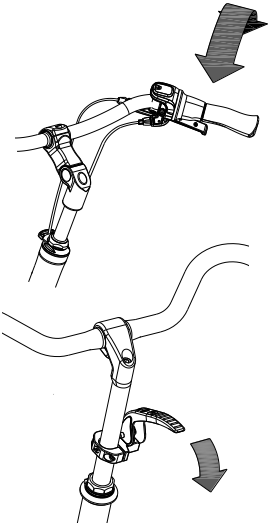
Speed hub co-driver
The main driver can adjust the co-biking of the co-driver with the speed hub. There are two positions:

1. The pedals of the co-driver are moving together with the pedals of the main driver. The co-driver has to cycle also.
2. The pedals of the co-driver move independently of the pedals of the main driver. The pedals move free and the co-driver can not cycle.



When steering from the rear, there is a third position. In that position the pedals of the co-driver move independently of the pedals of the main driver. The co-driver can cycle along independently.

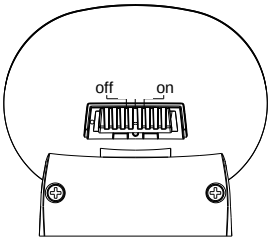
Gears
Your bicycle has 8 gears.
The gears are used by turning the grip. **Do not use the pedals** when turning the grip.



Parking brake
Always use the parking brake if you park the bicycle and leave it behind.

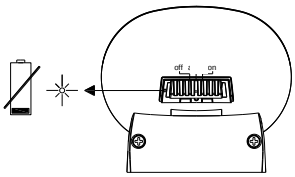
If you are using the Twinny Plus and Kivo tricycle, use the parking brake when you get on or off the bicycle.

Lighting
You can switch the lighting on and off manually.

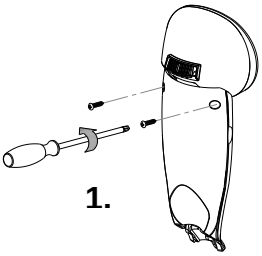


Headlight
The headlight has a switch (slider) 2 positions: **Off-On.**

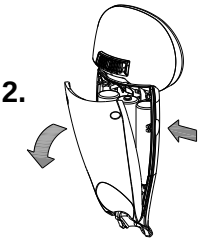
Replacing batteries
The headlight works on batteries. When the batteries are almost empty, the headlight starts flashing a red light. Follow these steps to replace the batteries.



1. Remove the two screws at the back side of the front light.

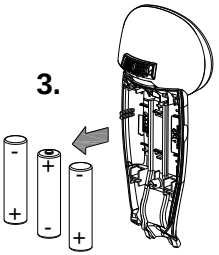


2. Remove the rear cover by using your thumb and index finger on the spot of the cavity in the side of the front cover by pressing on it.

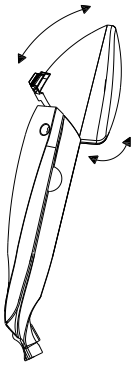


3. Replace alkaline batteries (1.5V - 1500mA) and replace the rear cover.

Batteries cause pollution. Always follow the local disposal rules.



Setting up of headlight
Adjust the angle of the headlight so that the centre of the light beam is approximately 10 meters in front of the bicycle.



Rear light

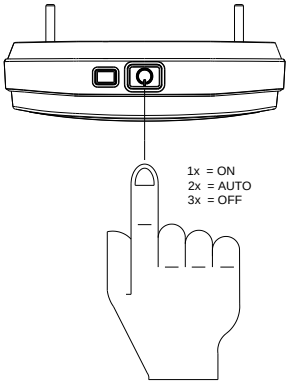
The rear light has three options which you can choose by pressing the button repeatedly: **On-Auto-Off.**

The setting is as follows:

*Press **1x**: light is on*

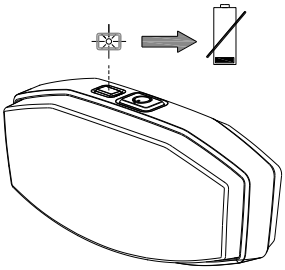
*Press **2x**: lighting is automatic*

*Press **3x**: light is off*

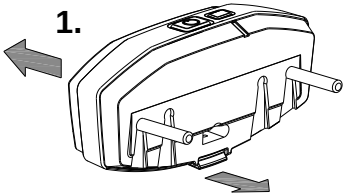


In the "On/Off" mode, the rear light can be switched on or off manually.

In the "Auto" mode, the taillight automatically goes on and off using light and motion sensors. If there are more than several minutes when no movement is detected, the light goes off automatically.

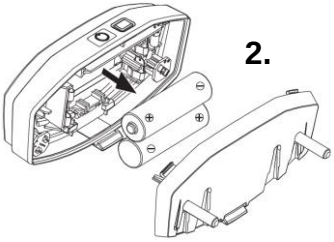


The taillight is battery operated. When the batteries are almost empty, a red light flashes on top of the rear. Follow these steps to replace the batteries



1. Remove the cap from the holder by pressing the tab in the bottom.

2. Replace alkaline batteries (1.5V - 1500mA) and replace the rear cover.



Batteries are cause pollution. Always follow the local disposal rules.

Check before every ride:

- the brakes (including the parking brake)
- the tyre pressure
- the lighting
- that all parts are secure
- that the battery is fully charged (optional)

Contact your dealer and do not use your bicycle if you identify any irregularities!

As with all mechanical parts, the bicycle is subject to wear and tear and high loading. If a component fails, it can lead to very dangerous situations. This can lead to damage or injuries to the user of the bicycle. Any form of cracks, scratches or change of colour in load bearing parts of a component indicates that the component must be replaced.

Important safety points for the cyclist

- Go very carefully during the first ride.
- When riding the bicycle hold both hands firmly on the handle bars and feet on the pedals.
- Test the riding style of the bicycle on rough ground at moderate speed. This
- way the cyclist learns how to react to unexpected movements of the bicycle and the handle bars during use.
- Small obstacles should be cycled over with appropriate speed.
- Obstacles higher than 5 cm should be avoided.

Extra safety points for the Twinny Plus and Kivo tricycle

The tricycle gives a very different ride experience than a bicycle with two wheels!

Practice, in particular, with bends and braking, because a tricycle can react contrary to what you would expect. It may happen that the back wheel comes off the ground on the inside when going round a bend. To avoid this the rider leans towards the inside of the bend with his body.

If there is an electric motor on a bike: you must train with the acceleration function and reverse functions. Be careful that the acceleration mode or reverse mode are not unintentionally started while using the bike, For example, at traffic lights the reverse function can accidentally be activated and the bicycle reverses, Be careful.

Technical details

	Twinny	Twinny Plus	Kivo	Kivo driewiel
Frame height (cm)	53	53	A 53 V 30	A 53 V 30
Length (cm)	259	261	244	246
Width (cm)	66	75	66	75
Boarding height (cm)	A 44 V 37	A 45 V 37.5	A 43 V 36	A 45 V 36
Front wheel	26“	26“	20”	20”
Back wheel	26“	24“	26”	26”
Weight (kg)	Ca. 35 kg	Ca. 45 kg	Ca. 38 kg	Ca. 48 kg
Max. load luggage rack (kg))	20	20	20	20
Total max. load (kg)	260	260	240	240
Brakes, front	Hand brake	Hand brake	Hand brake	Hand brake
Brakes, back	Hand brake or back-pedal brake	Hand brake or back-pedal brake	Hand brake or back-pedal brake	Hand brake or back-pedal brake

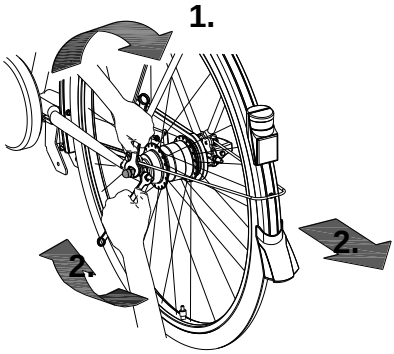
Maintenance and adjustments to be done by owner

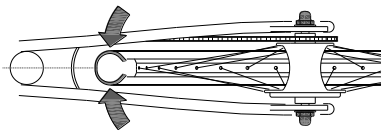
Below you can find the instructions for maintenance and adjustments that you can do yourself on a regular basis, which will keep your bicycle in top condition.

The correct tension of the chains
There are two chains on the bicycle. The chains should not be too tight. They should hang loose. Without effort you should be able to move the chain up and down, half a centimetre approximately.

Chain Twinny en Kivo:
To keep the chain tension correct, the back wheel axle is adjusted. Follow the instructions below to adjust the chain tension:

1. Slightly loosen the nuts of the back wheel axle, so that the back wheel can move backwards and forwards.
2. Tension the nuts on the two chain-tensioners, so that the wheel slides backwards and the chain gains tension. Do this is such a way that the chain hangs loosely, like described earlier.
   Note: Tension the nuts the same amount of turns, so that the wheel is straight and positioned in the centre of the frame, as illustrated. Not to the left or right, see figure [A].
3. Slightly tighten the nuts of the back wheel axle.
4. Check whether the chain tension is correct and whether the wheel is straight and in the centre of the frame.
5. Tighten the nuts thoroughly.

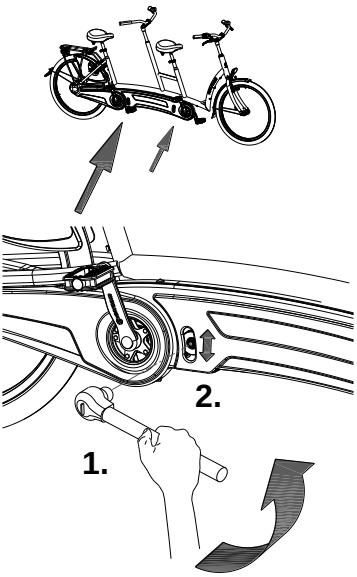


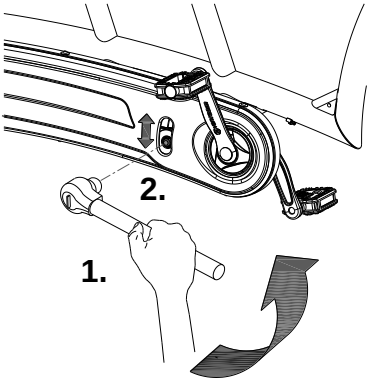


[A]

Chain Twinny (Plus) and Kivo (tricycle):
To keep the chains on the front of the bicycle tight, secure two chain tension wheels on the bike. Follow the instructions below to adjust the chains to the correct tension so the chain tension wheels do not become loose:

1. Loosen the cap nut a few turns.
2. Move the chain tension wheel, so that the chain is under light tension, as described above.
3. Tighten the cap nut again.





Cleaning
The frame of the bicycle can be cleaned with a damp cloth. For lightly soiled areas, you can use a mild detergent. The wheels can be cleaned with a damp brush with plastic hairs (not a wire brush!) The grips and the saddles can be cleaned with mild soap and water.

Do not use a pressure washer or a steam cleaner!

Inspection of the bicycle
After 200 kilometres or after a period of 2 months the bicycle should be inspected. Check the brakes, the illumination and the spokes. Also check the tyre tread depth. This should be at least 1 mm. Worn out tyres or possible faulty parts should be replaced.

Also check the parking brake. With the parking brake pulled up, the bicycle should not ride away with the cyclist.

The right lubricant
The chains should be cleaned and maintained at regular intervals (every 3 months approximately). Only use special chain grease or Tevlon spray. This is the only way to make sure that the chain will run smoothly, will stay water resistant and will not rust. Wipe the chain with a cloth, treat it with grease or spray and remove any excess lubricant with a rag. Other parts should not be treated with a lubricant.

Checking the rim
Due to the combined action of the brake and the rims, not only the brake lining but also the condition of the rim is important. For this reason the rim should be checked at regular intervals, for example when you inflate the tyres. The presence of fine cracks in the spoke punches or deformation of the rim when there is higher air pressure, indicate more serious wear and tear. In that case the rim should be replaced, because it can lead to loss of brake function or even.

Repairs and maintenance to be done by dealer

It is recommended that the bicycle has a yearly inspection carried out by the dealer. In the event of technical trouble or faults, the bicycle should be taken to the dealer for repairs **immediately**.

The replacing of safety-related components (especially frame, brakes, illumination, handle bars, front fork and actuation) should be performed by the dealer.

If you still decide you want to replace components yourself, you are responsible for damage or harm due to incorrectly fitted components.
Only use **original** spare parts, which you can buy at you dealer. If requested the dealer will make the necessary information on repair and maintenance available.

Disposal

If you want to dispose your bicycle, contact your dealer. You can also contact the local waste disposal company. They will dispose the bicycle according to the regulations of your town.

Handover/sale to a new owner

When you hand over your bicycle to a new owner it is important that you also hand over all necessary technical documentation so that the new owner can use the bicycle safely.

Guarantee

The guarantee is valid for all faults in the product, which are proven to be caused by material or manufacturing error.

For our bicycles we give a guarantee of 5 years on the frame and the front fork. For the paint, all accessories and other parts (except wear parts) we provide a 2 year guarantee, as legally regulated.

Beware!
The guarantee as well as the product liability in general expires if the instructions stated in this manual are not followed. This is also the case if unauthorized maintenance is carried out or if technical changes or additions are made without permission of Van Raam.

Frame number

The frame number is printed on the sticker.
This sticker is located on the frame.
An example is shown here.

The position of the sticker:

Please fill in the details of your bike:

Date	. . - . . - . . . .
Manufacturer	Van Raam
Type of bicycle	
Frame number	
Key number	