



G1 Owner's Manual

August 2015





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1 WARRANTY

The warranty applies only to a Gocycle purchased new from KKL or purchased new from a KKL-approved reseller, and coverage commences from the original date of purchase by the original end user/owner. Any warranty claim must be made through a KKL-approved reseller or directly through KKL. Before a claim can be processed, the product must be registered with KKL through online registration at www.gocycle.com/service. Proof of purchase is required.

KKL warrants the magnesium frame and wheel components of each new Gocycle to be free from defects in material and workmanship for five years. This does not include normal wear and tear.

Warranty coverage on all other components is one year.

Warranty does not cover improper assembly or improper user maintenance.

Wear items such as tyres, tubes, brake pads, handlebar grips, or cables, are not covered under warranty.

The warranty does not cover normal wear and tear, including corrosion, rust, hairline cracks in paint, chips in paint, water damage, the results of fatigue, and any damage, failure or loss caused by accident, misuse, neglect, abuse, theft or failure to follow instructions or warnings in the Gocycle Owner's Manual. Fatigue damage is a symptom of the frame or component being worn out through normal use. It is the owner's responsibility to inspect his/her Gocycle in accordance with responsible practice and the recommendations outlined in the Gocycle Owner's Manual.

All warranty services must be performed by a Gocycle Service Centre. Warranty service includes the costs of parts and labour, but does not include the cost of shipment, packaging or transportation to or from a Gocycle Service Centre. KKL will endeavour to complete the warranty service within 10 working days from the time of recorded receipt of the item(s) at a Gocycle Service Centre to the time of the item(s) being ready for dispatch or collection from the Gocycle Service Centre.

KKL will have the option of either repair or replacement at no charge for a defective product, or repayment of an amount equal to the purchase price of the product. In the event KKL elects to replace a defective frame, a new frame of equal or greater value will be provided. The new frame may not be the exact model purchased.

If you elect to repair a defective product yourself or use the services of a KKL reseller or any other party other than the Gocycle Service Centre, or if you use a replacement part not supplied by KKL, KKL will not be liable for any damage, failure or loss caused by the use of such unauthorized service or parts and the warranty will be void.

Disassembling any part of the Gocycle beyond that which is shown in the Gocycle Owner's Manual will void the warranty of that item and any other affected items. KKL reserves the right to determine what components are affected by such disassembling.

Prior to KKL dispatching any replacement item, the affected frame number must be provided to KKL.



2 GOCYCLE FRAME NUMBER

Your Gocycle comes with a unique identifier called a frame number. The frame number, along with bar code and required safety standards codes, is positioned on the Gocycle as shown below:



Figure 2-1: Gocycle Frame #000301



3 DISCLAIMER, COPYRIGHTS AND TRADEMARKS

3.1 *Disclaimer*

The specifications information and performance of the Gocycle and other products manufactured under license granted by Karbon Kinetics Limited and featured in this document may change without notice. Since the use of this information and the conditions by which the products are used are beyond the control of Karbon Kinetics Limited, it is the obligation of the buyer and/or the rider to determine the correct and safe selection and settings and conditions of use of the products and to periodically check the products for secure and proper operation. To the extent that the law permits, any liability which may be incurred as a result of the use or future use of a product manufactured or sold under license granted by Karbon Kinetics Limited is limited to the cost of repairing or replacing the failed product or component at the discretion of Karbon Kinetics Limited, either within, or outside of warranty periods, and does not extend to any loss or damage which may be caused as a consequence of misuse or failure of the products. Damages to the product, other property or any persons are the responsibility of the buyer. By purchasing this product supplied by or manufactured under license granted by Karbon Kinetics Limited, you are stating that you have read this disclaimer and agree to hold Karbon Kinetics Limited, its owner/s and any of its employees or directors free from all liabilities, and agree that you are using and operating the product at your own risk, and that no warranties or guarantees are made by Karbon Kinetics Limited, expressed or implied, on performance or operation.

3.2 *Copyright Notice*

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3.3 *Trademarks*

Gocycle®, PitstopWheel®, Cleandrive® and Magflow® are registered trademarks of Karbon Kinetics Limited.

Gocycle-to-Work™, EmpowerPack™, Vgonomic™ Adjustment, Lockshock™ and Shocklock™ are trademarks of Karbon Kinetics Limited.

All trademarks and the Gocycle logo may not be used without the prior written approval of Karbon Kinetics Limited, a United Kingdom Registered Company Number 4357956.



4 SAFETY

4.1 *Intended Use*

Gocycle is an electric bicycle developed with responsible professional customers and their families and friends in mind. The design and build contemplates commuting usage and/or simple riding context in fair weather and at speeds relevant to safe and appropriate travel in an urban environment. Where applicable, the product has been tested to meet or exceed minimum requirements outlined in EN 14764, BS 6102 and North American Bicycle Standards and has CE certification on the battery pack, charger, and front motor fork electronics. Abusive riding styles or inappropriate use will invalidate any warranty protection offered in this agreement.

The Gocycle, including its associated KKL products, is intended as a power-assisted bicycle for sensible use by physically competent consumers. If you have any concerns or doubts about your use or enjoyment of such a product due to illness or recovery from treatment for illness, you should consult your doctor regarding the suitability of the product for you in the light of any medical condition under consideration or treatment by such experts. In the event that you are the user of an implanted medical device such as a pacemaker or defibrillator, you agree to seek appropriate advice from the manufacturer of such device prior to the usage of KKL products.

4.2 *Maximum Design Limit: Rider and Luggage Not to Exceed 100kg (220lbs)*

WARNING! This product has been designed with a maximum weight limit of 100kg (220lbs) for the rider, clothing, and all luggage. Do not exceed this weight limit at any time. Riding or even sitting on the Gocycle while stationary with weight exceeding this limit will void all warranties and cause the product to be unsafe for operation.

4.3 *Limited Life Span*

WARNING! Bicycles have a limited life span for safe operation.

As with all mechanical components, bicycles' components are subject to wear and high stresses. Different materials and components may react to wear or stress fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail, possibly causing injuries to the rider or even death. Any form of crack, scratch or change of colouring in highly stressed areas indicates that the life of the component has been reached and it should be replaced before any further use. Any unusual or abusive riding style, such as jumping or excessive speed and braking, can accelerate wear and fatigue of components to the point where premature and sudden without warning failure of the component may occur.

See section 1.1 for parts of the Gocycle that require visual inspection from time to time.

4.4 *Attaching the Front and Rear Reflectors*

WARNING! Never ride a bicycle without fitted front and rear reflectors that meet or exceed the national standards of the territory in which it is being ridden. In most countries, riding a bicycle without front and rear reflectors is illegal.

Gocycle is shipped with front and rear reflectors in the 'small parts bag'. Locate these reflectors and the mounting accessories and attach them as shown in Section 6.



4.5 *Fit Front and Rear Lights if Riding in Low Light Conditions*

WARNING! Never ride a bicycle in low light conditions (such as when 1 automobile driver in 20 would consider it appropriate to have headlights on) without front and rear lights fitted and 'on' (illuminated) that meet or exceed the national standards of the territory in which it is being ridden.

We recommend that you consult the relevant national safety body or a reputable cycle dealer on what the minimum recommended lighting requirements are in your particular country or region.

For reference, Gocycle has a 34.9mm diameter seat post for the rear light strap. You can fit the front light to the handlebar or the vertical stem tube (also 34.9mm diameter) if required. We recommend that you choose a light with a variable length strap mounting system. We recommend the following safety and tail light accessories for the Gocycle (available for purchase at www.gocycle.com):

- Front safety light: CatEye HL-LD130
- Rear light/reflector: CatEye TL-LD500

Ensure that rear lights/reflectors are not obstructed by the rider's clothing.

4.6 *Wear a Helmet*

WARNING! Never ride a bicycle without wearing an approved helmet. Serious brain damage can occur if you fall off a bicycle and you are not wearing a helmet. Be smart and wear a helmet when riding.

4.7 *'No-Hands' Riding*

WARNING! Never ride a bicycle without both hands holding and in control of the handlebar and steering. Riding without both hands holding the handlebar can cause a bicycle to become unstable and result in serious injury or even death.

4.8 *Wet Weather Riding*

Under wet conditions, the stopping power of your brakes (as well as the brakes of other vehicles sharing the road) is dramatically reduced, and your tyres will not grip nearly as well. This makes it harder to control speed and easier to lose control.

WARNING! Wet weather impairs traction, braking and visibility, both for the cyclist and for other vehicles sharing the road. The risk of an accident is dramatically increased in wet conditions.

To make sure that you can slow down and stop safely in wet conditions, ride more slowly and apply your brakes more gradually than you would under normal, dry conditions.

4.9 *Tools Required For Maintenance (No Tools Required for Assembly)*

- Headset: 40mm flat wrench, 1.5mm Allen key
- Stem height: M4 Allen key
- Handlebar stem (if your model has a bolted stem to handlebar): M4 Allen key
- Fork quick-release: M6 Allen key
- Front and rear brake callipers: M6 Allen key
- Controller: M4 button Allen key
- Seat clamp: M5 Allen key



- Bottom bracket collar: M4 Allen key
- PitstopWheel® quick-releases: M4 Allen key
- Rear hub bearings: (2) 14 mm flat wrenches
- Front mudguard: M4 button Allen key
- Rear mudguard: Phillips head screwdriver
- Front and rear reflectors: Phillips head screwdriver

4.10 Pre-Ride Checklist

You must be able to adhere to all items in the pre-ride checklist below within 10 minutes prior to riding a Gocycle.

Unless you can answer yes to ALL of the questions in this section of the owner's manual, do not attempt to operate your Gocycle. The consequence of operating your Gocycle without first answering yes to ALL of the questions in this section is serious injury or even death. Be safe and responsible and do not ride your Gocycle unless you can answer yes to ALL of the questions in this section.

1. I have read this owner's manual completely.
2. I understand this owner's manual and the instructions contained in it, and I understand that serious injury or even death may occur if I do not carry out the instructions in this owner's manual with at least average competence. When in doubt, I will seek clarification on the instructions and warnings from the manufacturer.
3. The weight of my luggage, clothing and person is not more than 100kg (220lb) combined in total.
4. I have never been injured to the extent that I have received compensation for my injuries from a manufacturer or retailer or designer of a bicycle component or a complete bicycle or electric powered two-wheeled vehicle.
5. If you answered NO to question 4, you may be more prone to injury from riding a two-wheeled vehicle than the average person or you may have an unsafe or abusive riding style that imparts higher than normal stresses onto the bicycle that can cause premature and unexpected failure. **DO NOT UNDER ANY CIRCUMSTANCES RIDE THE GOCYCLE. SERIOUS INJURY OR EVEN DEATH MAY RESULT.**
6. I understand that Gocycle is an electric powered bicycle and may require new and different skills to ride it safely. (If you are unsure of the new and different skills required for safe riding of an electric powered bicycle, you should not ride this product and should consult an electric bicycle specialist in order to gain the necessary skills to ride this type of product.)
7. I have a valid automobile driving license in the country, state, or region in which I will operate the Gocycle.
8. I confirm that the Gocycle has not been involved in a collision of any kind or has been subject to abusive riding such as being ridden into, up or off a curb.
9. I understand that riding a bicycle on paved streets in the presence of cars, trucks or motorcycles is potentially life threatening, dangerous, and could result in serious injury or death.
10. I always ride wearing an approved helmet and eye protection.
11. I have fitted the Gocycle with approved front and rear reflectors for the country of operation, and if light is poor, I have fitted the Gocycle with approved front and rear lights. I have checked that my clothing, such as a jacket, does not cover the lights or reflectors while I am riding.
12. I have ridden a bicycle competently and safely within the last six months.
13. I have not sustained injuries that required professional medical attention as a result of riding a bicycle.



14. My senses of sight, sound, speech, judgment and reaction time are not impaired in any way, such as but not limited to the influence of alcohol or drugs.
15. It is not raining to the extent that standing water or puddles are visible on the road.
16. There is no chance of ice being on the roads.
17. I have checked and can confirm all of the following points:
 - a. All six wheel quick-release levers are in the closed position as shown in Figure 5-34.
 - b. The safety lock pin for the handlebar stem adjuster is fully engaged in the steerer tube and you have confirmed this by performing the procedure described in Figure 5-6, and the quick-release levers are fully closed as shown in Figure 5-10.
 - c. The safety lock pin for the fork is fully engaged and you have confirmed this by performing the procedure described in Figure 5-26, and the quick-release lever is fully closed as shown in Figure 5-27.
 - d. The handlebar stem height safety lock pin and circlip are fully engaged as shown in Figure 7-6, and the screw that fixes the upper and lower handlebar stems is tightened to a minimum of 6Nm torque.
 - e. The tyres are inflated with air at a pressure of 20-60psi, but not more than the maximum pressure rated on the tyre sidewall.
 - f. I have checked which brake lever operates the front wheel brake and which brake lever operates the rear wheel brake.
 - g. The brake levers cannot be made to touch the handlebar as shown in Figure 9-4.
 - h. I do not feel any loose joints or connections on the Gocycle.



5 RECOMMENDED ASSEMBLY SEQUENCE

5.1 *Unpacking*

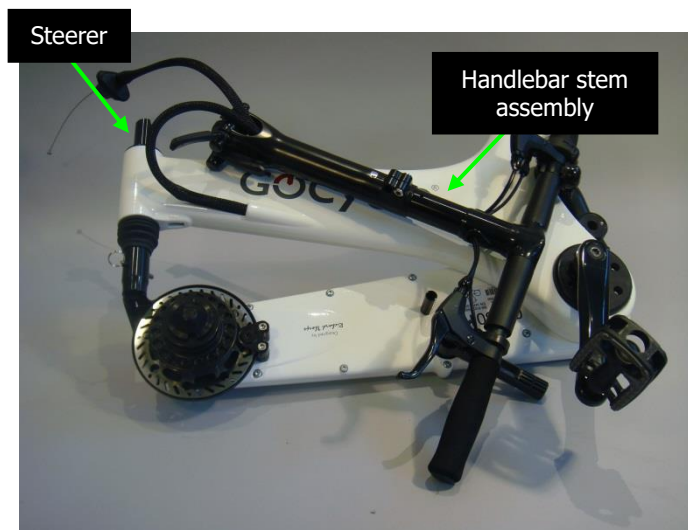


Figure 5-1

Start with main frame assembly as shown.

5.2 *Fitting the Handlebar Stem*



Figure 5-2

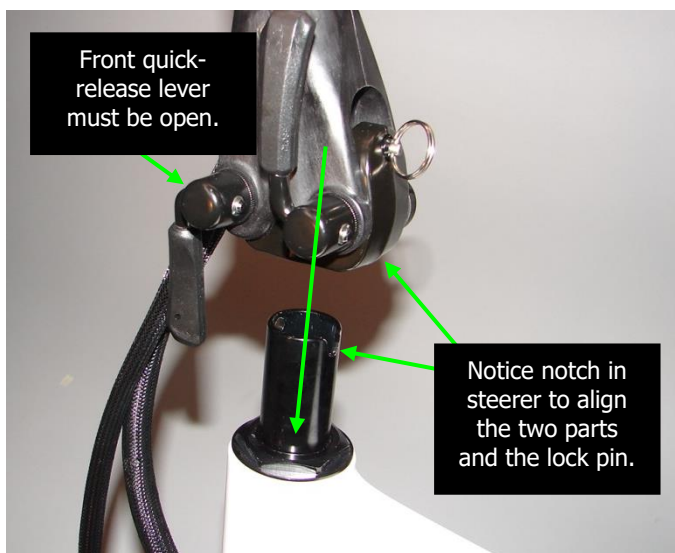


Figure 5-3



Figure 5-4

Fit the handlebar stem assembly to the steerer.

UNSAFE TO RIDE

Avoid twisting the cables when assembling the handlebar stem.



Figure 5-5

Figure 5-6: **Pre-Ride Checklist #17-b**

Pull lock pin.

Before you close the quick-release, pull up on the handlebar stem assembly to check that the lock pin is fully engaged. You should not be able to pull the handlebar stem assembly off the steerer tube if the lock pin is correctly engaged.

YOU MUST PERFORM THIS TEST BEFORE CLOSING THE QUICK-RELEASE. IF THE HANDLEBAR STEM ASSEMBLY CAN BE PULLED OFF THE STEERER, DO NOT RIDE THE GOCYCLE.

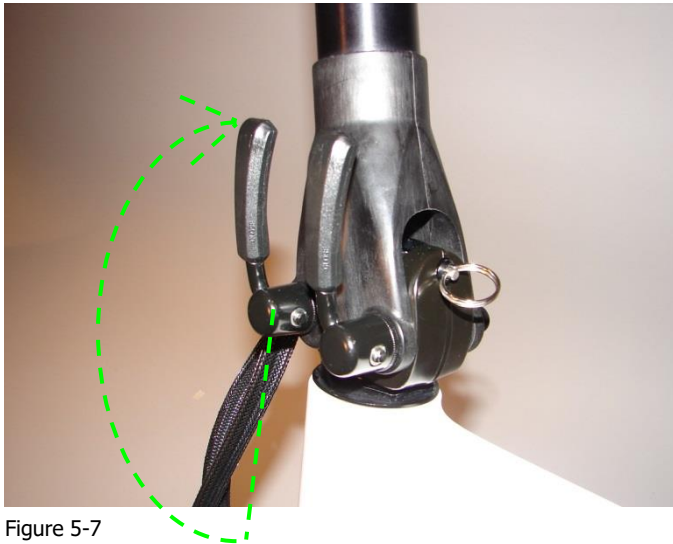


Figure 5-7



Figure 5-8

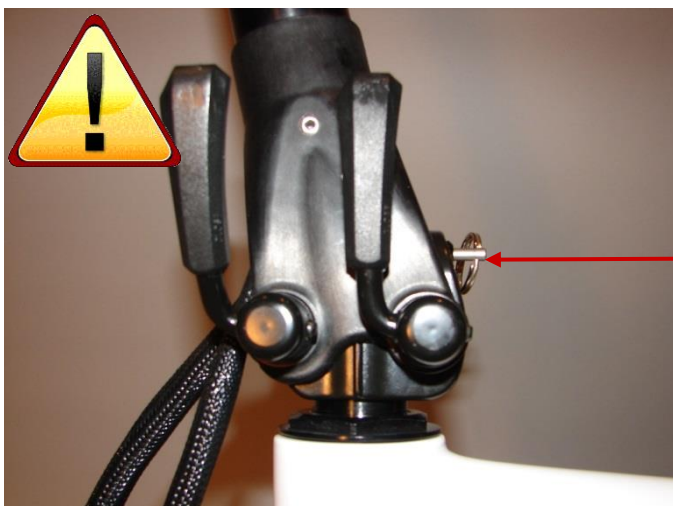


Figure 5-9

Release lock pin and close quick-release lever.

UNSAFE TO RIDE

There is more than 1mm gap between the stem adjuster and the headset collar. This means that the lock pin has not engaged into the hole in the steerer.

UNSAFE TO RIDE

Notice that the lock pin has not engaged in the steerer.

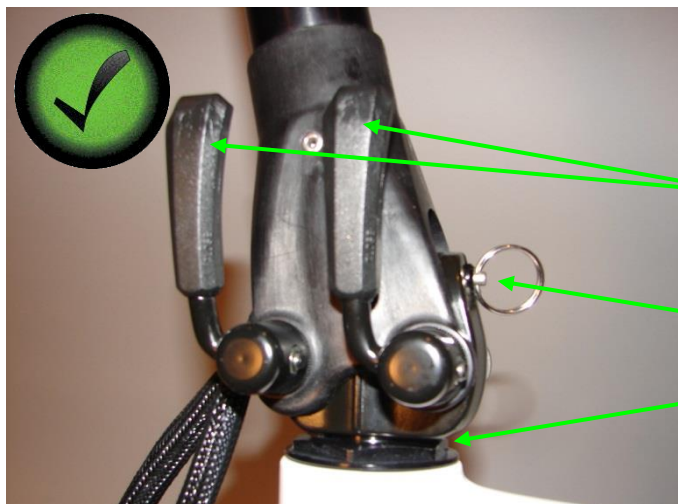


Figure 5-10: **Pre-Ride Checklist #17-b**

CORRECT

Quick-release levers closed.

Lock pin fully engaged.

Less than 1mm gap.



5.3 Fitting the Seat Post



Figure 5-11

Insert seat post assembly.



Figure 5-12

Tighten knob.



Figure 5-13



Figure 5-14

Flip the Gocycle over and stand it on the handlebar and seat.



5.4 Unfolding the Frame



Figure 5-15

Pull fold lock pin to release spring.



Figure 5-16

Open frame.



Figure 5-17

Unfold swing arm.

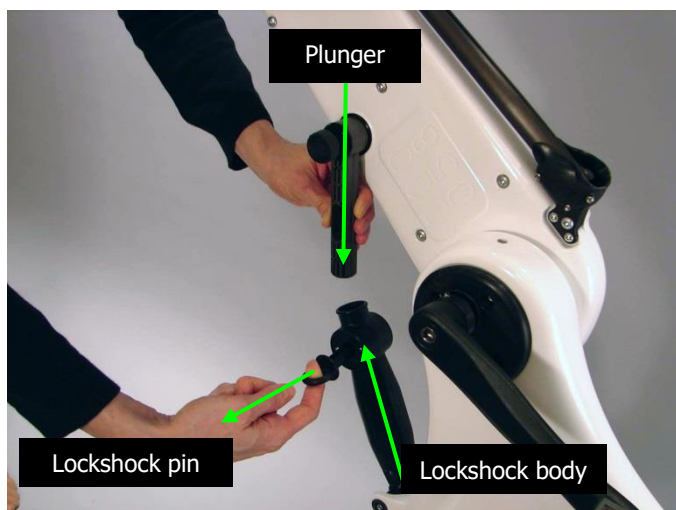


Figure 5-18

Pull out Lockshock pin and align plunger and Lockshock body.

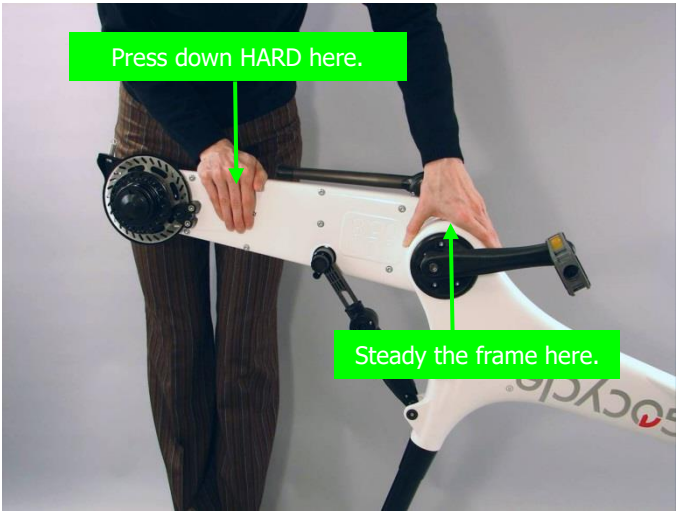


Figure 5-19



Figure 5-20

Holes are not yet aligned—
keep pushing down swing
arm.

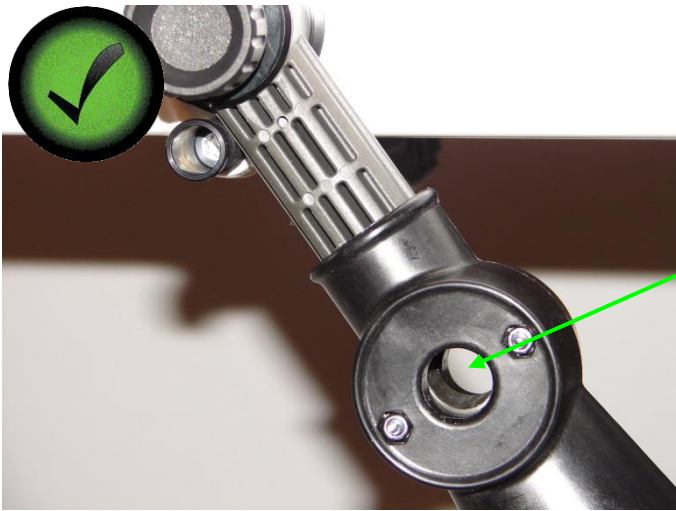


Figure 5-21

CORRECT



Figure 5-22

Ready to install wheels (front fork assembly)

5.5 *Fitting the Front Fork Assembly*



Figure 5-23

Fit front fork assembly onto steerer.

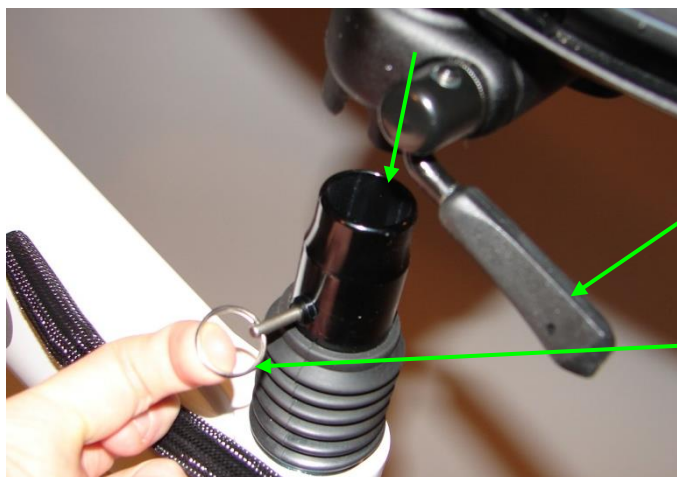


Figure 5-24

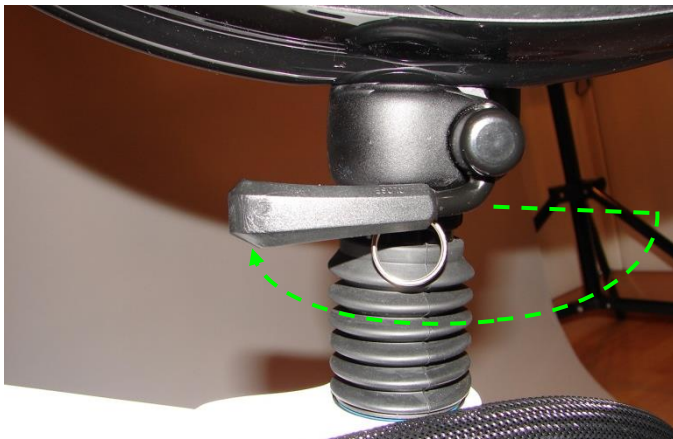
Quick-release lever is in open position.

Pull out fork lock pin.



Figure 5-25

Release fork lock pin.

Figure 5-26: **Pre-Ride Checklist #17-c**Figure 5-27: **Pre-Ride Checklist #17-c**

Before you close the quick-release, pull up on the front fork assembly to check that the fork lock pin is fully engaged. You should not be able to pull the front fork assembly off the steerer tube if the fork lock pin is correctly engaged. **YOU MUST PERFORM THIS TEST BEFORE CLOSING THE QUICK-RELEASE. IF THE FORK CAN BE PULLED OFF THE STEERER, DO NOT RIDE THE GOCYCLE.**

Close quick-release over fork lock pin as shown.

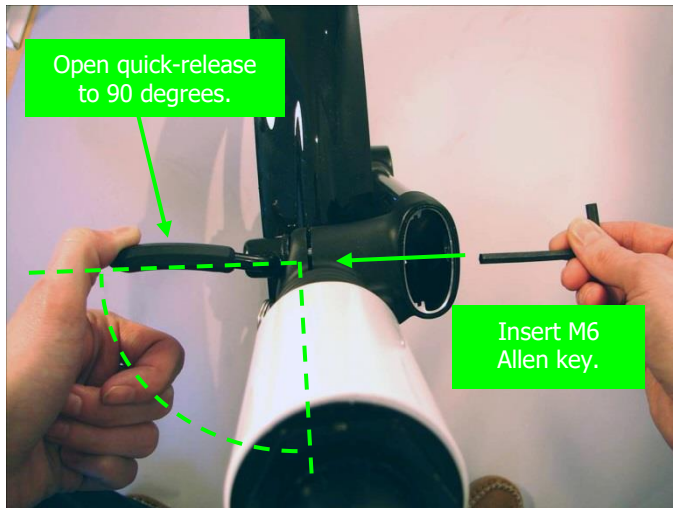


Figure 5-28

Adjust the fork quick-release tension.

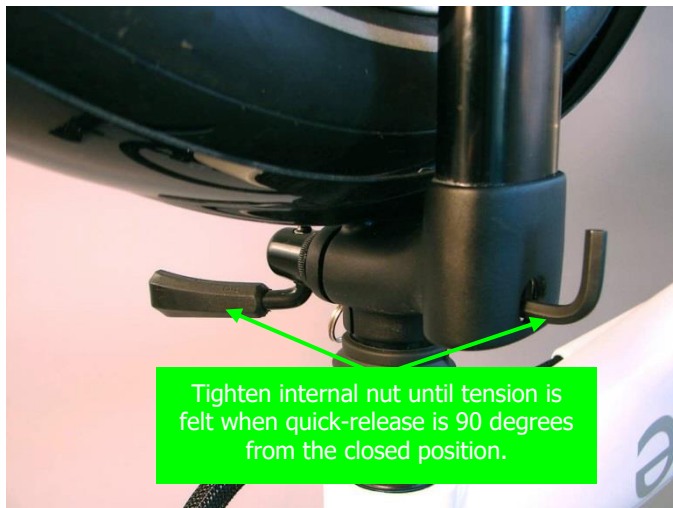


Figure 5-29

Adjust the fork quick-release tension.



Figure 5-30

UNSAFE TO RIDE

Notice that the fork is not engaged with the fork lock pin.

Fork lock pin is not seated into fork.



Figure 5-31

UNSAFE TO RIDE

Notice that the fork is not engaged with the fork lock pin.

Fork lock pin is not engaged in fork.

5.6 Attaching the PitstopWheel



Figure 5-32



Figure 5-33

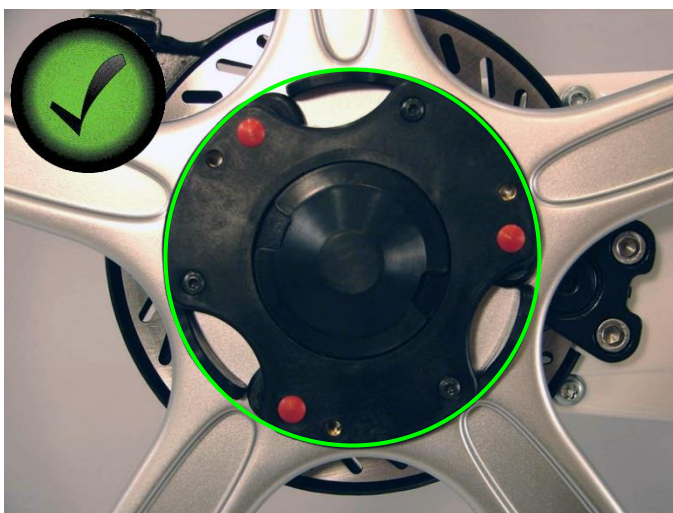


Figure 5-34: **Pre-Ride Checklist #17-a**

The quick-releases are shown in fully open position.

Close quick-releases.

Note safe direction and position to close quick-releases.

Quick-releases are shown in fully closed position.



Figure 5-35

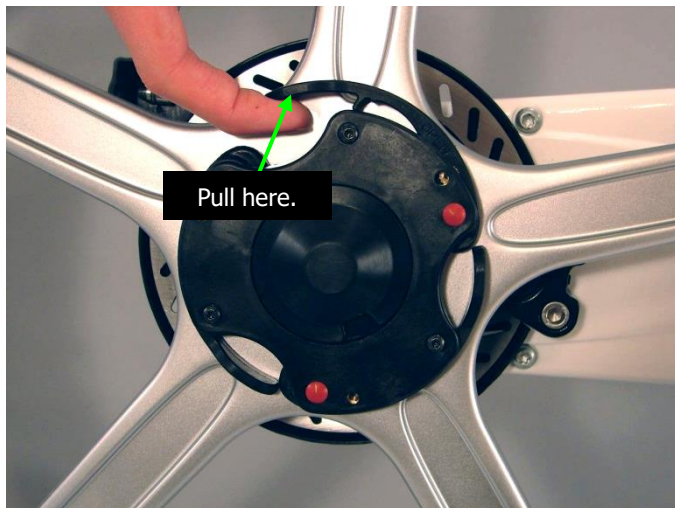


Figure 5-36

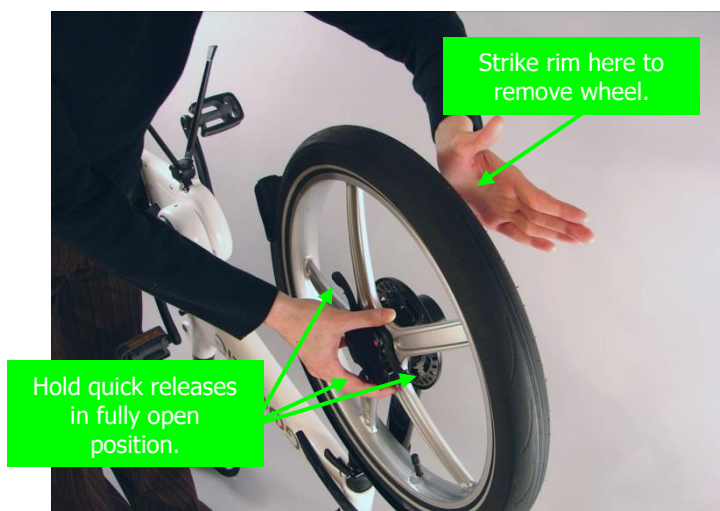


Figure 5-37

UNSAFE TO RIDE

One quick-release is not fully closed.

To remove PitstopWheel, first open quick-release levers.

Remove PitstopWheel.

5.7 Fitting the Rear Mudguard



Figure 5-38

Fit rear mudguard.



Figure 5-39

Tighten knob.



Figure 5-40



Figure 5-41

Turn Gocycle right side up!

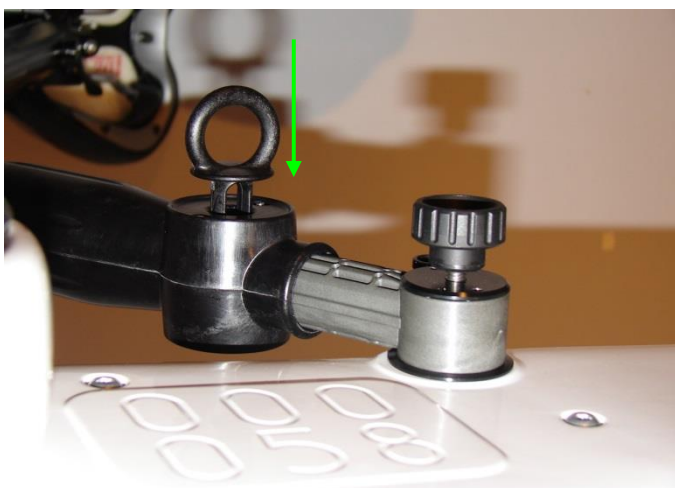


Figure 5-42

Insert Lockshock pin. This may take high force to insert. Rotating it while inserting can help. Press down on the seat with your body weight to compress the suspension while you insert the pin.



5.8 Attaching the Front Brake



Figure 5-43



Figure 5-44

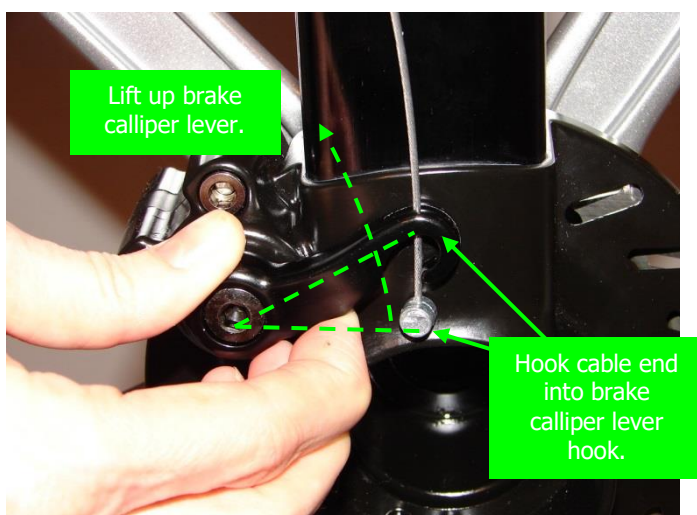


Figure 5-45

Insert fork plug.

Attach front brake cable.



Figure 5-46



6 FITTING THE FRONT AND REAR REFLECTORS

6.1 Small Parts Bag

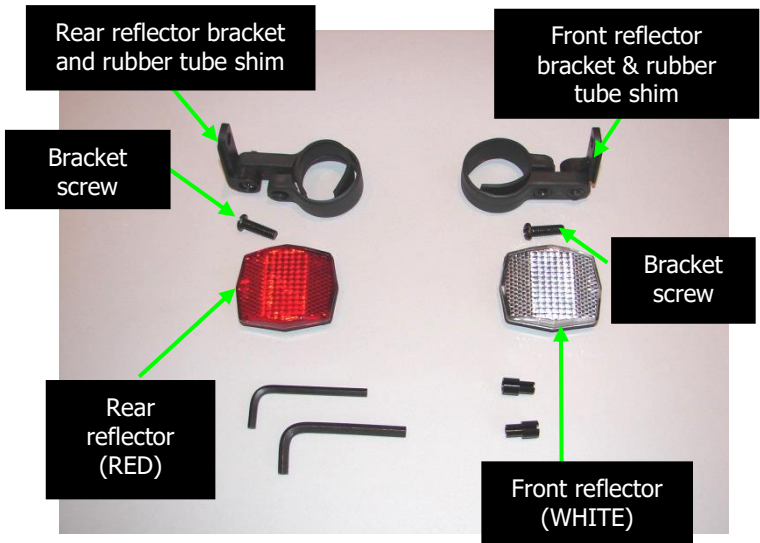


Figure 6-1

6.2 Rear Reflector



Figure 6-2



Figure 6-3

Attach rear bracket as shown to seat post.

Attach rear reflector to bracket as shown.



Figure 6-4

Rear reflector position.
Ensure that the reflector is
not obstructed by the rider's
clothing.

6.3 Front Reflector



Figure 6-5

Attach front bracket as
shown to vertical handlebar
stem tube.



Figure 6-6

Attach front reflector to
bracket as shown.

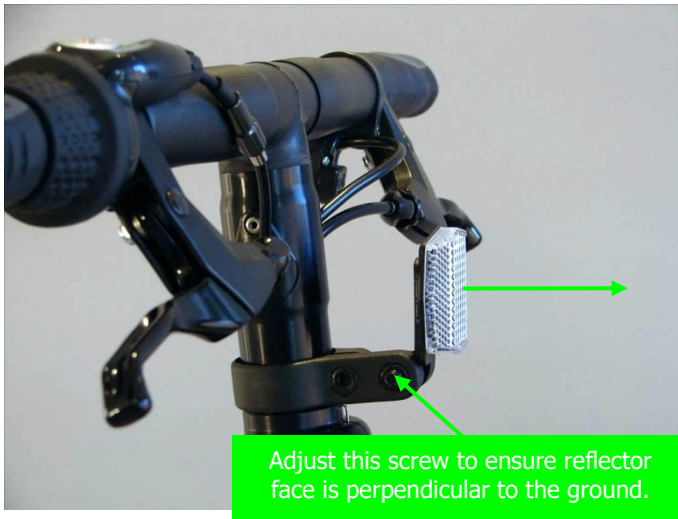


Figure 6-7

Front reflector position

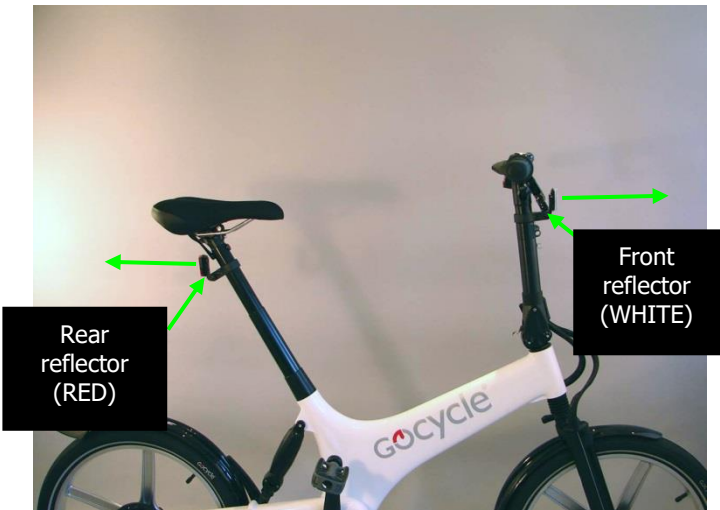


Figure 6-8

Front and rear reflector angles should be adjusted so that the reflector face is perpendicular to the ground.



7 ADJUSTING SEAT AND HANDLEBAR POSITION

7.1 *Seat Height*

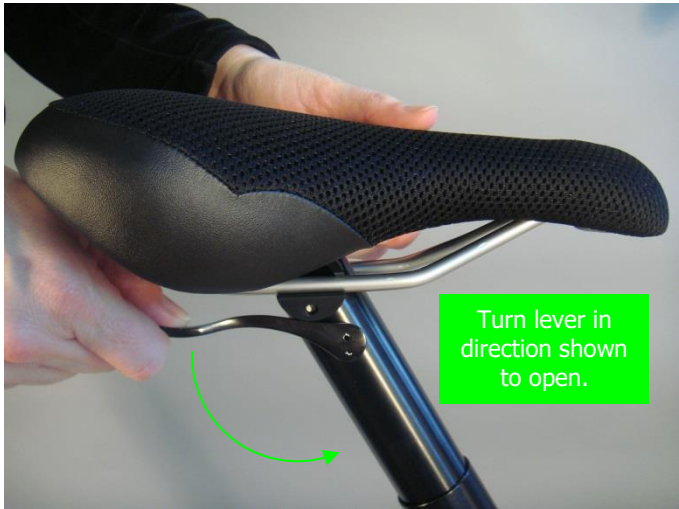


Figure 7-1



Figure 7-2



Figure 7-3

Adjusting seat height

Adjust seat up or down.

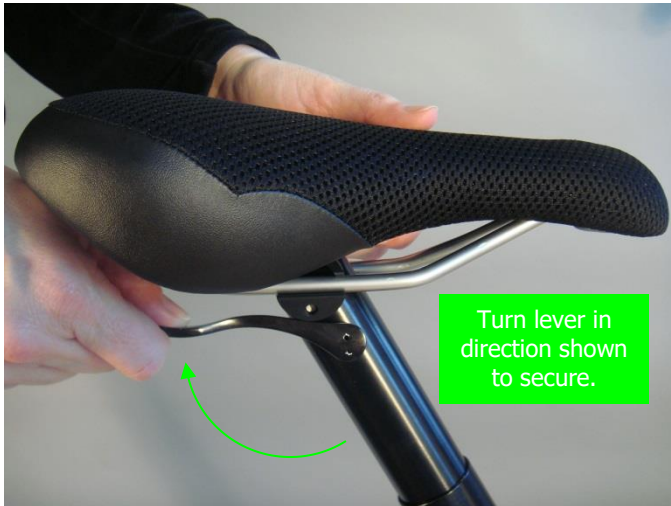


Figure 7-4

Close lever to secure seat post.



Figure 7-5

Maximum seat height should allow you to comfortably touch the ground with both feet while you are seated on the saddle.

Note: If you would like to adjust the seat height for optimum pedalling efficiency, consult the Internet for articles on this subject.

7.2 Handlebar Stem Height



Figure 7-6

Before riding, check that circlip at front of handlebar stem is secure.

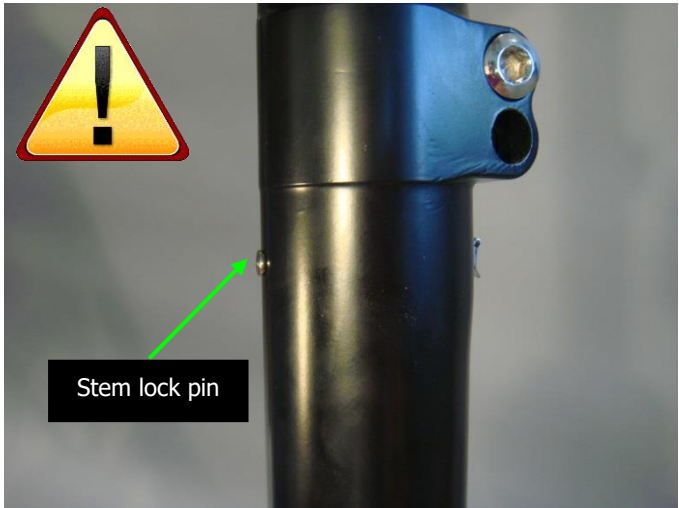


Figure 7-7



Figure 7-8

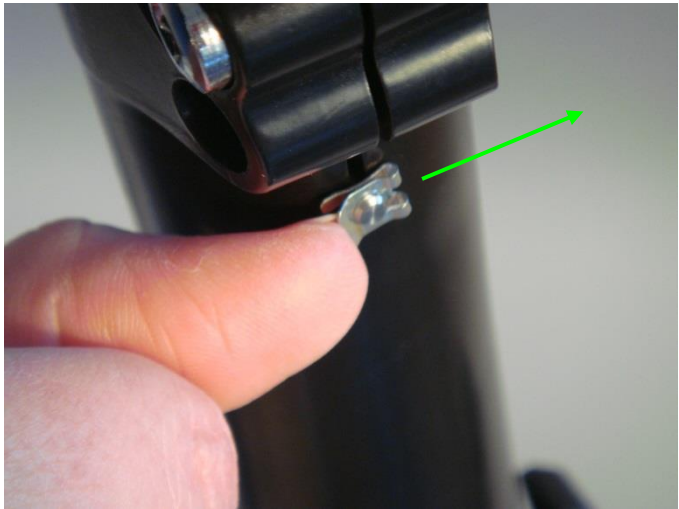


Figure 7-9

Before riding, check that stem lock pin at rear of handlebar stem is secure.

To adjust handlebar stem height, loosen stem pinch bolt.

Remove safety circlip.

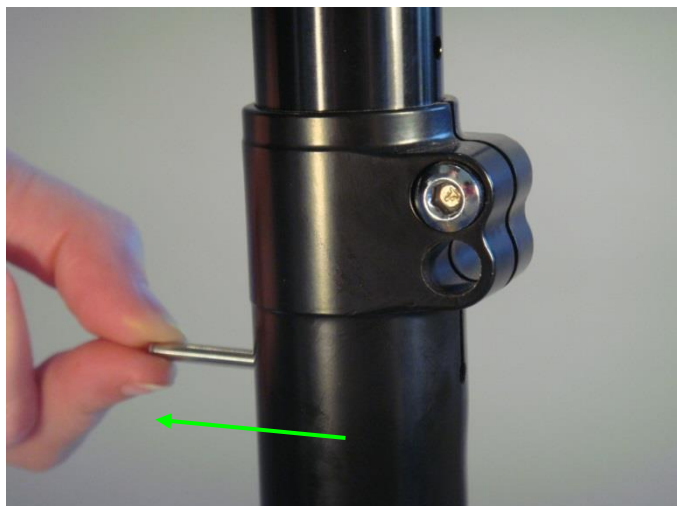


Figure 7-10

Remove safety pin from rear of stem.



Figure 7-11

Adjust height of stem.

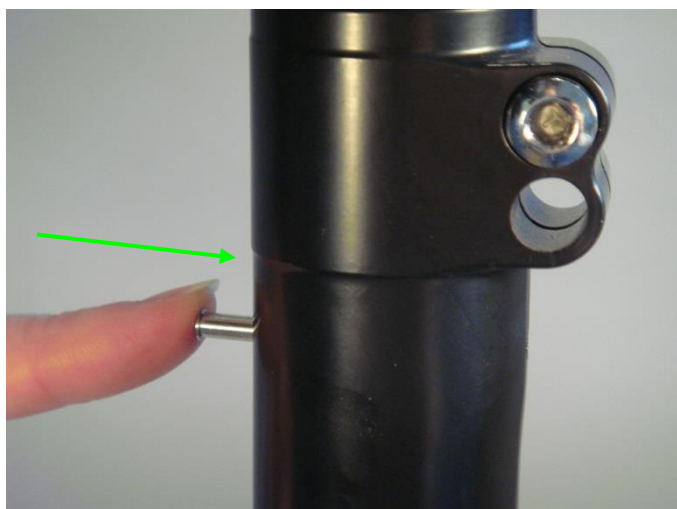


Figure 7-12

Reinsert pin at rear of stem.



Figure 7-13

Check that pin is fully inserted.

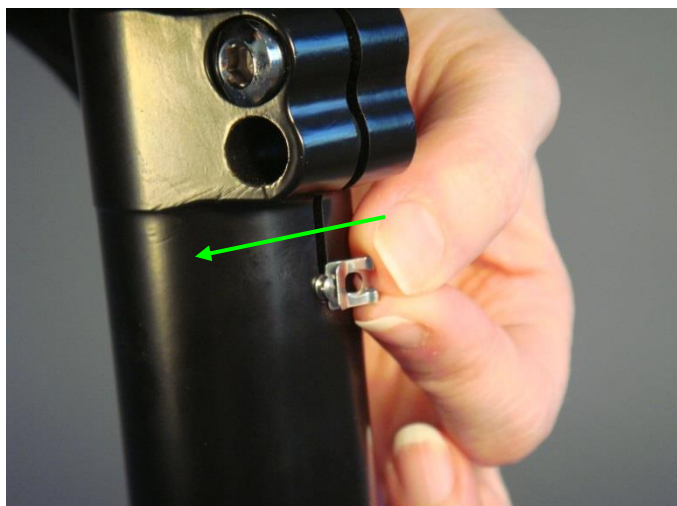


Figure 7-14

Replace safety circlip.



Figure 7-15

Retighten stem pinch bolt.



7.3 Handlebar Reach Position

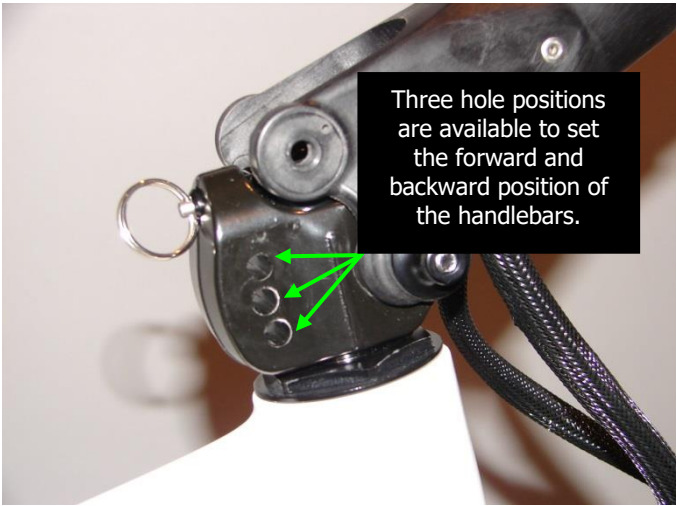


Figure 7-16

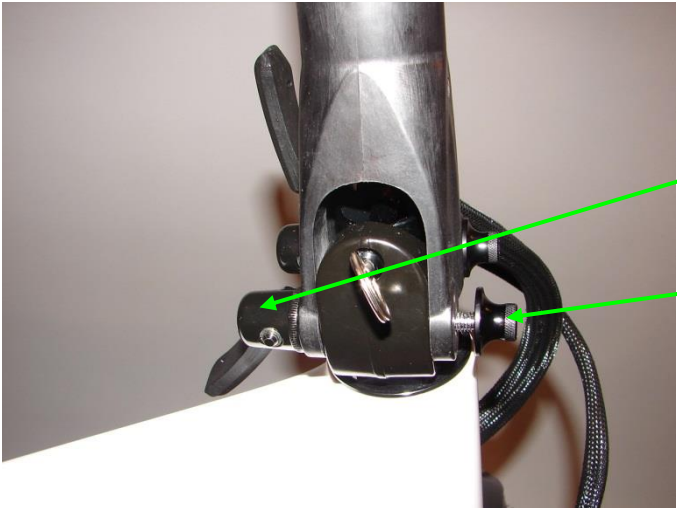


Figure 7-17



Figure 7-18

Adjusting handlebar reach

- Step 1: Open the rear quick-release lever.
- Step 2: Loosen the quick-release lever nut.

Pull out rear quick-release lever.



Figure 7-19

Move handlebar to desired hole position.

7.4 *Adjusting the Handlebar Stem Quick-Release Tension*

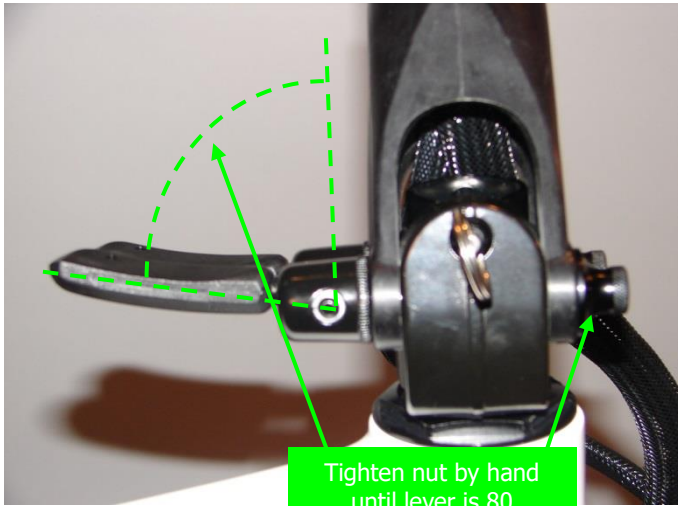


Figure 7-20

Tighten nut by hand until lever is 80 degrees open, then close the lever.

Re-fit rear quick-release lever and nut.



Figure 7-21



7.5 Quick-Fold Handlebar Position



Figure 7-22

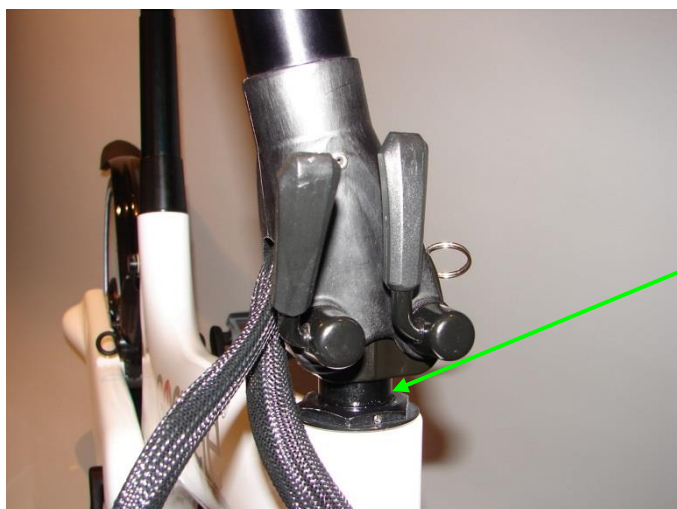


Figure 7-23

Quick-fold on handlebars for space-efficient storage

Notice gap here, rotate handlebar 90 degrees and close quick-release.



8 FITTING THE ACCESSORIES

8.1 *Empower Pack: Battery*



Figure 8-1



Figure 8-2

Installing the battery pack

Insert battery case.

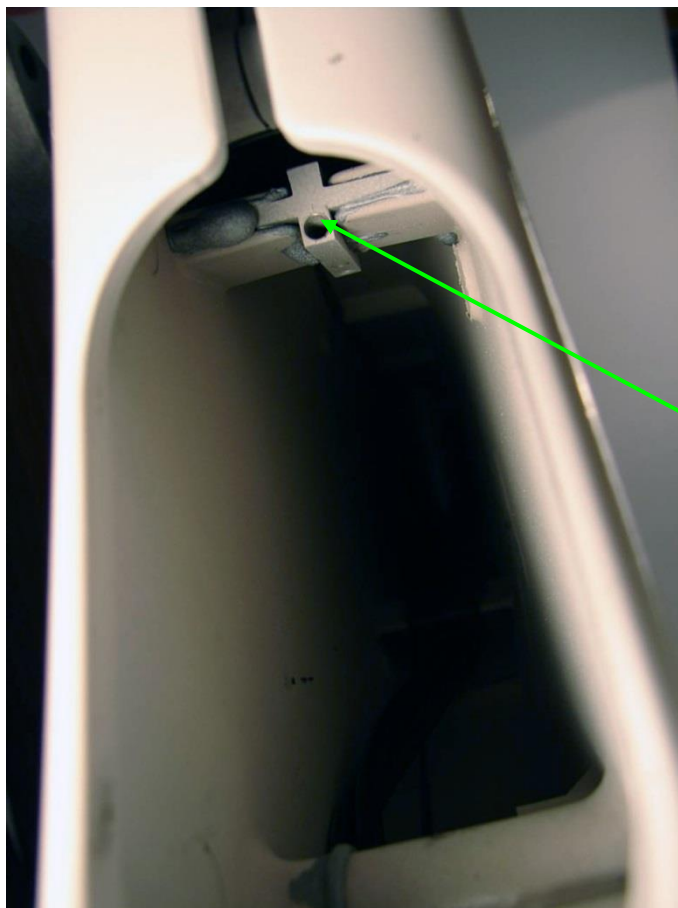


Figure 8-3

Notice hole for screw.



Figure 8-4

To secure battery in frame, tighten the battery knob by turning it clockwise.



When you plug the controller leads into the battery pack inside the frame, you will hear one beep (EU mode) or two beeps (USA mode). This means the controller is functioning correctly.

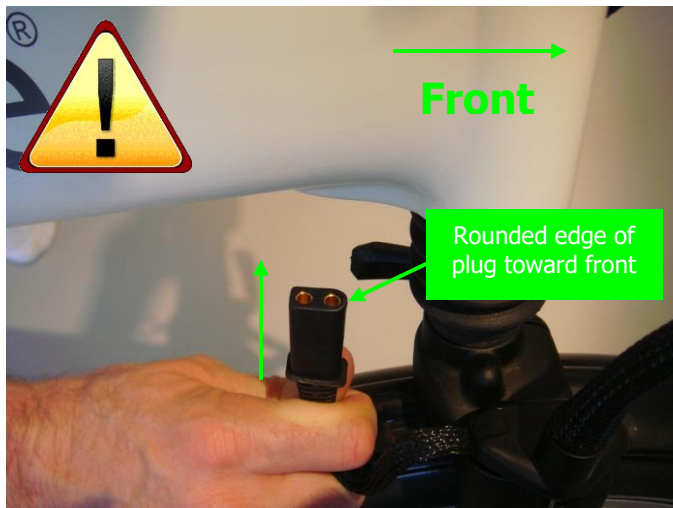


Figure 8-5

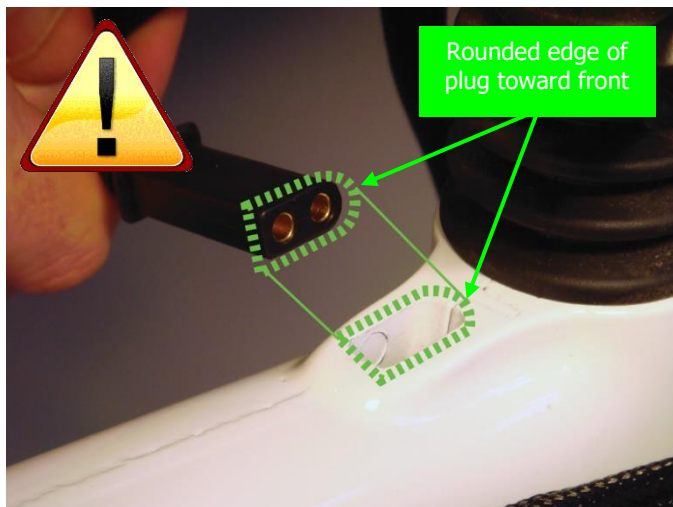


Figure 8-6

Plug in controller by inserting upwards into outlet, rounded edge of plug towards front.

NOTICE ROUND EDGE OF PLUG IS TOWARDS THE RUBBER DUST BOOT ON FRONT STEERER AND FLAT EDGE OF PLUG POINTS TOWARDS THE REAR. INCORRECT POSITION OF PLUG WILL CAUSE MOTOR TO MALFUNCTION.

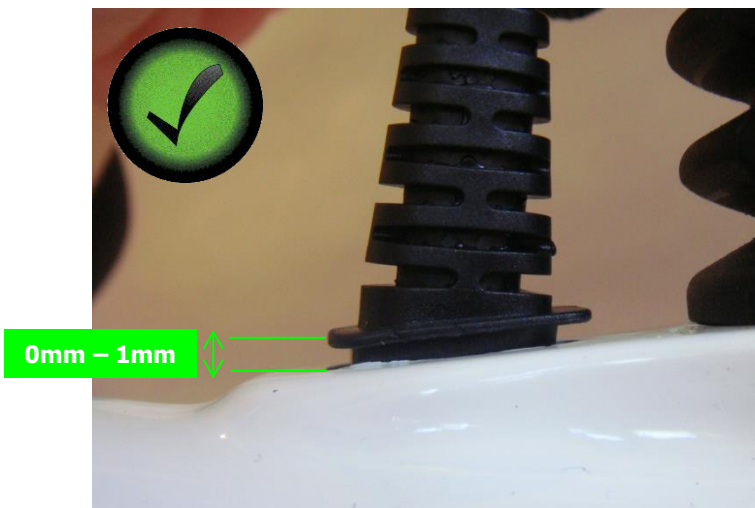


Figure 8-7

Controller should be plugged in with no more than 1mm gap between frame body and plug.

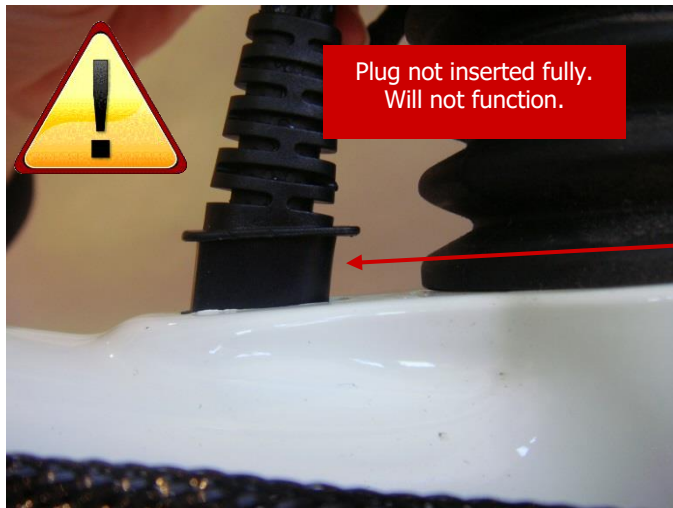


Figure 8-8

During normal riding, the plug should never disconnect by itself. If this happens, you have not pushed it in all the way.

8.2 Empower Pack: Charging

You can charge the battery while it is inside the frame and with the controller plugged in.

WARNING! Never charge the battery if the Gocycle has been ridden in heavy rain and has water droplets on the frame. Never charge the Gocycle while it is exposed to rain; for example, when it is outside in the rain. You should wait until the water has completely evaporated from all surfaces before charging. If you must charge the battery and cannot wait until the Gocycle is completely dry, then you should remove the battery pack from the frame, dry it with a dry cloth and charge it separately from the Gocycle.

To charge the Gocycle, ensure that the main lead voltage on the charger is set to the mains voltage in your country (240V or 110V). Ensure that you have the correct power cord or an adapter to meet the mains plug requirements in your country. In some cases, you may need to purchase a standard power cable such as that used on a computer sold at a computer supply store.

1. Ensure that the charger is switched off (0 or 'zero').
2. Plug the charger into the mains supply.
3. Plug the charge lead into the socket at the rear of the battery pack.
4. Turn on the charger (1 or 'one').

All three lights will turn on for 1-2 seconds, and then the red light and yellow light will turn to solid indicating that the batteries are charging. Depending on the state of charge of the batteries, the charge cycle time could vary from 30 minutes to 4 hours.

5. When charging is complete, a green light will show solid (a flashing green light indicates the charge cycle is nearly complete).
6. FOR BEST PERFORMANCE AND LONG LIFE OF THE BATTERY, YOU SHOULD PLACE THE BATTERY ON CHARGE IMMEDIATELY AFTER ANY RIDING AND LEAVE IT CHARGING CONTINUOUSLY 24 HOURS PER DAY. THIS IS APPROXIMATELY THE EQUIVALENT OF LEAVING A 40 WATT LIGHT BULB ON FOR 1 HOUR PER DAY.
7. THE NEXT BEST PRACTICE FOR YOUR BATTERY IS TO CHARGE IT FULLY AT LEAST ONCE PER WEEK AND ALWAYS IMMEDIATELY AFTER A RIDE.



8. THE THIRD BEST PRACTICE FOR YOUR BATTERY IS TO CHARGE IT FULLY, AND THEN UNPLUG THE CONTROLLER. YOU CAN THEN LEAVE THE BATTERY FOR UP TO ONE MONTH BEFORE FULLY RECHARGING IT.
9. NEVER LEAVE YOUR BATTERY IN A DEPLETED OR PARTIALLY CHARGED STATE.
10. WHEN IN DOUBT, PUT THE BATTERY ON CHARGE AND LEAVE IT ON CHARGE!

Battery performance will vary from customer to customer, and there is no practical qualification on what normal performance is and what is less than normal. Generally, if there is zero input power to the pedals you should get more than 35 minutes of run time at 15mph on level ground in EU mode, and you should get more than 20 minutes of run time at 17mph on level ground with an 80kg rider and luggage in USA mode. Substantially less than this run time may indicate that there is a fault with the battery. Note: at temperatures below 10 degrees Celsius, performance of the battery may be lower than the minimums stated above. This is considered normal for the NiMh chemistry of this battery pack.

WARNING! If you hear multiple beeps from the controller every 2 to 3 minutes, your battery pack is dangerously low on voltage and needs immediate charging. This is the low voltage alarm alerting you that the battery is being damaged. The controller records these low voltage alarms, and recordings of excess alarm readings could void the warranty.



Figure 8-9

To charge the battery pack, open the charger jack cover.

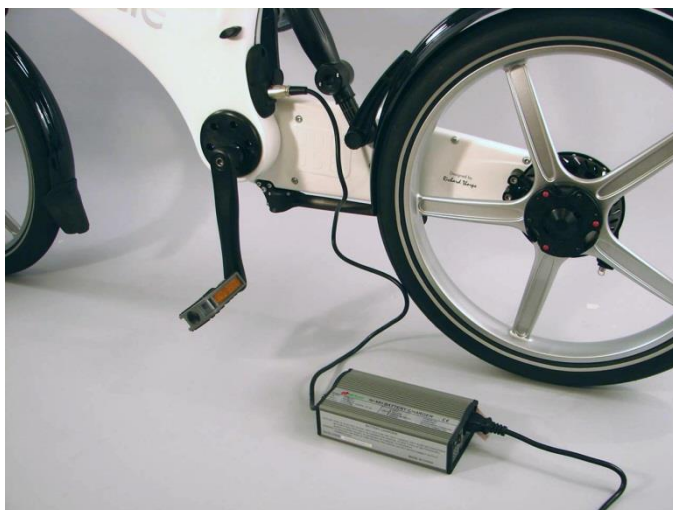


Figure 8-10

Plug in the charger and switch it on. The charge is complete when the green light is solid. (Green light flashing is nearly charged.) Full charge takes about 3.5 hours.



8.3 *Empower Pack: Operation*

8.3.1 Gocycle Motor Philosophy

Gocycle's electric motor is designed to boost performance in terms of getting you from point A to point B more quickly and with less effort.

On-demand power comes when you press the red button next to the left brake lever on the handlebar and hold it down. When you release the button, you cut the power. We do not recommend you hold the button down while applying the brakes—you will cut the power as you slow the Gocycle under braking, and you will cut power completely when your speed falls below 2mph. In EU mode, the motor will not start unless you are travelling faster than 2mph and only after you have pedalled more than 6 revolutions. In USA mode, the motor will not start unless you are travelling faster than 2mph.

The Gocycle is supplied with the legal operating mode (EU or USA) of the country in which you purchased the Gocycle.

8.3.2 EU Mode

In EU mode the motor will not function unless the pedals are turning AND the Gocycle is travelling at a speed above 2mph.

When starting out from a stop or after 30 seconds of not pedalling, you will need to pedal a minimum of 6 revolutions before the motor will function.

To start the motor, simply press and hold the red power button down. If the Gocycle is moving above 2mph AND the pedals are moving AND the pedals have moved more than 6 revolutions, the motor will start.

Power from the motor will increase as your speed increases to about 12-13mph. At this point the power will decrease with increasing speed of the Gocycle up to 15mph when the motor will shut off completely. Pedalling above 15mph will not allow you to have any power from the motor. This is in accordance with EU regulations.

8.3.3 USA Mode

In USA mode, the pedals do not have to revolve to activate power.

Power will be available at speeds above 2mph and will start to decline at speeds around 17mph (assuming level smooth pavement), depending on the weight and size of the rider and the tyre pressure.

8.3.4 Resetting the Controller

From time to time, the controller may require rebooting—much like a PC. If it appears that the controller is not functioning correctly, perform the following reboot sequence:

- To reset to EU mode (for customers operating Gocycle within the EU): With the Gocycle at a stop (such as with the brake held on), press and hold the red power button for 7 to 10 seconds until you hear 1 beep, then release the button immediately.
- To reset to USA mode (for customers operating Gocycle with the United States): With the Gocycle at a stop (such as with the brake held on) press and hold the red power button for about 20 to 50 seconds until you hear 2 beeps, then release the button immediately.

WARNING! Operating the Gocycle in USA mode is not legal on public roads within the EU.



8.3.5 Sleep Mode

In order to conserve battery discharge, the controller will go into 'sleep' mode after 20 minutes if no movement of button, wheels, or pedals is detected. Upon any detection of movement in wheels, pedals, or pressing of the button, the controller will 'wake up' and beep depending on the mode of operation; i.e., 1 beep for EU mode, 2 beeps for USA mode. This beeping will confirm that the controller is functioning correctly.

8.3.6 Heat

Gocycle's motor is extremely compact and lightweight. While the benefits of this design are apparent, certain drawbacks exist—specifically, the motor can get hot.

Gocycle's motor will get hot under normal running similar to the exhaust pipe or engine of a motorcycle or moped.

WARNING! Extreme caution should be used when attempting to touch any part of the motor after it has been in continuous operation for more than five minutes. Use the same caution you would use in the kitchen with hot pots or pans or boiling water. We recommend that you do not attempt to touch the motor unless it has been switched off for at least five minutes.

On days when the ambient air temperature is above 25 degrees Celsius, be extra careful with heat building up in the motor. We do not recommend that you keep the motor on full power for more than 5 minutes continuously. You should allow the motor 1 minute of zero power for every 5 minutes at full power.

8.3.7 Maximising Your Motor's Performance and Reliability

8.3.7.1 Dos

Pedal up hills and keep your speed in the 'power band' of the motor. This is about 8-12mph. At this speed you will get maximum power from the motor.

If you are approaching a hill, keep your speed above 8mph, this will give you the best boost from the motor.

Allow the motor a minute or two for every 5 minutes of riding to cool down.

8.3.7.2 Don'ts

When riding at temperatures above 25 degrees Celsius, do not run the motor for more than 5 minutes continuously. If you have run the motor for 5 minutes continuously, you should stop running the motor for at least 1 minute before starting the motor again.

Generally, EU mode will produce less heat and provide a higher range than USA mode.

Further to the above, it is illegal to operate Gocycle in USA mode while riding on EU public roads. However, EU mode is legal for operating an electric bicycle in the USA public streets.



8.4 Attaching the Mudguards

8.4.1 Front

1. Using an M4 Allen key, tighten the two bolts and lock washers as shown in Figure 8-11 below. BUT DO NOT TIGHTEN ALL THE WAY.
2. Fit the wheel.
3. Look at the wheel and align the mudguard visually so that it is on centreline with the tyre.
4. Remove the wheel.
5. Tighten the two bolts to 3Nm torque.

8.4.2 Rear

1. Tighten the two bolts with a Phillips screwdriver as shown in Figure 8-12 below. BUT DO NOT TIGHTEN ALL THE WAY.
2. Fit the mudguard.
3. Fit the rear wheel.
4. Look at the wheel and align the mudguard visually so that it is on centreline with the tyre.
5. Remove the wheel.
6. Tighten the two bolts to 3Nm torque.

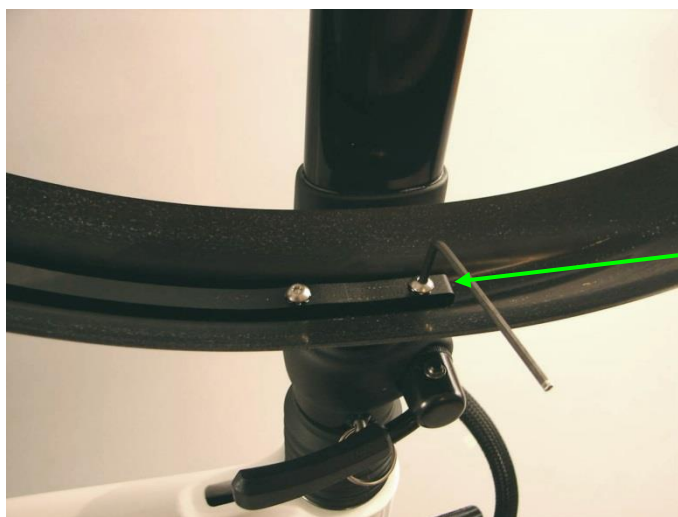


Figure 8-11

Attaching the front
mudguard: use M4 Allen key.

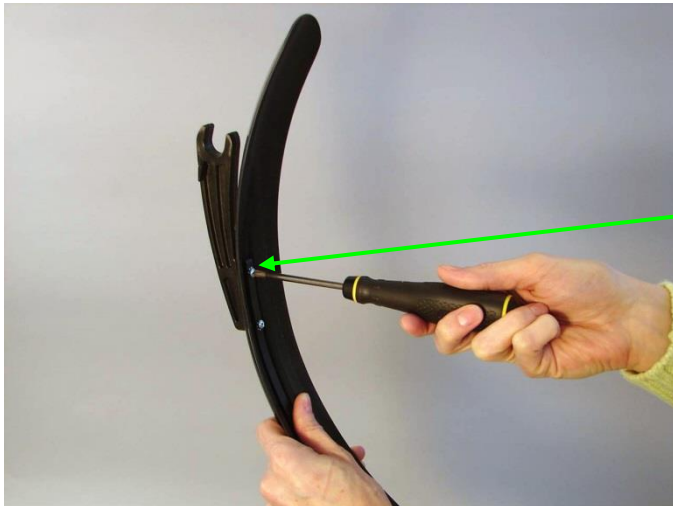


Figure 8-12

Adjusting the alignment of the rear mudguard: use a Phillips head screwdriver to tighten the two screws once you have aligned the rear mudguard with the rear tyre.

8.5 Lightweight Display Stand

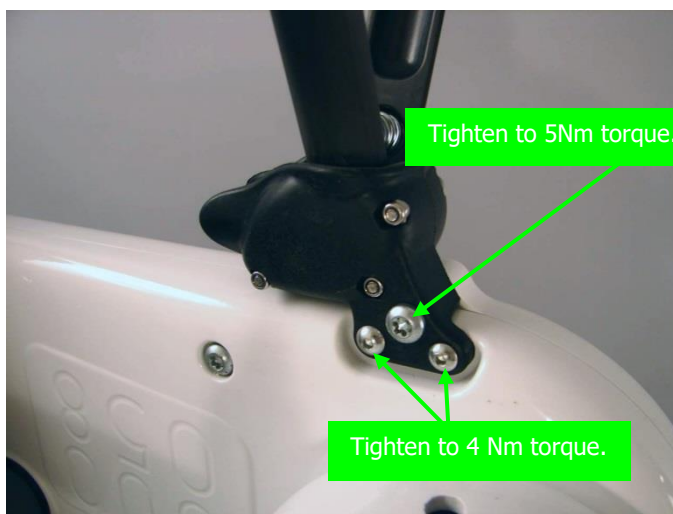


Figure 8-13

Fitting the lightweight display stand.

8.6 Antitheft Bolts for PitstopWheel

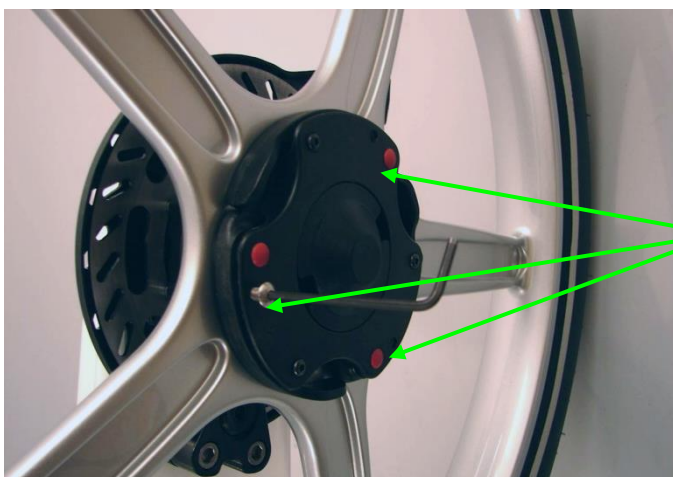


Figure 8-14

Antitheft screws for the PitstopWheel can be fitted in three places. These can be ordered from www.gocycle.com.



8.7 Shocklock™

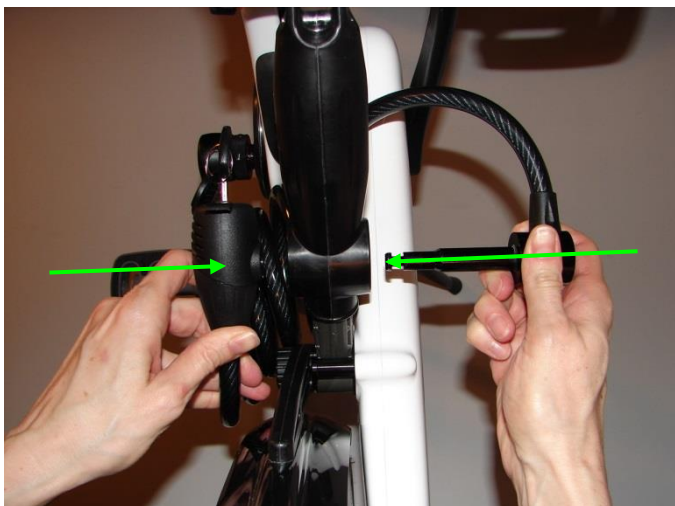


Figure 8-15



Figure 8-16



Figure 8-17

Fitting the lock into the
Lockshock

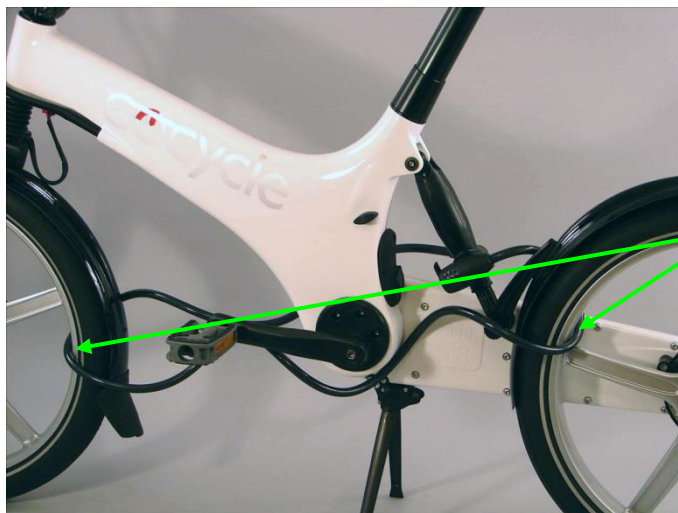


Figure 8-18

Fit the cable through wheels if wheels do not have antitheft screws fitted.

8.8 Front and Rear Safety Lights



Figure 8-19

Fit rear light.



Figure 8-20



Figure 8-21

Tighten strap.



Figure 8-22



Figure 8-23



Figure 8-24

Attach rear light.



Figure 8-25

Ensure that rear light/reflector is not obstructed by the rider's clothing.



Figure 8-26

To fit front safety light, first slide rubber gaiter upwards.



Figure 8-27

Fit bracket as shown.



Figure 8-28



Figure 8-29

Fit safety light to bracket as shown.



8.9 Front Pannier Rod

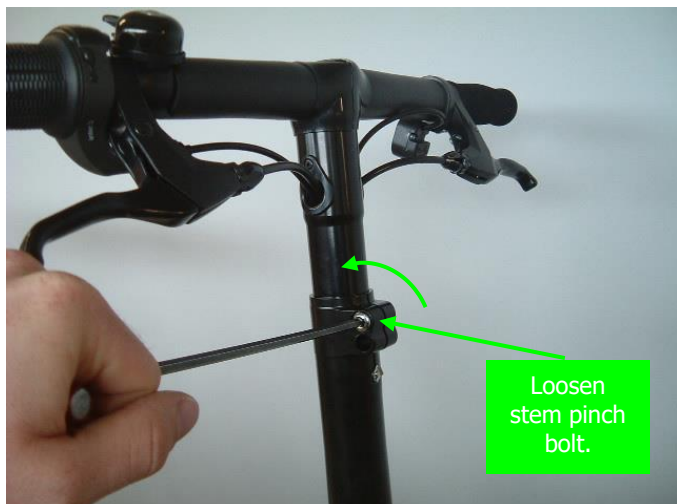


Figure 8-30



Figure 8-31



Figure 8-32

First loosen the handlebar stem pinch bolt.

Slide pannier rod through stem hole as shown.

Centre the pannier rod.

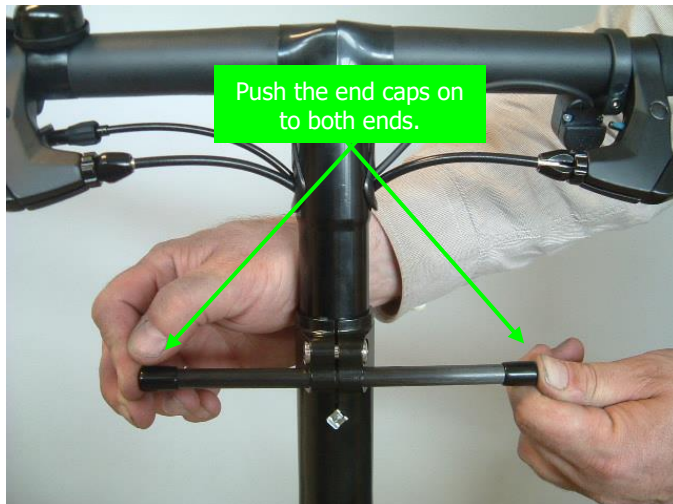


Figure 8-33

Push the vinyl end caps on to both ends.

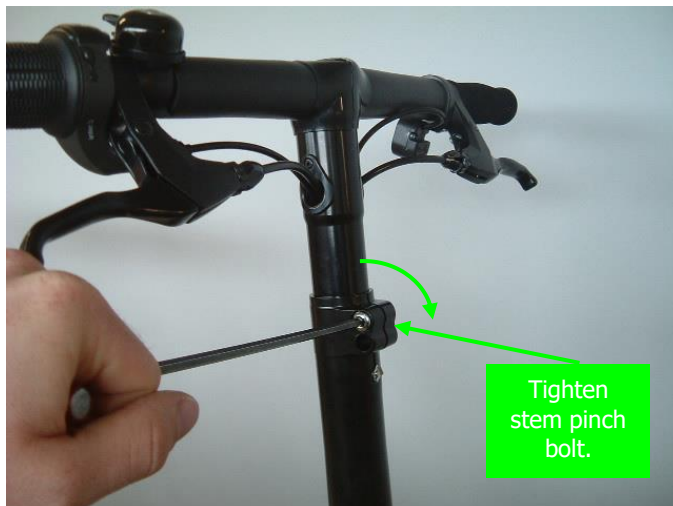


Figure 8-34

Tighten stem pinch bolt.

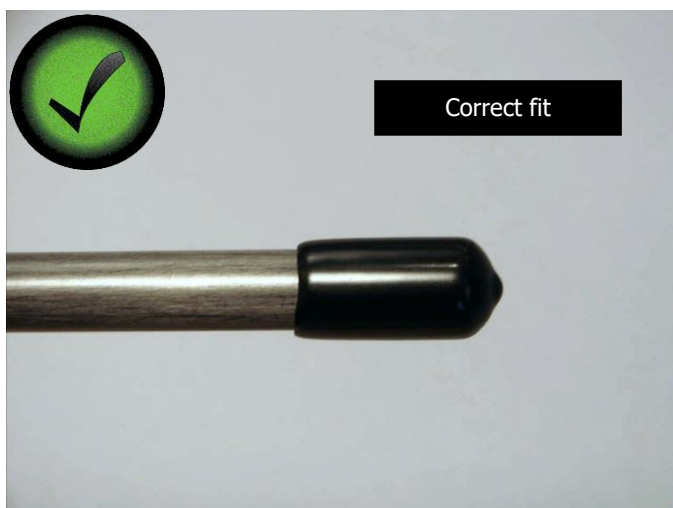


Figure 8-35

Correct fit can take some effort. The end caps must be fitted on both ends completely as shown.

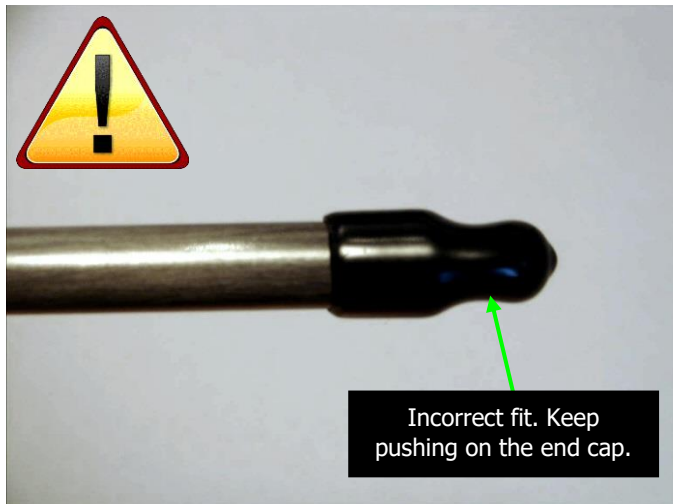


Figure 8-36

If the end caps are not pushed on all the way as shown at left, the pannier could fall off while the Gocycle is moving, which could cause serious injury.



Figure 8-37

Fit the pannier.

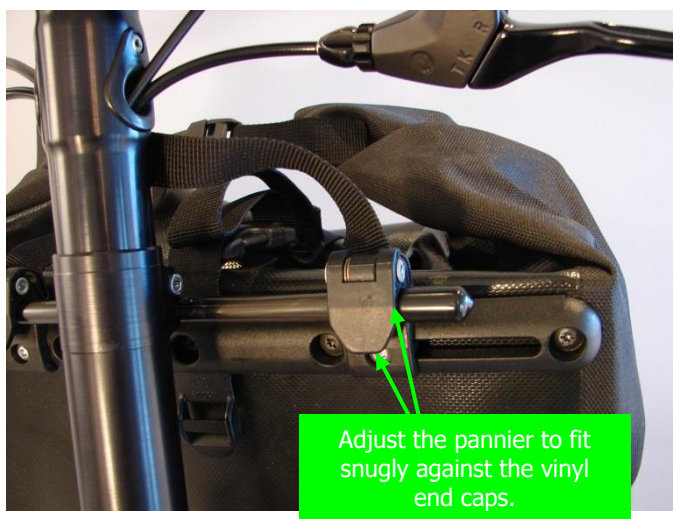


Figure 8-38

You may need to adjust the pannier clips to fit snugly between the vinyl end caps on the pannier rod. This is necessary to stop the pannier shifting side-to-side when riding.



Figure 8-39

Do not carry more than 5kg of luggage in the front pannier, but you also should never exceed the maximum allowable weight of rider, clothing and luggage (including the pannier itself) of 100kg.

8.10 Fitting the Rear Luggage Arm



Figure 8-40

Rear luggage arm and mudguard

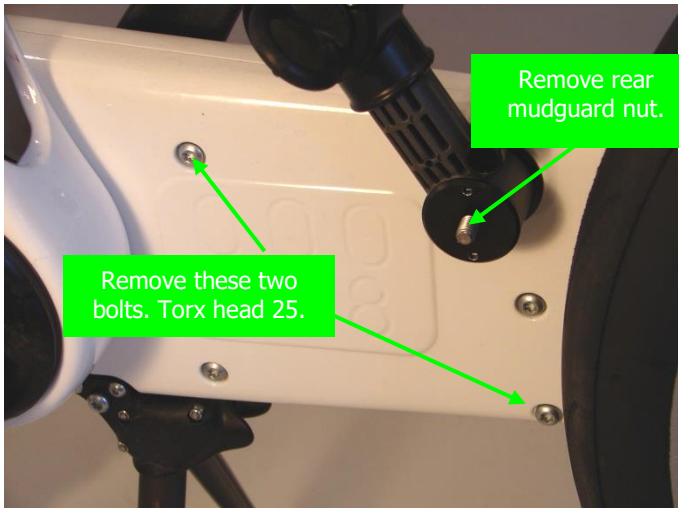


Figure 8-41

Remove bolts and mudguard nut.

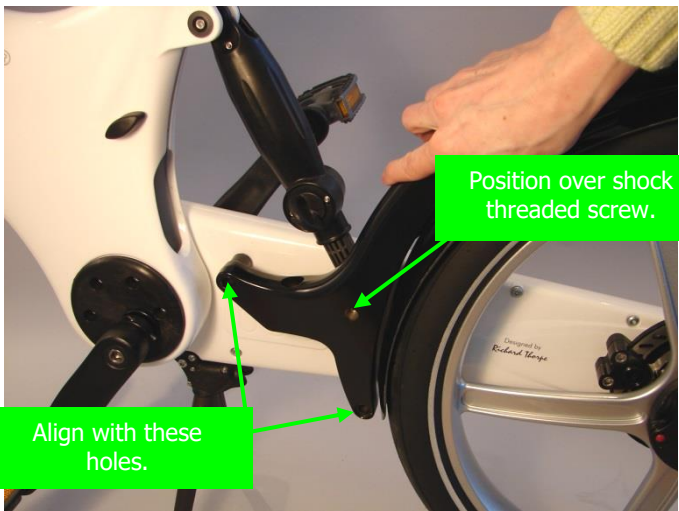


Figure 8-42

Position luggage arm over shock threaded screw and align with two Cleandrive® bolt holes.



Figure 8-43

Insert and tighten M6 captive nut with M6 Allen key as shown (5Nm torque).

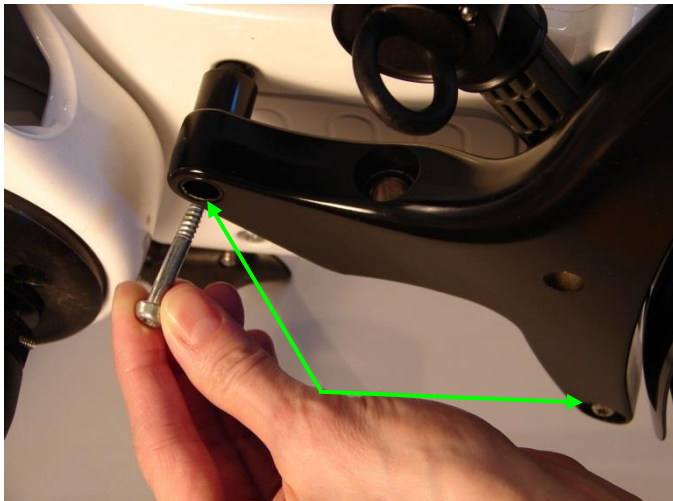


Figure 8-44

Insert and tighten special bolts supplied with rear luggage arm as shown (5Nm torque).



Figure 8-45

Rear luggage arm fitted correctly. Although the design rating of this luggage arm is 25kg maximum load, we do not recommend that you exceed more than a 15kg load. When riding with any rear luggage attached, the riding characteristics (including stability, braking distances, cornering, feeling of safety) can be severely different, and you should adopt a cautious riding style until you are confident of the handling of the Gocycle with rear luggage.



8.11 Fitting the Heavy-Duty Kickstand

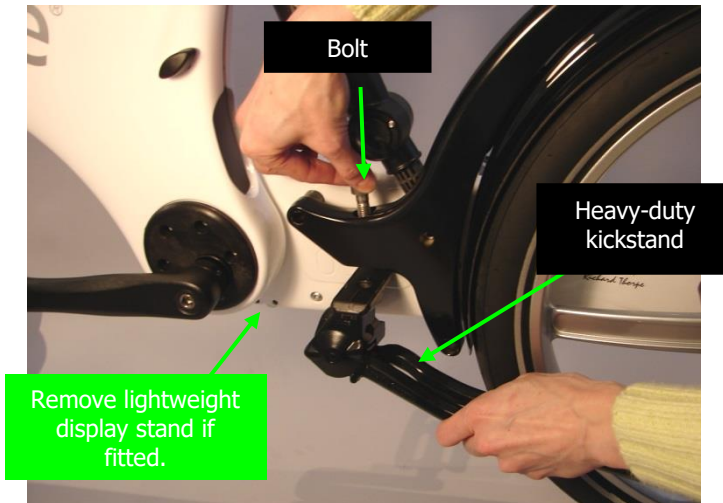


Figure 8-46

Fit bolt through rear luggage arm as shown.

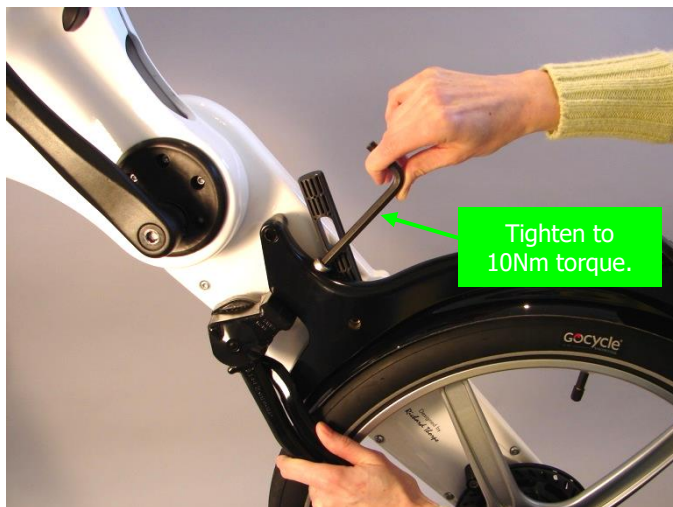


Figure 8-47

Separate frame to allow access to tightening bolt.



Figure 8-48

Kickstand in the up position



Figure 8-49

Kickstand in the down position

8.12 Fitting Ortlieb® Luggage

Ortlieb® is a registered trademark of ORTLIEB Sportartikel GmbH. See www.ortlieb.com.

The rear luggage arm will suit the following Ortlieb products:

- Office Bag 2
- Shuttle Bike
- Bike Box 2
- Bike Box 3

The rear luggage arm will also carry general luggage using bungee cords and the four holes located in the rear deck.



Figure 8-50

Ortlieb Office Bag 2

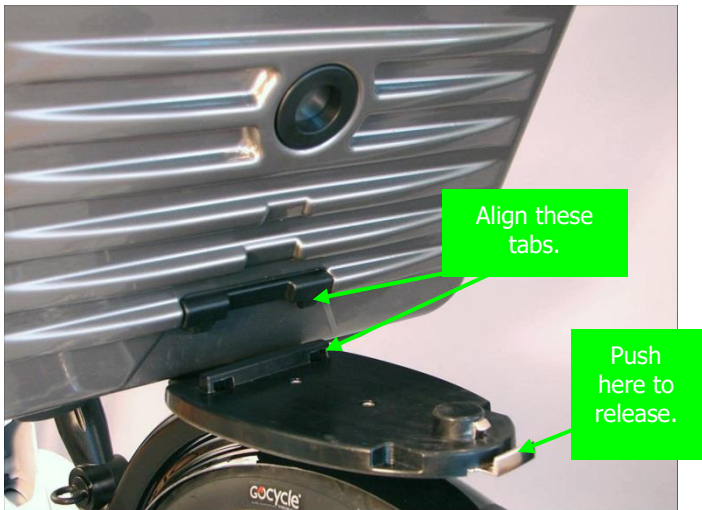


Figure 8-51

Ortlieb Office Bag 2



Figure 8-52

Ortlieb Office Bag 2



Figure 8-53

Ortlieb Bike Box 2



8.13 Soft Bag



Figure 8-54

Pack the Gocycle into the foam cradle.



Figure 8-55

Place the cradle into the soft bag.



Figure 8-56

Zip up...



Figure 8-57

...and go!



8.14 Hard Case



Figure 8-58

WARNING! This hard case is not suitable for air travel. The Gocycle will likely be damaged as a result of improper or abusive baggage handling.



Figure 8-59

Place cradle into hard case as shown.



Figure 8-60

Close the zipper while case is on its side, then rotate the case onto its four caster wheels.



9 MAINTENANCE AND ADJUSTMENTS

9.1 Maintenance and Service Centre Location

In the event that you require maintenance and service please refer to your nearest authorized Gocycle service center. A list of approved service centers can be found at www.gocycle.com. Before attempting any maintenance on your Gocycle you must visit www.gocycle.com/safety for up to date important safety related information.

9.2 Service interval

Recommended Service Interval	Performed By	Distance Ridden	Time
Pre-Ride Checklist	Owner	Before each ride	Before each ride
Service	Authorised Gocycle Reseller	After first 100 miles/160 kms	2 months after first ride
Visual Inspection	Owner	Every 500 miles/800 kms	Every 3 months
Visit www.gocycle.com/safety	Owner		Every 3 months
Service	Authorised Gocycle Reseller	Every 2000 miles/3200 kms	Annually

9.3 Water and Cleaning

We do not recommend that you ride your Gocycle in heavy rain or store it in damp or wet areas. Please read section 4.8 for safety recommendations under wet road conditions.

If you do find yourself riding while it is raining, we recommend that you use the motor. Using the motor will allow heat to build up in the motor and the electronics, which will evaporate the water from these moisture-sensitive components. Use caution when you use the motor on wet roads, as the roads will be slippery and the motor may cause the front wheel to spin.

Water and moisture reduce the life of products such as bicycles through rust and/or corrosion. Leaving water and moisture on the Gocycle could also result in premature failure of the electronics, battery or motor system.

Here are some best practice recommendations:

- If your Gocycle has water on it, we recommend that you wipe it dry as soon as possible with a towel.
- The less you expose Gocycle to moisture or water, the longer it will last.
- If you wish to clean the Gocycle, we recommend that you use a damp towel or cloth and mild liquid soap. First wipe down all areas with a damp towel, then wipe dry with a dry towel.
- To clean the rim and tyre, remove the PitstopWheel, soak the rim and tyre in a bucket of soapy water and then dry with a towel.



WARNING! Never spray the Gocycle with a hose or high-pressure cleaning system. Never use polishes, waxes or solvents to clean your Gocycle.

9.4 Adjusting the Shifting

The Gocycle has three speeds that may require adjustment from time to time as the shifting cable stretches.

To adjust the shifting mechanism:

1. Turn the barrel adjuster clockwise until it is turned 'in' all the way.
2. Shift into 1st gear.
3. On a flat surface and not in the presence of moving traffic, pedal gently, and then turn the gear shifter into 2nd gear. Did you feel a difference in the pedal resistance or hear the change in the sound of the rear gear clicking? If no, go to step 4. If yes, then continue pedalling gently and shift into 3rd gear. Did you again feel and hear a difference in the pedal resistance or the sound of the rear gear clicking? If no, go to step 4. If yes, you have adjusted the shifting correctly.
4. Stop the Gocycle and turn the barrel adjuster out one-half turn. Go to Step 2.



Figure 9-1

Adjust the shifting using this inline barrel adjuster.

9.5 Adjusting the Brakes

There are two types of adjustment for the brake pads: initial setup and minor adjustment.

9.5.1 General Overview

Gocycle's brakes are a floating rotor, mechanical calliper design. The calliper is actuated by a wire cable that connects to the brake levers. When the brake lever on the handlebar is pulled, the wire cable activates a mechanism that pushes ONLY one 'moving' inner side brake pad towards the disk rotor. When this occurs, the disk rotor will move sideways, or 'float', until it is pushed against the fixed outer side brake pad. Depending on the force used at the brake lever, the disk rotor will be slowed down or even stopped from rotating as the pressure between the moving inner and fixed outer brake pads increases.



Adjusting the brakes to give the right performance is a combination of adjusting the moving inner brake pad position (adjusted at the brake lever on the handlebars) and the fixed outer brake pad position (adjusted at the brake calliper.)

See the images at the end of this section for descriptions of key parts and adjustments.

Initial Setup

1. We recommend that you turn the Gocycle upside down and rest it on the seat and handlebar to perform this setup.
2. Loosen the brake barrel adjuster lock nut.
3. Turn in the brake lever barrel adjuster to the position shown (all the way 'in').
4. Turn out stationary brake pad adjuster as shown.
5. Spin wheel by hand.

Did you hear any rubbing of the moving inner brake pad against the disk rotor? If yes, proceed to step 6. If no, turn out brake lever barrel adjuster one full turn and go to step 5.

6. Turn out the brake lever barrel adjuster one-half turn, and then tighten the lock nut. You have now set the position of the moving inner brake pad. The key is to have this moving inner brake pad as close to the rotor as possible without having it touch the rotor. NOTE: If the moving inner brake pad is new, it may not be possible to adjust it so that it does not rub on the rotor. This is not a dangerous situation, and simply means that the pad must be worn down through normal braking before it will not 'drag' on the rotor. Losses due to brake pads dragging on the rotor are very small.
7. Now it is time to set the position of the fixed outer brake pad. Turn in the fixed outer brake pad adjuster as shown until you cannot turn it any further. At this point, you should not be able to rotate the wheel by hand.
8. Now turn the fixed outer brake pad adjuster one-half turn out (counter-clockwise).
9. Spin the wheel by hand. It should spin freely and you should not hear any rubbing noise from the pads touching the disk rotor. NOTE: some noise may always exist if the pad is new.
10. Squeeze the brake lever with heavy force and confirm that there is a minimum of 10mm distance between the handlebar grip and the brake lever at the point closest to the handlebar.
11. If the distance 'B' is less than 10mm, or the brake lever can be made to touch the handlebar, loosen the brake lever lock nut and turn the brake lever barrel adjuster out counter-clockwise one-half turn. Repeat the squeezing of the brake lever and check distance 'B' again. Repeat turning out one-half turn of the brake lever barrel adjuster until the brake lever cannot be made to touch the handlebar. Then tighten the brake lever barrel adjuster lock nut.
12. Check that the wheel rotates freely by spinning it with your hand. You should be able to spin it a minimum of 2 revolutions.
13. Repeat steps 1 to 12 for the front of rear brake as well.
14. Now you are ready to test the brakes.

Minor Adjustment

1. From time to time and under normal braking, the brake pads will wear down. This will result in more and more distance that the brake lever will have to be pulled in order to brake the Gocycles to a stop. Once the



brake lever can be made to touch the handlebar with substantial force, minor adjustment of the brake pad positions should be made.

2. Each brake pad, the moving inner and the fixed outer pads, should be moved closer to the disk rotor by equal amounts.
3. To make a minor adjustment, loosen the lock nut and turn out the brake lever barrel adjuster counter-clockwise one-half turn. Retighten the lock nut. Then turn in the fixed outer brake pad adjuster one-half turn clockwise.
4. Spin the wheel by hand. It should rotate freely. If the brake pads are rubbing, you may need to reposition the inner and outer brake pads by one-quarter of a turn.
5. Check that the brake lever cannot be made to touch the handlebar with substantial force.

NOTE: There may be some initial drag or contact of the brake pads with the disk rotor especially after fitting new brake pads or if the Gocycle is new. A running-in period may be necessary for the brake pads to wear down a bit to allow the wheel to rotate freely and without any drag from the pads.

NOTE: Brake lever 'feel' is a matter of personal preference. Some riders prefer 'sharp' braking; i.e., a small movement of the lever applies the brakes immediately. Others prefer more gradual braking so that severe stopping power only comes when the lever is close to the handlebars. In general, you should adjust the brakes so that you feel safe and confident when you brake. HOWEVER, as a rule of thumb, you should always have enough braking force to skid the rear tyre while seated in a normal position, AND you should have enough braking power to lift the rear wheel from the ground when seated normally and applying only the front brake. If you are unsure of how to check this, we suggest you ask an experienced and qualified bicycle rider, such as a mechanic at a bicycle shop, to check that your brakes have enough power to safely stop.

WARNING! Use caution during this running-in period as the braking performance will be reduced from normal and heavy force will be required to bring the Gocycle to a stop. Stopping distances will be greater than normal by as much as three times. Until you are totally confident of the distance required to stop from any speed, do not ride on a public road or in the presence of moving traffic.

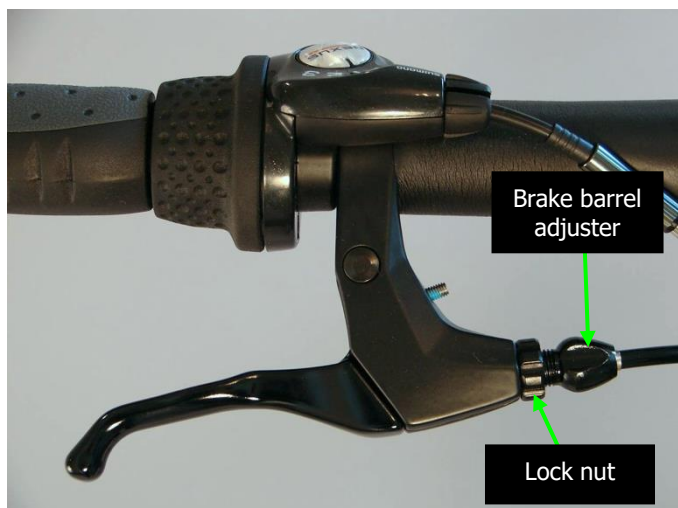


Figure 9-2

Adjusting the moving inner brake pad requires turning these two parts.

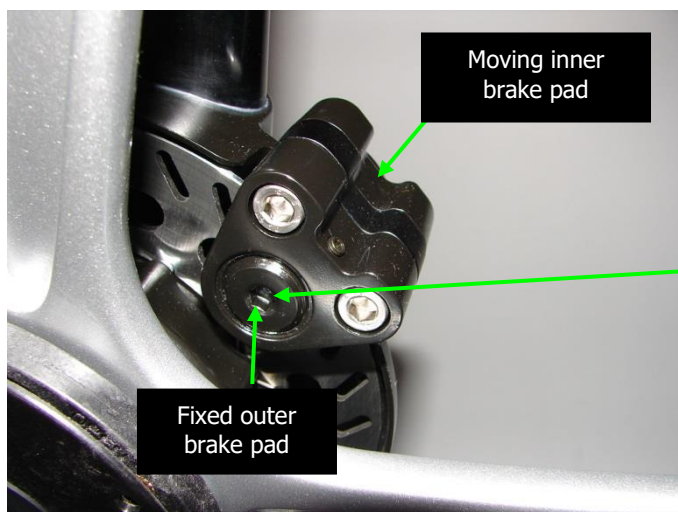


Figure 9-3

To adjust the fixed outer brake pad, turn this part.

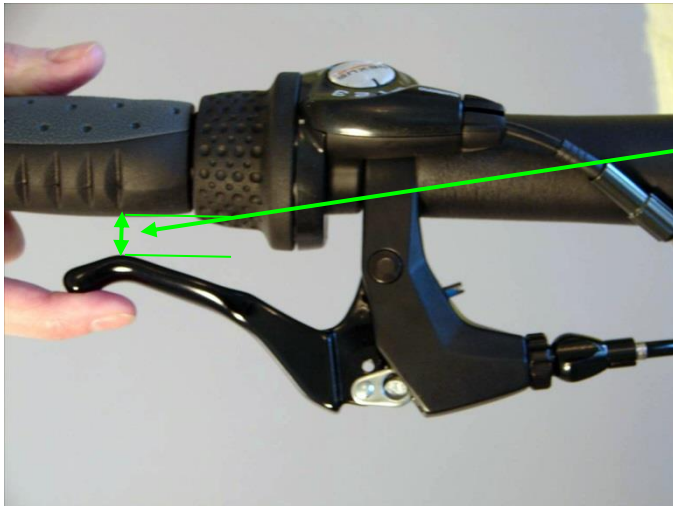


Figure 9-4: **Pre-Ride Checklist #17-g**

Distance 'B' should never be zero (For example, you should never be able to make the brake lever touch the handlebar when using full braking force.)

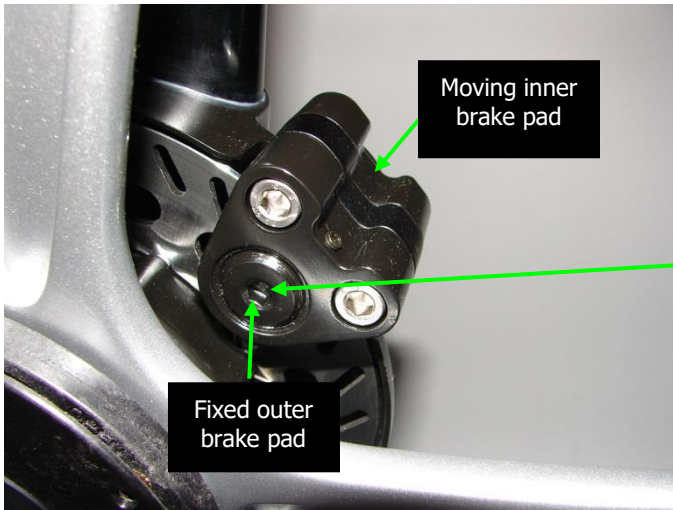


Figure 9-5

To adjust the fixed outer brake pad, turn this part.



9.6 Adding Brake Ferrules to Compensate for Cable Stretch

Over time the brake cables will stretch. In addition to this, the brake pads can wear out. The combination of both of these occurrences may result in the brake lever being pulled to the point that it touches the handlebar AND the brake barrel adjuster is turned out to the point where distance 'C' is more than 6.5mm as shown in Figure 9-6. In the event that it occurs, you must fit a brake ferrule to reset the braking system as shown in the following figures.

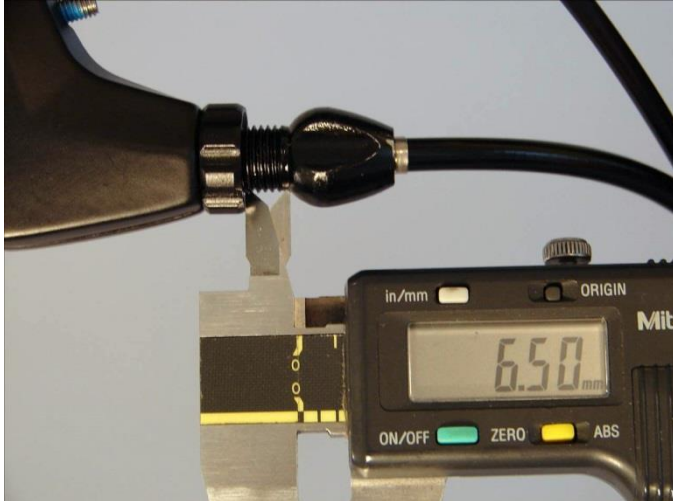


Figure 9-6

If the brake adjuster is more than 6.5mm out and the lever can be made to touch the handlebar, then you must fit a brake ferrule as shown in the following figures.

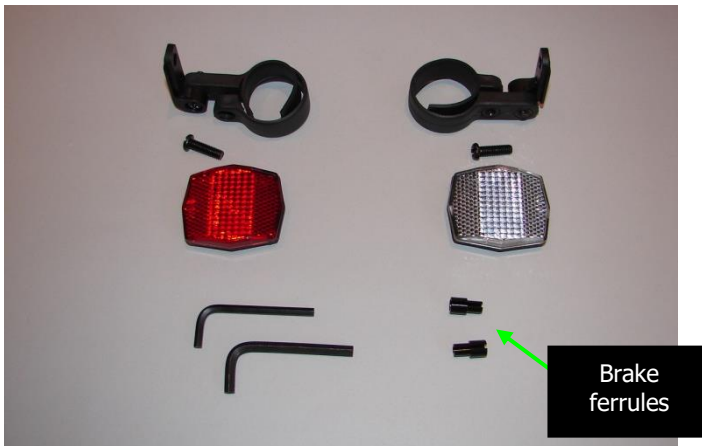
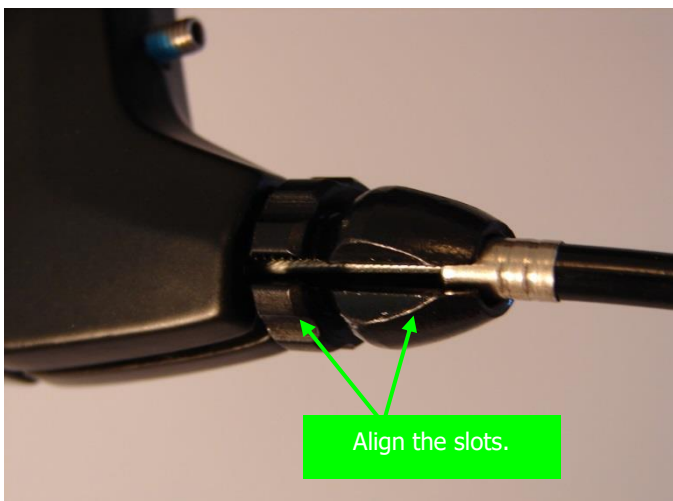


Figure 9-7

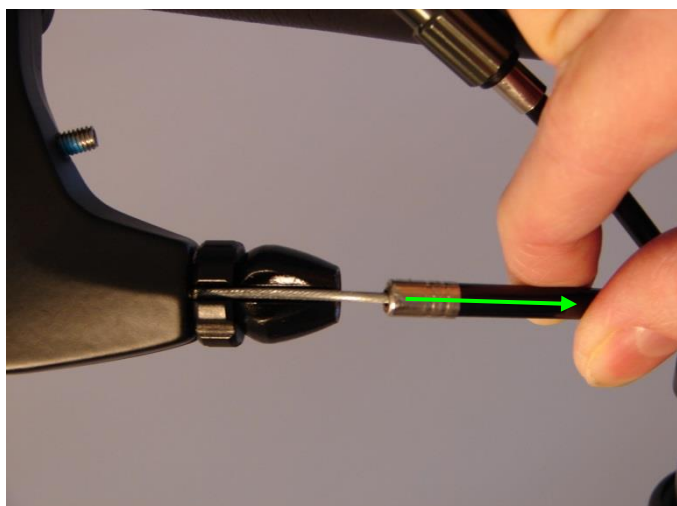
Locate the brake ferrules from the 'small parts bag'.



Turn the brake barrel adjuster in all the way and align it with the brake barrel lock collar as shown.

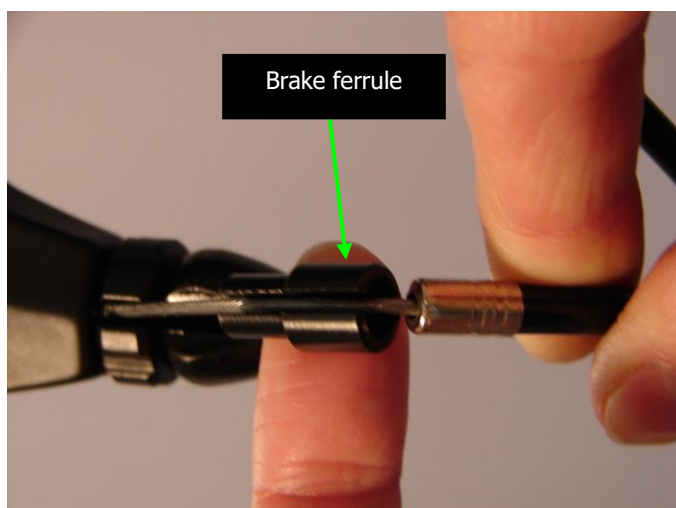


Figure 9-8



Pull out the brake cable housing as shown.

Figure 9-9



Insert the brake ferrule in line and onto the cable as shown.

Figure 9-10

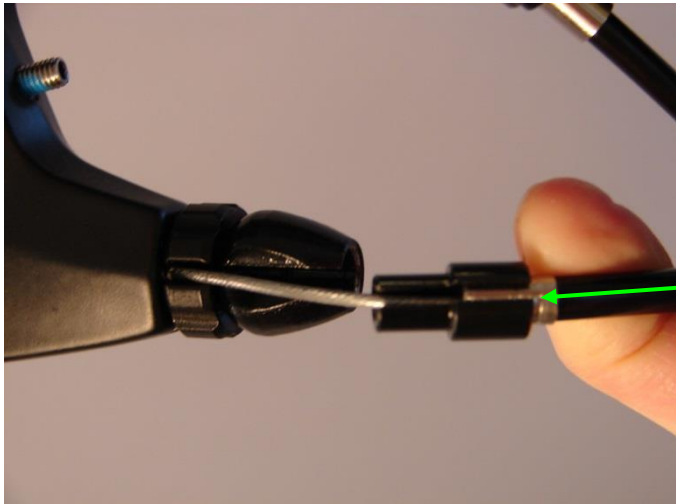


Figure 9-11

Push the brake cable housing into the ferrule as shown.



Figure 9-12

Now push the ferrule into the brake barrel adjuster as shown.



Figure 9-13

Complete! Now adjust the brakes as described in section 9.5.



9.7 Replacing the Brake Pads

In the event that the brake lever can be depressed to make contact with the handlebar grip, and the barrel adjusters on the lever and the stationary pads are turned clockwise completely, the brake pads will need to be replaced.

To replace the brake pads:

1. Remove the wheel.
2. Turn out the stationary pad adjuster until it is flush with the surface 'B' and turn out the brake lever adjuster.
3. Unscrew the two M6 bolts using an Allen key wrench to hold the M6 bolts (front brake only) stationary.
4. Remove the stationary brake pad and replace it with a new pad.
5. Using gloves or a cloth to protect your fingers from being cut on the disk rotor, pull the disk rotor away from the moving pad and calliper.
6. Using needle nose pliers, grab the tap of the moving brake pad and pull it out from the calliper housing.
7. While holding the disk rotor away from the calliper housing, insert a new brake pad into the moving calliper side.
8. Replace the stationary brake calliper and tighten the 2 M6 bolts to 6-8Nm torque. Hold the 2 M6 captive nuts (front fork only) while tightening.
9. Go to initial setup to adjust pads.

Note:

- Over time and in some cases the brake cables can become stretched to the point that even with new brake pads, the braking performance is unsafe.
- In the event that more than 8mm of length of dimension 'B' is required to prevent the brake lever from touching the handlebar grip, you will require a 'Brake Barrel Extender' KKL ID 124. This part can be obtained directly from Karbon Kinetics Limited.
- To install the brake barrel extender, turn the brake lever barrel in all the way.
- Ensure that the fixed outer brake pad adjuster is turned out all the way.
- Pull the brake housing (black cable) out of the lever barrel adjuster and insert the brake barrel extender.
- Proceed to section 9.5 for initial brake setup.

WARNING! If the brake levers can be pulled to the point of touching the handlebar grip, do not ride the Gocycle. The brakes are not safe and will require adjustment as outlined in section 9.5.

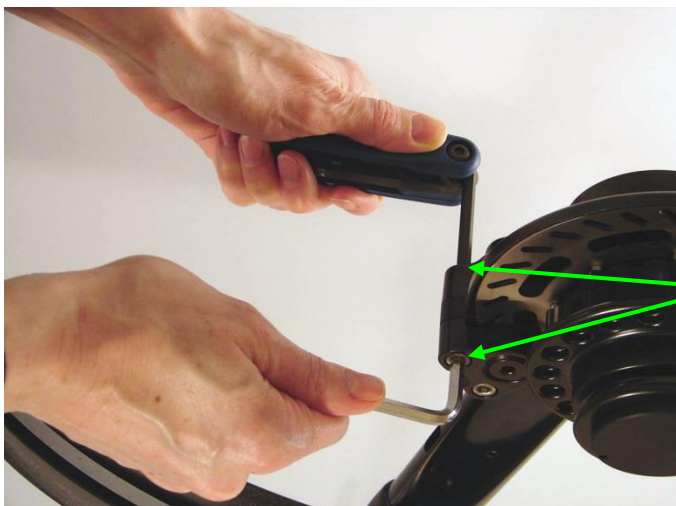


Figure 9-14

Loosen the calliper backplate bolts. Note that the rear calliper backplate does not have an inner bolt.



Figure 9-15

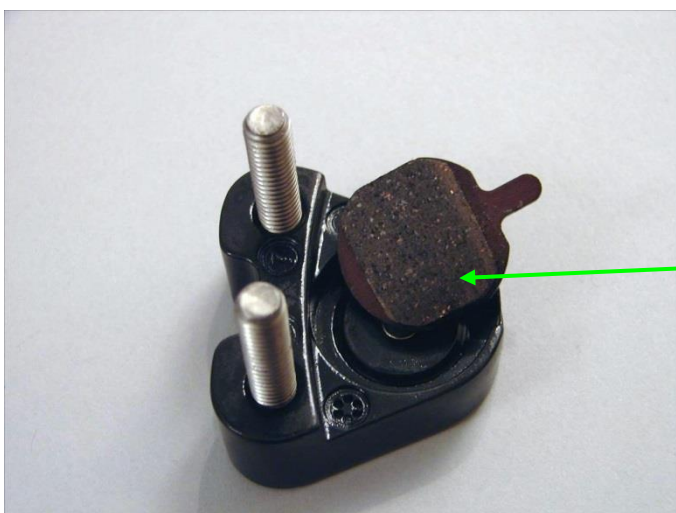


Figure 9-16

Lift out the worn brake pad.



Figure 9-17

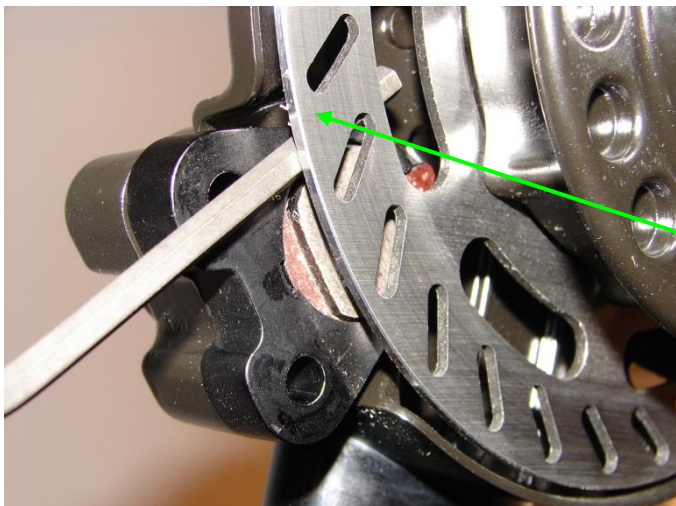


Figure 9-18

To remove the moving brake pad, insert a screwdriver or Allen key between the disk rotor and the calliper housing. The disk rotor is a 'floating' rotor design will lift away from the pad when you apply a parting action to the screwdriver.



Figure 9-19

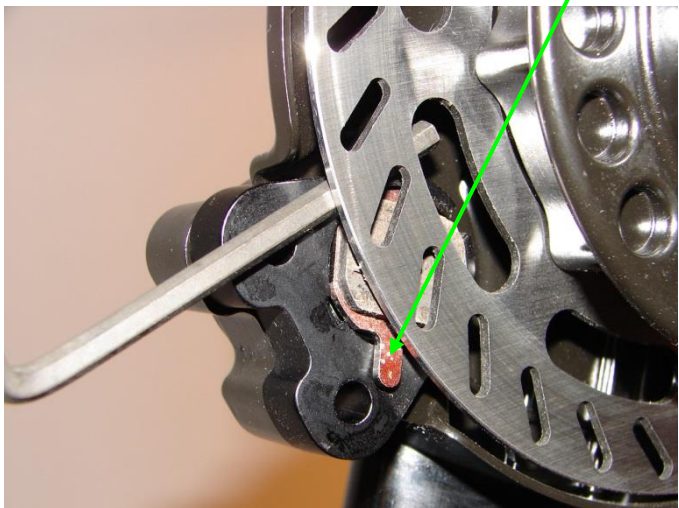


Figure 9-20

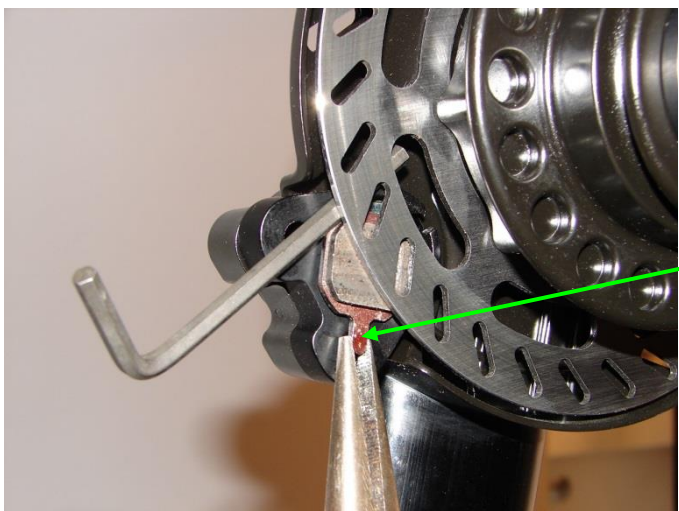


Figure 9-21

Using a screwdriver, twist the brake pad from here to here so that the tab is visible.

Remove the pad with pliers.

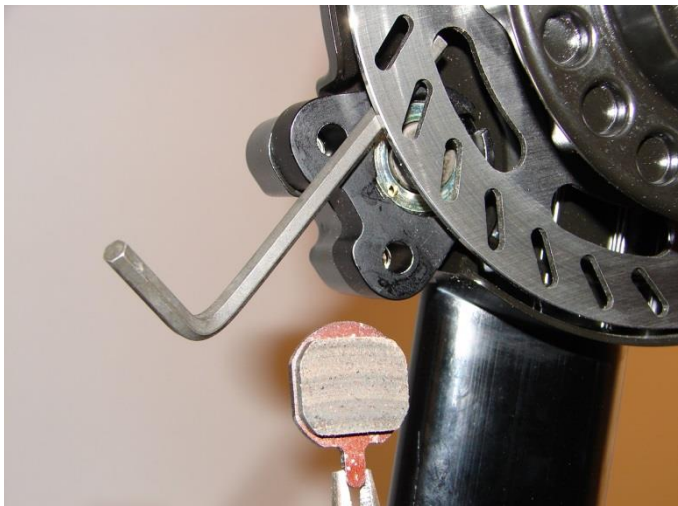


Figure 9-22

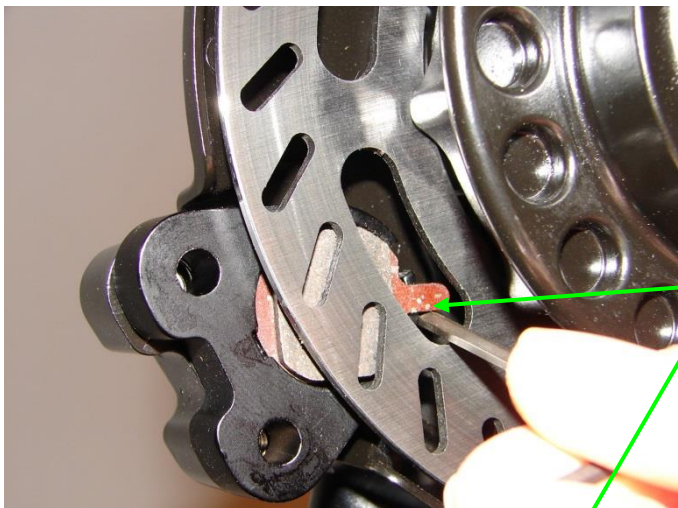


Figure 9-23

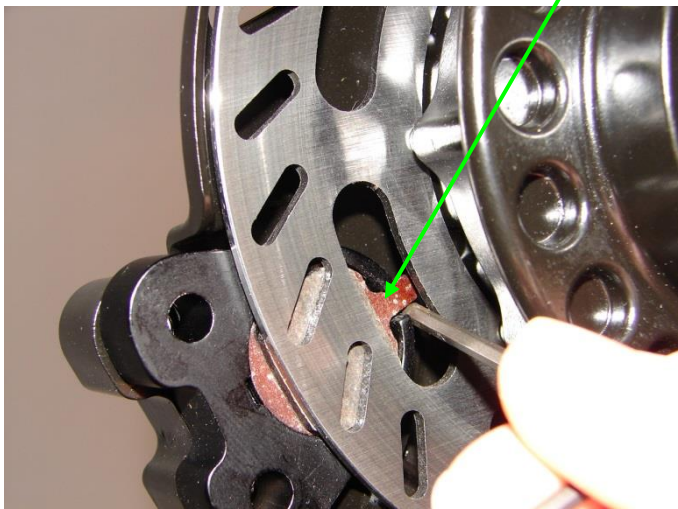


Figure 9-24

Insert the new pad by reversing the previous steps.



Figure 9-25

Re-fit and tighten the brake calliper backplate to 8-10Nm torque.

9.8 *Adjusting the Bottom Bracket*

It is unlikely that any adjustment of the bottom bracket should be required. However, if there is a 'knocking' or 'clicking' sound that coincides with each pedal stroke, then adjustment may be required.

To adjust the bottom bracket collar:

1. Loosen the M4 lock bolt as shown.
2. With a wooden mallet, gently tap on the drive side crank arm as shown.



Figure 9-26

Gently tap on the drive side crank as shown. Use a rubber mallet or a cloth to prevent damage to the crank arm and bolt.



3. Turn the two bottom bracket lock collars in the direction shown as tightly as you can by hand. Do not use pliers to tighten this collar as this will overstress the pedal crank bearings.

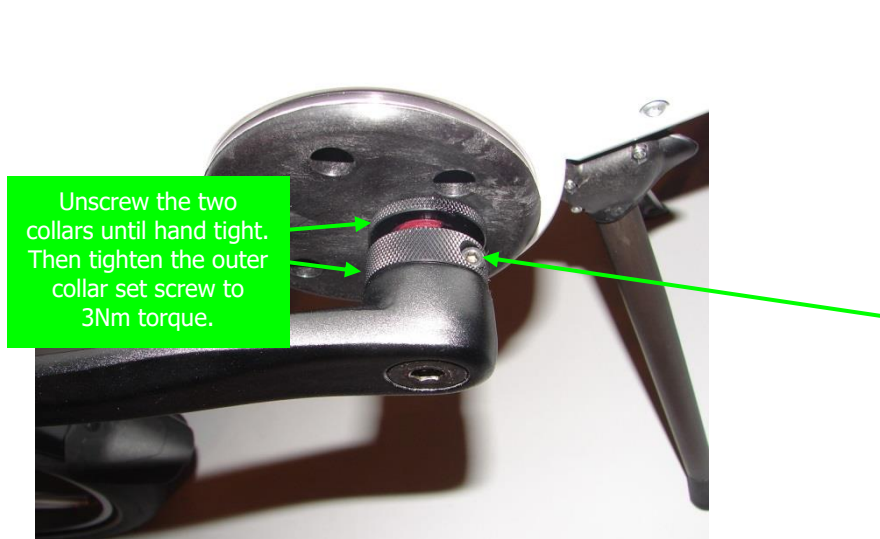


Figure 9-27

To adjust the bottom bracket, first loosen the bolt shown, then adjust the collars, then retighten bolt.

4. Turn the pedals backward to test that they are not unusually hard to turn. If they are unusually hard to turn, then you have over-tightened the lock collar and should loosen it slightly.
5. Tighten the M4 lock bolt to 2-3Nm.

9.9 *Adjusting the PitstopWheel*

9.9.1 General Adjustment

All three Pitstopwheel quick release cam levers should have equal resistance when closing or opening. As per the pre-ride checks there must be a maximum of 10mm **free play** measured at the tip of the cam lever when open. In

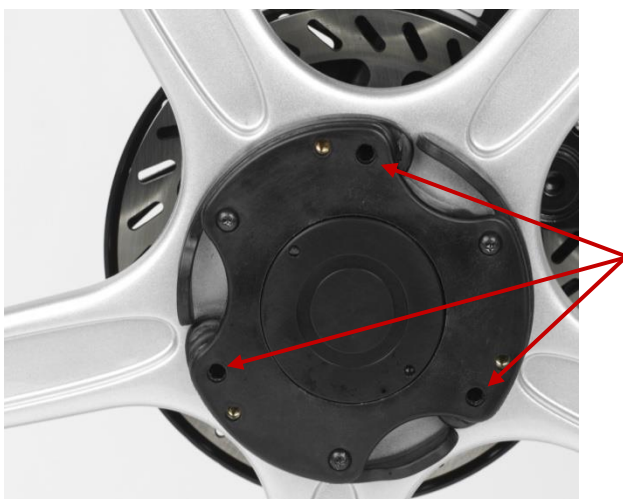


the event that the levers have different closing/ opening resistance or free play in excess of 10mm you must adjust the cam levers before riding.

Adjusting the Pitstopwheel cam levers is an important task throughout the lifetime of the product. Cam levers will settle after initial use and prolonged use will cause wear. As such the cam levers require vigilant attention and adjustment including checking every cam as part of the pre ride checks.



1. Locate the Pitstopwheel securely onto the hub and close all three cam levers. Take note of any differing engagement points and closing resistance.



2. Remove the red rubber grommets from the cam adjuster studs. This allows access to adjust the cam lever with a 4mm Allen key.



3. Keep 2 cam levers in the closed position and open one cam lever fully so that the back edge touches the next closed cam lever.



4. Lightly move the cam lever back and forth to gauge the extent of the **free play**.

Free play is defined as the portion of movement where there no noticeable pressure required to move the cam lever before it engages with the hub. It is measured at the tip of the cam lever.

5. If the **free play** exceeds 10mm at the tip of the cam lever, use the 4mm Allen key to reduce this.

6. Insert the 4mm Allen key into the stud and turn **clockwise** to **reduce** the cam lever free play and **anticlockwise** to **increase** cam lever free play. Hold the cam lever lightly while turning the allen key in order to detect the **engagement point** and **Free play**. To check if the adjustment has corrected the free play, remove the allen key and close the cam lever to allow the system to set and then reopen and re-check **free play**. Adjust until you are satisfied that the **free play** is 10mm or less.



7. Repeat the process for the other two cam levers. Then complete one more full check of each cam lever to ensure that once adjusted and settled the resistance to close the cam levers is equal across the three levers.

8. Cross check reference: there should now be an equal resistance across all three cam levers requiring 3-5kg to open an individual cam lever.

9. Ensure all cam levers are securely closed.



11. Repeat the process for the other wheel on the other hub.

NB: If you do swap wheels between hubs while riding ensure to check the cam lever free play again as there can be slight differences between front and rear hubs.

9.9.2 Fleet management and Tour Operators

If you operate a fleet of Gocycles that are lent to people who are not accustomed to the Gocycle or are running a tour operating service with the Gocycle as the chosen vehicle we would highly recommend fitting the tamper proof security bolts. This reduces tampering and preventing novice users from making a mistake when assembling the product that could potentially make it unsafe to ride.

If there is a requirement to fold the Gocycle and remove the wheels during use then the importance of the pre ride checklist must be taught to the operator of the Gocycle. Furthermore, all Gocycles must be PDI'd with cam lever adjustments completed before each and every handover to the tourist/ fleet user.

9.10 Tyres

Gocycle comes fitted with specialised and high-performance tyres designed to give the lowest rolling resistance possible. We do not recommend that you use lower quality tyres than those supplied with Gocycle.

We recommend that you operate Gocycle with 25-30 psi on the front tyre and 50-60psi on the rear. This will give the best balance of low rolling resistance and comfort.

We do not recommend that you inflate the tyres to more than 60psi. Higher inflation pressures will reduce comfort and the life of the rim and tyre.

WARNING! Inflating the front tyre to more than 30psi places high shock loads into the motor drive clutch while using the power on acceleration or over rough roads. We strongly recommend that if you are running higher than 30psi front tyre pressure or you are above 85kg in weight, that you adopt a smooth riding/power style. Just like in a car as you would not 'drop' the clutch on rough roads while the engine is revving high or accelerate rapidly on very rough roads, we recommend that you release the power button when going over potholes or speed bumps or similar obstructions in the road.

Smooth riding styles are generally proven to be the most efficient and fastest, with the bonus of giving your machinery the longest life span.

Tyre pressure should not be less than 20psi on the front and 40psi on the rear.

When changing a tyre, always use plastic tyre irons. Never use a metal tyre iron as you will damage the rim.

Note the correct direction of the tread of the Gocycle tyre in relation to the wheels (see figure below).



In the event that you wish to use a lower performance tyre with increased puncture resistance, you can use any BMX-sized tyre (406x40-47) from 1.75" to 2". We recommend the Vredestein Moree tyre as an alternative to the Gocycle performance tyre.

WARNING! When the centreline grooves in the tyre have worn down, it may be dangerous to continue to ride on the tyre, and in this event, we recommend that you replace the tyre.

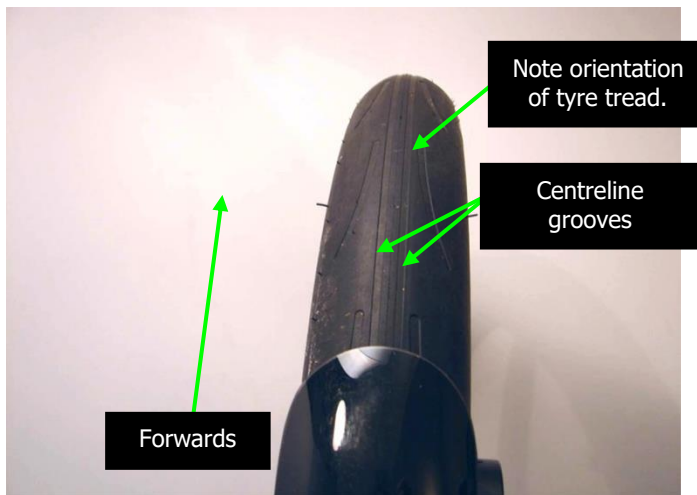


Figure 9-28

Fitting the tyres and tyre tread orientation

9.11 Seat Rotation

In the event that the seat twists side to side during riding, you can increase the tension in the seat height adjustment lever as follows:

Turn the black washer clockwise to tighten and counter-clockwise to loosen the seat height adjuster lever.

Do not turn the washer more than one eighth of a turn either way before inserting the upper seat tube assembly into the lower seat tube assembly and testing the tightness of the seat height adjusting lever.

It is not possible to prevent all rotation of the seat.

WARNING! Do not over-tighten the black washer. If the seat height adjuster lever feels too tight, do not force it. Loosen the black washer as described above.



Turn black washer clockwise one eighth of a turn between adjustments to tighten seat lever operation.



Figure 9-29



Figure 9-30

Do not store the upper seat post in the lower seat post in the tightened position with the rubber bush exposed as shown. The rubber bush will deform over time and it will not be possible to slide the seat post freely.

9.12 Adjusting the Headset

The headset should be tightened to the point where the handlebars do not 'flop' freely when the Gocycle is lifted off the ground and tilted to the side.



Figure 9-31

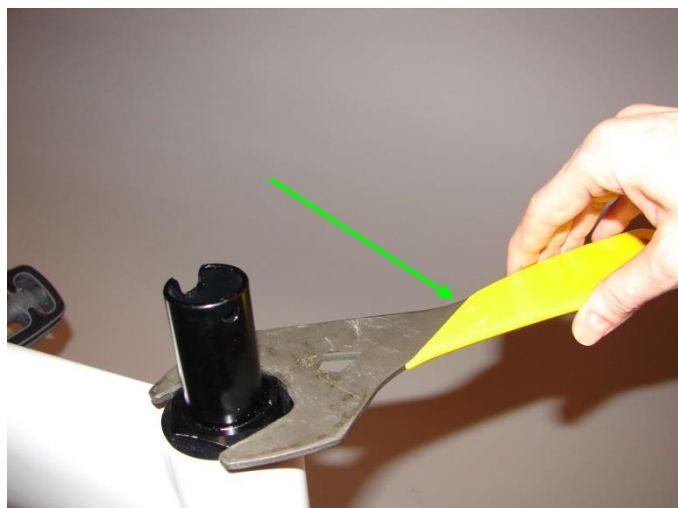


Figure 9-32

Adjusting the headset

Use a 40mm flat wrench to loosen or tighten.

9.13 Adjusting the Bearings on the Rear Hub

It is unlikely that you will need to adjust the bearings on the rear hub.

However, in the event that the rear wheel develops play (more than 1mm at the rim) or it feels heavy to pedal (i.e., the hub is too tight), you may need to tighten the bearing cone.

To check if this needs to be done, turn the Gocycle upside down. Using gentle pressure, move the wheel at the rim side to side. Some flex in the wheel is normal, but if you feel that the wheel is loose, you will need to adjust the bearing cone as shown below:



Figure 9-33

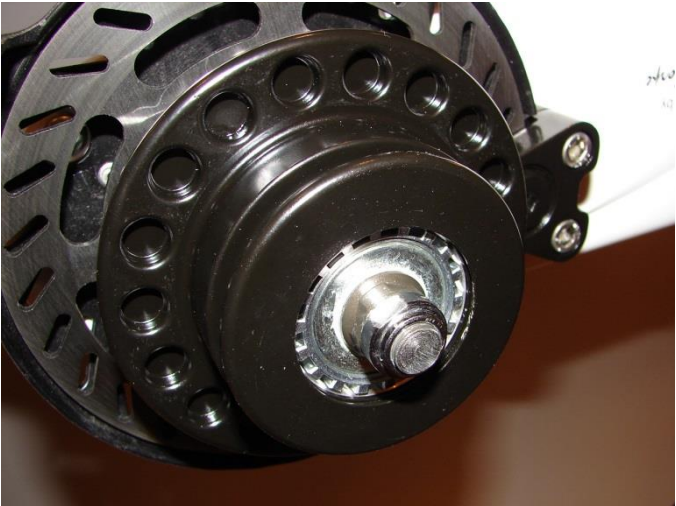


Figure 9-34

Adjusting the rear hub gear bearing cups

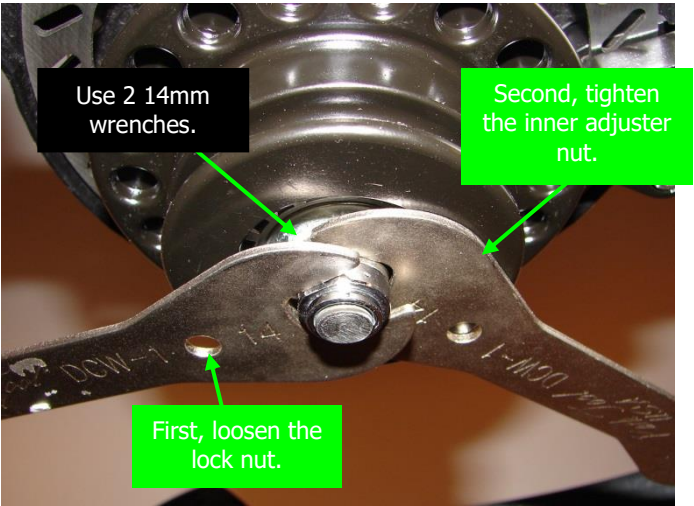


Figure 9-35

Adjusting the rear hub gear bearing cups



Figure 9-36

Between adjustments, check that the rear hub rotates in the freewheel direction. The bearing cup nuts should be tightened until the wheel does not have more than 1mm of 'free' play at the rim, and the wheel is able to rotate freely. This is a matter of compromise and feel. If in doubt, consult KKL for advice.

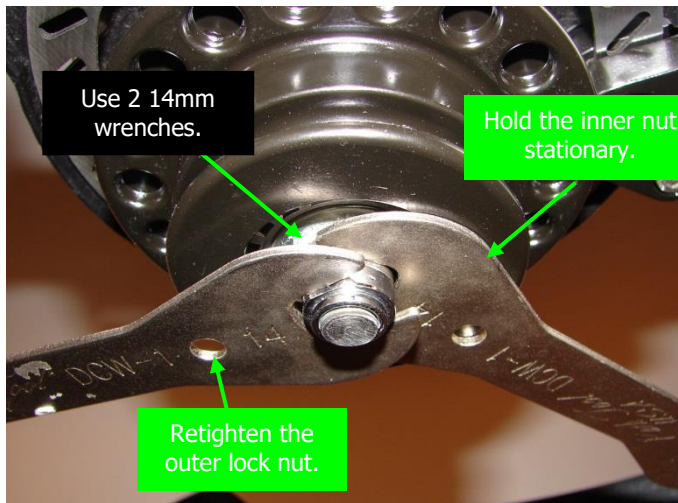


Figure 9-37

Retighten the outer lock nut. Note: after tightening the outer lock nut, the hub may need re-adjusting due to the nature of the tightening process. You may need to repeat this process until you have the desired freeness of rotation and minimal lateral play at the rim.