

# Owner's Manual

for Gocycle® GS

Version August 2018





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### 1 DISCLAIMER, COPYRIGHTS AND TRADEMARKS

#### 1.1 Original Instructions, Translations and Updates

Original instructions are produced in English language. Translations of the original instructions to other languages may take place, however Karbon Kinetics Ltd accepts no responsibility for any errors or misinterpretation of information as a result of such translation.

Visit www.gocycle.com/manuals to check for any new revisions or updates to this manual.

#### 1.2 Disclaimer

The specifications, information and performance of the Gocycle and other products manufactured by or sold under license granted by Karbon Kinetics Limited and featured in this document may change without notice. The use of this information or products and the conditions under which the products are used are the sole responsibility of the buyer and/or the rider. It is the buyer's and/or rider's responsibility to determine the correct and safe selection of 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 of a product manufactured by 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 and/or rider. By using this product manufactured by or sold 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, that you agree you are using and operating the product at your own risk, and that no warrantees or guarantees are made by Karbon Kinetics Limited, expressed or implied, on performance or operation.

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#### 1.4 Trademarks

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Pitstoplock<sup>TM</sup>, Gocycle-Connect<sup>TM</sup>, Gocycle-to-Work<sup>TM</sup>, EmpowerPack<sup>TM</sup>, Vgonomic<sup>TM</sup> Adjustment, Lockshock<sup>TM</sup>, Shocklock<sup>TM</sup> and Performance Commuting<sup>TM</sup> 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.



### 1.5 Standards and Conformity





Gocycle is an electric power assisted cycle developed in accordance with:

2006/42/EC The Machinery Directive

2004/108/EC The Electromagnetic Compatibility Directive

EN 15194:2009+A1 Cycles - Electrically power assisted cycles - EPAC Bicycles

EN 14764:2005 City and trekking bicycles - Safety requirements and test methods

US Type 1 & Type 2 Electric Bicycle



#### 2 SAFETY

## 2.1 General Warning

This manual contains many warnings and cautions, which if ignored, may increase the risk of injury to you as a rider, may cause damage to the product or may invalidate the warranty. We recommend that you read and understand this manual in its entirety, prior to your first ride. Before riding your Gocycle you must visit <a href="www.gocycle.com/safety">www.gocycle.com/safety</a> for up to date important safety related information. Riding any bicycle involves the risk of product damage, serious injury or even death. Such risks are increased in busy, urban environments with moving traffic. By choosing to ride a Gocycle, you assume the responsibility for these risks, and it is important that you know how to ride responsibly and to exercise proper maintenance to minimise such risks and potential damage. Do not try to ride beyond the limits of your ability or the limits of the Gocycle.

We strongly recommend that you learn more about the inherent risks associated with riding bicycles and suggest that you:

- Ask your local bike retailer for information or instruction on safe cycling.
- Ride within your means and ability.
- Attend a training session or safe cycling workshop run by many local bike clubs, police departments, schools or government support groups.
- Search "bicycle safety" online for reference information.

Skills of riders can vary; for example, it takes a highly skilled rider to travel at high speeds and/or close to obstacles, cars or other cyclists. Do not ride in a manner that exceeds the limits of your ability.

#### 2.2 Intended Use

Gocycle is an electric bicycle developed and designed for commuting usage and/or simple riding in fair weather and at speeds relevant to safe and appropriate travel in an urban or suburban environment. Where applicable, the product meets the minimum requirements outlined in EN 14764:2005 and EN 15194. Abusive riding styles or inappropriate use will invalidate any warranty protection offered in this agreement.

WARNING! Understand your Gocycle and its intended use. Using your Gocycle in the wrong manner or for the wrong purpose can be dangerous and may impact the service life of the product.

The Gocycle is a power-assisted bicycle intended for sensible use by physically competent riders. If you have any concerns or doubts about your use or enjoyment of such a product due to a medical condition, an illness or if you are recovering from treatment for a condition or illness, you should consult your doctor regarding the suitability of the product for you. If 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 Karbon Kinetics Limited products.

WARNING! Regulations for electric bicycle vary throughout the world and are constantly being updated. There may be usage limitation in place in your local region restricting access on certain bike paths, roads, parks or other common use areas. We strongly recommend that you consult your local electric bicycle regulatory body and understand the legislation prior to operating this product. Whilst most electric bicycles operated in accordance with local legislation are treated in a similar manner to



a bicycle, your insurance provider may have a different policy with regards to bicycles and electric bicycles. We also strongly recommend that you consult your insurance provider and notify them about your intended usage of this product prior to operation. Understand your Gocycle and its intended use. Using your Gocycle in the wrong manner or for the wrong purpose can be dangerous and may impact the service life of the product.

#### 2.3 Modifications and Refinishing

WARNING! Do not modify or refinish your Gocycle or Gocycle components in any way. Such modifications or refinishing will void any applicable warranty. Do not modify your Gocycle with firmware not compliant with your local regional laws and regulations.

Modifications can cause damage and can increase the risk of failure and accidents which may result in serious injury or death and can render the product non-compliant which place you and others at risk. Refinishing can hide structural damage, such as fatigue cracks or structural problems which may also result in an accident.

#### 2.4 Maximum Design Limit

WARNING! This product has been designed with a maximum recommended weight limit of 100kg (220lbs) for the rider, clothing and all luggage, and is intended for use on paved roads. For rider and luggage weight 100-115kg (220-250lbs): riding style, road condition, tire pressures and luggage position may reduce product service life. Luggage weight should not exceed 10% of total rider and luggage weight. Never exceed rider and luggage weight of 115kg (250lbs) at any time. Exceeding this limit will void all warranties and may result in the product being unsafe for operation.

### 2.5 Riding in Low Light Conditions

In low light conditions at night, dawn, dusk or during adverse weather conditions such as fog, the visibility of cyclists is dramatically reduced.

WARNING! Never ride a bicycle in low light conditions without appropriate front and rear lights fitted and "on" (illuminated) that meet or exceed the national standards of the country in which it is being ridden.

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

• For reference when selecting lights, your Gocycle has a 34.9mm diameter seat post and a 28.5 mm upper handlebar stem. We recommend that you choose a light with a variable length strap mounting system.

The following are additional recommendations:

- Wear bright, reflective clothing such as reflective vests, leg and arm bands.
- Ensure that your Gocycle is equipped with correctly positioned reflectors (see 4.6 Assembling the Front and Rear Reflectors).



#### 2.6 Stopping the Gocycle



The Gocycle is equipped with front and rear hydraulic disk brakes, operated by two levers on the handlebars (shown). Before riding, it is important to familiarise yourself with which brake lever operates the front brake and which operates the rear brake. Proper use of your brakes will slow and bring your Gocycle to a safe and controlled stop.

WARNING! To slow or stop the Gocycle in normal operation, apply the brakes appropriately. In the event that an emergency stop is required, apply the brakes appropriately and in a safe and controlled manner until you have brought the Gocycle to a complete stop. Do not release the brakes until it is safe to do so.

Aggressive use of the brakes may cause your Gocycle to skid, potentially resulting in loss of control.

Anticipate your need to stop and slow using appropriate pressure on the brake levers.

## 2.7 Riding in Wet, Cold or Icy Conditions

Under wet, cold or icy conditions, the stopping power of your brakes and tyres (as well as the brakes of other vehicles sharing the road) is dramatically reduced. This makes it harder to control speed and easier to lose control. It also makes skidding during turning more likely. Ride more slowly and cautiously when in wet weather. If it is cold, near or below the temperature when water freezes, be careful of ice on the roads which could be dangerous.

WARNING! Wet or icy conditions impair 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.

We do not recommend riding in heavy rain or standing water, but we do understand that this is not always avoidable. If your Gocycle gets wet, clean and dry it within 15 minutes of heavy wet weather riding. See 6.4 Cleaning and Preventing Corrosion for more information.



### 2.8 Limited Life Span

WARNING! Bicycles have a limited life span for safe operation and are not indestructible.

As with all mechanical components, bicycle components are subject to wear and high stresses. Different materials and components may react to wear, stress or fatigue in different ways. Exceeding the useful life of your Gocycle may be hazardous.

The expected life span of a Gocycle or Gocycle component will vary with the material and construction of the frame and components, the maintenance that is received over its life and the type and amount of riding. Any unusual or abusive riding style, such as off-road cycling, competitive riding, stunt cycling, jumping or riding at excessive speed and braking hard, can accelerate wear and fatigue of components to the point where premature and sudden failure of a component may occur without warning and risk of injury is increased.

WARNING! Regular maintenance is essential. See Section 6. Maintenance and Adjustments in this manual and check on <a href="www.gocycle.com/safety">www.gocycle.com/safety</a> every 3 months to see if there are any relevant technical bulletins relating to your frame number. Failure to perform regular checks and maintenance could result in a reduced service life of the product or render the product unsafe to ride.

Any form of crack, scratch or change of colouring in highly stressed areas indicates that the life of the component has been reached and you should replace it before any further use.

See Section 6.3 Visual Inspection Guide for parts of the Gocycle that require visual inspection from time to time.

An impact to your Gocycle, either major or minor, can cause stress and fatigue on the Gocycle and its components or compromise the integrity of the electronics, including the battery, electronic controller, motor drive system or wiring. In the event of an accident and if safe to do so put your battery into sleep mode. (see Section 5.3.3.) Check for visual damage before continuing to ride the Gocycle. If the Gocycle has sustained damage other than light cosmetic scratches such as dented, cracked, bent or misaligned components, do not ride your Gocycle until it has been inspected by an authorised Gocycle service centre. If you are not comfortable inspecting your Gocycle, consult techsupport@gocycle.com.

#### 2.9 First Ride

WARNING! First familiarise yourself with the modes of operation, controls and performance of your Gocycle before venturing onto busy streets.

We strongly recommend that you familiarise yourself with your new Gocycle by first riding it in a controlled environment, away from potential hazards such as moving traffic and obstacles. It is important to become familiar with the modes of operation, controls, brakes and the different performance characteristics inherent in the electric motor.

WARNING! Your braking efficiency will increase during the first few rides as your brake disks and pads "bed in". To accelerate the increase in braking performance, perform a number of controlled stops under hard braking.



SAFEFY! Please ensure that you visit <a href="www.gocycle.com/safety">www.gocycle.com/safety</a> at least once every three months to check if there are any Technical Bulletins relating to your model and frame number. Having your contact email as the main registered email with the GocycleConnect App is strongly advised.



#### 3 WARRANTY

Please view current warranty terms and conditions at the webstore you purchased your Gocycle from. <u>www.gocycle.com</u>.

### 3.1 Warranty Registration and Setup

In the event that you wish to make a warranty claim, you must provide your original proof of purchase (sales receipt or order confirmation). Keep this information in a safe place. Before we can process a warranty claim, you must have registered your Gocycle via the Setup process on the GocycleConnect App. Doing so will enable us to contact you with important product safety-related information, should the need arise.

Please complete the Setup process on the GocycleConnect App to register your Gocycle for warranty and in order to stay informed of important safety notices.

#### 3.2 Gocycle Frame Number

Your Gocycle comes with a unique identifier called a frame number, positioned on the rear of the Gocycle. An example is shown below:



Your Gocycle frame number will be required when registering your Gocycle, making a warranty claim or making contact with Karbon Kinetics Ltd.



### 4 SETUP, CONFIGURATION, AND GETTING STARTED

#### 4.1 Setup



After you have received your Gocycle, download the GocycleConnect App from the Apple App Store or the Google Play Store, then click on the Setup button in the App to register, assemble and configure your Gocycle. After completing the setup process, you will be ready to ride!

We are here to help and if you need any technical assistance, feel free to get in touch with Gocycle Technical Support via email: techsupport@gocycle.com

Thank you again for choosing to ride the best electric bike in the world!

The Gocycle Team.

### www.vimeo.com/gocycle

### 4.2 What's in the Small Parts Bag







### 4.3 Warning! Take Care during Assembly

During assembly or disassembly, do not over-fold the Cleandrive more than is necessary to engage or disengage the Gocycle Lockshock $^{\text{TM}}$ . Over-folding the Cleandrive can cause the internal cables to become taut and in some cases may result in cables becoming disconnected, ultimately affecting the operation of the product.





## 4.4 Handlebar Reach Adjustment



In addition to Gocycle's patented Vgonomic $^{\text{TM}}$  adjustment (changing the effective cross-bar length when lowering or heightening the saddle), it is also possible to make further adjustments to accommodate most riders comfortably by changing the handlebar reach.



Open the quick release (QR) lever, as shown.

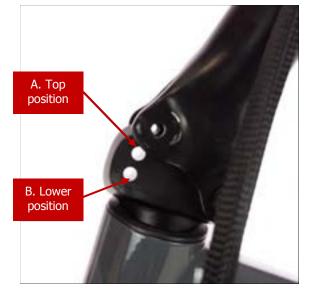


Undo the quick release lever (anticlockwise).





Completely remove the quick release.



The handlebar stem adjuster has two positions:

Use the top position for aft adjustment. (Shorter rider: least reach, handlebars closest to saddle).

Use the lower position for forward adjustment. (Taller rider: greatest reach, handlebars furthest from saddle).



Align the desired position and re-insert the quick release, as shown.





With the quick release inserted and in the open position as shown, rotate clockwise STOPPING before it is fully tight as shown below.



Close the quick release lever. The lever should feel harder to close at it reaches a 90- degree position.

The QR should have roughly 120 degrees of **free play** before it beings to engage. The closing resistance should act over the remaining 60 degrees of movement till it is firmly shut in the correct location.



## 4.5 Assembling the Seatpost Tool Holder



Orientate the Tool Holder as shown



Locate the Snap Rail Tool Holder above the saddle rails as shown. Apply pressure onto the right hand side of the Snap Rail Tool Holder until this side is properly located onto the right saddle rail. Apply pressure onto the left hand side of the Snap Rail Tool Holder until this side is properly located onto the left saddle rail. Confirm both sides of the Snap Rail Tool Holder are properly located onto the saddle rails.





Insert the 4mm Allen key supplied with the Gocycle.



Tool Holder installation is complete.



### 4.6 Assembling the Front and Rear Reflectors

Front and rear reflectors are supplied as standard with your Gocycle and can be found in the small parts bag.

Reflector angles and mounting positions may vary from region to region. Consult your local regional authority to confirm local requirements.

To install the rear reflector:



Mount the rear reflector on the upper seat post

CAUTION! Do not assemble the rear reflector too close to the saddle as it may be obscured by clothing



Open the rear reflector bracket





Place the bracket around the upper seat post and tighten, using a screwdriver, to secure in a position as shown



Mount the rear (red) reflector onto the bracket and listen for a "click"



Adjust the bracket to ensure that the reflector is vertical



To install the front reflector:



Open the reflector bracket



Place the bracket around the upper stem and tighten, using a screwdriver, to secure in the position as shown





Mount the front (white) reflector onto the bracket and listen for a "click"



Adjust the bracket to ensure that the reflector is vertical



Fix the assembled reflector in a vertical position as shown



# 4.7 Assembling the Bell



Bell and mounting bracket

(Supplied in small parts bag)



Clip the mounting bracket over the left brake lever as shown



Tighten the bell mounting bracket with a Torx T10 to 2-3 Nm.





Assembled bell



### 4.8 Labelling for USA Type 1 & Type 2 Configuration

## IMPORTANT INFORMATION: How to label for US Type 1 or Type 2 Ebike

Gocycles configured as US Type 1 or Type 2 Ebikes must be labelled appropriately as below:

#### US Type 1

- Maximum speed of 20 miles per hour
- Pedal only activation of motor



#### US Type 2

- Maximum speed of 20 miles per hour
- Pedal or throttle activation of motor



Affix appropriate label as shown below:









Additional sets of US Type 1 & 2 labels are available for purchase at www.gocycleusa.com.

Description: US Type 1 & 2 Set Product Code: KKL-2885-3502-01

If you have any queries regarding this, contact Gocycle Customer Service: customerservice@gocycle.com.

For queries of a technical nature, contact Gocycle Technical Support: techsupport@gocycle.com.

www.gocycle.com



#### 5 GOCYCLE LITHIUM BATTERY

#### 5.1 Important Information: Lithium-Ion Batteries

The following important information applies to your Gocycle lithium battery. Read carefully to ensure the proper and safe operation and storage of the battery.

- Your battery has been designed for use with generation-three (G3) and GS Gocycle. Note: the G3 battery can be used also with G2 Gocycles. Do not use the battery with any other product.
- Your battery is intended to remain within the Gocycle frame at all times and should be removed only by a Gocycle-approved service centre or with the assistance and approval of a Gocycle technical support executive.
- Do not short circuit, disassemble, damage or modify the battery.
- Do not expose the battery to fire or high temperatures over 40°C (104°F).
- Do not expose the battery to water or moisture. Water can corrode or damage the internal battery safety devices and cause the battery to overheat, ignite, rupture or leak.
- Do not drop or subject the battery to strong impacts. Impacts can damage the internal battery safety devices and cause the battery to overheat, ignite, rupture or leak.
- Only use the specified charger. An inappropriate charger may cause damage or injury through fire or electric shock.
- Do not leave the battery unattended whilst charging.
- Only use, charge or store the battery in an environment with ambient temperatures between 0°C and 40°C (32°F and 104°F) and a humidity of 45% to 85% RH.

### 5.2 Getting to Know Your Gocycle Lithium Battery



1	LED 1
2	LED 2
3	LED 3
4	LED 4
5	Button (for battery charge test and changing battery mode)
6	Charging port



## 5.3 Gocycle Lithium Battery: Usage

## 5.3.1 Proper Charging Sequence



Open the rubber charging port cover, as shown



While holding open the rubber charging port cover, insert the charging lead as shown



Plug the charger into mains electricity and turn on (where applicable)





The charger light will turn orange to indicate charging. Charge time up to 7 hours with charger shown. For faster charging times the Gocycle quick charger is available. Visit <a href="www.gocycle.com">www.gocycle.com</a> for more information.



When the battery is fully charged (10 LEDs showing on the dashboard display (G3) or 100% on the GocycleConnect App for GS), turn off the mains electricity.



Remove the charging lead and replace the rubber charging port cover





BEST PRACTICE! With the battery fully charged and the charger disconnected, turn the battery off by placing it into Sleep Mode. See section 5.3.3 Returning the Battery to Sleep Mode for more information. In any event, leaving the Gocycle on charge continuously for more than 24 hours is not recommended.



Ensure that the rubber charging port cover is in place before riding.



### 5.3.2 Battery Operation Mode (Wakes the Battery for Use)

The battery must be in *Operation Mode* before you can use your Gocycle. If the battery is not in *Operation Mode*, the Gocycle GS motor and Bluetooth to connect to your smart phone will not function.

To wake the battery for use:



Press the button until the LEDs begin to flash



The two left LEDs (1,2) will begin to flash while the battery is waking up.

After the LEDs turn off you can check your fuel level by momentarily pressing the button.

## 5.3.3 Returning the Battery to Sleep Mode

If no activity is detected by the Gocycle, the battery will enter sleep mode after approximately 5 hours.





To manually enter sleep mode, press and hold the button until the right LEDs (3,4) begin to flash



LEDs (3,4) will continue to flash whilst the battery enters Sleep Mode



All LEDs (1,2,3,4) will flash to confirm that the battery has entered Sleep Mode



The LEDs will then remain off and will not illuminate when the button is pressed momentarily to show fuel level.

### 5.3.4 Automatic Sleep Mode

The battery will enter *Sleep Mode* automatically if not in use for 5 hours. Check that the battery is in *Operation Mode* before attempting to ride. If the Gocycle is plugged into the charger and the charger is charging, it will never enter *Sleep Mode*. If your Gocycle G3 or GS is inactive for over 30 hours it will enter Deep Sleep Mode. In this mode, the battery will not accept charge unless the Gocycle is turned on. The battery will not turn on if the charger is still plugged in.



#### 5.4 Gocycle Lithium Battery: Care and Maintenance

Batteries do not last forever. As with lithium-ion batteries found in most battery-powered products, the Gocycle lithium-ion battery will slowly deteriorate over time. Lithium-ion batteries begin to degrade from the point of manufacturer due to a chemical reaction that gradually causes the internal impedance of the cells to increase—in time reducing the ability of the battery to deliver its charge. For this reason, a new battery will always perform better than one that is six months old.

To maximise the potential lifespan of your Gocycle battery, follow these guidelines:

- Before first use, ensure that your battery is fully charged.
- Your battery will go into over discharge protection mode if it is discharged to a critically low level. Recharge your battery as soon as possible after it becomes fully discharged. A battery will be permanently damaged if left for an extended length of time in a fully discharged state.
- Heat accelerates the degradation of batteries. Avoid operating or storing the battery in high temperatures when possible.
- Once your battery displays 1 LEDs on the rear of the battery, charge your battery within 48
  hours. Place the battery on charge, and when the charge is complete, press the sleep button.
  Do not allow a nearly depleted battery to be unused for more than one month. The battery will slowly discharge until it becomes fully discharged, and this will permanently damage the battery cells.

### 5.5 Shipping and Handling of Lithium Batteries

Like any lithium-ion battery, the Gocycle lithium-ion battery is classified as Miscellaneous Class 9 Dangerous Goods, and as such, must be packaged, shipped and handled in accordance with the strict guidelines laid out by the relevant international regulatory bodies for air, sea and road transport.

Never attempt to transport your lithium-ion battery by air without first seeking the prior approval of your airline. Do not discard any of the battery packaging materials.

## 5.6 Battery Pack Disposal

When your Gocycle lithium battery has reached the end of its service life, you must recycle or dispose of it properly:

- Do not dispose of batteries with general household waste.
- When your battery no longer holds a charge, contact your local waste disposal or environmental agency for advice on disposing of a lithium-ion battery.
- Lithium-ion batteries are classified as Miscellaneous Class 9 Dangerous Goods. Consult your local authority for further advice on storage, handling and shipping.

## 5.7 Maximising Your Gocycle's Motor Performance and Reliability

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. It is not designed for the motor power to be the sole means of propulsion.



As with a car, top speed and range (related to fuel consumption) are difficult to define as both factors are greatly affected by a large number of variables. For the Gocycle, this is including but not limited to rider weight (including clothing and luggage), tyre type, tyre pressure, terrain, surface texture, wind conditions and of course, how much pedal input the rider is providing.

The recipe is simple. Continual use of the motor assistance whilst riding and/or selecting a mode with a higher top speed will have a negative effect on the range of your battery. Using the motor assistance sparingly with maximum rider pedal input will ensure the best possible range.

To get the best out of your Gocycle, read carefully the following points:

- 1. *Pedalling*: We recommend that for the best performance you continue to pedal at all times. The motor should be used to "top-up" or "boost" power. Not providing pedal input (when a riding mode allows) will dramatically reduce battery range.
- 2. *Excess weight*: Where possible, try to keep the total combined weight of clothing, luggage and accessories to a minimum. Overloading a Gocycle will reduce the battery range. Overloading will also affect your Gocycle's handling and increase the stresses on the clutch, gearbox and motor, potentially reducing the service life of the product.
- 3. *Tyres:* Ensure the tyres are correctly inflated. See 6.11 Tyres for more information.
- 4. *Riding style:* Where rough terrains (e.g., poor road surfaces, potholes, speed bumps, etc.) are unavoidable, you should adapt your riding style accordingly.

WARNING! Never use the motor when passing over obstacles such as ruts in the road or speed bumps, etc. Doing so will increase the stresses on the drive components and will reduce the service life of the product, possibly invalidating your warranty.

- 5. *Deceleration/braking:* Do not use motor power whilst decelerating or braking. Consciously using the motor assistance only when required will ensure the maximum possible battery range.
- 6. Wet conditions: Gocycle is a British product, designed with British weather in mind. However, it is important that your Gocycle is dry before storage. A city atmosphere can be a corrosive environment made worse with high humidity. We recommend a simple check and toweldown (if necessary) after using your Gocycle in wet conditions. See 6.4 Cleaning and Preventing Corrosion.

### 5.8 Heat and Over-Temperature Protection

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

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





Caution! During and shortly after use, the motor area (highlighted) will be hot to touch!

WARNING! Extreme caution should be used when attempting to touch any part of the motor after it has been in operation—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.

The motor and controller are automatically protected against over-temperature operation. If the temperature of the motor or the controller gets too high, the power will be gradually reduced to prevent damage to these components. You may experience this condition for example riding up long steep hills while using full motor assistance. When over-temperature protection is in effect, the power available to the motor will be reduced. When the temperature of the motor and/or controller has cooled adequately, the full power will again be available.



#### 6 Maintenance and Adjustments

#### 6.1 Maintenance and Service

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 <a href="www.gocycle.com">www.gocycle.com</a>. Before attempting any maintenance on your Gocycle you must visit <a href="www.gocycle.com/safety">www.gocycle.com/safety</a> for up to date important safety related information.

NOTE: You must perform regular visual inspections of your Gocycle and perform any recommended adjustments and maintenance in order to ensure that your product is safe to rider. Please visit <a href="https://www.gocycle.com/safety">www.gocycle.com/safety</a> and review any important Technical Bulletins and safety information relating to your Gocycle model. You should also download and review the latest Owner's Manual from <a href="https://www.gocycle.com/manuals">www.gocycle.com/manuals</a>. Please note the recommended inspection and service interval below.

#### 6.2 Service interval

Recommended Service Interval	Performed By	Distance Ridden	Time
Pre-Ride Checklist	Owner	Before each ride	Before each ride
Visual Inspection / Service if required	Owner or Authorised Gocycle Reseller (recommended)	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
Check and Update to latest Firmware Version	Owner		Every 3 months
Visual Inspection / Service recommended	Owner or Authorised Gocycle Reseller (recommended)	Every 2000 miles/3200 kms	Annually

## 6.3 Visual Inspection Guide – (Every 3 Months/ 500 Miles)

The following information details mandatory inspection points to be completed every 3 months/ 500 miles (whichever is sooner) of Gocycle ownership. This is to ensure your Gocycle is safe to ride and operating at peak performance. If you find any of the following items to be damaged or incorrectly adjusted then please seek immediate assistance from your nearest Authorised Gocycle Service Centre who will help rectify any issue. Do not adjust fixtures without first consulting the Owner's Manual or your Authorised Gocycle Reseller to ensure the correct adjustment is made. Incorrect adjustment could lead to premature failure of a component.



As with a conventional bicycle, your Gocycle will not last forever. It is a mechanical item that under normal riding will be stressed, and eventually the parts will fatigue, cracks will develop and it will become unsafe to ride. The number of miles of riding a bicycle will endure cannot be predicted since there are many variables that affect product life including:

- Rider weight
- Riding style
- Tyre pressure and type
- Roughness of the road
- · Whether or not the bicycle has been crashed or damaged in transit
- Whether or not the bicycle has been ridden over large bumps such as potholes or curbs
- The amount and weight of luggage carried
- The speed at which it has travelled
- Whether it has been subject to abuse or vandalism
- Time of exposure to ultraviolet radiation from the sun
- Storage conditions, such as ambient temperature and moisture levels

Responsible, safe riding and regular maintenance, such as within the guidelines of this manual, should afford many thousands of miles of operation of your Gocycle. Nevertheless, you must inspect the Gocycle every 500 miles to see if any of the components have cracks and need replacing. To do this, clean the Gocycle thoroughly with a damp cloth. Wipe away all dust or dirt. Look carefully at all the components under good lighting.

Important sites where cracking may initiate are shown in the images below. If a crack is more than 3mm long, do not ride the Gocycle and immediately contact <u>techsupport@gocycle.com</u>. Under normal conditions, items under warranty will be replaced.

WARNING! Failure to inspect the Gocycle thoroughly may have serious consequences and could result in serious bodily injury or even death.

IMPORTANT: Check www.gocycle.com/safety for up to date Technical Bulletins that might affect your Frame Number.

NOTE: More frequent servicing may be required for Gocycles used in adverse conditions or with a more aggressive riding style.

1. Inspecting for Cracking and Fatigue Failures (Figures 1a-g)

WARNING! (1f) When not properly assembled, the Lockshock plunger (the grey part as indicated at left) is susceptible to impact damage from a side load, for example when folding to take in or out of a car, transporting inside a building or through a doorway. If you suspect this has occurred, do not ride the Gocycle and contact Gocycle Tech Support.

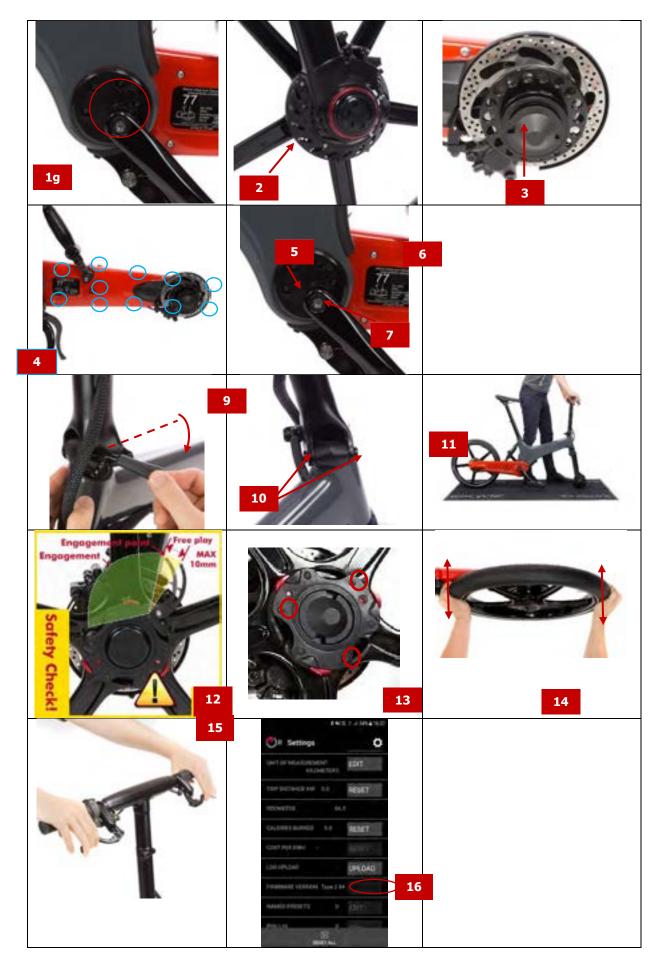


- 2. Inspection of disc covers for damage (Front and Rear)
- 3. Hub Cap in position to prevent excessive dust contaminating Hub Gear
- 4. All Cleandrive magform bolts present x 12, 4-6Nm (one located at front of Cleandrive check by folding)
- 5. Pivot block magform bolts present x 5, 4-6Nm
- 6. Check pedals are tight, 35-40Nm
- 7. Check crank bolts are tight, 35-40Nm
- 8. Not Applicable for GS Models
- 9. Ensure quick release lever is correctly adjusted and closes with increasing force to keep handlebar clamped
- 10. Check steam adjuster bolts and top hats are present and tight, 7-8Nm
- 11. Check that headset is not loose. (Section 6.12 for adjustment.)
- 12. Check Cam Lever free play of all three cam levers on both wheels when fitted to the respective hubs (Section 6.8 for adjustment)
- 13. Check cam cover bolts are all present and torqued to 0.8Nm
- 14. Check hub gear for excessive movement (conducted after confirming all cam levers are adjusted correctly) (Section 6.14 for adjustment)
- 15. Check both brakes are operating correctly and levers cannot be pulled to the bar
- 16. Ensure Gocycle Firmware is up to date. Go to Settings in your GocycleConnect App and scroll down to Firmware.

WARNING! Should you discover a fatigue crack more than 3mm long, or should you suspect that a component may have received an impact in an unusual way—such as if the product has been dropped—do not ride your Gocycle and immediately contact <a href="mailto:techsupport@gocycle.com">techsupport@gocycle.com</a>.









# 6.4 Cleaning and Preventing Corrosion

We do not recommend that you ride your Gocycle in heavy rain or store it in damp or wet areas. Please read 2.7 Riding in Wet, Cold or Icy Conditions for safety recommendations for riding in wet conditions.

If you do find yourself riding while it is raining, we recommend that you use the motor when safe to do so. 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 (especially spray from roads that are salted to reduce the formation of ice) can accelerate corrosion (rust) of the various metallic components on the Gocycle, and this will reduce the life of product. Leaving water and moisture on the Gocycle could also result in premature failure of the electronics, battery or motor system. The warranty will not cover premature failure as a result of corrosion through neglect.

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 or dry cloth.
- The less you expose your Gocycle to moisture or water, the longer it will last.
- Keep your Gocycle inside your house, flat or garage.
- 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! Keep your Gocycle clean and dry at all times, where possible. Never spray the Gocycle with a hose or high-pressure cleaning system. Never use polishes, waxes or solvents to clean your Gocycle.

#### 6.5 Lubrication





#### 6.5.1 Cleandrive

There is no need to regularly inspect, clean and lubricate the internal components of the Cleandrive®

The gearbox, rear hub, hub bearings and chain drive system (Cleandrive) are lubricated during production, and unless the Gocycle is regularly exposed to a high-humidity, corrosion-enhancing environment, these components will last the lifetime of the product.

#### 6.5.2 Lockshock

From time to time and particularly during periods of hot or abnormal weather, your Lockshock<sup>TM</sup> may require additional lubrication to prevent undesired noises whilst riding such as squeaking. The Gocycle Lockshock<sup>TM</sup> is delivered pre-greased from the factory however certain riding conditions or environments can, over time, remove some of this grease. Re-lubricating of the Lockshock<sup>TM</sup> should be completed as part of your regular maintenance to reduce the likelihood of developing noises when riding.

As part of regular maintenance or in the event that your Gocycle Lockshock<sup>TM</sup> develops a noise whilst riding, the Lockshock<sup>TM</sup> can be lubricated using a suitable silicone lubricant. With the Gocycle supported, remove the Lockshock pin and rotate the Lockshock<sup>TM</sup> so that it is pointing upwards. Be sure to have a cloth ready to remove any excess silicone lubricant.









Spray a generous amount of silicone lubricant down into the end of the Lockshock<sup>TM</sup> and remove any overspray or spillages with a cloth. Wait 5 minutes with the Lockshock<sup>TM</sup> in the upright position so that the lubricant can disperse downwards. Re-insert the Lockshock plunger and Lockshock pin to complete.









Wait 5 minutes



# 6.6 Adjusting the Shifting

From time to time, the shifting cable could stretch which might result in your gear shifting not being accurate. Adjust the shifting as follows:



Rotate the gear shift cable adjuster barrel clockwise or anti-clockwise to adjust the gear shift cable. Rotate clockwise (loosens the cable) if your gear selection is placing the Gocycle is in a gear higher than you select, and anti-clockwise (tightens the cable) if your gear selection is placing the Gocycle in a gear lower than you select.

### 6.7 Adjusting the Brakes

For information on how to bleed your Gocycle hydraulic brakes, please contact techsupport@gocycle.com.

NOTE: The brakes will increase in power over the first 50 to 100 uses.

# 6.7.1 Bleeding the Brakes

As with all hydraulic brakes, for the best possible performance, we recommend that the hydraulic brakes on your Gocycle are bled every 12 months. We advise that your Gocycle brakes are bled by a skilled bicycle mechanic with experience with bleeding hydraulic cycle brakes.

WARNING! DOT 4 brake fluid can be an irritant when it comes into contact with human tissue. For skin contact, wash off the brake fluid in flowing clean water. For eye contact, the eye area should be flushed with fresh water immediately and continuously for 15 minutes. Consult with medical personnel.

CAUTION! DOT 4 brake fluids will strip paint. Exercise caution to avoid brake fluid coming into contact with painted surfaces. If brake fluid does come into contact with painted surfaces, wipe the surface immediately and clean with an isopropyl alcohol.

Dispose of used brake fluid according to local laws.

For additional guidance, consult the manufacturer's instructions supplied.



# 6.7.2 Replacing the Brake Pads

# 6.7.2.1 Replacing the Front Brake Pads



Locate and remove the six securing bolts on the motor cover

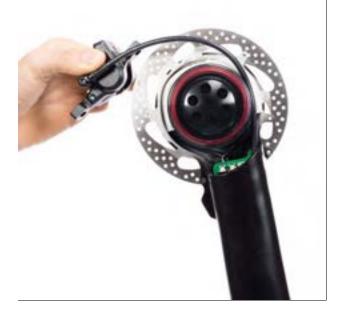


Remove the motor cover





Locate and remove the two calliper securing bolts



Slide the calliper off the disk rotor





Compress the split pin using a pair of pliers, as shown.



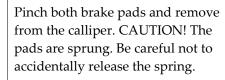
With the split pin compressed, pull the pin out using a pair of pliers.



Carefully push the brake pads from the top of the calliper, as shown.









Replace the brake pads as necessary before reassembly.



Replace the brake pads as necessary. Pinch together with the spring and reassemble into the calliper.





Replace the split pin to secure the brake pads in position.



Using pliers, bend open the split pin to lock it in place.

WARNING! Do not attempt to ride your Gocycle without re-installing the brake pads and securing split pin.

Doing so may result in injury.



Replace the front brake calliper. Tighten the calliper securing bolts to a torque of 6–8Nm.

Ensure that the brake calliper is parallel to the disk rotor when tightened in order to prevent disk rub.





Replace the motor cover



Replace the six motor cover securing screws. Tighten to a torque of 3–4Nm.

WARNING! The braking performance of new brake pads will increase over time. Ensure that you "bed-in" your brakes by performing a number of stops.



# 6.7.2.2 Replacing the Rear Brake Pads



Locate the two rear calliper securing bolts, shown.



Slide the calliper off the disk rotor.



Compress the split pin using a pair of pliers, as shown.

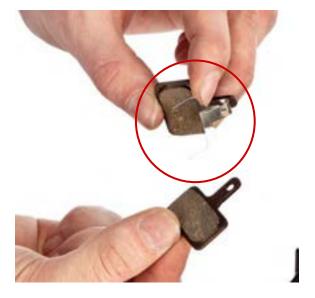




With the split pin compressed, pull the pin out using a pair of pliers.



Pinch both brake pads and remove from the calliper. CAUTION! The pads are sprung. Be careful not to accidentally release the spring.



Replace the brake pads as necessary before reassembly.





Replace the brake pads as necessary. Pinch together with the spring and reassemble into the calliper.



Replace the split pin to secure the brake pads in position.



Using pliers, bend open the split pin to lock it in place.

WARNING! Do not attempt to ride your Gocycle without re-installing the brake pads and securing split pin.

Doing so may result in injury.





Replace both calliper securing bolts. Secure to a torque of 6-8 Nm.



Ensure that the brake calliper is parallel to the disk rotor when tightened in order to prevent disk rub.

WARNING! The braking performance of new brake pads will increase over time. Ensure that you "bed-in" your brakes by performing a number of stops



## 6.8 Adjusting the PitstopWheel® Quick Release Cam Levers

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.







Fit the PitstopWheel® onto the hub, close all three quick release levers, rotate the red Pitstoplock™ to the "locked" position. Remove the three black rubber grommets as indicated by the arrows.

Rotate the Pitstoplock  $^{\mbox{\tiny TM}}$  to the unlocked position.







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.

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 is 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.

If the **free play** exceeds 10-20mm at the tip of the cam lever, use the 4mm Allen key to reduce this.







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 recheck free play. Adjust until you are satisfied that the free play is 10mm or less.

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.





Cross check reference: with the Pitstoplock<sup>TM</sup> in the unlocked position, there should now be an equal resistance across all three cam levers requiring 3-5kg to open an individual cam lever.



Ensure all cam levers are securely closed and the Pitstoplock<sup>TM</sup> is in the locked position.



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.



# 6.9 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 prevents tampering and reduces the chances of 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.



# 6.10 Checking for and Minimising Wear on the Front and Rear Hubs



Periodically remove the rear wheel to check for hub wear



Periodically remove the front wheel to check for hub wear



Pay particular attention to the area indicated



To minimise the potential for hub wear:

Thoroughly clean and dry your Gocycle after every ride. See 6.4 Cleaning and preventing corrosion for more information.

- Correctly adjust your PitstopWheel cam levers. Check from time to time that their torque is within the guidelines stated in this manual and that all three on each wheel open and close with equal pressure.
- From time to time, consider moving the rear PitstopWheel to the front and vice-versa. Typically, in normal usage, the rear of a Gocycle will carry more load than the front, thus subjecting the rear hub, wheel and tyre to greater stresses. Periodically swapping the front and rear PitstopWheels will distribute wear more evenly. Note: When swapping the PitstopWheel, ensure that the tyre pressures remain within the guidelines stated in this manual. See 6.11 Tyres for more information.

### 6.11 Tyres

Gocycle comes fitted as standard with specialised, high-performance tyres designed to give the best combination of low rolling resistance, light weight and puncture resistance. To maximise performance, we do not recommend that you use lower quality tyres than those supplied with Gocycle.

WARNING! The traction or grip level of bicycle tyres such as the Gocycle Performance Tyre can reduce dramatically in icy or wet road surface conditions. Take special care when riding in icy or wet road surface conditions.

We recommend that you operate Gocycle with tyre pressures of 35 psi on the front and 40–50 psi on the rear. This will give the best balance of low rolling resistance and comfort. Running a relatively softer front acts as a "cushioning effect", reducing shock loads to the motor fork components—specifically the clutch and gearbox. Running the front tyre at lower pressures than 35 psi can improve comfort and shock absorbsion at the expense of tyre performance, handling, and tyre life. Please ensure that you are confident and comfortable with the handling and riding characteristics of the Gocycle if you choose to run lower tyre pressures.

We do not recommend that you inflate the tyres to more than 60 psi. Inflation pressures greater than 60 psi will reduce comfort and the service life of the product.

WARNING! Inflating the front tyre to more than 35 psi places high shock loads into the motor drive system (motor, gearbox and clutch) whilst using the power on acceleration or over rough roads. Just like in a car as you would not accelerate rapidly on very rough roads, do not use motor power when going over potholes or speed bumps or similar obstructions in the road.

Operating the Gocycle with a front tyre pressure greater than 35psi and/or using the motor assistance on rough terrain, against these recommendations, will invalidate the warranty.

Whilst the Gocycle's front and rear PitstopWheel is easily interchangeable, ensure that you place the lower-pressure tyre on the front during assembly.

When changing a tyre, always use plastic tyre levers. Never use a metal tyre lever as you will damage the wheel rim.

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



The size of the Gocycle rim is generally compatible with BMX-sized tyre (406x40-47) from 1.75" to 2". Because tyre construction and quality vary greatly from manufacturer to manufacturer we can only recommend that you use Gocycle approved tyres as available through the Gocycle webstore.

WARNING! Bicycle tyres do not last forever. When the tread depth is critically low and the centreline grooves in the tyre have worn down in any part of the tyre, it may be dangerous to continue to ride on the tyre, and in this event, we recommend that you replace the tyre.



Fitting the tyres and tyre tread orientation

# 6.12 Adjusting the Headset

From time to time it may be necessary to tighten the headset if it becomes loose. This process is explained by the following steps:



Check for loose headset. There should be no play in the steerer assembly.

Remove front wheel and carefully place Gocycle onto a non-slip surface. Grip the handlebars and rock forwards and backwards to check for any fore-aft movement between the handlebar stem fork assembly and the main frame as shown.

The connection of the handlebar stem fork assembly and the front frame should feel solid and only be free to rotate with respect to the main frame.







Remove the rubber dust boot as shown and loosen the two fork crown bolts approximately 1-2 turns. Ensure that the front fork and handlebars are able to rotate independently.

Using right angle circlip pliers or a pin spanner, tighten the headset pre load tophat to 8-12

NOTE: NEVER TIGHTEN OR ADJUST THE HEADSET PRE LOAD TOPHAT UNLESS THE TWO FORK CROWN BOLTS ARE LOOSE.





Ensuring that the front fork and handlebars are aligned, tighten the two fork crown bolts to 10-12 Nm. NOTE: You will need to recheck both bolts twice to ensure that torque is even between each bolt. Replace the rubber dust boot.

## 6.13 Adjusting the Stem Quick Release Lever

It is unlikely that you will need to adjust Stem Quick Release Lever, however in the event that you need to replace the lever you will need to adjust the clock nut on the opposite side of the stem adjuster to ensure the quick release lever closes with the correct force.



Undo the clock nut securing bolt using a 2.5mm Allen key





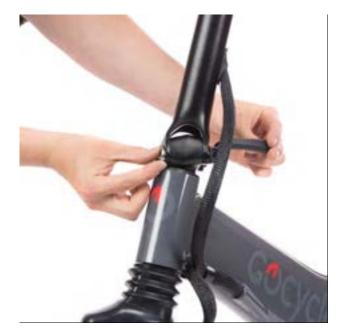
Remove the clock-nut as shown

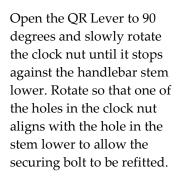


Install the quick release (QR) Lever and hold in the closed position, ensuring it is in the correct zone as demonstrated in the below photo.











The QR should have roughly 120 degrees of **free play** before it beings to engage. The closing resistance should act over the remaining 60 degrees of movement till it is firmly shut in the correct location.

If it is too loose, rotate the clock-nut clockwise till the next hole aligns with the hole in the stem lower and recheck

Conversely if it is too tight rotate the clock-nut anticlockwise to the next hole and recheck.





Once adjusted so that the closing resistance acts upon the final 60 degrees of movement in the QR reinstall the securing bolt using a 2.5mm Allen key.

# 6.14Adjusting 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 adjust the bearing cone.

WARNING! Check the hub gear bearing adjustment every 500 miles (800 km) or 3 months. Regular checks will ensure best possible performance for your Gocycle.

Failure to inspect the hub gear bearing adjustment may have serious consequences and could result in serious bodily injury or even death.



To check if adjustment is required, using gentle pressure, move the wheel at the rim side to side.

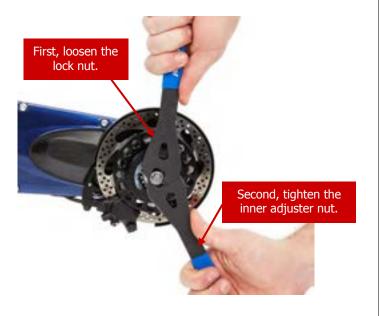
Some flex in the wheel is normal, but if you feel that the wheel is loose, you will need to adjust the bearing cone as shown below:





Remove the hub cap





Using (2) 14mm wrenches, adjust the rear hub gear bearing cone.







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 Gocycle Tech Support for advice.

Retighten the outer lock nut.

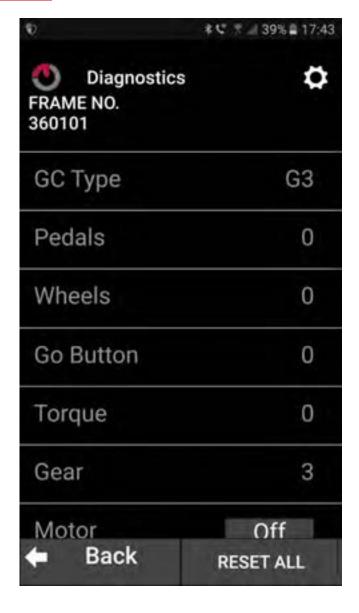
Note: after tightening the outer lock nut, the hub may need readjusting due to the nature of the tightening process. You may need to repeat this process until you have the desired freeness of rotation and minimal lateral play at the rim.



#### 7 TROUBLESHOOTING

# 7.1 Diagnosis Modes

The GocycleConnect® App has a number of diagnostics tools to assist you with troubleshooting. These tools can be access from the Settings menu. In the event that you require technical assistance to diagnose an issue, contact your Gocycle reseller or <a href="techsupport@gocycle.com">techsupport@gocycle.com</a> in order to assist you in using the tools available as shown below. Here is a video for further explanation: <a href="https://vimeo.com/246122236">https://vimeo.com/246122236</a>





# 8 CONTACT INFORMATION

Gocycle is a product of Karbon Kinetics Limited, a UK-registered company.

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Registered number 4357956

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