

# BICYCLE

**ELECTRIC CONVERSION**PMDC SIDE MOTOR KIT



(USER MANUAL)

# CONVERT YOUR NORMAL CYCLE TO ELECTRIC CYCLE



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### **DISCLAIMER**

The Coty Hub motor Kit is supplied as a set of do-it-yourself parts for the user to install on their bicycle. Because this kit is installed, maintained and operated by the purchaser, Rajesh Enterprises disclaims any responsibility for injury, damage or other consequences arising from the use of this product. Each installation will be different and therefore it is the responsibility of the purchaser to determine the best way to install the kit on their particular bicycle. The following instructions should be considered as general guidelines only – your installation will be slightly different.

If you do not have the mechanical ability to correctly and safely install this kit, you should obtain the services of a professional bicycle shop or other qualified technician. Installation and use of this kit will create a vehicle that has exposed moving parts, electrical connections and high powered batteries.



#### WHAT'S IN THE BOX

CONGRATULATIONS ON GETTING ONE OF THE MOST EXCITING PRODUCTS IN THE MARKET. YOUR BOX INCLUDES THE FOLLOWING ITEMS:

#### **1** 24V 250W PMDC SIDE MOTOR

GEEKAY has Geared PMDC Motor Systems which are the most Trusted & Powerful E Bike Systems Currently in the Market with all top of the Line Features & Excellent Fits.



#### **2** CONTROLLER

This is the Brain of the E-bike & Controls all the functions of your Electric Bicycle. different Models of Kits & Eco Bikes have different Controllers which are specially designed keeping In Mind the required usage & Performance of Each Model.



#### **A** FULL THROTTLE GRIP

All Geekay electric products have full throttle which gives you extra power and activates the motor proportionally to the twist no matter you pedal or not to give you a fully electric ride, in case you cannot pedal or need an instant acceleration or uphill push. Full throttle is much convenient to use rather than thumb or half throttle.



#### **4** LIGHT WITH INBUILT HORN

This Kit comes with high power light with built in horn for rider's safety and convenience.



#### **6** ALLOY BRAKE LEVER WITH AUTO MOTOR

GEEKAY Electric conversion kits come with alloy brake levers with cut-off sensors. They cut off the power to the motor whenever the brake levers are squeezed. It is a double safety feature for panic stops and ensures that the motor is not harmed while braking.



#### A HIGH QUALITY PARTS

Coty electric conversion kit come with 78 link chain, 16T left thread free wheel, mount plate & other fitting parts.



#### **OPTIONAL ITEMS**

#### **1** DETACHABLE BATTERY HARD PACK

With BMS (Intelligent Battery Management System) and Fuse (7.5ah or 10ah)



#### BATTERY SOFT PACK

With bag with BMS (Intelligent Battery Management System) and Fuse (7.5ah or 10ah)



The Li-ion battery is the most critical part of the ebike technology for cost, performance, and safety concerns. We don't use cheap or low-quality batteries. With all of our products, we use A-grade Li-Ion cells. Li-Ion batteries have both cyclic and calendar life. A Li-ion battery is lightweight with roughly 800 full cycles of effective life and is the best choice for an ebike application. Packs of 30, 40, 50 or more cylindrical 18650 cells are the best option because you have the ability to maintain them compared to polymer packs. They are also lighter than Li-FePO4 technology. The battery packs are manufactured under strict qualifications and are CE and RoHS complied.



#### **3** LI-ION BATTERY SMART CHARGER

Geekay Battery chargers are smart CC-CV chargers and will automatically disconnect after battery is fully charged. You can leave them plugged overnight with confidence and they will cut off when battery is full.



# **INSTALLATION GUIDE**

For Standard Cycle Installation

Scan & watch this video





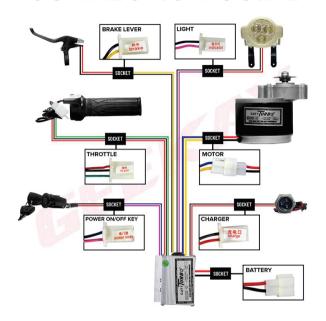
For MTB(Mountain bikes) Installation

Scan & watch this video





# **CONNECTION GUIDE**



#### **INSTALL BATTERY**

HARD PACK



SOFT PACK







#### **⊌** CHARGING **⊌**

To charge the battery, connect the charging plug to local power and connect charging port to battery. Only use the specified charger to charge your battery and never use other Lead-Acid chargers of same voltage to recharge the Li-Ion batteries.





You may recharge the battery whenever you like; since there is no history effect for Li-Ion batteries you don't need to wait for a complete depletion to perform a recharge.



#### **CHARGING GUIDE**

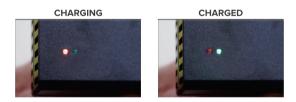
 INSERT CHARGING PORT ON BATTERY FIRST, THEN INSERT CHARGING PLUG TO MAIN SOCKET.



2 THE CHARGING SIGNAL IS RED DURING CHARGING; IT TURNS TO GREEN WHEN FULLY CHARGED.



SOME CHARGERS HAVE 2 LIGHTS, RED IS CHARGING, GREEN MEANS FULLY CHARGED.



#### LOAD/UNLOAD THE BATTERIES (IN CASE OF BATTERY HARD PACKS)

Please turn the keys left/right to lock or unlock the batteries. Because the battery is a relatively heavy component and likely to get loose as a matter of road vibration, make sure you have enough rigidity and support for your battery case assembly. If you cannot fit both water bottle bolts on battery frame, drill the required place on the battery frame. Use other type of belt fasteners in case you are not confident about the firmness of the fasteners.

#### ADDITIONAL NOTES ON THE INSTALLATION

#### MOTOR ORIENTATION:

Different series of kits have the cable coming out on different sides. The full proof way to orientate the motor correctly is to make sure that the disk brake side of the motor is on the left. So, when you're sitting on the bike, the disk brake holes should always be facing towards the left.



#### **VIBRATION**

The motor hubs can at times be under quite a lot of load which can result in mild vibrations when accelerating or going up an incline. If there is a loose item anywhere on the bike, quite often that can exacerbate the moderate motor vibration into an almighty drone of a vibration, giving the rider the impression that the bike is about to come apart. If this happens to you, you have to look for anything that could be loose. Sometimes it might be an unused disk brake bolt or even something loose on the rear rack of the bike. If there's something wrong with a component on the kit (like a motor) it won't be that subtle.

Note- These kits are designed to be installed at home without any special tools or expertise. However, in some cases, certain bike models require additional knowledge and skill. You may contact us anytime if you need any guidance or assistance.

# **MAINTENANCE**

Just like any regular bicycle, your electric bike is going to need routine maintenance. However, don't be put off by the bike's electrical components as they actually don't require any maintenance – it's the tires, the brakes, and the wheels that need to be maintained by an Experienced Bike or F-Bike Mechanic

Geekay Dealerships will ensure that before you buy, your bike is in tip-top shape from the moment you take it out of the store. This is especially important for E bikes as they need to be set up correctly to function properly. To get the longest life possible out of yourE-bike you can take some simple steps to maintain it yourself or you can take it to an experienced dealer.

#### KEEP YOUR E-BIKE CLEAN IF POSSIBLE

Ideally, clean your ebike after each ride, especially after riding it through mud or dirt. You should use a sponge with bike specific cleaners to gently wipe the parts down. Do not use a hose or any kind of pressure washing as this can wash out grease lubricating the bearings. It will also force water into the internal components which in turn will corrode and destroy the electric parts.

#### KEEP THE TIRES PROPERLY INFLATED

It's important to check your tire pressure at least once a week. You can use a tire pressure gauge or the manual method of pushing down on the tire with your thumb. If the tire is underinflated, it can lead to uneven tire wear and burn the battery too quickly. It will also make your life easier as the bike will be easier and more fun to handle with less resistance. Of course, you want to ensure that you don't over inflate your tires as they will pop/ burst. Be sure to check the correct pressure which is usually printed on the side of the tire.

#### CHECK THE BRAKE PADS

Keep an eye on the brake pads about once a month to see how much worn they are. If you realize there is a lot of wear and tear then it is probably time to replace them. When you start to ride, you always want to test out e-bike brakes to make sure they are in good working order, especially if you haven't ridden for a while. It's essential that you have effective brakes or else you could end up in a serious accident. Brake pads can be easy and cheap to replace whenever needed so you don't need to worry about spending money.

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# THE TABLE BELOW IS BY NO MEANS A COMPREHENSIVE TROUBLESHOOTING GUIDE, BUT RATHER A GENERAL GUIDE FOR THE MOST COMMON ISSUES. EACH PROBLEM MUST BE LOOKED AT ON A CASE BY CASE BASIS

PROBLEMS	POSSIBLE REASONS	CORRECTIVE ACTION
Speed is too slow (less than 6Km/Hr)	1 Low battery capacity	1 Fully charge battery
(less tildii onii/rii)	2 Battery overloaded	The battery performs best with a payload less than 80Kg. Make sure you combine throttle power with manual pedaling.
	3 Hall wires loose	3 Ensure motor hall wires are connected properly to the controller.
	4 Damage to motor	4 Ask your dealer to fit another motor and test the speed.
No drive from motor	1 Battery unplugged	1 Check battery connection
	2 Motor unplugged from controller	Open controller plastic box and check connection.
	3 Throttle damaged or unplugged from controller	Check if you get a drive using pedal assist. If there is a drive, check the throttle connection to the controller. Contact your dealer for replacement of the throttle if damaged.
	◆ Controller damaged	If none of the above worked, ask your dealer to fit a new controller and check the difference.
	<b>6</b> Motor damaged	As a last resort, ask your dealer to fit a new motor to verify whether your old motor is damaged.





## (CONTINUED)

PROBLEMS	POSSIBLE REASONS	CORRECTIVE ACTION
Driving range is very low.	1 Tyre pressure too low	1 Pump air in the tires.
i.e. iess than Tukm	② Undercharged battery	Recondition the battery by charging it for 12 hours and using it until completely drained. Repeat 3 times.
	3 Hill climbing, frequent stops, head wind, overloading	3 Try to avoid running on throttle only as the battery power is meant to be combined with manual pedaling to avoid overloading
	4 Fault with charger	Ask your dealer to charge your battery with a new charger to verify if there is any difference.
	6 Battery capacity loss	5 Replace battery.
System does not turn on	Connections are not completed	Do a thorough check from battery power lines to the controller and all other connectors.
	2 Battery is turned off	2 Turn battery on using the on/off switch on the battery (some models)
	3 Battery is dead	3 See if battery charge indicator LEDs light up. Try charging the battery. Try turning on the system when charger is plugged in. Try turning off the battery hold 5 seconds then turn on. Check out battery fuse (only in Li ion battery). Inspect battery for any sign of impact, moisture penetration, etc. Check out battery voltage right at the battery output port.



PROBLEMS	POSSIBLE REASONS	CORRECTIVE ACTION
Driving range is very low. I.e. less than 10km		Check out battery voltage at controller power input plugs. Contact your local dealer or Geekay customer service with the report of the above tests for battery repair or replacement.
	Front Light or keypad issues	Check out related cables and connectors at handlebar.     Check out related cables and connectors at controller side.     Visual inspection of the display and motor controller for visible sign of damage.     Contact Geekay customer service for service/solution.
	3 Motor controller issues	Check out battery connections to controller.     Check out battery voltage at controller input plugs.     Visual check of all connections and parts.     Contact Geekay customer service for service/solution.
Battery does not charge up with standard charger	Battery is already full	Battery indicator delays updating the recent charge status. Above 41V for 36V nominal systems is considered full
	② Charger does not function	② Green LED may turn on when the charger is plugged to the battery only without being connected to the wall. Try different wall plugs. Try different wall plugs. Try different wall plugs. Unplug charger from electric socket, connect charger to battery first then plug the charger to the electric socket.



## (CONTINUED)

PROBLEMS	POSSIBLE REASONS	CORRECTIVE ACTION
The system is on, but motor is not running using both throttle or pedal assist	The brake cut-off might have problem	The brake levers are not properly installed or adjusted. To let the system rub, unplug the brake sensors from the main controller. Test the motor, then try re-installing or re-adjusting the brake sensors one connected at a time.
The system is on, motor is not running using throttle but works with pedal assist	When using throttle nothing changes	Throttle has connection or other issues
The system is on, motor is not running using pedal assist but with Throttle	PAS sensor disconnected     PAS sensor does not work     when spinning the crank     forward	Check wires and connections.     Check magnet disk working surface.     Make sure magnet disk is spinning together with crank and not loose.     Check gap and spacing between little magnets and PAS sensor head.     Sensor should be aligned radial to the magnet disk (not angled or tangential to disk). In case of water or salt water penetration clean and dry the sensor. Sensor might be broken and needs replacement.
Motor works on and off while pedaling, but fine when using throttle	PAS magnet disk on the crank is loose or wobbling.	Fix it in place using epoxy or flexible heat or silicon glue.     Align the disk with the sensor.
System works but cannot change anything on the display	1 Keypad or display issue.	Needs parts replacement.
System works but cannot read anything on the display.	Display LCD issue (some models)	Needs parts replacement.





## (CONTINUED)

PROBLEMS	POSSIBLE REASONS	CORRECTIVE ACTION
Motor making extra noise	Normal when motor is loaded on hills.	No action.
	Motor normal vibration is causing resonance on other bicycle components such as disk brake rotor, fenders, etc	Try adjusting and fixing loose parts which cause vibration
Controller getting too hot when riding long on hills.	Normal up to 70 Degree Celsius.	If more, try making some ventilation or wait to cool down. Check if any parts makes friction and puts extra load on controller
Controller power bullet connectors are melted.	Loose connectivity cause sparks which fries and melt the connector.	Replace the bullet connector.     Crimp properly and make sure     the connector will stay fully     connected.
Charger gets hot.	1 Normal	Give the charger space to dissipate heat.



#### WARRANTY

All Geekay components are made of the highest quality parameters. Our Batteries are covered by a 2 years free warranty against the manufacturer's defect only. All our components are tested under rigorous environments to provide you with the highest quality products. If the problem is caused by an accident, wrong or careless installation by the customer, careless actions, wire stretch, bad storage or not following the instruction manual, the customer will pay the cost of the part and replacement. The cause of the failure will be recognized by our experts. Please read our warranty terms and conditions.

Geekay Dealerships will ensure that before you buy, your bike is in tip-top shape from the moment you take it out of the store. This is especially important for E bikes as they need to be set up correctly to function properly. To get the longest life possible out of your E-bike you can take some simple steps to maintain it yourself or you can take it to an experienced dealer.

#### **★ WARRANTY TERMS AND CONDITIONS ★**

All Geekay components are tested under rigorous environments to provide you with the highest quality products. Geekay Batteries are covered by 2 years free warranty against manufacturer's defects only. The cause of the failure will be recognized by our experts.

THE GEEKAY WARRANTY COVERS THE FULL WARRANTY PERIOD FOR ALL PARTS OF THE ELECTRIC CONVERSION SYSTEMS TO THE FIRST OWNER, WITHIN THE FRAMEWORK OF THE FOLLOWING CONDITIONS:

- This warranty covers the repair and/or the replacement of components.
- This warranty only covers material and manufacturing defects.
- Costs for repair work performed in advance by persons who have not been authorized by Rajesh Enterprises will not be reimbursed. In such a case, any warranty claim will cease.
- The warranty period starts with the date of purchase. Warranty claims must be reported immediately.
- If the battery pack does not provide full capacity in the course of normal use or for batteries going through a normal aging process or reduction of performance, Geekay warranty covers that within the warranty period if the capacity proved to be less than 70% of Initial condition.

- No warranty claims are accepted in the case of damages due to the following:
  - a) External influences, particularly falling rocks, collision, accident and other external events with an immediate external effect due to mechanical powers.
  - b)Purposeful and/or malevolent acts, theft and robbery as well as natural hazard events and/or acts of mischief.
  - c) Inappropriate use, e.g. the product was exposed to liquids, chemicals of any type and/or extreme temperatures, wetness and humidity and/or if the battery suffers damages due to non-compliance with instructions.
  - d)Overcharging the battery or not adhering to the instructions of battery handling.
- No warranty claims are accepted
  - a) In the case of test, maintenance, repair and replacement work due to normal use.
  - b) If the model, serial or product number on Geekay product has been changed, deleted, blurred or removed
  - c) In the case of use of the battery in systems that are not approved for such use with this particular product.
  - d) In the case of the operation of the Geekay electric systems with batteries other than the batteries designed for the Geekay system

This warranty only covers the mentioned repair work and/or the replacement of defective or compromised components. It excludes any claims as to the reimbursement of property damages, downtimes and expenses for renting or leasing equipment, travel expenses, lost profit or any other claims. Rajesh

Enterprises liability in connection with this warranty is limited to the respective acquisition value of the product. This warranty only covers original Geekay components. The use of spare parts from unknown sources, for example, replacement parts from third parties, is strictly prohibited. Warranty will be voided on any system on which it will be concluded that there has been any case of modification or tampering with firmware.

#### 🖒 RETURN & EXCHANGE 😂

There are terms and conditions applied to return or exchange of products. All parts shall be unused, undamaged, un-scratched, clean and resell-able to be eligible for a return and full refund.

Packing and shipping expenses including any labor involved in the customized order are not refundable. You need to inform us prior to any shipment. Customers will take shipping costs for both directions; unless the buyer makes a good case with proof of Geekay's mistakes. Note that the colour of parts may be different than in pictures, e.g. silver or black motor, rack, battery, etc.



- Contact us and explain the problem with our experts. It might be resolved through a telephone discussion or email instructions provided to you.
   Sometimes something as simple as a loose connection or bad adjustment can cause failure
- If there is a broken part that you have recognized yourself or with the help of our technician, we will simply send you the right part and you can replace it yourself.
- Our experts will help you find the fastest and most cost-efficient way to have your ebike working again. This is done through our service strategy:
  - a) Fast reply to your inquiry and question.
  - b)Probing deep into the causes and reasons and fault diagnosis on call or online.
  - c) Educating you about the problem.
- · Replacing only the defective parts, not the whole pack.



# ENHANCE YOUR TECHNICAL KNOWLEDGE

#### **COST OF POWER**

The average power consumption is about 1KWh/100km. taking 1KWh Rs 8 then the power cost of 100km will be about Rs 8.

#### COTY ELECTRIC CONVERSION PMDC SIDE MOTOR KIT

No maintenance is required for Coty electric conversion PMDC side motor Kits other than simple physical protections and keeping batteries fully charged after each use.

#### USING ECO BIKE OR GEEKAY CONVERSION KITS IN RAIN

Our products have a water protection rating of IP65. The system is rain proof, good to go in rain, however no water jet and no parking or storing uncovered in rain.

#### **HELMET USAGE**

Always wear an approved helmet and ensure it fits according to the manufacturers' instructions. Most serious bicycle injuries involve head injuries, which might have been avoided if the rider had worn an appropriate helmet. FAILURE to wear a helmet when riding may result in serious injury or death.

#### WEIGHT CAPACITY

Geekay Electric Bike systems are designed with a maximum weight capacity of 150Kgs on the motor.

axle when evenly distributed between two-wheel axles. Exceeding the maximum weight capacity can result in damage to the bike, which can lead to serious injury or death. However, the bicycle's weight carrying load capacity ranges from 80 kgs to 200 kgs. Choose Geekay Bikes to get most from your electric conversion kits.



Once again we thank-you for choosing Geekay quality products. Our number one focus is to make you aware of the dangers of riding a bicycle and especially an electric bicycle so you can ensure you have safe and enjoyable riding experiences for years to come.

#### IMPORTANT:

Please read this manual in its entirety before riding your bike or allowing anyone else to ride your bike. All others should read this manual before you allow them to ride your bike without your supervision. If you have any concerns, questions or suggestions about your electric bike, please contact us at care@geekaybikes.com

#### PLEASE NOTE:

THIS MANUAL IS NOT INTENDED AS A DETAILED USER, SERVICE, REPAIR OR MAINTENANCE MANUAL. PLEASE SEEK ASSISTANCE FROM A QUALIFIED TECHNICIAN FOR SERVICE, REPAIRS OR MAINTENANCE. YOUR INSURANCE POLICIES MAY NOT PROVIDE COVERAGE FOR ACCIDENTS INVOLVING THE USE OF THIS BICYCLE. TO DETERMINE IF COVERAGE IS PROVIDED YOU SHOULD CONTACT YOUR INSURANCE COMPANY OR AGENT. DO NOT DISASSEMBLE, MODIFY OR REPLACE ELECTRICAL PARTS.

This manual contains many "Warnings" and "Cautions" concerning the consequences of failure to maintain or inspect your bicycle and of failure to follow safe cycling practices. The Caution symbol can be seen throughout this Manual, and indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death, or is an alert against unsafe practices.

Many of the Warnings and Cautions say, "You may lose control and fall." Because any fall can result in serious injury or even death, we do not always repeat the warning of possible injury or death, and if we do not, please assume this is the case, as all bicycles, including electric bikes, are dangerous and their safe use requires constant and consistent maintenance and care.

Please ensure that prior to each and every ride (without exception), each electric bike rider reviews the safety requirements enumerated throughout this Manual, and if any problems are observed, they should be resolved prior to use. Because it is impossible to anticipate every situation or condition which can occur while riding, this Manual makes no representation about the safe use of this Electric Bike under all conditions.

There are risks associated with the use of any bicycle which cannot be predicted or avoided, and which may be caused and/or prevented through the actions of the rider, and which are the sole responsibility of the rider. You should save this Manual along with any other documents that were included with your bicycle purchase for future reference. All content in this Manual is subject to change or withdrawal without notice. Visit https://www.geekaybikes.com to download the latest version. Rajesh Enterprises assumes no responsibility or liability for any errors or inaccuracies that may inadvertently appear herein.

# LEGALITY LEGALITY

In India, electric bikes are defined as "a two- or three wheeled vehicle with fully operable pedals and an electric motor of less than 250 watts with maximum speed of 25Km/hr."



# FEEKNY®







