



*E Bike Power UK®*

**1000W, 1500W, 2000W  
M14 Freewheel Kits**



# **Installation HANDBOOK**

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# 01 SAFETY & WARNINGS



## Safety Approval

- All our battery are EN. ROHS & UN238.8 approved and tested.
- All our motor kits and accessories are full certified to EN standards
- To ensure the highest quality & safety

## Warnings

- Please abide by your local E-Bike Laws.
- Install a bell
- Not subtitle for children under the age of 14
- Always wear the correct safety equipment, for example helmet, High visibility vest, belt, jacket or bright clothing. Grooves, Suitable footwear. kevlar pants, jacket coat.
- Use lights to help with visibility and others to see you.
- Some of our kits are for off road use only.
- Have respect for others around you.
- Maintain regular checks to your bike to ensure all components are functioning correctly & safely. If you have any doubts please consult a professional.

## Disclaimer

- E Bike Power UK LTD do not take a liability to any damage caused to you other or your bicycle.



# 02 WARRANTY



- Your warranty start from the day of delivery.
- We offer 12 months warranty on all our battery packs.
- 3 months warranty on all our motor kits & accessories.
- Warranty returns are paid by the buyer.
- In the event you need to make a warranty claim your warranty is only valid for the original delivery date.
- Your warranty will be void if you. Remove and on the original connection. Labels or logos without our consent. Water damage. Abuse or mistreatment use.
- Warranty will not cover abuse or water damage.
- If you remove any of the original OEM connectors or labels or open any closed parts without our consent your warranty will be void!
- The warranty is only covered if the manufacturer will deem the product is faulty.
- We have the right to recall any item if we or the manufacture deem there is any manufacturing defects.
- If you make a warranty claim in the warranty period & we offer you a replacement or a repair the warranty terms only stands for the original warranty period, The original order delivery date.
- Our warranty does not cover the resale of any of our products. The warranty is only offered to the original buyer. This only applies to verified "Wholesale Customers "
- All warranty repairs are covered by us.
- Buyer pays for the shipping.



# 03 BATTERY CARE & WARNINGS



## Battery Care

- Do not charge your battery immediately after a ride. Let your battery cool for at least 1-2 hours.
- Only use the charger that has been supplied with your battery.
- Please contact your original battery supplier if you require a new charger.
- Please store your battery at room temperature, if you planing not to use your battery for more than 1 month, Do not store below 12 degrees.
- Optimal storage temperature is 55-65%
- Do not let the state of charge drop below 50% if your not using your battery for more than 4 weeks at one time.

## Charging

- Turn your battery off.
- Plug the charger in to your battery's charge port.
- Plug your charger into the mains outlet
- Turn on the mains outlet switch.
- Red light indicates your battery is charging.
- Green light indicates your battery is charged.
- Our chargers are designed to turn off automatically when the battery has reached its maximum voltage charge
- We recommend a charging bag for additional safety.
- We recommend to charge your battery under supervision.
- Turn your charger off after charging
- You can also refer to our battery manual.



## Battery Warnings

- Do not charge your battery unattended.
- Charge your battery outside. In the garden. Carport, shed or garage.
- Do not leave your battery in Direct light
- Do not leave your battery in a hot room or car
- Do not submerge your battery in water.
- Do not drop your battery.
- Battery's will slowly discharge over time.





# 04 TOOLS



## Your Tool Kit

1



2



3



4



5



6



7



8



1. Tyre pump, To suit your valve type.

2. Rubber Mallet.

3. Allen Key Set

4. Torque/Star drive set

5. Socket or Spanner set

6. Cable Cutters or Pliers, (cutting cable ties, Cable wrap)

7. Adjustable Spanner (Not Essential)

8. Super Glue (Possibly need for the Pedal assist sensor. Thread Lock Glue, Disc rotor bolts.



# 05 INSTALLATION GUIDE



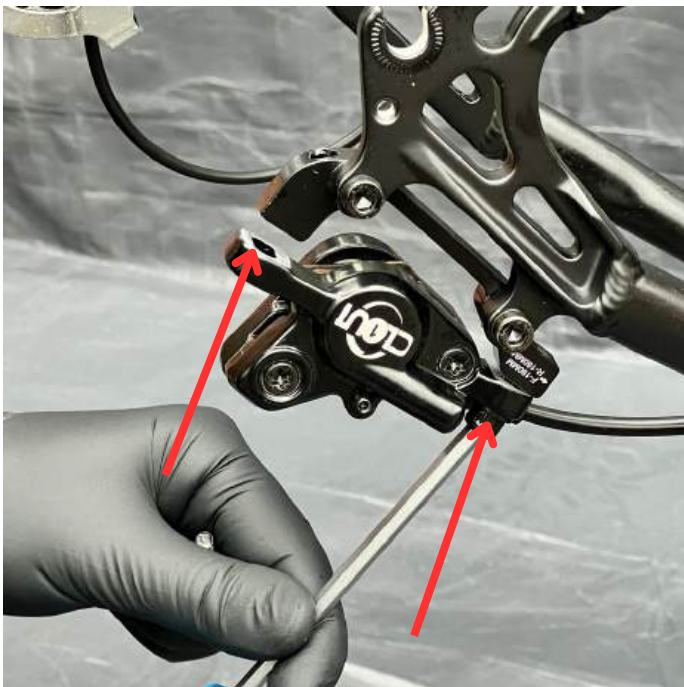
1. Ensure you have a safe & fully functioning bike.
2. Flip your bike upside down on a flat & non slip surface



3. Drop your rear gear to the smallest gear. This will help you remove the rear wheel easier



4. Remove your rear brake caliper, this will make installing your wheel easier





5. Ensure your frame drop are clean, free from damage or any cracks



5, WARNING! If there are signs of damage or cracks, we would strongly recommend asking for a second opinion.

6. Use the tyre levers provide to remove your tyre & inner tube.

7. Re-install your tyre to your new wheel. NOTE, Tyre direction





8. Pump up to the correct PSI. 28-35 PSI is normal if you can find the original specifications on your tyre



9. Install your freewheel. **WARNING.** Be Careful not the cross thread this. **NOTE,** This will self tighten when ringing.



10. Remove your original brake disc. **NOTE,** Please use good downwards pressure when losing these bolts



**NOTE,** We recommend to use the original bolts from your original wheel,



12. Re install your brake disc to the hub motor. (NOTE do not use the plastic spacer) please dispose of this) Ensure to use thread lock on all six disc rotor bolts. **WARNING.** Please take care not damaged the motor cable when placing the disc rota over and along the motor cable.

Remove all 6 bolts



Remove the plastic spacer



Re Install your disc rotor, ensure the marking is facing you.

TIP, Re use your original disc bolts if possible, Use thread lock.

**WARNING,** ensure all 6 bolts are tight.

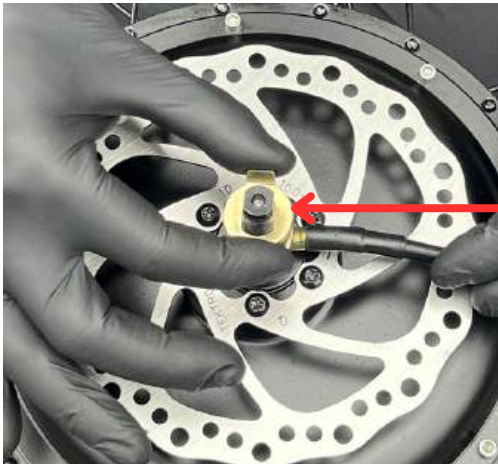


13. Install one flat gold spacer





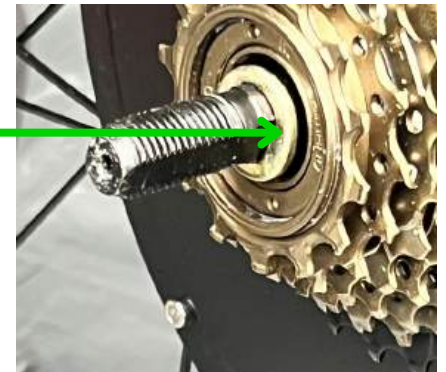
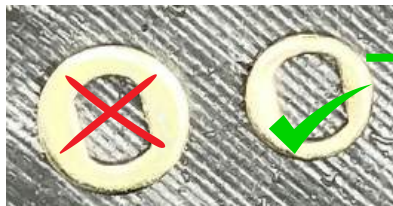
## 14. Install one locking spacer



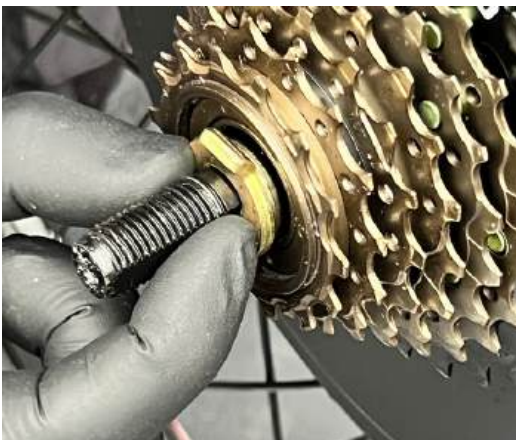
15. Install your freewheel, This will be a clockwise direction thread,  
**WARNING**, Do not cross thread this,  
**NOTE**, Some kits come already installed.  
**NOTE**, This will self tighten once you start riding.



## 16. Install one small flat spacer



## 17. Install the locking washer





18. Install the rear wheel.



The motor cable needs to face away from you and run along the bikes frame. The locking washer need to be facing up. Use your left hand to hold the chain up out the way, your right hand to lower the wheel in place.



19. Your wheel is in roughly in the right position.





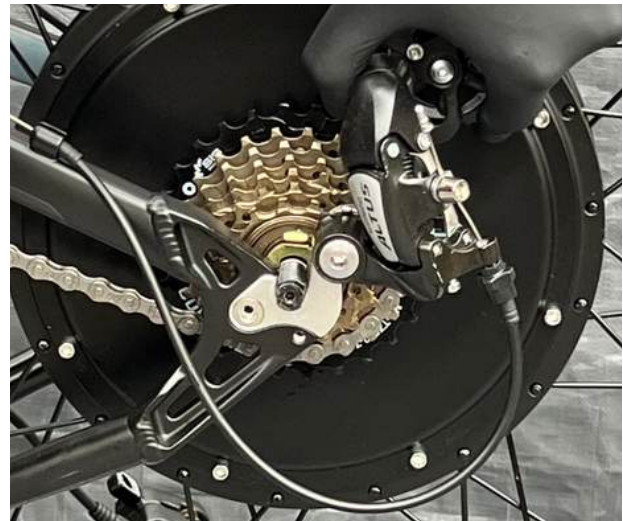
20. Now use your thumb or the palm of your hand to apply pressure to the end on the motors axles, your finger to pull the frame out so your axle will drop into the wheels dropout slot.

Repeat this process on the other side.

TIP. You can use your order hand to help position the wheel in to place.



Ensure the gold spacer are setting between the inside of your frame & the motor,



TIP. You can use a spanner on the flat sides of the motor axle to rock back & fourth to help the motors axle drop in place.

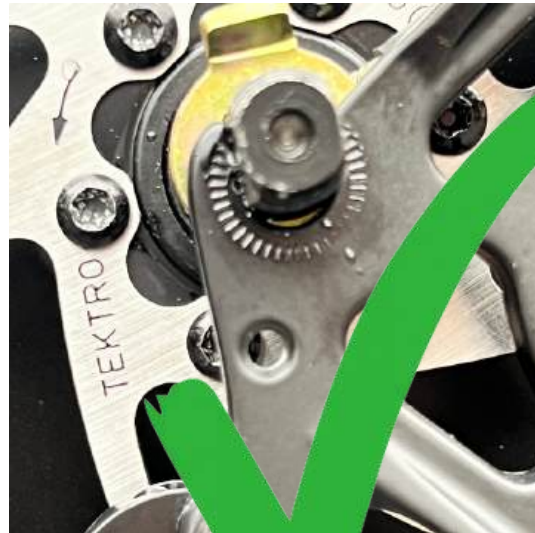




# 12



21. Use a rubber mallet to tap both sides of the axle down to close the gap as best as possible.



22. Now spin the wheel slowly by hand & visually look and listen for any signs or catching or rubbing





# 13



23. Torque arms. Torque arms are designed to strengthen your frames dropout & evenly distribute load through your bikes frame

We off 3 types,

Type one supplied with 1000W kits



Type two supplied with 1500W 2000W kits

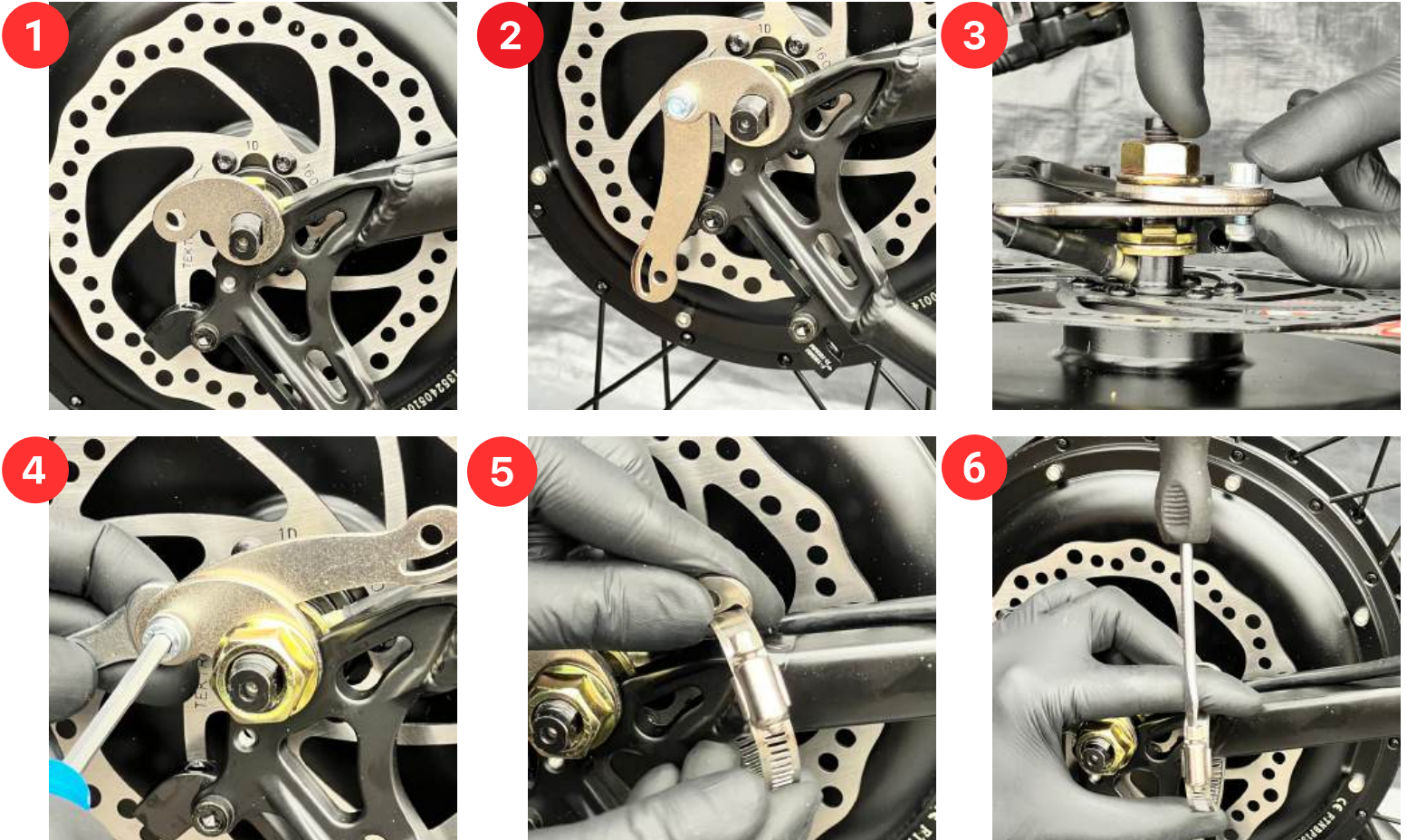


Type three supplied with 1500W 2000W kits



These are designed to be universal, however there are many ways to fit these, we will demonstrate some examples

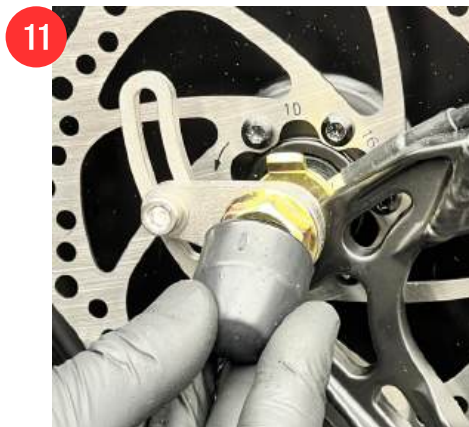
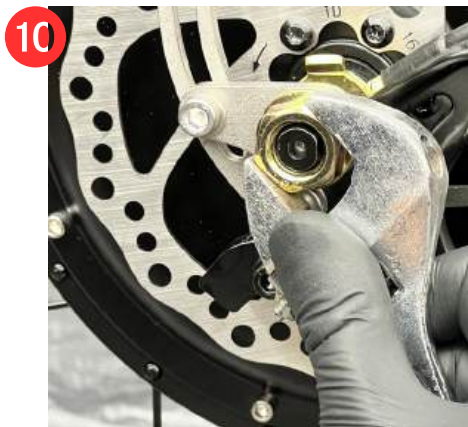
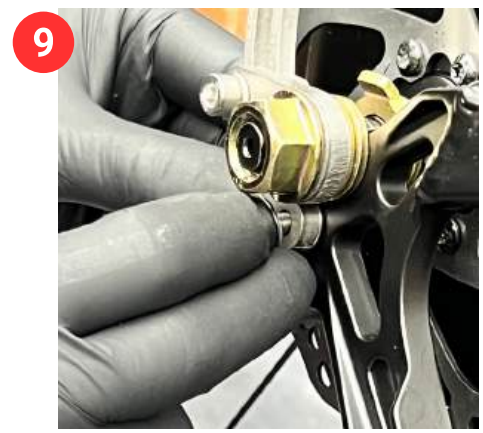
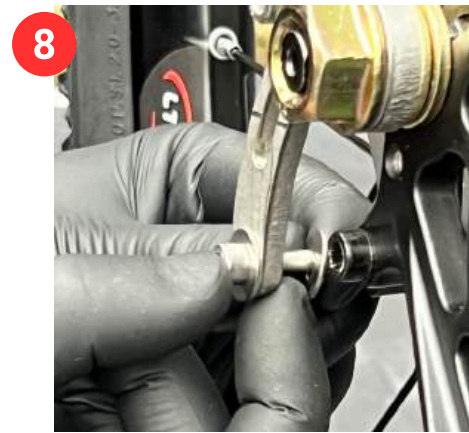
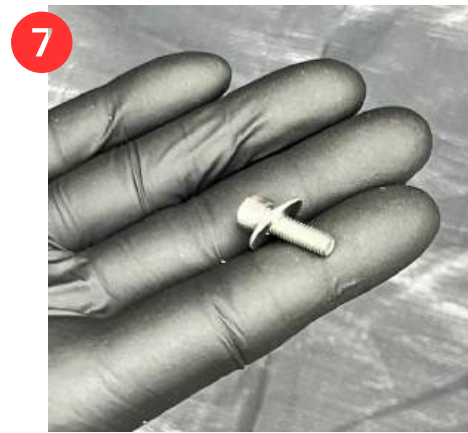
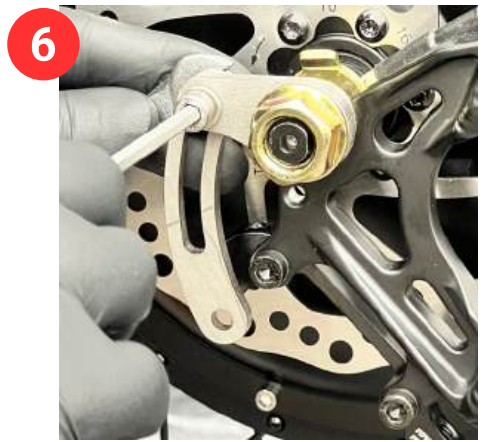
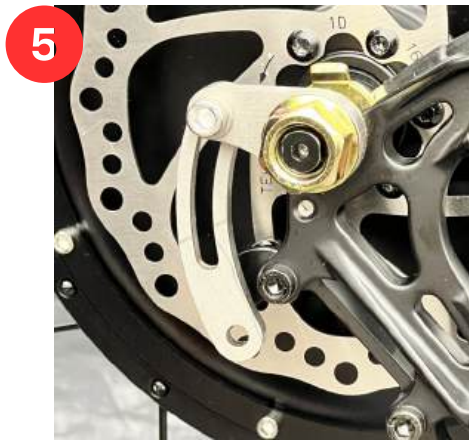
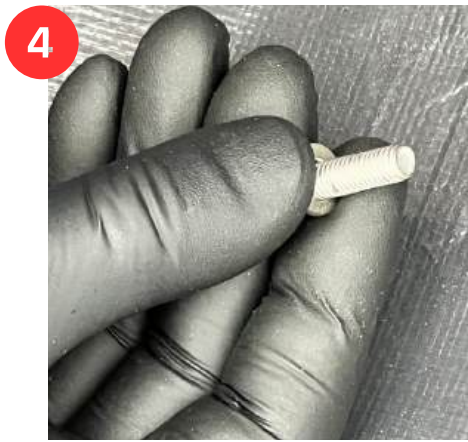
Type one supplied with 1000W kits





# 14

Type two supplied with 1500W 2000W kits



Type two is best suited to a step style frame



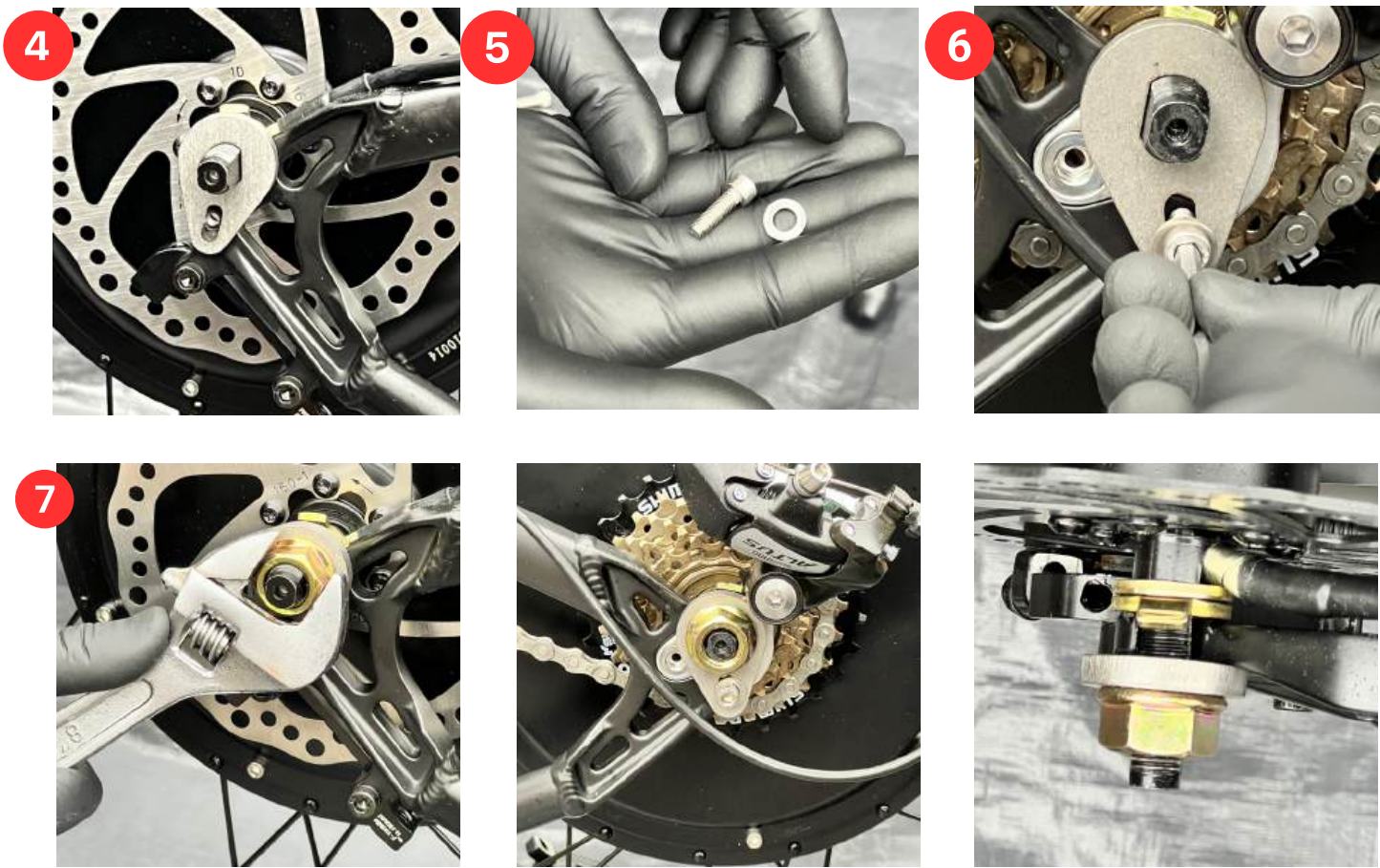


# 15

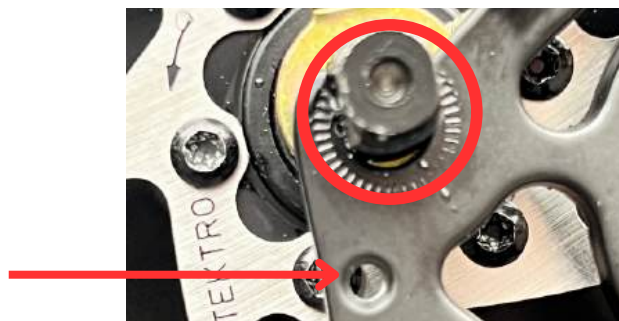
Type three supplied with 1500W 2000W kits



Image 3, you can use a spanner on the axle to move the axle back & forth to help line up the fixing hole in image 4.



Type three is best suited to a flat style frame with a small offset hole.





# 16

24. Ensure both axle nuts are tight, 50 Nm if you have a torque wrench.

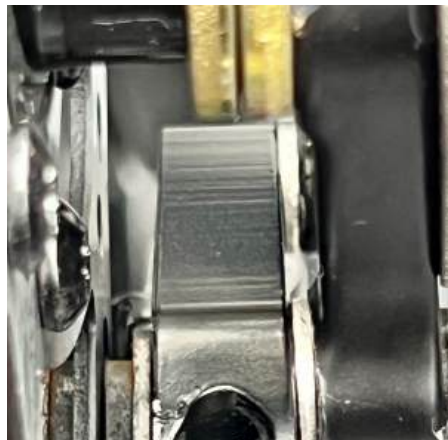
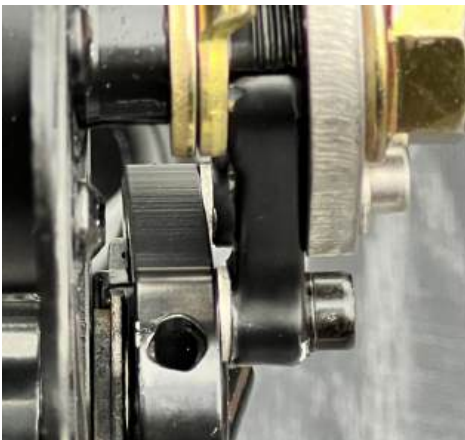


25. Re install your brake caliper



TIP. Apply your brake to centralize your brake caliper.

TIP. If you need to fine tune your caliper you can add a 6mm washer here.



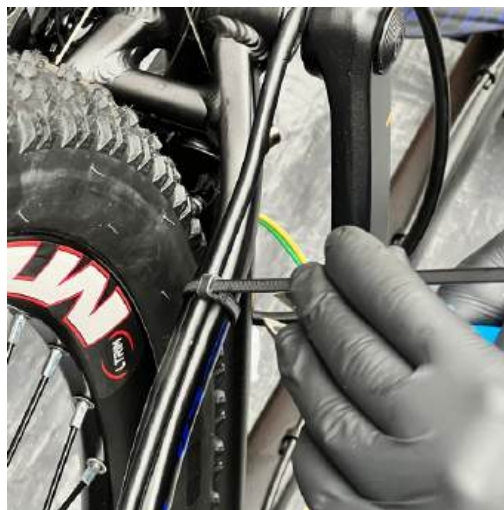


# 17

25. Now spin the wheel slowly by hand & visually look and listen for any signs or catching or rubbing



26. Route your motor cable, Fix a cable tie around 4 inch intervals.



Cut the excess cable tie

**WARNING.** Do not do these too tight, enough to hold the motor cable in place.





These are some examples.

Best practices to use the longest route possible, to avoid any excesses cables in the controller bag or box.

**WARNING**, Do not coil the motor cable as this can get hot.

There is no rule to suit all bikes on this, as the frame size and controller placement will differ bike to bike.

27. You will need to adjust your derailleur to ensure your gears are working correctly.

**WARNING, SHIFT THE GEARS SLOWING TO AVOID THE DERAILLEUR HITTING THE MOTOR.**



The high & low limit screws are designed to stop your derailleur from over travel.

derailleur to differ bike to bike.

If your having issue, we would recommend contacting a local bike shop or someone with a good understanding of bike maintenances



# 19



28. Install the pedal assist sensor, Skip this step if you don't want to install the sensor.

## THIS IS THE NON DRIVE SIDE

You will need the crank removal tool that we supply with ever kit



Remove the cover cap

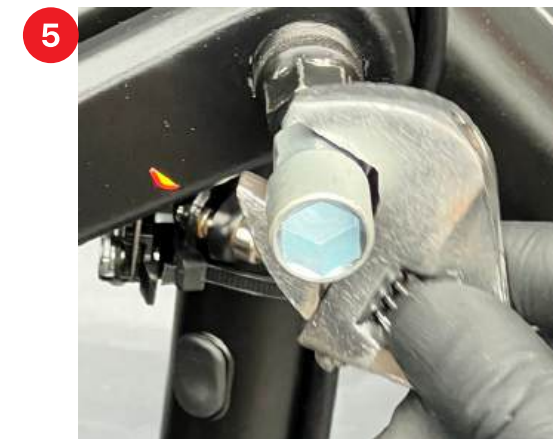
Remove the crank bolt

insert crank tool

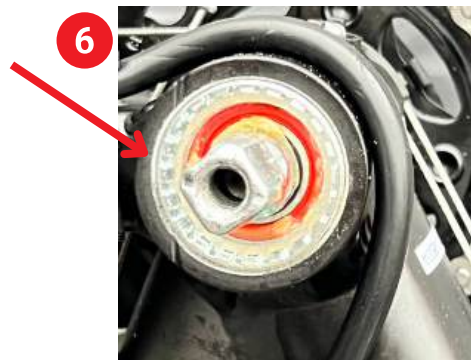


NOTE, Ensure the thread is clean  
Do not cross theard  
Ensure the black part is fully in.

Tighten the silver parts slowly  
This will pull the crank arm off  
the crank shaft



Ensire the face is clean



# 20



Take your sensor & magnet ring, Apply a bead of glue on the back side of the sensor

7



8

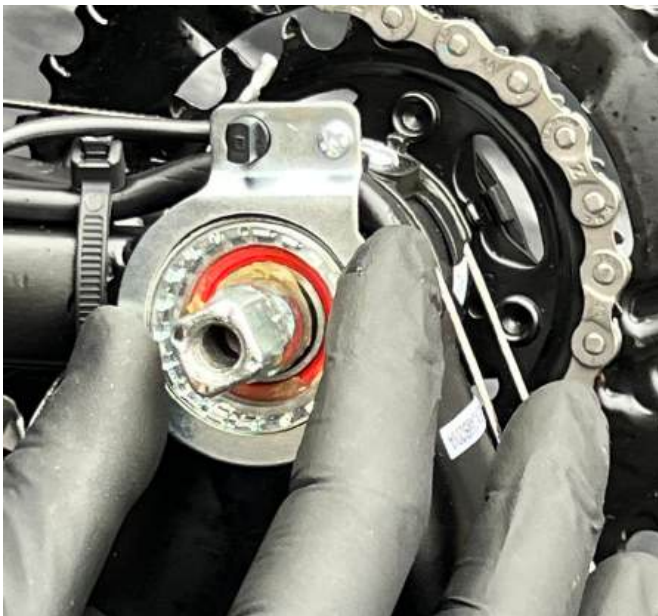


9



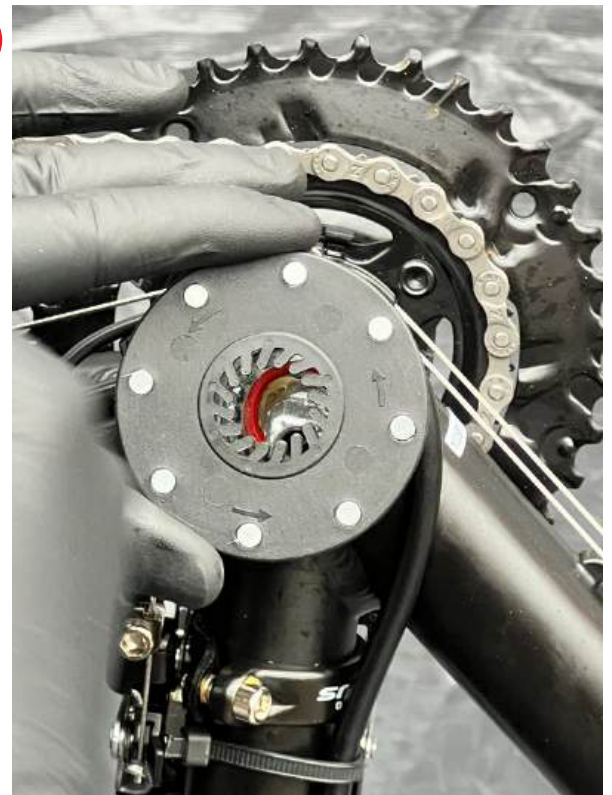
Hold the sensor in place while the glue starts to work

10



Install the magnet ring so the arrows are facing you & are running anticlockwise

11



you will need a 1-2 mm gap between the magnet ring & sensor

12





# 21



29. Install your battery. Flip your bike the correct way & ensure its stable & will not fall or roll.

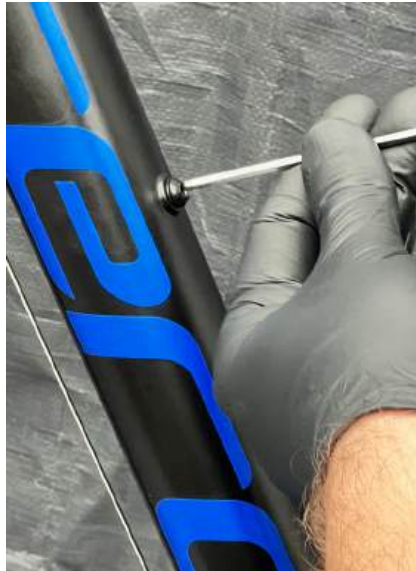
Remove the bolt hold bolts

Place the rubber pads one on each hole

1



2



3



Line up the battery base to your desired position

Tighten down the base with the two M5 x 15mm bolts supplied

4



5





# 22



You will need to slide the battery base up or down to sure a perfect fitting battery.

## Range of movement



Position the top of the battery, so it drops in place



Drop the bottom of the battery in place



Push the battery down to close this gap

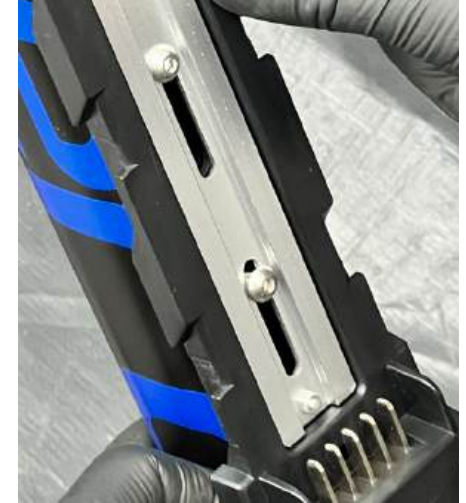




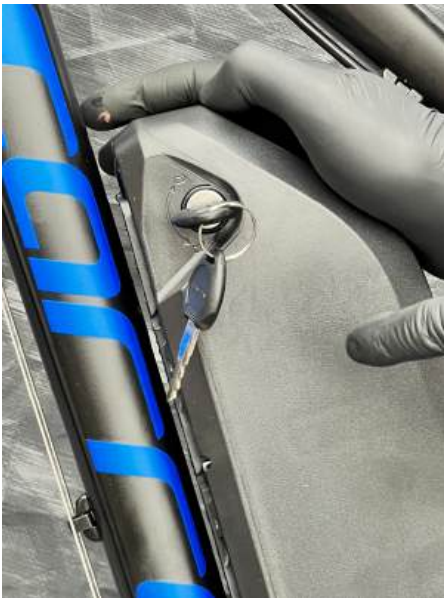
check the gap between your frame & battery you need a gap to ensure your battery locks correctly



Use the key to lock your battery



Adjust the base if your battery will not lock into place



48V 13ah example



48V 20ah & 52V 20ah example





# 24

## 30. Mount your display.



Most bikes have a 31mm handle bar, If yours is smaller, please use the rubber inserts provided

Slowly stretch the display mount bracket over your bars



Repeat on the second side



The 2 larger allen bolts & nyloc nuts

Insert the nut in the the hex shape side



Hold in place with your thumb & tighten with a 3mm allen key



Install the display control panel

**WARNING. Do NOT over tightened these bolts**



Repeat on the second side

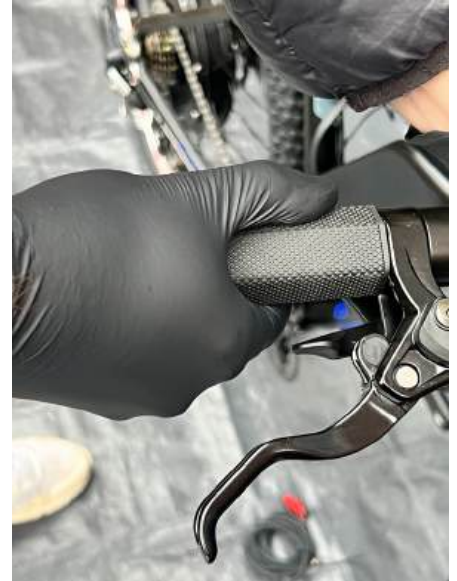


# 25

31. Installer your throttle.



Remove your old grips & loosen your brake levers & gear shifter controls



In can be Tedious to remove your old grips, Use a lubricant to help work your old grips off

Use a lubricant to help work on your new left hand grips.





# 26

31. Install your throttle.



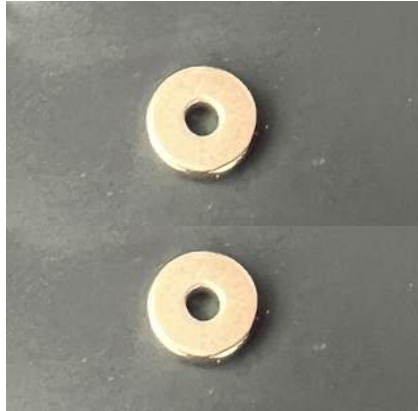
Slide the throttle over your bars  
Move to your desired position.

3mm allen key to lock the throttle in place





32. Brake sensors, Skip this part if you are choosing not to use them. These are designed to fit many types of cable & hydraulic brakes  
NOTE, It can be difficult to install to some models of bikes.

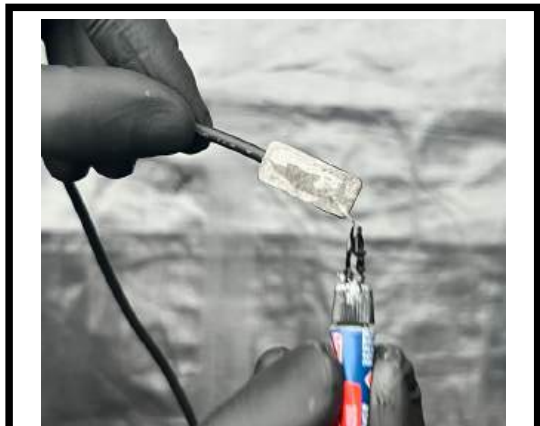


Remove the red protective film from the back of the sensor



Stick the sensor in position.  
NOTE. ensure the area is clean & grease free.

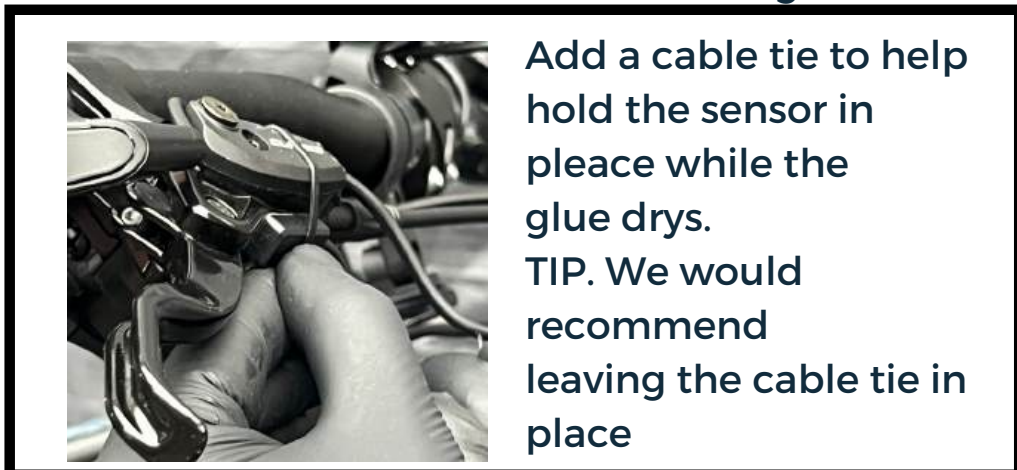
This is what you need to achieve for the sensor to work correctly.  
NOTE. The sensor need to be attached to the main body of the brake structure.



You may need to add some add some glue to help the sensor stick securely.



Add a cable tie to help hold the sensor in place while the glue dries.  
TIP. We would recommend leaving the cable tie in place





# 28

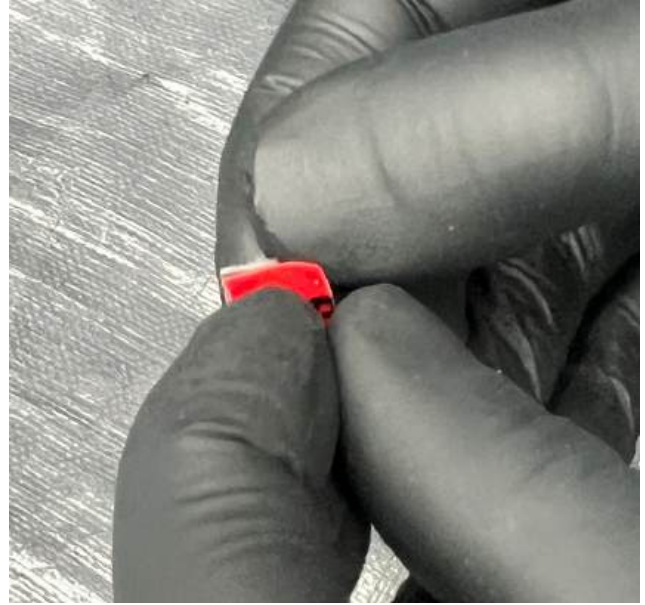
## Magnet install



Add a dap of glue to the magnet



Remove the adhesive paper from both sides of the small sticky pad provided



Position the magnet on to your brake lever, Note this needs to be as close as possible to ensure that the sensor will work correctly.

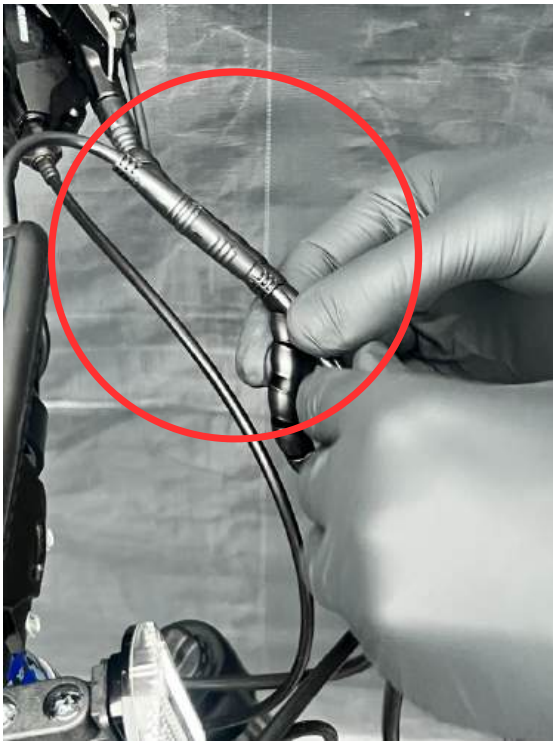




# 29



33. Cable management. Use the cable wrap & cable ties provided to keep all the cable protected, clean & positioned safely.



If you have this style plug, we would recommend not to wrap this.

This will make it easier if you have need to remove the display

Keep widening the cable wrap to make all your cables nice a tidy.

You can also wrap the cable to any brake or gear cable line if you wish.

We recommend to route your cables to where you have planed to mount your controller.





# 30

## Cable management.



Utilizes the frames cable points (where possible) to hold the routed cables in place.

Cut down any cable ties

**BOUBLE CHECK EVERYTHING IS TIGHT**

**ENKOY & RIDE SAFE**





# 31

Controller management.



Now connect all the relevant components,

Motor Phase, MT60

Motor Hall, 6 Pin,

Throttle. 3 Pin,

Display. Flat 5 Pin,

If you have opted to install the below.

Pedal assist sensor

Brake sensors

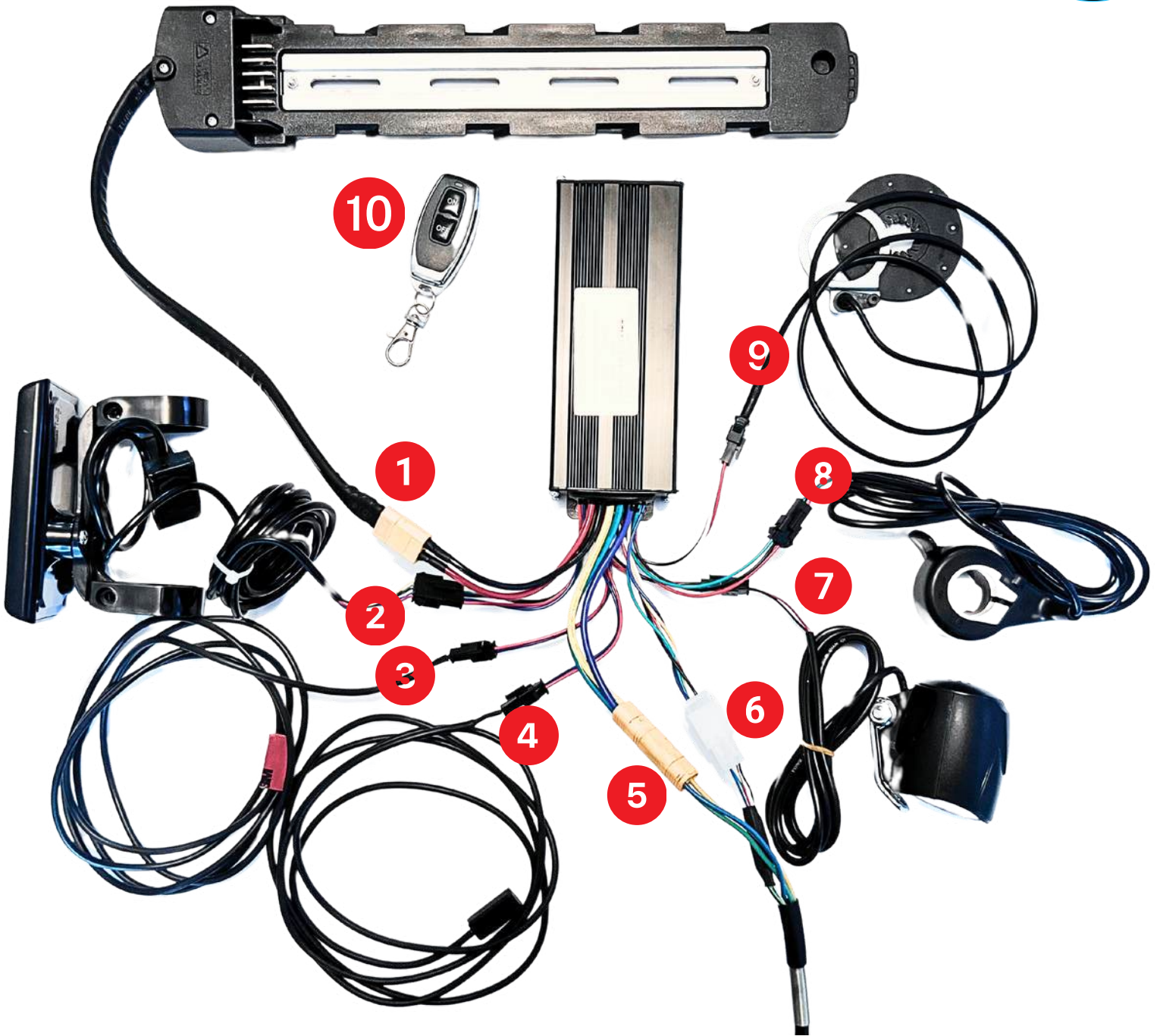
Headlight (If supplied)

Remote limit switch.

Please don't be intimidated by the wiring.

We have designed all the connection to only connect to there designated function.





- 1. BATTERY
- 2. DISPLAY
- 3. BRAKE
- 4. BRAKE
- 5. MOTOR PHASE
- 6. MOTOR HALL
- 7. HEADLIGHT
- 8. THROTTLE
- 9. PEDEL ASSIST

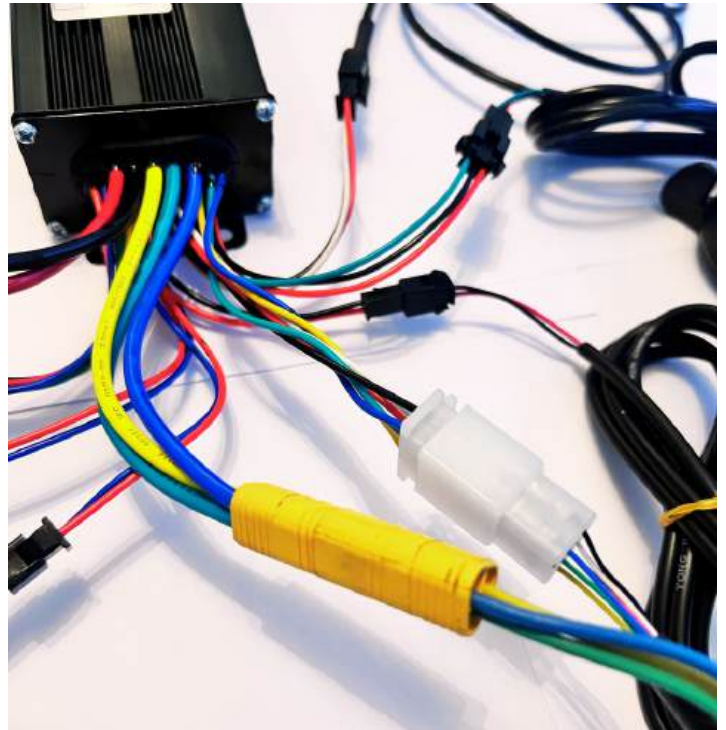
10. IS THE REMOTE KEY

THERE IS ONLY ONE KEY, SO PLEASE  
LOOK AFTER THIS,

IF YOU LOSE THIS KEY YOU WILL HAVE  
TO BUY A NEW CONTROLLER IF YOU  
WANT THE KIMIT FUNCTION TO WORK

# 33

## 30A CONTROLLER CONNECTIONS



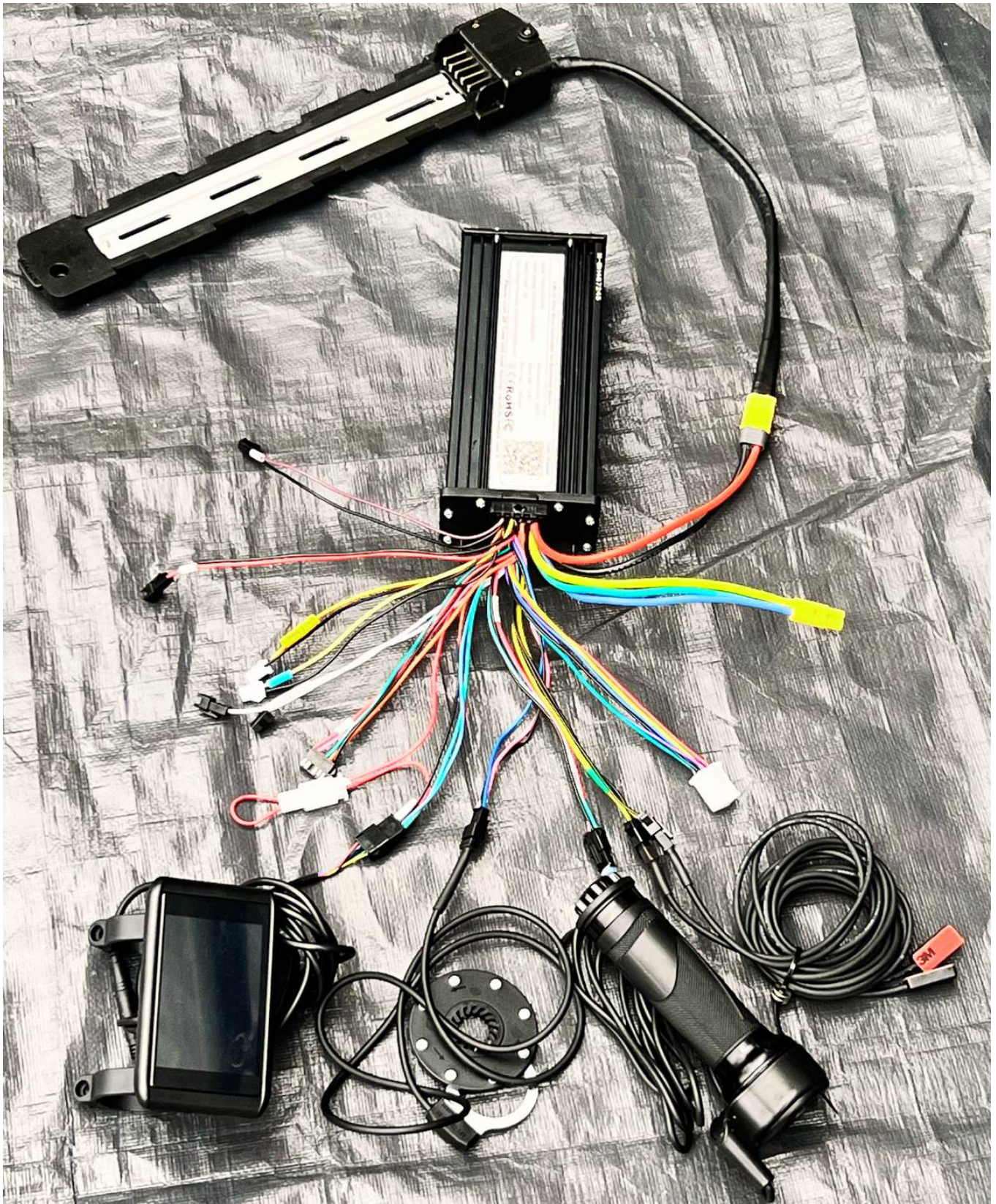
PLEASE NOTE, KEEP THE MOTOR PHASE CABLE AWAY FROM ALL THE OTHER CABLES AS THIS CAN GET HOT





# 35 1500W CONTROLLER

Please see our User Manual at  
<https://ebikepoweruk.com/user-manuals/?v=7885444af42e>





# 35

## DISPLAY TYPE



UKC1



SW900 NON COLOUR



SW900 COLOUR



FOR MORE IN DEPTH INFORMATION PLEASE HEAD OVER TO OUR WEBSITE] TO THE USER MANUAL SECTION

<https://ebikepoweruk.com/user-manuals/?v=7885444af42e>



# 36 SPECIFIC PART DETAIL



## Display

- Please see our User Manual at <https://ebikepoweruk.com/user-manuals/?v=7885444af42e>

## Controller

- Please see our User Manual at <https://ebikepoweruk.com/user-manuals/?v=7885444af42e>

## Battery

- Please see our User Manual at <https://ebikepoweruk.com/user-manuals/?v=7885444af42e>

## Pedal Assist

- Please see our User Manual at <https://ebikepoweruk.com/user-manuals/?v=7885444af42e>

## Brake Sensors

- Please see our User Manual at <https://ebikepoweruk.com/user-manuals/?v=7885444af42e>

## Torque Arms

- Please see our User Manual at <https://ebikepoweruk.com/user-manuals/?v=7885444af42e>

## Throttle

- Please see our User Manual at <https://ebikepoweruk.com/user-manuals/?v=7885444af42e>



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