



# **Product Manual**

This manual is intended primarily for the trained technician to install, disassemble, or maintain the e-bike.



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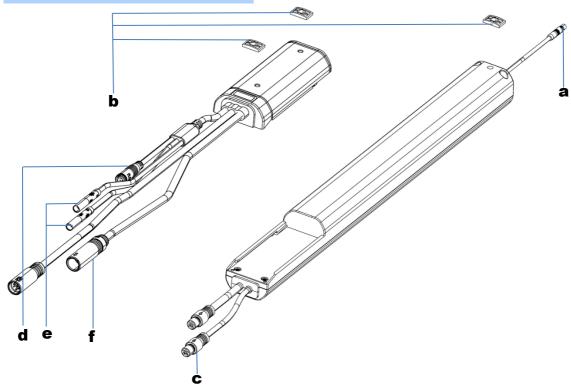
# PRODUCT FEATURES

#### PRODUCT DESCRIPTION

 $\mathbf{EDX}$  is an 250W E-Bike electric system including battery and controller, it is compatible with most of down tubes for slim outlook e- bike.

 $\mathbf{ED}X$  offers various options of HMI and sensors and supply sufficient power for wide range of light selections. The AI algorithms inside  $\mathbf{ED}X$  would significantly reduce the time and efforts in integration of motors.

#### PARTS DESCRIPTION

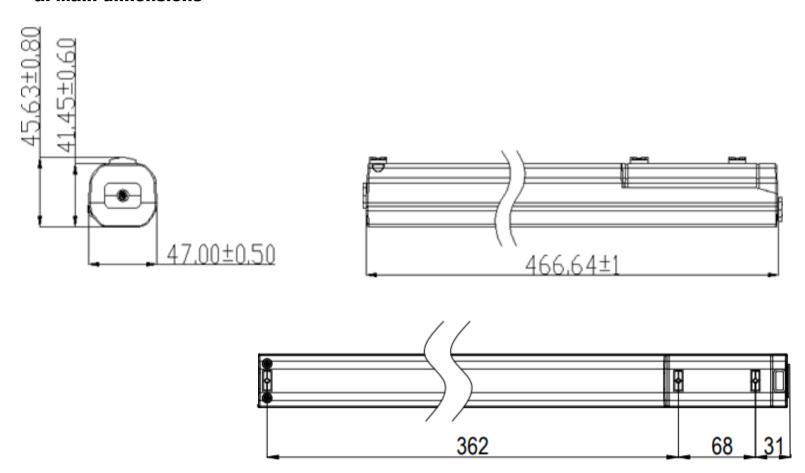


- a. HMI connector
- **b.** Battery fixation gasket (optional)
- c. Charging socket connector
- d. Torque sensor connector
- e. Light connectors
- f. Motor connector



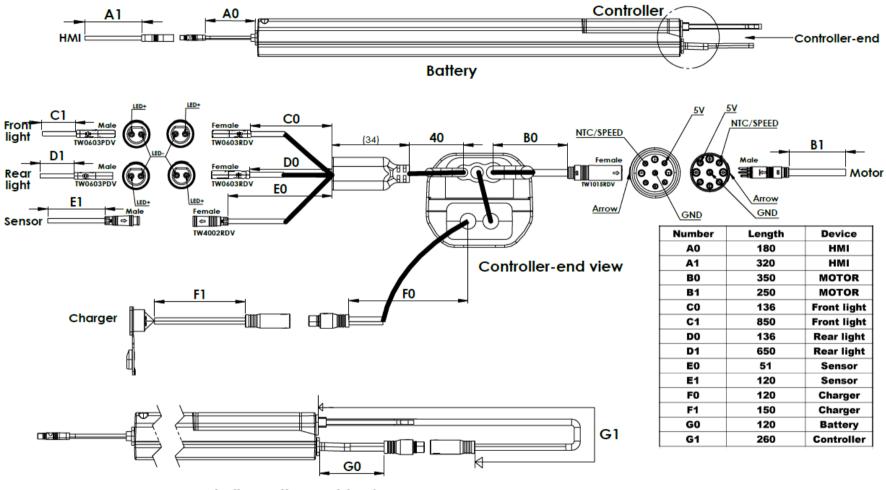
# PRODUCT DIMENSION

#### a. Main dimensions





#### b. Cable and length

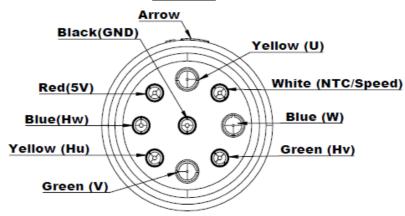


Controller-Battery cable view

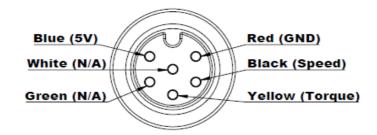


# PIN DEFINITION

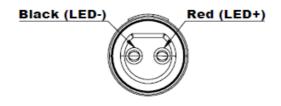
#### **Motor**



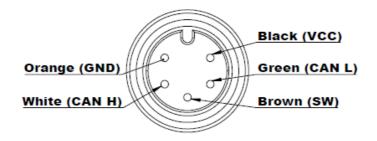
#### **Torque sensor**



#### Light



#### H.M.I



CEXLPERT E-BIKE SYSTEM



# TECHNICAL DATA

<b>FUNCTION</b>	F	U	N	C.	TI	0	N	ı
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System power	250W
Battery rated voltage	36V
Battery typical capacity	6.8Ah
Battery energy content	244.8Wh
Cut off voltage	< 28.0V±0.3V
Charging mode	CC-CV (constant voltage with limited current)
Charge voltage	42.0V
Charge current	<b>≤ 4A</b>
Weight	1.50±0.1 kg
Waterproof level	IPX6

## **CHARACTERISTIC**

Protocol	Eagotech CAN Communication
Operating temperature	Charge:0~45℃/Discharge:-10~60℃
Storage temperature	-20°C~+60°C (<1 month)
	-20°C~+45°C (<3 month)
	-20°C~+23°C (<12 month)
Charging time approx.	Standard charge:4hours
Light power	Total 15W/12V for head/rear lights
Motor driving method	Field Oriented Control

## **MOUNTING PARAMETER**

Mounting position	In frame
Dimension	L467, W47, H46mm

CEXLPERT E-BIKE SYSTEM



# MOUNTING

#### **TOOL LIST**

**Phillips screwdriver** 

**Cable lead wire** 

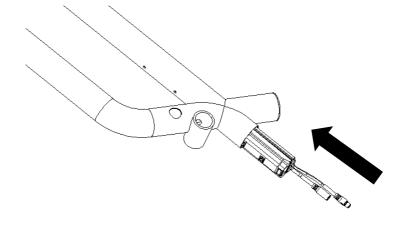
ACCESSOR	Y LIST	
Plastic gasket	Optional depends on the frame type	3 pcs
Phillips screw	M5x0.8P (length depends on frame thickness)	3 pcs
Charging socket	with cable	1 pcs
Countersunk Phillips screw	M3x0.5P (length depends on frame thickness)	4 pcs

#### **MOUNTING INSTRUCTIONS**

- Use the proper bicycle tools during the installation or removal process.
- Carefully install this product is necessary, do not strike it with any tool such as a hammer or wrenches.
- CAUTION Please strictly follow these steps for assembly; otherwise, an incorrect assembly may cause permanent damage.
- NOTE The bike image seen in the manual may be different from the actual bike, but will be enough to help you understand related instructions.

#### **Battery Installation**

Step 1: Insert the battery through the bike frame.





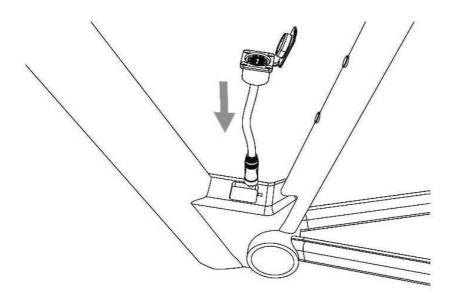
Step 2: Pull out the component cables and fasten the fixation screws (with maximum torque 30kgf-cm).



#### **Charging Socket Installation**

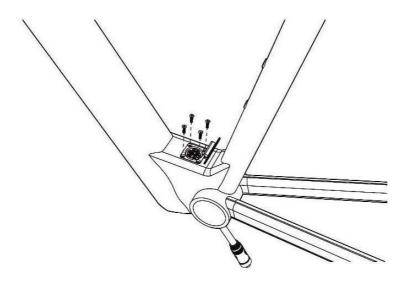
Step 1: Insert the charging port adapter.

Make sure the dustproof plug end toward the seat tube.

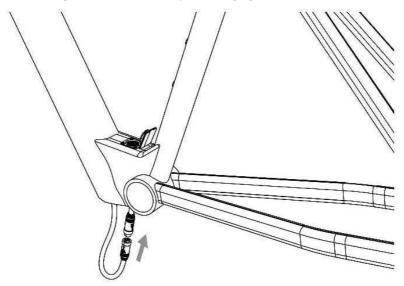




Step 2: Fasten 4 pcs of screws.



Step 3: Connect the battery and charging socket connectors.





# **OPERATION**

#### **OPERATION INSTRUCTIONS**

- WARNING Only charge the battery by following all safety descriptions. Please read and follow the instructions for using the battery charger.
- CAUTION The battery packs are partially charged and set to sleep mode before they were shipped; to wake up the battery and ensure that the battery has full and sufficient power, please charge your battery pack fully before using it for the first time.
- All Eagotech Chargers only use genuine Eagotech batteries and battery packs, or battery packs approved for use with your e-bike by the manufacturer, and purchase only from reliable sources.
- · Use of uncertified battery packs may result in death or severe injuries.
- · Charging is restricted to certified lithium battery packs. The battery pack voltage must comply with the charger output voltage; otherwise, it might result in risks of explosions or fires.
- CAUTION Charge the battery indoors to avoid exposure to rain or wind. Do not use outdoors or in environments with high humidity.
- WARNING Be sure to hold the power plug steady instead of holding the cord when connecting or disconnecting from the electrical outlet. Failure to do so may cause a fire or electric shock.
- · If the following symptoms are observed, stop using the device and contact the place of purchase. A fire or electric shock may be caused:
- If heat or acrid-smelling smoke is coming out from the power plug.
- There may be a bad connection inside the power plug.
- Do not place the battery charger on the floor or other dusty places when using it.
- Place the battery charger on a stable surface such as a table when using it.
- $\cdot$  Do not place any objects on top of the battery charger or its cable. Do not place a cover on it either.



- · Do not apply excessive tension to the cables and charging plugs.
- Do not touch the metallic parts of the device or the power plug on the AC adapter or other parts when the charger is wet, electric shocks may occur.
- Use only a 100-240 V AC electrical outlet, do not overload the electrical outlet with appliances beyond its rated capacity.
- If the electrical outlet is overloaded by connecting too many appliances using adapters, overheating resulting in fire may occur.
- Do not damage the power cord or power plug. (Do not damage, process, forcibly bend, twist, or pull them, bring them near hot objects, place heavy objects on them or bundle them tightly together.)

If they are used while damaged, fire, electric shocks, or short-circuits may occur.

- Do not use the battery charger with commercially available electrical transformers designed for overseas use (travel converters). They may damage the battery charger.
- When charging the battery, do not move the bicycle. The battery charger's power plug may come loose and not be fully inserted into the electrical outlet, resulting in a risk of fire.
- When charging the battery, be careful not to trip over the charger cord. This may lead to injury or cause the bicycle to fall over, damaging the components.
- CAUTION According to ECP, when the battery is in overcharged/over-discharged conditions, the battery will automatically disconnect the circuit for safety protection.

#### CHARGING INSTRUCTIONS

- · Check your battery pack before using it for the first time. First, you must turn on the battery pack; if the charging LED did not light up, it means that this battery pack might be damaged.
- · Make sure to charge the battery pack fully before using it for the first time.
- Do not try to use or charge damaged battery packs.

When charging, do not place any items 50 cm around the battery, make sure the battery and the charger are on a fireproof surface.



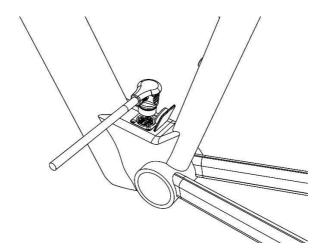
• Do not leave batteries in the charger for more than 24 hours, if the charging cannot complete in 24 hours, contact your local bicycle dealer for assistance.

The battery pack can be charged under any power mode; interrupting the charging process will not damage the battery pack.

• CAUTION - The battery packs are partially charged before they were shipped; to ensure that the battery has full and sufficient power, please charge your battery pack fully before using it for the first time.

#### Charging

- Plug the charger's plug into an outlet (100-240V), using the appropriate plug for the country's standards.
- · Uncover the charging socket on the battery, then connect the charging plug with the charging socket on the battery.



- When charging is complete, disconnect the charging plug from the battery socket.
- · Unplug the charger from the wall socket.
- Make sure to close the charging port cap after charging. If foreign matter such as dirt or dust adheres to the charging port, there is a risk that the charging plug will not fit into the charging port.
- $\cdot$  The type of socket for charge connector might be different on the different type of batteries, please refer to the battery instruction.



- · If the battery has become completely empty, charge it as soon as possible. If the battery is left uncharged, it may cause the battery to deteriorate and become unusable.
- CAUTION When possible, you should charge the battery in an area with a smoke detector or make sure someone is taking care of the battery during the charging process.
- CAUTION Do not place the battery charger at locations that are easily accessible to children.

#### **Charge the Battery Pack Before and After Storage**

- When you do not use the battery pack of the e-bike for extended periods of time, charging the battery to 30-60% will be the optimum storage condition.
- Confirm the charge status again after six months; if the remaining power of the battery pack is less than 30%, charge it again to between 30-60%.
- CAUTION If the battery is stored under the condition of lacking power, the battery pack may be damaged and the power storage capacity of the battery pack itself will also be affected significantly.

# SAFETY INSTRUCTIONS

# Instructions Pertaining To A Risk Of Fire, Electric Shock, Or Injury To Persons

- $\cdot$  WARNING When using the EDX e-bike system, basic precautions should always be followed, including the following:
- · Read all the instructions before using the product.
- $\cdot$  To reduce the risk of injury, close supervision is necessary when the product is used near children.
- $\cdot$  Do not put fingers or hands into the product.
- $\cdot$  Do not use this product if the flexible power cord or output cable is frayed, has broken insulation, or any other signs of damage.
- · All the component leads shall use original Eagotech components.



- This equipment is not intended to be used at ambient temperatures less than -10°C (14
- °F) or above ambient temperatures of 60°C (140°F).
- $\cdot$  Do not immerse the product or any e-system component in water. The penetration of water into the charger could cause electric shock.
- · Do not place the product or any e-system component near fire or heat.
- · Always turn off the e-bike system and remove the battery before install, disassemble or modify any components on the e-bike.

#### IMPORTANT NOTICE

- This product manual is intended primarily for the trained technician to install, disassemble, or maintain the e-bike.
- $\cdot$  Users who are not professionally trained for bicycle assembly should not attempt to install, disassemble, or modify the components themselves.
- The term "battery" is used in these instructions to mean all original Eagotech e-bike batteries.
- Read and observe the safety warnings and directions contained in all the Eagotech e-bike system operating instructions and in the operating instructions of your e-bike.

#### **GROUNDING INSTRUCTIONS**

- The whole charging behavior must be keep grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes ordinances.
- WARNING Improper connection of the equipment grounding conductor is able to result in a risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the product is properly grounded.

Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.



#### **MOVING AND STORAGE INSTRUCTIONS**

- When possible, keep the product and all e-system components in their original package and keep tools or other metal objects away from them while storage and moving.
- If you did not keep the original packaging, they can be packed in strong cartons with proper packing materials such as bubble wrap or soft cloth and label the cartons Fragile.
- · Do not bundle the charger cables.
- · Do not hold the battery charger by the cables when carrying it.
- $\cdot$  To prevent the cable from being damaged, avoid wrapping it around the main body during storage.
- Do not store the product at ambient temperatures less than -20°C (-4°F) or above ambient temperatures of 50°C (122°F). For long-term storage temperature, refer to page 6.
- · Cover the product to prevent damage by sunlight if you will be keeping it stored at any place for more than a week.
- Store the product on a fireproof surface and without contact water, heat, or sands.
- Do not place any heavy item on the product or any e-bike system component.
- Do not place the product or any e-system component in the car trunk for more than one day.
- $\cdot$  Do not load or move the product in the rain whenever possible, and make sure it has no moisture or mildew before loading it.
- · Do not drop the product from more than 30cm height.
- Periodically check the battery charger and adapter, particularly the cord, plug, and case, for any damage. If the battery charger or adapter is broken, do not use it until it has been repaired by the place of purchase or a distributor.

#### **MAINTENANCE**

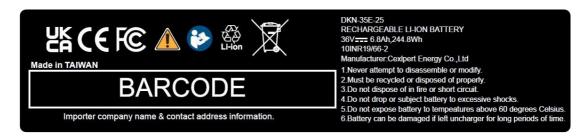
 $\cdot$  When performing cleaning, disconnect the power plug from the electrical outlet and the charging plug from the battery. If this is not observed an electric shock may occur.



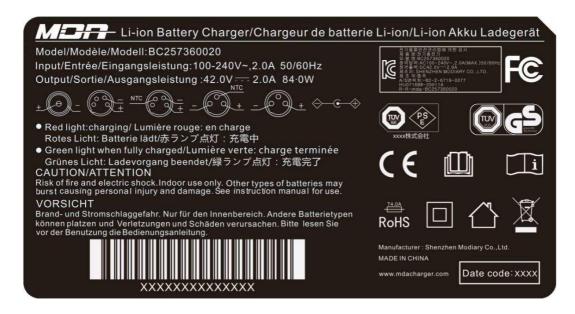
- Do not clean the product or any e-system component with any detergent or organic solvent. Only clean the product with a water-dampened soft cloth.
- Do not clean the product or any e-system component with pressured water.

#### PRODUCT WARNING LABEL

- On the product warning label at the bottom of the charger, you can find simple descriptions of safety warnings in different languages; the content will include the following items:
- Please read the user manual before use.
- · Store the battery in a cool, dry, and safe place with good air circulation.
- · Keep the battery out of reach of children.
- · Keep the battery away from any metal objects and avoid any mechanical impacts on the battery.
- · Charge the battery with a certified authentic charger.
- · Contact certified dealers in case of any malfunction of the battery.
- · Do not open the battery by yourself or by the non-certified dealer.
- The battery must be recharged at least every three months to ensure the best performance and longest lifetime while not in use.
- Dispose of the used battery according to local ordinances and/or regulations.







#### **DISPOSAL**

• In accordance with Directive 2012/19/EU and Directive 2006/66/EC respectively, electronic devices that are no longer usable and defective/drained batteries must be collected separately and recycled in an environmentally friendly manner.



This symbol is only valid within the European Union. Follow local regulations when disposing of used batteries. If you are not sure, consult the place of purchase or a bicycle dealer

• The e-system drive unit including the motor, driver, battery, speed sensor, HMI, accessories, and packaging should be disposed of in an environmentally correct manner.



· Do not dispose of e-bikes and their components with household waste.