

Enjoy Every Mile

Pedelec-with electric drive
up to 250W
EKM V 6.1.1



KOOLUX

Operating Manual

Translation of the original operating manual

Product Model: X12 PRO

Specification: X12 PRO-48V15Ah

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About the Operating Instruction Manual

Please read the operating instruction manual before use in order to use all functions correctly and safely. This operating instructions does not replace the personal instructions of the specialised dealer who supplied the bike. The operating instruction manual is an integral part of the bicycle. If the bicycle is ever resold, it must be handed over to the next owner.

Please read and observe all accompanying documentation before using the bicycle. The accompanying documentation includes the following types of documents:

- Operating Instruction
- Assembly Instruction
- Declaration of Conformity

Security Icons



Use according to instructions



Warning



Caution

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BICYCLE USER MANUAL

The company reserves the right to modify and interpret the product models, specifications or related information mentioned in this manual;

The functions of a specific model mentioned in this user manual are only applicable to that specific model;

The product models, specifications or related information mentioned in this user manual are subject to any modification or change without prior notice;

Without the prior written permission of the company, the contents of this manual may not be copied, modified, reproduced, transmitted or published in any form. Please read this manual carefully before using the product, and operate in accordance with the manual, otherwise the company will not be responsible for product damage or personal and property damage caused by improper use or mistakes.



IMPORTANT:

This manual contains important safety, performance and service information. Please read it carefully before riding your new bike for the first time and keep it as a reference for future reference.

Additional safety, performance and maintenance information for certain parts such as shocks absorbers or pedals on your bicycle may also have been included with your bicycle or the accessories you purchased.

Before your first ride, be sure to read all documents provided.

If you have any questions about use or service, repair and maintenance, please contact customer service.

Statutory Warranty and Guarantee Claim

***Explanation of statutory warranty**

The manufacturer grants a 24-month warranty (another word for this: liability for defects) on new goods (§439 and 476 of the German Civil Code).

The warranty covers defects that the product already had at the time of purchase. If you discover a defect, you can demand that the manufacturer repair or otherwise improve the product.

If the seller is of the opinion that the defect only arose after the purchase, the buyer must prove this within the first six months. After six months, the burden of proof is reversed. The buyer must prove the defect already existed at the time of purchase.

***Explanation of guarantee**

The guarantee is a voluntary service provided by the manufacturer (manufacturer's guarantee). The duration and conditions are freely determined by the manufacturer.

Manufacturer's warranty

The manufacturer grants a warranty of 2 years on frame breakage and 6 months on the entire bike and its attachments. This excludes all worn parts, such as chains, pedals, toothed belts, tyres, rims, tubes, bearings, derailleur hangers, brake pads, chain wheels, sprockets, bottom brackets, shift and brake cables, shift and brake lines as well as paintwork and stickers. The warranty does not cover any damage caused by not following the assembly instructions or by improper use (jumps, stunts, tricks, wheelies, downhill). The bike is to be used exclusively for private use. Damage caused by renting, leasing or participation in competitions is completely excluded from the warranty. The warranty is invalidated if you carry out repairs, conversions or other modifications to this bicycle yourself without consulting the manufacturer. The warranty is also invalidated if the maintenance intervals specified in this user manual are not adhered to and a careful inspection of your bicycle is not carried out at least once or twice a year.

The original proof of purchase must be kept together with the service booklet in order to safeguard warranty claims. With the purchase, the warranty conditions are recognised in full and without restriction. The following conditions apply:

- No warranty for accidental damage
- No guarantee in the event of improper use
- No guarantee in the event of misuse
- No guarantee in the event of damage due to incorrect assembly
- No guarantee if the inspection and maintenance intervals have not been observed
- No guarantee in the event of loss of components and add-on parts

GENERAL WARNINGS

Cycling, like any other sport, involves the risk of injuries and property damage. When cycling, you take responsibility for the risk. That's why you should know - and follow - the rules of safe and responsible riding and correct use and maintenance. Proper use and maintenance of your bicycle reduces the risk of injury.

Your electric bike is intended for people aged 16 and over. Regardless of age, riders must have the physical coordination, reaction time and mental ability to ride safely in traffic. The relevant legal regulations on the use of bicycles should be respected.

If you suffer from an impairment or disability, such as poor eyesight, hearing loss, physical impairment, cognitive or speech impairment or a seizures, you should consult your doctor before your first riding.

Prohibition of modifications

Modifications only permitted by the manufacturer! Modifications made without the manufacturer's consent invalidate the declaration of conformity!

Unauthorised modifications or changes to the bicycle can lead to serious injury and loss of warranty. This applies in particular to tampering with and modifying the electric motor and the control unit.

Never modify the control unit or the electric motor.

There are many components and accessories available to improve the comfort, performance and appearance of your bike. However, if you replace components or add accessories, you do so at your own risk. The bicycle manufacturer may not have tested this component or accessory for compatibility, reliability or safety on your bicycle type. Before installing components or accessories, including but not limited to a different tyre size, lighting system, luggage rack, child seat, trailer, etc., check with your dealer that these parts are compatible with your bicycle. Make sure you read, understand and follow the instructions that come with the products you buy for your bicycle.

Failure to check compatibility, ensure proper installation, operation and maintenance of components or accessories can result in serious injury or death.

Performance optimisation (retrofit) is illegal. According to the German Road Traffic Permit Ordinance (StVZO), EPACs with motors that can accelerate a bicycle beyond 25 km/h are considered motor vehicles and therefore require a driver's licence of class AM/B. The manufacturer does not have a licence to sell motor vehicles. For example, S-Pedelec. As a result, performance optimisation can have the following effects on you:

- The manufacturer's declaration of conformity is invalidated.
- Warranty or liability for defects cannot be claimed.
- Driving without a licence can result in a fine.

Qualifications of Persons Using This Product

These instructions apply to trained bicycle riders. The bicycle rider must have the following knowledge and experience:

- Have been instructed in the use of the bicycle by a professional dealer.
- Know that improper use of the bicycle can lead to accidents.
- Know how to use the bicycle according to these instructions

Personal protective equipment

- Serious injury or death is possible when riding a bicycle.
- Always wear an approved helmet when riding and follow the manufacturer's instructions in the corresponding manual regarding the adjustment, use and care of the helmet.
- Always wear sturdy shoes with non-slip soles (e.g. profiled rubber soles).
- Preferably always wear gloves.
- Always wear tight-fitting clothing to avoid getting caught in the bike or on objects on the side of the road or path.
- Always wear (clear) glasses that protect against dirt, dust and insects.
- Always wear tinted glasses when the sun is shining.



Basic security instructions

Wear a helmet



Always wear a bicycle helmet that meets the latest certification standards and is suitable for your rides. Always follow the helmet manufacturer's instructions for fitting, using and caring for your helmet.

Most serious bicycle injuries involve head injuries that could have been avoided if the rider had worn an suitable helmet.



DRIVING SAFETY

Obey all rules of the road and all local traffic laws.

You share the road or path with others - motorists, pedestrians and other cyclists. Respect their rights.

Ride in a defensive manner. Always assume that others are not aware of you. Always look ahead and be prepared to avoid problems from the following situations:

Vehicles slowing down, turning, turning into the road or lane in front of you, or coming up behind you.

- The doors of parked vehicles being opened.
- Pedestrians who appear.
- Children or pets playing near the road.

Avoid serious injury or death due to mechanical defects and incorrect use of the bicycle.

- Always carry out a safety test (see Riding your bike section) before riding your bike.
- Familiarise yourself with the brakes, pedals and gears before riding.
- Always ride at a speed that corresponds to the riding conditions.

Avoid electric shock or explosion due to improper handling of the battery and charger. Never open the electric motor, battery or other components!

Incorrect handling of the battery and charger can result in an electric shock or explosion. This can result in serious injury or death.

- Only use the battery contained in the package.
- Never connect the positive pole to the negative pole of the battery.
- Protect the battery from direct sunlight.
- Do not disassemble the battery.
- Only use the charger included in the package to charge the battery.
- Only use the charger indoors.
- The charger plug is the disconnecting device from the mains supply. Ensure that the socket is located near the charger and is easily accessible.
- Only use the charger with an earthed 220 V mains socket.
- Keep the metal contacts clean; if necessary, clean them with a soft, dry cloth.
- Do not charge a battery with visible damage, e.g. a broken casing.
- Do not use a battery with visible damage, e.g. a broken casing.
- Do not drop the battery.
- Ensure that chargers are not used by people with physical, sensory and intellectual impairments.

Avoiding fires and explosions

Never clean your bicycle and its components with a water hose, high-pressure cleaner or steam cleaner!

Moisture, electrically conductive dirt or mechanical damage may cause a short circuit. This may result in the battery catching fire or exploding.

- Only clean the electric motor and the control unit from the outside with a moist sponge. Never use a high-pressure cleaner.
- If you accidentally immerse these components completely in water, disconnect the motor from the battery immediately and do not put it back into operation until it has been checked by the manufacturer.

Avoid serious injuries due to body parts coming into contact with the components of the bicycle. There is a risk of injury when reaching into the chain drive. Never touch the chain drive while riding.

- When riding, parts of the body or other objects may come into contact with the sharp teeth of the chain wheels, the moving chain, the rotating pedals and cranks and the rotating wheels of the bicycle. This can result in serious injury.
- When riding, make sure that your body parts do not come into contact with the mentioned bicycle components.

Avoid serious injuries due to damaged components

When riding off-road or over kerbs, the electric motor, crank or bottom bracket can touch down and be damaged. This can result in serious injury.

- Only use the bike on authorised paths.
- If there are obstacles, step off and lift off the bike.
- If the bike is damaged, have it checked by a specialist dealer.

Avoid riding in wet weather

Wet weather affects traction, braking and visibility, both for the cyclist and for other vehicles on the road. The risk of an accident is extremely high in wet conditions.

In wet conditions, the braking performance of your brakes (as well as the brakes of other vehicles on the road) is drastically reduced and your tyres will not grip nearly as well. This makes it harder to control your speed and easier to lose control. To ensure you can slow down and stop in wet conditions, ride at a lower speed and brake earlier and more gently than in normal, dry conditions.

Wet weather can reduce the grip of the rider's feet on the pedals. If your feet slip off the pedals, a fall may occur.

Avoid serious injury or death in twilight or at night

Cycling at night is much more dangerous than cycling during the day. A cyclist is very difficult for motorists and pedestrians to recognise. Therefore, teenagers should never ride at dusk or at night. Adults who have decided to take on the greatly increased risk of riding at dawn, dusk or at night must take extra care and use special equipment to reduce this risk. Consult your dealer for safety equipment suitable for night riding.

- Drive slowly and carefully, but preferably on familiar routes.
- Avoid dark areas or heavy traffic.
- Be predictable in traffic, ride defensively and be visible to others.
- Expect the unexpected conditions, especially in the dark and in poor weather conditions.
- Continue to learn about cycling safety through literature or lessons.

Avoid serious injury or death due to damaged, bent or loose reflectors and lights

Bicycle reflectors catch the light from street lamps and car headlights and reflect it so that you can be recognised as a cyclist. Damaged, bent or loose reflectors can make it difficult for other road users to recognise you.

This can result in serious injury or death.

- Check reflectors and their brackets regularly.

Have damaged, bent or loose reflectors replaced by your specialist dealer.

Avoid serious injury if driving off-road or over a kerb when driving on uneven terrain!

Riding off-road at inappropriate speeds or over curbs may result in falls. In serious cases, this can result in injury or death.

- Always travel at a speed appropriate to the surrounding conditions.

Avoid serious injury or death by replacing components or adding accessories

There are numerous components and accessories available that can improve the comfort, performance and the appearance of the bicycle. The addition of components or accessories is at your own risk. These components or accessories may not have been tested by the manufacturer for compatibility, reliability or safety. Unconfirmed compatibility, reliability or safety as well as improper installation, use and maintenance of components or accessories and maintenance of bicycle components or accessories can lead to serious injury or even death.

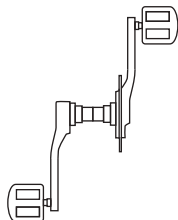
- Always consult your specialist dealer before installing, using and maintaining the component.
- Always read and follow the enclosed instructions for use of the accessories.

Avoid serious injury due to incorrect maintenance, care and cleaning

Incorrect maintenance, care and cleaning can lead to injury or even death.

- Only carry out the activities listed in the maintenance instructions.
- Only use commercially available lubricants and cleaning products.
- Have other maintenance work and repairs carried out by a qualified specialist dealer.

Leg Injury Warning



Too little or too much pedal clearance can cause damage to the legs. This may be due to not installing the crankset properly. If the pedal assembly makes riding uncomfortable, please contact the manufacturer and replace the crankset if necessary.

Vibration Warning

Improper installation, wear and tear, overloading or parts loosening can cause the motor to stop running.

- Use the bicycle only on authorised roads.
- Before each trip, check that the drive operates smoothly.
- If there are cracks, rubbing noises or visible damage, please contact the specialised dealer for repairs.

Vibration

During normal use, the vibration value of the handarm system is 2.5 m/s² and the vibration value of the entire bicycle body is 0,5 m/s². If you feel discomfort due to strong vibrations caused by changes in the road surface, please adjust the speed accordingly.

Noise

The A- rated emission sound pressure level does not exceed 70 dB(A).

Avoid disease

Long and frequent sitting on the saddle can potentially cause prostate disease in men.

- Install a saddle (if necessary) suitable for female/male ergonomics.
- If necessary, go for preventative care.

Avoid dehydration from cycling

Cycling is a strenuous physical activity.

- Always make sure you are adequately hydrated.

Avoid freezing temperatures

Cycling in cool or cold temperatures can lead to freezing.

- Always wear appropriate clothing, including face protection, in cool or cold temperatures.

Avoid falls due to sudden start of electric motor assistance

There is a risk of losing control and falling due to the sudden start of electric motor assistance.

- Always test the electric motor assistance before your first ride.
- Always wear personal protective equipment (PPE).

Avoid poisoning

Damaged bicycle components (e.g. batteries, electrical or electronic components) may emit material or vapours. This can result in poisoning of the environment.

- Dispose of used batteries and the electrical or electronic components of the bike in accordance with the legal requirements.
- Observe the manufacturer's instructions for these products.



Safety Instructions of Batteries

- Do not open the battery.
- Protect the battery from heat (e.g. prolonged exposure to sunlight), fire and water. Do not store or operate the battery near hot or flammable objects.
- Keep unused batteries away from paper clips, coins, keys, nails, screws or other small metal objects that could cause the contacts to connect.
- Avoid mechanical force, impact or overheating.
- Do not place the charger and battery near flammable objects. Charge the battery only in a dry and fireproof place.
- Do not charge the battery unattended.
- If used improperly, liquid may seep out of the battery. Please avoid contact. In case of accidental contact, rinse with water. If liquid gets into the eyes, seek additional medical assistance.
- Charge the battery only with a suitable original charger.
- Use the battery only with an appropriate original drive system.
- Keep the battery away from children.
- Never transport the battery by yourself! The battery is a dangerous good. Under certain circumstances, it may overheat and catch fire.



Safety Instructions of Charger

- Keep the charger away from rain and moisture.
- Charge only approved and appropriate batteries.
- Keep the charger clean.
- Inspect the charger, cable and plug before each use. Do not use the charger if any damage is found. Do not open the charger.
- Do not operate the charger on extremely flammable surfaces.
- The charger is not intended for use by children or persons lacking experience or knowledge due to physical or mental reasons.

Charging the battery

Risk of the battery exploding if the wrong charger is used. This can result in serious or even fatal injuries.

- Only use the charger supplied.
- Observe and follow the instructions in the charger manual.
- The battery must be charged in a temperature range between 10°C and 30°C.

Charging the battery when it is removed from the charger generally results in a slightly longer battery life as the heat generated during the charging process can be released more easily into the air.

You can charge your battery in two ways. By inserting the battery into the bike frame and by removing the battery from the bike frame.

Charging with the battery inserted

You can charge the battery directly at the charging port of the battery without having to remove it.

Charging with the battery removed

To charge the battery, proceed as follows:

- Remove the battery from the holder.
- Ensure that the battery has no visible damage, e.g. a broken casing.
- Place the battery on a non-flammable surface, e.g. ceramic.
- Pay attention to and follow the instructions in the charger manual, if this is enclosed separately.
- Plug the charger jack-plug into the charging port provided on the battery.
- The charging process takes about 5-6 hours. When the charging light is green, the battery is charged.
- Disconnect the mains plug from the wall socket.
- Remove the jack plug from the battery charging port.
- Place the battery back in the holder.

Operating the brakes

Brakes are there to control speed and not just to stop the bike. The maximum braking force of the wheels is available just before the wheels 'lock' (come to a standstill) and then slip. As soon as the tyre slips, you lose most of the braking power and all control of the bike. You need to practise braking and stopping gently and without locking the wheels. This technique is called progressive brake modulation.

Your bike is equipped with front and rear brakes. The function of the left brake lever is the front wheel brake and that of the right brake lever is the rear wheel brake.

Pull the brake lever towards the handlebars and gradually increase the braking force.

If you feel that the wheel is locking, reduce the braking force so that the wheel can just continue to turn and does not lock.



WARNING

- ▶ Driving with incorrectly adjusted brakes, worn brake pads or wheels with visible rim wear marks is dangerous and can lead to serious injury or death.
- ▶ Braking too hard can lock a wheel, which may cause you to lose control and fall. Sudden or excessive application of the front brake can throw the rider over the handlebars, resulting in serious injury or death.
- ▶ Some bicycle brakes, such as disc brakes and linear-pull brakes, are extremely powerful. Familiarise yourself carefully with these brakes and take particular care when using them. Some bicycle brakes are equipped with a brake force regulator, a small, cylindrical device through which the brake cable runs and which causes the braking force to be applied progressively. Such a brake force regulator makes the initial brake lever force gentler, with progressively increasing force until full braking power is achieved. If your bike is fitted with a brake force regulator, you should take particular care to familiarise yourself with its performance characteristics.

Some brake force regulators are adjustable. If you like the setting of your brakes, please consult your dealer about adjusting the brake force regulator.

Only use original spare parts authorised by the manufacturer to replace worn or damaged parts.



BRAKE CONTROLS AND FUNCTIONS

It is very important for your safety that you realise which brake lever on your bike controls which brake. Traditionally, the right brake lever controls the rear brake and the left brake lever controls the front brake. To make sure that the brakes on your bike are actually set in this way, press one brake lever and see which brake is actuated, front or rear. Do the same with the other brake lever.

Make sure that your hands can easily reach and operate the brake levers. If your hands are too small to operate the levers comfortably, contact your dealer before you ride the bike. It may be possible to adjust the lever range, otherwise you may need a different brake lever design. Most disc brakes have some form of quick release mechanism to allow the brake pads to release the tyre when a wheel is removed or refitted. If the brake quick release is in the open position, the brakes will be inoperative. Consult your dealer to ensure that you understand how the quick release works on your bike and check the function each time before riding to ensure that both brakes are working correctly.

HOW BRAKES WORK

The braking performance of a bicycle is a function of the friction between the braking surfaces. To ensure that maximum friction is always available, keep your rims and brake pads or disc rotor and caliper clean and free of dirt, lubricants, waxes or polishes.

Brakes should control your speed, not just stop the bike. The maximum braking force for each wheel occurs just before the moment the wheel 'locks up' (stops turning) and begins to slip. Once the tyre slips, you actually lose most of your braking power and all directional control. You need to practise braking and stopping without locking a wheel. This technique is called progressive braking modulation. Instead of pulling the brake lever to the position where you expect to generate adequate braking force, apply the lever to progressively increase the braking force. If you feel that the wheel is starting to lock up, release the pressure slightly so that the wheel continues to turn only just before the locking limit. It is important to develop a feel for the brake lever pressure required for each wheel at different speeds and on different surfaces. To better understand this, try experimenting a little with the bike and apply different pressure to each brake lever until the wheel locks up.

When you apply one or both brakes, the bike will start to slow down. If you now continue to lean your body forwards as if you were riding at the previous speed, this can cause your weight to shift onto the front wheel (or around the front wheel hub under heavy braking, which could send you flying over the handlebars).

A wheel with more weight absorbs more brake pressure before locking, while a wheel with less weight locks with less brake pressure. So when you apply the brakes and your weight is shifted forwards, you have to shift your body backwards to transfer the weight back to the rear wheel. At the same time, you must both reduce the rear wheel braking force and increase the braking force on the front wheel. This is particularly important on downhill sections, as descents shift your weight forwards.

Two keys to effective speed control and safe stopping are controlling wheel lock-up and weight transfer. This weight transfer is even more effective if your bike has a front fork with suspension. The front suspension 'dips' when you brake and thus increases the effect of weight transfer (see also 'Bicycle suspension'). Practise braking and weight transfer techniques when there is no traffic or other dangers and distractions around you.

Everything is different when you ride on uneven surfaces or in wet conditions. Stopping distance is longer on uneven surfaces or in wet weather. The tyre's grip is reduced so that the wheels have less cornering and braking traction and can lock up with less braking force.

Moisture or dirt on the brake pads reduces their grip. To maintain control on uneven or wet surfaces, you need to brake more gently.

User's Manual

ZOOM Hydraulic Disc Brake Series Instruction Manual

WARNING!

Prohibit private operation and maintenance if any damage please contact customer service first!

Chapter 1 Introduction

Warning!

To ensure the safe use of ZOOM hydraulic disc brakes, it is important to follow these instructions:

1. As brake operation often causes high temperatures in the caliper body and discs, do not touch these parts while riding or immediately after stopping the vehicle, otherwise injury may occur. If you want to repair the brake system, make sure that the temperature has dropped sufficiently before doing so.

2. In rainy weather, the braking distance increases, so reduce your speed and apply the brakes as soon as necessary.

3. When the road is wet, the tyres tend to slip, which can cause a fall, so reduce your speed and apply the appropriate brakes as soon as possible.

4. Before riding, be sure to check that the braking system is capable of applying the brakes properly.

5. Be careful not to loosen the screws or mix the brake fluid with water, otherwise there is a risk of brake failure.

6. If the brake fluid is mixed with water, replace the brake fluid or clean it if you cannot remove the oil, otherwise there is a risk of brake failure.

7. Make sure that the thickness of the brake pads is at least 0.5mm before riding the bike.

8. If you hear noise during brake operation, the brake pads may be worn out to the limit of serviceability. In this case, check the thickness of the brake pads after checking that the temperature of the brake system has dropped sufficiently, and replace the brake pads if there is a brake pad replacement mark (as shown in Figure 1-1).

9. Please use ZOOM's mineral oil as brake fluid (same as Shimano, Hikari mineral oil). Using other brake fluids may cause malfunctioning of the braking action, air blockage, or may cause damage to the brake system.

Reminder !

The air lock phenomenon refers to the expansion of water or air bubbles in the brake system when the oil is heated. This causes the piston in the main body of the disc brake caliper to protrude abnormally. In severe cases, this can cause sudden braking action and cause the rider to fall.

10. Be sure to use freshly opened or fully closed brake fluid. Do not refill the fluid that is discharged from the inlet nozzle when filling the fluid, as air lock may occur if water is mixed in with the fluid.

11. Do not allow moisture or air bubbles to mix with the brake system, as this may cause an air lock, and be especially careful when removing the oil reservoir cover.

12. Avoid continuous braking as it may cause air lock.

13. The ZOOM disc brake system is not designed to be used in an inverted position, so when the bicycle is placed upside down or sideways for a long period of time, tiny air bubbles may accumulate in the oil reservoir due to residues from the installation of the oil reservoir cover and after prolonged use in various parts of the brake system. These air bubbles in the oil reservoir may move in the direction of the main body of the disc brake caliper, and the brakes may fail when riding the bicycle in this condition, which could result in a serious injury accident.

Reminder !

After placing the bicycle upside down or horizontally, be sure to hold the brake lever to verify that the brakes act properly before riding. If the brakes are not working properly, follow the steps below to make adjustments:

14. When an oil leak occurs, stop using it immediately and have it properly repaired. There is a danger of sudden brake failure if you continue to ride the bike in a leaking condition.

15. Make sure that the quick release handle is on the right side (the side opposite to the disc). If the quick release handle is on the same side as the disc, there is a risk of collision with the disc, so make sure it is in a collision-free state.

16. The use of bicycles varies somewhat depending on the product. Therefore, please adapt to the force applied by the disc brake lever and the various operating characteristics of the bicycle based on the concept of understanding and adapting to the operation of the brake system of each bicycle. If the brake system is not operated properly, you may lose control of the bicycle, resulting in an accident or even serious injury. Consult the bicycle sales shop for proper operation. Also read the instruction manual of your bicycle carefully. It is also important to practice the brakes on your own bicycle.

17. ZOOM Hydraulic Disc Brake System: Our factory assembled disc brake lever, caliper body, 140mm, 160mm, 180mm, and 203mm discs, and brake block set will give you the correct designed performance.

18. When installing this product, be sure to observe the various precautions recorded in the instruction manual. It is also recommended that you use ZOOM's standard parts.

19. When a screw or nut is loose or a component is broken, you may fall and be injured while riding.

20. Please read this instruction manual carefully and keep it in a safe place.

Precautions

■ Instructions for use of Mineral Oil

1. If mineral oil comes into contact with your eyes, it may cause inflammation. Please wear safety goggles to avoid getting it in your eyes.

- 2.If mineral oil gets on the skin, it may cause inflammation, so please wear protective gloves when using the product.
 - 3.If you breathe in the gas of mineral oil, it may cause discomfort, so please pay attention to air circulation.
 - 4.Do not drink mineral oil as it may cause diarrhoea and vomiting.
 - 5.Keep out of reach of young children.
 - 6.Do not cut, heat, weld or pressurise the container of mineral oil as this may cause an explosion or fire.
- Emergency Treatment
- 7.If mineral oil gets into the eyes, flush with plenty of water and get immediate medical attention.
 - 8.If mineral oil gets on the skin, wash well with soap and water.
 - 9.If you breathe in the gas of mineral oil, move the patient outside and wrap him/her in a blanket to keep him/her warm, keep him/her quiet, and take him/her to a doctor.

■ Used oil

Dispose of the waste oil according to the legal method.

■ Storage

Store in an airtight condition that prevents foreign matter and moisture from getting into the product, and keep it away from direct sunlight and in a cool, dark place.

■ Adaptive operation

When using disc brakes, there should be a period of adaptive operation (break-in period) in which the braking force of the brakes increases as the level of adaptation increases. Therefore, be aware of the tendency for the brakes to increase in braking power and adapt to it.

■ Points to Note for Use

- 10.In the case of removing the wheel, it is recommended that you install the brake pad adjustment stopper. The purpose of this is that if the disc brake lever is accidentally held while the wheel is removed, it may cause the piston to protrude abnormally.
- 11.If the brake pad adjustment stopper is not fitted, the piston will protrude abnormally when the disc brake lever is accidentally held. Please take care not to damage the surface of the brake block, and use a screwdriver to open the block (in the case where the block is not attached, press the piston back vertically, taking care not to damage the piston).
- 12.If the brake pad or piston cannot be pressed back easily, loosen the oil filler screw on the oil reservoir cover of the upper chamber by 2-3 teeth and start the operation, please note that the mineral oil in the oil reservoir may overflow.
- 13.When cleaning or maintaining the brake system, use isopropyl ethanol (alcohol), soapy water wipe or a rag, do not use commercially available brake cleaner or sound preventer, as this may cause damage to sealing elements etc.
- 14.In the case of disassembling the disc brake caliper body for cleaning, do not remove the piston.
- 15.Replace the disc if it is worn, cracked or deformed.

Chapter 2 Disc Brake System Installation

■ Necessary equipment

In order to get the best out of your disc brake system, the following components are recommended:

Component	Specification
Disc brake lever	
Disc Brake Caliper Body	
Discs	140 mm, 160 mm, 180 mm, 203 mm
Brake block set	Disc brake block set (brake pads)
Brake Hose	<5.0x<p2.0 High Pressure Pipe
Brake Oil	ZOOM Mineral Oil

■ Necessary Tools

The tools in the table below are required to assemble this product:

Tools	Use position
Allen key-2mm	Grip distance fine-tuning screws
Allen key-3mm	Disc set screws
Allen key-4mm	Disc brake lever fixing screws
Allen key-5mm	Disc brake caliper body locking screw / adapter locking screw
Open-end wrench-8mm	Fuel line locking screws
Metric wrench-T20	Oil filler screws

■ Assembly of the Disc Brake

- ① Install the disc on the hub, note that the logo on the disc must face outwards (the direction of rotation of the wheel is the same as the direction of the disc arrow), and then use the disc fixing screws to lock the disc to a half-tight condition. To ensure the flatness of the disc, the disc screws should be tightened alternately in opposite positions.
- ② Wearing protective gloves, apply a certain amount of force to the disc in a clockwise direction while tightening the disc screws in a diagonal order (as shown in Figures 2-1 and 2-2).
- ③ Disc fixing screw locking torque 60kgf-cm (55 lb-in)

Assembly of the Disc Caliper Body

- ① Install the front/rear disc brake adapter on the bracket screw holes (as shown in Figure 2-3).
- ② Loosen the disc brake caliper body fixing screws so that the disc brake caliper body can be slightly adjusted, and then install the adapter on the frame.

Assembly of the brake lever

- ① Fix the brake lever first.
- ② Tighten one screw to half-tight, then tighten the other screw, and return to the original screw to tighten it (as shown in Figure 2-4).
- ③ ★ The locking torque of the disc brake lever is 60~80kgf-cm (52~69lb-in).
- ④ Hold the disc brake lever with pressure and tighten the retaining screw of the main body of the disc caliper while the disc is being held down by the retaining block.
- ⑤ Check that the brake operates properly and that there is no oil leakage by holding the disc brake lever several times.
- ⑥ ★ Tightening torque of the adaptor screw = 70~90kgf-cm.

Brake Pad Assembly and Replacement

- ① Replace the brake pads immediately if they become oiled or worn to 0.8mm when the brake fluid is replenished (as shown in Figure 2-7).
- ② Remove the wheel and take the pads out of the main front of the disc caliper (see Figure 2-5).
- ③ Clean the piston and its surroundings.
- ④ Set up the bicycle so that the disc brake oil reservoir is level with the ground, and then screw out the oil reservoir sealing screw (as shown in Figure 2-6).
- ⑤ Press the piston to the bottom position without deflecting or protruding the piston (please note that the oil in the oil reservoir may leak out).
- ⑥ Install the new replacement pads and reinstall the wheels.
- ⑦ Check that the brake lever is firmly in place by moving the lever several times.
- ⑧ Make sure there is no interference with the disc, and then secure the wheel.
- ⑨ Tighten the oil reservoir sealing screws, and then return the handlebar to its original riding position.

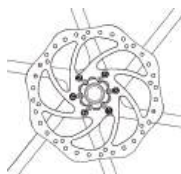


Figure 2-1: Disc and Disc Fixing Screw Locking Sequence

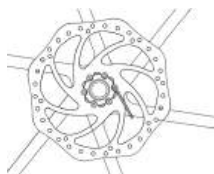


Fig. 2-2: 3mm Allen key to tighten disc fixing screws

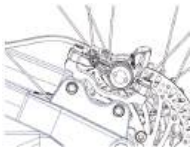


Fig. 2-3 Disc Brake Set Orientation



Figure 2-4 brake lever Installation



Figure 2-5 Removing/Assembling the Brake Pads and Accessories

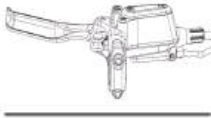
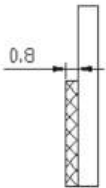


Fig. 2-6 Brake oil reservoir is parallel to the ground



Figure 2-7 Standard thickness (new pads)



Wear down to minimum thickness (Replacement of brake pads)

Chapter 3 Adjustment of Various Items

Adjustment of brake pads and disc brake caliper bodies

When the ZOOM disc brake system was designed, the wear of the pads was taken into account and the pistons are gradually pushed out so that the gap between the disc and the pads can be adjusted automatically. When replacing the pads, the piston must be pressed vertically to the bottom using a screwdriver.

Adjustment for Poor Piston Action

On the disc brake caliper body, refer to the brake pad replacement procedure (shown in Figure 2-5) when the piston action or projection on both sides is uneven or when the brake pad interferes with the disc.

Adjustment of Disc brake lever Grip Pitch

When the grip distance is inappropriate (too wide or too small) or when you need to increase the braking force temporarily, you can make slight adjustments by using the adjusting screws on the disc brake lever bar.

- ① When using a 2mm hexagonal spanner to make adjustments, turn clockwise to increase the grip distance (up to 100mm), and counterclockwise to decrease the grip distance (down to 80mm, as shown in Figure 3-1).
- ② If you turn the 2mm hexagonal spanner after adjusting the grip distance to the maximum (about 100mm) by turning clockwise, the aluminium piston of the brake lever will move forward and the handle will be easily pressed (the braking force will be increased at this time), but it may cause the function of the automatic oil replenishment to be ineffective.

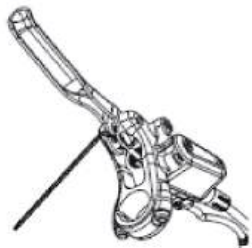


Figure 3-1 Grip Adjustment Screw Adjustment Methods

Chapter 4 Oil Pipe Cutting

Timing for Cutting the Oil Pipe

When the ZOOM hydraulic disc brake system is used on an assembled bicycle and the length of the oil pipe is too long, it is necessary to cut the oil pipe and adjust it according to the following steps to meet the user's needs.

Necessary Tools and Equipment

When it is necessary to cut the oil pipe, the following tools and spare parts are required:

Tools (Accessories)	Use position
8mm open-end spanner	Oil pipe fitting screws
Oil pipe cutting tool	Oil pipe
Tube Compression Nut	Tube Fitting
Copper sleeve for oil pipe	Oil pipe O.D.
Needle	Tube I.D.

Operation Steps

Please follow the steps below to perform the oil pipe cutting operation:

First, push the oil pipe fixing screw cover towards the direction of the oil pipe, then use an 8mm open-end wrench to loosen the oil pipe fixing screw (as shown in Figure 4-1). At this point, please pay attention to any brake fluid leakage.

① After determining the required oil pipe length, cut off the excess length using an oil pipe cutting tool (at least 15mm should be cut off). The cut should be perpendicular to the oil pipe axis.

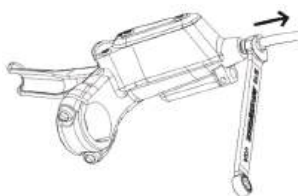
② Insert the oil pipe, copper sleeve, and oil pipe lining (with the O-ring) into the oil pipe in sequence. Pay attention to the direction of the copper sleeve; the smaller diameter end should face the oil pipe fixing screw. Then, make sure the oil pipe lining is properly pressed into the oil pipe (as shown in Figure 4-2).

③ Press the front end of the oil pipe into the front of the disc brake lever, ensuring it is pressed all the way to the bottom. While holding the oil pipe in place, use an 8mm open-end wrench to tighten the oil pipe fixing screw onto the disc brake lever (as shown in Figure 4-3).

④ Finally, check whether the grip feel of the disc brake lever is firm. If not, follow the oil replenishment procedure to add brake fluid to avoid any safety hazards during riding.

When cutting oil pipes, it is important to take care to avoid injury from cuts.

★Oil pipe fixing screw locking torque = 80~100kgf-cm (8~10N·m)



4-1 Loosen/tighten the oil pipe fixing screws with an 8mm open-end wrench.



Figure 4-2 Pipe Fitting Assembly Sequence

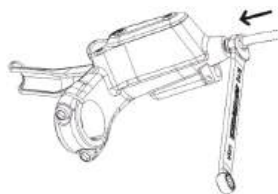


Fig. 4-3 Loosening/tightening the oil pipe fixing screws with an 8mm open-end wrench

Chapter 5 Oil filling operation

If the rear disc brake oil pipe is hidden inside the frame and uses a ZOOM quick-disconnect design, do not disassemble the oil pipe connection casually to avoid oil loss, which could lead to insufficient oil and cause brake failure. If the oil pipe needs to be replaced, please have the bike shop where you purchased the bike replace it for you.

Timing for Oil Replenishment

When the brake fluid in the reservoir is noticeably low, or after the brake pads are worn, and you are unable to achieve a firm feel by squeezing the disc brake lever, it indicates that brake fluid needs to be replenished.

Necessary Tools and Equipment

When it is time to replenish disc brake fluid, the following tools and parts are required:

Tools	Use position
Metric Wrench-T15	Used for the oil reservoir cap screw
8mm Open-End Wrench	Used for the caliper oil inlet screw
Oil Syringe	
Transparent Soft Hose	
Oil Storage Bottle	

Operation Steps

Please follow the steps below to replenish brake fluid:

- ① First, make the disc brake reservoir parallel to the ground, then use the T15 Metric wrench to remove the oil reservoir cap screw, and screw in the M6 oil inlet nozzle (as shown in Figure 5-1).
 - ② Attach the transparent soft hose to the upper end of the M6 oil inlet nozzle, and connect the other end of the hose to the plastic soft hose.
 - ③ Use the syringe attached to the transparent soft hose to draw an appropriate amount of brake fluid from the storage bottle. Be sure to avoid air bubbles in the hose, then attach the syringe to the oil inlet nozzle of the master cylinder (as shown in Figure 5-2).
 - ④ Use the 8mm open-end wrench to tighten the oil inlet nozzle of the master cylinder (turn clockwise about 1.5 turns, as shown in Figure 5-3).
- ★ The tightening torque for the caliper end oil inlet nozzle = 40-60 kgf-cm (35-52 lb-in).

⑤ Official oil replenishment: First, repeatedly press down and release the brake lever until no air bubbles are discharged from the syringe hose. If the effect is not obvious, manually press the syringe to allow brake fluid to enter the disc brake, then extract the syringe to release any air bubbles. Repeat this process three to five times, then continue pressing and releasing the brake lever until no air bubbles are expelled from the syringe hose, completing the oil replenishment. Afterward, remove the syringe and tighten the oil inlet screw of the master cylinder.

Grip the disc brake lever several times for a firm grip

⑥ Remove the soft hose from the caliper end, being careful not to let the brake pads or disc rotor come into contact with the brake fluid. Then remove the soft hose from the handlebar end and replace the M6 oil inlet nozzle with the oil reservoir cap screw.

★ The tightening torque for the oil reservoir cap screw = 30-40 kgf·cm.

⑦ Clean any brake fluid residue on the disc brake lever and caliper body using alcohol or a clean cloth. Then, place the disc brake lever back in its original position to complete the oil replenishment. When the brake fluid in the reservoir shows significant discoloration, it is recommended to replace the brake fluid.

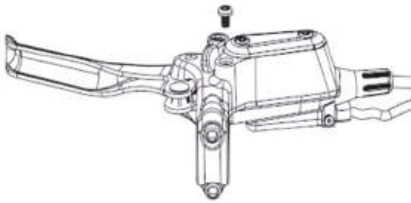


Figure 5-1: Remove the oil inlet screw from the disc brake master cylinder



Fig. 5-2: Disc Brake Body Sleeved into Oil Refill Kit



Figure 5-3: 8mm open end spanner to loosen/tighten the main body of the caliper into the nozzle screws.

Chapter 6 System Maintenance

To ensure that the ZOOM hydraulic disc brake system remains in optimal condition for a long time, the following checks must be performed.

Before Riding

Brake Pad Installation and Replacement

Check the thickness of the brake pads to ensure it has not reached the minimum usable thickness (0.8mm). Remove the brake pads and check if there are any replacement markers. If so, replace the pads with new ones.

Hydraulic Hose Inspection

Inspect the brake hoses for any cracks, wear, or deformation. If any damage is found, replace the hose.

After Riding

Disc Cleanliness

If there is dirt or debris between the disc brake caliper and the disc, clean it after riding. Ensure that neither the disc nor the brake pads are contaminated with any oil or grease.

Regular Inspections

Brake Lever Lubrication

Periodically lubricate the brake lever linkage with oil.

Screws Tightening

Check all screws to ensure they are not loose and maintain the original tightening torque.

Natural wear and aging of the product during normal use are not covered by warranty.

Product specifications may be changed during improvements without prior notice.

Chapter 7 Other Instructions

To ensure that the ZOOM hydraulic disc brake system remains in optimal condition for a long time, please perform the following checks.

Troubleshooting

Brake Pads Rubbing Against the Disc	
Possible causes	Solutions
Incorrect adjustment of the brake pads or brake caliper body	Re-adjust the brake pads or brake caliper body, refer to Chapter 1
Too large a gap in the brake lever reach	Adjust the brake lever reach, refer to Chapter 3
Disc deformation or bending	Replace the disc, refer to Chapter 2
Brake Lever Feel is Weak	
Possible causes	Solutions
Air in the system	Loosen the oil reservoir cap screw and press the brake lever several times to bleed air
Brake fluid needs to be replenished	Refer to Chapter 5
The conversion seat is loose	Tighten the conversion seat fixing screw, refer to Chapter 2
Brake Lever Can Be Pressed to the Handlebar	
Possible causes	Solutions
Brake fluid needs to be replenished	Refer to Chapter 5
There is a leak in the system	Check the leaking part and repair or replace

Insufficient or No Braking Force	
Possible causes	Solutions
Brake pads are contaminated or oily	Use a clean cloth soaked in alcohol to thoroughly clean and dry the disc, replace the brake pads.
The disc is contaminated or oily	Use a clean cloth soaked in alcohol to thoroughly clean and dry the disc, replace the brake pads.

TRANSPORT

Do not transport any objects that could restrict your vision or prevent you from fully controlling the bicycle or that could catch moving parts of the bicycle.

When transporting bicycles, there is a risk that the bicycles could tip over, slip or fall out of the means of transport. This could result in serious injury. When transporting bicycles in vehicles or public transport, the bicycles should be secured to prevent them from tipping over, slipping or falling out. Use an approved, commercially available bicycle rack for vehicles to transport bicycles. If you do not have a bicycle rack, the bicycles must be placed in the trunk, making sure that the bicycles do not rest on the rear derailleur.

Lithium-ion batteries are subject to numerous regulations and are often considered dangerous material by carriers. Inquire about the relevant laws and ask the carrier for authorisation before shipping or transporting a lithium-ion battery by air.

STORAGE

If you store your battery for a longer period of time (longer than two months):

Remove the battery from the bike.

Lithium-ion batteries are best stored at a charge level of 40%-60%.

Charge the battery to 40%-60% every 30 days during long-term storage. Determine the charge level using the integrated charge indicator on the battery or the battery indicator on the bike. Batteries discharge slowly if they are not used for a long time. If the battery capacity is allowed to reach a critically low voltage, its service life and capacity will be permanently reduced.

Always disconnect your charger from the socket and the battery before storing the battery. Avoid storing your battery in extreme temperatures, either hot or cold.

Batteries are best stored in a shady and dry place. Do not allow accumulation of condensation as this could lead to corrosion or a short circuit.

The recommended storage temperature for lithium-ion batteries is between 0-25°C (32-77°F).

Legal Requirements

If you want to ride your e-bike on public roads, you must equip it in accordance with national regulations. Legally, our 25 km/h models are treated in the same way as bicycles and are therefore subject to the same regulations. In Germany, these issues are regulated by the Road Traffic Permit Ordinance (StVZO) and the Road Traffic Ordinance (StVO).

- Bell
- Two independently operating brakes
- One white headlight at the front
- White reflective front spotlight
- Red light
- Red reflector at the rear of the bicycle
- Yellow reflectors at the front and rear of the pedals
- Two yellow reflectors offset by 180° on the spokes of each wheel or a continuous white reflective stripe in a ring on the tyre.

Pre-ride Inspection Steps

- The quick release/centre shaft is securely installed and closes securely.
- Screw connections are neither loose nor rattling.
- The handlebars are securely fastened.
- Wheels and tyres turn easily and run smoothly.
- The tyres are checked for air pressure and condition and the valves are correctly in place.
- Front and rear lights work properly and have been correctly adjusted.
- Brake levers have clear points of tension.
- Brake pads and discs are undamaged and free of oil. They should also be checked for wear.
- The battery must be securely in place when inserted. The battery must engage in the lock and make a clicking sound.
- The permissible total load weight is not exceeded.
- Lights and reflectors are not covered.
- Battery is charged
- Saddle is securely fastened and correctly adjusted
- Pedals are securely fastened

Check the Tyre Air Pressure

You can find the permissible tyre inflation pressure on the side of the tyre. We recommend using a bicycle floor pump with a pressure meter to check and correct the tyre inflation pressure.

Notes for Schrader valves:

- Unscrew the plastic nut from the valve head.
- Press the valve end gently towards the rim. If there is pressure in the tyre, you will hear air releasing.
- When the inflation process is finished, tighten the plastic nut again.

Delivery Details

- Bicycle incl. battery
- Battery charger
- Two keys (keep spare in a safe place) for battery removal
- Printed copy of the operating manual
- Two pedals (not installed)
- Seat bag and seat post (not installed)
- Front wheel (not installed)
- Front Axle Core
- Mudguard (not installed)
- Assembly Tools
- Pump
- Lock

Unpacking

The shipping carton is sealed with metal clips. There is a risk of injury when opening and crushing the packaging.

- Open the box
- Remove the bicycle and all accessories from the box.
- Check the scope of delivery
- Dispose of the packaging material in accordance with local guidelines and regulations.

PRODUCT FUNCTION DIAGRAM



Figure 1 (Whole vehicle diagram)

Note: The product upgrade may cause the actual product you receive to be different from the sample in the photo, please don't worry, the specific functions are the same and will not affect your normal use.

- | | |
|----------------------|--------------------|
| 1.Display | 11.Pedal |
| 2.Handlebar | 12.Crank |
| 3.Brake lever | 13.Chain |
| 4.Headlight | 14.Rear derailleur |
| 5.Tire | 15.Rear rack |
| 6.Disc brake rotor | 16.Taillight |
| 7.Front fork | 17.Seat clamp |
| 8.Disc brake | 18.Seat post |
| 9.Battery | 19.Saddle |
| 10.Folding mechanism | |

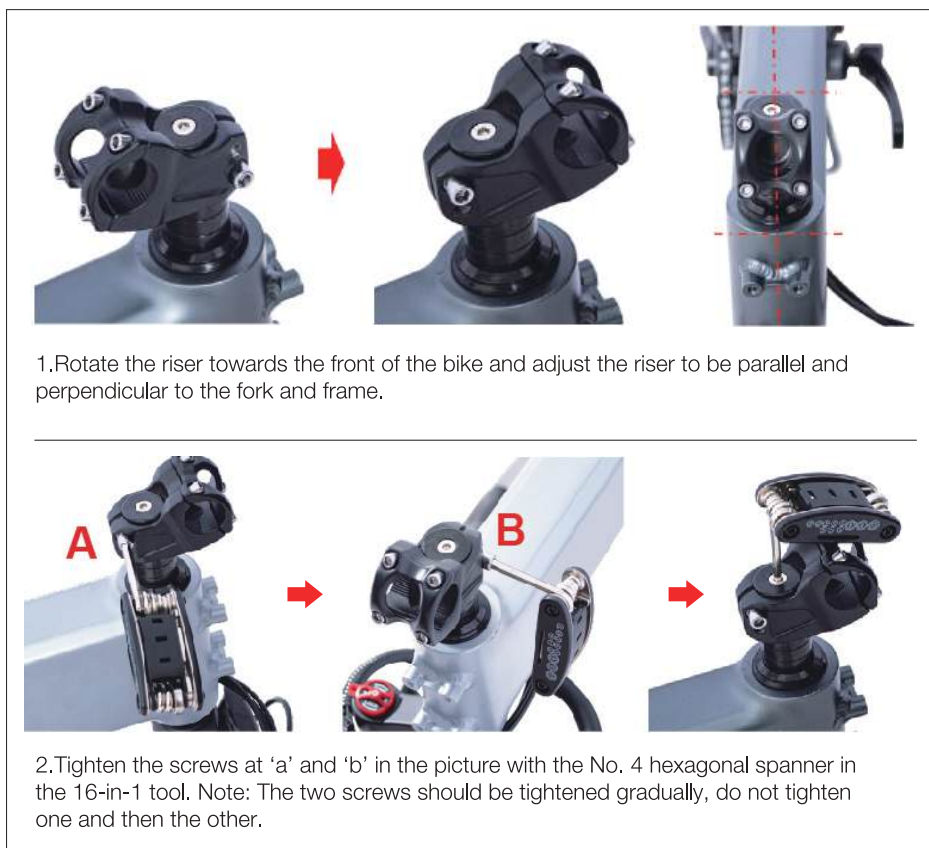
Parts Description



Parts of X12 PRO

1. Front Fender
2. Headlight
3. Seat Post and Saddle
4. Front Wheel
5. A Pair of Pedals
6. 8-10 Open-end Wrench
7. 17-19 Open-end Wrench
8. 16-18 Open-end Wrench
9. 16-in-1 Tool Set

1. Handlebar Installation



1. Rotate the riser towards the front of the bike and adjust the riser to be parallel and perpendicular to the fork and frame.

2. Tighten the screws at 'a' and 'b' in the picture with the No. 4 hexagonal spanner in the 16-in-1 tool. Note: The two screws should be tightened gradually, do not tighten one and then the other.



3.Remove the riser front cover by removing the 4 front cover screws with the No. 4 Hexagonal Spanner in the 16-in-1 tool.



4.Place the handlebar into the riser and centre the handlebar angle. Fasten the front cover. NOTE: Do not twist the wire harness!

5.Gradually tighten the 4 front cover screws in the order shown with the No. 4 Allen spanner from the 16-in-1 tool.

6.Fasten the top cover screw plug



2. Front Fender Light Installation



1.Looseen the nut shown in the figure with an No.15 open-end spanner from a 16-in-1 tool and remove the support shaft.



2. Using a 5MM allen key, remove the pre-installed fixing screws and pads on both sides of the front fork, then install the fender sticks and tighten the screws.



3. Use the 5# hex wrench in the 16-in-1 tool set to remove the fixing screws and gaskets pre-installed on the frame.

4. Install the fender and headlight in the order shown in the figure.

5. As shown in the figure.



6. Tighten the screws with a 10# open-end wrench and a multifunctional wrench.

7. Connect the headlight wiring as indicated in the figure.

8. Loosen and remove the fixing screws of the fender support rod with a 4# hex wrench.

9. Align the support rod with the mounting holes, and tighten it in the corresponding screw holes on both sides of the frame with a 4# hex wrench.

10. Check that the installation status is intact.

3.Front Wheel Installation



Loosen the front wheel axle rod nut, then remove the axle sleeve, safety hook, washer, etc



1.Insert the axle rod



2.Fit the safety hook, washer and nut as shown.



3.Install the front wheel, ensuring the brake disc fit into the brake device gap. Insert the front wheel axle into the fork dropouts.

4.After confirming that the axle, safety hook, and washers are correctly assembled, prepare two wrenches.

5.Tighten the shaft nut as shown in the picture.

6.Lock the nut. Note: Ensure that the front wheel is in the centre of the fork tubes during this process, if there is any deviation, please loosen the nut, adjust the position of the front wheel and then lock the nut.



4.Saddle Installation



- 1.Pull the seat tube adjustment quick release handle in the direction shown.
- 2.Insert the seat tube and adjust it to the desired height and lock the quick release handle in the direction of the diagram. Note: If the folding handle is too tight or too loose, please adjust the screw at '1' appropriately.

5.Pedals Installation



The 'L' marked on the pedal shaft is for the left pedal. Screw the pedal shaft into the left crank by hand by rotating it counter-clockwise, and then tighten it counter-clockwise with the No.15 open-end spanner.



The 'R' marked on the pedal shaft is for the right pedal, first screw the pedal shaft clockwise into the left crank by hand, and then tighten it clockwise with an No.15 open-end spanner.

6.Rear Fender Stick Fixing Method



- 1.Remove the pre-installed fender stick fixing screws and spacers on the left and right sides of the frame with a No. 4 Allen spanner from the 16-in-1 tool.
- 2.Thread the stick through the fender stick fixing screws and tighten them in the corresponding screw holes on both sides of the frame with a No.4 Allen spanner, as shown in the figure.

7.Battery Removal Operation



Open the folding buckle lock in the direction of the arrow in the figure, and at the same time turn outward to open the folding buckle



Twist the key clockwise, then press the key upwards and continue twisting to open the battery lock.
Fold the frame down and remove the key when the battery is visible.



Remove the battery through the battery lifter in the direction of the arrow in the picture.

8. Battery Insertion Operation

Slide the battery into the battery holder in the directions of the arrows in the picture.



Insert the key to lock the battery by twisting counter-clockwise one cell.



Fold the folding frame together and then fasten the folding buckle handle.

Battery installed successfully

9.Power on Method



1.Insert the key, turn it to the right and turn it from 'OFF' to 'ON'.



2.Press the switch on the meter at Figure 2. The power can be switched on.



1.Insert the key into the keyhole as shown in Fig. 1, turn the key right to 'OFF' and turn it to 'ON'.

2.Press the switch on the meter at Figure 2. The power can be switched on.

Switch Operation:

1.Charging: Unscrew the plastic cover on the battery (Picture 1), connect the charger to start charging. When the battery is full and the indicator light of the charger changes from red to green, it means it is fully charged. (Picture 2)



(Picture 1)




(Picture 2)



(Picture 3)

2.Power on: Referring to picture 2, long press the  button to power on/off.

3.Headlights: Refer to picture 2, long press the  button to turn on/off the headlights.

4.Start: Power-assisted riding. Short press the  button to adjust to 1st gear after power on, step on the sprocket of the bicycle, and start the motor to assist. If motor assistance is not required, turn off the power or turn off the battery or set the display to 0.

Motor

The motor provides you with power when you pedal. You can set the required speed level via the display. The maximum assisted speed of an electric motor is 25 km/h.

Battery

The electric assist transmission requires a battery for energy support. The battery is located under the frame. The battery can be charged by removing it from the frame using a suitable spanner.

Only use the supplied charger to charge the battery. The battery is equipped with the following connections and indicators:

- Charging socket
- Switch button
- Lock for locking the battery

Lithium-ion batteries are classified as dangerous goods according to transport regulations. If the battery is installed in a bicycle, transport by water and road is permitted. (Please check your local transport regulations). Defective batteries must not be transported and must be disposed of properly!

Control Display

The control display is installed on the handlebars. The maximum effective speed for the speed display function is 25 km/h. Higher speeds cannot be displayed. Do not set the display parameters yourself. If the parameters are set incorrectly, the electronics may malfunction, making the bicycle unusable. In this case, please contact the manufacturer.

Shifting Gears

Your bicycle is equipped with a derailleur. Selecting the correct gears is a prerequisite for a relaxed ride and for the proper functioning of the power assist system. The derailleur gear consists of the following components:

- The sprocket box on the rear wheel
- Rear derailleur
- Single chainring for single crank
- Transmission chain
- Shift lever

Use the plus button to increase your cadence. Use the minus button to decrease your cadence. You cannot change the assistance level when shifting manually. When shifting gears, remove the load from the pedals and pedal lightly. Otherwise, serious damage to the entire drive system can occur!

Riding in Assist Mode

If you have never ridden an electric assist bicycle before, you should first practice riding in Assist Mode on a road clear of traffic. The Assist only starts when you pedal. Sit on the saddle before you start pedaling. Start with the lowest level of Assist Mode and practice normal riding situations such as

- Starting
- Accelerating
- Braking
- Cornering

When you stop pedaling, the Pedal Assist still provides support for a short time. Therefore, you should stop pedaling earlier than you would on a bike without Assist Mode.

Riding in Normal Bicycle Mode

You can also use the bicycle without an assistance power. Simply switch off the display or set the speed gear to 0 on the display. In this way, you can use the bicycle as if it were unassisted, e.g. when the battery is running out.

PRODUCT PARAMETERS

Outlook & Dimension

Parameter	Standard Version
Body Material	Aluminum alloy
Color	Gray red、 Gray green
Unfolding Size	1780*705*1450mm
Hub Form	Integrated Wheel
Wheel Size	20 inches
Package Size	1480*300*750mm

Performance Parameters

Gross/net weight	41.86kgs/35kgs (92.29lbs/77.16lbs)
Maximum Load	120kg (264.55 lb)
Maximum Speed	25km/h (15 mph)
Mileage	70km-120km Affected by load, temperature, road conditions, riding mode, etc. E.g: (At 75kg and 25°C, the maximum range of 70km in PAS mode, range depends on load and riding style)
Maximum Climbing Angle	25 degree
Proper Temperature	-10~45℃
Waterproof Level	IP54

Electrical Specifications

Battery Type	21700 lithium ion power battery
Battery Capacity	15Ah(720Wh)
Battery Rated Voltage	48V
Motor Rated Power	0.25kW
Motor Form	Assist mode
Motor Type	High Speed Gear/Integrated Wheel Brushless Motor
Motor Rated No-Load Speed	350r/min
Charger Output	54.6V/3A
Charger Input	100~240V 50/60Hz 3A
Undervoltage Protection Value	40.5V
Overcurrent Protection Value	20A±1A
Charging Time	6-7 hours

Features

Instrument Display	Multifunctional LCD screen
Front Lighting	YES
Braking Method	Front disc brake + Rear disc brake
Tire Specifications	Pneumatic tires
	Tire: 20*4.0
	Air Valve: 20*4.0 The inner tube valve is AV
Front Fork	Shock fork
Gear	7 Speeds transmission

NOTE ON RANGE:

A pedelec is a bicycle with gradually switchable electric assistance. The range of a battery charge depends greatly on various factors. For example, it drops significantly under the following conditions:

- Longer or continuous riding with a high level of assistance
- Rapid riding style with frequent strong accelerating
- Many slopes and sandy or clayey surfaces
- Higher user weight
- Tyre pressure too low or insufficiently lubricated chain
- Low surrounding temperature.



Functional Description :

1. Function :

1) Display functions

Speed display, battery indicator, fault prompt, total mileage, single mileage, riding time, voltage display, power gear.

2) Control and setting functions .

Power switch control, wheel diameter setting, idle automatic sleep time setting, backlight brightness setting, start mode setting, drive mode setting, voltage level setting, controller current limit value setting.

3) Supports Bluetooth function, can establish connection with mobile phone APP and communicate.

4) Support navigation screen projection function.

5) Support single and double drive switching.



6) Supports automatic adjustment of screen brightness.

7) Communication protocol: UART

8) Supports NFC function.



2. Display content introduction :



- 1).  Battery power (without BMS remaining power display).
- 2). Multi-function display area  Total mileage ODO, single mileage TRIP (unit: mile, km), single power-on time TIME, battery voltage VOL.
- 3). Speed display area




AVG SPEED: Average speed; MAX SPEED: maximum speed; SPEED: current speed; unit: Mph, km/h. The speed signal is taken from the Hall signal in the motor and sent to the instrument through the controller (the time of a single Hall cycle, unit: 1MS). The instrument will calculate the actual speed based on the wheel diameter and signal data (the motor Hall also needs to set the number of magnetic steels).


- 4). Vehicle power gear adjustment  0-3/0-5 digital display.  Pedestrian mode display.

- 5). Vehicle status display area 


 : Motor/Hall fault;  : Communication failure;  : Braking Tips.


- 6). Headlight and Bluetooth display 

 The Bluetooth display icon flashes intermittently when the Bluetooth is not connected. After the connection is established, it will light up continuously;

 The headlight display icon will stay on when the headlight is on and will not be displayed when the headlight is off. The headlight icon will flash when the headlight is in short circuit protection.

- 7). Turn signal display


 : The left turn signal icon is displayed. Short press the left turn signal icon, and the icon flashes at a frequency of 1Hz. Short press the icon again and the icon will not be displayed;

 : The right turn signal light icon is displayed. Short press the right turn signal light and the icon flashes at 1Hz. Short press the icon again and the icon will not be displayed;

- 8). Navigation display


 : After Bluetooth binding, use the APP to open the navigation map to the meter;

- 9). Single and dual drive display


 : Can switch between front-wheel drive, rear-wheel drive and dual-wheel drive modes according to needs;

3.Key Operation Instructions:




 : Press and hold for 2 seconds to turn on the instrument when it is off; press and hold for 2 seconds to turn off the instrument when it is on.

In the password interface, short press to confirm the password; in the menu interface, short press to switch options.


 : In the main interface, short press to increase the gear; in the main interface, press and hold to turn on/off the headlight.


In the password/menu interface, short press to increase the value.


 : In the main interface, short press to decrease the gear; in the main interface, press and hold to activate boost mode.

In the password/menu interface, short press to decrease the value.

 : In the main interface, short press or long press the horn key to sound the horn.

 : In the main interface, short press to turn on the left turn signal; short press again to turn it off.

 : In the main interface, short press to turn on the right turn signal; short press again to turn it off.

 : Press and hold both keys together for 2 seconds to switch between AVG SPEED (Average Speed) and MAX SPEED (Maximum Speed).

1) Cycling page

- a. After powering on, use the NFC secondary card or password to enter the setup items. If you have entered the password in the setup item interface that requires a password, you do not need to enter the password again for all setup items that require a password (except P24) until you re-enter the menu next time.
- b. Enter the password interface, enter the password (default password 0000), short press the left/right button to switch the password input position, short press the +/- button to select the number to be entered, and short press the ⏏ button to confirm the password.
- c. In the power-on password interface, if the input is wrong, "Err" flashes to prompt the input error; when entering the password interface from the setting item interface, E0 is displayed. If the input is wrong, "E1" and "E2" are displayed in sequence. After three errors, the system returns to the original setting item interface.

2) In the settings

- a. P01-P24 and P99 all appear green.
- b. In the P25 card adding item, it normally displays green before entering the card reading mode (such as the password input stage, or before entering the password). When the password input is completed and the verification is passed and the + key is pressed to enter the card reading, the button light flashes green. After the card reading is completed and the card is successfully bound, the button light flashes slowly.
- c. In the P26 card deletion item, the whole process flashes red, including the password input page.

4. Password function operation instructions:

1) Password function introduction

- a. The meter has a factory default password of 0000 and no NFC binding. You can directly enter the standby interface by short pressing the ⏏ button and entering the password.
- b. Item P23 can turn the password function on or off.
- c. The password of item P24 can be modified.
- d. After booting up, use the NFC secondary card or password to enter the settings. The P21 Bluetooth, P23 password change, P25NFC card binding, and P26NFC card deletion interfaces all require password input to make changes.
- e. After powering on, use the NFC secondary card or password to enter the setup items. If you have entered the password in the setup item interface that requires a password, you do not need to enter the password again for all setup items that require a password (except P24) until the next time you restart the device.
- f. Enter the password interface, enter the password (default password 0000), press the left/right button to switch the password input position, press the +/- button to select the number to be entered, and press the ⏏ button to confirm the password.
- g. In the power-on password interface, if the input is wrong, "Err" flashes to prompt the input error; when entering the password interface from the setting item interface, E0 is displayed. If the input is wrong, "E1" and "E2" are displayed in sequence. After three errors, the system returns to the original setting item interface.

2) P23 Password function switch

a. Setting item entry switch:

- a) After entering the standby interface, press and hold the \odot button to enter the instrument setting item, and press the \odot button shortly to adjust to P23 item (password switch item).
- b) The computer enters the P23 menu. When the password function is off, press the +/- key to switch the password function on and off.
- c) When the password function is on, the computer enters the P23 menu, then press +/- to enter, jump to the password interface, enter the password (default password 0000), enter the password switch interface, and short press the +/- button to switch the password function.
- d) When an NFC card is bound, the password function is enabled by default and cannot be modified.

3) P24 Password Change

a. Setting item to enter modification:

- a) After entering the standby interface, press and hold the \odot button to enter the instrument setting item, and press the \odot button shortly to adjust to P24 item (password modification item).
- b) The computer enters the P24 menu, short press +/- to jump to the password interface, enter the old password (default password 0000), enter the password change interface, short press +/- to enter the password change interface.
- c) You need to enter the password twice to modify it. After entering the password for the first time, short press the \odot key to enter the password for the second time.
- d) When you enter the old password on the password modification interface, the screen displays "ol" and prompts "E0", "E1", "E2" for incorrect passwords; when you enter a new password for the first time, the prompt is "n1", and when you enter the password again for the second time, the prompt is "n2".
- e) If the passwords you enter are the same twice, the password will be changed and saved; if the passwords you enter are different twice, a prompt will appear saying that the password is wrong. After three errors, the interface will be returned to and the password will not be changed.

5. NFC function operation instructions:

1) NFC card function introduction

- a. NFC cards can only be used after being bound to the device.
- b. A device can bind up to 4 NFC cards, including one main card and three secondary cards.
- c. The bound NFC cards have the function of unlocking the instrument. The primary card has advanced permissions and can set the card binding. Other secondary cards can only unlock the instrument.
- d. If the mobile phone supports NFC card function, it can be bound to the device to realize the NFC unlocking function of the mobile phone.
- e. The mobile APP can input NFC card information. After inputting the NFC card information, the device can be unlocked. (The input NFC card has been bound to the device).
- f. After NFC card binding, the password function is enabled by default and cannot be turned off.

2) NFC card binding

a. Set item to enter binding:

- a) The meter defaults to password 0000 when it leaves the factory, and there is no NFC binding. Short press the \odot button to enter the password to directly enter the standby interface.
- b) After entering the standby interface, hold the brake handle and press the \odot button at the same time to enter the instrument setting item. Press the \odot button continuously and short press it to adjust to P25 item (NFC input item).
- c) Enter the P25 menu on the computer, then press + to enter, jump to the password interface, enter the password (default password 0000, enter the NFC card binding interface; press the left/right button to switch the settings of And1~And4, press the + button to enter the NFC card input state, place the NFC card on the device, input the NFC card normally, the voltage position displays "88", and the remaining And2~And4 cards are operated in the same way as above. Note: And1 is the main card position, and the same card is bound repeatedly. Flashing 3 times "--" or "88" indicates repeated operation.

b. Quickly bind the primary card to the secondary card:

- a) The NFC card bound to the And1 area is the primary card by default, with quick access to the NFC card binding settings interface.
- b) After pressing the POER button to turn on the device, place the NFC main card close to the device for about 8 seconds, and the instrument interface jumps to the P25 card binding setting interface.
- c) After entering the P25 interface, you can switch the settings of And1~And4 by short pressing the left/right button. You can enter the NFC card input state by short pressing the + button. Place the NFC card on the device and input the NFC card normally. The voltage position displays "88". The remaining And2~And4 cards are operated in the same way as above.

3) APP Quickly Bind Card

- a. The APP is bound to the phone. After entering the APP, click More in the quick operation bar on the APP homepage to enter the secondary interface.
- b. Enter the secondary interface, and you can view the And1, And2, And3, and And4 displayed in the code computer corresponding to the main card 1, secondary card 1, secondary card 2, and secondary card 3. Click the operation button, and the meter automatically jumps to the P25 card binding operation interface. Place an empty card close to the device for binding. The card slot displays "88", indicating that the card binding is successful, and the APP operation button lights up. Note: When the button in the APP is grayed out, it means that the NFC card has not been recorded. When the button is lit, it means that the NFC card has been recorded.

4) NFC card removal

a. Enter unbinding in the settings menu:

Enter the setup menu of the meter, select P26 option, press the "-" key to enter, enter the password (the default password is 0000) to enter the card deletion mode, and press the "-" key again to unbind the corresponding NFC card. Note: Press the left and right keys to select the NFC card. All cards can be unbound. If you repeat the operation, the "-" will flash three times.

b. NFC master card enters unbinding :

Keep the NFC main card close to the device for 10 seconds (at 8 seconds, it will first enter the P25 option, and after keeping the NFC card close for 2 seconds, it will directly jump to the P26 interface) Enter the NFC card unbinding interface, press the "-" key to unbind the NFC card. Note: Press the left and right keys to select the NFC card, all cards can be unbound, if repeated, the "-" flashes three times.

c. APP enters unbinding :

The APP is bound to the phone. After entering the APP, click More in the quick operation bar on the APP homepage to enter the secondary interface. You can view And1, And2, And3, and And4 displayed in the code table corresponding to the main card 1, secondary card 1, secondary card 2, and secondary card 3. Click the operation button. If the button is gray, it means the unbinding is completed.

Error codes and troubleshooting solutions

Error code	Code meaning	Inspections
E00		Normal Status
E06	Battery Undervoltage	Check that the battery is fully charged. If this error code still appears after a full charge you need to replace the battery.
E07	Motor Failure	Check the rear wheel motor wiring for damage, if the error code still appears after replugging or damaged, the motor will need to be replaced.
E09	Controller Failure	Check all wiring on the controller for damage, if the error code still appears after replugging or damaged, the controller will need to be replaced.
E10	Communication Receiving Failure	<ol style="list-style-type: none"> 1. Check whether there is any damage in the display wire. 2. Check whether the controller and display plug connection is intact. 3. Unplug the power sensor to see if it reports error, not report that is the sensor short-circuit damage, need to replace the sensor. 4. Unplug the motor line to see if the error, not reported that the motor hall short circuit damage, need to replace the motor to solve the problem. 5. The above can not solve the problem with the replacement method, replace the controller or display to troubleshoot the problem.
E11	Communication Sending Failure	<ol style="list-style-type: none"> 1. Check whether there is any damage in the display wire. 2. Check whether the controller and display plug connection is intact. 3. Unplug the power sensor to see if it reports error, not report that is the sensor short-circuit damage, need to replace the sensor. 4. Unplug the motor line to see if the error, not reported that the motor hall short circuit damage, need to replace the motor to solve the problem. 5. The above can not solve the problem with the replacement method, replace the controller or display to troubleshoot the problem.

Serial number	Common problems	Solution
1	The tyres are leaking	<ol style="list-style-type: none"> 1. We recommend deflating the tyre first and then inflating it with professional equipment 2. If still leaking, the inner tube needs to be replaced. We can supply the spare parts and let the customer replace it according to our video.
2	Brake noise	<p>Firstly, we should find out where the noise is coming from.</p> <ol style="list-style-type: none"> 1. The noise comes from the tyre brake area -> Let's send the customer a video to adjust the brake noise. 2. There is a noise when the handbrake is applied -> let the customer apply the brake several times. 3. The disc of the disc brake rubs against the rim, -> Let's check whether the disc is bent.
3	Wheel unstable, wobbly	Tighten the screws that fix the disc brakes. If this does not work, refit the tyres. If it still doesn't work, change the wheel. We can provide spare parts.
4	Display blurred by moisture	If there is moisture inside the display, first place the bike in the sun for a while. If it still does not work, you will need to replace the display. We can provide spare parts.
5	No power when pedalling	<ol style="list-style-type: none"> 1. Check if the display parameter value is the default value. 2. If the display parameter value is normal, turn on the display and long press the "-" button to check if the 3.75mph boost is working. If it is working, replace the boost sensor. If it is not working, you also need to check if the display shows the speed value by idling the pedal. If the speed value is displayed, you need to replace the controller. If the speed value is not displayed, you need to replace the display. <p>Note: Display failure requires more detailed judgment to confirm. We recommend that you contact the seller to solve this problem.</p>
6	Problem with the display	<p>Problem with the display</p> <ol style="list-style-type: none"> 1. The display does not show any speed/mileage -> plug the motor connector back in. If it still does not work, replace the motor. 2. The display switches off while driving, then switches on again and stays on and cannot be switched off. -> Replace the display. 3. The battery shows full charge, but the display shows empty charge and flashes constantly. -> Check the parameters. If it still does not work, change the display.

Precautions

1. Before plugging or unplugging the display, please be sure to turn off the power first, because live operation will cause permanent electrical damage to the display;
2. When assembling the display, please ensure that the torque value of the reinforced hexagon socket head screw does not exceed 1Nm at most, because excessive torque will cause damage to the instrument structure;
3. Do not soak the display in water;
4. When cleaning the display, you can use a soft cloth dipped in water to wipe the surface, but do not use any detergent or spray liquid on the surface;
5. When discarding, please abide by local laws and regulations, discard or recycle in an environmentally friendly way, and do not discard the instrument or any accessories as residents' garbage;
6. Display damage and failure caused by incorrect assembly or unauthorized change of parameter values are not covered by the after-sales warranty.

Maintenance and after-sales

Daily Maintenance and Cleaning

Do not immerse the display in water or use water spray to clean the display. Please use a soft cloth moistened with clean water when cleaning. Do not wipe with any detergent.

Disposal Notice



Do not dispose of electronic devices and batteries with normal household waste. Opt for a responsible and approved disposal location within your local community, ensuring compliance with prevailing regulations. Should you have any uncertainties, we recommend reaching out to your local authorities for guidance on the appropriate and environmentally-friendly disposal methods.

Batteries/Rechargeable Batteries



As an end user, it is imperative to adhere to battery regulations, mandating the return of all used batteries. Disposing of batteries in standard household waste is legally prohibited. Look for the symbol on most batteries, serving as a reminder of this regulation, along with information about contained heavy metals. The environmentally friendly disposal of these heavy metals is a legal obligation for end users, who are encouraged to submit used batteries to designated collection points within their city or commercial establishments. In case of doubts, seeking guidance from local authorities is advisable for correct and eco-conscious disposal options.

Recycling Loop



Packaging material possesses the potential to be reintegrated into the raw material cycle. Ensure the disposal of packaging material aligns with legal provisions, and refer to information available through return or collection systems within your community. This approach guarantees a sustainable and environmentally-friendly contribution to the recycling loop.

Welcome to join our KOOLUX brand community. We believe you will get an unprecedented experience here. Thank you for choosing our e-bikes as your more eco-friendly way to travel. If you have any questions, please contact our after-sales support team. We will provide you with technical support and suitable solutions as soon as possible.



KOOLUX after-sales: info@koolux.eu

Declaration of Conformity



This declaration of conformity is established under the sole responsibility of the

EU representative:

- **Company:** Dunbang Speed
- **Address:** 1 Place du Verseau 38130 Échirolles
- **Email:** info@koolux.eu

We therefore officially declare that the document is issued under our sole responsibility and belongs to the following product:

Trademark	KOOLUX
Product model	X12 PRO
Product Description	Pedelec
Manufacturer	Yongkang Ajiu Industry & Trade Co., Ltd. Add: Hengyan Industry Area, Zhiying, Yongkang, Zhejiang, China Email: contact@yongkangaijiu.com
Product model	21700-13S3P
Product Description	Li-ion Battery
Manufacturer	Anhui yonglida new energy technology co.,ltd Add:Huaiyuan County Economic Development Zone,Anhui Province,CN Email:AHYLDXNY@163.com
Product model	hyleton-A5-5463000
Product Description	Battery Charger
Manufacturer	Shenzhen Hyleton Technology Co., Ltd Add:4/F, A3 Building, Fenghuanggang 3rd Industry Park, Xixiang Town, Bao' an, District, Shenzhen, Guangdong, 518102, China Email:leiziming@hyleton.com.cn
Product model	X12 PRO
Product Description	Bicycle Luggage Carrier
Manufacturer	ZHEJIANG KUANTU INDUSTRY AND TRADE CO., LTD Add:No.12 Xinhui Road, Xinbi Street, Jinyun County, Lishui City, Zhejiang Province, China Email:info@kuantuscooter.com

Compliance of the product concerned has been assessed and certified according to:**For Pedelec**

European Directives	Testing Standards
MD Directive 2006/42/EC	EN 15194:2017+A1:2023 EN ISO 12100:2010
EMC Directive 2014/30/EU	EN 55012 EN 61000-4-2 ISO 11454-1 EN IEC 55014-1:2021 EN IEC 55014-2:2021 EN 61000-4-2:2009 EN 61000-4-4:2012 EN 61000-4-5:2014+A1:2017 EN 61000-4-6:2014+AC:2015 EN IEC 61000-4-11:2020
ROHS 2.0 Directive 2011/65/EU	EN 62321-5:2014 EN 62321-4:2014+A1:2017 EN 62321-7-1:2015 EN 62321-7-2:2017 ISO 17075-1:2017 IEC 62321-6:2015 EN 62321-8:2017
RED Directive 2014/53/EU	EN 300 328 V2.2.2,EN 62479:2010 EN 301 489-1 V2.2.3,EN 301 489-17 V3.3.1 EN IEC 62368-1:2020+A11:2020

For Li-ion Battery

European Directives	Testing Standards
EN 50604-1	EN 50604-1:2016+A1:2021
(EU)2023/1542	PPP 51110B:2024
un38.3	UN "Manual of Tests and Criteria" ST/SG/AC.10/11/Rev.7/Amend1/Subsection 38.3

For Battery Charger

European Directives	Testing Standards
LVD Directive (EU)2014/35	EN 60335-1: 2012+A11+A13+A1+A14+A2+A15+A16 EN 60335-2-29: 2021+A1 EN 62233: 2008

For Bicycle Luggage Carrier

European Directives	Testing Standards
2001/95/EC	EN ISO 11243:2016

Notify body :

Shenzhen STL Testing Technology Co., Ltd.
TÜV SÜD Certification and Testing(China)Co., Ltd.

For and on behalf of
Dunbang Speed

Banggaw Dun ^{CEO} *31.01.2026*
.....
Authorized Signature(s)

Declaration of Conformity



This declaration of conformity is established under the sole responsibility of the

UK representative:

- Company : MASILI SOLUTIONS LTD
- Address : Add: OFFICE 11, AUSTIN COURT 64 WALSALL ROAD SUTTON
- COLDFIELD UNITED KINGDOM B74 4QY
- Email: info@koolux.eu

We therefore officially declare that the document is issued under our sole responsibility and belongs to the following product:

Trademark	KOOLUX
Product model	X12 PRO
Product Description	Pedelec
Manufacturer	Yongkang Aijiu Industry & Trade Co., Ltd. Add: Hengyan Industry Area, Zhiying, Yongkang, Zhejiang, China Email: contact@yongkangaijiu.com
Product model	21700-13S3P
Product Description	Li-ion Battery
Manufacturer	Anhui yonglida new energy technology co.,ltd Add:Huaiyuan County Economic Development Zone,Anhui Province,CN Email:AHYLDXNY@163.com
Product model	hyleton-A5-5463000
Product Description	Battery Charger
Manufacturer	Shenzhen Hyleton Technology Co., Ltd Add:4/F, A3 Building, Fenghuanggang 3rd Industry Park, Xixiang Town , Bao' an, District, Shenzhen,Guangdong, 518102, China Email:leiziming@hyleton.com.cn
Product model	X12 PRO
Product Description	Bicycle Luggage Carrier
Manufacturer	ZHEJIANG KUANTU INDUSTRY AND TRADE CO., LTD Add:No.12 Xinhui Road, Xinbi Street, Jinyun County, Lishui City, Zhejiang Province, China Email:info@kuantuscooter.com

Compliance of the product concerned has been assessed and certified according to:**For Pedelec**

European Directives	Testing Standards
MD Directive 2006/42/EC	EN 15194:2017+A1:2023 EN ISO 12100:2010
EMC Directive 2014/30/EU	EN 55012 EN 61000-4-2 ISO 11454-1 EN IEC 55014-1:2021 EN IEC 55014-2:2021 EN 61000-4-2:2009 EN 61000-4-4:2012 EN 61000-4-5:2014+A1:2017 EN 61000-4-6:2014+AC:2015 EN IEC 61000-4-11:2020
ROHS 2.0 Directive 2011/65/EU	EN 62321-5:2014 EN 62321-4:2014+A1:2017 EN 62321-7-1:2015 EN 62321-7-2:2017 ISO 17075-1:2017 IEC 62321-6:2015 EN 62321-8:2017
RED Directive 2014/53/EU	EN 300 328 V2.2.2,EN 62479:2010 EN 301 489-1 V2.2.3,EN 301 489-17 V3.3.1 EN IEC 62368-1:2020+A11:2020

For Li-ion Battery

European Directives	Testing Standards
EN 50604-1	EN 50604-1:2016+A1:2021
(EU)2023/1542	PPP 51110B:2024
un38.3	UN "Manual of Tests and Criteria" ST/SG/AC.10/11/Rev.7/Amend1/Subsection 38.3

For Battery Charger

European Directives	Testing Standards
LVD Directive (EU)2014/35	EN 60335-1: 2012+A11+A13+A14+A2+A15+A16 EN 60335-2-29: 2021+A1 EN 62233: 2008

For Bicycle Luggage Carrier

European Directives	Testing Standards
2001/95/EC	EN ISO 11243:2016

Notify body :

Shenzhen STL Testing Technology Co., Ltd.
TÜV SÜD Certification and Testing(China)Co., Ltd.

For and on behalf of
MASILI SOLUTIONS LTD

Jun Liang. CEO
31. 1. 2026

.....
Authorized Signature(s)



Return of E-bikes

Only use the shipping carton that the E-bike was delivered in. Be careful to protect the E-bike from impact when packing it. When returning, the battery must be inserted into the battery holder provided with the bicycle and locked.

IMPORTANT

E-bikes with batteries that have mechanical or electrical defects may not be shipped. Please contact the manufacturer's customer service department for more information.

Battery Returns

Pack the battery in a padded bag to protect it from impacts and external influences.

If your battery has visible damage or indicates electrical defects, it is generally not allowed for shipment. Please contact our service team and dispose of the battery properly.

Warranty Card

Customer Information:

Name: _____

Address: _____

City: _____

State/Province: _____

Postal Code: _____

Country: _____

Phone: _____

Email: _____

Bicycle Information:

Model: _____

Serial Number: _____

Purchase Date: _____

Instructions:

Please **fill** in the customer and bicycle information above.

Keep this warranty card in a safe place.

Present this card along with proof of purchase for any warranty service.

This warranty card is valid for the warranty period specified.

Important:

This warranty card is non-transferable.

For warranty service, contact the authorized dealer/center listed above.

This simple warranty card template provides a space for customers to **fill** in their personal details, bicycle information, and warranty period. It also includes instructions for use and a section for the customer's signature, ensuring that the warranty is personalized and official.