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PLEASE READ THIS MANUAL CAREFULLY BEFORE USING YOUR E-BIKE THANK YOU FOR CHOOSING TO BE PART OF THE ENGWE E-BIKES FAMILY.

We invite you to read through this owner's manual to learn about your e-bike and what it's like to own one.

First of all, remember to be safe outside. Your bike is an accessory to your lifestyle and activities. Always follow best practices and traffic rules.

Even in this ever-evolving technology, your e-bike is essentially a bicycle, and as such requires basic maintenance and care to always function properly. Preventative maintenance is the name of the game. We invite you to grow with us, taking advantage of our modular design for technology.

Instructions, videos, and live support are being created to provide all the knowledge you need to get the most out of your Engwe E-bike.

#### CONTACT INFORMATION

Engwe E-Bikes

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www. engwe-bikes. com

# TABLE OF CONTENTS

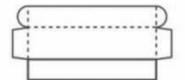
PRODUCTS INTRODUCTION AND ASSEMBLY
INSTRUCTION1
DISPLAY GUIDE12
YOUR FIRST RIDE 19
SECURITY AND WARNINGS21
BATTERY AND MAINTENANCE 24
TROUBLE SHOOTING27
LIMITED WARRANTY 28

**PRODUCTS** INTRODUCTION AND **ASSEMBLY** INSTRUCTION



# PRODUCTS INTRODUCTION AND ASSEMBLY INSTRUCTION

Performance index	Project	X24
D. 1. D	Vehicle size	73.2*28.3*48.4 inches
Basic Parameters	Wheel Size	24Inches
	Body Material	Aluminum alloy
	Maximum Load	330.6lbs(150KG)
	Vehicle weight	83.7lbs(38KG)
Main Parameters of the	Maximum Speed	31mph(50km/h)
Whole vehicle	Maximum Gradient	30°
	Rear Derailleur	8-Speed
	Max Range	62 miles(pure electric) / 93 miles ( pedal assist )
	Working Temperature	-4-140°F(-20-60°C)
D.H. D.	Rated Voltage	48V
Battery Parameters	Battery Capacity	19.2AH +9.6AH
	Service Life	500 Times
Mate Demonstra	Motor Power	1000 W
Motor Parameters	Motor Type	Brushless Gear Motor
	Maximum Torque	70Nm
Channes Danneston	Input voltage	100-240V
Charger Parameters	output voltage	54v
	output current	3A

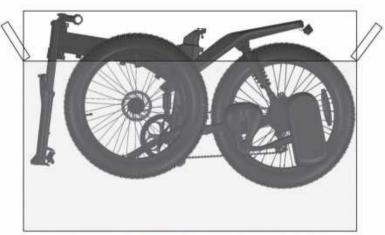


Tool box

Tool Box Checklist

# What's in the Box

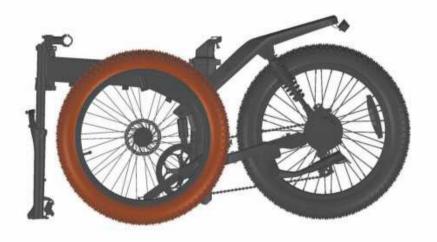
- . Take out the bike, the seat post, and the toolbox.
- · Remove (and recycle) all wrapping material.
- Save the bike box and toolbox for future use.



Bike box



· Take out the front wheel.



· Remove the protection cap from both sides of the front wheel.







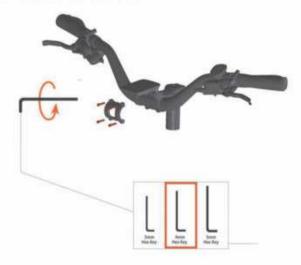
# PRODUCTS INTRODUCTION AND ASSEMBLY INSTRUCTION

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 Dismantle the foam, and then rotate the instrument to the top of the handlebar.



 Place the handlebar at an appropriate position, and make sure the "cross symbol" is located at the center.



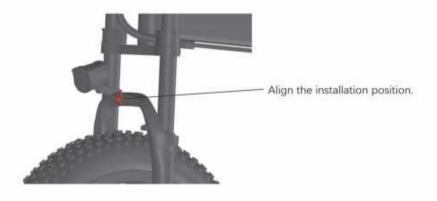
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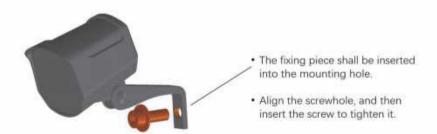


- Use a 4mm hex key to install the 4 bolts by turning clockwise. The sequence is shown in the picture above. Please do not fully tighten them yet.
- Once the bolts and the handlebar are in the right place, tighten the bolts fully with appropriate force.

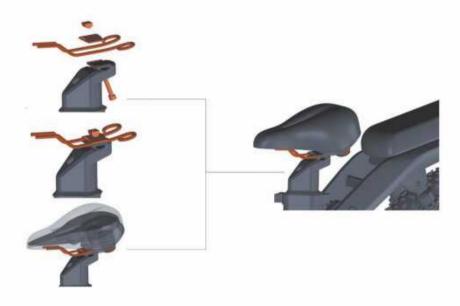


· Take the headlight out of the carton.





· Tighten with screws in the sequence shown in the figure.



Push the saddle down and then forward to complete the installation.







· The screws and gaskets shall be installed according to the picture.





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· Clamp the front wheel with the front fork and lock the front wheel screw with a wrench.



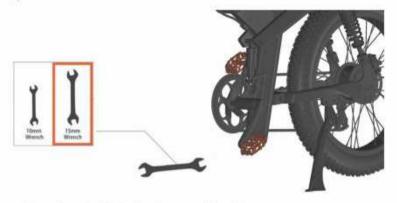
. The pedals are marked with "R"(Right) and "L" (Left). This refers to the two sides of the e-bike. The R pedal goes to the side of the carbon belt, and the L pedal goes to the other side.





· Manually install the left pedal by turning counterclockwise, and install the right pedal by turning clockwise. Tighten the pedal securely with a 15mm wrench.





· Fill up the air with the hand pump before riding.

# **DISPLAY GUIDE**



# **DISPLAY GUIDE**

# Function overview

The Display provides a variety of functions to meet your riding needs, including:

- · Battery level indicator
- · Motor power indicator
- Assist level adjustment and indication
- Speed indicator (including real-time speed, maximum speed, and average speed)
- Distance indicator (including trip distance and ODO)
- · Push assistance control and indication
- · Headlight control and indication
- · Error code indicator
- USB connection indicator (reserved)
- · Heart rate indicator (reserved)
- Bluetooth connection indicator (reserved)
- Custom parameter setting (e.g., wheel diameter, speed limit, battery level, assist level, power-on password, controller current limit, etc.)
- Reset function



# **Buttons Functions**

Name	Functions	
[Power]	1. Power on/off	
[+]	Parameter adjustment     Menu operation	
[-]	Parameter adjustment     Pedestrian mode on/off     Menu operation	
[Light]	1. Light on/off	
[1]	Parameters confirm     Long press->Change mode	

# Riding Interface





# Mode Switch

Press and hold the [i] key for 1s to switch the ECO/NORMAL/SPORT mode.

# DISPLAY GUIDE



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The switch to SPORT mode needs to be started when the speed is above 15km/h, and the maximum maintenance time of SPORT mode is 3min; After the completion of SPORT, the SPORT mode is frozen and automatically switched to NORMAL mode. It takes 10 minutes to start the SPORT mode again.



#### Error Code

Common error codes are as follows (Only for reference, depending on other electrical parts of the e-bike):





KM5S protocol Error Code		
Error Code Meaning		
21	Current or Mos Error	
22	Throttle Error	
23	Motor Phase Error	
24	Motor Hall Error	
25	Brake Error	
26	Low-voltage protection	
30	Communication Error	

#### User Menu

To enter the user menu, please long-press the [+] and [-] combination buttons for 1s on the riding interface when static. This interface will automatically return to the riding interface when there is no operation for more than the 60s.

#### Clear Data

In the "Clear Data" menu interface, select the "Trip Distance" menu item, click the [+] / [-] to switch (the default option is "No"), and click [i] to confirm and automatically return to the previous menu interface.



#### Factory Reset

In the "Clear Data" menu interface, select the "Factory Reset" menu item, click the [+] / [-] to switch (the default option is "No"), and click the [i] to confirm and automatically return to the previous menu interface. After "Factory Reset", some functions need to be restarted to take effect.

#### DISPLAY GUIDE





#### · Set Unit

Select "Set Unit" and click the [i] to enter the submenu, you can select the unit: Select the "Set Unit" menu item, click [i] to enter, and click [+] /[-] to switch the unit. Click [i] to confirm and automatically return to the previous menu interface.



# · Set Brightness

Select "Set Brightness" and click [i] to enter the submenu, the adjustment range is Auto, 1-5; Click [i] to confirm and automatically return to the previous menu interface.





# Auto Power-Off

Select "Auto Power-off" and click [i] to enter the submenu, the adjustment range is 0-99(unit: min), 0=Never auto power-off. lick [i] to confirm and automatically return to the previous menu interface.



#### · Speed Limit

Select "Speed Limit" and click [i] to enter the submenu, the adjustment range is 22-50km/h. Click [i] to confirm and automatically return to the previous menu interface.

#### DISPLAY GUIDE





# Personalization

Click [i] to enter the "Personalization" menu interface, you can set the cruise control (CRU), reverse charging current (ACF), auto headlight (Auto Headlight), and Assist level PWM (Power Set). CRU and ACF are only available for a specific e-bikes.



Select "CRU", and press [i] to adjust ON/OFF;

Select "ACF", and press [i] to adjust ON/OFF;

Select "Auto Headlight", and press [i] to adjust ON/OFF;

Select "Power Set", press [i] to enter, and press [i] again to select "Power Mode", click [+]/[-] to switch the assist level range, the adjustment range is 0-3/1-3/0-5/1-5/0-7/1-7/0-9/1-9. Click [i] to confirm and exit, and click [+]/[-] to



change the percentage value of each assist level.

# System Info

Select "System Info" and click [i] to check the version info.

Click [i] to return to the previous menu interface.



#### YOUR FIRST RIDE



# YOUR FIRST RIDE

NOTE: Please be VERY CAREFUL when you are ready to get on your e-bike for the first time because the e-bike moves significantly faster than a regular bicycle in active power-assisted mode. Take your e-bike to an area with a lot of open space before you start. We recommend that you ride your e-bike with the pedal assist off at first, to get familiar with the braking and gear shifting. Then, you can start testing the pedal assist levels incrementally to gain familiarity with the optimal settings for your riding style.

# Safety Checks Before Every Ride

- · The battery pack must be charged and installed correctly.
- · The display must be on and functioning properly.
- The brakes must be working properly.
- Tires must be inflated to the proper psi.
- · The front and rear lights must be working properly.
- · Cable connections must be secure.

#### Operating Your New e-Bike

The method to turn on the bike is:

- · Press the power button on the left handlebar until the display lights on;
- Ride on the bike and twist the throttle bar or pedal the bike, the bike will
  move and you can change the power level with control buttons, level 1 is

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the slowest and level 5 is the fastest, and level 0 is the human model.

#### Other Function

Hand Throttle Control. In the hand throttle mode, the amount of power assist is determined by the throttle switch controlled by your hand. You control the throttle by twisting it from its resting position, the farther the throttle switch is from its resting position, the more power is delivered to the motor to accelerate the e-bike. When you want to slow down, you simply release the throttle and let it return to its resting position, and simultaneously apply the brakes if necessary. You do not need to pedal the e-bike if you use the hand throttle. However, you can pedal while commanding power assist. If you pedal to help the movement, you conserve energy and the charge in the battery will last longer.



# SECURITY AND WARNINGS

# Before Riding the e-BIKE

Always perform a mechanical inspection before riding an e-bike:

- · Hardware is properly secured
- · Tires are properly inflated
- · Brakes are working properly
- · Adjusted and fixed handle
- · Front wheels are secure and properly locked

#### When Riding the e-Bike

- · Obey all road rules and local traffic laws.
- Respect motorists, pedestrians, and other cyclists. Do not race or taunt other cyclists.
- Ride cautiously as others may not see you. Do not get too close to other cyclists or vehicles.
- · Ride on bike lanes and trails.
- Obey traffic stop signs and signals.
- Use appropriate gestures when turning and parking.
- Do not wear headphones.
- Do not bring adult passengers.
- · Do not carry anything that obstructs your view or control of your e-bike.

SECURITY AND WARNINGS

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Avoid riding in the following situations:

- · Visibility is poor, such as at dawn, dusk, or in the dark
- · bad weather
- · Extreme rider fatigue
- · E-bike maintenance required

#### Off-road Riding

- · Obey local laws regarding off-road riding.
- · Practice riding on easier terrain to enhance your skills.
- Always wear proper safety gear.
- Always ride with a companion in the backcountry.

# Riding in the Rain

- · Avoid riding in wet weather as much as possible.
- Reduce your speed if you need to ride in wet weather.
- Wet weather can affect the visibility, braking, and traction of an e-bike and affect others sharing the road.
- · Accidents increase in wet weather conditions.

# Riding at Night



- · Riding at night is far more dangerous than riding during the day.
- Be sure to wear reflective clothing.
- Make sure you obey local laws regarding night riding.
- Reflectors are not a substitute for the required lights. Reflectors help others see you by picking up and reflecting cars and street lights. Before riding at night, make sure your reflectors are in good condition. Do not remove the reflectors from the e-bike.
- Always use an adequate lighting system when riding at night or any other time of poor visibility. Riding at night or any other time of poor visibility without adequate lighting systems and reflectors could result in death or serious injury. Equip your e-bike with aftermarket batteries or a generator lighting system if necessary.

# Extreme and Aggressive Riding

Electric bike designs have limitations in terms of strength and integrity.

Extreme, stunt, and competition riding may exceed these limits. The manufacturer does not recommend these types of rides. Additionally, extreme, stunt, and competition riding increase the risk of death and serious injury.

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# BATTERY AND MAINTENANCE

# Charging Your e-Bike Battery

Follow these steps for charging your e-bike battery from Engwe Bikes:

- Open the cover of the charging port and fold the bicycle;
- Insert the key into the battery, and hold it down until it is screwed clockwise to the end (note: the lock lever is completely retracted into the battery to remove the battery);
- Slide off the battery, the battery is quite heavy, you should be careful not to drop it.

# **Battery Charging Information**

- You can charge the battery while it is installed on the e-bike or after it is removed from the e-bike.
- · You should turn off the battery before you charge it.
- The charging time depends on the remaining capacity of the battery. If the
  battery is fully discharged, it will take 6 hours to fully charge. When the
  battery is fully charged, the LED on the charger will change from red to
  green. At this point, you should disconnect the charger.
- Do not leave the charger connected to the battery for a long time after charging is full (keep it connected and charge overnight.)

It is normal for the charger and battery to heat up slightly during charging. If

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the bike and contact Engwe Bikes Product Support for assistance.

you notice anything unusual while charging, please stop charging and using

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Recommended Maintenance Interval

Regular inspection and maintenance are key to ensuring your Engwe bike performs as intended and reducing wear and tear on its systems. The suggested maintenance intervals are for guidance only. Actual wear and service needs will vary with usage conditions. We generally recommend inspections, service, and necessary replacements at the first time or mileage interval in the table below.

Interval Replace Inspect Service Weekly, 160-321km(100-200mi) - Check the - Wipe the frame - Replace any hardware for with a damp component proper torque. cloth to clean that has been - Check the the frame. confirmed by drivetrain for - Use the barrel Engwe Bikes Product proper adjusters to alignment and tension the Support or a function derailleur/brake certified (including chain, cables if reputable cassette. needed. bicycle sprockets, and mechanic to derailleurs). be damaged

Tips for Increasing Range

The bike's range on a single charge will vary widely based on rider, terrain, wind conditions, user input, and additional cargo weight. The table below shows an estimate of the potential range a rider might expect under different

All tests use:

conditions.

To get the most range per battery charge, there are a few simple things you can do:

- Ride at a lower PAS level.
- Use lower PAS levels and pedals when climbing hills.
- Pedaling when starting from a standstill.

Battery Recycling

When your battery is no longer usable, dispose of it according to state and federal regulations. State regulations regarding battery disposal vary, so it's important to know and follow your state's regulations. Lithium-ion batteries cannot be placed in standard trash cans.

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	- Check the		beyond repair or damaged.
	the wheels and		
	quiet wheel		
	operation (no		
	spoke noise)		
	- Check the		
	condition of the		
	frame for any		
	damage.		
Monthly, 402-1207km	- Check brake	- Clean and	- Replace
(250-750mi)	pad alignment	lubricate the	brake and
	and brake cable	drivetrain.	shift cables if
	tension.	- Check	necessary.
	- Check that the	crankset and	- Replace
	bike moves	pedal torque.	brake pads if
	correctly, proper	- Clean the	necessary.
	derailleur	brake and shift	
	tension,	cables.	
	- Check chain	- If any loose	
	tension,	spokes are	

	- Check the	found, adjust	
	brake and	and tension the	
	shifter cables for	wheel.	
	corrosion or		
	fraying.		
	- Check spoke		
	tension.		
	- Check		
	accessory		
	installation (rack		
	mount bolts,		
	fender		
	hardware, and		
	alignment).		
Every 6 months, 1207-2011km	- Check the	- Tuned by	- Replace the
(750-1250mi)	drivetrain	certified	brake pads.
	(chain,	standards,	- Replace
	sprockets,	well-respected	tires if
	freewheel, and	bike mechanics.	necessary.
	derailleur).	- Lubricate the	81
	- Check all	bottom bracket.	Replacement

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	cables and	of cables and
	housings.	housings if
		necessary.

32

TROUBLE SHOOTING



# **TROUBLESHOOTING**

Failure Phenomena	Causes of Failure	Solutions
- Can not turn on the e-bike	- Battery is off  - The Battery is out of power  - Battery aging or damaged  - Poor contact with the display line  - Failure of computer  - Failure of the controller	- Turn on the battery - Fully charge the battery - Replace the battery - Reconnect the display - Replace the computer - Replace the controller
- Pedal assist doesn't work - Gear doesn't work well - Brake doesn't work well - Display doesn't	- Failure of the speed sensor  - Rear derailleur mismatch  - Brake caliper mismatch  - Brake Disc is bent  - Poor contact with the display line	- Replace the speed sensor  - Adjust the rear derailleur  - Adjust brake caliper or disc  - Reconnect the display line
- Can not adjust the speed - Speed is less than	- The battery's voltage is too low  - The throttle governing bar is  damaged  - Poor contact with the controlling line	- Fully charge the battery - Replace the throttle governing bar - Replace the spring

33



# LIMITED WARRANTY

This limited warranty only covers the original owner of an electric bike purchased from Engwe online or in-store. The warranty period begins when you receive the e-bike and shall end immediately upon the end of the warranty period or when the e-bike is sold or transferred to another person, and in no event shall the limited warranty applicable to any subsequent owner or owner of the e-bike other assignees.

Accessories	Quality Problem	Warranty Period	Service Content
Motor	The motor will not be able to use	1 year	Free delivery of parts
Accelerator	Natural conditions (such as impact force cannot be used except for damage)	1 year	Free delivery of parts
Controller	Failure occurs under normal use	1 year	Free delivery of parts
Charger	Failure occurs under normal use	1 year	Free delivery of parts
Lithium Battery	Can't charge under	1 year	Free delivery of parts

10km/h	- Spring failure or being locked	
	- Inadequate tire pressure	
	- Failure of charger	- Inflate the tire with
		appropriate air pressure
	- The battery cannot be fully charged	- Repair the charger
	- Failure of the controller	- Kepair the charger
E Dilecte	But and the second second	- Examine and repair the
- E-Bike's	- Battery aging or battery damaged	controller
mileage is	- E-Bike has not been well	
inadequate	assembled	- Replace the controller
madequate	assembled	- Replace the battery
after fully	- Too much upgrade road	
charged	- Strong wind	- Re-adjust the e-Bike
		- Boost the e-Bike by
	- Bad road	manpower
	- Overweight	manpower
	Too many broking times	- Warm the battery above
	- Too many braking times	0°C(32°F)
	- Temperature is too low	
	-The connection of the battery is	
	loosened	- Re-connect the battery
- The wheel hub	looseried	- Replace the connection
	- Poor contact of controlling line	
stopped running	-The connection of the wheel hub is	line
after switching		- Replace the battery's
on the power	loose or damaged	protective board with a new
on the power	-The protective board of the battery is	protective board with a nev
		one
	broken	

WARRANTY



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service for help when there is a quality issue, which means that you can contact customer service of the seller where you buy your e-bike from.

Please provide your order number, purchase interface, videos of the issue.

# This Limited Warranty Does Not Cover the:

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- · Normal wear and tear of any covered components.
- Consumable or normal wear parts (including but not limited to tires, inner tubes, brake pads, cables and housings, handlebars, chains, and spokes).
- Any damage or defect in the warranty component caused by failure to
  follow the instructions in the electric bicycle owner's manual, acts of God,
  accident, misuse, neglect, abuse, commercial use, alteration, modification,
  improper assembly, installation of non-original parts or accessories or
  Incompatibility with electric bikes sold, mishandling, water damage,
  extreme riding, stunt riding, or improper subsequent maintenance. Any
  unauthorized servicing or use of unauthorized parts.
- Batteries are not warranted against damage caused by electrical surges, use of an incorrect charger, improper maintenance or other such misuses, normal wear and tear, or water damage.

#### Dear customer!

Thank you for purchasing ENGWE series products!

Warranty service: Please enter into the official website

https://engwe-bikes.com/ to view the warranty policy of Engwe.

After purchasing Engwe products, please kindly contact Engwe after-sales