

AR20

USER MANUAL



IMPORTANT:

Read the user manual thoroughly before installation. Failure to follow the instructions may result in safety hazards, product damage, or personal injury.

PawkyMo

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Welcome to the PawkyMo Community!

Start your riding adventure

Thank you for choosing PawkyMo—innovative, sustainable electric mobility solutions designed for everyday travel. Before your first ride, please read this user manual carefully to familiarize yourself with:

- [Correct operation of your e-bike](#)
- [Feature configuration](#)
- [Performance specifications](#)
- [Essential safety procedures](#)

⚠️IMPORTANT SAFETY REMINDER While this manual includes necessary safety guidance, it does not cover all skills and techniques required for safe e-bike riding. Safe riding requires safety awareness, responsible habits, and full compliance with all local laws and regulations.

We look forward to seeing your PawkyMo riding experiences! Connect with us:

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IMPORTANT NOTES

- The original version of this manual is in English.
- The contents of this manual reflect the latest information at the time of publication and are subject to change without notice.
- No part of this manual may be reproduced in any form without prior written permission from PawkyMo.

LEGAL REQUIREMENTS & INTENDED USE

E-bike regulations vary by country, state, province, and city. As a rider, it is your responsibility to understand and follow all local e-bike laws before using your PawkyMo e-bike. Violations may result in: Fines or tickets, confiscation of the bike, other legal consequences.

Regulations commonly cover:

- Rider and passenger minimum age requirements
- Maximum assisted speed limits
- Motor power limits
- Throttle and pedal-assist usage limits
- Where you may ride (roads, bike lanes, paths, trails)
- Helmet, safety equipment, lighting and reflector standards
- Insurance or registration requirements (depending on region)

PROHIBITION ON MODIFICATIONS / SPEED DERESTRICTION (Legal Disclaimer)

NO UNAUTHORIZED MODIFICATIONS: Do not modify the motor, controller, battery, wiring, or software. This includes any attempt to “tune,” “chip,” or remove speed limits.

CONSEQUENCES: Such modifications will void the warranty, Transfer all legal and financial liability (fines, legal responsibility, insurance complications) to the user. PawkyMo assumes no responsibility for accidents or damage resulting from unauthorized modifications.

Intended Use and Rider Specifications

Intended use / terrain:

Paved roads, bike lanes, flat or moderately undulating outdoor terrain.

Not intended for:

Extreme or downhill mountain biking; jumps, stunts, or trick riding; racing or competition; commercial cargo or delivery use.

Intended Use and Rider Specifications

Maximum rider weight: 330 lb (150 kg)

Bike weight: 114 lb (approx. 51.7 kg)

Age requirement: riders under 16 must ride only under close adult supervision and in accordance with local law. Always follow your local minimum age requirements for e-bike operation.

Physical requirements: the rider must have sufficient balance, coordination and reaction time to safely control a motorized vehicle.

⚠ WARNING – Overload Consequences Never exceed maximum load limits. Overloading may damage the frame or brakes and can lead to loss of control, serious injury, or death.

Important Safety Information

Read Before Assembly and Operation

⚠ WARNING – Assembly Condition Do not ride your PawkyMo if it is not correctly assembled. Improper assembly of an e-bike poses severe safety risks to you, your passenger, and others. Failure to follow the assembly steps may cause accidents, damage, serious injury, or death.

Scope of This Manual

- This manual provides essential **assembly and maintenance** procedures required to keep your e-bike safe.
- It is not a complete service or repair manual.
- Do not attempt advanced repairs or adjustments described in external technical documents. Such work must be performed by qualified technicians.

Power-Off and Battery Removal

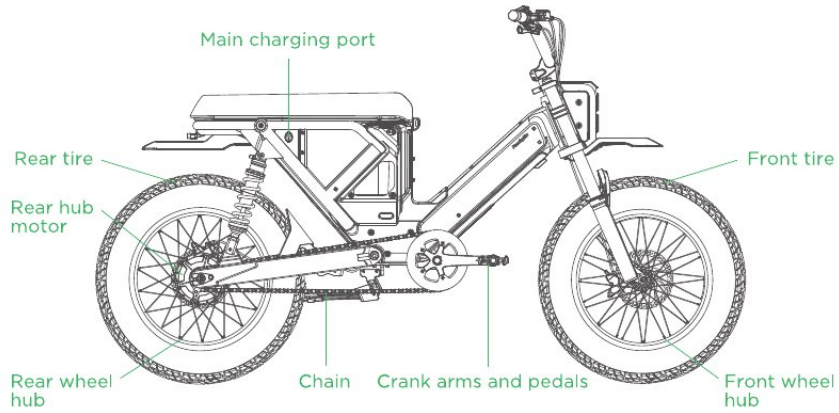
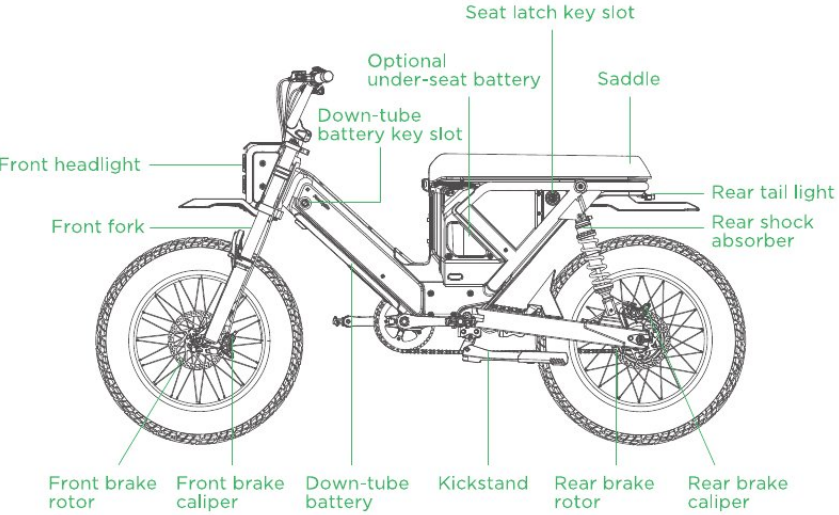
- Always **turn off the bike and remove the battery**
- Before any assembly or adjustment
- Before any maintenance
- Before transporting the bike in another vehicle
- Accidental motor activation during assembly, maintenance, or transport can cause serious injury and damage.

⚠ DANGER – Misuse

Using the e-bike beyond its intended purpose can cause accidents, serious injury, or death. Your warranty and any liability claims become void if:

- The bike is misused or used outside the intended scope
- The bike is assembled or repaired improperly
- The bike is modified or “tuned” (unauthorized electrical or mechanical changes)
- Maximum load is exceeded
- Maintenance is not performed according to this manual

Parts Info



Vehicle Specifications

The technical specifications below outline the performance parameters and physical dimensions of the PawkyMo AR20.

Item		Specification
Saddle		
Length × Width × Height		77" × 32" × 44" (195 × 81 × 111 cm)
Seat height		34.3" (870 mm)
Bike weight (without rider)		approx. 114 lb (51.7 kg)
Electrical System		
Motor		750 W
Battery voltage		48 V
Battery capacity		20 Ah
Charger output		48 V / 3 A
Approximate full charge time		7 hours
Top speed		approx.20 mph (32 km/h)
Performance		
Assist levels		5 levels
Drive modes		Single-motor
Maximum load (rider + cargo)		approx. 330 lb (149.7 kg)
Estimated range		35 mi (approx. 56 km) at 20 mph (32 km/h) in throttle-only mode ^[1]
Components		
Frame material		A6061 aluminum alloy
Tires		Front: 20" × 4.0" Rear: 20" × 4.0"
Brakes		203 mm disc brakes (front and rear)
Water / dust rating		IPX65 - IPX67

[1] Based on Bafang laboratory test results; real-world range may vary with rider weight, terrain, temperature, wind, and riding style.

Pre-Assembly Preparation & Package Contents

Your PawkyMo AR20 e-bike is partially assembled from the factory. For someone with basic mechanical skills, final assembly typically takes about 10 minutes. Follow the steps in sequence, only move to the next step after fully completing the current one.

⚠ WARNING – Assembly Safety

Do not ride the e-bike if it is not fully and correctly assembled. Improper assembly poses serious safety risks. Before your first ride, you must complete the pre-ride safety check.

⚠ WARNING – Accidental Start

Always turn the power off and remove the battery before any work or when transporting the bike in a vehicle. Accidental motor activation during assembly, maintenance, or transport can cause serious injury or damage.

Preparation

Read first: Read all instructions completely before starting assembly. Failure to follow steps properly may cause component failure, damage, serious injury, or death.

Shipping damage inspection: Carefully inspect frame, wheels, batteries, and components. If you find any damage: 1.Take clear photos; 2.Contact your retailer; 3.Do not assemble or ride with damaged parts.

Your AR20 kit includes the following items.

Before starting assembly, make sure all the following items are included:



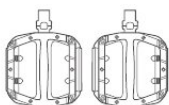
Lithium-ion battery × 1



Security keys × 2



Battery charger × 1



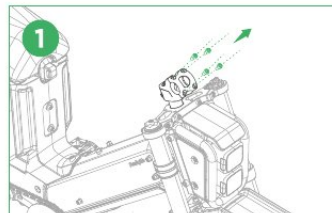
Pedals × 2



Assembly tool kit (Allen/hex keys, wrench)

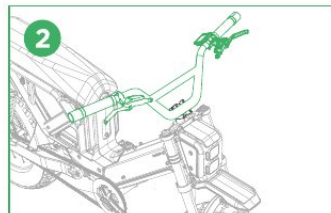
1 Handlebar Installation and Adjustment

The handlebar controls steering and carries key components: display, brake levers, shifter (if equipped), and throttle. Correct installation is critical for safe handling.



Remove Handlebar Clamp

Locate the handlebar clamp at the top of the front fork assembly. Use the supplied Allen (hex) wrench to loosen the four clamp bolts by turning counter-clockwise. Remove all four bolts and carefully lift away the two clamp pieces. Set the bolts and clamp parts aside safely.



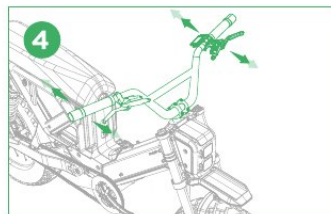
Position the Handlebar

Gently spread the clamp halves so that the mounting groove is exposed. Align the lower cross-bar of the handlebar with the groove on the fork top crown. Slide the handlebar into the groove, ensuring: It is level and not twisted; It is centered; It is perpendicular to the front wheel.



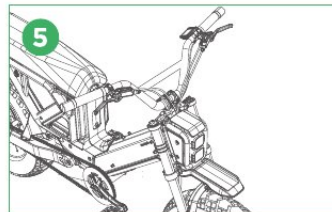
Lightly Tighten the Clamp

Place the two clamp halves back over the handlebar. Insert the four bolts and begin tightening clockwise. Tighten just enough to hold the handlebar, but leave it loose enough so you can still rotate it to adjust angle.



Adjust Handlebar Angle

Sit on the bike in your normal riding position. Rotate the handlebar until you find a comfortable angle where your wrists are straight and relaxed.



Confirm Handlebar Angle

After setting your desired angle, fully tighten all bolts.

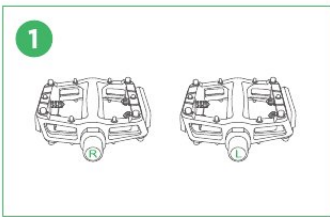
⚠ WARNING Tightening Sequence: Tighten the clamp bolts in a cross pattern (diagonally opposite bolts alternately) so the clamp pressure is even. Gradually tighten each bolt in turn, alternating sides. Do not fully tighten one bolt while others are still loose. When finished, the handlebar must not move or rotate when force is applied. **Safety Test:** Firmly grip the handlebar and try to twist it side-to-side. It must remain completely solid with no movement.

2 Pedal Installation

Left and right pedal threads are different to prevent loosening while riding. Correct installation is essential for safety and drivetrain life.

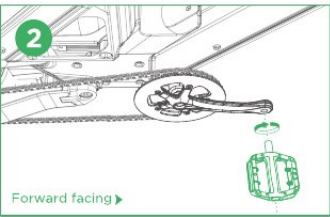
⚠️ WARNING - Thread Damage Risk

Do not confuse left and right pedals. Attempting to force a pedal into the wrong side can permanently damage crank arm threads. Always start threading by hand to ensure correct engagement before using the wrench.



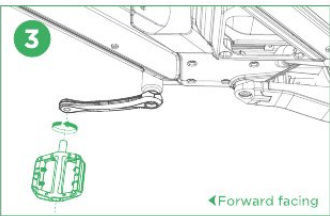
Identify the Pedals

Locate the two pedals in the packaging. Check for markings on the pedal axes: "R" = Right pedal; "L" = Left pedal. Prepare the supplied wrench.



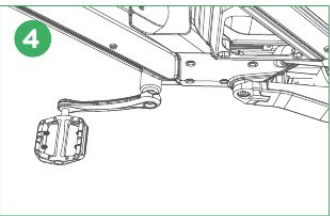
Install Right Pedal (Clockwise)

Find the right crank arm (chain side of the bike). Thread the R pedal into the right crank arm by hand, turning clockwise (toward the front). Once it is smoothly hand-threaded, use the wrench to tighten it firmly (**do not overtighten**). The installed pedal must not wobble or move side-to-side.



Install Left Pedal (Counter-Clockwise)

Find the left crank arm (non-chain side). Thread the L pedal into the left crank arm by hand, turning counter-clockwise (toward the front). This reverse thread is intentional to prevent loosening while riding. After hand-threading, tighten firmly with the wrench, but do not overtighten.



Check Operation

Rotate both pedals by hand several turns. Both pedals should: Spin smoothly without binding; Not rub against the frame; Reach approximately the same lowest point near the ground.

3 Tire Inflation and Wheel Inspection

Proper tire pressure is crucial for safety, handling, and battery range. Your tires are partially inflated for transport but must be correctly adjusted before first ride.

Item	Specification	Notes
Front tire size	20" × 4.0"	Fat tire for increased stability
Rear tire size	20" × 4.0"	Fat tire for enhanced traction
Valve type	Schrader (U.S. standard)	Compatible with most car/bike pumps
Recommended pressure	25–30 PSI	Adjust for rider weight & terrain
Maximum pressure	36 PSI	For initial bead seating only
Minimum pressure	20 PSI	⚠️ WARNING Below this, high risk of "pinch flats"

1 Prepare Pump

Use a pump compatible with Schrader valves. Confirm compatibility before inflating.

2 Visual Inspection

Inspect each tire for cuts, cracks, punctures and sidewall damage. Tires should feel partially firm from factory inflation. If any damage is found, do not inflate or ride. Contact your retailer or PawkyMo support first.

3 Inflate Front Tire to Seating Pressure

Remove the front valve cap. Connect the pump. Inflate to approx. **36 psi (2.5 bar)** to ensure the tire is fully seated on the rim.

4 Check Bead Seating

Look at the junction between tire and metal rim. The tire bead (inner edge) should form a uniform line around the rim. If the bead looks uneven or shows gaps: inflate gently up to 36 psi (2.5 bar) to fully seat the bead. **From factory, beads are seated; this step is a safety re-check.**

5 Adjust to Riding Pressure

Once seated, reduce pressure to **25–30 psi (1.7–2.1 bar)** by pressing the valve core pin to release.

6 Inflate Rear Tire

Repeat Steps **3** – **5** for the rear tire.

⚠️ **The rear tire carries more load and may benefit from slightly higher pressure than the front.**

7 Adjust Pressure based on:

- Rider under 160 lb (72 kg): closer to 25 psi (1.7 bar)
- Rider over 250 lb (113 kg): closer to 30 psi (2.1 bar)
- Soft terrain (dirt/sand): -25 psi for better grip
- Hard surfaces: -30 psi for lower rolling resistance
- Cold weather; pressure drops; check more frequently.

Battery Instructions and Use

This section provides important guidance for using the battery for the first time. Read this section before any assembly or use of the battery.

General Safety Instructions

- Read this manual and all labels on the battery carefully before use.
- Do not subject the battery to severe impact or dropping.
- Keep the battery dry and clean; never immerse it in water.
- Keep the battery away from thinners, alcohol, oil, corrosive agents or other chemicals that may damage the casing.
- After long-term storage, the battery may need several charge/discharge cycles to restore part of its performance.
- Best performance is at normal room temperature: about 68°F ± 5°F (20°C ± 5°C). Recommended storage temperature: 14°F to 86°F (-10°C to 30°C), unless specified otherwise.
- The battery pack contains internal protection devices and circuits.
- Improper disassembly can destroy protection and cause overheating, smoke, deformation, or fire.
- Do not use the battery near open flames, ovens, or at temperatures above 167°F (75°C).
- Overheating may cause internal short circuits and lead to overheating, smoke, deformation, or fire.
- Avoid direct sunlight and large temperature swings.
- Do not connect the positive and negative terminals with metal objects.
- Do not store the battery loosely in a box or drawer where metal items may cause a short circuit.
- Use only the dedicated charger designed for this battery.
- Using a non-approved charger may be dangerous.
- Do not use the battery for other tools or devices.
- Follow special disposal instructions for batteries in your area.
- If electrolyte leaks on skin or clothing, rinse immediately with plenty of clean water for at least 15 minutes. Remove contaminated clothing. Seek medical help if irritation persists in eyes, immediately flush with clean running water for at least 15 minutes. Do not rub eyes, seek medical attention promptly.
- This battery system is not intended for unsupervised use by children or persons with reduced physical, sensory or mental capabilities. Children must be supervised so they do not play with the battery system.
- Do not disassemble, open or crush the battery.
- There are no user-serviceable parts inside.
- Do not keep the battery on charge for excessively long periods when not in use.

- If the charge/discharge terminals become dirty, wipe them with a clean, dry cloth.
- Do not use any product whose seal is broken; arrange proper recycling instead.
- Observe the + (positive) and - (negative) markings when connecting the battery.
- Rechargeable batteries must be charged before first use with the correct charger.
- Do not charge the battery in wet, very humid locations, or outdoors in the rain.
- Fully charge the battery before your first ride.
- Use the battery only for its original intended purpose.
- If any part of the battery or small components are swallowed, seek medical attention immediately.
- Observe the following precautions in case of battery fire: Move other batteries away from the fire source if possible; evacuate all personnel near the fire site; extinguish the fire with a large volume of cold water (at least ten times the weight of the battery pack). If fumes from combustion are inhaled, leave the area immediately, go to fresh air and seek medical attention.
- Do not use the battery if it has any obvious scratches or other external damage, as overheating or explosion hazards may occur.
- **Keep this product manual properly for future reference.**

Battery Operation

Factory Battery Charge Specification

When leaving the factory, the battery charge level is between 35% and 70%. After receiving the battery for the first time, users must fully charge it with the original Bafang charger before installation and use. Afterwards, charging can be done either with the battery mounted on the vehicle or removed separately.

Power On / Off (Battery)

Power ON: Press and hold the button on the battery's LED panel for 3 seconds. When the LEDs flash rapidly and then stop, the battery turns on.

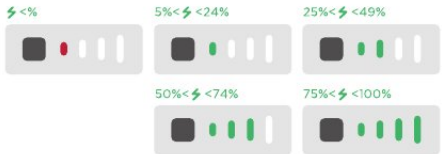
Power OFF: Press and hold the same button for 10 seconds. After the "running light" animation completes, the battery turns off.

Auto Sleep: If the battery is not in use, it will automatically enter sleep mode based on remaining charge level and time.

Auto Sleep	Battery level ≥ 80%	/
	Battery level ≥ 40%	30 days
	Battery level ≥ 10%	14 days
	Battery level ≥ 1%	48 h
	Battery level < 1%	10 min

Battery Level Display (on Battery)

- < 5%: one LED blinking
- 5%-24%: one LED solid
- 25%-49%: two LEDs solid
- 50%-74%: three LEDs solid
- 75%-100%: four LEDs solid

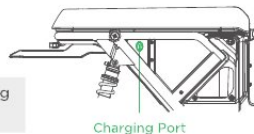


Charger Indicator

Red LED ON: battery is charging

Green LED ON, display 100%: battery is fully charged

Note: The charger can also charge through the frame-mounted charging port, and the two batteries can also be charged separately off the bike.



Environmental Requirements

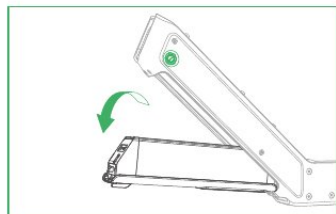
Item	Specification		Remarks
Storage Temperature	≤ 1 month	-20~55℃	Recharge once every six months
	≤ 3 months	-20~45℃	
	≤ 1 year	-20~25℃	
Storage Humidity	≤ 60% RH		
Operating Temperature	Charging	0~40℃	
	Discharging	-20~50℃	
Battery Pack Storage State of Charge	60% - 80%		

Typical Faults & Troubleshooting

Symptom	Possible Cause	Solution
Battery Pack No Output	Battery pack output wire disconnected	Correctly connect the battery pack output wire as required in the manual
	Battery pack fully drained of power	Charge the battery pack
	Battery pack in dormant state, not activated	Activate via charging or button press
	Power lock switched off	Turn on the power lock or switch
Battery Pack Fails to Charge	Loose charger output plug	Check that the charger output connector is firmly plugged in
	Battery pack fully charged	The battery pack can be used normally

For further issues, please contact your dealer store or official technical support staff.

Battery Removal / Installation



Down-Tube Battery - Removal/ Installation

First, support the battery, insert the key into the keyhole and turn it clockwise; the front part of the battery will pop open. Twist the knob at the bottom of the battery to remove the battery. For installation: Align the rear part of the battery with the battery cradle first, then push up firmly on the front section to lock the battery in place.

Comfort Adjustments

For your safety, please bear in mind: The right brake lever operates the rear brake, and the left brake lever operates the front brake.

Brake Lever Angle

Use the supplied hex key to loosen the brake lever clamping bolt. Adjust the angle so your wrist stays natural and straight when your fingers rest on the brake lever. Tighten the bolt once the adjustment is complete.

Display Angle

Sit in your normal riding position and adjust the tilt of the display. Set it to minimize sunlight glare and ensure all data is clearly visible at a glance.

Final Assembly Check

⚠ WARNING Do not operate the e-bike until the final assembly checklist is completed. Any loose bolt or incorrectly installed part can cause serious accidents, injury, or death.

Steering / Handlebar: Handlebar is centered and aligned with the front wheel.

All stem/handlebar clamp bolts are tightened.

Pedals: Both pedals are fully tightened and correctly installed (R on right, L on left).

Pedals spin smoothly without obstruction.

Tires & Wheels: Tire pressure is 25-30 psi (1.7-2.1 bar). Tire beads are evenly seated around the rim with no gaps. Wheels spin true and do not rub against brake pads or frame.

Brakes: Squeeze both brake levers firmly. Levers feel solid and provide strong braking before touching the grips. If levers feel soft or hit the grip, do not ride.

Batteries: Batteries are properly installed and locked with the keys. Charging port covers are fully closed and sealed.

Cables & Hoses: Turn handlebars fully left and right. No cable or hose is pulled tight, pinched, or rubbing dangerously.

Operating Your E-Bike

Pre-Ride Safety Checklist

Complete the below pre-ride checks each time. Discontinue riding if any part operates abnormally.

Item	Display Description
Brake System	Squeeze both brake levers firmly to confirm the motor cuts power immediately, and a clearance is maintained between each lever and handlebar.
Tires	Check that tire pressure is within the normal range (25–30 PSI); inspect tires for punctures or sidewall damage.
Wheels	Verify axle nuts are fully tightened and wheels have no wobble.
Handlebar	Ensure the stem bolts are securely fastened.
Battery	Confirm the battery is fully seated, locked with the key, and the charging port protective cap is closed.
Drive System	Make sure the chain is lubricated and pedals are tight without looseness.
Water Submersion Risk	NOTICE: Do not submerge the motor or battery in water. Avoid riding through water deeper than the bottom of the motor housing.

System Start

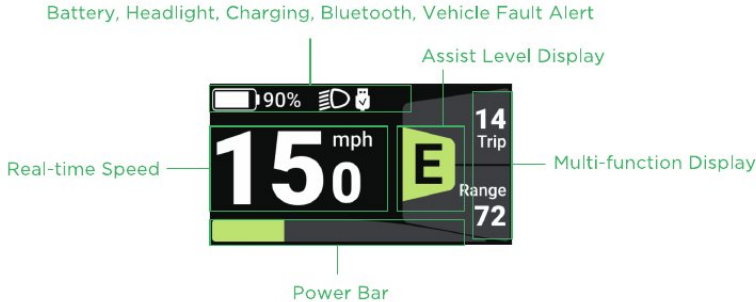
1 Battery installation:

Ensure at least one battery is charged and correctly locked on the bike.

2 Turn on display:

On the left handlebar control pad, press and hold the Power button for ~2 seconds. The LCD turns on and shows the main riding screen.

Lcd Display Interface



Information	What It Shows
Multi-function Display	Shows trip distance and estimated remaining range
Assist Level Display	Shows current assist level (sequence: 0-E-S-B)
Headlight Indicator	Icon lights up when headlight is on, turns off when headlight is off
Charging Indicator	Icon lights up when the USB port is charging
Maintenance Reminder	Maintenance icon pops up when total mileage reaches 5000 km
Bluetooth Indicator	Icon lights up when Bluetooth is successfully paired
Smart Battery Gauge	HMI displays real-time remaining battery percentage (SOC)
Real-time Speed	HMI displays current riding speed
Power Bar	HMI displays real-time motor output power

Handlebar Controls



Basic Operation Instructions

Power On/Off

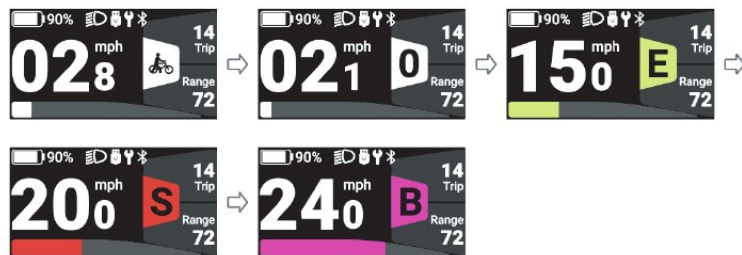
Power On: With the display off, press and hold the Power Button for ≥ 2 seconds. The display will turn on.

Power Off: With the display on, press and hold the Power Button for ≥ 2 seconds to turn it off. If no operation is performed for more than 5 minutes (this duration is customizable), the display will automatically power off.

Selecting Pedal Assist Level

In manual shifting mode, press the (+) or (-) button to change the assist level, which adjusts the motor output power. The lowest assist level is E, and the highest is B (the upper limit can be customized by the user). The factory default assist level is E. Level 0 means no motor assistance.

Level Label	Indicator Color	Level Name & Description
E (Eco)	Green	Eco mode (low power assist, maximum range)
S (Sport)	Indigo	Sport mode (higher assist, climbing/acceleration)
B (Boost)	Purple	Boost mode (full power output, maximum torque)

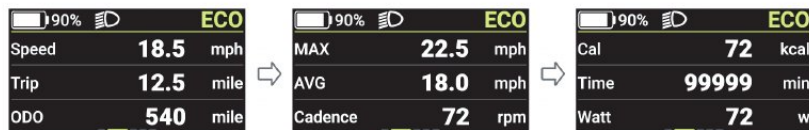


Data Summary Interface

From the main display page, briefly press the Power Button to enter the data summary interface. Repeatedly pressing the Power Button cycles through different data pages.

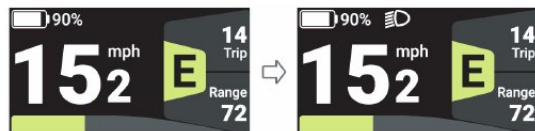
The pages display:

- ① Speed, Trip Distance, Odometer (ODO)
- ② Maximum Speed (MAX), Average Speed (AVG), Cadence (rpm)
- ③ Calories Burned (Cal / kcal), Riding Time, Motor Power (Watt / W)



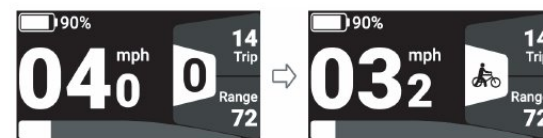
Headlight / Display Backlight Operation

Press and hold the (+) button for ≥ 2 seconds: The headlight turns on, the display backlight dims automatically, and the headlight indicator appears on the screen. Press and hold (+) again for ≥ 2 seconds: The headlight turns off, the backlight returns to normal brightness, and the headlight indicator disappears.



Walk Assist Mode

With the bike stationary, briefly press the (-) button to switch to Level 0. Press (-) again briefly – the bike icon on the screen will stay solid. Then press and hold (-) the icon will flash every 500 milliseconds, and the bike enters Walk Assist mode (when no speed signal is detected, the display shows 2.5 km/h by default). Release the (-) button to exit Walk Assist – the icon stops flashing and returns to solid. If no button is pressed within 5 seconds, the assist level automatically returns to Level 0.



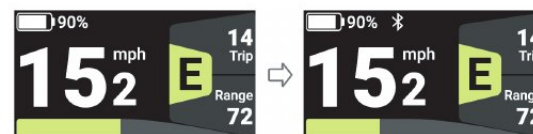
Bluetooth Function

Scan the QR code below to download and install the app. The display can connect to the BafangGo mobile app via Bluetooth. For detailed app functions, please refer to the Bafang App Product Manual.

The following data can be synced from the display to the app:

No.	Data Item
1	Real-time speed
2	Battery remaining percentage
3	Assist level parameters
4	Battery details
5	Sensor signal data
6	Estimated remaining range
7	Calories burned (kcal)

No.	Data Item
8	System component information
9	Operating current
10	Current assist level
11	Trip distance (TRIP)
12	Total odometer
13	Headlight on/off status
14	Error codes



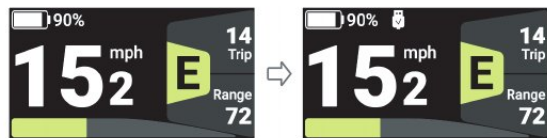
Android



iOS

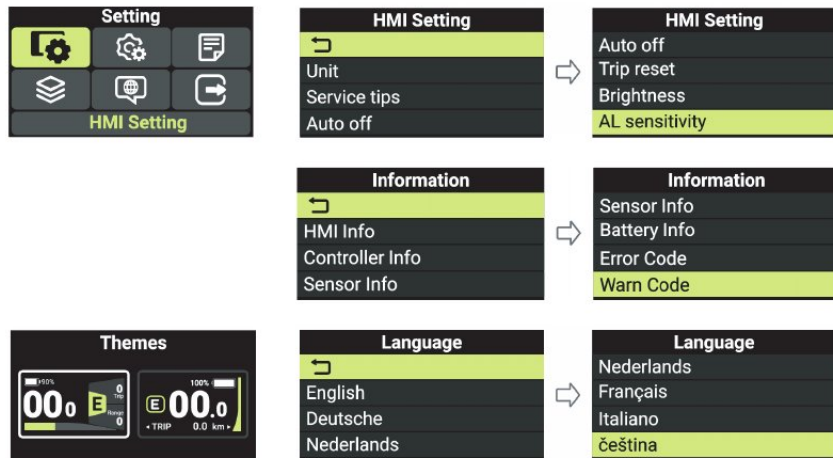
Type-C Charging Function

Connect a Type-C cable to the display to power or charge it. If the display is off, plugging in a Type-C cable will turn it on automatically. Charging specs: Max charging voltage 5V, max charging current 500mA. The USB icon on the screen lights up when the cable is connected.



Information Viewing & System Settings

Press and hold both the (+) and (-) buttons simultaneously to enter the main settings menu. Use the (+) or (-) button to scroll through the following options: HMI Setting, Information, Themes, Language, and EXIT. With an option highlighted, briefly press the Power Button to enter its submenu.



Unit Switching (Metric / Imperial)

Go to the Settings page, use (+) or (-) to select Unit, then press the Power Button to enter unit settings. Use (+) or (-) to choose Metric or Imperial, then briefly press the Power Button to save and return to the unit selection page. To save and return to the main display, press and hold both (+) and (-) simultaneously, or navigate through Back → Exit.

Note: When set to Metric, all data on the main page will be in metric units. When set to Imperial, all data will be in imperial units.

Metric = metric units; Imperial = US customary units.



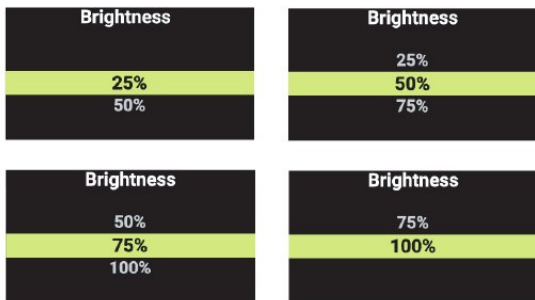
Auto Power-Off Timer Setting

Go to the Settings page, use (+) or (-) to select AutoOff, then press the Power Button to enter the timer settings. Use (+) or (-) to choose from: OFF / 1 min / 2 min / ... / 10 min. Briefly press the Power Button to save and return to the AutoOff option page. To save and return to the main interface: press and hold both (+) and (-) simultaneously, or navigate through Back → Exit. OFF means the auto power-off function is disabled.



Backlight Brightness Setting

Go to the Settings page, use (+) or (-) to select Brightness, then press the Power Button to enter brightness settings. Use (+) or (-) to choose from 100% / 75% / 50% / 25%. Briefly press the Power Button to save and return to the brightness selection page. To save and return to the main interface: press and hold both (+) and (-) simultaneously, or navigate through Back → Exit.



Ambient Light Sensitivity Setting (Auto Dimming)

Go to the Settings page, use (+) or (-) to select AL sensitivity, then press the Power Button to enter this setting. Use (+) or (-) to toggle through sensitivity levels: OFF / Level 1 / Level 2 / Level 3 / Level 4 / Level 5. OFF disables auto dimming. Levels 1-5 represent increasing sensitivity (1 = least sensitive, 5 = most sensitive). Briefly press the Power Button to save and return to the sensitivity selection page. To save and return to the main interface: press and hold both (+) and (-) simultaneously, or navigate through Back → Exit.



Trip Distance Reset

Go to the Settings page, use (+) or (-) to select Trip reset, then press the Power Button to enter this setting. Use (+) or (-) to choose NO or YES:

YES: Confirm data reset

NO: Cancel reset

Briefly press the Power Button to save and return to the trip reset option page. To save and return to the main interface: press and hold both (+) and (-) simultaneously, or navigate through Back → Exit.



Maintenance Reminder Setting

Go to the Settings page, use (+) or (-) to select Service, then press the Power Button to enter this setting. Use (+) or (-) to toggle OFF or ON:

OFF: Disable maintenance reminder

ON: Enable maintenance reminder

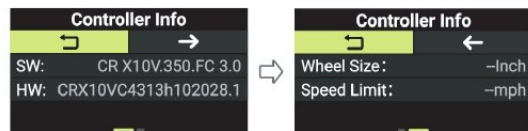
Briefly press the Power Button to save and return to the service option page. To save and return to the main interface: press and hold both (+) and (-) simultaneously, or navigate through Back → Exit.

Note: The maintenance reminder is disabled by default. When enabled, the display (HMI) will show a maintenance icon when the total accumulated mileage exceeds 5000 km.



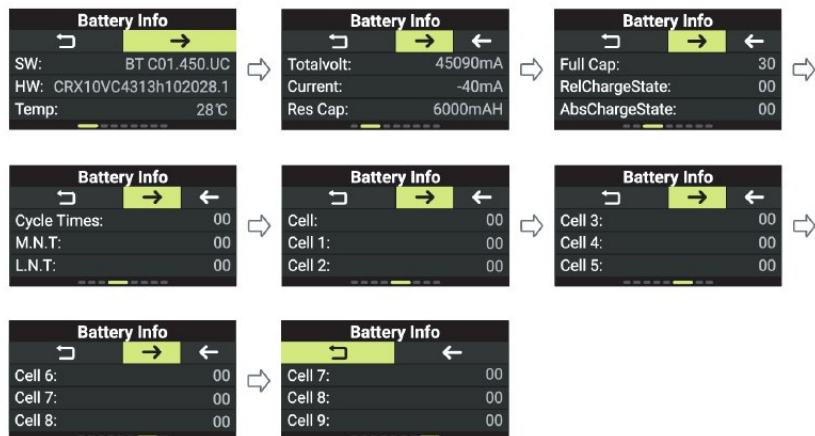
Viewing Wheel Size & Speed Limit

Go to the Information page, select Controller Info, and press the Power Button to enter. Select the arrow icon (→) and press the Power Button again to view Wheel Size and Speed Limit information. To return to the main display: press and hold both (+) and (-) simultaneously, or navigate through Back → Exit.



Viewing Battery Information

Go to the Information page, use (+) or (-) to select Battery Info, and press the Power Button to enter. Briefly press the Power Button again to view battery details. Select the Back icon and press the Power Button to return to the battery info selection page. To save and return to the main display: press and hold both (+) and (-) simultaneously, or navigate through Back → Exit.



Display Code	Description	Unit
Temp	Current battery temperature	°C
Totalvolt	Total battery voltage	mV
Current	Average operating current	mA
Res Cap	Remaining capacity	Ah
Full Cap	Full charge rated capacity	Ah
RelChargeState	Relative state of charge	%
AbsChargeState	Absolute state of charge	%
CycleTimes	Battery charge/discharge cycle count	times
M.N.T	Longest period without charging	Hour
L.N.T	Idle time since last power-off	Hour
Cell	Total number of cells	-
Cell 1	Cell 1 voltage	mV
Cell 2	Cell 2 voltage	mV
...	...	mV
Cell n	Cell n voltage	mV

Viewing Hmi (Display) Version Information

Go to the Information menu, use (+) or (-) to select HMI Info, and press the Power Button to enter. The page displays in order: SW (Software Version) → HW (Hardware Version). Briefly press the Power Button to return to the HMI info option page. To return to the main interface: press and hold both (+) and (-) simultaneously, or navigate through Back → Exit.



Viewing Controller Information

Go to the Information menu, use (+) or (-) to select Controller Info, and press the Power Button to enter. Briefly press (+) to cycle through the displayed content, which shows in order: SW (Software Version) → HW (Hardware Version).

Briefly press the Power Button to return to the controller info selection page.

To return to the main interface: press and hold both (+) and (-) simultaneously, or navigate through Back → Exit.

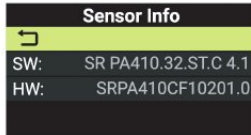


Viewing Torque Sensor Information

Go to the Information page, use (+) or (-) to select Sensor Info, and press the Power Button to enter. The page displays in order: SW (Software Version) → HW (Hardware Version).

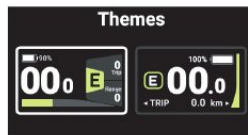
Briefly press the Power Button to return to the sensor info option page.

To return to the main display: press and hold both (+) and (-) simultaneously, or navigate through Back → Exit.



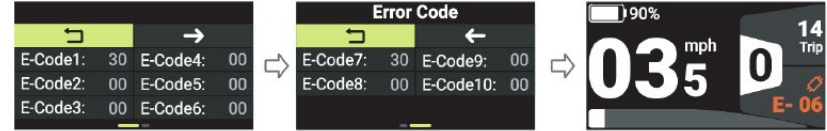
Display Theme Setting

Go to the Settings page, use (+) or (-) to select Themes, and press the Power Button to enter. Use (+) or (-) to select your preferred display theme, then press the Power Button to save. The display will automatically reboot for the change to take effect. To cancel theme changes and return directly to the main interface, press and hold both (+) and (-) simultaneously.



Viewing Historical Error Codes

Go to the Information page, use (+) or (-) to select Error Code, and press the Power Button to enter. Repeatedly press (+) to cycle through the most recent 10 error records, from E-Code 1 to E-Code 10. Briefly press the Power Button to return to the Information menu. To return directly to the main interface, press and hold both (+) and (-) simultaneously.



App Connection

This display can connect to the Bafang Go+ APP via Bluetooth.

The display also features Bluetooth OTA (Over-The-Air) functionality, allowing firmware updates for the display, controller, sensors, battery, and other components through the display's Bluetooth connection.



Android



iOS

Throttle & Braking Techniques

Controlling the speed and braking power of the AR20 requires an understanding of the interaction between the electronic motor cutoff and the mechanical disc brakes.

Throttle Operation

The AR20 has a right-hand twist throttle for on-demand power without pedaling.

Location: On the right side of the handlebar, integrated with the grip.

How to use: Gently twist the inner section of the grip towards you to accelerate.

Throttle is proportional, Small twist = low power; Full twist = maximum acceleration (within system limits).

Dual-motor impact: With dual-motor mode enabled, throttle response is significantly stronger. Before using full power in traffic, practice in an open, safe area.

Release: Releasing the grip returns the throttle to zero and stops motor acceleration.

⚠ NOTE: After initial setup, if turning the throttle does not move the bike, the brake lever sensor may be slightly engaged. Adjust the distance between brake levers and handlebar with the hex bolts so that levers fully release. Any slight pull can be detected as “braking” and disable the motor.

The AR20 uses both electronic motor cut-off and mechanical disc brakes. Understanding their interaction is essential for safe speed control and stopping.

Lever functions

▶ **Left lever:** Front brake

▶ **Right lever:** Rear brake

Motor cutoff function

Sensors are built into both brake levers. The power supply to the motor will be automatically cut off as soon as you squeeze either lever. This safety feature prevents motor output from counteracting the brakes.

⚠ DANGER – Braking Technique

Always use the rear brake (right lever) first or together with the front brake (left lever). Using only the front brake at high speed can lift the rear wheel and may cause a forward flip.

New Brake Pad Bed-In

New brake pads need a break-in period:

Ride at approx. 6-9 mph (10-15 km/h). Perform 20-30 controlled stops, gradually increasing braking force. This beds pads onto rotors, improving braking performance.

Quick brake check before each ride:

Squeeze both levers, they should feel firm. There should be clear braking power before lever touches the grip.

⚠ WARNING

If any brake lever feels soft or can be pulled to the handlebar grip, the brake system is unsafe. Have it inspected, adjusted, or bled by a qualified technician before riding.

Safety & Riding Guidelines

Basic Riding Safety

Your safety is our top priority. Failure to follow the safety guidelines in this section may result in serious injury or death.

Protective Gear

Helmet: Wear a properly fitting, certified bicycle or motorcycle helmet (CPSC/CE). Many e-bike fatalities involve head injuries that could be prevented with helmets.

Clothing: Avoid loose garments that may catch in the chain or wheels. For night or low visibility, wear reflective or high-visibility clothing.

Footwear: Wear closed-toe shoes. Secure shoelaces to prevent entanglement in drivetrain.

Legal Compliance & Classification

Your AR20 complies with multiple e-bike classifications, and it is your responsibility to ensure its legal use on roads, bike lanes, as well as shared paths and trails.

Where permitted, use the PawkyMo or Bafang system to set the bike to the legal speed class for your local area, and check local laws regarding the minimum rider age, helmet regulations and permitted riding areas for e-bikes.

PawkyMo recommends riders be at least 16 years old and requires you to obey all traffic rules covering stop signs, traffic lights and right-of-way regulations.

Remember: e-bikes can be faster than regular bikes, and drivers may underestimate your speed.

⚠ WARNING: Unless your AR20 is equipped with PawkyMo-approved passenger accessories, it is designed for one rider only. Carrying passengers on the rear rack or makeshift seats shifts the center of gravity, lengthens braking distance and significantly increases the risk of accidents.

Maximum Load Limits

Exceeding these limits will alter handling and braking performance, damage the frame or rear rack, and void your warranty for issues caused by overloading.

Recommended maximum load: 400 lb (181 kg).

⚠ WARNING: The total load weight includes the rider, all accessories and any cargo placed on the rack. Overloading may cause frame failure or loss of vehicle control.

Riding In Difficult Conditions

Riding in rain or on wet surfaces is significantly **more dangerous** than in dry conditions.

Braking distance increases: Water on disc rotors acts like a lubricant.

Start braking earlier and apply brake levers smoothly to avoid wheel lock or skid.

Drying the brakes: After riding through puddles or standing water, lightly pump the brakes repeatedly for several seconds to clear the water film and fully restore braking performance.

Reduced traction: Painted lines, metal grates, manhole covers, and wet leaves are very slippery. Avoid leaning heavily or braking sharply on these surfaces.

Visibility: Rain and fog reduce other road users' ability to see you. Always use lights and wear high-visibility/reflective gear.

Electrical protection: AR20 is water-resistant, but not fully waterproof. Do not ride for long periods in water deeper than the bottom of the motor housings. Excessive immersion can cause electrical shorts and permanent damage not covered by warranty.

Riding at night is far **more dangerous** than riding during the day.

Headlight range:  **WARNING** Do not ride faster than the distance illuminated by your headlight. Your speed must allow you to stop safely within the lit area.

Reflectors: Make sure all factory-installed reflectors are clean, correctly positioned, and not covered by luggage, clothes or accessories.

Off-Road / All-Terrain Riding Safety

The AR20 features dual motors and wide tires for versatile performance, yet off-road riding requires specific riding skills.

Loose surfaces (sand, gravel, dirt)

Dual-motor advantage: Dual drive improves traction on loose terrain.

However, full throttle with the handlebar turned can cause the front wheel to pull or dart.

Body position: Keep center of mass low and centered. Lean slightly forward on steep climbs to keep the front wheel firmly on the ground. Shift your weight backward when going downhill to lower the risk of tipping over the handlebars.

Obstacles & Hidden Hazards

Ground clearance: **NOTICE!** Be cautious around rocks, logs, and curbs. Impacting the underside of the bike can damage the battery housing and other parts.

No stunts: **NOTICE!** Do not attempt jumps, trick riding, or extreme downhill. The AR20 is an all-terrain utility e-bike, not a downhill mountain bike. Excessive impact can cause structural frame damage.

Hidden dangers: Stay on known trails. Tall grass can hide holes, wires and large rocks, any of these can cause sudden crashes.

Maintenance & Troubleshooting

Routine Maintenance Schedule

Regular maintenance is essential to keep your AR20 safe and reliable. Following the schedule below also helps maintain warranty coverage and prevents premature wear of high-performance components.

Frequency	Mileage (approx.)	Key Maintenance Tasks
First check	250–370 mi (400–600 km)	Verify all bolt torques; check spoke tension; verify brake pad bed-in
Every 4 months	870–1,000 mi (1,400–1,600 km)	Full safety inspection by a professional bike mechanic
Every 10 months	1,800–1,860 mi (2,900–3,000 km)	Deep clean frame; check all pivots/fasteners for safety
Regular / ongoing	Every ~930 mi (1,500 km)	Check drivetrain wear, lube chain; inspect tire tread & PSI

WARNING – Post-Maintenance Safety

After any maintenance or adjustment, always perform a low-speed test ride in a safe area away from traffic. Confirm that the brakes operate properly, steering remains stable, and the motor cut-off sensors on the brake levers function correctly before resuming normal riding.

Component Inspection & Torque Specifications

Tires & Wheels

Tire pressure: Maintain 25–30 psi (1.7–2.1 bar) for normal use.

 **NOTE:** Insufficient tire pressure greatly raises the risk of snakebite punctures and rim damage, while overinflated tires reduce traction on soft surfaces.

Wheel fastening: Regularly check that axle nuts are tight.

Wheel trueness: Spin each wheel; it should rotate true and round. If the rim wobbles or rubs the brake, have it trued by a professional to prevent uneven wear or loss of control.

Drivetrain & Chain Maintenance

Cleaning: After dusty or wet rides, wipe the chain clean with a dry cloth.

Lubrication: Apply bicycle-specific chain lube to the inner rollers of the chain. Wipe off excess lube to avoid dirt buildup.

Chain tension: Vertical slack should be approximately 0.4–0.6" (10–15 mm). An overly loose chain can derail and damage the drivetrain.

Handlebar, Stem & Cleaning

Alignment: Ensure the handlebar is perpendicular to the front wheel. Check that stem bolts are tight to prevent bar rotation while riding.

Cleaning Hazard:  **WARNING** Do not use high-pressure washers. High-pressure water may seep into motor seals, battery seals, connectors and electronic components, resulting in permanent damage and voiding your warranty.

Brake System Maintenance

Your AR20 uses powerful disc brakes and requires periodic inspection and adjustment. Proper braking is especially critical on a high-torque dual-motor e-bike.

Brake Pad Inspection

Wear limit: Regularly inspect pad thickness. If friction material is **less than 0.04" (1 mm)**, replace pads immediately. Riding with heavily worn brake pads drastically reduces stopping power and may cause permanent damage to brake rotors.

Contamination: Keep brake pads and rotors free of oil, grease and chain lubricant. Even a small amount of oil can cause squealing and major loss of braking force.

Basic Brake Adjustments

Lever travel: If brake levers travel too far toward the grips before delivering effective stopping power, adjust cable tension for mechanical brakes or have a qualified technician perform brake bleeding and fluid maintenance for hydraulic brakes.

Caliper alignment: If you hear rubbing when the wheels spin, loosen the two caliper mounting bolts, firmly squeeze the brake lever to center the caliper on the rotor, and retighten the caliper bolts while holding the lever.

Cleaning rotors: Only use isopropyl alcohol or bike-specific disc brake cleaner. Do not use soapy or automotive cleaners that leave residues.

Motor Cut-Off Sensor Test

Your brake levers contain sensors that cut motor power when braking.

To verify:

Put the bike on a stand so each wheel can spin freely.

Gently apply throttle to spin the wheel.

While the wheel is spinning, pull each brake lever individually.

The motor must stop immediately when the lever is pulled.

 **DANGER!** If the motor continues to run when a brake lever is pulled, do not ride the bike. The sensor may be misaligned or faulty and must be serviced immediately.

Troubleshooting & Error Codes

Your AR20 is equipped with an intelligent monitoring system. If an electrical fault occurs, the display will show a numeric error code alongside a wrench icon. Understanding these codes is the first step to resolving system issues.

Code	Meaning	Recommended Action
E-04	Throttle voltage above upper limit (~4.7 V)	1. Make sure throttle returns fully to zero, then restart system. 2. If not resolved, unplug throttle connector and restart. 3. If still not resolved, contact your dealer.
E-05	Throttle not returning to zero	Same steps as E-04: check return, try unplug/restart, then contact dealer if unresolved.
E-06	Battery voltage below system operating voltage	1. Connect charger and ensure charger is working. 2. Charge battery to at least 30% or for 2 hours. 3. If full battery still shows E-06, contact dealer.
E-07	Battery voltage above system operating voltage	1. Fully charge battery. 2. If issue persists, contact dealer.
E-08	Motor position signal abnormal	1. Check motor cable and connector pins for damage; ensure proper connection to controller. 2. If not resolved, stop use and contact dealer.
E-09	Motor phase line fault	Same as E-08: inspect wiring and connectors, then contact dealer if unresolved.
E-18	Motor overload	1. Restart system. 2. If issue remains, stop using and contact dealer.
E-21	Speed sensor signal abnormal	1. Check display/controller cables and connectors for damage. 2. If not resolved, contact dealer.
E-30	Communication error	1. Restart system. 2. If not resolved, stop use and contact dealer.
E-42	Battery voltage below system operating voltage	1. Connect charger and ensure it works. 2. Charge to at least 30% or 2 hours. 3. If not resolved, contact dealer.

Code	Meaning	Recommended Action
E-45	Battery temperature too high	1. Stop using until battery cools to ambient. 2. If issue persists, contact dealer.
E-46	Battery temperature too low	1. Stop using until battery warms to room temperature. 2.If unresolved, contact dealer.
E-48	Remaining battery energy too low	1. Connect charger, check charger function. 2. Charge to at least 30% or 2 hours. 3. If unresolved, contact dealer.
E-50	Excessive cell temperature difference in pack	1. Stop using and let system rest for ~30 minutes. 2. If unresolved, contact dealer.
E-59	Charger type does not match battery	1. Use only the correct, matching charger. 2. If still unresolved, contact dealer.
W-22	Battery SOC calculation abnormal	1. Restart system. 2. If unresolved, contact dealer.
W-25	Torque sensor signal abnormal	1. Check torque sensor cable and connector pins for damage, ensure correct connection. 2. If unresolved, contact dealer.
W-26	Torque sensor signal abnormal	1. Check torque sensor cable and connector pins for damage, ensure correct connection. 2. If unresolved, contact dealer.
W-33	Brake abnormal	1. Restart system. 2. Check brake lever connectors and cables for damage (from lever to controller). 3. If unresolved, stop use and contact dealer.
W-36	ON/OFF button abnormal	1. If Power button is held too long during startup, this warning may appear; releasing clears it. 2. If unresolved, contact dealer.
W-41	Over-voltage warning during charging	Disconnect charger and stop charging immediately.

Warranty, Registration & Legal

Limited Warranty Policy

The following table summarizes the limited warranty by component. Warranty covers manufacturing defects and performance failures under normal use, not wear-and-tear or misuse.

Component	Warranty Period	Coverage (Non-User-Damage)	Remedy
Motor	24 months	Coil burn, quality or performance issues	Replacement of this part within 2 years. Over 2 year we repair, but will charge repair fee.
Battery	27 months	Capacity or performance failures; if tested capacity < 2/3 rated	27 months warranty, based on the production date from the battery SN (excluded outer shell)
Front / Rear lights	12 months	/	Replace with equivalent
Wiring harness	12 months	/	Replace
Charger	24 months	Performance failure	
Display	24 months	Performance failure, not fixable by software update	Replace
Controller	12 months	Performance failure, not fixable by software update	Replace
Brake levers with cut-off sensor	12 months	Cut-off function failure	Replace
Throttle	12 months	Function failure or abnormal mode switching	Replace
Multi-function switch	12 months	Function failure or abnormal switching for horn/light/turn signals	Replace
Battery lock	12 months	Not user-damaged, key/lock failure	Replace
Frame	5 years	Weld failures, tube/material fractures not caused by misuse	Repair or replace frame
Rigid fork	3 years	Weld failures, tube/material fractures not caused by misuse	Repair or replace
Suspension fork	12 months	Performance failure or damage	Replace
Seat / backrest / rack / cushions	12 months	Performance failure or structural breakage	Replace

Component	Warranty Period	Coverage (Non-User-Damage)	Remedy
Tires & inner tubes	3 months	Material defects causing cracking, puncture, or leakage	Replace
Chain	Material / quality defects only		Replace
Chain cover	12 months	/	Replace
Stem / handlebar	12 months	/	Replace

Disclaimer (Items Not Covered by Warranty)

This warranty does not cover normal wear and tear or damage resulting from improper use.

⚠ WARNING – Actions That Void Warranty

Modifications: Altering the frame, fork, or electrical system (e.g., cutting wires, drilling, rewelding).

Unauthorized components: Using third-party batteries, controllers, or motors not approved by PawkyMo.

When such actions occur, warranty is automatically void and PawkyMo is not responsible for resulting damage or injury.

Registration & Regulatory Information

Product Registration

Requirement: To activate your service plan and receive important safety updates, register your bike as soon as possible after purchase.

How to register: Use the PawkyMo app (where available) to scan bike information and link it to your account.

Serial Number (SN): The unique frame serial number is stamped under the bottom bracket (crank area).

FCC Compliance Statement (USA)

This device complies with **Part 15 of the FCC Rules**.

Operation is subject to the following two conditions:

This device may not cause harmful interference.

This device must accept any interference received, including interference that may cause undesired operation.

Technical Support Contact

If you experience issues not resolved by the troubleshooting section:

Website: www.pawkymo.com

Customer Service Email: support@pawkymo.com

When contacting support, please provide:

- Order number
- Product serial number (bike frame SN, and battery SN if relevant)
- Clear description of the issue and error codes displayed