



NOVA

Electric Bicycle User Manual

SHOKSCOOTERS.COM



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THANK YOU FOR YOUR PURCHASE!

This user manual will help you assemble and operate your SHOK Nova electric bicycle. Be sure to read all of the information in this manual before riding.



RECORD YOUR SERIAL NUMBER

Please take the time to record the following information:

Bike Serial No: _____

Battery Serial No: _____

Model Name: _____ **Purchase Date:** _____

Distributor: _____ **Distributor Contact:** _____

CONTENTS

Introduction	6
Safety Precautions	7
Assembly & Setup.....	8
Charging Instructions.....	11
LCD Display.....	12
LCD Display Interface.....	13
Operating Instructions	14
Riding Tips	15
Maintenance.....	16
Useful Tips	18
Safety Notes	19
Additional Safety Notes.....	20
Specifications	22
Error Codes & Indications.....	23
Parts & Accessories.....	24
Warranty	25

INTRODUCTION

Before using this e-bike please take time to read this manual.

It is the Owner's responsibility to read all of the contents of this manual carefully and to comply with all laws pertaining to the operation of bicycles and/or electric bicycles in your local jurisdiction. If you have any questions consult with your local office for clarification.

- These e-bikes are not classified as motor vehicles; however, various countries have differing laws when driving them on roads.
- DO NOT ride this e-bike until you have read and thoroughly understand the owner's manual. It contains information critical to your safety. If you have questions about the operation of this electric bicycle, consult your authorized dealer. You must follow the safety guidelines contained in this manual to ensure your maximum safety. If you loan your bike to anyone make sure they also know how to operate it safely.
- When using, do not exceed the maximum user weight of 136 kg (300 lbs). Please be aware of increased braking distances during inclement weather conditions.
- This e-bike can be used in the rain, however, it must not be submerged in water or puddles. As a result, the controller, motor, and other electrical devices may be short circuited.
- The exposed metal contacts on the battery box are positive and negative; do not touch them with wet hands.



Caution! Fully charge the batteries before the first use.

SAFETY PRECAUTIONS

- Safeguard your battery to ensure continued high performance. It should be recharged after each use. The normal full-cycle battery life if it is continuously discharged and re-charged is about three years or 800—1000 cycles or recharges, after which the storage capacity of the battery will gradually decline. If it is not fully discharged and is recharged regularly, the service life of the battery will be at its optimum. The batteries supplied are top-quality lithium batteries specifically designed for this vehicle.
- CAUTION! Fully charge the batteries before the first use. Failure to do this can result in decreased battery performance for the life of the e-bike. Fully charge the battery each time you use the bike.
- Battery performance is affected by the temperature and is generally more efficient in warmer temperatures. When the temperature drops below 32 °F (0 °C) the battery current may decrease by a third. Consequently, the travel range on a full charge in cold environments is much less.
- Frequent braking and starting, riding uphill, traveling against a strong wind, starting from a standstill, riding on rough or muddy roads, and carrying more than one person and/or heavy loads will consume extra battery power and shorten the range. A few tips to prolong the battery life during these conditions are as follows:
 - Frequent Braking – try to look ahead and coast rather than stop and go frequently. When riding uphill or against a stiff wind pedal to supplement the battery power.
 - When starting from a standstill use the pedals to help bring you up to speed.
 - When the battery meter indicates the voltage is low, switch to manual power and avoid using the battery so you don't shorten the battery life.
- If the battery is being stored, remove the battery from the bicycle and recharge it every month.
- Always turn off the power and remove the key from the battery before and during charging to prevent damage to the controller and to the batteries.
- This e-bike can be used in the rain, however, it must not be submerged in water or puddles. If submerged in water or puddles, the controller, motor, and other electrical devices may be short-circuited.
- DO NOT use chargers or other components that have not been approved and tested by SHOK. SHOK is not responsible for damages caused by the use of different products not specifically designed and tested for use with this electric bike.
- Battery chargers contain sensitive electronics. Improper use, dropping, or sudden jolts can damage the charger and its internal components.

ASSEMBLY & SETUP

Fender & Headlight Assembly



- 1** Line-up the fender hole with the front fork hole. Insert the support, headlight, and hexagon socket head cap screw. Tighten the screw.
- 2** Line up the fender bracket with the attachment point at the base of the front forks. Insert the hex screw. Tighten.

Front Wheel Assembly



- 1** Remove the nuts from the front axle. Slide the wheel into the slots at the end of the forks. Make sure the brake disk slides into the front brake caliper cleanly.
- 2** Replace nuts and check that the wheel is centered within the fork and the disk is free in the brake caliper. Ensure the wheel turns freely. Tighten the nuts firmly but do not over tighten.

ASSEMBLY & SETUP

Front Wheel Assembly



- 3** Connect both ends of the waterproof motor patch cords according to the direction of the arrows.



- 4** Make sure the patch cord is connected tightly. Loose connections can result in water damage, short circuiting and voided warranty.

Handlebar Assembly



Put the handlebar stem into the frame head tube. Use the M6 wrench, rotating clockwise to tighten and fix the stem in place.

Seatpost Assembly



Position the mounting clamp at the top of the seatpost sleeve. Slide the seat base into the sleeve and set it to your preferred height. Push in the lever on the clamp to lock it in place and secure the seat.

ASSEMBLY & SETUP

Pedal Assembly



- 1** Locate the L and R letters on the pedal axles. L refers to the left pedal and R refers to the right pedal.



- 2** Tighten the right pedal by turning it clockwise. Tighten the left pedal by turning it counterclockwise.

Recommended Torque for Assembly

No.	Parts	Torque Required (N.M)
01	Handlebar	18~25
02	Stem	18~25
03	Saddle	18~25
04	Seat post	18~25
05	Front hub	40~45
06	Rear hub	18~25
07	B.B. Parts	40~45

CHARGING INSTRUCTIONS

1. Out of the box, the battery is only semi-charged. Charge the battery to its full capacity before first use.
2. For the first three charges, charge the battery for at least 12 hours.
3. Put the female plug of the charger into the charging socket of the battery box. Insert the male end of the plug into the outlet. The power is on when the indicator lamp of the charger is on. It is charging when the indicator light is red.
4. When the light turns from red to green, the battery is fully charged.
5. After the green light is on, the charger is in "trickle charge" and will charge slowly and maintain the charge.

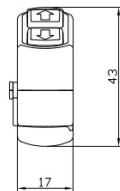
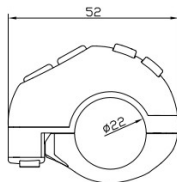


Safety Warnings

- Please make sure that the voltage in your country is suitable for the charger's input/output requirements.
- Please ensure the e-bike power switch is off and the key is removed before charging.
- This charger is recommended for INDOOR use only.
- When charging, keep out of reach of children.
- Repairs to the charger should be carried out by a qualified technician – DO NOT Attempt to repair yourself.
- DO NOT touch the two electrodes on the battery by hand.
- When the bike is not in use, charging the battery at least once every month is recommended; for a minimum of two hours each time.
- DO NOT use non-SHOK recommended chargers.
- Only use this charger in a dry, clean, well-ventilated environment out of direct sunlight.
- DO NOT shake or hit the battery violently.
- DO NOT open the battery casing this will void your warranty.

LCD DISPLAY

The SHOK Nova LCD Display has four buttons, including ON/OFF, SET, UP and DOWN.



Function Summary of Display

Overview

Speed Display	PAS Level Display
Error Indication	Total Mileage
Light Indication	Single Trip Time

Battery Level Display
Single Mileage

Communications Protocol

UART

Control and Settings

Power Switch	Front Light Control
Real-time Cruise Control Setting	Wheel Diameter Setting
Sleep Interval Setting	Backlight Brightness Setting

Voltage Level Setting

LCD DISPLAY INTERFACE

1 Light

Indicates whether the light is on or off.

2 Battery Level

The battery power is indicated by 5 bars, each representing approximately 20% of a full battery.

3 Multi-Function Display

Single Mileage: TRIP

Total Mileage: ODO

Start Time: TI

Battery Voltage: VOL

Error Code: ERROR

Power: WATT

4 Speed Display

Displays the current speed of the e-bike in MPH or km/h.

5 PAS Level

The current level of pedal assist.

6 Cruise Control

The display will calculate the actual travelling speed based on the wheel diameter and signal data (number of magnetic steel is needed for Hall motors).

7 Errors & Indicators

Controller Failure

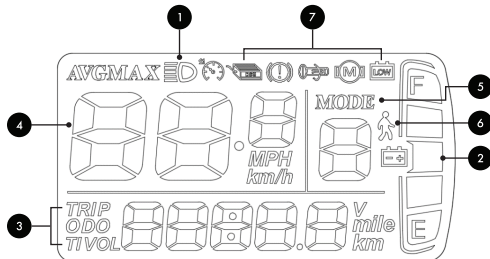
Brake Indicator

Throttle Failure

Motor Failure

Wheel Diameter

Low Battery



Displayed for 1 second at start up.

OPERATING INSTRUCTIONS

- To use the Pedal Assist feature, start to pedal and once you reach 3 mph the motor will begin to assist you to the top speed.
- Throttle: The throttle is on the right-hand side of the handlebars. Turn the throttle grip towards you while seated on the bike. When the grip is fully turned it will assist you to the maximum speed.



To use the throttle pull the grip towards you.

CAUTION: Only use the throttle while seated on the bike.

- If your e-bike is without a throttle, you can use the thumb shifter or the pedals to start.
- The left brake lever controls the rear disc brake, and the right brake controls the front disc brake.
- There is an automatic SHUT OFF of the throttle on the brake levers i.e. every time a brake lever is pressed, the power from the motor is discontinued.
- The maximum load for this bike is 136 kg (300 lbs)
- The maximum load for the rear rack is 25 kg (55 lbs). It is not suitable for installing baby seats or other heavy objects. Frequently check the condition of the bolts on the rear carrier for "wear and tear" and to ensure they are well fastened.

RIDING TIPS

- Before riding, check to make sure the battery is fully charged, that the air pressure in the tires is normal, and the front and back brakes are working properly. Check that the front and back wheels, handlebar, and seat are tightly fastened.
- When climbing steep hills a certain amount of pedaling is advisable so as not to drain the battery power too quickly.
- Remove the battery key when leaving the bike unattended.
- Wear a safety helmet at all times while riding this e-bike.
- Obey all traffic laws relevant to the operation of bicycles and electric bicycles.
- Only one person at a time is permitted to ride this e-bike.
- Avoid deep puddles.
- KEEP both hands on the handlebars at all times.
- DO NOT hang objects on or under the handlebars.
- DO NOT brake suddenly in the rain or on slippery wet surfaces.
- USE extreme caution when near other vehicles. Assume they do not see you, and be careful at junctions and when starting from a stopped position.
- Wear bright clothing to help make you visible to other motor vehicles.
- DO NOT wear loose clothing that can become caught on the e-bike.

MAINTENANCE

- **Wheels:** Wheels should be centered in the fork or dropouts. If you hear any irregular noise from the wheels or brakes, the wheels should be checked and repaired. Regularly check the spokes of the wheels for tightness and rim alignment. The wheels should rotate smoothly without wobbling from side to side. Check the bearing play of the hubs by lifting the bicycle and spinning the wheel. It should continue to spin for several turns after you stop spinning. To check the play of the hubs try to move the rim from side to side between the forks. No substantial play should exist. If you detect play or if the wheel is difficult to turn, the bearings must be adjusted or replaced. To have the hub bearings adjusted for new bearings, contact a local bicycle dealer.
- **Rims:** The rims should be smooth, without cracks, breaks, or bulges.
- **Spokes:** Check the tension of the spokes regularly. The tension should be the same on all the spokes. If there is some minor loosening of the spokes, you may tighten the nipples, but it is recommended that you take it to a bicycle repair shop. If there are loose spokes or if the rim has side play of more than 4mm, immediately have the wheel trued by a qualified technician. Riding with loose spokes may cause the wheel to fail.
- **Tires:** Inflate your tires to the pressure embossed on the sidewall before use of your new e-bike. It is recommended that the tire pressure for your e-bike be at least 45 psi. Every time you ride, make sure the tires are inflated according to the pressure on the sidewall. Improper tire pressure will make riding difficult, and cause excessive wear, and premature failure of the tire. The tire should be properly seated in the rim and the fitting of the tire bead and rim bead should be checked. If the tube is pinched between the rim and the tire, it will fail when inflated. Make sure that the tire is not cracked or worn unevenly. Check for bulges. Check and make sure that the valve stem is straight in the rim. Irregular tires should be replaced immediately.
- **Handlebar and Display:** The handlebar display has been created so that it can easily be seen while riding. Loose or damaged grips on your handlebars are dangerous. If the grip comes off you could lose control of the e-bike.
- **Brakes:** Riding with brakes that are worn or damaged, or with worn cables or wheels in poor condition may result in losing control of your e-bike. Wet weather hinders the brake performance. More distance is required to stop in the rain, or wet or icy conditions. Before each ride, check to make sure the brake cables are free of obstacles and are working properly before operating the e-bike.
- **Batteries:** There is a key to lock your battery onto the bike frame to discourage theft. Do not attempt to open any of these batteries in any way. Doing so may cause chemical, electrical, and/or fire hazards.
- **Lubrication:** Lubricate the front axle, back shaft, pivot, etc. once every three months. Oil the bike chain and brake cable pipe at least once every month.

TROUBLESHOOTING

In the rare occurrence of e-bike malfunction the table below lists potential problems and possible solutions.

Problem	Solution
The switch is turned to the "ON" position, but the e-bike does not work.	Check whether the battery and battery box seat are lined up, and whether the battery box is locked. Check the fuse (inside top of battery box).
After stopping, the e-bike doesn't restart.	Check whether the brakes are stuck.
In "Power mode" the e-bike runs slowly	Is the throttle fully extended/opened? Check to see if the battery is fully charged.
The charger indicator is dimmed and doesn't appear to be charging correctly.	Check whether there is electricity to the charger.
A yellow light is illuminated on the charger while charging.	Check whether the plug end of the charger has been inserted properly.
If the above doesn't solve your problem, or if your particular issue isn't listed here, then call your dealer for assistance.	

USEFUL TIPS

- This user manual should only be used as a reference for the use and functions of the e-bike.
- The images shown may differ from the actual model due to technical improvements.
- We reserve the right to change the model without prior notice due to technical improvements.
- The vehicle has a top-speed limiter for safety purposes. Its removal is strictly prohibited.
- Ensure pre-ride checks are performed before every ride.
- Only allow others who have already been adequately trained on the use and operation of this vehicle to ride.

General Warning

Like any sport, bicycling involves the risk of injury and damage. By choosing to ride an e-bike, you assume the responsibility for that risk, so you need to know — and practice — the rules of safe and responsible riding and proper use and maintenance. Proper use and maintenance of your e-bike reduces the risk of injury.

This e-bike is designed for use by persons 16 years old and above. Riders must have the physical coordination, reaction time, and mental capability to ride and manage traffic, road conditions, and sudden situations. Respect all laws governing bicycle use where they ride, regardless of age.

If you have an impairment or disability such as a visual impairment, hearing impairment, physical impairment, cognitive/language impairment, or a seizure disorder, consult your physician before riding any bicycle.

SAFETY NOTES

A Note for Parents and Guardians

Notes on Helmets

Make sure that you always wear an approved bicycle helmet when riding, but also make sure that you understand that a bicycle helmet is to be used only when bicycling, and must be removed when not riding. A helmet must not be worn while playing, in play areas, on playground equipment, while climbing trees, or at any time while not riding a bicycle. Failure to follow this warning could result in serious injury or death. Do not let a child younger than 16 years of age ride this e-bike.

Additional Notes for Parents

As a parent or guardian, you are responsible for the activities and safety of your child, and that includes making sure that the e-bike is properly fitted to the child; that it is in good repair and safe operating condition; that you and your child have learned and understand the safe operation of the e-bike; and that you and your child have learned, understand and obey not only the applicable local motor vehicle bicycle and traffic laws but also the common sense rules of safe and responsible bicycling. As a parent, you should read this manual, as well as review its warnings and the e-bike's functions and operation.

Safety Notes Before First Use

- This e-bike comes with additional documents and manuals from the manufacturers of the e-bike components. Read these documents before riding this e-bike.
- All users must read this manual before first use.
- Ensure that you comprehend all instructions and safety notes.
- Ensure this e-bike fits you properly before first use. You may lose control or fall if the e-bike is too big or small.
- Always wear an approved bicycle helmet while using this product and ensure that the manufacturer's instructions for first use and continued care are followed.
- Ensure correct tightening and setup are performed on this e-bike and checked regularly.
- Make sure to familiarize yourself with the laws and requirements for operating this e-bike in the area(s) where you ride.

ADDITIONAL SAFETY NOTES

- Ensure the handlebar and grips are not damaged and improperly installed. Loose or damaged grips can cause you to lose control and fall.
- Failure to wear a helmet when riding may result in serious injury or death.
- DO NOT use this product with standard bicycle trailers, stands, or vehicle bicycle racks. Contact the manufacturer to check if your equipment will work with this e-bike.
- Off-road riding requires close attention and specific skills and presents variable conditions and hazards that accompany the conditions. Wear appropriate safety gear and do not ride alone in remote areas.
- Take extra care while riding in wet conditions. Feet or hands can slip in wet conditions and lead to death or serious injury from a fall.
- DO NOT remove the front or rear reflectors or the handlebar bell.
- Lights must be used in addition to reflectors in most locations.
- Engaging in extreme riding is extremely dangerous and should be avoided. Although many articles/advertisements/catalogs depict riders in extreme terrain, this is not recommended nor permitted and you can be seriously injured or killed if you perform extreme riding.
- Bicycles and bicycle parts have strength and integrity limitations and extreme riding should not be performed or you risk damaging the components or becoming seriously injured or killed.
- Failure to confirm proper installation, compatibility, operation, or maintenance of any component or accessory can result in injury or death.
- After any incident, you must consider your e-bike unsafe to ride until you consult with a certified bicycle service provider for a comprehensive inspection.
- Failure to properly charge, store, or use your battery will void the warranty and may cause a hazardous situation.
- Extreme care should be taken when using the pedal assistance sensor on this e-bike. Ensure you understand and are prepared for the power assistance to engage as soon as pedaling is underway.
- You should check the operation of the brake inhibitor switches before each ride. The brake system is equipped with an inhibitor that shuts down power to the electric motor whenever the brakes are engaged. Check proper operation while in a controlled environment by riding slowly with the motor engaged and applying the brake levers.

ADDITIONAL SAFETY NOTES

- Users must understand the operation of the twist throttle and pedal assist sensors before using, and take care in their usage, traveling at speeds appropriate for the area and user experience level. Always use the lowest assist until you are comfortable with the e-bike and feel confident in controlling the power.
- Any changes to the product not expressly approved by the original manufacturer could void the warranty.
- Because electric bikes are heavier and faster than regular bicycles, they require extra caution and care while riding.
- To avoid shock never submerge the electrical components in water or subject them to saltwater environments.

SPECIFICATIONS

Performance Index	Items	Nova
Dimensions	Item dimensions	L: 180 cm (70.86 in) x W: 72 cm (28.34 in) x H: 115 cm (45.27 in) ^[1]
Weight	Item weight	Approx. 28 kg (61.7 lbs)
Riding Requirements	Max load	110 kg (242.5 lbs)
	Age	16–60
	Rider height	150–190 cm (59– 74.8 in)
Main Parameters	Max. speed	32 km/h (19.88 m/h)
	Max. climbing angle	Approx. 20%
	General range	Approx. 45 km (28 mi) with PAS ^[2]
	Traversable terrain	Cement and asphalt roads; obstacles < 1 cm (0.4 in); gaps < 3 cm (1.2 in)
	Operating temperature	-10–40 °C (14–104 °F)
	IP rating/Water Resistance	Harness IP4; Controller IP5
Battery Pack	Voltage	48 V lithium ion battery
	Nominal battery capacity	499.2 Wh
	Battery size	10.4 Ah
	Intelligent battery	Short circuit/under voltage/overcurrent/overcharge/over-discharge protections
Wheel Motor	Rate power	500 W
	Max. power	900 W
Wheel	Tires	26 x 2.0
Charging Adapter	Output voltage	54.6 V
	Output current	2.0 A
	Charging time	Around 5–6 hrs

[1] Item height: from the ground to the top of the e-bike;

[2] General range: measured when there is no wind, at a temperature of 25 °C (77 °F), with the e-bike fully charged, and driven at a even speed of 15 km/h (9.3 m/h) on a flat surface, with a load of 75 kg (165.3 lbs).

NOTE: data and specifications may vary due to different models, and are subject to change without notice.

ERROR CODES & INDICATIONS

Nova Error Codes & Indications

In the rare occurrence of e-bike malfunction, an error code may be displayed on the control panel. The table below lists potential error codes, their descriptions, and possible solutions when troubleshooting.

Error Code	Description
0	Normal
1	Reserved
2	Brake
3	PAS Sensor Failure (riding mark)
4	6 km/h cruise
5	Real-time Cruise
6	Low Battery
7	Motor Failure
8	Throttle Failure
9	Controller Failure
10	Communications Receiving Failure
11	Communications Sending Failure
12	BMS Communications Failure
13	Light Failure

PARTS & ACCESSORIES

Take your ride to the next level with SHOK exclusive safety gear and special attachments. Sold separately.



Helmets



Phone Holders



Bags



Locks



Padding



Seats

WARRANTY

Limited Warranty

SHOK Limited Warranty covers the electric motor, controller, display, front forks, and frame. The manufacturer warrants this product to be free of manufacturing defects for 1 year from the date of purchase on the controller, motor, display, and front forks and for 2 years from the date of purchase on the frame. On manufacturer defects only, does not cover water damage, overloading, impacts, etc. This Limited Warranty does not cover normal wear and tear, tires, tubes, or cables, or any damage, failure, or loss caused by improper assembly, maintenance, storage or use of the e-bike.

To Qualify for Warranty Service:

- The product cannot be modified in any way.
- The product cannot be used for rental or commercial use, or in competition.

Limitations of Liability

- This Limited Warranty is non-transferable after the product's initial sale.
- Units replaced under warranty are not covered by any additional warranty.
- The Warranty is void if the scooter shows visible signs of damage or has been misused beyond what is considered normal use, including water damage.
- Damage due to misuse or neglect, or use other than as specified in the User's Manual, is not covered by this Warranty.
- The Warranty is void if weather-related water damage is determined. The owner is responsible for the storage and protection of the e-bike from the weather.
- This Limited Warranty does not cover minor surface blemishes, rips, tears, or other cosmetic damage due to normal use, nor does it cover any damage that results from aging, such as fading of paint, deterioration of plated surfaces, deterioration of rubber or plastics, or rusting.
- This Limited Warranty will not cover any damage which results from the application of improper cleaners, solvents, or chemicals to the product, water damage, smoke or soot, or exposure to saltwater, sea breeze, or salt.