

SEATEC

Electric bike

with pushing aid
20"



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MANUAL

Rev. 2021



Electric bike

with intuitive support

Electric bike with pushing aid 20" www.svb.de USER MANUAL
Rev. 2021 Electric bike with intuitive support Your Seatec Blizzard Pro electric bike has a 250W motor, which provides acceleration support up to 25 Km/h. The bike offers electric assistance in various levels, which will make pedalling easier depending on the type of rider you are and how you use the bike.

By using the display which is mounted on the handlebar, you can quickly select the level of support desired. The practical display is also used to activate the lights and pushing aid.

The pushing aid accelerates the bicycle to approx. 6 km/h and thus enables easy pushing, e.g. on hills.

Foreword

Dear customer,

Thank you for choosing this Seatec Electric Folding Bike. The electric drive unit was developed specifically for people who want to combine simple operation, compact design and high performance. Now everyone can enjoy the mobility and fun of cycling, even those with health impairments. We hope you enjoy using this e-bike and wish you a safe and accident-free ride!

Your SVB Team

Guarantee

Guarantee In accordance with European law, you are entitled to a statutory warranty of 24 months. The warranty period for batteries is 6 months, as this is a consumable item. Note the further information on the battery in chapter 4. If, contrary to expectations, you are not satisfied and wish to return your bike, you must observe the following: The protective paint covers should not have been removed and the bike should not have been ridden on roads resulting in dirt on the tyres. Any bicycles showing obvious signs of use cannot be returned and will not be accepted. To return it, the bike has to be in its original packaging. Choose a bike that is appropriate to your height and weight. According to DIN EN 14764, the maximum load for adult bicycles is limited to 100 kg. Damage that suggests overload, such as broken pedals, bent seat posts, crooked handlebars, etc., is not covered by the warranty.

Important Information

To avoid operating errors, please read these instructions carefully before first using your electric bike. We recommend that you first familiarise yourself with your new bike without using motorised assistance and get used to functions such as brakes and gears. According to the draft European standard prEN 15195, this SEATEC e-bike with pedal assist and pushing aid is a so-called „EPAC“ (Electrically Power Assisted Cycle) or also Pedelec (Pedal Electric Cycle). It has an auxiliary electric motor drive with a nominal power of 250 watts. The maximum speed is limited to 25 km/h. The motor is activated by pedalling, which means that this top speed cannot be reached by simply activating the drive assistance alone. The cyclist's legs must also do some work. For this reason, pedelecs do not require registration, insurance, driving licences or helmets and are not subject to any age restrictions. By using the gear change, you can choose the pedaling speed in relation to the bicycle speed. The entirety of the electric drive unit is very light and is completely separated from the impeller when the motor is turned off due to a free wheel. This means that, even without using the electric motor, the bicycle is still conveniently easy to use.

The slight resistance that can be felt when pushing the bicycle backwards, as well as the gentle whirring noise of the motor, are design-related and do not represent a defect. Please keep this user manual for future reference.

Sie erhalten das Elektrofahrrad vormontiert und nicht sofort fahrbereit.

Vor der ersten Nutzung sind daher alle Schrauben u.ä. nochmals zu kontrollieren/justieren und gegebenenfalls festzuziehen! Bremsen und Anbauteile sind auf einwandfreie Funktion und korrekten Sitz zu überprüfen. Achten Sie auch auf einen festen und ergonomisch korrekten Sitz des Bedienteils am Lenker.

ACHTUNG: Gewährleistungsverlust bei unsachgemäßer Endmontage.

Your electric bike is delivered pre-assembled and not immediately ready to ride. Before first use, all screws etc. must therefore be checked/adjusted again and tightened if necessary! Brakes and additional parts must be checked for proper function and that they are fitted correctly. Please also make sure that the control unit is fitted and positioned correctly on the handlebars.

ATTENTION: Loss of warranty in case of incorrect final assembly. Make sure you finish setting up the bike before you start using it. Check all screws and familiarise yourself with the folding mechanism. There is a risk of injury in the event of careless, hasty or inexperienced operation. Before placing the bike in a transport bag and taking on board, you should have already checked all the functions of the bike and familiarised yourself with how it rides by taking it for an extensive test run. Before packing in the bag, the pedals must be folded up. If your tyres demonstrate radial/side runout on first use, reduce the air pressure and position the tyre correctly on the wheel rim. Make sure tyre pressure is between 2.8 and 4.6 bar. According to road traffic regulations, every bicycle must be equipped with appropriate lights.

This user manual is not a repair/adjustment manual. If you intend to carry out repairs on your bike yourself, you should have a certain basic knowledge of how to do this or have your bike serviced or repaired by a specialist workshop. Damage caused by improper final assembly is not covered by the guarantee/warranty. Many parts of the bike are standardised and available from specialist dealers. Should a repair specialist not be able to help you with spare parts, we will of course be happy to help. Please bear in mind that this bike is an on-board folding bicycle and should not be compared with a touring bike or mountain bike in terms of handling and stability. Due to the folding mechanism and small size, there are, as a logical consequence, limitations as to how much stress the bike can handle. Excessive strain e.g. full braking when going downhill, pedalling hard while standing or transporting heavy luggage, can lead to damage or even breakages, with the risk of injury. Before each ride, check that all quick release levers are correctly positioned and that the saddle and handlebar are the right height and position. Make sure the folding mechanism is correctly aligned and check that the battery is locked.

If you have any further questions about our products, please feel free to call us. We will be happy to help you.

1. Lock position

On the left side of the bicycle rack there is a lock which locks the battery and secures it from loss and theft. After unlocking, the battery can be removed from the battery chamber, e.g. for charging. .



Abb. 1

Key lock position:

Turn to the right – Battery is locked

Turn to the left – Battery is unlocked

Make sure that the battery is locked before each ride.

2. During operation Before each ride

Check that all quick release levers are correctly positioned.

Switching ON:

First check that the battery is locked (see chapter 1). Activate the main switch on the battery (see fig. 1).

This will simultaneously activate the control panel and the lights. Start your ride. Get on, pedal lightly and select a level of support using the arrow buttons on the control unit.

The electric drive is only activated while pedaling and is immediately deactivated when the brake is applied. Check the tyre pressure regularly. It should be between 2.8 and 4.6 bar. Maximum range can only be reached if tyres are inflated with the correct amount of air pressure.

When riding with electric assistance, the optimal support range is approx. 50-60 pedal rotations per minute. The bicycle is equipped with a 3-speed hub gear (with coaster brake). For more information on how to get the most out of the electric motor, see chapter 3.

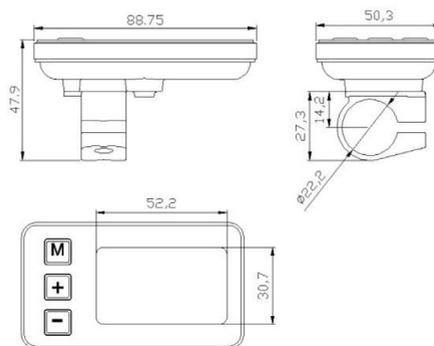
The current battery charge level is shown on the display on the handlebars and can also be viewed on the battery itself. Further information on this can be found in the following chapters.

It is recommended to recharge the battery no later than when the battery's state of charge that is shown on the display starts to flash. You can also see the battery's state of charge on an LED display on the battery itself. To do this, press the „TEST“ button.

3. Display Operation

The display mounted on the handlebar is one of the most important operating devices on your eBike.. It allows you to do the following:

- Show the battery charge level
- Select the level of electrical support
- See your current speed, average speed and maximum speed
- Display trip data (trip distance and total trip distance)
- Display errors
- Access to display and setting parameters (manufacturer or service workshop only)



Dimensions in mm

3.1 User Information

Before using the bike, you should check the display for stable fitting and adjust the viewing angle according to your personal needs.



Be careful! When using the control panel and always pay attention to your surroundings. Do not separate any of the control panel's plug connections while the battery is turned on. Avoid jolts or collision. Always secure your bike from falling over



Do not remove the protection film from the display. The film protects the display from liquids entering.



The display's default settings are set by the manufacturer to match your bike optimally and require no further adjustments.

Any alterations made by yourself can influence the handling of the bike and in the worst case lead to loss of the guarantee. In the event of malfunction, contact your dealer immediately

3.2 Display and operation

After turning on the battery, the control panel starts automatically. If the electric bike is not used for more than 10 minutes, the display switches off automatically.

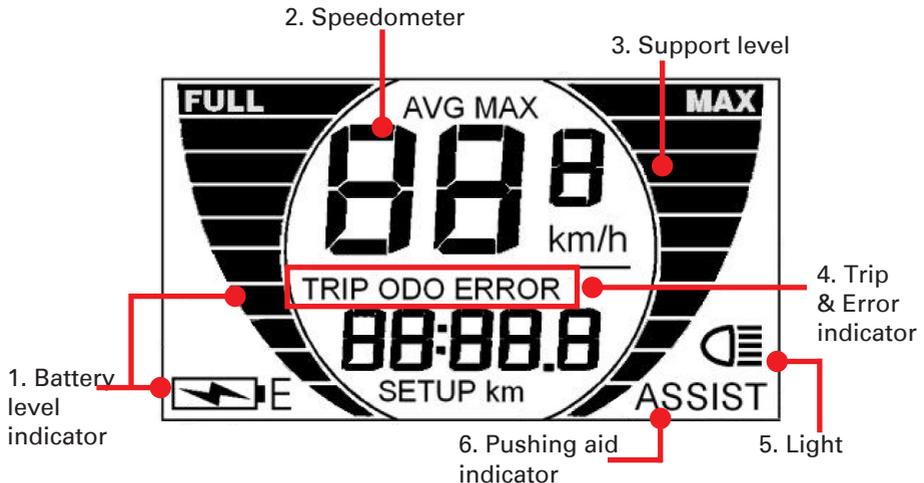
Activating the display:

Push and hold the "MODE" button for approx. 2 seconds.



>Hold for 2 seconds - display is activated

The LCD-Display layout:



1. Akku-Ladezustand

The battery's state of charge is presented in bars. If the battery is completely drained, an „E“ appears next to the battery symbol and you must recharge the battery immediately.

2. Speedometer

After switching on the electric bike, the display shows the current speed. By pressing and holding the „MODE“ and „+“ buttons, you can switch between the following speed displays.



Current speed

Ø Speed

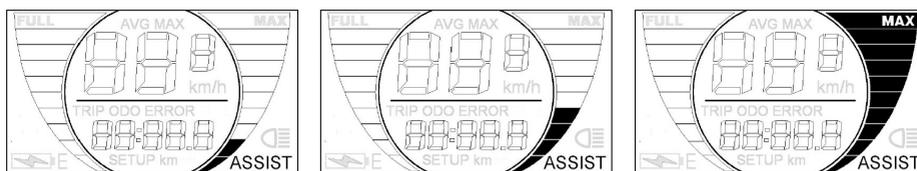
Max. Speed

3. Support Level

Shows the current level of support. Use the „+“ / „-“ buttons to adjust the level of support.

Note:

No support display = no electric drive support



Low support

Medium support

High support

4. Trip & Error Display

Trip-/ Total distance

Press the „MODE“ button to switch between the trip and total distance display.

Note: Reset the trip counter by pressing the „Mode“ and „-“ buttons simultaneously.



Trip Distance (TRIP)



Total distance (ODO)

Error- Display

Should there be a malfunction concerning the bike's electronics, an error code representing the possible cause is displayed.

Should a malfunction occur, please examine the cause and contact your dealer if necessary.

The error code can be displayed numerically or alphanumerically.

Error code key:

Error Code	Error Description
21	electricity/voltage supply
22	Motorcontrol
23	lack of motor control voltage
24	Motor hall sensor
25	Breake sensor
30	Conenction to Controller

5. Lights

This symbol indicates whether the bicycle's lights are switched on or off.

Switch the lights on or off by pressing and holding the „+“ key.

6. Pushing aid indicator



“ASSIST” indicates whether the pushing aid is active.

Sie aktivieren die Schiebehilfe indem Sie die „-“ Taste gedrückt halten.

Note:

The pushing aid accelerates the bicycle to approx. 6 km/h and thus enables easy pushing, e.g. on hills. .

Please note that this is a pushing aid, not a starting aid. Do not use the pushing aid while riding the bike, as this can damage the motor.

4. Folding mechanism

1. You receive your bike in its folded up state. To unfold it, carry out the following steps. Repeat the steps in reverse order to fold it up again after use.



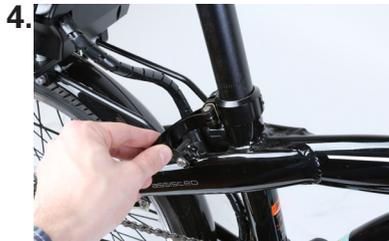
2. Fold out the handlebar and lock it using the quick release fastener (fig. similar).



3. Fold out the kickstand and unfold the bike. Afterwards, lock the frame using the quick release skewer and the locking lever, which locks down automatically. Make sure that there is a slight resistance when locking the quick release skewer, if not, you need to adjust it. Should the quick release require a lot of strength to close or should it not close at all, readjustment is required.



4. Release the saddle tube quick release and adjust the seat height. Afterwards, fix the quick release once more. Keep in mind that the tube is made of black anodised aluminium, and thus is sensitive to scratches*.



5. Fold out the pedals. To fold them up again at a later time, push them towards the bottom bracket.



*Surface damages caused by use are not considered defects and are excluded from warranty/guarantee

5. Battery

You can see the battery's state of charge by looking either at the display on the battery or that on the handlebar (see Chapter 2).



Battery status indicator



Charging port

Make sure that no splash or rain water enters the switch, the charging socket or the battery case over the battery holder. If the bike is placed in the rain, make sure the bike is positioned so that water can only flow out of the battery holder and not into it. If this is not possible, remove the battery and store it in a dry environment.

5.1 Charging the battery

You can charge the battery by removing it from the bike.

1. Unlock the battery (see Chapter 1).
2. Remove the battery from the bracket.
3. Charge the battery.
4. After charging, place the battery back in the bracket and lock the battery bracket.

Charge the battery after every use!

- Only use the provided charger when charging the battery.
- Ideally, charge the battery in room temperature, between 10°C and 45°C in a dry and well ventilated surrounding. First, connect the charger to the battery charging socket. Only after should you proceed to connect the charger to the alternating mains voltage (230V AC). The state of charge is displayed on the charger. When the battery is charged, separate the connections in reverse order. Trickle charging after a long period of non-use, as is common with lead acid batteries, should not apply in this case (see also 5.2)
- Do not use the bike (for testing purposes) while the battery is charging.
- Do not use the charger during thunderstorms.

5.2 Important information concerning the bike battery

As the owner of an Electric Bike you should understand about the properties of lithium batteries.

Please refer to the following information and technical advice.

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Modern battery systems for electric bikes consist of lithium-ion round cells or lithium-polymer flat cells. To achieve the needed output voltage and capacity, the battery is equipped with multiple cells that are arranged in parallel and series circuits. The lithium batteries are equipped with control electronics which ensure that the cells are charged evenly.

Lithium batteries have a very high energy density with small dimensions and low weight. This causes the batteries to be sensitive. Bicycle batteries are designed with important safety requirements as standard. Nevertheless, you should take special care with batteries. Improper use causes damage and poses risks. We are not liable for any damage caused by incorrect handling.

The warranty period of the battery is 6 months.

Note the following recommendations. Failure to observe can lead to a shortened lifespan, in extreme cases to complete failure after only a few uses and thus to the loss of entitlement to warranty/guarantee claims!

- **Do not ride until the battery is completely empty but charge frequently between use.** Small, frequent charges extend the lifespan. To see the state of charge, check the display on the handlebar or on the battery.
- Avoid unnecessary strain on the battery. If you are using a bike without electric drive, change to a low gear when starting, ascending a slope or in strong headwind. If you choose a high gear, it will be difficult to pedal and you will feel excessive strain.

When using the electric drive to start, ascend or in strong headwinds, the motor can do the required work even in higher gears, however, this strains your battery.

For these reasons, it is advisable to use the gear change when starting, ascending and in strong headwinds.

- The electric drive is most efficient at 50 to 60 pedal rotations per minute. Only change to a higher gear when you have exceeded this number of rotations.
- Regularly examine the tyre pressure. A semi-flat tyre increases resistance and reduces battery range
- Using the device in a temperature range between 0°C and approx. 40°C is best for the battery
- Charging is easy on the battery within temperatures of 20°C (room temperature), **never under 0°C**.
- During longer breaks between uses (1 to 2 weeks) only stow the batteries halfway charged and in approx. 20°C (+/-5°C) and at normal humidity. After 2 months, it should be recharged for approx. 2-3 hours using the corresponding charger. Attention: just recharge, do not fully charge Maintenance, storage and transport Storage:

Attention: just recharge, do not fully charge Maintenance

Maintenance, storage and transport

Storage:

Over extended periods of time, lithium batteries should be stored not fully but halfway charged.

Procedure:

Charge the empty lithium battery approx. 2 - 3 hours using the charger. After charging, separate battery and charger from each other and store in a dry and well ventilated place. Despite minor self-drain, this procedure should be repeated every 2 months.

Storage conditions for the lithium battery and charger:

Surrounding temperatures of - 5°C to 55°C and humidity from 5 % to 75%. If the battery is out of use for more than a month (winter break), the ideal storage temperature is approx. 20°C (+/-5°C). If you want to store the battery in a garage or a basement, please consider the humidity. There should be no aggressive/corrosive liquids or objects within the surroundings of the place of storage. The place of storage needs to have sufficient distance from strong heat sources or open fire. .

Maintenance:

Clean the lithium battery with a damp cloth. Please regard the general safety notes Pay special attention to dusty/sticky deposits around the electric connectors. Here, current leaks can occur and lead to draining of the battery. Make sure that no water can enter the switch and keep the battery chamber dry. .

Transport:

Due to the low flashpoint* of the lithium part, lithium batteries are classified as part of the category hazardous materials (flashpoint lithium = 170° C). The transport of lithium batteries by land (car, bus, etc.) should be done in stable container. The battery connectors are to be secured from possible short circuits. During transport the container should protect the battery from vibrations, heavy collisions or deformation.

The container should be stored in a cool place in the vehicle and be exposed to neither sun nore rain.

The transport of big lithium batteries* by air partly demands strict safety precautions. You can get more information from your airline.

*Batteries with more than 8 grams of lithium count as "big". Depending on the battery's performance (watt-hours) it is possible to determine the amount of lithium. 100 Wh equate to approx. 8 grams of lithium. You can calculate the value of your lithium battery by multiplying the ampere-hour value with the nominal voltage. (e.g. 8,7Ah x 36 V = 313 Wh; equates approx. 25 g lithium).

General safety notes

- **Never short-circuit the PLUS and MINUS contacts on the charger or the main contacts on the back of the battery**
- Never discharge the battery via the charger contacts
- Do not charge the battery via the main contacts on the back of the battery.
- Keep sufficient distance from strong heat sources or open fire.
- Do not expose the batteries to strong vibrations, impacts or high pressure
- **Use the battery in mostly dry conditions.**
- Make sure that no rain or splash water can enter the switch or the connector area
- The main contacts on the back of the battery should never be exposed to rain or water of any kind.
 - Water entry, saltwater or similar liquids can lead to an incorrect charging current / charging voltage. In the worst case the battery could overheat, catch fire or explode.

- Use (drain) the battery in surrounding temperatures from - 20°C to 55°C and humidity up to 75%..
- Always keep batteries and chargers out of the reach of children.
- **During longer breaks from usage, remove the battery from the bike bracket and stow it separately as explained previously.**
- Never open, deconstruct or modify the battery - risk of fire / explosion.
- A defective fuse may only be replaced with one of the same value.
- Do not use the battery if you notice corrosion, smells or excessive heat
- Should outages occur continuously, please inform your specialised dealer or a qualified work shop
- Never use water or other liquids to cool an overly heated battery or to put it out during a fire.
- Do not use damaged or deformed batteries (e.g. after an accident/fall). An internal short-circuit may cause the battery to overheat after a few hours. Remove the damaged battery from the bike and store it outside on fireproof ground or in a fireproof container.
- Damaged / deformed batteries should not be used anymore but disposed of.



This marking indicates that this product must not be disposed of with other household waste within the EU. To avoid possible damage to the environment or people, it is recommended to support the sustainable use of materials through recycling. To dispose of the appliance, use the local recycling system or contact your retailer. Make sure that defective batteries are not disposed of in household waste, but are disposed of properly (taken back by retailers, municipal hazardous waste disposal, etc.). Before transporting or disposing of the battery, tape the battery terminals with insulating tape to prevent accidental short-circuiting.

6. Tyres

20" x 2,125, Tyre pressure: 2,8 - 4,6 bar

7. How to achieve the highest range

- Fully charge the battery after every trip
- Avoid permanent use of high support levels when riding.
- Avoid starting when the 3rd gear is engaged and a high support level is selected. This results in the highest battery drain.
- Use the gear change and adjust the support level according to your needs.
- Regularly check the tyre pressure.
- Oil the chain every 400 km.

8. Care instructions

To guarantee a long lifespan for your electric bike, please keep these important instructions in mind. Make sure to dry your bike and wipe off dirt after use. If the bike has had contact with salt water, immediately clean the electric bike with fresh water.

Regularly use proper care products to protect it from possible corrosion. If you plan on stowing the bike in a bag, provide sufficient ventilation to prevent corrosion damage. Chain, motor and electric parts should be examined and maintained regularly.

For the protection of cables, electric plugs and electric contacts we recommend „Wet.Protect“ Itm. no. 68127. For the mechanic parts „Marine-Spray“ Itm. No. 16616. Douse the entire bike without the spray trickling down.

Be especially attentive when dousing the cracks and joints. Prior to use, the bike should be cleaned once. Delicate parts such as the chain, spokes nuts and siren ropes can be protected with one application of marine grease. The same preventive care should be carried out before the winter.

Stainless steel demands precautionary care as well. Without proper care, even stainless steel can display flash rust or crevice corrosion within just a few weeks. Insufficient care can lead to corrosion. Warranty claims on account of corrosion will not be accepted. Time and again there are reports in the media about bicycle accidents caused by material fatigue, etc.. Please make sure you check the frame, handlebars and rims at regular intervals for any deformation or cracks.

Subject to technical changes.

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