This manual is intended for the following Avalon model:

E-Motive

Thank you for choosing an Avalon electric bike. This manual also serves as a guide for enjoyable and safe use of your electric bike.

This manual is universal for all Avalon models. You may come across information that does not apply to your specific bike. As you read through the manual, you will discover which information is relevant to your chosen Avalon model.

Please read this manual carefully and in its entirety before using the bike for the first time. For your own safety, check that all components are in good condition and securely mounted.

During an initial test ride, we recommend getting accustomed to the brakes. Depending on the model chosen, the braking force may vary. Excessive braking can result in skidding and a fall, so it's wise to get a good feel for the braking power of your bike before hitting the road.

Reduce your speed on slippery surfaces such as wet, snowy, icy, or muddy roads and maintain a greater distance from the vehicle in front, as your braking distance may be significantly longer.

Although this bike can perform well in rainy and snowy conditions, ensure that no water enters the motor or controller. This can likely cause damage to the electronic system. Therefore, avoid riding through puddles as much as possible.

If you wish to remove, open, replace, or adjust parts, we recommend seeking assistance from a specialist with the appropriate knowledge, skills, tools, and spare parts.

Do not allow anyone who is unfamiliar with how this bike functions to ride it.

We wish you a wonderful cycling experience and hope that your Avalon bike contributes positively to it.

Important before using the bike

MANUAL

All Avalon electric bikes are classified as "pedelecs," meaning the motor is only activated when you pedal (in accordance with the European standard EN-15194).

Only the walk assist mode can function without pedaling, with a maximum speed of 6 km/h.

Avalon's top models use a mid-drive motor, which is directly integrated with the pedals. In addition to the motor's different position, some of these bikes feature a different sensor that measures the force applied to the pedals and amplifies it. The amount of assistance provided depends on the selected support level.

General technical specifications

- Dimensions (LxWxH): 1900x700x1180
- Weight: 25 kg
- Maximum speed: 25 km/h +/- 10%
- Maximum load capacity: 120 kg
- Average range with full battery: On average, we estimate approximately 4 kilometers per Ah.
- Average energy consumption per 100 km: 700 W
- The mentioned values apply to: New battery - Normal load - No external weather influences - 25 degrees Celsius ambient temperature - Dry flat road

Technical specifications of the 2A charger

- Charging time with an empty battery: Approximately 1 hour per 2Ah.
- Input voltage: 230V/50Hz
- Maximum charging power: 65W

Technical specifications of the battery

- Battery type: 31V +/- 1V
- Voltage: 36V
- Capacities for battery in carrier (12, 15, or 18Ah): Respective capacities of 432Wh, 540Wh, 618Wh
- Capacities for battery in frame (15 or 20Ah): Respective capacities of 540Wh or 720Wh

Technical specifications of the control unit

- Undervoltage protection: 31V +/- 1V
- Overcurrent protection: maximum 13A

Technical specifications of the mid-drive motor

- Motor type: DC servo motor, brushless, low noise
- Continuous rated power: 250W
- Nominal voltage: 36V
- Nominal/maximal output torque: 42Nm/80Nm
- Motor efficiency: 81% (+/- 5%)

Technical specifications 2ort he front hub motor

- Motor type: DC servo motor, brushless, low noise
- Continuous rated power: 250W
- Nominal voltage: 36V
- Nominal/maximal output torque: 22Nm/40Nm
- Motor efficiency: 78% (+/- 5%)

The design of all Avalon electric bikes is based on ergonomic principles, mechanical properties of the materials used, and the physical characteristics of humans, resulting in the best possible riding characteristics.

- The intelligent design of the bike and the thoughtfully selected and applied components result in a safe bike with excellent riding characteristics and easy operation.
- The lithium batteries used by Avalon are of the latest generation (NiMnCo) and deliver the most energy in the most compact housing possible while maintaining good performance at low temperatures. The battery offers durable use and is environmentally friendly.
- The bike is built on an aluminum frame, which is lightweight, handy, and strong, ensuring a long lifespan.
- The maximum speed at which the motor is engaged is 25 km/h, fully complying with the EN-15194 standard that defines the requirements for electric bikes. This guarantees the safety of our bike users.
- The achievable range with a full battery depends on the load, road conditions, number of starts and stops, tire pressure, the level of assistance set on the bike computer, and the user's charging and maintenance practices. For more information, please refer to our website.

Battery and Range

One topic that is most discussed both before purchasing a bike and during the use of an already purchased bike is the battery range. Below, we explain the Avalon standpoint. Important: For an accurate reading of the remaining battery capacity, it is necessary to fully discharge and fully charge the battery three times so that the smart battery controller can calibrate correctly.

Avalon only uses A-brands in the assembly of its bikes, and this certainly applies to the batteries. They are usually the most expensive component of the bike and therefore deserve extra attention. The range of a full battery cannot be specified in advance, only as an approximation. As an example, we deliver our bikes with a tire pressure of 4 bar. If this pressure decreases to 3 bar, it still feels like a hard tire but the range will decrease by approximately 25%, depending on the rider's weight.

There are countless factors that can positively or negatively affect the range. The most important ones are: proper use of gears, rider's weight, tire pressure, freewheel resistance of the wheel and gear hubs, brake freewheel, selected assistance level, frequent stops at traffic lights, frequent changes in speed, headwind or tailwind, uphill and/or downhill riding, type of surface, dry or wet conditions, degree of pedaling effort, battery age, and many other smaller influences. Based on the above, it is not possible to provide a guaranteed range. Experience shows that a 10Ah battery can cover a distance ranging from 30 to 100 kilometers. The lower end of the range (30 kilometers) applies to a heavier rider consistently using the highest assistance level, only two gears, and riding at top speed. The upper end of the range (100 kilometers) is achievable by a lighter long-distance rider who stops infrequently, uses all gears, and sets the assistance level no higher than level 2, while also providing some pedaling power. Avalon does not guarantee specific distances but does guarantee the proper functioning and capacity of the battery. However, the warranty for capacity has limitations as it is considered a consumable part. On average, a battery can be recharged approximately 600 times. Both the age and the number of charge cycles have a negative impact on battery capacity. Under normal use and maintenance, the capacity decrease will average between 5% and 10% per year. However, very intensive use of the bike can result in a capacity decrease of 15% or more per year,

solely due to cell wear. If a bike, and therefore the battery, is not used for an extended period of time, it should be periodically connected to the charger. We recommend a maximum interval of 2 months. It is preferable to store the battery in a frost-free environment. Always make sure that the battery is not deeply discharged. If the battery is not charged for an extended period, it can become deeply discharged, and the charger may no longer be able to recharge it. This can result in battery failure. In some cases, a specialist may be able to reactivate the battery, but unfortunately, this is not always possible. Deep discharge is not covered by the warranty provided by Avalon to its customers. Avalon also cannot guarantee that a deeply discharged battery can be reactivated. If the battery can be reactivated, it is not known if there is any permanent damage to the cells. Therefore, it is crucial for the user to take good care of the battery. Avalon offers various battery capacities so that customers can choose the capacity that best suits their usage type.

Charging the battery:

- When charging the battery, make sure the bike is turned off.
- First, connect the charger to the battery and then plug it into the power outlet.
- Preferably, place the battery horizontally (as it is installed in the bike, definitely not upside down).
- Place the charger on a level surface.
- After charging, disconnect the connectors in reverse order.
- Charging time depends on the battery capacity, the level of discharge, and the charger being used.

Battery-related tips

- Ensure a fully charged battery before embarking on a long trip.
- Rough terrain, challenging surfaces, and hilly or mountainous roads result in significantly higher energy consumption.
- Frequent speed changes lead to increased energy consumption.
- The more weight on the bike, the higher the energy consumption.
- Proper maintenance, a clean bike, properly inflated tires, and regular lubrication (as specified later in this manual) contribute to lower energy consumption.
- Regularly check if the front and rear wheels spin freely when the brakes are not engaged. Adjust the brakes regularly.
- A lower assist setting provides less motor power and therefore requires less energy from the battery, resulting in greater range.
- As the battery becomes emptier, the voltage drops along with the available power. You may notice a decrease in motor power while riding as the battery level decreases.
- Warranties for a battery become void immediately and unconditionally if it is deeply discharged. Batteries, in general, do not tolerate deep discharge. Ensure that this NEVER happens. If you will not be using the bike for an extended period, never leave the battery in the bike without periodically charging it.
- Placing the charger and battery near heat sources is dangerous and strongly discouraged.
- The lifespan of the battery depends on how it is handled. Follow the instructions in this manual for charging. Additionally, never drop, shake, or strike the battery.
- Opening the battery and separating its internal segments is not allowed under warranty conditions. An opened battery is never covered by warranty.

Battery charger

- Your Avalon bike battery is a Lithium-Ion battery. This type of battery requires a specific type of charger. Always use a charger that is 100% the same type and brand. Using an incorrect charger for charging the Avalon battery can result in overheating, fire, or even an explosion. If your charger is defective or lost, contact your supplier for a proper replacement.
- Charge the battery when it is not in use. You can decide to charge the battery while it is in the bike or after removing it from the bike.During charging, the battery and the charger should not be placed near flammable substances. Always ensure that children cannot access the charger while it is charging the battery.
- The charging time of the battery depends on the remaining energy in the battery, the battery capacity, and the charger capacity. When the battery is fully charged, the LED will change from red (charging) to green (ready). Then, unplug the charger from the power outlet and then from the battery.
- Do not leave the charger connected to the battery longer than necessary. You can start a charging session in the evening and end it in the morning.
- It is normal for the battery and the charger to become warm or hot during the charging process. Ensure that the battery remains connected to the charger for at least 12 hours during the first 3 charging cycles.
- The charger has an LED indicator. If it is red, it means that it is supplying power to the battery and the battery is not fully charged yet. Once the battery is fully charged, the LED will change to green.
- Never attempt to open the casing of the charger yourself. If necessary, have it serviced by a qualified person.
- Avoid touching the battery's contact points with your hand or any tools or materials.
- Prevent any materials or liquids from entering the charger. If this happens, do not use the charger until it has been inspected by a qualified person.
- Ensure that the charger has sufficient cooling while it is charging. The charger should have a clearance of 200mm on all sides for proper cooling.
- The charger is intended for indoor use only.

E-Motive Display



- Model: DP C10.CAN BUS

- The housing is made of PC and acrylic and

- the buttons are made of silicone.

- The marking on the label looks as follows



Specifications

- Operating temperature: -20℃～45℃

- Storage temperature: -20℃～50℃

- Water resistant: IP65

- Humidity: 30%-70% RH

Functional Overview

- Speed display (including real-time speed (SPEED), top speed (MAXS) and average speed (AVG), switching between km and miles)

- Switching between km and miles

- Battery capacity indicator

- Automatic sensors for lighting system

- Brightness setting for backlight

- Indicator for assistance level

- Walking assistance

- Mileage (including single trip distance, total distance)

- Display of remaining range (depending on your driving style)

- Engine power indicator

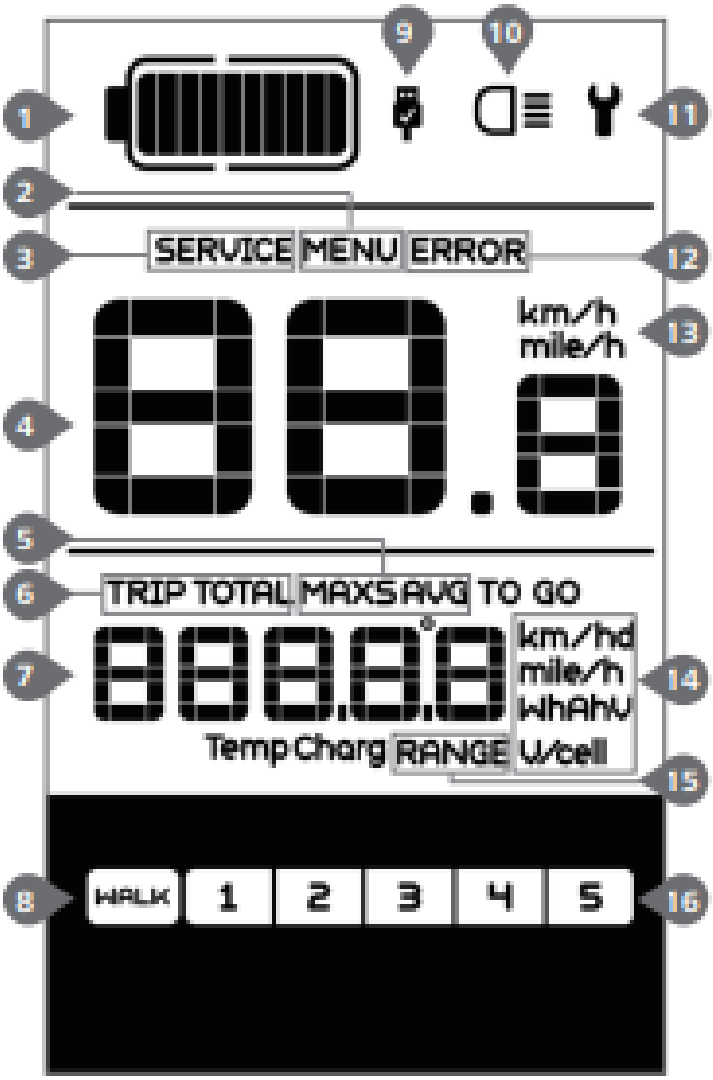
- Energy consumption indicator in calories (Note: if the display has this function has this function)

- Error message display

- Maintenance

- USB charging function

DISPLAY



1 Real-time display of battery capacity.

2 Menu.

3 Maintenance: see the "Maintenance" section.

4 Digital speed display.

5 Speed mode, top speed (MAXS) - average speed (AVG).

6 Mileage, daily mileage (TRIP) - total mileage (ODO).

7 Data: display the data of the current mode.

8 Walking aid .

9 The USB charging indicator displays the icon when an external USB device is connected to the display.

10 The display shows this icon when the lighting is turned on.

11 Error indicator .

12 Error code indicator .

13 Speed unit.

14 Unit indicator.

15 Remaining range (RANGE).

16 Support level.

Normal operation

Turning the system on/off Press and hold “power” on the display to turn on the system. Press and hold “power” again to turn the system off. If the "auto power off time" is set to 5 minutes (can be set with the

"Set auto power off" function See "Set auto power off"), the the display automatically turns off within the desired time when not in operation.If the password function is enabled, you must enter the correct password to go to the basic screen.

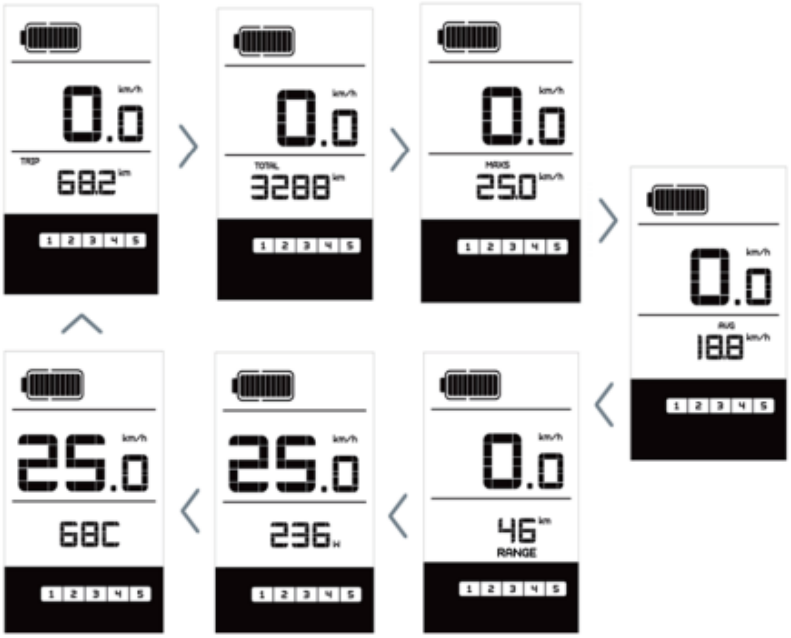
Selection of support levels.

When the display is on, press – or + briefly to change the support level. change. The lowest level is 1, the highest level is 5. When the system is turned on, the the assistance level defaults to level 1. There is no support when the support level is set to level 0.



Mode selection

Press briefly “i” to view the different travel modes. Trip: daily mileage (TRIP) - total kilometers (ODO) - maximum speed (MAX) - average speed (AVG) – remaining range (RANGE) - output power (POWER) - energy consumption (C (only with mounted torque sensor)).



Headlight/tail light

Press and hold “headlight button” to turn on the headlight and taillight. Press and hold “headlight button” again to turn off the headlight. The brightness of the tail light can be set in the Settings under 'Brightness'. When the display/pedelec is turned on in a dark environment, the backlight of the display/headlight is automatically switched on. If the display/headlight backlight is manually switched off, the the automatic sensor function is deactivated. You can only turn on the backlight manually. After turning on the system again.



Walking aid

You can activate walking aid only with an upright pedelec. Activate: Press briefly - until level 0 is set. Then briefly press - , the symbol “walk” is displayed. Press and hold - then press to activate the walking aid function. The symbol “walk” flashes and the pedelec moves forward at a speed of approx. 6 km/h. After you release the button, the motor stops automatically and the pedelec switches back to level 0 (if no other option is activated). If no speed signal is detected, the display shows 2.5km/h.

Battery capacity indicator

The battery capacity is displayed with ten bars. Each full bar represents a remaining percentage of battery capacity. If the indicator frame flashes, indicates that the battery is empty (as shown in the table below):

Bars Capacity Range



10 ≥90%

9 80%≤C<90%

8 70%≤C<80%

7 60%≤C<70%

6 50%≤C<60%

5 40%≤C<50%

4 30%≤C<40%

3 20%≤C<30%

2 10%≤C<20%

1 5%≤C<10%

Flashing C<5%

USB charging function



If an external USB device is connected to the display, the USB icon appears and the device is charged. The maximum charging voltage is 5 V and the maximum charging current is 500 mA.

SETTINGS

After the display is turned on, briefly press “i” twice to open the 'MENU' open. You can now press – or + to select and reset options. Then briefly press “i” twice to confirm the selected option and return to the main screen. If no buttons are pressed for 10 seconds are pressed in the "MENU", then display automatically returns to the main screen and no data will be saved.



Display settings

Resetting odometer readings

When the system is switched on short press “i” twice to open the 'MENU'. open, the message 'tC' appears on the display (as shown below). Use – or + now to select 'y' or 'n'. If you select 'y', the daily number of kilometers (TRIP) - the maximum speed (MAX) and average speed (AVG) are reset.

Once you have made your selection, press short press “i” twice to save your selection and and return to the main screen or you can briefly press “i” to save your selection and go to the next item 'Selections in km / miles'.



NOTE: If the daily mileage reaches 99999 km, this value is automatically reset.)

Selections in km/miles

When the system is switched on press “i” twice briefly to open the "MENU". open. Press “i” repeatedly until 'S7' appears on the display (as shown below). Now use – or + to select from 'km/h' or 'mile/h'.

Once you have made your selection, press “i” twice to save your choice and save your choice and return to the main screen or you can briefly press “i” once briefly to save your choice and go to the next item 'Setting setting" item.



Setting light sensitivity

When the system is turned on short press “i” twice to open the 'MENU'. open. Press “i” repeatedly until 'bL0' appears on the display (as shown below shown). Then press + to increase or - decrease the value up or down (the light sensitivity can be set to 0-5). Select 0 to turn the light sensitivity off.

Once you have made your selection, press “i” twice briefly to save your choice and and return to the main screen or you can short press “i” once to save your choice and return to the main screen. once briefly to save your choice and go to to the next item 'Set setting' item.



Setting display brightness

When the system is turned on short press “i” twice to open the 'MENU'. open. Press “i” repeatedly until 'bL1' appears on the display (as shown below shown). Then press to increase + or - decrease value (the brightness can be set from 1-5). Once you have made your selection, press “i”twice briefly to save your choice and and return to the main screen or you can short press “i” once to save your choice and return to the main screen. to save your choice and go to the next item "Display brightness".



Setting auto power off

When the system is turned on short press “i” twice to open the 'MENU'. open. Press “i” repeatedly until 'OFF' appears on the display (as shown below). Then press to increase or decrease the value (the value can be set from 1-9 minutes). Once you have made your selection, press “i” twice briefly to save your choice and and return to the main screen or you can briefly press “i” to save your choice and go to the next item 'Maintenance Tip'.



Maintenance Tip

When the system is turned on press “i” twice briefly to open the "MENU open. Press “i” repeatedly until 'nnA' appears on the display (as shown below). Then press + or - to select between '0' and '1'. Select 0 to turn off the notification. Once you have made your selection, press “i” twice to save your choice and save and return to the main screen.



NOTE: If the maintenance function is enabled, the indicator ' ' every 5000 km (mileage higher than 5000 km) is displayed when turned on.

Viewing information.

All data under this item cannot changed and can only be viewed.

Wheel circumference

When the system is turned on press “i” twice briefly to open the "MENU open. Press “i” repeatedly until 'LUd' appears on the display (as shown below). Once you have viewed the desired information desired information, short press “i” twice to save save your selection and return to the main screen or you can short press “i” once briefly to move to the next item 'Speed Limit' item.



Speed Limit

When the system is on short press “i” twice to open the 'MENU'. open. Press “i” repeatedly until 'SPL' appears on the display (as shown below illustrated). Once you have viewed the desired information, briefly press “i” twice to save your selection and return to the main screen or you can briefly press “i” to go to the next item 'Controller hardware information'.



Controller hardware information

When the system is powered on short press “i” twice to open the 'MENU'. open. Press “i” repeatedly until 'CHc (Controller Hardware check)' appears on the display appears (as shown below). Once you have viewed the desired information, briefly press “i” twice to save your selection and return to the main screen or you can briefly press “i” to go to the next item 'Controller software information'.



Controller software information

When the system is turned on short press “i” twice to open the 'MENU'. open. Press “i” repeatedly until 'CSc (Controller Software check)' appears on the display appears (as shown below). Once you have the desired information viewed, briefly press “i” twice to save your selection and return to the main screen or you can briefly press “i” to go to the next item 'Display hardware information'.



Display hardware information

When the system is turned on press “i” twice briefly to open the 'MENU'. open. Press “i” repeatedly until 'dHc (Display Hardware check)' appears on the display appears (as shown below). Once you have viewed the desired information, briefly press “i” twice to save your selection and return to the main screen or you can short press “i” to move to the next item 'Display software information' item.



Display software information

When the system is turned on press “i” twice briefly to open the 'MENU'. open. Press “i” repeatedly until 'dSc (Display Software check)' appears on the display appears (as shown below). Once you have viewed the desired information desired information, briefly press “i” twice to save your selection and return to the main screen or you can short press “i” to move to the next item 'BMS hardware information'.



BMS hardware information

When the system is turned on short press “i” twice to open the 'MENU'. open. Press “i” repeatedly until 'bHc (BMS Hardware check)' appears on the display appears (as shown below). Once you have viewed the desired information, briefly press “i” twice to save your selection and return to the main screen or you can briefly press “i” to move to the next item 'BMS software information'.



BMS software information.

When the system is turned on, press “i” briefly press twice to open the 'MENU' open. Press repeatedly until 'bSc (BMS Software check)' appears on the display appears (as shown below). Once you have viewed the desired information desired information, briefly press twice to save your selection and return to the main screen or you can briefly press once briefly to move to the next item 'Sensor hardware information'.



Sensor hardware information

When the system is turned on short “i” press twice to open the 'MENU'. open. Press “i” repeatedly until 'SHc (Sensor Hardware check)' appears on the display appears (as shown below). Once you have viewed the desired information, briefly press “i” twice to save your selection and return to the main screen or you can short press to move to the next item 'Sensor software information'.



NOTE: This information is not displayed if there is no torque sensor is present in the drive system.

Sensor software information

When the system is turned on, press “i” twice briefly to open the "MENU. open. Press “i” repeatedly until 'SSc (Sensor Software check)' appears on the display appears (as shown below). Once you have viewed the desired information desired information, briefly press “i” twice to save your selection and return to the main screen or you can short press “i” once briefly to move to the next item 'Battery information'.



NOTE: This information is not displayed if there is no torque sensor is present in the drive system.

Battery information

When the system is turned on press “i” twice briefly to open the "MENU open. Press “i” repeatedly until 'b01' appears on the display (as shown below). You can briefly press to view all information about the battery. Once you have viewed the information you desired information, short press “i” twice to save your selection and return to the main screen or you can short press “i” once briefly to move to the next item 'Error codes'.

Message Explanation

b01 Current temperature (°C)

b04 Total voltage (V)

b06 Average current (A)

b07 Remaining capacity (A/h)

b08 Full charge capacity (A/h)

b09 Relative state of charge (%)

b10 Absolute state of charge (%)

b11 Cycles (number)

b12 Maximum time not charged (Hour)

b13 Recent time not charged (Hours)

d00 Number of battery cells

d01 Cell voltage 1 (m/V)

d02 Cell voltage 2 (m/V)

dn Cell n voltage (m/V)

NOTE: If no data is detected, '--' is displayed.

Error Codes

When the system is on, press “i” twice briefly to open the 'MENU'. open. Press “i” repeatedly until 'E00' appears on the display (as shown below shown). You can briefly press “i” to view the last ten error codes 'EO0' through 'EO9' to 'EO9'. The error code '00' indicates that there is no error. Once you have viewed all the information, briefly press “i” twice to return to the main screen.



Lighting:

All Avalon bikes have front and rear lights that are controlled through the display and powered by the main bike battery. The lighting operates through the central battery, which also powers the motor, so no separate dynamo is used. Even if the main battery is too low to power the bike, the lights will still work. The lights, both front and rear, are LED lights and therefore energy-efficient. For your own safety, please ensure that the lights are always functioning properly.

Safety: You can choose to always turn on the lights for your safety. It is recommended to avoid riding in dark and wet conditions as much as possible.

For your own safety, we advise you to maintain a sufficient distance from any vehicles in front of you, ensure that you are visible, and consider wearing reflective clothing.

Parking your bike:

When parking your bike, turn off the power to protect the battery. You can do this via the display. If the bike is not used for 10 minutes, the display will automatically turn off the bike.

Your bike is equipped with an AXA Victory ART-approved lock. Always lock your bike to prevent theft. AXA also offers an optional plug-in cable that can be used to secure the bike to a lamppost or another bike. Ask your dealer about this.

Using the provided key, you can open the lock to remove the battery from the slot, for example, for storage during extended periods when you won't be using the bike or during cold weather. During use and storage in public spaces, the battery should be locked with this lock to prevent theft.

Avoid leaving your bike outside when it is raining or snowing to prevent moisture (condensation) from affecting the electronics.

If you have used your bike in wet conditions, we recommend storing, cleaning, and drying your bike indoors. The bike can withstand cold or very hot conditions, but the battery is more sensitive. In such circumstances, it is better to remove the battery from the bike and place it somewhere at room temperature.

Insurance:

We recommend taking out damage and/or anti-theft insurance for your bike. Your authorized dealer, where you purchased your Avalon bike, will certainly be able to assist you further.

WARNING

When you are ready for your first ride on the bike, be cautious and prepared, as the bike rides significantly faster than a regular bike due to the assistance of the motor.

Before using your bike for the first time, please read all the instructions in this manual carefully and ensure that the bike, handlebars, saddle, etc., are properly adjusted.

Take your first test ride in an area with plenty of space. Make sure you can gradually get used to riding with pedal assistance. This bike responds entirely differently than a conventional bike without pedal assistance. After a few rides, you will be completely accustomed to this luxurious way of cycling and can confidently take to the road.

- Make sure not to fully lock the brakes. If you need to brake, apply even pressure to both the front and rear brakes. The front brake has more power, but if it locks, it can be more dangerous as it may cause you to lose control of the bike and even fall.
- If you exceed the speed of 25 kilometers per hour, the controller will reduce the motor power. Legally, 25 kilometers per hour is the maximum speed at which the motor is allowed to provide assistance.
- When you stop cycling (keep the pedals still or no longer apply force to the pedals), the motor will stop driving after a short delay.
- On slippery, muddy, and uneven roads, we advise you to use the bike without pedal assistance.
- If malfunctions occur in the pedal assistance system or elsewhere in the electrical circuit, we recommend turning off the battery to prevent further damage.
- Our bikes are equipped with original Shimano components for the gears. You can switch between different modes according to your preference using the control unit on the right handlebar.
- The bike is intended for a single rider only. Make sure the bike is never overloaded beyond what has been indicated to prevent damage to the motor and battery.
- Always signal in advance when you are turning left or right during cycling or when you want to stop in an unexpected location.
- Maintain focus while cycling. Avoid cycling over potholes, loose gravel, oil, wet road markings, snow, drainage channels, and other obstacles.

Maintenance:

Your electric Avalon bike is designed for use by one person under normal road conditions. Using this bike in extreme conditions such as off-road use, jumping, and carrying heavy loads can seriously damage the bike and even cause injuries. Of course, the bike is not designed to withstand such stresses.

When cleaning the bike, NEVER use pressurized water. This water can enter sensitive areas and cause malfunctions in the electrical circuit as well as rust formation. Use a clean damp cloth to clean the bike. Do not use aggressive or acidic cleaning agents, as they can damage the bike's finish.

Try to avoid using the bike in rain and snow. If unavoidable, clean and dry the bike after use.

If the motor makes an unusual noise, it should be repaired or replaced. Avoid further use to prevent potential subsequent damage.

Ensure that the controller remains clean and dry during daily use. Avoid vibration and shocks to prevent damage to the controller.

WARNING:

Avoid excessive lubrication, especially on the brakes. If lubricants come into contact with the brakes, it will significantly increase the braking distance. This can cause injuries to riders and bystanders. An excessively lubricated chain can throw oil droplets onto undesirable areas such as pedals, brakes, rims, etc.

If there is oil on the rims, tires, brakes, and/or pedals, wash it off with hot water containing liquid soap. Once the oil is removed, rinse everything with clean water and then dry the bike.

Use light machine oil (W20) and follow the provided instructions for lubricating the various bike components.

Before each ride, it is important to perform the following safety checks:

Brakes:

- Check if the front and rear brakes are working properly.
- Ensure that the brake pads are properly engaging the rims (only applicable if your bike is equipped with rim brakes).
- Check the brake cables. They should move smoothly and should not be damaged.
- Check the brake levers, which should move smoothly and be securely fastened.

Wheels and Tires:

- Check the tire pressure. It should be close to the specifications indicated on the tire.
- Check if the tires have sufficient tread and are not damaged.
- Inspect the rims and ensure that they are free from contact with the brakes and do not wobble when spinning (only applicable if your bike is equipped with rim brakes).
- Check if all the spokes are properly tensioned and not damaged.
- Ensure that the wheel bolts are tightened securely. If your wheels are attached with quick releases, make sure they are properly tightened and in the closed position.

Handlebars:

- Check if the handlebars are in the correct position and securely tightened, so they do not move while riding.
- Ensure that the handlebars are aligned with the front wheel.
- Verify that the handlebar clamp is properly tightened.

Chain:

- Check if the chain is adequately lubricated, clean, and running smoothly.
- Extra attention is required in wet and dusty conditions. Regular inspection is recommended.

Bearings:

- Check if the bearings are adequately lubricated, move smoothly, and do not have any play or make rattling noises.
- Pay particular attention to the headset bearings, pedal bearings, bottom bracket bearings, and wheel bearings.

Bike Axle and Pedals:

- Check if the pedals are securely attached.
- Check if the bike axle is securely mounted and does not have any play.

Gears:

- Check if the gear mechanisms are properly adjusted and functioning as intended.
- Verify that the gear shift operation is smooth and accurate.
- Ensure that the gears, shifters, and cables are adequately lubricated.

Frame and Fork:

- Inspect the frame and fork for any damage or breakage.
- If there are any broken or bent parts, they should be replaced.

Accessories:

- Check if the lights are functioning properly.
- Ensure that all reflectors are visible.
- Verify that all other bike attachments are securely tightened and properly installed.
- Ensure that the rider wears a bicycle helmet.

Warranty:

The warranty is void if the user does not have the bike inspected and, if necessary, adjusted by a professional bike mechanic at least twice a year. Only factory defects are covered by the warranty, not damages or technical problems that cannot be attributed to the factory. The same applies to the battery.

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Serial number of your bike: _____

Serial number of your battery: _____

Date of purchase of your bike: _____

Information from your dealer: _____

ERROR CODE DEFINITIONS

The display can show the errors of a pedelec. If an error is detected, the wrench icon appears on the display and one of the following error codes are displayed.

Note: Read the description of the error code carefully. If you see the error code, restart the system first. Contact your dealer if the problem is not resolved.

Error code Explanation Troubleshooting

04 The throttle does not return to the correct position.

- Check that the throttle lever goes back into the correct position, if the situation does not improve, install a new throttle. (only if this function is present)

05 Throttle lever error.

- 1. Check the plug or cable of thethrottle lever if they are properly attached.
- 2. Disconnect the throttle lever, if the problem still occurs contact your vendor. (only if this feature is present)

07 Overvoltage protection.

- 1. Remove the battery.
- 2. Reinsert the battery.
- 3. Contact your salesperson if the problem persists.

08 Fault with the hall sensor signal in the motor.

- Contact your vendor.

09 Error with the motor phases.

- Contact your vendor.

10 The temperature in the motor has reached its maximum protection value reached.

- 1. Switch off the system and let the Pedelec cool down.
- 2. Contact your salesperson if the problem continues to occur.

11 The temperature sensor in the motor has an error.

- Contact your salesperson.

12 Error with the current sensor in the controller.

- Please contact your vendor.

13 Error with the temperature sensor in the battery.

- Contact your vendor.

14 The protection temperature in the controller has reached its maximum protection value.

- 1. Turn off the system and let the Pedelec cool down.
- 2. Contact your sales representative if the problem continues to occur.

15 Error with the temperature sensor in the controller.

- Contact your vendor.

21 Speed sensor error.

- 1. Restart the system.

- 2. Check that the magnet on the spoke is aligned with the speed sensor and that the distance is between 10 mm and 20 mm.

- 3. Check that the connector of the speed sensor is correctly connected.

- 4. Contact your dealer if the problem persists.

25 Torque signal error.

- 1. Check that all connections are properly connected.
- 2. Contact your vendor if the problem persists.

26 Speed signal from torque sensor has an error.

- 1. Check the speed sensor connector to make sure it is correctly connected.
- 2. Check the sensor for signs of damage.
- 3. Contact your salesperson if the problem persists.

27 Over current, current, from controller.

- Contact your vendor.

30 Communication problem.

- 1. Check that all connections are properlyconnected.
- 2. Contact your vendor if the problem continues to occur.

33 Brake signal has an error. (If brake sensors are mounted)

- 1. Check all connectors.

- 2. Contact your vendor if the problem persists.

35 Detection circuit for 15V has an error.

- Contact your vendor.

36 Detection circuit on control panel has an error.

- Contact your vendor.

37 WDT circuit is faulty.

- Contact your salesman.

41 Total battery voltage is too high.

- Contact your salesperson.

42 The total voltage of the battery is too low.

- Contact your salesperson.

43 Total battery cell power is too high.

- Contact your vendor.

44 The voltage of the single cell is too high.

- Contact your salesperson.

45 The temperature of the battery is too high.

- Contact your salesperson.

46 Battery temperature is too low.

- Contact your vendor.

47 Battery SOC is too high.

- Contact your vendor.

48 Battery SOC is too low.

- Contact your vendor.

61 Switch detection faulty.

- Contact your vendor. (only with this feature)

62 Electronic derailleur cannot release.

- Please contact your vendor. (only with this function)

71 Electronic lock is jammed.

- Contact your vendor. (only with this function)

81 Bluetooth module has an error.

- Contact your vendor. (only with this function)