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 kreutzer



E-PACK

e-bike user manual



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## 1 Timyo e-pack set

You have purchased an e-bike, equipped with a Timyo e-bike system. We are pleased to welcome you as a customer and trust that you will enjoy many years of your assist system. In addition to information about adjustment options for your electric assistance system, we would also like to briefly present our company to you.

### 1.1 Timyo the e-bike company

In a world full of dramatic change with new mobility requirements and market approaches, we develop high-end e-bikes and systems. We love technology, something that has been embedded in our origins and culture. Our goal is to develop e-bikes, introduce new technologies, and continuously improve and refine our production processes. We build close relations with our customers and end-users to provide e-bikes that closely match the user to increase the pleasure of e-biking.

We are a Chinese company without borders and we also own a wonderful company in Roosendaal. It makes us proud to develop and produce fantastic products together with our clients and staff. We put the social interest first with the aim of offering everyone access to e-bike mobility. Mobility is in our heart!

### 1.2 Timyo E-pack

We have made a selection from the best products to create a complete e-bike set. Then we developed a proprietary software shell around this set that communicates smoothly with the various components such as the engine and the display, with the controller at its heart. This distinguishes the set from everyday sets - with a favorable price-quality ratio. And in compliance with the latest standards! Because safety comes first. For example, our batteries are equipped with advanced software that protects the battery against improper use (Battery Management System - BMS).

#### Assistance

Perhaps the most important element for you, is that the set offers wonderful assist, under all circumstances and conditions. Advanced settings combined with sensors that register what you want, whether it's a leisurely cruise or just a little boost. Your system responds instantly and you feel you are assisted. Up to no less than 25 km/h. That's really fast, you know! You will experience all this.

### 1.3 Kreutzer

Convenient assistance in cycling within any form of bicycle mobility is Kreutzer's mission. Developing fully advanced e-bike sets is in our genes. Kreutzer develops high-quality powerful e-bike sets with a long life span and high energy efficiency.

#### Specialist

In addition to employing our own research people, we work with specialists in the entire field; from the battery cell to the software that makes our assistance feel so comfortable. This gives that specific and familiar feeling of being assisted when riding an e-bike equipped with one of our sets.

#### Innovation

Kreutzer is a premium brand developed on the basis of existing techniques and in close cooperation with Bafang. High-end displays, batteries, controllers and drive systems that work together smoothly and are designed to provide the user with optimal assistance that feels instantly familiar, offering maximum assistance when required.

Kreutzer is committed to safety and quality. Our systems are all developed around the can-bus system, which is also used in the automotive industry. This means proper communication between

all specific components, and that the system can be fully read out, so that any problems can be quickly detected and resolved. New technologies are constantly emerging. Kreuzer offers you the world of tomorrow.

## 1.4 Manufacturer's company details

Timyo B.V.  
Stepvelden 1  
4704 RM Roosendaal  
Netherlands  
T: +31 (0) 165 224 612  
E: support@timyocycle.com  
I: www.timyocycle.com

### Disclaimer

All information, illustrations and specifications in this manual were correct at the time of publication. However, as our models are subject to development, there may be slight differences from the actual product. Also, published images may differ slightly from the original product.

## 1.5 Important instructions

Please read carefully all warnings and notes in this owner's manual before using the electric e-bike. We recommend that you keep the owner's manual near your electric e-bike so that you always have it at hand. This user manual contains four different types of instructions - one provides important information about your new electric e-bike and how to use it, one refers to possible damage to or loss of your property and/or harm to the environment, and the third type is a warning against possible falls and significant damage, losses and physical injury. The fourth reminds you that it is necessary to study the user manual and assembly instructions carefully.

Whenever you see these symbols, there is always a risk that the described hazard will occur.

The alerts are classified as follows:



### Note

This symbol provides information on how to use the product or highlights specific parts of the user manual that are particularly important.



### Pay attention!

This symbol warns of misuse that could result in damage to the product or harm to the environment.



### Danger!

This symbol indicates possible hazards to your health and even to your life that may arise if certain actions are not carried out and the appropriate precautions are not observed.



### User Manual

Please read all user manuals supplied with the e-bike. If you have any questions about the topics discussed in this manual, consult a specialist e-bike dealer for assistance.

## 2 Introduction

This part of the user manual gives you detailed information about the electrical parts of the engine.



To use the e-bike in accordance with the law, a mandatory user manual for the technology of the e-bike (in accordance with the ISO standard 4210:2014 must be enclosed and handed over to you.

Before you start, read the original user manual and the general operating instructions carefully. The manufacturer accepts no liability for damage resulting from the failure to follow these instructions. Your e-bike should only be used in accordance with its intended use.



Any other use may lead to technical malfunctions and accidents. Liability for defects and warranty are not valid in case of misuse.

## 3 Safety instructions

### 3.1 General information

When using the product, make sure you follow the instructions in the user manual correctly.



Make sure you read the chapters '**before first ride**' and '**before every ride**' in the general user manual before using the e-bike for the first time.



If you lend your e-bike to a third party, give them this user manual along with the e-bike. After you have read the user manual, keep it in a safe place for future reference.

### 3.2 For your safety



Always apply the e-bike's brakes before putting your foot on the pedal. The bike runs forward as soon as you push the pedal down. This force may be unfamiliar, you may fall, and cause dangerous situations or traffic accidents that may result in injury.

Do not pay too much attention to the display when cycling, otherwise you may cause an accident. If you are going to ride the e-bike, make sure you are fully familiar with the starting characteristics of the e-bike before riding. If the e-bike suddenly moves forward, accidents can happen.



No modifications should be made to the e-bike or engine that will increase the speed or performance of the e-bike. Also the use of a boost set or adjusting the gearing is not permitted.

### 3.3 Boosting the e-bike is not permitted



Do not modify the technology of the e-bike in any way. Treating the e-bike in any way to increase performance or speed may lead to legal problems and/or make the e-bike less safe to ride.

#### Potential legal implications:

- The law requires the e-bike to be registered for approval and insured.
- All legal requirements regarding the setting of the e-bike, and as determined by the traffic police inspection department, must be met.
- The manufacturer does not provide any guarantee, warranty or liability.
- Criminal consequences cannot be excluded. For example, unintentional bodily injury may result in a criminal offence.
- Termination of bicycle insurance.

#### Possible technological implications:

- Tampering with the e-bike's technology can reduce its capacity, cause malfunctions or break bike parts.
- The engine and battery can be overloaded and extremely overheated. Consequences: Irreparable damage and fire hazard.
- The brakes and other components may be overloaded. Consequences: Poor performance, overheating, increase in wear.

### 3.4 Installation and maintenance



The electrical system of your e-bike is very powerful. If you notice any damage to the electrical system, remove the battery immediately. After a fall or accident, any power conducting parts may be exposed. If you have a question or problem, please contact your dealer. Lack of skill can lead to serious accidents



Before doing any work on your e-bike, turn off the electrical unit and remove the battery. Failure to do so may result in serious injury and/or electric shock



Only carry out work described in this manual. Do not interfere with or modify the system. Modules must not be disassembled or opened. If in doubt, always contact a specialist dealer at

Replace defective or worn parts, such as the battery, charger or cable, with original spare parts produced by the manufacturer or with parts recommended by the manufacturer. If not, the warranty and/or the manufacturer's warranty will be declared null and void. If non-original or incorrect spare parts are used, the e-bike or not work properly. In the event of a malfunction, contact a qualified dealer who will perform repairs using only genuine spare parts.

Improper operation of the drive system and making changes to the battery, charger or drive may result in injury or costly damage. In this case, the manufacturer rejects all liability for any damage and losses incurred. Changes to the electrical system may result in criminal prosecution. This may be the case if the supported maximum speed has changed.

### 3.5 Safety instructions

- Follow the instructions in the owner's manual while riding your e-bike.
- Regularly check the battery charger for damage, especially the cable, plug and housing. If the battery charger is damaged, do not use it until it is repaired.
- This product is not intended to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lacking in experience and knowledge, unless under supervision or after receiving instructions concerning the use of the product from a person responsible for their safety.
- Do not allow children to play near the product.
- If you notice any errors or problems with your e-bike, please contact a dealer.
- Do not make any changes to the system yourself. It can lead to malfunctions in the system.
- The product is designed to be waterproof, to withstand riding in wet conditions. However, do not intentionally immerse it in water.
- Do not clean the e-bike with a pressure jet. If water gets into any of the components, operating problems or rust may result.
- If the product is transported on a high-speed vehicle where it is exposed to rain, remove the battery pack and store it in a safe place to prevent it from getting wet.
- Handle the product with care and avoid subjecting it to severe shocks.
- The important information in the user manual can also be found on the product labels.
- If you use or give a spare battery key, remember to give the number on the battery key. Keep this number in your memory or your notebook.
- Use a wrung-out damp cloth to clean the casing of the battery.
- For any questions regarding maintenance and use of the product, please contact the dealer where you purchased the product.
- Natural wear as a result of normal use and ageing is not covered by the quality guarantee.
- Contact your dealer for software updates.

- Familiarize yourself with the e-bike on a safe terrain before taking your first real bike ride!
- Wear brightly colored protective clothing.
- You are required by law to wear a helmet when riding an e-bike.

### 3.6 Legal requirements

Be familiar with and follow the traffic rules of your country. Before taking your e-bike on public roads, please make sure you are aware of the national regulations applicable in your specific country. Consult your traffic licensing authority for information on how your e-bike should be equipped for use on public roads.

**The following (and additional) information is also applicable:**

- What lighting equipment must be installed or must you carry with you?
- What kind of brakes should the e-bike be equipped with?
- There may also be age restrictions on riding in certain areas.
- This addresses, for example, the issue of children riding on public roads.
- If it is mandatory to wear a helmet, it is indicated here.

### 3.7 Intended use



The electrical components of the drive system are designed for use with e-bike engines and may not be used for any other purpose.

The drive system with an output of 250 Watts may therefore only be used in combination with e-bikes. Designed and approved for EPAC electric bikes. It is designed for use with city and touring bikes. It can also be used for mountain bikes. It should not be used for competitions or commercial purposes. The Max Drive System is designed for use with city and trekking bikes. It can also be used for mountain bikes. Its use is not allowed for competitions or commercial purposes.

### 3.8 Quick start




In this section, please find important information and instructions that will enable you to safely use your e-bike as soon as possible.

First read the safety instructions and make sure you are aware of any legal regulations that apply to you.

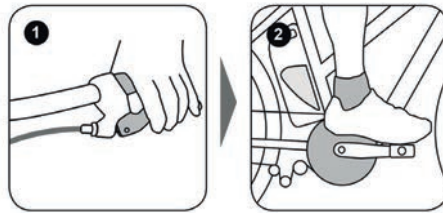
Carry out all safety checks as specified in section *'Before each ride'*.

Read the instructions on how to charge the battery pack in the chapter *'Charging the battery'*.

- Charge the battery until it is fully charged.
- Slide in the battery.
- Close the battery.
- To start the system, press the '  ' button on the control unit.
- Select the desired assist level using the control unit



Always squeeze the brakes on your e-bike before putting your foot on the pedals! The engine starts moving forward as soon as you step on a pedal. This assist is unusual and may result in falls, injuries or dangerous traffic accidents.



### 3.9 For first ride

- Before every ride, check the e-bike completely as described in the owner's manual under the section *'Before each ride'*.
- Charge the battery until it is fully charged.
- Make sure the battery is correctly slotted in and locked.
- Make sure the e-bike is ready for use and adapted to your body.



Practice operating and riding the e-bike in a quiet and safe place before taking to the public roads.



Please also refer to the additional user manuals issued by the manufacturers of individual components as supplied with your e-bike or available online.

**Check that your e-bike is ready to use and set up correctly for you:**

- Adjust the height and position of the saddle and handlebars.
- Check the brake installation and settings.
- Secure the wheels to the frame and into the fork.

### 3.10 For each ride



If you are unsure whether your e-bike is in good technical condition, take it to your dealer for inspection and do not ride it. The frame, fork, suspension components and other parts that are important for your safety such as brakes and wheels are heavy-use parts. This may affect the safe operation of these components. If you use parts beyond their intended life, they may suddenly fail, which may result in falls and serious injury.

#### Before each trip, check that:

- The lights and the bell work and are properly attached.
- The brakes are in good working order and locked.
- The cables and mounting points do not leak if you own a model with hydraulic brakes.
- That there are no foreign bodies in the tyres and that the tyres and the rims are intact and run properly.
- The tyres still have sufficient profile.
- Suspension parts are in good working order and tightly fitted.
- All bolts, nuts are tight.
- There are no deformations or cracks in the frame or fork.
- The handlebars, stem, saddle and seat post are all properly and securely fastened and in the correct position.
- The seat post and saddle are securely fastened. Try turning the saddle or tilting it up or down. This should not move.
- If your e-bike has clipless/magnetic pedals, check that they work properly.
- Pedals should move smoothly and easily.
- Every time you leave the e-bike unattended - even for a short time - check that the bolts and nuts are securely fastened.



Also do these checks before proceeding after a fall or if your e-bike has fallen over. Aluminium parts cannot be safely bent back into their original shape and carbon parts may have sustained damage that is not visible to the eye

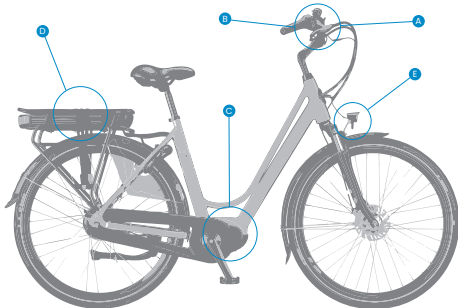


The modern technology of the e-bike is high tech! Working on bicycle parts requires specialized knowledge, experience and specialist tools! Do not perform work on your e-bike yourself. Take your e-bike to a specialist workshop if it requires repair or maintenance.



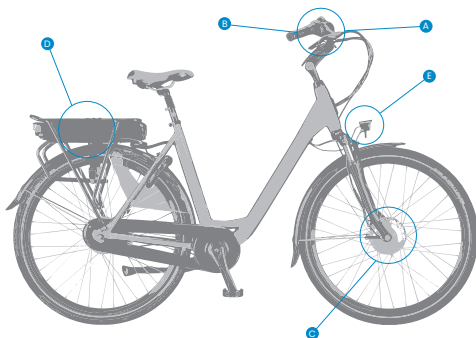
## 4 Electrical parts

### 4.1 Summary of sections



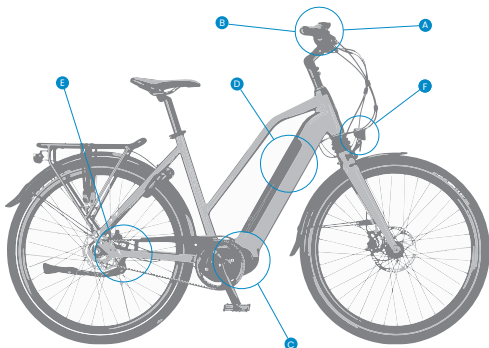
#### Rear rack + mid engine

- A. Display
- B. Control unit
- C. Mid Engine
- D. Battery
- E. Front light



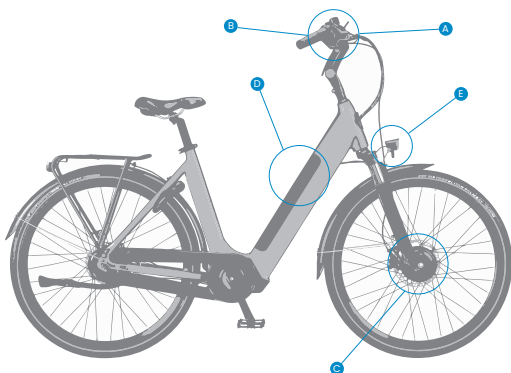
#### Rear rack + front wheel engine

- A. Display
- B. Control unit
- C. Front wheel engine
- D. Battery
- E. Front light



#### Intube + mid-engine

- A. Display
- B. Control unit
- C. Mid Engine
- D. Battery
- E. Belt drive
- F. Front light



#### Intube + front wheel engine

- A. Display
- B. Control unit
- C. Front wheel engine
- D. Battery
- E. Front light

## 4.2 Important notes



The electrical system of your e-bike is very powerful. If you notice that the electrical system is damaged, remove the battery immediately. After a fall or an accident, electrified parts may be exposed. Please contact your dealer if you have any questions or problems. Lack of expertise can lead to serious accidents.



Switch off the electrical system and remove the battery pack before carrying out any work on your e-bike.



Do not clean the e-bike with a steam device, power jet, pressure washer or water hose. Water can penetrate the electrical components or drive and destroy the equipment.



The operating temperature should be between  $-15$  and  $+60$  °C. The recommended storage temperature is between  $-20$  and  $+35$  °C.



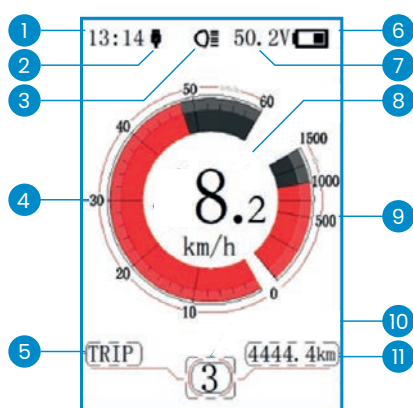
Perform only the operations as specified in this manual. Do not tamper with or modify the system. Modules must not be disassembled or opened. If in doubt, consult a specialist dealer.

Replace defective or worn parts, such as the battery, charger and cable with original spare parts made or recommended by the manufacturer. Failure to do so will invalidate the warranty and/or manufacturer's guarantee. If non-original or incorrect spare parts are used, the e-bike may not function properly. If something is defective, contact an official dealer who will carry out repairs using original parts only.

Incorrect operation of the drive system and changes made to the battery, charger or drive system can result in injury or costly damage. In such a case, the manufacturer cannot accept liability for any damage or losses that may have been incurred. Changes to the electrical system may result in criminal prosecution. This may be the case if the supported maximum speed has been modified.

## 5 Display Screen and Control Panel

### 5.1 Overview display screen DPC18 DISPLAY



#### 1: Time display

The time is displayed in the 24-hour system and shows the current time. The time can be set in *'setting the clock'*.

#### 2: USB charging display

When an external connection is made to the display, symbol is displayed.

#### 3: Headlight indication

It will only be displayed when the headlight is switched on.

#### 4: Speed scale display

The scale value corresponds to the digital value.

#### 5: Mode select

single trip distance (TRIP) -> total distance ODO -> maximum speed (MAX) -> average speed (AVG) -> remaining distance (RANGE) -> energy consumption (CALORIES) -> time (TIME).

#### 6: Battery level display

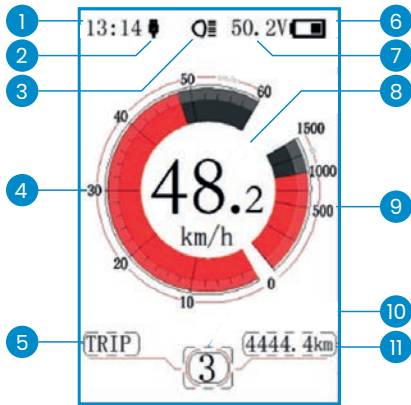
Current battery value display.

#### 7: Voltage / percentage display

Show the actual level of the battery level; the display mode can be set in the *'Soc View'*.

#### 8: Speed digital display

Display current speed; speed unit can be set in *'Unit'*.



**9: Power scale display / current scale display**

Display current output value; output unit can be set in 'Power View'.

**10: Walk assist:**

Display the ten levels as '0' / '1' / '2' / '3' / '4' / '5' / "⚡", short-press (0.5S) **+** or **-** to change the level. Press and hold **-** (2S) to start the 'Walk assist' mode.

**11: Mode data display**

Display current data corresponding to the mode.

**5.1.1 Overview of DPC18 control panel**



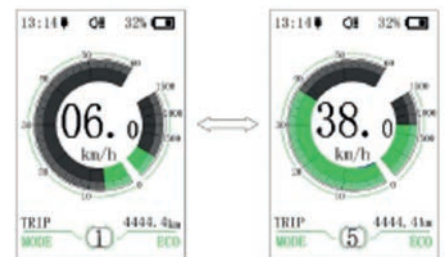
- 1: Light
- 2: On / Off
- 3: Level +
- 4: Level -
- 5: Mode

**5.1.2 Using DPC18  
On / off button**

Turn on the power, long-press the power button (> 2S) to turn on the display, the display will start working. Long-press the power button (> 2S) again to turn off the display. If the e-bike is not used, the display will automatically turn off after 5 minutes (time can be set at in 'Auto Off'). If the password function of display is activated, you must enter the correct password to get to the regular display interface.

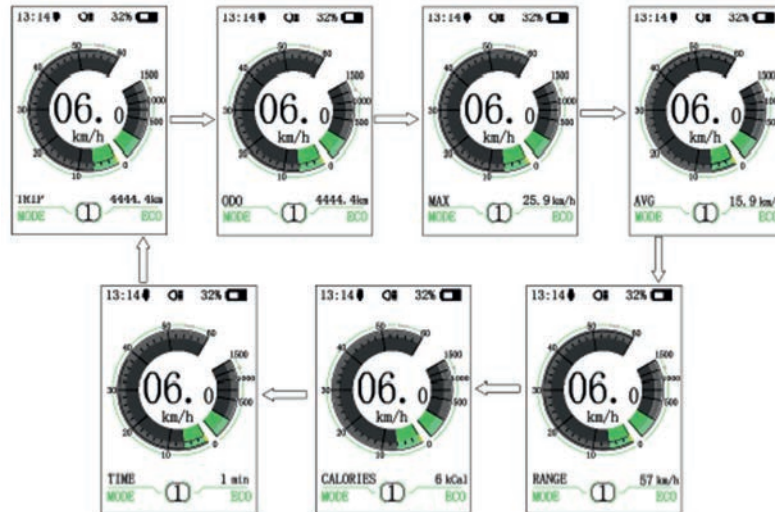
**Selection of the assist level**

In manual acceleration mode, short-press (<0.5 S) **+** or **-** to change the level of the auxiliary power; the lowest level is level 0, the highest level is level 5. When the display is switched on, the default mode is Level 1; '0' means no power assist.



### Switch between Distance mode and Speed mode

Short-press **i** (0.5 sec.) to toggle display between distance and speed, cycle-show signal-trip distance (TRIP) -> total distance (ODO) -> maximum speed (MAX) -> average speed (AVG) -> remaining distance (RANGE) -> energy consumption (CALORIES) -> time (TIME). Energy consumption unit calories means kCal.

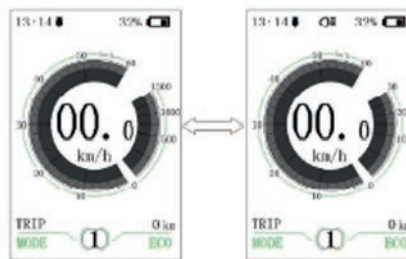


### Display backlight switch

Press and hold **☰** (> 2S) to turn on the display backlight and the headlight.

Press and hold again (> 2S) to turn off the display backlight and the headlight.

There are 5 levels of backlight brightness that can be selected by the user (can be set in 'brightness'). (If the display is switched on in a dark environment, the backlight of the display/headlight will come on automatically. If the backlight / headlight of the display is switched off manually, they must also be switched on manually).



### Walk assist mode

When the Walk assist is active, an icon will appear with '6km'. It is activated by pressing the button **⊖** for a few seconds. If you release the button **⊖** again, the walk assist function also stops immediately.



Make sure that you NEVER use the walk assist function while cycling!

### 5.1.3 Error codes DPC18

Error code	Definition	Solution
"07"	High voltage protection	Check the battery voltage
"08"	Error with engine hall sensor inside	Have your dealer check the engine stator
"10"	Engine temperature has reached the maximum protection value	Stop riding and wait until the LED stops blinking
"12"	Error with power sensor in controller	Have your dealer check the sensor
"13"	Error with temperature sensor in battery	Check the battery
"21"	Error with speed detection sensor	Check the engine stator
"22"	BMS Communication error	Replace the battery
"30"	Communication error	1. Check the connectors between the EB-BUS and the controller 2. Replace the controller

### 5.1.4 DPC18 error messages

You may see an error message in the display if something goes wrong in the electronic system. The error messages have the following codes:

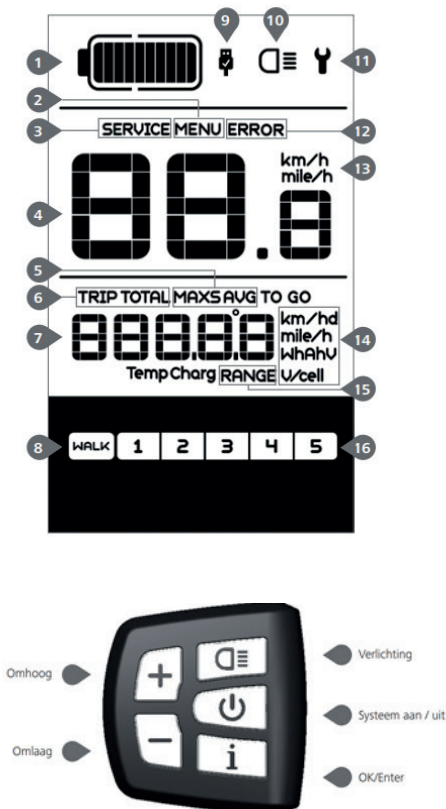
Number	Definition	Solution
0	Normal	Normal situation; no action required
1	Short circuit in the system / incorrect voltage	Contact a technician
2	Error in pedal sensor	Contact a technician
3	Problem with power supply to the engine	Contact a technician
4	Defect in engine housing	Contact a technician
5	Brake problem	Contact a technician
6	Low voltage -> battery is empty	Charge the battery
7	Engine trouble (stalls)	Contact a technician
8	Communication error controller	Contact a technician
9	Communication error display	Contact a technician

Contact a technician to correct the error message. The display will not return to normal until the problem is resolved. The drive will not be functional until then.

## 5.2 Functionality overview DPC10 DISPLAY



- Speed display (including real time speed (SPEED), top speed (MAXS) and average speed (AVG), switch between km and miles)
- Switching between km and miles
- Battery capacity indicator
- Automatic sensors for lighting system
- Brightness setting for backlight
- Assist level indicator
- Walk assist
- Mileage (including single trip distance, total distance)
- Display of the remaining range (depending on your riding style)
- Engine power indicator
- Energy consumption indicator in calories (note: if the display has this functionality)
- Display of error messages
- Maintenance
- USB charging function

### 5.2.1 Overview control panel DPC10





- 1: Real-time display of battery capacity.
- 2: Menu.
- 3: Maintenance: see section 'Maintenance'.
- 4: Digital speed display.
- 5: Speed mode, top speed (MAXS) - average speed (AVG).
- 6: Mileage, daily mileage (TRIP) - total kilometres (TOTAL).
- 7: Data: display the data of the current mode.
- 8: Walk assist.
- 9: The USB charging indicator displays the icon if an external USB device is connected to the display.
- 10: The display shows this symbol when the lighting is switched on.
- 11: Error indicator.
- 12: Error code indicator.
- 13: Speed unit.
- 14: Unit indicator.
- 15: Remaining range (RANGE). (this representation is not accurate)
- 16: Assist level

### 5.2.2 Switching the system on / off

Long-press  to switch the system on.  
 Long-press  again to switch the system off.


If the 'auto off time' is set to 5 minutes (can be set using the 'Set Auto Power Off' function - see [Setting Automatic Power Off](#)), the the display will automatically switch off within the desired time when it is not in operation. If password function is enabled, you must enter the correct password to get to the home screen.

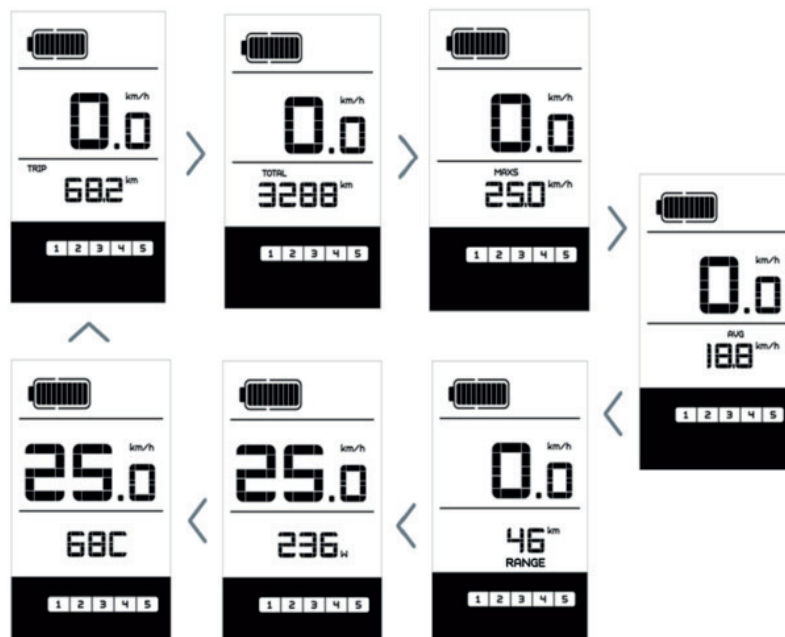
### 5.2.3 Selection of assist levels

When the display is on, short-press  or  to change the assist level. The lowest level is 1, the highest level is 5. When the system is switched on, the the assist level is set to level 1 by default. There is no assist when the assist level is set to level 0.




### 5.2.4 Selection mode

Short-press  to view the different trip modes. Trip: daily mileage (TRIP) - total kilometres (TOTAL) - maximum speed (MAXS) - average speed (AVG) - remaining range (RANGE) (this display may differ from the actual range due to different conditions (terrain, temperature, assist level) - power output (W) - calorie meter (C (only if torque sensor is fitted))).

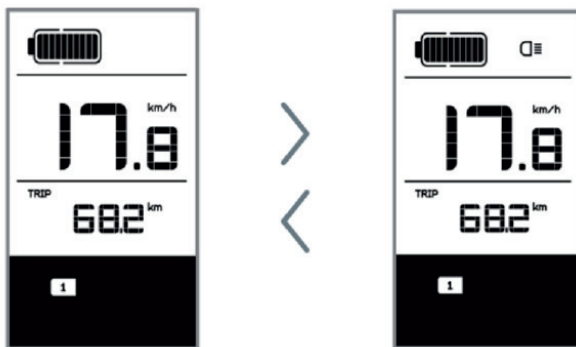









### 5.2.5 Headlight/rear light

Long-press  to switch on the headlight and rear light.  
 Long-press again to switch the headlight off. The brightness of the rear light can be set in the Settings under 'Brightness'. If the display/e-bike is switched on in a dark environment, the backlight of the display/headlight will be switched on automatically.  
 If the backlight of the display/headlight has been switch off manually, the the automatic sensor function is deactivated. You can only switch on the lights manually.

After switching the system back on.



### 5.2.6 Walk assist

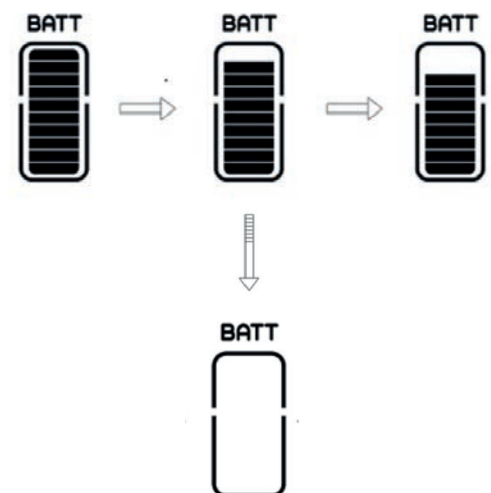
You can only activate walk assist with a stationary e-bike. To activate: Short-press  until level 0 is set. Then short-press , and the symbol will be displayed . Then long-press  to activate the walk assist function. The symbol will flash  and the e-bike will move at a speed of approx. 6 km/h. After releasing the button, the engine will automatically stop and the e-bike will return to level 0 (unless a different option is activated within 5 seconds).

If no speed signal is detected, the display will show 2.5 km/h.

### 5.2.7 Battery capacity indicator


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

Number of bars	Charge status
10	$\geq 90\%$
9	$75\% \leq C < 90\%$
8	$60\% \leq C < 75\%$
7	$50\% \leq C < 60\%$
6	$40\% \leq C < 50\%$
5	$30\% \leq C < 40\%$
4	$20\% \leq C < 30\%$
3	$10\% \leq C < 20\%$
2	$8\% \leq C < 10\%$
1	$5\% < C < 8\%$
the digital display flashes	$\leq 5\%$









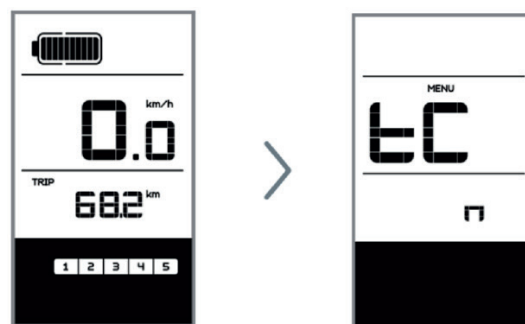
### 5.2.8 USB charging function

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








### 5.2.9 Settings

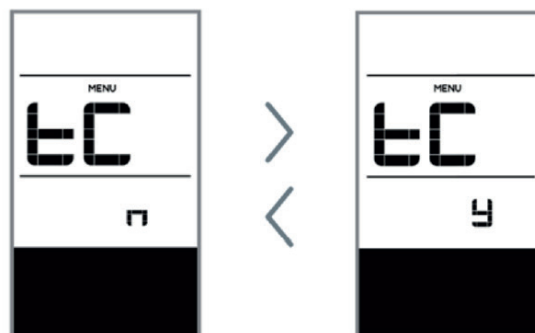
After the display has been switched on, short-press  twice to open the 'MENU'. You can now press  or  to select and re-set options. Then short-press  twice to confirm the selected option and return to the main screen. If for 10 seconds no buttons are pressed in the 'MENU', then the display automatically returns to the main screen and no data is saved



### 5.2.10 Resetting mileage


When the system is switched on, short-press  twice to enter 'MENU'. The message 'tC' will appear on the display (as shown below). Now use  or  to select 'y' or 'n'. If you select 'y', the daily mileage (TRIP) - the maximum speed (MAX) and average speed (AVG) are reset.

Once you have made your choice, short-press  twice to save your choice and return to the main screen, or short-press  once to save your choice and return to the main screen the next item 'Selections in km / miles'.

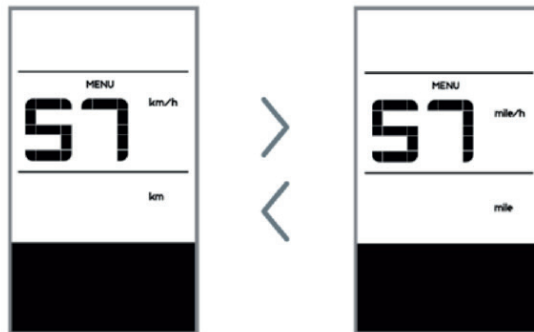


**NOTE:** If the daily mileage reaches 99999 km, this value will be automatically reset.

### 5.2.11 Selections in km / miles

When the system is switched on, short-press  twice to open the 'MENU'. Press repeatedly until 'S7' appears on the display (as shown below).

Now use **+** or **-** to select 'km/h' or 'mile/h'. Once you have made your choice, short-press **i** twice to save your choice and return to the main screen, or short-press **i** once to save your choice and move on to the next item 'Set Light sensitivity'.



### 5.2.12 Setting the light sensitivity

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

Once you have made your choice, short-press **i** twice to save your choice and return to the main screen, or short-press **i** once to save your choice and move on to the next item 'display brightness'.









### 5.2.13 Setting the display brightness

When the system is switched on, short-press **i** twice to open the 'MENU'. Press **i** repeatedly until 'bL1' appears on the display (as shown below). Then press **+** to increase or **-** decrease the value (the brightness can be set from 1-5). Once you have made your choice, short-press **i** twice to save your choice and return to the main screen, or short-press **i** once to save your choice and move on to the next item, 'Auto Power Off'.








### 5.2.14 Setting Auto Power Off

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



### 5.2.15 Maintenance tip

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








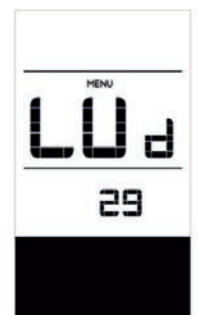
**NOTE:** When the service function is switched on, the indicator **SERVICE** every 5,000 km (mileage over 5,000 km) will be displayed when switched on.

### 5.2.16 Wheel circumference



**PLEASE NOTE:** All data under this item cannot be changed and can only be viewed.





When the system is switched on, short-press  twice to open the 'MENU'. Press  repeatedly until 'LUd' appears on the display (as shown on the right). Once you have viewed the information you wish to view, short-press  twice to save your choice and return to the main screen, or  short-press  once to go to the next item 'Speed Limit'.

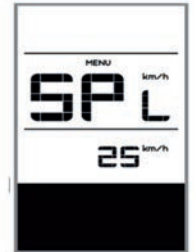


### 5.2.17 Speed limit



**PLEASE NOTE:** All data under this item cannot be changed and can only be viewed.





When the system is switched on, short-press  twice to open the 'MENU'. Press repeatedly  until 'SPL' appears in the display (as shown on the right). Once you have viewed the desired information, short-press  twice to save your selection and return to the main screen, or short-press  once to go to the next item 'Controller hardware information'.

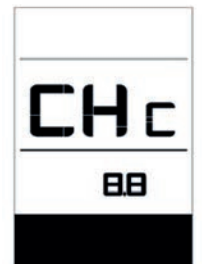


### 5.2.18 Controller hardware information



**PLEASE NOTE:** All data under this item cannot be changed and can only be viewed.





When the system is switched on, short-press  twice to open the 'MENU'. Press repeatedly  until 'C Hc (Controller Hardware check)' appears on the display (as shown here). Once you have viewed the desired information, short-press  twice to save your selection and return to the main screen, or short-press  once to go to the next item 'Controller software information'.



### 5.2.19 Controller software information



**PLEASE NOTE:** All data under this item cannot be changed and can only be viewed.





When the system is switched on, short-press  twice to open the 'MENU'. Press repeatedly  until 'CSc (Controller Software check)' appears on the display (as shown opposite). Once you have viewed the desired information, short-press  twice to save your choice and return to the main screen, or short-press  once to go to the next item 'Display Hardware Information'.



### 5.2.20 Display hardware information



**PLEASE NOTE:** All data under this item cannot be changed and can only be viewed.




When the system is switched on, short-press  twice to open the 'MENU'. Press repeatedly  until 'dHc (Display Hardware check)' appears on the display (as shown opposite). Once you have viewed the desired information, short-press twice  to save your choice and return to the main screen, or short-press once  to go to the next item 'Display software information'.

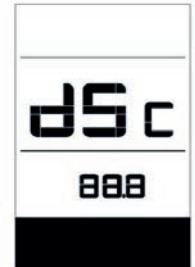


### 5.2.21 Display software information



**PLEASE NOTE:** All data under this item cannot be changed and can only be viewed.





When the system is switched on, short-press  twice to open the 'MENU'. Press repeatedly  until 'dSc (Display Software check)' appears on the display (as shown opposite). Once you have viewed the desired information, short-press twice  to save your choice and return to the main screen, or short-press once  to go to the next item 'BMS hardware information'.

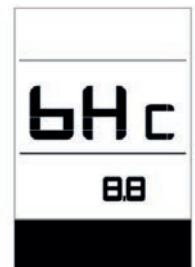


### 5.2.22 BMS hardware information



**PLEASE NOTE:** All data under this item cannot be changed and can only be viewed.





When the system is switched on, short-press  twice to open the 'MENU'. Press repeatedly  until 'bHc (BMS Hardware check)' appears on the display (as shown on the right). Once you have viewed the information you need, short-press  twice to save your choice and return to the main screen, or short-press  once to go to the next item 'BMS software information'.

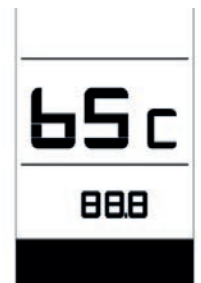


### 5.2.23 BMS software information



**PLEASE NOTE:** All data under this item cannot be changed and can only be viewed.





When the system is switched on, short-press  twice to open the 'MENU'. Press repeatedly  until 'bSc (BMS Software check)' appears on the display (as shown opposite). Once you have viewed the information you need, short-press  twice to save your choice and return to the main screen, or short-press  once to go to the next item 'Sensor hardware information'.

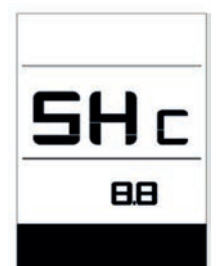


### 5.2.24 Sensor hardware information



**PLEASE NOTE:** All data under this item cannot be changed and can only be viewed.

When the system is switched on, short-press  twice to open the 'MENU'. Press repeatedly  until 'SHc (Sensor Hardware check)' appears in the display (as shown opposite). Once you have viewed the information you need, short-press twice  to save your choice and return to the main screen, or short-press once  to go to the next item 'Sensor software information'.







**PLEASE NOTE:** This information will not be displayed if no torque sensor is present in the drive system.

### 5.2.25 Sensor software information



**PLEASE NOTE:** All data under this item cannot be changed and can only be viewed.

When the system is switched on, short-press  twice to open the 'MENU'. Press repeatedly  until 'SSc (Sensor Software check)' appears in the display (as shown here). Once you have viewed the information you require, short-press twice  to save your choice and return to the main screen, or  short-press once to go to the next item 'Battery Information'.







**PLEASE NOTE:** This information will not be displayed if no torque sensor is present in the drive system.

### 5.2.26 Error codes



**PLEASE NOTE:** All data under this item cannot be changed and can only be viewed.

When the system is switched on, short-press  twice to open the 'MENU'. Press repeatedly  until 'E00' appears on the display (as shown below). You can short-press  to view the last ten error codes 'E00' to 'E09'. The error code '00' indicates that there is no error. Once you have checked all the information you want, short-press  twice to return to the main screen.




### 5.2.27 Battery information

This function is disabled, this menu does not display any relevant or appropriate information.

### 5.2.28 Error code definitions



The display can show the errors of an e-bike. If an error is detected, the wrench icon  appears on the display and one of the following error codes is displayed.

**Note:** read the description of the error code carefully. If you see the error code, first restart the system. If the problem is not resolved, contact your dealer.



Number	Definition	Solution
04	The power supply throttle does not return to the correct position.	Check that the throttle is back in the correct position. If the situation does not improve, install a new throttle. (only if this function is available)
05	Power supply error	Check the plug or cable of the throttle whether they are properly attached 2. Disconnect the throttle. If the problem still occurs, please contact your dealer (only if this function is available)

Number	Definition	Solution
07	Overcurrent protection.	<ol style="list-style-type: none"> <li>1. Remove the battery.</li> <li>2. Replace the battery.</li> <li>3. Contact your dealer if the problem persists.</li> </ol>
08	Error with the Hall sensor signal in the engine.	Contact your dealer.
09	Error with the engine phases	Contact your dealer.
10	The temperature in the engine has reached its maximum protection value.	<ol style="list-style-type: none"> <li>1. Turn the system off and leave the e-bike cool down.</li> <li>2. Contact your dealer if the problem persists.</li> </ol>
11	The temperature sensor in the engine has an error	Contact your dealer.
12	Error with the current sensor in the controller.	Contact your dealer.
13	Error with the temperature sensor in the battery.	Contact your dealer.
14	The protection temperature in the controller has reached its maximum protection value.	<ol style="list-style-type: none"> <li>1. Turn the system off and leave the e-bike cool down.</li> <li>2. Contact your dealer if the problem persists.</li> </ol>
15	Error with the temperature sensor in the controller.	Contact your dealer.
21	Speed sensor error.	<ol style="list-style-type: none"> <li>1. Reboot the system</li> <li>2. Check that the magnet is on the spoke is aligned with the speed sensor and that the distance is between 10 mm and 20 mm.</li> <li>3. Check that the connector of the speed sensor is correctly connected.</li> <li>4. Contact your dealer if the problem persists.</li> </ol>
25	Torque signal error.	<ol style="list-style-type: none"> <li>1. Check that all connections are correctly connected.</li> <li>2. Contact your dealer if the problem persists.</li> </ol>
26	Speed signal from torque sensor has an error.	<ol style="list-style-type: none"> <li>1. Check the speed sensor connector to check that it is connected correctly.</li> <li>2. Check the sensor for signs of damage.</li> <li>3. Contact your dealer if the problem persists.</li> </ol>
27	Overcurrent, electric power, from controller.	Contact your dealer.
30	Communication problem.	<ol style="list-style-type: none"> <li>1. Check that all connections are correctly connected.</li> <li>2. Contact your dealer if the problem persists.</li> </ol>
33	Braking signal has an error. (If brake sensors are fitted)	<ol style="list-style-type: none"> <li>1. Check all connectors.</li> <li>2. Contact your dealer if the problem persists.</li> </ol>

Number	Definition	Solution
35	Detection circuit for 15V has an error.	Contact your dealer.
36	Detection circuit on the control panel has an error	Contact your dealer.
37	WDT circuit is defective.	Contact your dealer.
41	The total voltage of the battery is too high.	Contact your dealer.
42	The total voltage of the battery is too low.	Contact your dealer.
43	The total power of the battery cells is too high	Contact your dealer.
44	The voltage of the single cell is too high.	Contact your dealer.
45	The temperature of the battery is too high.	Contact your dealer.
46	The temperature of the battery is too low.	Contact your dealer.
47	The SOC of the battery is too high.	Contact your dealer.
48	The SOC of the battery is too low.	Contact your dealer.

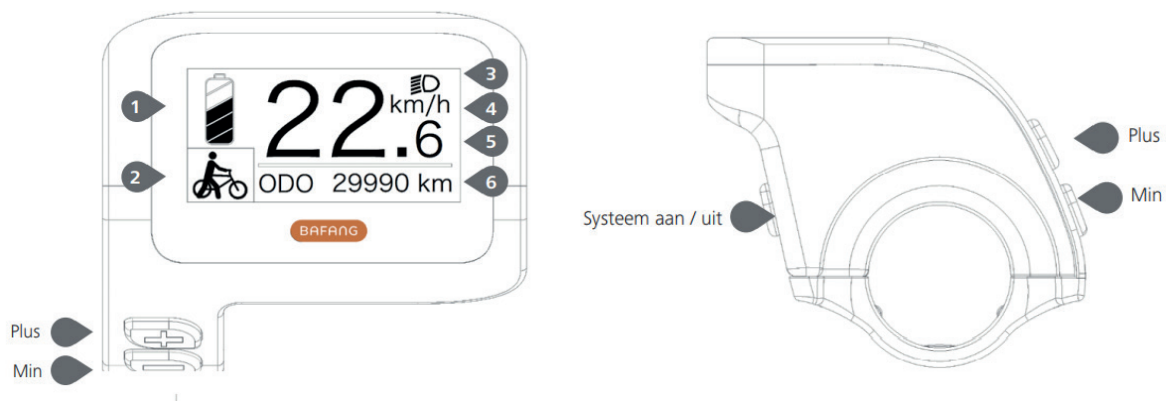


### 5.3 Functional overview DPC11 DISPLAY



- Speed display (including top speed and average speed, switch between km and miles)
- Battery capacity indicator
- Controls for lighting
- Brightness setting for backlight
- Walk assist
- Assist level indicator
- Engine power indicator
- Time display for single trips
- Mileage (including single trip distance, total distance and remaining range)
- Setting the assist level
- Energy consumption indicator in calories (note: if the display has this functionality)
- Display of the remaining range (this display can differ from the actual range due to various conditions (terrain, temperature, assist level))
- Information display (battery, controller, display and sensor)
- Display of error messages

#### 5.3.1 Overview control panel DPC11

- 1: **Battery capacity display**
- 2: **Assist level**
- 3: **The display shows this symbol when the light is on.**
- 4: **Unit of speed**
- 5: **Digital speed display**
- 6: **Trip: daily mileage (TRIP) - total mileage (ODO) - top speed (MAX) - average speed (AVG) - range remaining (RANGE) (This display is an estimate, not accurate) - energy consumption (CALORIES) - power (POWER) - travel time (TIME).**





### 5.3.2 Switching the system on / off

Press and hold  on the display for more than 2 seconds to turn on the system. Press and hold  longer than 2 seconds once again to turn off the system. If the 'auto off time' is set to 5 minutes (can be set with the 'Auto Off' function, see 'Auto Off'), the display will be switched off automatically in the desired time when it is not operated. If the password function is enabled, you need to input the correct password to enter the basic screen. The display will be switched off automatically in the desired time when it is not operated. If the password function is enabled, you must enter the correct password to go to the basic screen.



### 5.3.3 Selection of assist levels

When the display is on, short-press  ,  to change the assist level. The lowest level is 1, the highest level is 5. When the system is switched on, the the assist level is set to level 1 by default. There is no assist when the assist level is set to level 0.

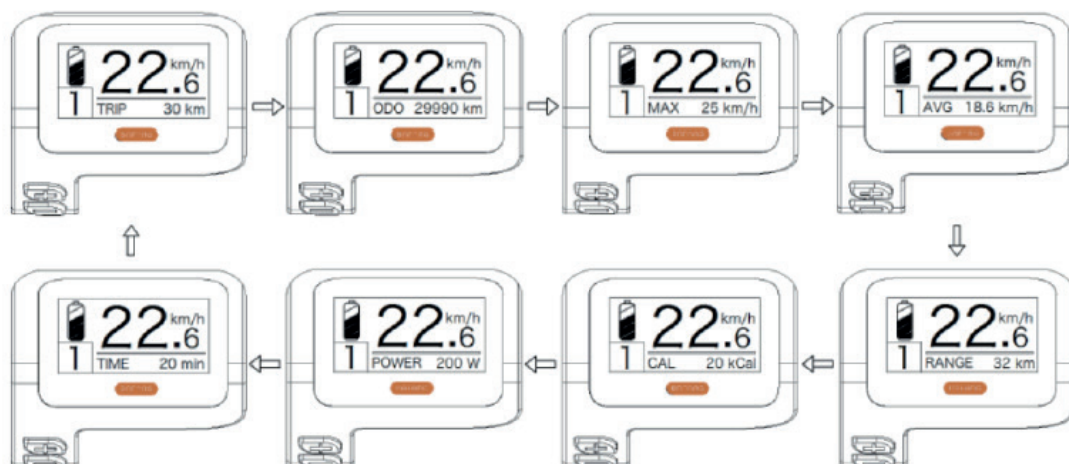
For details on how to set the different Assist Mode settings, see the **'Assist Mode'** section. assist levels.



### 5.3.4 Selection Mode

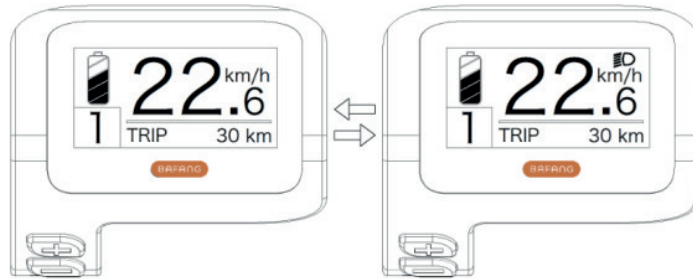
Short-press  to view the different travel modes.

Trip: daily mileage (TRIP) - total mileage (ODO) - top speed (MAX) - average speed (AVG) - range remaining (RANGE) (this display may differ from the actual range due to different conditions (terrain, temperature, assist level) - energy consumption (CALORIES) - power consumption (POWER) - travel time (TIME)





### 5.3.5 Headlight / Rear light

Press and hold **+** for more than 2 seconds to turn on the headlight and rear light.  
Press and hold **+** again for more than 2 seconds to turn the headlight off. The brightness of the rear light can be set in the **'Brightness'** settings.



### 5.3.6 Walk assist

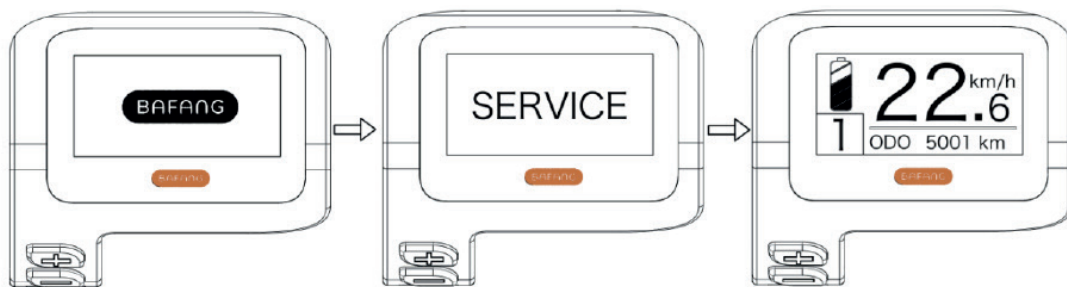
To activate the walk assist: Press **-** until this symbol  appears. Then press **-** and hold while the symbol is displayed. Walking assistance is now activated. The symbol  will flash and the e-bike will move at a speed of approx. 5 km/h. When you let go, the engine will automatically stop and the assist level will automatically return to level 0.



**Please note: you cannot use the walk assist while cycling!**







### 5.3.7 Maintenance

The display will show the message 'Service' once a certain number of kilometres have been covered. At a mileage of more than 5,000 km (or more than 100 charging cycles) the message 'Service' will appear in the display. The SERVICE message will appear in the display screen after every 5,000 km. This functionality can be set in the settings.



### 5.3.8 Battery Capacity Indicator

The battery capacity is shown in the upper left hand corner of the display. Each full dash represents a percentage of battery capacity remaining (as shown in the table).

80% - 100%	
60% - 80%	
40%-60%	
20%-40%	
5%-20%	
<	 flashes

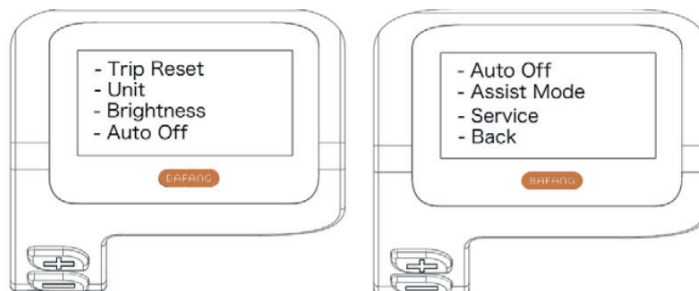
### 5.3.9 Settings

After the display is switched on, press **+** and **-** hold simultaneously to access the SETTING menu. Short-press **+** or **-** to select 'Display Setting', 'Information' or 'Exit'. Then short-press **⏻** to confirm your selection. You can also select 'EXIT' and short-press **⏻** to return to the main menu or select 'BACK' and short-press **⏻** to return to the settings interface.



### 5.3.10 'Display Setting' Display settings

Short-press **+** or **-** and select 'Display Setting'. Then short-press **⏻** to access the following settings.



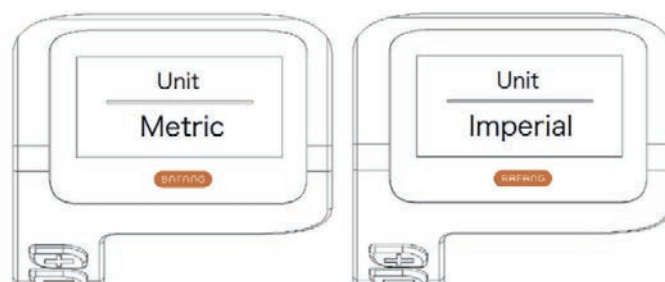
### 5.3.11 'TRIP Reset' Mileage reset

Short-press **+** or **-** to select 'Trip Reset' in the 'Display Setting' menu, then short-press **⏻** to confirm your selection. Then use **+** or **-** to select 'YES' or 'NO'. Once you have chosen your preferred setting, short-press **⏻** to save your choice and return to the Display Setting menu.



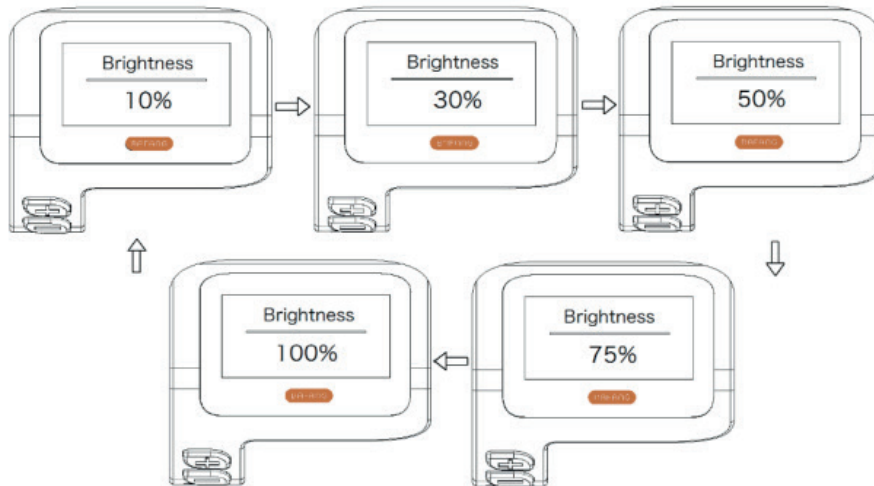
### 5.3.12 'Unit' Setting the unit to km/miles

Short-press **+** or **-** to select 'Unit' in the 'Display Setting' menu, then short-press **⏻** to confirm your selection. Then use **+** or **-** to choose between 'Metric' (kilometres) or 'Imperial' (miles). Once you have chosen your preferred setting, short-press **⏻** to confirm your choice save your choice and return to the Display Setting menu.



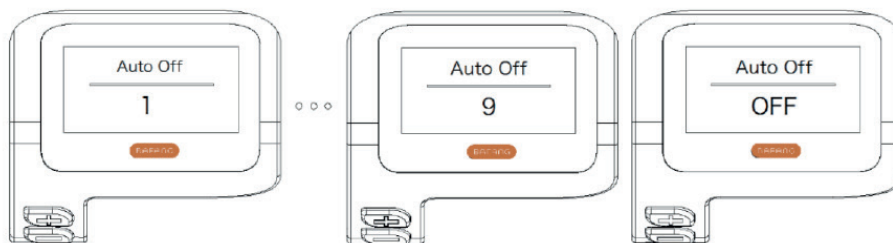
### 5.3.13 'Brightness' The brightness of the display

Short-press **+** or **-** to select 'Brightness' in the 'Display Setting' menu. Then short-press **⏻** to confirm your selection. Then use **+** or **-** to choose from '100%' / '75%' / '50%' / '30%' / '10%'. Once you have chosen your preferred setting, short-press **⏻** to confirm your choice save your choice and return to the Display Setting menu.



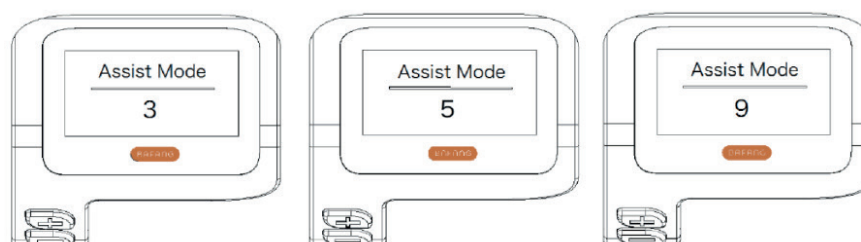
### 5.3.14 'Auto Off' Setting the automatic switch-off time

Short-press **+** or **-** to select 'Auto Off' in the 'Display Setting' menu, then short-press **⏻** to confirm your selection. Then use **+** or **-** to select from 'OFF', '9'/'8'/'7'/'6'/'5'/'4'/'3'/'2'/'1' (the numbers are times in minutes). Once you have chosen your preferred setting, short-press **⏻** to save your choice and return to the Display Setting menu.



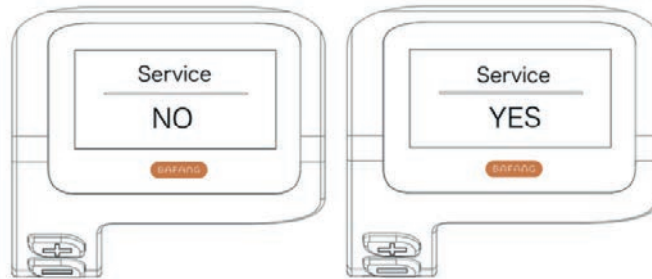
### 5.3.15 'Assist Mode' Setting the assist level

Short-press **+** or **-** to select 'Max Pass' in the 'Display Setting' menu, then short-press **⏻** to confirm your selection. Then use **+** or **-** to choose from '3'/'5'/'9' (the amount of assist levels). Once you have chosen the desired setting, short-press **⏻** to save your choice and return to the Display Setting menu.



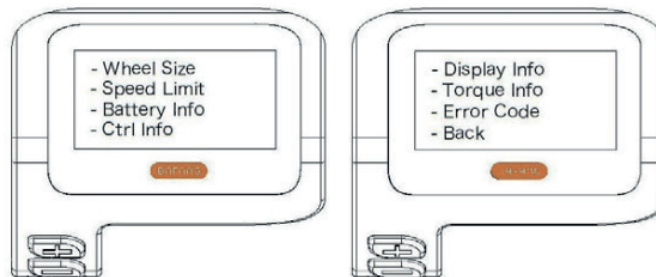
### 5.3.16 'Service' Switching the message on/off

Short-press **+** or **-** to select 'Service' in the 'Display Setting' menu, then short-press **⏻** to confirm your selection. Then use **+** or **-** to choose from 'YES' or 'NO'. Once you have selected the desired setting, short-press **⏻** to confirm your choice and return to the Display Setting menu.



### 5.3.17 'Information' Information

After the display is switched on, press and **+** hold **-** simultaneously to enter the 'Setting' menu. Then short-press **+** or **-** to select 'Information' and short-press **⏻** to confirm your choice and open 'Information'.



### 5.3.18 Wheel Size

Short press **+** or **-** to select 'Wheel Size', then short-press **⏻** to confirm your choice and view the wheel size. Short-press **⏻** to return to 'Information'. This information is not subject to change and is only information about the e-bike.



### 5.3.19 'Speed Limit' Maximum speed

Short press **+** or **-** to select 'Speed Limit', then short-press **⏻** to confirm your choice and view the maximum speed. Short-press **⏻** to return to 'Information'. This information is not subject to change and is only information about the e-bike.



### 5.3.20 'Battery Info' Information on the battery

This functionality is disabled, this menu does not display any relevant or appropriate information.



### 5.3.21 'Ctrl Info' Information about the controller

Short-press **+** or **-** and select 'Ctrl Info'. Then short-press **⏻** to confirm. Now short-press **+** or **-** to view the hardware or software version. Short-press **⏻** to return to 'Information'.



### 5.3.22 'Display Info' Information on the display

Short-press **+** or **-** and select 'Display Info'. Then short-press **⏻** to confirm. Now short-press **+** or **-** to view the hardware or software version. Short-press **⏻** to return to 'Information'.



### 5.3.23 'Torque Info' Torque information

Short-press **+** or **-** and select 'Torque Info'. Then short-press **⏻** to confirm. Now short-press **+** or **-** to view the hardware or **⏻** software version. Short-press to return to 'Information'.



### 5.3.24 'Error code' Error codes

Short-press **+** or **-** and select 'Error code'. Then short-press **⏻** to confirm. Now short-press **+** or **-** to view a list of error codes from the e-bike. The last 10 error codes of the e-bike can be displayed. The error code '00' indicates that there is no error. Short-press **⏻** to return to 'Information'.



### 5.3.25 Error code definitions



The display can show the errors of an e-bike. If an error is detected, one of the following error codes is displayed.

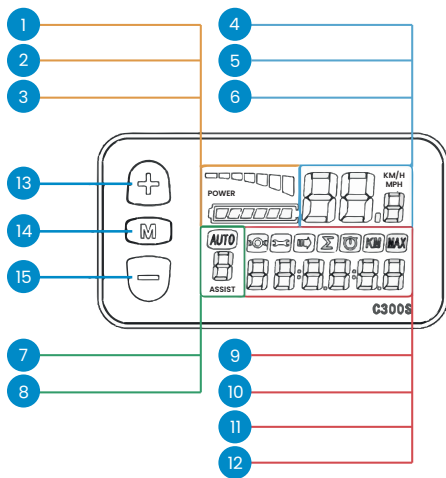
**Note:** Read the description of the error code carefully. If you see the error code, first restart the system. If the problem is not resolved, contact your dealer.

Number	Definition	Solution
04	The power supply throttle does not return to the correct position.	Check that the throttle is back in the correct position. If the situation does not improve, install a new throttle. (only if this function is available)
05	Power supply error	1. Check the plug or cable of the throttle whether they are properly attached 2. Disconnect the throttle. If the problem still occurs, please contact your dealer (only if this function is available)
07	Overcurrent protection.	1. Remove the battery. 2. Replace the battery. 3. Contact your dealer if the problem persists.
08	Error with the Hall sensor signal in the engine.	Contact your dealer.
09	Error with the engine phases	Contact your dealer.
10	The temperature in the engine has reached its maximum protection value.	1. Turn the system off and leave the e-bike cool down. 2. Contact your dealer if the problem persists.
11	The temperature sensor in the engine has an error	Contact your dealer.
12	Error with the current sensor in the controller.	Contact your dealer.
13	Error with the temperature sensor in the battery.	Contact your dealer.
14	The protection temperature in the controller has reached its maximum protection value.	1. Turn the system off and leave the e-bike cool down. 2. Contact your dealer if the problem persists.
15	Error with the temperature sensor in the controller.	Contact your dealer.
21	Speed sensor error.	1. Reboot the system 2. Check that the magnet is 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.



Number	Definition	Solution
25	Torque signal error.	<ol style="list-style-type: none"> <li>1. Check that all connections are correctly connected.</li> <li>2. Contact your dealer if the problem persists.</li> </ol>
26	Speed signal from torque sensor has an error.	<ol style="list-style-type: none"> <li>1. Check the speed sensor connector to check that it is connected correctly.</li> <li>2. Check the sensor for signs of damage.</li> <li>3. Contact your dealer if the problem persists.</li> </ol>
27	Overcurrent, electric power, from controller.	Contact your dealer.
30	Communication problem.	<ol style="list-style-type: none"> <li>1. Check that all connections are correctly connected.</li> <li>2. Contact your dealer if the problem persists.</li> </ol>
33	Braking signal has an error. (If brake sensors are fitted)	<ol style="list-style-type: none"> <li>1. Check all connectors.</li> <li>2. Contact your dealer if the problem persists.</li> </ol>
35	Detection circuit for 15V has an error.	Contact your dealer.
36	Detection circuit on the control panel has an error	Contact your dealer.
37	WDT circuit is defective.	Contact your dealer.
41	The total voltage of the battery is too high.	Contact your dealer.
42	The total voltage of the battery is too low.	Contact your dealer.
43	The total power of the battery cells is too high	Contact your dealer.
44	The voltage of the single cell is too high.	Contact your dealer.
45	The temperature of the battery is too high.	Contact your dealer.
46	The temperature of the battery is too low.	Contact your dealer.
47	The SOC of the battery is too high.	Contact your dealer.
48	The SOC of the battery is too low.	Contact your dealer.

## 5.4 Overview of the C300S display screen



- 1: Battery gauge
- 2: Voltage meter
- 3: Sleep mode
- 4: Speedometer
- 5: KM/H & MPH
- 6: Display backlight
- 7: Walk assist
- 8: Assist levels 1 through 5
- 9: Error message
- 10: Ride mode
- 11: Trip meters / distance meters  
ODO  
TRIP 1  
TRIP 2
- 12: Trip time

### 1: Battery gauge

Battery level; a frame in the shape of a battery filled with cubes. Each block in the box generally represents about 15% battery capacity. If the battery is (almost) empty, the frame will flash on the screen.

### 3: Sleep mode

Sleep mode is automatically activated after 5 minutes of inactivity.

### 4: Speedometer

Current speed in km/h (or mp/h).

Assistance type (PAS/Pedal assistance)

Assistance levels - 1 to 5

Using the **+** and **-** buttons, you can adjust the assistance level up or **-** down.

### 7: Walk assist

When the Walk assist is active, an icon will appear with '6km'. It is activated by pressing the **-** button for a few seconds. If you release the button again, the walk assist function also stops immediately.



**Make sure you NEVER use the walkassist while cycling!**

### 11: Trip meters / distance meters

The trip meter shows a number of things. By short-pressing the **M** MODE button, you can view.

**ODO**  
Overall distance; the total distance traveled (can not be reset / set to 0)

**Trip 1**

Measures the distance of how far you cycle; resets automatically at 500 km (can be reset manually at menu 1. See ['Setting the panel'](#))

**Trip 2**

Displays 30 seconds of the last traveled distance of the previous session. It automatically resets and after the reset starts measuring the current session

### 12: Trip time

Measures how long you ride; resets automatically after display is turned off

### 5.4.1 Switching on C300S

- Lock the battery and switch on the electrical system by turning the key all the way to right ('on')
- Turn on the display by pressing and holding the **M** MODE button for 3 seconds
- Choose the desired level of pedal assist by using **+** and **-**
- As soon as you pedal, the assist switches on
- You interrupt the assistance by stopping pedaling.



Start in a low assistance level and low gear to ensure that you start slowly and gradually. This is safer and it also puts less strain on the battery, so you can cycle a longer distance

#### What the screen displays

When the display is on, it shows the following: current battery status, current speed, current assistance level and the distance traveled. Press the **M** MODE button to switch displayed information.

#### Display backlight

Press and hold **+** for 3 seconds. The backlight will turn on. Press and hold **+** for 3 seconds again to turn the backlight off

### 5.4.2 Layout display C300S

Short-press **M** MODE to switch between trip distance, trip time, total kilometres traveled and maximum speed.

### 5.4.3 Battery power on display C300S

When the battery is full, all six blocks of the battery icon are full. As blocks drop from the icon, the battery power decreases. If the battery icon flashes, the battery is completely flat and you need to recharge it.

### 5.4.4 Settings C300S

Simultaneously press and hold the **+** and **-** button for three seconds; the display will now enter the setting screen. You can make the following settings:

- Trip meter reset.
- Set maximum speed.
- Set wheel diameter.
- Set km/h or mp/h.
- Set the riding position.

Press the **M** MODE button to move to the next setting. Pressing the **+** and **-** button again simultaneously closes the settings menu.

#### Trip Meter (Trip Meter) Reset

Set the reset function for single trip distance.

Short-press **+** (<0.5 sec) or **-** to select 'TRIP Reset', then short-press **i** (<0.5 S). At this time, short-press **+** (<0.5 sec) or **-** to switch between 'NO' and 'YES'. TRIP Reset includes maximum speed (MAXS), average speed (AVG), one way trip distance (TRIP). After confirmation, short-press **i** (<0.5 sec.) to save and to return to 'TRIP Reset'.



Short-press **i** twice (interval time is less than 0.5 S) to exit the main interface, or select 'BACK' -> 'EXIT' to return to the main interface. The data is not automatically reset when the e-bike or the display is switched off.

### Setting the maximum speed

Set the maximum speed down by pressing **-**  
Up by pressing **+**.



In the Netherlands, the legal requirement is that an e-bike may be assisted up to 25 km/h. If you exceed the speed with the e-bike, the pedal assistance will stop. You can continue to cycle, but you will no longer be assisted. As soon as you get above 25 km/h, the e-bike will not pedal heavier to get you below 25 km/h. Because there is a freewheel engine in this model, you pedal as if you were on an e-bike without pedal assistance.

**!** **Pay attention!** This menu is only for adjusting the speed limit downwards. If you try to boost the e-bike, the consequences are at your own risk. Do not modify the technology of the e-bike in any way. Treating the e-bike in any way to increase performance or speed may lead to legal problems and/or make the e-bike less safe to ride.

### Setting the wheel diameter

Set the diameter of the wheel using **+** and **-**.

**!** **Pay attention!** Default setting: 700 c. There should be no deviations from this rule, as this would render the computer system ineffective.

### Set km/h or mph

With **+** and **-** you choose kilometers per hour or miles per hour.

### Setting the drive mode

Use **+** or **-** to select the desired drive mode.

### Switch the assist on or off.

Press the **M** MODE button on the control panel on the left side of the steering wheel for 2 seconds. As soon as the screen is switched off, the e-bike will no longer assist you.

Do you want the screen to be on but stop the assist? Set the assistance level to 0. The computer system then continues to measure distances and speeds.

**!** **Pay attention!** The display will turn off automatically after 5 minutes at a speed of 0 km/h.

### 5.4.5 Error messages C300S

You may see an error message in the display if something goes wrong in the electronic system. The error messages have the following codes:

Number	Definition	Solution
0	Normal	Normal situation; no action required
1	Short circuit in the system / incorrect voltage	Contact a technician
2	Error in pedal sensor	Contact a technician
3	Problem with power supply to the engine	Contact a technician
4	Defect in engine housing	Contact a technician
5	Brake problem	Contact a technician
6	Low voltage -> battery is empty	Charge the battery
7	Engine trouble (stalls)	Contact a technician
8	Communication error controller	Contact a technician
9	Communication error display	Contact a technician

Contact a technician to correct the error message. The display will not return to normal until the problem is resolved. The drive will not be functional until then.

## 5.5 Overview of functionalities display C600


- Battery indication
- Speed display, including current speed, maximum speed and average speed.
- Distance indicator, including indicator for single routes and total distance traveled.
- Indicator for walk assist.
- A number of adjustable parameters such as; wheel diameter, speed limit, battery setting, number of PAS positions, front light switch, automatic switch off.

### 5.5.1 Displaying speeds

When the display is switched on, the center of the screen shows the current speed.

In the Netherlands, the legal requirement is that an electronic e-bike may provide assist up to 25 km/h. If you exceed the speed with the e-bike, the pedal assistance will stop. You can continue to ride, but you will no longer receive assistance. As soon as you get above 25 km/h, the e-bike will not pedal heavier to get you below 25 km/h. Because there is a free running engine in this model, you pedal as if you were on an e-bike without pedal assistance.




### 5.5.2 Setting up walk assist

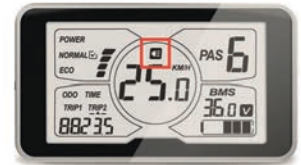
When the display is on, press and hold the  button to activate the walk assist function. The e-bike can then go automatically at a constant speed of 6km/h. 6km/h is shown on the display. Walk assist can only be used when walking with the e-bike.



**Make sure you NEVER use the walkassist while cycling!**

### 5.5.3 Using the lighting

Short-press  to get this symbol on your screen. This indicates that your lights are on . Short-press  to switch off your lights again.



### 5.5.4 Battery power (Fig. 1)

The voltage of the battery is displayed at the bottom right of the screen. When the battery has enough voltage available, 5 black blocks are shown. When only 1 block is displayed, this indicates low voltage and the battery needs to be recharged.

### 5.5.5 Distance indicator (Fig. 2)

Short-press SET to toggle between the different functions at the bottom left of the screen

- ODO: total distance traveled.
- Time: total time traveled.
- Trip A: Distance single trip A.
- Trip B: Distance single trip B.

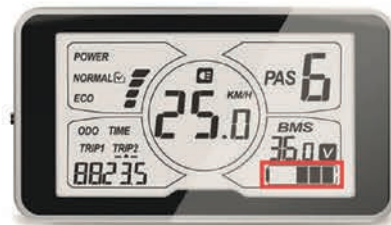


fig.1

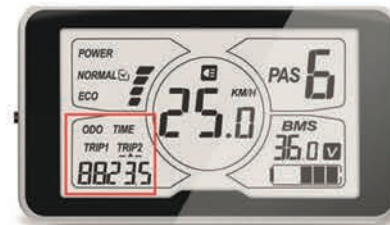


fig.2

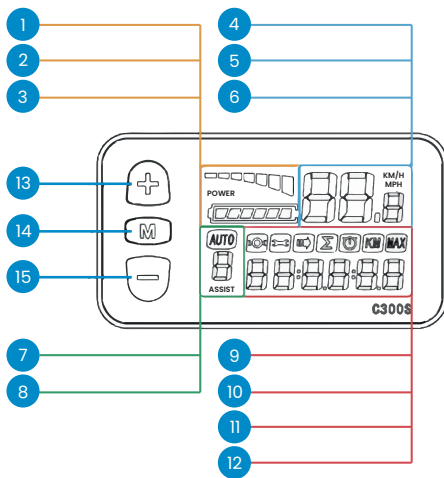
### 5.5.7 Error messages C600

You may see an error message in the display if something goes wrong in the electronic system. The error messages have the following codes:

Number	Definition	Solution
0	Normal	Normal situation; no action required
1	Short circuit in the system / incorrect voltage	Contact a technician
2	Error in pedal sensor	Contact a technician
3	Problem with power supply to the engine	Contact a technician
4	Defect in engine housing	Contact a technician
5	Brake problem	Contact a technician
6	Low voltage -> battery is empty	Charge the battery
7	Engine trouble (stalls)	Contact a technician
8	Communication error controller	Contact a technician
9	Communication error display	Contact a technician

Contact a technician to correct the error message. The display will not return to normal until the problem is resolved. The drive will not be functional until then.

## 5.6 Overview of the C300T display screen



- 1: Battery gauge
- 2: Voltage meter
- 3: Sleep mode
- 4: Speedometer
- 5: KM/H & MPH
- 6: Display backlight
- 7: Walk assist
- 8: Assist levels 1 through 5
- 9: Error message
- 10: Ride mode
- 11: Trip meters / distance meters  
ODO  
TRIP 1  
TRIP 2
- 12: Trip time

### Battery gauge

Battery level; a frame in the shape of a battery filled with cubes. Each block in the box generally represents about 15% battery capacity. If the battery is (almost) empty, the frame of will flash on the screen.

### Sleep mode

Sleep mode is automatically activated after 5 minutes of inactivity.

### Speedometer

Current speed in km/h (or mp/h).

Assistance type (PAS/Pedal assistance)

Assistance levels - 1 to 5

Using the **+** and **-** buttons, you can adjust the assistance level up or down.

### Walk assist

When the Walk assist is active, an icon will appear with '6km'. It is activated by pressing the button **⊖** for a few seconds. If you release the button again, the walk assist function also stops immediately.



**Make sure you NEVER use the walkassist while cycling!**

### Trip meters / distance meters

The trip meter shows a number of things. By short-pressing the **M** MODE button, you can view

#### ODO

Overall distance; the total distance traveled (can not be reset / set to 0)

#### Trip 1

Measures the distance of how far you cycle; resets automatically at 500 km (can be reset manually at menu 1. See ['Setting the panel'](#))

#### Trip 2

Displays 30 seconds of the last traveled distance of the previous session. It automatically resets and after the reset starts measuring the current session

#### Trip time

Measures how long you ride; resets automatically after display is turned off

### 5.6.1 Switching on C300T

- Lock the battery and switch on the electrical system by turning the key all the way to right ('on')
- Turn on the display by pressing and holding the **M** MODE button for 3 seconds
- Choose the desired level of pedal assist by using the speed throttle **+** and **-**
- As soon as you pedal, the assist switches on
- You interrupt the assistance by stopping pedaling.



Start in a low assistance level and low gear to ensure that you start slowly and gradually. This is safer and it also puts less strain on the battery, so you can cycle a longer distance.

#### What the screen displays

When the display is on, it shows the following: current battery status, current speed, current assistance level and the distance traveled. Press the **M** MODE button to switch displayed information.

#### Display backlight

Press and hold **+** for 3 seconds. The backlight will turn on. Press and hold **+** for 3 seconds again to turn the backlight off

### 5.6.2 Layout display C300T

Short-press **M** MODE to switch between trip distance, trip time, total kilometres traveled and maximum speed.

### 5.6.3 Battery power on display C300T

When the battery is full, all six blocks of the battery icon are full. As blocks drop from the icon, the battery power decreases. If the battery icon flashes, the battery is completely flat and you need to recharge it.

### 5.6.4 C300T settings

Simultaneously press and hold the **+** and **-** button for three seconds; the display will now enter the setting screen. You can make the following settings:

- Trip meter reset.
- Set maximum speed.
- Set wheel diameter.
- Set km/h or mp/h.
- Set the riding position.

Press the **M** MODE button to move to the next setting. Pressing the **+** and **-** button again simultaneously closes the settings menu.

#### Trip Meter (Trip Meter) Reset

Set the reset function for single trip distance.

Short-press **+** (<0.5 sec) or **-** to select 'TRIP Reset', then short-press **i** (<0.5 S). At this time, short-press (<0.5 sec) **+** or **-** to switch between 'NO' and 'YES'. TRIP Reset includes maximum speed (MAXS), average speed (AVG), one way trip distance (TRIP). After confirmation, short-press **i** (<0.5 sec.) to confirm





and return to the 'TRIP Reset'. Short-press **i** twice (interval time is less than 0.5 S) to exit the main interface, or select 'BACK' -> 'EXIT' to return to the main interface. The data is not automatically reset when the e-bike or the display is switched off.

### Setting the maximum speed

Set the maximum speed down by pressing **-**  
Up by pressing **+**.



In the Netherlands, the legal requirement is that an e-bike may be assisted up to 25 km/h. If you exceed the speed with the e-bike, the pedal assistance will stop. You can continue to cycle, but you will no longer be assisted. As soon as you get above 25 km/h, the e-bike will not pedal heavier to get you below 25 km/h. Because there is a freewheel engine in this model, you pedal as if you were on an e-bike without pedal assistance.

**! Pay attention!** This menu is only for adjusting the speed limit downwards. If you try to boost the e-bike, the consequences are at your own risk. Do not modify the technology of the e-bike in any way. Treating the e-bike in any way to increase performance or speed may lead to legal problems and/or make the e-bike less safe to ride.

### Setting the wheel diameter

Set the diameter of the wheel using **+** and **-**.

**! Pay attention!** Default setting: 700 c. There should be no deviations from this rule, as this would render the computer system ineffective.

### Set km/h or mph

With **+** and **-** you choose kilometers per hour or miles per hour.

### Setting the drive mode

Use **+** or **-** to select the desired drive mode.

### Switch the assist on or off.

Press the **M** MODE button on the control panel on the left side of the steering wheel for 2 seconds. As soon as the screen is switched off, the e-bike will no longer assist you.

Do you want the screen to be on but stop the assist? Set the assistance level to 0. The computer system then continues to measure distances and speeds.

**! Pay attention!** The display will turn off automatically after 5 minutes at a speed of 0 km/h.

### 5.6.5 Error messages C300T

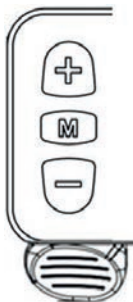
You may see an error message in the display if something goes wrong in the electronic system. The error messages have the following codes:

Number	Definition	Solution
0	Normal	Normal situation; no action required
1	Short circuit in the system / incorrect voltage	Contact a technician
2	Error in pedal sensor	Contact a technician
3	Problem with power supply to the engine	Contact a technician
4	Defect in engine housing	Contact a technician
5	Brake problem	Contact a technician
6	Low voltage -> battery is empty	Charge the battery
7	Engine trouble (stalls)	Contact a technician
8	Communication error controller	Contact a technician
9	Communication error display	Contact a technician

Contact a technician to correct the error message. The display will not return to normal until the problem is resolved. The drive will not be functional until then.

### 5.6.6 Throttle

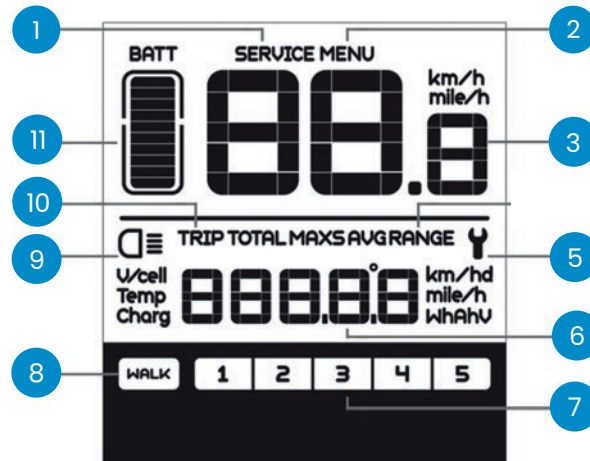
The C300T has an additional button, this is a throttle at the bottom of the display. To get going, short-press the throttle. This way you don't have to move the whole bike yourself.



### 5.6.7 About the throttle

This throttle is located under the control unit. This is in addition to walk-assist, where the engine provides an impulse while walking.

## 5.7 Overview of the DP C07 display functions



### 1: Menu

You can choose between different display modes. You can choose between different levels of brightness, from level 1 (muted) to level 5 (bright).

### 2: Indication of speed

You can choose between km/h or miles/h. Display for current speed (SPEED), maximum speed (MAXS), and average speed (AVG)

### 3: Speed mode

This shows the selected average speed (AVG) and maximum speed (MAXS).

### 5: Error code prompt

If a malfunction is detected, this symbol is displayed.


### 6: Trip distance indication

This shows the distance traveled during a single trip or the total distance traveled. (Depending on the selected setting). The maximum distance is reached when 99999 is displayed. The distance of a single trip (TRIP) or the total distance (TOTAL) can be displayed.

### 7: Assist level

This shows the selected level of assistance by the engine (1-5).

### 8: Walk assist

When the Walk assist is active, an icon will appear with '6km'. It is activated by pressing the button  for a few seconds. If you release the button again, the walk assist function also stops immediately.



**Make sure you NEVER use the walk assist function while cycling!**

### 9: Lighting

The signs illuminate when the front and rear lights are switched on. The front light, rear light and display light switch on and off automatically depending on the light conditions.

### 10: Distance mode

Either the distance of a single trip (TRIP) or the total distance (TOTAL) can be displayed. The maximum distance is reached when 99999 is displayed.

### 11: Battery power

The charging status is indicated by 10 bars. The battery is fully charged when all bars are lit on the screen. An optimization algorithm ensures a stable display of the battery status. This avoids the problem of fluctuating battery level indicators in many displays.

### 5.7.1 Overview of control panel DP C07



**1: '+' button**

Switches to a higher level of engine assistance.

**2: '-' button**

Switches to a lower assist level.

**3: On/off button lighting**

Pressing the button once switches on the lighting of the e-bike. Pressing it twice switches the lighting off again

**4: On/Off button:**

Turn the electrical system on and then off.

**5: Display mode:**

Switch between the different views and functions.

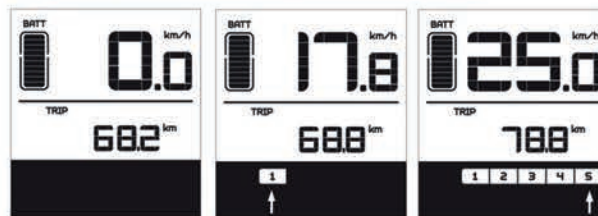
### 5.7.2 On / off button

Press the '⏻' button for 2 seconds. The display and system are switched on.

Press the '⏻' button again for 2 seconds. The monitor and the system are switched off. After 5 minutes of no activity, the system will automatically be turned off

### 5.7.3 Selection of the assist level

Press the '⊕' or '⊖' button to switch between the different assist levels. The lowest level is level 1; the highest is level 5. The default level when switching on is level 1. If no number is indicated, the engine will not provide any assistance.

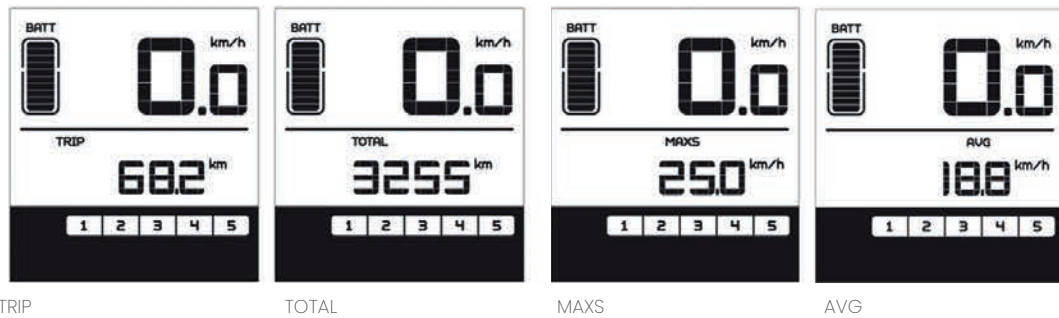


no assist level. 1

assist level. 5

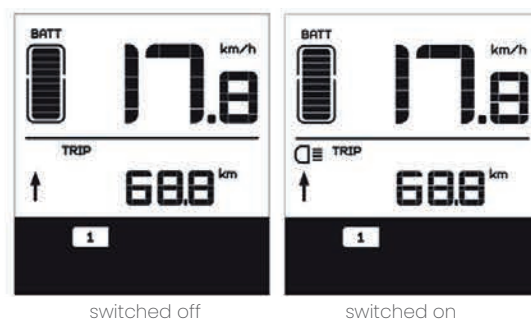
### 5.7.4 Switch between Distance Mode and Speed Mode

Short-press the 'i' button to toggle between distance and speed on the display. First the one-way distance is displayed (TRIP km) -> then the total distance traveled (TOTAL km) -> the maximum speed attained (MAXS km/h) -> and finally the average speed (AVG km/h).





### 5.7.5 Switching the bicycle lighting and display lighting on and off

Press the '☰' button for 2 seconds. The monitor lights and the lights of your e-bike are switched on. Press the '☰' button again for 2 seconds. The bicycle light and the display light are both switched off. As soon as you use the display in the dark, the lights on your e-bike will also automatically switch on. Exception: If you have switched on the light manually, you must also switch it off manually at. The display offers five levels of brightness.




### 5.7.6 Walk assist

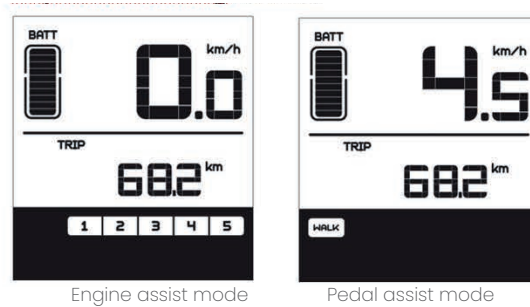
 Your e-bike has a bicycle assist system that propels your e-bike at a speed of 6 km/h. This can help you push the e-bike up steep hills.

 The models with walk assist are not intended to help you ride or start riding your e-bike! The engine would be at risk of overheating

Hold down the '⊖' button on the control panel for 2 seconds. 'Walk assist is switched on.' "WALK" appears on the screen. As soon as you release the button, the walk assist mode is switched off.

 Make sure you NEVER use the walk assist function while cycling!

### 5.7.7 Switching between engine assist and pedal assistance



### 5.7.8 Charging status indicator

To ensure optimal performance of your e-bike, check the charge status of your battery before every ride. When the display is on, the 10 LEDs give an indication. A certain number of bars and the battery frame LCD lights will light up to show the current charge status (see diagram). If all 10 lights are off and the digital screen is flashing, it means you need to charge your battery immediately.









Number of bars	Charge status
10	$\geq 90\%$
9	$75\% \leq C < 90\%$
8	$60\% \leq C < 75\%$
7	$50\% \leq C < 60\%$
6	$40\% \leq C < 50\%$
5	$30\% \leq C < 40\%$
4	$20\% \leq C < 30\%$
3	$10\% \leq C < 20\%$
2	$8\% \leq C < 10\%$
1	$5\% < C < 8\%$
the digital display flashes	$\leq 5\%$

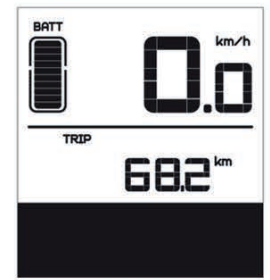
### 5.7.9 Settings DP C07



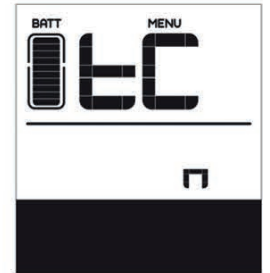
**DO NOT change the settings while riding the e-bike!**

- To enter the parameter setting mode, turn on the screen and press the "  " button TWICE for more than 0.3 seconds.
- You are now in the menu to enter parameter settings. Here your settings can be changed.

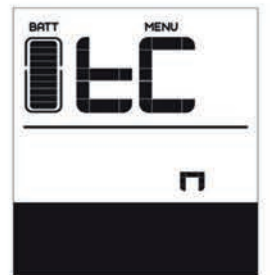
- To confirm the settings, short-press the "  " button. This will immediately show the next setting and you can browse through your settings.
- To switch between the different settings, short-press the "  " button.
- As soon as the setting you selected starts to flash, press on the "  " button to increase the parameter value or the "  " button to decrease the parameter value.
- When you have chosen your final setting, you can return to the main menu by pressing the "  " button TWICE again for more than 0.3 seconds.
- If no changes are made to the settings after 10 seconds, the monitor will return to the normal operating settings.





Normale bedrijfsinstellingen






Modus om parameter instellingen in te gaan






### 5.7.10 Resetting the data of a single trip

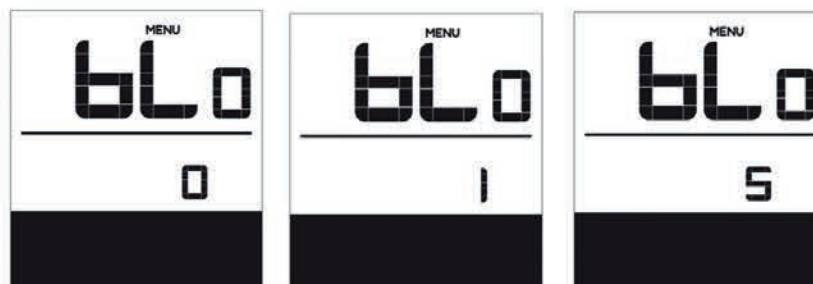
-  For this setting mode, "tc" appears on the screen.
- To delete the data of your last single trip (TRIP), maximum speed (MAXS) and average speed (AVG) press the "  " button ("y" appears on the display).
- If you do not manually reset the data for a single trip, it will automatically reset if you have traveled longer than 99 hours and 59 minutes

### 5.7.11 Distance displayed in kilometres/miles

-  For this setting mode, the "S7" appears on the screen.
- Press the "  " or "  " button to switch between km/h and mile/h.

### 5.7.12 Bicycle lighting sensor, setting the light sensitivity

-  For this setting mode, appears "bLo" appears on the screen.
- Select a parameter value between 0-5 using "  " or "  ". If you select "0", the sensor function will be disabled.
- The lower the number, the darker it has to be for the sensor to automatically switch on the bicycle lighting



Function OFF

Lowest level Highest level

### 5.7.13 Brightness of display



In this setting mode, the 'bLl' appears on the screen.

- Select a parameter value between 1-5 using ' + ' or ' - '. 1 is the darkest backlight, 5 the brightest.

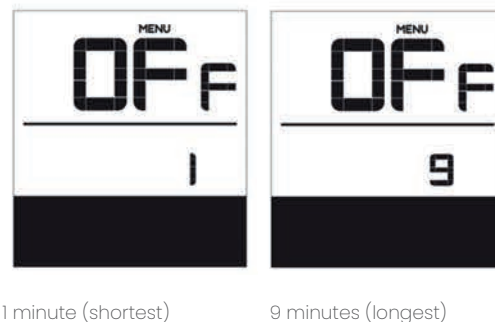


### 5.7.14 Automatic switch-off



In this setting mode, 'OFF' appears on the screen.


- Select a parameter value between 1-9 using ' + ' or ' - '. The numbers refer to the minutes remaining until the electrical system automatically switches off.



### 5.7.15 Error messages DPC 07



Do not perform work on your e-bike yourself. In order to work on the components of an e-bike, you need specialist knowledge, experience and tools! Take your e-bike to a specialist to have the error fixed.

The display will indicate if a malfunction has been detected in your e-bike. If a malfunction is detected, the icon '  ' appears on the screen. One of the following defects will be displayed in the field where the speed is indicated. The error messages have the following codes:

Number	Definition	Solution
03	Brakes in operation	Check if a brake cable is stuck
07	High voltage protection	Take your electric e-bike to your dealer or to a specialist to fix the error.
08	Error in the Hall sensor of the engine	Take your electric e-bike to your dealer or to a specialist to have the error resolved.
10	Engine temperature reaches maximum protection value	Stop the e-bike for a break



Number	Definition	Solution
12	Error with the current sensor in the drive	Take your electric e-bike to your dealer or a specialist to have the error repaired
13	Error with the temperature sensor in the battery	Take your electric e-bike to your dealer or a specialist to have the error fixed
21	Error with the sensor that detects the speed of the wheels	Take your electric e-bike to your dealer or to a specialist to have the error resolved.
22	BMS communication error	Take your electric e-bike to your dealer or to a specialist to fix the error.
25	Torsion sensor torsion signaling error	Take your electric e-bike to your dealer or to a specialist to have the error resolved.
26	Torque sensor speed signaling error	Take your electric e-bike to your dealer or to a specialist to fix the error.
30	Communication error	Take your electric e-bike to your dealer or to a specialist to have the error resolved.

Contact a technician to correct the error message. The display will not return to normal until the problem is resolved. The drive will not be functional until then.



Error code 10 will probably appear on the display if the e-bike climbs for a long time at a time. This indicates that the engine temperature has reached the protection value. In this case, the user should stop and pause the e-bike. If the user allows the e-bike to continue to run, the engine will automatically terminate the power supply.

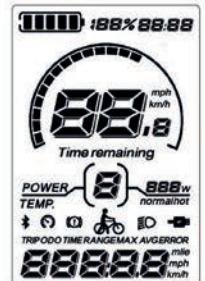


Incorrect operation of the drive system and changes made to the battery, charger or drive system can result in injury or costly damage. In such a case, the manufacturer cannot accept liability for any damage or losses that may have been incurred. Changes to the electrical system may result in criminal prosecution. This may be the case if the supported maximum speed has been modified.

## 5.8 Overview of KD716 display screen

KD716 display has multiple functions to meet your cycling needs. The functions are as follows:

- 1: Intelligent battery power indication
- 2: Engine power
- 3: Assist level
- 4: Speed display (including current speed, maximum speed and average speed)
- 5: ODO and TRIP km
- 6: Walk assist
- 7: Travel Time (TRIP)
- 8: Clock
- 9: Backlight on/off
- 10: Error code indication
- 11: Pedal frequency
- 12: Different parameter settings  
(e.g. wheel diameter, speed limit, battery level bar settings, degree of assistance settings, power-on password settings, controller overcurrent settings, etc.)
- 13: Restore default settings
- 14: Function interface



KD716 display



KD716 control panel

### 5.8.1 Switching the system on/off

Press the power button to turn on the e-bike system and to provide power for the controller.

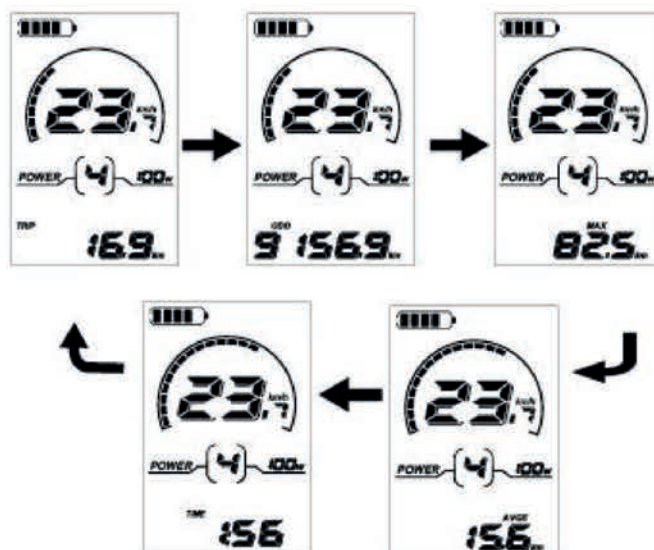
Press and hold the power button for 2s to turn the e-bike system off. The e-bike system now no longer uses the battery. When the e-bike system is switched off, the leakage current is less than 1  $\mu$ A.




If the e-bike is parked for more than 10 minutes, the system will automatically turn of

#### Display interface

After switching on the e-bike system, the display shows the current speed and travel distance by default. Press the 'i' button on the control panel and the following riding data will be displayed: Trip Distance (Km) -> ODO (Km) -> Max. speed (Km/h) -> Avg. speed (Km/h) -> Trip Time (Min.)



### 5.8.2 Walk assist on/off

To activate the walk assist function, press and hold the ' - ' button on the remote control. After 2 seconds, the e-bike will be activated and will maintain a uniform speed of 6 km/h while the display shows '  '. The walk assist function is switched off as soon as you release the ' - ' button. The e-bike system cuts off the power supply immediately.



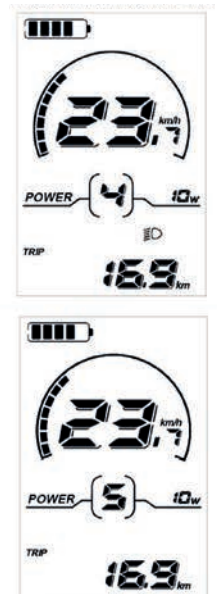
The walk assist function should only be used while walking alongside the e-bike. Never use the walk assist while riding the e-bike!

### 5.8.3 Switching backlight on/off

To switch on the backlight and headlight of the e-bike, press and hold ' + ' for 2s. When cycling at night or in a low-light place, you can turn on the LCD backlight. Press and hold ' + ' again for 2s and the backlight and e-bike headlight will be switched off.

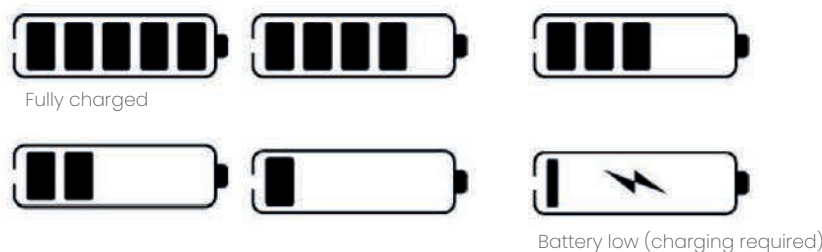
### 5.8.4 Engine assist level

Press the ' + ' or ' - ' button to change the electric assistance and engine power. The default assistance level ranges from level '0' to level '5'. The initial power is set to level '0' by default. Level '1' is the minimum power- level '5' the maximum power. When you reach '5', press the ' + ' button again, the interface will still show '5', and flash '5' to indicate the maximum power. When you reach level '0' when shifting it down and you press the ' - ' button again, the '0' flashes to indicate the minimum power. The default value is level '1'.



### 5.8.7 Battery capacity

The five battery bars represent the capacity of the battery. The five battery bars are bright when the battery is at full voltage. When the battery is in low voltage, the battery frame will flash at the frequency of 1HZ to give a notification that the battery needs to be charged immediately.

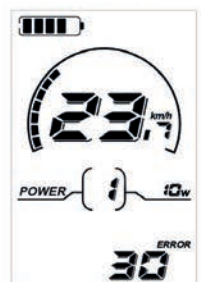


### 5.8.8 Error code indication

If an error occurs in the electronic control system of the e-bike, the display will show the corresponding error code. The definitions of the codes are included in the error code list.



Allow the display to recover when an error code is displayed. Otherwise you cannot ride the e-bike normally.



### 5.8.9 Error code list

Number	Definition
21	Current deviation
22	Acceleration deviations
23	Deviation from the engine phase
24	Engine Hall Signal Anomaly
25	Brake deviation
30	Communication deviation

### 5.8.10 General Settings KD716

Press the 'i' button to turn on the display. In case of a parked e-bike with the display activated, press and hold '+' and '-' simultaneously for more than 2 seconds to enter general settings.

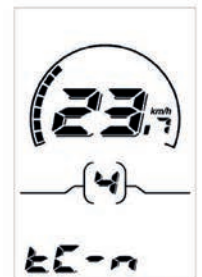


**DO NOT change the settings while riding the e-bike!**

All settings should be made while the e-bike is parked!

### 5.8.12 Trip Distance Clearance

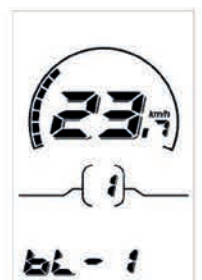
'TC' (trip clearance) stands for the setting for clearing the travel distance. If you want to delete the trip distance, press button '+' or '-' to select yes or no. 'Yes' represents clearing a single trip distance. 'No' stands for not clearing a single trip distance. To save a changed setting, press the 'i' button and access backlight settings.



### 5.8.13 Backlight settings

'bl' stands for backlight settings. Level '1' is the lowest brightness. Level '2' is the average brightness. Level '3' is the highest brightness. The default value is '1'. To change the backlight brightness, press the '+' or '-' button to increase or decrease until the desired brightness level is displayed.

Press 'i' to save a changed setting and then access the conversion settings of the device.



### 5.8.14 Unit settings KM/Miles

'U' stands for unit settings, '1' is miles and '2' is kilometers. The default value is '2'.

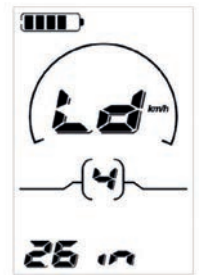
To change the unit, press the '+' or '-' button to increase or decrease until the desired unit is displayed. Press 'i' to save a changed setting and return to the trip distance clearing settings. Press 'i' for 2s and close general settings.

### 5.8.15 General parameter settings KD716

To access the general parameter settings interface, press and hold both the '+' and '-' buttons simultaneously for 2s to enter general settings. Press and hold both the '-' and 'i' buttons for 2s to enter general parameter settings.

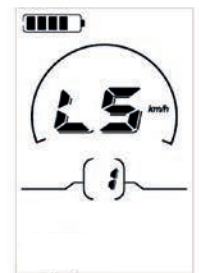
### 5.8.16 Wheel diameter settings

'**Ld**' represents wheel diameter settings. Optional values are 16, 18, 20, 22, 24, 26, 700C and 28. The default value is 26 inch. Press '+' or '-' to increase or decrease the diameter of the wheel until the desired value is displayed. Press 'i' to save a changed setting and access the speed limit setting interface.



### 5.8.17 Speed limit settings

'**LS**' represents the speed limit settings. When the current speed is more than the maximum speed, the e-bike system will automatically shut down. Speed limit varies from 12Km/h to 25Km/h. Press the '+' or '-' button to increase or decrease the maximum speed until the maximum speed is issued. Press and hold "i" for 2s, then exit general parameter settings.

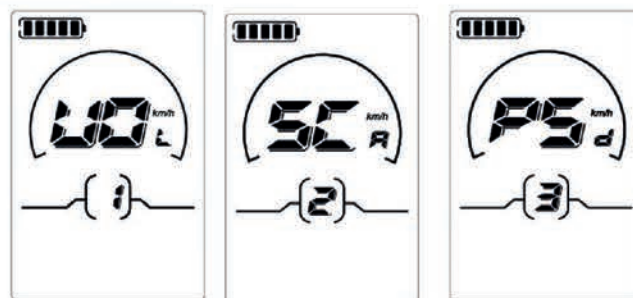


### 5.8.18 Personalized parameter settings

Personalized parameter settings can meet different requirements. There are 8 setting choices: Battery Capacity Meter Settings, Engine Assist Level Settings, Overcurrent Control Settings, Engine Assist Sensor Settings, Speed Sensor Settings, Switch Function Settings, System Settings and Power-on Password Settings.

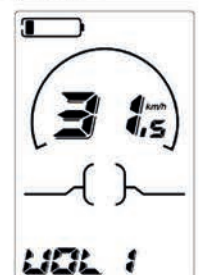
Press and hold button "-" and "+" simultaneously for 2 seconds to enter general settings and press buttons "+" and "-" simultaneously again for 2 seconds to enter personalized parameter settings interface.

Press button "+" or "-" to select the personalized parameter setting items, then press "i" to finish.



### 5.8.19 Battery capacity meter settings

'**VOL**' represents voltage settings. Each bar represents a voltage value. Each of the 5 values must be entered one by one. For example, VOL 1 is the first bar voltage value, the default value is 31.5V. Press "+" or "-" to increase or decrease the bar value. Press the "i" to save a changed setting and access the second bar. You can also set the values in the same way for other bars. After values for 5 bars have been entered completely, long-press "i" to confirm and return to the previous menu.



### 5.8.20 Power Assist level settings (optional)

There are 8 PAS level modes for power assist settings: 0-3, 1-3, 0-5, 1-5, 0-7, 1-7, 0-9, 1-9. The default mode is 0-5. Press "⊕ / ⊖" to adjust until the desired mode is displayed. Press "i" to confirm and enter the corresponding PAS ratio setting page.



### 5.8.21 PAS ratio settings

PAS level ratio setting can adjust the speed of a particular PAS level to suit the needs of different cyclists. For example, the ratio range is 45-55% for level 1. The ratio value can be changed and the default value is 50%. Press UP or DOWN to increase or decrease the number. Press i to confirm and enter the next PAS level ratio setting. Level 9 is the maximum. When the desired PAS ratios have been entered, press i for a longer time to confirm and return to the previous menu. For standard PAS level ratios, refer to the attached list.

Level \ PAS level mode	1	2	3	4	5	6	7	8	9
0-3/1-3	50%	74%	92%	-	-	-	-	-	-
0-5/1-5	50%	61%	73%	85%	96%				
0-7/1-7	40%	50%	60%	70%	80%	90%	95%		
0-9/1-9	25%	34%	43%	52%	61%	70%	79%	88%	96%

### 5.8.22 Controller overcurrent settings (optional)

"CUR" represents overcurrent settings. CUR value varies from 7.0A to 22.0A. The default value is 15A. Press "⊕" or "⊖" to increase or decrease the value of the current. Press and hold "i" for 2s to confirm and then return to the previous menu.



### 5.8.23 PAS sensor settings (optional)

PAS sensor direction settings "run-F" means "forward" "run-b" means "backward (reverse)". The default value is "run-F". Press button "⊕" or "⊖" to select F or b to change the direction of power assist sensor. Press i button to confirm and then access PAS sensitivity settings.



### 5.8.24 PAS sensitivity settings

"SCN" represents PAS sensitivity settings. The sensitivity value ranges from "2" to "9". "2" is the furthest, "9" is the weakest. The default value is '2'. Press "⊕" or "⊖" to select the sensitivity value and change the PAS sensitivity settings. Press "i" and then access the settings of the magnetic disk.





### 5.8.25 Magnet Quantity Settings

"n" represents magnet numbers of PAS disk. The default value is 6. Press the "+" or "-" to select the amount to change magnet numbers of PAS disc. Press and hold "i" for 2s to confirm and return to the previous menu.



### 5.8.26 Speed sensor settings (optional)

"SPS" stands for speed sensor settings. The default value is 1. Press the "+" or "-" to select the amount of magnetic heads (the range is from 1 to 15). Hold "i" for 2s to confirm and then return to the previous menu.



### 5.8.27 Gear functions (optional)

"HL" stands for throttle push-assist function. HL-N means that the push function for throttle is disabled. HL-y means that the push function of the throttle assistant is enabled. The default value is N. Press the "+" or "-" button to select Y or N to set the push-assist functions of the throttle. Hold "i" for 2s to confirm and then return to the previous menu. Otherwise you want to select N and then access the throttle pedal level setting to switch it on or off



### 5.8.28 Gear level on/off

"HF-y" means that the gas velocity is limited by the current PAS level, while "HF-n" means that the gas velocity is not restricted by the current PAS level. The default value is n. If you select y, the maximum speed can only be the highest speed driven by the current PAS level when you turn the throttle. If you select n, the maximum speed is not limited by the current PAS level shown on the display and you reach the nominal maximum speed immediately when you twist the accelerator pedal. Press "+" or "-" to set Y or N and press "i" to confirm and return to the enable/disable setting interface or hold "i" for 2s to return to the previous menu interface.



### 5.8.29 Battery power delay settings

"DLY" stands for delay time of the battery. The default value is 3s. Press button "+" or "-" to select delay time 3s,6s,12s to change the settings. Press "i" to confirm and then access the maximum speed limit settings.



### 5.8.30 Maximum speed limit settings

"MAX SPD" stands for maximum speed limit settings. The default value is 25 Km/h. Press "+" or "-" to set the maximum speed from 12 km/h to 25 km/h. Press "i" to confirm and then access push-assist settings.



The maximum speed is set by the display manufacturer.

### 5.8.31 Enable/disable settings

"PUS" means push-assist button enable/disable settings. Press "+" or "-" button to select Y or N. Y can be selected while N is switched off. Press "i" to confirm. The default value is Y.



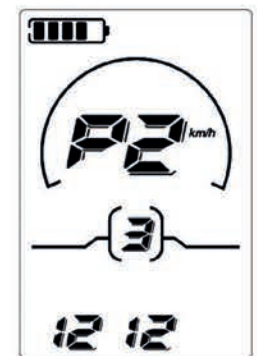
### 5.8.32 Enable/disable push button

"SSP" stands for slow start-up. The range is "1-4", "4" is the slowest. The default value is "1". If you want to change the slow startup settings, press the "+" or "-" button to choose the desired value. Press "i" and go to Delay time settings for battery power. Alternatively, press and hold "i" for 2s to return to the previous menu.



### 5.8.33 Enable password settings

After accessing power-on password settings interface, "P2, 0000" is displayed on the screen and it refers to power-on password. A power-on password is a 4-digit code. The default password is "1212". Press the button "+" or "-" to increase or decrease the values and enter the password by pressing "i" to confirm digits one by one, and then you can access Enable Password Settings. Otherwise, still remain in the password entry status.



### 5.8.34 Enabling/disabling password

Press "+" or "-" and select Y or N and press "i" to confirm. Select Y and press "i" to access power-on password change interface; press N to exit password setting and return to previous menu. The default value is N.

- Y is enable password on.
- N is enable password off.

### 5.8.35 Power-on password change

When the display shows P3, 0000, press "+" or "-" to change the values, then press "i" to confirm digits one by one, until the new 4-digit password is completed. To save the new power-on password, press and hold "i" for 2s and exit the settings. When you turn on the e-bike system next time, the display shows P1,0000. Enter the new password to turn on.

### 5.8.36 Close the settings KD716

In the settings interface, short-pressing "i" (less than 2s) confirms the entry and saves the current settings, while pressing "i" (more than 2s) is to save settings and exit the current setting. If you press and hold "-" (more than 2 s), you must cancel the operations, but not to save setting data and use the settings.

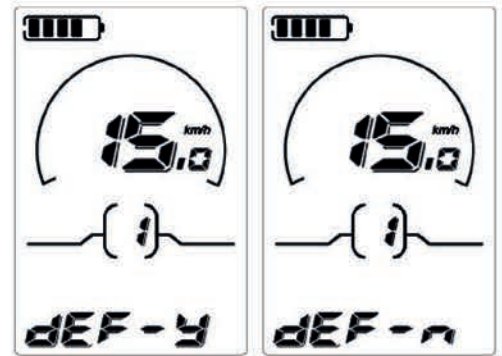


If there are no operations within one minute, the settings interface will automatically close.



### 5.8.37 Restore default settings

"DEF" stands for restoring default settings. The default value is N. To access the restore default settings, press and hold both "+" and "-" for 2 s, then access the selection interface to press "+" and "-" to select "Y" or "N". 'N' means not restoring default settings. Y means restoring default settings. When you choose "Y", hold "i" for 2s to restore default settings, the screen displays DEF-00 at the same time and returns to the home screen.



## 6 Battery



We recommend fully emptying the battery the first 3 times and then fully charging it.

### 6.1 Rear carrier battery KE280/HH280

#### 6.1.1 Operating the battery lock - rear rack

To attach the battery pack to the e-bike, follow the steps below:

- Gently slide the battery into the battery slot
- Switch on the battery with the key, turn the key horizontally to "on"
- Always remove the key from the battery during operation, because the key is not locked in the "on" position
- The battery itself is locked in the "on" position
- Turn the key to "off" to switch off the battery
- To unlock the battery lock push the key lightly into "push", and turn the key through to "unlock". Remove the key from the lock. You can now remove the battery from the battery slot by pulling the battery out of the rear rack



#### 6.1.2 Removing the battery from the e-bike - rear rack

Use the key on the battery lock.

- Insert the key into the lock on the left side of the front of the battery and gently pull up the key
- Remove the key from the battery
- Pull the battery pack backwards to remove it from the battery slot

#### 6.1.3 Installing the battery in the e-bike - rear rack

The battery can be slid into the battery slot under the carrier. You hear a click at the end to check that the battery is in the right place.

#### 6.1.4 Charging - rear rack

The battery should be charged with the charger provided. The battery can remain in the e-bike during charging, but it can also be removed from the e-bike. Charging takes place via the regular electricity grid. In some cases, you will need to turn on the battery before the battery can be charged. The charging port is located under the cover; indicated in red on the picture.









#### 6.1.5 Charge status and capacity

Press the "⊙" button for 1 second so that the battery control system detects the charge status of the battery to show it on the LEDs for 5 seconds. Press and hold the "⊙" button for 5 seconds so that the BMS can display the power of the battery on the LEDs for 5 seconds. The battery control system will then turn off the LED to save energy.

#### 6.1.6 Sleep mode

To avoid damaging the battery discharge, the battery control system puts the battery in sleep mode. In sleep mode, no function is indicated for technical reasons. Press and hold the "⊙" button for 5 seconds to exit the persistent sleep mode.

Error description	LED Status	SOC
	First LED flashes	≤ 5%
	A green light	6–9%
	Two green lights	10–29%
	Three green lights	30–49%
	Four green lights	50–74%
	Five green lights	≥75%

## 6.2 Semi integrated battery Saber/Swordfish

### 6.2.1 Control of the battery lock – Semi integrated

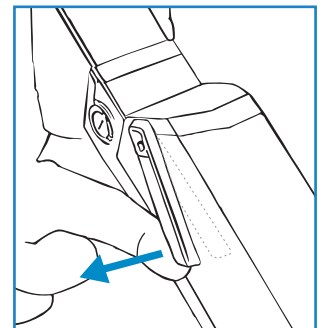
To attach the battery pack to the e-bike, follow the steps below:

- Gently insert the battery into the battery slot.
- The battery turns on automatically, you don't need to activate it manually.
- Lock the battery by turning the key to the "lock" symbol.
- Always remove the key from the battery pack during operation.
- To unlock the battery lock, turn the key to "unlock".
- Remove the key from the lock after opening or closing.

### 6.2.2 Removing the battery from the e-bike – Semi integrated

Use the key on the battery lock.

- Insert the key into the lock on the left side of the battery and carefully turn the key towards the "unlock" symbol.
- Remove the key from the battery.
- Pull the throttle of the battery towards you.
- Grasp the battery with your other hand and also pull it towards you
- You can now carefully remove the battery from the battery slot with both hands.

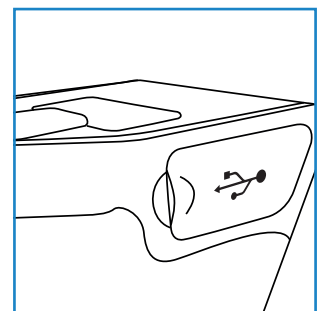


### 6.2.3 Inserting the battery into the e-bike – Semi Integrated

You can place the battery in the middle frame. First, position the lower part of the battery pack to the correct position at the battery connector, then use a sideways motion to insert the complete battery pack until a click is heard.

### 6.2.4 Battery charging – Semi integrated

The battery should be charged with the charger provided. The battery can remain in the e-bike during charging, but it can also be removed from the e-bike. Charging takes place via the regular electricity grid. In some cases, you will need to turn on the battery before the battery can be charged. The charging port is on the right side of the battery - on the other side is the throttle for unlocking the battery.



## 6.3 Fully integrated battery TM40/TM50/TM70

### 6.3.1 Control of the battery lock – fully integrated

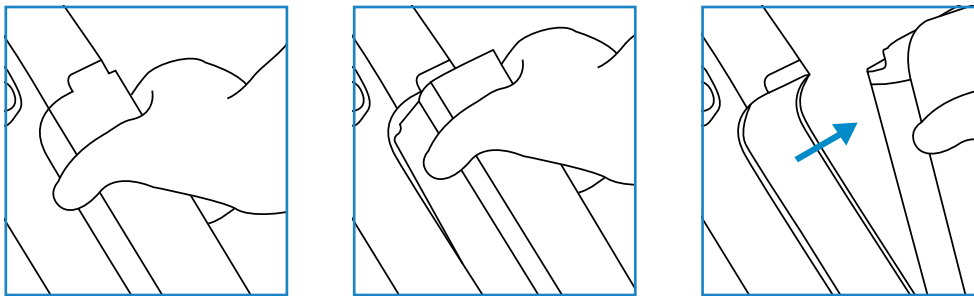
To attach the battery pack to the e-bike, follow the steps below:

- Gently insert the battery into the battery slot in the center frame.
- The battery turns on automatically, you don't need to activate it manually.
- Lock the battery by turning the key to the "lock" symbol.
- Always remove the key from the battery pack during operation.
- To unlock the battery lock, turn the key to "unlock".
- Remove the key from the lock after opening or closing.

### 6.3.2 Removing the battery from the e-bike – fully integrated

Use the key on the battery lock.

- Insert the key into the lock on the left side of the battery and carefully turn the key towards the "unlock" symbol.
- Remove the key from the battery.
- Pull the battery pack forward in line with the frame.
- You can now carefully remove the battery from the battery slot with both hands.

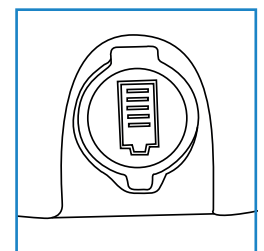


### 6.3.3 Inserting the battery into the e-bike – fully integrated

You can place the battery in the middle frame. First, position the bottom of the battery pack in the correct position at the battery connector, insert the battery pack in place with a downward motion until you hear a click.

### 6.3.4 Charging the battery – fully integrated

The battery should be charged with the charger provided. The battery can remain in the e-bike during charging, but it can also be removed from the e-bike. Charging takes place via the regular electricity grid. In some cases, you will need to turn on the battery before the battery can be charged. The charging port is located on the lower part of the battery.



## 6.4 Important information about the battery

- The four LED lights show the approximate status of the battery. As a rule, one light represents 25% battery capacity
- Press "power" to query status. This is only possible when the battery is switched on.
- If only one light is on, charging the battery is recommended
- Do not leave the battery in direct sunlight
- Charge the battery at least every 2 months when it is not in use

- The battery can be recharged at any time. The battery does not degrade to a greater extent when, for example, it is half full or three quarters full and is charged compared to when completely empty.
- Do not drain the battery completely
- At (extremely) cold temperatures, the battery will perform less efficiently than at temperatures around 10–20 °C (-> less range; can be underperform by up to minus 30%). This also applies to charging at : the charging process will take longer.

## 6.5 General information on charging

As a rule, it takes about 4-6 hours for the battery to be fully charged from 0% to 100%. This can sometimes be longer, for example when the battery is new or when the room where the battery is being charged is colder than 15°C. Room temperature (around 21 °C) is a good ambient temperature for the battery during charging. The charger has an LED light. The light turns red when the battery is charging and it turns green when the battery is fully charged. The charger will then stop charging, so in principle there is no need to unplug the charger directly from the socket.



Please note: when all the LED lights on the battery pack are on, this does not mean that the battery pack is full. So only when the light on the charger is green, the battery is fully charged.

## 6.6 General information on battery range

It is difficult to determine your exact range, because it is influenced by various factors:

- Degree of pedal assistance
- Your own pedalling power
- Weight of the rider
- Tyre pressure
- Weight of luggage
- Road and weather conditions

Globally, the range is as follows:

- 17.4 Ah (628Wh) : 120 – 150 km
- 15.6 Ah (562Wh) : 100 – 130 km
- 13.0 Ah (468Wh) : 80 – 100 km
- 10.4 Ah (374Wh) : 60 – 80 km

## 6.7 Safety instructions

Risk of fire or explosion if battery is used with an incompatible system.

Do not open, disassemble or puncture the battery because of risk of short circuiting, fire or explosion. In the event of a fall, shock or similar occurrence, discontinue use and return immediately for examination. Use only the original charger supplied with the battery because of the risk of fire or explosion. Disposal of used batteries should be done in compliance with local regulations. Read the manual carefully before use.



**The battery should always be kept out of the reach of children.**

Do not allow children to remove the battery from the e-bike or charger, or to play with it.



**Do not touch a leaking battery.**

Leaking electrolytes can cause skin problems. If battery acid comes into contact with the eyes, do not rub them. Wash your eyes immediately with clean water. Contact the hospital for further treatment!



**Faulty batteries will cause overheating, smoke or combustion.**

If the battery is hot to the touch, leaking or smells funny, remove it immediately.



**Do not disassemble the battery.**

The battery pack contains protective parts and is short-circuited internally to avoid danger. Improper handling, such as improper disassembly, may destroy the protective functions and result in overheating, smoke generation, distortion or fire.



**Do not intentionally short-circuit the battery.**

Do not touch or connect the plus and minus pole to any metal. Do not allow the battery to come into contact with metal parts during storage or use. If the battery is short-circuited, a stronger current will flow through it, causing damage, overheating, smoke, deformation or fire.



**Do not heat or burn the battery.**

Heating or burning the battery will cause the insulated parts in the battery to melt, lose their protective function, or the electrode to ignite or overheat. This can cause the battery itself to overheat, smoke, deform or catch fire.



**Keep the battery pack away from heat sources when in use.**

Do not use the battery pack near a fire or stove or above 60 °C (140 °F) as overheating may cause a short circuit in the battery pack, which will cause it to overheat, smoke, deform, or catch fire.



**Avoid charging near open flames or in direct sunlight.**

This may cause the internal protection function to short-circuit, which may lead to unusual chemical reactions or defects resulting in overheating, smoke generation, distortion or fire.



**Do not damage the battery.**

Do not drop the battery, as this may cause overheating, deformation, smoke generation or fire and pose a danger to the user.



**Do not weld directly onto the battery.**

Any application of heat will cause the insulated parts in the battery to melt, which will affect its protection function and lifetime by overheating, deforming, giving off smoke or catching fire.



**Do not charge the battery directly into a wall socket or cigarette lighter socket in the car.**

High voltage and stronger current will damage the battery and shorten its life by overheating, deforming, smoking or bursting into flame

## 6.8 Storage of the battery pack

When not using the e-bike for long periods of time, remove the battery, charge it (60-80%) and store it separately in a frost-free, dry room.

- Avoid direct sunlight. Direct sunlight can lead to overheating, deformation, rupture, poor performance and shortened battery life.
- To prevent deep discharge, the battery goes into sleep mode after a certain period of time.

- The correct storage temperature for your battery is between 15°C and 35°C. Avoid temperatures below or above the allowable storage temperature to prevent damage. Please realize that temperatures of around 45°C are common near heaters or stoves, in direct sunlight or in the interior of overheated vehicles.
- When storing the battery for a long period of time, make sure it has at least half the capacity and recharge it three months later. Do not wrap it with conductive materials, as this will cause damage through direct contact between the metal and the battery.



If you notice that the battery pack heats up during use, charging, or storage, emits a strong odor, shows changes in appearance or other abnormal condition, discontinue use of the battery pack and have it checked by a dealer before use.

#### Battery life depends on several factors:

- The number of charge cycles (approximately 500 charge cycles).
- The age of the battery.
- Storage conditions.
- Of course, the battery also deteriorates and loses power when you are not using it.

#### Battery life can be influenced by the following measures:

- Charge your battery after every ride, even if they are short. Lithium-ion batteries have no memory effect.
- Avoid riding in high gears with a high level of assistance.

## 6.9 Battery wear



As its service life increases, the capacity of the battery will slowly deteriorate. This also reduces the range of your electric power-assisted e-bike. This is not a defect.

## 6.10 Battery malfunctions

Error description	Cause	Solution
Control screen doesn't light up.	The mains plug is not connected correctly to the	Check all connections and that the charger is correctly connected to the power supply.
The charger's indicator light doesn't light up.	The battery may have a malfunction.	Contact your dealer.
The charger's indicator light does not illuminate red continuously.	The battery may have a malfunction.	Contact your dealer.

## 6.11 Battery specs

Accu					
Type	Soort / positie	Voltage	Vermogen (Ah)	Capaciteiten (Wh)	Buitemperaturen (C) *
KE280/HH280	Achterdrager accu		36 10.4, 13.0, 15.6, 16.8	374, 468, 562, 605	-10/+35
Saber/Swordfish	Semi geïntegreerde accu		36 16.8	605	-10/+35
TM40/TM50/TM70	Volledig geïntegreerde accu		36 14.5, 17.5, 18.2, 22.4, 24.5	500, 628, 655, 806, 882	-10/+35

Motor						
Type	Soort / Positie	Voltage (Volt)	Vermogen (Watt)	Max. koppel (Nm)	Max. snelheid (km/h)	Buitemperaturen (C) *
M200 / Kreutzer	Middenmotor	36	250	65	25	-20/+40
M400 / Kreutzer	Middenmotor	36	250	80	25	-20/+40
M420 / Kreutzer	Middenmotor	36	250	80	25	-20/+40
Bafang R	Naafmotor / voor	36	250	40	25	-20/+40
Bafang D / 02	Naafmotor / voor	36	250	40	25	-20/+40

## 7 Charger



The charger is specifically designed for charging lithium ion batteries. It features an integrated fuse and overload protection.

### 7.1 Operating instructions



Please read the instructions for use of the charger and the label on the charger before use.



To minimize the risk of an electric shock, never open the charger device. Maintenance work may only be carried out by qualified personnel. Make sure you read the information on your battery charger before you ever charge the battery! Disconnect the charger before removing the battery from the charger. Flammable gases may leak out. Avoid flames and sparks.




Keep the charger away from children and animals. Small children and animals could damage the cable if they play with it. Doing so may result in electric shock, malfunction or fire.

- The charger must not be used by children or persons with reduced physical, sensory or mental capabilities, unless they are supervised by a responsible adult.
- Make sure the charger is clean. There is a risk of electric shock.
- Do not use the charger in damp or dusty places.
- Avoid direct sunlight.
- Unplug the charger when not in use.
- Only use the charger supplied with the e-bike or one from the same manufacturer.
- Do not cover the charger when in use. This can cause short circuits or fire.
- Unplug the charger before cleaning it.
- If charging takes longer than stated in the specifications table, stop charging.
- After charging, remove the Battery pack from the charger and unplug it from the power outlet.



## 8 Drive unit

### 8.1 Mid-drive engine

 Your e-bike is equipped with a mid-drive engine. The power supply unit is located above the lower bracket.

The engine will move forward as soon as you press down the pedal. The level of electric assistance varies depending on the settings. The drive unit will switch off as soon as you stop pedalling or reach the maximum speed (E-bike: 25 km/hour). The assistance is automatically reactivated as soon as the speed drops below the maximum assistance speed and you apply pressure to the pedals again.



Please note that the engine of your e-bike can get heat up during long uphill gradients. Do not touch the engine as you may get burned.



Note that if the road surface and the assist bracket are slippery (for example, due to rain, snow, sand), there is a risk that the drive wheel of your e-bike could rotate and slip.

### 8.2 Hub engine

The front wheel engine with internal rotor is compatible with a roller brake and has a nominal output of 250W. The internal rotor design and high reduction ratio (1:1) allow for easy release of engine power. Small size, light weight, high efficiency and smooth and quiet operation make this engine suitable for city e-bikes.



Please note that the engine of your e-bike can heat up during long uphill rides. Do not touch the engine, you may get burned.



The engine is activated as soon as you push the pedal down. The degree of assistance depends on the settings on the control unit. As soon as you stop pedaling while riding, or when you have reached the maximum speed, the drive will turn off assistance. The assistance resumes automatically as soon as the speed drops below the maximum assistance speed and you apply pressure to the pedal again.



Please note that if the road surface is slippery (e.g. due to rain, snow, sand), there is a risk that the wheels of your e-bike could slip. Always adapt your driving style and speed to the circumstances, using common sense.

## 9 MAINTENANCE



Turn off the electric engine and remove the battery pack before performing any work on your e-bike. Failure to do so may result in serious injury and/or electrical shock.



Keep all parts of the electrical system clean. Gently clean with a damp, wet cloth. The parts should not be immersed in water or cleaned with a water jet or steam jet. If the parts no longer function, please contact your dealer.



Do not clean the e-bike with a steam jet, pressure washer or water hose. Water can seep into the electrical components or drive and destroy the equipment.



The frequency of maintenance depends on the driving conditions. Clean the chain or belt regularly with a suitable cleaner.



Never use alkaline or acidic cleaning products to remove rust. Use of such cleaning agents may damage the chain, possibly resulting in serious injury.



Have maintenance, repair and overhaul work carried out only by qualified personnel and only using original parts. In the event of a flat tyre or other technical problem have your dealer carry out the repairs

## 10 RANGE OF YOUR E-BIKE



It is best to charge the battery when it is warm and place it just before you leave.

Range data is based on optimal conditions. The following factors can affect the range:

- Degree of assist: The higher the assistance level applied, the more energy consumption and the shorter the range.
- Riding style: You can save energy with optimal use of the gears.
- In the lower gears, you need less power, less assistance and your e-bike uses less energy.
- Ambient Temperature: Batteries discharge faster at low outside temperatures and therefore have a small range.
- Terrain: In hilly terrain, more energy is needed, which reduces the range.
- Weather and vehicle weight: Besides the ambient temperature, the wind also influences the range. When there is a strong headwind, more power is needed for riding. Luggage etc. increases the weight, so more power is needed.
- Technical condition of your e-bike: Tyres that are too soft increase the resistance to driving, especially if you drive on a smooth surface such as asphalt. The range of your e-bike can be reduced by a slipping brake or a badly maintained chain.
- Charge status of the battery: The charge status indicates how much electrical energy is stored in the battery at a given time. More energy means a greater range.

## 11 TRANSPORT OF THE E-BIKE



Remove the battery from the e-bike before transportation, and transport it separately.

The battery pack is not considered a hazardous material if it is transported in order to enable the e-bike to work. The battery becomes a hazardous material if it is transported in any other way. In this case, you must follow the applicable guidelines.



Never ship the battery yourself. Batteries are considered to be hazardous materials. Ship your e-bike's battery only through your specialist dealer. The battery may catch fire or explode under certain conditions.

### 11.1 By car

You can transport your e-bike by car as you normally transport an e-bike. Before using the e-bike, remove the battery pack and transport it separately. The weight of the e-bike requires a sturdier rack. Always adjust your driving to the load you have on the carrier.



**Advice:** use a cover during transport to protect the e-bike. Make sure that the engine, display and battery connections are covered to prevent possible moisture damage during transport. Transport damage is not covered by the warranty.

### 11.2 By train

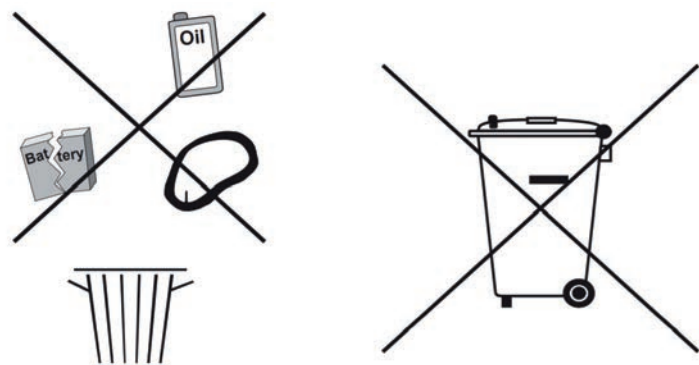
The same regulations as for the transport of an e-bike apply. Before using public transport, you need to know which buses and trains will allow you to take your e-bike. It is best to remove the battery from the e-bike before you use public transportation.

## 12 TIPS FOR PROTECTION OF THE ENVIRONMENT / WASTE

General cleaning and maintenance: Consider the environment when doing maintenance to your e-bike or clean it. Wherever possible, you should use lubricating and cleaning products that are biodegradable. Make sure that no cleaning agents can pass through the sewage system.

### 12.1 Batteries for the e-bike

E-bike batteries must be treated as hazardous products and therefore have mandatory special labels. They must be disposed of by specialist dealers or manufacturers.



#### Legal notice

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Timyo B.V. declares that this device complies with the essential requirements and other relevant provisions of the Machinery Directive.



Stepvelden 1  
4704 RM Roosendaal  
+31 165 224612

[info@timyocycle.com](mailto:info@timyocycle.com)  
[www.timyocycle.com](http://www.timyocycle.com)