

PRODUCT MANUAL



POWER 1 (E-BIKE)

POWER 7 (E-BIKE)

POWER PLUS (E-BIKE)

Swapfiets The bike
subscription.

Hi. We're Swapfiets, the bike membership.

A Swapfiets membership gives you the freedom of having your own high quality bike, while we take care of all the hassle to keep you moving.

How it works:

For a fixed monthly fee, you get your own bike & we make sure it always works. Easy.

Members also get:



Free repairs.



Speedy service via our app.

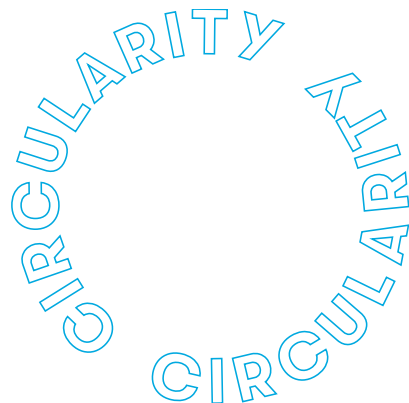


Flexible contracts.

And no - you can't buy our bikes.

Because we believe this planet has enough stuff. We choose to use and re-use high quality products that are designed to last.

Get the freedom of biking without any fuss.



Manufacturer's Instructions

Designed and released according to: NEN-EN 15194: 2017 Bicycles - Electrically assisted bicycles - EPAC Bicycles.

From now on we will refer to our Swapfiets Power 1 as 'P1' and the Power 7 as "P7". Power plus remains Power plus.

This European Standard applies to EPAC bicycles for private and commercial use with exception of EPAC intended for hire from unattended station.

This European Standard is intended to cover all common significant hazards, hazardous situations and events (see Clause 4) of electrically power assisted bicycles, when used as intended and under condition of misuse that are reasonably foreseeable by the manufacturer.

This European Standard is intended to cover electrically power assisted bicycles of a type which have a maximum continuous rated power of 0,25 kW, of which the output is progressively reduced and finally cut off as the EPAC reaches a speed of 25 km/h, or sooner, if the cyclist stops pedalling.

This European Standard specifies requirements and test methods for engine power management systems, electrical circuits including the charging system for the design and assembly of electrically power assisted bicycles and sub-assemblies for systems having a rated voltage up to and including 48 V d.c. or integrated battery charger with a nominal 230 V a.c. input.

This European Standard specifies safety and safety related performance requirements for the design, assembly, and testing of EPAC bicycles and subassemblies intended for use on public roads, and lays down guidelines for instructions on the use and care of such bicycles.

This European Standard applies to EPAC bicycles that have a maximum saddle height of 635 mm or more and that are intended for use on public roads.

The type of use for which the bicycle has been designed (i.e. the type of terrain for which it is suitable) with a warning about the hazards of incorrect use;

The bicycles have been designed and released for use as a city bicycle.

Preparation for riding: Clear information on which lever operates the front brake, which lever operates the rear brake, the presence of any brake-power modulators with an explanation of their function and adjustment, and the correct method of using a back-pedal brake if fitted;

Your braking system depends on your specific e-bike model:

- **Models with a single handbrake & coaster brake:** Pedal backward firmly to operate the rear brake. The right-hand lever on the handlebar operates the front brake.
- **Models with two handbrakes:**
 - **Power 1:** The left lever operates the front brake; the right lever operates the rear brake.
 - **Power Plus:** The left lever operates the rear brake; the right lever operates the front brake. (Note: These are high-performance disc brakes - squeeze gently!)

All front brakes (except on the Power Plus) have a built-in anti-lock safety feature. For the smoothest, most stable stop, always apply both brakes together, starting gently with the rear.

Indication of minimum saddle height and the way to measure it;

The handlebar and saddle height has been set to the correct height for you by Swapfiets. If you would like to change this, please contact us.

Recommendations for safe riding, the use of a bicycle helmet, regular checks on brakes, tyre pressure, steering, rims, and caution concerning possible increased braking distances in wet weather;

- Before using the bicycle, it is advisable to check the tire pressure. You do this by pressing the side of the tire with your index finger and thumb. If you have any doubts about the correct voltage, please contact us. You can also inflate the tires yourself. For the P1 / P7 it is 4. Power plus it is 2.5 bar.
- If there are any doubts about the correct functioning of the bicycle, contact us immediately.
- The use of a helmet is at your own discretion, also follow local regulations.

An advisory note on specific risk of entrapment during normal use and maintenance;

If there are any doubts about the correct functioning of the bicycle, contact us immediately.

The permissible total weight of the rider plus luggage and the maximum total weight (bicycle + rider + luggage);

Product	Max payload	Product weight	Rider + luggage weight
Power 1	120 KG	25 KG	95 KG
Power 7	130 KG	30 KG	100 KG
Power Plus	170 KG	32 KG	132 KG

Indication of whether or not a bicycle is suitable for the fitting of a luggage carrier and/or a child seat;

The bicycles are equipped with a front carrier, this carrier has a maximum permissible load of 15 kg.

A child seat is allowed and can be added at your own risk. Please note the total weight must remain below the bicycle's maximum payload.

The Power Plus has a front load of 30kg and rear load of 40kg, when use of MIK accessories it is 27kg.

Recommendation about usage for bicycle trailer or trailer bicycle if allowed by bicycle manufacturer;

Not allowed.

An advisory note to draw attention to the rider concerning possible national legal requirements when the bicycle is to be ridden on public roads (e.g. lighting and reflectors);

- In Germany, the requirements for bicycle lighting are regulated in § 67 of the StVZO and in the TA (technical regulations for vehicle parts). Lighting includes both lamps that are supplied with voltage by means of a battery / battery or dynamo, as well as reflectors that do not electrical voltage and only reflect light from the outside.
- Always follow the laws and regulations that apply locally.

Recommended tightening of fasteners related to the handlebar, handlebar stem, saddle, seat-post, wheels, and aerodynamic extension if fitted with torque values for threaded fasteners;

You are not supposed to adjust the bike yourself. Contact us to help you.

The correct method of assembling any parts supplied unassembled;

Your bike comes completely assembled.

Lubrication: where and how often to lubricate and the recommended lubricants;

Contact us to help you.

The correct chain tension and how to adjust it (if appropriate);

Contact us to help you.

Adjustments of gears and their operation (if appropriate);

Contact us to help you.

Adjustment of brakes and recommendations for the replacement of the friction components;

Contact us to help you.

Recommendations on general maintenance;

Contact us to help you.

The importance of using only genuine replacement parts for safety-critical components;

Contact us to help you.

Appropriate spares, i.e. tyres, tubes, and brake friction-components;

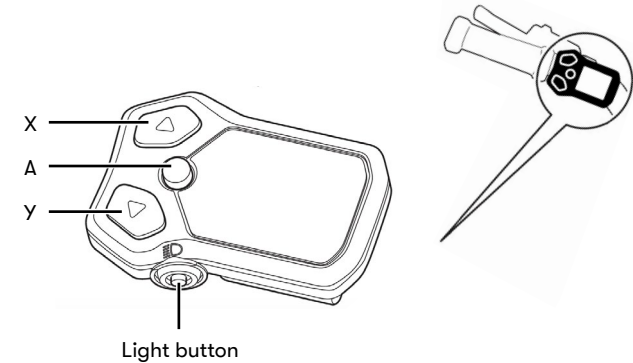
Contact us to help you.

An advisory note to draw the attention of the rider to possible damage due to intensive use and to recommend periodic inspections of the frame, fork, suspensions joints (if any), and composite components (if any). The wording of the advice can be as follows:

WARNING:

– As with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components might react to wear or stress fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail, possibly causing injuries to the rider. Any form of crack, scratches, or change of colouring in highly stressed areas indicate that the life of the component has been reached and it should be replaced.

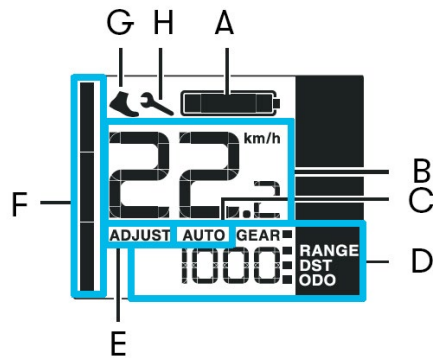
Concept and description of electric assistance including varying levels of motor assistance;



The operation for each button is indicated below.

Switch unit integrated type cycle computer	
Button-X	Increase assistance When in walk assist mode: Disengage walk assist mode *2
Button-Y	Decrease assistance Hold down: Switch to walk assist mode *2 When in walk assist mode: Activate walk assist *2
Button-A	Switching traveling data display

Control and tell tales;



Main screen.

A	Battery level indicator.	E	ADJUST mode display.
B	Current speed Displays the current speed.	F	Assist gauge: Displays the current assist mode. A mode that provides stronger assistance the longer the length of the displayed gauge.
C	Auto gear shifting display: Displayed for the auto gear shifting.	G	Walk assist: This icon is displayed when switched to walk assist mode.
D	Traveling data display.	H	Maintenance alert: Indicates that maintenance is required. Contact your place of purchase or a distributor if this icon is displayed.

Specific EPAC recommendation for use:

Please first start up the system before pedaling to prevent errors.

Top 4 handling the battery & charger topics:

1. The battery can be charged at temperatures between 0°C - 40°C. The battery charger will not operate at temperatures outside the range. It will display an error. (The battery charger LED lamp flashes.)
2. Always take the battery with you to prevent theft.
3. Use the battery with care. Do not use the battery if it has any noticeable scratches or other external damage. If this is not observed, bursting, overheating or problems with operation may occur.
4. Do not use the battery if leakages, discoloration, deformation, or any other abnormalities occur. If this is not observed, bursting, overheating or problems with operation may occur.
5. If the bike doesn't turn on: take-out the battery, press on, wait until lights are off and try again.

Handling the battery & charger continued:

- Use the specified battery charger for charging and observe the specified charging conditions. Doing otherwise may cause overheating, bursting, or ignition.
- Do not leave the battery near sources of heat such as heaters. Doing so may cause bursting or ignition.
- Do not heat the battery or throw it into a fire. Doing so may cause bursting or ignition.
- Do not deform, modify, disassemble, or apply solder directly to the battery. Doing so may cause leakage, overheating, bursting, or ignition.
- Do not connect the terminals with metallic objects. Doing so may cause them to short circuit or overheat, and result in burns or injury.
- Do not carry or store the battery together with metallic objects such as necklaces or hairpins. Doing so may cause them to short circuit or overheat, and result in burns or injury.
- Do not place the battery into fresh water or sea water, and do not allow the battery terminals to get wet. Doing so may cause it to overheat, burst, or ignite.
- Do not throw or subject the battery to strong shock. Doing so may cause overheating, bursting, or ignition.
- Do not allow the battery charger to get wet. If it is wet or water is allowed inside, it could cause a fire, ignition, overheating, or electric shock.
- Do not use it while it is wet, and do not touch or hold it with wet hands. An electric shock may occur.

- Use the specified battery and battery charger combination for charging and observe the specified charging conditions. Doing otherwise may cause overheating, bursting, or ignition.
- Do not insert or remove the plug while it is wet. Doing so may result in electric shock. If the inside of the plug is wet, dry it thoroughly before inserting it.
- Do not recharge the battery in wet or very humid places, or outdoors. A fire, ignition, overheating, or electric shock may occur.
- If the battery does not become fully charged even two hours after the designated charging time, immediately unplug the battery from the electrical outlet.
- If any liquid leaking from the battery gets into your eyes, immediately wash the affected area thoroughly with clean water such as tap water without rubbing your eyes, and seek medical attention immediately. If this is not done, the battery liquid may damage your eyes.
- Do not use it outside of the operating temperature range of the battery.
- If the battery is used or stored in temperatures which are outside these ranges, fire, injury or problems with operation may occur.
 1. During discharge: -10°C - 50°C
 2. During charging: 0°C - 40°C
- Do not use the battery charger when it is covered with a cloth or other material. Doing otherwise may cause the heat to build up and the case may become deformed, or fire, ignition, or overheating may occur.
- Do not disassemble or modify the battery charger. If this is not observed, electric shocks or injury may occur.
- Be sure to hold the power plug when connecting or disconnecting from the electrical outlet. Failure to do so may cause a fire or electric shock. If the following symptoms are observed, stop using the device and contact the place of purchase. A fire or electric shock may be caused.
- If heat or acrid-smelling smoke is coming out from the power plug. There may be a bad connection inside the power plug.
- Do not touch the metallic parts of the device or the power plug on the AC adapter or other parts if there is a lightning storm. If lightning strikes, electric shocks may occur.

- Do not overload the electrical outlet with appliances beyond its rated capacity, and use only a 220-240 V AC electrical outlet. If the electrical outlet is overloaded by connecting too many appliances using adapters, overheating resulting in fire may occur. • Do not damage the power cord or power plug. (Do not damage, process, forcibly bend, twist or pull them, bring them near hot objects, place heavy objects on them or bundle them tightly together.) If they are used while damaged, fire, electric shocks or short circuits may occur.
- Do not use the battery charger with commercially-available electrical transformers designed for overseas use (travel converters). They may damage the battery charger.
- Always be sure to insert the power plug as far as it will go. If this is not observed, fire may occur.
- When charging the battery while it is installed on the bicycle, do not move the bicycle. The battery charger's power plug may come loose and not be fully inserted into the electrical outlet, resulting in a risk of fire.
- Do not leave the battery in a place exposed to direct sunlight, inside a vehicle on a hot day, or other hot places. This may result in battery leakage.
- If any leaked fluid gets on your skin or clothes, wash it off immediately with clean water. The leaked fluid may damage your skin.
- Keep away from children.
- Handle components with both hands. Failure to do so may cause the components to fall and break or cause injury.
- If an error occurs during the battery discharge or charge operation, immediately stop using it. If you are not sure, consult Swapfiets.
- Avoid touching the battery for an extended period of time when it is at a high temperature. Doing so may cause a low-temperature burn
- Do not let the battery touch the same area of skin for an extended period of time while it is charging. The temperature of components may reach 40 to 70°C, which can cause low-temperature burns.
- Periodically check the battery charger and adapter, particularly the cord, plug, and case, for any damage. If the battery charger or adapter is broken, do not use it until it has been repaired by Swapfiets.

- The components are designed to be fully waterproofed to withstand wet weather riding conditions; however, do not deliberately place them into water.
- Handle the components carefully, and avoid subjecting them to strong shock.
- Before connecting the battery, make sure that there is no water collecting in the area where the battery will be connected (connector), and that it is not dirty.
- The battery cannot be used at the time of purchase. Before riding, be sure to fully charge the battery.
- If the battery has become completely empty, charge it as soon as possible. If you leave the battery without charging it, the battery will deteriorate and may become unable to be used.
- If the screen of the cycle computer is not displayed, fully charge the battery. The battery level may affect the display.
- Press the battery power button and if the LED display does not light up, the protective circuit is operating. Connect the battery charger and charge the battery to deactivate this.
- If the battery is charged in a low-temperature environment of 5°C or lower, the traveling distance of a full charge will be shorter. Also, if the battery is used in a low-temperature environment of 5°C or lower, the battery consumption will become quicker. This is due to the characteristics of the battery, and the battery will return to normal when at a normal temperature.
- Riding with a high level of assistance in a low-temperature environment when the battery level is low may cause the battery level to drop to 0%, due to the characteristics of the battery. Charge it before use.
- Use the battery charger at the specified power supply voltage only. If a power supply voltage other than that specified is used, fire, destruction, smoke, overheating, electric shocks or burns may occur.
- Do not place the battery charger on dusty floors when using it.
- Place the battery charger on a stable surface such as a table when using it.
- Do not place any objects on top of the battery charger or its cable. Also, do not cover them with the cover.
- Do not bundle the cables.
- Do not hold the battery charger by the cables when carrying it.

- Do not apply excessive tension to the cable and charging plug.
- In order to prevent the cable from being damaged, avoid wrapping it around the main body during storage.
- Do not wash the battery charger or wipe it using detergents.
- Do not allow children to play near the product.
- When charging with the battery installed to a bicycle, take care that your legs, etc. Do not get caught in the battery charger cord. Doing so may cause injury or cause the bicycle to fall over and break the components.

TO ENSURE SAFETY

When charging the battery while it is mounted on the bicycle, be careful of the following:

- Before charging, check that there is no water on the charging port of the charging plug.
- Check that the battery mount is locked before charging.
- Do not remove the battery from the battery mount while charging.
- Do not ride with the battery charger mounted.
- Close the cap on the charging port when not charging.
- Fix the bicycle in place when charging, so that it does not tip over.
- Make sure to close the charging port cap after charging is complete. If foreign material such as dirt or dust is adhering to the charging port, it may not be possible to insert the charging plug.
- Using the battery outside the operating temperature range may cause problems with operation or performance degradation.
- The charging time is longer when the battery temperature is high.



Your own bike.

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Hassle free.

Free repairs & maintenance are always included.



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CIRCULARITY