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1. Quick-start

Dear customer,

On the first sides of this comprehensive instruction manual you will find this Quick start guide, where you can get a quick overview of the main features of the Pedelec.

For further information please read the additional instructions on the following pages.

There you will find all the important technical issues and details and further relevant information. Should you have any further questions, please ask one of our authorized dealer or contact our technical hotline, whose contact details are at the end of the manual.

Enjoy your Pedelec and we wish you a lot of fun

Your team of Klever Mobility.



Image 2 complete bike marking: major parts of the electric drive



Image 3

Security check:

Before starting the bike please always check the operation of the brakes and the air pressure in the tires.

Launch of the electric drive

To start the propulsion system the display must be mounted in the holder. There are two ways to activate the system:

- 1. Press and hold for 1 second**, the start button (Image 3) – the system runs for 3 sec through a systems check - now the system is activated.

Or

- 2. You start pedaling** and thus the system will wake up automatically. After 3 sec. of system check, the electrical drive will support you. If the bike is powered off by press power button (image3), then the automatic start mechanism will function with 30 sec delay after powered off. This is for the user who wants to ride the bike under power off mode without any assistance.

Use the + (top left) and - (bottom left) buttons to select the desired level of support. The support level is indicated by the bright beams on the right side of the letters H, M and L on the display.

0 bar Display lights up	UL (Ultra Low)	No support; system is activated
1 bar	L (Low)	Low support
2 bar	M (Medium)	Medium support
3 bar	H (High)	High support
Additional press of the Walk / boost button (button on the display holder, boost function works whenever you pedaling and can be pressed at any stage)	T (Ultra High)	Strongest support
Press the Walk / Boost button when stopped	< 6 km/h	starting and pushing aid

The starting and pushing aid (max: 6 km/h) can activate whenever not pedaling and speed below 6 km/h.

To activate this support, press the Walk / Boost button.

To protect battery, when charging level is below 10%, maximum support level automatically limits to M (Medium), and L (low) when charging level below 5%, UL (Ultra low) when below 2%.

Charging the battery:



Caution! The battery should only be charged with the appropriate, supplied charger.

The battery can be charged on (image 7a) and off (image 7b) bike (for removal the battery see Chapter 6.4.3.)

Connect the charger with the power cable and the power plug to the wall socket. The LED on the charger shows constant red light. The charger is ready for use (image 6)

Connect the charger plug from the charger to the charging socket on the battery (image 5+6+7 a+b)

The charging process starts automatically. Once the LED on the charger constantly lit green the operation is complete and the battery is charged. First pull the plug now, and second, remove the charger plug from the battery charger.

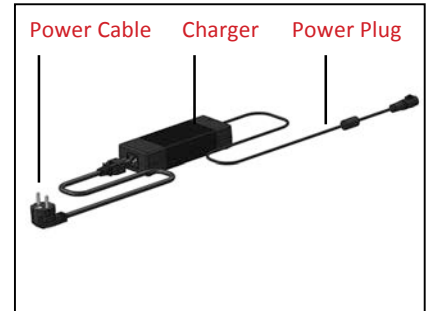


Image 4



Image 5

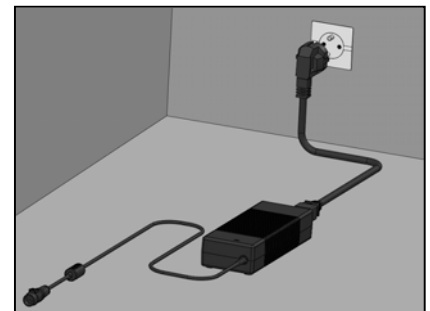


Image 6



Image 7a



Image 7b

Charging status	Charging Indicator (LED) Charger	Charging Indicator (LED) Battery	Remark
	Flashing red	error	check connections
	Steady red		Charger is ready
0%	Flashing yellow	Flashing red	Capacity very low; charging starts, Normal charging
<35%	Steady yellow	Flashing red	Normal charging
35 – 75%	Steady yellow	Flashing yellow	Normal charging
75 – 90%	Steady yellow	Flashing green	Normal charging
>90%	Flashing green	Flashing green	Final Charging
100%	Steady green	no LED	Fully charged

Charging time of an empty battery takes about four hours (0-96%) (0-100%= 6 hours).

2. Introduction

Congratulations

With the purchase of a Pedelec of Klever Mobility You have made the right purchase decision and got a high quality product with what you will have much pleasure in everyday life.

Technically and functionally up to date, it is carefully manufactured using the highest quality materials and components. An excellent design and excellent value for money distinguishes this bike.

In order to have permanently unclouded driving pleasure with the new product, we would like you to read this manual carefully.

Everything you need to know in terms of technical specifications, operation, maintenance and care we have in this booklet carefully compiled for your information.

Please note the additional information in the instructions supplied with the components.



Pay particular attention to the bolded sections are additionally marked with "Caution". The most important information is again summarized that should be observed to avoid possible accidents and danger to your life and limb.



Bold sections marked with this symbol contain information about this bike and its accessories and its handling, after which it should be again to highlight.



Work described that by this sign are, should be performed by a dealer. They require a lot of experience and special tools.

Furthermore, if you need any further information or advice, please contact our technical hotline at ++49 (0)223-4933420 (Monday - Friday from 8-17 clock), or contact an authorized retailer.

The latest available information on our products and other technical information and videos can be found on our website:

www.klever-mobility.com.

Your bike is equipped by the StVZO (German Road Traffic Licensing Regulations), and you can use it safely on public roads. It features a bright-sounding bell, a complete lighting system with official marks on the headlight, tail light and pedal reflectors and two independently functioning brakes at the front and rear wheels.

The additional electric drive is limited to max. 25 km / h, and thus complies with the statutory requirements for a bicycle.

Due to the fact, the support is limited to max. 25 km/h, you do not need driving license or an insurance.

Moreover, it is not mandatory to wear a helmet, even though we strongly recommend you to wear one for your own safety.

We wish you a lot of fun and safe ridings at all times

Your Team of Klever Mobility

3. EC Declaration of Conformity CE



The Manufacturer:

Klever Mobility Inc.
No. 8, Ln.76, Sec.3, Zhongyang Rd.,
Tucheng Dist.; New Taipei City 236
Taiwan

Represented by:

Klever Mobility Europe GmbH
Dieselstr. 6
D-50859 Köln
www.klever-mobility.com
Tel.: +49 2234 93342 0
info@klever-mobility.com

Hereby confirms for the product:
B25 Model year 2013

The conformity with all applicable directives from the guideline:
(2006/42/EC) Machines

The machine also conforms to all the directives in the guideline:
(2004/108/EC) electromagnetic compatibility

The following harmonizing norms were applied to the product:
DIN EN 15194 Bicycles-electrically power assisted cycles-EPAC
bicycles

DIN EN 14764 City and trekking bicycles. Safety requirements and
testing procedure

Technical documentation by:

Klever Mobility Europe GmbH
Dieselstr. 6
D-50859 Köln

Andreas Fortmeier
Technical Marketing & After Sales

Signature

4. Getting started - Safety check

Although your bike has been subjected to a final check during assembly and by the dealer, the transport and the time might have caused changes.

Therefore, before getting started the first time and later on before every ride, you should consider some important things and check the bike as listed below

1. Make yourself intensely familiar with the Pedelec and the functioning of the electric drive, before the first ride in public traffic.
2. Check the correct setting of the saddle and the handlebars. (see section 7.1. Saddle and handlebar adjustment.)
3. Check the correct function of the brakes.
4. Check the air pressure and the profile depth of the tires.
5. Check the lighting system for proper operation.
6. Check the tightness of the bolts and the wheels.
7. Check the minimum insertion of the seat post.

Caution: Do not start when you in one of these points identify deficiencies. A defective bike while driving can cause serious accidents and endanger your live. If in doubt, please contact your dealer or our technical hotline.



Your bike is claimed in everyday driving through extreme weather and road bumps. Through this constant dynamic loads experienced all parts of the bike material fatigue and wear. Therefore, examine your bike regularly for wear of the components and other changes such as scratches, cracks or discoloration. These symptoms may be signs of damage and a future failure of the accessory. Bring your bike to your dealer regularly comply the plan of inspection, so he can fix or replace these parts.



5. Behavior in road traffic

Due to the electric auxiliary propulsion you reach high speeds and accelerations much faster than you are used to with a regular bike. Therefore, you should intensively familiarize yourself with the Pedelec only on a traffic free road before you go in public traffic. During driving of the road you should follow these tips:

- Always wear a bike helmet during riding.
- Make yourself familiar with the traffic rules and stick to the rules.
- Be ready to brake at any time and expect misconduct of others.
- Drive defensively and be considerate to other road users.
- Drive where it is always offered on the bike paths.
- Always keep your bike in a perfect condition.
- Use your bike only in accordance with its intended purpose.
(see chapter 13. "normal use".)
- Don't use a mobile phone and a headset while driving.
- Be sure to observe the maximum weight of 150 kg of the bicycle.
(see chapter 11. Technical Data.)
- Please let check regular, according to the recommended service intervals your Pedelec by an authorized workshop.

6. Propulsion system of Klever Mobility -Biactron

You have purchased a Pedelec that helps you, with this electric propulsion system, of the movement in everyday life. Slops can be better managed and the wind resistance can be overcome better.

This electric auxiliary drive consists of the following components (image 8):

1. Battery
2. Engine/Motor
3. Control unit /Display,
4. Motor Controller
5. Torque sensor
6. Pedal Sensor
7. Charger (Image 8a)

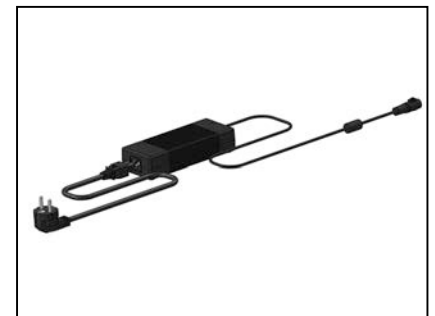


Image 8a



Image 8

Once you have turned on the system (See also Section 6.3. Display) and you start pedaling the engine will support you as long as you pedal, up to a max. speed of 25 km/h

This limitation of the support, the Pedelec moves within the legal framework of the Road Traffic Act and is still considered as a normal bicycle. It is exempt from compulsory insurance and do not need a license. Likewise, it is not compulsory to wear a helmet, although we strongly recommend it for your own safety.

The five (different) levels of support you can select according to the external circumstances (e.g. level four (high level) on climbing uphill or headwind) or your personal preferences. Please note that a high level of support also means a higher consumption of energy and reduces the range of the system and the battery.

When you drive faster than 35 km / h, the automatic energy recovery (technical recuperation) is activated. The motor operates as a generator and charges the battery again.

If you ride your B25 beyond 40Km/h (e.g. downhill) an audio warning signal will be emitted and the system may enter auto-protection mode. In this condition the system is still alive (e.g. display lights up, but the motor output is temporarily shut off, and will not automatically restored.

To restore the system from auto-protection mode to normal operation, press the power key to power off your bike and then power it on again.

6.1 Sensors and function

The Pedelec is equipped with a torque sensor in the dropouts, which is electronically controlled. This sensor accurately measures the change in tension force of the chain at every step (left or right) and informs the system about the force you exert during pedaling. A computer in the control unit then calculates the values, with which the additional thrust of the motor it is very sensitive and harmonious controlled.

During pedaling, the torque and the pedal sensor measure very sensitive and exactly the drivers input and enables the motor controller to operate the additionally support of the Motor.

The thrust itself can influence even on the five levels of support (Turbo, High, Medium, Low, Ultra Low). This makes the system very efficient and economically, saves power consumption and maximizing range.

The additional speed sensor controls the power of the electric motor to zero once you have reached 25 km / h. From this and a higher speed the Pedelec works like a conventional bicycle.

But this also means that you have either to pedal or press the Walk / boost button on the display bracket to retrieve power of the electric motor.

This button functions as a starting and pushing aid to max.4 km/h it helps you to accelerate from a standstill. It was designed as an aid when starting uphill or for the case that the wheel has to be pushed.

6.2 Levels of support

The propulsion system provides five levels of support available. Depending on topography, weather conditions and your own feelings, you can choose the power of the engine by using the plus (+) and minus (-) keys and the boost button on the control panel (see Section 6.3 display.).

System Level	Support	Driving situation (recommended)
UL (Ultra Low)	No support, system is activated	downhill
L (low)	Low support	In the plain
M (medium)	Medium support	Slightly inclines; headwind
H (High)	High support	Steep inclines; fierce headwinds
T (Ultra High) (while pedaling)	Strongest support	Steep ramps; violent gusts
<6 km/h (no pedaling)	Starting and pushing aid	Starts on hill; pushing uphill

When the button is pushed without pedaling, "Walk" mode provides motor output for <6km/h. When the button is pushed while pedaling, "Turbo" mode provides strongest support.

To protect battery, when charging level is below 10%, maximum support level automatically limits to M (Medium), and L (low) when charging level below 5%, UL (Ultra low) when below 2%.

6.3 Display

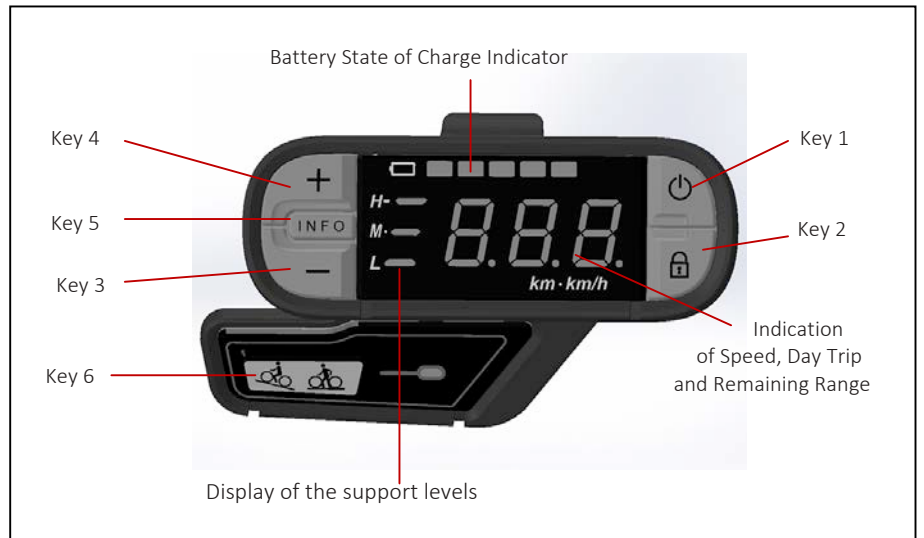


Image 9

The display (the control unit) is the heart of the electric auxiliary propulsion with the display you start and control the entire electric drive system (image 9).

Only with a mounted display, you can start the system.

Each bicycle has its own individually programmed display. It is not possible to activate your Pedelec with the display of another bike, not either of Klever Mobility. Every keystroke is confirmed by a short audio signal.



Image 10

Once the display is engaged in the bracket (image 10), there are two ways to start the electrical system:

- 1. Press and hold for 1 second, the start button** - the system runs for 3 sec through a systems check - now the system is activated

Or

- 2. You drive off with the bike and trigger the automatic wake up mechanism.** There is a system check of 3 seconds and the system is ready to go and then it supports you.

If the bike is powered off by press power button (image3), then the automatic start mechanism will function with 30 sec delay after powered off. This is for the user who wants to ride the bike under power off mode without any assistance.

By pushing the + (top left) or - (bottom left) buttons you can select the desired levels of support in standstill or while driving.

Key assignment:	Location	Function
Key 1	Top Right	On/Off electrical system
Key 2	Lower Right	On/Off alarm and motor lock
Key 3 (-)	Lower left	Support level; switch down
Key 4 (+)	Top left	Support level; switch up
Key 5 (Info)	Between 3 and 4	Switching between current speed, remain range and trip distance
Display	Upper bars	Charge level indicator; five bars of 20% each
Display	Left/three horizontal bars	Level of support: H-High; M-Medium; L-Low
Display	Right area	Indication of: Speed; Range and day Trip
Key 6	Display holder	Starting and pushing aid; (at rest); Turbo support; while driving

6.3.1 Function of each button:

Key 1: Start/ stop button (Image 11)

By pressing key 1 for 1 sec boot the system. The system performs a system check of about 1-2 seconds, and the drive system is ready to operate. The electric drive supports you depending on the level of assistance during pedaling.

By pressing this button again the system turned off and all settings are stored. Now the Pedelec works like a normal bicycle. Press the button again, the system starts at exactly the point at which you have turned it off and all old settings and levels of support are enabled again.



Image 11

Attention! After 8 minutes of inactivity, the system turns off automatically.



Image 12

Key 2: Lock Key (Image 12)

By pressing the button 2 for 1 sec, the motor lock and the alarm system are activated and the system is ready to turn off. Now remove the display and the Pedelec is optimally protected against theft.

Once the display is re-assembled, the engine block is removed and disabled the alarm system.



Image 13a

This Lock mode only works with electricity. The battery must be installed with little capacity. If the battery is removed, you can't activate the motor lock and the alarm system.

By moving the bike forward within this mode the alarm system will be activated immediately and you hear a loud high-pitched alarm signal. At the same time the engine block is activated and the wheel can only be pushed with very great force.



Image 13b

Lock function_

1. Lock Button (Image 12)
2. Press the release button (Image 13a)
3. Dismantling of the display (Image 13b)

Once the corresponding display is mounted again, the alarm will be ended and the motor lock is deactivated.



Attention: In case of accidental triggering of the alarm, please mount the display immediately in the holder.



Image 14

Key 3: Minus Button (Image 14)

By pressing the button 3, you can reduce each support level always exactly one level. E.g. the selected support level is M (medium), and you press 3 (-), the assistance of the electric motor decrease by one level to L (Low).

Key 4: Plus Button (Image 15)

Pressing the button 4 you can always increase each support level by exactly one level. E.g. the selected support level is on M (medium) and you push the plus button, the support level of the motor will increase exactly one level, in this case H (High)



Image 15

Key 5: Info Button (Image 16)

By pressing the button 5 (info), all important information will be accessed and displayed on the screen, which the system provides for you.

Normally, the display shows the current speed in km/h. (image 17a; for example 25km/h)



Image 16

Press the Info button for one second, the display changes to the range mode and shows the remaining range for the currently selected power level.

Change the level by pressing the + or - button, the system calculates the new range and displays it on the screen. (image 17b; for example 60 km)



Image 17a

When you are you in range mode and press the Info button again for one second, the display changes in the mileage mode. Now you will be shown the number of kilometers since the last reset. (image 17c; for example 10 km) Do you want to set the odometer to zero, e.g. at the beginning of a day trip, press the Info button for two seconds, and the display clears the kilometers and shows 0 km.

You will get back in the speed mode when you press the Info button again for one second. After five seconds of inactivity, e.g. without pressing any key, the system switches automatically back to the speed mode.



Image 17b



Image 17c



Image 18

Key 6: Walk/Boost Button (Image 18)

This button has two functions:

1. **As a starting and pushing aid:** To help you pushing and/or starting a bicycle at a traffic light on a ramp or facilitate uphill you can press this button. As long as you hold the button, you receive assistance from the engine without pedaling up to max. 4 km/h) When you release the button, the support from the motor will stop immediately.

This support only works until max. 4 km/h and when you are not pedaling.



Note: Driving with a starting help has to be learned. Practice this procedure only on a pedestrian street. Only when you feel secure and control the process, drive on public roads.

2. **As a turbo support while driving.** When you need extra support for a short period, for example, on a steep ramp, press the turbo button and get the highest possible maximum thrust from the engine, the system can provide.

The turbo support functions independently of the pre-set level of support.

As long as you hold the button, you get the extra boost.

When you release the button, the turbo support stop immediately and the system continue at the previously selected mode.

Turbo mode only works when pedaling simultaneously. When you stop pedaling and / or release the Boost button the turbo assistance from the motor will stop.



Attention: Please use this key as little as possible. In this setting, much energy is consumed and this will shorten the range of the system.

Display (Image 19)

The top five bars with the battery icon show the charging status of the battery. If the five orange bars are lights up, the battery is full (capacity 100%).

One bar represents 20% of full capacity. If only one bar is shining, only 20% of the maximum capacity of the battery is available. Now the battery should be recharged as soon as possible.



Image 19

When the last bar flashes, there is only 10% battery capacity remaining. Recharging of the battery is now urgently needed.

Display	Charging level
Five bars light up	100%
Four bars light up	80%
Three bars light up	60%
Two bars light up	40%
One bar light up	20%
One bar flashes	Less than 10%

Additionally, you can check the charging level with the LED on the front side of the battery. (See also Section 6.4.1. Charging the battery)

Display of Support level (Image 20)

The lit bars before the left row of numbers on the screen with the letters H (high), M (medium) and L (Low) informing of the chosen level of support of the electric motor.



Image 20

In the right column of the table we have listed recommended settings, in which driving situation which level will be the best to use the system optimally and minimize power consumption. Of course it is possible to use the levels individually, e.g. driving in the plane with the highest level of support (H).

Level	Display	Button	Support	Riding situation (recommended)
UL (Ultra Low)	0 bar	Minus key	No support; System is activated	downhill
L (Low)	1 bar	Minus or plus key	Low support	In the plain
M (Medium)	2 bars	Minus or plus key	Medium support	Slightly inclines; headwind
H (High)	3 bars	Plus key	High support	Steep inclines; Fierce headwind
T (Ultra High)	0 - 3 bars	additional pushing of the Walk / boost button (button on the display holder, boost function works only when pedaling can be pressed at any support level	Strongest support	Steep ramps; Violent gusts
< 6 km/h	0 - 3 bars	By pressing the Walk/boost button in standstill/without pedaling	Starting and pushing aid	Pushing uphill; Starting aid

To protect battery, when charging level is below 10%, maximum support level automatically limits to M (Medium), and L (low) when charging level below 5%, UL (Ultra low) when below 2%.



Image 21

Display: Speedometer (Image 21)

The main display will show you the current speed. Press for one second the Info button, the mode switches to range mode and you can see the remaining range of the system, with the currently chosen level of support. Modification of the support level changes also the range.

Press the Info button for a second again, the odometer mode will occur and you can see the driving kilometer since the last reset.

To reset the Odometer, you push the info button for 2 sec.. Press the Info button for one second, the display will return to the speed mode.

After 5 sec. of inactivity the speed mode will come back automatically.

Display: illumination (Image 22)

Under the battery icon on the screen hides a light sensor which automatically adjusts the backlight of the display and it adapts under the external light conditions.

(Outside / day 100%, at night / indoor 40%)

This ensures that you can read optimally the display in various lighting conditions.

The lighting levels are fixed and can't be dimmed.



Image 22

6.3.2 Assembly and disassembly of the display

The control panel can be removed from the holder. We recommend that whenever you want to park the bike, press the lock button and remove the control panel. This means an additional theft protection, because the system can only be started with this display.

Disassembly of the display

Press down the unlocking device on the mounting bracket and slide out the display in the drive direction of the bicycle. (image 23,23a)

Assembly of the display:

Slide in the display into the mounting bracket until it engages audible. The system can now be started. (image 24)



Image 23



Image 23a



Note: Make sure that the console is properly locked so that it will not fall out while riding and being damaged.

If the bicycle is used by several people, you can purchase from us additional displays with the same settings, necessary for your Pedelec. Thus, any person who uses this bike has her own individual display.



Image 24



Image 25



Image 25a

6.4 Battery

Your Pedelec has a high quality lithium-ion battery of the newest generation. For technical details, please refer to Chapter 11 Technical data.

The status of the battery, you can always check on the LED on the charging socket of the battery. Press the button at the charging socket and the LED lights on either red, orange or green.(image 25+25a)

Red	capacity <35%, the battery should be charged
Orange	Capacity 35 - 75%; battery can be charged
Green	Capacity > 75% battery can be charged

The battery is protected automatically from overheating, overloading and deep discharge. That makes it, in practice very easy and simple to handle.

Nevertheless, you should consider some important things in order to maximize the life and performance of the battery.

Since the lithium ion battery has no memory effect, you can charge it at any time, even if it is not completely discharged. In practice, it has been shown that it is even better to charge it again after short distances of a few kilometers.

Your battery has a lifetime of 700 charging cycle. One charging cycle means a full charge of the battery (0-100% capacity). Partial loads can be done more often.

When the battery for a long time (more than 2 months) is not used, it should be recharged as a low self-discharge is normal. Store the battery, if possible, in a dry, cool and dark place. The ideal storage temperature is between 5-20°C .

Avoid exposing the battery to direct sunlight over a long time. Temperatures over a longer period of more than 45°C or below - 10°C can cause permanent damage.

In winter, you should never start with a cooled battery. The capacity of a cold battery is significantly reduced and accordingly with a lower range.

A battery which is exposed a long time to frost, should be gently heated by the ambient temperature of a heated room, before starting.



Caution! Never place the battery on the heater.

If you need to park the bike outside for a long time in the cold season, remove the battery and store it in a heated room. Because the battery is very easy to remove, this will be no problem.

Do not expose the battery to humidity, to prevent corrosion of the charging socket and the plug contacts. Protect the battery against mechanical damage and don't drop it. Mechanical damage can also cause overheating and spontaneous ignition of the battery.

Also the battery should be charge at moderate temperatures (15-25°C). Avoid charging in direct sunlight or near heaters, as well as charging outside in winter at low temperature. A cooled battery should be gently heated to room temperature before loading.



Caution: Do not put it on a heater, do not heat with a hair dryer.

Caution: Charge the battery only with the provided exclusively dedicated charger.

Do not use any other type of charging unit since this may damage the battery and might cause overheating and ignition. During loading, neither the charger nor the battery should expose to humidity, to prevent short circuits and electric shocks.

The battery is maintenance-free. Should it be broken or getting defect, contrary to expectations, seal the contacts with tape and take it to your dealer or contact our technical hotline. Under no circumstances open up the battery yourself. This is dangerous and can damage the battery lead to self-ignition. The warranty will be void if you do so!



Do not dispose of batteries into household waste. It must be disposed of properly. It's best to take it to one of our dealers, who can take care of the proper disposal.

**Caution!**

- Charge the battery only with the provided battery charger
- The battery can be recharged any time, even after short trips
- Avoid temperatures below -10°C and above 45°C for a long time
- Never start with a cooled battery
- After an extended period (about two months) of storage, the battery should be recharged
- Protect it from humidity
- Protect it from mechanical damage
- Never open the battery by yourself



Used batteries do not belong in the household waste, Please disposed properly.

6.4.1 Charging the battery

You can charge the battery on or off bike (e.g. important in winter) Charging at any time, even after a partial discharge (e.g. after a short distance of a few kilometers) is possible. There is no need to wait until it is completely discharged, as it has no memory effect.

To remove the battery pack, refer to Chapter 6.5.3. Disassembly and assembly of the battery.



Caution! Charge the battery only with the supplied and provided battery charger.

For the technical data of the charger please read chapter 11.

Technical data.

To charge the battery, do the following: You can monitor the charging process on the basis of the indicator LEDs on the charger and battery.

- Connect the power cable to the charger.
- Insert the power plug of the charger into the wall socket, the LED lights solid red the charger is ready to charge (image 26).
- Connect the charging socket of the charger into the socket of the battery, the charging process will start automatically (image 27 a+b).
- The LED on the charger switches to flashing yellow light, charging begins.
- The LED indicator turns to yellow continuous light, the battery is charged to about 35%, The charging is in progress.
- The LED changes to flashing green, the battery is to about 75 - 90% charged.
- The LED comes on solid green, the battery is now fully charged, the charging is complete.
- Disconnect the power plug from the Wall socket.
- Unplug the charger socket of the charger from the battery.

∅∅

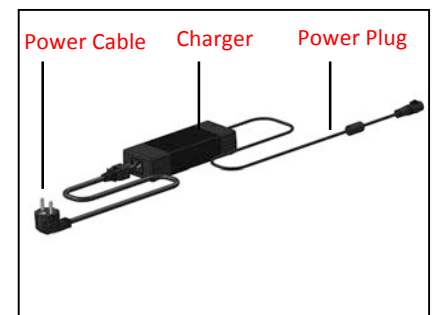


Image 26



Image 27a

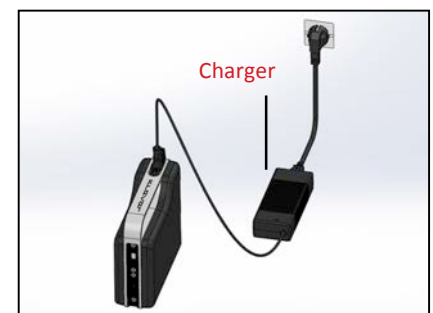


Image 27b

The LED lights on the charger and battery documents the state of the charge process:

State of charge	Charger LED	Battery LED	Note
	Flashing Red		Error detected. Reset by re-plugging AC to main
	Steady Red		Ready to be connected to battery
0%	Flashing Yellow	Flashing Red	Recovering battery from very low state of charge
<35%	Steady Yellow	Flashing Red	Normal charging
35 – 75%	Steady Yellow	Flashing Yellow	Normal charging
75 – 90%	Steady Yellow	Flashing Green	Normal charging
>90%	Flashing Green	Flashing Green	Final charging
100 %	Steady Green	=> no LED	Fully charged

The charging time for a full charge (from 0 to 96% capacity) is about four hours (100%-6 hours).



Make sure that the battery is no longer connected to the charger, after the successful charge process. Likewise, the charger should be disconnected from the power supply.

Battery and charger become warm during charging. Ensure adequate ventilation of the battery and charger. The vents should not be covered.

Place the charger and battery on clean surfaces. Prevent contamination of the charging socket on the charger and the battery.

Avoid humidity and direct sunlight.



Attention! If the charger is damaged, Please contact an authorized retailer. Never open the charger.

6.4.2 Range

The range specification of the system can only be relative, as it is very strong depending on the chosen level of support, the technical condition of the bike (oiled chain, optimal tire pressure, etc.) the total weight of the system (bike, rider and luggage) to the topography of the chosen route and the weather (headwind-or tailwind, winter or summer).

The smaller the selected support level the longer the range of the electric system.

Generally, you can expect the following ranges:

- Fully charged battery 355 Wh
- Temperature between 12-30°C
- Flat and slightly hilly terrain
- Total system weight between 95-105 kg (rider weight 70-80 kg)
- Little to no wind

Range	Level
90km	UL (Ultra Low)
70km	L (Low)
50km	M (Medium)
40km	H (High)



Attention: In winter, the range can be shorten up to 30% less by lower battery capacity due to the lower temperatures.



Image 28a

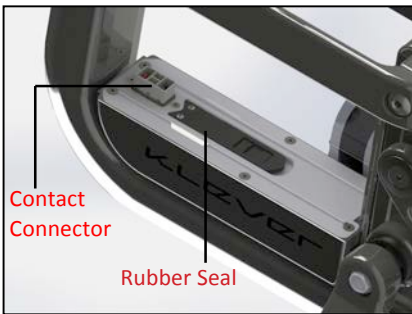


Image 28b



Image 28c



Image 29

6.4.3 Disassembly and assembly of the battery

Removing the battery

The battery is automatically saved with the battery lock and thereby protected from theft. Using the provided key you can lock and unlock both, the battery lock and the frame lock onto the frame and lock the rear wheel.

To disassemble the battery, first turn off the system using the 1 button on the Display. Turn the key in the battery lock clockwise up to the stop and pull out at the same time on the handle the battery pack upwards, in the direction of travel, completely out of the bracket on the frame.(image 28a)

Now you can charge the battery separately or store it safely for a longer ride break.

In case of disassembly we recommend, to protect the battery connector against humidity with the rubber seal. (image 28 b+c)

Mounting the battery

Insert the battery carefully into the guide rail, while the groove of the battery casing must be careful inserted into the guide rail on the bicycle frame, and let it gently down glide until you heard the lock engages and the electronic contacts are connected. (image 29)

The key does not leave in the lock, the lock will automatically snap in and the battery is now locked, the system is ready for operation and the battery protected from being stolen.

6.4.4 Transport of the battery

The battery is subjected to the Dangerous Goods Legislation requirements. The user can transport the battery by road and train without further requirements.

When being transport by third parties (e.g. forwarding, post or via air) special requirements on Packing and labeling must be observed

For preparation of the item being transported, consulting an expert for hazardous material is absolutely required.

Use the battery only when the casing is undamaged. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packing.

Please also observe possibly more detailed national regulations.



In every case of concerning transport of the battery, please refer to an authorized bicycle dealer.

6.5 Troubleshooting

The system will not turn on

Check whether the display is firmly in the bracket. Check all connections. Check the battery. It must sit correctly in the battery seat of the frame and the lock is closed.

The display is fixed but the system will not turn on:

Check if you have installed the correct display.

The system can be turned on, but you do not have support

Check all connections to the motor



If it's not possible to solve the problem, please contact an authorized dealer or our technical hotline.

7. The Bicycle

All other accessories of your Pedelec are high quality, conventional bicycle components whose handling and operation should be explained here briefly. Important information regarding the adjustment, operation and maintenance of the bike and its accessories are summarized here.

You will also find further information in the accompanying user manuals of each manufacturer.

7.1 Saddle and handlebar adjustment

The B25 comes in only one frame size. The adjustment to your body size and their needs will be made on the saddle, stem and handlebar adjustment, which normally do the authorized dealer.

In order to readjust by yourself or in the case of a driver change the settings are briefly described in the following lines.



Image 30



Caution: All work described require mechanic experience and appropriate tools. Use to tighten the screws a torque wrench and never exceed the maximum torque of the screws. All the necessary tools and information to the torques can be found in chapter 11 Technical Data.



Image 31

Adjustment of the saddle height:

The optimal saddle height is if you touch the pedal with the heel of your stretched leg, when sitting on the saddle (Image 30). Or when you bring the ball of the foot to the center of the pedal, your knee should be slightly bent. (Image 31)

Loosen with a suitable allen key the seat clamp screw and move the seat post with the saddle at the proper height. Align the saddle with the frame using the saddle nose and the bottom bracket or top tube as references.

Fasten the screw of the seat clamp again and check the correct height of the saddle. Repeat the process if necessary until you find the correct saddle height.

The distance between saddle and handlebar (by pushing the saddle forward or backward) and the saddle angle are adjusted by the saddle clamping screws (Image 32) of the seat post. The saddle should generally be positioned horizontally.



Attention: please pay attention to the approved torques when tightening the saddle clamp screws to the correct torque (see chapter 11 Technical data).



Image 32



Caution: The saddle with the seat post may never be installed over the minimum mark on the seat post. (image 33) During riding operation, the post might break or the frame might be damaged.



Image 33

Handlebar adjustment

The position of the handlebar depends on the Seat position you would like to have on your bike. You can optimal your seat position by adjust the handlebars angle to your needs, (image 34).

Your dealer will be happy to advise and install the most appropriate stem for your needs and will adjust the handlebar position.

If you should like to change the position after some time, please do the following:



Image 34

Loosen carefully the clamp screws of the stem where the handlebar is camped. (image 35)



Image 35

Then turn the handlebar according to your wishes. Your wrists should be as relaxed as possible and not turned too far to the outside. Then pull gently on the handlebar clamp bolts of the stem back and pay attention to the maximum torque of the screws. (max. 5,5. Nm)

Please note that now the brake levers and the gear shifter have changed their position.

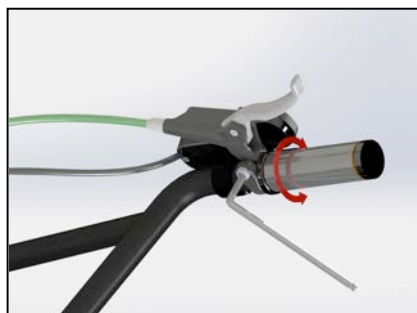


Image 36



Caution: Check the tightness of the handlebar. In no case it may be able to twist.

Would you change now the position of the brake levers and the gear shifter, loosen the clamp screws and twist them according to your wishes. Then tight the clamping screws again. (image 36)



Caution: Don't exceed the maximum torques.(6-8Nm)



Image 37

7.2 Headset

In order to steer easily and safely, the fork's bearing in the frame headset (image 37) must be of easy motion and without play. During driving, dynamic loads caused by extremely unevenness routes put a lot of stress on the headset and it is possible that it loosens. Therefore, a regular check is indispensable.

Pull the front wheel brake with one hand and push the bike forward and backward. If you notice a movement between headset and frame, the headset has to be readjusted.



Attention: The adjustment of the headset requires some experience. It is the best the dealer should do this.

If you should make the adjustment by yourself, make the following steps:

1. Loose with an allen wrench, the lateral clamping screws at the stem, where the stem is fixed on the fork stem.(Image 38)
2. Now you can adjust the headset play with the top screw of the headset (see image 39), by turning the screw with a 6mm allen key clockwise, until you don't feel play anymore.(Image 39)



Attention: This screw does not serve for tightening, but only for adjusting of the headset. (Image 39)



Image 38

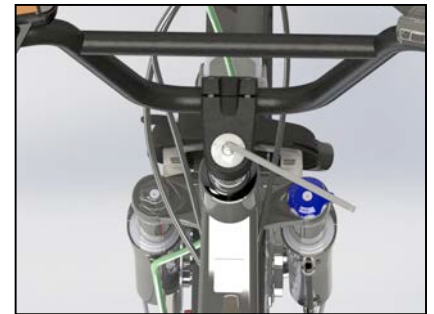


Image 39

3. Rearrange stem and handlebar in the direction of travel and retighten the clamping screws firmly.
4. Pay attention to the maximum torque of the screws, which may not be exceeded under any circumstances.
5. Control the play again and repeat the process if necessary.



If it's not possible to adjust the headset, this may have many reasons. In this case you should definitely contact an authorized dealer.



Caution: Finally, check the tightness of the stem. A loose stem is dangerous and can lead to an accident.

You can check smooth running by lifting the front of your bike and letting the handlebar swing to the left and right. The front wheel has to be able to move freely and without stopping. If you feel slight stops in the movement, the bearing is worn and the headset has to be replaced. This has to be done quickly by a dealer.



Feel light grids, the tax rate are worn out and need replacing. The let most immediately by the dealer perform.



Image 40

7.3 Suspension fork

Your Pedelec is equipped with a high-quality suspension fork which increases your comfort and the safe handling of the bike. The fork is set at the factory and ready to run.

A lock out lever that sits on the right side of the fork crone, you can lock your suspension fork (image 40). This locking mechanism should only be used on smooth, flat roads. On bad roads, the spring should function and the lock mechanism should always be open.

To keep your fork for a long time working, it should be regularly maintained. Some basic maintenance tips you should heed. Clean the smooth surface of the stand pipe of the fork after every ride with a clean cloth and some water. Afterwards spray the tubes with some lubricating spray or some hydraulic oil, so it can smooth deflecting and the bearings remain always lubricated.



Caution: You should never clean the fork either with a steam cleaner or with harsh detergents. Always follow the maintenance and care instructions on the manufacturer's instructions supplied with the bike.

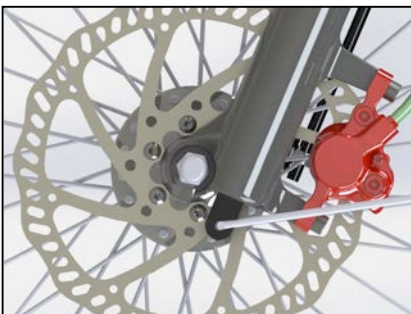


Image 41

7.4 Brakes

Your Pedelec is equipped with a high-quality Tektro hydraulic disc Brake (image 41). The disc brake is characterized by a very good braking action even by moisture and other bad weather conditions. The brake is very low maintenance and does not wear the rim.

The brake consists of a brake lever with a master cylinder, a hose cable made of plastic and the brake caliper and the disc mounted on the hub. The brake works with a special, non-toxic mineral oil. The oil pressure created in the brake lever by operating it is transmitted via hose cable to the brake cylinder and effect the contact pressure of the brake pads at the brake disc.

**Attention:**

New brake pads must be run in so that they can achieve their optimal deceleration values. By braking at least 30 times from approximately 30 km/h the brake pads will achieve their maximum brake power.

Not properly run in brakes do not reach their optimal deceleration values and prone to vibrations and loud squeal.

The brake pads and rotors must be regularly checked for wear.

If Disc and brake pads are worn, they will need to be replaced.

Changes in the brake performance with loosing brake power or you can push the lever through to the handlebar without any braking effect, air could come into the brake system and this must be removed by bleeding the brake. That and the replacement of worn brake pads and discs should be done by an authorized dealer.



Attention! Soiled brake pads and discs can reduce the effect of the brake substantially. Prevent in any case, while cleaning the bike and lubricating the chain that oil or other liquids can contaminate the brake pads and brake discs.

Contaminated brake pads cannot be cleaned and need to be replaced. You can clean the disc with brake cleaner or warm water and a little detergent if necessary.



! Please drive very carefully in wet weather conditions. Moisture may cause longer braking distances.

For more information on brake, brake pad and brake disc and the wear limit of them, read the operation manuals supplied by the manufacturer.



Image 42

7.5 Drive and gearshift

Your Pedelec is equipped with a high-quality 10-speed derailleur, currently the most efficient power transfer on the bike. These gears will help you to always use the optimal transmission (pedaling cadence) independent of terrain (flat or hilly area) and independent of weather (Tail or Headwind).

That means that you are able to pedal always with an optimal cadence of 60-80 crank revolutions per minute. The complete system (image 42) is composed of the bottom bracket, the crankset, the rear derailleur, the chain, the gear shifter and the 10-speed cassette. With the gear shifter you control the rear derailleur, which ensures that the chain can move on the sprockets of the freewheel and the translation changes.

Your dealer has checked your bike before the handover and adjusted the shifter. Through the first mile under stress, however, the shift cables could lengthen slightly and the shifter must be readjusted.



Image 43

With the adjustment screw of the shifting lever (image 43), you can readjust the tension of the shift cable. With the two positioning screws on the rear derailleur, you can adjust the lower (h screw) and upper end stop (l-screw), to make sure, that the chain cannot get between pinion and drop out or between pinion and spokes of the rear wheel.

Please read also the enclosed operating instructions of the manufacturer of derailleur and shifter.



The precise adjustment of the derailleur is difficult and should better be done by a mechanics. If you have any problems with the adjustment of the shifter, please contact your dealer.

The chain should be cleaned and greased regularly (especially after driving in the rain), so it runs as quietly as possible, the friction losses are as low as possible, and the lifetime is maximized. Clean the chain regularly with a clean cotton cloth and lubricate it afterwards.

Some minutes after you have oiled the chain rub it with a cloth to remove superfluous oil from the outer surface.

Since the chain is one of the wear parts on your bike, it should, if it is worn to be replaced. A worn chain deteriorating the shifting characteristics, and leads to increased wear on the chain wheel and on the sprockets of the cassette.



The exact control of the chain should be carried out at the dealer, who has the necessary tools to measure and replace it.



Caution: A poorly riveted or badly worn chain may break and cause serious falls.

You will find more information in the enclosed operating manual of the chain.

7.6 Lighting

Your Pedelec is equipped with a high quality bike lights corresponding to the StVZO and have an official mark. This is indicated by the wavy line with the letter K, and a five-digit number.

The lighting is supplied through the hub dynamo in the front wheel. The headlight is a high quality LED head lamp with high light output and light function. The taillight is also a bright LED light with light function integrated at the carrier.

On the back side of the front lamp, there is the light switch. The light switch has three steps:

- On** Switch on; continuous light; also during the day
- Auto** Switch on; automatically controlled from a light sensor; turn on when it is getting dark
- Off** Switch off; no light

If there is a failure in the lighting system please verify that the light is switched to the "on" position, check all contacts at Dynamo, headlight and taillight. Check all cables for damage.

If you don't find any errors, you are looking for repair at an authorized dealer immediately.



Caution: A non-functioning light is illegal and endangers your life on the road. Bicycles without lights are easily overlooked in the dark. You would risk serious accidents.

For further information on the hub dynamo, headlight and tail light, see the accompanying user manuals of each manufacturer: If you have further questions, please contact the dealer or our technical hotline.

7.7 Wheels and tires

The wheels are extremely stressed parts of the bike that make contact with the road, provide the propulsion and buffer the road bumps. Due to this heavy use, they should be regularly monitored and reviewed.

All wheels are manufactured with great care and precision.

They consist of the hub (dynamo hub in the front wheel and electric motor in the rear), the high-quality stainless steel spokes and rims. (2 mm spoke in front wheel and 2.3 mm spoke in rear wheel)

In unlikely cases of radial and axial offset or broken spokes, the wheels should be repaired or re-centered immediately.

This should be done by an authorized dealer.

For removal and installation of the wheels due to a puncture or in the case of transportation you take the following steps:



Disassembly of the rear wheel

- Shift the chain to the smallest sprocket on the free wheel
- Turn off the electric drive system and disconnect the motor connector below the right chain stay of the frame
- Remove the screw on the mounting bracket and cable guide (image 44 a+b) below on the chain stay
- Loosen the axle nut of the motor with a 19 mm wrench
- Remove the screw of the locking washer (image 45) on the left side of the axle (drive direction) and remove the screw and washer
- Now pull the wheel out of the dropout, thereby pivot the rear derailleur backwards

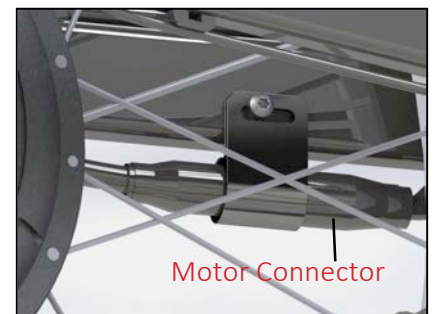


Image 44a

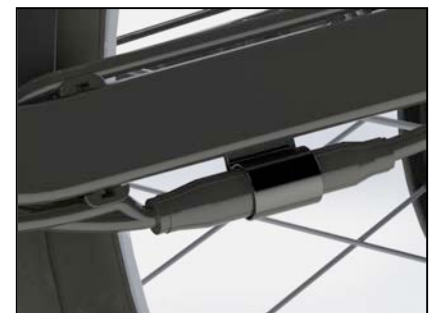
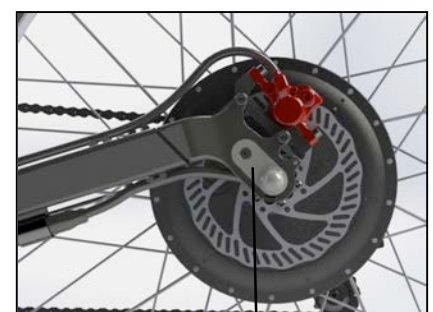


Image 44b



Locking Washer Image 45



Image 46

- Ensure the disc-brake with the enclosed transport lock (between the brake pads; image 46).
- This prevents the accidental compression of the pads by the unintended application of the lever
- The assembly is done in reverse order
- During assembly please insert carefully the disc between the brake pads, please remove the transport lock in advance.



Caution: Take care to tighten the axle nuts to the proper torque (40 Nm)!



Image 47

Front wheel (Image 47)

- Disconnect the plug connector from the hub dynamo
- Loosen the axle nut of the front axle with a 15mm wrench
- Pull the front wheel out of the dropouts of the fork
- Secure analogous to the rear wheel the disc brake with a transport lock
- The assembly is done in reverse order
- During assembly please insert the disc carefully between the two brake shoes
- Take care when tightening the axle nuts to the proper torque (20 Nm)



Note: Rotors can be very hot after driving. Let them cool down, before dismounting.



Caution: Check before you ride the tightness of the wheels.

Tires

The tire provides grip and traction, and contributes significantly to the smooth running and comfort by absorbing small shocks.

The size of the tire can be found on the tire sidewall printed specifically in millimeters and inches. At B25, the size 24 x 2.0 inches or 50 - 507 is mounted. That is, the tire has a diameter of 507 mm (24 inches) and a width of 50 mm (2.0 inches). Depending on the air pressure, and width of the rim, the tire can vary in width around 2-3 mm.

The manufacturer's recommended operating pressure can be found printed on the tire sidewall (Schwalbe Big Apple 2.5 to 5.0 bar; 35-70 psi).

Regularly check the correct tire pressure before every ride and pump up, if necessary.

The bike is standard equipped with an inner tube with auto valve. So you can check and inflate the tire at any gas station.



Image 48



Caution: Never exceed neither above-nor below this recommended range. The tire and the tube can be damaged and this may lead to sudden loss of air with significant risk of accident.

Regularly check the tires for cracks and control the tread depth. If cracks have formed or a foreign object has damaged the fabric of the tire or the tread depth is no longer sufficient, replace the tires for safety reasons.

If in doubt, ask your dealer. He will verify and if necessary, change the tire.



Image 49



Image 50

In the case of a flat tire, you do the following:

You can use plastic tire level for tire mounting.

1. As described above dismount the appropriate wheel like in the instructions of this manual.
2. Deflate the tire and push a tire lever under the tire wire opposite the valve and lever the tire over the rim flange.
3. Push the second tire lever in a distance of approx.. 10cm from the first one between tire and rim and lever again. (image 49)
4. Now, you can generally lever the tire over the whole circumference of the wheel by moving the lever and the inner tube can be removed.
5. Dip the disassembled and inflated tube in a water bath to discover the leak on the rising air bubbles.
6. Repair the tube according to the instructions on the repair kit or if necessary replace it.
7. Check the tire for sharp objects that could have caused the puncture and remove them. If the fabric of the tire is damaged, replace it.
8. Start the mounting of the tube, start by inserting the valve into the valve hole in the rim and inflate the tube with very little air pressure until it is wrinkle-free.
9. Now mount the tube with no creases under the tires and deflate it again. (image 50)
10. Now, starting opposite the valve, lift the tire wall over the flange of the rim and pull it deep into the rim and lever the rest of the tire by hand over the rim edge. Use no tire levers, as this is a risk of damaging the tube.
11. Now push up the valve, so that the edge of the tire reaches at the valve area the edge of the rim.
12. Pull the valve and inflate the tube to the tire manufacturer recommended tire pressure.

7.8 Luggage carriers

Your Pedelec is equipped with a high quality, stable and durable aluminum luggage rack of Racktime, where a high-quality LED taillight is integrated.

Please note that mounting panniers is not recommended. A pannier mounted on the luggage carrier of B25 may be too close to the rear wheel and causing the danger of riding. If you need to mount a pannier, please purchase and install additional rack stays.

Please note, however, the maximum load capacity of the luggage rack of 25 kg. With weights over 25 kg the luggage carrier may not be loaded. At press time of the manual the carrier was not officially approved for fitting child seats. Please inform yourself on the homepage of Racktime www.racktime.de before installing a child seat on the carrier.



Image 51



Caution: Please ensure that you do not reach the total permitted weight in the case of luggage transport.



Attention: Please note that the extra weight changes the handling of the bike and the braking distance is extended.

7.9 Child seat

You should install only an appropriate DIN / GS approved child seat. Read and adhere to the instruction manuals of the seat manufacturer.

Children may only be taken on special seats where the feet are securely fixed. In Germany, the child may be max. seven years old, and the driver must be at least 16 years old. If you are traveling in another country, check their rules and regulations.

At press time of the manual the carrier was not officially approved for fitting child seats. Please inform yourself on the homepage of Racktime www.racktime.de before installing a child seat on the carrier.



Caution: Take the child out of the seat when you park the bike. Otherwise, there is acute danger of falling.



Note: The child should always wear an appropriate helmet when sitting in the seat. Please note that a child seat with a child the handling of the bike greatly affected. The bike tends to lurch. Therefore, you should practice starting and driving it before taking part in the road traffic. Do not exceed the maximum permitted weight of 145 kg of the bicycle.

In the head tube of your Pedelec, two head tube threads allow you to assemble a KLICKfix handlebar adapter for head tube, by which you can mount a bag or basket in front of your Pedelec.

7.10 Threads for handle bar adapter on head tube
Information and instruction about the suitable adapter and various bags and baskets can be found in the website of KLICKfix: <http://www.klickfix.de/>.

Please note that the distance between two threads is 16mm. Use screws M6x16 only while mounting a handlebar adapter for head tube, otherwise the head tube might be damaged.

7.11 Locks and anti-theft system

Your bike is standard additionally equipped, apart from the already mentioned motor blocking (see Section 6.3 Display), with a high quality frame lock on the front of the frame (image 52), to protect it optimally against theft. This lock can lock the front wheel.



Image 52



Attention: With the same key you can close the battery lock and frame lock. You need for both locks only one key.

Only when the frame lock is locked you can remove the key out of the lock.

To lock, you do the following:

Turn the key clockwise until the stop and slide the knob on the other side of the lock down until the small steel bracket snapped in, the lock closed and the front wheel is blocked. Now you remove the key. The bike is now well protected against theft.

With the key you can now, if desired, open the battery lock to remove the battery (see also 6.4.3. disassembly and assembly of the battery).

To do so, please follow these steps. Insert the key into the battery lock and turn the key clockwise (image 53) until the stop and pull the battery on the handle upward from the bracket. If the battery is removed, you can snap back the key and remove it.

When mounting the battery, please pay attention to the correct orientation. The groove in the battery casing has to be inserted into the guide rail on the bicycle frame.

Push it down until it audible snaps in and the electrical contacts between the battery and control unit are connected. The battery lock is closed automatically.

During installation, the keys must not be located in the battery lock.



Image 53

For further theft protection, you can now activate the lock function of the electric system by pressing the Lock button (right side, bottom button) on the display and removing it afterwards (see also Chapter 6.3 display).

The bike is now optimally secured against theft and the alarm system and motor lock are activated.

As soon as the corresponding display is again mounted in the holder, the lock function is cancelled.

7.12 Accessories

Useful accessories can increase the usefulness of your pedelec and significantly increase your riding pleasure. For example, you can use baskets of Racktime, which you can connect securely with one hand with the carrier mounted on your B25. More useful and good accessories are available at your dealer, who can advise you.



Caution: All items that you purchase should withstand the requirements of the Road Traffic and the relevant DIN-standards and be compatible with your bike. Unsuitable accessories can change the handling characteristics of the wheel and lead to an accident. Best ask a dealer for information and advice.

8. Transport of the Pedelec

You can transport your Pedelec easily by car or train. To transport by cars, we recommend to use a bike rack for the trailer hitch, which is specific designed for the e-bike transport and suitable for larger loads. Which carriers comply with these requirements, you can ask the retailer.

Not recommended is the transport on the car roof. The higher weight and the specially shaped frame tubes make it very difficult to fasten the bike securely. In addition, permissible maximum weight and to tightly sized brackets and rails of the carrier limit secure transportation.

You should definitely remove before transportation with the battery, the display as well as other non-fixed accessories such as: Air pump and luggage bags. Additional protection should be given to electrical contacts on the display holder and the battery connector on the frame with for example a plastic bag to protect them from moisture and rain. By the air stream, humidity can be pressed into the electrical contacts.

If your car is big enough, the best is to transport it in the inside. There it is optimally protected.

The transportation by air is almost impossible, unless you want to transport the bike without the battery. The battery is classified as hazardous by the airlines and will not be transported. If in individual cases ask the airlines, under which circumstances the transport of the battery may be possible. However, it can be quite expensive.

If you need further information, you will find it in this manual, see chapter 6.4.4. Transport of the battery.

9. Maintenance, Care and Storage

Maintenance and care

Regular maintenance and care guarantee a longer lifespan of your high-quality Pedelec.

You should carry out simple cleaning and care works yourself regularly and let the dealer do the necessary inspections.

Never clean the Pedelec with a strong jet of water or a steam cleaner. The high water pressure might squeeze water into the bearings, motor and electronic contacts and will destroy these parts due to thin the bearing grease, corrosion and short circuits.

Clean the bike with a damp cloth and mild detergent. Please make sure that no electrical contact gets wet.

The contacts can be maintained and conserved from time to time with a little care oil (e.g. 1Step Finish Line) preservation. Contact spray is too aggressive and don't preserve.

You should repair varnish damages at once. All parts liable to corrosion should be maintained and preserved by appropriate means.

The chain should be lubricated regularly like all other movable mechanical parts such as the joints of the rear derailleur.



Caution: During cleaning and lubrication, avoid oil and fat on the brake pads and brake discs. The braking effect might deteriorate and represent a serious risk.



Always ensure that the tires are inflated within the manufacturer's recommended operating pressure, which can be found printed on the on the tire sidewall. It should be by no means over-or under-steps.

The entire electrical system of your Pedelec as the controller, the motor, the sensors, the wiring and the battery is maintenance-free. If you get unexpected problems with the system, take note, that you have to contact or technical hotline (see also Chapter 1 Introduction) or an authorized dealer.



**Caution: Do not open the controller, the motor, the display or the battery.
It is dangerous and the guarantee expires immediately.**

Storage

The mounting of the bike should always be in a dry, covered place to minimize the effects of weather and avoid direct sunlight for long periods.

If you do not drive in winter, you should consider the following tips:

Store it cleaned, lubricated and well preserved in a dry place and cover perhaps additionally with a tarp. Conserve the electrical contacts through some suitable care oil.

Winter storage in the garage is only partially recommended. By the dissolved salt in the condensed water coming with the car in the garage, the corrosion can be increased.

The battery should be stored separately and recharge to 75% SOC (the LED indicator just turn green) before storage. Battery should be recharged at least every two months. (see chapter 6.4 Battery).

10. Disposal

Disposal

All electronic components, such as motor, display, battery and charger are to be returned to an environmentally compatible recycling and do not belong in the trash.

For EC Countries:



According to the European Directive 2002/96/EC, defective or no longer usable electrical equipment must be collected separately and returned to an environmentally friendly recycling. The same goes for batteries according to the European Directive 2006/66/EC.

Please return broken or defective batteries to an authorized retailer.

Transportation:

Only the battery is considered to be hazardous and subject to the Dangerous Goods Legislation requirements during transport or shipping by third parties (agents, air transportation or mail).

Please refer to Chapter 6.4.4. Transport of the battery.

The transport of all the other parts is not particularly limited.

11. Technical data

Display / Operating unit
Removable and illuminated LCD display, with alarm and motor lock system
Five levels of support
Zero - Low - Medium - High - Turbo – Walk/Starting Aid
Bicycle Computer, display of speed, range and Odometer (Day trip)
Key: acceleration and pushing aid / Turbo function
Battery charge level indicator with five LEDs (each bar 20% Capacity)
Ambient Light sensor
Confirmation by a beep when a button is pressed

Battery
Lithium-Ion Battery
44.4V / 8.0Ah / 355wh
2.7 kilograms
Charging level indicator via LED: <35% red / orange 35-75% /> 75% Green
Allowable discharge temperature: -20°C - +50°C
Allowable storage temperature (12 months): -20°C -+25°C (optimal +5°C -+20°C)
Allowable charging temperature range: -5°C - +45°C (+5°C -optimal +20°C)
Lockable and detachable
Charging time 6 hours (from 0 -100%) or 4 hours (from 0-95%)
Place of loading: on or off-bike
Charging Cycles 700 (one charging cycle 0-100% capacity)
Range: Step 1 (UL) = ca.90km / Level 2 (L) = ca.70km / Level 3 (M) = 50 km / Level 4 (H) = ca.40km
Lifetime: after two years or 700 cycles still remain at least 60% of the original capacity

Motor
Brushless DC motor in the rear hub
Control over torque sensor in the dropout and speed sensor at the bottom bracket
Max. 250 W
Operating voltage 44 V
Support until max. 25km/h
Weight 4.4 kg

Charger				
Input voltage 200-240 V, 47-63 Hz				
Output voltage of 48 V				
Maximum charge current 2A				
Output power 96 watts				
Recommended tightening torques of the bicycle components:				
Size: 167 x 65 x 41 mm, no fan				
Stem	Handlebar clamp screw	M5	Allen wrench 4mm	5.5 Nm max.
Weight: 0.6kg (with AC cable)				
Stem	Clamp screw adjusting angle	M6	Allen wrench 5mm	9.5 Nm max.
Stem	Clamp screw steer tube	M6	Allen wrench 5mm	9.5 Nm max.
Seat post	Clamp screw saddle	M6	Allen wrench 5mm	9.5 Nm max.
Seat post Clamping screw	Clamp screw for seat post	M5	Allen wrench 4mm	5.5 Nm max.
Front wheel	Axle nut; Hexagon	9mm axle diameter	15mm open-end wrench	20 Nm max.
Rear wheel	Axle nut; Hexagon	12mm axle diameter	19mm open-end wrench	30-40 Nm
Rear wheel	Clamp screw locking washer	M5	Allen wrench 3mm	5.5 Nm
Stand	Clamp screw	M10	Allen wrench 8mm	46 Nm max.
Brake lever	Clamp screw	M6	Allen wrench 5mm	9.5 Nm max.
Brake body	Mounting screw	M6	Allen wrench 5mm	9.5 Nm max.
Brake	Mounting screw	M5	Torx25	5.5 Nm max.
Shifting lever	Clamp screw	M6	Allen wrench 5mm	9.5 Nm max.
Carrier	Clamp screw	M5	Allen wrench 4mm	5.5 Nm max.
Carrier	Clamp nuts; Hexagon; self-locking	M5	8mm open-end wrench	5.5 Nm max.
Pedals			15mm small open-end wrench	35 Nm max.
Button bracket	Bearing cups	BSA Threat	Special bearing tool	50-70 Nm
Crankset	Mounting screw	M10	Allen wrench 8mm	45 Nm max.
Derailleur	Mounting screw	M10	Allen wrench 5mm	8-10 Nm
Derailleur	Clamp screw cable	M5	Allen wrench 5mm	6-7 Nm
Derailleur	Clamp screw jockey wheels	M4	Allen wrench 3mm	2.5-5 Nm
Front lamp	Clamp screw	M6	Allen wrench 5mm	9.5 Nm

General maximal screw tightening torque (for greased DIN screws):

Screw	M4	M5	M6	M8	M10
Tightening torque in Nm	2.9	5.5	9.5	23	46

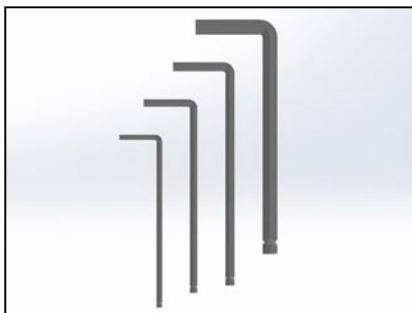
The torque indications always refer to the upper limit of the screws resilience.

You should always adjust the torque key to a little more than 50% of the value stated by the manufacturer and tighten the screw. Check the firm fit of the connection afterwards.

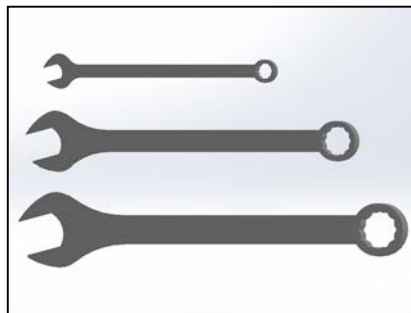
If the clamping connection is not strong enough, increase the value gradually in steps of 0,5 Nm.

If necessary, adjust the maximal value (never exceed it) and loosen the screw by half a revolution before finally tightening it.

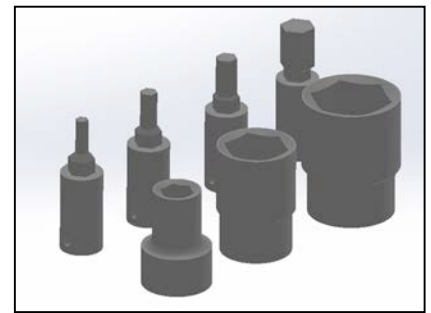
Tools:



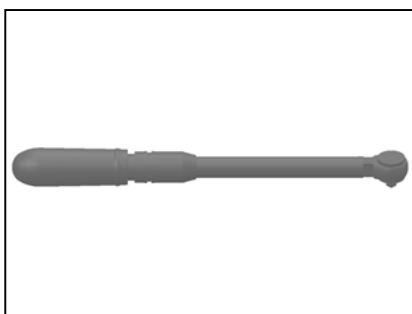
Tools



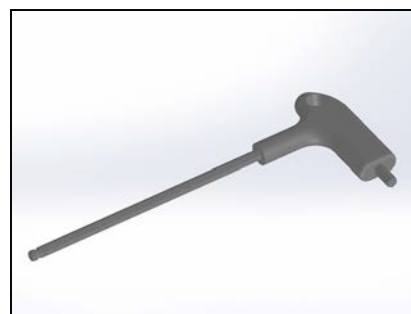
Combination Wrenches



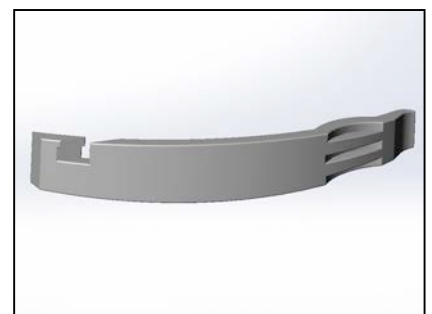
Sockets and Bits



Torque Wrench



Torx



Tire Lever

The gross vehicle weight of the bike:

Rider + bicycle + luggage = 150 kg

Tires:

Size: 24 x 2.0, 50-507

The recommended air pressure: 2.5-5 bar;

Circumference approximately 1910 mm.

The exact circumference of the wheel depends on the air pressure and the weight load of the bike.

12. Liability for material defects and warranty

By on 01.01.2002 entered into force European warranty law you are entitled to a warranty period of two years. This applies from the date of purchase or delivery (delivery date) of the Pedelec. The proof is the proof of purchase, which you should be stored carefully. Also you should be registered your bike on our homepage: www.klever.mobility.com.

This liability for material defects applies to all accessories of the entire Pedelec.

Warranty claims are available:

- if the fault was present before the purchase of the Pedelec
- in the case of a material, manufacturing or information error
- if no function-related wear was present (see Chapter 14)

Warranty claims are not available:

- For damages caused by accidents or force majeure
- For damages caused by misuse or mishandling
- when relates to parts which have a functional wear subject (see Chapter 14) excepted material or workmanship errors
- For damages caused by inadequate care and maintenance
- for damages caused by faulty repairs
- for damage caused by additionally installed accessories that are not included in delivery
- for consequent damage caused by not immediately resolved, early identified deficiency

In addition, we provide a comprehensive warranty that goes beyond the liability for material defects.

- **Two year warranty** on all bike parts
- **Three year warranty** on all drive modules of the electrical system: motor control unit, display and cabling
- **Two year warranty** on the battery
- **Five year warranty** against frame breakage

This warranty applies only to the original owner on presentation of proof of purchase (sales receipt or bill showing the purchase date). This warranty covers exclusively material and workmanship errors.

In case of justified complaints, the article will be replaced or repaired. Further claims such as: replacement of property damage, downtime, cost of borrowing and renting, travel and transportation costs or loss of profits, are excluded.

This warranty does not cover damages caused by misuse function, by wear and tear, by accidental damage, vandalism and by improper assembly or repair.

1. Warranty repairs will be made exclusively by Klever Mobility or an authorized dealer.
2. Costs through a prior executed repair of an unauthorized dealer, will not be reimbursed.
3. Parts replacement or repairs during the warranty period will not result in an extension or a new beginning of the warranty.
4. Each battery is subject to a natural aging process. Regarding the battery Klever Mobility guarantees after two years, or alternatively, after 700 charging cycles (which come first) a remaining capacity of about 60% of the original capacity.
5. The Two-year warranty begins on the date of purchase. A warranty claim must be notified immediately.

13. Intended Use

Your Pedelec is determined according to their structural requirements for a particular purpose. Thus, the usage is limited to specific areas.

Your Pedelec is designed based on the construction and equipment for use on public roads on normal roads and paved roads.

The bicycle is equipped in accordance with the Road Traffic Regulation (StVZO) and therefore allowed to drive on public roads. To keep your bike always running and roadworthy, regular reviews and inspections are required or necessary repairs should be made immediately.

Klever Mobility is not liable if the Pedelec is used against its original purpose or for damages resulting from a breach of important instructions in this manual.

This is particularly true in case of damage caused by overloading or off-road use or by the improper disposal of defects. The same applies to non-compliance with the prescribed maintenance, operation and maintenance requirements that are described in this manual.

14. Wear

Your Pedelec as technical product consists of many components, which are subject to normal wear due to their function. Therefore, all the following components should be regularly checked and if necessary replaced immediately:

- 1. Brake Discs and pads** are claimed during each braking operation and worn appropriately. Therefore, they must be periodically reviewed and if necessary, be replaced immediately.
- 2. Tires and tubes** are subject to a function-related wear and should be checked regularly. Regularly check the air pressure and tread depth. The air pressure should always be at the manufacturer's recommended operating pressure, which is printed on the tire sidewall.

Is the profile of the tire no longer deep enough or the tire has cracked sidewalls, it should be replaced immediately.
- 3. Rims and spokes** are stressed at every braking or driving over an obstacle. Regularly check the concentricity of the rim and the spoke tension. If the wheel has a radial or axial offset, it should be readjusted immediately. In the event of breakage of a spoke, the broken spoke should be immediately replaced and the wheel has to be centered.
- 4. Chain, sprocket, chain wheels and derailleur rolls** wear out normally at every time. Regular cleaning and lubrication of these components can be extended considerably their service life. They should, however, if they are worn be replaced immediately.
- 5. Shifting and brake cables** must be maintained regularly and replaced if necessary. Especially the bike is often parked outdoor and exposed to the weather.
- 6. Hydraulic oils and lubricants** change over time and lose their effectiveness. Therefore, all lubrication points are regularly cleaned and re-greased to minimize the wear.
- 7. The painting** requires regular care. Check regularly all the paintwork for damage and rectify this immediately. The points at which cables can rubbing the painting, you should be protect them with a little clear, transparent film.

15. Legal requirements for participation in traffic

To participate in public transport, the Pedelec must be equipped according to the national road traffic regulations (in Germany StVZO)

If the bike will be driven or purchased in a different country than the BRD, familiarize yourself with their national road traffic regulations.

The following technical equipment is requiring by the German Road Traffic Regulations (StVZO):

1. Every bike must have a bright sounding bell.
2. Each bike must have two independently functioning brakes.
3. Every bicycle must have a complete lighting system.
4. Front and rear light must be operated by a Dynamo.
5. The rated capacity must be at least three watts and the rated voltage must be 6 volts.
6. The rear light with red light has to be attached on the bike at least 25 cm above the ground.
7. The light beam of the headlight may illuminate the road at most 10 m in front of the bicycle.
8. Front, a white reflector has to be mounted, which may be combined with the front light.
9. Two red rear reflectors have to be mounted one must have a Z marking
One of the reflectors may be combined with the rear light.
10. Each pedal has to be equipped with a yellow, front and rear reflector.
11. Each wheel must have at least two yellow fix mounted, side reflectors.
Alternative may also be mounted two white reflective rings over the entire wheel circumference to the side walls of the tires or rims.

A battery powered lighting may be mounted separately.

16. Regular Inspections – inspection plan

To keep your Pedelec always roadworthy and be updated to the latest technical status, it should be inspected regularly.

We recommend after 500 - 1,000 km or within a year to carry out the first inspection. Any further should be carried out after 2000-3000 kilometers or once a year.



An inspection should be made by an authorized dealer.



Caution: If Inspections are not carried out or done unprofessional, it can significantly impair the functions of your bike or even a severe, possibly even fatal, accident.

17. FAQs:

How far can I travel with one battery charge?

This is dependent on the temperature, the topography of the terrain, the technical condition of the total weight of the bicycle. Tires with low air pressure or high weight or driving in hilly terrain, reduce the range (see chapter 6.4.2.).

Must the battery be empty before I can charge it?

No, you can charge the battery at any time, even if it is only partially discharged.

How can I protect the bike from theft?

Your Pedelec is equipped with a ring lock mounted on the rear wheel to lock the rear wheel. In addition, the Pedelec has a motor lock and alarm system, which can be activated by the lock button on the display. The battery is protected by the battery lock to protect it against theft. With the key you can lock both locks, the battery and the frame lock.

Can I transport the Pedelec via air?

Because the battery is considered to be dangerous, many airlines refuse to transport the battery. If in individual cases ask your airline, under which conditions and costs a transport may be possible.

Do I need insurance?

No, you do not need insurance. Because the electric support will be stopped from 25 km/h the Pedelec is considered as a normal bike and requires neither insurance nor a license plate yet.

What do I do with a defective battery?

Defective batteries do not belong in household waste and must be disposed of properly. It is best to take it to an authorized dealer.

How many times can I charge my battery?

We guarantee that the battery after 700 full charge cycles or two years from now owns 60% of the original capacity. Of course, you can charge the battery more often or use longer than two years. But because of the natural aging process over time the battery loses more and more capacity.

Void the warranty, if I do not stick to the recommended regularly inspections?

No, the warranty does not expire. We recommend, however, for your own safety to carry out all in this manual described and recommended inspections.

Can I charge the battery with another charger?

Never!!! The battery may only be charged with the appropriate, supplied charger.

18. Bicycle passport

Fill out immediately all data after purchase in order to present the pass in the case of warranty claims, together with proof of purchase. If your Pedelec is once stolen, the data facilitate the work of the police.

Name

Street

Postcode / Town

Tel

Email

Type of bike

Frame size

Frame color

Frame number

Key number

Battery number

Charger number

Date of purchase

Signature

19. Inspection plan

1. Inspection		Date:
After 500-1000 miles or within 1 years of purchase.		
Date	Stamp / Signature	
Repairs		
Replaced components		

4. Inspection		Date:
After 3000-4000 miles or within 2 years of purchase.		
Date	Stamp / Signature	
Repairs		
Replaced components		

4. Inspection		Date:
After 5000-7000 miles or within 3 years of purchase.		
Date	Stamp / Signature	
Repairs		
Replaced components		

4. Inspection		Date:
After 7000-9000 miles or within 4 years of purchase.		
Date	Stamp / Signature	
Repairs		
Replaced components		

20. Imprint

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