

PIERER

E-Bikes GmbH



RAYMON



TRANSLATION OF THE ORIGINAL OPERATING INSTRUCTIONS

EN 15194

E-BIKE/EPAC/EAPC

Supplementary instructions for all categories. Read pages 3 to 16 before your first ride! Perform the functional check on pages 16 to 19 before every ride!

Frame:

- a Top tube
- b Down tube
- c Seat tube
- d Rear stay
- e Chainstay
- f Head tube

Suspension fork:

- A Fork crown
- B Stanchion tube
- C Lower leg
- D Dropout

- I Motor/drive unit
- II Rechargeable battery



Handlebar:

- Front headlamp
- Display
- Remote control lever height-adjustable/dropper post
- Brake lever
- Shifter
- Control unit

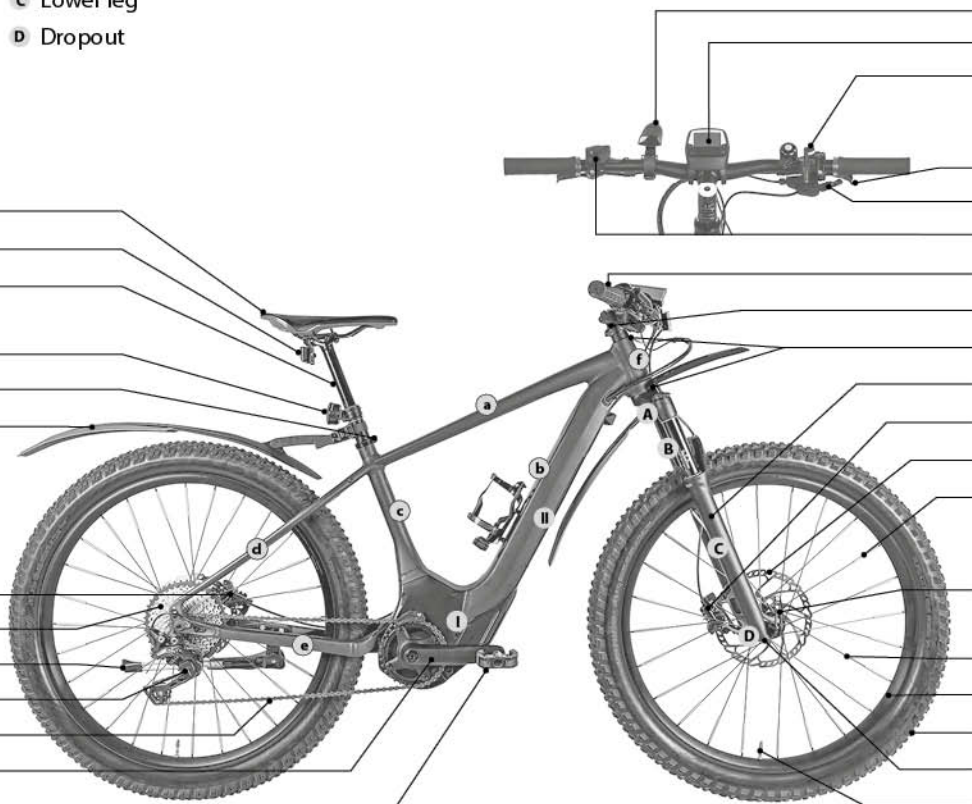
- Saddle
- Reflector
- Height-adjustable/dropper post
- Rear light
- Seat post clamp
- Mudguard

- Rear brake
- Cassette sprockets
- Kickstand
- Rear derailleur
- Chain
- Crank
- Pedal

- Handlebar
- Stem
- Headset
- Suspension fork
- Front brake
- Rotor/brake disc
- Spoke reflector in form of sticks

Wheel:

- Quick-release/thru axle
- Spoke
- Rim
- Tyre
- Hub
- Valve



Frame:

- a Top tube
- b Down tube
- c Seat tube
- d Rear stay
- e Chainstay
- f Head tube

Suspension fork:

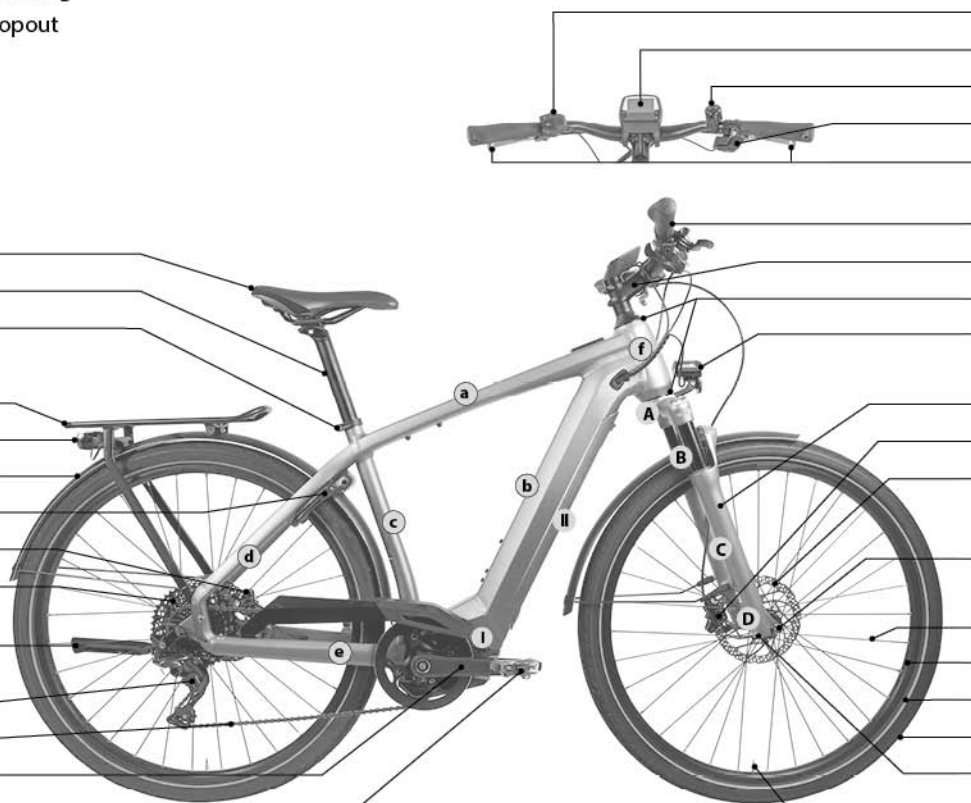
- A Fork crown
- B Stanchion tube
- C Lower leg
- D Dropout

- I Motor/drive unit
- II Rechargeable battery

**Handlebar:**

- Control unit
- Display
- Bell
- Shifter
- Brake lever

- Saddle
- Seat post
- Seat post clamp
- Pannier rack
- Rear light with reflector
- Mudguard
- Lock
- Rear brake
- Cassette sprockets
- Kickstand
- Rear derailleur
- Chain
- Crank
- Pedal



- Handlebar
- Stem
- Headset
- Front headlamp

- Suspension fork
- Front brake
- Rotor/brake disc

Wheel:

- Quick-release/thru axle
- Spoke
- Rim
- Reflector ring
- Tyre
- Hub
- Valve

Pay particular attention to the following symbols:

⚠ WARNING

This symbol indicates a hazardous situation which could result in death or serious injury – if the relevant operational instructions are not followed or if the relevant protective measures are not taken.

⚠ CAUTION

This symbol indicates a hazardous situation which could result in minor or moderate injury – if the relevant operational instructions are not followed or if the relevant protective measures are not taken.

NOTICE

This symbol is used to address practices not related to physical injury – which may, however, result in damage to property and the environment.

SAFETY INSTRUCTIONS

This symbol indicates specific safety-related instructions or procedures about how to handle the product or refers to a section in the operating instructions that deserves your particular attention.

The described possible consequences will not be repeated in the translation of the original operating instructions for EPACs/EAPCs every time one of the symbols appears.

For the sake of better legibility, the male form is used with personal names and personal nouns throughout these operating instructions. The terms in question principally apply to all genders in the spirit of equal treatment. The abbreviated language form is used solely for editorial reasons and does not represent any value judgement.

NOTES ON THE TRANSLATION OF THESE ORIGINAL OPERATING INSTRUCTIONS

The illustrations show typical EPACs/EAPCs (c+d) – one of these types may look similar to the EPAC/EAPC you purchased. Today's EPACs/EAPCs come in various types that are designed for specific uses and equipped accordingly.

The translation of these original operating instructions is not applicable to any other than the displayed EPAC/EAPC types.

SAFETY INSTRUCTIONS

Read in any case the detailed, type-specific general bicycle user manual and the system instructions of the drive system manufacturer that you received from your authorised dealer.

Also observe the enclosed manuals of the component manufacturers. The translation of these operating instructions is subject to European law. If delivered to countries outside Europe, supplementary information has to be provided by the bicycle manufacturer.



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The translation of these operating instructions is a supplementary manual as to the characteristics of EPACs/EAPCs. It is part of a system together with the drive system manufacturer’s system instructions and the detailed, type-specific general bicycle user manual that you obtained with your EPAC/EAPC.

The translation of these supplementary instructions together with the additional manuals comply with the requirements of the EN ISO standards 4210-2, the EN 15194 Cycles – Electrically power assisted cycles – EPAC bicycles as well as with the Machinery Directive 2006/42/EC.

In the translation of these original operating instructions bicycles with drive support and described as EPACs in the European standards EN 15194 and prEN 17404 (draft) are referred to as EPACs/EAPCs. For a precise description of the different EPAC/EAPC types see the chapter “**Intended Use**”.

The translation of these operating instructions is not intended to help you assemble an EPAC/EAPC from individual components, to repair it or to make a partly assembled EPAC/EAPC ready-for-use!

SAFETY INSTRUCTIONS

Keep the translation of these original operating instructions for future reference and hand it over to the respective user, in case you sell, lend or pass on the EPAC/EAPC otherwise.

Technical details in the text and illustrations of the translation of these original operating instructions are subject to change.

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GENERAL SAFETY INSTRUCTIONS

Dear Customer,

In purchasing this EPAC/EAPC (e-h) you have chosen a product of high quality and technology. Each component of your new EPAC/EAPC has been designed, manufactured and assembled with great care and expertise. Your authorised dealer gave the EPAC/EAPC its final assembly and adjustment to guarantee proper operation and many enjoyable riding experiences with complete peace of mind from the very first metres enjoying the tailwind due to the auxiliary drive.

This manual contains a wealth of information on the proper use of your EPAC/EAPC, its maintenance and operation as well as interesting information on bicycle and EPAC/EAPC design and engineering. Read this manual thoroughly. We are sure that even if you have been cycling (bicycle or EPAC/EAPC) all your life you will find useful and detailed information. EPAC/EAPC technology has developed at a rapid pace during recent years. Therefore, before setting off on your new EPAC/EAPC, be sure to read at least chapter **"Before Your FIRST Ride"**.

To have as much fun as possible during cycling, be sure to carry out the functional check described in chapter **"Before EVERY Ride"** before setting off.

Even a manual as big as an encyclopaedia could not describe any possible combination of EPAC/EAPC models and components or parts on the market. Therefore, these operating instructions together with the system instructions of the drive system manufacturer and your general bicycle user manual focus on your newly purchased EPAC/EAPC and standard components and provide useful information and warnings.

When doing any adjusting and servicing, be aware that the detailed instructions provided in your manual only refer to this EPAC/EAPC.

The information included here is not applicable to any other EPAC/EAPC or EPAC/EAPC type. As bicycles and EPACs/EAPCs come in a wide variety of designs with frequent model changes, the routines described may require complementary information. Be sure to also observe the instructions of the component suppliers that you may have obtained from your authorised dealer.

Be aware that these instructions may require further explanation, depending on the experience and/or skills of the person doing the work. For some jobs you may require additional (special) tools or supplementary instructions. This manual cannot teach you the skills of a bicycle mechanic. If you have the slightest doubt ask your authorised dealer.

e



Category 2 "Everyday": e-trekking bicycle

f



Category 2 "Sports": e-gravel bike

g

*Without lighting not suitable
for use on public roads!*



Category 4: e-all mountain bike

h

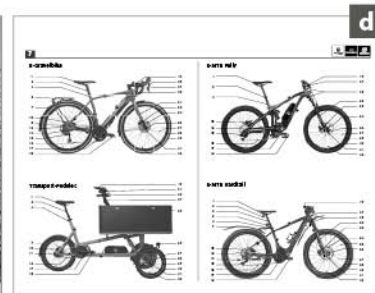


Category: electric carrier cycle DIN 79010

Before you set off, let us point out a few things to you that are very important to every cyclist. Never ride without a properly adjusted helmet and without glasses (a) and take care to always wear suitable, bright clothing. As a minimum you should wear straight cut trousers or use trouser clips and shoes (b) fitting the pedal system. Always ride carefully on public roads and observe the traffic rules so as not to endanger yourself or others.

This manual cannot teach you how to ride the EPAC/EAPC. Be aware that riding an EPAC/EAPC is a potentially dangerous activity, especially on public roads that requires the rider to stay in control of his or her EPAC/EAPC at all times. Be aware from the moment you set off that you ride at a higher speed. Always keep this fact in mind and ride considerably!

Like any sport, riding an EPAC/EAPC involves the risk of injury and damage. When you set off on an EPAC/EAPC you should be aware and accept this risk. Please note that on an EPAC/EAPC you have no safety devices around you (e.g. bodywork, ABS, airbag) like you have in a car. Therefore, always ride carefully and respect the other traffic participants. Never ride under the influence of drugs, medication, alcohol or when you are tired. Do not ride with a second person on your EPAC/EAPC and never ride without having both hands on the handlebar.



Observe the legal regulations concerning cycling with EPACs/EAPCs off public roads (c). These regulations may differ in each country. Respect nature when riding through the forest and in the open countryside. Only use your EPAC/EAPC on signposted, well maintained trails and hard-surface roads.

Always bear in mind that you travel rapidly and quietly. Do not startle pedestrians or other cyclists. Always make others aware of your presence well ahead of time and by ringing your bell or make use of the brakes so as to avoid accidents. Familiarise yourself with your EPAC/EAPC.

First we would like to familiarise you with the components of your EPAC/EAPC, see p. 6+7. There you will find exemplary EPACs/EAPCs showing all the essential components (d).

⚠ WARNING

For your own safety, never do any maintenance work or adjusting on your EPAC/EAPC unless you feel absolutely sure about it. If you are in doubt or if you have any questions, contact your authorised dealer.

Note: Do not hitch yourself and your bike to a car. Do not ride free-hand. Only take your feet off the pedals, if required by the condition of the road. Also bear in mind that riding with headphones is in some countries allowed as long as the acoustic perception is not impaired. Inform yourself about the law situation in the country where you use your EPAC/EAPC.

Displays of Different Manufacturers

- | | |
|----------------------------|--------------------|
| 1 Level/mode of assistance | 5 Gear |
| 2 State of charge | 6 Time |
| 3 Current speed | 7 Total kilometres |
| 4 Average speed | |



COMPONENTS

Frame:

- Ⓐ Top tube
- Ⓑ Down tube
- Ⓒ Seat tube
- Ⓓ Rear stay
- Ⓔ Chainstay
- Ⓕ Head tube
- Ⓖ Central tube
- Ⓗ Rear shock

Suspension fork:

- Ⓐ Fork crown
- Ⓑ Stanchion tube
- Ⓒ Lower leg
- Ⓓ Drop out

- Ⓘ Motor/drive unit
- Ⓚ Rechargeable battery

- 1 Saddle
- 2 Seat post
- 3 Height-adjustable seat post/dropper post
- 4 Seat post clamp
- 5 Pannier rack
- 6 Rear light
- 7 Mudguard
- 8 Reflector
- 9 Lock
- 10 Rear brake
- 11 Internal gear hub
- 12 Kickstand
- 13 Cassette sprocket
- 14 Front derailleur
- 15 Rear derailleur
- 16 Chain
- 17 Crank
- 18 Pedal
- 19 **Handlebar:**
- 20 Display
- 21 Bell
- 22 Remote control lever height-adjustable seat post/dropper post

- 23 Brake lever
- 24 Shifter
- 25 Brake lever/shifter
- 26 Control element

- 27 Stem
- 28 Headset
- 29 Transport box
- 30 Front lamp
- 31 Fork
- 32 Suspension fork
- 33 Front brake
- 34 Brake disc
- 35 Spoke reflector, oval-shaped or in form of sticks

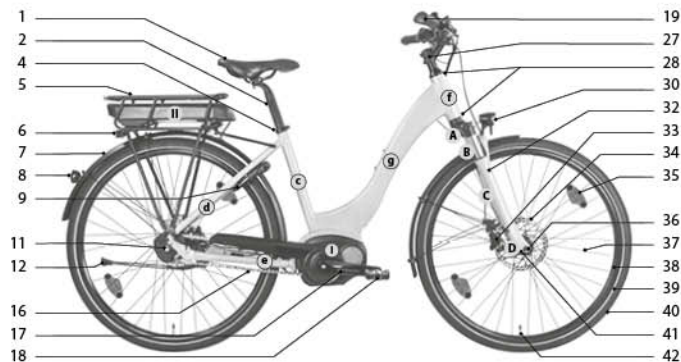
Wheel:

- 36 Quick-release/thru axle
- 37 Spoke
- 38 Rim
- 39 Reflector ring
- 40 Tyre
- 41 Hub
- 42 Valve

E-Trekking Bike



E-City Bike



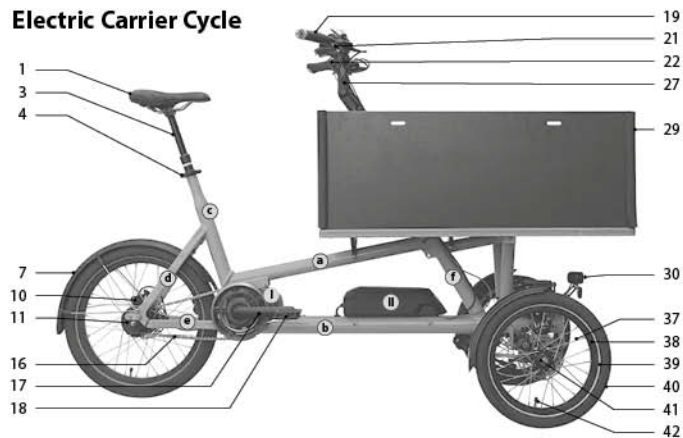
E-Gravel Bike



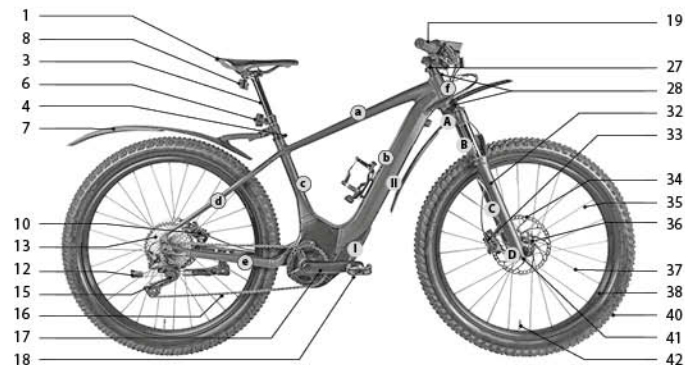
E-MTB Full Suspension



Electric Carrier Cycle



E-MTB Hardtail



INTENDED USE

Keep in mind that every bicycle type is built for a specific intended use. Be sure to use your EPAC/EAPC (a) only according to its intended use, as it may otherwise not withstand the stress, fail and cause an accident with unforeseeable consequences!

WARNING

Note that there are different types of EPACs/EAPCs which are subject to different legal framework conditions. Therefore, check the class or category of your EPAC/EAPC in the bike card (b). Keep the specific regulations for your EPAC/EAPC class in mind when riding on public roads and through the landscape.

SAFETY INSTRUCTIONS

Read in any case the detailed, type-specific general bicycle user manual and the system instructions of the drive system manufacturer that you received from your authorised dealer.

SAFETY INSTRUCTIONS

For more information about the intended use of your EPAC/EAPC as well as the permitted maximum overall weight (rider, luggage, EPAC/EAPC and child seat or trailer load, if permitted) see the system instructions of the drive system manufacturer, the bike card and read chapter "Before Your First Ride".

- EPACs (Electrically Power Assisted Cycles)**, in the UK also referred to as **EAPCs (Electrically Assisted Pedal Cycles)** are bicycles with auxiliary motor that only switches on when the pedals are moved by the rider. When you stop pedalling, the motor switches off.

The legal regulations for riding an EPAC/EAPC with regard to driving licence, registration, type approval, requirement to wear a helmet (c), insurance, regulations on the use of cycle lanes etc. are listed in the **"Overview on EPACs/EAPCs, Speed Pedelecs and 'Twist and Gos' – Legal Regulations in Great Britain"** at the end of this chapter.

Do not confuse your EPAC/EAPC with a "speed pedelec" (45 km/h/ 28 mph, see item 2.).



a

b

BIKE CARD		Intended Use	
Manufacturer	_____	Use on roads with	<input type="checkbox"/> category 1 <input type="checkbox"/> category 2 <input type="checkbox"/> category 3
Model	_____	<input type="checkbox"/> category 1 "drive" <input type="checkbox"/> category 2 "assist"	
Frame no.	_____	<input type="checkbox"/> category 2 "assist"	
Drive system	_____	Electrically assisted EPAC/EAPC system	
<input type="checkbox"/> front wheel motor <input type="checkbox"/> mid-mounted motor <input type="checkbox"/> rear wheel motor		Maximum permissible overall weight	
System mode	_____	total (incl. rider)	<input type="checkbox"/> 125 kg <input type="checkbox"/> 175 kg
Name	_____	without a passenger	<input type="checkbox"/> 125 kg <input type="checkbox"/> 175 kg
Weight (kg)	_____	Removable load	<input type="checkbox"/> 125 kg <input type="checkbox"/> 175 kg
Maximum load	_____	Child seat allowed	<input type="checkbox"/> 125 kg <input type="checkbox"/> 175 kg
Capacity (pass. front)	_____	Tubular load	<input type="checkbox"/> 125 kg <input type="checkbox"/> 175 kg
Capacity (pass. rear)	_____	Removable car load	<input type="checkbox"/> 125 kg <input type="checkbox"/> 175 kg
Serial no. (incl. drive system)	_____	Drive system - Drive suspension	
Serial no. (incl. bike motor)	_____	Right drive <input type="checkbox"/> front wheel motor <input type="checkbox"/> rear wheel motor	
Serial no.	_____	Left drive <input type="checkbox"/> front wheel motor <input type="checkbox"/> rear wheel motor	
Serial no. (incl. bike motor)	_____	Serial no. (incl. drive system)	
Frame type	_____	Serial no. (incl. drive system)	
Frame size	_____	Serial no. (incl. drive system)	
Size of wheel and tire	_____	Serial no. (incl. drive system)	
Color	_____	Serial no. (incl. drive system)	
Special features	_____	Serial no. (incl. drive system)	

c

d



There are now nearly all types of bicycles also available as electric bicycles. The types of bicycles are subdivided in the following categories:

- Category 1:** e-city, e-fitness bicycles
- Category 2 "Everyday":** e-trekking, e-touring, e-cross, e-youth bicycles
- Category 2 "Sports":** e-gravel bikes
- Category 3:** e-cross-country, e-marathon, e-touring mountain bikes
- Category 4:** e-enduro, e-all mountain bikes (d), e-trail bikes
- Category 5:** e-downhill, e-freeride mountain bikes
- Category 6:** e-road racing bicycles

It is imperative that you read chapters "Intended Use" and "Before Your First Ride" of your general bicycle user manual. There you will find detailed information on the use of the bicycles of the respective category.

The starting or pushing aid (e) provides assistance during pushing (f) or when doing a hill start, even without pedalling, up to a speed of 6 km/h (3.7 mph). Be sure to also read chapter "Riding an Electric Carrier Cycle – Special Features".



⚠ WARNING

Do not modify or manipulate ("tune") your EPAC/EAPC. Risk of accident! Modifications and manipulations (e.g. dongles etc.) will render the warranty void and result in a loss of the private liability insurance cover. The EPACs/EAPCs are then possibly no longer approved for use on public roads (scope of the Road Traffic Licensing Regulation) and on forest trails.

NOTICE

We recommend that you take out private liability insurance. Make sure that coverage for damage caused during cycling by bicycle or EPAC/EAPC is provided by your insurance. Contact your insurance company or agency.

SAFETY INSTRUCTIONS

The regulations and rules for EPACs/EAPCs and speed pedelecs are continuously revised. Read the daily press to keep you informed about current legislative changes.

For more information on the approval of using trailers (g) and child seats (h) on your EPAC/EAPC have a look at the system instructions of the drive system manufacturer and the bike card.

2. **Speed pedelecs** (a) are bicycles with an auxiliary motor which provides assistance to the rider even beyond a speed of 25 km/h to max. 45 km/h (15.5 mph to max. 28 mph), as long as you continue pedalling. Without pedalling a speed pedelec provides assistance to a maximum speed of 20 km/h (12.4 mph). In the UK EPACs/EAPCs that can be propelled without pedalling, i.e. by a throttle alone, are also referred to as ‘twist and gos.’ They require type approval (if bought as of January 2016).

The legal regulations for riding a speed pedelec with regard to driving licence, registration, type approval, requirement to wear a helmet (b), insurance, regulations on the use of cycle lanes etc. are listed in the “**Overview on EPACs/EAPCs, Speed Pedelecs and ‘Twist and Gos’ – Legal Regulations in Great Britain**” at the end of this chapter. Speed pedelecs are considered motor vehicles and therefore subject to strict regulations relating to the replacement of component and to changes.

One-way streets with signs stating it is permitted for cyclists to ride the wrong way down are not open for speed pedelec riders. Roads which are closed for motor vehicles, motor cycles and mopeds, must neither be used by speed pedelecs.

When you ride a speed pedelec in **Great Britain**, wearing a motorcycle helmet is compulsory.

Most of the speed pedelecs are designed for cycling exclusively on lanes and roads with a smooth surface. Only use trails and tracks that are open to speed pedelecs. Typical speed pedelecs are in general not suitable for off-road use. Using typical speed pedelecs off-road can result in crashes with unforeseeable consequences.

There are now many types of bicycles among the electric speed bicycles belonging to different categories. It is imperative that you read chapters “**Intended Use**” and “**Before Your First Ride**” of your general bicycle user manual. There you will find detailed information on the use of the bicycles of the respective category.

⚠ WARNING

Do not modify or manipulate (“tune”) your speed pedelec. Risk of accident! Modifications and manipulations will render the warranty void and result in a loss of the private liability insurance cover. The speed pedelecs are then possibly no longer approved for use on public roads.

SAFETY INSTRUCTIONS

The regulations and rules for EPACs/EAPCs and speed pedelecs are continuously revised. Read the daily press to keep you informed about current legislative changes.



Overview on EPACs/EAPCs, Speed Pedelecs and 'Twist and Gos' – Legal Regulations in Great Britain¹

	EPAC/EAPC (also with pushing aid)	Speed pedelec	'Twist and go' EAPC
Pedal assistance up to max. km/h (mph)	25 km/h (15.5 mph) MDS ² without pedal assistance 6 km/h (3.7 mph)	45 km/h / 28 mph (with pedalling) 20 km/h / 12.4 mph (without pedalling) MDS ²	Propulsion without pedalling, with throttle
Helmet	recommended	compulsory (motorcycle helmet) ³	compulsory (motorcycle helmet) ³
Rear-view mirror (c)	no	yes	yes
Horn	no	yes	yes
Driving licence	no	yes (cat. AM)	yes (cat. AM)
Registration or type approval	no, however UKCA mark and UKNI mark (North Ireland) and/or CE mark (until 2022/12) ⁴	yes, tax disc, number plate, MOT certificate	yes, tax disc, number plate, MOT certificate
Insurance	no	yes	yes
Riding on cycle lanes permitted	in town: yes out of town: yes	in town: no out of town: no	in town: no out of town: no
Riding on forest trails	yes	no	no
Vehicle class	bicycle	moped	moped
Legal age	14 years	16 years	16 years
Child seat	yes ⁵	forbidden (d)	forbidden (d)
Child trailer	yes ⁵	forbidden	forbidden

¹ In accordance with www.gov.uk/electric-bike-rules

The regulations and rules are continuously revised. Read the daily press to keep you informed about current legislative changes.

² MDS – maximum design speed

³ The requirements are changing. Don't take a risk with safety! Read the daily press.

⁴ UKCA (UK conformity assessed) plus UKNI where North Ireland is involved, see www.gov.uk/guidance/using-the-ukca-marking

⁵ For many bike models this legal authorisation is restricted. Observe the bike card.

WARNING

Tuning, i.e. improvement in performance and speed, is not a trivial offence, but has far-reaching consequences ranging from loss of insurance cover, prohibition of use on public roads and paths, to possible material failure due to overload.

BEFORE YOUR FIRST RIDE

1. Have you ever ridden an EPAC/EAPC? Note the particular riding characteristics of this revolutionary hybrid drive concept (a+b). Set off for your first ride by selecting the lowest level of drive assistance. Slowly approach the potential of your EPAC/EAPC in an area free of traffic.

For more information in this regard, read chapter “Useful Tips for Riding an EPAC/EAPC”.

2. Your EPAC/EAPC is designed for a **maximum permissible overall weight** including the rider, the luggage, the EPAC/EAPC and the child seat or trailer load, if permitted. The maximum permissible overall weight is specified in the system instructions of the drive system manufacturer, in the bike card (c), in your general bicycle user manual or contact your authorised dealer.

⚠ WARNING

Do not hang any bags or other heavy or big objects (such as umbrellas) to the handlebar of your EPAC/EAPC. Risk of accident!

⚠ WARNING

Strictly observe the category to which your bicycle/EPAC/EAPC belongs. From the category you can conclude which grounds and riding actions are suitable for your bicycle. You find the categories in chapter “Intended Use” as well as in the same chapter in your detailed, general bicycle user manual as well as in the bike card.

Do not wear long skirts, flared trousers or ponchos and do not hang long strings, bands or the like to your EPAC/EAPC during the ride. There is the risk of getting caught in the wheels or in the drive. Risk of accident!

⚠ CAUTION

The weight or the weight distribution on EPACs/EAPCs differs significantly from that on bicycles without drive system. An EPAC/EAPC is clearly heavier than a bicycle without drive assistance. For this reason parking, pushing, lifting and carrying the EPAC/EAPC is more difficult. Bear this in mind when loading your EPAC/EAPC into a car and unloading it or when mounting it on a bicycle carrier system (d).

The A-weighted emission sound pressure level at the rider's ears is less than 70 dB(A).



3. If you want to use your EPAC/EAPC on public roads, it has to comply with the respective legal requirements, in particular as regards the lighting. These requirements may vary in each country. The equipment of your EPAC/EAPC is therefore not necessarily complete. Ask your authorised dealer for the laws and regulations applicable in your country or in the country you intend to use the EPAC/EAPC. Have your EPAC/EAPC equipped accordingly, before using it on public roads (e).

4. The rechargeable battery of your EPAC/EAPC must be charged before you set off for the first time (f). Are you familiar with the handling and mounting of the rechargeable battery? Before you set off for the first time, check whether the battery is properly mounted, that it has engaged audibly and that it is locked.

For more information see the system instructions of the drive system manufacturer, e.g. chapter

BOSCH – Inserting and removing the battery

SHIMANO STePS – Charging the battery

YAMAHA – Battery pack and charging procedure

⚠ WARNING

- *We recommend that you charge your battery during the day and only in dry rooms which have a smoke or a fire detector; but keep it off your bedroom. Place the battery during the charging process on a big, non-inflammable plate made of ceramics or glass!*

- *Charge your battery with the supplied charger only. Do not use the charger of any other manufacturer, not even when the connector of the charger matches your rechargeable battery. The rechargeable battery can heat up, catch fire or even explode!*

- *Do not charge and park the EPAC/EAPC in the blazing sun. Temperatures above 40 °C (104 °F) may result in a failure of the battery.*

SAFETY INSTRUCTIONS

- *Note that the rechargeable battery switches into the sleep mode after a few days of non-use. If you want to know how to awake the battery, read chapters*

BOSCH – Operation

SHIMANO STePS – Handling and charging the battery

YAMAHA – Battery pack and charging procedure



5. The functions of your EPAC/EAPC are operated with the buttons on the control element at the handlebar (g+h, p. 13).

Are you familiar with all functions and displays? Check whether you know the functions of all buttons (a). For more information see the system instructions of the drive system manufacturer, e.g. chapter

BOSCH – Product description and specifications

SHIMANO STePS – Switching between cycle computer operations and modes

YAMAHA – Instrument and control functions

6. Are you familiar with the brake system? Have a look at the bike card and check whether you can actuate the front brake with the same brake lever or brake lever/shifter (right or left) you are used to. If it is not, have it modified by your authorised dealer before you set off for the first time! Make sure that the lever-to-brake assignment is the same across all your bikes.

Your new EPAC/EAPC is equipped with modern brakes (b) which may be far more powerful than those you were used to so far. Be sure to first practise using the brakes on a level, non-slip surface off public roads! If you have an e-mountain bike also practise on loose ground.



Slowly approach higher brake performances and speeds. For more information see chapter “**Brake System**” of your general bicycle user manual and the enclosed operating instructions.

⚠ WARNING

- **The brakes of your EPAC/EAPC are always more effective than the drive system. If you have problems with your drive (e.g. because it pushes you forward in front of a bend), stop pedalling and actuate both brakes of your EPAC/EAPC carefully.**
 - **Pull the brake lever or brake lever/shifter of the rear brake and stop pedalling. The EPAC/EAPC stops. Emergency stop/Emergency switching off! With a front motor, however, the front brake must be actuated carefully. The shortest possible stopping distance is achieved by braking with both brakes simultaneously and gradually.**
7. Are you familiar with the type and functioning of the gears (c+d)? Ask your authorised dealer to explain the gear system to you and make yourself familiar with your new gears in an area free of traffic, if necessary. For more information see chapter “**Gears**” of your general bicycle user manual and the enclosed operating instructions.

8. Are both saddle and handlebar properly adjusted? The saddle should be set to a height from which you can just reach the pedal in its lowest position with your heel. Check whether your toes reach to the floor when you are sitting on the saddle.

Your authorised dealer will be pleased to help you, if you are not happy with your seating position. For more information see chapter **“Adjusting the Bicycle to the Rider”** of your general bicycle user manual.

9. If your EPAC/EAPC is equipped with clipless or step-in (e) pedals: Have you ever tried cycling with the respective cycling shoes? Do not set off until you have practised engaging and disengaging the shoes from the pedals in standing. Ask your authorised dealer to explain the pedals to you. For more information see chapter **“Pedals and Shoes”** of your general bicycle user manual and the enclosed operating instructions.
10. If you bought an EPAC/EAPC with suspension (f+g), you should ask your authorised dealer to carry out the proper adjustment of the chassis. Improperly adjusted suspension forks or suspension elements can result in malfunction or damage to the suspension elements. In any case they will impair the performance of your EPAC/EAPC as well as your safety and joy whilst cycling.

For more information see chapters **“Suspension Forks”**, **“Rear Shock”** and **“Suspension Seat Posts”** of your general bicycle user manual. Further instructions regarding suspension forks are possibly enclosed with these operating instructions.

11. Are parts of your EPAC/EAPC made of carbon? Note that this material requires special care and must be used carefully. Read in any case the chapter **“Carbon – Important Information”** in your general bicycle user manual.

⚠ WARNING

When mounting your EPAC/EAPC, make sure not to step in the pedals until you sit in the saddle and grip the handlebar tight and that one pedal is at the lowest position when you get on. The motor assistance might switch on suddenly and result in an uncontrolled start of your EPAC/EAPC. Risk of accident!

Be aware that the distance you need to stop your EPAC/EAPC may increase, when you are riding with your hands on bar ends or multi position handlebars. The brake levers are not in all gripping positions within easy reach.

Note that both braking effect and tyre grip can be reduced drastically in wet conditions. Look well ahead when riding on wet roads and on loose ground and ride clearly slower than you would in dry conditions.



⚠ WARNING

A lack of practice when using clipless pedals or too much spring tension in the mechanism can lead to a very firm connection, from which you cannot quickly step out. Risk of accident!

⚠ CAUTION

The weight or the weight distribution on EPACs/EAPCs differs significantly from that on bicycles without drive system. An EPAC/EAPC is clearly heavier than a bicycle without drive assistance. For this reason parking, pushing, lifting and carrying the EPAC/EAPC is more difficult. Bear this in mind when loading your EPAC/EAPC into a car and unloading it or when mounting it on a bicycle carrier system.

Make particularly sure there is enough space between your crotch and the top tube (h, p. 15) so that you do not hurt yourself, if you have to get off your EPAC/EAPC quickly.

NOTICE

Note that not all EPACs/EAPCs are equipped with kickstands. Therefore, when parking your EPAC/EAPC, make sure it stands safe and secure and is not at risk of toppling over or being knocked over. If your EPAC/EAPC topples over, it can suffer from damage.

Check with your insurers that the EPAC/EAPC as well as the store-keeping and the charging of lithium-ion batteries are covered by your household and fire insurance. Read the daily press to keep yourself informed about current legislative changes.

SAFETY INSTRUCTIONS

For more information on the approval of using trailers and child seats on your EPAC/EAPC, have a look at the bike card (c).

BEFORE EVERY RIDE

Your EPAC/EAPC has undergone numerous tests during production and a final check has been carried out by your authorised dealer.

Nevertheless, be sure to check the following points before every ride to exclude any malfunctioning that may be due to the transport of your EPAC/EAPC or to modifications a third person may have performed on your EPAC/EAPC during a standing time:

- Are the quick-releases (d), thru axles or the bolted connections of the front and rear wheel, the seat post and other components properly closed?

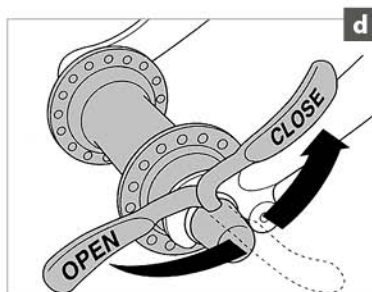
For more information see chapter **“How to Use Quick-Releases and Thru Axles”** of your general bicycle user manual and the enclosed operating instructions.

⚠ CAUTION

Remove the rechargeable battery or the display before doing any work on your EPAC/EAPC (e.g. servicing, repairs, assembly, maintenance, work on your drive etc.). Activating the drive systems unintentionally bears the risk of injury!

c

BREKCARD		Intended Use	
Manufacturer	_____	Machine conforms with	
Model	_____	<input type="checkbox"/> category 1	<input type="checkbox"/> category 2
Issue no.	_____	<input type="checkbox"/> category 3	<input type="checkbox"/> category 4
Drive system	_____	Single speed EPAC/EAPC (no. 1/2/3/4)	
<input type="checkbox"/> front wheel drive	<input type="checkbox"/> mid/mid-rear drive	<input type="checkbox"/> rear wheel drive	_____ kg
Motor model	_____	Maximum permitted total weight	
Weight (kg)	_____	- with saddle and 250 Ah/24V	
Active power (W)	_____	- with saddle and 250 Ah/24V	
Capacity (kWh/Wh)	_____	- with saddle and 250 Ah/24V	
Charging time (hours)	_____	- with saddle and 250 Ah/24V	
Maximum load (kg)	_____	- with saddle and 250 Ah/24V	
Speed (km/h)	_____	- with saddle and 250 Ah/24V	
Max. speed (km/h)	_____	- with saddle and 250 Ah/24V	
Color	_____	- with saddle and 250 Ah/24V	
Special features	_____	- with saddle and 250 Ah/24V	



2. Is the battery tight in its holder (e) and properly locked up (f)? Never set off with a loose and unlocked battery. For more information see the system instructions of the drive system manufacturer, e.g. chapter

BOSCH – Operation

SHIMANO STePS – Installing / removing the battery

YAMAHA – Battery pack and charging procedure

3. Does the display on the control element and the cycle computer on the handlebar show all values (g+h)? Is there any error message or warning on the display? Check the values are correct before every ride. Do not set off on your EPAC/EAPC when the control element shows a warning. For more information see the system instructions of the drive system manufacturer, e.g. chapter

BOSCH – Operation

SHIMANO STePS – Basic screen display

YAMAHA – Instrument and control functions

4. Are the connections of the rechargeable battery, the control element on the handlebar and the drive (a+b, p. 18) properly plugged? For more information see the system instructions of the drive system manufacturer, e.g. chapter

BOSCH – Operation

SHIMANO STePS – Method of use

YAMAHA – Instrument and control functions

5. Is your battery fully charged? Remember to fully recharge the battery after each longer ride (e.g. less than 50 % charged). Modern lithium-ion batteries have no memory effect. However, it does not matter if your EPAC/EAPC is left as it is for a short time (e.g. overnight) when less than 50 % charged. However, you should not wait until the battery is fully discharged! For more information see the system instructions of the drive system manufacturer, e.g. chapter

BOSCH – Operation

SHIMANO STePS – Charging the battery

YAMAHA – Battery pack and charging procedure



6. Are the tyres in good condition and do they have sufficient pressure (c)? Note that an EPAC/EAPC weighs heavier and that your usual tyre pressure may be insufficient. A higher pressure gives a better riding stability and reduces the risk of a puncture. The minimum and maximum pressure (in bar or psi) is indicated on the tyre side.

For more information see chapter **“Wheels and Tyre Equipment”** of your general bicycle user manual and the enclosed operating instructions.

7. Spin the wheels to check whether the rims are true. If you have disc brakes, watch the gap between frame and rim or tyre and, if you have rim brakes, between brake pad and rim. Untrue rims can be an indication of tyres with ruptured sides or broken axles or spokes.

For more information see chapter **“Wheels and Tyre Equipment”** of your general bicycle user manual and the enclosed operating instructions.

8. Test the brakes as the bicycle is standing by firmly pulling the brake levers or brake levers/shifters towards the handlebar (d). Make sure you cannot pull the brake levers all the way to the handlebar. If your bicycle has hydraulic brakes, check the hydraulic brake cables for oil or brake fluid leaks! Also check the thickness of the brake pads.

With disc brakes you should have a stable pressure point at once. If you have to actuate the brake lever more than once to get a positive braking response, have the EPAC/EAPC checked by your authorised dealer.

The brake pads of rim brakes must hit the rim evenly with their entire surface without touching the tyre during braking, in open condition or in between.

For more information see chapter **“Brake System”** of your general bicycle user manual and the enclosed operating instructions.

9. Let your EPAC/EAPC bounce on the ground from a small height. If there is any rattling, check where it comes from. Check the bearings, the bolts and the the proper seat of the battery, if necessary.



10. If you want to ride on public roads, make sure your EPAC/EAPC is equipped according to the regulations of your country (e). Riding without lights and reflectors in dark or dim conditions is very dangerous because you will be seen too late or not at all by other road users.

A permissible lighting system is a must on public roads. Turn on the lights as soon as dusk sets in.

For more information see chapter “**Legal Requirements for Riding on Public Roads**” of your general bicycle user manual.

11. If your EPAC/EAPC has suspension (f), check it as follows: Press down on your EPAC/EAPC and see whether the spring elements retract and extend as usual.

For more information see chapters “**Suspension Forks**”, “**Rear Shock**” and “**Suspension Seat Posts**” of your general bicycle user manual as well as the enclosed operating instructions.

12. If your bike has a kickstand, make sure it is fully raised before you set off. **Risk of accident!**
13. Do not forget to take a high-value folding, D- (g) or chain lock with you on your ride. The only way to effectively protect your EPAC/EAPC against theft is to lock it to an immovable object.



⚠ WARNING

- **Improperly closed quick-releases (h) and other fastenings can cause components to come loose and result in serious accidents!**
- **Do not use your EPAC/EAPC, if it fails on one of these points! Riding a defective EPAC/EAPC can result in serious accidents! If you are in doubt or if you have any questions, contact your authorised dealer.**
- **The drive is free of vibrations. During use your EPAC/EAPC is undergoing stress resulting from the surface of the road and through the rider's action. Due to these dynamic loads, the different parts of the EPAC/EAPC react with wear and fatigue. Please check your EPAC/EAPC regularly for wear marks, scratches, deformations, colour changes and any indication of cracking. Components which have reached the end of their service life may fail suddenly without previous warning. Let your authorised dealer maintain and service your EPAC/EAPC regularly and in cases of doubt it is always best to replace components.**

NOTICE

- **Remove, if possible, the display when parking the EPAC/EAPC. This is to protect the EPAC/EAPC against theft; in addition, it cannot be used with drive assistance ad hoc.**

USEFUL TIPS FOR RIDING AN EPAC/EAPC

Your EPAC/EAPC is designed to be used like a conventional bicycle. The unique riding experience, however, starts when you actuate the drive system (a). At that moment the assistance generated by the powerful motor/drive unit increases with its high torque the stronger you pedal.

Set off for your first ride by selecting the lowest level of drive assistance. Gradually get used to the additional propulsion. Slowly approach the potential of your EPAC/EAPC in an area free of traffic. Practise typical riding situations such as starting off and braking, tight corners and riding on narrow cycle paths and lanes. This is where an EPAC/EAPC clearly differs from a conventional bicycle.

⚠ WARNING

The brakes of your EPAC/EAPC are always more effective than the drive system. If you have problems with your drive (e.g. because it pushes you forward in front of a bend), stop pedalling and actuate both brakes of your EPAC/EAPC carefully.

Pull the brake lever or brake lever/shifter of the rear brake and stop pedalling. The EPAC/EAPC stops. Emergency stop/Emergency switching off! With a front motor, however, the front brake must be actuated carefully. The shortest possible stopping distance is achieved by braking with both brakes simultaneously and gradually.



Riding with Drive Assistance

The system is switched on and off at the buttons of the control element on the battery (b) or on the handlebar (c). Furthermore, different assistance modes can be selected, the remaining capacity of the rechargeable battery is displayed and different functions of the cycle computer (d) can be selected, if necessary.

When switched on, the system activates during pedalling and the drive assistance is available. Sensors measure your pedalling movements and control the fully automated drive assistance according to the selected assistance mode. The level of the additional propulsion depends on the assistance mode, your speed and, as applicable, the amount of force applied to the pedals.

The assistance switches off when you reach a speed of more than 25 km/h (15.5 mph).

Keep in mind that you may have to change your riding habits:

Do not mount by placing one foot on the pedal and by trying to throw the other leg over the saddle. The EPAC/EAPC would set off suddenly. **Risk of accident!**

Stop pedalling earlier than you are used to before riding a turn or bend. Otherwise there may be too much propulsion and your cornering speed may be too high.

Do not give in to the temptation to always ride in a high gear, due to the powerful motor/drive unit. Shift gears frequently (e) in the same way that you are used to doing with a conventional bicycle so as to make your own contribution to your forward progress as efficient as possible. Your cadence should always be in a smooth flow. In other words, you should pedal at more than 60 crank rotations per minute. Shift down before stopping.

Keep in mind that the other road users are not yet used to EPACs/EAPCs and their higher speeds. Ride with this fact in mind and anticipate the actions of other road users. Be aware that the speed you ride at will be clearly faster than you are used to. Therefore, keep these facts in mind and be ready to brake whenever an unclear or a possibly dangerous situation comes into your field of vision.

⚠ WARNING

Do a test ride in an unfrequented area (f) to make yourself familiar with the riding characteristics of your EPAC/EAPC and the possibly higher speed and acceleration, before riding on public roads. Risk of accident! Never ride without a helmet!



⚠ WARNING

When getting on your EPAC/EAPC make sure not to step in the pedals until you sit in the saddle and have a firm grip on the handlebars or that the pedal is at its lowest point when getting on. The motor assistance may switch on unexpectedly and result in an uncontrolled start of your EPAC/EAPC. Risk of accident!

Keep in mind that due to the higher driving power at the rear wheel and in particular in the case of the much less frequently used front wheel motors (g) the risk of an accident increases with slippery roads (due to wetness, snow, gravel etc.). This applies all the more when riding bends. Risk of accident!

Note that car drivers and other road users may underestimate your speed. Always wear bright clothing. Therefore, always ride on public roads with this fact in mind and anticipate the actions of other road users. Risk of accident!

Keep in mind that pedestrians do not hear you when you approach at high speed. Therefore, ride particularly defensive and anticipating when using cycle lanes and cycle/footpaths to avoid accidents. If necessary, ring the bell to warn others (h).

Range – Useful Information for a Long Ride

How long and how far you can benefit from the auxiliary drive depends on several factors, i.e. the road conditions, the weight of the rider and any additional load, the rider's pedal force, the degree or mode of assistance, (head)winds, frequent stops, temperature, weather conditions, topography, tyre pressure etc.

The charge state of your rechargeable battery can be read from the display of the control element on the handlebar (a+b) or, additionally, on the rechargeable battery (c).

For more information see the system instructions of the drive system manufacturer, e.g. chapter

BOSCH – Battery Charge Indicator

SHIMANO STePS – About the charger LED lamp

YAMAHA – Checking the residual battery capacity

To extend the range it is recommended that you ride with low or no assistance at all on level or downhill trails and only select maximum drive assistance with headwinds, heavy additional loads and/or when climbing hills.

Furthermore, you can extend the range by

- checking the tyre pressure regularly, i.e. once a week with pressure gauge (d), and changing it, if necessary
- shifting gears down in front of traffic lights and intersections or in general in cases of stops and by setting off in low gears
- changing gears regularly, as you are used to on a bicycle without drive, i.e. by not only riding in high gears
- riding with these facts in mind and always looking ahead to avoid any unnecessary stops
- reducing your additional load, i.e. without unnecessary luggage
- storing your battery in your home and installing it only shortly before you set off on your EPAC/EAPC in cooler weather, in particular when it is cold
- not parking the EPAC/EAPC in the blazing sun

Some EPACs/EAPCs offer the possibility to switch downhill into the recuperation mode for energy recuperation. For more information on whether your EPAC/EAPC has the possibility of energy recuperation, read the system instructions of the drive system manufacturer.

If your battery has not enough capacity to reach your destination, benefit from the decisive advantage of the hybrid concept of your EPAC/EAPC: Without drive assistance you can ride your EPAC/EAPC like a conventional bicycle with an unlimited range and nearly without compromising on riding characteristics.



⚠ WARNING

If your rechargeable battery runs empty during the ride, be sure to charge it only with the supplied charger (e). Do not use the charger of any other manufacturer, not even when the connector of the charger matches your rechargeable battery. The rechargeable battery can heat up, catch fire or even explode!

NOTICE

The batteries of EPACs/EAPCs have no memory effect. It is recommended that you charge the battery after every long ride. Avoid any deep discharge of the rechargeable battery.

Fully discharge your rechargeable battery every three months and recharge it then immediately. This calibrates the capacity indicator and restores its accuracy.

Note that the rechargeable battery of your EPAC/EAPC will show signs of wear over the years. The capacity of the battery will constantly reduce as a result thereof; in addition, the range per battery charge will be significantly shorter than in the beginning. After a certain period of time it is even necessary to replace the battery.

SAFETY INSTRUCTIONS

For more information about how to use the battery's performance to the maximum, see chapter "Safe Handling of the Rechargeable Battery".



Riding without Drive Assistance

You can also use your EPAC/EAPC without drive assistance, i.e. just like a conventional bicycle.

Observe the following points when riding with the drive switched off or with a discharged rechargeable battery:

- Switch on the control element of your EPAC/EAPC at the handlebar, even when riding without drive assistance; the functions of your cycle computer are only then available.
- If the lighting system (f) is powered by the rechargeable battery, it can even be used when the battery is empty. It is, however, recommended that you recharge the battery immediately after you have returned.
- After you have removed the battery of your EPAC/EAPC from the down tube (g) or the pannier rack: Keep the connections of the rechargeable battery (h) free of dirt and moisture. Protect the connections of your rechargeable battery with the protective covers, if supplied. With the battery removed the display and in particular the lighting system will most probably no longer work. You should no longer use the EPAC/EAPC on public roads and under no circumstances ride in poor visibility, twilight or darkness.

RIDING AN ELECTRIC CARRIER CYCLE – SPECIAL FEATURES

Your electric carrier cycle was specifically designed for transporting cargo as well as heavier and bulky goods (a). With specific seats and straps some electric carrier cycles are also suitable for transporting children. Transporting cargo differs a lot from riding a classic bicycle or EPAC/EAPC and requires that you get used to it.

Be sure to load the loading surface evenly. Heavy packages should be loaded as far down and backwards as possible. Make sure the cargo does not protrude on the sides. Secure the cargo against shifting, e.g. by using tightening straps (b).

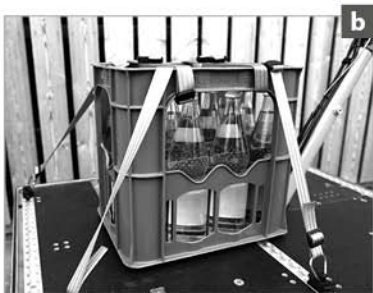
Riding an electric carrier cycle requires special skills and care. Start by riding your electric carrier cycle in unloaded condition in an area free of traffic (c) and other road users until you have full control of it. Also practise cornering (d) and riding downhill as well as braking and emergency braking. Once you feel secure try out riding with cargo which you should increase gradually.

You will quickly notice that the riding characteristics are much slower than that of a classic bicycle. Ride therefore defensively and anticipate a larger turning circle, longer evasive manoeuvres and stopping distances.

Also practise parking (jacking up) the electric carrier cycle.

⚠ WARNING

- ***Do not set off before having safely stowed, i.e. actively secured the items in the transport box with tightening straps. Cargo shifting may otherwise modify the centre of gravity and result in critical riding situations. Risk of accident!***
- ***Stow heavy items in the transport box or on the loading surface as far down and towards the middle of the electric carrier cycle as possible. When distributing the loads make sure your electric carrier cycle is loaded as evenly as possible.***
- ***Do not overload your electric carrier cycle. Observe the maximum permissible transport weight indicated in the bike card in these operating instructions or on the sticker of your electric carrier cycle. If you are unsure about the weight you are permitted to load in addition, contact your authorised dealer.***
- ***Adjust the tyre pressure to the additional weight. The maximum pressure is indicated on the tyre side.***



⚠ WARNING

Both luggage and loads modify the riding characteristics of your electric carrier cycle in general and lengthen the braking distance! Therefore, practise riding and braking with your loaded electric carrier cycle in a place free of traffic. Ride particularly considerate and anticipate critical situations.

Different carrier cycles are designed for different purposes of use. Please note that not every model is suitable for the transport of children. The transport of children in carrier cycles without specific equipment is dangerous and therefore forbidden! Ask your authorised dealer whether your model is suitable for child transport in general and whether it can be retrofitted with specific equipment for the transport of children.

Keep in mind that too much additional load will also increase wear. Check therefore the condition of the wearing parts regularly, at least observe the intervals given in the chapter "Service and Maintenance Schedule" in your general bicycle user manual. Under adverse conditions, e.g. when you ride a lot in rainy and dirty conditions and with a lot additional load or when you do a lot of altitude metres, you have to anticipate even clearly shorter intervals.

SAFETY INSTRUCTIONS

Your electric carrier cycle is longer and wider than a usual bicycle or EPAC/EAPC. There is not always enough space for electric carrier cycles provided in bike-parking facilities. Make sure that you neither obstruct the road nor the bike lane/footpath, e.g. for wheelchair users, when parking your electric carrier cycle.

The regulations and rules for electric carrier cycles are continuously revised. Read the daily press to keep you informed about current legislative changes.

SAFE HANDLING OF THE RECHARGEABLE BATTERY

When you do not use your EPAC/EAPC for a longer period of time (e.g. during the winter season) observe some particularities. Store the rechargeable battery (g) or the complete EPAC/EAPC when the battery is integrated in the frame in a dry room at temperatures between 5 and 20 °C (41 and 68 °F). The state of charge should be 50 to 70 % of the charging capacity. Check the state of charge, if the rechargeable battery is left unused for more than two months, and recharge it in between, if necessary (h).

Clean the battery housing with a dry or, if at all, a slightly moist rag. Look out for possible defects of the housing. Do not direct the water jet of a high-pressure cleaner at the rechargeable battery, as there is a risk of water entry and/or short-circuit. Check after every cleaning process whether the area around the rechargeable battery is free of water and whether the contacts are dry. For more information on the proper handling of your rechargeable battery see the system instructions of your drive system manufacturer, e.g. chapter

BOSCH – Operation

SHIMANO STEPS – Handling and charging the battery

YAMAHA – Cleaning, maintenance and storage



⚠ WARNING

Charge your battery (a) with the supplied charger only. Do not use the charger of any other manufacturer, not even when the connector of the charger matches your rechargeable battery (b). The rechargeable battery can heat up, catch fire or even explode!

Charge the battery with an ambient temperature of 15 to 25 °C (59 to 77 °F). Let hot batteries cool down beforehand. You should also let the battery warm up to room temperature before connecting it to the charger in winter or after a ride in cold weather.

We recommend that you charge your battery during the day and only in dry rooms which have a smoke or a fire detector; but keep it off your bedroom. Place the battery during the charging process on a big, non-flammable plate (c) made of ceramics or glass! Unplug the battery once it has been charged up.

Make sure your rechargeable battery (d) is in sound condition. Do not open, disassemble or crush the battery. Risk of explosion!

Do not use a rechargeable battery or a charger that is defective. If you are in doubt or if you have any questions, contact your authorised dealer.

⚠ WARNING

Keep the rechargeable battery and the charger out of the reach of children!

Do not charge any other electrical devices with the supplied charger of your EPAC/EAPC!

Keep your battery away from fire and heat. Risk of explosion!

The drive is not approved for steam cleaning, high-pressure cleaning or cleaning with a water hose. The contact of the electrics or the drive with water can destroy the units. Risk of explosion!

Do not short-circuit rechargeable batteries. Store them therefore in a safe storage place and make sure there is no accidental contact with other conductive materials, e.g. metal parts, which might cause a short-circuit with each other. Do not deposit any objects in the storage area (e.g. clothes).

Keep the rechargeable battery and the charger away from moisture and water during the charging process to exclude electric shocks and short circuits.

Do not expose your battery or the charger to the blazing sun during charging. Temperatures above 40 °C (104 °F) may result in a failure of the battery.



⚠ WARNING

- Make sure to use the battery only for the EPAC/EAPC for which it is designed.
- If the rechargeable battery or the charger (or parts of it) must be replaced, only use original spare parts. Contact your authorised dealer.

NOTICE

- When you remove your battery (e) from the holder for charging it with your EPAC/EAPC left in the open during the charging process, you should protect the connections (f), e.g. with a plastic bag against rain, water, moisture and dirt. If the connections of the rechargeable battery are soiled, clean them with a dry rag.
- Make sure not to discharge your rechargeable battery completely (also referred to as depth discharge). This occurs often when the battery has run out completely and the EPAC/EAPC was left standing for some days. Depth discharge will affect the rechargeable battery of your EPAC/EAPC permanently. A deep-discharged battery can only be recharged in exceptional cases and with special chargers. Contact your authorised dealer.

NOTICE

- If possible, remove the rechargeable battery from your EPAC/EAPC or EPAC/EAPC if you do not use your EPAC/EAPC for a longer period of time and keep it clean and dry.
- Do not charge your battery over a long period of time, if you do not need it. When the battery is fully charged remove the charger at short term.
- Do not dispose of your rechargeable battery in the normal household rubbish (g)! It must be disposed of according to battery disposal regulations. Therefore, sellers of new rechargeable batteries must provide collection of old batteries and appropriate disposal. If you are in doubt or if you have any questions, contact your authorised dealer.

SAFETY INSTRUCTIONS

- Lithium-ion batteries have no memory effect; they can therefore be charged regardless of their state of charge without affecting their charging capacity.
- Also observe the notes on the respective labels on the rechargeable battery or on the charger (h).



TRANSPORTING THE EPAC/EAPC

By Car

EPACs/EAPCs can be transported like conventional bicycles outside (a) or inside the car. Always make sure the EPAC/EAPC is securely fastened outside or inside the car and check the fastenings regularly. In addition, you should always remove the battery from the EPAC/EAPC (b), if possible, prior to fastening the EPAC/EAPC on the car roof. Stow the battery in its original cardboard box (from the authorised dealer) and, if mounted, the removable display unit inside the car and secure it appropriately to avoid any damage during transport. Also dismount accessories, such as a tyre pump, panniers, etc.

For more information see chapter “Transporting the Bicycle by Car” of your general bicycle user manual.

CAUTION

The weight or the weight distribution on EPACs/EAPCs differs significantly from that on bicycles without drive system. An EPAC/EAPC is clearly heavier than a bicycle without drive assistance. For this reason parking, pushing, lifting and carrying the EPAC/EAPC is more difficult. Bear this in mind when loading your EPAC/EAPC into a car and unloading it or when mounting it on a bicycle carrier system.



NOTICE

- Before transporting several EPACs/EAPCs with a roof mounting or a rear mounting carrier system, inform yourself about the maximum load capacity of the bicycle carrier. Keep in mind that the weight of an EPAC/EAPC is higher than the weight of a bicycle without drive. It could be that you are only allowed to transport one or two EPACs/EAPCs instead of three bicycles without drive.*
- Make sure to remove all movable and loose parts (c) and above all the rechargeable battery, the control element and the cycle computer on the handlebar before transporting the EPAC/EAPC inside or outside the car. If you transport your EPAC/EAPC without its battery on a bike carrier system, protect the connections against water, moisture and dirt, e.g. with a plastic bag.*

SAFETY INSTRUCTIONS

- If necessary, inform yourself about the laws and regulations concerning bicycle or EPAC/EAPC transport in the countries that you intend to transit during your journey. The laws and regulations differ, e.g. with regard to the marking (d).*

By Train / By Public Transport

EPACs/EAPCs can be transported like conventional bicycles by public transport.

Taking bicycles or EPACs/EAPCs with you by public transport is permitted in general (e), the regulations applicable in the cities differ, however. There are e.g. some places where you are only allowed to travel with your EPAC/EAPC during off-peak hours and with an additional bicycle ticket. Inform yourself in time about the regulations of carrying the EPAC/EAPC before you start the trip!

In some countries regional trains have special spaces for the storage of EPACs/EAPCs and other things. This is an option to take your EPAC/EAPC with you. They are often at the front or end of a train and marked with a bicycle sign.

When taking a high-speed train check whether you can take your EPAC/EAPC or bicycle with you.

⚠ CAUTION

If the rechargeable battery of your EPAC/EAPC is mounted to the down tube or to the pannier rack (f+g), you can remove the battery for an easier boarding and disembarking (h).

SAFETY INSTRUCTIONS

Before you start your trip inform yourself in time about the conditions of carriage and also observe the regulations and rules about bicycle transport in the countries through which you intend to travel.

By Plane

If you intend to take your EPAC/EAPC by plane or to dispatch it by a forwarding agent, you have to observe particular packing and labelling requirements for rechargeable batteries which are considered as hazardous goods. Contact the airline, an expert for hazardous items or the forwarding agent in time.

SAFETY INSTRUCTIONS

Contact the airline with which you intend to travel in time and inform yourself about conditions and possibilities of taking your EPAC/EAPC with you.



AFTER AN ACCIDENT

1. Check the rechargeable battery (a). If the rechargeable battery is no longer properly in its holder or shows any damage, do not use your EPAC/EAPC any longer, at least not in the assistance mode. Switch off the motor/drive unit and the battery separately, if necessary. A damaged battery can lead to a short-circuit resulting in a sudden failure of the EPAC/EAPC assistance right at the moment when you need it.

Damage to the outer housing of the rechargeable battery can result in water or moisture entry which can lead to short circuits or electric shocks. The rechargeable battery may catch fire or even explode! In such a case, contact your authorised dealer immediately.

2. Check the display. Are all values displayed as usual (b)? Do not use your EPAC/EAPC, if the display shows an error message or a warning. If necessary, switch off the system and wait ten seconds at least before you check it again.

Do not set off on your EPAC/EAPC with motor assistance when the control element shows a warning. In such a case, contact your authorised dealer immediately.

For more information see the system instructions of the drive system manufacturer, e.g. chapter

BOSCH – Error code display

SHIMANO STePS – Troubleshooting

YAMAHA – Troubleshooting

3. Check whether the wheels are still firmly fixed in the drop-outs (c) and whether the rims are still centered with respect to the frame or fork. Spin the wheels and observe the gap either between frame and tyre or between brake pads and rim sides.

If the width of the gap changes markedly and you have no way to true the wheel where you are, you will need to release the rim brake a little so that the rim can run between the brake pads without touching them. Note that in this case the brakes may not act as powerfully as you are used to.

For more information see chapters **“How to Use Quick-Releases and Thru Axles”**, **“Brake System”** and **“Wheels and Tyre Equipment”** of your general bicycle user manual as well as the enclosed operating instructions.



4. Check that handlebar and stem are neither bent nor broken and that they are level and upright. Check whether the stem is firmly fixed in the fork by trying to turn the handlebar relative to the front wheel (d). Briefly lean on the brake levers or brake levers/shifters to make sure the handlebar is firmly fixed in the stem.

Realign the components, if necessary, and gently tighten the bolts to ensure a reliable clamping of the components. The maximum torque values are printed directly on the components or specified in the enclosed operating instructions.

For more information see chapters **“Adjusting the Bicycle to the Rider”** and **“Headset”** of your general bicycle user manual and the enclosed operating instructions.

5. Check whether the chain still runs on the chainrings and the sprockets. If your EPAC/EAPC fell over to the chain side, verify the proper functioning of the gears. Ask somebody to lift the EPAC/EAPC by the saddle and carefully shift through all the gears. Pay particular attention when switching to the small gears, making sure the rear derailleur does not get too close to the spokes as the chain climbs onto the larger sprockets (e+f).

If the rear derailleur or the drop-outs/derailleur hanger are bent, the rear derailleur may collide with the spokes. This in turn can destroy the rear derailleur, the rear wheel or the frame. If necessary, check the function of the front derailleur, as a displaced front derailleur can throw off the chain, thus interrupting suddenly the drive of the EPAC/EAPC.

For more information see chapter **“Gears”** of your general bicycle user manual and the enclosed operating instructions.

6. Make sure the saddle is not out of alignment using the top tube or the bottom bracket shell as a reference. If necessary, open the clamping, realign the saddle and retighten the clamping (g).

For more information see chapters **“How to Use Quick-Releases and Thru Axles”** and **“Adjusting the Bicycle to the Rider”** of your general bicycle user manual and the enclosed operating instructions.



7. Let your EPAC/EAPC bounce on the ground from a small height. If there is any rattling, check the proper fit. Check the bearings, the bolts and the proper seat of the battery (h, p. 31) and the connector (a+b), if necessary.

For more information see your general bicycle user manuals and the system instructions of the drive system manufacturer, e.g. chapter

BOSCH – Operation

SHIMANO STePS – Method of use

YAMAHA – Battery pack and charging procedure

8. Finally, take a good look at the whole EPAC/EAPC to detect any deformations, colour changes or cracks (c).

Ride back very carefully by taking the shortest route possible, even if your EPAC/EAPC went through this check without any problems. Do not accelerate or brake hard and do not ride your EPAC/EAPC out of the saddle. If you are in doubt about the performance of your EPAC/EAPC, have yourself picked up by car, instead of taking any risk.

Back home you need to recheck your EPAC/EAPC (d) thoroughly. The damaged parts must be replaced. Ask your authorised dealer for help.

⚠ WARNING

Deformed components can break without previous warning. They must not be repaired, i.e. straightened, as this will not reduce the imminent risk of breakage. This applies in particular to the fork, the handlebar, the stem, the cranks, the seat post and the pedals. When in doubt, it is always recommendable to have these components replaced, as your safety comes first. Ask your authorised dealer for help.

NOTICE

After an accident or after your EPAC/EAPC toppled over, make it a rule to check the functioning and in particular the limit stops of the rear derailleur.



SERVICE AND MAINTENANCE

Your authorised dealer will have assembled and adjusted your EPAC/ EAPC ready for use when you come to collect it. Nevertheless, your EPAC/ EAPC needs regular servicing (e). Have your local authorised dealer do the scheduled maintenance work. This is the only way to ensure that all components function safely and reliably for many kilometres/miles.

The EPAC/EAPC will be due for a first inspection after 100 to 300 kilometres (60 to 180 miles) or 5 to 15 hours of use and/or three to six weeks. The EPAC/EAPC must be serviced, because in this initial “break-in” period of use, safety-relevant bolted connections and spokes can slightly lose tension or gears may go out of adjustment. This “break-in” period is unavoidable.

Therefore, remember to make an appointment with your authorised dealer for the first inspection of your new EPAC/EAPC. The first service is very important for both functioning and durability of your EPAC/EAPC.

⚠ WARNING

The individual drive components can be cleaned with a soft rag and neutral detergents. You may use a moist rag, but not excessive water. Keep the rechargeable battery dry and do not submerge it! Risk of explosion!



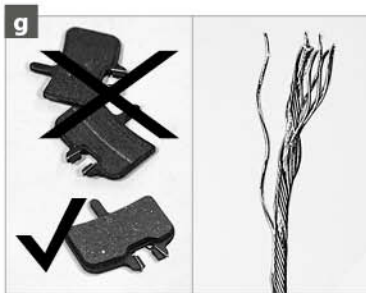
NOTICE

Note that the battery of your EPAC/EAPC will show signs of wear over the years. This will result in a degradation of the battery and more and more reduce the range per battery charge. After a certain period of time it is even necessary to replace the battery.

Keep in mind that the auxiliary drive may lead to partly higher wear than you are used to. This applies in particular to the brakes and the tyres and in the case of mid-mounted motors to the chain (f) and the sprockets.

The intended use of the EPAC/EAPC includes regular servicing and the replacement of worn out parts in time, e.g. chains, brake pads (g) or Bowden and brake cables (g), and therefore has an influence on the warranty and the guarantee as well.

You should have your EPAC/EAPC serviced regularly by your authorised dealer after the initial “break-in” period of use. If you ride often on poor road surfaces and with adverse weather conditions, the time between the service intervals (h) will shorten according to the harder use. The off-season during the winter months is a very good time to take your EPAC/EAPC to your authorised dealer for the strongly recommended, comprehensive annual inspection, as they will have plenty of time for you and your EPAC/EAPC.



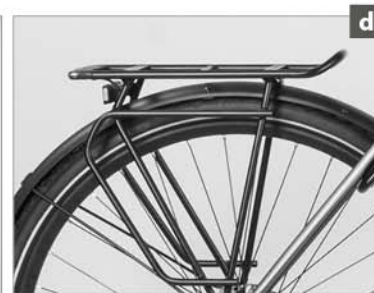
SERVICE SCHEDULE – STAMP FIELDS	
1st service After 100-300 kilometres (60-180 miles) or 5-15 hours of use and/or 3-6 weeks of use or after the first 100 km of use	2nd service After 1000 kilometres (600 miles) or 50 hours of use and/or 3-6 months of use
Order no. _____	Order no. _____
Date _____	Date _____
Make _____	Make _____
<input type="checkbox"/> All necessary maintenance work carried out per service and maintenance schedule, repaired or replaced parts.	<input type="checkbox"/> All necessary maintenance work carried out per service and maintenance schedule, repaired or replaced parts.
Stamp and signature of the bicycle dealer _____	Stamp and signature of the bicycle dealer _____

If in case of a repair no original spare parts are available, observe the “Guidelines for the parts replacement of CE marked e-bikes / pedelecs up to a pedal assist of 25 km/h (15 mph)” issued by the German service and bicycle association (VSF), the German Bicycle Association (ZIV), the German umbrella organisation for the cycle industry guilds BIV and Zedler-Institut. It can be downloaded on the websites. If you have any questions, contact your authorised dealer.

Note that the components of your **speed pedelec** must be replaced by original spare parts only to grant type approval and provide insurance cover.

Components which must not be replaced or only after a type test, e.g. carried out by a technical inspection authority: Frame, fork, drive unit, rechargeable battery, tyres, rims, brake system, front and rear light, kickstand, handlebar, stem (a), control element/display. If a component needs to be replaced, make it a rule to only use original spare parts (b).

The following components may be replaced, even without any further test: Pedals (pedal reflectors are compulsory) (c), mudguards (with rounded edge at the front mudguard), pannier rack (d), saddle and rubber grips on the handlebar, gear components (provided the highest transmission remains identical), seat post, chain, headset, inner tube and hub as well as bell and rear view mirror (when replaced by equivalent models).



⚠ WARNING

- ⚠ Servicing and repairs are jobs best left to your authorised dealer. If you have your EPAC/EAPC serviced by anyone else than an expert, you run the risk that parts of your EPAC/EAPC will fail. Risk of accident! When working on your EPAC/EAPC restrict yourself to jobs for which you are equipped e.g. with a torque wrench including bits and have the necessary knowledge.**
- ⚠ If a component needs to be replaced, make it a rule to only use original spare parts. Wearing parts of other manufacturers, e.g. brake pads or tyres that are not of identical size, may cause harm to the safety of your EPAC/EAPC. Risk of accident! In the case of speed pedelecs be sure to only assemble original spare parts, otherwise the operating licence expires.**

SAFETY INSTRUCTIONS

- ⚠ For further information on the parts replacement see the “Guidelines for the parts replacement of speed e-bikes / pedelecs up to a pedal assist of 45 km/h (28 mph)” issued by the German umbrella organisation for the cycle industry guilds BIV, TUEV Rheinland, velotech, the German service and bicycle association (VSF), Zedler-Institut and the German Bicycle Association (ZIV). They can be downloaded on the websites.**

⚠ WARNING

Do not position your EPAC/EAPC upside down in general (e). When turning the EPAC/EAPC upside down the add-on parts, in particular those of the handlebar, may sustain damage. This can render the brakes ineffective!

Only use original spare parts for servicing and repair. If you do not, the CE marking as well as your warranty will become null and void. Ask your authorised dealer for help.

⚠ CAUTION

Remove the rechargeable battery (f) or the display (g) before doing any work on your EPAC/EAPC (e.g. servicing, repairs, assembly, maintenance, work on your drive etc.). Activating the drive systems unintentionally bears the risk of injury!

Do neither touch rotating wheels on surface or spokes nor disc brakes during the ride or servicing. Risk of injury!

Do not reach between chain and cassette sprockets during servicing and repair of the chain and the sprockets with the chainguard removed. Risk of injury!



NOTICE

A rechargeable battery that has reached the end of its service life may not be disposed of in the normal household rubbish. Bring the rechargeable battery to the authorised dealer (h) where you buy your new one. For more information see the system instructions of the drive system manufacturer. Ask your authorised dealer for help.

SAFETY INSTRUCTIONS

If in case of a repair no original spare parts are available, observe the "Guidelines for the parts replacement" issued by the German service and bicycle association (VSF), the German Bicycle Association (ZIV), the German umbrella organisation for the cycle industry guilds BIV and Zedler-Institut. They can be downloaded on the websites. If you have any questions, contact your authorised dealer.

For your own safety, bring your newly purchased EPAC/EAPC to your authorised dealer for its first service after 100 to 300 kilometres (60 to 180 miles), 5 to 15 hours of initial use or three to six weeks, at the very latest, however, after three months.

Note and follow the instructions given in the chapters on service and maintenance of the system instructions of the drive system manufacturer and in the general bicycle user manual of your EPAC/EAPC.

WARRANTY AND GUARANTEE

Your EPAC/EAPC was manufactured with care. Normally it is delivered to you by your authorised dealer fully assembled.

As direct purchaser you have full warranty rights within the first two years after purchase. Please contact your authorised dealer in the event of defects.

To ensure a smooth handling of your complaint, it is necessary to present your receipt, your bike card, the handover report and the service reports. Therefore, be sure to keep these documents in a safe place.

To ensure a long service life and good durability of your EPAC/EAPC, use it only for its intended purpose (see chapters “**Before Your First Ride**” and “**Intended Use**”). Observe the permissible weight specifications indicated in the bike card. Be sure to follow the manufacturers’ mounting instructions of the (above all, the torque values of the bolts) as well as the prescribed maintenance schedule.

Observe the checks and routines listed in the present supplementary EPAC/EAPC instructions, the system instructions of the drive system manufacturer, your general bicycle user manual and in any other operating instructions enclosed with this EPAC/EAPC (see chapter “**Service and Maintenance Schedule**” in your general bicycle user manual) as well as any instructions as to the replacement of safety-relevant components, such as handlebars, brakes etc.

SAFETY INSTRUCTIONS

This warranty law is only valid in the countries that have implemented the EU Directive into national law. Inform yourself about the regulations in your country. In the United Kingdom, see the respective regulations in the Consumer Rights Act 2015 (CRA 2015).

A Note on Wear

Some components of your EPAC/EAPC are subject to wear due to their function. The rate of wear will depend on care and maintenance and the way you use your EPAC/EAPC (mileage, riding in the rain, dirt, salt, additional cargo etc.). EPACs/EAPCs that are often left standing in the open may also be subject to increased wear through weathering.

The components below require regular care and maintenance. Nevertheless, sooner or later they will reach the end of their service life, depending on conditions and intensity of use. Parts that have reached their limit of wear must be replaced.

This concerns:

- Rechargeable battery
- Drive chain
- Brake pads
- Brake fluid (DOT)
- Brake discs/rotors
- Brake cables
- Brake cable housings
- Seals of suspension elements
- Rims (of rim brakes)
- Rubber grips
- Cables/connectors
- Chainrings
- Illuminants
- Tyres and inner tubes
- Sprockets
- Saddle covering
- Bowden cables
- Bowden cable housings
- Pulleys
- Lubricants

SAFETY INSTRUCTIONS

Ask your authorised dealer about any additional guarantee given by the manufacturer of your EPAC/EAPC and insist on having it as printed version.

BIKE CARD

Manufacturer PIERER E-Bikes GmbH

Model _____

Frame no. _____

Drive system _____

Front wheel motor Mid-mounted motor Rear wheel motor

Battery model _____

Key no. _____

Voltage (Volt) _____

Ampere-hour (AH) _____

Capacity (watt hours) _____

Suspension fork (manufacturer/model) _____
 – serial no. _____

Rear shock (manufacturer/model) _____

Frame type _____

Frame size _____

Size of wheels and tyres _____

Colour _____

Special features _____

Intended Use

Use in accordance with

- category 1 category 3 category 5
 category 2 „Everyday“ category 4 category 6
 category 2 „Sports“

Empty weight EPAC/EAPC (incl. battery) _____ kg

Maximum permissible overall weight

EPAC/EAPC, rider, luggage and child seat or trailer load, if permitted _____ kg

Pannier rack allowed yes no

Permissible load _____ kg

Child seat allowed yes no

Trailer allowed yes no

Permissible trailer load _____ kg

Brake levers – Brake assignment

Right lever: front wheel brake rear wheel brake

Left lever: front wheel brake rear wheel brake

⚠ WARNING

Read at least chapters "Before Your First Ride", "Intended Use" and "Before Every Ride" in the translation of these original operating instructions.

Stamp and signature of the authorised dealer

(Hint to the authorised dealer: Copy the bike card and the handover report and keep one copy in your customer file. Send another copy to the bike manufacturer, if necessary. Make sure the customer confirms by his signature on the handover report that his personal data are made available to the manufacturer.)

HANDOVER REPORT

The above-described EPAC/EAPC was delivered to the customer ready for use, i.e. after its final assembly, inspection and functional check as described below (additionally required routines in parentheses).

- Battery partially charged
- Lighting
- Brakes front and rear
- Suspension elements (adjusted to suit customer)
- Wheels (trueness/spoke tension/tyre pressure)
- Handlebar/stem (position/bolts with torque wrench)
- Pedals (adjustment of release force, if necessary)
- Saddle/seat post (saddle height and position of saddle adjusted to suit customer, bolts with torque wrench)
- Gears (limit stops!)
- Bolted connections of add-on parts (with torque wrench)
- Motor/drive unit/display
- Other routines performed _____

- Test ride carried out

Name authorised dealer _____

Street _____

ZIP code/city _____

Phone/Fax _____

E-mail _____

Delivery date, stamp, signature of authorised dealer _____

The customer confirms with his signature that he received the EPAC/EAPC in proper condition along with the accompanying documents specified below and that he was instructed on the proper use of the EPAC/EAPC.

- General bicycle user manual

Additional instructions

- Brake system
- Drive system
- Battery
- Gear system
- Seat post, stem
- Suspension fork
- Pedal system
- Others
- System instructions of the drive system manufacturer

Name customer _____

Street _____

ZIP code/city _____

Phone/Fax _____

E-mail _____

City, date _____

Signature of customer _____

- I hereby expressly consent that my above-mentioned data are stored by the authorised dealer and made available to the manufacturer so that I can be contacted directly e.g. in the event of a recall. The data will not be transmitted to third parties or used otherwise

Signature of customer _____

PIERER

E-Bikes GmbH

PIERER E-Bikes GmbH

Gewerbegebiet Nord 20

5222 Munderfing, Austria

