## Whyte Bikes GUIDELINES FOR REPLACEMENT PARTS on EPACs (Electrically Power Assisted Cycle)

## **EPAC TUNING**

Whyte Bikes forbids the tuning of its EPAC's. E-bikes in the UK are limited by law to a continuous rated power of 250 watts and speed of 15.5 mph (25 kmph). Increasing the power output or maximum speed beyond these limits will convert your bicycle to a motor vehicle whilst voiding your warranty.



CATEGORY 1	CATEGORY 2	CATEGORY 3	CATEGORY 4
Parts can only be replaced with approval from the manufacturer of the e-bike system provider.	Replacement parts to meet manufacturer's approval. Parts must meet the safety standards of EN ISO 4210, EN ISO 15194 and be suitable for the usage category EN17406 (see below).	Parts that do not require specific approval	Mounting accessories PLEASE NOTE: Always use original frame bolts. Increased thread lengths may come into contact with electrical compononets.
> Motor > Sensors > Electronic control unit > Electric cables > Handlebar control unit > Display > Battery Pack > Charger	<ul> <li>&gt; Crank arms - Confirm the manufacturer's interface compatability. Ensure that crank length does not exceed the original specification (centre of axle mount - centre of pedal thread) and the distance between crank centres are observed (Q-factor).</li> <li>&gt; Wheel without a hub motor - Observing the ETRTO and usage category (EN17406) is essential.</li> <li>&gt; Chain - same width and length as original spec.</li> <li>&gt; Rim Tape - rims must be compatible. Modified</li> </ul>	<ul> <li>&gt; Headset</li> <li>&gt; Bottom bracket</li> <li>&gt; Pedals - provided that the pedal isn't wider than the original and suitable for intended use. Reflectors may be required by law dependant upon state/region.</li> <li>&gt; Rear derailleur - Compatibility considerations need to be made with number of teeth and gear quantities.</li> <li>&gt; Shifters</li> <li>&gt; Cables and housings</li> </ul>	<ul> <li>&gt; Bar ends are permissible, provided that they are mounted appropriately towards the front (Load distribution must not be severely altered).</li> <li>&gt; Rear view mirrors are permissible.</li> <li>&gt; In the UK Additional battery/rechargeable headlights that conform to BS61023 are permissible (Inform yourself about the legislation in your country)</li> <li>&gt; Trailers are only permissible upon approval from Whyte Bikes.</li> </ul>
Parts can only be replaced with approval from Whyte Bikes	combinations may result in rim tape shifting and cause the wheels tubes/seals to fail. > Tyres - The increased acceleration, additional	> Chain-wheels / Belt sprockets / Cassettes Compatibility considerations need to be made to ensure the number of teeth, diameter, and intended	> Child-seats are only permissible upon approval from Whyte Bikes (approval for mounting system and weight limits required)
> Frame > Rear Shock > Rigid / Suspension Fork > Wheel for hub motor > Brake system	<ul> <li>weight, and the increased forces under breaking and cornering requires e-bike approved tyres. observing the ETRTO and usage category (EN17406) is essential.</li> <li>&gt; Brake cables / Brake hoses / DISC Brake Pads</li> <li>&gt; Handlebar-Stem unit - provided no change to cable/hose lengths. Seatpost height adjustments should be possible with original cable length.</li> <li>&gt; Saddle and seatpost unit - provided that the offset to the rear does not exceed 20mm. In the case of a</li> </ul>	use match the original components. > Chain Guard > Mudguard - Ensure there is ample clearance to the tyre (Minimum 10mm) > Spokes > Inner tube of identical design with identical valve > Dynamo > Battery/rechargeable battery-operated headlights - only if provided with a K-Number and meets regional	<ul> <li>&gt; Front baskets are to be considered critical due to the undefined load distribution. Permissible after approval from Whyte Bikes.</li> <li>&gt; Pannier bags and top cases are permissible upon approval from Whyte approved retailer. Pay attention to Max. load weightings where EPAC's come equipped with mounting systems.</li> <li>&gt; Front and rear luggage carriers are only permissible after approval from Whyte Bikes.</li> </ul>
Guidelines in this document are supported by the the Zedler-Institute of bicycle safety Zedler-Institute Technology and Passion for Bicycles	<ul> <li>dropper seat post this applies when fixed in the typical riding position.</li> <li>&gt; Headlights - Headlights must use the correct voltage to ensure they are compatible with the rechargeable battery of the EPAC. Please consult system manufacturer for advice on lighting compatability.</li> <li>&gt; Frame Bolts - Always use original frame bolts where possible. Replacement bolts must be of the same thread length to avoid contact with internal electrical components.</li> <li>*Note: Approval can only be given by the component manufacturer. Components must</li> </ul>	road laws/requirements. > Rear Light - Dynamo-operated or powered by rechargeable battery, must meet regional road laws/ requirements > Reflectors - Meets regional road laws/requirements > Spoke Reflector - Meets regional road laws/ requirements > Kickstand > Grips with screw clamps > Bell	Revision: A Published date: 10/04/24 Author: CW

Whyte Bikes EN17406 / ASTM bike usage categories. Whyte bikes usage categories are clearly marked on the frame.



Whyte pedelecs of the category '2 - CROSS' have been designed to be ridden on roads, tarred cycle lanes, or gravel/earthy surfaces that have been sign posted for bikes. This category of bike is intended for leisure and trekking where loss of contact between the wheels and surface may occur. Drops must be limited to 15cm (6") or less. Maximum permissible weight consisting of the rider and luggage is specified on the CE marking on your bike



Whyte pedelecs of the category '3 - TRAIL' have been designed to be ridden on hard-packed surfaces mentioned in category 1 & 2 as well as unpaved roads, rough trails, and unimproved trails which require technical skills. This category of bike is intended for leisure, trekking, and cross country where loss of contact between the wheels and surface may occur. Drops must be limited to 61cm (24") or less. Maximum permissible weight consisting of the rider and luggage is specified on the CE marking on your bike.



Whyte pedelecs of the category '4 - ENDURO' have been designed to be ridden on surfaces mentioned in category 1,2, and 3, or downhill grades. This category of bike is intended for All-mountain and Enduro where loss of contact between the wheels and surface is common. Drops must be limited to 122cm (48") and speeds limited to 40km/h. This bike category is suitable for bike parks which feature jumps, drops, roots, rocks, and loose ground. Please note bike park construction characteristics to be suitable for this bike category. Maximum permissible weight consisting of the rider and luggage is specified on the CE marking on your bike.