



Department  
for Transport

**Information Sheet**  
Electrically Assisted Pedal Cycles  
(EAPCs) in Great Britain  
Revised Nov 2015

**November 2015**

## Introduction

This document provides general guidance and advice on the legal requirements in Great Britain<sup>1</sup> relating to Electrically Assisted Pedal Cycles when used on public roads. It reflects changes to regulations effective from 6 April 2015.

The information in this document is a summary of our understanding of what the law requires. Every effort has been made to ensure that it is factually correct but recipients should check with us at the address below if they have reason to believe any part is not correct or is now out of date.

Ultimately the interpretation of the law is a matter for the courts based on individual facts of any particular case. You are therefore advised to consult the relevant legislation and, if necessary, seek independent advice on specific legal questions.

## General requirements- EAPC Classification

The EAPC Regulations<sup>2</sup> as amended<sup>3</sup> set out the requirements that EAPCs must satisfy if they are not to be treated as motor vehicles when used on roads in GB - i.e. do not need to be licensed and registered etc. The requirements are:

- The cycle must be fitted with pedals that are capable of propelling it.
- The maximum continuous rated power of the electric motor must not exceed 250 Watts.
- The electrical assistance must cut-off when the vehicle reaches 15.5 mph.

(Note: the previous limit on motor power for bicycles and the restrictions on weight, and the number of wheels an EAPC may have, were removed on 6 April 2015).

An EAPC which complies with the above is not considered to be a motor vehicle within the meaning of the Road Traffic Regulation Act 1984 and the Road Traffic Act 1988. As a result, it is not required to be registered or subject to vehicle excise duty (road tax), and does not have to be insured as a motor vehicle. However, EAPCs must not be ridden by anyone under the age of 14 years<sup>4</sup>.

## Power assistance - "Twist and Go"

Because of the particular benefits for elderly and disabled users, pedal cycles providing electrical assistance without use of the pedals - usually called "Twist and Goes" - are included in the above GB classification provided they are capable of pedal operation and comply with the above restrictions on maximum motor power and assistance cut-off speed.

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<sup>1</sup> For information about EAPCs in Northern Ireland, please contact the Department of Environment for Northern Ireland (DoENI)

<sup>2</sup> The Electrically Assisted Pedal Cycles Regulations 1983 SI 1983/1168  
see <http://www.legislation.gov.uk/uk/si/1983/1168/made>

<sup>3</sup> The Electrically Assisted Pedal Cycles (Amendment) Regulations 2015 SI 2015 No. 24

<sup>4</sup> Section 32 of Road Traffic Act 1988.

However, under European law<sup>5</sup> new "Twist and Go" vehicles will, from January 2016, have to meet a range of technical requirements before they can be used on roads. This will normally be established by "type approval" at the manufacturing stage but importers and individuals will be able to seek an individual approval for vehicles that have not been type approved.

## "Off Road" Assistance

We are aware of some electric cycles that have a switch offering a temporary increase in top speed that is often advertised as an "off road" facility. When the switch is pressed the vehicle can be propelled by the motor at a speed greater than 15.5 mph. Vehicles with this feature fitted do not, in our opinion, comply with the GB EAPC Regulations.

## Vehicles that do not meet the GB EAPC classification

A vehicle that does not comply with the above EAPC classification will need to be registered, insured and taxed (Vehicle Excise Duty) as a motor vehicle. The rider will need an appropriate driving licence and will have to wear an approved motorcycle safety helmet.

Such vehicles might need to be type, or individually, approved before they can be registered (and will almost certainly need to be approved if first used after January 2016).

## Requirements for sale and use on a public road

Separate regulations specify the standards EAPCs must meet when sold for use, or used, on a public road. The main requirements cover brakes, information about the vehicle, and lights / reflectors.

## The Pedal Cycles (Construction and Use) Regulations <sup>6</sup>

as amended<sup>7</sup> specify the requirements for brakes and the information that must be shown on the vehicle.

## Brakes

The brakes must comply with paragraph 4.6.8 of British / European / International standard BS EN ISO 4210-2:2014<sup>8</sup>, or any equivalent European standard, and be maintained in efficient working order.

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<sup>5</sup> Regulation (EU) No 168/2013 of The European Parliament and of The Council dated 15 January 2013

See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:060:0052:0128:EN:PDF>

<sup>6</sup> The Pedal Cycles (Construction and Use) Regulations 1983 SI 1983/1176

see <http://www.legislation.gov.uk/ukxi/1983/1176/contents/made>

<sup>7</sup> The Pedal Cycles (Construction and Use) (Amendment) Regulations 2015 SI 2015 No 474

<sup>8</sup> BS EN ISO 4210-2:2014 Cycles. Safety requirements for bicycles. Requirements for city and trekking, young adult, mountain and racing bicycles. ISBN 978 0 580 78278 7

("Twist and Go" vehicles approved in accordance with EU Regulation 168/2013 must continue to comply with the relevant approval standard).

## Information about the vehicle

The vehicle must be:

### either

marked with the following information

- the manufacturer;
- the maximum speed at which the motor can propel the vehicle in m.p.h. or km/h;
- the maximum continuous rated power of the motor.

(This mainly covers vehicles constructed to current European standards and legislation).

### or

fitted with a plate showing:

- the manufacturer;
- the nominal voltage of the battery;
- the maximum continuous rated output of the motor

(This mainly covers vehicles in use prior to April 2015).

## Lights and reflectors

**The Road Vehicle Lighting Regulations**<sup>9</sup> as amended<sup>10</sup> set out the requirements for lights and reflectors. These are the same as for ordinary pedal cycles. Lights and reflectors must be fitted to any EAPC used on a public road between sunset and sunrise. The requirements are as follows.

### Front and rear lights + reflectors

A lamp displaying white light must be fitted to the front of the EAPC. It may show a steady light or may flash<sup>11</sup>.

A lamp displaying a red light must be fitted to the rear of the EAPC. It may show a steady light or may flash<sup>12</sup>.

Flashing lights must flash at a steady rate of between 60 and 240 times per minute and have a minimum intensity of 4 candela.

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<sup>9</sup> Road Vehicle Lighting Regulations 1989 - SI 1989 No. 1796  
see <http://www.legislation.gov.uk/uksi/1989/1796/contents/made>

<sup>10</sup> Road Vehicle Lighting (Amendment) Regulations 2005 - SI 2005 No. 2559  
see <http://www.legislation.gov.uk/uksi/2005/2559/contents/made>

<sup>11</sup> Regulations 13(g) and 18 + Schedule 1 + Schedule 2

<sup>12</sup> Regulations 13(h) and 18 + Schedule 1 + Schedule 10

A red reflector must be fitted to the rear of the vehicle<sup>13</sup>.

## Pedal reflectors

Amber pedal reflectors must be fitted to the front and rear edges of each pedal unless the cycle was manufactured before 1 October 1985<sup>14</sup>.

## Other legislation

### Design and construction requirements

EAPCs that are not type or individually approved might need to comply with the following legislation on design and construction requirements. Confirmation should be sought via the Department of Business Innovation and Skills - [www.bis.gov.uk](http://www.bis.gov.uk) - or via local Trading Standards Departments  
<http://www.tradingstandards.gov.uk/advice/consumer-advice.cfm>

- The General Product Safety Regulations 2005<sup>15</sup>
- The Electrical Equipment designed for use within certain Voltage Limits Directive 2006/95/EC (commonly known as the Low Voltage Directive)<sup>16</sup>
- Electromagnetic Compatibility Directive 2004/108/EC<sup>17</sup>

### Registration and licensing requirements

The Road Vehicles (Registration and Licensing) Regulations 2002 - Statutory Instrument (SI 2002 No.2742)<sup>18</sup> as amended.

### Obtaining the Regulations and Directives

Links to web versions of the documents referred to in this Information Sheet that are current at the time of writing are given in footnotes. If you would like to purchase printed copies, Statutory Instruments are available to purchase from TSO:

The Stationery Office Tel: 0870 600 5522

TSO Orders/Post Cash Dept online ordering:

[www.tsoshop.co.uk](http://www.tsoshop.co.uk)

PO Box 29

Norwich

NR3 1GN

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<sup>13</sup> Regulation 18 + Schedule 1 + Schedule 18

<sup>14</sup> Regulation 18 + Schedule 1 + Schedule 20

<sup>15</sup> see <http://www.legislation.gov.uk/ukxi/2005/1803/contents/made>

<sup>16</sup> see [http://ec.europa.eu/enterprise/policies/european-standards/harmonised-standards/low-voltage/index\\_en.htm](http://ec.europa.eu/enterprise/policies/european-standards/harmonised-standards/low-voltage/index_en.htm)

<sup>17</sup> see [http://ec.europa.eu/enterprise/policies/european-standards/harmonised-standards/electromagnetic-compatibility/index\\_en.htm](http://ec.europa.eu/enterprise/policies/european-standards/harmonised-standards/electromagnetic-compatibility/index_en.htm)

<sup>18</sup> see <http://www.legislation.gov.uk/ukxi/2002/2742/contents/made>

Paper copies of European Directives can also be ordered from TSO.

Alternatively you can consult consolidated versions such as The Encyclopaedia of Road

Traffic Law and Practice published by Sweet and Maxwell. Such publications are continually updated and are available in most city reference libraries.

## Further information

If you require any further information regarding the content of this information sheet, please contact the DfT at the address below:

International Vehicle Standards  
Department for Transport  
Zone 1/34, Great Minster House  
33 Horseferry Road, London, SW1P 4DR

Email: [ivs.enquiries@dft.gov.uk](mailto:ivs.enquiries@dft.gov.uk)

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