

Briefing note – unregistered e-motorcycles (often incorrectly confused with Electrically Assisted Pedal Cycles, or e-bikes)

Summary

Low-power (250 W) and low-speed (the pedal assistance motor cuts out at 25 km/h) e-bikes (also known as “e-cycles”) are regulated as “Electrically Assisted Pedal Cycles” and can be used legally on roads by anyone aged 14+. These vehicles are treated as bicycles in law and have an excellent safety record since the category was introduced in 1983.

Higher-power or higher-speed electric two wheelers are considered as motor vehicles in law. For legal use on road, such vehicles must be type approved before sale, and before road use they must be registered, number-plated, taxed and insured. If type approval is not obtained, they cannot be registered and thus cannot be used legally on road.

Use of such unregistered electric motorbikes on the public highway is already illegal. A variety of offences are available to enforcement authorities, including:

- Riding an unregistered motor vehicle
- Riding without motor vehicle insurance
- Riding without an appropriate driving licence
- Riding a motorcycle without an approved helmet

Penalties available include seizing the vehicle, fines, points on the rider’s driving licence, or even imprisonment.

Such vehicles remain legal to sell for use on closed private land only. So, for example, dirt bikes for motorsport may be sold legally. But this ‘private land loophole’ may also be used by unscrupulous sellers to sell unregistered motorbikes to consumers without informing them clearly that use on the public highway is illegal.

There are a number of ways in which unregistered electric motorbikes may reach end users who ride them illegally on road:

- Unscrupulous UK sellers who advertise these vehicles as “for use on private land only” merely as a legal fig leaf (knowing full well that their customers will use them on road) or who do not properly inform customers that on-road use is illegal.
- Direct sales via online marketplaces from overseas suppliers who are not subject to UK regulatory oversight.
- “Conversion kits” fitted to pedal cycles, usually by end users, which have higher power or cut-off speed than is permitted under the e-bike (EAPC) regulations.
- Tampering with or de-restriction of legal e-bikes (EAPCs) which turns them into unregistered motorbikes (despite the industry’s ongoing technical work to deter this).

Government actions likely to be effective in addressing the issue of unregistered e-motorbikes include:

1. Promote public awareness of the distinction between EAPCs (e-bikes) and e-motorbikes. Especially, refrain from referring to unregistered e-motorbikes as “e-bikes”.

2. Support and resource ongoing type approval enforcement action by the DVSA's Market Surveillance Unit
3. Support and resource ongoing actions by the Advertising Standards Authority to ensure consumers are properly informed by sellers of electric two-wheelers.
4. Review legislation to make it illegal to sell non-type-approved motor vehicles even for "private land only" use (while retaining narrowly defined exemptions for legitimate uses such as motorsport).
5. Make online marketplaces liable for type approval compliance of vehicles sold (especially from overseas sellers) on their platforms. Consider whether this can extend to conversion kits.
6. Review type approval regulations, or legislate specifically, to make it a specific offence to de-restrict or modify an EAPC, or to fit a non-EAPC conversion kit to a pedal cycle if this results in the creation of an unregistered motor vehicle.

Summary table – EAPCs vs unregistered e-motorbikes:

	E-bike (Electrically Assisted Pedal Cycle or EAPC)	Unregistered e-motorbike
Technical requirements:	Max motor power rating: 250 W. Assist motor cut-out speed 25 km/h (15.5 mph). Must have functional pedals. Rider must be pedalling for the motor to operate ¹	Includes any motor-powered vehicle which exceeds the EAPC power and speed limits, and/or which is without working pedals and which has not gained motor vehicle type approval and DVLA registration.
Legal to sell?	Legal to sell under the UKCA/CE marking product safety framework	Legal to sell only for use on private land with no public access, and with landowner's permission (typically as a "dirt bike"). Not legal to sell for road use without type approval
Legal to use?	Legal to use just like a bicycle by anyone age 14+	Legal to use only on private land with no public access, and with the landowner's permission. Not legal to use on the public highway, which includes roads, paths and land to which the public has unrestricted access.

¹ There is a very limited exception to this for EAPCs which meet the EAPC power and speed limits, have functional pedals, and which have also obtained UK type approval, usually via the Motorcycle Single Vehicle Approval process. Such vehicles are still considered EAPCs and not motor vehicles but may have a throttle which allows the motor to operate without the rider pedalling. This is however quite a demanding procedure and we are aware of only one UK vendor legitimately offering such type approved EAPCs with "twist and go" throttle control (no pedalling needed). Some EAPCs placed on the market before 2016 may also legally operate as "twist and go".

Legal situation in more detail

Public highway vs closed private land

The UK² Road Traffic Act (and related legislation) regulates the use of vehicles of all sorts on the public highway, which includes roads, bridleways, footpaths etc as well as land to which the public has access without legal restriction.

It does not however regulate vehicles used (with the landowner's permission) only on private land to which the public do not have unrestricted access. There are legitimate vehicles sold in this category, the main type being 'dirt bikes' intended for use on closed circuits as a form of motorsport.

Motor vehicle definition and requirements

For use on the public highway, any vehicle with a motor is considered by the Road Traffic Act as a motor vehicle unless it falls into one of two³ tightly defined exceptions:

- [Electrically Assisted Pedal Cycle](#) (250W, max motor assist speed 25 km/h, working pedals)
- [Mobility Scooter](#) (4 or 8 mph max depending on class)

These two classes are NOT treated as motor vehicles in the RTA and related legislation.

But every other vehicle with a motor must, if it is to be used legally on the public highway, meet all of the RTA's requirements for a motor vehicle – which include [registration with the DVLA](#) and fitting of a number plate, insurance, tax – and also driver requirements such as age (16+), driver's licence and (for mopeds and motorbikes) the mandatory use of an approved motorcycle helmet.

Type approval – required for registration

Before they can become registered as a road vehicle under the RTA, motor vehicles must undergo an official technical inspection process known as [type approval](#) before they are sold to end users. This is carried out by the Vehicle Certification Agency.

Type approval is only available for pre-defined vehicle categories. These categories are set at an international level (via UNECE in Geneva). The requirements of type approval for two-wheeled motor vehicles include structural integrity, braking performance, rider safety features, mirrors, lighting, etc.

Mopeds and motorbikes designed to be legal to use on the road fit into one of several possible type approval motorcycle categories, depending on e.g. motor power and speed. Once type approved, they can be sold legally for road use, then registered with the DVLA, taxed, insured etc. so that they can also be legally used.

But for motor vehicles which cannot meet the requirements of an existing type approval vehicle category, there is no route to legal use on the public highway.

² Transport legislation is devolved in Northern Ireland, so separate legislation applies. But the overall effect is almost identical, to our knowledge, as it related to the vehicles discussed in this briefing.

³ E-scooters used in official rental e-scooter trials are considered motor vehicles in law but are exempted from many motor vehicle requirements under special legislation. They must still meet technical requirements.

E-motorbikes

There are of course many fully type approved electric mopeds and motorcycle models on the market from reputable brands, and these are routinely registered with DVLA, and legitimately sold and used.

But unregistered high-speed and high-power e-motorbikes, of the type involved in recent high profile incidents, however, almost never gain type approval. They generally lack essential safety equipment for road use such as an accurate speedometer, lights and reflectors, or rear view mirrors, or provision to mount a number plate.

Therefore they cannot be approved or registered, and any use of them on the public highway is illegal, and the user may be subject to prosecution for a variety of offences, as listed earlier.

Enforcement

Police have powers to seize unregistered motorbikes used on the public highway, and a range of fines or other penalties may be applied.

In many cases police will be able to immediately and visually distinguish between a legitimate EAPC and an unregistered motorbike. If a two-wheeler is

- Obviously going much faster than 25 km/h (15.5 mph) on the flat (e.g. keeping up with 30 mph traffic without major rider pedalling effort, or a hill/tailwind)
- and has no numberplate
- and has no pedals

then it is almost certainly an unregistered moped and not an EAPC.

- Even if the vehicle does have pedals, if the rider is not pedalling but the vehicle is clearly being motor-driven at above walking pace, this is another clear visual indicator that it is likely to be an unregistered motorbike rather than a legitimate EAPC (although legitimate exceptions exist to the need to be pedalling, per the footnote on page 2).

About us

This briefing note was produced by [the Bicycle Association](#) (BA). The BA is the UK's cycle industry trade association, representing 130+ companies including manufacturers, distributors, retailers and service providers supplying e-bikes (EAPC), conventional cycles, and associated products and services. The BA has also recently published [a statement about the recent tragic e-motorcycle incidents](#) and how they are reported.