

Power Assisted Bicycles

Vehicle Standards Fact Sheet

MR1135 2.14



This fact sheet provides information about power assisted bicycles.

What is a Power Assisted Bicycle?

A power assisted bicycle (or 'power-assisted pedal cycle') is a pedal cycle with a motor attached to assist the rider. The attached motor may provide assistance but the pedals must be the main means of propulsion.

In South Australia, there are 2 categories of power-assisted bicycles that may be used legally on our roads;

- Power assisted bicycles with up to 200 Watts of power (the power is controlled by a throttle or accelerator); or
- Power assisted bicycles with no more than 250 Watts of continuous power which meet the definition of a pedalec (the power is controlled by the rider using the pedals).

What is a Pedalec?

In order to be a pedalec (legal for use on our roads), the power assisted bicycle must comply with the European Committee for Standardization EN 15194:2009 or EN 15194: 2009

+A1:2011 Cycles – Electrically power assisted cycles – EPAC Bicycles ("EN 15194") and this includes:

- It must be certified by the manufacturer, and labelled as complying with EN 15194. The label must have the manufacturer's name, the motor's cut off speed in km/h and its electric motor maximum continuous rated power in Watts. The label is often found on the bicycle's frame immediately adjacent to the crank;
- The motor must be electric;
- The maximum continuous power output of the motor cannot exceed 250 Watts;
- The rider must pedal to access the power;*
- The power must cut out when the pedalec reaches 25 km per hour or sooner (if the operator stops pedalling)

* the motor may operate without pedalling up to a speed of 6km/h



This is a typical pedalec. It has an adjustable seat, functional pedals, electric motor and does not have a throttle.

Further information

Call 1300 882 248

Visit www.sa.gov.au

Email dpti.vehiclestandards@sa.gov.au

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Road rules for power-assisted bicycles

Riders do not require a driver's licence, motor vehicle registration or compulsory third party insurance. Riders are bound by the same rules as for other bicycles, including the need for:

- the rider to wear a helmet
- effective brakes
- a bell, or other audible warning device
- a rear-facing red reflector at night
- a white light to the front and a red light to the rear at night (both may flash) clearly visible from at least 200 metres.

Differences between a power-assisted bicycle and a motorcycle

A power-assisted bicycle is a bicycle with a motor attached to assist the rider. At first glance some motorbikes with pedals look very similar to power-assisted bicycles. The main differences are speed, pedal crank spacing, weight, seat position, seat shape and gearing. A good rule of thumb for deciding if the pedals are the main power source is the width between them (the distance between the inner faces of the cranks should be less than 180 mm) and whether it can easily be ridden without power assistance (ideally, you should be able to ride it home if the assistance motor fails). If these apply and the motor output is either 200 Watts (or less) or 250 Watts (if it meets the definition of a pedalec above), then it is a power-assisted bicycle.

If the main source of power is the motor then it is a motor vehicle and operating it requires a driver's licence, registration and compulsory third party insurance. However, few, if any, of these vehicles are registrable because they are not capable of meeting registration requirements, such as compliance with the Australian Design Rules. Such vehicles cannot be legally operated on our roads.



This is a **power assisted bicycle**. It has an adjustable seat & multiple gears to make it easier to pedal, as well as a battery pack & 200 Watt motor to assist the rider.



This is **not** a power assisted bicycle because it is fitted with a petrol motor that produces more than 200 Watts in power & it is not a pedalec.



This is **not** a power assisted bicycle because the seat is too low for pedalling & the pedals are so widely spaced that they are of little use. They are low enough to dig in when cornering. It is obvious that the pedals are not the main means of propulsion.

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