

Glossary of e-bike terminology

ASSIST MODE

These are different levels of power/assistance provided by the motor.

RANGE

The distance an e-bike can travel using the motor to assist the rider.

TORQUE

More torque offers faster take off (acceleration) when using the motor.

WATTS

A measure of the motor's power. In Australia, pedal-assist e-bikes can legally provide up to 250W of power assistance before the motor dramatically scales down its assistance to 0%.

AMP-HOURS and VOLTAGE

Most electric bikes have lithium-ion battery packs with 8Ah–28Ah capacity, and voltage from 24V–48V. Amp hours (Ah) are the number of amps a battery can sustain for an hour. The voltage is the speed at which this electricity is pushed through the system – a higher voltage can give you more power when taking off from a standing start or uphill but can drain your battery faster. These are multiplied together to give a value called Watt-hours (Wh), which many experts say is the best figure to use to compare how different batteries will perform.



WestCycle is the peak body for bike riding in WA, and a representative voice for all bike riders. Our vision is to get more people riding bikes more often.

We are a not-for-profit membership organisation and offer personal accident and public liability insurance for riders who want peace of mind.

Find more e-bike resources at westcycle.org.au/e-bikes

Sources:
westcycle.org.au/bikes-and-accessories/
choice.com.au/transport/bikes/electric/buying-guides/electric-bicycles
ebikers.com.au/ebike-buyers-guide/
bikeexchange.com.au/blog/ultimate-e-bike-buyers-guide



E-BIKE BUYERS GUIDE



Key things to consider to find the right e-bike for you:

What kind of bike frame or which style bike?

Eg: Urban/Commuter, cargo bike, mountain bike, road bike, folding/city bike, tricycle, recumbent bike. There's an e-bike (and bike) for every kind of ride, even for people who transport heavy items or children, and for people with a disability!

Which motor style?

The motor is generally in the wheel (a hub drive, front or rear) or in the bottom of the frame (mid drive). Both have their advantages and drawbacks. Take a test ride to find out which works best for you.

How far will one battery charge get me?

Depending on motor power, battery size, assist level, and your riding style, expect your e-bike range to be between 50km to 150kms. Note: the ride from Perth to Midland or Fremantle is about 20km.

How long does it take to charge the battery?

Most batteries will take 4 to 5 hours to fully charge.

How much to spend on your bike?

The average entry level e-bike will cost between \$1500 to \$3000. More specialised or technically sophisticated e-bikes cost more.

WHAT TO LOOK FOR IN AN ELECTRIC BIKE

If you're thinking of buying an electric bike, we recommend taking a test ride – including riding uphill – to see how different bikes perform and will work for you. It's also worth considering:

HIGHER WATT MOTOR

This means more torque or take-off potential from a standing start. All are set 200–250W for legal reasons, but a 350W motor limited to 250W will give greater torque than a 250W motor.

THROTTLE

Generally electric bikes require you to pedal to activate the motor, but some come with a throttle to start the motor without pedalling. This is useful to take off from a standing start – especially up a hill. However, using the throttle will drain your battery faster.

WEIGHT

Electric bikes are heavy – some are over 30kg because of the battery. Remember to take this into account if you might need to lift it, for example up stairs or onto a bike rack. Consider the total weight after adding any carrier rack, lights, panniers, etc.

TYRES

Puncture-resistant tyres will save you from having to change as many flats – a particular hassle if you have a rear hub motor or if you struggle with the weight of the bike.

BRAKES

Look for hydraulic disc brakes, they'll be more expensive but require less maintenance than mechanical disc brakes or V brakes.

ACCESSORIES

A helmet is a legal requirement when riding any bike. Lights, locks, mudguards, a chain guard, racks and panniers are extras worth considering depending on how you will use your bike.

SERVICING

Servicing your e-bike yourself is completely doable, but if you don't have the time or expertise, budget for around \$150 every year for servicing if you want your hub, brakes, chain, cassette and gears to last and prepare to add to that for any parts needed. The cheaper your purchase, the more likely you're going to need to add a lot of spare parts in the near future.

