DYSONBIKES

WE'RE ELECTRIC

Electric Bike
User Guide

Contents

Acknowledgments

This manual has been developed by Dyson Bikes and their suppliers. The information contained in this manual is intended to comply with the relevant the Australian Standards at the time of printing.

Foreword

Thank you for purchasing a Dyson e-bike, we are certain you will enjoy it for many years to come.

Please take the time to read this instruction manual thoroughly before assembly (if required) and taking your first ride.

There are warnings throughout this manual and these will be highlighted with symbols or words as detailed on the next page. Please ensure you follow these warning instructions - don't risk your safety or that of others.

Failure to comply with these conditions may also affect your warranty and the long-term reliability of your e-bike.

Your new e-bike is considered a vehicle and when ridden on public roads you must comply with all local requirements. Laws vary in Australia from State to State - please refer to the relevant authority in your State or Territory for more information.

YOU SHOULD READ THIS MANUAL

Your e-bike is an **electrically power assisted cycle (EPAC),** which uses the same traffic areas as cars, trucks and motorcycles. You need to know about certain legal and common sense requirements for the safe and trouble free use of your e-bike.

Symbols used

Important information for your safety is specially marked. Always follow these instructions to avoid personal injury or e-bike damage.

WARNING

Warns of dangers to your health and implies potential risk of injury.

ATTENTION

Indicates a potential hazard to the equipment or other objects.

Failure to observe could result in voiding of warranty.

NOTE

Suggestions and information.

Users' Information and Responsibility

To reduce the risk of serious personal injury, you should read the instructions in this manual carefully.

There are warnings on the e-bike containing safety instructions. Non-observance of these instructions may cause injury, failure or damage!

This is an electrically power assisted cycle (EPAC or commonly referred to as an e-bike), with a 1:1 pedal assistance system, designed for urban commuting and short distance travel.

Your Dyson e-bike is intended only for riding on paved roads and trails. Do not use it for off-road purposes.

Do not use it in water, for jumping, stunting or in competitive sports events.

During riding, you should note that the e-bike covers 5 meters per second at a medium speed of about 18 kilometers per hour in fine dry weather conditions. Keep sufficient distance from other road users to ensure you can stop safely in case of an emergency and always consider the current weather and road conditions.

Always pay attention to the traffic during your ride and keep both hands on the handlebars.

Do not use headphones in road traffic as it blocks other sounds and increases the risk of accidents. Check the e-bike thoroughly against this manual to ensure correct function of components before your first ride and rectify any issues before riding. The owner is then responsible for normal maintenance of the e-bike.

Learn how to operate all standard and accessory equipment on the e-bike.

Ensure that anyone who uses the e-bike has been fully instructed in the operation of its mechanical and electrical functions.

 **WARNING**

Electric Bicycles are not indestructible, and every part of a bicycle has a limited useful life.

Check our website www.dysonbikes.com.au for additional information or call 03 9503 8880 if you cannot find the answer to your question.

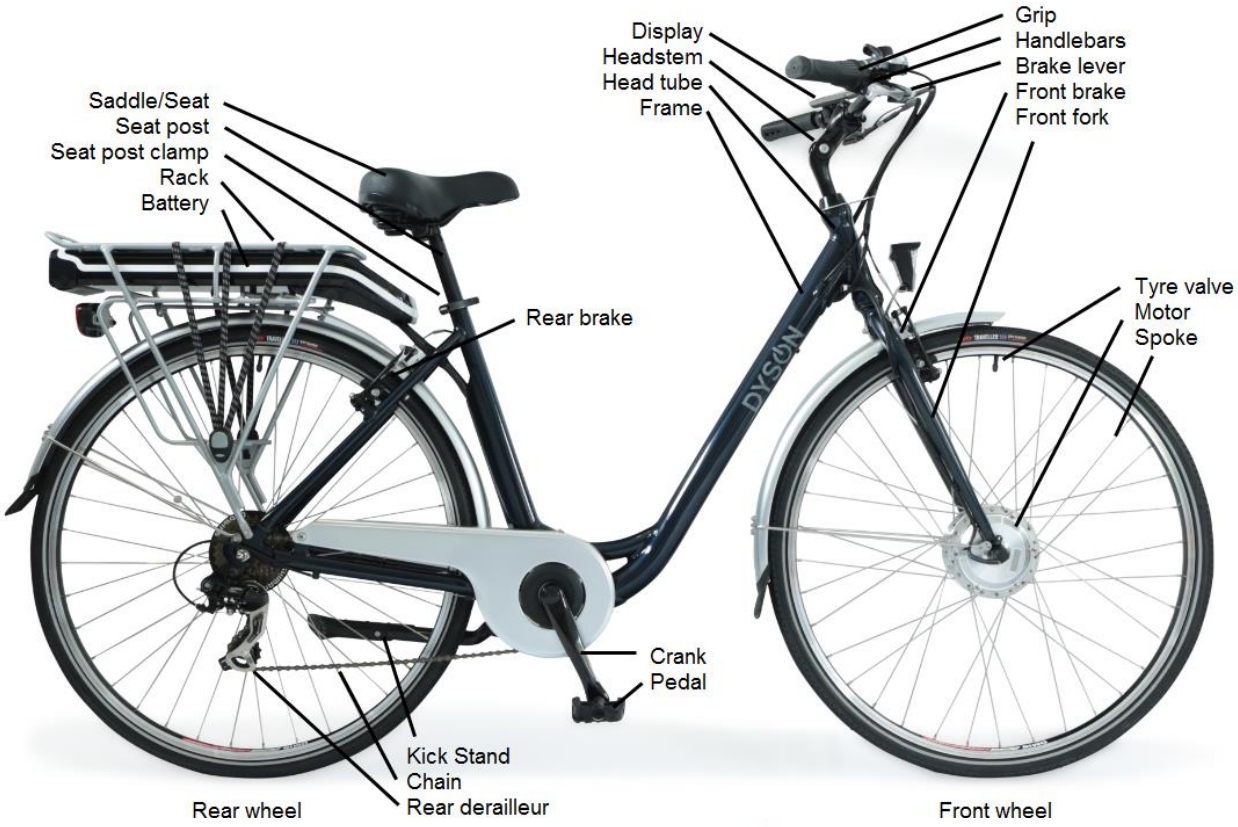
Section-1 Component Description

An e-bike consists of various mechanical parts such as the frame, wheels, brake, handlebar, saddle etc. Please take the time to familiarise yourself with this terminology; it will make basic operation and maintenance instructions easier to follow.

Hard Tail Evo and Fat Bike style frame

The e-bike serial number is engraved in the frame typically on the underside of the bottom bracket.
NOTE These diagrams are for reference only, your model may vary in appearance.

Step Through style frame



Folding Bike style frame

Section 2 - Assembly Guidance

If you have purchased your new e-bike online and had it delivered, you will need to carry out some minor assembly before your e-bike can be ridden. If you have purchased an assembled e-bike please continue reading from Section 3.

Please locate the Assembly instructions, (these are packed separately) and follow carefully to ensure your new e-bike is correctly assembled for safe operation.

In the interests of safety, it is recommended that you have your new bicycle assembled by a skilled bicycle mechanic.

If you choose to assemble your new electric bike and are unsure of anything or require further assistance, please call Dyson Bikes on 03 9503 8880 and we will be happy to talk you through the procedure.

Section 3 - Mechanical Operation and Adjustment

3.1 Fitting your e-bike for a safe ride

To ride safely and comfortably your e-bike and its equipment must be matched properly to the size and skills of the rider. An e-bike that is too big or too small for the rider is hard to control and can be uncomfortable. If your e-bike does not fit properly, you may lose control and fall.

3.2 Controls, position and adjustment

The brake and shifting levers on your e-bike are positioned in a way that they work best for most riders. The angle of the shifting lever can be adjusted by loosening the hex bolts securing them to the handlebars. Once adjusted, retighten securing hex bolts, ensuring the controls will not interfere with the correct operation of other components or cables.

3.3 Brakes

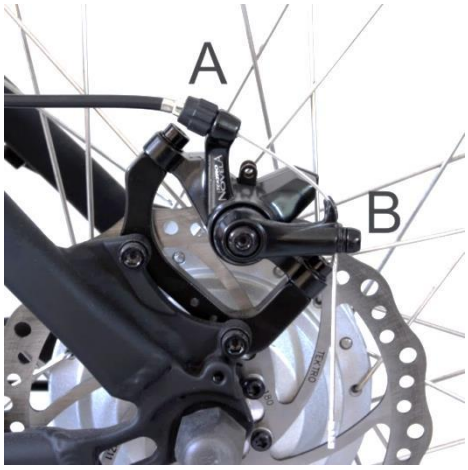
Front wheel brake lever must be mounted on the **RIGHT**-hand side; **rear** brake lever on the **LEFT-**hand side.

Pulling either brake level will immediately cut out the electric motor, this is a safety feature of your e-bike. Make sure that your hands can reach and squeeze the brake levers comfortably.

Due to normal brake pad wear or cable stretch you may need to adjust the brakes from time to time.

Disc Brake System

For adjustment of Mechanical Disc Brake systems, you can make minor adjustments with the thumb wheels (marked A) on the brake caliper as shown.



If required, the cable may need to be adjusted by loosening the attachment (marked B) and pulling the cable through. It is recommended that a trained bike technician perform this operation.

The brake pads should be adjusted in such a way that they are parallel to the disc rotor and have a lateral clearance of approximately 1 mm with the rotor. Two hex bolts securing the brake caliper to either the front fork or frame make this adjustment. It is recommended that a trained bike technician perform this adjustment.

Hydraulic brake systems do not require adjustment under normal conditions. If the brakes are not performing correctly it is recommended that the e-bike be inspected by a trained bike technician.

⚠ **WARNING** Disc brake calipers, rotors and pads get extremely hot when used. Serious injury could result from contact with a hot system.

Linear Type Brake System

A Linear brake system has a brake block which can only be adjusted for toe-in and block-to-rim alignment, in which case brake block-to-rim clearance is adjusted by changing the brake cable length at the brake arm or at the brake lever cable adjuster.

To release a Linear brake, press the brake arms together and unclip the cable lead unit (curved metal tube) from the pivoted metal stirrup. The brake cable remains attached to the opposite brake arm. If the cable lead unit and cone shaped ferrule cannot be unclipped, either slacken the cable at the brake lever (using the cable adjuster) or release the cable end which is attached to the brake arm.

NOTE Allow enough ‘travel’ in the brake lever and cable to enable the curved cable lead tube to be unclipped from the stirrup.

To reset the cable lead tube, press the brake arms together and re-clip into the pivoted metal stirrup.

ATTENTION Ensure the cone shaped ferrule is fully seated in the stirrup. Ensure the protective flexible bellows or accordion-like cable protector between the brake arm and the stirrup is correctly located.

NOTE: a brake lever with too little ‘travel’ before hitting the handlebar may cause a linear brake to ‘lock up’ if the lever is pulled on hard. Longer lever ‘travel’ allows more progressive and better controlled braking. Adjust to suit your riding style or ask your bicycle retailer to assist you to make the correct adjustment.

The brakes of the front and rear wheel can be applied independently, or simultaneously.

Keep the disc rotors, rims and brake pads clean and free of lubricants, waxes or polishes.

WARNING If e-bike is equipped with disc brakes it can achieve a very high braking force. In sharp turns, on sandy or slippery roads, wet asphalt and icy paths; apply the front brake carefully, so that the front wheel does not slip.
Please brake with care and caution. Locked wheels have a lower braking effect and can lead to slipping and falling. In principle, do not brake while turning, instead do it beforehand. Braking in a turn/curve increases the risk of slipping.

NOTE We do advise that you practice 'worst case' heavy braking in a clear location, where you won't injure yourself or others.

3.4 Saddle position

To ride comfortably and pedal efficiently, it's very important to have the saddle at the correct height. Your leg length determines the correct saddle position. The saddle is at the correct height for you when, while seated on the saddle, your knee is slightly bent when the crank is at the maximum down stroke (pedal is closest to the ground).

To adjust the saddle height, loosen the seat post clamp (marked A) by unlocking the quick release, and moving the seat post up or down as required while ensuring it is within the minimum and maximum range as marked on the seat post. Make sure the saddle is parallel to the top frame tube. Lock the quick release tight enough so that you cannot twist the saddle out of alignment. Do not over tighten. By adjusting the nut on the quick-release lever, the clamping force can be regulated.
The saddle can be tilted and adjusted in the longitudinal direction for best fit. This may be adjusted by loosening the hex screw located under the saddle. Adjust to the desired position then tighten.

WARNING An incorrectly tightened quick release lever may come loose and rotate downward during the ride. This may lead to serious falls.
The quick release lever will require enough pressure to close (use the heel of your hand to move it). In this way, the friction is strong enough. The quick release should be tight enough so that you need to provide a degree of force to unlock it.

WARNING Under no circumstances should the seat post project from the frame beyond its 'Minimum Insertion' or 'Maximum Extension' mark as it may lead to frame damage. Frame damage caused by incorrect fitting of the seat pole is not covered by warranty.

3.5 Handlebar position

The handlebar height is correct when the stem is on the same plane as the top surface of the saddle or slightly higher.

The height can be adjusted by moving the rings above or below the head stem.

To adjust- remove the top hex bolt and black cap, then loosen the two locking hex bolts. Taking care not to excessively bend control cables, remove head stem and position rings to desired height and refit top hex bolt and cap, then tighten. Tighten locking hex bolts to 7~10NM while ensuring correct alignment of handlebars is maintained.

Handlebar grips or tube-end plugs should be replaced if damaged. Unprotected tube-ends can cause injury.

3.6 Changing gears

Located on the right-hand handlebar is the control for the rear derailleur gear system. The current gear is indicated in the display with ‘1’ being the lowest. Use the lower gears for climbing inclines or riding slowly. Note in the lower gears the crank will turn more in relation to the road speed, this will cause the e-bike controller to provide greater assistance.

With experience you will learn the best gear to use in conjunction with the PAS level to maintain the desired road speed. Continue to pedal forward during gear changes.

WARNING Do not pedal backwards whilst changing gears, the chain may fall off!

3.7 Tyres

Ensure tyres are correctly inflated. Under inflated tyres can lead to punctures or damage to rims.

The recommended tyre pressure can be found on the side wall of the tyre and varies depending on the model. Higher pressures decrease the rolling resistance making it easier to pedal and putting less load on the electric motor therefore increasing the available range of a battery charge.

WARNING When pumping up tyres with an air compressor device (for example at service

stations) please note that due to the small volume of the tubes, the tyres will inflate quickly.

Do not over or under inflate. Keep within the acceptable range.

In the event of a puncture the wheel may need to be removed from the frame to repair the puncture.

To remove the wheel fitted with the hub motor first take note of the position of any washers or spacers, we suggest taking photos for reference when reassembling.

To remove nuts, use the correct sized spanner if possible, adjustable wrenches often fit poorly and may cause damage to your e-bike or knuckles!

To remove the wheel, you will need to disconnect the power cable running to the hub motor. Locate the connection and carefully observe the small raised arrows moulded into the plug and socket, note how they align directly to one another. Pull the connection apart and be mindful to not bend the metal pins while undertaking the puncture repair.

Once the puncture has been repaired, refit the wheel ensuring any washers or spacers are fitted in their original positions.

Inspect the metal pins of the plug to ensure they are straight and clean, carefully connect the plug to the socket ensuring the arrows align.

3.8 Cranks

The cranks will loosen gradually over time. Check regularly if the cranks are tightened properly.
Force the cranks from one side, and there should be no slack between it and the bottom bracket.
There should also be no slack between the bottom bracket and the axle, and the crank can rotate easily. Check the bottom bracket regularly by moving the crank back and forth from one side.
If you find that the cranks or the bottom bracket is loose, go to an experienced repairer for rectification. The cranks are tightened to max. 35 Nm.

3.9 Pedals

Check regularly that the pedals are firmly secured to the cranks.

Note that the pedals are marked ‘L’ for Left and ‘R’ for Right. The Left pedal has a left-hand thread and needs to be tightened in an anti-clockwise direction; the Right pedal tightens in a regular clockwise direction.

Tighten firmly with a 15-mm spanner. We recommend a torque wrench be used to tighten to ≥35Nm.

3.10 Spokes

The correct fit of the spokes is important for impact-free running of the wheels. Spoke tension should be checked regularly. Loose spokes should be retightened as soon as possible.

A broken spoke/s and their opposite spokes must be replaced immediately, and the wheel trued thoroughly. Running on broken spokes can quickly over stress the remaining spokes and lead to repeat failures. If necessary, rebuild the wheel.

Broken spokes and an out of balance wheel can often result from improper tensioning of spokes. It is recommended that a trained bike technician replaces, tightens or eases spokes.

3.11 Forks

Where fitted, suspension type forks can be set to the locked position by a level located on the top right-hand leg.

If the front forks need to be replaced it is critical that they are replaced with a component of the same specification. Forks of a different size may cause your e-bike to become unsafe.

3.12 Kick Stand

If fitted, ensure the kick stand is folded down completely when parking. Make sure it is folded back up before riding.

3.13 Front Wheel Mounting

The front wheel may be mounted using traditional nuts and requires tools to remove or with a quick release or through axle. It is essential that you understand how to install and remove your wheels safely. Before you ride the bicycle, check that each wheel is securely clamped.

Where fitted, a Wheel Quick Release is a long bolt called a skewer, with a lever on one end and a nut on the other, the wheel quick release uses a cam action to clamp a bicycle wheel in place. A Through Axle is similar in operation.

The wheel hub is clamped in place by the force of the Quick Release lever cam pushing against one dropout and pulling the adjusting nut using the skewer against the other dropout.

Turning the adjusting nut CLOCKWISE will INCREASE the clamping strength of the lever. Turning the adjusting nut ANTI-CLOCKWISE will DECREASE the clamping strength of the lever.

The full force of the cam action is needed to clamp the wheel securely. You cannot secure the quick release mechanism by twisting the adjusting nut. Never use the Quick Release lever to wind up the mechanism. Tighten or loosen using the adjusting nut with the QR lever in the open position.

If the Quick Release Lever can be easily pushed to the CLOSE position, the clamping strength is insufficient.

Return the lever to a position at right angles to the fork.

Turn the Adjusting Nut clockwise to increase the clamping strength.

Push the lever back to the CLOSE position to check the clamping strength.
You will need a reasonable amount of force to CLOSE the lever to ensure the adjustment is correct.

NOTE: If you are not sure of any of these steps or how the quick release mechanism please contact us for assistance.

WARNING: Failure to properly reinstall a wheel may result in a crash and serious injury.

Section 4 - Electric Operation and Adjustment

This section covers using the display panel and other e-bike specific functions.

4.1 General Information

The Pedal Assistance System (PAS), is dependent on the pedaling frequency and will end when you stop pedaling (motor stops in about 2 seconds), more assistance is provided when you pedal faster (such as when in a lower gear).

The assistance will decrease when your riding speed goes up.

Applying either the front or rear brake level will cut out PAS.

You can adjust and/or completely turn off the assistance at any time and ride your e-bike as an ordinary bicycle.

Where fitted, you can also use the twist throttle located on the right handlebar, please note that the maximum speed on throttle alone will generally be no more than 20-25kph on level ground.

We recommend you disable the assistance in hard rain or sandy terrain.

If you need to wheel the e-bike, switch off the control panel in case the motor might suddenly start due to an unintended crank rotation.

Always keep the control panel off when the e-bike is not in use.

4.2 Battery and Charger

The battery of your Dyson e-bike is a Lithium–ion type and some care is needed to maintain the battery’s peak performance.

The battery features a self-contained charge indicator, press the small blue button on the topside to display the current state of charge, red only is low, red and three blue LED’s is full.

Only use the supplied charger to charge the battery. If lost or damaged replace only with a genuine Dyson charger. The charger is a computer-controlled system with many monitoring and control functions. The charger stops charging when the battery is fully charged. The battery cannot be overcharged however; we recommend that the battery be connected to the charger only when the

e-bike will be used soon. The included charger must only be used for charging genuine Dyson batteries.

The LED on the charger indicates the current operating status.

Charging cycle and LED indicators for lithium ion Battery	
LED COLOR	MODE
Red	Charging
Green	Charging finished; Charger stops working

If the charging is abnormal

- Check if the power outlet is OK.
- Check if the contact to connectors is right.
- If it is still not possible to charge, please contact Dyson Bikes for advice on how to rectify.

The battery may be charged while mounted to the e-bike or it may be removed and charged separately.

To remove the battery, use one of the supplied keys to unlock, then remove. Use care, as the battery is heavy! To refit the battery, reverse this procedure ensuring the battery is aligned correctly and is securely locked before riding.

NOTE A spare key is supplied with your e-bike; store one in a safe place in case the other is lost!

To charge the battery, plug the charger into a regular 240-Volt wall socket, the other small plug can then be inserted into the battery while in the frame or when removed. The LED light on the charger will glow red to indicate charging in progress.

Once fully charged the LED indicator light on the charger will be green.

Make sure the battery is fully charged before the first ride and charge again for at least 6 hours after.

To maximize the battery life, the following instructions should be followed:

- The charger will not work efficiently if the battery stays below 0°C or above +40°C. Ideally, keep the battery at room temperature (approx. 20°C) during charging.
- Remove charger once charged; do not leave on charge for extended periods.
- Charge in a dry place.
- Recharge every 2 months if unused.
- Before re-using the battery after long periods, charge the battery fully.
- Keep the battery as close to normal room temperature as possible by parking the bike out of the sun on hot days and not leaving in hot cars or sheds. If necessary, remove the battery from the bike.

⚠ **WARNING** Failure to comply can lead to absolute discharge of the battery. A completely discharged battery is not covered by warranty.

NOTE Self-discharge will occur over time, this is a normal characteristic of batteries. This is due to chemical processes in the gas-tight cells, state of charge and environmental conditions (temperature, humidity).

4.3 Display control panel

Control panels vary depending on the bike, please refer to the supplementary guide supplied with this manual.

4.3.1 Display indication

The display indicates the key functions of the e-bike such as battery charge status and PAS level.

The control panel is operated by the four buttons on the display on the left-hand side of the handlebars.

4.3.2 Settings and configuration

Your e-bike is set to the correct settings before delivery and no adjustment is required for normal operation.

4.3.4 Display ON/OFF

Ensure the master battery switch (where fitted) is in the ‘ON’ position, this is typically located on the e-bike’s battery.

After 5 minutes of inactivity the display will automatically switch off to conserve power.

4.4.5 Lighting

When riding at night it is advisable to switch on the control panel backlight and lighting if fitted.

4.4.6 PAS mode

There are between 1 and 5/6 PAS levels available to suit your riding style depending on model. Press the ‘+’ or ‘-’ buttons to select the appropriate assistance level for the current situation. For most situations ‘3’ provides the best mix of assistance and range. To ride without assistance, select ‘0’. The speed, trip and odometer functions will still function in this mode.

Note in ‘H’ pedal assist is deactivated and the motor will only be engaged by twisting the throttle.

In addition to the PAS levels, there is also ‘WALK’ assistance mode. You can activate this mode by pressing the ‘-’ button for a few seconds and deactivate this mode by releasing the button. This will activate the motor without pedaling to maintain a walking speed.

4.4.7 Mileage measurement

The Display will provide ‘TRIP’ and ‘ODO’ odometer readings.

4.4.8 Battery Charge Level

The display indicates battery charge state via bars on the display. When fully charged all bars will be lit.

As the battery is put under load it is normal for the reading to reduce and then recover as the load is eased.

4.4.9 USB Charging Port

Some models of display are fitted with a USB port located beneath the display. The port can be used for charging a mobile phone, lighting or other small portable devices.

The port is protected by a rubber cover, ensure this is replaced once charging is complete to protect the socket from water and dirt.

To activate charging, hold down the ‘+’ and ‘set’ buttons for 2 seconds to turn on. Hold the same buttons again for 2 seconds to turn off.

4.4.10 Display error

ATTENTION If your e-bike displays an error code:

- Please refer to the trouble-shooting guide.
- The problem must be resolved before the e-bike can return to the normal state.
- Do not ride the e-bike with assistance active before the issue has been rectified.
- Riding as a regular bike with the main battery switch off is OK to complete your journey.

Section 5.0 - Safety

5.1 General

☐ Check and tighten any loose nuts, bolts and straps.

☐ **Tyres:** are they correctly inflated? Push down with your thumb on the top of the tyre, it should depress slightly. Compare to how it feels when you know the tyres are correctly inflated.
Check for cuts or cracks, replace damaged tyres before they puncture.

☐ **Wheels:** are they straight and true? Spin each wheel and check for brake clearance and side to side wobble. If a wheel wobbles it may be buckled. If buckled take to an experienced bike repairer to rectify.

☐ **Brake:** Check that the brakes operate effectively and brake pads are in good condition.

☐ **Quick Releases:** Are the front wheel and seat post quick releases properly adjusted and in the locked position? Check all quick release mechanisms are correctly and securely closed.

☐ **Lights (where fitted) and Reflectors:** Are they working and correctly aligned?

☐ **Handlebars and Saddle:** Are the:

- Handlebars and saddle system horizontal and tight enough so they won't twist
- Handlebars secure and in good condition
- Handlebar ends in place, and
- Is the bell working?

NOTE Any broken or worn parts should be replaced before the e-bike is used. When replacing parts, we recommend using genuine Dyson parts.

5.2 Safety equipment and commonsense riding

As a road user you are responsible for your own and also others' safety.

You need to know: The road rules and how to ride safely.

5.2.1 Your e-bike

Check your e-bike before using it as detailed in this manual. Know how to operate all mechanical and electrical controls. For riding in low light and night conditions, switch on display backlighting, fit and use front and rear lights.

5.2.2 Your clothing

Wear a correctly fitted and fastened approved helmet. Bright colored clothes and reflective tape help improve your visibility to other road users at night. Wear covered shoes, not thongs or bare feet.

5.2.3 Be alert

Watch out for other road and pathway users. Adapt your riding to suit the conditions. Do not listen to loud music, as this will interfere with your ability to hear other road users or dangers.

5.2.4 Carrying loads

Never load the e-bike beyond its capacity.

5.2.5 Riding in the wet

Wet weather affects visibility for all road users. It is harder for any vehicle to stop in the wet. Allow more distance to stop while braking.

Riding in the rain is OK, it will not affect the electric operation of the bike.

Riding in wet weather may induce corrosion on some metal components- be mindful to dry these off where practical.

Section 6 - Maintenance and Care

WARNING Bicycles are not indestructible, and every part of a bicycle has a limited useful life, please have major components inspected regularly to ensure your safety (especially after the bike has been involved in an accident of some sort).

6.1 Mechanical parts

These are parts found on regular pedal bicycles (as opposed to electrical parts found only on e-bikes).

6.1.2 Cleaning

- Mud and dust can be highly abrasive. Regular cleaning of the e-bike, especially the electrical parts, will help maintain your e-bike in good condition.
- Wipe the e-bike with a damp micro-fiber cloth. Never hose or flush the e-bike, as this has a risk of damaging electrical parts and it can also wash the lubricants from the drivetrain.
- Always thoroughly dry and lubricate your e-bike after washing or riding in rain to prevent corrosion.
- Do not apply polish to a bike with a satin finish.

WARNING Never use a high-pressure water washer!

6.1.3 Lubrication

Keep your e-bike regularly lubricated for good performance and durability. Lubrication reduces friction and helps protect against rust. All bearings and other moving parts require regular appropriate lubrication:

- Grease type lubrication: bearings in head stem, wheels, bottom bracket and pedals at least once a year
- Oil type lubrication: Brake and derailleur pivot points and jockey wheel, chain, freewheel once a month
- Never lubricate the brake pad, rim or tyre.

6.1.4 Monthly Service Items

Tyres and tubes

- Clean the tyres and inspect treads for wear.
- Remove any debris from tread or walls.
- Check if tyre pressure is correct.
- Check valves for leakage.
- Replace faulty tubes.

Wheels

- Check rims for accuracy and spokes for evenness of tension.
- Replace any bent or broken spokes.
- Make sure that the wheel is mounted centrally in the frame.

Brakes

- Check brake pad and brake lever mounting bolts.
- Check brake pads for wear and replace them if necessary.
- Check if the pad toe-in alignment is correct.

Gear and brake cables/hoses

- Inspect all cable housing and hoses for damage. Replace if necessary.
- Clean and examine all cable wires for kinks and frayed ends. Replace if necessary.
- Adjust barrel adjusters and/or cable anchor bolts to compensate for cable stretch.

Hubs

- Check front and rear hub bearings for excess play or binding. These have adjustable cup-and-cone bearings, tightened or loosened if necessary.
- Check if hubs are correctly lubricated.
- Tighten hub axle nuts and check quick release levers for correct tension.

Drivetrain

- Clean chain wheel; check if it is true and has no broken teeth or is excessively worn.
- Check if crank arms are tight on bottom bracket spindle.
- Clean and lubricate freewheel and check for wear.
- Check freewheel sprocket for worn or broken teeth.
- Check chain for excessive wear or stretching.
- Check for any stiff links.
- Use a suitable chain lubricant, we recommend Shimano Wet Lube (WS8000121).
- Adjust the rear derailleur to ensure correct chain tension and alignment.

Bottom Bracket/Axle

- Test bottom bracket bearings for excess play or binding.
- Check if the locknut is tight.
- Check if bottom bracket is correctly lubricated.

Headstem

- Check headstem for excess play or binding.
- Check if the lock bolts are tight.

Pedals

- Make sure pedal bodies are not cracked.
- Tighten the mounting bolts of pedals if necessary.

General

- Check frame alignment and all the tubes for dents or damage.
- Check welds for cracks.
- Check all fasteners, bolts, nuts and quick releases are secure.
- Tighten bolts to the correct tension with the correct tools.

Alloy bicycle parts can be easily damaged by over tightening.

Torque Specifications

All nuts and bolts should be checked on a regular basis for tightness. To assist in achieving the correct tension when tightening nuts and bolts the use of a torque wrench is recommended. Apply the following torque for the nominated parts of your bicycle.

Component	Torque range in Newton Metres
Wheel Nuts	24-29
Seat Binder Nut	12-17
Seat Pillar Clamp	4-19
Brake Anchor Nut	7-11
Handle Bar Clamp Nut	5-19
Head Stem Expander Bolt	17-19
Brake Centre Bolt	5-7
Pedals	35-40
Bottom Bracket Cups	35-48

ATTENTION components damaged by over tightness or by operating the e-bike with loose or under tensioned components will not be covered by warranty. It is the users' responsibility to check all fasteners, nuts, bolts and screws on a regular basis.

6. 2. Electrical Components

6.2.1 Hub Motor

- Pay attention to the abrasion or damage of all cable connections, to avoid short circuit or motor failures.
- Avoid riding or parking in heavy rain or deep water.

6.2.2 Control Panel

- Inspect cables for damage; repair where necessary to avoid short circuits and damage to the control unit.
- Avoid direct contact with water and never wash with a hose or pressure washer.

6.2.3 Battery

- Only use the supplied charger to charge the battery. If the battery will not be used for a long period, please store it in a cool and dry place, and charge it every 2 months for a minimum of 2 hours (half charged).
- Before connecting the charger to the mains, check whether the voltage of your power supply matches the nominal voltage of the charger.
- For your own safety: Never place the battery near fire or other heat sources.
- Do not dispose of in a fire.
- Do not place the battery near combustibles or explosives while charging.
- The battery will heat up under heavy load. Pay attention to the room temperature before charging and place the battery where it's cool.
- Protection against moisture: Avoid riding the e-bike in standing water or in pouring rain, otherwise the electronic parts or connections could be damaged.
- The battery contains no user serviceable parts – **DO NOT OPEN**. Contact Dyson Bikes for advice on repair or replacement.
- Never connect together the two pins of the battery; this will result in a short circuit and fire.
- Prevent the battery from falling on the ground or heavy striking.
- The maximum battery life can be achieved if you charge it at ambient temperature between +10℃ and +30℃. Avoid extended exposure to the sun or an environment of over 60℃ (for example in vehicles or sheds).
- Keep water or moisture out of the charging jack.
- Keep the battery out of the reach of children.

NOTE A worn-out battery is subject to special disposal requirements. The battery contains toxic heavy metals and therefore is subject to the hazardous waste treatment regulations. Only authorized parties can take care of the disposal. Contact Dyson Bikes if you need further information.

6.2.4 Charger

- Store the charger out of the reach of children.
- Never use the charger during a thunderstorm.
- Do not use the charger for charging unauthorised accessories or batteries, which may lead to fire, electric shock or personal injury.
- Do not use the charger if there is apparent damage to the charging plug or cable.
- The charger is not able to be serviced by the user – please do not disassemble.
- Incorrect installation may lead to electric shock or fire.
- To avoid short circuit, please disconnect the charger from the mains before cleaning it.
- Only use the charger in dry, clean and cool conditions.
- Prevent liquids and metal objects from getting into the charger.
- Always keep the charger somewhere safe and stable; protect it against impacts and other damages.
- Clean the device with a dry cloth. Do not use oil, water or solvents.

Only use genuine Dyson parts for replacement of safety critical components, especially motor, controller, battery, charger and control panel. Use of unauthorised components may result in serious injury or accident!

Section 7 – Trouble-shooting

ISSUE	SOLUTION
The control display has no power and cannot be started.	Check master switch position is on. Check the battery charge indicator. If there is no outgoing voltage, the battery must be charged or replaced. Check the control display. If the control unit is broken down or damaged, it must be replaced. Check if there are contaminates or damages on the contact points between battery and control display.
The indication is normal, but the motor does not start.	This failure may be caused by an improper connection between the motor and the motor controller. Check if the plug and socket of the motor connection is correctly connected or if there are cable breakages.
The control display can be turned on, but it turns off again almost immediately.	Check master power switch is in on position. This failure may be attributable to a poor battery connection - typically low tension on the female terminals of the battery.
The battery indicator blinks and the PAS does not work.	The battery is running too low and must be charged.
PAS intermittent.	Activate walk mode, if motor dropping out a motor fault is present. If power does not drop out fault is most likely related to a cadence/pedaling sensor and needs to be replaced.
The indicator blinks during the charging process.	It means that the charger is in protection mode due to a short circuit. Eliminate the short circuit or consult an authorised repairer.
Error code listed on display.	Make sure brake is not on or damaged. If on when switched on an error code will be displayed. Check all cable connections. If all cables are correctly connected and the error code is still shown, contact an authorised repairer. Error code can be found at dysonbikes.com.au.

Note: You may ride the e-bike trouble-free as an ordinary bike without assistance in this case!

Section 8 - Warranty

An Electric Bike, Bike, Bike Part or Bike Accessories ('E-Bike', 'Bike', 'Part' and 'Accessory') purchased new from Dyson Bikes is warranted for the periods and on the conditions set out below.

An E-Bike, Bike, Part or Accessory purchased from Dyson Bikes is covered for a period of 12 months. Adequate proof of purchase must be provided to support a Warranty claim.

If a Bike, Part or Accessory is defective (other than for the Warranty exclusions specified below) during that period, we will replace or repair it at our cost. To make a claim please return the complete Bike, defective Part or Accessory to the place of purchase.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The benefits under this warranty are in addition to other rights and remedies you may have at law.

This voluntary Warranty is given by Hasta industries Pty Ltd trading as Dyson Bikes of 20/85 Keys Road, Moorabbin, Victoria, Australia. ABN 211 656 485 00. The Warranty covers the correction, during the relevant Warranty Period, of defects in any such E-Bike, Bike, Part or Accessory, by repair or at Dyson Bikes option by replacement. The benefits conferred by this Warranty are in addition to other rights and remedies available to you under the Australian Consumer Law. This Warranty in no way limits or restricts your rights or remedies under the Australian Consumer law.

E-Bike, Bike, Part and Accessory Warranty exclusions. Normal Bike maintenance items which require periodic replacement during the course of normal operation, such as brake pads/shoes, tyres, tubes, chains, batteries, gears, bearings etc. are warranted against manufacturing defect for the lesser of (a) 12 months from the date of purchase, or (b) 5,000km of use, whichever occurs first. Failures attributed to normal wear and tear, misuse or abuse, incorrect fitting from a third party (not purchased from Dyson Bikes) accessories and/or components or poor third-party workmanship will not be covered.

The user assumes all risks for any personal injuries, damage to or failure of the e-bike or bike and other losses if this bike is used in any competitive event, including, but not limited to, stunting, bicycle racing, dirt biking or similar activities, or training for such activities.

This warranty does not cover any personal injuries, damage or failure of the e-bike or any other losses due to accident, misuse, neglect, abuse, normal wear, improper assembly or maintenance.

For customer assistance, please call us on 03 9503 8880 or email us at info@dysonbikes.com.au.

Section 9 - Maintenance Record

Your e-bike is a mechanical product, which needs to be maintained regularly.

We recommend the first service after approx. 200 km or 3-months. After that, we recommend servicing by a trained e-bike technician every 1,000 km or 12-months whichever occurs first.

Service 1: 100km / 3-months Notes: Date / /20 Repairer stamp
Service 2: 1,000km / 12-months Notes: Date / /20 Repairer stamp
Service 3: 2,000km / 24-months Notes: Date / /20 Repairer stamp
Service 4: 3,000km / 36-months Notes: Date / /20 Repairer stamp
Service 5: 4,000km / 48-months Notes: Date / /20 Repairer stamp
Service 6: 5,000km / 60-months Notes: Date / /20 Repairer stamp

DYSONBIKES

WE'RE ELECTRIC

Dyson Bikes | Unit 20, 85 Keys Road - Moorabbin Vic 3189

w. dysonbikes.com.au | e. info@dysonbikes.com.au | p. 03 9503 8880

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