LPR
LITTLE PRO RIDER
AUSTRALIA

LPR 12 JNR MX-V2
OWNERS MANUAL

Congratulations on your new LPR Bike! We know you will be happy with your purchase and your kids will enjoy it for years to come!

LPR Bikes is an Australian owned, family company, established to create quality kid's bikes that are unique and innovative.

This owner's manual contains important assembly and safety information. It is important that it is fully read and understood before operation.

AUSTRALIAN OWNED & OPERATED

www.lprbikes.com.au

MODEL: LPR 12 Jnr MX
Recommended for ages 3 - 6
Maximum rider weight 30kgs

WARNING!

Before riding, please read and understand this manual carefully.

To avoid serious injury, it is important to follow all warnings as outlined in the manual.

Contents

⚠WARNING

Please read this manual completely and carefully making sure you understand all instructions before operating this bike

Before you Ride

Dear customer:
Congratulations on your decision to purchase a Little Pro Rider Electric Bike!
Riding an LPR electric bike is a lot of fun and is the best way for your child to begin learning the skills of riding motorcycles. Being super light-weight and near silent, they are excellent for riding in urban backyard's as there is no noise! This manual will give you an understanding of the operation, inspection and basic maintenance of this bike. If you have any questions concerning the operation, inspection and maintenance of this bike, please consult an LPR dealer or a qualified electric-bike repairer. IT IS IMPORTANT TO ADHERE TO ALL SAFETY RECOMMENDATIONS AND WARNINGS IN THIS MANUAL**.** Keep the manual for future reference.

Important Note to Parents:

This bike is not to be treated as a toy. Before you let your child ride this bike, you should read and understand all instructions and warnings in this manual. It is important to be sure your child understands and follows them. Like any sport, bike riding involves risk. By choosing to ride or let your kids ride, you assume the responsibility for that risk. You must understand that riding a bicycle, electric bike or motorcycle is a dangerous activity that has the potential to cause serious injury or death in the event of an accident. The risks of injury or death can be reduced dramatically if the bike is ridden in a safe hazard free area, maintained correctly and when correct safety gear is worn such as an approved motorcycle helmet and riding protective gear. All children are different and have different levels of skill, physical abilities and judgment. Some children may not be able to operate this bike safely. Parents should supervise their child's use of their electric bike at all times and ensure they ride the bike in a safe area that is legal to your state regulations. Parents are responsible to determine if their child is capable of operating the bike and ensure the speed setting is set to that child's ability. They should only permit continued use if the child is capable of riding the bike safely and in control. Jumping the bike increases the risk of an accident greatly. Jump the bike at your own risk. Parents are responsible for allowing their child to jump the bike. The LPR 12 Jnr MX bike is rated to handle only small jumps up to 30cm in height.

Disclaimer:
This owner's manual contains the latest information for this model at the time of going to print. Minor differences cannot be ruled out, this may be to improvements in design and reliability that we are unaware of at the time of print. All specifications are non-binding. LPR Bikes Australia Reserves the right to modify or delete technical specifications, prices, colors, materials, services designs without prior notice or specifying reasons. LPR Bikes Australia accepts no liability for misprints, deviations from illustrations or specifications although we remain committed to our brand and products. LPR Bikes Australia Reserves the right to stop production of a particular model or supply of spare parts for a particular model without prior notice or specifying reasons. Being fully aware that the use of the product could cause injury, death or damage to property. LPR Bikes Australia PTY LTD or any of their employees, will not be held liable for any loss of damage or personal injury /death that may be caused by their products. Safety precautions, maintenance, rider safety and electrical and battery safety is explained in this manual, but it is the owners responsibility to understand current and local laws of using this product before operating. Use of an LPR Bikes Australia PTY LTD bike/bikes/product is completely at you and your child's own risk and hereby waive, release, and discharge and his or her heirs, legal representatives, administrators, and executors for all liability for or by reason of any damage, loss or injury (including death) to myself, my child, or my property which has been or may be sustained with regard to an LPR BIKES AUSTRALIA Pty Ltd. product. By agreeing to use an LPR product, this restricts you the owner from suing or otherwise claiming against LPR BIKES AUSTRALIA PTY LTD, presently or at any future time, for damage, loss, or injury that may occur to yourself, your child, or your property.
If you do not agree to this disclaimer, please do not use the product and return the product prior to use.

Symbols used in the manual:

Hazard Warning Symbol – Indicates a danger that could lead to fatal or serious injury if caution and correct measures are not taken.

Electric Shock Warning Symbol – Indicates an electrical danger that could lead to fatal or serious injury if correct measures are not taken.

Tool Warning Symbol- Indicates technical knowledge required for the task to be completed safely. It is recommended that qualified technicians complete all work with this symbol.

General Safety Advice and Warnings

- Always wear an approved helmet, enclosed shoes and protective gear.
- Children must always ride under adult supervision. A parent's decision to permit the child to ride this product should be based upon maturity, skill and ability to follow rules.
- Adults only to use the charger. Keep charger away from children and unplug it when not in use.
- Do not leave bike unattended when charging the battery.
- Ensure the environment is safe for riding. Walk and check complete riding area prior to letting your child ride in that area. Clear area of hazards like sticks or rocks that may cause the rider to fall or impale a falling rider. Ensure creeks, dams, swimming pools etc. and public roads cannot be accessed whilst riding.
- Always familiarize yourself with local laws and abide by them.
- Do not ride at night.
- Do not submerge in water, do not leave bike in the rain or allow water to enter the electrical components. Care must be taken when cleaning. See cleaning section on page 23.
- No doubling or carrying passengers. One rider at a time.
- Ensure any loose clothing or long hair is restrained to prevent from entanglement in rotating parts.
- Ensure pre ride checklist is completed prior to each ride and each time after the bike has been in an accident or fallen over. See checklist on page 22.
- Do not exceed the max rider weight limit of 30kg.
- It is recommended that a skilled technician builds this bike. Failure to install or tighten parts on the bike correctly may cause rider to lose control or fall. If you are having difficulty understanding these instructions, please contact LPR Bikes Australia Pty Ltd via email: info@lprbikes.com for assistance.
- Do not remove any warning labels from the bike or charger.

Electrical and Lithium Battery safety

There is Billions of Lithium batteries in use these days powering our phones, laptops, cordless power tools, E-bikes and EV's. With the use of protection systems such as a BMS- a Battery Management System, and correctly rated batteries, the risks of lithium battery incidents, fires or failures is greatly reduced. But where there is stored energy there is still always risks. These precautions below must be followed to avoid damage to the bike, possible property damage or injury. **Safety of lithium-based batteries is very important.**

Precautions:

- Use **only** the supplied charger. And follow charging instructions on page 19.
- Do not leave bike unattended when charging the battery.
- Do not attempt to alter, puncture or impact the batteries or change the electrical system in any way.
- Do not wet or submerge the bike or charger in water. Do not leave bike or charger in the rain. The bike or charger is **not** completely waterproof, care must be taken when cleaning the bike. See cleaning section on page 23.
- Do not charge batteries near flammable products or liquids.
- Charge the bike in a well-ventilated area, not near combustible material.
- Never expose the bike or battery to extreme temperatures,

  Operating temperature limits:
  Charging: 0°C~45°C
  Discharging (Riding): -20°C ~ 60°C
  Storage temperature limits:
  Within 1 month: -5°C ~ 35°C
  Within 6 months 0°C ~35°C

- Be careful leaving bike unattended inside an automobile. In summer car/truck interiors can reach 30°C degrees hotter than the outside temperature.
- Disconnect the battery whilst transporting the bike or storing the bike.
- Dispose of batteries or bike as per City/State/Country regulations.
- Only persons competent in safe battery handling to remove and handle battery.
- If at any time the battery becomes damaged, hot, begin to swell, discontinue use of the battery. If charging, quickly and safely remove the bike from the charger and then place bike in a well-ventilated area at least 2 meters from combustible material. Monitor until sure the area is safe.

Lithium batteries have 4 main risks:

1) **Fire** – Common causes are from puncture of battery cells, short circuit, or overcharging.
2) **Electric shock**– When connected to 240v mains whilst charging; it is critical that the bike is charged out of the rain and kept away from children whilst charging. Never leave charging unattended.
3) **Burns** – From a fire, short circuit or D.C. arc.
4) **Toxic fumes**- From a fire or punctured cell.

If the internal contents of the battery come in contact with skin, wash the affected area(s) with plenty of water immediately. If it comes in contact with your eyes, flush with water for 15 minutes and seek immediate medical attention.

IN CASE OF A BATTERY FIRE:

If the battery overheats, hisses or bulges, immediately move the bike away from flammable materials and place it on a non-combustible surface in a well-ventilated area. If possible, take the bike outdoors to burn out. Other cells may take hours to catch fire so continue to monitor battery until sure the area is safe.
Call your local fire authority for assistance if needed.
DO NOT use water to extinguish.
A class D dry chemical extinguisher may be used.

Warranty

At LPR Bikes Australia, we want you to ride with a smile, knowing that you purchased your bike with confidence. This is why we offer the original purchaser of a LPR12 Jnr MX™ Bike;

- 2 years warranty on the frame/forks*
- 6 months warranty on motor and electrical components*
- 12 months warranty on the battery*
- No warranty on consumable parts*

What do I do if I have a faulty product?

If you've got any warranty issues, the quickest and easiest way is to get it resolved is to send an email to info@lprbikes.com with a description of the issue and photos of the affected parts.

Warranty Terms and Conditions

*This warranty applies only to the original owner of a LPR12 Jnr MX™ bike and is not transferable to subsequent owners. Consumable parts (including grips, tubes, tyres, cables, brake pads and saddle covering) are not covered by the warranty. The warranty does not cover water damage to the electronics, paint damage, rust, corrosion, modifications made to the bike, normal wear and tear, improper assembly or maintenance, installation of parts or accessories not originally intended or compatible with the bike as sold and costs of installation, assembly and disassembly. The warranty does not apply to damage or failure due to accident, abuse, misuse, neglect or theft. Costs such as assembly, transport for faulty components are not covered by the warranty.

Getting to know your LPR12 Jnr MX:

Figure 1: Right Side View Model: LPR12 Jnr MX

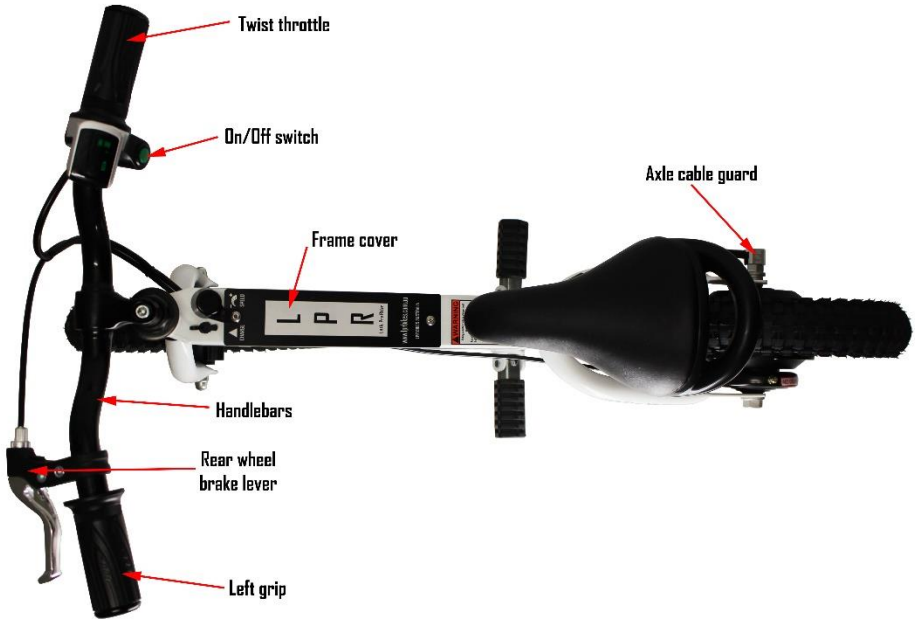
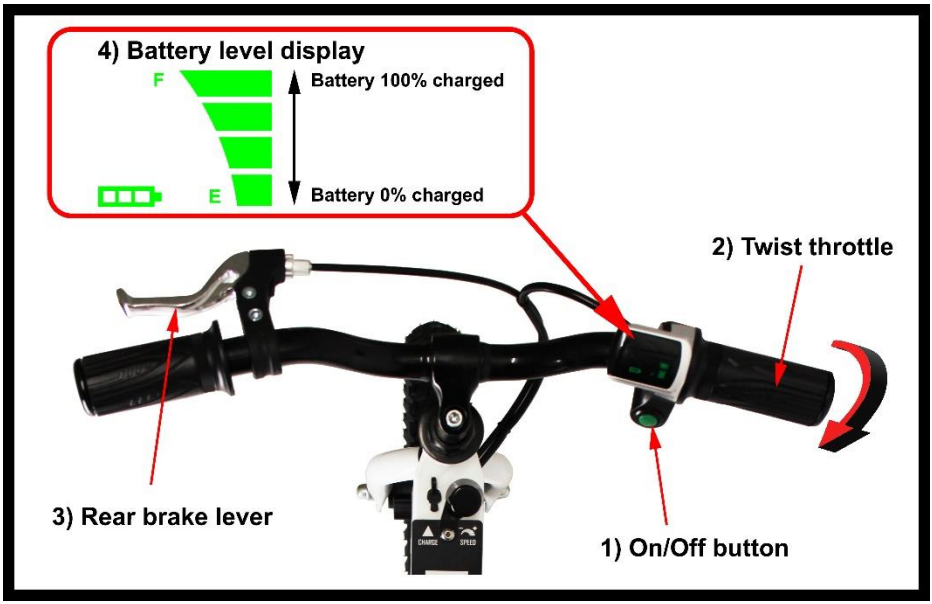


Figure 2: Top View Model: LPR12 Jnr MX

Bike Controls:



Description of Bike Controls:

1) **On/Off button:**
The On/Off button turns the bike power on or off. When ON, the button is in the "depressed in" position and the battery level display will illuminate, letting you know the bike is powered and ready to go. The twist throttle will now work.
When OFF, the button is in the "depressed out" position. This will turn the power off to the bike. This button is used to turn off the power in the event of an emergency which is commonly known on motorcycles as the "kill switch".

2) **Twist throttle:**
Just like on a motorcycle, the speed is controlled with a twist throttle on the right hand side of the handlebars. The throttle is spring return and variably controls the bikes speed through the range of 90° of a turn.

3) **Rear brake lever:**
To operate the rear brake. Pull the rear brake lever in towards the handlebar with the left hand. The lever is connected to the rear brake system with a cable.

4) **Battery level display:**
Displays an approximate level of the charge of the bike by measuring the battery voltage.

Assembly Instructions:

THIS IS A PARTIALLY ASSEMBLED BIKE REQUIRING THE ATTACHMENT OF THE FOLLOWING PARTS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS:

- Front wheel assembly
- Front axle assembly
- Handlebar and stem assembly
- Motor connection

There are several other important steps to be taken before allowing your child to ride the bike, please complete all assembly instructions from step 1 through to step 10.

Please read this manual completely and carefully making sure you understand all instructions before operating this bike.

WARNING:

IN THE INTERESTS OF SAFETY IT IS RECOMMENDED THAT YOU HAVE THIS BICYCLE ASSEMBLED BY A SKILLED BICYCLE MECHANIC

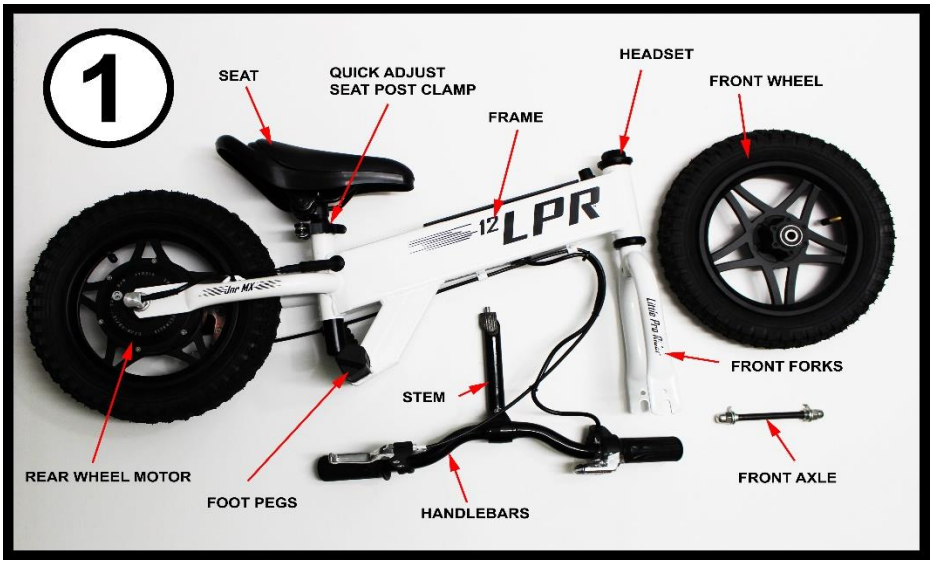
Tools required for assembly.

LPR Bikes Australia Pty Ltd do not supply tools with our products.

We recommend to use a torque wrench for all bolts during assembly.

- Metric Hex key set including 2.5mm, 3mm, 4mm, 5mm, 6mm or “In hex” sockets
- Metric spanners and sockets. (16mm socket for front wheel nuts)
- Torque wrench
- Tyre pump
- Tyre pressure gauge
- Scissors (to remove packaging)
- Carpet or a soft blanket to sit bike on during assembly to protect bike from scratches.

ASSEMBLY INSTRUCTIONS



1. Unpack your LPR 12 Jnr MX:

Remove packaging.

WARNING ⚠ Dispose of packaging immediately. Packaging may pose choking hazard or suffocation for small children.

2. Install stem and handlebars:

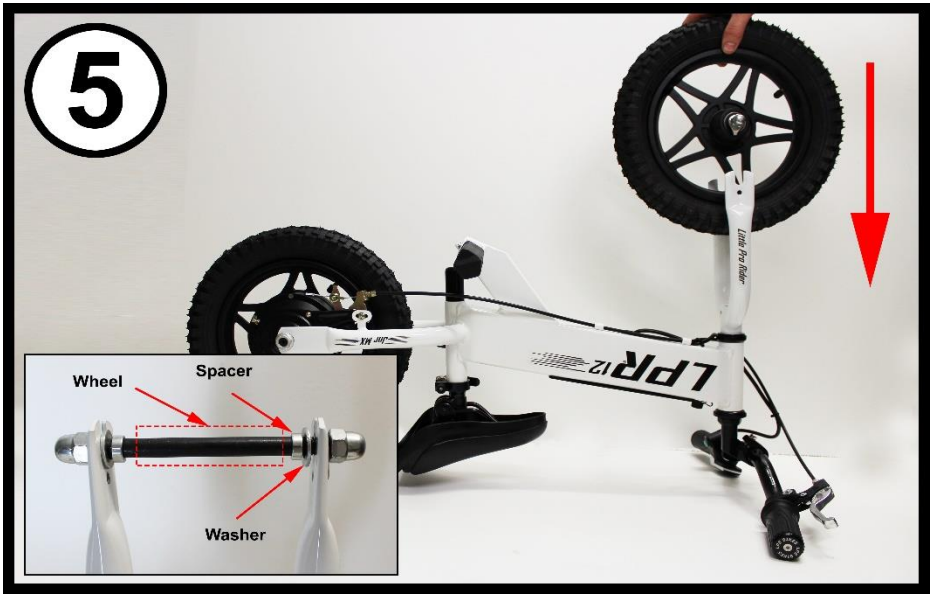
Remove the plastic cap from the steering stem. Ensure the wedge nut and washer at the bottom of the stem is aligned, and gently insert into the headset of the bike. Adjust height to suit rider size accordingly. Take care not to kink or bend brake cable during installation.

3. Tighten Handlebars:

Ensure handle bars are straight to the fork, using a 6mm hex Key, tighten bolt. (Torque 20NM)

4. Insert Axle to front wheel:

Insert axle into front wheel. Take note of the order of the nut, tab washer, flat washer and spacer. Once through, install spacer, flat washer then tab washer in that order and then just start the nut a few threads leaving it loose.

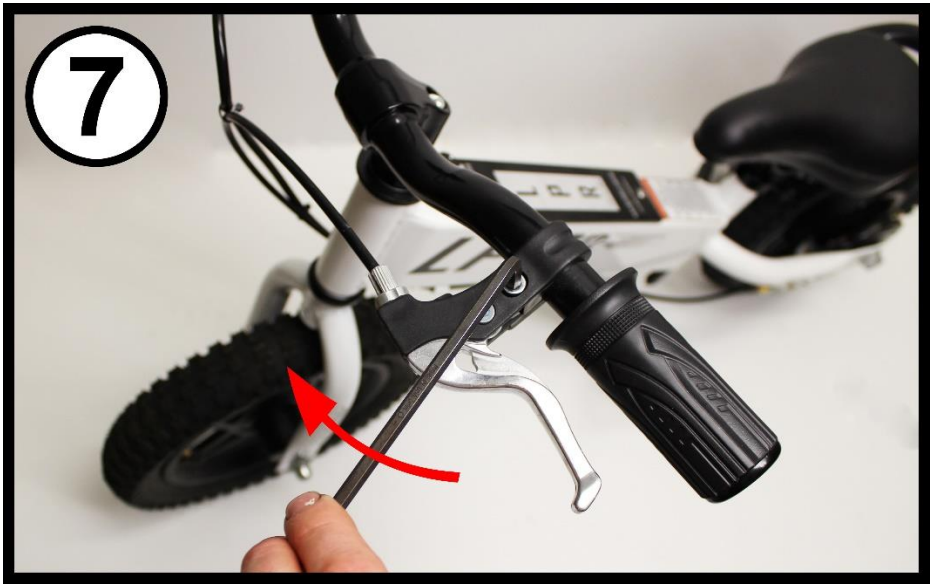


5. Mount Wheel:

To mount the front wheel, loosen the wheel nuts. Slide the wheel onto the forks, ensuring the tab washer and nuts are on the outer side of the fork legs and the flat washers and spacers on the inside of the fork legs as the picture above.

6. Tighten Front Wheel:

Ensure the tab washer is positioned so the tab sits into the tab washer locating hole. Use 16mm spanner and torque wrench to tighten wheel nuts on both sides. (Torque 40NM)



7. Brake Lever:

Set the position of the brake as the above image and tighten the bolt using a 5mm Hex key. (Torque 4NM)

8. Check/tighten throttle:

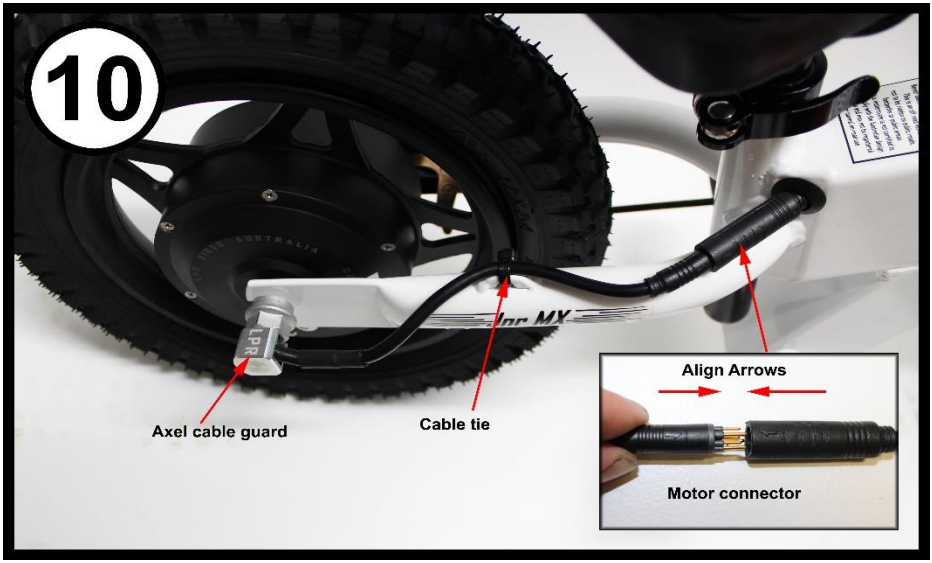
Loosen bolt and twist the throttle assembly so the on/off switch is easily accessible from the rider's position. Slide the throttle assembly along the handlebar so the clearance between the bar end and throttle tube is 1-2mm. Tighten using 3mm hex key (Torque 4NM). Once tight, test by twisting throttle and check it spring returns easily.

9. Inflate Tyres:

Inflate front and rear tyres to 15psi or 103kpa.
Ensure tyre bead is even and concentric to the rim. Tyre may need to be deflated, realigned and then re-inflated again.

Tip: to reduce bike bouncing on bumps, lower pressures as low as 10psi for lightweight riders may help for a smoother ride over bumps.

Warning: Changing the tyre pressures can change the way the bike steers, performs and handles.



10. Connect motor:

Ensure on/off switch is in the “out/off” position. Then with dry hands and away from flammable items, carefully align the arrows marked on the connectors. Firmly push together ensuring the plug is all the way to the line marked on the plug.

Your LPR12 Jnr MX™ is now assembled!

Warning!

Prior to riding:

- **Adjust the bike to suit the riders height and size- see page 17**
- **Charge the battery- see charging instructions on page 19**
- **Complete pre ride checklist- see page 22**

Preparing For Use and Riding Instructions:

WARNING AND DANGER OF ACCIDENTS: All children have different abilities and levels of concentration and intellectual readiness. Only let your child ride the bike when you feel the child is mentally and physically ready.

This is an off road vehicle, not to be ridden on public roads, footpaths or public areas.
This bike is not certified to comply with the Australian design rules and may not be registered for normal on-road use.

- Familiarize your child with the controls of the bike.
- Ensure your child knows how to turn off the bike in the event of an emergency using the off switch (kill switch).
- Ensure your child is capable of applying the brakes before they ride the bike.
- Ensure your child follows your instructions and then set rules for your child. Make it clear that they understand that they are not to ride the bike unsupervised or without a helmet or protective gear.
- Adjust the bike to suit your child's height and size on page 17.
- Set the speed limiter to minimum setting for first ride. See page 18.
- Charge the battery- see charging instructions on page 19.
- Complete pre ride checklist- see page 22.
- Ensure the environment is safe for riding. Walk and check the entire riding area prior to letting your child ride in that area. Clear area of hazards such as sticks or rocks that may cause the rider to fall or impale a falling rider. Ensure creeks, dams, swimming pools, steep hills, public roads etc. cannot be accessed whilst riding.
- Give your child lots of space for the first few rides. A large paddock is recommended to allow room for your child to learn the handling of the bike and controls. This will help train your child how to steer, brake and maneuver the bike in a safe environment.
- Teach your child how techniques of riding like how shifting weight and locking the brakes can affect the handling.
- Don't let your child ride in an area that is unsafe or exceeds their ability.
- Your child should always ride with both hands firmly on the handlebars.
- Encourage your child to use good off road techniques.

Running In the Bike:

Being electric the LPR12 Jnr MX™ is super quiet, which means the slightest rattle can be heard. The brakes may make some squeaks or slight rubbing noises, this is normal and they will soon bed in and the noises should disappear. There is no bedding in of electrical motors required. After about 5 minutes of use, check for any loose components, check brake function and adjust if necessary. The headset bearings may be also slightly tight at first, which will also bed in after the first ride. Familiarize yourself with the pre ride checklist and perform this before each ride and each time after your child falls off the bike.

Adjust the Bike to Suit Rider's Height and Size:

The LPR 12 Jnr MX™ is adjustable just like a standard bicycle. As you child grows, you can quickly tailor the bike to their size! You can adjust the seat height and angle, raise the stem or roll the handle bars forward or back to adjust.
This picture below shows the ideal rider posture- Slightly bent legs with feet flat on ground and bars at stomach level height with elbows slightly bent.

Maximum rider weight 30kg.
Maximum rider height 120cm.

How to Adjust Seat height:

To adjust height, open quick release lever, raise or lower seat until desired position is reached. Ensuring the minimum insertion marks are always below the seat post clamp. Close the quick release lever. Ensure the seat is tight. The quick release lever should close with a nice firm push. By tightening or loosening the locking nut on opposite side you can obtain the desired tension on the seat post clamp. Maximum rider height 120cm.

Adjust Seat Angle:

Loosen the bolts directly under the seat and adjust the tilt of the seat to suit your child. Tighten the bolt once desired angle is found. (Torque 20NM).
Tip: Level to the ground is recommended.

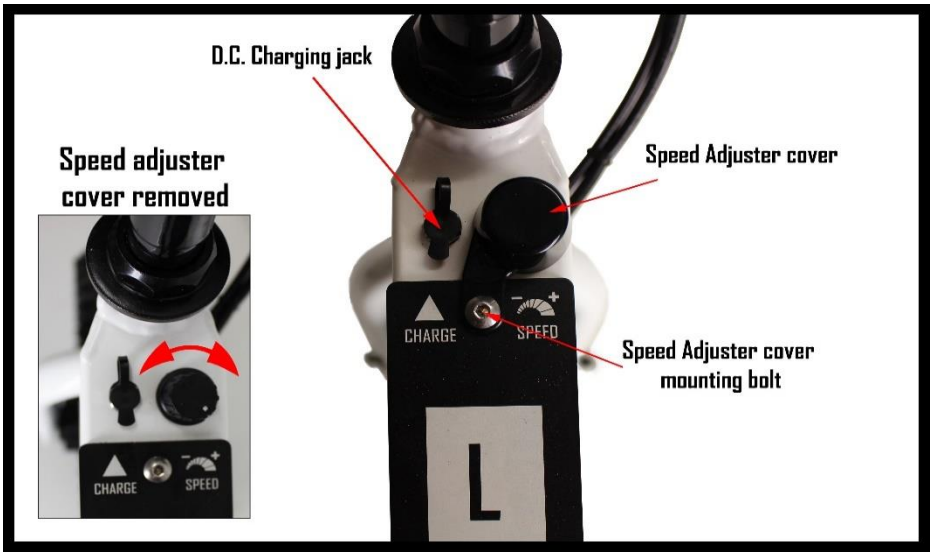
Adjust Handlebar Height:

Loosen stem expander bolt approximately 5 turns. Twist handle bars left and right and raise or lower stem until desired position is reached. Ensuring the minimum insertion mark is below the headset top nut. (See step 2 and 3 on page 10 and 11). Align front wheel and tighten stem expander bolt. (Torque 20NM)

Adjust Handlebar Clamp Angle:

Loosen handlebar clamp bolt on the underside of the stem, adjust angle to desired angle. Re-tighten handlebar clamp bolt. Adjust the throttle and brake lever mounting angles to compensate for the change.

Setting the Speed Limiter:



How to Adjust the Maximum Speed:

Remove the speed adjuster cover by removing the speed adjuster cover mounting bolt. The speed limiter is variably adjustable and can be set at any speed from 11km/h thru to 26km/h.

Twist the knob anticlockwise for the minimum speed setting, and clockwise for faster speed. After adjusting. The range of adjustment is only ¾ of a turn.

Caution: A small movement of the knob has a large effect on speed. After you have set the speed, fit the speed adjuster cover. It is always recommended to set the speed on the minimum setting for each new rider, and work your way up to faster speeds only when the rider is ready. Do this in small steps.

Charging Instructions:

For the first charge:

From new, the bike is shipped with the battery at storage charge (half charge). The battery indicator should illuminate to 1 or 2 out of the 4 bars when the bike is turned on for the first time. It is recommended to charge the bike to 100% before the first ride.

When to charge:

Just like a modern lithium powered smart phone or laptop, you do not need to completely discharge the battery before re-charging. Charge at any time during the full-empty cycle. You can also stop charging and go riding before the battery is completely charged. The battery takes 2.5hrs to charge from empty. The battery monitor system (BMS) built into the battery, will automatically monitor the battery for voltage and cell balance. It will not allow overcharging or over discharging below the min/max voltage levels. You can even top it up between rides; an approximate guide, 15 mins of charging gives about 10 mins of riding time. When the battery is completely flat the display will not illuminate.

Run times:

Run time is up to 2.5hrs, however this depends on many factors such as riders weight, steep hills, rider skill level and soft/hard terrain or even cold weather will put more or less load on the bike. Any of these factors can reduce run times dramatically. The recommended ambient temperate for charging is 0°C to 45°C.

Charging Safety Precautions:

- Only use the supplied charger.
- Never leave the battery charging unattended.
- Charge the bike in a well-ventilated area not near combustible material
- Adults to only use the charger. Keep charger away from children and unplug it from the mains power when not in use. Think about the possibility of toddler putting the live charging jack in their mouth or the strangulation hazard with the cord.
- Do not let the bike or charger come into contact with water whilst charging.
- Do not leave bike or charger in the rain. The bike and charger is not waterproof, can cause damage or electrical shock.
- Do not charge near flammable products or liquids.
- If at any time the battery charger becomes damaged or wires are exposed. Discontinue use of the battery charger.
- If at any time the battery becomes damaged, hot, begin to swell or distributes a smell, discontinue use of the battery. If charging, quickly and safely turn off mains power and pull out plug. Then remove the bike from the charger and then place bike in a well-ventilated area at least 2 meters from combustible material. Monitor until sure the area is safe.

How to Charge:

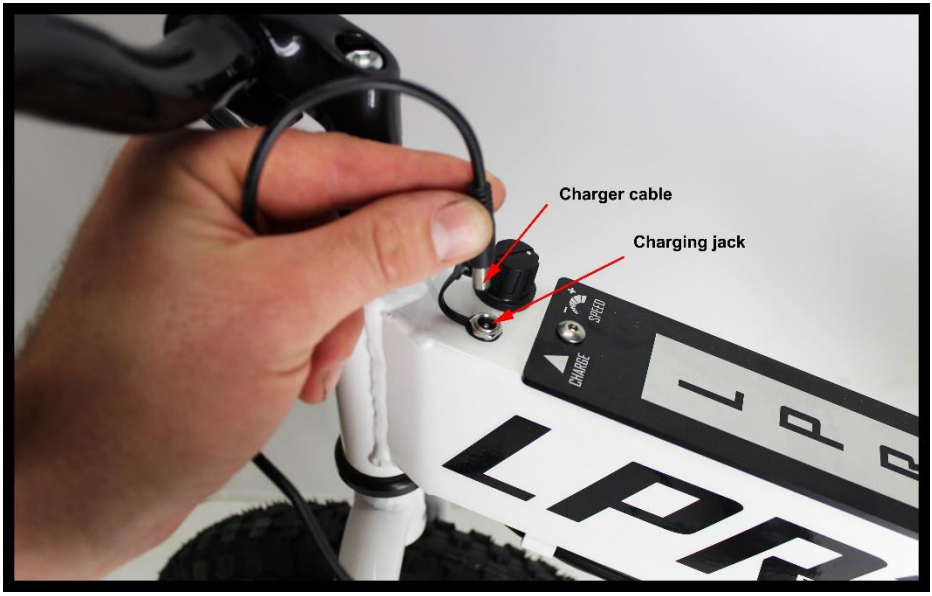


Figure 3: connecting charger to D.C. Jack

Step 1:
Connect charger to the 240v power outlet and turn on with the D.C. Jack not plugged in to the bike. The light on charger should be green.

Step 2:
Remove rubber dust cap, then plug the charger into the bike- see figure 3. Light will turn red. Charging will take approx. 2.5 hrs from empty.

Step 3:
Charger light will turn green when fully charged!

Step 4:
Disconnect Charging cord from bike and re-fit the dust cap. Unplug charger from 240v mains and store in a safe dry place.

Step 5:
Turn bike on and check battery indicator is showing full charge. Battery is now fully charged.

If you are having problems with charging, please see the troubleshooting guide for more information on page 34.

Service and Maintenance:

To ensure the quality and longevity of your LPR 12 Jnr MX™ Bike follow the below maintenance steps;

1) Use the pre ride checklist to identify any faulty or worn parts and perform repairs and adjustments as required.
2) Follow the maintenance and service intervals chart below.
3) Use the maintenance procedures section to assist in completing the maintenance and adjustments correctly.
4) Ensure the bike is cleaned correctly to prevent damage as the bike is not completely waterproof. (see cleaning - page 23)
5) Ensure the bike is stored safely and away from weather elements, such as sun and rain when not in use. (See storing your bike - page 24)
6) Use only genuine parts when repairing the bike.
7) Replacement forks must have the same rake and same tube inner diameter as those originally fitted to the bike.

WARNING!

The handlebar hand grips or tube end plugs should be replaced if damaged, as bare tube ends have been known to cause injury.

It is particularly important that bikes used by children be checked regularly to ensure that adequate protection for the ends of the handlebars are in place.

Replacement forks must have the same rake and same tube inner diameter as those originally fitted to the bike.

Maintenance and Service Intervals Chart

Maintenance task	Maintenance interval
Pre ride checklist	Prior to every ride
Brake service (see page 26)	Perform every 20hrs
Brake cable replacement	Replace every 24 months
Inside frame cover inspection: Condition of wires, electrical components and connectors (see page32)	Perform every 30hrs
Battery condition test (see page 36)	Perform every 12 months
Re- grease headset bearings (see page 33)	Perform every 12 months
Replace battery (see page 31)	As needed

If you are unsure on how to complete any of these tasks, please seek advice from a professional e- bike mechanic or contact us at info@lprbikes.com

Pre-ride checklist:

This pre ride checklist is to completed prior to each ride and each time after the bike has been in an accident or fallen over. This will greatly reduce the risk of an accident happening caused by mechanical failure.

Item	Check for Defects	✓
Bolts/nuts	Ensure all nuts/bolts are tightened on the bike. We recommended to use a torque wrench. (See torque chart on page 23)	
Frame/forks	Check for cracks, bends or physical damage.	
Throttle	Twist throttle and check it returns freely and smoothly- test procedure on page 25.	
On/off switch	Ensure switch turns off bike, as this is the kill switch- test procedure on page 25.	
Grips	Tight to bar, good condition, bar ends in place.	
Bike size fits rider	Ensure bike is set at correct height for the child. Kids grow fast, so you need to adjust the bike regularly- see page 17 for setup instructions.	
Handlebars/ stem	Ensure handlebars and stem are tight, secured and are aligned to front wheel and steering stem moves freely with no play in headset bearings. No structural cracks or damage.	
Wires/cables	Condition ok, secure and in standard routing position.	
Brakes	Pull brake lever and push bike ensure wheel locks and brake work well and release smoothly once the lever is released, adjust if necessary- setup procedure on page 26.	
Wheels	Check for cracks or damage.	
Speed test	Ensure speed limiter is set to correct level for the rider- setup procedure on page 18.	
Tyres	Check pressure and condition (15psi 103KPA) check for cracks or damage to sidewalls and tread is not worn down. Minimum tread height: 1mm	
Charge jack	Ensure charger is removed prior to riding and rubber dust cap is installed and in good condition.	
Headset bearings	Check for play in bearings, turn bars left/right check for smooth operation. Adjust or re-grease bearings if needed- page 33.	
Seat	Check for damage and condition, Ensure seat is tight and set at correct height for rider.	
Foot pegs	Mounting pins fitted with locking split pins, pegs pivot back and spring return smoothly.	

Warning!

If any defect is found, do not ride the bike until the defect is repaired or faulty part replaced.

Bolt Torque Chart:

It is recommended to use a torque wrench for all bolts.

Bolt	Torque (Nm)
Front/rear axle nuts	40
Handlebar clamp	20
Handlebar stem expander bolt	20
Brake cable anchor bolt	10
Seat clamp nuts	20
Brake lever mount to handlebar	4
Throttle assembly mounting bolt	4

Cleaning:

Caution when cleaning:

Care must be taken when washing the bike. To prevent component damage, avoid allowing water to come in contact with throttle assembly or around frame cover, charging jack or speed controller.
Do not use silicon spray or use vinyl protectant on the tyres, foot pegs, seat or grips as it could cause those items to become slippery and cause an accident.
Do not put any lubricant or oil on the brakes!

How to Safely Clean your Bike:

Your new LPR12 Jnr MX™ is **not** completely water proof, so care must be taken when cleaning.
It is very important that water does not enter the electrical components. This could cause damage to the electrical components

Cleaning is safest completed with waterless products, where you spray on and wipe off without the use of any water. Search for "waterless car wash products" to find a product.

Ensure bike is turned off and the charging jack rubber dust cap is fitted prior to cleaning.
If the tyres are muddy carefully hose down tires, wheels use soapy water (carwash) and a scrubbing brush or sponge to wash tyres, frame etc. Do not direct water jets at the frame cover, throttle, speed limiter, where cables enter the frame and the rear wheel motor. Clean these areas with a damp cloth. Wipe down with a dry cloth to remove any excess water after cleaning.
Ensure no water enters: The frame compartment, speed limiter, rear wheel motor, D.C. jack charging port and twist throttle assembly. Remember there is no warranty on water damage!
After the bike is cleaned, wipe down the bike with a dry cloth to remove any moisture.
Use a lubricating oil such as Wd40 to spay the foot peg pivots and headset nuts, and seat post to prevent corrosion. Wipe down any excess wd40 with a dry cloth. **Do not spay oil on or near the brakes!**
To keep the powder coat finish on the frame looking beautiful, Polish out any scuffs using a fine cut car polish.
Do not polish the anodized frame cover- this will destroy the finish.

Storing Your Bike:

- Store your bike undercover in a dry environment out of direct sunlight.
- For lithium battery safety, do not store the bike inside your house, store in a garage away from flammable items, products or chemicals.
- Use a bike wheel rack to keep bike stabilized, or bike wall mount.
- Lock the bike away from children during storage
- Disconnect the motor connector to prevent children from starting the bike unintendedly.
- For long term storage (greater than 1 month) the battery is best kept at half charge (two bars on the display).
- Check battery charge level once a month during storage. 2-3 bars is recommended for storage.
- Long term Storage temperature limits:
  Within 1 month: -5°C ~ 35°C
  Within 6 months 0°C ~35°C

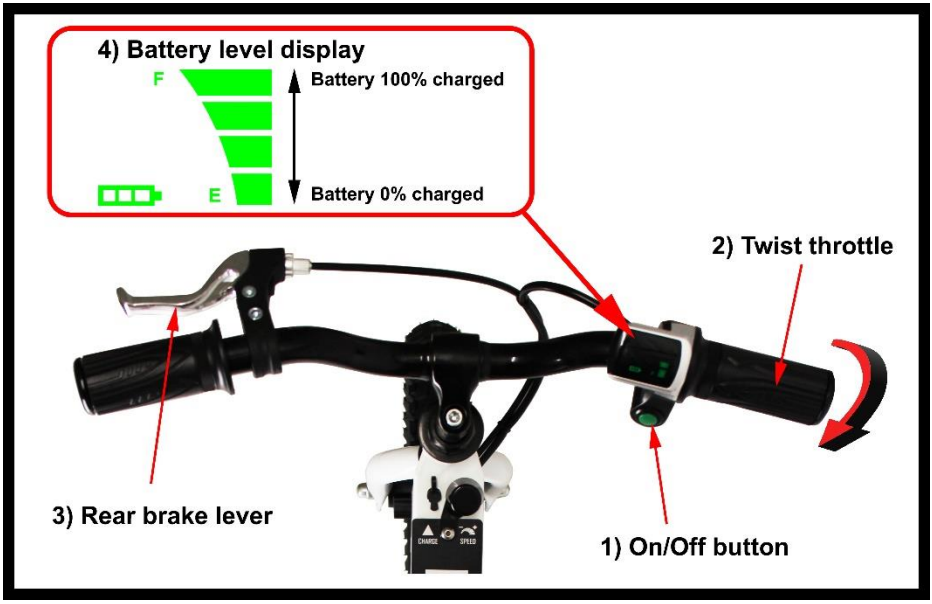
After storage prepare for use by completing the pre ride checklist and charging battery.

Transporting Your Bike:

- At only 11.5kg the LPR12 Jnr MX can easily be lifted into the boot of a car.
- Restrain the bike during transport using tie downs or rope.
- Disconnect the battery under the frame cover or the wheel motor connector prior to transporting. The bike does not need to be transported upright and can be placed in any position.
- Keep bike out of wet weather conditions and do not transport on an open trailer or in an open Ute when there is risk of rain.
- Do not leave bike unattended inside an automobile. In summer car/truck interiors can reach 30°C degrees hotter than the outside temperature.
- Transporting this bike by courier or air freight: - Ensure you comply with the lithium battery safety transport rules of that shipping company. Lithium batteries are classed as a dangerous good. Most couriers needs specific labeling and don't allow air freight. Seek more information from freight companies prior to transporting.

Maintenance Procedures:

Work safe and to your states safe work procedures. Follow local environmental policies and dispose of any waste according to local council rules and regulations. All work is to be conducted with the battery disconnected, power should only be connected for those tests that require power on to complete the test.



1) Throttle test:

The twist throttle must always operate smoothly and return freely.
To test- Ensure the bike is **off** using the On/Off switch. Twist to full throttle and then release. The throttle should operate smoothly and spring return.
Now turn **on** bike. Lift up the rear wheel off the ground with the handle on the back of the seat, twist throttle and test if the wheel spins. Let go throttle and wheel should coast to a stop.
Turn **off** bike after test. Replace or clean throttle assembly if necessary.

2) ON/OFF switch test:

The On/Off switch must be in good working order at all times.
The On/Off switch has a very simple operation. Press once to turn on bike power and press again to turn off bike power. When “on” the switch will depress “in” and when “off” the switch will depress “out”.
Caution: It is important that this switch works correctly as it is also used as the safety kill switch.

Turn **on** bike. Battery indicator lights should go on. Twist throttle and rear wheel should rotate.
Turn **off** bike. Battery indicator lights should go off. Twist throttle, and rear wheel should **NOT** rotate.

Maintenance Procedures: (continued)

3) Brakes:

Brakes are one of the most important safety parts of the bike. Read this section carefully and understand it. If you are unsure of any details, seek professional advice. It is recommended that a professional mechanic adjusts, services and cleans the brakes.

About the brakes:

The LPR12 Jnr MX™ is rear brake only. It is a cable operated disc brake located on the rear wheel which is operated by the brake lever on the left side of the handlebar. The brake lever is “short throw” and close to the bar for kid’s small hands. The disc is bolted onto the rear wheel and the pads inside the brake caliper assembly clamps the disc when the lever is pulled to activate the brake. The brakes should be tested prior to each ride for correct function.

How to Test the brakes:

Test brakes by pulling the brake lever whilst pushing the bike forward. The rear wheel should lock easily with a light pull of the lever. The lever should spring return nicely and the brake should be fully activated before lever reaches 10mm from the bar.

If brakes are unsatisfactory, you may need to adjust the cable tension or free play, replace any worn parts as needed, or clean and service if braking power is poor.

Maintenance Procedures: (continued)
Brakes: (continued)

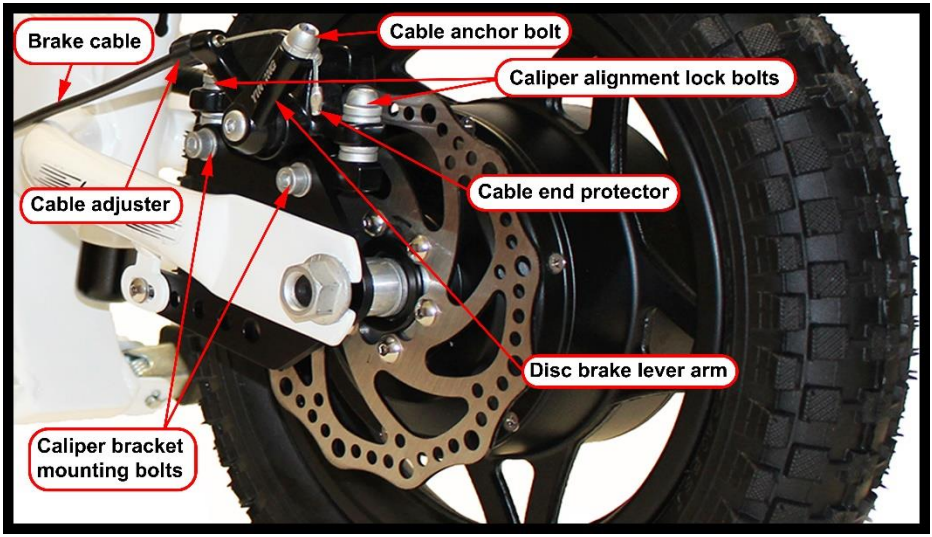


Figure 4 - Rear brake Components

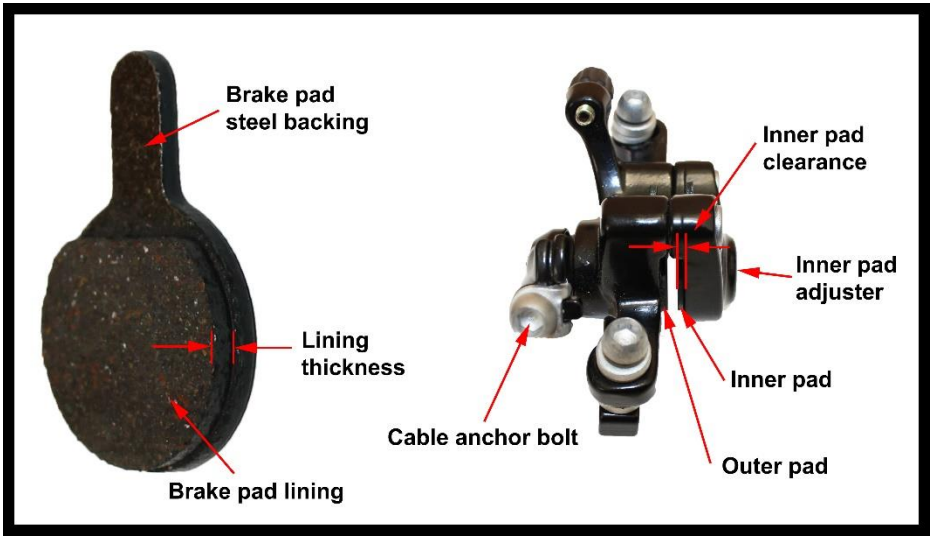


Figure 5- brake caliper and pads

Maintenance Procedures: (continued)

How to adjust the brakes:

Check the inner pad clearance to the caliper. Minimum clearance is to be 0.5mm. If the inner pad clearance is below 0.5mm, loosen the caliper alignment bolts, loosen cable tension then adjust inner pad adjuster screw located on the back side of the inner pad so that the inner pad clearance is 2mm. To adjust the cable tension/free play, use the lower cable adjuster and the adjuster on the brake lever. Turn the Lower Cable Adjuster to reach desired tension. Spin wheel and ensure the brake isn't dragging and ensure the brake fully activates before lever reaches 10mm from the bar. Do not allow adjuster to wind out of the threads. If desired tension cannot be reached, it may be necessary to loosen the brake cable anchor bolt on caliper, and pull more cable through then re-tighten (Torque 8Nm).see figure 4 page 27. Ensure a cable end protector is fitted. Keep the cable end short, as a long cable end could get caught in the wheel or brakes.
Finally hold the brakes on and then tighten the caliper alignment bolts (8Nm).

If braking performance is still unsatisfactory after adjustment, clean and service the brake or seek assistance from a bike mechanic.

How to service and clean the brakes:

Remove the brake caliper mounting bolts and pull caliper away from the bike. Inspect all components. Check the caliper, pads and disc as below. Ensure pad thickness and disc is within the service limit. Test return spring is ok and springs back freely.

Inspect the disc:
Check disc is not warped or cracked.
Run out should not exceed 0.2mm and minimum disc thickness not less than 1.5mm.
Check disc retaining bolts are tight with Loctite (torque 6Nm). Use 120 grit sand paper to clean braking surface. Clean with methylated spirits and a cotton cloth to remove any oil.
Ensure disc rotation direction is correct (see direction arrow stamped on the disc).

Inspect caliper and pads:
Inspect all components in (see figure 4 and 5 on page 27) including the lever arm, pads and housing. Check for cracks or damage. Ensure lever arm works correctly with, smooth action and good return spring function. Check the brake pad lining thickness is not worn down. Minimum thickness is all the way to the steel backing. If wear or damage is found replace pads or caliper.
To clean: give the pad lining light sand using 120 grit sand paper to remove any rough sections.
Use methylated spirits and a cotton cloth to wipe clean the lining and remove any oil residue.
Fit the brake caliper, and then adjust the brakes as instructed above.

Brake cable:

Lubricate the cable every 6 months with a penetrating oil such as wd40. Replace cable every 24 months. Ensure cable follows standard routing. Ensure a cable end protector is fitted.

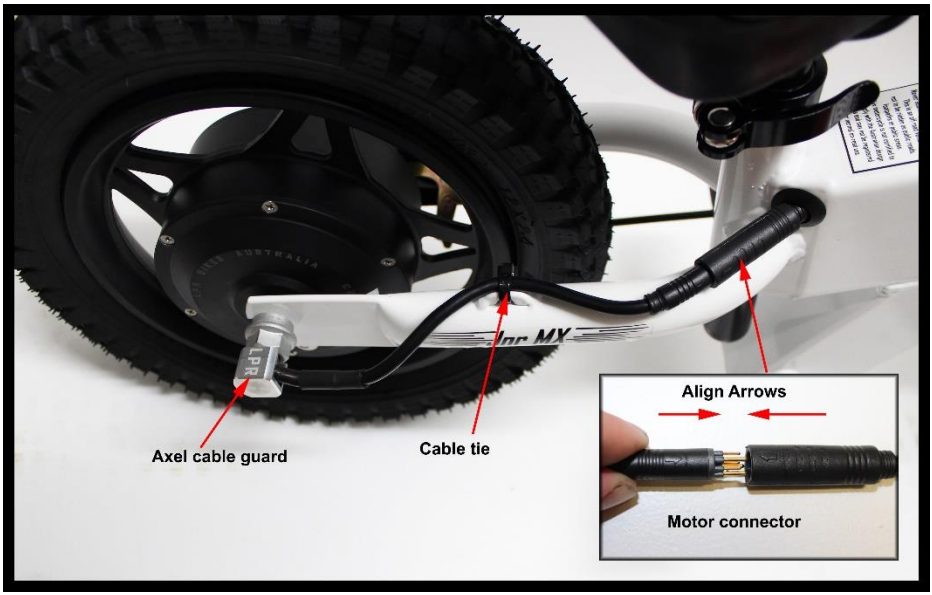
Maintenance Procedures: (continued)

4) How to remove the rear wheel:

Step 1
Cut the cable tie and remove the axle cable guard by loosening the 2 grub screws on the underside with a 2.5mm hex key.
Disconnect the motor connector plug located on right hand side of rear frame section.

Step 2:
Remove caliper bracket mounting bolts and brake torque arm bolt (nut on inside) - see figure 4 on page 27 and remove caliper with cable attached.

Step 3:
Loosen both wheel nuts on each side of the axel.
Due to the twisting force of the wheel under acceleration the axel will lock into the rear dropouts and will be hard to slide out.
Use a 10mm spanner on the flats of the axel to twist the axel so the flats are parallel with the axel dropout slot. The wheel can now easily be slid out and removed.



Maintenance Procedures: (continued)

5) How to install the rear wheel:

Step 1:
With axle cable cutout facing forwards, align the drive washer as pictured below, slide wheel into rear dropouts on the frame with the caliper mounting plate on the wheel side of the frame.

Step 2:
Tighten wheel nuts finger tight and then align the caliper mounting plate to line up with the brake torque arm bolt bracket on the frame. Install bolt finger tight as per the picture below.

Step 3:
From the rear of the bike, look along the bike and align the wheel so it is straight with the frame. Tighten the axel bolts using an 18mm spanner (Torque 50Nm).

Step 4:
Tighten the brake torque arm bolt and nut.

Step 5:
Loosen the caliper alignment lock bolts then fit the caliper using the caliper bracket mounting bolts. Adjust brakes as per the brakes adjustment section ensuring correct alignment (page 28).

Step 6:
Connect the motor connector plug ensuring to align the arrows on each plug.
Fit a new cable tie and ensure the cable is secure.
Fit the cable protector and tighten using a 2.5mm hex key

Maintenance Procedures: (continued)

6) Replacing or swapping the battery:

WARNING:

See “Electrical and Lithium Battery Safety” on page 5– 6.

Lithium batteries could catch fire or explode if overcharged, short circuited, crushed or punctured. Do not attempt if you do not have necessary skills to complete the task safely. To be completed by an e-bike mechanic.

- **Do not short circuit, crush or puncture battery**
- **Dispose of the old battery according to local laws**
- **Use only genuine replacement batteries and charger**

Step 1: Remove frame cover and gently lift up the battery pack partially to access the discharge and charging connecters.

Step 2: Disconnect the two connectors.
Note: the charging jack has a lock nut that secures the plug together.

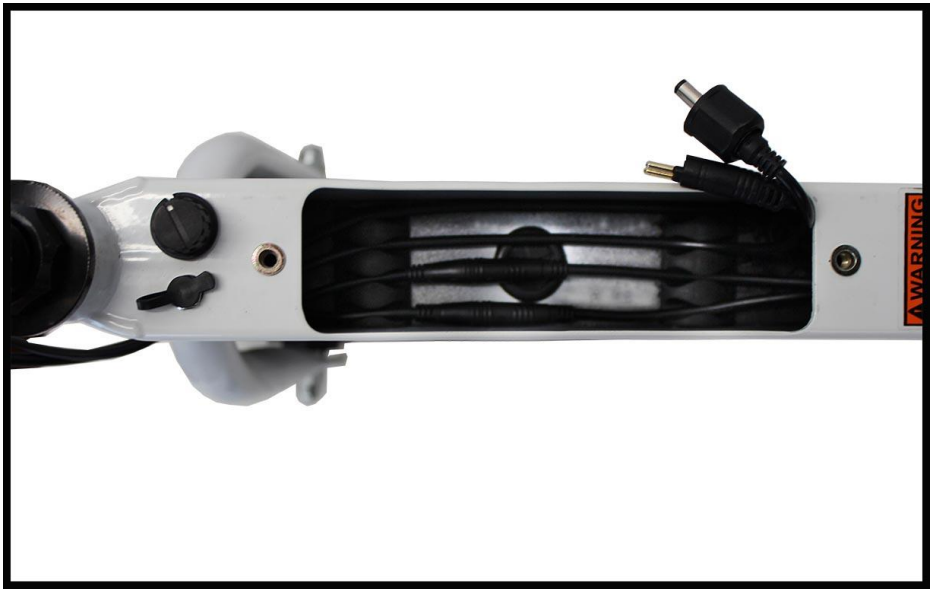
Step 3: Remove Battery.
Take note of the wire layout prior to removal of the battery and wire configuration under the battery.

Step 4: Connect the plugs on the new battery and place into the original position inside the frame. Be careful to ensure the cables under the battery are located correctly in the rubber pads neatly and not pinched.

Step 5: Fit frame cover and function test.

Maintenance Procedures: (continued)

7) Checking electrical components under frame cover; Wiring and Connectors:



Step 1:
Remove frame cover and remove the battery (see page 31).

Step 2:
Pull out the motor controller unit out of frame section.

Step 3:
Inspect condition of all wires, connectors and plugs. Check for:

- Moisture inside the frame or corrosion.
- Worn or chaffed wires.
- Cracks or corrosion in connectors.
- Missing insulation on any wires or plugs.
- Signs of overheating or burning
- Melted connectors or wires.
- Clean, repair or replace any components or connectors as necessary.

Maintenance Procedures: (continued)

8) Check/adjust play in headset bearings

Check for movement or 'play' in the headset by pushing the bars forward then back and look for movement in the headset bearings between the forks and frame. There should be no movement. Turn the bars from lock to lock, the steering should turn from left to right with no binding or tightness.
If you have movement you will need to tighten the headset. If it is binding you will need to loosen it. If there is a gritty feel, the bearings may need repacking with grease or replacing. Incorporated in the lower cup and lower cone is a steering stopper to limit the bars from rotating past 80 degrees in each lock. Ensure stopper is working correctly. Replace if necessary.

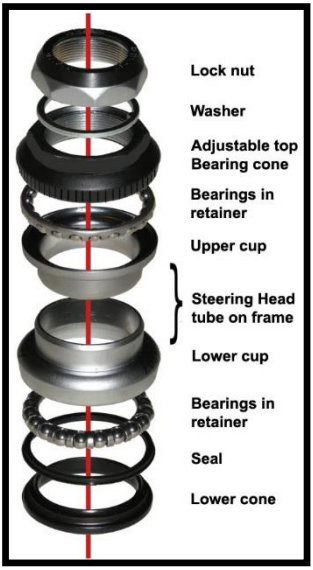


Figure 6- headset bearings exploded view

Making an adjustment:

Step 1)
Loosen the top lock nut, then tighten or loosen the adjustable top bearing cone until there is no movement in the bearings. Steer the bars left to right and check for binding.

Step 2)
Loosen top bearing cone ¼ of a turn and then tighten the locknut. When tightening the locknut, ensure the top bearing cone does not rotate with the lock nut. Make sure the steering moves freely, but isn't so loose you feel any play. When setting the headset bearing adjustment, there is a very fine line between loose and binding.

It is recommended to re pack the headset bearings with fresh grease every 12 months.

Troubleshooting Guide:

The LPR12 Electric Bike has only a few components. It is very reliable and generally simple to fix. Use this guide and troubleshooting electrical components section, schematics and wiring diagrams to help solve your problems.

fault	possible cause:
Bike does not turn on or run. Battery level display not illuminated	1) Battery flat - charge bike or check voltage of battery. If below 16v the bike will not turn on 2) Overheated speed controller/battery– let cool down for 30 mins 3) Check all connections and plugs. See wiring diagram; look for this symbol and check that the connection is good Connector 4) Faulty on/off switch on throttle- replace throttle 5) Faulty throttle cable. Replace throttle 6) Faulty motor controller. Try hard reset, disconnect battery, wait 1 minute and reconnect 7) Faulty Battery or charger
Bike does not run but turns on and Battery level display is illuminated.	1) Check all connections and plugs. See wiring diagram; look for this symbol and check that the connection is good Connector 2) Faulty motor controller. Try hard reset, disconnect battery, wait 1 minute and reconnect 4) Motor cable damaged. Look for any visible damage, replace 5) Faulty throttle or cable damaged. Replace throttle 6) Faulty speed adjuster 7) Faulty motor
Bike does not charge	1) Check DC jack and the battery charge connections under the frame cover. See wiring diagram; look for this symbol and check that connection is good Connector 2) Faulty charger 3) Faulty DC jack extension cable 4) Battery voltage too low- if voltage is too low, the charger may not initiate to charge
Bike cuts out under load	1) Overheated motor control unit 2) Faulty motor controller unit 3)faulty battery 4) Overloading bike- hills too steep/ rider too heavy 5) Faulty motor
Wheel motor stutters under acceleration	1) Check rear wheel motor connector is fully engaged. See wiring diagram 2) Faulty motor controller 3) Damage to cable of wheel motor. Check for cable damage around the axel entry 4) Faulty wheel motor
Wheel motor noisy	1) Motor bearing faulty, planetary gears damaged 2) Is it the brakes noisy or is it inside the wheel motor? Remove brakes from the wheel and run motor to separate the two systems to check location of noise.
Brakes don't work, noisy or "dragging"	1) Oil on brake pads 2) Lever/cable/ caliper broken 3) Foreign matter inside brake drum, 4) Brakes incorrectly adjusted, brakes worn out (see page 26)

Troubleshooting Electrical Components:

On/Off switch:

With the power off, check for continuity across wires. You can pop out the switch on the throttle assembly to access the wires behind the switch.

Speed adjuster:

Bypass test:
Under the battery, remove the plug that connects the motor controller unit to the Speed adjuster potentiometer. Using some spare copper wire, loop of the 2 pins in the connector together to motor controller unit. This will simulate full speed 0 ohms resistance. Note speed will always be in max setting this way. Take care not to damage the pins.

Resistance test:
test using a multi meter
Max speed = 0 Ohms resistance
Min speed = 20 Ohms resistance

Battery:

Check voltage at charge cable:

Remove battery from the bike frame for these tests- for battery removal procedure see page 31.
Total voltage can be checked by using a meter across the charge terminal (dc jack) of the battery.
Total voltage should be:

- 25.2v after fully charged
- 16v when discharged

If there is no voltage from the battery,
The battery management system built into the battery will cut power out

Check voltage at discharge cable
Total voltage should be:

- 25.2v after fully charged
- 0v when discharged, the BMS cuts power to the discharge at 16v. only after the battery is charged to greater than 18v the BMS will reset and allow the discharging power again.

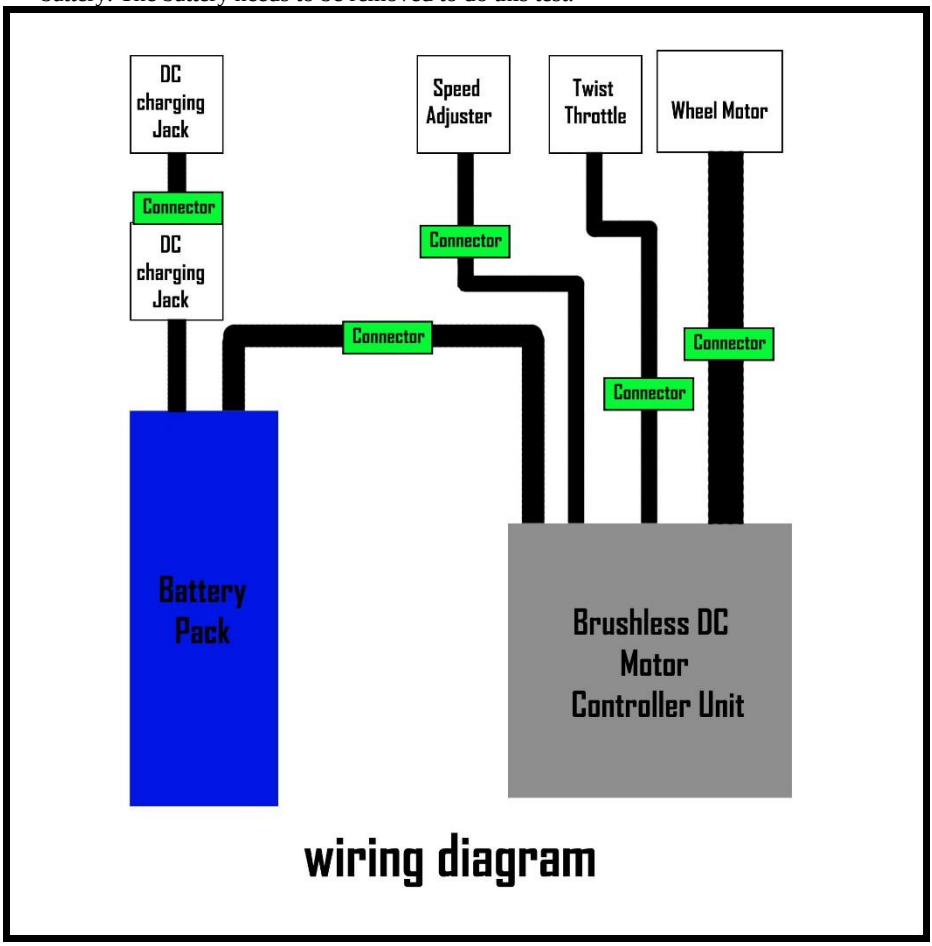
Troubleshooting Electrical Components: (continued)

Charger:

- Ensure power is connected to mains power and is on.
- Ensure mains plug is connected into back of charger.
- Ensure mains outlet working, test the 240v outlet with another appliance.
- Using a multi meter set to DC volts check output voltage is 25.2v

DC jack charging connection:

- Bypass the DC jack extension cable by connecting the charger directly to the dc jack on the battery. The battery needs to be removed to do this test.



Serial Number:

This product serial number is located on the steering tube frame on the front of the bike. For future reference, record your product serial number here:

Product Serial Number:

LPR12 Jnr MX™ Specifications

Weight: 11.5kg

Seat height: 390mm – 490mm, quick adjust

Handlebar height: 570mm – 620mm

Foot peg height: 135mm

Overall Dimensions: L 930mm x H 600mm x W 450mm

Wheel base: 625mm

Ground clearance: 90mm

Foot pegs: Bonded rubber, steel shank 45° pivot- spring return

Frame/Fork: Strong steel construction. Durable powder coated gloss finish

Wheels: Alloy 12”, sealed Ball bearings. Rear wheel incorporates the drive motor

Tyres: Nylon rubber pneumatic 12” x 2.4”

Brakes: Rear disc brake

Headset: Threaded style 1” ball bearing headset

Package Dimensions: 79cm x 44cm x 18cm (bike 95% built)

Battery: 7000mAh 22.2v

Motor: Brushless D.C.

Power: 350w

Run time: up to 2.5 hrs**

Charge time: approx. 2.5 hrs

Top speed: Parents can set top speed variably from 11km/h -26km/h

**Run times vary depending on rider weight, rider skill, hills, soft or hard terrain conditions, ambient temperatures (lithium batteries lose performance greatly in cold conditions).
2.5hrs = Average rider weight of 16kg, average skill level on flat track of hard clay surface 20° ambient temp

LPR
LITTLE PRO RIDER
AUSTRALIA

www.lprbikes.com.au

ABN: 96623113735

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