



INSTALLATION INSTRUCTIONS:

Disc Brake Upgrade- LPR12 Jnr MX



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WARNING:

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

Please read and adhere to all safety instructions within the LPR12 owner manual.

Tools required.

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 spanner 18mm, 8mm, 10mm
- Torque wrench
- Scissors (to remove packaging)
- Carpet or a soft blanket to sit the bike on during assembly to protect bike from scratches.

Procedure:



DISCONNECT THE BATTERY PRIOR TO WORKING ON THE BIKE

Step 1:

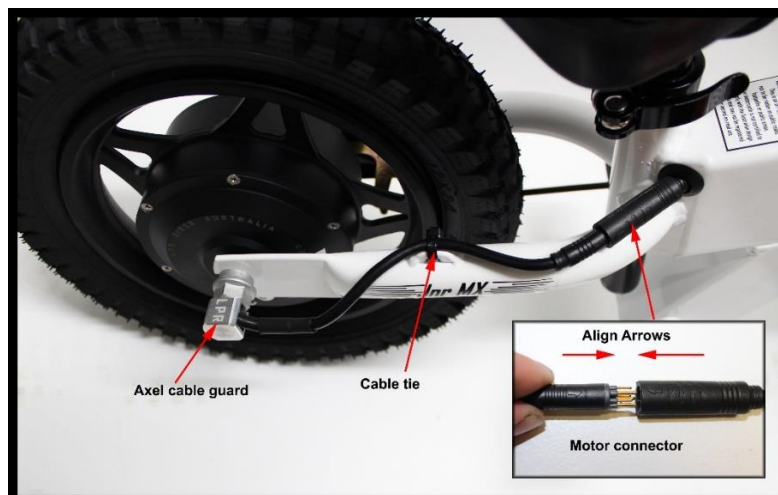
Cut the cable tie and remove cable protector on the axel by loosening the 2 grub screws on the underside with a 2.5mm hex key.

Disconnect the motor connector plug located on right hand side of rear frame section.

Remove brake cable anchor bolt and brake torque arm bolt (nut on inside) - see figure 4 on page 27 of manual.

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 slide out and removed.

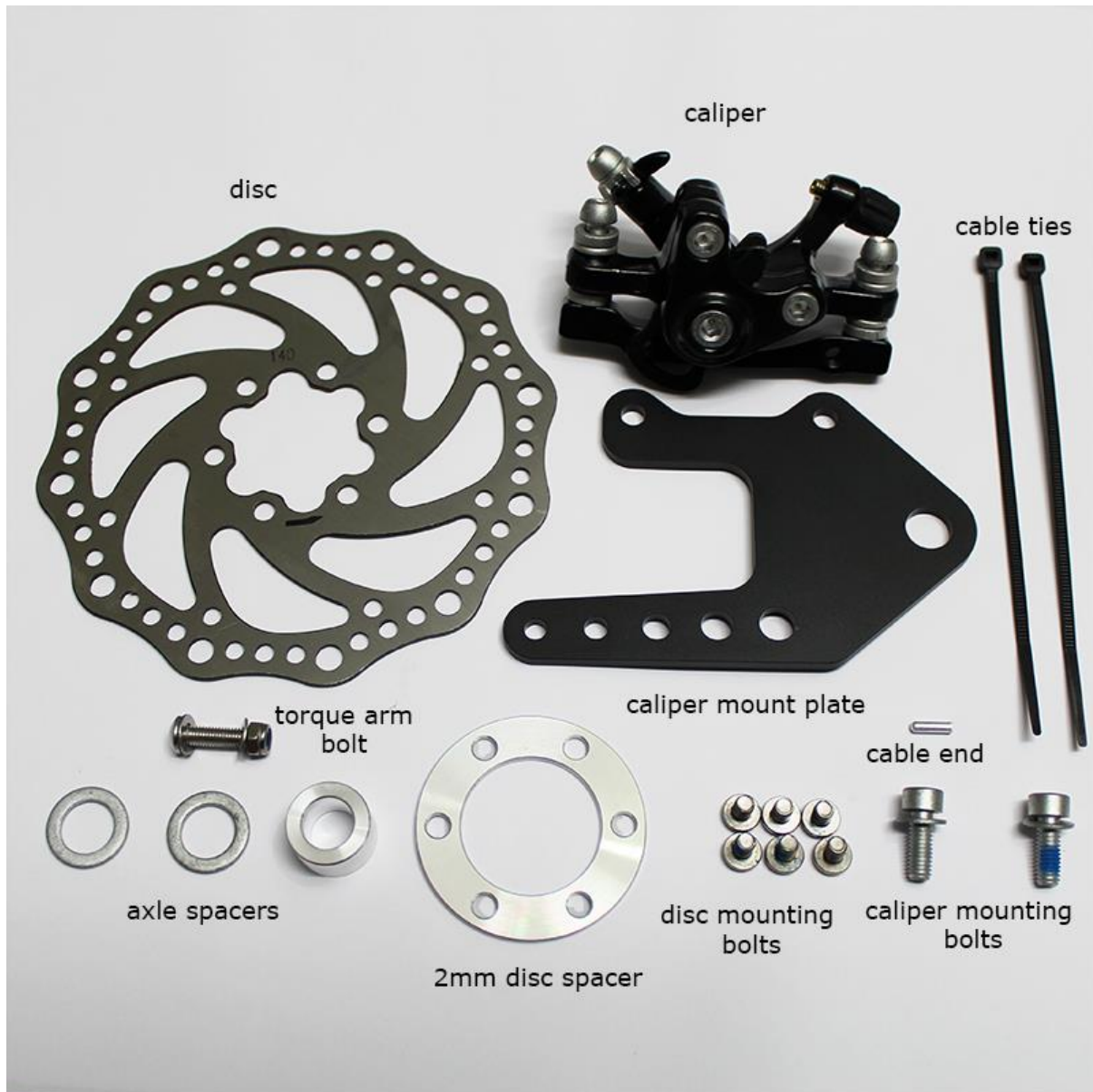


Step 2: Remove drum and fit disc

Remove the drum off the wheel by removing the 6 hex screws with a 3mm hex key.

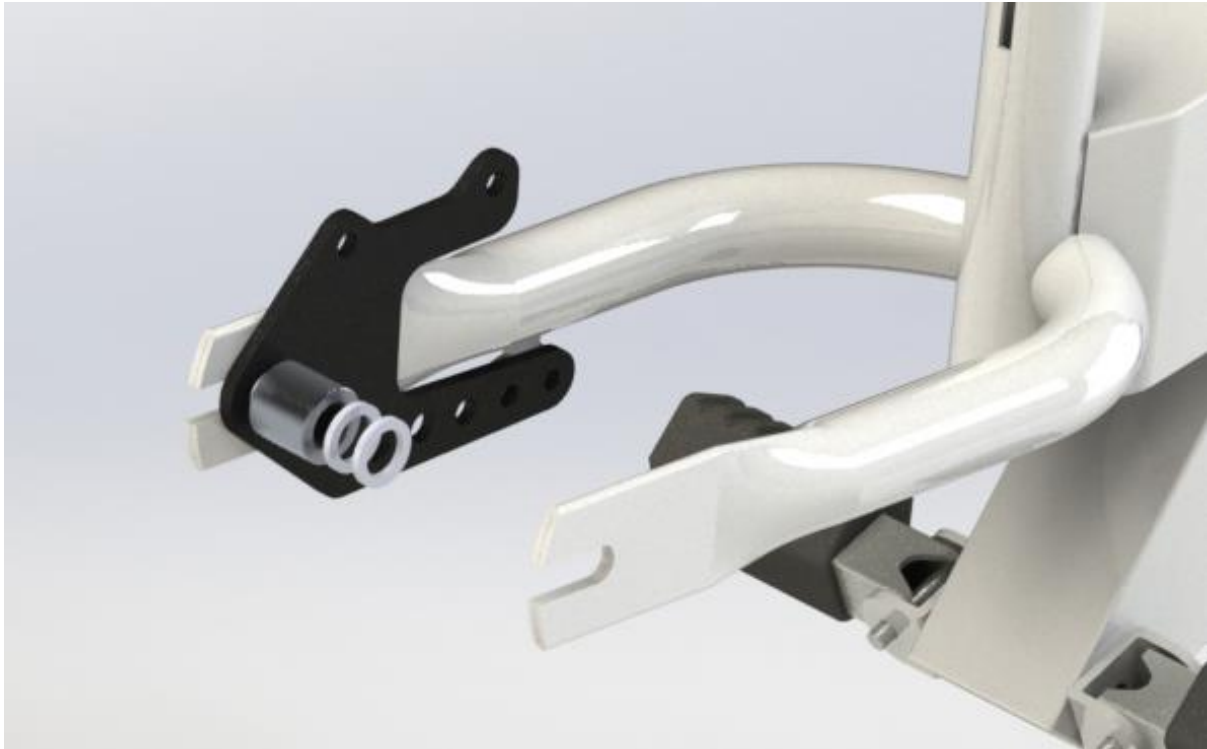
Fit the new disc with the 2mm spacer below the disc with the new bolts M5 x 8mm. (Torque 4Nm)

Ensure direction arrow on disk is facing in the forward rotating direction.



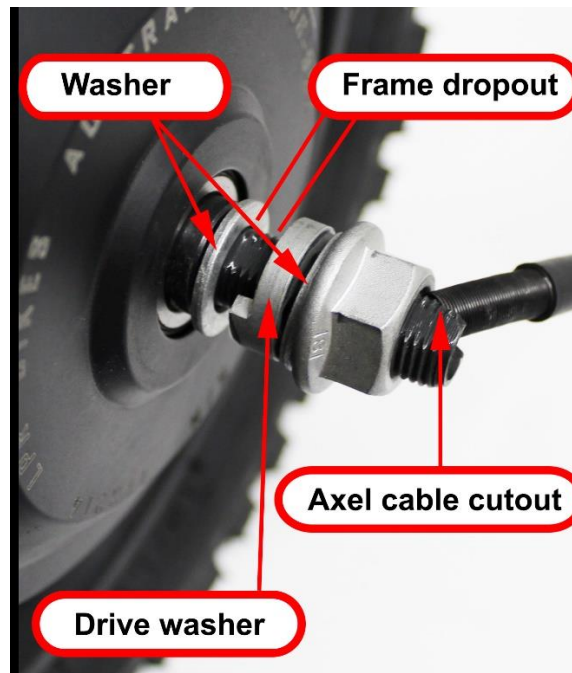
Step 3:

Fit the 3 axel spacers and caliper mounting plate onto the axle in the order below.



Step 4:

With axle cable cutout facing forwards, align the drive washer as pictured below, slide wheel into rear dropouts on the frame. Ensure the caliper mounting bracket is fitted as the above picture.



Tighten wheel nuts finger tight and then align the caliper bracket end hole to line up with the brake torque arm bolt bracket on the frame. Install torque arm bolt and locknut

Step 5:

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. (Torque 50Nm).

Step 6:

Tighten the brake torque arm bolt and nut. (Torque 4 Nm).

Step 7:

Remove plastic pad retainer then fit caliper to caliper mounting plate using 2 caliper mounting bolts (Torque 7.5Nm).

Install brake cable through the lower cable adjuster and clamp it with the cable anchor bolt. (Torque 7.5Nm).

You will need to pull a little more cable through from the handlebars. Ensure handlebars still turn freely with enough loop in the brake cable when you turn from lock to lock.

Fit a new cable end protector by crimping it onto the end of the cable.

Adjust and inspect the brakes as per page 5 adjustment instructions.

Step 8:

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.



The Disc brakes are now fitted to your LPR12 Jnr MX !



CAUTION, prior to riding:

Ensure the brake adjustment procedure is completed, see page 5. Always test your brakes before each ride (test procedure page 5). Inform the rider there is new brakes fitted and to take caution until they get the feel of the new brakes. Service the brakes regularly- see page 6

Bed in period: approx. 2 hrs. of use

How to Test the brakes:



Test brakes by pulling the brake lever whilst pushing the bike forward. Both wheels should lock easily with a light pull of the lever. The lever should spring return nicely and the brake should be fully activated before the 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.

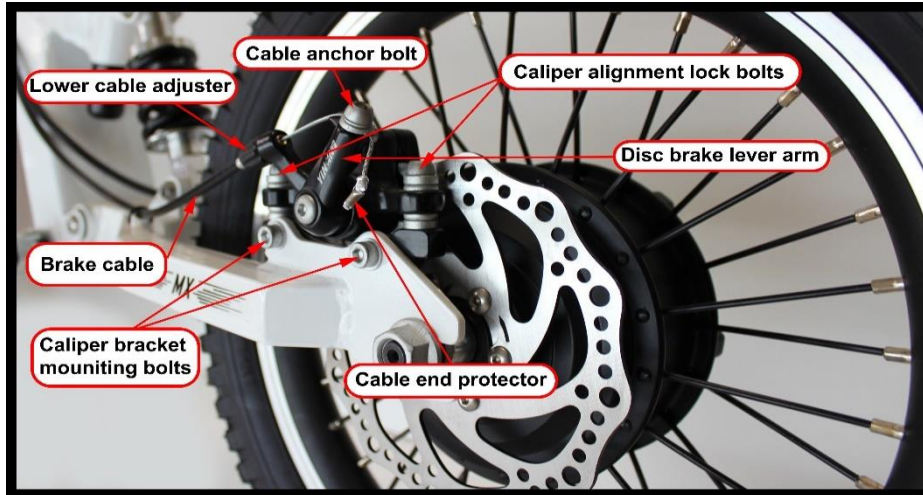


Figure 1 - Rear brake Components

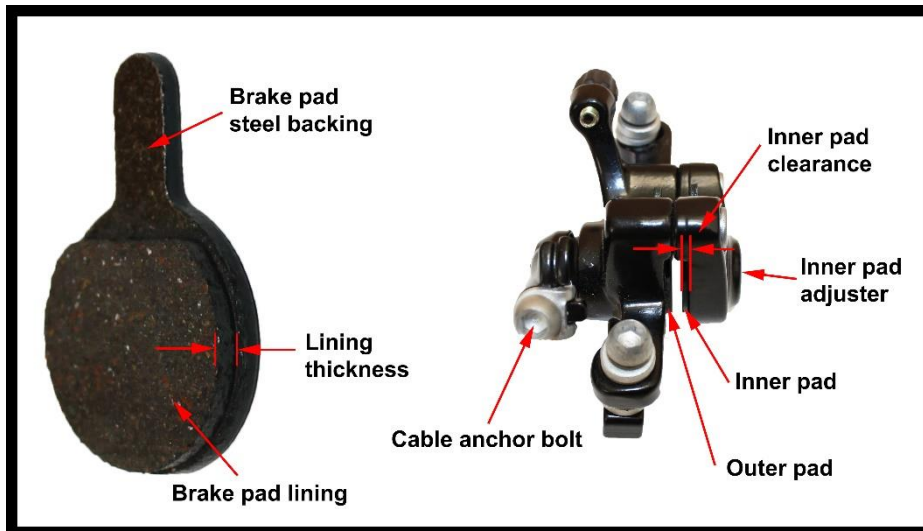


Figure 2- Brake caliper and pad

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). 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 brakes or seek assistance from a bike mechanic.

SERVICING THE DISC BRAKES

Service interval: every 10 hrs. of use.

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.

Runout 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 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:

Replace every 24 months. Ensure cable follows standard routing.



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