

2x2 Servicing and Maintenance

While the UBCO 2x2 has fewer moving parts than a typical combustion engine vehicle, they still require maintenance and servicing to ensure continued and safe operation.

SERVICING

Regular servicing should only be carried out by an UBCO certified Service Agent or Dealer. Insist on only genuine UBCO parts being installed in your 2x2 to ensure validity of the warranty.

Your first service is free!

After the first 10 hours of riding, you qualify for an initial complimentary check over of your bike. This is performed by the dealer who you purchased the bike from. Or if you purchased direct from UBCO, please get in touch via sales@ubcobikes.com.

UBCO bikes are powered by a large lithium-ion battery – sturdy and robust enough to do the hard yards. But like with any battery, it'll gradually degrade and reduce in charge capacity over time.

For UBCO riders, our app shows you the general health of your battery with an indication of the charge level. Depending on the battery, it will usually take 4 to 6 hours to charge the battery from flat to full.

Battery performance and lifespan is dependent on many factors from everyday usage to environmental conditions. However, the depth of discharge (battery % drained), and how it is used will always affect the battery performance. For normal use, an UBCO battery should run at prime performance for 800 full discharge cycles (meaning from 100% to 0% charge) or about five to six years, before you may notice a slight decrease in capacity.

Standard use service schedule

Your 2x2 should be serviced at the indicated mileage or time, whichever occurs first. The service schedule alternates between Intermediate (every 6 months or 4000km) and Full (every 12 months or 8000km).

- 10 weeks / 2,000km / 1,242mi
- 6 months / 4,000km / 2,485mi (Full Service)
- 12 months / 8,000km / 4,970mi
- 18 months / 12,000km / 7,456mi (Full Service)
- 24 months / 16,000km / 9,941mi

Once you have completed your 24-month service, we recommend you continue to get your 2x2 serviced every six months.

Heavy use service schedule

Heavy use conditions such as farming require a more robust maintenance schedule. Your 2x2 should be serviced at the indicated mileage or time, whichever occurs first. The service schedule alternates between Intermediate (every 3 months or 1500km) and Full (every 6 months or 3000km).

- After 10 hours: First Complimentary Service
- 4 months / 100hrs / 1,500km / 932mi
- 7 months / 200hrs / 3,000km / 1,864mi (Full Service)
- 10 months / 300hrs / 4,500km / 2,796mi
- 13 months / 400hrs / 6,000km / 3,728mi (Full Service)
- 16 months / 500hrs / 7,500km / 4,660mi
- 19 months / 600hrs / 9,000km / 5,592mi (Full Service)
- 22 months / 700hrs / 10,500km / 6,524mi
- 25 months / 800hrs / 12,000km / 7,456mi (Full Service)

Once you have completed your 25-month service, we recommend you continue to get your 2x2 serviced every three months. For specific service requirements tailored to your situation, please contact your UBCO certified service technician

What's the difference between a full service and intermediate service?

For both Full and Intermediate Services the technician will run your bike through a standard set of checks, both mechanical and electrical, and ensure the bike's firmware is all up to date. They will also complete a test ride to confirm everything is operating as it should. A full service also includes a complete motor service including an inspection and re-lube of both motors.

CARING FOR YOUR BATTERY

The 2x2 lithium-ion battery and charger are designed to work exclusively with the 2x2. Do not attempt to use any battery or charger other than those supplied by UBCO.

- Lithium-ion batteries do not suffer from the same charge memory problems as other batteries; therefore, they can be topped up at any time. Keep it topped up, charging at least once a month to ensure its health.
- If you are not using your bike for an extended period (longer than a month) ensure your battery has between 50-90% charge.
- Do not drop the battery into the 2x2 from a height. Lower it into place carefully. Secure the battery in place when riding.
- Do not submerge the battery or the 2x2 in water. Store in a cool place indoors when not in use.
- Do not burn the battery or place it near heat sources above 80°C (176°F).

CLEANING YOUR BIKE

To ensure your 2x2 remains in the best condition possible, you should clean it regularly.

Clean your 2x2 when it gets dirty or after use around salt water.

Before cleaning, turn the bike off. Ensure all power outlets, including the battery, have their rubber seals securely in place. The battery should be plugged into the 2x2 while cleaning to protect the power plug and socket.

- Use a mild detergent designed for cars or motorcycles with a soft cloth and brush and rinse off with clean water.
- Do not water blast or use a high-pressure hose on the 2x2.
- Do not submerge electrical parts - they are protected from the rain and splashes but should not be left in water.
- Do not use cleaning products that are not specifically designed for cars or motorcycles. They may contain ingredients that could scratch the finish or harm components of the 2x2.

MAINTENANCE

Whilst UEV and portable power supplies have fewer moving parts than a typical combustion engine vehicle, they still require maintenance to ensure their continued safe operation. Every product will need scheduled maintenance and care to ensure your warranty is maintained. This will increase the product's lifespan and reduce lifetime maintenance.

The owner obligations:

- Ensure that the vehicle has scheduled servicing according to the service schedule;
- Such servicing should be undertaken at an authorised UBCO technician;
- The owner is responsible for the maintenance obligations and must drop off and pick up the vehicle, at their own cost, to an authorised UBCO technician.

Owner operation checks

We recommend a 24-month service schedule, see page 1. Request your UBCO certified technician fill in the relevant fields of the service logs in your user manual.

The 2X2 should be serviced at the indicated mileage or time, whichever occurs first. Once you have completed your 24 month service, we recommend you continue to get your 2X2 serviced every 6 months.

Insist on only genuine UBCO parts being installed in your 2X2 to ensure validity of the warranty.

Owner maintenance

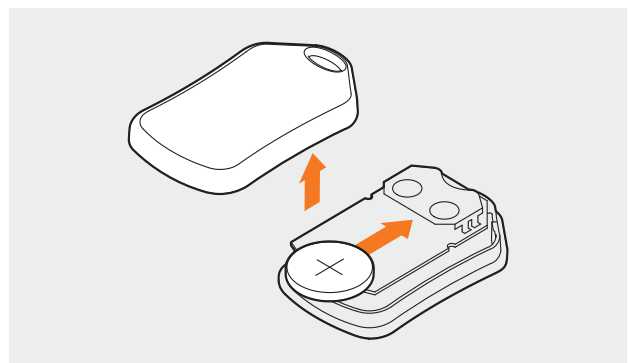
We have provided instructions for basic maintenance operations on the following pages. If you do not have the tools or competence to carry out the procedure, please take the bike to an UBCO authorised service technician. Do not attempt any maintenance that you are not familiar with.

YOUR FIELD KIT

Along with this manual, we've included a small Field Kit to get you through basic maintenance procedures. You may require more advanced tools, such as a torque wrench, to properly complete some tasks, but the kit will get you through in a pinch.

REPLACING KEY FOB BATTERY

Remove the silicone sleeve. Turn the key fob over so that the button faces down. Using your fingernail, separate the two halves of the key fob. Slide the battery out and replace with a new CR2032 battery, observing polarity. Position the rear plate over the base and push down to secure.



WHEELS

The front and rear wheels are identical except for the inserts installed on the axles. This means either wheel can be installed at the front or rear as long as the correct inserts and torque arms are used. If you remove the wheels often, periodically apply a thread locker adhesive to the wheel nuts.

Tyre pressure

The tyres on your 2X2 use a standard, car style valve for inflation and deflation. For standard riding, we recommend inflating the tyres to around 25 psi or as specified on the tyre.

Removing the Front Wheel

Numbered items

1. Axle Nut
2. Torque Arm
3. Front Axle Spacer

Pre-requisite steps

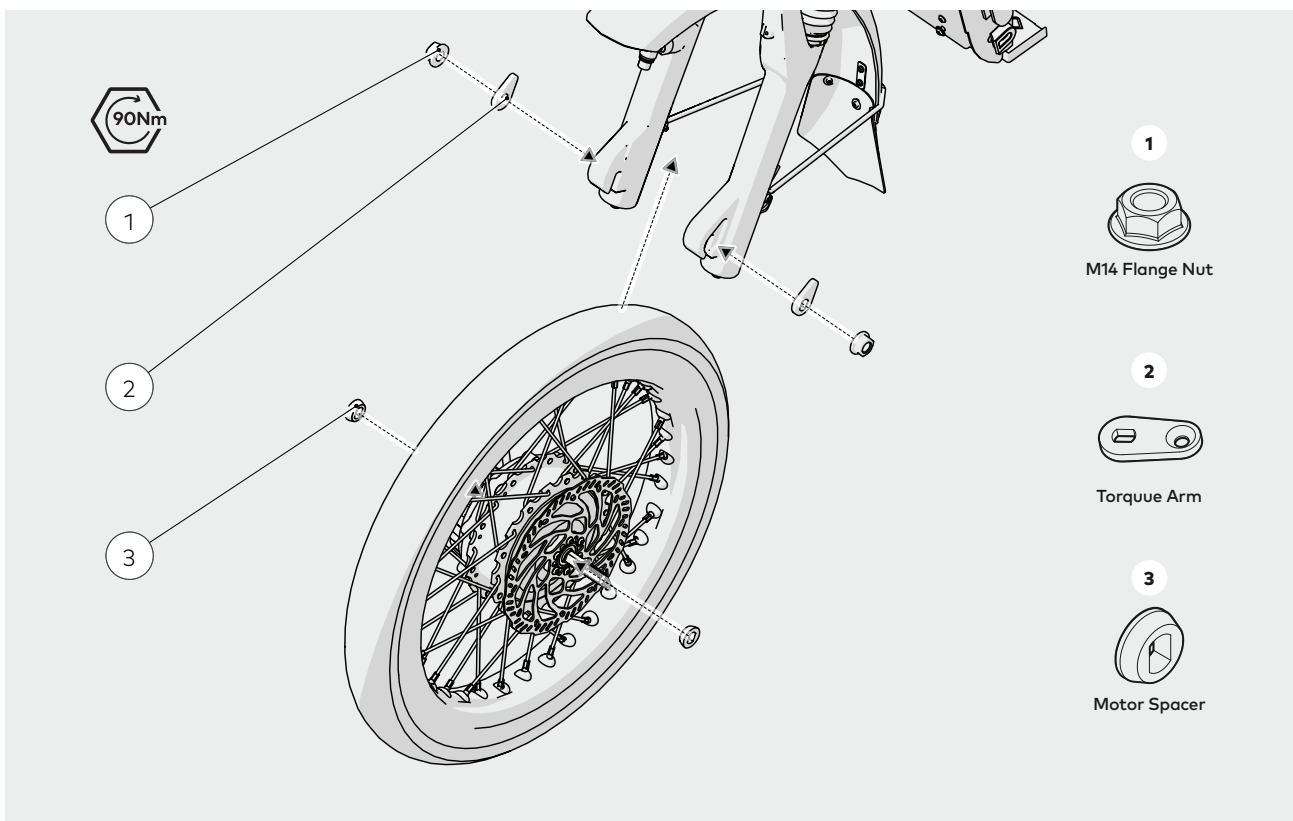
Battery Removal

Tools/consumables required

Loctite 243
21mm Socket
Torque Wrench
Breaker Bar
Brake Pad Spacer

Remove

- Unscrew the motor cable lock sleeves and detach the motor cable ends.
- With a No. 21 spanner, loosen the two serrated flange nuts.
- Remove the left and right torque arms from their recesses in the fork and remove the wheel.
- When putting the wheel back on, ensure the torque arms sit flush in their casing and the nuts are tightened to 90Nm with a torque wrench.



Removing the Rear Wheel

Numbered items

1. Left Hand Side Rear Motor Spacer
2. Axle Nut
3. Torque Arm Retention Fastener
4. Right Hand Side Rear Motor Spacer
5. Torque Arm
6. Torque Arm Retention Nut

Pre-requisite steps

Battery Removal

Tools/consumables required

Loctite 243

21mm Socket

Torque Wrench

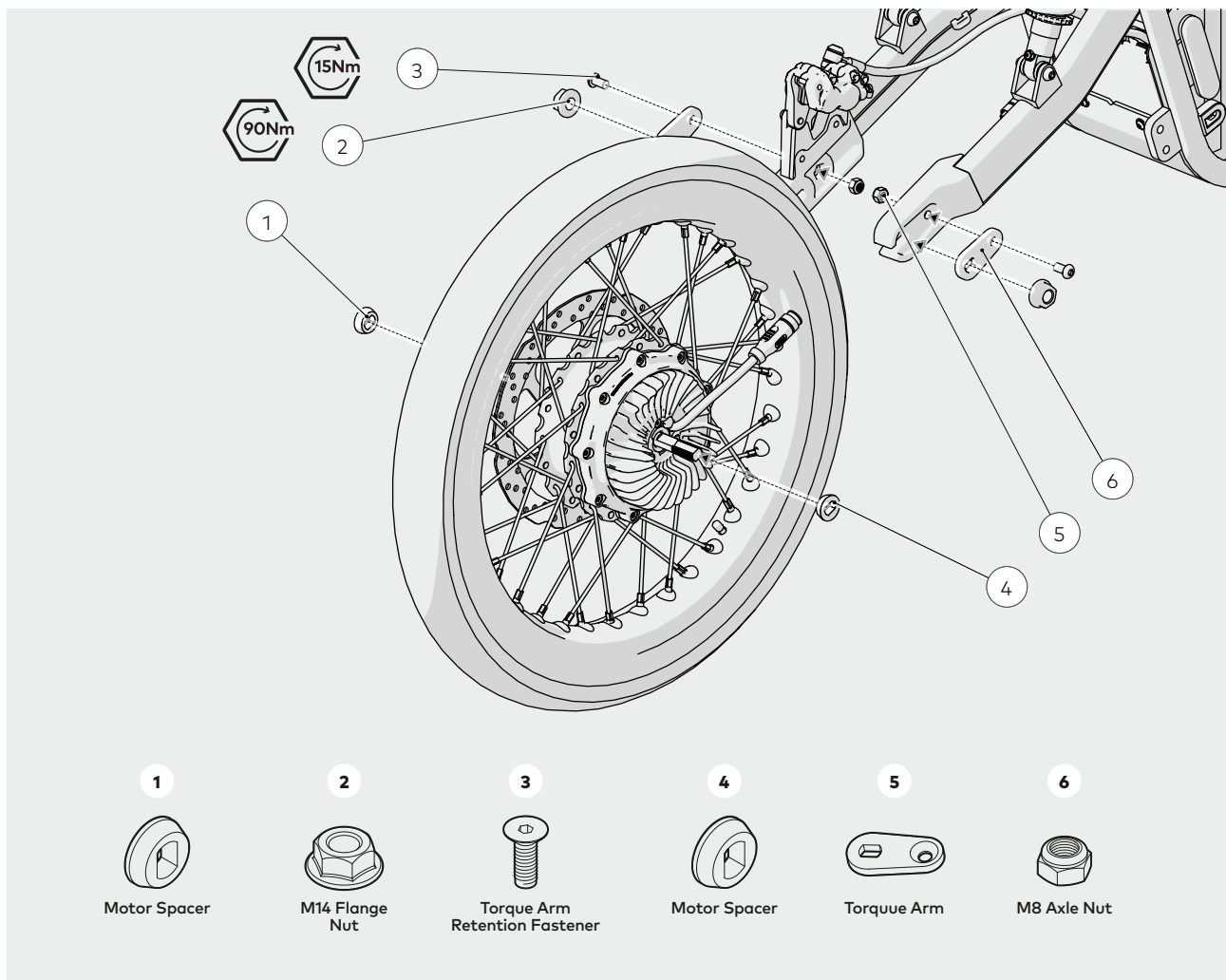
Breaker Bar

Brake Pad Spacer

Remove

- Unscrew the motor cable lock sleeves and detach the motor cable ends.
- Using a 5mm Allen Key unscrew and remove the two M8 countersunk cap screws on the torque arms.
- With a No. 21 spanner, loosen and remove the two serrated flange nuts.
- Remove the left and right torque arms from the recesses in the swing arm and remove the wheel.
- When putting the wheel back on ensure that the nuts are tightened to 90Nm with a torque wrench.

Tool Tip: Add a medium strength thread lock to the nuts before fastening.



BRAKE PADS

System 2 Brake Replacement

Numbered items

1. Caliper Body
2. Brake Pad Fastener
3. Brake Pads

Pre-requisite steps

Wheel Removal - see above

Tools/consumables required

- 3mm Allen Key
- Brake Pad Spacer
- Brake Pad Spring

Remove

- Using a suitable tool, gently return the old Brake Pads and Pistons to full retraction and adjust the Brake Lever Blades to the original position.
- Using a T25, release and remove the fastener and circlip retaining the Brake Pads.
- Remove the Brake Pads while retaining the Brake Pad Spring.

SR Brake Replacement

Numbered items

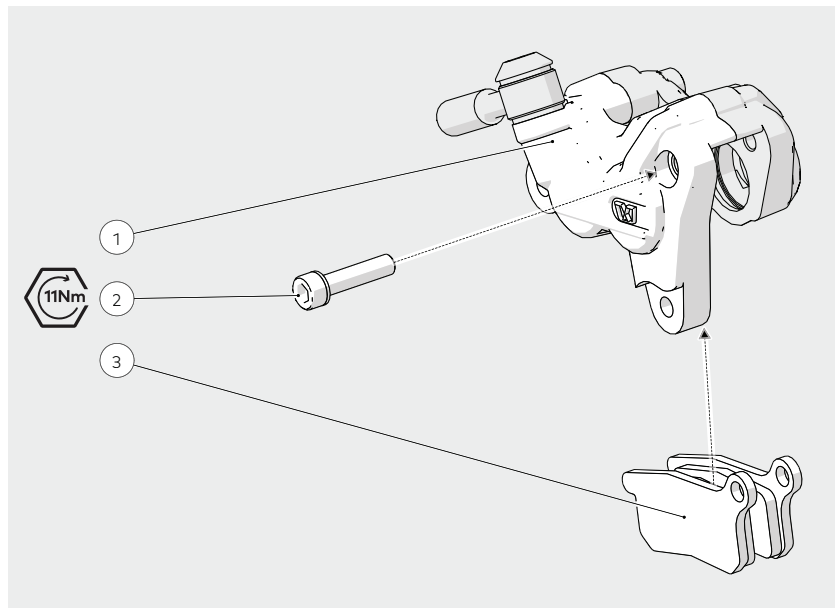
1. Caliper Body
2. Brake Pad Fastener
3. Brake Pads

Tools/consumables required

- 3mm Allen Key
- 3mm Allen Key Socket
- Torque Wrench
- Brake Pad Spacer
- Brake Pad Spring

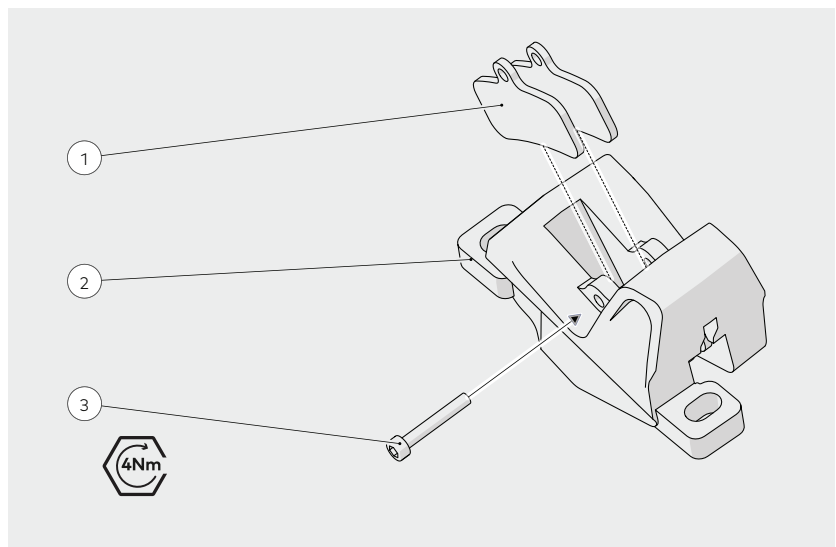
Remove

- Using a 3mm Allen Key release and remove the fastener and circlip retaining the Brake Pads.
- Remove the Brake Pads while retaining the Brake Pad Spring.
- Using a suitable tool, gently return the Pistons to full retraction and adjust the Brake Lever Blades to the original position.



Replace

- Check the Brake Pad Spring for signs of wear and replace if required
- Place replacement Spring and Brake Pads into the Caliper.
- Using a T25, tighten the fastener and replace the circlip retaining the Brake Pads.



Replace

- Check the Brake Pad Spring for signs of wear and replace if require.
- Place replacement Brake Pads into the Brake Pad Spring then into the Caliper.
- Using a 3mm Allen Key Socket and Torque Wrench, tighten the fastener and fit the circlip retaining the Brake Pads.