Permobil is proud to release our new Precision Lock backrest. This new design will make adjustments to your client’s backrest quicker and easier. Below are some tips, tricks and best practices to help with quickly and easily accomplishing the angular adjustment.
Angular adjustment

The angular adjustment is best accomplished in a specific order:

1. Using the 6mm hex wrench, loosen (but do not remove) the outside lock nut approximately ½ turn.
2. Using the 5mm hex wrench, engage the head of the adjustment bolt through the 6mm hex shaped hole in the lock nut.
3. Gently push the backrest in the intended direction of movement. Using the 5mm hex wrench, turn the adjustment bolt. Turning the bolt clockwise will cause the angle to close, moving the backrest closer to the front of the chair. Turning the adjustment bolt counter-clockwise will cause the angle to open, moving the backrest away from the front of the chair.
4. Make the adjustment to the backrest angle using a maximum of ½ turn per side, alternating between the two sides. Observe the backrest changing angle before starting the ½ turn count.
5. After completing the adjustment, turn the adjustment bolts clockwise until slight resistance is felt. Check the gage marks on the backrest to ensure that both the right and left side angles match.
6. Maintaining pressure on the backrest, use the 6mm hex wrench to tighten down the outside lock nut.
7. Check to ensure that the backrest will fold as well as latch after the adjustment has been made. If the backrest ceases to latch after adjustment, continue reading below to address the problem.

Tools needed
- 5mm hex wrench
- 6mm hex wrench
Latch troubleshooting

If the backrest is still not latching after following the above adjustment guide, try the following:

1. Verify that the backrest angle is the same for both sides of the chair by using a digital protractor to check the angle, or by visually checking the gage marks on both hinge bodies.
2. Loosen and re-tighten the release bar, making sure to tighten the left side of the bar last.
3. Very slightly loosen the NyLoc nut using the 10mm open end wrench. Do not loosen to the point that the hinge gets loose and sloppy.
4. With the backrest in the vertical position, loosen the latch pin.
5. Re-tighten the latch pin, putting slight rearward pressure on the backrest to help align the pins while tightening.
6. Check the latching action of the backrest to ensure this fixed the problem.

Tools needed

- 4mm hex wrench
- 10mm open end wrench
Grinding troubleshooting

If after following the above adjustment guide the backrest has a rough feel when articulating, try the following:

1. Using a 2.5mm hex key, carefully loosen the M4 lock plate bolt holding the angle lock plate onto the hinge body.
2. Move the backrest to the folded and locked position.
3. While applying slight downward pressure on the backrest towards the seat, re-tighten the M4 lock plate bolt.
4. Repeat steps 1-3 on the opposite side.
5. Check the latching action of the backrest to ensure this fixed the problem.

Tools needed

- 2.5mm hex wrench