



Technical / News Bulletin
UK

BULLETIN NO.:

TBUK113

DATE ISSUED

BULLETIN DETAILS

Product Group:	QUICKIE	
Model Affected:	Q-Series Family	
Effective Date: See Below	Serial No. Effective From:	N/A
Bulletin Subject:	QUICKIE Q-Series Design Update	

Description of Issue / Solution:

At Sunrise Medical we are committed to continually improving our products. Following on from the Q-Series launch in September 2018 we have listened to customer feedback and, as a result, have implemented a number of design improvements across the range.

These include:

- 1. Swivel Bridge Noise Reduction**
Q500-R/F Pro and Q700-R/F Pro, Sedeo Ergo and UP
- 2. Sedeo Pro Backrest Play**
Q500 Pro Series and Q700 Pro Series
- 3. Sedeo Pro Flexi backrest clamps**
Q500 Pro Series and Q700 Pro Series
- 4. Sedeo Pro Backrest Mounting Reclining Back**
Q500 Pro Series and Q700 Pro Series
- 5. Castor Lock Update**
Q700-UP M
- 6. Knee Blocks**
Q700-UP M

For any further information or questions regarding the following updates please contact your local Area Sales Manager.

1.) Swivel Bridge Noise Reduction Q500-R/F Pro and Q700-R/F Pro, Sedeo Ergo and UP

It had been highlighted that a few bases in the field were making creaking noises whilst driving on uneven terrain.

We worked closely with our engineers to identify that the sound was coming directly from the swivel bridge, and specifically from two plastic grub screws located in the swivel bar. By simply removing the two grub screws our engineers were able to eliminate the sound, with no compromise to the performance of the powerchair.

This design improvement has been in production since 19th February 2019.

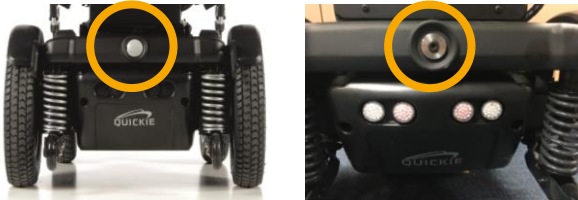
Any existing Q500-R/F, or Q700-R/F bases which are affected by the creaking sound can be resolved in the field by following the below process.

STEP 1

Raise the chair off the ground.

STEP 2

Remove the plastic cap on the swivel bar and use a 5mm Allen key to remove the bolt.



STEP 3

Lift and pull the swivel bar backward to detach from the frame.



STEP 4

Remove the plastic grub screw from either side of the bar.



STEP 5

Repeat steps 1 – 3 in reverse order to reattach the swivel bridge to the frame.

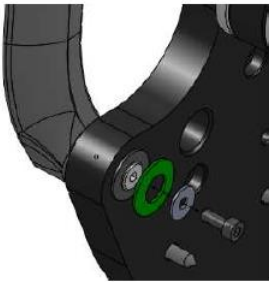
2.) Sedeo Pro Backrest Play Q500 Pro Series and Q700 Pro Series

At Sunrise Medical we strive for our products to be of the highest quality and consistency. Following market surveillance we found that there was a slight inconsistency in the amount of play in the backrest frame on the Q500 and Q700 Pro Series models. Whilst this was still within tolerances, we wanted to address this to ensure improved performance.

In response to this we have actioned design improvements to restrict the amount of play and provide greater consistency across the range of backrests available on these models.

Manual recline backrest

The solution here is to order two shims to fit to the linkage pivot point at both sides. This restricts the play in the backrest. These parts can be retro-fitted to customer or demonstration chairs by ordering the following part number: 000102539-005



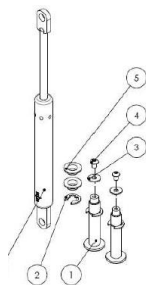
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Powered recline back and anti-shear backrest

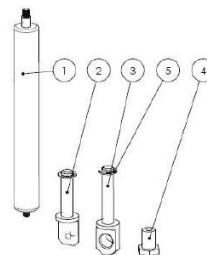
For both of these types of backrest we have eliminated the backrest play by incorporating a gas pull (anti-shear back) and a gas strut (power recline) to provide resistance while the backrest is in a stationary position.

The powered recline backrest solution can be retro-fitted to customer or demonstration chairs by ordering the following part number: 22509150.

The anti-shear backrest solution can be retro-fitted to customer or demonstration chairs by ordering the following part number: 22509149.



22509150 (Power Recline)



22509149 (Anti-shear back)

These design solutions have been in production since 1st January 2019.

3.) Sedeo Pro Flexi backrest clamps Q500 Pro Series and Q700 Pro Series

Following feedback we have improved the clamps on the Sedeo Pro flexi backrests to provide increased grip on the tension adjustable straps. This improvement is because we found that there were a small number of backrest cushion where the tension adjustable straps didn't provide sufficient grip, so that when the client put pressure on the backrest the tension adjustable straps loosened off.

The clamps have now been modified to include sharp 'teeth', so that they grip to the backrest straps as intended. This improvement has been in place since 20th February 2019.

4.) Sedeo Pro Backrest Mounting Reclining Back Q500 Pro Series and Q700 Pro Series

Customer feedback highlighted an increased level of play in the quick release backrest cushion mounting set when used in combination with the cushioned backrest for the quick release back. Upon investigation we found the play originated from there being too much space between the 'mushroom' part and the backrest bracket.



Therefore, we have reduced the distance between the 'mushroom' part and the backrest bracket to significantly reduce the play in the backrest mounting.

This solution has been in production since 19th March 2019.

5.) Castor Lock Update Q700-UP M

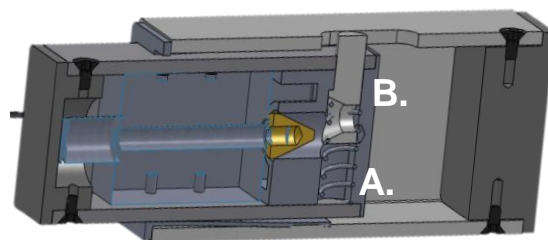
With the introduction of the Q700-UP M in March 2018, we developed a new style castor lock to overcome the historical challenges we faced with the Jive UP, where the standing functionality was disabled due to the castor lock overriding the castor block, the loom position meaning the wire was damaged and also dirt ingress restricting the castor lock from engaging.

The castor lock mechanism is essential to the working of the base, as, when engaged, this unit restricts the articulation of the front castor arms to 5mm to ensure the clients safety in the chair whilst in the standing position. Therefore, when the issues outlined above occurred the chair could not go into a full standing position, as the safety mechanism would recognise it was unsafe as the castor lock could not engage.

Therefore, during the designing of the Q700-UP, we developed a sealed castor lock unit mechanism, which utilised an electromagnetic coil to engage the castor lock and provide an improved level of quality. We also redesigned the wire routing to ensure they were protected. This improved design was introduced to minimise the requirement for adjusting the castor lock based on the set-up needs of the client. It also reduced dirt ingress into the module and provides a reduced level of failure in the castor lock.

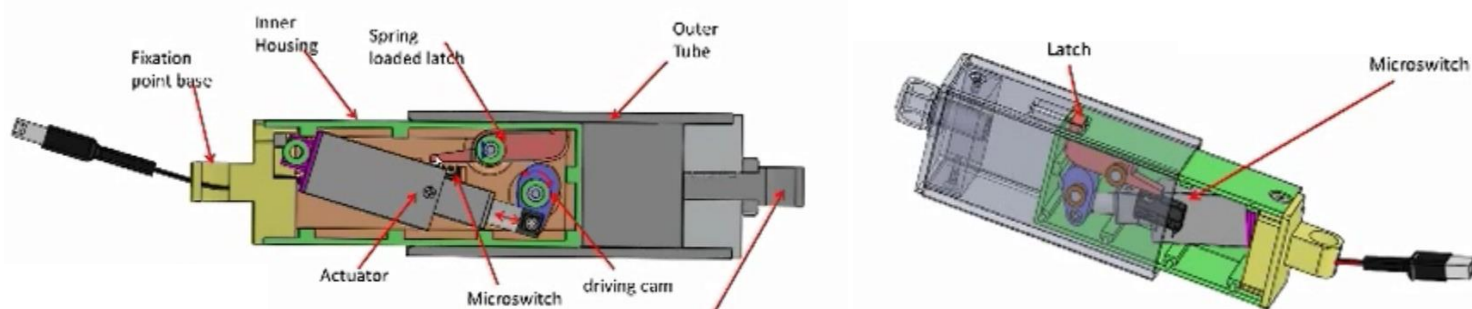
Unfortunately, in recent months we have seen a number of units fail in the field and, therefore, to ensure the highest level of quality and to ensure the best user experience possible, our engineers have reviewed these units and have developed an updated castor lock mechanism to overcome the challenges faced.

Our engineers reviewed the failed castor lock mechanisms to identify the root cause. As a result of their review we found the issues were due to the coil (A) tolerances being too tight and, in these occasions, the wedge (B) got caught in the coil and was unable to engage the inhibit for standing. This meant that the chair could not stand.



Castor Lock V1

Upon investigation we found it was not feasible to change the tolerances of the spring and the wedge whilst ensuring the consistency of the action. To overcome this our engineers have redesigned the castor locking mechanism.



Castor Lock V2

The key development in the new castor lock is the method in which the wedge engages. This has been changed from an electromagnetic coil to a micro-actuator.

This works by the actuator lengthening and rotating the driving cam, which, in turn, moves the wedge into the outer casing and then restricts the articulation of the castor arms. This process is then reversed to remove the wedge from the outer casing to allow the castor arms to fully articulate.

The benefits of transferring to the new style castor lock are:

- A longer life cycle of the units
- Smoother and quieter motion as the process is driven through a micro-actuator

When upgrading products out in the field it is critical to ensure that both sides of castor locks are changed to V3. It is also vital that when the castor locks have been changed the chair is reprogrammed via Web IQ as there is an important update in the parameter settings.

The V3 castor locks have been in production for all orders received on and after 11th February 2019.

For further information on Castor Lock V3, contact our Powerchair Specialist, Sam Owen by emailing: samuel.owen@sunmed.co.uk.

6.) Knee Blocks Q700-UP M

Developed from customer feedback we are introducing two knee block options on the Q700-UP family. This was due to the following requirements:

- greater depth adjustment needed on the knee block
- shorter depth adjustment needed for petite clients

Therefore, we have introduced two new options/features:

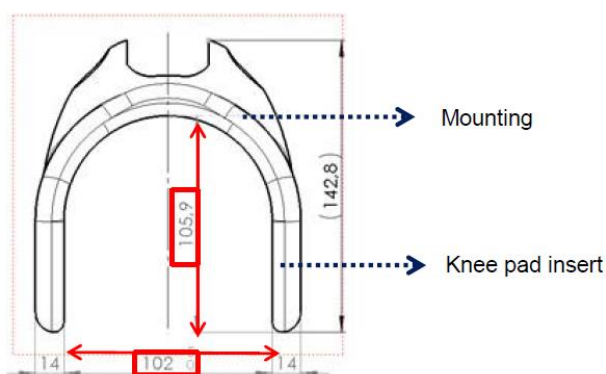
An additional knee insert pad option offering a softer pad for greater user comfort, which can then be hand-carved to fit the user exactly. The knee pad options also reduces the width and depth of the knee pad to reduce the need for Built-4-Me adaptations to fit clients with narrow legs.

Added an additional 10mm of depth adjustment to cater for clients with larger legs.

- This new knee fixation pad will be available on the Q700-UP order form from 1st April 2019 and will significantly reduce the requirements for Built-4-Me adaptations.

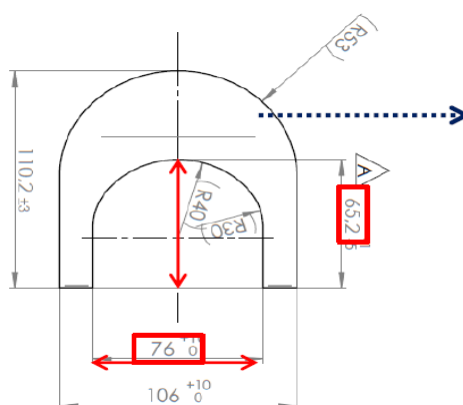
Current Knee Pad Dimensions:

- Width – 102mm
- Depth – 106mm
- Min. distance between inner pad & calf pad – 120mm
- Max. distance between inner pad & calf pad – 200mm



Knee Pad with NEW insert:

- Width – 76mm
- Depth – 65mm
- Min. distance between inner pad & calf pad – 75mm
- Max. distance between inner pad & calf pad – 175mm



NEW Knee pad insert that can be used with existing mounting



This new knee fixation pad will be available on the Q700-UP order form from 1st April 2019 and will significantly reduce the requirements for Built-4-Me adaptations.

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