



NITRUM CASTER FORK ADJUSTMENT INSTRUCTION SHEET



Please read these instructions carefully before beginning the assembly. Failure to understand and follow assembly instructions may result in injury to technician and/or end user and may void the warranty. If you have any questions call Sunrise Medical Technical Support at +1 (800) 333-4000.

Required tools:

- | | |
|---|---------------------------------|
| 1. $\frac{3}{8}$ -in Torque Wrench | 4. Torque Wrench (p/n 66009203) |
| 2. 90° Squaring Gauge | 5. 13mm Open-ended Wrench |
| 3. Flat 19mm Open-ended Spanner Wrench (p/n 66009205) | 6. Retaining Ring Pliers |

The following instructions are for adjusting Caster Fork Angle, Directional Stability, and Caster Fork Height.

The caster fork adjustment mechanism has three settings:

- Caster fork angle
- Directional stability
- Caster fork height

The settings for directional stability and the caster fork height are combined; by twisting the slightly angled caster axle (A) (Fig. 1), the fork moves inward (B) or outward (C) (Fig. 2). At the same time, the height of the fork also changes by 1 mm for every full rotation of the caster axle.

The detailed instructions for making the adjustments are described in the following section.

NOTE: The following adjustments may only be made by Sunrise Medical authorized dealers.

NOTE: You can also find a service video about this on the Sunrise Medical YouTube channel.

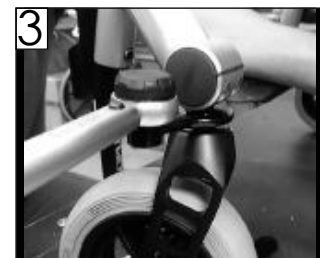
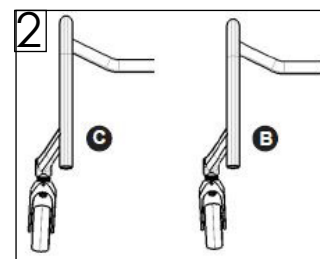
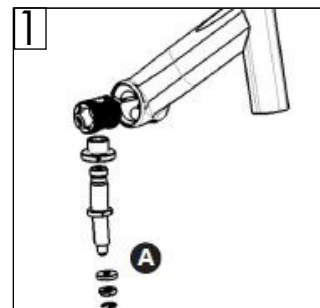
WARNING

- Faulty adjustments, or adjustments that have not been carried out correctly, may cause damage to the wheelchair or result in a fall and severe injuries to the user and other people.
- Wherever torque settings are specified, it is strongly recommended that a torque wrench (not included) be used to verify correct torque specification is achieved.
- Some of the screws that are used during manufacture are fitted with threadlock (blue or yellow dot on the thread) and can be undone and tightened again up to three times before they must be replaced with new screws and threadlock. Alternatively, you can put Loctite™ 243 threadlock on the screws and re-fit them.

1. Setting the directional stability:

- Insert special Sunrise Medical tool (torque wrench, p/n 66009203) into a $\frac{3}{8}$ -in torque wrench.
- Undo the round nut between the fork and caster connection with the Spanner Wrench (Fig. 3).
- Rotate the caster inward, place a 90° setting gauge on the front of the fork and grasp the caster axle between the round nut and the fork with a flat 19mm open-end spanner wrench (p/n 66009205) and rotate it until the front of the fork is level with the setting gauge (Fig. 4 and Fig. 5). To do this, rotate it by a maximum of 90° in one direction, to avoid accidentally changing the height.
- After the adjustment has been made, keep the caster axle in position with the open-end spanner while tightening the round nut to a torque of 28 Nm (20 ft-lb).

Note: The fork angle must be set after adjustment has been made (see 3: Setting the caster fork angle).



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08/2020 253037 Rev. A Page 1 of 2



2. Adjusting the height:

If the wheelchair does not stand properly on 4 wheels, i.e. one of the casters is not completely touching the floor, the height of this caster should be adjusted as follows:

- Place the wheelchair on a flat surface, such as a worktop or similar.
- Load the footrest with a weight of approximately 2.2-lbs (1 kg), make sure that the air pressure is identical in both drive wheels, and rotate both casters into the straight line position (casters pointing to the back).
- Insert special tool (torque wrench, p/n 66009203) into a $\frac{3}{8}$ -in torque wrench.
- Undo the round nut between the fork and caster connection with the spanner wrench.
- Grasp the caster axle between the round nut and fork with a flat 19mm open-end spanner wrench (p/n 66009205) and rotate it counterclockwise. The caster will be lowered by 1 mm with each complete turn (360°).
- If the caster axle is rotated by one complete turn (360°), this will not influence the directional stability. In all other cases, the directional stability must be adjusted again. See: "1. Setting the directional stability" for more on this.
- Adjust the caster axle until all 4 wheelchair wheels are standing firmly on the ground.
- After the adjustment has been made, keep the caster axle in position with the open-end spanner wrench while tightening the round nut to a torque of 28 Nm (20 ft-lb).



3. Adjusting the caster fork angle:

This adjustment is necessary if the seat height/center of gravity has been changed, or the directional stability has been adjusted.

WARNING

An incorrectly adjusted caster fork angle may cause the casters to wobble, and lead to the user falling or severe injuries.

NOTE: setting the fork to trailing (fork is inclined toward the back in the direction of travel) will increase the probability of the casters wobbling. Setting it to leading (fork is inclined toward the front in the direction of travel) can reduce the probability of the casters wobbling.

Loosen the Allen screws (A) (Fig. 6). The caster fork angle can now be adjusted to the front (leading) or to the back (trailing).

To ensure caster fork is in an exactly horizontal position (90° to the floor, neither leading or trailing), use a squaring gauge (e.g. 90° flat angle, set square). Rotate the casters in the travelling position and place the squaring gauge on the flat front side of the fork (Fig. 7). The caster fork will be at an angle of 90° to the floor when the squaring gauge covers the entire surface.

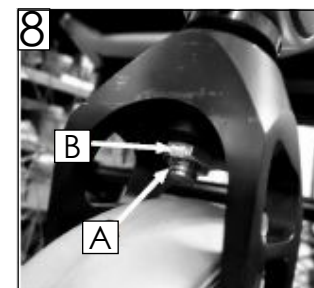
To set the fork slightly to leading, e.g. to prevent the caster fork from wobbling, set the angle so that a slight light gap can be seen between the squaring gauge and contact area.

When position is set correct, tighten again the Allen screws (A) using the following procedure. Tighten the outer allen screw first to a torque of 7 Nm (62 in-lb). Then, tighten the inner allen screw to a torque of 7 Nm (62 in-lb). Repeat this procedure up to 6 times until both allen screws are evenly tightened to a torque of 7 Nm (62 in-lb).



4. Replacing the caster fork (Fig. 8):

- Remove the locking clip (A) at the lower end of the caster axle.
- Remove the nut (B) with a 13 mm open-end wrench.
- Now replace the fork.
- Assemble again by following the instructions in reverse order.
- Torque nut to 10 Nm (90 in-lb) (B).



DEALER/TECHNICIAN WARNING

Attention dealers and qualified technicians, do not operate or service this device without first reading the owners manual. If you do not understand the instructions and warnings in the owners manual please contact the Sunrise Medical Technical Service Department before operating and/or servicing the Quickie device. Failure to do so may result in damage and/or injury.

Find more information and important warnings see the wheelchair owner's manual or at: www.Sunrisemedical.com.

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