



SUSPENSION SPRING ASSEMBLY INSTRUCTIONS (APPLICABLE TO STANDARD AND HC SUSPENSION SPRINGS)



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. These springs are NOT to be assembled on ANY QM7 series wheelchair equipped with C-Me feature. If you have any questions call Sunrise Medical Technical Support at 800-333-4000

Parts for assembling this Suspension Spring kit.

- | | |
|------------------------------|----------------------------------|
| 1. 1ea Suspension Spring | 6. 1ea M4 Socket head screw |
| 2. 1ea Brass pad spring | 7. 1ea Large washer |
| 3. 1ea Brass pad | 8. 1ea M8 Brass tip set screw |
| 4. 1ea Shoulder bolt | 9. 5ea Anti seize packet |
| 5. 1ea M4 compression sleeve | 10. 1ea M8 Socket head cap screw |

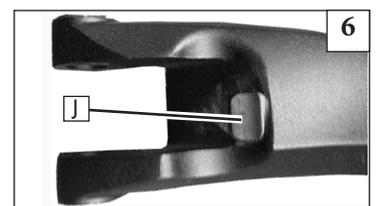
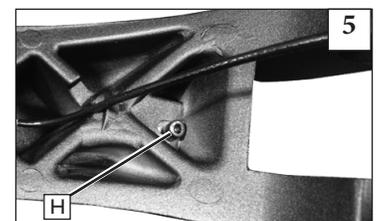
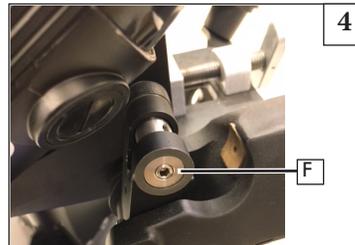
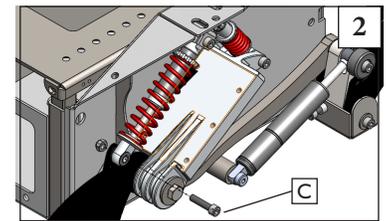
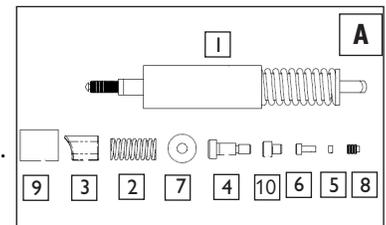
Tools needed:

1. Hex Key Set (2.5, 3, 4, 5 and 6mm)
2. 16mm Socket
3. 10mm Wrench or socket
4. Torque Wrench

A. REMOVING THE ORIGINAL SUSPENSION SPRING



1. Remove the 3 lug nuts holding the drive wheel using a 16mm Socket (A), Fig 1. Save lug nuts.
2. Using a 6mm hex key remove the screw and nut (C) from the performance spring, Fig 2.
3. Remove the screw and washer (D) using 6mm hex key, Fig 3. Discard hardware.
4. Remove the set screw (F) using a 4mm hex key, Fig 4. Discard hardware.
5. Remove the shoulder bolt (E) using a 5mm hex key, Fig 3. Discard hardware.
6. Remove suspension spring by unscrewing counter clockwise.



WARNING

Do not use vise grips or pliers to remove the suspension spring. For the suspension spring to work as intended, it must be scratch free.

B. REMOVING THE BRASS PAD



Note – The brass pad has a spring behind it. It needs to be held as you perform step 1 below so that it doesn't fly out of the caster arm.

1. Using a 3mm hex key on the underside of the caster arm (Fig 5) remove the attachment screw and sleeve (H) to release the brass pad. Discard hardware.
2. Remove the brass pad (J) and spring from the housing (Fig 6). With a clean rag wipe out any Anti-seize that is left in the cavity. Discard hardware.

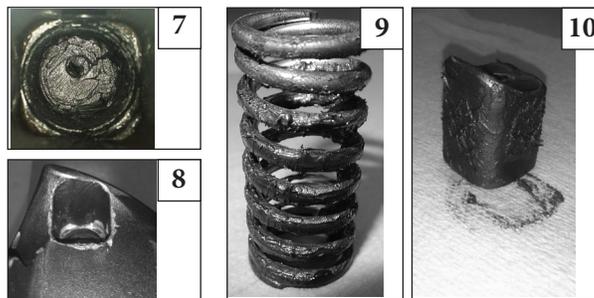
C. ASSEMBLY OF THE BRASS PAD 7 8 9 10 11

1. Coat with Anti-Seize:

- The inside of the spring pocket (K) (Fig 7 & 11) with 1 gram.
- The brass pad pocket (C) (Fig 8 & 11) with .5 grams.
- The spring (J) (Fig 9 & 11) with 2 grams.
- The brass pad (A) (Fig 10 & 11) with 1 gram.

Note- Each packet contains 1 gram of anti-seize.

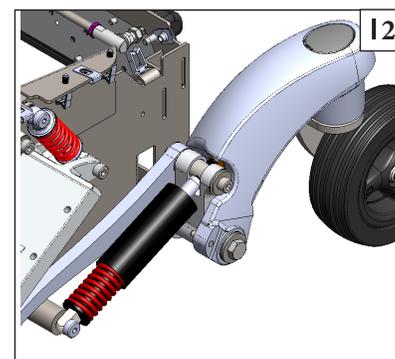
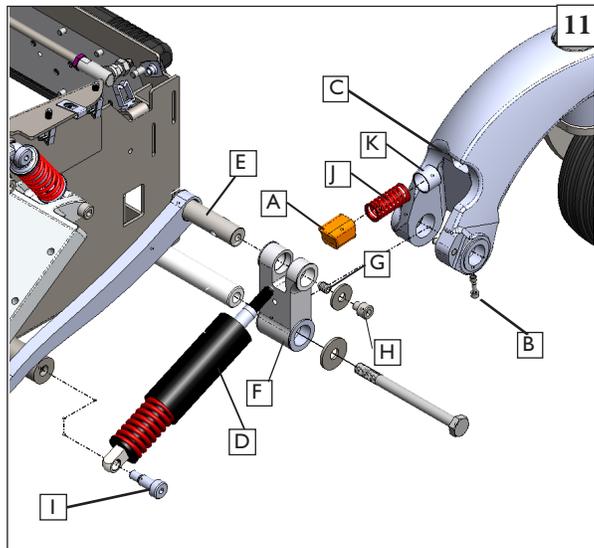
2. Insert the spring (J) into the spring pocket (K), followed by the brass pad (A). Compress the brass pad against the spring and assemble the screw with compression sleeve (B) and tighten to 6.8 Nm (60 in-lb) with a 3mm hex key.



D. ASSEMBLE THE SUSPENSION SPRING 11 12

WARNING – DO NOT use Vise Grips or pliers to assemble the Suspension Spring. For the Suspension Spring to function, it must be scratch free.

1. Position the Rear Caster in an elevated position (above the lower plane of the frame). Suspension Spring Clevis should be free of Base Mount Boss.
2. Make sure the shaft receiver (E) is inserted into the clevis (F) (Fig 11). Thread the suspension spring shaft into the shaft receiver (E) until it is snug against the shaft receiver. **DO NOT** use the Spring Cover (D) to mount suspension spring.
3. Using a 5mm hex key assemble the shoulder bolt (I) through the bottom of the suspension spring and into the base frame of the power chair. Tighten to a torque of 13.6 Nm (120 in-lb). 
4. Add blue patch lock to set screw (G).
5. Using a 4mm hex key assemble the set screw (G), and tighten to a torque of 11 Nm (96 in-lb). 
6. Using a 6mm hex key assemble the washer and screw (H), tighten to a torque of 13.6 Nm (120 in-lb). 
7. Using a 6mm hex key assemble again the performance spring (Fig 2) with screw and nut (C), tighten to a torque of 13.6 Nm (120 in-lb). 



E. INSPECT 12

1. Double-check function and correct Torque on all Hardware.

- a. Test the caster arm function by gripping the front and rear caster arms and cycle them up and down. Verify that both sides function the same. This process requires a large amount of force to test.
- b. Assemble the drive wheel (Fig 1), torque lug nuts to 33.9 Nm (25 ft-lb). 
- c. Use a torque wrench to check all hardware for correct torque.

DEALER/TECHNICIAN WARNING

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 Technical Service Department before operating and/or servicing the device. Failure to do so may result in damage and/or injury.

Sunrise Medical • 2842 N. Business Park Ave. • Fresno, CA 93727 • USA
In Canada (800) 263-3390