



## QUANTUM QSP 7™ BEACH CHAIR SHOULDER POSITIONER (BCP)

USER MANUAL – Rev. 1.15



Please read all the following instructions carefully to ensure proper functionality and to avoid injury or damage to your device.



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## IMPORTANT NOTICES



Please read all the following instructions carefully to ensure proper functionality and to avoid injury or damage to your device.

### DEVICE IS TO BE USED BY TRAINED PERSONNEL ONLY!



Throughout this manual, the symbol is intended to alert the user to an important instruction.

Please study and understand this user manual before using the device. Failure to do so may result in misuse of the device causing damage or injury. Only those personnel who have read and understood this user manual should be allowed to use the device.

The techniques delineated in this manual are manufacturer's suggestions only. The attending surgeon and staff remain responsible for ensuring appropriate patient care and safety while using this device.

Service and modification to the device is to be provided by trained personnel only.

This device should be inspected and proper function verified before each use. Ensure that this user manual is readily available to all personnel at all times.

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**Note:** This document is provided as a reference for surgical staff and information within is subject to change without notice. Quantum OPS assumes no responsibility for any errors that may appear within the document. Quantum OPS will not, in any event, be liable for any damages arising from the use of this document or in connection with it.

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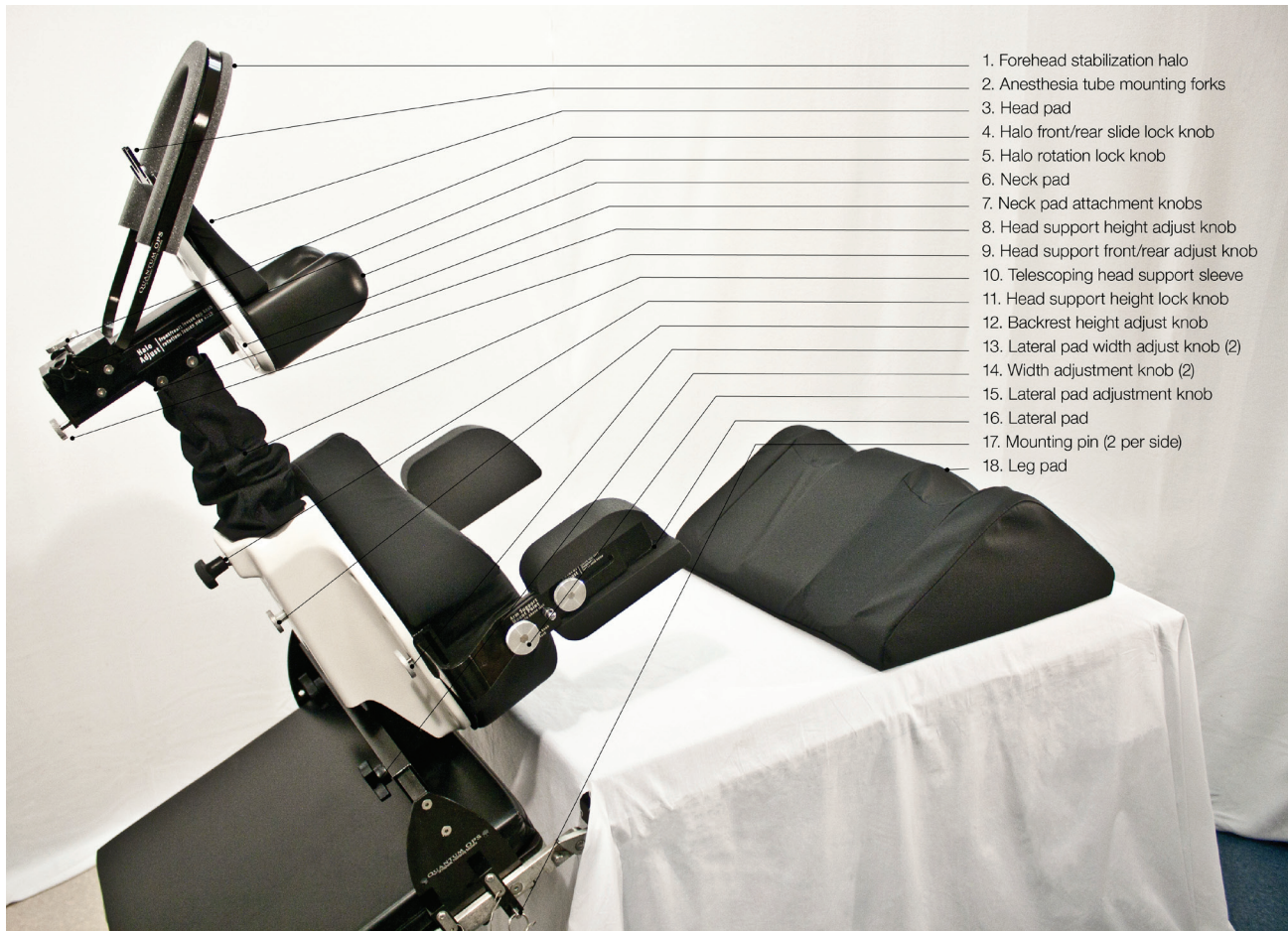
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# I. Product Description

## I.1 Intended Use

This Quantum QSP 7 beach chair shoulder positioner is a device intended for use when positioning patients for shoulder surgery in the “beach chair” position. It is designed for use with a compatible surgical table possessing a powered articulating leg section. The leg section of the surgical table provides the lift to elevate the patient from supine to beach chair position. The QSP 7 is compatible with most powered surgical tables. Custom sizing is available to accommodate additional tables if necessary.

## I.2 Component Identification



## I.3 Product Specifications

**Weight Limit:** 400 Lbs



**WARNING:** NEVER EXCEED WEIGHT LIMIT OF THE SURGICAL TABLE

**Patient Lifting Mechanism:** Utilizes powered leg section of surgical table

**Mounting base width range:** 16" – 26" Fits all tables within this range

**Lateral adjustability range (offset from center):** 3.5"

**Device Weight:** 29 Lbs

**Device Height:** 28" (fully collapsed) to 50" (fully extended)

**Minimum Patient Height:** 4'6"

**Maximum Patient Height:** 7'0"

**Minimum Patient Torso Width:** 9"

**Maximum Patient Torso Width:** 3'0"

**Powered articulation Range:** 0°-90°

**Head support vertical adjustment range:** 13"

**Back support vertical adjustment range:** 9"

**Head support front/rear adjustment range:** 8"

**Lateral support width adjustment range:** 22"

**Neck pad sizing:** Normal and Extra-Large

**Shoulder access:** Full time bi-lateral and circumferential access

## 2. Unpacking and Storage

1. Carefully remove BCP from box.
2. Place wheeled storage cart on floor.
3. Hold BCP with back pad facing the ceiling and lay it in the storage cart (see below)
4. Place leg pad and extra neck pad on bottom shelf of cart (see below)
5. You can now wheel your BCP to its storage location.



Figure 2. BCP mounted on storage/attachment cart

## 3. Setup and Use

*NOTE: The Quantum beach chair shoulder BCP has been designed for use on OR tables with articulating leg sections. If your table does not have an articulating leg section, the BCP will not function properly.*

The Quantum beach chair shoulder BCP has been designed to fit on the accessory side rails of most standard operating tables (16"-26"wide). If the BCP does not fit on the SURGICAL table, please contact Quantum OPS and custom sizing can be arranged.

### 3.1 Surgical Table Preparation

1. Turn the table around 180 degrees such that the leg section is now where the top (head) end was (facing anesthesia)
  2. Remove all x-ray platforms
  3. Remove pad from leg section of surgical table
  4. Press “leg down” on the surgical table controller to lower the leg section of the surgical table to -90°. Leg section will now be pointing down, perpendicular to the floor.
  5. With BCP mounting pins in their storage holes, roll the BCP up to the leg section of the surgical table, and align the mounting forks with the side rails. NOTE: The width of the BCP mounting feet will need to be set to your table at the time of the first use. This is done by loosening the two large black 4 lobe knobs on the back of the BCP along the centerline of the base bar. Once the width is matched to the table, the knobs can be tightened permanently.
  6. Adjust the height of the surgical table using its controller so that the backrest surface of the BCP is even with the surgical table pad surface.
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### 3.2 Mounting BCP to Surgical Table

7. Wheel the BCP forward to engage the surgical table accessory rails. The BCP mounting forks will engage the side rails, and the U shaped slot in the mounting plate engages the side rail mounting stud. (See Fig. 3 below)
8. Insert the mounting pins into their respective mounting holes. Ensure that the pins are inserted all the way into the holes.
9. Walk around table to the opposite side and insert mounting pins into mounting holes. Again, make sure pins are pressed all the way into the mounting holes to ensure proper mounting.
10. Ensure that the backrest height adjust knob and head support height lock knob are unlocked.
11. Remove disposable halo forehead pad from plastic packaging and attach it to the inside edge of the forehead stabilization halo
12. Remove disposable neck pad cover from packaging and place on neck pad.  
*NOTE: Two sizes of neck pads are provided. If there is any question as to fit, try both neck pads on your patient's neck and attach the proper pad to the BCP prior to placing the patient on the BCP. The neck pad is critical to proper positioning and functioning of the BCP.*
13. Rotate halo posteriorly to prevent obstruction of neck and head pads
14. Ensure that head-neck support is positioned maximally posteriorly
15. Ensure that the lumbar supports are removed
16. Push backrest toward the surgical table as far as possible



Figure 3. BCP mounted to surgical table accessory rails.

### 3.3 Positioning Patient



Figure 4. Initial patient alignment

17. Roll the patients gurney up to the side of the surgical table, matching the height of the surgical table with the gurney
18. Position the patient onto the surgical table/BCP, ensuring that the patients hips/buttocks are in the gap between the BCP and surgical table (see above. Failure to align hips properly will result in sub-optimal positioning. In the awake patient it is much easier for the patient to slide over to the OR table in the sitting position. In this manner, the patient can actively assist in positioning such that his/her hips are properly aligned. If this is not possible, the OR crew will position the patient manually.
19. Press “leg up” on the table controller to raise the BCP to about 30 degrees. Make sure that the neck rest knob is unlocked. Now gently guide the patient to lay down on the positioner such that the back rest is positioned in the lumbar area and the neck pad sits just inferior to the occiput. No special adjustment is necessary as long as the neck rest knob is unlocked, the device just finds its natural comfortable position.
20. You may have to change the inclination of the back rest by a few degrees to allow comfortable positioning of the patient prior to induction of anesthesia.
21. Place the knee bolster under the patients knees, tight against the buttocks. This locks the patient in position and prevents downward sliding when the back is raised.
22. Proceed with induction of anesthesia. If the neck pad prevents optimal positioning for intubation, you may temporarily use a pillow under the head or simply remove the neck pad and reinsert it. These maneuvers are rarely necessary. Raise the patient using the surgical table controls. Again, make sure that the neck rest knob is fully unlocked. Support the head gently as the BCP is raised by pressing “leg up” on the table controller.



**CAUTION:** Ensure that the head support height lock knob is in the “unlocked” position before raising patient

23. Lock the backrest in position using the backrest lock knob
24. Lock the head support in position using the head support lock knob (pull and rotate 1/4 turn)
25. Rotate halo pad so that it is firmly pressing on patients forehead, then lock it in position using halo lock knobs.
26. Neck pad up/down and front/rear position can be precision adjusted by turning their respective knobs.
27. If necessary, adjust head support using knob to achieve neutral head position.
28. Insert lateral supports and adjust to size. Insert non-operative armrest into receiver and lock the height using armrest lock knob.



Figure 5. Patient Positioned for Surgery

## 3.4 Patient Dismounting

29. Remove armrest and lateral supports



**CAUTION:** Do not remove halo support if patient is in the upright sitting position. This may cause the head to fall forward and jeopardize patient safety

30. Unlock head support and backrest using respective knobs 31. Lower patient using surgical table controls 32. Unlock and rotate halo off of patients forehead 33. Slide patient off surgical table/BCP and onto gurney for recovery

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## 4. Post-Operative Cleaning and Storage

1. Remove and discard halo forehead pad
2. Remove and discard neck pad cover
3. Clean and disinfect using alcohol based wipes.

**NOTE: Follow hospital protocol for appropriate storage and handling of surgical positioning equipment**

4. Roll BCP cart under BCP, adjusting height of surgical table if necessary
  5. After BCP is positioned just above the cart pad, aligned properly, remove mounting pins from mount holes and place in storage holes
  6. BCP can now be rolled away and placed in storage
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## 5. Disclaimer

Although reasonable care has been used in the design and manufacture of this product, Quantum OPS has no control over the conditions under which this product is used. QUANTUM OPS SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE ARISING FROM OR RELATED TO THE USE OF THIS DEVICE

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