



ADJUSTABLE HUMERAL SUSPENSION CUFF FITTING GUIDE

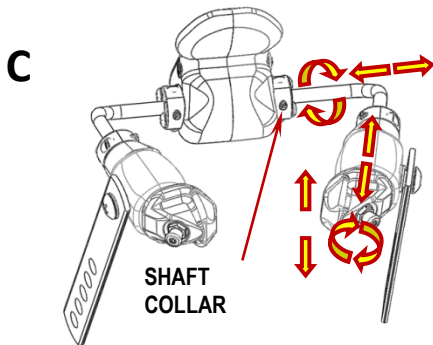
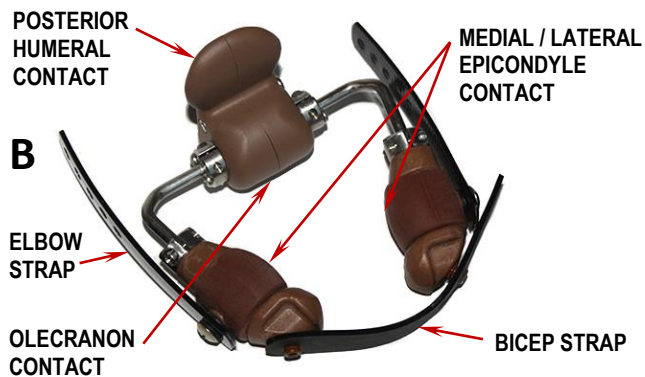
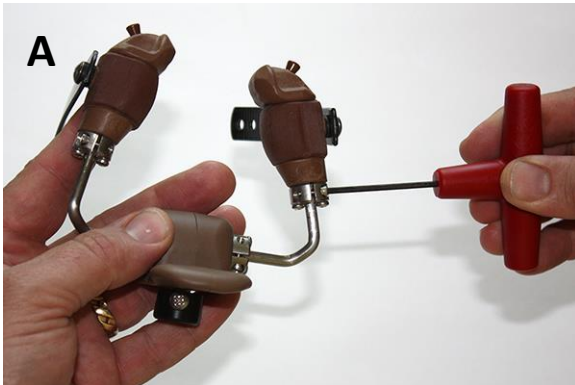
ToughWare Prosthetics' Adjustable Humeral Suspension Cuff (HSC) provides fully adjustable supracondylar suspension for transradial prostheses. Its open design does not encapsulate the elbow, compress cubital fold tissue, or trap heat and moisture against the skin, affording users maximized range of motion (ROM) and comfort. This guide provides a basic outline for properly fitting the cuff; individual cases may require adaptation at the discretion of the clinical practitioner.

INITIAL ADJUSTMENT & FITTING

Adjustments are made using a 9/64-inch hex (allen) key. To begin, slightly loosen the shaft collar screws (A, D) to re-position the posterior humeral contact, olecranon contact, and the medial and lateral condyle contacts (B) on the structural shafts using the movements shown (C). DO NOT loosen the Philips screws that secure the shaft collars to the contact pieces. Fit the cuff onto the user's distal humerus as shown (E - F); sliding it on from the lateral side and then turning it into position (i.e. a "keyhole" fit). Properly adjusted, the gap between the lateral and medial condyle contacts allows the cuff to be donned and doffed without having to unscrew or loosen any parts of the cuff.

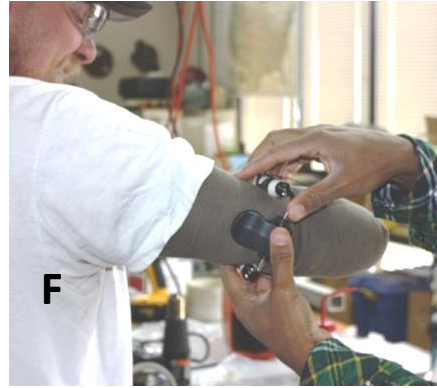
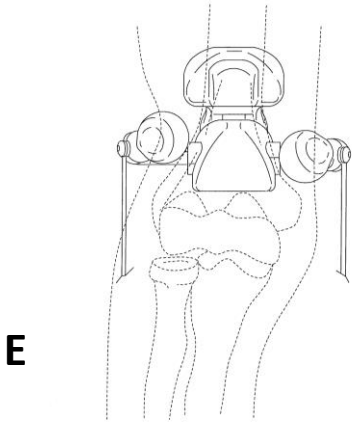
USERS MUST BE ABLE TO PUT ON AND TAKE OFF THE HUMERAL SUSPENSION CUFF ON THEIR OWN, UNASSISTED, WITHOUT THE USE OF TOOLS AND WITHOUT FORCING OR DEFORMING THE CUFF.

Gently pull tissue rearward into the cuff to avoid pinching and to seat the cuff fully on the arm. To make fine adjustments, the posterior humeral contact should be vertically aligned with the axis of the humerus (E, F) and rotated inward to contact the skin (F). This contact provides feedback to the wearer and helps stabilize the cuff under heavy suspension loads. The condyle contacts must be positioned to rest comfortably on the condyles with some light load applied to the suspension straps (G).



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Note that for some users the lateral contact is higher than the medial (E). Fitting the cuff requires practice and patience to develop proper technique.



ITERATIVE TUNING

Once positioned, have the user wear the device for a short period of time in the clinic to acclimate to the feel of it. Additional adjustments can then be made iteratively while the cuff is being worn to “hone in” on an optimal fit. All shaft collar screws should be turned down to lock-in the final cuff adjustments; do not exceed 25 in-lbf (400 in-oz) of torque or the screws may be damaged.

Elbow-bridging suspension straps (included) should be attached to the lateral and medial sides of the user’s existing forearm shell with spacing adjusted to permit full elbow flexion without impeding ROM. Straps should be permitted to swivel on the forearm shell, and may be attached using Chicago screws, machine screws, rivets, etc. Cuff-to-forearm shell spacing should be adjusted so that the cuff is only lightly loaded when the arm hangs at rest at the user’s side. When the prosthesis is loaded, for example lifting a bucket, the cuff should move down slightly, fully engaging and stabilizing upon the anatomical structures of the arm. Properly adjusted, the suspension cuff should support de-gloving loads with the arm fully extended.

Use of the anterior cuff strap is fully optional. Some users feel more secure with the strap in place, while others prefer to leave the strap off.

If equipped, the swivel on the posterior humeral contact accepts ToughWare Prosthetics’ standard cable housing.

Experience has shown users require approximately one week to fully acclimate to the cuff.

WARNING

The humeral suspension cuff is not designed nor intended to support the user’s body weight. All devices can fail; users assume responsibility for ensuring their own comfort and safety while using the device and avoiding situations where its failure could cause injury or death. In the event the skin becomes irritated, bruised, chafed, or any abnormal condition arises, users must discontinue using the suspension cuff immediately and consult with their clinical practitioner before continuing use.

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The condyle contact pads are replaceable if worn or damaged. Replacement parts are available from ToughWare Prosthetics if needed. See ToughWare Prosthetics’ catalogue or visit our website for warranty information.

For questions or technical assistance, please write or call ToughWare Prosthetics.

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Made in the USA



ToughWare Prosthetics’ Humeral Suspension Cuff (HSC) system is manufactured under US Patent 8,414,658

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