

TruSignal™ Circuit Board

Technical Instructions



REQUIRED FOR INSTALLATION

- TruSignal Circuit Board (included)
- TruSignal Electrode Kit
- Espire Elbow Pro or Hybrid Model
- Access code for system alterations (contact Steeper Group)
- iPad with Espire Hub App installed

OVERVIEW

The TruSignal circuit board is a required add-on for use with TruSignal AC electrodes and the Espire Elbow Pro or Hybrid models. The circuit board can be factory installed by Steeper Group at the time of the initial order. It can also be added later, either by the prosthetist, or the elbow can be returned to Steeper for service.

INSTALLATION INSTRUCTIONS

Disconnect the Espire Elbow from the Prosthesis to Access the Input Connector Board

- 1 Turn off the Espire Elbow and remove the battery.
- 2 Use a 2.5mm Allen wrench to loosen the M2.5 x 12mm lamination clamp screws, then remove the lamination clamp.
- 3 Separate the elbow from prosthesis. Use caution as the input wires will be attached to the input connector board.



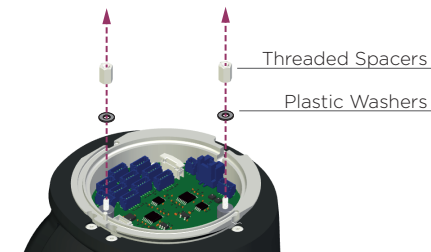
Caution: The Espire Elbow should never be serviced while connected to the end user. Ensure that the device is disconnected and powered off before any service or maintenance is performed.

Remove Strain Relief Disc

- 1 Use a 1.3 mm Allen key to remove the M2 x 5mm fasteners and washers. Do not discard.
- 2 Lift the strain relief disc off the input connector board. Do not discard.
- 3 Disconnect any input connectors that are present. When removing cables, pull close to the connector to avoid pulling on the wires. Wires that become loose could cause intermittent operation.
- 4 If necessary, remove any silicone covering the strain relief disc hole and cut the zip tie to release the cables. A replacement zip tie is included with this kit for reassembly.

Remove Threaded Spacers

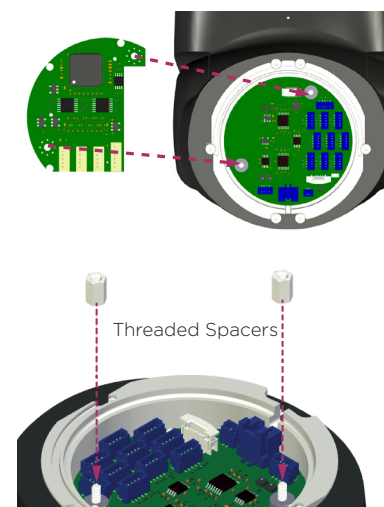
- 1 Loosen the threaded spacers located on the input board and remove. Do not discard.
- 2 A plastic washer sits under each threaded spacer and acts as a placeholder for the TruSignal circuit board. Remove the plastic washers and discard.



Caution: Do not disassemble the input connector board any further, as it would damage the Espire Elbow and void any warranty.

Install TruSignal Circuit Board

- 1 Remove the TruSignal circuit board from the static-free packaging. Handle the board carefully by holding it on its edges.
- 2 Verify that the TruSignal circuit board is in the proper orientation. Line up the holes on the circuit board with the threads on the input connector board. Gently press the circuit board into place.
- 3 Secure the TruSignal board by replacing the threaded spacers. Finger tighten the spacers into place, applying even torque.



PROGRAM THE ESPIRE ELBOW / VERIFY CIRCUIT BOARD OPERATION

- 1 Contact Steeper to obtain an access code and instructions for system alterations.
- 2 Connect the TruSignal electrodes and other appropriate inputs to the elbow. Refer to the Espire Elbow Technical Manual - Pro and Hybrid for assembly instructions (available at www.steepergroup.com).
- 3 Reinstall the battery and power on the elbow.
- 4 Pair the elbow to the Espire Elbow Hub App. Refer to the Espire Elbow Hub App Instructions for information (available at www.steepergroup.com).
- 5 From the System Alterations menu, you can assign the TruSignal AC electrodes to the appropriate control strategy.
- 6 Once saved, the new settings will be uploaded to the elbow firmware. The corresponding degree of freedom screens (shoulder, elbow, hand, wrist, switching) will display a live signal when the TruSignal AC electrodes are connected and actuated.

REASSEMBLE THE PROSTHESIS

Reassemble the Espire Elbow to the prosthesis. Refer to the Espire Elbow Technical Manual - Pro and Hybrid for assembly instructions (available at www.steepergroup.com).

WARRANTY

The TruSignal Circuit Board is covered under the same warranty duration as the Espire Elbow. For more information visit www.steepergroup.com.



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