

Parts Replacement Guide

TRU-BALANCE® 4



Q
QUANTUM®
#1 FOR REHAB POWER

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Introduction and Warnings

The TRU-Balance 4 Parts Replacement Guide has been compiled from the latest product information available at the time of publication. Pride® Mobility Products Corp. reserves the right to make changes and updates to this manual and to the product(s) it represents. Any changes, updates, or improvements to the product(s) may result in slight differences between this manual and the product you purchased.

This manual covers the removal and replacement of various mechanical and electrical components for the mobility product that have been deemed serviceable. Read and follow all of the instructions, warnings and notes contained in this manual prior to performing repairs to the mobility device.

The steps listed for each assembly will represent the proper disassembly and replacement of the components. The illustrations may differ slightly from the items being serviced but the replacement methods will remain consistent. Later replacement instructions may refer back to earlier sections.

Torque specifications are listed when applicable and must be adhered to for proper assembly and safety. If a component is listed as 'tighten until secure' the hardware should be tightened until it is secure and does not rotate without deforming or damaging the surrounding parts.

Warning symbols are used throughout the Parts Replacement Guide to identify important safety information. All of the symbols have a superscript number that will reference back to this page to designate precautions for that particular replacement step. It is very important to read and understand them completely.

Additional resources can be accessed online at www.quantumrehab.com, www.pq-365.com, or using the PQ-365 mobile app.

Refer to the IPB of the product to obtain the part numbers for any replacement components. Refer to the power chair owner's manual, setup guide, and basic operating instructions for operation guidelines and warnings before performing any service on the unit.



1 WARNING! Service should be performed by an authorized service technician only.



5 WARNING! Take care not to damage or pinch the cables during removal and installation of the components.



2 MANDATORY! The unit MUST be unoccupied during removal and installation of the components.



6 WARNING! Keep hands clear of all pinch points during the removal and installation of the components.



3 WARNING! It is strongly recommended that a second person assist in the removal of the seating system.



TIP: When the camera icon is present, take a few pictures before proceeding. These pictures can be used as a reference for reassembly.



4 WARNING! Any nylon insert lock nut removed during the disassembly or adjustment of a component must be replaced with a new nut. Reuse may result in a less secure fit.

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INFMANU5359/Rev.B/Nov.2022*

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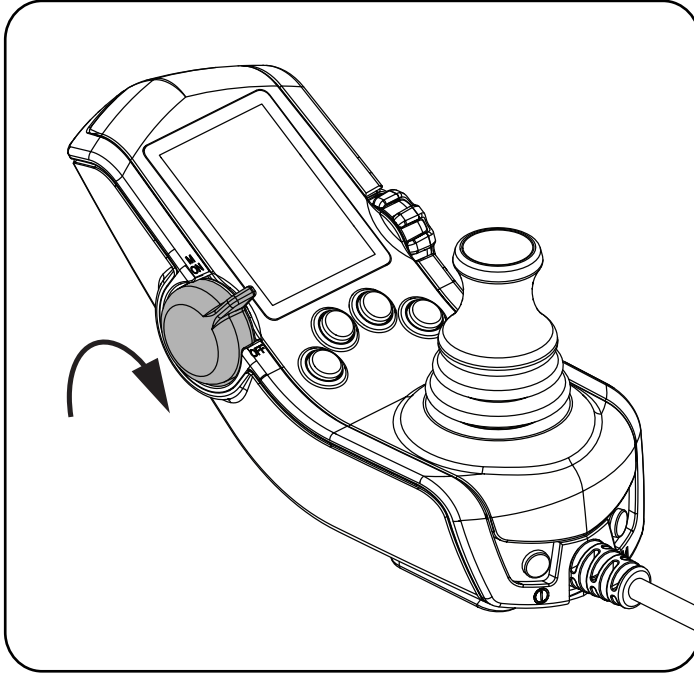
Tools Required

- | | |
|----------------------------|---------------------------------------|
| - Metric Hex Key Set | - Wire Snips |
| - Metric Wrench Set | - Cable Ties |
| - Standard Wrench Set | - Loctite 242, 243, 638 or equivalent |
| - Calibrated Torque Wrench | - Q-Logic 3 Programmer |
| - Phillips Screwdrivers | |

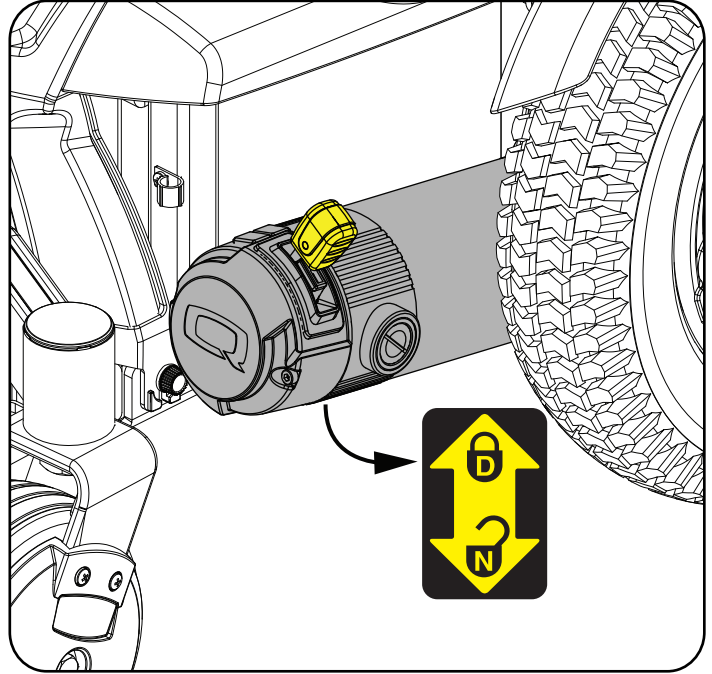
I. Chair Preparations



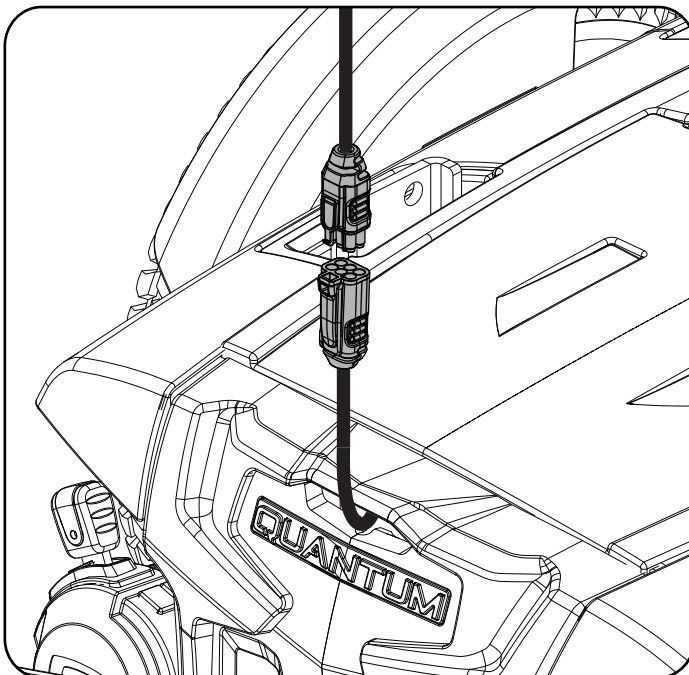
1 All of the replacement instructions require safety precautions prior to performing service to the mobility device. These precautions are set in place not only to ensure the safety of the technician but for the end user as well. The replacement instructions in the guide will refer back to this section to set-up the product prior to service.



1. Turn off power to the joystick



2. Ensure the unit is in drive (D) mode



3. Disconnect the bus cable from the power base at the rear door cover.

II. Chest Bar & Receiver



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.

Tools Required:

- Calibrated Torque Wrench
- Metric Hex Key Set (2.5mm, 5mm, 6mm)

Note: 20° and 30° anterior tilt functions require a chest support. Omitting the chest bar requires the provider to facilitate aftermarket chest supports that best fits the consumer needs.

Removal:

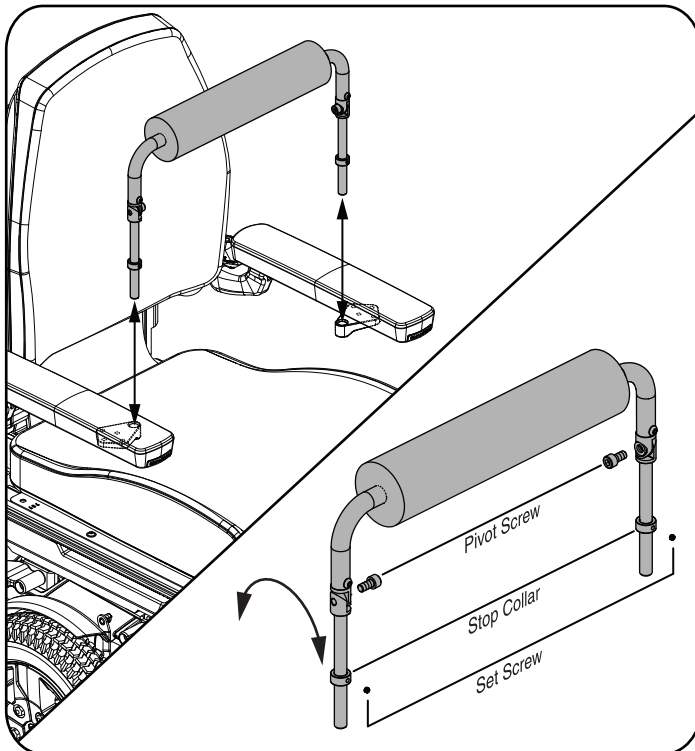
1. Remove the chest bar by sliding it up and out of the receiver blocks.
2. Pull the armrest end caps from the front of the armrests.
3. Remove the receiver blocks by loosening the screws on the bottom of the receiver block then slide the receiver blocks from the armrests.

Installation:

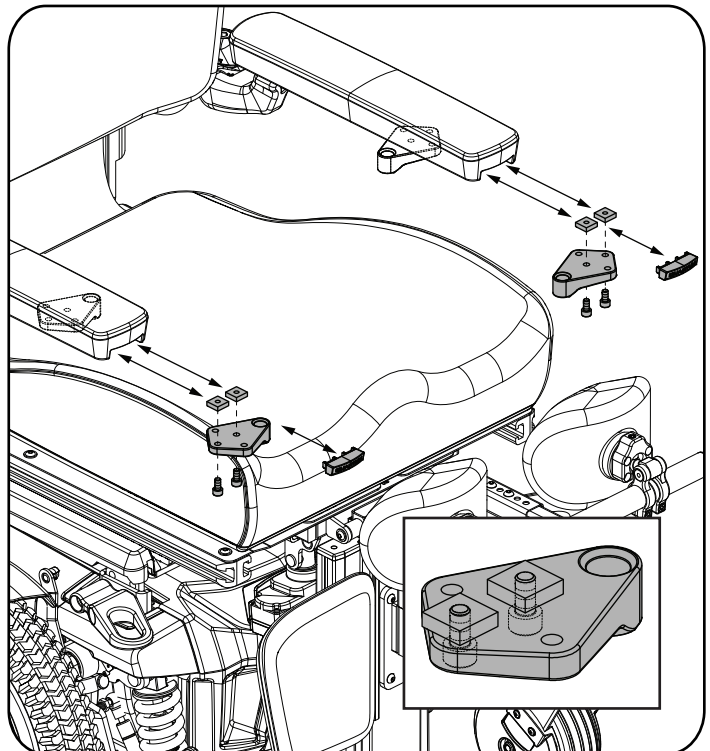
1. Assemble the new receiver block and mounting hardware ensuring the hardware is connected but remains loose.
2. Slide the receiver blocks into the armrests and place in the desired location. Tighten until secure.
3. Insert the armrest end caps into the front of the armrests.
4. Slide the replacement chest bar into the receiver blocks.

Adjustments:

1. Adjust the chest bar angle by loosening the pivot screws and positioning where needed. Tighten until secure.
2. Set the chest bar height by loosening the stop collar set screws and moving the stop collar to the desired location. Tighten until secure.



Chest Bar



Receiver Block

III. Knee Block & Receiver



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.

Tools Required:

- Calibrated Torque Wrench
- Metric Hex Key Set (5mm, 4mm)

Note: 20° and 30° anterior tilt functions require the use of the knee block assy.

Removal:

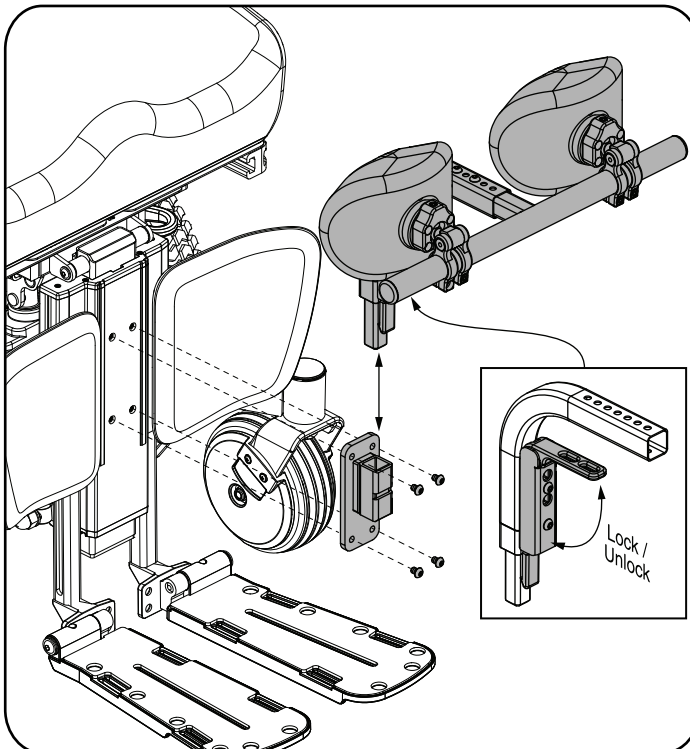
1. Pull the release lever up to unlock it from the receiver block.
2. Pull the knee block up and out of the receiver.
3. Remove the 4 screws connecting the receiver to the AFP then remove the receiver block.

Installation:

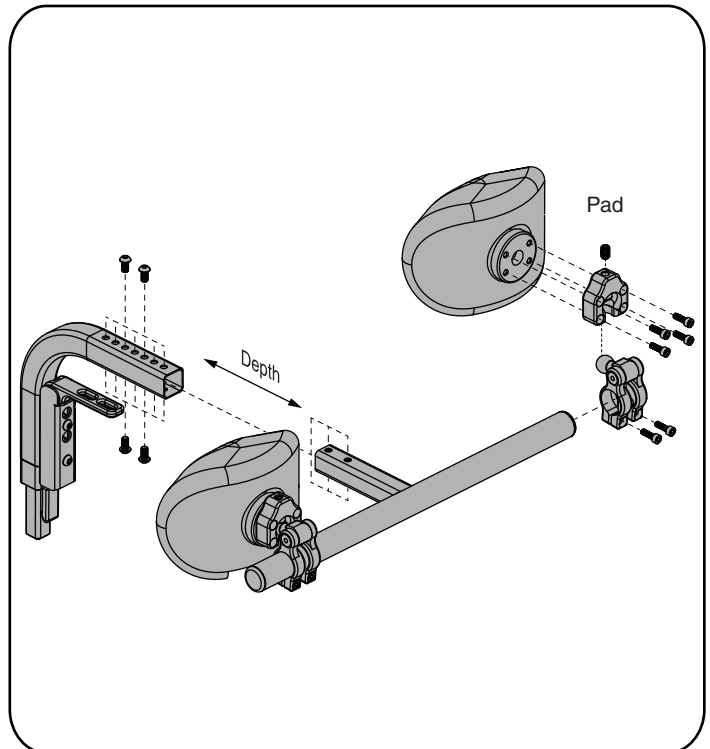
1. Align the receiver block with the holes in the AFP. **Note:** The height of the knee block can be adjusted by turning the receiver block 180° if needed.
2. Insert the four (4) screws. Tighten until secure.
3. Slide the knee block assembly into the receiver with the lever in the unlocked (up) position.
4. Lock the knee block in place by pushing down on the lever until secure.

Adjustments:

1. Adjust the depth by removing the four (4) screws that connect the weldments then align to the desired depth. Reinsert the screws and tighten until secure.
2. Adjust the pads by loosening the pivot screws and set it to the desired position. Tighten until secure.



Removal and Installation



Adjustments

IV. Back Pan



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the back cushion
4. Remove the chest bar (when applicable). **Refer to Section II.**
5. Flip up the power chair armrests.

Tools Required:

- Metric Hex Key Set (4mm)

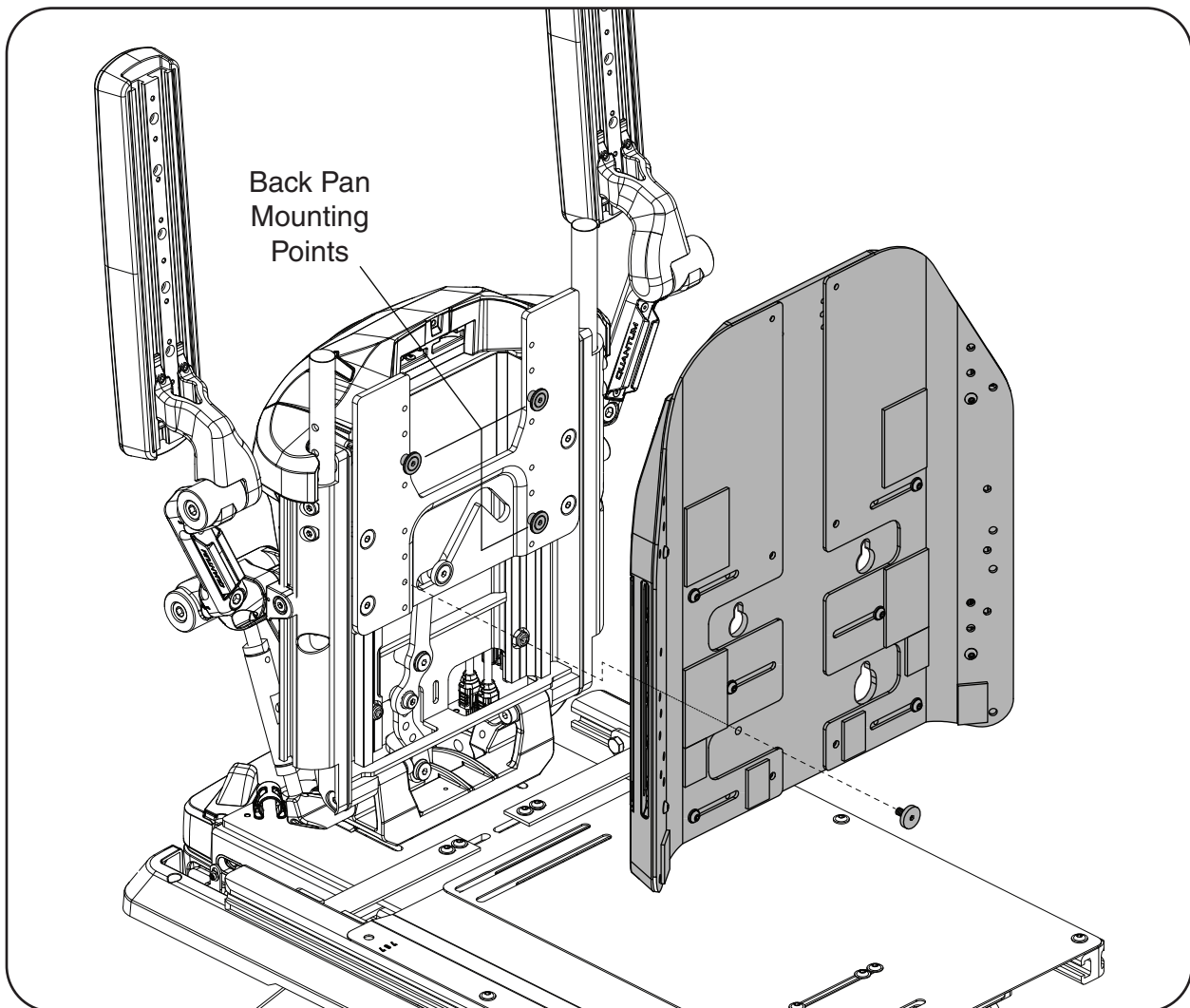
Removal:

1. Remove the thumb screw.
2. Slide the back pan up and then pull away from the unit.

Installation:

1. Align the back pan to the seat back using the three (3) mounting points as a guide.
2. Slide the back pan onto the back and insert the thumb screw. Tighten until secure.

Refer to Appendix A for setting the power chair width.



Back Pan

V. Seat Pan




1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the seat cushion
4. Remove the chest bar (when applicable). **Refer to Section II**
5. Flip up the power chair armrests.

Tools Required:

- Calibrated Torque Wrench
- Metric Hex Key Set (4mm)

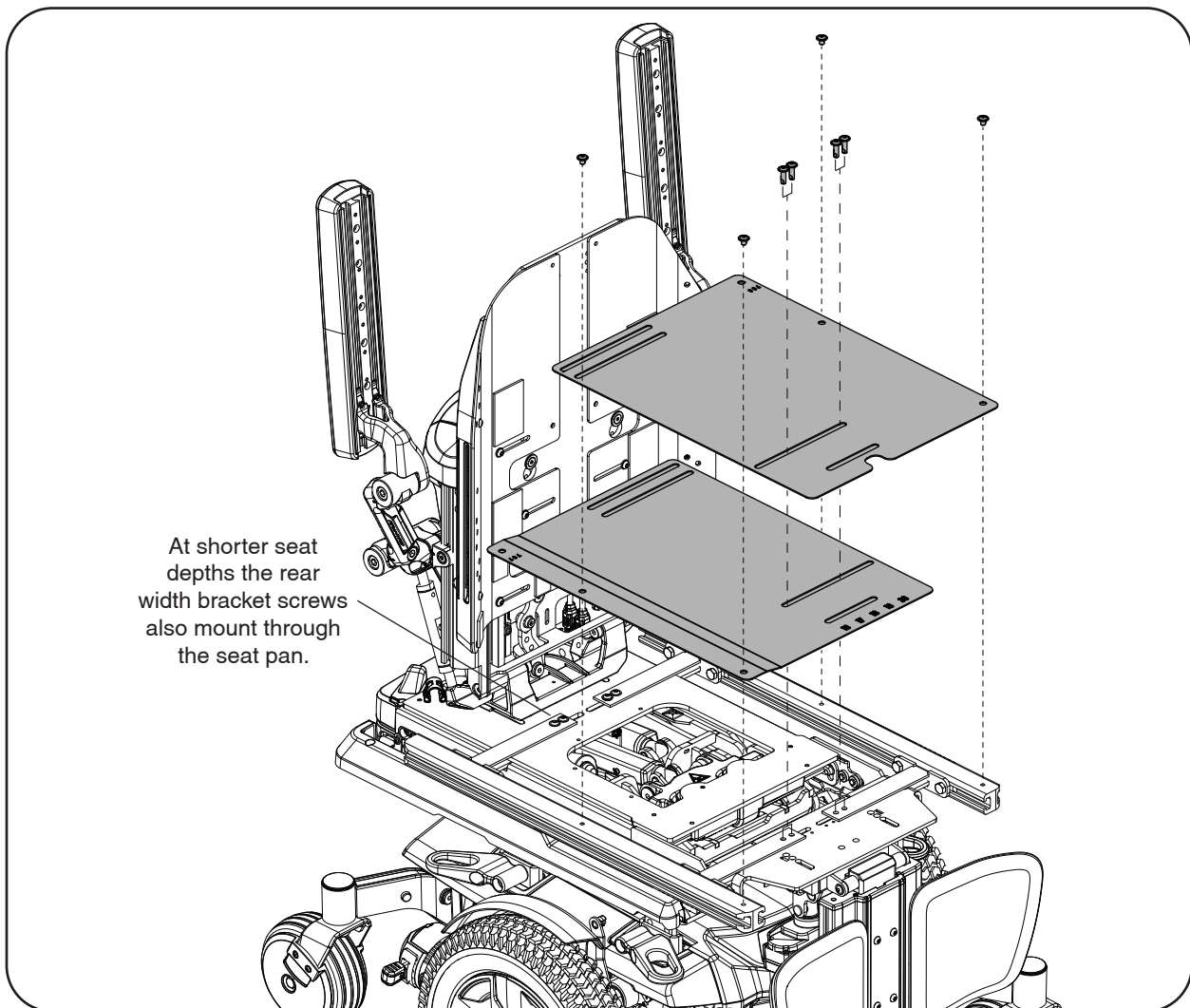
Removal:

1. Take note of the seat width as indicated on the seat pan. 
2. Remove the screws that secure the seat pan to the seat base.
3. Remove the seat pans.

Installation:

1. Align the seat pan with the seat base.
2. Secure the seat pan to the seat base with the mounting hardware. Tighten until secure.

Refer to Appendix A & B for setting the power chair width & depth.



Seat Pan

VI. Side Rails



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the seat pan. **Refer to Section V.**

Tools Required:

- Calibrated Torque Wrench
- Metric Wrench Set (13mm)

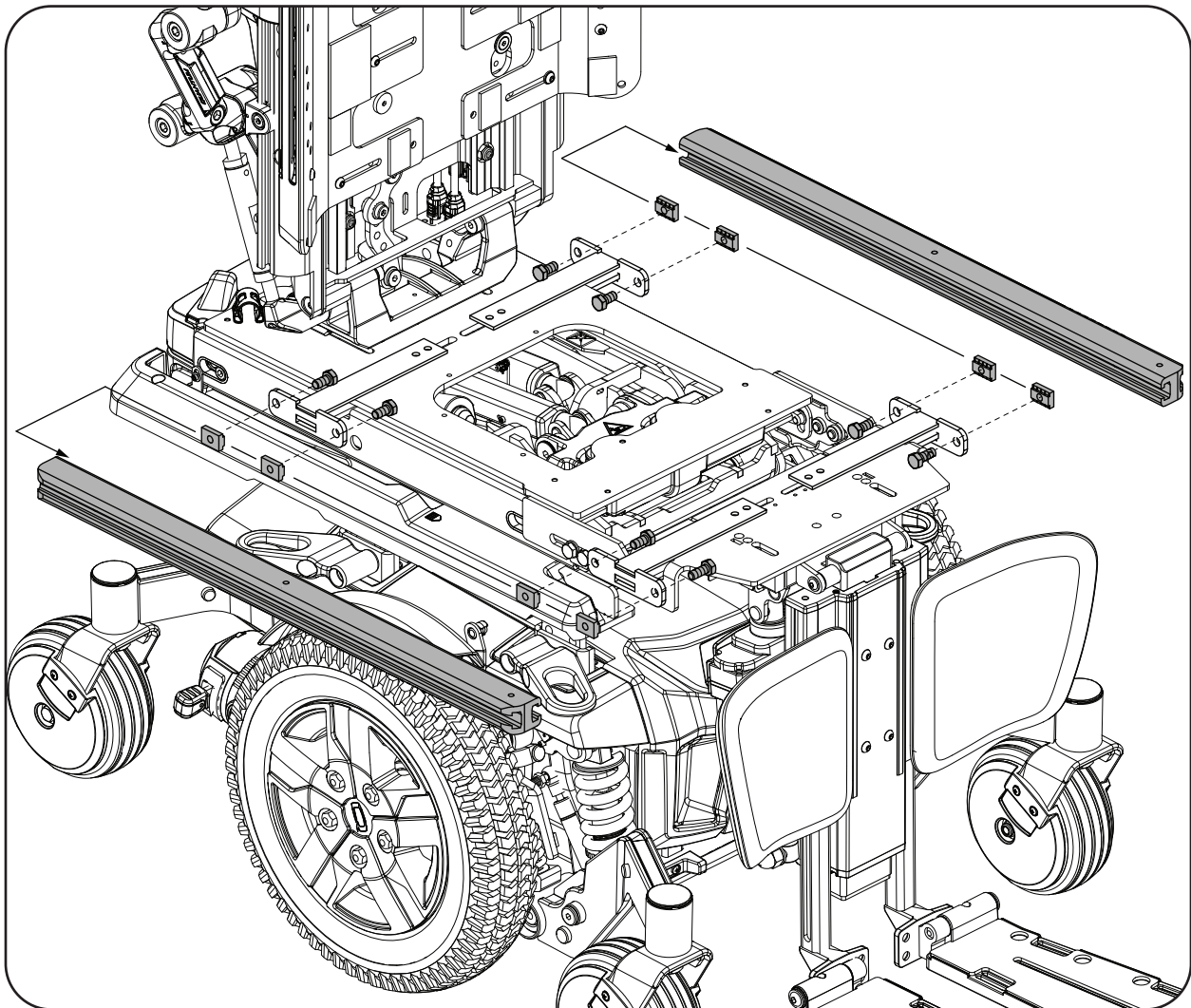
Removal:

1. While supporting the side rail remove the screws that connect the width bracket to the rail.
2. Remove the side rail then remove the t-nuts from the rail.

Installation:

1. Slide the t-nuts into the side rail.
2. Align the side rail and t-nuts to the width adjustment brackets and insert the hardware ensuring the hardware is connected but remains loose.
3. Use the seat pan as a guide to properly align the rails. Refer to **Section V** for seat pan illustration.
4. Tighten the hardware to $15.5 \text{ N}\cdot\text{m}$ ($11.4 \text{ ft}\cdot\text{lbs}$) $\pm 10\%$.

Refer to Appendix A & B for setting the power chair width and depth.



Side Rails

VII. Width Brackets



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the seat pan. **Refer to Section V.**
4. Remove the side rails. **Refer to Section VI.**

Tools Required:

- Calibrated Torque Wrench
- Metric Hex Key Set (4mm)

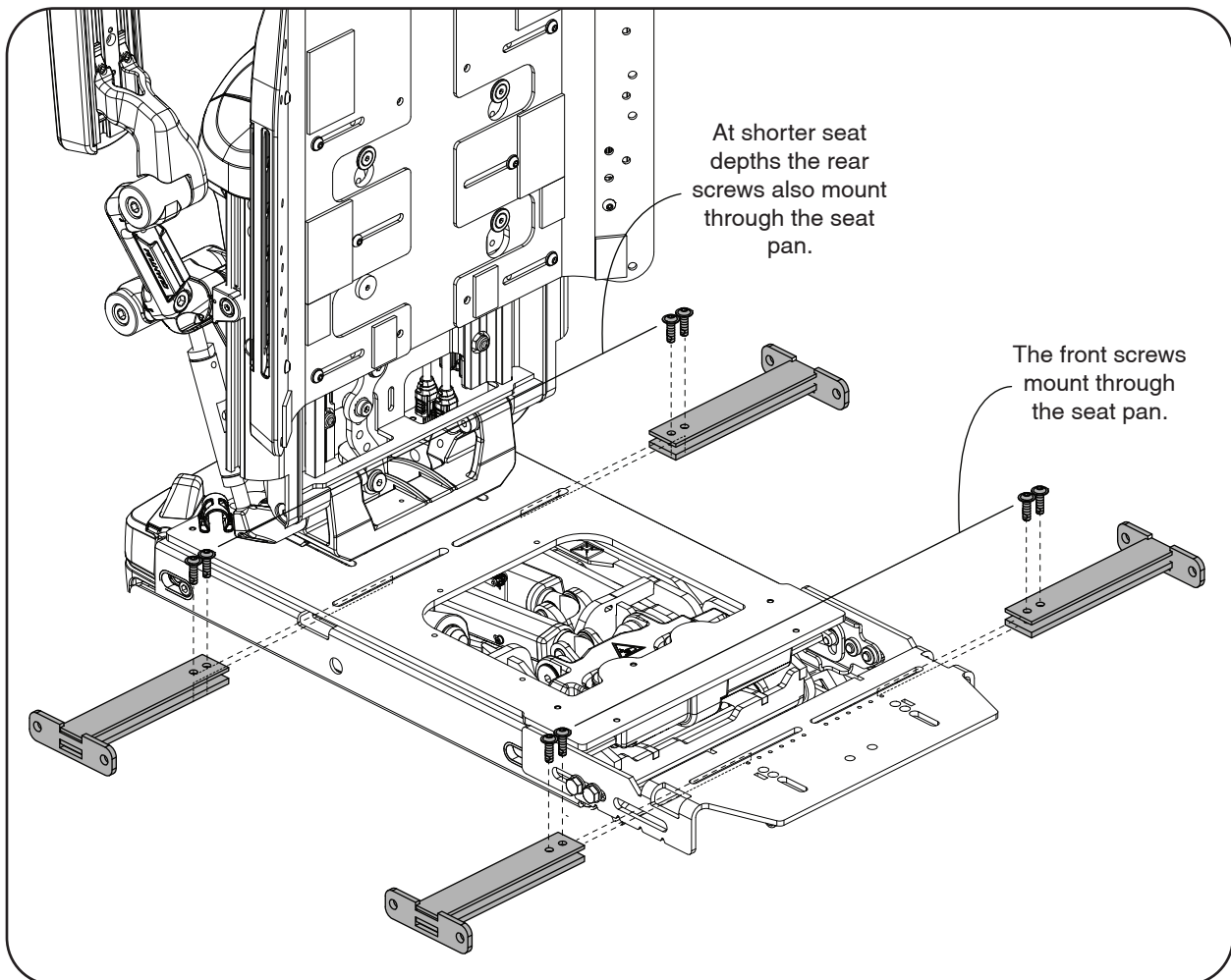
Removal:

1. Remove the four (4) screws from the rear width brackets. **Note:** At shorter seat depths the rear screws mount through the seat pan and will have already been removed.
2. Remove the front and rear width brackets from the seat frame.

Installation:

1. Attach the side rails to the width brackets ensuring the hardware is connected but remains loose.
2. Insert the width brackets into the seat frame.
3. Place the seat pans onto the side rails then use the pan as a guide to adjust the rail position and seat width as needed.
4. Secure the side rails to the width adjustment brackets. Torque as indicated in **Section VI.**
5. Secure the width brackets to the frame. Tighten until secure. **Note:** The front screws always mount through the seat pan. At shorter seat depths the rear screws will also mount through the seat pan, otherwise the rear screws mount directly to the width brackets.
6. Reinstall the remaining seat pan hardware and torque as indicated in **Section V.**

Refer to Appendix A for setting the power chair width.



Width Brackets

VIII. Depth Bracket




1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the seat pan. **Refer to Section V.**
4. Remove the AFP. **Refer to Section XVII.**
5. Remove the side rails. **Refer to Section VI.**
6. Remove the width brackets. **Refer to Section VII.**

Tools Required:

- Calibrated Torque Wrench
- Metric Wrench Set (13mm)

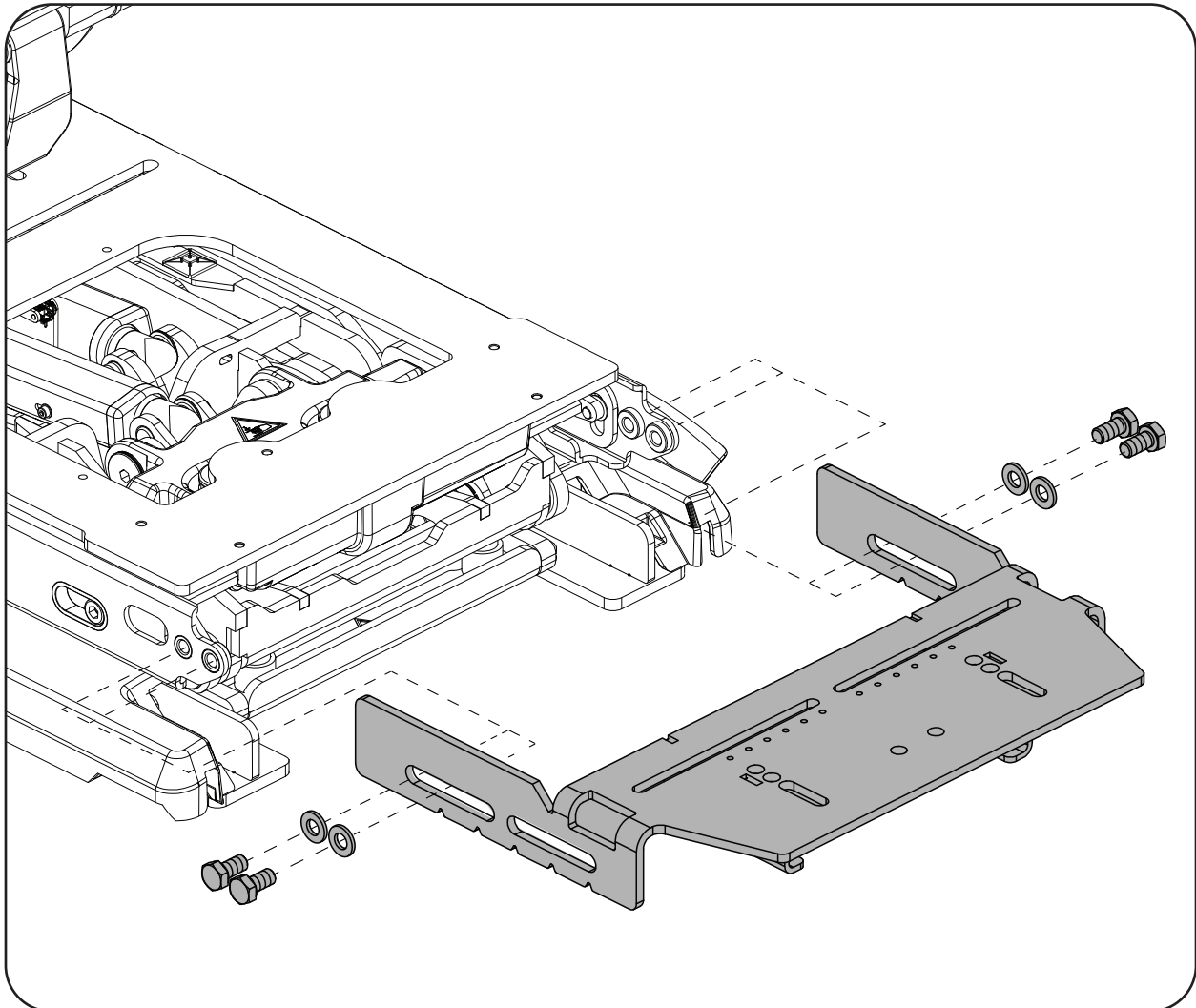
Removal:

1. Take note of how the hardware and depth adjustment bracket are aligned on the unit. 
2. While supporting the depth adjustment bracket, remove the hardware securing the bracket to the seat frame then remove the bracket.

Installation:

1. Align the depth adjustment bracket and hardware to the seat base as noted in step 1 of the removal process.
2. Tighten the hardware to 24-28 N*m (17.7-20.6 ft*lbs).

Refer to Appendix B for setting the power chair depth.



Depth Bracket

IX. Armrests



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the chest bar (when applicable). **Refer to Section II.**

Tools Required:

- Calibrated Torque Wrench
- Metric Hex Key Set (4mm, 5mm)
- Metric Wrench Set (13mm)

Armpad Removal / Installation:

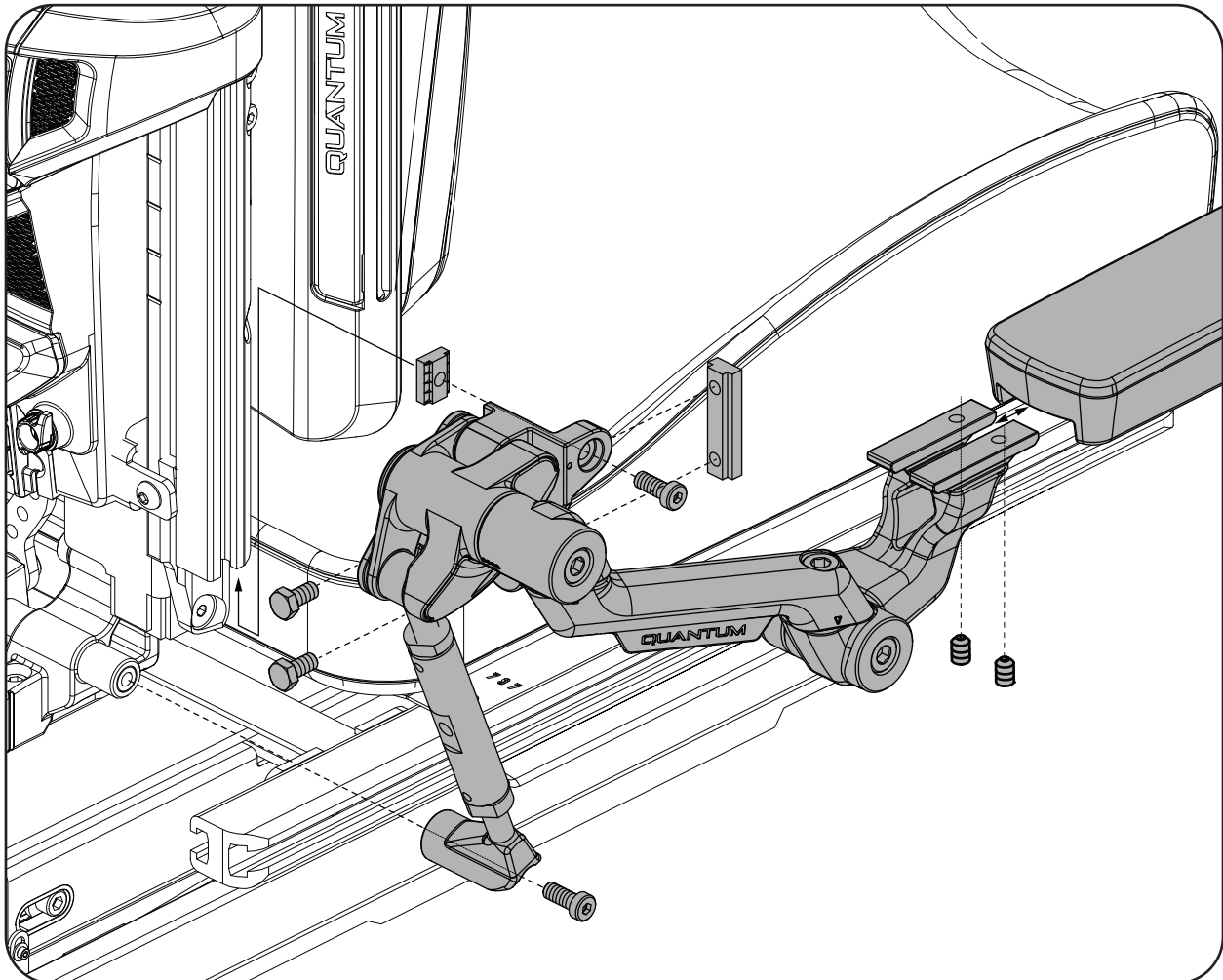
1. To remove, loosen the set screws on the bottom of the armrest and slide the armpad off.
2. To install, slide the armpad onto the armrest to the desired location then secure with the set screws. Tighten until secure.

Armrest Removal:

1. Flip up the power chair armrest.
2. While supporting the armrest remove the hardware holding the armrests to the back of the unit then remove the armrest.

Armrest Installation:

1. Flip up the power chair armrest.
2. While supporting the weight of the armrest align the armrest with the back of the unit.
3. Insert the hardware and tighten so the armrest and hardware are connected and secure but remains loose so adjustments can be made.
4. Reference **Appendix C** for adjusting the width, height, and angle of the armrest to complete the installation.



Armrest / Armpad Removal / Installation

X. Rear Electronics Cover



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.

Tools Required:

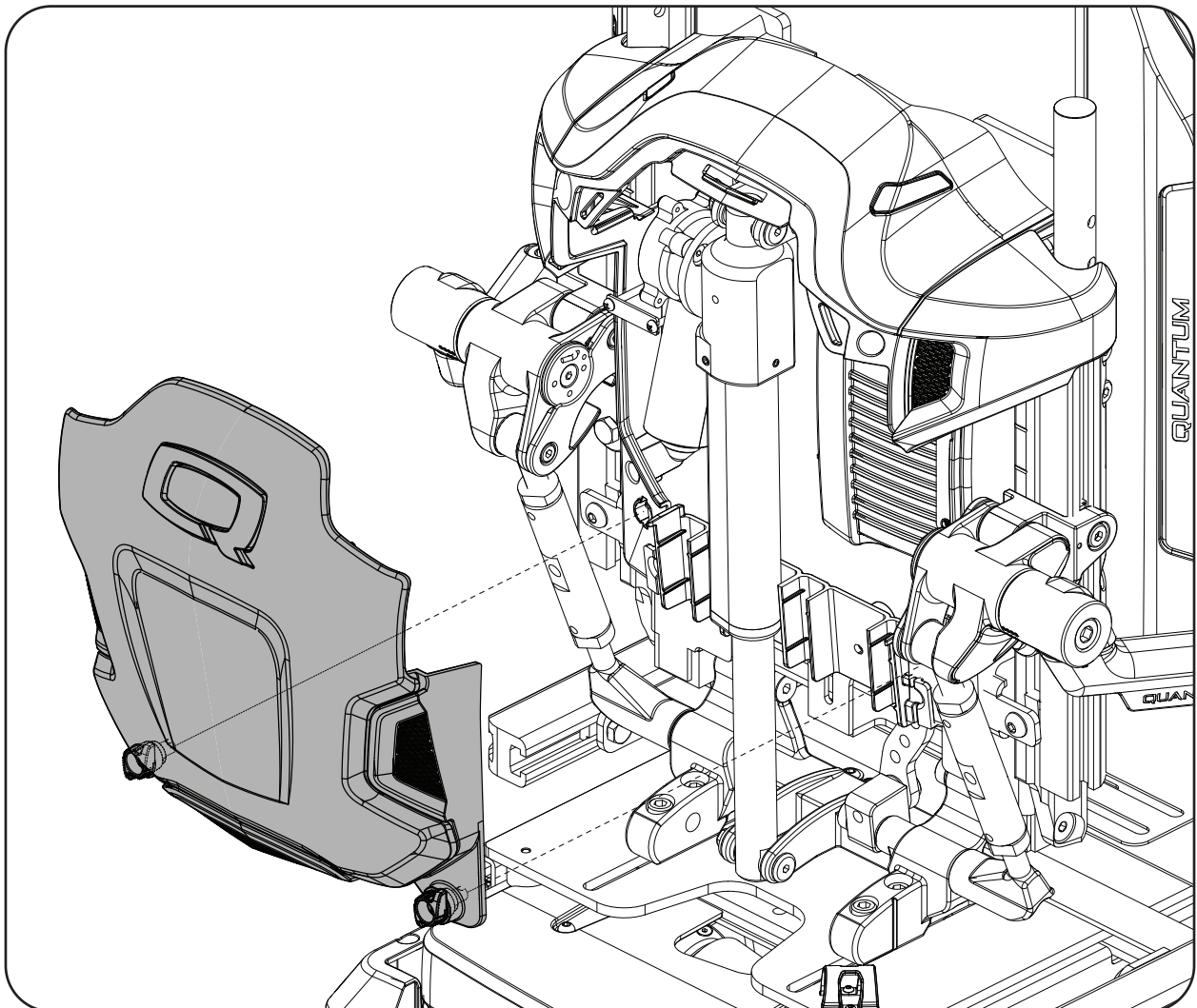
- None

Removal:

1. Turn the release knobs 1/4 turn to unlock the cover from the back.
2. Remove the back cover.

Installation:

1. Turn the release knob so they can be inserted into the back shroud.
2. Align the back cover onto the back shroud.
3. Turn the knobs 1/4 turn to lock the cover to the seat back.



Electronics Cover

XI. AAM




1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the rear electronics cover. **Refer to Section X.**

Tools Required:

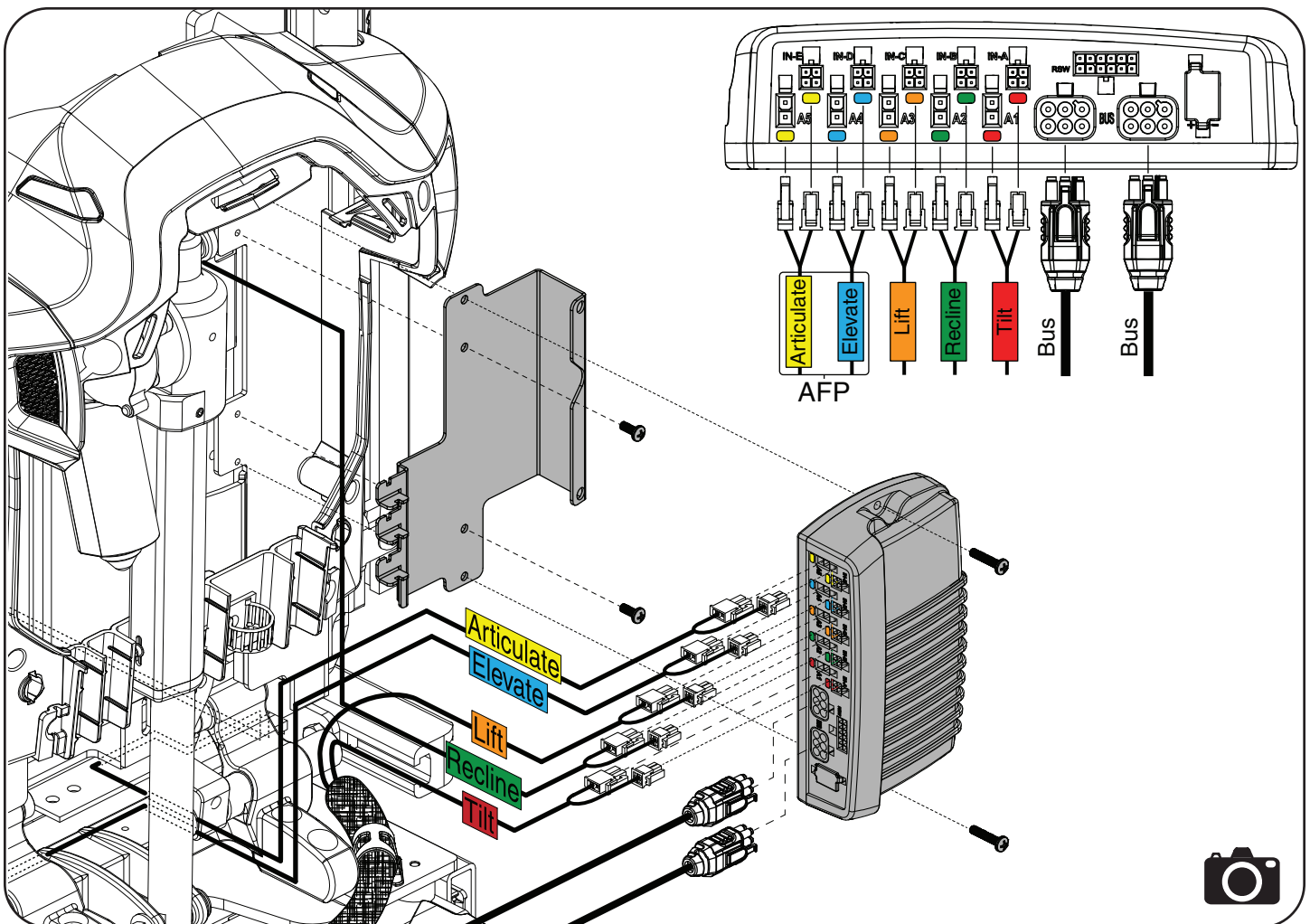
- Phillips Head Screw Driver

Removal:

1. Unscrew the AAM module from the mounting bracket.
2. Disconnect the harnesses plugged into the AAM module then completely remove the AAM. 
3. Unscrew the mounting bracket from the back and remove the bracket.

Installation:

1. Align the mounting bracket with the back of the unit and secure using the two phillips head screws. Tighten until secure.
2. Connect the wires back into the AAM module. Use the pictures taken during removal as a reference or see the AAM wiring location below.
3. Align the AAM with the mounting bracket and secure with the two phillips head screws. Tighten until secure.
4. Recalibrate the system. Refer to **Appendix E & F.**



AAM Removal / Installation

XII. Bus and Multiplier Harnesses



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the rear electronics cover. **Refer to Section X.**

Tools Required:

- Phillips Head Screw Driver
- Wire Snips
- Cable Ties

Note: The unit may be equipped with two (2) bus cables, one (1) multiplier harness and one (1) bus cable, or two (2) multiplier harnesses. All configurations use the seat to base bus cable.

Seat to Base Bus Cable Removal / Installation: See **Appendix D** for additional illustration.

1. Elevate the seat to the highest position (the joystick will temporarily need to be turned back on).
2. Remove the rear wire cover. **Refer to Section XX.**
3. Snip the three (3) cable ties around the woven wire wrap then remove the wire wrap.
4. Snip the cable ties holding the bus cable to the wire guide then disconnect & remove the cable.
5. Reverse steps 1 through 4 to complete installation.

Bus Cable Removal / Installation:

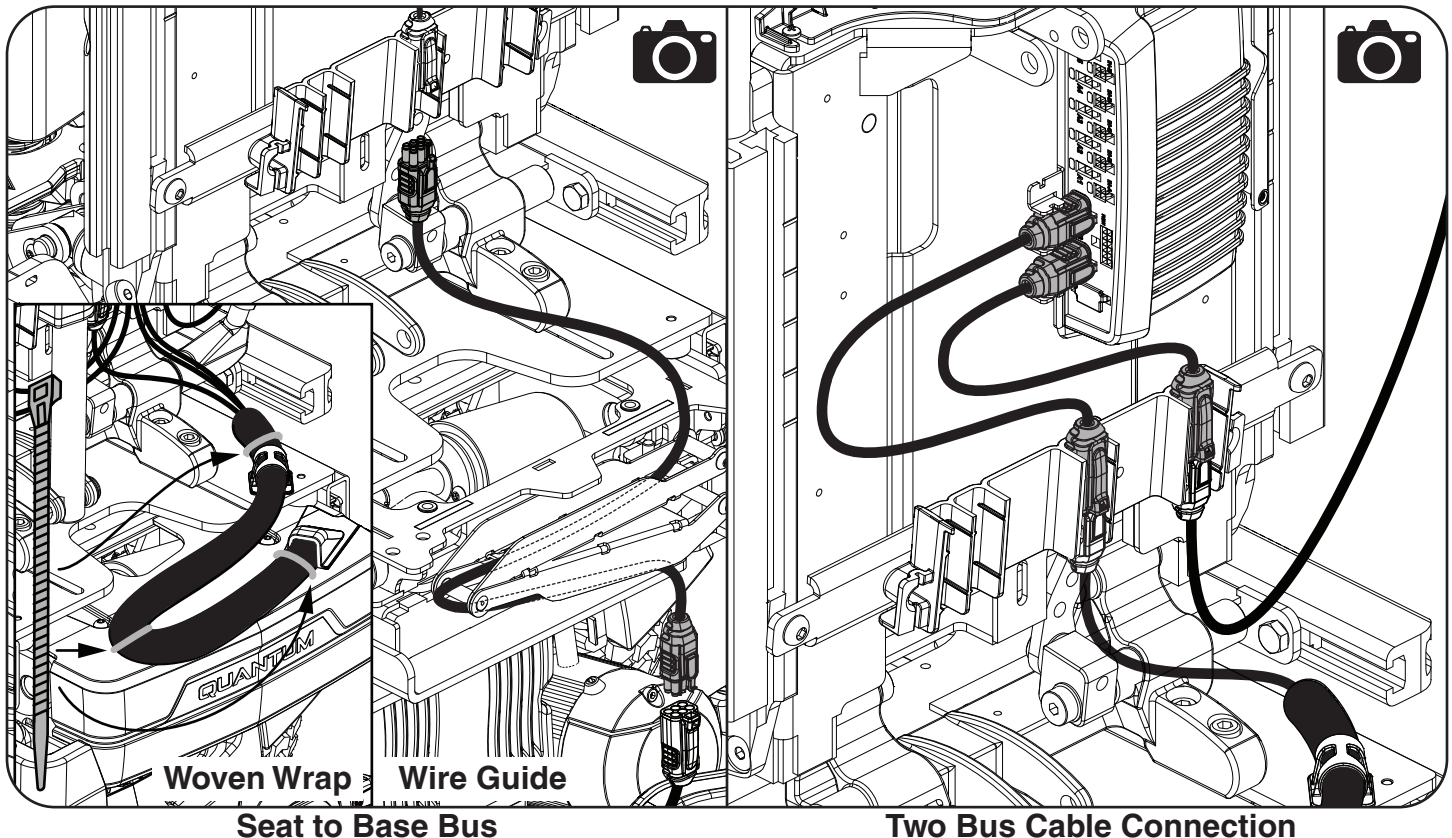
1. Disconnect and connect the bus cables as shown for the configuration .

Multiplier Removal:

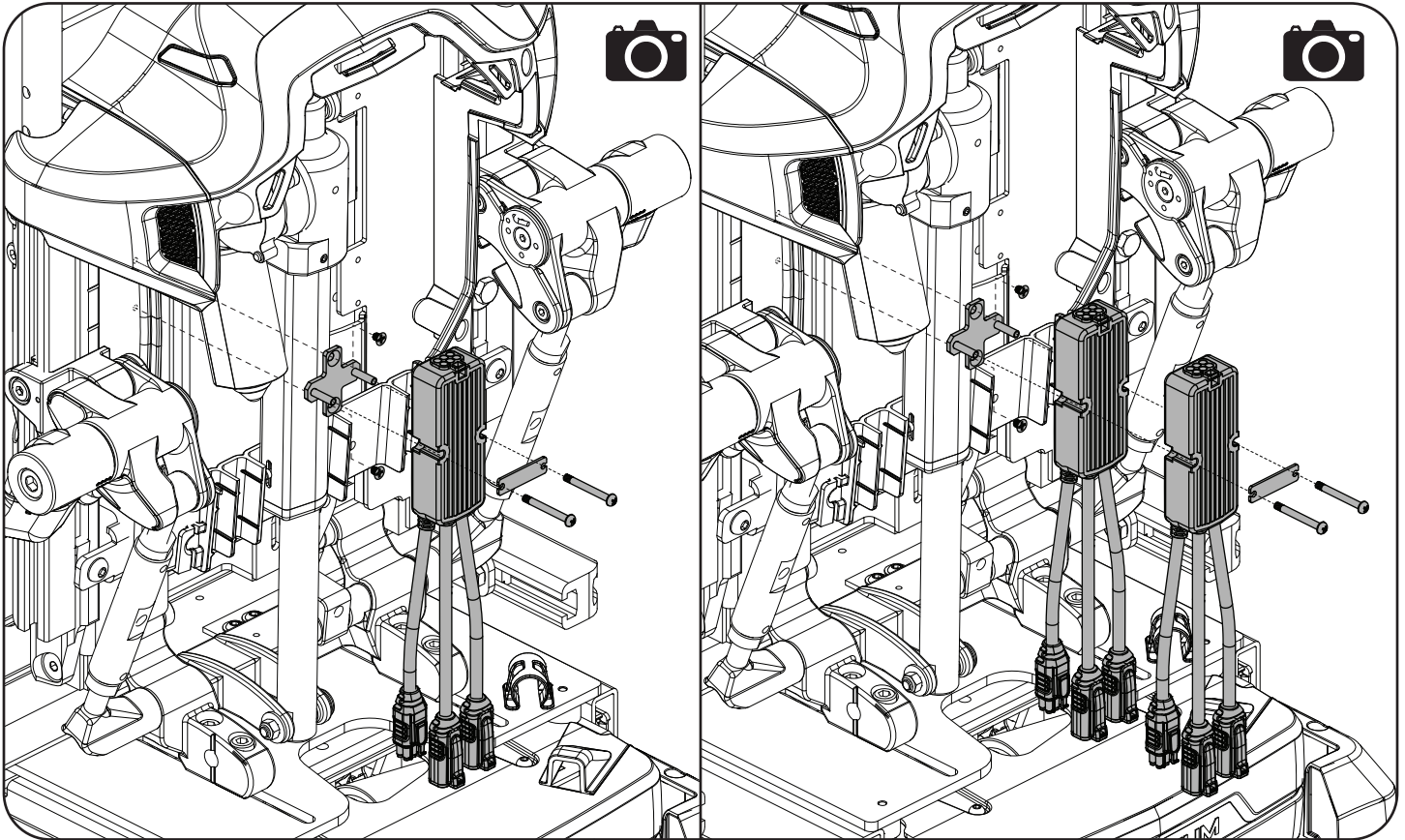
1. Disconnect any bus cables / peripheral devices from the multiplier harness(es).
2. Disconnect the multiplier harness(es) from the rest of the electronics system.
3. Unscrew the multiplier mount then remove the harness(es).
4. Unscrew then remove the stud mount from the back of the unit

Multiplier Installation:

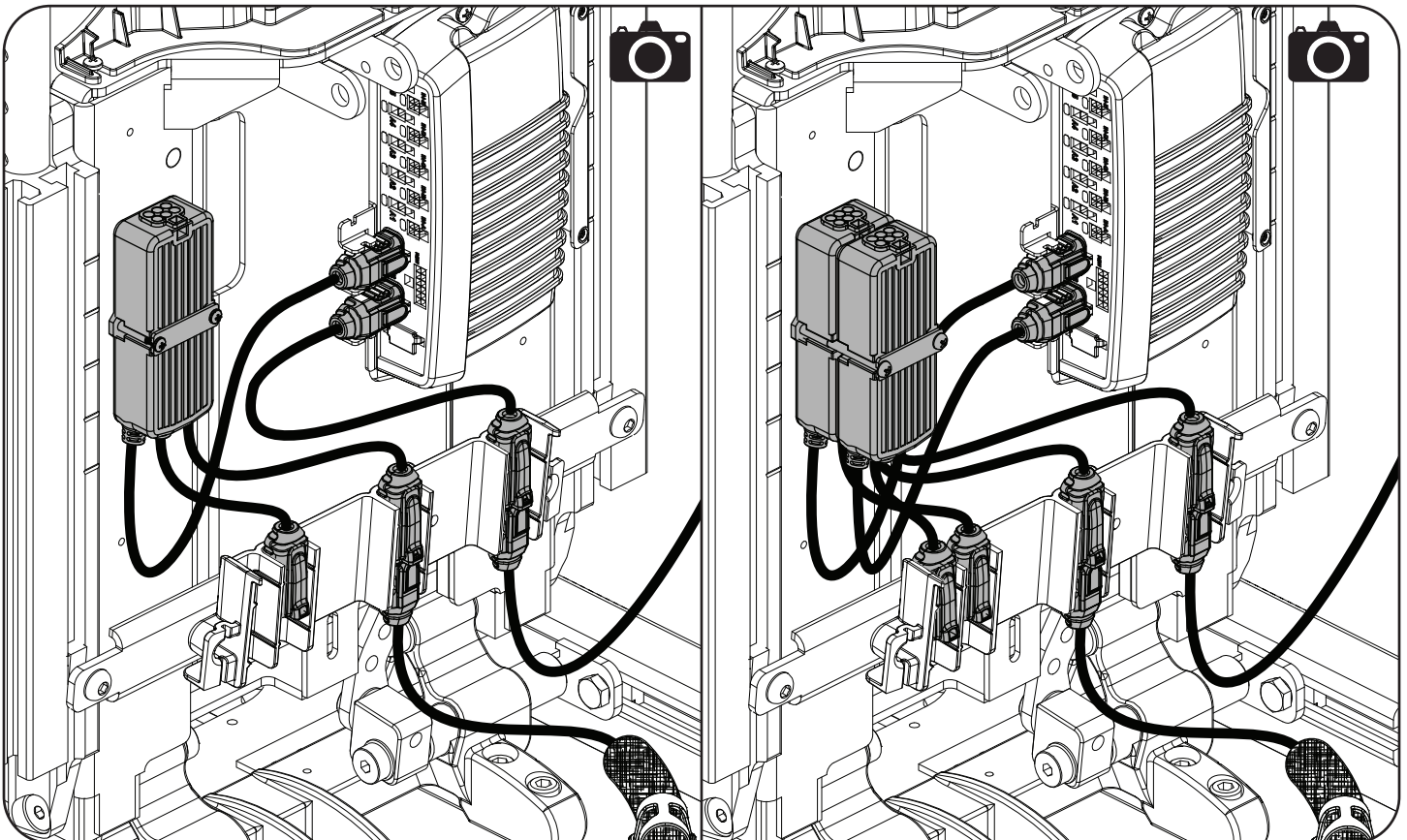
1. Align the stud mount and screws with the back of the unit. Tighten until secure.
2. Align the multiplier harness(es) with the stud mount. Secure the multiplier(s) to the stud mount using the two phillips head screws and the tiedown strap. Tighten until secure.
3. Reconnect the multiplier harness(es) to the electrical system.
4. Reconnect any bus cables / peripheral devices.



XII. Bus and Multiplier Harnesses



Multiplier Mounting



Multiplier Connections

XIII. Back Shroud



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the rear electronics cover. **Refer to Section X.**

Tools Required:

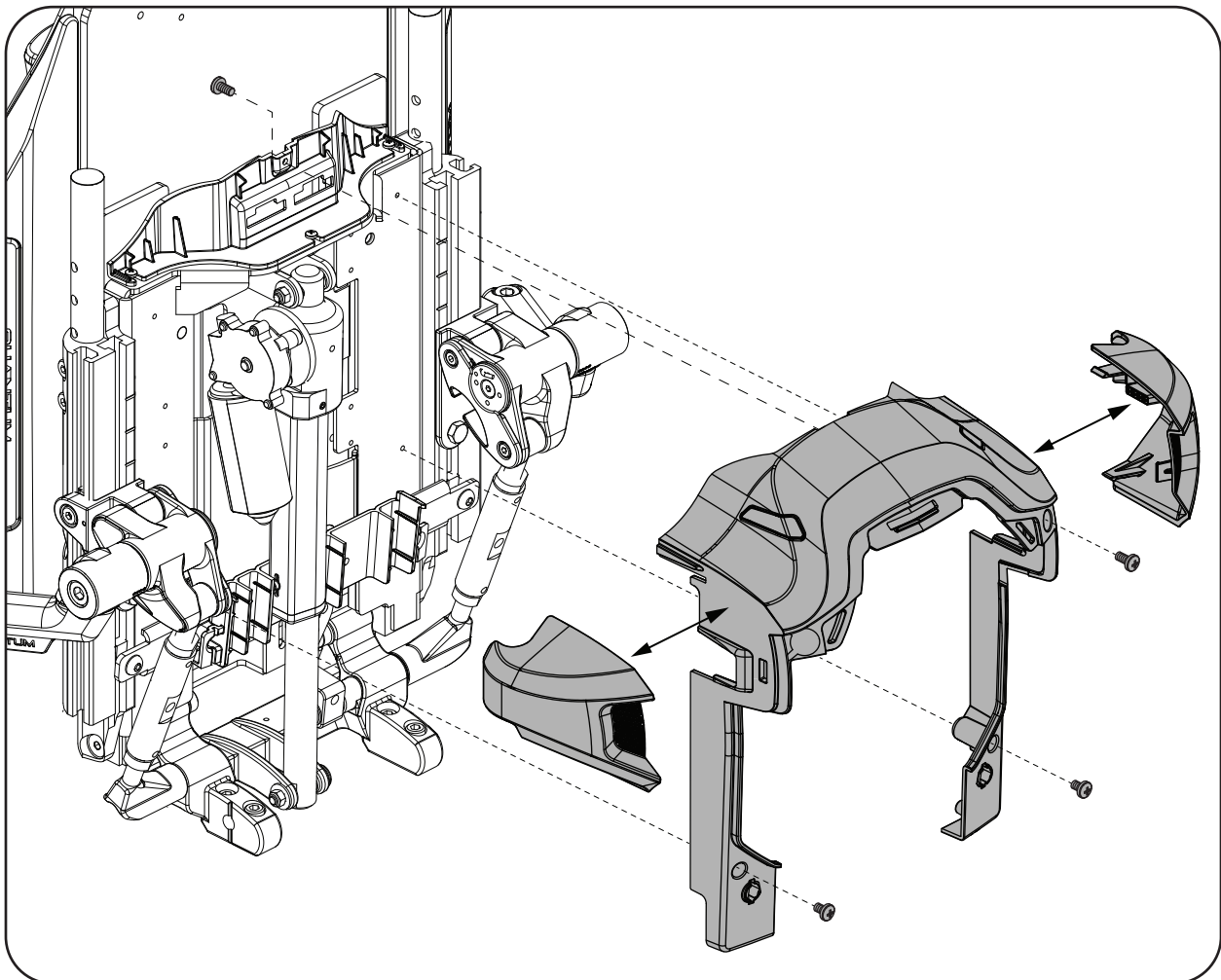
- Phillips Head Screw Driver

Removal:

1. Remove the left and right shoulder covers from the back shroud.
2. Remove the screw at the top of the back shroud.
3. Remove the three screws that connect through the rear of the back shroud then remove the shroud assembly.

Installation:

1. Align the shroud with the back of the unit and secure with the three screws that mount from the rear. Tighten until secure.
2. Insert the screw at the top of the back shroud and tighten until secure.
3. Insert the left and right shoulder covers.



Back Shroud

XIV. Seat Back




1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the cushions.
4. Remove the rear electronics cover. **Refer to Section X.**
5. Remove the armrests. **Refer to Section IX.**
6. Remove the back pans. **Refer to Section IV.**
7. Remove the AAM. **Refer to Section XI.**
8. Remove the multiplier harnesses & bus cables. **Refer to Section XII.**
9. Remove the back shroud. **Refer to Section XIII.**

Tools Required:

- Calibrated Torque Wrench
- Metric Hex Key Set (6mm)

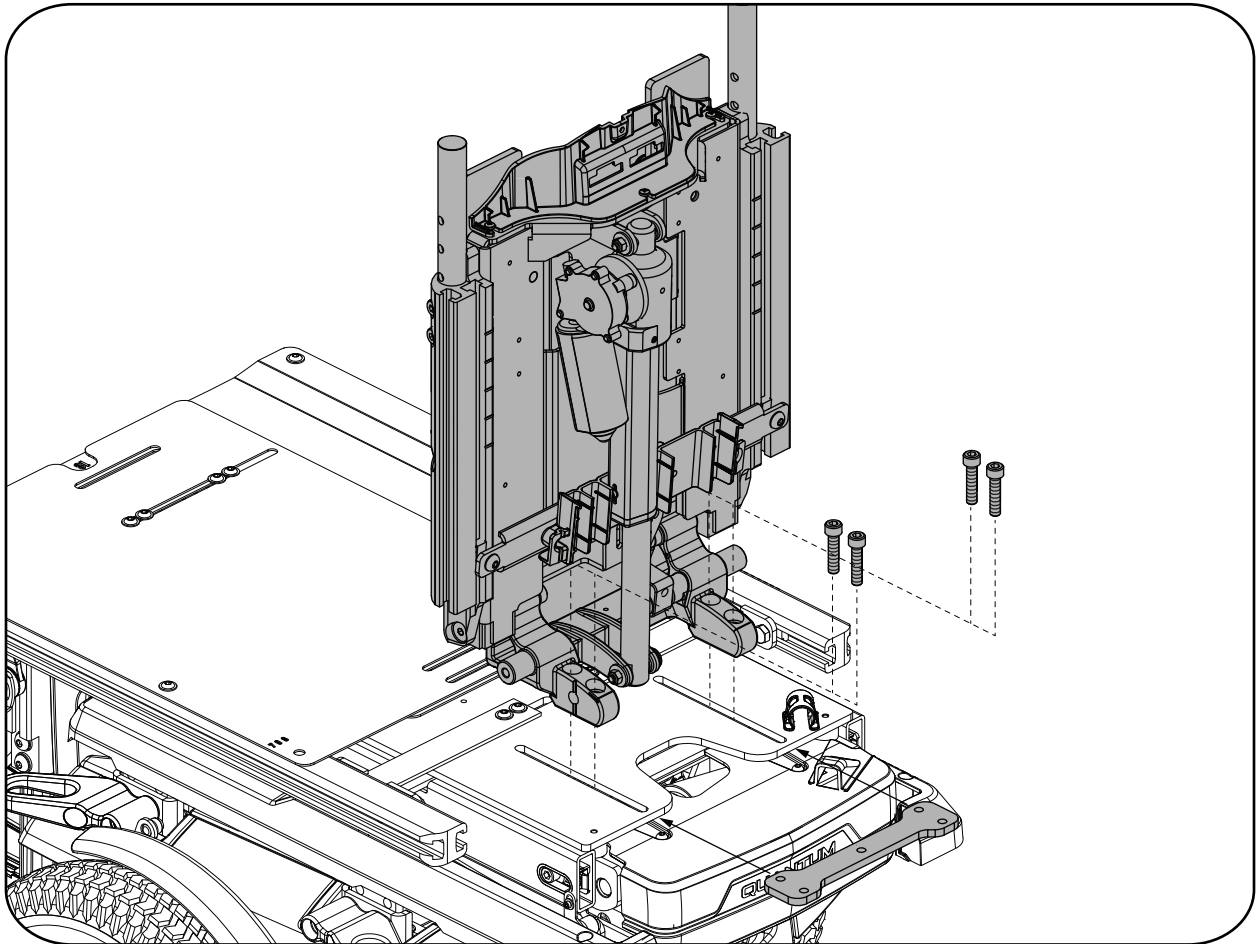
Removal:

1. Take note of the mounting location of the back to the seat base. 
2. While securing the back remove the 4 screws connecting the back to the seat assembly.
3. Remove the interface plate.
4. Remove the back and place aside.

Installation:

1. While securing the back align the back with the seat base as noted in the removal process.
2. Insert the interface plate and mounting screws. Torque to 22-26 N*m (16.2-19.1 ft*lbs).

Refer to Appendix A & B for setting the power chair width & depth.



Back Removal / Installation

XV. Recline Actuator




1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the rear electronics cover. **Refer to Section X.**

Tools Required:

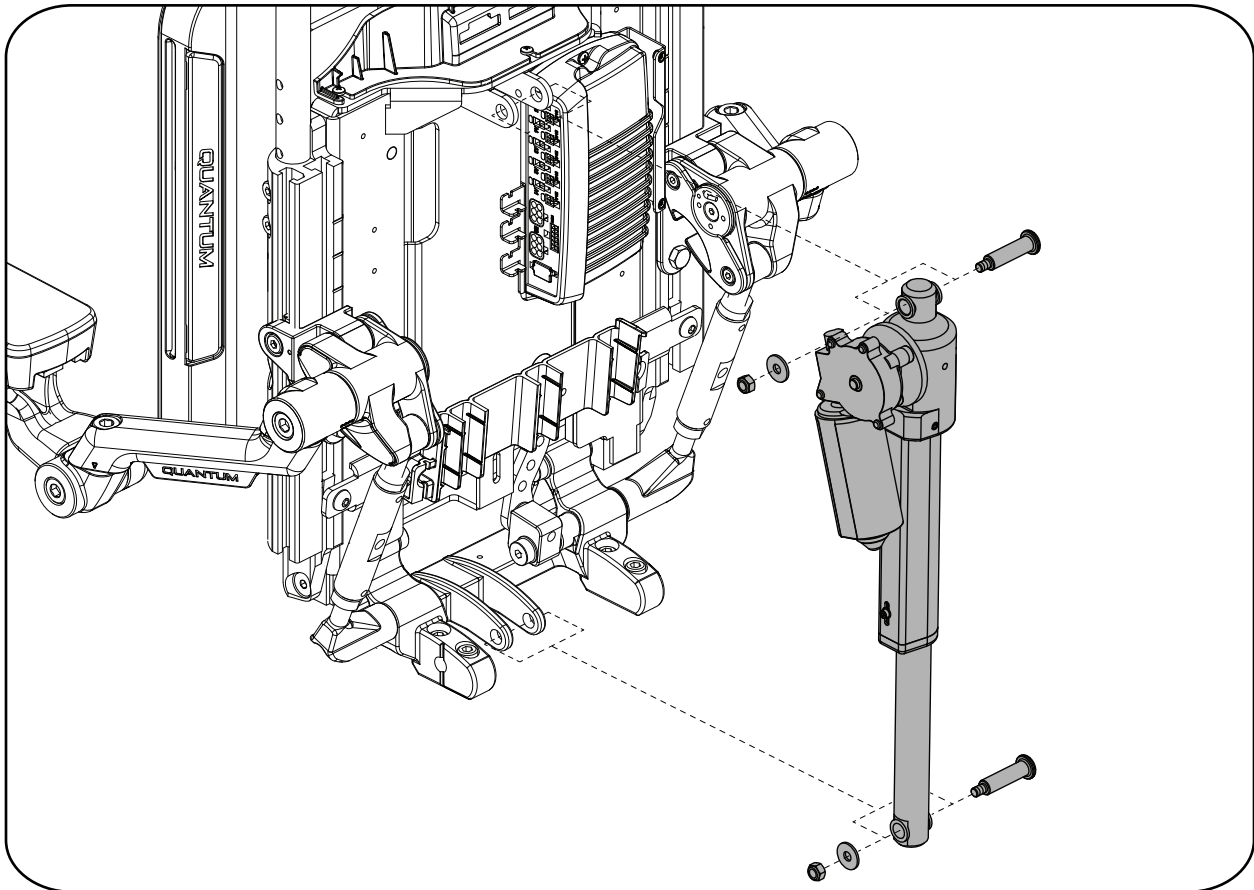
- Calibrated Torque Wrench
- Metric Hex Key Set (4mm)
- Metric Wrench Set (10mm)

Removal:

1. Unplug the recline actuator from the AAM. **Tip:** Remove the two (2) screws that mount the AAM to the back for easier access to the connections. Refer to **Section XI** for AAM mounting and connections. 
2. While securing the back in position, remove the hardware connecting the top of the actuator to the back assembly. **Tip:** To remove the shoulder bolt push forward on the back to release the pressure on the bolt. **IMPORTANT: The recline back will want to fall backwards at this point. Push it forward past 90° to keep it from falling back.**
3. Remove the hardware connecting the bottom of the actuator to the back then remove the recline actuator.

Installation:

1. Align the replacement actuator with the back and install the bottom mounting hardware.
2. Plug the actuator into the AAM. Run the actuator until the top is aligned with the mounting point on the top of the back (the joystick will temporarily need to be turned back on). **IMPORTANT: Do not retract the actuator past the min-stroke position.**
3. Install the top mounting hardware then torque both the top and bottom hardware to 10-15 N*m (7.4-11ft*lb).
4. Reattach the AAM.
5. Perform an actuator calibration. Refer to **Appendix F**.



Recline Actuator

XVI. AFP Lowers & Calf Pads



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.

Tools Required:

- Calibrated Torque Wrench
- Metric Wrench Set (5mm)

AFP Lower Removal:

1. Take note of the current lower length.
2. While securing the lower assembly remove the two screws and washers from the side then slide the lower and footplate from the upper.
3. Remove the adjustment nut from the lower assembly.

AFP Lower Installation:

1. Insert the adjustment nut into the lower tube assembly then slide the lower into the upper.
2. Align the lower with the upper as noted in the removal process and secure with the screws and washers. Torque the hardware to 15 N*m (11ft*lb) $\pm 10\%$.

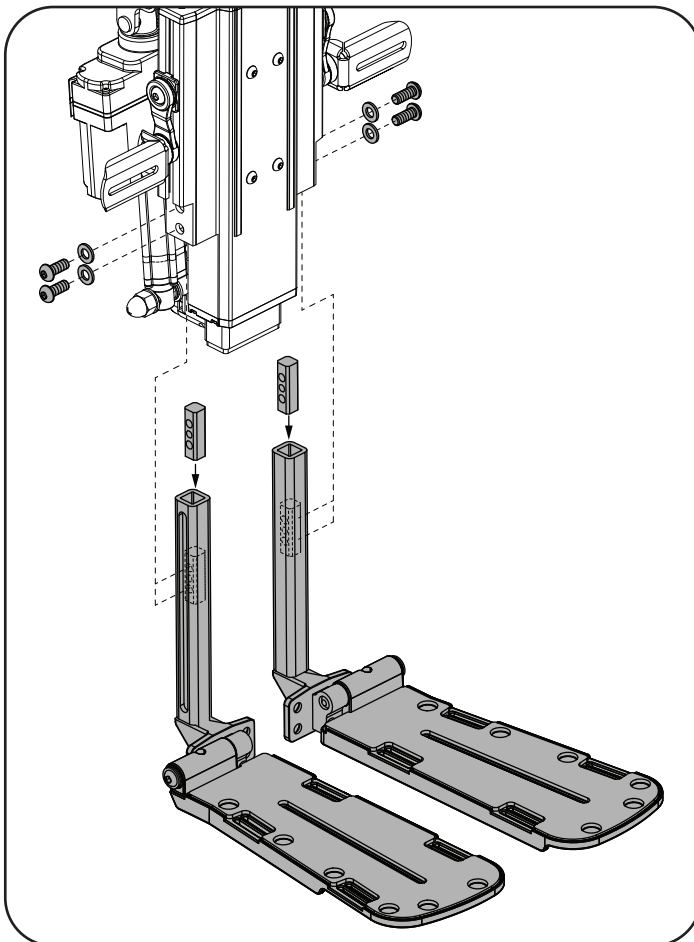
Important: If changing the legrest length, it can be no greater than 3.5" less than the seat to floor height. **Example:** A seat to floor height of 19" allows for a maximum legrest length of 15.5".

Refer to Section XXVI to determine the seat to floor height.

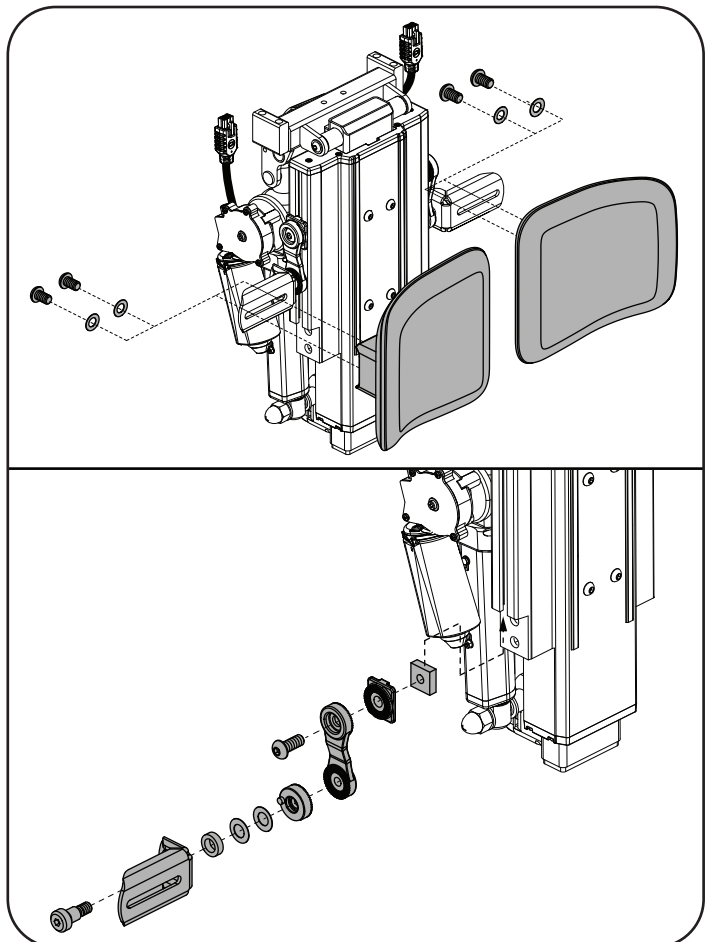
3. Reteach elevate vs AFP articulation. Refer to **Appendix G**.

AFP Calf Pad Removal / Installation:

1. Remove the calf pads from the mounting brackets.
2. Remove the mounting bracket hardware.
3. Reverse the steps for installation. Torque the calf pad mounting bracket hardware to 4.5-9 N*m (3.3-6.6 ft*lb). Torque the calf pad mounting hardware until secure.



AFP Lowers



Calf Pads

XVII. AFP Upper



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the Seat Pans. **Refer to Section V.**

Tools Required:

- Calibrated Torque Wrench
- Metric Wrench Set (13mm)

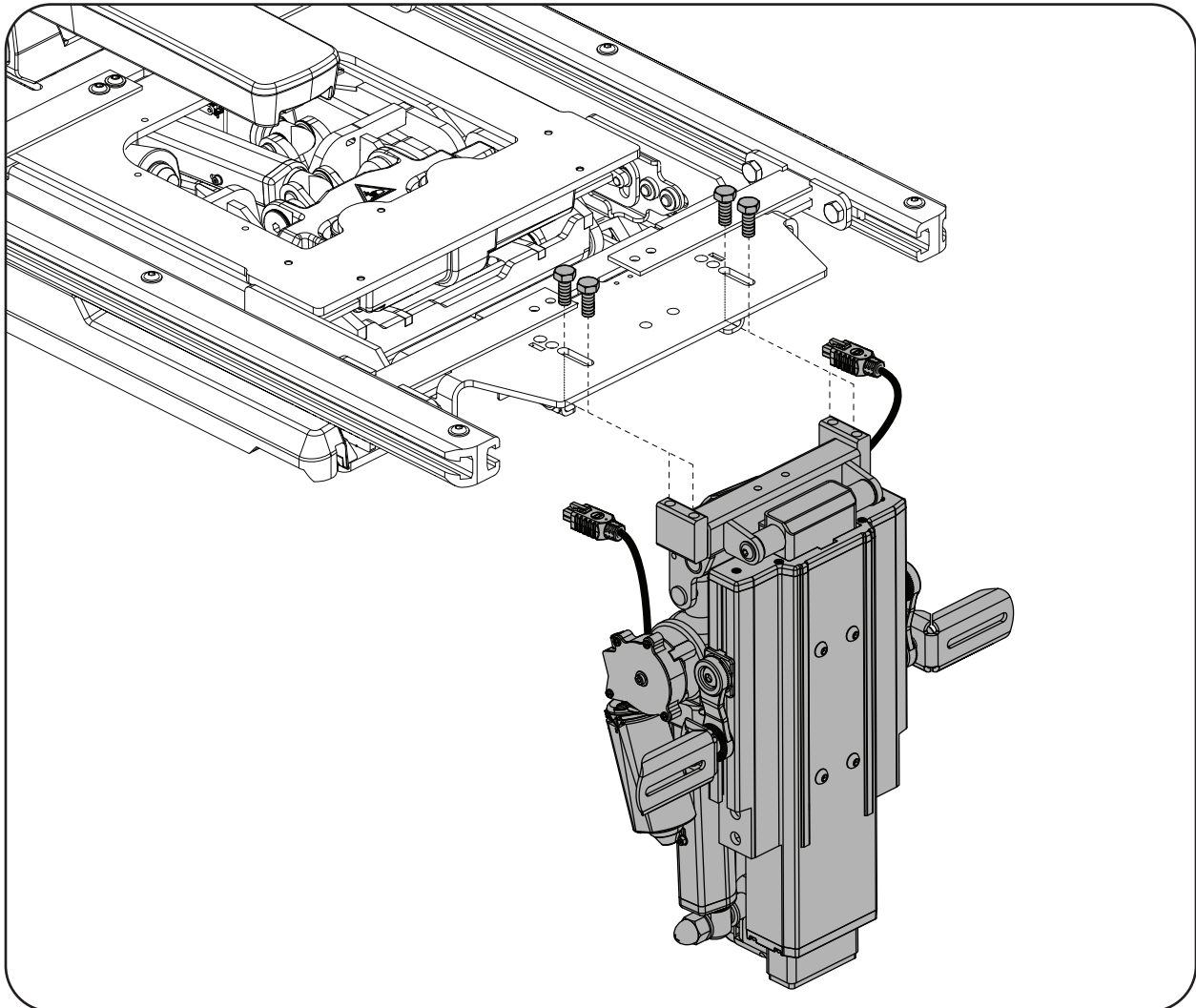
4. If equipped, remove the knee block assembly from the receiver. **Refer to Section III.**
5. Remove the calf pads and lowers. **Refer to Section XVI.**

Removal:

1. Unplug both actuators from the underside of the seating system.
2. While securing the AFP remove the four (4) screws that connect the AFP to the depth adjustment bracket then remove the AFP.

Installation:

1. Align the AFP with the depth adjustment bracket and secure with the four (4) mounting screws. Torque to 20.5-23.5 N*m (15.1-17.3 ft*lbs).
2. Plug the actuators into the ports on the underside of the seating system. The plugs are color coded for ease in identifying the proper port.
3. Perform an actuator calibration. Refer to **Appendix F.**
4. Reinstall the lowers, refer to **Section XVI.** Then reteach elevate vs AFP articulation, refer to **Appendix G.**
5. Reinstall the calf pads and hardware. Refer to **Section XVI.**



AFP Upper

XVIII. AFP Elevate Actuator



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. If equipped, remove the knee block assembly from the receiver. **Refer to Section III.**
4. Remove the AFP upper. **Refer to Section XVII. Note:** The lowers and calf pads do not need to be removed when replacing the actuator.

Tools Required:

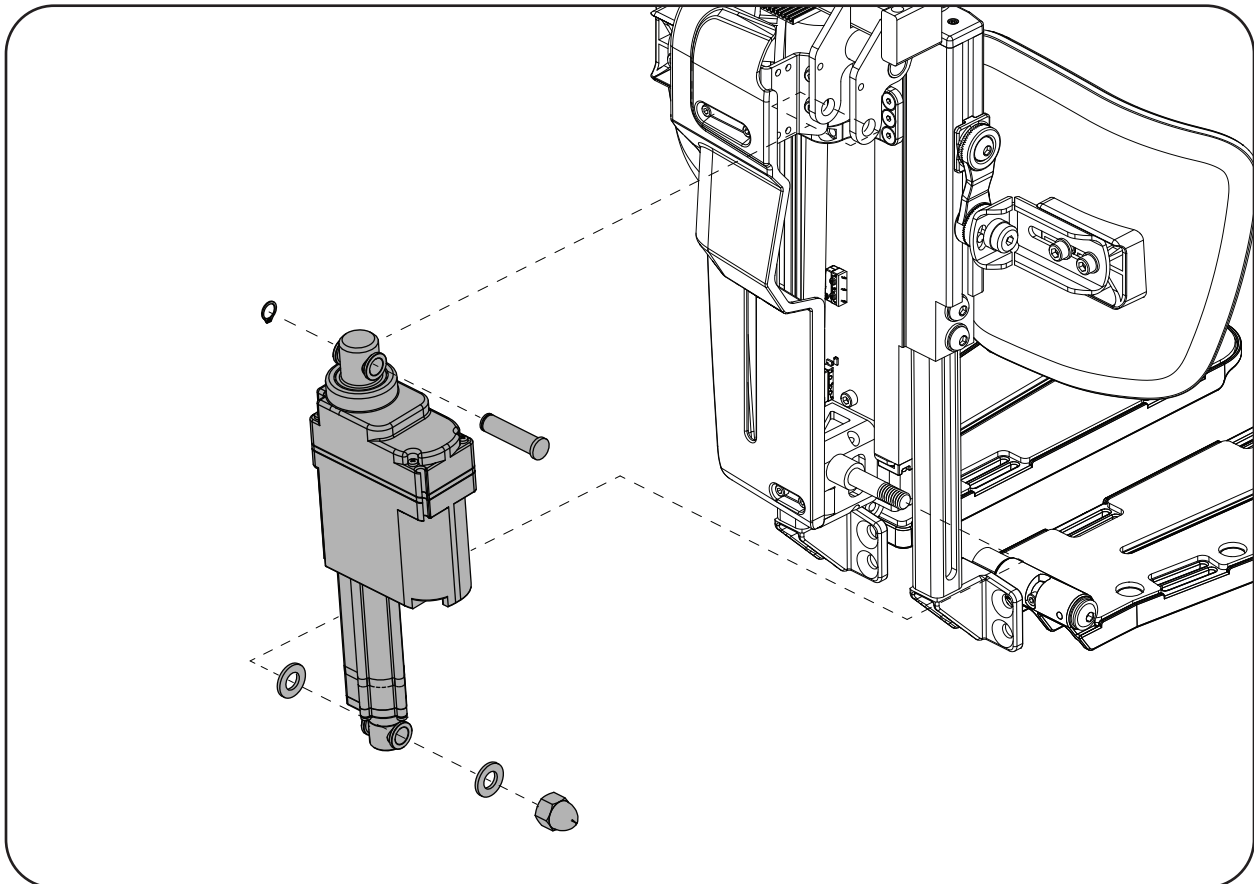
- Calibrated Torque Wrench
- Retaining Ring Pliers
- Metric Wrench Set (17mm)
- LOCTITE 243 or 242 or equivalent

Removal:

1. Place the upper assembly calf pad side down to show the back plastics.
2. Remove the retaining ring from the top clevis pin then remove the pin.
3. Remove the acorn nut holding the bottom of the actuator to the assembly.
4. Remove the actuator.

Installation:

1. Slide the bottom of the actuator onto the lower stud of the main support weldment.
2. Align the upper end of the actuator between the two clevis brackets and push the clevis pin through. Install the retaining ring to secure.
3. Apply LOCTITE 243 or 242 to the threads of the bottom stud then install the washer and acorn nut. Tighten until contact is made between the washers and bushings then tighten the nut an additional 1/4 turn (do not over tighten).
4. Perform an actuator calibration. Refer to **Appendix F**.



AFP Elevate Actuator

XIX. AFP Harness



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. If equipped, remove the knee block assembly from the receiver. **Refer to Section III.**
4. Remove the seat pan. **Refer to Section V.**
5. Remove the rear electronics cover. **Refer to Section X.**

Tools Required:

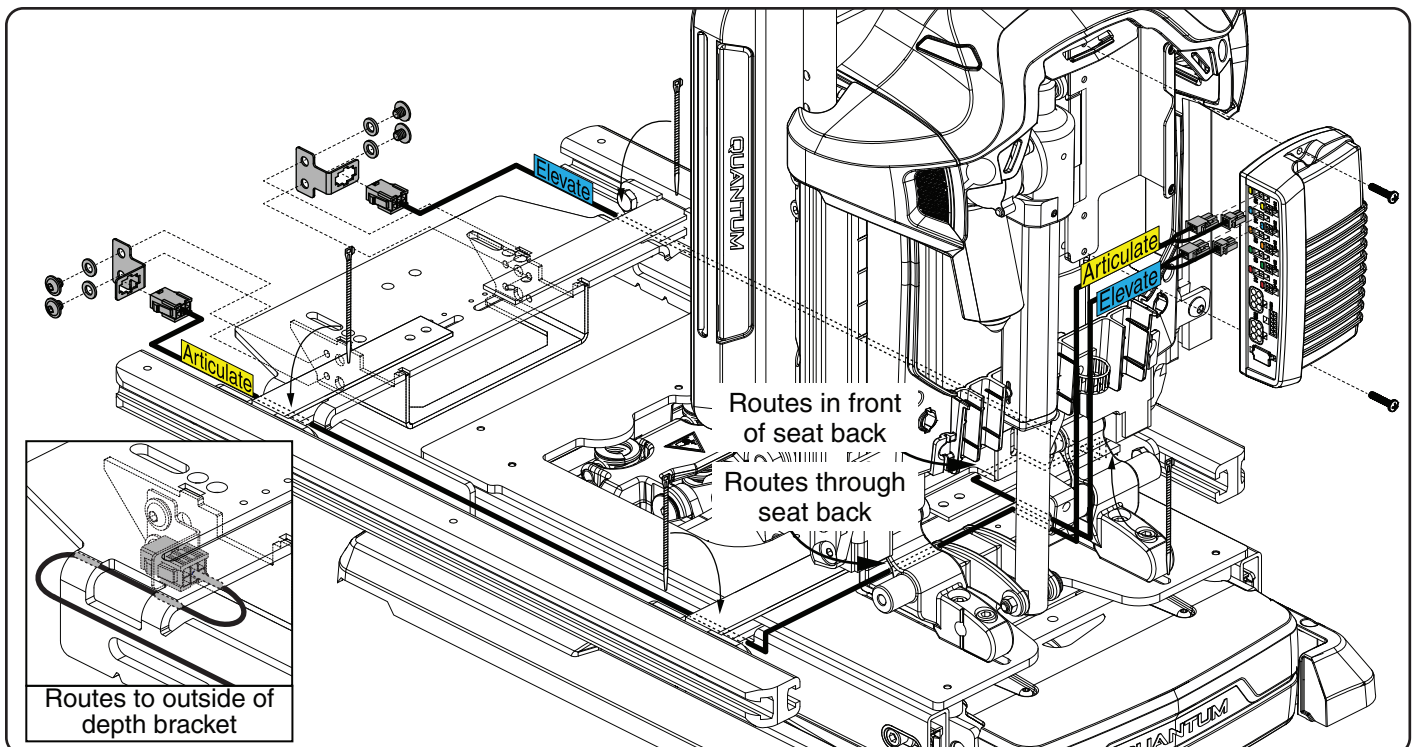
- | | |
|----------------------------|--------------|
| - Calibrated Torque Wrench | - Wire Snips |
| - Metric Hex Key Set (4mm) | - Cable Ties |

Removal:

1. Unplug the AFP actuators from the harnesses on the underside of the seating system.
2. Unplug the AFP harnesses from the AAM module on the back of the unit. Refer to **Section XI** for AAM mounting and connections. 📷
3. Snip the cable ties holding the AFP harnesses to the width adjustment brackets. 📷
4. Disconnect the harnesses from the mounting brackets on the front of the unit by squeezing the mounting ears and pulling the connector towards the back of the unit, away from the brackets.
5. Remove the harnesses taking note of how they're routed through the seating system. 📷
6. If replacing the mounting brackets remove the brackets and hardware.

Installation:

1. Install the replacement mounting brackets as shown. Tighten until secure.
2. Route the harnesses through the seating system in the same manner as the originals. **Important:** The articulate harness should be on the left side of the unit and the elevate harness on the right.
3. Plug the harnesses into the AAM module and reinstall the module on the back of the unit. Refer to **Section XI** for AAM mounting and connections.
4. Insert the harnesses into the mounting brackets on the front of the unit.
5. Secure the harnesses to the width adjustment bracket using replacement cable ties.
6. Reconnect the AFP actuators to the harnesses.



XX. Rear Shroud & Wire Guides



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.

Tools Required:

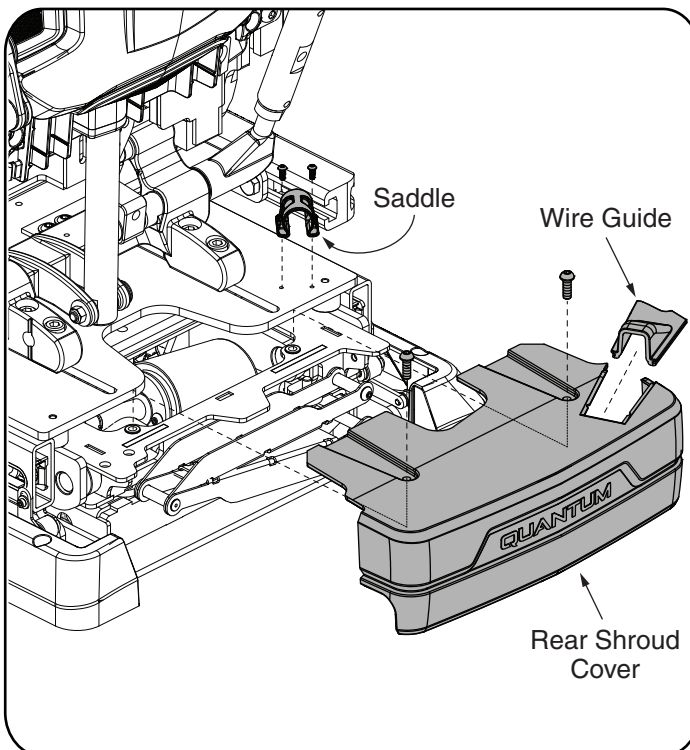
- Metric Hex Key Set (2mm, 3mm)

Removal:

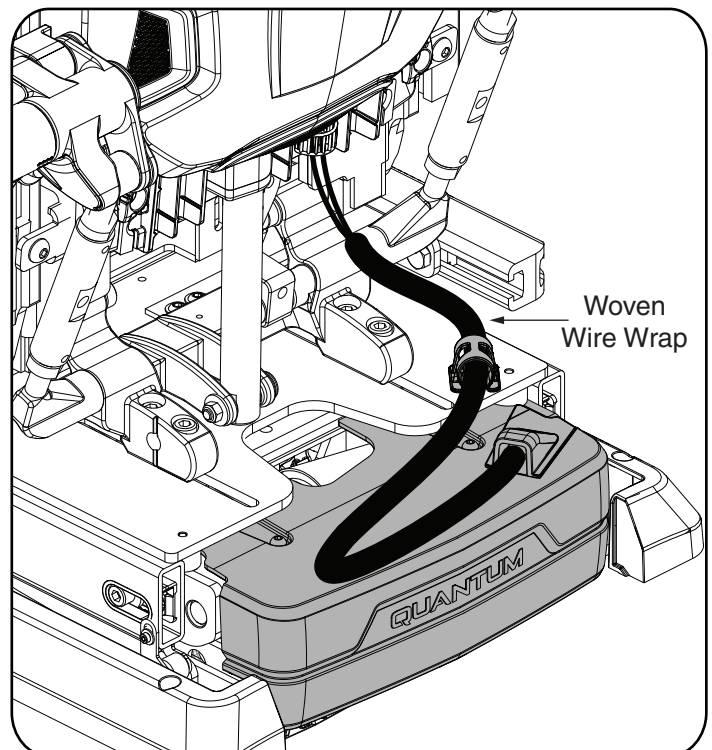
1. Remove the two (2) screws holding the saddle to the frame then remove the saddle.
2. Remove the two (2) screws holding the rear shroud cover to the seat frame.
3. Slide the rear shroud cover out enough so the wire guide clears the frame then remove the rear wire guide from the rear shroud cover.
4. Remove the rear shroud cover.

Installation:

1. Align the rear shroud cover with the seat frame then put the woven wire wrap and cables in the opening for the rear wire guide.
2. Insert the rear wire guide into the rear shroud cover.
3. Attach the rear shroud cover to the seat frame using the two (2) screws. Tighten until secure.
4. Align the saddle and woven wire wrap over the mounting holes in the seat frame.
5. Attach the saddle to the seat frame with the two (2) screws ensuring the woven sleeve fits between the saddle and frame. Tighten until secure.



Rear Shroud & Wire Guides Removed



Rear Shroud & Wire Guides Assembled

XXI. Side Shroud Covers



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.

Tools Required:

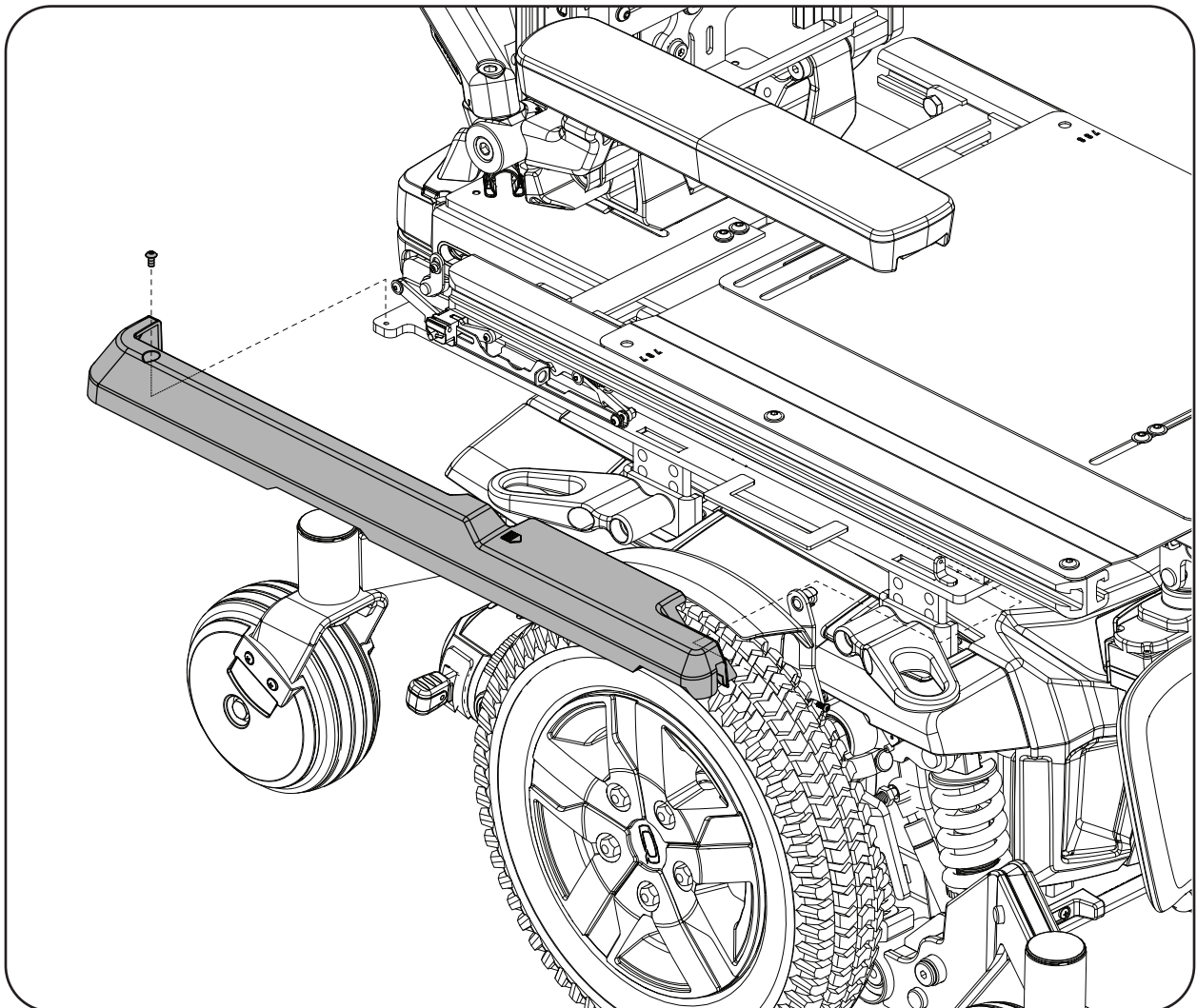
- Metric Hex Key Set (2mm, 2.5mm)

Removal:

1. Unscrew the front and rear screws holding the side cover to the seat frame.
2. Remove the side cover by sliding it in the direction of the molded arrow then away from the system.
3. Repeat on the other side.

Installation:

1. Align the side cover with the seat frame.
2. Secure with the front and rear screws. Tighten until secure.
3. Repeat on the other side.



Side Shroud Cover

XXII. iLevel Roller Switch Assembly



1. Elevate the seat to the highest position.
2. Turn off power to the joystick.
3. Ensure the unit is in drive mode.

Tools Required:

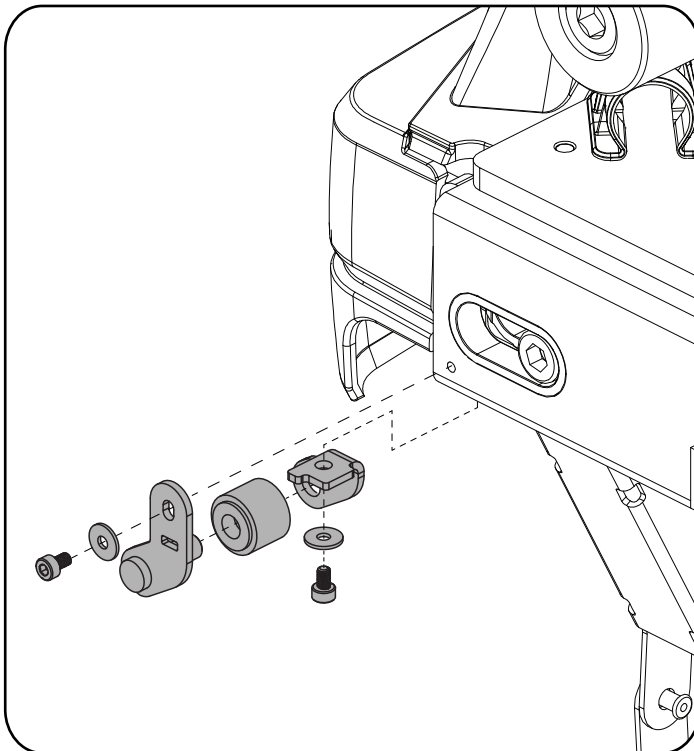
- Calibrated Torque Wrench
- LOCTITE 262 or equivalent
- Metric Hex Key Set (2.5mm)

Removal:

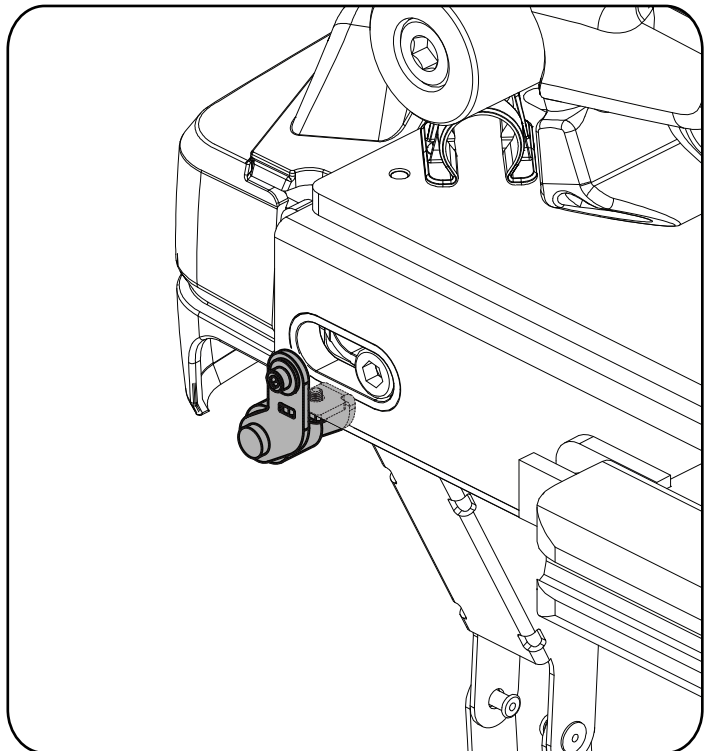
1. Remove the screw on the underside of the roller switch assembly. The inside piece of the assembly and roller wheel will come off.
2. Remove the screw on the side of the engagement assembly then remove the remaining piece.

Installation:

1. Apply LOCTITE 262 or equivalent to the mounting screws. **Note: The following steps will need to be performed before the LOCTITE sets.**
2. Align the bracket that attaches to the side of the seat frame with the frame. The shaft where the roller goes should face towards the inside of the seat frame.
3. Secure to the side of the frame with the hardware as shown. Tighten 1 - 2 turns.
4. Place the roller onto the shaft then place the other side of the bracket onto the end of the shaft. Secure to the underside of the frame.
5. Torque the screws to 0.5-1.0 N*m (0.4-0.7 ft*lb).



Roller Disassembled



Roller Assembled

XXIII. iLevel Seat Assembly




1. Elevate the seat to the highest position.
2. Turn off power to the joystick.
3. Ensure the unit is in drive mode.
4. Remove the side shrouds. **Refer to Section XXI.**

Tools Required:

- Calibrated Torque Wrench
- Metric Hex Key Set (2mm, 5mm)
- Standard Wrench Set (1/2")

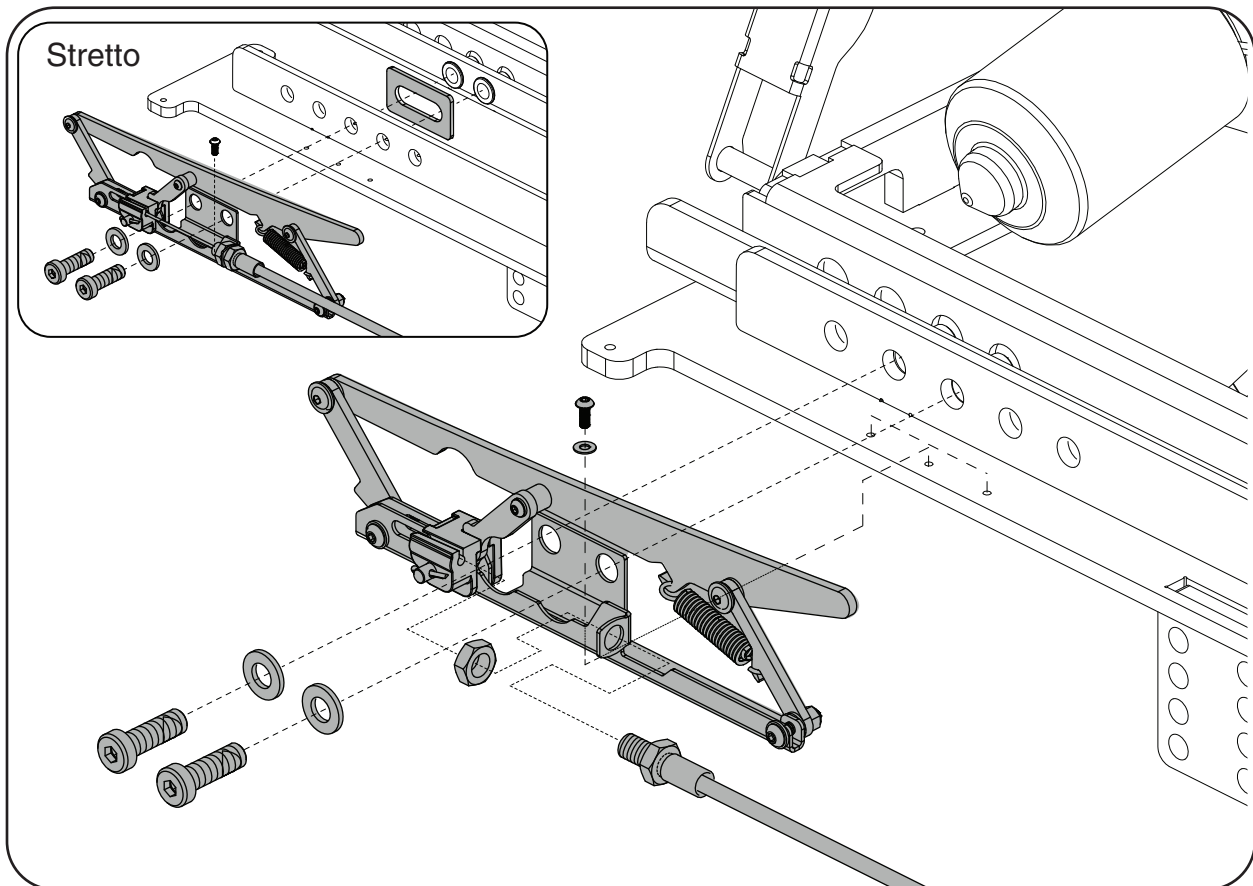
Removal:

1. Take note of the mounting hole location. 
2. Loosen both nuts that hold the iLevel cable to the iLevel seat assembly then remove the cable.
Take care not to damage or deform the cable.
3. Remove the screw and washer holding the bottom of the iLevel seat assembly to the seat frame.
4. Remove the screws and washers securing the iLevel assembly to the side of the seat frame.
5. Remove the iLevel assembly.

Note: On the Q6 Edge 3 Stretto a spacer is used between the seat frame and interface rail. When replacing the iLevel assembly on a Q6 Edge 3 Stretto the spacer must be used and should be aligned properly with the mounting hardware.

Installation:

1. Align the new iLevel mechanism onto the seat frame as noted in step 1 of the removal process.
2. Install the screw and washer that holds the bottom of the iLevel assembly to the seat frame but do not tighten all the way.
3. Install the screws and washers that secure the iLevel assembly to the side of the seat frame.
Torque the hardware to 18-22 N*m (13.2-16.2 ft*lbs).
4. Tighten the screw from step 2 of the installation until secure.
5. Reinsert the iLevel cable into the iLevel seat assembly and secure with the two nuts. Tighten until secure.



iLevel Seat Assembly

XXIV. Anterior Tilt Limit Switch



1. Tilt the seating system back.
2. Turn off power to the joystick.
3. Ensure the unit is in drive mode.

Tools Required:

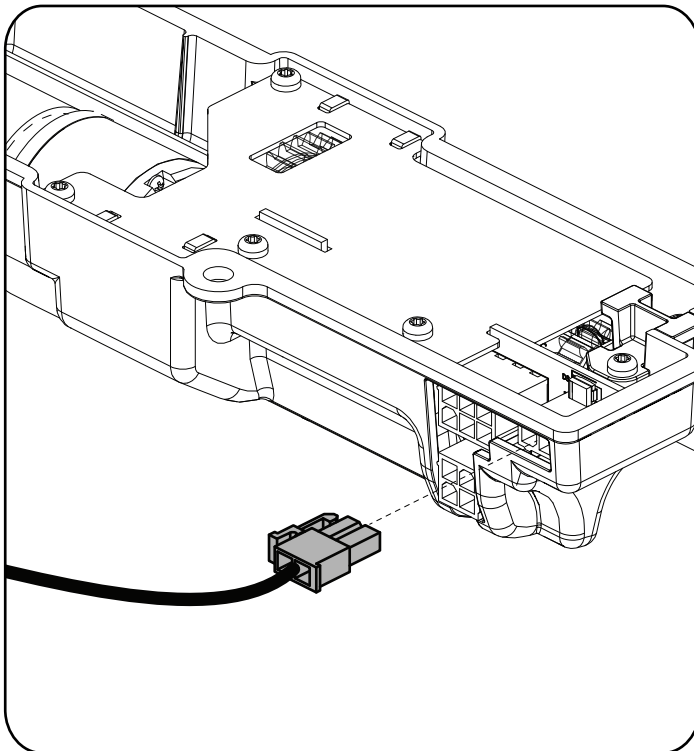
- Phillips Head Screw Driver

Removal:

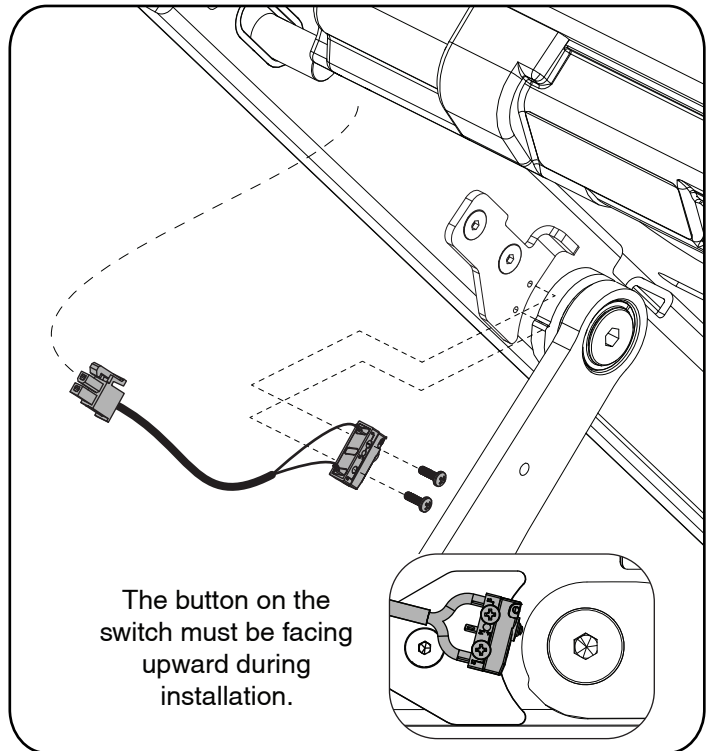
1. From the front of the unit locate the anterior tilt limit switch on the side of the tilt frame.
2. Following the harness from the switch disconnect the two (2) pin connector from the switching motor on the front of the tilt frame.
3. Remove the two (2) screws that connect the tilt switch to the bracket then remove the switch.

Installation:

1. Align the switch with the holes in the mounting bracket.
2. Secure the switch to the mounting brackets using the two (2) screws ensuring the button on the switch is facing upward. Tighten until secure.
3. Plug the switch into the switching motor.
4. Turn on power at the joystick then bring the tilt back to the home position.



Switching Motor Plug



Anterior Tilt Switch

XXV. Seat Base

Preparation:




1. Elevate the seat to the highest position.
2. Turn off power to the joystick.
3. Ensure the unit is in drive mode.
4. Remove the side shrouds. **Refer to Section XXI.**
5. Remove the rear electronics cover. **Refer to Section X.**
6. Remove the rear shroud cover. **Refer to Section XX.**
7. Disconnect the bus cable and POST/ANT harness from the power base then remove the bus cable from the seat track. **Refer to Appendix D.**
8. Remove the seat pan. **Refer to Section V.**
9. Remove the AFP and AFP harnesses. **Refer to Sections XVII & XIX.**
10. Disconnect the A1, A3, IN-A, & IN-C harnesses from the AAM. **Refer to Section XI.**
11. Remove the seat back (the back pan, AAM, multiplier(s), bus cables, and back shroud can remain attached during removal, taking care not to damage any wires). **Refer to Section XIV.**
12. Remove the side rails. **Refer to Section VI.**
13. Remove the width adjustment brackets. **Refer to Section VII.**
14. Remove the depth adjustment bracket. **Refer to Section VIII.**
15. Remove the iLevel roller switch assembly. **Refer to Section XXII.**

Tools Required:

- Calibrated Torque Wrench
- Metric Hex Key Set (5mm)

Reference the illustrations on following page while performing removal and installation

Removal:

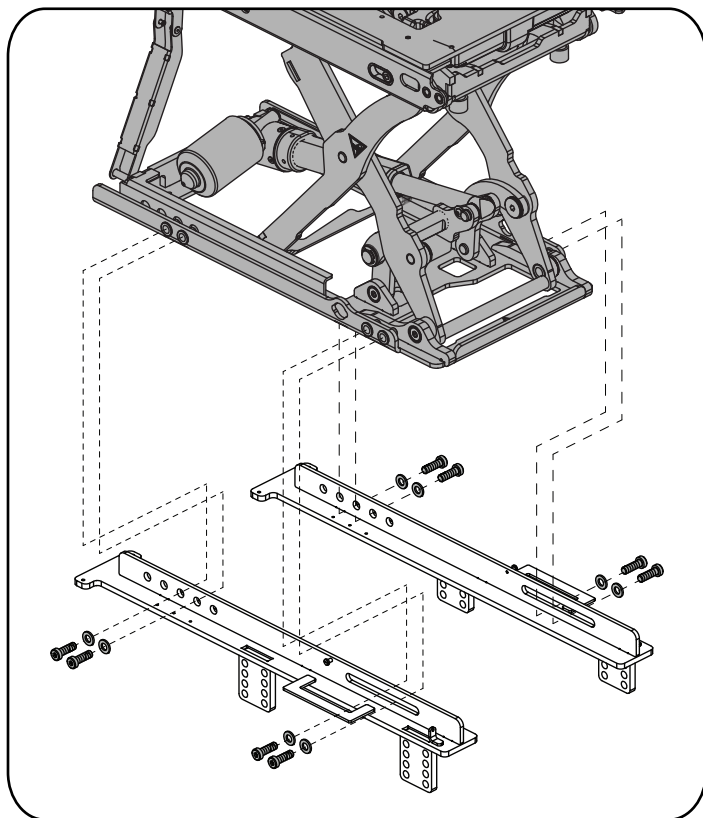
1. Take note of the hole location on the interface rail where the seat base mounts. 
2. Remove the screw and washer holding the bottom of the iLevel seat assembly to the seat frame (units equipped with iLevel only). **Refer to Section XXIII.**
3. Remove the eight (8) screws that hold the seat assembly to the interface rails. If equipped with iLevel carefully remove the iLevel assembly and place aside ensuring the cables do not get damaged.
4. Remove the seating base from the interface rails.

Installation:

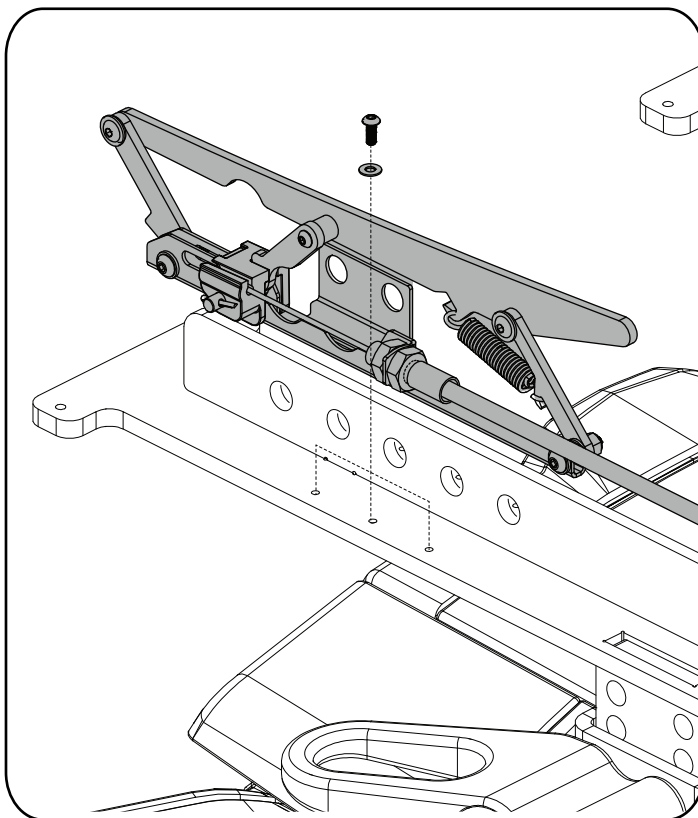
1. Align the new seat assembly on the interface rails as noted in step 1 of the removal process.
2. If equipped with iLevel, align the iLevel assembly onto the interface rails. Install the screw and washer holding the bottom of the iLevel assembly to the seat frame but do not tighten all the way.
3. Secure the seat assembly to the interface rails using the replacement hardware. Torque the hardware to 18-22 N*m (13.2-16.2 ft*lbs).
4. If equipped with iLevel, tighten the screw and washer from step 2 of the installation process until secure.
5. To complete the installation reverse steps 1 through 15 of the preparation process. **Note:** While reversing step 7 first reconnect the bus cable and POST/ANT harness then elevate the seat to the highest position so the wires can be secured to the wire guide track.
6. Perform an actuator calibration. **Refer to Appendix F.**
7. Reteach the anterior tilt & transfer position. **Refer to Appendix E.**

Refer to Appendix A & B for setting the power chair width and depth.

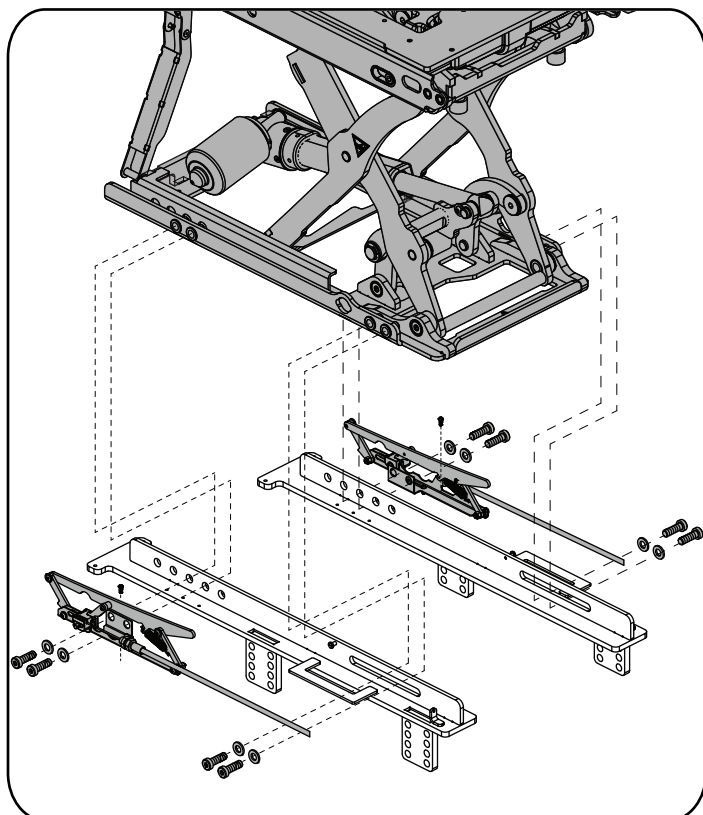
XXV. Seat Base



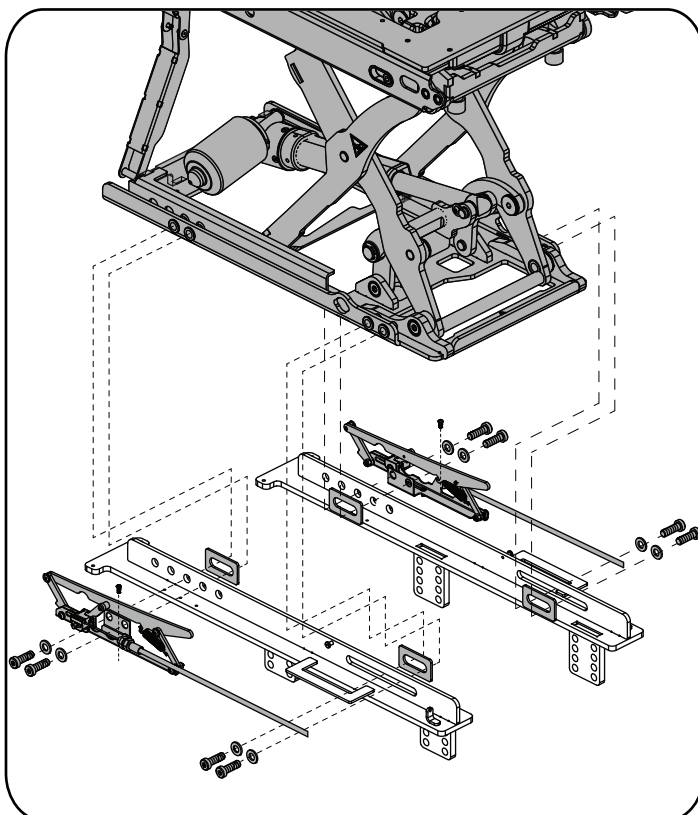
4Front 2, non-iLevel



iLevel Assembly



Q6 Edge 3, iLevel



Q6 Edge 3 Stretto, iLevel

XXVI. Seat Interface Rails



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the seat base. **Refer to Section XXV.**

Note: The seat back, pans, width / depth components, & armrests don't need to be removed if the seat base is not being replaced.

Removal:

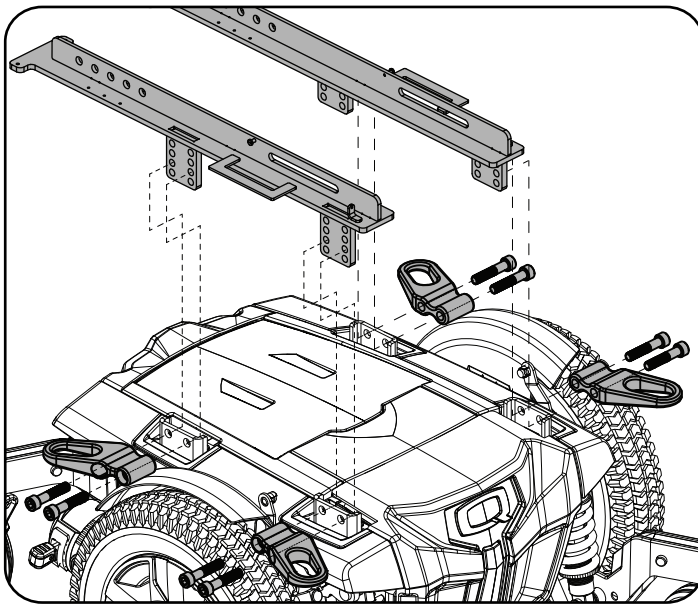
1. Take note of the mounting hole location. 
2. Remove the hardware holding the seat interface rails to the seat frame then remove the rails.

Installation:

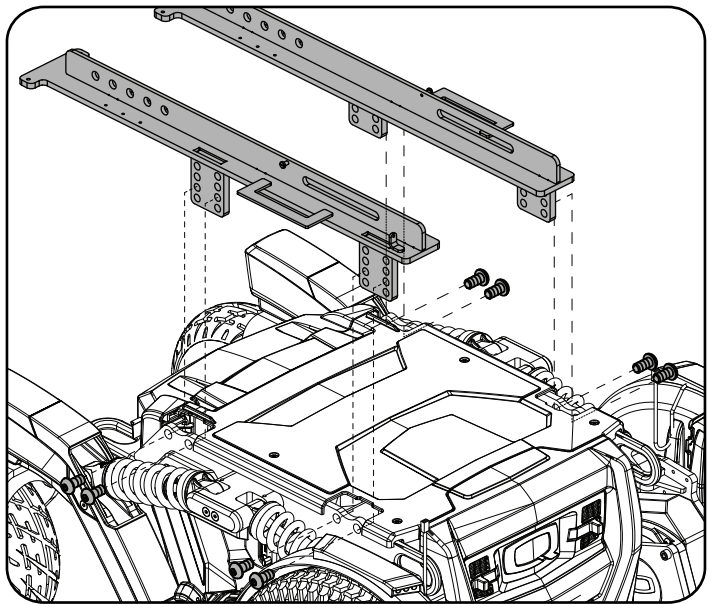
1. Align the interface rails with the seat frame as noted in step 1 of the removal process.
2. Secure the rails to the seat frame as shown. Torque the hardware to 35 N*m (26 ft*lb) \pm 10%.

Tools Required:

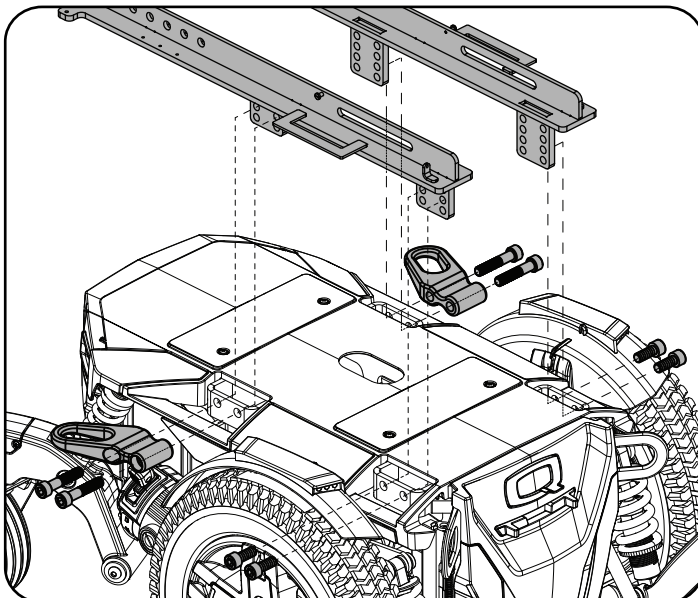
- Calibrated Torque Wrench
- Metric Hex Key Set (8mm)



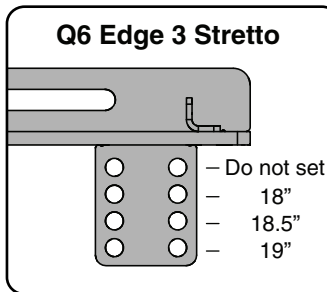
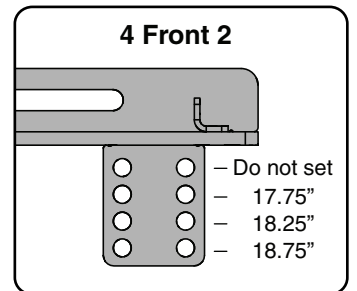
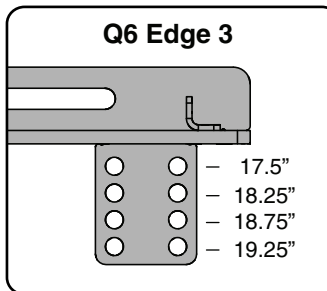
Q6 Edge 3



4 Front 2



Q6 Edge 3 Stretto



Seat to Floor Heights

Appendix A: Width Adjustments



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the seat cushions

4. Flip up the power chair armrests.

Tools Required:

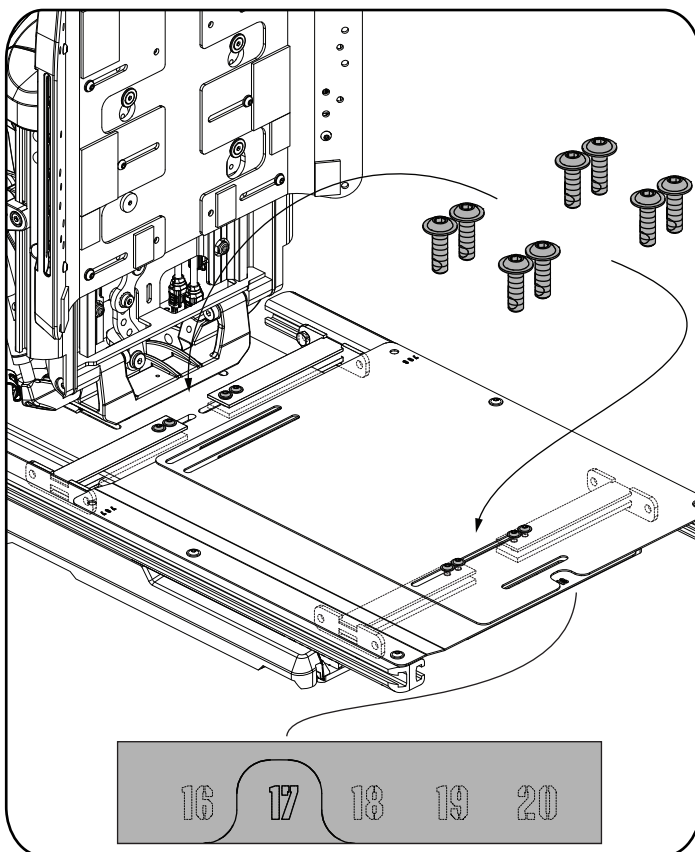
- Calibrated Torque Wrench
- Metric Wrench Set (4mm)

Seat Width Adjustment:

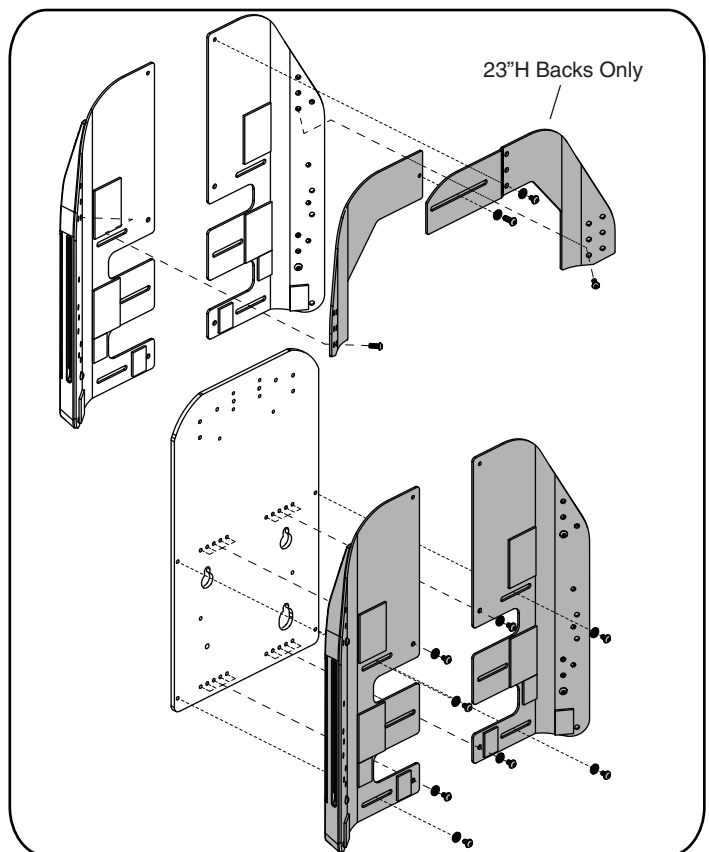
1. Loosen the four (4) front screws and four (4) rear screws that secure into the width adjustment bars.
2. Align the seat width to the desired value as indicated on the seat pan.
3. Tighten the hardware until secure.

Back Width Adjustment:

1. Loosen the hardware.
2. Place the seat back to the desired width as indicated on the back pan.
3. Tighten the hardware until secure.



Seat Width Adjustment



Back Width Adjustment

Appendix B: Depth Adjustments



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.
3. Remove the cushions.
4. Remove the seat pans. **Refer to Section V.**
5. Remove the side covers. **Refer to Section XXI.**
6. Remove the AFP. **Refer to Section XVII.**

Tools Required:

- Calibrated Torque Wrench
- Metric Wrench Set (13mm)
- Metric Hex Key Set (5mm, 6mm)

Depth Bracket Adjustment:

1. Loosen the hardware connecting the rear width adjustment brackets to the side rail. Reference the illustration in **Section VI.**
2. Loosen the depth bracket mounting hardware. Reference the illustration in **Section VIII.**
3. Using the depth table on the next page align the depth adjustment bracket to the appropriate location.
4. Tighten the hardware as indicated in **Sections VI and VIII.**

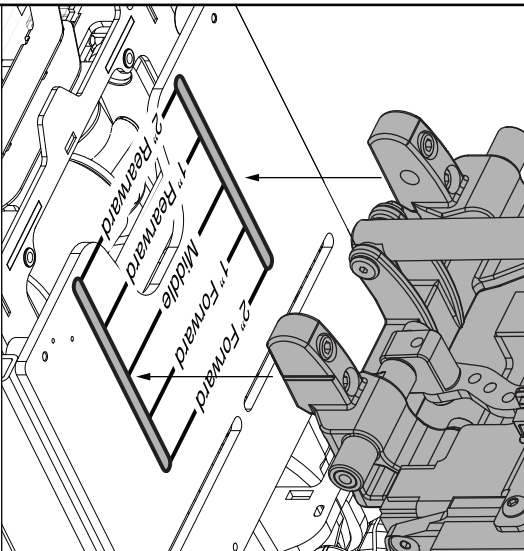
Seat Interface Adjustment:

1. While securing the seating system, remove the screws holding the seat base onto the seat interface. Reference the illustration in **Section XXV.**
2. Using the depth table on the next page align the seat to the appropriate location. If the unit is equipped with iLevel the iLevel mechanism may need to be moved as well.
3. Tighten the hardware as indicated in **Section XXV.**

Back Adjustment:

1. While securing the seat back, loosen the screws connecting the back to the seat frame. Reference the illustration in **Section XIV.**
2. Using the depth table on the next page align the back to the appropriate location.
3. Tighten the hardware as indicated in **Section XIV.**

Appendix B: Depth Adjustments

Seat Interface Configurations					Back Configurations	
Q6 Edge 3						
14", 15", 16"	17"	18"	19", 20", 21", 22"			
15", 16", 17"	18"	19"	20", 21", 22"			
17"	18"	19"	20", 21", 22"			
18"	19"	20", 21", 22"				
4Front 2					<div>Edge 3 / Stretto</div> <ul style="list-style-type: none">• 2" Forward: 14" Seat Depth• 1" Forward: 15" Seat Depth• Middle: 16" - 20" Seat Depth• 1" Rearward: 21" Seat Depth• 2" Rearward: 22" Seat Depth <div>4 Front 2</div> <ul style="list-style-type: none">• 2" Forward: 15" Seat Depth• 1" Forward: 16" Seat Depth• Middle: 17" - 20" Seat Depth• 1" Rearward: 21" Seat Depth• 2" Rearward: 22" Seat Depth	
14", 15", 16"	17"	18"	19", 20", 21", 22"			
15", 16", 17"	18"	19"	20", 21", 22"			
17"	18"	19"	20", 21", 22"			
18"	19"	20", 21", 22"				
Q6 Edge 3 Stretto					<div>Edge 3 / Stretto</div> <ul style="list-style-type: none">• 2" Forward: 15" Seat Depth• 1" Forward: 16" Seat Depth• Middle: 17" - 20" Seat Depth• 1" Rearward: 21" Seat Depth• 2" Rearward: 22" Seat Depth <div>4 Front 2</div> <ul style="list-style-type: none">• 2" Forward: 15" Seat Depth• 1" Forward: 16" Seat Depth• Middle: 17" - 20" Seat Depth• 1" Rearward: 21" Seat Depth• 2" Rearward: 22" Seat Depth	
14", 15", 16"	17"	18"	19", 20", 21", 22"			
15", 16", 17"	18"	19"	20", 21", 22"			
17"	18"	19"	20", 21", 22"			
18"	19"	20", 21", 22"				
Depth Weldment Configs.						
14", 15", 16" - Edge 3 / Stretto	17" - Edge 3 / Stretto	18" - Edge 3 / Stretto	19" - Edge 3 / Stretto	20", 21", 22" - Edge 3 / Stretto		
Not Used - 4 Front 2	15", 16", 17" - 4 Front 2	18" - 4 Front 2	19" - 4 Front 2	20", 21", 22" - 4 Front 2		

Appendix C: Armrest Adjustments



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.

Tools Required:

- Calibrated Torque Wrench
- Metric Hex Key Set (4mm, 5mm)
- Metric Wrench Set (13mm, 18mm)

Width Adjustment:

1. Loosen the front and rear width screws then adjust to the desired position. Tighten to 25-35 N*m (18.5-25.8 ft*lbs).

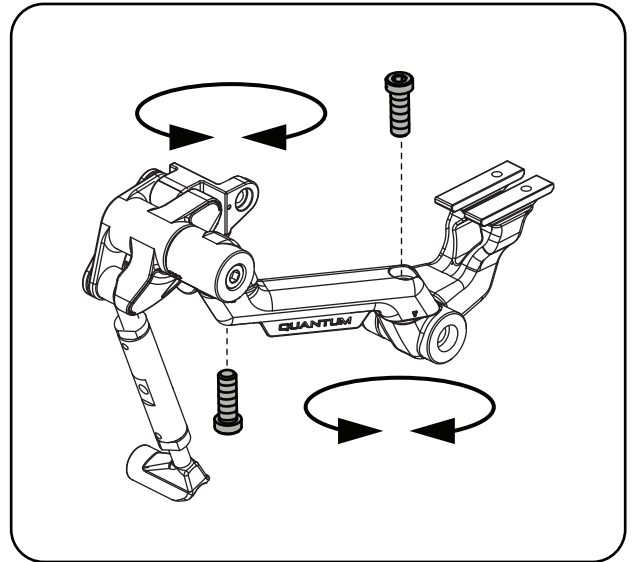
NOTE: Changing the armrest height also changes the armrest angle. We recommend adjusting the armrest height first then adjusting the armrest angle.

Height Adjustment:

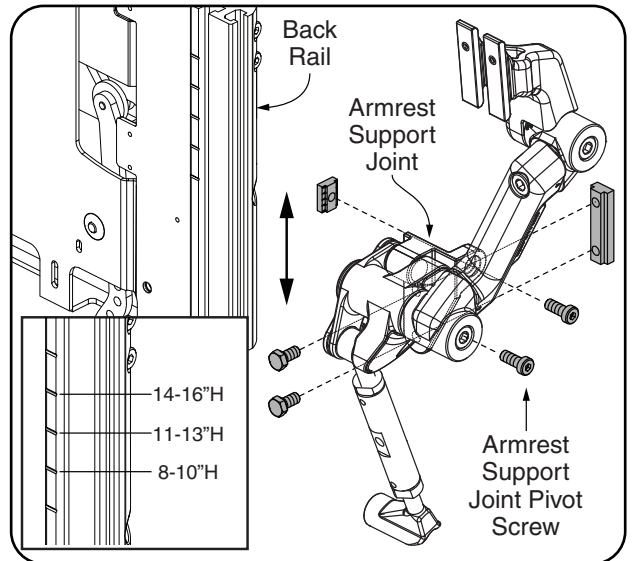
1. Flip up the power chair armrest at least 95° from the seat pan.
2. Loosen (do not remove) the armrest support joint pivot screw.
3. Loosen (do not remove) the hardware that connects the armrest support joint to the back rail.
4. Support the armrest to take tension off of it then align the top of the armrest support joint to the proper height marker on the rail.
5. Tighten the hardware that connects the armrest support joint to the back to 18-22 N*m (13.3-16.2 ft*lbs).
6. Tighten the armrest support joint pivot screw to 25-35 N*m (18.5-25.8 ft*lbs).
7. Flip the armrest down.
8. Adjust the angle as needed to bring the armrest back to a level position (see angle adjustment).

Angle Adjustment:

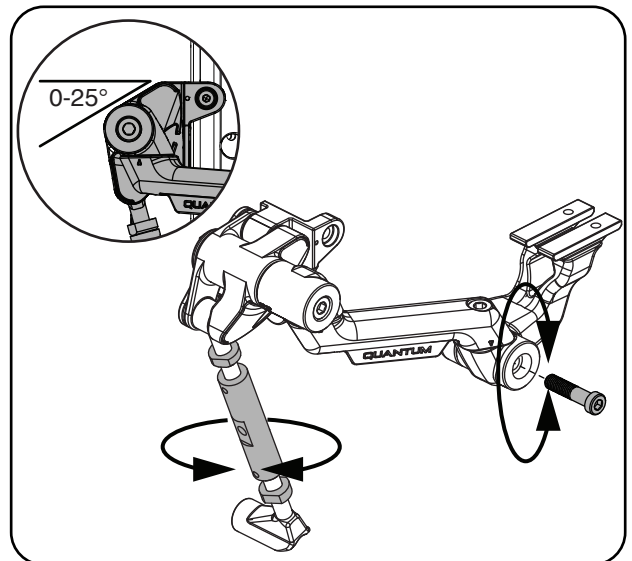
1. Adjust the rear arm angle by loosening the nuts on the top and bottom of the turnbuckle.
2. Turn the turnbuckle to raise or lower the angle of the armrest keeping the pivot link within 25° of the back mount (exceeding 25° can cause interference).
3. Tighten the nuts on the top and bottom of the turnbuckle until secure.
4. Adjust the front arm angle by loosening the front angle screw and adjusting to the desired position.
5. Torque to 25-35 N*m (18.5-25.8 ft*lbs).



Width Adjustment

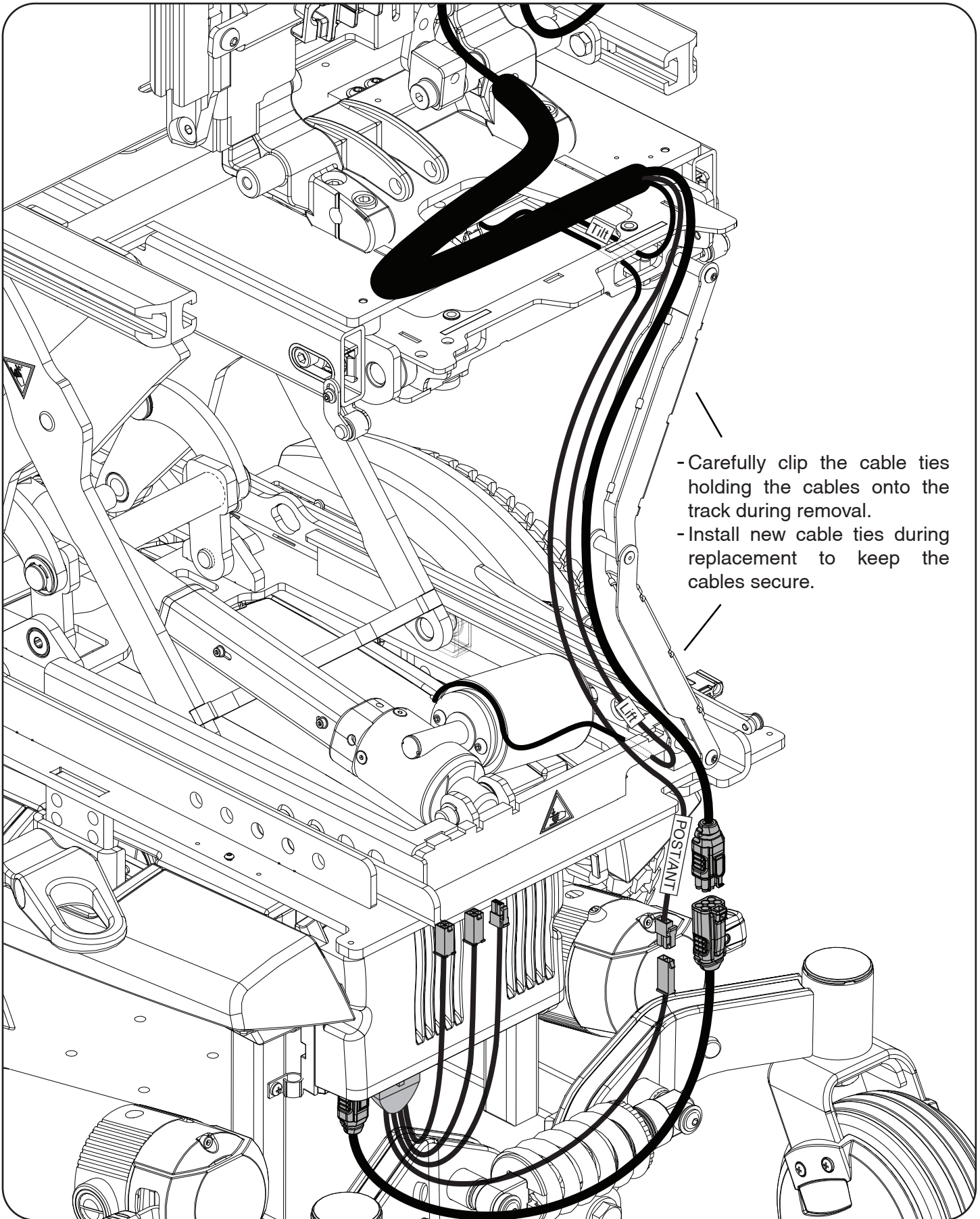


Height Adjustment



Angle Adjustment

Appendix D: Base Electronics



Appendix E: Teaching Anterior Tilt & Transfer Position



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.

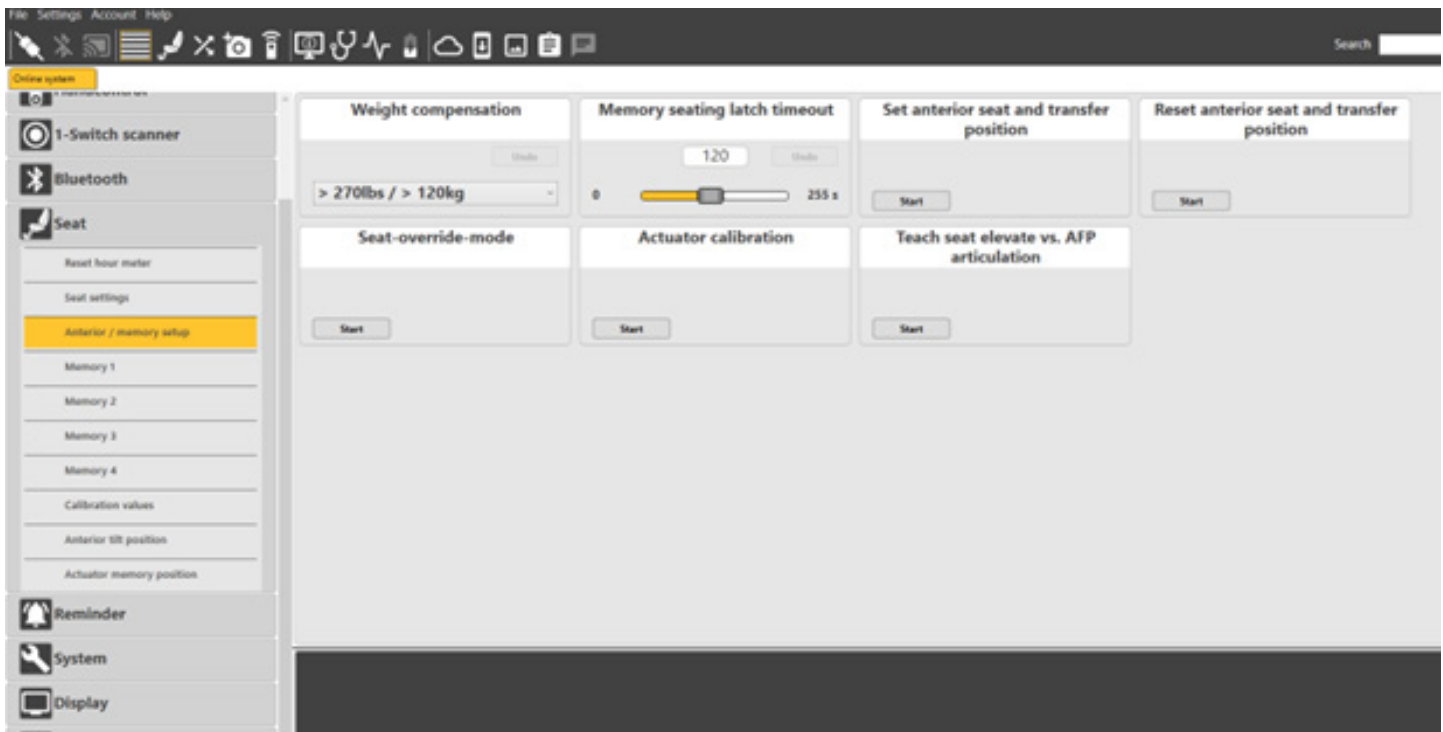
Tools Required:

- Q-Logic 3 Programmer

Note: Teaching the anterior tilt position is necessary after replacing the anterior tilt switch if the switch is a different degree or if the entire seat base is replaced. This is also programmed when the power chair is being delivered to the consumer to set their anterior tilt. When the switch is replaced to a different angle switch, the best option is to reset the Anterior Tilt and Transfer Position and then teach the new one.

Programming Steps:

1. Turn on power chair joystick.
2. Plug in or pair the Q-Logic 3 programmer to the power chair.
3. Once connected, follow these programming steps.
 - Seat
 - Memory Seating Setup
 - Teach Anterior Tilt and Transfer Position (Start)
 - Follow the instructions on the programmer



Appendix F: Actuator Calibration



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.

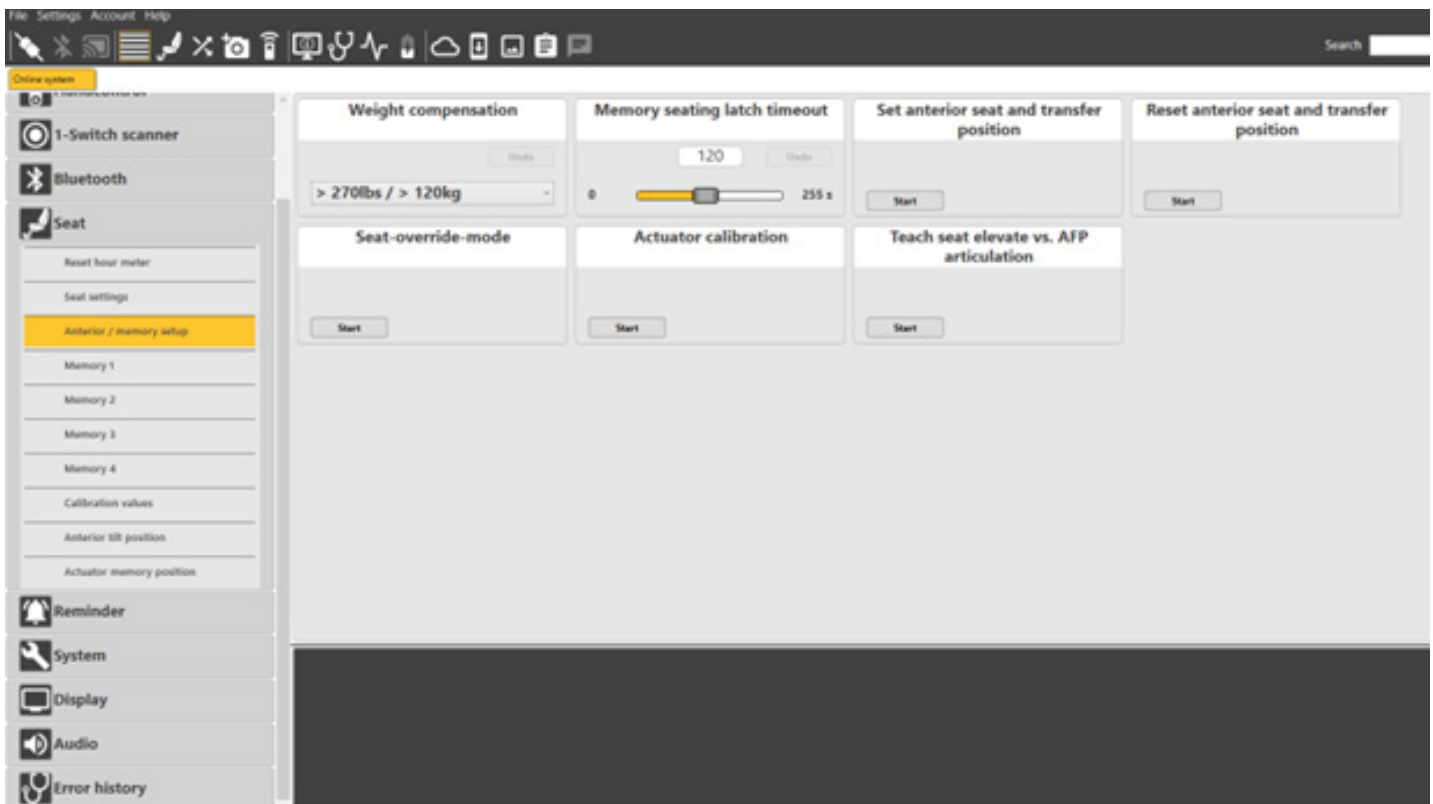
Tools Required:

- Q-Logic 3 Programmer

The power chair must be unoccupied before performing the calibration.

Calibration:

1. Turn on power chair joystick.
 2. Plug in or pair the Q-Logic 3 programmer to the power chair.
 3. Once connected, follow these programming steps.
 - Seat
 - Memory Seating Setup
 - Actuator Calibration (Start)
 - Start Actuator Feedback Calibration (Yes)
- (The selection will need to be confirmed on the joystick by pushing it forward)



Appendix G: Teach Elevate vs AFP Articulation



1. Turn off power to the joystick.
2. Ensure the unit is in drive mode.

Tools Required:

- Q-Logic 3 Programmer

Note: This parameter will not be used all the time however, it will need to be used if one or both of the following are changed at delivery or after a repair.

- Lower Leg Length
- STF Height

Parameter Settings/Program Adjustments:

1. Turn on power chair joystick.
2. Plug in or pair the Q-Logic 3 programmer to the power chair.
3. Once connected, follow these programming steps.
 - Seat
 - Memory Seating Setup
 - Teach Elevate vs AFP Articulation (Start)

When the articulating foot platform is moved closer to the floor, the power base will go into drive lock-out. This is to make sure while the footplates are closer to the ground, that the consumer can not drive their power chair, and potentially cause damage to their foot platform.

Step 1	Step 2	Step 3
Teach Elevate vs. AFP Articulation Move Seat to home position. Press ok to continue. <div>OK Cancel</div>	Teach Elevate vs. AFP Articulation Start teach Elevate vs. AFP Articulation? <div>OK Cancel</div>	Teach Elevate vs. AFP Articulation Leave Elevate in home position and move AFP Articulation down to bring footplates just above the ground. Make sure to allow enough room not to touch the ground. Press ok when done. <div>OK Cancel</div>
Step 4	Step 5	
Teach Elevate vs. AFP Articulation Move Elevate up enough to bring AFP Articulating all the way out. Move Elevate down to bring the footplates just above the ground. Make sure to allow enough room not to touch the ground. Press ok when done. <div>OK Cancel</div>	Teach Elevate vs. AFP Articulation Teach elevate vs AFP Articulation successful. Save new values? <div>OK Cancel</div>	

Notes:

TRU-BALANCE® 4



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