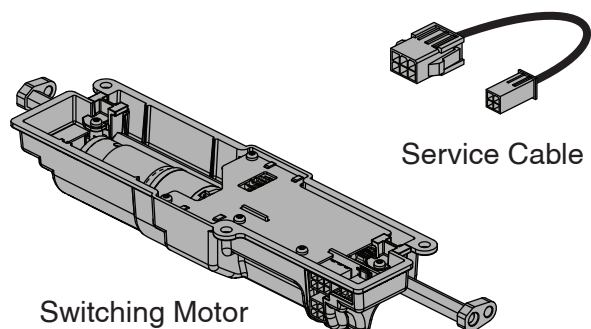


Kit Contents



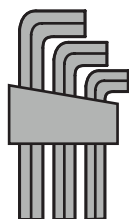
Note: The service cable is used to bypass the switching motor during replacement.

Tools Required

Metric Wrench Set

Metric Hex Key Set

LOCTITE 242



Calibrated Torque Wrench



WARNING! The TRU-Balance 4 switching motor kit should only be installed by an authorized service technician.



WARNING! The lift and tilt base can only be operated through the power chair electronic control system equipped with the latest TRU-Balance 4 firmware. Power cannot be applied directly to the actuators.




MANDATORY! The seat **MUST** be unoccupied during removal and installation of the switching motor.



WARNING! Keep hands clear of all pinch points when operating the lift and tilt.

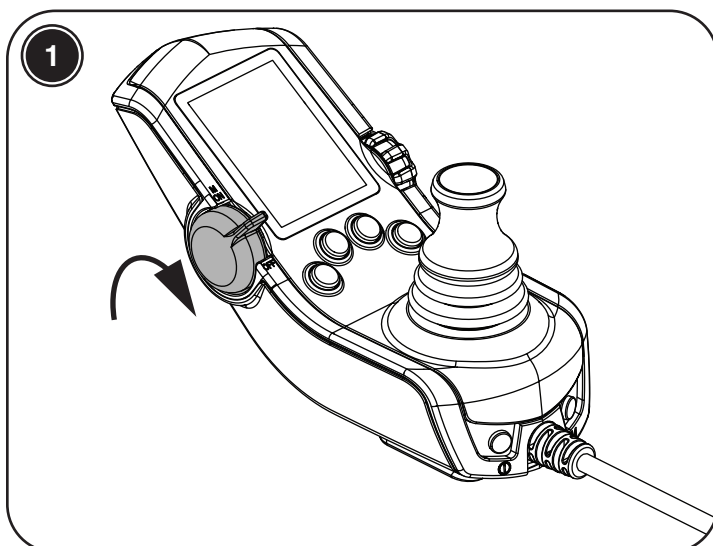


WARNING! All torque specs must be adhered to for proper assembly and safety. If torque specifications are not provided for a component the hardware should be tightened until it is secure and does not rotate without deforming or damaging the surrounding parts.

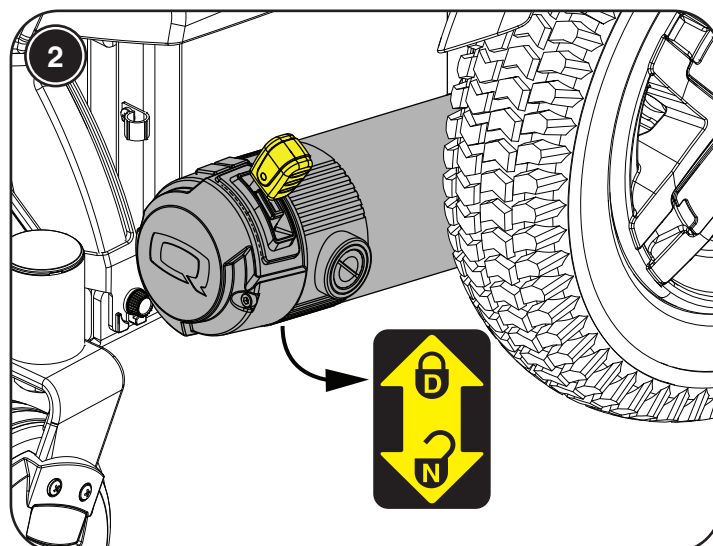
TIP! When the camera icon  is present take a few pictures before proceeding. These pictures can be used as a reference during installation.

If you require any assistance with these instructions, please call Quantum Technical Service at 1-877-800-1248. Canada providers, call 1-888-570-1113.

Chair Preparations (1 of 3)

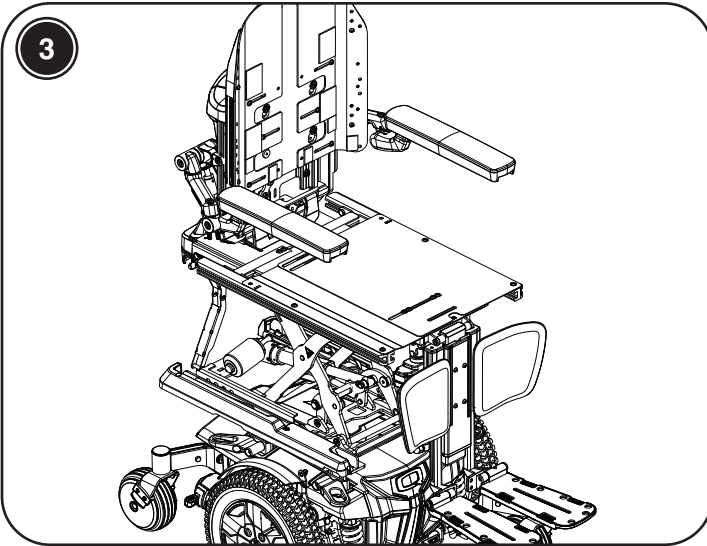


- Turn off power at the joystick.



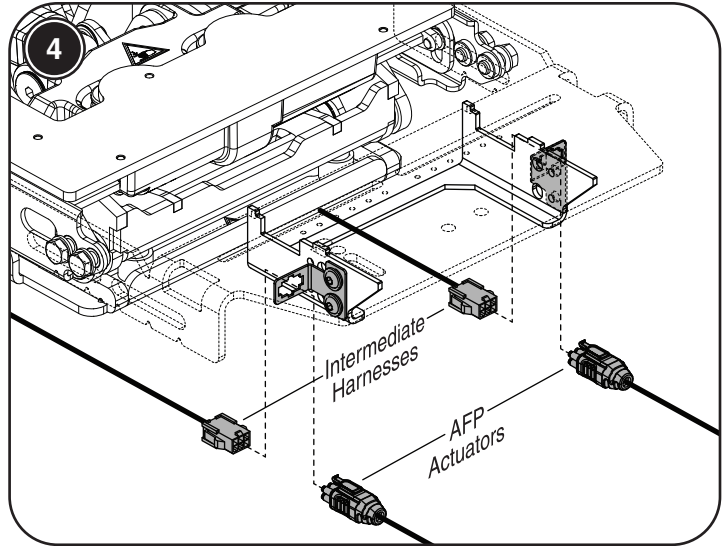
- Ensure the unit is in drive (D) mode.

Chair Preparations (2 of 3)



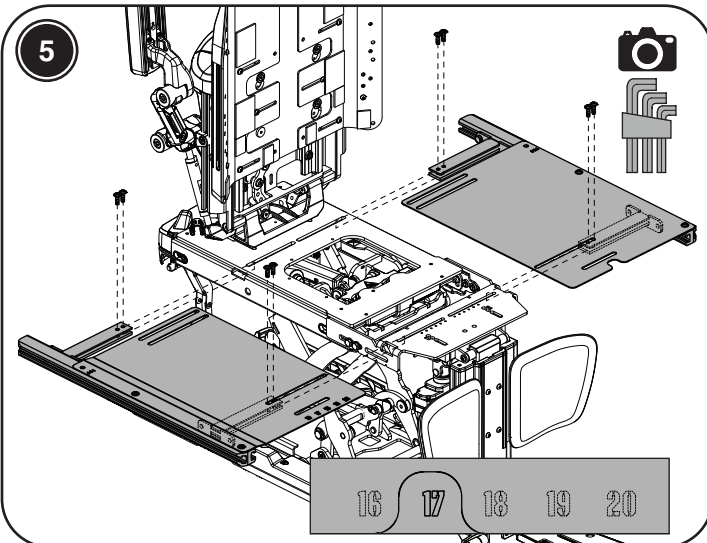
- Elevate the seat to the highest position by temporarily turning on the power at the joystick then use the power chair seating controls to engage the elevate. Turn off power at the joystick when complete.

Note: When the seat is in a tilt position the elevate is locked out through the electronic control system. If the seat is tilted and cannot be operated, proceed to the next step. Elevating the seat provides the easiest means of accessing the switching motor cables but is not mandatory.



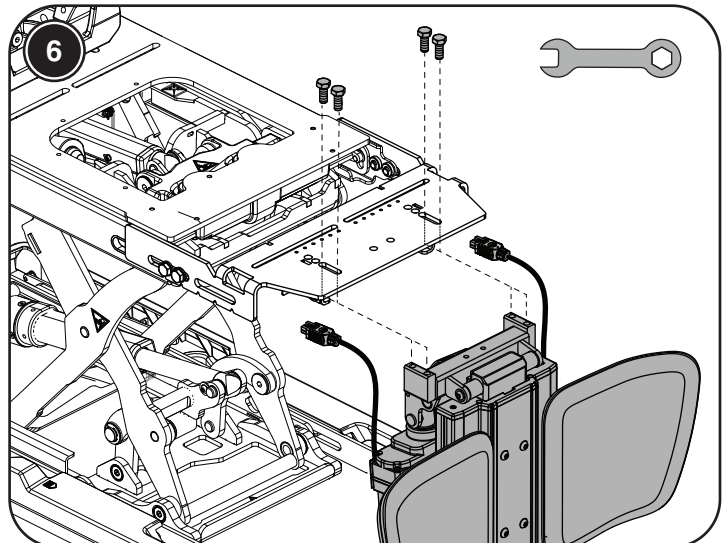
- In the front of the seating system under the seat pan, unplug both articulating foot platform actuators from the intermediate harnesses.

Once unplugged disconnect both intermediate harnesses from the connection brackets by squeezing the mounting ears and pulling the connector towards the back of the unit.



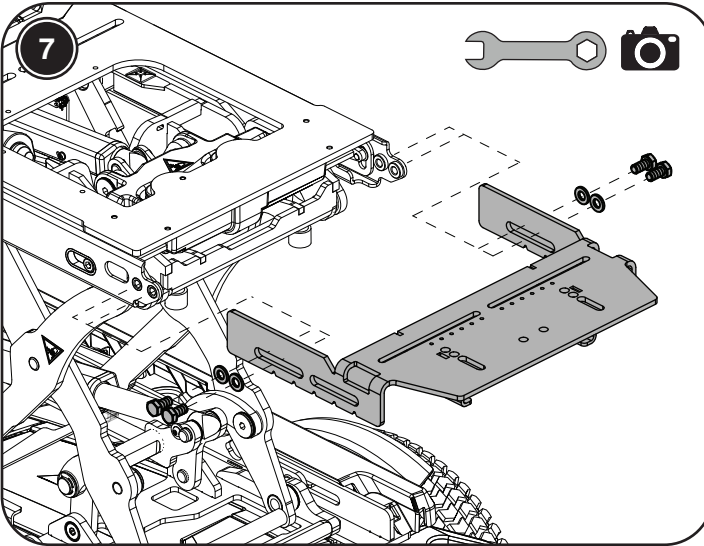
- Take note of the seat width as indicated on the seat pan. This will be used during reassembly.

Using a 4mm hex key, remove the eight (8) screws that hold the width adjustment bars to the seat frame then remove the side rail, seat pan, and width bars on both sides. Take care not to pinch or damage the intermediate harnesses attached to the width adjustment brackets through the remainder of the replacement process.



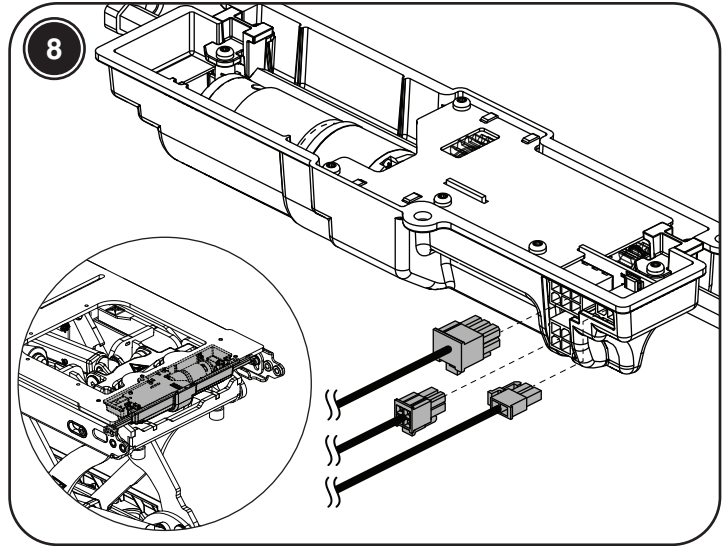
- While securing the articulating foot platform, use a 13mm wrench to remove the four (4) screws that hold the articulating foot platform to the depth adjustment weldment then remove the articulating foot platform.

Chair Preparations (3 of 3)



- Take note of where the depth adjustment weldment is positioned. This will be used during reassembly.

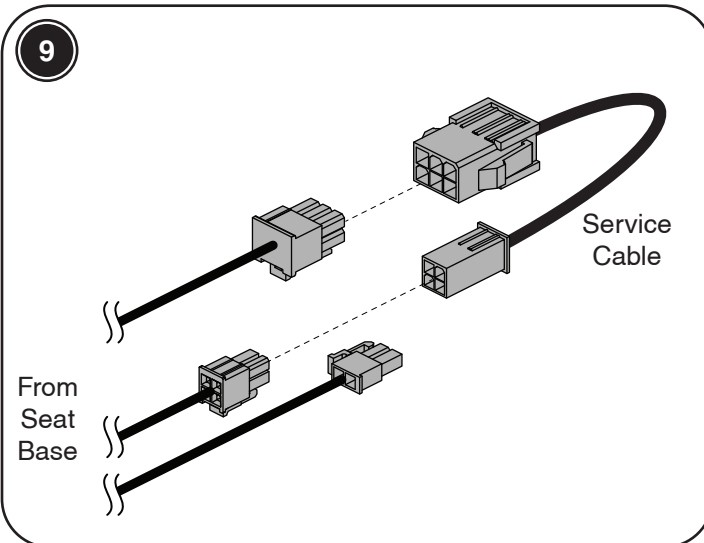
While securing the depth adjustment weldment, use a 13mm wrench to remove the four (4) screws that hold the depth adjustment bracket to the seat assembly then remove the depth adjustment bracket.



- Locate the switching motor under the front of the seat frame then unplug the harnesses going into the motor. There will be a six (6) pin, four (4) pin, and two (2) pin connector.

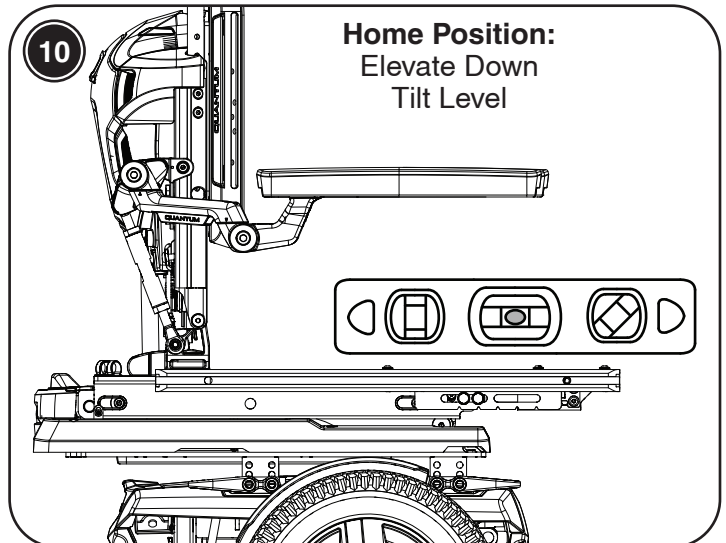


IMPORTANT! With the articulating foot platform and switching motor unplugged, the electronic control system will display feedback errors and warnings whenever the system is turned on. The system is operating as intended and should not cause concern. Once the components are reconnected and the replacement is completed the errors will go away.



- Using the switching motor service cable included in the replacement kit; plug the six (6) pin connector that went into the switching motor into the six (6) pin plug on the service harness, then plug the four (4) pin connector that went into the switching motor into the four (4) pin plug on the service harness.

Note: The two (2) pin connector that went into the switching motor can remain unplugged at this time.

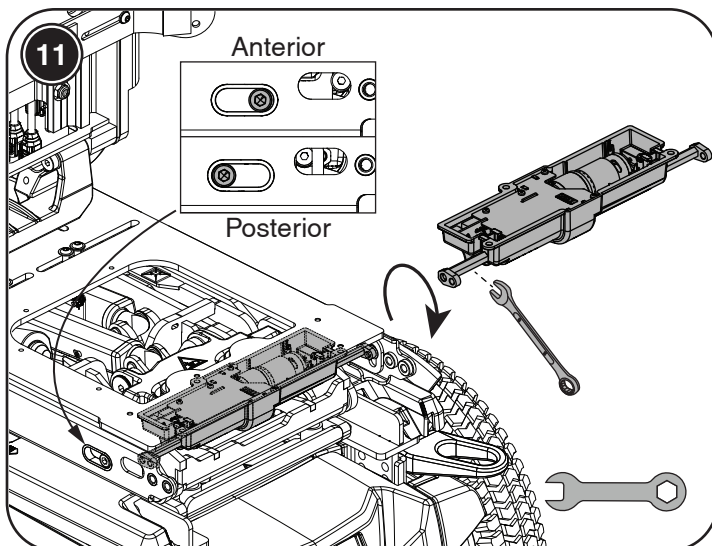


- Temporarily turn on power at the joystick then using the power chair seating controls bring the seat to the home position. Turn off power at the joystick.



WARNING! When the service cable is used the seating system will **NOT** switch between anterior and posterior tilt. **NEVER** attempt to run the tilt past the home (level) position in order to switch between anterior and posterior tilt as damage to the tilt actuator can occur.

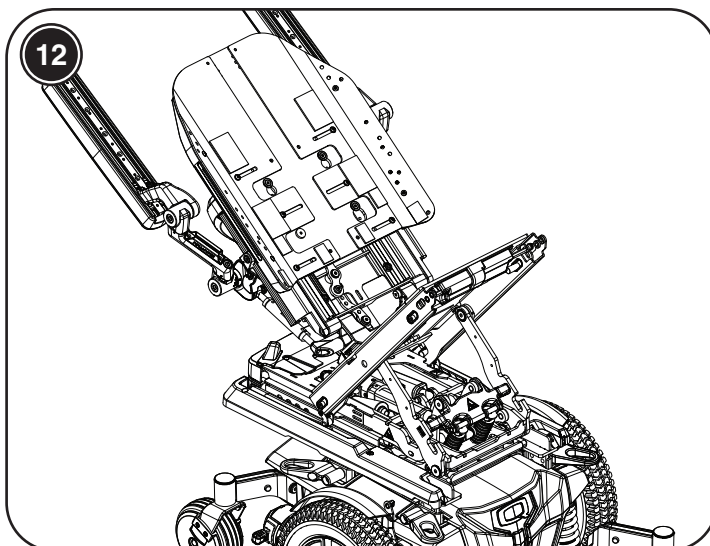
Removal (1 of 1)



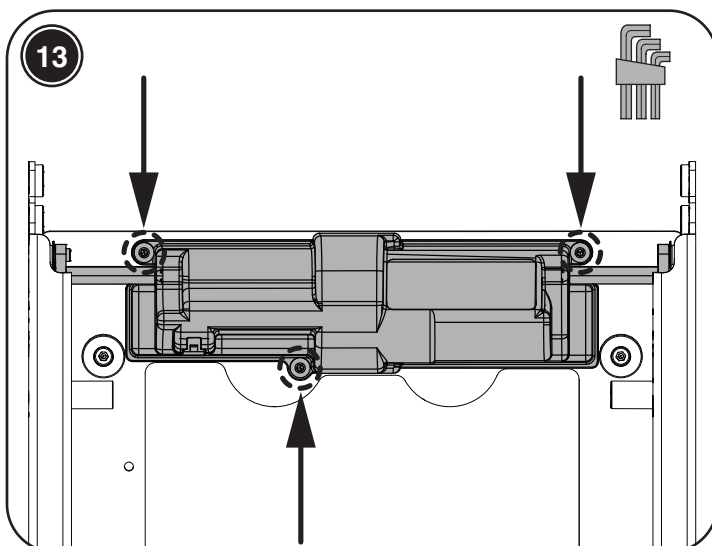
- Determine if the seating system is in anterior or posterior tilt by visually inspecting the screw location on the side channel as shown.

If the seating system is in anterior tilt, manually change the switching motor to posterior tilt by using an 8mm open ended wrench and turning the axle in the direction shown until the screws in the side channels indicate the system is in posterior tilt.

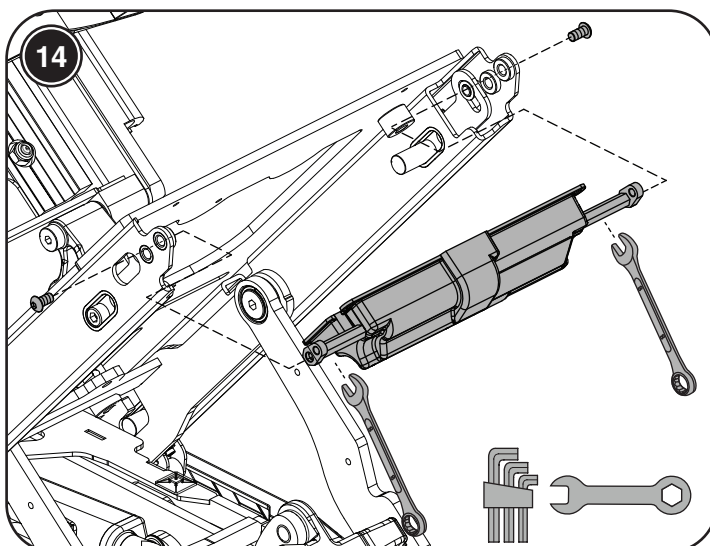
If the seat is in posterior tilt proceed to step 12.



- Temporarily turn on the power at the joystick. Using the power chair seating controls bring the power adjustable seat tilt all the way back. Turn off power at the joystick.



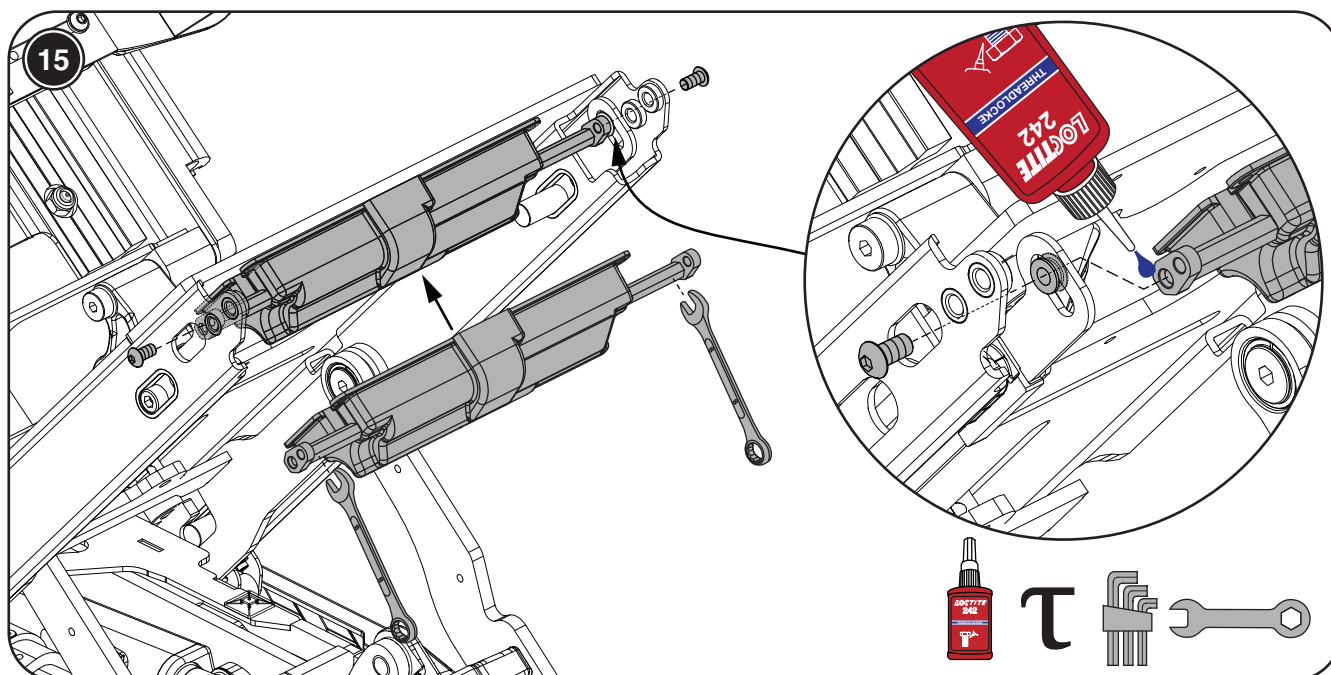
- Using a 3mm hex key remove the three (3) screws holding the switching motor to the seat frame.



- While using an 8mm open ended wrench to hold the switching motor in place, use a 4mm hex key to remove one of the side screws. Repeat on the opposite side then remove the switching motor. Be careful of the spacers, they will move around in the track.

Note: Thread locker is used to secure the fasteners so above average torque may be required to remove them.

Installation (1 of 1)



- Apply LOCTITE 242 to the threaded holes in the switching motor axles.

Align the replacement switching motor with the seat frame. While supporting the axle with an 8mm open ended wrench slide the screw through the side of the frame, the spacer, and into the switching motor axle. Using a 4mm hex key, tighten the hardware until it is secure and does not rotate without deforming or damaging the surrounding parts (over tightening can damage the plastic spacers). Repeat on the opposite side.

- 16 Replace the three (3) screws that hold the switching motor to the underside of the tilt frame. Tighten the hardware until it is secure and does not rotate without deforming or damaging the surrounding parts (over tightening can damage the switching motor plastic housing). See step thirteen (13) for illustration.
- 17 Unplug the six (6) pin and four (4) pin harnesses from the service harness then plug the six (6), four (4), and two (2) pin harnesses into the switching motor. See steps eight (8) and nine (9) for illustrations.
- 18 Temporarily turn on power at the joystick. Then using the power chair seating controls run the posterior tilt all the way down and return the seat to the home position.
- 19 Using the power chair seating controls, run the anterior tilt forward making sure the switching motor properly switches from posterior to anterior tilt. If the motor switches as it should, run the anterior tilt forward ensuring the seating system goes into the anterior tilt position it was programmed for.
- 20 If the power chair is working as intended return the seat to the home position then turn off power at the joystick and complete the installation. If additional assistance is needed please contact technical service.
- 21 Using a 13mm wrench, reinstall the depth adjustment bracket lining up the notch as noted during the removal process. Torque to 24-28 N*m (17.7-20.6 ft*lbs). See step seven (7) for illustration.
- 22 Using a 13mm wrench, reinstall the articulating foot platform onto the depth adjustment bracket. Torque to 20.5-23.5 N*m (15.1-17.3 ft*lbs). See step six (6) for illustration.
- 23 Realign the seat pan, side rails, and width bars onto the seat frame setting the width as noted during the removal process. Then using a 4mm hex key secure the width bars to the seat frame with the eight (8) screws. Tighten the hardware until it is secure and does not rotate without deforming or damaging the surrounding parts. See step five (5) for illustration.
- 24 Reconnect the articulating foot platform intermediate harnesses to the connection brackets then plug in the articulating foot platform actuator harnesses. See step four (4) for illustration.
- 25 Temporarily turn on the power at the joystick. If any feedback warnings or errors occur, cycle the power off and then back on to clear the errors. If additional assistance is needed please contact technical service.