

INSTALLATION GUIDE
QUICKIE Q500 M



INSTALLATION GUIDE

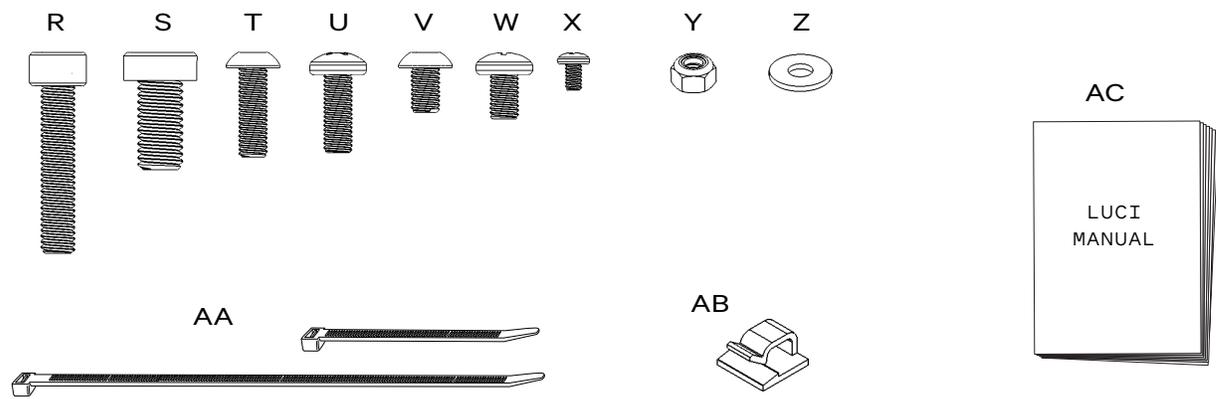
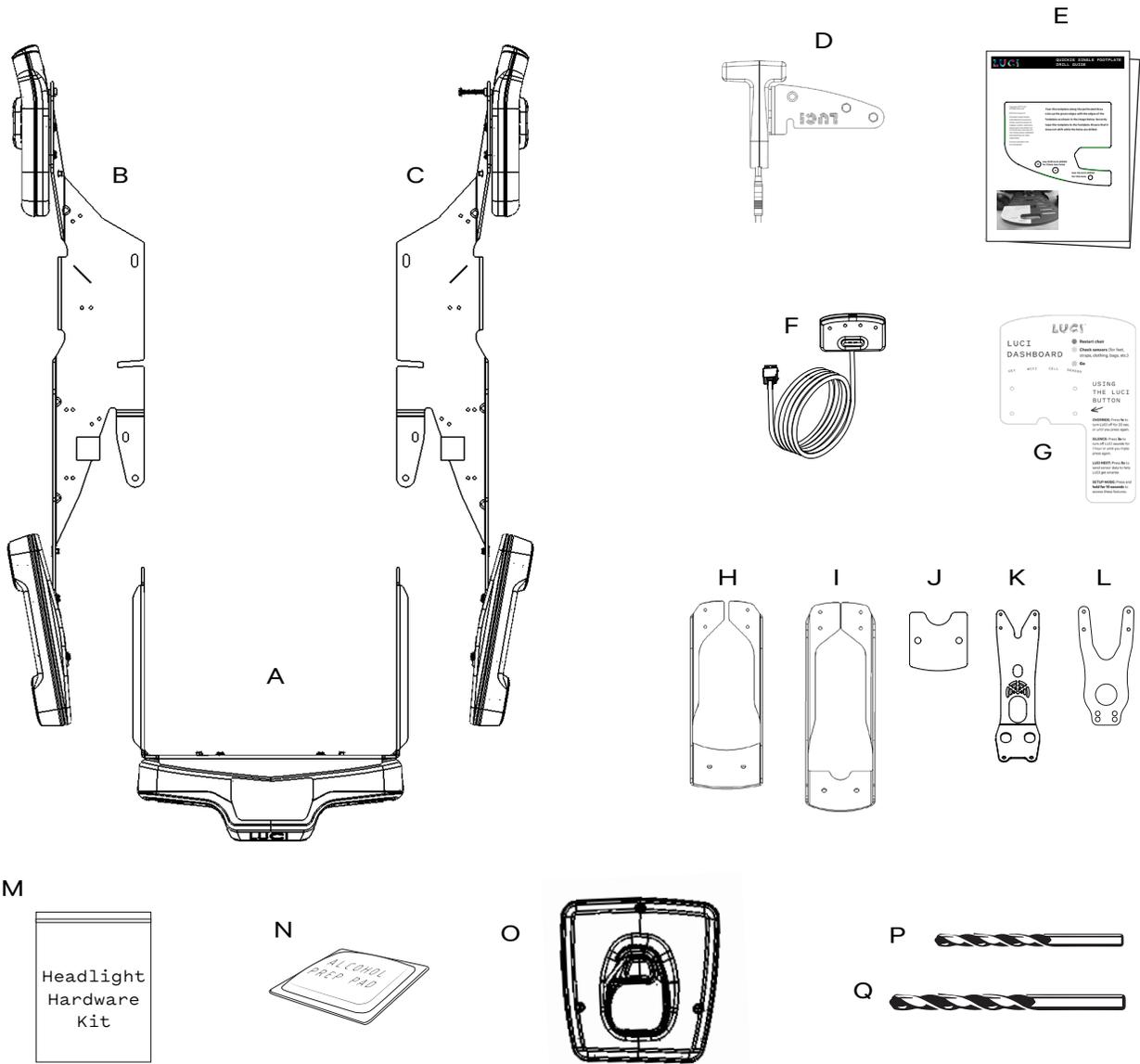
QUICKIE Q500 M

PACKAGE CONTENTS

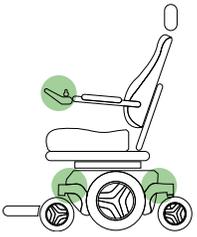
- A. Rear SmartFrame™ (1)
- B. Left SmartFrame™ (1)
- C. Right SmartFrame™ (1)
- D. Scout (1)
- E. Footplate Drill Guides (2)
- F. Dashboard (1)
- G. Dashboard Reference Card (2)
- *Bracket based on order form:*
 - H. LED Joystick Dashboard Bracket (1)
 - I. Color Joystick Dashboard Bracket (1)
 - J. Color Joystick Spacer (1)
 - K. CJSM 1/2 Dashboard Bracket (1)
 - L. OMNI Dashboard Bracket (1)
- M. Headlight Hardware Kit (1)
- N. Alcohol Wipe (2)
- O. LuciLink™ Hub & Wheelchair Key™ (1)
- P. 1/4" Drill Bit (1)
- Q. 5/16" Drill Bit (1)
- R. M6 x 30mm Socket Head Bolt (4)
- S. M8 x 16mm Low Profile Socket Cap Screw (4)
- T. M5 x 16mm Hex Head Screw (2)
- U. M5 x 14mm Phillips Head Screw (1)
- V. M5 x 8mm Hex Head Screw (2)
- W. M5 x 8mm Phillips Head Screw (3)
- X. 4-40 x 3/16 Phillips Head Screw (4)
- Y. M5 Nylon Insert Locknut (1)
- Z. #10 Washer (2)
- AA. Zip Ties (18 short, 8 long)
- AB. Cable Clips (6)
- AC. User Manual (1)

You will also need:

- 3mm Allen Wrench
- 5mm Allen Wrench
- 13mm Wrench
- 8mm Socket Wrench
- Phillips P1 Screwdriver
- Masking Tape
- Drill
- Zip Tie Cutter



INSTRUCTIONS

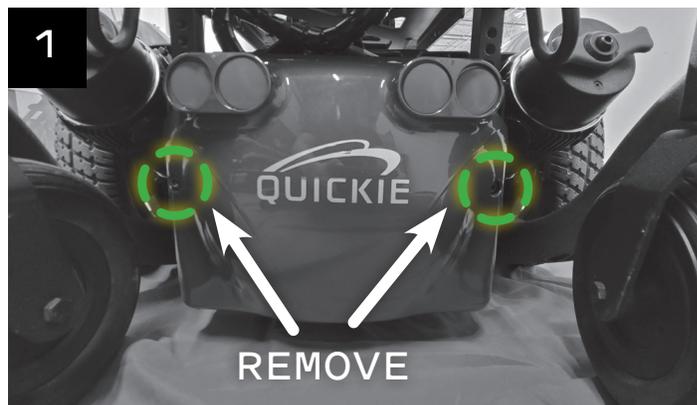


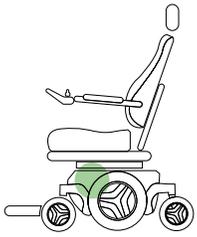
STEP 1 - PREPARE WHEELCHAIR BASE

Tools Required

- 5mm Allen Wrench

Use a 5 mm Allen wrench to loosen the two bolts in the back cover (Figure 1) and remove the back cover. If the wheelchair has a seat elevator, turn the wheelchair on and raise the seat completely to allow adequate room to work comfortably (Figure 2), then turn the wheelchair off. Otherwise, remove the two thumbscrews under the front of the seating assembly and flip the seating assembly back to open the battery compartment and gain adequate access (Figure 3).





STEP 2 - SECURE SIDE SMARTFRAMES

Tools Required

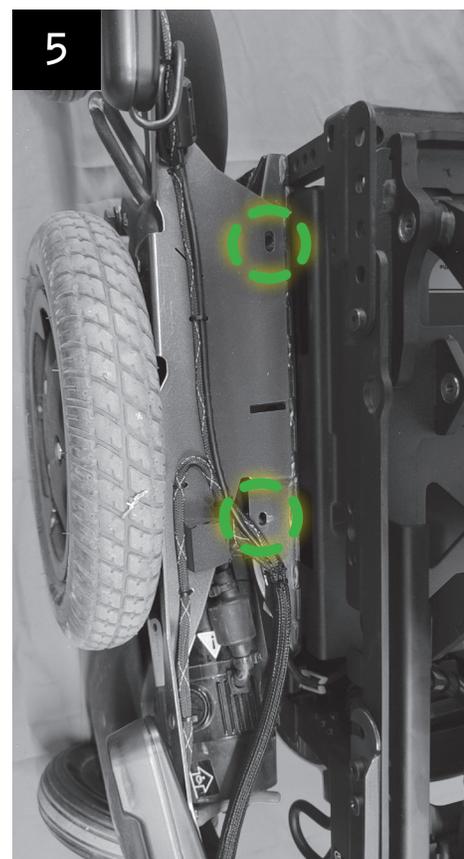
- Rear SmartFrame™ (A)
- Left SmartFrame™ (B)
- Right SmartFrame™ (C)
- M6 × 30mm Bolts (R)
- 5mm Allen Wrench

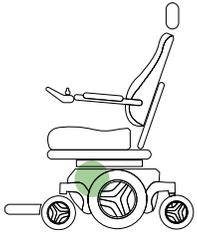
i Note: If the wheelchair has headlights, remove them to make room for the Side SmartFrames; they will be reattached afterwards.

Using a 5mm Allen wrench, remove the bolts on the front and both sides of the front cover (Figure 4) and remove the front cover completely. Place the three parts of the SmartFrame (A, B and C) on the floor around the wheelchair. Set the Left SmartFrame (B) on the left side of the chair where the front cover was removed, lining up the bolt holes (Figure 5). Do not insert the bolts yet.

i Note: There is a bolt that is located in between the tire and the tie-down hook on the side of the wheelchair. This bolt will insert into the hole near the front of the bracket on the 90 degree bend, holding the bracket in place.

Repeat the process on the right side of the wheelchair: set the Right SmartFrame (C) on the right side of the wheelchair, slotting it onto the bolt between the tire and the tie down. Replace the front cover onto the chair. Loosely insert four M6 x 30mm bolts (R), two on each side, securing the Left and Right SmartFrames between the wheelchair and front cover (Figure 6). Reinsert the two original screws in the front of the front cover and tighten all bolts and screws.





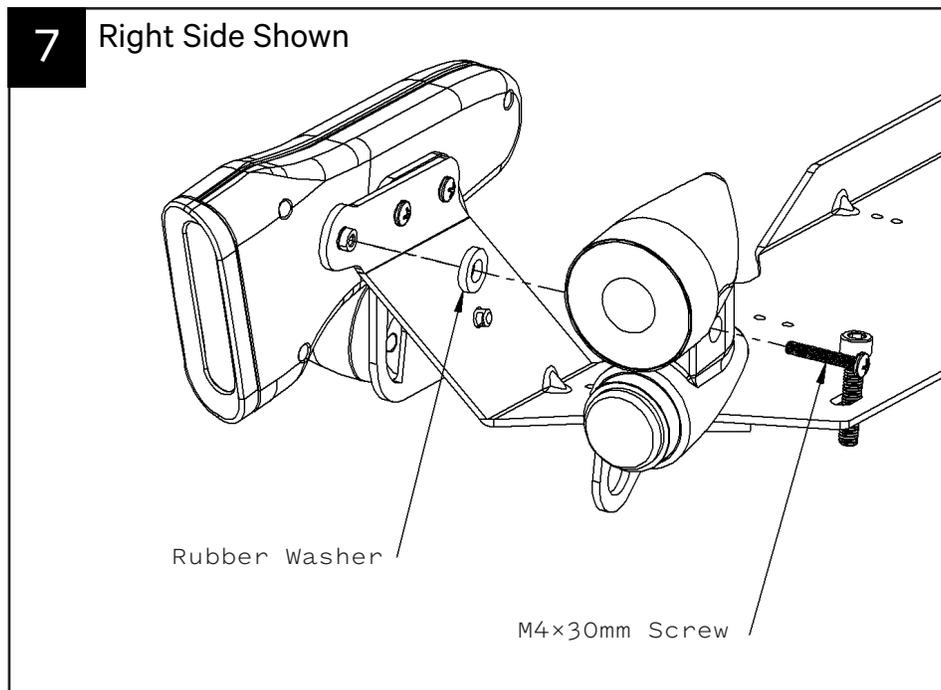
STEP 2B - REATTACH HEADLIGHTS (OPTIONAL)

Tools Required

- Headlight Kit (M):
 - M4×30mm Screw (2)
 - Rubber Washer (2)

i Note: If the wheelchair has headlights, reattach them now.

Using the contents of the Headlight Kit (M), slide a rubber washer onto the threaded stud. Insert the M4 x 30mm screw into the headlight and attach the headlight to the SmartFrame (Figure 7). Repeat on the other side.





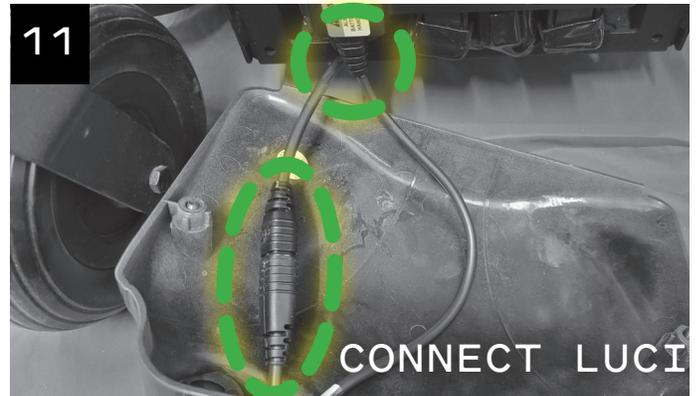
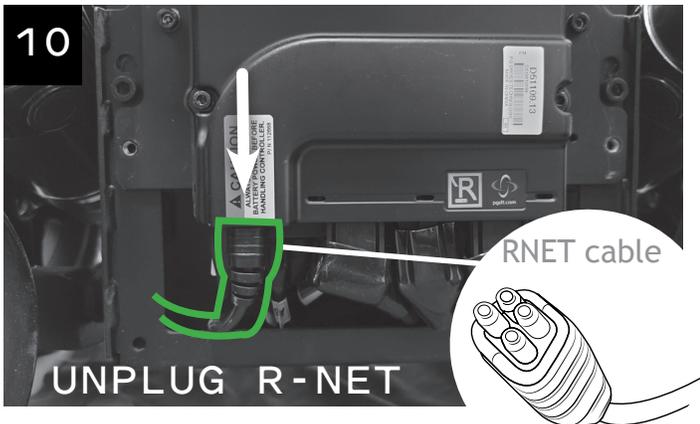
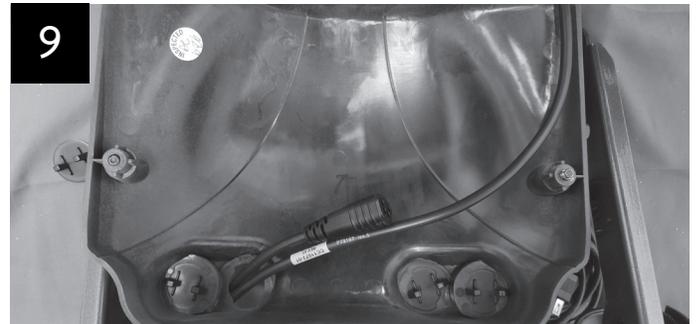
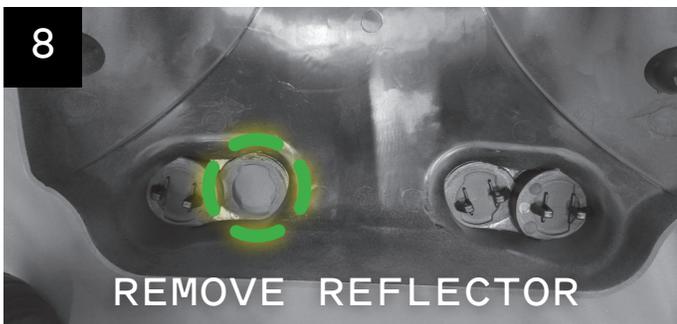
STEP 3 - CONNECT LUCI TO THE WHEELCHAIR

Tools Required

- Rear SmartFrame™ (A)

If the battery compartment was opened, flip the seating assembly back into place and reinsert the thumbscrews that hold the seating assembly in place.

Remove one reflector from the rear cover by rotating the tabs on the inside and pushing the reflector out (Figure 8). Route the two R-NET cables from the Rear SmartFrame (A) through the opening in the rear cover (Figure 9). On the back of the wheelchair, unplug the main R-NET cable on the far left (Figure 10) and plug it into the female R-NET cable end on LUCI. Plug the male R-NET cable end from LUCI into the main wheelchair R-NET outlet on the far left (Figure 11). Turn the wheelchair on to ensure all power cables have been properly connected. Turn off the wheelchair.





STEP 4 - SECURE THE REAR SMARTFRAME

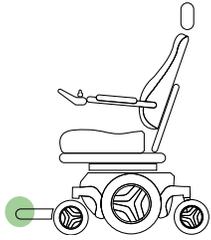
Tools Required

- Rear SmartFrame (A)
- M8 × 16mm Screws (S)
- 5mm Allen Wrench

Use the 5mm Allen wrench to reattach the rear cover on the wheelchair, using the original bolts (Figure 12). On both sides of the wheelchair, remove the forward-most bolt completely and then loosen the rear bolt. Install the Rear SmartFrame (A) by slotting it onto the rear bolts. Insert M8 x 16mm Screws (S) into the front holes and tighten enough to keep the SmartFrame from moving. Replace the rear bolts with M8 x 16mm Screws (S) on both sides.



Make sure the bubble is between the lines on the level taped to the SmartFrame and tighten all four screws (Figure 14). The manufacturer recommends 25 N-m (18 ft-lb) of torque on these fasteners. Remove the bubble level once the SmartFrame is level and secure.



STEP 5 - ATTACH SCOUT

Tools Required

- Scout (D)
- Footplate Drill Guides (E)
- Drill
- Phillips P1 Screwdriver
- 1/4" Drill Bit (P)
- 5/16" Drill Bit (Q)
- M5 x 14mm Screw (U)
- M5 x 8mm Screws (W)
- M5 Nylon Locknut (Y)
- #10 Washer (Z)
- 8mm Socket Wrench

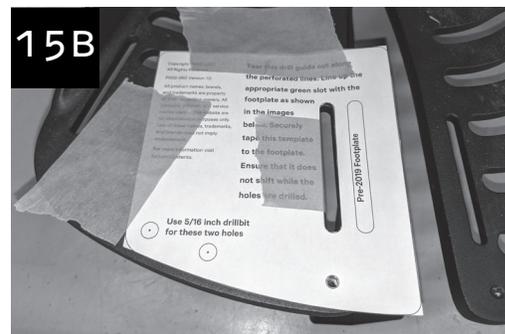
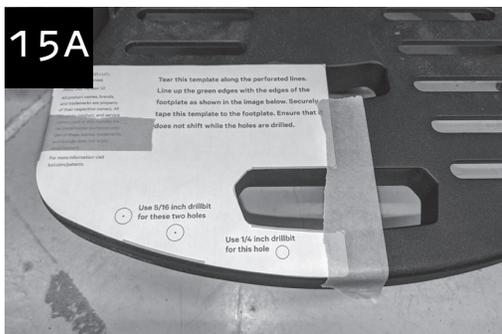
Choose the correct Drill Guide (E) depending on the wheelchair's footplate - Single Footplate or Dual (Individual) Footplates - and tear it out along the perforated lines.

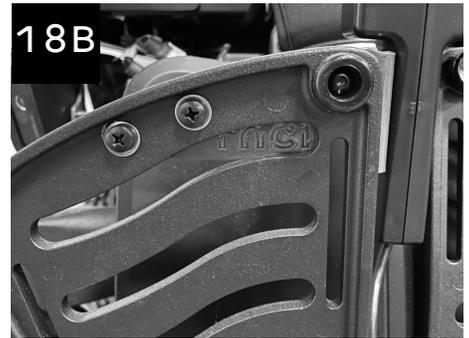
Single Footplate:

Line up the template as shown in the image on the Drill Guide and tape it to the footplate (Figure 15A). Drill the two larger holes with the 5/16" drill bit (Q) and the smaller hole with the 1/4" drill bit (P) as marked on the template (Figure 16A). Place the Scout (D) on top of the footplate, aligning the screw holes in the bracket with the drilled holes in the footplate. Place #10 Washers (AA) on two of the M5 x 8mm Phillips Head Screws (W), raise the footplate and loosely insert the screws into the 5/16" holes from the bottom of the footplate (Figure 17A) to hold the Scout bracket in place. Insert the M5 x 14mm Screw (U) into the 1/4" hole from the top of the footplate (Figure 18A). Use an 8mm socket wrench to secure it from the bottom with the M5 Nylon Locknut (Z). Tighten all three screws.

Dual Footplates:

Line up the template as shown in the images on the Drill Guide and tape it to the footplate (Figure 15B). Note which slot on the template to line up with the footplate, depending on the footplate style. Loosely insert one M5 x 8mm Phillips Head Screw (W) through the template and into the threaded hole to help keep the template in place. Drill the two holes with the 5/16" drill bit (Q) as marked on the template (Figure 16B). Remove the M5 x 8mm screw (W) and discard the template. Place the Scout (D) on top of the footplate, aligning the screw holes in the bracket with the drilled holes in the footplate. Loosely reinsert the M5 x 8mm Screw (W) into the threaded hole (Figure 17B). Raise the footplate, place #10 Washers (Z) on the remaining two M5 x 8mm Phillips Head Screws (W) and insert them into the 5/16" holes from the bottom of the footplate (Figure 18B). Tighten all three screws.

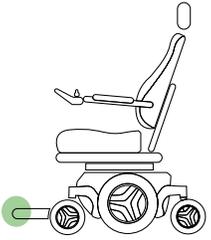




⚠ Caution: The Scout should be level for optimal performance (Figure 19A). In some cases, the footrest and Scout angle downward when the user is seated (Figure 19B). To ensure that the Scout does not see the ground as an obstacle, angle the footrest and/or Scout slightly upward (Figure 20A) so that the Scout is level when the user is seated (Figure 20B).



i Note: If the driver typically drives with the footplate raised, the Scout should be adjusted, following the instructions in Step 5B.



STEP 5B - ADJUSTABLE SCOUT OPTIONS

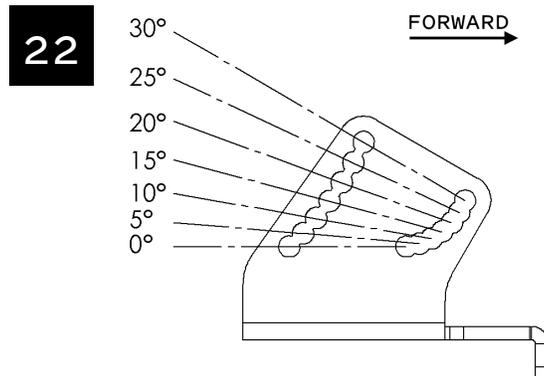
Tools Required

- Phillips P1 Screwdriver

The Scout works best when it is level with the ground or facing slightly upward. For the majority of drivers the default Scout position will work well and this step can be skipped (Figure 21). However, if the driver primarily drives with the footplate significantly raised or lowered, the Scout should be adjusted to an orientation that is level with the ground, to ensure proper functioning and obstacle detection.

The adjustable footplate bracket allows for variability in Scout orientation (Figure 22). If the driver typically drives with the footplate up, the Scout can be mounted at up to 30 degrees tilt (Figure 23).

⚠ Caution: Do not mount the Scout facing downward, as this will cause it to see the ground as an obstacle and inhibit forward motion (Figure 24).





STEP 6 - ROUTE SCOUT CABLE

Tools Required

- Alcohol Wipe (N)
- Cable Clips (AB)
- Zip Ties (AA)

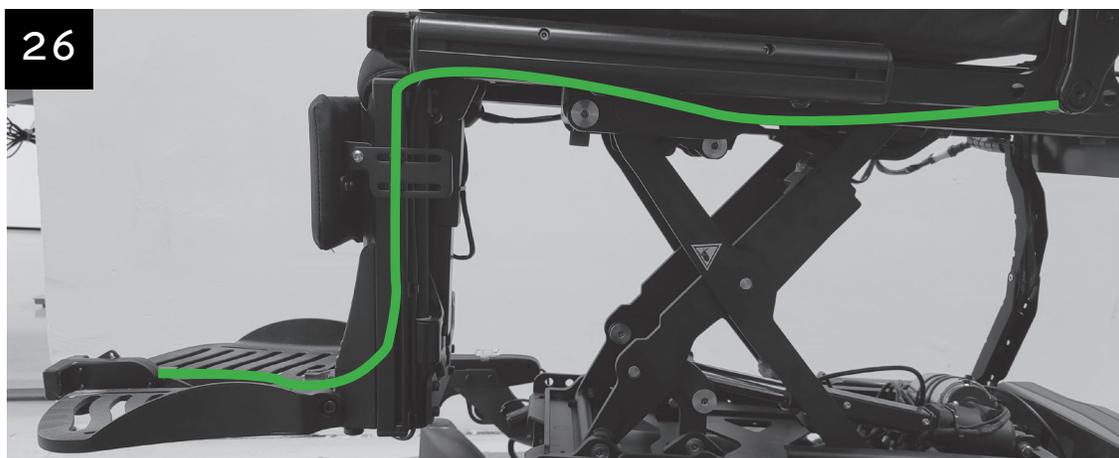
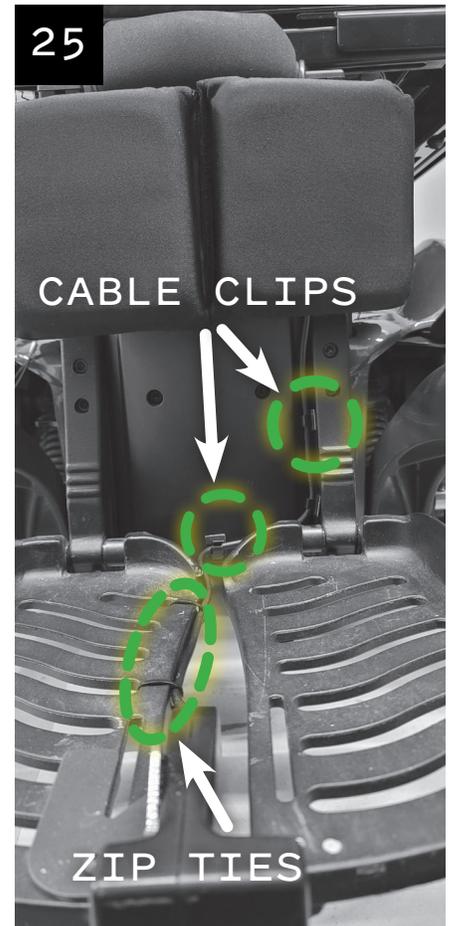
Route the Scout cable along the side and top of the footplate (Figure 25), using zip ties (AA) and cable clips (AB) along the way as needed. Before applying cable clips, be sure to thoroughly clean the plastic with an alcohol wipe (N). Raise the leg rest to its fullest extent and continue routing the cable along the side of the leg rest, routing toward the back of the wheelchair. Follow existing cabling and cable clips where possible (Figure 26).

⚠ Caution: Do not route the cable under the leg rest post.

ℹ Note: Use an alcohol wipe to thoroughly clean the plastic before applying cable clips. Cable clips need firm pressure to properly adhere, and may come off in the first few minutes if moved too aggressively when putting cables into them.

⚠ Caution: Ensure there is enough slack in the USB cable so that the seat and leg rest can move to their full extent, without causing tension on the cable.

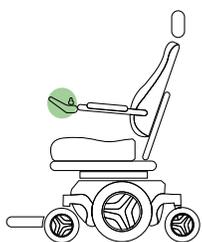
⚠ Caution: All cables should be installed, bundled and routed so as to avoid damage to the cables through pinching, dragging, etc. and to avoid excess cable length that could lead to entanglement or strangulation.



STEP 7 - INSTALL THE DASHBOARD

i Note: To install the Dashboard, you will need to select the correct Dashboard Bracket depending on the wheelchair's drive system:

- | | | |
|--------------------------|--|-----------|
| - LED Joystick | - LED Joystick Dashboard Bracket (H) | - Step 7A |
| - Color Joystick | - Color Joystick Dashboard Bracket (I) | - Step 7B |
| - Standard Joystick | - CJSM 1/2 Dashboard Bracket (K) | - Step 7C |
| - Omni Alternative Drive | - Omni Dashboard Bracket (L) | - Step 7D |

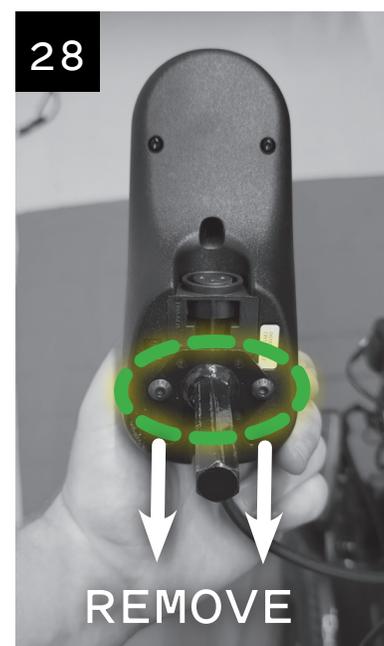


STEP 7A - LED JOYSTICK

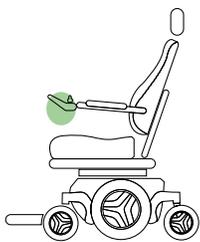
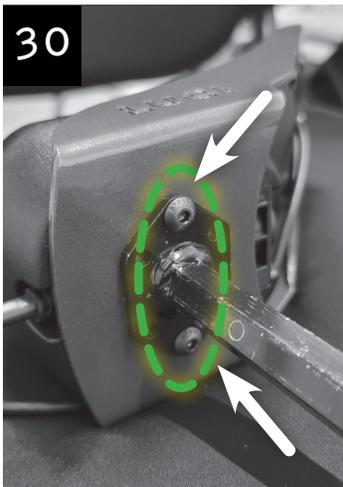
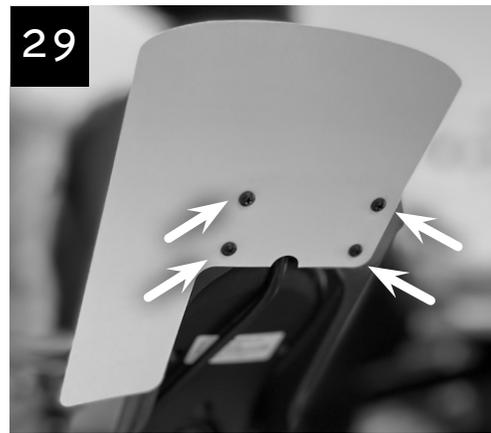
Tools Required

- | | |
|--------------------------------------|-----------------------------------|
| - Dashboard (F) | - 3mm Allen Wrench |
| - LED Joystick Dashboard Bracket (H) | - 5mm Allen Wrench |
| - Dashboard Reference Card (G) | - Phillips P1 Screwdriver |
| | - M5×16mm Hex Screws (T) |
| | - 4-40 × 3/16 Phillips Screws (X) |

Remove the joystick module from the armrest of the wheelchair by loosening the M6 screw using a 5mm Allen wrench (Figure 27). Remove the two screws on the bottom of the joystick on either side of the adjustment rod, using a 3mm Allen wrench (Figure 28). Choose the correct (left or right) Dashboard Reference Card (G). Use four 4-40 x 3/16 inch screws (X) to attach the LED Joystick Dashboard Bracket (H) to the back of the Dashboard (F), with the Dashboard Reference Card (G) behind the bracket (Figure 29). Route the Dashboard cable along the lower



inside bend of bracket and place the joystick module inside the Bracket. Insert two M5 x 16mm Hex Head Screws (T), tightening them with a 3mm Allen wrench (Figure 30). Reattach the entire joystick module to the wheelchair and tighten the original M6 screw (Figure 31).



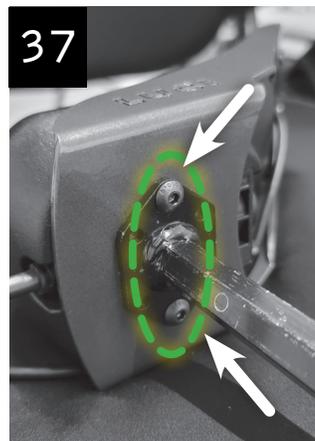
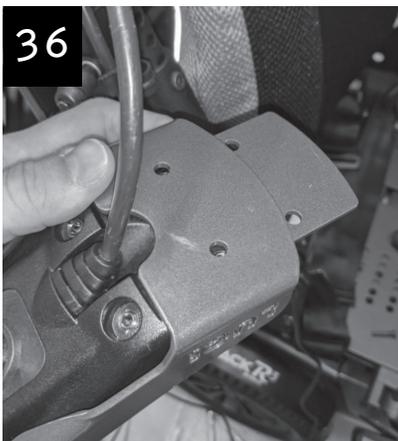
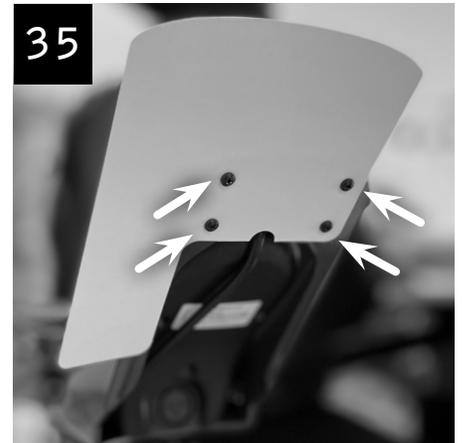
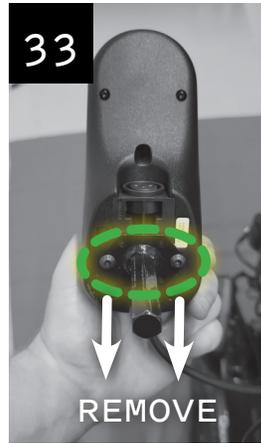
STEP 7B - COLOR JOYSTICK

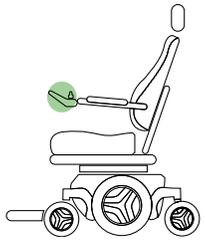
Tools Required

- Dashboard (F)
- Color Joystick
- Dashboard Bracket (I)
- Color Joystick Spacer (J)
- Dashboard Reference Card (G)
- 3mm Allen Wrench
- 5mm Allen Wrench
- Phillips P1 Screwdriver
- M5x16mm Hex Screws (T)
- 4-40 x 3/16 Phillips Screws (X)

Remove the joystick module from the armrest of the wheelchair by loosening the M6 screw using a 5mm Allen wrench (Figure 32). Remove the two screws on the bottom of the joystick on either side of the adjustment rod, using a 3mm Allen wrench (Figure 33). Feed the joystick cable through the

split in the Color Joystick Bracket (I) (Figure 34). Choose the correct (left or right) Dashboard Reference Card (G). Use four 4-40 x 3/16 inch screws (X) to attach the Color Joystick Dashboard Bracket (I) to the back of the Dashboard (F), with the Dashboard Reference Card (G) behind the bracket (Figure 35). Route the Dashboard cable along the lower inside bend of bracket and place the joystick module inside the bracket. Turn the joystick module upside down, and slide the Color Joystick Spacer (J) in between the joystick module and the bracket (Figure 36). Insert two M5 x 16mm hex head screws (T), tightening them with a 3mm Allen wrench (Figure 37). Reattach the entire joystick module to the wheelchair and tighten the original M6 screw (Figure 38).



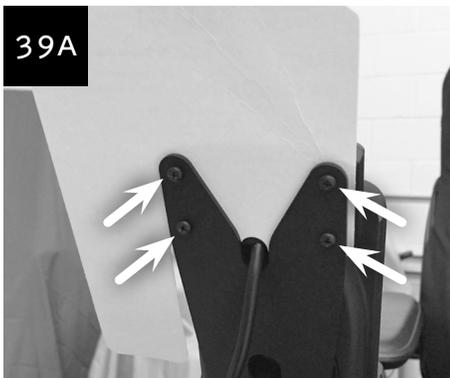


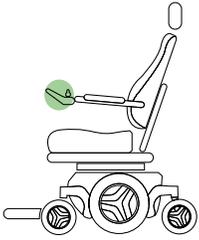
STEP 7C - CJSM 1/2 JOYSTICK

Tools Required

- Dashboard (F)
- CJSM 1/2 Joystick
- Dashboard Bracket (K)
- Dashboard Reference Card (G)
- 3mm Allen Wrench
- 5mm Allen Wrench
- Phillips P1 Screwdriver
- 4-40 x 3/16 Phillips Screws (X)
- Zip Tie (AA)

Choose the correct (left or right) Dashboard Reference Card (G). Use four 4-40 x 3/16 inch screws (X) to attach the bracket to the back of the Dashboard (F), sandwiching the Dashboard Reference Card (G) between them and ensuring the cable is routed correctly (Figure 39A or 39B). Note that for newer wheelchairs, the joystick module is taller, so the Dashboard should only be attached to the top two holes on the bracket; insert screws into the top two holes on the Dashboard to ensure the unit stays sealed (Figure 39B). Remove the joystick module from the armrest of the wheelchair by loosening the M6 screw using a 5mm Allen wrench. Use a 3mm Allen wrench to remove the metal bracket from the joystick module. Insert the Dashboard bracket between the armrest and the joystick module and reinsert the screws (Figure 40). Route and zip tie the cable as shown (Figure 40). Reattach the joystick module and tighten the original M6 screw.





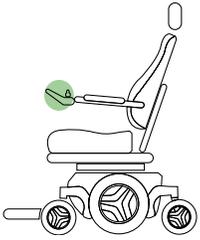
STEP 7D - OMNI ALTERNATIVE DRIVE

Tools Required

- Dashboard (F)
- Omni Dashboard Bracket (L)
- Dashboard Reference Card (G)
- 3mm Allen Wrench
- Phillips P1 Screwdriver
- M5 x 8mm Hex Screw (V)
- 4-40 x 3/16 Phillips Screws (X)

Choose the correct (left or right) Dashboard Reference Card (G). Use four 4-40 x 3/16 inch screws (X) to attach the bracket to the back of the Dashboard (F), sandwiching the Dashboard Reference Card (G) between them and ensuring the cable is routed correctly (Figure 41). Use a 3mm Allen wrench to remove the Omni module. Insert the Dashboard bracket between the armrest and the Omni module and attach using two M5 x 8mm hex head screws (V) (Figure 42).





STEP 8 - ROUTE THE DASHBOARD CABLE

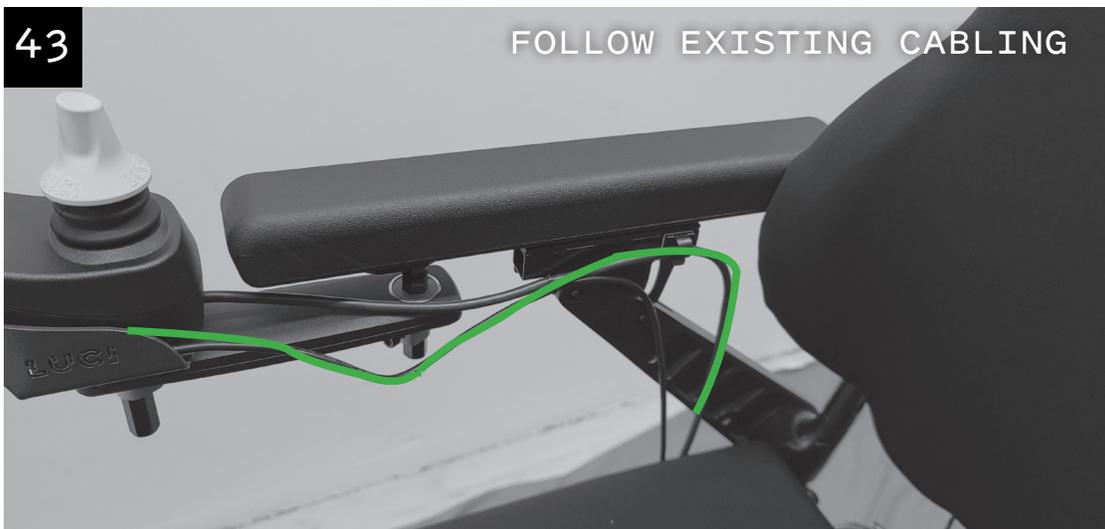
Tools Required

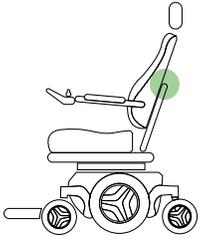
- Zip Ties (AA)

Regardless of the type of Dashboard Bracket that was used, route the Dashboard cable toward the back of the wheelchair, following existing cabling and using zip ties (AA) as needed (Figure 43).

i Note: For alternative drive wheelchairs, the Dashboard (F) includes an auxiliary jack. Any momentary switch plugged into the jack can be used as the override button. If not used, be sure to keep the dust plug in the jack.

⚠ Caution: All cables should be installed, bundled and routed so as to avoid damage to the cables through pinching, dragging, etc. and to avoid excess cable length that could lead to entanglement or strangulation.





STEP 9 - ATTACH LUCILINK HUB

Tools Required

- Alcohol Wipe (N)
- Zip Ties (AA)
- LuciLink Hub (O)
- Phillips P1 Screwdriver

Use an alcohol wipe (N) to clean a flat area on the wheelchair seat back. Remove the Velcro backing from the LuciLink Hub (O) back cover and affix it to the cleaned area, so that the key is oriented as shown and the cable opening is at the bottom (Figure 44). Clip existing zip ties along the drag chain one at a time and route the Rear SmartFrame USB cable along existing cabling and through the drag chain, zip tying it in place (Figure 45). Use long zip ties (AA) to secure cables in the drag chain.

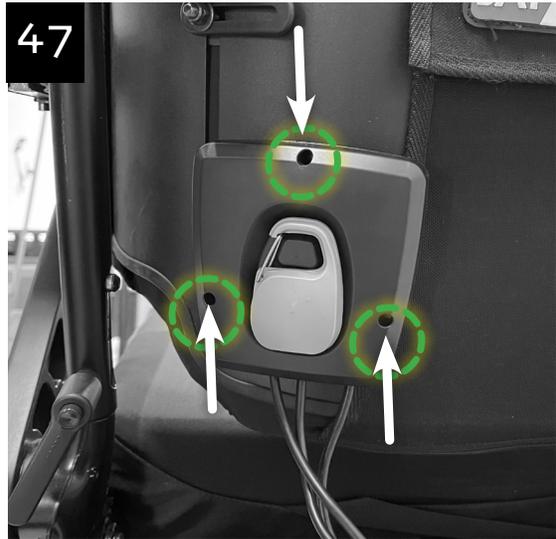
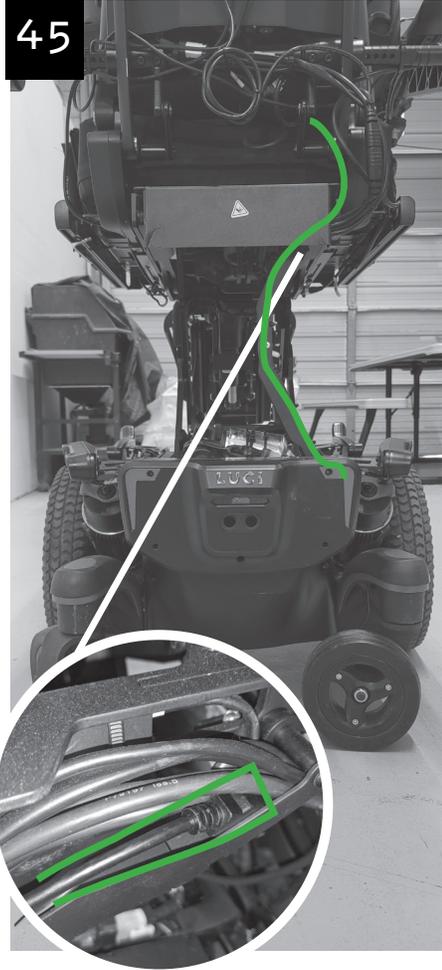
i Note: The LuciLink Hub may be placed anywhere on the seat back, as long as it does not limit the range of motion of the seat, armrests, etc.

i Note: Leave about 4-6 inches of slack in the USB cable before inserting it into the drag chain, so that SmartFrame can be rotated out of the way to allow for battery changes.

Use a Phillips P1 screwdriver to open the LuciLink Hub. Plug the Scout and Dashboard USB cables into the LuciLink Hub and connect the SmartFrame USB cable to the LuciLink Hub. Place the cables so that the LuciLink Hub can be closed (Figure 46). Close the LuciLink Hub, reinsert and tighten the three screws (Figure 47).

i Note: It may be easier to place the cables and close the LuciLink Hub by removing the back from the Velcro and holding the LuciLink Hub horizontally.

⚠ Caution: All cables should be installed, bundled and routed so as to avoid damage to the cables through pinching, dragging, etc. and to avoid excess cable length that could lead to entanglement or strangulation.



ONCE LUCI IS INSTALLED:

- Power on the wheelchair and ensure that the seat, armrests, and footrest are able to move to their full extent without pinching or pulling any cables, or compressing any parts of LUCI.
- Ensure that leg pads and accessories, such as lateral thigh supports, do not contact or block the front camera pods and/or headlights at the lowest seat elevation.
- Confirm the Dashboard Reference Card is attached to the LUCI Dashboard.
- Check that there are no loose, pinched or dragging cables.
- Confirm the Sensor Status light on the Dashboard is orange (demo mode).
- Press the LUCI button and make sure the LUCI button lights up blue, the chair can move in each direction when clear, and the chair stops in a blocked direction of travel.

Before releasing the wheelchair to the user, the system will need to be configured. With the user in the wheelchair, follow the instructions in the LUCI Quick Setup Guide.

CONGRATULATIONS,
you have installed

The logo for LUCI, featuring the letters L, U, C, and I in a stylized, multi-colored font. Each letter is composed of a gradient of colors (red, orange, yellow, green, blue, purple) and has a slight 3D effect. A registered trademark symbol (®) is located to the upper right of the letter 'I'.

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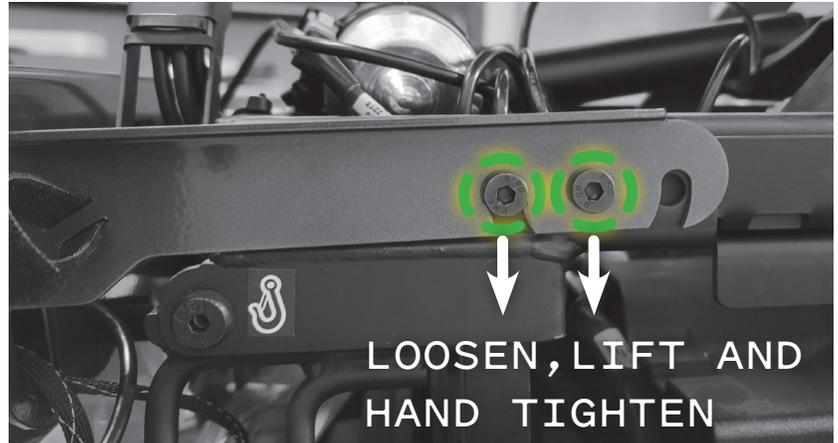
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For more information on our patents, please visit luci.com/patents

REPLACING WHEELCHAIR BATTERIES WITH LUCI INSTALLED

If you need to replace the batteries on a Quickie Q500 M that has LUCI installed, follow these steps:

1. Using a 5mm Allen wrench, loosen all four bolts on the Rear SmartFrame (two on each side). Rotate the Rear SmartFrame up and tighten the front bolts just enough that the Rear SmartFrame is held in place.



2. Remove the two thumbscrews that keep the seating assembly down. Flip the seating assembly back and swap the batteries as you normally would.

⚠ Caution: Make sure the Rear SmartFrame is rotated out of the way as you flip the seat open, to avoid damaging the SmartFrame.



3. Close the seating assembly and reinsert the thumbscrews. Loosen the Rear SmartFrame bolts, adjust the SmartFrame so the top edge of the bracket is level with the ground, and tighten all four bolts. The manufacturer recommends 25 N-m (18 ft-lb) of torque on these fasteners. Ensure all cables are neatly routed to avoid pinching or dragging.



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