

# ProCuity Bed Series

## Maintenance Manual

**REF** 3009





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## Warning/Caution/Note Definition

The words **WARNING**, **CAUTION**, and **NOTE** carry special meanings and should be carefully reviewed.

### **WARNING**

Alerts the reader about a situation which, if not avoided, could result in death or serious injury. It may also describe potential serious adverse reactions and safety hazards.

### **CAUTION**

Alerts the reader of a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the product or other property. This includes special care necessary for the safe and effective use of the device and the care necessary to avoid damage to a device that may occur as a result of use or misuse.

**Note** - Provides special information to make maintenance easier or important instructions clearer.

## Summary of safety precautions

Always read and strictly follow the warnings and cautions listed on this page. Service only by qualified personnel.

---

### **WARNING**

- Do not use manual override to avoid the risk of product damage.
  - Portable RF communications equipment, including peripherals such as antenna cables and external antennas, should be no closer than 12 inches (30 cm) to any part of ProCuity bed series, including cables specified by the manufacturer.
  - Avoid stacking or placing equipment adjacent with other equipment to prevent improper operation of the product. If such use is necessary, carefully observe stacked or adjacent equipment to make sure that they operate properly.
  - The use of accessories, transducers, and cables, other than those specified or provided by the manufacturer, could result in increased electromagnetic emissions or decreased electromagnetic immunity and result in improper operation.
- 

### **CAUTION**

- Always use electrostatic discharge (ESD) protective equipment before you open antistatic bags and service electronic parts.
  - Do not place unprotected circuit boards on the floor.
  - Do not overextend the bed extender, the ground wire is still attached and damage could occur.
  - Always use ESD protective equipment before you open antistatic bags and service electronic parts.
  - Do not drive the actuator past the support of the screwdrivers to avoid the risk of product damage.
  - This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.
-

## Introduction for service

This manual assists you with the service of your Stryker product. Read this manual to service this product. This manual does not address the operation of this product. See the Operations Manual for operating and use instructions. To view your Operations Manual online, see <https://techweb.stryker.com/>.

### Expected service life

The ProCuity bed series has a 10 year expected service life under normal use conditions and with appropriate periodic maintenance.

The backup batteries have a two year expected service life under normal use conditions.

### Contact information

Contact Stryker Customer Service or Technical Support at: 1-800-327-0770.

Stryker Medical  
3800 E. Centre Avenue  
Portage, MI 49002  
USA

**Note** - The user and/or the patient should report any serious product-related incident to both the manufacturer and the Competent authority of the European Member State where the user and/or patient is established.

To view your operations or maintenance manual online, see <https://techweb.stryker.com/>.

Have the serial number (A) of your Stryker product available when calling Stryker Customer Service or Technical Support. Include the serial number in all written communication.

### Serial number location

You can find the serial number (A) below the headboard at the head of the bed (Figure 1).

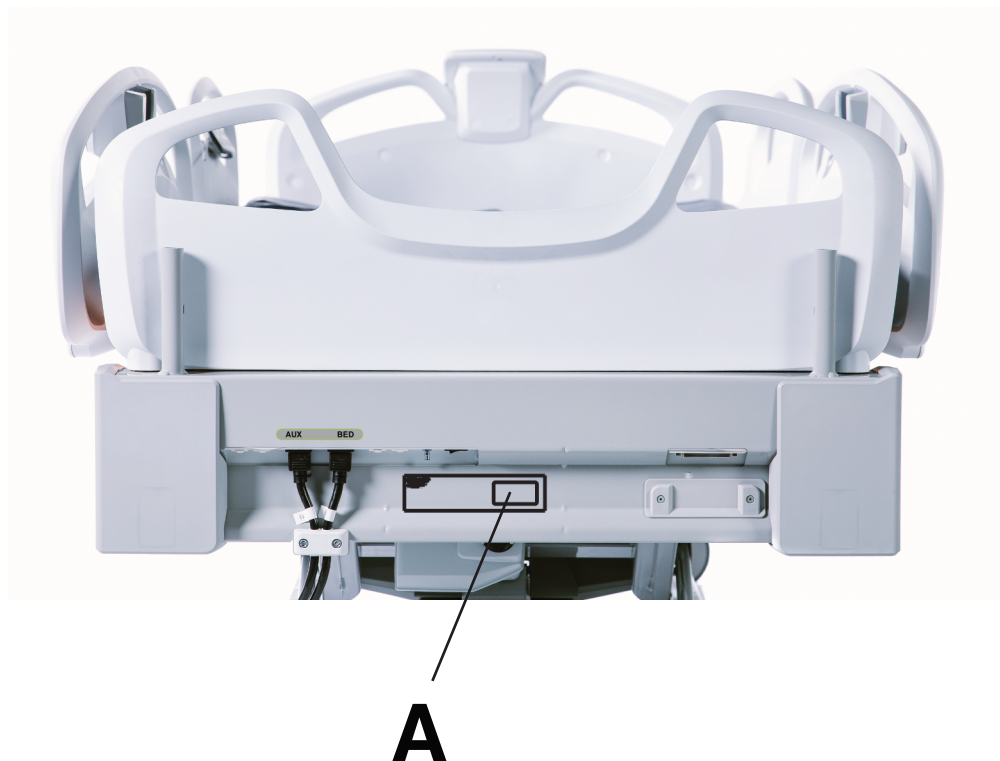


Figure 1 – Serial number location

## Preventive maintenance

Remove the product from service before you perform the preventive maintenance inspection. Check all items listed during annual preventive maintenance for all Stryker Medical products. You may need to perform preventive maintenance checks more often based on your level of product usage. Service only by qualified personnel.

**Note** - Clean and disinfect the exterior of the support surface before inspection, if applicable.

Inspect the following items:

- \_\_\_\_\_ All fasteners are secure
- \_\_\_\_\_ Apply brake pedal and push on bed to confirm that all casters lock
- \_\_\_\_\_ Footboard and head end siderails flash when brakes are not applied
- \_\_\_\_\_ Steer caster locks and unlocks
- \_\_\_\_\_ Siderails move and latch in the highest and intermediate positions
- \_\_\_\_\_ Fowler CPR release operable on both sides
- \_\_\_\_\_ IV pole is intact and operable option
- \_\_\_\_\_ Foley bag hooks intact
- \_\_\_\_\_ No cracks or splits in headboard, footboard, or siderail panels
- \_\_\_\_\_ No rips or cracks in mattress cover
- \_\_\_\_\_ All functions on head end siderails operable (includes LEDs)
- \_\_\_\_\_ All functions on footboard operable (includes LEDs)
- \_\_\_\_\_ Calibrate the scale and Bed Exit system
- \_\_\_\_\_ Motion interrupt operable (below the bed extender)
- \_\_\_\_\_ Night light operable
- \_\_\_\_\_ Main/auxiliary outlet power cords and plugs not frayed or damaged
- \_\_\_\_\_ No cables worn or pinched
- \_\_\_\_\_ All electrical connections tight
- \_\_\_\_\_ All grounds secure to frame
- \_\_\_\_\_ Ground impedance not more than 200 mΩ (milliohms)
- \_\_\_\_\_ Current leakage not more than 300 μA (microamps)
- \_\_\_\_\_ Ground chain is clean, intact, and has at least two links touching the floor
- \_\_\_\_\_ Fowler angle accuracy is 0° - 65°
- \_\_\_\_\_ Footboard and siderail status lights operable
- \_\_\_\_\_ Inspect footboard and siderail controls for signs of degradation
- \_\_\_\_\_ Inspect Fowler dampener for oil leaks
- \_\_\_\_\_ All motions function
- \_\_\_\_\_ Nurse call functions
- \_\_\_\_\_ iBed Wireless IR module is intact and footboard icons display option
- \_\_\_\_\_ Foot end and head end litter bumper intact and not damaged
- \_\_\_\_\_ Replace bed batteries
- \_\_\_\_\_ Electric brakes apply and release with footboard and siderail controls option
- \_\_\_\_\_ Secure Connect option shows connected when brakes are applied
- \_\_\_\_\_ Zoom handles move and latch in the upright position option
- \_\_\_\_\_ Zoom drives forward and backward when throttle is rotated option
- \_\_\_\_\_ Zoom throttle returns to neutral position when released and Zoom motion stops option

Product serial number:
Completed by:
Date:

## Troubleshooting

Problem	Solution
No power to product	<ol style="list-style-type: none"> <li>1. Check the power cord connections at the wall and the product</li> <li>2. Check the circuit breakers under the litter/Fowler section on the patient left side <ul style="list-style-type: none"> <li>• If circuit breaker is tripped, push in to reset</li> </ul> </li> <li>3. Check for 120 VAC at inlet on the power supply, CN1 pin 1 (brown) and 2 (blue)</li> <li>4. Check for 36 VDC on the power supply outlet CN101- (black) and CN102+ (red) <ol style="list-style-type: none"> <li>4.1. If voltage is present, check V_PS LED is lit or on connector O (J16) on the main control board. Check for same DC voltage on pin 1 (black) and 2 (red). If OK, go to step 5</li> <li>4.2. If voltage is not present, unplug connector O (J16) on the main control board and recheck for DC voltage at the outlet of the power supply <ul style="list-style-type: none"> <li>• If voltage comes back, re-connect cable O (J16) to the main control board and go to step 3</li> <li>• If DC voltage does not come back, replace the power supply</li> </ul> </li> <li>4.3. Unplug all connectors from the main control board and recheck voltage on connector O (J16) <ul style="list-style-type: none"> <li>• If DC voltage comes back, plug the cable connections back in until problem comes back. Isolate problem to component or assembly</li> <li>• If DC voltage does not come back, replace the main control board</li> </ul> </li> </ol> </li> <li>5. Verify proper operation before you return the product to service</li> </ol>
No product down motion	<ol style="list-style-type: none"> <li>1. Power cycle or perform a soft reset of the product</li> <li>2. Check that the foot end motion interrupt moves freely <ol style="list-style-type: none"> <li>2.1. Enter the <i>Service menu</i> (page 19), select <b>Diagnostic Info</b>, press the <b>Motion Controller</b> button and check the motion interrupt status is <b>False</b> <ul style="list-style-type: none"> <li>• If <b>False</b>, go to step 3</li> </ul> </li> <li>2.2. Check the main controller LED M_INTPT <ul style="list-style-type: none"> <li>• If lit, check the foot end interrupt switches and cables</li> </ul> </li> </ol> </li> <li>3. Check the motion controller board for an error, indicated by a fast flashing LED on the board</li> <li>4. Enter the <i>Service menu</i> (page 19), select <b>Diagnostic Info</b>, press the <b>Motion Controller</b> button, and then select the gear icon in the upper right corner <ol style="list-style-type: none"> <li>4.1. Press <b>Head Lift Down</b> and then <b>Foot Lift Down</b> to check for downward motion <ul style="list-style-type: none"> <li>• If motion is not present, did either the head or foot go down? <ul style="list-style-type: none"> <li>◦ If yes, replace the actuator that did not run</li> </ul> </li> <li>• If motion is present, recalibrate product motion</li> </ul> </li> </ol> </li> <li>5. Verify proper operation before you return the product to service</li> </ol>
No product up motion	<ol style="list-style-type: none"> <li>1. Power cycle or perform a soft reset of the product</li> <li>2. Enter the <i>Service menu</i> (page 19), select <b>Diagnostic Info</b>, press the <b>Motion Controller</b> button, and then select the gear icon in the upper right corner <ol style="list-style-type: none"> <li>2.1. Press <b>Head Lift Up</b> and then <b>Foot Lift Up</b> to check for upward motion <ul style="list-style-type: none"> <li>• If motion is not present, did either the head or foot go up? <ul style="list-style-type: none"> <li>◦ If yes, replace the actuator that did not run</li> </ul> </li> <li>• If motion is present, recalibrate product motion</li> </ul> </li> </ol> </li> <li>3. Check the motion controller board for an error, indicated by a fast flashing LED on the board</li> <li>4. Verify proper operation before you return the product to service</li> </ol>

Problem	Solution
No Gatch down motion	<ol style="list-style-type: none"> <li>1. Power cycle or perform a soft reset of the product</li> <li>2. Does the actuator go up? <ol style="list-style-type: none"> <li>2.1. If no, go to step 4</li> </ol> </li> <li>3. Enter the <i>Service menu</i> (page 19), select <b>Diagnostic Info</b>, press the <b>Motion Controller</b> button, and then select the gear icon in the upper right corner <ol style="list-style-type: none"> <li>3.1. Press <b>Gatch Down</b> to check for down motion <ul style="list-style-type: none"> <li>• If motion is present, recalibrate product motion</li> </ul> </li> </ol> </li> <li>4. Check the motion controller board for an error, indicated by a fast flashing LED on the board</li> <li>5. Verify proper operation before you return the product to service</li> </ol>
No Gatch up motion	<ol style="list-style-type: none"> <li>1. Power cycle or perform a soft reset of the product</li> <li>2. Does the actuator go down? <ol style="list-style-type: none"> <li>2.1. If no, go to step 4</li> </ol> </li> <li>3. Enter the <i>Service menu</i> (page 19), select <b>Diagnostic Info</b>, press the <b>Motion Controller</b> button, and then select the gear icon in the upper right corner <ol style="list-style-type: none"> <li>3.1. Press <b>Gatch Up</b> to check for up motion <ul style="list-style-type: none"> <li>• If motion is present, recalibrate product motion</li> </ul> </li> </ol> </li> <li>4. Check the motion controller board for an error, indicated by a fast flashing LED on the board</li> <li>5. Verify proper operation before you return the product to service</li> </ol>
No Fowler down motion	<ol style="list-style-type: none"> <li>1. Power cycle or perform a soft reset of the product</li> <li>2. Does the actuator go up? <ol style="list-style-type: none"> <li>2.1. If no, go to step 4</li> </ol> </li> <li>3. Enter the <i>Service menu</i> (page 19), select <b>Diagnostic Info</b>, press the <b>Motion Controller</b> button, and then select the gear icon in the upper right corner <ol style="list-style-type: none"> <li>3.1. Press <b>Fowler down</b> to check for down motion <ul style="list-style-type: none"> <li>• If motion is present, recalibrate product motion</li> </ul> </li> </ol> </li> <li>4. Check the motion controller board for an error, indicated by a fast flashing LED on the board</li> <li>5. Verify proper operation before you return the product to service</li> </ol>
No Fowler up motion	<ol style="list-style-type: none"> <li>1. Power cycle or perform a soft reset of the product</li> <li>2. Does the actuator go down? <ol style="list-style-type: none"> <li>2.1. If no, go to step 4</li> </ol> </li> <li>3. Enter the <i>Service menu</i> (page 19), select <b>Diagnostic Info</b>, press the <b>Motion Controller</b> button, and then select the gear icon in the upper right corner <ol style="list-style-type: none"> <li>3.1. Press <b>Fowler Up</b> to check for up motion <ul style="list-style-type: none"> <li>• If motion is present, recalibrate product motion</li> </ul> </li> </ol> </li> <li>4. Check the motion controller board for an error, indicated by a fast flashing LED on the board</li> <li>5. Verify proper operation before you return the product to service</li> </ol>

Load cell wiring - Scale/Bed Exit				
Function	- signal	+ signal	+ excitation	- excitation
Pin	1	2	3	4
Color	Red	White	Green	Black

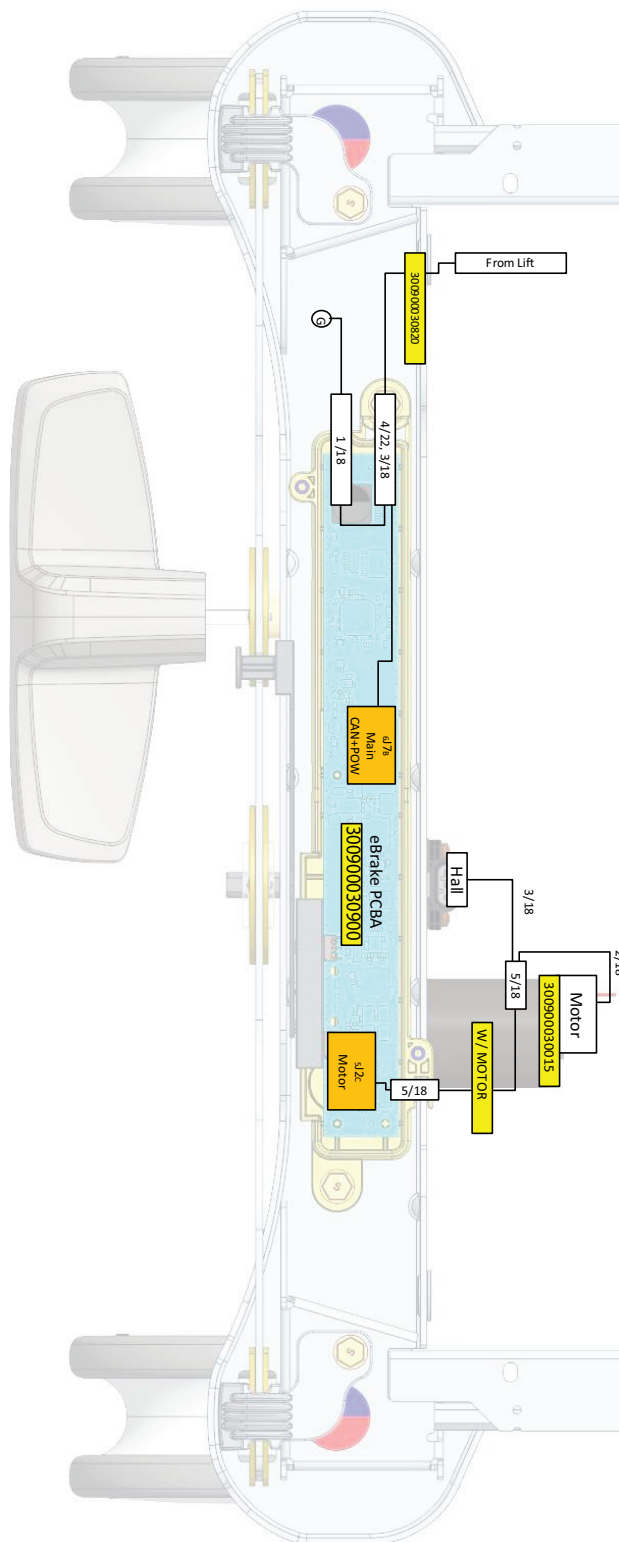
Load cell wiring - Resistance expectation between pairs (tolerance +/-10 ohms)

Pin A	Pin B	Ohms
1	2	350
1	3	262
1	4	262
2	3	262
2	4	262
3	4	350

**Error codes**

See product footboard for error codes and descriptions.

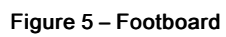
## Wiring diagrams



**Figure 2 – Electric brake**







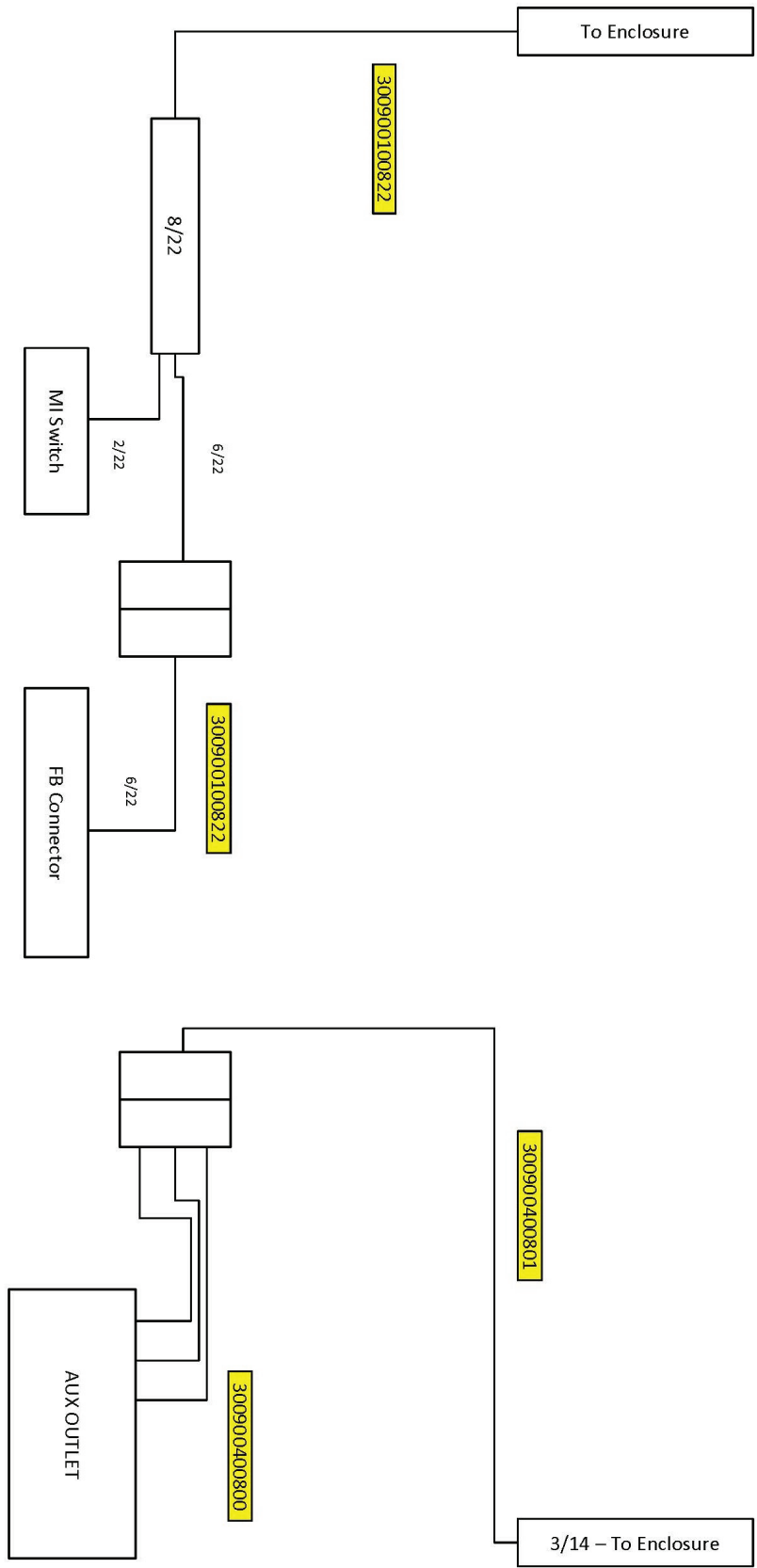


Figure 6 – Foot end

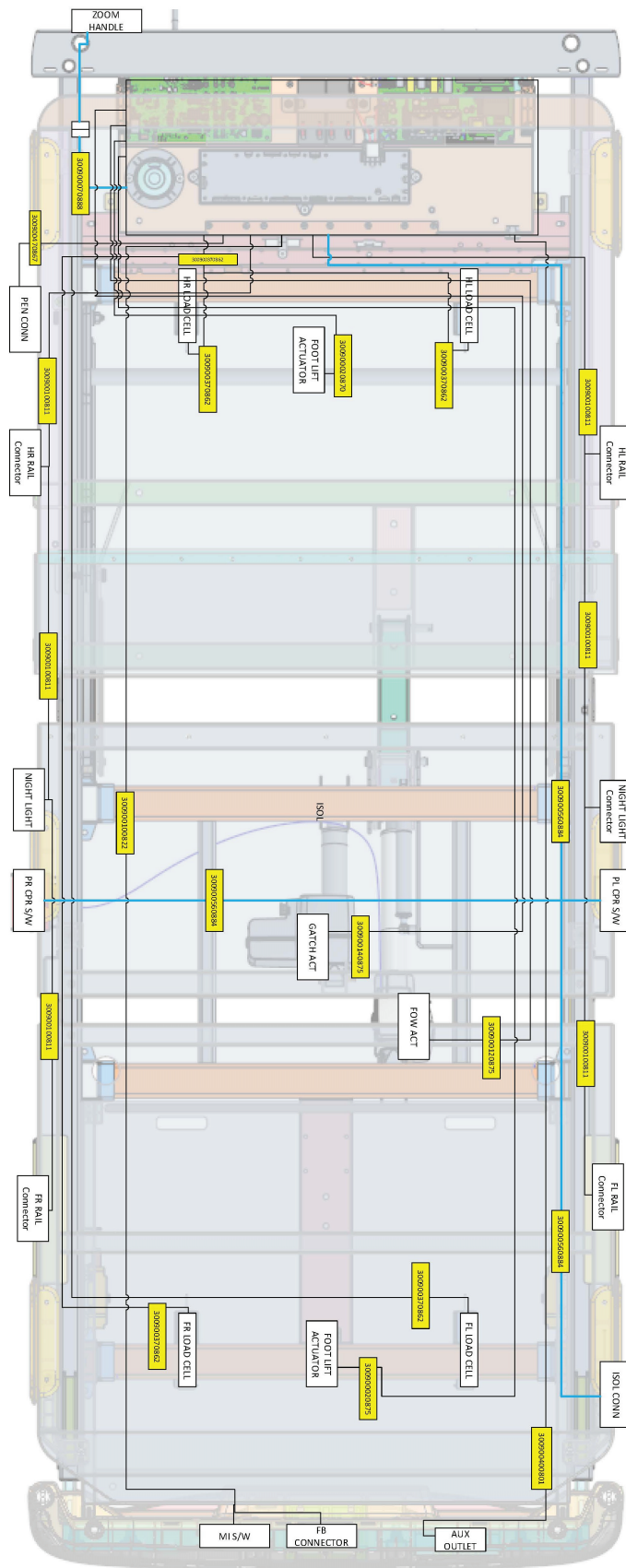


Figure 7 – Litter

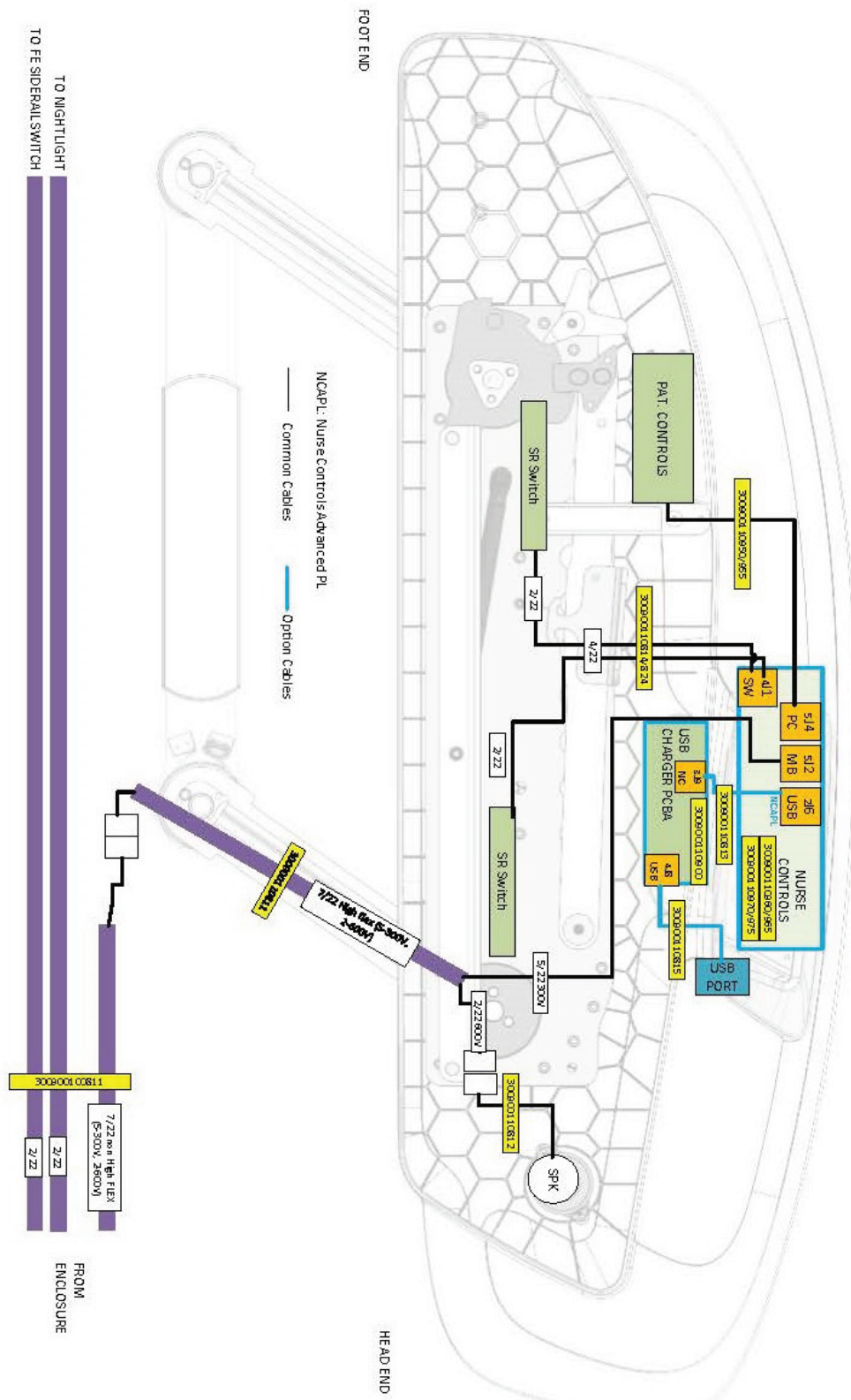


Figure 8 – Siderail

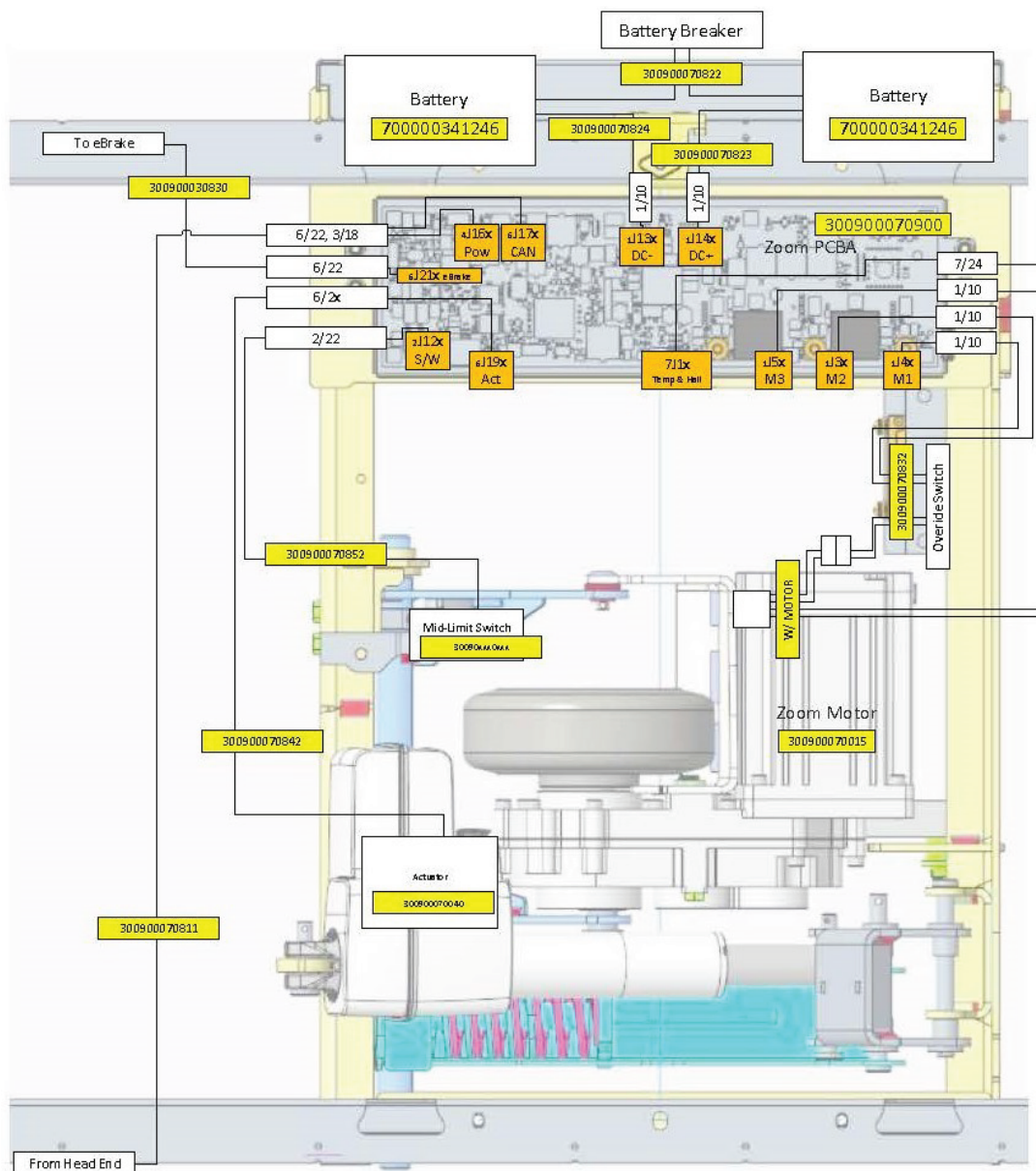


Figure 9 – Zoom

## Service menu

The service menu provides access to the following settings:

- Scale calibration
- Angle calibration

To access the service menu:

1. Lift up on the footboard until the screen turns off.
2. Reseat the footboard.
3. When **ProCuity** appears on the screen, press and hold **ProCuity** for five seconds.
4. Release **ProCuity**, tap the bottom left corner of the screen, and tap the bottom right corner of the screen.

**Note** - If there is no interaction with the screen for two minutes, the product will return to the home screen.

### Scale calibration

1. Enter the *Service menu* (page 19).

#### 4.3" display

- a. Select **Configuration**.
- b. Select **Calibration**.

#### 8" display

- a. Select **Calibration**.

2. Select **Scale**.
3. Follow the on screen prompts to calibrate the scale.

**Note** - Select the load cell being replaced so that the status clears. When you change a load cell, record the **ZERO** and **SENS** values when you perform scale calibration.

### Angle calibration

#### Tools required:

- Inclinator (only if the main control board was replaced)

#### Procedure:

1. Enter the *Service menu* (page 19).

#### 4.3" display

- a. Select **Configuration**.
- b. Select **Calibration**.

#### 8" display

- a. Select **Calibration**.

2. Select **Motion**.
3. Follow the on screen prompts to calibrate the angle.

## Service

### Protecting against electrostatic discharge (ESD)

---

#### CAUTION

- Always use electrostatic discharge (ESD) protective equipment before you open antistatic bags and service electronic parts.
  - Do not place unprotected circuit boards on the floor.
- 

**Note** - Always ship the circuit boards back to Stryker. Use the antistatic bag that the new board was originally shipped in.

The electronic circuits in the product are completely protected from static electricity damage when factory assembled. Always use adequate static protection when you service the electronic systems of the product. All service personnel must use static protection whenever they touch wires.

Sample antistatic protection equipment includes:

- Antistatic wrist strap
- Grounding plug
- Test lead with a banana plug on one end and an alligator clip on the other end

Make sure that you follow the ESD manufacturer's instructions for appropriate protection against static discharge.

#### Resetting the bed configuration with soft reset

You can use soft reset to push through bed configuration or software updates or to reset the system to remove errors.

1. On the footboard **Menu** screen, select **Soft Reset**.
2. Press **Soft Reset** to reset the bed configuration (Figure 10).

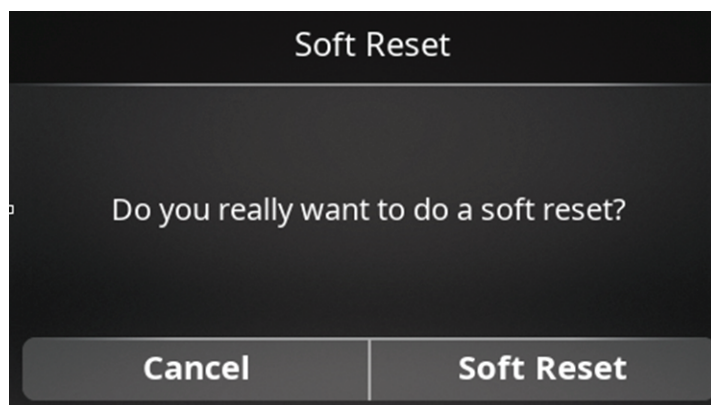


Figure 10 – Soft reset screen

#### Turning on the manual override for motion obstruction


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**WARNING** - Do not use manual override to avoid the risk of product damage.

---

You can use the manual override to override the motion obstruction if the obstruction alert is an error or if the obstruction detection does not remove the obstruction as intended.

To turn on the manual override:

1. Press  to display the manual override screen (Figure 11).

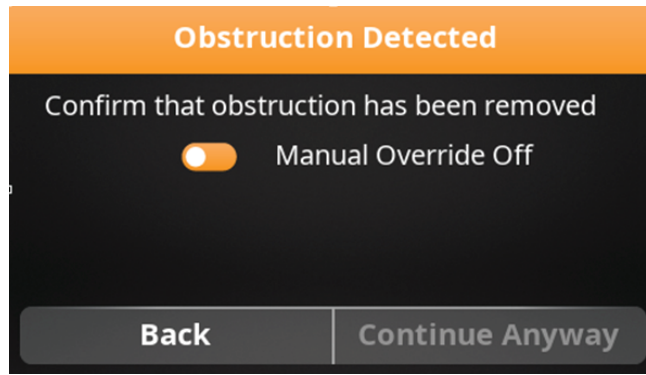


Figure 11 – Obstruction Detected screen

2. Press **Manual Override Off** to run on the manual override.

**Note** - Only override the motion obstruction if the obstruction alert is an error.

3. Press **Continue Anyway**.
4. Return to normal product motion.

## Brake/steer pedal replacement

### Tools required:

- T30 Torx driver
- Ratchet

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Unplug the product from the wall.
3. Turn off the battery disconnect switch to turn the product off.
4. Using a ratchet and a T30 Torx driver, remove the screw (Y) that secures the brake/steer pedal (K) to the brake shaft (Figure 12). Remove the pedal.

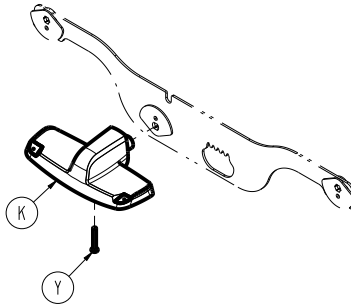


Figure 12 – Brake/steer pedal replacement

5. Reverse steps to reinstall.
6. Verify proper operation before you return the product to service.

## Caster replacement, non-steer

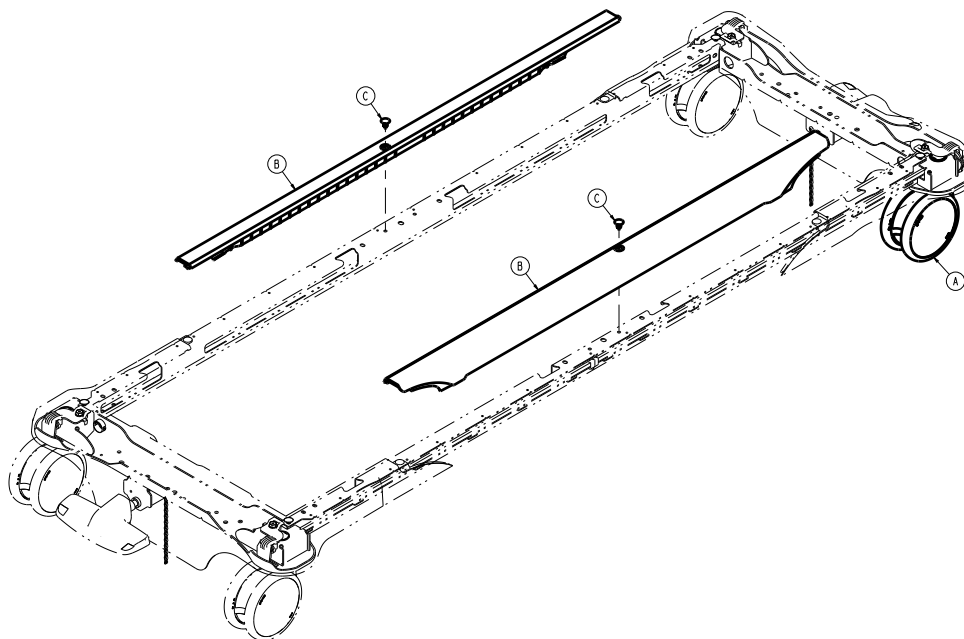
### Tools required:

- Slotted screwdriver
- Diagonal pliers
- Ratchet
- 1/2" socket
- Small floor jack

### Procedure:

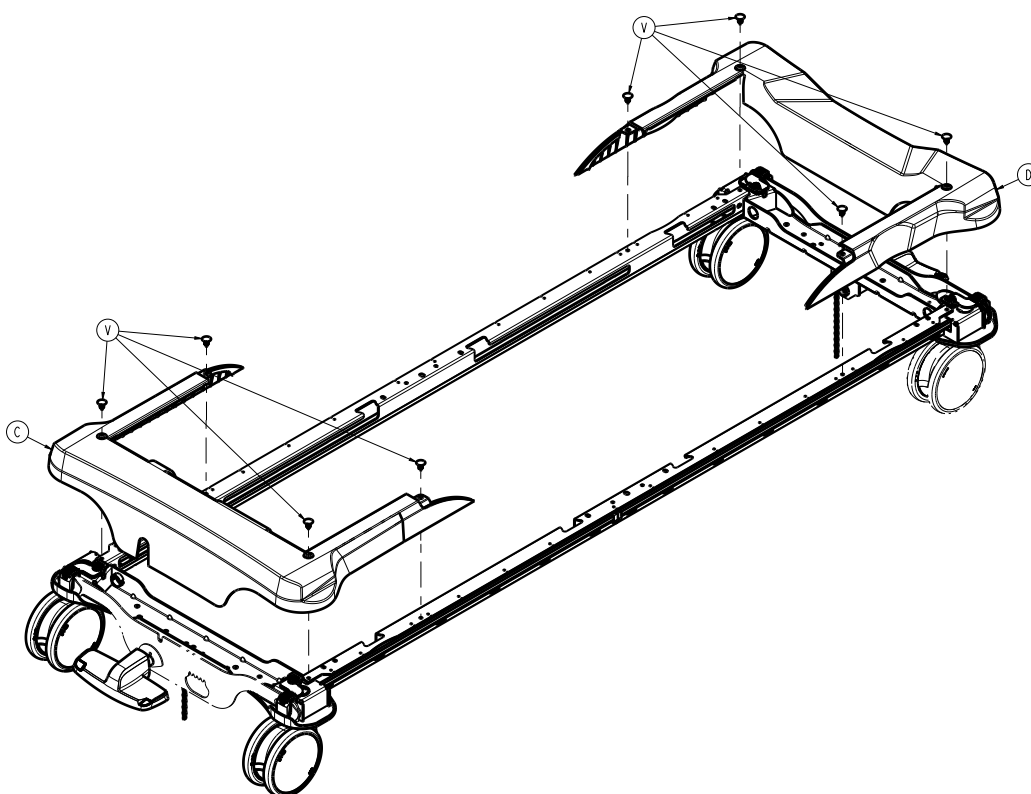
1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.

3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Using a slotted screwdriver and diagonal pliers, remove the retainers (C) from the left and right center base covers (B) (Figure 13). Discard the retainers. Remove the covers.



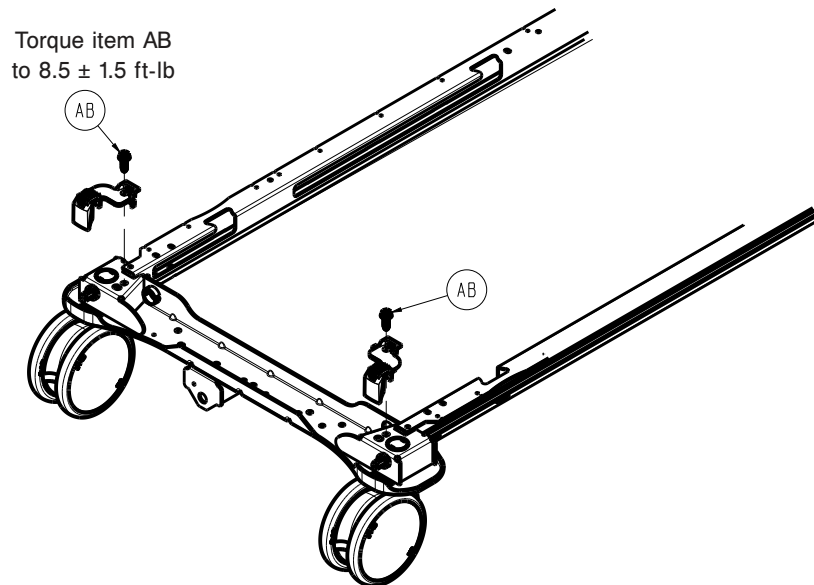
**Figure 13 – Removing the covers**

6. Using a slotted screwdriver and diagonal pliers, remove the eight retainers (V) that secure the head end (C) and foot end base covers (D) to the base frame (Figure 14). Discard the retainers. Remove the covers.



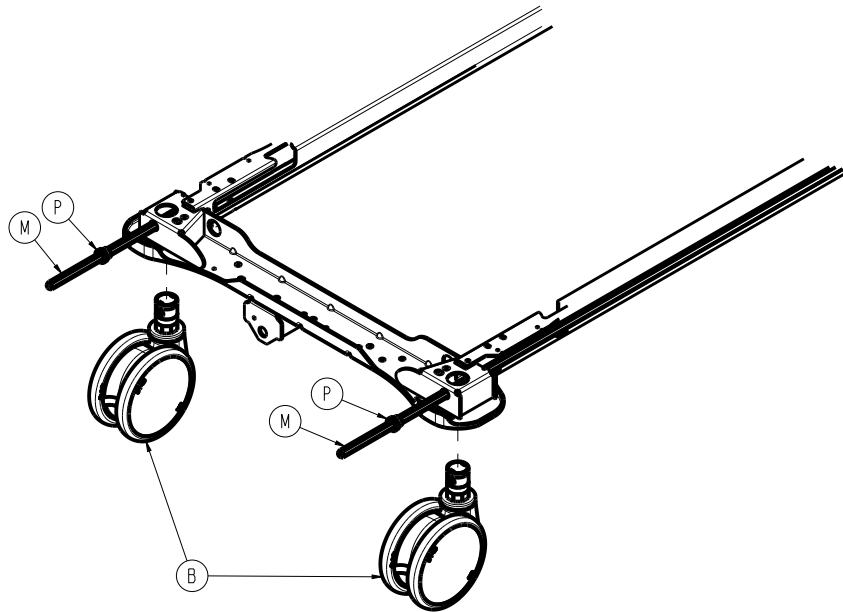
**Figure 14 – Removing the covers**

7. Using a ratchet and 1/2" socket, remove the bolt (AB) and brake shaft retainer on the side of the caster (which must be replaced) on the head end and foot end of the brake shaft (above the caster) (Figure 15).



**Figure 15 – Removing the caster**

8. From the opposite end of the caster (B) (which must be replaced), move the brake shaft (M) toward that end until it is out of the caster (B) (which must be replaced) (Figure 16).



**Figure 16 – Removing the caster**

9. Using a small floor jack, raise the base frame near the caster (which must be replaced) to remove the caster.

**Note** - The caster stem has a hex on the bottom which keys to the base frame when installed.

10. Reverse steps to reinstall.

**Note** - The orange half of the caster stem top (black/orange) must be on the head end side.

11. Verify proper operation before you return the product to service.

### **Caster steer replacement, foot end, right**

#### **Tools required:**

- Slotted screwdriver
- Diagonal pliers
- Ratchet
- 1/2" socket

- Small floor jack

**Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Using a slotted screwdriver and diagonal pliers, remove the retainers (C) from the left and right center base covers (B) (Figure 13). Discard the retainers. Remove the covers.
6. Using a slotted screwdriver and diagonal pliers, remove the eight retainers (V) that secure the head end (C) and foot end base covers (D) to the base frame (Figure 14). Discard the retainers. Remove the covers.
7. Using a ratchet and 1/2" socket, remove the bolt (AB) and brake shaft retainer on the side of the caster on the head end and foot end of the brake shaft (above the caster) (Figure 15).
8. From the head end, move the brake shaft (M) toward the head until it is out of the caster (B) (Figure 16).
9. Using a small floor jack, raise the base frame near the foot right caster to remove the caster.

**Note** - The caster stem has a hex on the bottom which keys to the base frame when installed.

10. Reverse steps to reinstall.

**Note** - The orange half of the caster stem top (green/orange) must be on the head end side.

11. Verify proper operation before you return the product to service.

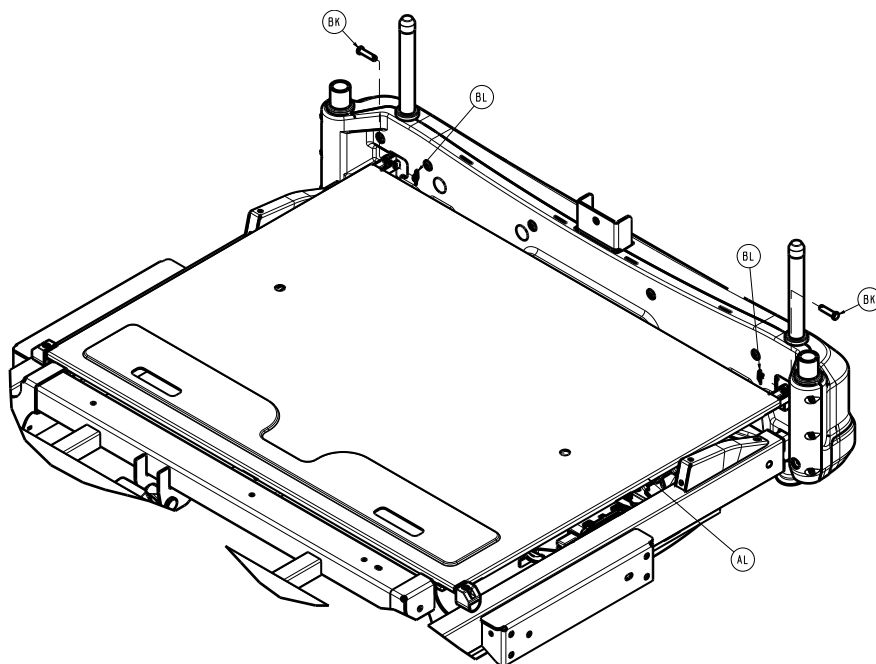
## **Cover replacement, foot end, front**

**Tools required:**

- Needle nose pliers
- T15 Torx driver
- T30 Torx driver
- Ratchet
- 3" extension
- Slotted screwdriver
- Tape measure

**Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise product to the highest height position.
3. Extend the bed extender to the out and locked position.
4. Using needle nose pliers, remove the two rue clips (BL) and clevis pins (BK) that secure the bed extender pan (AL) to the foot frame (Figure 17). Save the rue clips and clevis pins.

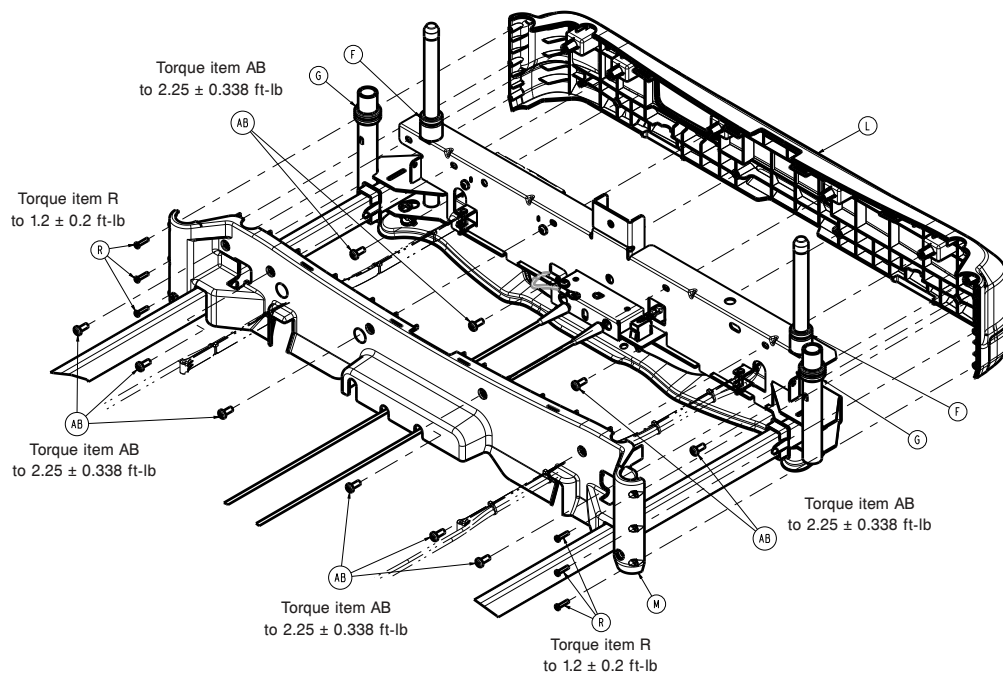


**Figure 17 – Replacing the cover**

5. Using a tape measure, slide the bed extender pan toward the head end of the product 3".

**CAUTION** - Do not overextend the bed extender, the ground wire is still attached and damage could occur.

6. Using a T15 Torx driver, remove the six outer screws (R) that secure the front cover (L) to the rear cover (M) (Figure 18). Save the screws.



**Figure 18 – Replacing the cover**

7. Using a T30 Torx driver, remove the six screws (AB) that secure the front cover to the rear cover (M) (Figure 18). Save the screws.
8. Using a slotted screwdriver, push down on the four cover locks near the top of the cover to remove and save the rear cover.
9. Using a T30 Torx driver with a ratchet and 3" extension, remove the four screws (AB) that secure the front cover to the extender frame (Figure 18). Remove and discard the front cover.
10. Reverse steps to reinstall.

**Note** - When you reinstall, position the IV pole grommets into the foot end cover.

11. Verify proper operation before you return the product to service.

## Cover replacement, foot end, rear

### Tools required:

- Needle nose pliers
- T15 Torx driver
- T30 Torx driver
- Ratchet
- Slotted screwdriver
- Tape measure

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise product to the highest height position.
3. Extend the bed extender to the out and locked position.
4. Using needle nose pliers, remove the two rue clips (BL) and clevis pins (BK) that secure the bed extender pan (AL) to the foot frame (Figure 17). Save the rue clips and clevis pins.
5. Using a tape measure, slide the bed extender pan toward the head end of the product 3".

---

**CAUTION** - Do not overextend the bed extender, the ground wire is still attached and damage could occur.

---

6. Using a T15 Torx driver, remove the six outer screws (R) that secure the front cover (L) to the rear cover (M) (Figure 18). Save the screws.
7. Using a T30 Torx driver, remove the six screws (AB) that secure the front cover to the rear cover (M) (Figure 18). Save the screws.
8. Using a slotted screwdriver, push down on the four cover locks near the top seam of the cover to remove and discard the back cover.
9. Reverse steps to reinstall.
10. Verify proper operation before you return the product to service.

## Cover replacement, head end, front

### Tools required:

- T30 Torx driver

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise product to the highest height position.
3. Raise the Fowler up to about 30 degrees.
4. Using a T30 Torx driver, remove the two screws (AN) that secure the front head cover (F, G) (Figure 19). Remove and discard the cover.

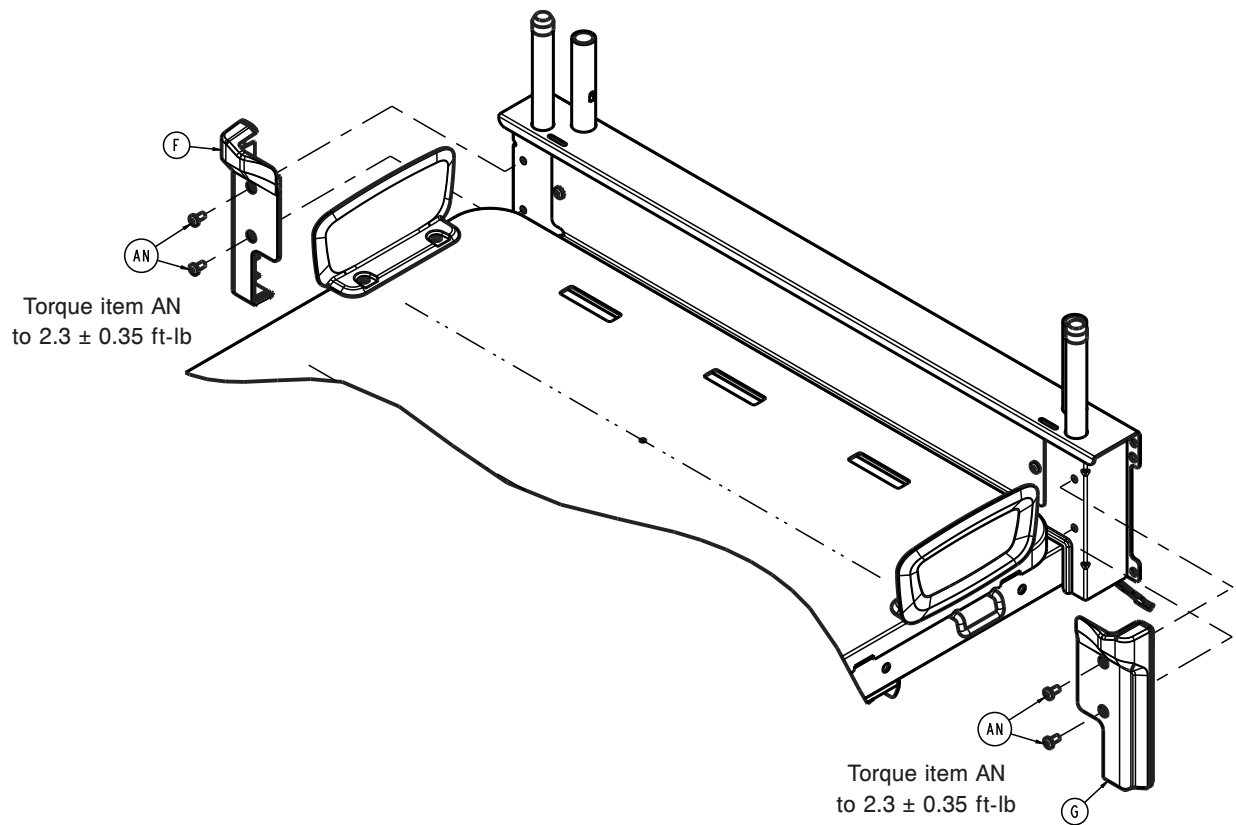


Figure 19 – Removing the cover

5. Reverse steps to reinstall.

6. Verify proper operation before you return the product to service.

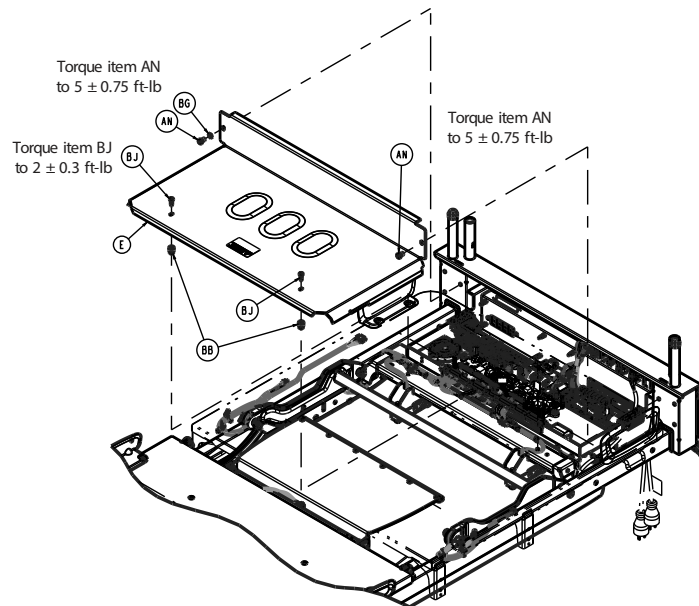
### Siderail cable and cover replacement, left, litter side

#### Tools required:

- T15 Torx driver
- T20 Torx driver
- T25 Torx driver
- T27 Torx driver
- Wire cutters
- Needle nose pliers
- Marker

#### Procedure:

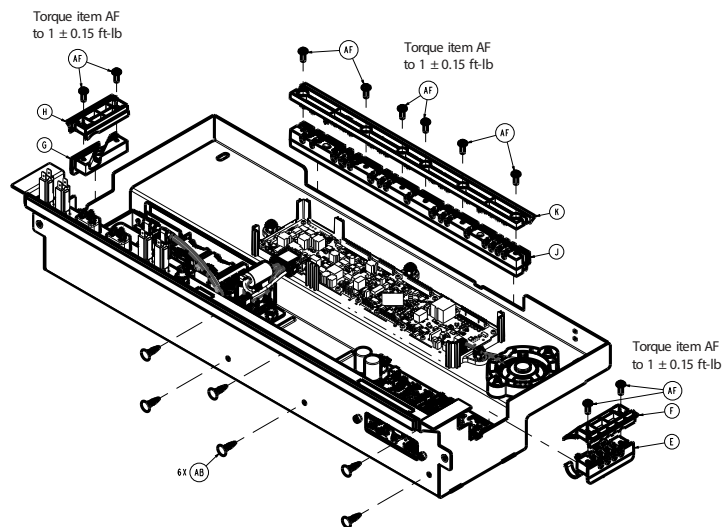
1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the highest position.
4. Raise the head end siderails to the highest locked position.
5. Remove the headboard.
6. Unplug the power cord from the wall.
7. Turn off the battery disconnect switch.
8. Using a T25 Torx driver, remove the two screws (BJ) that secure the electrical cover (E) to the litter (Figure 20). Save the screws.



**Figure 20 – Removing the cover**

9. Using a T27 Torx driver, remove the two screws (AN) and washers (BG) that secure the electrical cover (E) to the litter and remove the cover. Save the screws, washers, and cover.
10. Using a T20 Torx driver, remove four wire clamp (K) screws (AF) from left to right (Figure 21).

**Note** - The remaining two screws on the right can remain tight.



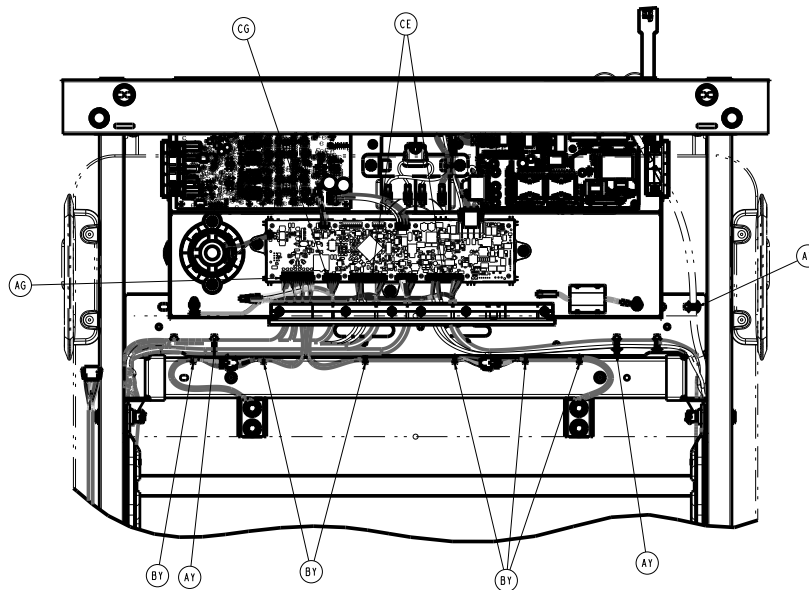
**Figure 21 – Removing the cable**

11. Unplug the left siderail cable speaker connector in the electrical box on the right side.
12. Unplug the left siderail cable from the main control board header (E).

**Note** - When you install the new cover and cables, make sure that there is service slack in the cable near the electrical enclosure.

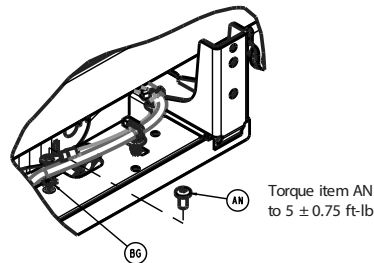
13. Using wire cutters, cut the cable tie (AY) that secures the siderail cable in the electrical box. Discard the cut cable ties (Figure 22).

**Note** - Make sure you do not damage the cable when you cut the cable ties. Use the supplied cable ties when you install the new arm cover and cables. Trim and discard the excess cable ties.



**Figure 22 – Removing the cable**

14. Using a T27 Torx driver, remove the screw (AN) and washer (BG) that secure the ground wire to the Fowler and the litter (Figure 23). Save the screw and washer.



**Figure 23 – Removing the cable**

15. Using a marker, mark the siderail cable where the cable is attached to the Fowler weldment with a cable tie for installation reference. There are three cable tie locations.

16. Using wire cutters, cut the three cable ties that secure the siderail cable to the Fowler weldment.

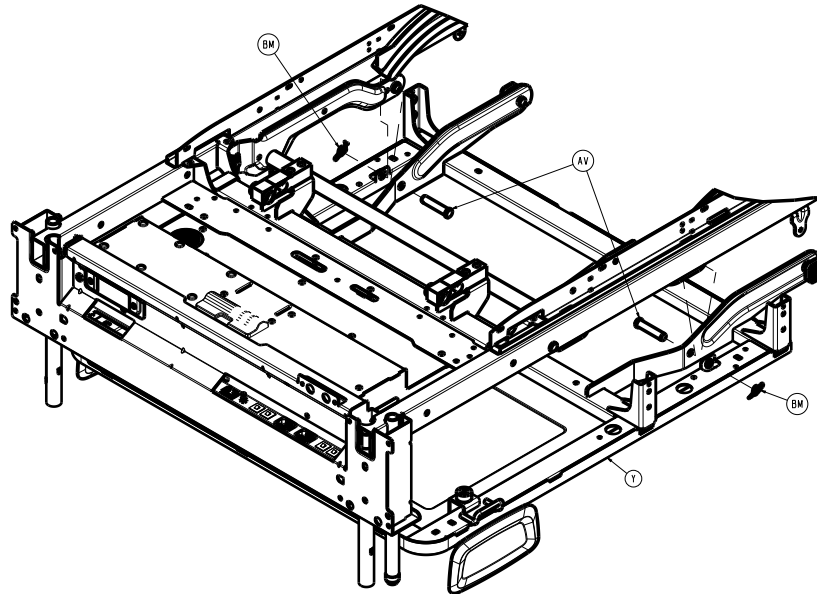
**Note** - Make sure you do not damage the cable when you cut the cable ties. When you install the new Fowler weldment, install the supplied cables ties. Trim and discard the excess cable ties.

17. Pull the siderail cable through the upper cable hole to gain access to the siderail cable connector. Unplug the connector.

18. Pull the litter side of the siderail cable to remove it from the Fowler weldment.

19. Using needle nose pliers, remove the left side upper Fowler link rue clip (BM) and clevis pin (AV) (Figure 24). Save the rue clip and clevis pin.

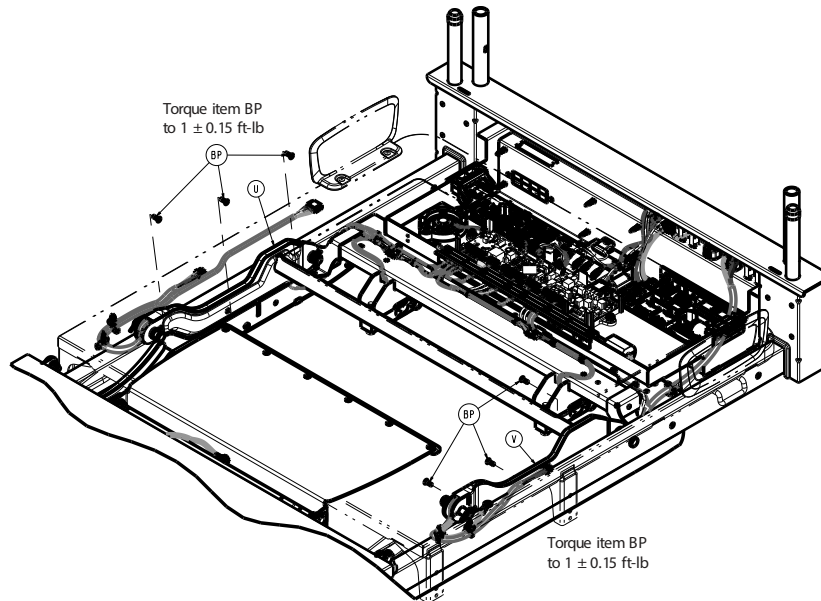
**Note** - Use one hand to push up on the Fowler to relieve some of the pressure when you remove the clevis pin.



**Figure 24 – Removing the cover**

20. Using a T15 Torx driver, remove the three screws (BP) that secure the Fowler link cover (V) to the Fowler link (Figure 25). Save the screws.

**Note** - When you remove the upper screw, use one hand to push up on the Fowler to gain access to the screw.



**Figure 25 – Removing the cover**

21. Reverse the steps to install the new cover and cable assembly.

22. Verify proper operation before you return the product to service.

### **Siderail cable and cover replacement, right, litter side**

#### **Tools required:**

- T15 Torx driver
- T20 Torx driver
- T25 Torx driver
- T27 Torx driver
- T30 Torx driver
- Wire cutters
- Needle nose pliers

- Marker

#### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the highest position.
4. Raise the head end siderails to the highest locked position.
5. Remove the headboard.
6. Unplug the power cord from the wall.
7. Turn off the battery disconnect switch.
8. Using a T25 Torx driver, remove the two screws (BJ) that secure the electrical cover (E) to the litter (Figure 20). Save the screws.
9. Using a T27 Torx driver, remove the two screws (AN) and washers (BG) that secure the electrical cover (E) to the litter and remove the cover. Save the screws, washers, and cover.
10. Using a T20 Torx driver, remove the four wire clamp (K) screws (AF) from right to left (Figure 21).

**Note** - The remaining two screws on the left can remain tight.

11. Unplug the right siderail cable speaker connector in the electrical box on the left side.
12. Unplug the right siderail cable from the main control board header (F).

**Note** - When you install the new cover and cables, there is a required service slack in the cable near the electrical enclosure.

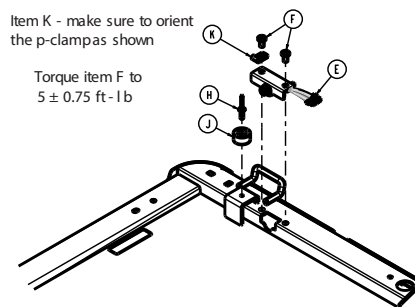
13. Using wire cutters, cut the two cable ties (AY) that secure the siderail cable in the electrical box. Discard the cut cable ties (Figure 22).

**Note** - Make sure you do not damage the cable when you cut the cable ties. Use the supplied cable ties when you install the new arm cover and cables. Trim and discard the excess cable ties.

14. Using a marker, mark the siderail cable where the cable is attached to the Fowler weldment with a cable tie for installation reference. There are three cable tie locations.
15. Using wire cutters, cut the three cable ties that secure the siderail cable to the Fowler weldment.

**Note** - Make sure you do not damage the cable when you cut the cable ties. Use the supplied cable ties when you install the new arm cover and cables. Trim and discard the excess cable ties.

16. Pull the siderail cable through the upper cable hole to gain access to the siderail cable connector. Unplug the connector.
17. Remove and save the hand pendant.
18. Using a T30 Torx driver, remove the two screws (F) that secure the pendant port/bracket assembly (E) to the Fowler weldment (Figure 26). Save the screws.



**Figure 26 – Removing the cable**

19. Pull on the hand pendant port/bracket to gain access to the cable connector. Unplug the connector and remove the pendant port/bracket. Save the pendant port/bracket.
20. Pull the litter side of the siderail cable and hand pendant port cable to remove it from the Fowler weldment.
21. Using needle nose pliers, remove the right side upper Fowler link rue clip (BM) and clevis pin (AV) (Figure 24). Save the rue clip and clevis pin.

**Note** - Use one hand to push up on the Fowler to relieve some of the pressure when you remove the clevis pin.

22. Using a T15 Torx driver, remove the three screws (BP) that secure the Fowler link cover (U) to the Fowler link (Figure 25). Save the screws.

**Note** - When you remove the upper screw, use one hand to push up on the Fowler to gain access to the screw.

23. Reverse the steps to install the new cover and cable assembly.
24. Verify proper operation before you return the product to service.

## Bumper replacement, head end, rear (non-Zoom)

### Tools required:

- T30 Torx driver
- 7/16" nut driver

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise product to the highest height position.
3. Raise the Fowler up to about 30 degrees.
4. Using a T30 Torx driver, remove the two screws (AN) that secure the front head cover (F, G) (Figure 19). Remove and save the screws and cover.
5. Using a 7/16" nut driver, remove the four nuts (R) that secure the rear head bumper (G, H) (Figure 27). Save the nuts. Remove and discard the bumper.

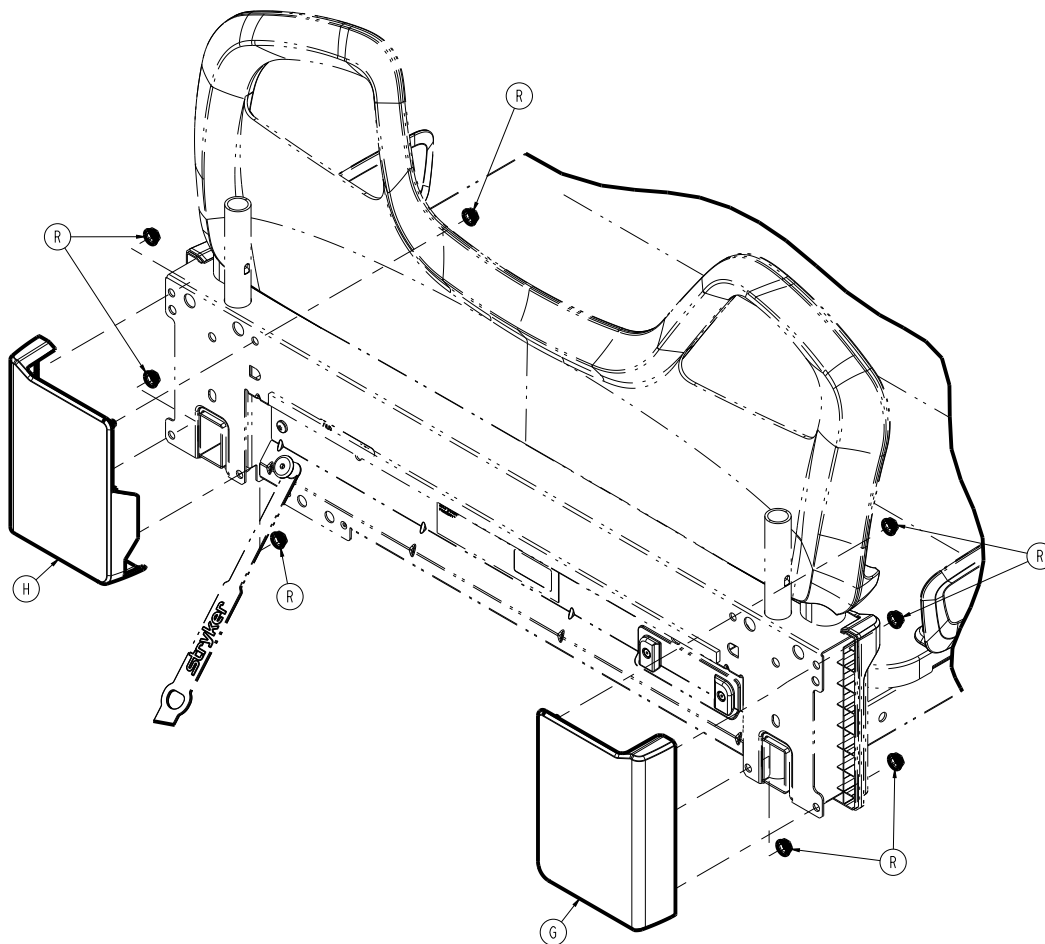


Figure 27 – Replacing the bumper

6. Reverse steps to reinstall.
7. Verify proper operation before you return the product to service.

## Bumper replacement, Zoom drive handle

### Tools required:

- T25 Torx driver
- T30 Torx driver
- **Syn-Tech** grease (3000-200-179)

### Procedure:

1. Push down on the brake pedal to apply the brake.

2. Raise the product to the highest height position.
  3. Raise the Fowler to the full up position.
  4. Unplug the product from the wall.
  5. Turn off the battery disconnect switch to turn the product off.
  6. Trip the Zoom circuit breaker to turn Zoom off.
  7. Using a T25 Torx driver, remove the two screws (BJ) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws.
  8. Using a T30 Torx driver, remove the two screws (AN) that secure the litter electronics box cover (E) to the electronics box assembly and remove the cover (Figure 28). Save the screws and cover.
  9. Disconnect the Zoom handle cable from the main control board connector.
  10. Using a T30 Torx driver, remove the two screws (AN) that secure the front head cover (F) (Figure 19). Save the screws and cover.
  11. Using a T25 Torx driver, remove the three screws (AA) that secure the Zoom drive handle assembly (P) to the head end litter weldment and remove the Zoom drive handle assembly (P) (Figure 73). Save the screws.
  12. Using a T30 Torx driver, remove the three screws (E) that secure the Zoom drive handle (A) to the bumper (B) and remove the pivot plate (D) (Figure 74). Save the pivot plate.
- Note** - When you reinstall the Zoom drive handle assembly, make sure that you apply **Syn-Tech** grease to the pivot area of the handle.
13. Remove and save the Zoom drive handle assembly.
  14. Using a T30 Torx driver, remove the four screws (F) that secure the Zoom drive handle support bracket (C) to the bumper (B) (Figure 74). Save the screws and support bracket.
  15. Reverse steps to reinstall.
  16. Verify proper operation before you return the product to service.

## Bumper replacement, Zoom push handle

### Tools required:

- T25 Torx driver
- T30 Torx driver
- **Syn-Tech** grease (3000-200-179)

### Procedure:

1. Push down on the brake pedal to apply the brake.
  2. Raise the product to the highest height position.
  3. Raise the Fowler to the full up position.
  4. Unplug the product from the wall.
  5. Turn off the battery disconnect switch to turn the product off.
  6. Trip the Zoom circuit breaker to turn Zoom off.
  7. Using a T30 Torx driver, remove the two screws (AN) that secure the front head cover (G) (Figure 19). Save the screws and cover.
  8. Using a T25 Torx driver, remove the three screws (AA) that secure the Zoom push handle assembly (R) to the head end litter weldment and remove the Zoom push handle assembly (R) (Figure 73). Save the screws.
  9. Using a T30 Torx driver, remove the three screws (E) that secure the Zoom push handle (A) to the bumper (B) and remove the pivot plate (D) (Figure 75). Save the pivot plate.
- Note** - When you reinstall the Zoom push handle assembly, make sure that you apply **Syn-Tech** grease to the pivot area of the handle.
10. Remove and save the Zoom push handle assembly.
  11. Using a T30 Torx driver, remove the four screws (F) that secure the Zoom push handle support bracket (C) to the bumper (B) (Figure 75). Save the screws and support bracket.
  12. Reverse steps to reinstall.
  13. Verify proper operation before you return the product to service.

## Main battery replacement

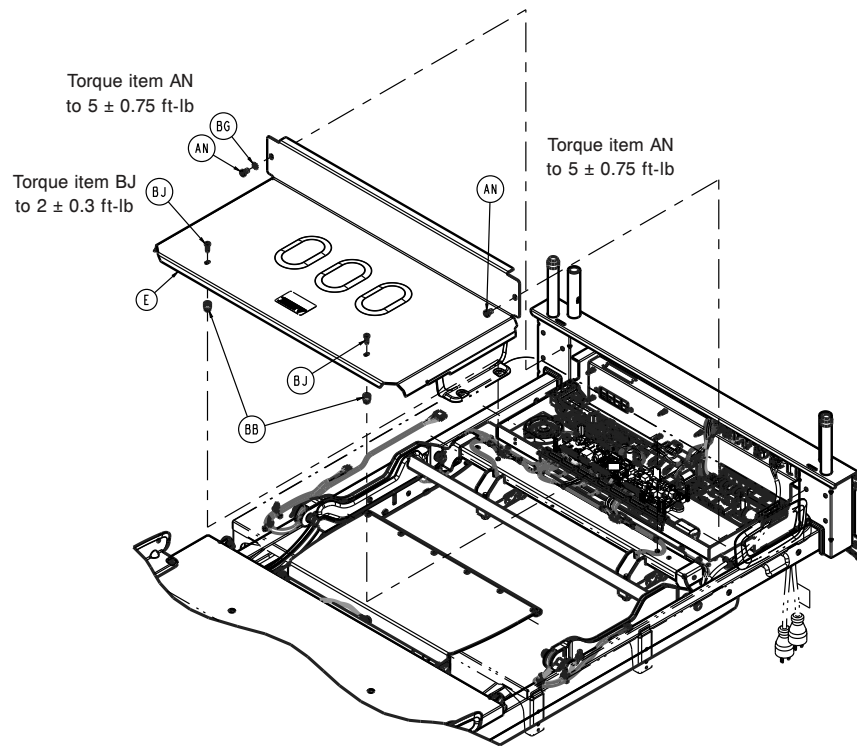
### Tools required:

- T25 Torx driver
- T30 Torx driver
- Ratchet

- 7/16" socket
- Wire cutters

**Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the full up position.
4. Unplug the product from the wall outlet.
5. Turn off the battery disconnect switch to turn the product off.
6. Using a T25 Torx driver, remove the two screws (BJ) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws.



**Figure 28 – Removing the cover**

7. Using a T30 Torx driver, remove the two screws (AN) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws and cover.
  8. Unplug all battery cables from the batteries.
- Note** - Note all cable locations before you unplug the cables.
9. Using wire cutters, cut the cable tie that secures the power cable to the disconnect switch on the main control board.
  10. Using a ratchet and a 7/16" socket, remove the two nuts (AD) that secure the battery strap (B) to the electronics box assembly (Figure 29). Save the nuts.

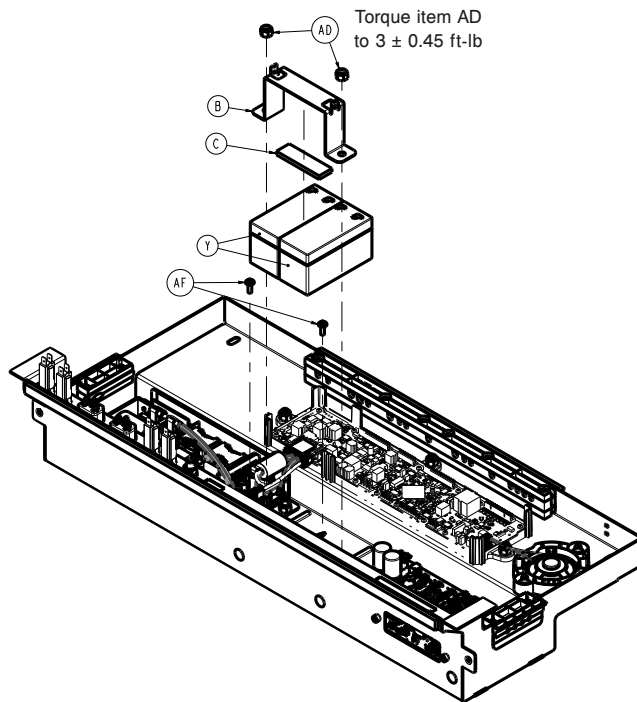


Figure 29 – Replacing the battery

11. Remove the battery strap and set aside.
12. Remove the batteries.
13. Reverse steps to reinstall.
14. Enter the service menu to clear the main battery statistics (*Service menu* (page 19)).

#### 4.3" display

- a. Select **Configuration**
- b. Select **Reset Statistics**
- c. Select **Main Battery**
- d. Select **Reset**

#### 8" display

- a. Select **Reset Statistics**
- b. Select **Main Battery**
- c. Select **Reset**

15. Unplug the product from the wall.
16. Turn off the battery disconnect switch to complete a full power cycle on the product.
17. Plug the product into the wall outlet. Turn on the battery disconnect switch to turn the product on.
18. Verify proper operation before you return the product to service.

## Power supply replacement

### Tools required:

- T25 Torx driver
- T30 Torx driver
- Ratchet
- 7/16" socket
- 1/2" combination wrench

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the full up position.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.

6. Using a T25 Torx driver, remove the two screws (BJ) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws.
7. Using a T30 Torx driver, remove the two screws (AN) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws and cover.
8. Unplug all the power supply brown and blue wire circuit breakers.
9. Unplug the black and red quick connectors from the MCU and the battery power On/Off switch.
10. Using a 1/2" combination wrench, remove the nut and star washer that secure the green and yellow ground wire from the power supply to the litter ground post.
11. Using a ratchet and a 7/16" socket, remove the two nuts (AD) that secure the power supply assembly to the electrical enclosure (Figure 30). Save the nuts.
12. Lift the grommet up that secures the 120VAC outlet cable to the electronics box assembly.

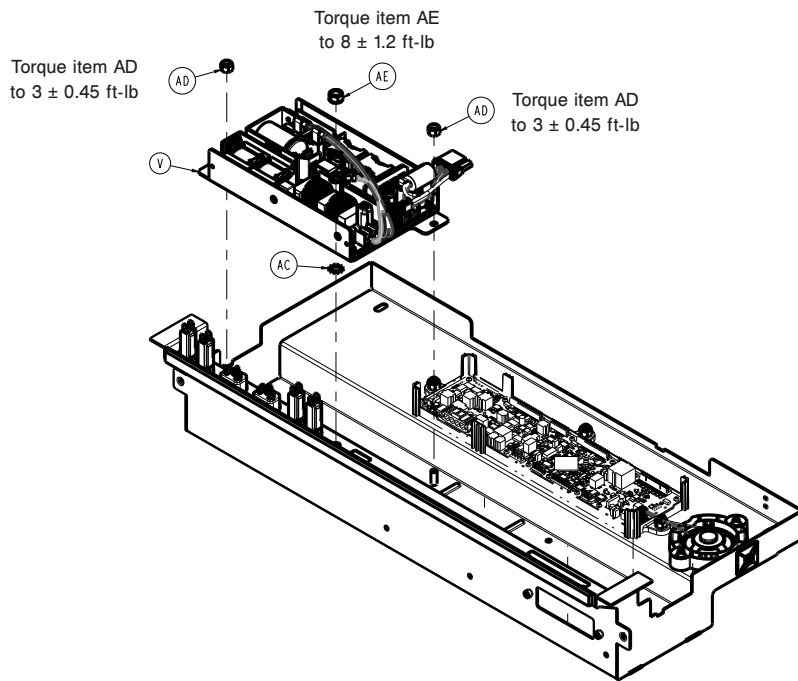


Figure 30 – Replacing the power supply

13. Reverse steps to reinstall.
14. Plug the product into the wall outlet. Turn on the battery disconnect switch to turn the product on.
15. Verify proper operation before you return the product to service.

## Main control board replacement

### Tools required:

- T25 Torx driver
- T30 Torx driver
- Ratchet
- 7/16" socket
- ESD system

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the full up position.
4. Record all four loadcell calibrations from the **Confirm Scale Calibration** screen on the footboard. Save all calibration information to input after you install the main control board.
5. Unplug the product from the wall.
6. Turn off the battery disconnect switch to turn the product off.

7. Using a T25 Torx driver, remove the two screws (BJ) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws.
8. Using a T30 Torx driver, remove the two screws (AN) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws and cover.

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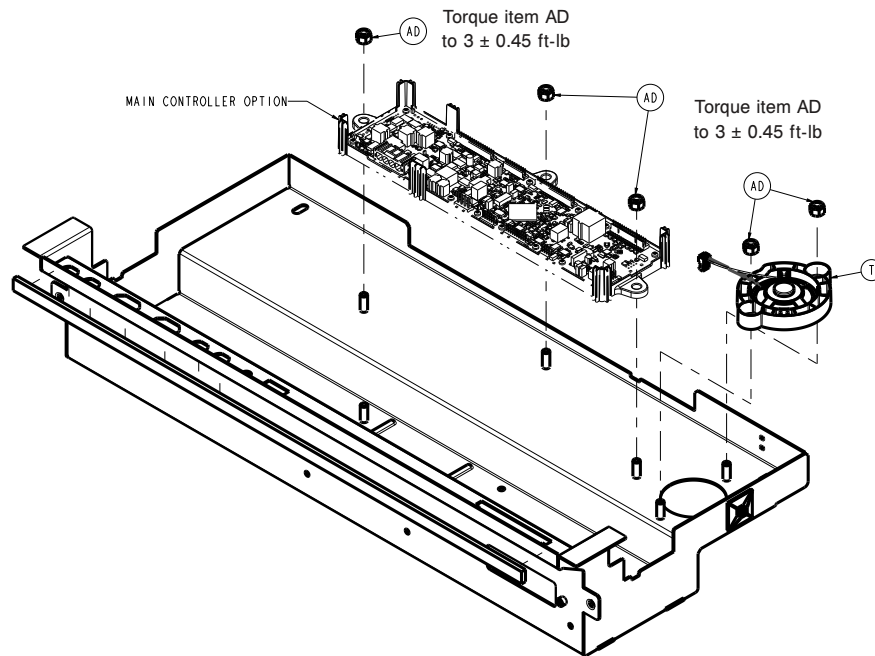
**CAUTION**

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
  - Do not place unprotected circuit boards on the floor.
- 

9. Unplug all the cables from the main control board.

**Note** - Note all cable locations before you unplug the cables.

10. Using a ratchet and a 7/16" socket, remove the three nuts (AD) that secure the main control board to the electronics box assembly (Figure 31). Save the nuts.



**Figure 31 – Replacing the main control board**

11. Remove the main control board.
12. Reverse steps to reinstall.
13. Follow the footboard screens for product configuration and calibration.
14. Unplug the product from the wall.
15. Turn off the battery disconnect switch to complete a full power cycle on the product.
16. Verify proper operation before you return the product to service.

### **Room interface board (RIB), basic/advanced replacement**

#### **Tools required:**

- T25 Torx driver
- T30 Torx driver
- Needle nose pliers
- Ratchet
- 7/16" socket
- Wire cutters
- ESD system

#### **Procedure:**

1. Push down on the brake pedal to apply the brake.

2. Raise the product to the highest height position.
3. Raise the Fowler to the full up position.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.
6. Using a T25 Torx driver, remove the two screws (BJ) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws.
7. Using a T30 Torx driver, remove the two screws (AN) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws and cover.
8. Using a ratchet and a 7/16" socket, remove the two nuts (AD) that secure the battery strap (B) to the electronics box assembly (Figure 29). Save the nuts.
9. Using wire cutters, cut the cable tie that secures the power cable to the disconnect switch on the main control board.
10. Remove and save the battery strap.
11. Remove and save the batteries.

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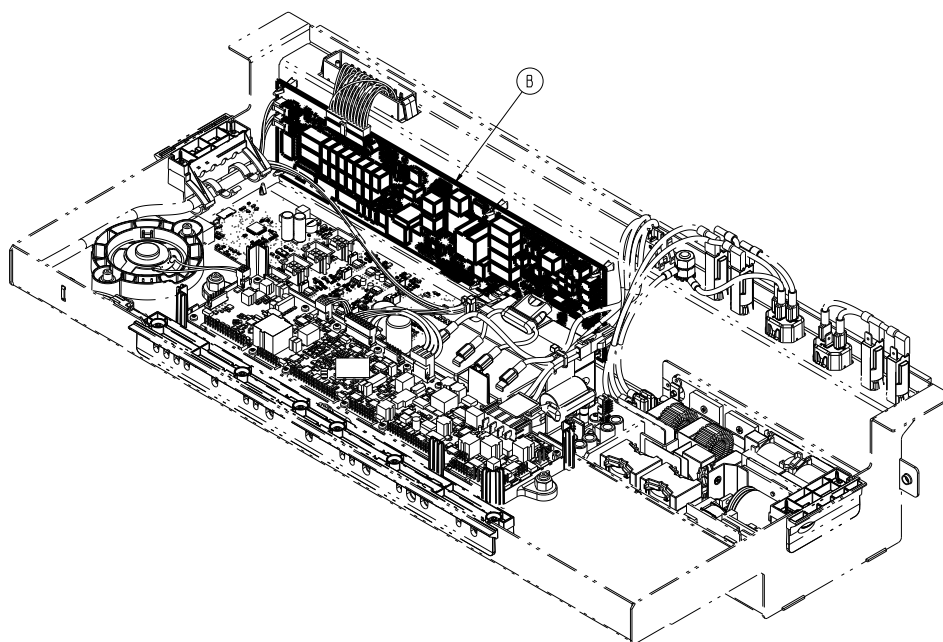
#### CAUTION

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
  - Do not place unprotected circuit boards on the floor.
- 

12. Unplug all the cables from the room interface board.

**Note** - Note all cable locations before you unplug the cables.

13. Using needle nose pliers, unclip the eight locking standoffs that secure the room interface board (B) to the electronics box assembly (Figure 32).



**Figure 32 – Replacing the room interface board**

14. Remove the room interface board.

**Note** - Match the nurse call dip-switch configuration from the old board to the new board.

15. Reverse steps to install the supplied board.
16. Affix the supplied Bluetooth label at the head of the bed.
17. Plug the product into the wall outlet.
18. Turn on the battery disconnect switch to complete a full power cycle on the product.
19. Configure the new room interface board on the maintenance screen for headwall configuration.
20. Verify proper operation before you return the product to service.

## Motion controller board replacement

### Tools required:

- T25 Torx driver
- T30 Torx driver
- Needle nose pliers
- ESD system

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the full up position.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.
6. Using a T25 Torx driver, remove the two screws (BJ) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws.
7. Using a T30 Torx driver, remove the two screws (AN) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws and cover.

---

### CAUTION

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
  - Do not place unprotected circuit boards on the floor.
- 

8. Note all cable locations, then unplug all cables from the motion controller board (U) (Figure 33).
9. Using needle nose pliers, unclip the six locking standoffs (AB) that secure the motion controller board (U) to the electronics box assembly (Figure 33).

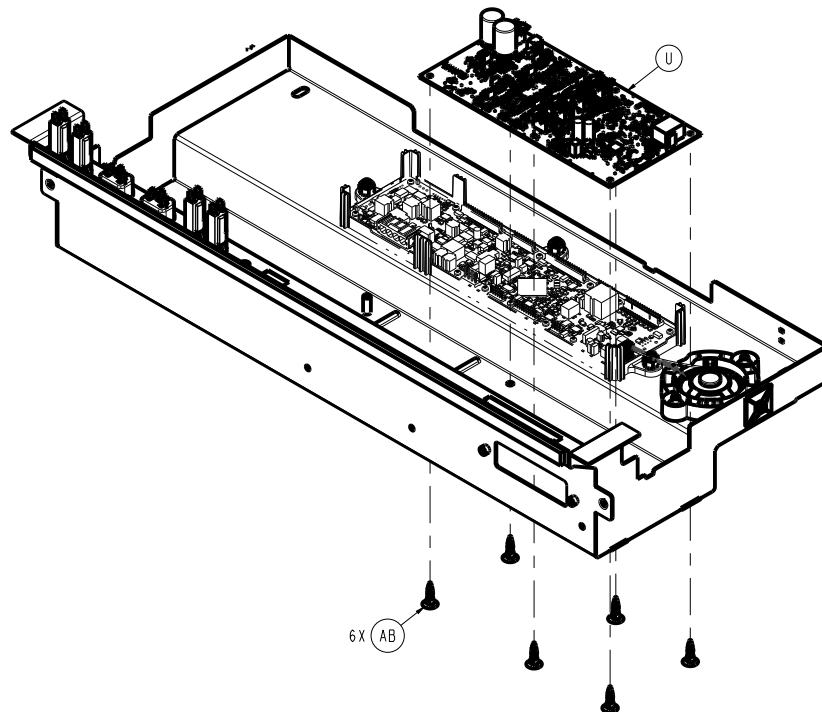


Figure 33 – Replacing the motion controller board

10. Remove and discard the motion controller board.
11. Reverse steps to reinstall.
12. Verify proper operation before you return the product to service.

## Electric brake control board option replacement

### Tools required:

- T10 Torx driver
- Ratchet
- 1/2" socket
- Wire cutters
- ESD system

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Remove the four clips (V) that secure the head end base cover (D) to the base frame (Figure 14). Remove and save the head end base cover. Save the clips.
6. Using a T10 Torx driver, remove the four screws (F) that secure the brake control board top enclosure (D) to the brake cam enclosure assembly (Figure 34). Remove and save the top enclosure. Save the screws.

---

### CAUTION

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
  - Do not place unprotected circuit boards on the floor.
- 

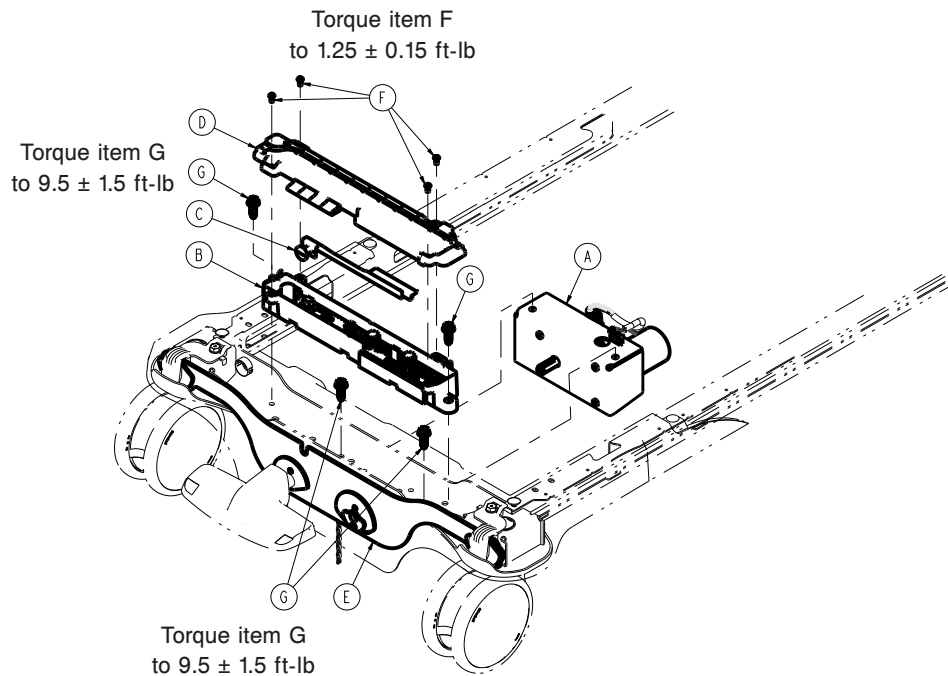


Figure 34 – Electric brakes option

7. Note all cable locations, then unplug all cables from the electric brake control board.
8. Using wire cutters, cut the cable tie that secures the brake motor and the main brake control cable to the brake cam enclosure assembly. Discard cut cable ties.
9. Remove and save the electric brake switch actuator.
10. Using a ratchet and 1/2" socket, remove the two bolts (G) that secure the brake cam enclosure assembly to the base frame (Figure 34). Save the bolts.
11. Reverse steps to reinstall.
12. Verify proper operation before you return the product to service.

## Electric brake motor option replacement

### Tools required:

- T10 Torx driver
- Ratchet
- 1/2" socket
- Wire cutters

### Procedure:

1. Push down on the brake pedal to apply the brake.
  2. Raise the product to the highest height position.
  3. Unplug the product from the wall.
  4. Turn off the battery disconnect switch to turn the product off.
  5. Remove the four clips (V) that secure the head end base cover (D) to the base frame (Figure 14). Remove and save the head end base cover. Save the clips.
  6. Using a T10 Torx driver, remove the four screws (F) that secure the brake control board top enclosure (D) to the brake cam enclosure assembly (Figure 34). Remove and save the top enclosure. Save the screws.
  7. Using wire cutters, cut the cable tie that secures the brake motor cable to the brake cam enclosure assembly. Discard the cut cable ties.
  8. Unplug the motor cable from the brake control board.
  9. Remove the electric brake cam.
  10. Using a ratchet and 1/2" socket, remove the two bolts (G) that secure the brake cam enclosure assembly (B) to the base frame (Figure 34). Lift up out of the way.
  11. Using a ratchet and 1/2" socket, remove the two bolts (G) that secure the brake motor assembly (A) to the base frame (Figure 34). Pull the motor assembly toward the foot end to remove.
- Note** - The motor shaft is keyed to the brake linkage.
12. Reverse steps to reinstall.
  13. Enter the service menu to clear the brake motor statistics (*Service menu* (page 19)).

#### 4.3" display

- a. Select **Configuration**
- b. Select **Reset Statistics**
- c. Select **Brake Motor**
- d. Select **Reset**

#### 8" display

- a. Select **Reset Statistics**
- b. Select **Brake Motor**
- c. Select **Reset**

14. Verify proper operation before you return the product to service.

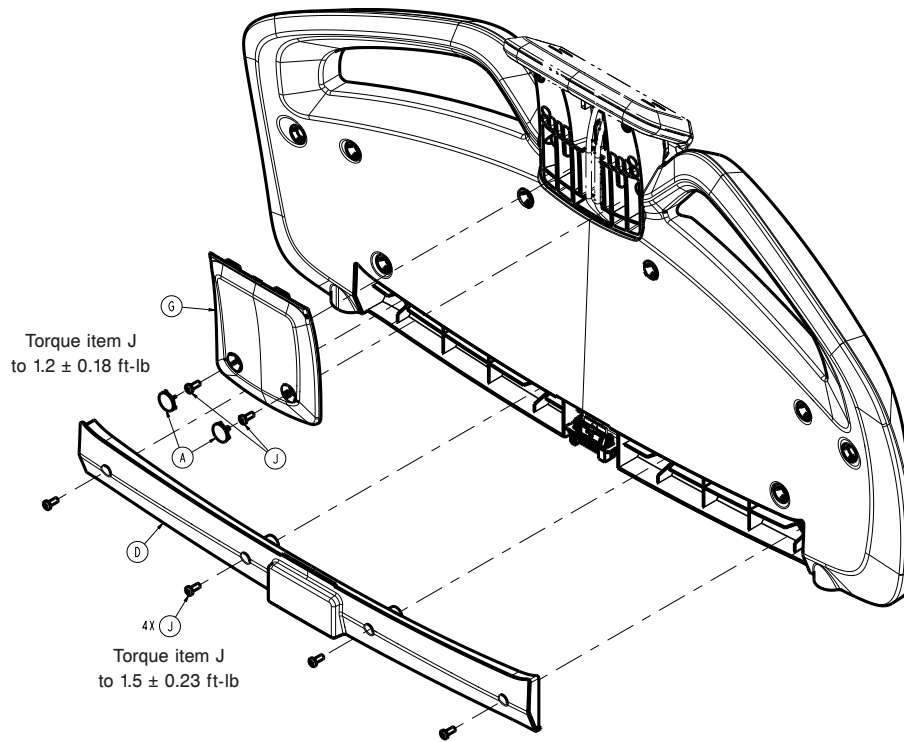
## Display assembly replacement, 4.3" and 8"

### Tools required:

- Pick
- T25 Torx driver
- ESD system

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Using a pick, remove the two screw covers (A) from the back side of the footboard display housing (Figure 35). Discard the screw covers.



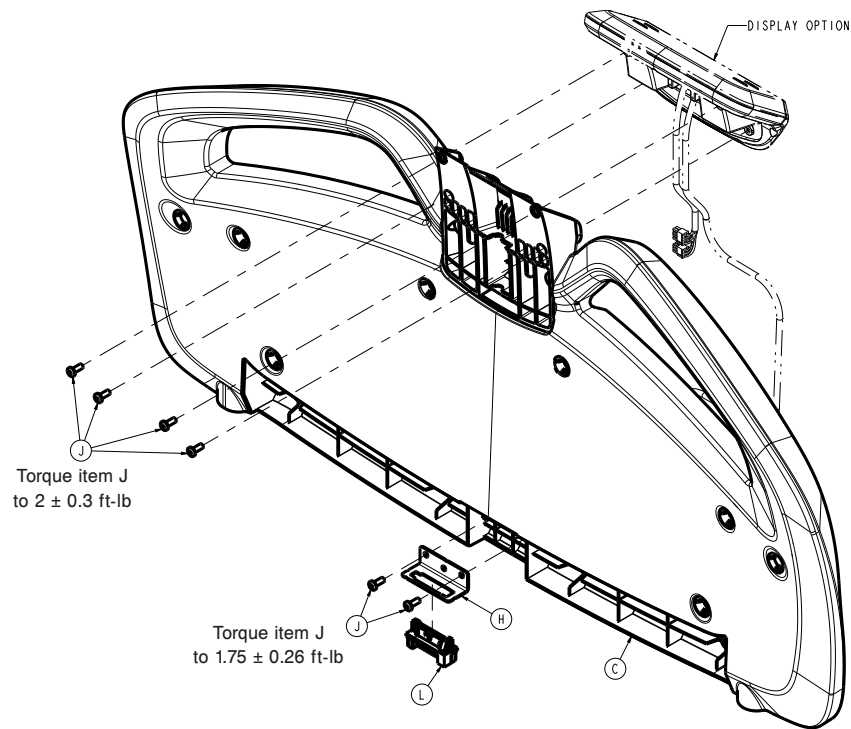
**Figure 35 – Footboard housing**

6. Using a T25 Torx driver, remove the two screws (J) that secure the display housing cover (G) to the footboard (Figure 35). Remove the display housing cover. Save the screws and display housing cover.
7. Using a T25 Torx driver, remove the four screws (J) that secure the display housing to the footboard (Figure 36). Let the display housing hang. Save the screws.

---

**CAUTION**

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
  - Do not place unprotected circuit boards on the floor.
-



**Figure 36 – Footboard housing**

8. Unplug the cables from the display board. Discard the display board.
9. Reverse steps to reinstall.
10. Verify proper operation before you return the product to service.

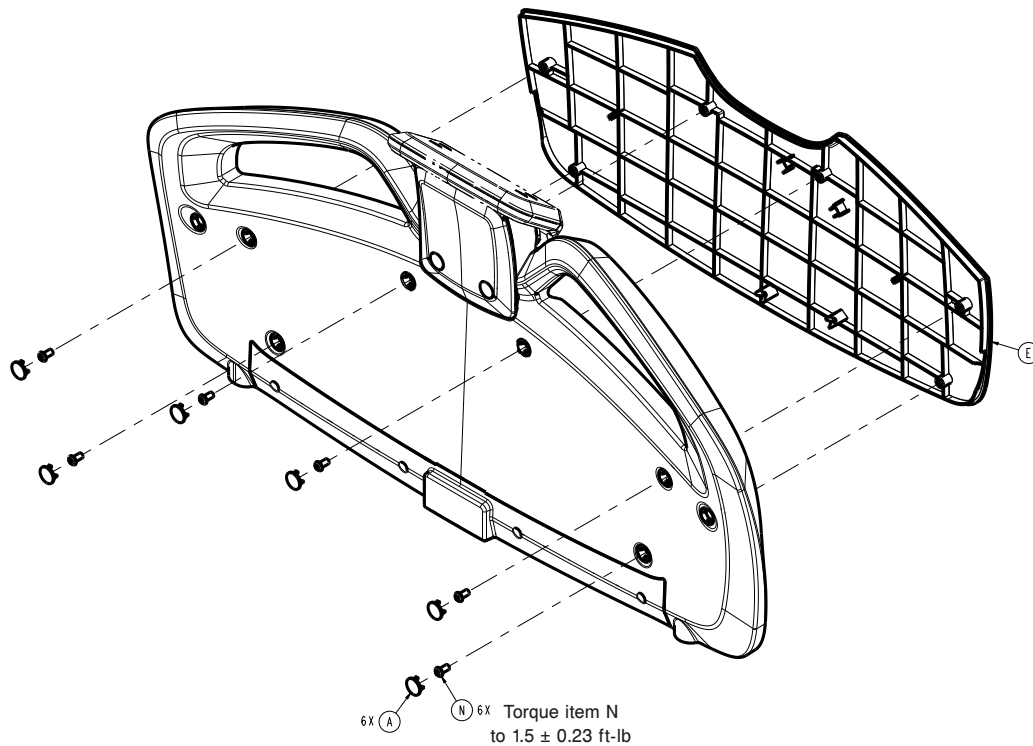
### **Wireless module option replacement**

#### **Tools required:**

- Pick
- T20 Torx driver
- T27 Torx driver
- ESD system

#### **Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Using a pick, remove the six screw covers (A) from the back side of the footboard (Figure 37). Discard the screw covers.



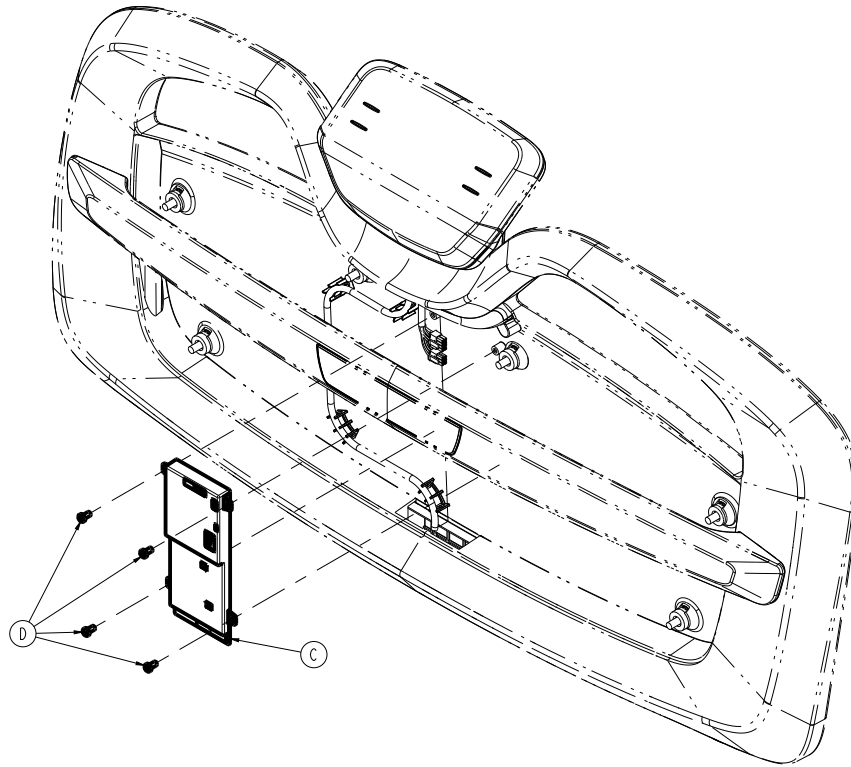
**Figure 37 – Footboard housing**

6. Using a T27 Torx driver, remove the six screws (N) that secure the front footboard cover (E) to the footboard (Figure 37). Remove the front footboard cover.
7. Using a T20 Torx driver, remove the four screws (D) that secure the wireless module (C) to the footboard (Figure 38). Let the wireless module hang.

---

**CAUTION**

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
  - Do not place unprotected circuit boards on the floor.
-



**Figure 38 – Replacing the wireless module**

8. Unplug the cables from the wireless module. Discard the module.
9. Reverse steps to reinstall.

**Note** - The wireless module will need to be programmed or the footboard display will show a wireless error. You must also provide the footboard, product serial number, and wireless module serial number to the wireless install team, so the team can update the hospital's server to see the new wireless module.

10. Verify proper operation before you return the product to service.

### Footboard connector, litter replacement

#### Tools required:

- Needle nose pliers
- T15 Torx driver
- T30 Torx driver
- Slotted screwdriver
- Ratchet
- 3" extension
- Tape measure

#### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Extend the bed extender to the out and locked position.
6. Using needle nose pliers, remove the two rue clips (BL) and clevis pins (BK) that secure the bed extender pan (AL) to the foot frame (Figure 17).
7. Using a tape measure, slide the bed extender pan toward the head end of the product 3".

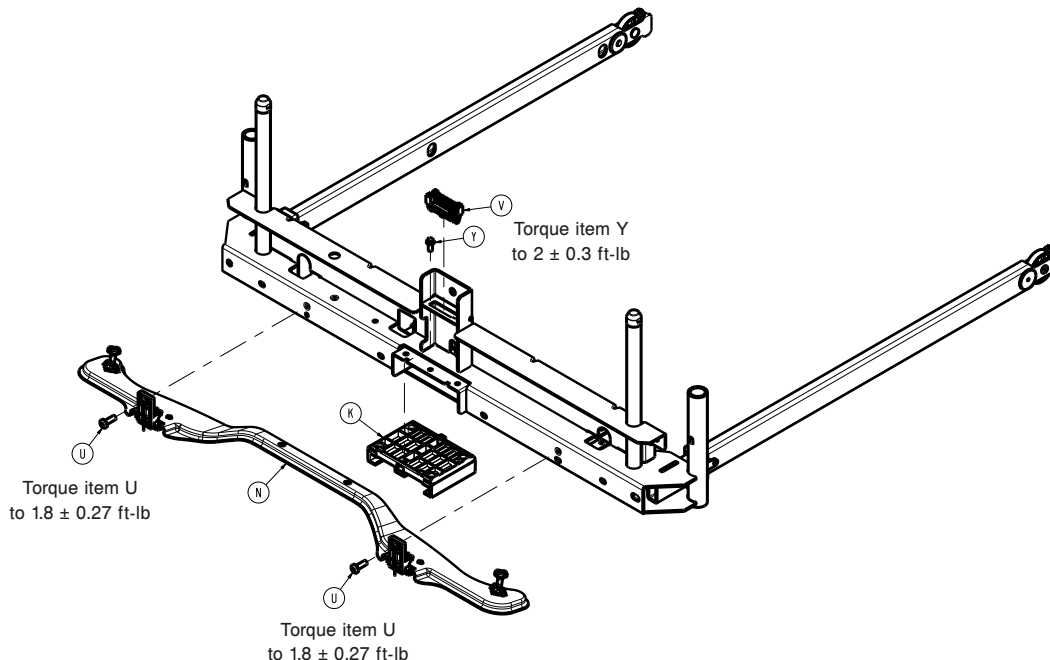
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**CAUTION** - Do not overextend the bed extender, the ground wire is still attached and damage could occur.

---

8. Using a T15 Torx driver, remove the six outer screws (R) that secure the front cover (L) to the rear cover (M) (Figure 18). Save the screws.
9. Using a T30 Torx driver, remove the six screws (AB) that secure the front cover to the rear cover (M) (Figure 18). Save the screws.

10. Using a slotted screwdriver, push down on the four cover locks near the top of the cover to remove and save the rear cover.
11. Using a T30 Torx driver with a ratchet and 3" extension, remove the four screws (AB) that secure the front cover to the extender frame (Figure 18). Remove and save the front cover.
12. Unclip the cable from the blind mate connector (V) (Figure 39).



**Figure 39 – Replacing the footboard litter connector**

13. Squeeze the left and right blind mate connector (V) locking tabs to release the connector from the foot end frame (Figure 39).
14. Reverse steps to reinstall.

**Note** - When you reinstall, position the IV pole grommets into the foot end cover.

15. Verify proper operation before you return the product to service.

## Fowler weldment replacement

A minimum of two operators is recommended for this task.

### Tools required:

- T25 Torx driver
- T27 Torx driver
- T30 Torx driver
- Wire cutters
- Needle nose pliers
- Marker

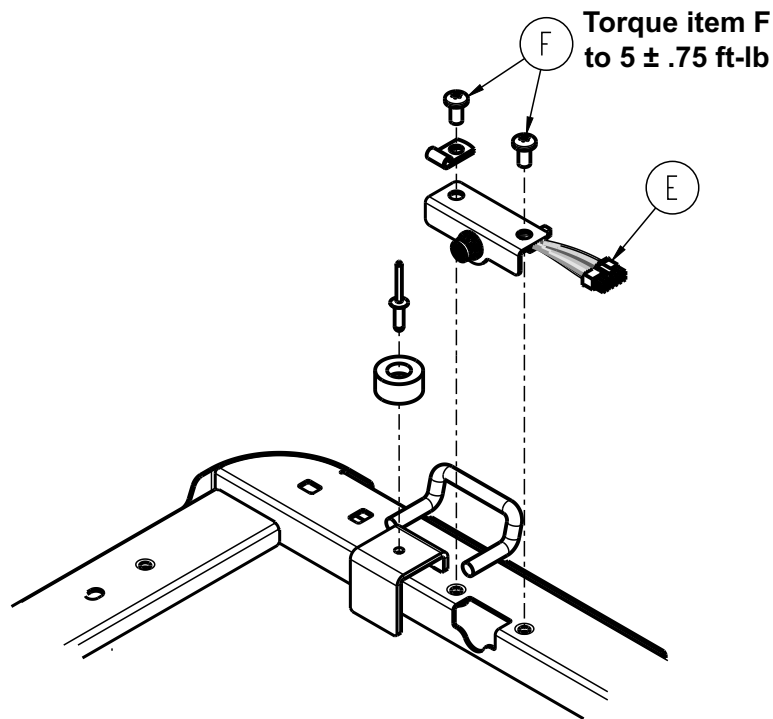
### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the highest position.
4. Raise the head end siderails to the highest locked position.
5. Remove the headboard.
6. Unplug the power cord from the wall.
7. Turn off the battery disconnect switch.
8. Fold the mattress toward the foot end so the mattress does not touch the Fowler weldment.

**Note** - If the mattress is powered, pull the CPR handle to deflate the mattress.

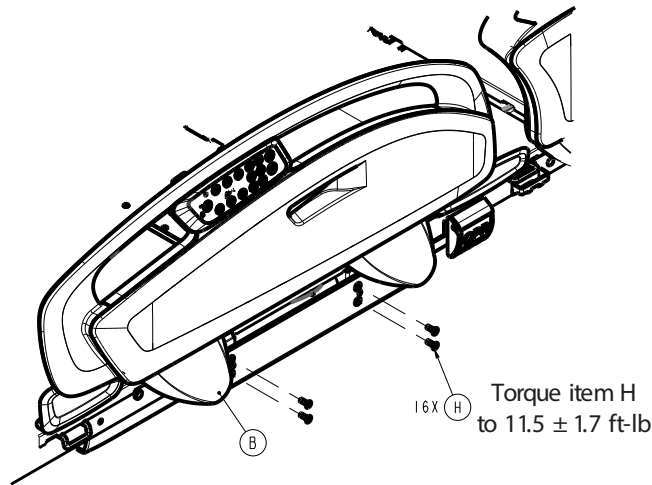
9. Fold the litter mid-section forward so the litter mid-section does not touch the Fowler weldment.

10. Using a T25 Torx driver, remove the two screws (BJ) that secure the electrical cover (E) to the litter (Figure 20). Save the screws.
  11. Using a T27 Torx driver, remove the two screws (AN) and washers (BG) that secure the electrical cover (E) to the litter. Remove the cover (Figure 20). Save the screws, washers, and cover.
  12. Using a marker, mark on left and right siderail cables where the cables are attached to the Fowler weldment with a cable tie for installation reference. There are three cable tie locations on each side. Remove and discard the cut cable ties.
  13. Using wire cutters, cut the six cable ties that secure the siderail and pendant port cables to the Fowler weldment. Discard the cut cable ties.
- Note** - Make sure you do not damage the cable when you cut the cable ties. When you install the new Fowler weldment, install the supplied cables ties. Trim and discard the excess cable ties.
14. Pull each siderail cable through the upper cable hole to gain access to the siderail cable connector. Unplug the connector.
  15. Remove and save the hand pendant.
  16. Using a T30 Torx driver, remove the two screws (F) that secure the pendant port/bracket (E) to the Fowler weldment and discard (Figure 40).



**Figure 40 – Removing the pendant port/bracket screws**

17. Pull on the hand pendant port/bracket to gain access to the cable connector. Unplug the connector and discard.
18. Pull the litter side of the siderail cable and hand pendant port cable to remove the cables from the Fowler weldment.
19. Using a T30 Torx driver, loosen the four screws (H) that secure the siderail assembly to the Fowler weldment (Figure 41). Repeat on the opposite side.



**Figure 41 – Removing the assembly**

20. Using a T30 Torx driver, and help from someone to support the siderail assembly, remove the foot end (bottom) two screws. Discard the screws.

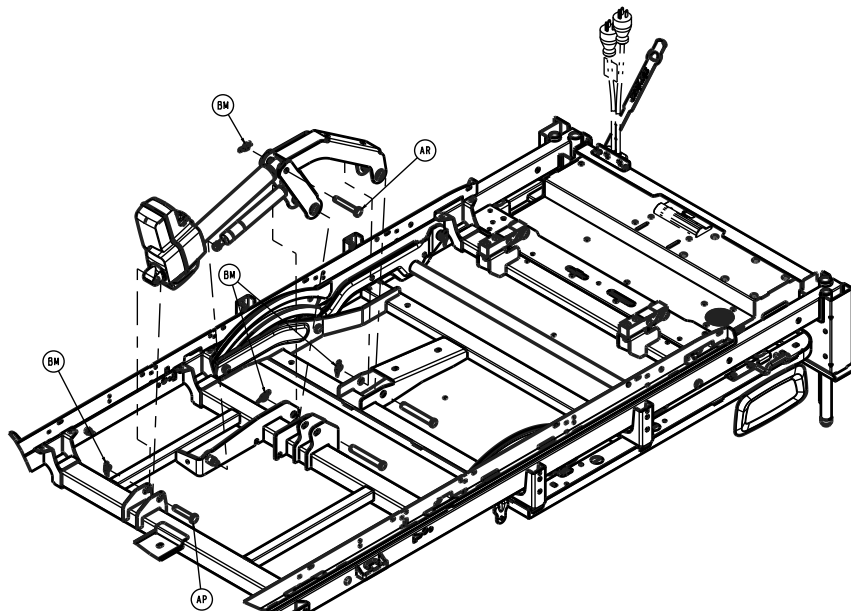
**Note** - The siderail assembly is heavy, use caution.

21. Remove the head end (top) two screws. Discard the screws.

22. Remove the siderail assembly.

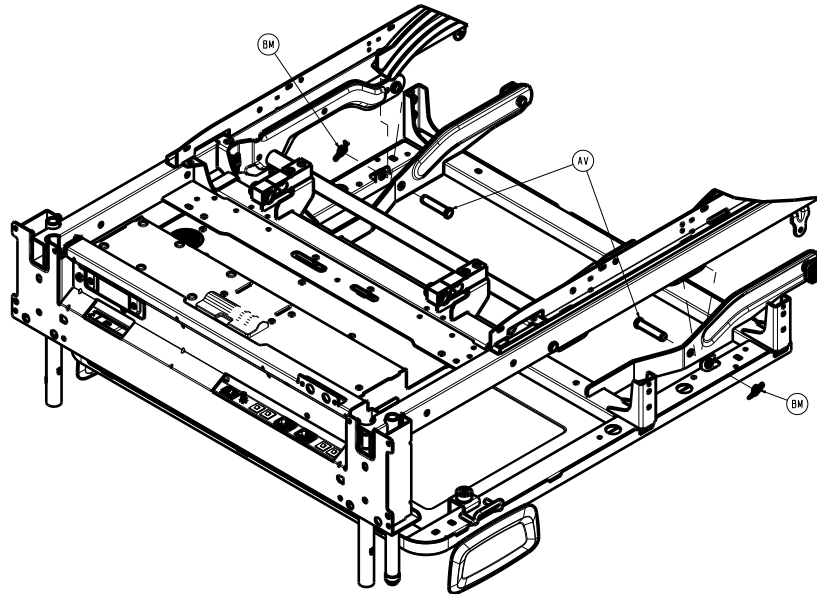
23. Repeat steps 20-22 on the opposite side.

24. Using needle nose pliers, while you support the Fowler weldment, remove the upper Fowler actuator link rue clip (Figure 42).



**Figure 42 – Removing the upper Fowler actuator link rue clip**

25. While you support the Fowler weldment, use needle nose pliers to remove the left and right side upper Fowler link rue clips (Figure 43).



**Figure 43 – Removing the left and right upper Fowler link rue clips**

26. While you continue to support the Fowler weldment, remove the Fowler actuator link clevis pin (Figure 42).

**Note** - Support the Fowler weldment to avoid the risk of injury or product damage.

27. While you continue to support the Fowler weldment, push up on the Fowler to relieve some of the pressure. Remove the left and right Fowler link clevis pins (Figure 43).

**Note** - Support the Fowler weldment to avoid the risk of injury or product damage.

28. Grasp the Fowler weldment on both sides and pull the Fowler weldment toward the head to remove it from the litter frame. Discard the Fowler weldment.

**Note** - The Fowler weldment is heavy, use caution.

29. Reverse the steps to install the new Fowler weldment assembly.

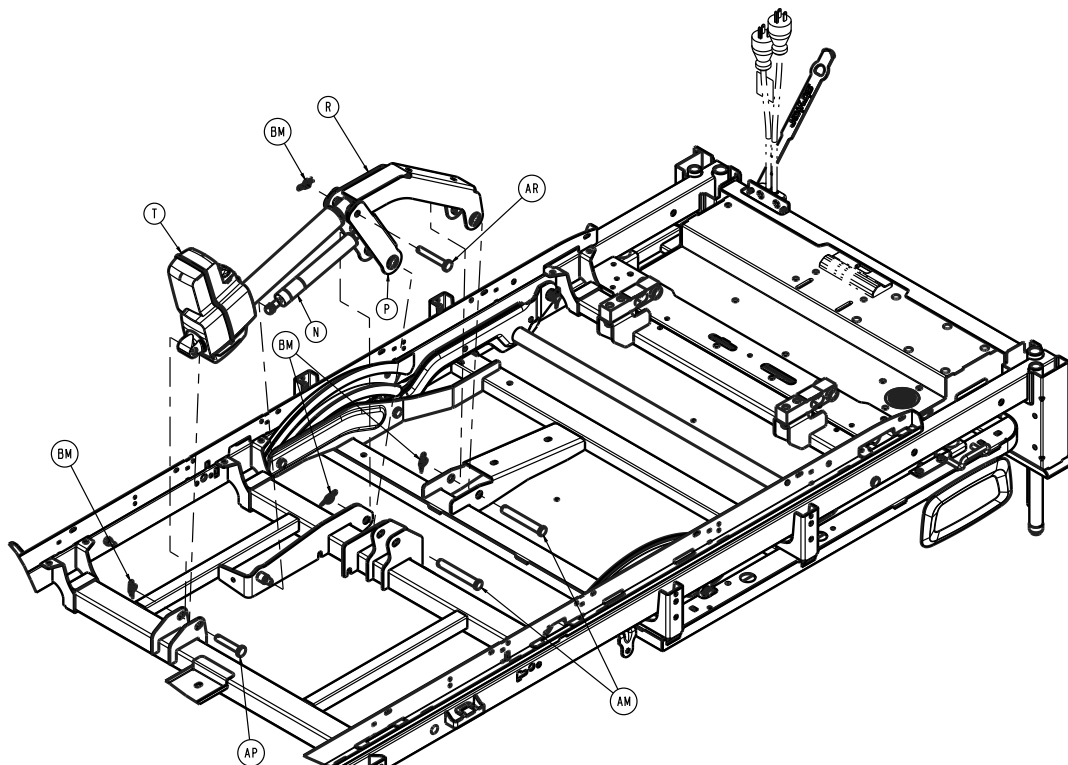
## Fowler actuator replacement

### Tools required:

- Needle nose pliers
- Small slotted screwdriver

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Gatch to the highest height position.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.
6. Using a small slotted screwdriver, open the CPR cable door on the Fowler actuator.
7. Lift each CPR cable end out of the actuator.
8. Pull the CPR cable to remove the cable from the Fowler actuator.
9. Pull the CPR release so that the Fowler is flat and the Fowler actuator clevis pins move.
10. Using a small slotted screwdriver, remove the actuator cable retainer and unplug the cable from the actuator.
11. Using needle nose pliers, remove the two rue clips (BM) from the two clevis pins that secure the Fowler actuator (T) to the litter and the Fowler frame (Figure 44). Save the rue clips.



**Figure 44 – Replacing the Fowler actuator**

12. Support the actuator. Remove and save the two clevis pins (AP, AR) (Figure 44).
13. Using a small slotted screwdriver, open the actuator CPR access door.
14. Using needle nose pliers, remove the two CPR cables from the actuator mechanism. Remove the CPR cables from the actuator.
15. Reverse steps to reinstall.
16. Enter the service menu to clear the actuator statistics (*Service menu* (page 19)).

#### **4.3" display**

- a. Select **Configuration**.
- b. Select **Calibration**.
- c. Select **Motion**.
- d. Select the motor that was replaced. Press **Reset**.
- e. Press **Reset and Continue** on the confirmation screen.
- f. Read the warning message. If the patient is not present, press **Agree**.

#### **8" display**

- a. Select **Calibration**.
- b. Select **Motion**.
- c. Select the motor that was replaced. Press **Reset**.
- d. Press **Reset and Continue** on the confirmation screen.
- e. Read the warning message. If the patient is not present, press **Agree**.

17. Unplug the product from the wall outlet.
18. Turn off the battery disconnect switch to complete a full power cycle on the product.
19. Plug the product into the wall outlet. Turn on the battery disconnect switch to turn the product on.
20. Calibrate angles, see *Angle calibration* (page 19).
21. Verify proper operation before you return the product to service.

### **Gatch actuator replacement**

#### **Tools required:**

- Needle nose pliers
- Small slotted screwdriver

#### **Procedure:**

1. Push down on the brake pedal to apply the brake.

2. Raise the product to the highest height position.
3. Lower the Gatch to its lowest position. If the Gatch will not lower, you must support the Gatch section.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.
6. Using needle nose pliers, remove the two rue clips (BM) from the two clevis pins that secure the Gatch actuator (AB) to the litter and the Gatch frame (Figure 45). Save the rue clips.

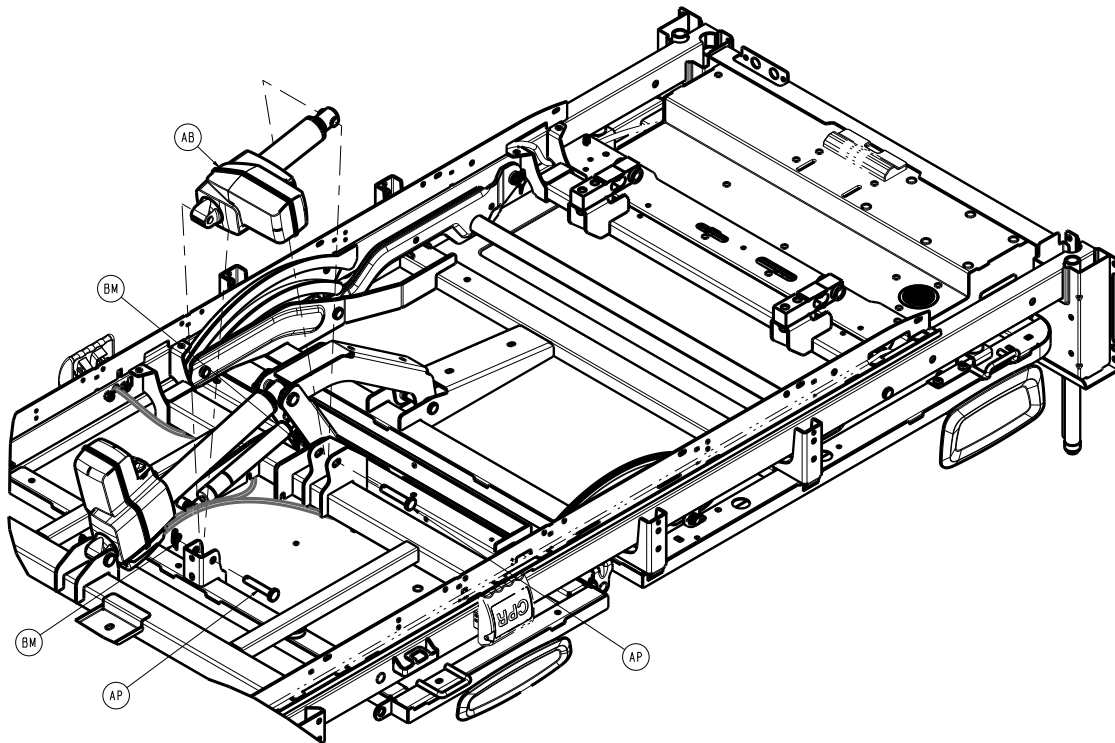


Figure 45 – Replacing the Gatch actuator

7. Support the actuator. Remove and save the two clevis pins (AP) (Figure 45).
8. Using a small slotted screwdriver, remove the actuator cable retainer. Unplug the cable from the actuator.
9. Reverse steps to reinstall.
10. Enter the service menu to clear the actuator statistics (*Service menu* (page 19)).

#### 4.3" display

- a. Select **Configuration**.
- b. Select **Calibration**.
- c. Select **Motion**.
- d. Select the motor that was replaced. Press **Reset**.
- e. Press **Reset and Continue** on the confirmation screen.
- f. Read the warning message. If the patient is not present, press **Agree**.

#### 8" display

- a. Select **Calibration**.
- b. Select **Motion**.
- c. Select the motor that was replaced. Press **Reset**.
- d. Press **Reset and Continue** on the confirmation screen.
- e. Read the warning message. If the patient is not present, press **Agree**.

11. Unplug the product from the wall.
12. Turn off the battery disconnect switch to complete a full power cycle on the product.
13. Plug the product into the wall outlet. Turn on the battery disconnect switch to turn the product on.
14. Calibrate angles, see *Angle calibration* (page 19).
15. Verify proper operation before you return the product to service.

## Lift actuator, head and foot end replacement

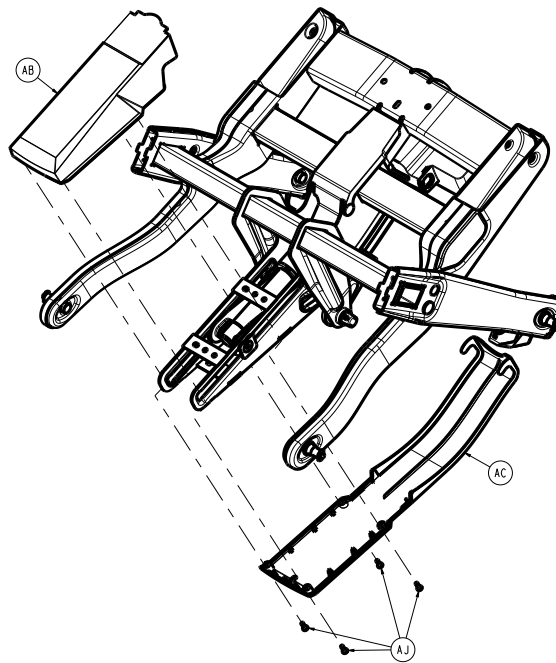
### Tools required:

- T20 Torx driver
- Slotted screwdriver
- Diagonal pliers
- (2) #1 Phillips screwdriver
- (2) Ratchet
- (2) T40 Torx driver

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise product to the highest height position, if possible. If not, raise the product high enough to reach the lift mechanism slides past the base frame support holes.
3. On the end you plan to replace, raise both siderails to the up and locked position.
4. Using a T20 Torx driver, remove the four screws (AJ) that secure the lift arm bottom cover (AC) and lift arm top cover (AB) together (Figure 46). Remove and save the covers. Save the screws.

**Note** - Pry the outer cover top hooks off of the lift mechanism to remove the cover.



**Figure 46 – Removing the lift covers**

5. Using a slotted screwdriver and diagonal pliers, remove the retainers (C) from the left and right center base covers (B) (Figure 13). Discard the retainers. Remove and save the covers.
6. Using two #1 Phillips screwdrivers, insert the screwdrivers into the base frame support holes from the outside, closest to the lift mechanism on both sides, to support the lift mechanism.
7. Lower the lift down until the screwdrivers support the lift mechanism, if possible. The lift actuator should be loose.

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**CAUTION** - Do not drive the actuator past the support of the screwdrivers to avoid the risk of product damage.

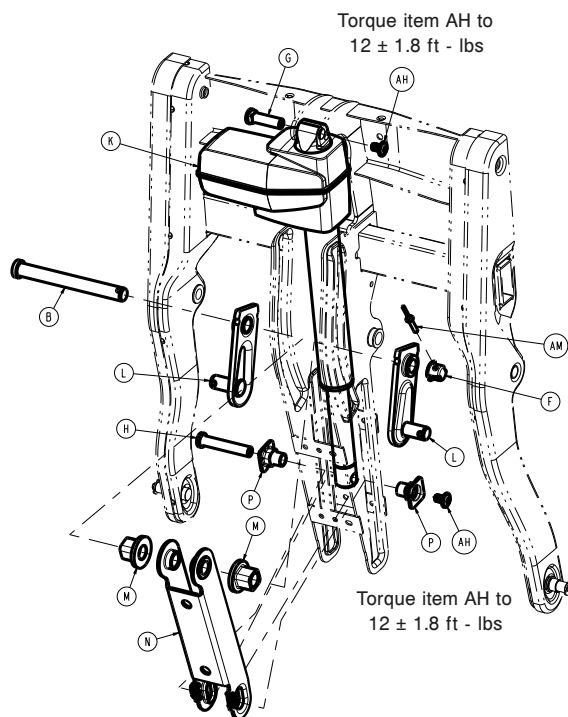
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**Note** - Note potential pinch points as you support the product.

8. Unplug the product from the wall.
9. Turn off the battery disconnect switch to turn the product off.
10. Using a slotted screwdriver, remove the actuator cable retainer and unplug the cable from the lift actuator.
11. Using two ratchets and a T40 Torx driver, remove the two screws that secure the bottom of the lift actuator to the lift mechanism.

12. Using a ratchet and two T40 Torx drivers, remove the screw (AH) and lift foot pin (H) that secure the top of the actuator to the lift mechanism (Figure 47). Hold the lift foot pin in while you loosen the screw.

**Note** - The screw is keyed with the lift mechanism.



**Figure 47 – Replacing the lift actuator**

13. Remove and discard the lift actuator.

14. Reverse steps to reinstall.

15. Enter the service menu to clear the actuator statistics (*Service menu* (page 19)).

#### 4.3" display

- Select **Configuration**.
- Select **Calibration**.
- Select **Motion**.
- Select the motor that was replaced. Press **Reset**.
- Press **Reset and Continue** on the confirmation screen.
- Read the warning message. If the patient is not present, press **Agree**.

#### 8" display

- Select **Calibration**.
- Select **Motion**.
- Select the motor that was replaced. Press **Reset**.
- Press **Reset and Continue** on the confirmation screen.
- Read the warning message. If the patient is not present, press **Agree**.

16. Unplug the product from the wall.

17. Turn off the battery disconnect switch to complete a full power cycle on the product.

18. Plug the product into the wall outlet. Turn on the battery disconnect switch to turn the product on.

19. Calibrate angles, see *Angle calibration* (page 19).

20. Verify proper operation before you return the product to service.

### Load cell replacement, head end

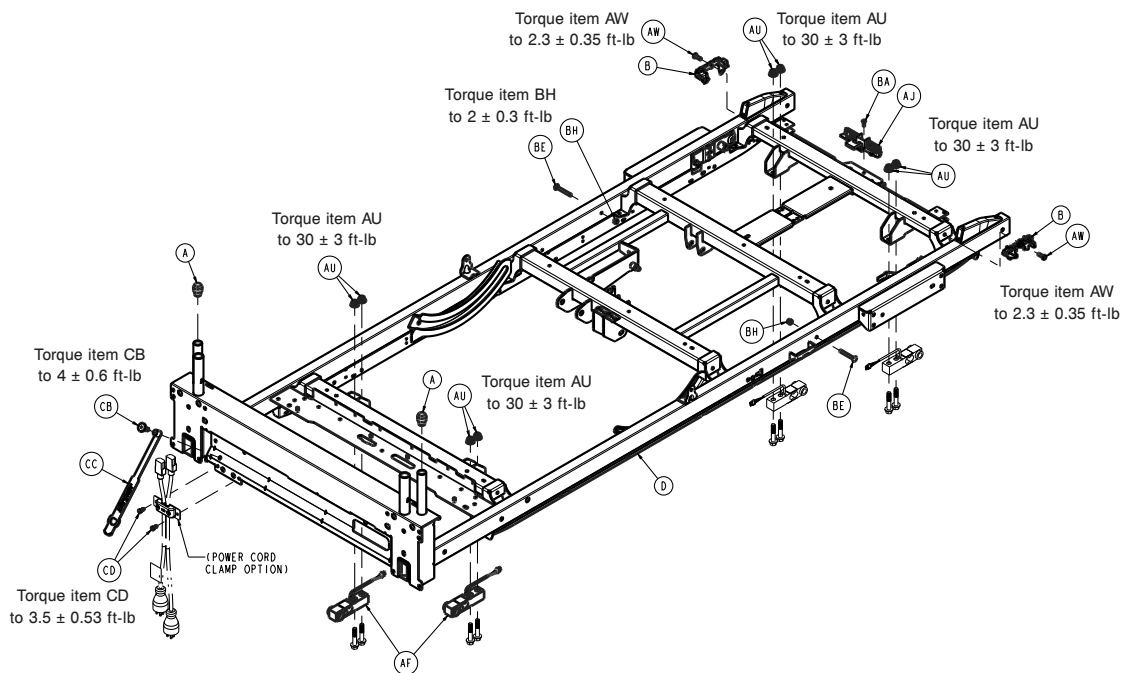
#### Tools required:

- Ratchet
- 9/16" socket
- 9/16" combination wrench
- Wire cutters

- Needle nose pliers

**Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the full up position.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.
6. Using wire cutters, cut the cable tie that secures the load cell cable to the litter frame. Discard the cut cable tie.
7. Unplug the load cell (AF) (Figure 48).

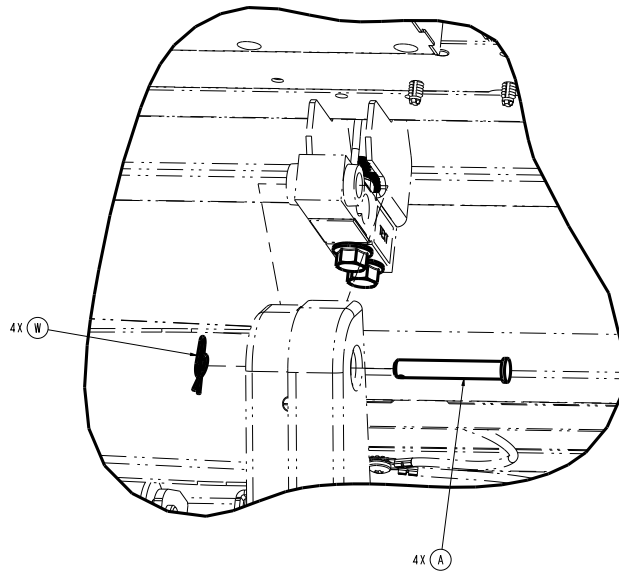


**Figure 48 – Replacing the load cell**

8. Using needle nose pliers, remove the rue clip (W) from the clevis pin (A) that secures the load cell to the lift mechanism (Figure 49). Save the rue clip and clevis pin.

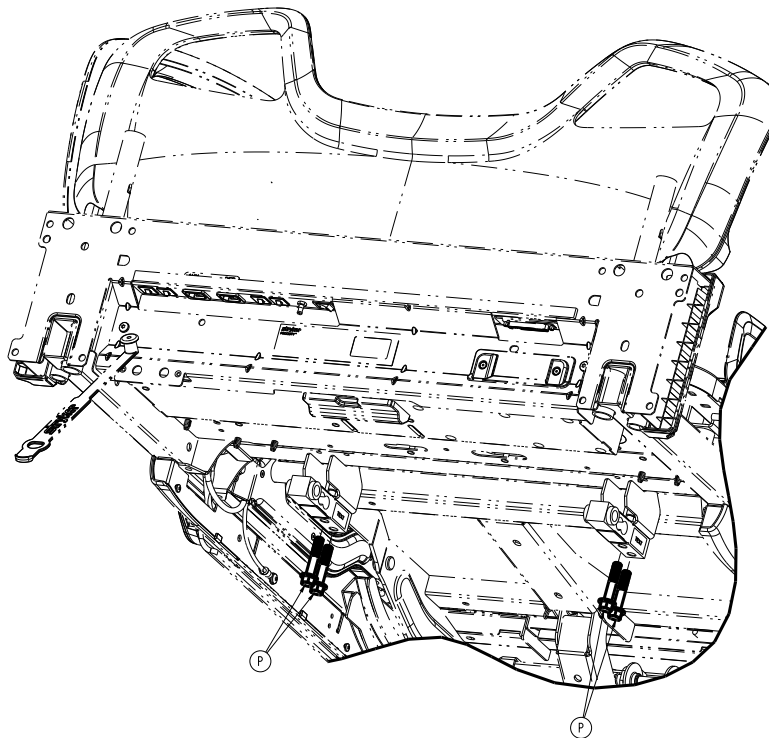
**Note**

- Support the litter corner of the load cell location.
- Lower the litter until the load cell clevis pin is loose.



**Figure 49 – Replacing the load cell**

9. Remove the load cell. Using a ratchet, 9/16" socket, and a 9/16" combination wrench, remove the two bolts (P) and nuts that secure the load cell to the litter frame (Figure 50). Save the bolts and nuts.



**Figure 50 – Replacing the load cell**

10. Reverse steps to reinstall.
11. Enter the service menu to clear the load cell statistics (*Service menu* (page 19)).

#### 4.3" display

- a. Select **Configuration**.
- b. Select **Calibration**.
- c. Select **Scale**.
- d. Select the replaced load cell to reset the statistics.
- e. Press **Reset and Continue** on the confirmation screen.
- f. Read the warning message. If the patient is not present, press **Agree**.

#### 8" display

- a. Select **Calibration**.
- b. Select **Scale**.
- c. Select the replaced load cell to reset the statistics.
- d. Press **Reset and Continue** on the confirmation screen.
- e. Read the warning message. If the patient is not present, press **Agree**.

12. Calibrate the scale system. See *Scale calibration* (page 19).

13. Unplug the product from the wall outlet.

14. Turn off the battery disconnect switch to complete a full power cycle on the product.

15. Verify proper operation before you return the product to service.

### Load cell replacement, foot end

#### Tools required:

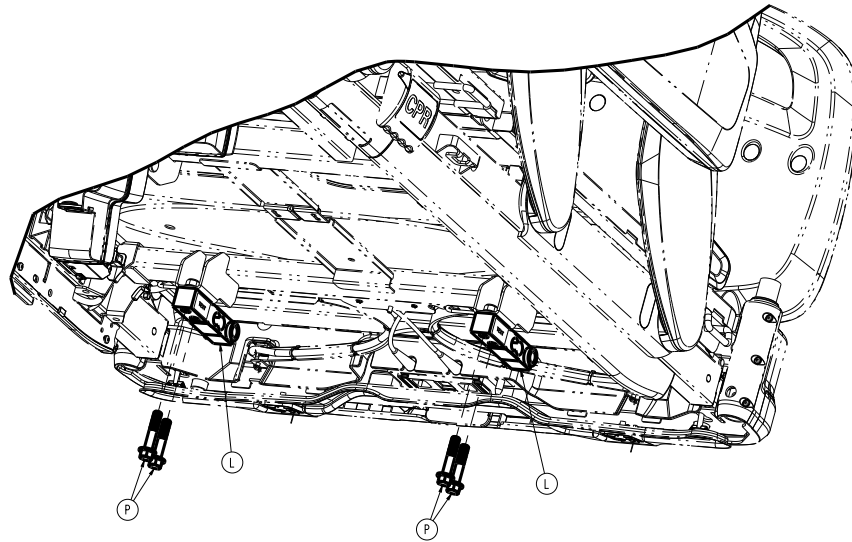
- Ratchet
- 9/16" socket
- 9/16" combination wrench
- Wire cutters
- Bungee cord or equivalent
- Needle nose pliers

#### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Gatch to the full up position. Fold the foot section toward the head end of the product.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.
6. Extend the bed extender to the out and locked position. Fold the bed extender pan toward the foot end of the product.

**Note** - Using a bungee cord or equivalent, secure the product extender pan to the footboard.

7. Using wire cutters, cut the cable ties that secure the load cell cable to the litter frame. Discard the cut cable ties.
8. Unplug the load cell (L) (Figure 51).



**Figure 51 – Replacing the load cell**

9. Using wire cutters, remove the two cable tie retainers from the frame. Discard the cable tie retainers.

10. Using needle nose pliers, remove the rue clip (W) from the clevis pin (A) that secures the load cell to the lift mechanism (Figure 49). Save the rue clip and clevis pin.

**Note**

- Support the litter corner of the load cell location. Lower the litter until the load cell clevis pin is loose.
- Do not use the product extender to support the corner of the litter.

11. Remove the load cell. Using a ratchet, 9/16" socket, and a 9/16" combination wrench, remove the two bolts (P) and nuts that secure the load cell (L) to the litter frame (Figure 51). Save the bolts and nuts.

12. Reverse steps to reinstall.

13. Plug the product into the wall outlet.

14. Turn on the battery disconnect switch to turn the product on.

15. Enter the service menu to clear the load cell statistics (*Service menu* (page 19)).

**4.3" display**

- a. Select **Configuration**.
- b. Select **Calibration**.
- c. Select **Scale**.
- d. Select the replaced load cell to reset the statistics.
- e. Press **Reset and Continue** on the confirmation screen.
- f. Read the warning message. If the patient is not present, press **Agree**.

**8" display**

- a. Select **Calibration**.
- b. Select **Scale**.
- c. Select the replaced load cell to reset the statistics.
- d. Press **Reset and Continue** on the confirmation screen.
- e. Read the warning message. If the patient is not present, press **Agree**.

16. Calibrate the scale system. See *Scale calibration* (page 19).

17. Unplug the product from the wall.

18. Turn off the battery disconnect switch to complete a full power cycle on the product.

19. Verify proper operation before you return the product to service.

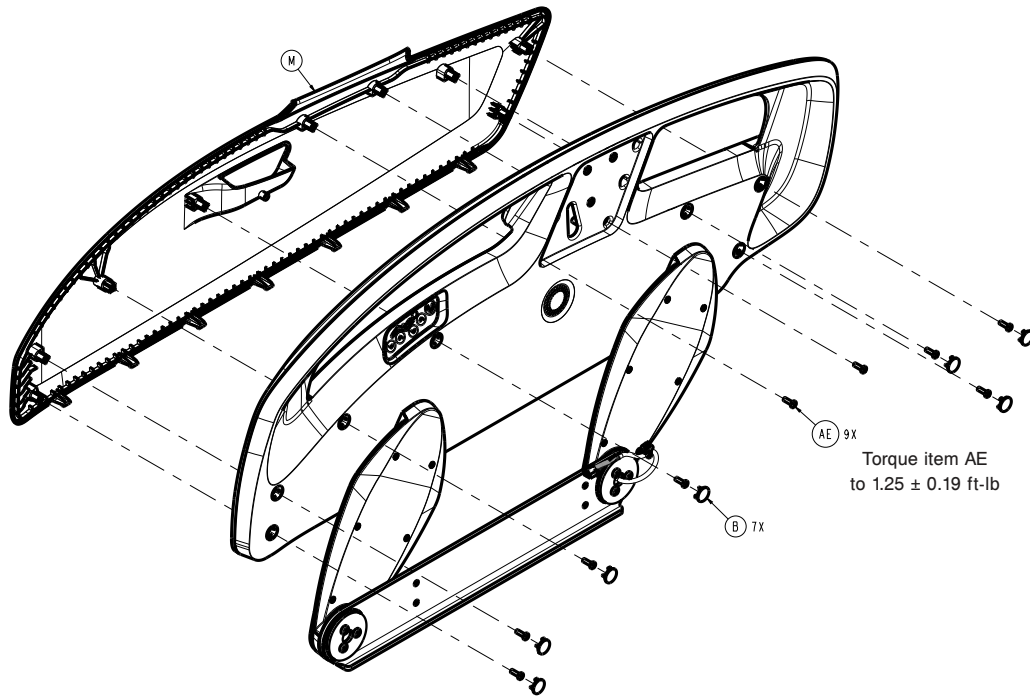
## Nurse control board replacement

**Tools required:**

- Pick
- T20 Torx driver
- T25 Torx driver
- 1/8" hex driver
- ESD system

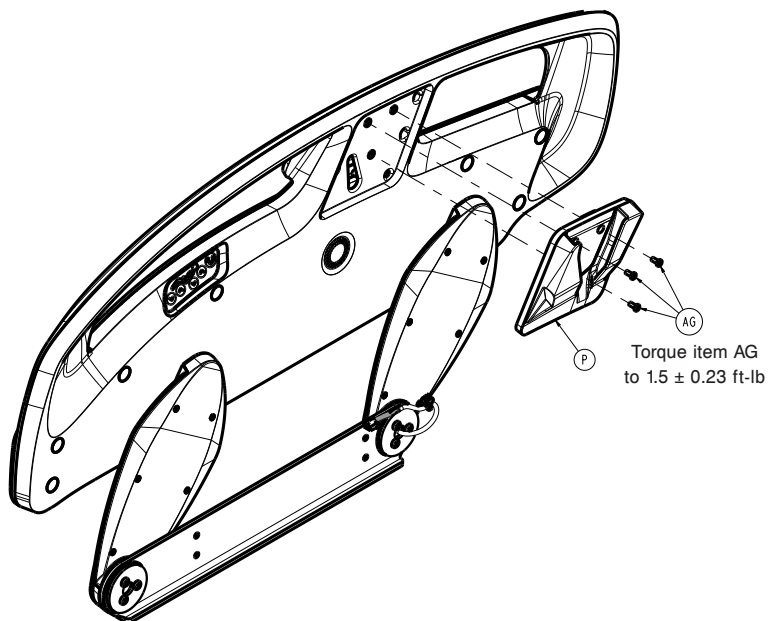
**Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the siderail to the up and locked position.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.
6. Using a pick, remove the seven screw covers (B) from the inside of the siderail (Figure 52). Discard the screw covers.



**Figure 52 – Replacing the siderail control board**

7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 53). Discard the label.



**Figure 53 – Replacing the siderail control board**

8. Using a 1/8" hex driver, remove the three screws (AG) that secure the patient belongings bracket (P) to the siderail hoop (Figure 53). Save the screws. Remove and save the patient belongings bracket.

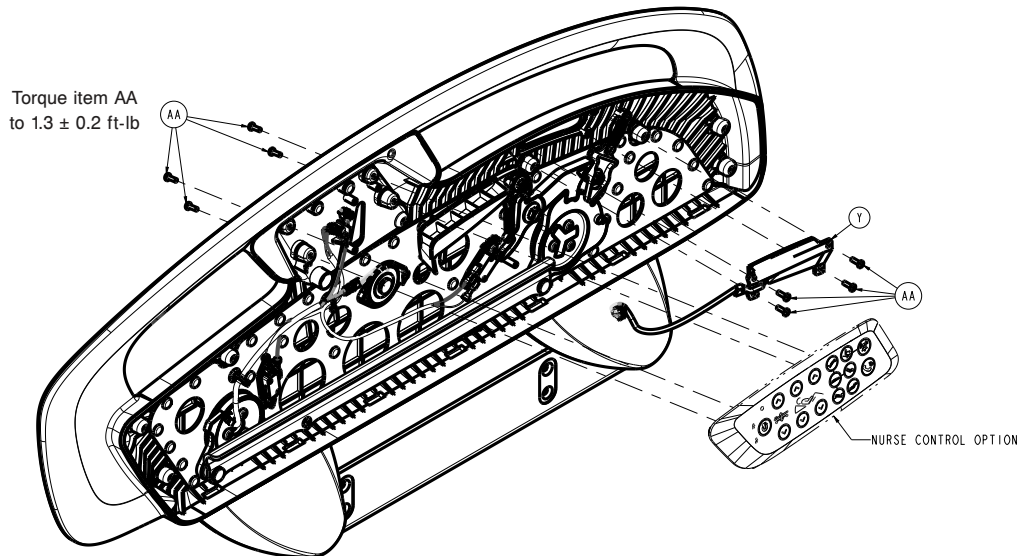
**Note** - If on the patient left side, unplug the USB cable from the USB board to remove the patient belongings bracket.

9. Using a T25 Torx driver, remove the nine screws (AE) that secure the head cover (M) to the siderail assembly (Figure 52). Save the screws. Remove and save the outer siderail panel.
10. Using a T20 Torx driver, remove the four screws (AA) that secure the nurse control board to the siderail hoop (Figure 54). Save the screws. Allow the nurse control board to hang.

---

#### CAUTION

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
  - Do not place unprotected circuit boards on the floor.
- 



**Figure 54 – Replacing the nurse control board**

11. Unplug all the cables from the nurse control board. Remove the nurse control board.
12. Reverse steps to reinstall.
13. Verify proper operation before you return the product to service.

### Patient control board replacement

#### Tools required:

- Pick
- T20 Torx driver
- T25 Torx driver
- 1/8" hex driver
- ESD system

#### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the siderail to the up and locked position.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.
6. Using a pick, remove the seven screw covers (B) from the inside of the siderail (Figure 52). Discard the screw covers.
7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 53). Discard the label.
8. Using a 1/8" hex driver, remove the three screws (AG) that secure the patient belongings bracket (P) to the siderail hoop (Figure 53). Save the screws. Remove and save the patient belongings bracket.

**Note** - If on the patient left side, unplug the USB cable from the USB board to remove the patient belongings bracket.

9. Using a T25 Torx driver, remove the nine screws (AE) that secure the head cover (M) to the siderail assembly (Figure 52). Remove the outer siderail panel.

---

**CAUTION**

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
  - Do not place unprotected circuit boards on the floor.
- 

10. Using a T20 Torx driver, remove the four screws (AA) that secure the patient control board (Y) to the siderail and unplug the cable (Figure 54).

11. Reverse steps to reinstall.

12. Verify proper operation before you return the product to service.

**USB port option replacement****Tools required:**

- Pick
- 1/8" hex driver

**Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Raise the siderail to the up and locked position.
6. Using a pick, remove the seven screw covers (B) from the inside of the siderail (Figure 52). Discard the screw covers.
7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 53). Discard the label.
8. Using a 1/8" hex driver, remove the three screws (AG) that secure the patient belongings bracket (P) to the siderail hoop (Figure 53).
9. Unplug the USB cable (D) from the USB charging board (E) to remove the patient belonging bracket with USB (B) (Figure 55).

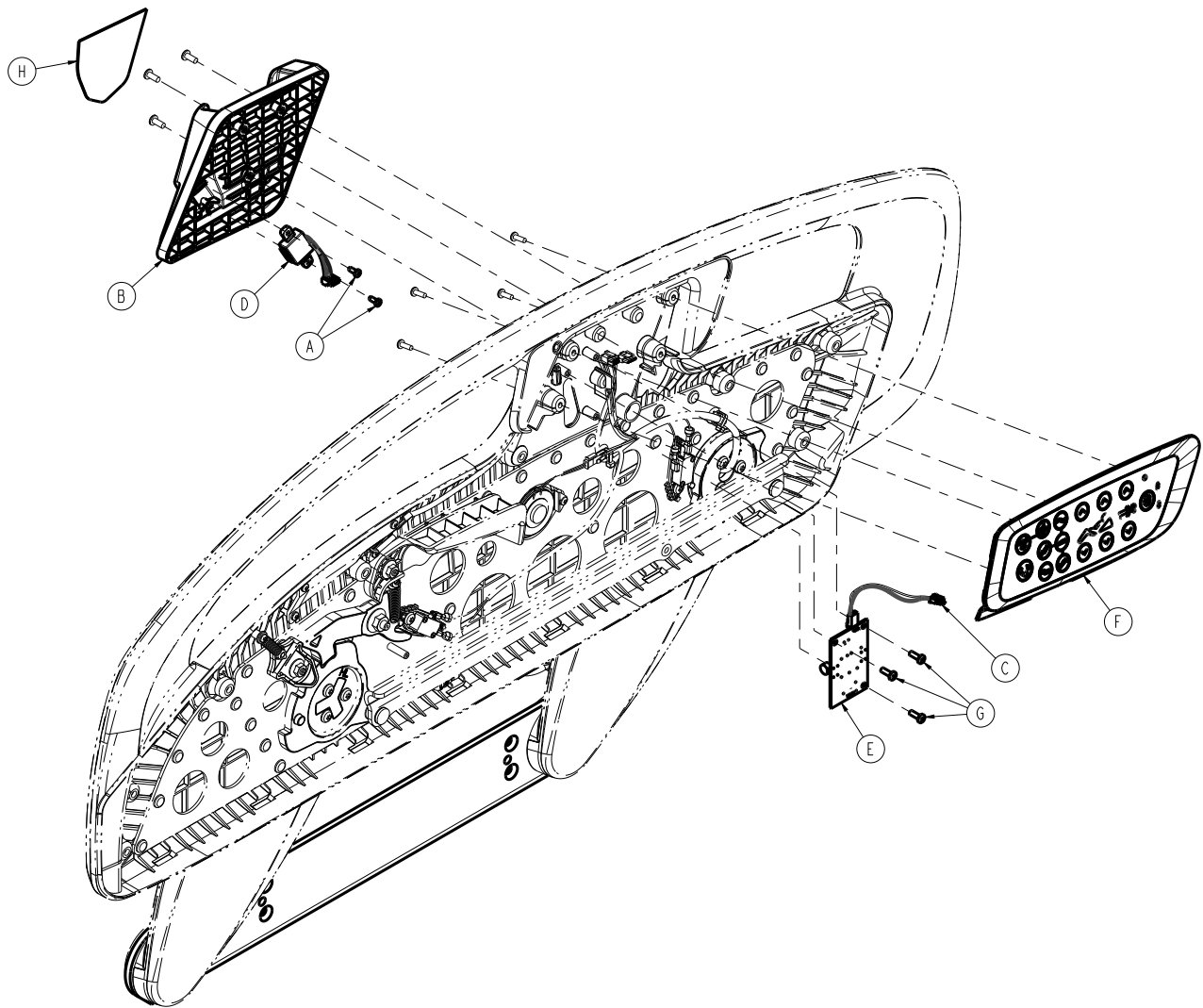


Figure 55 – Replacing the USB port option

10. Reverse steps to reinstall.

11. Verify proper operation before you return the product to service.

## Head siderail hoop replacement

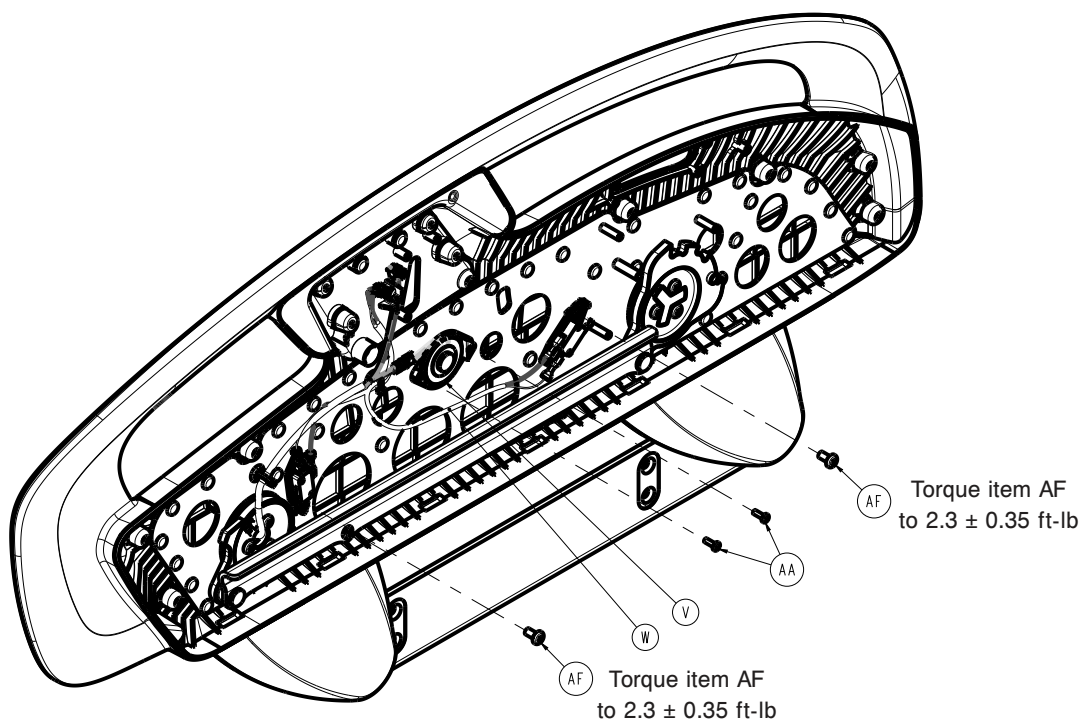
### Tools required:

- Pick
- T20 Torx driver
- T25 Torx driver
- T27 Torx driver
- T30 Torx driver
- Small slotted screwdriver
- Ratchet
- 1/8" hex driver
- 1/2" socket
- 9/16" socket
- Diagonal pliers

### Procedure:

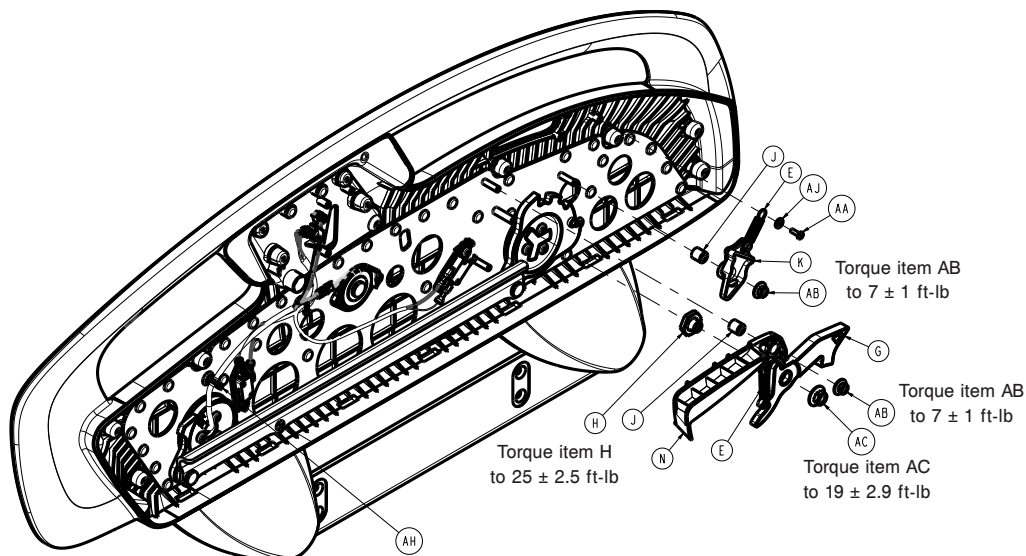
1. Push down on the brake pedal to apply the brake.
2. Raise product to the highest height position.

3. Raise the siderail to the up and locked position.
  4. Unplug the product from the wall.
  5. Turn off the battery disconnect switch to turn the product off.
  6. Using a pick, remove the seven screw covers (B) from the inside of the siderail (Figure 52). Discard the screw covers.
  7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 53). Discard the label.
  8. Using a 1/8" hex driver, remove the three screws (AG) that secure the patient belongings bracket (P) to the siderail hoop (Figure 53). Save the screws. Remove and save the patient belongings bracket.
- Note** - If on the patient left side, unplug the USB cable from the USB board to remove the patient belongings bracket.
9. Using a T25 Torx driver, remove the nine screws (AE) that secure the head cover (M) to the siderail assembly (Figure 52). Save the screws. Remove and save the outer siderail panel.
  10. Using a T20 Torx driver, remove the four screws (AA) that secure the nurse control board to the siderail hoop (Figure 54). Save the screws. Allow the nurse control board to hang.
  11. If the product has the USB charger option, use a T20 Torx driver to remove the three screws (G) that secure the USB charger board (E) to the siderail hoop (Figure 55). Remove and save the board.
  12. Using a T20 Torx driver, remove the four screws (AA) that secure the patient control board (Y) to the siderail hoop (Figure 54). Remove and save the board and cable.
  13. Using a T20 Torx driver, remove the two screws (AA) that secure the speaker (V) to the siderail hoop. Save the screws. Remove and save the speaker.



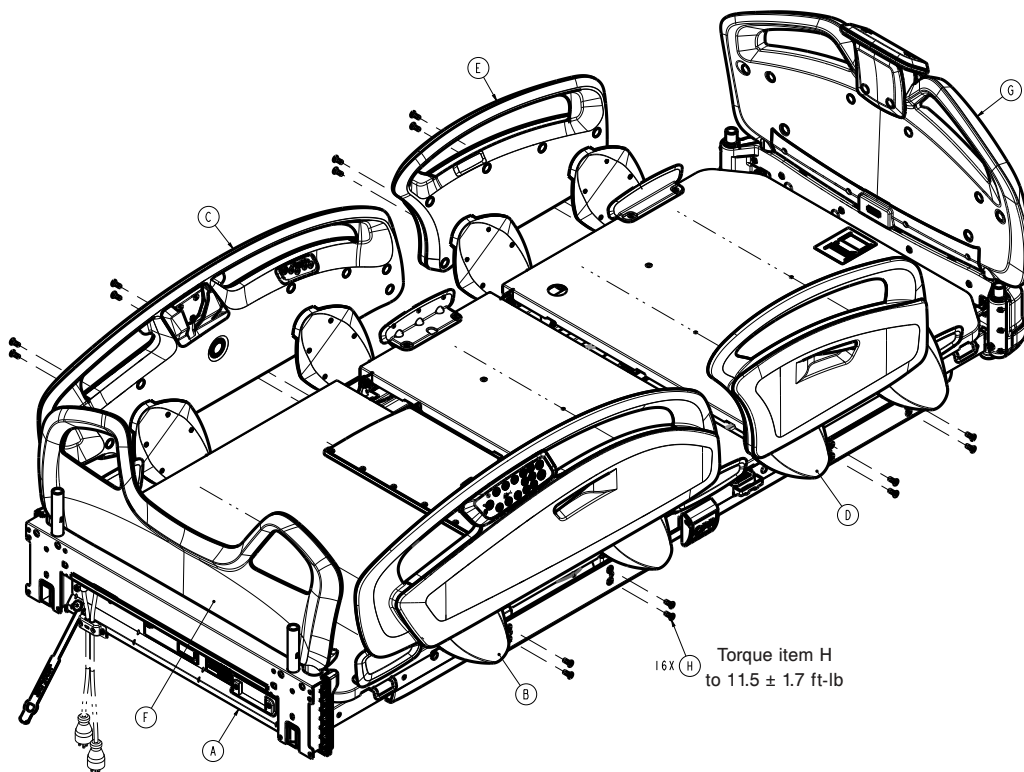
**Figure 56 – Removing the speaker assembly**

14. Using a T20 Torx driver, remove the screw (AA) and washer (AJ) that secure the spring (E) of the bypass lever (K) to the siderail hoop.



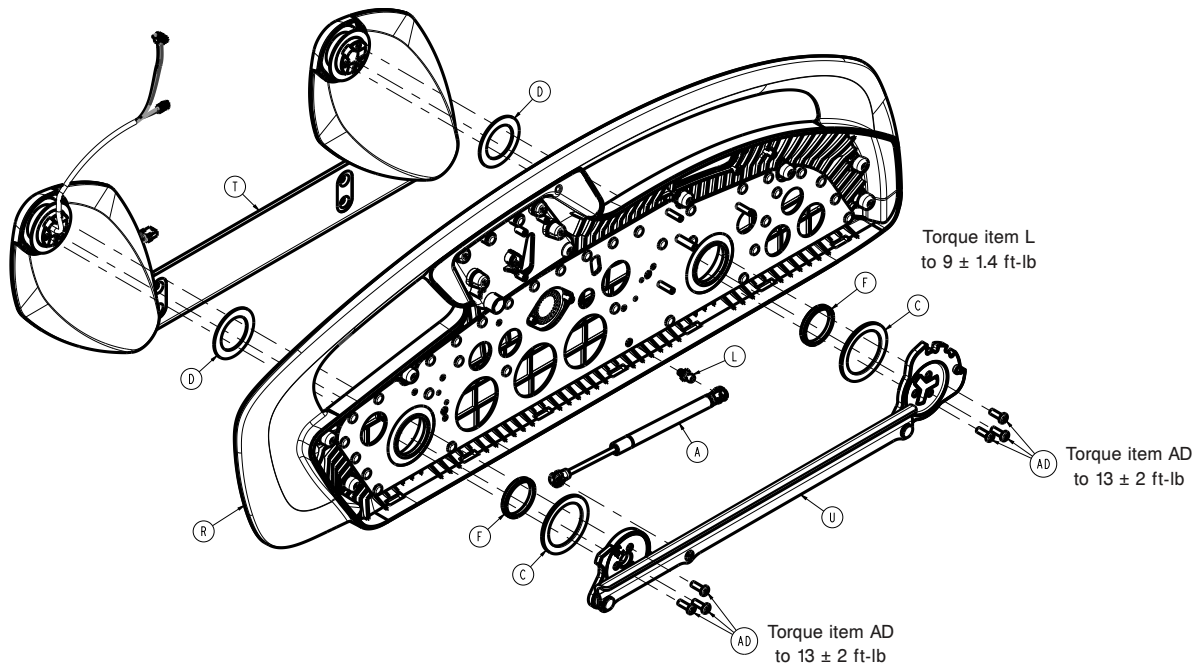
**Figure 57 – Replacing the head siderail hoop**

15. Using a T30 Torx driver, remove the screws (AF) that secure the siderail switch assemblies (W) to the siderail hoop (Figure 56). Pull out the cable retainer. Save and remove the switches.
16. Using a ratchet and a 1/2" socket, remove the nut (AB) that secures the latch activation lever and latch pawl assembly (G) (Figure 57). Remove and save the activation lever and detent paw (E).
17. Using a ratchet and a 9/16" socket, remove the nut (AC) that secures the siderail latch to the siderail hoop (Figure 57). Remove the latch.
18. Using diagonal pliers, cut the two cable ties that secure the siderail cable to the Fowler frame. Discard the cut cable ties.
19. Pull the siderail cable out of the Fowler frame tube enough to disconnect the cable connector.
20. Using a T27 Torx driver while you support the siderail, remove the four bolts (H) that secure the siderail mounting bracket to the Fowler frame (Figure 58). Remove the siderail assembly.



**Figure 58 – Replacing the siderail hoop**

21. Set the siderail assembly on a work surface.
22. Using a ratchet and a T30 Torx driver, remove the six screws (AD) that secure the timing link cams to the siderail arms (Figure 59).



**Figure 59 – Replacing the siderail hoop**

23. Using a small slotted screwdriver, unclip the gas cylinder (A) from the timing link assembly (U) and the siderail hoop frame (R) to remove the gas cylinder (Figure 59).
24. Remove the timing link assembly.
25. Remove the timing link and hoop washers.
26. Remove the hoop assembly from the siderail arms.
27. Reverse steps to reinstall.
28. Verify proper operation before you return the product to service.

## Head siderail switch replacement

### Tools required:

- Pick
- T25 Torx driver
- T30 Torx driver
- 1/8" hex driver

### Procedure:

1. Push down on the brake pedal to apply the brake.
  2. Raise product to the highest height position.
  3. Unplug the product from the wall.
  4. Turn off the battery disconnect switch to turn the product off.
  5. Raise the siderail to the up and locked position.
  6. Using a pick, remove the seven screw covers (B) from the inside of the siderail (Figure 52). Discard the screw covers.
  7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 53). Discard the label.
  8. Using a 1/8" hex driver, remove the three screws (AG) that secure the patient belongings bracket (P) to the siderail hoop (Figure 53). Remove and save the patient belongings bracket. Save the screws.
- Note** - If on the patient left side, unplug the USB cable from the USB board to remove the patient belongings bracket.
9. Using a T25 Torx driver, remove the nine screws (AE) that secure the head cover (M) to the siderail assembly (Figure 52). Remove and save the outer siderail panel. Save the screws.
  10. Unplug both wires (black-NC2 of switch and red-COM of switch) connected to the siderail switch assembly (W) (Figure 56).
  11. Using a T30 Torx driver, remove the screw (AF) that secures the siderail switch assembly (W) and bracket to the siderail frame (Figure 56).

**Note** - The bracket keys to the siderail frame.

12. Reverse steps to reinstall.

13. Verify proper operation before you return the product to service.

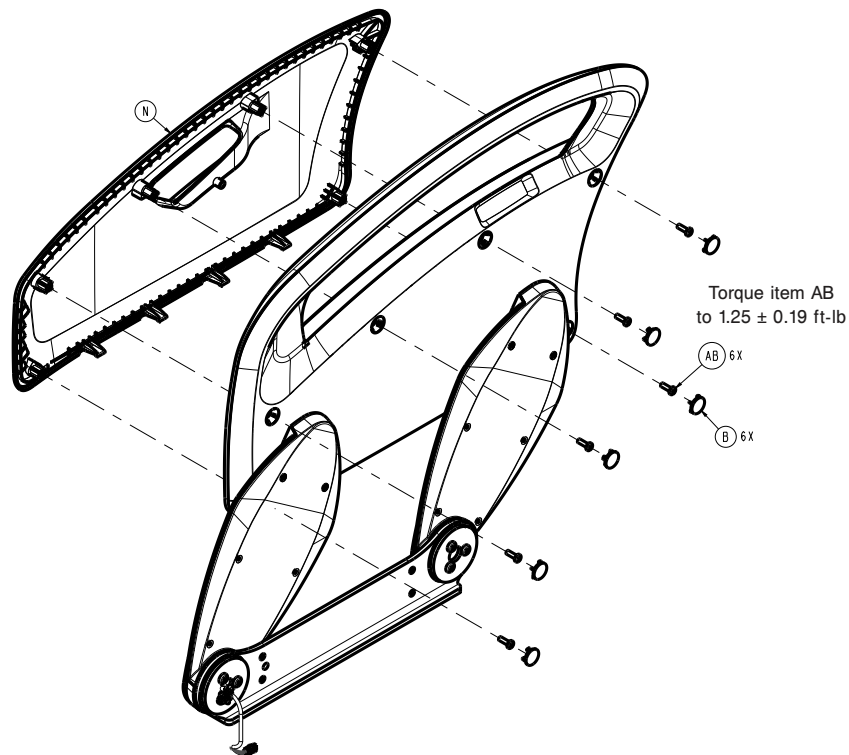
## Foot siderail hoop replacement

### Tools required:

- Pick
- T20 Torx driver
- T25 Torx driver
- T27 Torx driver
- T30 Torx driver
- Small slotted screwdriver
- Ratchet
- 1/2" socket
- 9/16" socket
- Diagonal pliers

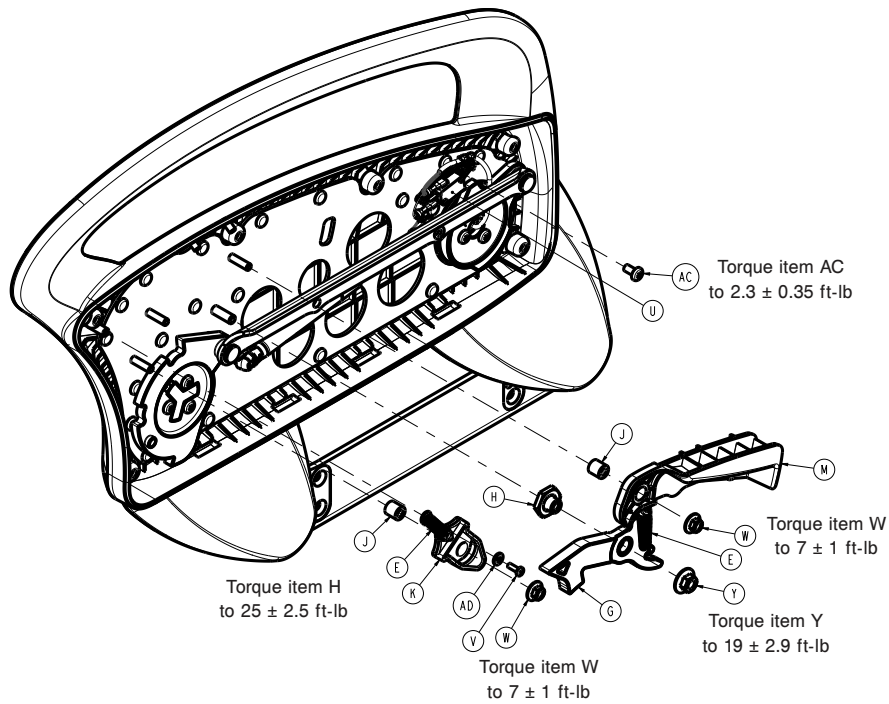
### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise product to the highest height position.
3. Unplug the product from the wall outlet.
4. Turn off the battery disconnect switch to turn the product off.
5. Raise the siderail to the up and locked position.
6. Using a pick, remove the six screw covers (B) from the inside of the siderail (Figure 60). Discard the screw covers.



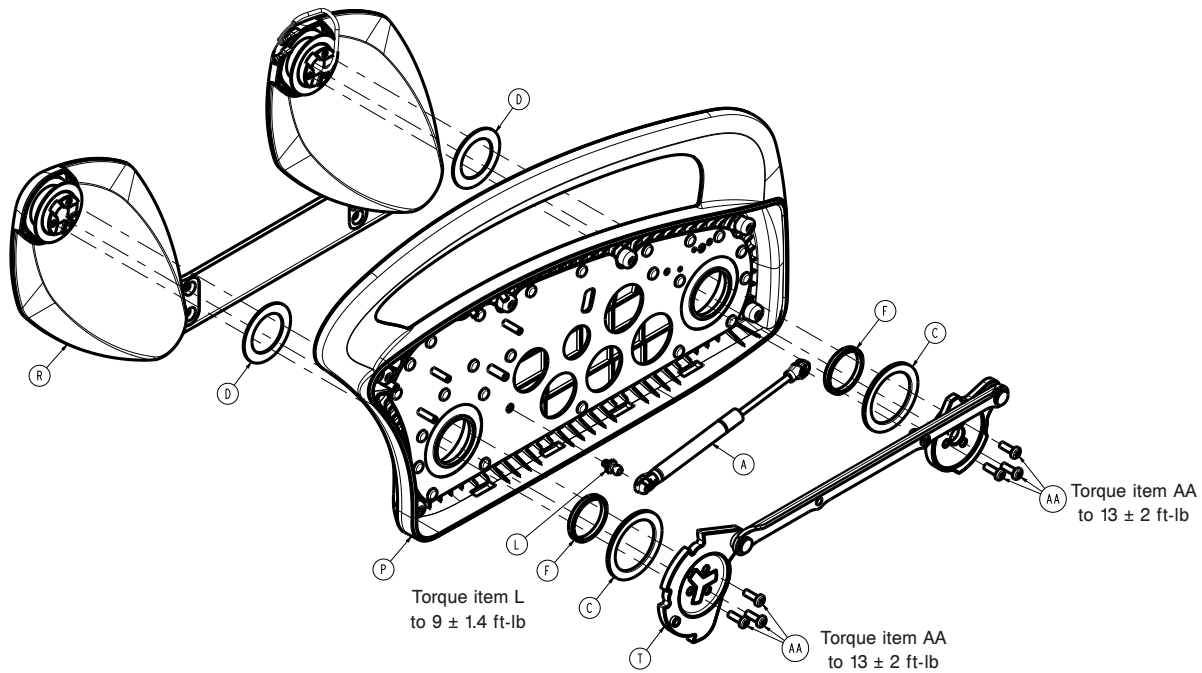
**Figure 60 – Replacing the foot siderail hoop**

7. Using a T25 Torx driver, remove the six screws (AB) that secure the cover (N) to the siderail assembly. Remove the outer siderail cover.
8. Using a T20 Torx driver, remove the screw (V) and washer (AD) that secure the spring (E) to the siderail hoop for the siderail detent paw (Figure 61).



**Figure 61 – Replacing the foot siderail hoop**

9. Using a T30 Torx driver, remove the screw (AC) that secures the siderail position switch (U) to the siderail hoop. Pull out the cable retainer. Remove and save the switch.
10. Using a ratchet and a 1/2" socket, remove the nut (W) that secures the latch activation lever and the siderail detent paw. Remove and save the activation lever and detent paw.
11. Using a ratchet and a 9/16" socket, remove the nut (Y) that secures the siderail latch (G) to the siderail hoop. Remove and save the latch.
12. Using diagonal pliers, cut the two cable ties that secure the siderail cable to the siderail hoop assembly.
13. Using a T27 Torx driver while you support the siderail, remove the four bolts (H) that secure the siderail mounting bracket to the litter frame (Figure 58). Save the bolts. Remove the siderail assembly.
14. Set the siderail assembly on a work surface.
15. Using a ratchet and a T30 Torx driver, remove the six screws (AA) that secure the timing link cams to the siderail arms (Figure 62). Save the screws.



**Figure 62 – Replacing the foot siderail hoop**

16. Using a small slotted screwdriver, unclip the gas cylinder (A) from the timing link assembly (T) and the siderail hoop frame (P) to remove the gas cylinder.
17. Remove the timing link assembly.
18. Remove the timing link and hoop washers.
19. Remove the hoop assembly from the siderail arms.
20. Reverse steps to reinstall.
21. Verify proper operation before you return the product to service.

## Foot siderail switch replacement

### Tools required:

- Pick
- T25 Torx driver
- T30 Torx driver
- Diagonal pliers

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Raise the siderail to the up and locked position.
6. Using a pick, remove the six screw covers (B) from the inside of the siderail (Figure 60). Discard the screw covers.

**Note** - You must move the siderail to the intermediate locked position to get to the bottom head end screw.

7. Using a T25 Torx driver, remove the six screws (AB) that secure the cover (N) to the siderail assembly (Figure 60). Remove the outer siderail cover.
8. Unplug both wires (black - COM of switch and red - NC2 of switch) connected to the siderail position switch.

**Note** - Before you unplug the wires, note the wire positions.

9. Using a T30 Torx driver, remove the screw (AC) that secures the siderail switch assembly (U) and bracket to the siderail frame (Figure 61).

**Note** - The bracket keys to the siderail frame.

10. Using diagonal pliers, cut the two cable ties that secure the switch cable to the switch bracket.
11. Reverse steps to reinstall.

12. Verify proper operation before you return the product to service.

## Gas cylinder, head siderail replacement

### Tools required:

- Pick
- T25 Torx driver
- T27 Torx driver
- T30 Torx driver
- Ratchet
- 1/8" hex driver
- Small slotted screwdriver
- Diagonal pliers

### Procedure:

1. Push down on the brake pedal to apply the brake.
  2. Raise the product to the highest height position.
  3. Unplug the product from the wall.
  4. Turn off the battery disconnect switch to turn the product off.
  5. Raise the siderail to the up and locked position.
  6. Using a pick, remove the seven screw covers (B) from the inside of the siderail (Figure 52). Discard the screw covers.
  7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 53). Discard the label.
  8. Using a 1/8" hex driver, remove the three screws (AG) that secure the patient belongings bracket (P) to the siderail hoop (Figure 53). Remove and save the patient belongings bracket. Save the screws.
- Note** - If on the patient left side, unplug the USB cable from the USB board to remove the patient belongings bracket.
9. Using a T25 Torx driver, remove the nine screws (AE) that secure the head cover (M) to the siderail assembly (Figure 52). Remove and save the outer siderail panel. Save the screws.
  10. Using diagonal pliers, cut the two cable ties that secure the siderail cable to the Fowler frame.
  11. Pull the siderail cable out of the Fowler frame tube enough to disconnect the cable connector.
  12. Using a T27 Torx driver while you support the siderail, remove the four bolts (H) that secure the siderail mounting bracket to the Fowler frame (Figure 58). Remove the siderail assembly.
  13. Set the siderail assembly on a work surface.
  14. Using a ratchet and a T30 Torx driver, remove the six screws (AD) that secure the timing link cams to the siderail arms (Figure 59).
  15. Using a small slotted screwdriver, unclip the gas cylinder (A) from the timing link assembly (U) and the siderail hoop frame (R) to remove the gas cylinder.
  16. Remove the timing link assembly (U).
  17. Reverse steps to reinstall.
  18. Verify proper operation before you return the product to service.

## Gas cylinder, foot siderail replacement

### Tools required:

- Pick
- T25 Torx driver
- T27 Torx driver
- T30 Torx driver
- Ratchet
- 9/16" socket
- 1/2" socket
- Small slotted screwdriver
- Diagonal pliers

**Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Raise the siderail to the up and locked position.
6. Using a pick, remove the six screw covers (B) from the inside of the siderail (Figure 60). Discard the screw covers.
7. Using a T25 Torx driver, remove the six screws (AB) that secure the cover (N) to the siderail assembly (Figure 60). Remove the outer siderail cover.
8. Using diagonal pliers, cut the two cable ties that secure the siderail cable to the siderail hoop assembly.
9. Using a T27 Torx driver while you support the siderail, remove the four bolts (H) that secure the siderail mounting bracket to the litter frame (Figure 58). Save the bolts. Remove the siderail assembly.
10. Set the siderail assembly on a work surface.
11. Using a ratchet and a T30 Torx driver, remove the six screws (AA) that secure the timing link cams to the siderail arms (Figure 62). Save the screws.
12. Using a small slotted screwdriver, unclip the gas cylinder (A) from the timing link assembly (T) and the siderail hoop frame (P) to remove the gas cylinder (Figure 62).
13. Remove the timing link assembly.
14. Reverse steps to reinstall.
15. Verify proper operation before you return the product to service.

**Siderail assembly replacement, head end, left or right**

A minimum of two operators is recommended for this task.

**Tools required:**

- T30 Torx driver
- Wire cutters
- Needle nose pliers
- Marker

**Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the highest position.
4. Raise the head end siderail to the highest locked position.
5. Remove the headboard.
6. Unplug the product from the wall.
7. Turn off the battery disconnect switch to turn the product off.
8. Using a marker, mark the left and right siderail cables where the cables are attached to the Fowler weldment with a cable tie for installation reference. There are three cable tie locations on each side. Remove and discard the cut cable ties.
9. Using wire cutters, cut the three cable ties that secure the siderail and pendant port (if replacing the right side) cables to the Fowler weldment.  
  
**Note** - Make sure you do not damage the cable when you cut the cable ties. When you install the new siderail assembly, install the supplied cables ties. Trim and discard the excess cable ties.
10. Pull the cables through the upper cable hole to gain access to the siderail cable connector. Unplug the connector.
11. Remove the hand pendant (if present). Save the hand pendant (if you change the right side).
12. Using a T30 Torx driver, remove the two screws (F) that secure the pendant port/bracket (E) to the Fowler weldment (if replacing the right siderail) (Figure 26). Save the screws.
13. Pull on the hand pendant port/bracket to gain access to the cable connector. Unplug the connector and discard (if replacing the right siderail).
14. If you are replacing the right siderail assembly, pull the litter side of the siderail cable and hand pendant port cable to remove the cable from the Fowler weldment (Figure 41).
15. Using a T30 Torx driver, loosen the four screws (H) that secure the siderail assembly to the Fowler weldment.
16. Using a T30 Torx driver, and help from someone to support the siderail assembly, remove the foot end (bottom) two screws and the head end (top) two screws. Remove the siderail assembly.

**Note** - The siderail assembly is heavy, use caution.

17. Reverse steps to reinstall.
18. Verify proper operation before you return the product to service.

## Siderail assembly replacement, foot end, left or right

A minimum of two operators is recommended for this task.

### Tools required:

- T25 Torx driver
- T30 Torx driver
- Wire cutters
- Needle nose pliers

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Gatch to the highest position.
4. Raise the siderail to the highest locked position.
5. Unplug the power cord from the wall.
6. Turn off the battery disconnect switch to turn the product off.
7. Using a T25 Torx driver, remove the four screws (BN) from the litter cable rail cover (H, J) on the foot end (Figure 63). Remove the cover. Save the screws and cover.

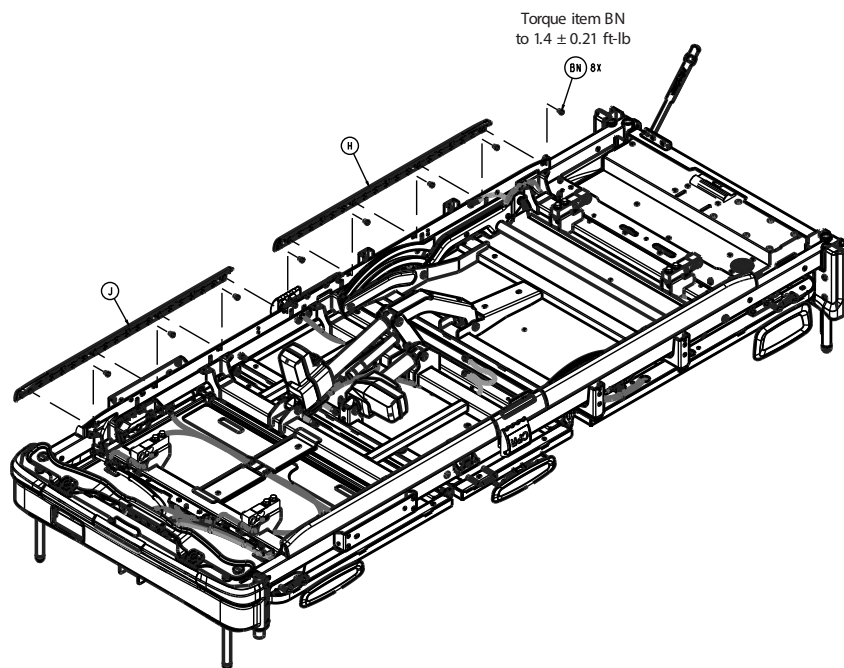
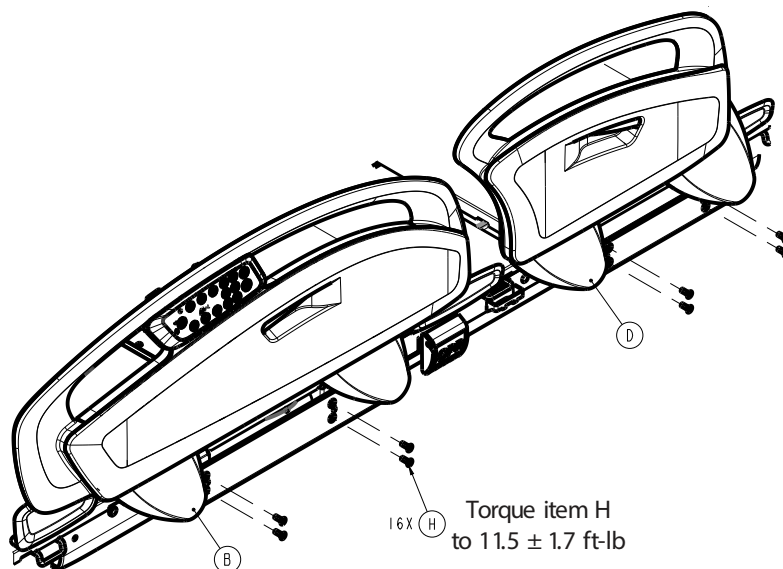


Figure 63 – Removing the cover

8. Using wire cutters, cut the cable tie that secures the siderail cable to the top of the litter frame.

**Note** - Make sure you do not damage the cable when you cut the cable ties. When you install the new siderail assembly, install the supplied cables ties. Trim and discard the excess cable ties.

9. Note all cable locations, then unplug the siderail cable connector on the outside of the frame rail.
10. Using a T30 Torx driver, loosen the four screws (H) that secure the siderail assembly to the litter frame (Figure 64).



**Figure 64 – Removing the assembly**

11. Using a T30 Torx driver, and help from someone to support the siderail assembly, remove the four screws. Remove the siderail assembly.

**Note** - The siderail assembly is heavy, use caution.

12. Reverse steps to reinstall.

13. Verify proper operation before you return the product to service.

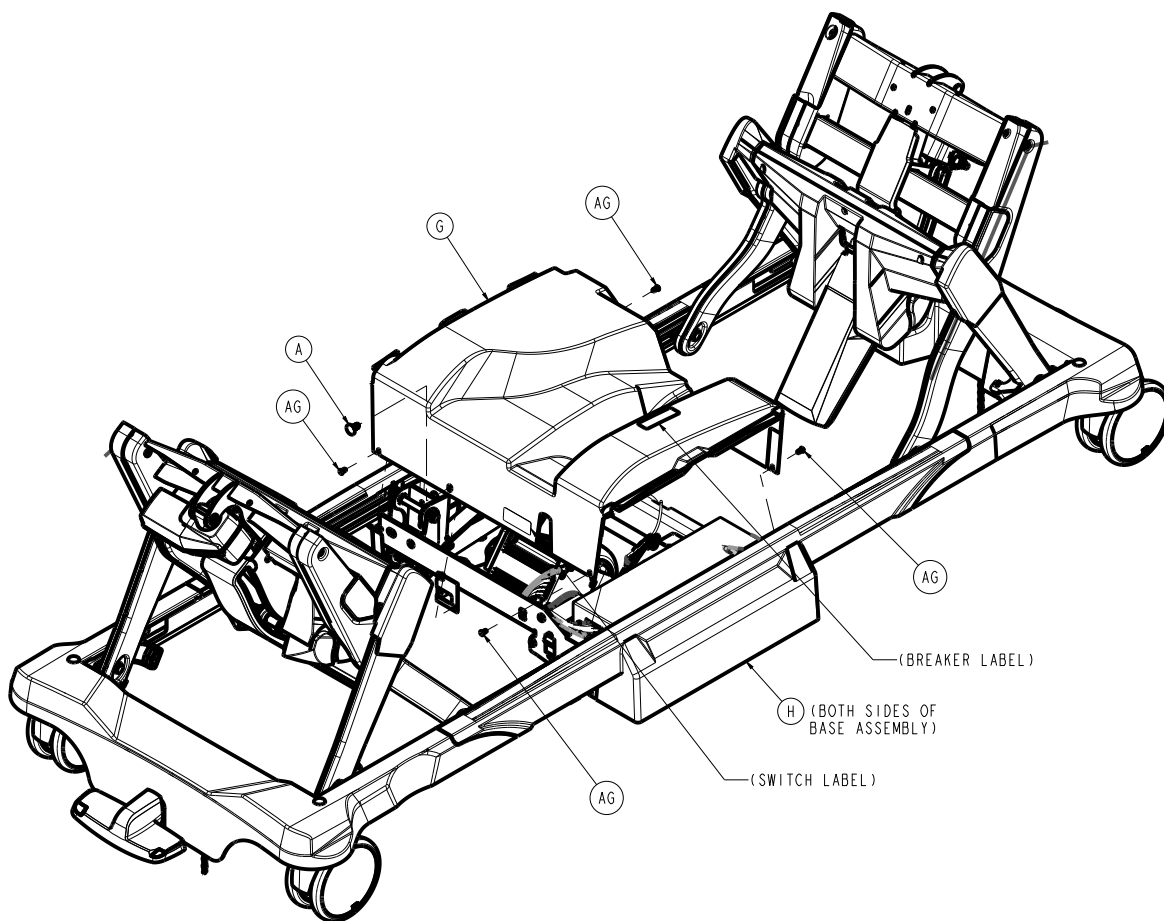
## Zoom battery replacement

### Tools required:

- T27 Torx driver
- Ratchet
- 5/16" socket
- Torque wrench

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Trip the Zoom circuit breaker to turn Zoom off.
6. Remove the two push rivets (AG) that secure the outer base cover (H) to the Zoom cover (G) (Figure 65). Save the rivets and outer base cover. Repeat for the opposite side.



**Figure 65 – Removing the Zoom cover**

7. Lift up from the center to remove the outer base covers. Save the outer base covers.
8. Remove and save the Zoom cover (G) (Figure 65).
9. Using a T27 Torx driver, remove the three screws (AJ) that secure the battery box cover (T) to the base weldment (Figure 66). Save the screws and battery box cover.

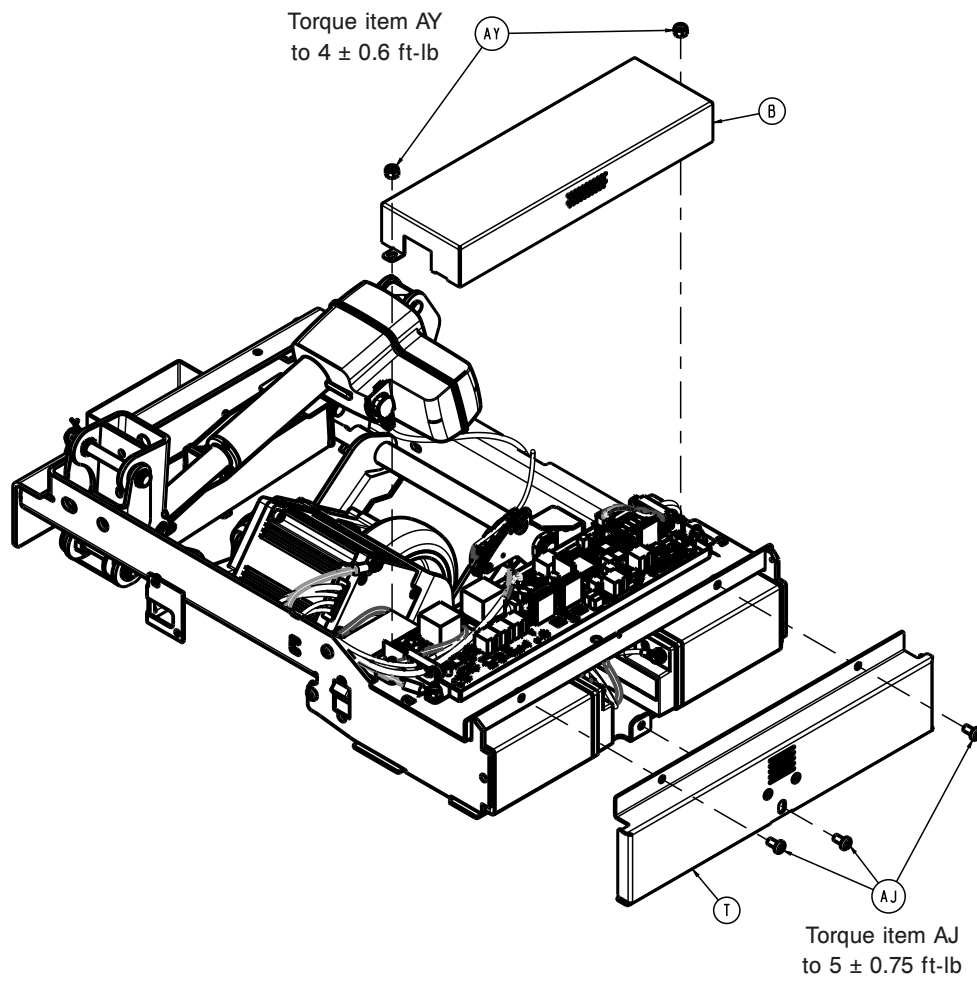
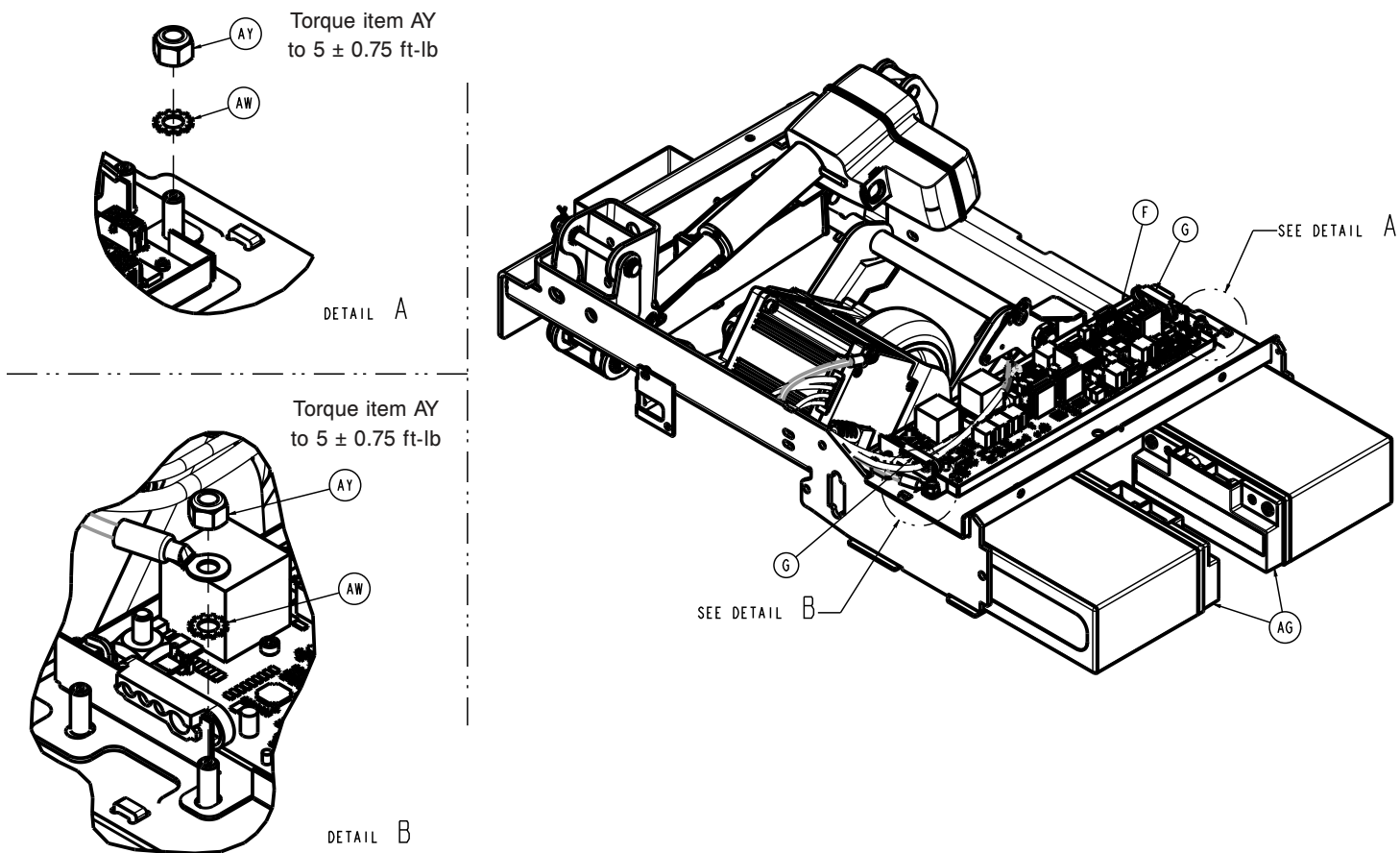


Figure 66 – Removing the battery cover

10. Remove the batteries (AG) (Figure 67).



**Figure 67 – Removing the batteries**

11. Using a 5/16" socket and ratchet, remove the bolt (AR), lock washer (AT), and flat washer (AP) that secure the positive wire (red) and the negative wire (black) to the battery (Figure 68). Save the bolt and washers. Repeat for the other battery.

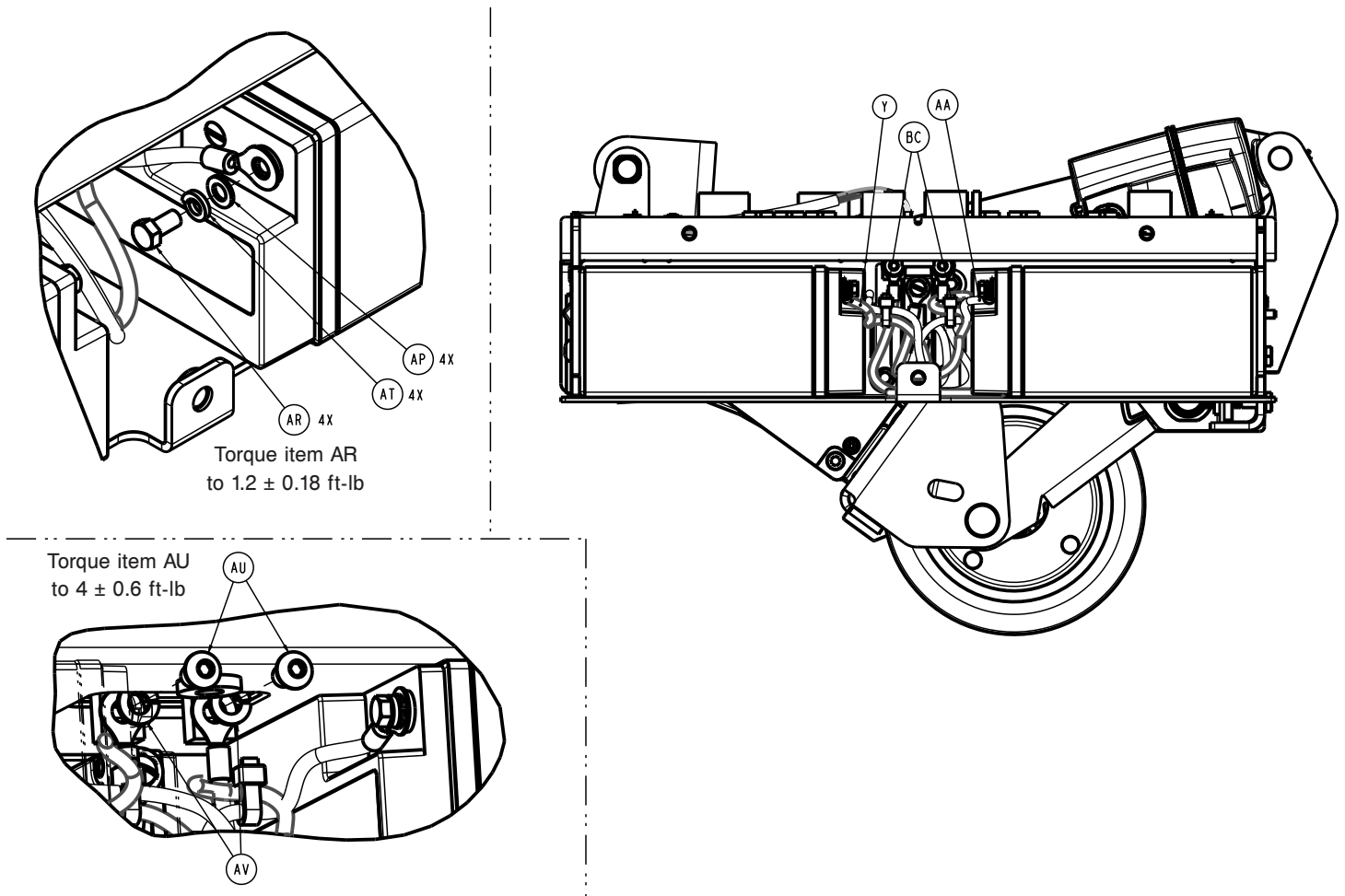


Figure 68 – Removing the batteries

**Note**

- Do not short the battery terminals together.
- Note all wire locations before you disconnect the wires.
- Do not dispose of as unsorted municipal waste. Refer to your local distributor for return or collections systems available in your country.

12. Reverse steps to reinstall.

**Note** - When you reinstall, torque the battery bolt (AR) to  $1.2 \pm 0.18$  ft-lb.

13. Verify proper operation before you return the product to service.

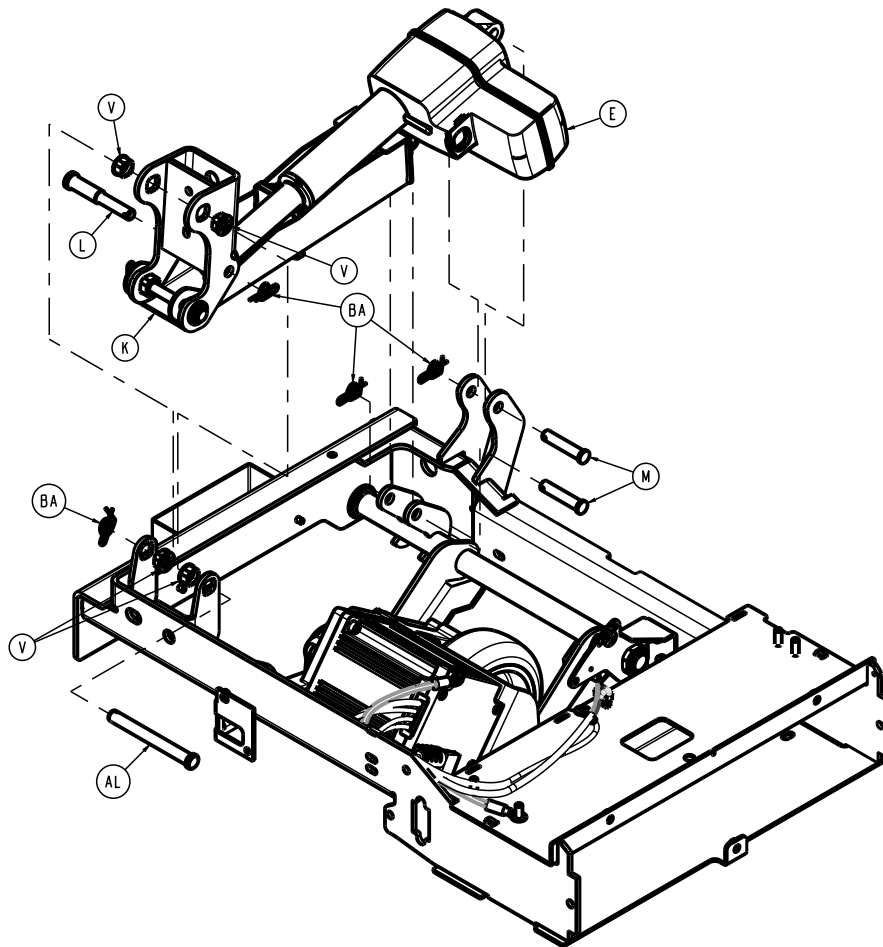
## Zoom actuator replacement

**Tools required:**

- Needle nose pliers
- Small slotted screwdriver

**Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall outlet.
4. Turn off the battery disconnect switch to turn the product off.
5. Trip the Zoom circuit breaker to turn Zoom off.
6. Remove the two push rivets (AG) that secure the outer base cover (H) to the Zoom cover (G) (Figure 65). Save the rivets and outer base cover. Repeat for the opposite side.
7. Lift up from the center to remove the outer base covers. Save the outer base covers.
8. Remove and save the Zoom cover (G) (Figure 65).
9. Using needle nose pliers, remove the rue ring cotter (BA) from the actuator ram pin (L) and clevis pin (AL) (Figure 69). Save the rue ring cotter.



**Figure 69 – Removing the Zoom actuator**

10. Lift up on the Zoom motor drive wheel and remove the clevis pin (AL) and actuator ram pin (L) (Figure 69). Save the clevis pin and ram pin.
11. Using needle nose pliers, remove the rue ring cotter (BA) from the actuator base pin (M) (Figure 69). Save the rue ring cotter.

**Note** - When you reinstall the actuator, install the actuator base pin last.

12. Holding the actuator, remove the actuator base pin (M) (Figure 69). Save the base pin.
13. Using a small slotted screwdriver, remove the actuator cable retainer by pushing out on the retainer. Save the cable retainer.
14. Disconnect the actuator cable.
15. Reverse steps to reinstall.
16. Verify proper operation before you return the product to service.

## Zoom motor/wheel replacement

### Tools required:

- T27 Torx driver
- Ratchet
- 7/16" socket
- Torque wrench
- Needle nose pliers
- Diagonal pliers

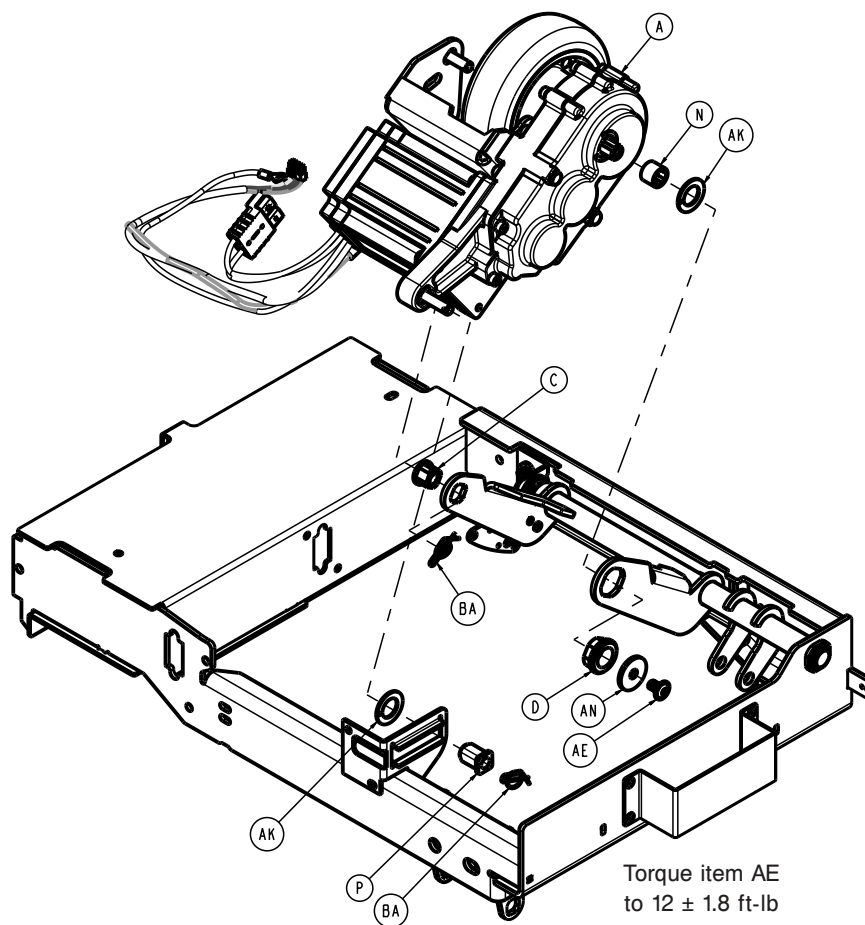
### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.

5. Trip the Zoom circuit breaker to turn Zoom off.
6. Remove the two push rivets (AG) that secure the outer base cover (H) to the Zoom cover (G) (Figure 65). Save the rivets and outer base cover. Repeat for the opposite side.
7. Lift up from the center to remove and save the outer base covers.
8. Remove and save the Zoom cover (G) (Figure 65).
9. Using needle nose pliers, remove the rue ring cotter (BA) from the clevis pin (AL) (Figure 69). Save the rue ring cotter.
10. Lift up on the Zoom motor drive wheel and remove the clevis pin (AL) (Figure 69). Save the clevis pin.
11. Using needle nose pliers, remove the rue ring cotter (BA) from the actuator base pin (M) (Figure 69). Save the rue ring cotter.

**Note** - When you reinstall the actuator, install the actuator base pin last.

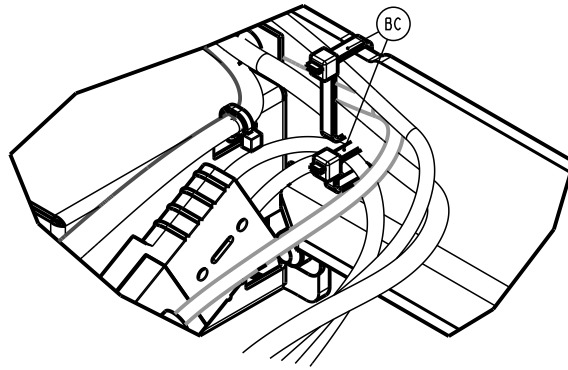
12. Lift up on the actuator spring cartridge and using a T27 Torx driver, remove the screw (AE), washer (AN), and bushing (D) that secure the motor/wheel assembly (A) to the crank weldment (Figure 70). Save the screw, washer, and bushing.



**Figure 70 – Removing the Zoom motor/wheel assembly**

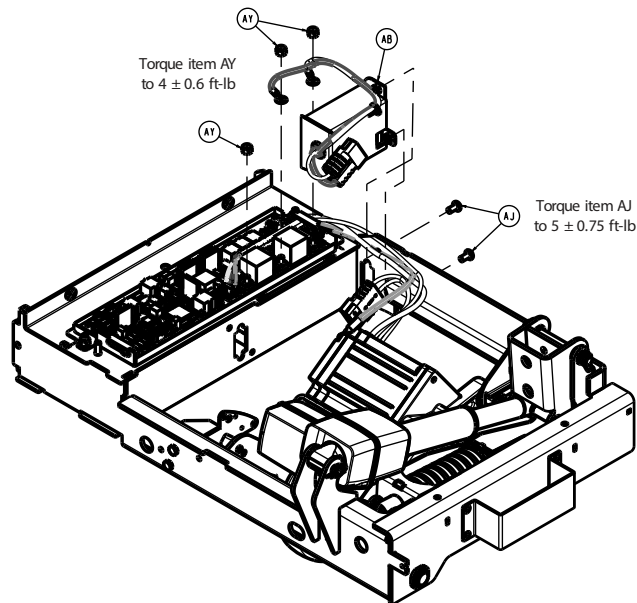
**Note** - When you reinstall, torque the screw (AE) to  $12 \pm 1.8$  ft-lb.

13. Using needle nose pliers, remove the rue ring cotter (BA) from the motor/wheel assembly (A) (Figure 70). Save the rue ring cotter.
14. Using diagonal pliers, cut the two cable ties (BC) that secure the motor cables to the frame weldment.



**Figure 71 – Removing the Zoom motor/wheel assembly**

15. Using a ratchet and 7/16" socket, remove the two nuts (AY) that secure the board cover (B) to the frame weldment (Figure 66). Save the nuts and board cover.
16. Unclip the cable retainer (G) (Figure 67).
17. Using a ratchet and 7/16" socket, remove the nut (AY) that secures the ground wire to the frame weldment (Figure 67 detail B). Save the nut.
18. Using a ratchet and 7/16" socket, remove the nut (AY) that secures the motor power wire to the Zoom control (Figure 72). Save the nut.



**Figure 72 – Removing the motor power wire**

19. Disconnect the motor communication cable from the Zoom control (F) (Figure 67).
20. Disconnect the dual pole power connector.
21. From the patient left side of the bed, lift the motor/wheel assembly left and then up.
22. Reverse steps to reinstall.
23. Verify proper operation before you return the product to service.

## **Zoom control board replacement**

### **Tools required:**

- Ratchet
- 7/16" socket
- Flat blade screwdriver
- 5/32" hex wrench
- ESD system

### **Procedure:**

1. Push down on the brake pedal to apply the brake.

2. Raise the product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Trip the Zoom circuit breaker to turn Zoom off.
6. Remove the two push rivets (AG) that secure the outer base cover (H) to the Zoom cover (G) (Figure 65). Save the rivets and outer base cover. Repeat for the opposite side.
7. Lift up from the center to remove and save the outer base covers.
8. Remove and save the Zoom cover (G) (Figure 65).
9. Using a ratchet and 7/16" socket, remove the two nuts (AY) that secure the board cover (B) to the frame weldment (Figure 66). Save the nuts and board cover.
10. Unclip the cable retainer (G) (Figure 67).
11. Using a ratchet and 7/16" socket, remove the nut (AY) that secures the foot end ground wire to the frame weldment (Figure 67 detail B). Save the nut.
12. Using a ratchet and 7/16" socket, remove the nut (AY) that secures the motor power wires (U, V, W) to the Zoom control board (F) and unclip from the cable retainer (G) (Figure 67). Save the nut.
13. Disconnect the motor communication cable from the Zoom control board (F) and unclip from the cable retainer (G) (Figure 67).
14. Using a ratchet and 7/16" socket, remove the nut (AY) that secures the head end ground wire to the frame weldment (Figure 67 detail B). Save the nut.

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#### CAUTION

- Always use ESD protective equipment before you open antistatic bags and service electronic parts.
  - Do not place unprotected circuit boards on the floor.
- 

15. Disconnect the five cable connections on the head end of the Zoom control board (F) and unclip from the cable retainer (G) (Figure 67).
16. Using a flat blade screwdriver, remove the Zoom control board tray from the frame weldment.
17. Using a 5/32" hex wrench, remove the two screws (AU) and lock washers (AV) from the battery wires to remove the board (Figure 68).

**Note** - When you reinstall, the Zoom control board kit will include a rubber seal pad.

18. Reverse steps to reinstall.
19. Verify proper operation before you return the product to service.

## Zoom drive handle replacement

#### Tools required:

- T25 Torx driver
- T30 Torx driver
- **Syn-Tech** grease (3000-200-179)

#### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the full up position.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.
6. Trip the Zoom circuit breaker to turn Zoom off.
7. Using a T25 Torx driver, remove the two screws (BJ) that secure the litter electronics box cover (E) to the electronics box assembly (Figure 28). Save the screws.
8. Using a T30 Torx driver, remove the two screws (AN) that secure the litter electronics box cover (E) to the electronics box assembly and remove the cover (Figure 28). Save the screws and cover.
9. Disconnect the Zoom handle cable from the main control board connector.
10. Using a T30 Torx driver, remove the two screws (AN) that secure the front head cover (F) (Figure 19). Save the screws and cover.
11. Using a T25 Torx driver, remove the three screws (AA) that secure the Zoom drive handle assembly (P) to the head end litter weldment and remove the Zoom drive handle assembly (P) (Figure 73). Save the screws.



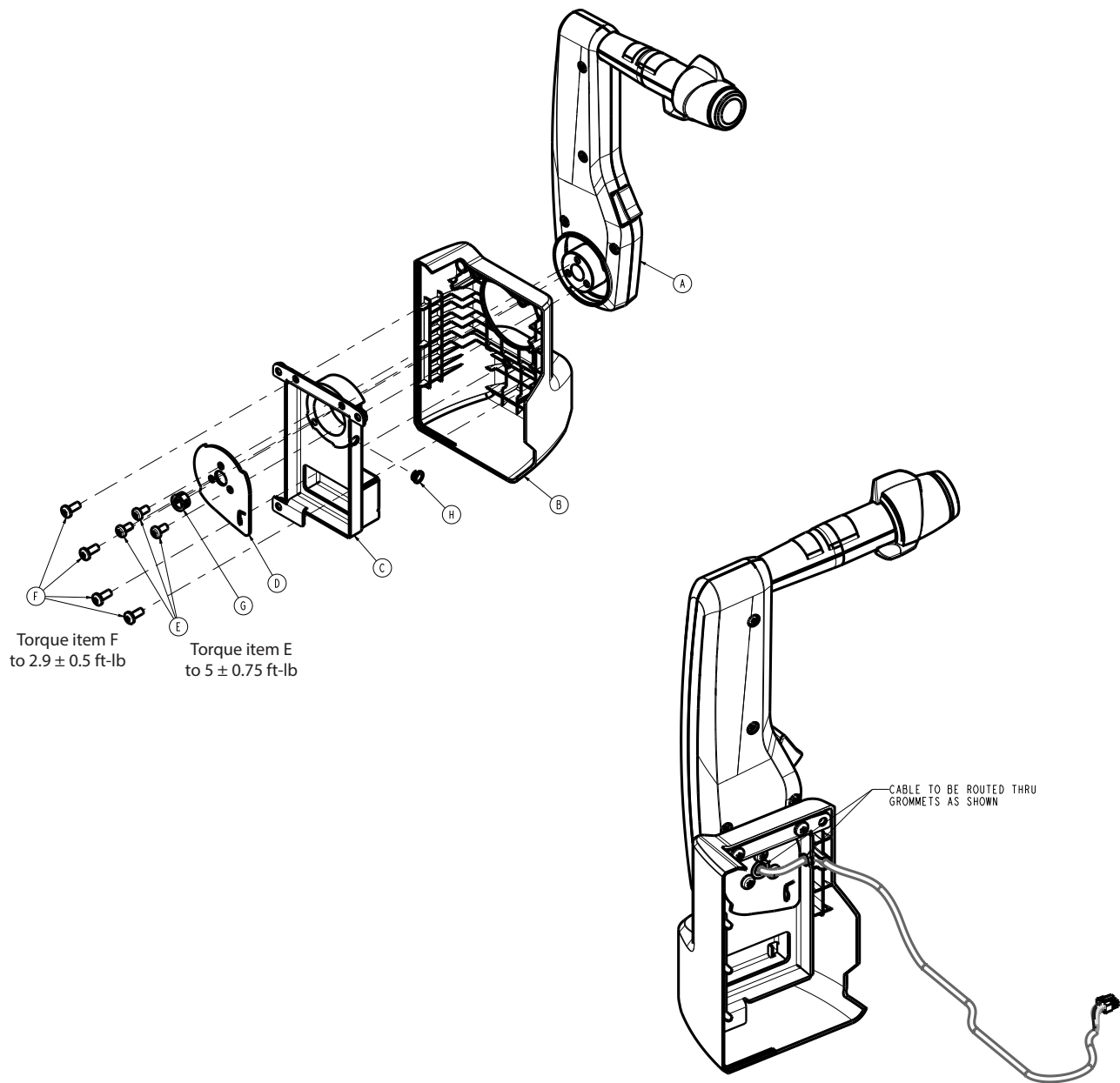


Figure 74 – Removing the Zoom drive handle

13. Reverse steps to reinstall.

14. Verify proper operation before you return the product to service.

### Zoom push handle replacement

#### Tools required:

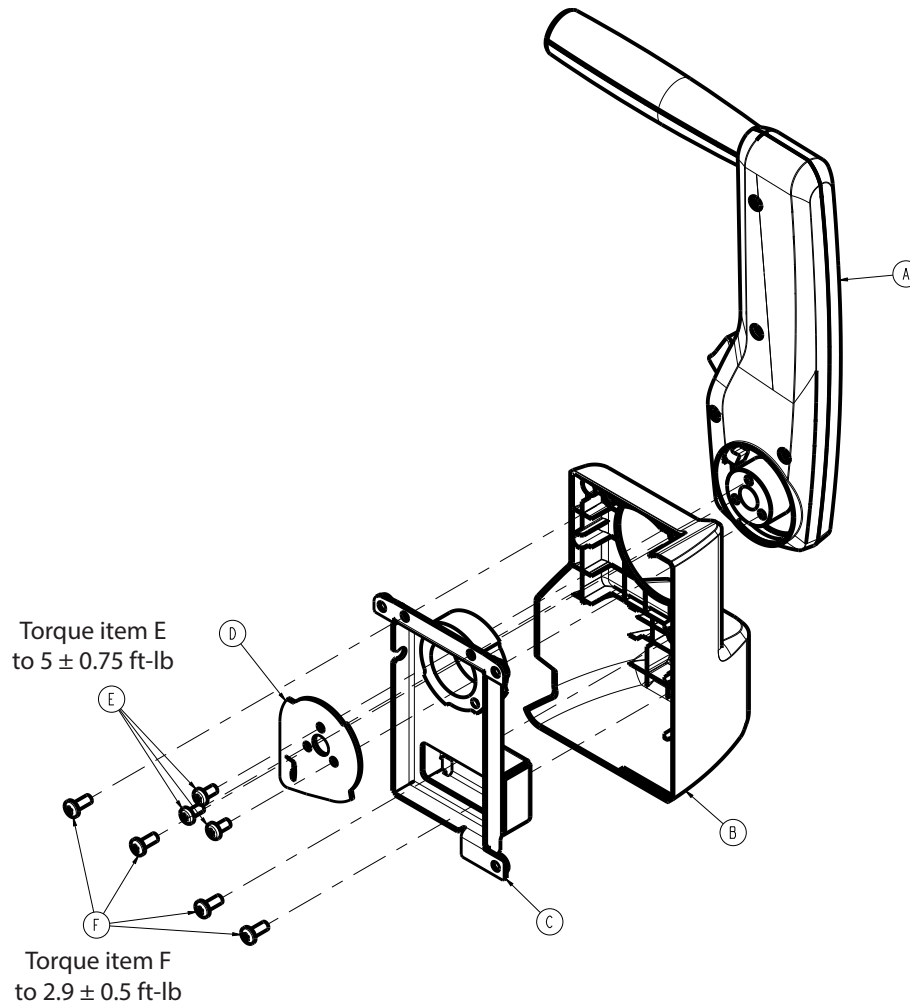
- T25 Torx driver
- T30 Torx driver
- **Syn-Tech** grease (3000-200-179)

#### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the full up position.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.
6. Trip the Zoom circuit breaker to turn Zoom off.

7. Using a T30 Torx driver, remove the two screws (AN) that secure the front head cover (G) (Figure 19). Save the screws and cover.
8. Using a T25 Torx driver, remove the three screws (AA) that secure the Zoom push handle assembly (R) to the head end litter weldment and remove the Zoom push handle assembly (R) (Figure 73). Save the screws.
9. Using a T30 Torx driver, remove the three screws (E) that secure the Zoom push handle (A) to the bumper (B) and remove the pivot plate (D) (Figure 75). Save the pivot plate and screws.

**Note** - When you reinstall the Zoom push handle assembly, make sure that you apply **Syn-Tech** grease to the pivot area of the handle.



**Figure 75 – Removing the Zoom push handle**

10. Reverse steps to reinstall.
11. Verify proper operation before you return the product to service.

### **Havasu IV pole, two-stage, single attachment**

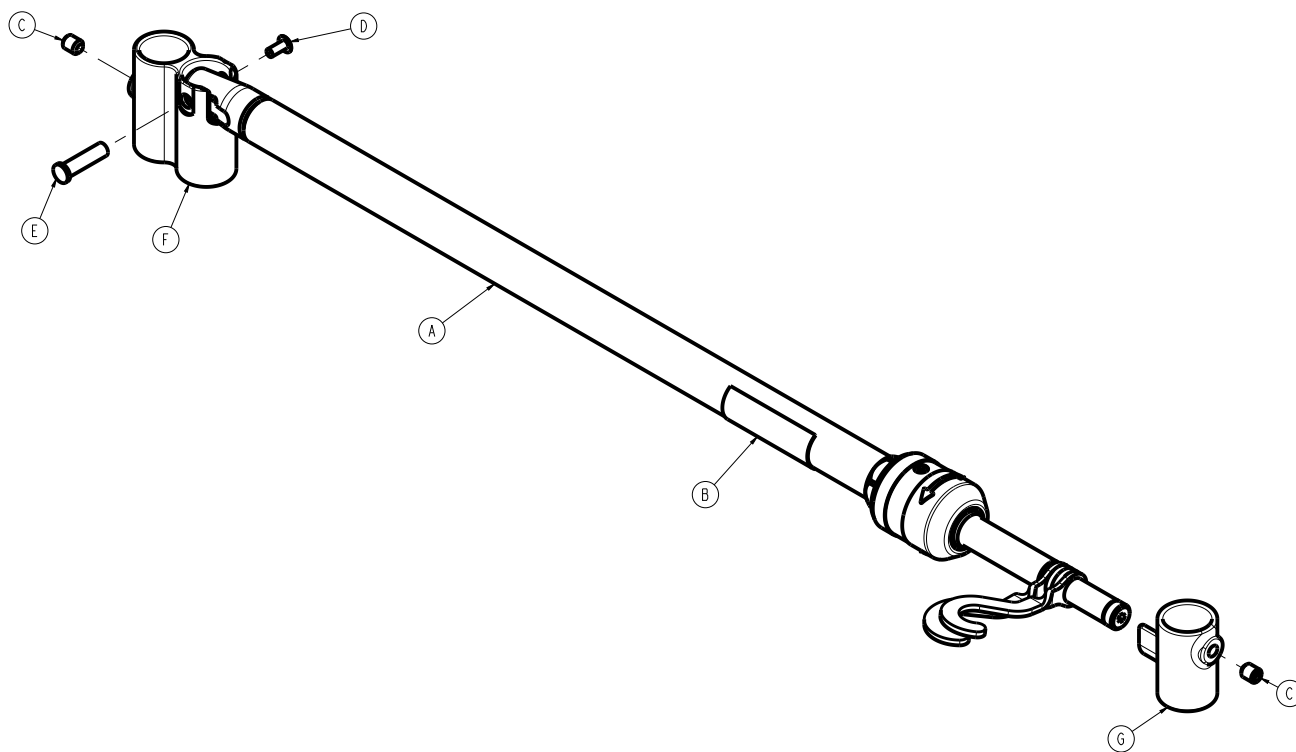
#### **Tools required:**

- 5/32" hex wrench
- Tape measure

#### **Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall outlet.
4. Turn off the battery disconnect switch to turn the product off.
5. Remove the headboard.
6. At the head end of the product, attach the IV pole on the chosen side with the base down so that it rests on the litter frame.

7. Using a 5/32" hex wrench, tighten the set screw (C) to secure the IV receptacle (F) to the bed IV post (Figure 76).



**Figure 76 – Attaching the single IV pole**

8. Attach the IV rest (G) on the opposite side, so that the IV pole (A) sets into the IV rest (G).
9. Using a 5/32" hex wrench and a tape measure, tighten the set screw (C) to secure the IV rest (G) to the bed IV post.
- Note** - Make sure that the IV rest (G) is secured 1-1/4" down from the top of the bed IV post.
10. Reverse steps 1-5.
11. Verify proper operation before you return the product to service.

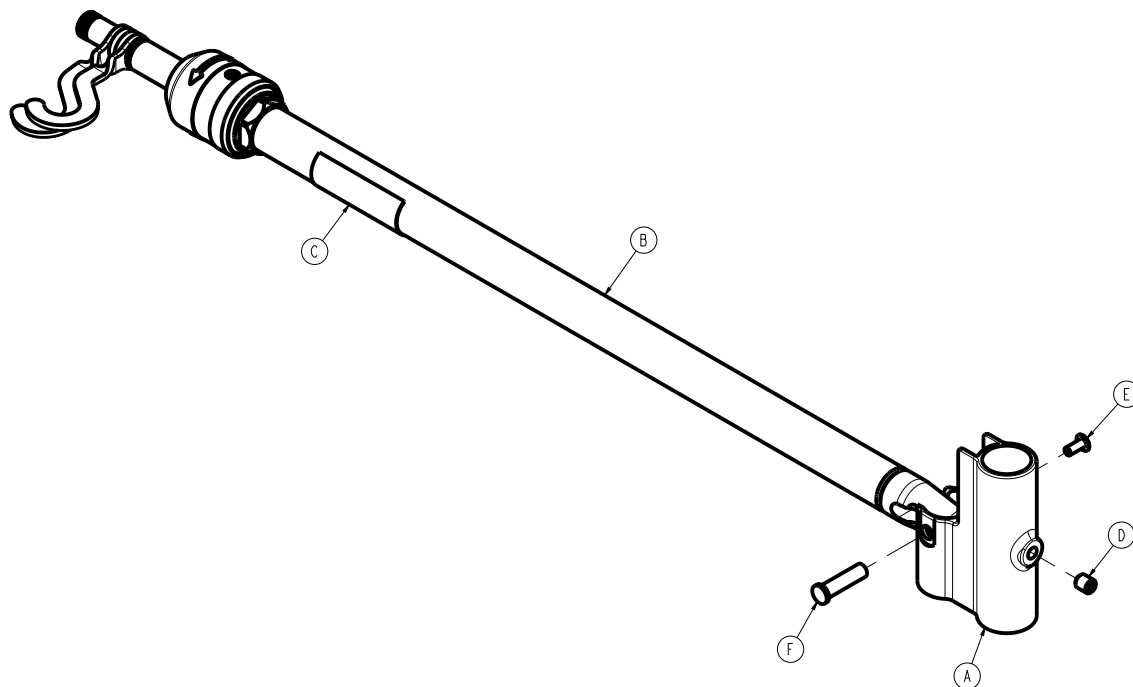
### **Havasu IV pole attachment, two-stage, dual**

#### **Tools required:**

- 5/32" hex wrench

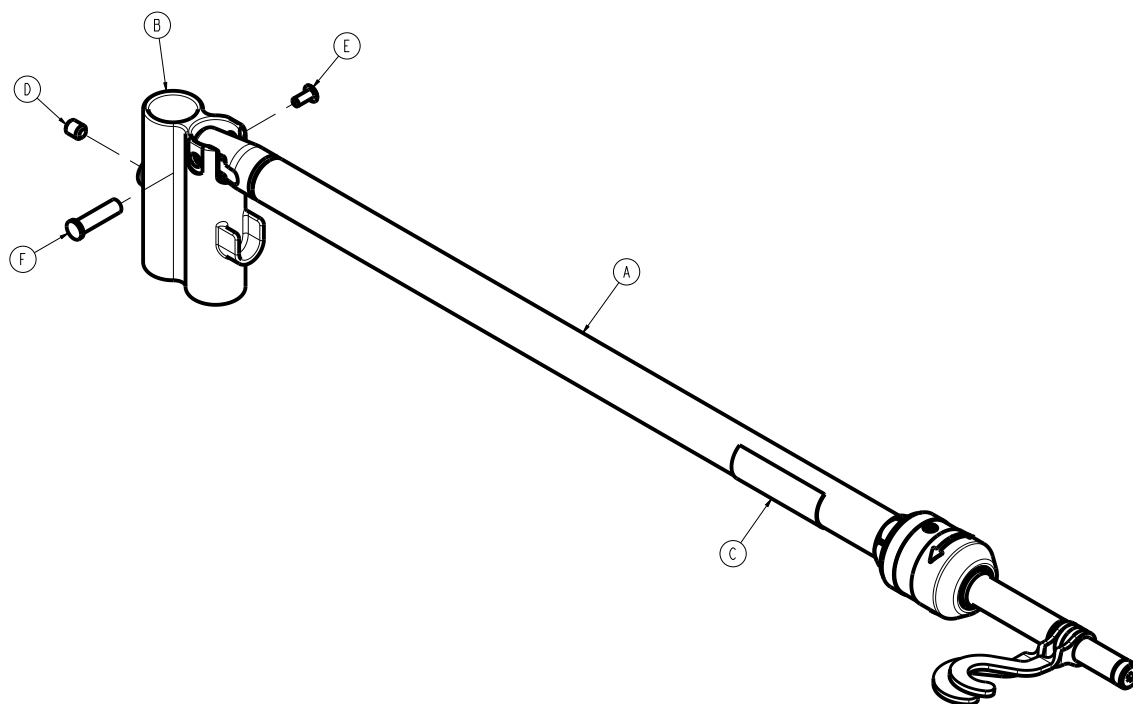
#### **Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Remove the headboard.
6. At the head end of the product, attach the IV pole (short IV pivot) on the chosen side with the base down so that it rests on the litter frame.
7. Using a 5/32" hex wrench, tighten the set screw (D) to secure the bottom IV receptacle (A) to the bed IV post (Figure 77).



**Figure 77 – Attaching the dual IV pole, bottom**

8. Attach the IV pole (tall IV pivot) on the opposite side with the base down so that it rests on the litter frame.
9. Using a 5/32" hex wrench, tighten the set screw (D) to secure the top IV receptacle (B) to the bed IV post (Figure 78).



**Figure 78 – Attaching the dual IV pole, top**

10. Reverse steps 1-5.
11. Verify proper operation before you return the product to service.

### **Patient helper bracket attachment**

A minimum of two operators is recommended for this task.

#### **Tools required:**

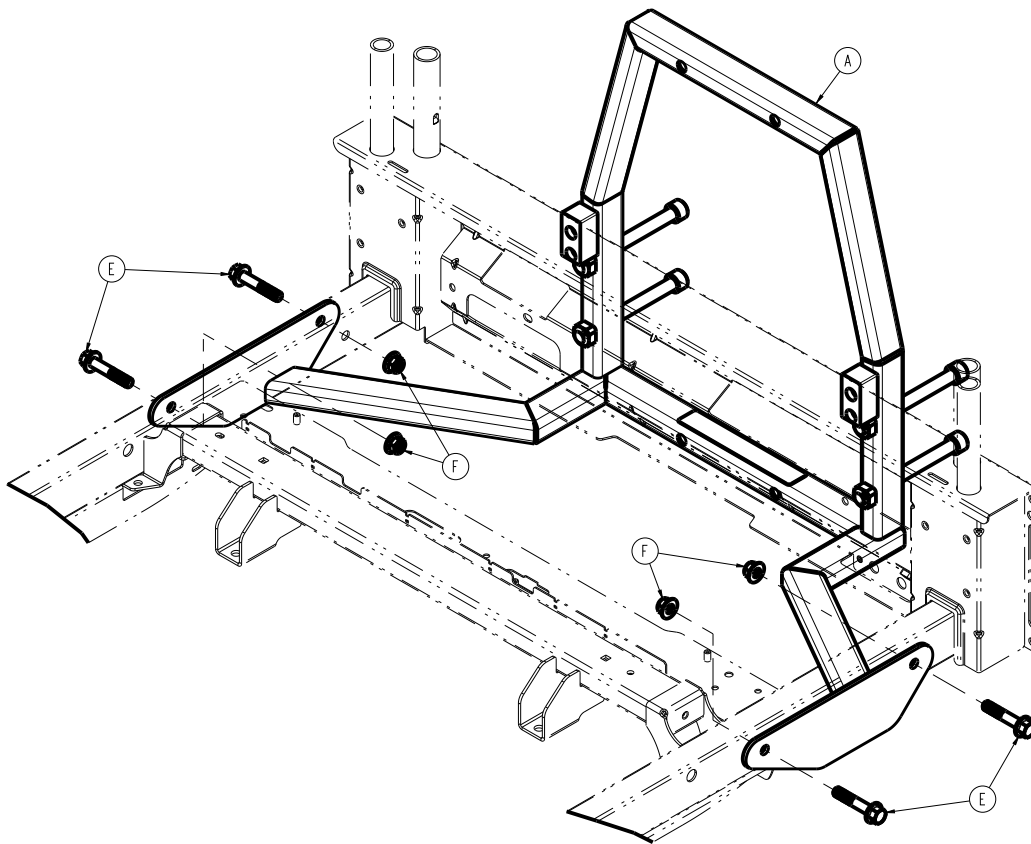
- 9/16" combination wrench

- 9/16" socket
- Torque wrench (in-lb)
- Ratchet
- Small slotted screwdriver

**Note** - Available for non-Zoom models only.

**Procedure:**

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall outlet.
4. Turn off the battery disconnect switch to turn the product off.
5. Using a small slotted screwdriver, remove the four litter plugs toward the head end of the product. See the hex screws (E) for the litter plug locations (Figure 79). Discard the litter plugs.
6. Hold the patient helper weldment (A), with help from another person, upright at the head end of the product.
7. Insert the four hex screws (E) through the patient helper weldment (A) and litter frame and thread on the four hex nuts (F).



**Figure 79 – Attaching the patient helper bracket**

8. Using a 9/16" combination wrench, ratchet, and 9/16" socket, tighten the four hex screws (E) and four hex nuts (F).

**Note** - Do not pinch cables during fastener assembly.

9. Using a torque wrench, 9/16" socket, and 9/16" combination wrench, torque the four hex screws (E) and four hex nuts (F) to 48-72 in-lb.
10. Reverse steps 1-4.
11. Verify proper operation before you return the product to service.

**Roller bumper attachment**

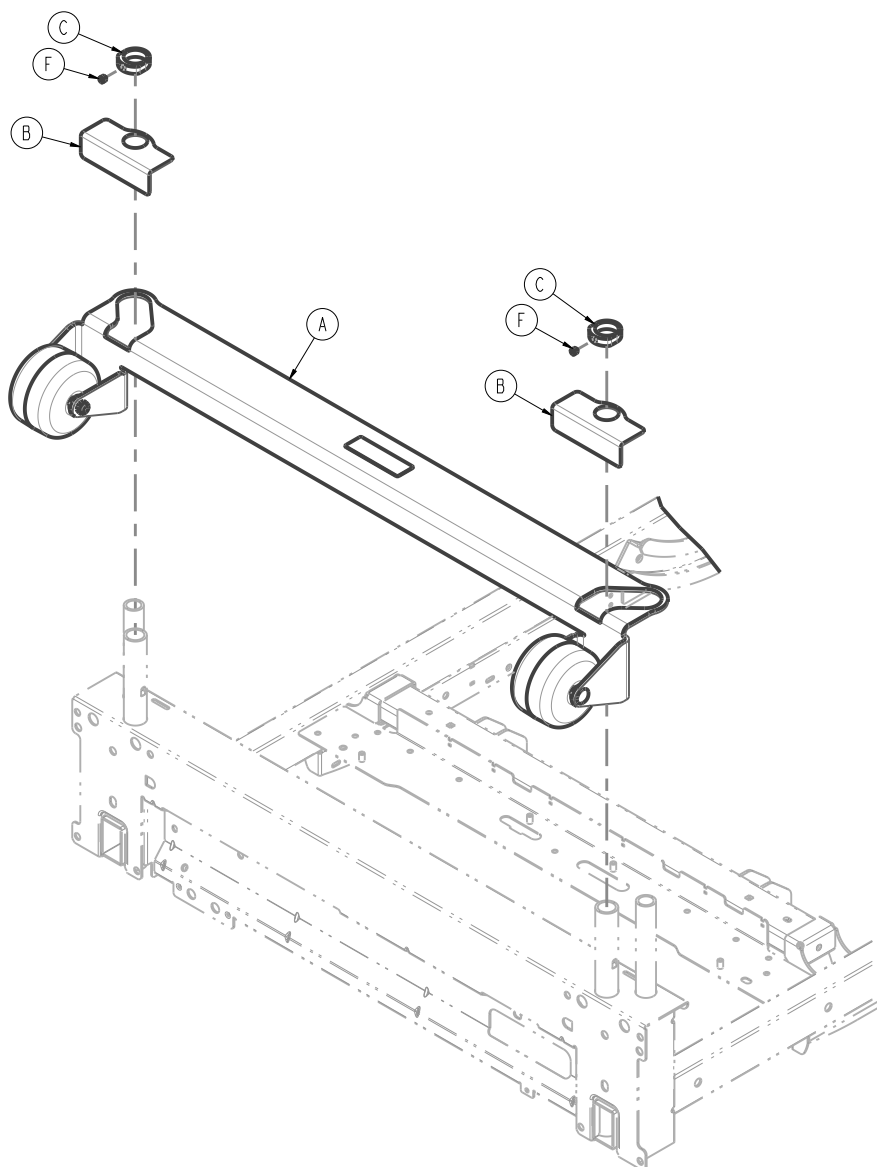
**Tools required:**

- 1/8" hex wrench

**Procedure:**

**Note** - The roller bumper is not available for the Zoom option.

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Unplug the product from the wall.
4. Turn off the battery disconnect switch to turn the product off.
5. Remove the headboard.
6. For products equipped with Havasu IV pole options, see *Havasu IV pole, two-stage, single attachment* (page 82) or *Havasu IV pole attachment, two-stage, dual* (page 83) for removal instructions.
7. At the head end of the product, attach the roller bumper (A) to the bed IV post (Figure 80).



**Figure 80 – Attaching the roller bumper**

8. Slide the retaining bracket (B) over each side of the roller bumper (Figure 80).
9. Slide the lock collar (C) over each side of the roller bumper (Figure 80).
10. For products equipped with Havasu IV pole options, see *Havasu IV pole, two-stage, single attachment* (page 82) or *Havasu IV pole attachment, two-stage, dual* (page 83) for reinstallation instructions.
11. While you press down on the lock collar (C), use the 1/8" hex wrench to tighten the set screw (F) (Figure 80). If your product is equipped with the IV pole option, use the base of the IV pole to push down on the lock collar (C).
12. Verify proper operation before you return the product to service.

## Pendant attachment, basic or advanced

### Tools required:

- T30 Torx driver

### Procedure:

1. Push down on the brake pedal to apply the brake.
2. Raise the product to the highest height position.
3. Raise the Fowler to the full up position.
4. Unplug the product from the wall.
5. Turn off the battery disconnect switch to turn the product off.
6. Raise the head end patient right siderail to the up and locked position.
7. Using a T30 Torx driver, remove the two screws (F) that secure the pendant connector (E) to the Fowler (Figure 81).

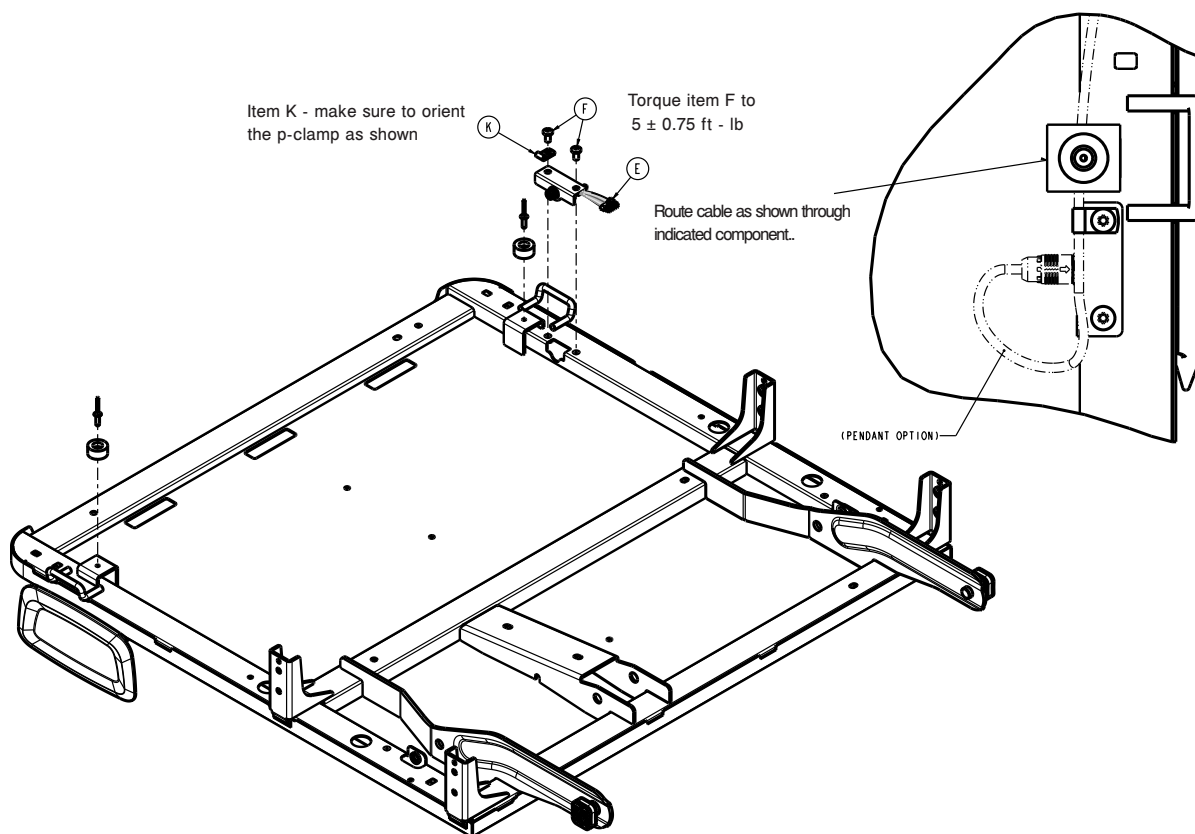


Figure 81 – Attaching the pendant

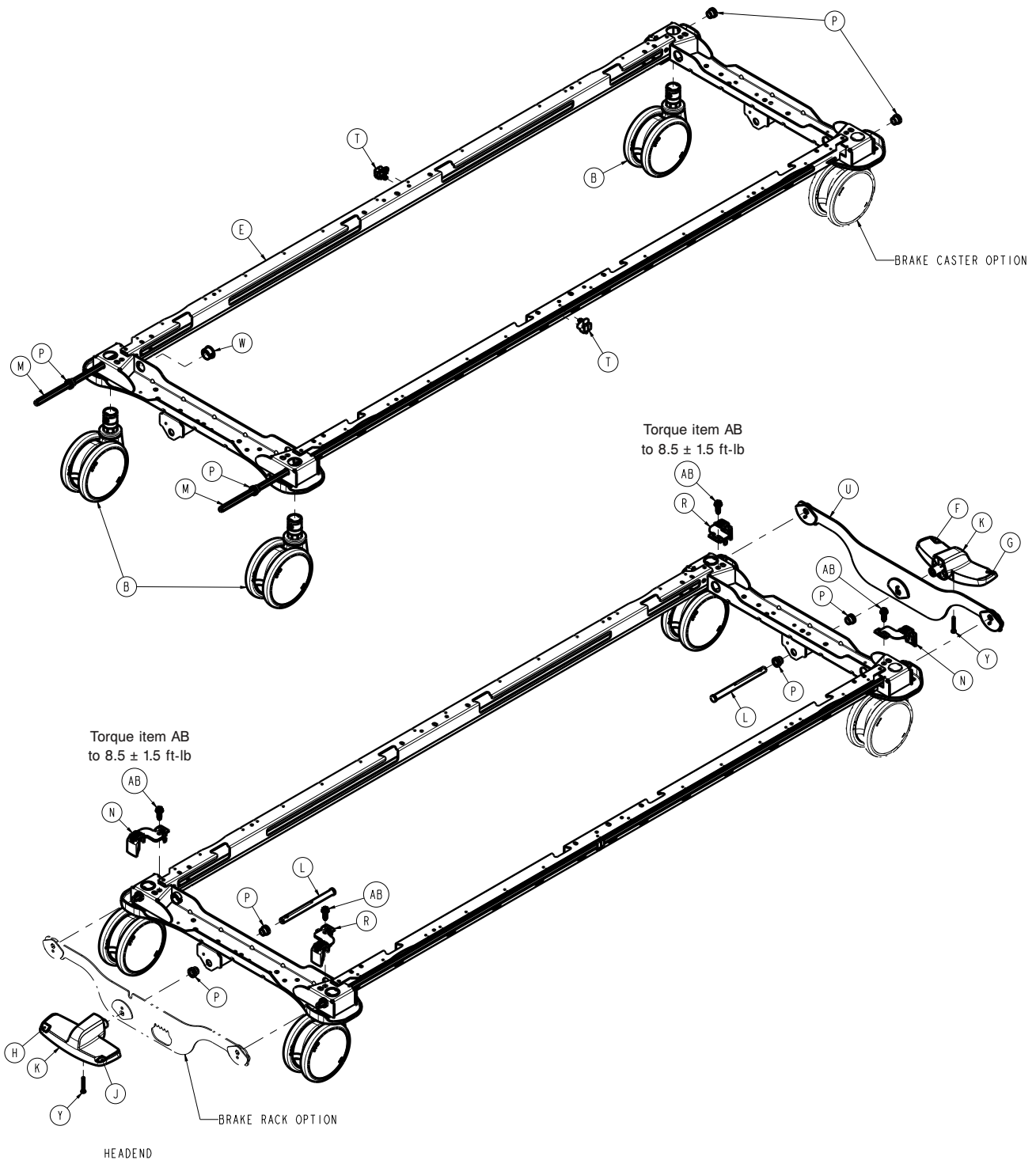
8. Route the pendant cable through the Fowler weldment (Figure 81).
9. Using a T30 Torx driver, install the two screws (F) that secure the pendant connector (E) to the Fowler (Figure 81).

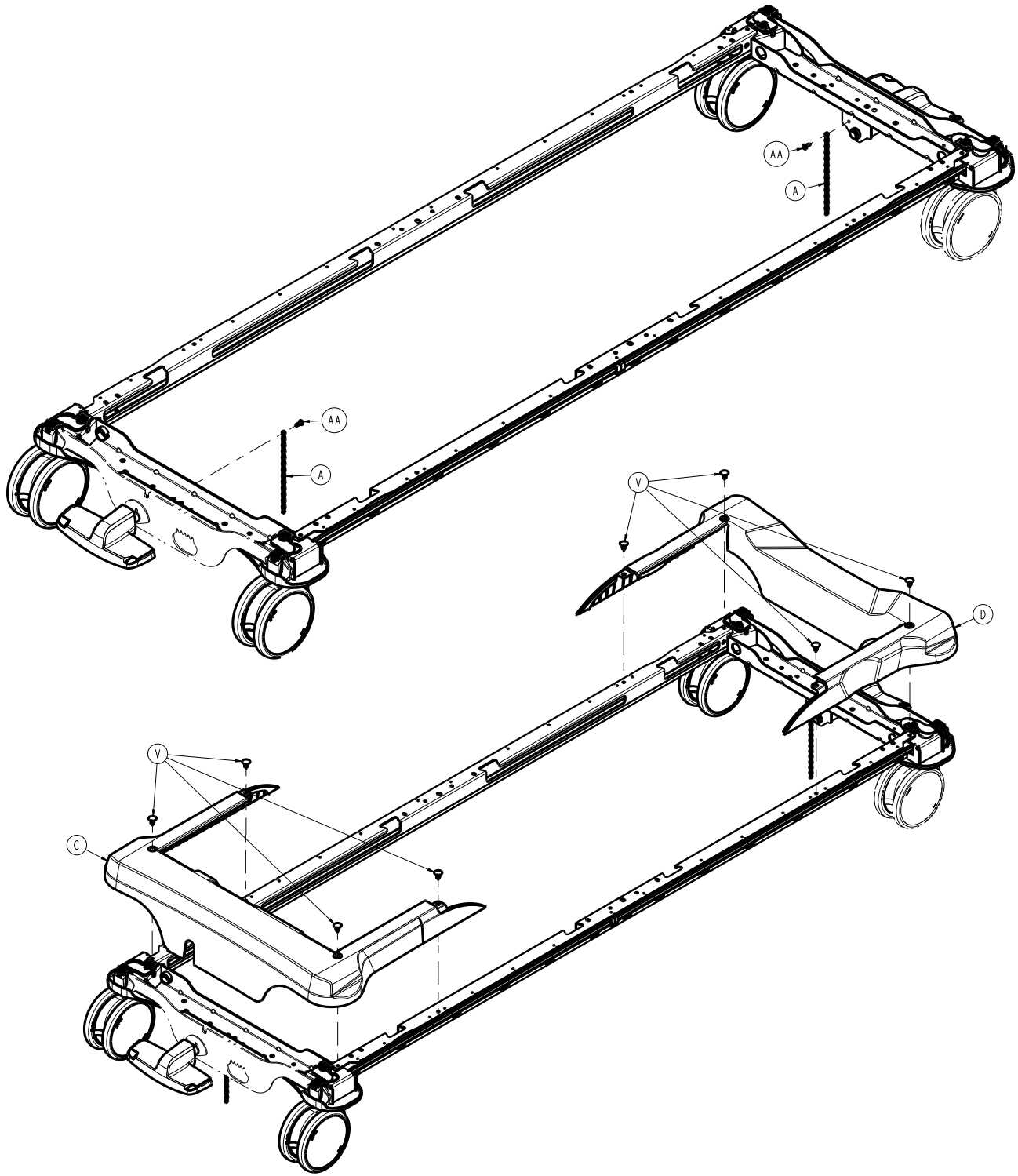
**Note** - When you install the head end screw, install the supplied p-clamp (K) over the pendant cable. Leave a service loop, and then tighten the screw (Figure 81).

10. Plug in the pendant to the pendant port.
11. Plug the product into the wall.
12. Turn on the battery disconnect switch to turn the product on.
13. At the footboard display, enter the service screen to modify the bed configuration by enabling the pendant option.
14. Exit out to the Home screen.
15. Verify proper operation before you return the product to service.

## Base/brakes common components assembly

300900010200 Rev AB (Reference only)



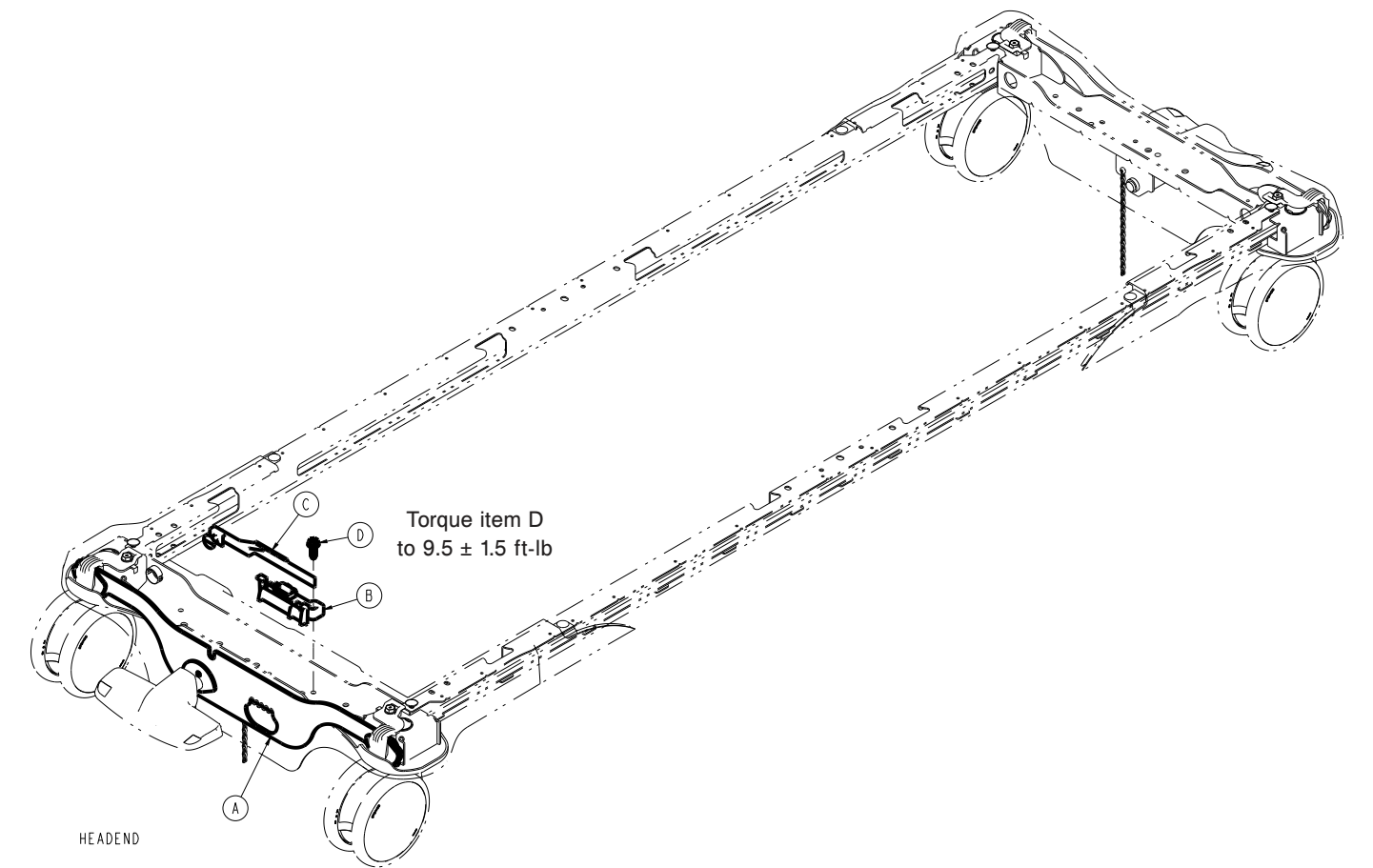


Item	Number	Name	Quantity
A	300900010011	Base ground chain	2
B	300900010021	Base standard caster	3
C	300900010031	Base cover, head end	1
D	300900010032	Base cover, foot end	1
E	300900010100	Base weldment	1
F	300900030006	Label, foot end brake pedal, green	1
G	300900030007	Label, foot end brake pedal, red	1

Item	Number	Name	Quantity
H	300900030008	Label, head end brake pedal, green	1
J	300900030009	Label, head end brake pedal, red	1
K	300900030011	Brake pedal	2
L	300900030012	Brake pedal shaft	2
M	300900030023	Brake hex shaft	2
N	300900030024	Brake hex shaft retainer, left	2
P	300900030026	Brake shaft flange bearing	8
R	300900030027	Brake hex shaft retainer, right	2
T	300900030028	Brake hex shaft spacer	2
U	300900030065	Foot end brake rack assembly	1
V	300900010009	Push-in tree clip	8
W	700000493196	Bushing	1
Y	700000533859	Pan head thread forming screw	2
AA	700000668696	Pan head thread cutting screw	2
AB	0023-288-000	Hex washer head screw	4

Manual brakes base assembly

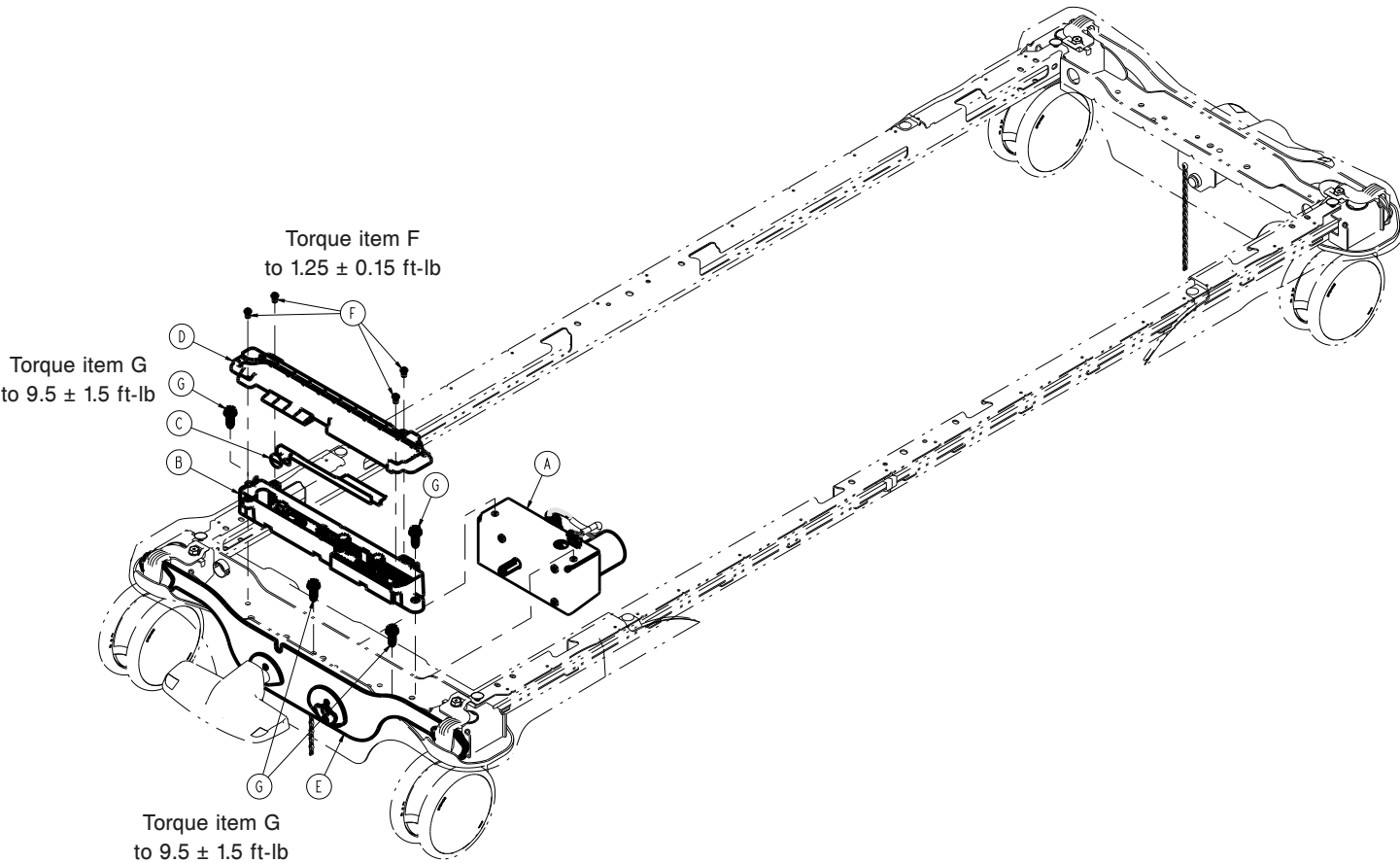
300900030100 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900030060	Manual brakes rack head end assembly	1
B	300900030140	Manual brakes switch assembly	1
C	300900030141	Manual brakes cam	1
D	0023-288-000	Hex washer head screw	1

Electric brakes common components assembly

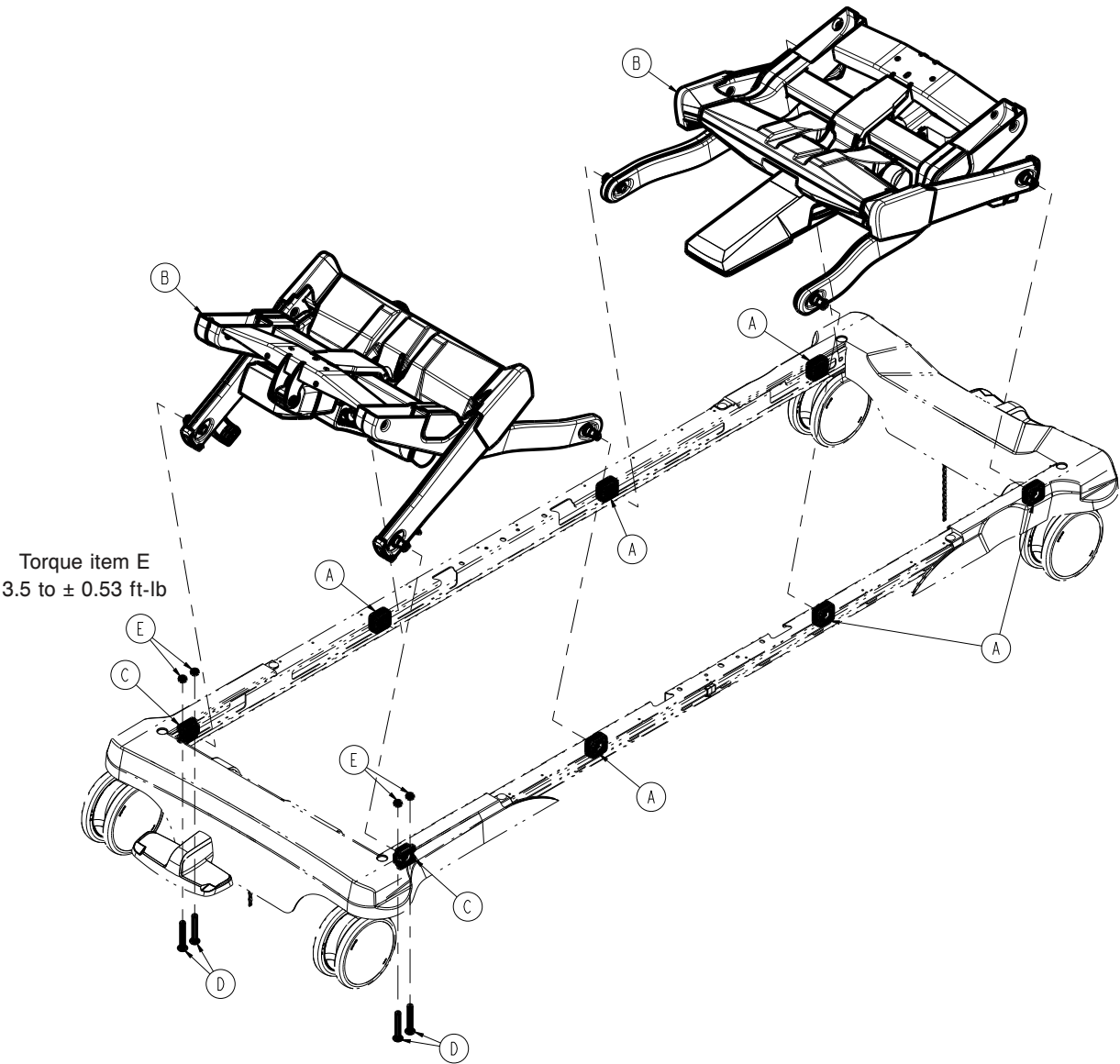
300900030300 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900030020	Electric brakes motor assembly	1
B	300900030040	Electric brakes cam enclosure assembly	1
C	300900030041	Electric brakes cam	1
D	300900030042	Electric brakes cam top enclosure	1
E	300900030055	Electric brakes rack assembly, head end	1
F	0004-505-000	Button head cap screw	4
G	0023-288-000	Hex washer head screw	4

# Lift common components assembly

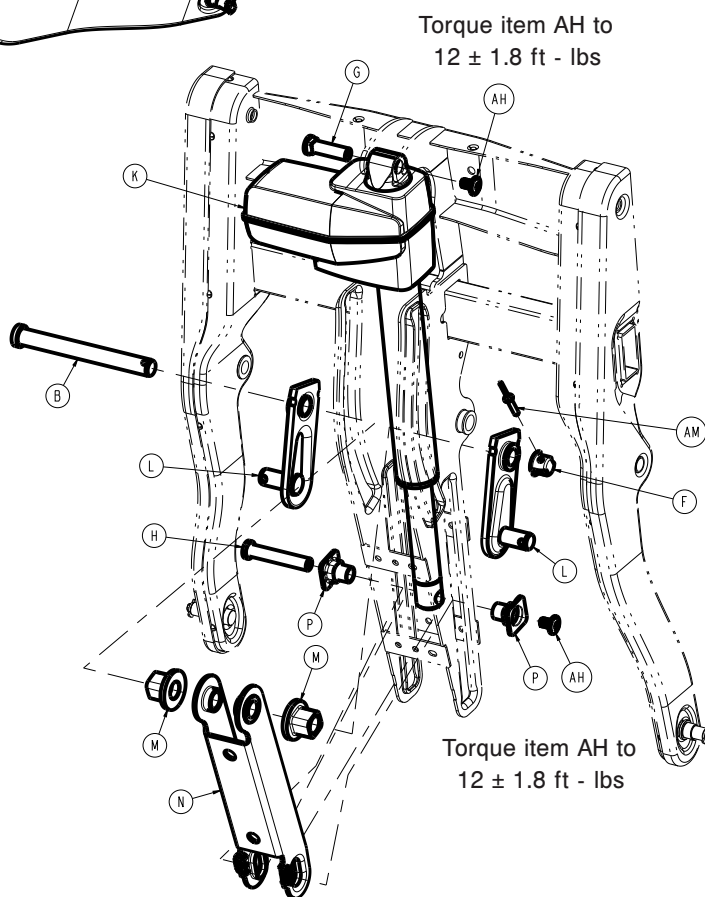
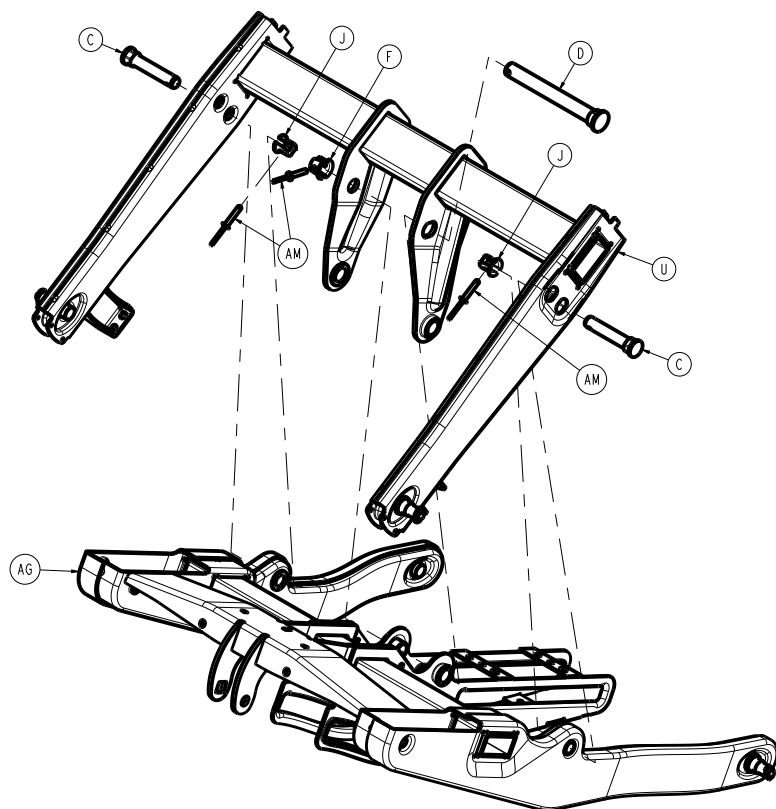
300900020250 Rev AB (Reference only)

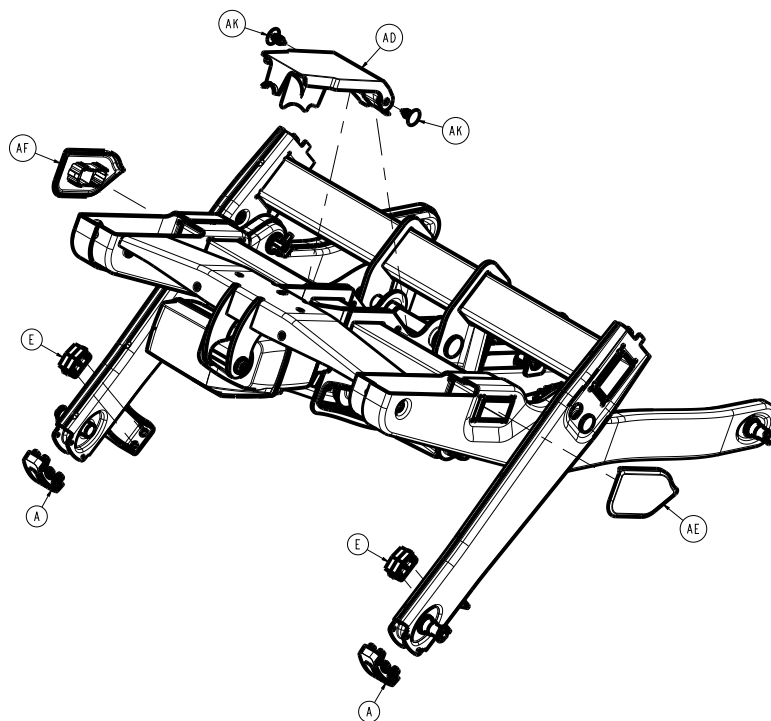
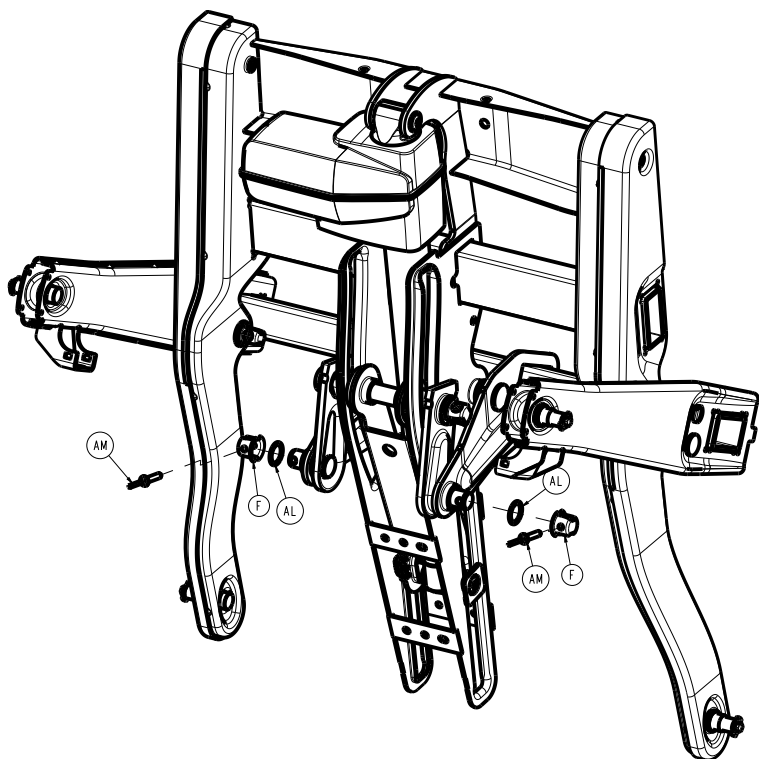


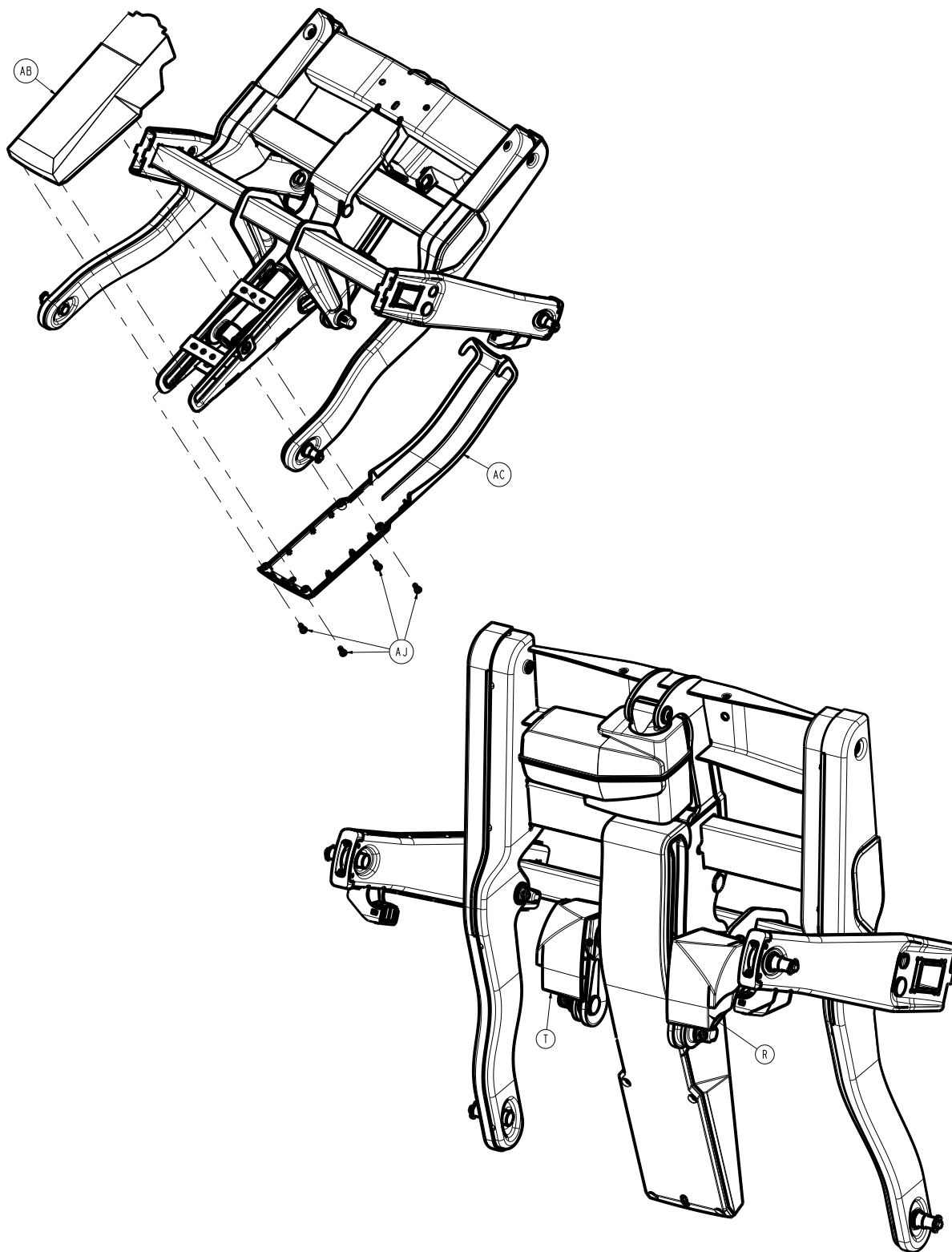
Item	Number	Name	Quantity
A	300900020031	Lift slider	6
B	300900020100	Lift assembly - 300900020100 (page 94)	2
C	300901020032	Lift fixed pivot	2
D	700000333334	Round head square neck bolt	4
E	0016-102-000	Nylock hex jam nut	4

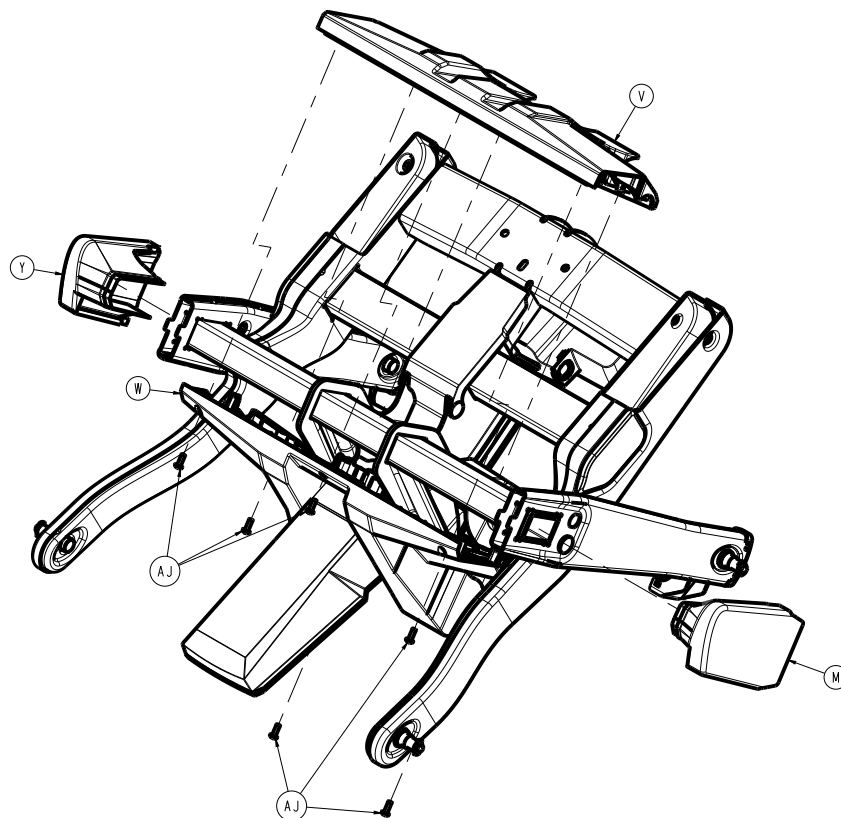
# Lift assembly - 300900020100

Rev AB (Reference only)







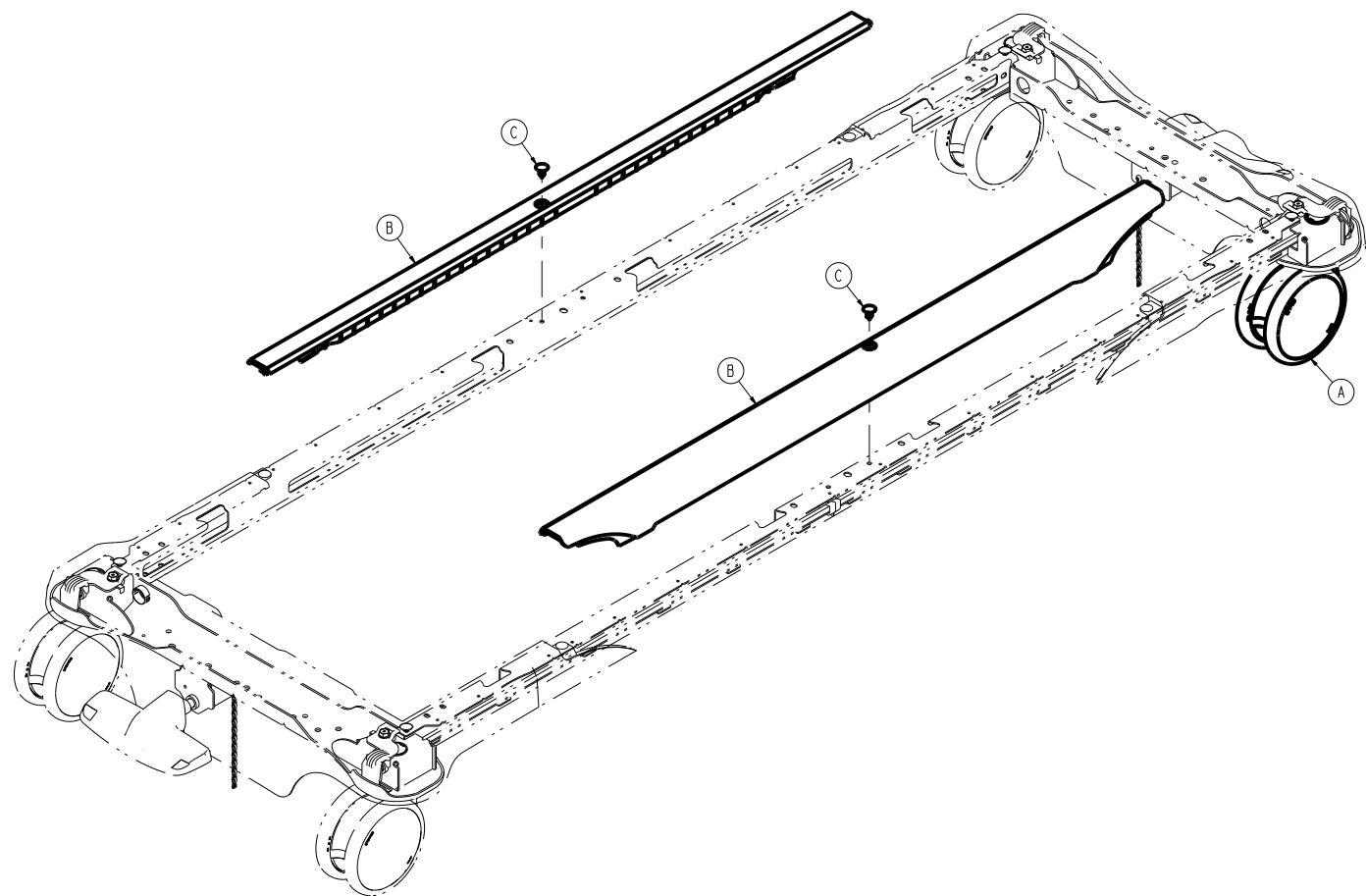


Item	Number	Name	Quantity
A	300900020019	Lift cable bushing	2
B	300900020021	Lift link pivot pin	1
C	300900020022	Lift lateral pivot pin	2
D	300900020023	Lift central pivot pin	1
E	300900020033	Lift hard stop	2
F	300900020034	Lift joint cap, big	4
G	300900020037	Lift actuator rear pin	1
H	300900020038	Lift actuator front pin	1
J	300900020039	Lift joint cap, small	2
K	300900020040	Lift actuator	1
L	300900020050	Compression link lift assembly	2
M	300900020057	Lift compression link slider	2
N	300900020060	Lift tension link assembly	1
P	300900020062	Lift tension link slider	2
R	300900020070	Compression link cover assembly, right	1
T	300900020080	Compression link cover assembly, left	1
U	300900020120	Lift short arm assembly	1
V	300900020121	Lift short arm top cover	1
W	300900020122	Lift short arm bottom cover	1
Y	300900020123	Lift short arm outer cover, right	1
AA	300900020124	Lift short arm outer cover, left	1
AB	300900020171	Lift long arm top cover	1
AC	300900020172	Lift long arm bottom cover	1
AD	300900020173	Lift long arm upper cover	1

Item	Number	Name	Quantity
AE	300900020174	Lift long arm end cap, right	1
AF	300900020176	Lift long arm end cap, left	1
AH	700000244087	Flanged button head cap screw	2
AJ	700000492445	Pan head tap flanged screw	10
AK	300900010009	Push-in tree clip	2
AL	700000538326	Washer	2
AM	700000233246	Rivet	6

Non-Zoom brakes common components assembly

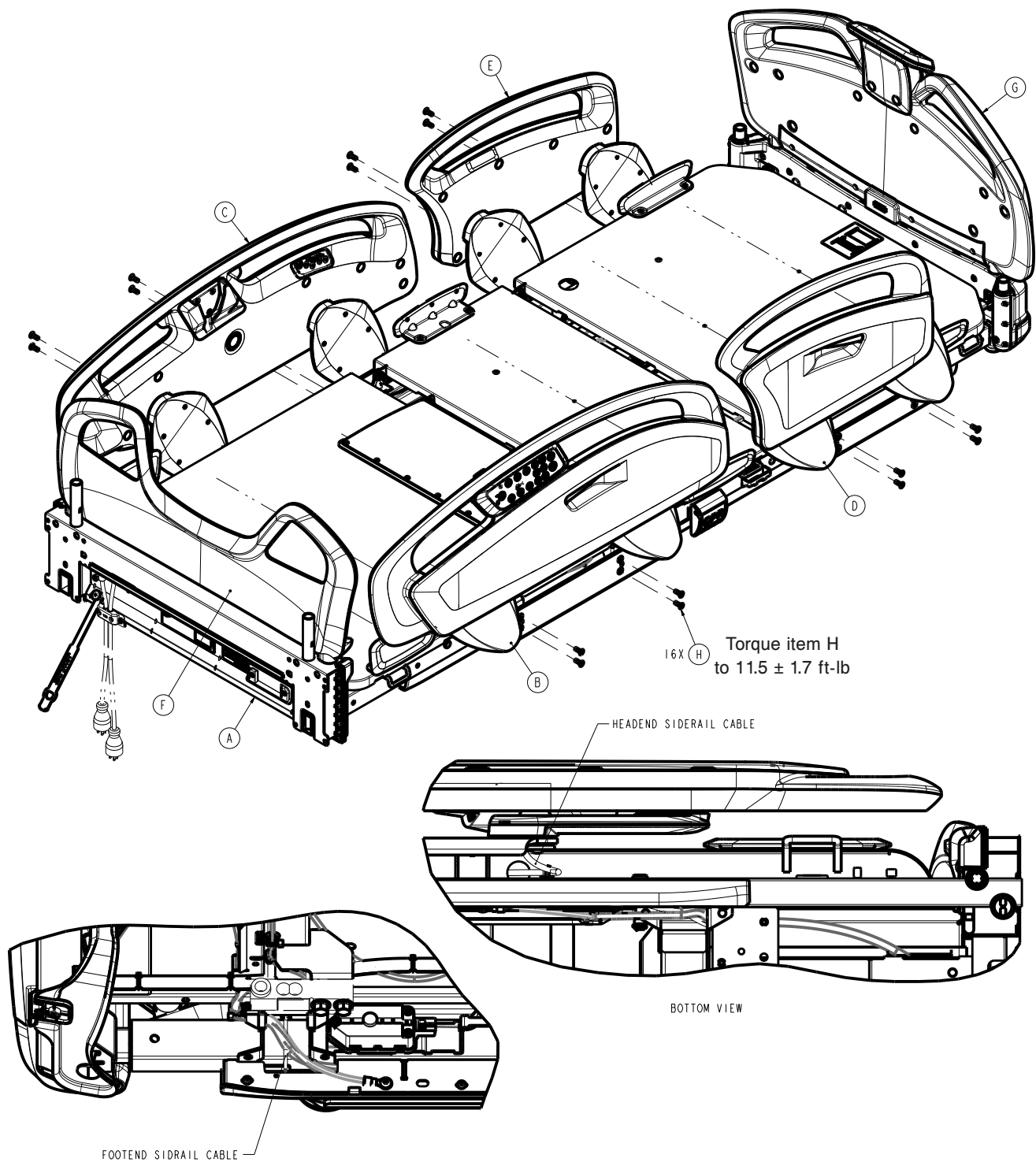
300900030200 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900010022	Base steer caster	1
B	300900010033	Base rail cover	2
C	700000492453	Tree clip	2

Litter common components assembly

300900100250 Rev AC (Reference only)

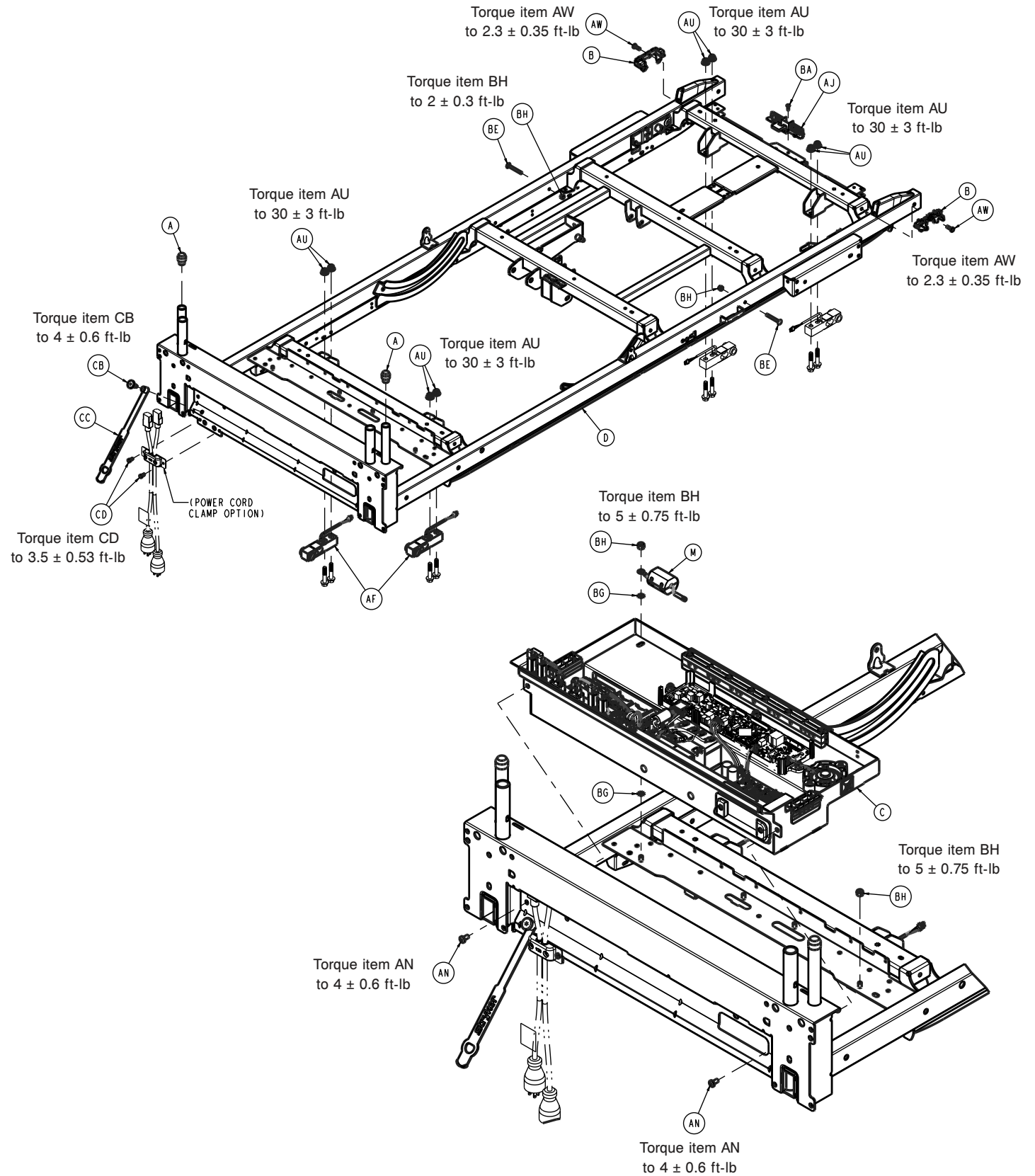


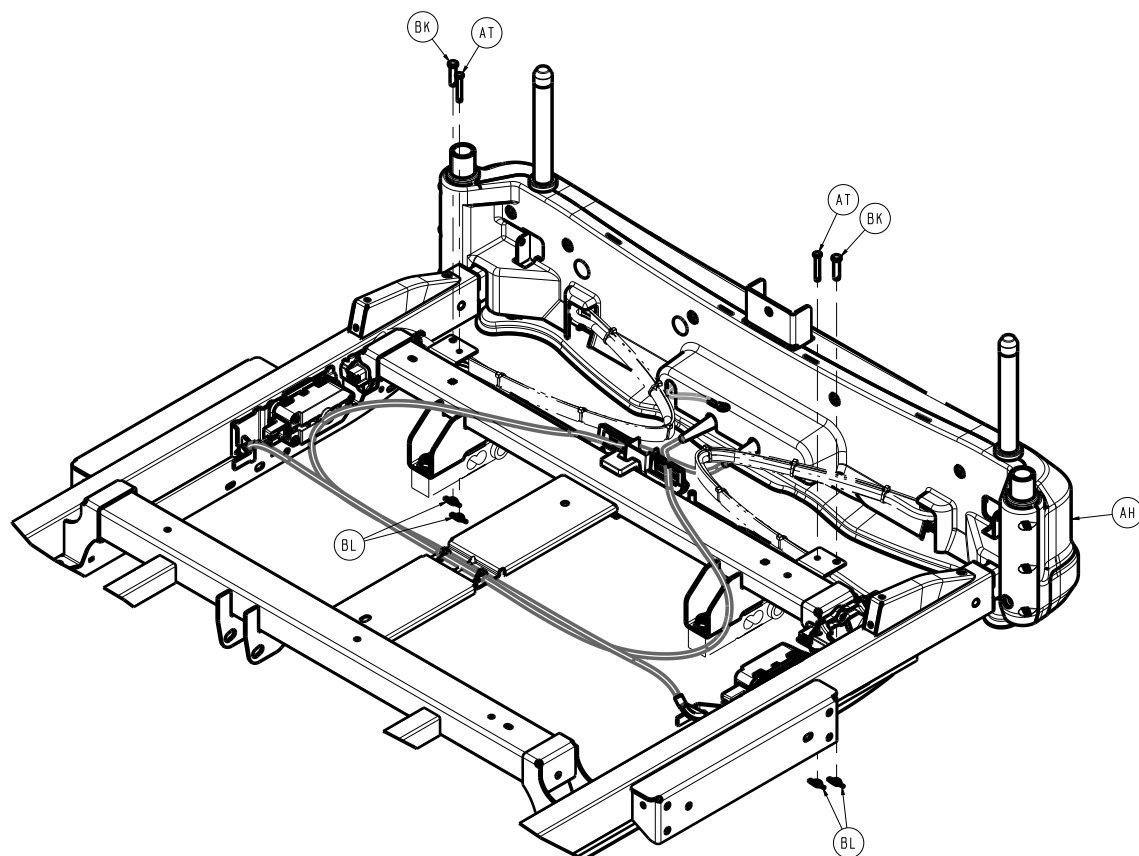
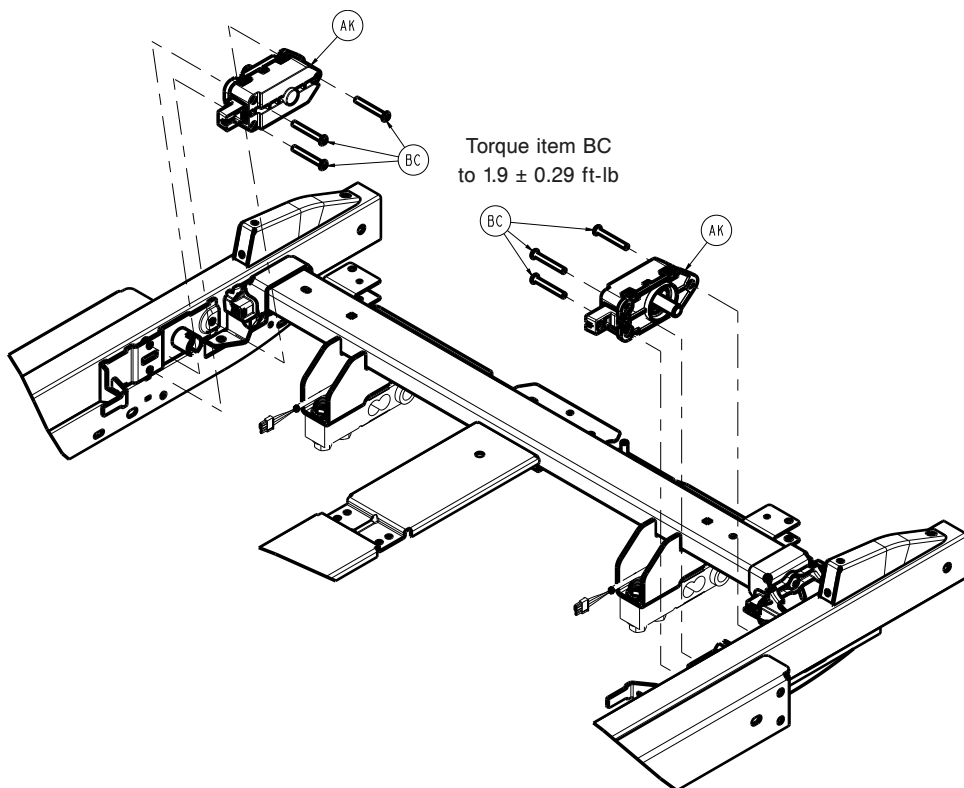
Item	Number	Name	Quantity
A	300900100300	Litter deck common components assembly (page 102)	1
B	300900110100	Siderail assembly, head end (page 171), right	1
C	300900110200	Siderail assembly, head end (page 171), left	1
D	300901110300	Siderail assembly, foot end (page 179), right	1
E	300901110400	Siderail assembly, foot end (page 179), left	1

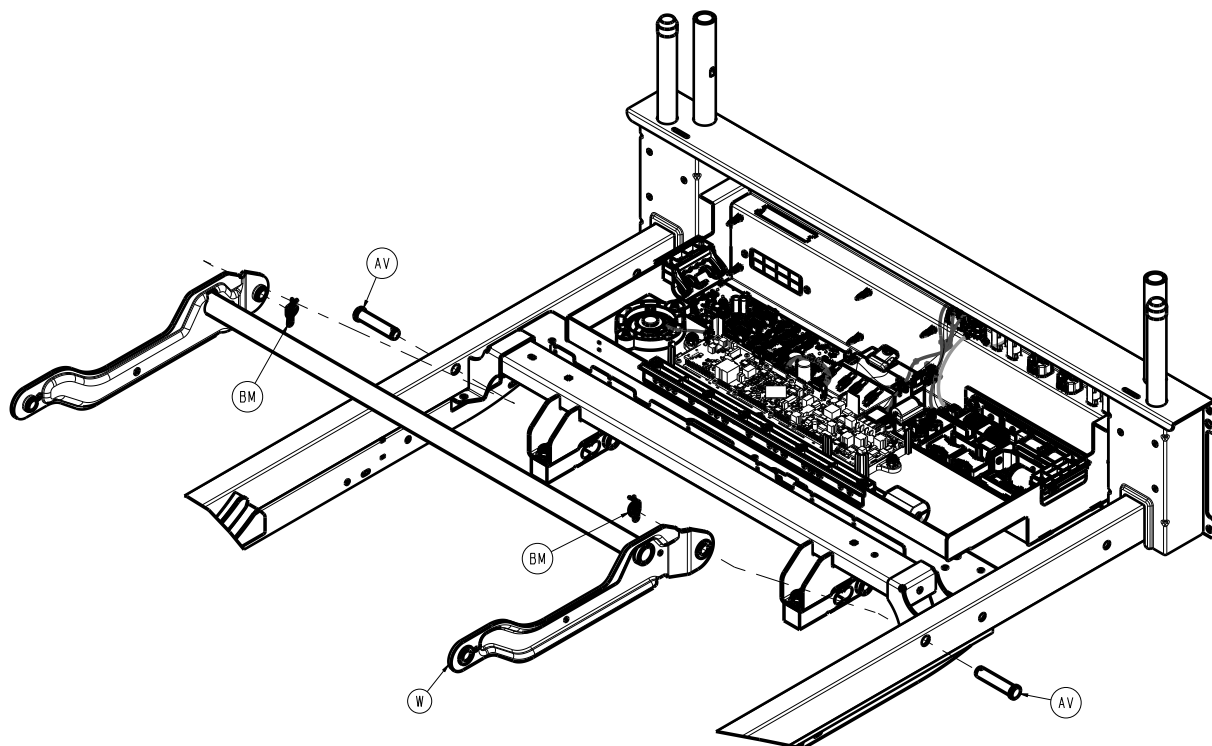
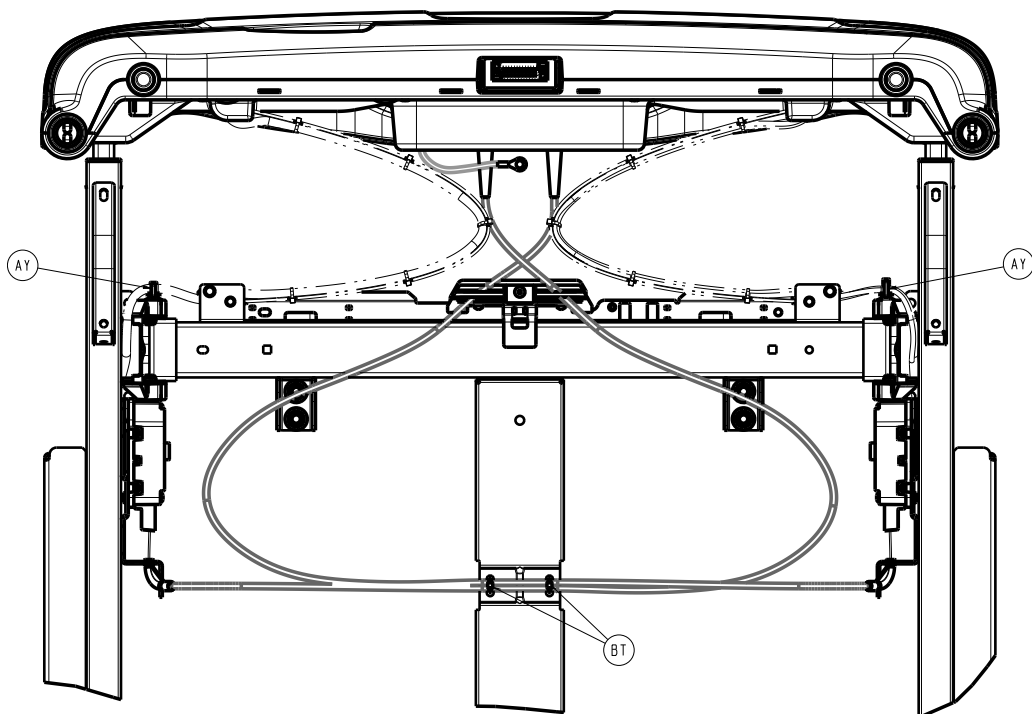
Item	Number	Name	Quantity
F	300900210010	Headboard - 300900210010 (page 184)	1
G	300900220001	Footboard common components assembly (page 185)	1
H	700000625483	Flat countersunk head machine screw	16

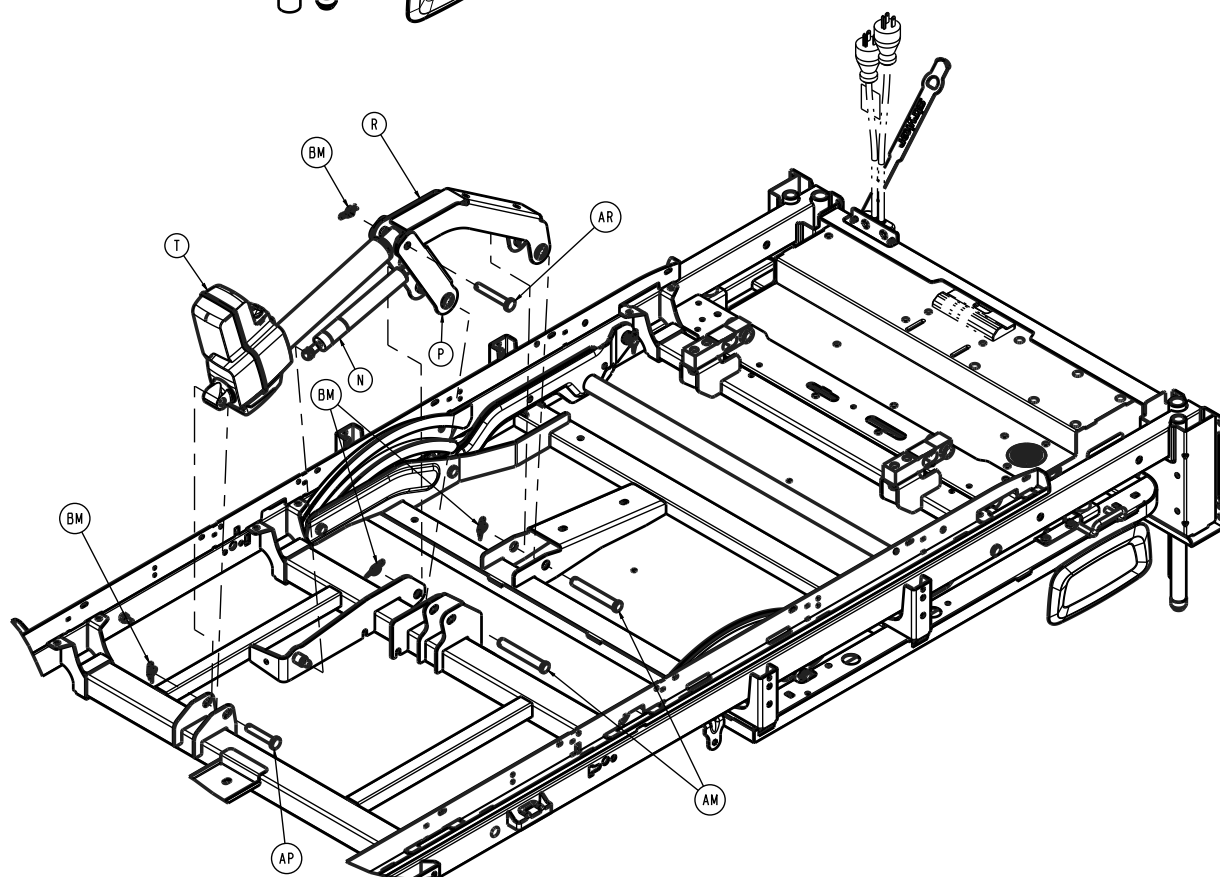
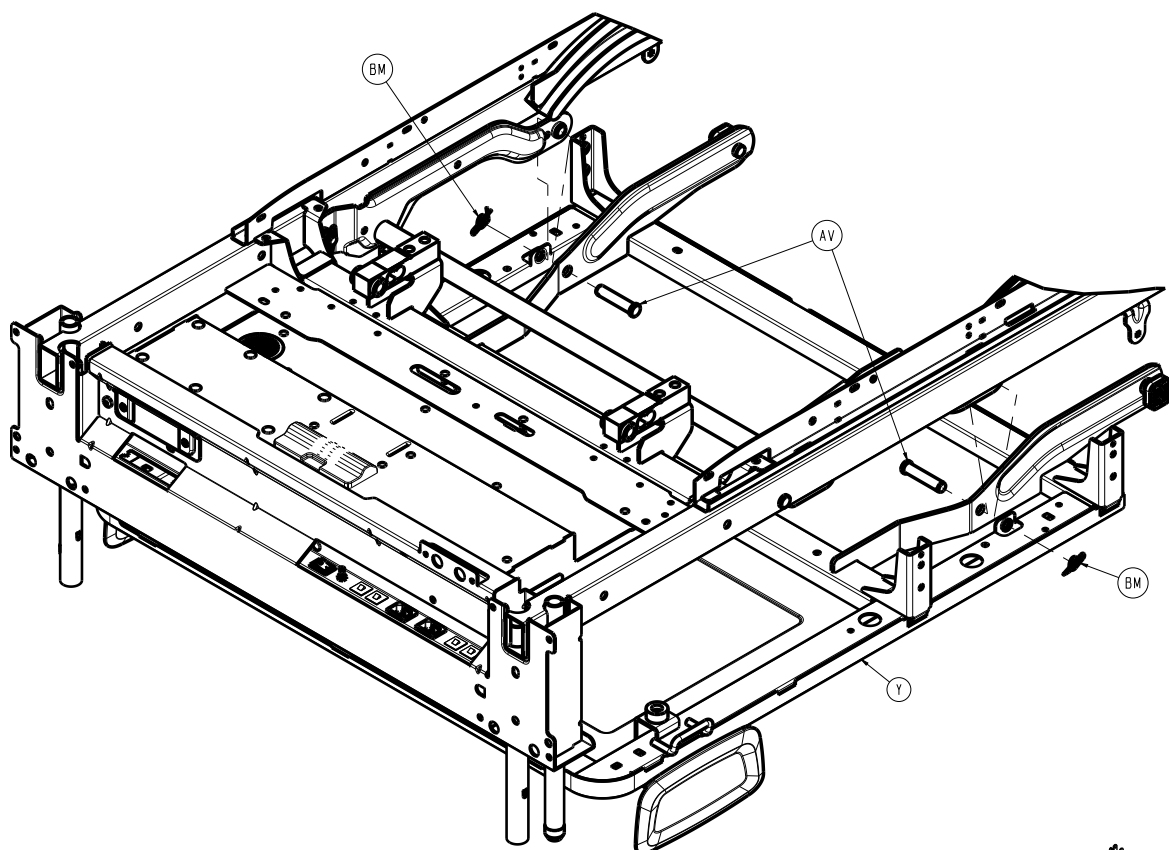
# Litter deck common components assembly

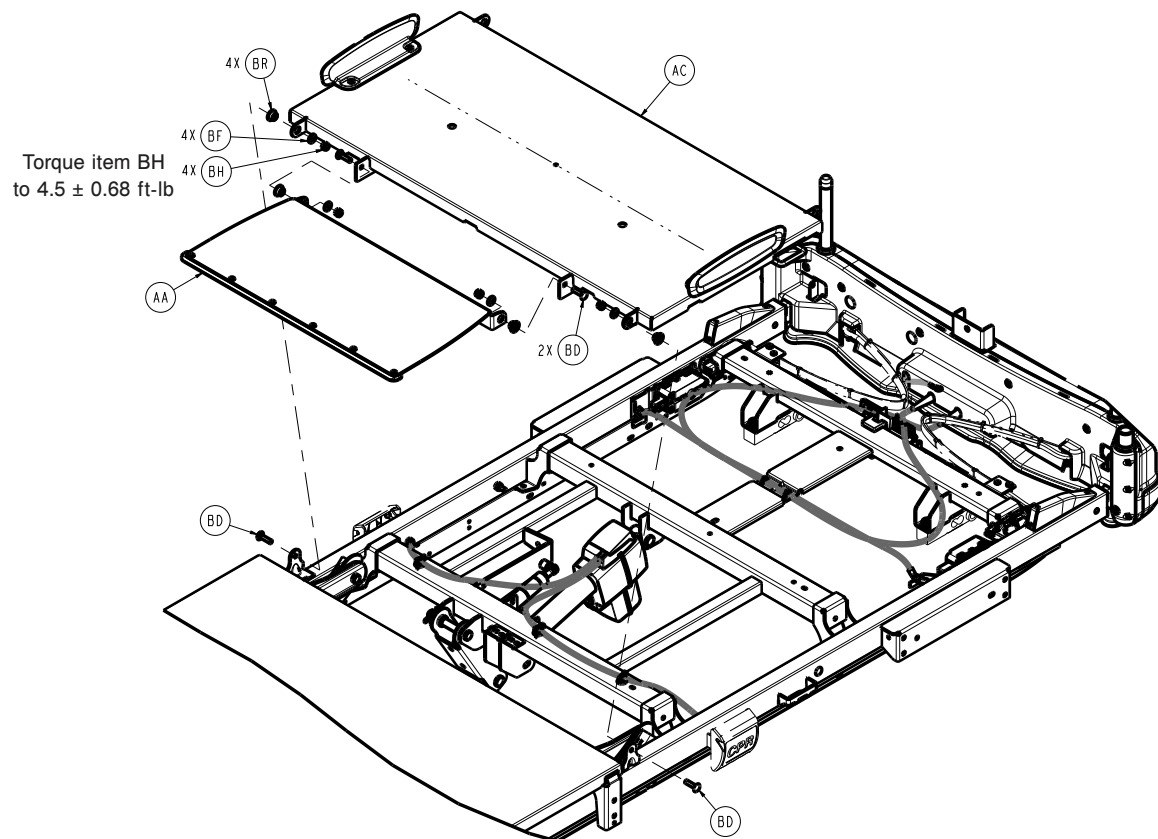
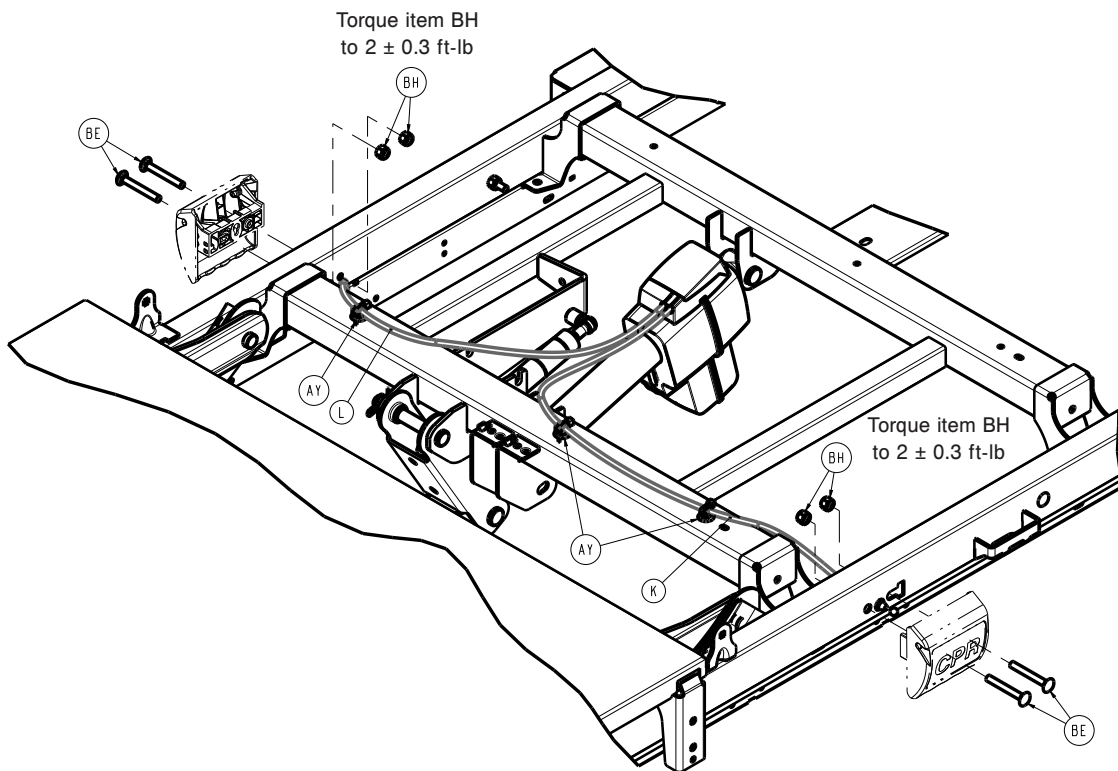
300900100300 Rev AE (Reference only)

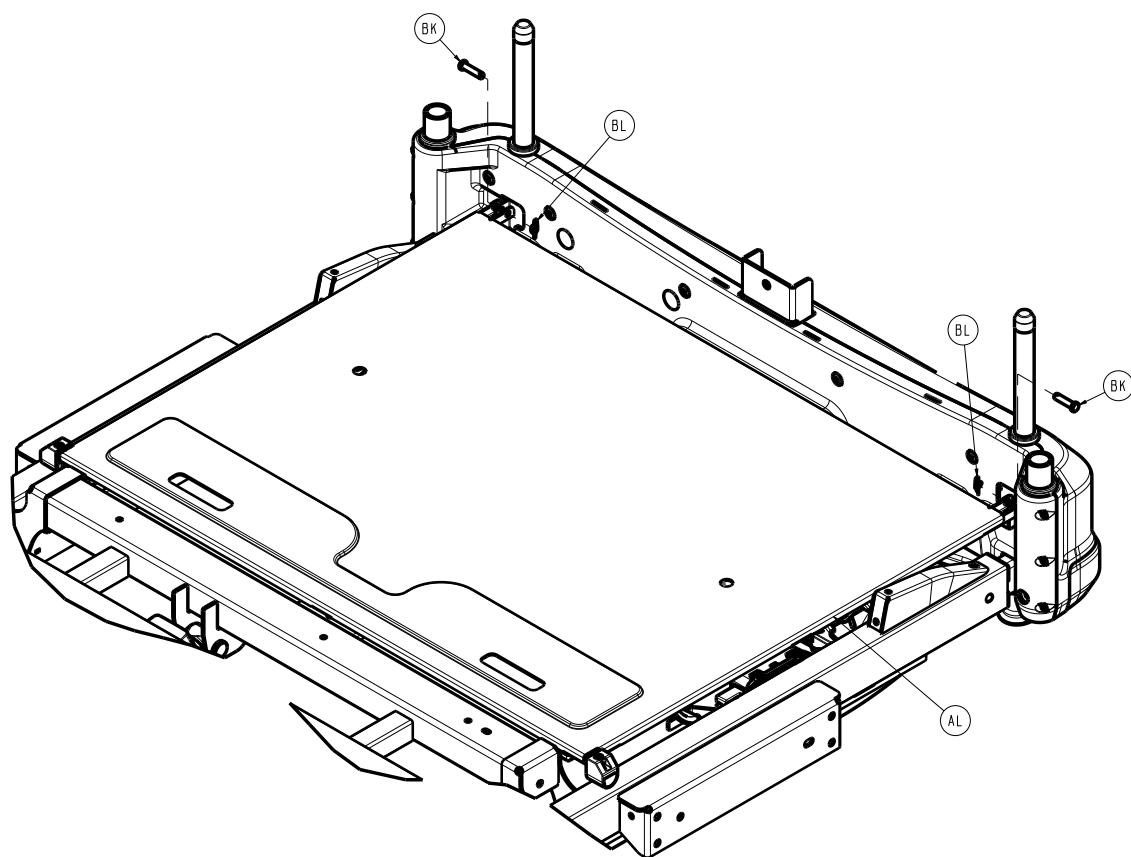
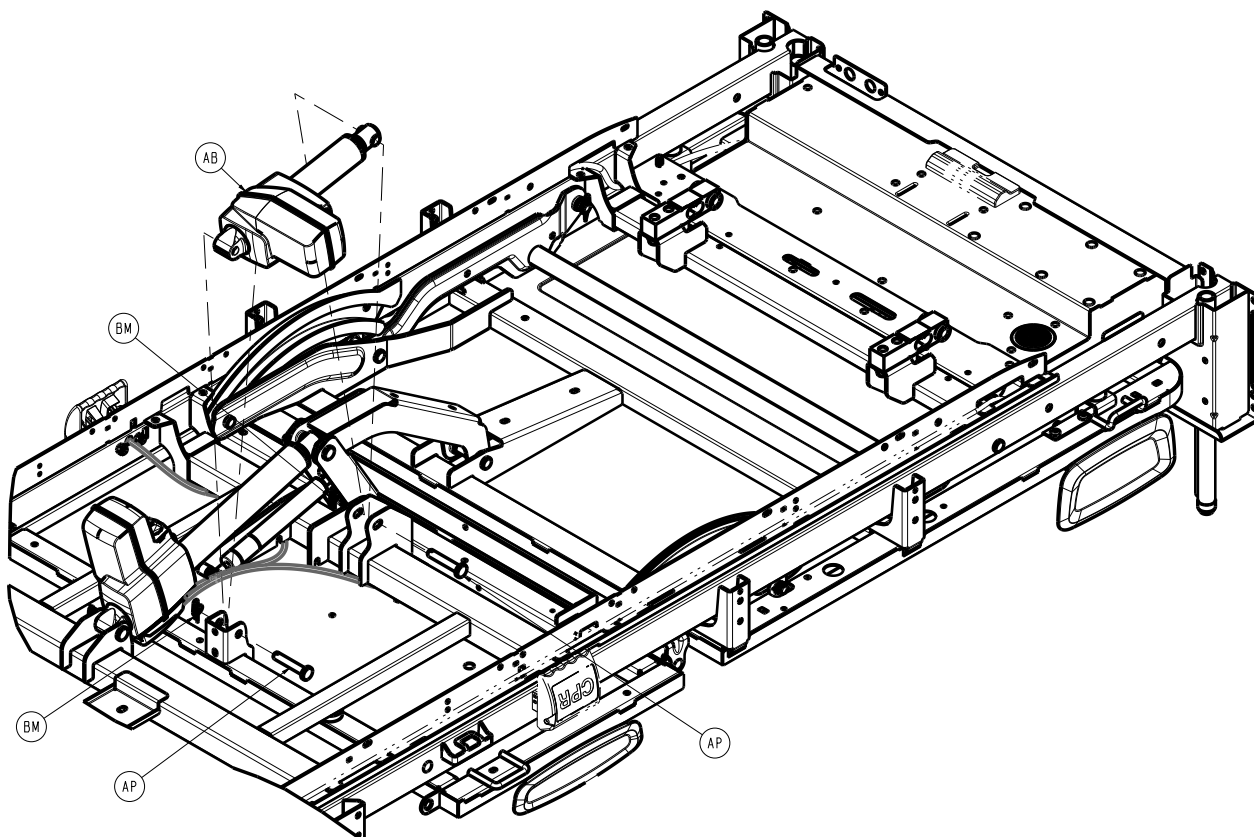


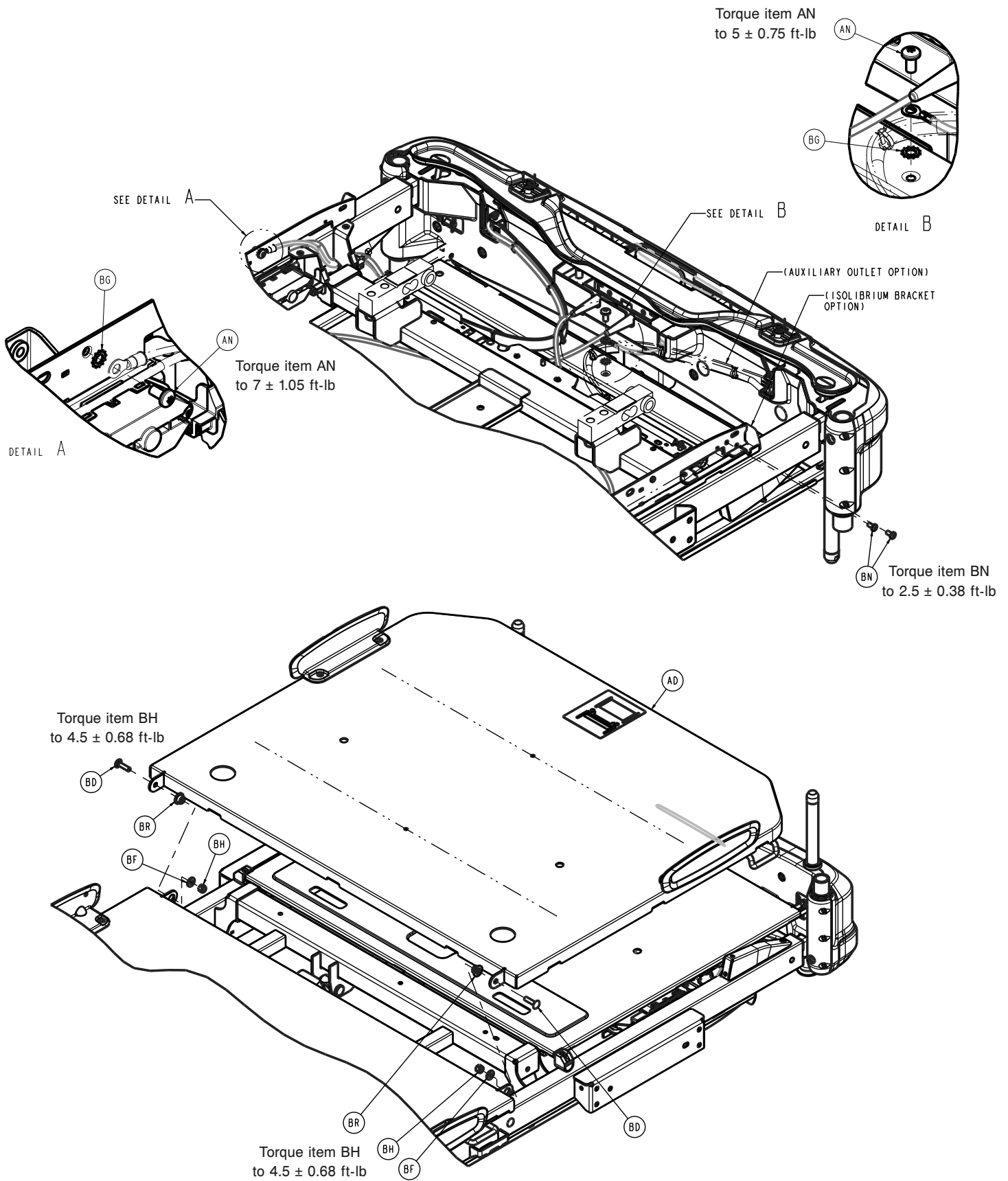


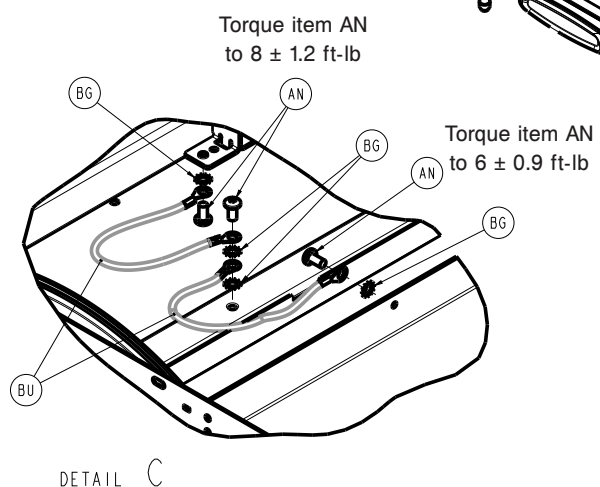
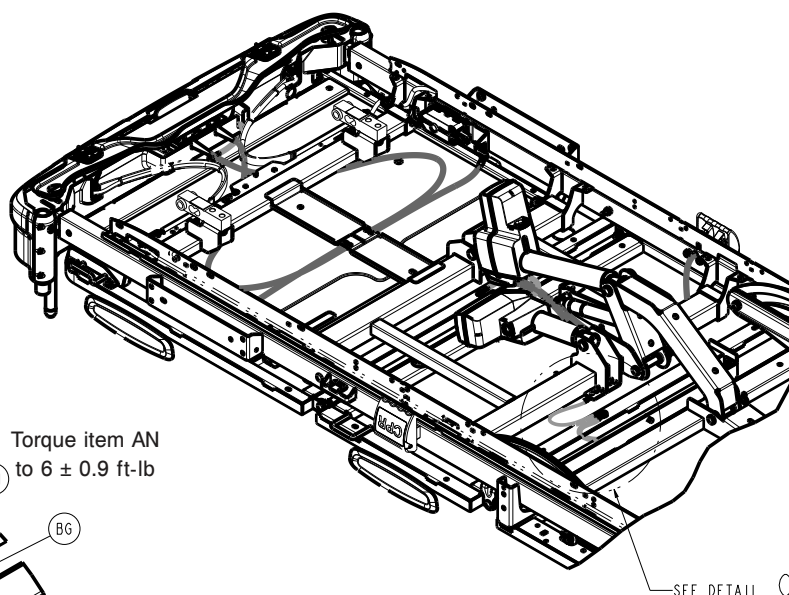
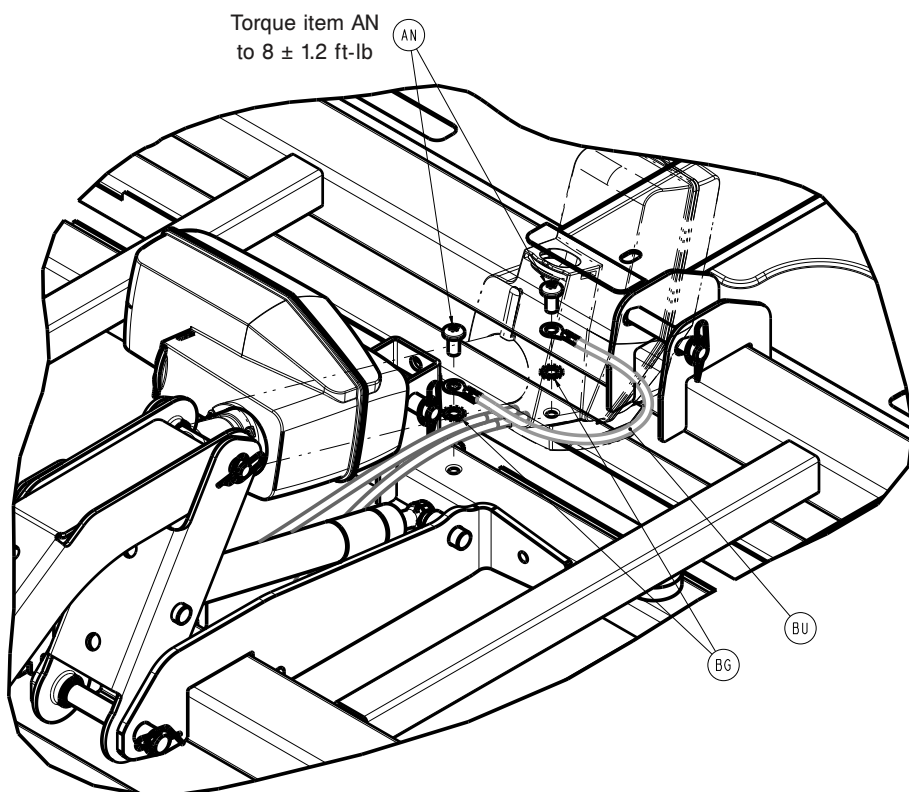


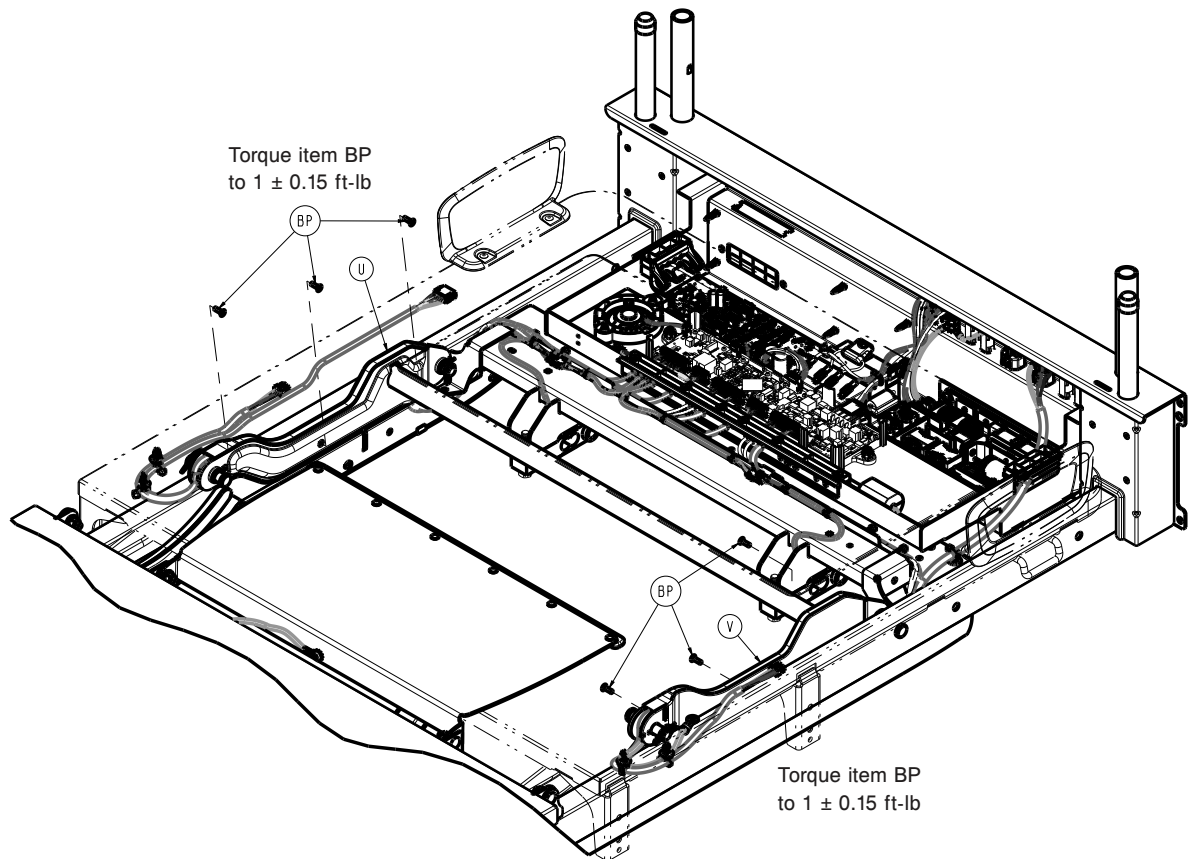
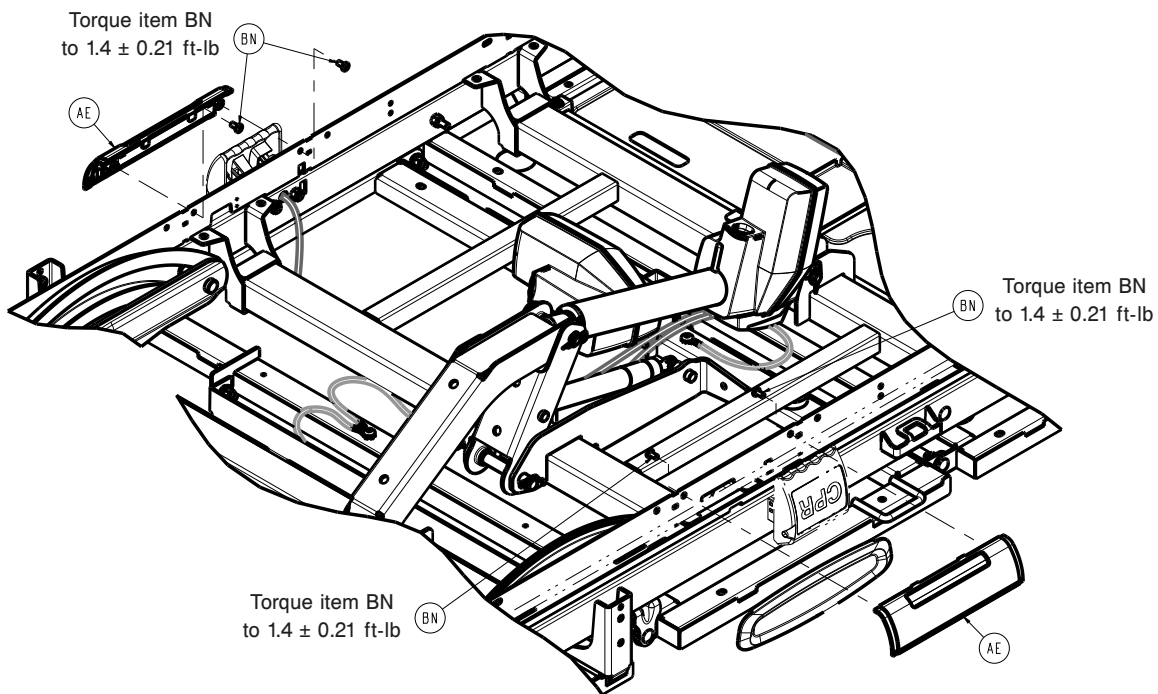


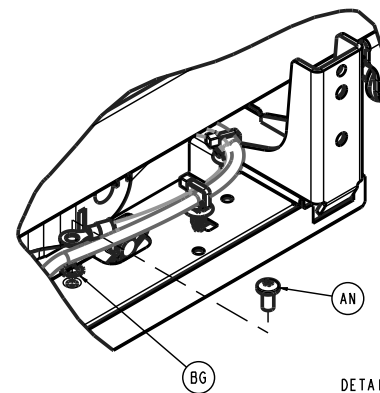
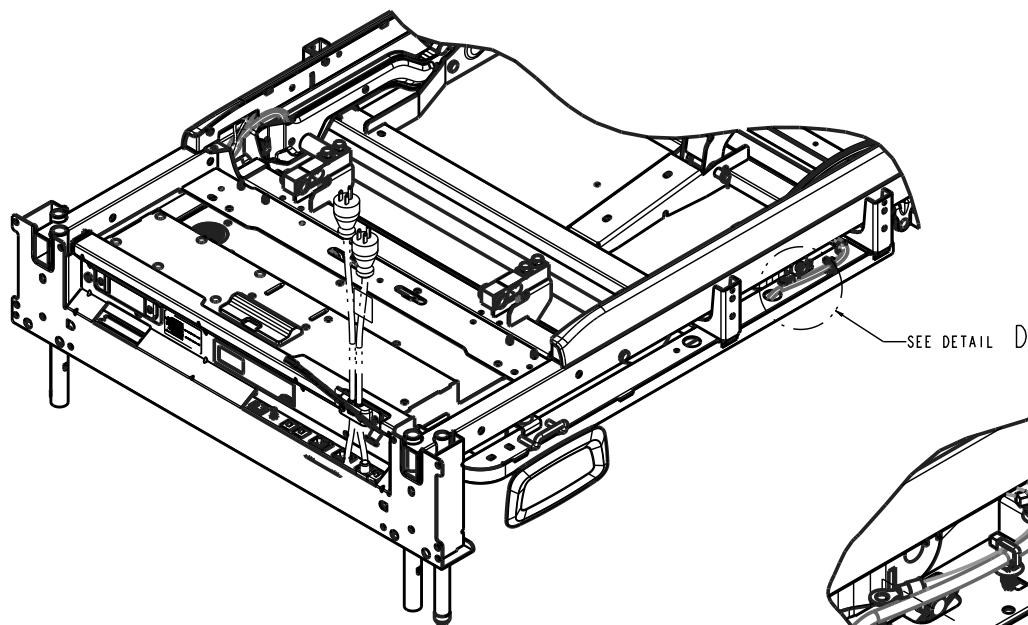
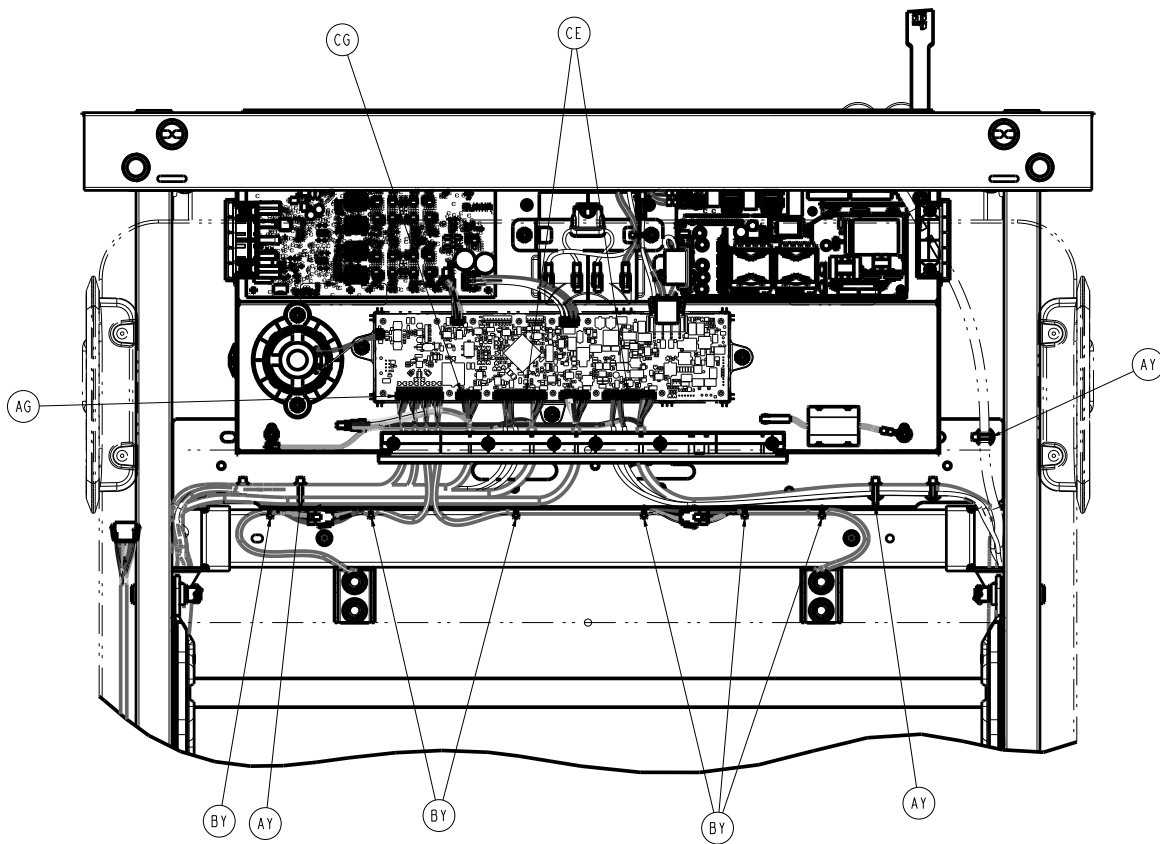






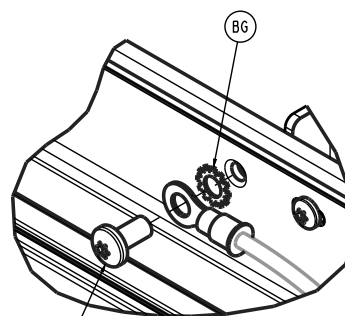
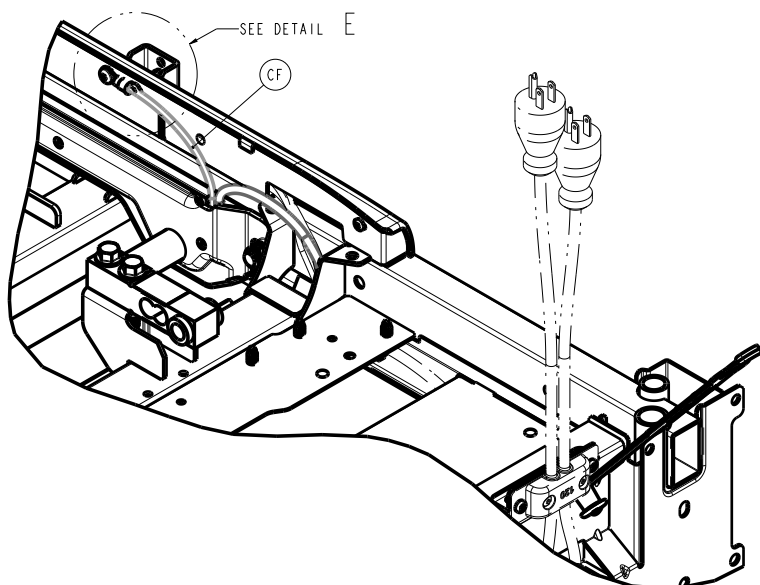






Torque item AN  
to  $5 \pm 0.75$  ft-lb

DETAIL D



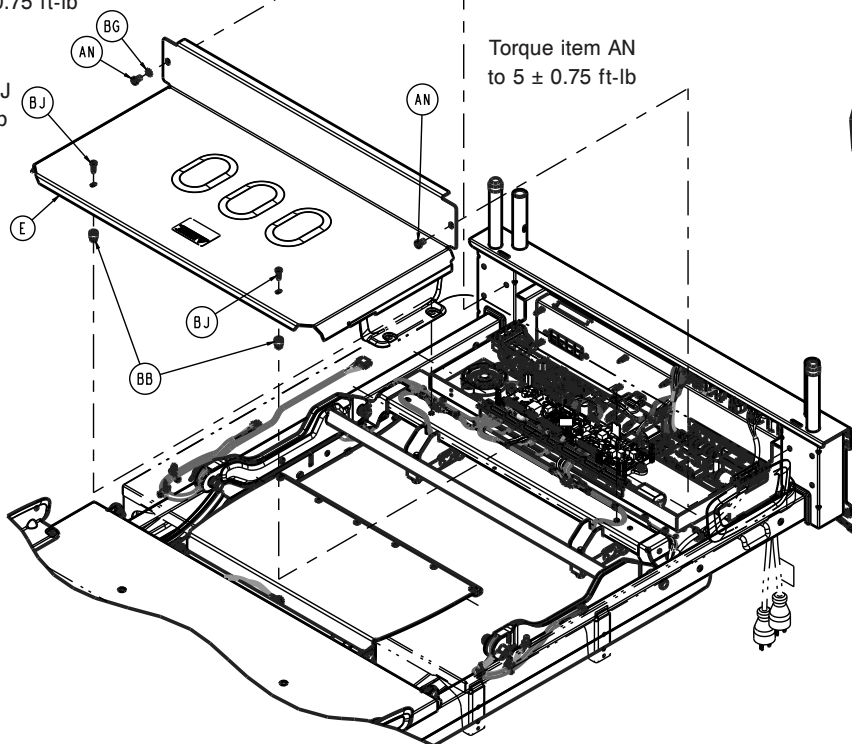
DETAIL E

Torque item AN  
to  $7 \pm 1.05$  ft-lb

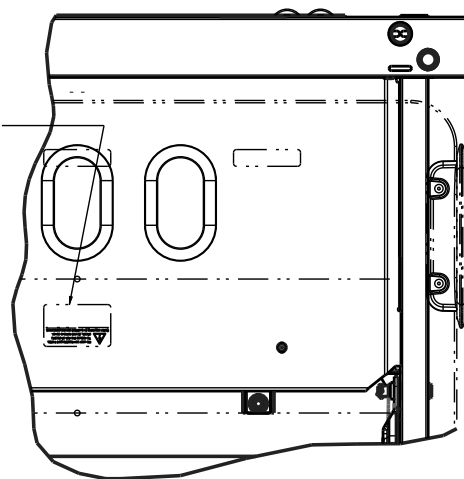
Torque item AN  
to  $5 \pm 0.75$  ft-lb

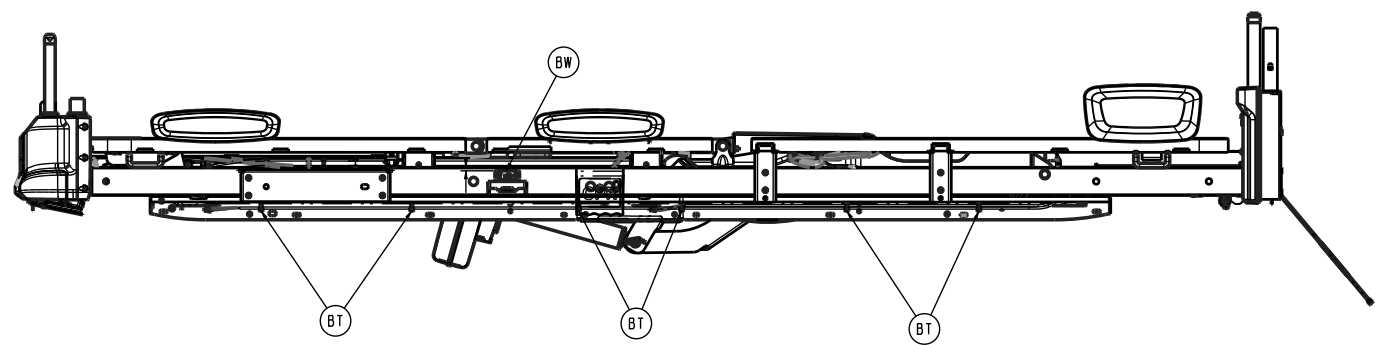
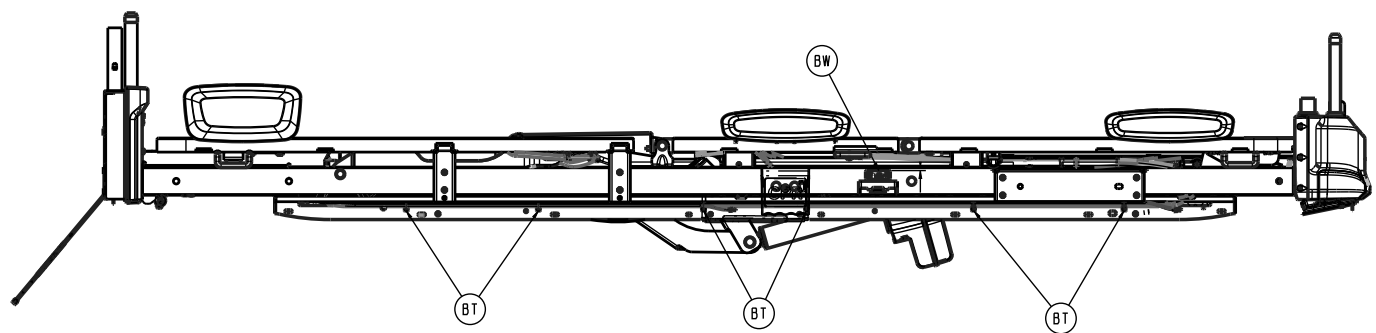
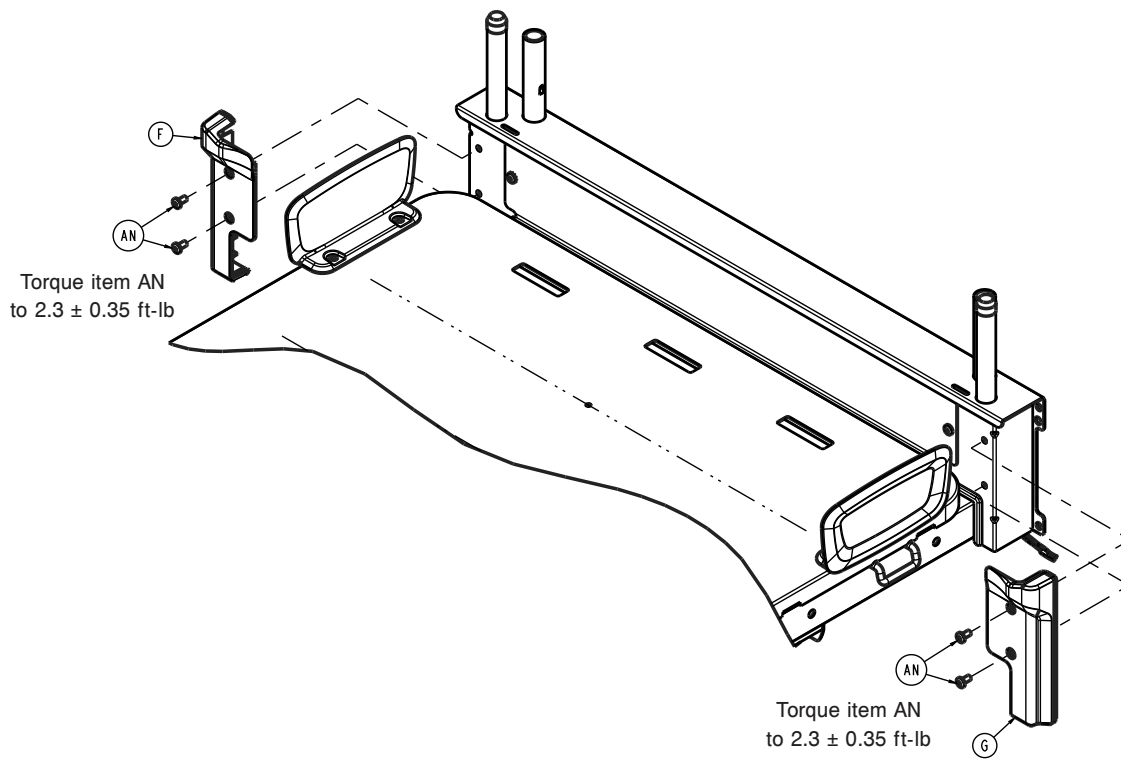
Torque item BJ  
to  $2 \pm 0.3$  ft-lb

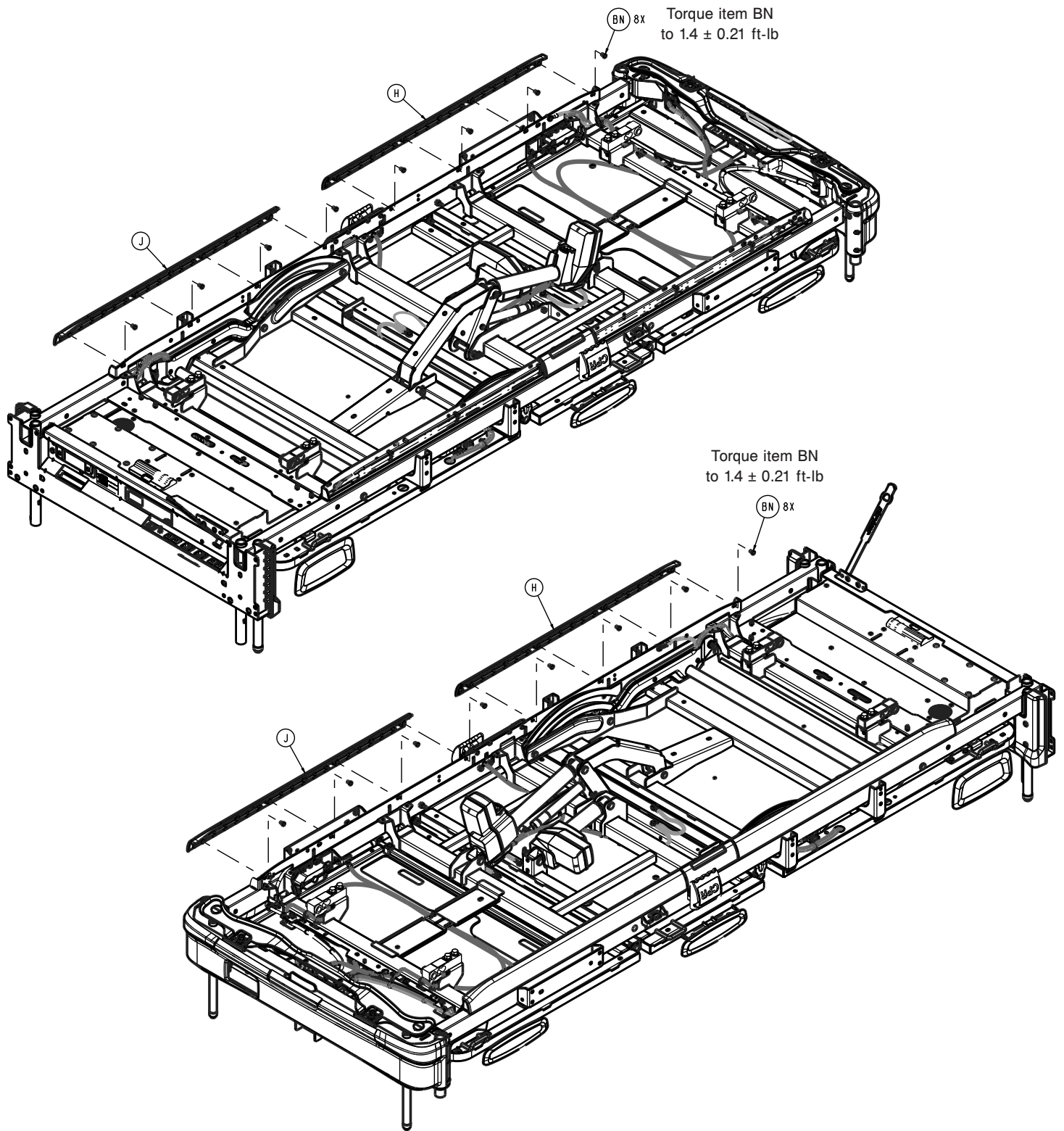
Torque item AN  
to  $5 \pm 0.75$  ft-lb

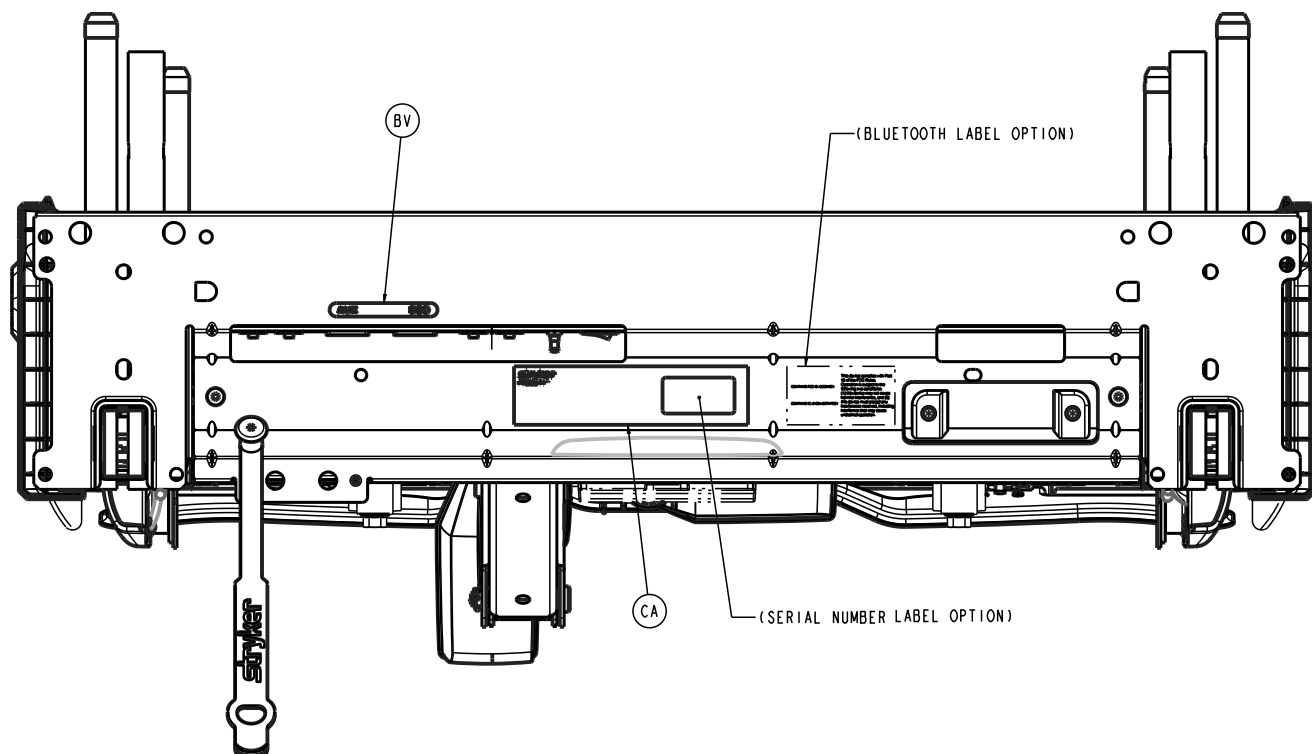


(ELECTRICAL SHOCK  
LABEL OPTION)





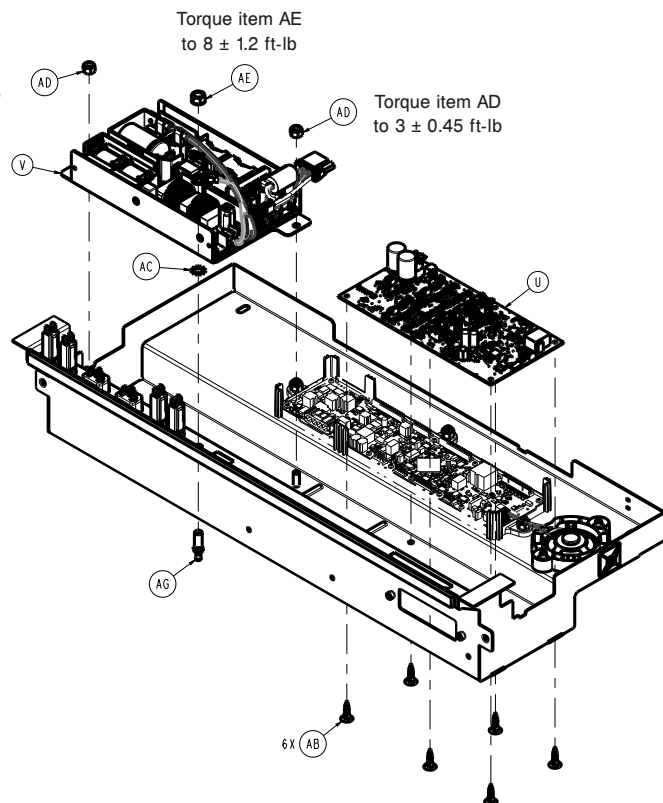
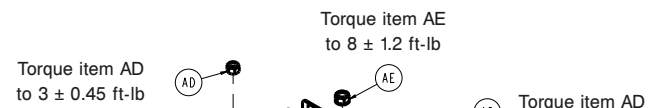


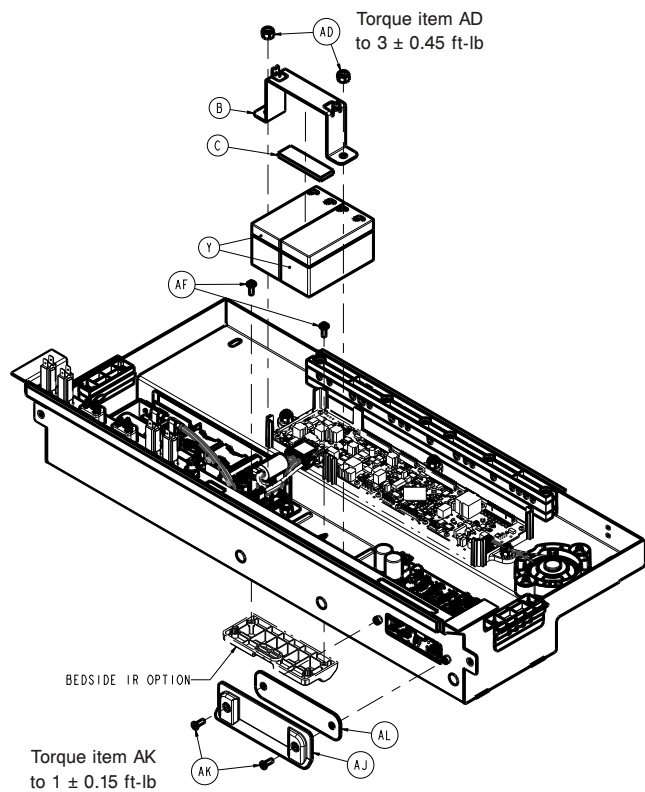
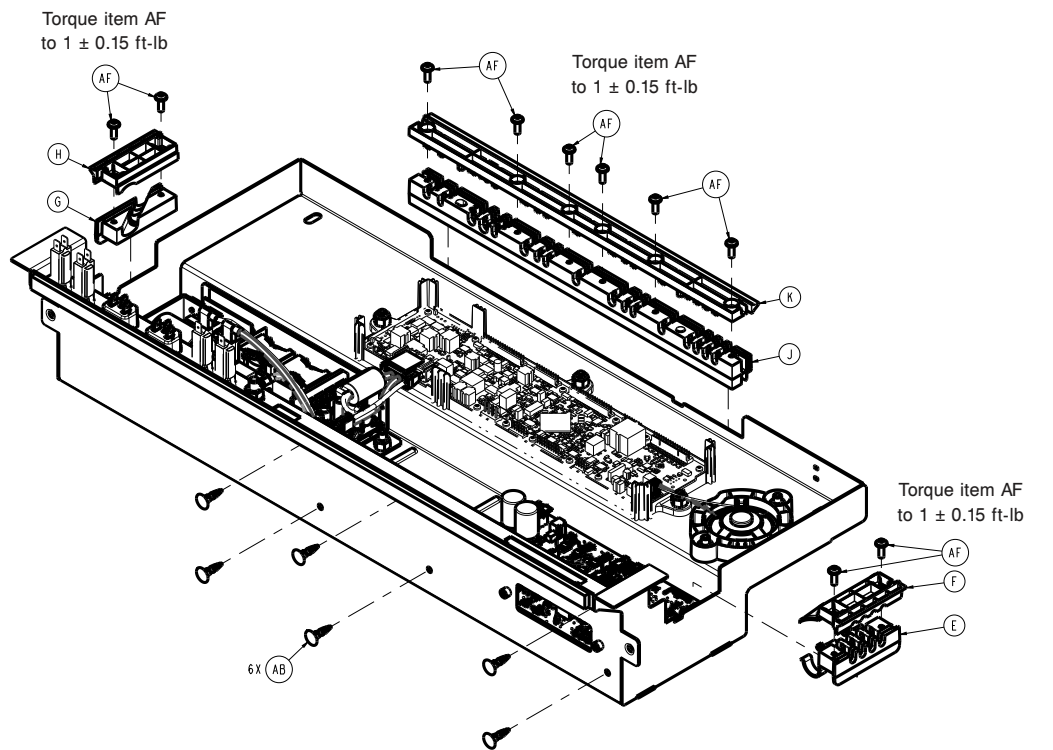


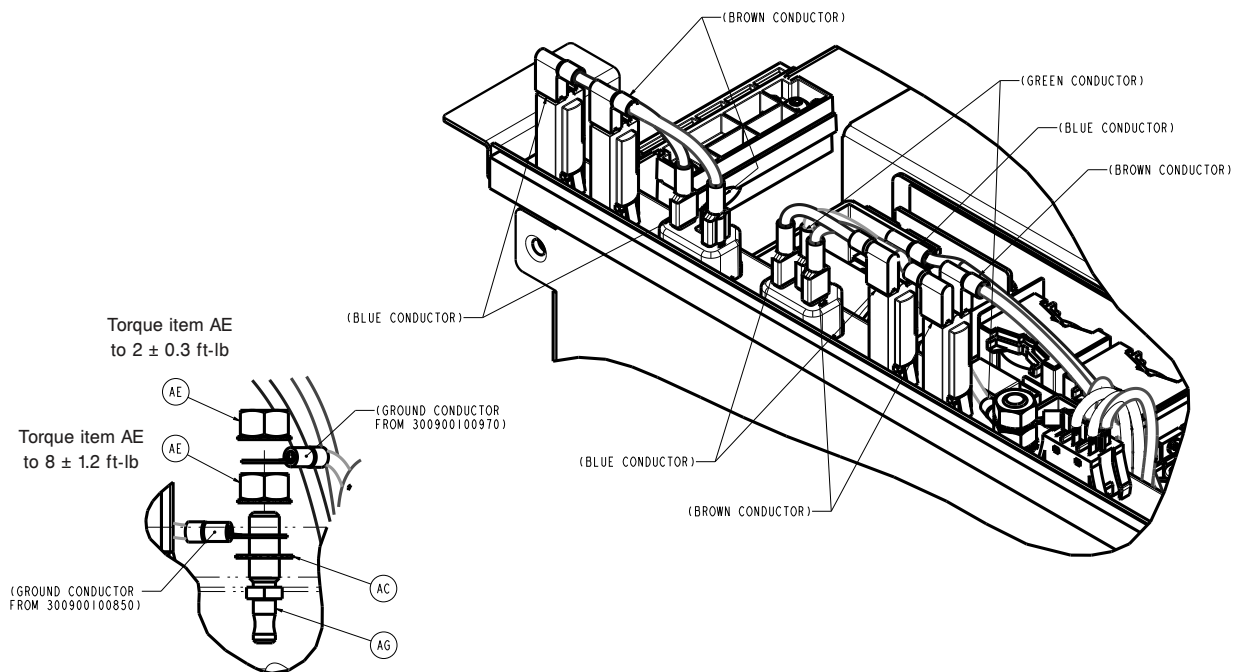
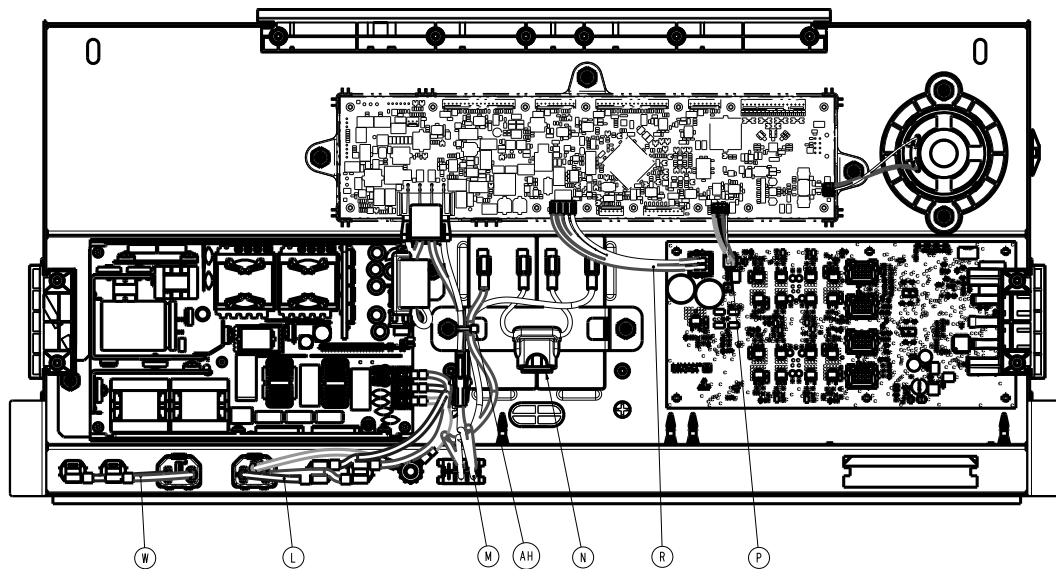
Item	Number	Name	Quantity
A	300900100007	Litter headboard post cap	2
B	300900100009	Litter cable retainer	2
C	300900100050	<i>Litter common components electronics box assembly (page 117)</i>	1
D	300900100100	Litter frame weldment	1
E	300900100119	Litter electronics box cover	1
F	300900100166	Litter headend rear cover, right	1
G	300900100167	Litter headend rear cover, left	1
H	300900100173	Litter cable rail cover, foot end right/head end left	2
J	300900100183	Litter cable rail cover, foot end left/head end right	2
K	300900100331	Litter CPR release cable, right	1
L	300900100332	Litter CPR release cable, left	1
M	300900100868	Cable assembly	1
N	300900120006	Fowler dampener	1
P	300900120015	Fowler tension link assembly	1
R	300900120030	Fowler compression link assembly	1
T	300900120040	Fowler actuator	1
U	300900120055	Fowler timing link cover, right assembly	1
V	300900120065	Fowler timing link cover, left assembly	1
W	300900120075	<i>Fowler timing link assembly (page 129)</i>	1
Y	300900120150	<i>Fowler assembly - 300900120150 (page 127)</i>	1
AA	300900130150	Seat assembly	1
AB	300900140040	Gatch actuator	1
AC	300900140150	<i>Gatch assembly - 300900140150 (page 130)</i>	1
AD	300900150150	<i>Foot assembly - 300900150150 (page 131)</i>	1
AE	300900360020	Nightlight assembly	1

Item	Number	Name	Quantity
AF	300900370057	Loadcell	2
AG	300900370862	Cable assembly	1
AH	300900670000	<i>Bed extender assembly</i> (page 133)	1
AJ	300900670007	Bed extender cable guide	1
AK	300900670050	Bed extender latch assembly	2
AL	300900670150	Bed extender foot extension assembly	1
AM	700000335994	Clevis pin	2
AN	700000336076	Pan head thread rolling screw	15
AP	700000341264	Clevis pin	3
AR	700000341265	Clevis pin	1
AT	700000661688	Clevis pin	2
AU	700000717744	Nylock flange hex nut	8
AV	700000720893	Clevis pin	4
AW	700000775295	Pan head thread rolling screw	2
AY	700000816940	Tree mount	8
BA	700000820540	Dome head blind rivet	1
BB	700000875053	Round head nylon grommet nut	2
BC	700000664825	Pan head machine screw	6
BD	0005-019-000	Round head square neck bolt	6
BE	0005-024-000	Round head square neck bolt	6
BF	0011-077-000	Plain washer	6
BG	0013-010-000	External tooth lock washer	11
BH	0016-028-000	Nylock hex nut	14
BJ	0023-311-000	Pan head tap screw	2
BK	0026-340-000	Clevis pin	4
BL	0027-020-000	Rue ring cotter	6
BM	0027-034-000	Rue ring cotter	10
BN	0050-084-000	Pan head machine screw	20
BP	0785-045-704	Flange head thread forming screw	6
BR	3000-300-099	Fowler modified bushing	6
BT	3000-300-113	Cable tie	20
BU	3002-300-870	Litter ground jumper	3
BV	300900160007	Label, IEC identification	1
BW	300900160008	Label, Foley bag hook	2
BY	3000-300-114	Cable tie	6
CA	300900160011	Label, specification	1
CB	30090010008	Power cord litter post	1
CC	300900160171	Cord/hose management strap	1
CD	5900340073	Torx screw	2
CE	300901100811	PCBA to siderails cable assembly	2
CF	300900100867	Ground strap cable assembly	1
CG	300900470867	PCBA to pendant connector cable assembly	1

## 300900100050 Rev AB (Reference only)





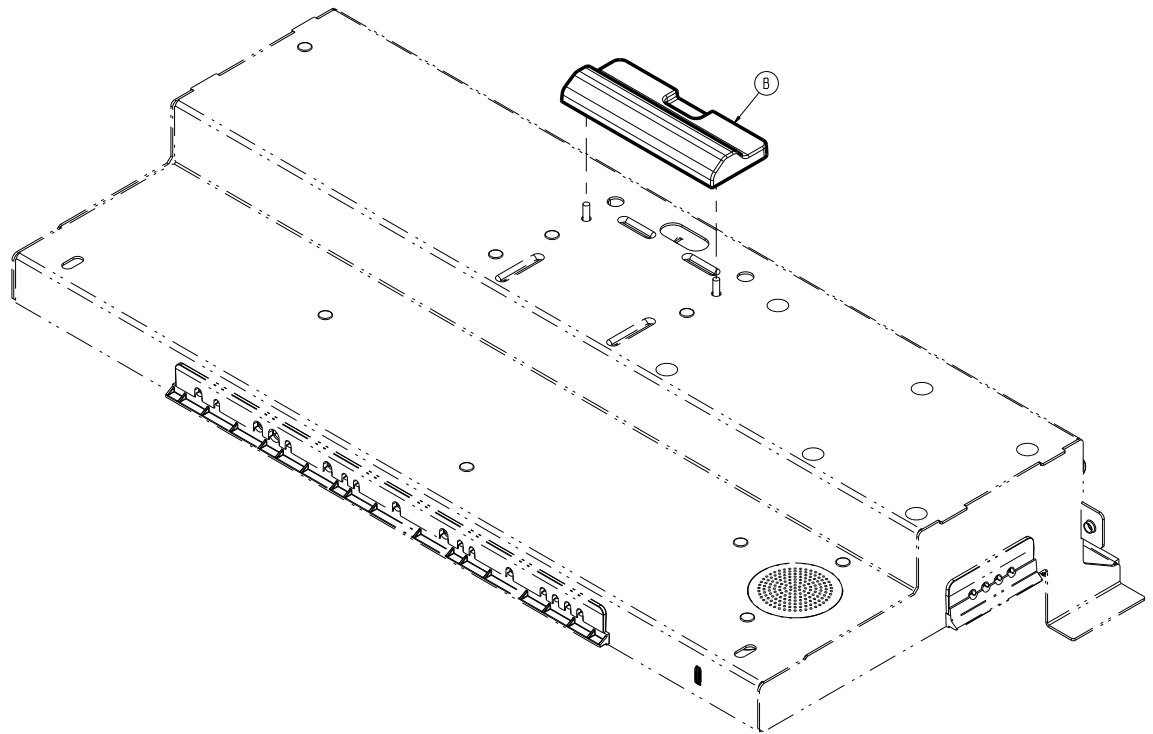
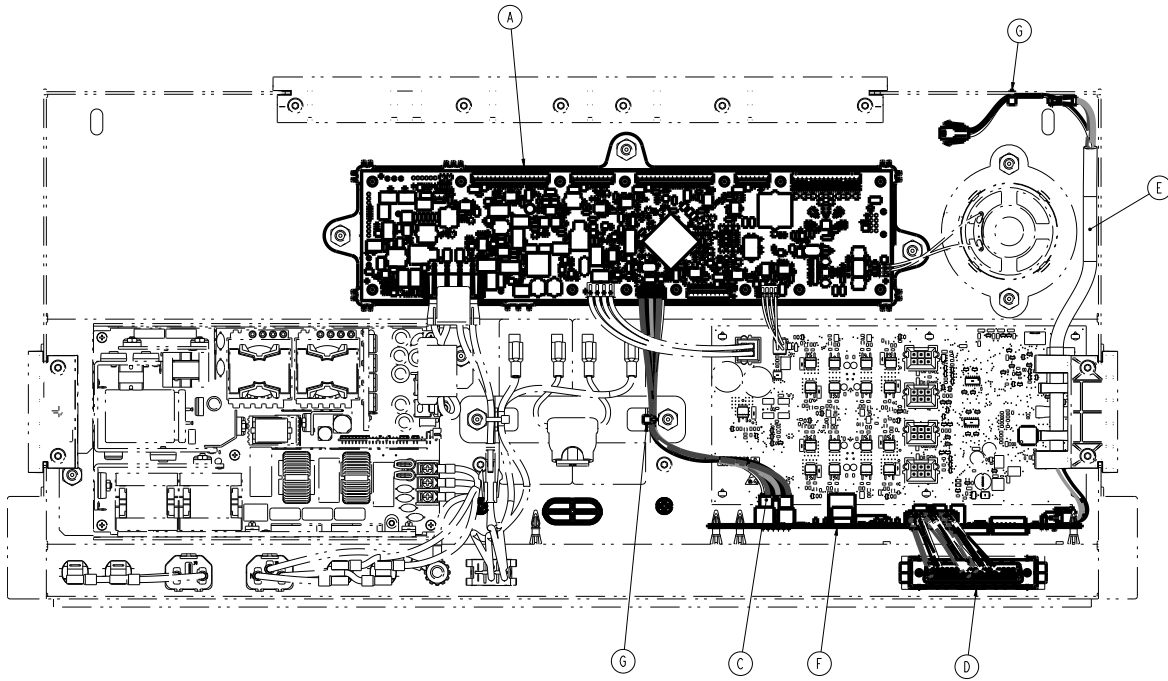


Item	Number	Name	Quantity
A	300900100110	Litter electronics box weldment	1
B	300900100114	Battery strap	1
C	300900100116	Battery strap foam	1
D	300900100117	Foam gasket	1
E	300900100132	Actuator cable bottom grommet	1
F	300900100133	Actuator cable top grommet	1
G	300900100136	Auxiliary cable bottom grommet	1
H	300900100137	Auxiliary cable top grommet	1
J	300900100138	Cable bottom grommet	1
K	300900100139	Cable top grommet	1
L	300900100850	Cable assembly	1

Item	Number	Name	Quantity
M	300900100851	Battery switch	1
N	300900100852	Battery fuse	1
P	300900100863	Cable assembly	1
R	300900100864	Cable assembly	1
T	300900100870	Cable assembly	1
U	300900100950	Motion controller board	1
V	300900100970	Power supply assembly	1
W	300900400850	Cable assembly	1
Y	700000341245	Rechargeable battery, 12V	2
AA	700000393685	IEC appliance inlet	2
AB	700000480101	Reverse locking support	12
AC	0013-038-000	External tooth lock washer	1
AD	0016-028-000	Nylock hex nut	9
AE	0016-033-000	Hex kep nut	2
AF	0023-348-000	Round washer head tap screw	12
AG	2011-001-215	Grounding lug	1
AH	3000-300-114	Cable tie	1
AJ	300900100131	Dip switch cover	1
AK	0001-022-000	Flat socket countersunk cap screw	2
AL	300900100134	Dip switch cover gasket	1
AM	0059-400-000	Circuit breaker, 8 amp	4
AN	700001133165	Adhesive cable tie mount	1

## Litter basic electronics box assembly

300900100400 Rev AB (Reference only)

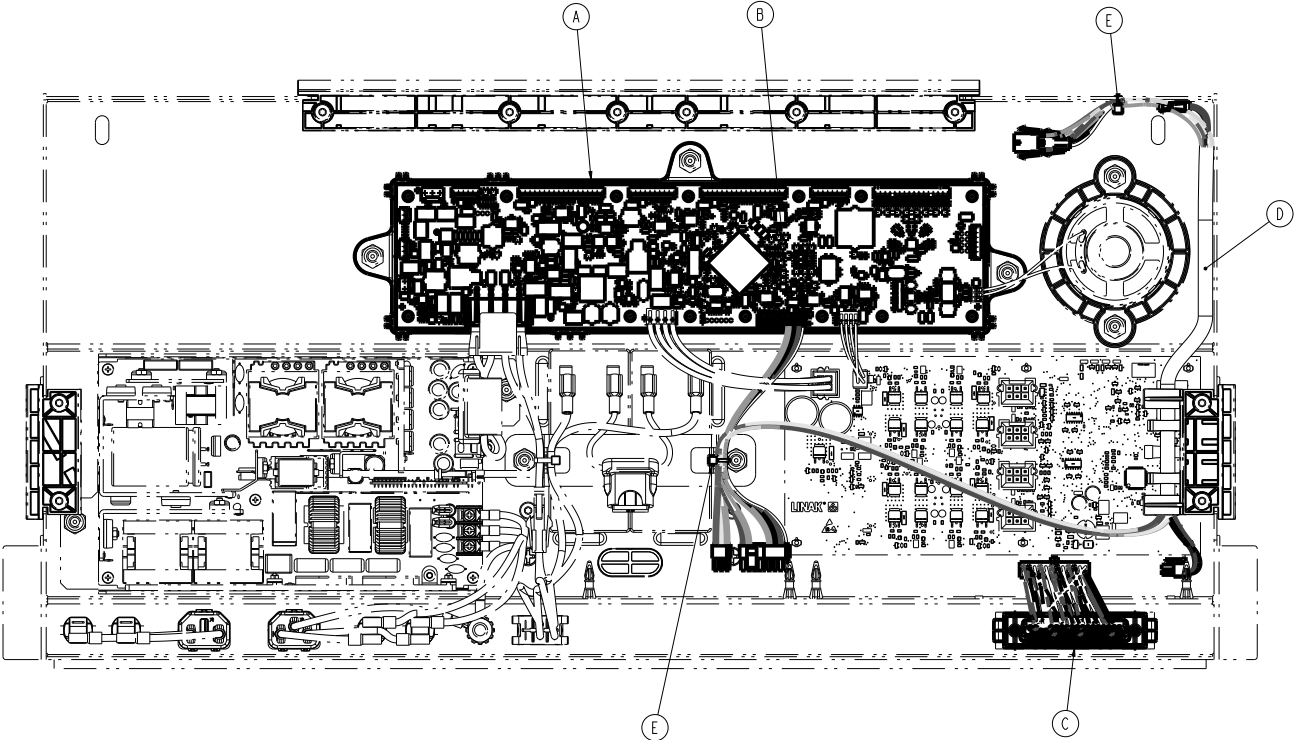


Item	Number	Name	Quantity
A	300900100120	Main controller basic board assembly	1
B	300900100141	Bedside IR module plug	1
C	300900380800	Cable assembly	1
D	300900380801	Cable assembly	1
E	300900380820	Cable assembly	1

Item	Number	Name	Quantity
F	300900380900	Bedside room interface basic board	1
G	3000-300-114	Cable tie	2

Litter advanced common components electronics box assembly

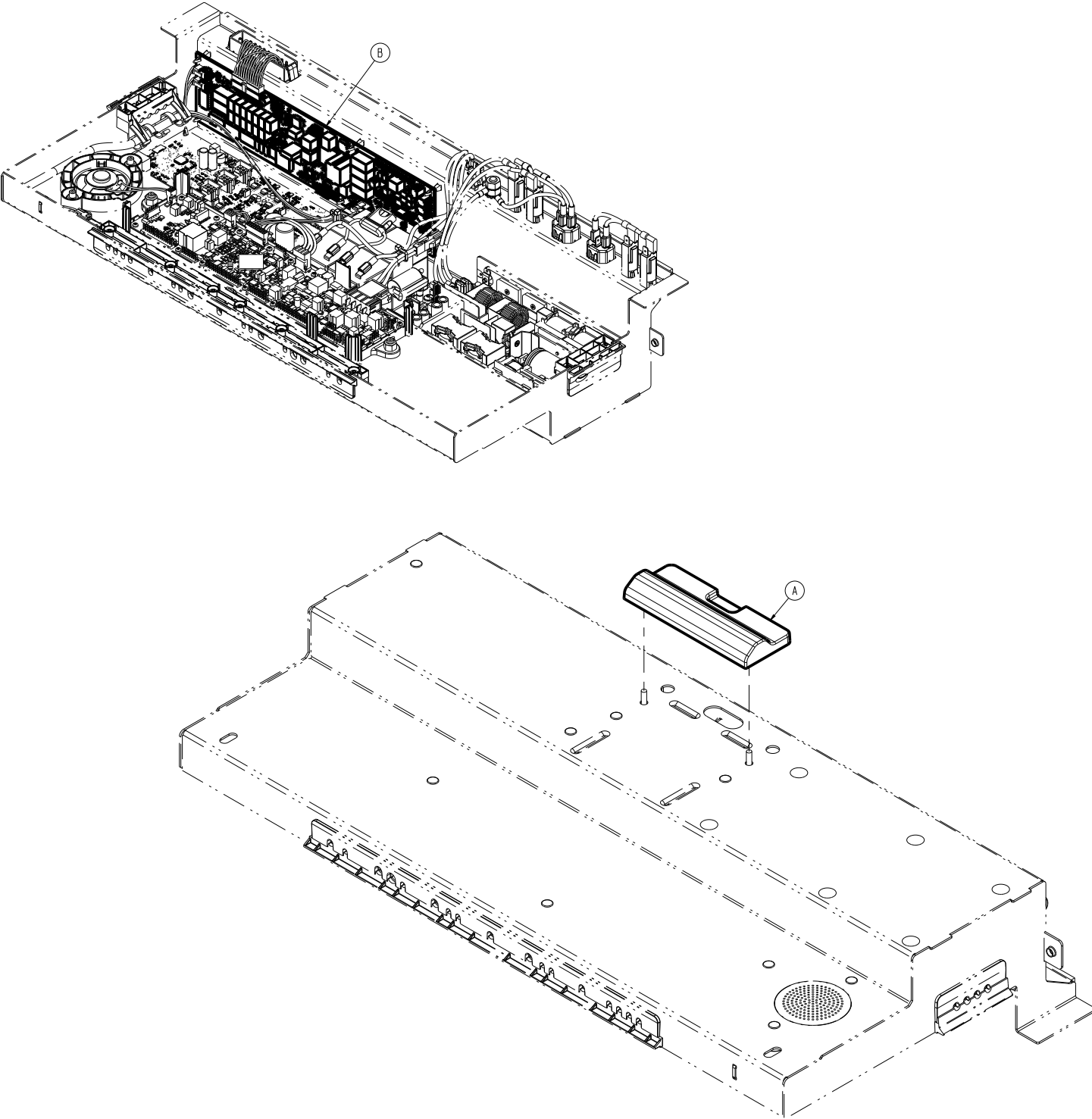
300900100350 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900100130	Main controller advanced board assembly	1
B	300900380810	Cable assembly	1
C	300900380811	Cable assembly	1
D	300900380825	Cable assembly	1
E	3000-300-114	Cable tie	2

Litter advanced wired electronics box assembly

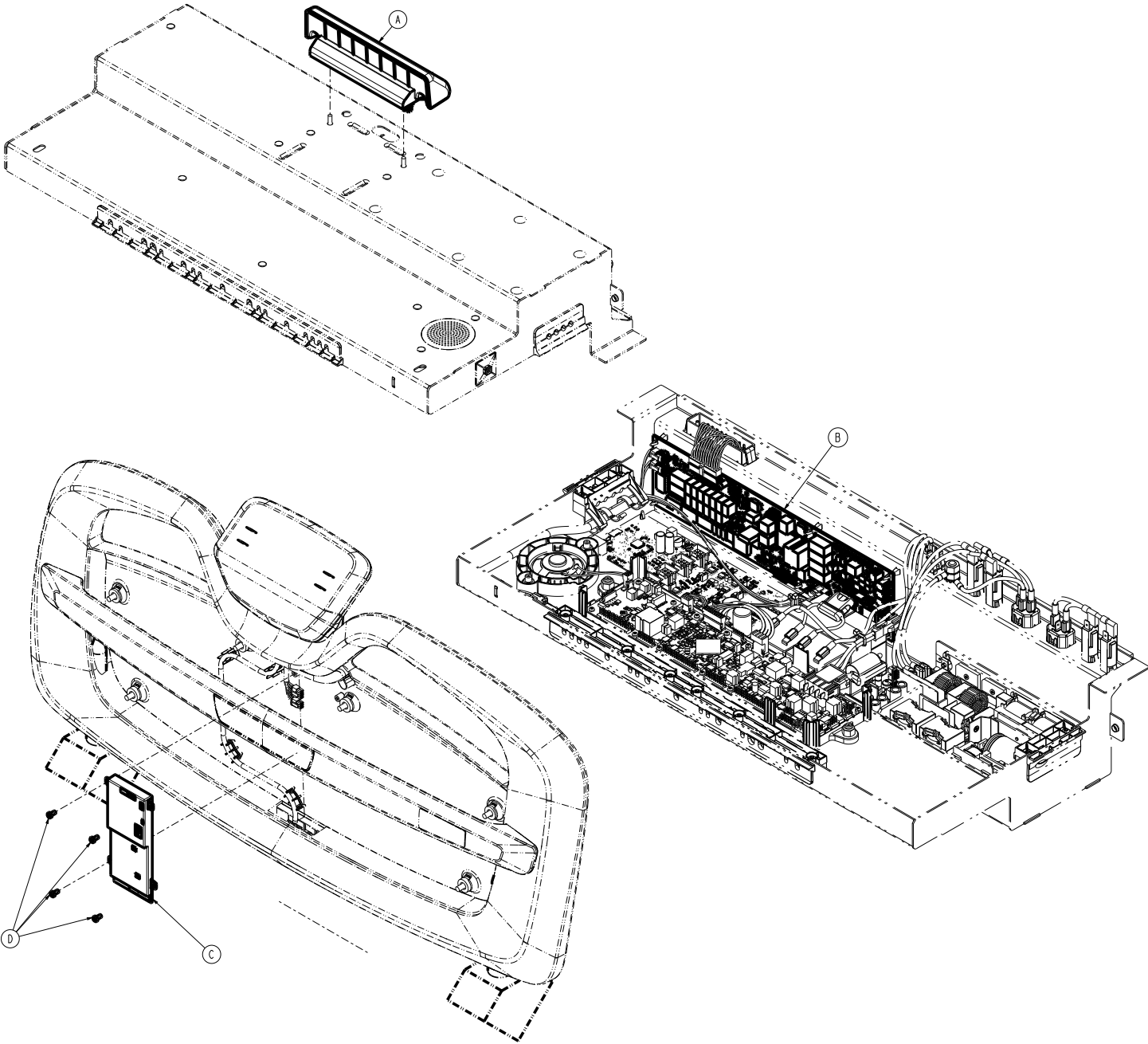
300900100450 Rev AC (Reference only)



Item	Number	Name	Quantity
A	300900100141	Bedside IR module plug	1
B	300901380920	Advanced wireless bedside room interface board	1

# Litter advanced wireless electronics box assembly

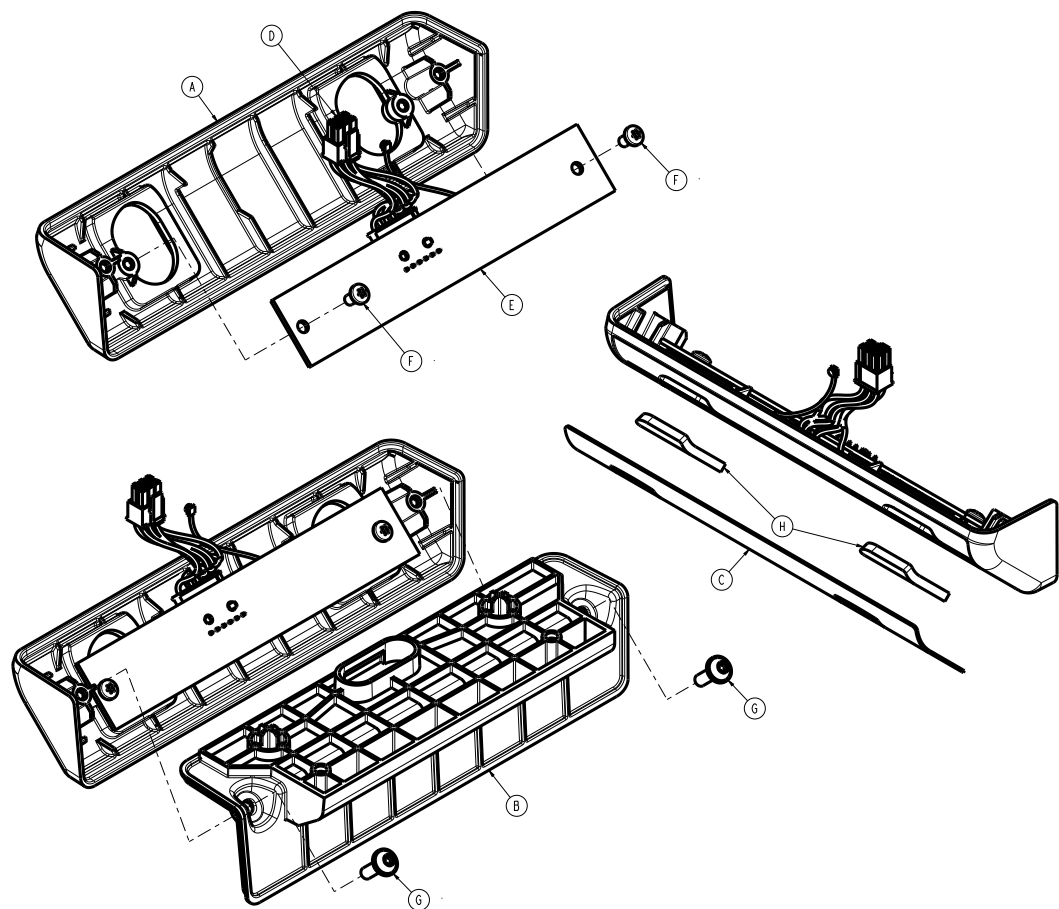
300900100500 Rev AD (Reference only)



Item	Number	Name	Quantity
A	300900100150	Bedside IR module assembly	1
B	300901380920	Advanced wireless bedside room interface board	1
C	300900680910	Gateway assembly	1
D	700000687304	Pan head thread forming screw	4

Bedside IR module assembly

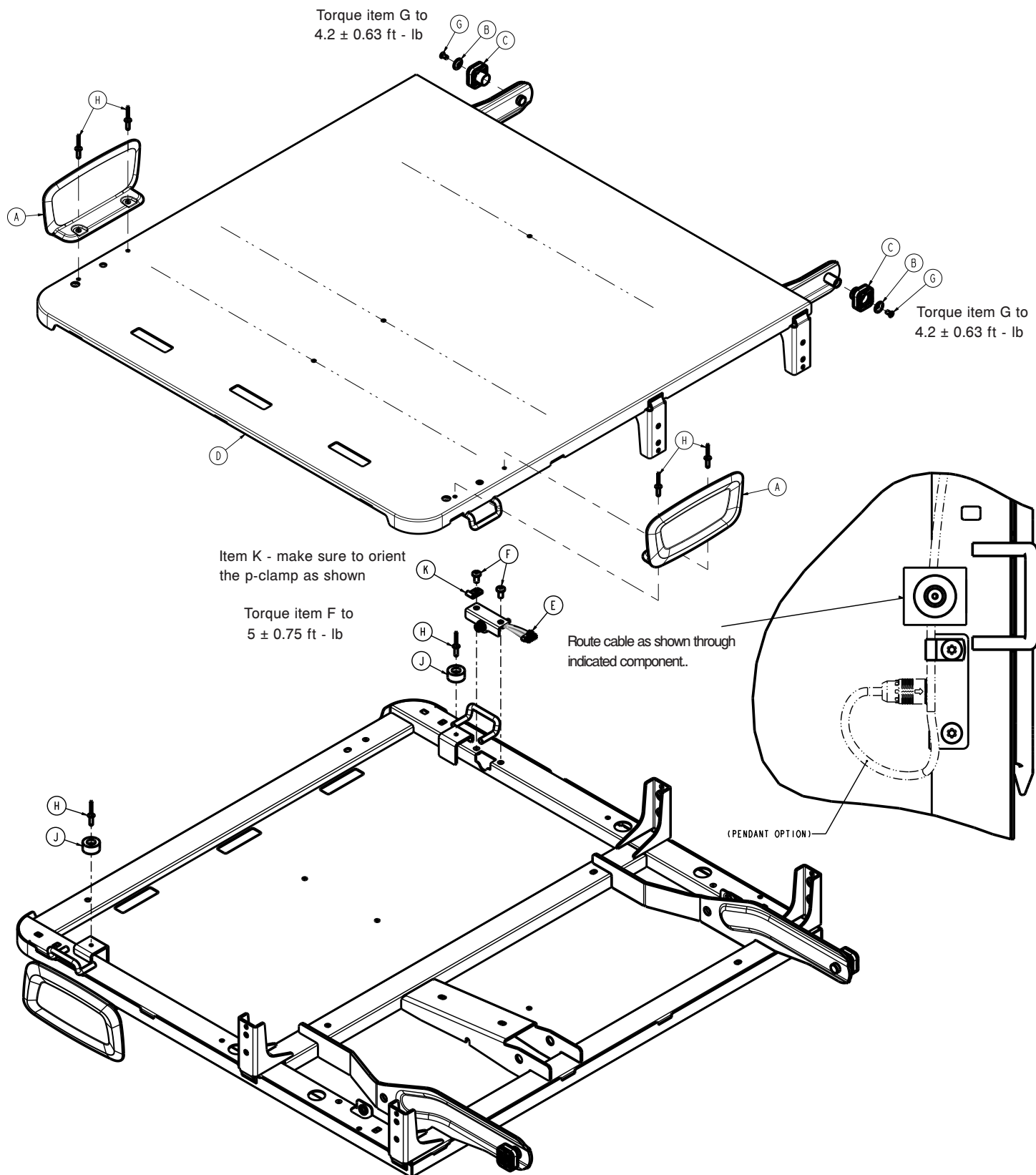
300900100150 Rev AD (Reference only)



Item	Number	Name	Quantity
A	300900100151	Front cover	1
B	300900100152	Back cover	1
C	300900380011	Label, bedside IR module front	1
D	300900380830	Cable assembly	1
E	300900380930	Bedside infrared board	1
F	Reference only	Pan head thread forming screw	2
G	Reference only	Round washer head tapping screw	2
H	5212-300-090	IR lens	2

# Fowler assembly - 300900120150

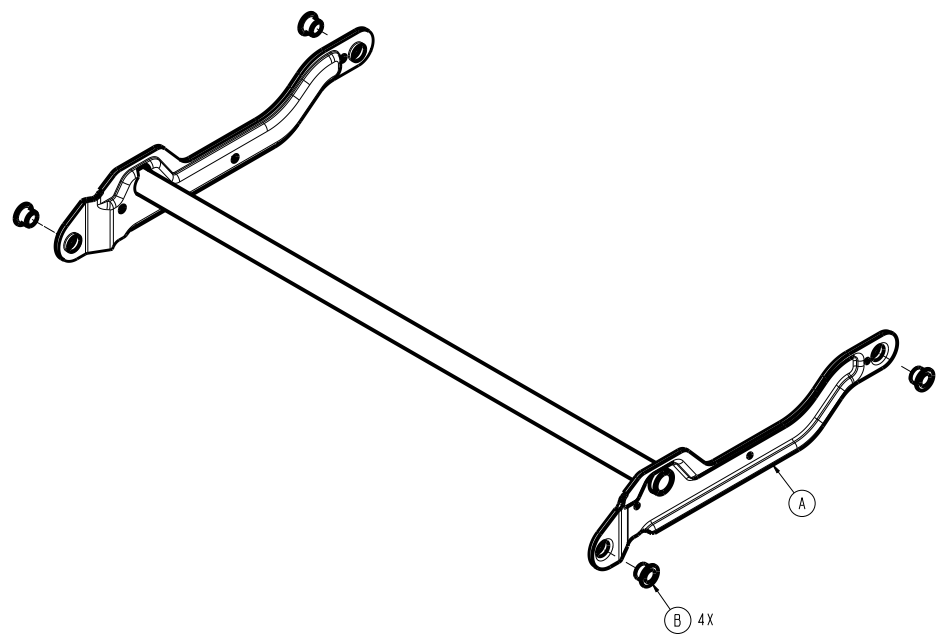
Rev AC (Reference only)



Item	Number	Name	Quantity
A	300900120009	Fowler mattress retainer	2
B	300900120012	Fowler roller retention washer	2
C	300900120013	Fowler slider	2
D	300900120100	Fowler weldment	1
E	300900470868	Pendant connector cable assembly	1
F	700000336076	Pan head thread screw	2
G	700000741229	Flat cap head machine screw	2
H	700000820540	Dome head rivet	6
J	0056-016-000	Bumper	2
K	0058-105-000	P-clamp	1

# Fowler timing link assembly

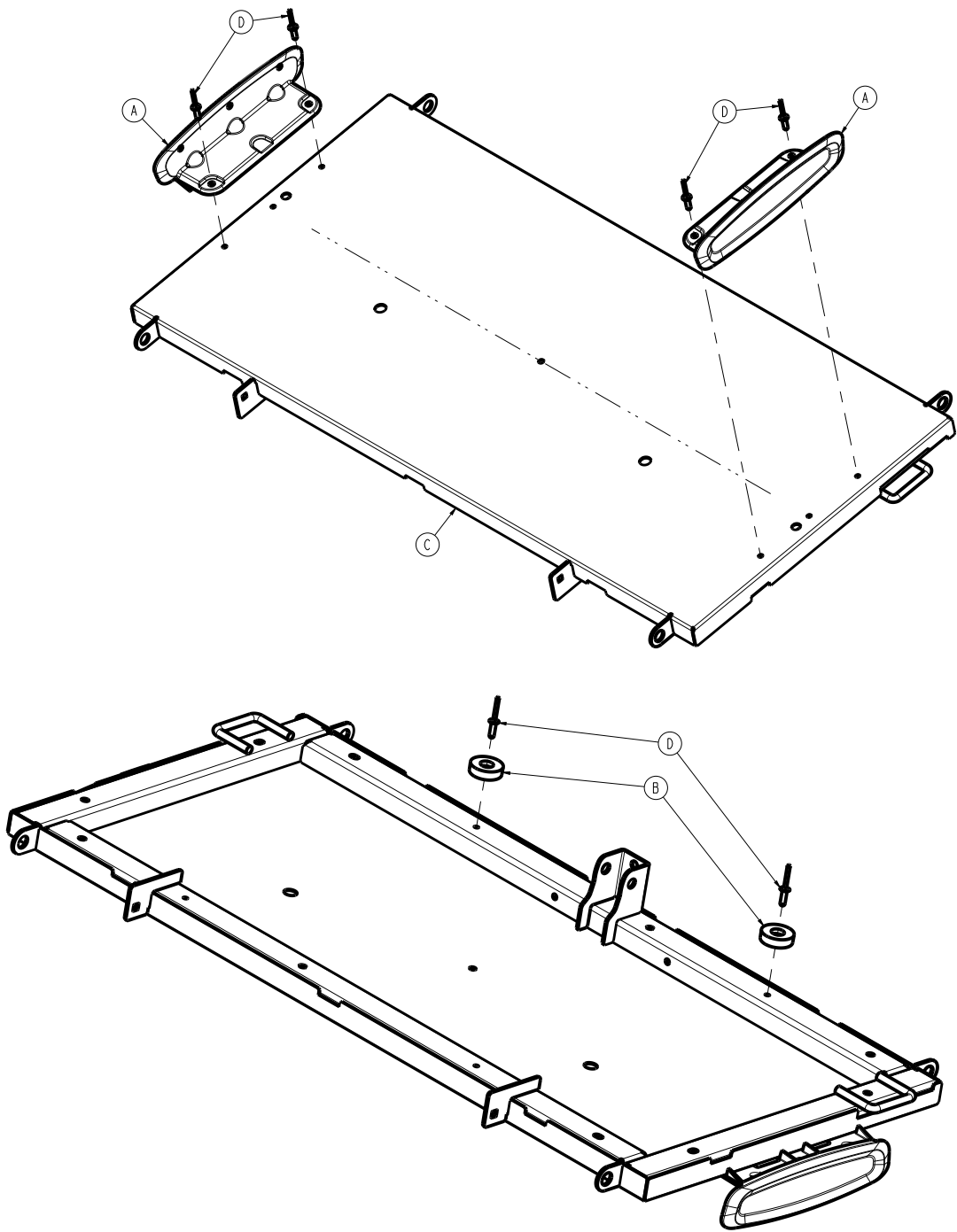
300900120075 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900120050	Fowler timing link weldment	1
B	700000521085	Flange bearing	4

Gatch assembly - 300900140150

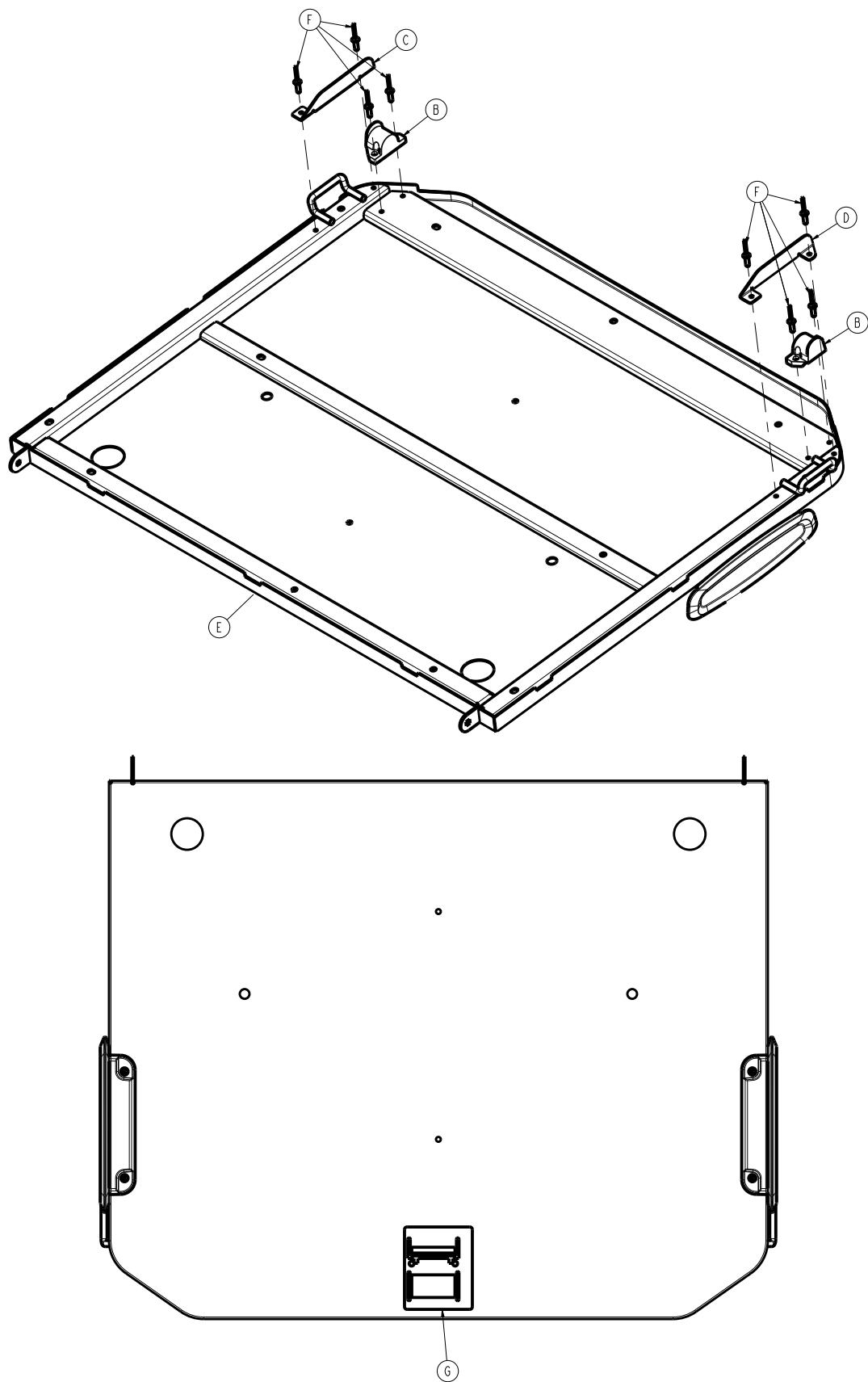
Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900140019	Gatch mattress retainer	2
B	300900140011	Gatch rest pad	2
C	300900140100	Gatch weldment	1
D	700000820540	Dome head rivet	6

Foot assembly - 300900150150

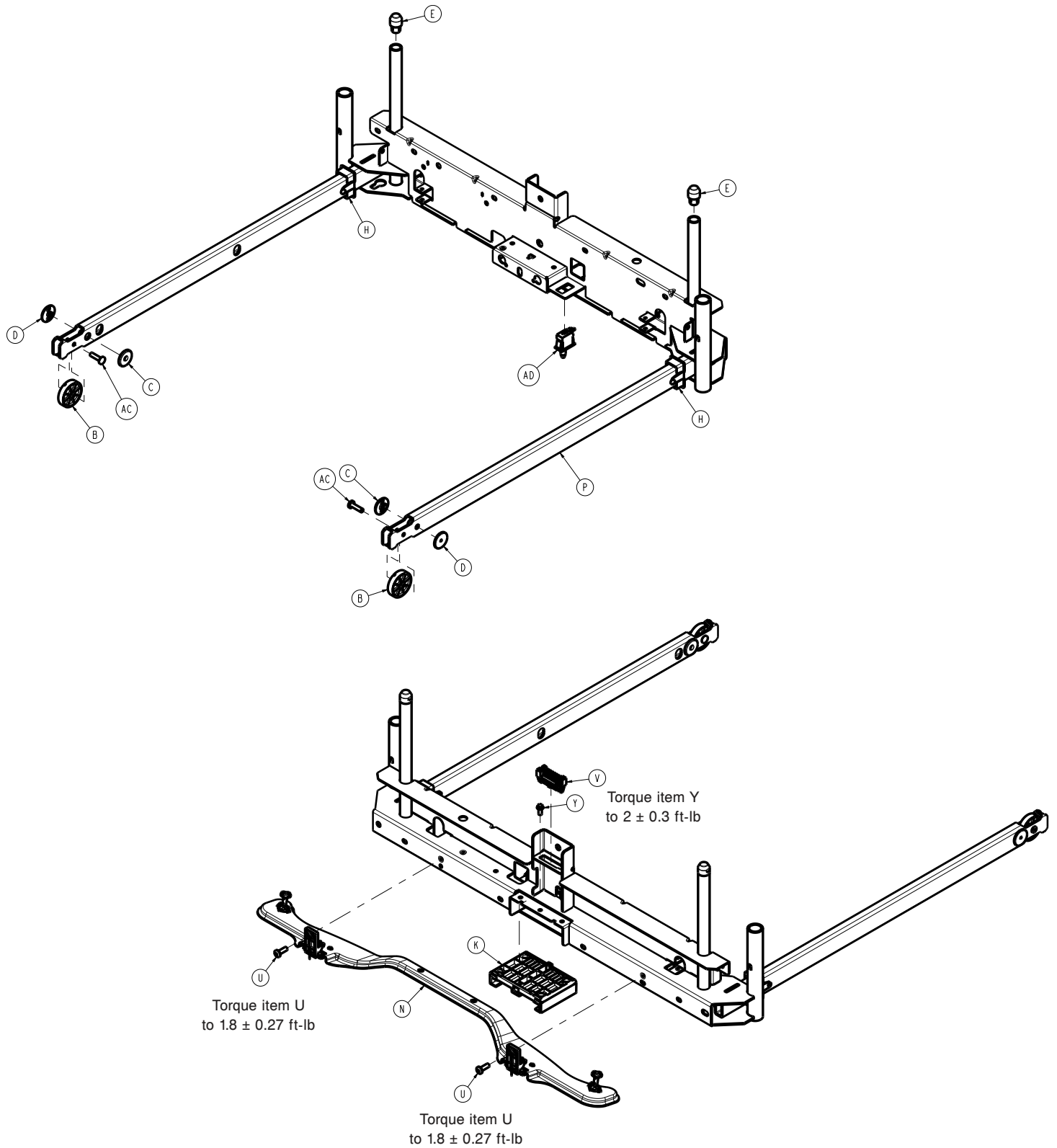
Rev AC (Reference only)

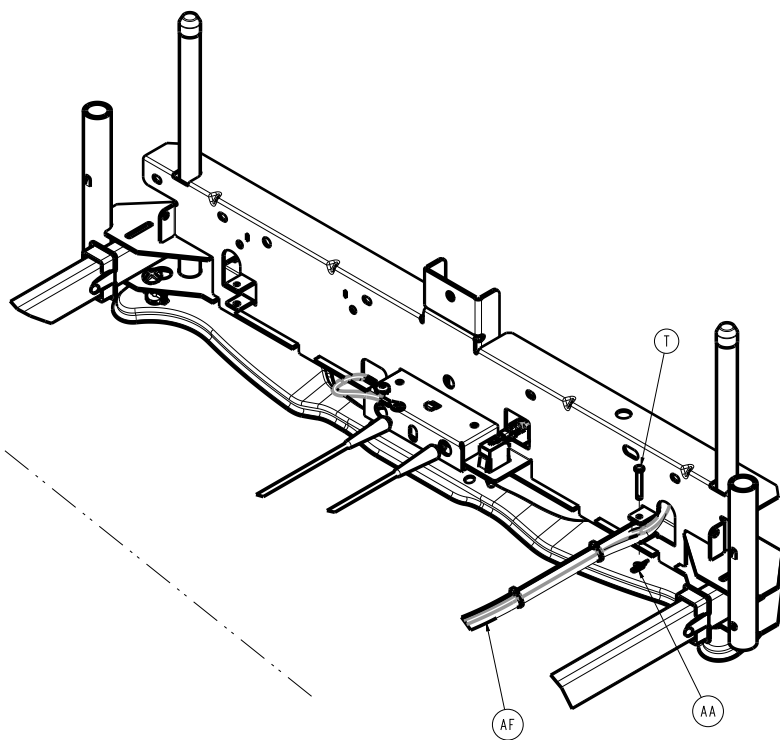
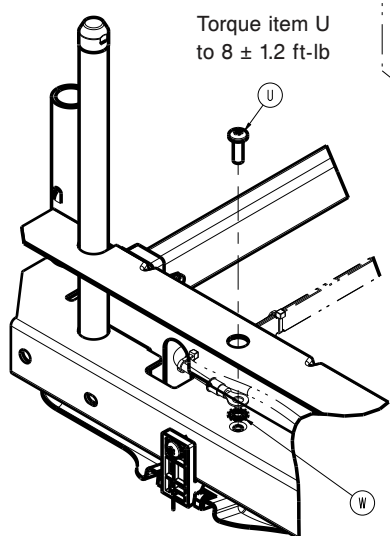
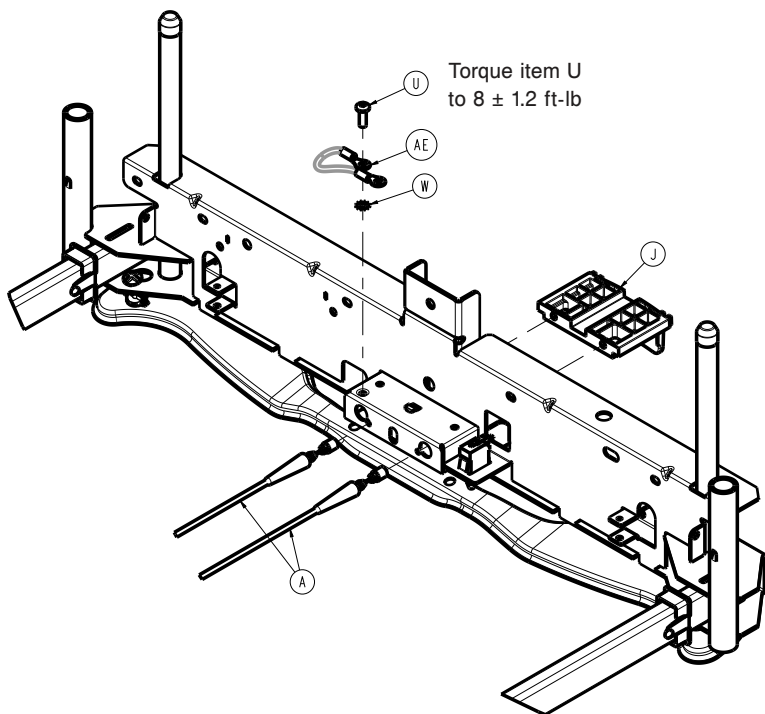


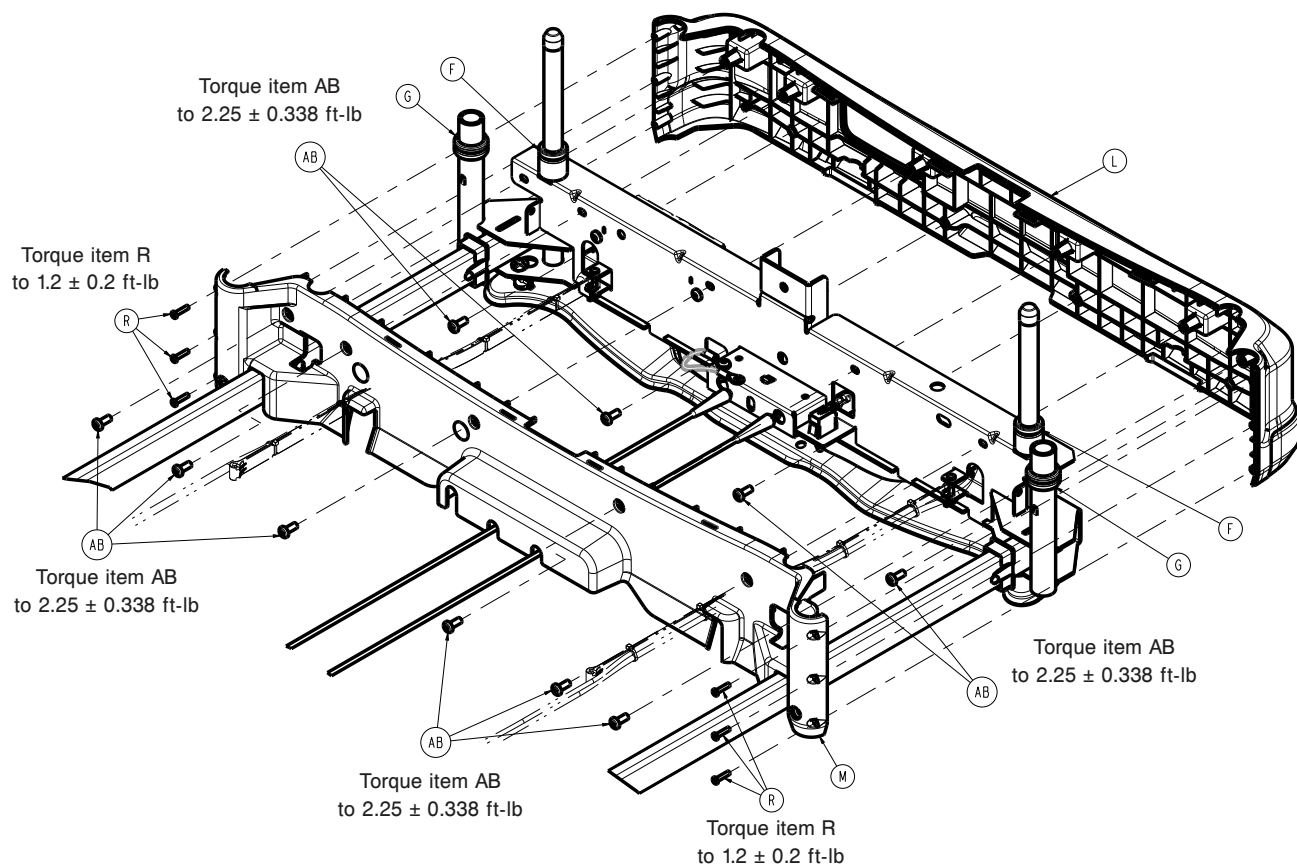
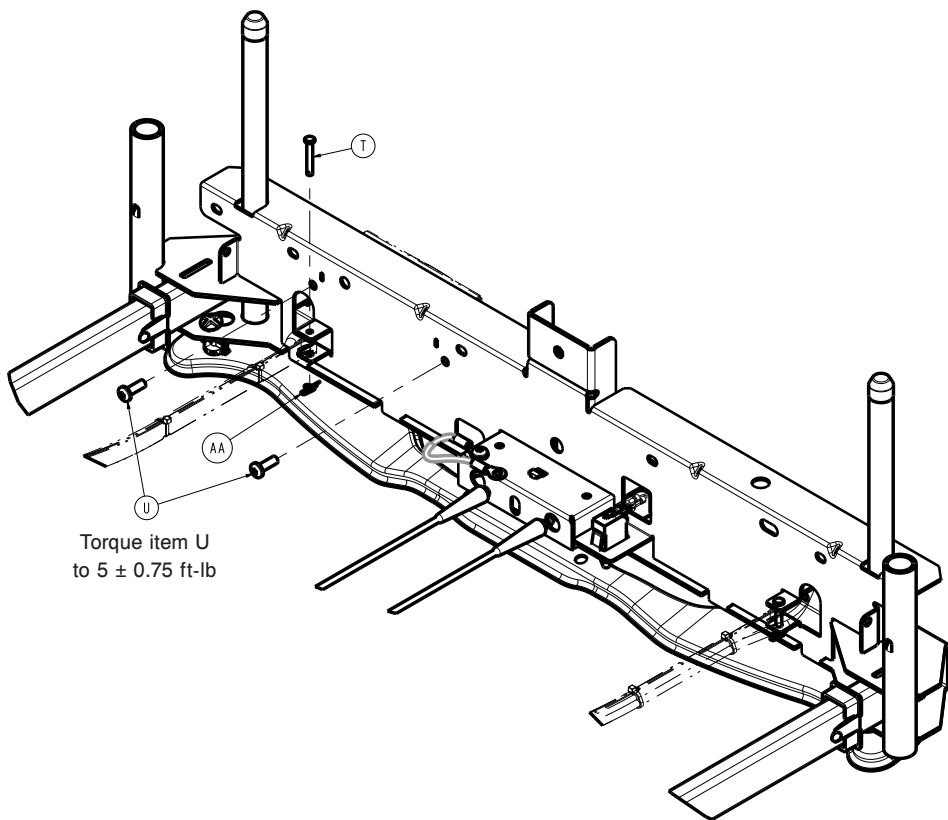
Item	Number	Name	Quantity
B	300900150011	Foot slider	2
C	300900150012	Foot slider guard, right	1
D	300900150013	Foot slider guard, left	1
E	300900150100	Foot weldment	1
F	700000820540	Dome head rivet	8
G	300900160009	Label, mattress compatibility	1

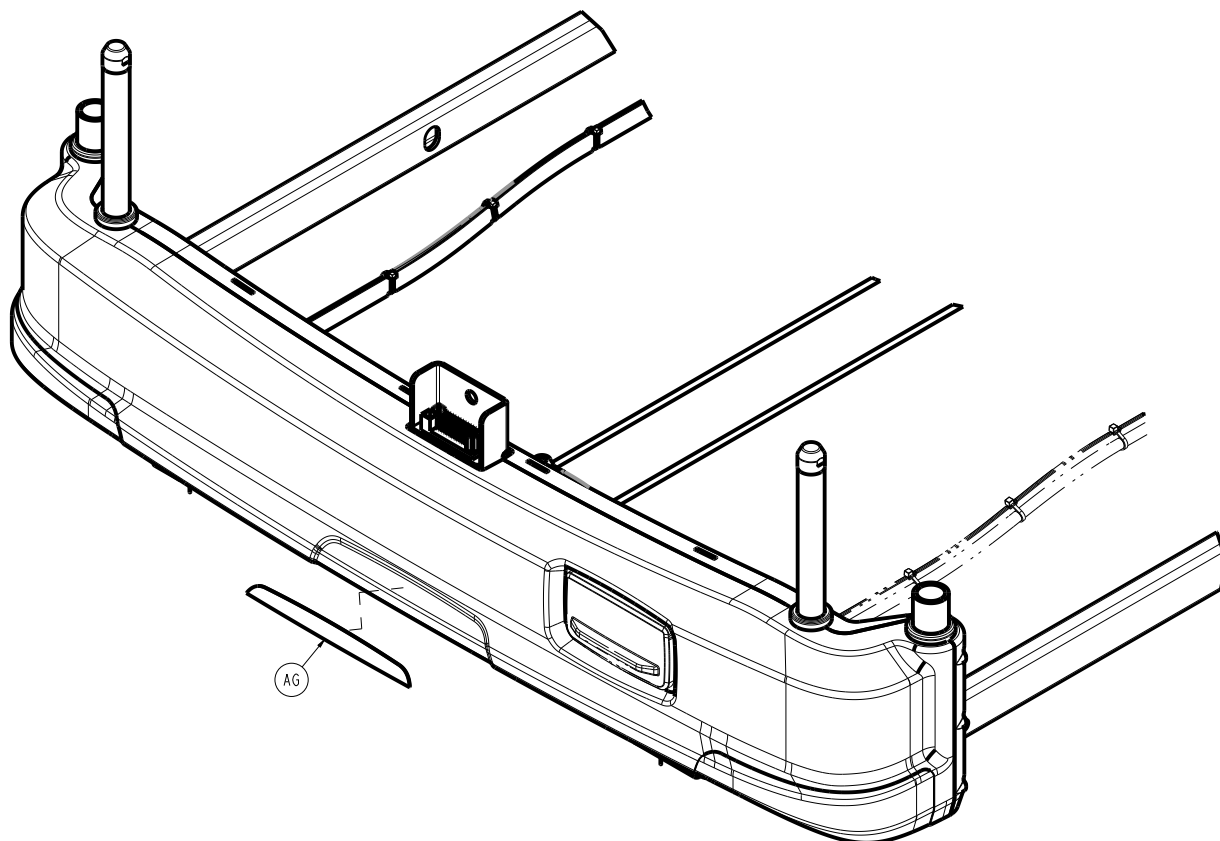
## Bed extender assembly

300900670000 Rev AB (Reference only)







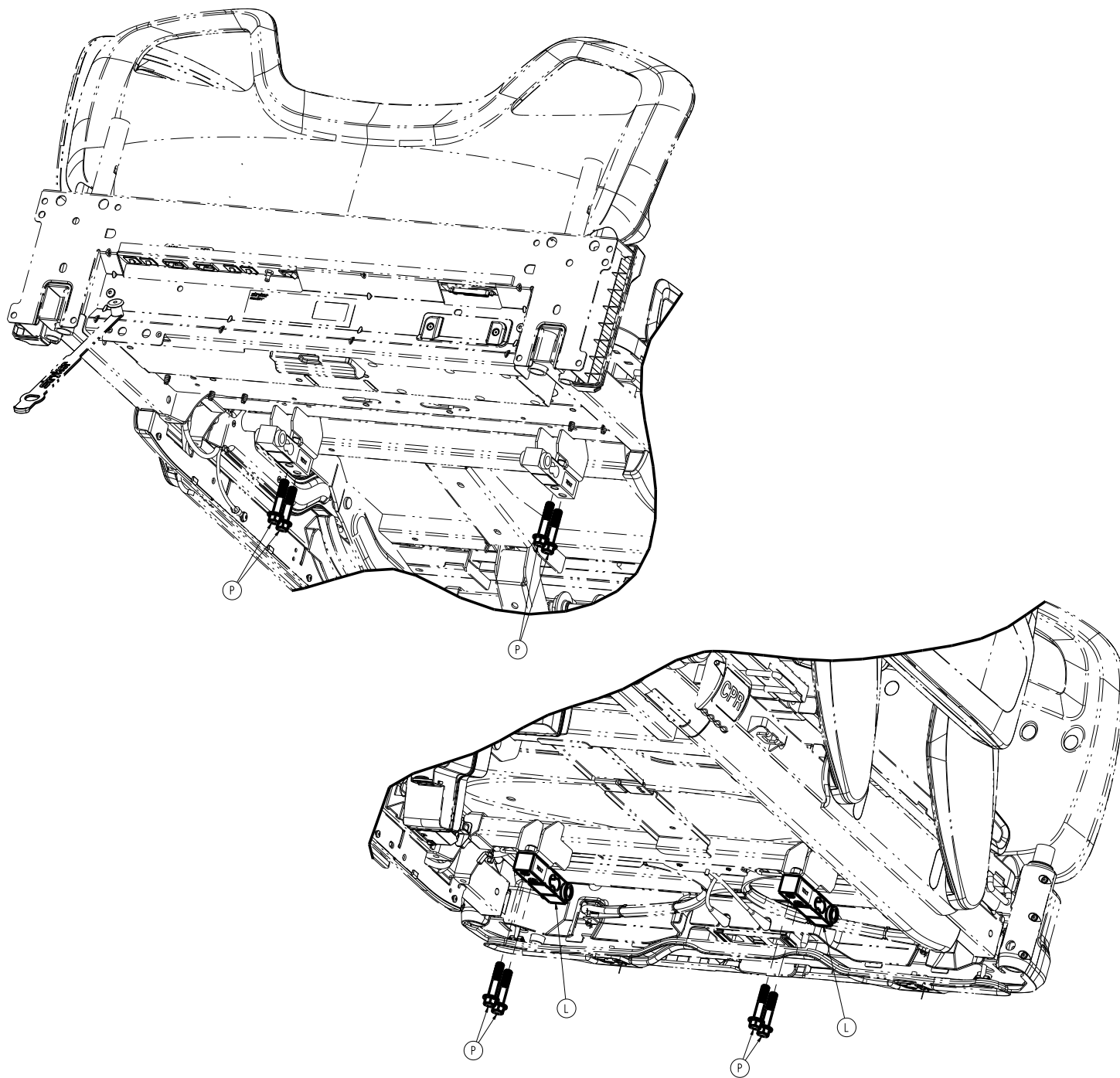


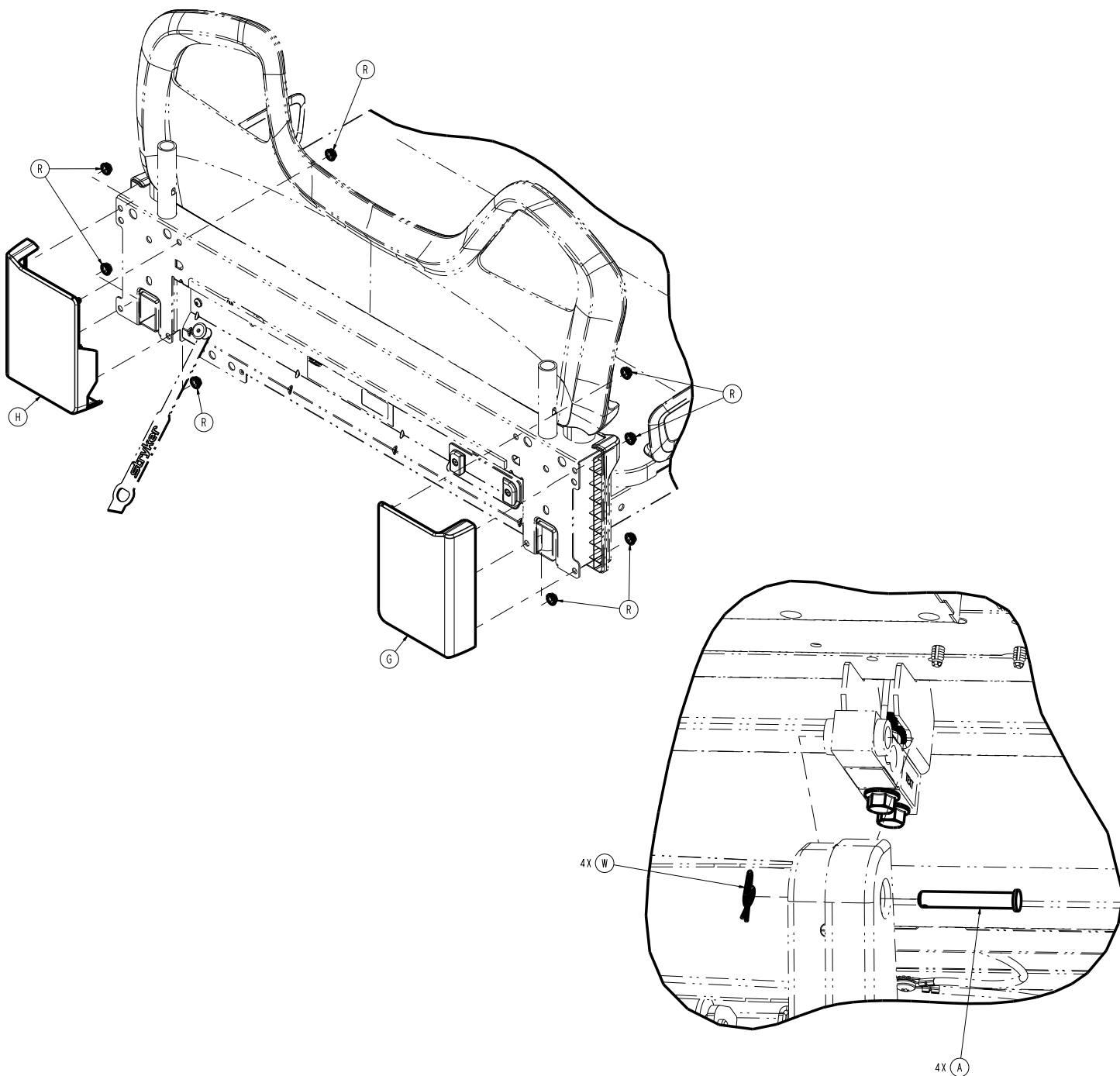
Item	Number	Name	Quantity
A	300900670009	Release cable	2
B	300900670011	Roller	2
C	300900670012	Rear bearing pad, inner	2
D	300900670013	Rear bearing pad, outer	2
E	300900670014	Footboard post cap	2
F	300900670016	Footboard cover grommet	2
G	300900670017	Traction cover grommet	2
H	300900670018	Slider guide	2
J	300900670021	Latch handle	1
K	300900670022	Latch handle slide	1
L	300900670026	Front cover	1
M	300900670027	Rear cover	1
N	300900670060	Motion interrupt pan assembly	1
P	300900670100	Frame weldment	1
R	700000543840	Truss head thread forming screw	6
T	700000661688	Clevis pin	2
U	700000775295	Pan head thread rolling screw	6
V	700000820484	Blind mating connector	1
W	0013-010-000	External tooth lock washer	2
Y	0023-126-000	Hex washer head fastener	1
AA	0027-020-000	Rue ring cotter	2
AB	0050-086-000	Pan head machine screw	10
AC	0753-003-098	Flat head rivet	2

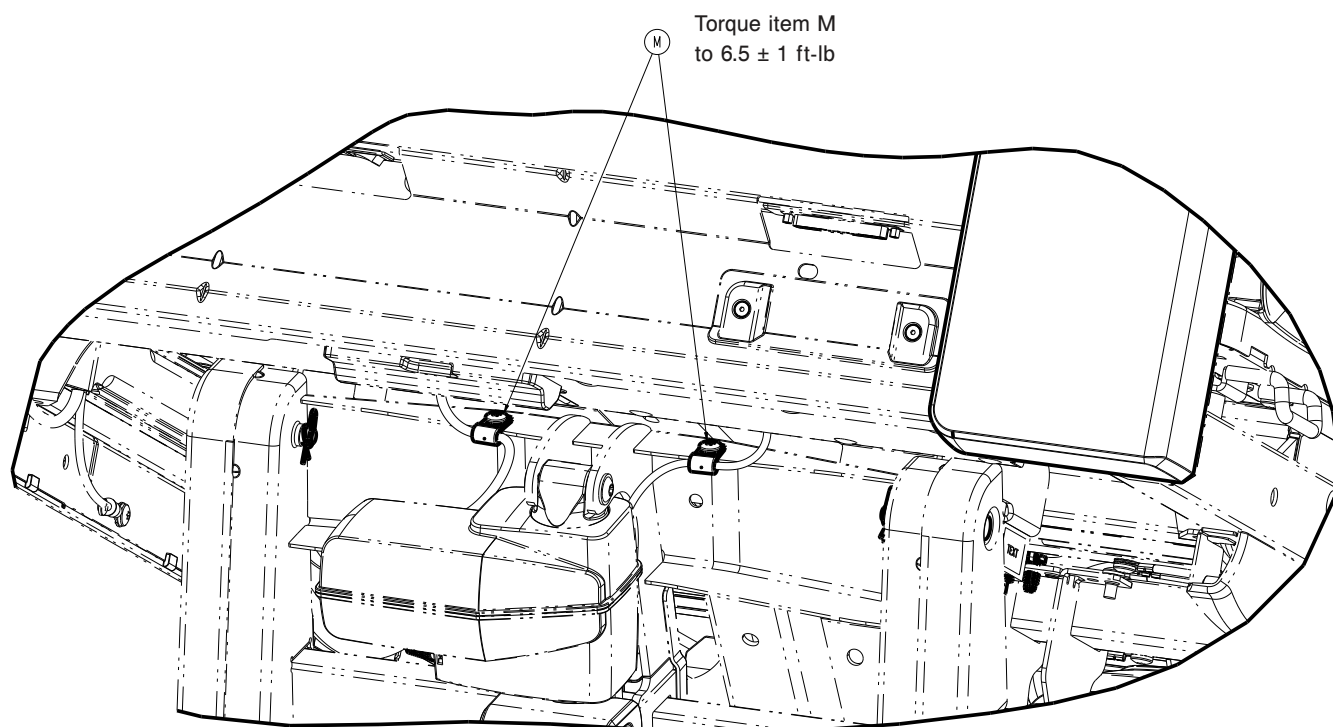
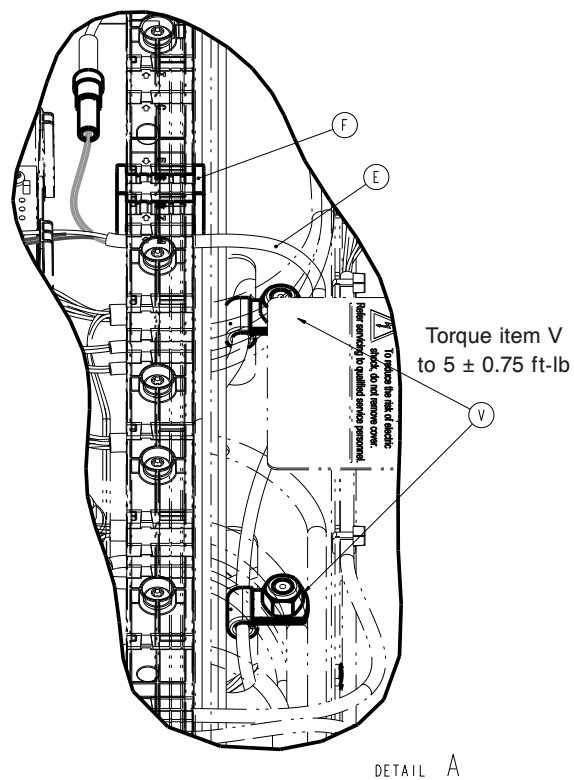
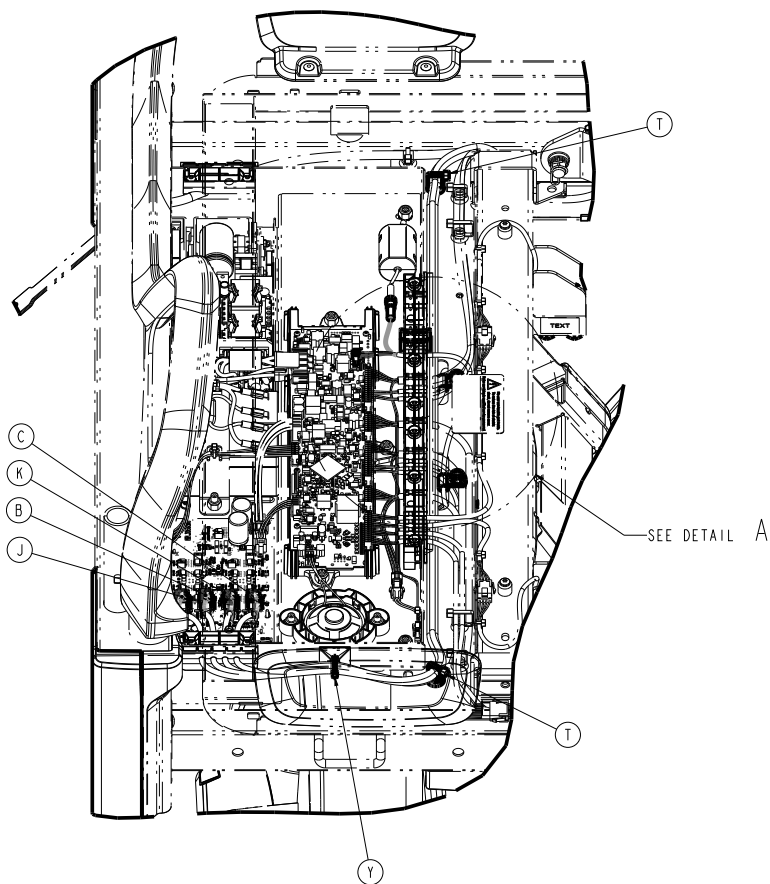
Item	Number	Name	Quantity
AD	3000-300-058	Plunger switch	1
AE	3002-300-870	Litter ground jumper	1
AF	300900100822	Cable assembly	1
AG	300900670701	Label, bed extender	1

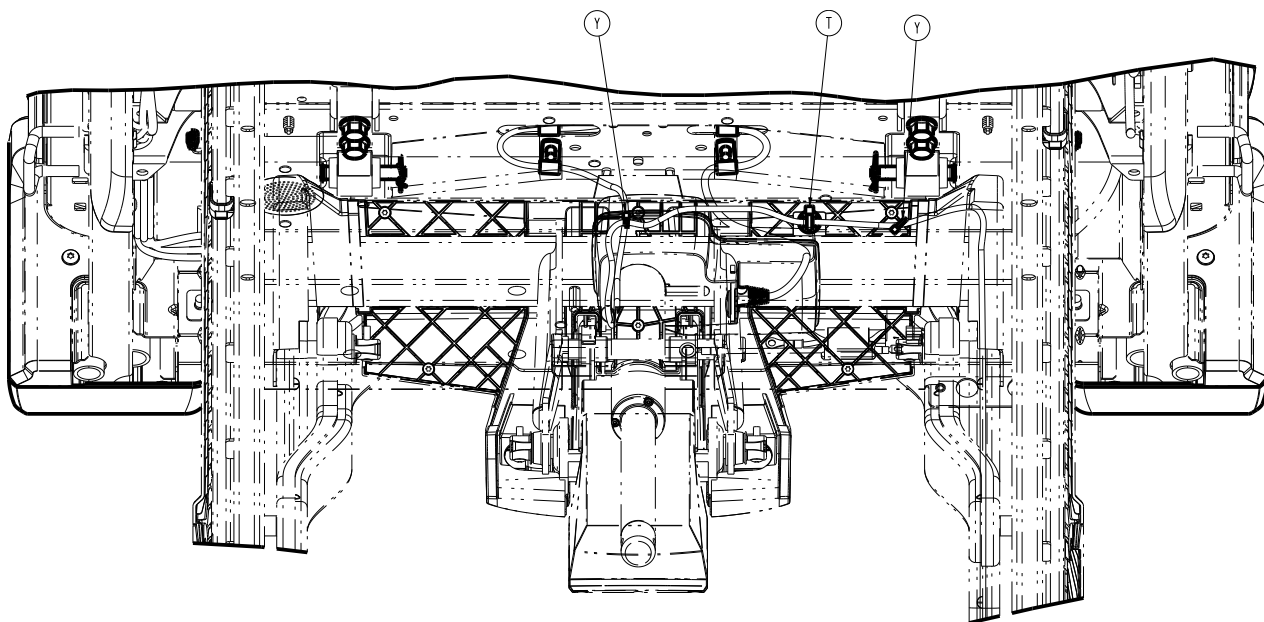
## Manual brakes assembly

300900030250 Rev AB (Reference only)

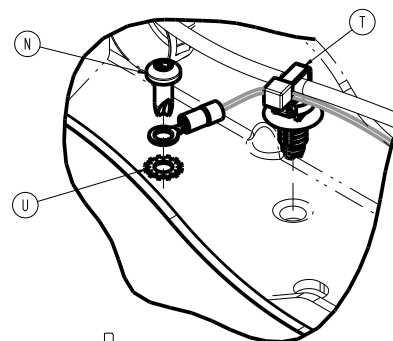




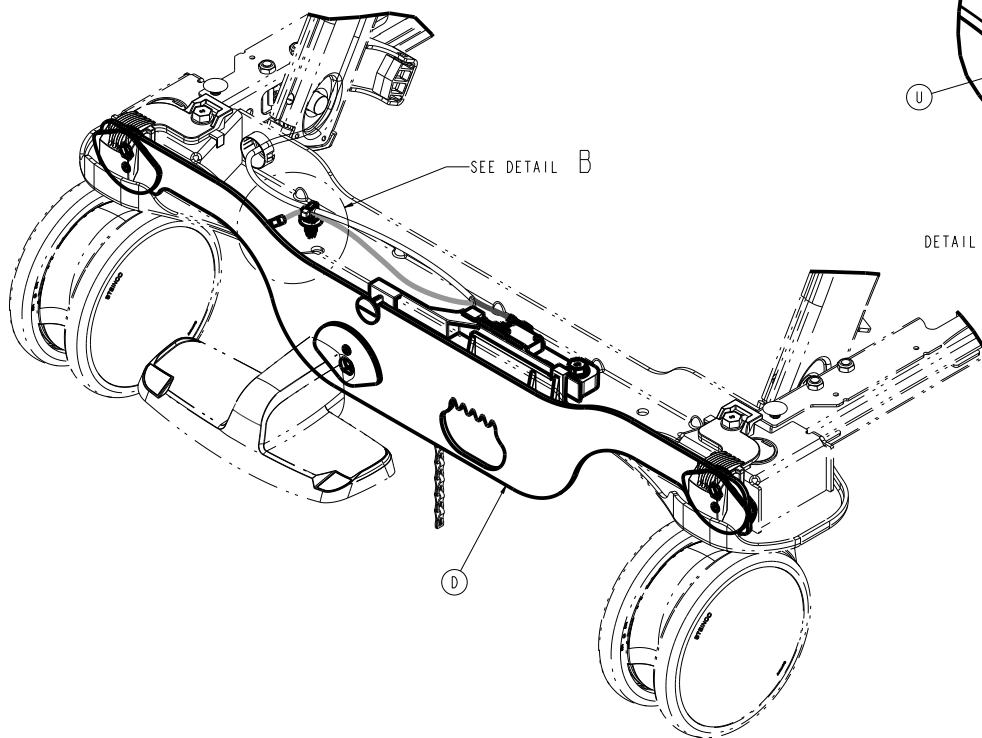


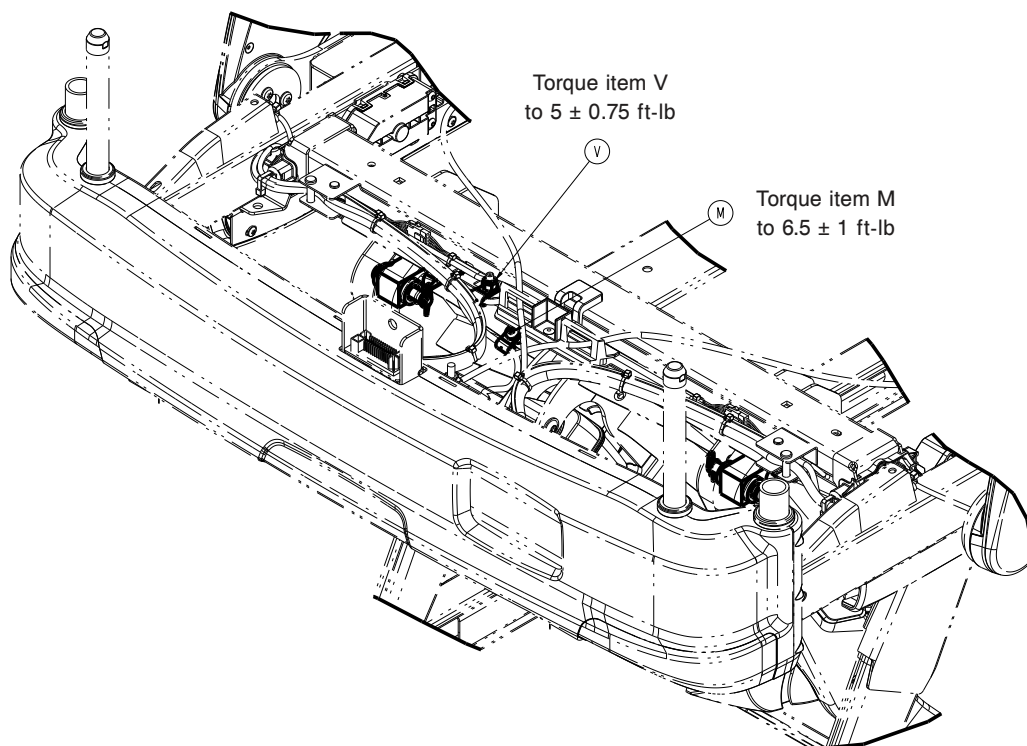
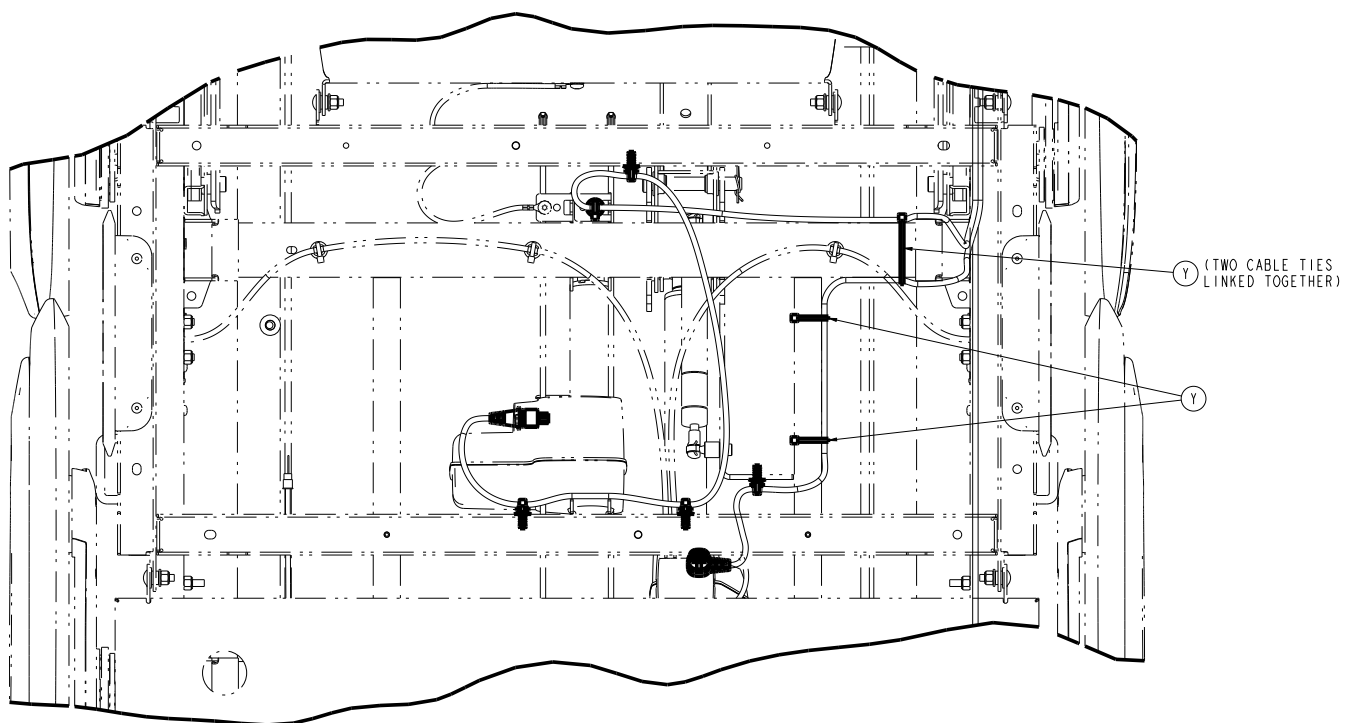


Torque item N  
to  $5 \pm 0.75$  ft-lb



DETAIL B



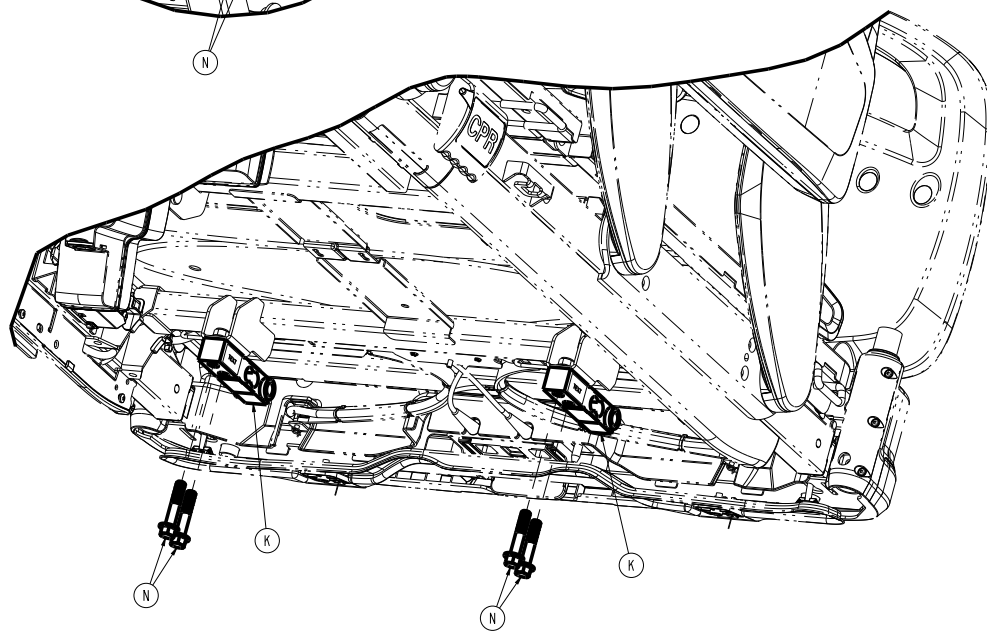
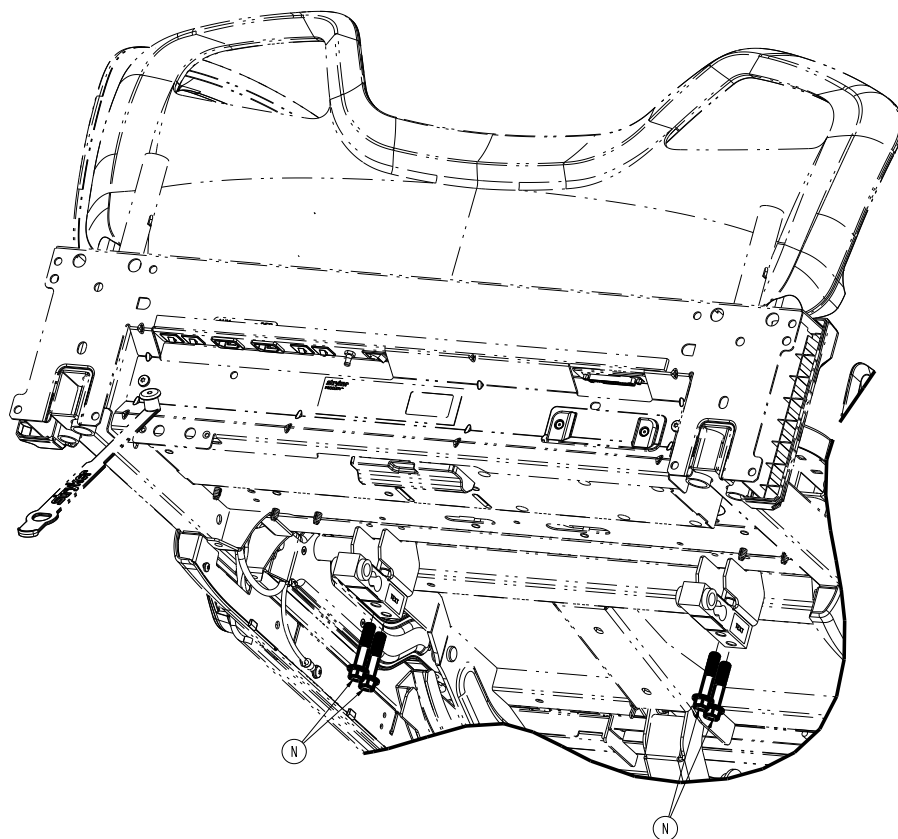


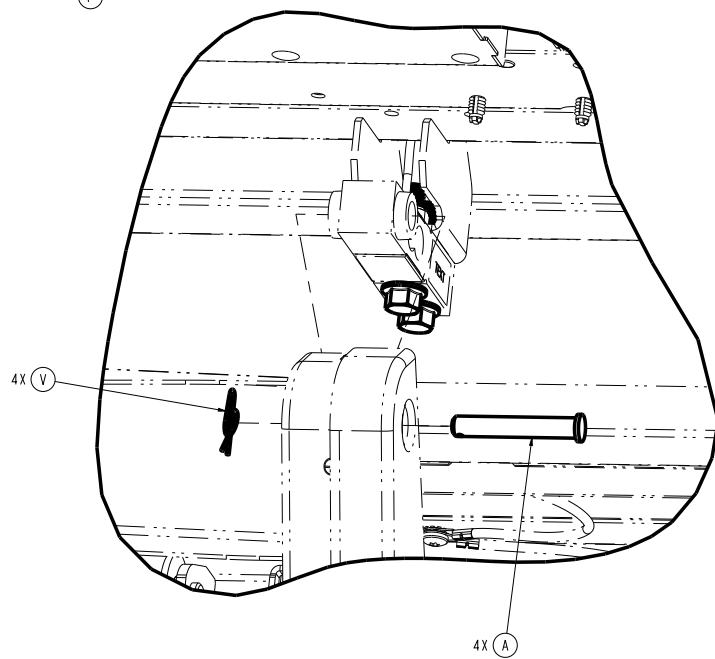
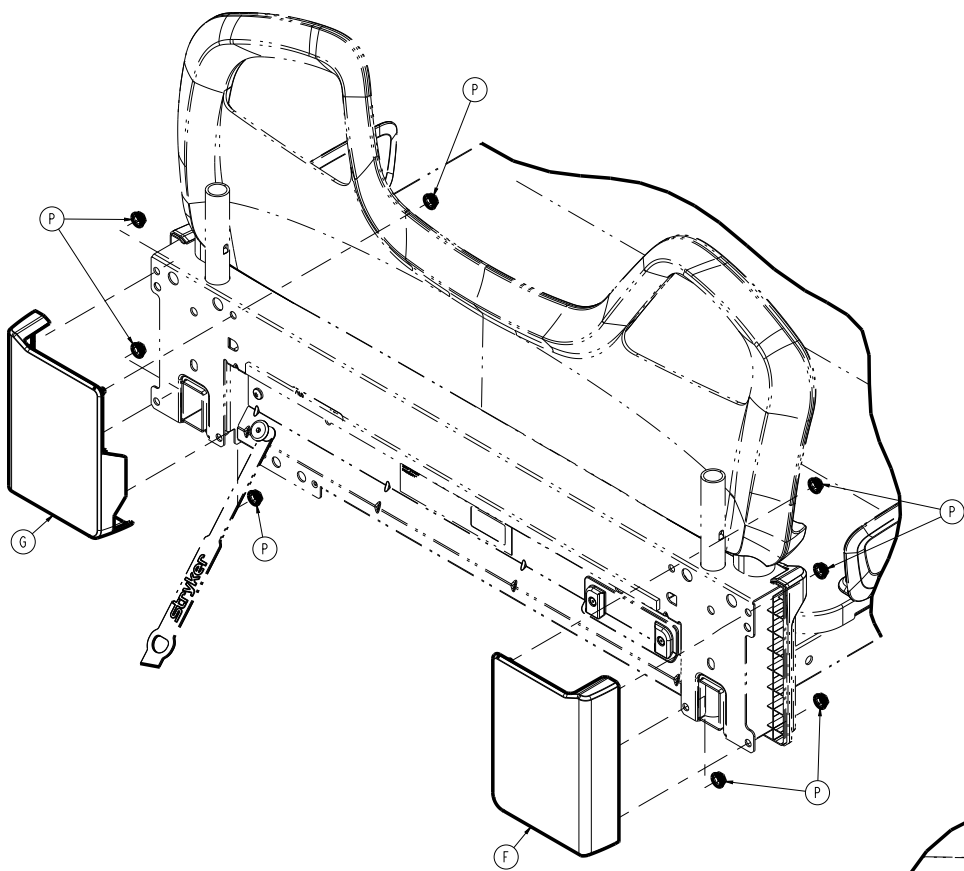
Item	Number	Name	Quantity
A	300900020027	Lift loadcell pin	4
B	300900020870	Lift actuator cable, head end	1
C	300900020875	Lift actuator cable, foot end	1
D	300900030100	Manual brakes base assembly (page 91)	1
E	300900030810	Cable assembly	1
F	300900100016	Litter electronics box manual brake plug	1

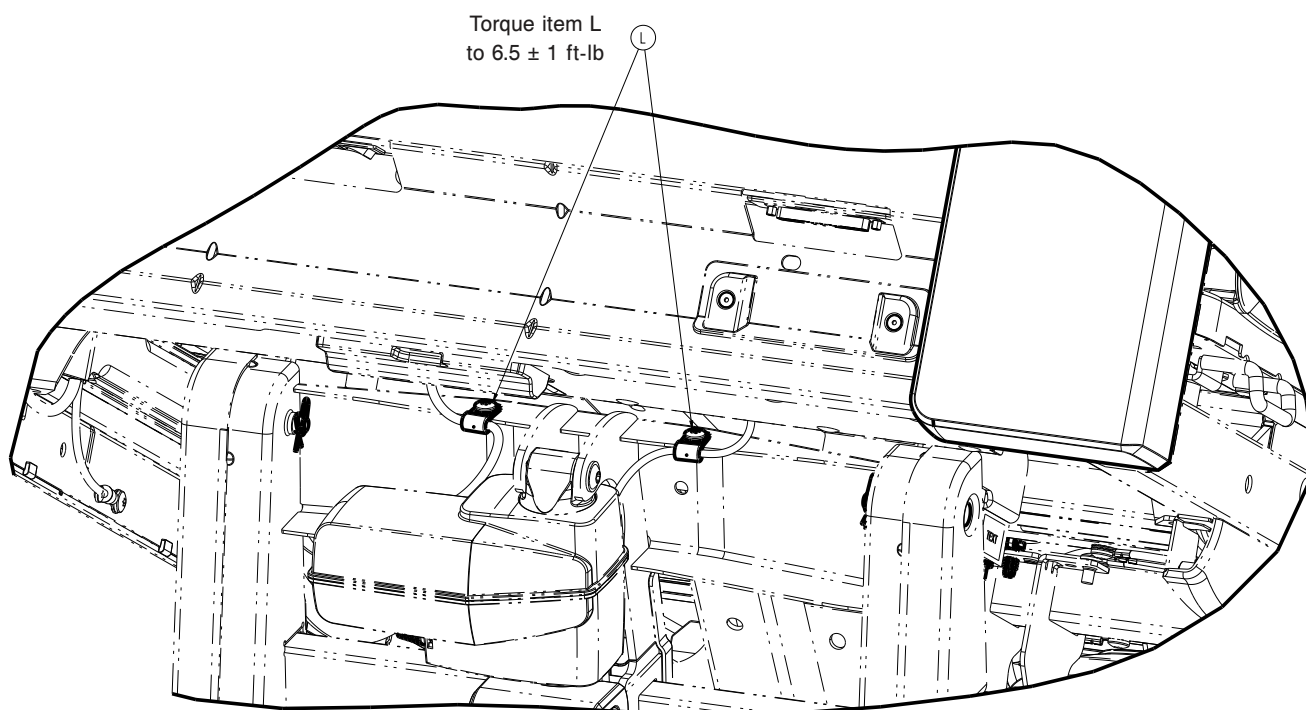
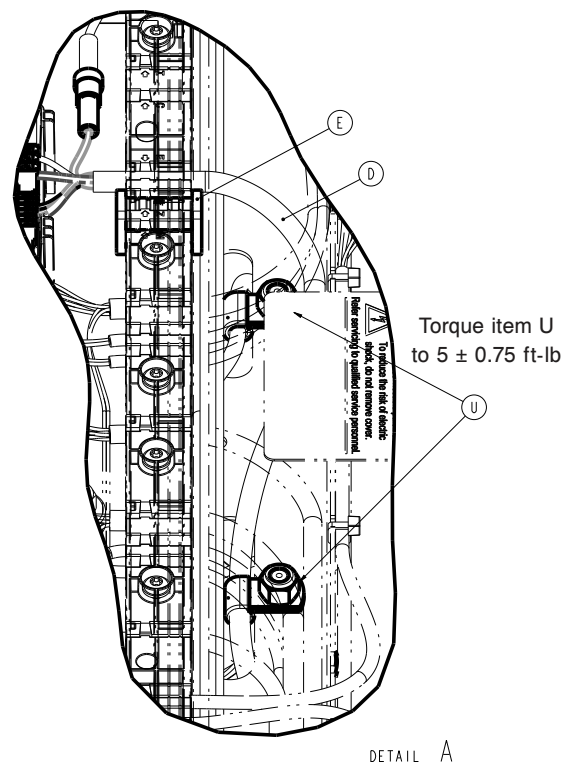
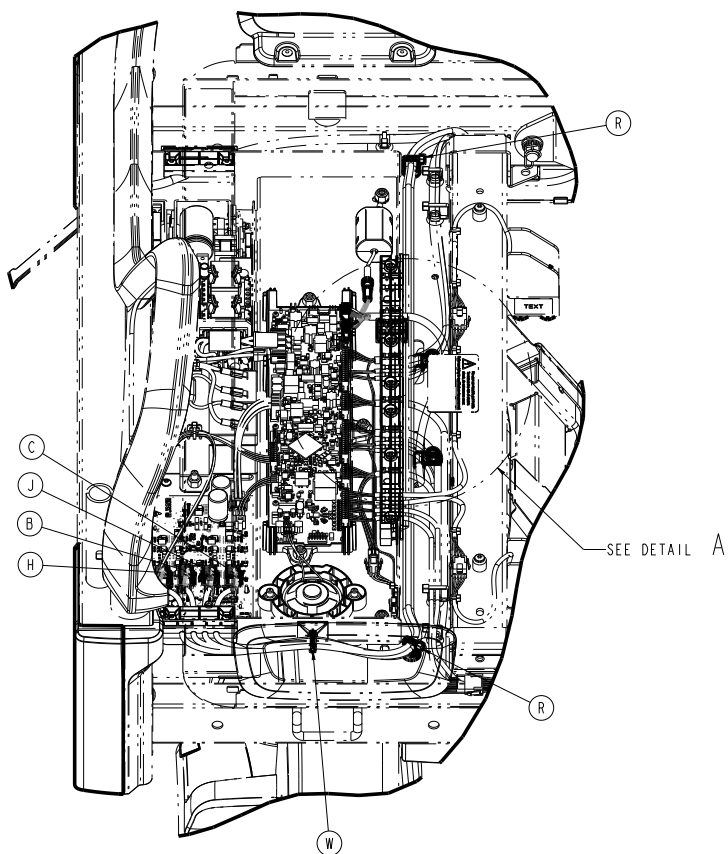
Item	Number	Name	Quantity
G	300900100168	Litter head end bumper, right	1
H	300900100169	Litter head end bumper, left	1
J	300900120875	Fowler actuator cable	1
K	300900140875	Gatch actuator cable	1
L	300900370855	Non-Zoom foot end loadcell cable assembly	2
M	700000336076	Pan head thread rolling screw	3
N	700000668696	Pan head thread cutting screw	1
P	700000717577	Hex flange screw	8
R	700000741214	Thread cutting nut	8
T	700000816940	Tree mount	4
U	0013-018-000	External tooth lock washer	1
V	0016-028-000	Nylock hex nut	3
W	0027-022-000	Rue ring cotter	4
Y	3000-300-113	Cable tie	6

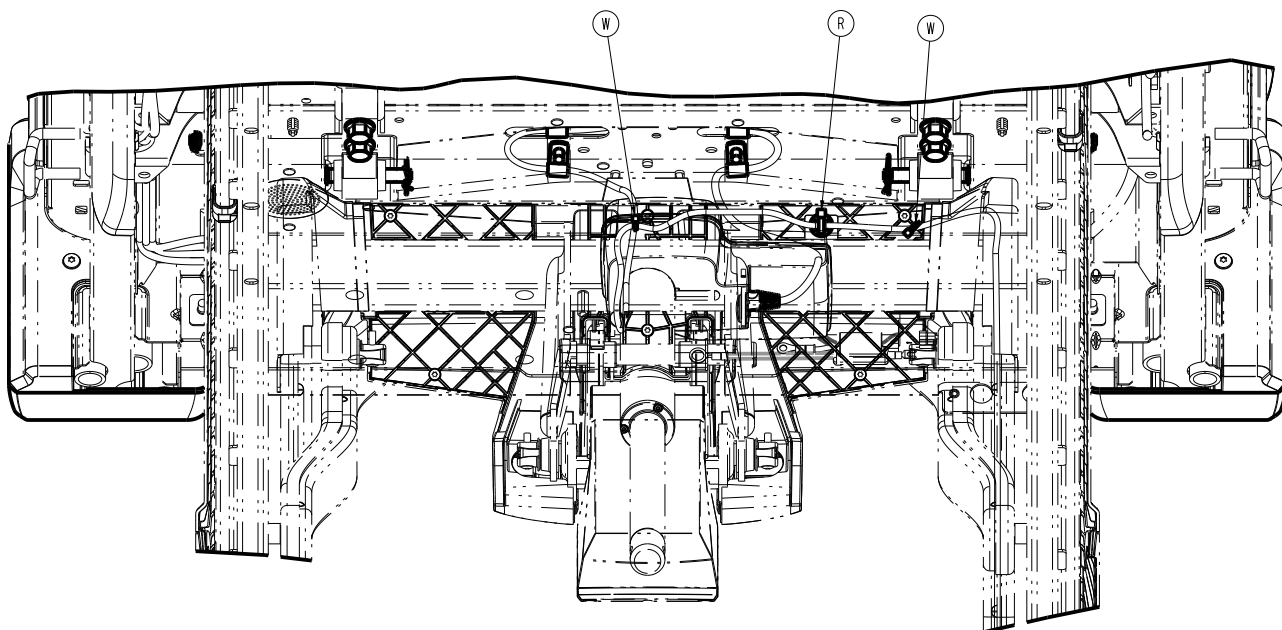
## Electric brakes assembly

300900030350 Rev AB (Reference only)

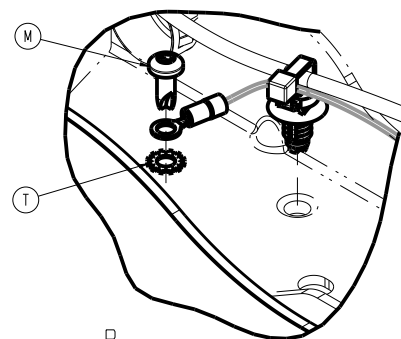




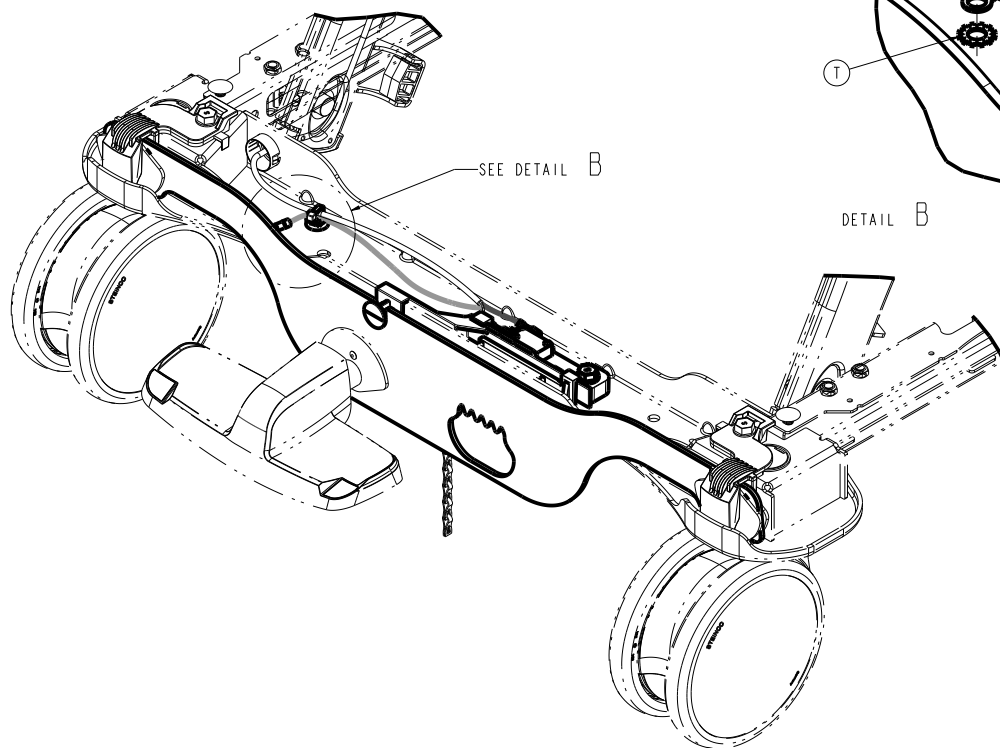


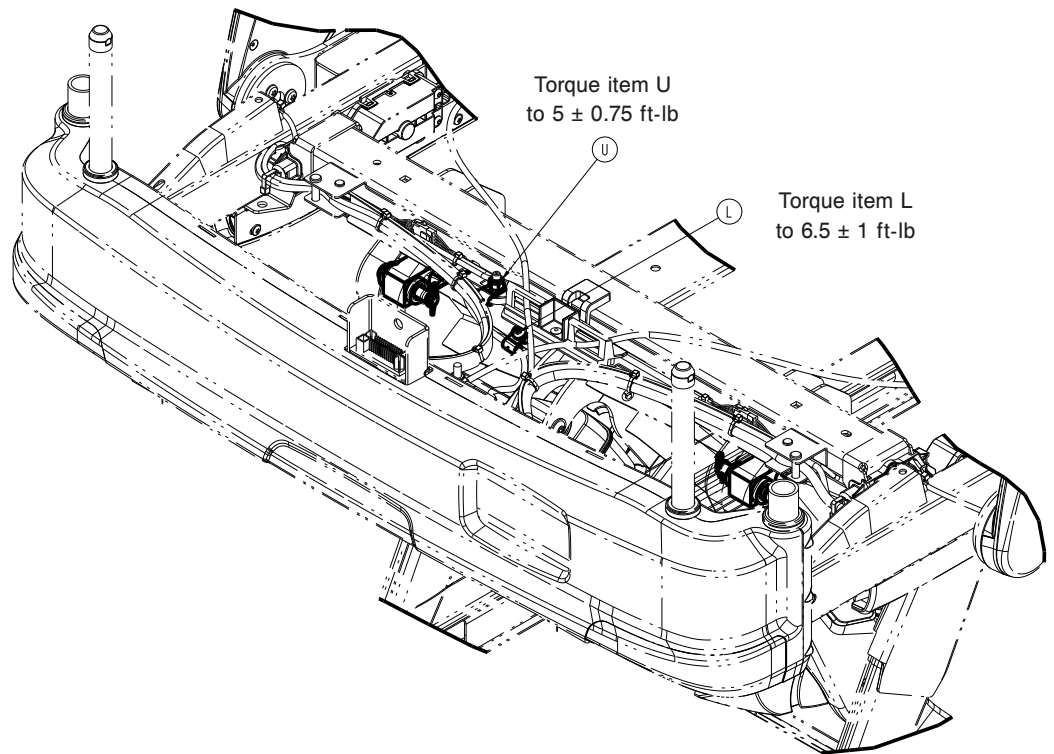
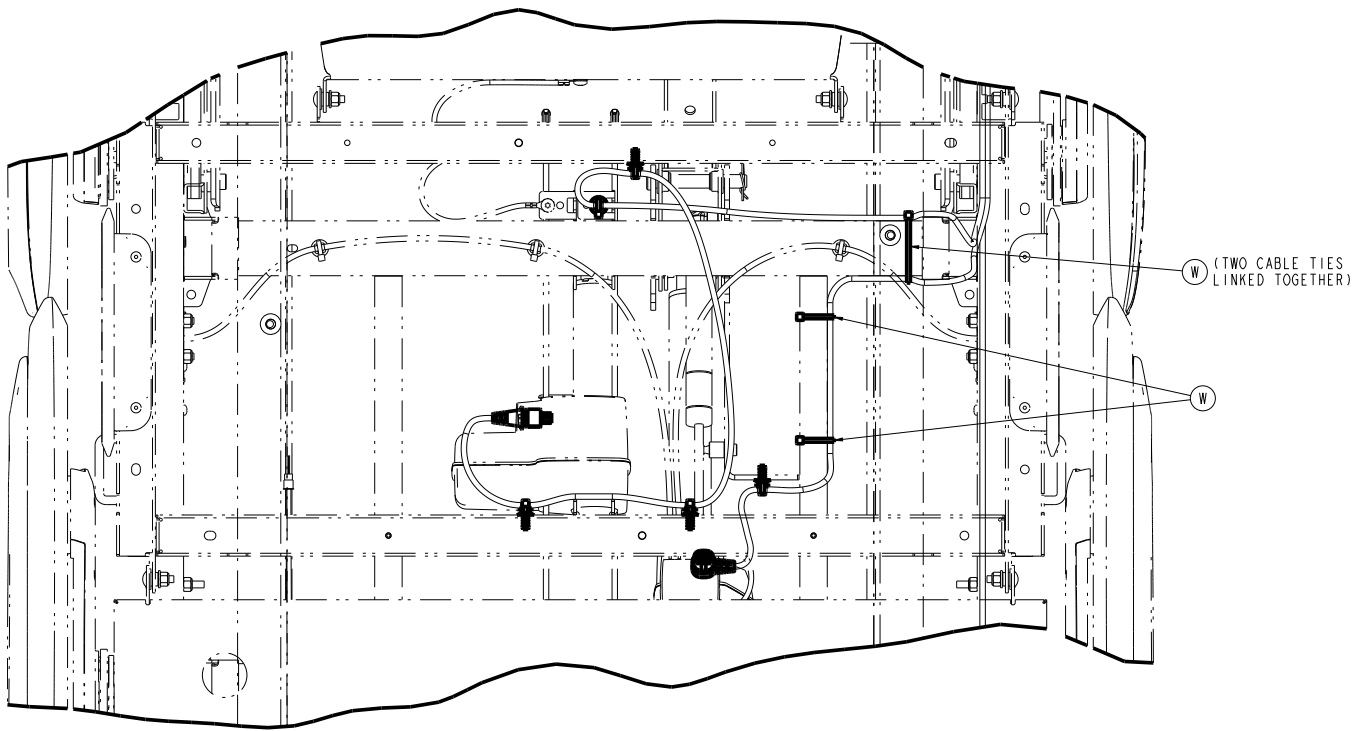


Torque item M  
to  $5 \pm 0.75$  ft-lb



DETAIL B



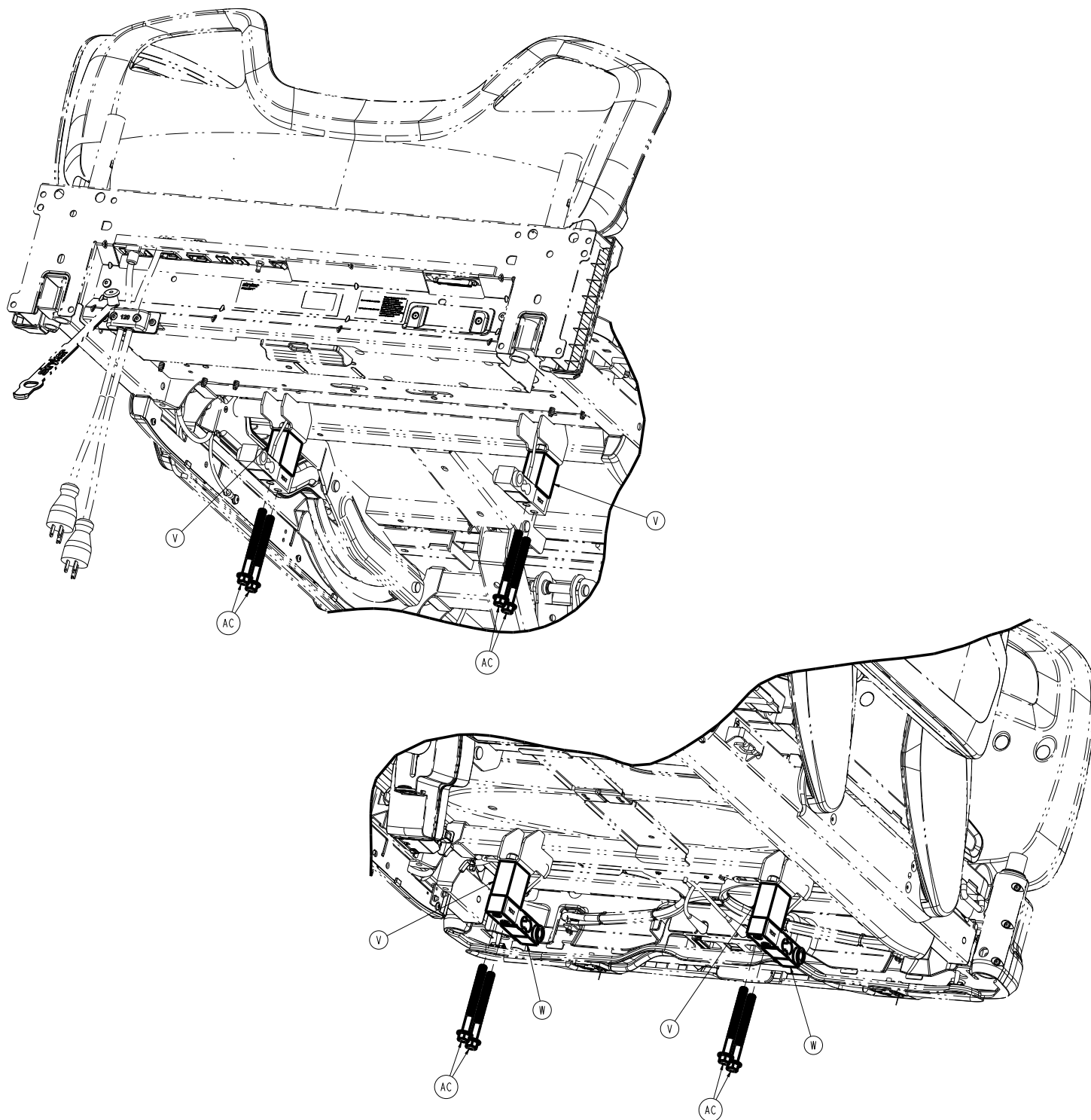


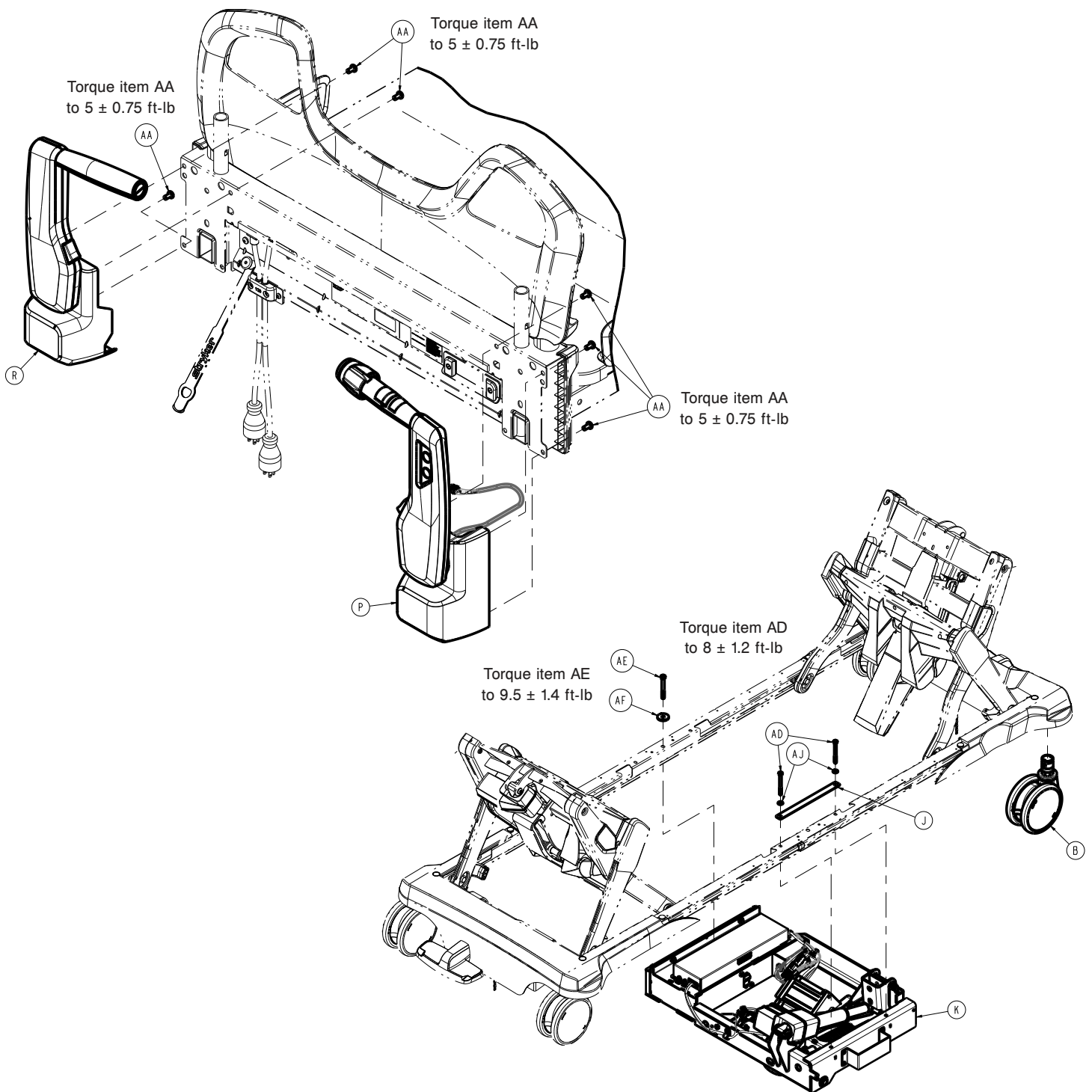
Item	Number	Name	Quantity
A	300900020027	Lift loadcell pin	4
B	300900020870	Lift actuator cable, head end	1
C	300900020875	Lift actuator cable, foot end	1
D	300900030820	Cable assembly	1
E	300900100017	Litter electronics box electric brake plug	1
F	300900100168	Litter head end bumper, right	1
G	300900100169	Litter head end bumper, left	1

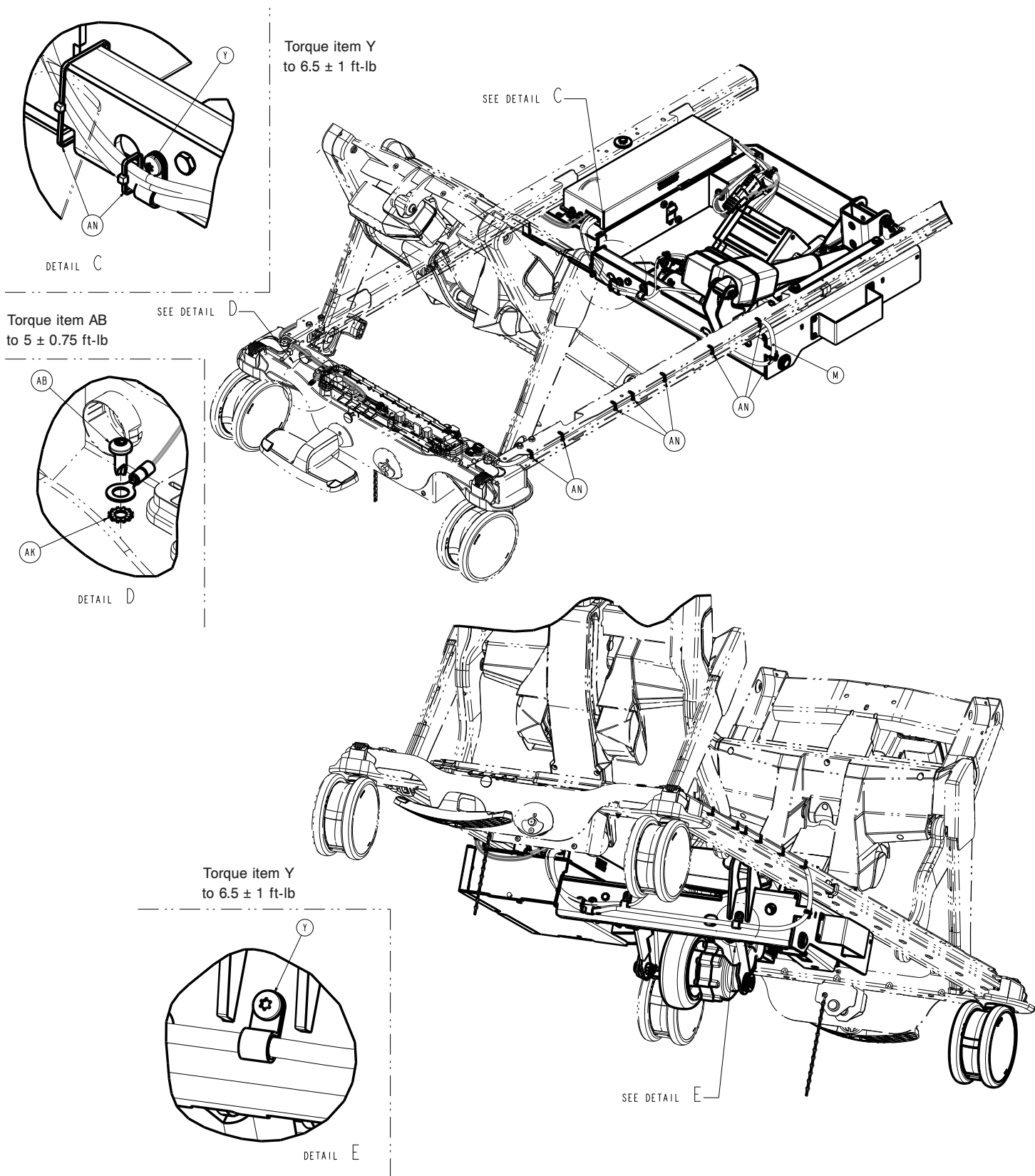
Item	Number	Name	Quantity
H	300900120875	Fowler actuator cable	1
J	300900140875	Gatch actuator cable	1
K	300900370855	Non-Zoom foot end loadcell cable assembly	2
L	700000336076	Pan head thread rolling screw	3
M	700000668696	Pan head thread cutting screw	1
N	700000717577	Hex flange screw	8
P	700000741214	Thread cutting nut	8
R	700000816940	Tree mount	3
T	0013-018-000	External tooth lock washer	1
U	0016-028-000	Nylock hex nut	3
V	0027-022-000	Rue ring cotter	4
W	3000-300-113	Cable tie	9

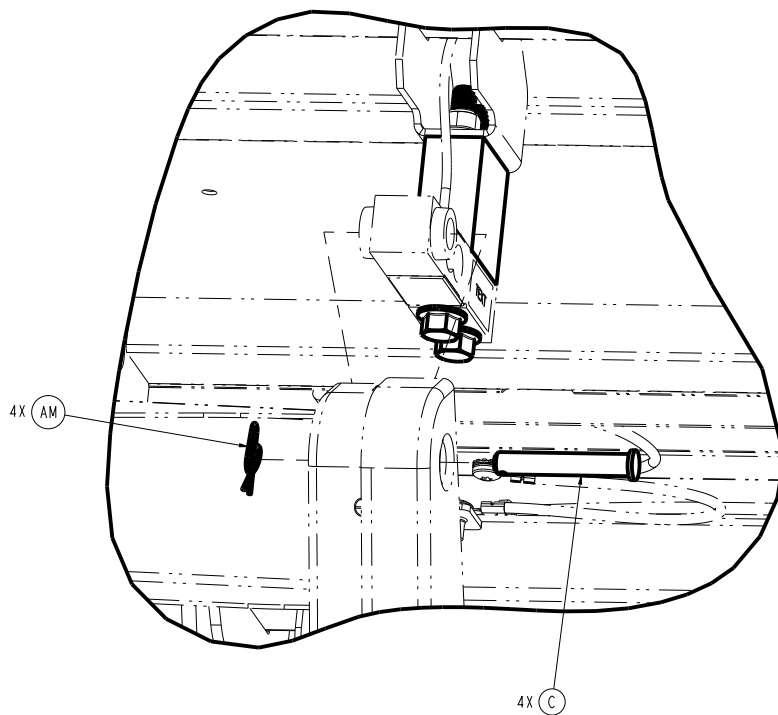
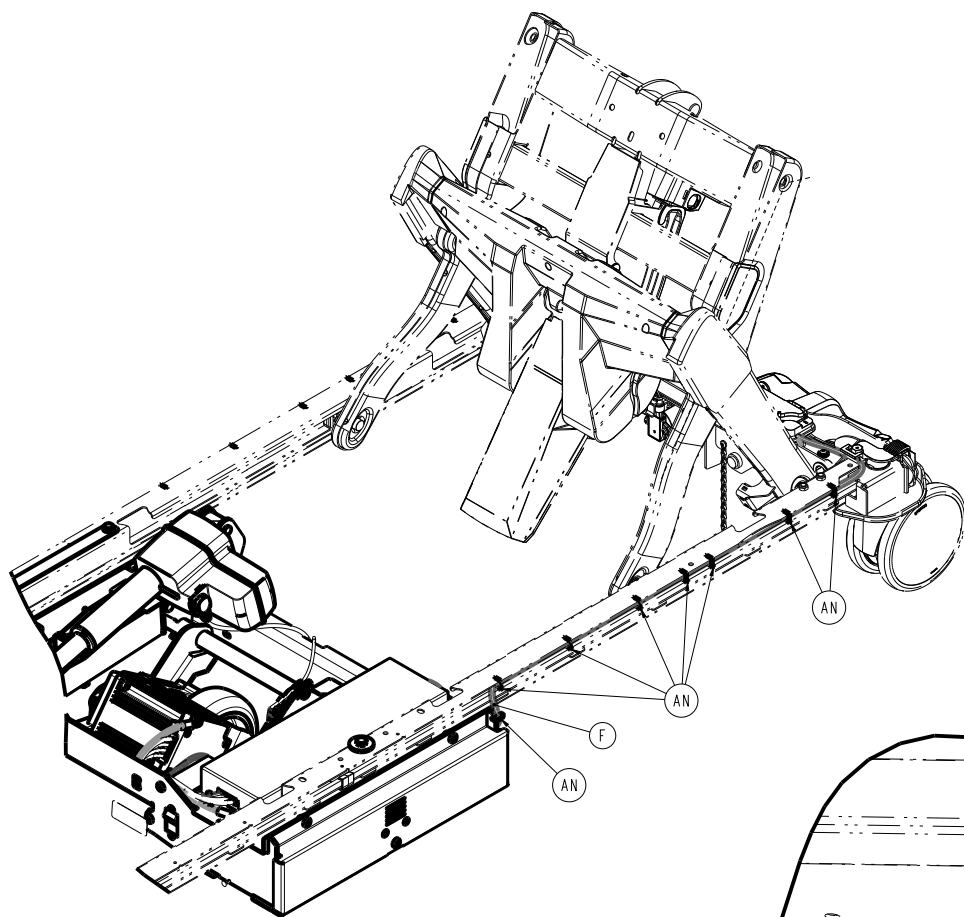
## Zoom assembly

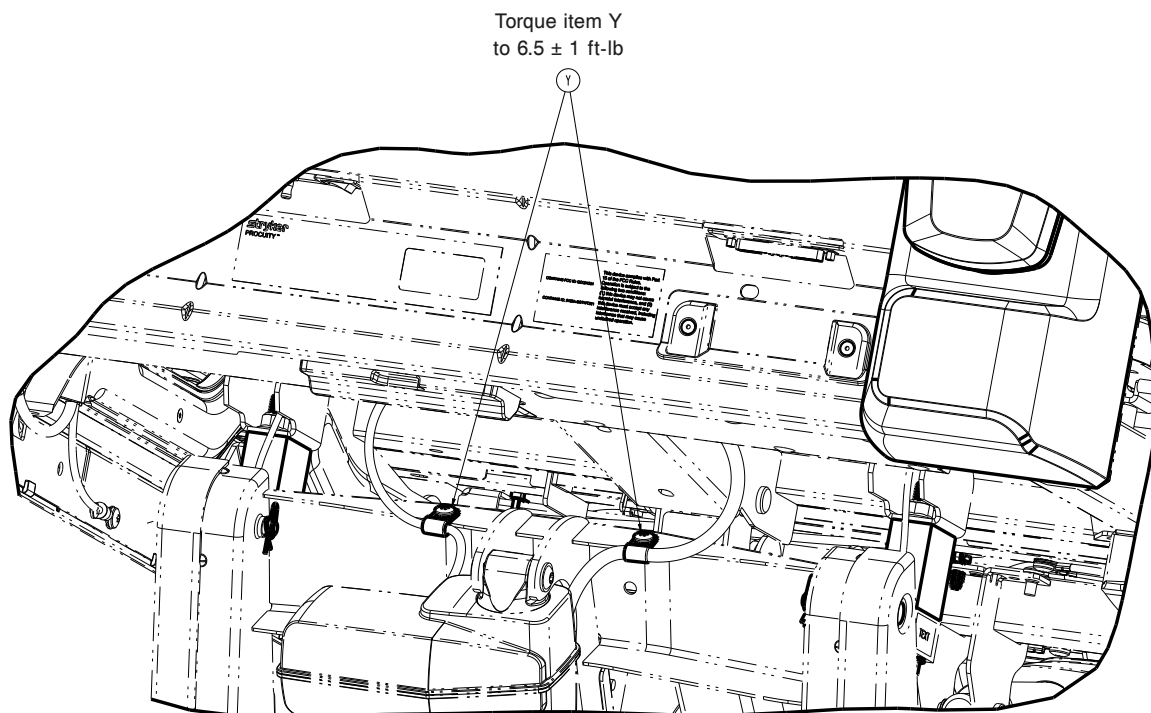
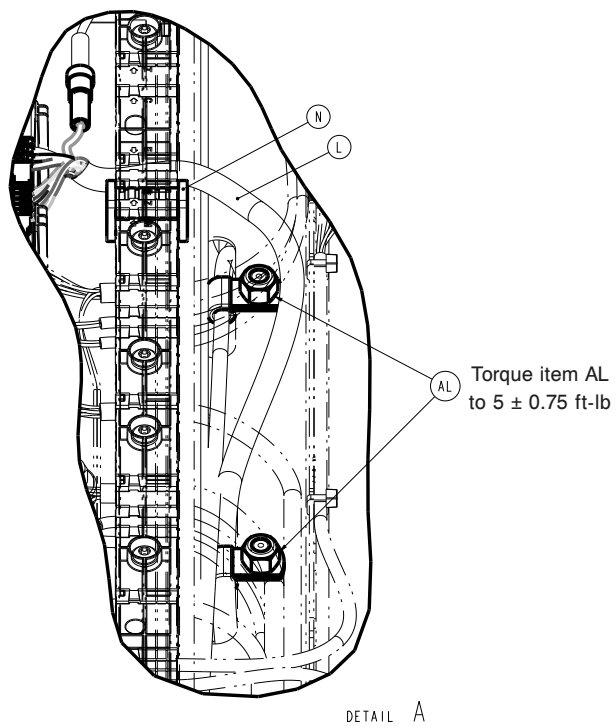
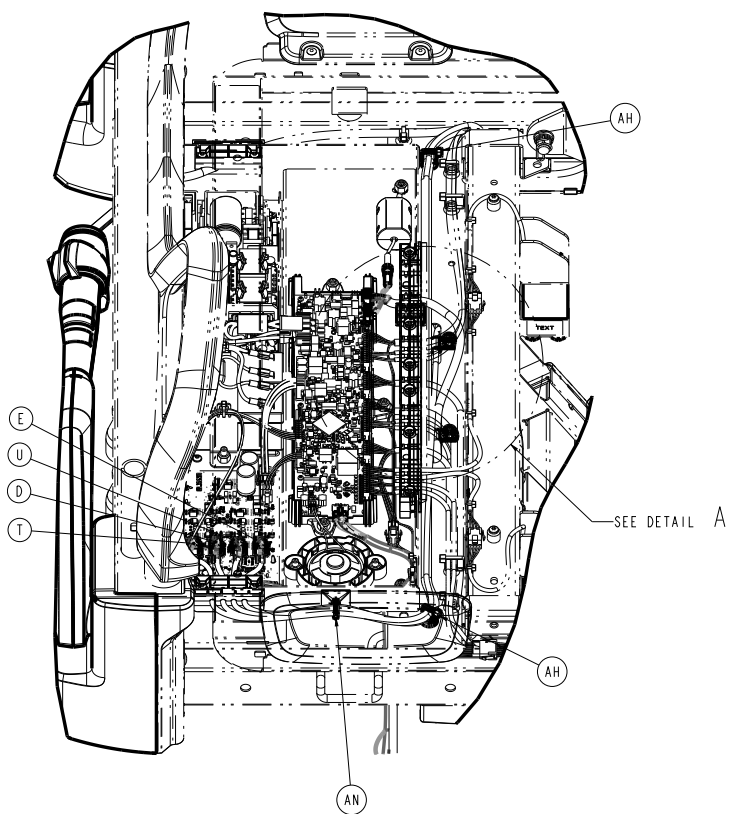
300900070150 Rev AC (Reference only)

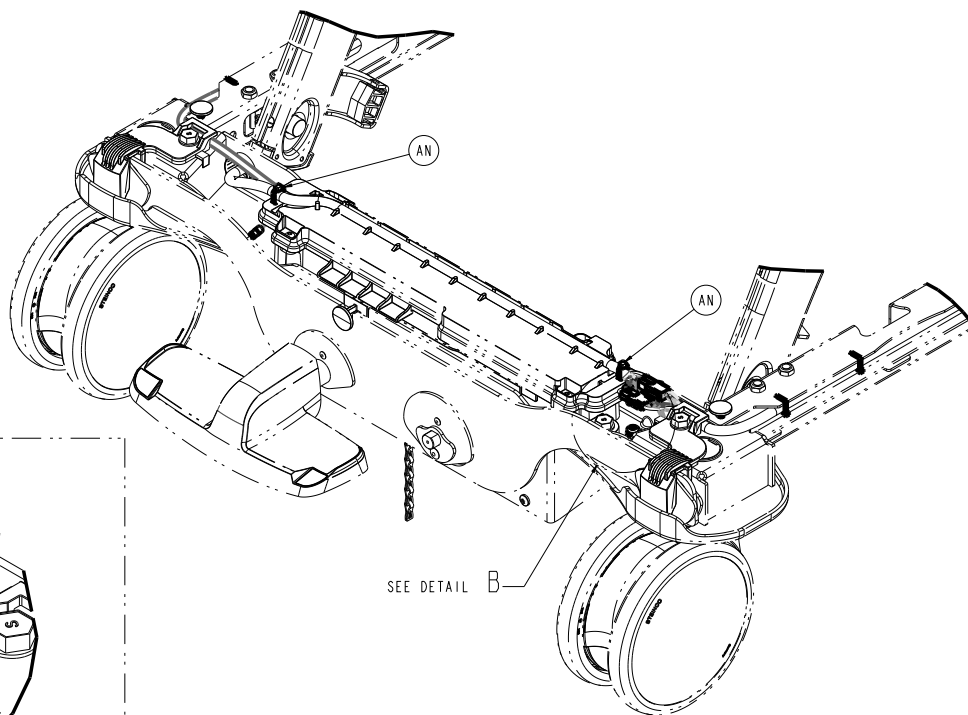
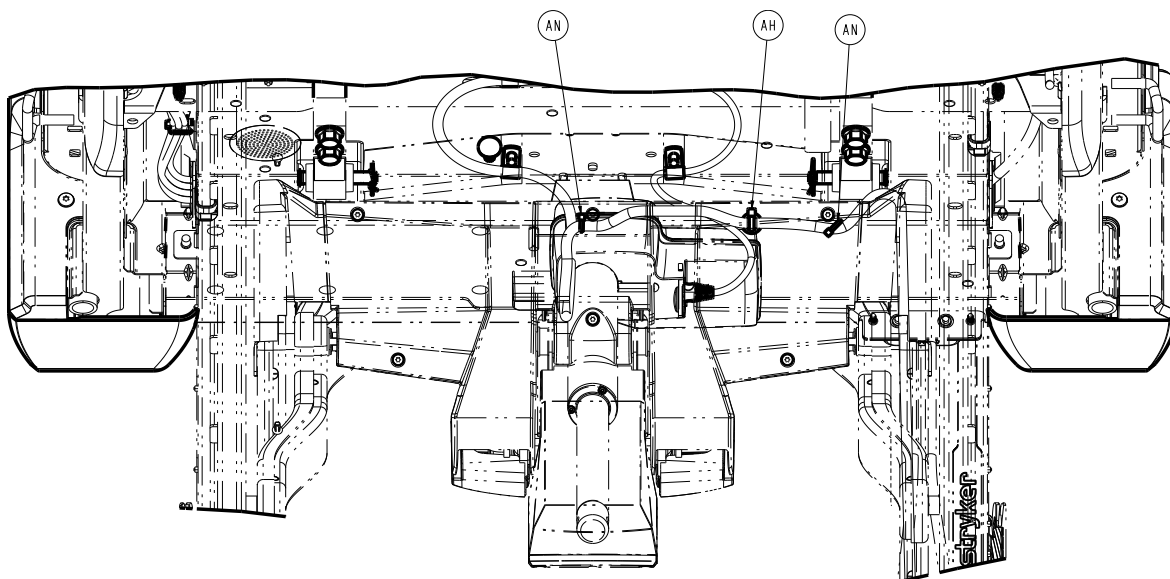




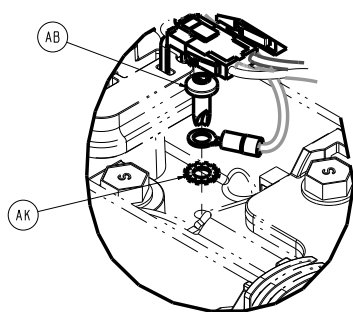




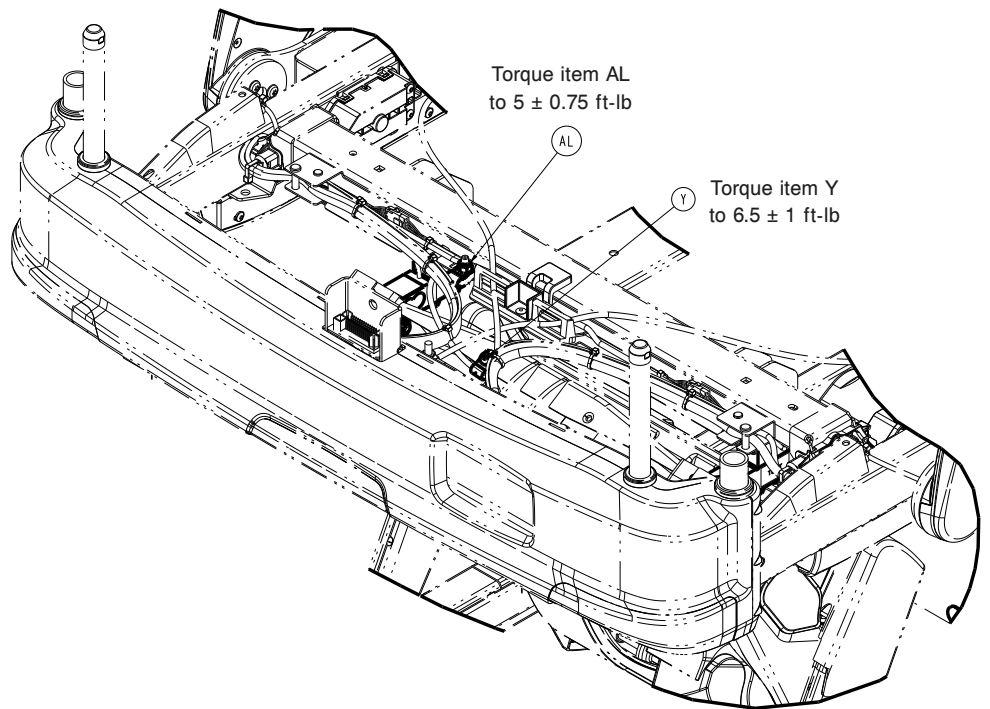
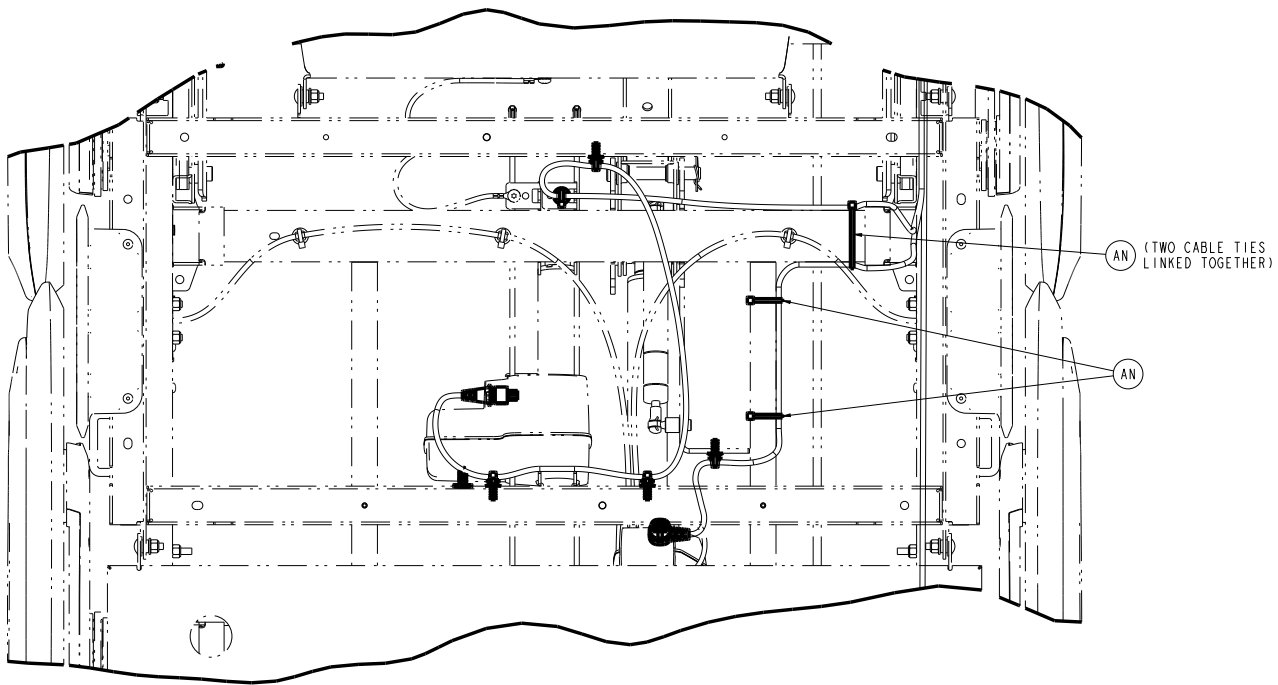


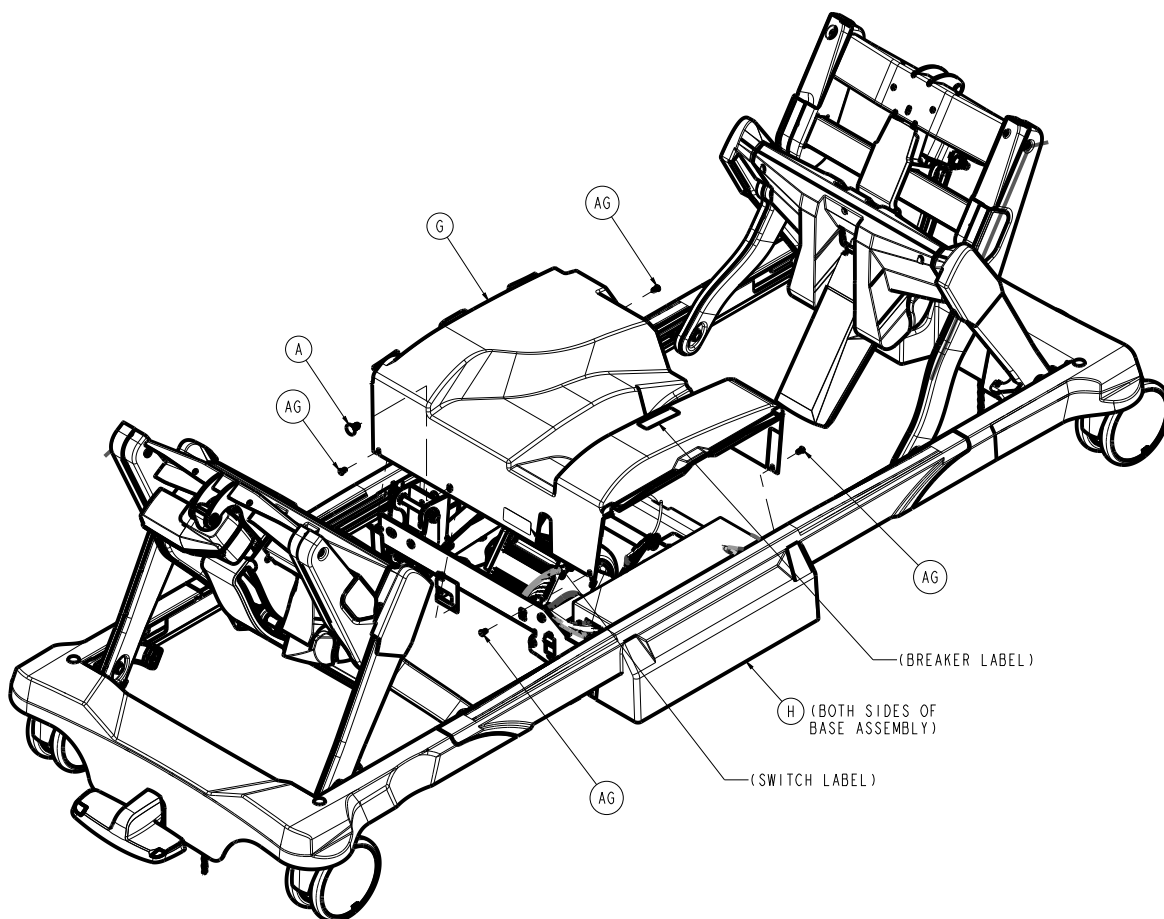


Torque item AB  
to  $5 \pm 0.75$  ft-lb



DETAIL B



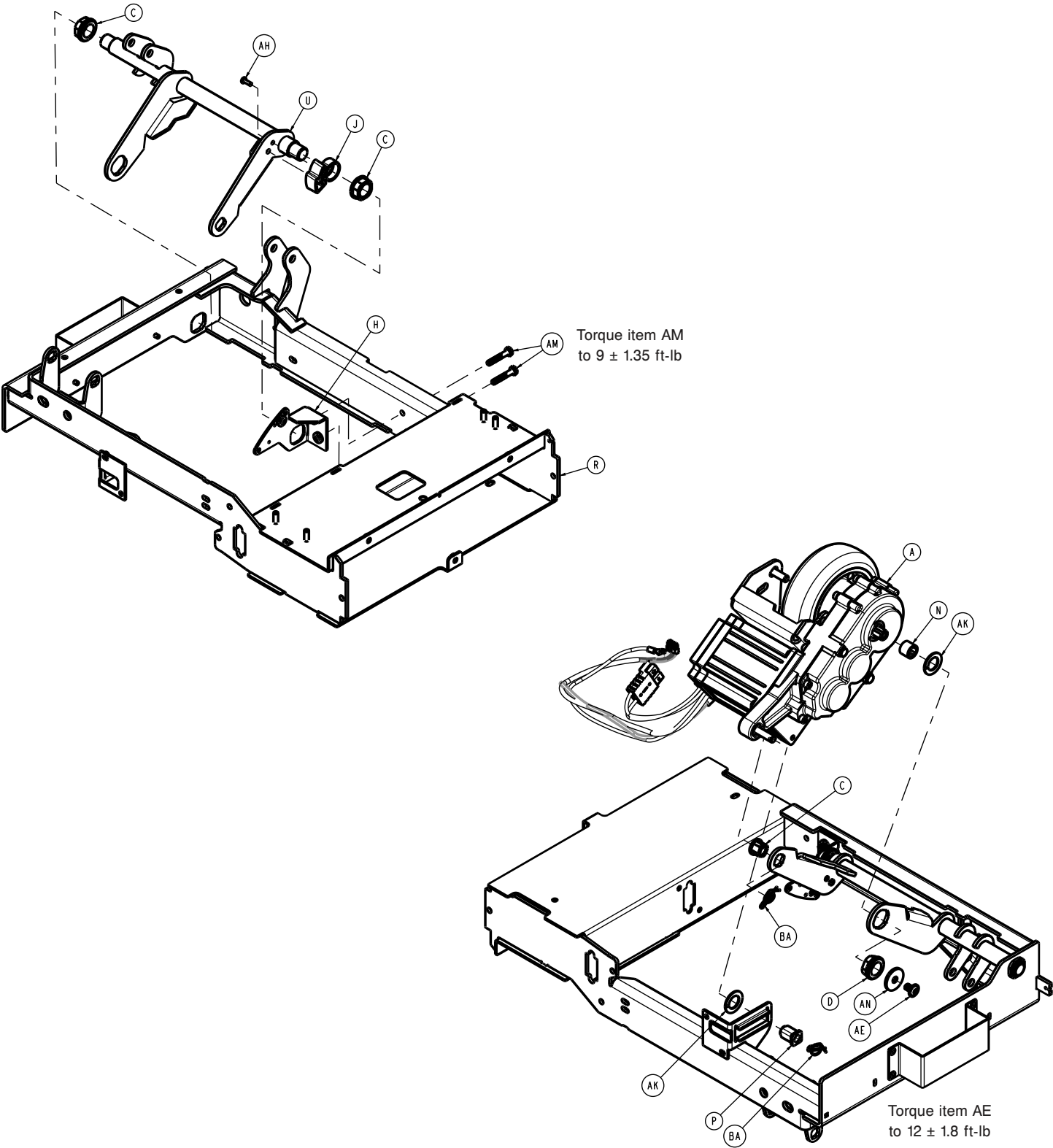


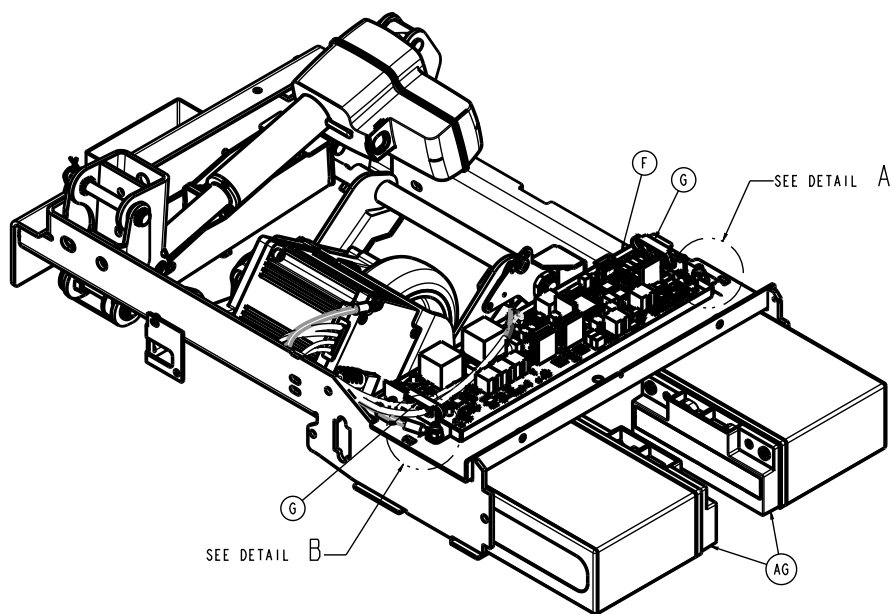
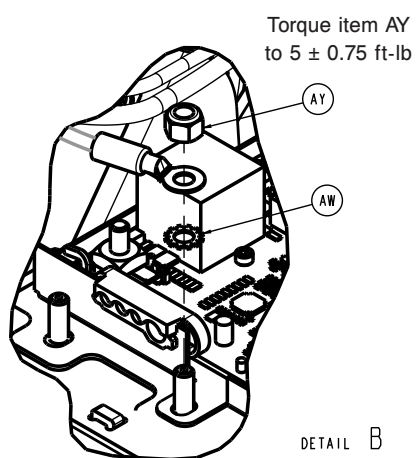
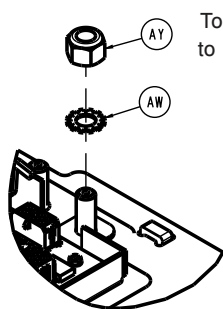
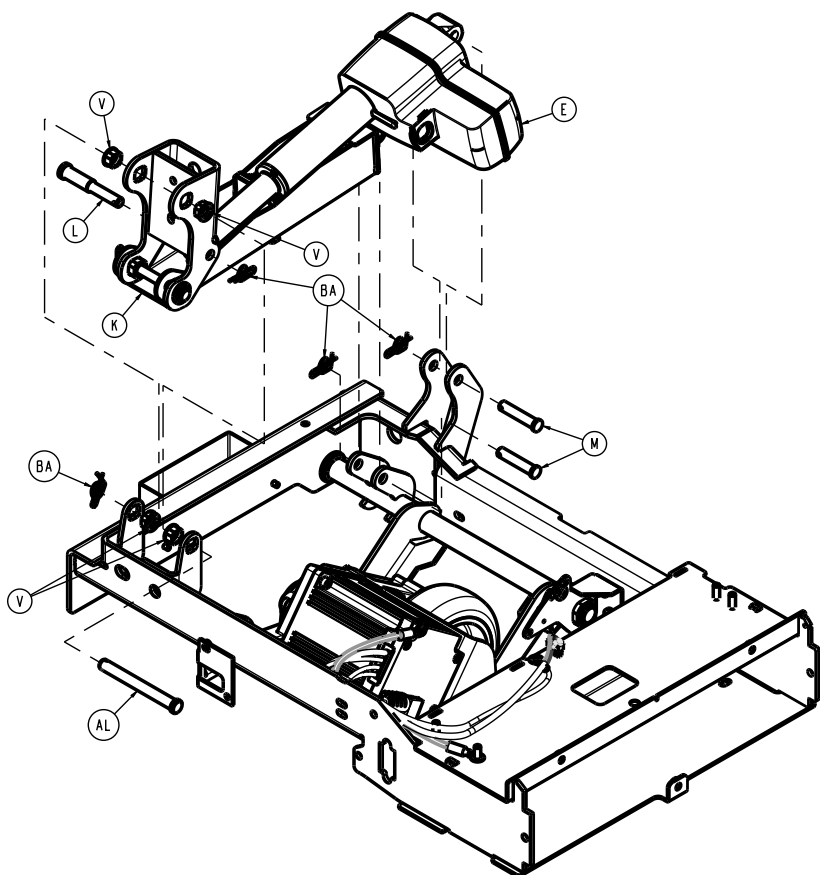
Item	Number	Name	Quantity
A	300900010009	Push-in tree clip	1
B	300900010021	Base standard caster	1
C	300900020027	Lift loadcell pin	4
D	300900020870	Lift actuator cable, head end	1
E	300900020875	Lift actuator cable, foot end	1
F	300900030830	Zoom control board to electric brake board cable assembly	1
G	300900070031	Zoom cover	1
H	300900070033	Zoom base rail cover	2
J	300900070063	Zoom washer plate	1
K	300900070250	Zoom drive assembly (page 159)	1
L	300900070810	Main control board to Zoom control cable assembly	1
M	300900070811	Main control cable to Zoom control board cable assembly	1
N	300900100018	Litter electronics box electric brake plug	1
P	300900100260	Litter Zoom handle pivot assembly, patient right (page 166)	1
R	300900100270	Litter Zoom handle pivot assembly, patient left (page 168)	1
T	300900120875	Fowler actuator cable	1
U	300900140875	Gatch actuator cable	1
V	300900370014	Zoom loadcell spacer block	4
W	300900370865	Zoom foot end loadcell cable assembly	2
Y	700000336076	Pan head thread rolling screw	5

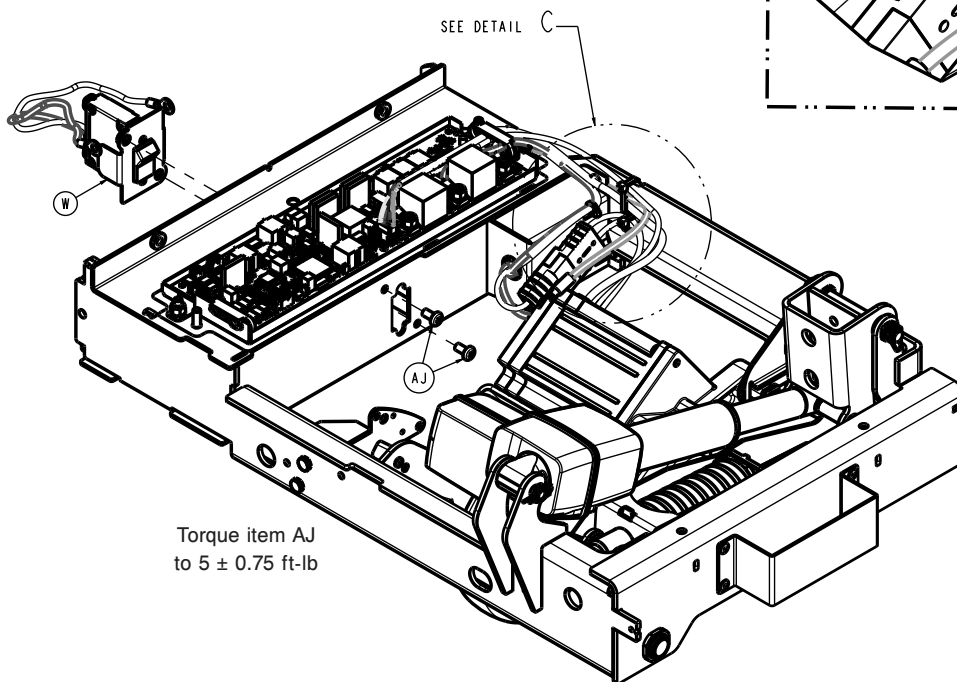
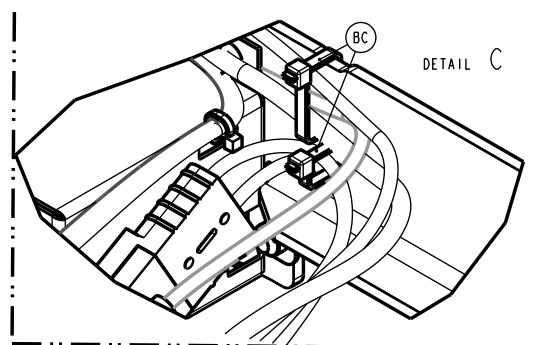
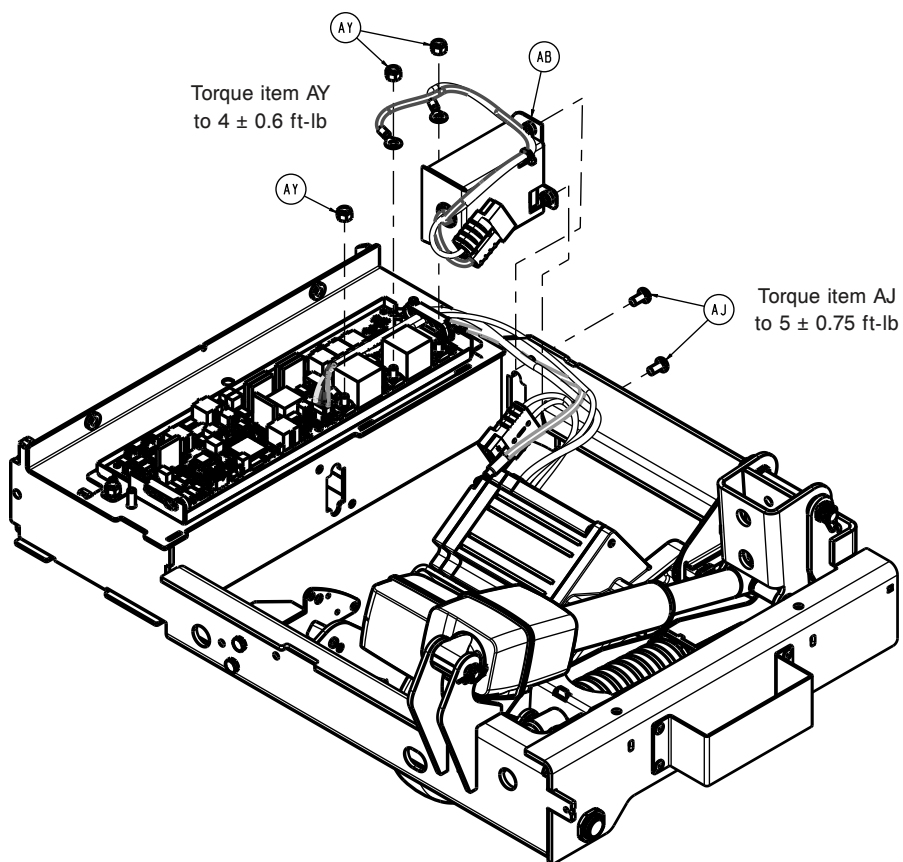
Item	Number	Name	Quantity
AA	700000576833	Pan head machine screw	6
AB	700000668696	Pan head thread cutting screw	2
AC	700000717660	Hex flange screw	8
AD	700000729740	Hex head cap screw	2
AE	700000729746	Hex head cap screw	1
AF	700000740630	Extra heavy fender washer	1
AG	700000800509	Snap clip	4
AH	700000816940	Tree mount	3
AJ	0011-002-000	Light flat washer	2
AK	0013-018-000	External tooth lock washer	2
AL	0016-028-000	Nylock hex nut	3
AM	0027-022-000	Rue ring cotter	4
AN	3000-300-113	Cable tie	28

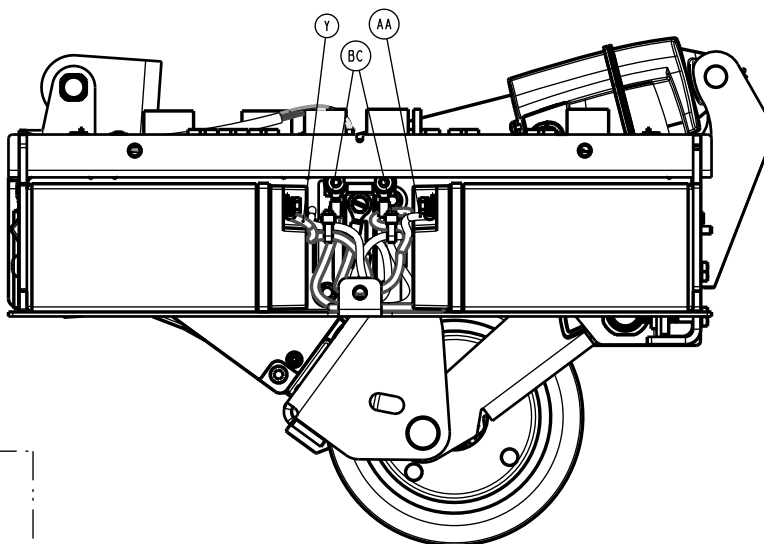
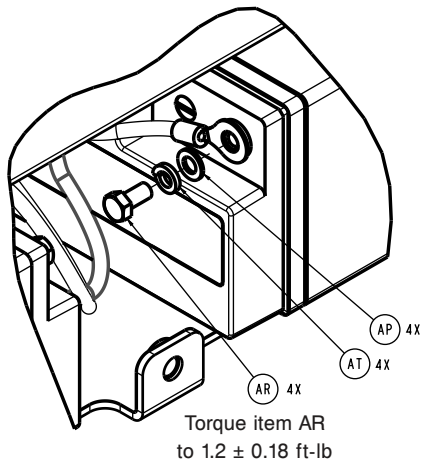
Zoom drive assembly

300900070250 Rev AD (Reference only)

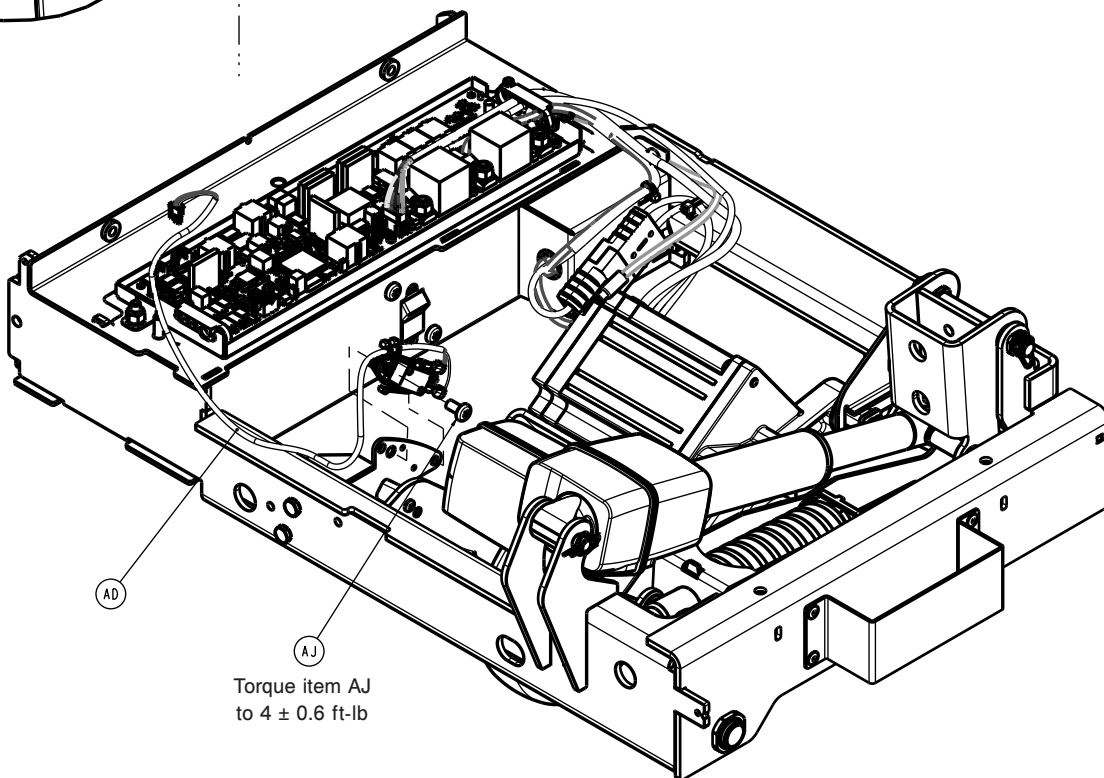
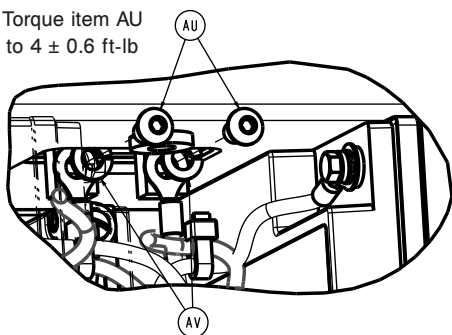


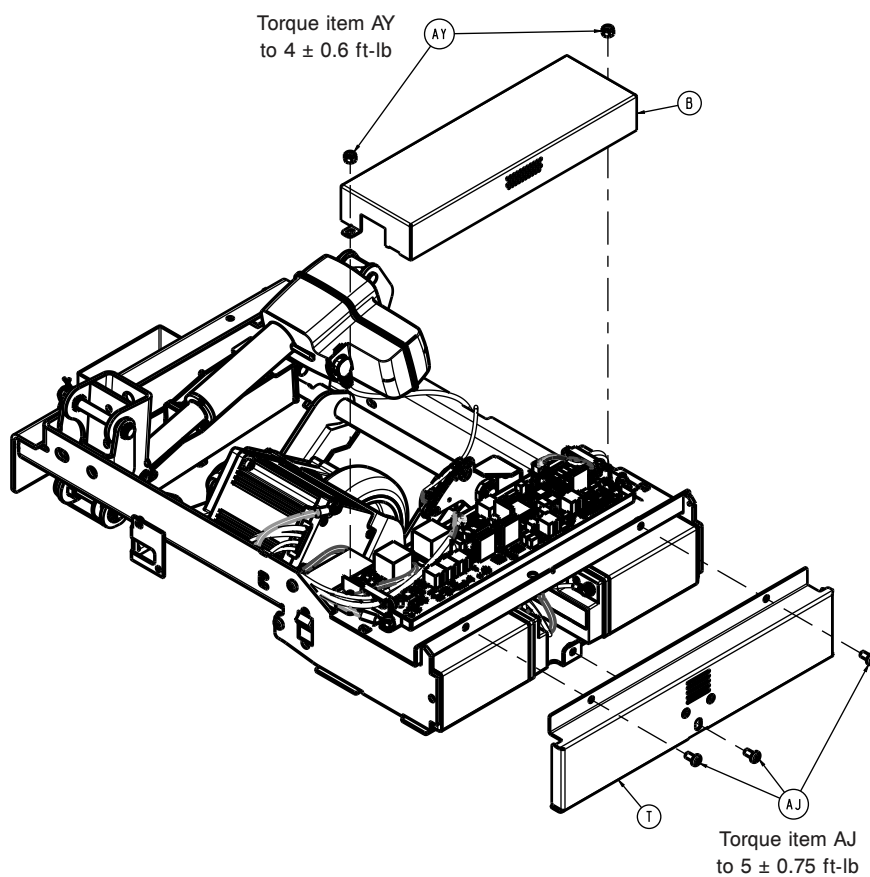
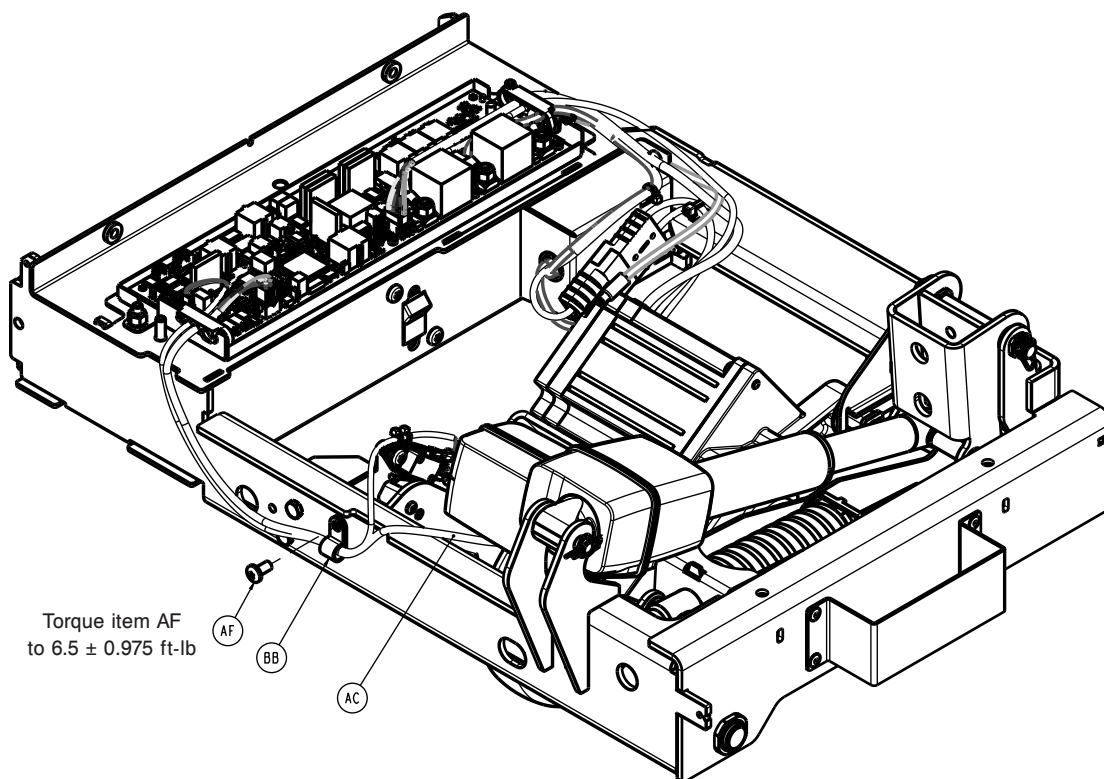






Torque item AU  
to  $4 \pm 0.6$  ft-lb



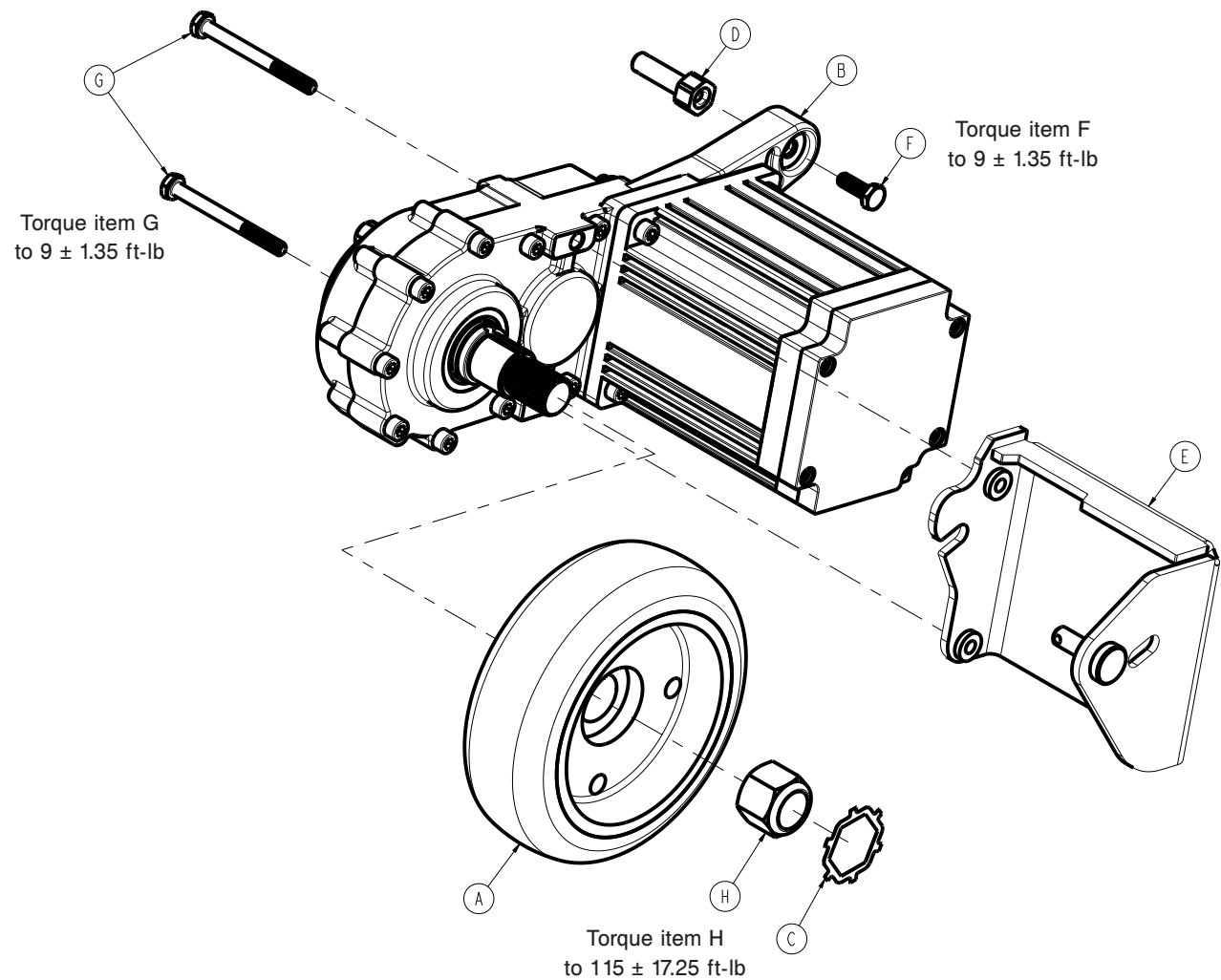


Item	Number	Name	Quantity
A	300900070010	Zoom motor/wheel assembly (page 165)	1
B	300900070019	Zoom board cover	1

Item	Number	Name	Quantity
C	300900070025	Zoom short bushing assembly	3
D	300900070030	Zoom long bushing assembly	1
E	300900070040	Zoom actuator	1
F	300900070050	Zoom control board/heat sink assembly	1
G	300900070058	Zoom cable grommet	2
H	300900070061	Zoom crank mount switch bracket	1
J	300900070067	Zoom switch cam	1
K	300900070080	Zoom spring cartridge assembly	1
L	300900070082	Zoom actuator ram pin	1
M	300900070084	Zoom actuator base pin	2
N	300900070086	Zoom motor sleeve	1
P	300900070087	Zoom motor slider	1
R	300900070100	Zoom frame weldment	1
T	300900070105	Zoom battery cover assembly	1
U	300900070130	Zoom crank weldment	1
V	300900070143	Zoom back crank bushing	4
W	300900070822	Zoom battery breaker with cable assembly	1
Y	300900070823	Zoom (red) battery to Zoom board cable assembly	1
AA	300900070824	Zoom (black) battery to Zoom board cable assembly	1
AB	300900070832	Zoom override switch with cable assembly	1
AC	300900070842	Zoom actuator cable	1
AD	300900070852	Zoom control board to Zoom partial retract switch cable assembly	1
AE	700000244087	Flanged button head cap screw	1
AF	700000336076	Pan head thread rolling screw	1
AG	700000341246	Zoom battery	2
AH	700000492445	Pan head thread forming screw	1
AJ	700000576833	Pan head machine screw	8
AK	700000727943	Thrust washer	2
AL	700000727949	Clevis pin	1
AM	700000729708	Hex head cap screw	2
AN	700000740630	Extra heavy fender washer	1
AP	700000966973	Washer	4
AR	700000966980	Hex head cap screw	4
AT	700000966988	Lock washer	4
AU	0004-074-000	Button head cap screw	2
AV	0012-012-000	Helical lock washer	2
AW	0013-010-000	External tooth lock washer	2
AY	0016-028-000	Nylock hex nut	7
BA	0027-034-000	Rue ring cotter	6
BB	0034-020-000	Cord clamp	1
BC	3000-300-113	Cable tie	4

Zoom motor/wheel assembly

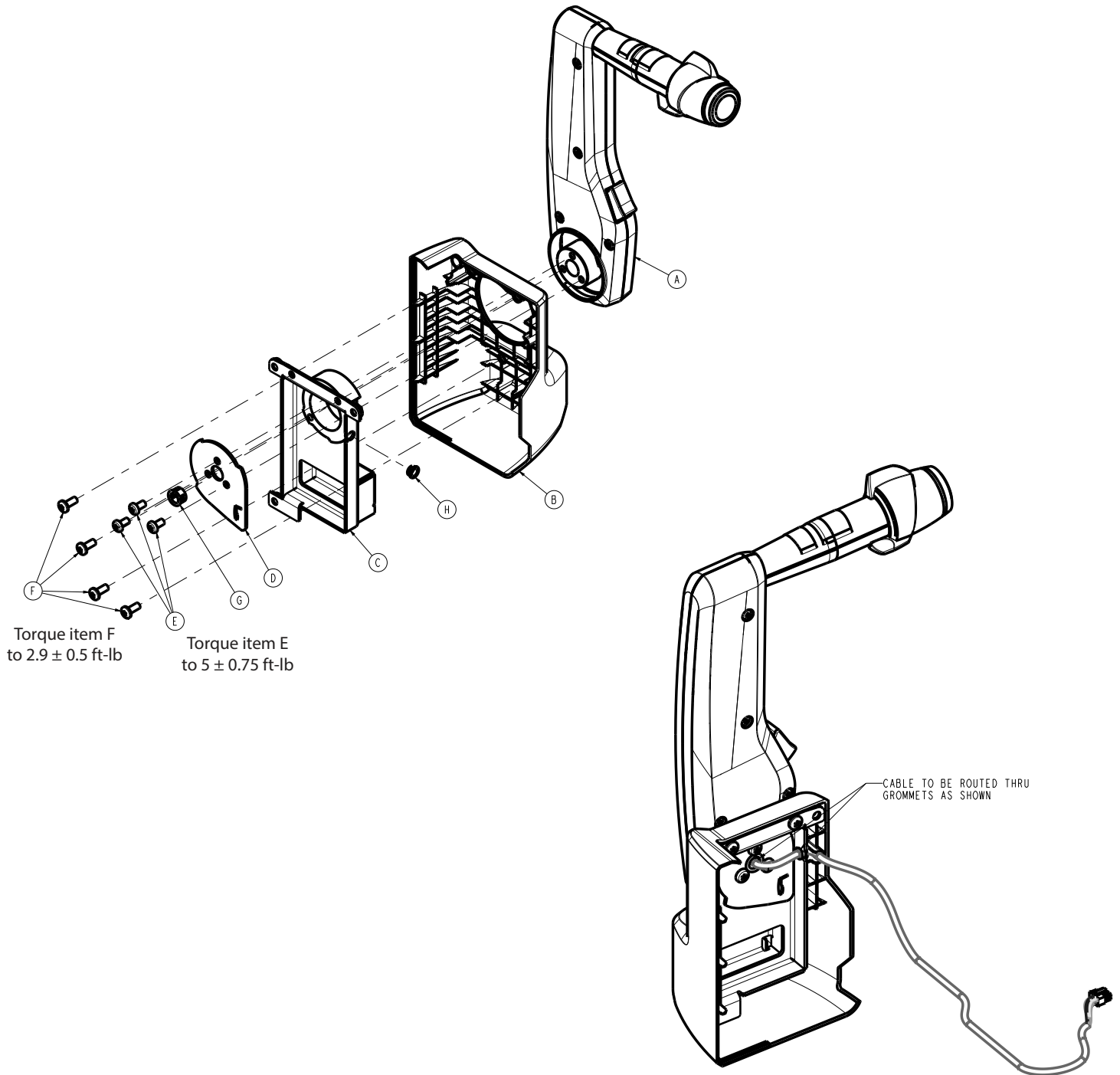
300900070010 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900070011	Zoom wheel	1
B	300900070015	Zoom drive motor	1
C	300900070018	Zoom nut retainer	1
D	300900070089	Zoom motor slider pin	1
E	300900070160	Zoom motor bracket weldment	1
F	700000729716	Hex head cap screw	1
G	700000729740	Hex head cap screw	2
H	700000733484	Nylock hex nut	1

## Litter Zoom handle pivot assembly, patient right

300900100260 Rev AB (Reference only)

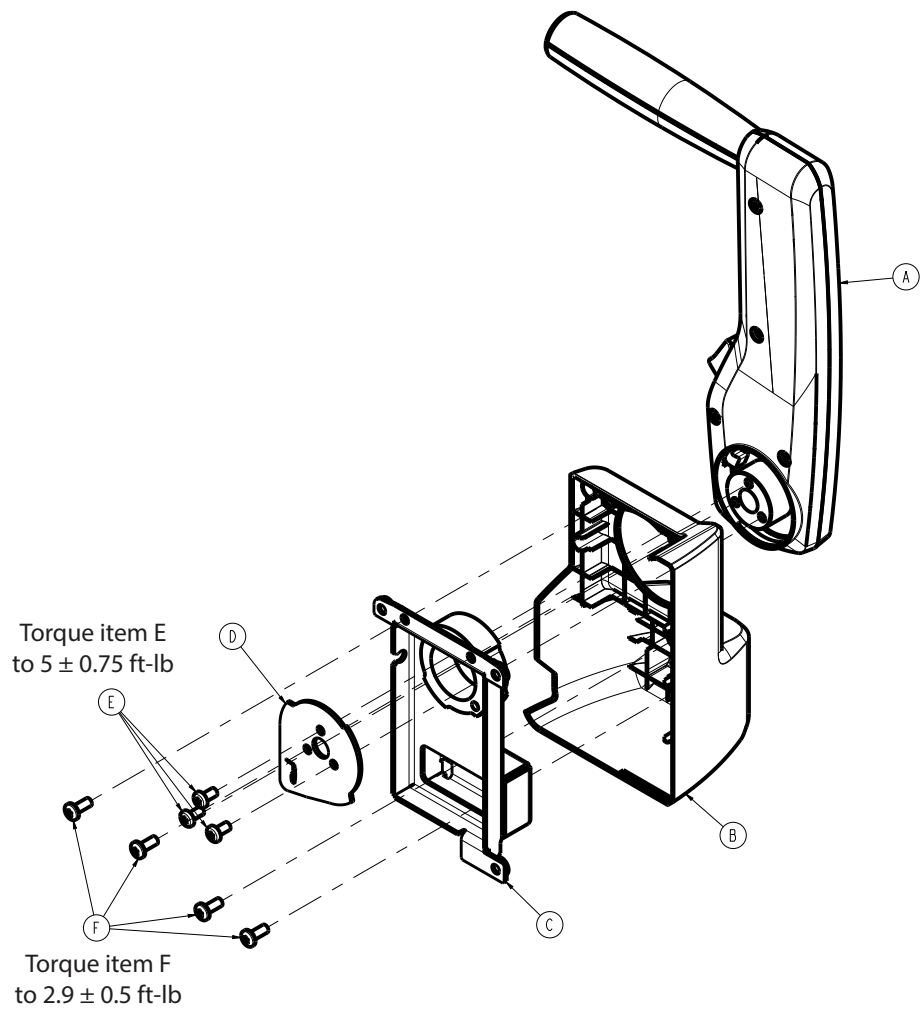


Item	Number	Name	Quantity
A	300900070200	Zoom handle/throttle assembly, patient right	1
B	300900100156	Head end litter Zoom bumper, patient right	1
C	300900100255	Litter Zoom handle pivot weldment, patient right	1
D	300900100256	Litter Zoom handle pivot plate	1
E	700000576833	Pan head machine screw	3
F	700001258237	Pan head thread forming screw	4

Item	Number	Name	Quantity
G	0030-036-000	Bushing	1
H	0052-822-000	Snap-in nyliner	1

Litter Zoom handle pivot assembly, patient left

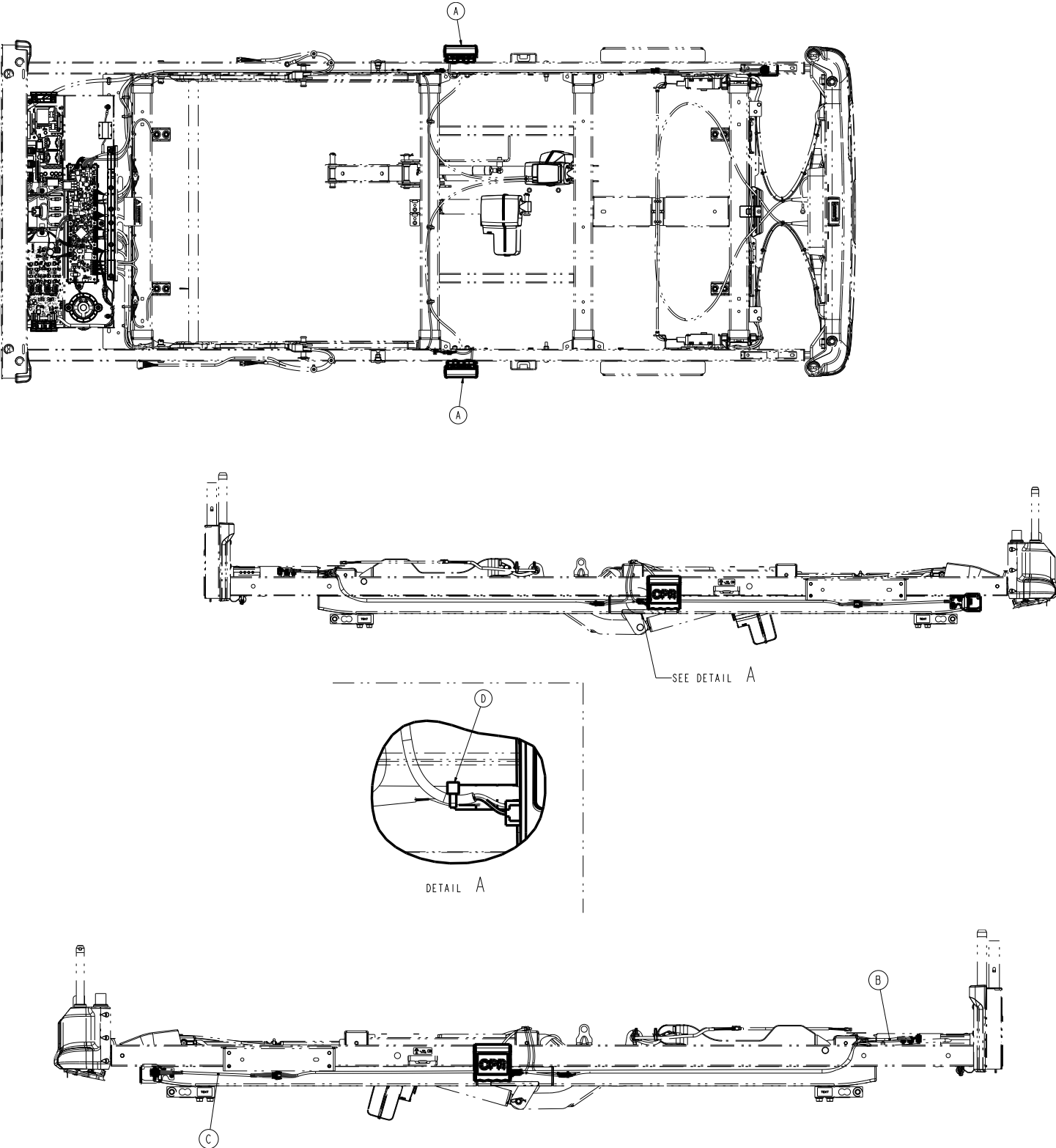
300900100270 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900070300	Zoom handle/throttle assembly, patient left	1
B	300900100157	Head end litter Zoom bumper, patient left	1
C	300900100265	Litter Zoom handle pivot weldment, patient left	1
D	300900100256	Litter Zoom handle pivot plate	1
E	700000576833	Pan head machine screw	3
F	700001258237	Pan head thread forming screw	4

Powered mattress integration assembly

300900560200 Rev AB (Reference only)



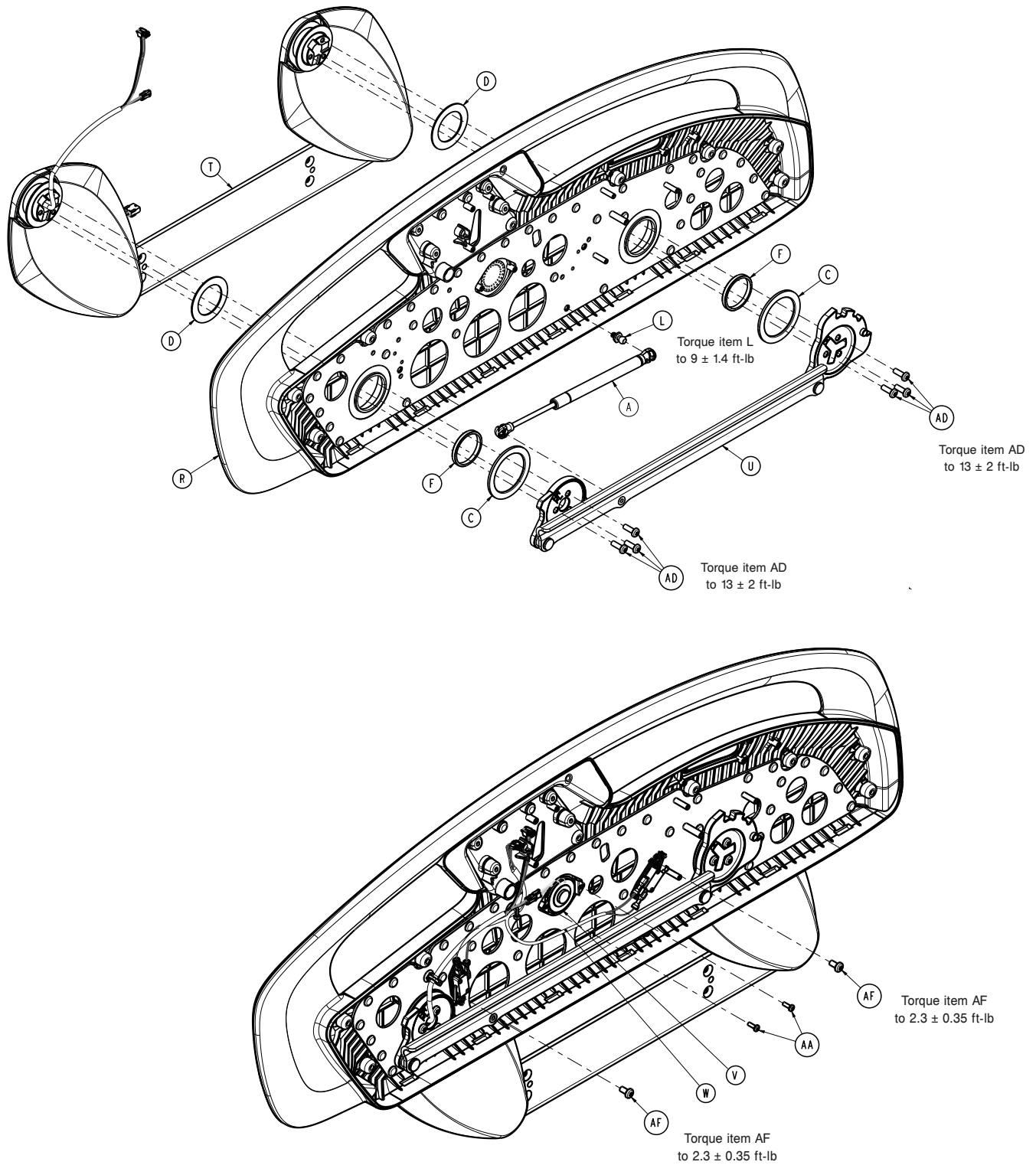
Item	Number	Name	Quantity
A	300900100325	Litter CPR release with switch assembly	2
B	300900560884	Main controller board to Isolibrium connector cable assembly	1

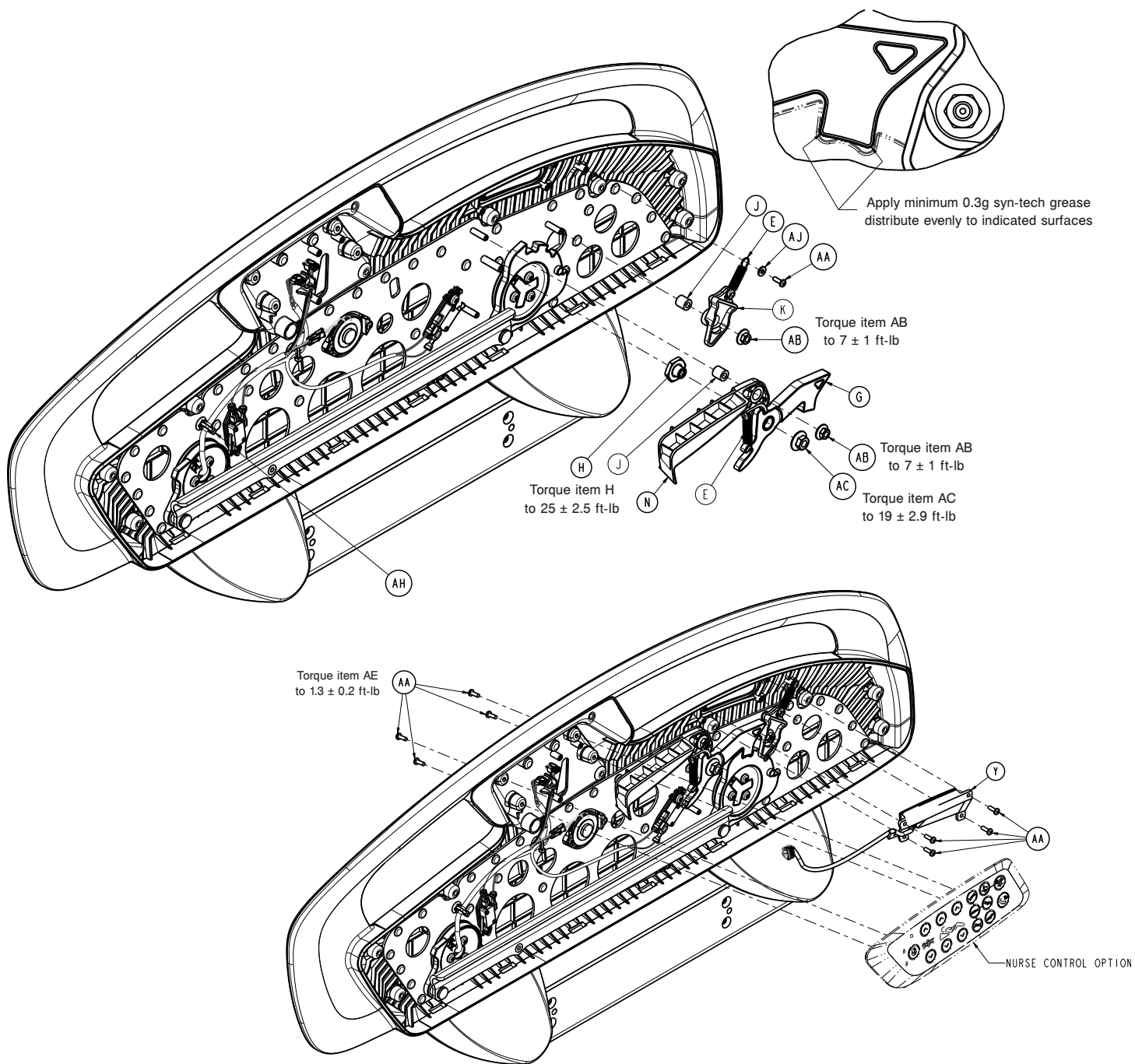
Item	Number	Name	Quantity
C	300900560885	Main controller cable to Isolibrium connector cable assembly	1
D	3000-300-114	Cable tie	1

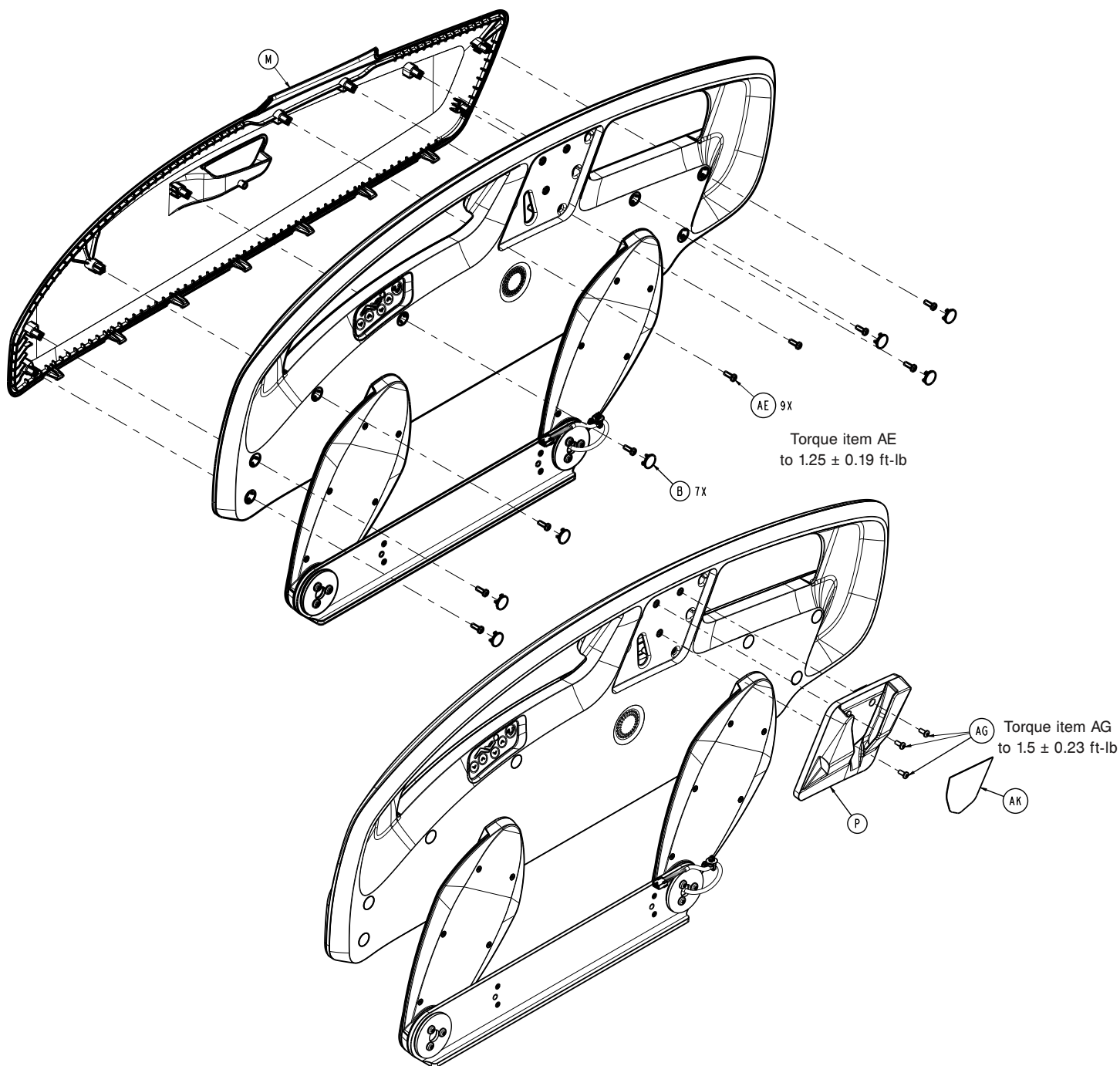
## Siderail assembly, head end

300900110100 Rev AC (right) (Reference only)

300900110200 Rev AC (left) (Reference only)







Siderail assembly, head end – 300900110100 Rev AC (Reference only)

Item	Number	Name	Quantity
A	300900110006	Gas spring, head end	1
B	300900110008	Screw cover	7
C	300900110011	Thrust washer, large	2
D	300900110012	Thrust washer, small	2
E	300900110013	Release handle extension spring	2
F	300900110014	Pivot bearing	2
G	300900110015	Latch pawl assembly	1
H	300900110017	Latch pivot	1
J	300900110019	Pivot sleeve	2

**Siderail assembly, head end – 300900110100 Rev AC (Reference only)**

Item	Number	Name	Quantity
K	300900110031	Bypass lever	1
L	300900110133	Back plate ball stud	1
M	300900110101	Cover, head end, right	1
N	300900110117	Release handle, head end, right/foot end, left	1
P	300900110119	Patient belongings, head end, right	1
R	300900110120	Hoop/back plate assembly, head end, right	1
T	300900110125	<i>Arm/carrier assembly, head end (page 176)</i>	1
U	300900110130	Timing link assembly, head end, right	1
V	300900110812	Speaker assembly	1
W	300900110814	Siderail switch assembly, head end, right	1
Y	300900110955	Siderail patient control assembly, right	1
AA	700000492445	Pan head thread forming screw	11
AB	700000494203	Hex large flange lock nut	2
AC	700000494204	Hex super flange lock nut	1
AD	700000533297	Pan head machine screw	6
AE	700000550115	Pan head thread forming screw	9
AF	700000576833	Pan head machine screw	2
AG	700000815805	Pan head machine screw	3
AH	700000827137	Tree mount	1
AJ	0011-016-000	Plain washer	1
AK	300900110003	Label, patient belongings, right	1

**Siderail assembly, head end – 300900110200 Rev AC (Reference only)**

Item	Number	Name	Quantity
A	300900110006	Gas spring, head end	1
B	300900110008	Screw cover	7
C	300900110011	Thrust washer, large	2
D	300900110012	Thrust washer, small	2
E	300900110013	Release handle extension spring	2
F	300900110014	Pivot bearing	2
G	300900110015	Latch pawl assembly	1
H	300900110017	Latch pivot	1
J	300900110019	Pivot sleeve	2
K	300900110031	Bypass lever	1
L	300900110133	Back plate ball stud	1
M	300900110201	Cover, head end, left	1
N	300900110217	Release handle, head end, left/foot end, right	1
P	300900110220	Hoop/back plate assembly, head end, left	1
R	300900110225	<i>Arm/carrier assembly, head end (page 176)</i>	1
T	300900110230	Timing link assembly, head end, left	1
U	300900110812	Speaker assembly	1
V	300900110824	Siderail switch assembly, head end, left	1
W	300900110950	Siderail patient control assembly, left	1
Y	700000492445	Pan head thread forming screw	11

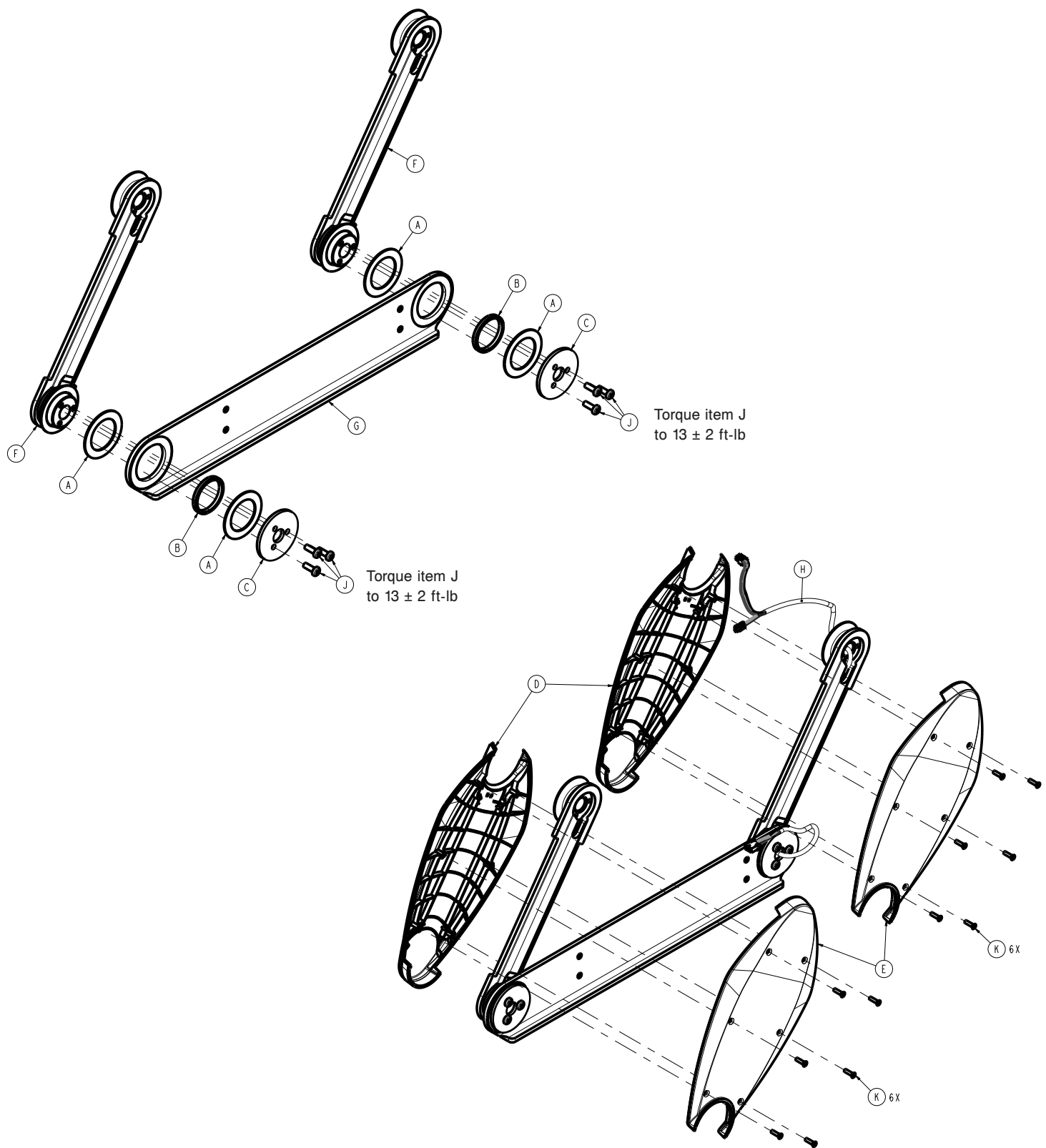
Siderail assembly, head end – 300900110200 Rev AC (Reference only)

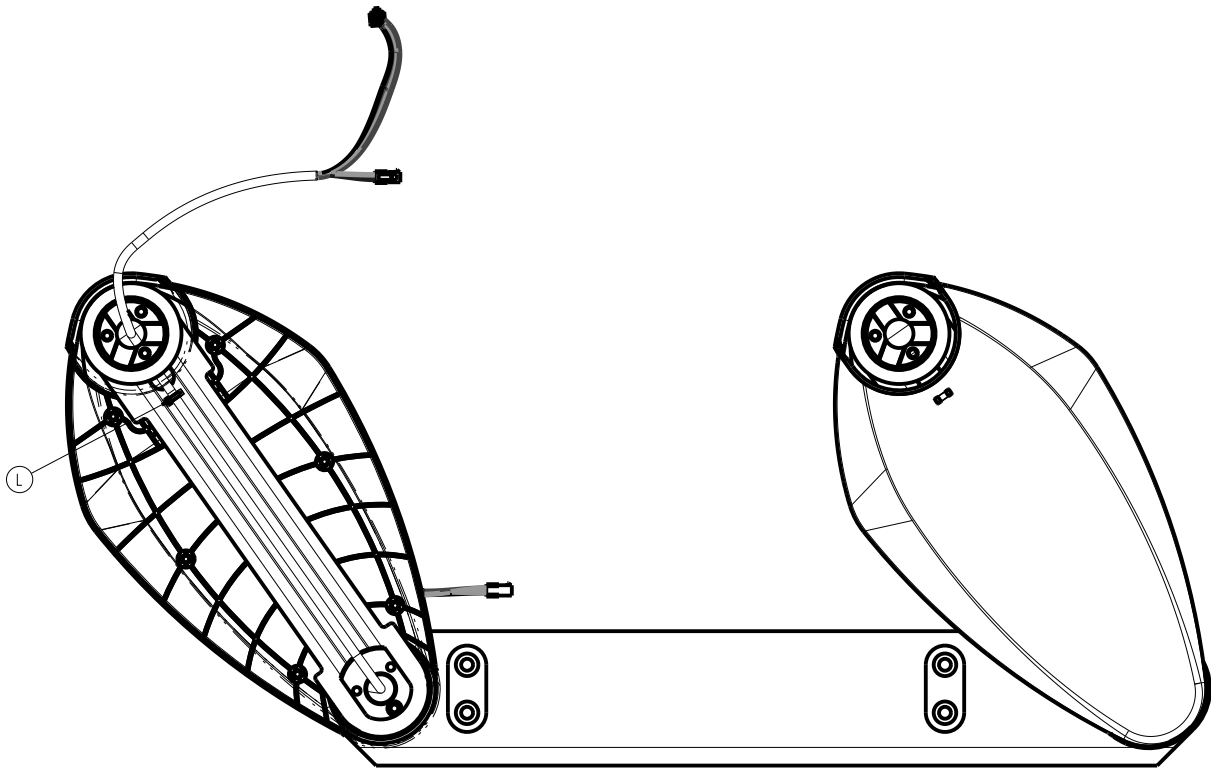
Item	Number	Name	Quantity
AA	700000494203	Hex large flange lock nut	2
AB	700000494204	Hex super flange lock nut	1
AC	700000533297	Pan head machine screw	6
AD	700000550115	Pan head thread forming screw	9
AE	700000576833	Pan head machine screw	2
AF	700000815805	Pan head machine screw	3
AG	700000827137	Tree mount	1
AH	0011-016-000	Plain washer	1

## Arm/carrier assembly, head end

300900110125 Rev AB (right) (Reference only)

300900110225 Rev AB (left) (Reference only)





Arm/carrier assembly, head end - 300900110125 Rev AB (Reference only)

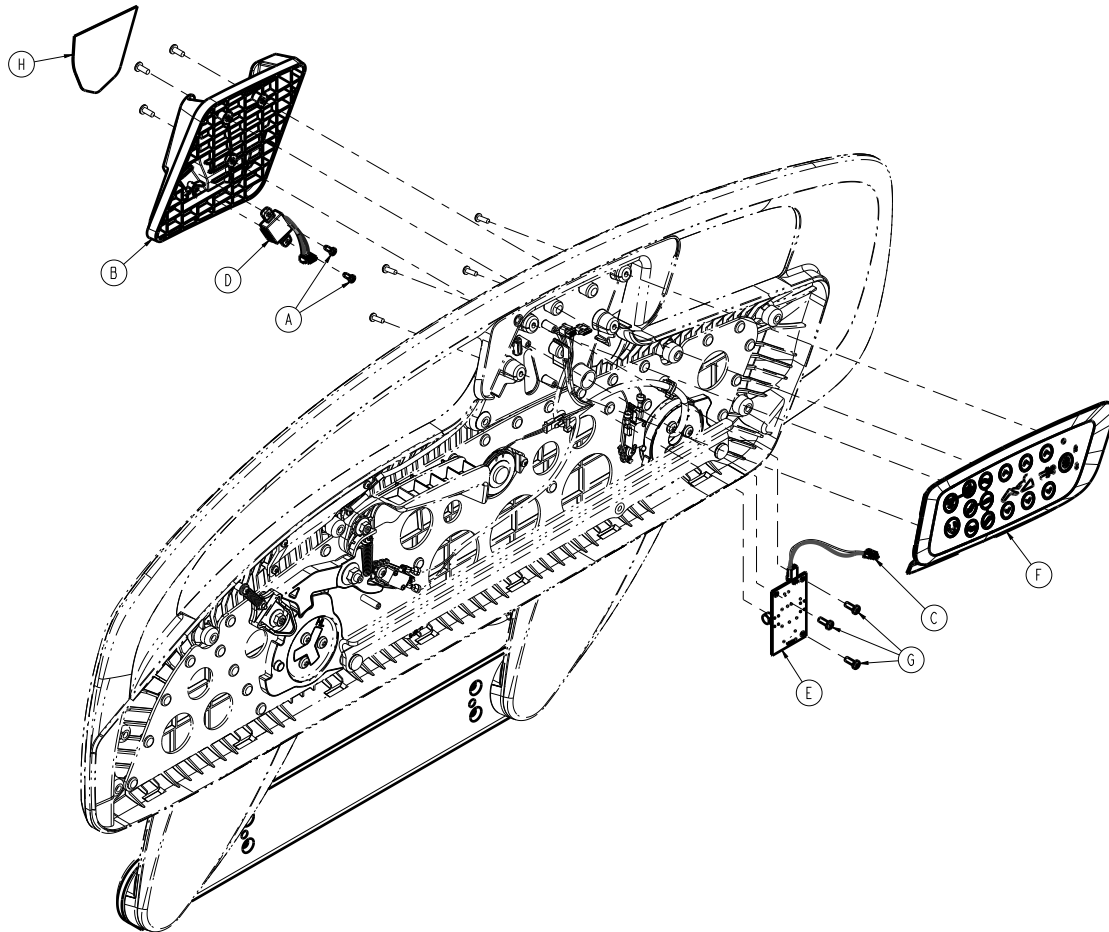
Item	Number	Name	Quantity
A	300900110012	Thrust washer, small	4
B	300900110014	Pivot bearing	2
C	300900110018	Lower pivot plate	2
D	300900110021	Arm cover, outer	2
E	300900110022	Arm cover, inner	2
F	300900110025	Arm weldment	2
G	300900110126	Head end carrier, right	1
H	300900110811	Cable assembly	1
J	700000533297	Pan head machine screw	6
K	700000590652	Flat countersunk head thread forming screw	12
L	3000-300-114	Cable tie	1

Arm/carrier assembly, head end - 300900110225 Rev AB (Reference only)

Item	Number	Name	Quantity
A	300900110012	Thrust washer, small	4
B	300900110014	Pivot bearing	2
C	300900110018	Lower pivot plate	2
D	300900110021	Arm cover, outer	2
E	300900110022	Arm cover, inner	2
F	300900110025	Arm weldment	2
G	300900110226	Head end carrier, left	1
H	300900110811	Cable assembly	1
J	700000533297	Pan head machine screw	6
K	700000590652	Flat countersunk head thread forming screw	12
L	3000-300-114	Cable tie	1

## Siderail assembly, head end, left, advanced

300900110609 Rev AC (Reference only)

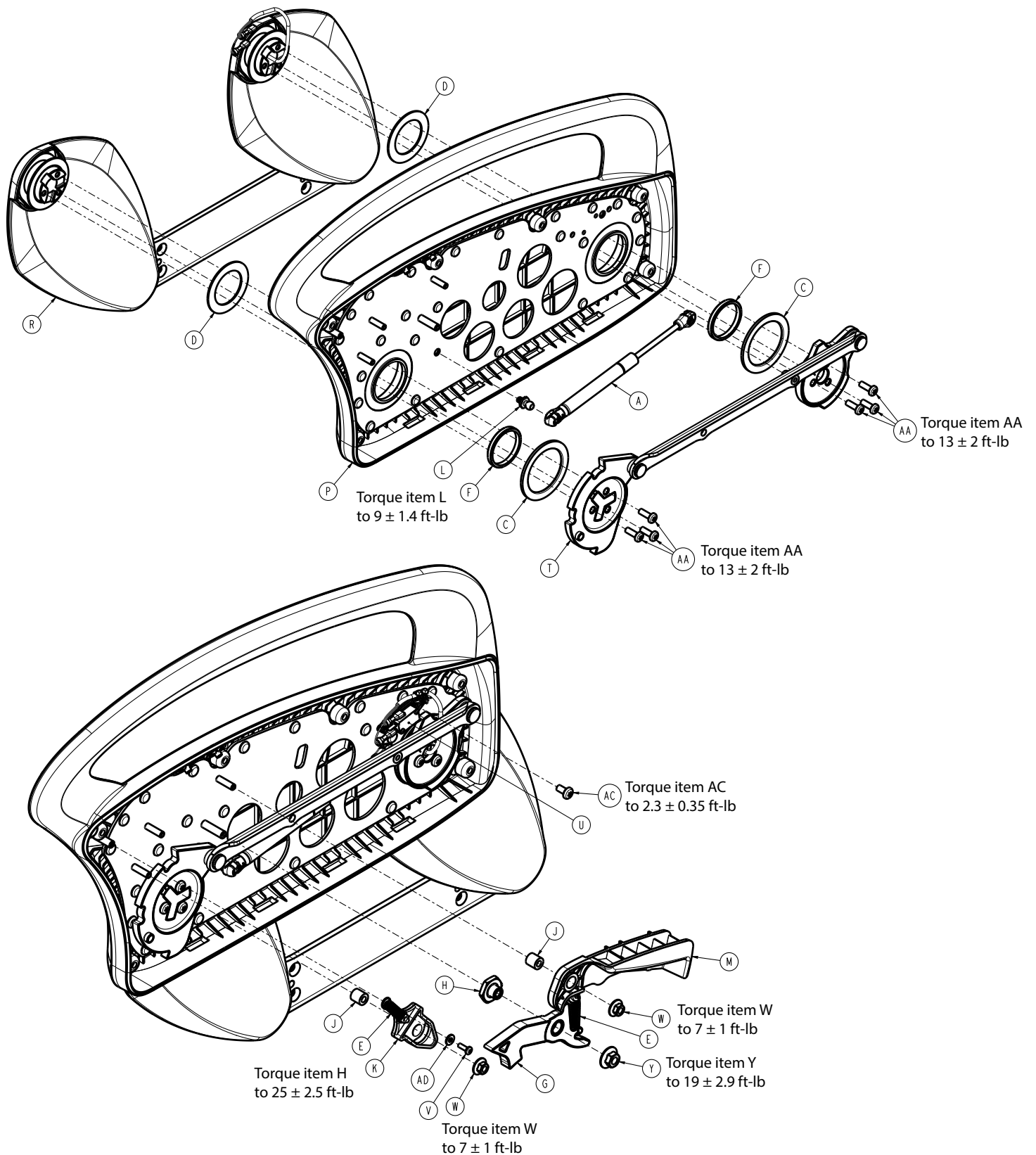


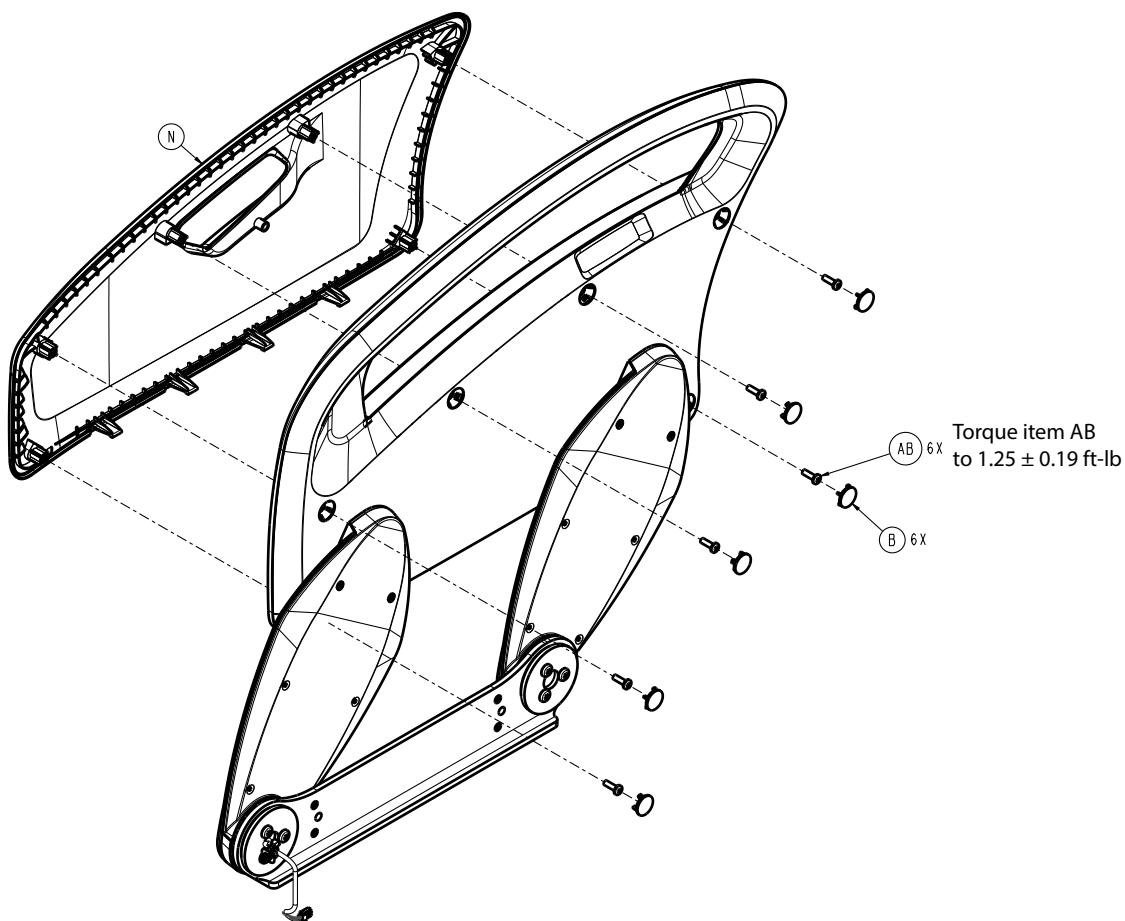
Item	Number	Name	Quantity
A	5900340009	Pan screw	2
B	300900110209	Patient belongings with USB	1
C	300900110813	Cable assembly	1
D	300900110815	Cable assembly	1
E	300900110900	USB charger board	1
F	300900110970	Advanced operator control assembly	1
G	700000492445	Pan head thread forming screw	3
H	300900110004	Label, patient belongings with USB	1

## Siderail assembly, foot end

300901110300 Rev AA (right) (Reference only)

300901110400 Rev AA (left) (Reference only)





Siderail assembly, foot end - 300901110300 Rev AA (Reference only)

Item	Number	Name	Quantity
A	300900110007	Gas spring, foot	1
B	300900110008	Screw cover	6
C	300900110011	Thrust washer, large	2
D	300900110012	Thrust washer, small	2
E	300900110013	Release handle extension spring	2
F	300900110014	Pivot bearing	2
G	300900110015	Latch pawl assembly	1
H	300900110017	Latch pivot	1
J	300900110019	Pivot sleeve	2
K	300900110031	Bypass lever	1
L	300900110133	Back plate ball stud	1
M	300900110217	Release handle, head left/foot right	1
N	300900110301	Cover, foot right	1
P	300900110320	Hoop/back plate assembly, foot right	1
R	300901110325	Arm/carrier assembly, foot end (page 182)	1
T	300900110330	Timing link assembly, foot right	1
U	300900110835	Switch assembly, foot right	1
V	700000492445	Pan head thread forming screw	1
W	700000494203	Hex large flange lock nut	2
Y	700000494204	Hex super flange lock nut	1

**Siderail assembly, foot end - 300901110300 Rev AA (Reference only)**

Item	Number	Name	Quantity
AA	700000533297	Pan head machine screw	6
AB	700000550115	Pan head thread forming screw	6
AC	700000576833	Pan head machine screw	1
AD	0011-016-000	Plain washer	1

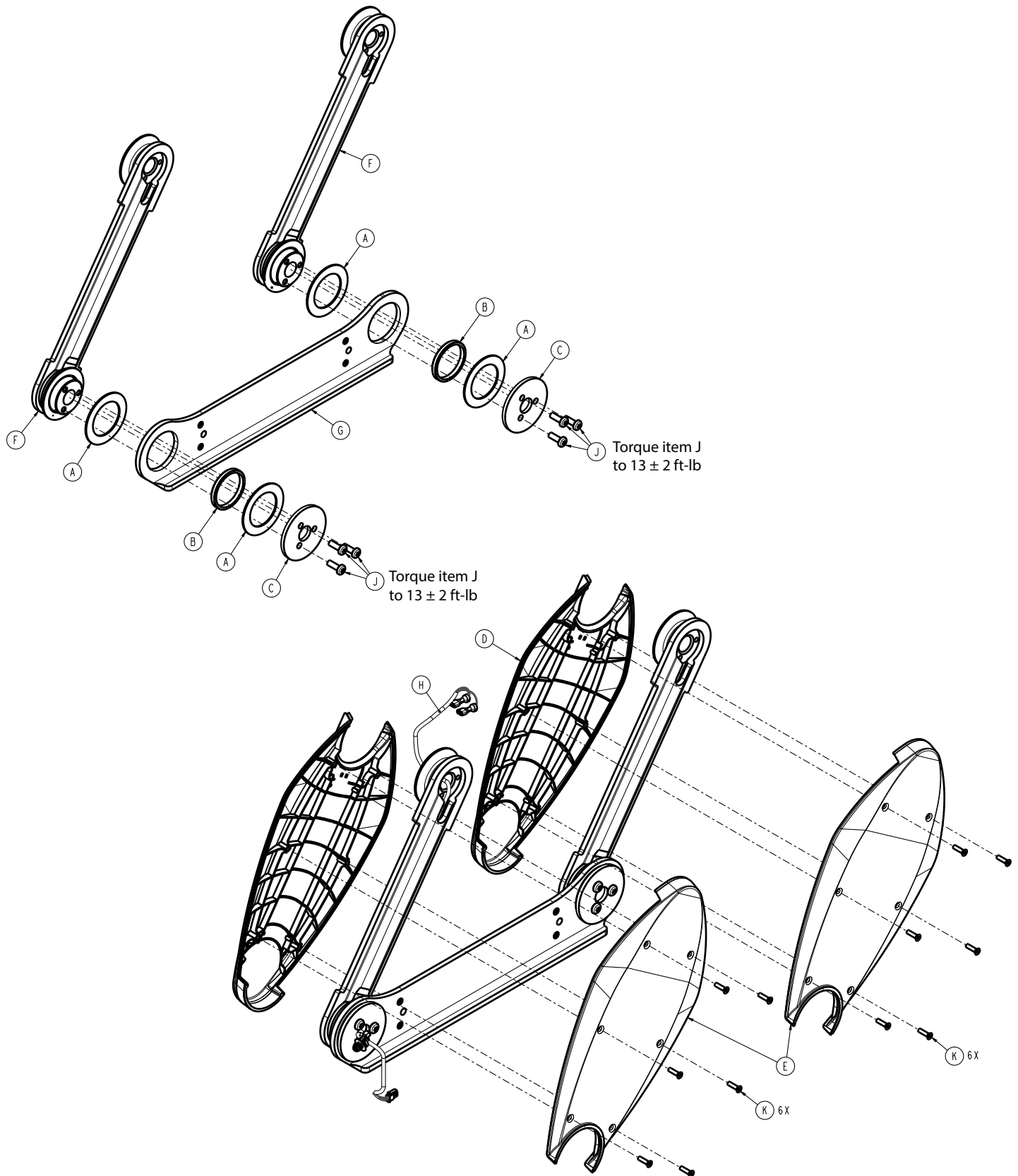
**Siderail assembly, foot end - 300901110400 Rev AA (Reference only)**

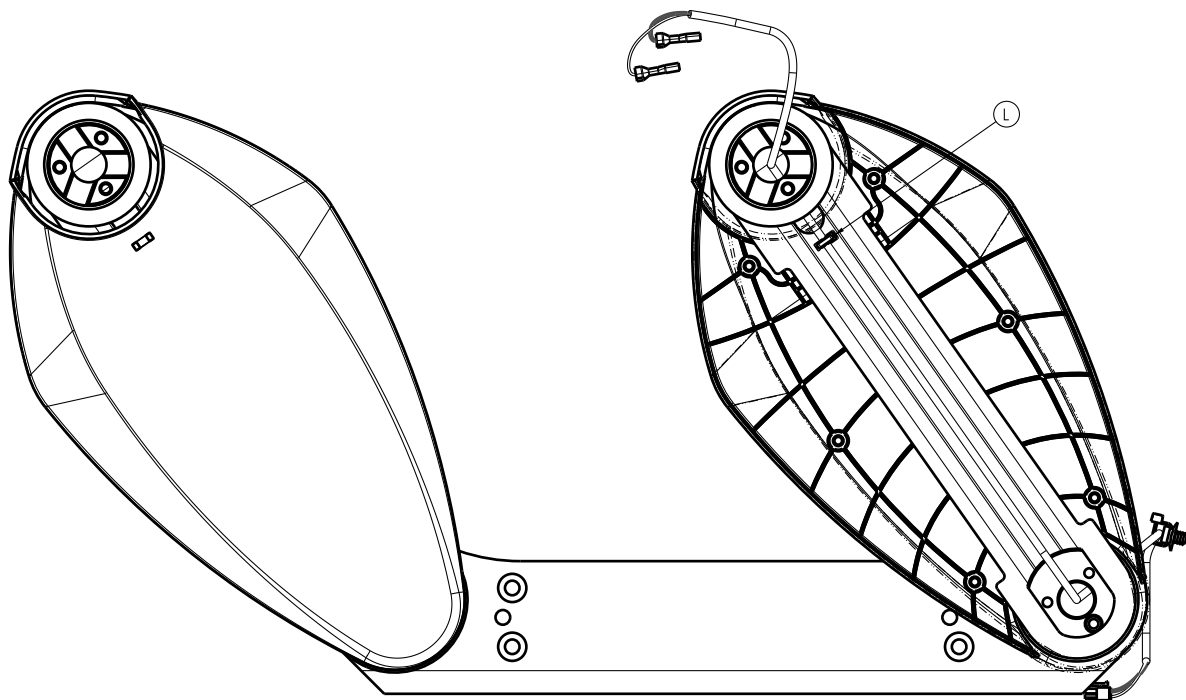
Item	Number	Name	Quantity
A	300900110007	Gas spring, foot	1
B	300900110008	Screw cover	6
C	300900110011	Thrust washer, large	2
D	300900110012	Thrust washer, small	2
E	300900110013	Release handle extension spring	2
F	300900110014	Pivot bearing	2
G	300900110015	Latch pawl assembly	1
H	300900110017	Latch pivot	1
J	300900110019	Pivot sleeve	2
K	300900110031	Bypass lever	1
L	300900110133	Back plate ball stud	1
M	300900110117	Release handle, head right/foot left	1
N	300900110401	Cover, foot left	1
P	300900110420	Hoop/back plate assembly, foot left	1
R	300901110425	<i>Arm/carrier assembly, foot end (page 182)</i>	1
T	300900110430	Timing link assembly, foot left	1
U	300900110845	Switch assembly, foot left	1
V	700000492445	Pan head thread forming screw	1
W	700000494203	Hex large flange lock nut	2
Y	700000494204	Hex super flange lock nut	1
AA	700000533297	Pan head machine screw	6
AB	700000550115	Pan head thread forming screw	6
AC	700000576833	Pan head machine screw	1
AD	0011-016-000	Plain washer	1

## Arm/carrier assembly, foot end

300901110325 Rev AA (right) (Reference only)

300901110425 Rev AA (left) (Reference only)





Arm/carrier assembly, foot end - 300901110325 Rev AA (Reference only)

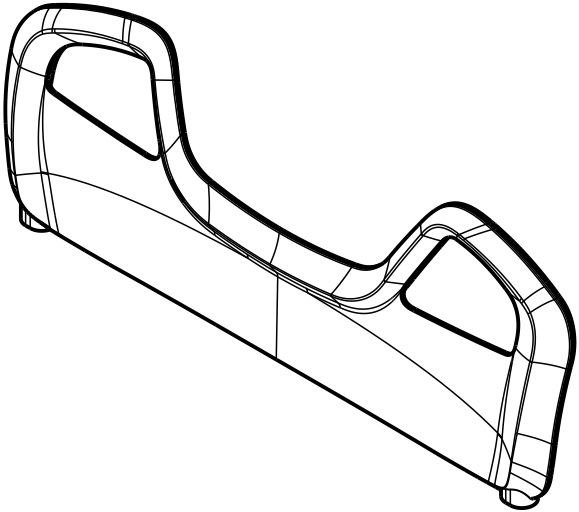
Item	Number	Name	Quantity
A	300900110012	Thrust washer, small	4
B	300900110014	Pivot bearing	2
C	300900110018	Lower pivot plate	2
D	300900110021	Arm cover, outer	2
E	300900110022	Arm cover, inner	2
F	300900110025	Arm weldment	2
G	300900110326	Foot end carrier, right	1
H	300901110834	Cable assembly	1
J	700000533297	Pan head machine screw	6
K	700000590652	Flat countersunk head thread forming screw	12
L	3000-300-114	Cable tie	1

Arm/carrier assembly, foot end - 300901110425 Rev AA (Reference only)

Item	Number	Name	Quantity
A	300900110012	Thrust washer, small	4
B	300900110014	Pivot bearing	2
C	300900110018	Lower pivot plate	2
D	300900110021	Arm cover, outer	2
E	300900110022	Arm cover, inner	2
F	300900110025	Arm weldment	2
G	300900110426	Foot end carrier, left	1
H	300901110834	Cable assembly	1
J	700000533297	Pan head machine screw	6
K	700000590652	Flat countersunk head thread forming screw	12
L	3000-300-114	Cable tie	1

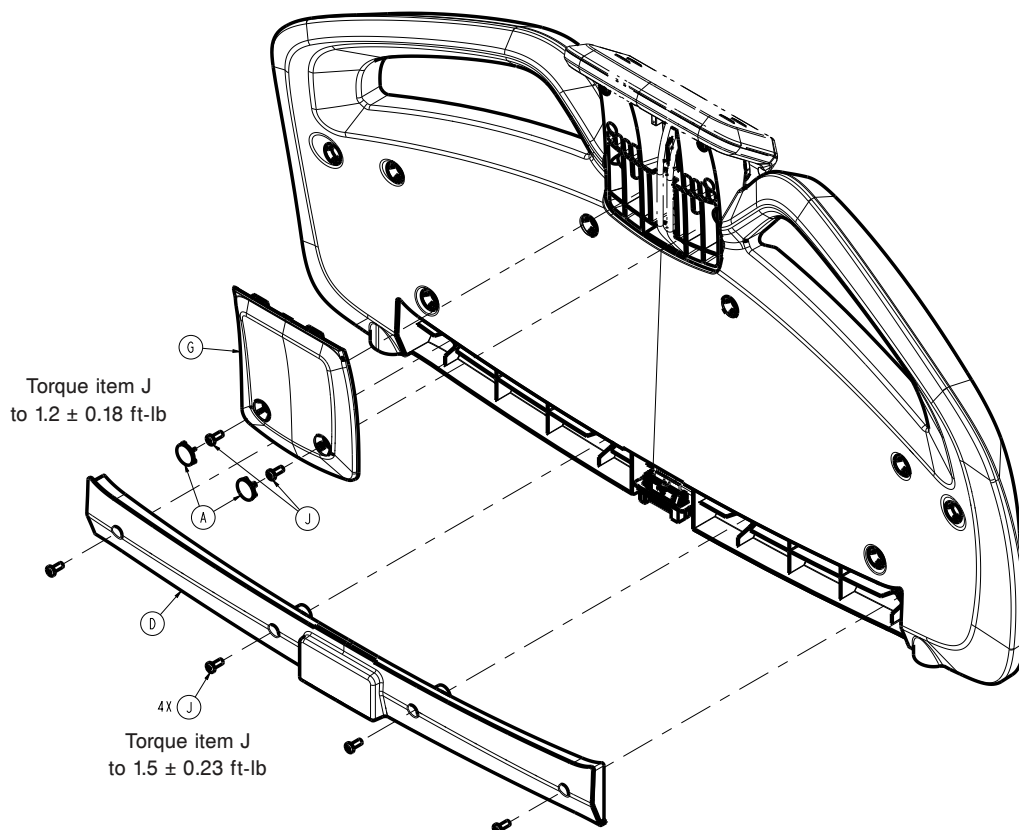
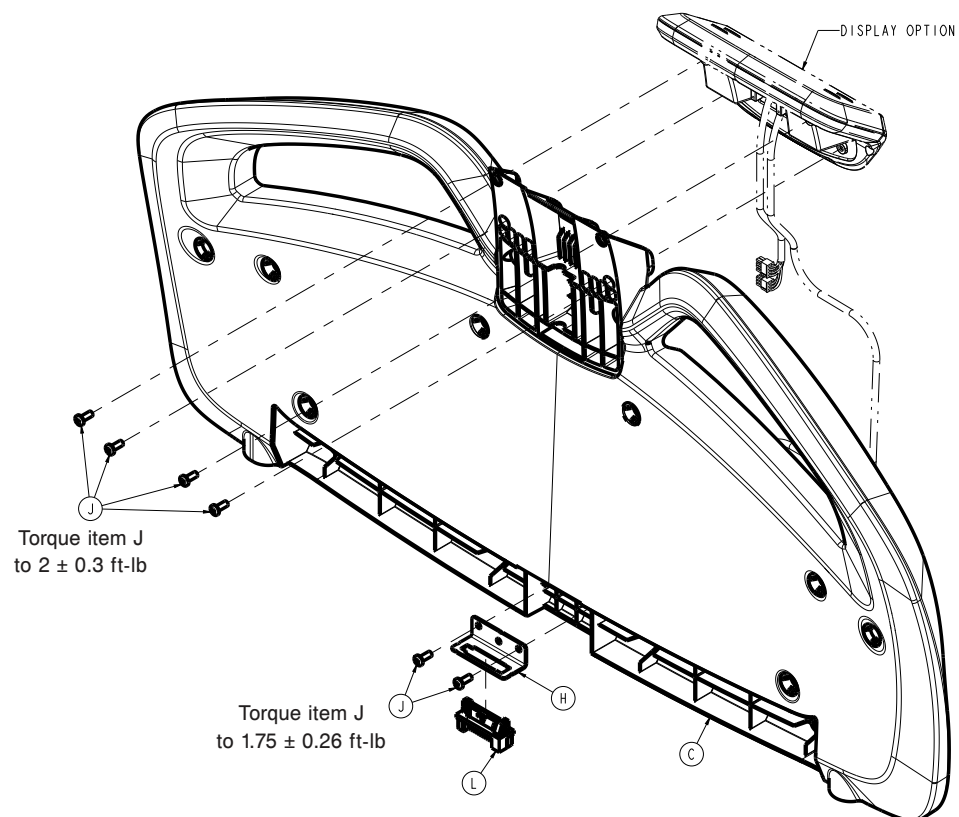
**Headboard - 300900210010**

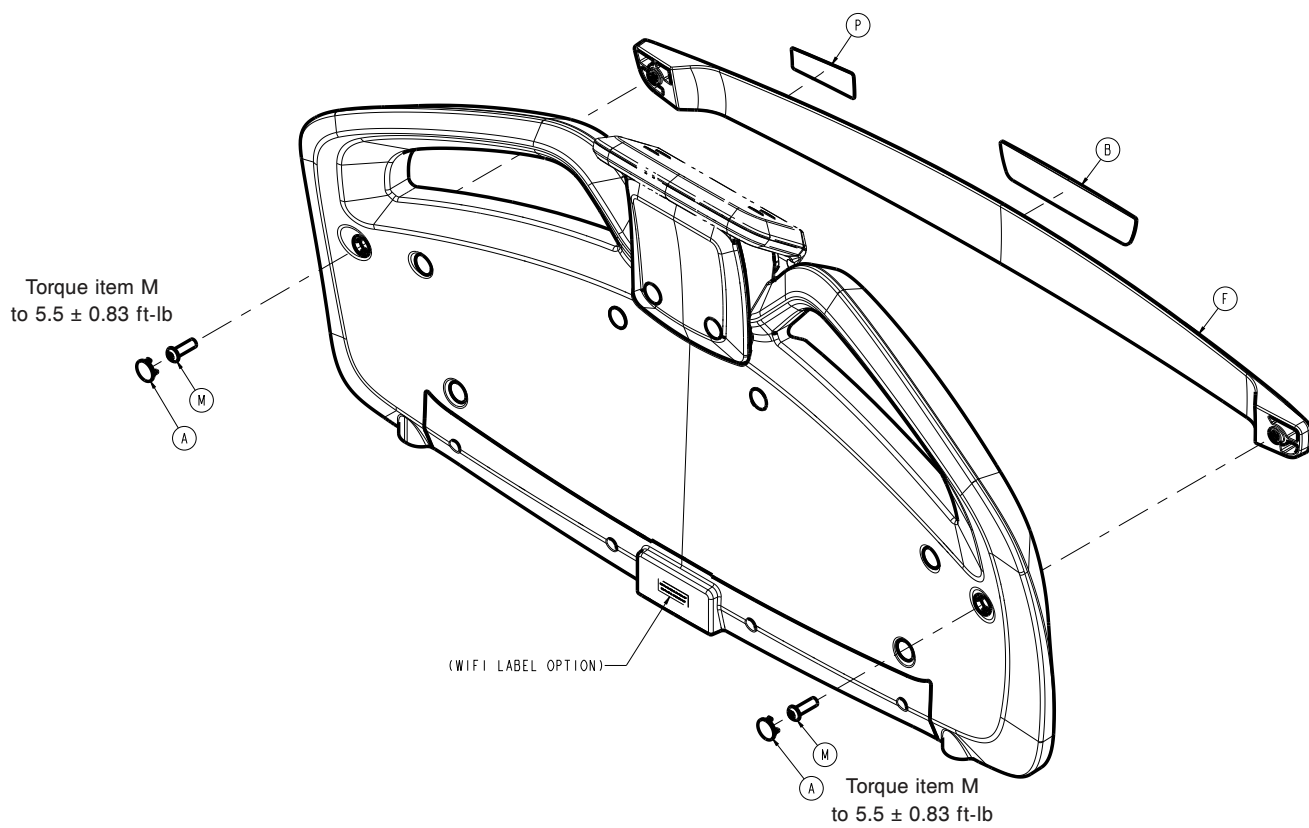
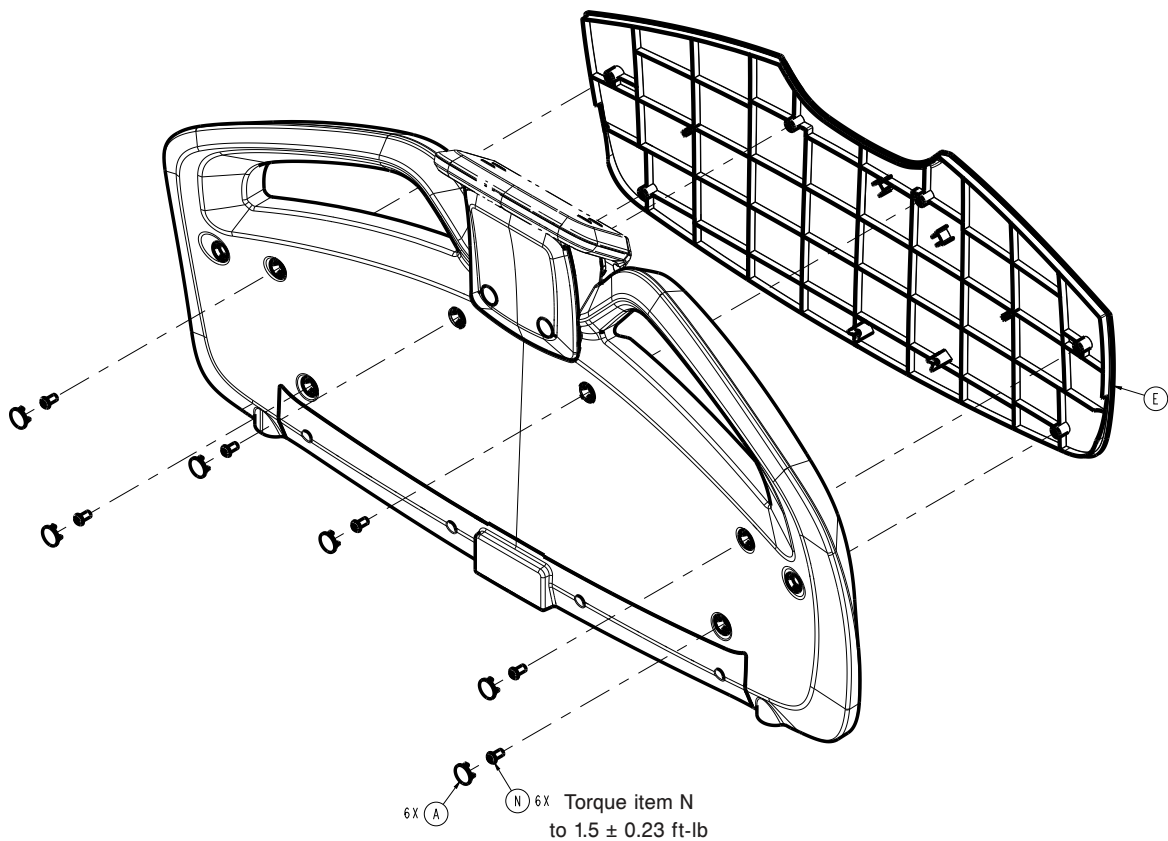
Rev AC (Reference only)

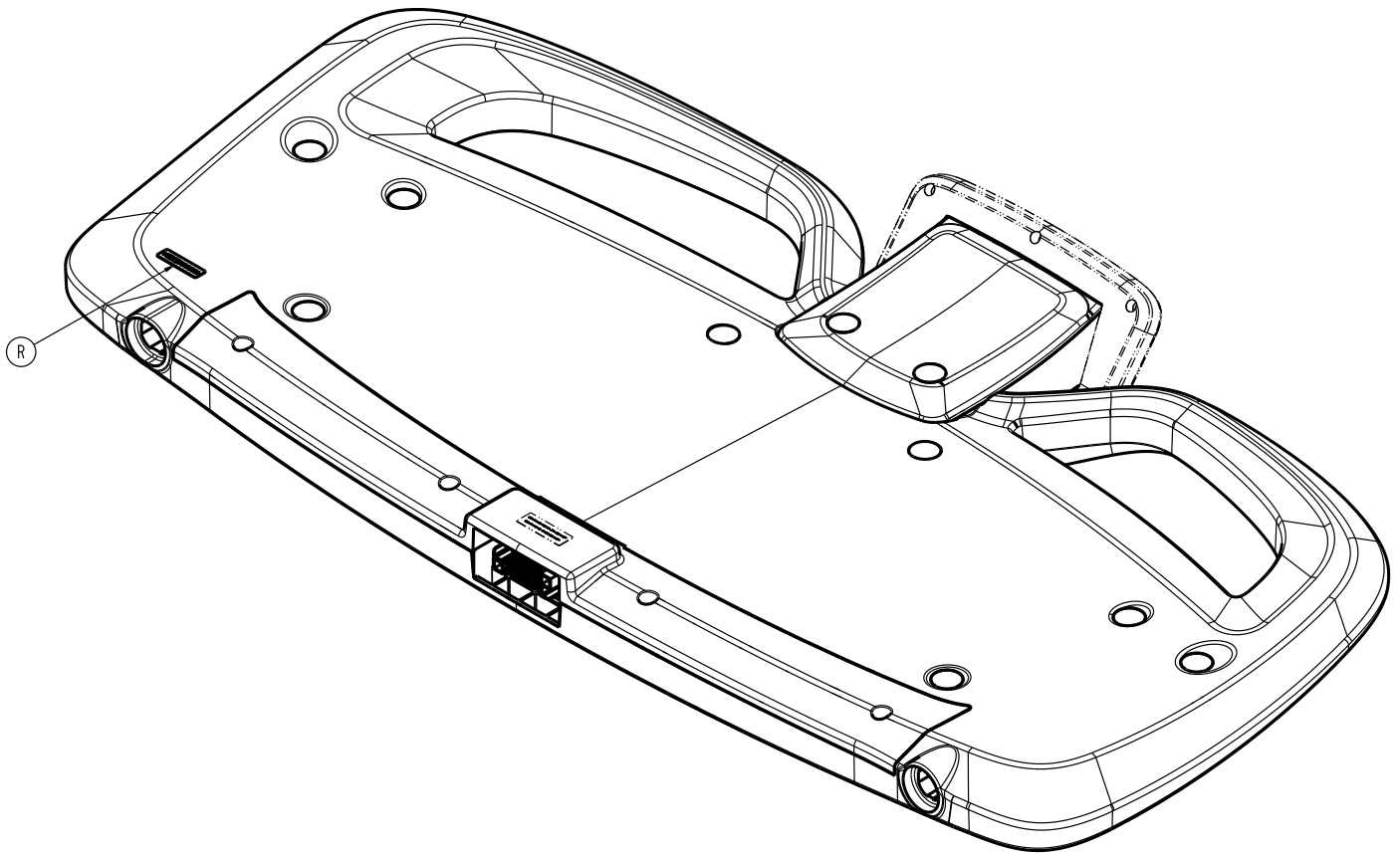


## Footboard common components assembly

300900220001 Rev AD (Reference only)



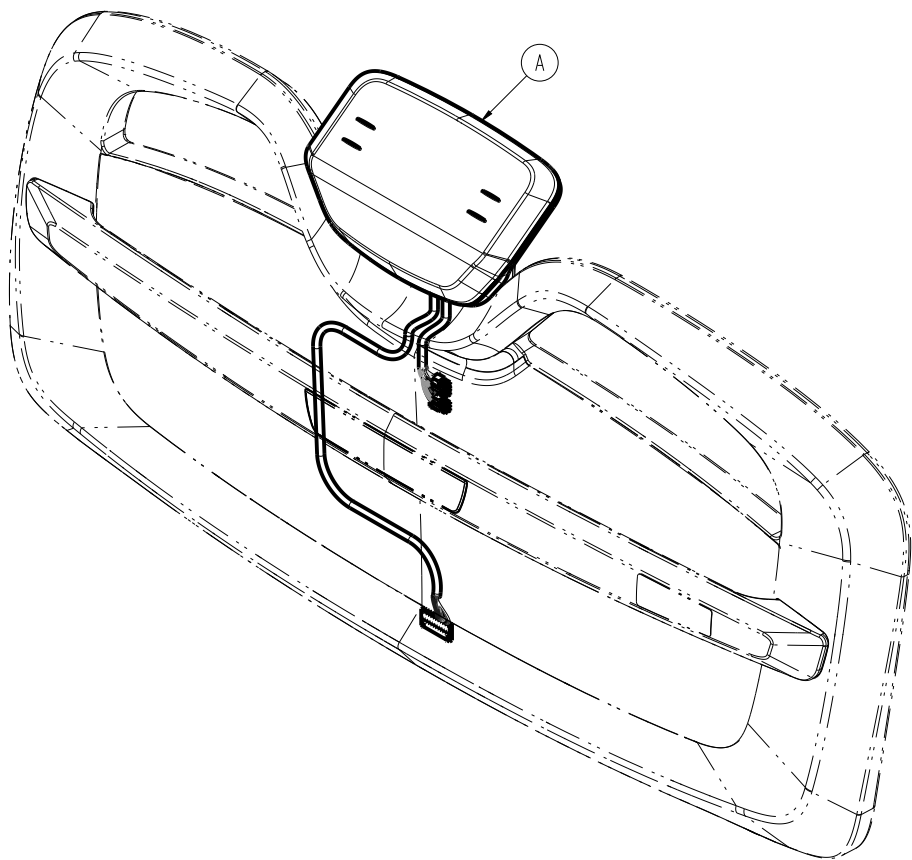




Item	Number	Name	Quantity
A	300900110008	Screw cover	10
B	300900220006	Label, Stryker logo	1
C	300900220010	Footboard	1
D	300900220011	Lower back cover	1
E	300900220012	Front panel	1
F	300900220013	Pump rack	1
G	300900220014	Upper back cover	1
H	300900220021	Connector bracket	1
J	700000798824	Pan head machine screw	12
L	700000820484	Blind mating connector	1
M	700000859385	Button head cap screw	2
N	0004-589-000	Button head cap screw	6
P	300900220007	Label, pump rack	1
R	300900220008	Label, serial number	1

Footboard assembly, basic

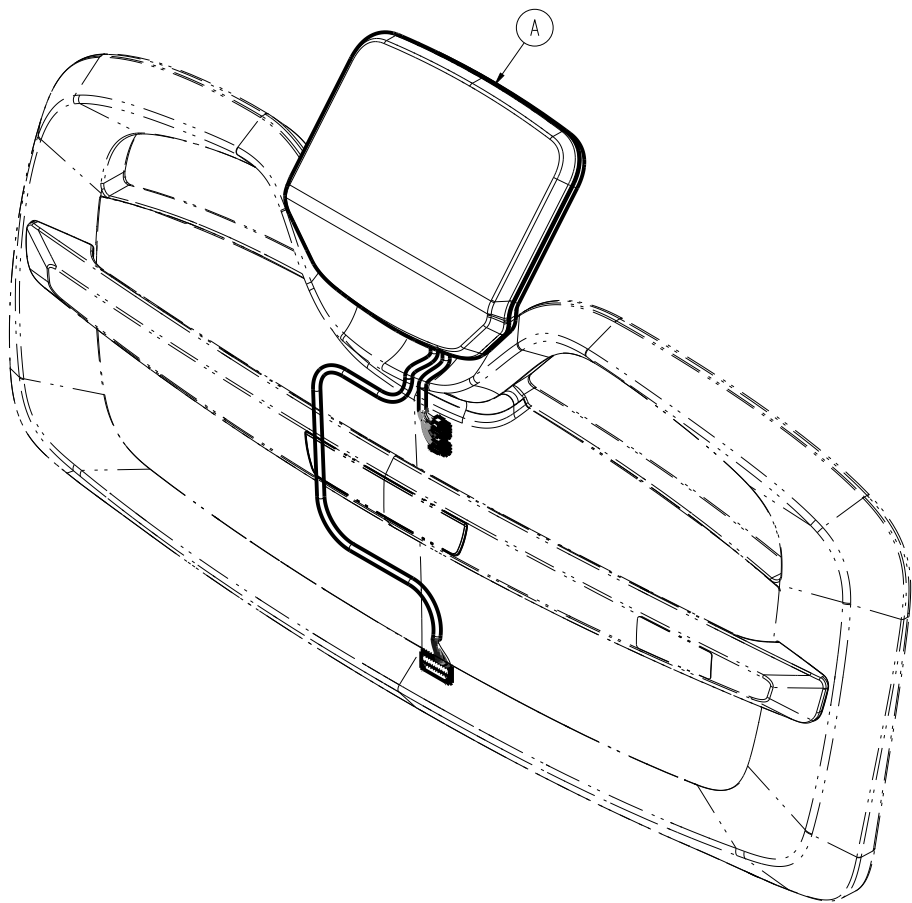
300900220002 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900220250	Display assembly, basic with Wi-Fi	1

Footboard assembly, advanced

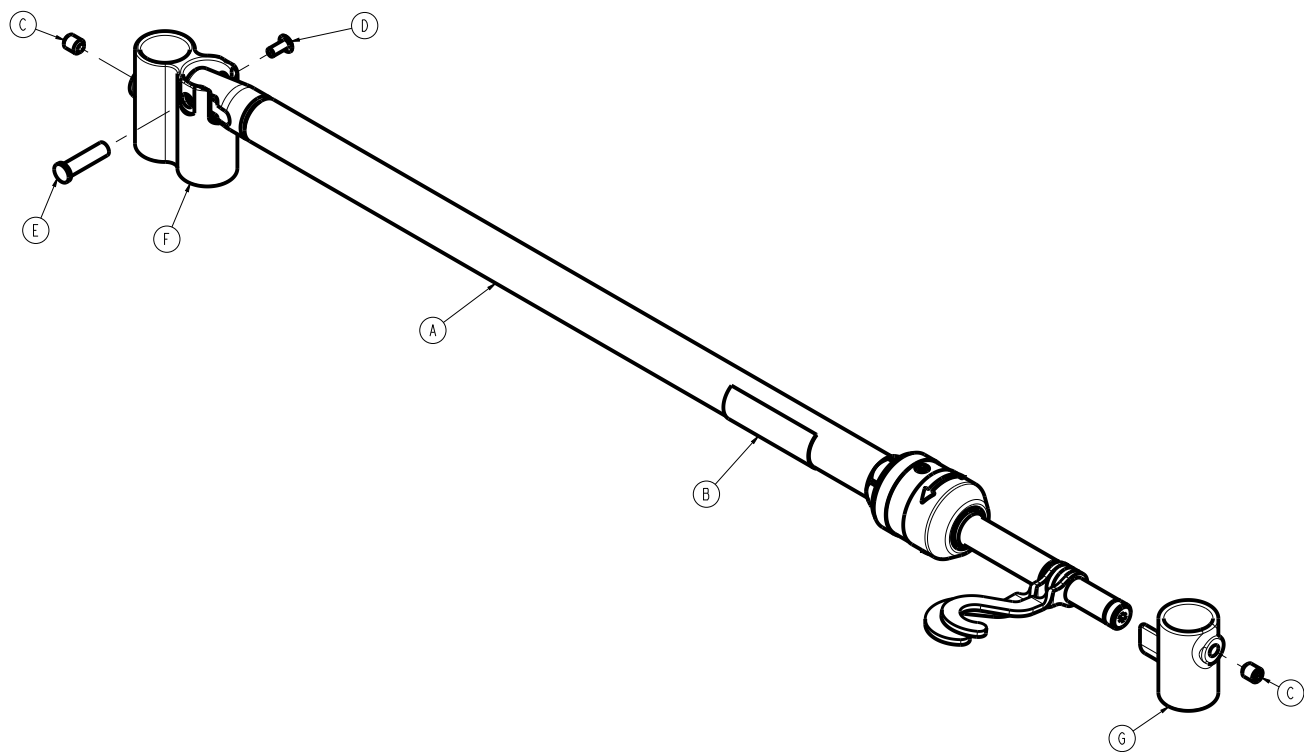
300900220004 Rev AA (Reference only)



Item	Number	Name	Quantity
A	300900220300	Display assembly, advanced	1

Havasu IV pole assembly, two-stage, single - 300900350100

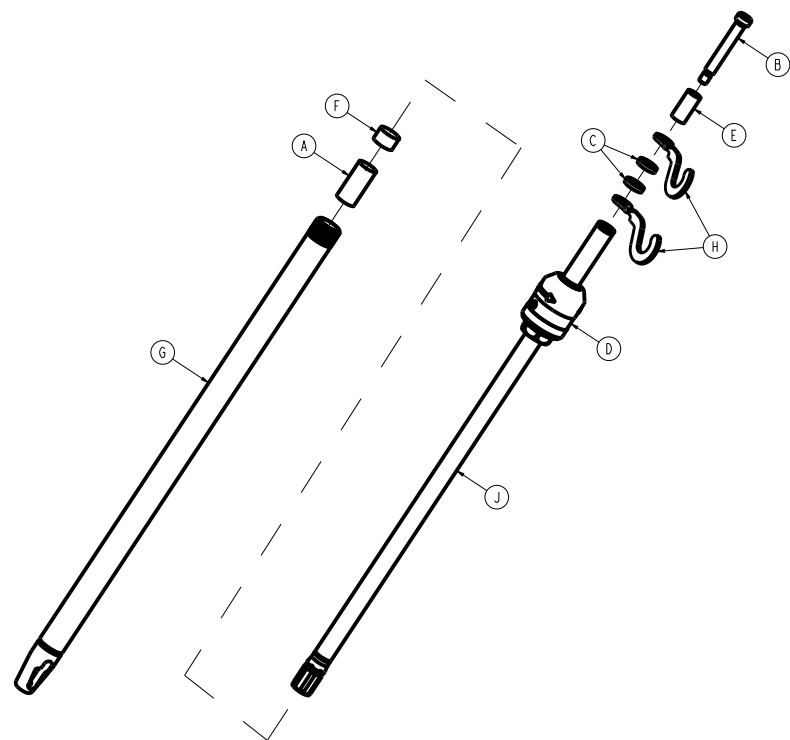
Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900350010	Havasu IV pole assembly, two-stage (page 191)	1
B	300900350101	Label, single 2 stage IV pole	1
C	0021-193-000	Set screw	2
D	0025-079-000	Dome head pop rivet	1
E	0785-048-025	Handle pivot pin	1
F	2035-112-011	IV receptacle, head end left	1
G	3000-311-036	IV rest	1

# Havasu IV pole assembly, two-stage

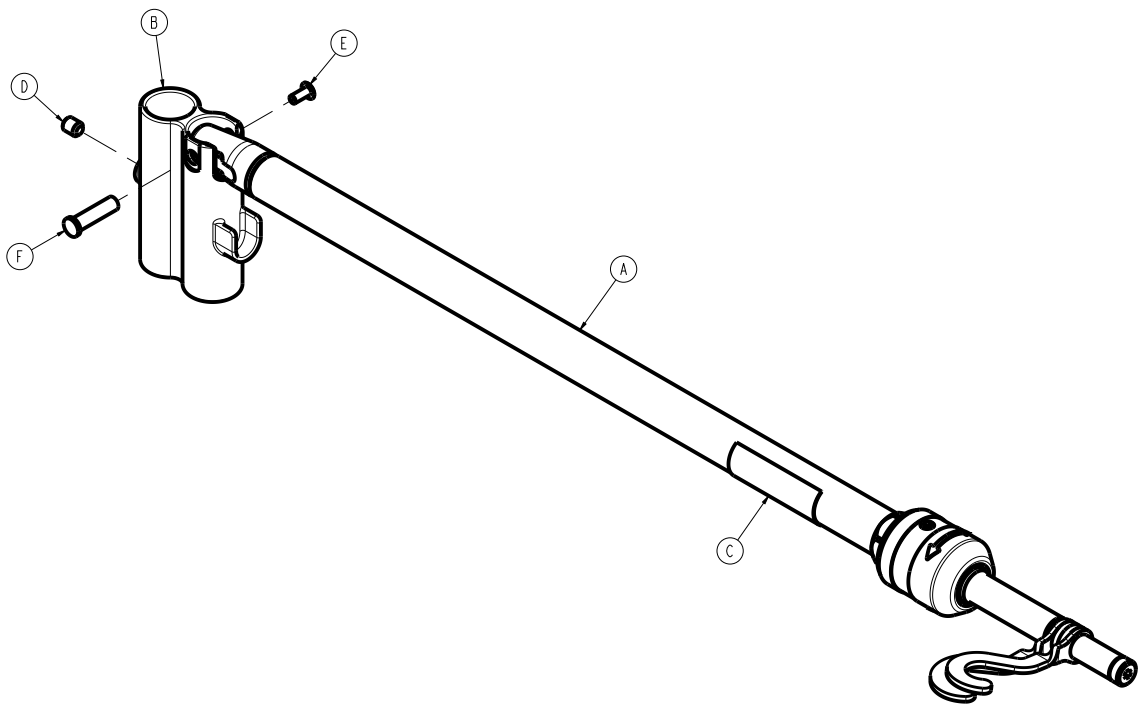
300900350010 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900350011	IV pole spacer	1
B	0008-031-000	Socket head set screw	1
C	0052-017-000	Spacer	2
D	0785-035-103	IV pole latch	1
E	0926-400-062	Stop sleeve	1
F	1001-259-013	Dampener	1
G	1001-259-032	Base tube weldment	1
H	1010-059-016	IV hook	2
J	1211-110-029	2nd stage assembly	1

Havasu IV pole assembly, two-stage, dual, top - 300900350200

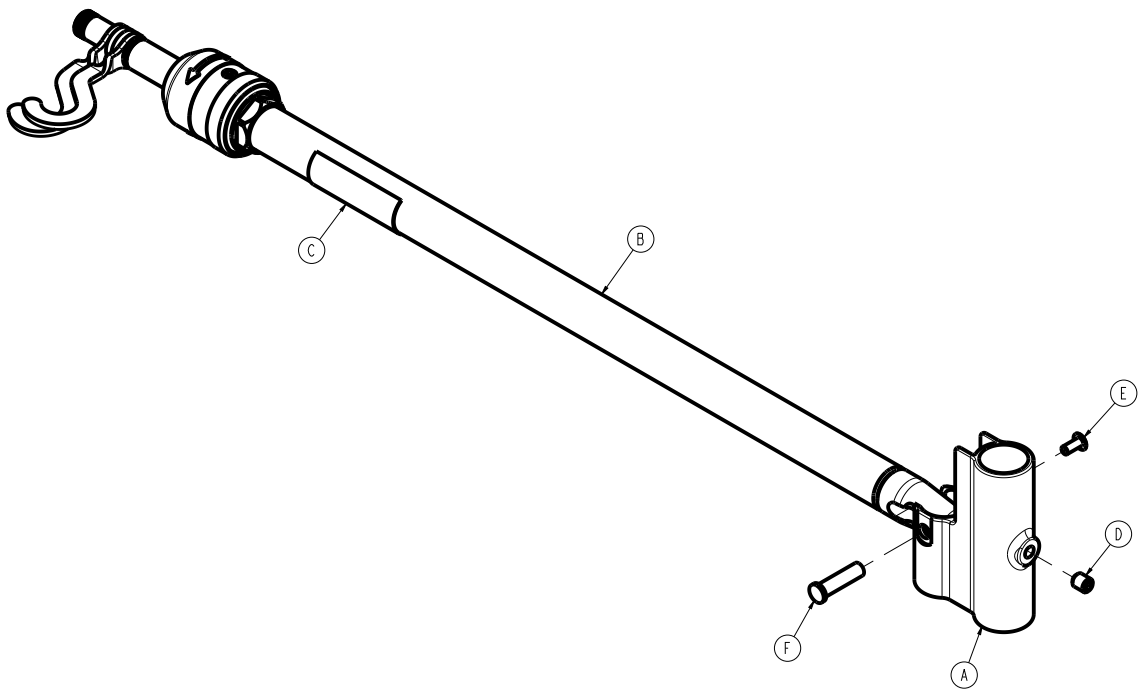
Rev AA (Reference only)



Item	Number	Name	Quantity
A	300900350010	Havasu IV pole assembly, two-stage (page 191)	1
B	300900350201	IV pole double top receptacle	1
C	300900350206	Label, dual 2 stage IV pole, top	1
D	0021-193-000	Set screw	1
E	0025-079-000	Dome head pop rivet	1
F	0785-048-025	Handle pivot pin	1

Havasu IV pole assembly, two-stage, dual, bottom - 300900350250

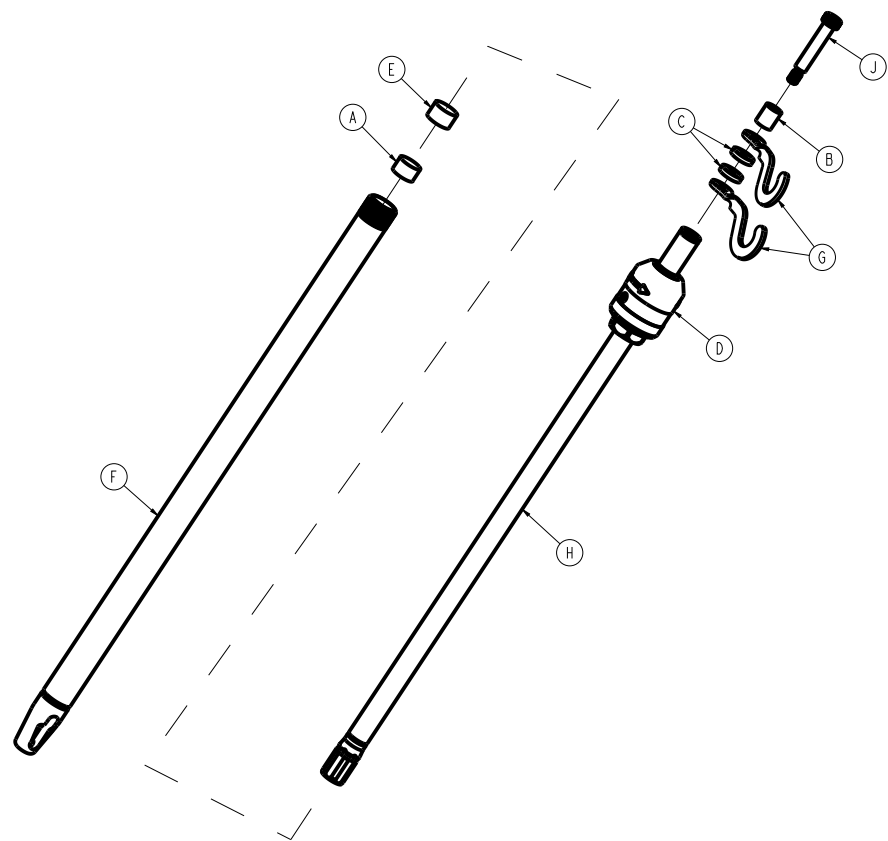
Rev AA (Reference only)



Item	Number	Name	Quantity
A	300900350202	IV pole double bottom receptacle	1
B	300900350255	Havasu IV pole assembly, two-stage (page 194)	1
C	300900350256	Label, dual 2 stage IV pole, bottom	1
D	0021-193-000	Set screw	1
E	0025-079-000	Dome head pop rivet	1
F	0785-048-025	Handle pivot pin	1

# Havasu IV pole assembly, two-stage

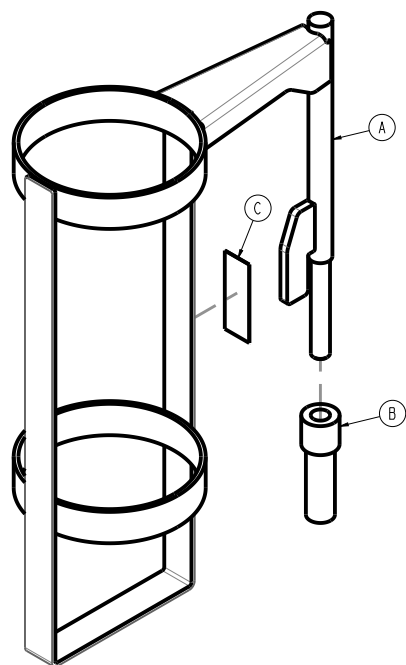
300900350255 Rev AA (Reference only)



Item	Number	Name	Quantity
A	300900350251	IV pole spacer	1
B	300900350252	IV pole stop sleeve	1
C	0052-017-000	Spacer	2
D	0785-035-103	IV pole latch	1
E	1001-259-013	Dampener	1
F	1001-259-032	Base tube weldment	1
G	1010-059-016	IV hook	2
H	1211-110-029	2nd stage assembly	1
J	Reference only	Hex socket head shoulder bolt	1

Oxygen bottle holder assembly, standard - 300900450050

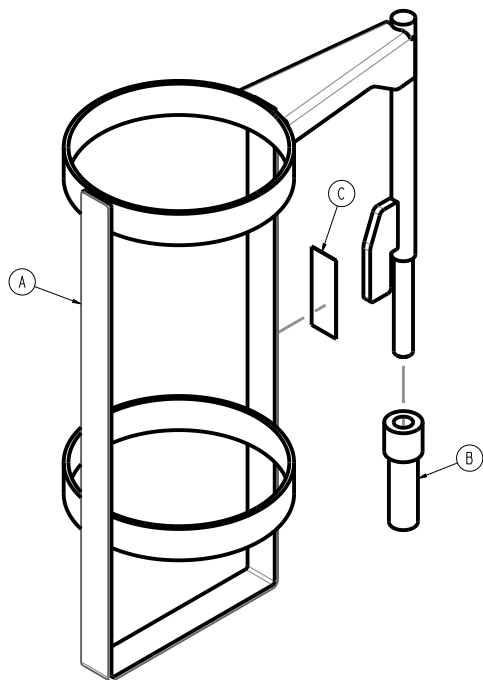
Rev AC (Reference only)



Item	Number	Name	Quantity
A	300900450055	Oxygen holder weldment	1
B	2025-150-001	Oxygen bottle holder adaptor	1
C	300900450004	Label, Oxygen bottle holder, standard	1

Oxygen bottle holder assembly, large - 300900450150

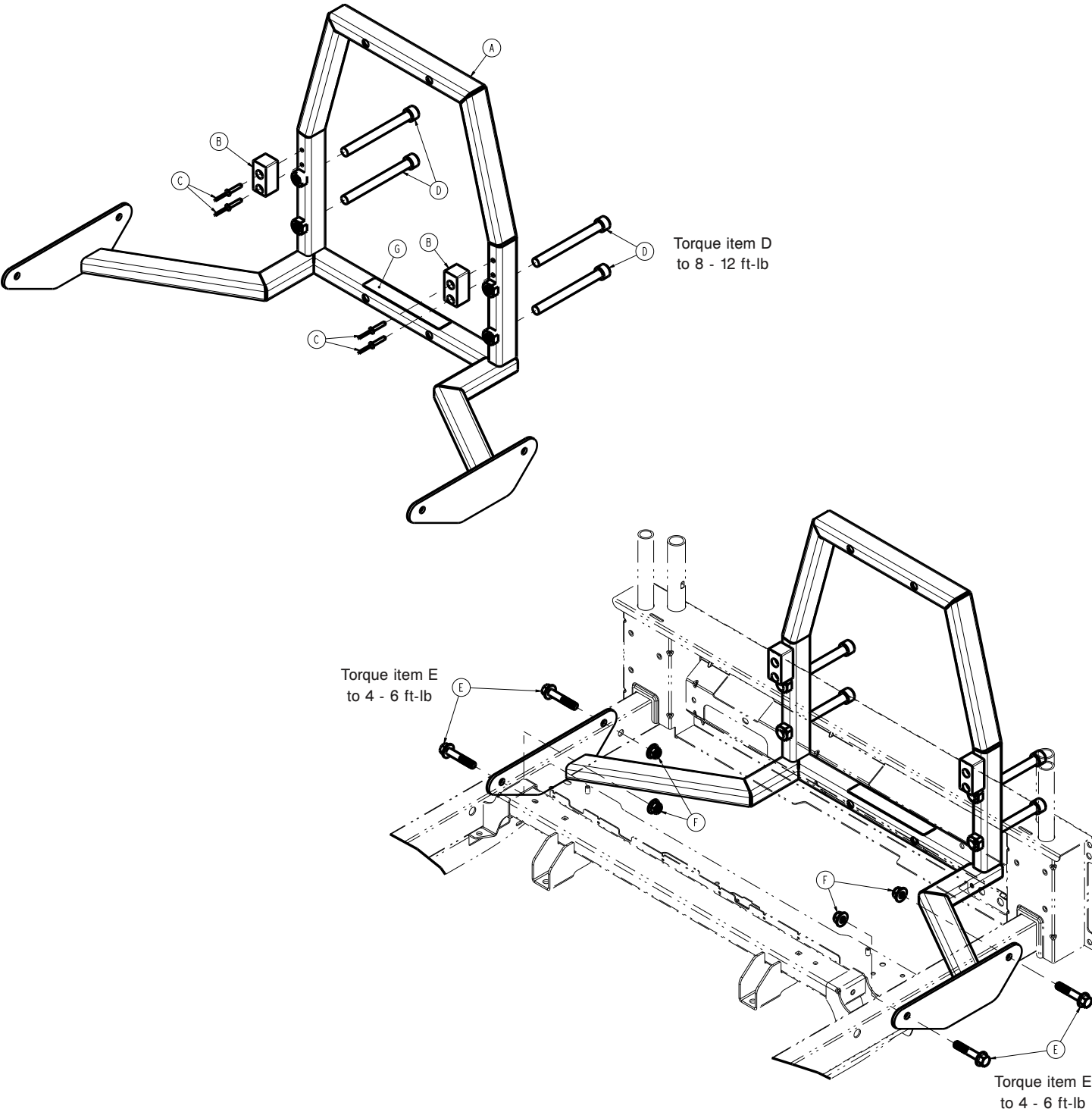
Rev AC (Reference only)



Item	Number	Name	Quantity
A	300900450155	Large oxygen holder weldment	1
B	2025-150-001	Oxygen bottle holder adaptor	1
C	300900450005	Label, oxygen bottle holder, large	1

Patient helper adapter bracket

300900450100 Rev AD (Reference only)

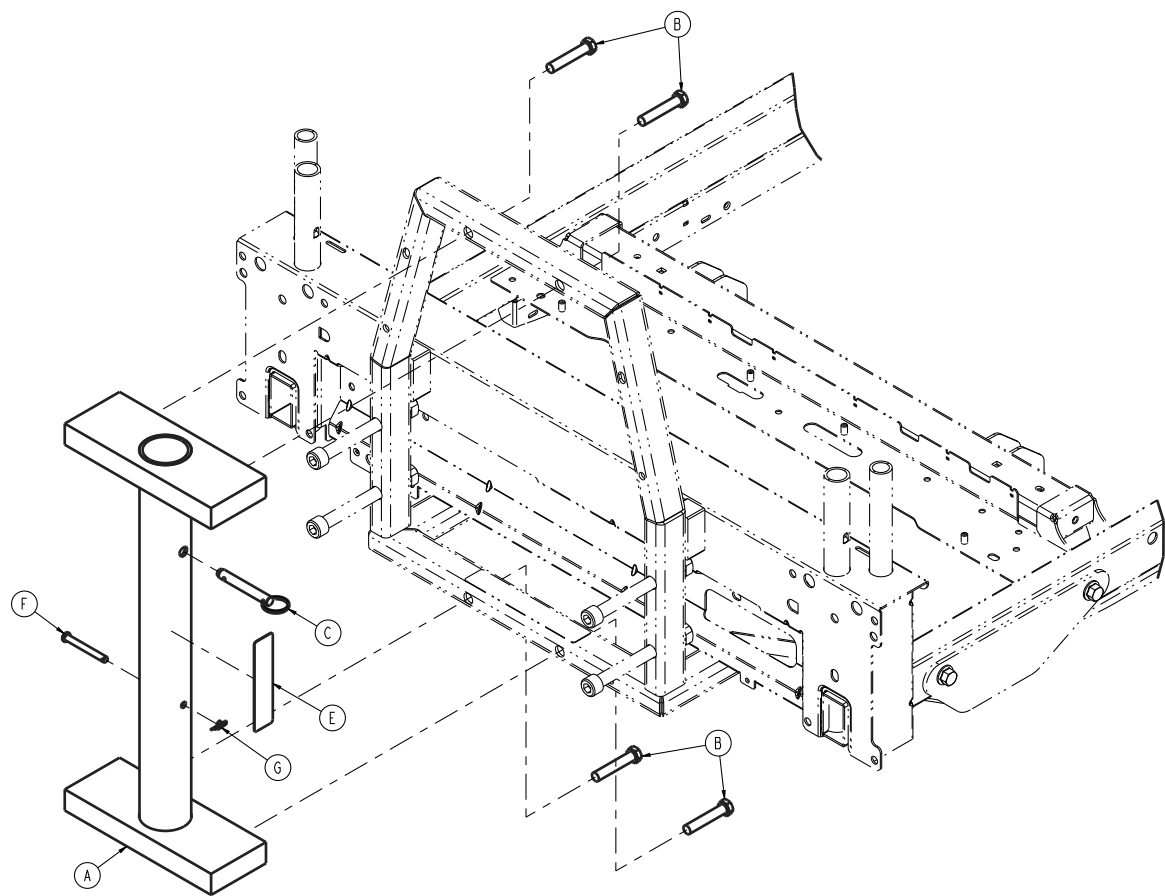


Item	Number	Name	Quantity
A	300900450110	Patient helper weldment	1
B	300900450118	Patient helper support rest pad	2
C	700000233246	Dome head blind rivet	4
D	700001076376	Socket head cap screw	4
E	700000717577	Hex flange screw	4

Item	Number	Name	Quantity
F	700000717744	Nylock flange hex nut	4
G	300900450106	Label, patient helper adapter bracket	1

Zimmer vertical adapter accessory

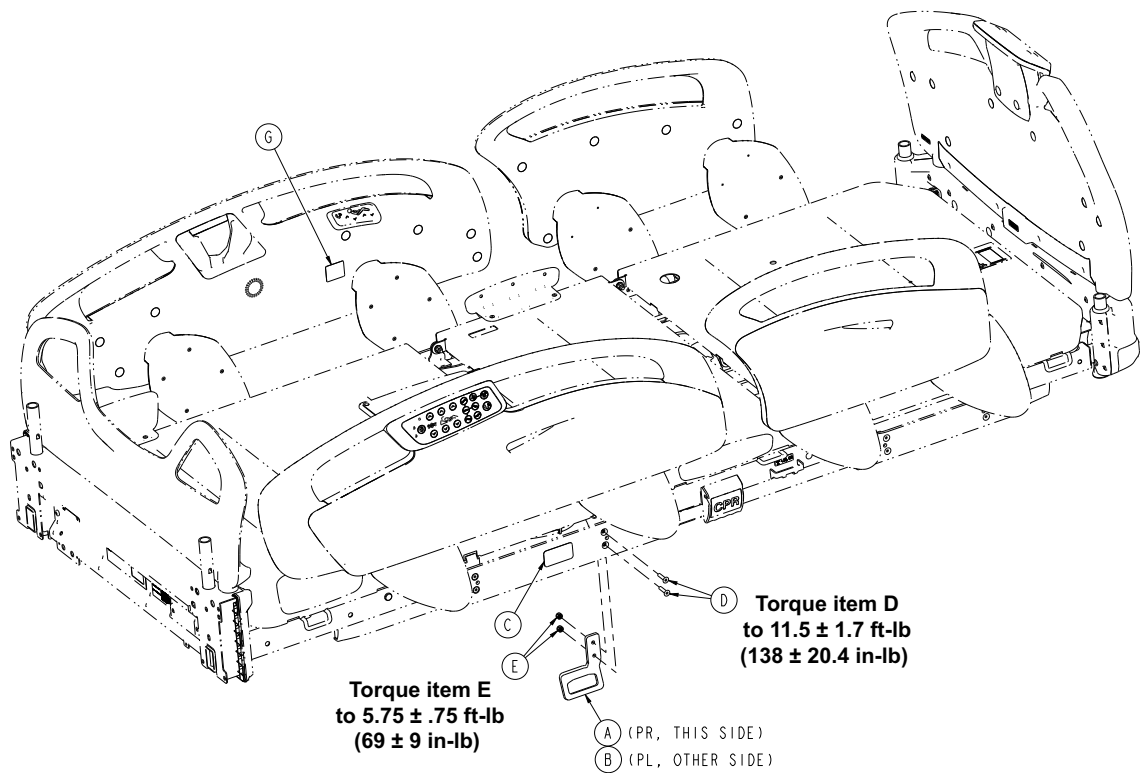
300900450105 Rev AC (Reference only)



Item	Number	Name	Quantity
A	300900450140	Patient helper weldment pole adapter	1
B	700001324859	Hex head cap screw	4
C	700001212905	Quick-release pin	1
E	300900450107	Label, patient helper Zimmer adapter bracket	1
F	0026-334-000	Clevis pin	1
G	0027-020-000	Cotter, rue ring	1

Roll belt mount brackets kit - 300907000106

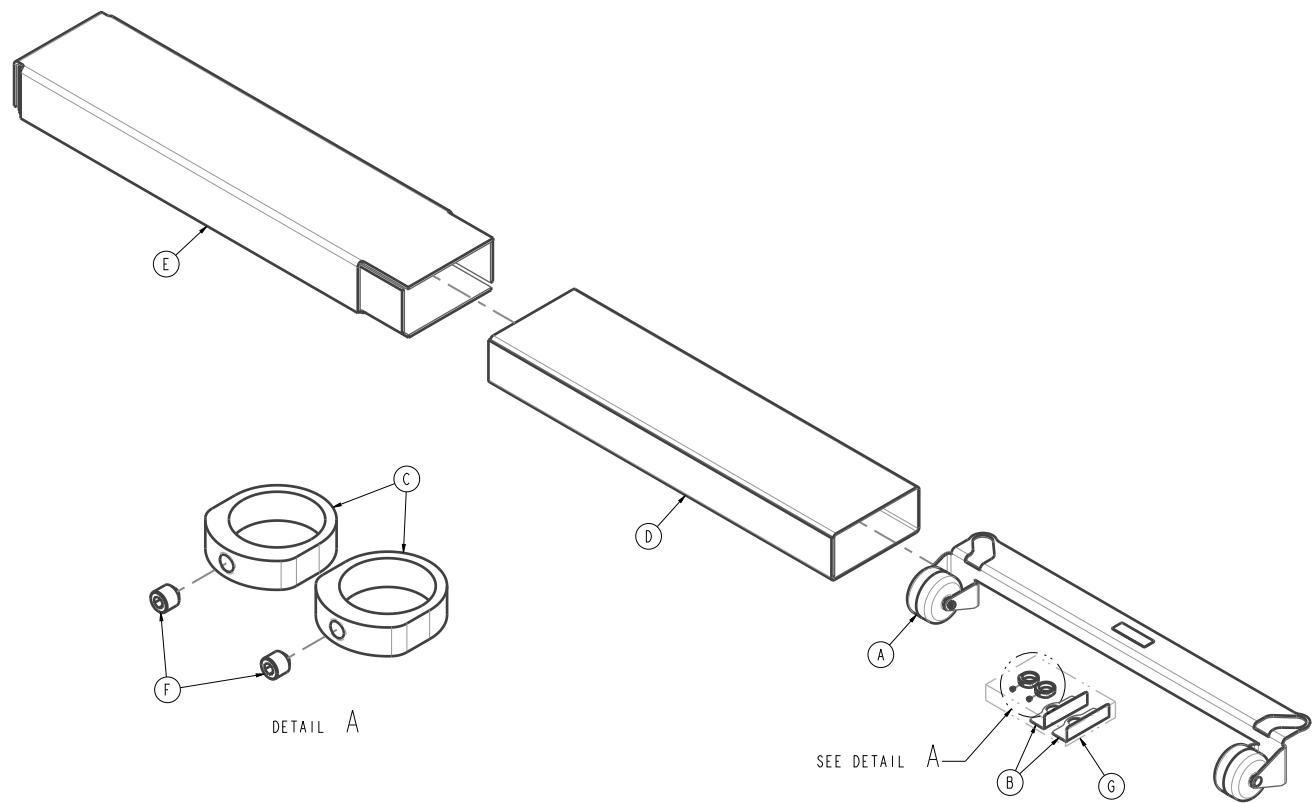
Rev AC (Reference only)

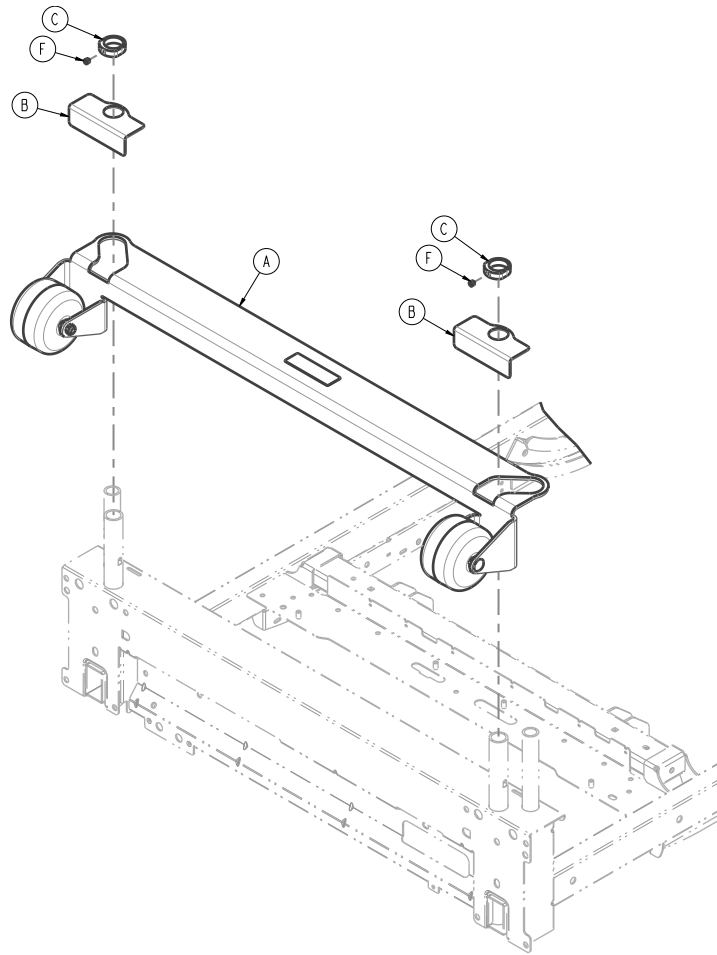


Item	Number	Name	Quantity
A	300900450031	Bracket, roll belt mount, patient right	1
B	300900450032	Bracket, roll belt mount, patient left	1
C	300900450033	Label, roll belt mount bracket	2
D	700003283269	Flat countersunk head machine screw	4
E	700003303648	Nylock hex nut	4
F	3009-009-029	Model 3009 ProCuity roll belt bracket installation instructions (not shown)	1
G	300900450034	Label, roll belt	2

Roller bumper accessory - 300900450200

Rev AA (Reference only)

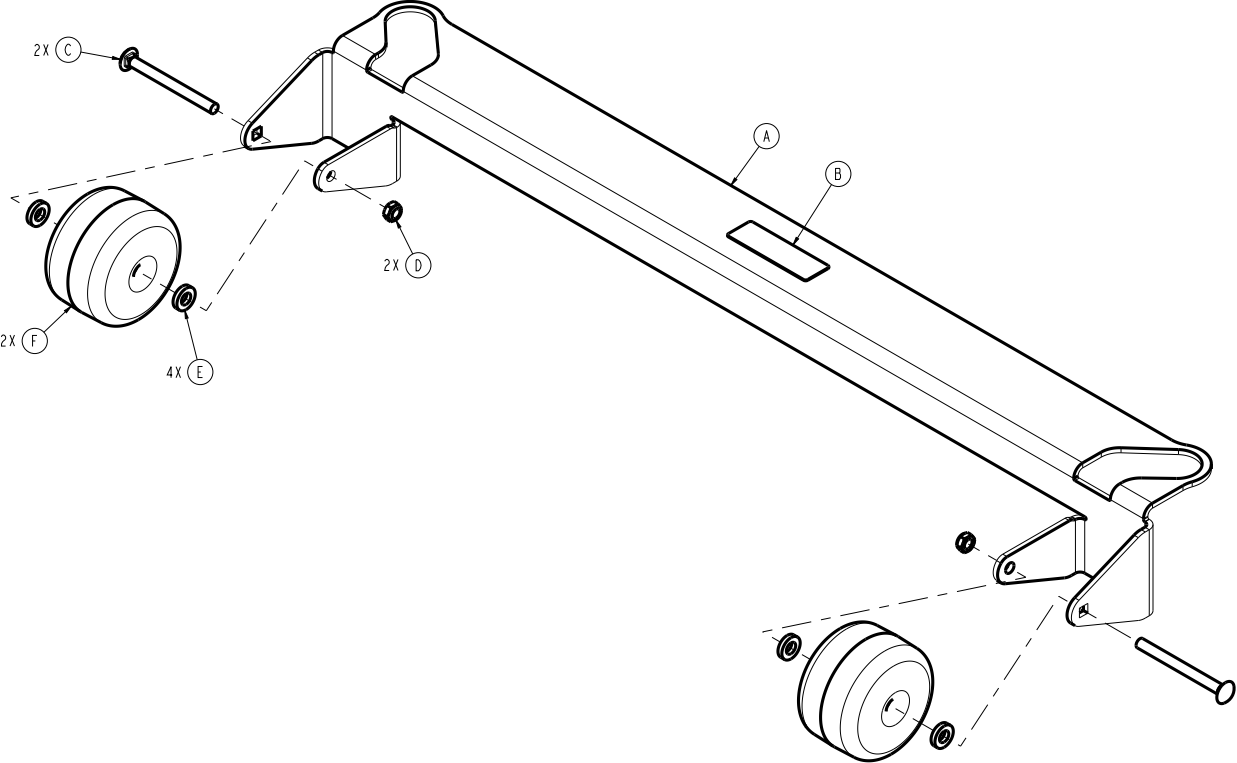




Item	Number	Name	Quantity
A	300900450205	Roller bumper assembly	1
B	300900450207	Roller bumper retaining bracket	2
C	300900450211	Roller bumper lock collar	2
D	300900450218	Roller bumper inner box	1
E	300900450219	Roller bumper outer box	1
F	0021-179-000	Set screw	2
G	Reference only	Plastic bag	1
H	Reference only	Microfoam	1

Roller bumper assembly

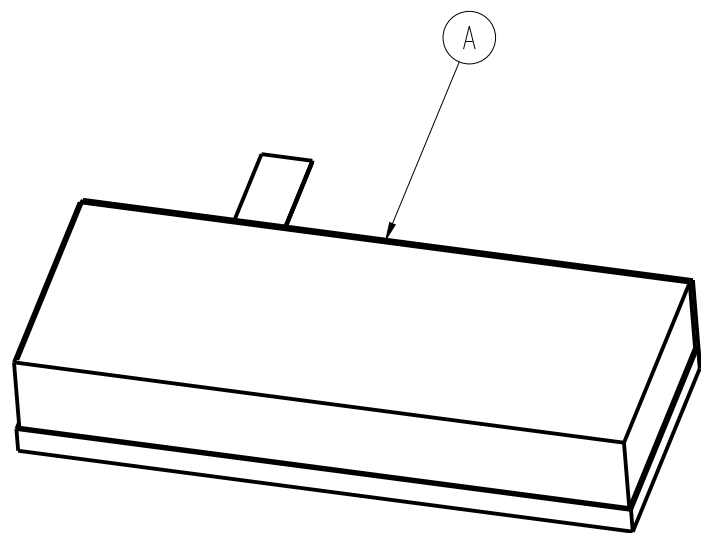
300900450205 Rev AA (Reference only)



Item	Number	Name	Quantity
A	300900450206	Roller bumper bracket	1
B	300900450209	Label, roller bumper	1
C	0005-043-000	Round head square neck bolt	2
D	0016-132-000	Nylock hex nut	2
E	0052-017-000	Spacer	4
F	3000-335-011	Roller bumper	2

Bed extender mattress - 300900670805

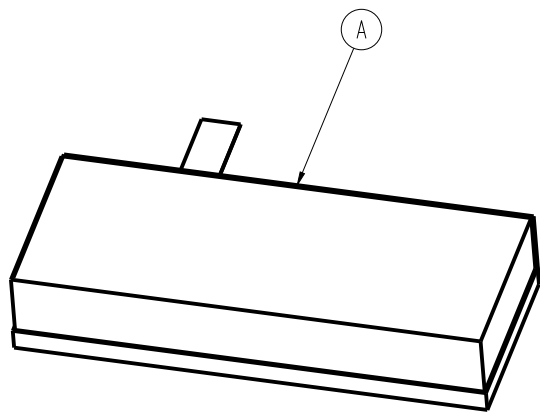
Rev AC (Reference only)



Item	Number	Name	Quantity
A	300900670810	Assembly, mattress, foot extender	1

Bed extender mattress, international - 300900670905

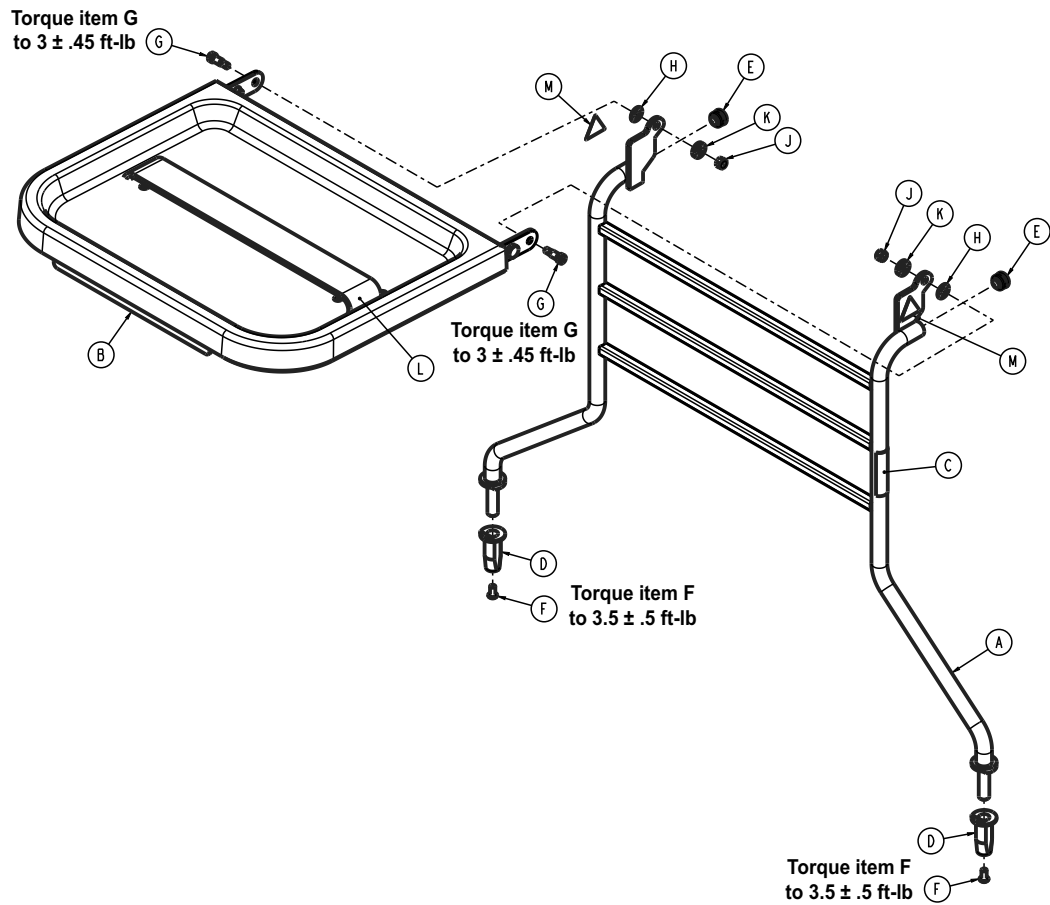
Rev AA (Reference only)



Item	Number	Name	Quantity
A	300900670910	Assembly, mattress, international bed extender	1

Defibrillator tray accessory

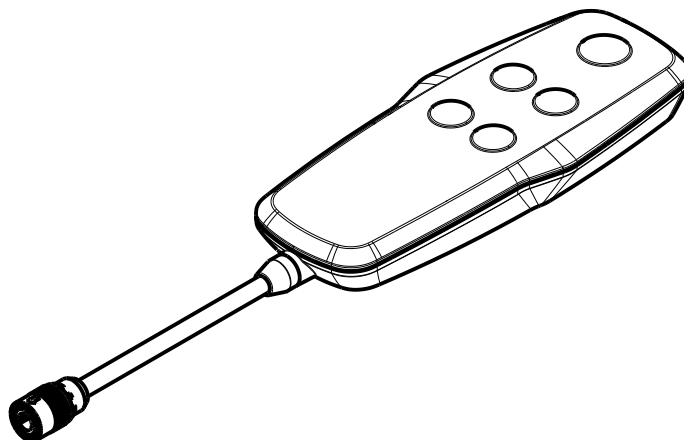
300900450250 Rev AA (Reference only)



Item	Number	Name	Quantity
A	300900450255	Defib frame weldment	1
B	300900450270	Defib upper tray assembly	1
C	300900450204	Label, defibrillator tray	1
D	300900450273	Defib tube guide post insert	2
E	700002362288	Round tubing plug	2
F	0004-574-000	Hex socket head cap screw with patch	2
G	0008-049-000	Socket head shoulder bolt	2
H	0014-020-000	Washer	2
J	0016-028-000	Nylock hex nut	2
K	0052-017-000	Spacer	2
L	1010-050-021	Long strap	1
M	6506-001-905	Label, warning: crushing of hands	2

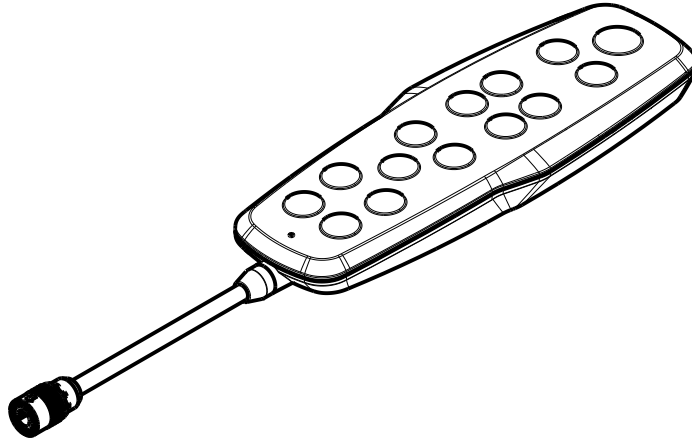
## Pendant assembly, basic - 300900470100

Rev AB (Reference only)



## Pendant assembly, advanced - 300900470200

Rev AB (Reference only)



## Wireless coexistence notifications

Microwaves are regulated by the federal government through 21CFR1030.10 such that the amount of power that can leak from a microwave oven over its lifetime is very small, such as 5mW/cmsq @ 2" from the plane of the microwave surface. This radiation will roll off rapidly as the distance between the microwave and the measurement point increases. Other radiation in this band can be generated from unintentional radiators and from the control and source circuitry in the microwave. The level of this radiation is also controlled via federal regulations from the FCC and is not of a high magnitude. These two sources of noise are both contained inside the microwave oven which is shielded and designed to minimize this radiation. In general, the user of the medical device will not be in close proximity to the microwave oven when using the medical device.

Coexistence between IEEE802.11 (Wi-Fi) 5GHz band devices and LTE-U Cellular Band (B46) devices is well established and well vetted by regulatory bodies. In high congestion environments (such as the intended environment of this device) these overlapping frequencies can degrade performance of both devices. It is highly recommended to disable customer infrastructure utilizing LTE-U Cellular Band (B46) to avoid any degradation of performance. Doing so will increase 5GHz capacity and reduce performance degradation resulting from frequency congestion.

## EMC information

### WARNING

- Portable RF communications equipment, including peripherals such as antenna cables and external antennas, should be no closer than 12 inches (30 cm) to any part of ProCuity bed series, including cables specified by the manufacturer.
- Avoid stacking or placing equipment adjacent with other equipment to prevent improper operation of the product. If such use is necessary, carefully observe stacked or adjacent equipment to make sure that they operate properly.
- The use of accessories, transducers, and cables, other than those specified or provided by the manufacturer, could result in increased electromagnetic emissions or decreased electromagnetic immunity and result in improper operation.

**CAUTION** - This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.

The ProCuity bed series was evaluated using the following cables:

Cable	Length (m)
AC mains input cable	2.5
AC aux input cable	2.5
AC aux output cable	2.2
Nurse call (DB-37)	4.5
USB cable	4.7
Pendant	5.3

### Guidance and manufacturer's declaration - electromagnetic emissions


The ProCuity bed series is intended for use in the electromagnetic environment specified below. The customer or the user of the ProCuity bed series should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment
RF Emissions CISPR 11	Group 1	<b>Note</b> - The emissions characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.
RF Emissions CISPR 11	Class A	
Harmonic Emissions IEC 61000-3-2	Class A	
Voltage Fluctuations Flicker Emissions IEC 61000-3-3	Complies	

### Guidance and manufacturer's declaration - electromagnetic immunity

The ProCuity bed series is suitable for use in a professional healthcare facility environment and not in environments exceeding immunity test conditions that the product was evaluated to, such as near high frequency (HF) surgical equipment and inside of the radio frequency (RF) shielded room of magnetic resonance imaging (MRI) equipment. The customer or the user of the ProCuity bed series should assure that it is used in such an environment and that the electromagnetic environment guidance listed below is followed.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Electrostatic Discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrostatic fast transient/ burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Main power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±0.5 kV, ±1 kV lines to lines ±0.5 kV, ±1 kV, ±2 kV lines to earth	±0.5 kV, ±1 kV lines to lines ±0.5 kV, ±1 kV, ±2 kV lines to earth	Main power quality should be that of a typical commercial or hospital environment.

Guidance and manufacturer's declaration - electromagnetic immunity			
Voltage dips, voltage variations and short interruptions on power supply input lines IEC 61000-4-11	<p>0%U<sub>T</sub> for 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315°</p> <p>0%U<sub>T</sub> for 1 cycle</p> <p>70%U<sub>T</sub> (30% dip in U<sub>T</sub>) for 25/30 cycles</p> <p>0% U<sub>T</sub> for 250/300 cycles</p>	<p>0%U<sub>T</sub> for 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315°</p> <p>0%U<sub>T</sub> for 1 cycle</p> <p>70%U<sub>T</sub> (30% dip in U<sub>T</sub>) for 25/30 cycles</p> <p>0% U<sub>T</sub> for 250/300 cycles</p>	Main power quality should be that of a typical commercial or hospital environment. If the user of the ProCuity bed series requires continued operation during power main interruptions, it is recommended that the device be powered from an uninterrupted power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
<b>Note</b> - U <sub>T</sub> is the a.c. mains voltage before applications of the test level.			
<p>Conducted RF IEC 61000-4-6</p> <p>Radiated RF IEC 61000-4-3</p>	<p>3 Vrms 150 kHz to 80 MHz 3 V/m 80 MHz to 2.7 GHz</p>	<p>3 Vrms 3 V/m</p>	<p>Portable and mobile RF communications equipment should follow the guidance in the table titled "Recommended separation distances between portable and mobile RF communication equipment and the ProCuity bed series." If the mobile service is not listed in the table, the recommended separation distance should be calculated from the equation appropriate for the frequency of the transmitter.</p> <p>Recommended separation distance <math>D=(2)(\sqrt{P})</math> where <math>P</math> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <math>d</math> is the recommended separation distance in meters (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey<sup>a</sup>, should be less than the compliance level in each frequency range<sup>b</sup>.</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol: </p>
<p><b>Note</b> - These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p> <p><b>Note</b> - The ISM (Industrial, Scientific, and Medical) bands between 0.15 MHz and 80 MHz are 6.765 MHz to 6.795 MHz; 13.553 MHz to 13.567 MHz; 26.957 MHz to 27.283 MHz; and 40.66 MHz to 40.70 MHz.</p>			
<p><sup>a</sup>Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the ProCuity bed series is used exceeds the applicable RF compliance level above, the ProCuity bed series should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the ProCuity bed series.</p> <p><sup>b</sup>Over the frequency range 150 kHz to 80 MHz, field strengths are less than 3 Vrms.</p>			

### Recommended separation distances between portable and mobile RF communication equipment and the ProCuity bed series

The ProCuity bed series is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the ProCuity bed series can help prevent electromagnetic interferences by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the ProCuity bed series, including cables, as recommended below, according to the maximum output power of the communications equipment.

Band (MHz)	Service	Maximum power (W)	Minimum separation distance (m)
380-390	TETRA 400	1.8	0.3
430-470	GMRS 460; FRS 460	2.0	0.3
704-787	LTE Band 13, 17	0.2	0.3
800-960	GSM 800/900; TETRA 800; iDEN 820; CDMA 850; LTE Band 5	2.0	0.3
1,700-1,990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	2.0	0.3
2,400-2,570	Bluetooth; WLAN; 802.11 b/g/n; RFID 2450; LTE Band 7	2.0	0.3
5,100-5,800	WLAN 802.11 a/n	0.2	0.3

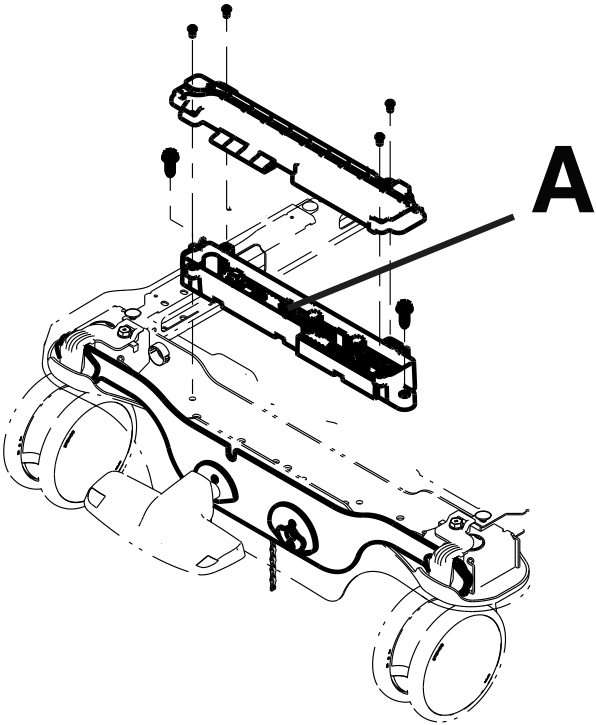
For transmitters rated at a maximum output power not listed above, the recommended separation distance  $d$  in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where  $P$  is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

**Note** - These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

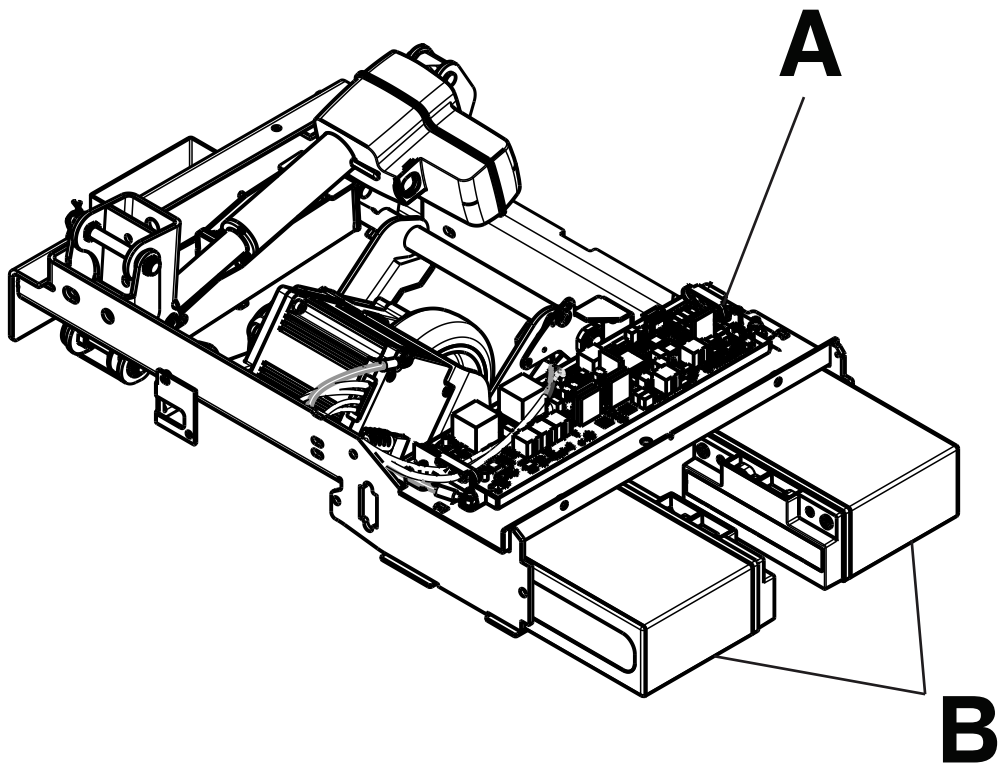
Recycling passport

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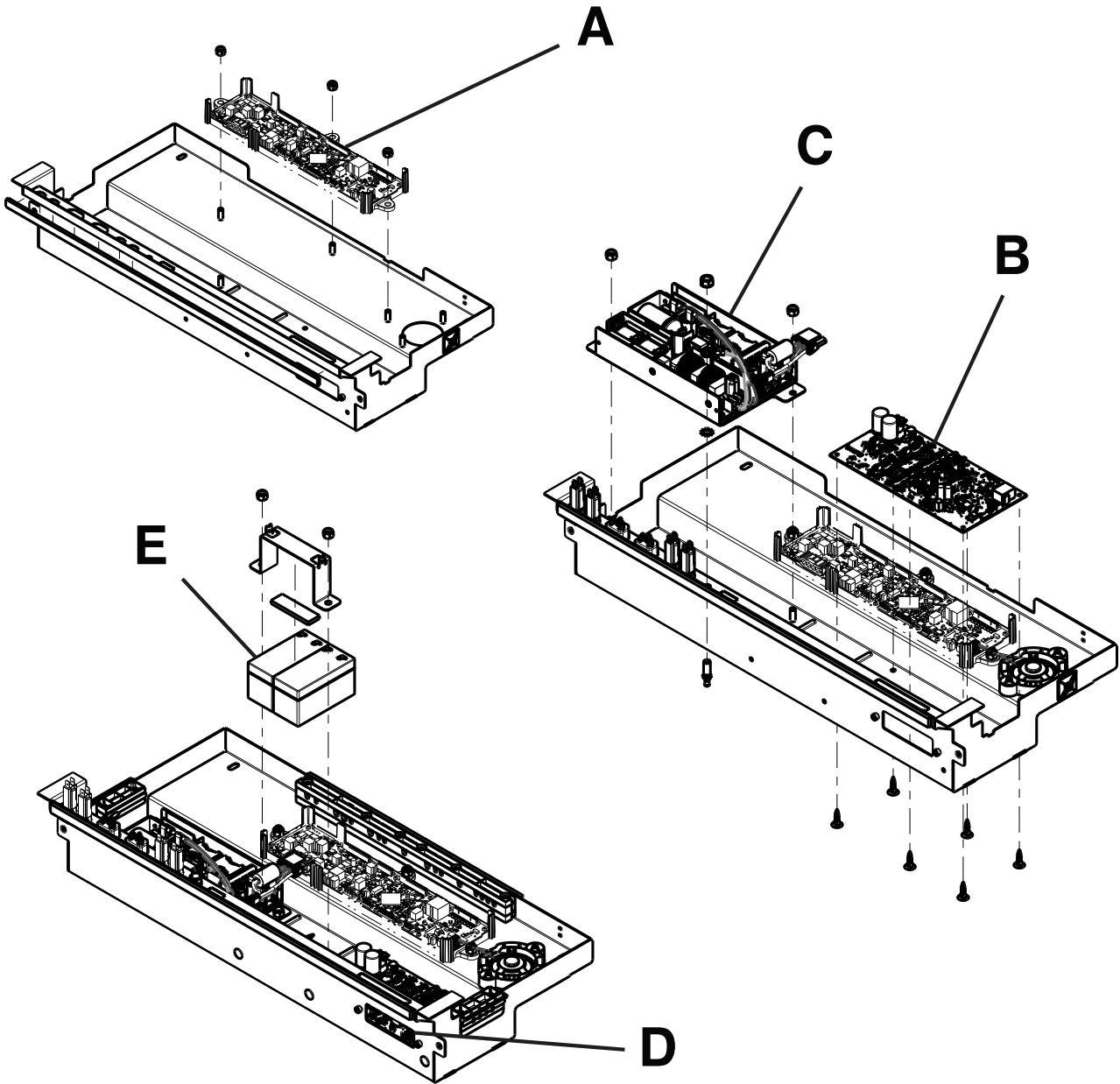
Rev AB



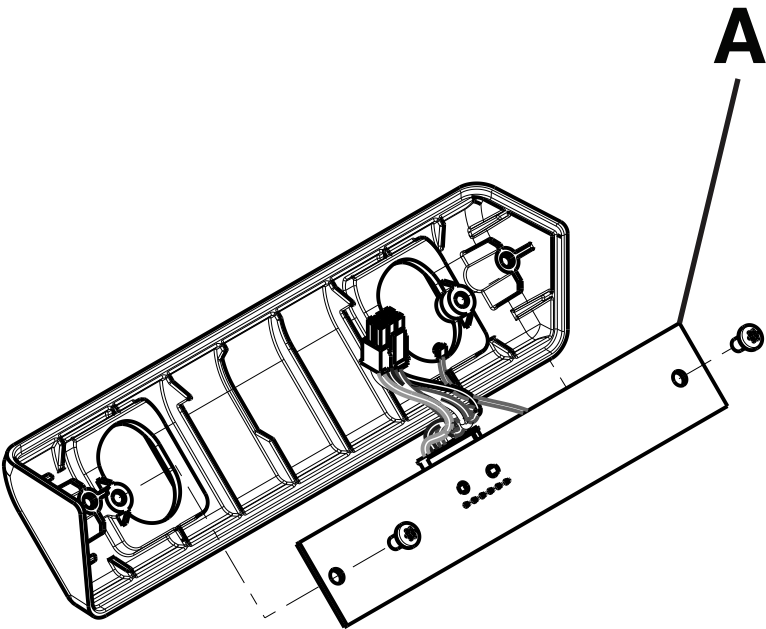
Item	Recyclable part number	Description	Important information	Quantity
A	300900030900	Printed circuit board	Diboron-trioxide, lead, lead-monoxide	1



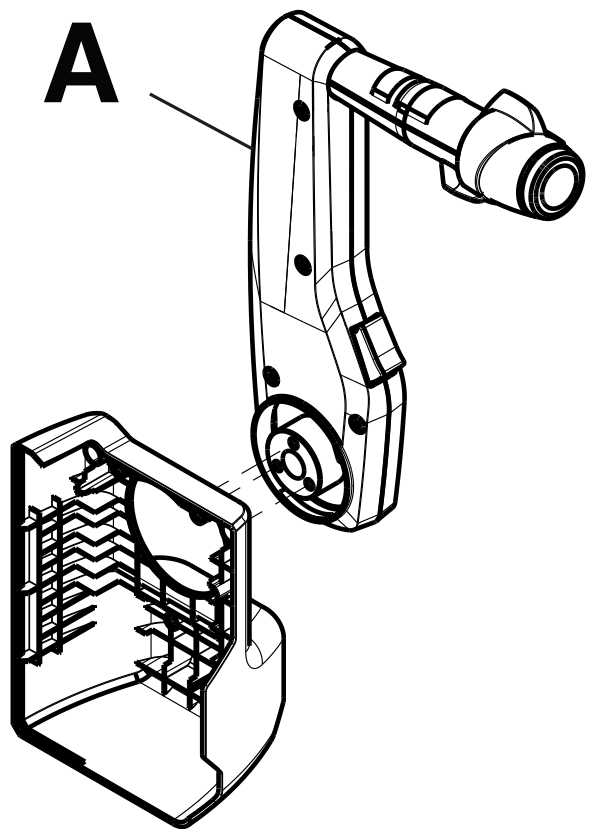
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A	300900070050	Printed circuit board	Lead, lead-monoxide	1
B	700000341246	Battery	Lead, lead dioxide	2



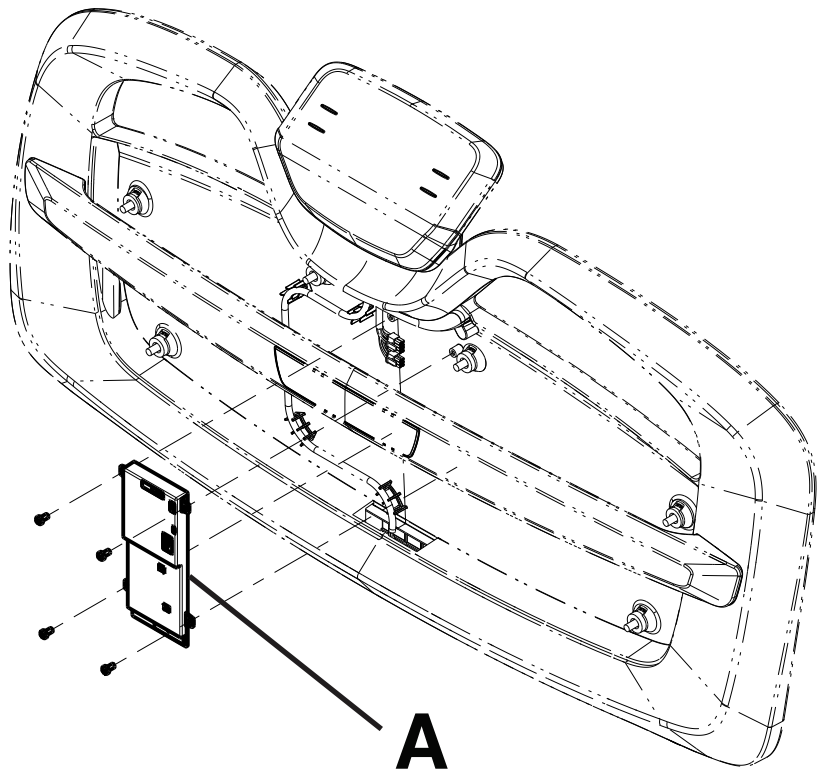
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A	300900100900/ 300900100910	Printed circuit board	Diboron-trioxide, lead, lead-monoxide	1
B	300900100950	Printed circuit board	No SVHC present	1
C	300900100970	Power supply	No SVHC present	1
D	300900380900/ 300900380910/ 300900380920	Printed circuit board	Lead	1
E	700000341245	Battery	Lead, lead dioxide	2



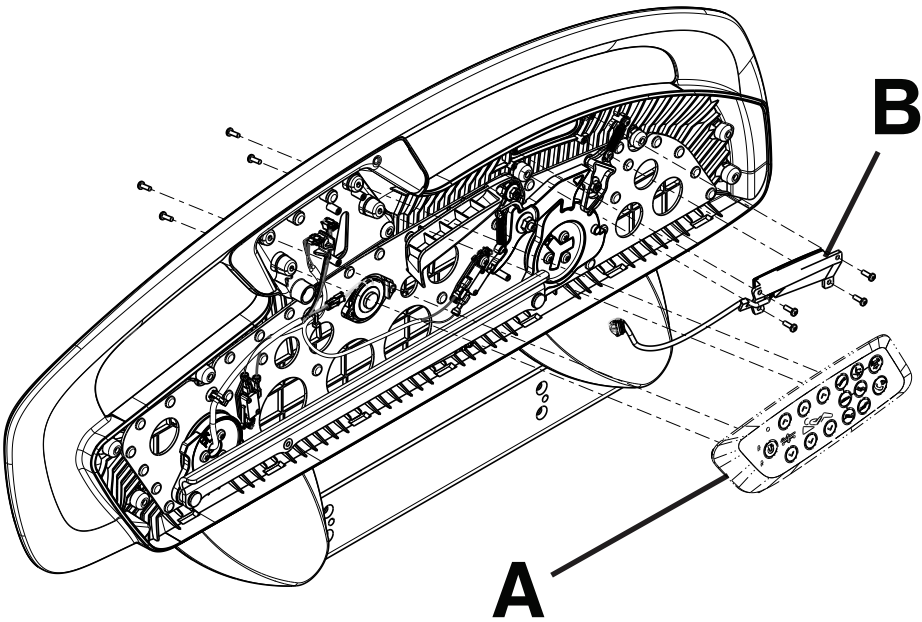
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A	300900380930	Printed circuit board	No SVHC present	1



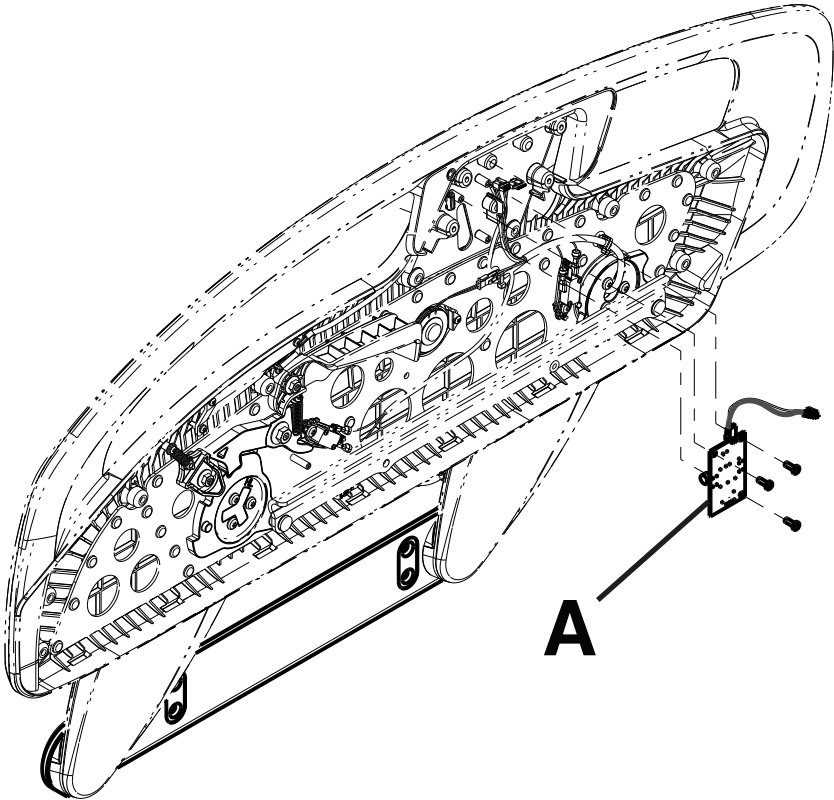
Item	Recyclable part number	Description	Important information	Quantity
A	300900070200	Printed circuit board, liquid crystal display	No SVHC present	1



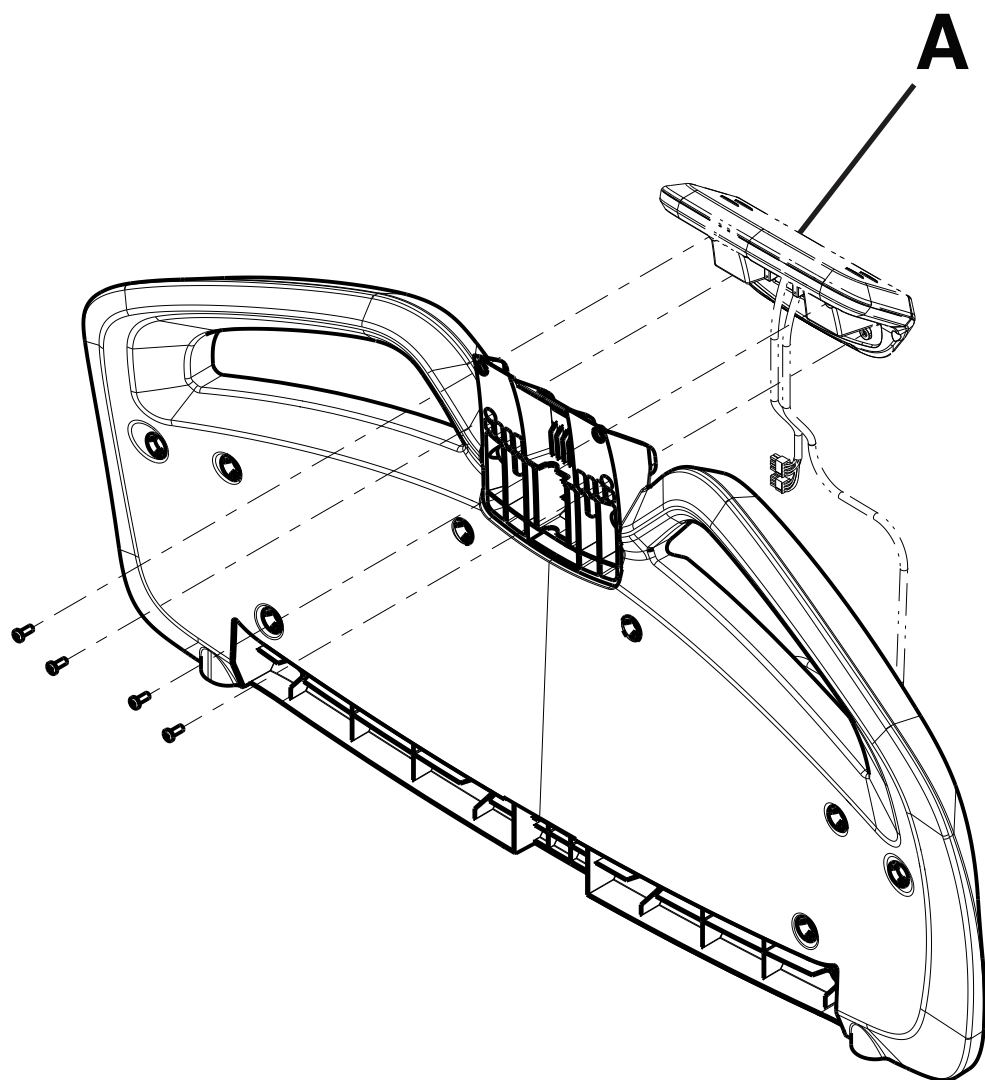
Item	Recyclable part number	Description	Important information	Quantity
A	521206010900	Printed circuit board	Diboron-trioxide, lead, lead-monoxide, 1-methyl-2-pyrrolidone	1



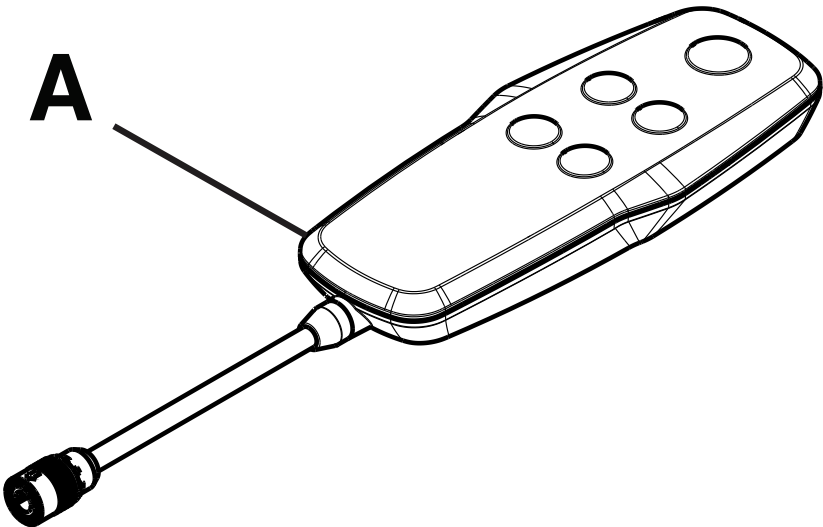
Item	Recyclable part number	Description	Important information	Quantity
A	300900110960/ 300900110965 300900110970/ 300900110975	Printed circuit board	No SVHC present	1
B	300900110950/ 300900110955	Printed circuit board	No SVHC present	1



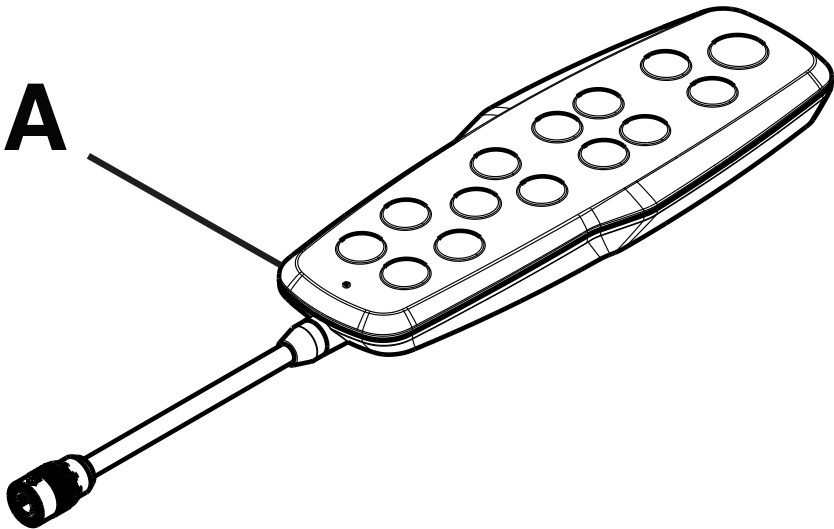
Item	Recyclable part number	Description	Important information	Quantity
A	300900110900	Printed circuit board	Lead	1



Item	Recyclable part number	Description	Important information	Quantity
A	300900220900/ 300900220250 300900220910/ 300900220300	Printed circuit board, liquid crystal display	Lead	1



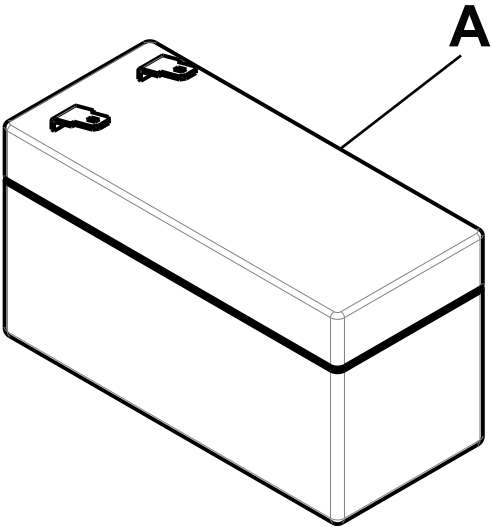
Item	Recyclable part number	Description	Important information	Quantity
A	300900470100	Printed circuit board	No SVHC present	1



Item	Recyclable part number	Description	Important information	Quantity
A	300900470200	Printed circuit board	No SVHC present	1

700000341245

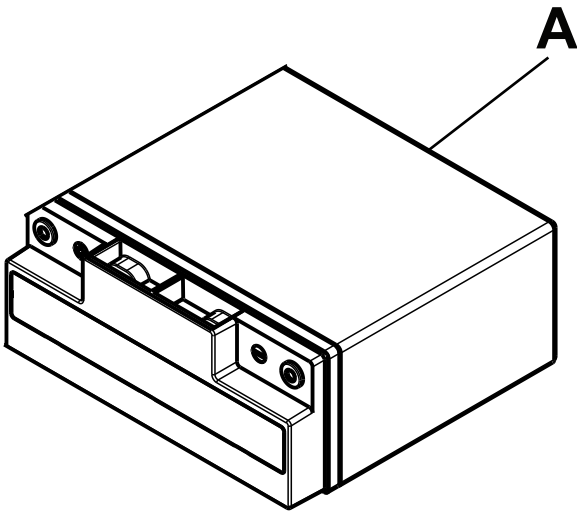
Rev AC



Item	Recyclable part number	Description	Important information	Quantity
A	700000341245	Rechargeable battery	Lead, lead dioxide	2

700000341246

Rev AC



Item	Recyclable part number	Description	Important information	Quantity
A	700000341246	Rechargeable battery	Lead, lead dioxide	2

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REF	3009PX-L-100
REF	3009PX-L-200
REF	3009PX-LE-400
REF	3009PX-LE-450
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