ProCuity™ Bed Series

Maintenance Manual

REF 300900000000
REF 3009PX-L-100
REF 3009PX-L-200
REF 3009PX-LE-400
REF 3009PX-LE-450
REF 3009PX-LE-500
REF 3009PX-LEX-400
REF 3009PX-LEX-450
REF 3009PX-LEX-500
REF 3009PX-Z-400
REF 3009PX-Z-450
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REF 3009PX-ZM-400
REF 3009PX-ZM-450
REF 3009PX-ZM-500
REF 3009PX-ZM-600
REF 3009PX-ZMX-400
REF 3009PX-ZMX-450
REF 3009PX-ZMX-500
REF 3009PX-ZMX-600

EN

3009-109-002 Rev AC.2 2021/06

Symbols

	Refer to instruction manual/booklet
	Consult instructions for use
	General warning
	Caution
	Warning; electricity
	Fuse rating
	Non-ionizing radiation
	China RoHS with declarable substances
REF	Catalogue number
SN	Serial number
MD	European medical device
CE 2797	CE mark
EC REP	Authorized representative in the European Community
US Patents	For US Patents see www.stryker.com/patents
	Manufacturer
	Safe working load
	Mass of equipment
IIII	NAWI Class IIII

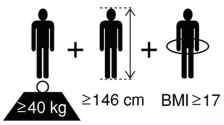
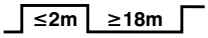
	Maximum patient weight
	Adult patient
~	Alternating current
⎓	Direct current
	Duty cycle of product
	Unit provides terminal for connection of a potential equalization conductor. The potential equalization conductor provides direct connection between the unit and potential equalization busbar of the electrical installation.
	Protective earth ground
IPX4	Protection from liquid splash
	Type B applied part
	Medical Equipment Classified by Underwriters Laboratories Inc. With Respect to Electric Shock, Fire, and Mechanical Hazards Only in Accordance with ANSI/AAMI ES60601-1:2005/(R)2012 and A1:2012 C1:2009/(R)2012 and A2:2010/(R)2012, CAN/CSA-C22.2 No. 60601-1:14, IEC 60601-2-52:2009/A1:2015, CAN/CSA-C22.2 No. 60601-2-52:11 with Amendment 1:2017.
	In accordance with European Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE) as amended, this symbol indicates that the product should be collected separately for recycling. Do not dispose of as unsorted municipal waste. Contact local distributor for disposal information. Ensure infected equipment is decontaminated prior to recycling.

Table of Contents

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

- Always use Stryker approved support surfaces that have been tested for compatibility with the product frame to avoid the risk of patient entrapment.
- 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

- Improper usage of the product can cause injury to the patient or operator. Operate the product only as described in this manual.
- Do not modify the product or any components of the product. Modifying the product can cause unpredictable operation resulting in injury to patient or operator. Modifying the product also voids its warranty.
- Always use 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.
- Do not place unprotected circuit boards on the floor.
- Do not drive the actuator past the support of the screwdrivers to avoid the risk of product damage.

Introduction

This manual assists you with the operation or maintenance of your Stryker product. Read this manual before operating or maintaining this product. Set methods and procedures to educate and train your staff on the safe operation or maintenance of this product.

CAUTION

- Improper usage of the product can cause injury to the patient or operator. Operate the product only as described in this manual.
- Do not modify the product or any components of the product. Modifying the product can cause unpredictable operation resulting in injury to patient or operator. Modifying the product also voids its warranty.

Note

- This manual is a permanent part of the product and should remain with the product even if the product is sold.
- Stryker continually seeks advancements in product design and quality. This manual contains the most current product information available at the time of printing. There may be minor discrepancies between your product and this manual. If you have any questions, contact Stryker Customer Service or Technical Support at 1-800-327-0770.

Product description

The Stryker **ProCuity**™ bed series is a powered, adjustable hospital bed used in combination with a patient support surface.

The product contains siderails that you can lock into three positions, a headboard, and a footboard. The product has Fowler, Gatch, and lift articulation capabilities, which aid to adjust surface contour, angle, and bed height. The product transports patients aided by the optional **Zoom**® function. The product features manual and electronic brakes. Product height range is adjustable between 11.5 inches to 30 inches (29.2 cm to 76.2 cm), and 14 inches to 32 inches (35.6 cm to 81.3 cm) for a product with the optional **Zoom** function. The Fowler raises from 0 to 65 degrees (± 5 degrees).

The product is designed with various features, including Bed Exit, auxiliary AC outlet, bed extender, an IV pole, and the following:

- Integrated scale to track patient weight fluctuation throughout a patient's stay.
- ***i*Bed® Watch**™ to set various bed parameters to track bed position. ***i*Bed Watch** provides visual alerts, while Bed Exit provides both visual and audible alerts.
- ***i*Bed Wireless**™ option to monitor product parameters that a healthcare provider (HCP) views or sets at the bedside or from a remote location.
- Motion and feature lockouts, set by the HCP, to limit patient accessible controls for compliance to set bed parameters.
- Nurse call capability through a wired connection or cable-free headwall with optional **Secure® Connect**™.
- Integrates with the optional 2973 **Isolibrium**® PE support surface to provide pressure redistribution, lateral rotation, turn assist, low air loss, and max inflate functions.
- Patient device holder with optional USB charger.

Indications for use

The **ProCuity** bed series is intended for use to assist with positioning, therapy, recovery, support, and transport of patients within a healthcare delivery organization (HDO). The intended user is both HCPs (nurses, nurse aides, and medical doctors) and human patients.

This product can be used with human patients that weigh more than 60 lb (27.2 kg), with a maximum height of 84 inches (213.4 cm) without the bed extender or 96 inches (243.84 cm) with the bed extender.

The scale output is not intended to be used to determine diagnosis or treatment.

***i*Bed Wireless** with ***i*Bed Watch** provides clinical staff the ability to monitor specific bed parameters from a remote location within a healthcare facility through unilateral data communication. The bed parameters include bed brake status, siderail

position, Bed Exit zone, sensitivity, ***i*Bed Watch** enablement, bed motion lock, and bed scale observation. The desired bed parameters will be set by clinicians at bedside. ***i*Bed Wireless** with ***i*Bed Watch** is intended for use only with specific enabled Stryker beds that are verified and validated with the ***i*Bed Wireless** software and is not intended to provide bed status information for non-Stryker beds. Patient health information is not communicated or stored.

The **ProCuity** bed series has not been evaluated for compliance to bed standard BS EN 50637. This product is not intended for use with pediatric patients or adult patients with atypical anatomy in markets that recognize this bed standard for market authorization.

This product is not intended for:

- Behavioral health patient use
- Oxygen rich environments
- Sterile environments
- Home care or non-institutional long-term care facility settings

Clinical benefits

Patient treatment, patient positioning, and diagnostic

Contraindications

None known.

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.

Disposal/recycle

Always follow the current local recommendations and/or regulations governing environmental protection and the risks associated with recycling or disposing of the equipment at the end of its useful life.

Specifications

WARNING - Always use Stryker approved support surfaces that have been tested for compatibility with the product frame to avoid the risk of patient entrapment.

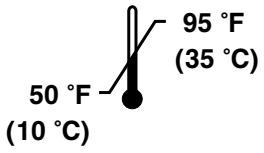
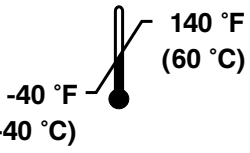
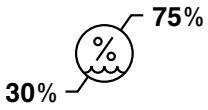
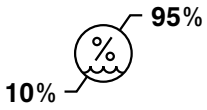
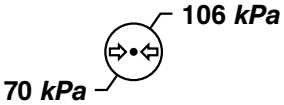
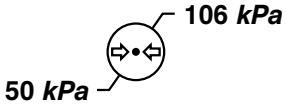
	Safe working load **Note:** Safe working load indicates the sum of the occupant, accessories, and mattress weight.		550 lb	249.5 kg
	Maximum patient weight		500 lb	226.8 kg
	Mass of equipment with safe working load	Standard	1125 lb	510.3 kg
		Zoom (ZM option)	1235 lb	560.2 kg
Product weight		Standard	575 lb	260.8 kg
		Zoom (ZM option)	685 lb	310.7 kg

Scale system capacity maximum		551.2 lb	250 kg
Scale system accuracy (non-NAWI)		± 3 lb (1.4 kg) of the total patient weight for patients who weigh 60 lb (27.2 kg) to 100 lb (45.4 kg)	
		± 3% of the total patient weight for patients who weigh 100 lb (45.4 kg) to 550 lb (249.5 kg)	
IIII Scale system accuracy (NAWI) MAX = 250 kg, MIN = 20 kg, e = 2 kg, Tare = -60 kg		± 2.2 lb (1 kg) for patients who weigh 44 lb (20 kg) to 220 lb (100 kg)	
		± 4.4 lb (2 kg) for patients who weigh 220 lb (100 kg) to 551 lb (250 kg)	
Patient sleep surface	Standard	84 in. x 35 in.	213.4 cm x 88.9 cm
	Bed extender	96 in. x 35 in.	243.8 cm x 88.9 cm
Overall length and width	Standard	90.25 in. x 42 in.	229.2 cm x 106.7 cm
	Bed extender	104.25 in. x 42 in.	264.8 cm x 106.7 cm
	Zoom (ZM option)	93 in. x 42 in.	236.2 cm x 106.7 cm
	Zoom (ZM option) bed extender	107 in. x 42 in.	271.8 cm x 106.7 cm
Bed height to top of seat litter	Standard	11.5 in. to 30 in.	29.2 cm x 76.2 cm
	Zoom	14 in. to 32 in.	35.6 cm x 81.3 cm
Under bed clearance		5.25 in. (13.3 cm) with bed height 15.7 in. (39.9 cm) to 20 in. (50.8 cm)	
		5.75 in. (14.6 cm) with bed height 20 in. (50.8 cm) and above	
Gatch position		0° to 30° ± 5°	
Fowler position		0° to 65° ± 5°	
Trendelenburg and reverse Trendelenburg		+12° to -10° ± 5°	
Electrical requirements **Note** - Class I Electrical Equipment: Protection against electrical shock relies on connection to protective earth of an appropriately rated hospital grade outlet.		120 VAC, 60 Hz, 8A	230 VAC, 50 Hz, 8A
Hospital grade auxiliary outlet		120 VAC, 60 Hz, 8A	230 VAC, 50 Hz, 8A
Bed battery voltage **Note** - Always replace with Stryker approved batteries.		12 VDC, 1.2 Ah (x2) (Stryker part number: 700000341245)	
Zoom battery voltage **Note** - Always replace with Stryker approved batteries.		12 VDC, 20 Ah (x2) (Stryker part number: 700000341246)	
Duty cycle		2 minutes ON, 18 minutes OFF	
Application environments		1, 2, 3, and 5 per IEC 60601-2-52	
Maximum acoustic sound pressure		64 dBa	

Compatible support surfaces	Length		Width		Thickness	
Model 2850 **ComfortGel™**	84 in.	213.4 cm	35 in.	88.9 cm	7 in.	17.8 cm
Model 2860 **IsoFlex®**	84 in.	213.4 cm	35 in.	88.9 cm	6 in.	15.2 cm
Model 2872 **IsoTour™**	84.25 in.	214 cm	35.5 in.	90.2 cm	9.5 in.	24.1 cm
Model 2815 **ProForm®**	84 in.	213.4 cm	35 in.	88.9 cm	6 in.	15.2 cm
Model 2940/ 2941 **IsoAir®**	84 in.	213.4 cm	35 in.	88.9 cm	7 in.	17.8 cm
Model 2973 **Isolibrium®** PE	84 in.	213.4 cm	35 in.	88.9 cm	8 - 10.5 in.	20.3 - 26.7 cm

Stryker reserves the right to change specifications without notice.

Specifications listed are approximate and may vary slightly from product to product or by power supply fluctuations.

Environmental conditions	Operation	Storage and transportation
Ambient temperature		
Relative humidity (non-condensing)		
Atmospheric pressure		

In accordance with the European REACH regulation and other environmental regulatory requirements, the components that contain declarable substances are listed.

Description	Number	Substance of very high concern (SVHC) chemical name
Actuators	300900020040, 300900070040, 300900120040, 300900140040	Lead
Advanced wired bedside room interface board	300900380910	Lead
Advanced wireless bedside room interface board	300900380920	Lead
Brake controller board	300900030900	Diboron-trioxide, lead, lead-monoxide
Display controller board (basic)	300900220900	Lead

Description	Number	Substance of very high concern (SVHC) chemical name
Display controller board (advanced)	300900220910	Lead
Gateway assembly	300900680910	Diboron-trioxide, lead, lead-monoxide, 1-methyl-2-pyrrolidone
Two-stage IV pole assembly	300900350010, 300900350100, 300900350200, 300900350250	Lead
Main controller board (basic)	300900100120	Diboron-trioxide, lead, lead-monoxide
Main controller board (advanced)	300900100130	Diboron-trioxide, lead, lead-monoxide
Powder coated weldments	300900010100, 300900670160, 300900670100, 300900020055, 300900150100, 300900120100, 300900120025, 300900120020, 300900120050, 300900140100, 300900100110, 300900100100, 300900020150, 300900450055, 300900450110, 300900020125, 300900110025	2-methylimidazole
USB charger board	300900110900	Lead
Zoom controller board	300900070050	Lead, lead-monoxide

Wi-Fi radio specifications option

Manufacturer/model	Silex SX-SDMAC-2832S+
Chipset	Qualcomm Atheros QCA9377-3
IEEE 802.11	a/b/g/n/ac
RF bands	2.4 GHz, 5 GHz
Encryption	AES and TKIP (TKIP is not supported with WPA2)
Authentication	WPA Personal/Enterprise and WPA2 Personal/Enterprise
802.1X	PEAP-MSCHAP - v2
Client certificates	Cannot accept or upload certificates
Supported data rates	802.11b/g: 1-54 Mbps 802.11a: 6-54 Mbps 802.11n: MCS0-7 802.11ac: MCS0-9 (compatible)
Hash function compatibility	SHA-1 and SHA-2 server side certificate recognition for PEAP-MSCHAP - v2
Channel plan	2.4 GHz: All channels supported 5 GHz: All channels supported (Recommend against the use of DFS and ISM channels)
Other	Leverage hospital SSID Support for 802.11r Support for Cisco CCX (Fast roaming)

Item	Specification - Chipset QCA9377-3 (Qualcomm Atheros)				Unit
	Band	Mode	Min	Max	
Operating frequencies	2.4GHz	11b	2412	2472	MHz
		11g/n/ac	2412	2472	MHz
		11g/n/ac	2422	2462	MHz
	5GHz	11a/n/ac	5180	5825	MHz
		11n/ac	5190	5795	MHz
		11ac	5210	5775	MHz
Frequency steps	2.4GHz	11b/g/n	5		MHz
	5GHz	11a/n/ac	20		MHz
		11n/ac	40		MHz
		11ac	80		MHz
Modulation types	Not applicable	11b	DSSS (DBPSK, DQPSK, CCK)		Not applicable
	Not applicable	11a/g/n	OFDM (BPSK, QPSK, 16QAM, 64QAM)		Not applicable
	Not applicable	11ac	OFDM (BPSK, QPSK, 16QAM, 64QAM, 255QAM)		Not applicable
Maximum ERP	Not applicable	Not applicable	-8.648/21.352		dBW/dBm

Note

- **ProCuity** security white paper available upon request.
- **ProCuity** MDS2 form available upon request.
- **ProCuity** software bill of materials available upon request.

Bluetooth radio specifications option

Item	Specification - Chipset WT32i (Silicon Labs)			Unit
	Channel	Min	Max	
Operating frequencies	79	2.4	2.4835	GHz
Receiving bandwidth	Not applicable	1		MHz
Maximum ERP	Not applicable	-21.148/8.852		dBW/dBm

System requirements and recommendations for *i*Bed Wireless option

Client device data usage:

- The client uses 10-15 KB per connected device every 40 seconds.
- The client uses an additional 5-25 KB per device for each subscription that is created by Stryker (**SEM**/***i*Bed Vision**) and/or a third-party vendor like Connexall, Capsule, Epic, and Cerner.

Note - Based on network conditions, device messages are typically sent in near real time or in up to five minutes while connected. This depends on device activity like applying the brakes, adjusting the rails, alarms, and how the third-party defines subscription times.

Customer network communication requirements for ***i*Bed Wireless** option:

LAN environment		
Client/server communication	IPv4 only	Not applicable
Client device IP allocation	Static	• If Static - Unique IP address will be required for each client MAC address
	DHCP	• If DHCP and not using a DNS name - Each client MAC address will need a reserved IP address • If DHCP and using a DNS name - It is required to create a unique name for each client MAC address for client management ◦ Stryker recommends using the Stryker client host name when the Stryker device connects to the wireless network - Example: SYK-00197b12365 so it may look like http://SYK-00197b12365.hosp.org
Server IP allocation	Static IP required	Not applicable
VLAN	New, existing	Install ***i*Bed Wireless** on a separate VLAN

IP traffic environment		
Source	**Protocol / Port number**	**Destination**
***i*Bed** Server	TCP/443	***i*Bed Wireless** Client
***i*Bed Wireless** Client	TCP/443	***i*Bed** Server

Customer WLAN environment		
Supported wireless vendors	Cisco, Aruba	Required
Access point (AP) types	Controller-based or autonomous	Required
Channel width	2.4 GHz: 20 MHz 5 GHz: 20/40 MHz	Required
Channel utilization	Consistently less than 30%	Recommended
Signal strength range (minimum)	2.4 GHz: -67dBm +0/-8dBm 5 GHz: -67dBm +0/-8dBm	Required
Minimum SNR	Minimum 20dB	Required
Priority queuing	Prioritized over best effort traffic	Recommended
Client exclusion	Disabled	Recommended
Client load balancing	Disabled	Recommended
Max number of SSIDs	5	Recommended

Customer WLAN environment		
Authentication timeouts	Add session timeout of at least 24 hours	Recommended
Microwave ovens	Avoid using microwave ovens near Stryker wireless products as this will cause degradation of service or no service due to electromagnetic or radio-frequency (RF) interference (*Wireless coexistence notifications* (page 211))	Recommended

Note - A transmit power asymmetry problem may arise at the edges of virtual cell coverage if an APs transmit power is higher than the Stryker Wireless Client device (~6 mW 2.4 GHz or 12 mW 5 GHz). The received signal strength indicator (RSSI) of the Stryker ***i*Bed** Wireless Client on the AP must be verified. The device should never drop below an RSSI of -75 dBm on the AP.

Product illustration

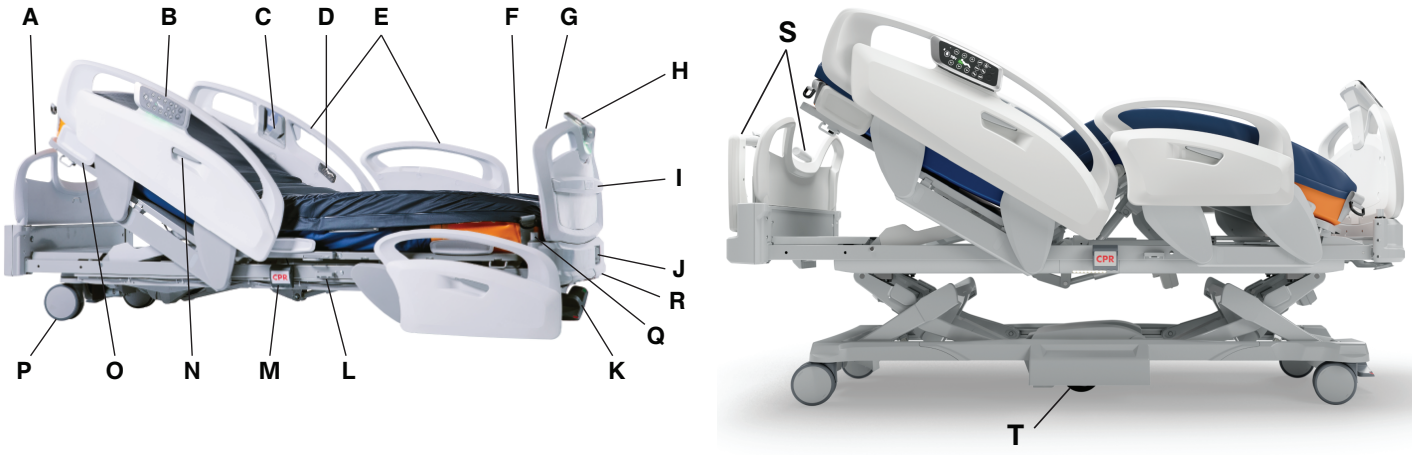


Figure 1 – ProCuity bed series

A	Headboard	K	Brake/steer pedal
B	Operator control panel	L	Foley bag hook
C	Patient device holder	M	CPR release handle
D	Patient control panel	N	Siderail release
E	Siderail	O	Mattress retainer
F	Support surface	P	Caster
G	Footboard	Q	Traction socket
H	Footboard control panel	R	Bed extender release handle
I	Integrated pump rack	S	**Zoom** handles option
J	Auxiliary outlet	T	**Zoom** wheel option

Applied parts

Figure 2 – Type B applied parts

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 3).

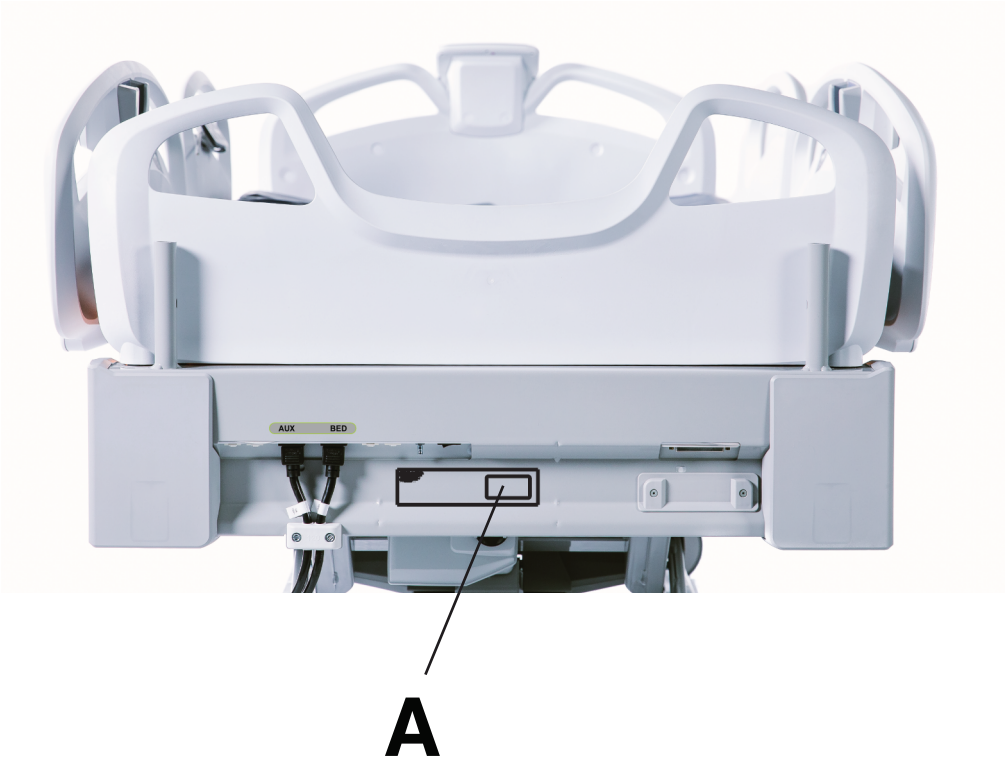


Figure 3 – Serial number location

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 impedence 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

_____ ***i*Bed 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** shows connected when brakes are applied option

_____ **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	1. Check the power cord connections at the wall and the product 2. Check the circuit breakers under the litter/Fowler section on the patient left side • If circuit breaker is tripped, push in to reset 3. Check for 120 VAC at inlet on the power supply, CN1 pin 1 (brown) and 2 (blue) 4. Check for 36 VDC on the power supply outlet CN101- (black) and CN102+ (red) 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 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 • If voltage comes back, re-connect cable O (J16) to the main control board and go to step 3 • If DC voltage does not come back, replace the power supply 4.3. Unplug all connectors from the main control board and recheck voltage on connector O (J16) • If DC voltage comes back, plug the cable connections back in until problem comes back. Isolate problem to component or assembly • If DC voltage does not come back, replace the main control board 5. Verify proper operation before you return the product to service
No product down motion	1. Power cycle or perform a soft reset of the product 2. Check that the foot end motion interrupt moves freely 2.1. Enter the *Service menu* (page 35), select **Diagnostic Info**, press the **Motion Controller** button and check the motion interrupt status is **False** • If **False**, go to step 3 2.2. Check the main controller LED M_INTPT • If lit, check the foot end interrupt switches and cables 3. Check the motion controller board for an error, indicated by a fast flashing LED on the board 4. Enter the *Service menu* (page 35), select **Diagnostic Info**, press the **Motion Controller** button, and then select the gear icon in the upper right corner 4.1. Press **Head Lift Down** and then **Foot Lift Down** to check for downward motion • If motion is not present, did either the head or foot go down? ◦ If yes, replace the actuator that did not run • If motion is present, recalibrate product motion 5. Verify proper operation before you return the product to service

Problem	Solution
No product up motion	1. Power cycle or perform a soft reset of the product 2. Enter the *Service menu* (page 35), select **Diagnostic Info**, press the **Motion Controller** button, and then select the gear icon in the upper right corner 2.1. Press **Head Lift Up** and then **Foot Lift Up** to check for upward motion • If motion is not present, did either the head or foot go up? ◦ If yes, replace the actuator that did not run • If motion is present, recalibrate product motion 3. Check the motion controller board for an error, indicated by a fast flashing LED on the board 4. Verify proper operation before you return the product to service
No Gatch down motion	1. Power cycle or perform a soft reset of the product 2. Does the actuator go up? 2.1. If no, go to step 4 3. Enter the *Service menu* (page 35), select **Diagnostic Info**, press the **Motion Controller** button, and then select the gear icon in the upper right corner 3.1. Press **Gatch Down** to check for down motion • If motion is present, recalibrate product motion 4. Check the motion controller board for an error, indicated by a fast flashing LED on the board 5. Verify proper operation before you return the product to service
No Gatch up motion	1. Power cycle or perform a soft reset of the product 2. Does the actuator go down? 2.1. If no, go to step 4 3. Enter the *Service menu* (page 35), select **Diagnostic Info**, press the **Motion Controller** button, and then select the gear icon in the upper right corner 3.1. Press **Gatch Up** to check for up motion • If motion is present, recalibrate product motion 4. Check the motion controller board for an error, indicated by a fast flashing LED on the board 5. Verify proper operation before you return the product to service

Problem	Solution
No Fowler down motion	1. Power cycle or perform a soft reset of the product 2. Does the actuator go up? 2.1. If no, go to step 4 3. Enter the *Service menu* (page 35), select **Diagnostic Info**, press the **Motion Controller** button, and then select the gear icon in the upper right corner 3.1. Press **Fowler down** to check for down motion • If motion is present, recalibrate product motion 4. Check the motion controller board for an error, indicated by a fast flashing LED on the board 5. Verify proper operation before you return the product to service
No Fowler up motion	1. Power cycle or perform a soft reset of the product 2. Does the actuator go down? 2.1. If no, go to step 4 3. Enter the *Service menu* (page 35), select **Diagnostic Info**, press the **Motion Controller** button, and then select the gear icon in the upper right corner 3.1. Press **Fowler Up** to check for up motion • If motion is present, recalibrate product motion 4. Check the motion controller board for an error, indicated by a fast flashing LED on the board 5. Verify proper operation before you return the product to service

***i*Bed Wireless (option) troubleshooting**	
Problem	**Solution**
No connection to the wireless network	1. Power cycle or perform a soft reset of the product and wait two minutes 1.1. If the footboard wireless icon shows a connection go to step 3 1.2. If the footboard wireless icon does not show a connection go to step 2 2. Check the wireless status LED on top of the IR module 2.1. If the LED is solid, swap the footboard with a known working footboard 2.2. If the LED flashes at a slow pace, move the product to an area with better wireless coverage 2.3. If the LED flashes at a fast pace • Move the product to an area with better wireless coverage • Check with the IS department to troubleshoot wireless with the ***i*Bed** server 3. Verify proper operation before you return the product to service
No connection to the ***i*Bed Locator/Secure Connect**	1. Move the product to another ***i*Bed Locator/Secure Connect** 1.1. If the product connects, replace the batter of the ***i*Bed Locator/Secure Connect** 1.2. If the product does not connect, check the wireless status LED on top of the IR module • If it is flashing, move the product to another ***i*Bed Locator/Secure Connect** • If it is not lit, check the IR module cable connection in the product 2. Verify proper operation before you return the product to service

Error codes

Error code	Displayed text	Error description
2973-10-0-100	Isolibrium - Sensor Board comm failure Limited Powered Mattress Functionality	Sensor Board comm failure
2973-10-0-1000	Isolibrium - Fan current not detected Limited Powered Mattress Functionality	Fan current not detected
2973-10-0-101	Isolibrium - Sensor Board EEPROM corruption Limited Powered Mattress Functionality Check Sensor Board (Isolibrium)	Sensor Board EEPROM corruption
2973-10-0-102	Isolibrium - Sensor Board not calibrated Limited Powered Mattress Functionality Check Sensor Board (Isolibrium)	Sensor Board not calibrated
2973-10-0-1100	Isolibrium - Valve not detected Limited Powered Mattress Functionality	Valve not detected
2973-10-0-1200	Isolibrium - Compressor Current when OFF Limited Powered Mattress Functionality	Compressor Current when OFF
2973-10-0-1300	Isolibrium - Fan Current when OFF Limited Powered Mattress Functionality	Fan Current when OFF
2973-10-0-1400	Isolibrium - Valve current when OFF Limited Powered Mattress Functionality	Valve current when OFF
2973-10-0-1500	Isolibrium - Mattress leak Limited Powered Mattress Functionality	Mattress leak
2973-10-0-1600	Isolibrium - Mattress deflate timeout Limited Powered Mattress Functionality	Mattress deflate timeout
2973-10-0-1700	Isolibrium - Reference voltage hardware failure Limited Powered Mattress Functionality	Reference voltage hardware failure
2973-10-0-1800	Isolibrium - Weight input out of range Limited Powered Mattress Functionality	Weight input out of range
2973-10-0-400	Isolibrium - EEPROM corruption Limited Powered Mattress Functionality Check Main Board (Isolibrium)	EEPROM corruption
2973-10-0-500	Isolibrium - Ambient temperature sensor failure Limited Powered Mattress Functionality Check Main Board (Isolibrium)	Ambient temperature sensor failure

Error code	Displayed text	Error description
2973-10-0-501	Isolibrium - Ambient temperature out of range Limited Powered Mattress Functionality Check Main Board (Isolibrium)	Ambient temperature out of range
2973-10-0-600	Isolibrium - Pressure sensor failure Limited Powered Mattress Functionality	Pressure sensor failure
2973-10-0-700	Isolibrium - Mattress zone overpressure Limited Powered Mattress Functionality	Mattress zone overpressure
2973-10-0-800	Isolibrium - Turn bladder overpressure Limited Powered Mattress Functionality	Turn bladder overpressure
2973-10-0-900	Isolibrium - Compressor current not detected Limited Powered Mattress Functionality	Compressor current not detected
3009-1-10-207	Main Controller - Motion Controller - Power Limited Bed Motion Functionality	DC Over Current
3009-1-11-1308	Main Controller - Mattress Controller Limited Powered Mattress Functionality	CAN Node Malfunction
3009-1-11-2000	Main Controller - Mattress Controller Limited Powered Mattress Functionality	Heartbeat exists and Present signal missing
3009-1-1-1340	Main Controller - Accelerometer Limited Scale/Bed Exit Functionality Check Main Controller PCB	Accelerometer Not Communicating I2C
3009-1-12-103	Main Controller - Micro Limited Bed Functionality Check Main Controller PCB	MicroP On-chip Data Memory File System Corrupted
3009-1-13-1308	Main Controller - Nurse Left Interface Limited Bed Functionality	CAN Node Malfunction
3009-1-13-601	Main Controller - Nurse Left Interface Limited Bed Functionality	Button stuck
3009-1-15-1308	Main Controller - Nurse Right Interface Limited Bed Functionality	CAN Node Malfunction
3009-1-15-601	Main Controller - Nurse Right Interface Limited Bed Functionality	Button stuck
3009-1-17-601	Main Controller - Patient Left Interface Limited Bed Functionality	Button stuck
3009-1-1-802	Main Controller - Accelerometer Limited Scale/Bed Exit Functionality Check Main Controller PCB	Input magnitude exceeds high limit.
3009-1-1-803	Main Controller - Accelerometer Limited Scale/Bed Exit Functionality Check Main Controller PCB	Input magnitude is below the low limit.

Error code	Displayed text	Error description
3009-1-1-806	Main Controller - Accelerometer Limited Scale/Bed Exit Functionality Check Main Controller PCB	Stuck value
3009-1-18-601	Main Controller - Patient Right Interface Limited Bed Functionality	Button stuck
3009-1-19-1308	Main Controller - Pendant Interface Limited Bed Functionality	CAN Node Malfunction
3009-1-19-2000	Main Controller - Pendant Interface Limited Bed Functionality	Heartbeat exists and Present signal missing
3009-1-19-601	Main Controller - Pendant Interface Limited Bed Functionality	Button stuck
3009-1-20-201	Main Controller - Power 12V Limited Bed Functionality	DC Over Voltage
3009-1-20-202	Main Controller - Power 12V Limited Bed Functionality	DC Under Voltage
3009-12-10-2080	Room Interface (Bed) - Pendant Limited Nurse Call Functionality Check Pendant	Stuck Button
3009-1-21-201	Main Controller - Power 3.3V Limited Bed Functionality	DC Over Voltage
3009-12-1-201	Room Interface (Bed) - ADC_5.0 Limited Nurse Call Functionality Check Room Interface (Bed) PCB	DC Over Voltage
3009-1-21-202	Main Controller - Power 3.3V Limited Bed Functionality	DC Under Voltage
3009-12-1-202	Room Interface (Bed) - ADC_5.0 Limited Nurse Call Functionality Check Room Interface (Bed) PCB	DC Under Voltage
3009-12-12-1340	Room Interface (Bed) - ADC Limited Bed Functionality Check Room Interface (Bed) PCB	ADC IC Not Responding
3009-1-2-1350	Main Controller - Audio Chip Limited Scale/Bed Exit Functionality Check Main Controller PCB	Not Communicating - SPI
3009-1-22-201	Main Controller - Power Supply 36V Limited Bed Functionality	DC Over Voltage
3009-12-2-201	Room Interface (Bed) - ADC_5V_ISO Limited Nurse Call Functionality	DC Over Voltage
3009-1-22-202	Main Controller - Power Supply 36V Limited Bed Functionality	DC Under Voltage
3009-12-2-202	Room Interface (Bed) - ADC_5V_ISO Limited Nurse Call Functionality	DC Under Voltage
3009-1-23-1304	Main Controller - Room Interface Board (Advanced) Limited Bed Functionality	CAN message timeout - SDO retry

Error code	Displayed text	Error description
3009-1-23-1308	Main Controller - Room Interface Board (Advanced) Limited Nurse Call Functionality	CAN Node Malfunction
3009-12-3-201	Room Interface (Bed) - ADC_12.0 Limited Nurse Call Functionality	DC Over Voltage
3009-12-3-202	Room Interface (Bed) - ADC_12.0 Limited Nurse Call Functionality	DC Under Voltage
3009-1-24-1340	Main Controller - Room Interface Board (Basic) Limited Nurse Call Functionality	Not Communicating - I2C
3009-12-4-201	Room Interface (Bed) - ADC_12VDC_ IN_FB Limited Nurse Call Functionality	DC Over Voltage
3009-12-4-202	Room Interface (Bed) - ADC_12VDC_ IN_FB Limited Nurse Call Functionality	DC Under Voltage
3009-12-5-103	Room Interface (Bed) - Micro Limited Nurse Call Functionality	MicroP On-chip Data Memory File System Corrupted
3009-1-25-1350	Main Controller - Scale: ADC Limited Scale/Bed Exit Functionality Check Main Controller PCB	ADC Not Communicating SPI
3009-1-25-809	Main Controller - Scale: ADC Limited Scale/Bed Exit Functionality Check Main Controller PCB	Invalid Read/Write Operation to Registers
3009-12-6-1701	Room Interface (Bed) - Audio Limited Nurse Call Functionality	Speaker Fault
3009-1-26-802	Main Controller - Scale: Analog Load Cell FL Limited Scale/Bed Exit Functionality Check FL Load Cell	Load Cell Open/Short (Input magnitude out of range)
3009-1-26-806	Main Controller - Scale: Analog Load Cell FL Limited Scale/Bed Exit Functionality Check FL Load Cell	Stuck value
3009-12-7-2000	Room Interface (Bed) - Bluetooth Limited Nurse Call Functionality Check Room Interface (Bed) PCB	Bluetooth Module Firmware Ready Timeout
3009-12-7-2001	Room Interface (Bed) - Bluetooth Limited Nurse Call Functionality Check Room Interface (Bed) PCB	Bluetooth Module UART Heartbeat Error
3009-12-7-2005	Room Interface (Bed) - Bluetooth Limited Nurse Call Functionality Check Room Interface (Bed) PCB	Bluetooth Disconnect Error
3009-12-7-2009	Room Interface (Bed) - Bluetooth Limited Nurse Call Functionality Check Room Interface (Bed) PCB	Bluetooth Configuration Error
3009-1-27-802	Main Controller - Scale: Analog Load Cell FR Limited Scale/Bed Exit Functionality Check FR Load Cell	Load Cell Open/Short (Input magnitude out of range)

Error code	Displayed text	Error description
3009-1-27-806	Main Controller - Scale: Analog Load Cell FR Limited Scale/Bed Exit Functionality Check FR Load Cell	Stuck value
3009-12-8-2023	Room Interface (Bed) - IR Limited Nurse Call Functionality	IR Bluetooth Pairing Message Error
3009-1-28-802	Main Controller - Scale: Analog Load Cell HL Limited Scale/Bed Exit Functionality Check HL Load Cell	Load Cell Open/Short (Input magnitude out of range)
3009-1-28-806	Main Controller - Scale: Analog Load Cell HL Limited Scale/Bed Exit Functionality Check HL Load Cell	Stuck value
3009-12-9-1340	Room Interface (Bed) - i2c Bus Limited Nurse Call Functionality Check Room Interface (Bed) PCB	Smart TV Module Not Responding
3009-1-29-802	Main Controller - Scale: Analog Load Cell HR Limited Scale/Bed Exit Functionality Check HR Load Cell	Load Cell Open/Short (Input magnitude out of range)
3009-1-29-806	Main Controller - Scale: Analog Load Cell HR Limited Scale/Bed Exit Functionality Check HR Load Cell	Stuck value
3009-1-30-201	Main Controller - Scale: Power 3.3V analog Limited Scale/Bed Exit Functionality Check Main Controller PCB	DC Over Voltage
3009-1-30-202	Main Controller - Scale: Power 3.3V analog Limited Scale/Bed Exit Functionality Check Main Controller PCB	DC Under Voltage
3009-13-1-1340	Room Interface (Basic) - IO Expanders Limited Nurse Call Functionality	Slave IC is not responding
3009-1-3-2004	Main Controller - Battery Limited Bed Functionality Check Main Controller PCB	BQ configuration error
3009-1-32-1304	Main Controller - Zoom Controller Limited Bed Functionality	CAN message timeout - SDO retry
3009-1-32-1308	Main Controller - Zoom Controller Limited Drive Functionality	CAN Node Malfunction
3009-1-33-1308	Main Controller - Zoom Handle Button Interface Limited Bed Functionality	CAN Node Malfunction
3009-1-33-601	Main Controller - Zoom Handle Button Interface Limited Bed Functionality	Button stuck
3009-1-3-401	Main Controller - Battery Limited Bed Functionality	Battery Over Temperature
3009-1-3-405	Main Controller - Battery Limited Bed Functionality	Over Current - Charging

Error code	Displayed text	Error description
3009-1-3-406	Main Controller - Battery Limited Bed Functionality	Battery circuit shorted - Charging
3009-1-3-410	Main Controller - Battery Limited Bed Functionality	Over Voltage - Charging
3009-1-34-106	Main Controller - External Flash Limited Bed Functionality	Off-chip Data Memory Non-Product info File System Corrupted
3009-1-3-412	Main Controller - Battery Limited Bed Functionality	Battery not fully charging
3009-1-3-413	Main Controller - Battery Limited Bed Functionality	Discharging Over Current
3009-1-3-414	Main Controller - Battery Limited Bed Functionality	Hardware fault - over current or voltage
3009-1-4-1301	Main Controller - CAN Comm All Bed Functionality is Lost	CAN Bus Offline
3009-1-4-1303	Main Controller - CAN comm All Bed Functionality is Lost	CAN hardware defect - Bus Error
3009-1-5-1304	Main Controller - Display Controller Limited Bed Functionality	CAN message timeout - SDO retry
3009-1-5-1308	Main Controller - Display Controller Limited Bed Functionality	CAN Node Malfunction
3009-1-5-2000	Main Controller - Display Controller Limited Bed Functionality	Heartbeat exists and Present signal missing
3009-1-5-601	Main Controller - Display Controller Limited Bed Motion Functionality Check Display Controller PCB	Button stuck
3009-1-6-1304	Main Controller - Brake Controller Limited Bed Functionality	CAN message timeout - SDO retry
3009-1-6-1308	Main Controller - Brake Controller Limited Brake Functionality	CAN Node Malfunction
3009-1-7-106	Main Controller - External Flash Limited Bed Functionality	Off-chip Data Memory Product info File System Corrupted
3009-1-7-1350	Main Controller - External Flash Limited Bed Functionality	Flash chip not communicating over SPI
3009-1-8-1304	Main Controller - Wi-Fi Controller Limited Bed Functionality	CAN message timeout - SDO retry
3009-1-8-1308	Main Controller - Wi-Fi Controller Limited Wi-Fi Functionality	CAN Node Malfunction
3009-1-8-2000	Main Controller - Wi-Fi Controller Limited Bed Functionality	Heartbeat exists and Present signal missing
3009-1-9-1331	Main Controller - Motion Controller - LIN Limited Bed Motion Functionality	LIN Node Malfunction
3009-1-9-1332	Main Controller - Motion Controller - LIN Limited Bed Motion Functionality	LIN msg timeout

Error code	Displayed text	Error description
3009-1-9-1333	Main Controller - Motion Controller - LIN Limited Bed Motion Functionality	LIN data validation error
3009-2-11-1203	Zoom Controller - Deploy Motor Limited Drive Functionality Check Zoom Controller PCB	Voltage Bus Undervoltage
3009-2-11-1204	Zoom Controller - Deploy Motor Limited Drive Functionality Check Zoom Controller PCB	Voltage Bus Overvoltage
3009-2-11-1209	Zoom Controller - Deploy Motor Limited Drive Functionality Check Zoom Controller PCB	Motor driver over-temperature
3009-2-11-1211	Zoom Controller - Deploy Motor Limited Drive Functionality Check Zoom Controller PCB	SW Overcurrent
3009-2-11-1212	Zoom Controller - Deploy Motor Limited Drive Functionality Check Zoom Controller PCB	HW Overcurrent
3009-2-11-501	Zoom Controller - Deploy Motor Limited Drive Functionality Check Zoom Controller PCB	Position sensor is reporting an invalid value
3009-2-11-504	Zoom Controller - Deploy Motor Limited Drive Functionality Check Zoom Controller PCB	Actuator is not moving
3009-2-11-505	Zoom Controller - Deploy Motor Limited Drive Functionality	Undriven travel
3009-2-1-201	Zoom Controller - Power - 36V Input Limited Drive Functionality Check Zoom Controller PCB	DC Over Voltage
3009-2-1-202	Zoom Controller - Power - 36V Input Limited Drive Functionality Check Zoom Controller PCB	DC Under Voltage
3009-2-12-1304	Zoom Controller - CAN Interface Limited Drive Functionality Check Zoom Handles	Zoom Handle CAN message heartbeat timeout
3009-2-14-1209	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	Motor driver over-temperature
3009-2-14-1210	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	Motor overtemp
3009-2-14-1211	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	SW Overcurrent
3009-2-14-1212	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	HW Overcurrent
3009-2-14-1213	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	Motor Temperature Sensor disconnected or Motor is too cold

Error code	Displayed text	Error description
3009-2-14-1216	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	High-side FETA fault
3009-2-14-1217	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	Low-side FETA fault
3009-2-14-1218	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	High-side FETB fault
3009-2-14-1219	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	Low-side FETB fault
3009-2-14-1220	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	High-side FETC fault
3009-2-14-1221	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	Low-side FETC fault
3009-2-14-1222	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB and Motor	Motor not moving
3009-2-14-1223	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	Motor Driver fault
3009-2-14-1224	Zoom Controller - Drive Motor Limited Drive Functionality Check Zoom Controller PCB	Motor moves in wrong direction
3009-2-2-201	Zoom Controller - Power - 24V Battery Limited Drive Functionality Check Zoom Controller PCB	DC Over Voltage
3009-2-22-106	Zoom Controller - Handle Interface Limited Drive Functionality Check Zoom Handles	Handle Flash Memory Corrupted
3009-2-22-1308	Zoom Controller - Handle Interface Limited Drive Functionality Check Zoom Handles	Handle CAN Stall
3009-2-22-1350	Zoom Controller - Handle Interface Limited Drive Functionality Check Zoom Handles	Handle Communication Fault
3009-2-22-2005	Zoom Controller - Handle Interface Limited Drive Functionality Check Zoom Handles	Out of Bounds (Digital/CAN)
3009-2-22-607	Zoom Controller - Handle Interface Limited Drive Functionality Check Zoom Handles	Handle Throttle Mismatch
3009-2-22-805	Zoom Controller - Handle Interface Limited Drive Functionality Check Zoom Handles	Out of Bounds (Analog)

Error code	Displayed text	Error description
3009-2-24-805	Zoom Controller - Handle Touch Interface Limited Drive Functionality Check Zoom Handles	Handle Touch Out Of Range
3009-2-25-2001	Zoom Controller - Application Limited Bed Functionality	System State Invalid
3009-2-25-2002	Zoom Controller - Application Limited Drive Functionality Check Zoom Controller PCB	BQ configuration error
3009-2-26-805	Zoom Controller - Handle Throttle Interface Limited Drive Functionality Check Zoom Handles	Handle Touch Out Of Range
3009-2-27-805	Zoom Controller - Handle Hall Interface Limited Drive Functionality Check Zoom Handles	Handle Magnetic Field Fault
3009-2-28-805	Zoom Controller - Application Limited Drive Functionality Check Zoom Controller PCB	Bed Overspeed
3009-2-29-1350	Zoom Controller - Handle Touch Interface Limited Drive Functionality Check Zoom Handles	Handle Anti-Touch Fault
3009-2-3-201	Zoom Controller - Power - 12V Limited Drive Functionality Check Zoom Controller PCB	DC Over Voltage
3009-2-3-202	Zoom Controller - Power - 12V Limited Drive Functionality Check Zoom Controller PCB	DC Under Voltage
3009-2-4-201	Zoom Controller - Power - 8V Limited Drive Functionality Check Zoom Controller PCB	DC Over Voltage
3009-2-4-202	Zoom Controller - Power - 8V Limited Drive Functionality Check Zoom Controller PCB	DC Under Voltage
3009-2-6-201	Zoom Controller - Power - Motor Limited Drive Functionality Check Zoom Controller PCB	DC Over Voltage
3009-2-6-202	Zoom Controller - Power - Motor Limited Drive Functionality Check Zoom Controller PCB	DC Under Voltage
3009-2-8-201	Zoom Controller - Power - V Load Limited Drive Functionality Check Zoom Controller PCB	DC Over Voltage
3009-2-8-202	Zoom Controller - Power - V Load Limited Drive Functionality Check Zoom Controller PCB	DC Under Voltage
3009-2-9-401	Zoom Controller - Battery Charger/ Monitor Limited Drive Functionality	Battery Over Temperature
3009-2-9-405	Zoom Controller - Battery Charger/ Monitor Limited Drive Functionality	Charging Over Current Major

Error code	Displayed text	Error description
3009-2-9-406	Zoom Controller - Battery Charger/ Monitor Limited Drive Functionality	Charging circuit shorted
3009-2-9-409	Zoom Controller - Battery Charger/ Monitor Limited Drive Functionality Check Zoom Controller PCB	Charging Over Current Minor
3009-2-9-410	Zoom Controller - Battery Charger/ Monitor Limited Drive Functionality Check Zoom Controller PCB	Charging Over Voltage
3009-2-9-412	Zoom Controller - Battery Charger/ Monitor Limited Drive Functionality Check Zoom Controller PCB	Charging Overtime
3009-3-10-702	Display Controller - Display Limited Display Functionality Check Display Controller PCB	Backlight PWM Error
3009-3-11-1103	Display Controller - GPIO Limited Bed Motion Functionality Check Display Controller PCB	Motion GPIO Error
3009-3-12-701	Display Controller - GPIO Limited Display Functionality Check Display Controller PCB	Display Backlight Enable Error
3009-3-13-2000	Display Controller - Application Limited Display Functionality Check Display Controller PCB	System Initialization Error
3009-3-14-2000	Display Controller - Application Limited Display Functionality Check Display Controller PCB	Crank Storyboard I/O Send Error
3009-3-14-2001	Display Controller - Application Limited Display Functionality Check Display Controller PCB	Crank Storyboard I/O Receive Error
3009-3-15-106	Display Controller - Application Limited Display Functionality Check Display Controller PCB	EEPROM Error
3009-3-2-106	Display Controller - Memory Limited Display Functionality Check Display Controller PCB	File System Access Error
3009-3-5-1370	Display Controller - Ethernet Limited Display Functionality Check Display Controller PCB	Ethernet Comm Error
3009-3-6-805	Display Controller - Ambient Light Sensor Limited Display Functionality Check Display Controller PCB	Ambient Light Sensor Error
3009-3-7-1340	Display Controller - I2C Comm - Dashboard Limited Display Functionality Check Display Controller PCB	I2C Dashboard
3009-3-8-1340	Display Controller - I2C Comm - Backlight Limited Display Functionality Check Display Controller PCB	I2C LED Backlight

Error code	Displayed text	Error description
3009-3-9-1801	Display Controller - Touch Limited Display Functionality Check Display Controller PCB	Virtual Key Error
3009-3-9-1801	Display Controller - Touch Limited Display Functionality Check Display Controller PCB	Touch screen not functional
3009-3-92-2201	Display Controller - Gateway Controller Update Limited Bed Functionality Perform Software Update	Software Version Incompatible
3009-3-93-2202	Display Controller - Main Controller Update Limited Bed Functionality Check Main Controller PCB	Prepare for Bootloader Timeout
3009-3-94-2201	Display Controller - Motion Controller Update Limited Bed Functionality Perform Software Update	Software Version Incompatible
3009-3-95-2201	Display Controller - Zoom Controller Update Limited Bed Functionality Perform Software Update	Software Version Incompatible
3009-3-95-2202	Display Controller - Zoom Controller Update Limited Bed Functionality Check Zoom Controller PCB	Prepare for Bootloader Timeout
3009-3-96-2201	Display Controller - Brake Controller Update Limited Bed Functionality Perform Software Update	Software Version Incompatible
3009-3-96-2202	Display Controller - Brake Controller Update Limited Bed Functionality Check Brake Controller PCB	Prepare for Bootloader Timeout
3009-3-97-2201	Display Controller - Room Interface (Bed) Update Limited Bed Functionality Perform Software Update	Software Version Incompatible
3009-3-97-2202	Display Controller - Room Interface (Bed) Update Limited Bed Functionality Check Room Interface (Bed) PCB	Prepare for Bootloader Timeout
3009-3-98-1370	Display Controller - Software Update Limited Display Functionality Check Display Controller PCB	USB RNDIS Enable Failed
3009-4-11-1951	Gateway - WiFi comm Limited Wi-Fi Functionality Check Gateway Controller PCB	WiFi Interface Error
3009-4-13-1953	Gateway - WiFi comm Limited Wi-Fi Functionality Check Gateway Controller PCB	WiFi WPA Command Timeout Error
3009-4-14-1954	Gateway - WiFi comm Limited Wi-Fi Functionality Check Gateway Controller PCB	WiFi WPA Command Execution Error

Error code	Displayed text	Error description
3009-4-19-1960	Gateway - WiFi comm Limited Wi-Fi Functionality Check Gateway Controller PCB	Allegro Client / Server Initialization Error
3009-4-5-106	Gateway - Memory Limited Wi-Fi Functionality Check Gateway Controller PCB	File system access Error - Watchdog
3009-5-10-2000	Electric Brakes - Application Limited Brake Functionality	Target motion incomplete, motion timeout
3009-5-10-2001	Electric Brakes - Application Limited Brake Functionality	Both Park and Neutral switches engaged at same time
3009-5-10-2003	Electric Brakes - Application Limited Brake Functionality	Brake usage history lost
3009-5-1-201	Electric Brakes - Power Supply 36V/ Battery Limited Brake Functionality	DC Over Voltage
3009-5-1-202	Electric Brakes - Power Supply 36V/ Battery Limited Brake Functionality	DC Under Voltage
3009-5-2-201	Electric Brakes - 12V power Limited Brake Functionality	DC Over Voltage
3009-5-2-202	Electric Brakes - 12V power Limited Brake Functionality	DC Under Voltage
3009-5-4-606	Electric Brakes - Park Switch Limited Brake Functionality Check Brake Controller PCB	NC=NO
3009-5-5-606	Electric Brakes - Neutral Switch Limited Brake Functionality Check Brake Controller PCB	NC=NO
3009-5-6-1213	Electric Brakes - Linear Hall sensor Limited Brake Functionality	Motor position sensor inactive
3009-5-6-802	Electric Brakes - Linear Hall sensor Limited Brake Functionality	Input magnitude exceeds high limit
3009-5-6-803	Electric Brakes - Linear Hall sensor Limited Brake	Input magnitude is below the low limit
3009-5-7-1203	Electric Brakes - Motor Drive Limited Brake Functionality	Voltage bus Undervoltage
Error 3009-6-1-1105	Motion Controller - Fowler Actuator Limited Motion Functionality	Calibration lost
3009-6-1-501	Motion Controller - Fowler Position Sensing Limited Motion Functionality	Too big change
3009-6-1-502	Motion Controller - Fowler Position Sensing Limited Motion Functionality	Too small change
3009-6-1-805	Motion Controller - Fowler Limit Switch Analog Feedback Limited Motion Functionality	Out of Bounds
3009-6-2-1105	Motion Controller - Head Lift Actuator Limited Motion Functionality	Calibration lost

Error code	Displayed text	Error description
3009-6-2-501	Motion Controller - Head Lift Position Sensing Limited Motion Functionality	Hall A or B pulse error
3009-6-2-502	Motion Controller - Head Lift Position Sensing Limited Motion Functionality	Hall A or B balance error
3009-6-2-805	Motion Controller - Head Lift Limit Switch Analog Feedback Limited Motion Functionality	Out of Bounds
3009-6-3-1105	Motion Controller - Gatch Actuator Limited Motion Functionality	Calibration lost
3009-6-3-501	Motion Controller - Gatch Position Sensing Limited Motion Functionality	Hall A or B pulse error
3009-6-3-502	Motion Controller - Gatch Position Sensing Limited Motion Functionality	Hall A or B balance error
3009-6-3-805	Motion Controller - Gatch Limit Switch Analog Feedback Limited Motion Functionality	Out of Bounds
3009-6-4-1105	Motion Controller - Foot Lift Actuator Limited Motion Functionality	Calibration lost
3009-6-4-501	Motion Controller - Foot Lift Position Sensing Limited Motion Functionality	Hall A or B pulse error
3009-6-4-502	Motion Controller - Foot Lift Position Sensing Limited Motion Functionality	Hall A or B balance error
3009-6-4-805	Motion Controller - Foot Lift Limit Switch Analog Feedback Limited Motion Functionality	Out of Bounds
3009-6-5-1202	Motion Controller - Safety Circuit Limited Motion Functionality Check Motion Controller PCB	Voltage Bus FET Short
3009-6-5-1503	Motion Controller - Safety Circuit Limited Motion Functionality	Interlock stuck
3009-7-10-1340	Room Interface (Wall) - BBID Limited Nurse Call Functionality Check Room Interface (Wall) PCB	BBID IC Not Responding
3009-7-10-2060	Room Interface (Wall) - BBID Limited Nurse Call Functionality Check Room Interface (Wall) PCB	BBID Invalid CRC
3009-7-11-408	Room Interface (Wall) - Battery Limited Nurse Call Functionality Check Wall Unit Battery	Battery not fully charging
3009-7-11-410	Room Interface (Wall) - Battery Limited Nurse Call Functionality Check Wall Unit Battery	Charging Over Voltage
3009-7-11-412	Room Interface (Wall) - Battery Limited Nurse Call Functionality Check Wall Unit Battery	Battery Degraded State of Health

Error code	Displayed text	Error description
3009-7-1-201	Room Interface (Wall) - ADC_5.0 Limited Bed Functionality Check Room Interface (Wall) PCB	DC Over Voltage
3009-7-1-202	Room Interface (Wall) - ADC_5.0 Limited Bed Functionality Check Room Interface (Wall) PCB	DC Under Voltage
3009-7-12-1340	Room Interface (Wall) - ADC Limited Bed Functionality Check Room Interface (Wall) PCB	ADC IC Not Responding
3009-7-2-201	Room Interface (Wall) - ADC_5V_ISO Limited Nurse Call Functionality Check Room Interface (Wall) PCB	DC Over Voltage
3009-7-2-202	Room Interface (Wall) - ADC_5V_ISO Limited Nurse Call Functionality Check Room Interface (Wall) PCB	DC Under Voltage
3009-7-3-201	Room Interface (Wall) - ADC_18.0 Limited Nurse Call Functionality	DC Over Voltage
3009-7-4-201	Room Interface (Wall) - ADC_18VDC_ IN_FB Limited Nurse Call Functionality	DC Over Voltage
3009-7-5-103	Room Interface (Wall) - Micro Limited Nurse Call Functionality	MicroP On-chip Data Memory File System Corrupted
3009-7-6-1701	Room Interface (Wall) - Audio Limited Nurse Call Functionality	Speaker Fault
3009-7-7-2000	Room Interface (Wall) - Bluetooth Limited Nurse Call Functionality Check Room Interface (Wall) PCB	Bluetooth Module Firmware Ready Timeout
3009-7-7-2001	Room Interface (Wall) - Bluetooth Limited Nurse Call Functionality Check Room Interface (Wall) PCB	Bluetooth Module UART Heartbeat Error
3009-7-7-2005	Room Interface (Wall) - Bluetooth Limited Nurse Call Functionality Check Room Interface (Wall) PCB	Bluetooth Disconnect Error
3009-7-7-2009	Room Interface (Wall) - Bluetooth Limited Nurse Call Functionality Check Room Interface (Wall) PCB	Bluetooth Configuration Error
3009-7-8-2023	Room Interface (Wall) - IR Limited Nurse Call Functionality	IR Bluetooth Pairing Message Error
3009-7-9-1340	Room Interface (Wall) - Smart TV Limited Bed Functionality Check Room Interface (Wall) PCB	Smart TV Module Not Responding

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 35).
2. Press the **Configuration** button.
3. Press the **Calibration** button.
4. Press the **Scale** button.
5. 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:

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

Procedure:

1. Enter the *Service menu* (page 35).
2. Press the **Configuration** button.
3. Press the **Calibration** button.
4. Press the **Motion** button.
5. Follow the on screen prompts to calibrate the angle.

Service

Protecting against electrostatic discharge (ESD)

CAUTION

- Always use 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.

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 4). Remove the pedal.

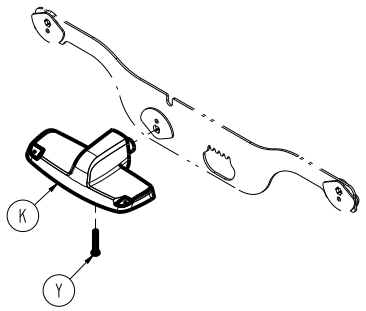


Figure 4 – Brake/steer pedal replacement

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

Caster, non-steer replacement

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 5). Discard the retainers. Remove the covers.

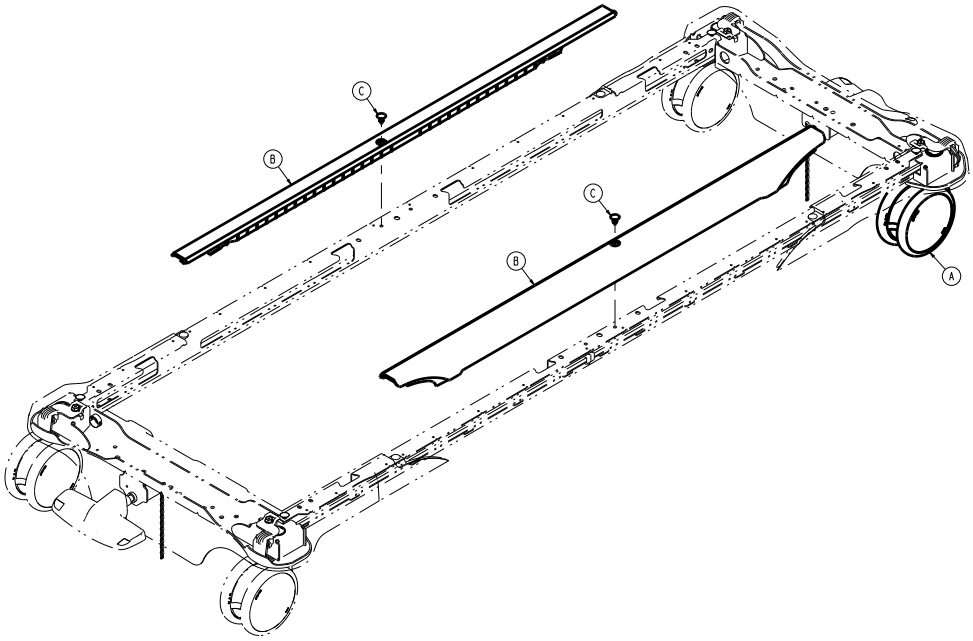


Figure 5 – Removing the covers

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 6). Discard the retainers. Remove the covers.

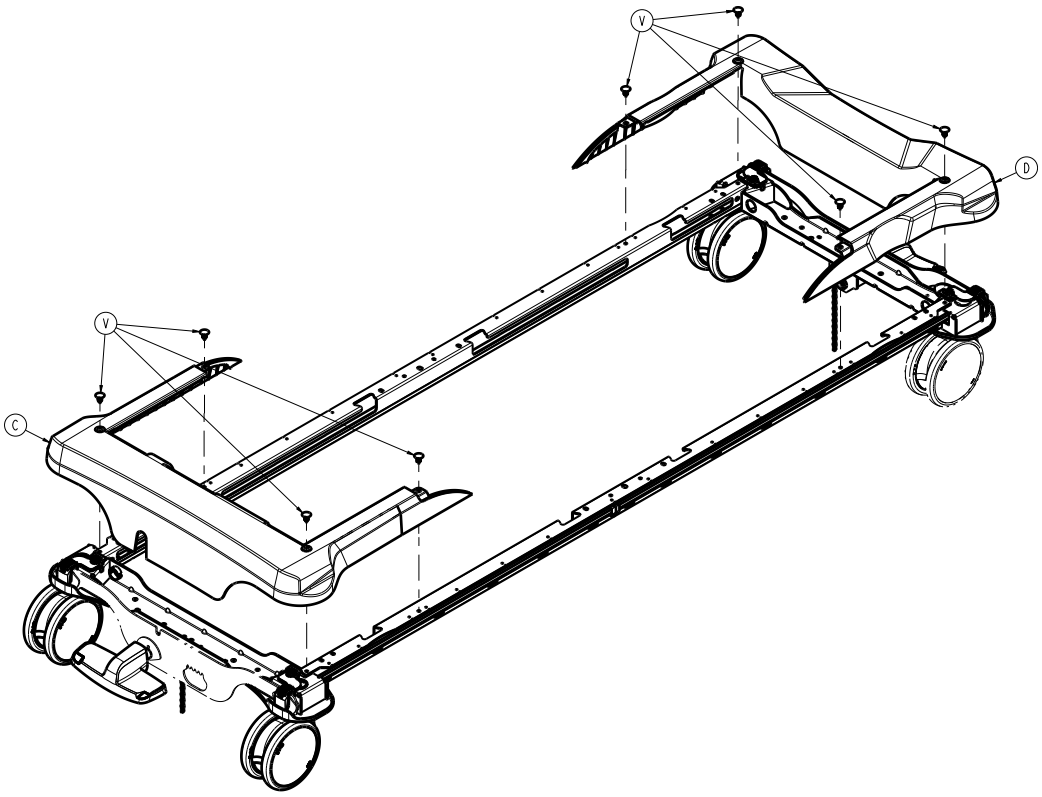


Figure 6 – Removing the covers

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 7).

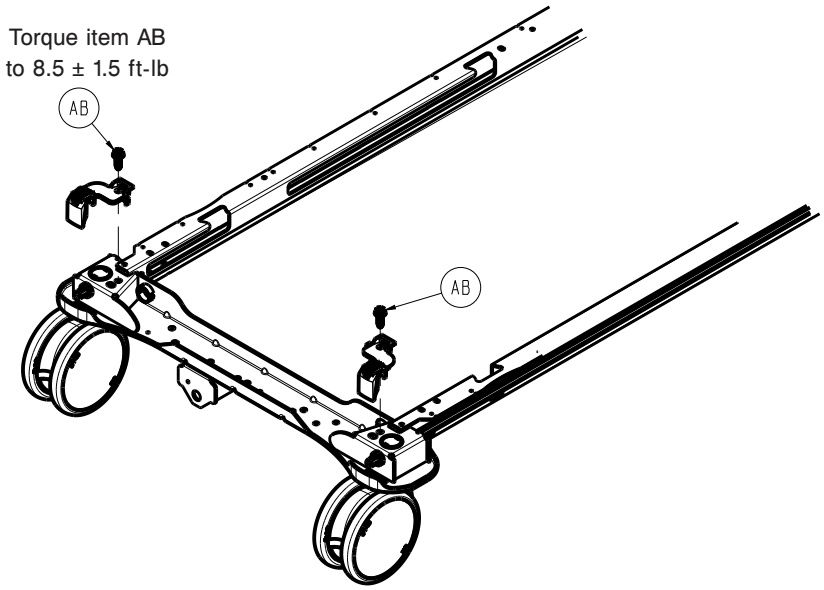


Figure 7 – Removing the caster

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 8).

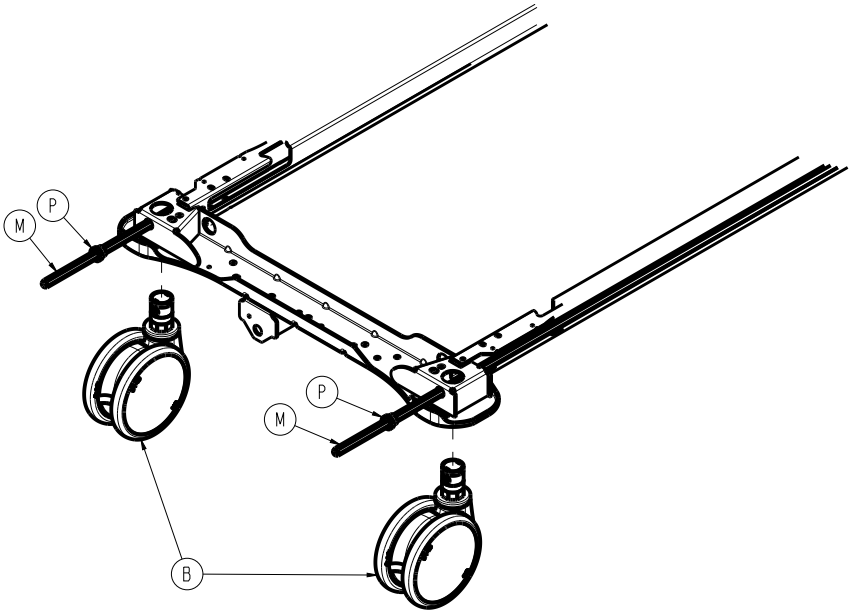


Figure 8 – Removing the caster

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, foot right steer replacement

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 5). 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 6). 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 7).
8. From the head end, move the brake shaft (M) toward the head until it is out of the caster (B) (Figure 8).
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, front foot

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 9). Save the rue clips and clevis pins.

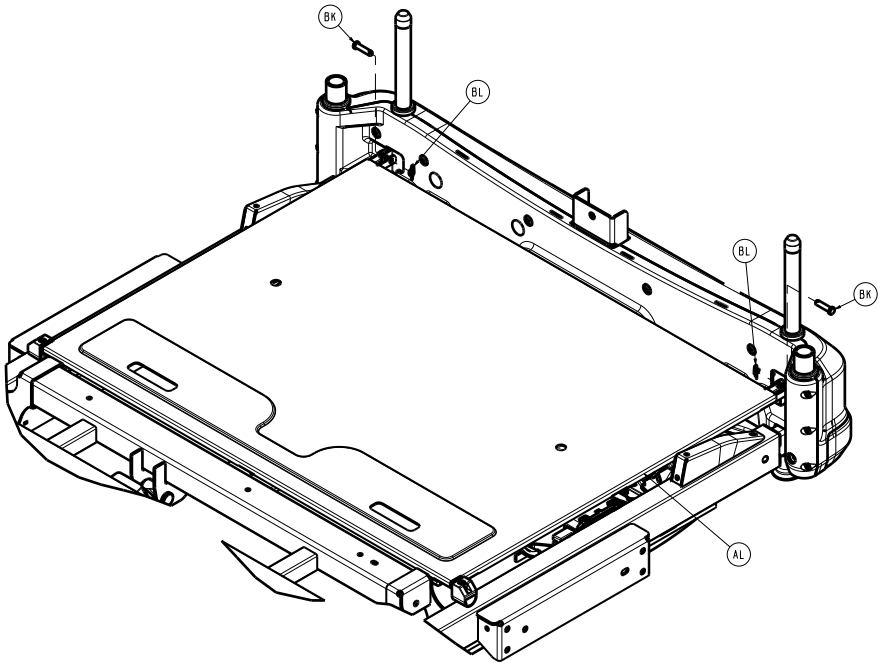


Figure 9 – Replacing the cover

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 10). Save the screws.

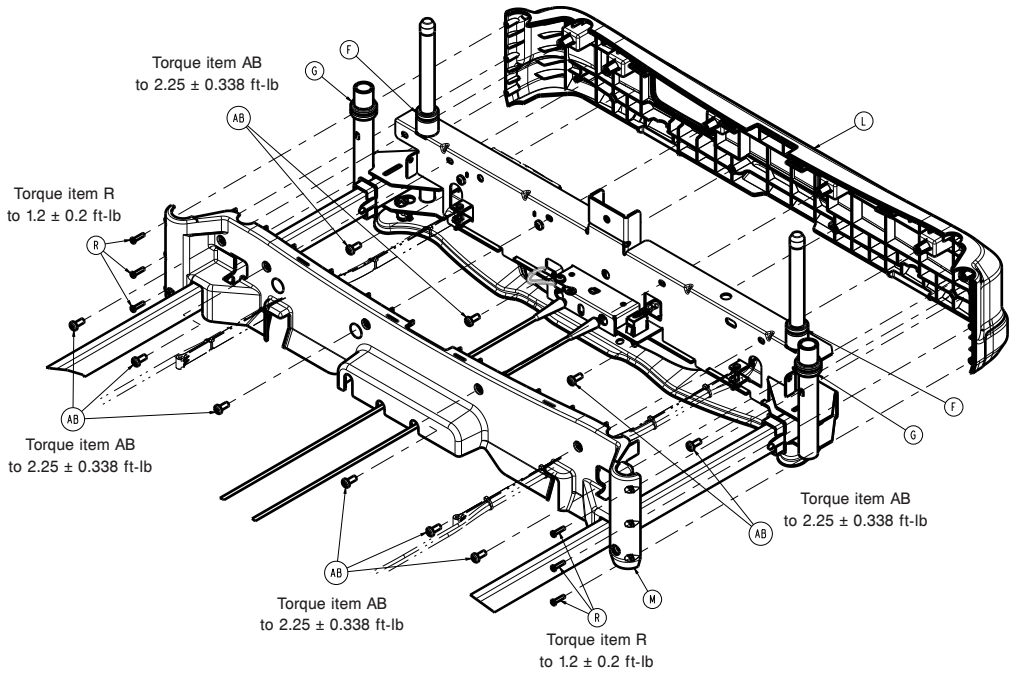


Figure 10 – Replacing the cover

7. Using a T30 Torx driver, remove the six screws (AB) that secure the front cover to the rear cover (M) (Figure 10). 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 10). 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, rear foot

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 9). 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 10). 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 10). 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, front head

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 11). Remove and discard the cover.

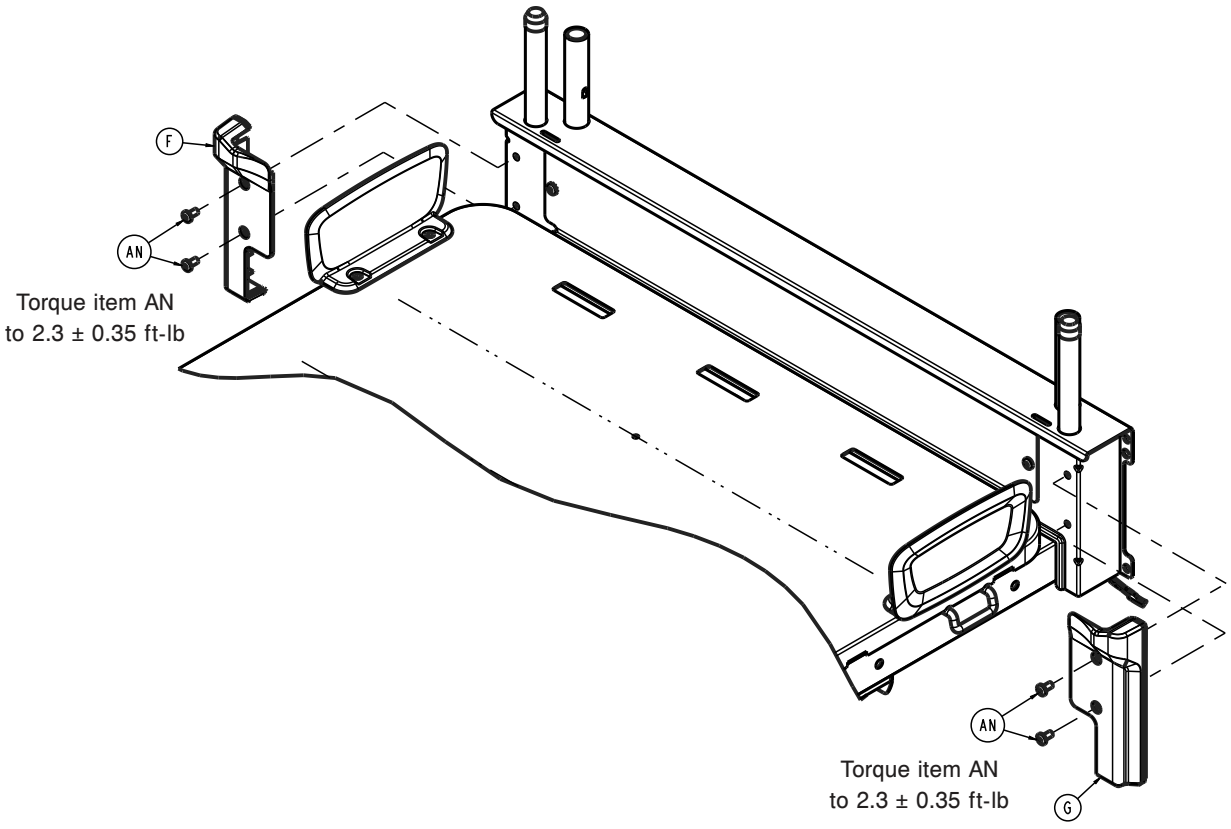


Figure 11 – Removing the cover

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

Bumper replacement, rear head (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 11). 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 12). Save the nuts. Remove and discard the bumper.

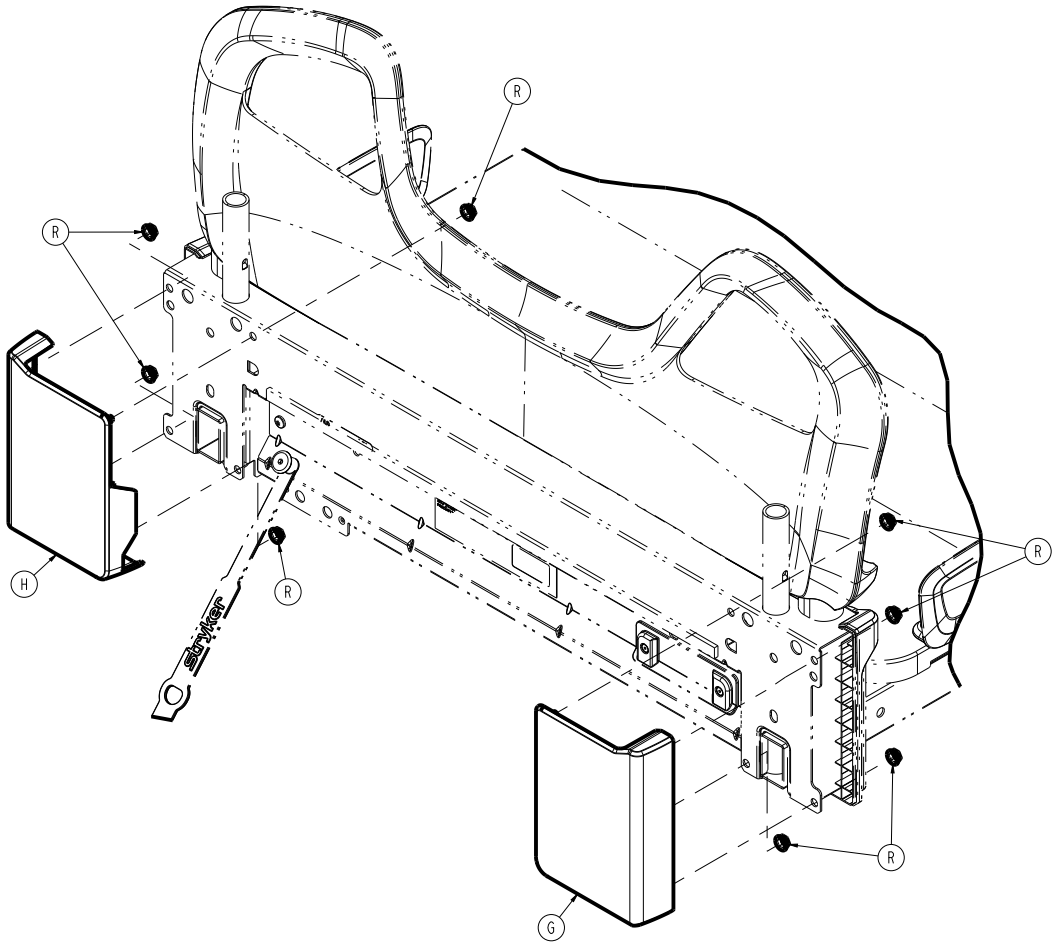


Figure 12 – Replacing the bumper

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 13). 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 13). 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 11). 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 51). 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 52). 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 52). 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 11). 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 51). 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 53). 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 53). 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.
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 13). Save the screws.

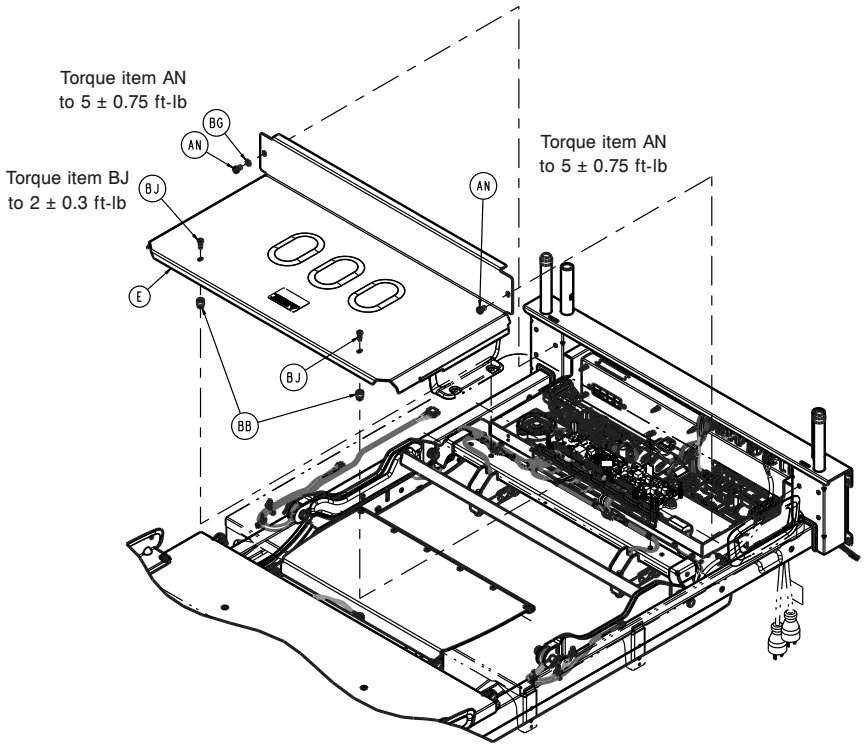


Figure 13 – Removing the cover

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 13). 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 a ratchet and a 7/16” socket, remove the two nuts (AD) that secure the battery strap (B) to the electronics box assembly (Figure 14). Save the nuts.

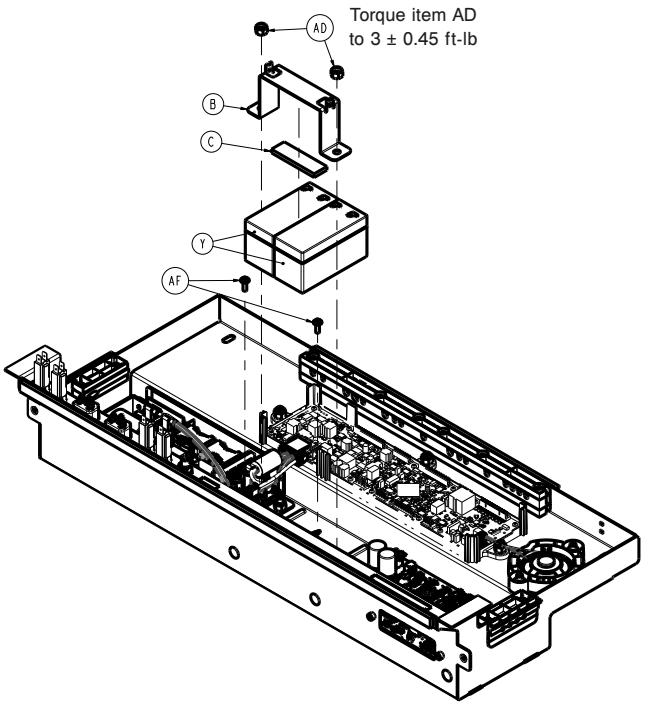


Figure 14 – Replacing the battery

10. Using wire cutters, cut the cable tie that secures the power cable to the disconnect switch on the main control board.
11. Remove the battery strap and lay it off to the side.
12. Remove the batteries.
13. Reverse steps to reinstall.
14. Enter the service menu to clear the main battery statistics (*Service menu* (page 35)).
    a. Select **Configuration**
    b. Select **Reset Statistics**
    c. Select **Main Battery**
    d. 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. 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 13). 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 13). Save the screws and cover.
8. Unplug all the power supply brown and blue wire circuit breakers.

   Note - Note all cable locations before you unplug the wires.
9. 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.
10. Unplug the power supply cable from the main control board.
11. Lift the grommet up that holds the 120VAC outlet cable to the electronics box assembly.
12. 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 15). Save the nuts.

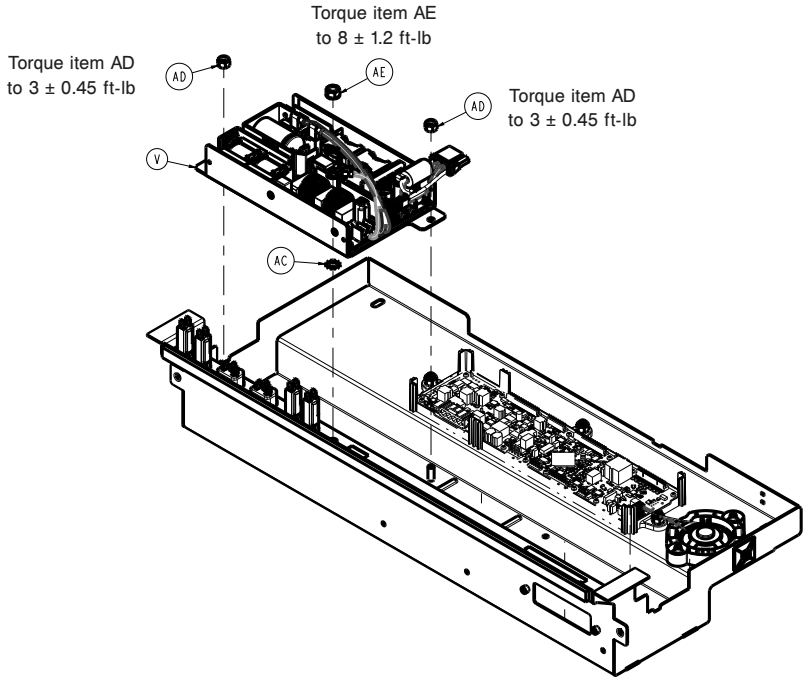


Figure 15 – Replacing the power supply

13. Reverse steps to reinstall.
14. 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 13). 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 13). 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.

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 16). Save the nuts.

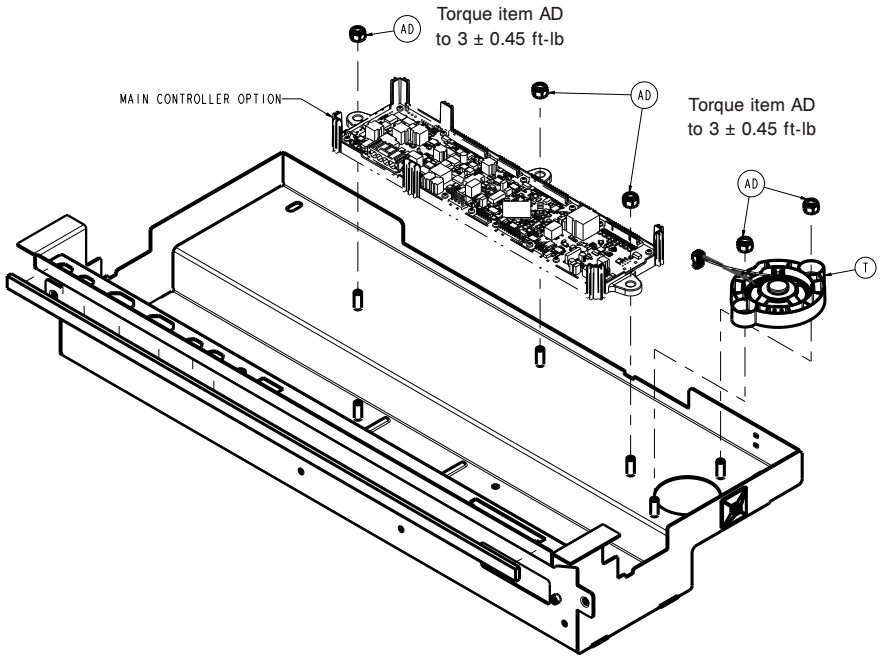


Figure 16 – Replacing the main control board

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 13). 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 13). 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 14). 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.

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.

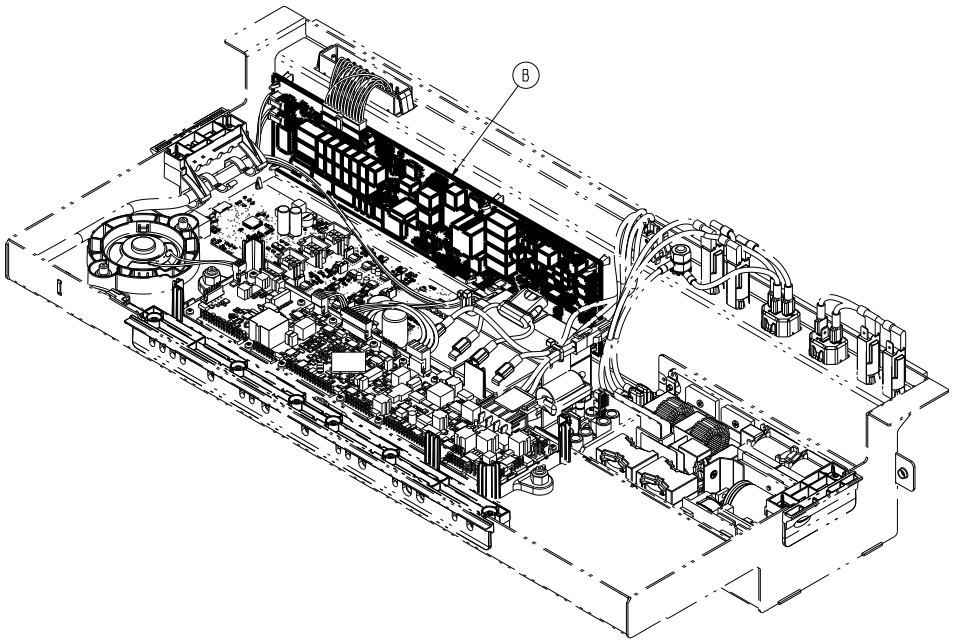


Figure 17 – Replacing the room interface board

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 reinstall.
16. Configure the new room interface board on the maintenance screen for headwall configuration.
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.

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 13). 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 13). 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. Unplug all the cables from the motion controller board (U).

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

9. Using needle nose pliers, unclip the six locking standoffs (AB) that secure the motion controller board (U) to the electronics box assembly (Figure 18).

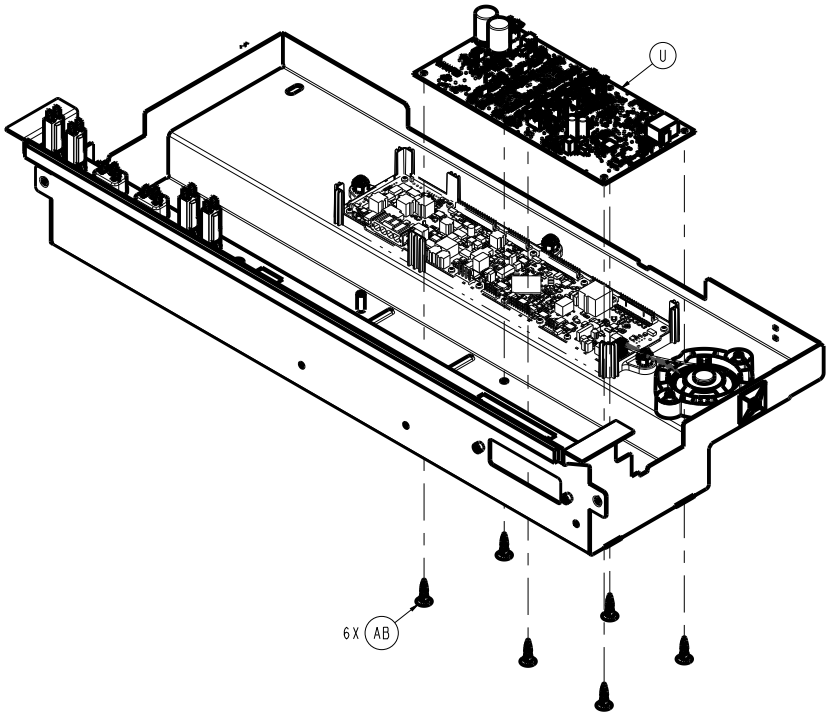


Figure 18 – Replacing the motion controller board

10. Remove 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 6). Remove and save the head end base cover.
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 19). Remove the top enclosure.

CAUTION

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

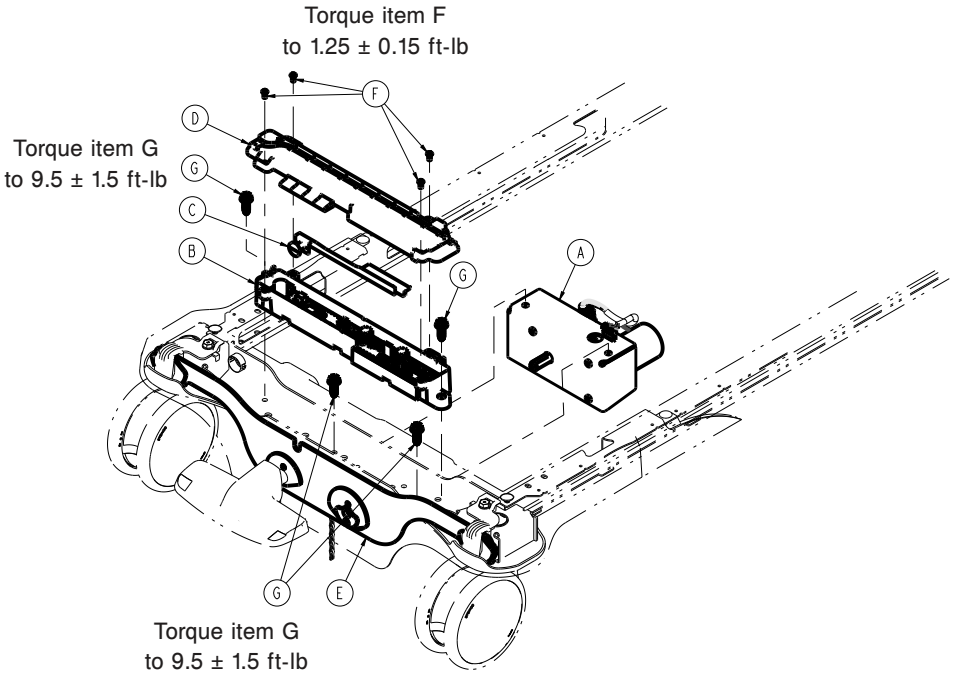


Figure 19 – Electric brakes (option)

7. Unplug all the cables from the electric brake control board.

   Note - Note all cable locations before you unplug the cables.
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.
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 19). 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 6). Remove the head end base cover.
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 19). Remove the top enclosure.
7. Using wire cutters, cut the cable tie that secures the brake motor cable to the brake cam enclosure assembly.
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 to the base frame (Figure 19). 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 19). 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 35)).
    a. Select **Configuration**
    b. Select **Reset Statistics**
    c. Select **Brake Motor**
    d. Select **Reset**
14. Verify proper operation before you return the product to service.

Display, 4.3” assembly replacement

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 20). Discard the screw covers.

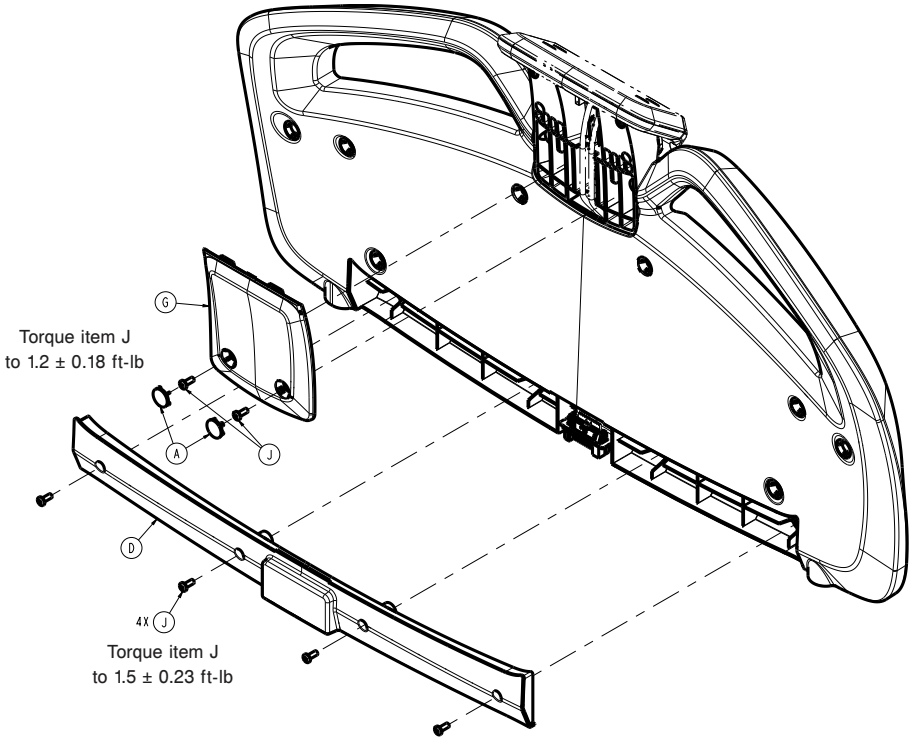


Figure 20 – Footboard housing

6. Using a T25 Torx driver, remove the two screws (J) that secure the display housing cover (G) to the footboard (Figure 20). Remove the display housing cover.
7. Using a T25 Torx driver, remove the four screws (J) that secure the display housing to the footboard (Figure 21). Let the display housing 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.

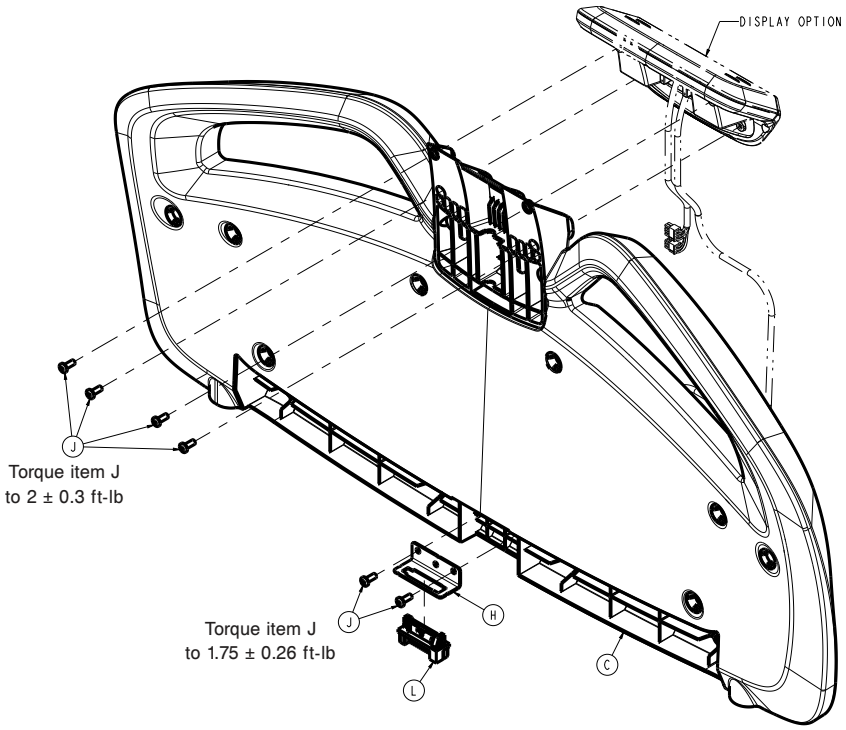


Figure 21 – Footboard housing

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

Wireless module 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 22). Discard the screw covers.

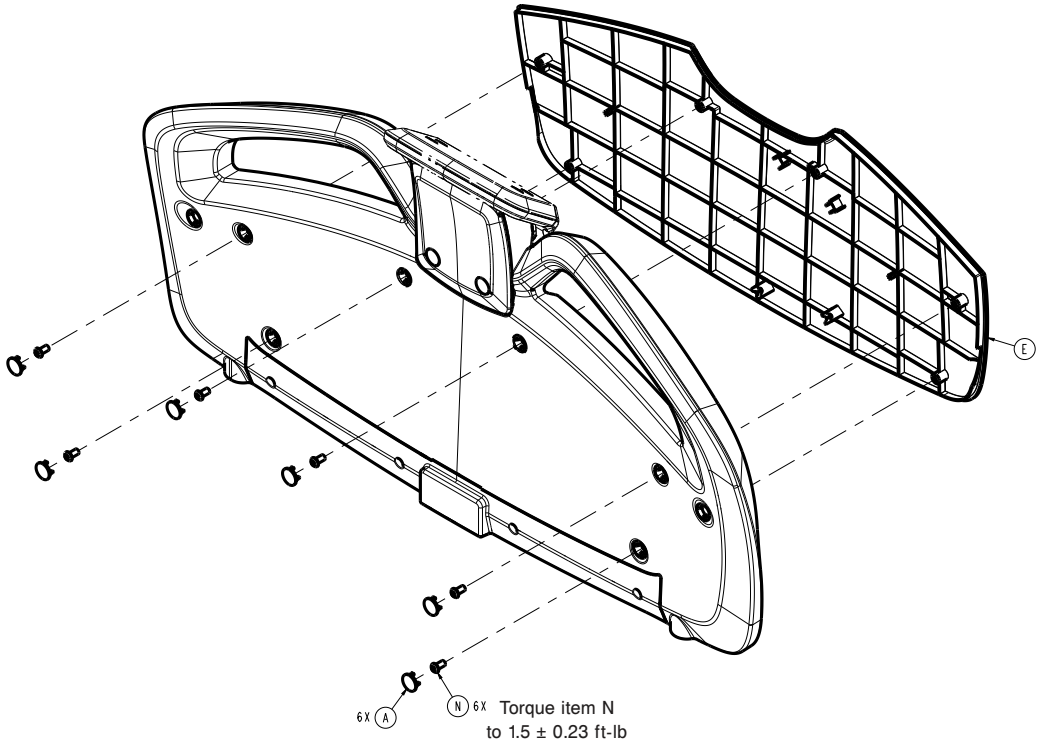


Figure 22 – Footboard housing

6. Using a T27 Torx driver, remove the six screws (N) that secure the front footboard cover (E) to the footboard (Figure 22). 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 23). 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.

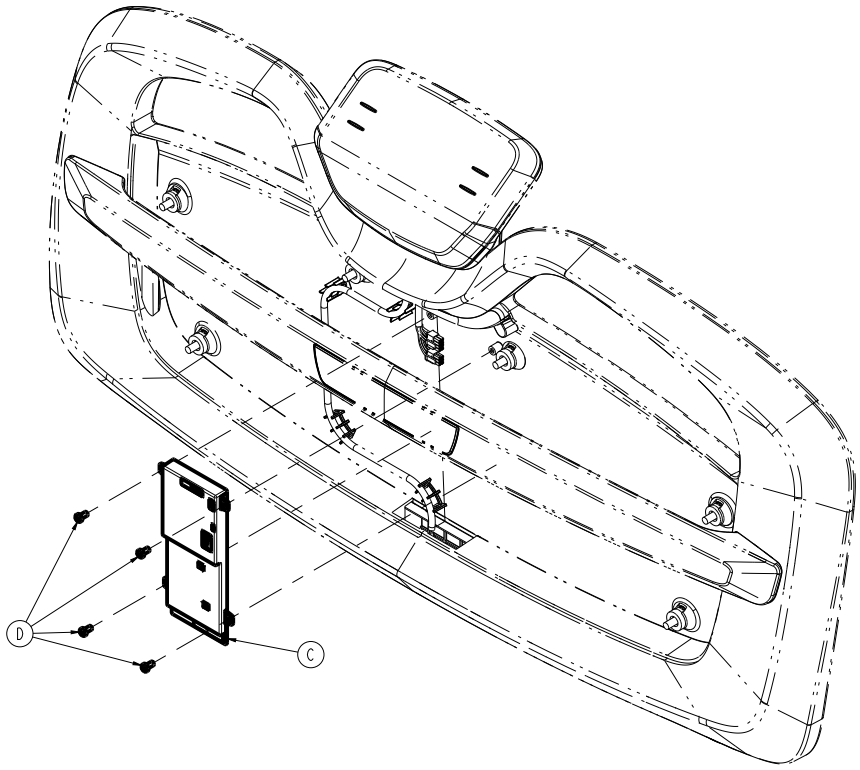


Figure 23 – Replacing the wireless module

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 9).
7. 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.

8. Using a T15 Torx driver, remove the six outer screws (R) that secure the front cover (L) to the rear cover (M) (Figure 10). 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 10). 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 10). Remove and save the front cover.
12. Unclip the cable from the blind mate connector (V) (Figure 24).

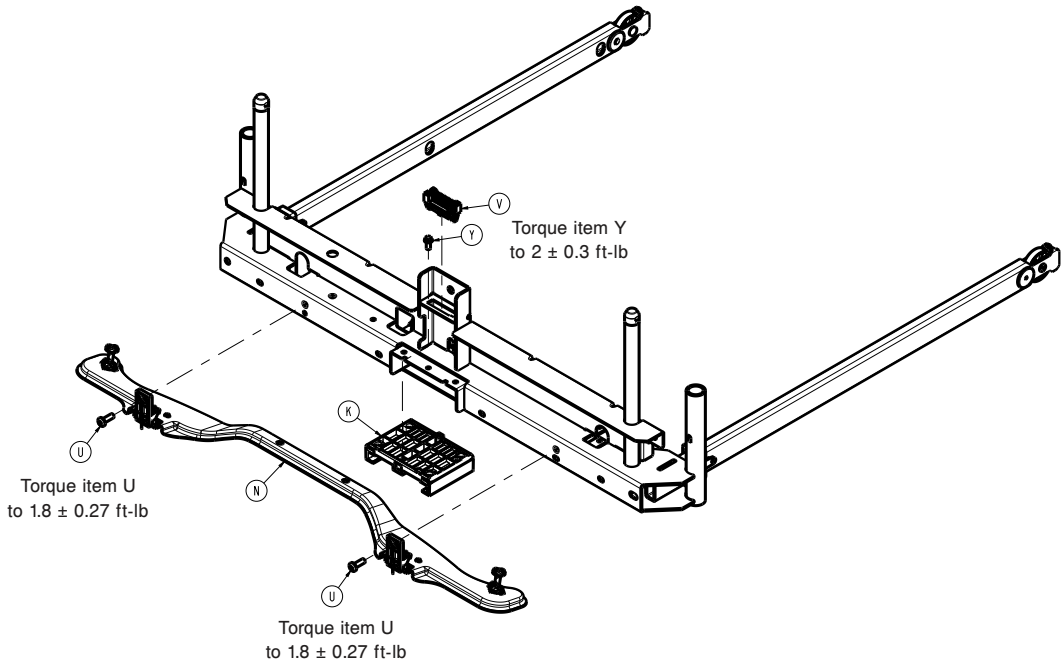


Figure 24 – Replacing the footboard litter connector

13. Squeeze the left and right blind mate connector (V) locking tabs to release the connector from the foot end frame (Figure 24).
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 actuator replacement

Tools required:

- Needle nose pliers
- Slotted screwdriver (small)

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. Pull the CPR release so that the Fowler is flat and the Fowler actuator clevis pins move.
6. Using a slotted screwdriver, remove the actuator cable retainer and unplug the cable from the actuator.
7. 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 25). Save the rue clips.

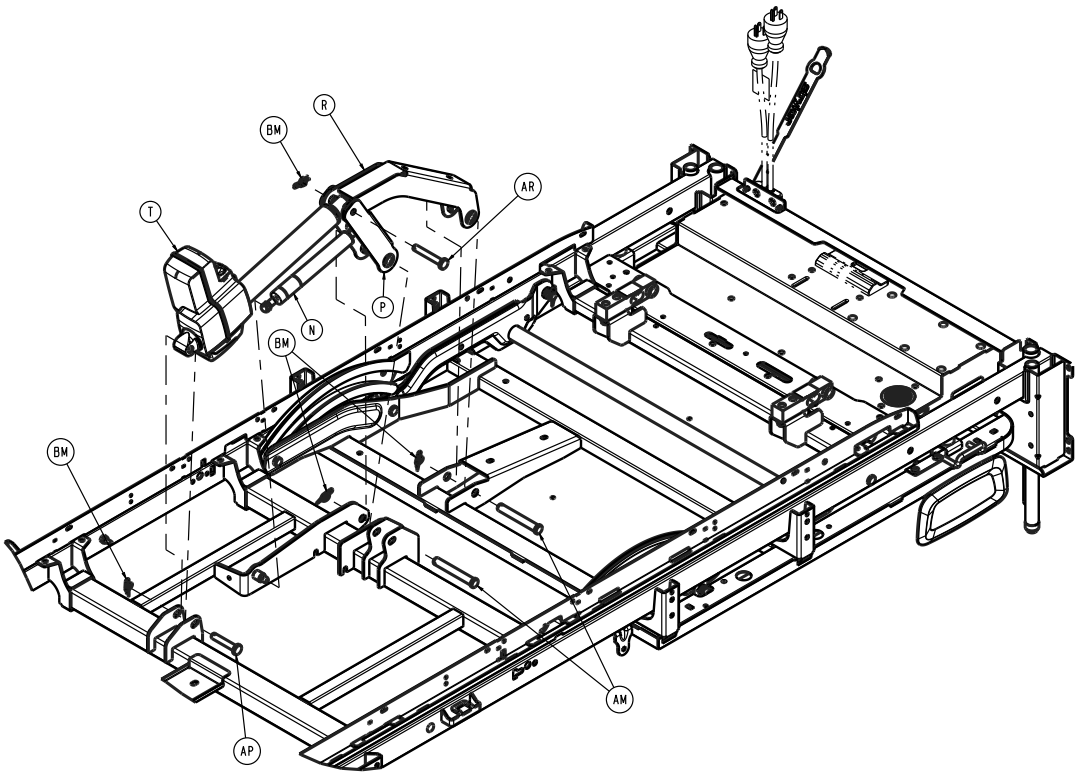


Figure 25 – Replacing the Fowler actuator

8. Support the actuator. Remove and save the two clevis pins (AP, AR) (Figure 25).
9. Using a slotted screwdriver, open the actuator CPR access door.
10. Using needle nose pliers, remove the two CPR cables from the actuator mechanism. Remove the CPR cables from the actuator.
11. Reverse steps to reinstall.
12. Enter the service menu to clear the actuator statistics (*Service menu* (page 35)).
    a. Select **Configuration**
    b. Select **Reset Statistics**
    c. Select **Fowler Actuator**
    d. Select **Reset**
13. Unplug the product from the wall.
14. Turn off the battery disconnect switch to complete a full power cycle on the product.
15. Calibrate angles, see *Angle calibration* (page 35).
16. Verify proper operation before you return the product to service.

Gatch actuator replacement

Tools required:

- Needle nose pliers
- Slotted screwdriver (small)

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 26). Save the rue clips.

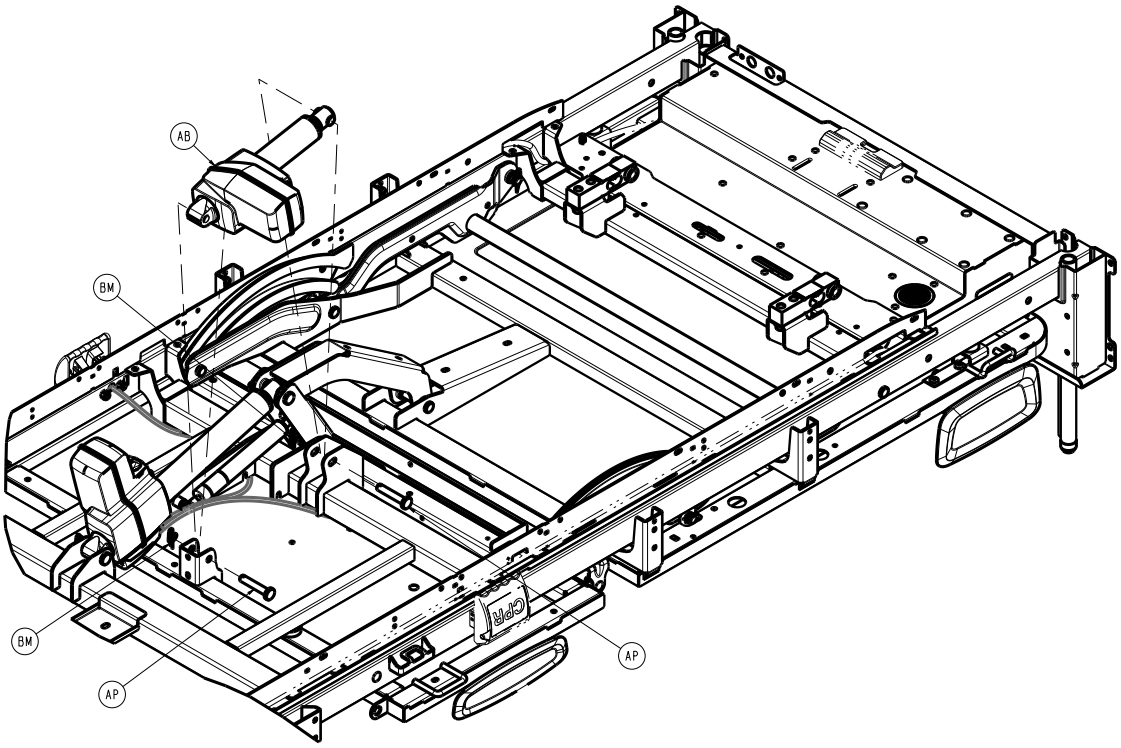


Figure 26 – Replacing the Gatch actuator

7. Support the actuator. Remove and save the two clevis pins (AP) (Figure 26).
8. Using a 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 35)).
    a. Select **Configuration**
    b. Select **Reset Statistics**
    c. Select **Gatch Actuator**
    d. Select **Reset**
11. Unplug the product from the wall.
12. Turn off the battery disconnect switch to complete a full power cycle on the product.

13. Calibrate angles, see *Angle calibration* (page 35).
14. Verify proper operation before you return the product to service.

Lift actuator, head and foot 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 27). Remove and save the covers.

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

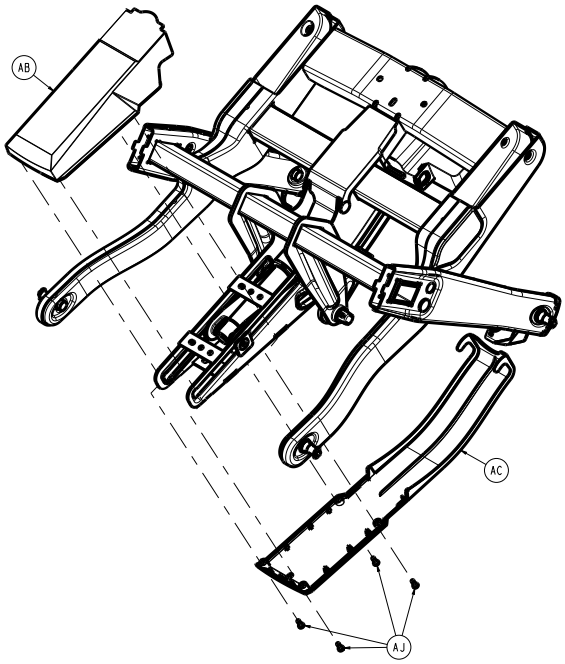


Figure 27 – Removing the lift covers

5. Using a slotted screwdriver and diagonal pliers, remove the retainers (C) from the left and right center base covers (B) (Figure 5). 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.

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

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 a T40 Torx driver, remove the screw (AH) and lift foot pin (H) that secure the top of the actuator to the lift mechanism (Figure 28). Hold the lift foot pin in while you loosen the screw. The screw is keyed with the lift mechanism.

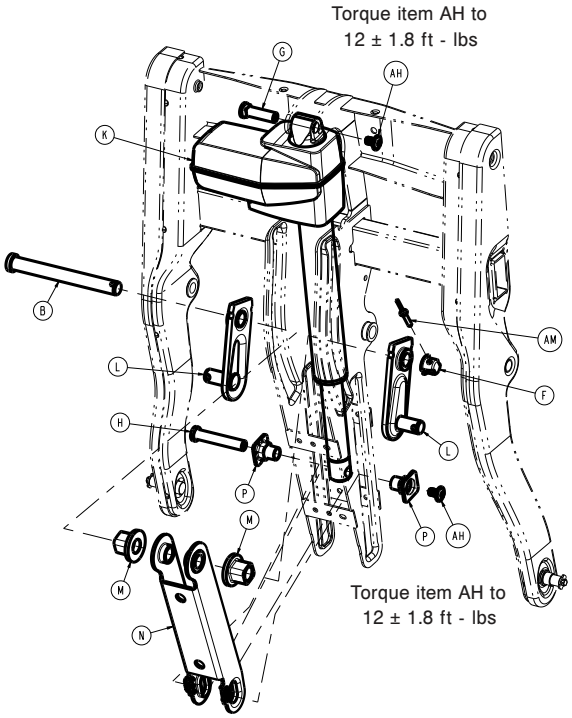


Figure 28 – Replacing the lift actuator

13. Remove the lift actuator.
14. Reverse steps to reinstall.
15. Enter the service menu to clear the actuator statistics (*Service menu* (page 35)).
    a. Select **Configuration**
    b. Select **Reset Statistics**
    c. Select **Lift Actuator**
    d. Select **Reset**
16. Unplug the product from the wall.
17. Turn off the battery disconnect switch to complete a full power cycle on the product.
18. Calibrate angles, see *Angle calibration* (page 35).
19. 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

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.
7. Unplug the load cell (AF) (Figure 29).

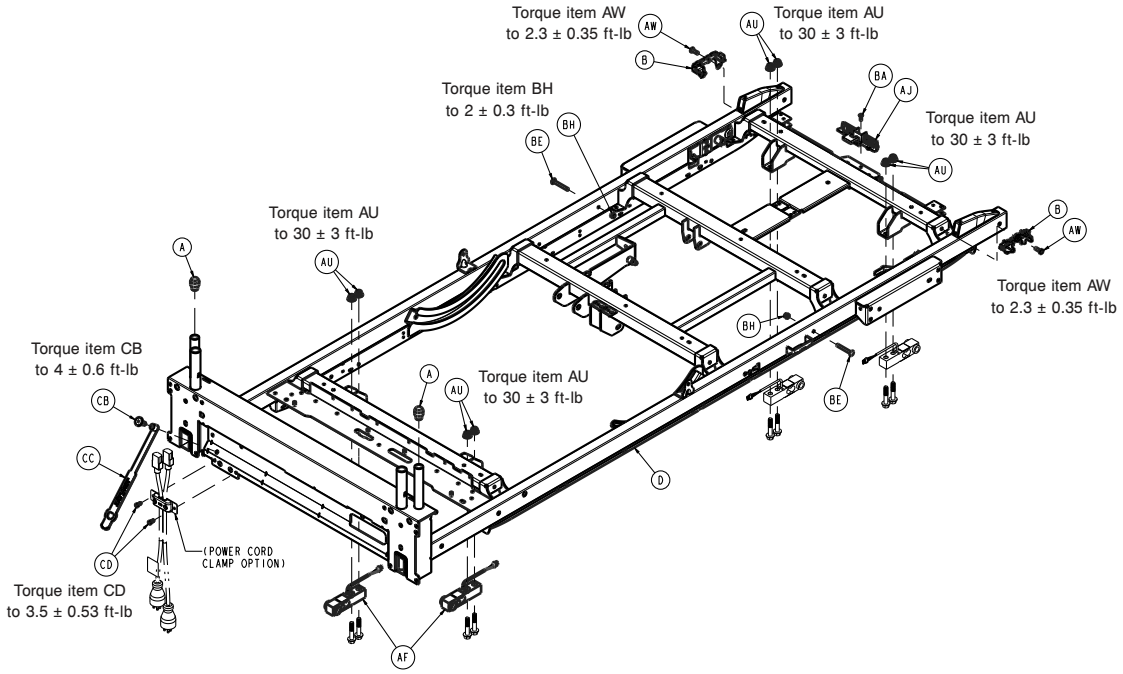


Figure 29 – Replacing the load cell

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 30). 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.

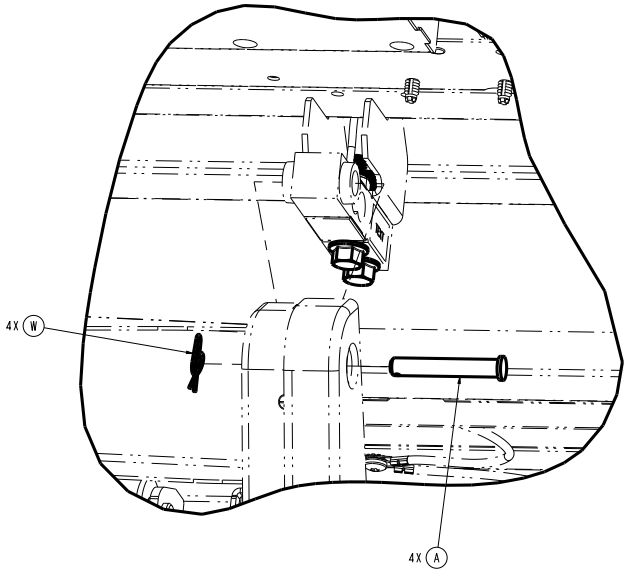


Figure 30 – Replacing the load cell

9. Using a ratchet, 9/16” socket, and a 9/16” wrench, remove the two bolts (P) and nuts that secure the load cell to the litter frame (Figure 31). Save the bolts and nuts. Remove the load cell.

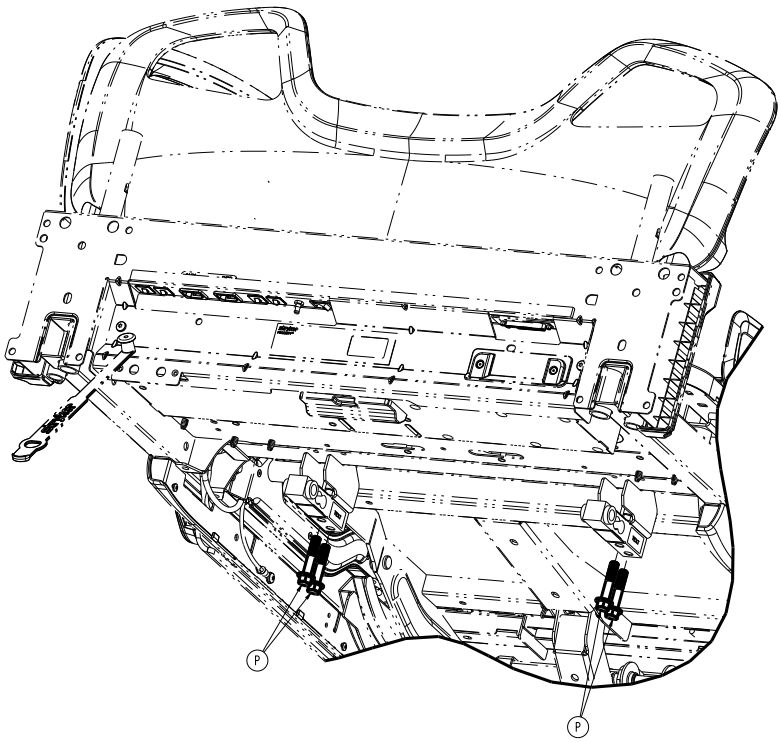


Figure 31 – Replacing the load cell

10. Reverse steps to reinstall.
11. Enter the service menu to clear the load cell statistics (*Service menu* (page 35)).
    a. Select **Configuration**
    b. Select **Reset Statistics**
    c. Select **HL/HR Load Cell**
    d. Select **Reset**

12. Calibrate the scale system, see *Scale calibration* (page 35).
13. Unplug the product from the wall.
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

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 and 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 and 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.
8. Unplug the load cell (L).

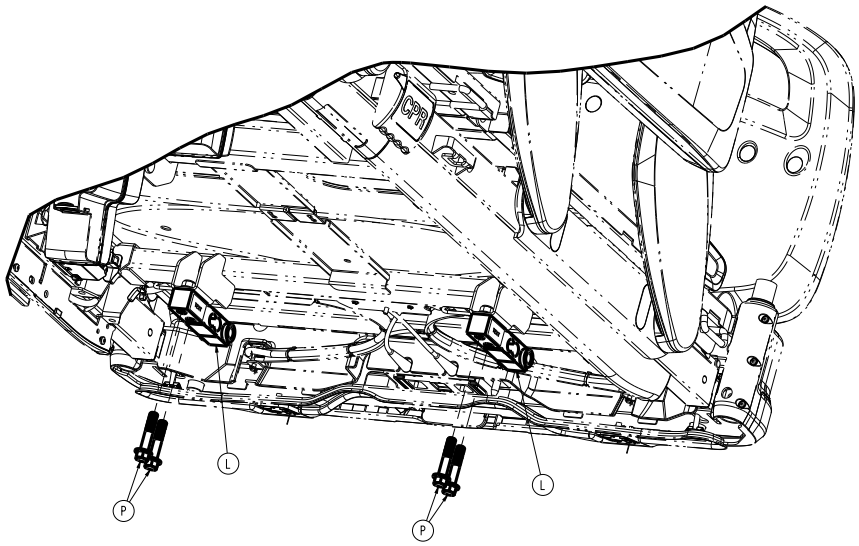


Figure 32 – Replacing the load cell

9. Using wire cutters, to remove the two cable tie retainers from the frame.
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 30). 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. Using a ratchet, 9/16” socket, and a 9/16” wrench, remove the two bolts (P) and nuts that secure the load cell (L) to the litter frame (Figure 32). Save the bolts and nuts. Remove the load cell.
12. Reverse steps to reinstall.
13. Enter the service menu to clear the load cell statistics (*Service menu* (page 35)).
    a. Select **Configuration**
    b. Select **Reset Statistics**
    c. Select **FL/FR Load Cell**
    d. Select **Reset**
14. Calibrate the scale system, see *Scale calibration* (page 35).
15. Unplug the product from the wall.
16. Turn off the battery disconnect switch to complete a full power cycle on the product.
17. 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 33). Discard the screw covers.

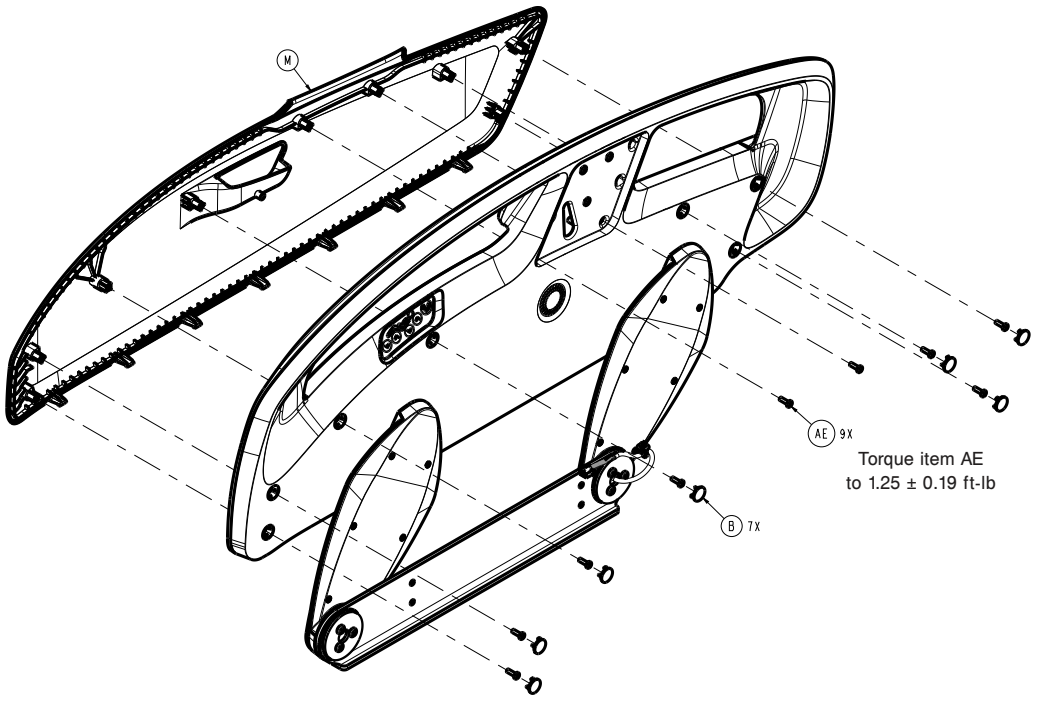


Figure 33 – Replacing the siderail control board

7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 34). Discard the label.

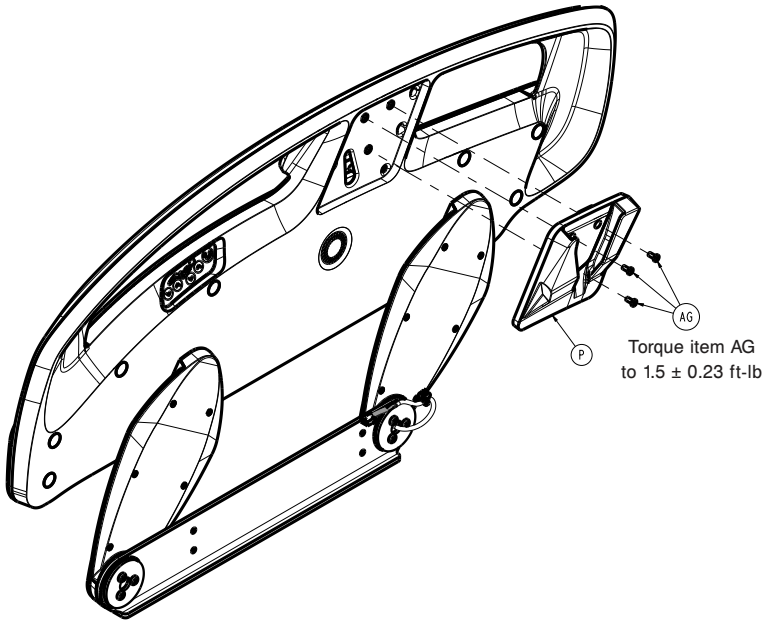


Figure 34 – Replacing the siderail control board

8. Using a 1/8” hex driver, remove the three screws (AG) that secure the patient belongings bracket (P) to the siderail hoop (Figure 34). 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 33). 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 35). 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.

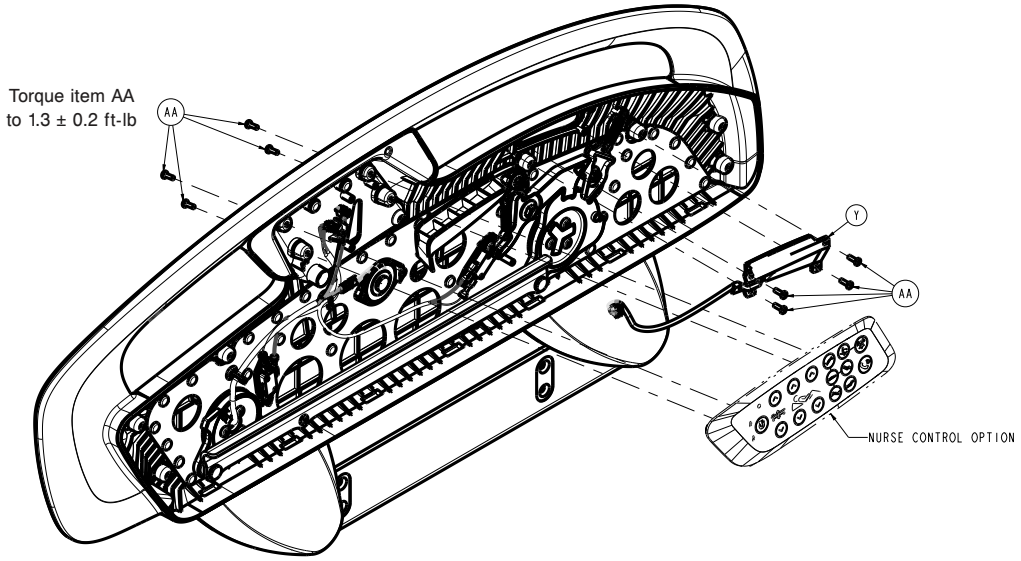


Figure 35 – Replacing the nurse control board

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 33). Discard the screw covers.
7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 34). 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 34). 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 33). 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 35).
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 nine screw covers (B) from the inside of the siderail (Figure 33). Discard the screw covers.
7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 34). 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 34).
9. Unplug the USB cable (D) from the USB charging board (E) to remove the patient belonging bracket with USB (B) (Figure 36).

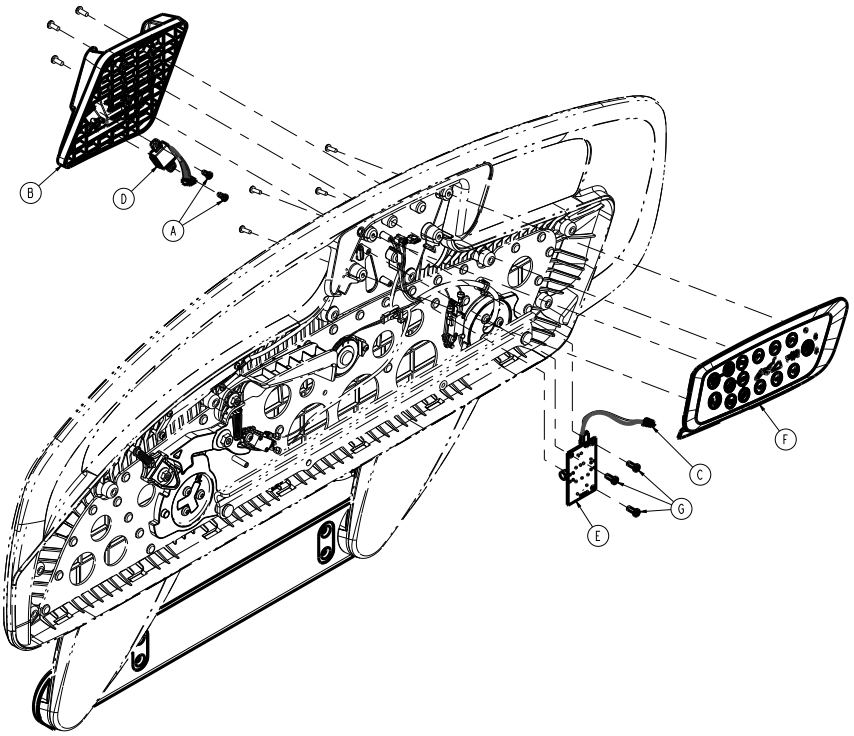


Figure 36 – Replacing the USB port (option)

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
- Slotted screwdriver (small)
- 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 33). Discard the screw covers.
7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 34). 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 34). 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 33). 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 35). Save the screws. Allow the nurse control board to hang.
11. If the product has the optional USB charger, use a T20 Torx driver to remove the three screws (G) that secure the USB charger board (E) to the siderail hoop (Figure 36). 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 35). 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.

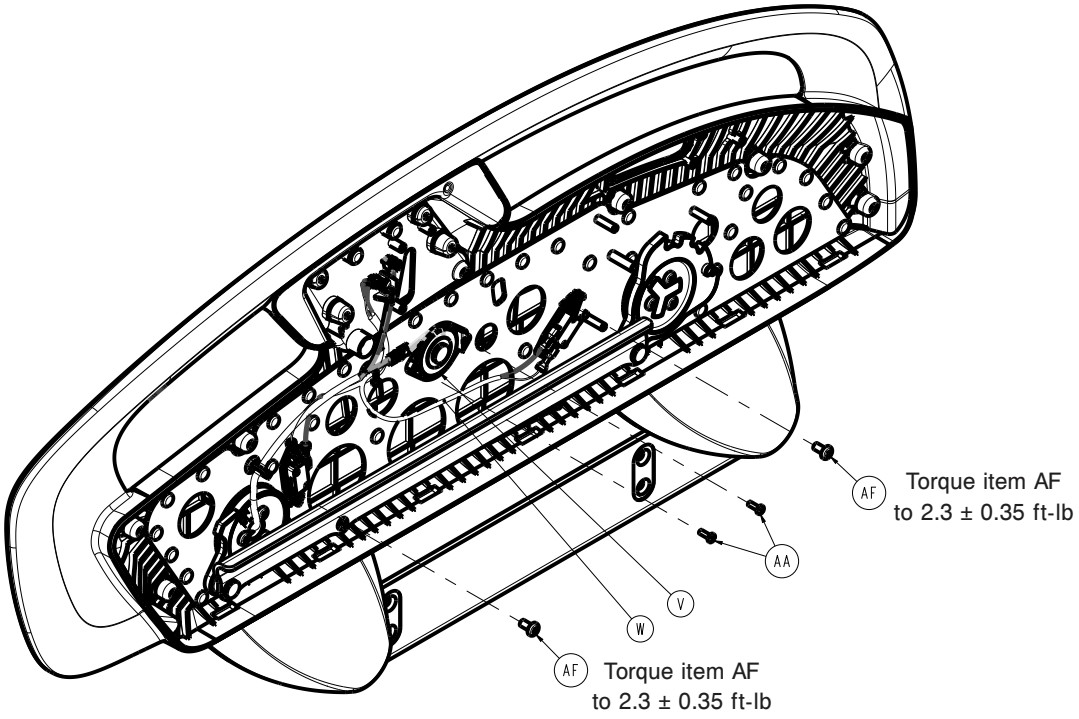


Figure 37 – Removing the speaker assembly

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.

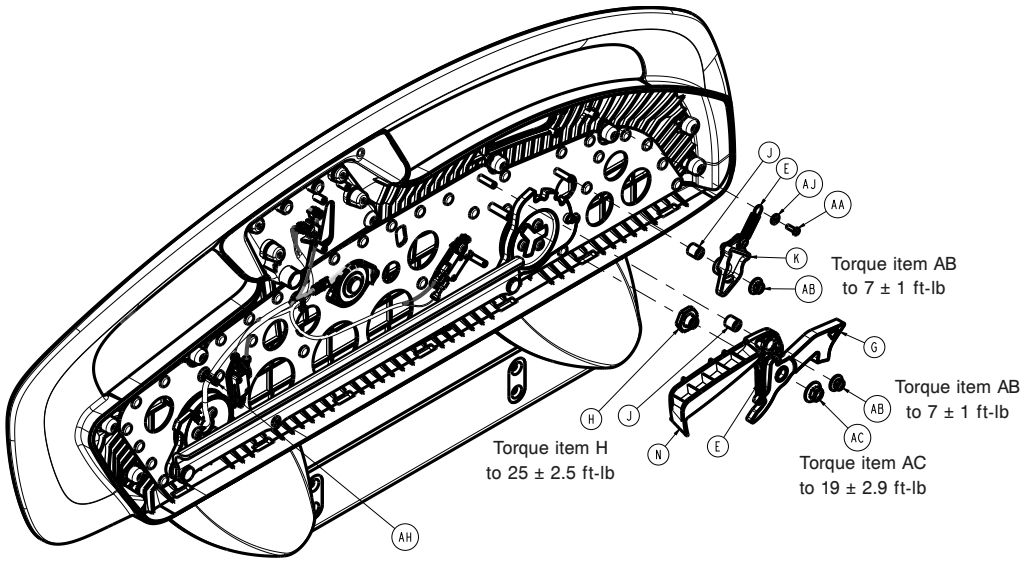


Figure 38 – Replacing the head siderail hoop

15. Using a T30 Torx driver, remove the screws (AF) that secure the siderail switch assemblies (W) to the siderail hoop (Figure 37). Pull out the cable retainer. Save and remove the switches.
16. Using a ratchet and a 1/2” socket, remove the nut (AB) that secure the latch activation lever and latch pawl assembly (G) (Figure 38). Remove and save the activation lever and detent paw.
17. Using a ratchet and a 9/16” socket, remove the nut (AC) that secures the siderail latch to the siderail hoop (Figure 38). Remove the latch.
18. Using diagonal pliers, cut the two cable ties that secure the siderail cable to the Fowler frame.
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 39). Remove the siderail assembly.

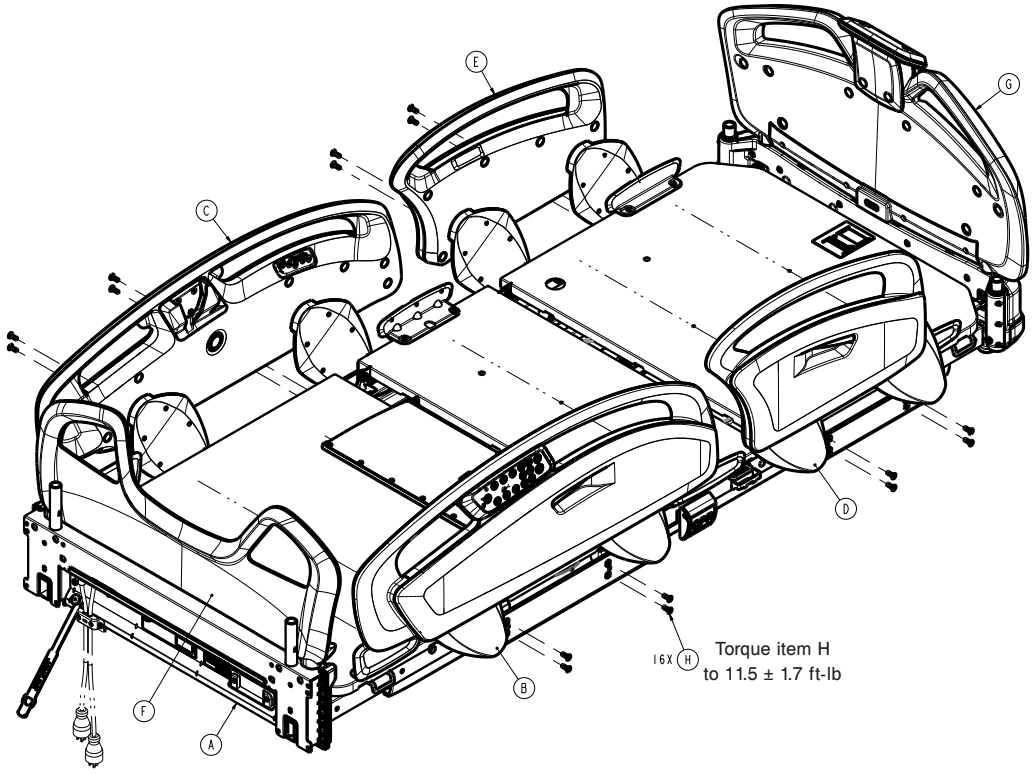


Figure 39 – Replacing the siderail hoop

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 40).

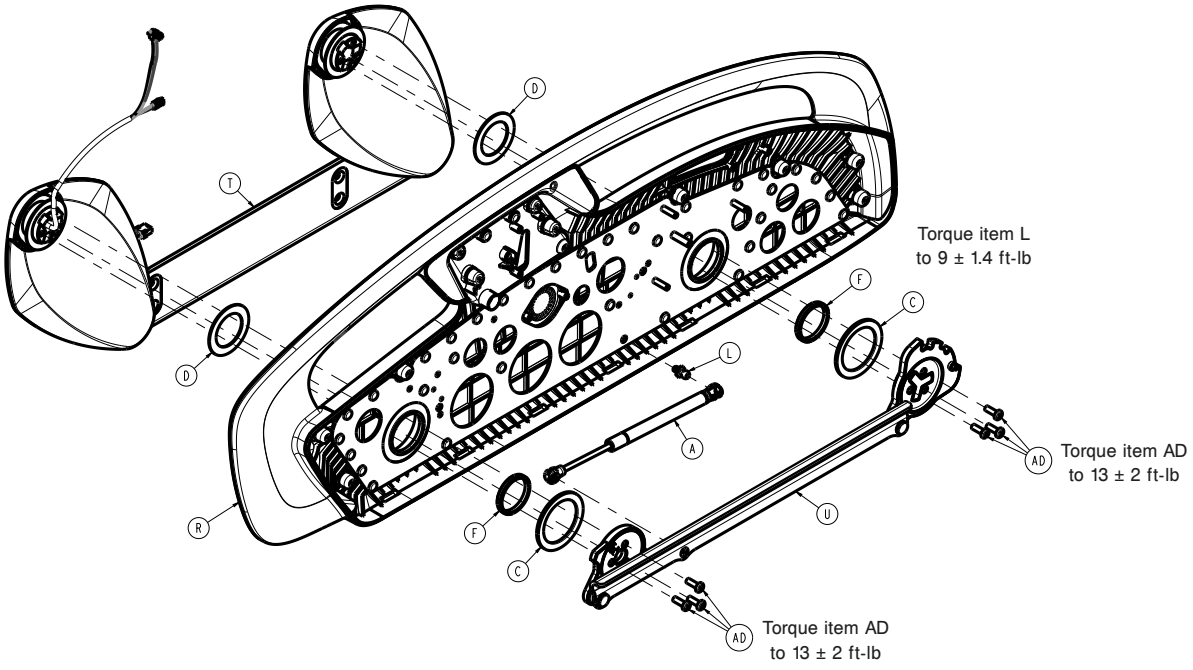


Figure 40 – Replacing the siderail hoop

23. Using a 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 40).
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 33). Discard the screw covers.
7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 34). 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 34). 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 33). Save the screws. Remove and save the outer siderail panel.
10. Unplug both wires (black-NC2 of switch and red-COM of switch) connected to the siderail switch assembly (W) (Figure 37).
11. Using a T30 Torx driver, remove the screw (AF) that secures the siderail switch assembly (W) and bracket to the siderail frame (Figure 37).

    Note - The bracket keys to the siderail frame.
12. Reverse steps to reinstall.
13. 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
- 1/2” socket

- Slotted screwdriver (small)
- 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 33). Discard the screw covers.
7. Using a pick, remove the label from the siderail in the patient belongings bracket (P) (Figure 34). 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 34). 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 33). Save the screws. Remove and save the outer siderail panel.
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 39). 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 40).
15. Using a 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 40).
16. Remove the timing link assembly (U).
17. Reverse steps to reinstall.
18. Verify proper operation before you return the product to service.

Foot siderail hoop replacement

Tools required:

- Pick
- T25 Torx driver
- T27 Torx driver
- T30 Torx driver
- Slotted screwdriver (small)
- 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.
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 41). Discard the screw covers.

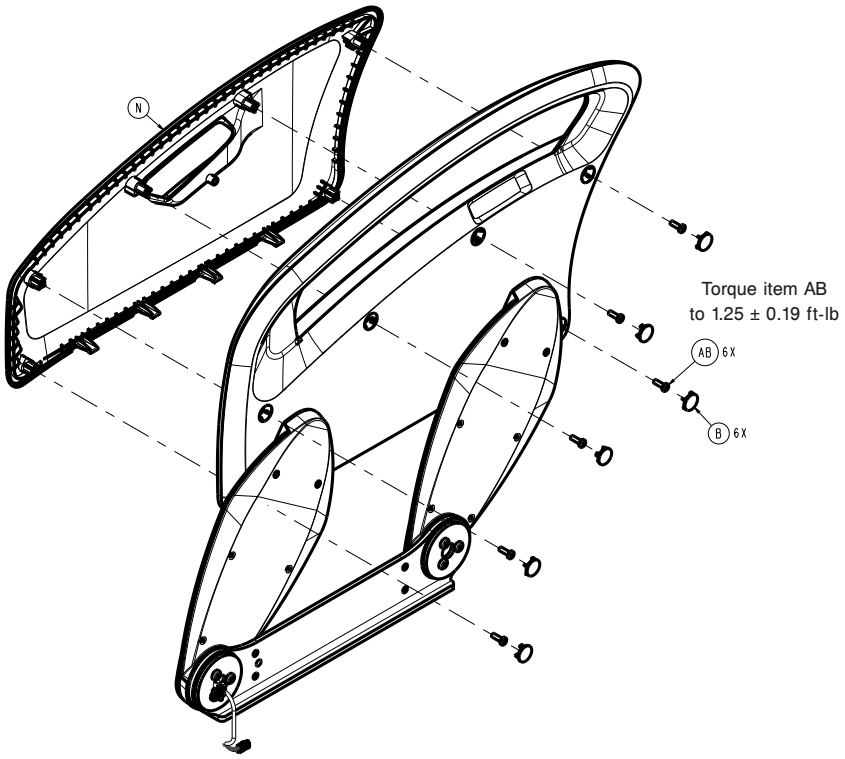


Figure 41 – Replacing the foot siderail hoop

7. Using a T25 Torx driver, remove the six screws (AB) that secure the cover (N) to the siderail assembly (Figure 41). Remove the outer siderail cover.
8. Using a T20 Torx driver, remove the screw (V) and washer (AD) holding the spring (E) to the siderail hoop for the siderail detent paw (Figure 42).

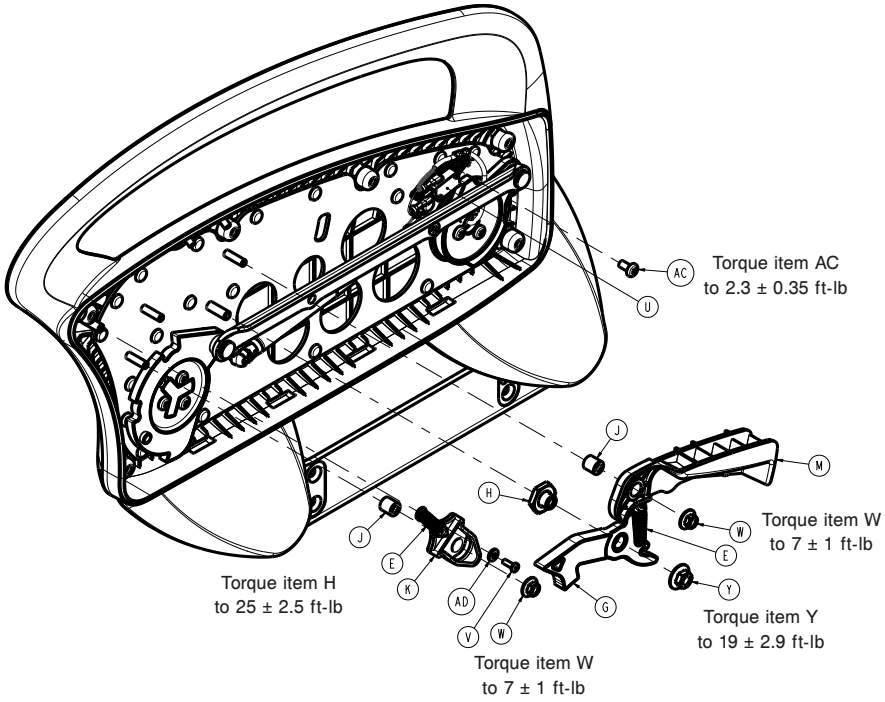


Figure 42 – Replacing the foot siderail hoop

9. Using a T30 Torx driver, remove the screw (AC) that secures the siderail position switch (U) to the siderail hoop (Figure 42). 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 (Figure 42). 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 (Figure 42). 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 39). 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 43). Save the screws.

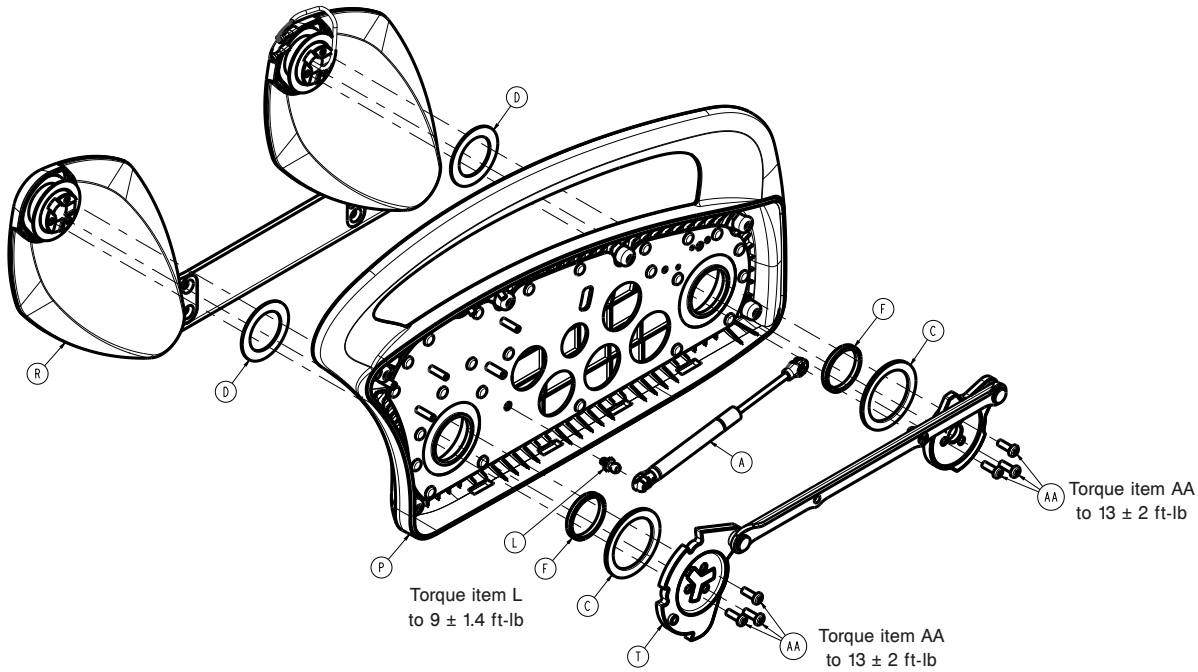


Figure 43 – Replacing the foot siderail hoop

16. Using a 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 43).
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 41). 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 41). 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 - Note the position of the wires before you unplug them.

9. Using a T30 Torx driver, remove the screw (AC) that secures the siderail switch assembly (U) and bracket to the siderail frame (Figure 42).

   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, foot siderail replacement

Tools required:

- Pick
- T25 Torx driver
- T27 Torx driver
- T30 Torx driver
- Ratchet
- 9/16” socket
- 1/2” socket
- Slotted screwdriver (small)
- 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 41). 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 41). 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 39). 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 43). Save the screws.
12. Using a 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 43).
13. Remove the timing link assembly.
14. Reverse steps to reinstall.
15. 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 44). Save the rivets and outer base cover. Repeat for the opposite side.

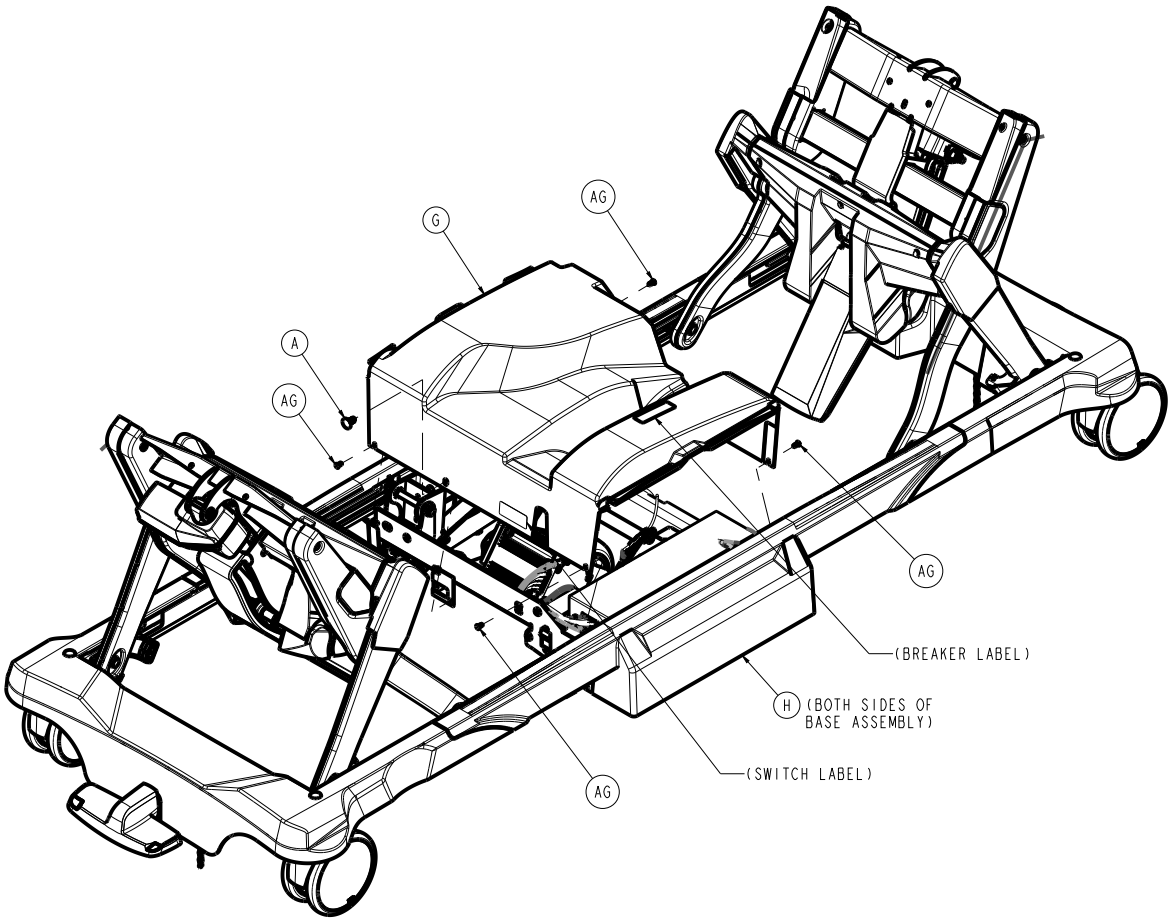


Figure 44 – Removing the Zoom cover

7. Lift up from the center to remove and save the outer base covers.
8. Remove and save the **Zoom** cover (G) (Figure 44).
9. Using a T27 Torx driver, remove the three screws (AJ) that secure the battery box cover (T) to the base weldment (Figure 45). Save the screws and battery box cover.

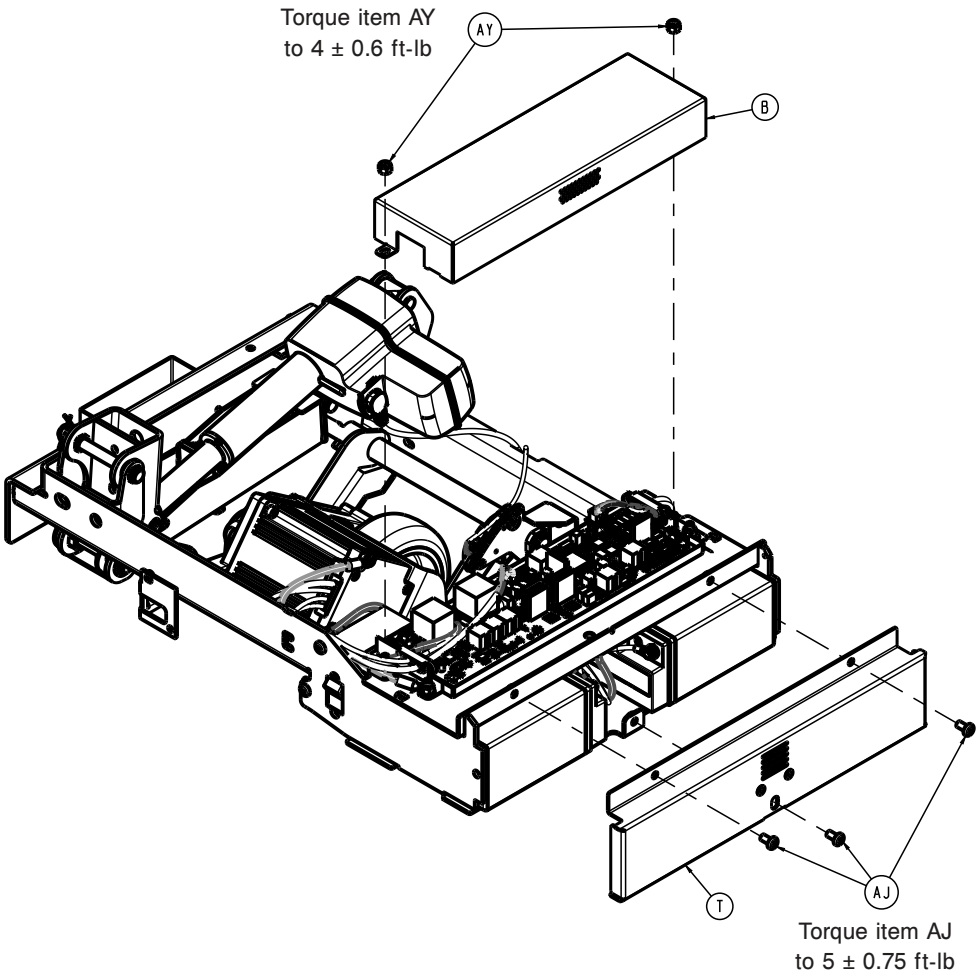


Figure 45 – Removing the battery cover

10. Remove the batteries (AG) (Figure 46).

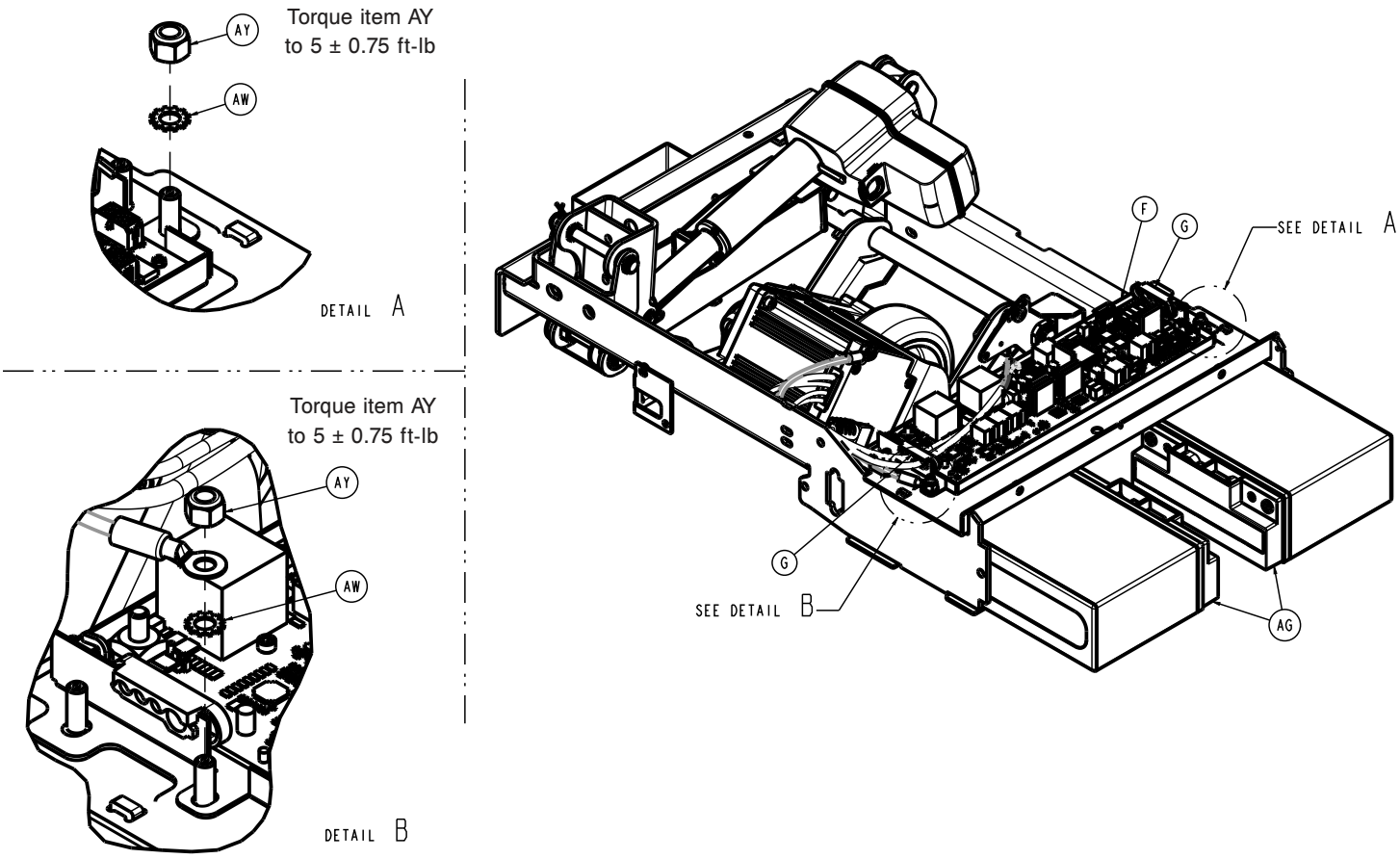


Figure 46 – Removing the batteries

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 47). Save the bolt and washers. Repeat for the other battery.

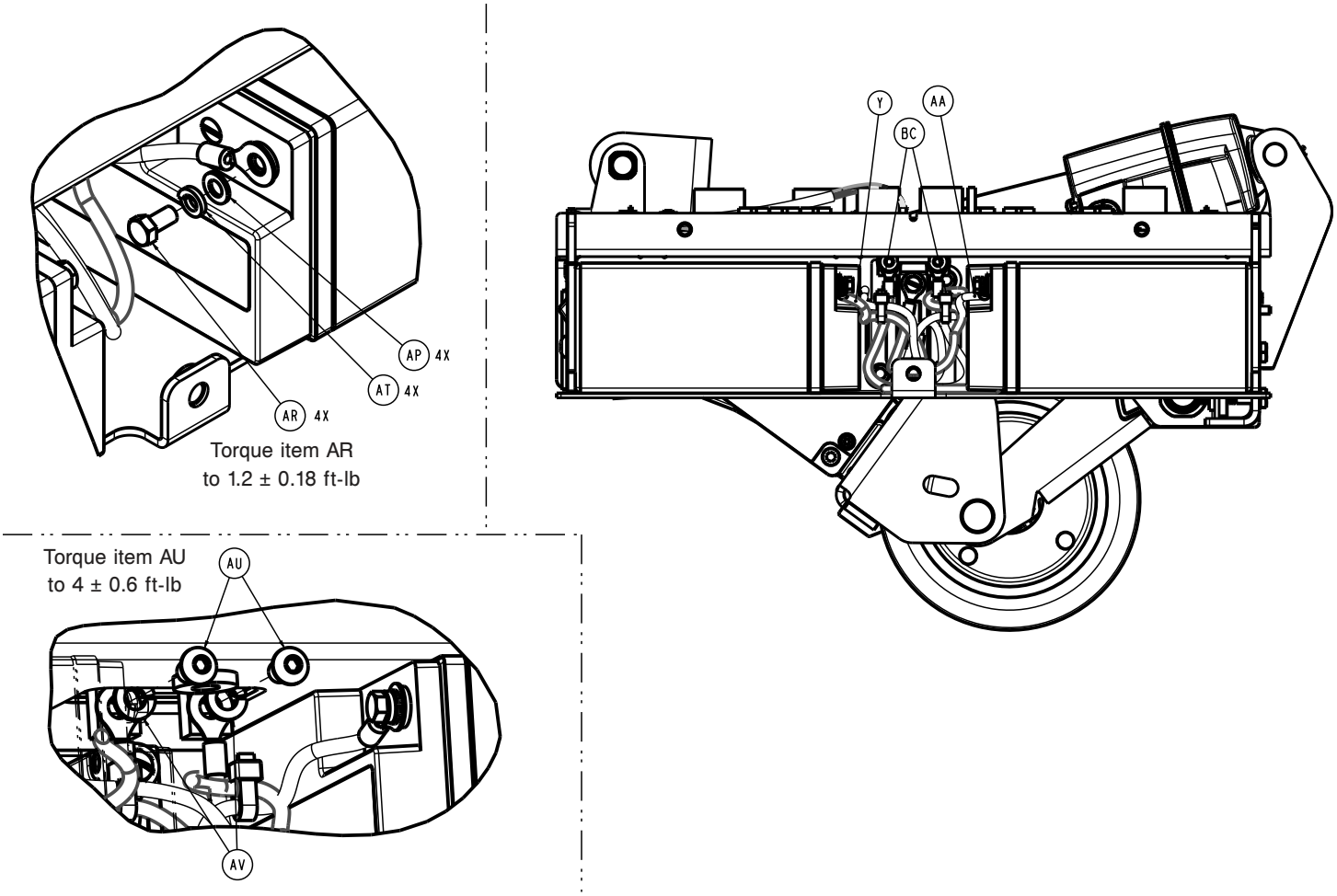


Figure 47 – Removing the batteries

Note

- Do not short the battery terminals together.
- Note all wire locations before you disconnect the wires.

12. Reverse steps to reinstall.

Note - When you reinstall, torque the battery bolt (AR) to 1.2 ± 0.18 ft-lb.

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

Zoom actuator replacement

Tools required:

- Needle nose pliers
- Flat blade screwdriver-small

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 44). 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 44).
9. Using needle nose pliers, remove the rue ring cotter (BA) from the actuator ram pin (L) and clevis pin (AL) (Figure 48). Save the rue ring cotter.

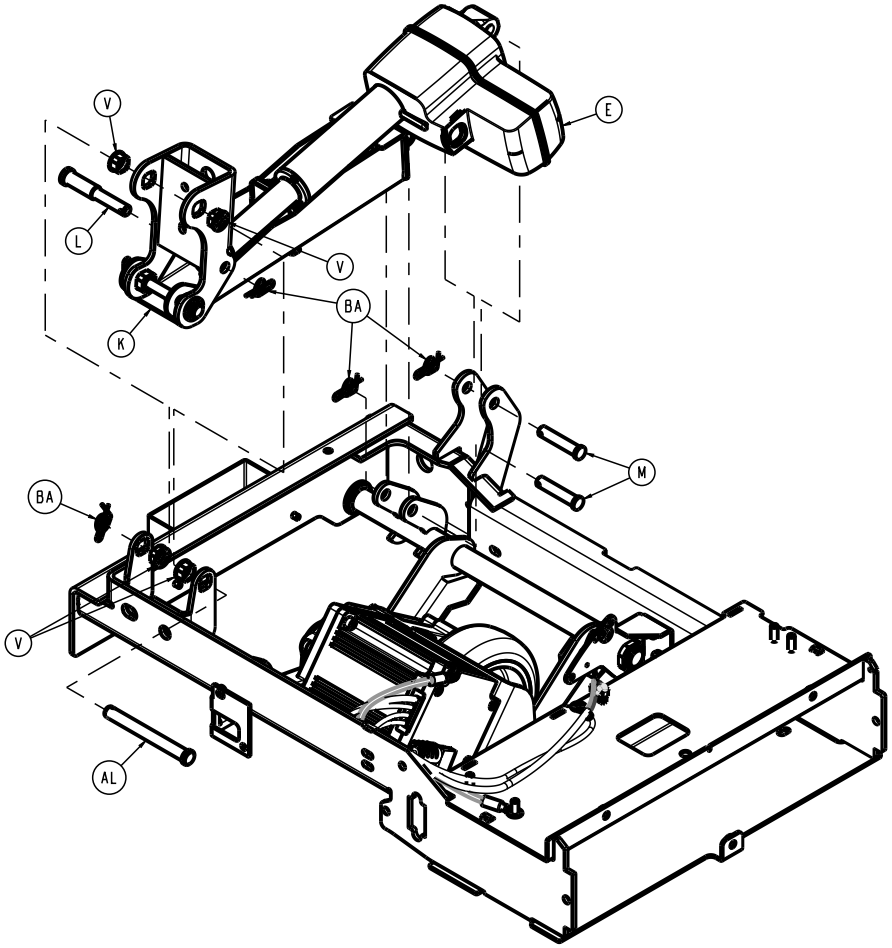


Figure 48 – Removing the Zoom actuator

10. Lift up on the **Zoom** motor drive wheel and remove the clevis pin (AL) and actuator ram pin (L) (Figure 48). 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 48). 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 48). Save the base pin.
13. Using a flat blade 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 44). 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 44).
9. Using needle nose pliers, remove the rue ring cotter (BA) from the clevis pin (AL) (Figure 48). Save the rue ring cotter.
10. Lift up on the **Zoom** motor drive wheel and remove the clevis pin (AL) (Figure 48). Save the clevis pin.
11. Using needle nose pliers, remove the rue ring cotter (BA) from the actuator base pin (M) (Figure 48). 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 49). Save the screw, washer, and bushing.

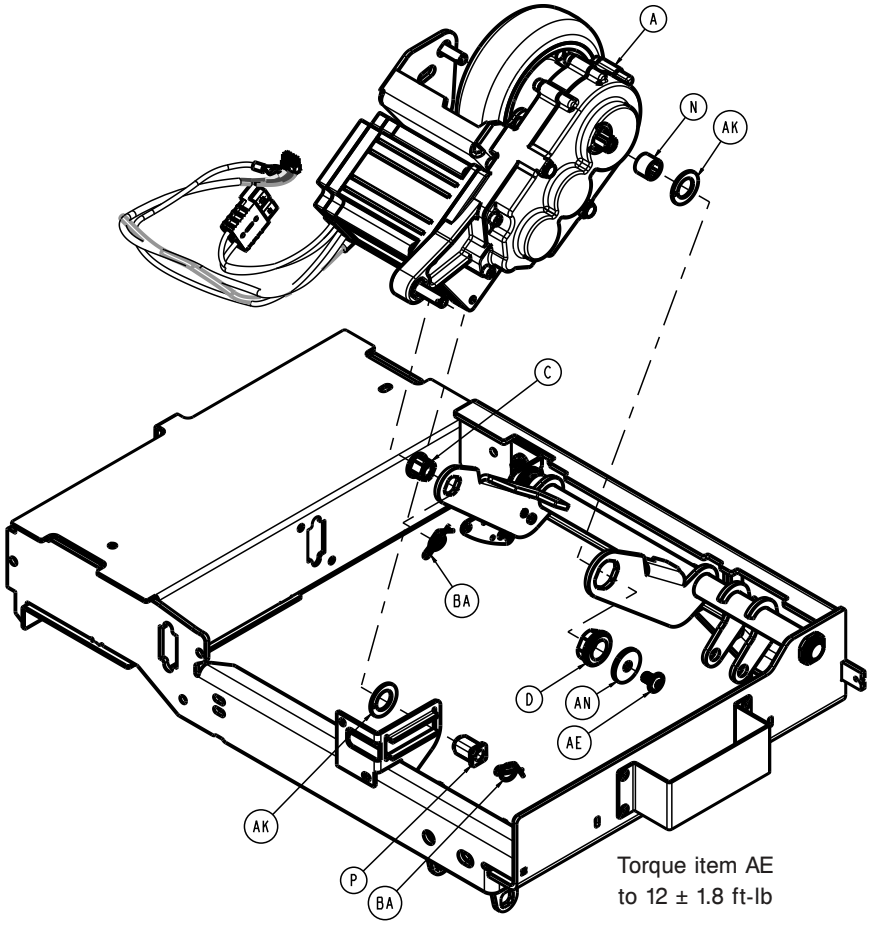


Figure 49 – Removing the Zoom motor/wheel assembly

Note - When you reinstall, torque the screw (AE) to 12 ± 1.8 ft-lb.

13. Using needle nose pliers, remove the rue ring cotter (BA) from the motor/wheel assembly (A) (Figure 49). Save the rue ring cotter.
14. Using diagonal pliers, cut the two cable ties (BC) that secure the motor cables to the frame weldment.

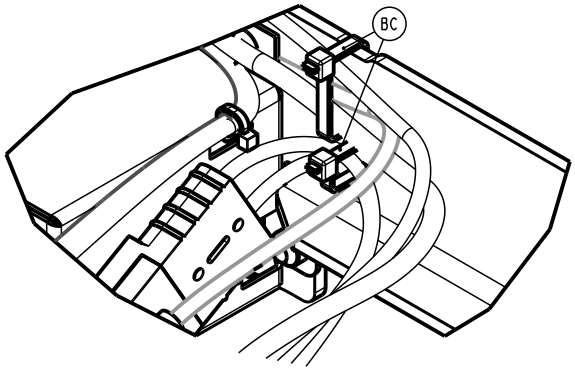


Figure 50 – Removing the Zoom motor/wheel assembly

15. Using a ratchet and 7/16” socket, remove the two nuts (AY) that secure the board cover (B) to the frame weldment (Figure 45). Save the nuts and board cover.
16. Unclip the cable retainer (G) (Figure 46).
17. Using a ratchet and 7/16” socket, remove the nut (AY) that secures the ground wire to the frame weldment (Figure 46). 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 (F) (Figure 46). Save the nut.
19. Disconnect the motor communication cable from the **Zoom** control (F) (Figure 46).
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 44). 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 44).
9. Using a ratchet and 7/16” socket, remove the two nuts (AY) that secure the board cover (B) to the frame weldment (Figure 45). Save the nuts and board cover.
10. Unclip the cable retainer (G) (Figure 46).
11. Using a ratchet and 7/16” socket, remove the nut (AY) that secures the foot end ground wire to the frame weldment (Figure 46). 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 46). Save the nut.
13. Disconnect the motor communication cable from the **Zoom** control board (F) and unclip from the cable retainer (G) (Figure 46).
14. Using a ratchet and 7/16” socket, remove the nut (AY) that secures the head end ground wire to the frame weldment (Figure 46). Save the nut.

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 46).
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 47).

    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 13). 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 13). 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 11). 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 51). Save the screws.

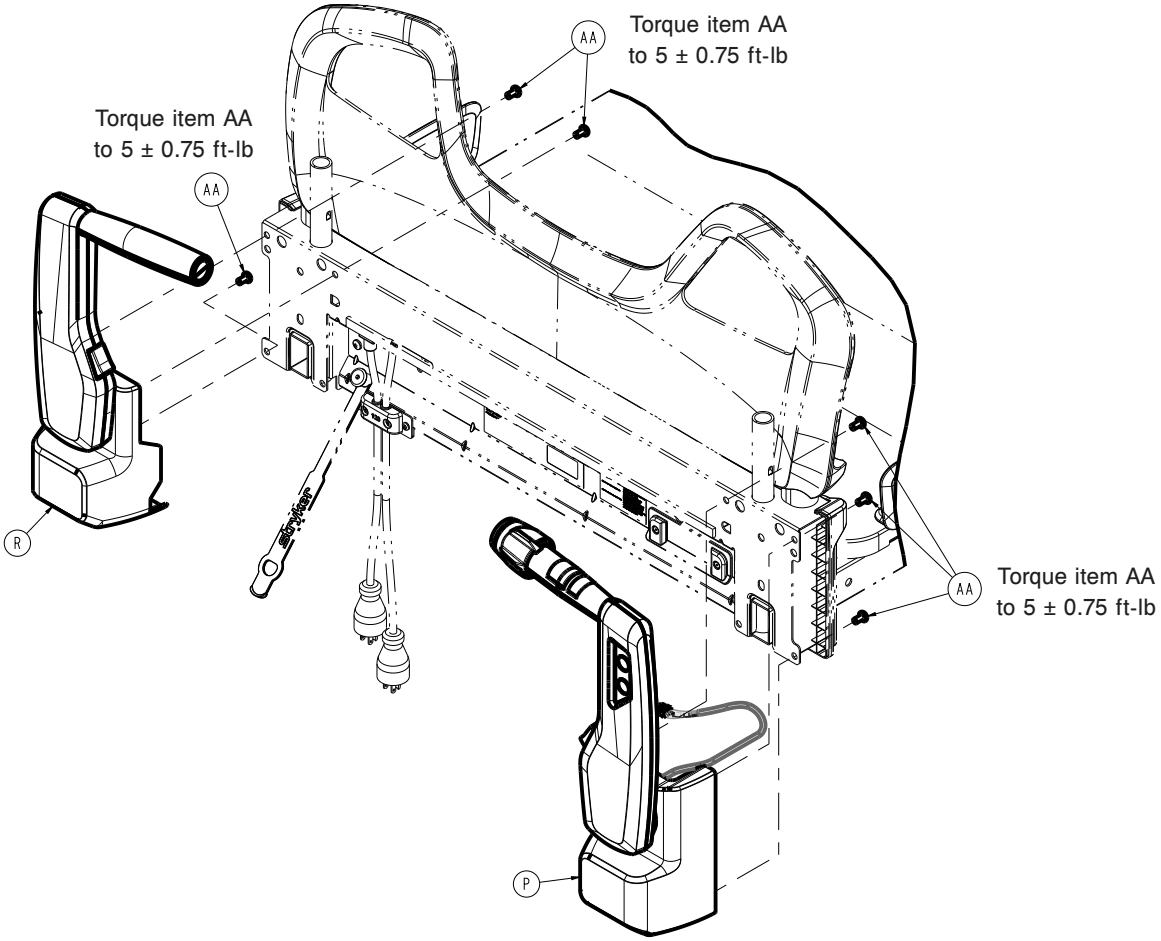


Figure 51 – Removing the Zoom handle assembly

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 52). 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.

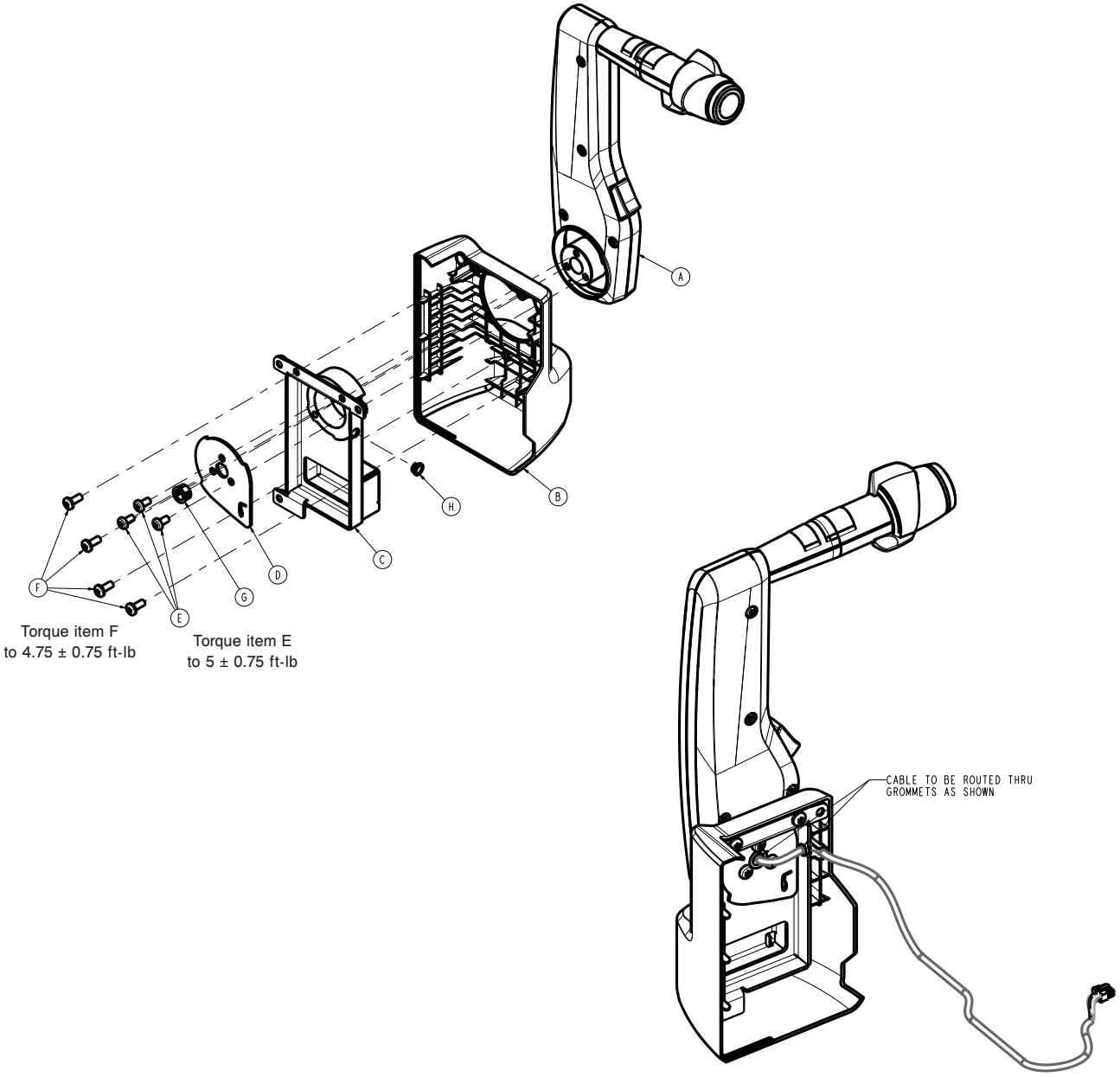


Figure 52 – Removing the Zoom drive handle

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 11). 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 51). 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 53). 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.

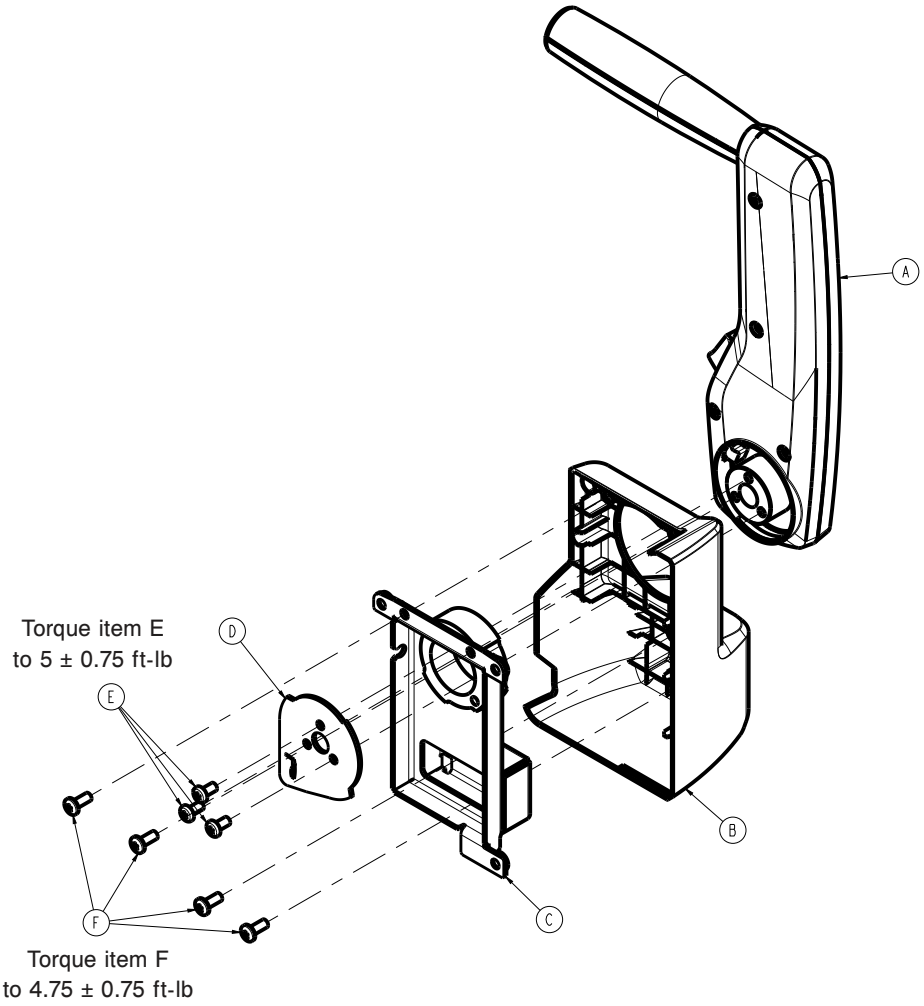


Figure 53 – Removing the Zoom push handle

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.
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 54).

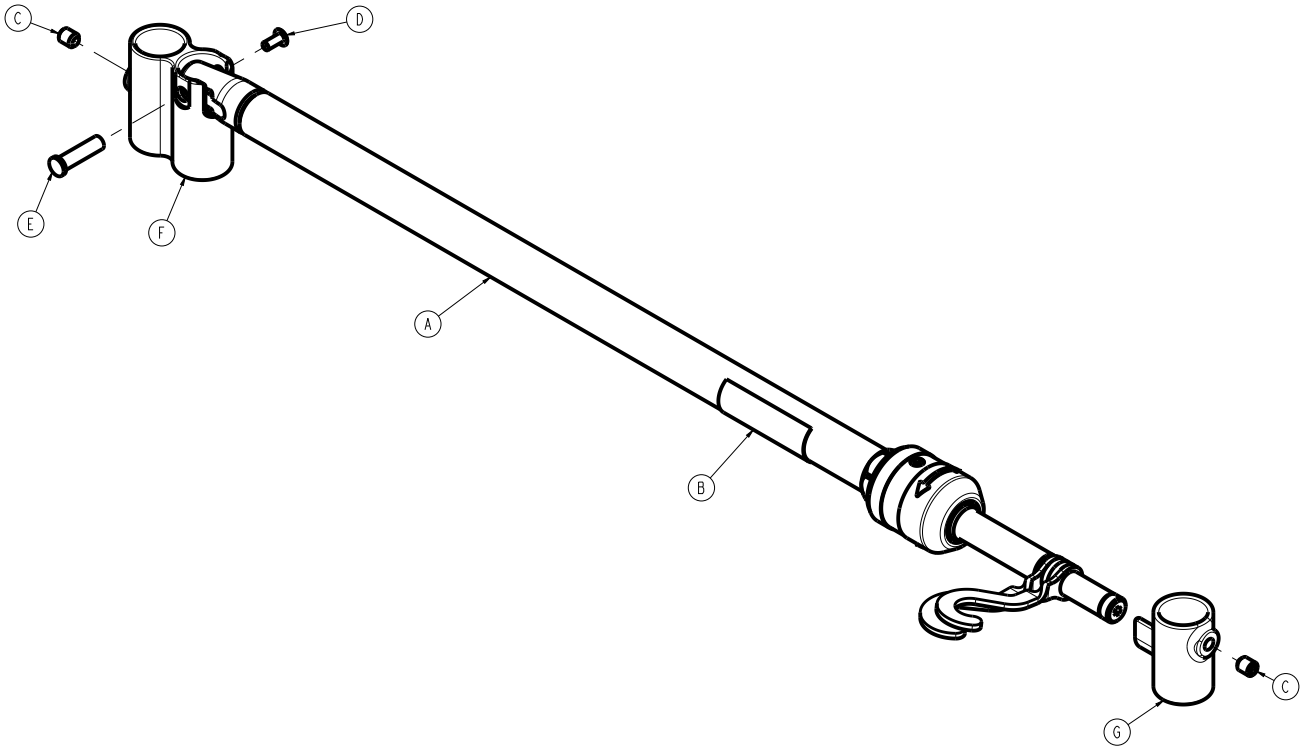


Figure 54 – Attaching the single IV pole

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 (Figure 54).

   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 55).

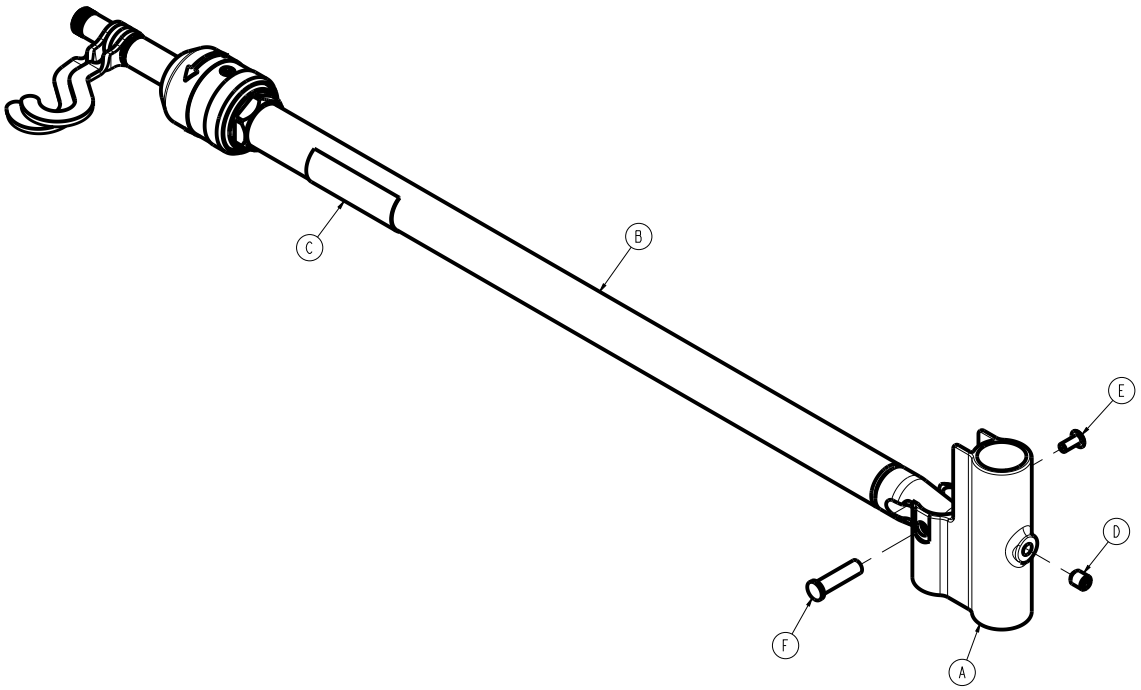


Figure 55 – Attaching the dual IV pole, bottom

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 56).

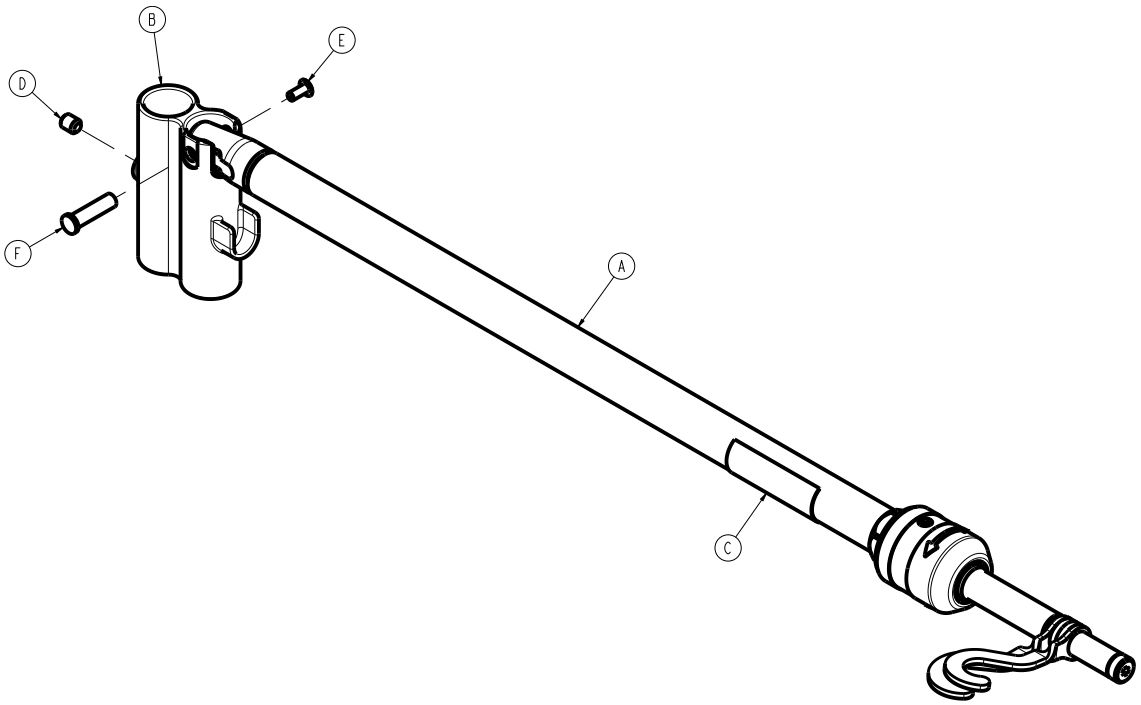


Figure 56 – Attaching the dual IV pole, top

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

Patient helper bracket attachment

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.
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. Discard the litter plugs.
6. With another person, hold the patient helper weldment (A) upright at the head end of the product (Figure 57).
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 57).

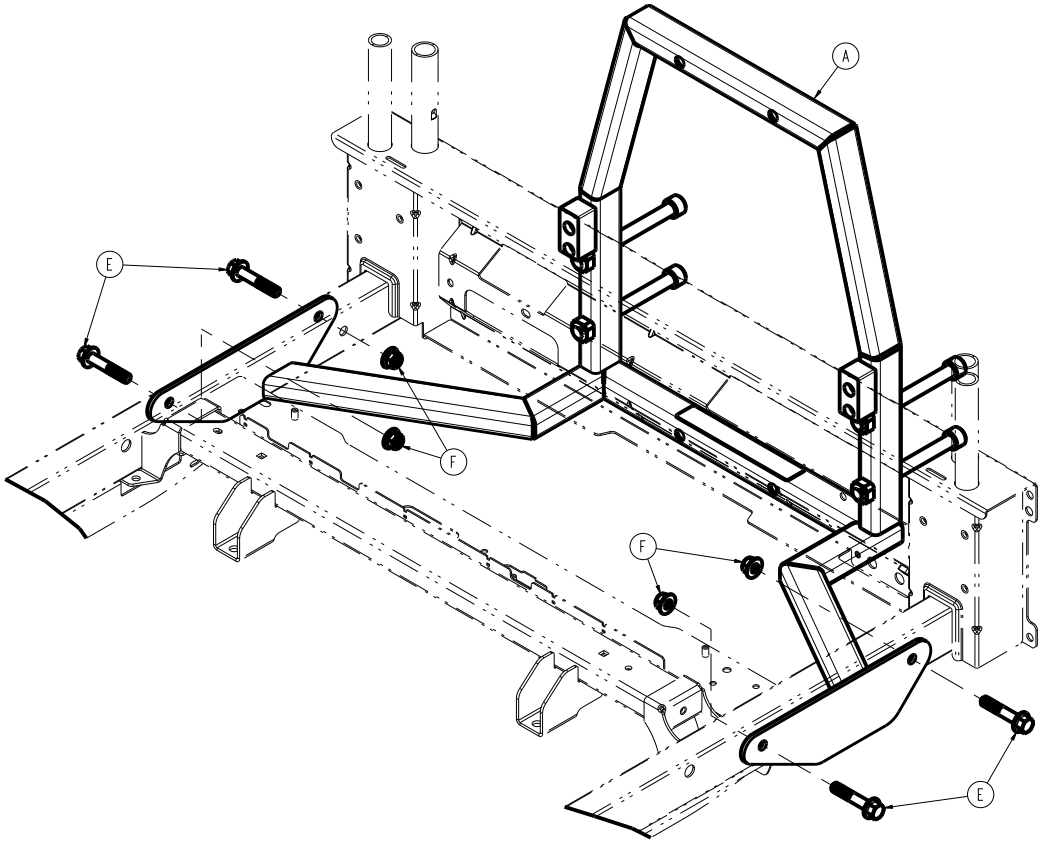


Figure 57 – Attaching the patient helper bracket

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 92) or ***HAVASU*** *IV pole attachment, two-stage, dual* (page 93) for removal instructions.
7. At the head end of the product, attach the roller bumper (A) to the bed IV post (Figure 58).

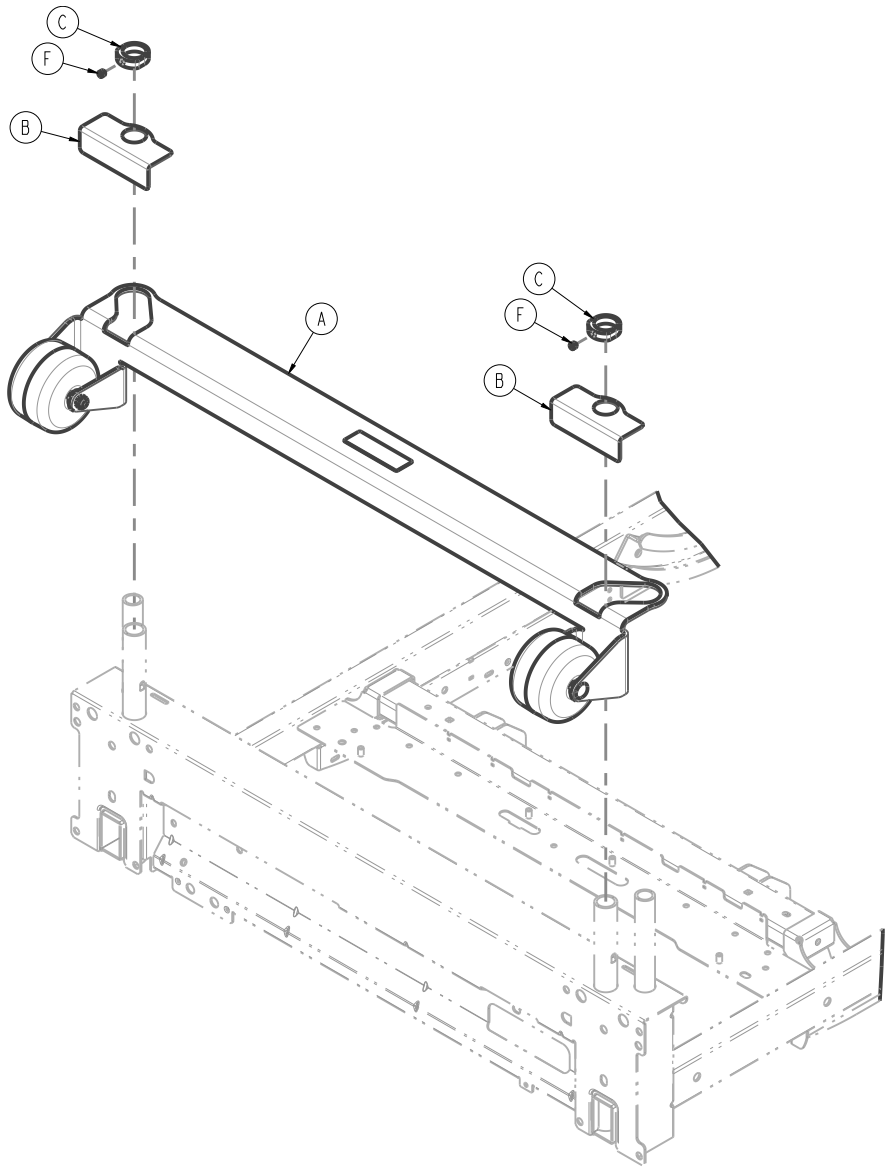


Figure 58 – Attaching the roller bumper

8. Slide the retaining bracket (B) over each side of the roller bumper (Figure 58).
9. Slide the lock collar (C) over each side of the roller bumper (Figure 58).
10. For products equipped with **HAVASU** IV pole options, see ***HAVASU™ IV pole, two-stage, single attachment*** (page 92) or ***HAVASU*** *IV pole attachment, two-stage, dual* (page 93) 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 58). 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 59).

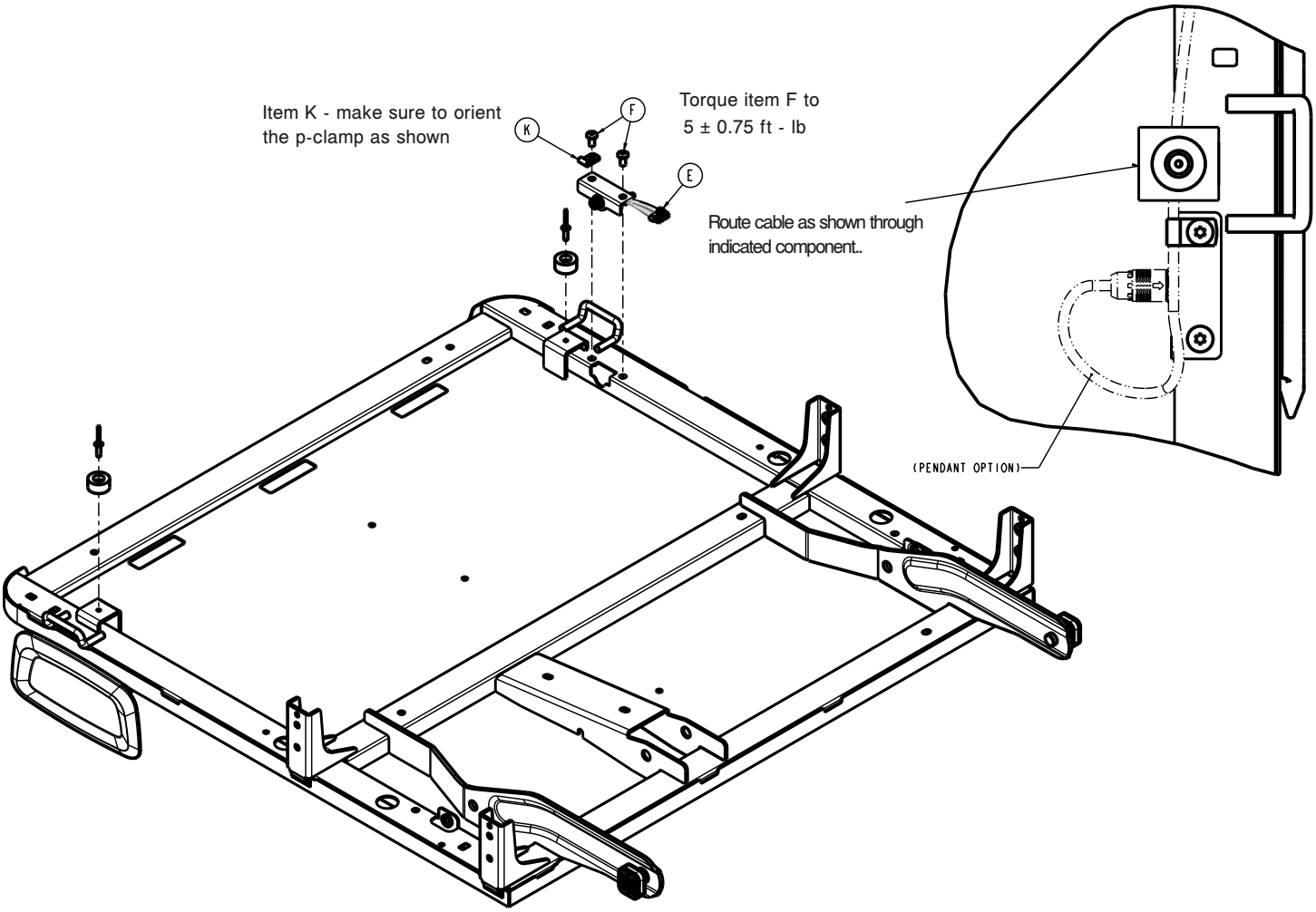


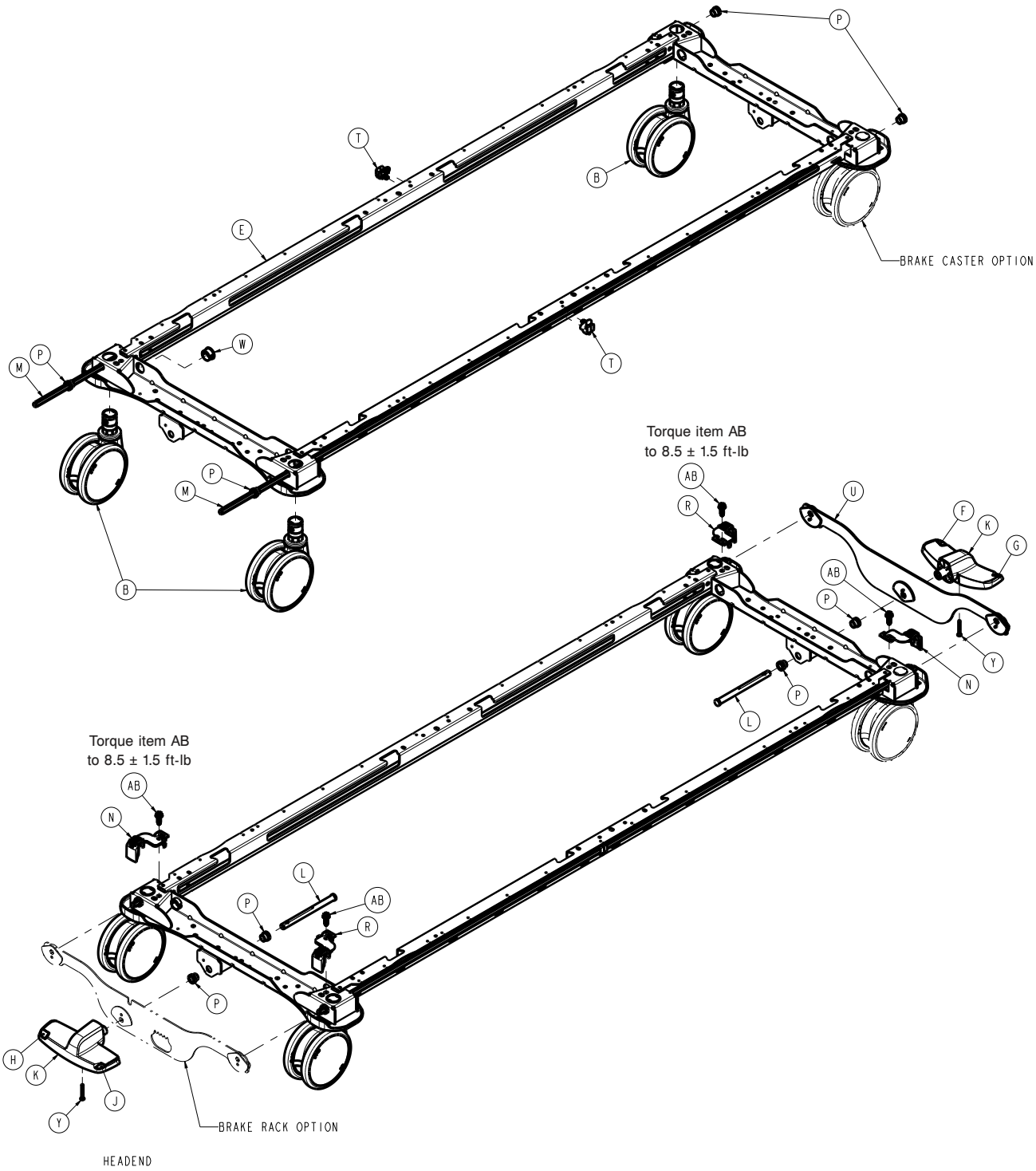
Figure 59 – Attaching the pendant

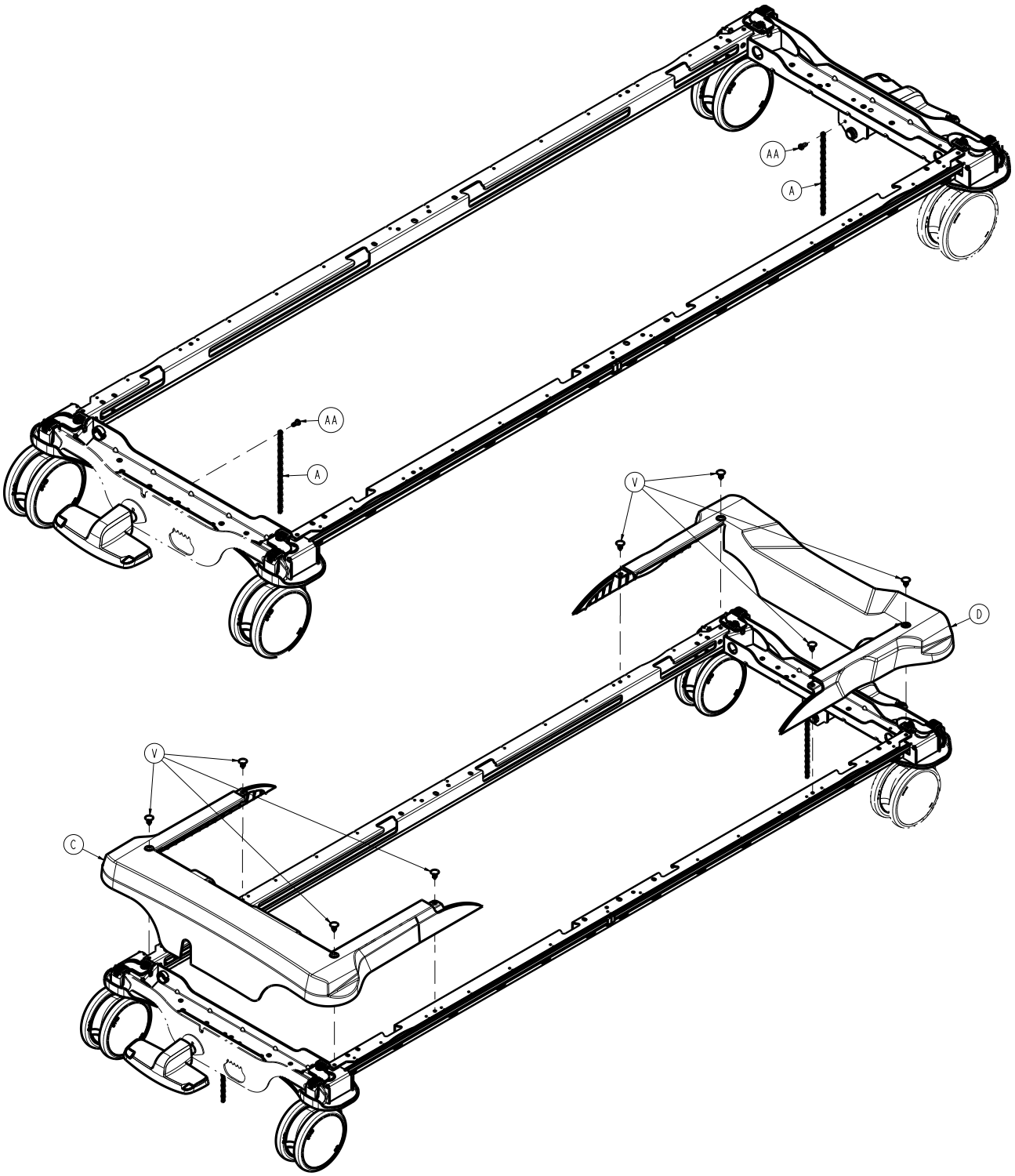
8. Route the pendant cable through the Fowler weldment (Figure 59).
9. Using a T30 Torx driver, install the two screws (F) that secure the pendant connector (E) to the Fowler (Figure 59).

   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 59).
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)



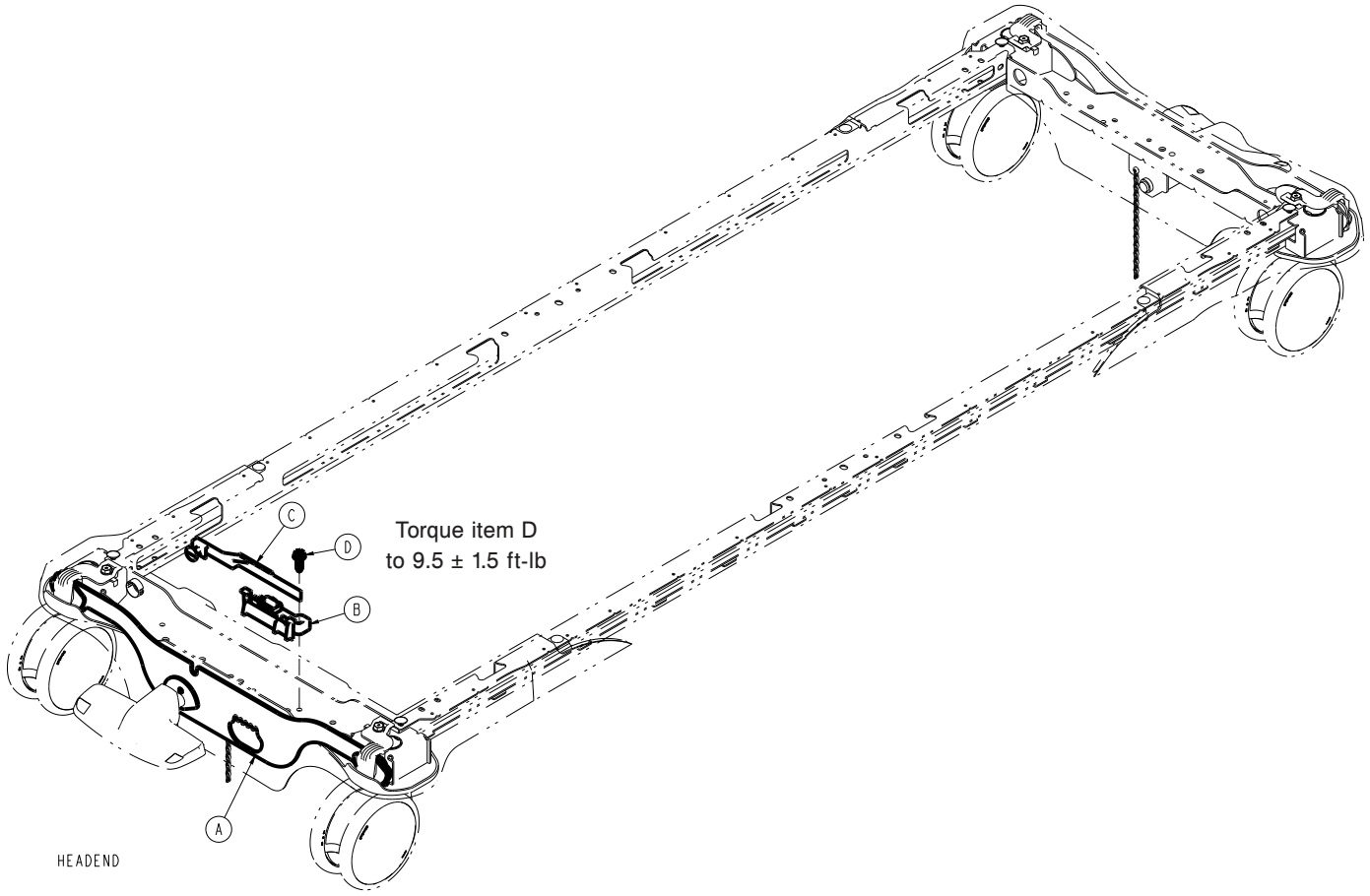


Item	Number	Name	Quantity
A	300900010011	Base ground chain	2
B	300900010021	Base standard caster	3
C	300900010031	Base cover, head end	1
D	300900010032	Base cover, foot end	1
E	300900010100	Base weldment	1
F	300900030006	Label, foot end brake pedal, green	1
G	300900030007	Label, foot end brake pedal, red	1
H	300900030008	Label, head end brake pedal, green	1

Item	Number	Name	Quantity
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

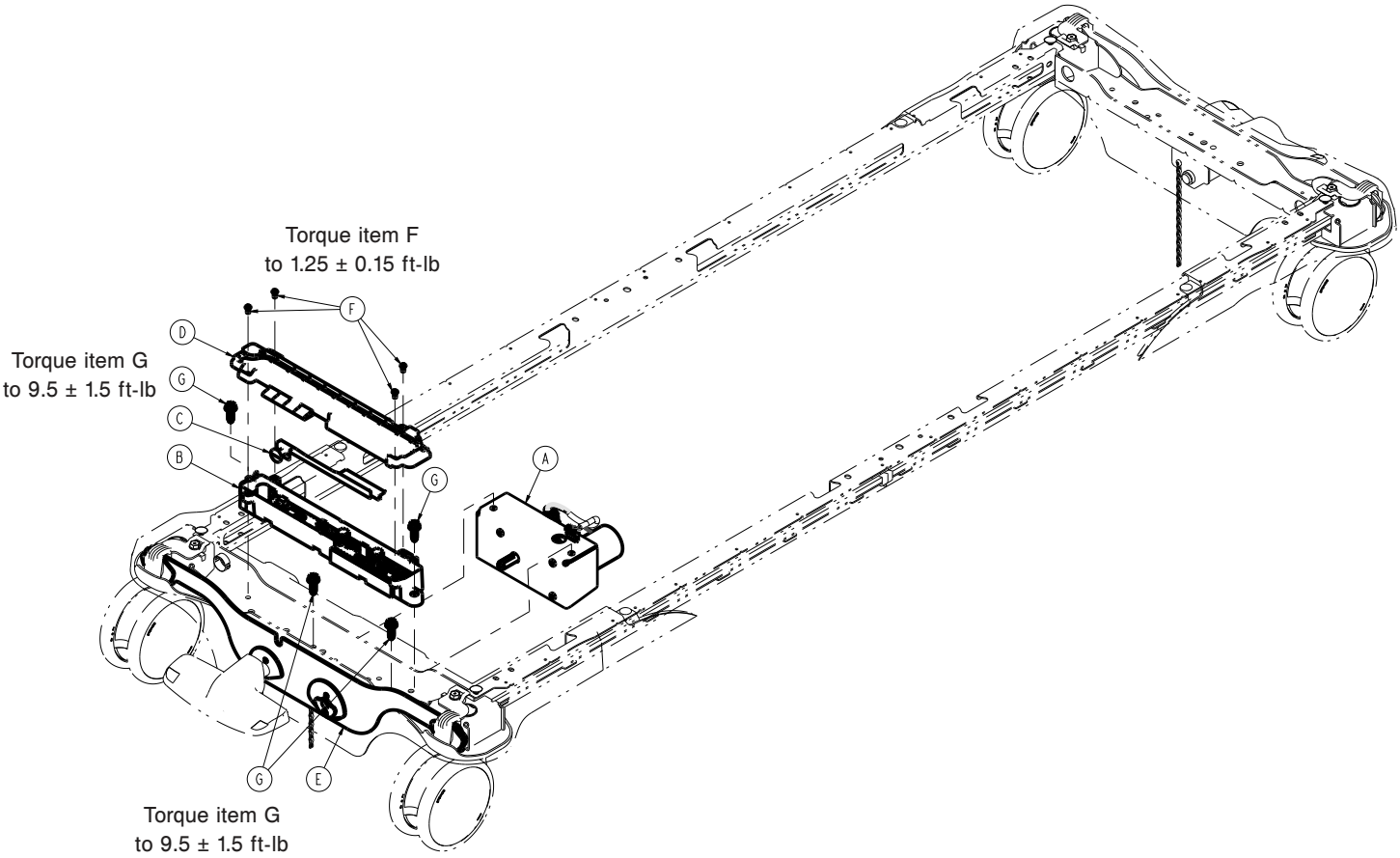
300900030100 Rev AB (Reference only)



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

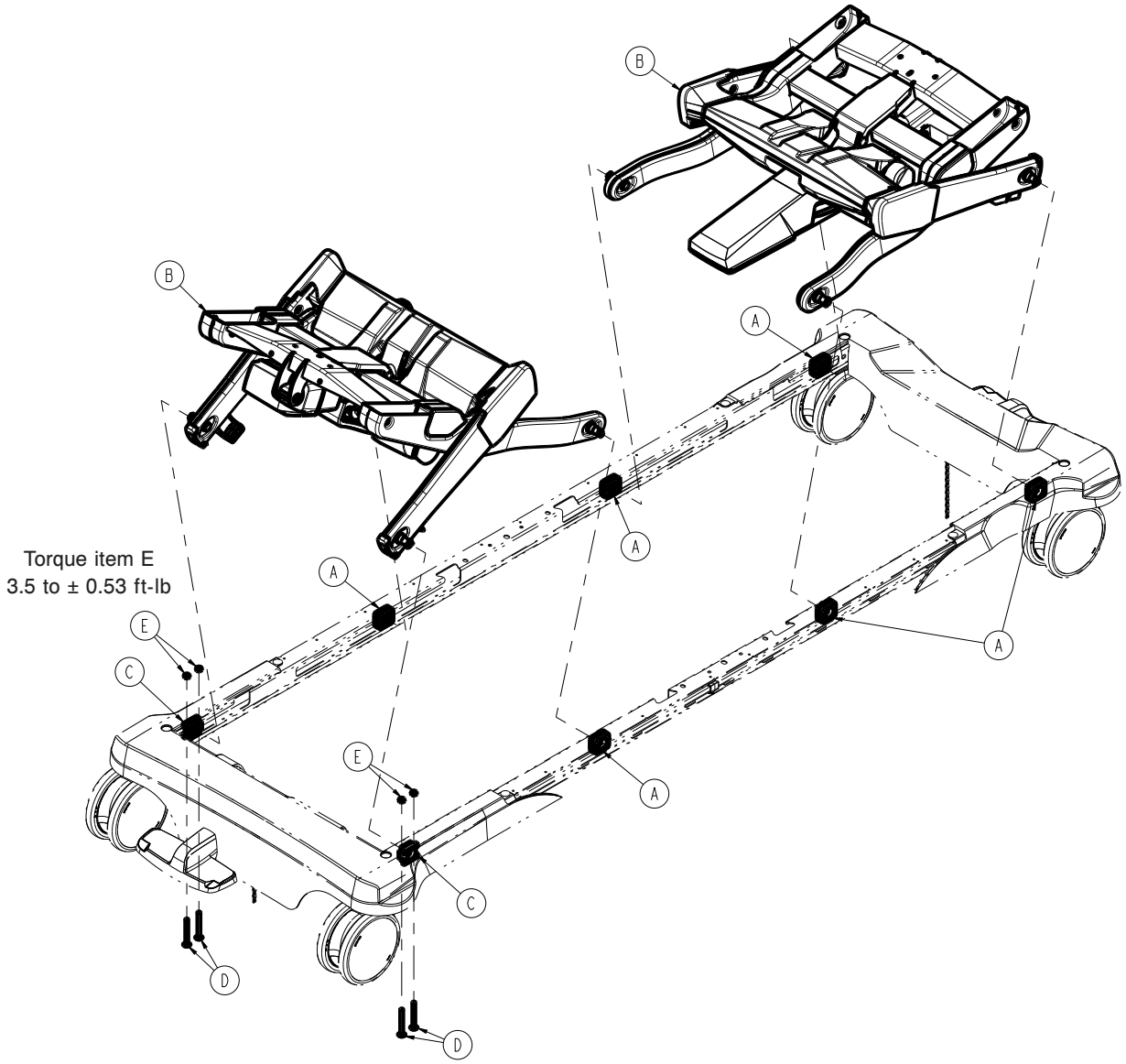
300900030300 Rev AB (Reference only)



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

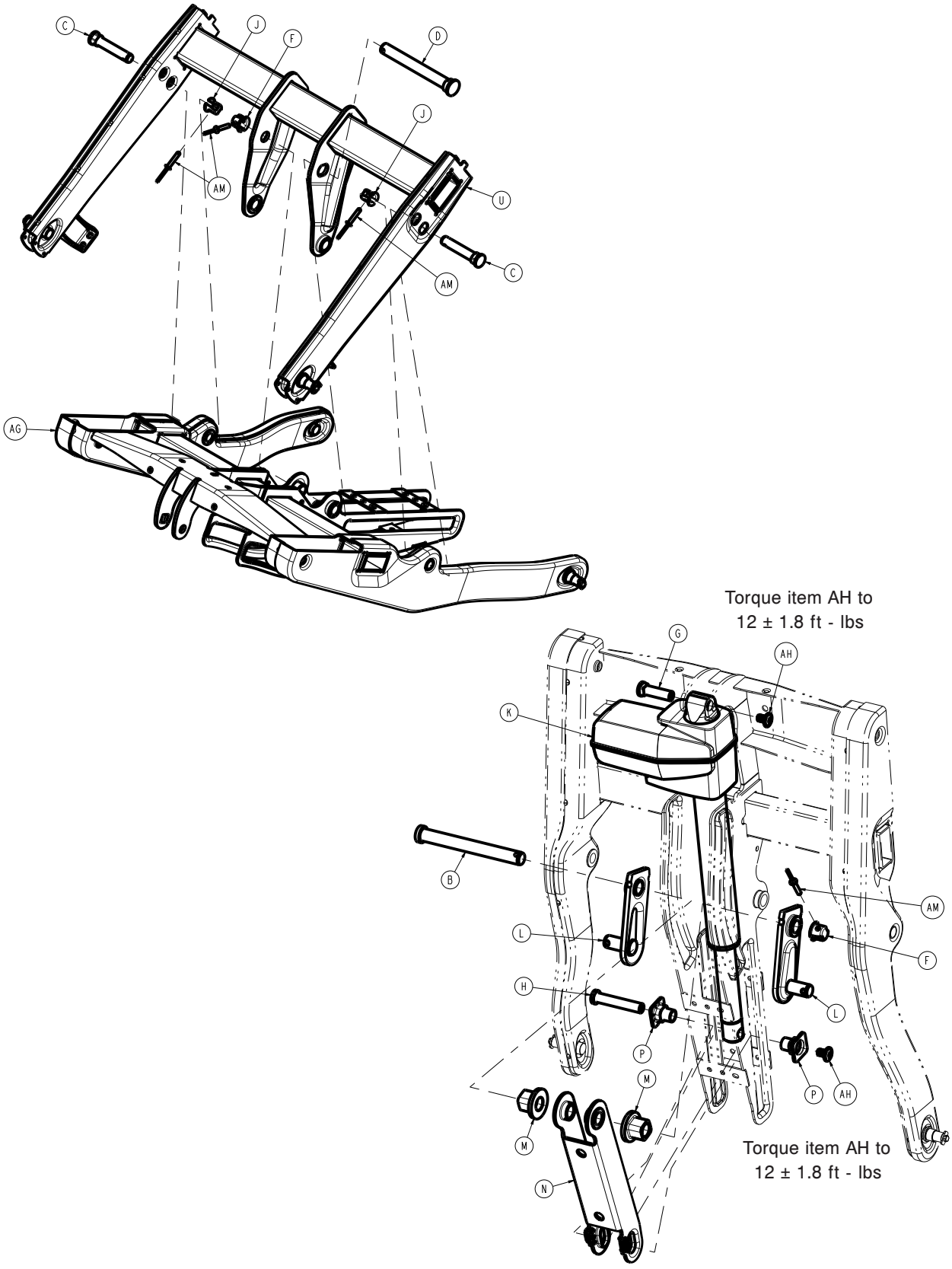
300900020250 Rev AB (Reference only)

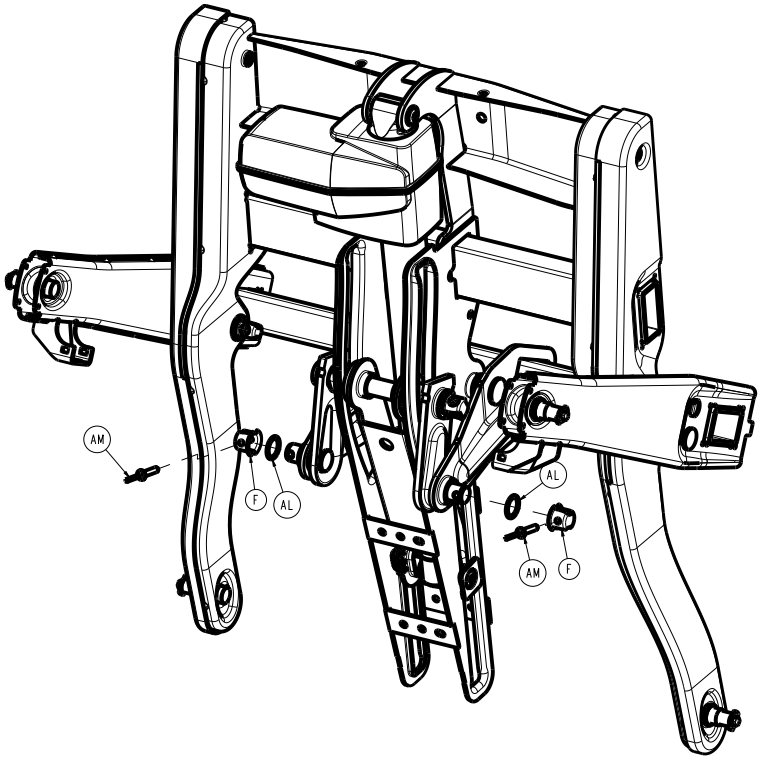


Item	Number	Name	Quantity
A	300900020031	Lift slider	6
B	300900020100	*Lift assembly - 300900020100* (page 105)	2
C	300901020032	Lift fixed pivot	2
D	700000333334	Round head square neck bolt	4
E	0016-102-000	Nylock hex jam nut	4

Lift assembly - 300900020100

Rev AB (Reference only)

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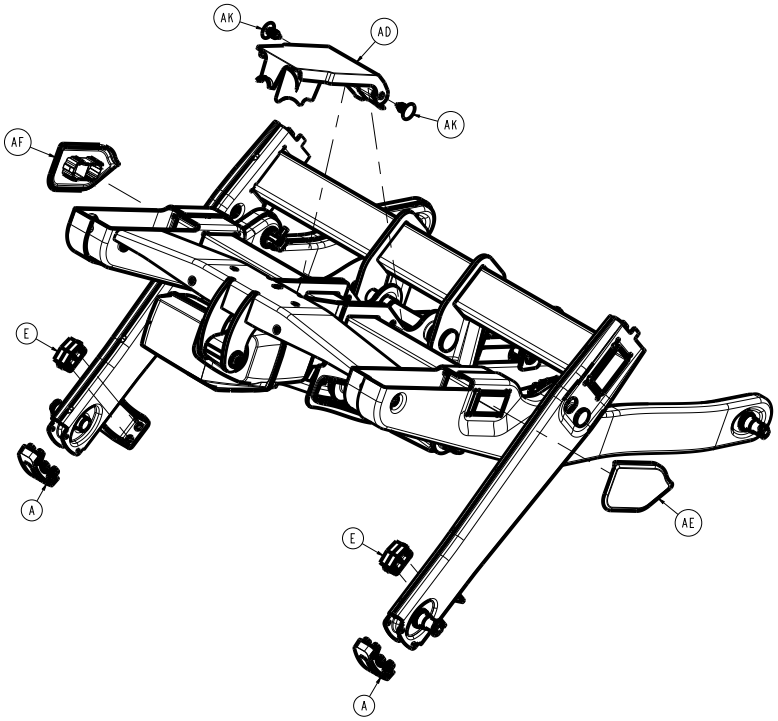
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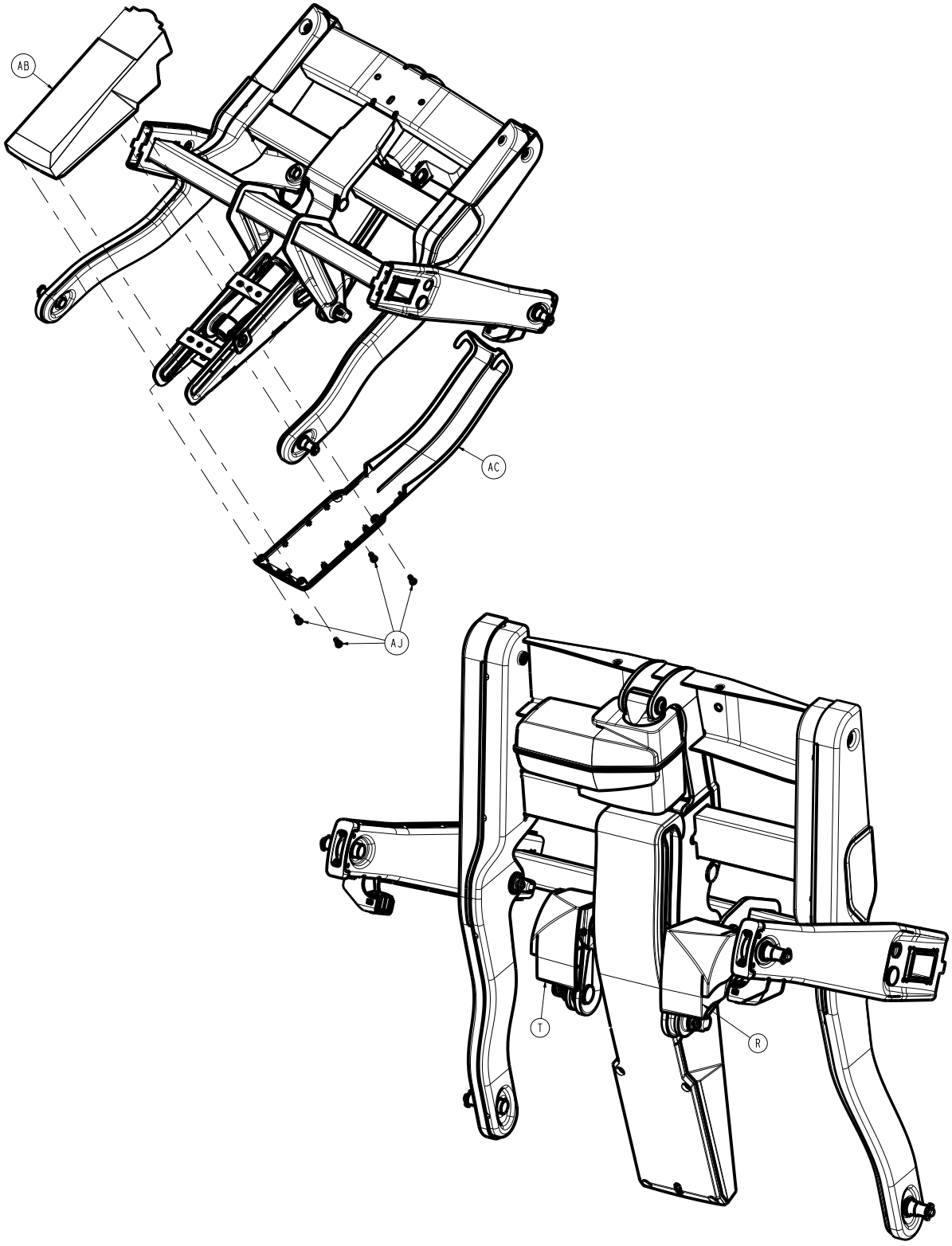
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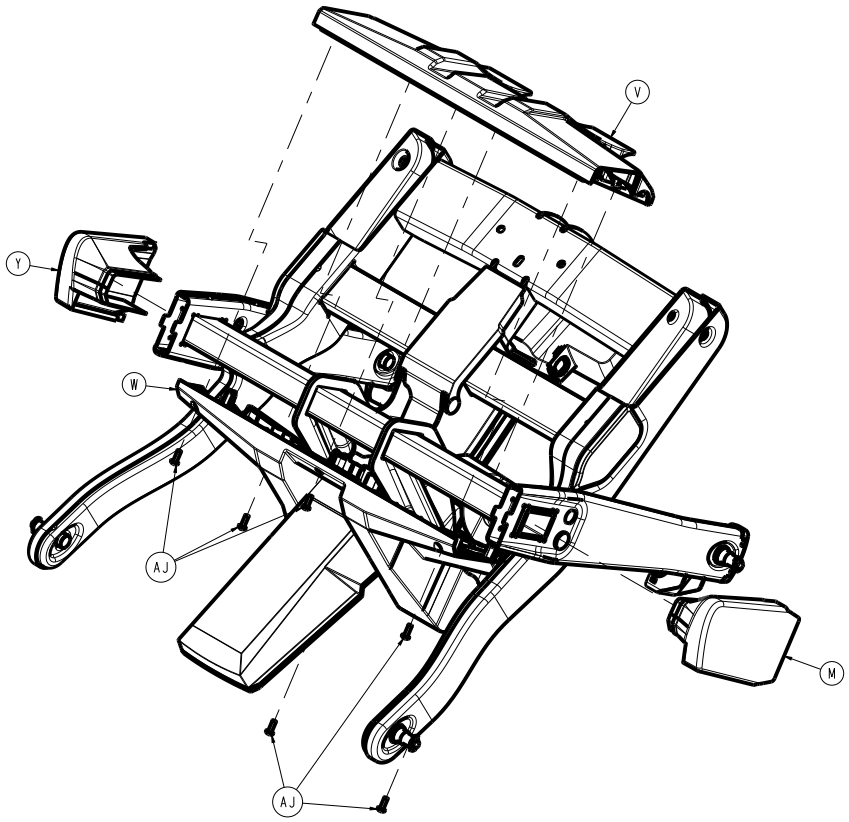
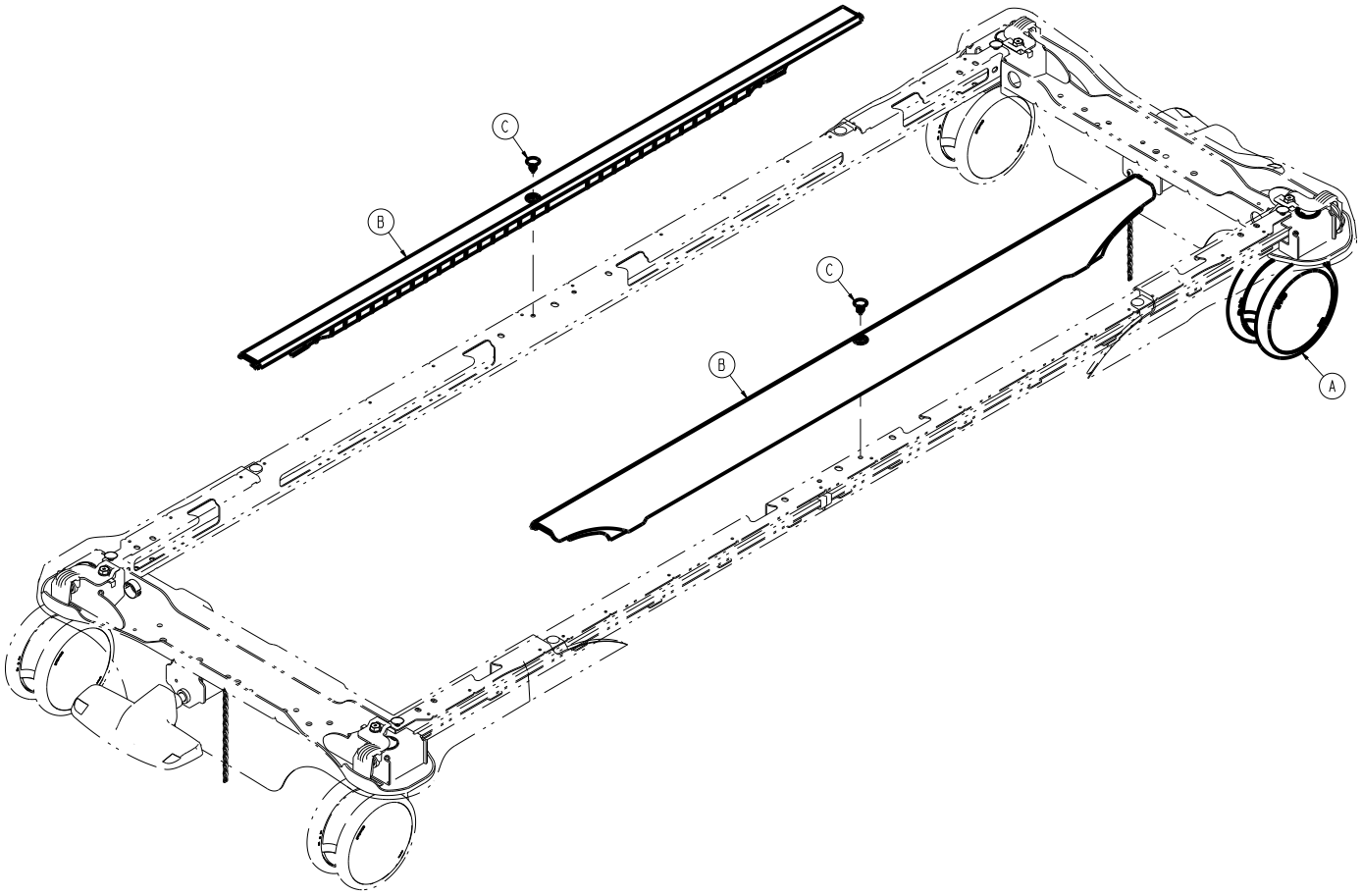


Item	Number	Name	Quantity
A	300900020019	Lift cable bushing	2
B	300900020021	Lift link pivot pin	1
C	300900020022	Lift lateral pivot pin	2
D	300900020023	Lift central pivot pin	1
E	300900020033	Lift hard stop	2
F	300900020034	Lift joint cap, big	4
G	300900020037	Lift actuator rear pin	1
H	300900020038	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
AE	300900020174	Lift long arm end cap, right	1
AF	300900020176	Lift long arm end cap, left	1

Item	Number	Name	Quantity
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

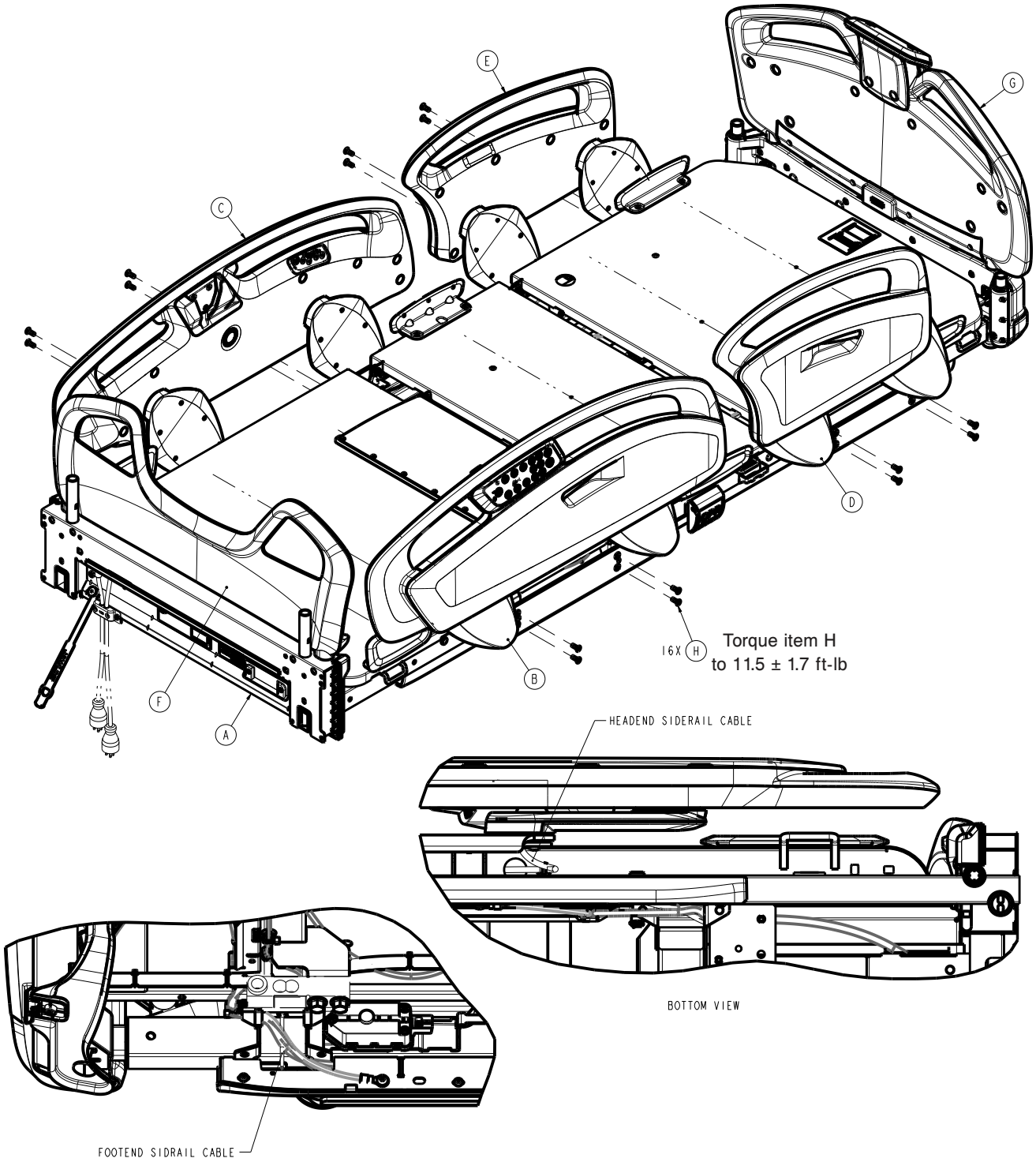
300900030200 Rev AB (Reference only)



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 AB (Reference only)

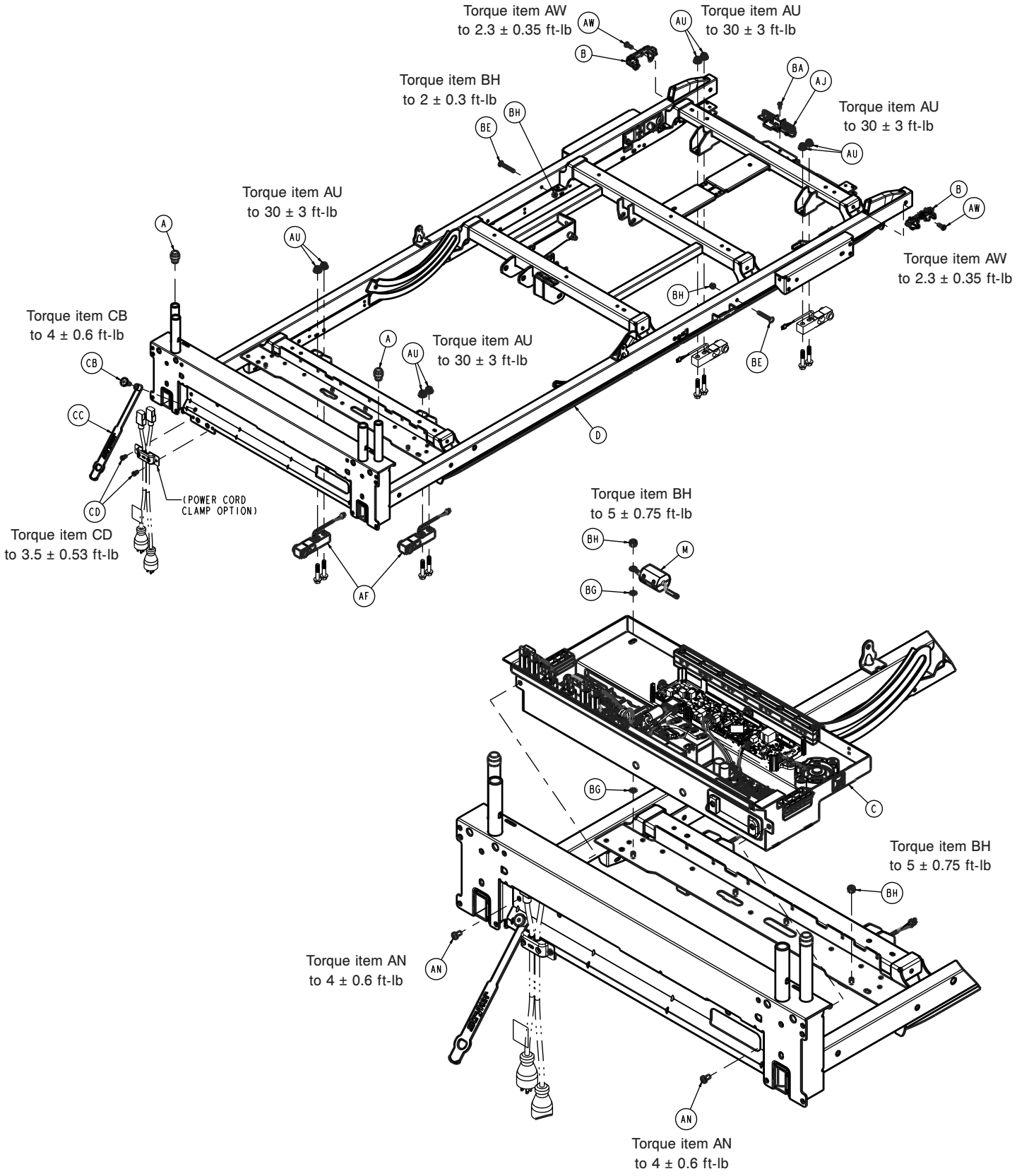


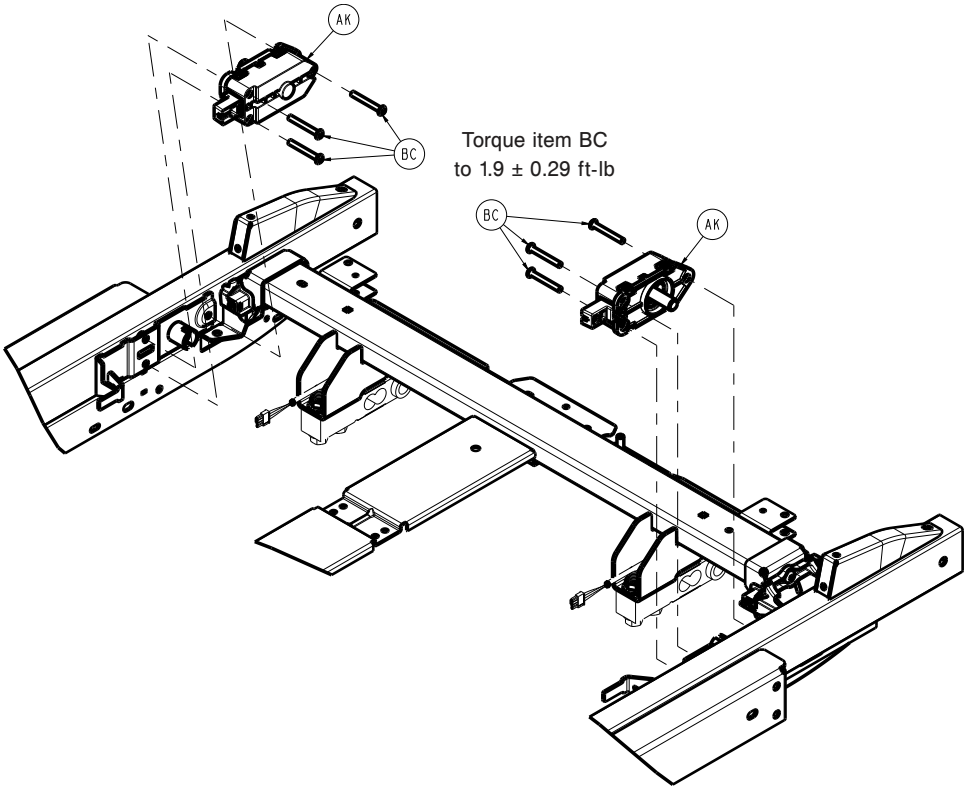
Item	Number	Name	Quantity
A	300900100300	*Litter deck common components assembly* (page 113)	1
B	300900110100	*Siderail assembly, head end* (page 182), right	1
C	300900110200	*Siderail assembly, head end* (page 182), left	1

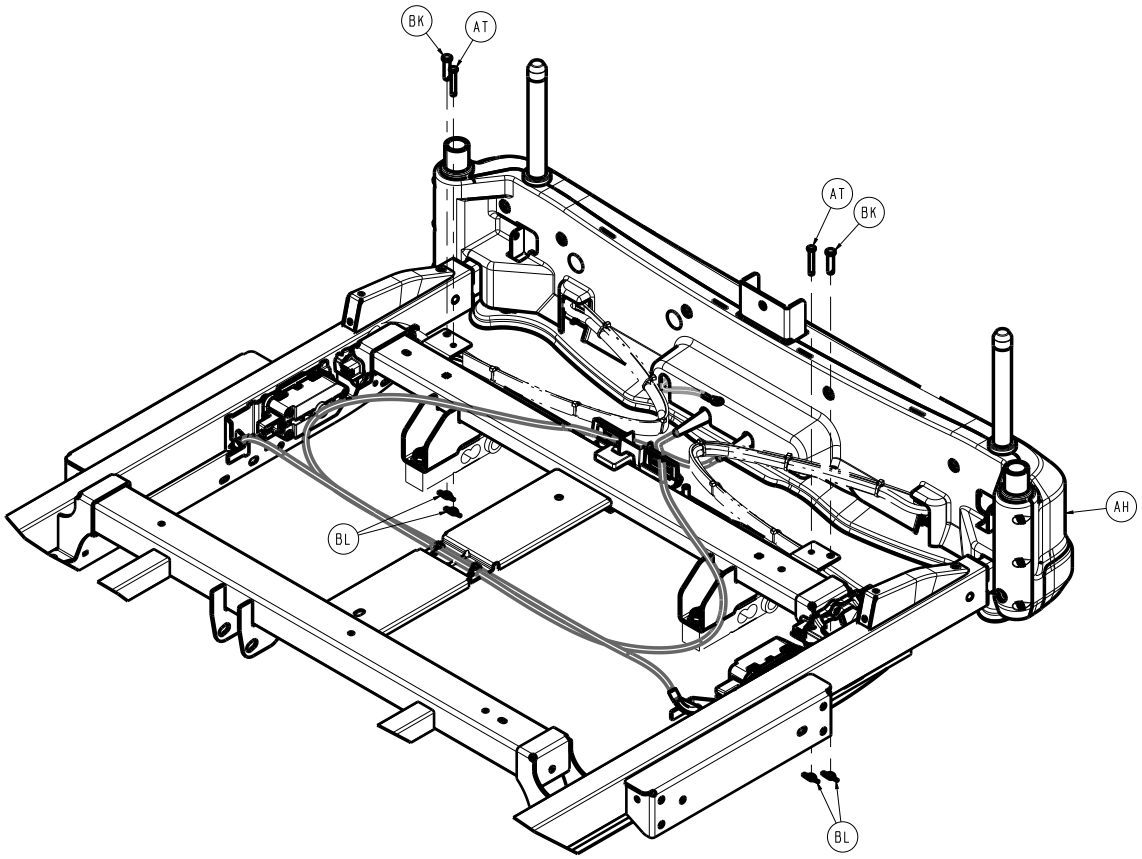
Item	Number	Name	Quantity
D	300900110300	*Siderail assembly, foot end* (page 190), right	1
E	300900110400	*Siderail assembly, foot end* (page 190), left	1
F	300900210010	*Headboard - 300900210010* (page 195)	1
G	300900220001	*Footboard common components assembly* (page 196)	1
H	700000625483	Flat countersunk head machine screw	16

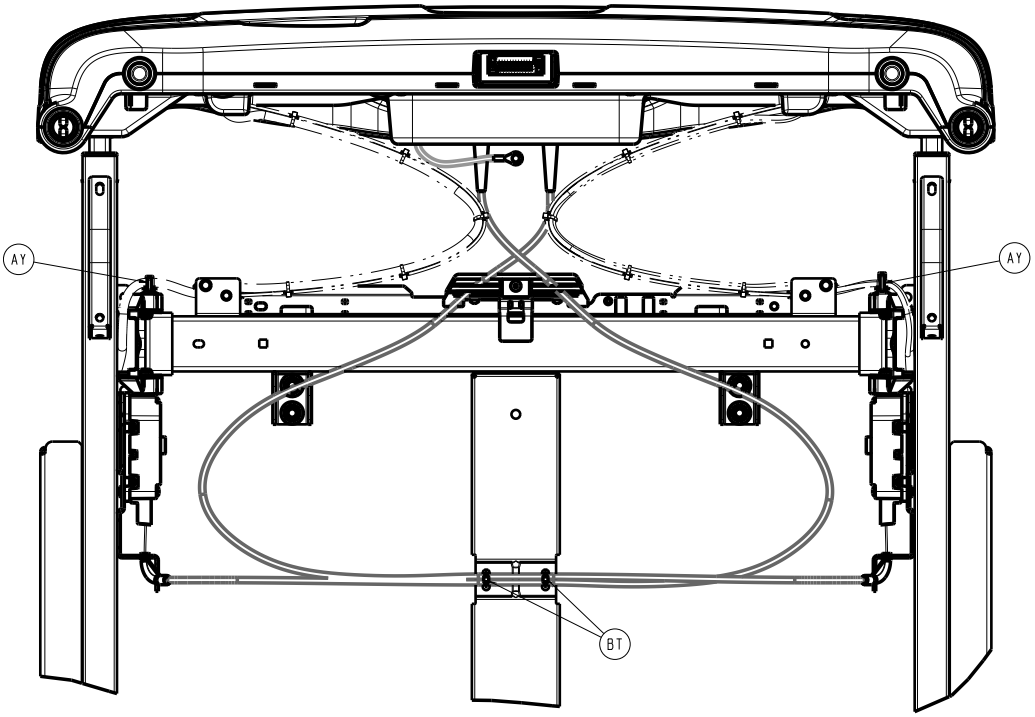
Litter deck common components assembly

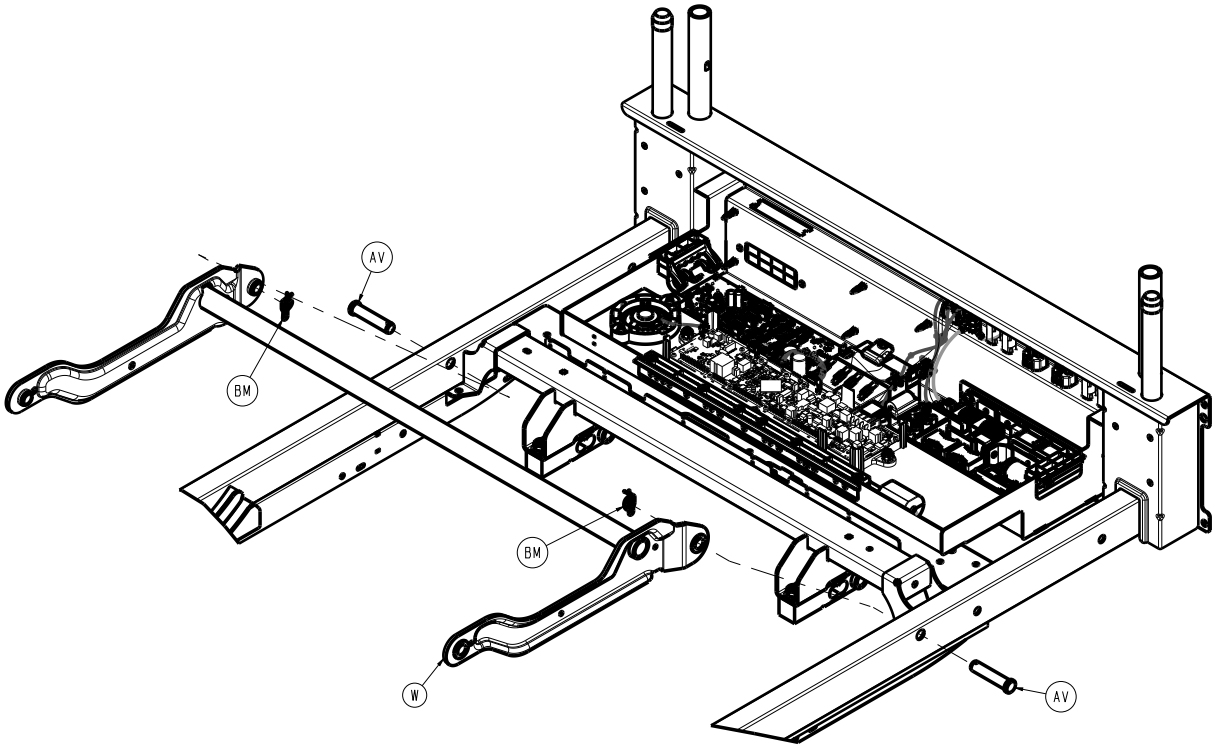
300900100300 Rev AE (Reference only)

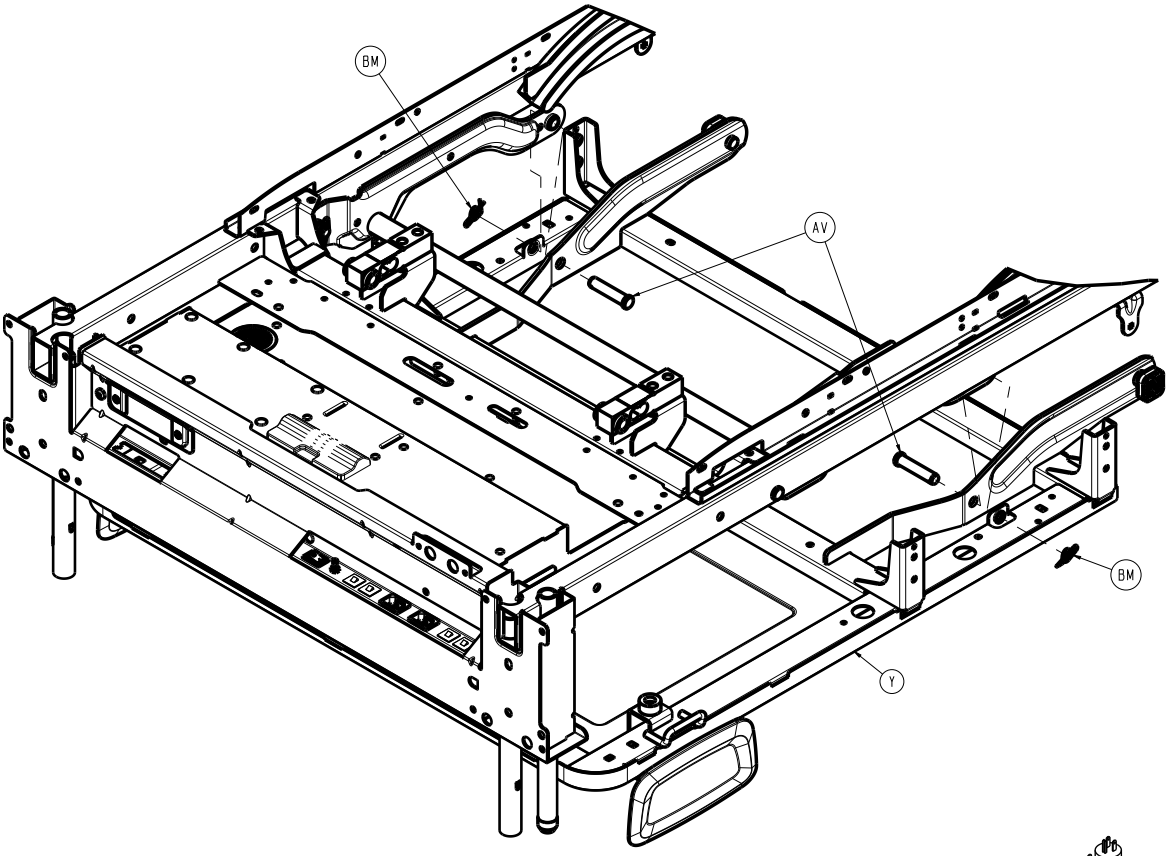


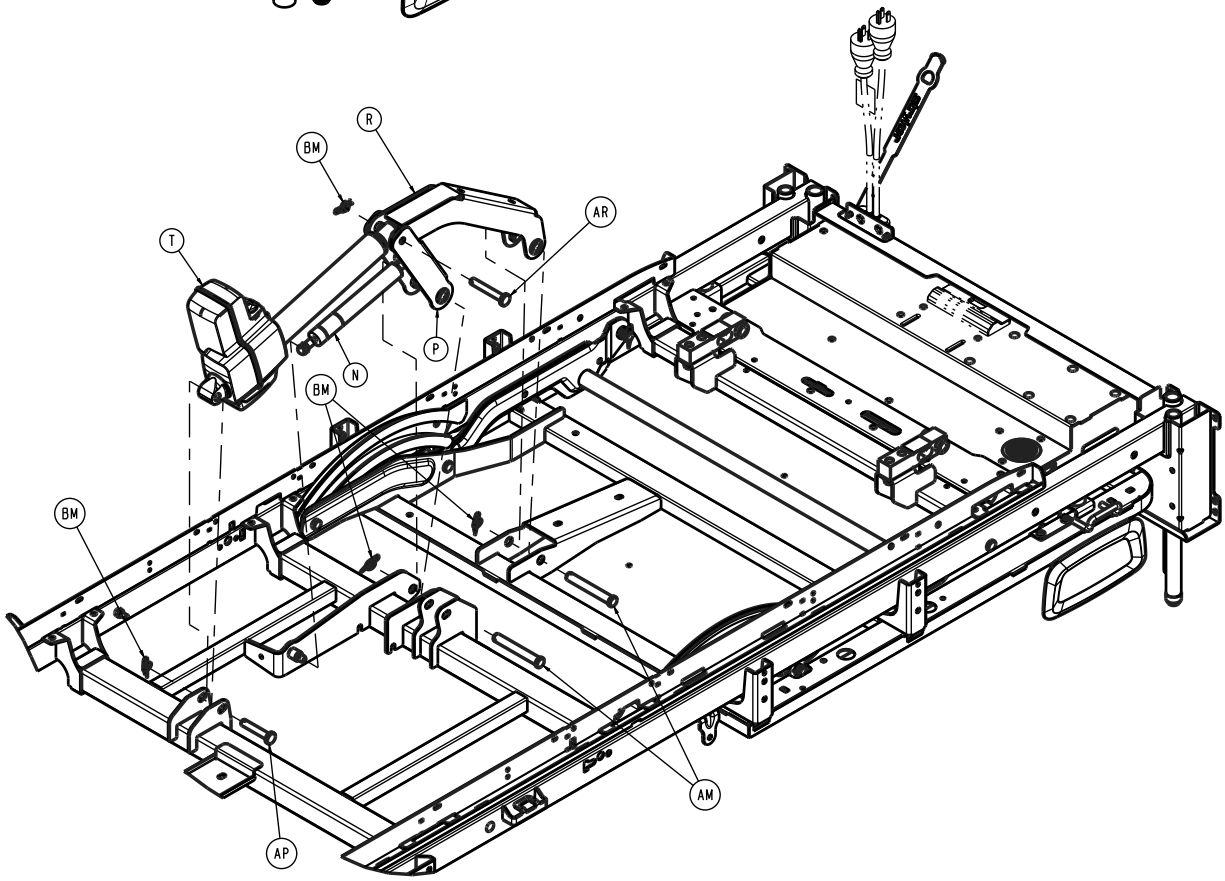

AK
BC
Torque item BC
to 1.9 ± 0.29 ft-lb
BC
AK

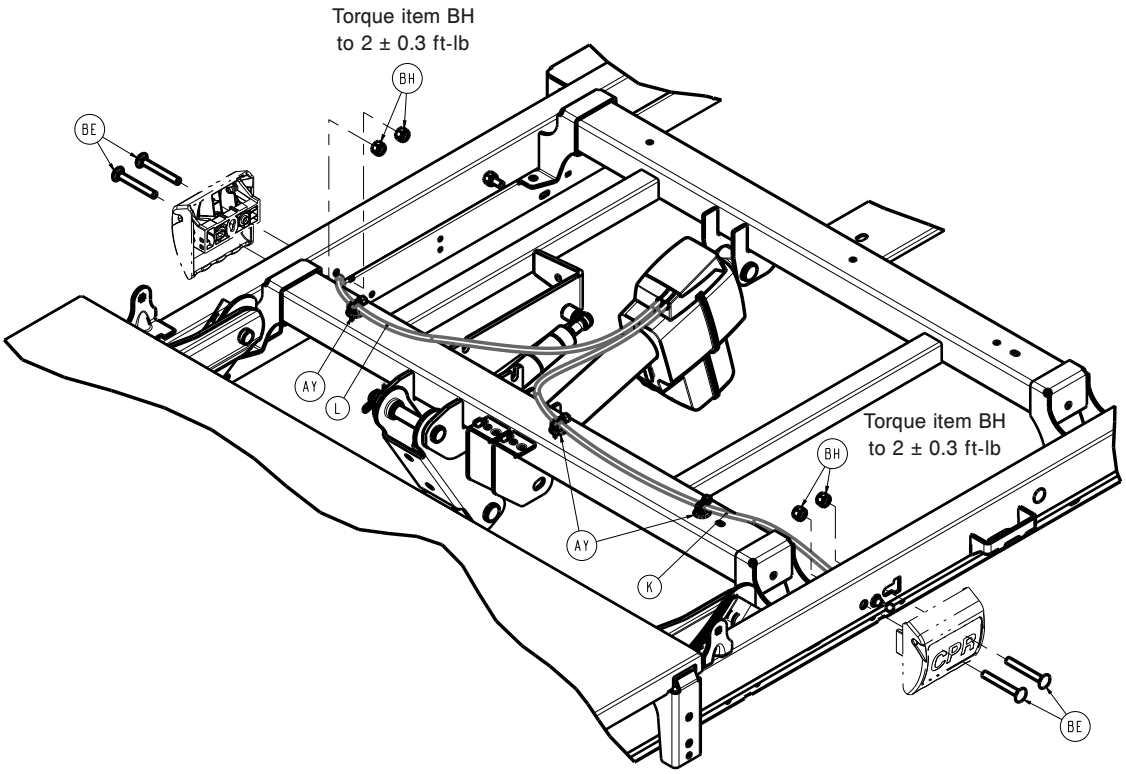

BK
AT
AT
BK
AH
BL
BL

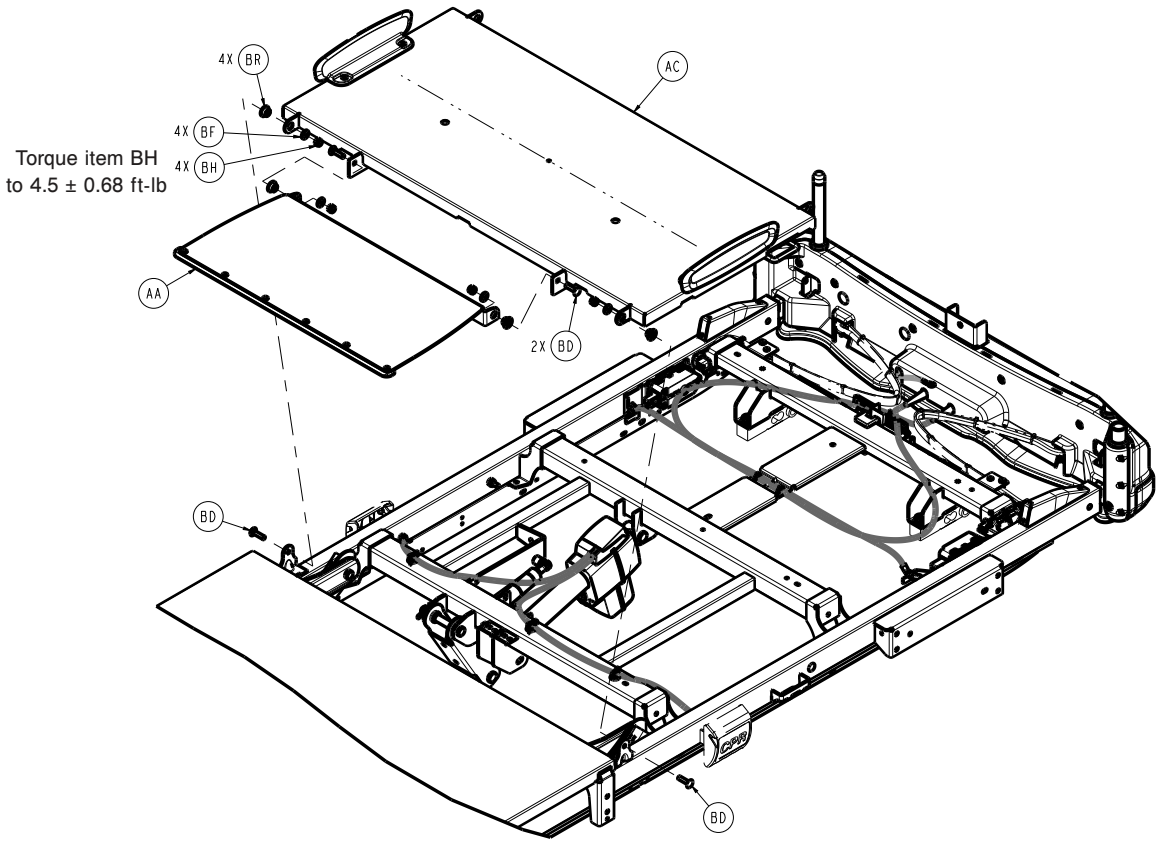

AY
AY
BT

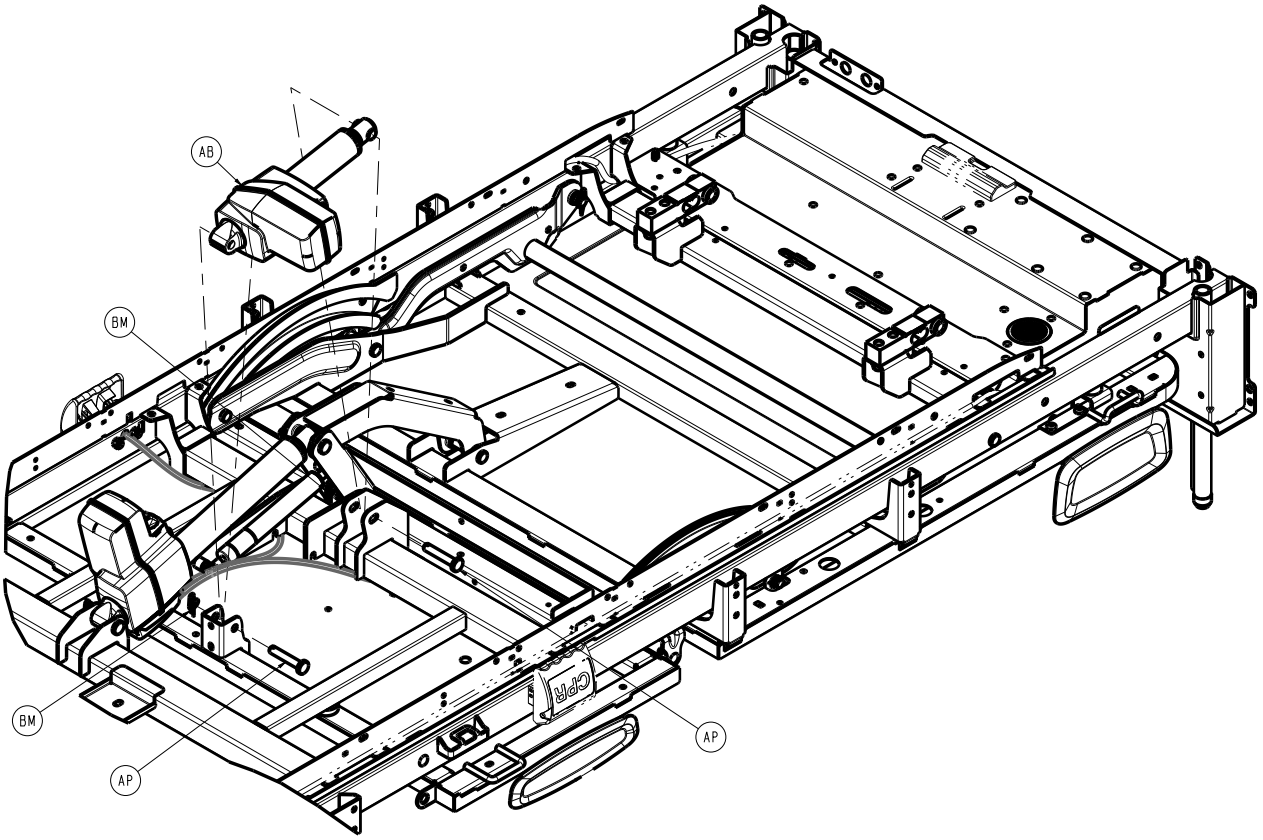

AV
BM
BM
W
AV

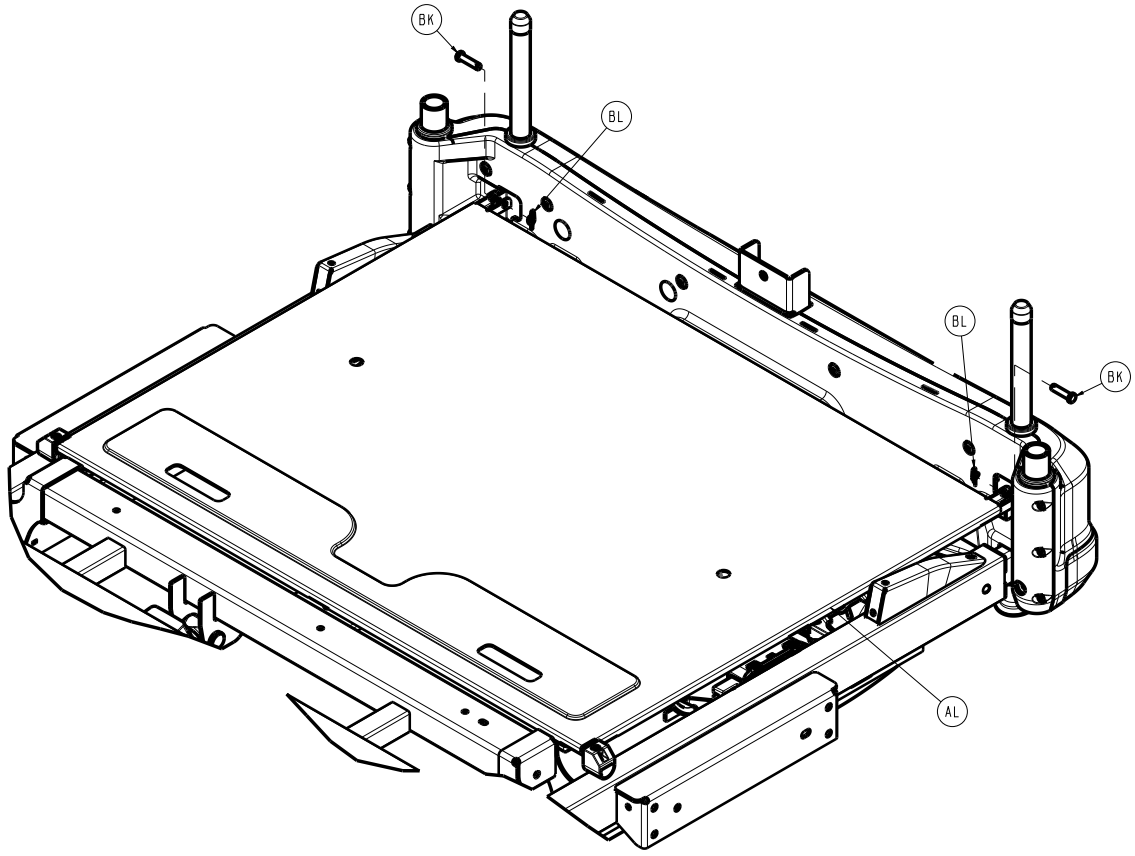

BM
AV
BM
Y

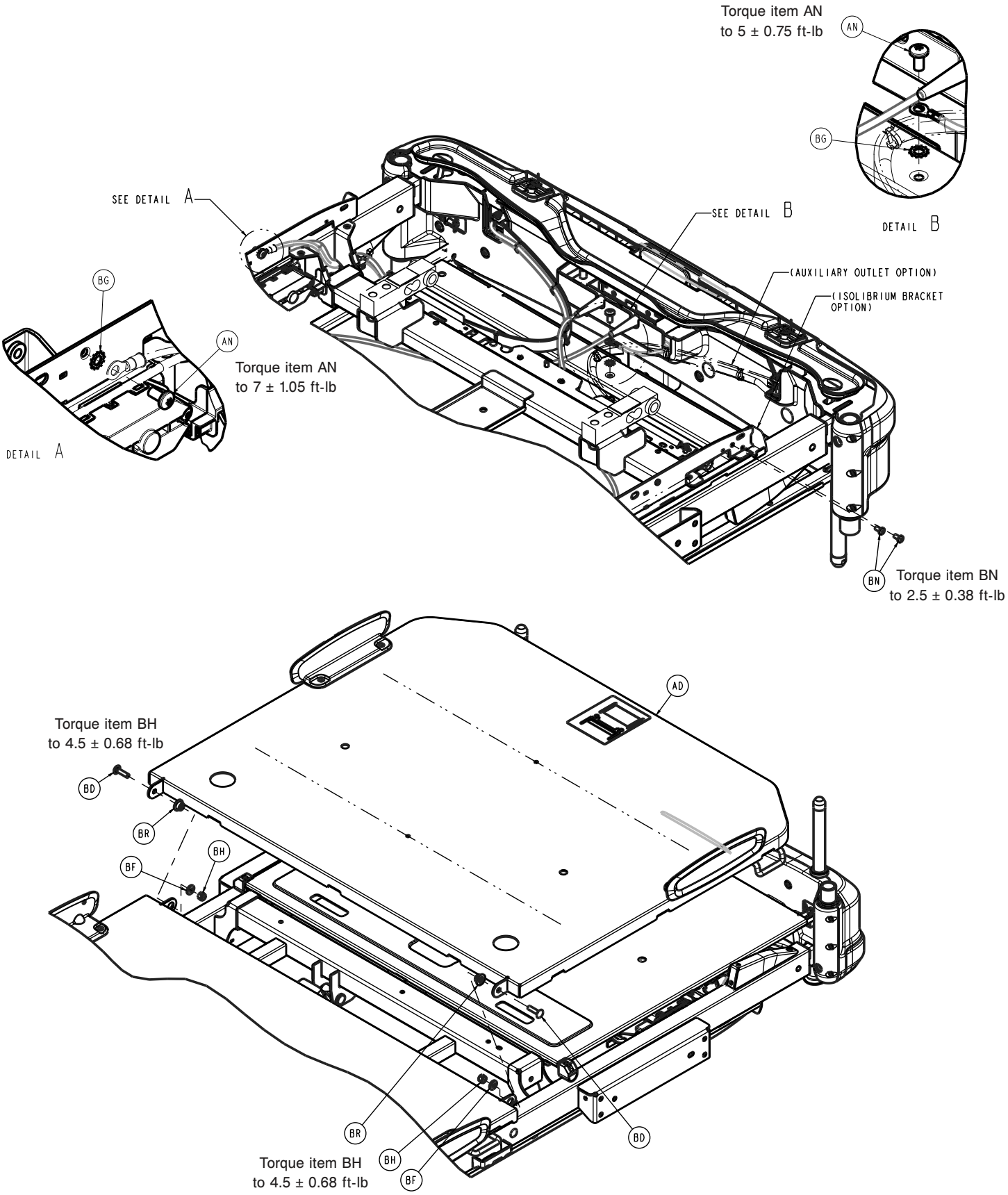

R
BM
AR
T
P
N
BM
BM
AM
AP

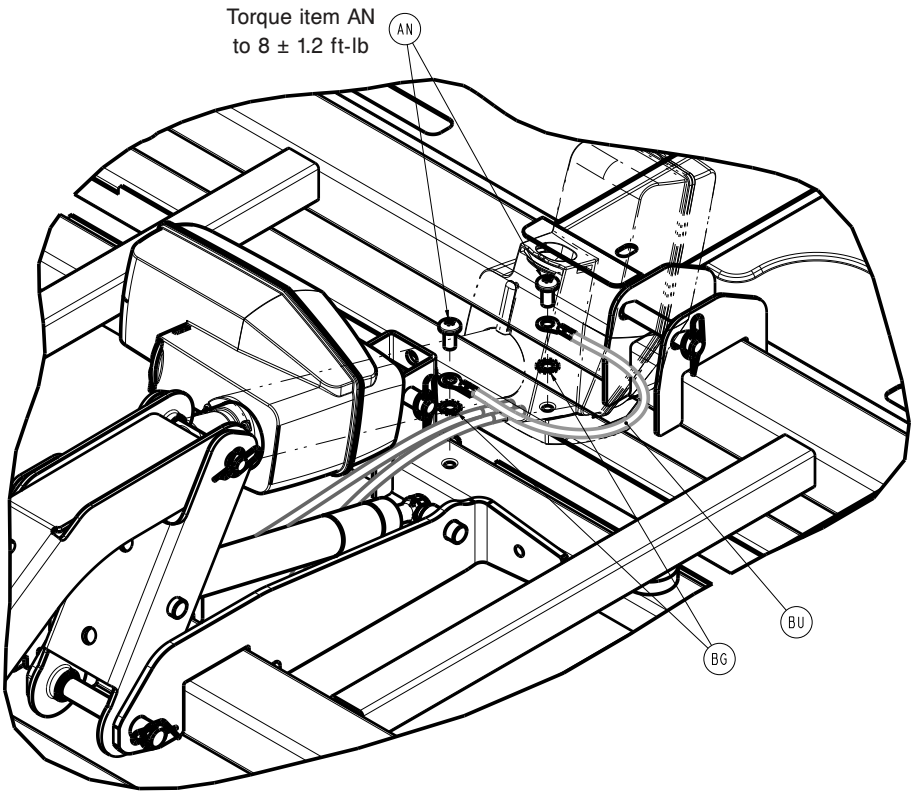

Torque item BH
to 2 ± 0.3 ft-lb
BH
BE
AY
L
Torque item BH
to 2 ± 0.3 ft-lb
BH
AY
K
BE

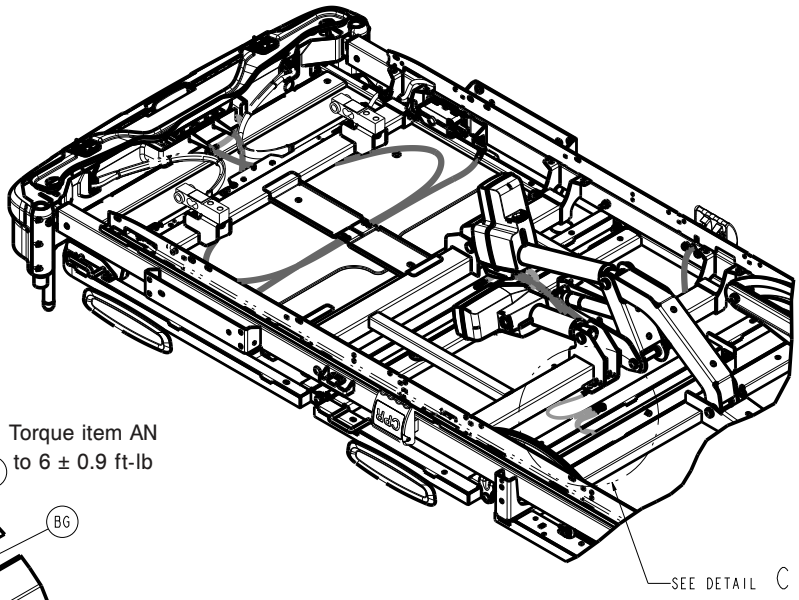

4X BR
AC
4X BF
Torque item BH
to 4.5 ± 0.68 ft-lb
4X BH
AA
2X BD
BD
BD

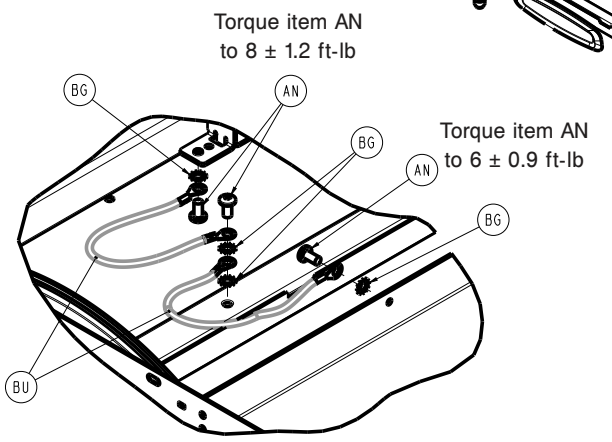

AB
BM
BM
AP
AP


BK
BL
BL
BK
AL

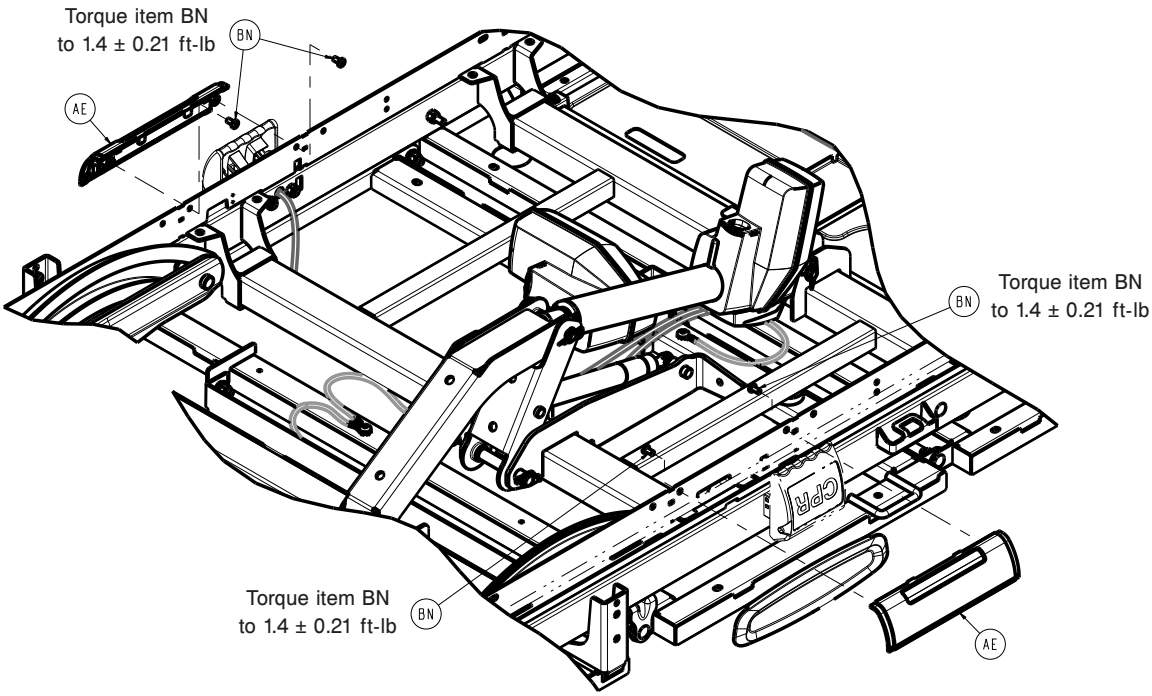

Torque item AN
to 5 ± 0.75 ft-lb
AN
BG
DETAIL B
SEE DETAIL A
SEE DETAIL B
(AUXILIARY OUTLET OPTION)
(ISOLIBRIUM BRACKET OPTION)
BG
AN
Torque item AN
to 7 ± 1.05 ft-lb
DETAIL A
BN
Torque item BN
to 2.5 ± 0.38 ft-lb
AD
Torque item BH
to 4.5 ± 0.68 ft-lb
BD
BR
BH
BF
BR
BH
BF
BD
Torque item BH
to 4.5 ± 0.68 ft-lb

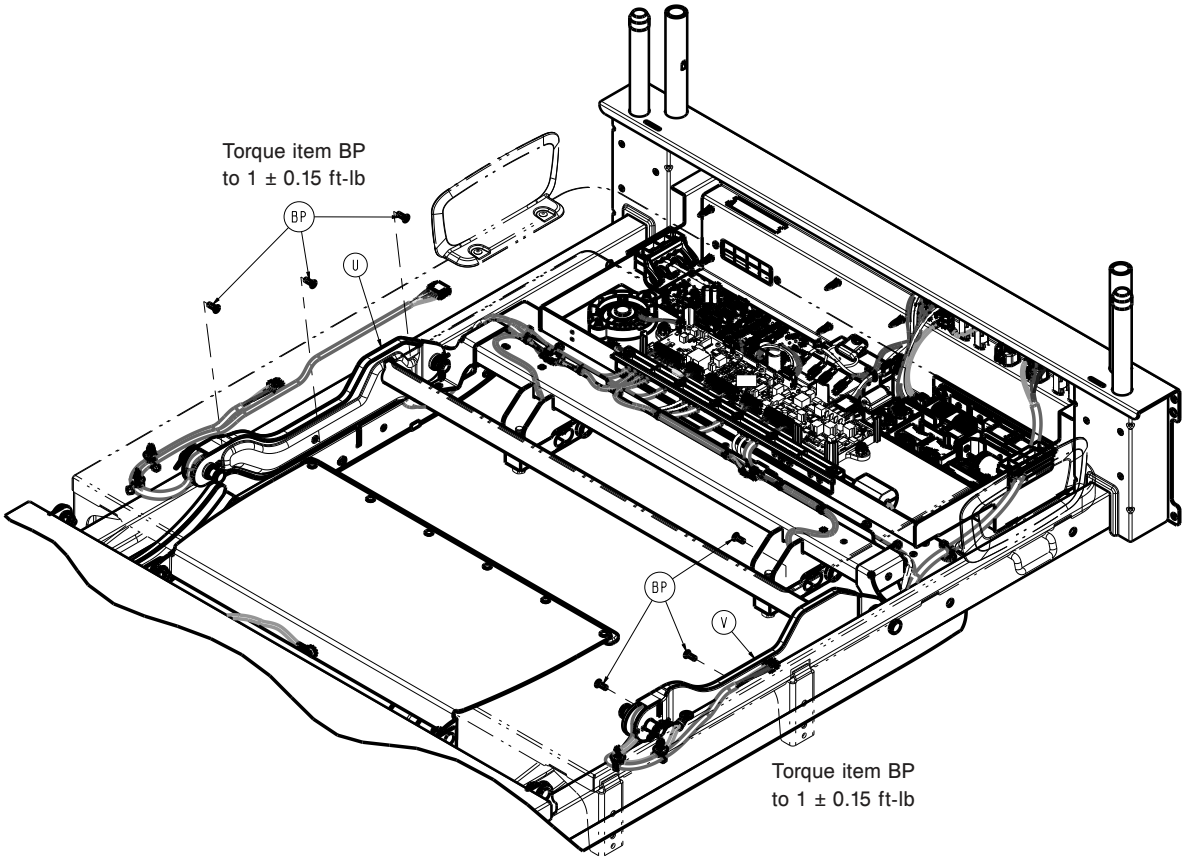

Torque item AN
to 8 ± 1.2 ft-lb
AN
BU
BG

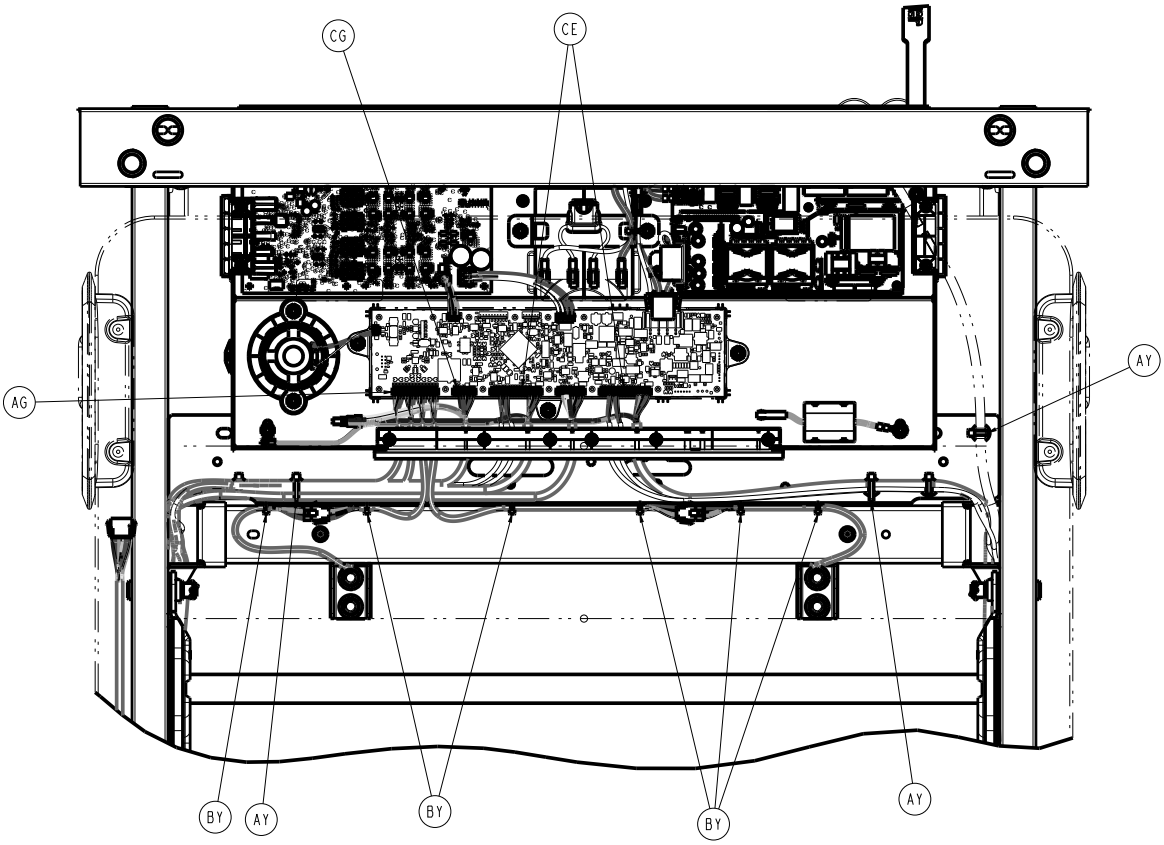

SEE DETAIL C

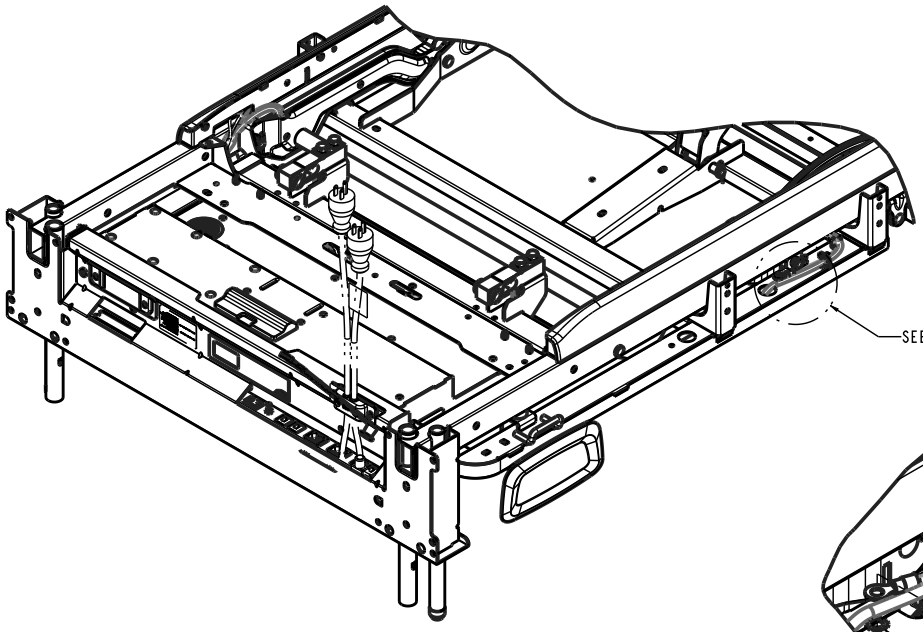

Torque item AN
to 8 ± 1.2 ft-lb
BG
AN
BG
Torque item AN
to 6 ± 0.9 ft-lb
AN
BG
BU

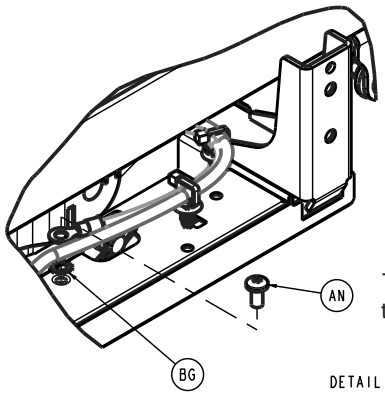
DETAIL C


Torque item BN
to 1.4 ± 0.21 ft-lb
BN
AE
Torque item BN
to 1.4 ± 0.21 ft-lb
BN
Torque item BN
to 1.4 ± 0.21 ft-lb
BN
AE


Torque item BP
to 1 ± 0.15 ft-lb
BP
U
BP
V
Torque item BP
to 1 ± 0.15 ft-lb

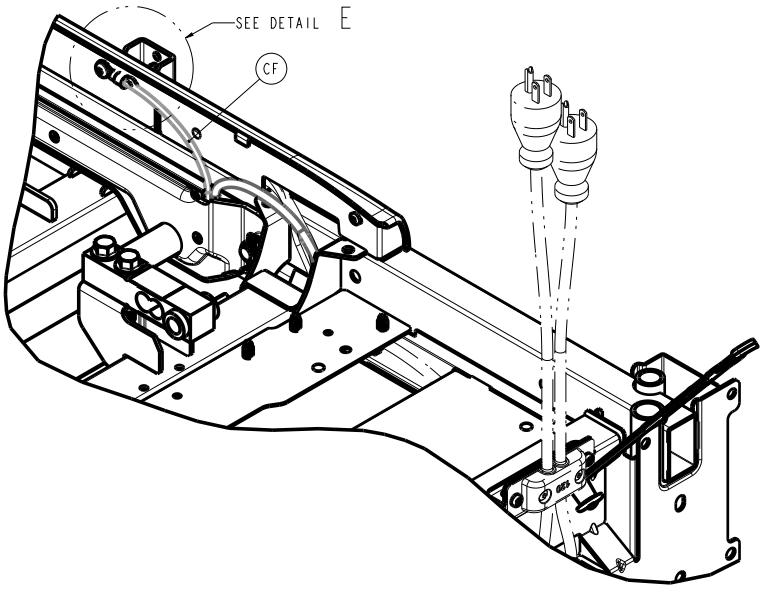


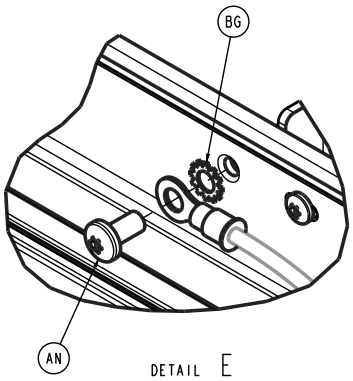




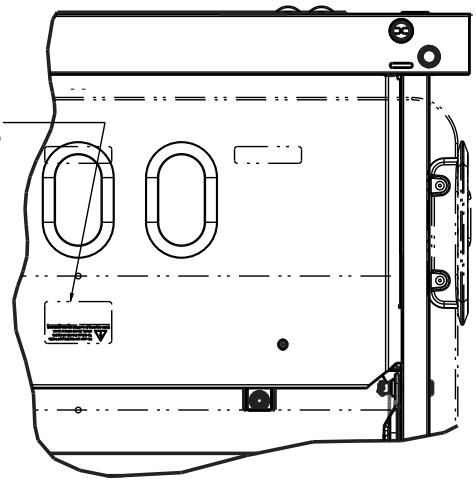
Torque item AN
to 5 ± 0.75 ft-lb

DETAIL D





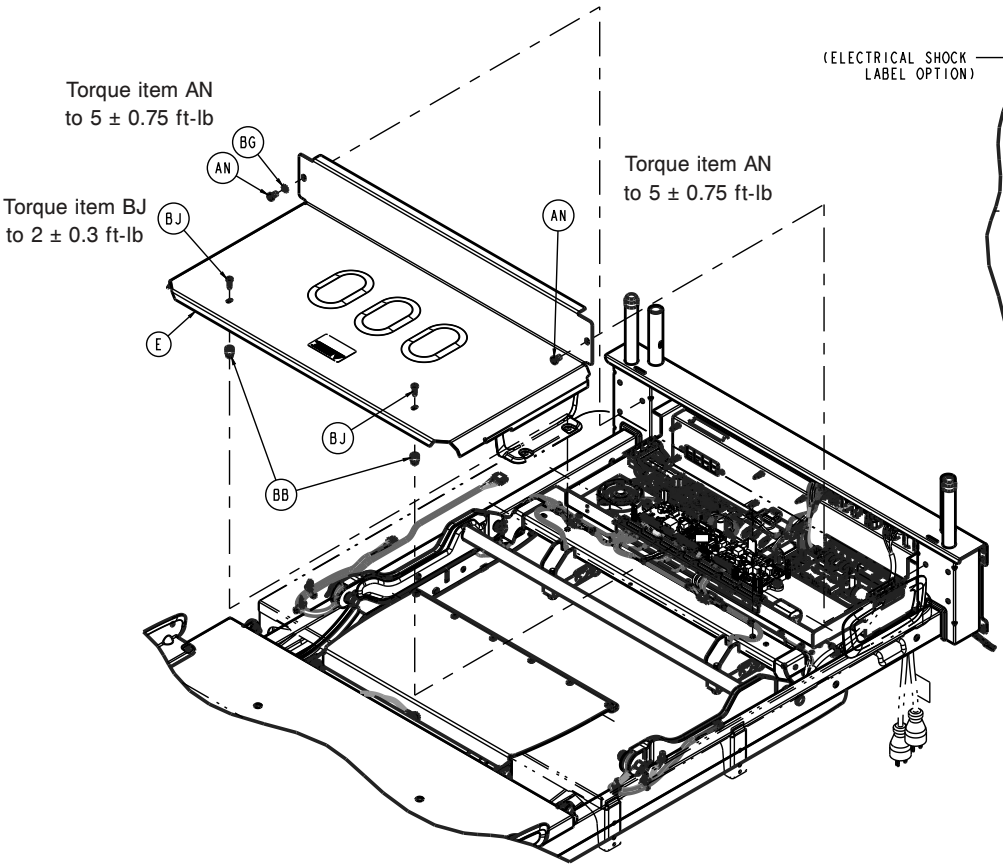
Torque item AN
to 7 ± 1.05 ft-lb

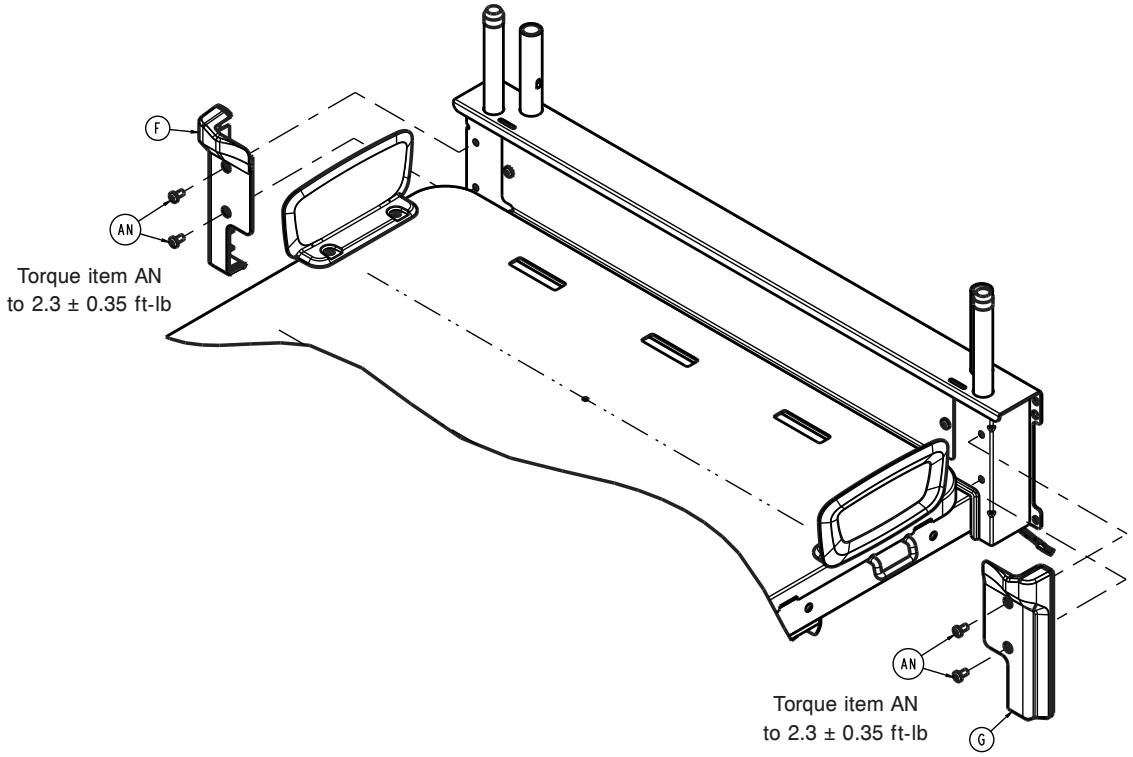


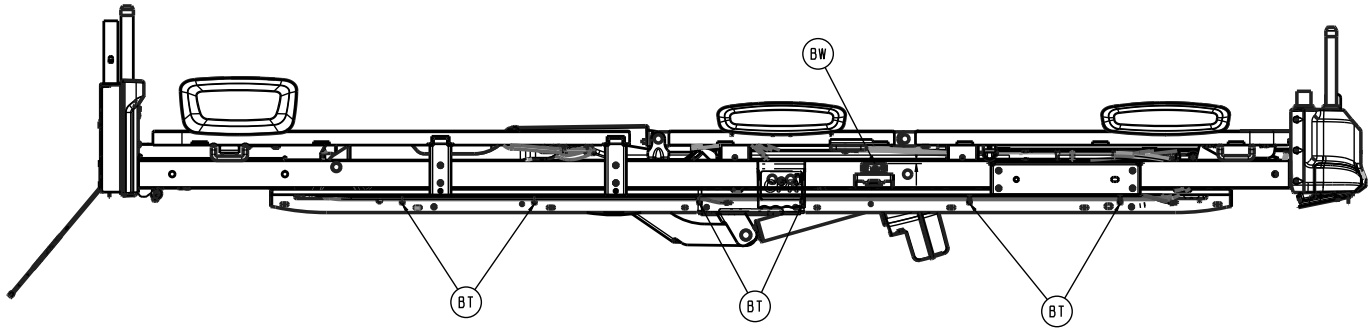
Torque item AN
to 5 ± 0.75 ft-lb

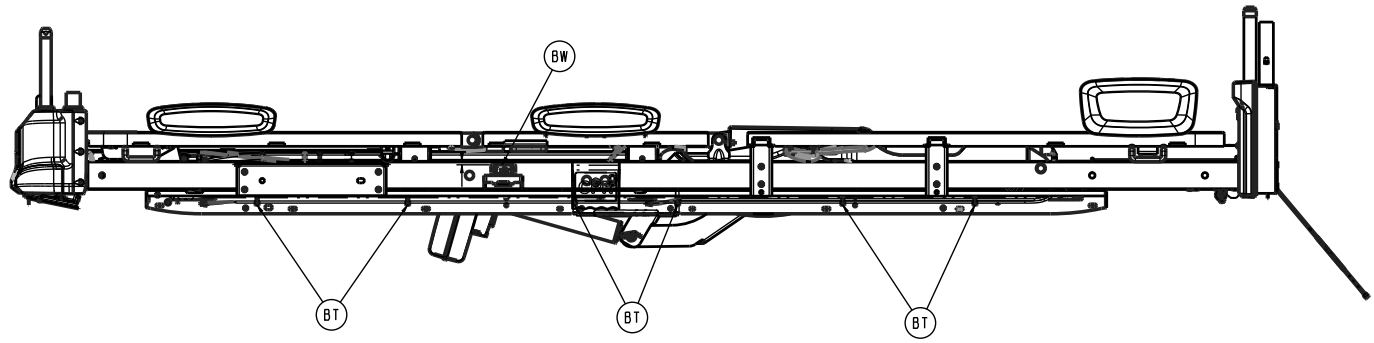
Torque item BJ
to 2 ± 0.3 ft-lb

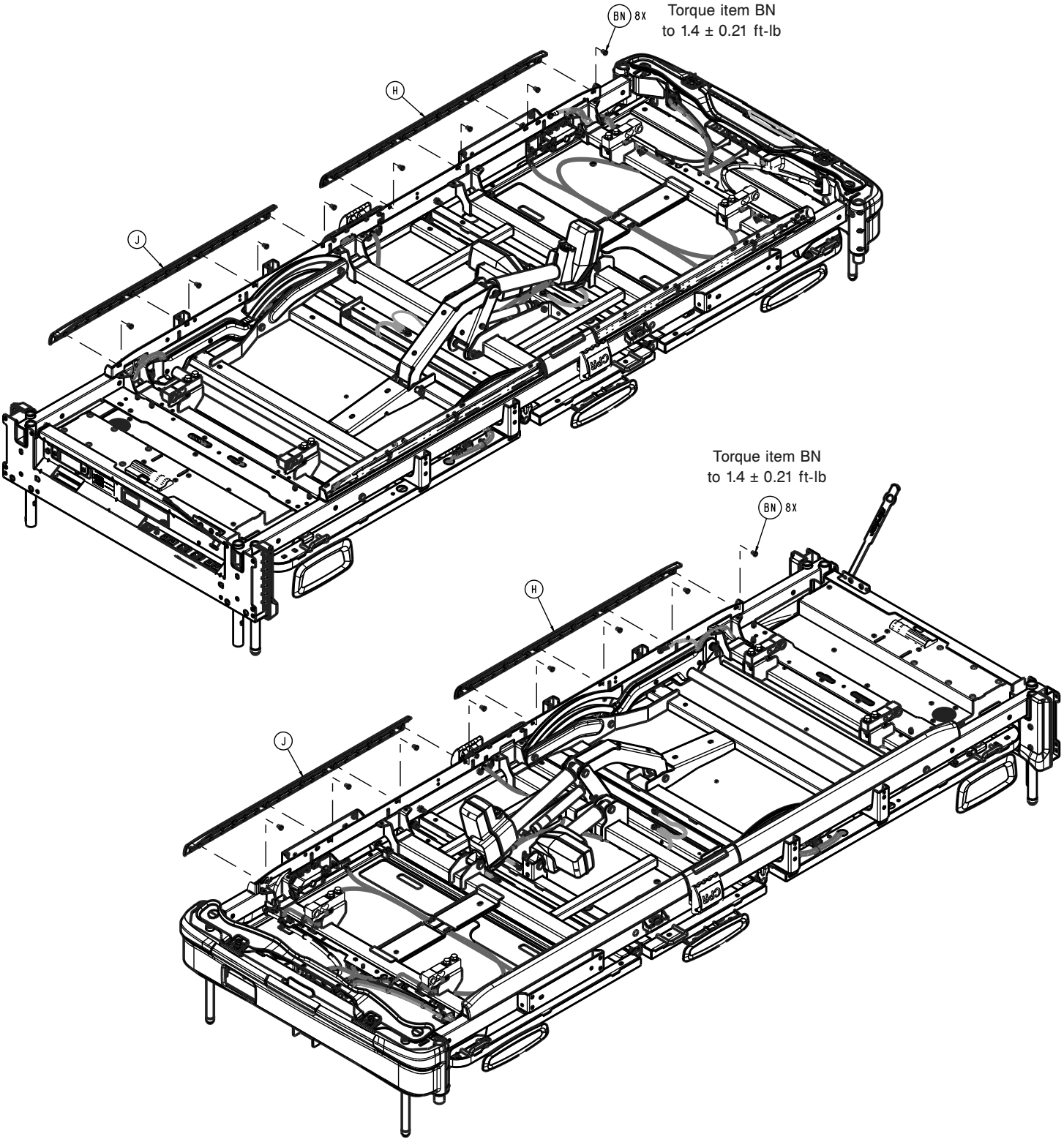
Torque item AN
to 5 ± 0.75 ft-lb

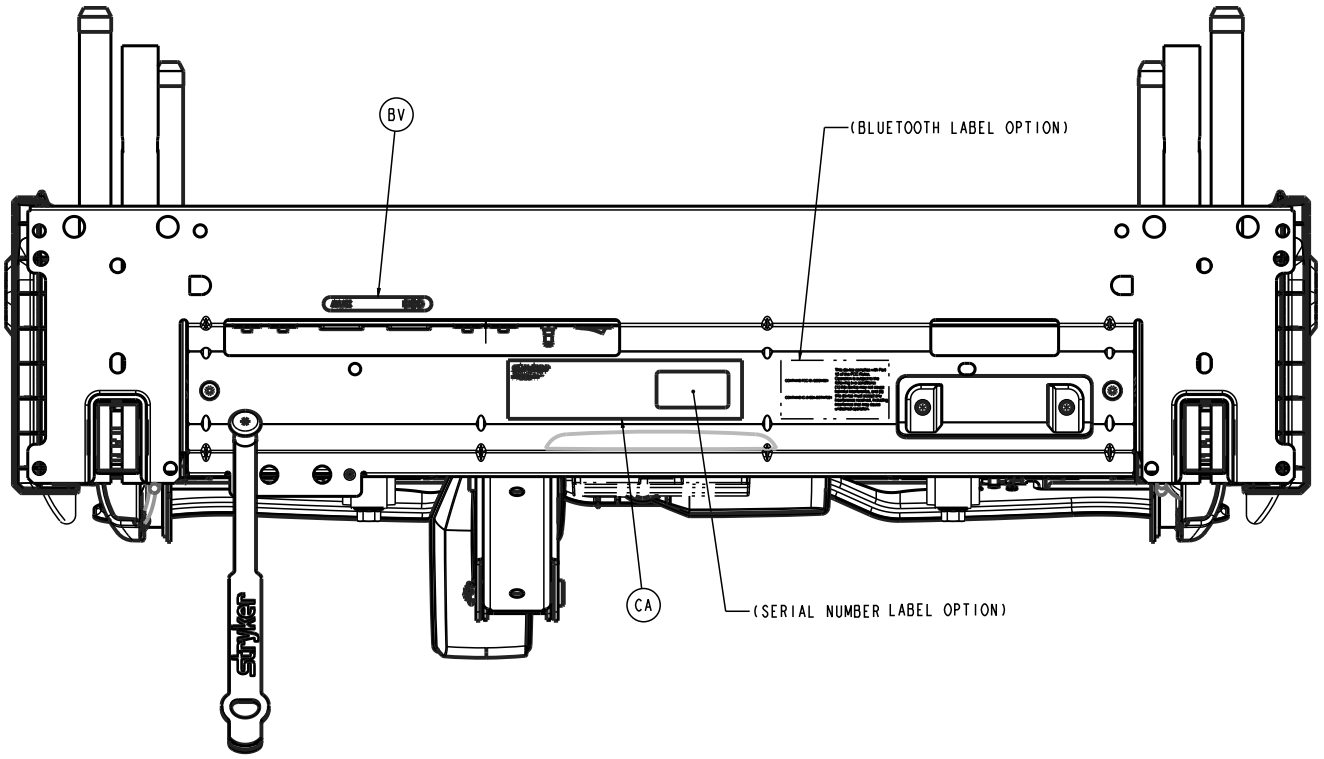



F
AN
Torque item AN
to 2.3 ± 0.35 ft-lb
AN
Torque item AN
to 2.3 ± 0.35 ft-lb
G


BW
BT
BT
BT


BW
BT
BT
BT


BN 8X
Torque item BN
to 1.4 ± 0.21 ft-lb
H
J
Torque item BN
to 1.4 ± 0.21 ft-lb
BN 8X
H
J

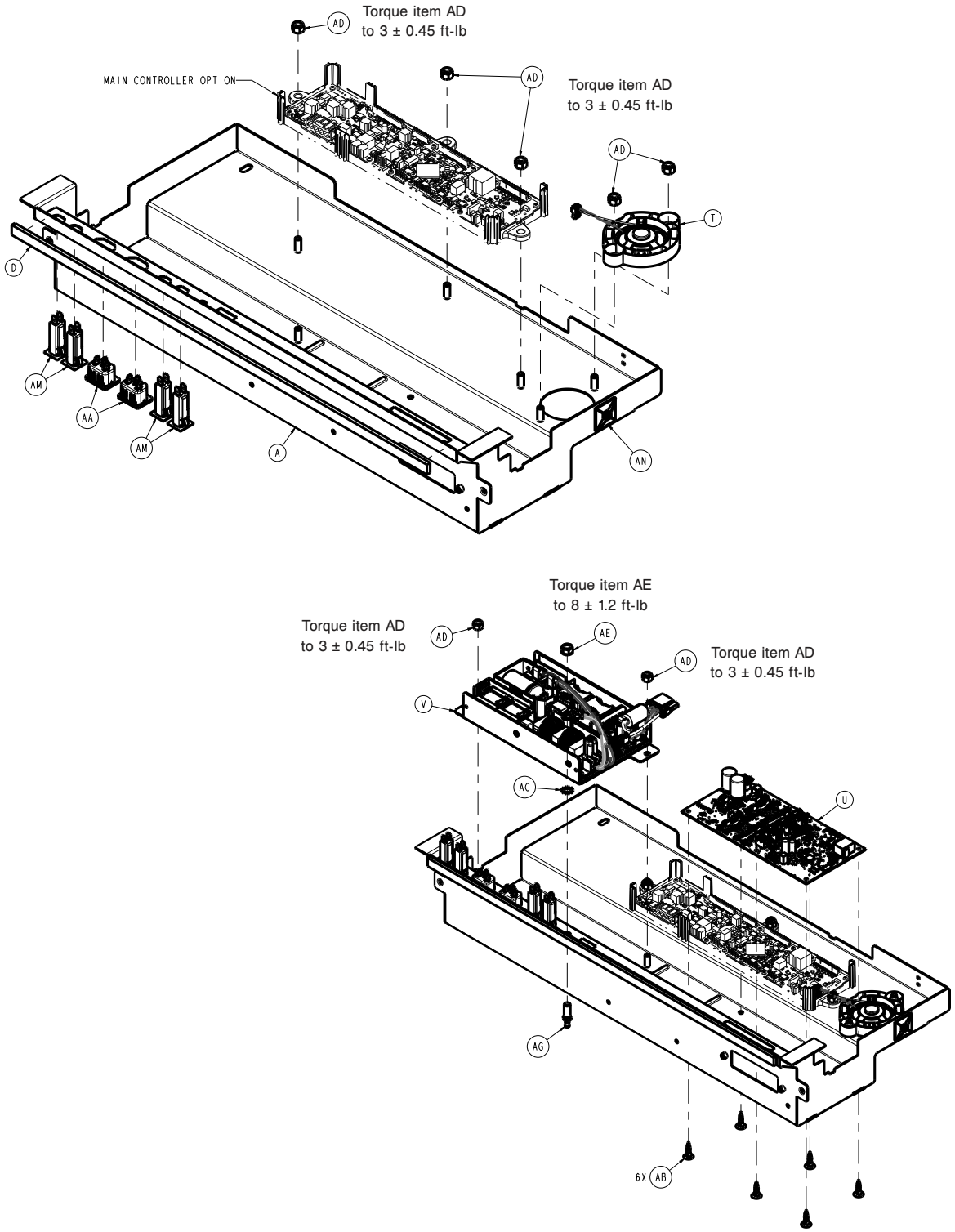


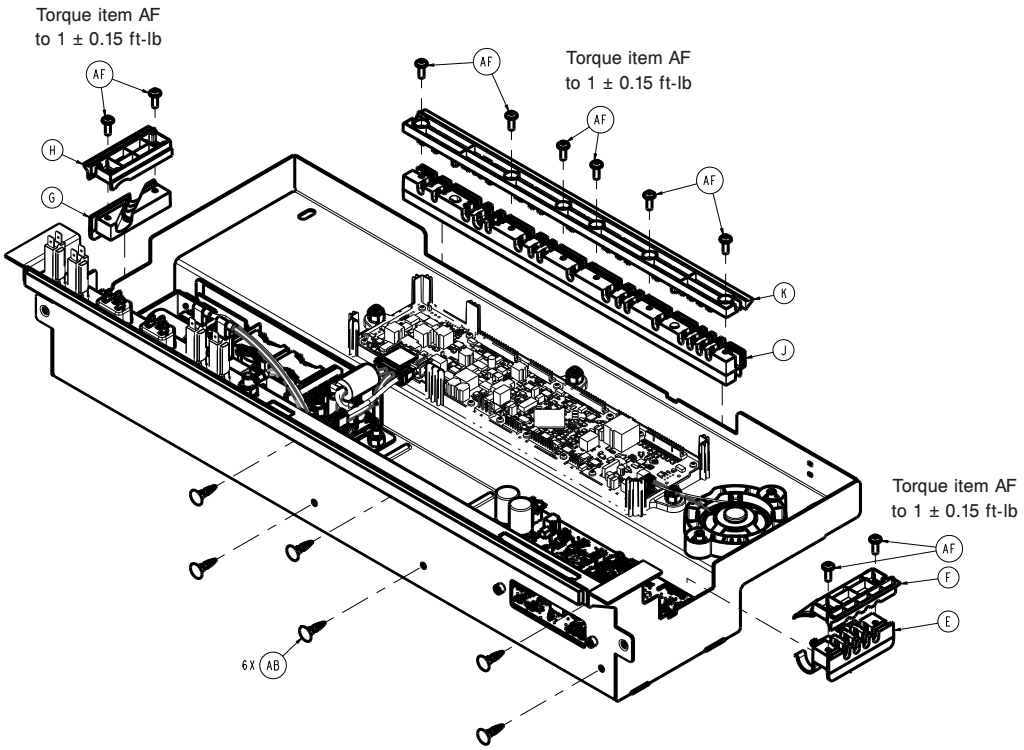
Item	Number	Name	Quantity
A	300900100007	Litter headboard post cap	2
B	300900100009	Litter cable retainer	2
C	300900100050	*Litter common components electronics box assembly* (page 128)	1
D	300900100100	Litter frame weldment	1
E	300900100119	Litter electronics box cover	1
F	300900100166	Litter headend 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	*Fowler timing link assembly* (page 140)	1
Y	300900120150	*Fowler assembly - 300900120150* (page 138)	1
AA	300900130150	Seat assembly	1
AB	300900140040	Gatch actuator	1
AC	300900140150	*Gatch assembly - 300900140150* (page 141)	1
AD	300900150150	*Foot assembly - 300900150150* (page 142)	1

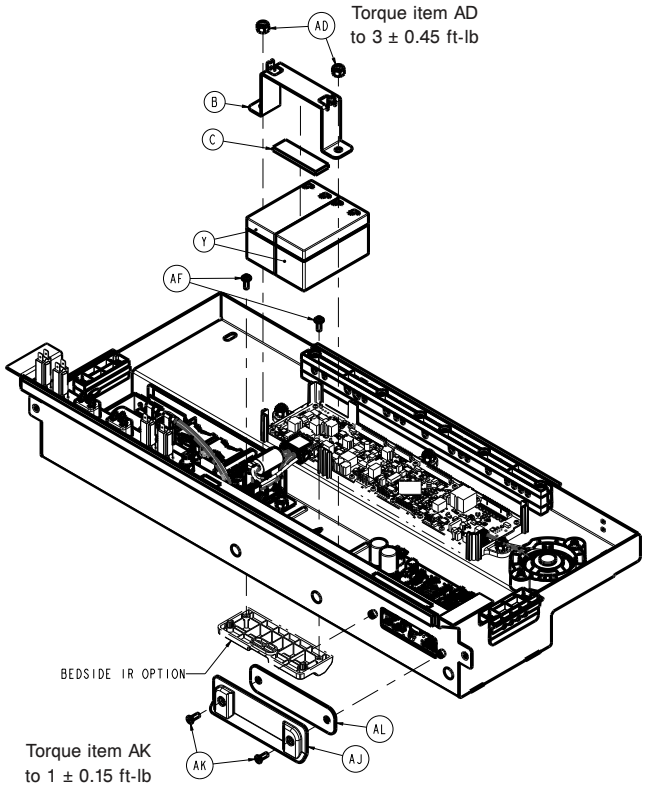
Item	Number	Name	Quantity
AE	300900360020	Nightlight assembly	1
AF	300900370057	Loadcell	2
AG	300900370862	Cable assembly	1
AH	300900670000	*Bed extender assembly* (page 144)	1
AJ	300900670007	Bed extender cable guide	1
AK	300900670050	Bed extender latch assembly	2
AL	300900670150	Bed extender foot extension 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

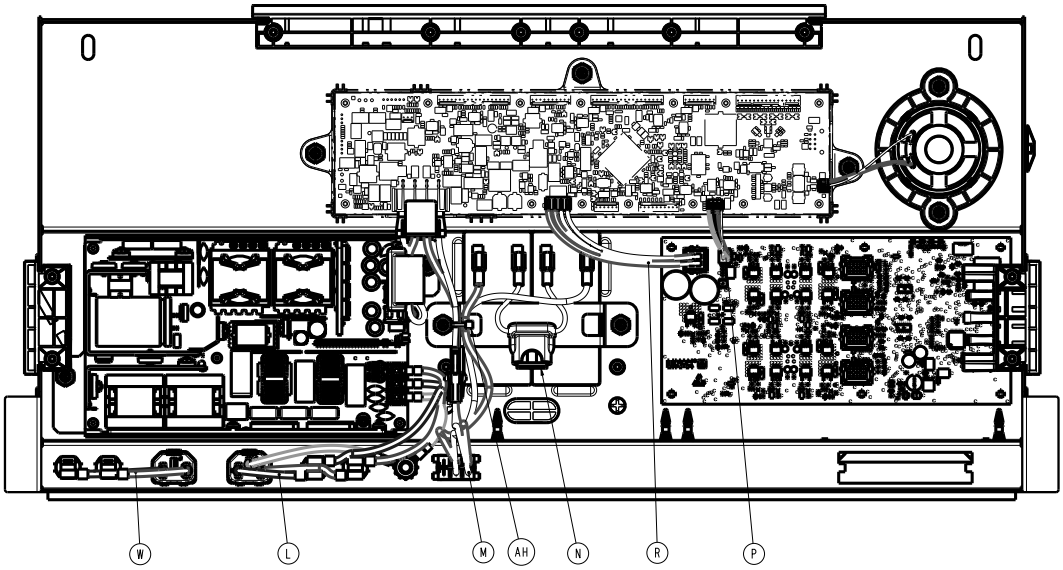
Litter common components electronics box assembly

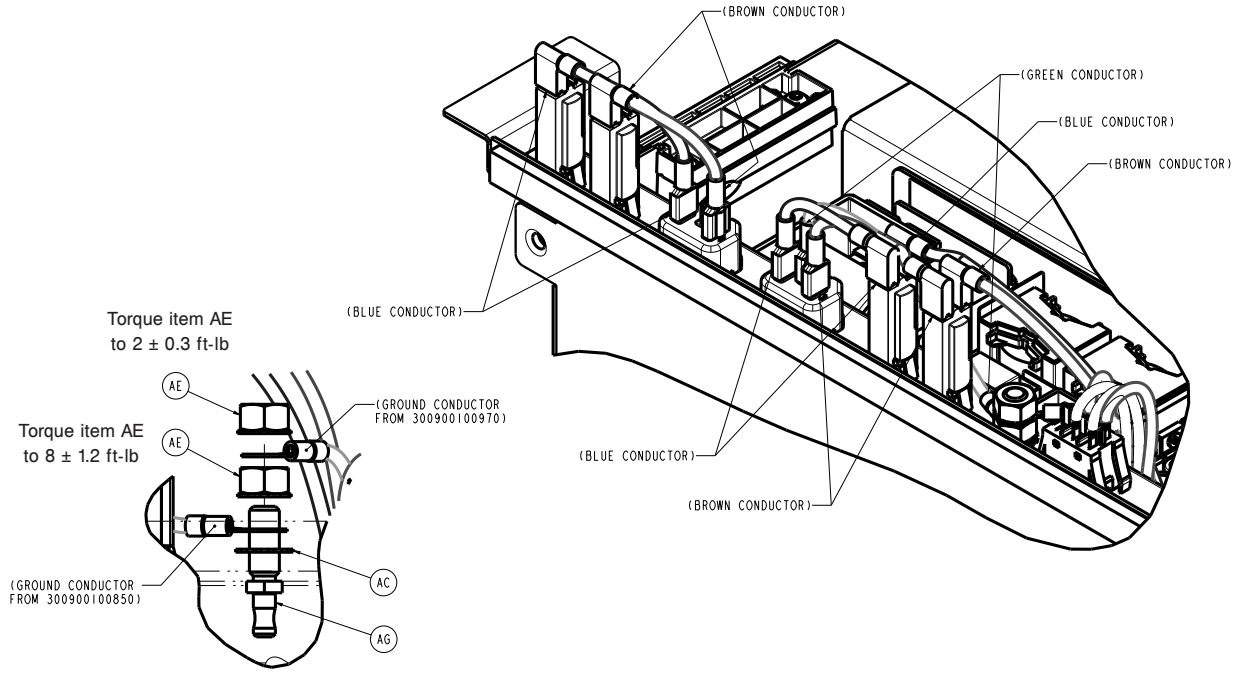
300900100050 Rev AB (Reference only)




Torque item AF
to 1 ± 0.15 ft-lb
AF
H
G
Torque item AF
to 1 ± 0.15 ft-lb
AF
AF
AF
K
J
Torque item AF
to 1 ± 0.15 ft-lb
AF
F
E
6X AB


Torque item AD
to 3 ± 0.45 ft-lb
AD
B
C
Y
AF
BEDSIDE IR OPTION
AL
AJ
AK
Torque item AK
to 1 ± 0.15 ft-lb



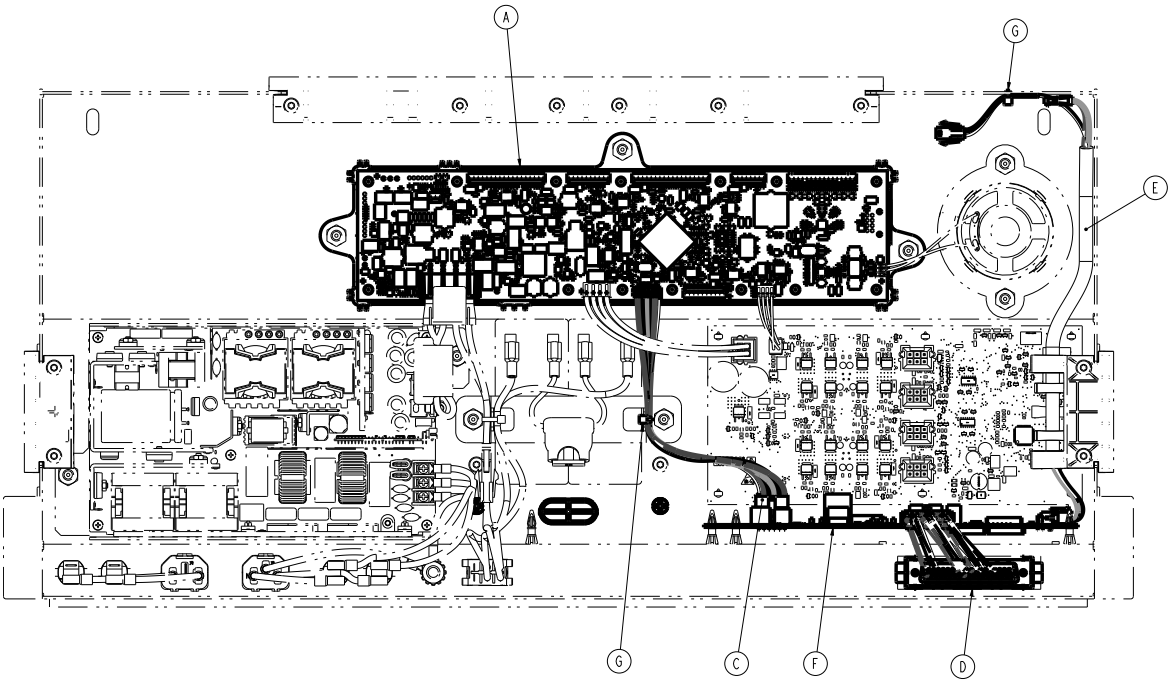


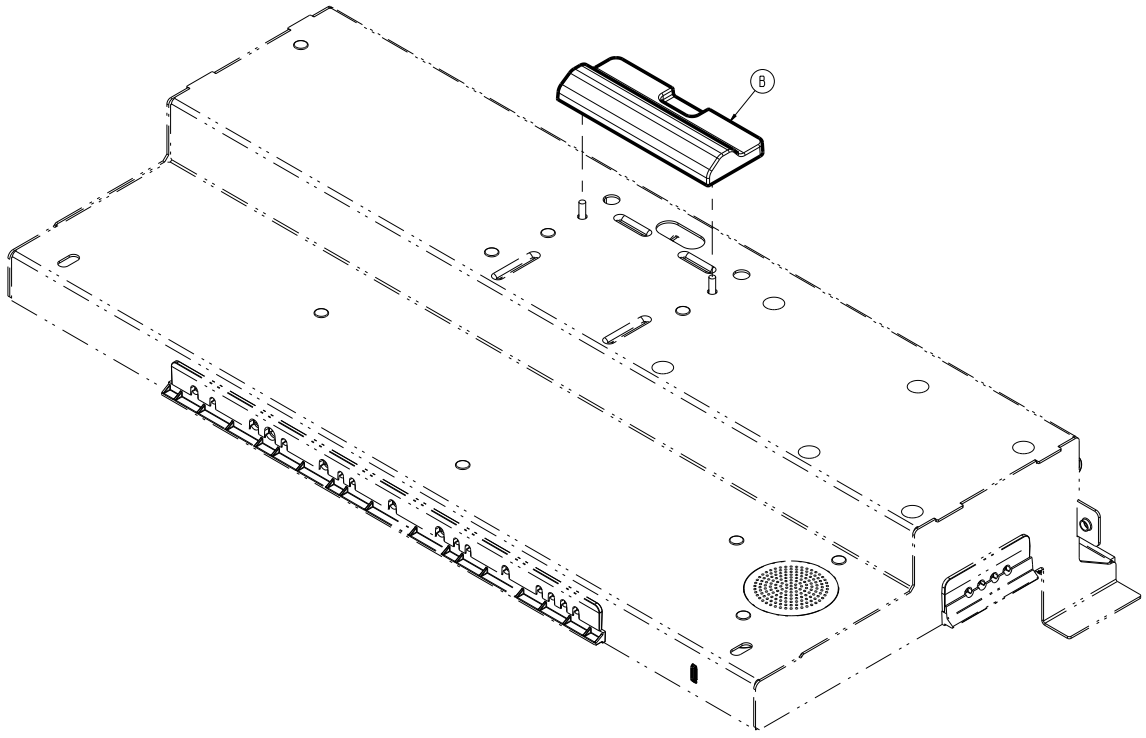
Item	Number	Name	Quantity
A	300900100110	Litter electronics box weldment	1
B	300900100114	Battery strap	1
C	300900100116	Battery strap foam	1
D	300900100117	Foam gasket	1
E	300900100132	Actuator cable bottom grommet	1
F	300900100133	Actuator cable top grommet	1
G	300900100136	Auxiliary cable bottom grommet	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
M	300900100851	Battery switch	1

Item	Number	Name	Quantity
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)



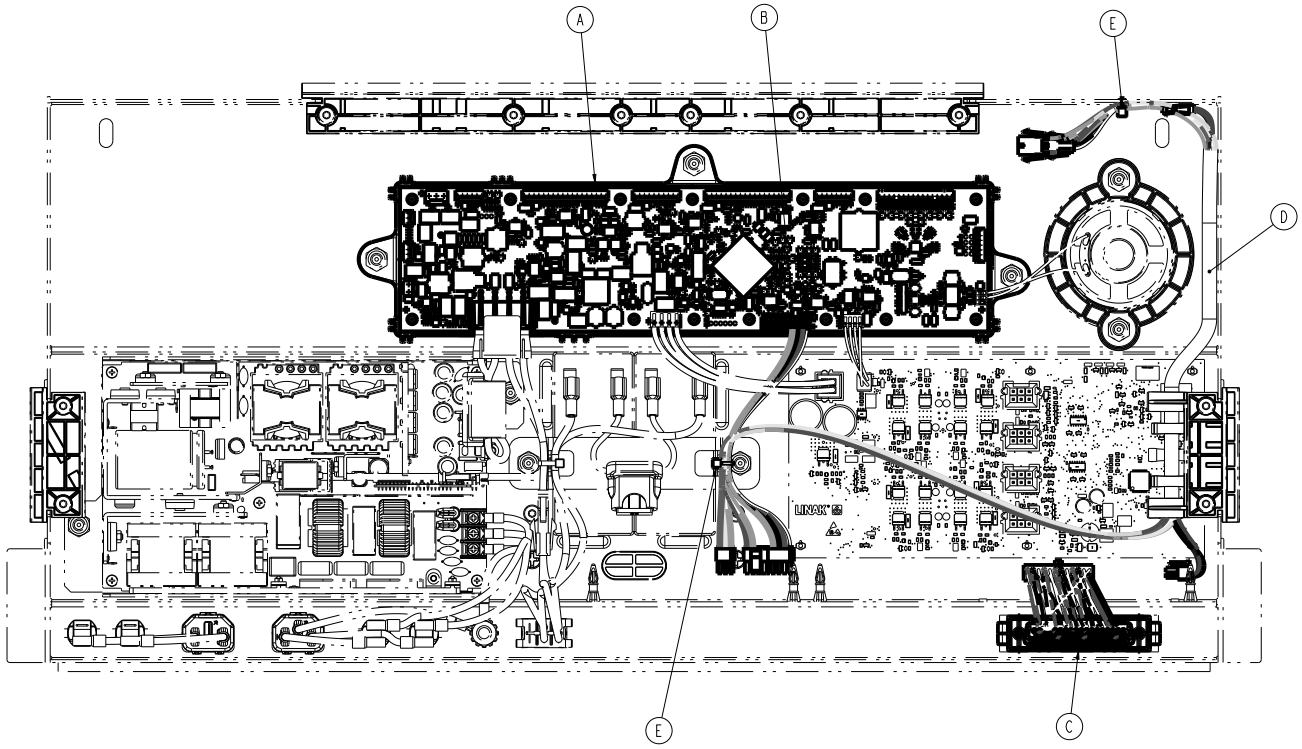


Item	Number	Name	Quantity
A	300900100120	Main controller basic board assembly	1
B	300900100141	Bedside IR module plug	1
C	300900380800	Cable assembly	1
D	300900380801	Cable assembly	1

Item	Number	Name	Quantity
E	300900380820	Cable assembly	1
F	300900380900	Bedside room interface basic board	1
G	3000-300-114	Cable tie	2

Litter advanced common components electronics box assembly

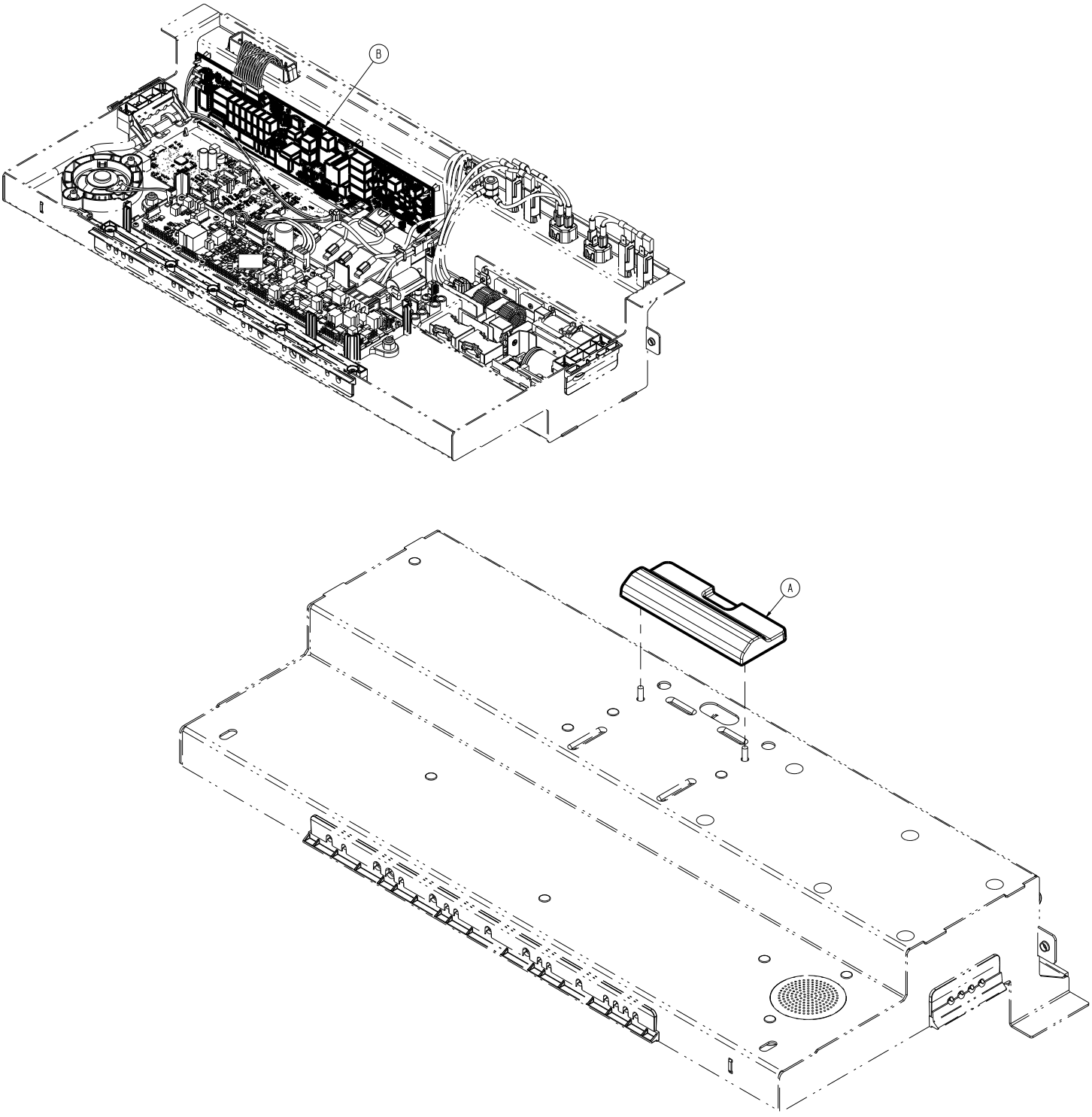
300900100350 Rev AB (Reference only)



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

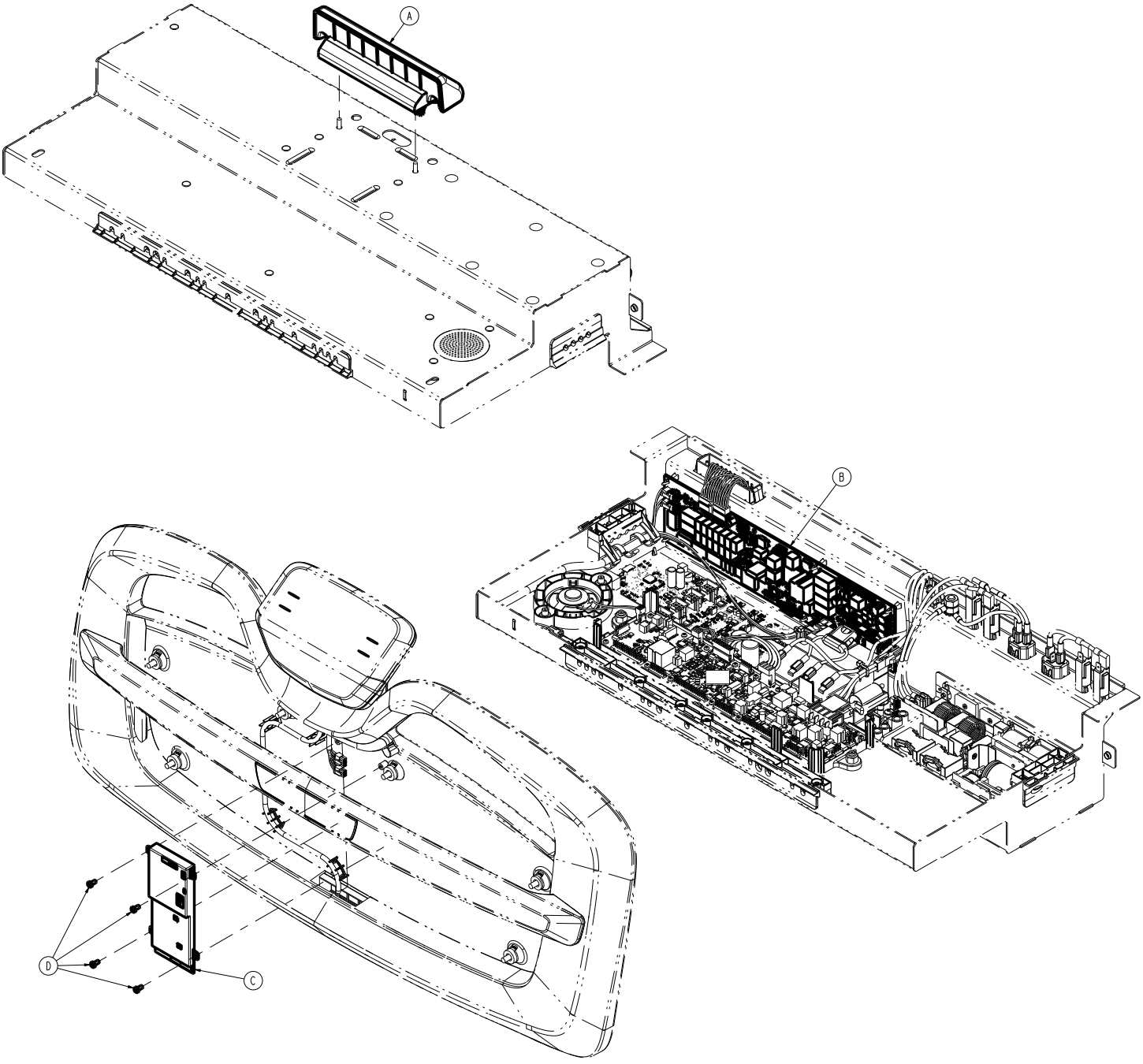
300900100450 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900100141	Bedside IR module plug	1
B	300900380920	Advanced wireless bedside room interface board	1

Litter advanced wireless electronics box assembly

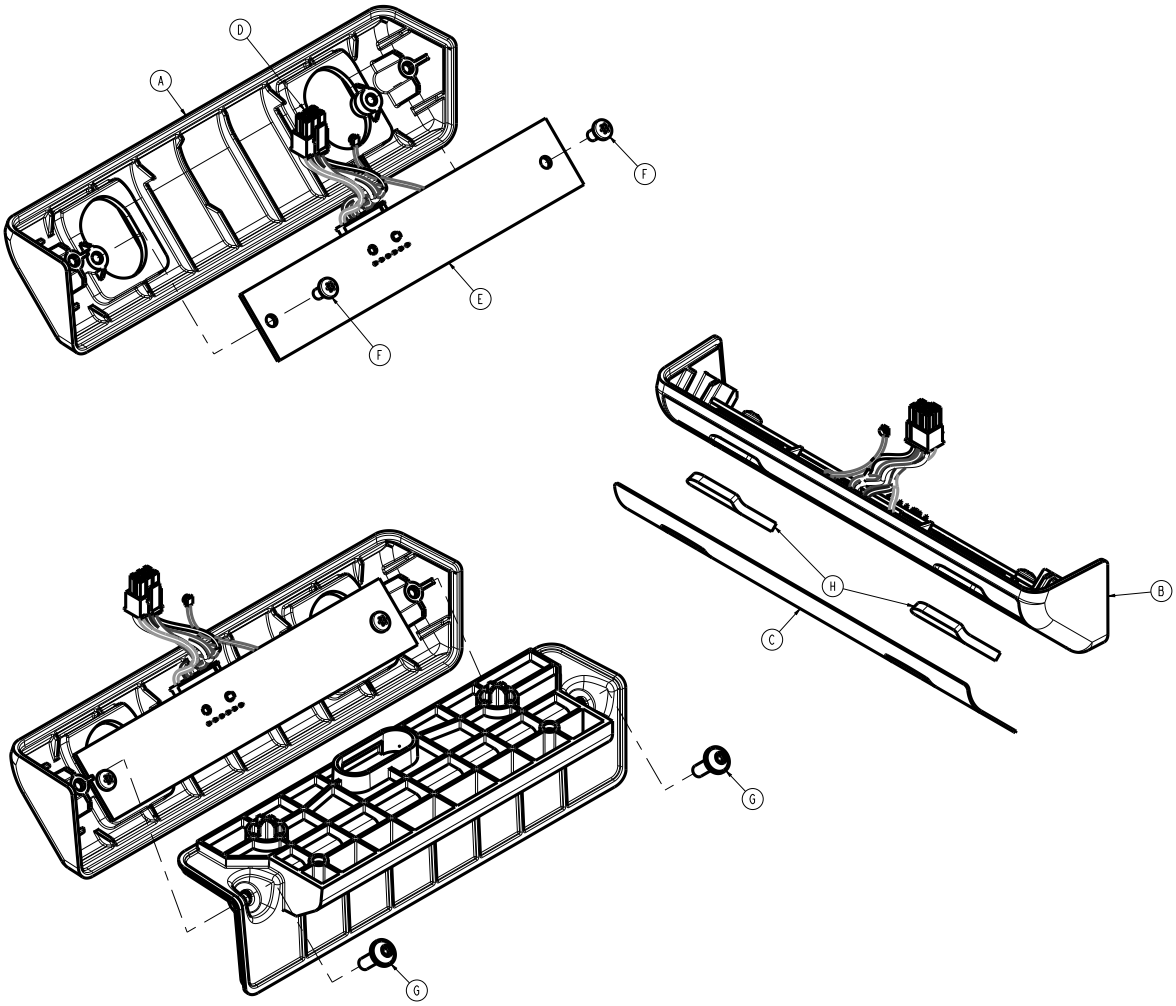
300900100500 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900100150	Bedside IR module assembly	1
B	300900380920	Advanced wireless bedside room interface board	1
C	300900680910	Gateway assembly	1
D	0023-163-000	Pan head thread forming screw	4

Bedside IR module assembly

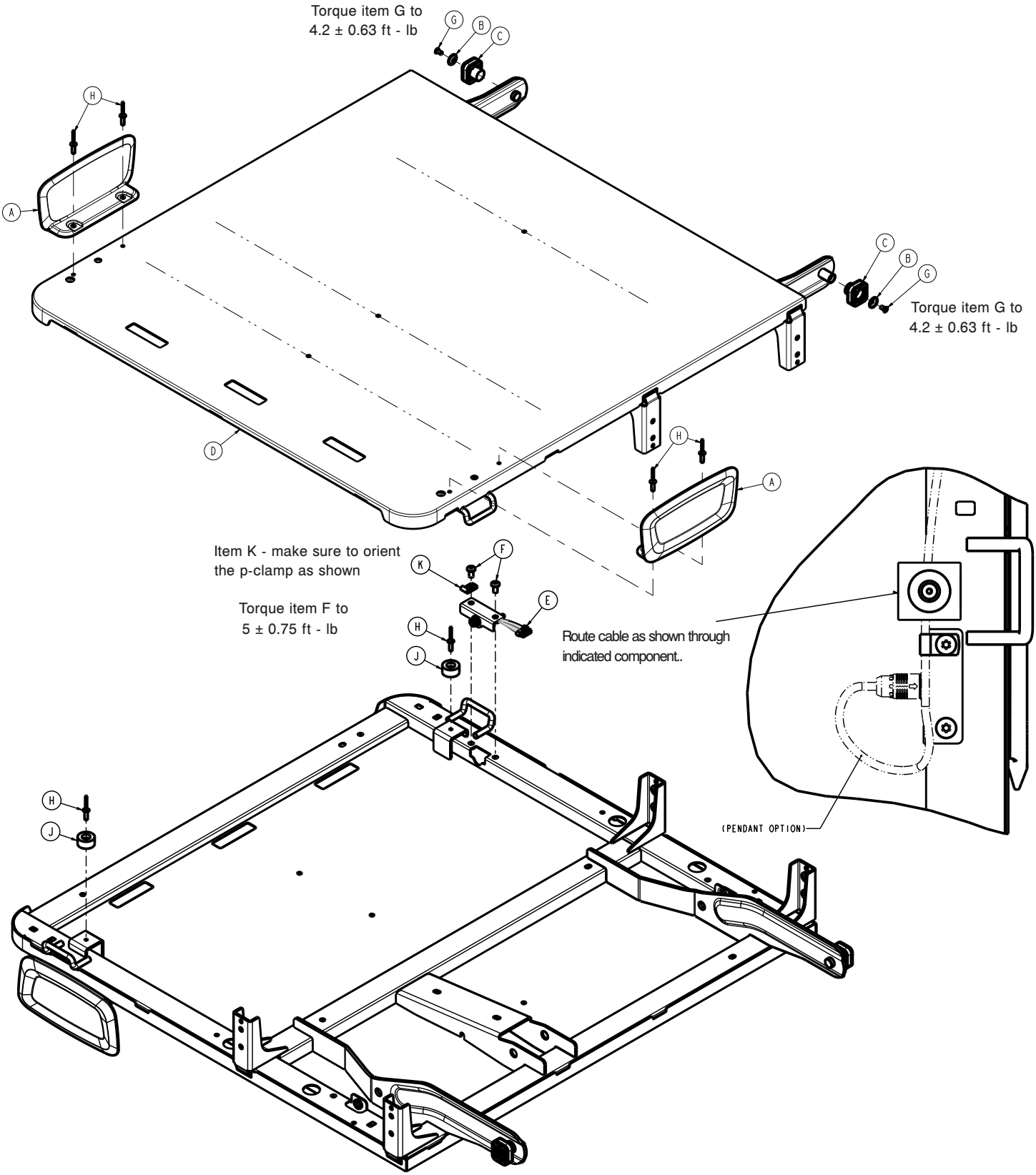
300900100150 Rev AB (Reference only)



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

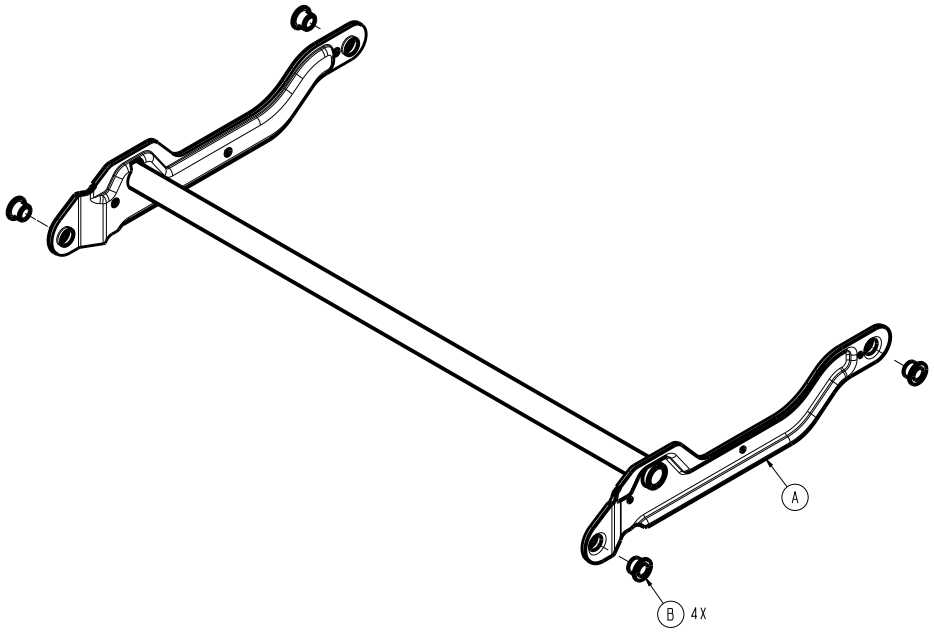
Rev AC (Reference only)



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

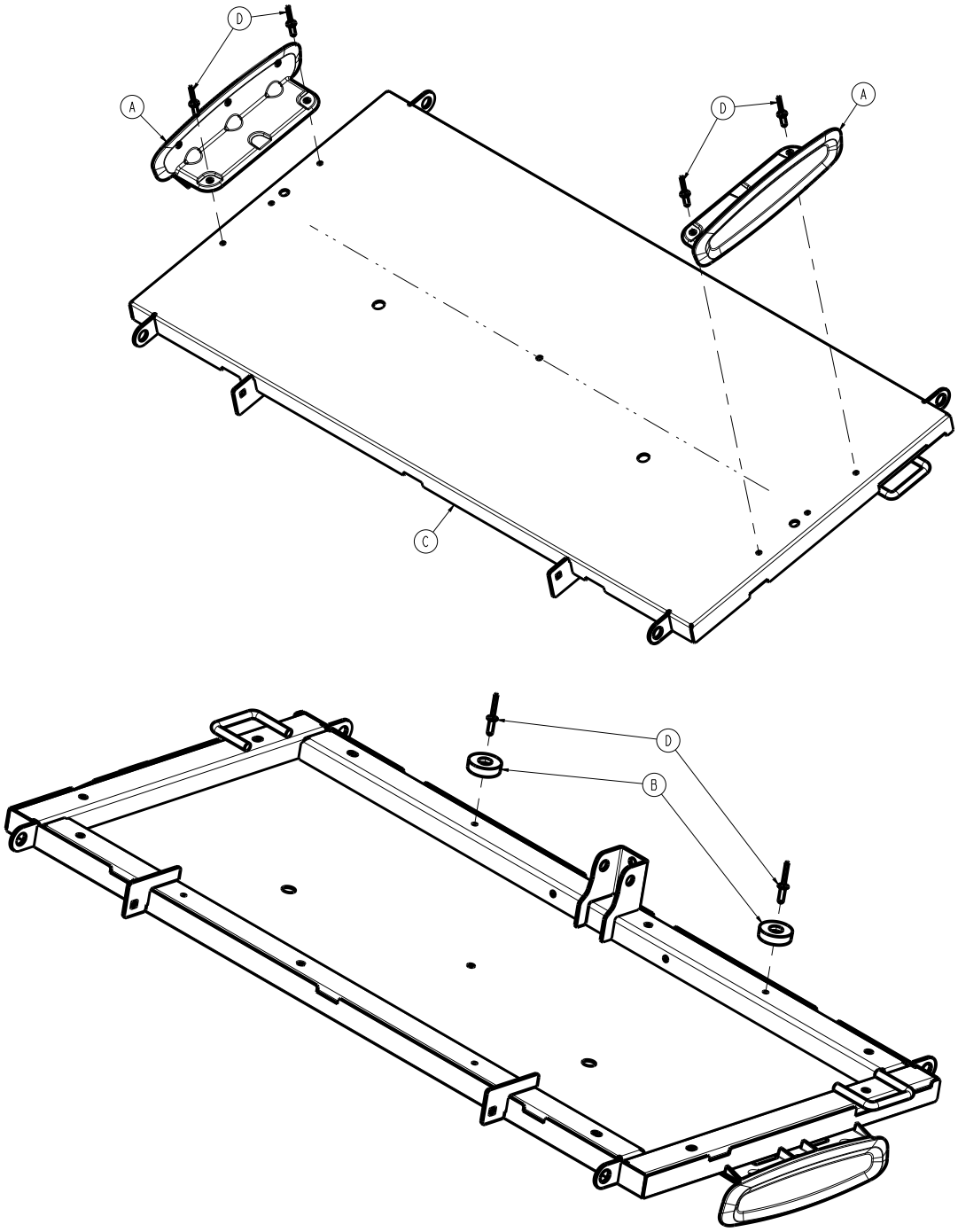
300900120075 Rev AB (Reference only)



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

Gatch assembly - 300900140150

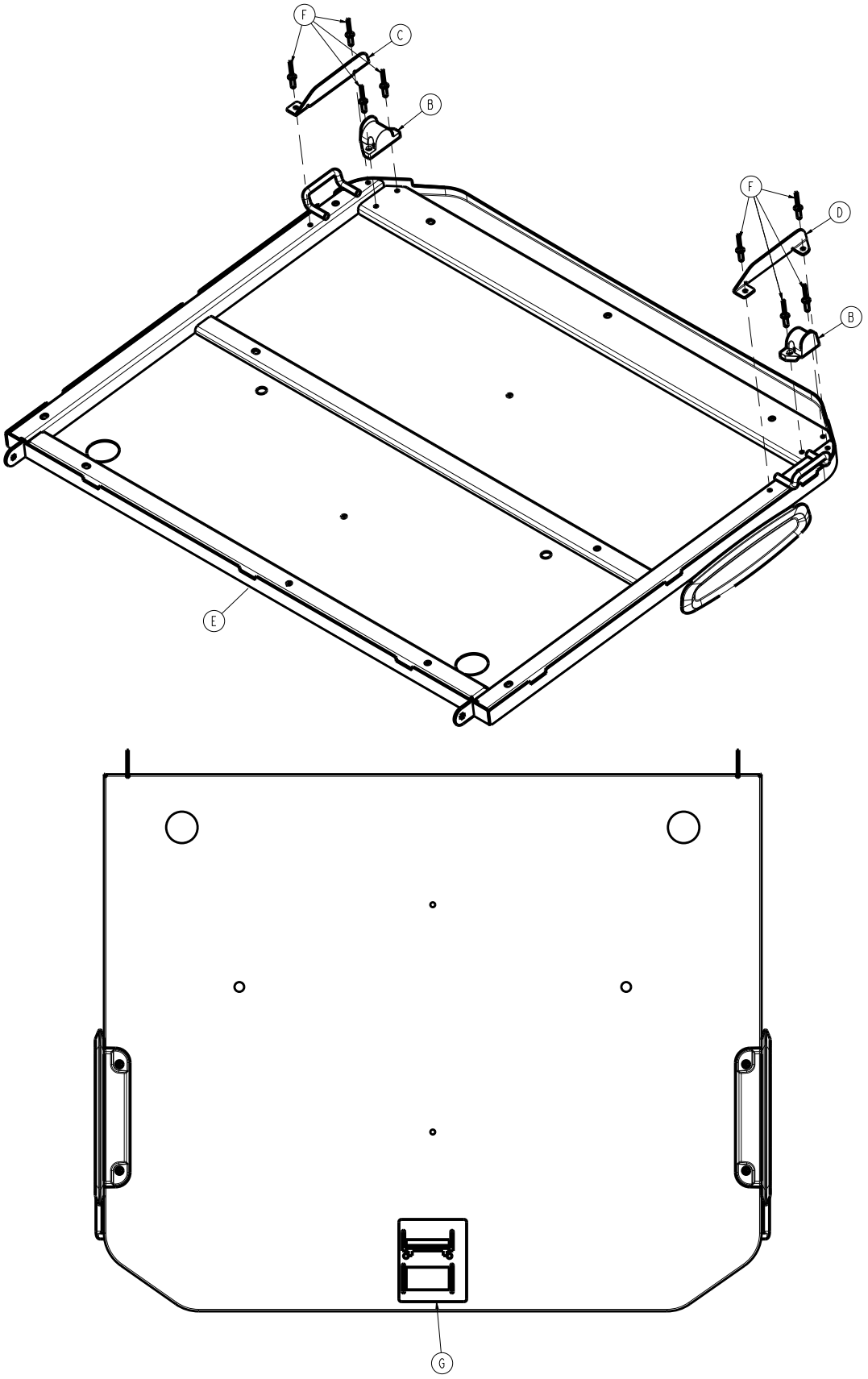
Rev AB (Reference only)



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

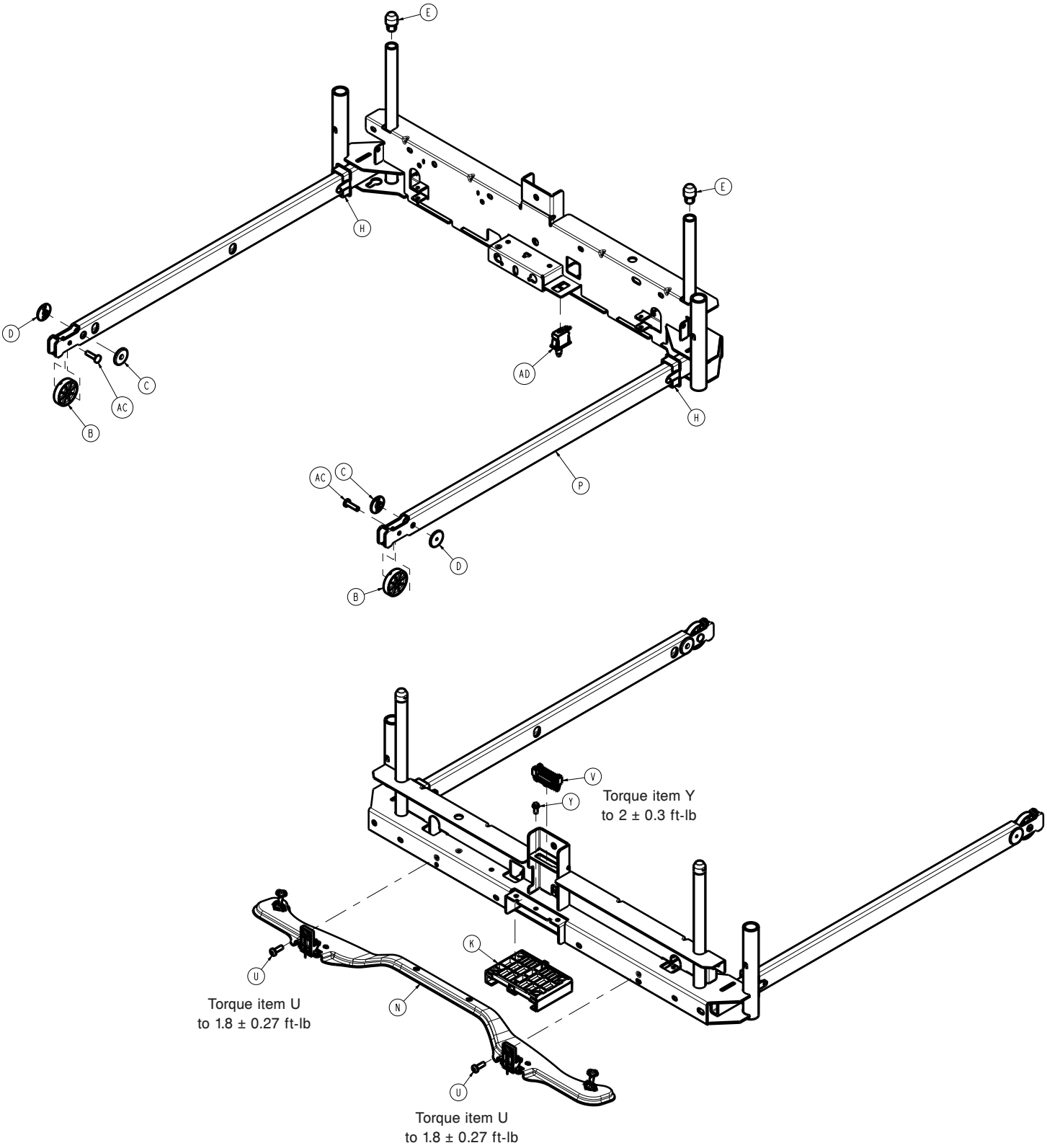
Rev AC (Reference only)

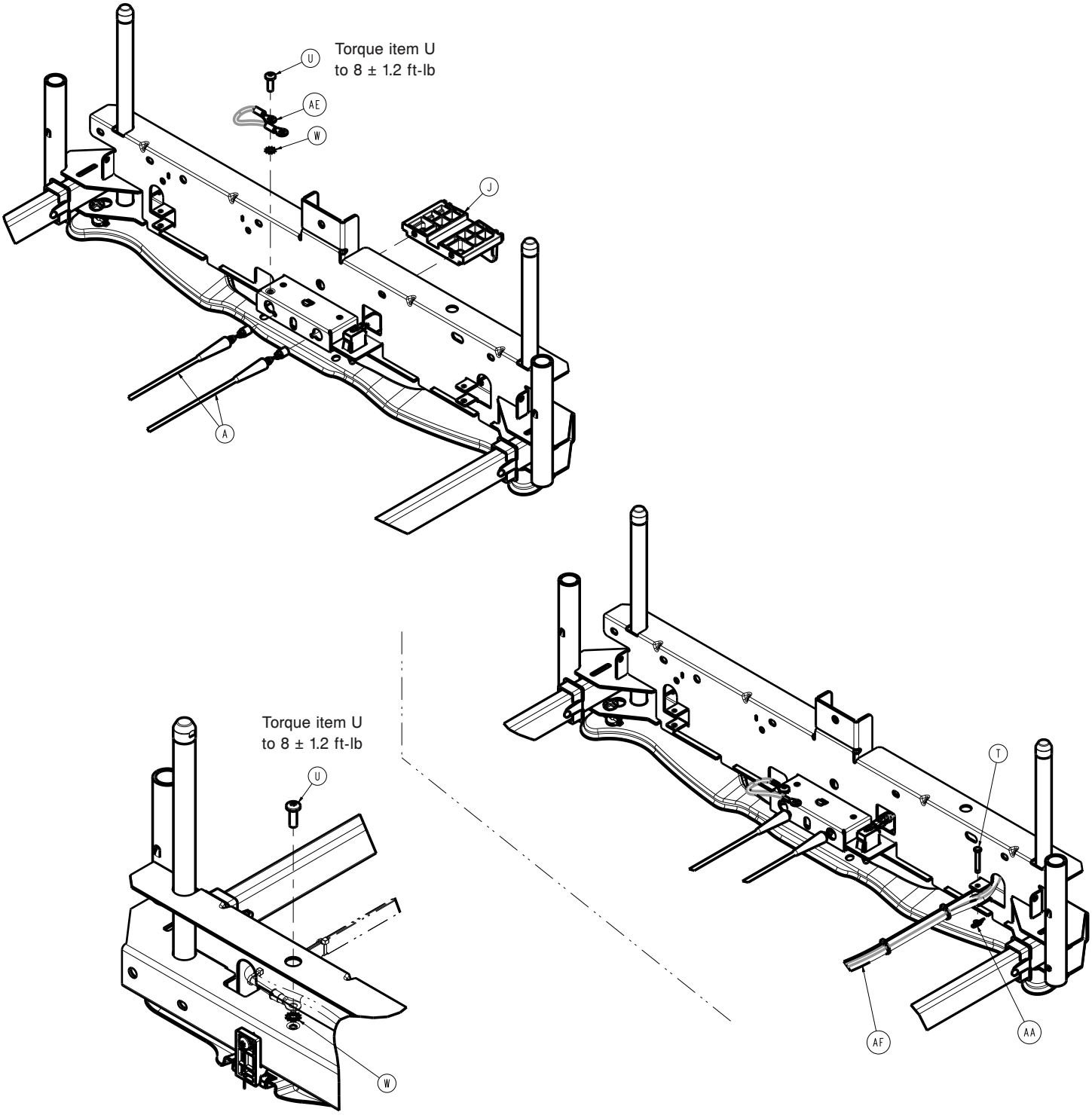


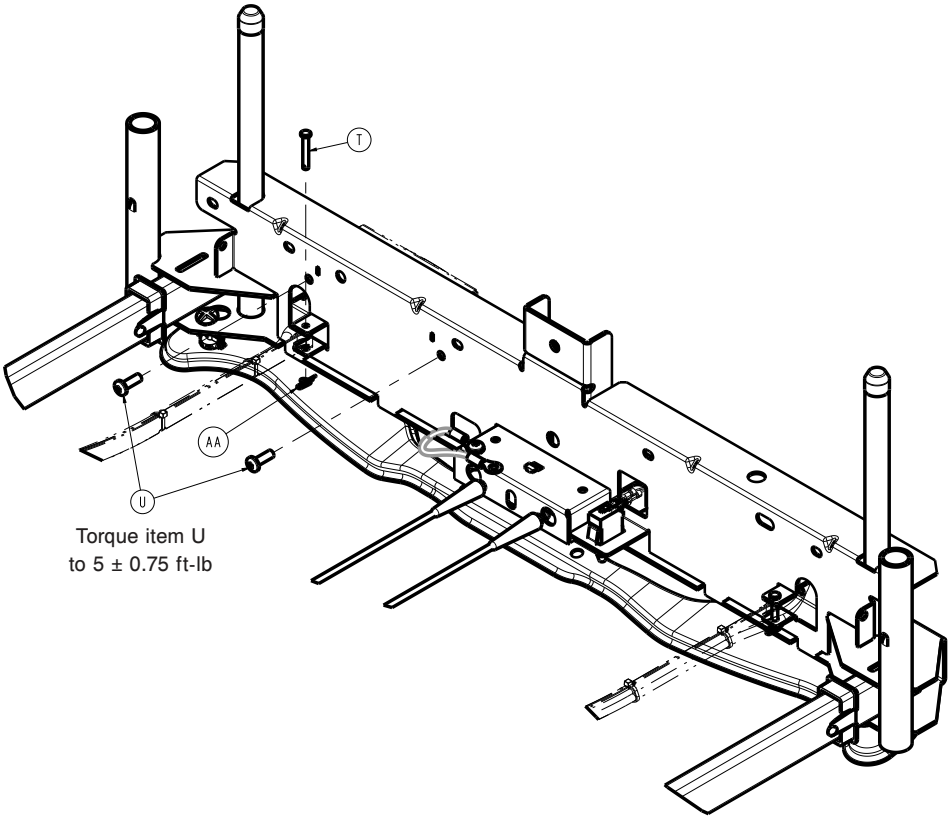
Item	Number	Name	Quantity
B	300900150011	Foot slider	2
C	300900150012	Foot slider guard, right	1
D	300900150013	Foot slider guard, left	1
E	300900150100	Foot weldment	1
F	700000820540	Dome head rivet	8
G	300900160009	Label, mattress compatibility	1

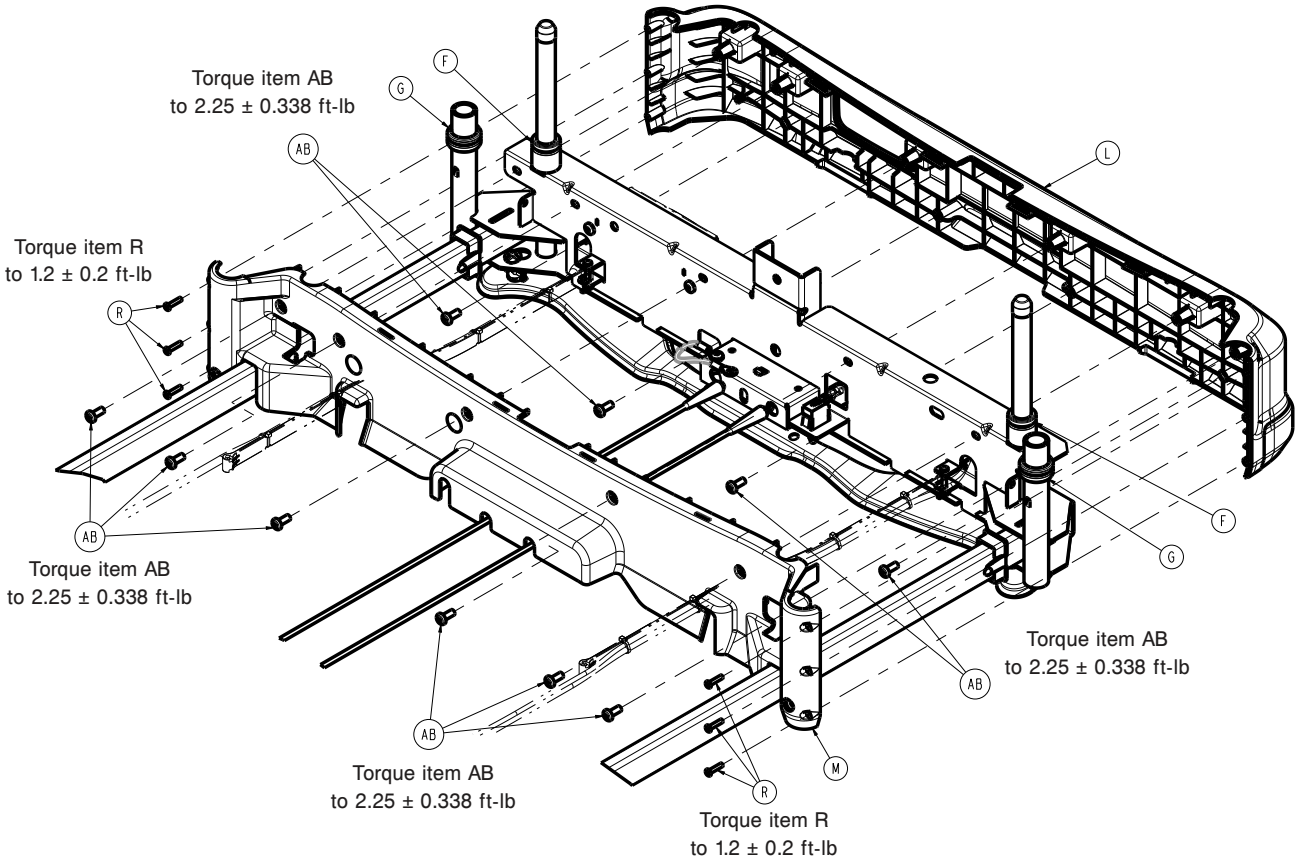
Bed extender assembly

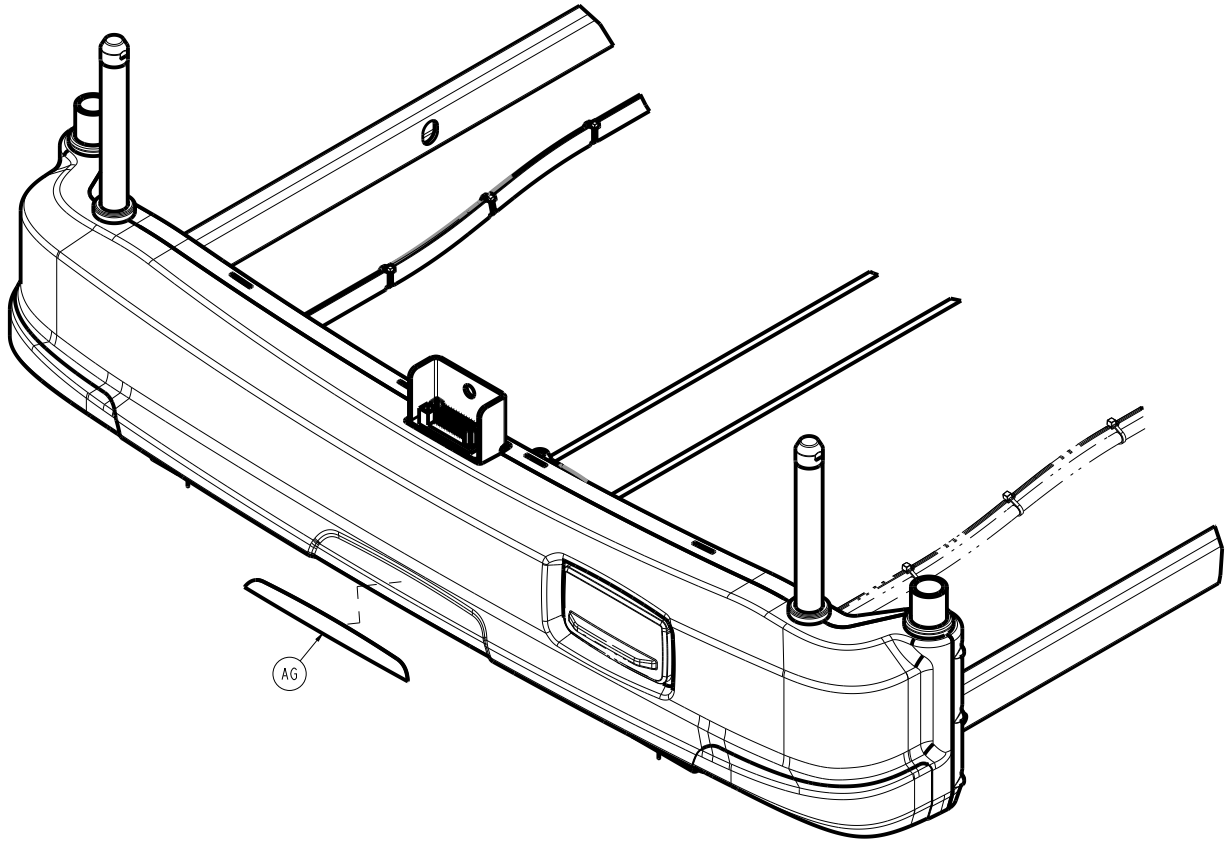
300900670000 Rev AB (Reference only)




Torque item U
to 8 ± 1.2 ft-lb
U
AE
W
J
A
Torque item U
to 8 ± 1.2 ft-lb
U
W
T
AF
AA


T
AA
U
Torque item U
to 5 ± 0.75 ft-lb


Torque item AB
to 2.25 ± 0.338 ft-lb
F
G
AB
L
Torque item R
to 1.2 ± 0.2 ft-lb
R
AB
Torque item AB
to 2.25 ± 0.338 ft-lb
F
G
Torque item AB
to 2.25 ± 0.338 ft-lb
AB
AB
Torque item AB
to 2.25 ± 0.338 ft-lb
M
R
Torque item R
to 1.2 ± 0.2 ft-lb

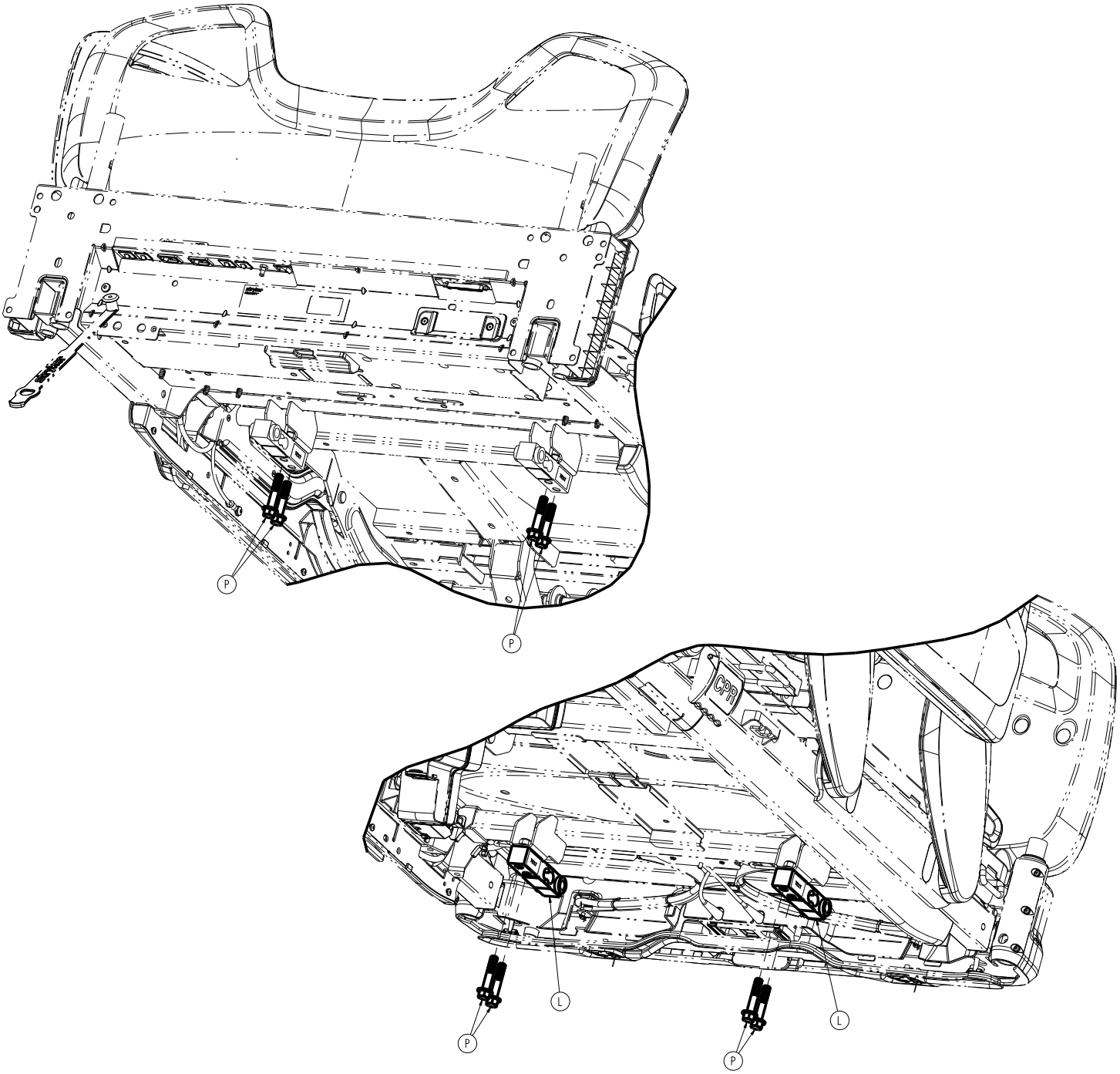


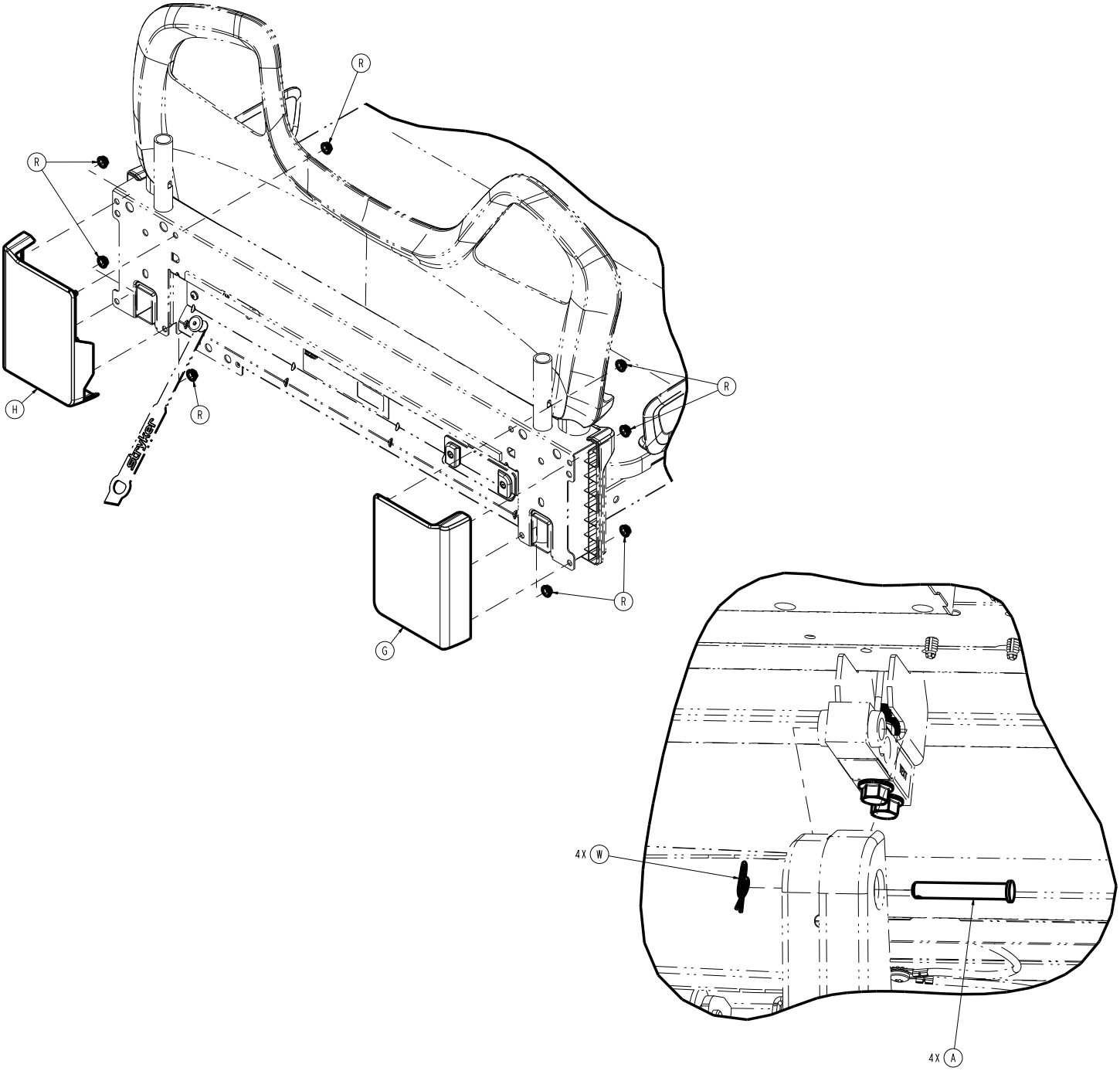
Item	Number	Name	Quantity
A	300900670009	Release cable	2
B	300900670011	Roller	2
C	300900670012	Rear bearing pad, inner	2
D	300900670013	Rear bearing pad, outer	2
E	300900670014	Footboard post cap	2
F	300900670016	Footboard cover grommet	2
G	300900670017	Traction cover grommet	2
H	300900670018	Slider 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
AD	3000-300-058	Plunger switch	1
AE	3002-300-870	Litter ground jumper	1

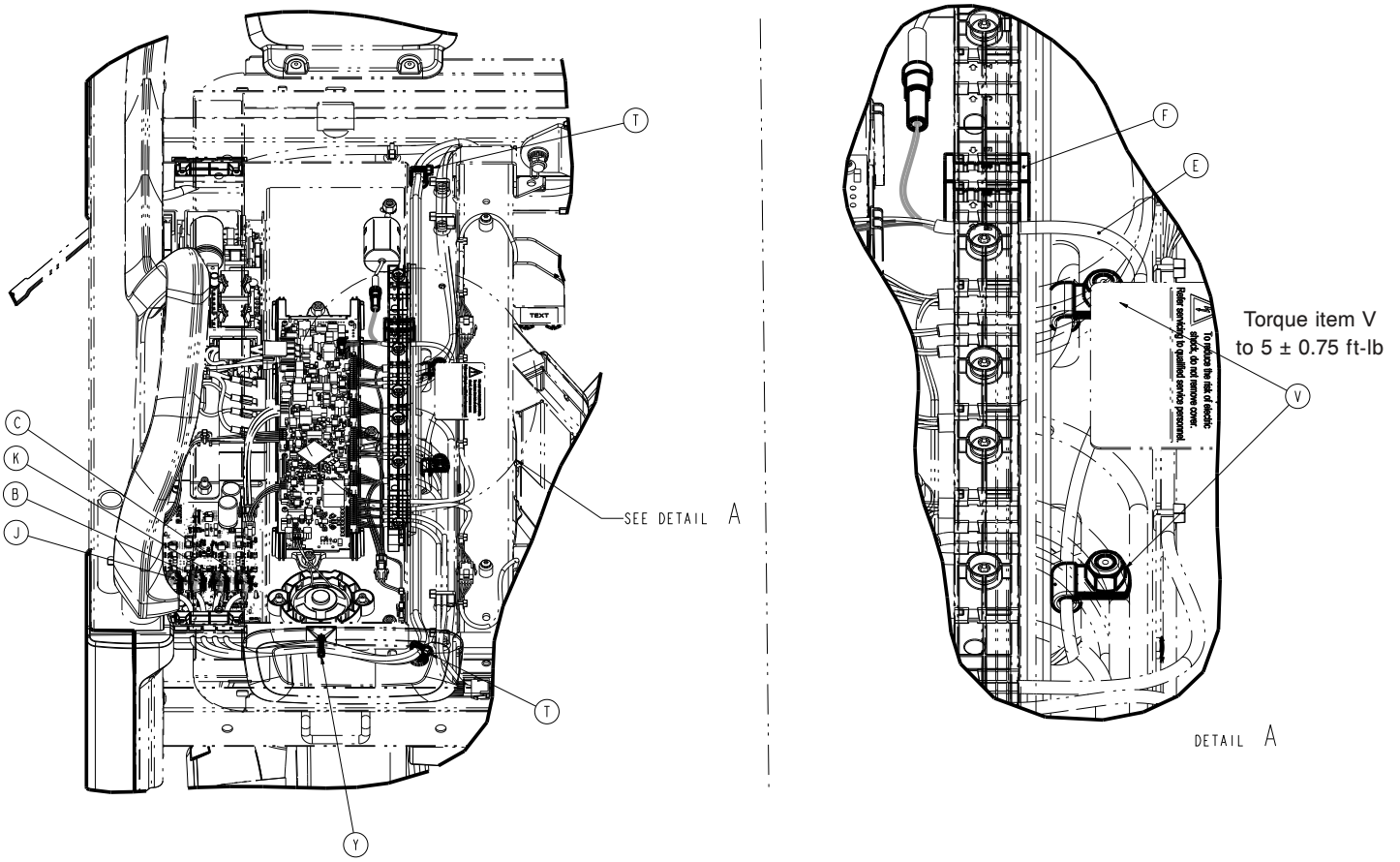
Item	Number	Name	Quantity
AF	300900100822	Cable assembly	1
AG	300900670701	Label, bed extender	1

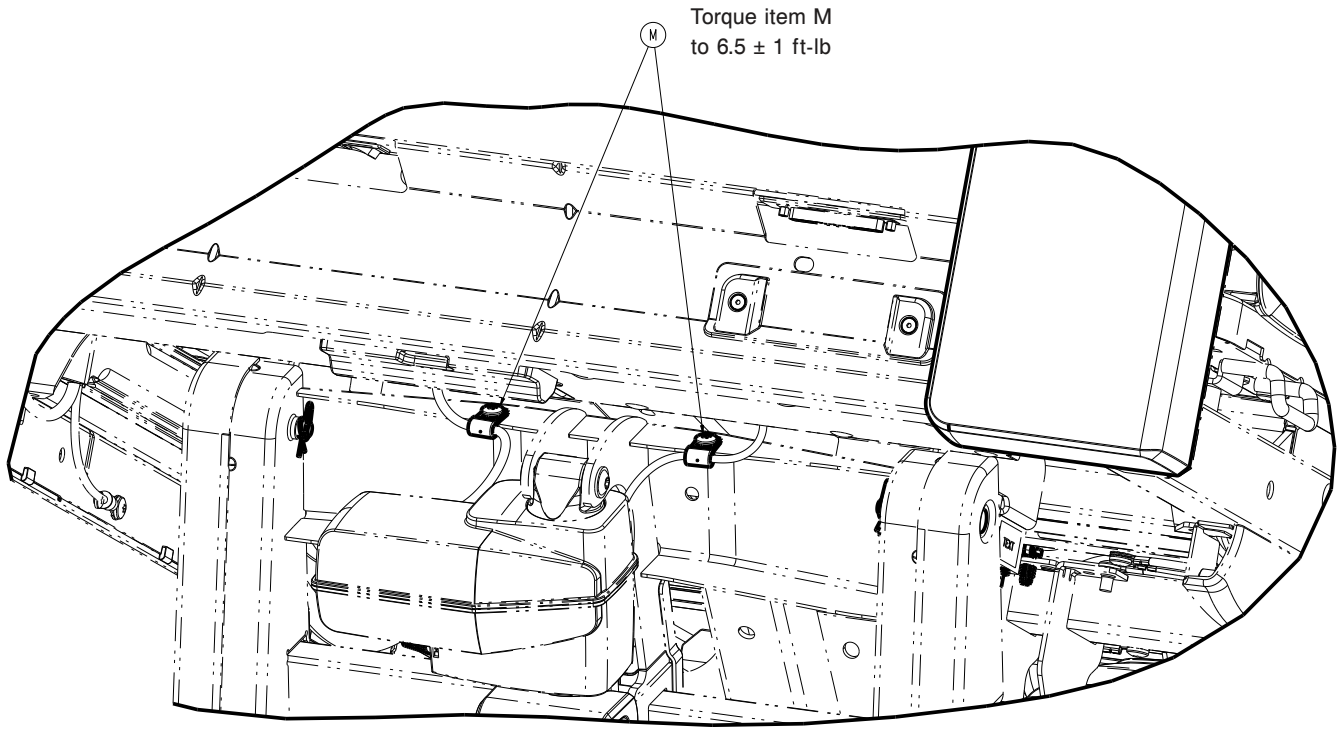
Manual brakes assembly

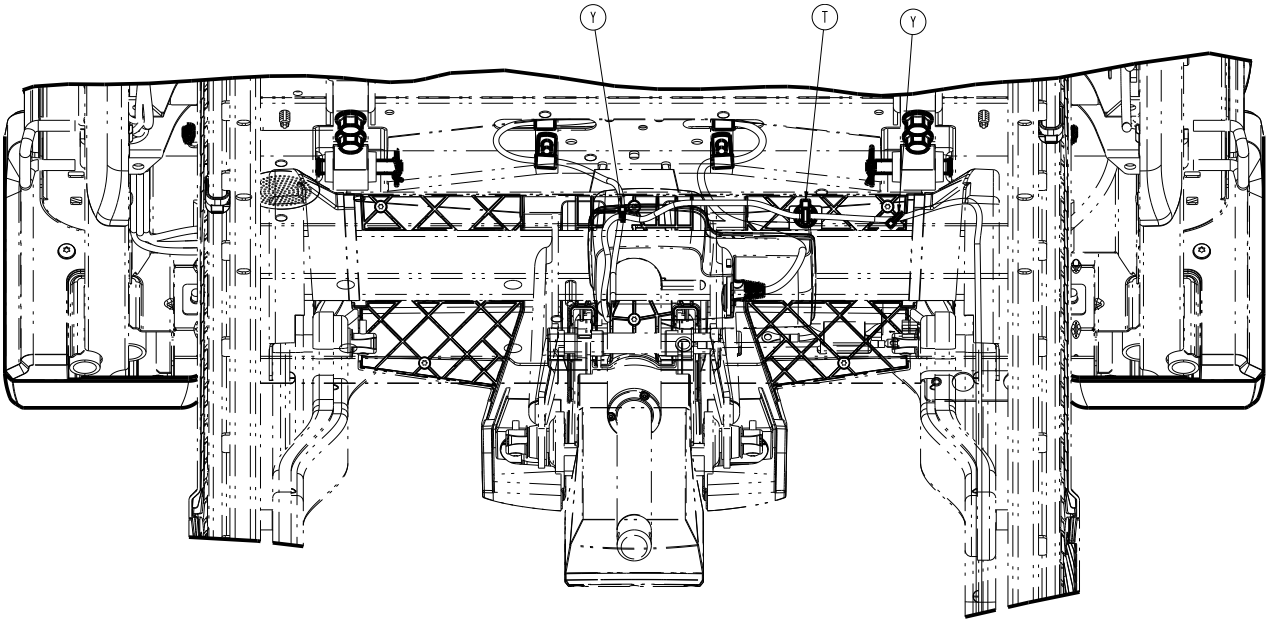
300900030250 Rev AB (Reference only)

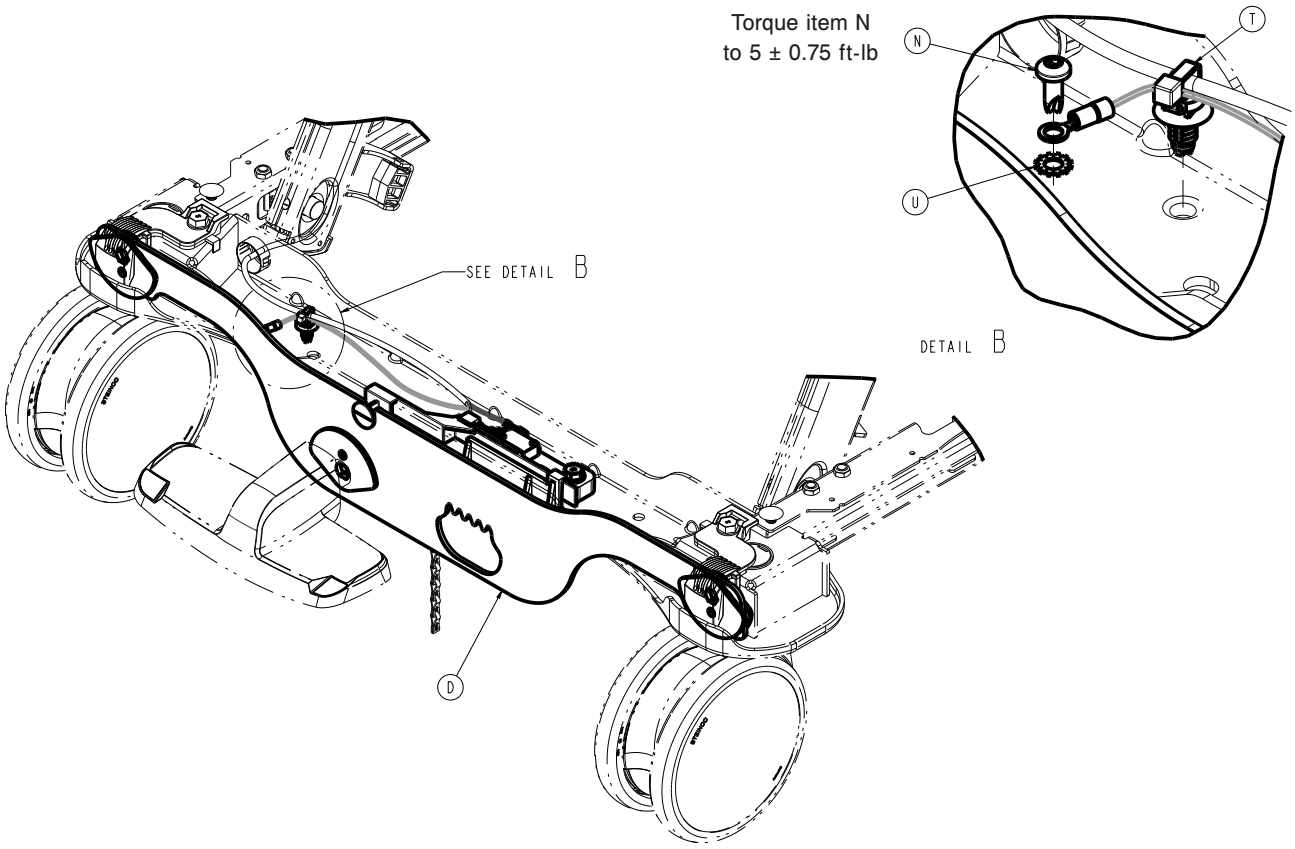


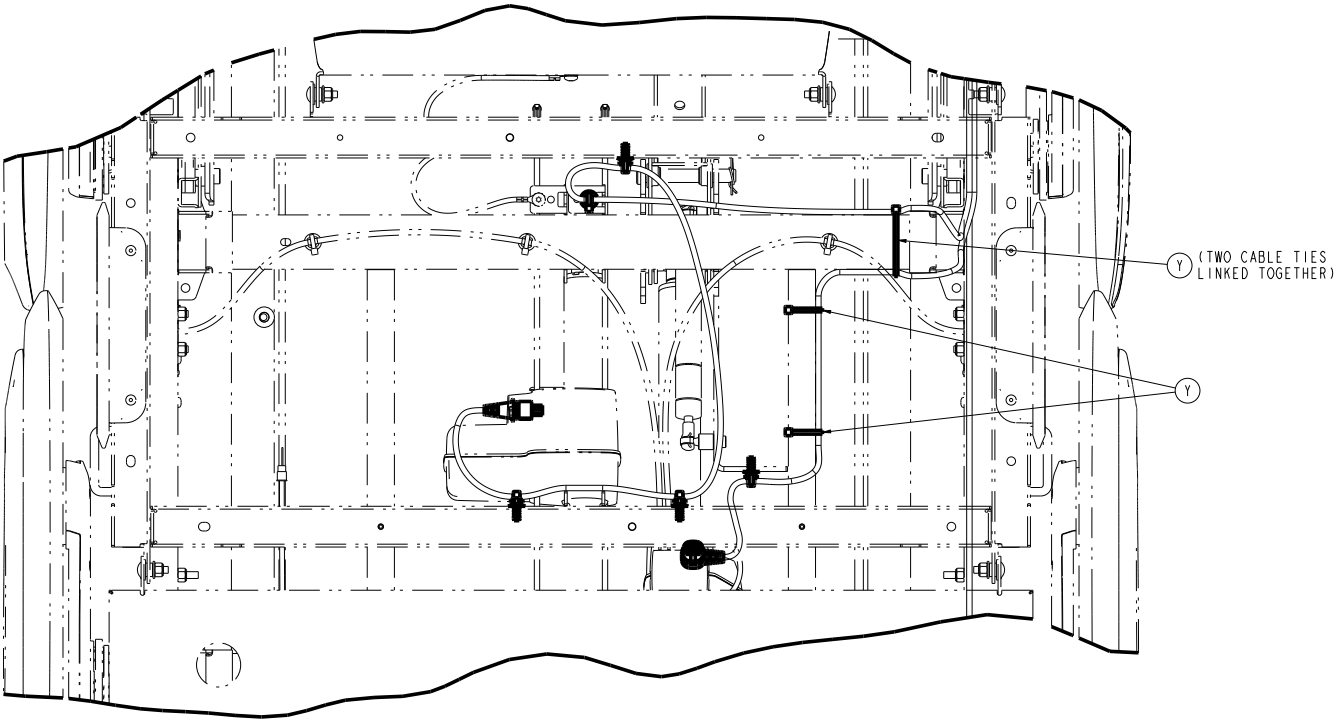

R
R
H
R
R
R
G
4X W
4X A

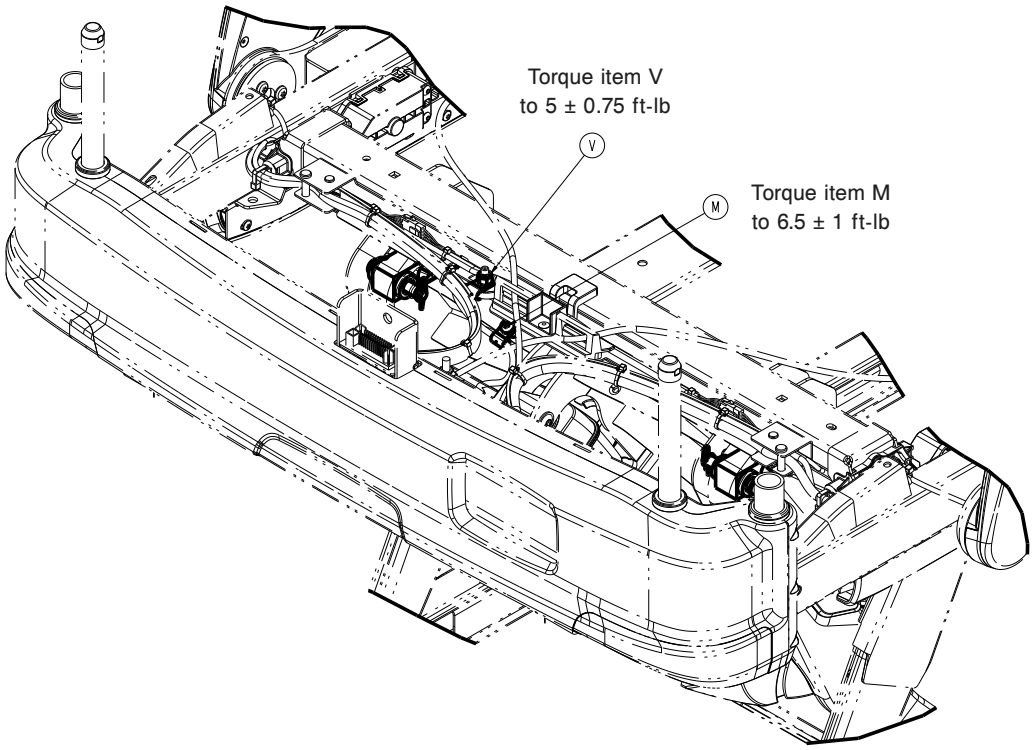

T
C
K
B
J
SEE DETAIL A
T
Y
F
E
V
Torque item V
to 5 ± 0.75 ft-lb
DETAIL A


M
Torque item M
to 6.5 ± 1 ft-lb


Y
T
Y


Torque item N
to 5 ± 0.75 ft-lb
N
T
U
SEE DETAIL B
DETAIL B
D



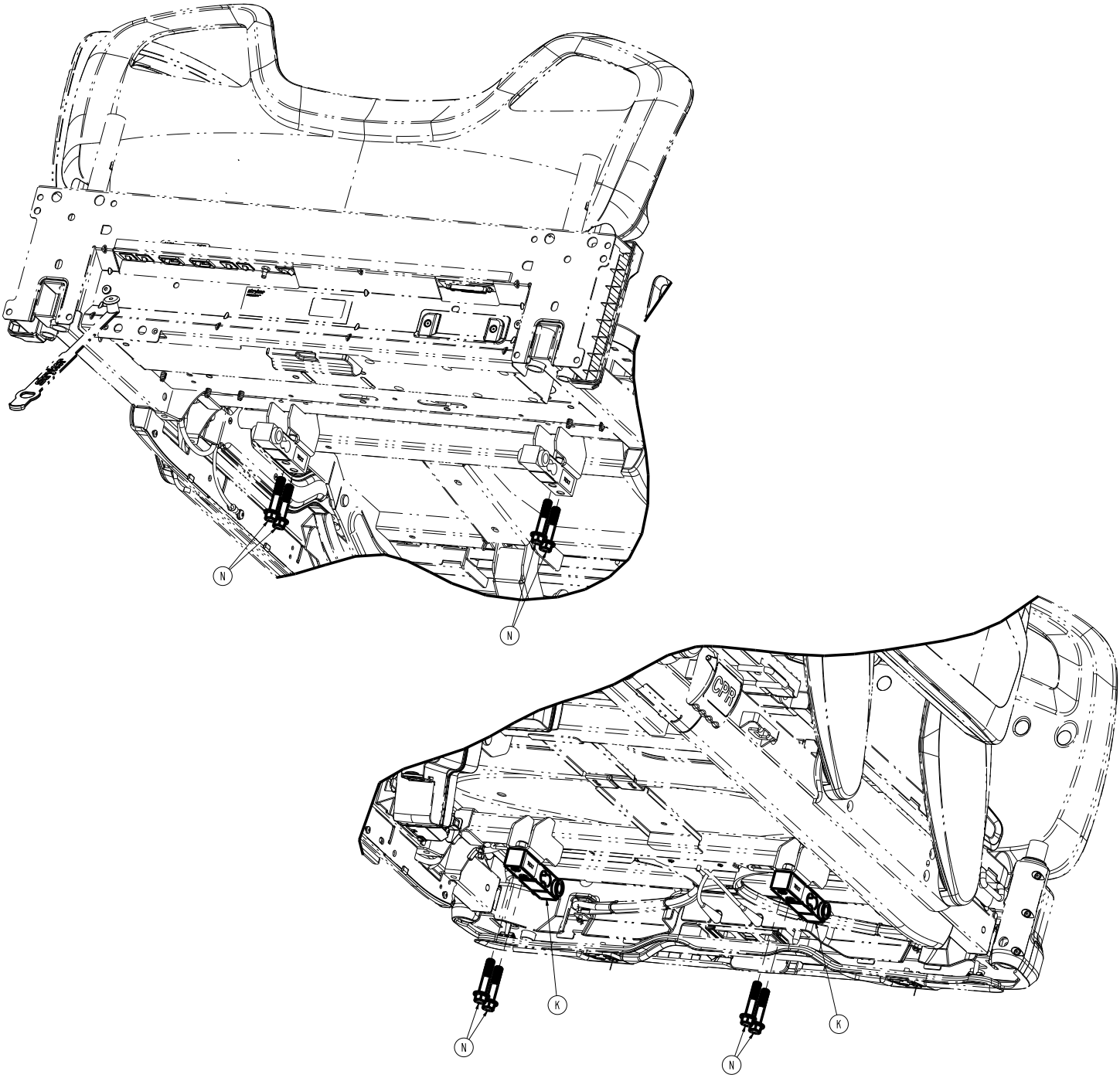


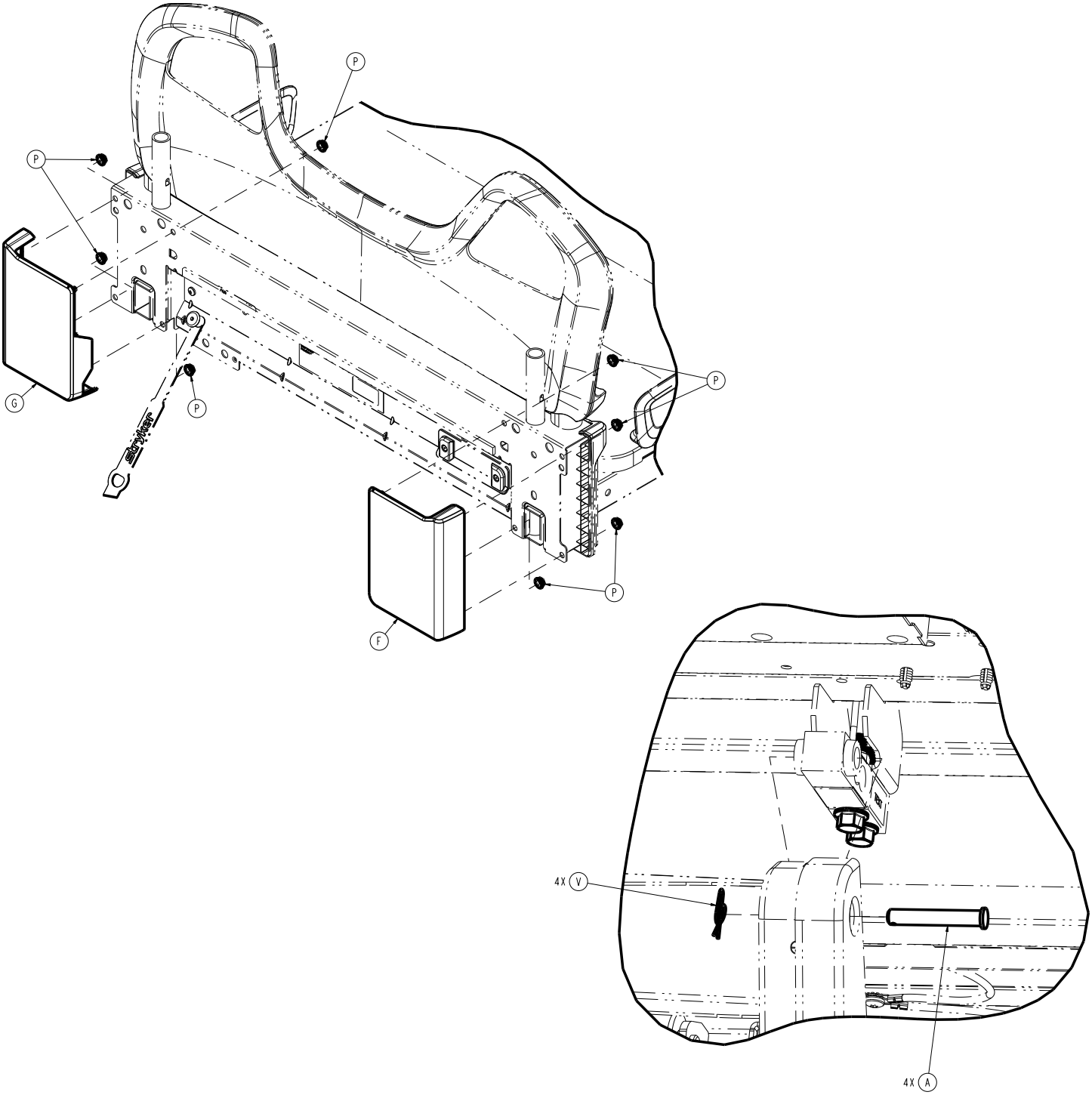
Item	Number	Name	Quantity
A	300900020027	Lift loadcell pin	4
B	300900020870	Lift actuator cable, head end	1
C	300900020875	Lift actuator cable, foot end	1
D	300900030100	*Manual brakes base assembly* (page 102)	1
E	300900030810	Cable assembly	1
F	300900100016	Litter electronics box manual brake plug	1

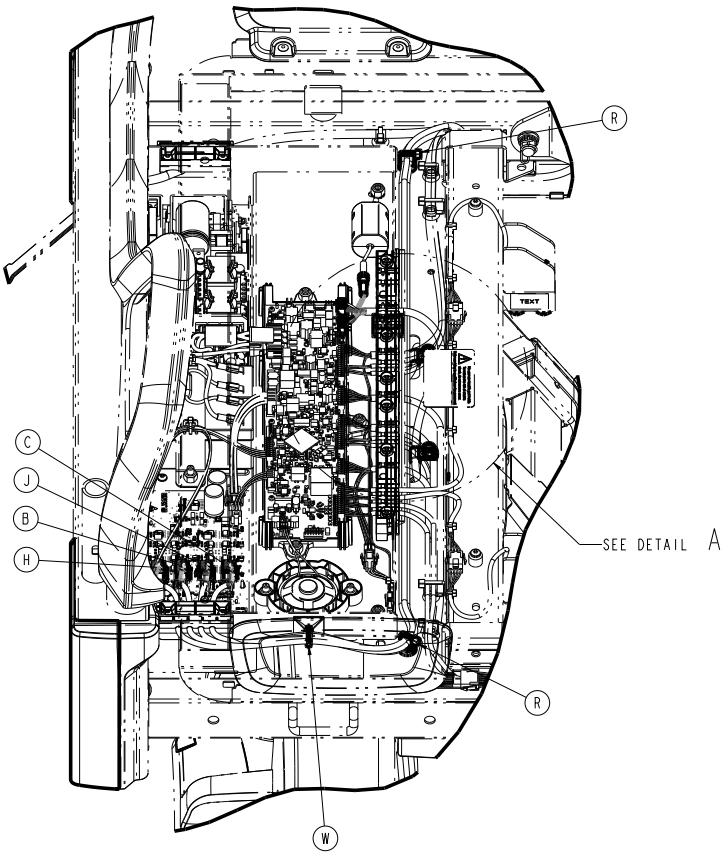
Item	Number	Name	Quantity
G	300900100168	Litter head end bumper, right	1
H	300900100169	Litter head end bumper, left	1
J	300900120875	Fowler actuator cable	1
K	300900140875	Gatch actuator cable	1
L	300900370855	Non-**Zoom** foot end loadcell cable assembly	2
M	700000336076	Pan head thread rolling screw	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

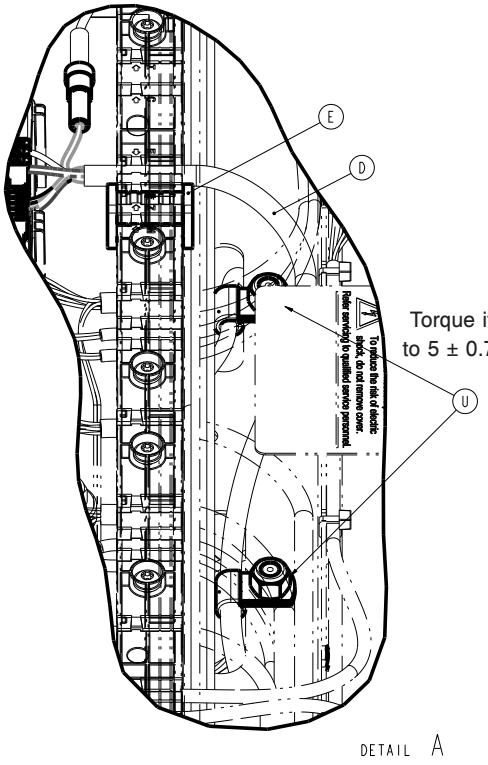
Electric brakes assembly

300900030350 Rev AB (Reference only)




P
P
P
P
G
P
F
4X V
4X A

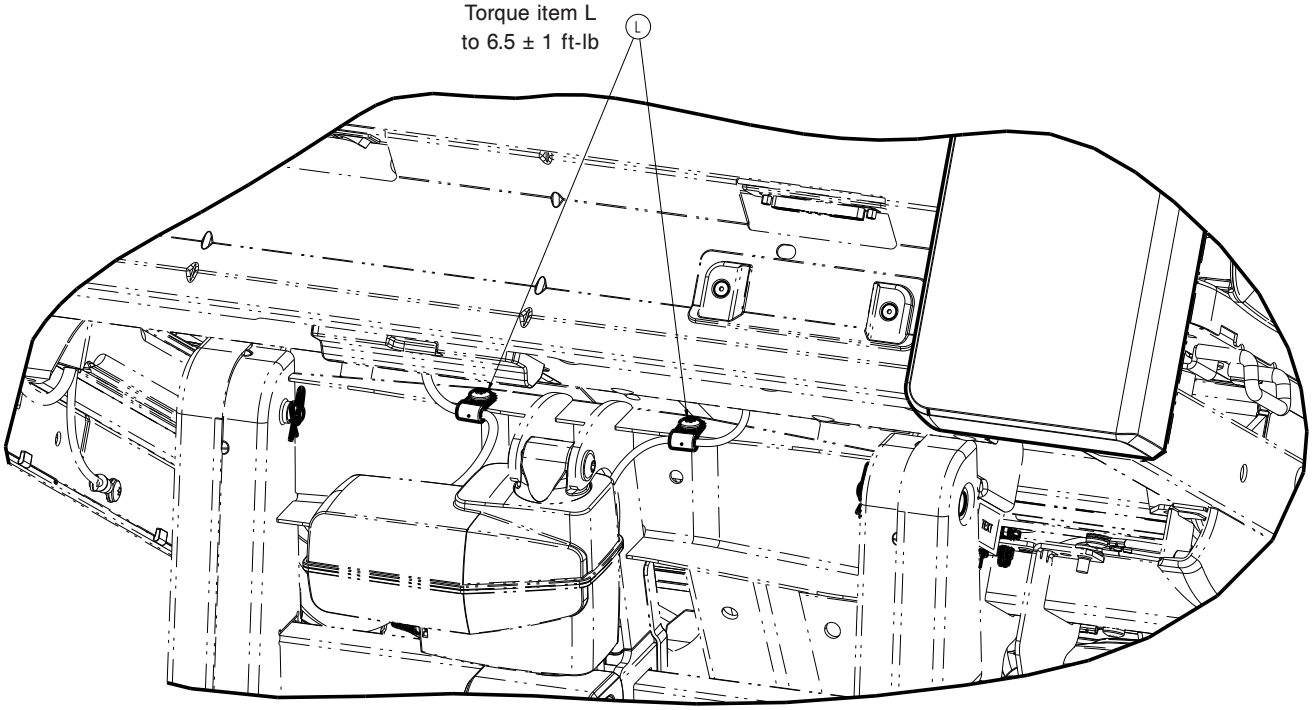


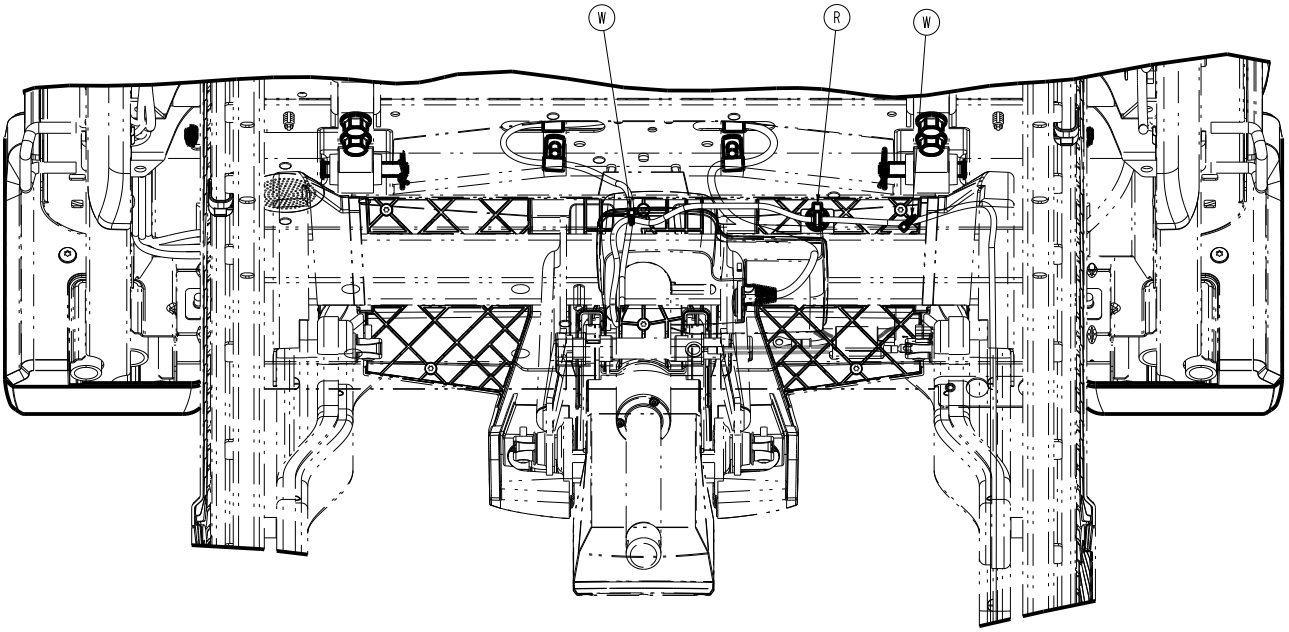


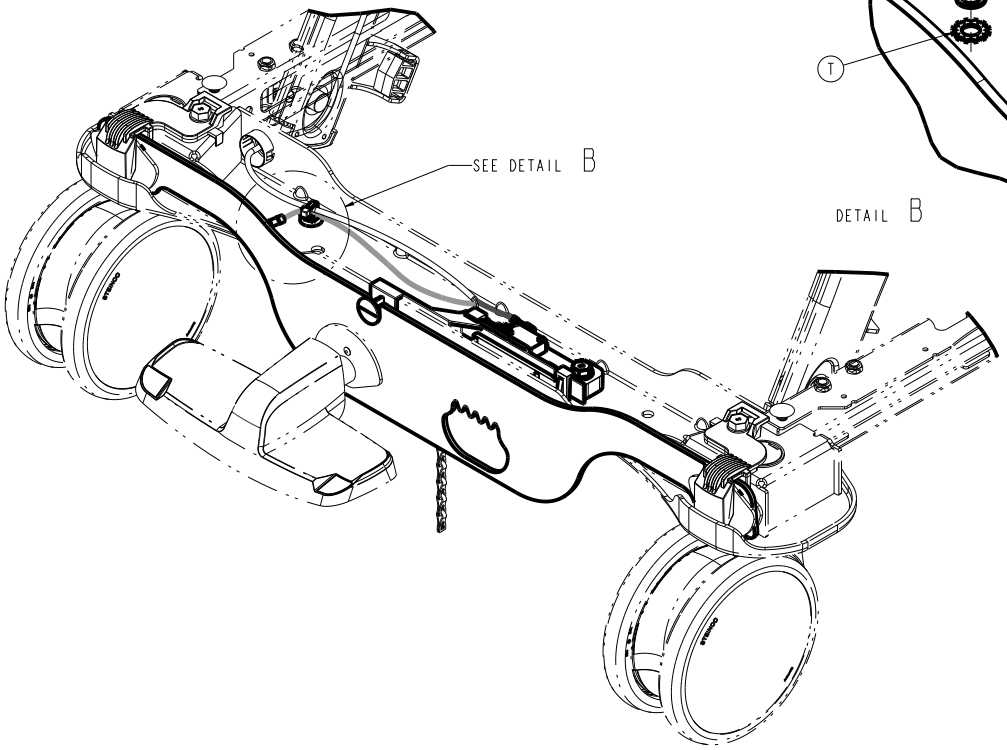
Torque item U
to 5 ± 0.75 ft-lb

DETAIL A

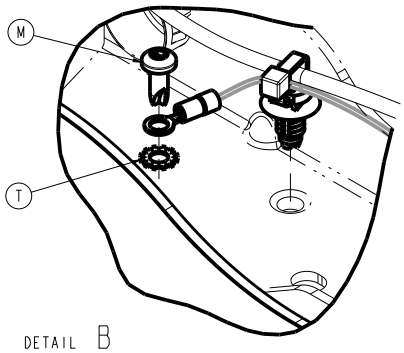
Torque item L
to 6.5 ± 1 ft-lb



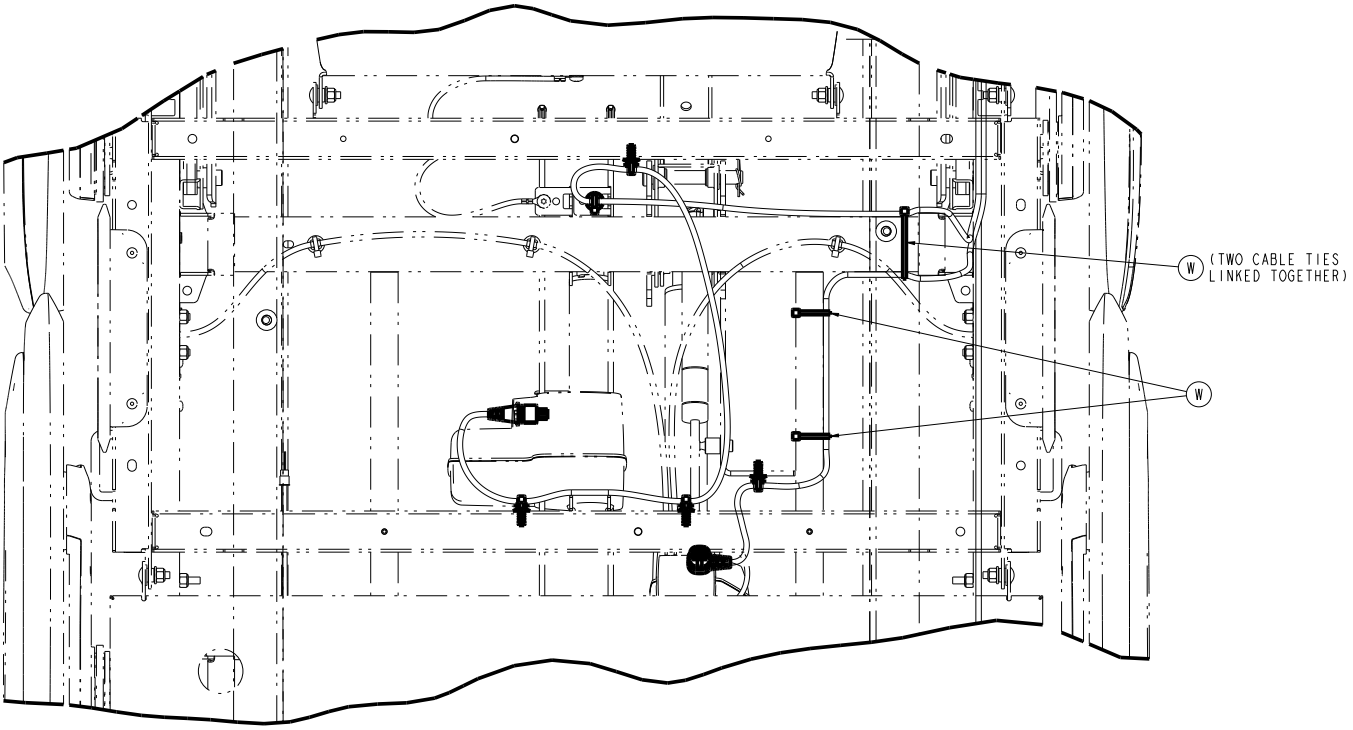


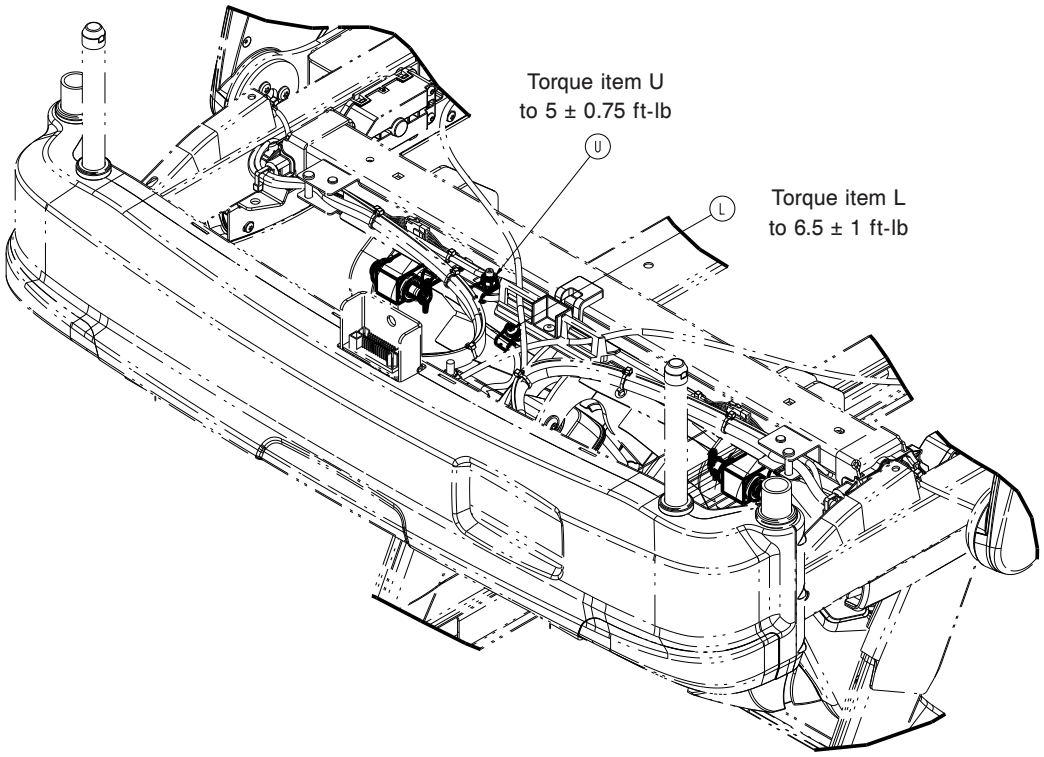


Torque item M
to 5 ± 0.75 ft-lb



DETAIL B



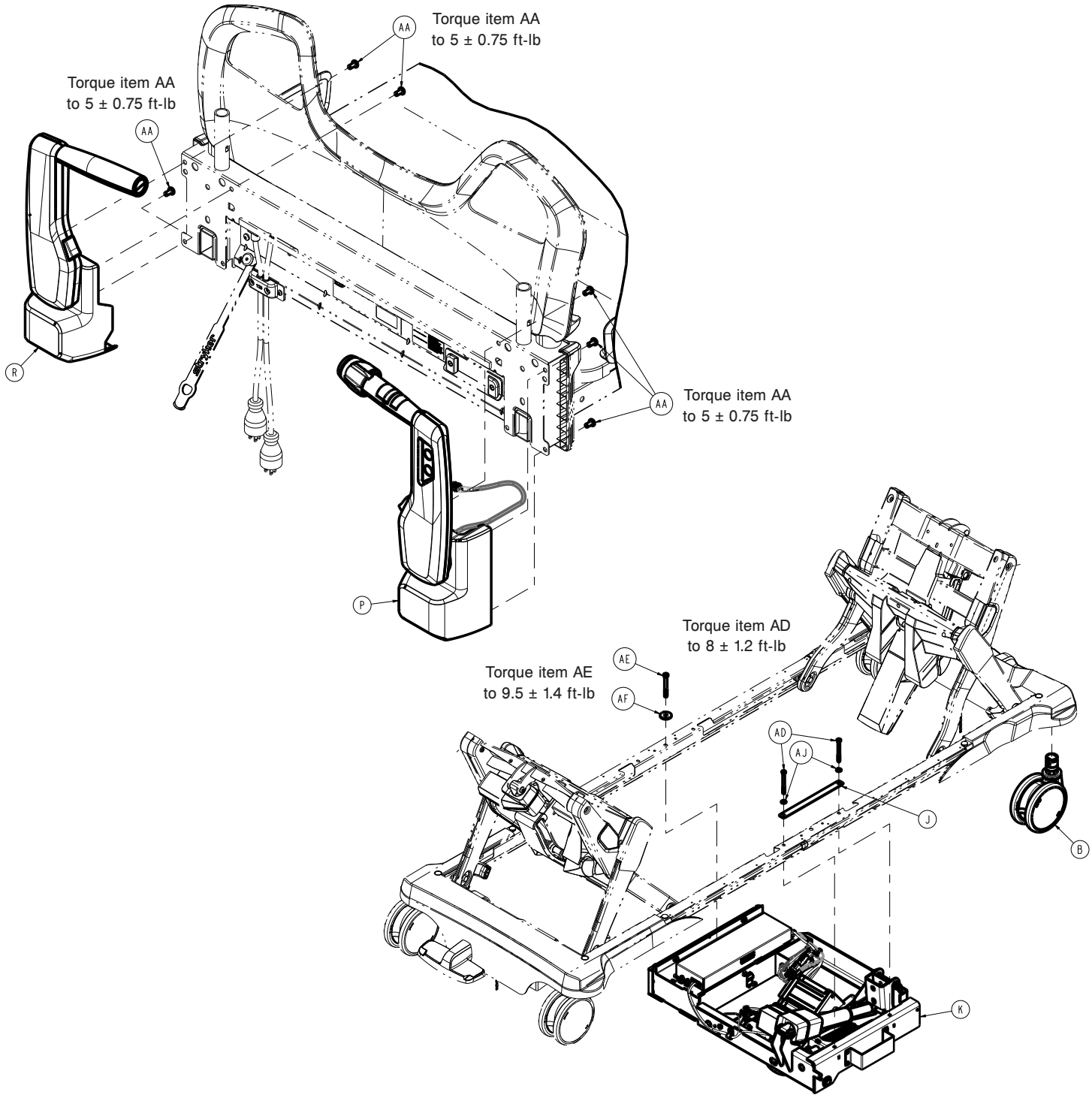


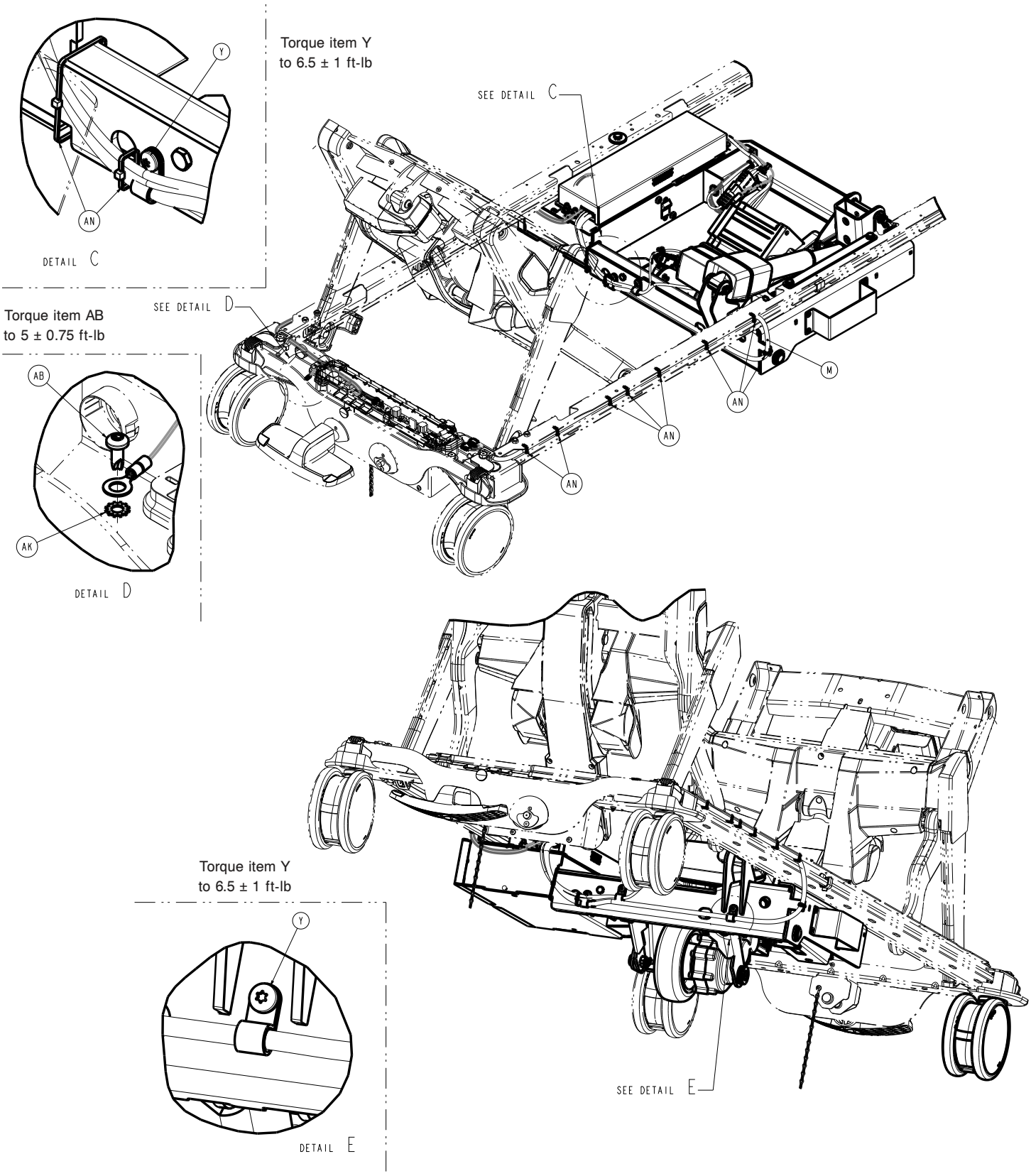
Item	Number	Name	Quantity
A	300900020027	Lift loadcell pin	4
B	300900020870	Lift actuator cable, head end	1
C	300900020875	Lift actuator cable, foot end	1
D	300900030820	Cable assembly	1
E	300900100017	Litter electronics box electric brake plug	1
F	300900100168	Litter head end bumper, right	1
G	300900100169	Litter head end bumper, left	1
H	300900120875	Fowler actuator cable	1

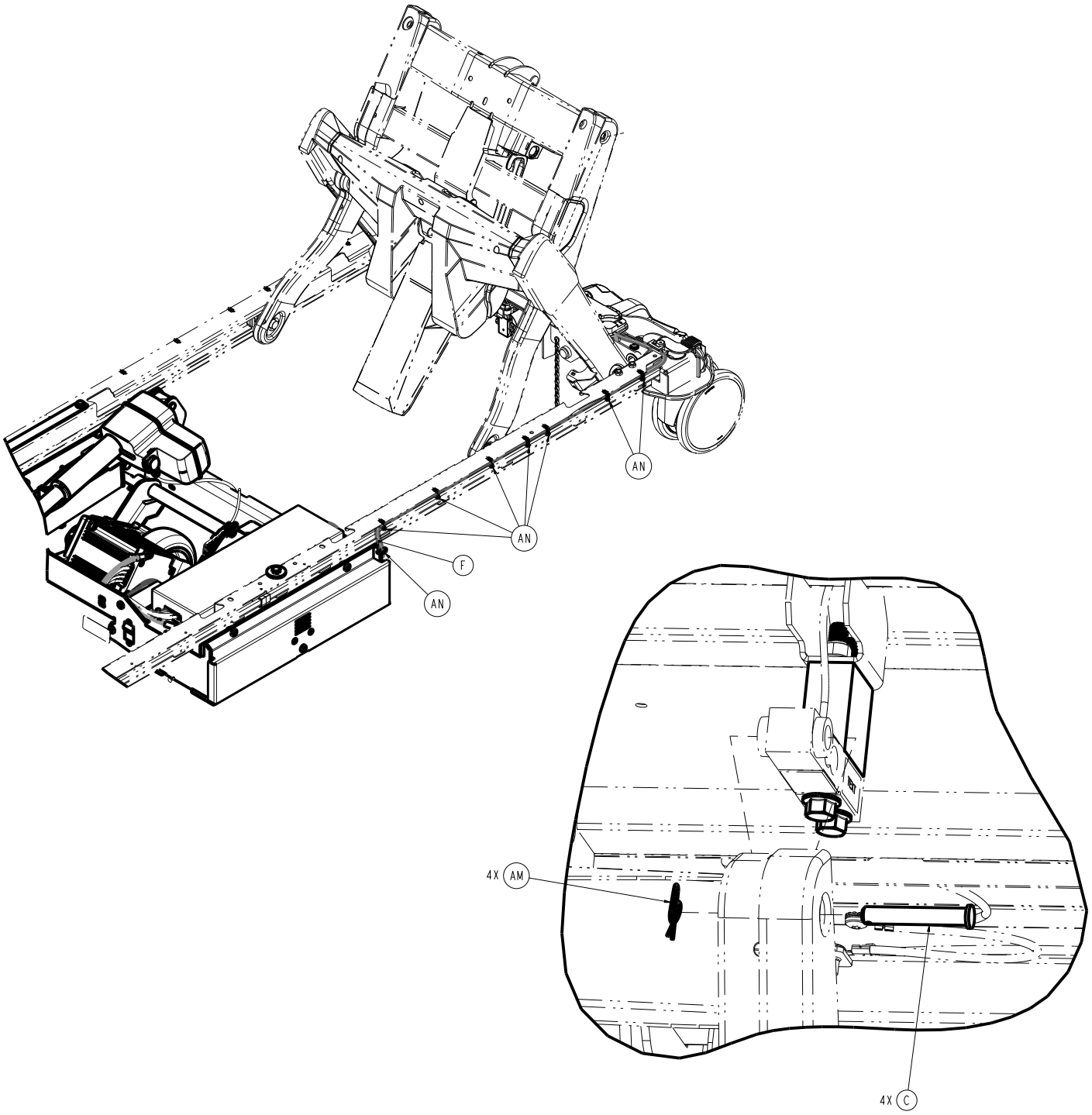
Item	Number	Name	Quantity
J	300900140875	Gatch actuator cable	1
K	300900370855	Non-**Zoom** foot end loadcell cable assembly	2
L	700000336076	Pan head thread rolling screw	3
M	700000668696	Pan head thread cutting screw	1
N	700000717577	Hex flange screw	8
P	700000741214	Thread cutting nut	8
R	700000816940	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

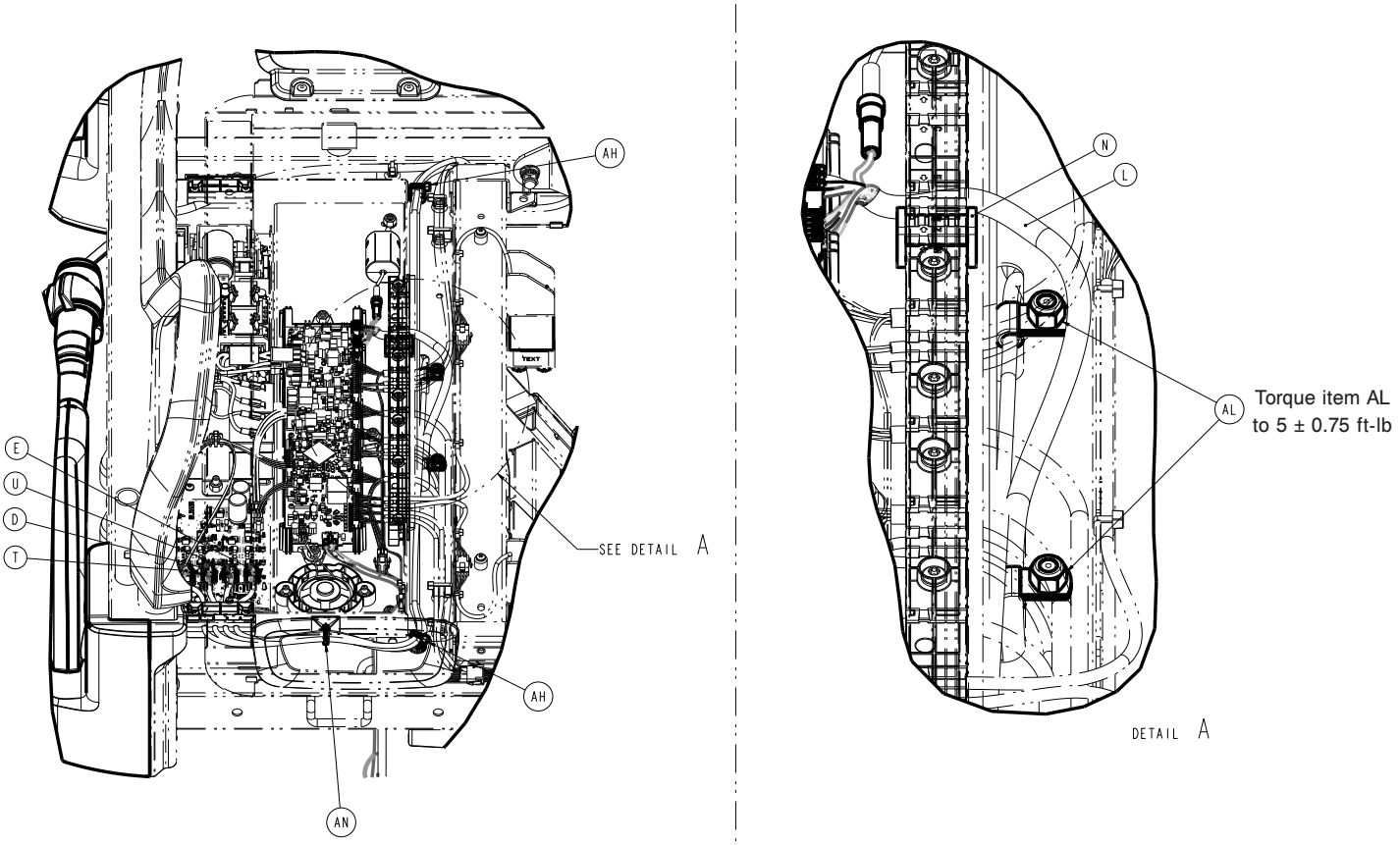
Zoom assembly

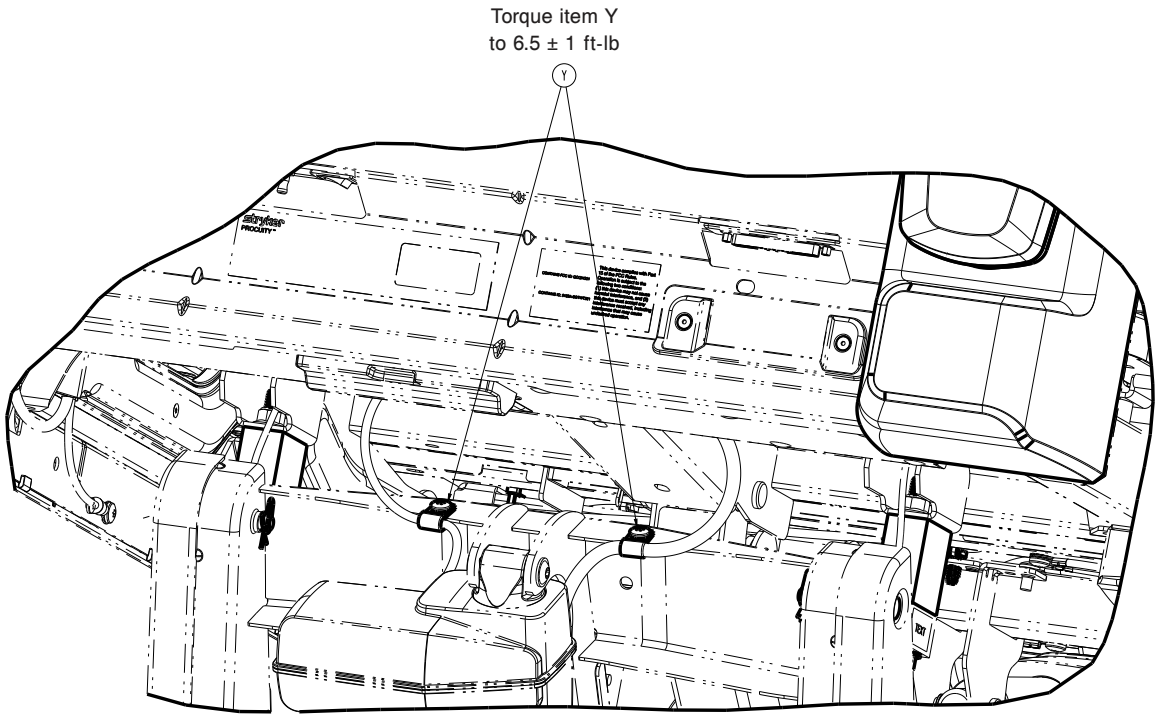
300900070150 Rev AB (Reference only)

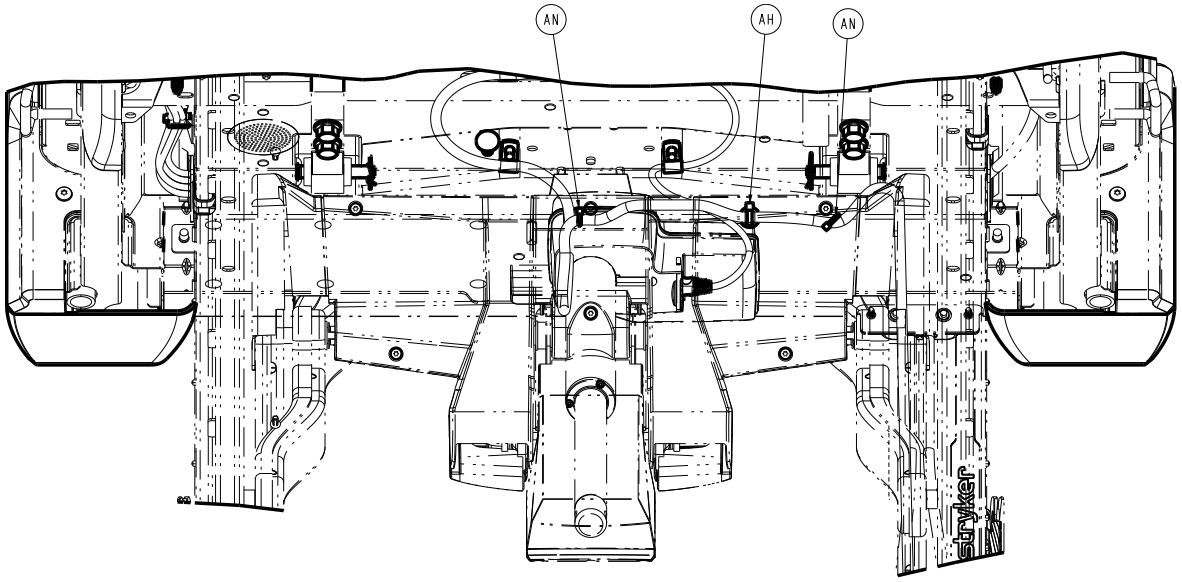

Torque item AA
to 5 ± 0.75 ft-lb
AA
Torque item AA
to 5 ± 0.75 ft-lb
AA
R
P
AA
Torque item AA
to 5 ± 0.75 ft-lb
Torque item AD
to 8 ± 1.2 ft-lb
Torque item AE
to 9.5 ± 1.4 ft-lb
AE
AF
AD
AJ
J
B
K

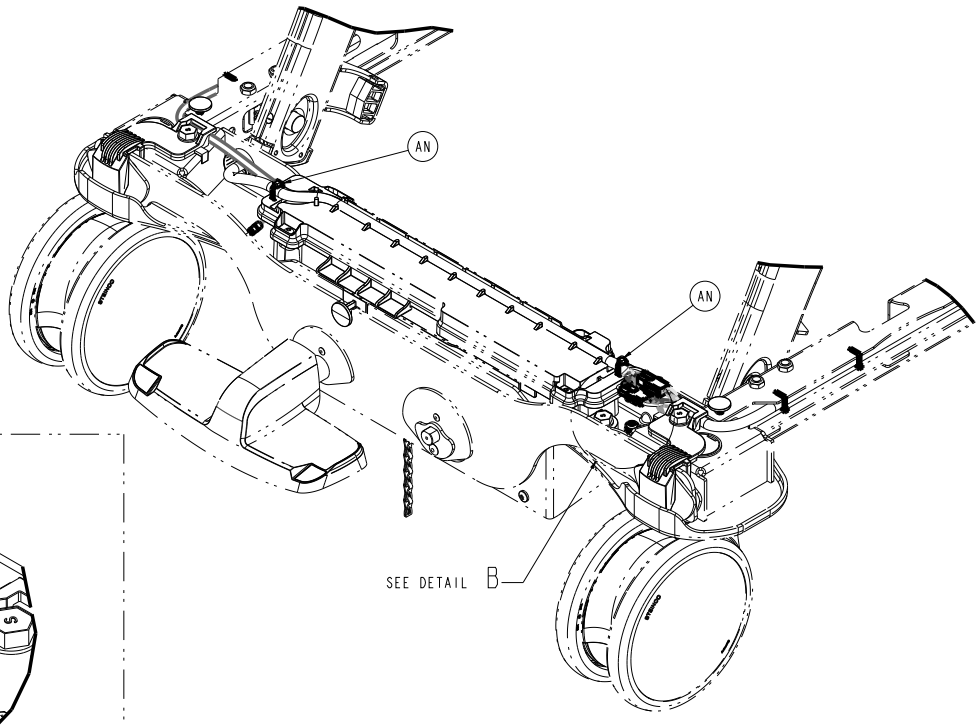

Torque item Y
to 6.5 ± 1 ft-lb
Y
AN
DETAIL C
SEE DETAIL C
SEE DETAIL D
M
AN
AN
AN
Torque item AB
to 5 ± 0.75 ft-lb
AB
AK
DETAIL D
Torque item Y
to 6.5 ± 1 ft-lb
Y
DETAIL E
SEE DETAIL E


AN
AN
F
AN
4X AM
4X C

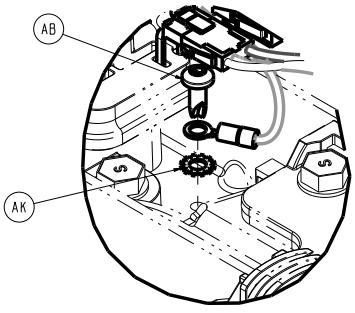

AH
E
U
D
T
SEE DETAIL A
AH
AN
N
L
AL
Torque item AL
to 5 ± 0.75 ft-lb
DETAIL A


Torque item Y
to 6.5 ± 1 ft-lb
Y

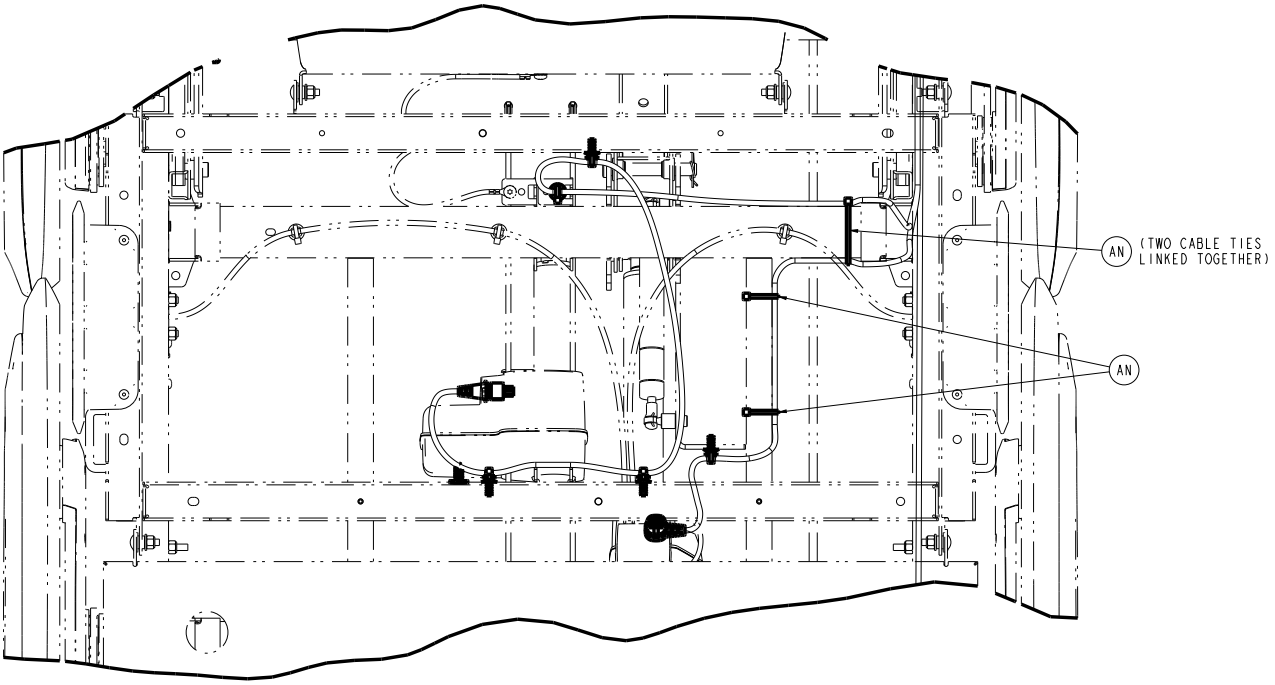


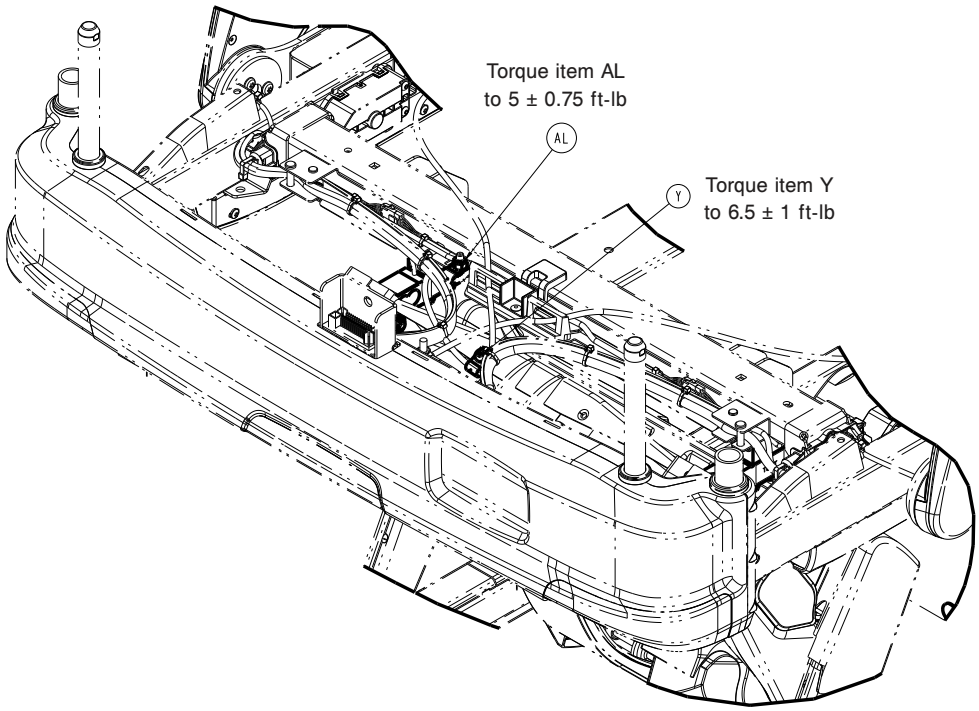


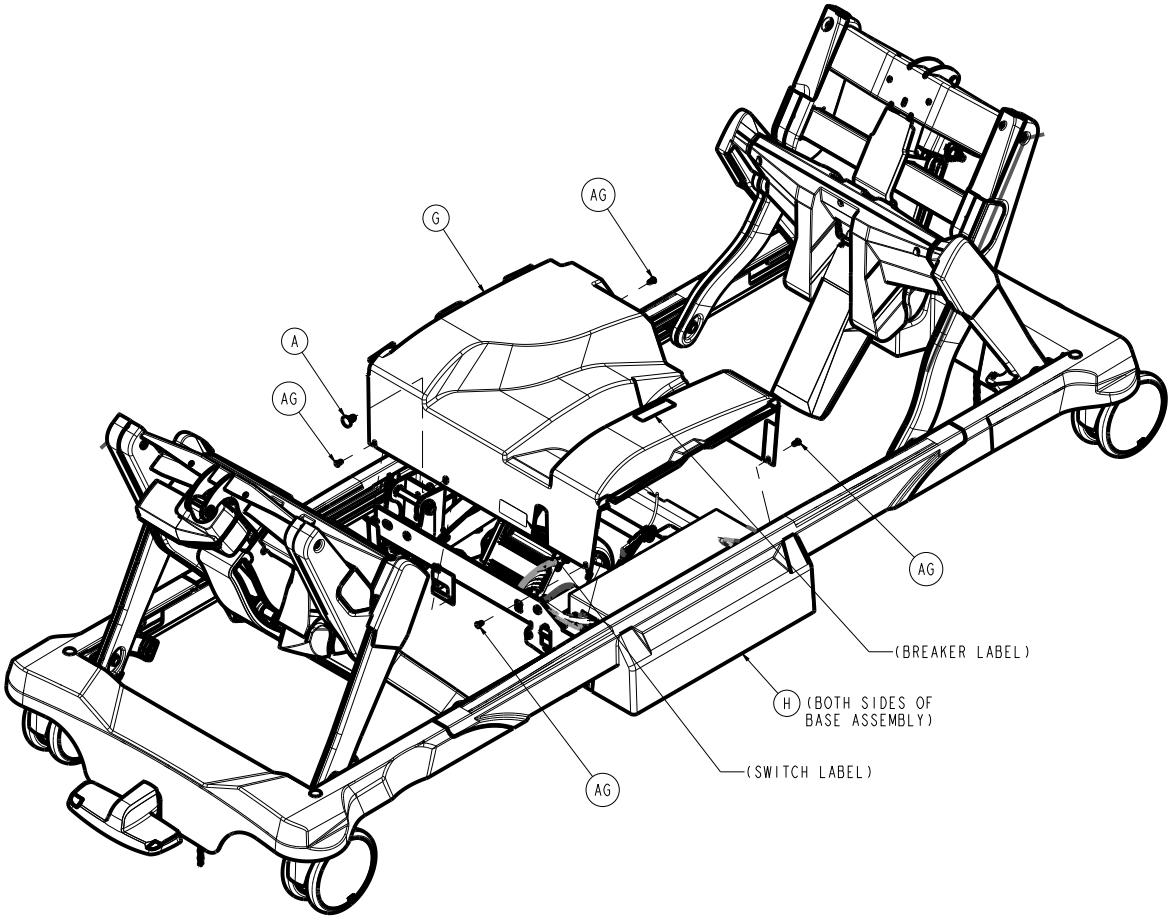
Torque item AB
to 5 ± 0.75 ft-lb



DETAIL B


AN
(TWO CABLE TIES LINKED TOGETHER)
AN


Torque item AL
to 5 ± 0.75 ft-lb
AL
Y
Torque item Y
to 6.5 ± 1 ft-lb

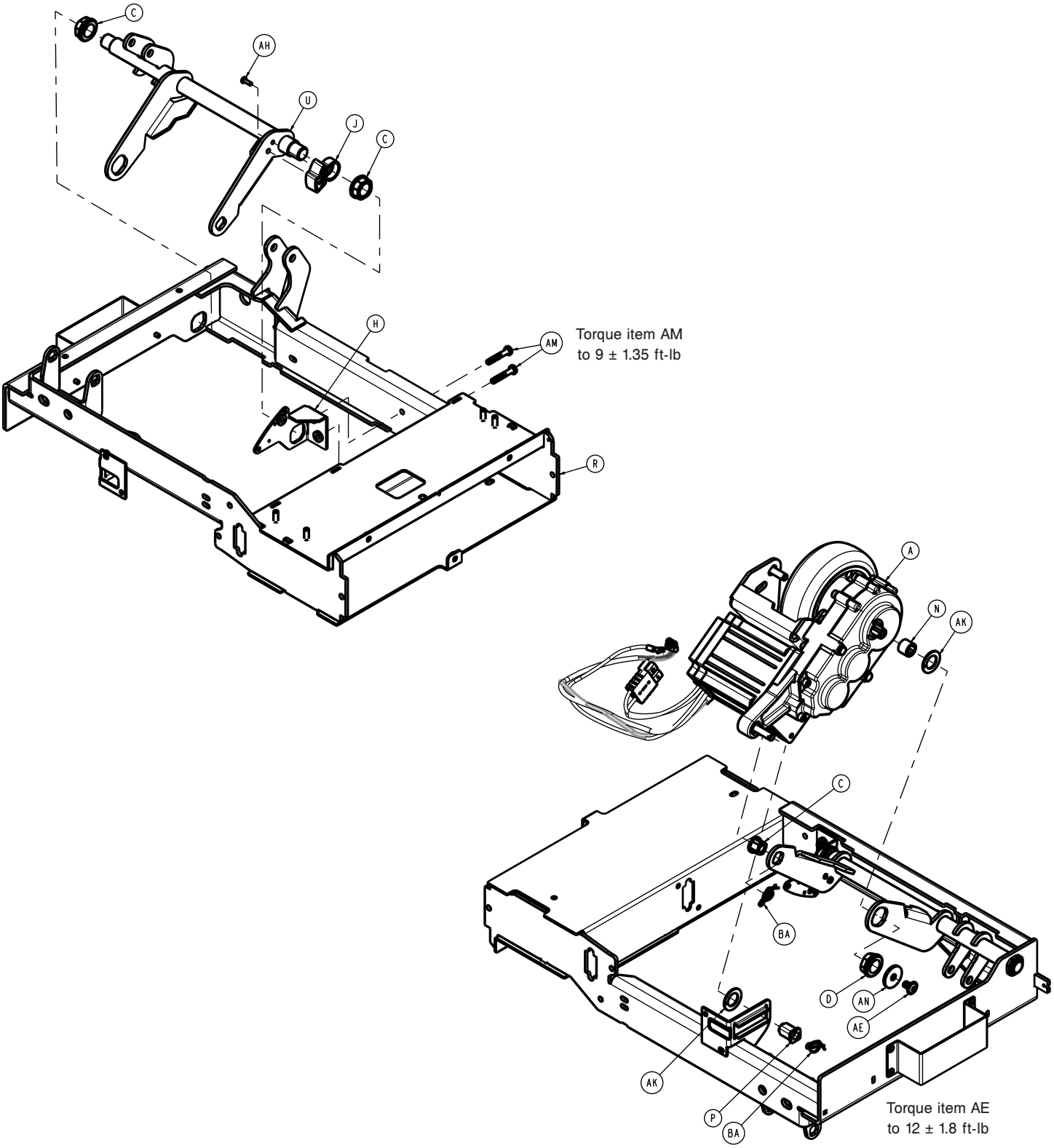


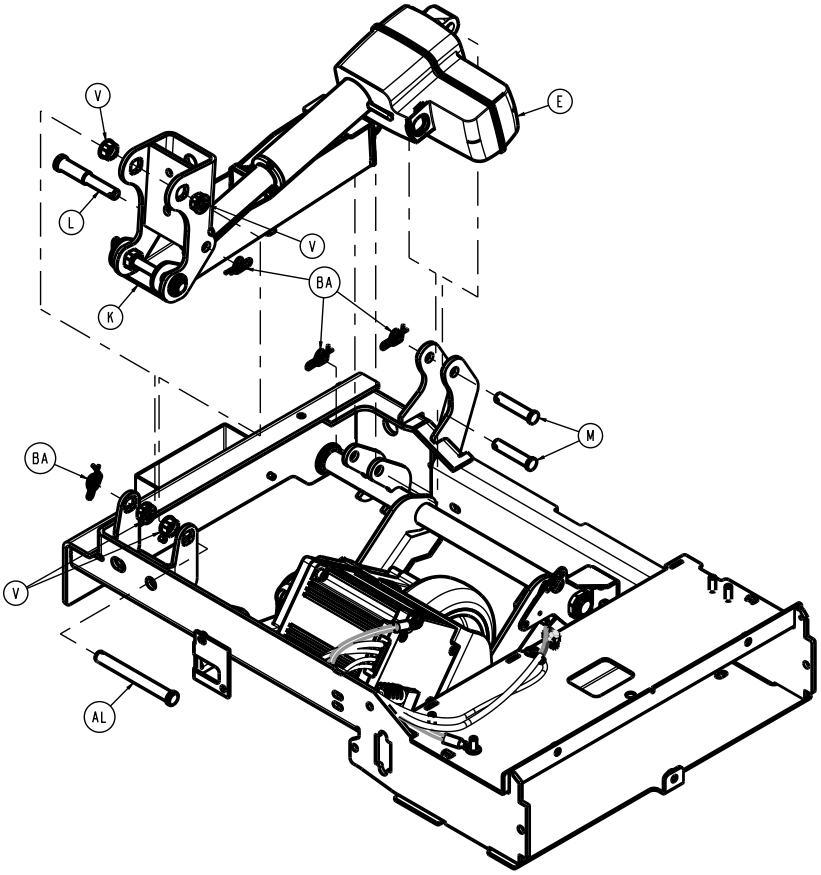
Item	Number	Name	Quantity
A	300900010009	Push-in tree clip	1
B	300900010021	Base standard caster	1
C	300900020027	Lift loadcell pin	4
D	300900020870	Lift actuator cable, head end	1
E	300900020875	Lift actuator cable, foot end	1
F	300900030830	**Zoom** control board to electric brake board cable assembly	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 170)	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 177)	1
R	300900100270	*Litter **Zoom** handle pivot assembly, patient left* (page 179)	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

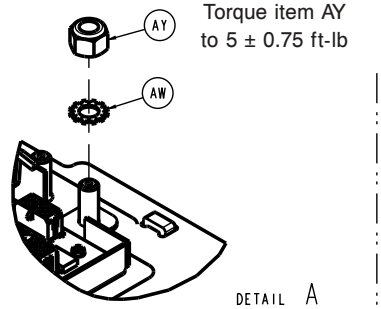
Item	Number	Name	Quantity
AA	700000576833	Pan head machine screw	6
AB	700000668696	Pan head thread cutting screw	2
AC	700000717660	Hex flange screw	8
AD	700000729740	Hex head cap screw	2
AE	700000729746	Hex head cap screw	1
AF	700000740630	Extra heavy fender washer	1
AG	700000800509	Snap clip	4
AH	700000816940	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	25

Zoom drive assembly

300900070250 Rev AD (Reference only)

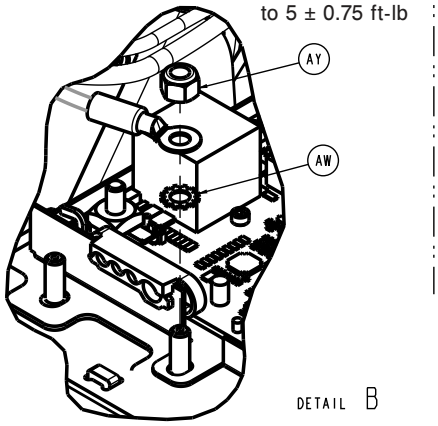






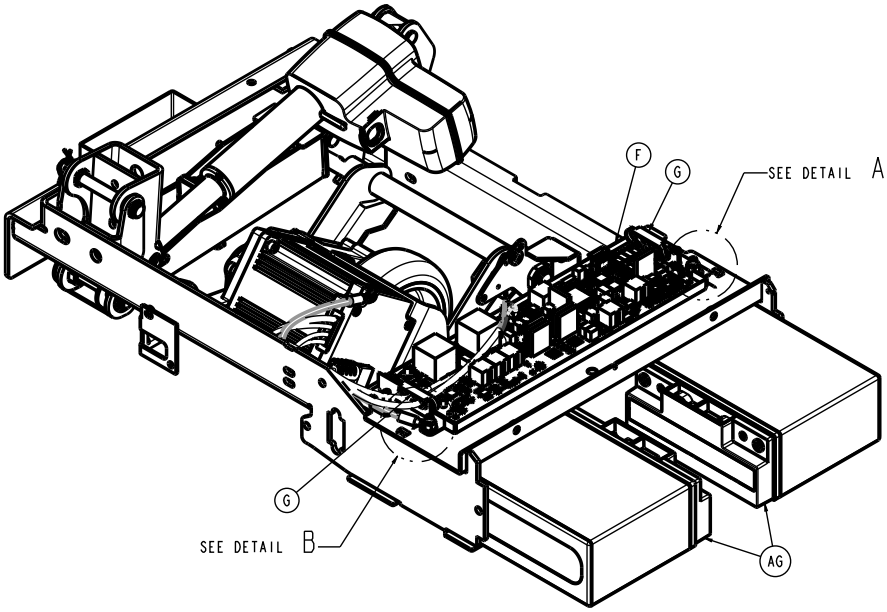
Torque item AY
to 5 ± 0.75 ft-lb

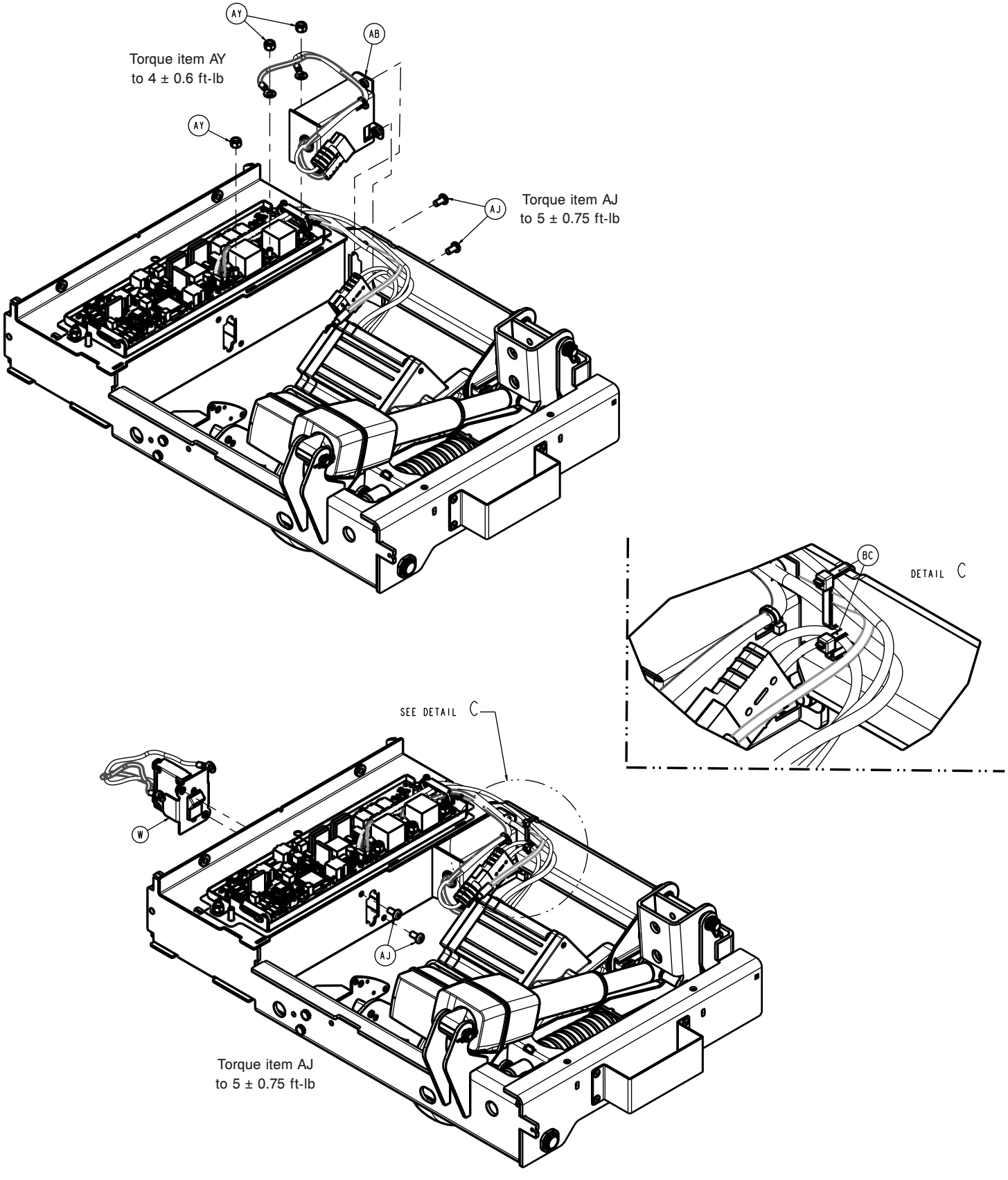
DETAIL A

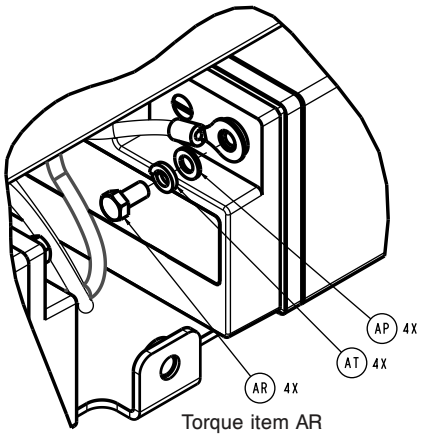


Torque item AY
to 5 ± 0.75 ft-lb

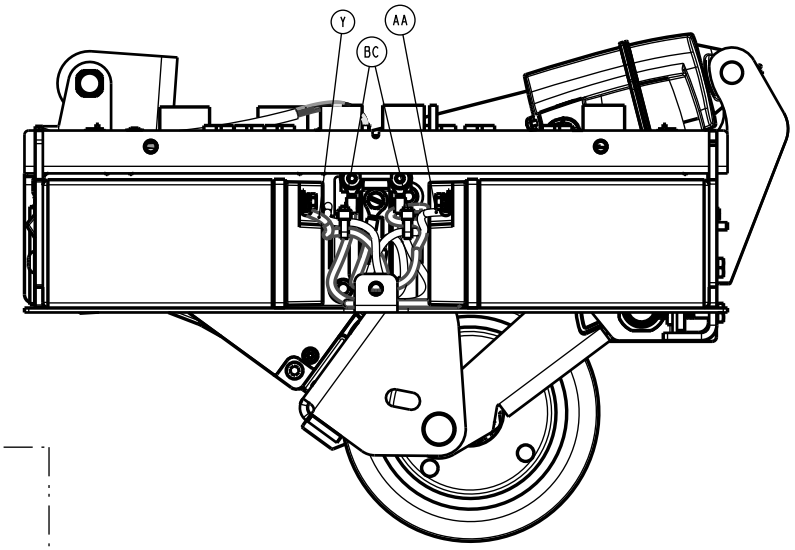
DETAIL B



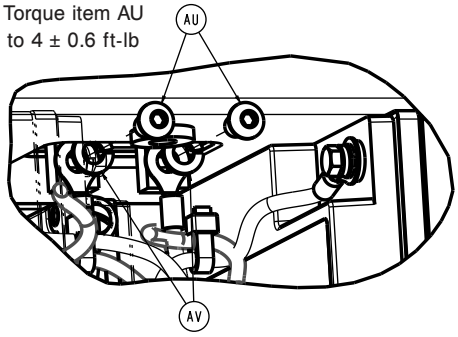

AY
AB
Torque item AY
to 4 ± 0.6 ft-lb
AY
AJ
Torque item AJ
to 5 ± 0.75 ft-lb
BC
DETAIL C
SEE DETAIL C
W
AJ
Torque item AJ
to 5 ± 0.75 ft-lb

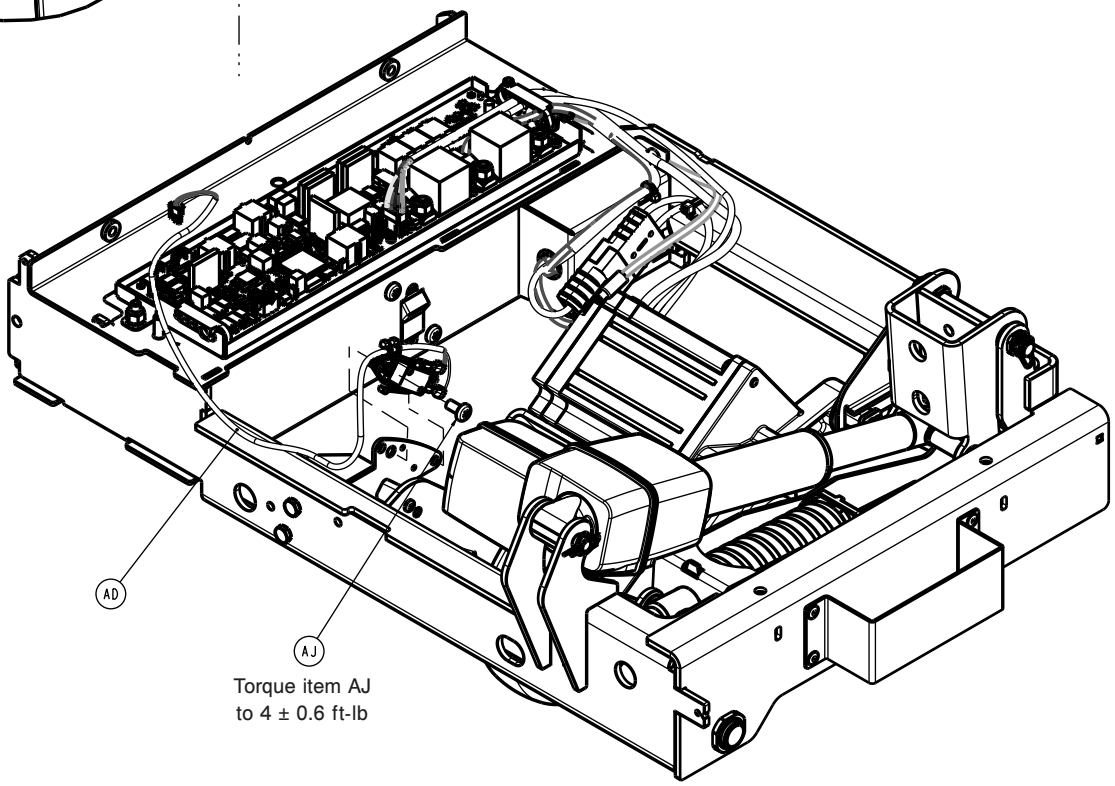


Torque item AR
to 1.2 ± 0.18 ft-lb

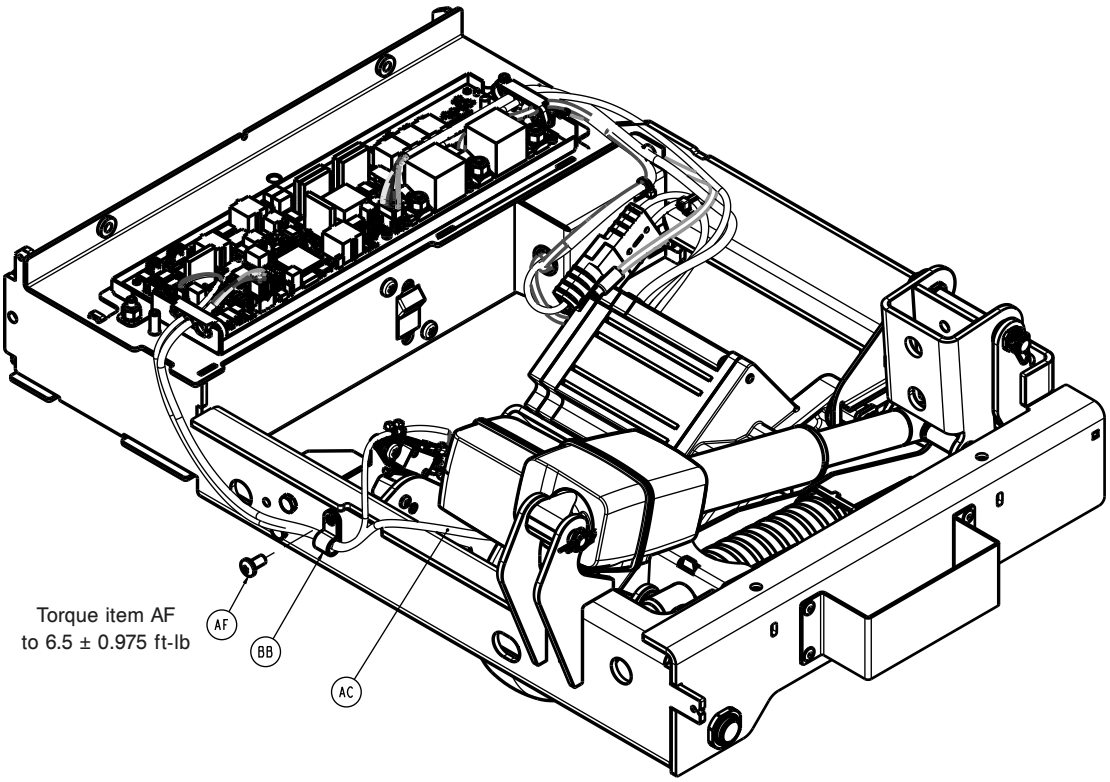


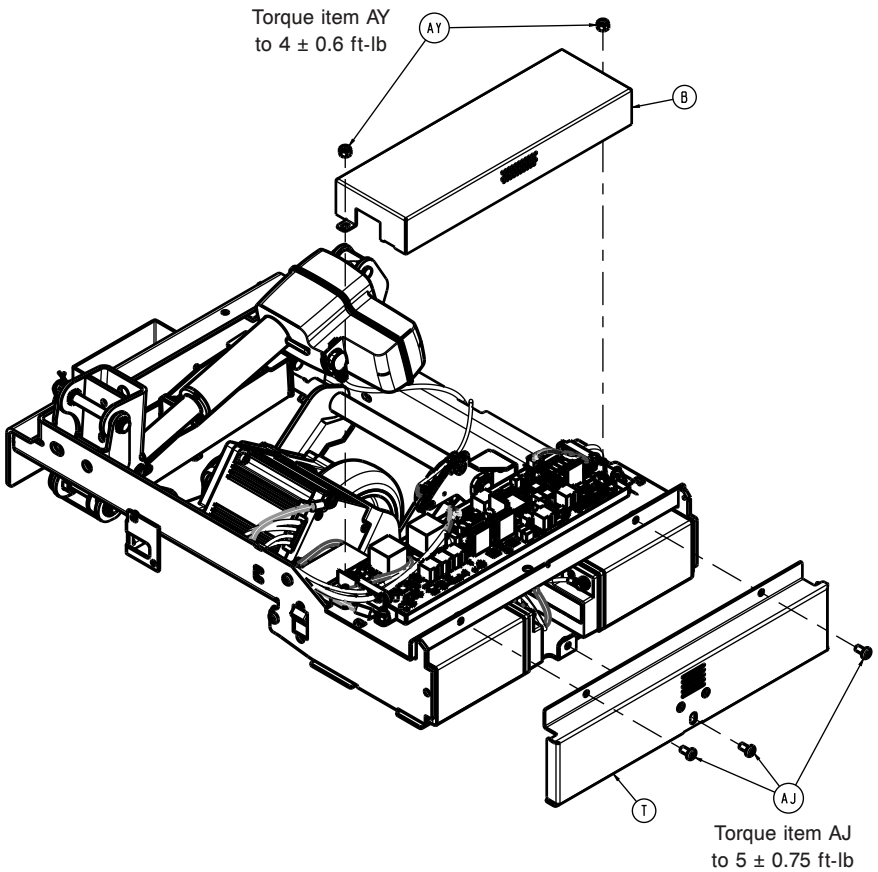
Torque item AU
to 4 ± 0.6 ft-lb





Torque item AJ
to 4 ± 0.6 ft-lb



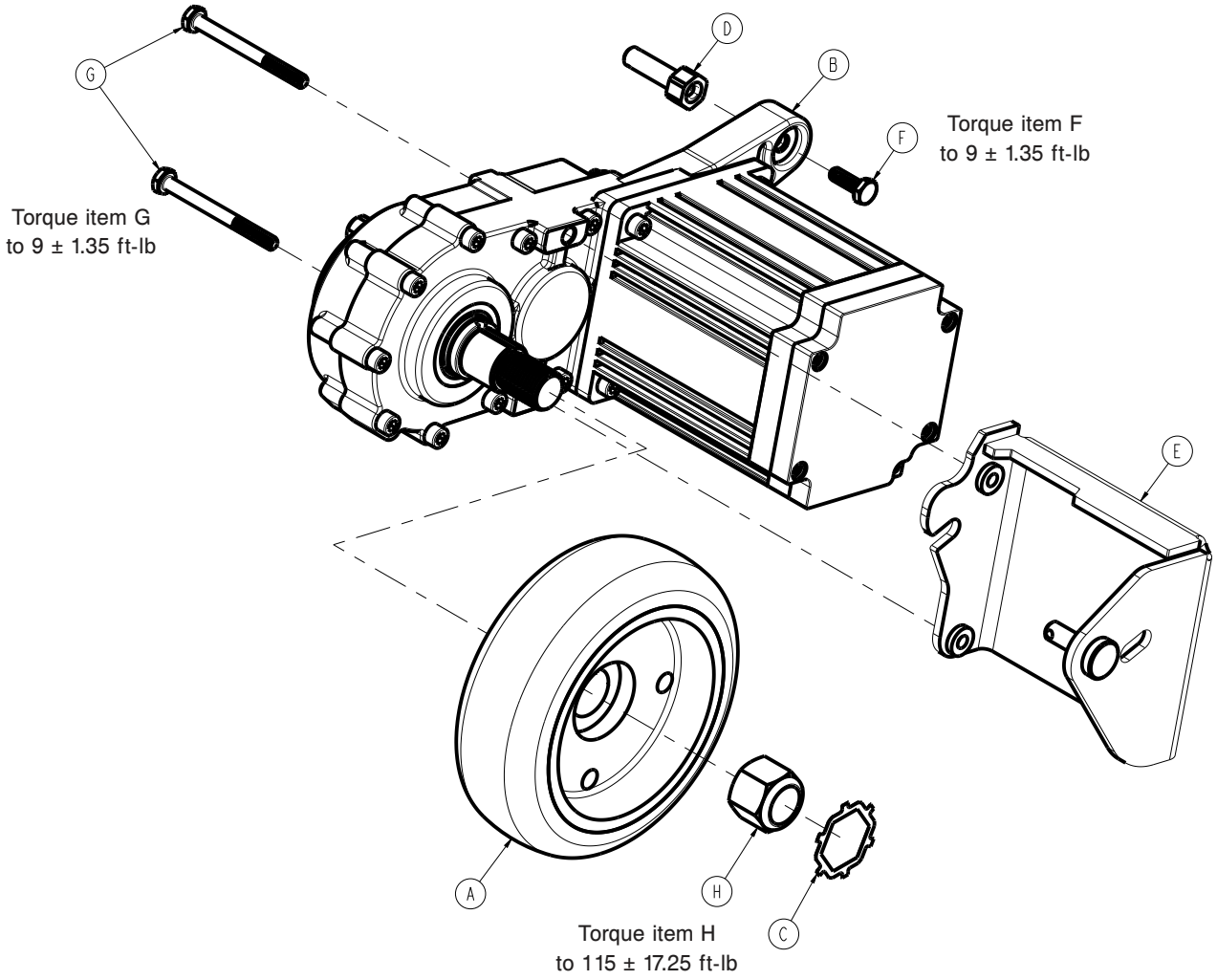


Item	Number	Name	Quantity
A	300900070010	***Zoom** motor/wheel assembly* (page 176)	1
B	300900070019	**Zoom** board cover	1
C	300900070025	**Zoom** short bushing assembly	3

Item	Number	Name	Quantity
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

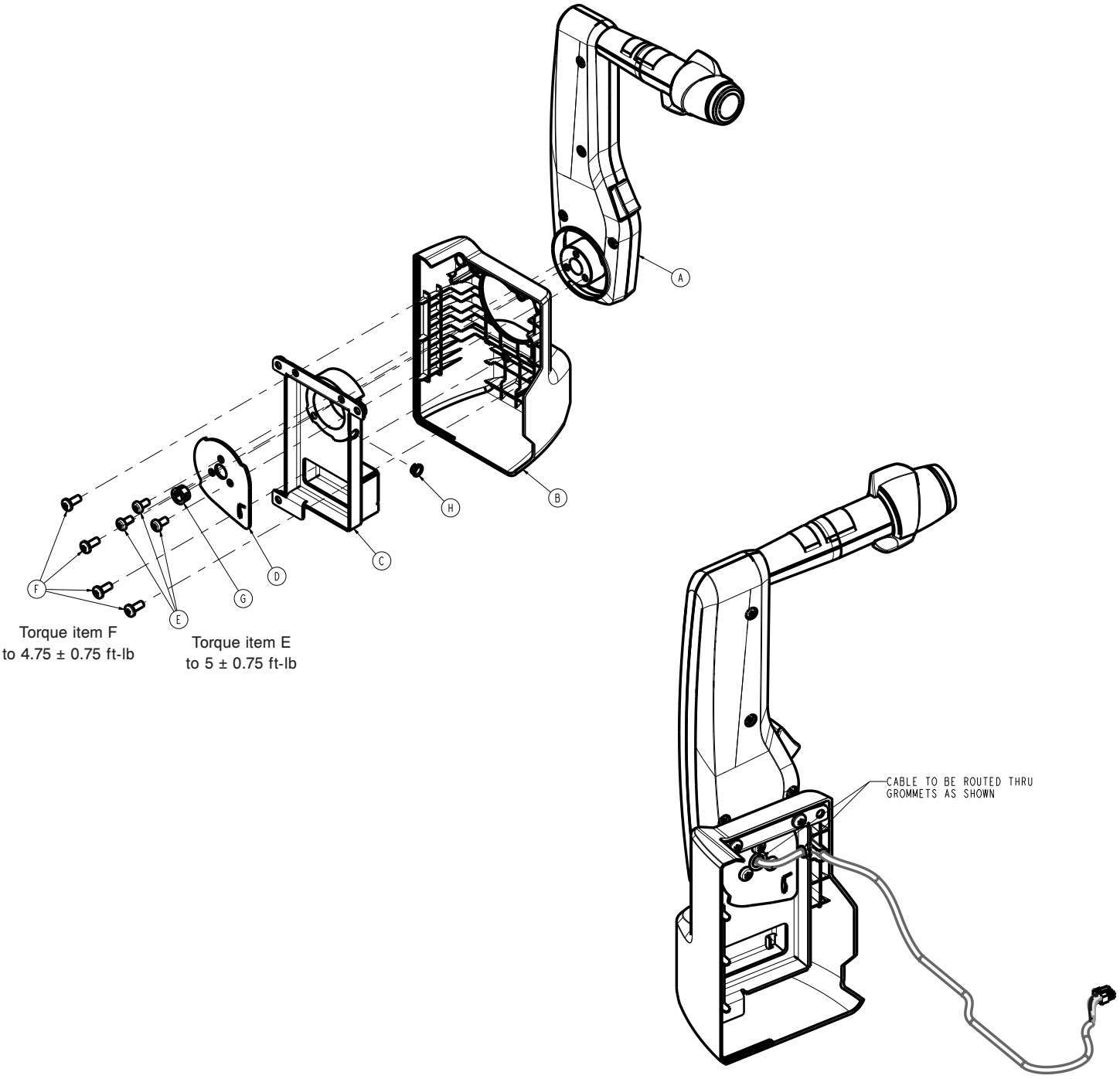
300900070010 Rev AB (Reference only)



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 AA (Reference only)

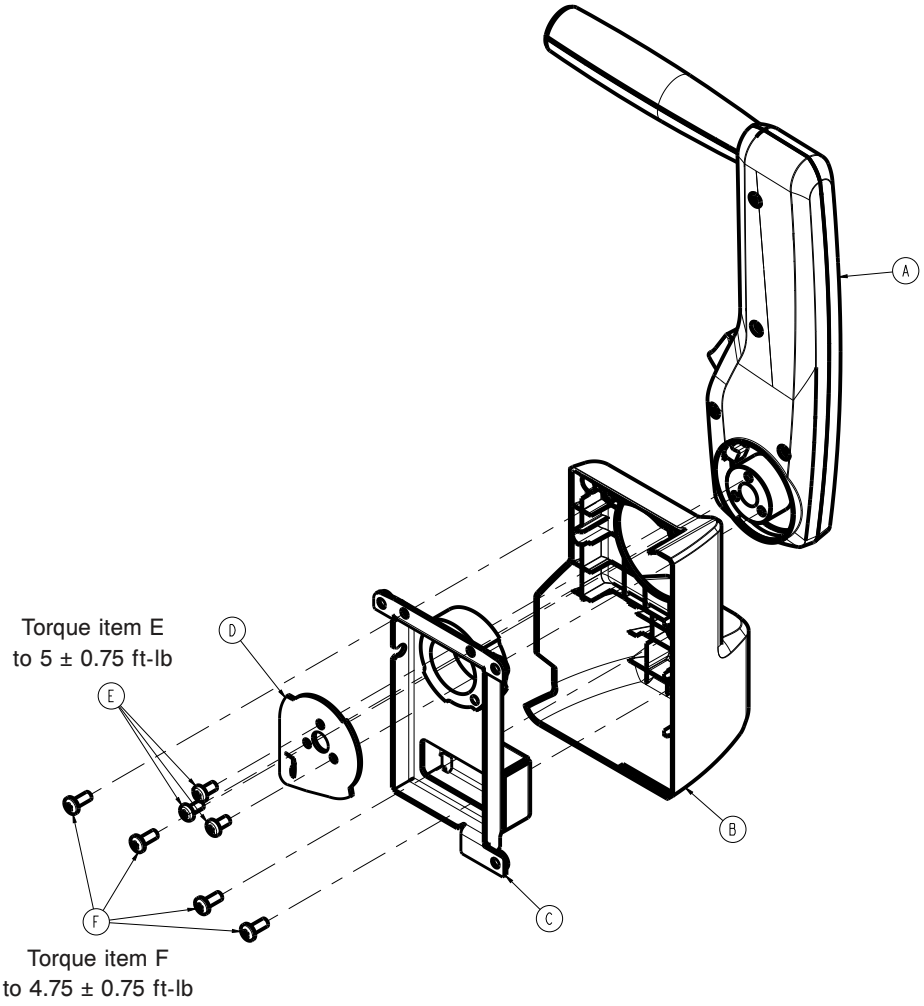


Item	Number	Name	Quantity
A	300900070200	**Zoom** handle/throttle assembly, patient right	1
B	300900100156	Head end litter **Zoom** bumper, patient right	1
C	300900100255	Litter **Zoom** handle pivot weldment, patient right	1
D	300900100256	Litter **Zoom** handle pivot plate	1
E	700000576833	Pan head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

Item	Number	Name	Quantity
F	700001258237	Pan head thread forming screw	4
G	0030-036-000	Bushing	1
H	0052-822-000	Snap-in nyliner	1

Litter Zoom handle pivot assembly, patient left

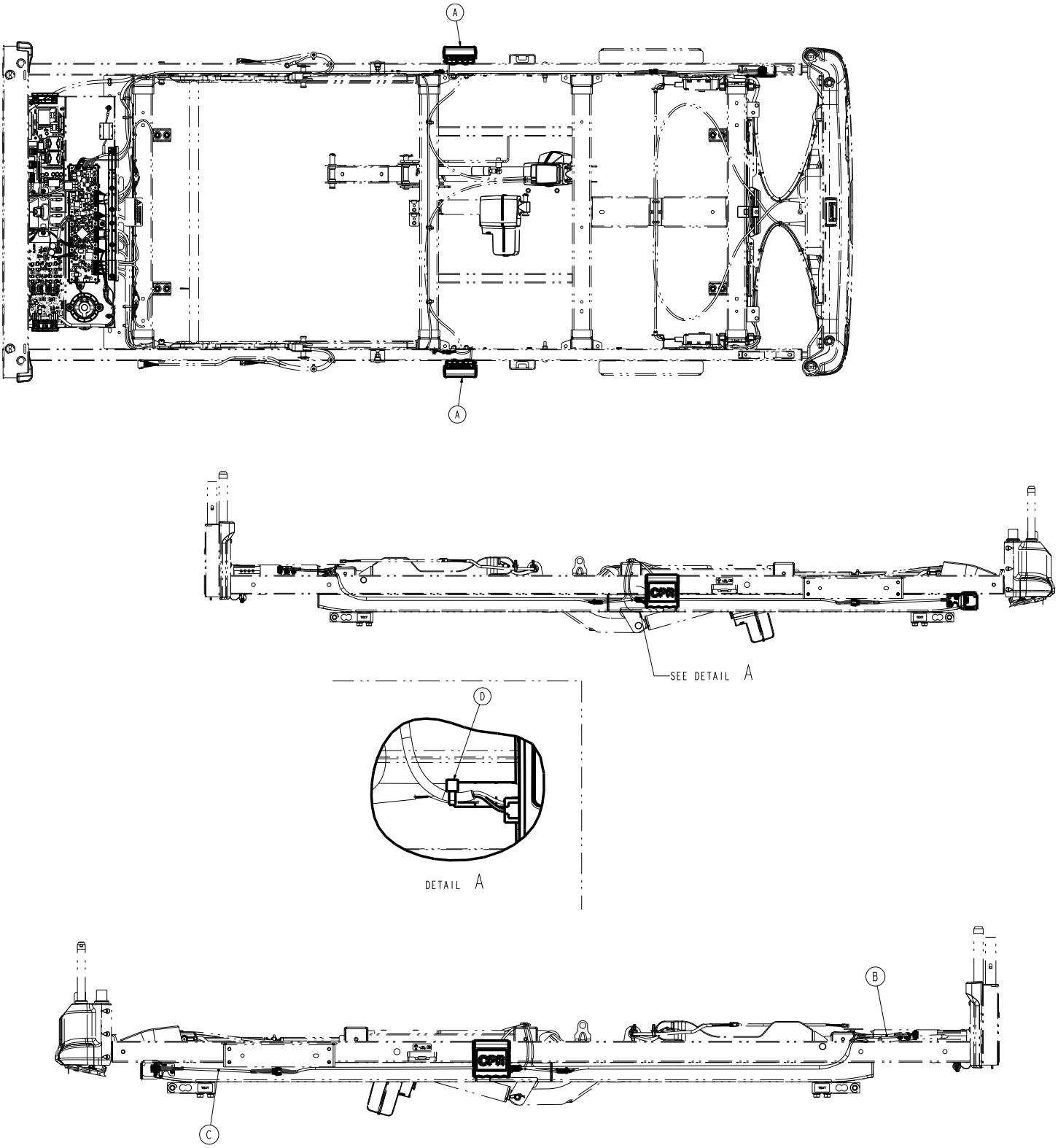
300900100270 Rev AA (Reference only)



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)



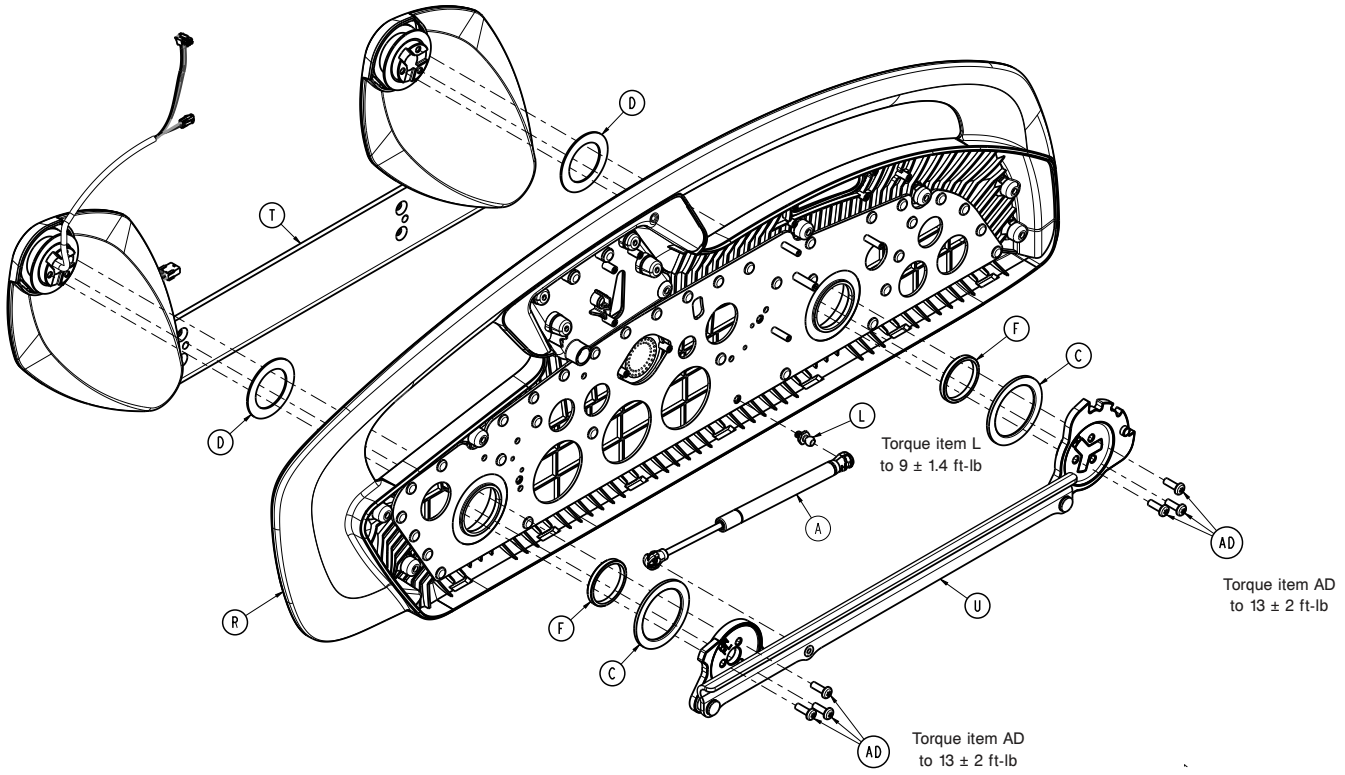
Item	Number	Name	Quantity
A	300900100325	Litter CPR release with switch assembly	2
B	300900560884	Main controller board to **Isolibrium** connector cable assembly	1

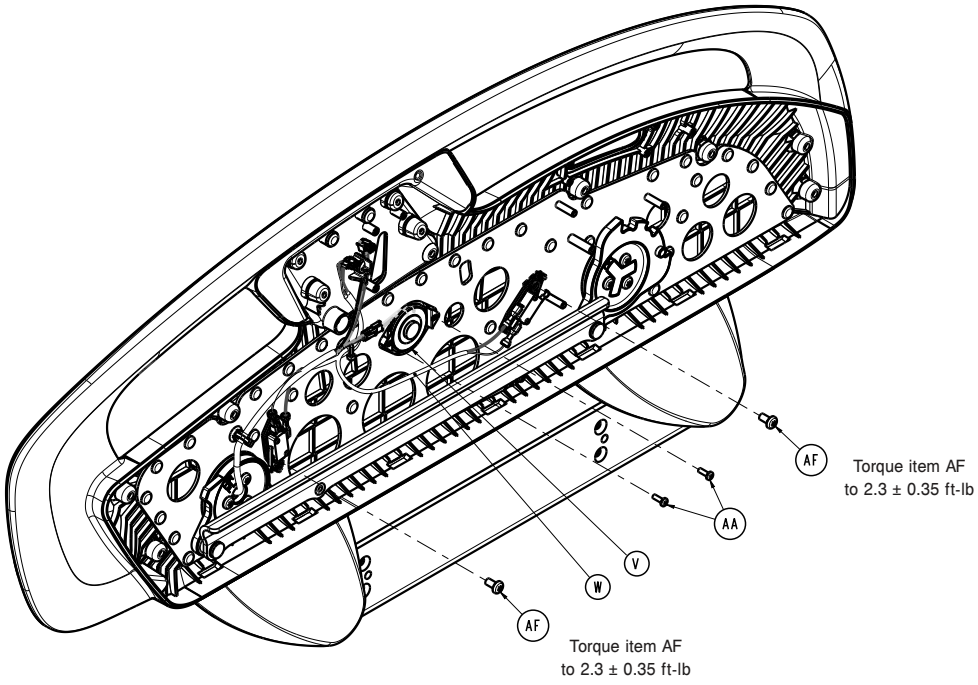
Item	Number	Name	Quantity
C	300900560885	Main controller cable to **Isolibrium** connector cable assembly	1
D	3000-300-114	Cable tie	1

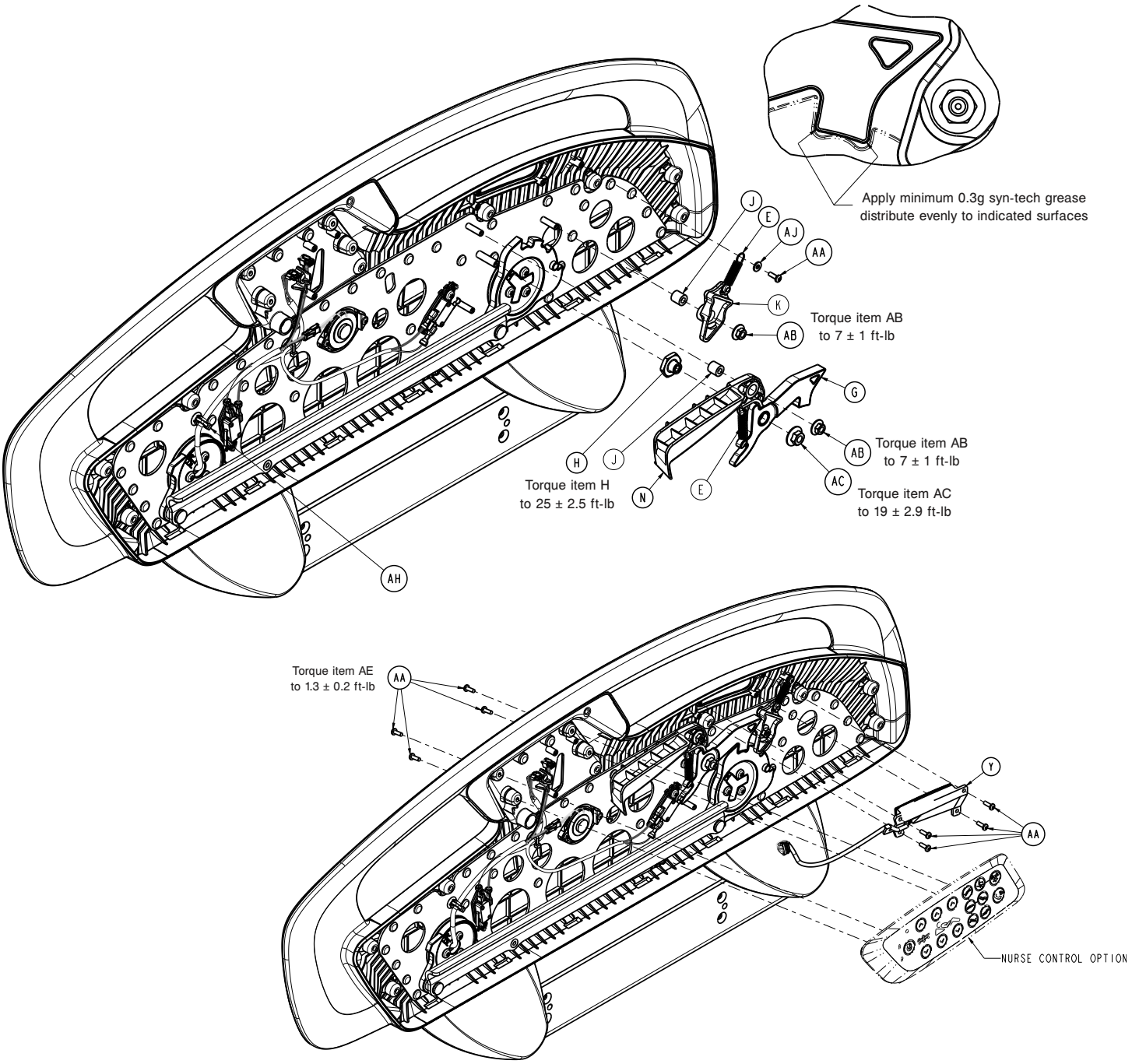
Siderail assembly, head end

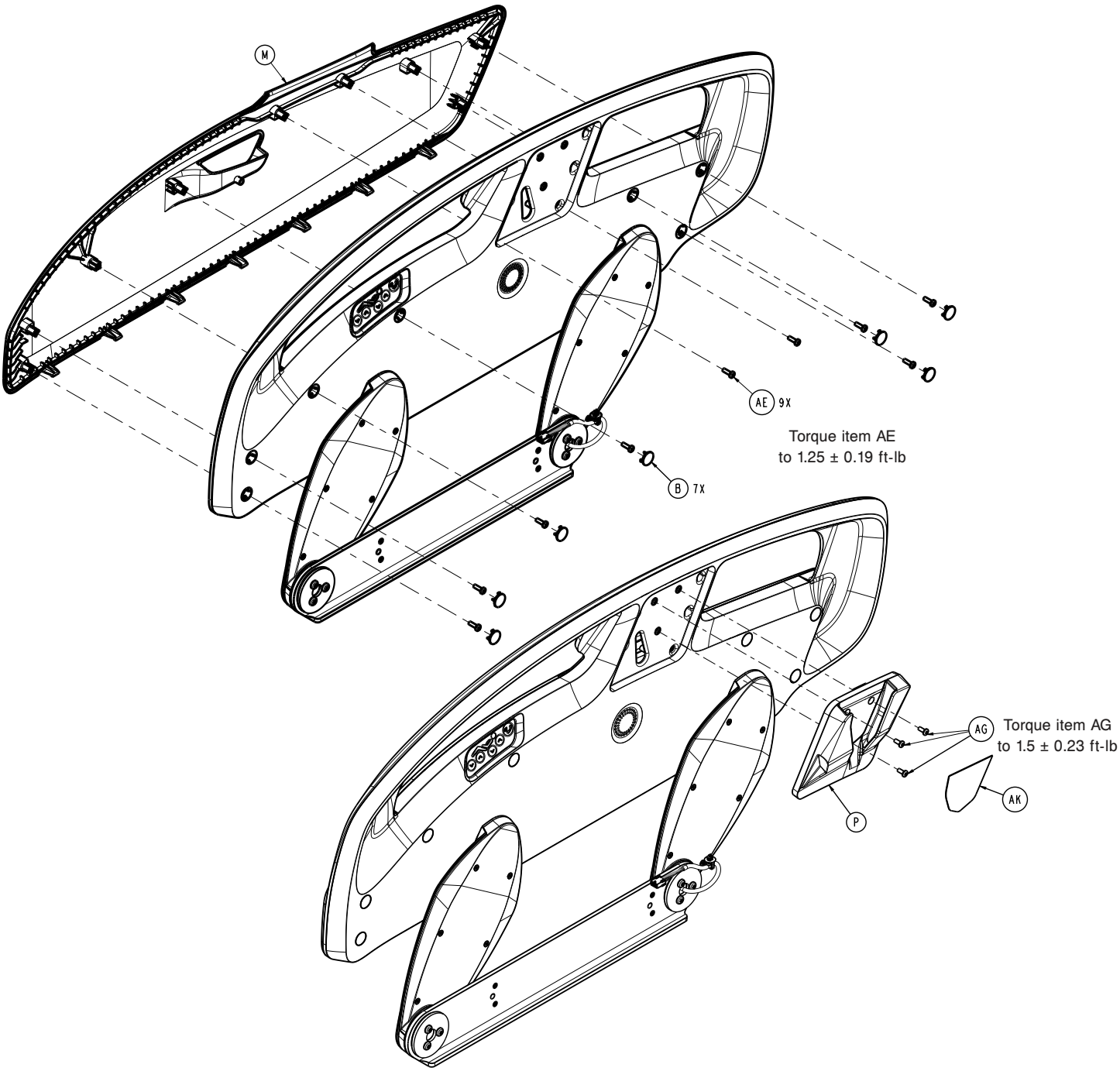
300900110100 Rev AC (right) (Reference only)

300900110200 Rev AC (left) (Reference only)






Apply minimum 0.3g syn-tech grease
distribute evenly to indicated surfaces
J
E
AJ
AA
K
Torque item AB
to 7 ± 1 ft-lb
AB
G
H
J
Torque item H
to 25 ± 2.5 ft-lb
N
E
AB
Torque item AB
to 7 ± 1 ft-lb
AC
Torque item AC
to 19 ± 2.9 ft-lb
AH
Torque item AE
to 1.3 ± 0.2 ft-lb
AA
Y
AA
NURSE CONTROL OPTION



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
K	300900110031	Bypass lever	1

Siderail assembly, head end – 300900110100 Rev AC (Reference only)			
Item	**Number**	**Name**	**Quantity**
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	*Arm/carrier assembly, head end* (page 187)	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

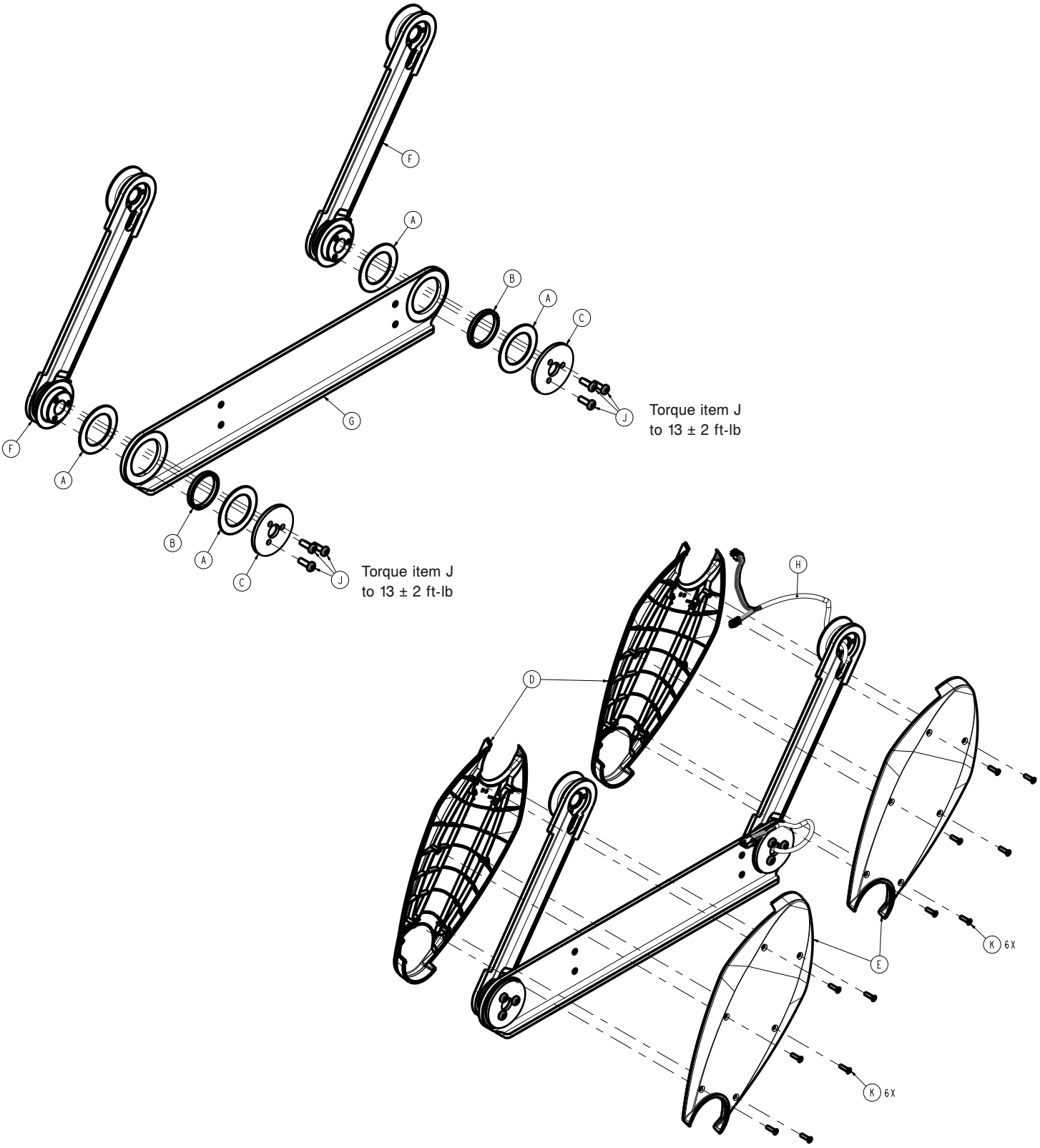
Siderail assembly, head end – 300900110200 Rev AC (Reference only)			
Item	**Number**	**Name**	**Quantity**
A	300900110006	Gas spring, head end	1
B	300900110008	Screw cover	7
C	300900110011	Thrust washer, large	2
D	300900110012	Thrust washer, small	2
E	300900110013	Release handle extension spring	2
F	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	*Arm/carrier assembly, head end* (page 187)	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

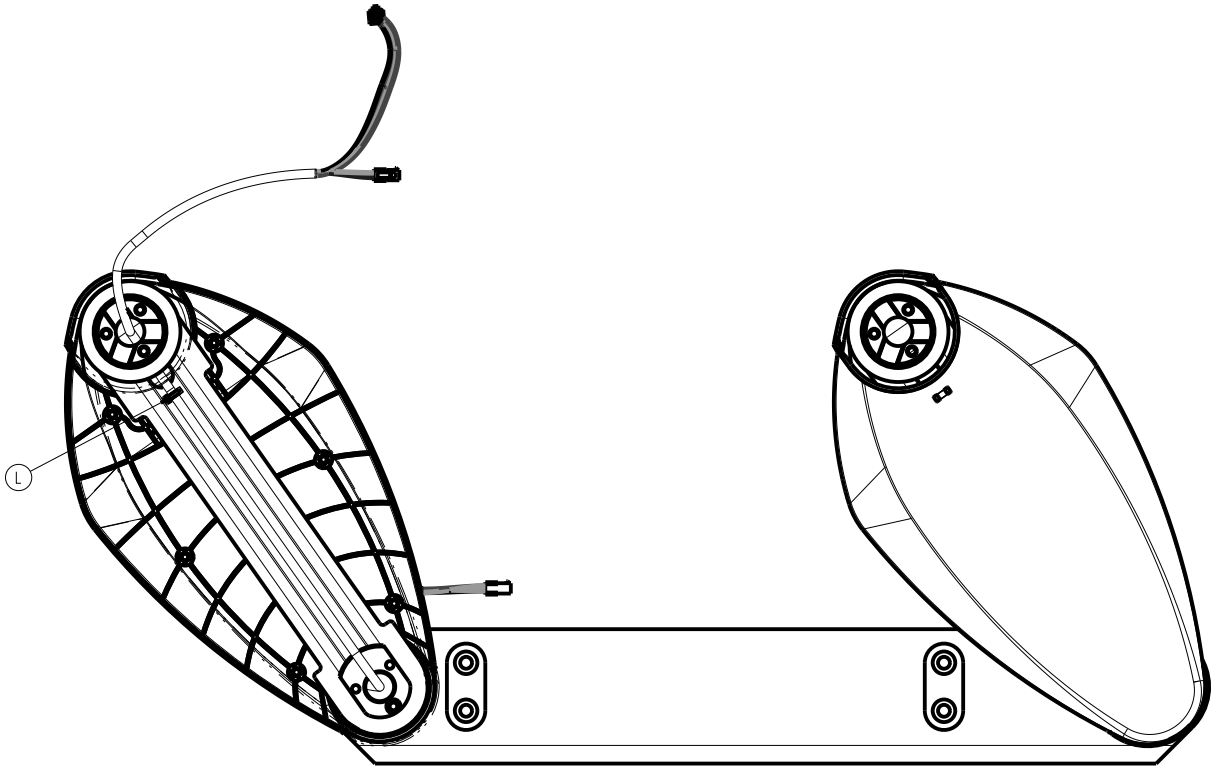
Siderail assembly, head end – 300900110200 Rev AC (Reference only)			
Item	**Number**	**Name**	**Quantity**
AA	700000494203	Hex large flange lock nut	2
AB	700000494204	Hex super flange lock nut	1
AC	700000533297	Pan head machine screw	6
AD	700000550115	Pan head thread forming screw	9
AE	700000576833	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)



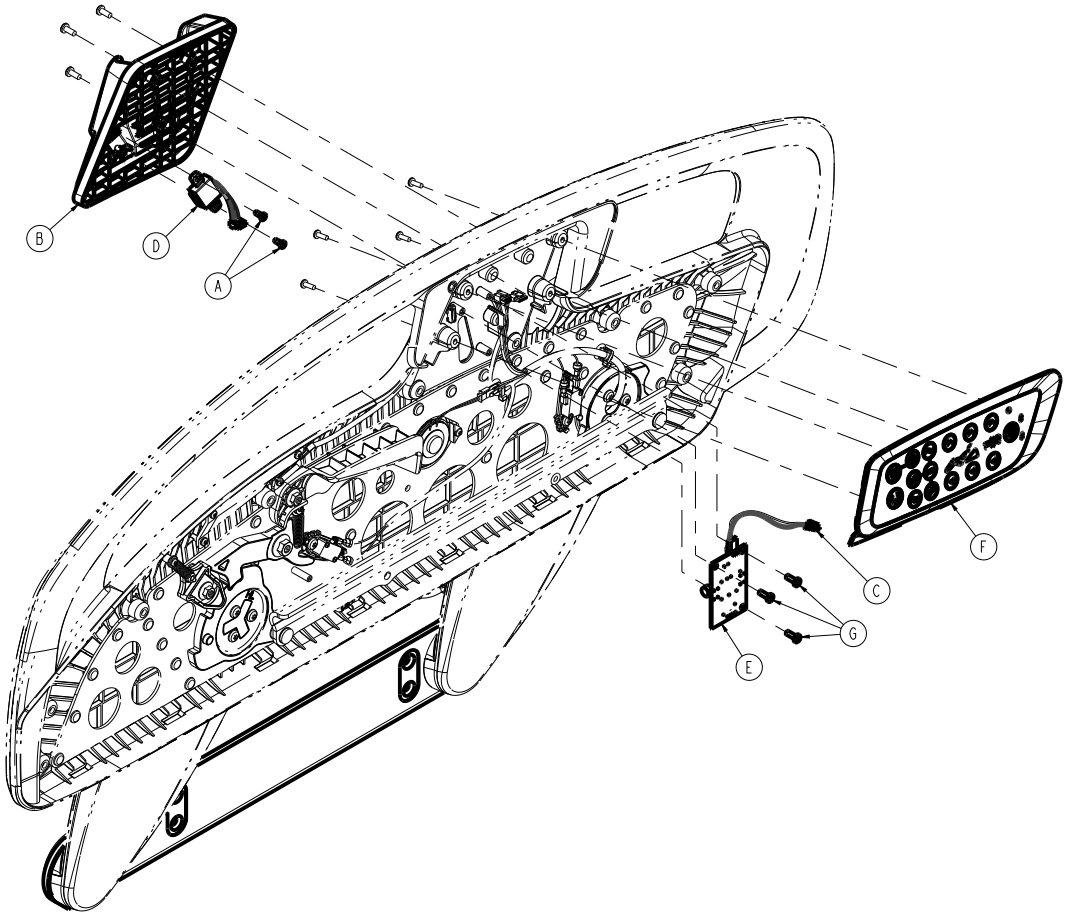


Arm/carrier assembly, head end - 300900110125 Rev AB (Reference only)			
Item	**Number**	**Name**	**Quantity**
A	300900110012	Thrust washer, small	4
B	300900110014	Pivot bearing	2
C	300900110018	Lower pivot plate	2
D	300900110021	Arm cover, outer	2
E	300900110022	Arm cover, inner	2
F	300900110025	Arm 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 AB (Reference only)

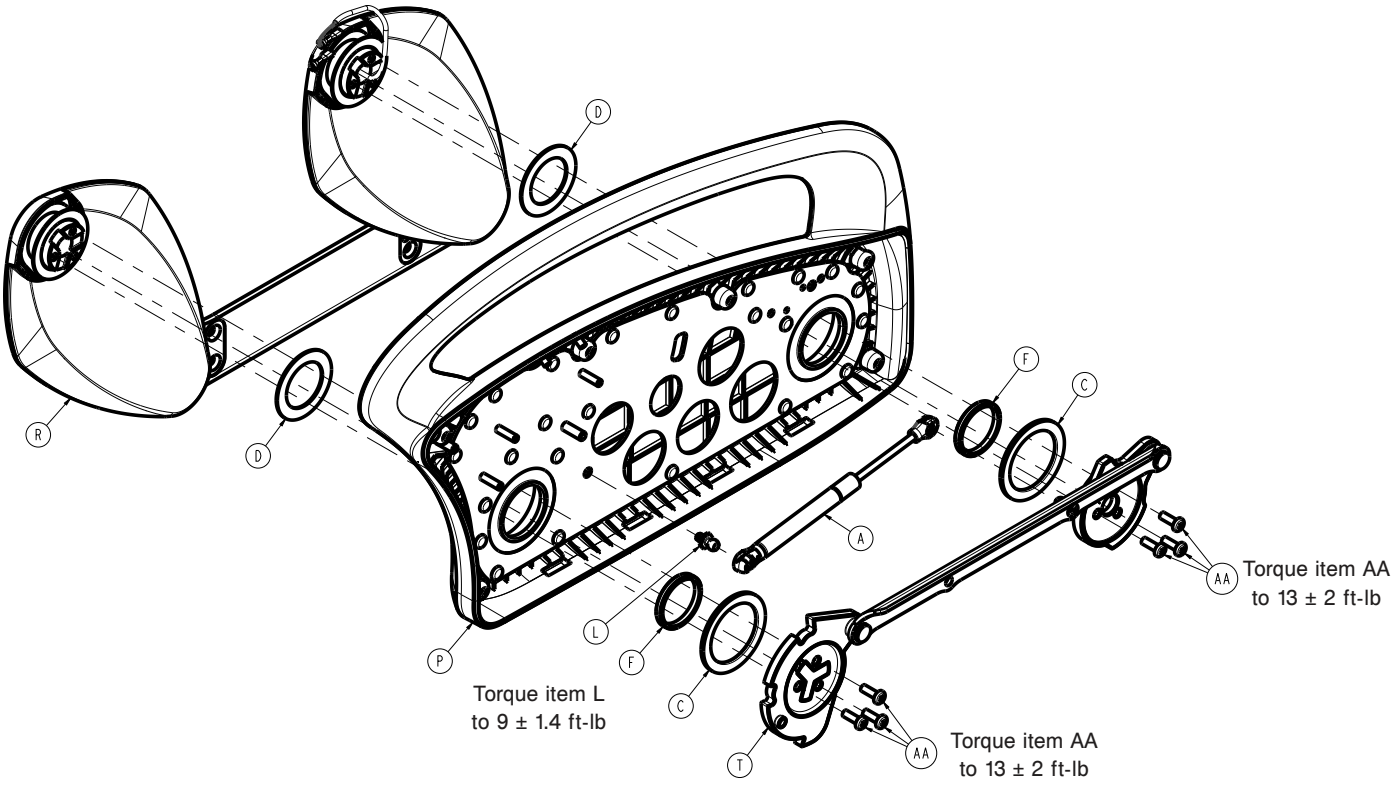


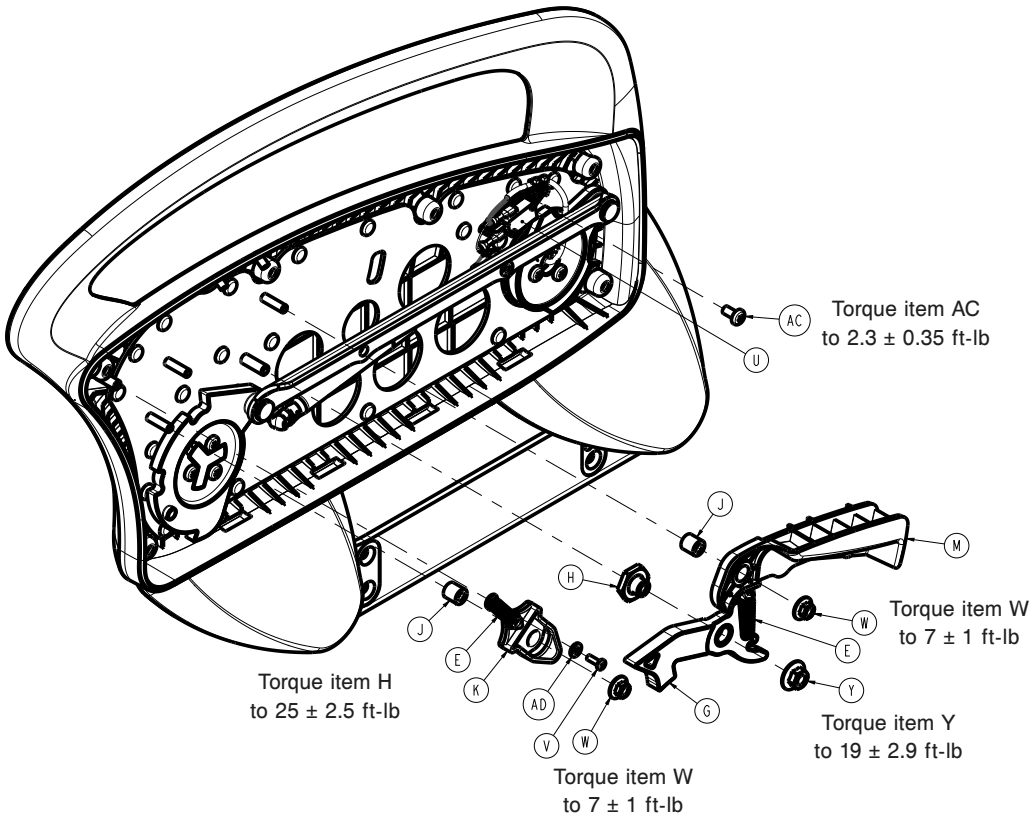
Item	Number	Name	Quantity
A	5900340009	Pan screw	2
B	300900110209	Patient belongings with USB	1
C	300900110813	Cable assembly	1
D	300900110815	Cable assembly	1
E	300900110900	USB charger board	1
F	300900110970	Advanced operator control assembly	1
G	700000492445	Pan head thread forming screw	3

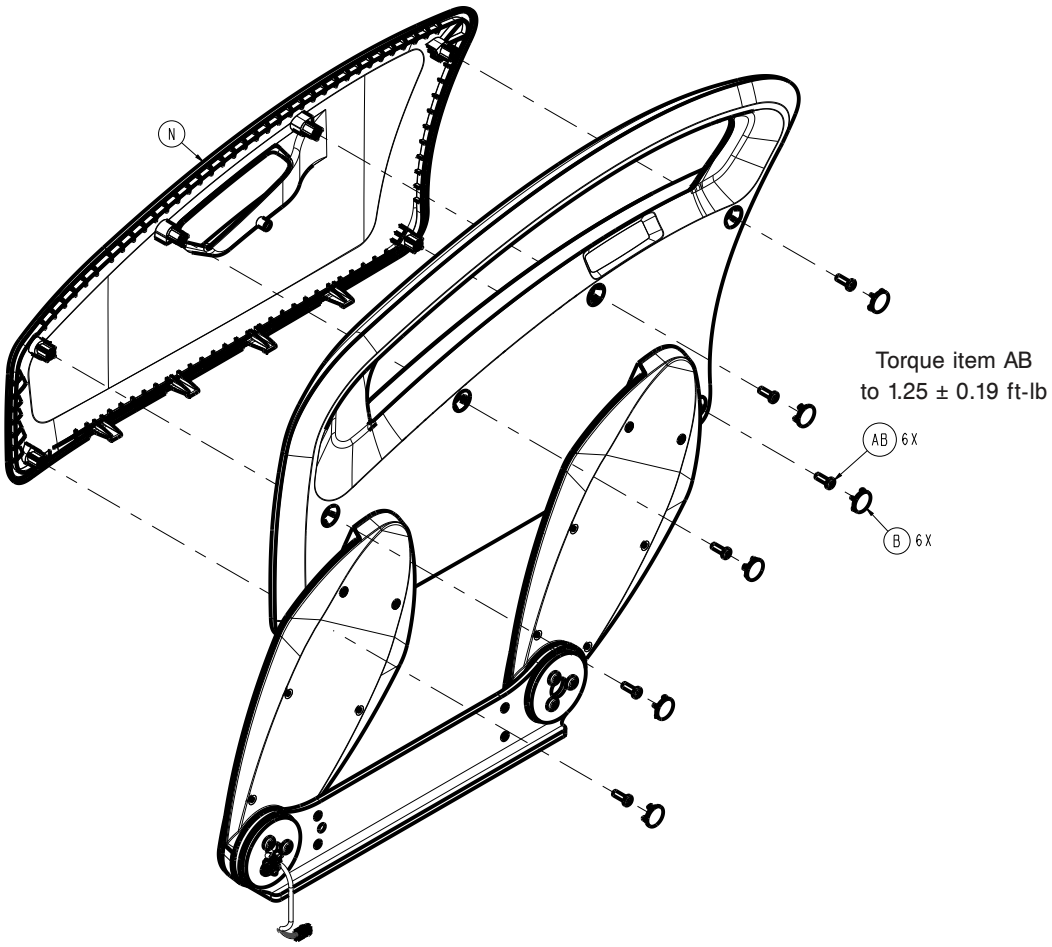
Siderail assembly, foot end

300900110300 Rev AB (right) (Reference only)

300900110400 Rev AB (left) (Reference only)







Siderail assembly, foot end - 300900110300 Rev AB (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	300900110325	*Arm/carrier assembly, foot end* (page 193)	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
AA	700000533297	Pan head machine screw	6

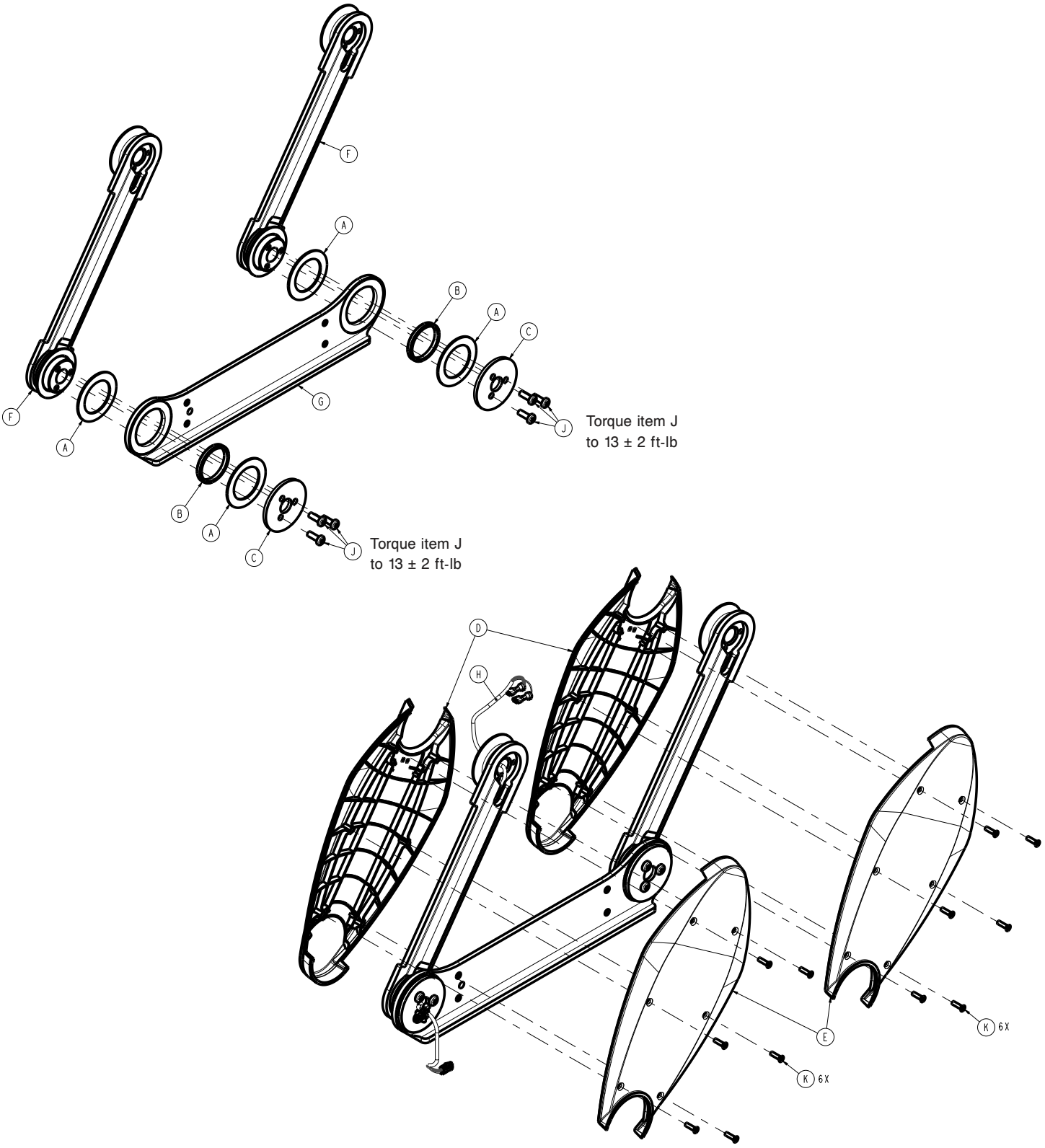
Siderail assembly, foot end - 300900110300 Rev AB (Reference only)			
Item	**Number**	**Name**	**Quantity**
AB	700000550115	Pan head thread forming screw	6
AC	700000576833	Pan head machine screw	1
AD	0011-016-000	Plain washer	1

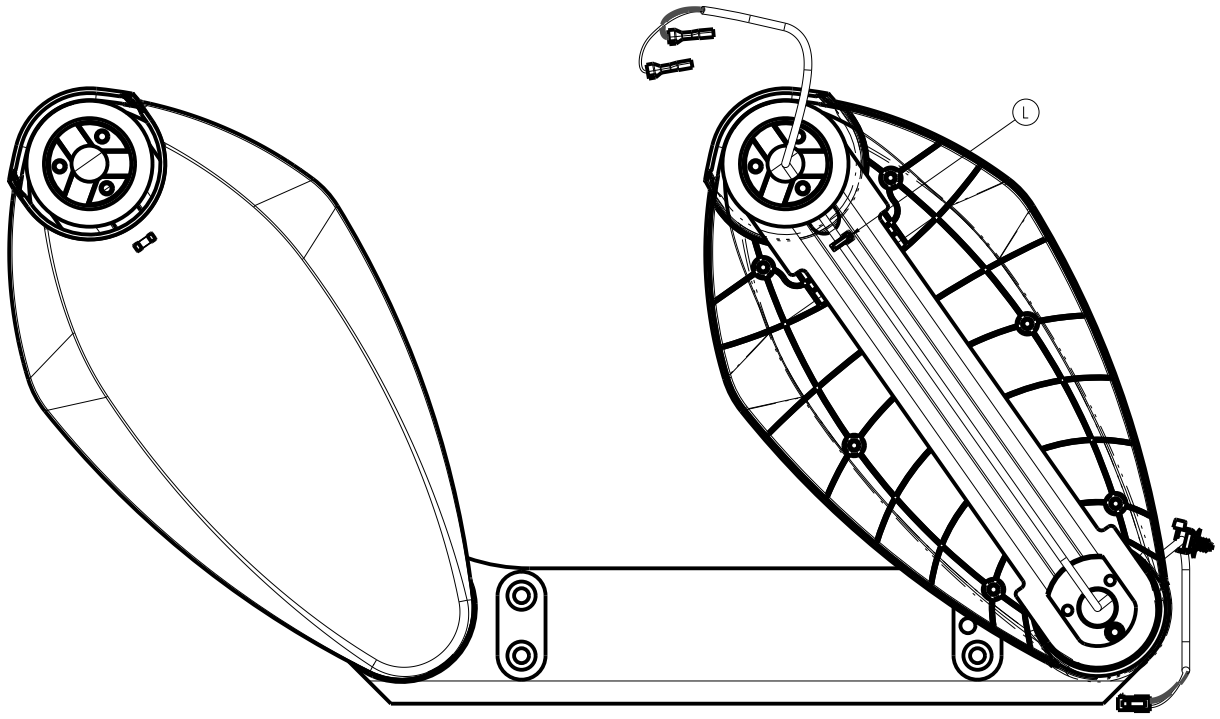
Siderail assembly, foot end - 300900110400 Rev AB (Reference only)			
Item	**Number**	**Name**	**Quantity**
A	300900110007	Gas spring, foot	1
B	300900110008	Screw cover	6
C	300900110011	Thrust washer, large	2
D	300900110012	Thrust washer, small	2
E	300900110013	Release handle extension spring	2
F	300900110014	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	300900110425	*Arm/carrier assembly, foot end* (page 193)	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

300900110325 Rev AC (right) (Reference only)

300900110425 Rev AC (left) (Reference only)



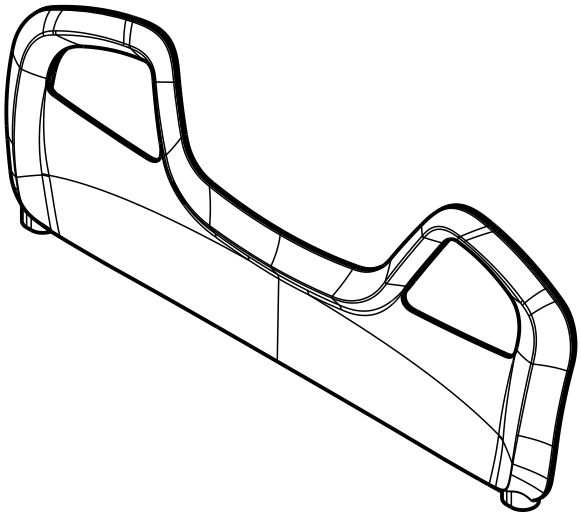


Arm/carrier assembly, foot end - 300900110325 Rev AC (Reference only)			
Item	**Number**	**Name**	**Quantity**
A	300900110012	Thrust washer, small	4
B	300900110014	Pivot bearing	2
C	300900110018	Lower pivot plate	2
D	300900110021	Arm cover, outer	2
E	300900110022	Arm cover, inner	2
F	300900110025	Arm 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 - 300900110425 Rev AC (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

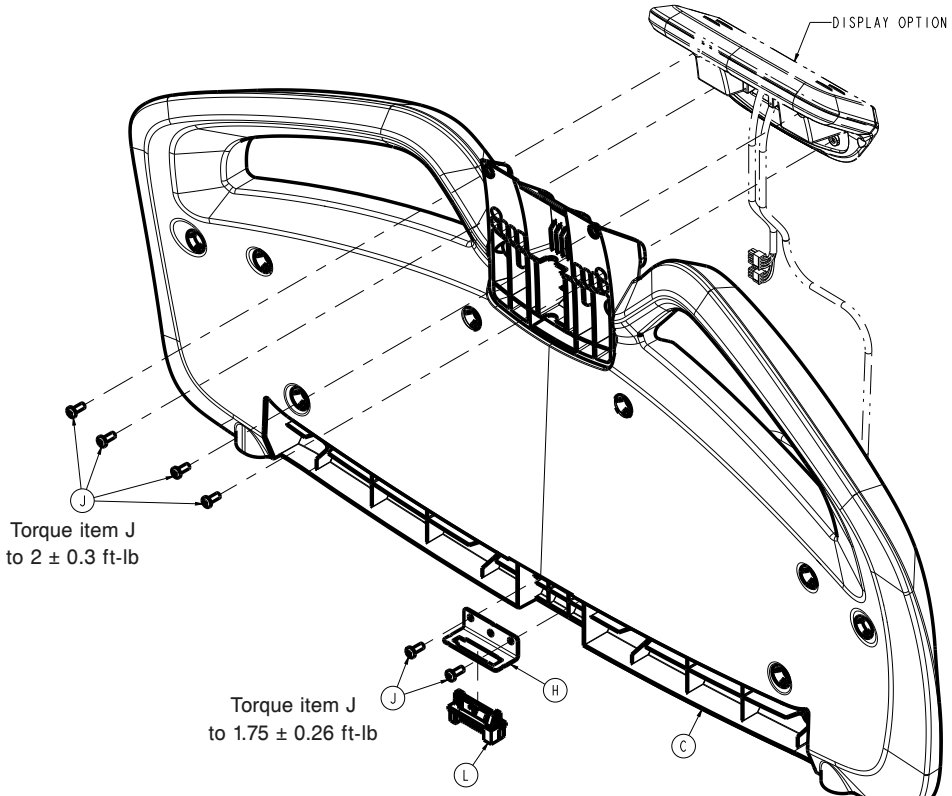
Headboard - 300900210010

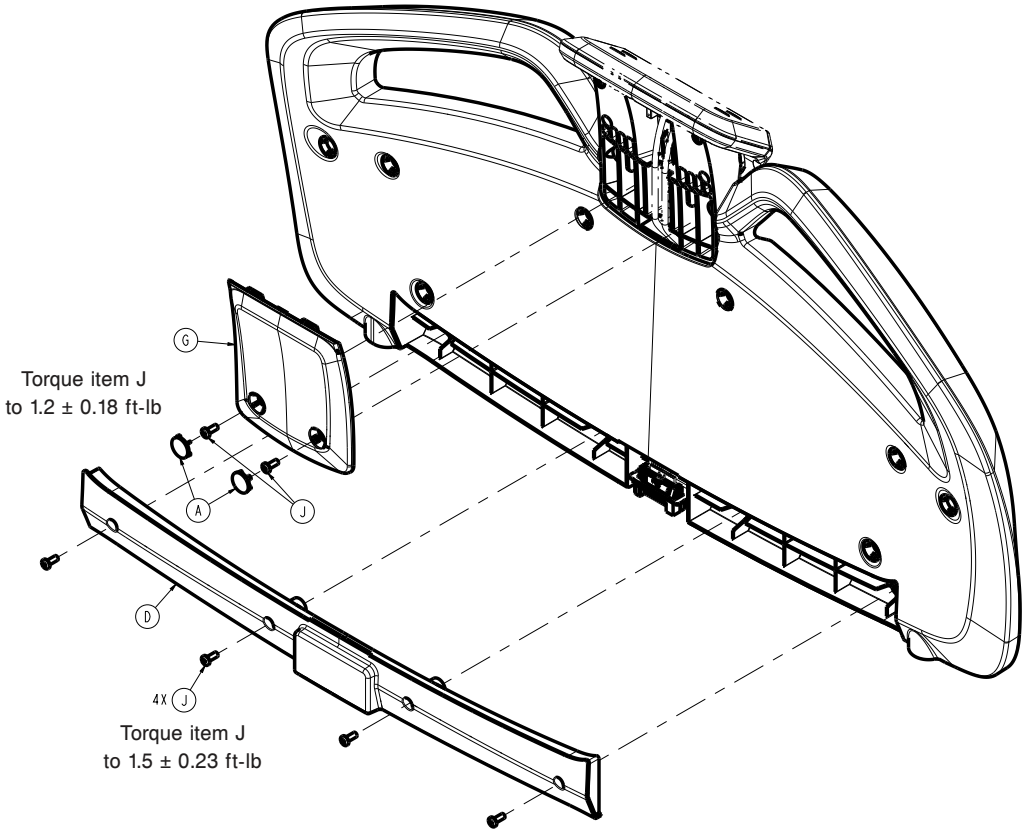
Rev AC (Reference only)

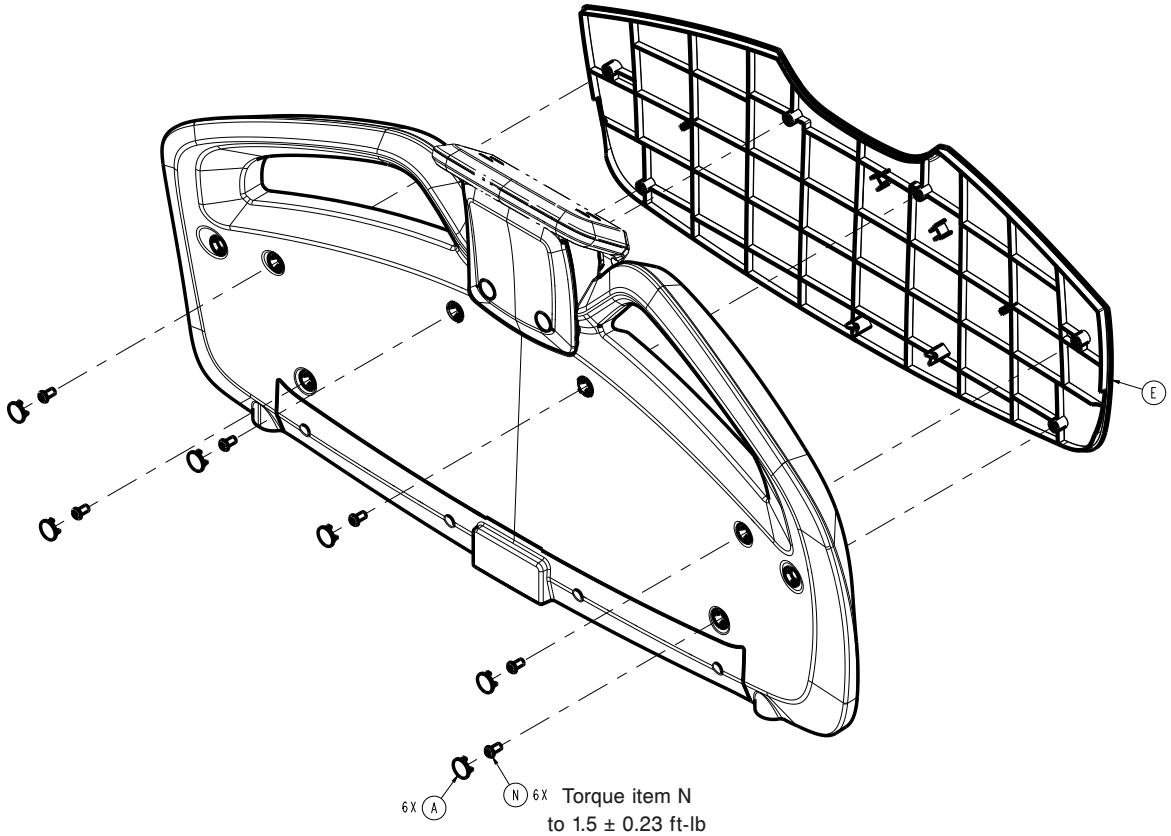


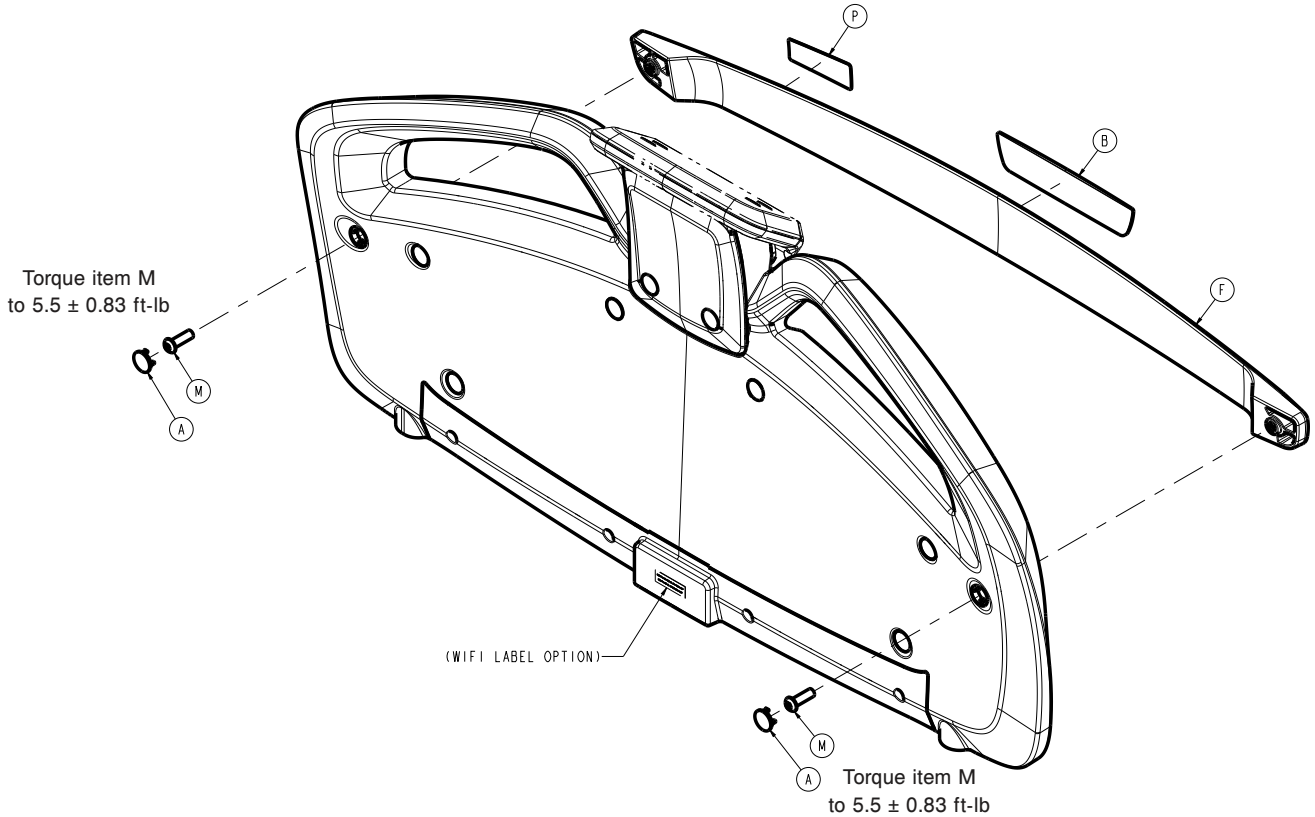
Footboard common components assembly

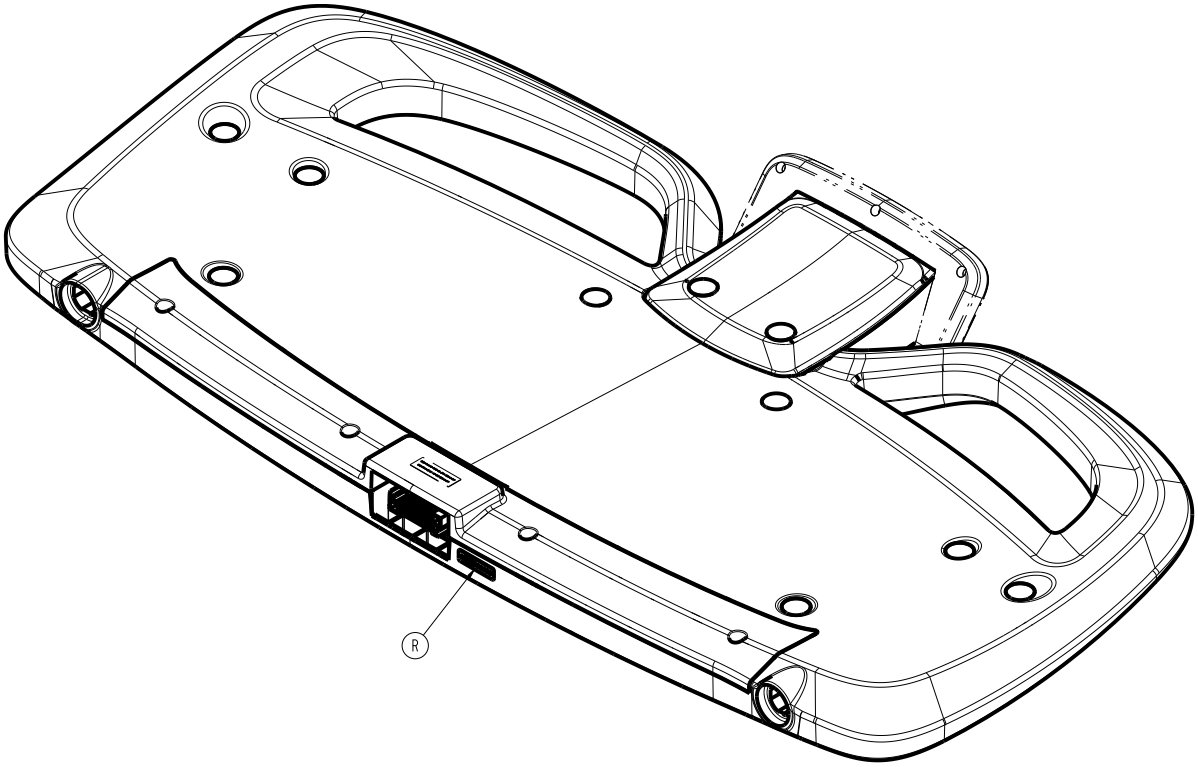
300900220001 Rev AC (Reference only)






E
6X A
N 6X Torque item N
to 1.5 ± 0.23 ft-lb

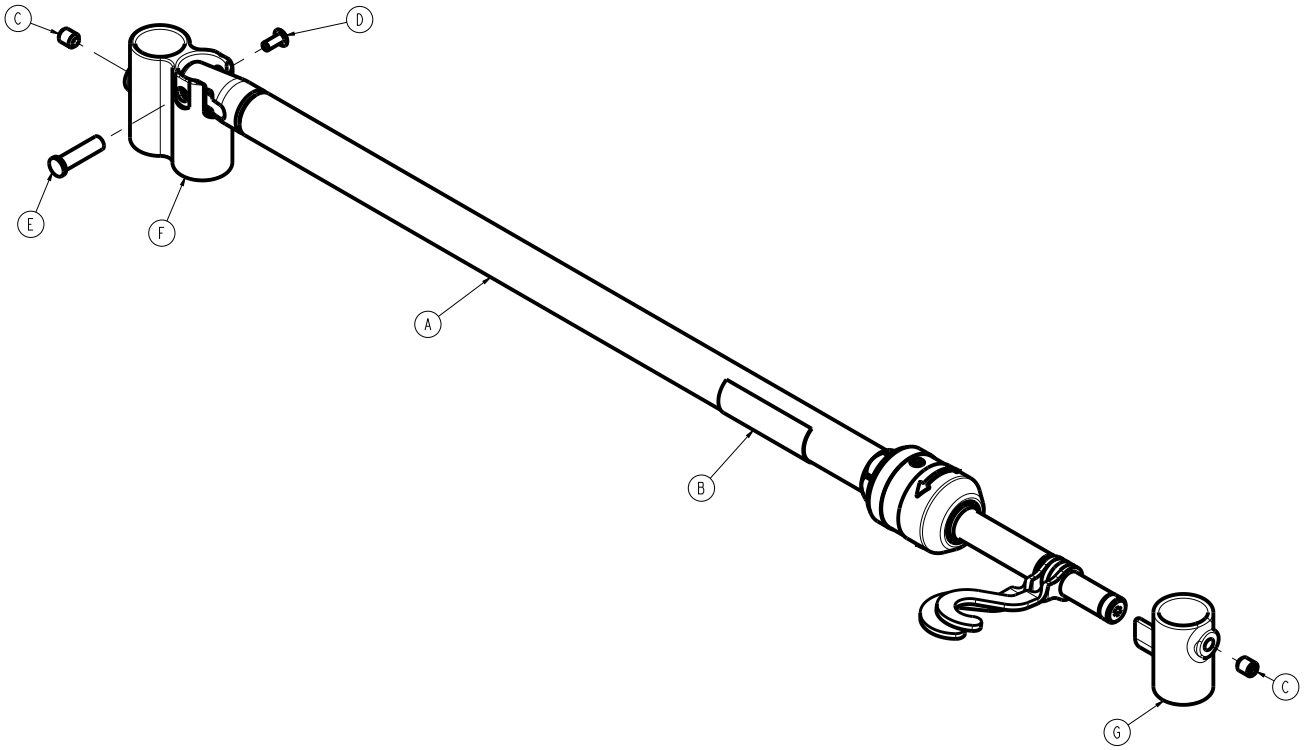

P
B
F
Torque item M
to 5.5 ± 0.83 ft-lb
M
A
(WIFI LABEL OPTION)
M
A
Torque item M
to 5.5 ± 0.83 ft-lb



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

HAVASU IV pole assembly, two-stage, single

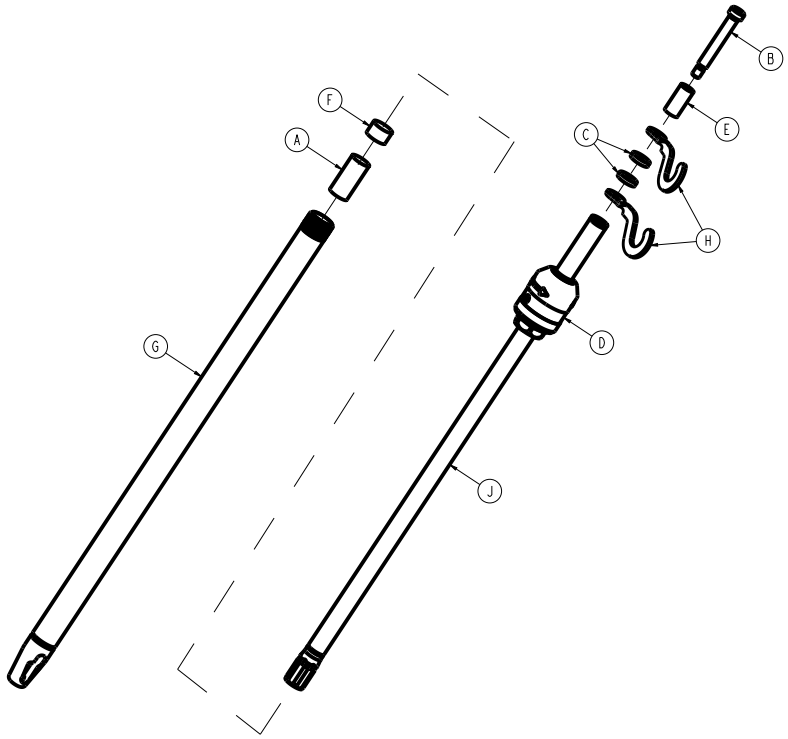
300900350100 Rev AB (Reference only)



Item	Number	Name	Quantity
A	300900350010	***HAVASU*** *IV pole assembly, two-stage - 300900350010* (page 200)	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

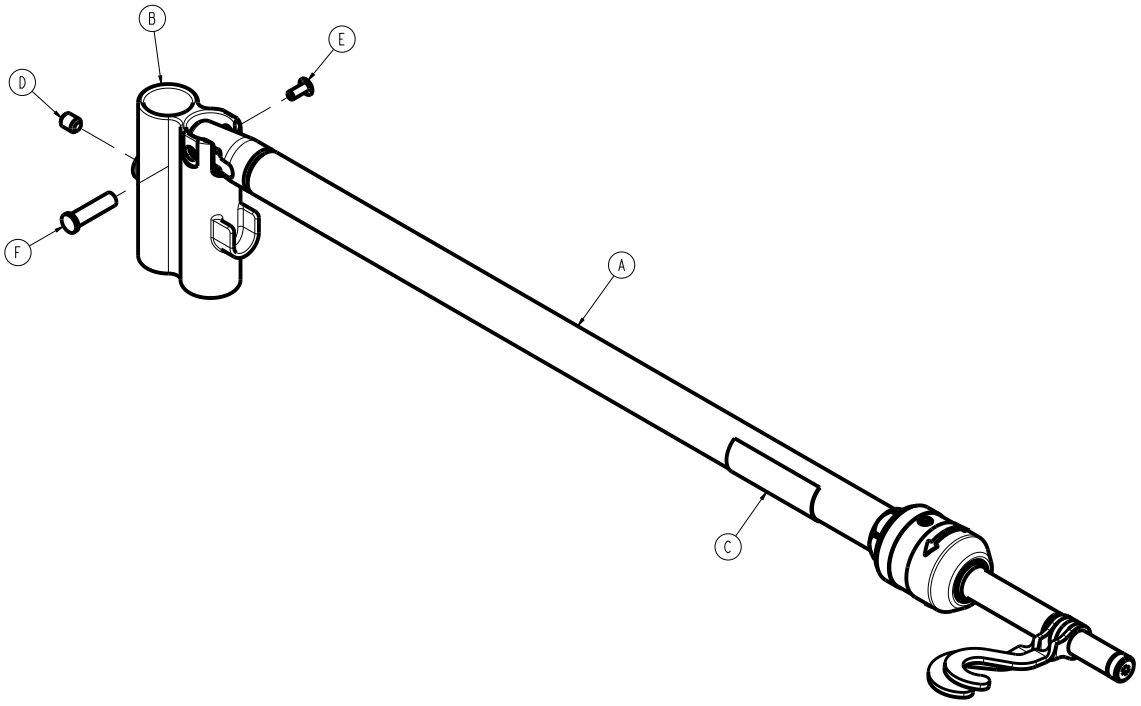
Rev AB (Reference only)



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

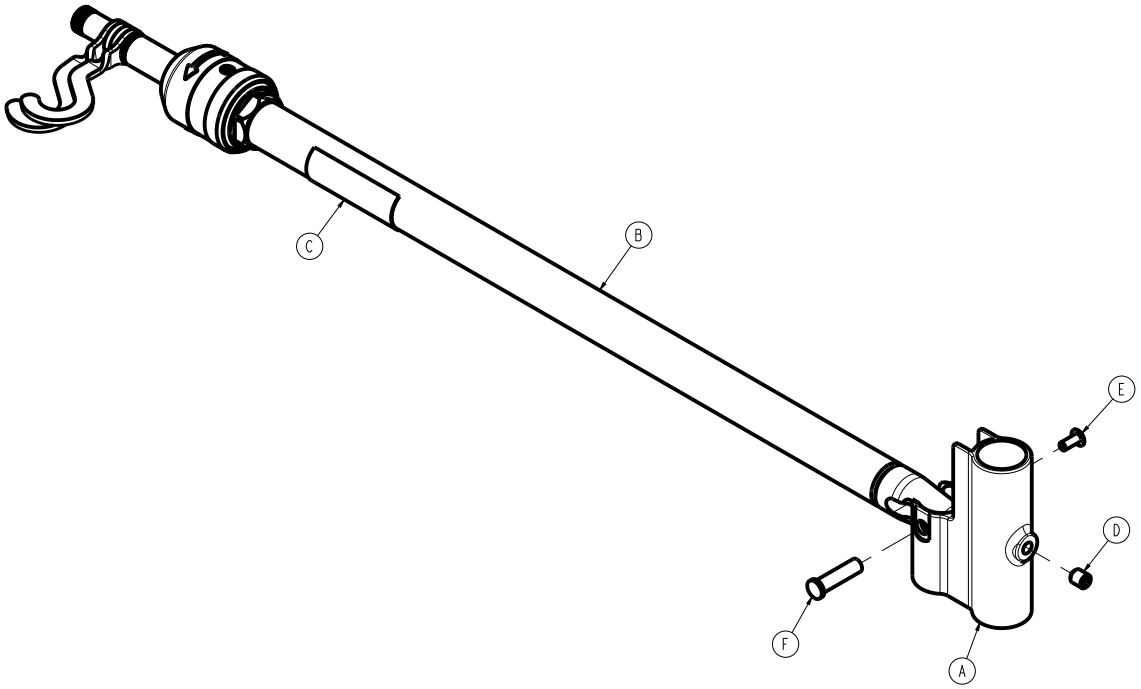
300900350200 Rev AA (Reference only)



Item	Number	Name	Quantity
A	300900350010	***HAVASU*** *IV pole assembly, two-stage* - *300900350010* (page 200)	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

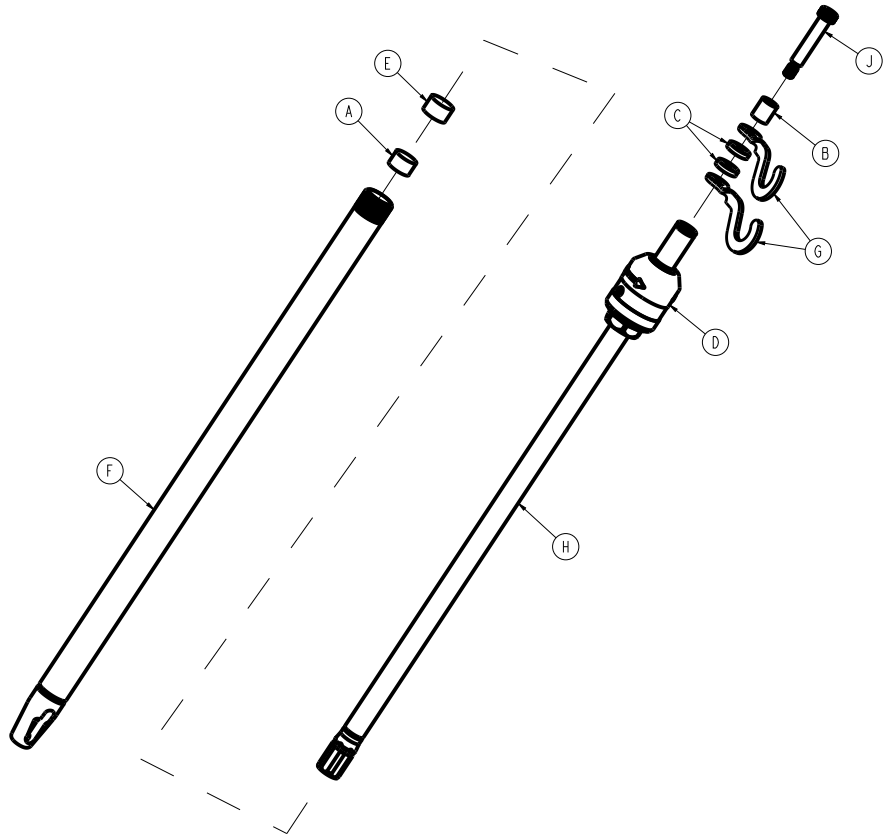
300900350250 Rev AA (Reference only)



Item	Number	Name	Quantity
A	300900350202	IV pole double bottom receptacle	1
B	300900350255	***HAVASU*** *IV pole assembly, two-stage - 300900350255* (page 203)	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

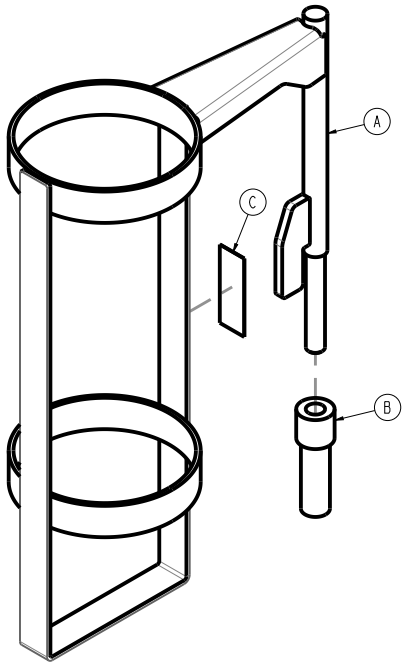
Rev AA (Reference only)



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

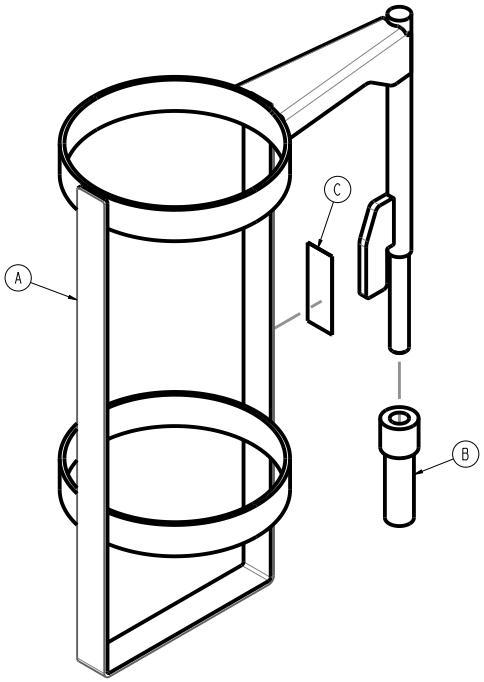
Rev AC (Reference only)



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

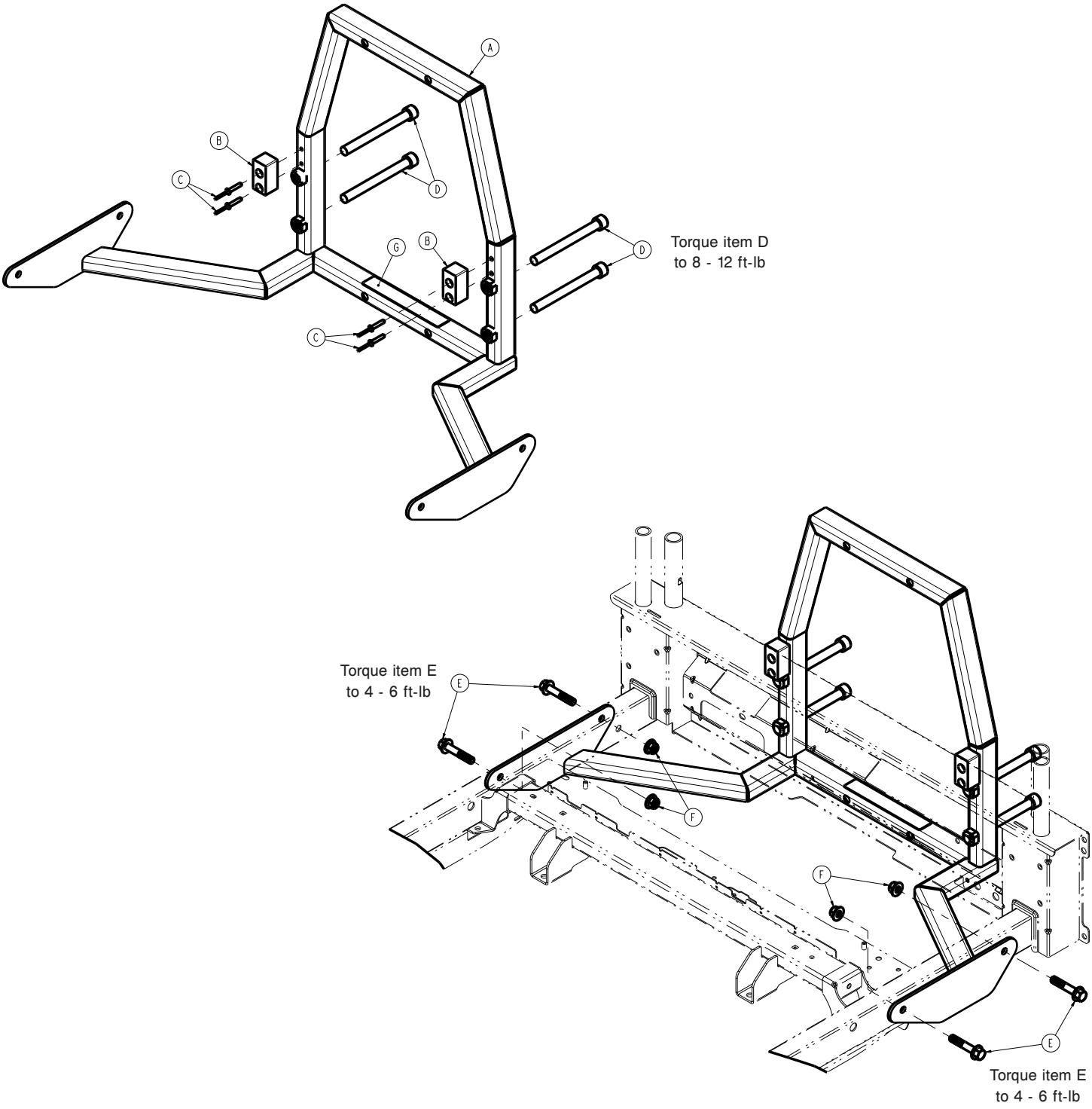
Rev AC (Reference only)



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)

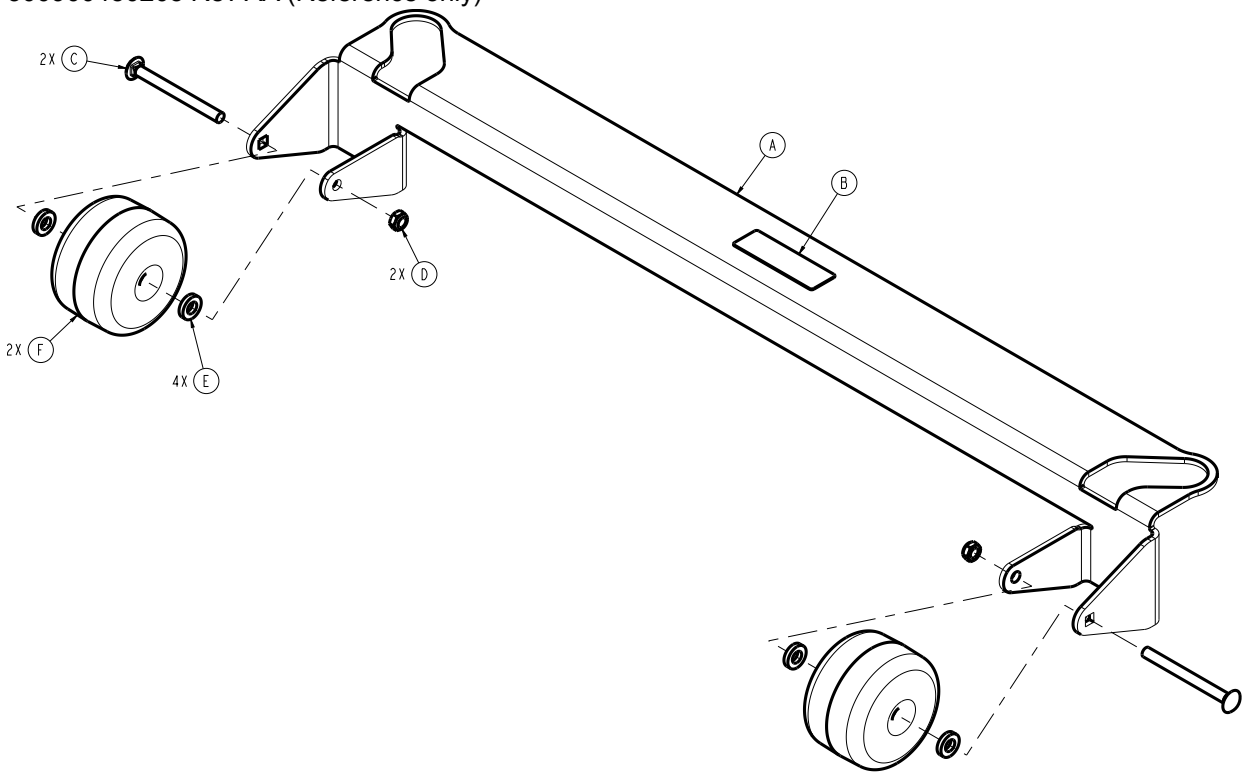


Item	Number	Name	Quantity
A	300900450110	Patient helper weldment	1
B	300900450118	Patient helper support rest pad	2
C	700000233246	Dome head blind rivet	4
D	700001076376	Socket head cap screw	4
E	700000717577	Hex flange screw	4

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

Roller bumper assembly

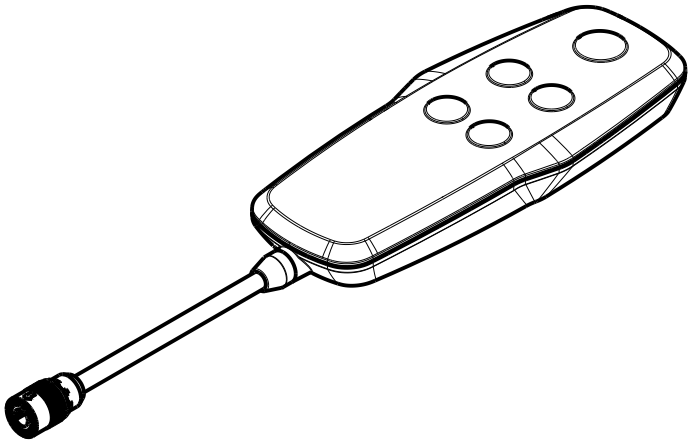
300900450205 Rev AA (Reference only)



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

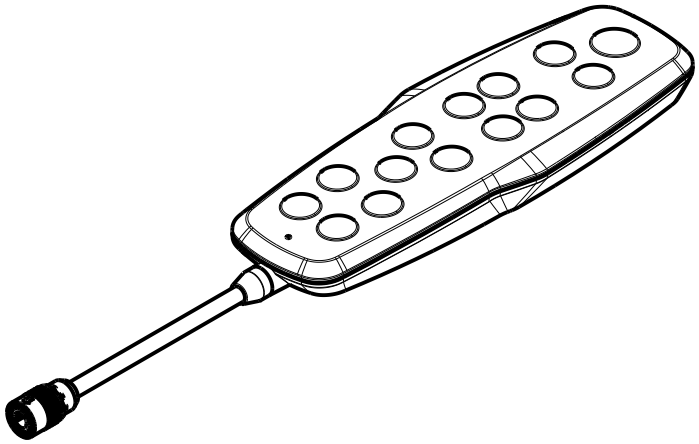
Pendant assembly, basic - 300900470100

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 circuity in the microwave. The level of this radiation is also controlled via federal regulations from the FCC and is not of a high magnitude. Both 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.

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.

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	**Note** - 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%.

Guidance and manufacturer's declaration - electromagnetic immunity			
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.
Voltage dips, voltage variations and short interruptions on power supply input lines IEC 61000-4-11	0%U_T for 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0%U_T for 1 cycle 70%U_T (30% dip in U_T) for 25/30 cycles 0% U_T for 250/300 cycles	0%U_T for 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0%U_T for 1 cycle 70%U_T (30% dip in U_T) for 25/30 cycles 0% U_T for 250/300 cycles	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.
Note - U_T is the a.c. mains voltage before applications of the test level.			

Conducted RF IEC 61000- 4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 3 V/m 80 MHz to 2.7 GHz	3 Vrms 3 V/m	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. Recommended separation distance $D=(2)(\sqrt{P})$ where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and *d* is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey[a], should be less than the compliance level in each frequency range[b]. Interference may occur in the vicinity of equipment marked with the following symbol: 

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

Note - 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.

[a]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.

[b]Over the frequency range 150 kHz to 80 MHz, field strengths are less than 3 Vrms.

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

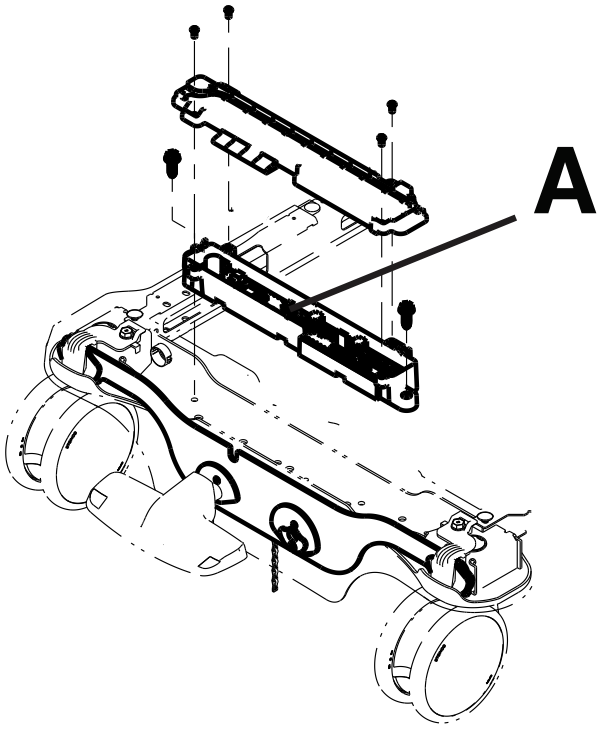
For transmitters rated at a maximum output power not listed above, the recommended separation distance *d* in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter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

300900030300

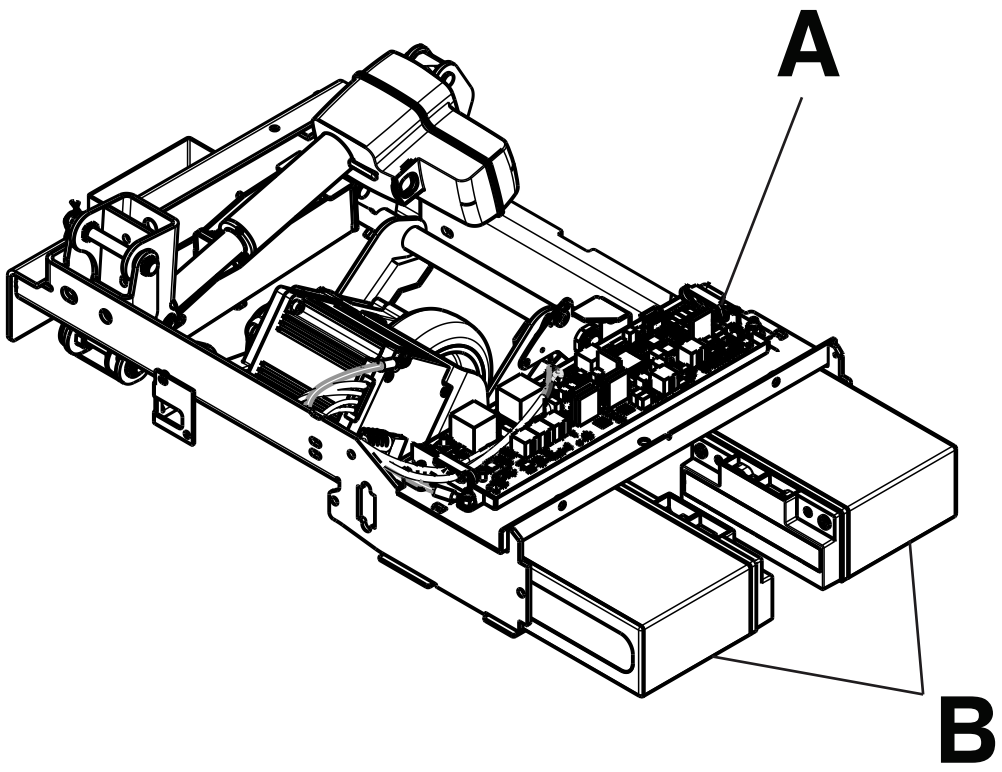
Rev AB



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

300900070250

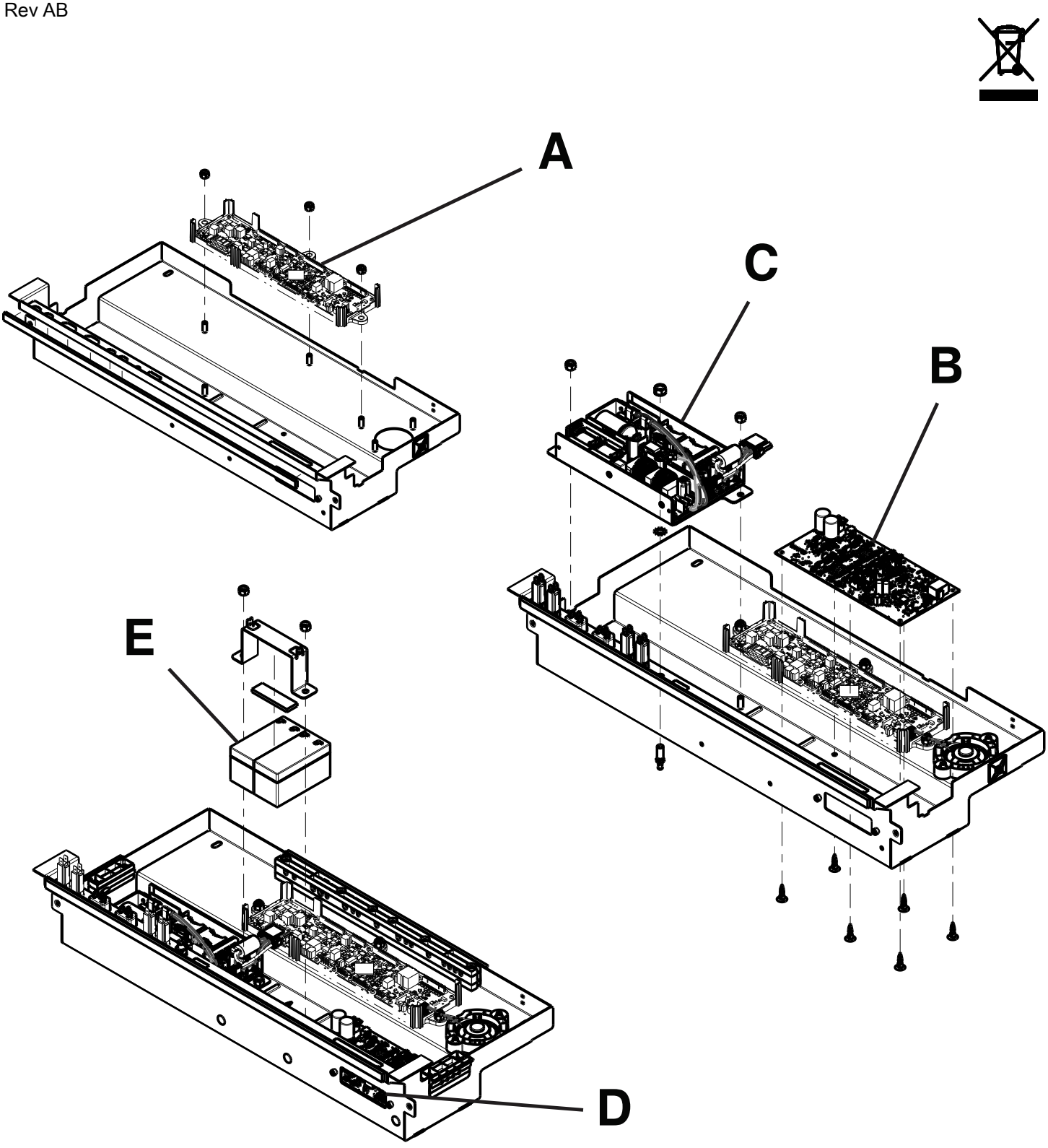
Rev AD



Item	Recyclable part number	Material code	Important information	Quantity
A	300900070050	Printed circuit board	Lead, lead-monoxide	1
B	700000341246	Battery		2

300900100050

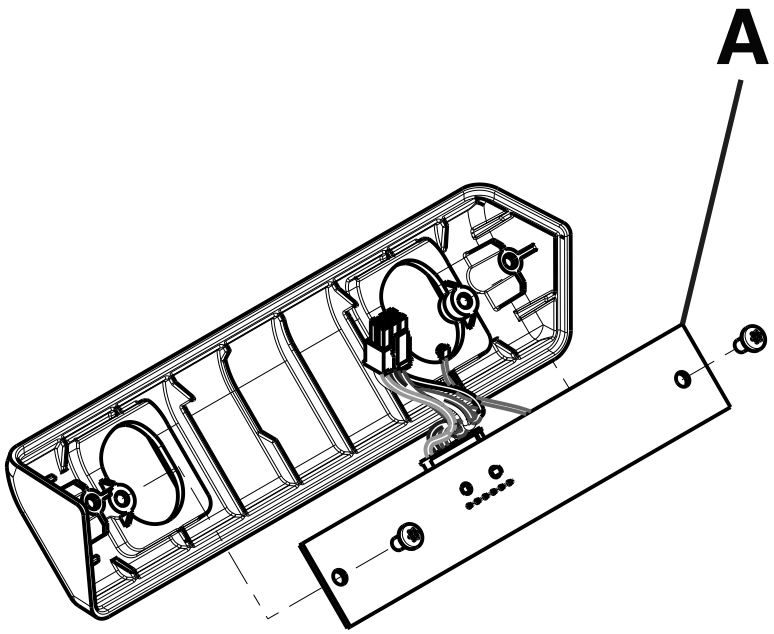
Rev AB



Item	Recyclable part number	Material code	Important information	Quantity
A	300900100900/ 300900100910	Printed circuit board	Diboron-trioxide, lead, lead-monoxide	1
B	300900100950	Printed circuit board		1
C	300900100970	Power supply		1
D	300900380900/ 300900380910/ 300900380920	Printed circuit board		1
E	700000341245	Battery		2

300900100150

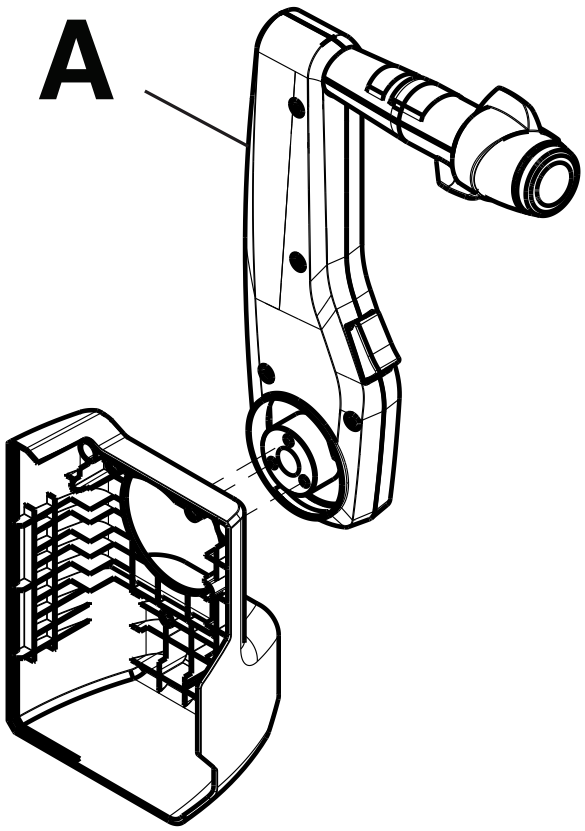
Rev AB



Item	Recyclable part number	Material code	Important information	Quantity
A	300900380930	Printed circuit board		1

300900100260

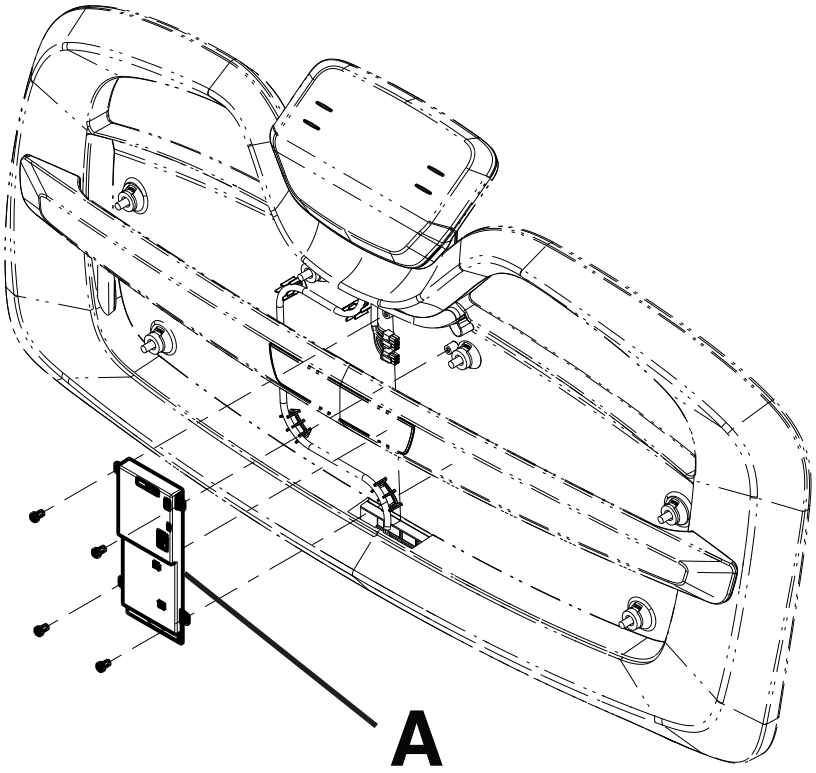
Rev AA



Item	Recyclable part number	Material code	Important information	Quantity
A	300900070200	Printed circuit board, liquid crystal display		1

300900100500

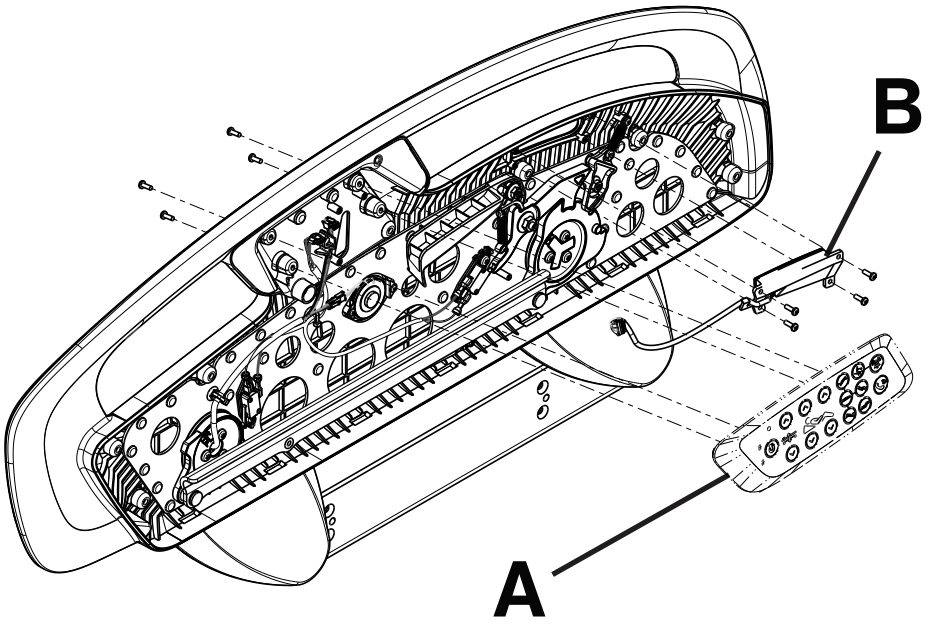
Rev AB



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

300900110100/300900110200

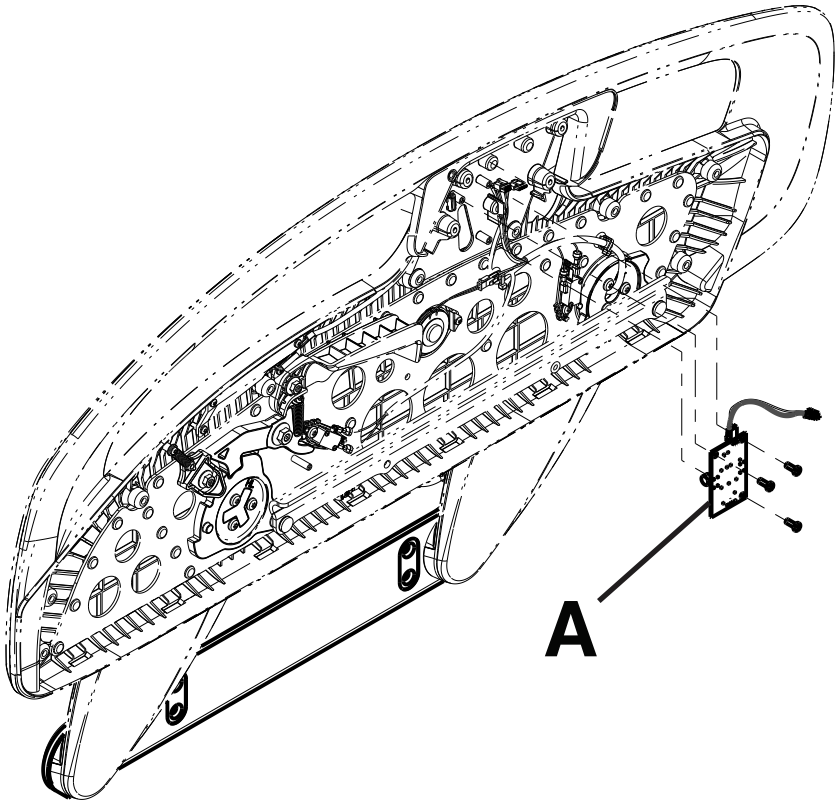
Rev AC/Rev AC



Item	Recyclable part number	Material code	Important information	Quantity
A	300900110960/ 300900110965 300900110970/ 300900110975	Printed circuit board		1
B	300900110950/ 300900110955	Printed circuit board		1

300900110609

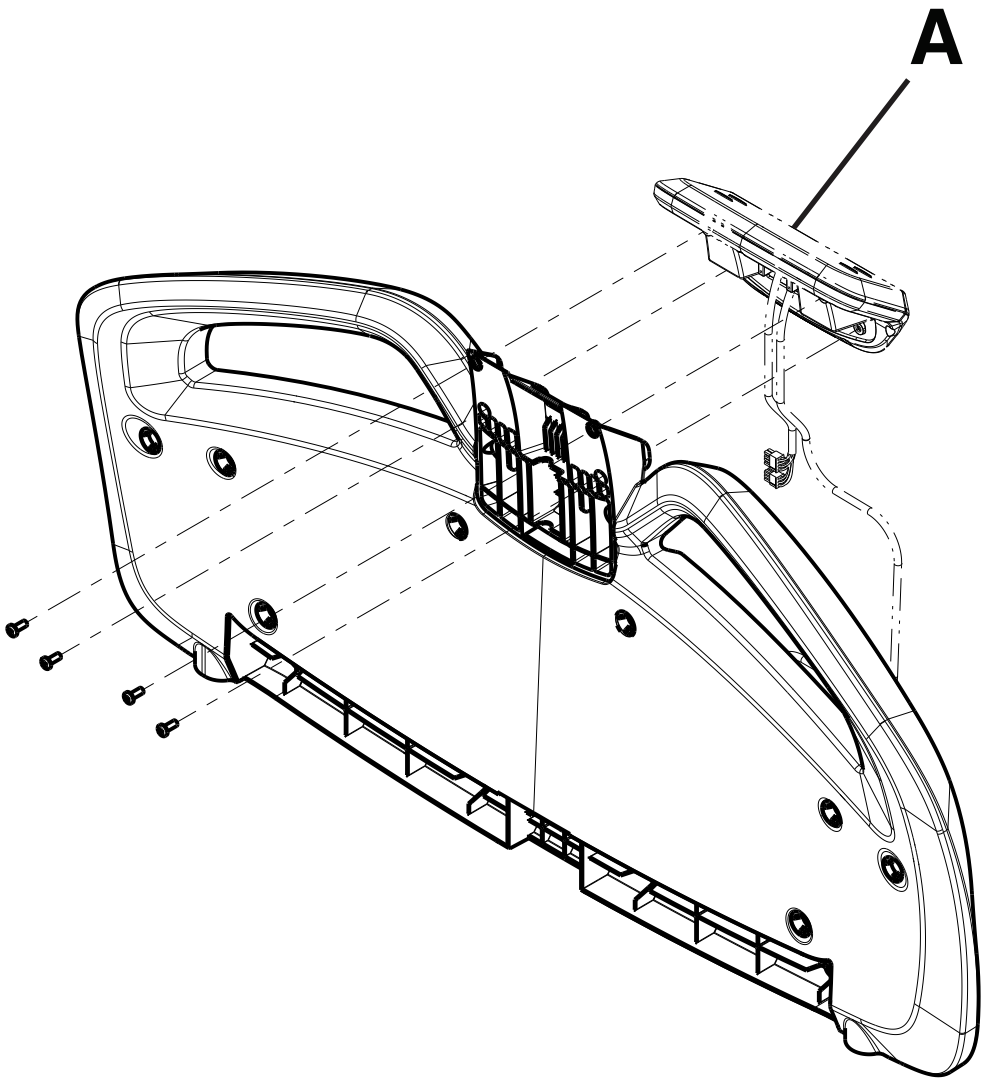
Rev AB



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

300900220001

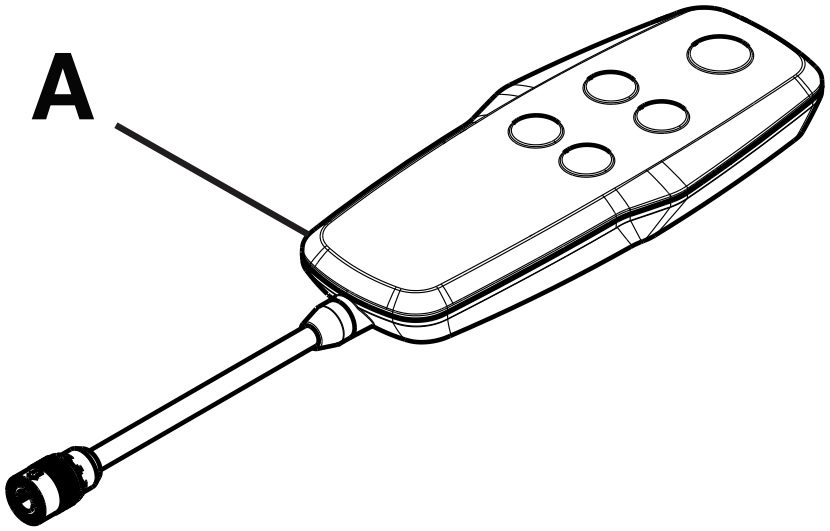
Rev AB



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

300900470100

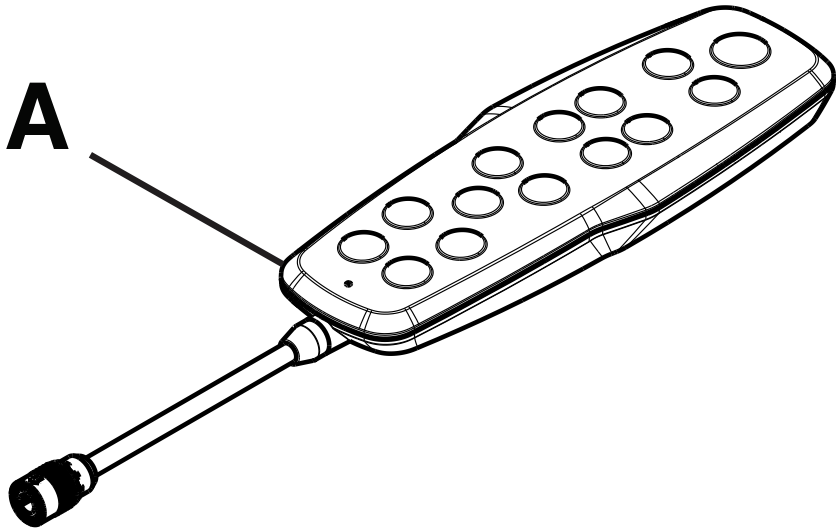
Rev AB



Item	Recyclable part number	Material code	Important information	Quantity
A	300900470100	Printed circuit board		1

300900470200

Rev AB



Item	Recyclable part number	Material code	Important information	Quantity
A	300900470200	Printed circuit board		1

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