Isolibrium® PE support surface

Maintenance Manual

REF 297300000000

EN

2973-009-002 Rev AE.0 2023-09

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.

CAUTION

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

Introduction for service

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

Expected service life

Isolibrium PE support surface has a five year expected service life under normal use, conditions, and with appropriate periodic maintenance.

Isolibrium PE covers (top and bottom) have a two year expected service life under normal use, and conditions.

Contact information

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

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

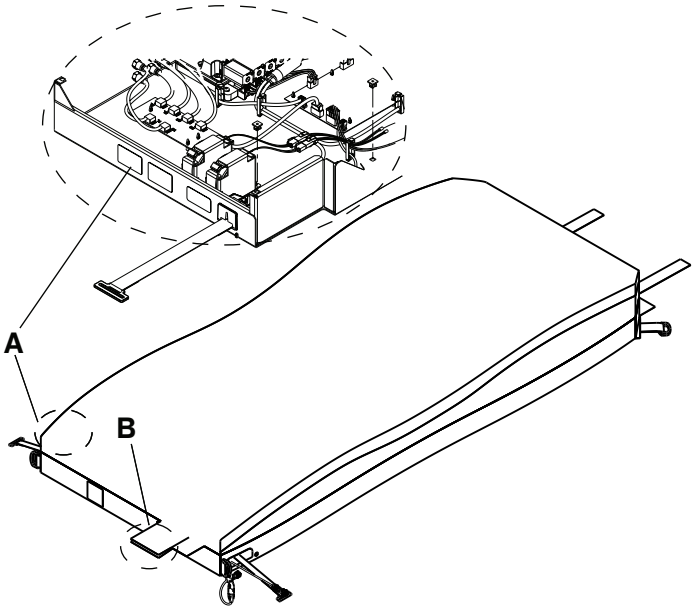
Note - The user and/or the patient should report any serious product-related incident to both the manufacturer and the Competent authority of the European Member State where the user and/or patient is established.

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

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

Serial number location

The serial number (A) for your support surface is located on the patient right side of the foot box on the specification label. Unzip the support surface top cover to access the specification label. The serial number (B) is for the support surface cover.



Preventive maintenance

Remove product from service before you perform 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 frequently 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.
- If excessive wear is observed on the cover or the fire barrier, the recommendation is to replace the cover.

Inspect the following items:

_____ All fasteners are secure

_____ Zipper, snaps, and covers (top, bottom, and fire barrier) are free of tears, cuts, holes, or any other damage

_____ Support surface cover labels are legible, adhere, and free of damage

_____ Handles are free of rips or cracks

_____ Magnetic break away cables (297300560804 and 297300560805) are free of damage

_____ Cable tie is present on the magnetic break away cables

_____ [2]Perform a functional test of the **Isolibrium** PE functions

_____ [2]Perform system diagnostics and confirm there are no errors

_____ [1]Internal components for signs of stains from fluid ingress or contamination by fully unzipping the cover

_____ Pods do not leak or are not cracked

_____ Hose connections to the manifold and sensor tubes (both ends) are seated

_____ Foam is free from large tears or large gouges

_____ Turn bladders are free of excessive wear and function

_____ Low Air Loss fans rotate freely and are free of debris and dust

_____ Left and right CPR releases function

_____ Both foot box cooling fans rotate and are free of debris and dust

_____ Pump spring mount has visible clearance from the foot box bottom

_____ Listen for abnormal pump vibration and noise level

_____ Clean the foot box intake metal screen

_____ Clean the mesh on the bottom cover

_____ Clean the fan filter screen on the foot box

_____ Standoffs (feet of the foot box) are present

Note

- [1]A zipper pull tool or equivalent is required to access the internal components of the support surface.
- [2]You cannot perform these preventive maintenance checks without the footboard, see the **ProCuity** Maintenance Manual.
- The zipper overlaps at the end and may appear to be misaligned per design.

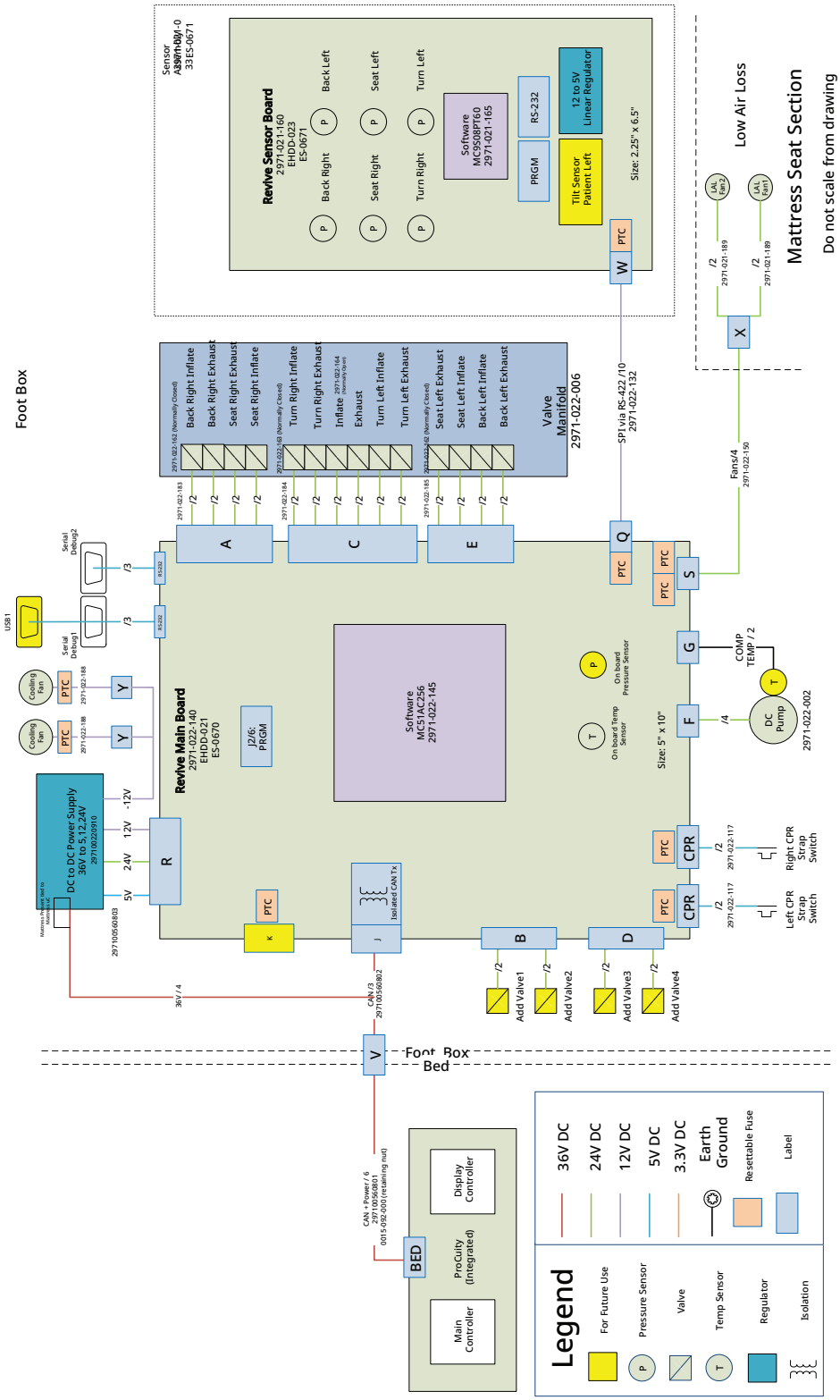
Replace the following items every two years:

- Top cover assembly
- Bottom cover assembly

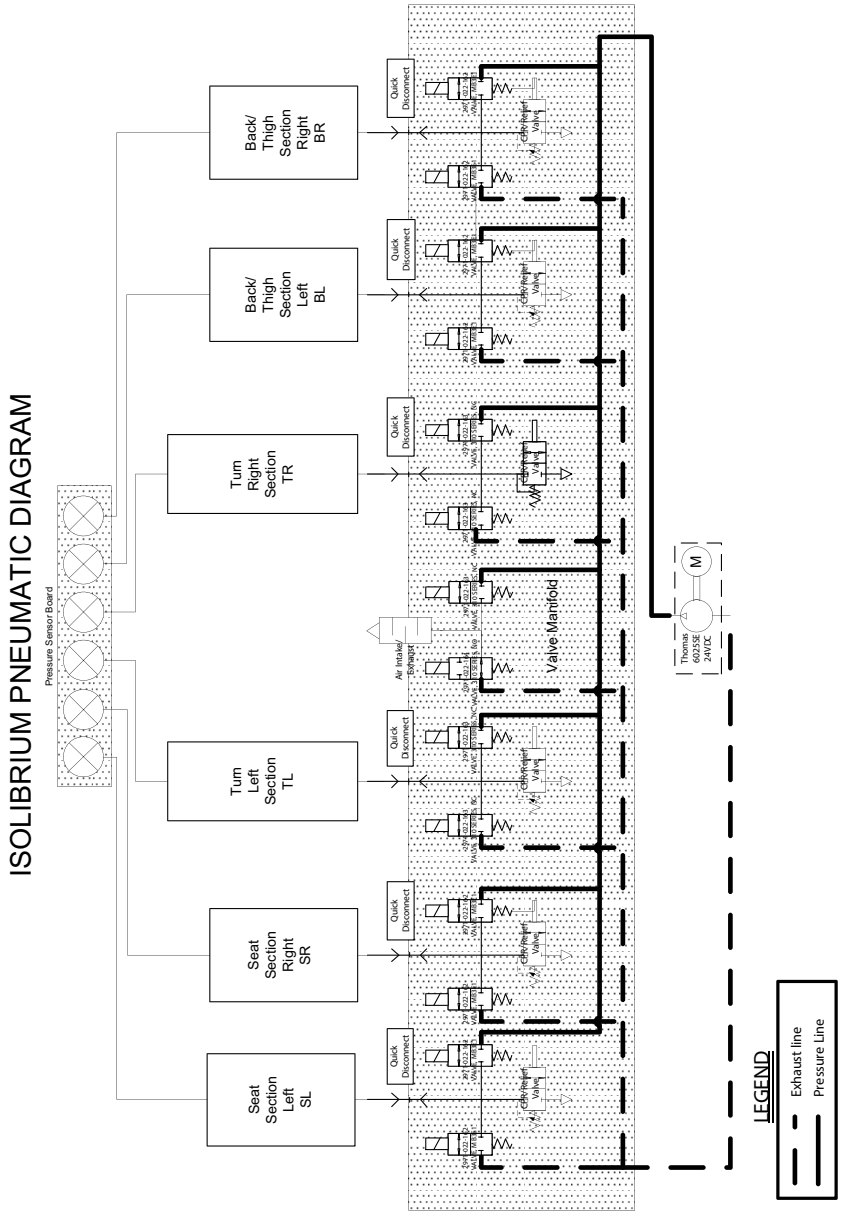
Product serial number:
Completed by:
Date:

Block diagram

Isolibrium wiring



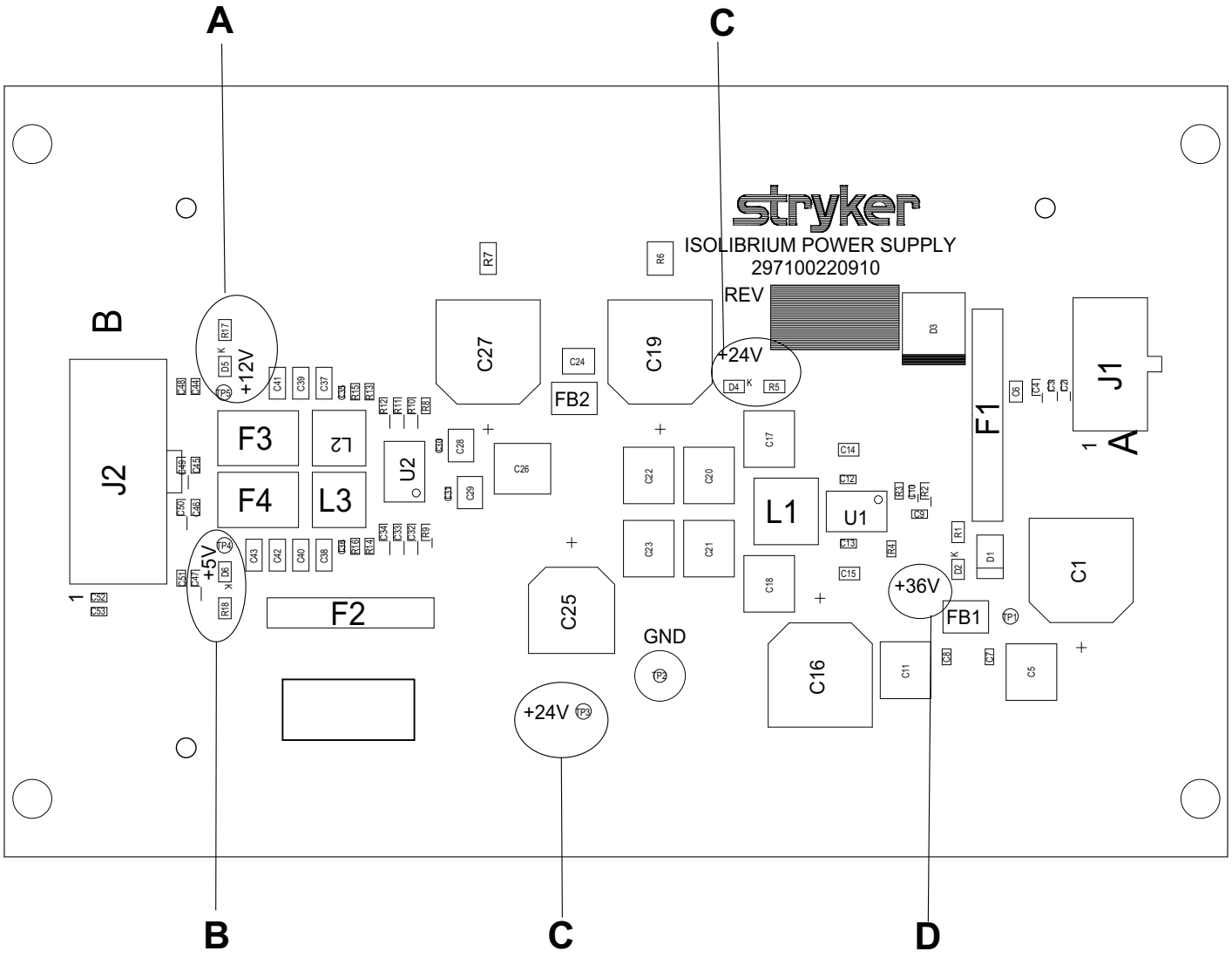
Pneumatic wiring diagram



Circuit boards

Power supply assembly

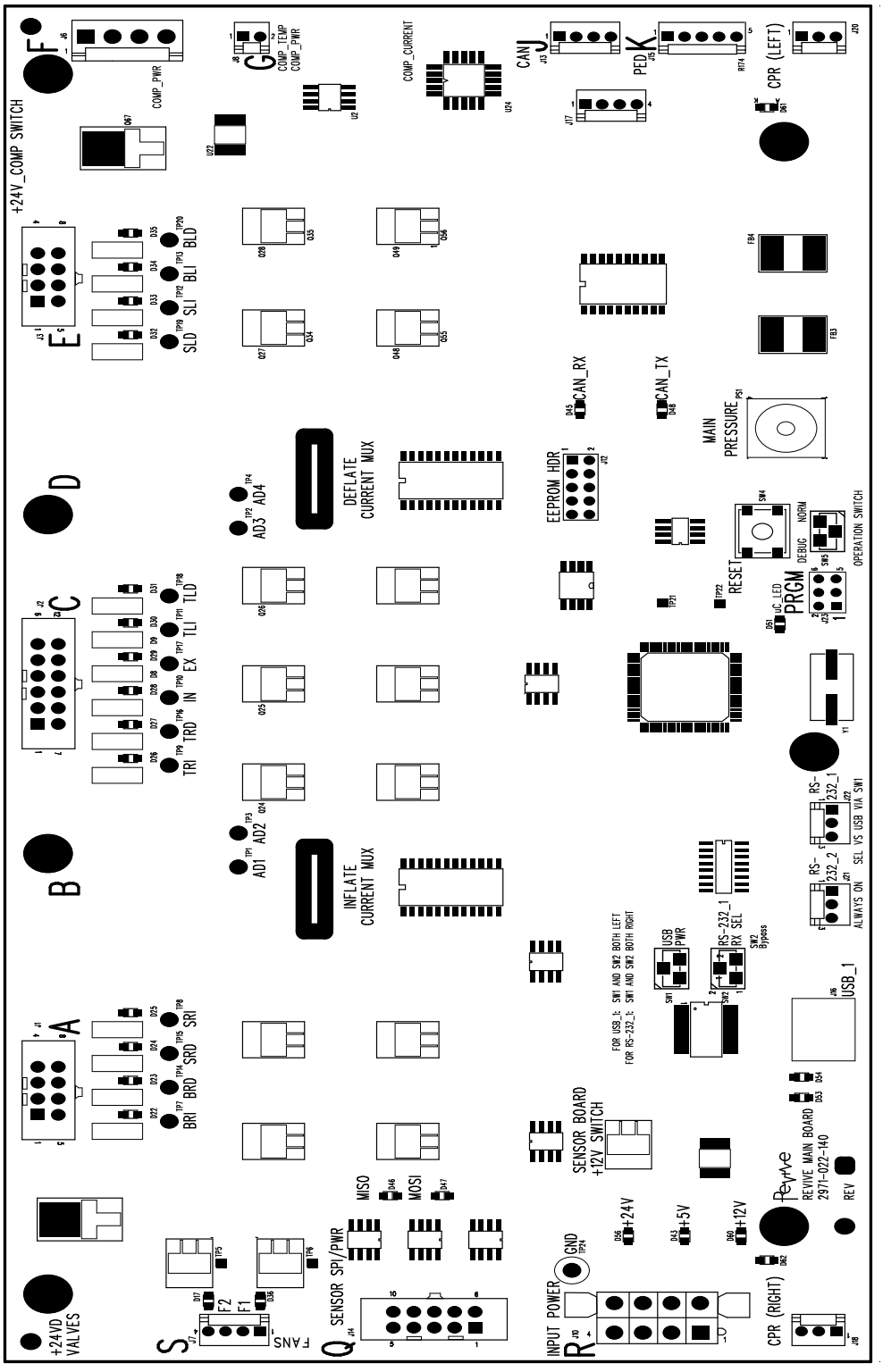
297100220910 Rev AF (Reference only)



Location	Voltage	Positive lead	Negative lead	LED indicator
A	+12VDC	TP5	GND	D5
B	+5VDC	TP4	GND	D6
C	+24VDC	TP3	GND	D4 (location E)
D	+36VDC	TP1	GND	D2

Main power board assembly

2971-022-140 Rev L (Reference only)



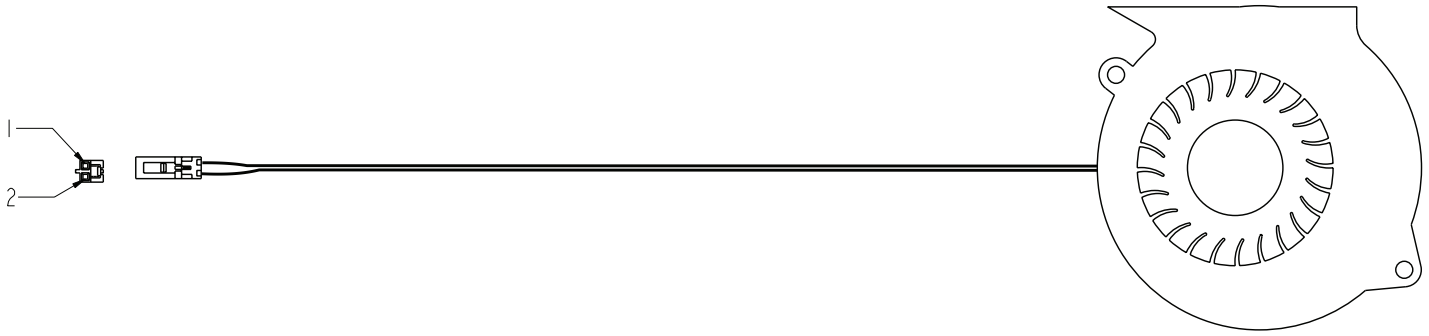
Cable and test point (LED) location	Voltage	Positive lead	Negative lead	Description
D43	+5VDC	N/A	N/A	+5VDC from power supply to main board
D60	+12VDC	N/A	N/A	+12VDC from power supply to main board
D56	+24VDC	N/A	N/A	+24VDC from power supply to main board
CPR (left)	+5VDC	Pin 2 red	Pin 3 black	+5VDC power out to CPR switch
CPR (right)	+5VDC	Pin 2 red	Pin 3 black	+5VDC power out to CPR switch
TLI (D30)	+24VDC	TP11	TP24 GND	+24VDC from main board to solenoid valve (Turn Left Inflate)
TLD (D31)	+24VDC	TP18	TP24 GND	+24VDC from main board to solenoid valve (Turn Left Deflate)
TRI (D26)	+24VDC	TP9	TP24 GND	+24VDC from main board to solenoid valve (Turn Right Inflate)
TRD (D27)	+24VDC	TP16	TP24 GND	+24VDC from main board to solenoid valve (Turn Right Deflate)
BLI (D34)	+24VDC	TP13	TP24 GND	+24VDC from main board to solenoid valve (Back Left Inflate)
BLD (D36)	+24VDC	TP20	TP24 GND	+24VDC from main board to solenoid valve (Back Left Deflate)
BRI (D22)	+24VDC	TP7	TP24 GND	+24VDC from main board to solenoid valve (Back Right Inflate)
BRD (D23)	+24VDC	TP14	TP24 GND	+24VDC from main board to solenoid valve (Back Right Deflate)
SLI (D33)	+24VDC	TP12	TP24 GND	+24VDC from main board to solenoid valve (Seat Left Inflate)

Cable and test point (LED) location	Voltage	Positive lead	Negative lead	Description
SLD (D32)	+24VDC	TP19	TP24 GND	+24VDC from main board to solenoid valve (Seat Left Deflate)
SRI (D25)	+24VDC	TP8	TP24 GND	+24VDC from main board to solenoid valve (Seat Right Inflate)
SRD (D24)	+24VDC	TP15	TP24 GND	+24VDC from main board to solenoid valve (Seat Right Deflate)
IN (D28)	+24VDC	TP10	TP24 GND	+24VDC from main board to solenoid valve (Air Intake)
EX (D29)	+24VDC	TP17	TP24 GND	+24VDC from main board to solenoid valve (Air Exhaust)
J14	+12VDC	Pin 1 red	Pin 6 black	+12VDC out to sensor board from main board
J6	+24VDC	Pin 1 yellow	Pin 2 black	+24VDC out to compressor from main board (variable voltage) - D65 = 24.4% - D66 = 48.8% - D67 = 73.2% - D68 = 97.6% - D71 = 110%

Cables

Fan and cable assembly

2971-021-189 Rev C (Reference only)



Item	Color
1	Red
2	Blue

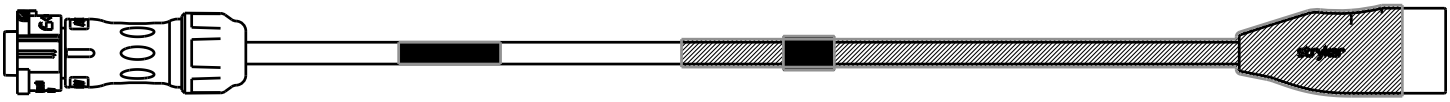
SPI cables (main board to foot box) assembly

2971-022-132 Rev D (Reference only)

Item	Color
1	Red
6	Black
2	Black
3	Green
4	Black
5	White
7	Blue
8	Black
9	Brown
10	Black

Magnetic break away cable side A

297300560804 Rev AC (Reference only)



Magnetic break away cable side B

297300560805 Rev AC (Reference only)

Troubleshooting

Problem	Possible cause	Solution
Support surface will not inflate	Support surface has no power	See *No power*
	CPR pull is active	Pull down the CPR to reset
	Support surface menu is unavailable on the **ProCuity** bed screen	Check the connection of the support surface magnetic break away cable both sides
	Pod manifold connector is not set	Set the pod manifold connector and secure
	Pump does not run when you start Max Inflate	Check for 24VDC (variable) is going to the pump on connector F on the main board pin 1 (yellow) and pin 2 (black) 1. If voltage is present, replace pump assembly 2. If no voltage present, replace the control board
	Solenoids or pod assembly possible disconnected hose connections	Check the hose connections, solenoids, and pod assembly
No left turn inflate	Left turn bladder hose quick connection coupler loose or disconnected	Make sure that the left turn bladder hose quick connection coupler is together and locked
	Pod manifold connector loose or disconnected	Make sure that the pod manifold connector is set into the manifold and set
	Turn bladder possible leak	Listen for air flow into the turn bladder
		Look for a leak in the turn bladder
		If you find a leak, replace the turn bladder assembly
	Turn bladder no air enters	Make sure that the LED (D30) is lit to show the TLI solenoid is energized (see *Main power board assembly* (page 9))
		If energized, replace the TLI inflate solenoid
No left turn deflate	Left turn bladder hose quick connection coupler loose or disconnected	Make sure that the left turn bladder hose quick connection coupler is together and locked
	Turn bladder no air exits	Make sure that the LED (D31) is lit to show the TLD solenoid is energized (see *Main power board assembly* (page 9))
		If energized, replace the TLD inflate solenoid
No right turn inflate	Right turn bladder hose quick connection coupler loose or disconnected	Make sure that the right turn bladder hose quick connection coupler is together and locked

Problem	Possible cause	Solution
	Pod manifold connector loose or disconnected	Make sure that the pod manifold connector is set into the manifold and set
	Turn bladder possible leak	Listen for air flows into the turn bladder
		Look for a leak in the turn bladder
		If you find a leak, replace the turn bladder assembly
	Turn bladder no air enters	Make sure that the LED (D26) is lit to show the TLI solenoid is energized (see *Main power board assembly* (page 9))
		If energized, replace the TLI inflate solenoid
No right turn deflate	Right turn bladder hose quick connection coupler loose or disconnected	Make sure that the right turn bladder hose quick connection coupler is together and locked
	Turn bladder no air exits	Make sure that the LED (D27) is lit to show the TLD solenoid is energized (see *Main power board assembly* (page 9))
		If energized, replace the TLD inflate solenoid
No back right inflate	Pod manifold connector loose or disconnected	Make sure that the pod manifold connector is set into the manifold and secured
	Turn bladder possible leak	Listen for air flows into the turn bladder
		Look for a leak in the turn bladder
		If you find a leak, replace the turn bladder assembly
	Turn bladder no air enters	Make sure that the LED (D22) is lit to show the BRI solenoid is energized (see *Main power board assembly* (page 9))
No back right inflate	Turn bladder no air enters	If energized, replace the BRI inflate solenoid
No back right deflate	Pod manifold connector loose or disconnected	Make sure that the pod manifold connector is set into the manifold and secured
	Turn bladder no air exits	Make sure that the LED (D23) is lit to show the BRD solenoid is energized (see *Main power board assembly* (page 9))
		If energized, replace the BRD inflate solenoid
No back left inflate	Pod manifold connector loose or disconnected	Make sure that the pod manifold connector is set into the manifold and secured

Problem	Possible cause	Solution
	Turn bladder possible leak	Listen for air flows into the turn bladder
		Look for a leak in the turn bladder
		If you find a leak, replace the turn bladder assembly
	Turn bladder no air enters	Make sure that the LED (D34) is lit to show the BLI solenoid is energized (see *Main power board assembly* (page 9))
		If energized, replace the BLI inflate solenoid
No back left deflate	Pod manifold connector loose or disconnected	Make sure that the pod manifold connector is set into the manifold and secured
	Turn bladder no air exits	Make sure that the LED (D36) is lit to show the BLD solenoid is energized (see *Main power board assembly* (page 9))
		If energized, replace the BLD inflate solenoid
No seat right inflate	Pod manifold connector loose or disconnected	Make sure that the pod manifold connector is set into the manifold and secured
	Turn bladder possible leak	Listen for air flows into the turn bladder
		Look for a leak in the turn bladder
		If you find a leak, replace the turn bladder assembly
	Turn bladder no air enters	Make sure that the LED (D25) is lit to show the SRI solenoid is energized (see *Main power board assembly* (page 9))
		If energized, replace the SRI inflate solenoid
No seat right deflate	Pod manifold connector loose or disconnected	Make sure that the pod manifold connector is set into the manifold and secured
	Turn bladder no air exits	Make sure that the LED (D24) is lit to show the SRD solenoid is energized (see *Main power board assembly* (page 9))
		If energized, replace the SRD inflate solenoid
No power	Support surface magnetic break away cable is not plugged into the **ProCuity** bed	Plug the support surface magnetic break away cable into the **ProCuity** bed
	Pod manifold connector loose or disconnected	Make sure that the pod manifold connector is set into the manifold and secured

Problem	Possible cause	Solution
	Turn bladder possible leak	Listen for air flows into the turn bladder
		Look for a leak in the turn bladder
		If you find a leak, replace the turn bladder assembly
	Turn bladder no air enters	Make sure that the LED (D33) is lit to show the SLI solenoid is energized (see *Main power board assembly* (page 9))
		If energized, replace the SLI inflate solenoid
	Pod manifold connector loose or disconnected	Make sure that the pod manifold connector is set into the manifold and secured
	Turn bladder no air exits	Make sure that the LED (D32) is lit to show the SLD solenoid is energized (see *Main power board assembly* (page 9))
		If energized, replace the SLD inflate solenoid
	LAL fan not secure in frame or obstructed	If you find no obstruction and the fan is set in the frame, replace the LAL fan assembly
	Power supply quick connector loose or disconnected	Check the power supply quick connector is together and locked
	Foot box fans do not run	Use a voltmeter to check for -12VDC on pin 8 (+/ blue) and pin 6 (-/red)
		If no 12VDC, replace the power supply
	Fan cage not secure or obstructed	If you find no obstruction and the fan is set in the cage, replace the foot box fan assembly
	ProCuity bed power cord not plugged into a hospital grade outlet	Plug the **ProCuity** power cord into a hospital grade outlet
		Using a voltmeter, check the auxiliary outlet on the **ProCuity** bed for 120VAC

Problem	Possible cause	Solution
	Check the VDC voltage at the test points on the power supply	1. Check the input into the power supply • 36V – Probe between TP1 and the GND lug **Note** - If no voltage is present on the input, check bed configurations, cable continuity to the Main Controller in the electronics box on the bed, and that the support surface is plugged into the bed. 2. Check output voltages on the power supply • 24V – Probe between TP3 and the GND lug • 12V – Probe between TP5 and the GND lug • 5V – Probe between TP4 and the GND lug. **Note** - If the voltage on A, B, or C are not correct, change out the power supply.

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.

Cover replacement, top

Tools required:

- Zipper pull tool or equivalent

Procedure:

1. Apply the brakes on the **ProCuity** bed.
2. Unplug the support surface magnetic break away cable (297300560805) from the bed.
3. Remove the headboard and footboard and set aside.
4. Lower all the siderails to the lowest height position.
5. Unsnap the two secure snaps (C) at the foot end corners (Figure 1).
6. Unsnap the four corner retainers (B).

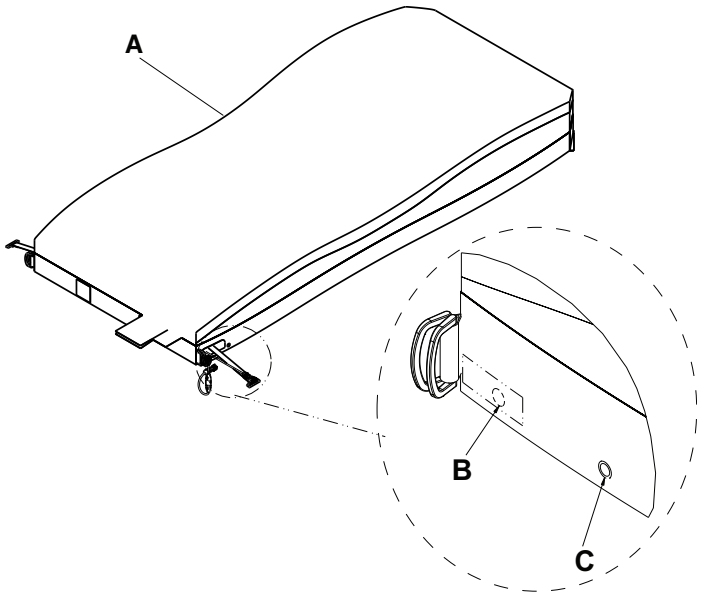


Figure 1 – Top cover

Note

- When you install the new cover, lift up on the bottom cover fire barrier side panels, if equipped, and insert the side panels flat into the top cover. Zip the top and bottom covers together to close.
- When you install, reconnect the corner retainers. Place the strap below each D-ring at the foot end corners and snap the cover.
- The zipper starts on the patient right side near the foot end.

7. Insert the zipper pull tool or equivalent through the hole in the zipper slider to unlock.
8. Using the zipper pull tool or equivalent, unzip the support surface top cover (A) from the bottom.
9. Remove and discard the top cover.
10. Reverse steps to install the new cover.

Note

- After you install, remove and save the zipper pull tool or equivalent from the zipper.
- Cover the zipper with the support surface cover watershed.

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

Cover replacement, bottom

Tools required:

- Zipper pull tool or equivalent

Note - A minimum of two operators are required to replace the bottom support surface cover.

Procedure:

1. Apply the brakes on the **ProCuity** bed.
2. Unplug the support surface magnetic break away cable (297300560805) from the bed.
3. Remove the headboard and footboard and set aside.
4. Lower all the siderails to the lowest height position.
5. Loosen and remove the retainer straps (A) that secure the support surface to the Fowler (Figure 2).
6. Place a protective sheet on the support surface for the top cover to rest on before you turn the support surface over.

7. Using two operators, turn the support surface over.

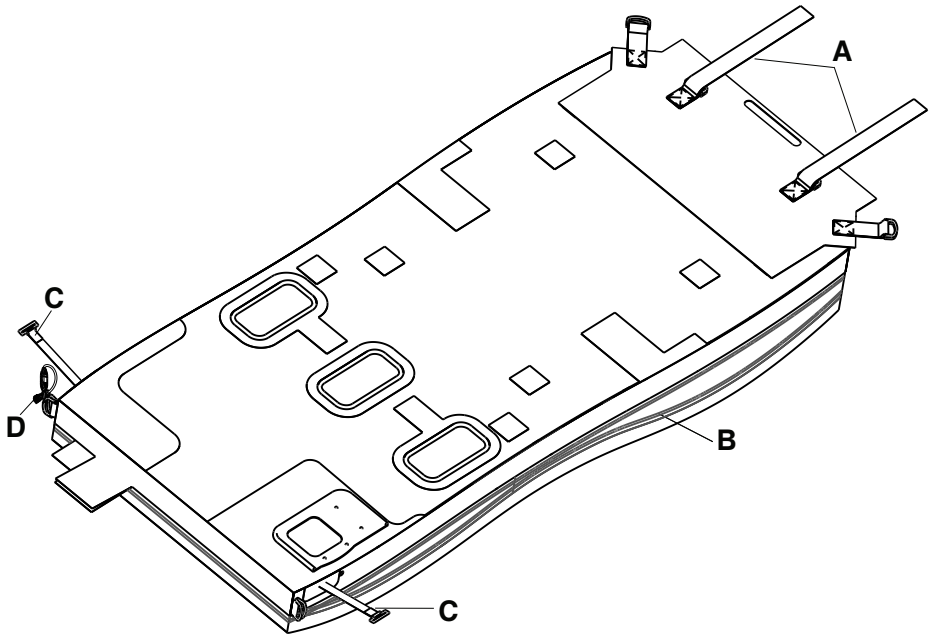


Figure 2 – Bottom support surface cover

8. Unsnap the four corner cover snaps.
9. Unsnap the two secure snaps at the right and left foot end corners.
10. Insert the zipper pull tool or equivalent through the hole in the zipper slider to unlock.
11. Using the zipper pull tool or equivalent, pull to unzip the bottom cover from the top cover (B).
12. Insert the CPR release straps (C) and magnetic break away cable (D) through the bottom cover.
13. Unsnap the two snaps that secure the bottom support surface cover to the foot box.

Note

- When you install the new cover, lift up on the bottom cover fire barrier side panels, if equipped, and insert the side panels flat into the top cover. Zip the top and bottom covers together to close.
- When you install, align the foot box with the lines on the bottom cover.

14. Starting at the head end of the support surface, separate the six hook and loop fastener from the bottom cover (E) (Figure 3).
15. Unsnap the twelve snaps and separate the hook and loop fastener from the left and right sides of the turn bladder (F).

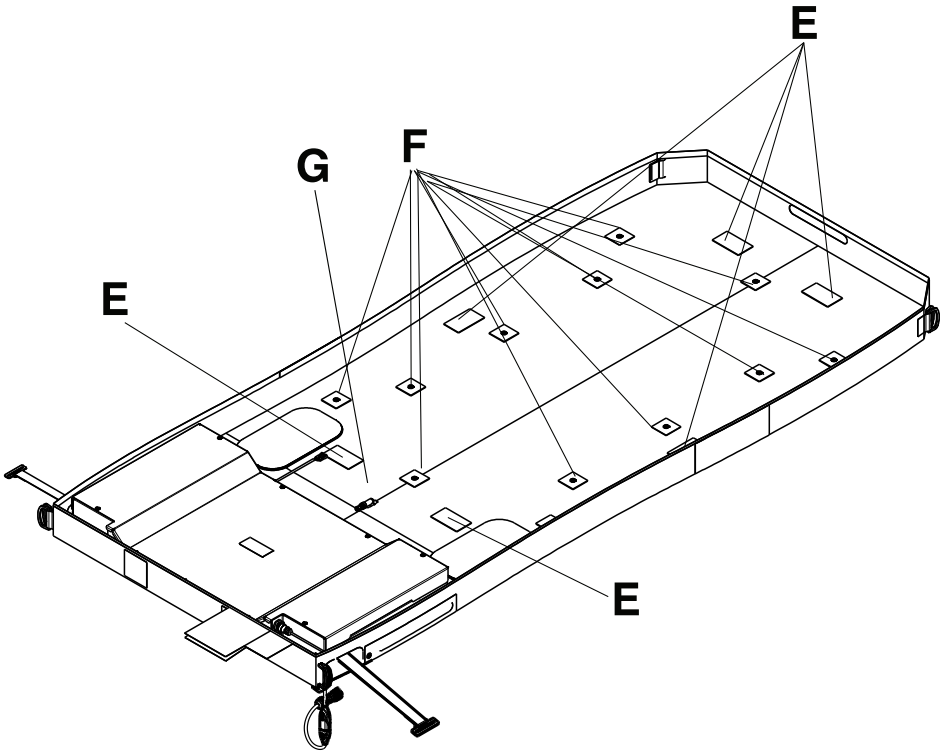


Figure 3 – Pod hook and loop fastener and snap retainers

16. Remove the foot end foam crib from the bottom cover.
17. Disconnect the exhaust tube quick disconnect (G) from the bladder assembly.
18. Remove and discard the bottom cover.
19. Reverse steps to install the new bottom cover.

    Note
    - When you install, align the hook and loop fasteners, snaps, and the foot box cover.
    - Connect the corner retainers. Place the strap below each D-ring and snap to the cover. Repeat for the other corners.
    - After you install, remove the zipper pull tool or equivalent from the zipper.
    - Cover the zipper with the support surface cover watershed.
20. Verify proper operation before you return the product to service.

Pod assembly replacement

Tools required:

- Zipper pull tool or equivalent

Procedure:

1. Remove the top cover. See *Cover replacement, top* (page 19).
2. Unsnap the pillow (H) from the left and right side of the pod assembly (Figure 4). Save the pillow.
3. Separate the six hook and loop fasteners that secure the foot section gel crib to the pod assembly.
4. Lift up on the foot section gel (F) to remove the gel crib from the pod assembly (Figure 4). Save the gel crib.

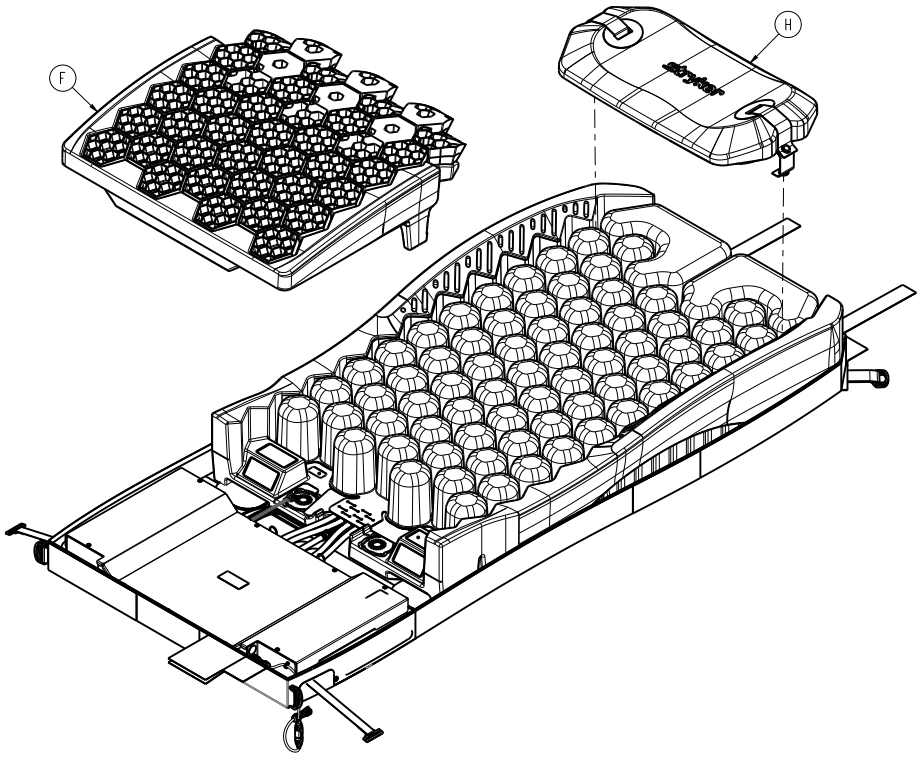


Figure 4 – Gel crib, pillow, and quick disconnect fitting

5. Disconnect the quick disconnect fitting.
6. Remove the two retaining pins (A) from the hose quick connection on the foot box assembly (Figure 5). Save the pins.

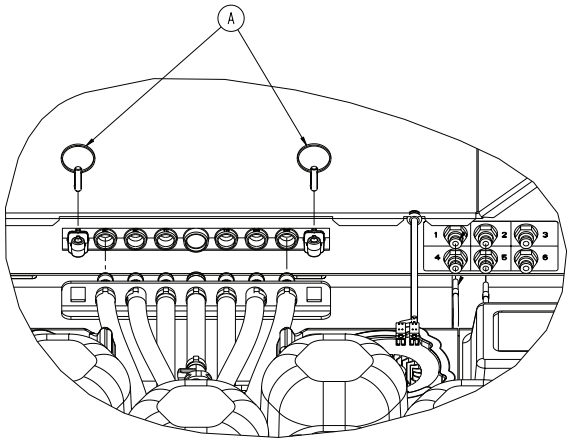


Figure 5 – Retaining pins

7. Grasp both sides of the hose quick connection on the pod assembly and pull toward the head end of the support surface to disconnect from the foot box manifold.
8. Disconnect the four pod sensor hoses (Y) (one blue, two yellow, four green, and five orange) from the foot box. Push into the coupling and pull out each of the hoses (Figure 6).

Note

- Do not bend or kink the pod sensor hoses.
- Pay attention to the sensor hose position, insertion color, and label numbers.
- When you reinstall, insert the hose. Once you hit a stop, continue to push until you reach a hard stop.

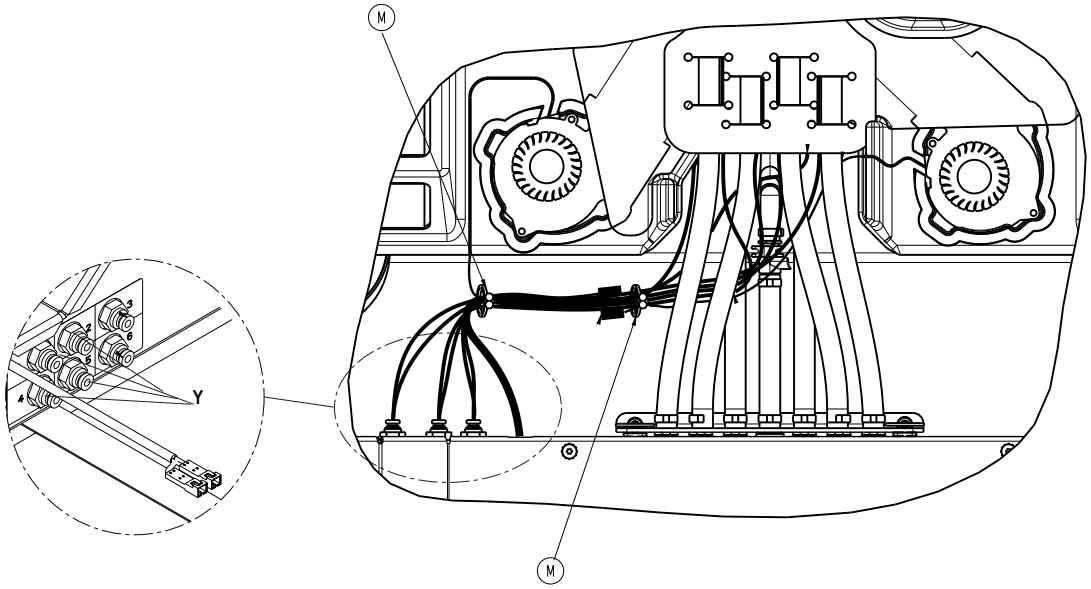


Figure 6 – Pod sensor hoses and purse lock wire tie

9. Remove the sensor hoses from the purse lock wire ties (M) (Figure 6).
10. Reach under the pod assembly (C) from the patient right side near the middle to access the turn bladder. Disconnect the turn bladder quick disconnect. Repeat for the patient left side (Figure 7).

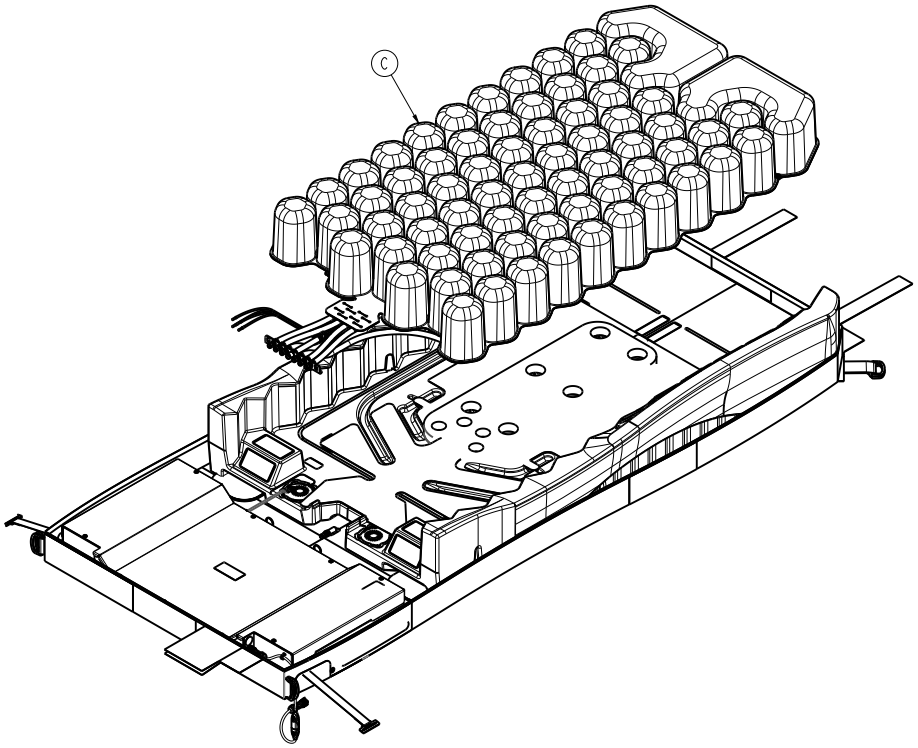


Figure 7 – Pod assembly

11. Separate the hook and loop fasteners from the head end of the pod assembly (C) and insert the turn bladder hose quick connection through the foam crib.
12. Remove and discard the pod assembly (C).
13. Reverse steps to reinstall.

Note

- When you reinstall, make sure to align the hook and loop fasteners.
- After you reinstall, remove the zipper pull tool or equivalent from the zipper.
- After you reinstall, pull the watershed cover over the zipper.

14. Run the leak diagnostic test. See *Service Menu* in the **ProCuity** Maintenance Manual.
15. Verify proper operation before you return the product to service.

Accessing the foot box cover

Tools required:

- Zipper pull tool or equivalent
- T15 Torx driver

Procedure:

1. Apply the brakes on the **ProCuity** bed.
2. Unplug the support surface magnetic break away cable (297300560805) from the bed.
3. Remove the headboard and footboard and set aside.
4. Lower all the siderails to the lowest height position.
5. Unsnap the two secure snaps (C) at the foot end corners (Figure 8).
6. Unsnap the two foot end corner retainers (B) (Figure 8).
7. Insert a zipper pull tool or equivalent through the hole in the zipper slider to unlock.
8. Using the zipper pull tool or equivalent, unzip the support surface top cover from the bottom cover (A) (Figure 8) and stop unzipping at the middle of the opposite side (D).

   Note - The zipper starts on the patient right side near the foot end.

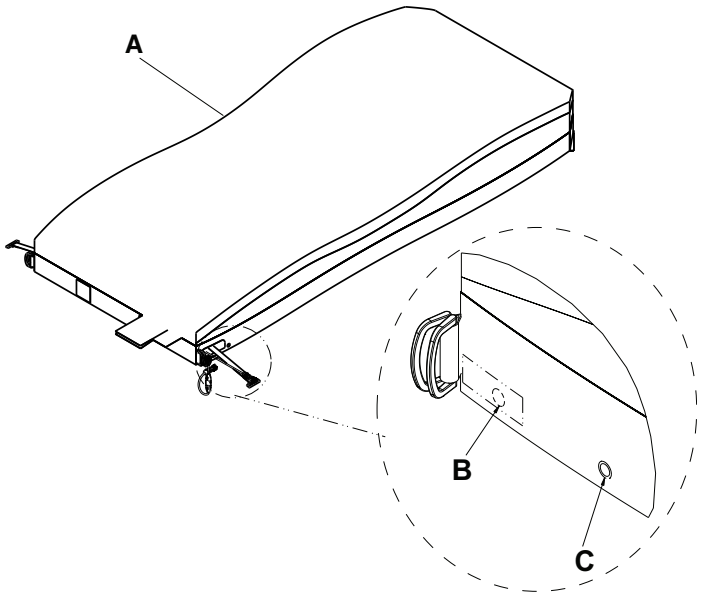


Figure 8 – Top cover

9. Fold the cover up toward the head end.
10. Separate the six hook and loop fasteners that secure the foot section gel crib to the pod assembly.
11. Lift up on the foot section gel (F) to remove the gel crib from the pod assembly (Figure 9). Save the gel crib.

12. Unsnap the two snaps that secure the bottom support surface cover to the foot box.

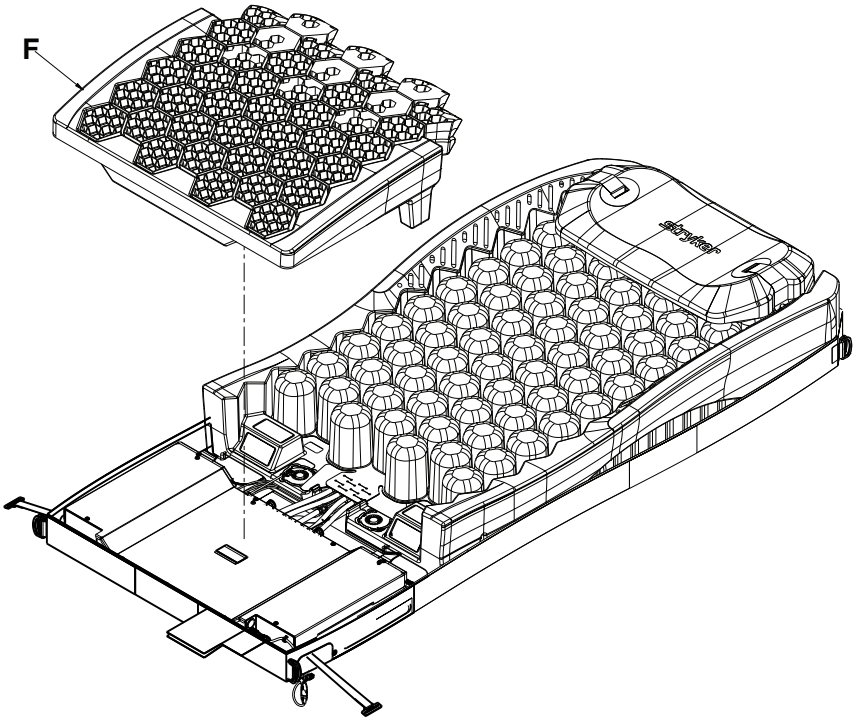


Figure 9 – Gel crib

13. Using a T15 Torx driver, remove the nine ground screws (B) and the nine star washers (D) (Figure 10). Save the ground screws and the star washers.

Note

- When you reinstall, tighten the screws equally and do not over tighten. Torque item B to 22 ± 4 in-lb.
- When you reinstall, check the LAL fan cable (G) and grommet (H) are in place before you replace the foot box cover (Figure 10).
- After you reinstall, remove the zipper pull tool or equivalent from the zipper.

14. Remove the foot box cover (AA). Save the foot box cover.

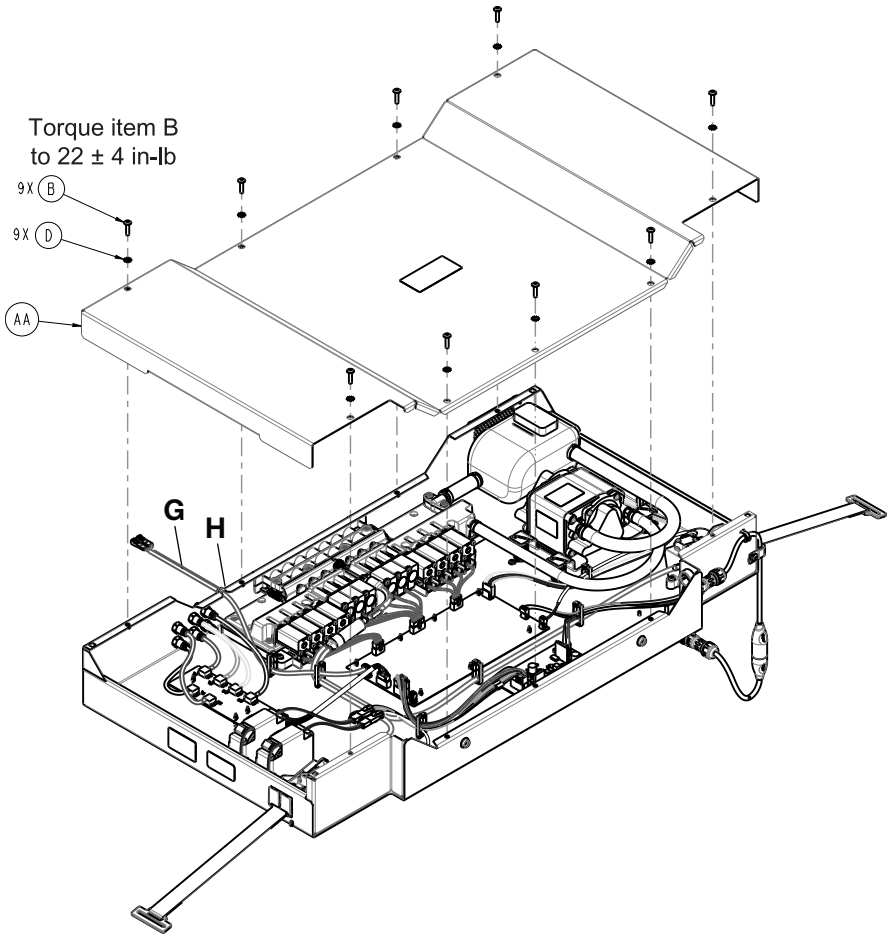


Figure 10 – Foot box cover

15. Reverse steps to reinstall.
16. Verify proper operation before you return the product to service.

Solenoid valve replacement

Tools required:

- Zipper pull tool or equivalent
- Torque driver
- ESD system

Procedure:

1. See *Accessing the foot box cover* (page 25).
2. See *Protecting against electrostatic discharge (ESD)* (page 19)).
3. Using the supplied torque driver, remove the two screws that secure the solenoid valve (H, J, or K) to the manifold assembly (Figure 11). Save the screws.

   Note - When you reinstall tighten the screws equally. Use the supplied torque driver and torque the screws to 4.4 in-lb.

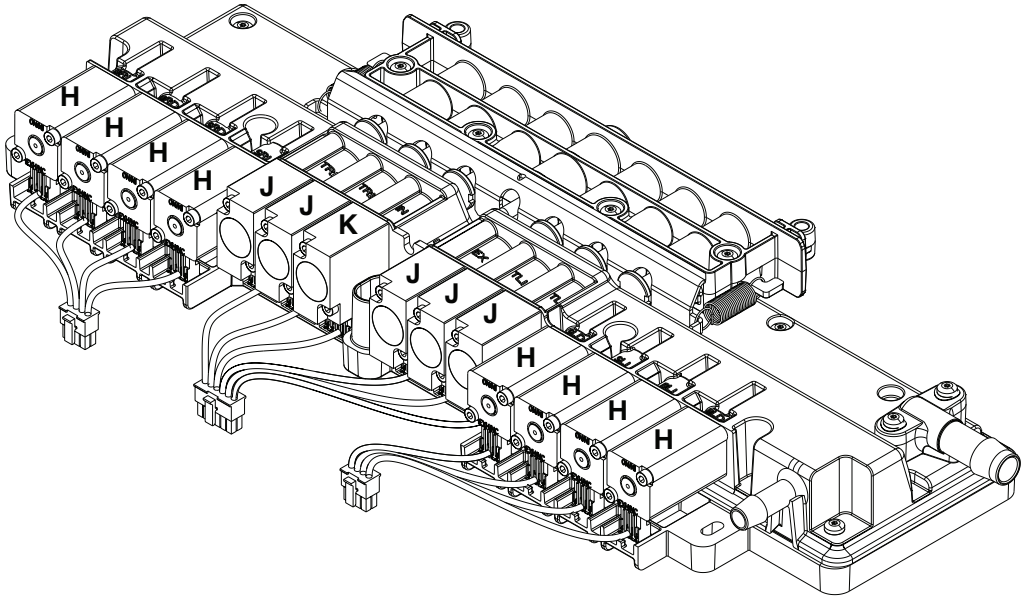


Figure 11 – Solenoid valve

4. Remove the solenoid valve.
5. Disconnect the connector for the solenoid valve.

   Note - Inspect the replacement solenoid valve to make sure that the O-ring is in place. If the O-ring is not in place, transfer the O-ring from the removed solenoid valve to the supplied solenoid valve.
6. Discard the solenoid valve.
7. Reverse steps to reinstall.

   Note
   - When you reinstall, align the hook and loop fasteners.
   - After you reinstall, remove the zipper pull tool or equivalent from the zipper.
   - Cover the zipper with the support surface cover watershed.
8. Verify proper operation before you return the product to service.

Power board replacement

Tools required:

- Zipper pull tool or equivalent
- T10 Torx driver
- ESD system

Procedure:

1. See *Accessing the foot box cover* (page 25).
2. See *Protecting against electrostatic discharge (ESD)* (page 19)).
3. Using a T10 Torx driver, remove the four screws (C) that secure the power board (AW) to the foot box (Figure 12). Save the screws.

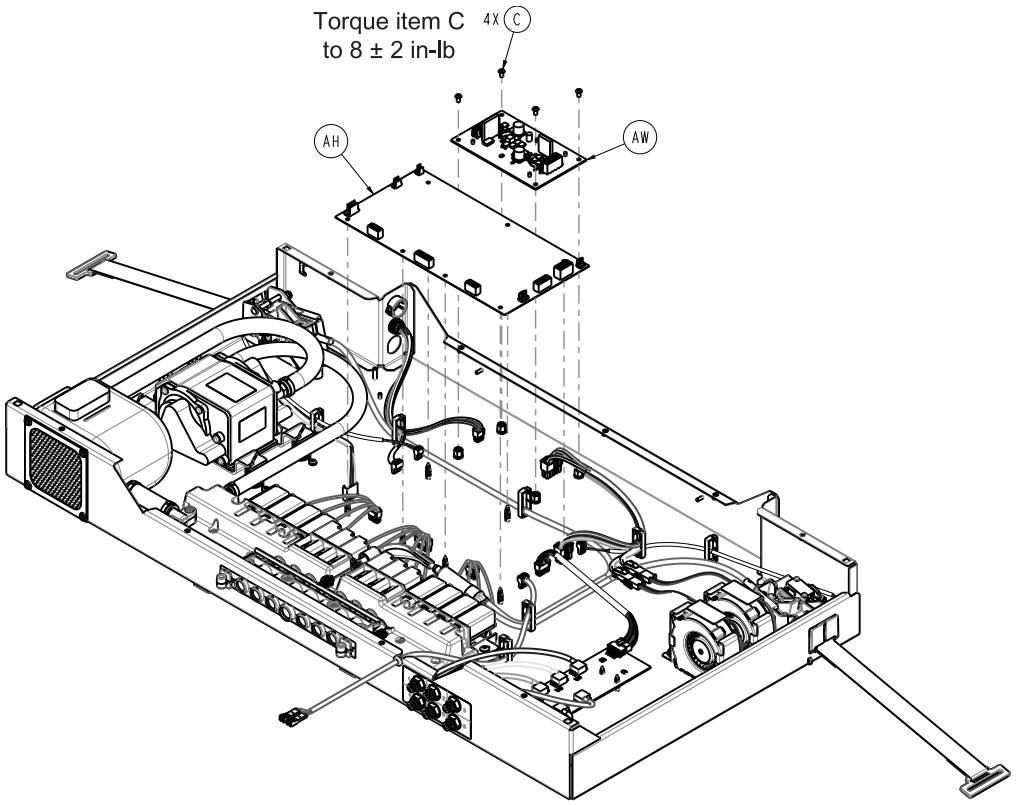


Figure 12 – Power board

Note - When you reinstall, torque the four screws (C) to 8 ± 2 in-lb.

4. Remove and discard the power board.
5. Reverse steps to reinstall.

Note

- When you reinstall, align the hook and loop fasteners.
- After you reinstall, remove the zipper pull tool or equivalent from the zipper.
- Cover the zipper with the support surface cover watershed.
- Do not dispose of as unsorted municipal waste. See your local distributor for return or collection systems available in your country.

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

Main board replacement

Tools required:

- Zipper pull tool or equivalent
- Needle nose pliers
- ESD system

Procedure:

1. See *Accessing the foot box cover* (page 25).
2. See *Protecting against electrostatic discharge (ESD)* (page 19)).
3. Remove all wiring connections from the main board (AH) (Figure 13).

Note - Pay attention to all connection points before you disconnect.

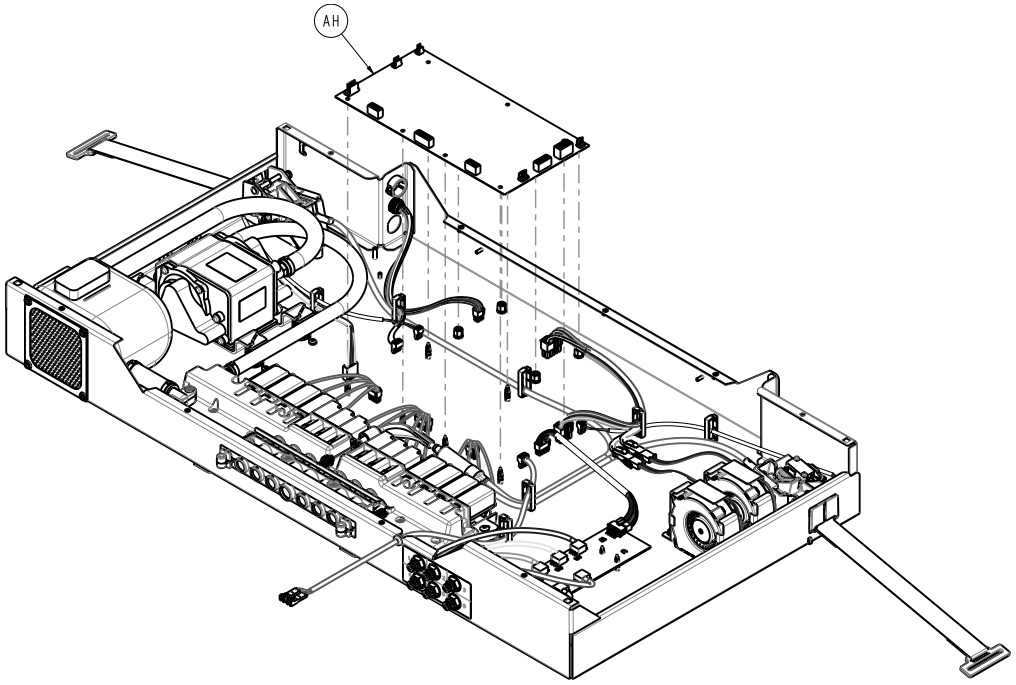


Figure 13 – Main board

4. Using needle nose pliers, apply a slight upward pressure on the main board to unclip the seven plastic standoffs.

   Note - When you reinstall, align the standoffs to the main board and press near the standoffs to seat the main board. Do not bend the board.

5. Remove and discard the main board.
6. Reverse steps to reinstall.

   Note
   - When you reinstall, align the hook and loop fasteners.
   - After you reinstall, remove the zipper pull tool or equivalent from the zipper.
   - Cover the zipper with the support surface watershed.
   - Do not dispose of as unsorted municipal waste. See your local distributor for return or collection systems available in your country.

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

Cable assembly power supply replacement

Tools required:

- Zipper pull tool or equivalent
- 7/8” combination wrench

Procedure:

1. See *Accessing the foot box cover* (page 25).
2. Using your fingers, disconnect the magnetic break away cable (297300560804) (AY) from the foot box and rotate the turn-lock counterclockwise (Figure 14).

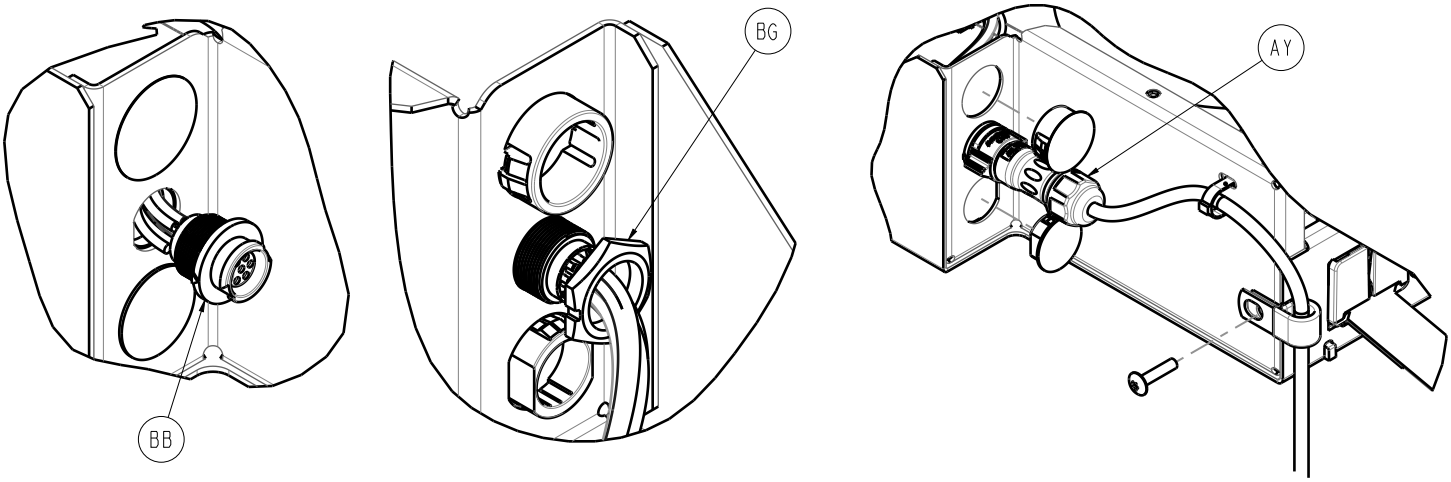


Figure 14 – Cables

3. Using a 7/8” combination wrench, remove the retention nut (BG) from the cable assembly power supply (BB) that secures the cable to the foot box. Save the nut.
4. Remove and discard the cable assembly power supply.
5. Reverse steps to reinstall.

   Note
   - When you reinstall, align the hook and loop fasteners.
   - After you reinstall, remove the zipper pull tool or equivalent from the zipper.
   - Cover the zipper with the support surface cover watershed.
6. Verify proper operation before you return the product to service.

Magnetic break away cable side A and side B replacement

Tools required:

- Zipper pull tool or equivalent
- T15 Torx driver
- Diagonal pliers

Procedure:

1. Apply the brakes on the **ProCuity** bed.
2. Raise the bed to the highest height position.
3. Raise the Fowler to the highest height position.
4. Unplug the power cord from the wall.
5. Turn off the battery disconnect switch to turn the bed off.
6. See *Accessing the foot box cover* (page 25).
7. Using diagonal pliers, cut the cable tie (AU) that secures the magnetic break away cable side A (297300560804) (AY) to the foot box (Figure 15). Discard the cable tie.

   Note - Tighten the cable tie (AU) to 25 - 40 lb when you reinstall.

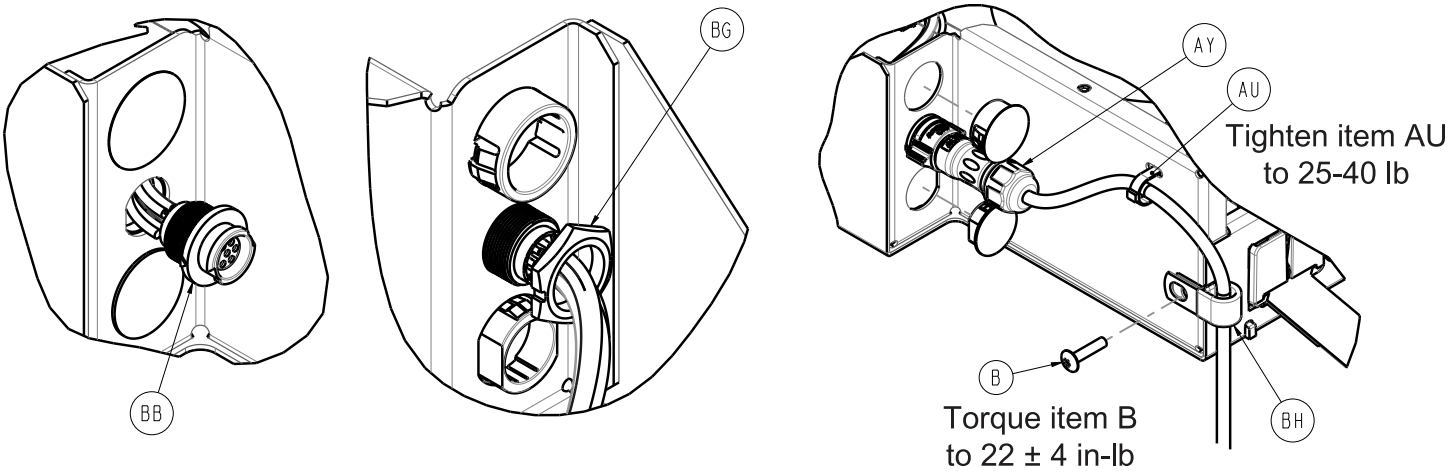


Figure 15 – Magnetic break away cable

8. Using a T15 Torx driver, remove the screw (B) from the cable clamp (BH). Save the screw.
9. Remove and save the cable clamp.
10. Unlock both connectors (BB, BG) and the end of the magnetic break away cable (297300560804) (AY) to disconnect the magnetic break away cable. Discard side A and B of the magnetic break away cable (297300560804 and 297300560805).
11. Reverse steps to reinstall.

Note

- When you reinstall, center the metal cable clamp over the white heat shrink. Secure to the foot box (Figure 16).
- Torque the screw (B) 22 ± 4 in-lb, to the cable clamp when you reinstall.

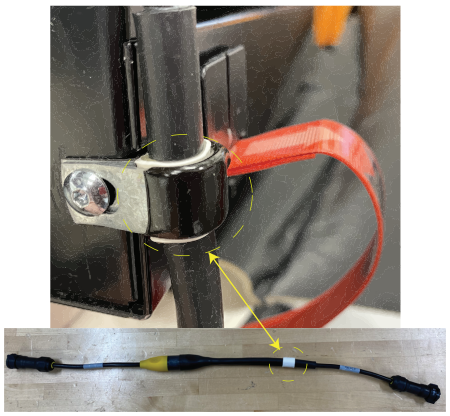


Figure 16 – Reinstall magnetic break away cable

12. Route the magnetic break away cable side A (297300560804) (AY) through the bottom cover near the CPR activation cable.

Note

- When you reinstall, align the hook and loop fasteners.
- After you reinstall, remove the zipper pull tool or equivalent from the zipper.
- Cover the zipper with the support surface cover watershed.

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

Pump assembly replacement

Tools required:

- Zipper pull tool or equivalent
- Diagonal pliers
- T15 Torx driver

Procedure:

1. See *Accessing the foot box cover* (page 25).
2. Disconnect the pump power connector from the main board (connector F).
3. Disconnect the cable from the three wire retainers.
4. Using diagonal pliers, cut the cable ties where the inlet hose connects to the manifold (AU) and the exhaust hose connects to the resonator (Figure 17). Do not cut the manifold barb.

   Note - When you reinstall, before you cut the end off of the cable tie, use the diagonal pliers to pry the slack out of the cable tie (one to two clicks).

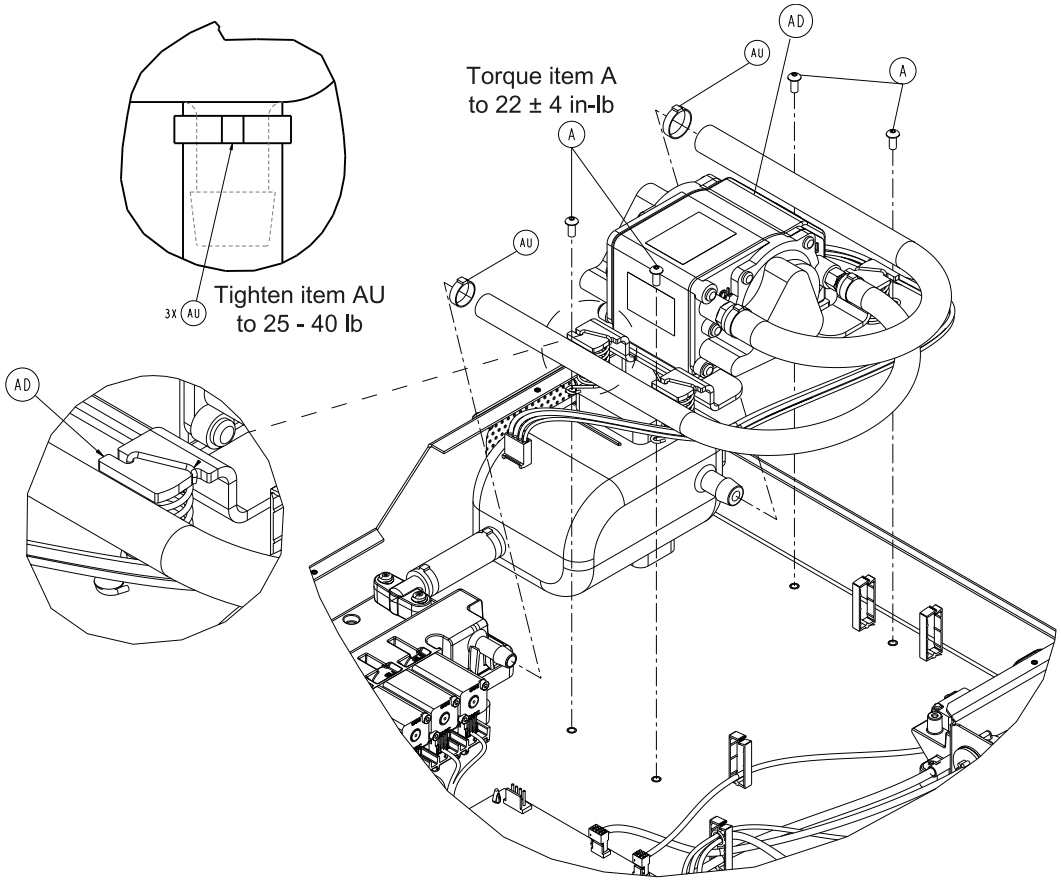


Figure 17 – Pump assembly

5. Using a T15 Torx driver, remove the four screws (A) that secure the pump assembly (AD) to the foot box. Save the screws.

   Note - When you reinstall, torque the screws (A) to 22 ± 4 in-lb.
6. Move the pump assembly to the side to clear the area in front of the manifold.
7. With a firm grasp on the manifold hose, pull straight out and twist to remove the hose from the manifold.

   Note - Try not to damage the manifold barb when you remove or install.

8. Grasp the resonator hose and hold the resonator while you pull the resonator hose out.
9. Remove and discard the pump assembly.
10. Reverse steps to reinstall.

    Note
    - When you reinstall, hold the pump springs while you tighten so the pump springs do not turn.
    - When you reinstall, do not allow the pump hose to kink or bend.
    - When you reinstall, align the hook and loop fasteners.
    - After you reinstall, remove the zipper pull tool or equivalent from the zipper.
    - Cover the zipper with the support surface cover watershed.
    - Do not dispose of as unsorted municipal waste. See your local distributor for return or collection systems available in your country.
11. Verify proper operation before you return the product to service.

Low Air Loss (LAL) fan replacement

Tools required:

- Zipper pull tool or equivalent

Procedure:

1. Apply the brakes on the **ProCuity** bed.
2. Unplug the support surface magnetic break away cable from the bed.
3. Remove the headboard and footboard and set aside.
4. Lower all the siderails to the lowest height position.
5. Unsnap the two secure snaps (C) at the foot end corners (Figure 18).
6. Unsnap the two foot end corner retainers (B).
7. Insert a zipper pull tool or equivalent through the hole in the zipper slider to unlock.
8. Using the zipper pull tool or equivalent, unzip the support surface top cover from the bottom cover (A) (Figure 18) and stop unzipping at the middle of the opposite side.

   Note - The zipper starts on the patient right side near the foot end.

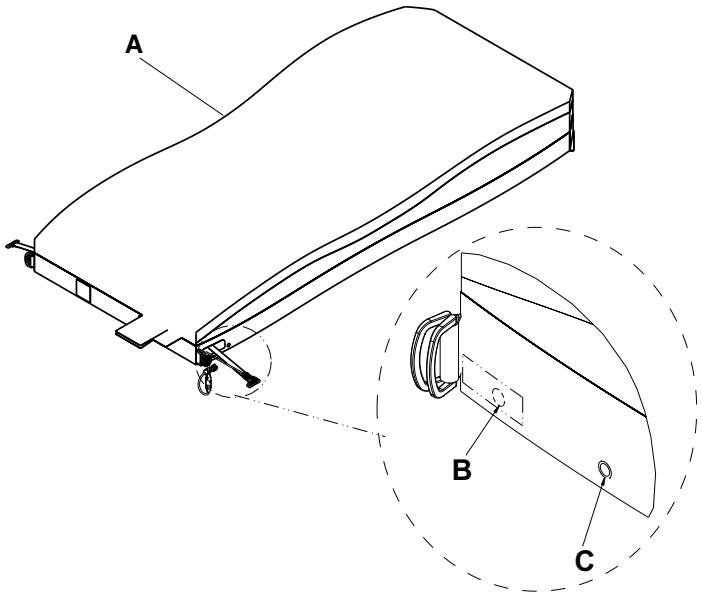


Figure 18 – Top cover

9. Fold the cover up toward the head end.
10. Separate the six hook and loop fasteners that secure the foot section gel crib to the pod assembly.
11. Lift up on the foot section gel (F) to remove the gel crib from the pod assembly (Figure 19). Save the gel crib.

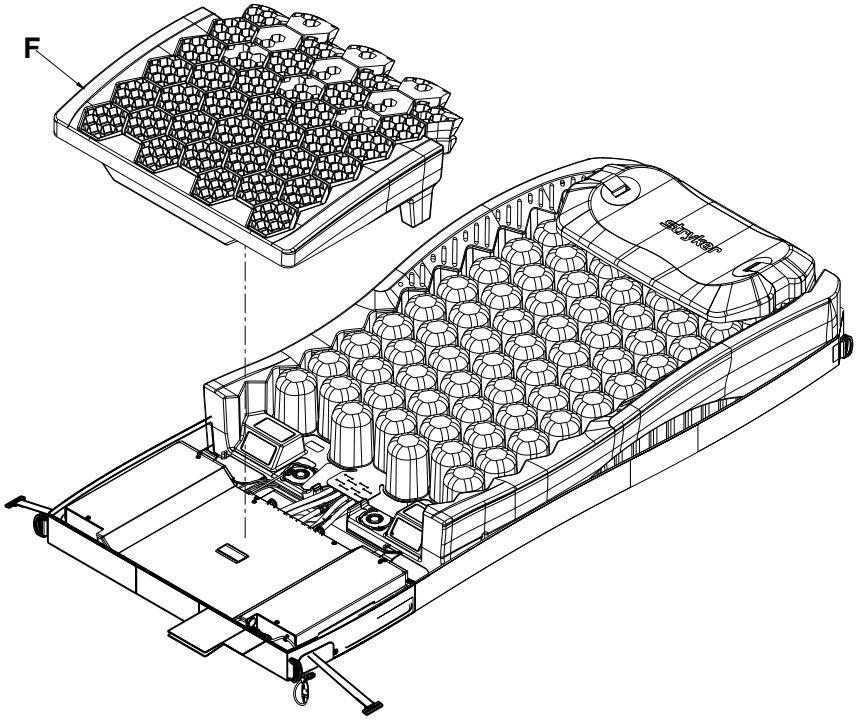


Figure 19 – Gel crib

12. Remove the two purse lock wire ties (M) (Figure 20). Save the purse lock wire ties.

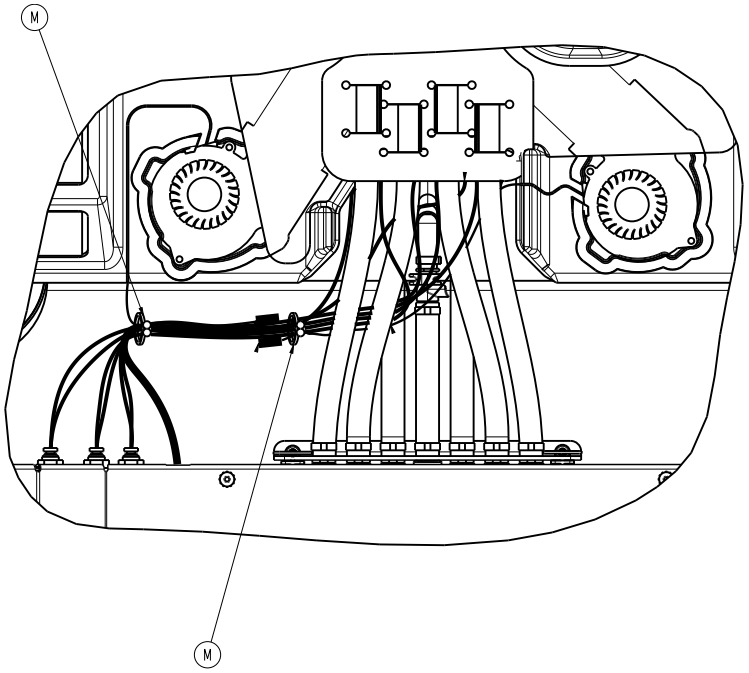


Figure 20 – Purse lock wire tie

13. Disconnect the LAL fan from the quick connection.
14. Remove the LAL fan from the LAL fan nest. Discard the LAL fan (J) (Figure 21).

    Note - When you reinstall, route the cable back through the foam. Make sure that the new fan is seated into the LAL fan nest.

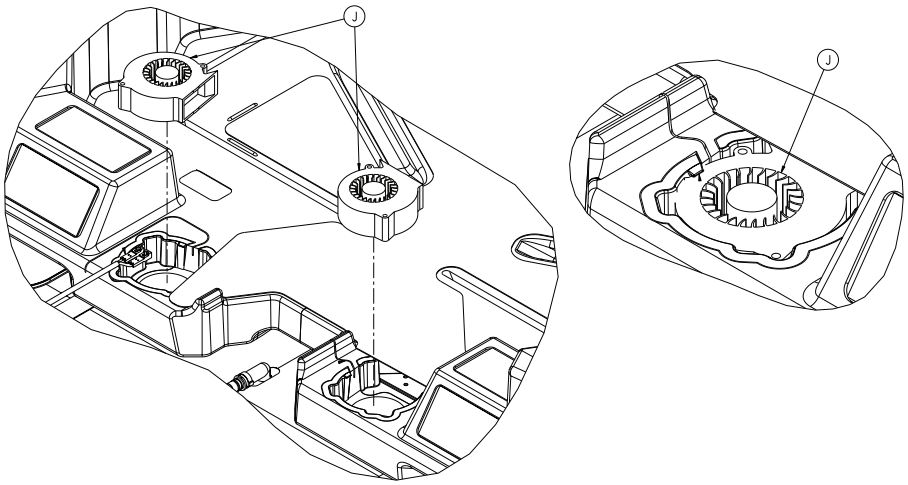


Figure 21 – LAL fan

15. Reverse steps to reinstall.

    Note
    - When you reinstall, align the hook and loop fasteners.
    - After you reinstall, remove the zipper pull tool or equivalent from the zipper.
    - Cover the zipper with the support surface cover watershed.

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

Foot box cooling fan replacement

Tools required:

- Zipper pull tool or equivalent
- 5/16” nut driver

Procedure:

1. See *Accessing the foot box cover* (page 25).
2. Disconnect the cooling fan from the quick connection.
3. Using a 5/16” nut driver, remove the nut (F) and the washer (D) that secure the fan cage to the foot box (Figure 22). Save the nut and the washer.

   Note - When you reinstall, torque the nut (F) to 22 ± 4 in-lb.

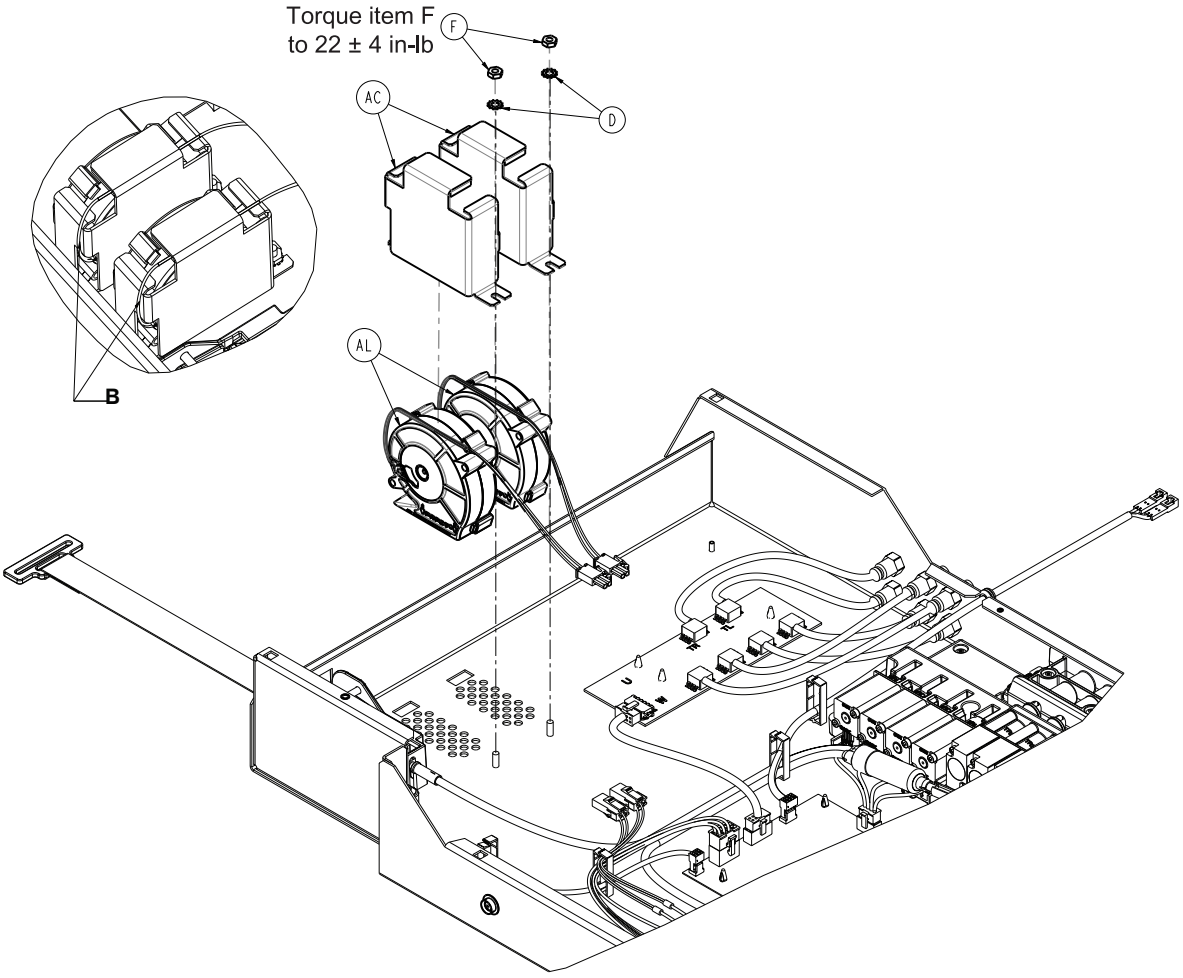


Figure 22 – Cooling fan and cage

4. Remove the cooling fan (AL) from the fan cage (AC). Discard the cooling fan.

   Note - When you reinstall, route the fan power cables (B) over the top of the new fan and under the foam tape.
5. Reverse steps to reinstall.

   Note
   - When you reinstall, align the hook and loop fasteners.
   - After you reinstall, remove the zipper pull tool or equivalent from the zipper.
   - Cover the zipper with the support surface cover watershed.

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

Sensor board replacement

Tools required:

- Zipper pull tool or equivalent
- Needle nose pliers
- ESD system

Procedure:

1. See *Accessing the foot box cover* (page 25).
2. See *Protecting against electrostatic discharge (ESD)* (page 19).
3. Disconnect the six of the pod sensor hoses from the foot box. Push in on the coupling and pull each hose out.

   Note
   - Do not bend or kink the pod sensor hoses.
   - Pay attention to the sensor hose position, insertion color, and number labels.
   - When you reinstall, insert the sensor hose and once you hit a stop, continue to push until you reach a hard stop.
4. Disconnect the SPI cable (AG) from the sensor board (U) (Figure 23).
5. Using needle nose pliers, lift up enough to disconnect the sensor board (U) from the three plastic standoffs.

   Note - When you reinstall, align the plastic standoffs to the sensor board and press near the standoffs to seat the sensor board. Do not bend the sensor board.

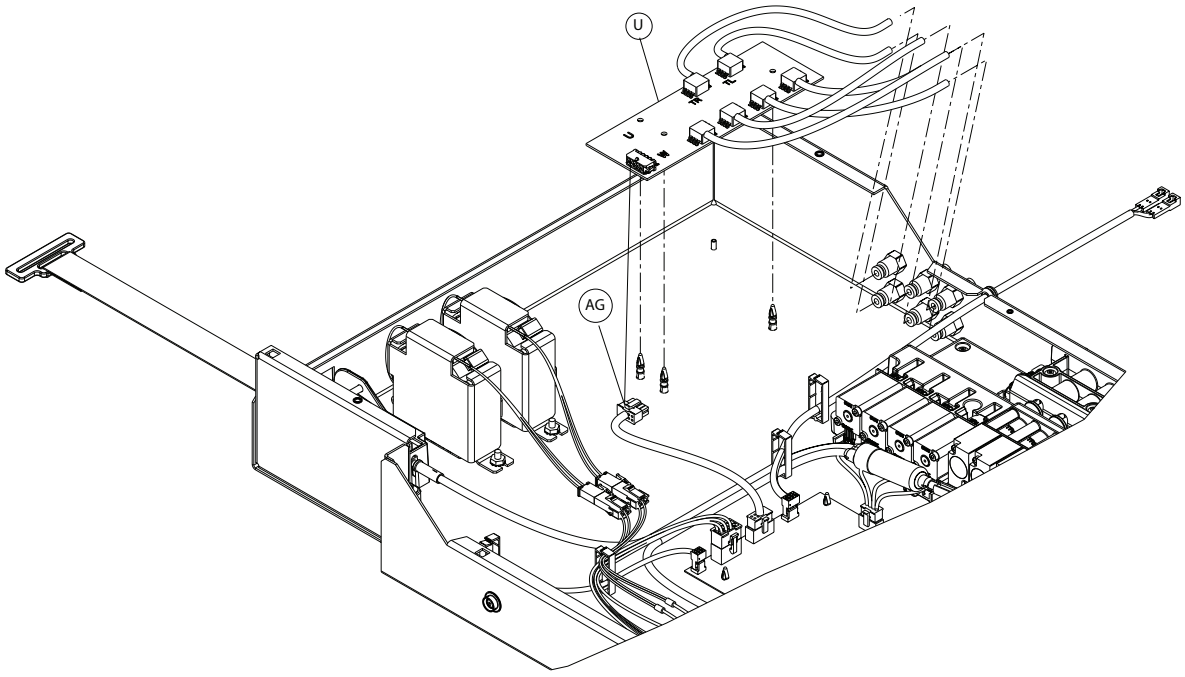


Figure 23 – Sensor board

6. Remove and discard the sensor board.
7. Reverse steps to reinstall.

   Note
   - When you reinstall, align the hook and loop fasteners.
   - After you reinstall, remove the zipper pull tool or equivalent from the zipper.

- Cover the zipper with the support surface cover watershed.
- Do not dispose of as unsorted municipal waste. See your local distributor for return or collection systems available in your country.

8. Run the leak diagnostic test. See *Serivce Menu* in the **ProCuity** Maintenance Manual.
9. Verify proper operation before you return the product to service.

Resonator replacement

Tools required:

- Zipper pull tool or equivalent
- Diagonal pliers

Procedure:

1. See *Accessing the foot box cover* (page 25).
2. Using diagonal pliers, cut the cable ties (AU) from the inlet and outlet hoses of the resonator (AB) (Figure 24). Discard the cable ties.

   Note
   - When you reinstall, before you cut the end off of the cable tie, use the diagonal pliers to pry the slack out of the cable tie (one to two clicks).
   - Tighten the cable tie (AU) to 25 - 40 lb when you reinstall.

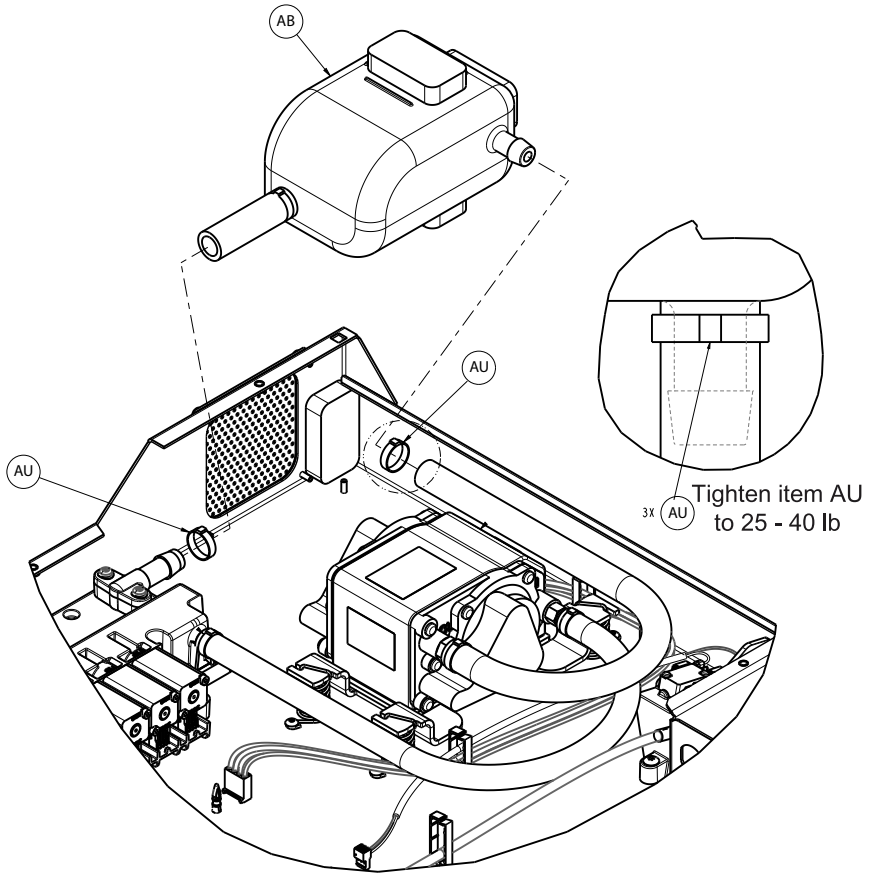


Figure 24 – Resonator

3. Pull to disconnect each hose from the resonator (AB) and the manifold.
4. Remove and discard the resonator.

5. Reverse steps to reinstall.

   Note
   - When you reinstall, do not allow the compressor supply hose to kink or bend.
   - When you reinstall, align the hook and loop fasteners.
   - After you reinstall, remove the zipper pull tool or equivalent from the zipper.
   - Cover the zipper with the support surface cover watershed.
6. Verify proper operation before you return the product to service.

Turn bladder assembly replacement

Tools required:

- Zipper pull tool or equivalent
- Diagonal pliers

Procedure:

1. Remove the top cover. See *Cover replacement, top* (page 19) .
2. Separate the six hook and loop fasteners that secure the foot section gel crib to the pod assembly.
3. Lift up on the foot section gel (F) to remove the gel crib from the pod assembly (Figure 25). Save the gel crib.

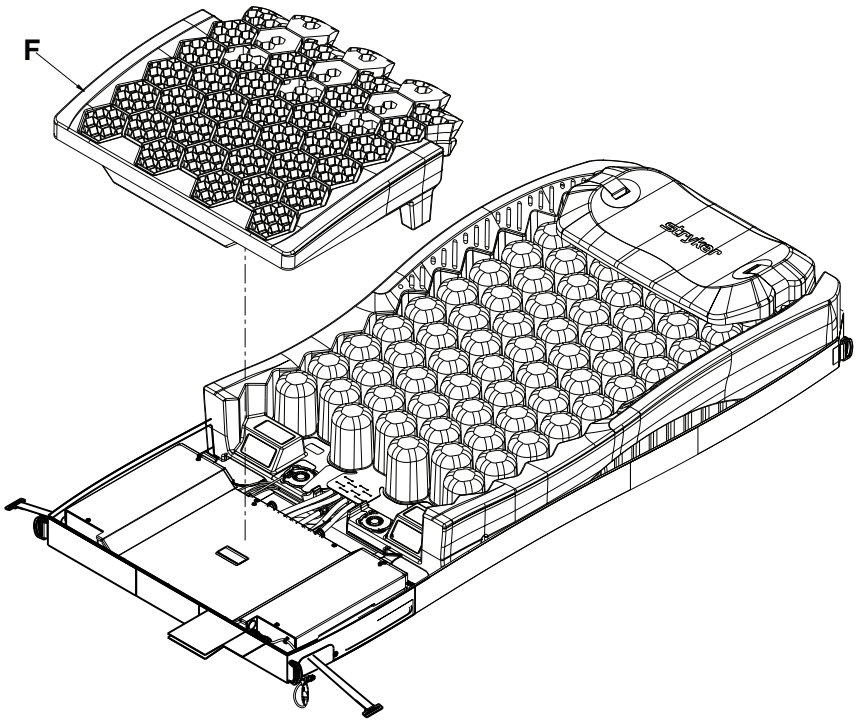


Figure 25 – Gel crib

4. Lift up on the bottom corner of the pods assembly and foam crib to disconnect the turn bladder quick disconnect. Repeat for the opposite side.
5. Remove the turn bladder and the red and black sensor hoses from the foot box. Push in on the sensor hose quick connector and then pull outward on the hose.

   Note - Do not kink or bend the hoses.
6. Remove the hoses from the purse clips.
7. Lift up on the foam crib, reach between the foam crib and the bottom cover to unhook the six hook and loop fasteners (G) and unsnap the 12 snap retainers (H) (Figure 26).

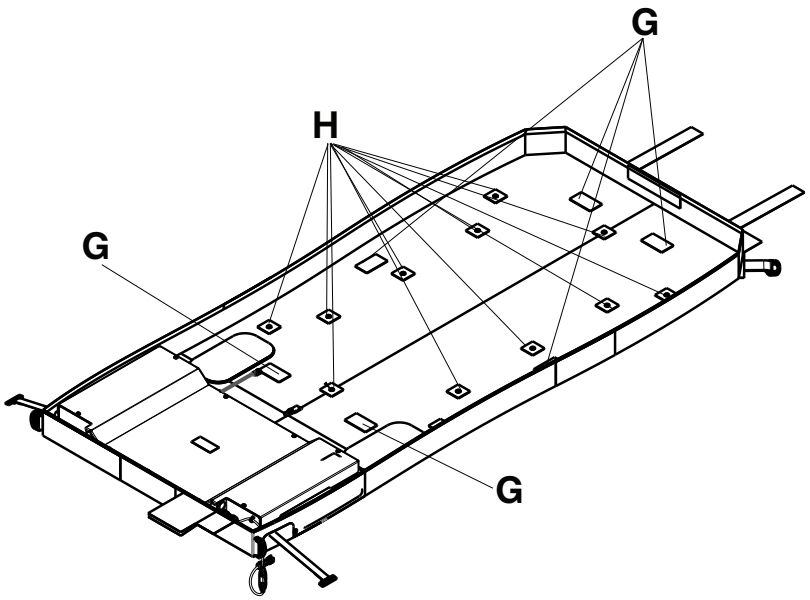


Figure 26 – Pod hook and loop fasteners and snap retainers

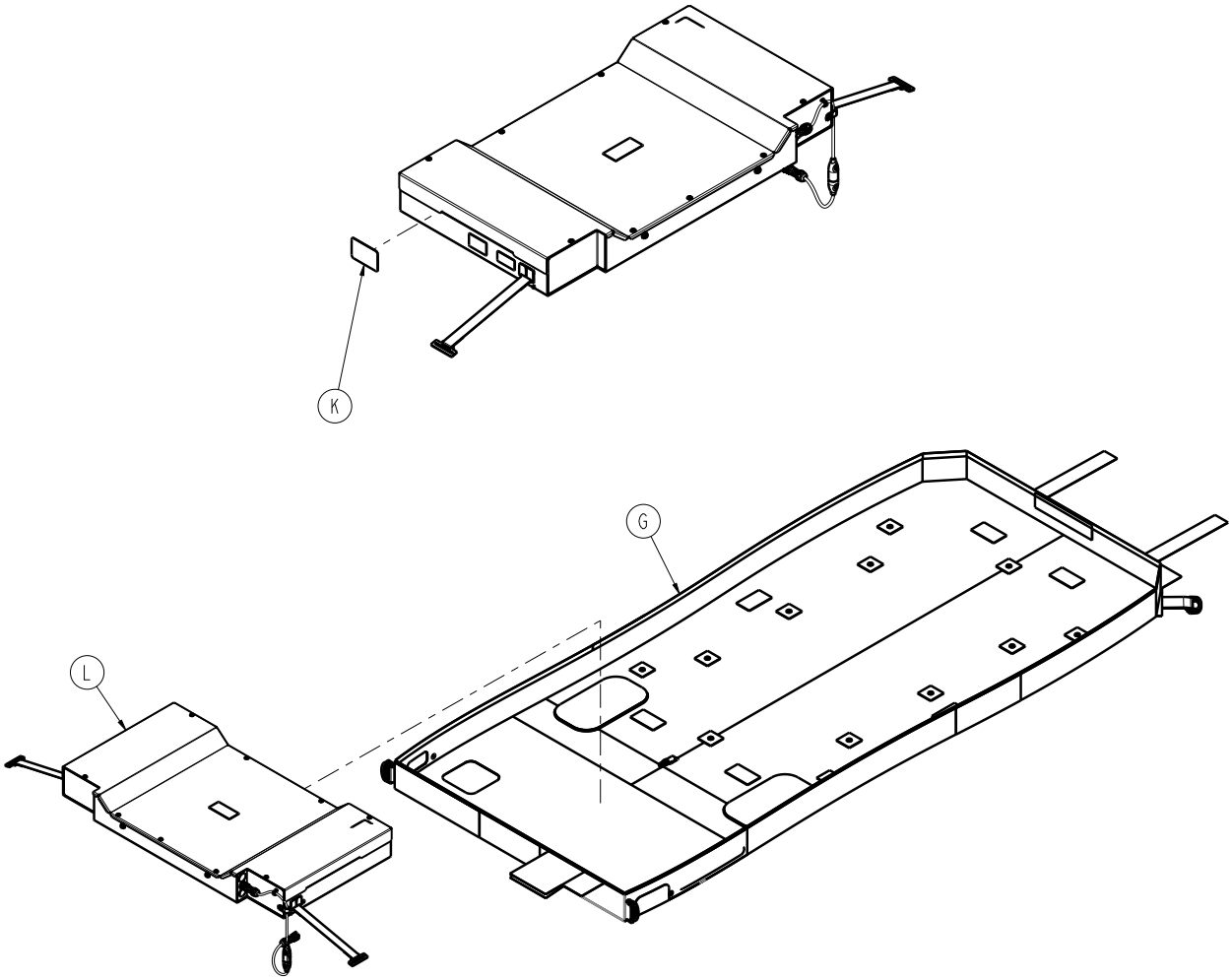
8. Remove and discard the turn bladder assembly.
9. Reverse steps to reinstall.

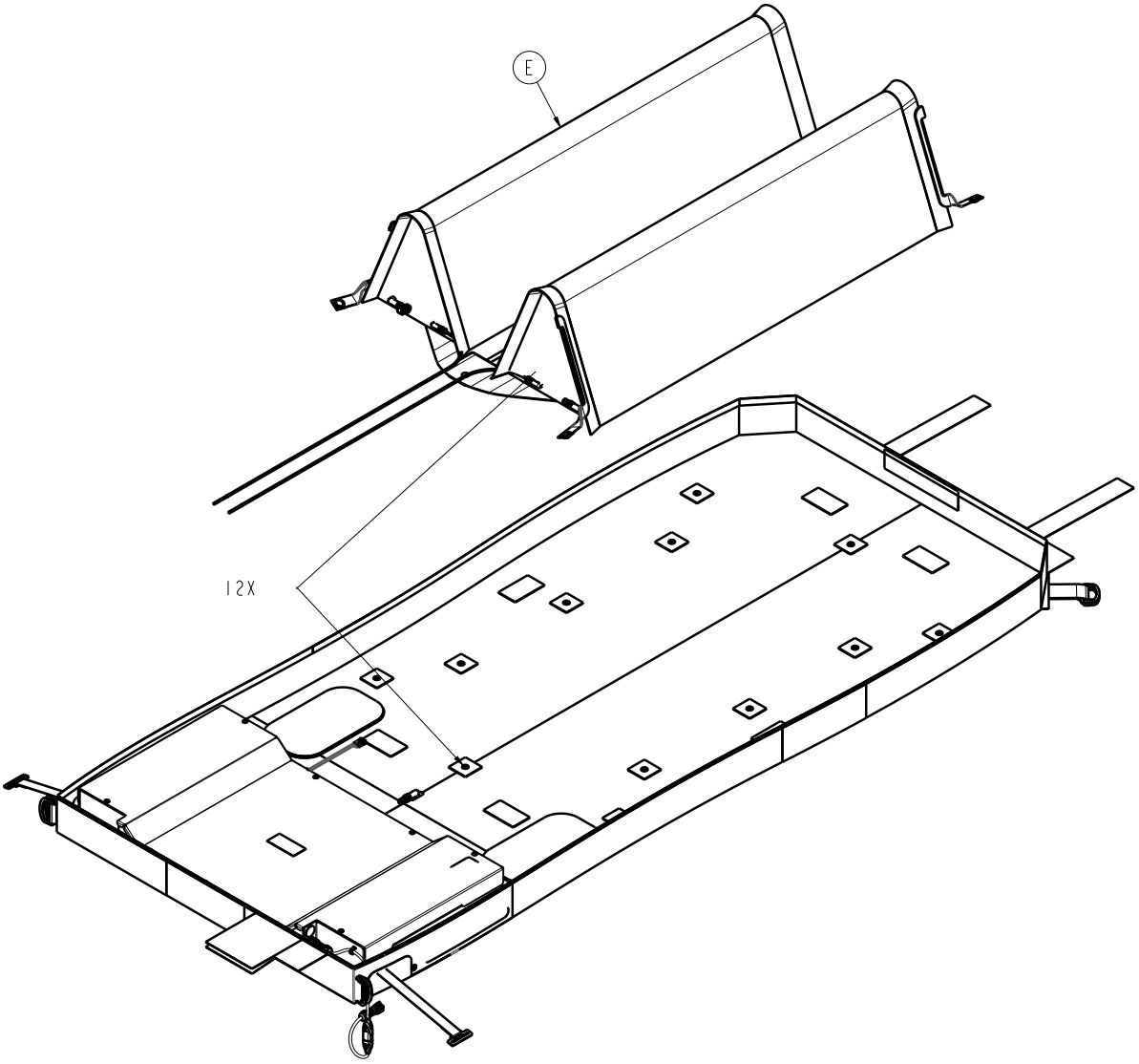
   Note
   - When you reinstall, align the hook and loop fasteners.
   - After you reinstall, remove the zipper pull tool or equivalent from the zipper.
   - Cover the zipper with the support surface cover watershed.

10. Run the leak diagnostic test. See *Service Menu* in the **ProCuity** Maintenance Manual.
11. Verify proper operation before you return the product to service.

Isolibrium PE assembly

297300210001 Rev AE (Reference only)

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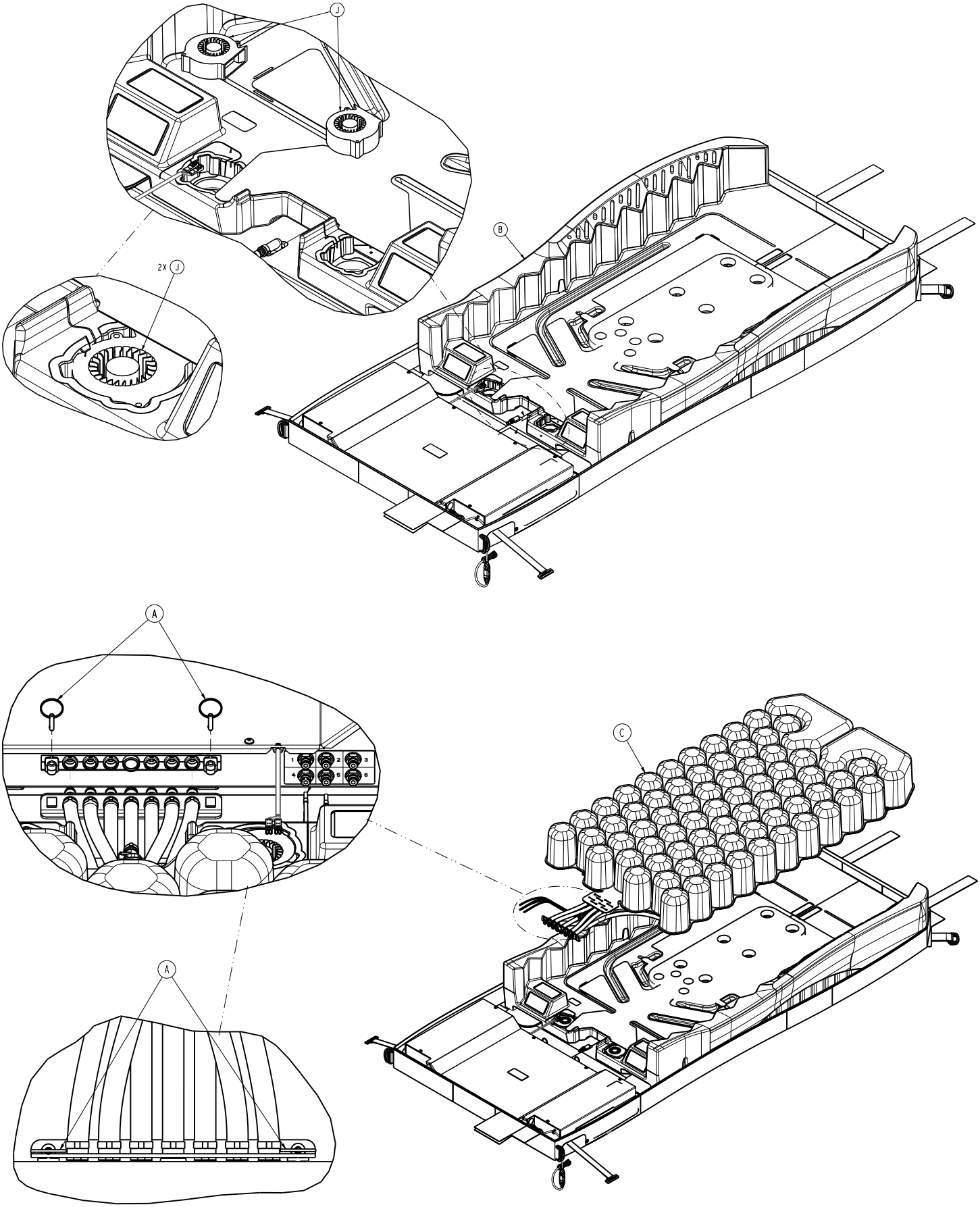
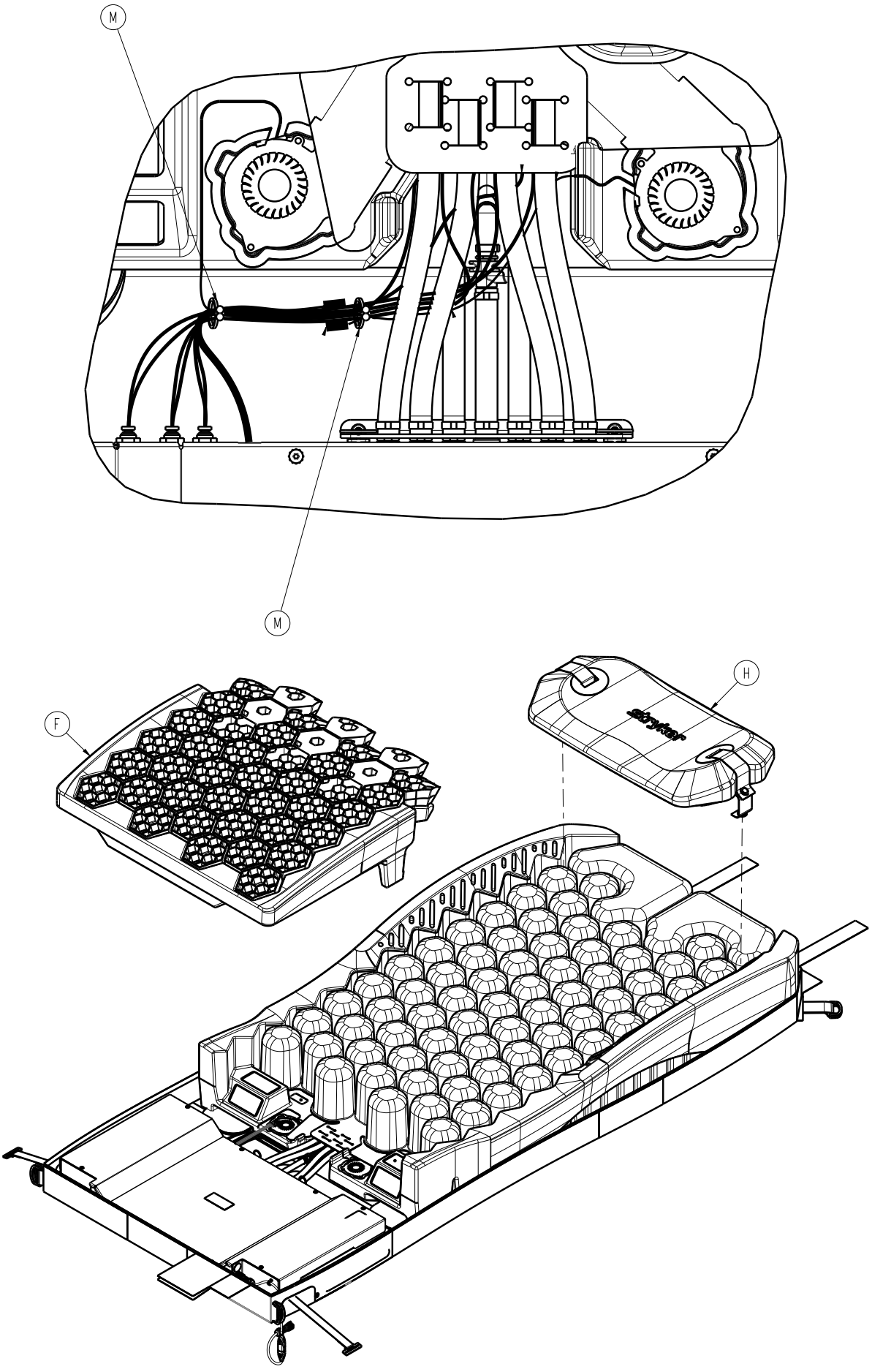
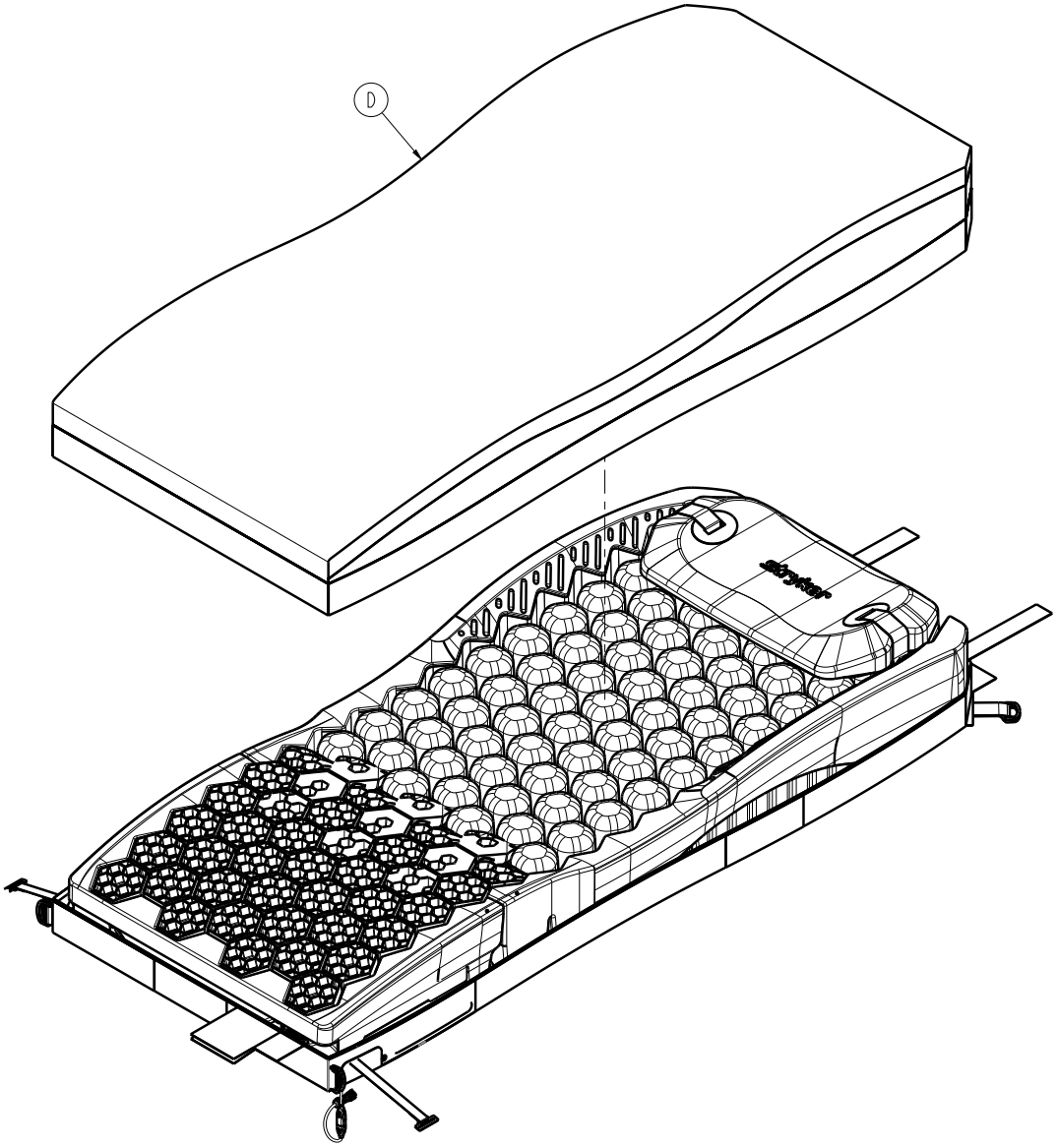

J
2X J
B
A
C
A


M
M
F
H

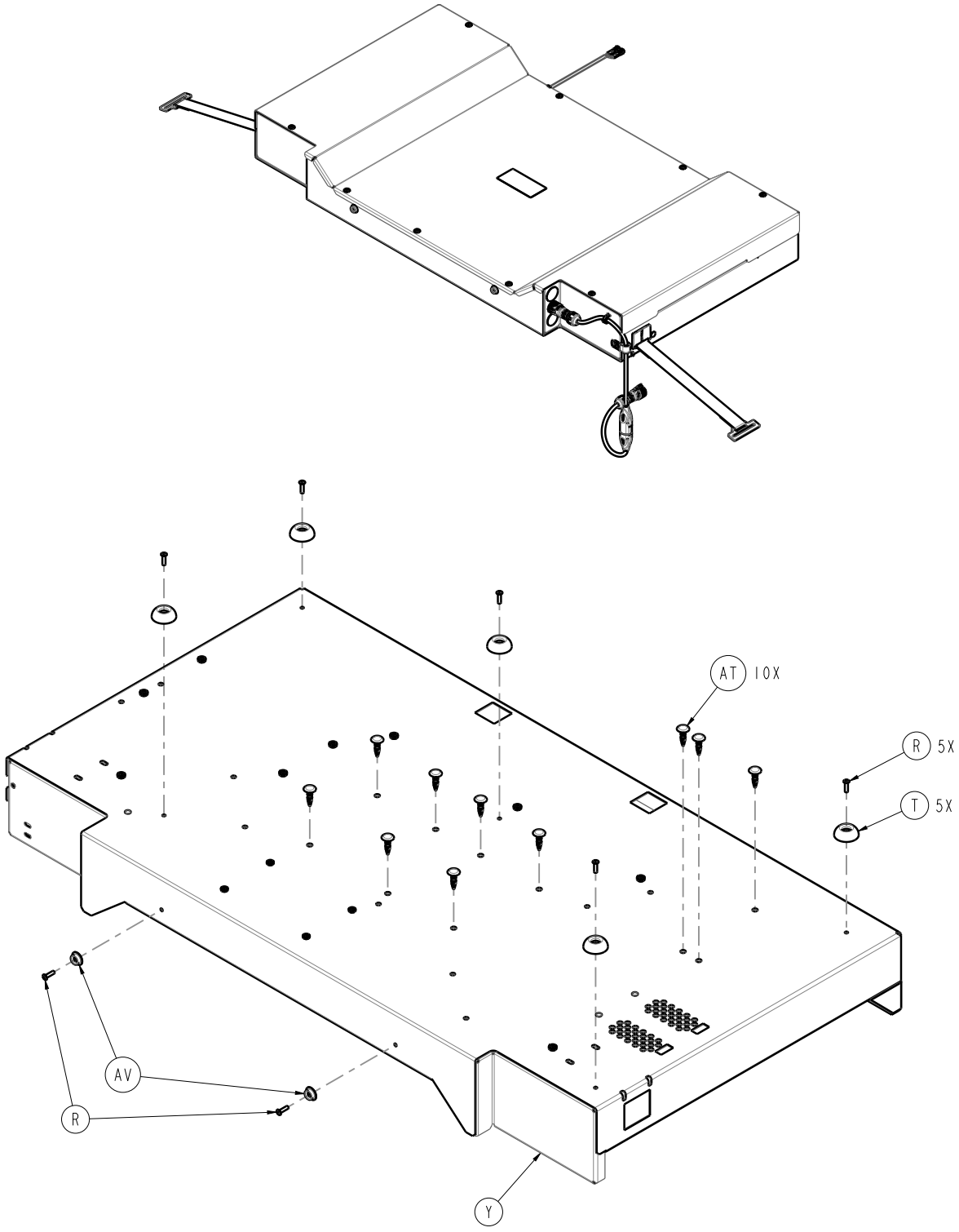


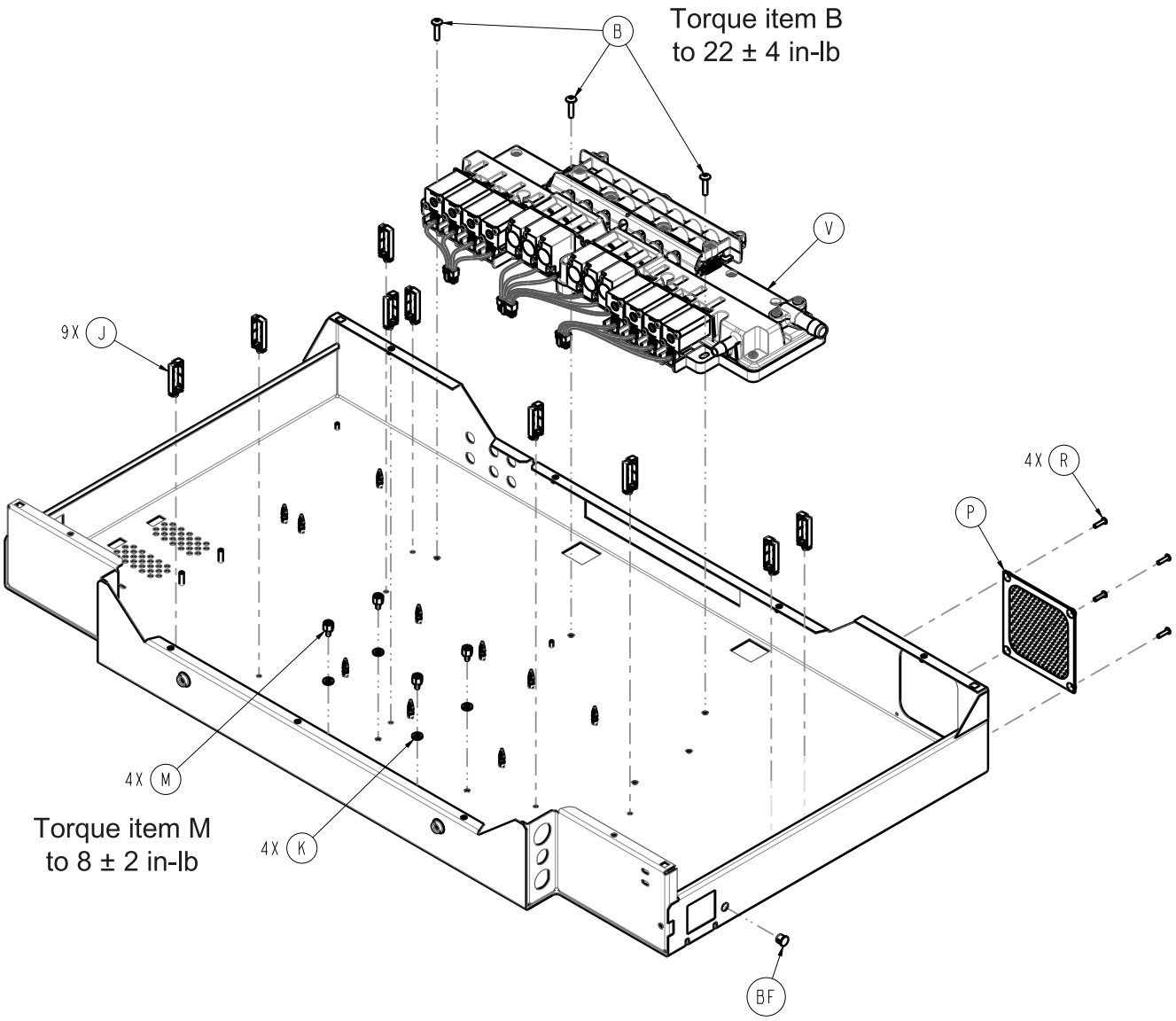
Item	Number	Name	Quantity
A	0026-672-000	Quick release pin	2
B	2971-021-005	Foam crib assembly	1
C	297300210003	Pods layer assembly	1
D	2972-021-004	Top cover assembly	1
E	297300210007	Turn bladder assembly	1
F	2971-021-011	Foot foam crib assembly	1
G	297300210017	Bottom cover assembly	1
H	2971-021-045	Pillow assembly	1
J	2971-021-189	Fan cable assembly	2
K	2971-021-901	Label, serial number	1

Item	Number	Name	Quantity
L	297301220008	*Foot box assembly* (page 48)	1
M	0058-383-000	Purse lock wire tie	2

Foot box assembly

297301220008 Rev AA (Reference only)




B
Torque item B
to 22 ± 4 in-lb
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9X J
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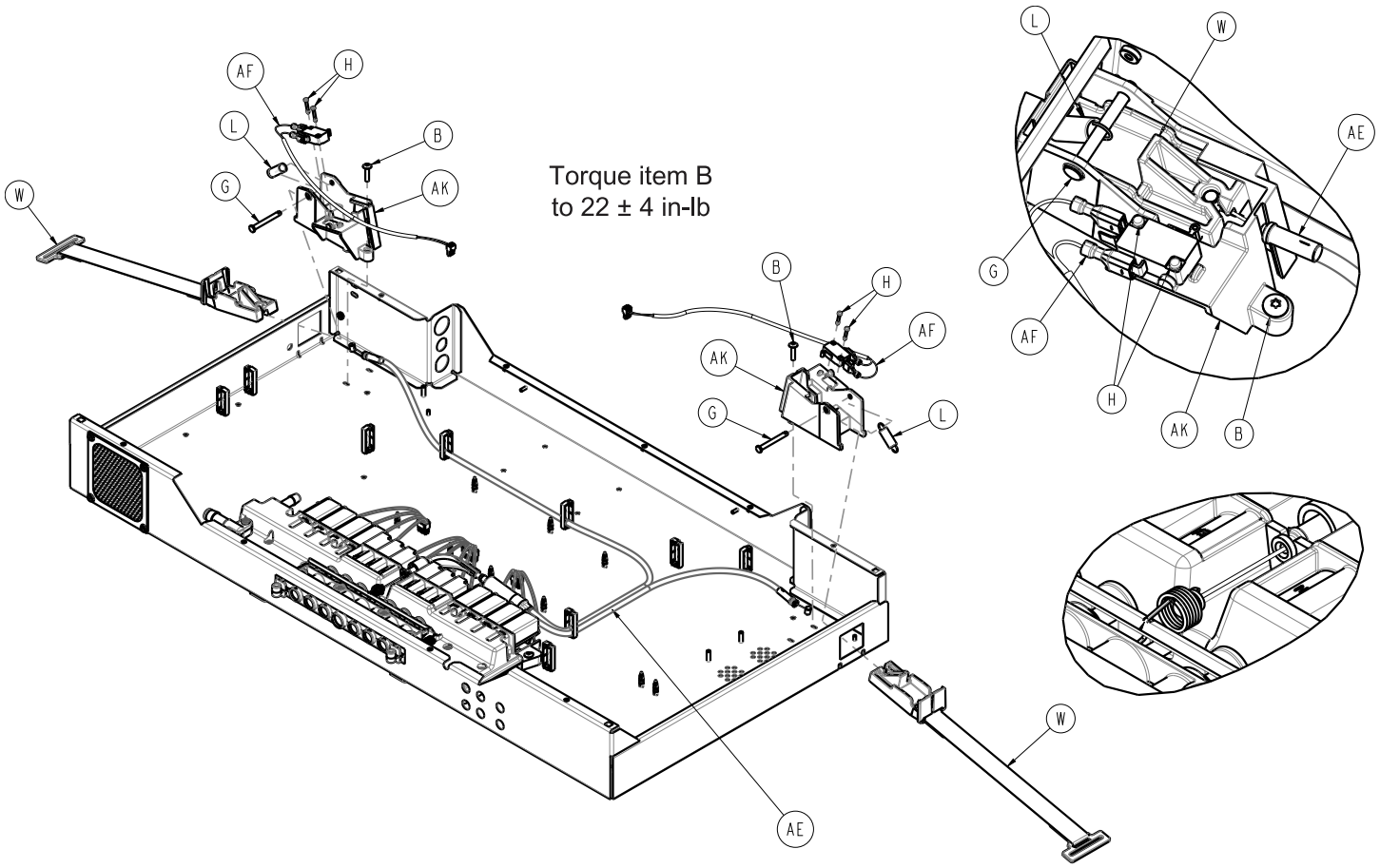
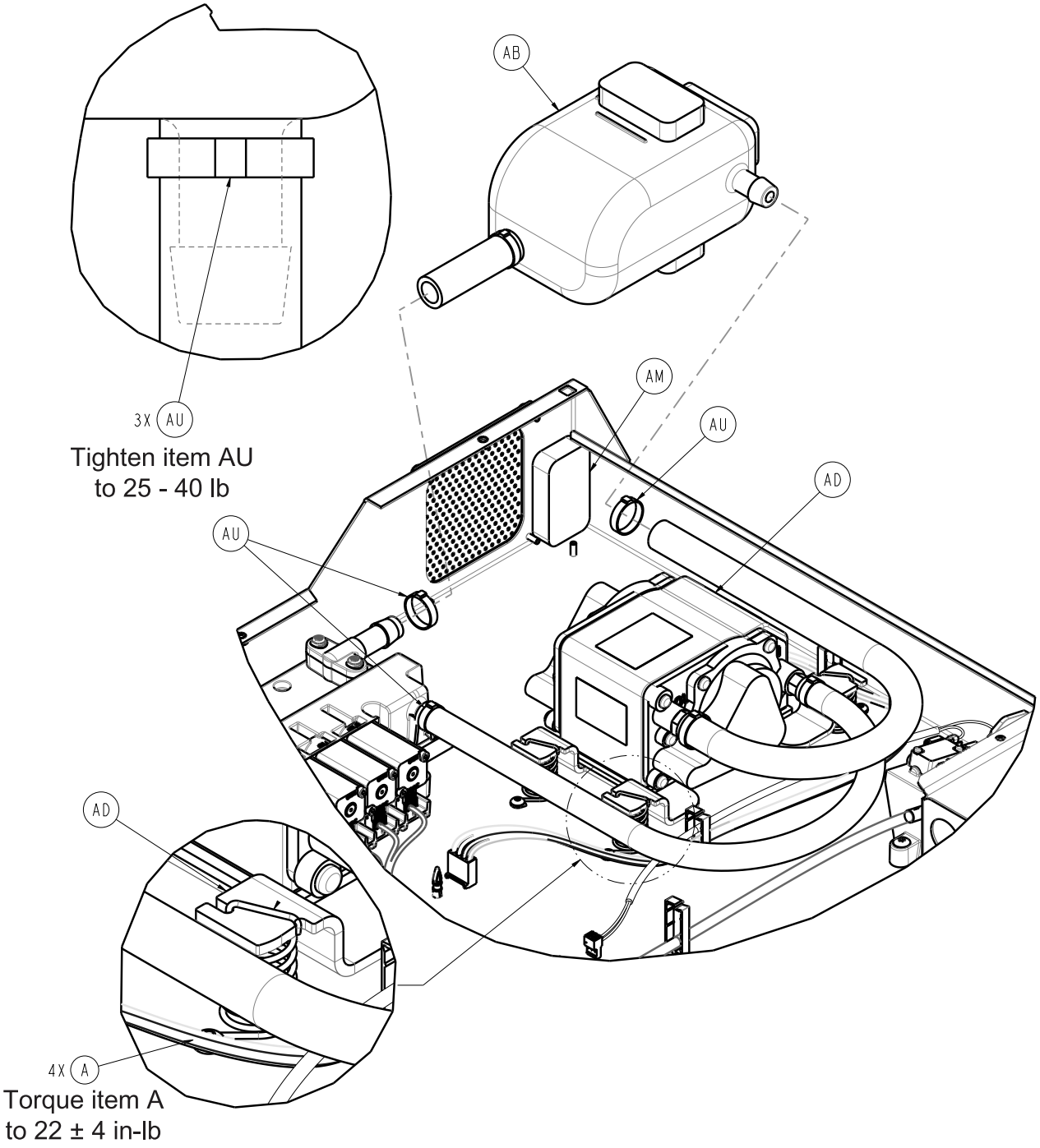
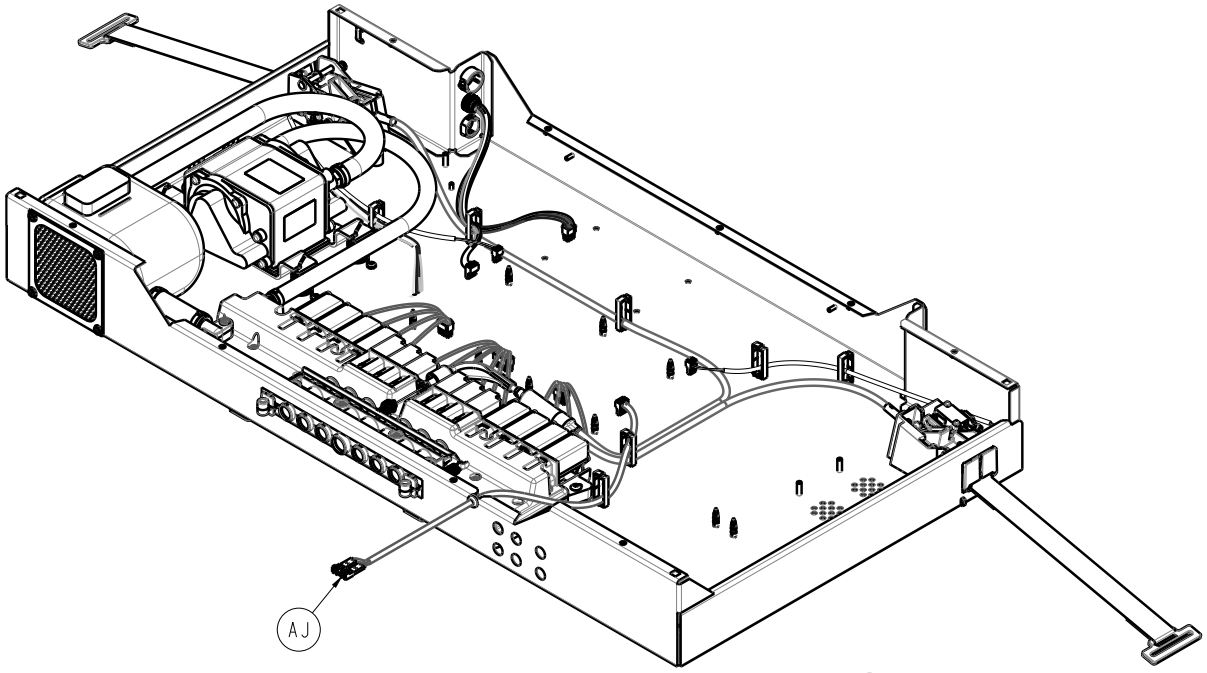
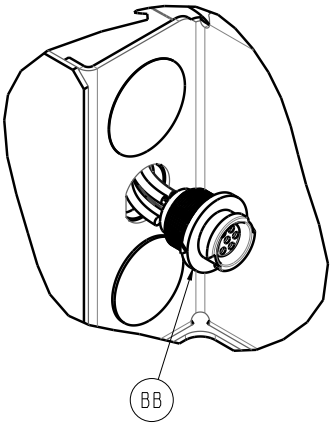
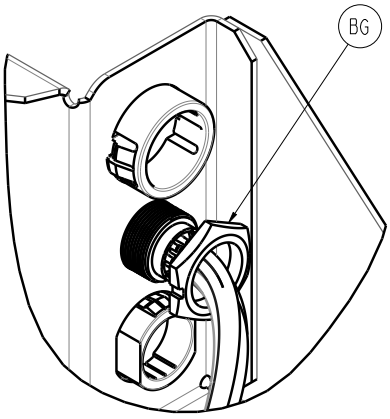
4X M
Torque item M
to 8 ± 2 in-lb
4X K
BF

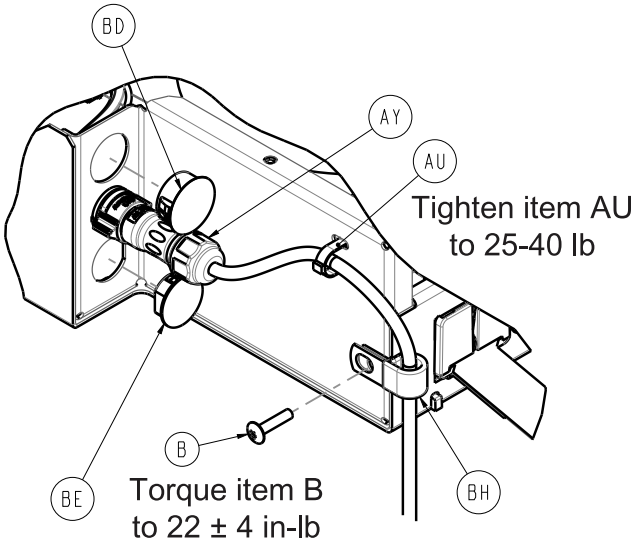

Torque item B
to 22 ± 4 in-lb
AF
H
L
B
G
AK
W
AE

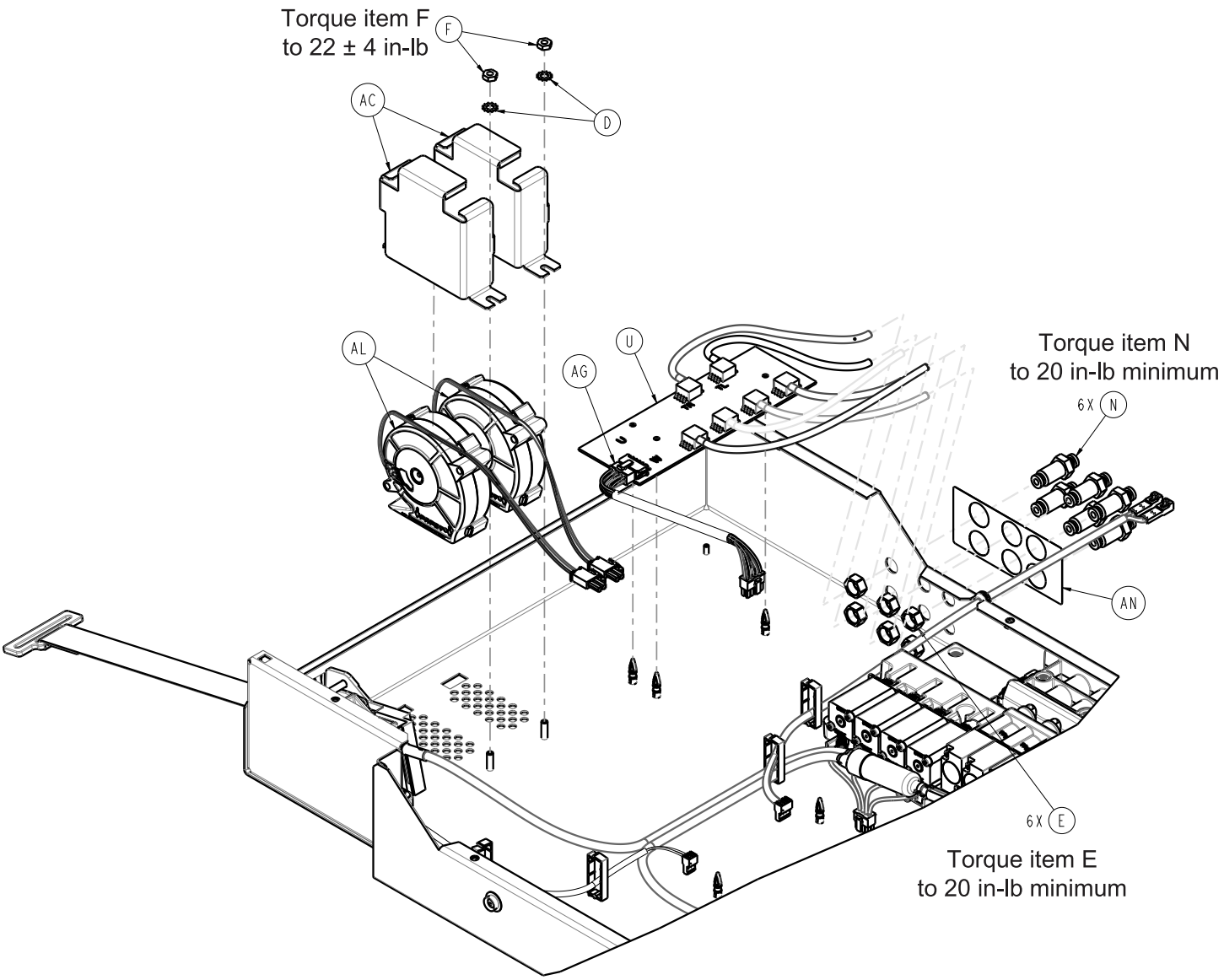

AB
3X AU
Tighten item AU
to 25 - 40 lb
AM
AU
AD
AU
AD
4X A
Torque item A
to 22 ± 4 in-lb

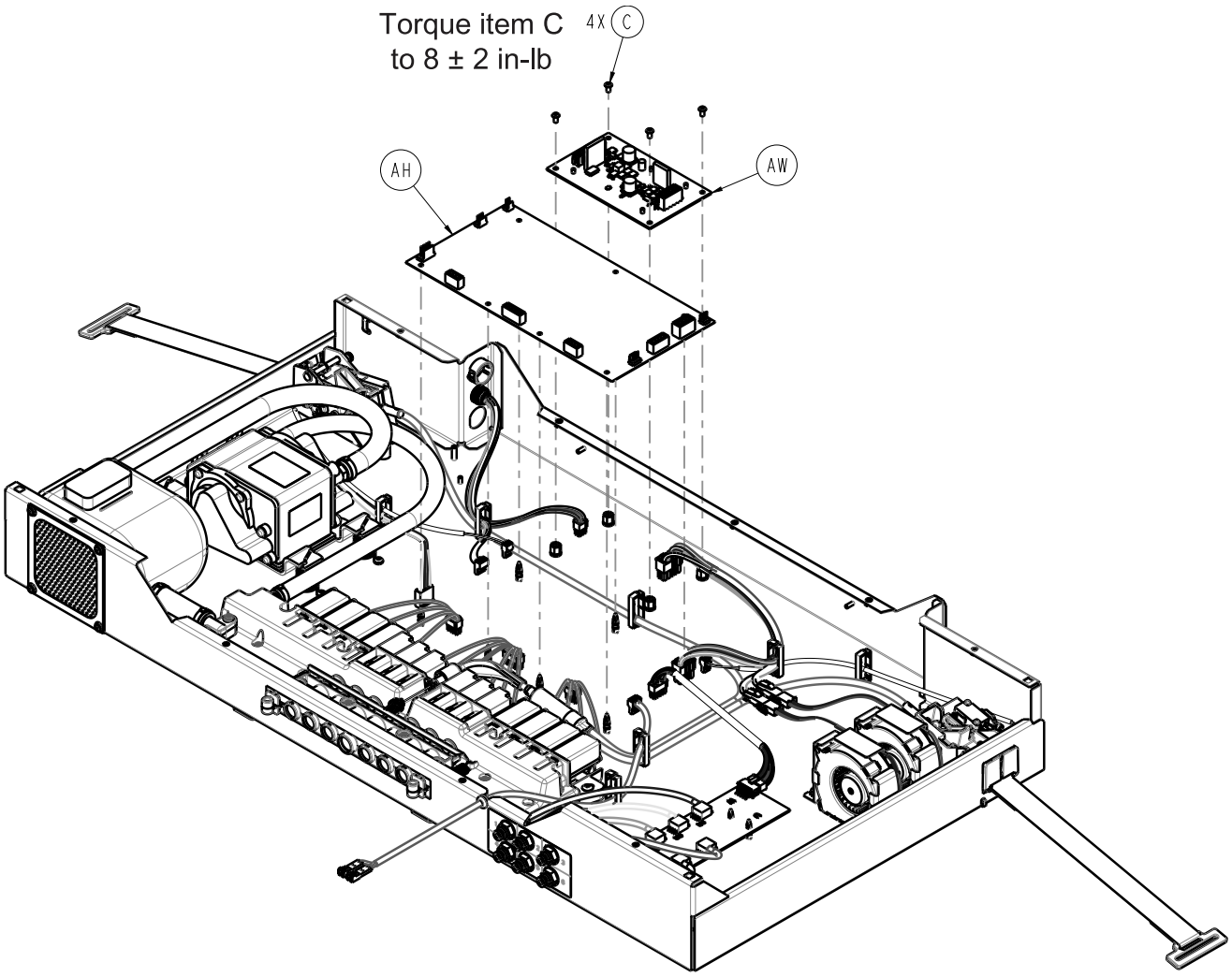

AJ

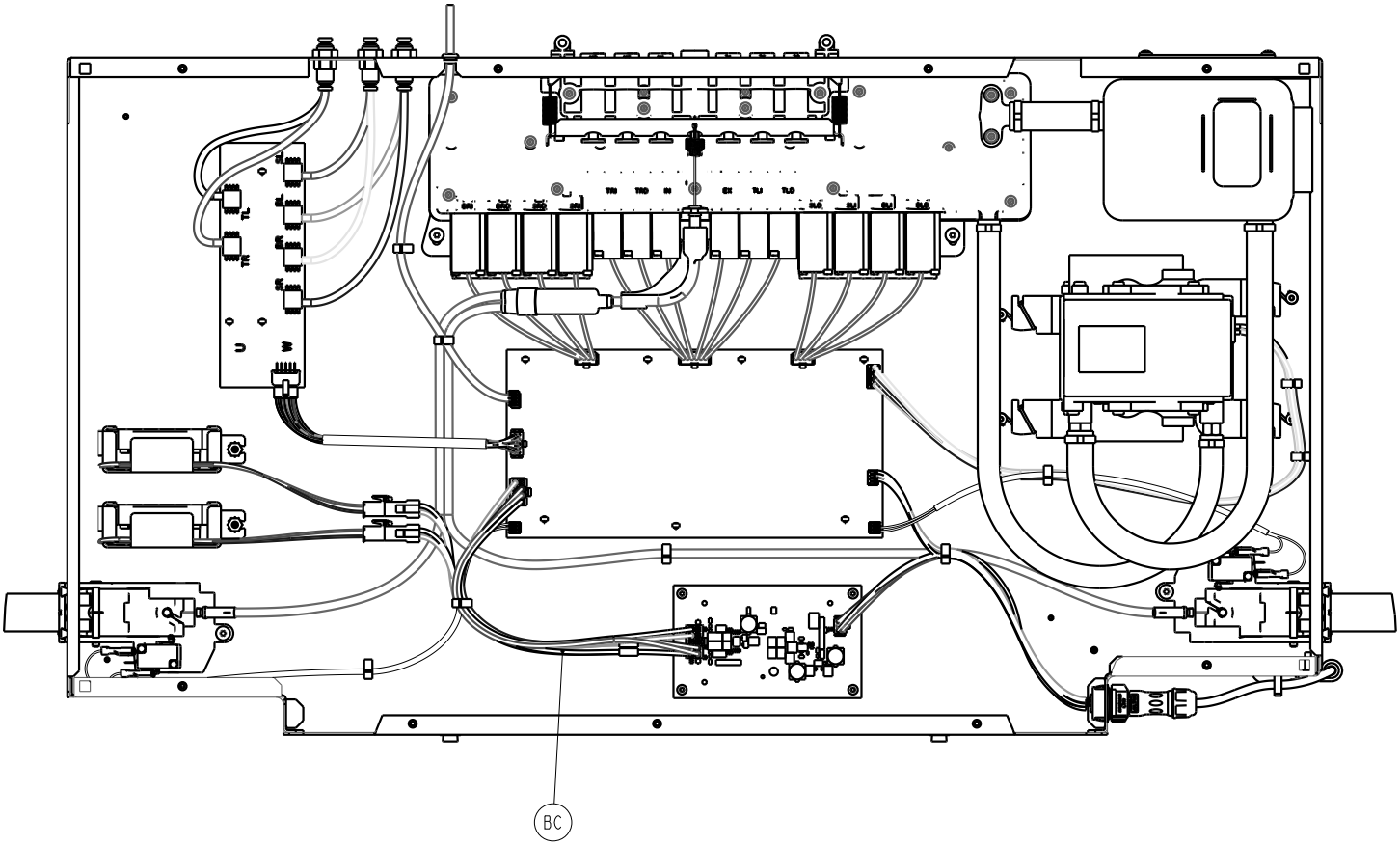

BB

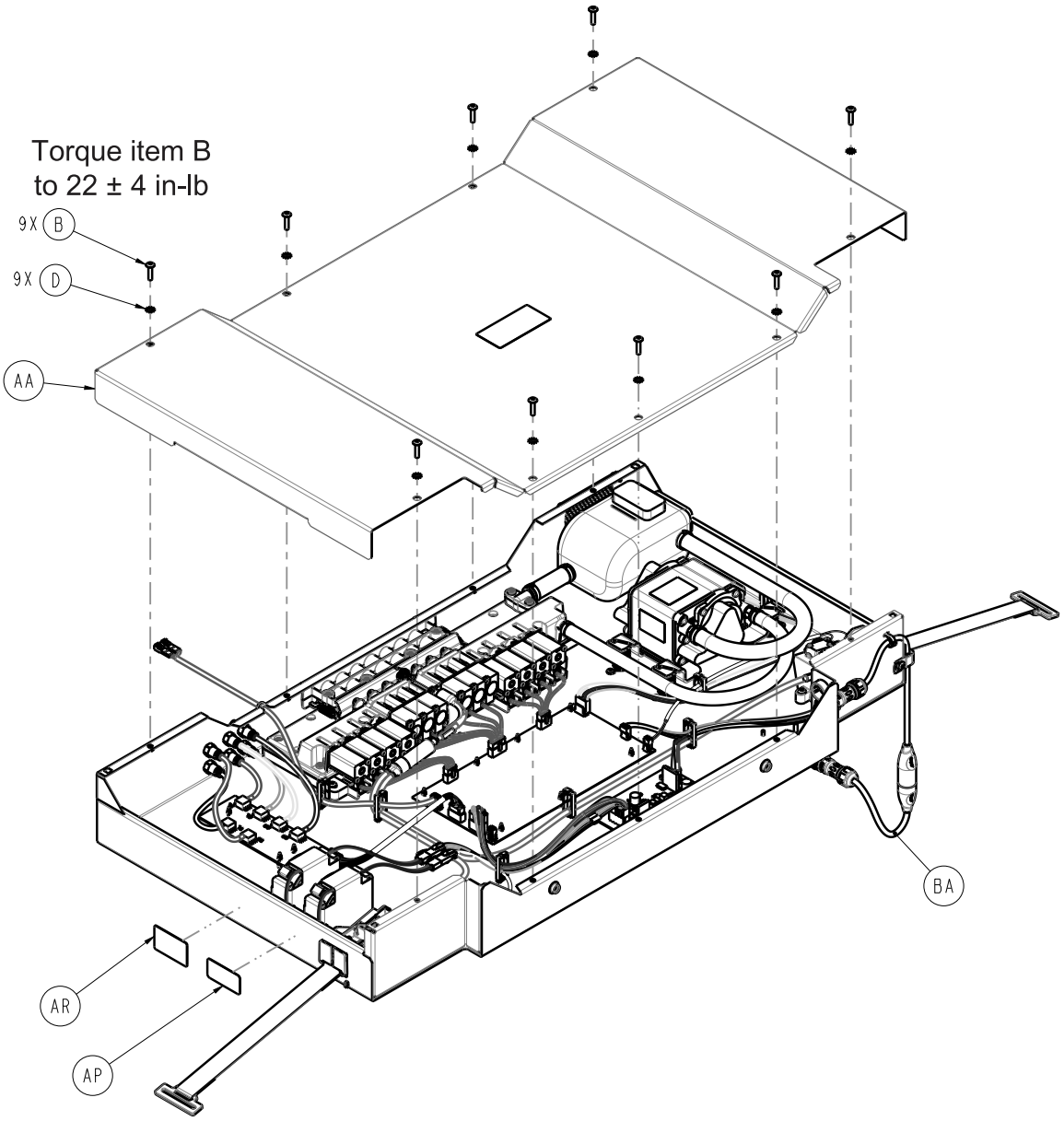

BG


BD
AY
AU
Tighten item AU
to 25-40 lb
B
BE
Torque item B
to 22 ± 4 in-lb
BH


Torque item F
to 22 ± 4 in-lb
F
AC
D
AL
AG
U
Torque item N
to 20 in-lb minimum
6X N
AN
6X E
Torque item E
to 20 in-lb minimum


Torque item C
to 8 ± 2 in-lb
4X C
AH
AW


BC



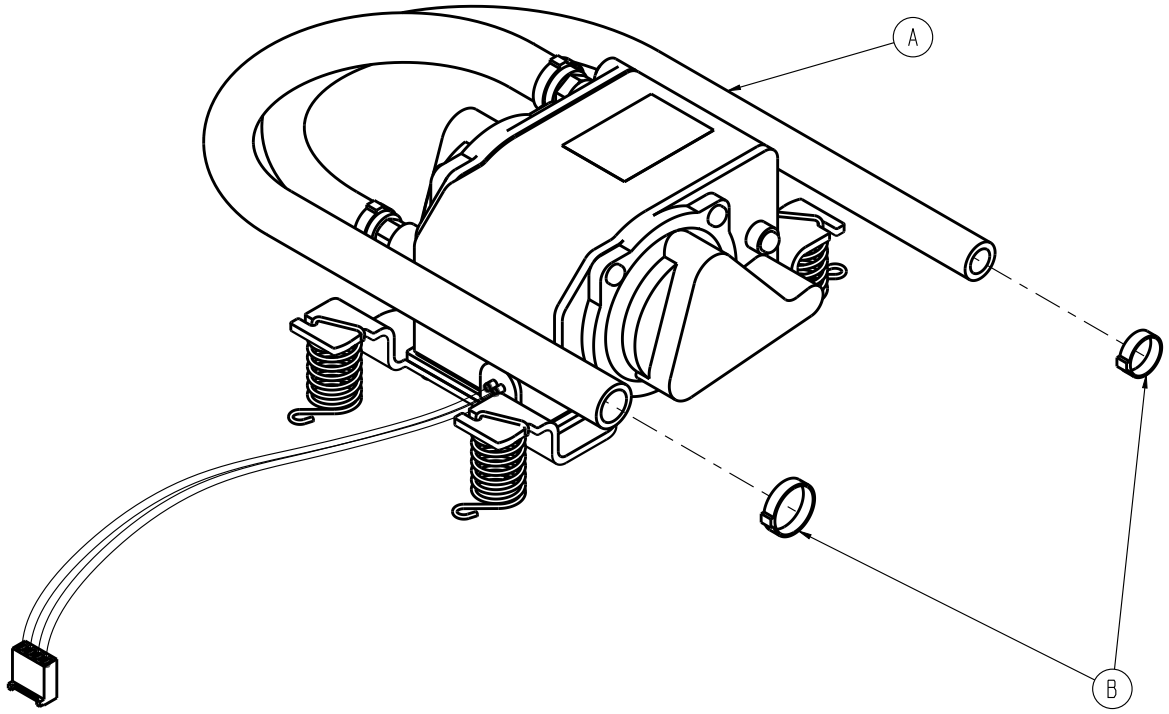
Item	Number	Name	Quantity
A	0004-880-000	Button head cap screw, Torx with star washer	4
B	0007-094-000	Truss head machine screw	15
C	0004-883-000	Button head cap screw	4
D	0013-018-000	Tooth lock washer	11
E	0015-093-000	Nut	6
F	0015-094-000	Hex nut, small	2
G	0027-041-000	Cotter pin, spring detent	2
H	0029-028-000	Push pin	4
J	0029-029-000	Wire clip	9
K	0011-436-000	Washer	4

Item	Number	Name	Quantity
L	0038-330-000	Extension spring	2
M	0052-916-000	Hex standoff	4
N	0058-380-000	Push in coupler	6
P	0058-381-000	Fan filter screen	1
R	0025-650-000	Dome head blind rivet	11
T	0946-001-155	Bumper	5
U	2971-021-033	Sensor assembly	1
V	2971-022-006	Valve manifold assembly	1
W	297300220007	CPR puller assembly	2
Y	2971-022-009	Foot box bottom weldment	1
AA	2971-022-016	Foot box top cover assembly	1
AB	2971-022-012	Resonator assembly	1
AC	2971-022-013	Fan bracket assembly	2
AD	297300220014	Mounted pump assembly	1
AE	2971-022-113	CPR activation cable	1
AF	2971-022-117	CPR switch cable assembly	2
AG	2971-022-132	Main board to foot box SPI cable	1
AH	2971-022-140	Main board PCB assembly	1
AJ	2971-022-150	Fan box cable assembly	1
AK	297300220165	Base CPR	2
AL	2971-022-188	Fan foot box cable assembly	2
AM	2971-022-192	Resonator foam	1
AN	2971-022-903	Label, color foot box	1
AP	2971-022-904	Label, serial number foot box	1
AR	2971-022-905	Label, pass foot box	1
AT	3000-300-115	Standoff	10
AU	8815-029-200	Cable tie	4
AV	0029-003-000	Brass eyelet	2
AW	297100220910	PCBA, **Isolibrium** PE power supply	1
AY	297300560804	Magnetic break away cable side A	1
BA	297300560805	Magnetic break away cable side B	1
BB	297100560802	Cable assembly, **Isolibrium** PE box to **Isolibrium** PE power supply	1

Item	Number	Name	Quantity
BC	297100560803	Cable assembly, **Isolibrium** PE power supply to **Isolibrium** PE main controller	1
BD	700000875057	Locking hole plug	1
BE	700001380898	Double D hole plug	1
BF	700001423846	Dome hole plug	1
BG	700001435032	Retention nut	1
BH	700001483804	Cable clamp	1

Pump assembly kit - 297307000001

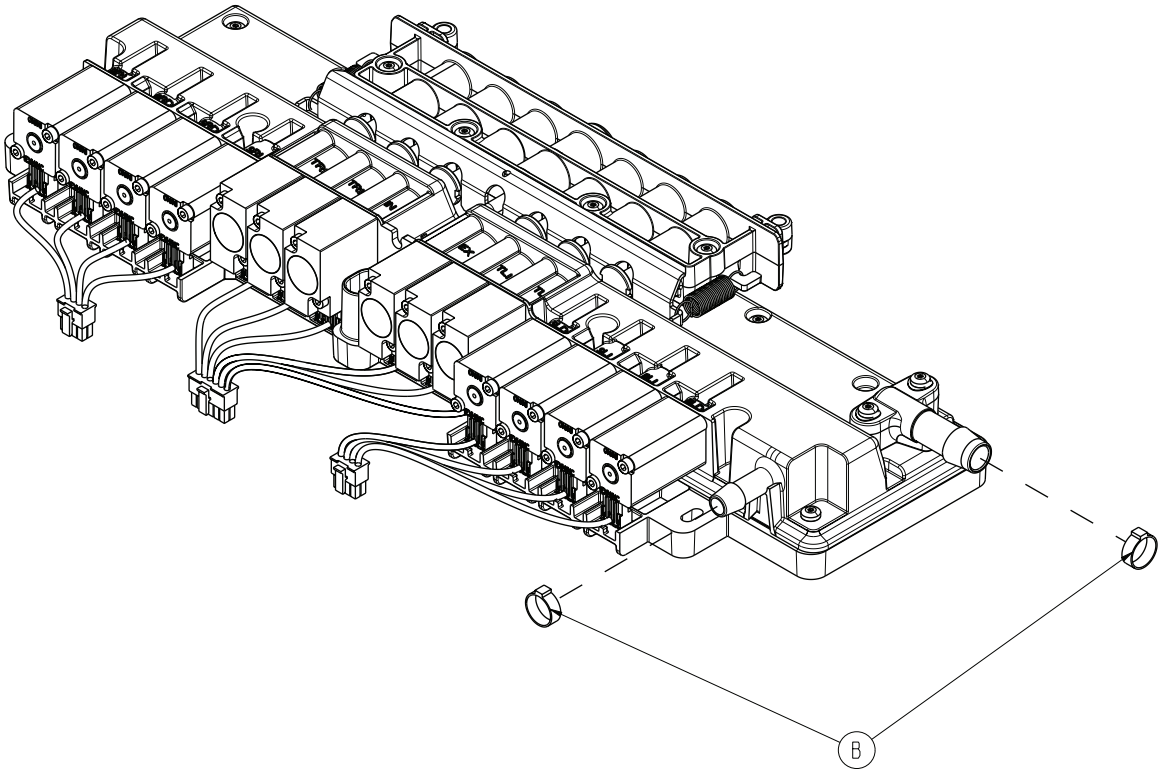
Rev AA (Reference only)



Item	Number	Name	Quantity
A	297300220014	Pump mounted assembly	1
B	8815-029-200	Cable tie	2

Valve manifold assembly kit - 2971-700-007

Rev A (Reference only)



Item	Number	Name	Quantity
A	2971-022-006	Valve manifold assembly	1
B	8815-029-200	Cable tie	2

EMC information

CAUTION

- 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.
- 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.

Note - 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 **Isolibrium** PE support surface, including cables specified by the manufacturer.

The Model 297300000000 **Isolibrium** PE support surface was evaluated using the following cables:

Cable	Length (m)
Isolibrium PE to bed	1.0

Guidance and manufacturer's declaration - electromagnetic emissions		
The Model 297300000000 **Isolibrium** PE support surface is intended for use in the electromagnetic environment specified below. The customer or the user of the Model 297300000000 **Isolibrium** PE support surface 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 Model 297300000000 **Isolibrium** PE support surface 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 Model 297300000000 **Isolibrium** PE support surface should assure that it is used in such an environment and that the electromagnetic environment guidance listed below is followed.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment-guidance**
Electrostatic Discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrostatic fast transient/ burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Main power quality should be that of a typical commercial or hospital environment.

Guidance and manufacturer's declaration - electromagnetic immunity			
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 Model 297300000000 **Isolibrium** PE support surface 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 Model 297300000000 **Isolibrium** PE support surface." 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.
- 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 Model 297300000000 **Isolibrium** PE support surface is used exceeds the applicable RF compliance level above, the Model 297300000000 **Isolibrium** PE support surface should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Model 297300000000 **Isolibrium** PE support surface.

[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 Model 297300000000 Isolibrium PE support surface

The Model 297300000000 **Isolibrium** PE support surface is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Model 297300000000 **Isolibrium** PE support surface can help prevent electromagnetic interferences by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Model 297300000000 **Isolibrium** PE support surface, 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

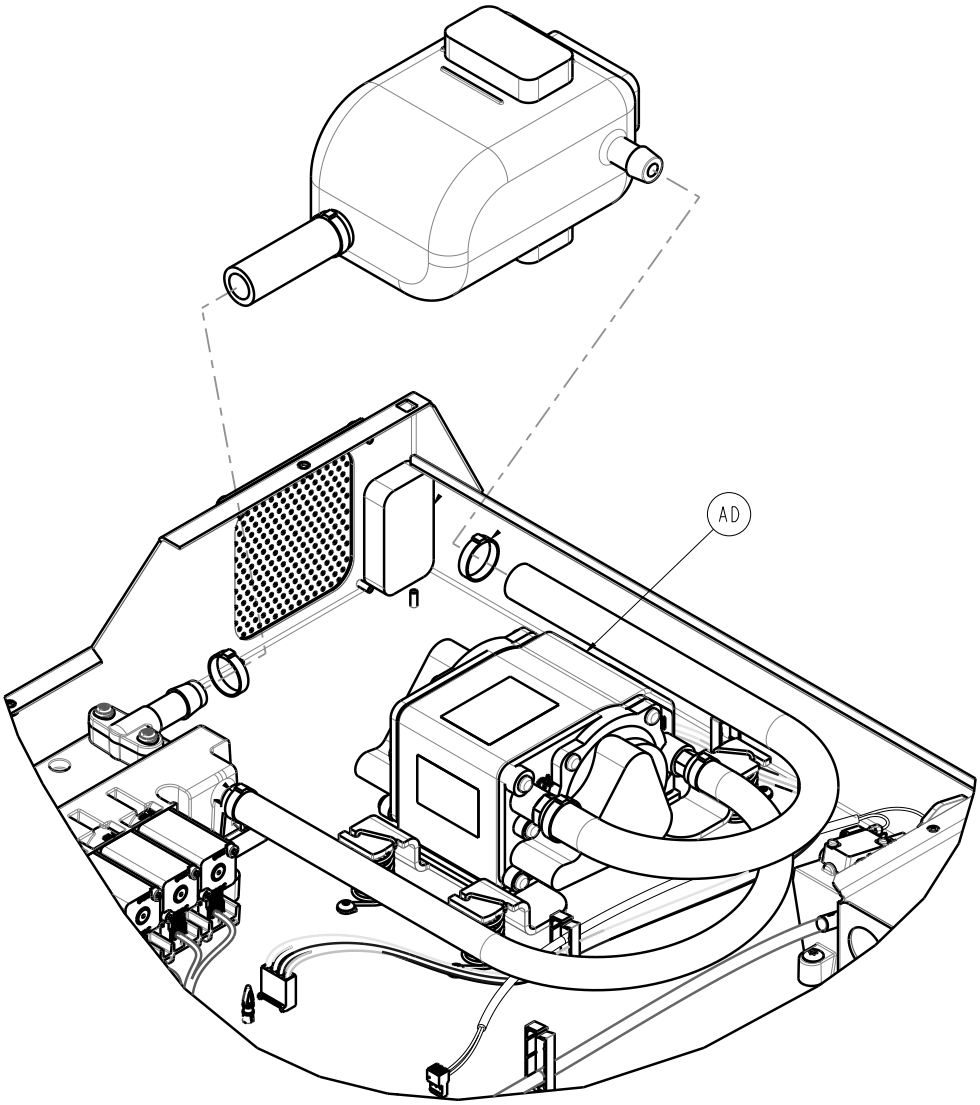
For transmitters rated at a maximum output power not listed above, the recommended separation distance *d* in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter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

297301220008

Rev AA (Reference only)



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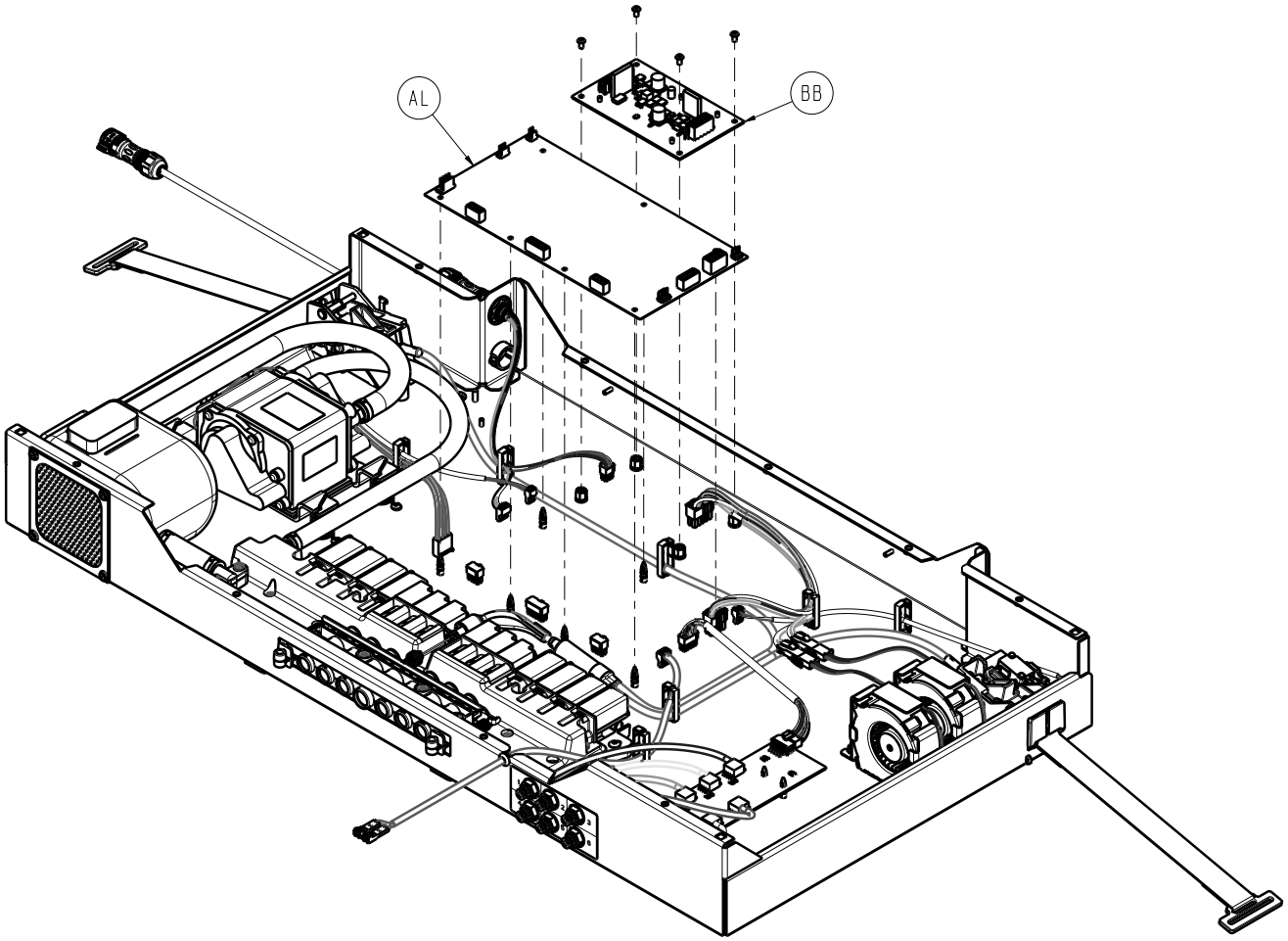
AD	297300220014			1

297301220008

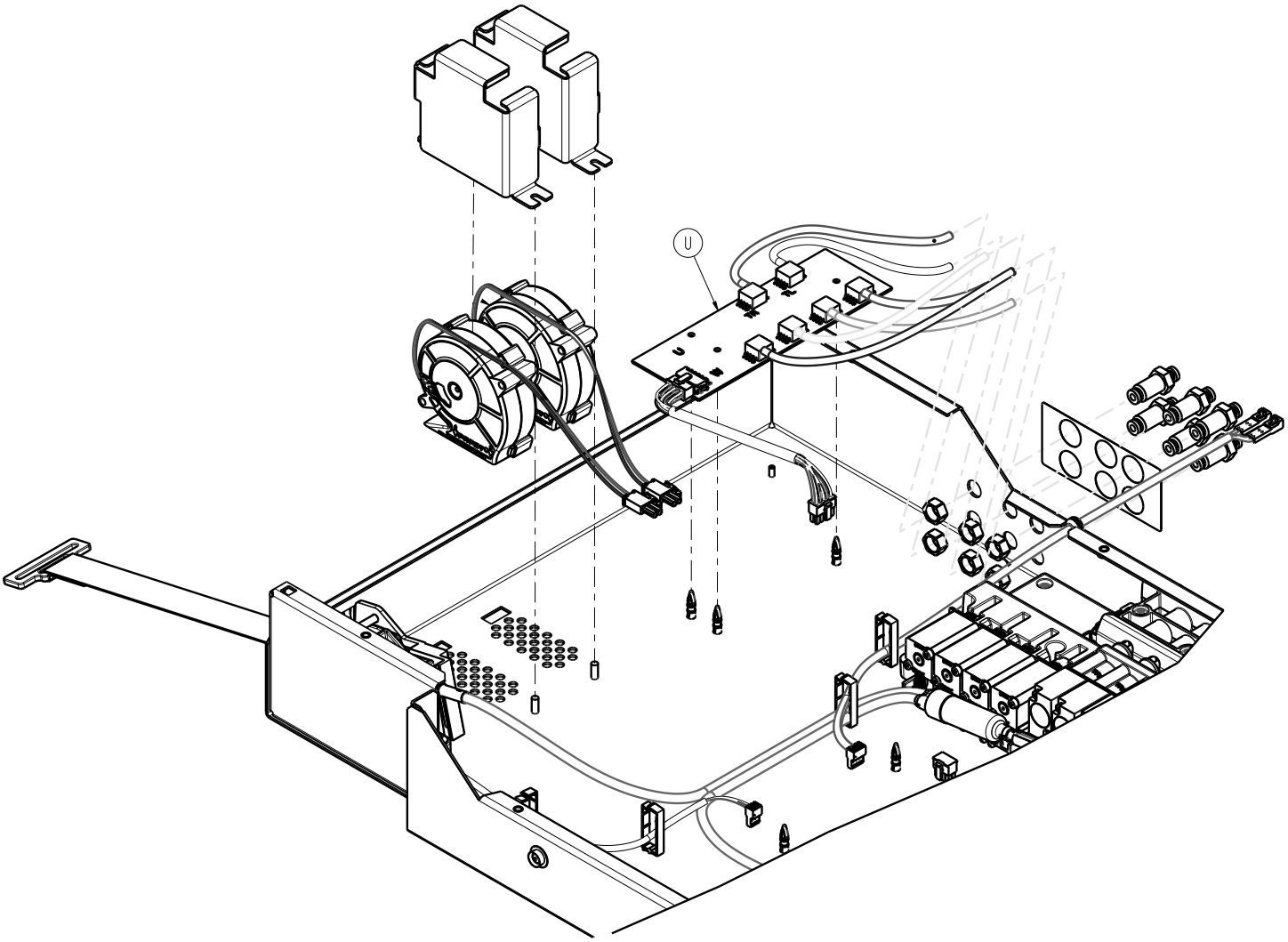
Rev AA (Reference only)



Item	Recyclable part number	Material code	Important information	Quantity
AL	2971-022-140			1
BB	297100220910			1

297301220008

Rev AA (Reference only)



Item	Recyclable part number	Material code	Important information	Quantity
U	2971-021-033			1

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

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WCR: AF.11