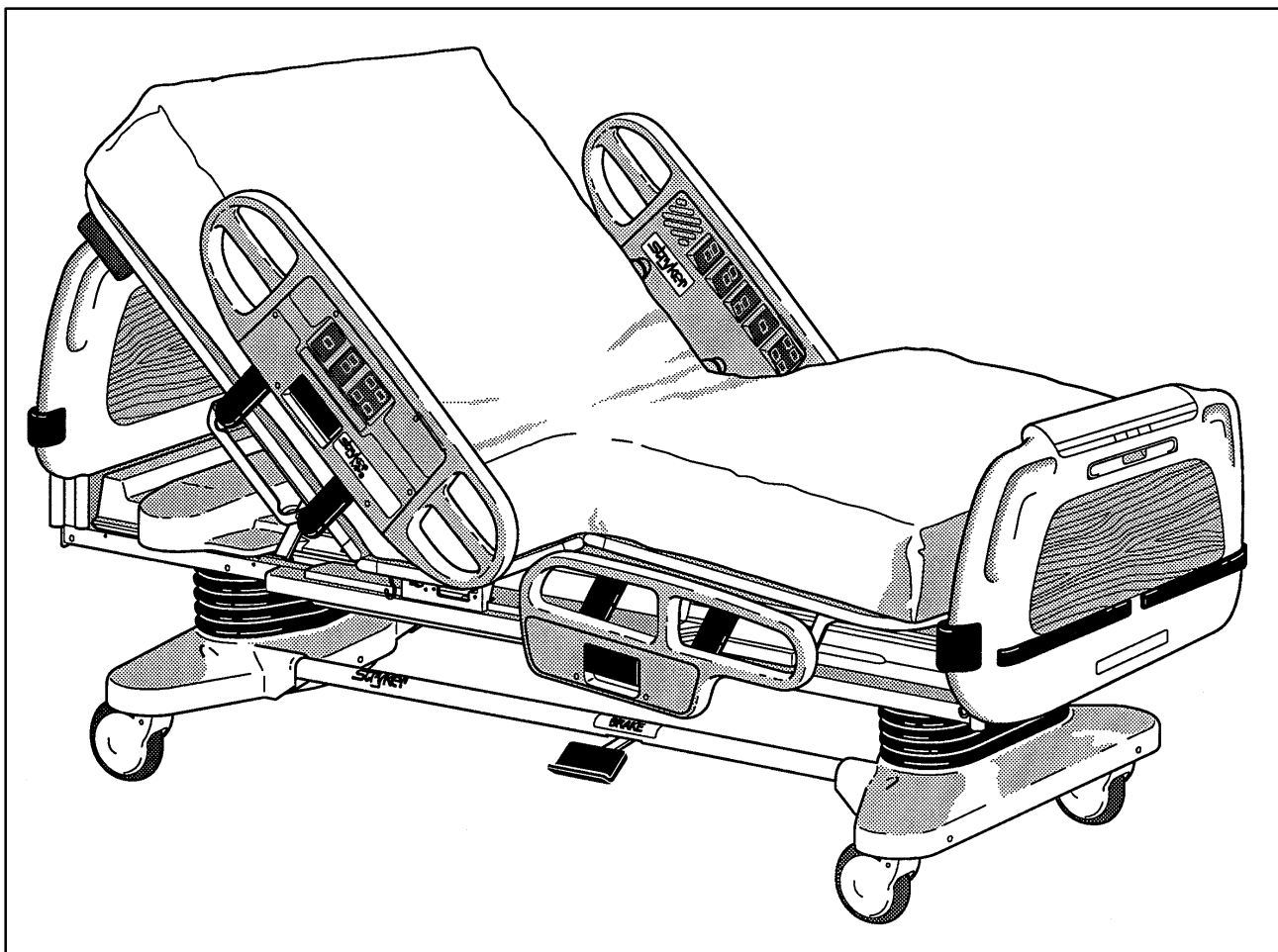

IMPORTANT
File in your
maintenance
records

stryker[®]
Patient Care



Modular Patient System (MPS) 3000 Bed

MAINTENANCE MANUAL

For Parts or Technical Assistance
1-800-327-0770

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Chapter One – Introduction

DIRECTOR OF MAINTENANCE AND ENGINEERING

Thank you for your recent purchase of Stryker equipment. We believe that Stryker products are the best designed, best manufactured, and best supported products on the market and we want you to share this belief.

Attached is our MPS Service Manual with a recommended spare parts list to assist you in the maintenance of your new equipment. These are parts which our customers find convenient to have on hand to facilitate maintenance and repairs. Parts damaged due to manufacturers defects in materials or workmanship will be sent to you at no charge during the two year warranty period.

Stryker Customer Service is easily reached at (800) 327-0770. Our Customer Service Department is staffed to facilitate replacement part orders, and we normally process and ship replacement parts orders within twenty-four hours. Our goal, which we consistently achieve, is 95% of all replacement parts orders shipped within two days or less.

In addition to facilitating your parts orders, our customer service representatives can answer your technical and troubleshooting questions, and have ready access to our staff of technical professionals who can provide any level of phone support required.

Finally, your customer service representative can put you in contact with your local field service representative. This is a Stryker employee, not a third party subcontractor, who is always available for on-site consultations, in-services, or maintenance.

As you can see, we have structured our service to offer you exactly the support you need. We offer any level of service required, from basic phone support to full preventative maintenance and service agreements, allowing you to better utilize your staff.

Thank you again for ordering Stryker products, and please do not hesitate to call Stryker Customer Service for further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read 'J.P.B.', with a stylized flourish at the end.

*Joseph P. Briggs
Vice President – Stryker Service*

Chapter One – Introduction

This manual is designed to assist you with the maintenance of the Modular Patient System (MPS) 3000 Bed. Read it thoroughly before using the equipment. Keep the manual for future reference.

1.1 BED SPECIFICATIONS

Maximum Weight Capacity	500 pounds
Overall Bed Length/Width	93" / 41–1/2"
Patient Sleep Surface	84" / 35"
Minimum/Maximum Bed Height	15 3/8" / 31"
Knee Gatch Angle	0° to 40°
Fowler Angle	0° to 60°
Trendelenberg/Reverse Trendelenberg	–12° to +12 °
Weigh System Accuracy (optional equipment)	+ / – 1% of total patient weight
Electrical Requirements – all electrical requirements meet UL 544 specifications.	110 VAC, 60 Hz, 10.0 Amp

1.2 SAFETY

WARNING / CAUTION / NOTE DEFINITION

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

WARNING

The personal safety of the patient or user may be involved. Disregarding this information could result in injury to the patient or user.

CAUTION

These instructions point out special procedures or precautions that must be followed to avoid damaging the equipment.

NOTE

This provides special information to make important instructions clearer.

Chapter One – Introduction

1.2 SAFETY (CONTINUED)

STATIC DISCHARGE PRECAUTIONS

The electronic circuits in the 3000 are completely protected from static electricity damage only while the bed is assembled. It is extremely important that all service personnel always use adequate static protection when servicing the electronic systems of the 3000. *Whenever you are touching wires, you should be using static protection.*

Static Protection Equipment

The necessary equipment for proper static protection is:

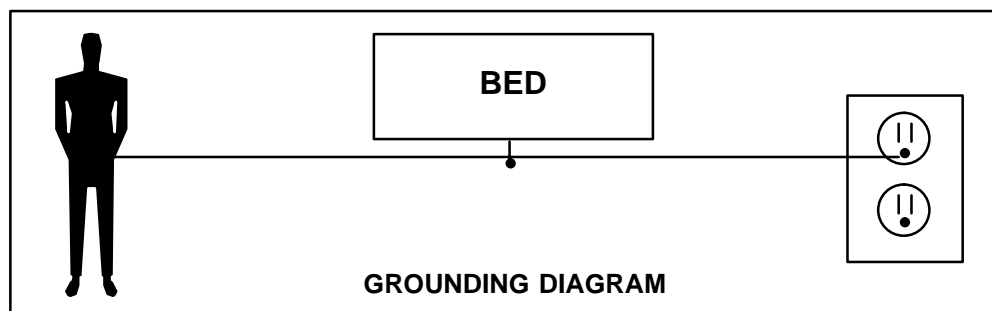
- 1 static wrist strap; 3M part number 2214 or equivalent,
- 1 grounding plug; 3M part number 61038 or equivalent,
- 1 test lead with a banana plug on one end and an alligator clip on the other; Smith part number N132B699 or equivalent.

CAUTION

All electronic service parts will be shipped in static shielding bags. Do not open the bags until you have completed steps 2 and 3 of the following procedure. Do not place unprotected circuit boards on the floor. All circuit boards to be returned to Stryker Medical should be shipped in the static shielding bags the new boards were shipped in.

Static Protection Procedure

1. Unplug the power cord from the wall receptacle.
2. Insert the grounding plug into a properly grounded hospital grade wall receptacle. Plug the banana plug of the test lead into the receptacle on the grounding plug. Connect the alligator clip on the other end of the test lead to a ground point on the bed.
3. Place the static control wrist strap on your wrist. Connect the alligator clip at the other end of the wrist strap cord to a ground point on the bed.



Chapter One – Introduction

1.3 WARRANTY

Limited Warranty:

Stryker Patient Care Division, a division of Stryker Corporation, warrants to the original purchaser that the MPS 3000 Bed should be free from defects in material and workmanship for a period of two (2) years after date of delivery. Stryker's obligation under this warranty is expressly limited to supplying replacement parts for, or replacing, at its option, any product which is, in the sole discretion of Stryker, found to be defective. Stryker warrants to the original purchaser that the frame and welds on its beds will be free from structural defects for as long as the original purchaser owns the bed. If requested by Stryker, products or parts for which a warranty claim is made shall be returned prepaid to Stryker's factory. Any improper use or any alteration or repair by others in such manner as in Stryker's judgement affects the product materially and adversely shall void this warranty. No employee or representative of Stryker is authorized to change this warranty in any way.

This statement constitutes Stryker's entire warranty with respect to the aforesaid equipment. STRYKER MAKES NO OTHER WARRANTY OR REPRESENTATION, EITHER EXPRESSED OR IMPLIED, EXCEPT AS SET FORTH HEREIN. THERE IS NO WARRANTY OF MERCHANTABILITY AND THERE ARE NO WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE. IN NO EVENT SHALL STRYKER BE LIABLE HEREUNDER FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM OR IN ANY MANNER RELATED TO SALES OR USE OF ANY SUCH EQUIPMENT.

To Obtain Parts and Service:

Stryker products are supported by a nationwide network of dedicated Stryker Field Service Representatives. These representatives are factory trained, available locally, and carry a substantial spare parts inventory to minimize repair time. Simply call your local representative, or call Stryker Customer Service at (800) 327-0770.

Supplemental Warranty Coverage:

Stryker has developed a comprehensive program of extended warranty options designed to keep your equipment operating at peak performance at the same time it eliminates unexpected costs. We recommend that these programs be activated *before* the expiration of the new product warranty to eliminate the potential of additional equipment upgrade charges. Stryker offers the following Supplemental Warranties:

Extended (Parts and Labor)

- All replacement parts (excluding mattresses and consumable items)
- Labor and travel for *all* scheduled and unscheduled calls
- Biannual Preventative Maintenance Inspections and repairs
- JCAHO paperwork for preventative maintenance
- Priority Emergency Service

Standard (Labor Only):

- Labor and travel for *all* scheduled and unscheduled calls
- Biannual Preventative Maintenance Inspections and repairs
- JCAHO paperwork for preventative maintenance
- Priority Emergency Service

Basic (Parts Only):

- All replacement parts (excluding mattresses and consumable items)
- Priority Emergency Service

Please call your local representative, or call (800) 327-0770 for further information

Chapter One – Introduction

1.3 WARRANTY (CONTINUED)

Return Authorization:

Merchandise cannot be returned without approval from the Stryker Customer Service Department. An authorization number will be provided which must be printed on the returned merchandise. Stryker reserves the right to charge shipping and restocking fees on returned items.

SPECIAL, MODIFIED, OR DISCONTINUED ITEMS NOT SUBJECT TO RETURN.

Damaged Merchandise:

ICC Regulations require that claims for damaged merchandise must be made with the carrier within fifteen (15) days of receipt of merchandise. DO NOT ACCEPT DAMAGED SHIPMENTS UNLESS SUCH DAMAGE IS NOTED ON THE DELIVERY RECEIPT AT THE TIME OF RECEIPT. Stryker Customer Service must be notified immediately. Stryker will aid the customer in filing a freight claim with the appropriate carrier for damages incurred. Claim will be limited in amount to the actual replacement cost. In the event that this information is not received by Stryker within the fifteen (15) day period following the delivery of the merchandise, or the damage was not noted on the delivery receipt at the time of receipt, the customer will be responsible for payment of the original invoice in full.

Claims for any short shipment must be made within thirty (30) days of invoice.

1.4 RECOMMENDED PARTS KITS

MPS 3000 STARTER PACKAGE

- Sensor Coil Cord Kit p/n 3000–200–741
- Power Coil Cord Kit p/n 3000–200–743
- Power Cord Kit p/n 3000–300–737
- Lift Motor Kit p/n 3000–200–727
- Fowler Motor Kit (includes clutch) p/n 3000–300–703
- Gatch Motor Kit p/n 3000–300–711
- Load Cell Kit (optional equipment) p/n 3000–307–701
- Weigh CPU (optional equipment) p/n 3000–307–959
- Caster Assembly p/n 3000–200–30 and 3000–200–16 (steer)
- Main CPU Board Assembly p/n 3000–300–941
- Junction Power Board Assembly p/n 3000–300–961
- Interface Board Assembly p/n 3000–303–933
- Lift Potentiometer Kit (Head) p/n 3000–200–929
- Lift Potentiometer Kit (Foot) p/n 3000–200–731
- Single Tube of Grease p/n 3000–200–700
- Hardware Kit (reference p/n below)

MPS 3000 HARDWARE KIT – P/N 3000–000–700

- Fuses (Variety)
- Cover Fasteners (Variety) – siderails, bellows, lift covers, litter access, inner shield
- Snap Rings (Variety)
- Sheet Metal Screws (Variety)
- Cable Clamps (Variety)
- Roll Pins (Variety)
- Cotter Pins (Variety)
- Steer Cable Retainer with Set Screw
- Brake Pedal Bolt
- Siderail Module Screws
- Push Retaining Ring
- Micro Switch (motion interrupt, brake)

1.5 REPLACEMENT PARTS KITS

BASE KITS

1. Steer Cable Kit – p/n 3000–200–701
2. Complete Lift Assembly Kit – p/n 3000–200–705
3. Idler Gear Kit – p/n 3000–200–707
4. Manual Idler Gear Kit – p/n 3000–200–709
5. Motor Pinion Gear Kit – p/n 3000–200–711
6. Outer Screw Kit – p/n 3000–200–713
7. Inner Screw Kit – p/n 3000–200–715
8. Single Tube of Grease – p/n 3000–200–700
9. Lift Motor Isolation Plate Kit – p/n 3000–200–723
10. Lift Motor Coupler Kit – p/n 3000–200–705
11. Lift Motor Kit – p/n 3000–200–727
12. Lift Potentiometer Kit (Head) – p/n 3000–200–729
13. Lift Potentiometer Kit (Foot) – p/n 3000–200–731
14. Brake Cam Kit – p/n 3000–200–733
15. Brake Sensor Switch Kit – p/n 3000–200–735
16. Brake Pedal Kit – p/n 3000–200–737
17. Steer Pedal Kit – p/n 3000–200–703
18. Upper Lift Cover Kit (Head) – p/n 3000–200–739
19. Upper Lift Cover Kit (Foot) – p/n 3000–200–749
20. Sensor Coil Cord Kit – p/n 3000–200–741
21. Power Coil Cord Kit – p/n 3000–200–743
22. Lift Capacitor Kit – p/n 3000–200–745
23. Lower Lift Cover Kit (Head or Foot) – p/n 3000–200–747
24. Manual Override Shaft Kit – p/n 3000–200–751

LITTER KITS

25. Load Cell Kit (Optional Equipment) – p/n 3000–307–701
26. Fowler Motor Kit (Includes Clutch) – p/n 3000–300–703
27. Fowler Decoupler/Isolator Kit – p/n 3000–300–705
28. Fowler Ball Screw Kit – p/n 3000–300–707
29. Fowler/Gatch Cam & Cam Guide Kit – p/n 3000–300–709
30. Gatch Motor Kit – p/n 3000–300–711
31. Gatch Coupler Kit – p/n 3000–300–713
32. Gatch Drive Screw Kit – p/n 3000–300–715
33. Translation Cable Kit – p/n 3000–300–717
34. CPR Handle Kit (Right) – p/n 3000–300–719
35. CPR Handle Kit (Left) – p/n 3000–300–739
36. Litter Electrical Cover #2 Kit – p/n 3000–300–721

Chapter One – Introduction

1.5 REPLACEMENT PARTS KITS (CONTINUED)

LITTER KITS (CONTINUED)

- 37. Litter Mid Cover #5 Kit – p/n 3000–300–723
- 38. Fowler Motor Cover #4 Kit – p/n 3000–300–725
- 39. Head End Litter Cover #3 Kit – p/n 3000–300–727
- 40. Foot End Litter Cover #1 Kit – p/n 3000–300–729
- 41. Fowler Capacitor Kit – p/n 3000–300–731
- 42. Gatch Capacitor Kit – p/n 3000–300–733
- 43. Litter Hinge Cover Kit – p/n 3000–300–735
- 44. Power Cord Kit – p/n 3000–300–737

SIDERAIL KITS

- 45. Foot End Siderail Kit (Right) – p/n 3000–400–701
- 46. Foot End Siderail Kit (Left) – p/n 3000–400–703
- 47. Head End Siderail Kit (Right) – p/n 3000–400–705
- 48. Head End Siderail Kit (Left) – p/n 3000–400–707
- 49. Siderail Head/Knee Module Kit (Inside/Right) – p/n 3000–400–709
- 50. Siderail Head/Knee Module Kit (Inside/Left) – p/n 3000–400–711
- 51. Siderail Head/Knee Module Kit (Outside/Right) – p/n 3000–409–713
- 52. Siderail Head/Knee Module Kit (Outside/Left) – p/n 3000–409–715
- 53. Siderail Nurse Call Module Kit (Inside/Right) – p/n 3000–403–717
- 54. Siderail Nurse Call Module Kit (Inside/Left) – p/n 3000–403–719
- 55. Siderail Nurse Call Module Kit (Outside/Right) – p/n 3000–403–721
- 56. Siderail Nurse Call Module Kit (Outside/Left) – p/n 3000–403–723
- 57. Siderail TV/Radio Module Kit (Inside/Right) – p/n 3000–404–723
- 58. Siderail TV/Radio Module Kit (Inside/Left) – p/n 3000–404–725
- 59. Siderail Dynamic Mattress System Module Kit (Inside/Right) – p/n 3000–402–727
- 60. Siderail Dynamic Mattress System Module Kit (Inside/Left) – p/n 3000–402–729
- 61. Siderail Lights Module Kit (Inside/Right) – p/n 3000–406–731
- 62. Siderail Lights Module Kit (Inside/Left) – p/n 3000–406–733
- 63. Siderail Bed Up/Down Module Kit (Outside/Right) – p/n 3000–400–735
- 64. Siderail Bed Up/Down Module Kit (Outside/Left) – p/n 3000–400–737

FOOT BOARD KITS

- 65. Foot Board Bed Position/Lockout Module Kit – p/n 3000–500–701
- 66. Foot Board Head/Knee Module Kit – p/n 3000–501–703
- 67. Foot Board Bed Exit System Module Kit – p/n 3000–508–705
- 68. Foot Board Dynamic Mattress System Module Kit – p/n 3000–502–707
- 69. Foot Board Scale Module Kit – p/n 3000–507–709
- 70. Foot Board Lid Kit – p/n 3000–500–711
- 71. C-Bumper Kit (Foot or Head Board) – p/n 3000–500–713

Chapter One – Introduction

1.6 CLEANING

Hand wash all surfaces of the bed with warm water and mild detergent. Dry thoroughly.

CAUTION

Quaternary Germicidal Disinfectants, used as directed, and/or Chlorine Bleach products, typically 5.25% Sodium Hypochlorite in dilutions ranging between 1 part bleach to 100 parts water, and 2 parts bleach to 100 parts water are **not** considered mild detergents. THESE PRODUCTS ARE CORROSIVE IN NATURE AND MAY CAUSE DAMAGE TO YOUR BED IF USED IMPROPERLY. If these types of products are used to clean Stryker patient care equipment, measures must be taken to insure the beds are wiped with clean water and thoroughly dried following cleaning. Failure to properly rinse and dry the beds will leave a corrosive residue on the surface of the bed, possibly causing premature corrosion of critical components. Failure to follow the above directions when using these types of cleaners may void this product's warranty.

CAUTION

Do not steam clean or hose off the MPS 3000 Bed. Do not immerse any part of the bed. Some of the internal parts of the bed are electric and may be damaged by exposure to water.

Chapter One – Introduction

1.7 PREVENTATIVE MAINTENANCE

BIANNUAL CHECKLIST

- _____ All fasteners secure (reference all assembly prints)
- _____ All casters lock with brake pedal engaged
- _____ "Brake Not Set" LED (on foot board) blinks when brakes are not engaged
- _____ Locking steer caster engages and disengages properly
- _____ Siderails move, latch and stow properly
- _____ CPR release working properly
- _____ Foot prop intact and working properly
- _____ I.V. pole working properly
- _____ Foley bag hooks intact
- _____ Optional chart rack intact and working properly
- _____ Optional CPR board not cracked or damaged and stores properly
- _____ No cracks or splits in head and foot boards
- _____ No rips or cracks in mattress cover
- _____ All functions on head end siderails working properly (including LED's)
- _____ All functions on footboard working properly (including LED's)
- _____ Motion Interrupt switches working properly
- _____ Optional night light working properly
- _____ Power cord not frayed
- _____ No cables worn or pinched
- _____ All electrical connections tight
- _____ All grounds secure to the frame
- _____ Ground impedance not more than 100 milliohms
- _____ Current leakage not more than 100 microamps
- _____ Apply grease to litter grease points

Bed Serial No. _____

Chapter Two – MPS Operations

2.1 SET-UP PROCEDURES

It is important that the MPS 3000 Bed is working properly before it is put into service. The following list will help assure that each part of the bed is tested.

- Plug the bed into a properly grounded, hospital grade wall receptacle and assure the "Power" LED light at the foot end of the bed comes on.

WARNING

The 3000 is equipped with a hospital grade plug for protection against shock hazard. It must be plugged directly into a properly grounded three-prong receptacle. Grounding reliability can be achieved only when a hospital grade receptacle is used.

- Plug the optional interface cable into the 37 pin connector under the litter frame at the head end of the bed, and into the "Patient Station", "Head Wall", "Dock Station", or equivalent (whichever applies).
- Assure the siderails raise, lower and store smoothly and lock in the up and intermediate positions (page 28).
- Assure that all four casters lock when the brake pedal is engaged (page 20).

NOTE

Assure that the "Brake Not Set" LEDs located on the outside of the head end siderails and on the foot board control panel come on when the brakes are disengaged.

- Run through each function on the foot end control panel to assure that each function is working properly (page 25 & 26).
- Run through each function on both head end siderails to assure that each is working properly (page 29 & 30).
- Activate the motion stop system to assure it is functioning properly: press and hold down the BED DOWN key. As the bed lowers, lift up on each corner of the motion interrupt pan individually and assure the downward motion stops each time. Release the pan and allow the downward motion to continue.

NOTE

The bed's upward motion or other functions are not disrupted by the motion stop system.

If any problems are found during bed set-up, contact Stryker Customer Service at 800-327-0770.

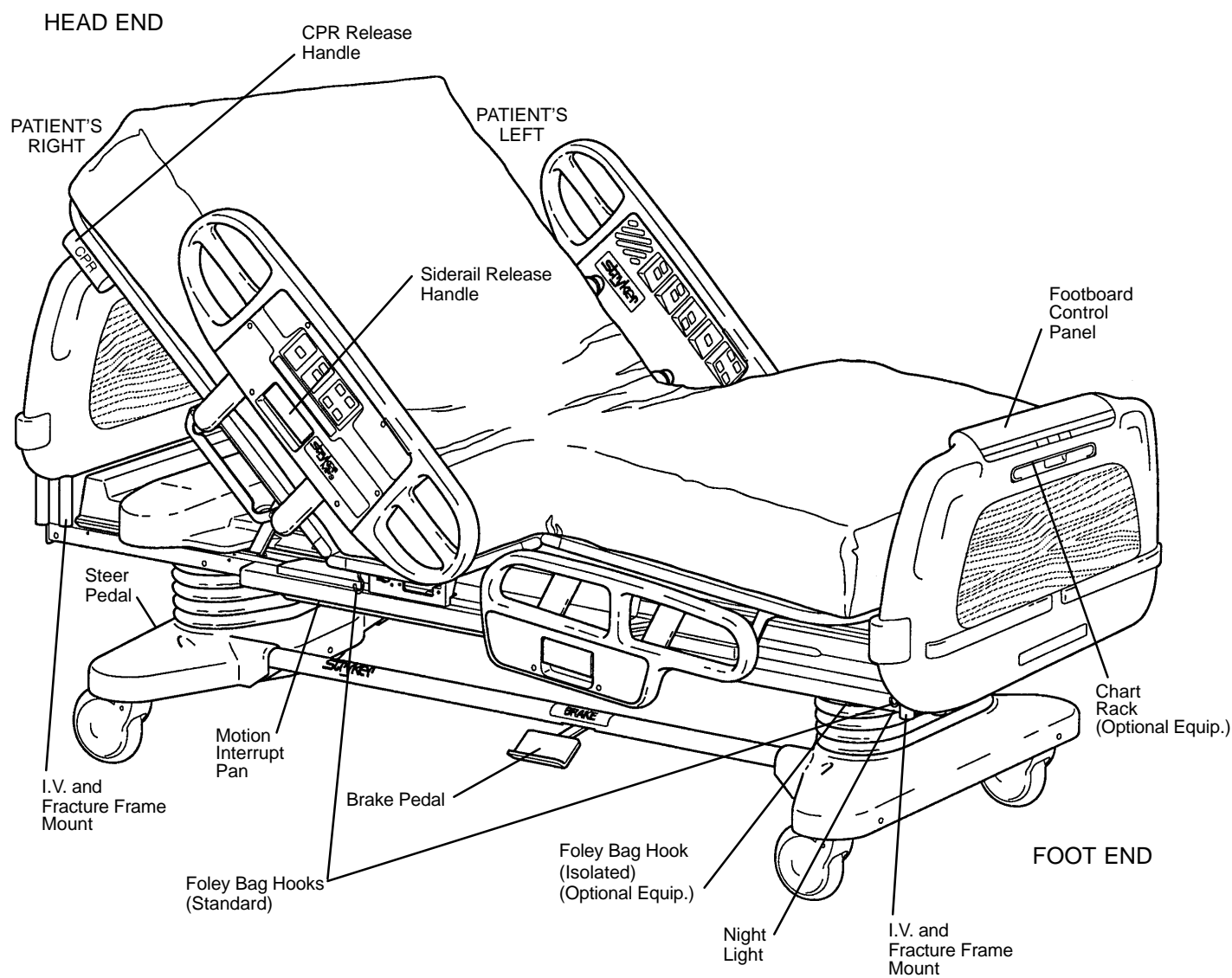
Damaged Merchandise

ICC Regulations require that claims for damaged merchandise must be made with the carrier within fifteen (15) days of receipt of merchandise. DO NOT ACCEPT DAMAGED SHIPMENTS UNLESS SUCH DAMAGE IS NOTED ON THE DELIVERY RECEIPT AT THE TIME OF RECEIPT. Stryker Customer Service must be notified immediately. Stryker will aid the customer in filing a freight claim with the appropriate carrier for damages incurred. Claim will be limited in amount to the actual replacement cost. In the event that this information is not received by Stryker within the fifteen (15) day period following the delivery of the merchandise, or the damage was not noted on the delivery receipt at the time of receipt, the customer will be responsible for payment of the original invoice in full.

Claims for any short shipment must be made within thirty (30) days of invoice.

Chapter Two – MPS Operations

2.2 BED ILLUSTRATION



Chapter Two – MPS Operations

2.3 BASE OPERATION GUIDE

BRAKE PEDAL OPERATION

WARNING

Before putting a patient on the bed, be sure the brakes are fully engaged. Failure to set the brakes may allow the bed to move, causing patient injury.

To activate the brakes, push down once on the pedal identified by the label at right (located at both sides of the bed). To disengage, push down once.

BRAKE
PRESS TO SET OR RELEASE

NOTE

There are LED lights on the outside of the head end siderails and on the foot end control panel that will blink when the brakes are not engaged only if the bed is plugged into a wall socket (see pages 27 & 30). The brakes will still operate properly when the bed is not plugged in.

STEER PEDAL OPERATION

The purpose of the steer caster is to help guide the bed along a straight line and to help with pivoting at corners when the bed is moved.

To activate the steer caster, move the pedal located at the head end of the bed to your left as shown on the label.

ON STEER OFF

NOTE

For proper "tracking" of the steer caster, push the bed approximately 10 feet to allow the wheels to face the direction of travel before engaging the steer pedal. If this is not done, proper "tracking" will not occur and the bed will be difficult to steer.

Chapter Two – MPS Operations

2.4 LITTER OPERATION GUIDE

CPR EMERGENCY RELEASE USAGE

When quick access to the patient is needed, and the Fowler is raised, squeeze one of the two red release handles (see illustration, page 19) and the Fowler can be lowered to a flat position.

NOTE

The handle can be released at any time to stop lowering the Fowler.

FOLEY BAG HOOKS USAGE, STANDARD AND ISOLATED (Isolated Optional Equipment)

The standard Foley bag hooks are found at two locations on both sides of the bed, under the frame rail below the seat section and the extreme foot end of the bed.

NOTE

The patient weight reading on the bed scale system will be affected by using the standard Foley bag hooks.

The optional isolated Foley bag hooks are located under the litter frame at the top of the foot end bellows.

CAUTION

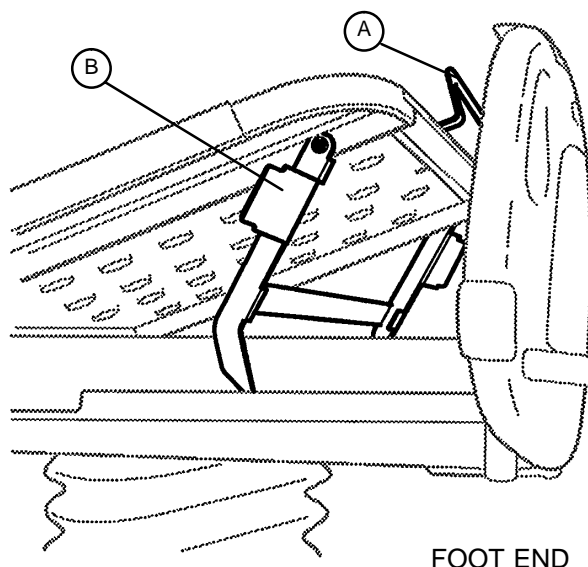
The Foley bag hooks move when the Fowler is raised or lowered. Fowler motion must be locked out when using these hooks, and great care must be taken to avoid inadvertent movement of the hooks.

NOTE

The patient weight reading on the bed scale system will not be affected by usage of the isolated Foley bag hooks.

FOOT PROP USAGE

To prop the foot end of the Knee Gatch up, grasp the handle (A) at the end of the Knee Gatch and lift upward, allowing the latch arm to engage at the desired height. To release the prop, lift up slightly on the handle (A) and swing the foot prop handle (B) toward the head end of the bed to disengage the hinge and allow the foot end to lower.



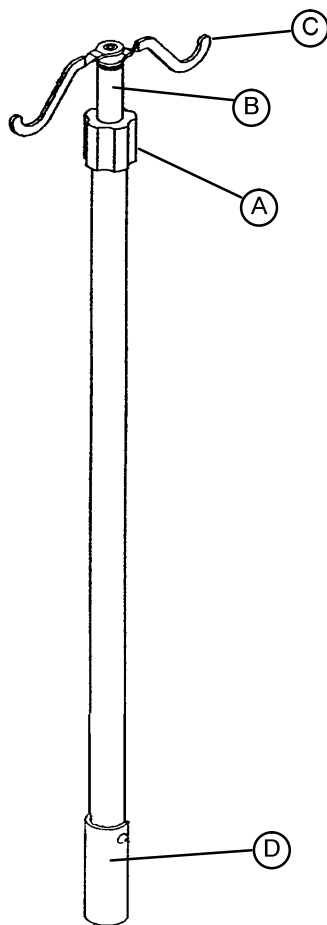
FRACTURE FRAME USAGE

A standard fracture frame can be mounted on the bed using the I.V. sockets located on all four corners of the bed. I.V. poles can be used in conjunction with a fracture frame if I. V. pole adaptor sockets are purchased.

Chapter Two – MPS Operations

2.4 LITTER OPERATION GUIDE (CONTINUED)

I.V. POLES



To use the Permanently Attached I.V. pole (optional equipment):

1. Lift and pivot the pole from the storage position and push down until it is locked into receptacle (D).
2. To raise the height of the pole, turn the lock actuator (A) counter-clockwise and pull up on the telescoping portion (B) of the pole to raise it to the desired height.
3. Turn the lock actuator (A) clockwise to lock the telescoping portion in place.
4. Rotate the I.V. hangers (C) to desired position and hang I.V. bags.

CAUTION

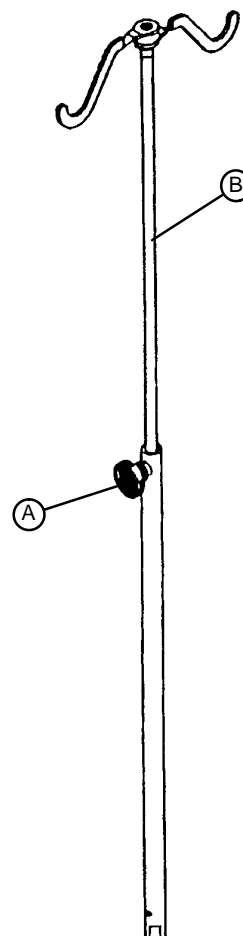
The maximum weight capacity of the I.V. pole is 40 pounds.

To use the "Removable" I.V. pole:

1. Remove the pole from its storage position located at the foot end of the bed, under the foot board.
2. Install the pole at any of the six receptacles on the bed top (located on all four corners of the bed and halfway down the bed, on both sides.)
3. To raise the height of the pole, turn knob (A) counterclockwise and pull up on the telescoping portion (B) of the pole and raise it to the desired height.
4. Turn knob (A) clockwise to tighten the telescoping portion in place.

CAUTION

The maximum weight capacity of the I.V. pole is 40 pounds.

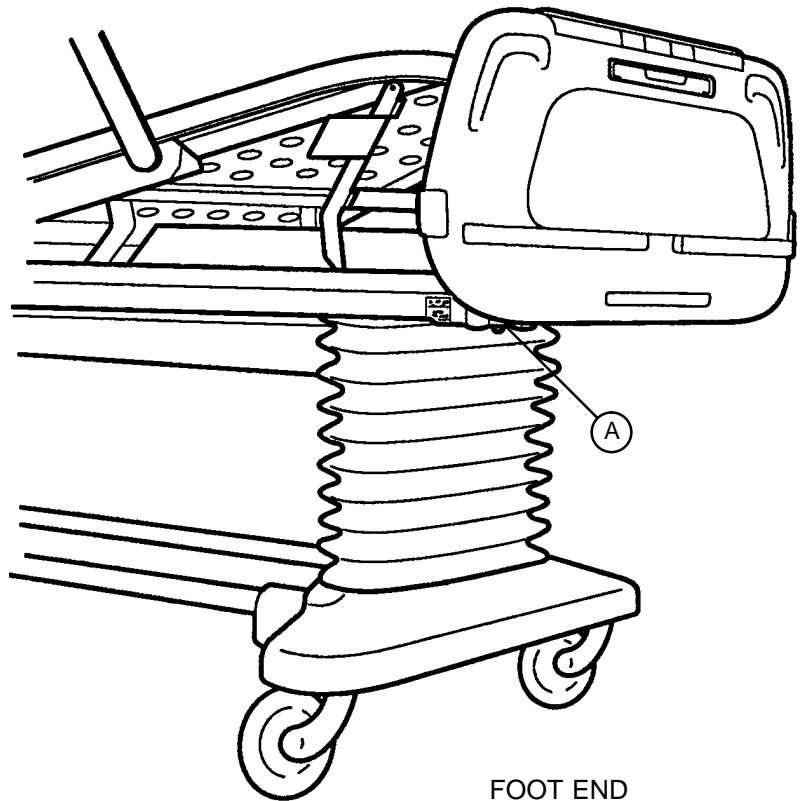


Chapter Two – MPS Operations

2.4 LITTER OPERATION GUIDE (CONTINUED)

NIGHT LIGHT USAGE (Optional Equipment)

The bed may be equipped with an optional night light (A) that will illuminate the floor area around the bed. The light has three settings: LOW–OFF–HIGH.



PATIENT RESTRAINT STRAP LOCATIONS

The bed is equipped with 12 separate locations for installing patient restraint straps. The "cutouts" in the bed top are located directly across from each other (on both sides of the bed). When using restraint straps, attach only to these locations. Never attach to mattress or bed rails.

WARNING

Restraints should be used only under the supervision of a licensed health care provider. Improperly adjusted or improperly located restraint straps can cause serious injury to a patient.

Chapter Two – MPS Operations

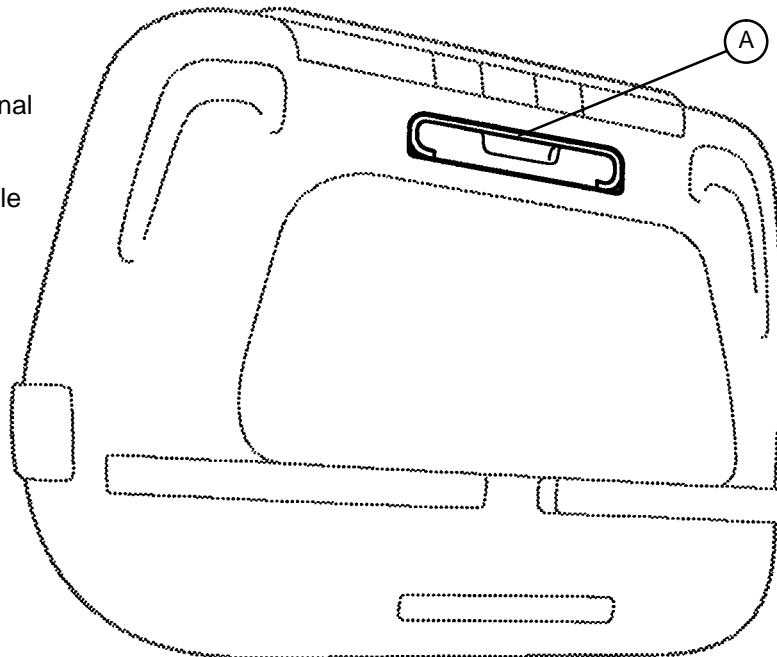
2.5 FOOT BOARD/HEAD BOARD OPERATION GUIDE

CHART RACK USAGE (Optional Equipment)

If the bed is equipped with the optional chart rack, it is located on the foot board. To use, pull handle rod (A) downward. To store, push the handle back to its storage position until it locks in place.

CAUTION

Do not use handle rod (A) as a device for pulling the bed. Doing so may cause damage to the chart rack and foot board.



FOOT END

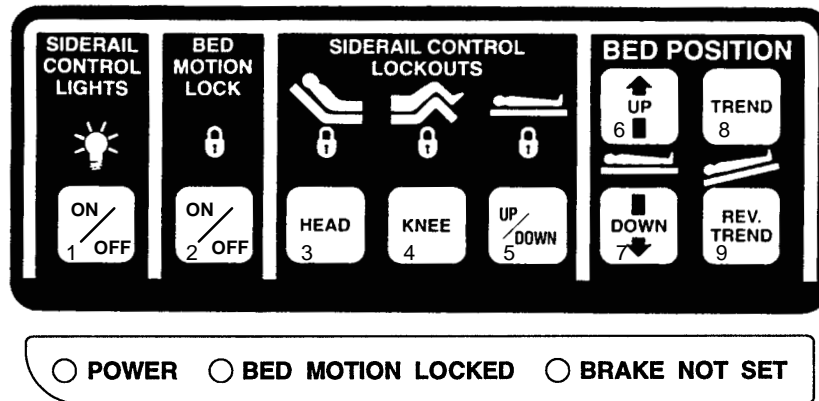
CPR BOARD USAGE (Optional Equipment)

If the bed is equipped with the optional CPR board, it is stored on the bed's head board. To remove, pull away from the head board and lift out of storage position. If the CPR board option was not purchased, the head board can be removed and used as an emergency CPR board.

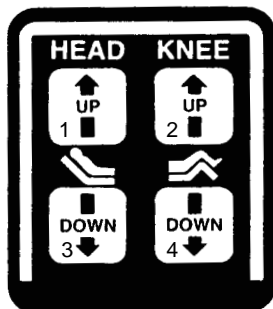
Chapter Two – MPS Operations

2.5 FOOT BOARD/HEAD BOARD OPERATION GUIDE (CONTINUED)

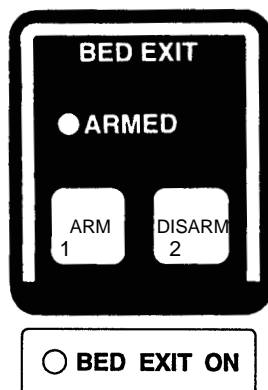
FOOT BOARD CONTROL PANEL GUIDE



1. Push to turn on siderail control panel lights. Push again to turn off (see page 28).
2. Push to lock out all bed motions. Push again to unlock (see page 35).
3. Push to lock out Fowler. Push again to unlock (see page 35).
4. Push to lock out Knee Gatch. Push again to unlock (see page 35).
5. Push to lock out bed height movement. Push again to unlock (see page 35).
6. Push to raise bed height.
7. Push to lower bed height.
8. Push to lower head end/raise foot end of bed (Trendelenberg position).
9. Push to lower foot end/raise head end of bed (Reverse Trendelenberg position).



1. Push to raise Fowler.
 2. Push to raise Knee Gatch.
 3. Push to lower Fowler.
 4. Push to lower Knee Gatch.
- This panel is optional equipment.

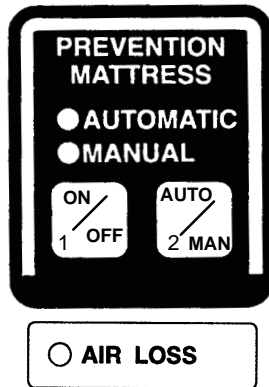


1. Push to activate Bed Exit function (see page 35).
 2. Push to deactivate Bed Exit function (see page 35).
- This panel is optional equipment.

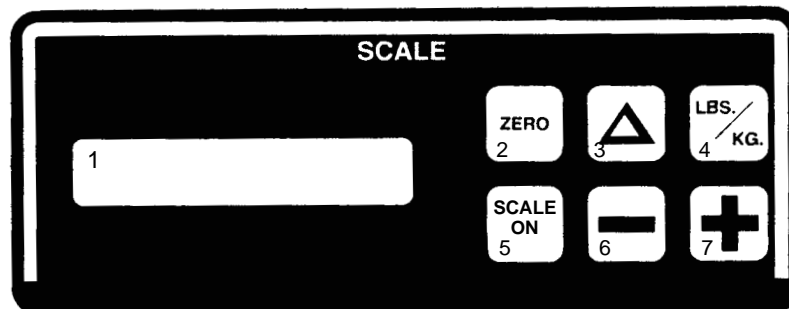
Chapter Two – MPS Operations

2.5 FOOT BOARD/HEAD BOARD OPERATION GUIDE (CONTINUED)

FOOT BOARD CONTROL PANEL GUIDE (Continued)



1. Push to turn the Dynamic Mattress system on or off (see page 35).
 2. Push to activate automatic or manual modes (see page 35).
- This panel is optional equipment.



1. LCD – displays patient weight.
 2. Push to zero bed (see page 31 & 33).
 3. Push when changing equipment on the bed (see page 31 & 33).
 4. Push to change weight from pounds to kilograms or back (see page 32 & 33).
 5. Push to turn weigh system on (see page 31 – 33).
 6. Push to decrease numerical value of displayed weight (see page 32 & 34).
 7. Push to increase numerical value of displayed weight (see page 32 & 34).
- This panel is optional equipment.

NOTE

See page 27 for explanation of LED's.

Chapter Two – MPS Operations

2.5 FOOT BOARD/HEAD BOARD OPERATION GUIDE (CONTINUED)

LED DISPLAY PANEL GUIDE

The LED Display Panel is located at the foot end of the bed, under the Control Panel.



"POWER" – will light when the bed is plugged into the wall receptacle.

"BED MOTION LOCKED" – will light when the Bed Motion Lock has been activated.

"BRAKE NOT SET" – will blink when the brakes have not been set.

"BED EXIT ON" – will light when the Bed Exit function has been activated (optional equipment).

"AIR LOSS" – will light when there is a possible air leak in the Dynamic Mattress System (optional equipment).

Chapter Two – MPS Operations

2.6 SIDERAIL OPERATION GUIDE

POSITIONING SIDERAILS

NOTE

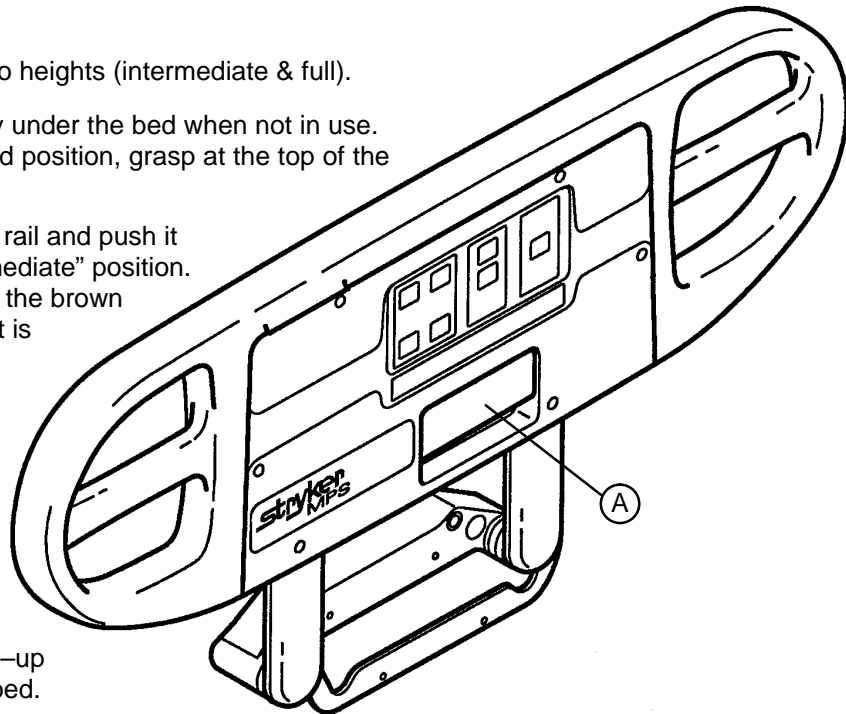
The siderails can be locked at two heights (intermediate & full).

The siderails can be tucked away under the bed when not in use. To remove the rail from the tucked position, grasp at the top of the rail and pull outward.

To engage the siderail, grasp the rail and push it upward until it rests in the "intermediate" position. To continue to the full height, pull the brown release handle (A) until full height is reached.

WARNING

Be sure rail is locked securely into position. Siderails are not intended to keep patients from exiting the bed. They are designed to keep a patient from inadvertently rolling off the bed. Always keep siderails in full-up position when a patient is in the bed.



To disengage the rail, pull the brown release handle and pivot rail down to desired height. Tuck away siderails by pushing the rails under the bed. Rails must be in the full down position before they can be tucked.

SIDERAIL CONTROL PANEL LIGHTS

The bed is equipped with lights that will illuminate the head end siderail control panel and can be activated at the foot board control panel (see control panel guide page 25).

2.6 SIDERAIL OPERATION GUIDE (CONTINUED)

INSIDE SIDERAIL FUNCTION GUIDE



(Patient's Right Rail)

1. Push to raise Knee Gatch.
2. Push to raise Fowler.
3. Push to lower Knee Gatch.
4. Push to lower Fowler.



(Patient's Left Rail)

1. Push to raise Fowler.
2. Push to raise Knee Gatch.
3. Push to lower Fowler.
4. Push to lower Knee Gatch.

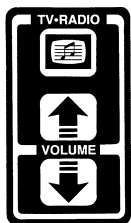


Push to activate Nurse Call.

NOTE

Yellow LED will light when button is pushed. Red LED will light with Nurse Station acknowledgment.

► This panel is optional equipment.



Push to turn TV or radio on and to select a channel.

Push to increase volume.

Push to decrease volume.

► This panel is optional equipment.



Push to increase firmness of mattress.

Push to decrease firmness of mattress.

LED will light when the "Manual" mode has been set at the foot end of the bed.

► This panel is optional equipment.



Push to turn the room light on.

Push to turn the bed overhead light on.

► This panel is optional equipment.

2.6 SIDERAIL OPERATION GUIDE (CONTINUED)

OUTSIDE SIDERAIL FUNCTION GUIDE



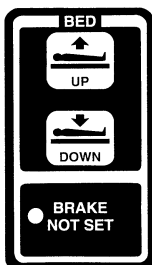
(Patient's Right Rail)

1. Push to raise Fowler.
 2. Push to raise Knee Gatch.
 3. Push to lower Fowler.
 4. Push to lower Knee Gatch.
- This panel is optional equipment.



(Patient's Left Rail)

1. Push to raise Knee Gatch.
 2. Push to raise Fowler.
 3. Push to lower Knee Gatch.
 4. Push to lower Fowler.
- This panel is optional equipment.



Push to raise bed height.

Push to lower bed height.

LED will blink when the brakes are not set.



Push to activate Nurse Call.

► This panel is optional equipment.

Chapter Two – MPS Operations

2.7 WEIGH SYSTEM OPERATION GUIDE

WEIGH SYSTEM USAGE

OPERATING THE SCALE BEFORE PUTTING A NEW PATIENT IN BED





- Prepare bed for patient stay (linens, pillows, etc.).
- Press and release "SCALE ON". The scale monitor will read:
"WEIGHING"
"XXX.X LB"
- Press and hold "ZERO". The scale monitor will read:
"HOLD TO ZERO WT."
"RELEASE TO ZERO"
- Release "ZERO". The scale monitor will now read:
"DO NOT TOUCH BED"
"0.0 LB"

The bed is now ready for the patient.

NOTE

Do not zero the bed while a patient is in bed. If this should occur, remove the patient and zero the bed.

OPERATING THE SCALE IF PATIENT IS ALREADY IN BED

- If it is necessary to add or remove special equipment (monitors, pumps, etc.) during the patient's stay, press and release "SCALE ON" to activate the weigh system. After the scale monitor reads "XXX.X LB", press and hold . The scale monitor will read:
"HOLD TO START"
"RELEASE TO START"
- Release . The scale monitor will read:
"DO NOT TOUCH BED"
"ADD/REMOVE EQUIP"
- Add or remove the equipment and press . The scale monitor will read:
"RELEASE TO FIN."
- Release . The scale monitor will read:
"DO NOT TOUCH BED"
"XXX.X LB"

The weight displayed will be that of the patient only.

Chapter Two – MPS Operations

2.7 WEIGH SYSTEM OPERATION (CONTINUED)

WEIGH SYSTEM USAGE (CONTINUED)

CONVERTING THE PATIENT'S WEIGHT

- To convert the patient's weight from pounds to kilograms, press and release "SCALE ON" to activate the weigh system. After the scale monitor reads "XXX.X LB", press and release the "LBS/KGS" button. The scale monitor will read:

"WEIGHT NOW KGS"

"XXX.X KG"

- Repeat the procedure to return to pounds. The display will read:

"WEIGHT NOW LBS"

"XXX.X LB"

CHANGING THE NUMERICAL VALUE OF DISPLAYED WEIGHT

- To decrease the numerical value of the displayed weight, press and hold "-". The scale monitor will read:

"HOLD TO DEC. WT."

"XXX.X LB"

- Hold "-" until desired value is achieved.

- To increase the numerical value of the displayed weight, press and hold "+". The scale monitor will read:

"HOLD TO INC. WT."

"XXX.X LB"

- Hold "+" until desired value is achieved.

NOTE









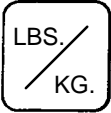
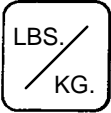
The weigh system will shut off approximately one minute after a function has been used, if another function is not activated. Display light will shut off and display will read "SCALE OFF".

The weigh system will retain all patient weight information in its memory even when the scale monitor is off or when the bed is unplugged from the wall socket.

Chapter Two – MPS Operations

2.7 WEIGH SYSTEM OPERATION (CONTINUED)





WEIGH SYSTEM CONTROL PANEL GUIDE

SYMBOL	ACTION	DISPLAY
	To prepare bed for new patient:	
	Press and release "SCALE ON" to activate the scale system, begin a new function and to display patient weight.	"WEIGHING..." "XXX.X LB"
	Press and hold "ZERO"	"HOLD TO ZERO WT."
	Release "ZERO"	"RELEASE TO ZERO" "DO NOT TOUCH BED" "0.0 LB"
	To add or remove equipment during patient stay without affecting registered patient weight:	
	Press and release "SCALE ON"	"WEIGHING..." "XXX.X LB"
	Press 	"HOLD TO START"
	Release 	"RELEASE TO START"
	"DO NOT TOUCH BED"	
	Add or remove equipment.	"ADD/REMOVE EQUIP."
	Press 	"RELEASE TO FIN."
	Release 	"DO NOT TOUCH BED"
	"XXX.X LB"	
	To convert the patient's weight:	
	To convert the patient's weight to kilograms, press and release "LBS./KG."	"WEIGHT NOW KGS"
	Repeat the procedure to return to pounds.	"XXX.X KG"

Chapter Two – MPS Operations

2.7 WEIGH SYSTEM OPERATION (CONTINUED)

WEIGH SYSTEM CONTROL PANEL GUIDE (CONTINUED)

SYMBOL	ACTION	DISPLAY
	To change the numerical value of displayed weight:	
	Press  and hold to scroll to desired weight.	"HOLD TO DEC. WT." "XXX.X LB"
	Press  and hold to scroll to desired weight.	"HOLD TO INC. WT." "XXX.X LB"

Chapter Two – MPS Operations

2.8 SYSTEM OPERATION GUIDE

"BED EXIT" SYSTEM USAGE (Optional Equipment)

1. Before putting a new patient on the bed: prepare bed for patient stay by adding linens and equipment to the bed. Press and hold "DISARM" key for 5 seconds – "ARMED" light will begin to flash. Release "DISARM" key and do not touch the bed until "ARMED" light stops flashing.
2. To arm Bed Exit: place patient on the bed, push "ARM" key and release ("ARMED" light will come on).
3. To deactivate Bed Exit, push "DISARM". The "ARMED" and "BED EXIT ON" LED's will turn off.

NOTE

If the scale system is active, it will switch to "off" when Bed Exit is armed. Bed Exit will be temporarily disarmed when the scale system is activated. When the bed is equipped with scales, the scales must be properly zeroed for the Bed Exit System to function properly (see page 31 for scale system usage instructions).

WARNING

Bed Exit System does not prevent the patient from exiting the bed. It signals when a patient is about to exit. Adding or subtracting objects from the bed after arming the bed exit system may cause a reduction in the sensitivity of the bed exit system.

DYNAMIC MATTRESS SYSTEM USAGE (Optional Equipment)

1. Turn the mattress system on using the "ON/OFF" switch in the "Prevention Mattress" module on the foot board control panel (see page 26 for Foot Board Control Panel Guide).

NOTE

Push this switch to turn the system both on and off. The "AUTOMATIC" or "MANUAL" LED on the foot board will be on when the system is active.

2. The system can be set in either "AUTOMATIC" or "MANUAL" modes. The "AUTO/MAN" switch is used to activate both modes. When Automatic mode is selected, the "AUTOMATIC" LED on the foot board control panel will be on. When Manual mode is selected, the "MANUAL" LED on the foot board control panel and the "MANUAL" LED on the inside siderail control panel will be on.
3. When the Automatic mode is selected, the firmness of the mattress will adjust automatically as needed. When the Manual mode is selected, the firmness of the mattress can be adjusted by the patient or the hospital clinical staff. The "FIRM" and "SOFT" switches are located on the control panels on the inside of the head end siderails.

NOTE

The "MANUAL" LED on the inside siderail will blink when the "FIRM" or "SOFT" switches are pressed while in the manual mode.

4. If the "AIR LOSS" LED is on, an air leak may exist.

FUNCTION LOCKOUT SYSTEM USAGE

1. To lock out the bed movement functions on the siderails and prevent the patient from changing the positioning of the bed, push the "HEAD", "KNEE" and/or "UP/DOWN" switches in the "Siderail Control Lockouts" module on the foot board control panel (see page 25).

NOTE

The foot board controls for these motions are not affected by the lockout switches.

The "padlock" symbol on the control panel will be lighted when that function is locked out.

2. To lock out the entire bed motion for all switches on the bed, push the "ON/OFF" switch in the "Bed Motion Lock" module on the foot board control panel (see page 25).

Chapter Three – Troubleshooting

3.1 MECHANICAL TROUBLESHOOTING GUIDE

PROBLEM/SYMPTOM	SOLUTION(S)
Brakes engage at one end and release at the other when pedal is activated. Brakes do not engage when activated. Brakes do not release.	A. Brakes out of "time": slowly push down on brake pedal until a spring release noise is heard. Immediately release pedal then push pedal back down entirely to set brakes. B. Check all applicable linkage, hardware and parts alignment. Replace parts as needed (reference brake assembly drawings, pages 138 & 139).
Steer wheel does not engage when activated. Steer wheel does not disengage.	A. Check all applicable hardware and parts alignment. (See pages 73–75 for steer wheel cable adjustment and replacement.)
Siderail release latch does not engage when activated. Siderail release latch does not disengage.	A. Check all applicable hardware and parts alignment. (See page 119 for siderail positioning mechanism replacement.)
CPR release does not disengage when activated.	A. Check all applicable hardware and parts alignment. (See pages 109 & 110 for CPR adjustments and repairs.)
Head section (Fowler) drifts down when weight is added.	A. Back drive clutch has failed. Replace motor and clutch assembly (see pages 103 & 104).
Head motor will not run Fowler down electrically – motor hums momentarily when activated.	A. Refer to page 43, steps A & B to assure problem is not electrical. Replace motor and clutch assembly if problem is mechanical (see pages 103 & 104).

Chapter Three – Troubleshooting Guides

3.2 MOTION INTERRUPT TROUBLESHOOTING GUIDE

NOTE

Prior to replacing any circuit boards, ensure applicable cables and connections are intact (visually and mechanically). When measuring 110 VAC at any point, use only neutral (white) side of power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

Visually and mechanically check for motion interrupt pan alignment and movement. Observe whether the pan has been damaged. Any significant alteration in the shape of the pan may affect switch actuation. If the pan's shape is altered enough to affect the motion interrupt switches, replace the pan (p/n 3000–300–50) (see page 95).

PROBLEM/SYMPTOM	SOLUTION(S)
Motion interrupt does not disable the movement of the bed when activated. (Motion of bed may be prevented if the switch is constantly activated by a foreign object.)	<p>A. Check individual motion interrupt switches for actuation and plunger travel. If switches appear to be dismounted and/or damaged, replace as necessary (see page 96).</p> <p>B. Using a voltmeter, check for +12 VDC at each switch. Wire colors represent: red, +12 VDC, black, ground reference. Replace switches as necessary.</p> <p>C. If +12 VDC is present at switches, verify the 2 pin plug from the motor stop cable is plugged into P2 of the power junction board (p/n 3000–300–961) (see page 199 for board location).</p> <p>D. If +12 VDC is not present at the switches, check connector P14, pin 5 of the litter CPU board (p/n 3000–300–941). If voltage is not present, check fuse F1 of the litter CPU board. Replace fuse if necessary. If fuse is O.K. and voltage is not present, check for 110 VAC at connector P1, pin 18. If 110 VAC is present, replace litter CPU board (see page 115). If 110 VAC is not present, check power junction board (p/n 3000–300–961) at connector P1, pin 1 for 110 VAC. If voltage is not present, check fuse F1. Replace as necessary. If fuse is O.K., and 110 VAC is not present at connector P1, check connector J1, pin 2 for 110 VAC input from power cord. If 110 VAC is present at connector J1 but not at connector P1, replace power junction board as needed (see page 199 for board location).</p>

Chapter Three – Troubleshooting Guides

3.3 TRENDELENBERG/REVERSE TRENDELENBERG TROUBLESHOOTING GUIDE

NOTE

Prior to replacing any boards, ensure applicable cables and connections are intact (visually and mechanically). To check for +5 VDC at various points called out in the troubleshooting, use digital ground as a reference point (negative side of C18 on CPU litter board). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

Assure the bed motion lock is not activated on the foot board. If bed motion will not unlock, see troubleshooting section 3.9 page 48. If any one part of Trendelenberg/Reverse Trendelenberg motion is not functioning, see appropriate troubleshooting section (i.e. bed head end lift motor not functioning see section 3.4 page 40).

If the litter is at its lowest height when Trendelenberg or Reverse Trendelenberg is activated, the litter will raise a few inches until the height is adequate. When this height is achieved, Trend. or Reverse Trend. will proceed.

PROBLEM/SYMPTOM	SOLUTION(S)
Trendelenberg does not move into proper position (head down, foot up). Reverse Trendelenberg will not move into proper position (head up, foot down). Note: connector P2, pin 7 may be used for digital ground reference.	<p>A. Check for +5 VDC at connector P1, pin 6 of the foot board keyboard (p/n 3000–500–943) (see page 202 for board location). If voltage is present, use a voltmeter and verify switches are O.K. If switches are defective, replace board.</p> <p>B. Check foot board IFC (p/n 3000–500–955) for +5 VDC at connector P2, pin 6 (see page 202 for board location). If voltage is not present, check for +8 VDC at connector P3, pin 5. If +8 VDC is present and +5 VDC is not present, replace foot board IFC. If +8 VDC is not present, disconnect connector P3 and check for voltage at the cable connector. If +8 VDC is present at the cable but not at the board, replace foot board IFC.</p> <p>C. If Trend./Rev. Trend. motion is still uncontrollable, check the litter CPU board (p/n 3000–300–941) for +8 VDC at connector P9, pin 5 (see page 199 for board location). If voltage is not present, check fuse F1. If fuse is O.K. and the problem still exists, check for 110 VAC at connector P1, pin 18. If 110 VAC is present, replace litter CPU board. If 110 VAC is not present, check power junction board (p/n 3000–300–961) at connector P1, pin 1 for 110 VAC. If voltage is not present, check fuse F1. Replace fuse as necessary. If fuse is O.K. and 110 VAC at connector P1 is not present, check connector J1, pin 2 for 110 VAC input from power cord. If 110 VAC is present at connector P1, replace power junction board.</p>

Chapter Three – Troubleshooting Guides

3.4 BED MOTION TROUBLESHOOTING GUIDE

NOTE

Before proceeding, ensure the foot board is properly installed and electrical connections are made. Ensure all bed motion lockouts are functioning properly and are turned off. Prior to replacing any boards, ensure all applicable cables and connections are intact (visually and mechanically). Check for +5 VDC at various points called out in the troubleshooting by using digital ground as a reference point (negative side of C18 on CPU litter board). When measuring 110 VAC at any point, use only the neutral (white) side of the power lines as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

If bed lift motion is not functioning properly, check Lift Lock Light on the foot board. If one of the lift potentiometers is disconnected, the Lift Lock Light in the foot board will flash constantly.

PROBLEM/SYMPTOM	SOLUTION(S)
Bed will not raise when switch is depressed. Bed will not lower when switch is depressed.	<p>A. Check switch keyboards in siderails for +5 VDC at connector J1, pin 1 (see page 200 & 201 for board locations). Use connector J2, pin 2 of the inside Gatch/Fowler board (p/n 3000–400–901/917) as a ref. point. If voltage is present and keyboards are not O.K., replace siderail keyboards (p/n 3000–400–929 and 3000–400–915).</p> <p>B. Check switch keyboard in foot board for +5 VDC at connector P1, pin 6. If voltage is present and problem still exists, replace keyboard (p/n 3000–500–943). If problem still exists after replacing the keyboard, check foot board IFC board (p/n 3000–500–955) for +8 VDC at connector P3, pin 5 (use pin 7 as a ref. point) (see page 202 for board location). If voltage is present and the problem still exists, check for +5 VDC at connector P2, pin 6 (use connector P3, pin 7 as a ref. point). If voltage is present and problem still exists, replace foot board IFC board.</p> <p>C. If bed will raise but not lower, check motion interrupt switches (p/n 3000–300–941) and verify the switches are functioning properly and that foreign objects (sheets, blankets, etc.) are not actuating them. Replace as necessary (see page 96).</p> <p>D. Check fuse F1 on litter CPU board (p/n 3000–300–941) (see page 199 for board location). If fuse is O.K., check for +8 VDC at connector P9, pin 5. If voltage is not present, check for +5 VDC at connector P10, pin 10. If +5 VDC is not present, replace litter CPU board (see page 115). If voltages are present and litter CPU board is still suspect, refer to step H.</p> <p>E. Check 110 VAC to head and foot lift motors when switch is pressed. If voltage is not present, check power junction board (p/n 3000–300–961) and fuses F1–F2, on the board. Check for 110 VAC at input (J1), pin 2, outputs (J3), pin 2 & (J4), pin 2 with bed up/bed down switch pressed. If voltages are present, check motors and mechanical lifts.</p>

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3.4 BED MOTION TROUBLESHOOTING GUIDE (CONTINUED)

PROBLEM/SYMPTOM	SOLUTION(S)
Bed will not raise when switch is depressed. Bed will not lower when switch is depressed. (continued)	<p>E. (Continued) Unusual noise emitting from a mechanical lift assembly during operation may indicate mechanical problems. Replace motor and/or mechanical lift mechanism, if necessary. Check power and sensor coil cords (p/n 3000–200–804 & 3000–200–807 head sensor coil cord & 3000–200–805 foot sensor coil cord). If either sensor cord is defective, lift lock light on foot board will flash. Replace, if necessary (see pages 91 & 92).</p> <p>F. Check head and foot lift potentiometers (p/n 3000–200–807 & 3000–200–806). Check gear on potentiometer shaft for proper alignment and coupling. Ensure gear is securely mounted on the shaft. Replace as necessary (see pages 89 & 90).</p> <p>G. Check head and foot motor capacitors (p/n 3000–300–243). Replace as necessary (see page 77).</p> <p>H. Check litter CPU board (p/n 3000–300–941). Verify the following: (see page 199 for board location)</p> <ol style="list-style-type: none">1.) 110 VAC at connector P1, pins 5 and 8 when Bed Up switch is pressed. Pins 4 and 9 when Bed Down switch is pressed.2.) +12 VDC at cathode of D11. Use digital ground as a reference (negative lead on C18). If appropriate output signals are not present, replace litter CPU board (see page 115).

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3.5 KNEE (GATCH) SECTION RAISE/LOWER TROUBLESHOOTING GUIDE

NOTE

Before proceeding, ensure all cables and connections are intact (visually and mechanically). To check for +5 VDC at various points called out in the troubleshooting, use digital ground as a reference point (negative side of C18 on CPU litter board). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

PROBLEM/SYMPTOM	SOLUTION(S)
Knee Gatch does not raise electrically. Knee Gatch does not lower electrically.	<p>A. Check power junction board (p/n 3000–300–961) for 110 VAC (output at connector P1, pin 1, input at connector J1, pin 2 (see page 199 for board location). If output 110 VAC is not present while input is present, check fuse F1. Replace board and/or fuse, if necessary.</p> <p>B. Check for 110 VAC to Gatch motor (p/n 3000–300–410) when any Gatch up/down switch is pressed. If voltage is present and motor will not operate, see step E. If voltage is not present, check for 110 VAC through CPU litter board (see page 199 for board location). (Connector P1, pin 18, input. Connector J2, pins 2 & 5 knee up, and pins 3 & 4 knee down). Replace CPU litter board (p/n 3000–300–941), if necessary (see page 115).</p> <p>C. Check cam switch (p/n 3000–300–40) and cam mechanism for proper operation. The cam mechanism determines travel limits for knee section motion. Adjust and replace appropriate parts as necessary (see page 98). Check the cam, cam guide and wire linkage. Switches can be checked with a multimeter.</p> <p>D. Check keyboards in siderails, foot boards and pendant control for +5 VDC potential at switches and verify switches function properly (see pages 200, 201, 216 & 217 for board locations). Points on keyboard to check for +5 VDC: Foot board keyboard (p/n 3000–501–947) – pin 1 of connector P1. Left inner siderail keyboard (p/n 3000–400–917) pin 10 of connector P1 (use pin 7 as a ref. point). Right inner siderail keyboard (p/n 3000–400–901) pin 10 of connector P1 (use pin 7 as a ref. point). Left outer siderail keyboard (p/n 3000–400–931) pin 4 of connector J1. Right outer siderail keyboard (p/n 3000–409–913) pin 1 of connector J1. Replace cables and keyboards, if necessary. Check CPU litter board (p/n 3000–300–941) for +5 VDC at connector P14, pin 5. If voltage is not present, check fuse 1. Replace fuse, if necessary.</p>

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3.5 KNEE (GATCH) SECTION RAISE/LOWER TROUBLESHOOTING GUIDE (CONTINUED)

PROBLEM/SYMPTOM	SOLUTION(S)
Knee Gatch does not raise electrically. Knee Gatch does not lower electrically (continued).	<p>E. Check knee up/down motor (p/n 3000–300–419) for operation. If motor is not operating, check for 110 VAC supply to motor. If 110 VAC is present and motor does not turn, replace motor (see page 101). Check knee up/down motor capacitor (p/n 3000–300–401). Replace, if necessary (see page 101).</p> <p>F. Check for +5 VDC at pendant port cable (p/n 3000–915–839), pin11. If voltage is not present, check pin 11 of connector P5 on the headwall IFC board. Use connector P1, pin 7 as a ref. point. Replace headwall IFC and cables, if necessary (see page 199 & 211 for board & cable locations).</p> <p>G. Check headwall IFC board for +5 VDC (P5, pin 11) output to pendant switches. Use connector P1, pin 7 as a ref. point. Replace headwall IFC and cables, if necessary (see page 199 & 211 for board & cable locations).</p> <p>H. Replace any one of the following boards, if necessary. (Verify interconnecting cables and connections prior to board replacement.): 1.) Foot board IFC board (p/n 3000–500–955) 2.) Litter CPU board (p/n 3000–300–941) 3.) Signal junction board (p/n 3000–300–963) 4.) Headwall IFC board (p/n 3000–303–933). (See page 199 for board locations).</p> <p>I. If motor is operating and knee does not move or moves incorrectly, check the following mechanical items: 1.) Screw shaft turns but knee section does not move: Gatch nut damaged (see page 99 & 100). 2.) Motor coupling not turning with motor shaft: check coupling and set screw. Replace and tighten as necessary. Check coupling for proper operation. Check key on motor drive shaft. If key is missing or damaged, coupling will not turn with motor properly. 3.) Main lift bracket not raising and lowering in conjunction with screw shaft. Check for broken/missing bolt.</p> <p>J. Check mechanical mechanisms for excessive noise. Inspect and align/lubricate the following: 1.) Motor mount bushings 2.) Gatch nut slide surface 3.) Motor coupler (blue bushing) 4.) Bushings on litter sections</p>

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3.6 HEAD SECTION (FOWLER) RAISE/LOWER TROUBLESHOOTING GUIDE

NOTE

Before proceeding, ensure all cables and connections are intact (visually and mechanically). To check for +5 VDC at various points called out in the troubleshooting, use digital ground as a reference point (negative side of C18 on CPU litter board). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

PROBLEM/SYMPTOM	SOLUTION(S)
Head section does not raise electrically. Head section does not lower electrically.	<p>A. Check power junction board (p/n 3000–300–916) for 110 VAC output at connector J1, pin 2, input at connector J1, pin 2 (see page 199 for board location). If output 110 VAC is not present while input is present, check fuse F1. Replace fuse and/or power junction board, if necessary.</p> <p>B. Check for 110 VAC to Fowler motor when any Fowler up/down switch is pressed. Check for 110 VAC at connector J2, pins 2 & 5 for Fowler down and pins 3 & 4 for Fowler up. If voltage is present and the motor doesn't operate, see step E. If voltage is not present, check for 110 VAC through the CPU litter board: connector P1, pin 18 input, connector P1, pin 7, for Fowler up and pin 6 for Fowler down (see page 199 for board location). Replace litter CPU board, if necessary (see p. 115).</p> <p>C. Check cam switches (p/n 3000–300–40) and cam mechanism for proper operation. The cam mechanism determines travel limits for Fowler motion. Adjust and replace, as needed (see page 98). Check the cam, cam guide, and wire linkage. Switches may be verified by unplugging limit switch cable from litter CPU and using a continuity tester.</p> <p>D. Check keyboards in siderails, foot boards, and pendant control for +5 VDC potential at switches and verify switches are functioning properly. Points on keyboard to check for +5 VDC: Foot board keyboard (p/n 3000–501–947) – pin 1 of connector P1. Left inner siderail keyboard (p/n 3000–400–917) pin 10 of connector P1 (use pin 7 as a ref. point). Right inner siderail keyboard (p/n 3000–400–901) pin 10 of connector P1 (use pin 7 as a ref. point). Left outer siderail keyboard (p/n 3000–400–931) pin 4 of connector J1. Right outer siderail keyboard (p/n 3000–409–913) pin 1 of connector J1. Replace cables and keyboards, if necessary (see pages 200, 201, 216 & 217 for locations). Verify cables and connections before replacing boards. Check litter CPU board (p/n 3000–300–941) for +5 VDC at connector P14, pin 5. If voltage is not present, check fuse 1. Replace, if necessary (see page 115).</p>

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3.6 HEAD SECTION (FOWLER) RAISE/LOWER TROUBLESHOOTING GUIDE (CONTINUED)

PROBLEM/SYMPTOM	SOLUTION(S)
Head section does not raise electrically. Head section does not lower electrically. (continued)	<p>E. Check Fowler up/down motor for operation. If motor is not operating, check for 110 VAC supply to motor. If 110 VAC is present and motor does not turn, replace motor (p/n 3000–300–472) (see page 103 & 104). Check Fowler up/down motor capacitor. Replace, if necessary (see pages 103 & 104).</p> <p>F. Check for +5 VDC at pendant port cable (p/n 3000–915–839), pin 11. If voltage is not present, check pin 11 of connector P5 on the headwall IFC board. Replace headwall IFC board and/or cables, if necessary (see pages 199 & 211 for board and cable locations).</p> <p>G. Check headwall IFC board for +5 VDC (connector P5, pin 11) output to pendant switches. Replace headwall IFC board and/or cables, if necessary (see pages 199 & 211 for locations).</p> <p>H. Replace any one of the following boards, if necessary. Verify interconnecting cables and connections prior to board replacement.</p> <ol style="list-style-type: none">1.) Foot board IFC board (p/n 3000–500–955)2.) Litter CPU board (p/n 3000–300–941)3.) Signal junction board (p/n 3000–300–963)4.) Headwall IFC board (p/n 3000–303–933) (see page 199 & 202 for board locations). <p>I. If motor is operating and Fowler does not move or moves incorrectly, check the following mechanical items:</p> <ol style="list-style-type: none">1.) Fowler nut damaged. Screw shaft turns but head section does not move: Check snap ring and ensure proper fit (see pages 107 & 108).2.) Motor coupling not turning with motor shaft. Check coupling for proper operation.3.) Screw shaft turns but head section doesn't move: check CPR cable release and adjustments (see page 109 & 110).4.) Check screw shaft guide (white).5.) Check motor mounting and blue bushings. Worn bushings may cause excessive noise and vibration.6.) Check main pin connecting head litter section with bracket.

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3.7 SIDERAIL LOCKOUT CONTROLS TROUBLESHOOTING GUIDE

NOTE

Before replacing any circuit boards, ensure applicable cables and connections are intact (visually and mechanically). To check for +5 VDC at various points called out in the troubleshooting, use digital ground as a reference point (negative side of C18 on CPU litter board). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

PROBLEM/SYMPTOM	SOLUTION(S)
Siderail lockout controls will not activate/deactivate (head, knee and up/down motion lock).	<p>A. Check for +5 VDC at connector P1, pin 6 of the foot board keyboard (p/n 3000–500–943) (see page 202 for board location). If voltage is present, use a voltmeter and verify following switches are O.K. – SW3 Head Lockout, SW4 Knee Lockout, SW5 Up/Down Lockout. If switches are not O.K. and/or LED's 3–5 are not illuminating when activated, replace keyboard.</p> <p>B. Check footboard IFC p/n 3000–500–955 for +5 VDC at connector P2, pin 6. (Pin 7 may be used for digital ground ref.). If voltage is not present, check fuse F1. If fuse is O.K. and the problem still exists, check for 110 VAC at connector P1, pin 18. If 110 VAC is present, replace litter CPU board. If 110 VAC is not present, check power junction board (p/n 3000–300–961) at connector P1, pin 1 for 110 VAC (see page 199 for board location). If voltage is not present, check fuse F1. Replace fuse, if necessary. If fuse is O.K. and 110 VAC at connector P1 is not present, check connector J1, pin 2 for 110 VAC input from power cord. If 110 VAC is present at connector J1 but not at connector P1, replace power junction board.</p>

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3.8 SIDERAIL CONTROL PANEL LIGHTS TROUBLESHOOTING GUIDE

NOTE

Before replacing any circuit boards, ensure applicable cables and connections are intact (visually and mechanically). To check for +5 VDC at various points called out in the troubleshooting, use digital ground as a reference point (negative side of C18 on CPU litter board). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

Only inner siderail module boards contain control lights (backlight).

Nurse Call module boards (p/n 3000–403–921 and 3000–403–905 inside, right and left siderail) have control lights which stay lit as long as power is applied to the bed. These lights are not subject to voluntary control. If the Nurse Call control lights do not light and +5 VDC is present at the board modules, replace boards.

PROBLEM/SYMPTOM	SOLUTION(S)
Siderail control lights do not activate/deactivate.	<p>A. Activate siderail control lights. Check both siderails for any lights not lit. For any module not backlit, check module function. Siderail control lights use the same +5 VDC line in each module board as the function switches. Thus, if a module is defective, that module's control lights may not light. If not all siderail control lights activate, check for +5 VDC to unlit modules. Check for +5 VDC at connector J1, pin 1 for all inside module boards with the exception of Gatch/Fowler. Check Gatch/Fowler (inner rail) boards for +5 VDC at connector P1, pin 10. If +5 VDC is present for unlit modules, use a voltmeter and verify backlight ground potential is the same as digital ground. Digital ground can also be found at connector P1, pin 7 of the inner Gatch/Fowler boards. Back light ground can be found at connector J1, pin 2 for all inner rail modules except Gatch/Fowler and Nurse Call. Nurse Call uses connector P1, pin 2 for ground. Gatch/Fowler uses connector P1, pin 8 as backlight ground. Backlight ground changes to digital ground potential in the litter CPU board. Nurse Call does not utilize backlight ground. If +5 VDC is present at module boards and backlight ground is at digital ground potential, replace unlit boards.</p> <p>B. If all siderail control lights cannot be activated/deactivated by pressing siderail control light switch, check foot board keyboard (p/n 3000–500–943) for +5 VDC at connector P1, pin 6 (see page 202 for board location). If +5 VDC is present, use a voltmeter and verify switch SW1 is O.K. If switch is not O.K., and/or LED1 does not light, replace foot board keyboard.</p> <p>C. If foot board keyboard is O.K. and problem still exists, check foot board IFC board (p/n 3000–500–955) for +5 VDC at connector P2, pin 6 (see page 202 for board location). Pin 7 may be used for digital ground reference. If voltage is not present, check for +8 VDC at connector P3, pin 5. If voltage is not present, replace foot board IFC.</p>

Chapter Three – Troubleshooting Guides

3.8 SIDERAIL CONTROL PANEL LIGHTS TROUBLESHOOTING GUIDE (CONTINUED)

PROBLEM/SYMPTOM	SOLUTION(S)
Siderail control lights do not activate/deactivate (continued).	<p>D. If problem still exists, check litter CPU board (p/n 3000–300–941) backlight ground potential with digital ground. Backlight ground: connector P10/P11, pin 9 Digital ground: connector P9, pin 7 (see page 199 for board location). If backlight ground is not the same as digital ground with siderail control lights activated, replace litter CPU board (see page 115). Prior to replacing litter CPU board, check +5 VDC at connectors P10/ P11, pin 5. If voltage is not present, check fuse F1. If fuse is O.K. and problem still exists, check for 110 VAC at connector P1, pin 18. If 110 VAC is present, replace litter CPU board (see page 115).</p>

Chapter Three – Troubleshooting Guides

3.9 BED MOTION LOCK AND INDICATOR TROUBLESHOOTING GUIDE

NOTE

Before replacing any circuit boards, ensure applicable cables and connections are intact (visually and mechanically). To check for +5 VDC at various points called out in the troubleshooting, use digital ground as a reference point (negative side of C18 on CPU litter board). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

PROBLEM/SYMPTOM	SOLUTION(S)
Bed motion lock does not prevent bed motion. Bed motion lock LED indicators not illuminating.	<p>A. Check for +5 VDC at connector P1, pin 6 of the foot board keyboard (p/n 3000–500–943) (see page 202 for board location). If voltage is present, use a voltmeter and verify switch, LED 2 and LED 7 are O.K. If switch or LED's are not O.K., replace keyboard.</p> <p>B. Check foot board IFC (p/n 3000–500–955) for +5 VDC at connector P2, pin 6. Pin 7 may be used for digital ground reference (see page 202 for board location). If voltage is not present, check for +8 VDC at connector P3, pin 5. If voltage is not present, replace foot board IFC .</p> <p>C. If bed motion lock and/or LED indicators are not functioning properly, check litter CPU board (p/n 3000–300–941) for +8 VDC at connector P9, pin 5 (see page 199 for board location). If voltage is not present, check fuse F1. If the fuse is O.K. and the problem still exists, check for 110 VAC at connector P1, pin 18. If 110 VAC is present, replace litter CPU board. If 110 VAC is not present, check power junction board (p/n 3000–300–961) at connector P1, pin 1 for 110 VAC (see page 199 for board location). If voltage is not present, check fuse F1. Replace fuse, if necessary. If fuse is O.K. and 110 VAC is not present at connector P1, check connector J1, pin 2 for 110 VAC input from power cord. If 110 VAC is present at connector J1 but not at connector P1, replace power junction board.</p>

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3.10 NURSE CALL TROUBLESHOOTING GUIDE

NOTE

Before proceeding, check Docker cable visually for proper connection and/or external damage. Ensure Docker cable is compatible with Nurse Call system being utilized. Check +5 VDC called out at various points in the troubleshooting by using digital ground as a reference point (negative side of C18 on CPU litter board). Digital ground reference may also be used at headwall IFC board connector P1, pin 7. Prior to replacing any boards, ensure applicable cables and connections are intact (visually and mechanically).

Depress each Nurse Call switch one at a time to find possible problem. Reset Nurse Call after pressing each switch. Observe whether any yellow LED's and switches are not functioning. Try to isolate problem to individual siderail and to individual switch module on the siderail. If bed is equipped with optional pendant, remove pendant from bed. If problems are isolated to the pendant, replace the pendant.

With power removed from the bed, press each nurse call switch and verify nurse call is operating properly. If nurse call does not activate when any nurse call switch is pressed, and speakers in siderail appear not to work, check 9 VDC battery. Replace battery (p/n 3000–303–851), if necessary. If battery is O.K. and nurse call only operates when power is applied to bed, replace headwall IFC board (p/n 3000–300–303).

PROBLEM/SYMPTOM	SOLUTION(S)
Nurse Call light (yellow LED) does not light when switch is activated.	<p>A. Check for +5 VDC at the following locations:</p> <ol style="list-style-type: none">1.) Left inside nurse call board (p/n 3000–403–921), connector J1, pin 1.2.) Right inside nurse call board (p/n 3000–403–905), connector J1, pin 1.3.) Left outside nurse call board (p/n 3000–403–927), connector J1, pin 1.4.) Right outer nurse call board (p/n 3000–403–911), connector J1, pin 1. <p>If LED does not light and +5 VDC is present, then replace that board. Yellow LED's should light whenever any Nurse Call switch is pressed.</p> <p>B. Check inside siderail Gatch/Fowler boards (p/n 3000–400–917, left inside & 3000–400–901, right inside) for +5 VDC at connector P1, pin 10 for both boards (see page 200 & 201 for board locations). If voltage is present, replace board assembly. Note: if a Gatch/Fowler siderail board is defective, all non-motion functions will cease to work in the entire siderail.</p> <p>C. If both siderail LED's do not light, check litter CPU board (p/n 3000–300–941) for +5 VAC at connectors:</p> <ol style="list-style-type: none">1.) P10, right siderail, pin 10 (pin 5, +8 VDC, pin 7, digital ground)2.) P11, left siderail, pin 10 (pin 5, +8 VDC, pin 7, digital ground). (See page 199 for board location). <p>If voltage is not present, check fuse F1. If fuse is O.K., and voltage is not present, replace litter CPU board (see page 115).</p>

Chapter Three – Troubleshooting Guides

3.10 NURSE CALL TROUBLESHOOTING GUIDE (CONTINUED)

PROBLEM/SYMPTOM	SOLUTION(S)
Yellow LED lights but nurse call does not activate.	A. Check headwall IFC (p/n 3000–303–933) (see page 199 for board location). Verify relay 7 on board is working (disconnect Docker cable from bed). Place an ohmmeter across pins 13 and 25 of DB37 pin connector and actuate relay (press nurse call switch in siderail). Check for +12 VDC at connector P6, pin 1 on board. Check for +5 VDC at connector P5, pin 11 on board. If voltage is not present, replace headwall IFC board.

NOTE

Before proceeding, check Docker cable visually for proper connection and/or external damage. Ensure Docker cable is compatible with Nurse Call system being utilized. Check +5 VDC called out at various points in the troubleshooting by using digital ground as a reference point (negative side of C18 on CPU litter board). Digital ground reference may also be used at headwall IFC board connector P1, pin 7. Prior to replacing any boards, ensure applicable cables and connections are intact (visually and mechanically).

Ensure Nurse Call (vendor) system supports a Nurse Call response light. With Docker cable disconnected from bed, apply DC voltage in the range of 5–30 VDC to pins 16 (+) and 28 (ground reference) of DB37 headwall cable jack. The signal will simulate a Nurse Call answer signal from the nurse call system being utilized. Observe whether both of the red LED's light. Isolate the problem to an individual siderail and then to an individual board module. If bed is equipped with optional pendant, remove pendant from bed. If problems are isolated to the pendant, replace the pendant.

With power removed from the bed, verify nurse can communicate through speakers in siderails. If nurse cannot communicate, through speakers in siderail, check 9 VDC battery. Replace battery, if necessary (p/n 3000–303–851). If battery is O.K. and nurse call only operates when power is applied to the bed, replace headwall IFC board (p/n 3000–303–933).

PROBLEM/SYMPTOM	SOLUTION(S)
Nurse Answer light (red LED) does not light when nurse responds to nurse call.	A. Check for +5 VDC at the following locations: 1.) Left inside nurse call board (p/n 3000–403–921), connector J1, pin 1. 2.) Right inside nurse call board (p/n 3000–403–905), connector J1, pin 1. If red LED does not light when nurse acknowledges call and +5 VDC is present, then replace that board. Red LED's in siderails should light at the same time. B. Check inside siderail Gatch/Fowler boards (p/n 3000–400–917, left inside & 3000–400–901, right inside) for +5 VDC at connector P1, pin 10 for both boards (see page 200 & 201 for board locations). If voltage is present and red LED does not light, replace board assembly. Note: if a Gatch/Fowler siderail board is defective, all non-motion functions will cease to work in the entire siderail.

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3.10 NURSE CALL TROUBLESHOOTING GUIDE (CONTINUED)

PROBLEM/SYMPTOM	SOLUTION(S)
Nurse Answer light (red LED) does not light when nurse responds to nurse call (continued).	<p>C. If both red siderail LED's do not light, check litter CPU board (p/n 3000–300–941) for +5 VDC at connectors:</p> <p>1.) P10, right siderail, pin 10 (pin 5, +8 VDC, pin 7, digital ground)</p> <p>2.) P11, left siderail, pin 10 (pin 5, +8 VDC, pin 7, digital ground). (See page 199 for board location). If voltage is not present, check fuse F1. If fuse is O.K., and voltage is not present, replace litter CPU board (see page 115).</p> <p>D. Check headwall IFC board p/n 3000–303–933 for +12 VDC at connector P6, pin 11. Replace board, if necessary.</p> <p>E. If nurse is unable to answer through speakers, but can acknowledge call, check speakers with T.V. radio signal. (See troubleshooting section 3.12, page 53, if speakers do not work.)</p>

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3.11 TV/RADIO TROUBLESHOOTING GUIDE

NOTE

Before proceeding, check Docker cable visually for proper connection and/or external damage. Ensure Docker cable is compatible with Nurse Call system being utilized. Check +5 VDC at various points called out in the troubleshooting by using digital ground as a reference point (negative side of C18 on the litter CPU board). Digital ground reference may also be used at headwall IFC board connector P1, pin 7. Prior to replacing any boards, ensure applicable cables and connections are intact (visually and mechanically).

Verify hospital's TV system is compatible with TV/Radio option on bed. Depress each TV/Radio switch one at a time to isolate possible problem. Observe whether any switches are not functioning properly. Isolate the problem to an individual siderail and then to an individual switch board module. If bed is equipped with optional pendant, remove pendant from bed. If problems are isolated to the pendant, replace the pendant.

PROBLEM/SYMPTOM	SOLUTION(S)
TV/Radio does not turn on and/or the channels will not change when switch is pressed.	<p>A. If problem exists in only one siderail, check for +5 VDC at the following locations:</p> <ol style="list-style-type: none">1.) Left TV board (p/n 3000–404–919), connector J1, pin 1.2.) Right TV board (p/n 3000–404–907), connector J1, pin 1. Using a voltmeter, verify TV switch is O.K. If voltage is present and problem still exists, replace boards (see page 200 & 201 for board locations). <p>B. Check inside siderail Gatch/Fowler boards (p/n 3000–400–917, left inside & 3000–400–901, right inside) for +5 VDC at connector P1, pin 10 for both boards. If voltage is present and problem still exists, replace boards. Note: if Gatch/Fowler inner siderail board is defective, all non-motion functions will cease to work in the entire siderail.</p> <p>C. Check headwall IFC (p/n 3000–303–933) for +12 VDC at connector P6, pin 1 on board (see page 199 for board location). Check for +5 VDC at connector P5, pin 11 on board. Replace board, if necessary. With Docker cable disconnected, place an ohmmeter across pins 33 and 34 of DB37 headwall cable jack. These pins are across the corresponding relay (RLY6) contact points. Ohmmeter should measure >1 M ohm normally and <2 ohms when siderail switch is pressed. If relay does not operate correctly, replace headwall IFC board.</p> <p>D. If siderails still cannot control TV/Radio channel, check litter CPU board (p/n 3000–300–941) for +5 VDC at connectors:</p> <ol style="list-style-type: none">1.) P10 right siderail, pin 10 (pin 5, +8 VDC, pin 7, digital ground).2.) P11 left siderail, pin 10 (pin 5, +8 VDC, pin 7, digital ground). (See page 199 for board location). If voltage is not present, check fuse F1. If fuse is O.K. and voltage is not present, replace litter CPU board (see page 115).

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3.12 VOLUME CONTROL TROUBLESHOOTING GUIDE

NOTE

Before proceeding, check Docker cable visually for proper connection and/or external damage. Ensure Docker cable is compatible with Nurse Call system being utilized. Check +5 VDC at various points called out in the troubleshooting by using digital ground as a reference point (negative side of C18 on the litter CPU board). Digital ground reference may also be used at headwall IFC board connector P1, pin 7. Prior to replacing any boards, ensure applicable cables and connections are intact (visually and mechanically).

Depress each volume switch one at a time to isolate possible problem. Observe whether any switches are not functioning properly. Isolate the problem to an individual siderail and then to an individual switch board module. If bed is equipped with optional pendant, remove pendant from bed. If problems are isolated to the pendant, replace the pendant.

PROBLEM/SYMPTOM	SOLUTION(S)
Volume control does not work when switches are depressed.	<p>A. Check if problem exists in only one siderail. Check for +5 VDC at the following locations: (see page 200 & 201 for board locations)</p> <ol style="list-style-type: none">1.) Left TV keyboard (p/n 3000–404–923), connector J1, pin 1.2.) Right TV keyboard (p/n 3000–404–907), connector J1, pin 1. <p>Using a voltmeter, verify volume switches are O.K. If voltage is present and switches are not O.K., replace keyboards.</p> <p>B. Check inside siderail Gatch/Fowler boards (p/n 3000–400–917, left inside & 3000–400–901, right inside) for +5 VDC at connector P1, pin 10 for both boards. If voltage is present and problem still exists, replace boards. Note: if Gatch/Fowler inner siderail board is defective, all non-motion functions will cease to work in the entire siderail.</p> <p>C. Check headwall IFC (p/n 3000–303–933) for +12 VDC at connector P6, pin 1 (see page 199 for board location). Check for +5 VDC at connector P5, pin 11. If voltage is not present, replace headwall IFC board. Apply +5 VDC to DB37 pin connector (Docker cable jack).</p> <ol style="list-style-type: none">1.) +5 VDC to pin 15, Pot High Comm.2.) Negative (ground reference) of supply to pin 14, Pot Low Comm. Using a voltmeter, monitor pin 23 (Pot Wiper), using pin 25 as a reference point. While the Volume Up switch is pressed, voltage on voltmeter should increase. While the Volume Down switch is pressed, voltage on voltmeter should decrease. The voltage should increase and decrease in a total of 16 incremental steps (16 steps total range). If the voltage does not increase and decrease properly, replace headwall IFC board.

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3.13 ROOM/READ LIGHT CONTROL TROUBLESHOOTING GUIDE

NOTE

Before proceeding, check Docker cable visually for proper connection and/or external damage. Ensure Docker cable is compatible with Nurse Call system being utilized. Check +5 VDC at various points called out in the troubleshooting by using digital ground as a reference point (negative side of C18 on the litter CPU board). Digital ground reference may also be used at headwall IFC board connector P1, pin 7. Prior to replacing any boards, ensure applicable cables and connections are intact (visually and mechanically).

Depress each room/read light switch one at a time to isolate possible problem. Observe whether any switches are not functioning properly. Isolate the problem to an individual siderail and then to an individual switch board module. If bed is equipped with optional pendant, remove pendant from bed. If problems are isolated to the pendant, replace the pendant.

PROBLEM/SYMPTOM	SOLUTION(S)
Room/Read lights do not turn on/off when switches are pressed.	<p>A. Check for +5 VDC at the following locations:</p> <ol style="list-style-type: none">1.) Left siderail light keyboard (p/n 3000–406–925), connector J1, pin 1.2.) Right siderail light keyboard (p/n 3000–406–909), connector J1, pin 1. <p>Using a voltmeter, verify switches are O.K. If voltage is present and switches are not O.K., replace keyboard (see page 200–201 for board locations).</p> <p>B. Check inside siderail Gatch/Fowler boards (p/n 3000–400–917, left inside & 3000–400–901, right inside) for +5 VDC at connector P1, pin 10 for both boards. If voltage is present and problem still exists, replace boards. Note: if Gatch/Fowler inner siderail board is defective, all non-motion functions will cease to work in the entire siderail.</p> <p>C. Check headwall IFC (p/n 3000–303–933) for +12 VDC at connector P6, pin 1. If voltage is not present, replace headwall IFC board (see page 199 for board location). Place an ohmmeter across the following pins of DB37 pin connector to check for relay actuation:</p> <ol style="list-style-type: none">1.) Room – pin 27 – light common pin 21 – room light2.) Read – pin 27 – light common pin 21 – room light <p>These pins are across the corresponding relay contact points. Ohmmeter should measure >1 M ohm normally and <2 ohms when siderail light switches are pressed. If relays do not operate correctly, replace headwall IFC board.</p> <p>D. If lights are still uncontrollable, check litter CPU board (p/n 3000–300–941) for voltages at following connectors: (use pin 7 as digital ground reference)</p> <ol style="list-style-type: none">1.) P10 right siderail, pin 10 — +5 VDC pin 5 — +8 VDC2.) P11 left siderail, pin 10 — +5 VDC pin 5 — +8 VDC <p>If voltage is not present, check fuse F1. If fuse is O.K. and voltage is not present, replace litter CPU board (see page 115).</p>

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3.14 BED EXIT SYSTEM TROUBLESHOOTING GUIDE – OPTIONAL EQUIPMENT

NOTE

Before proceeding, ensure the foot board is properly installed and electrical connections are made. Prior to replacing any circuit boards, ensure applicable cables and connections are intact (visually and mechanically). To check for +5 VDC at various points called out in the troubleshooting, use digital ground as a reference point (negative side of C18 on CPU litter board). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

WARNING

Adding or removing objects from the bed after arming the Bed Exit system may cause a reduction in the sensitivity of the Bed Exit system.

PROBLEM/SYMPTOM	SOLUTION(S)
Bed Exit does not activate and lights do not illuminate.	A. Check Bed Exit keyboard (p/n 3000–508–945) for +5 VDC at connector P1, pin 10 (see page 202 for board location). Use pin 6 as a ref. point. If voltage is present, verify switches and LED's are O.K. Replace keyboard as needed.
Bed Exit does not alarm when patient leaves bed. <u>Without Scales Option</u>	A. Remove weight from bed and re–zero Bed Exit by pressing and holding the Disarm switch for 5 seconds. The armed light will begin to flash. Release the Disarm switch and do not touch the bed until the Armed light stops flashing. Placing a weight on the bed, arming Bed Exit and then removing the weight should cause Bed Exit to activate. If it does not, refer to step C.
<u>With Scales Option</u>	B. Remove weight from bed and re–zero scales. If unable to re–zero scales, place scales in diagnostic mode, check individual load cells (see pages 112 & 113). Replace defective load cells (see p. 114). C. Replace the following boards (if required) in sequential order after verifying interconnecting cables and locations. The listed voltages may be checked using a voltmeter. If voltages are not present, replace applicable board. 1.) Serial/Menu IFC Board (p/n 3000–507–957): Connector P4, pin 7, +12 VDC (reference point, pin 6). Connector P1, pin 10, +5 VDC (ref. point pin 6). 2.) Serial IFC Board (p/n 3000–300–965): Connector P5, pin1, +8 VDC (ref. point pin 4). 3.) Weigh CPU Board (p/n 3000–307–959): Connector JP1, pin 5, +5 VDC (ref. point pin 4). Connector JP1, pin 8, +12 VDC (ref. point pin 4). (See page 115 for weigh CPU replacement). 4.) Litter CPU Board (p/n 3000–300–941): Connector P12, pin1, +8 VDC (ref. point pin 4). (See page 115 for litter CPU replacement).

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3.14 BED EXIT SYSTEM TROUBLESHOOTING GUIDE (CONTINUED) – OPTIONAL EQUIPMENT

PROBLEM/SYMPTOM	SOLUTION(S)
Bed Exit lights indicate activation but local beeper does not sound.	<p>A. Check Bed Exit keyboard (p/n 3000–508–945). for +5 VDC at connector P1, pin 10 (see page 202 for board location). Use pin 6 as a reference point. If voltage is present, verify switches and LED's are not defective. Replace keyboard, if necessary.</p> <p>B. Replace the following boards (if required) in sequential order after verifying interconnecting cables and connections. The listed voltages may be checked using a voltmeter. If voltages are not present, replace applicable board.</p> <p>1.) Serial IFC Board (p/n 3000–300–965): Connector P5, pin1, +8 VDC (ref. point pin 4).</p> <p>2.) Litter CPU Board (p/n 3000–300–941): Connector P12, pin1, +8 VDC (ref. point pin 4). (See page 115 for litter CPU replacement).</p> <p>C. Check beeper (buzzer) located in headwall interface box. If +12 VDC is present at beeper (connector P6, pin 1), replace beeper (p/n 3000–508–933). Use connector P1, pin 9 as a reference point for relay ground (headwall IFC p/n 3000–303–933 – see page 202 for board location).</p>
Bed Exit arms, then disarms itself.	Check connections at serial IFC board (p/n 3000–300–965). (see page 199 for board location).

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3.15 WEIGH SYSTEM TROUBLESHOOTING GUIDE – OPTIONAL EQUIPMENT

NOTE

Before proceeding, ensure the foot board is properly installed and electrical connections are made. Prior to replacing any circuit boards, ensure applicable cables and connections are intact (visually and mechanically). To check for +5 VDC at various points called out in the troubleshooting, use digital ground as a reference point (negative side of C18 on litter CPU board). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

PROBLEM/SYMPTOM	SOLUTION(S)
Weigh system display will not turn on.	<p>A. Check scale power supply board (p/n 3000–307–953) at connector JP1 for +12 VDC at pin1 using pin 2 as a reference point (see page 199 for board location). If voltage is present, check for 110 VAC into connector J1/J2 and fuse F3. If 110 VAC is present, and fuse is O.K., replace scale power supply board.</p> <p>B. Check scale keyboard (p/n 3000–507–949). Using a voltmeter, verify switches are not defective. If switches are O.K., check for +5 VDC at connector P1, pin 10. Replace switches as necessary (see page 202 for board location).</p> <p>C. Check cables and connections for the following board assemblies. Examine and replace any blown fuses.</p> <ol style="list-style-type: none"> 1.) Scale CPU (p/n 3000–307–959). 2.) Scale/Menu IFC board (p/n 3000–507–957). 3.) Serial IFC Board (p/n 3000–300–965). If cables and connections are O.K., replace board assemblies in the order listed. (see page 199 & 202 for board locations).
Weigh system turns on, back light does not.	<p>A. Check display at red and black wires, cable 2, for 100 VAC at 400 Hz. Do not measure using scale ground as reference. If voltage is present and display will not light, replace scale display (p/n 3000–507–837). (see page 202 for location). If voltage is not present, check scale/menu IFC assembly (p/n 3000–507–957) at connector P4, pin 7 for +12 VDC. If voltage is present, replace scale/menu IFC (see page 202 for location).</p>
Weigh system not weighing accurately.	<p>A. See Weigh System Diagnostics (page 112 & 113).</p> <ol style="list-style-type: none"> 1.) Check each load cell. 2.) Re-calibrate weigh system. <p>Replace load cells as needed (see page 114).</p> <p>B. Check cables and connections to scale CPU board assembly. If cables and connections are O.K., replace scale CPU board p/n 3000–307–959 (see page 115).</p>

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3.15 WEIGH SYSTEM TROUBLESHOOTING GUIDE (CONTINUED) – OPTIONAL EQUIPMENT

PROBLEM/SYMPTOM	SOLUTION(S)
The following functions do not work individually while all other functions work: Zero, Delta Change, LBS/KGS Conversion, – Decrease Weight Displayed, + Increase Weight Displayed, Diagnostics.	<p>A. Check cables and connections to scale keyboard (p/n 3000–507–943) and scale CPU board (p/n 3000–307–959). If cables and connections are O.K., replace scale keyboard then weigh CPU board (see page 115 for weigh CPU replacement).</p> <p>B. Check scale IFC (p/n 3000–507–957) and serial IFC board (p/n 3000–300–965). If cables and connections are O.K., replace scale IFC then serial IFC board (see page 199 & 202 for board locations).</p> <p>C. Check and verify individual load cells and their cables/connections (see scale diagnostics p. 112 & 113). Replace as needed (see page 114).</p>

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3.16 DYNAMIC MATTRESS SYSTEM TROUBLESHOOTING GUIDE – OPTIONAL EQUIPMENT

NOTE

Before proceeding, ensure the foot board is properly installed and electrical connections are made. Prior to replacing any circuit boards, ensure applicable cables and connections are intact (visually and mechanically). To check for +5 VDC at various points called out in the troubleshooting, use digital ground as a reference point (negative side of C18 on litter CPU board). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

PROBLEM/SYMPTOM	SOLUTION(S)
DMS does not work when power is switched on. (Manual LED in foot board and/or siderails does not light when DMS is switched on.)	<p>A. Check for 24 VDC at DMS Port between pins 1, 6–7 (positive) & pins 3,8 &12 (negative). Pins of same polarity are tied together in parallel. (See page 211 for DMS Port location.) Check DMS power supply board (p/n 3000–302–939) for 24 VDC output at J3. If output of board is O.K. and 24 VDC is not present at DMS Port, replace DMS port cable (p/n 3000–302–819).</p> <p>B. Verify 24 VDC output of DMS power supply board (p/n 3000–302–939) at connector J3, pin 2 using pin 1 as a reference point (see page 199 for board location). Check DMS power supply board fuses F1 and F2. If fuses are not O.K., replace as needed. If 24 VDC still is not present, check 110 VAC into board (J1/J2). If 110 VAC is present and 24 VDC output is not present, replace DMS power supply board.</p> <p>C. If mattress runs momentarily when bed is initially plugged in, check switches and LED's in foot board DMS module. Using a voltmeter, check switches and LED's in siderail module boards for +5 VDC at connector J1, pin 1 for both board modules (see pages 200 & 201 for board locations). If voltage is present and problem still exists, replace board(s). (Right DMS module board p/n 3000–402–903, Left DMS module board p/n 3000–402–909).</p> <p>OPEN ZIPPER ON MATTRESS</p> <p>D. Check cable into mattress and connections in control unit. Replace cable or control unit, if necessary.</p> <p>E. Check for 24 VDC at power supply connector JP6, pin 1 in mattress (see DMS 2500 maintenance manual). Use pin 2 as reference point.</p> <p>F. Check connections from P2 of serial IFC board, through foot board IFC board (p/n 3000–500–955) and then to foot board DMS module. Replace cable and board assemblies, if necessary.</p>

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3.16 DYNAMIC MATTRESS SYSTEM TROUBLESHOOTING GUIDE – OPTIONAL EQUIPMENT (CONTINUED)

DMS does not work when power is switched on. (Manual LED in foot board and/or siderails does not light when DMS is switched on.) (Continued)	<p>G. Check litter CPU board (p/n 3000–300–941) and verify connection to serial IFC board. Using an oscilloscope, look for periodic signal at DMS port (pins 4–5, 10–11). Signals at this port use DMS power supply negative pin (connector J3, pin 1) as reference, not litter CPU digital ground. Signal from litter CPU passes through serial IFC cable and board (p/n 3000–300–840 & 3000–300–965). If cables and connections are O.K., and correct signal is not there, replace litter CPU (see page 115).</p>
DMS Air Loss LED comes on (located on foot-board).	<p>A. Check air connections between bladder and control unit inside mattress.</p> <p>B. Check for leak in bladder. Replace bladder or control unit, if necessary.</p> <p>C. If air loss is apparent and Air Loss LED does not light after 30 minutes of continuous pump operation, use a voltmeter to check LED in foot board module (p/n 3000–502–951). Note: Moderate air loss may not cause yellow LED to light. Pump operation must have been continuous. Check for +5 VDC at connector P1, pin 3 on DMS foot board module (see page 202 for board location). If voltage is present and problem still exists, replace foot board DMS board (p/n 3000–502–951).</p>
Cannot adjust Firm or Soft but otherwise system functions properly.	<p>A. Verify unit is operating in manual mode.</p> <p>B. Using a voltmeter, check switches and LED's in siderail module boards for +5 VDC at connector J1, pin 1 for both modules (see pages 200 & 201 for board locations). If voltage is present and problem still exists, replace board(s) as necessary (right DMS module board p/n 3000–402–903, left DMS module board p/n 3000–402–919).</p>
Cannot switch from Auto to Manual and/or Manual to Auto mode but otherwise system functions properly.	<p>A. Using a voltmeter, check switches and LED's in siderail module boards and foot board module board (right DMS module board p/n 3000–402–903, left DMS module board p/n 3000–402–919, foot board DMS module p/n 3000–502–951) for +5 VDC at connector J1, pin 1 for both siderail boards and at connector P1, pin 3 for the foot board module, using pin 6 as a reference point. If voltage is present and problem still exists, replace board(s).</p> <p>B. Check connections and signals from P12 of CPU board through DMS footboard module. Refer to section G above for voltage ground reference points. Replace board and cable assemblies, if necessary.</p>

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3.17 POWER INDICATOR TROUBLESHOOTING GUIDE

NOTE

Before replacing any circuit boards, ensure applicable cables and connections are intact (visually and mechanically). To check for +5 VDC at various points called out in the troubleshooting, use digital ground as a reference point (negative side of C18 on CPU litter board). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

PROBLEM/SYMPTOM	SOLUTION(S)
Power indicator light does not light when bed power cord is plugged into the wall socket.	<p>A. If all other functions on the bed are operating correctly, check foot board keyboard (p/n 3000–500–943). If all other functions on foot board keyboard operate properly, replace keyboard (see page 202 for board location). If other functions are not operating properly, check for +5 VDC at connector P1, pin 6. If voltage is present and LED 6 does not light, replace keyboard.</p> <p>B. If voltage is not present, check foot board IFC (p/n 3000–500–955) for +5 VDC at connector P1, pin 3 (see page 202 for board location). If voltage is not present, check for +8 VDC at connector P3, pin 5. If voltage is present and problem still exists, replace foot board IFC.</p> <p>C. If +8 VDC is not present, check litter CPU board (p/n 3000–300–941) at connector P9, pin 5 for +8 VDC. If voltage is not present, check fuse F1. If fuse is O.K., check connector P1, pin 10 for 110 VAC. If voltage is not present, replace litter CPU board (see page 115).</p> <p>D. If 110 VAC is not present, check power junction board (p/n 3000–300–961) at connector P1, pin 1 (see page 199 for board location). If voltage is not present, check fuse F1. If fuse is O.K., check for 110 VAC at connector J1, pin 2 (hot). Replace fuse and/or power junction board, if necessary.</p>

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3.18 BRAKE NOT SET INDICATOR TROUBLESHOOTING GUIDE

NOTE

Before replacing any circuit boards, ensure applicable cables and connections are intact (visually and mechanically). To check for +5 VDC at various points called out in the troubleshooting, use digital ground as a reference point (negative side of C18 on CPU litter board). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

If brakes engage at one end of the bed only, push down on the brake pedal twice to engage and disengage the brakes. This will reset the brake mechanism. Pressing down once on the pedal should now set the brakes at both ends of the bed.

PROBLEM/SYMPTOM	SOLUTION(S)
BRAKE NOT SET light does not flash when brakes are not set (siderail and foot board indicators).	<p>A. If all Brake Not Set indicators do not flash, use a voltmeter to check brake switch (p/n 3000–300–58). Replace switch, if necessary.</p> <p>B. If switch is O.K., check adjustment of mounting bracket. When brake is not set, switch plunger should clear brake bar. When brake is set, brake bar should move down causing switch plunger to actuate. If this does not happen, adjust switch mounting bracket (with brake set) up slowly until switch actuates. To ensure consistent actuations, bend bracket up an additional 1/8" of switch plunger travel. Engage and disengage the brakes several times. Visually check that switch plunger clears brake bar by approximately 1/4" when brake is not set. If Brake Not Set indicator does not stop flashing when brake is set, check switch bracket and repeat step B. Prior to adjustment, the switch bracket may need to be bent down.</p> <p>C. If brake switch and bracket are O.K. check for +5 VDC to switch. If voltage is present and Brake Not Set indicator still doesn't flash, engage and disengage the brakes and monitor connector P13, pin 8 on litter CPU board (see page 199 for board location). If +5 VDC doesn't cycle on and off with brakes, check cable and connections from switch to litter CPU board. Replace as needed. If voltage at connector P13, pin 8 does cycle with brake pedal actuations and Brake Not Set light doesn't flash when brakes are not set, replace litter CPU board. If voltage isn't present to brake switch, check litter CPU board for +5 VDC at connector P13, pin 7. If voltage isn't present, check fuse F1 and replace, if necessary. If fuse is O.K., check for 110 VAC at connector P1, pin 10. If voltage is present, replace litter CPU board (page 115).</p> <p>D. If 110 VAC is not present, check power junction board (p/n 3000–300–961) at connector P1, pin 1 for 110 VAC. If voltage is not present, check fuse F1. If fuse is O.K., check connector J1, pin 2 (hot) for 110 VAC input into board. Replace fuse or power junction board, if necessary.</p>

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3.18 BRAKE NOT SET INDICATOR TROUBLESHOOTING GUIDE (CONTINUED)

PROBLEM/SYMPTOM	SOLUTION(S)
One or two BRAKE NOT SET indicators not flashing when brake is not set.	<p>A. Check for +5 VDC at following boards, connector J1, pin1: Gatch/Fowler, right, outer siderail (p/n 3000–409–913) Gatch/Fowler, left, outer siderail (p/n 3000–409–913) If voltage is present, replace the board where the indicator is not flashing. If voltage is not present, check litter CPU board (p/n 3000–300–941) as outlined in step C on page 63.</p> <p>B. Check foot board keyboard (p/n 3000–500–943) for +5 VDC at connector P1, pin 6. If voltage is present and LED 8 does not flash, replace keyboard (see page 202 for board location).</p> <p>C. If voltage is not present, check foot board IFC (p/n 3000–500–955) for +5 VDC at connector P1, pin 3. If voltage is not present, check for +8 VDC at connector P3, pin 5. If voltage is present and problem still exists, replace foot board IFC (see page 202 for board location).</p> <p>D. If +8 VDC is not present, check litter CPU board (p/n 3000–300–941) as outlined in step C on page 63. Replace, if necessary (see page 115).</p>

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3.19 NIGHT LIGHT TROUBLESHOOTING GUIDE

NOTE

Before replacing any circuit boards, ensure applicable cables and connections are intact (visually and mechanically). When measuring 110 VAC at any point, use only the neutral (white) side of the power line as a reference point. DO NOT use digital ground as a reference point when measuring 110 VAC.

PROBLEM/SYMPTOM	SOLUTION(S)
Night Light does not light, either bright or dim, when switched on.	<p>A. Remove unlit lamp(s). Check continuity of lamps with multimeter. If lamp(s) appear to be O.K., replace lamp(s) in socket(s). Replace defective lamps as necessary.</p> <p>B. If lamp(s) appear to be O.K., use a voltmeter to check night light board (p/n 3000–310–937) at connector P1 for the following voltages, using pin 1 as a reference: pin 2 12 VAC pin 3 24 VAC (See page 199 for board location). If voltages are not present, check fuse F3 and replace, if necessary. If fuse is O.K., check connector J1 for 110 VAC, pin 1 neutral and pin 2 hot. If voltage is present at connector J1, fuse F3 is not O.K. and output voltages are not present at connector P1, replace night light board.</p> <p>C. If 110 VAC is not present at connector J1, check the following boards and connections for 110 VAC path: 1.) DMS power supply (p/n 3000–302–939) – JP2, pin 1 neutral, pin 2 hot 2.) DMS power supply (p/n 3000–302–939) – JP1, pin 1 neutral, pin 2 hot 3.) scale power supply (p/n 3000–307–953) – J2, pin 1 neutral, pin 2 hot 4.) scale power supply (p/n 3000–307–953) – J1, pin 1 neutral, pin 2 hot 5.) litter CPU board (p/n 3000–300–941) – J3, pin 1 neutral, pin 2 hot 6.) litter CPU board (p/n 3000–300–941) – P1, pin 1 neutral, pin 2 hot 7.) power junction board (p/n 3000–300–961) – P1, pin 9 neutral, pin 8 hot, fuse F2 8.) power junction board (p/n 3000–300–961) – J1, pin 1 neutral, pin 2 hot. (See page 199 for board locations). Replace boards as necessary.</p>

Chapter Three – Troubleshooting Guides

3.20 110 VOLT OPTION RECEPTACLE TROUBLESHOOTING GUIDE

NOTE

Unplug all items from wall receptacle. Visually inspect contacts for any damage or foreign objects. Visually check indicator light on the face of the receptacle. If indicator is unlit, Ground Fault Circuit Interrupter (GFCI) has tripped. Pressing the reset button returns GFCI to normal operation (indicator should light). If reset button does not reset 110 VAC, see below troubleshooting.

When measuring 110 VAC at any point, use only neutral (white) side of power line as a reference point. Do not use digital ground as a reference point.

PROBLEM/SYMPTOM	SOLUTION(S)
No power at 110 VAC duplex receptacle (GFCI).	<p>A. Using a voltmeter, measure across contacts. If 110 VAC is not present, check fuse FH1. Replace receptacle and/or fuse as needed.</p> <p>B. If fuse is O.K. and voltage is not present, remove receptacle and inspect connections. Replace cable assembly (p/n 3000–320–842) (see pages 214 & 215 for cable location).</p> <p>C. If 110 VAC is not present at litter CPU board at connector P1, check power junction board (p/n 3000–300–961) at connector P1, pin 1 for 110 VAC (see page 199 for board location). If voltage is not present, check fuse F2. Replace fuse, if necessary. If fuse is O.K., and 110 VAC is not present at connector P1, check connector J1, pin 2 for 110 VAC input from power cord. If 110 VAC is present at connector J1, but not at connector P1, replace power junction board .</p> <p>D. If problem still exists, use a voltmeter to check litter CPU board (p/n 3000–300–941) for 110 VAC at connector P1, pin 2 (neutral) and pin 3 (hot). If 110 VAC voltage is present at connector P1, but not at connector J1, pin 1 (neutral) and pin 2 (hot), replace litter CPU (see page 115).</p>

Chapter Four – Maintenance Procedures – Base

4.1 BASE COVER REMOVAL

UPPER LIFT COVER REMOVAL (UPPER LIFT COVER KIT P/N 3000–200–739)

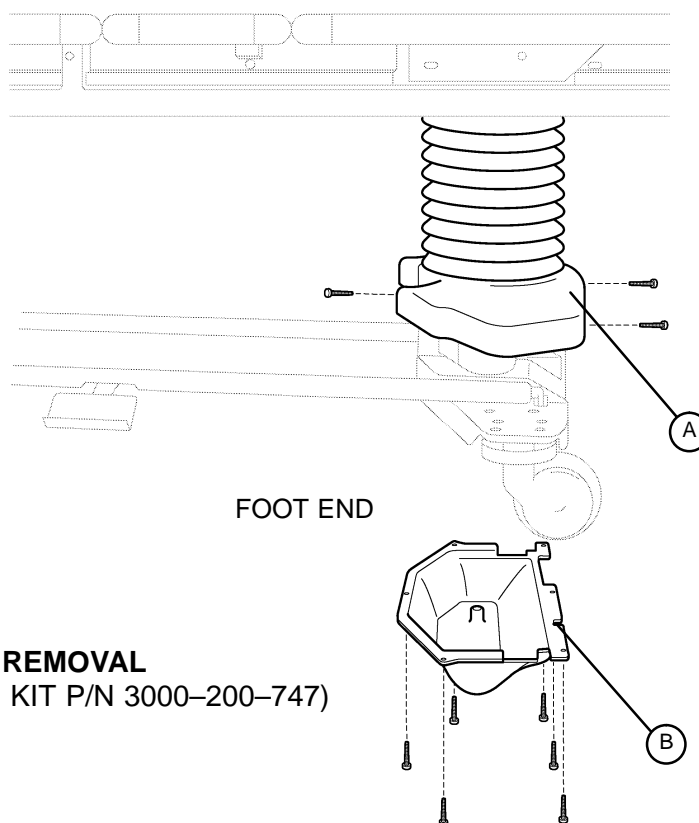
Required Tools:

#2 Phillips Screwdriver

Bungee Cord (or equivalent)

Removal Procedure: (This procedure will take approximately 5 minutes)

1. Unplug the power cord from the wall socket. Using a Phillips screwdriver, remove the 3 screws holding the upper lift cover (A) to the base (as shown in the illustration).
2. Lift up the cover. If desired, hold the cover out of the way by using bungee cords or the equivalent to secure it to the litter top.
3. Reverse the above steps to reattach the cover.



LOWER LIFT COVER REMOVAL (LOWER LIFT COVER KIT P/N 3000–200–747)

Required Tools:

5/16" Socket Wrench

Removal Procedure: (This procedure will take approximately 5 minutes)

1. Unplug the power cord from the wall socket. Using a 5/16" socket, remove the 6 screws holding the lower lift cover (B) to the base (as shown in the illustration).
2. Lower the cover away from the base and set it aside.

WARNING

The lift motor is not grounded and may present electrical hazard. Use caution when working around motors.

3. Reverse the above steps to reattach the cover. Be sure the manual override shaft is aligned with the hole in the lower lift cover.

NOTE

The procedure for removing the lift covers is the same for both ends of the bed.

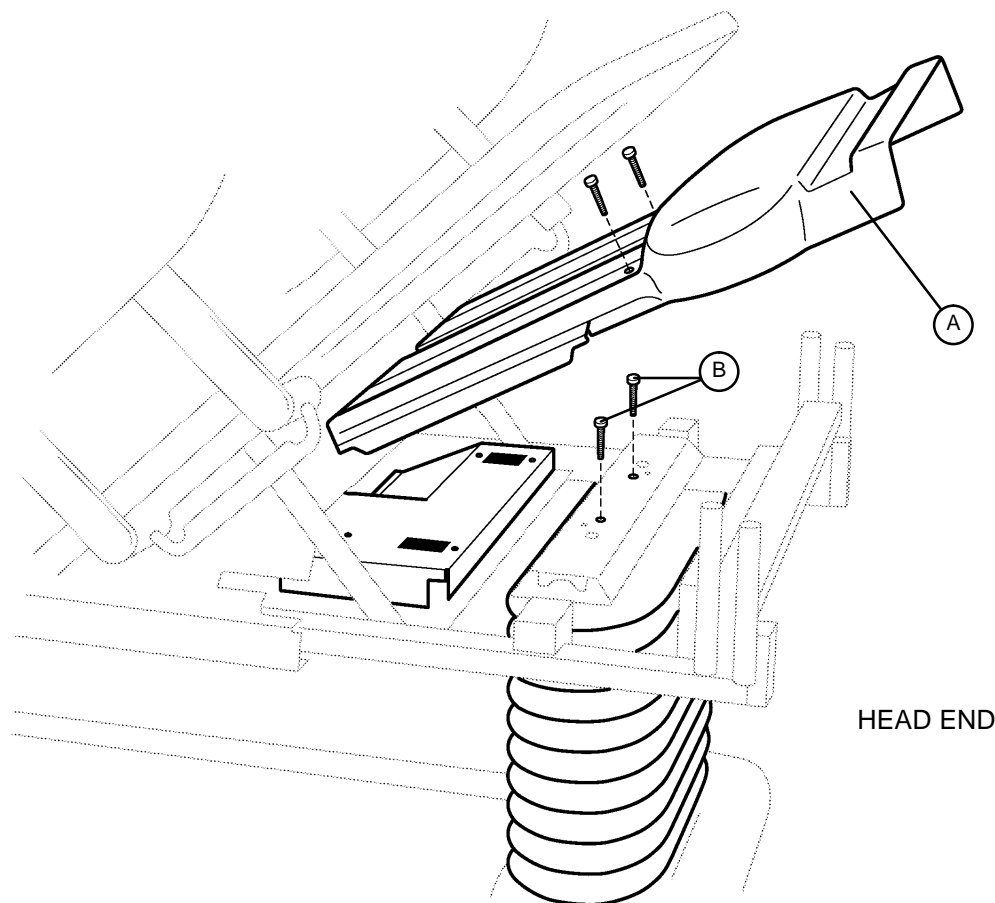
4.1 BASE COVER REMOVAL (CONTINUED)

LOWERING BELLOWS

Required Tools:

5/16" Nut Driver

#2 Phillips Screwdriver



Procedure: (This procedure will take approximately 5 minutes)

1. Unplug the power cord from the wall socket. Remove litter access panel #3 (A) (see page 94).
2. Using a 5/16" nut driver, remove the 2 screws (B) holding the bellows to the litter top (as shown in the illustration).
3. Allow the bellows to drop down.

NOTE

The power and sensor coil cords are secured to the bellows bracket. Pull the cords and guide them through the plastic grommets at the lift header crossbar to allow adequate cord length for proper lowering of the bellows.

4. Reverse the above steps to reattach the bellows and litter access panel.

NOTE

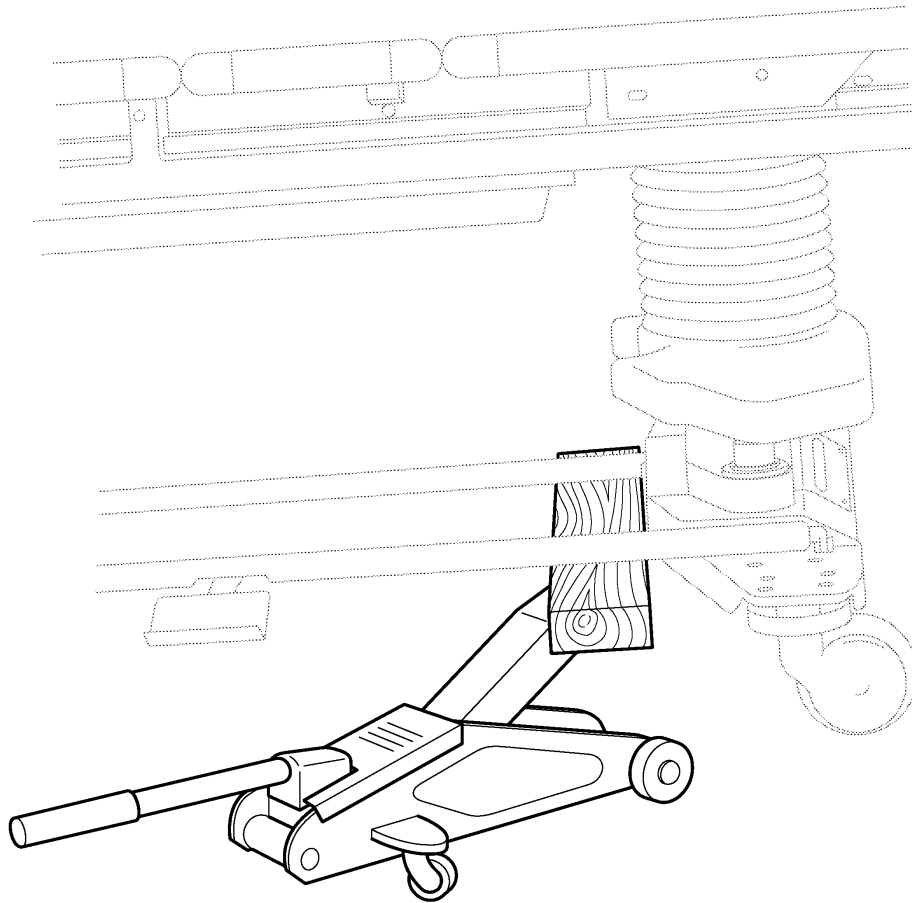
The procedure for lowering the bellows is the same for both ends of the bed except, when lowering the foot end bellows, litter access panel #1 must be removed (see page 93) instead of panel #3.

4.2 BRAKE SYSTEM

BRAKE RING (PAN) ASSEMBLY REMOVAL

Required Tools:

Hydraulic Floor Jack	3/4" Socket Wrench	3/8" Socket Wrench
#2 Phillips Screwdriver	Bungee Cord (or equivalent)	5/16" Socket Wrench
Standard Screwdriver	9/16" Socket Wrench	Needle-Nose Vise Grip Pliers
(2) 10mm Open End Wrenches	7/16" Socket Wrench (w/ext.)	Wooden Brace



Removal Procedure: (This procedure will take approximately 35 minutes)

1. Unplug the power cord from the wall socket. Remove lower lift cover (see page 67).
2. Remove upper lift cover (see page 67).
3. Be sure the bed's brakes are on. With a floor jack, lift the bed using a wooden brace (2x4 or equivalent) on the inside of the base at the base tubes (as shown in the illustration above).

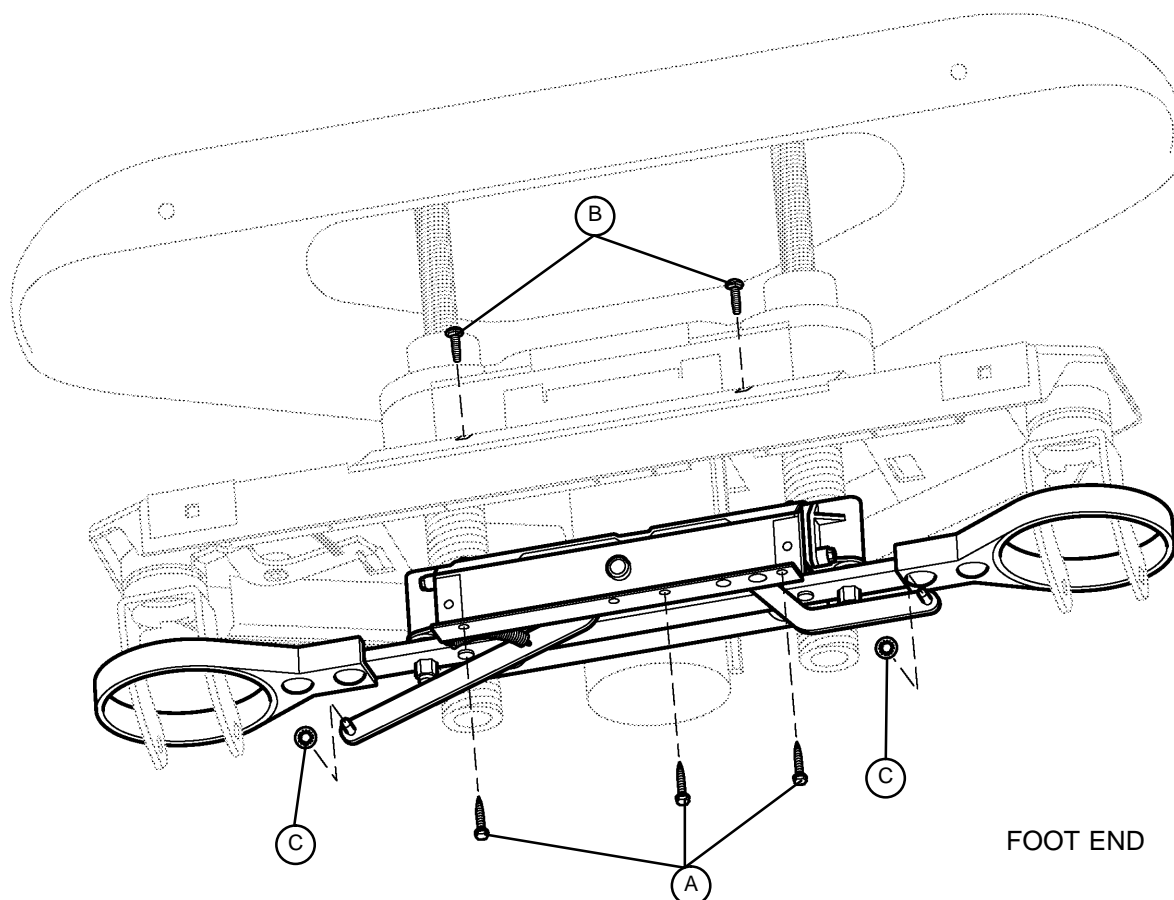
WARNING

The bed could be unstable when it is raised off the floor. Use care while working on the bed or personal injury could result.

4. Using a Phillips screwdriver, remove the caster covers.
5. Using a 3/4" socket, remove the axle nut from both casters at the raised end of the bed.

4.2 BRAKE SYSTEM (CONTINUED)

BRAKE RING (PAN) ASSEMBLY REMOVAL (CONTINUED)



6. Remove the casters from the caster horns by pulling the axle bolt out of the caster horn.
7. Using a 7/16" socket, remove the three screws (A) holding the brake pan on the bottom side of the base.
8. Using a 7/16" socket with an extension, remove the two remaining screws (B) holding the brake pan on the base.
9. Using a screwdriver, pry off the retaining lock rings (C) holding the brake pivot arms to the brake link.
10. Lower the brake pan and ring assembly off the base, being careful not to damage the steer cable (if the head end pan is being removed).
11. Note: This step is necessary only if the brake ring assembly at the head end of the bed is being removed. Using a 9/16" socket wrench, remove the steer pedal. Using two 10 mm open end wrenches, remove the two jam nuts holding the steer cable to the cable retainer. Using a 1/4" nut driver and needle-nose vise grips, loosen and remove the cable retainer. Remove the two cables at the brake sensor switch. (Note the two terminals being used so the cables will be reattached properly.)
12. Reverse the above steps to reattach the brake pan and ring assembly. If the head end pan was removed, adjustment of the steer cable will be necessary (see page 75).

NOTE

For proper re-assembly of the brake ring and pan assembly, reattach all fasteners before securing the pivot arms in place.

To properly secure the pivot arms, grasp both arms together and move them to the right. This will put the cam into the proper position. Carefully install the pivot arm on the right first, then install the left pivot arm.

Chapter Four – Maintenance Procedures – Base

4.2 BRAKE SYSTEM (CONTINUED)

BRAKE PEDAL REPLACEMENT (BRAKE PEDAL KIT P/N 3000–200–737)

Required Tools:

1/4" Hex Allen Wrench

Torque Wrench

Loctite 242

Procedure: (This procedure will take approximately 10 minutes)

1. Unplug the power cord from the wall socket.
2. Using a 1/4" hex allen wrench, remove the two bolts holding the brake pedal to the base and remove the pedal.
3. Attach the new pedal using the bolts removed in step1.

NOTE

Use Loctite 242 when reinstalling the bolts and torque the bolts to 25 to 30 foot-pounds.

BRAKE CAM ASSEMBLY REPLACEMENT (BRAKE CAM KIT P/N 3000–200–733)

Required Tools:

Hydraulic Floor Jack

Phillips Screwdriver

Standard Screwdriver

5/16" Open End Wrench

3/4" Socket Wrench

Bungee Cord (or equivalent)

9/16" Socket Wrench

Needle–Nose Vise Grip Pliers

3/8" Socket Wrench

1/4" Nut Driver

Needle–Nose Pliers

7/16" Socket Wrench (w/ swivel elbow and extension)

Procedure: (This procedure will take approximately 60 minutes)

NOTE

Refer to drawing number 3000–200–350, Foot End Brake Assembly (pages 139 & 140) for part identification.

1. Unplug the power cord from the wall socket.
2. Remove the brake ring (pan) assembly (see page 69 & 70).
3. Using needle–nose pliers, remove the return springs (Y) attached to the brake pan assembly (A).
4. Using a 5/16" open end wrench, remove the two screws and nuts (P and Q) holding each plastic brake guide bushing (N) to the ends of the pan assembly and remove the guides.

NOTE

The flange nuts (Q) do not need to be held with a wrench to loosen the mating screws.

5. Lift the brake ring and bar assembly out of the brake pan assembly.

NOTE

The replacement brake cam will be provided in a kit that will include the brake pan assembly with the attached cam and tension spring.

6. Reverse the above steps to reassemble the brake ring (pan) assembly and to reattach it to the bed.

4.2 BRAKE SYSTEM (CONTINUED)

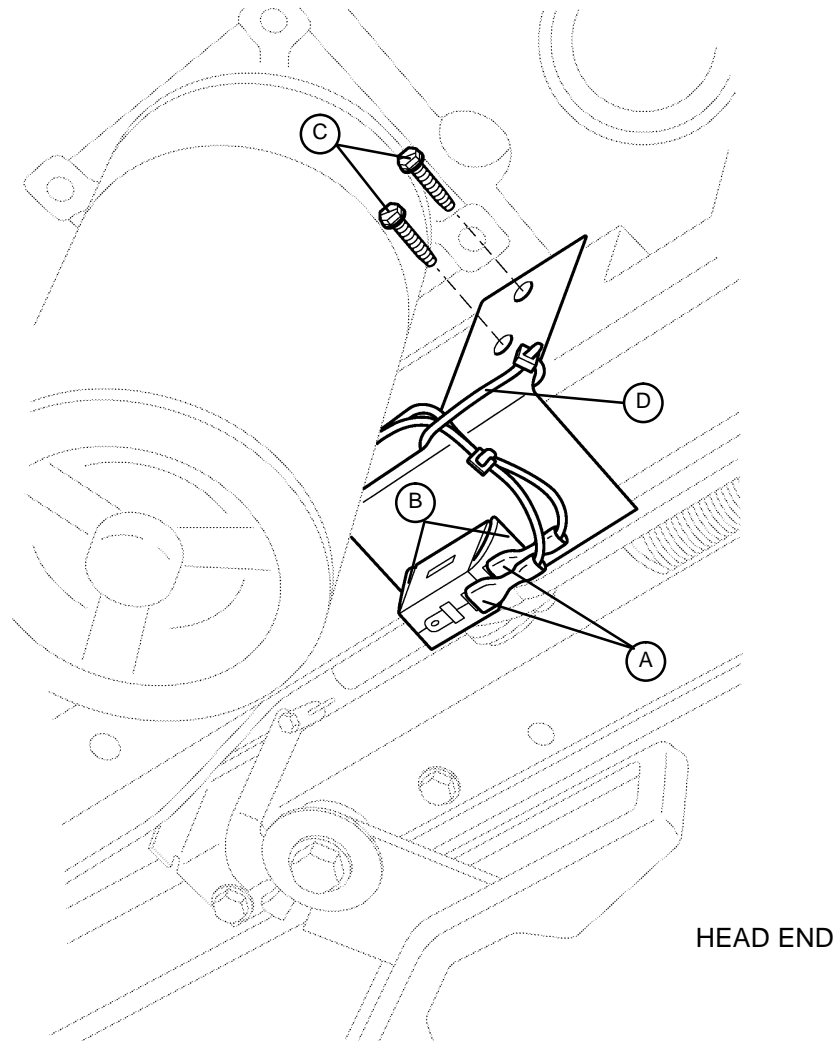
BRAKE SENSOR REPLACEMENT (BRAKE SENSOR SWITCH KIT P/N 3000-200-735)

Required Tools:

5/16" Socket Wrench

Side Cutters

5/16" Open End Wrench



Procedure: (This procedure will take approximately 25 minutes)

1. Unplug the power cord from the wall socket. Remove lower lift cover (see page 67).
2. Remove the two cables (A) from the switch. (Note the terminals where the cables were connected so the cables will be reattached properly.)
3. Squeeze the switch retaining clips (B) and push up on the switch to remove it from the retaining bracket.
4. If the retaining bracket is bent or damaged, remove the two screws (C) and the cable tie (D) holding the bracket to the frame and remove the bracket.
4. Reverse the above steps to install the new bracket and/or switch. Refer to page 63 for switch adjustment, if necessary.

Chapter Four – Maintenance Procedures – Base

4.3 STEER WHEEL CABLE REPLACEMENT AND ADJUSTMENT

(STEER CABLE KIT P/N 3000-200-701)

Required Tools:

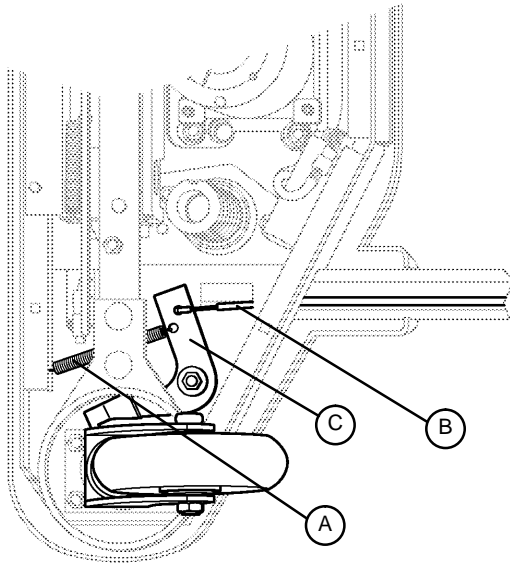
5/16" Socket Wrench

Needle-Nose Vise Grip Pliers

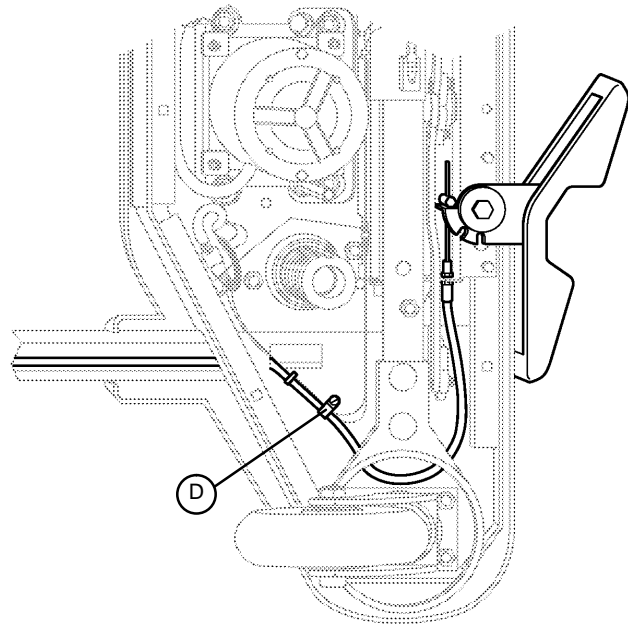
(2) 10mm Open End Wrenches

5/16" Nut Driver

Standard Screwdriver



FOOT END

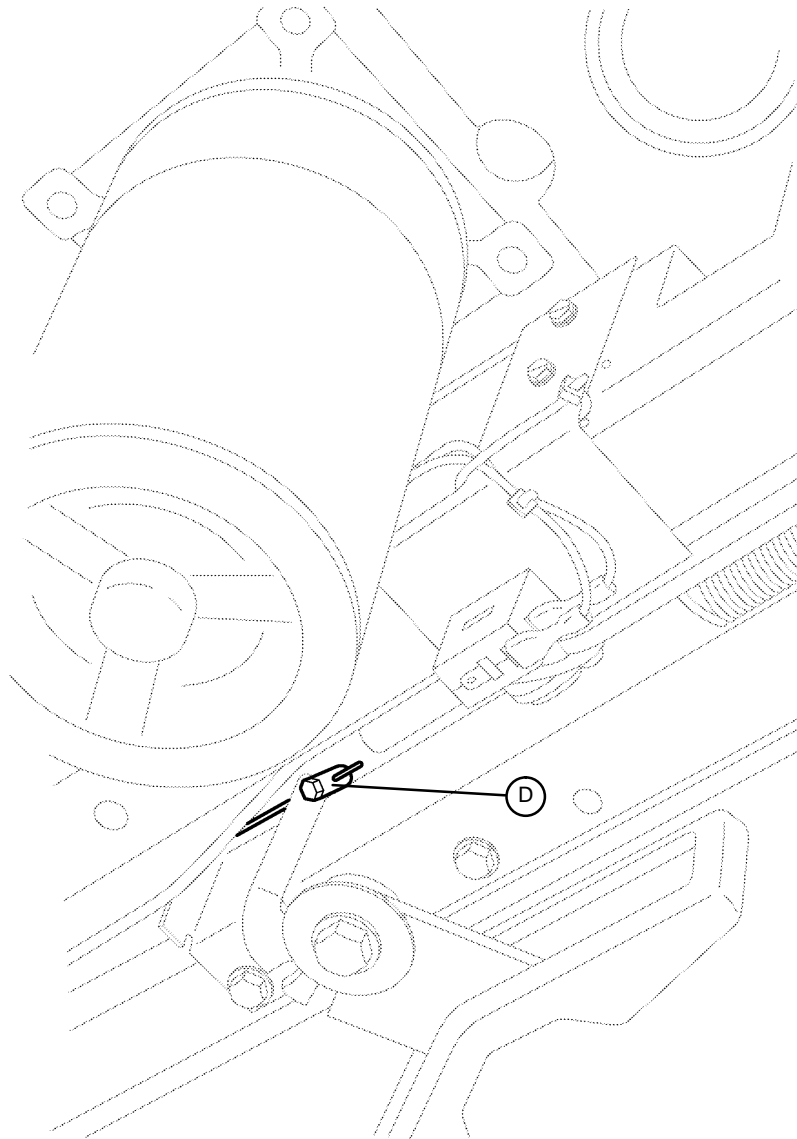


HEAD END

Replacement Procedure: (This procedure will take approximately 45 minutes)

1. Unplug the power cord from the wall socket. Remove lower lift cover (see page 67).
2. Remove spring (A).
3. Remove the steer cable (B) from the steer latch lever (C) at the foot end of the bed.
4. Using two 10mm open end wrenches, remove the two jam nuts securing the cable to the cable support bracket at the head end of the bed on the patient's right side.
5. Using a 5/16" nut driver, remove the cable clamp (D) holding the cable to the base at the head end of the bed.

4.3 STEER WHEEL CABLE REPLACEMENT AND ADJUSTMENT (CONTINUED)



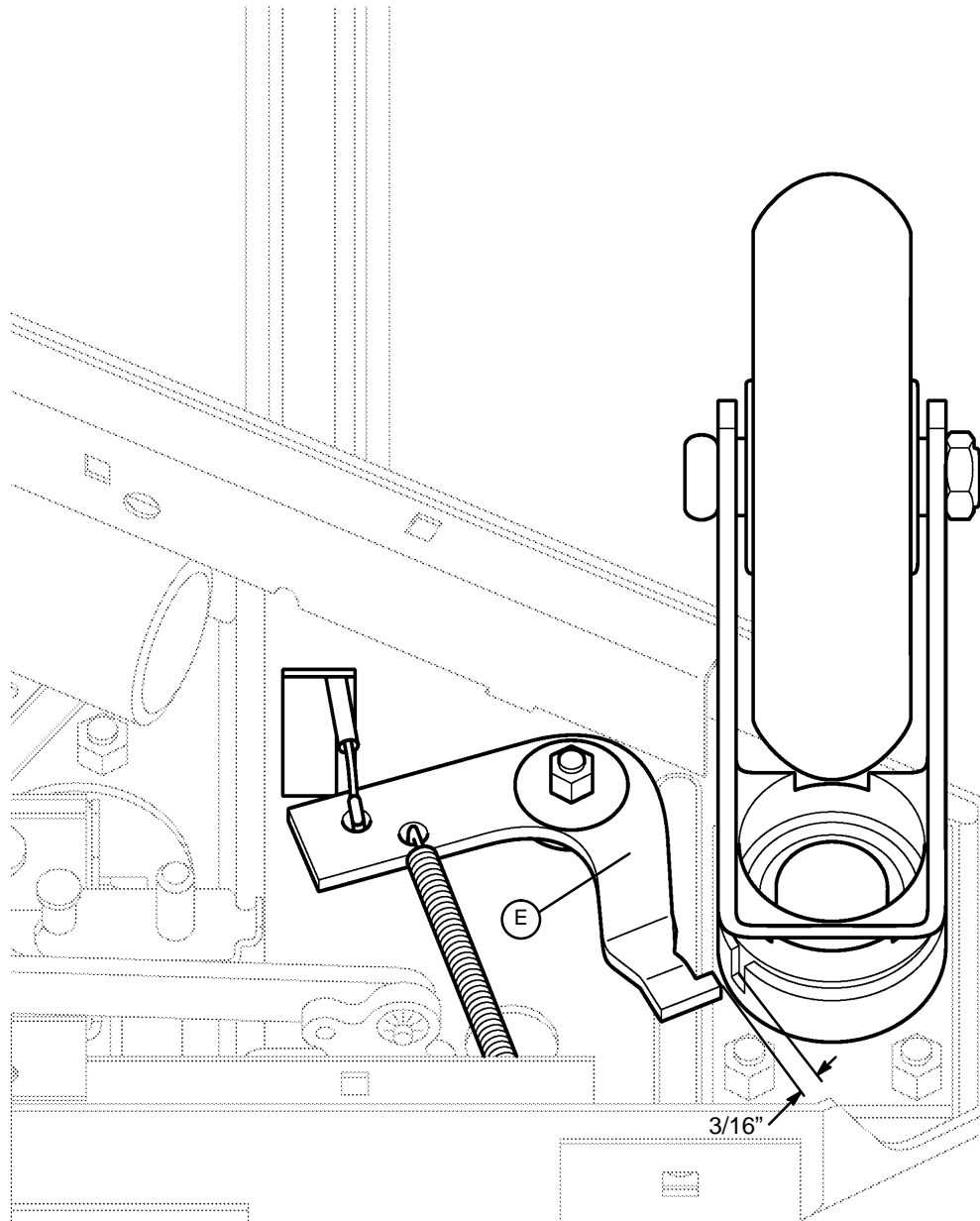
5. Using a 1/4" nut driver and needle-nose vise grip pliers, loosen the bolt head in the cable retainer (D) and slide the retainer off the cable. Pull the cable out of the bed.

NOTE

If the cable sheathing is not damaged, pull the cable from the head end of the bed and remove it from the sheathing, leaving the sheathing on the bed. Push the new cable through the sheathing from the head end.

6. Reverse the above steps to attach the new cable.

4.3 STEER WHEEL CABLE REPLACEMENT AND ADJUSTMENT (CONTINUED)



Adjustment Procedure: (This procedure will take approximately 20 minutes)

If the steer wheel engages when the steer pedal is in the neutral or off position, slide the cable retainer (item (D), page 74) toward the cable support bracket and tighten the retainer back down on the cable.

If the steer wheel does not hold properly when the pedal is in the steer position, slide the retainer away from the cable support bracket and tighten the retainer back down on the cable.

NOTE

The ideal off position for the steer latch lever (E) to the steer wheel is approximately 3/16" between the end of the lever and the caster horn.

Chapter Four – Maintenance Procedures – Base

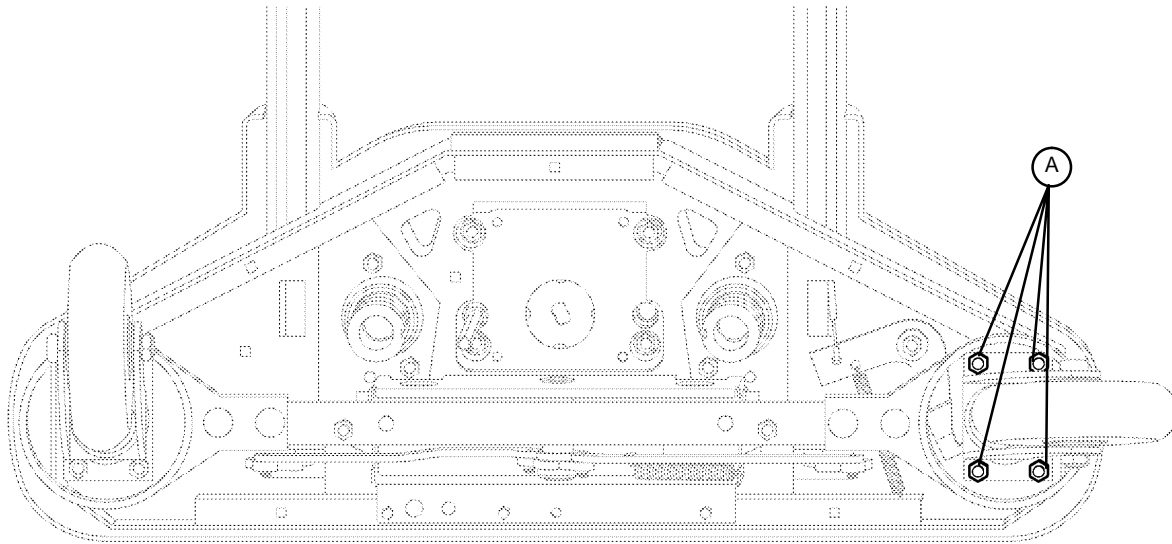
4.4 CASTER REPLACEMENT

Required Tools:

Floor Jack
Bungee Cord (or equivalent)

1/2" Socket w/extension
Wooden Brace

#2 Phillips Screwdriver



FOOT END – BOTTOM VIEW

Replacement Procedure: (This procedure will take approximately 10 minutes)

1. Unplug the power cord from the wall socket. Remove upper lift cover (see page 67).
2. Be sure the bed's brakes are on. Using a floor jack and wooden brace, lift the end of the bed with the defective caster off the floor a few inches. **IMPORTANT:** See page 69 for proper bed lifting procedure.
3. Using a 1/2" socket with extension under the base, remove the four castle nuts (A) holding the caster assembly to the base.
4. Reverse the above procedure to install the replacement caster.

NOTE

The upper lift cover was raised to allow access to the four carriage bolts which need to be held when the four castle nuts are reinstalled.

Chapter Four – Maintenance Procedures – Base

4.5 LIFT MOTOR AND CAPACITOR REMOVAL AND REPLACEMENT

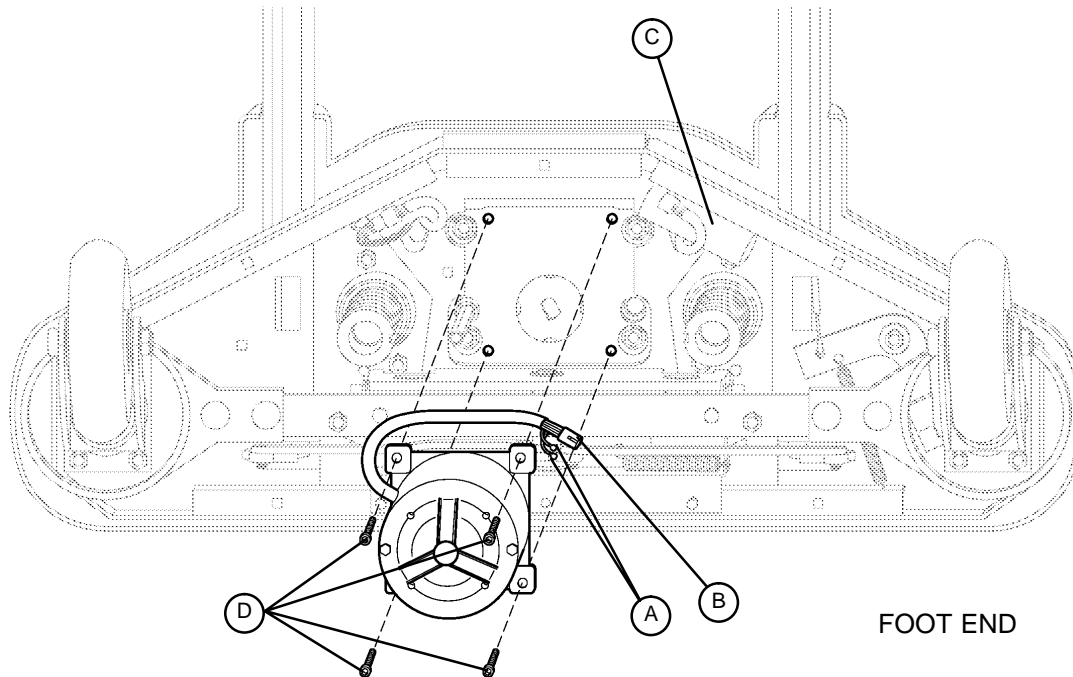
(LIFT MOTOR KIT P/N 3000-200-727, LIFT CAPACITOR KIT P/N 3000-200-745)

Required Tools:

3/16" Hex Allen Socket
7/16" Open End Wrench

5/16" Socket Wrench
Side Cutters

Phillips Screwdriver
Bungee Cord (or equivalent)



Procedure: (This procedure will take approximately 1 hour)

1. Unplug the power cord from the wall socket. Remove lower lift cover (see page 67).
2. Remove upper lift cover (see page 67).
3. Using a 5/16" nut driver, remove the two screws holding the front and back metal access panels to the lift housing assembly and remove the panels (reference drawing on page 88).
4. Disconnect the two connectors (A) at the motor capacitor.
5. Disconnect the white connector (B) from the power cord.
6. Using side cutters, cut the cable ties holding the capacitor (C) to the base and remove the capacitor.
7. Using a 3/16" hex allen socket, remove the four screws (D) holding the motor assembly in the lift housing and remove the motor assembly.
8. Use the access holes in the lift housing to view the alignment of the new motor drive shaft to the motor coupler. Lift the motor into place and secure it with the bolts removed in step 7. Hold the nuts that the bolts are being turned into through the access holes until the threads of the bolts are started.
9. Using cable ties, reinstall the new capacitor to the base.

NOTE

The drive shaft on the new motor probably will have to be turned to be aligned with the coupler. Use a 7/16" open end wrench to turn the drive shaft of the motor.

10. Reattach the three connectors, return all wiring to its original position and reinstall all panels and covers.

NOTE

The procedure for lift motor and capacitor removal and replacement is the same for both ends of the bed.

Notes

4.6 LIFT UNIT

LIFT MOTOR ISOLATION PLATE REPLACEMENT

(LIFT MOTOR ISOLATION PLATE KIT P/N 3000-200-723)

Required Tools:

#2 Phillips Screwdriver

1/4" Nut Driver

3/8" Open End Wrench

3/8" Socket Wrench

3/16" Punch

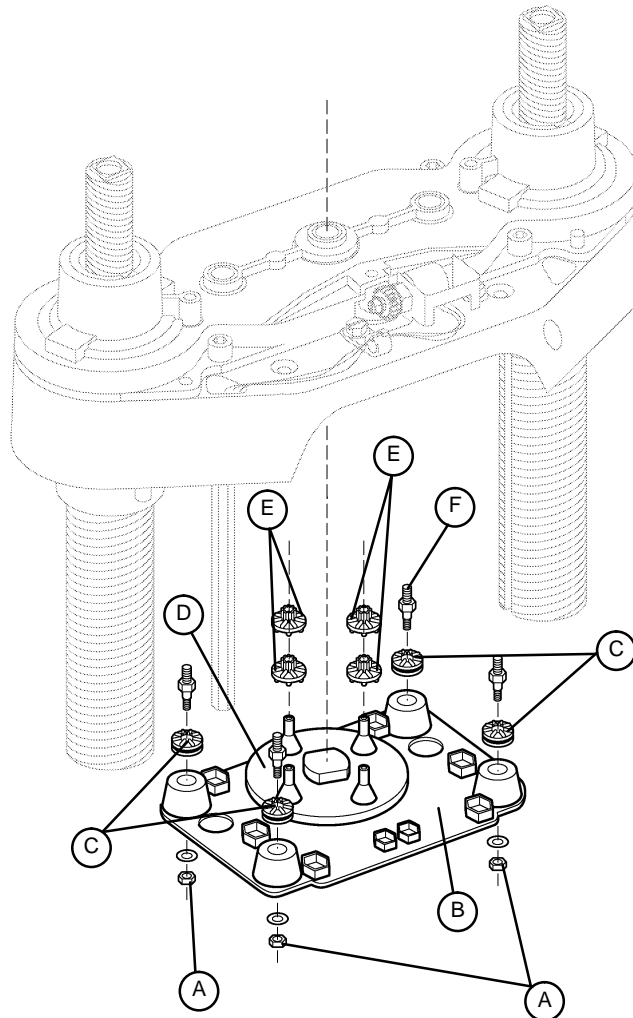
Hammer

Needle-Nose Pliers

5/16" Nut Driver

7/16" Open End Wrench

3/16" Hex Allen Socket (w/approx. 6" ext.)



Procedure: (This procedure will take approximately 45 minutes)

1. Unplug the power cord from the wall socket.
2. Remove the upper lift cover (see page 67).
3. Remove lower lift cover (see page 67).
4. Remove the front and rear metal access covers (reference the illustration on page 88).
5. Using a 3/16" hex Allen socket with 6" extension, remove the four bolts holding the lift motor to the base and carefully lower the motor to the floor.

4.6 LIFT UNIT (CONTINUED)

LIFT MOTOR ISOLATION PLATE REPLACEMENT (CONTINUED)

6. Remove the motor coupler (D) and bushings (E) through the access holes.
7. Using a 3/16" punch and hammer, remove the top roll pin on the manual drive hex shaft coupling and set the shaft and coupler assembly aside.
8. Using a 3/8" open end wrench, remove the four stand-offs (F) from the lift housing and lower the isolation plate (B) with the attached stand-offs.
9. Using a 3/8" socket, remove the two nuts and washers (A) and the two stand-offs from one end of the isolation plate and set the nuts, washers and stand-offs aside.
10. Rotate the end of the isolation plate with the stand-offs removed toward the access opening and tilt it up and out of the opening.
11. Remove the two remaining stand-offs from the isolation plate. Attach the two stand-offs to one end of the new isolation plate.
12. Reverse the above steps to reattach all components to the bed.

CAUTION

When re-installing the stand-offs to the lift housing, do not use a wrench to start the threads of the stand-offs and take care to install them straight or damage to the stand-offs could occur.

NOTE

When reinstalling the lift motor, use the access holes in the lift housing to view the alignment of the motor drive shaft to the motor coupler. The drive shaft on the motor probably will have to be turned to be aligned with the coupler. Use a 7/16" open end wrench to turn the drive shaft of the motor.

The four rubber bushings (C) will be included in the replacement kit with the new isolation plate. The motor coupler (D) and bushings (E) will be removed with the isolation plate and can be re-used with the new plate, unless damaged. If only the motor coupler and bushings need to be replaced, see page 87.

Chapter Four – Maintenance Procedures – Base

4.6 LIFT UNIT (CONTINUED)

LIFT HOUSING REMOVAL AND REPLACEMENT

Required Tools:

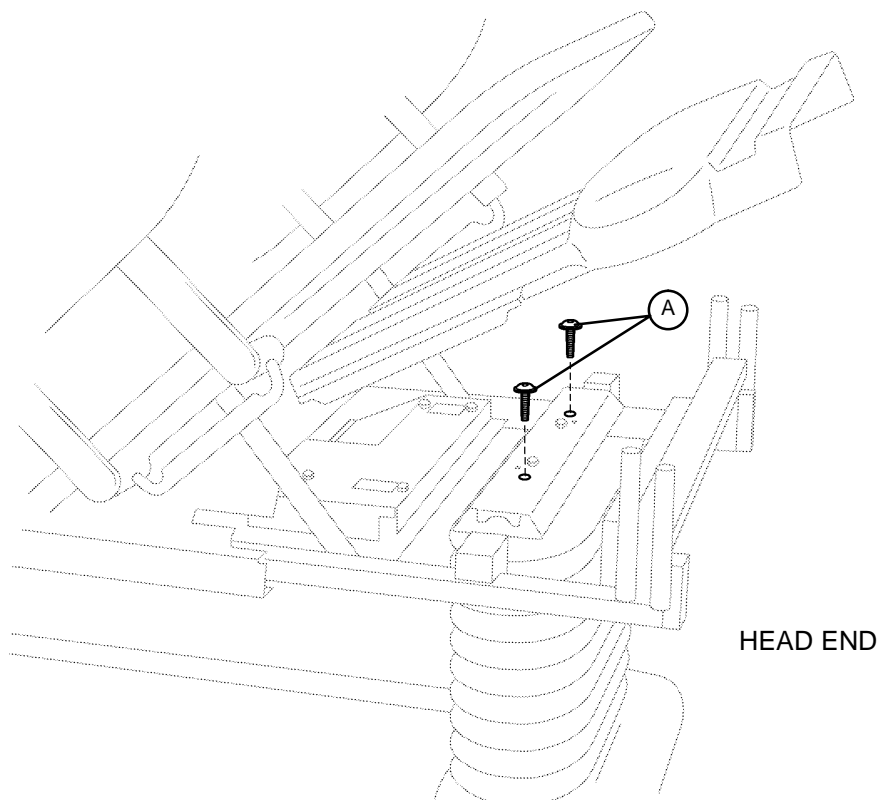
Standard Screwdriver	Phillips Screwdriver	Bungee Cord (or equivalent)
5/16" Socket Wrench	9/16" Socket Wrench	Needle-Nose Vise Grip Pliers
3/8" Open End Wrench	Small Standard Screwdriver	5/16" Open End Wrench
Side Cutters	5/16" Nut Driver	7/32" Hex Allen Socket Wrench
3/16" Hex Allen Socket (w/ approx. 6" extension)		Sawhorses (or equivalent)

Procedure: (This procedure will take approximately 1 hour)

1. Unplug the power cord from the wall socket. Remove lower lift cover (see page 67).
2. Remove upper lift cover (see page 67).
3. Remove litter access panel at end of bed needing service (see pages 93 & 94).
4. Remove lift motor and capacitor (see page 77).
5. Remove lift potentiometer (see page 89).
6. Using a 5/16" open end wrench, remove the cable clamps holding the power and sensor coil cords on top of the lift housing assembly (reference screws (A) on page 92). Cut the cable ties and disconnect the coil cords from underneath the lift housing. The power and sensor coil cords should now be free from the lift housing assembly. Drape them out of the way.
7. Using a 7/32" hex allen socket, remove the two screws (A) holding the lift screws to the header crossbar plate.

CAUTION

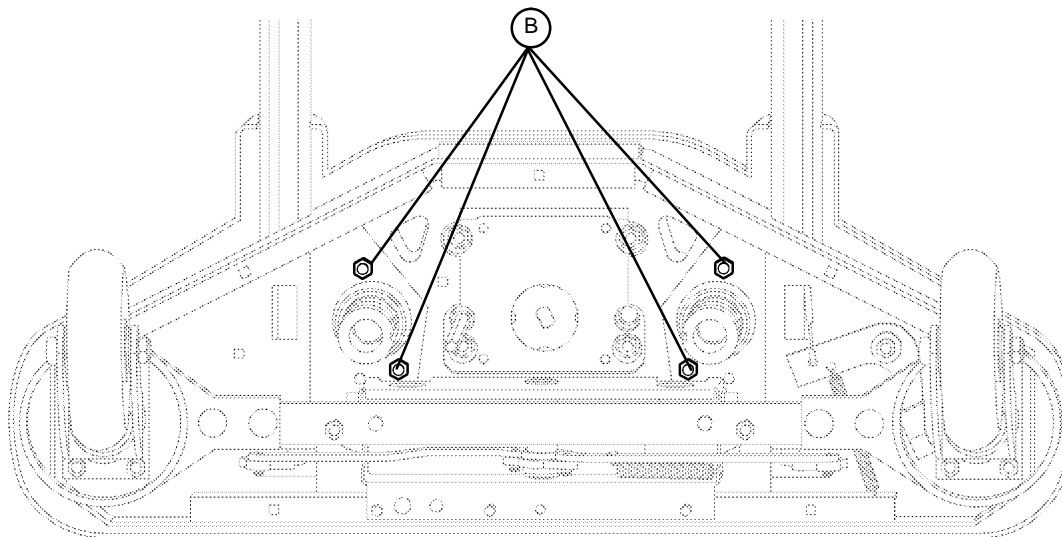
The bed litter retracts on rollers. Secure it to prevent it from rolling while the procedure is being done.



Chapter Four – Maintenance Procedures – Base

4.6 LIFT UNIT (CONTINUED)

LIFT HOUSING REMOVAL AND REPLACEMENT (CONTINUED)



FOOT END – BOTTOM VIEW

8. Lift the litter top up and support it about 6" above the lift screws with sawhorses or the equivalent.
9. Under the base, using a 9/16" socket, remove the four nuts (B) holding the lift housing to the base.
10. Lift up and out on the lift housing assembly to remove it from the base. (See pages 83–86 for servicing procedures for lift housing components.)

CAUTION

After service has been completed on the lift housing, the inner and outer screws must be "timed". If this timing measurement is not equally maintained between the two lift drive screws, the drive screws will not move up equally, and damage to the bed's moving parts could result. (Refer to step 10 on page 84 for proper timing procedure.)

CAUTION

See pages 91 and 92 for proper reattachment procedure for power and sensor coil cords.

11. Reverse the above steps to reinstall the lift housing assembly after service is completed.

NOTE

The procedure for lift housing removal and replacement is the same for both ends of the bed.

Chapter Four – Maintenance Procedures – Base

4.6 LIFT UNIT (CONTINUED)

LIFT GEAR REPLACEMENT (IDLER GEAR KIT P/N 3000–200–707, MANUAL IDLER GEAR KIT P/N 3000–200–709. MOTOR PINION GEAR KIT P/N 3000–200–711)

OUTER AND INNER LIFT DRIVE SCREW REPLACEMENT (OUTER SCREW KIT P/N 3000–200–713, INNER SCREW KIT P/N 3000–200–715)

LIFT DRIVE LOWER AND UPPER NUT REPLACEMENT

(COMPLETE LIFT ASSEMBLY KIT P/N 3000–200–705, SINGLE TUBE OF GREASE P/N 3000–200–700)

This complete procedure will take approximately 90 minutes.

Required Tools:

5/16" Socket Wrench	"Syntech" Synthetic Grease	3/16" Punch
Phillips Screwdriver	9/16" Socket Wrench	5/16" Nut Driver
Bungee Cord (or equivalent)	Standard Screwdriver	Large Snap Ring Pliers
1/4" Hex Allen Wrench	Small Standard Screwdriver	Hammer
Side Cutters	1/4" Open End Wrench	3/8" Socket
3/8" Open End Wrench	7/32" Hex Allen Socket Wrench	
Needle–Nose Vise Grip Pliers	3/16" Hex Allen Socket Wrench (w/approx. 6" ext.)	

CAUTION

After service has been completed on the lift housing, the inner and outer screws must be "timed". If this timing measurement is not equally maintained between the two lift drive screws, the drive screws will not move up equally, and damage to the bed's moving parts could result. Refer to step 10 for proper timing procedure.

1. Unplug the power cord from the wall socket. Remove lower lift cover (see page 67).
2. Remove lift motor and capacitor (see page 77).
3. Remove lift housing (see page 81 & 82).
4. Using a 1/4" hex allen wrench, remove the four screws (K) and lock washers holding the housing cap (A) to the lift housing (lock washers not shown).
5. Lift up on the housing cap to remove it and set it aside. Note the position of the washers before they are disturbed. Some washers may stick to the housing cap as it is removed.
6. If the guide bushings (B) need to be replaced, push them out of the housing cap from the top.

LIFT GEAR REPLACEMENT

CAUTION

Take note of the proper washer arrangement for re–assembly (see illustration #2) or damage to the unit could occur.

7. To replace gears (C), lift straight up on the defective gear(s) to remove. Idler gear (D) can be removed by lifting it straight up and off the lift housing. To remove motor pinion gear (E) and manual idler gear (F), first use a 3/8" socket to remove the four fiber nuts holding the isolation plate to the lift housing. Pull straight down on the motor coupler to remove it. To remove motor pinion gear (E), remove the snap ring from underneath and pull the gear and shaft assembly out of the lift housing. To remove manual idler gear (F), use a 3/16" punch and hammer to remove the roll pin securing the gear shaft to the manual hex shaft coupler and pull the gear and shaft assembly out of the lift housing.

NOTE

New gears will be provided in a kit containing the gear with the attached shaft, appropriate spring washers, thrust bearings, timing plate and grease. **Be sure to apply grease generously to all gears whenever new gears are installed.**

Chapter Four – Maintenance Procedures – Base

4.6 LIFT UNIT (CONTINUED)

LIFT DRIVE INNER SCREW AND UPPER NUT REPLACEMENT

NOTE

The inner screw can be removed with or without the lift housing cap attached.

8. For Inner Lift Drive Screw (L) replacement, using large snap ring pliers, remove snap ring (G) holding the inner screw to the lift housing. Push up on the inner screw from the bottom of the outer screw (M) to remove.

CAUTION

When reinstalling the snap ring (G), be sure to position it as shown in illustration 1 or damage to the unit could occur.

To replace the upper nut (H) after removing the inner screw, turn the upper nut off the inner screw. Install the new upper nut in the same manner. The replacement inner screw will come with the attached upper nut.

LIFT DRIVE OUTER SCREW AND LOWER NUT REPLACEMENT

9. To remove the outer screw (M), while the inner screw is still removed, push the outer screw out from underneath the lift housing.
To replace the lower nut (J) after removing the outer screw, turn the lower nut off the outer screw. Install the new lower nut in the same manner. The replacement outer screw will come with the attached lower nut.

CAUTION

Apply grease generously to the outer and the inner screws when they are installed or damage to the unit could occur.

TIMING OF INNER AND OUTER SCREWS

10. For proper "timing" of the inner and outer screws (items L and M), reattach the lift housing cap (A) with both output gears (C) removed and manually turn both inner and outer screws until they are flush with the top edge of the caps (as shown in the illustration on page 86). Assure there is no gap between the cap and the lift housing.
11. Reattach all gears and washers and reinstall the housing cap.

NOTE

Do not allow the wave washers on gears (E) and (F) to overlap with the flat washers. Align the "ears" on the large thrust washers with the "pockets" in the housing cap.

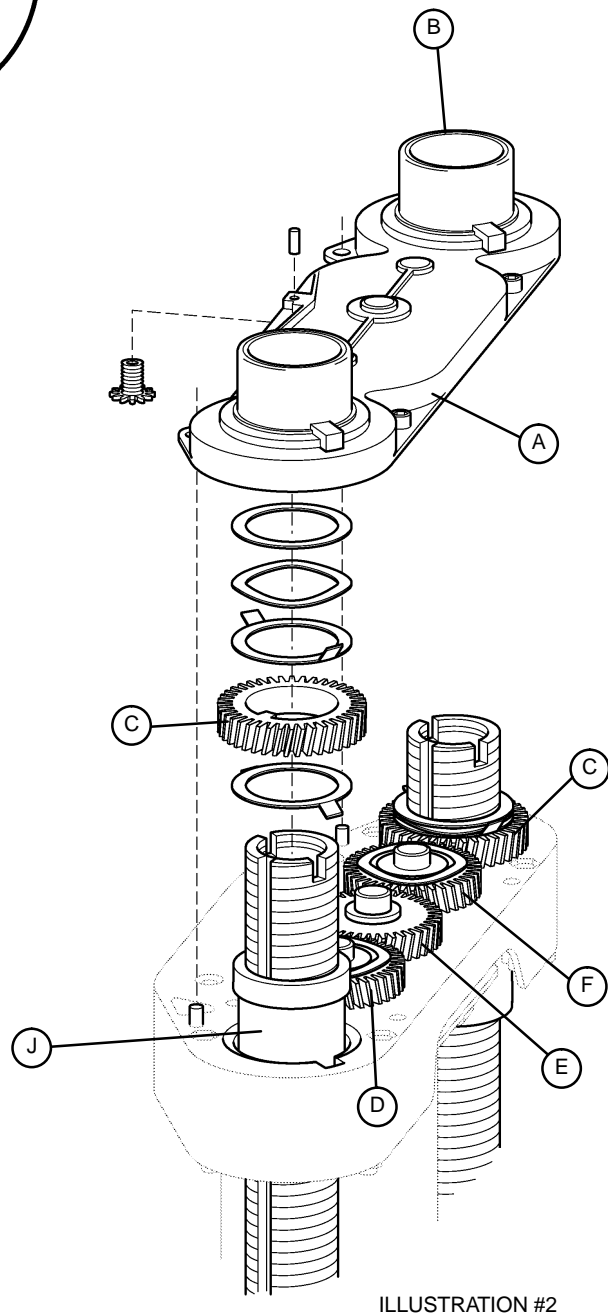
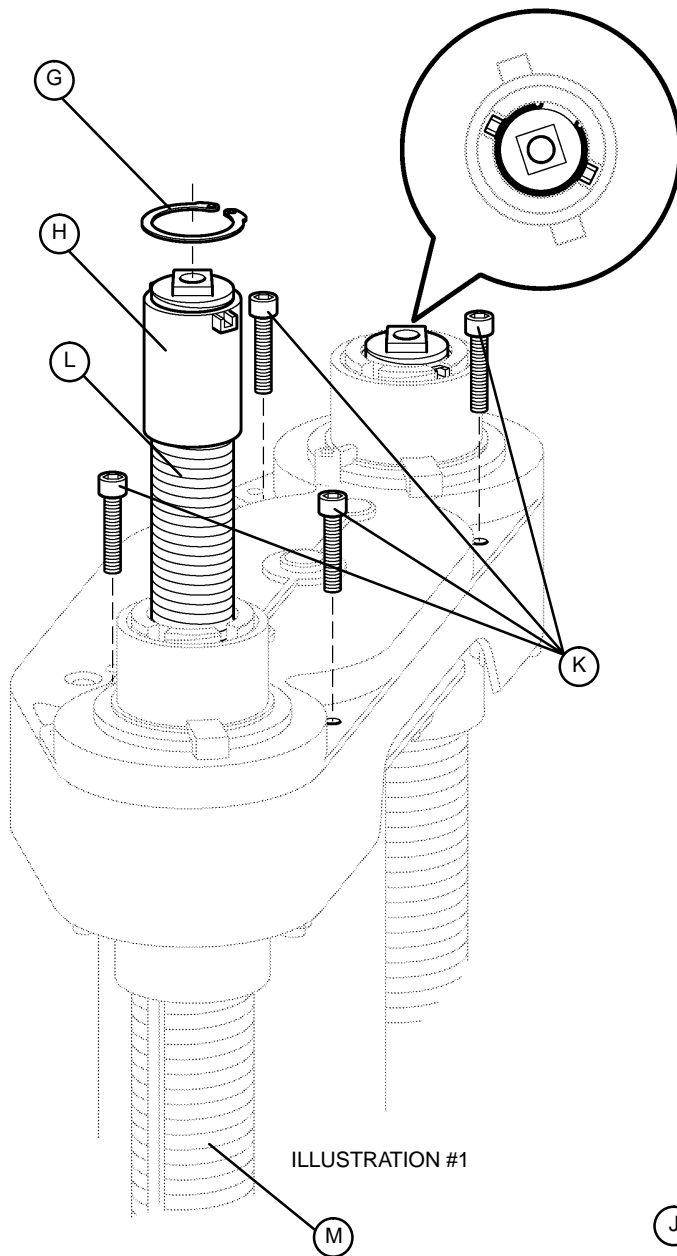
12. Being sure the inner screws have not lost the timing position, attach the timing plate across the top of the drive screws using the bolts removed from the header crossbar in step 3.
13. Reattach the lift housing assembly to the base of the bed and run the drive screws up electrically to the top, with the timing plate still attached.
14. Remove the timing plate and reattach the drive screws to the litter top.
15. Reinstall all removed covers and panels.
16. Test the bed for proper operation before returning it to service.

4.6 LIFT UNIT (CONTINUED)

LIFT GEAR REPLACEMENT ILLUSTRATION

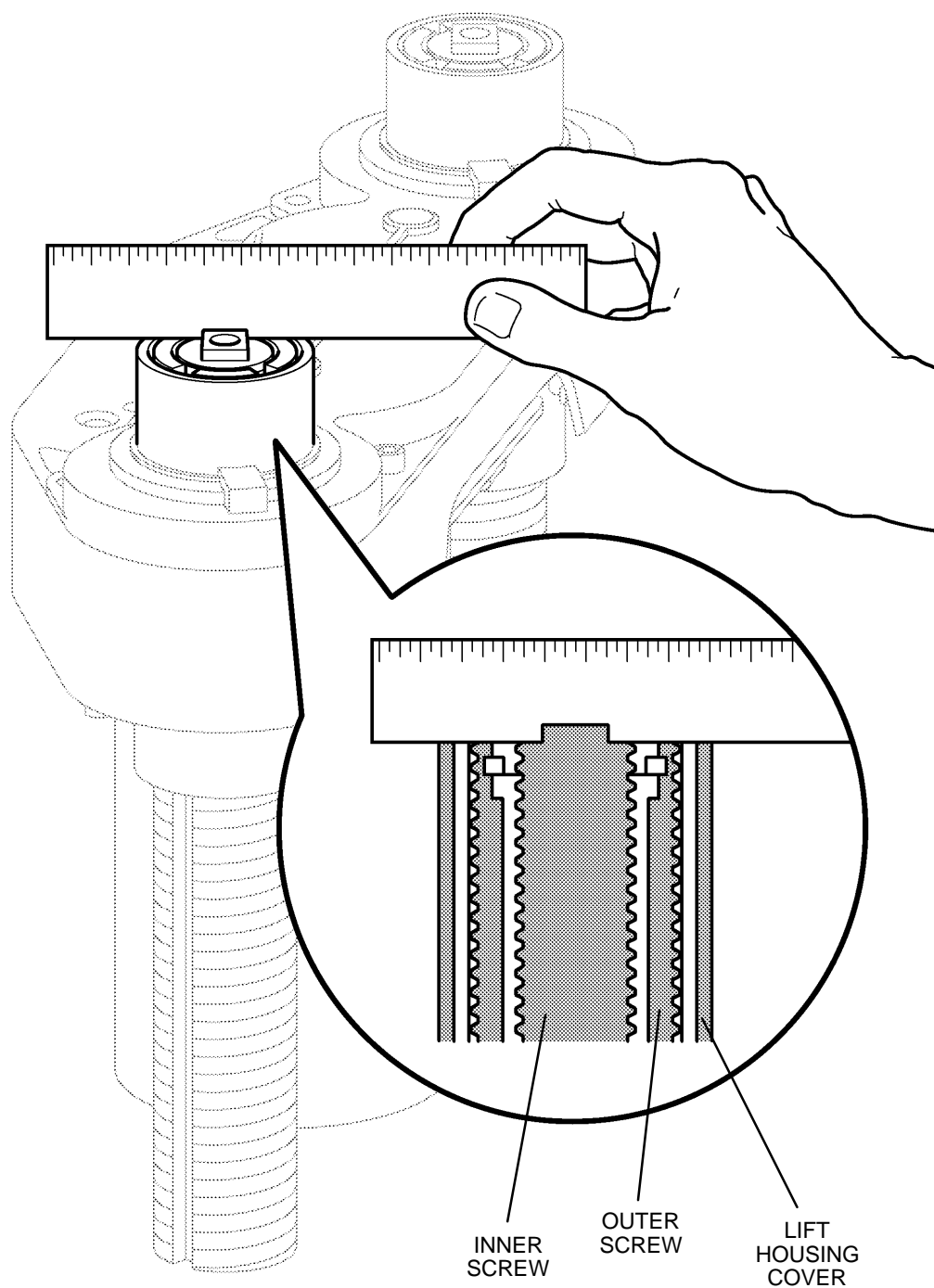
OUTER AND INNER LIFT DRIVE SCREW REPLACEMENT ILLUSTRATION

LIFT DRIVE LOWER AND UPPER NUT REPLACEMENT ILLUSTRATION



4.6 LIFT UNIT (CONTINUED)

TIMING OF INNER AND OUTER LIFT SCREWS ILLUSTRATION



Chapter Four – Maintenance Procedures – Base

4.6 LIFT UNIT (CONTINUED)

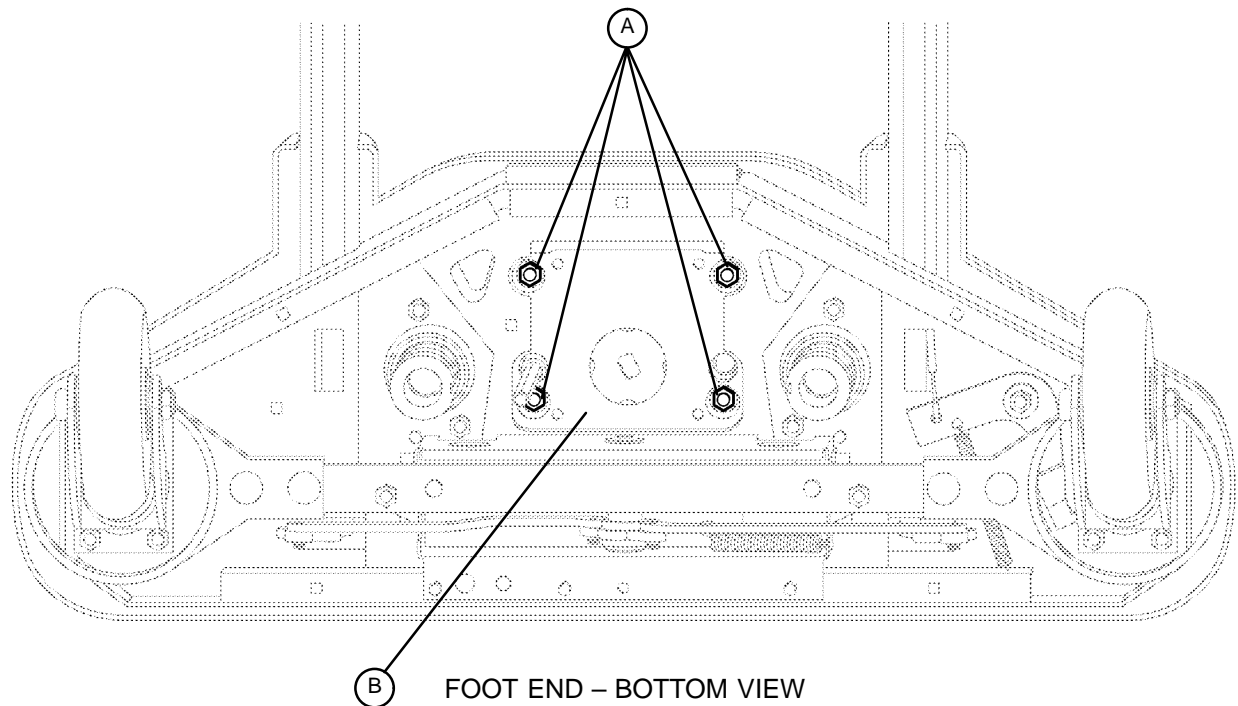
LIFT MOTOR COUPLER REPLACEMENT (LIFT MOTOR COUPLER KIT P/N 3000-200-705)

Required Tools:

Phillips Screwdriver
5/16" Nut Driver

Bungee Cord (or equivalent)
1/2" Socket w/extension

5/16" Socket Wrench

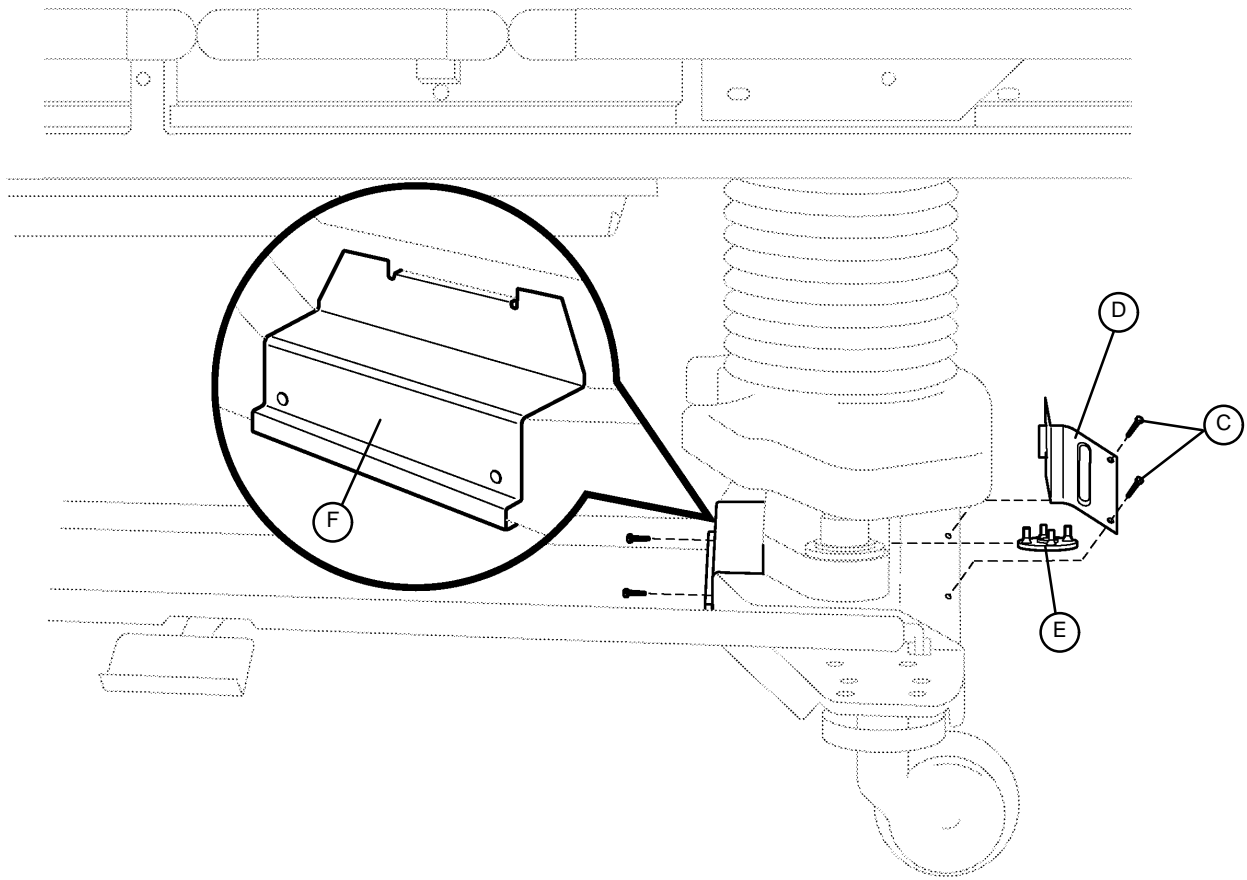


Procedure: (This procedure will take approximately 30 minutes)

1. Unplug the power cord from the wall socket. Remove upper lift cover (see page 67).
2. Remove lower lift cover (see page 67).
3. Using a 3/8" socket with extension, remove the four nuts and washers (A) holding the isolation plate (B) to the lift housing and lower the lift motor and isolation plate assembly to allow access to the coupler. Take care not to drop the isolation plate onto the base.

4.6 LIFT UNIT (CONTINUED)

LIFT MOTOR COUPLER REPLACEMENT (CONTINUED)



4. Using a 5/16" nut driver, remove the two screws (C) holding the metal access panel (D) to the lift housing.
5. The motor coupler (E) can now be removed from the lift housing through the access hole.

NOTE

The replacement motor coupler will come with new rubber bushings.

6. Reverse the above steps to install the new motor coupler and bushings.

NOTE

Removal of access cover (F) is shown only for reference in the procedure for lift motor and capacitor removal and replacement on page 77.

4.6 LIFT UNIT (CONTINUED)

LIFT POTENTIOMETER REPLACEMENT AND ADJUSTMENT

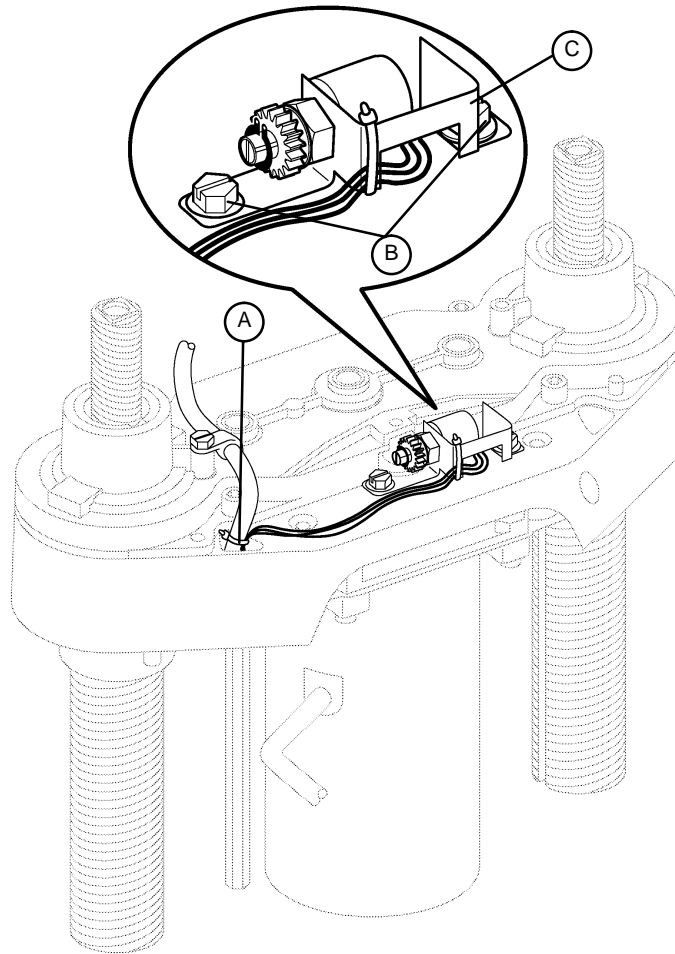
(LIFT POT KIT (HEAD) P/N 3000-200-729, LIFT POT KIT (FOOT) P/N 3000-200-731)

Required Tools:

Small Standard Screwdriver
5/16" Socket Wrench

Phillips Screwdriver
3/8" Open End Wrench

Bungee Cord (or equivalent)
Side Cutters



Procedure: (This procedure will take approximately 45 minutes)

1. Unplug bed from wall socket. Remove lower lift cover (see page 67).
2. Remove upper lift cover (see page 67) and support with bungee cord.
3. Remove litter access panels #1 and #2 (see page 93).
4. Using side cutters, cut the cable tie (A) holding the pot cable to the coil cord.
5. Unplug the pot cable from the sensor coil cord. If replacing a pot at the head end of the bed, unplug the cables attached to the brake sensor switch.
6. Pull the pot cable up through the base.
7. Using a 3/8" open end wrench, remove the two screws (B) holding the pot housing (C) to the lift housing.

4.6 LIFT UNIT (CONTINUED)

LIFT POTENTIOMETER REPLACEMENT AND ADJUSTMENT (CONTINUED)

8. Lift up and out on the pot housing assembly to remove it from the lift housing.

NOTE

The replacement pot will come attached to the pot housing along with the plastic gear.

9. Properly ground yourself (see page 10 for static discharge precautions).
10. Be sure the bed power cord is unplugged from the wall socket. Remove the jumper stored at P6 on the litter CPU board (see page 199 for location of CPU board). Install the jumper at P2 (on the litter CPU) in the last set of pins toward the head end of the bed.
11. Plug in the power cord and carefully move the jumper from P2 back to P6. Run the bed fully up electrically.
12. Before installing the new pot on the bed, turn it clockwise until it stops. Turn it back counterclockwise two full (360°) revolutions. This allows a "window" position for proper upper and lower limits.
13. Reverse steps 4–8 to install the new pot and pot housing assembly. Be sure to plug the new pot in and do not unplug the bed power cord. Leave the litter access panels off.

NOTE

Be sure to maintain the pot position while installing.

14. Run the bed down electrically until it stops.
15. Press and hold the Bed Motion Lock key on the foot board until the Bed Motion Lock indicator begins to flash. If the LED does not flash, press and hold the key again. The limits are now programmed.
16. Unplug the power cord to remove the bed from diagnostics.
17. Plug the power cord into a properly grounded wall receptacle and test the operation of the bed. The distance between the floor and the top of the litter seat section (without a mattress) should be 15 1/2" – 16" with the litter fully down, and 29 1/4" – 29 3/4" with the litter fully up.

NOTE

If the siderail bed up/down lockout light is flashing when the power cord is plugged in, one of the lift pots is either out of adjustment or unplugged (or both). Check and reset limits.

18. Reinstall all access panels and covers.

Chapter Four – Maintenance Procedures – Base

4.6 LIFT UNIT (CONTINUED)

POWER AND SENSOR COIL CORD REPLACEMENT

(POWER COIL CORD KIT P/N 3000–200–743, SENSOR COIL CORD KIT P/N 3000–200–741)

Required Tools:

Standard Screwdriver

Side Cutters

Bungee Cord (or equivalent)

5/16" Nut Driver

Phillips Screwdriver

5/16" Socket Wrench

Procedure: (This procedure will take approximately 45 minutes)

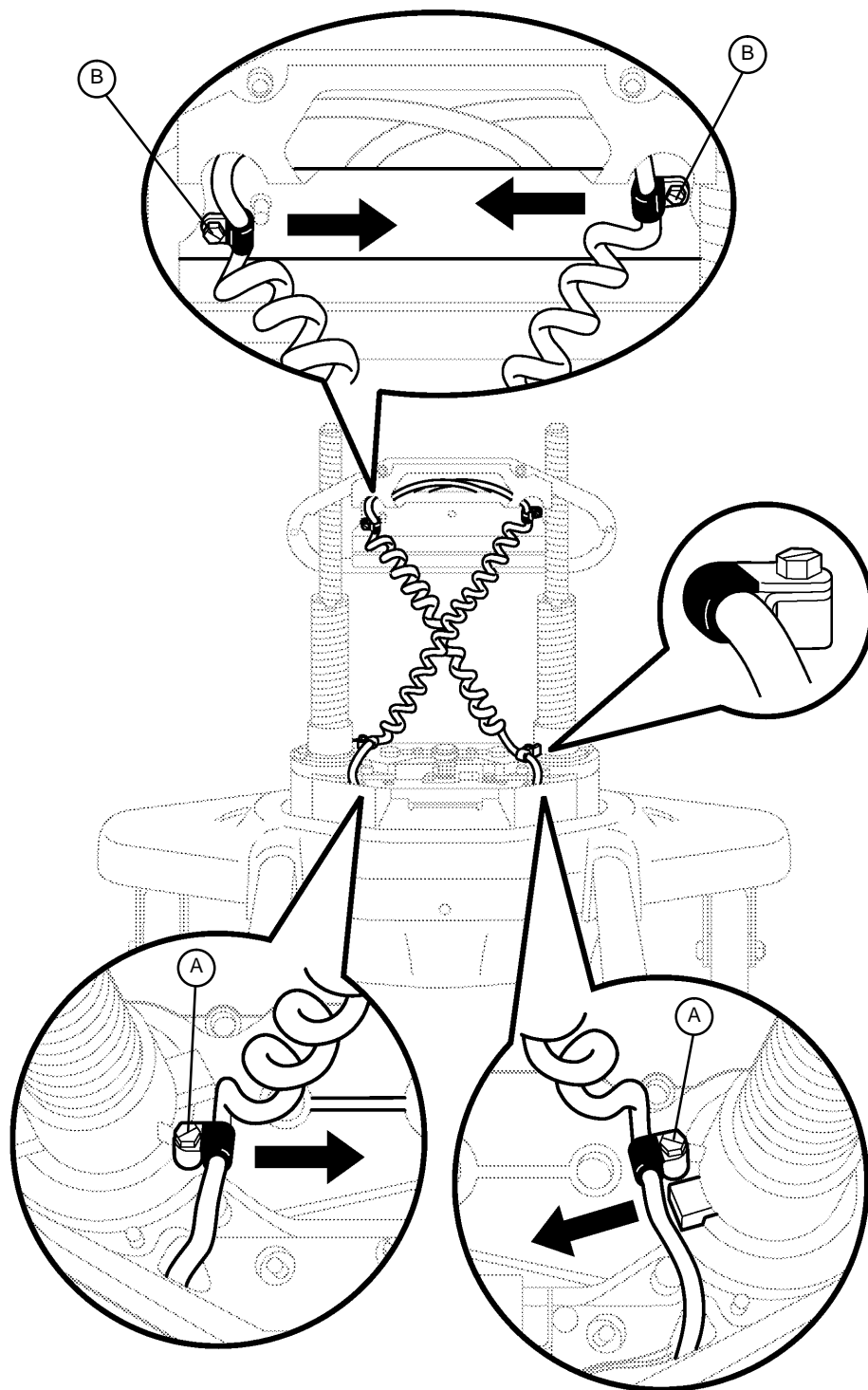
1. Unplug the bed power cord from the wall socket. Remove lower lift cover (see page 67).
2. Remove upper lift cover (see page 67).
3. Remove litter access panels at the end of the bed needing service (see page 93 & 94).
4. Using side cutters, cut the cable ties holding the power and sensor coil cords to the base. Remove the ground wire coming from the sensor cord that is attached to the base (note the star washer arrangement).
5. Disconnect the cables going to the motor and the lift potentiometer (at the head end, the sensor cord is also attached to the brake switch sensor).
6. Pull both cords up through the frame of the bed and the lift housing.
7. Using a 5/16" nut driver, remove the two screws (A) holding the cable clamps* to the top of the lift housing.
8. Using a 5/16" nut driver, remove the two screws (B) securing the cable clamps* to the underside of the header crossbar assembly.
9. Pull both coil cords up through the header crossbar assembly.
10. Remove the two grommets protecting the cords on top of the header crossbar assembly.
11. Using side cutters, cut the cable ties holding both cords to the 1" cross frame.
12. Remove the grommet both cords are routed through at the 1" cross frame.
13. Using a 5/16" nut driver, remove the screw supporting the corner metal plate that holds the motion interrupt switch at each corner. (This provides access to the coil cord connectors.)
14. Disconnect the power and sensor coil cords from the connectors.
15. The cords should now be completely removed from the bed. Reverse the above steps to install the new power and sensor cords*.

CAUTION

*When the power and sensor coil cords are being replaced, secure the cable clamps to the cords at the first coil on the top and on the bottom to assure there is not too much slack in the cords between the top of the lift housing assembly and the bottom of the header crossbar. Be sure the clamps are fastened at exactly the correct angle, as shown by the arrows in the illustration. Arrange the cords exactly as shown in the illustration (left in front of right). **If this is not done correctly, damage to the cords will result.**

4.6 LIFT UNIT (CONTINUED)

POWER AND SENSOR COIL CORD REPLACEMENT ILLUSTRATION



VIEW FROM CENTER OF BED

Chapter Five – Maintenance Procedures – Litter

5.1 REMOVAL OF LITTER ACCESS PANELS

(FOOT END LITTER COVER #1 KIT P/N 3000-300-729, LITTER ELECTRICAL COVER #2 KIT P/N 3000-300-721, HEAD END LITTER COVER #3 KIT P/N 3000-300-727, FOWLER MOTOR COVER #4 KIT P/N 3000-300-725, LITTER MID COVER #5 KIT P/N 3000-300-723)

Required Tools:

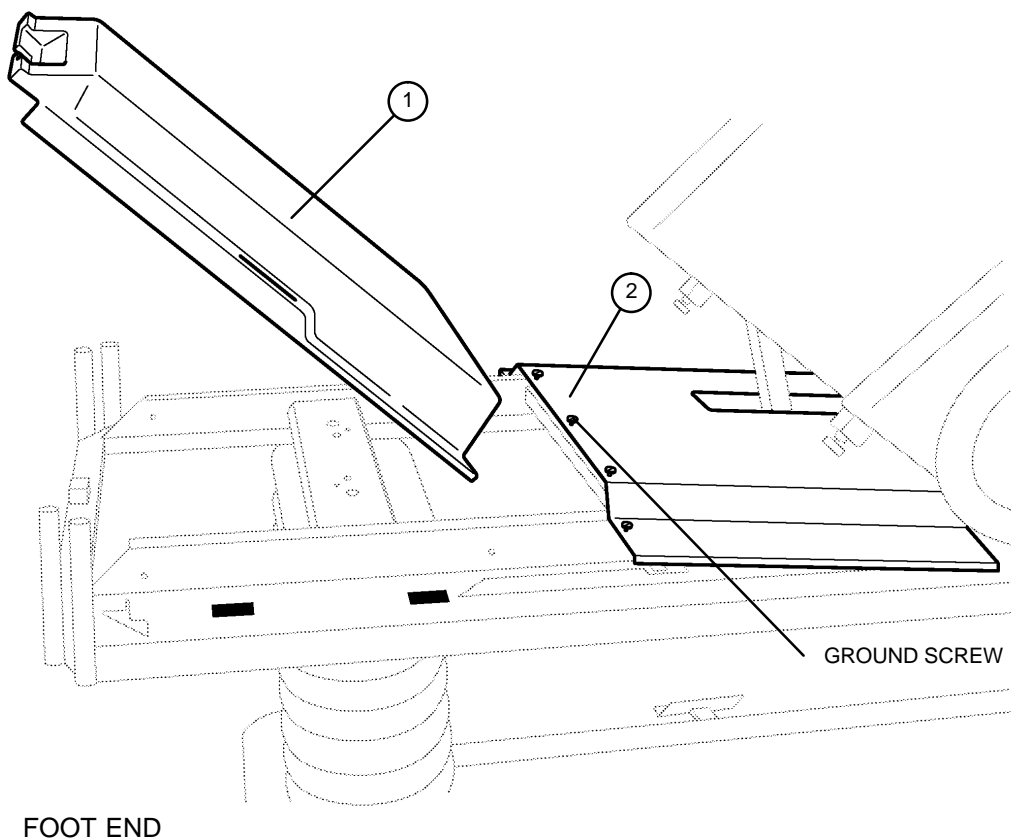
Standard Screwdriver

#2 Phillips Screwdriver

1/4" Nut Driver

NOTE

Before removing the panels, put all siderails down and in the tucked position, run the head section up electrically to approximately 30° and run the knee section fully up. Pull up on the handle on the corner of the foot section and pivot the foot and knee sections out of the way to allow proper access for removing panels.



Removal Procedure: (This procedure will take approximately 10 minutes)

1. Unplug the power cord from the wall socket.
2. Lift up on panel #1 to remove it from the foot end of the bed.

NOTE

Panel #1 is secured with dual lock and no tools are necessary for its removal.

3. Using a standard screwdriver, remove the 9 plastic 1/4 turn screws holding panel #2 to the litter at the foot end of the bed.
4. Using a Phillips screwdriver, remove the ground screw.
5. Lift panel #2 up and out to remove.

Chapter Five – Maintenance Procedures – Litter

5.1 REMOVAL OF LITTER ACCESS PANELS (CONTINUED)

6. For easier access, be sure the Fowler has been moved up to approximately 30°. Using a Phillips screwdriver, remove the two screws holding panel #3 to the litter. Lift panel #3 up and out to remove it from underneath panel #5 and off the litter.

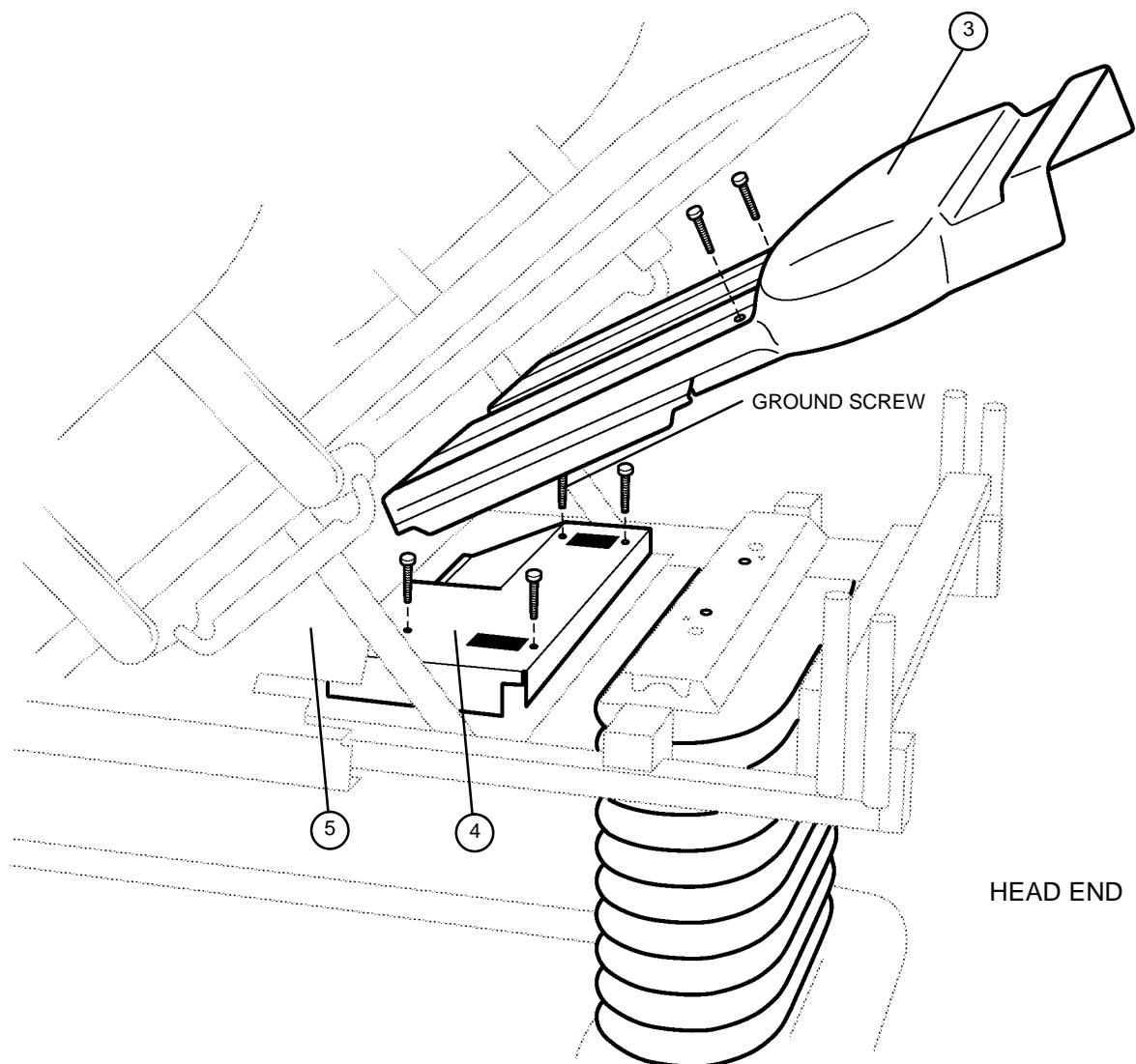
NOTE

Midsection panel #5 does not need to be removed for routine servicing of the bed.

7. Using a 1/4" nut driver, remove the 4 screws securing panel #4.
8. Lift up on panel #4 and lay it toward the head end of the bed.
9. Reverse the above steps to reattach the panels.

CAUTION

Be sure ground screw is reinstalled in location shown in the illustration below.

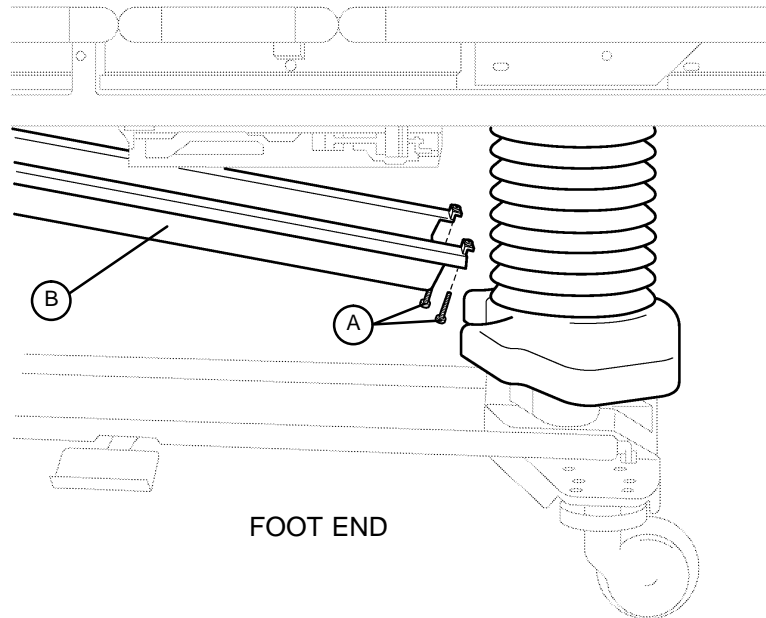


Chapter Five – Maintenance Procedures – Litter

5.2 REMOVAL OF MOTION INTERRUPT PANEL

Required Tools:

5/16" Nut Driver



Removal Procedure: (This procedure will take approximately 10 minutes)

1. Unplug the power cord from the wall receptacle.
2. Using a 5/16" nut driver, remove the 2 screws (A) holding the interrupt panel (B) to the litter at the foot end of the bed (as shown in the illustration).
3. There is a ground strap between the motion interrupt panel and the litter frame. Using a 5/16" nut driver, remove the screw and star washer securing the ground strap to the litter frame. Save the screw and star washer for reuse.
4. Lift up and forward on the head end of the panel to disengage the hangers from the litter top.
5. Carefully lower the panel and allow it to rest on the base tubes.
6. Reverse the above steps to reattach the panel.

5.3 MOTION INTERRUPT SWITCH REPLACEMENT

Required Tools:

5/16" Nut Driver

1/4" Nut Driver

Standard Screwdriver

Procedure: (This procedure will take approximately 30 minutes)

1. Unplug the power cord from the wall receptacle.
2. Remove the motion interrupt panel (see page 95).
3. Remove appropriate litter access panel(s) (see pages 93 & 94).
4. Disconnect the two wires at the switch being replaced.

NOTE

Notice the terminals being used on the switch so the wires will be attached properly to the new switch.

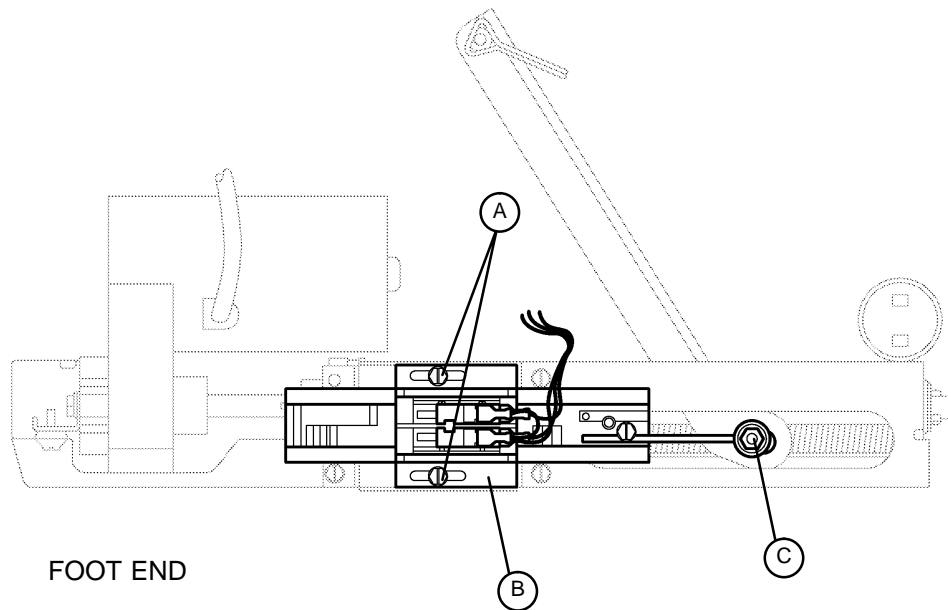
5. Squeeze the retention clips on the switch and push down on the switch to remove it from the support bracket.
6. Reverse the above steps to install the new switch.
7. Activate the motion stop system to assure it is functioning properly: press and hold down the BED DOWN key. As the bed lowers, lift up on each corner of the motion interrupt pan individually and assure the downward motion stops each time. Release the pan and allow the downward motion to continue.

5.4 KNEE SECTION

LIMIT SETTING – KNEE MOTOR

Required Tools:

5/16" Nut Driver



Procedure: (This procedure will take approximately 30 minutes)

WARNING

The knee motor is not grounded and may present electrical hazard. Use caution when working around motors.

1. Remove the motion interrupt panel (see page 95).
2. Lower the knee section until it is flat (0°).
3. Lightly tap the Gatch down button until the bolt and bushing (C) are centered in the slot.
4. Unplug the power cord from the wall socket.
5. Using a 5/16" nut driver, loosen screws (A).
6. Slide the cam guide (B) toward the head end of the bed just until the microswitch is activated (a clicking noise should be heard).

NOTE

Check that the cam "bump" is on the "foot" side of the switch actuator.

7. Tighten the screws (A).
8. Plug the power cord into a properly grounded wall receptacle.
9. Ensure the knee section will raise to 40° and lower to flat (0°) before returning the bed to service. If the upper limit is above 40°, readjust the cam guide (B) toward the head end of the bed until 40° is achieved. If the upper limit is below 40°, readjust the cam guide toward the foot end of the bed until 40° is achieved.

Chapter Five – Maintenance Procedures – Litter

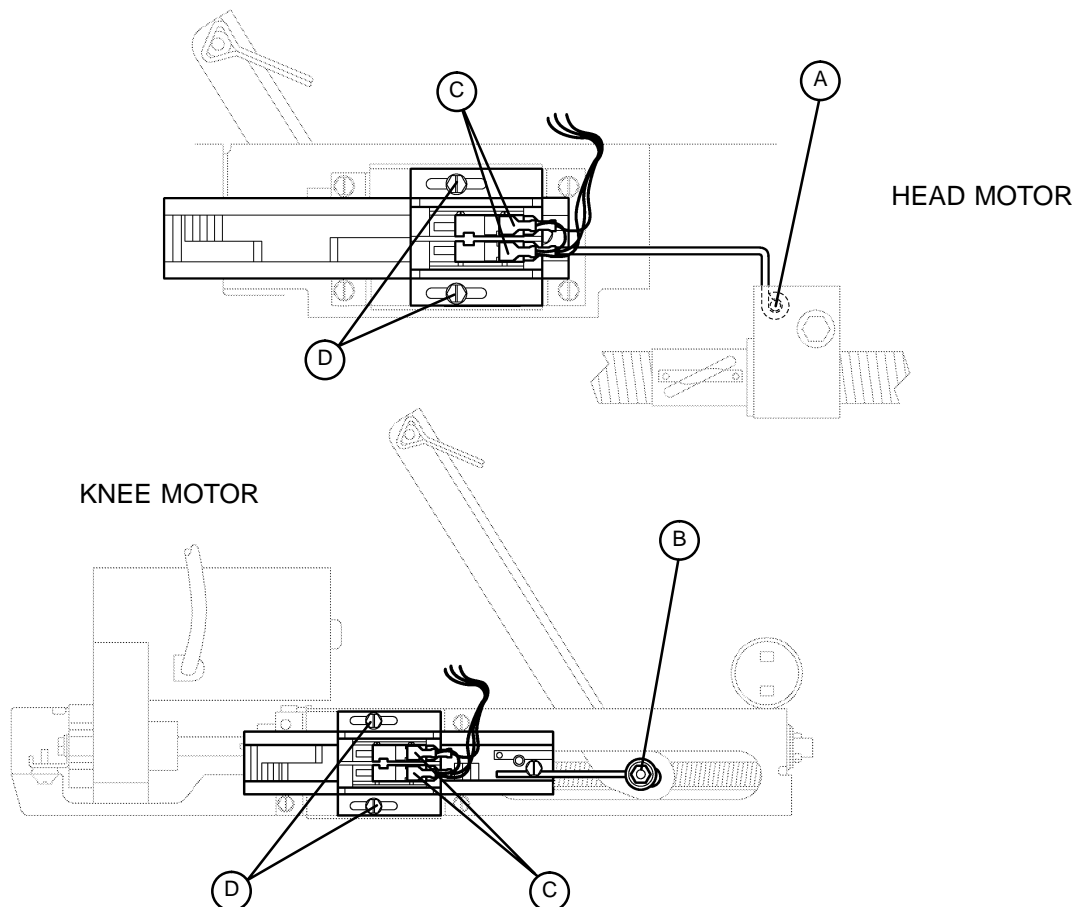
5.4 KNEE SECTION (CONTINUED)

CAM AND CAM GUIDE REPLACEMENT – HEAD AND KNEE MOTOR (FOWLER/GATCH CAM AND CAM GUIDE KIT P/N 3000-300-709)

Required Tools:

5/16" Nut Driver
Standard Screwdriver

7/16" Nut Driver
7/16" Open End Wrench



Procedure: (This procedure will take approximately 30 minutes)

1. Unplug the power cord from the wall socket. Remove the motion interrupt panel (see page 95).
2. Remove litter access panels 1 and 2 (see page 93).
3. If the head motor cam and cam guide are being replaced, use a 5/16" nut driver to remove the screw (A) holding the cam retention wire to the ball nut assembly.
If the knee motor cam and cam guide are being replaced, use a 7/16" socket and a 7/16" open end wrench to remove the nut (B) holding the cam retention wire to the bed. (Do not remove the bolt).
4. Disconnect the cables (C) from the micro switches.
5. Using a 5/16" nut driver, remove the two screws (D) holding the cam and cam guide to the support bracket and remove the cam and cam guide with the attached micro switches from the bed.
6. Reverse the above steps to install the replacement cam and cam guide/micro switch assembly.
7. If the head motor cam and cam guide were replaced, refer to page 102 for "Limit Setting – Head Motor".
If the knee motor cam and cam guide were replaced, refer to page 97 for "Limit Setting – Knee Motor".

Chapter Five – Maintenance Procedures – Litter

5.4 KNEE SECTION (CONTINUED)

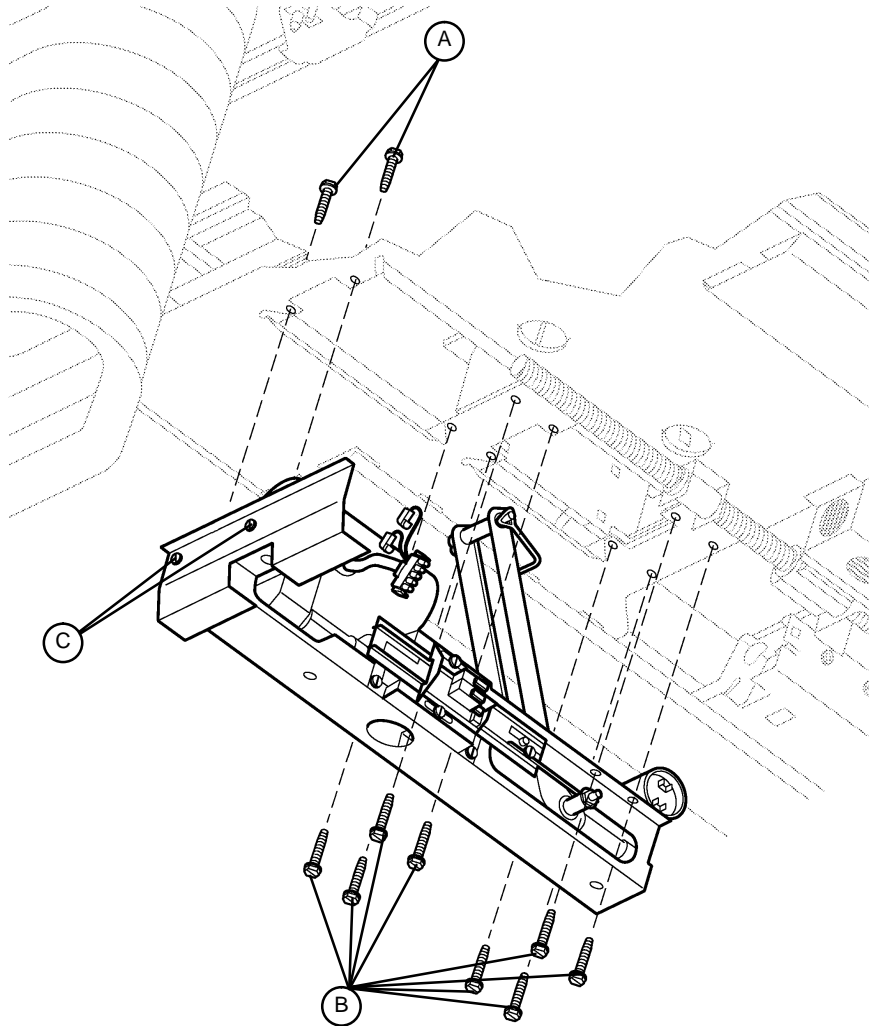
DRIVE SCREW AND NUT REPLACEMENT – KNEE MOTOR (GATCH DRIVE SCREW KIT P/N 3000-300-715)

Required Tools:

5/16" Nut Driver
Hex Allen Wrench
7/16" Socket Wrench

1/4" Nut Driver
Side Cutters
3/16" Punch

Standard Screwdriver
7/16" Open End Wrench
Hammer



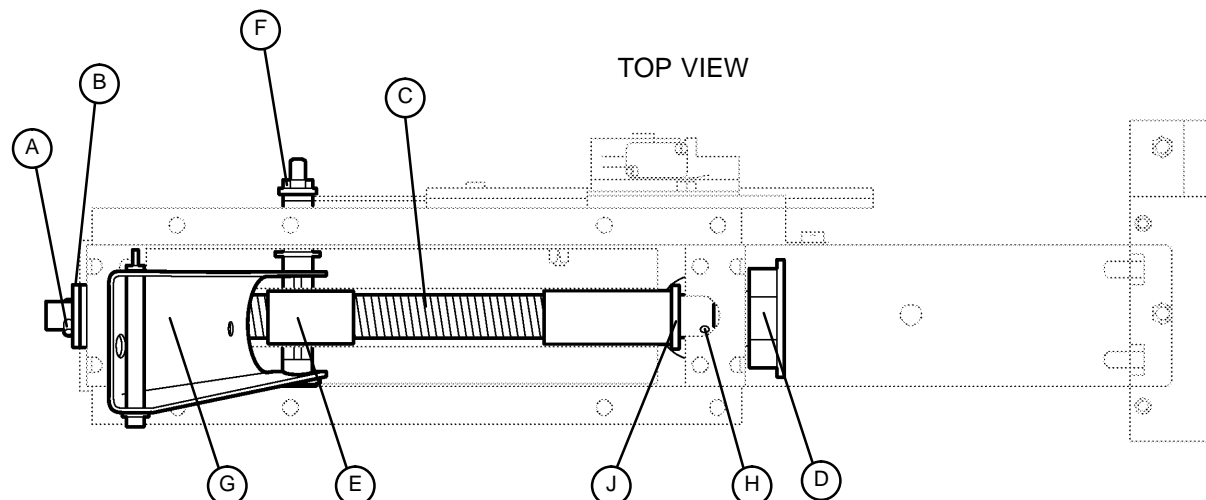
Procedure: (This procedure will take approximately 45 minutes)

1. Remove the knee motor (see page 101). (The motor carriage can be removed with the motor still attached. The motor cable must be disconnected from the litter if this is done – see steps 6 and 7, page 101).
2. Unhook hinge pin from the knee section.
3. Using a 5/16" nut driver from the top, remove the two screws (A) holding the motor carriage assembly to the litter and the screw (B) holding the ground strap to the litter.
4. Using a 5/16" nut driver underneath the litter, remove the eight screws (B) holding the motor carriage assembly to the litter assembly.
5. Lower the motor carriage assembly from underneath the litter.

Chapter Five – Maintenance Procedures – Litter

5.4 KNEE SECTION (CONTINUED)

DRIVE SCREW AND NUT REPLACEMENT – KNEE MOTOR (CONTINUED)



6. Place the carriage assembly on a work bench in the position shown in the illustration above. Remove the motor if it hasn't already been done (see page 101).
7. Using a 3/16" punch and a hammer, remove the roll pin (A) at the left end of the carriage assembly.
8. Remove the washer (B) and bushing at the left end of the carriage assembly.
9. Turn the drive screw (C) counterclockwise to access the roll pin (H) holding the coupler (D) on the drive screw.
10. Support the drive screw on the carriage housing. Do not let the plastic portion of the coupler rest on the carriage housing.
11. Using a 3/16" punch and hammer, remove the roll pin (H) holding the coupler on the drive screw.
12. Pull the coupler off the drive screw and remove the bearing, washer and bushing.
13. Turn the drive screw clockwise and out of the right end of the carriage.
14. Remove the washer (J) from the right end of the drive screw.
15. Slide the drive screw back to the right and through the end of the carriage.
16. Turn the drive screw to remove it from the drive screw nut (E).
17. Using a 7/16" socket and 7/16" open end wrench, remove the nut, bolt and washer (F) holding the drive screw nut and the cam wire link to the main link (G).
18. Reverse the above steps to install the new drive screw and nut and to reattach all components to the bed. Check bushings removed in steps 7 and 11 for wear and replace, if necessary.

NOTE

Generously apply grease to the drive screw nut when installing the new nut.

Before reinstalling the carriage assembly on the litter, manually turn the drive nut approximately half-way down the length of the drive screw. This will allow easier realignment to the litter.

CAUTION

Assure the knee motor stops properly at both upper and lower electric limits. If it does not, refer to page 97 for "Limit Setting – Knee Motor".

Chapter Five – Maintenance Procedures – Litter

5.4 KNEE SECTION (CONTINUED)

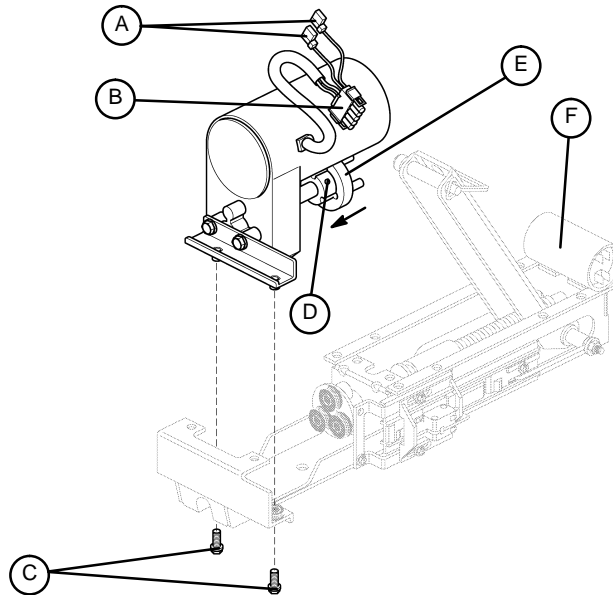
KNEE MOTOR REMOVAL AND REPLACEMENT (GATCH MOTOR KIT P/N 3000-300-711)

Required Tools:

5/16" Nut Driver
3/32" Hex Allen Wrench

1/4" Nut Driver

Standard Screwdriver
Side Cutters



Procedure: (This procedure will take approximately 30 minutes)

1. Electrically run the knee section (Gatch) fully up. Unplug the power cord from the wall receptacle.
2. Remove the motion interrupt panel (see page 95).
3. Remove litter access panels 1 and 2 (see page 93).
4. Pivot the knee section of the bed up and out of the way by removing the pull clip and clevis pin.

NOTE

If the motor is not operational, and the knee section is flat, access and remove the pull clip and clevis pin through the holes on the litter surface, and pivot the knee section of the bed up and out of the way.

5. Disconnect the two cables (A) at the knee motor capacitor.
6. Using a 1/4" nut driver, remove the cable clamp holding the motor cable (B) to the litter.
7. Disconnect the motor cable from the main CPU board.
8. Using a 5/16" nut driver, remove the two screws (see item D, page 99) holding the electrical shield to the carriage and remove the bracket.
9. Using a 5/16" nut driver underneath the litter, remove the two screws (C) holding the motor to the litter.
10. Using a 3/32" hex allen wrench, loosen the set screw (D) on the motor drive coupling (E) and slide the drive toward the motor.
11. To remove the motor from the litter, push the motor toward the head of the bed and lift it up and out.
12. Using side cutters, cut the cable ties at the capacitor (F) and remove the capacitor. (The replacement motor kit will contain a capacitor.)
13. Reverse the above steps to install the replacement motor and capacitor.

Chapter Five – Maintenance Procedures – Litter

5.5 HEAD SECTION

LIMIT SETTING – HEAD MOTOR

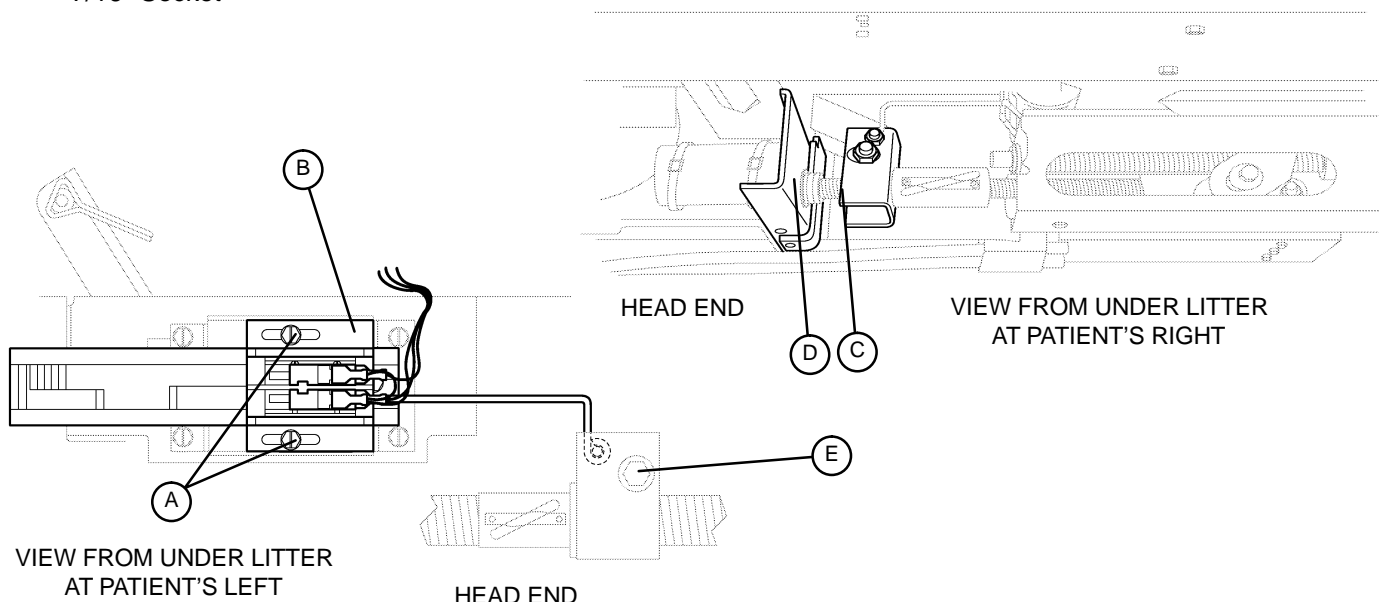
Required Tools:

Standard Screwdriver

5/16" Nut Driver

7/16" Open End Wrench

7/16" Socket



Procedure: (This procedure will take approximately 30 minutes)

1. Remove litter access panels 1 and 2 (see page 93).
2. Remove the motion interrupt panel (see page 95).
3. Run the head section down electrically until flat (0°).
4. Lightly tap the Fowler down button until the bolt and bushing (E) are centered in the slot.
5. Unplug the power cord from the wall socket.
6. Using a 5/16" nut driver, loosen the two screws (A) on the cam (B).
7. Slide the cam toward the head of the bed just until the microswitch is activated (the switch will make a clicking noise).

NOTE

Check that the cam "bump" is on the "head" side of the switch actuator.

8. Tighten the two screws (A).

CAUTION

Be sure the head section stops when the ball nut bracket (C) is approximately 3/4" from panel (D). If not, damage to the unit could result.

9. Run the head section fully up (60°) electrically until it stops. If the upper limit is above 60°, adjust the cam guide (B) toward the foot end of the bed until 60° is achieved (the 3/4" space between (C) and (D) must be maintained). If the lower limit is below 60°, adjust the cam guide toward the head end of the bed until 60° is achieved (the 3/4" space between (C) and (D) must be maintained).
10. Re-install the litter access panels removed in step 1.

Chapter Five – Maintenance Procedures – Litter

5.5 HEAD SECTION (CONTINUED)

HEAD MOTOR REMOVAL AND REPLACEMENT (FOWLER MOTOR KIT P/N 3000–300–703)

Required Tools:

Side Cutters

5/16" Nut Driver

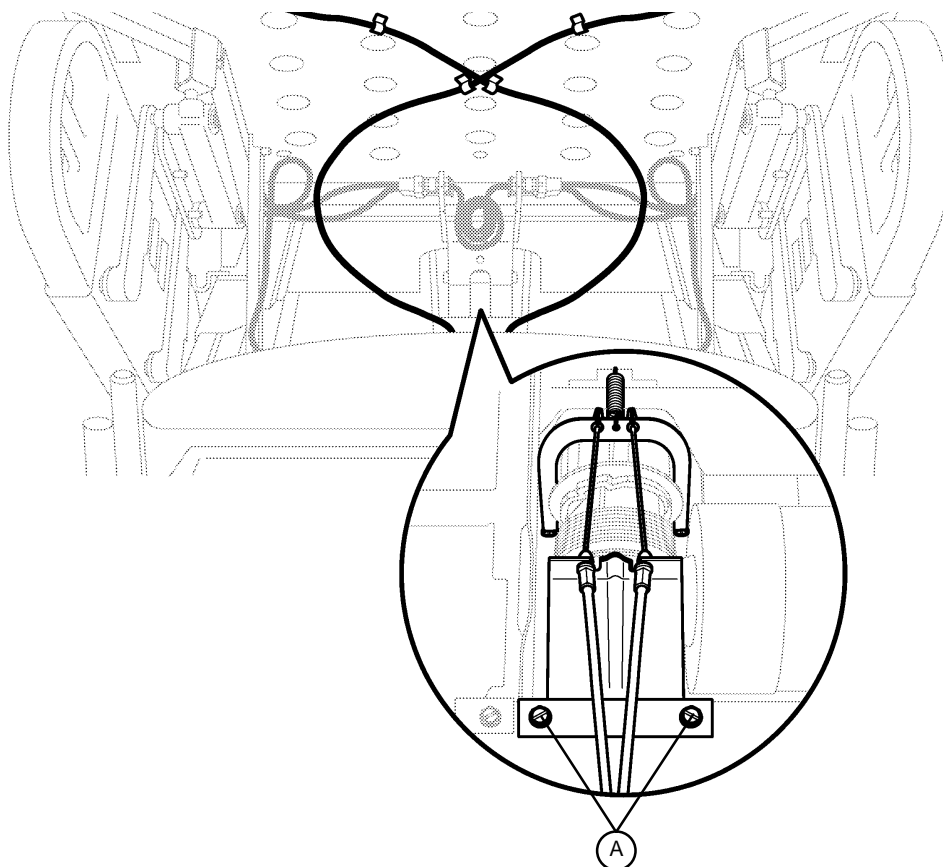
7/16" Socket Wrench

Procedure: (This procedure will take approximately 45 minutes)

WARNING

The head motor is not grounded and may present electrical hazard. Use caution when working around motors.

1. Run the head section (Fowler) up to approximately 45° for better access to the motor.
2. Unplug the power cord from the wall socket.
3. Remove litter access panels 3 and 4 (see page 94).
4. Remove the motion interrupt panel (see page 95).
5. Using side cutters, cut the cable ties holding the power cords to the litter (to allow clearance for lifting the motor out of the litter).
6. Using a 5/16" nut driver, remove the two screws (A) holding the CPR cable bracket to the litter and move the bracket with the attached cables to one side (to allow clearance for lifting the motor out of the litter).



Chapter Five – Maintenance Procedures – Litter

5.5 HEAD SECTION (CONTINUED)

HEAD MOTOR REMOVAL AND REPLACEMENT (CONTINUED)

7. Unplug the head motor cable (B) from the power junction board.

WARNING

Support the head section with a wooden brace (2x4 or equivalent) before continuing or personal injury could result.

8. Using a 5/16" nut driver, remove the two screws and washers (C) holding the motor mount to the litter. (The motor cable clamp is also held by one of the screws.)

9. Underneath the litter, unplug the two cables (D) at the head motor capacitor.

10. To remove the head motor from the litter, push the motor toward the foot end and lift straight up on the motor about 1". Pull the motor toward the head end and lift it straight up and out.

11. Using side cutters, cut the two cable ties holding the motor capacitor to the litter and remove the capacitor.

NOTE

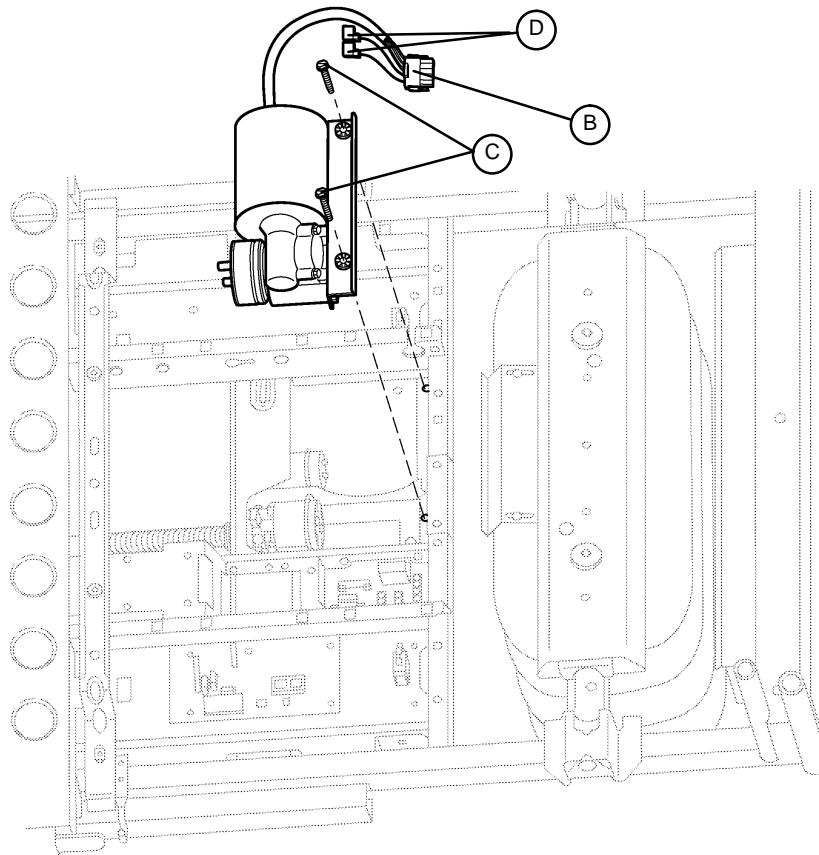
The replacement motor kit will have a new capacitor along with the attached CPR clutch and clutch bushings.

12. Using a 7/16" socket, remove the two bolts holding the motor to the mounting bracket.

NOTE

The mounting bracket will be re-used with the replacement motor.

13. Reverse the above steps to install the new motor assembly and reattach all litter panels. Be sure to attach new cable ties wherever they were removed.



TOP VIEW

Chapter Five – Maintenance Procedures – Litter

5.5 HEAD SECTION (CONTINUED)

HEAD MOTOR DRIVE ISOLATOR AND CPR DECOUPLER REMOVAL AND REPLACEMENT (FOWLER ISOLATOR/DECOUPLER KIT P/N 3000-300-705)

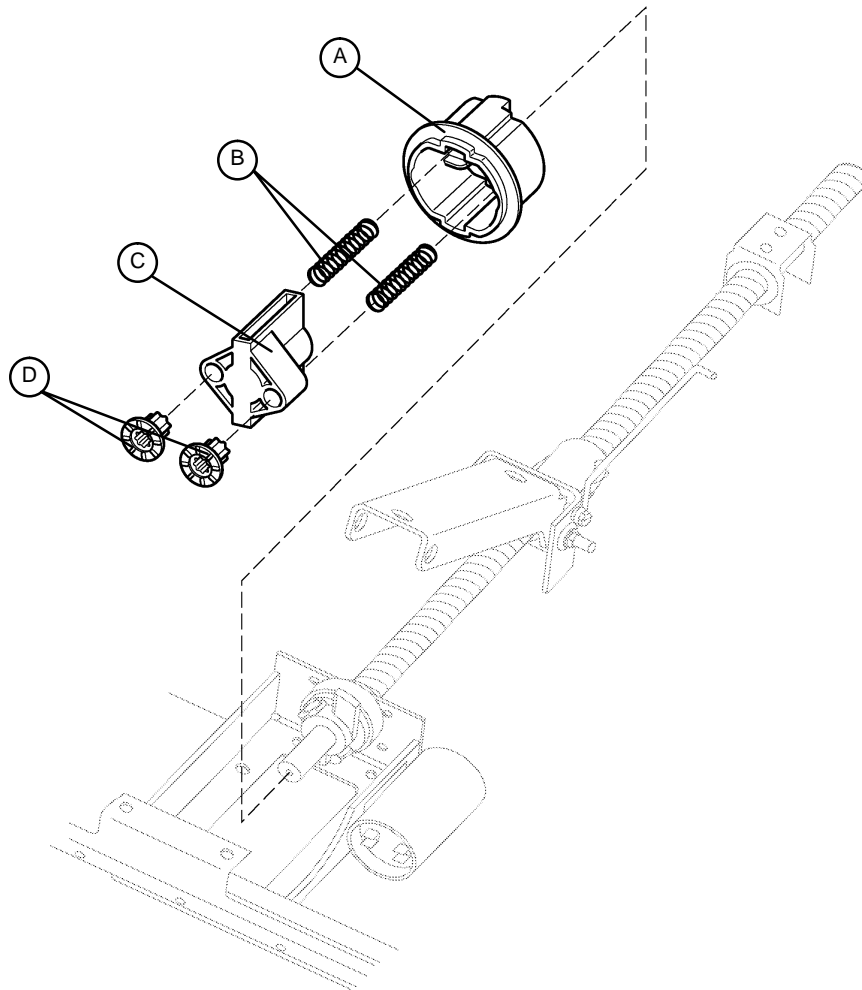
Required Tools:

5/16" Nut Driver

1/4" Nut Driver

Large Vise Clamp (or equivalent)

7/16" Socket Wrench



Procedure: (This procedure will take approximately 45 minutes)

1. Refer to page 103 for "Head Motor Removal and Replacement" to access the isolator, springs and decoupler.
2. Pull the CPR cable support up and off the CPR decoupler (A) with the attached cables.
3. Pull the drive isolator (C) with the bushings (D), springs (B) and CPR decoupler (A) off the drive screw and remove it from the litter.

NOTE

These parts are spring-loaded. Use caution when removing them so they won't drop to the floor.

4. Reverse the above steps to install the new isolator and decoupler. (The replacement isolator and decoupler will be provided together in a kit.)

Notes

Chapter Five – Maintenance Procedures – Litter

5.5 HEAD SECTION (CONTINUED)

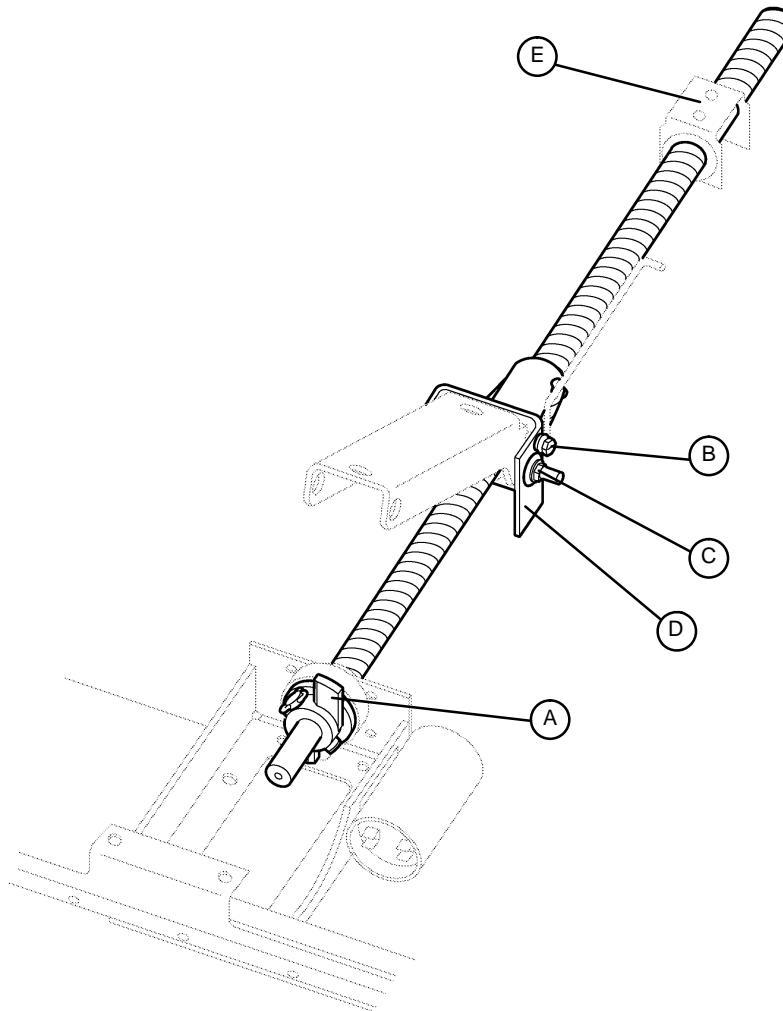
DRIVE SCREW AND BALL NUT REPLACEMENT – HEAD MOTOR (FOWLER BALL SCREW KIT P/N 3000-300-707)

Required Tools:

1/4" Nut Driver
Needle-Nose Pliers

5/16" Nut Driver
7/16" Open End Wrench (2)

7/16" Socket Wrench



Procedure: (This procedure will take approximately 90 minutes)

1. Unplug the power cord from the wall socket.
2. Remove the head motor (see page 103) for access to the screw and ball nut.
3. Remove the head motor drive isolator and CPR decoupler (see page 105).
4. Using needle-nose pliers, remove the cotter pin holding the clevis pin to the drive screw "wing" (A).
5. Remove the clevis pin and slide the wing and tapered roller bearing off the drive screw.
6. Using a 5/16" nut driver underneath the litter, remove the screw holding the cam retention wire (B) to the ball nut assembly.

Chapter Five – Maintenance Procedures – Litter

5.5 HEAD SECTION (CONTINUED)

DRIVE SCREW AND BALL NUT REPLACEMENT – HEAD MOTOR (CONTINUED)

7. Slide the cam and retention wire as far toward the foot end of the bed as possible to allow proper clearance for removal of the drive screw.
8. Remove the hinge pin from the Fowler and main link.
9. To prevent the ball nut from coming off the drive screw, cable tie both ends of the ball nut to the drive screw.
10. Pull the drive screw toward the foot of the bed and remove the head end of the drive screw and ball nut assembly from the support (D). Push the drive screw toward the head end of the bed and remove the foot end of the screw from the glide bushing support (E).

NOTE

Do not allow the ball nut assembly to come off the drive screw. The ball nut will be shipped attached to the drive screw and retained in position during shipment. Remove the restraining straps before installing the drive screw and nut.

11. Remove the thrust washers and bearing from the head end of the drive screw and set them aside.
12. Using two 7/16" open end wrenches, remove the bolt, nut and bushings (C) supporting the ball nut assembly on the Fowler link.
13. Reverse the above steps to install the replacement drive screw and ball nut assembly.

NOTE

Apply grease to all bearing areas.

CAUTION

Assure the head motor stops properly at both upper and lower electric limits. If it does not, refer to page 102 for "Limit Setting – Head Motor".

Chapter Five – Maintenance Procedures – Litter

5.6 CPR

CPR CABLE ADJUSTMENT/REPLACEMENT

Required Tools:

Needle–Nose Pliers

(2) 10 mm Open–End Wrenches

NOTE

The CPR emergency release allows quick access to the patient when the head section is raised. When handle (A) is squeezed, the attached cable (B) pulls the CPR bracket (C) which pulls the motor coupler out of the drive screw and causes the head section to drop. If this doesn't happen when the handle is squeezed, cable adjustment or replacement may be required.

Cable Adjustment Procedure: (This procedure will take approximately 5 minutes)

1. If the motor coupler is not pulled far enough away from the motor drive screw when the handle (A) is squeezed to allow the head section to drop, use two 10 mm open–end wrenches to loosen the two jam nuts (D) holding the cable in position (one nut is not shown). Turn the nuts to allow **less** thread exposure in area 1 (as shown in the illustration). When adjusted properly, the CPR coupler (E) and CPR "wing" (F) should be separated, as shown in view two of the illustration on page 111, when the handle is squeezed fully. When the handle is released, the CPR coupler (E) and "wing" (F) should fit tightly, as shown in view one of the illustration. Tighten the nuts when the proper adjustment is achieved.

Cable Replacement Procedure: (This procedure will take approximately 15 minutes)

1. Unplug the bed power cord from the wall socket. Using needle–nose pliers, remove the tension spring (G) from the CPR bracket (C).
2. Remove the cable to be replaced from bracket (C) and bracket (H).
3. Remove the cable from the cable retainers (J).
4. Remove the cable from the bracket on the handle.
5. Using two 10 mm open–end wrenches, remove the two nuts (D) (one not shown) and remove the cable from the handle.
6. Reverse steps 1–5 to install the new cable. Refer to the procedure above for cable adjustment.

CPR HANDLE REPLACEMENT (CPR HANDLE KIT P/N 3000–300–719)

Required Tools:

Needle–Nose Pliers

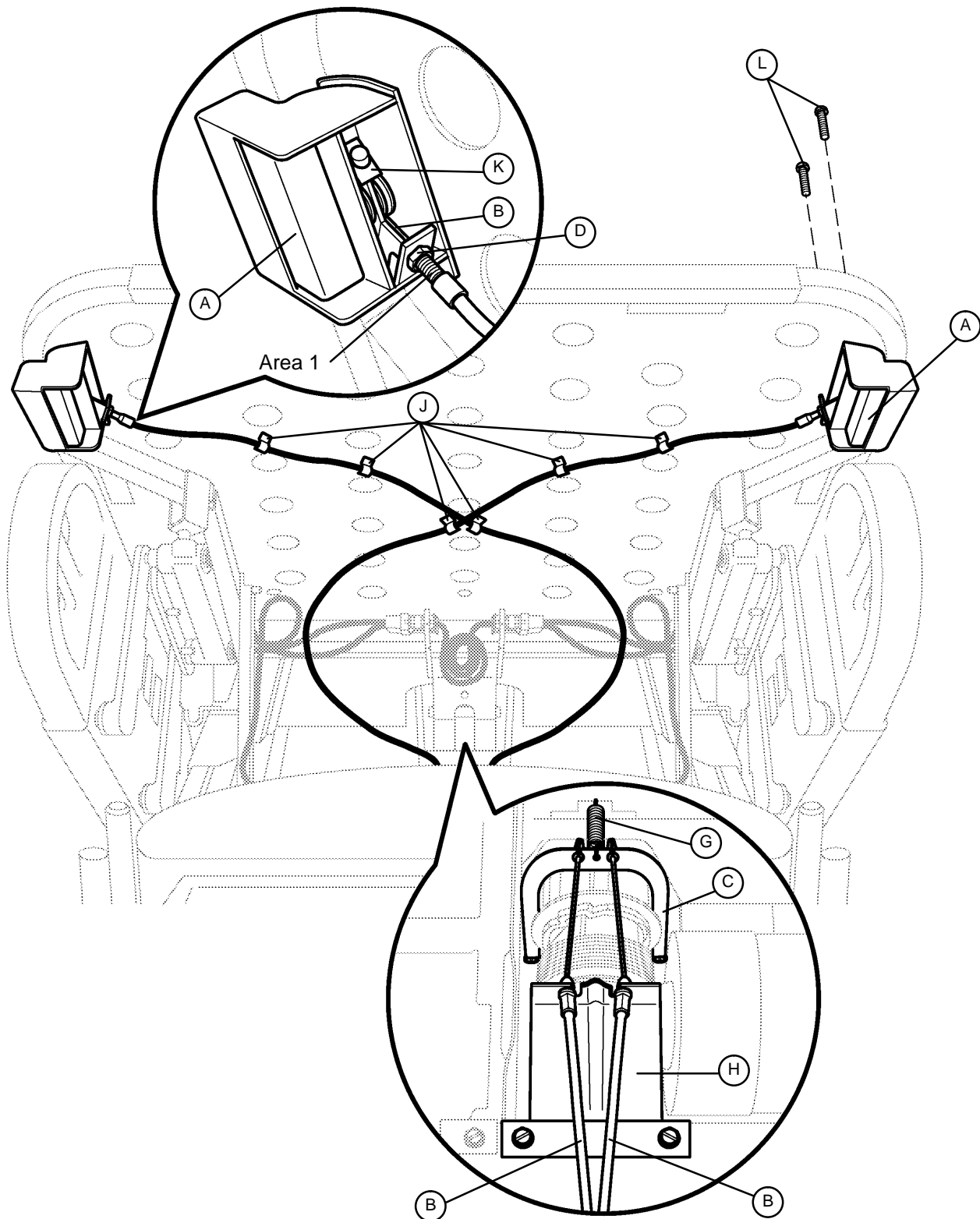
#3 Phillips Screwdriver

(2) 10 mm Open–End Wrenches

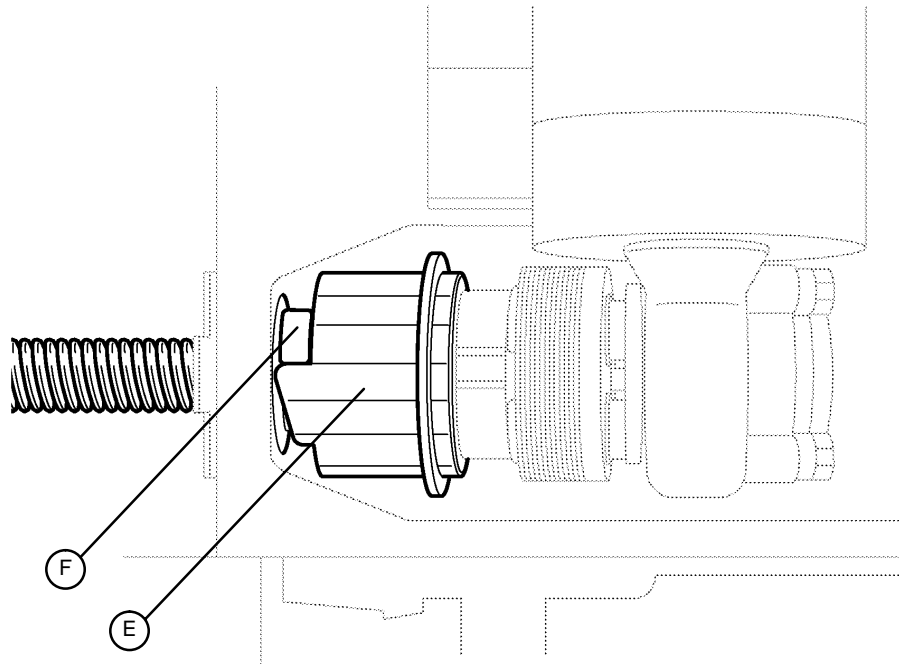
Procedure: (This procedure will take approximately 20 minutes)

1. Unplug the bed power cord from the wall socket. Using needle–nose pliers, remove the tension spring (G) from the CPR bracket (C).
2. Remove the end of the cable at the handle from bracket (K).
3. Using two 10 mm open–end wrenches, remove the two nuts (D) (one not shown) and remove the cable from the handle area.
4. Using a Phillips screwdriver, remove the two screws (L) holding the handle assembly to the litter and remove the handle.
5. Reverse the above procedure to install the new handle. See above procedure for cable adjustment.

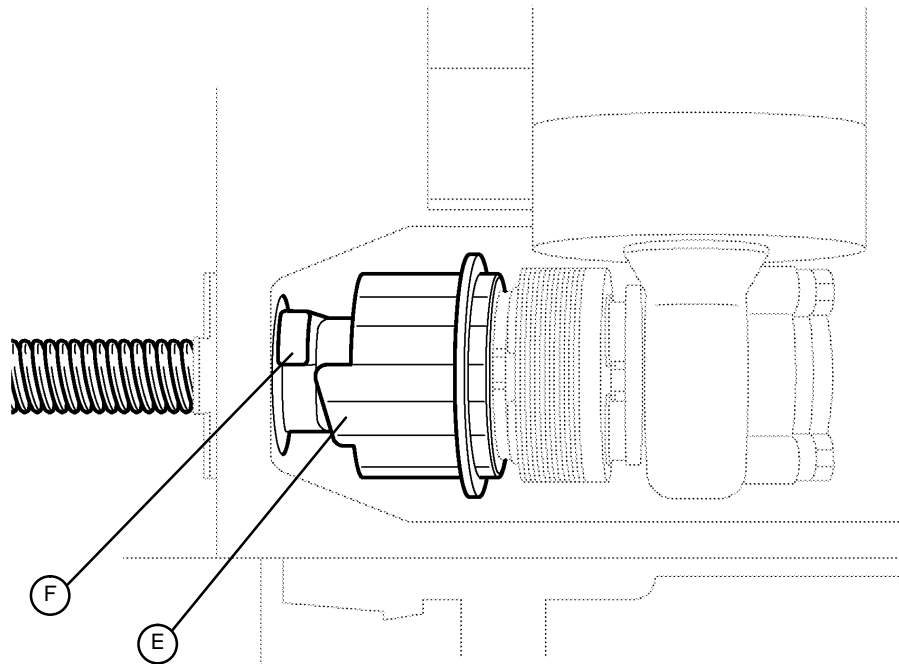
5.6 CPR (CONTINUED)



5.6 CPR (CONTINUED)



VIEW 1



VIEW 2

TOP VIEW

Chapter Five – Maintenance Procedures – Litter

5.7 WEIGH SYSTEM DIAGNOSTICS AND REPAIRS (OPTIONAL EQUIPMENT)

WEIGH SYSTEM DIAGNOSTIC PROCEDURE (This procedure will take approximately 10 minutes)

Diagnostic Mode Functions:

1. **Calibrate Scale:** This may be required in the field if the scale CPU is replaced.
2. **Change Ref. Volts:** This is a factory set-up mode and is not used in the field.
3. **Init. to Defaults:** This may be required in the field when replacing the scale CPU board.
4. **Display Corner:** This function displays the individual corner weights for each load cell assembly and can be used to isolate a defective load cell.
5. **Save:** Changes made in the diagnostic mode (with the exception of Calibrate Scale) **must** be saved in permanent memory using this function. Switching off power without saving will reset all variables to their previous values.

Diagnostic Mode:

NOTE

It requires **two people** to enable the diagnostic mode for the scale system.

1. To enter diagnostic mode, unplug the bed's power cord from the wall socket.
2. Press and **hold down** the LBS/KGS key.
3. While still holding the LBS/KGS key, plug the bed's power cord into the wall socket.
4. After two seconds, release the LBS/KGS key. The scale monitor should read CALIBRATE. The diagnostic mode is now active.

Special Key Functions in the Diagnostic Mode:

NOTE

By pressing the LBS/KGS key, the diagnostic mode functions can be scrolled.

To enter the selected mode, press the SCALE ON key.

1. The four keys listed in the group below function as POSITION keys corresponding with the four corners of the bed's litter. Whenever the scale monitor displays PICK CORNER NOW, press one of these keys to select the load cell assembly at the desired corner.
 - A. ZERO = head end, patient's right side
 - B. MINUS = foot end, patient's right side
 - C. DELTA = head end, patient's left side
 - D. PLUS = foot end, patient's left side

NOTE

If the bed was manufactured in September or October, 1993, use the Bed Exit DISARM key to view the foot, right load cell and the minus key to view the foot, left load cell.

Chapter Five – Maintenance Procedures – Litter

5.7 WEIGH SYSTEM DIAGNOSTICS AND REPAIRS (OPTIONAL EQUIPMENT) **(CONTINUED)**

WEIGH SYSTEM DIAGNOSTIC PROCEDURE (CONTINUED)

Displaying Individual Load Cell Outputs:

A defective load cell can be detected by entering diagnostics and displaying individual load cell outputs.

1. Enter the diagnostic mode. The scale monitor will display CALIBRATE when the diagnostic mode is active.
2. Press and release LBS/KGS until the scale monitor displays DISPLAY CORNER.
3. Press and release SCALE ON. The scale monitor should display PICK CORNER NOW.
4. Press and release the position key that corresponds with the load cell to be checked. The scale monitor should display X/X=NNN.N. "X/X" represents the initials of the selected corner, i.e. H/R will be displayed for the patient's head end, right side. "NNN.N" represents the actual weight load on the load cell.
5. Repeat step four for each corner. Head end weight readings will normally be lower than foot end weights. Weight readings should be constant. A drifting 000.0 or 999.9 weight, or a reading that does not change when weight is applied to that corner of the bed indicates a problem with the selected load cell assembly or load cell cable.
6. When all the load cell outputs have been checked, press and release SCALE ON. To exit diagnostics, unplug the bed's power cord from the wall socket.

Scale Calibration:

NOTE

It requires **two people** to enable the diagnostic mode for the scale system.

1. Zero the empty bed. Place a known weight on the center of the bed; the heavier the better and no less than 25 pounds. The displayed weight should be within 1% of the actual weight.
2. If the displayed weight is not accurate, use the following procedure to calibrate the scale:
 - A. Remove the weight from the bed and place the scale CPU in diagnostics mode (see diagnostic mode section on previous page).
 - B. The scale monitor should display CALIBRATE SCALE.
 - C. Press and hold SCALE ON. Zero the bed, following the displayed instructions. When the bed is zeroed, the scale monitor should display REF X100=<2>000.0.
 - D. The displayed number must now be changed to match the known weight times 100. For example, if you weighed yourself on a known accurate scale and you weigh 192.4 pounds, you would change the REF number to equal 19240. Change the REF number using the LBS/KGS key to position the brackets (<>) around the digit needing to be changed and the "+" key to scroll through the bracketed digit.
 - E. After the number is corrected, press and release SCALE ON. The scale should display ADD LBS, HIT ON.
 - F. Place weight used in step one on the center of the bed and press and hold SCALE ON. The scale monitor should display RELEASE TO CAL.
 - G. Release SCALE ON. The scale monitor should display DO NOT TOUCH BED. Don't touch the bed. When calibration is complete, the scale monitor should display CALIBRATE SCALE.
 - H. Calibration is now complete. Unplug the power cord to exit diagnostics and re-zero the empty bed. Check the scale accuracy with the weight used previously.

Chapter Five – Maintenance Procedures – Litter

5.7 WEIGH SYSTEM DIAGNOSTICS AND REPAIRS (OPTIONAL EQUIPMENT) **(CONTINUED)**

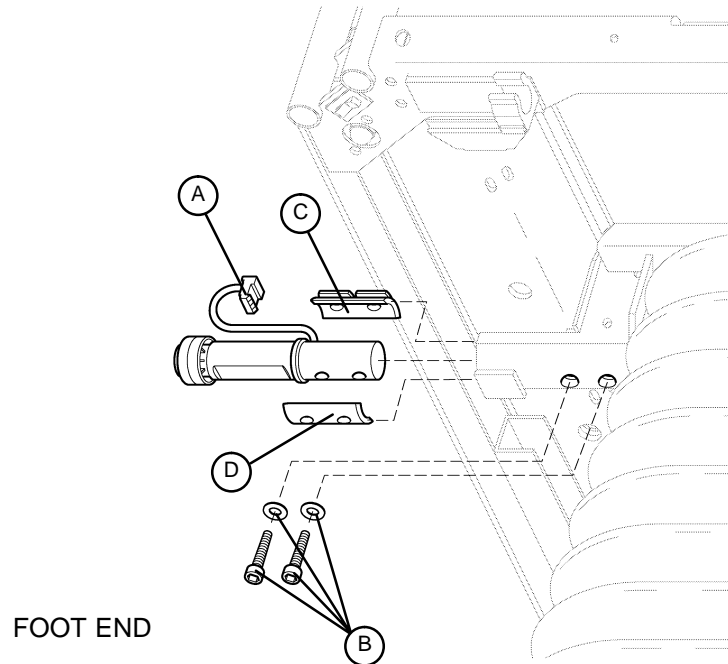
LOAD CELL REPLACEMENT (LOAD CELL KIT P/N 3000–307–701)

Required Tools:

Standard Screwdriver
Side Cutters

5/16" Nut Driver

1/4" Hex Allen Wrench



Procedure: (This procedure will take approximately 1 hour)

1. Unplug the bed power cord from the wall socket. Remove litter access panel at end of bed needing service (see pages 93 & 94).
2. Support the corner of the litter where the load cell is being removed.
3. Unplug the load cell connector (A) from the load cell cable. The connector is tucked into the header cross-bar and held with cable ties. Using side cutters, cut the cable ties.
4. Using a 1/4" hex allen wrench, remove the two screws and washers (B) holding the load cell to the bed.
5. Remove the load cell mounting bracket (C) from the top of the load cell and set aside.
6. When removing the load cell at the head end of the bed, slide the load cell toward the center of the bed to clear the bushing that supports the load cell. Remove the load cell by lifting it up and out. When removing the load cell at the foot end of the bed, slide the load cell with the roller bushing toward the center of the bed to clear the litter frame. Remove the load cell and the roller bushing by lifting them up and out.
7. Remove the load cell mounting bracket (D) that was under the load cell and set aside.
8. Reverse the above procedure to install the new load cell.

CAUTION

Be sure the load cell's strain gauge is facing up when installing a new load cell or the weigh system will not work properly.

10. Recalibrate the weigh system, if necessary (see pages 112 & 113)

Chapter Five – Maintenance Procedures – Litter

5.7 WEIGH SYSTEM DIAGNOSTICS AND REPAIRS (OPTIONAL EQUIPMENT) **(CONTINUED)**

WEIGH CPU BOARD REPLACEMENT

Required Tools:

1/4" Nut Driver

Phillips Screwdriver

Needle–Nose Pliers

Procedure: (This procedure will take approximately 15 minutes)

1. Unplug the power cord from the wall receptacle.
2. Remove litter access panels 3 and 4 (see page 94).
3. Properly ground yourself (see page 10 for static discharge precautions).
4. Disconnect all cables at the weigh CPU board (see page for board location). Notice the locations of the cables so they will be reconnected properly to the replacement weigh CPU.
5. To remove the board from the litter standoffs, use needle–nose pliers to squeeze the retention clips and lift upward on the board.
6. Install the new board and reconnect all cables.
7. Reinstall the two litter access panels and plug the power cord into a properly grounded wall receptacle.
8. The weigh system diagnostic procedure must now be performed (see pages 112 and 113). The functions to be used are: Init To Defaults, Calibrate Scale and Save.
9. Test weigh system for accurate operation before returning the bed to service.

5.8 LITTER CPU BOARD REPLACEMENT

Required Tools:

Standard Screwdriver

5/16" Nut Driver

Needle–Nose Pliers

Procedure: (This procedure will take approximately 20 minutes)

1. Unplug the power cord from the wall receptacle.
2. Remove litter access panels 1 and 2 (see page 93).
3. Properly ground yourself (see page 10 for static discharge precautions).
4. Disconnect all cables at the litter CPU board (see page for board location). Notice the locations of the cables so they will be reconnected properly to the replacement litter CPU.
5. For easier access to the litter CPU, use a 5/16" nut driver to remove the two screws holding the cable tray to the litter and lay the tray aside.
6. Using a small screwdriver, remove the two plastic screws from the center area of the board.
7. To remove the board from the litter standoffs, use needle–nose pliers to squeeze the retention clips and lift upward on the board.
8. Install the new board and reconnect all cables.
9. Reinstall the two litter access panels and plug the power cord into a properly grounded wall receptacle.
10. Test bed operations before returning the bed to service.

Chapter Five – Maintenance Procedures – Litter

5.9 POWER CORD REPLACEMENT

(POWER CORD KIT P/N 3000–300–737)

Required Tools:

Heyco Pliers

1/4" Nut Driver

Side Cutters

5/16" Nut Driver

Procedure: (This procedure will take approximately 15 minutes)

1. See page for proper routing of the power cord.
2. Unplug the power cord from the wall receptacle.
3. Remove litter access panels 3 and 4 (see page 94).
4. Using Heyco pliers, remove the power cord strain relief connector.
5. Using side cutters, cut all cable ties harnessing the power cord to other cables.
6. Using a 1/4" nut driver, remove the two clamps holding the power cord to the litter.
7. Unplug the power cord from the litter junction power board.

NOTE

Notice the plug location for proper installation of the new power cord.

8. Using a 5/16" nut driver, remove the screw holding the power cord ground cable to the base.

NOTE

Notice the arrangement of the star washers so the new ground wire will be installed properly.

9. Reverse the above steps to install the new power cord.

5.10 LITTER GREASE POINTS

1. All litter pivot joint bushings – "Syntech" synthetic grease.
2. All Gatch and Fowler pivot link bushings – "Syntech" synthetic grease.
3. Gatch drive screw and Gatch pan slide surface – "Syntech" synthetic grease.
4. Fowler drive screw – "Mobil 28" grease.

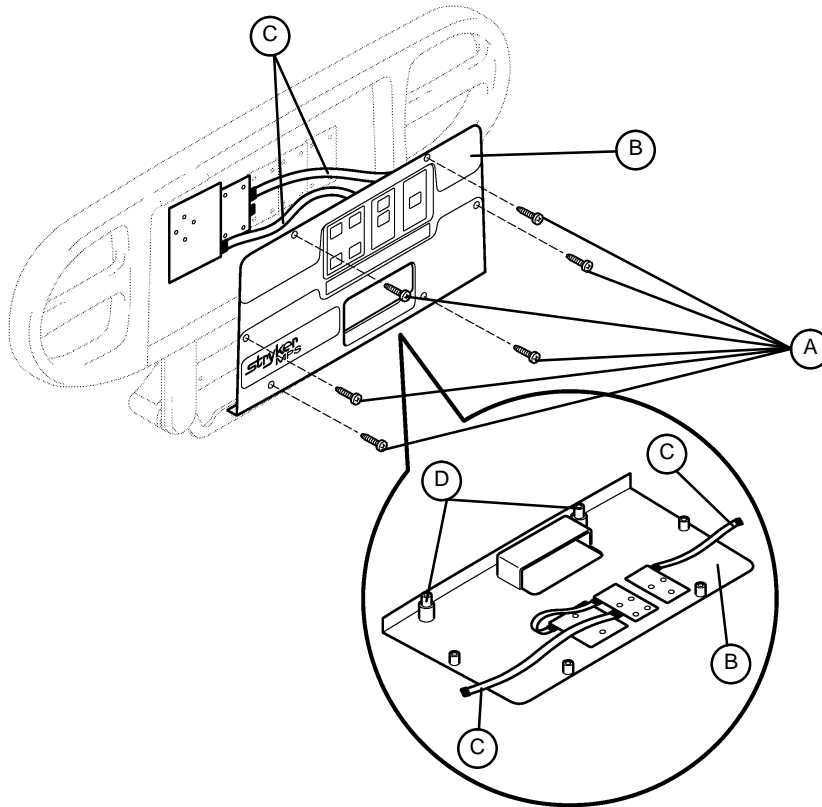
Chapter Six – Maintenance Procedures – Siderails

6.1 HEAD AND FOOT END SIDERAIL

HEAD AND FOOT SIDERAIL COVER REMOVAL

Required Tools:

#1 or #2 Phillips Screwdriver



Removal Procedure: (this procedure will take approximately 10 minutes)

1. Unplug the bed power cord from the wall socket.
2. Using a Phillips screwdriver, remove the 6 phillips screws (A) holding the outside cover (B) to the siderail.

CAUTION

There are two ribbon cables (C) connecting the outside cover to the head end siderail. Be careful not to pull on them when removing the cover.

3. To remove the cover, lift the siderail latch handle and pull out and down on the cover to clear the handle.
4. Pinch the release tabs on the ribbon cables (C) at the circuit boards and remove the cables from the siderail. Make note of the proper location for the cables.
5. Reverse the above steps to reattach the cover. Be sure the panel spacers (D) are in place before attaching the cover.

CAUTION

Do not snag the ribbon cables when installing the siderail cover.

NOTE

Siderail cover removal for the foot end rails is the same procedure without the ribbon cables and switch components.

Chapter Six – Maintenance Procedures – Siderails

6.1 HEAD AND FOOT END SIDERAIL (CONTINUED)

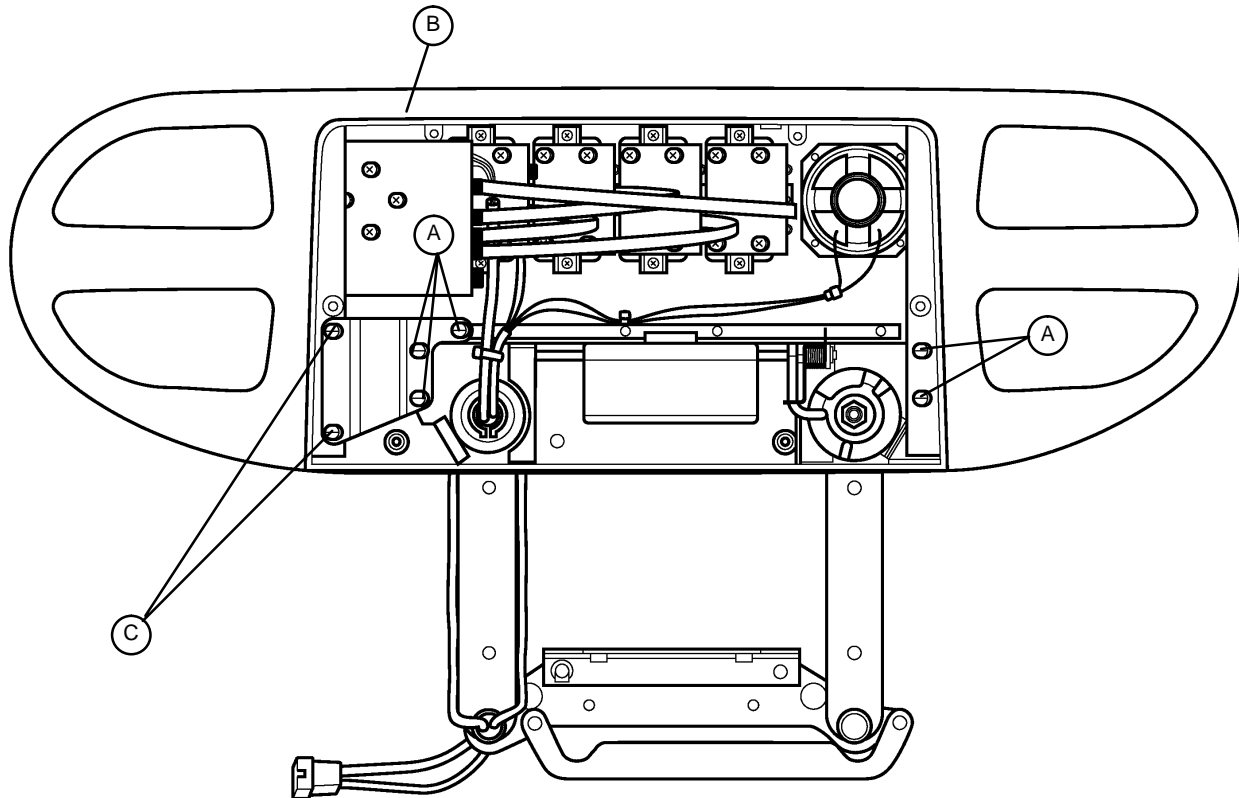
HEAD AND FOOT MOLDED SIDERAIL REPLACEMENT

Required Tools:

#1 or #2 Phillips Screwdriver

5/16" Nut Driver

3/8" Open End Wrench



Procedure: (This procedure will take approximately 30 minutes)

1. Unplug the bed power cord from the wall socket.
2. Remove the siderail cover (see page 117).
3. Using a 5/16" nut driver, remove the 5 screws (A) holding the molded rail to the siderail assembly.

NOTE

Notice washer and spacer locations for re-assembly purposes.

4. Pull on the molded rail (B) to remove it from the siderail assembly.
5. Using a 3/8" open end wrench and a 5/16" nut driver, remove the 2 bolts and nuts (C) holding the metal bracket to the molded rail.
6. Attach the metal bracket to the new molded rail and reverse the above steps to install the new molded rail.

Chapter Six – Maintenance Procedures – Siderails

6.1 HEAD AND FOOT END SIDERAIL (CONTINUED)

SIDERAIL LATCH POSITIONING MECHANISM REPLACEMENT

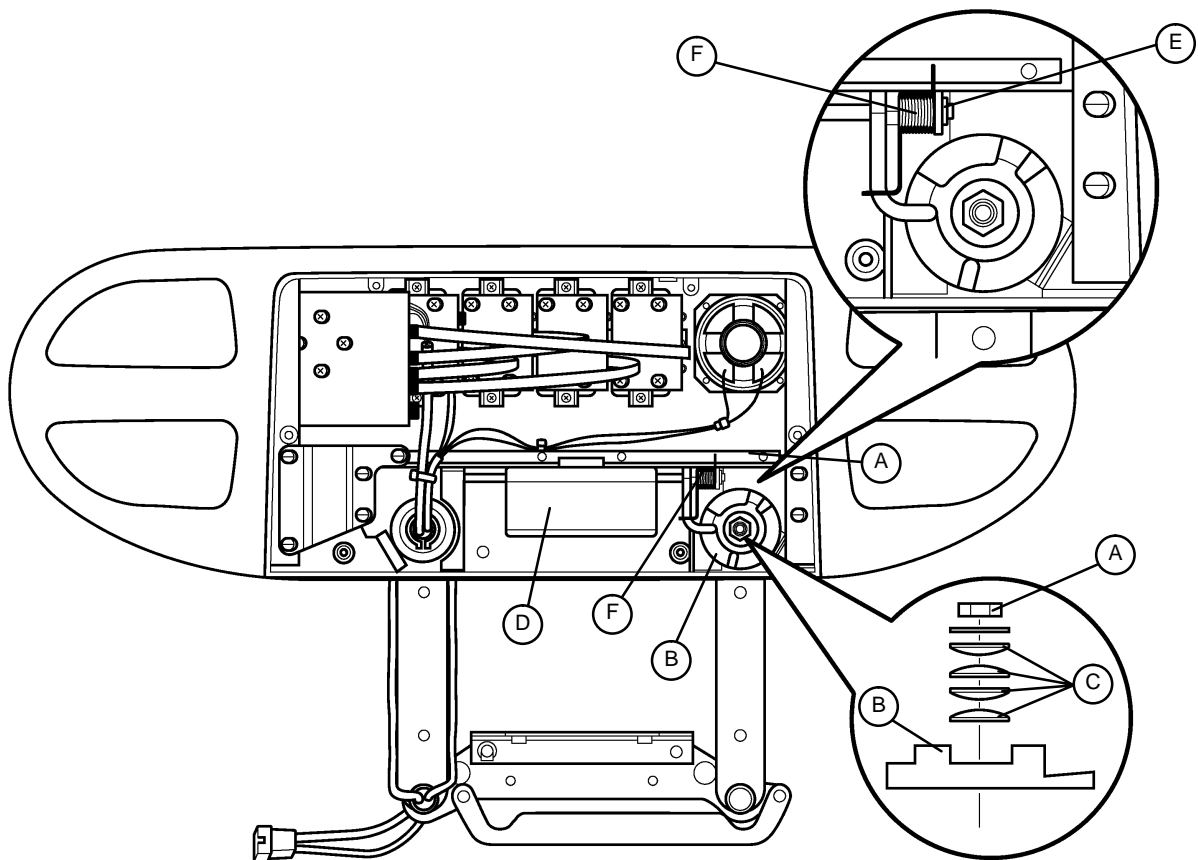
Required Tools:

#1 or #2 Phillips Screwdriver

Offset Snap Ring Pliers

9/16" Socket Wrench

5/16" Hex Allen Wrench



Procedure: (this procedure will take approximately 1 hour)

1. Unplug the bed power cord from the wall socket. Remove the siderail cover (see page 117).
2. Put the siderail in the down position.
3. Use a Phillips screwdriver to remove the screws holding the rear pivot arm cover to the siderail.
4. Remove the plastic latch handle cover by pulling the top of the handle from the back and prying the tabs off the latch arm.
5. While holding the bolt with a 5/16" Allen wrench, use a 9/16" socket wrench to remove the nut (A) holding the locking plate (B) to the rail.
6. Remove the spring washers (C), being sure to note their positions (as shown in the illustration) so they will be reinstalled properly.
7. Lift up on the latch handle (D) to provide clearance for removing the latch plate.
8. Using snap ring pliers, remove the snap ring (E) on the end of the latch arm.

Chapter Six – Maintenance Procedures – Siderails

6.1 HEAD AND FOOT END SIDERAIL (CONTINUED)

SIDERAIL LATCH POSITIONING MECHANISM REPLACEMENT (CONTINUED)

9. Carefully remove the torsion spring (F) from the latch arm.

NOTE

Notice the proper tension position of the spring so it will be reinstalled properly.

10. Slide the latch arm to the left to remove it from the right support bracket and to the right to remove it from the left support bracket.

11. Reverse the above steps to reinstall the siderail mechanism.

NOTE

Add tension to the spring before installing it to the siderail.

Re-install the spring washers properly (as shown in the illustration) or the siderail may feel loose.

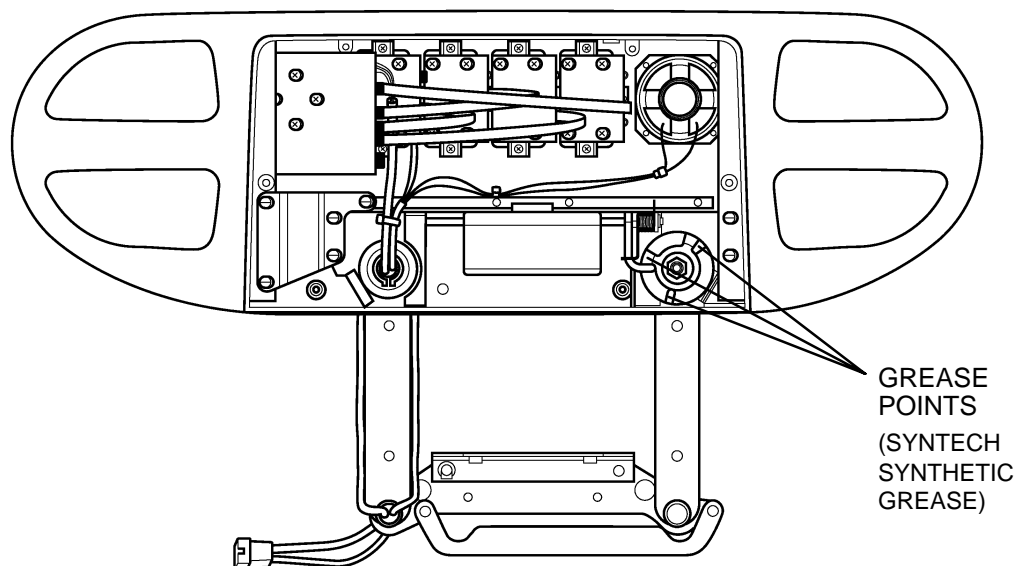
Generously grease the locking plate and latch area before re-assembly (see procedure below).

To properly re-install the 9/16" nut holding the locking plate to the rail, hold the 5/16" allen bolt with a 5/16" allen wrench and tighten the 9/16" nut. Also be sure the spring washers fit around the pivot arm shoulder.

HEAD AND FOOT SIDERAIL GREASE POINTS

Procedure: (this procedure will take approximately 15 minutes)

Apply grease where shown in the illustration.



Chapter Six – Maintenance Procedures – Siderails

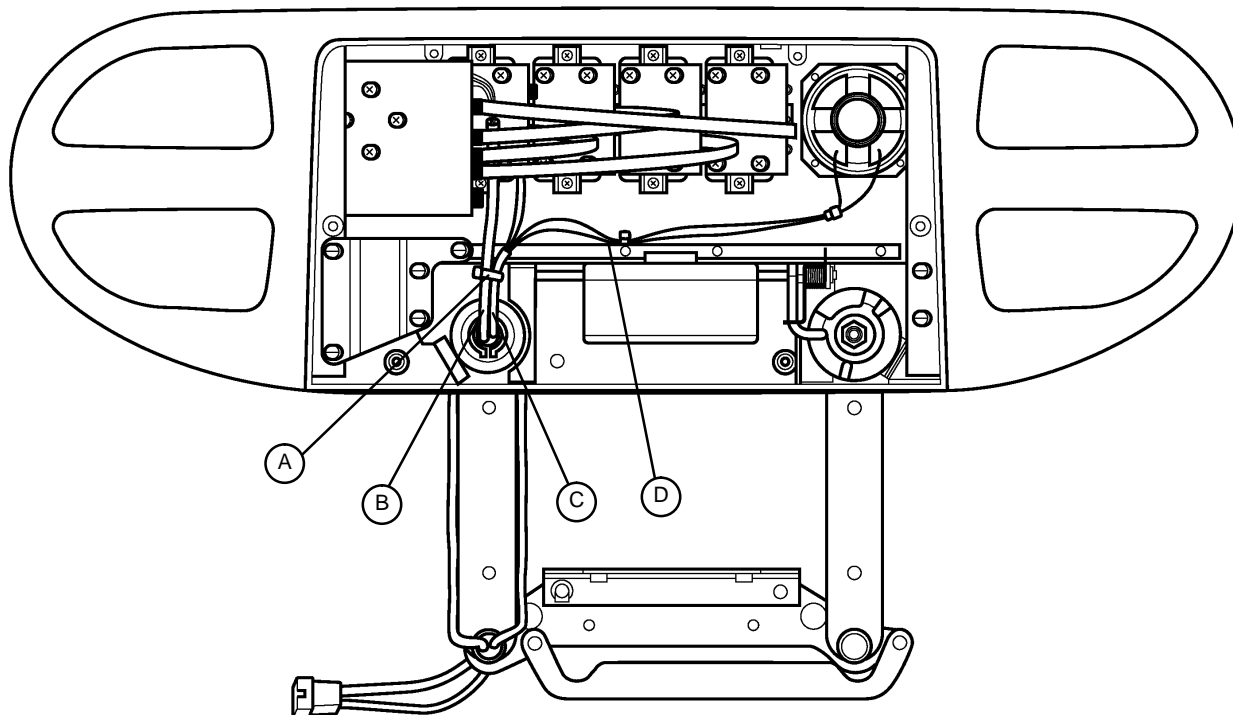
6.1 HEAD AND FOOT END SIDERAIL (CONTINUED)

HEAD END SIDERAIL CABLE REPLACEMENT

Required Tools:

#1 or #2 Phillips Screwdriver

Side Cutters



Procedure: (This procedure will take approximately 25 minutes)

1. Run the head section fully up.
2. Unplug the bed power cord from the wall socket.
3. Put the siderail in the down position.
4. Remove the siderail cover (see page 117).
5. Using a Phillips screwdriver, remove the two screws holding the rear siderail pivot arm cover to the pivot arm. Remove the cover to expose the siderail cables.
6. Using side cutters, clip the cable tie (A) holding the cables together.
6. Disconnect cable (B) from the circuit board, cable (C) from the nurse call and cable (D) from the speaker.

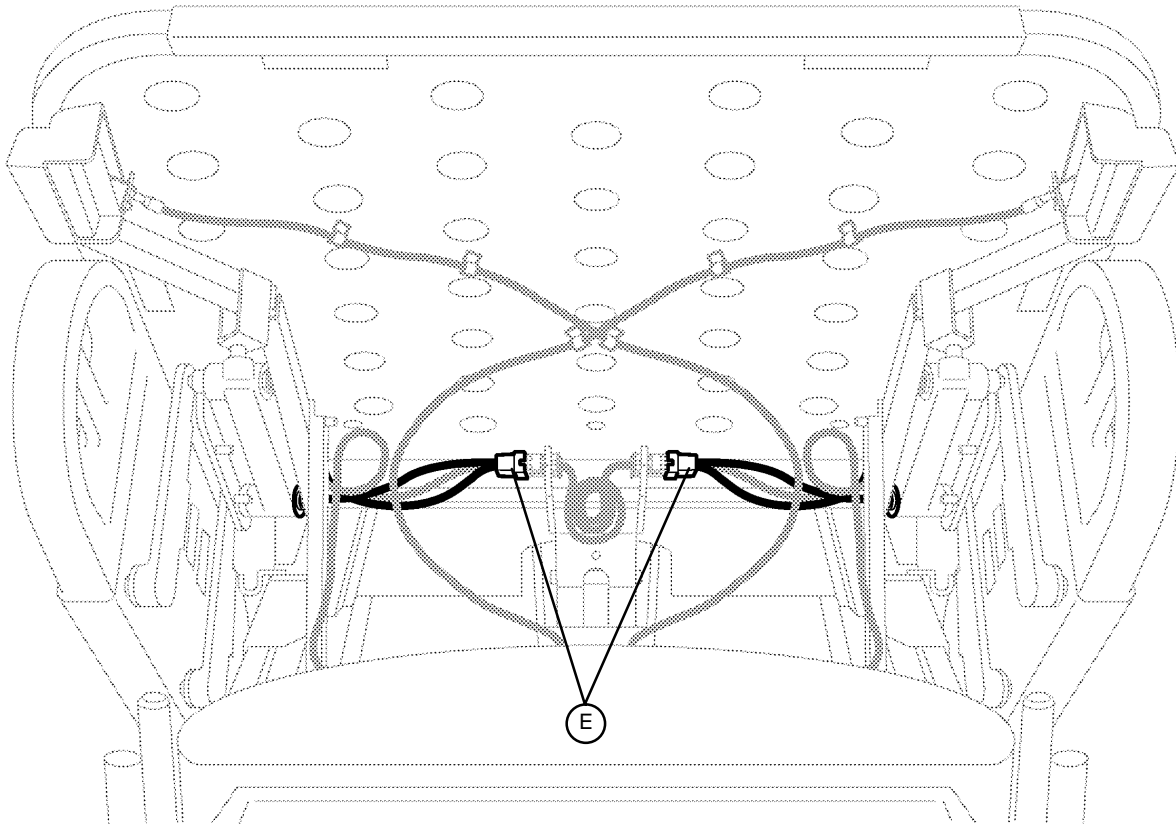
NOTE

The speaker and nurse call are optional equipment and may not be in the siderail as shown.

7. Pull the cables through the siderail (toward the center of the bed).

6.1 HEAD AND FOOT END SIDERAIL (CONTINUED)

HEAD END SIDERAIL CABLE REPLACEMENT (CONTINUED)



8. Unplug the cable assembly (E) underneath the head section.

9. Reverse the above steps to install the new cable.

CAUTION

Be sure to position the cables on both sides of the pivot arm, as shown in the illustration on page 121, before reattaching the pivot arm cover. If not done properly, the cover will not fit tightly and damage could occur to the cables.

NOTE

If it is more convenient, the siderail can be removed and repairs can be done on a bench (see pages 123 and 124 for siderail assembly removal).

Chapter Six – Maintenance Procedures – Siderails

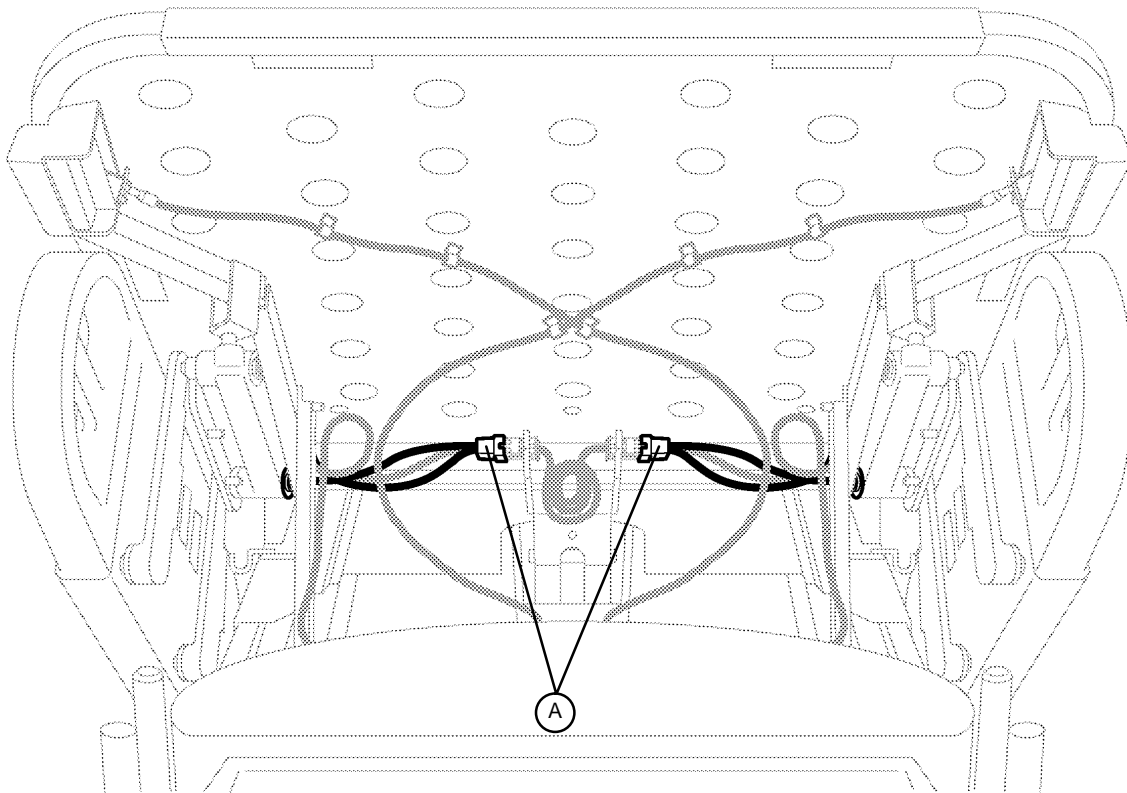
6.1 HEAD AND FOOT END SIDERAIL (CONTINUED)

SIDERAIL ASSEMBLY REMOVAL

(RIGHT FOOT END SIDERAIL KIT P/N 3000-400-701, LEFT FOOT END SIDERAIL KIT P/N 3000-400-703, RIGHT HEAD END SIDERAIL KIT P/N 3000-400-705, LEFT HEAD END SIDERAIL KIT P/N 3000-400-707)

Required Tools:

#3 Phillips Screwdriver



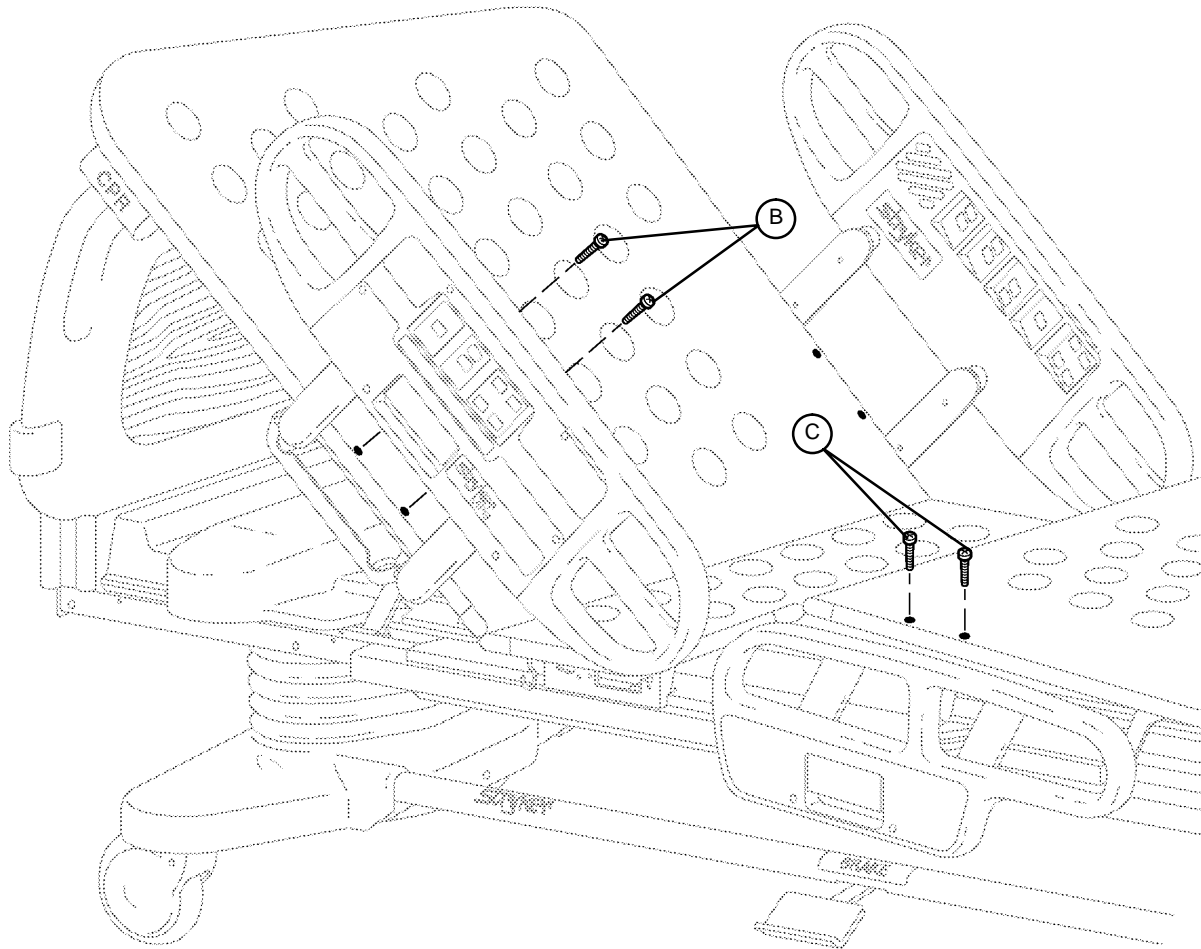
Removal Procedure:

1. Run the head section up electrically when removing a head end siderail.
2. Unplug the bed power cord from the wall socket.
3. Lower the siderail being removed.
4. If removing a head end siderail, disconnect the siderail cable (A) from under the head section (shown in the illustration).

Chapter Six – Maintenance Procedures – Siderails

6.1 HEAD AND FOOT END SIDERAIL (CONTINUED)

SIDERAIL ASSEMBLY REMOVAL (CONTINUED)



5. Using a Phillips screwdriver, remove the two screws (B) or (C) holding the siderail assembly on the head or foot section.
6. Push in on the siderail assembly to clear under the head or foot section and pull the siderail back to remove it from the bed.
7. Reverse the above steps to reinstall the siderail assembly.

NOTE

Grease the glide rods on the replacement siderail assembly with Syntech grease.

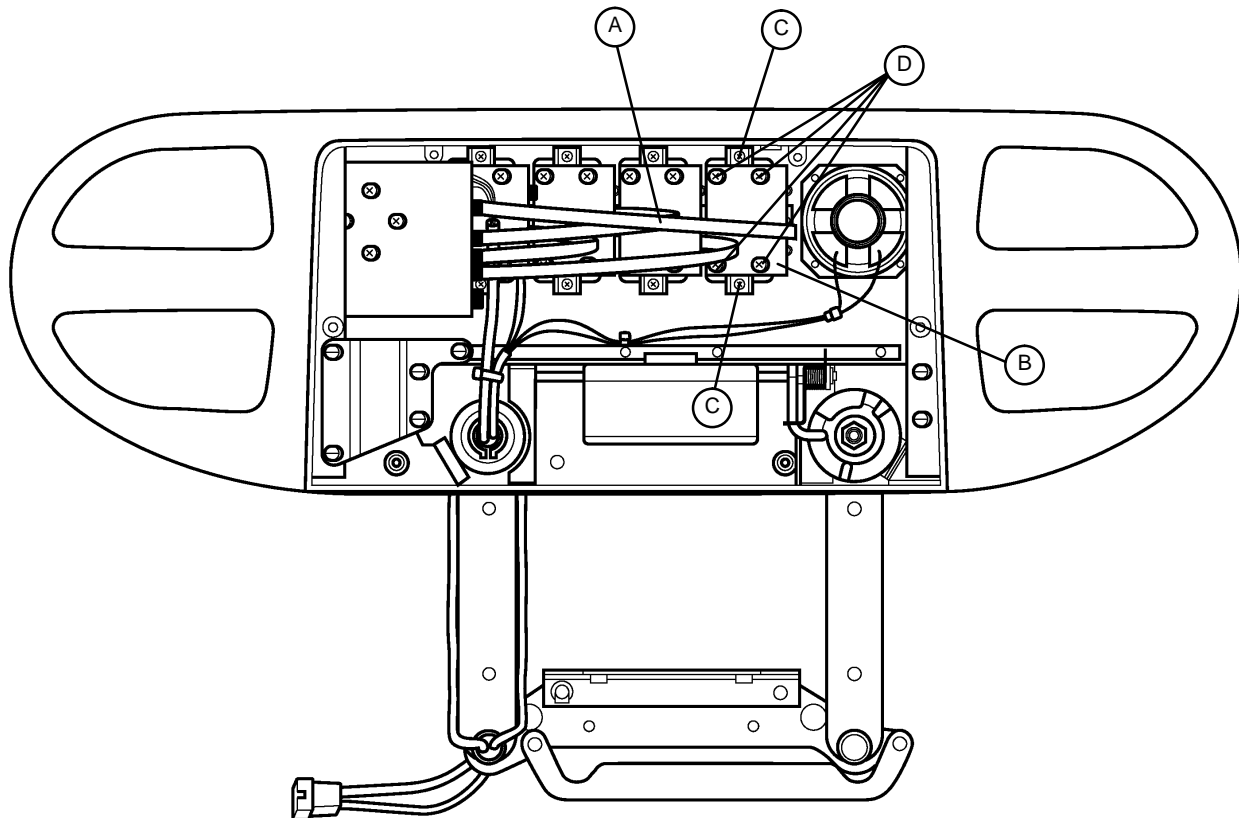
Chapter Six – Maintenance Procedures – Siderails

6.1 HEAD AND FOOT END SIDERAIL (CONTINUED)

HEAD END SIDERAIL MODULE REPLACEMENT (SEE PAGE 15 FOR LIST OF SIDERAIL MODULE KITS)

Required Tools:

#1 or #2 Phillips Screwdriver



Procedure: (This procedure will take approximately 15 minutes)

1. Unplug the bed power cord from the wall socket.
2. Remove the siderail cover (see page 117).
3. Unplug the ribbon cable(s) (A) from the module(s) (B) to be removed. Make note of the proper cable locations.
4. Using a Phillips screwdriver, remove the screws (C) holding the module in place and remove the module.

NOTE

If only the switch board needs to be replaced, and not the entire module assembly, remove only the screws (D) holding the switch board to the module.

5. Reverse the above steps for installation of the new module.

NOTE

On all siderail modules, the switch boards can be replaced separately or as a kit that includes the outer label, the switchboard and the ribbon cable.

7.1 FOOT BOARD

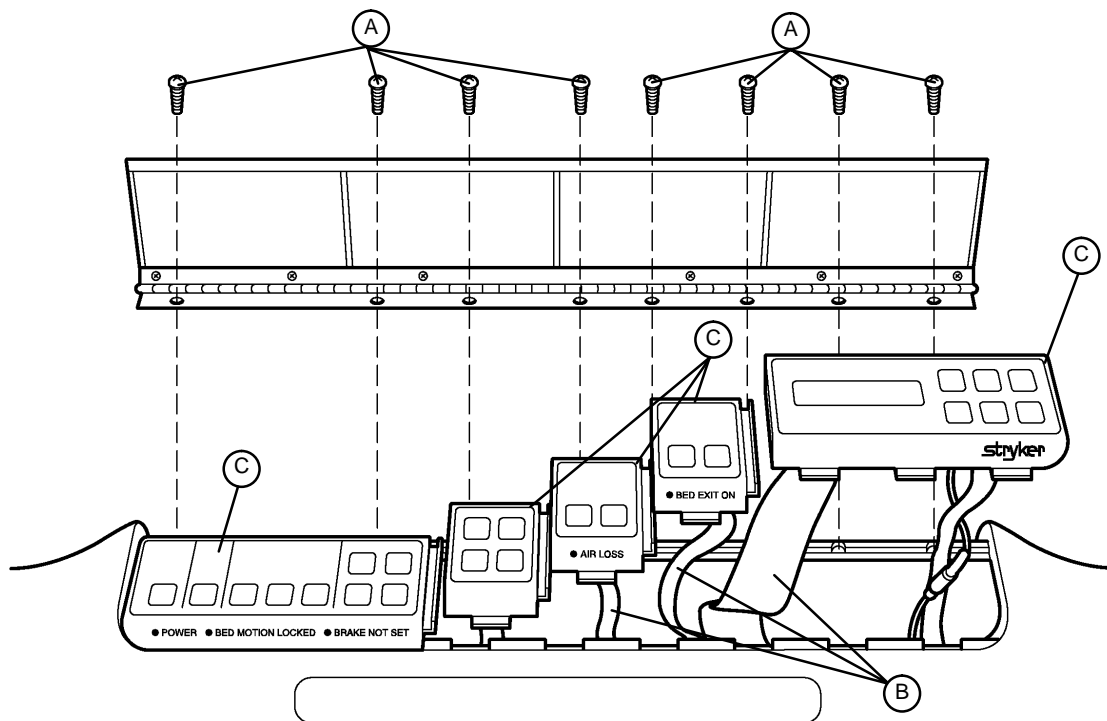
FOOT BOARD HINGE REMOVAL

Required Tools:

#1 Phillips Screwdriver

Procedure: (This procedure will take approximately 10 minutes)

1. Using a Phillips screwdriver, remove the screws (A) holding the door and hinge assembly to the foot board.
2. If replacing the hinge only, use a Phillips screwdriver to remove the screws holding the hinge to the door.
3. Reverse the above steps to attach the replacement door and/or hinge.



FOOT BOARD MODULE REPLACEMENT (SEE PAGE 15 FOR LIST OF FOOT BOARD MODULE KITS)

Required Tools:

Phillips Screwdriver

Procedure: (This procedure will take approximately 20 minutes)

1. Unplug the bed power cord from the wall socket. Remove the foot board hinge (see above).

NOTE

Regardless of which module is being replaced, the farthest module to the right must be removed first.

2. Pull the module out of the foot board and disconnect the ribbon cable (B) from the module (C).
3. Reverse the above steps to install the new module.

CAUTION

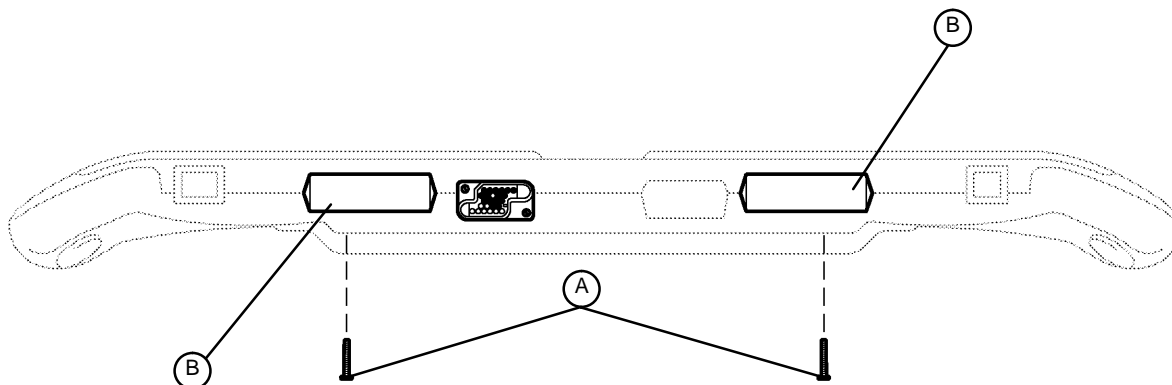
The modules must be overlapped as shown in the illustration or fluids could enter the board cavity.

7.1 FOOT BOARD (CONTINUED)

FOOT BOARD INTERFACE BOARD REPLACEMENT

Required Tools:

Small Phillips Screwdriver



BOTTOM VIEW OF FOOT BOARD

Procedure: (This procedure will take approximately 15 minutes)

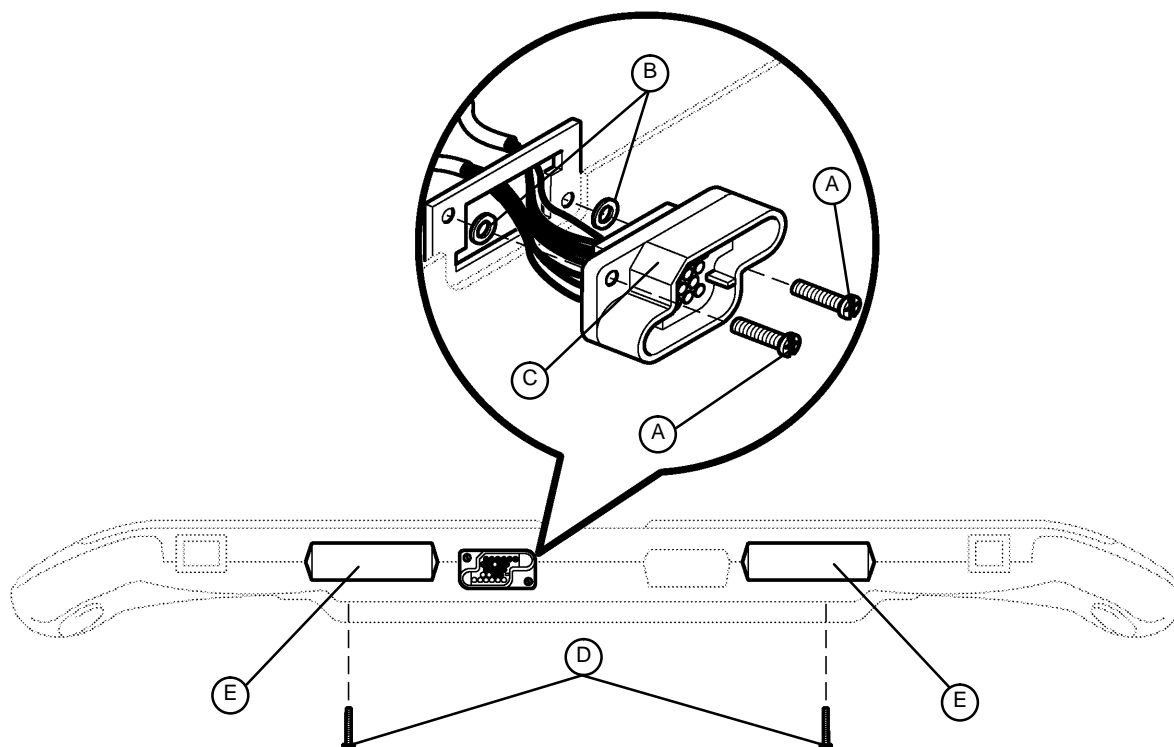
1. Unplug the bed power cord from the wall socket.
2. Remove the foot board from the bed to access the bottom of the board.
3. Properly ground yourself (see page 10 for static discharge precautions).
4. Using a Phillips screwdriver, remove the screw (A) holding the drawer (B) to the foot board.
5. Pull the drawer out of the foot board to expose the interface board.
6. Disconnect all cables from the board. Note proper placement of the cables so they will be reconnected properly. (See page 218 for foot board wiring diagram.)
7. Using a Phillips screwdriver, remove the four screws holding the interface board to the drawer.
8. Reverse the above steps to install the replacement interface board.

7.1 FOOT BOARD (CONTINUED)

FOOT BOARD INTERFACE PLUG REPLACEMENT

Required Tools:

#1 or #2 Phillips Screwdriver



BOTTOM VIEW OF FOOT BOARD

Procedure: (This procedure will take approximately 15 minutes)

1. Unplug the bed power cord from the wall socket.
2. Remove the foot board from the bed to access the bottom of the board.
3. Properly ground yourself (see page 10 for static discharge precautions).
4. Using a Phillips screwdriver, remove the screws (D) holding the drawers (E) to the foot board. Pull the drawers out of the foot board to expose the interface boards.
5. Using a Phillips screwdriver, remove the two screws (A) holding the plug and washers (B) to the foot board.
6. Pull the plug off the board and disconnect the cables at the exposed interface boards. Note proper placement of the cables so they will be reconnected properly.
7. Reverse the above steps to install the new interface plug.

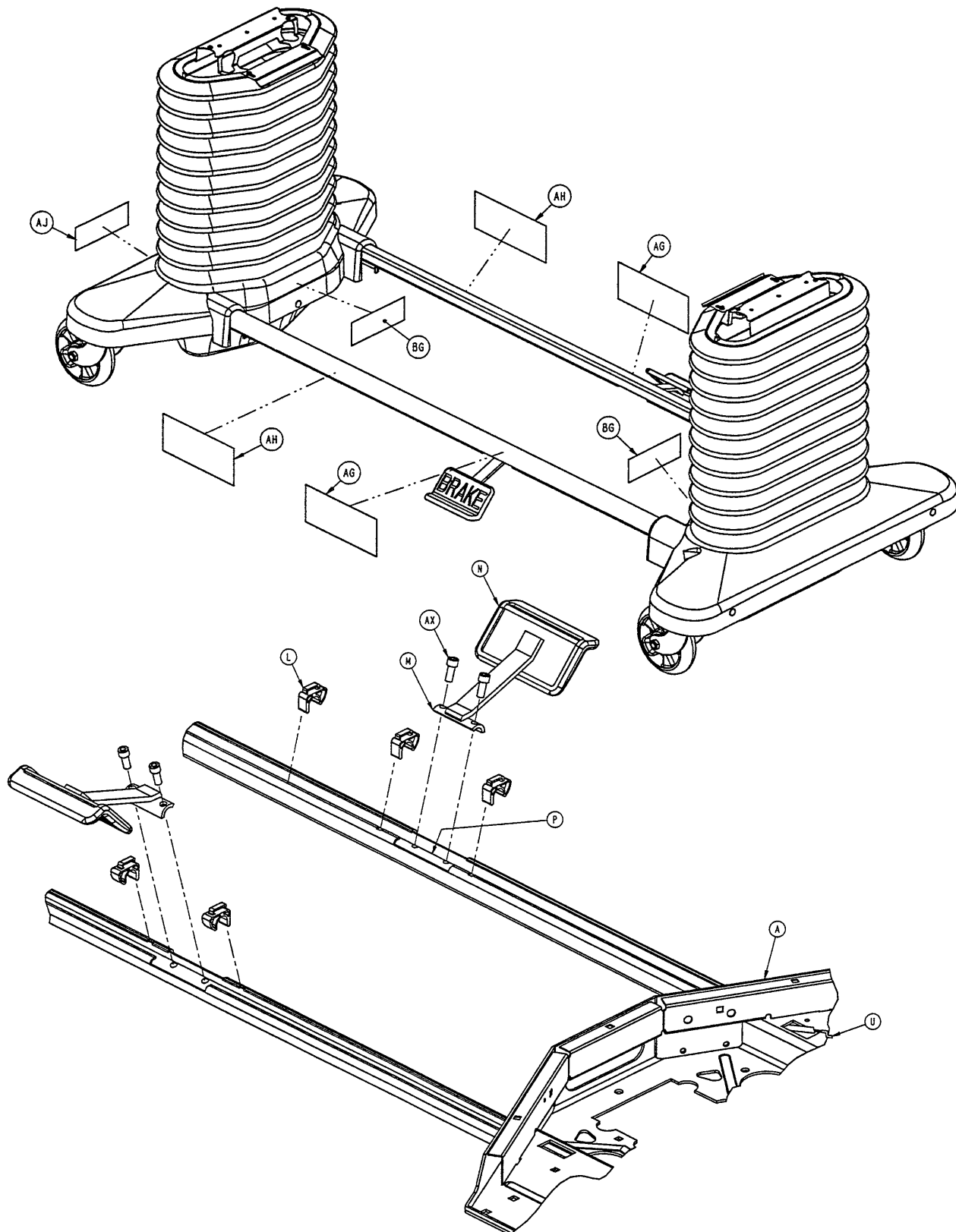
CAUTION

Be sure to install the plug with the flat edge (C) at the top left, as shown in the illustration or the foot board interface plug will not mate properly with the bed and damage could result.

Appendix A – Assembly Drawings and Parts Lists

A.1 BASE DRAWINGS

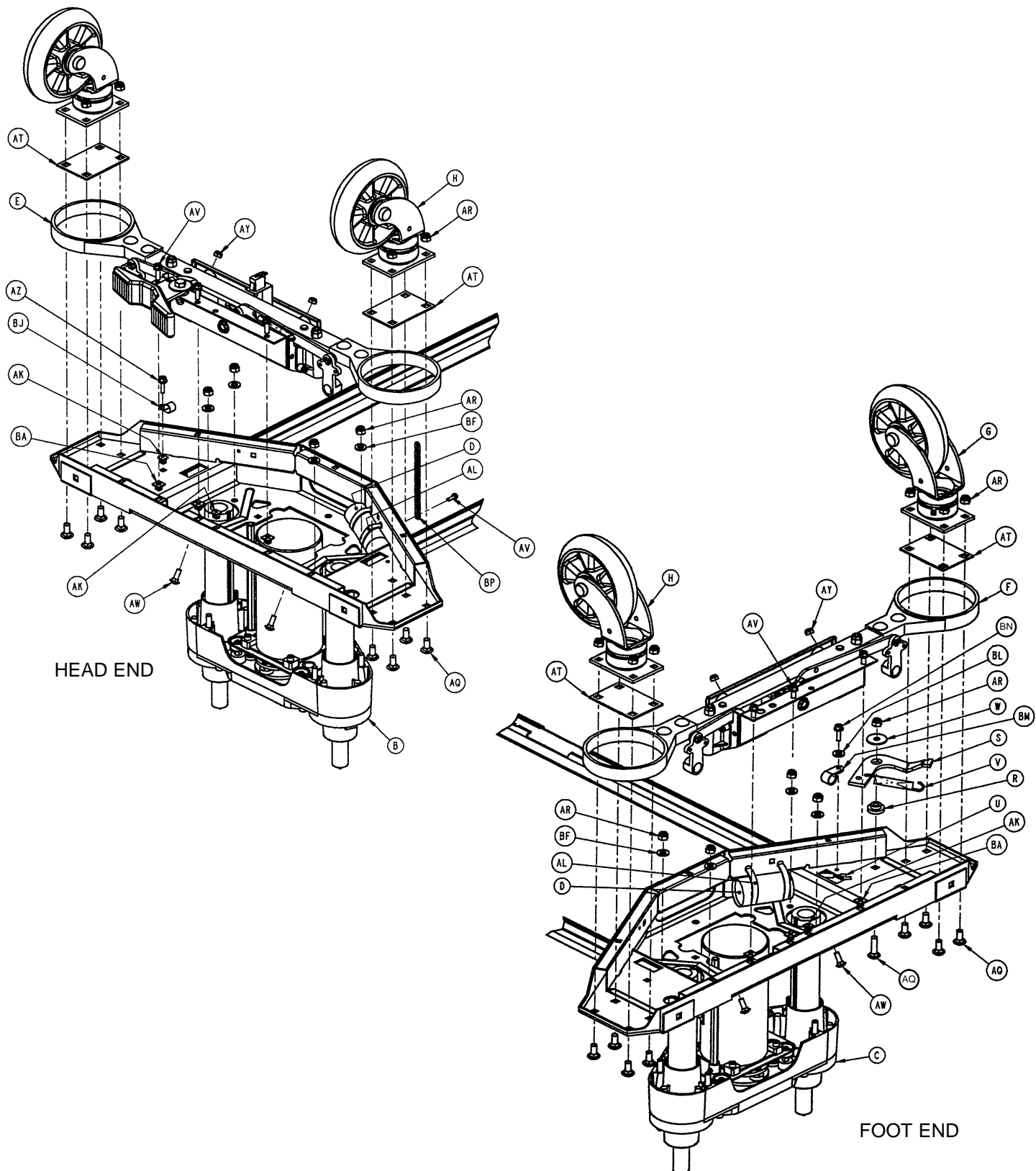
BASE ASSEMBLY P/N 3000-200-000



Appendix A – Assembly Drawings and Parts Lists

A.1 BASE DRAWINGS (CONTINUED)

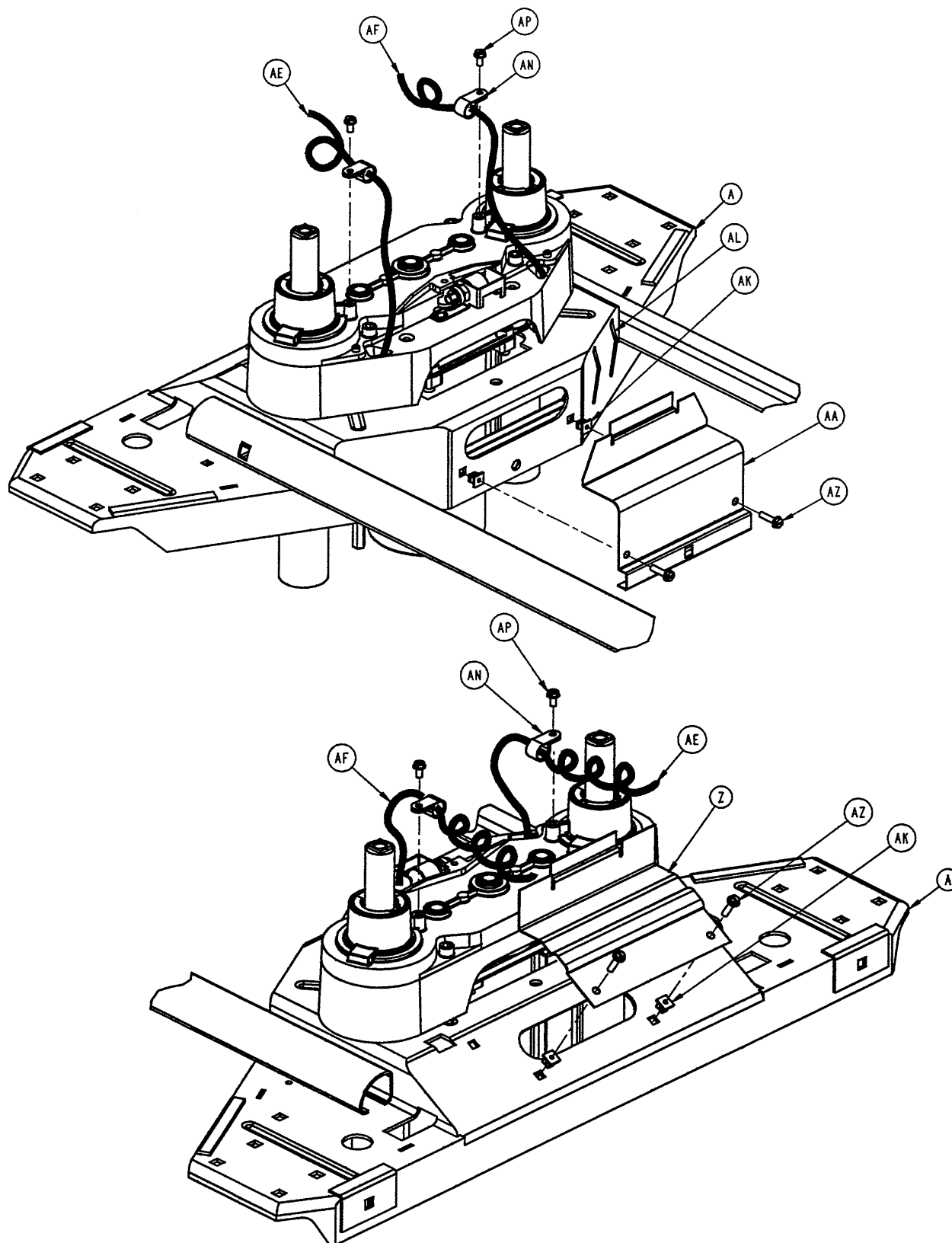
BASE ASSEMBLY P/N 3000-200-000 (CONTINUED)



Appendix A – Assembly Drawings and Parts Lists

A.1 BASE DRAWINGS (CONTINUED)

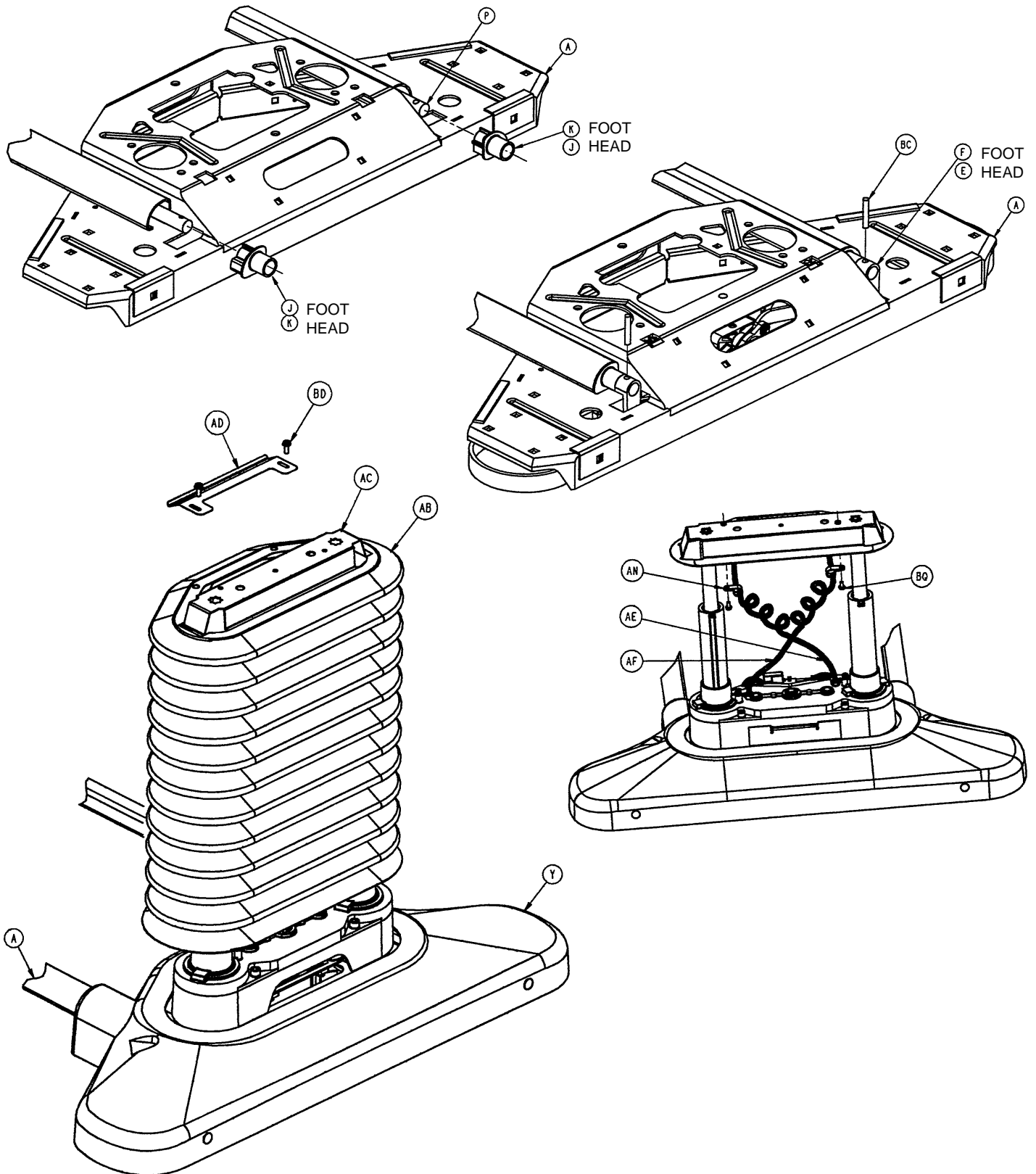
BASE ASSEMBLY P/N 3000-200-000 (CONTINUED)



Appendix A – Assembly Drawings and Parts Lists

A.1 BASE DRAWINGS (CONTINUED)

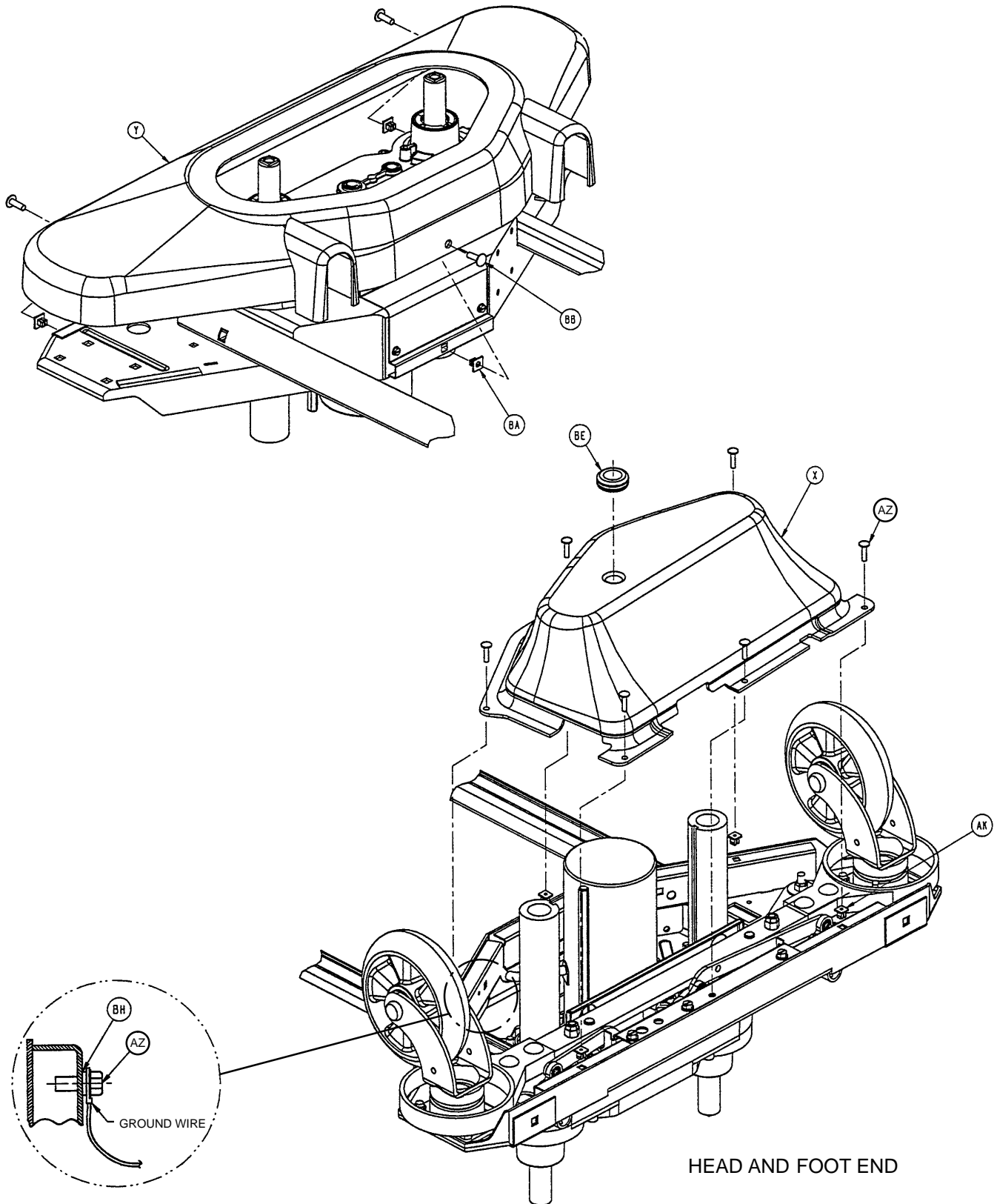
BASE ASSEMBLY P/N 3000-200-000 (CONTINUED)



Appendix A – Assembly Drawings and Parts Lists

A.1 BASE DRAWINGS (CONTINUED)

BASE ASSEMBLY P/N 3000-200-000 (CONTINUED)



Appendix A – Assembly Drawings and Parts Lists

A.1 BASE DRAWINGS (CONTINUED)

BASE ASSEMBLY P/N 3000-200-000 (CONTINUED)

Item	Part No.	Part Name	Qty.	Item	Part No.	Part Name	Qty.
A	3000-200-100	Base Weldment	1	AF	*3000-200-805	Sensor Coil Cable	2
B	(page 137)	Lift Assembly, Head	1	AG	3000-200-601	Brake Pedal Label	2
C	(page 137)	Lift Assembly, Foot	1	AH	3000-200-602	Stryker Logo Label	2
D	*3000-200-243	Lift Motor Capacitor	2	AJ	3000-200-603	Steer Pedal Label	1
E	(page 138)	Brake Assembly, Head	1	AK	3000-300-2	Plastic Clip Nut	21
F	(page 139, 140)	Brake Assembly, Foot	1	AL	38-151	Cable Tie	4
G	3000-200-16	Steer Caster, 6"	1	AN	34-22	Cable Clamp	8
	3000-200-37	Steer Caster, 8"	1	AP	3-128	Hex Washer Hd. Screw	4
H	3000-200-30	Caster, 6"	3	AQ	5-20	Carriage Bolt	17
	3000-200-36	Caster, 8"	3	AR	16-11	Flex Lock Nut	25
J	3000-200-305	Brake Shaft Bshg., Rt.	2	AT	3000-200-41	Caster Shim	4
K	3000-200-331	Brake Shaft Bshg., Lt.	2	AV	3-134	Hex Washer Hd. Screw	7
L	3000-200-306	Brake Shaft Pedal Brg.	5	AW	5-17	Carriage Bolt	4
M	3000-200-308	Brake Pedal Weldment	2	AX	4-244	Soc. Hd. Cap Screw	4
N	3000-200-344	Brake Pedal Pad	2	AY	16-16	Nylock Nut	4
P	3000-200-314	Brake Shaft	2	AZ	23-81	Hex Washer Hd. Screw	23
Q	3000-200-334	Brake Pedal Ret. Spring	2	BA	18-31	Plastic Clip Nut	12
R	3000-200-339	Steer Lock Lever Bshg.	1	BB	23-92	Truss Phillips Hd. Screw	6
S	3000-200-340	Steer Lock Lever	1	BC	26-225	Slotted Roll Pin	4
T	3000-200-341	Steer Pedal Bushing	1	BD	3-124	Hex Washer Hd. Screw	4
U	3000-200-342	Steer Cable Assembly	1	BE	3000-000-39	Grommet	2
V	3000-200-346	Steer Lock Spring	1	BF	11-307	Flat Washer	8
W	3000-200-347	Special Washer	1	BG	988-2-708	Caution Label	2
X	*3000-200-1	Lower Lift Cover	2	BH	13-18	Ext. Tooth Lock Washer	2
Y	*3000-200-9	Upper Lift Cover	2	BJ	34-251	Cable Clamp	1
Z	3000-200-34	Front Access Cover	2	BL	11-303	Washer	1
AA	3000-200-35	Rear Access Cover	2	BM	34-254	Cable Clamp	1
AB	3000-200-11	Bellows	2	BN	23-101	Hex Washer Hd. Screw	1
AC	3000-200-52	Bellows Bracket Ass'y	2	BP	390-1-176	Ground Chain (6" Casters)	1
AD	3000-200-8	Bellows Bracket	2		3000-200-53	Ground Chain (8" Casters)	1
AE	*3000-200-804	Power Coil Cable	2	BQ	3-123	Hex Wash. Hd. Screw	4

* See page 14 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.1 BASE DRAWINGS (CONTINUED)

LIFT ASSEMBLY (COMMON) P/N 3000-200-275* (CONTINUED)

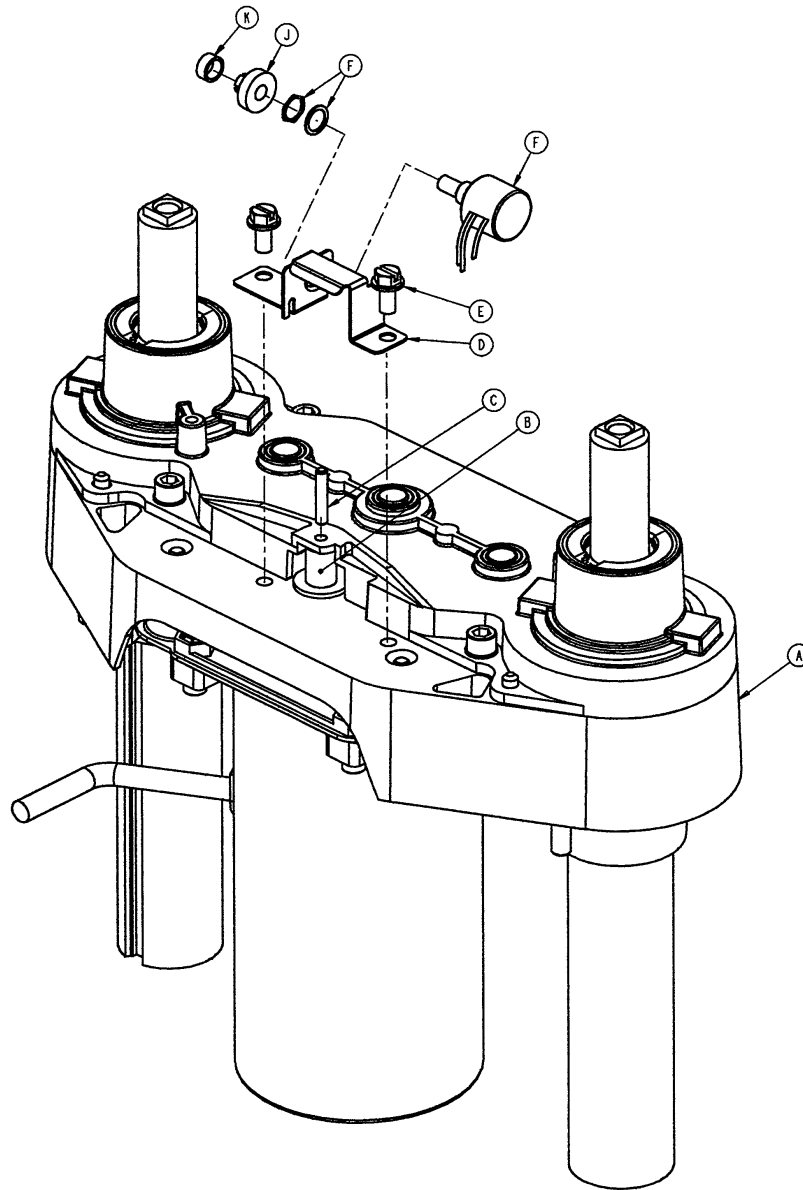
Item	Part No.	Part Name	Qty.
A	3000-200-201	Upper Lift Housing	1
B	3000-200-202	Lower Lift Housing	1
C	*3000-200-251	Outer Screw	2
D	3000-200-204	Upper Housing Sleeve	2
E	3000-200-205	Upper Stage Nut	2
F	*3000-200-249	Inner Screw	2
G	3000-200-207	Lower Stage Nut	2
H	3000-200-208	Glide Bushing	4
J	*3000-200-209	Motor Pinion Gear	1
K	*3000-200-210	Idler Gear	2
L	3000-200-252	Output Gear	2
M	*3000-200-212	Motor Isolation Plate	1
N	*3000-200-213	Lift Motor	1
P	3000-200-218	Idler Shaft, Lift	1
Q	3000-200-219	Idler Man. Over. Shaft	1
R	3000-200-220	Input Pinion Shaft	1
S	3000-200-223	Output Gear Thr. Washer	4
T	3000-200-224	Idler Gear Thr. Washer	2
U	3000-200-225	Input Pinion Thr. Bearing	1
V	3000-200-226	Idler Pinion Shaft Bushing	6
W	3000-200-227	Iso Mtg. Plate Standoff	4
X	26-231	Dowel Pin	2
Y	3000-200-235	Man. Override Driveshaft	1
Z	3000-200-236	Man. Override Coupler	1
AA	*3000-200-233	Lift Motor Coupler	1
AB	3000-200-234	Coupler Receiver	1
AC	3000-200-241	Wave Spring Washer	2
AD	3000-300-455	Isolation Bushing	4
AF	3000-200-245	Gear Washer	5
AG	3000-200-246	Nylon Washer	1
AK	11-302	Flat Washer	4
AL	3-82	Hex Hd. Cap Screw	4
AM	4-213	Soc. Hd. Cap Screw	4
AN	58-44	Woodruff Key	3
AP	16-2	Nylock Nut	4
AQ	4-28	Soc. Hd. Cap Screw	4
AR	16-16	Nylock Nut	4
AS	28-121	Retaining Ring	2
AT	28-1	Retaining Ring	1
AU	26-178	Roll Pin	1
AV	11-308	Serrated Belleville Washer	4
AW	3000-200-228	Mtr. Mount Isolation Bshg.	4
AX	26-172	Roll Pin	1
AY	3000-300-604	Warning Label	1

* See page 14 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.1 BASE DRAWINGS (CONTINUED)

LIFT ASSEMBLY P/N 3000-200-200 (HEAD), 3000-200-250 (FOOT)



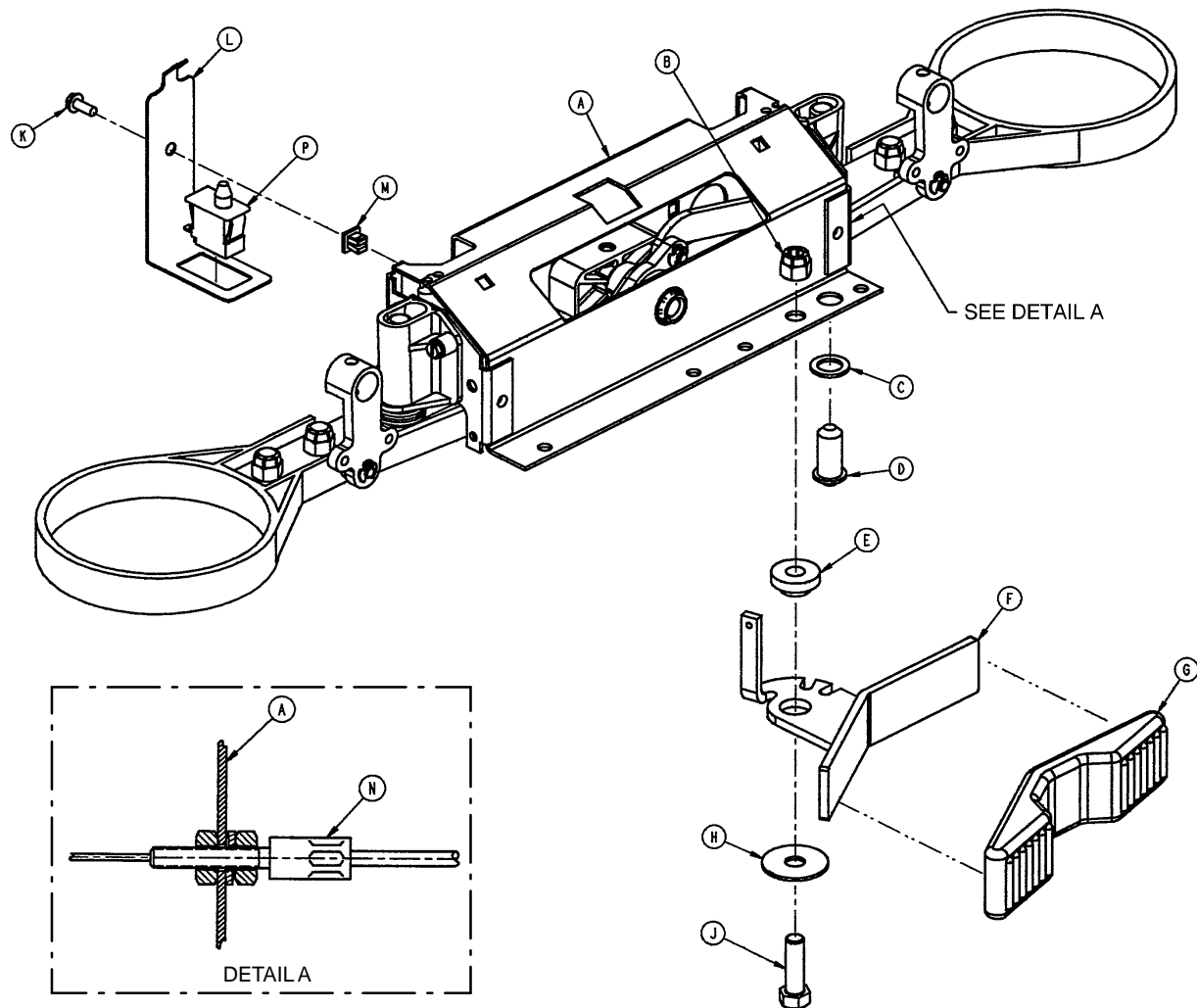
HEAD				FOOT			
Item	Part No.	Part Name	Qty.	Item	Part No.	Part Name	Qty.
A	(page 135, 136)	Lift Ass'y, Common	1	A	(page 135, 136)	Lift Ass'y, Common	1
B	3000-200-216	Pot. Drive Gear	1	B	3000-200-216	Pot. Drive Gear	1
C	3000-200-239	Pot. Drive Shaft	1	C	3000-200-239	Pot. Drive Shaft	1
D	3000-200-217	Pot. Mtg. Bracket	1	D	3000-200-217	Pot. Mtg. Bracket	1
E	3-121	Hex Washer Hd. Screw	2	E	3-121	Hex Washer Hd. Screw	2
F	*3000-200-807	Head Pot. Cable	1	F	*3000-200-806	Foot Pot. Cable	1
J	3000-200-215	Pot. Worm Gear	1	J	3000-200-215	Pot. Worm Gear	1
K	3000-200-253	Worm Gear Retainer	1	K	3000-200-253	Worm Gear Retainer	1

* See page 14 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.1 BASE DRAWINGS (CONTINUED)

HEAD END BRAKE ASSEMBLY P/N 3000-200-300



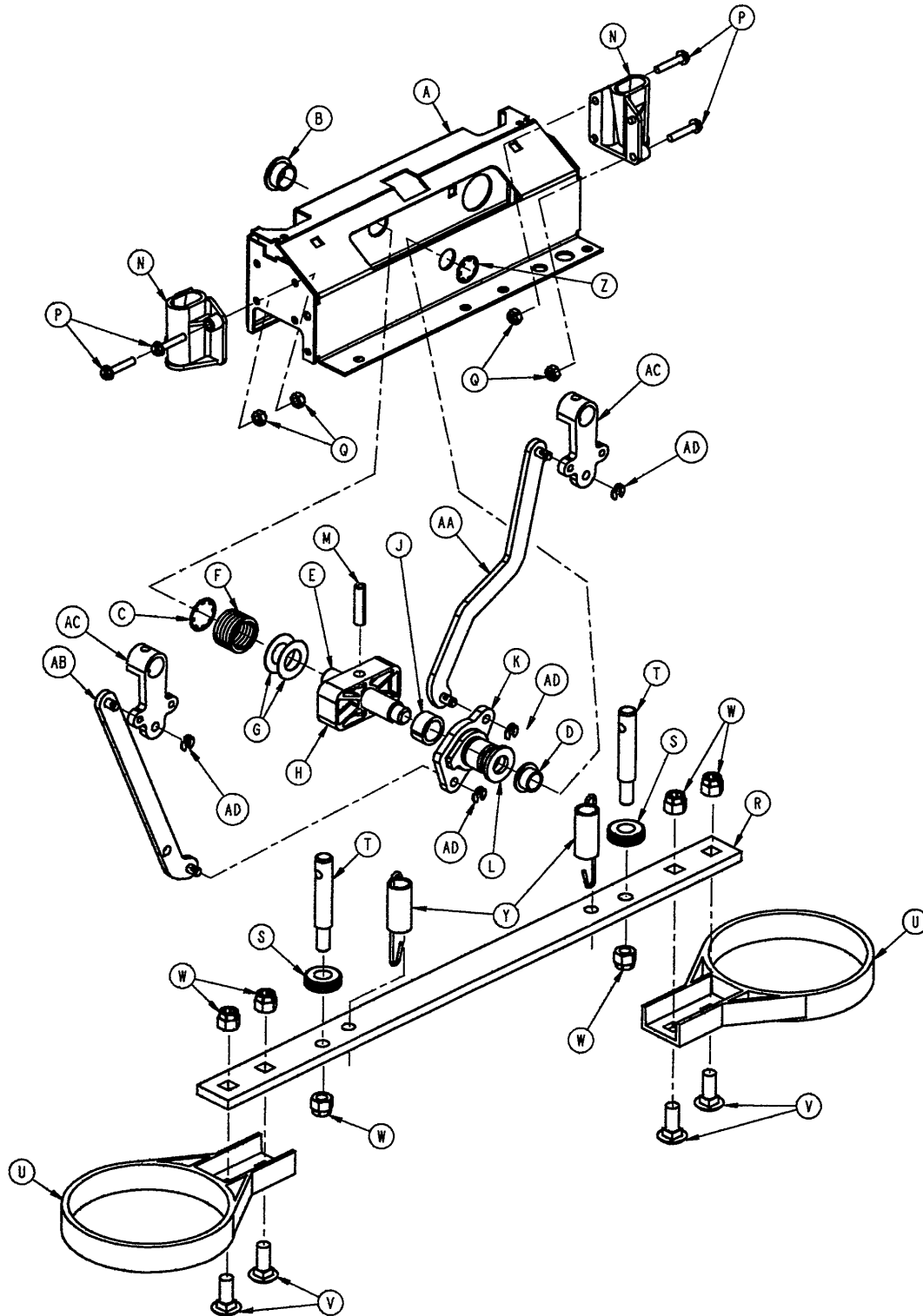
Item	Part No.	Part Name	Qty.	Item	Part No.	Part Name	Qty.
A	(page 139, 140)	Foot End Brake Assembly	1	H	3000-200-348	Wide Washer	1
B	16-35	Nylock Nut	1	J	3-120	Hex Hd. Bolt	1
C	3000-200-349	Narrow Washer	1	K	23-25	Sht. Mtl. Screw	1
D	3000-200-337	Ball Plunger	1	L	3000-200-343	Brake Switch Bracket	1
E	3000-200-341	Steer Pedal Bushing	1	M	3000-300-2	Plastic Clip Nut	1
F	3000-200-335	Steer Pedal Arm	1	N	*3000-200-342	Steer Cable Assembly	1
G	*3000-200-336	Steer Pedal	1	P	*3000-300-58	Brake Switch	1

* See page 14 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.1 BASE DRAWINGS (CONTINUED)

FOOT END BRAKE ASSEMBLY P/N 3000-200-350



Appendix A – Assembly Drawings and Parts Lists

A.1 BASE DRAWINGS (CONTINUED)

FOOT END BRAKE ASSEMBLY P/N 3000–200–350 (CONTINUED)

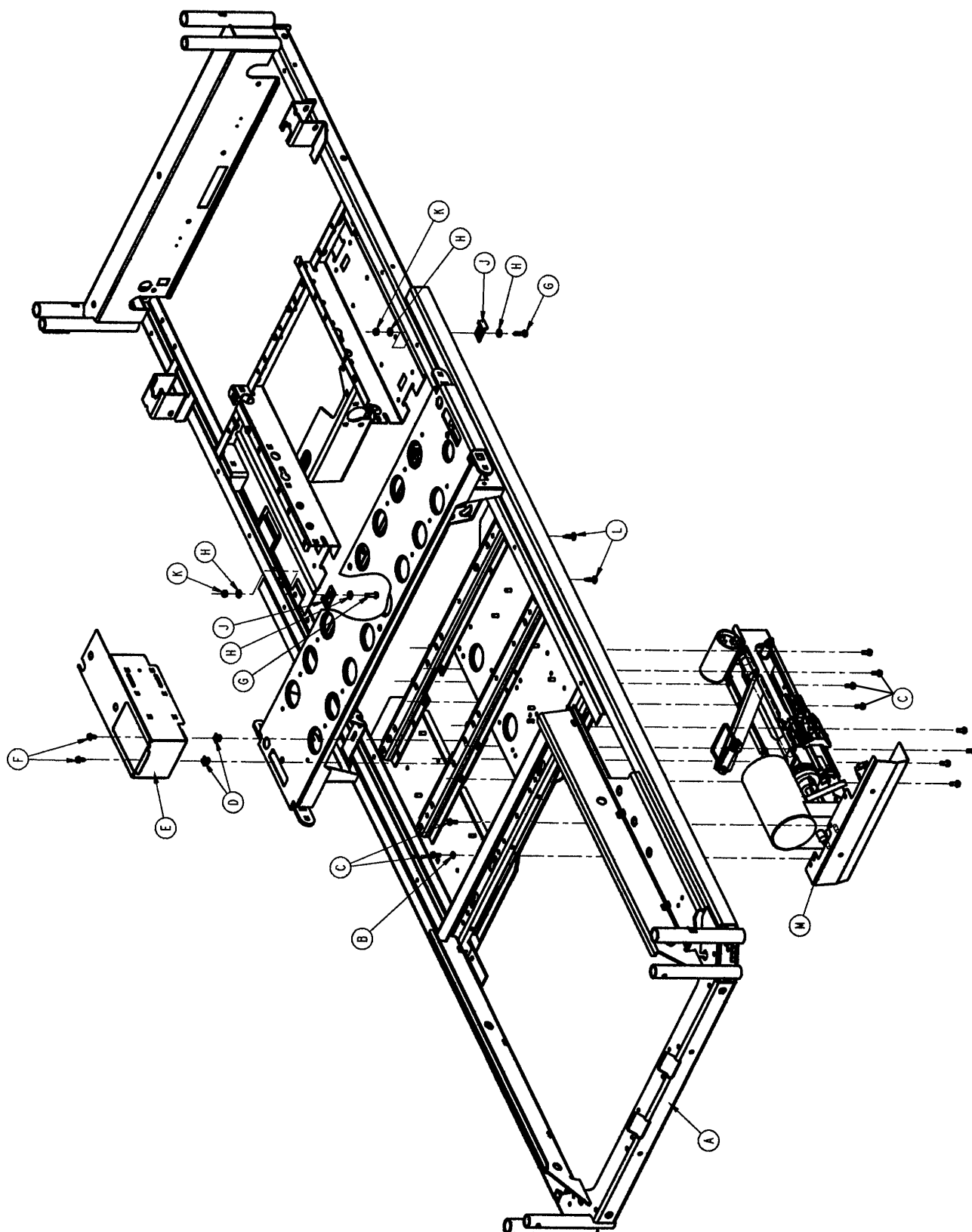
Item	Part No.	Part Name	Qty.
A	3000–200–307	Brake Pan	1
B	3000–200–320	Brake Cam Shaft Bushing	1
C	29–13	Circular "Push-On"	1
D	3000–200–319	Brake Cam Shaft Bushing	1
E	3000–200–317	Brake Cam Shaft	1
F	3000–200–312	Cam Shaft Comp. Spring	1
G	3000–200–311	Cam Shaft Thrust Washer	2
H	*3000–200–304	Brake Cam	1
J	3000–200–315	Brake Spacer	1
K	3000–200–301	Brake Crank Assembly	1
L	11–333	Flat Washer	1
M	3000–200–313	Cam Mtg. Slotted Roll Pin	1
N	3000–200–328	Brake Guide Bushing	2
P	3–122	Hex Wash. Hd. Mach. Scr.	4
Q	16–2	Hex Flange Nut	4
R	3000–200–323	Brake Bar	1
S	3000–200–324	Brake Bar Bumper	2
T	3000–200–318	Guide Pin	2
U	3000–200–321	Brake Ring	2
V	5–18	Carriage Bolt	4
W	16–35	Nylock Nut	6
Y	3000–200–352	Brake Bar Return Spring	2
Z	28–133	Circular Push-On	1
AA	3000–200–310	Brake Link, Dog Leg	1
AB	3000–200–303	Brake Link	1
AC	3000–200–302	Brake Shaft Crank	2
AD	28–134	Retaining Ring	4

* See page 14 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS

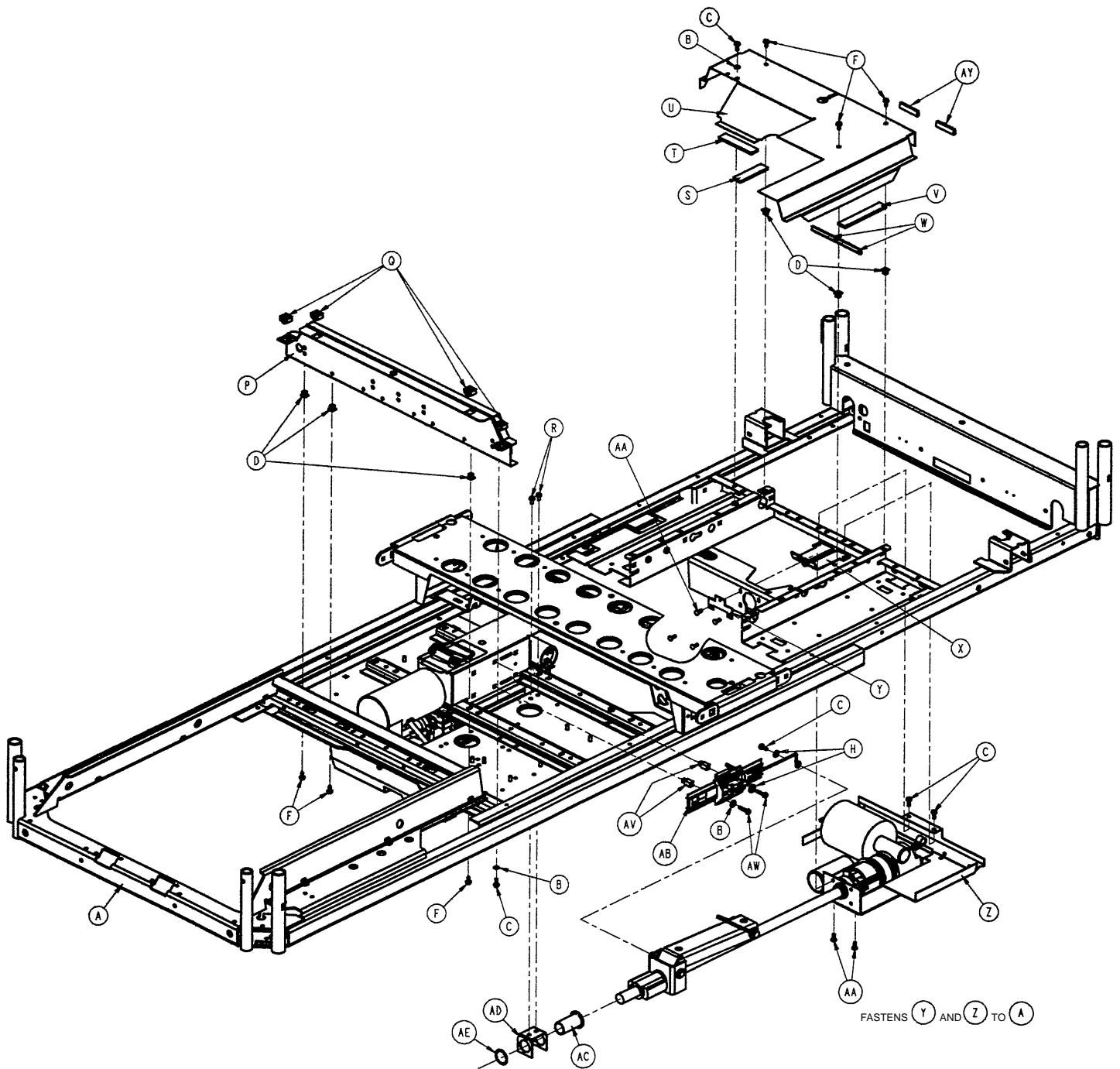
LITTER ASSEMBLY, MECHANICAL P/N 3000-300-399



Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

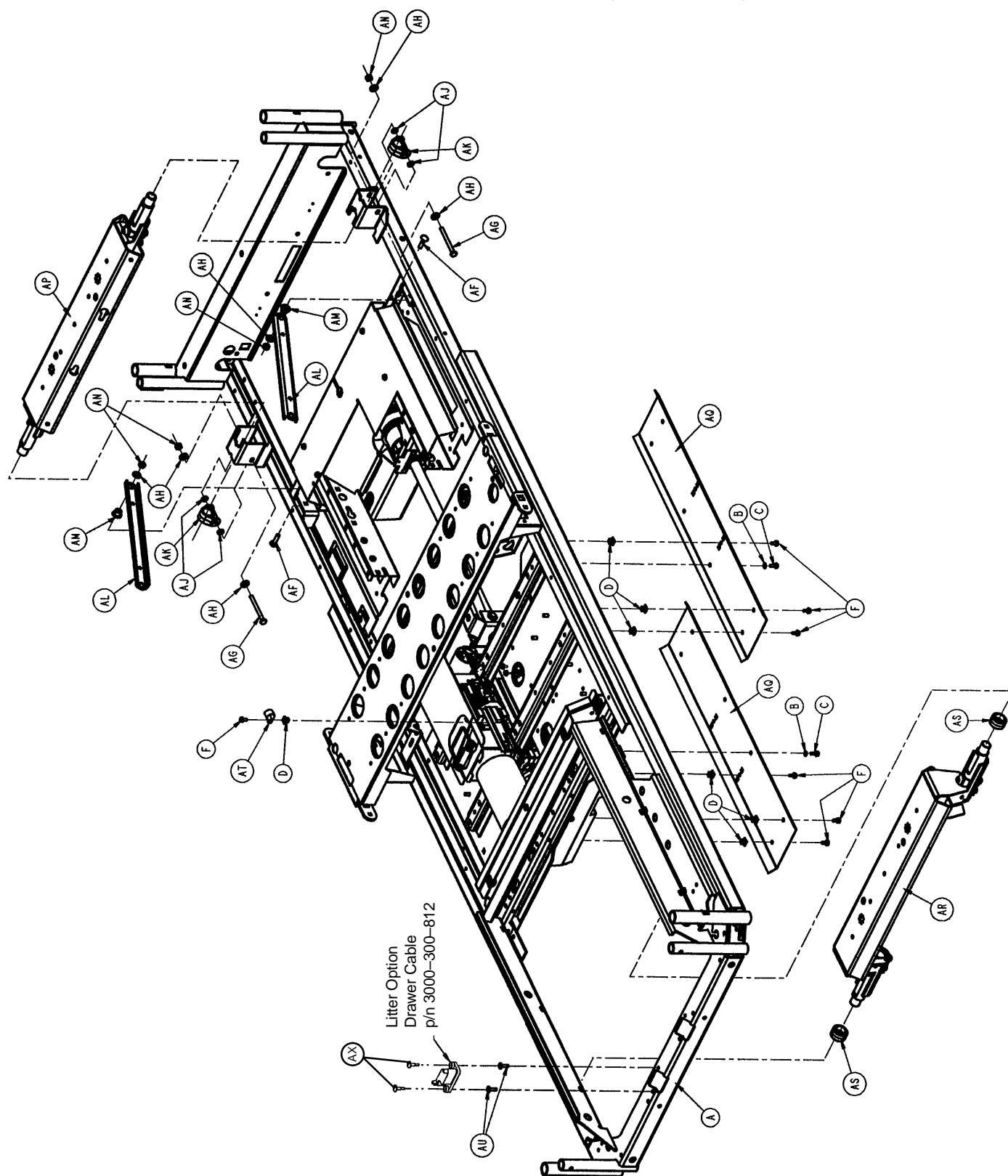
LITTER ASSEMBLY, MECHANICAL P/N 3000-300-399 (CONTINUED)



Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, MECHANICAL P/N 3000-300-399 (CONTINUED)



Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, MECHANICAL P/N 3000-300-399 (CONTINUED)

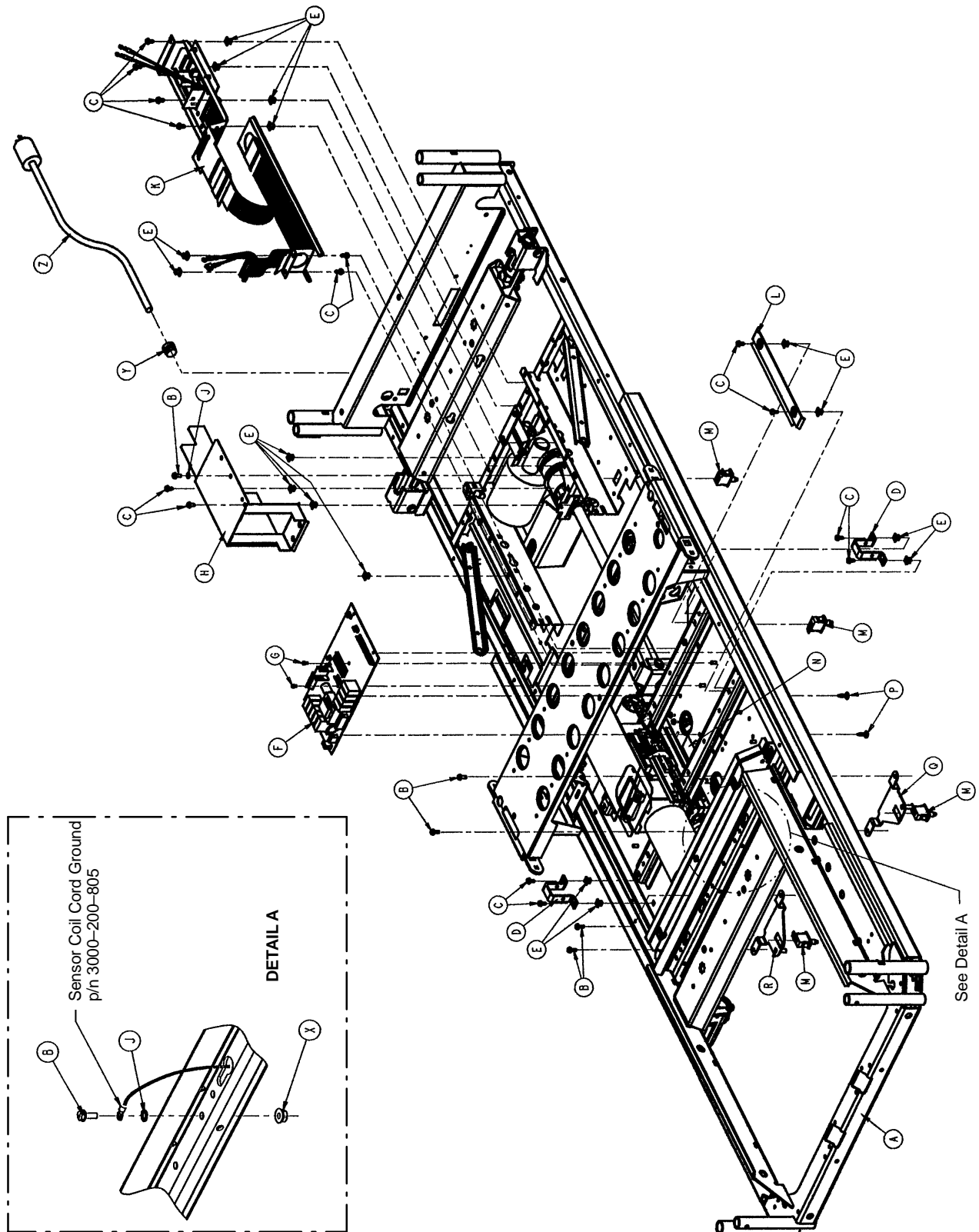
Item	Part No.	Part Name	Qty.
A	3000-300-199	Subframe Assembly	1
B	13-18	Ext. Tooth Lock Washer	6
C	3-124	Hex Washer Hd. Screw	20
D	3000-300-2	Plastic Clip Nut	15
E	3000-300-293	Gatch Shield	1
F	23-25	Hex Washer Hd. Screw	15
G	3-132	Hex Washer Hd. Screw	2
H	11-302	Flat Washer	6
J	3000-300-355	Shim Block	2
K	16-2	Fiberlock Nut	2
L	3000-300-115	Standoff	2
M	(page 158, 159)	Gatch Drive Assembly	1
P	3000-300-280	Electrical Shield Assembly	1
Q	3000-300-57	Receptacle	4
R	3-123	Hex Washer Hd. Screw	2
S	7900-1-291	Foam (3" Length)	1
T	7900-1-291	Foam (3 1/2" Length)	1
U	*3000-300-285	Fowler Actuator Cover	1
V	7900-1-291	Foam (4 1/2" Length)	1
W	52-275	Edge Grommet	2
X	3000-300-480	CPR Conduit Brkt. Ass'y	1
Y	3000-300-487	CPR Spring Bracket	1
Z	(page 160, 161)	Fowler Drive Assembly	1
AA	25-121	Steel Pop Rivet	6
AB	(page 157.10)	Fowler Limit Assembly	1
AC	3000-300-9	Support Screw Bushing	1
AD	3000-300-8	Screw Support Bracket	1
AE	28-122	Retaining Ring	1
AF	5-19	Carriage Bolt	2
AG	3-125	Hex Hd. Cap Screw	2
AH	11-303	Flat Washer	6
AJ	14-2	Nylon Spacer	4
AK	3000-300-91	Pivot Hanger	2
AL	3000-300-6	Fowler Link	2
AM	3000-300-1	Litter Pivot Bushing	2
AN	16-16	Nylock Nut	4
AP	(page 165)	Head Lift Header Assembly	1
AQ	3000-300-232	Pan Shield	2
AR	(page 163)	Foot Lift Header Assembly	1
AS	3000-300-353	Roller	2
AT	52-94	Heyco Clamp	1
AU	53-20	Plusnut	2
AV	52-283	Plastic Clip Nut	2
AW	23-102	Hex Washer Hd. Screw	2
AX	8-43	Mounting Screw	2
AY	52-275	Edge Grommet	2

* See page 14 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

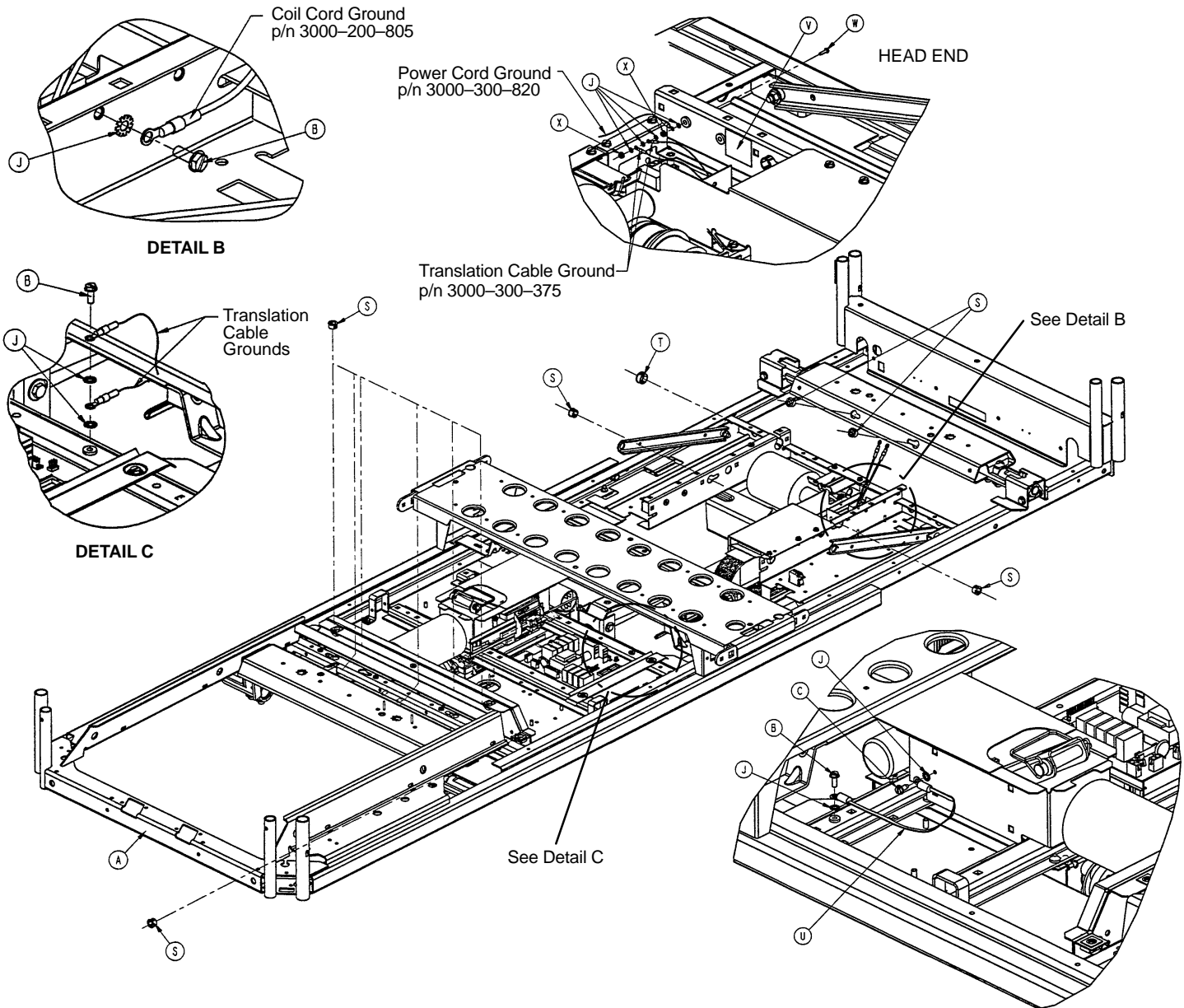
LITTER ASSEMBLY, ELECTRICAL P/N 3000-300-899



Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, ELECTRICAL P/N 3000-300-899 (CONTINUED)



Item	Part No.	Part Name	Qty.	Item	Part No.	Part Name	Qty.
A	(page 141-144)	Litter Ass'y, Mechanical	1	N	3000-300-611	CPU Fuse Label	1
B	3-124	Hex Washer Hd. Screw	9	P	3000-300-115	Standoff	2
C	23-25	Hex Washer Hd. Screw	1	Q	3000-300-65	Hanger Bracket, Left	15
D	3000-300-261	Thigh Support Bracket	2	R	3000-300-67	Hanger Bracket, Right	1
E	3000-300-2	Plastic Clip Nut	1	S	30-36	Split Bushing	16
F	3000-300-941	Litter CPU Assembly	1	T	30-37	Split Bushing	1
G	52-89	Nylon Screw	2	U	3000-300-848	Litter Ground Jumper	1
H	3000-300-30	Cable Shield Assembly	1	V	3000-300-612	Power Junct. Fuse Label	1
J	13-18	Ext. Tooth Lock Washer	1	W	3-132	Hex Washer Hd. Screw	11
K	(page 168)	Translation Cable Ass'y	1	X	6-74	Flange Nut	3
L	3000-300-28	Cable Routing Bracket	1	Y	30-27	Strain Relief	1
M	3000-300-58	Plunger Switch	4	Z	3000-300-820	Power Cord	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER COVER ASSEMBLY P/N 3000-300-25 (CONTINUED)

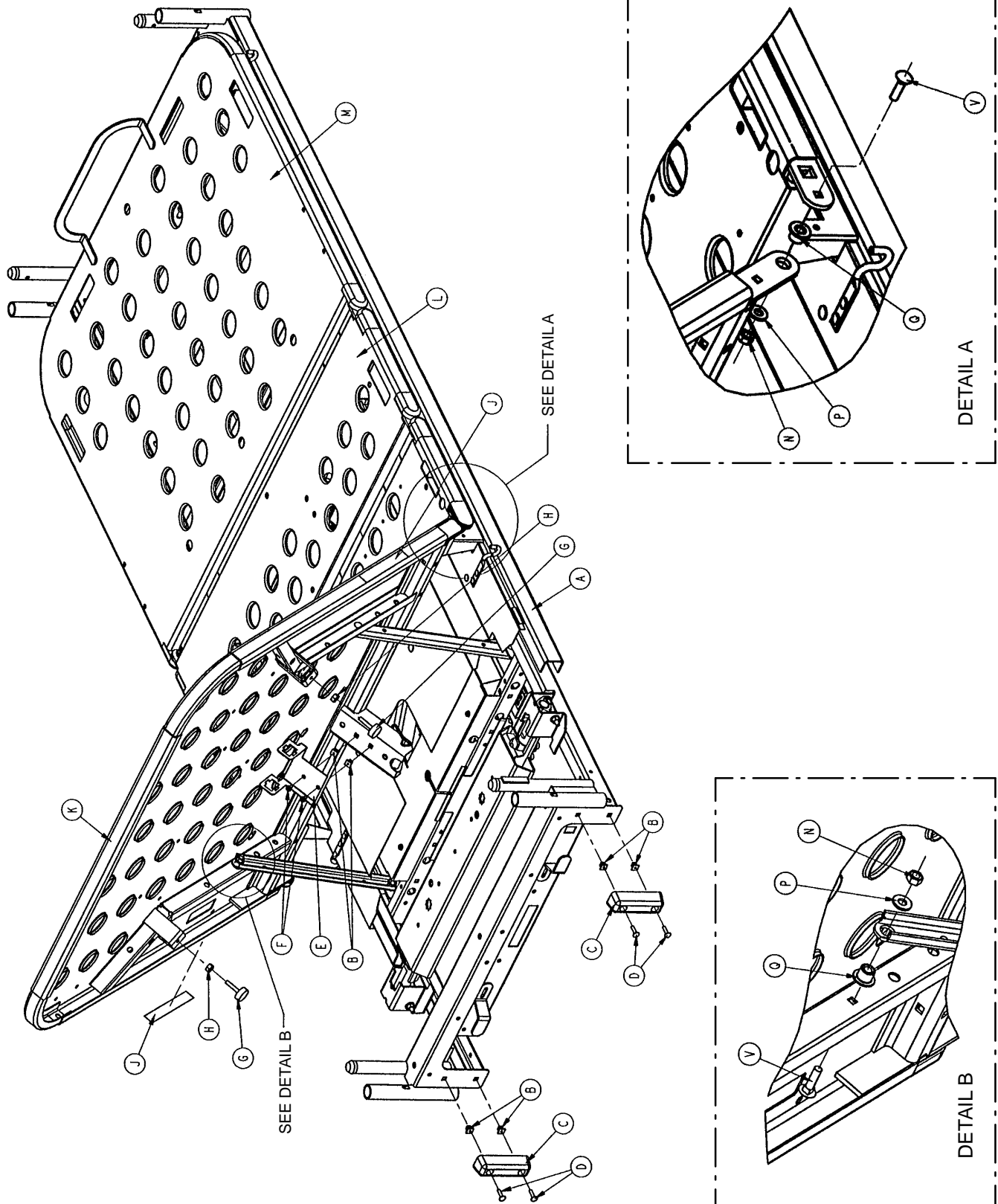
Item	Part No.	Part Name	Qty.
A	(page 145, 146)	Litter Assembly, Electrical	1
B	3000-300-349	Cap	4
C	3000-300-137	Foley Bag Hook	4
D	25-55	Steel Pop Rivet	8
E	*3000-300-52	Electrical Cover Assembly	1
F	7-40	Truss Hd. Screw	1
G	13-18	Ext. Tooth Lock Washer	3
H	3000-300-2	Plastic Clip Nut	4
J	52-275	Edge Grommet	2
K	*3000-300-51	Mid Cover Assembly	1
L	13-10	Ext. Tooth Lock Washer	1
M	23-84	Truss Washer Hd. Screw	4
N	7-41	Phillips Truss Hd. Screw	4
P	3000-300-14	Grommet	2
Q	3000-300-50	Motion Interrupt Assembly	1
R	3-126	Hex Washer Hd. Screw	2
S	3-124	Hex Washer Hd. Screw	2
T	3000-300-848	Litter Ground Jumper	1

* See page 14 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY P/N 3000-300-000



Appendix A – Assembly Drawings and Parts Lists

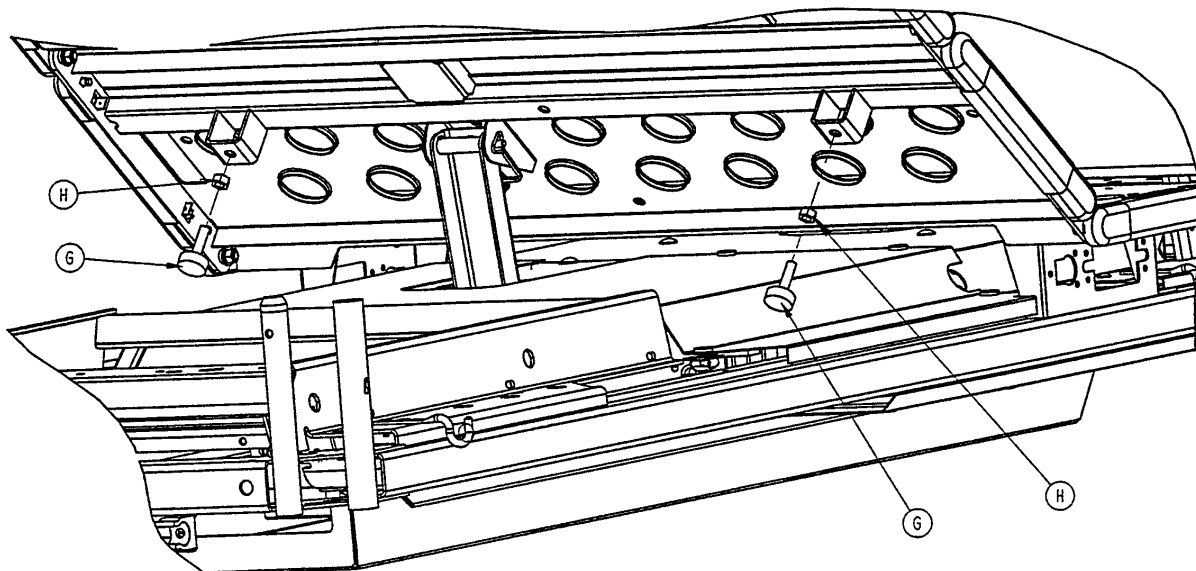
A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY P/N 3000-300-000 (CONTINUED)

Item	Part No.	Part Name	Qty.
A	(page 147, 148)	Litter Cover Assembly	1
B	3000-300-2	Plastic Clip Nut	6
C	3000-300-350	Head End Bumper Strip	2
D	23-80	Truss Hd. Screw	4
E	3000-300-92	Connector Mounting Bracket	1
F	23-25	Hex Washer Hd. Screw	2
G	3000-300-3	Bumper	4
H	15-12	Hex Nut	4
J	2020-88-820	Caution Label	2
K	3000-300-100	Fowler Assembly	1
L	3000-300-125	Thigh Assembly	1
M	(page 169)	Litter Foot/Prop Assembly	1
N	16-16	Hex Nylock Nut	8
P	11-303	Flat Washer	8
Q	3000-300-1	Litter Pivot Bushing	8
V	5-19	Carriage Bolt	8
AE	**3000-300-20	Foot Cover Assembly	1
AF	988-2-708	Caution Label	2
AG	3000-300-602	Fowler Elevation Angle Label	1
AH	*3000-300-15	Head Cover Assembly	1
AJ	1550-90-1	Caution Label	1
AK	2011-1-104	Danger Label	1
AL	3000-300-615	Specification Label	1
AM	2020-1-154	UL Listing Label	1
AN	23-80	Phillips Truss Hd. Screw	2
AP	52-712	Sealing Washer	2
AQ	7900-1-291	Flame Retardant Foam Tape	3

* See page 14 for replacement kit part number.

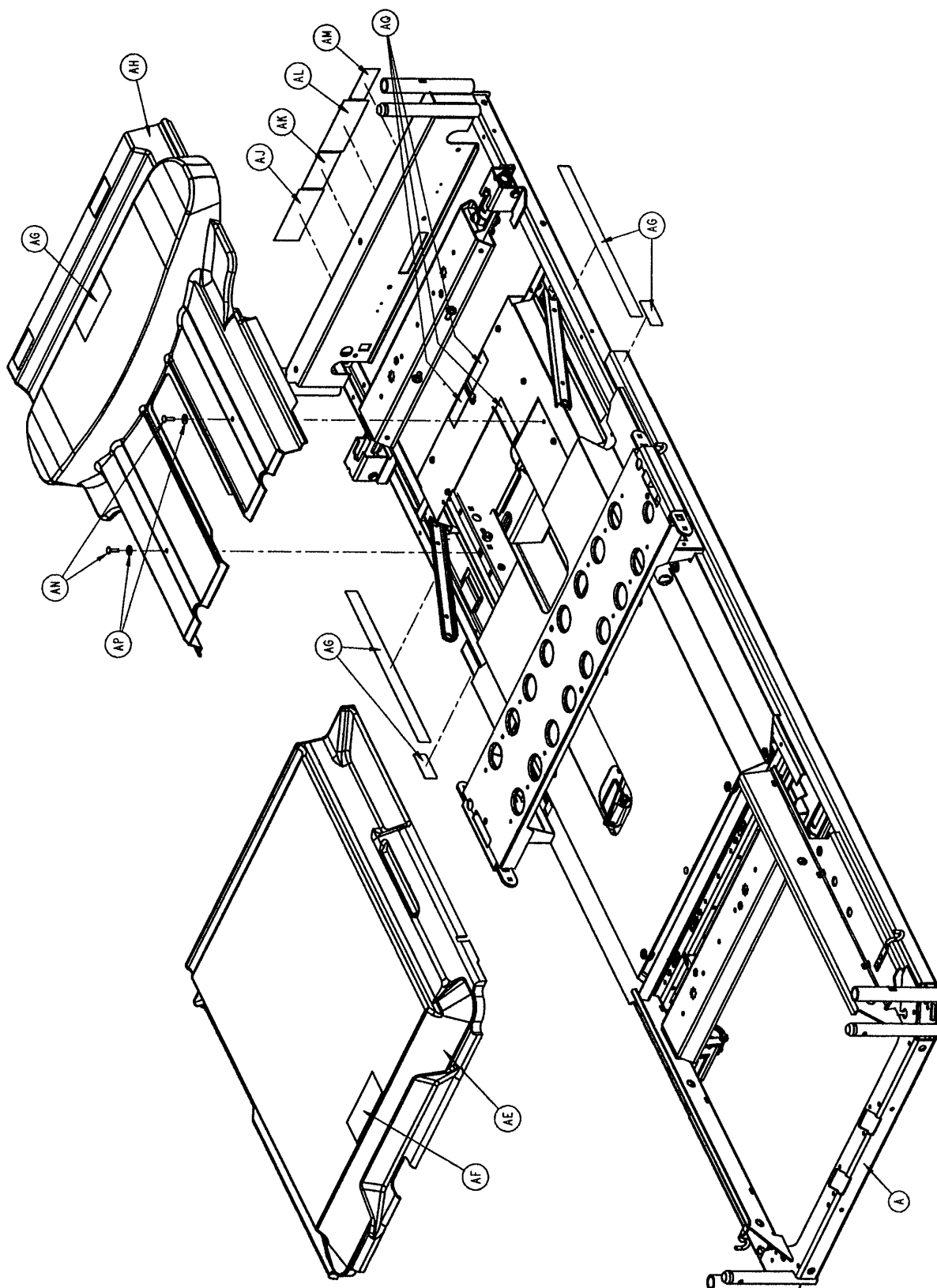
** See page 15 for replacement kit part number.



Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

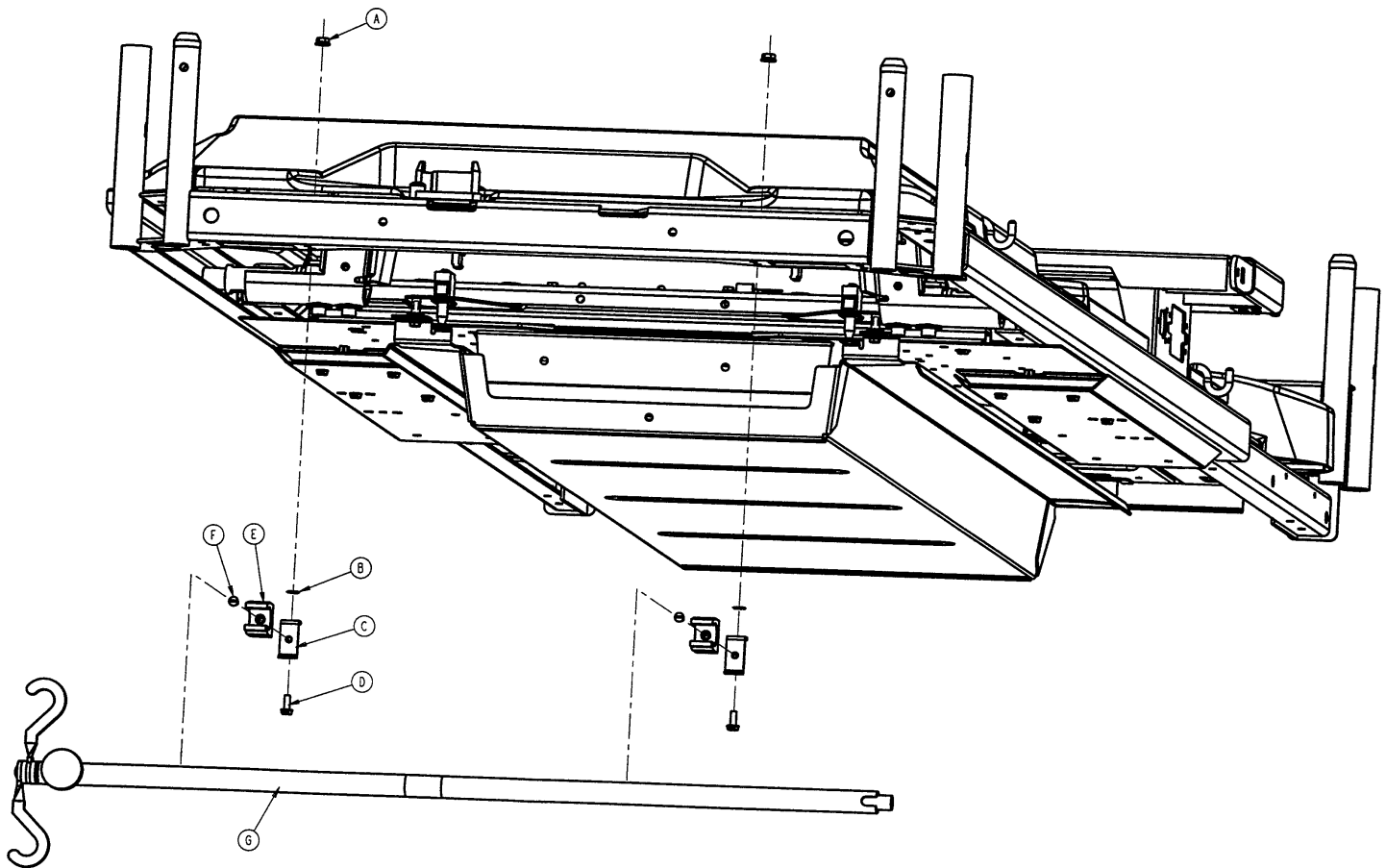
LITTER ASSEMBLY P/N 3000-300-000 (CONTINUED)



Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, REMOVABLE I.V. POLE OPTION P/N 3000-338-010

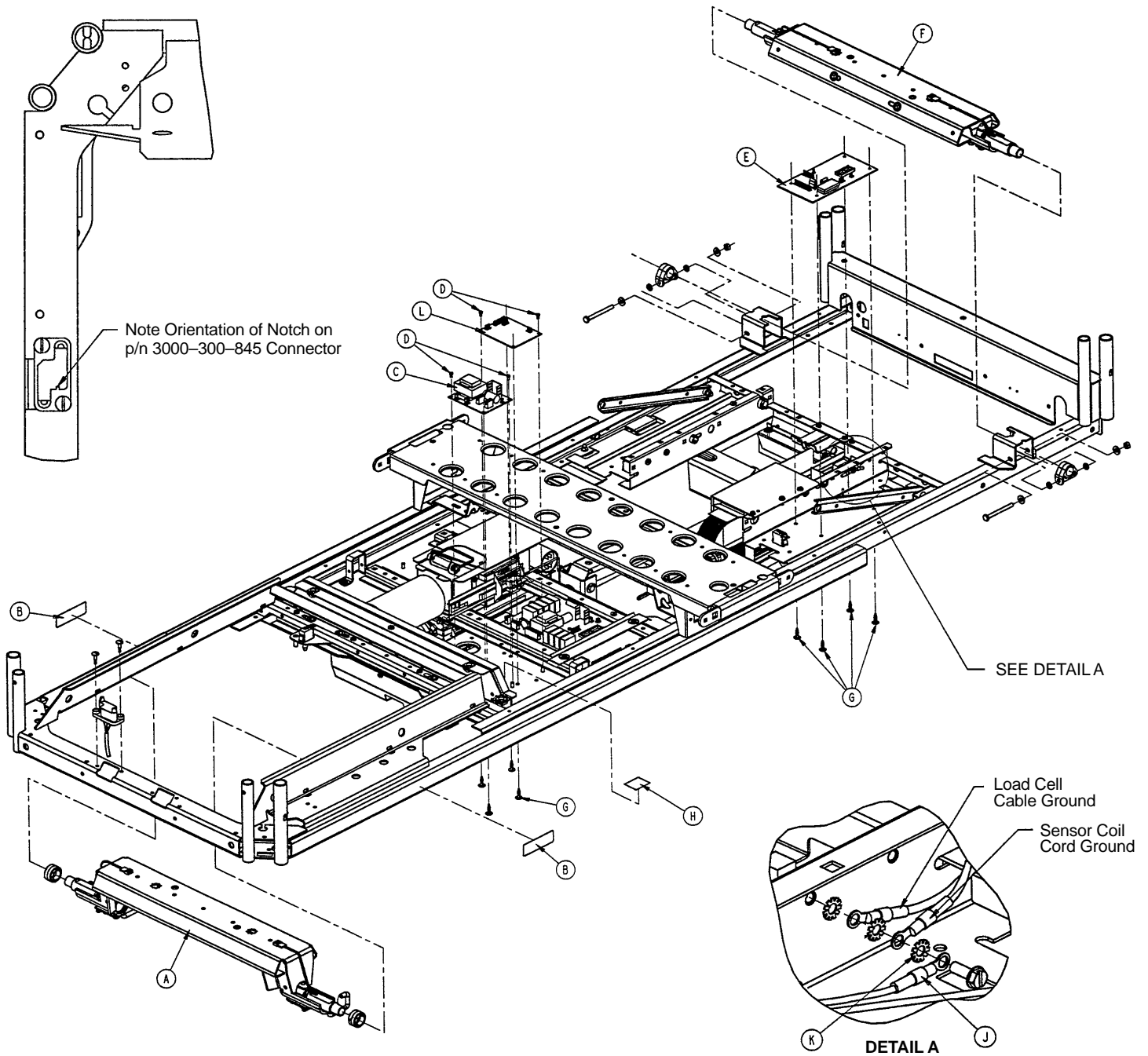


Item	Part No.	Part Name	Qty.
A	6-74	Flange Nut	2
B	13-18	Ext. Tooth Lock Washer	2
C	3000-300-87	Mounting Bracket	2
D	3-124	Hex Washer Hd. Screw	2
E	958-1-224	I.V. Clip	2
F	2-31	Round Hd. Screw	2
G	(page 170)	Removable I.V. Pole Ass'y	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, SCALE AND/OR BED EXIT OPTION P/N 3000-307-000



Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASS'Y, SCALE AND/OR BED EXIT OPTION P/N 3000-307-000 (CONTINUED)

Item	Part No.	Part Name	Qty.
A	(page 164)	Foot Lift Header Ass'y, Option	1
B	3000-300-601	Foley Bag Label	2
C	3000-307-953	Scale Power Supply Ass'y	1
D	9-31	Nylon Screw	4
E	3000-307-959	Scale CPU Assembly	1
F	(page 166)	Head Lift Header Ass'y, Option	1
G	3000-300-115	Standoff	8
H	3000-300-613	Fuse Label	1
J	3000-307-814	Scale Ground Wire	1
K	13-18	Ext. Tooth Lock Washer	1
L	3000-300-965	Serial IFC	1

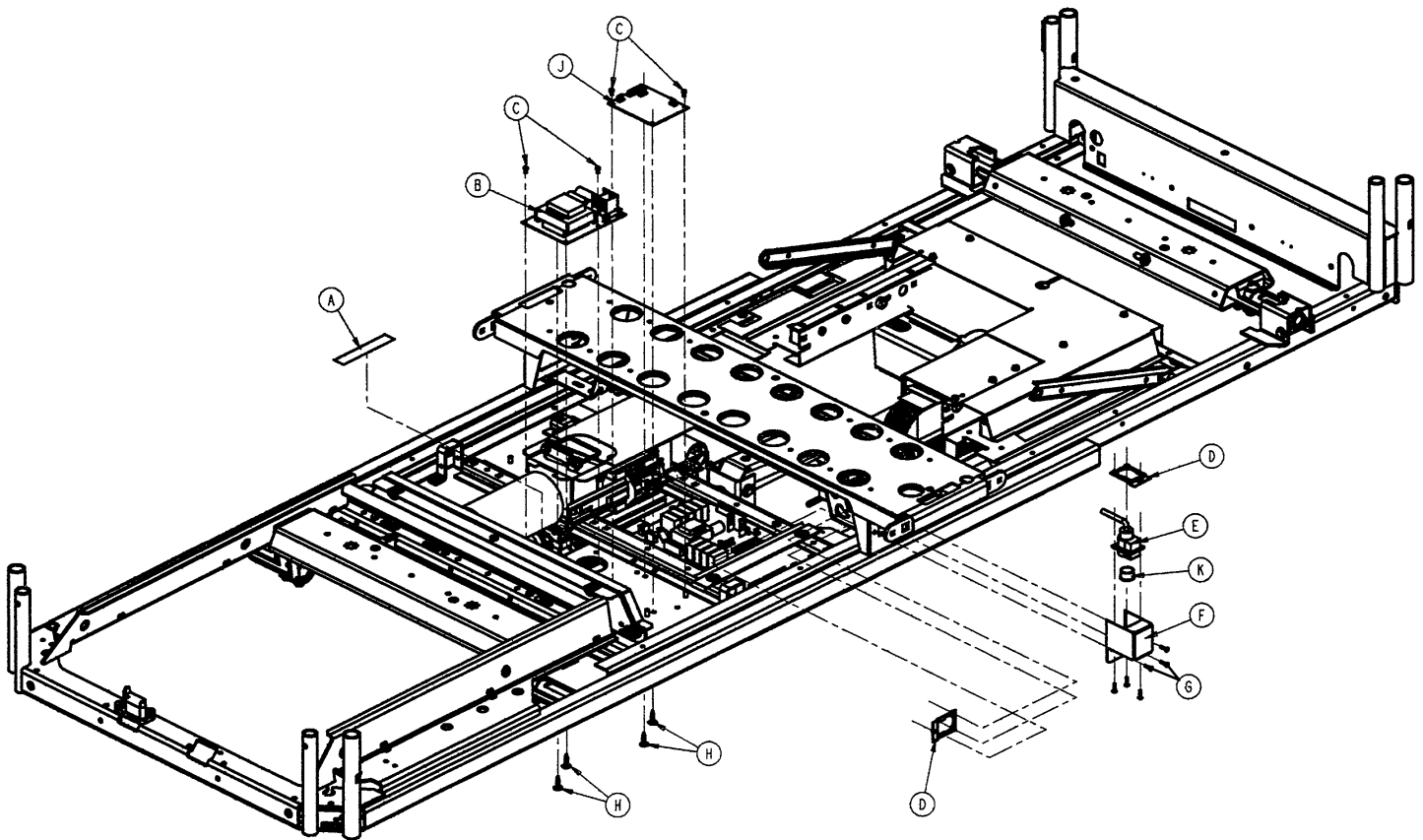
NOTE

Parts not identified are shown on standard litter assemblies.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, DMS OPTION P/N 3000-302-000

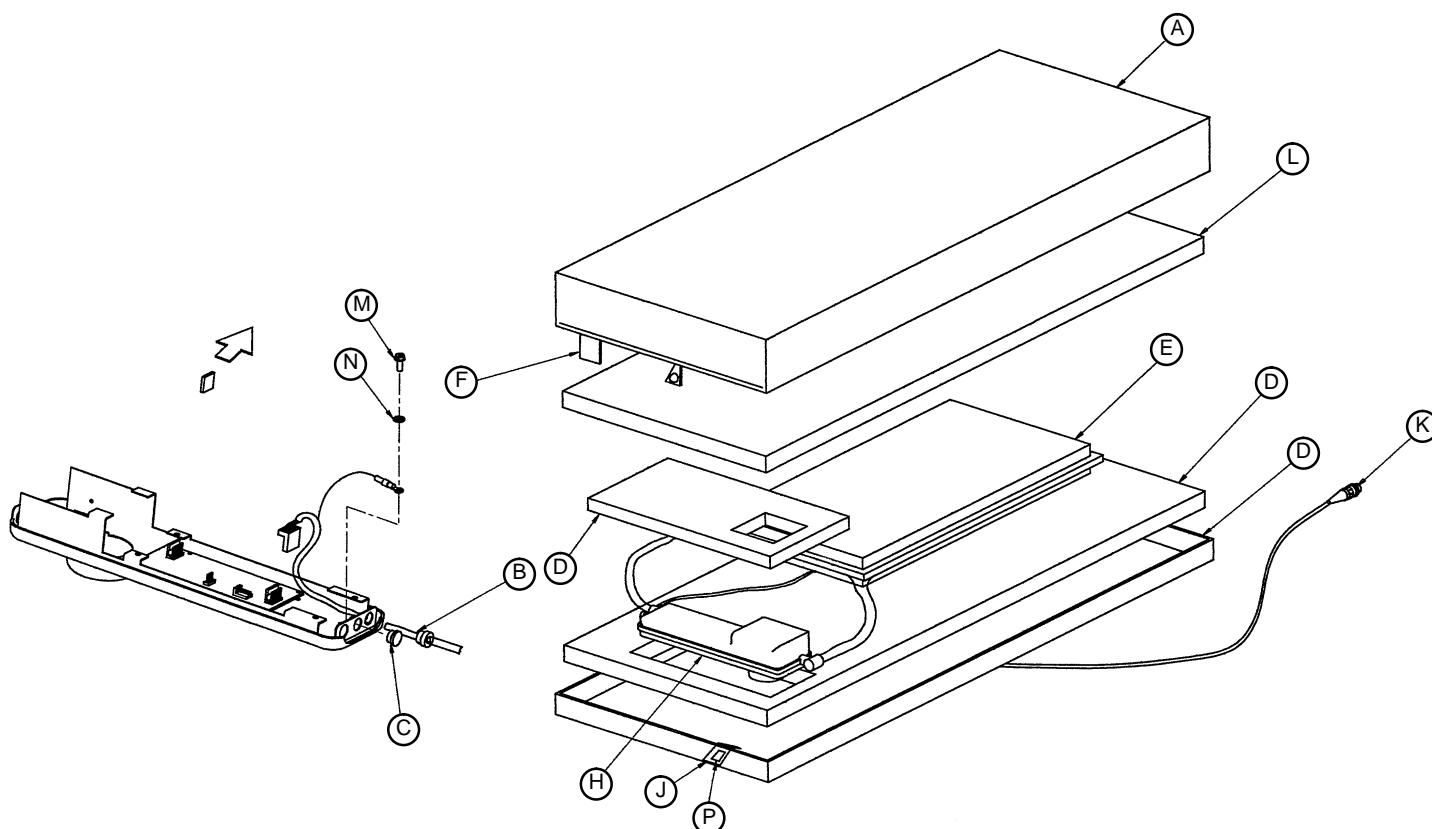


Item	Part No.	Part Name	Qty.
A	2020-250-527	Warning Label	1
B	3000-302-939	DMS Power Supply Ass'y	1
C	9-31	Nylon Screw	4
D	3000-302-13	DMS Port Mtg. Bracket	2
E	3000-302-819	DMS Port Cable	1
F	3000-302-11	DMS Port Bracket	1
G	7-46	Truss Hd. Screw	6
H	3000-300-115	Standoff	4
J	3000-300-965	Serial IFC	1
K	59-711	Electro-Static-Free Plug	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

INTEGRATED DYNAMIC MATTRESS ASSEMBLY P/N 3000-900-300

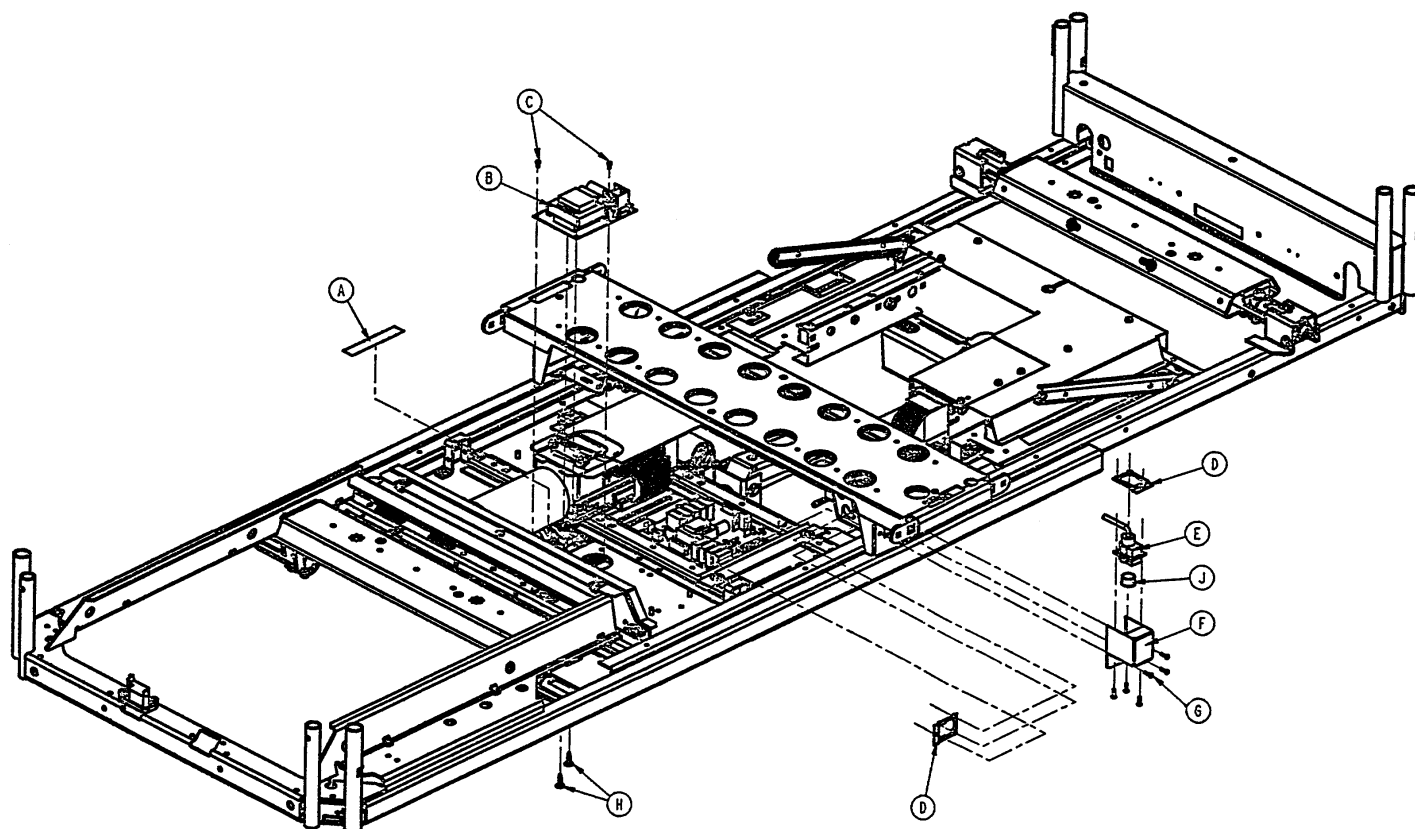


Item	Part No.	Part Name	Qty.
A	2500-354-000	Mattress Cover, Nylon	1
	2500-354-100	Mattress Cover, Pink	1
	2500-354-200	Mattress Cover, Lectrolite	1
B	2500-900-23	Strain Relief	1
C	2500-900-28	Hole Plug	1
D	2500-202-21	Foam Base	1
E	2500-200-3	Air Bladder Assembly	1
F	2500-930-105	DMS P/N Label	1
H	2500-400-123	Control Unit Assembly	1
J	2500-202-12	Material Label	1
K	2500-490-200	Int. DMS Cable Ass'y	1
L	2500-202-4	Topper	1
M	23-63	Machine Screw	1
N	12-30	Star Washer	1
P	2020-1-160	Serial Number Label	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

HYBRID DYNAMIC MATTRESS LITTER ASSEMBLY P/N 3000-332-000

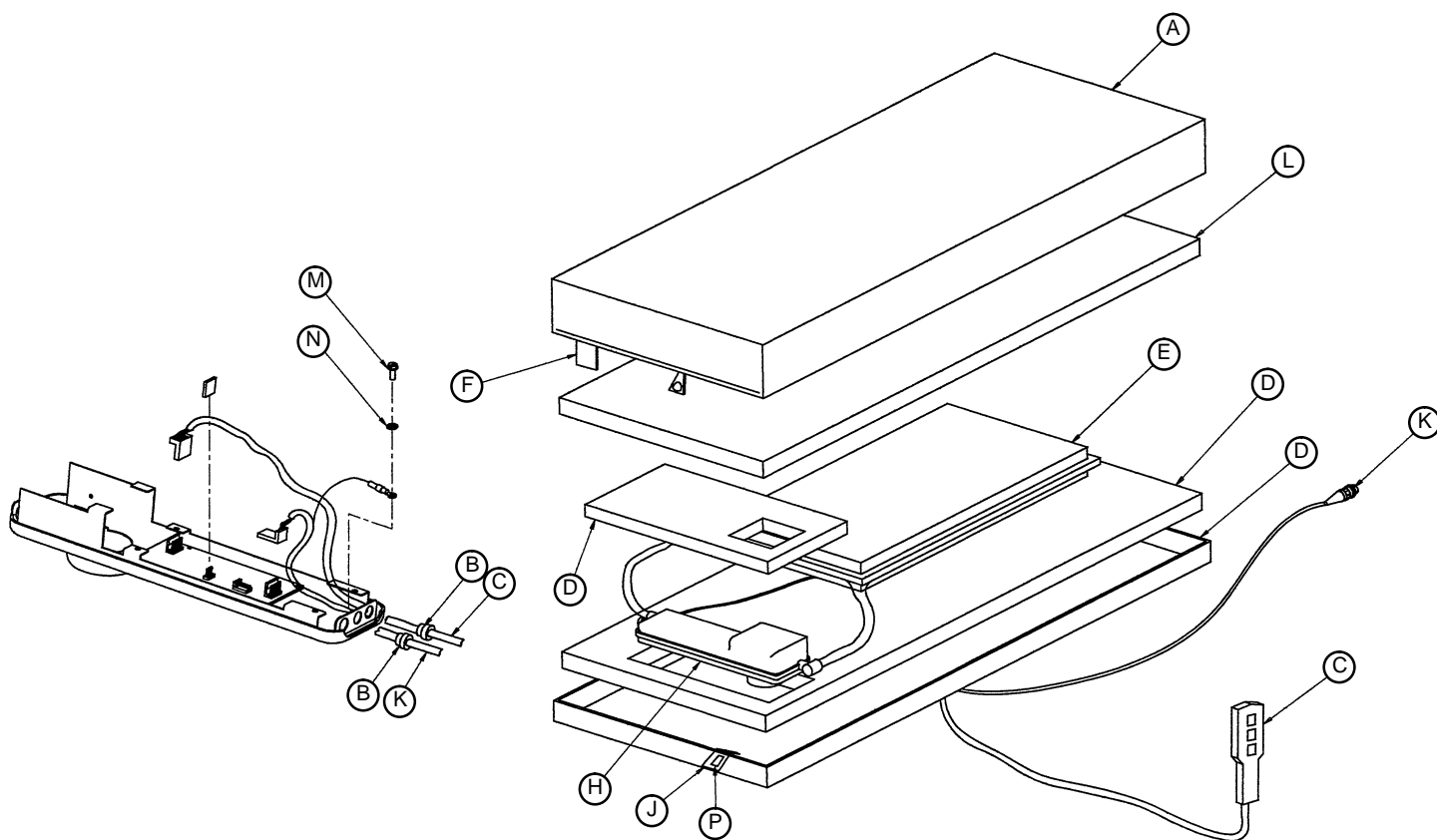


Item	Part No.	Part Name	Qty.
A	3000-250-527	Warning Label	1
B	3000-302-939	DMS Power Supply Ass'y	1
C	9-31	Nylon Flat Hd. Screw	2
D	3000-302-13	DMS Port Mtg. Bracket	2
E	3000-302-819	DMS Port Cable	1
F	3000-302-11	DMS Port Bracket	1
G	7-46	Truss Hd. Screw	6
H	3000-300-115	Standoff	2
J	59-711	Static-Free Plug	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

HYBRID DYNAMIC MATTRESS ASSEMBLY P/N 3000-901-300

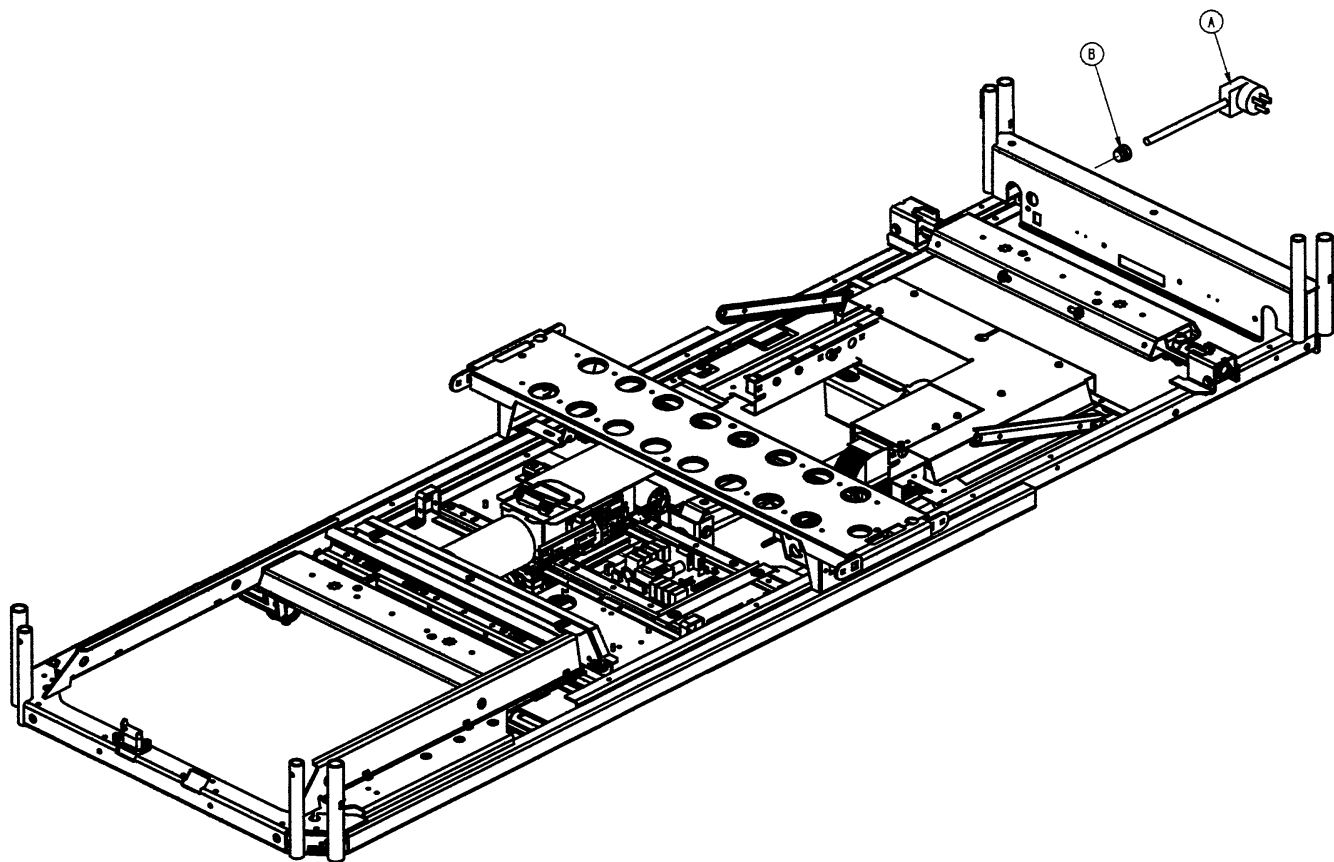


Item	Part No.	Part Name	Qty.
A	2500-354-000	Mattress Cover, Nylon	1
	2500-354-100	Mattress Cover, Pink	1
	2500-354-200	Mattress Cover, Lectrolite	1
B	2500-900-23	Strain Relief	2
C	2500-300-000	Pendant	1
D	2500-202-21	Foam Base	1
E	2500-200-3	Air Bladder Assembly	1
F	2500-931-105	DMS P/N Label	1
H	2500-400-123	Control Unit Assembly	1
J	2500-202-12	Material Label	1
K	2500-491-300	DMS Hybrid Cable Ass'y	1
L	2500-202-4	Topper	1
M	23-63	Machine Screw	1
N	12-30	Star Washer	1
P	2020-1-160	Serial Number Label	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, 90° POWER CORD OPTION P/N 3000–334–10



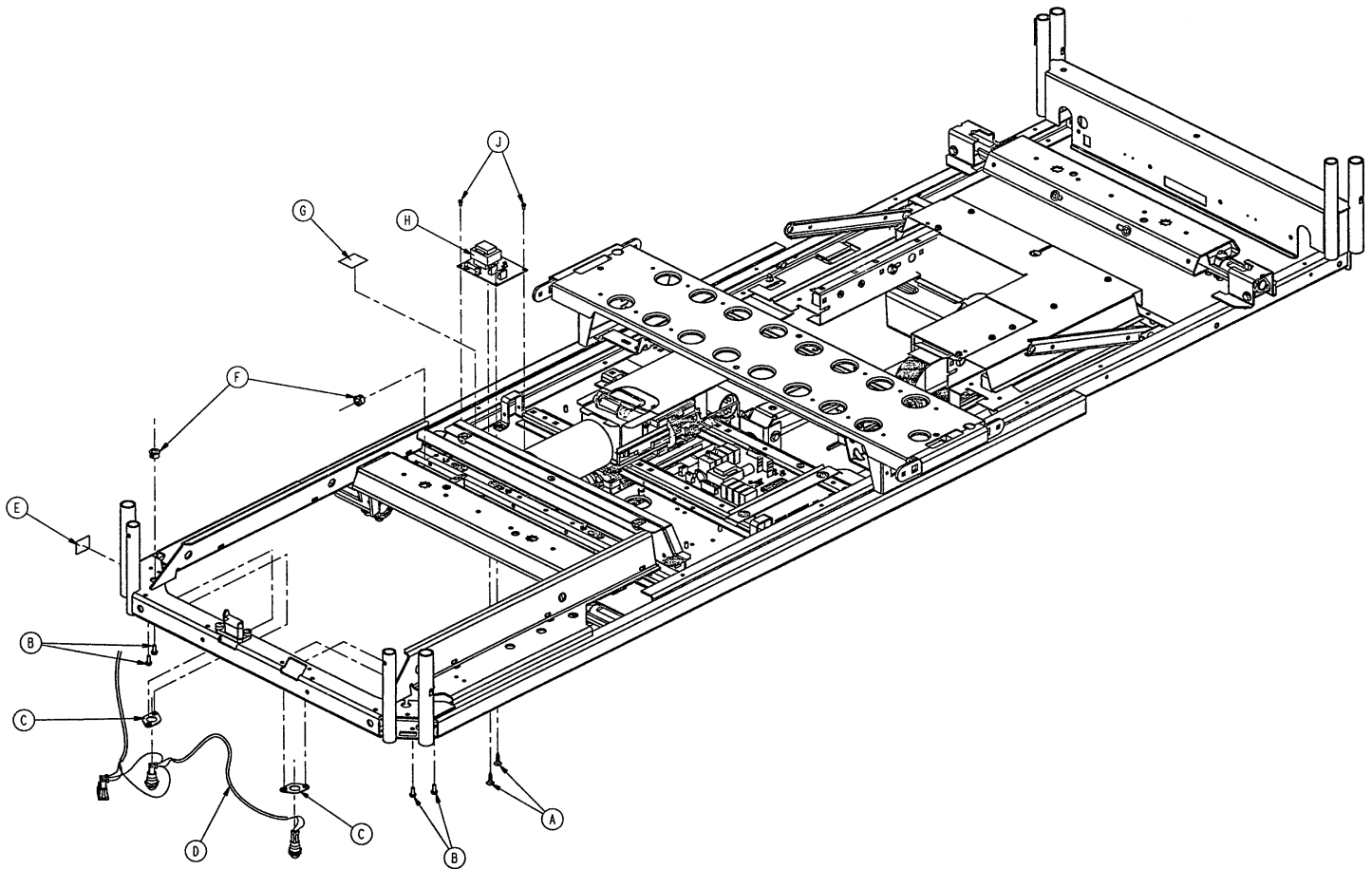
Item	Part No.	Part Name	Qty.
A	(See Table Below)	90° Power Cord	1
B	30–45	Strain Relief	1

Option Name	Option Part Number	Power Cord Part Number
90° Power Cord – 12 O’Clock Position	3000–999–117	3000–334–850
90° Power Cord – 9 O’Clock Position	3000–999–118	3000–334–851
90° Power Cord – 6 O’Clock Position	3000–999–119	3000–334–852
90° Power Cord – 3 O’Clock Position	3000–999–120	3000–334–853

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, NIGHT LIGHT OPTION P/N 3000-310-000

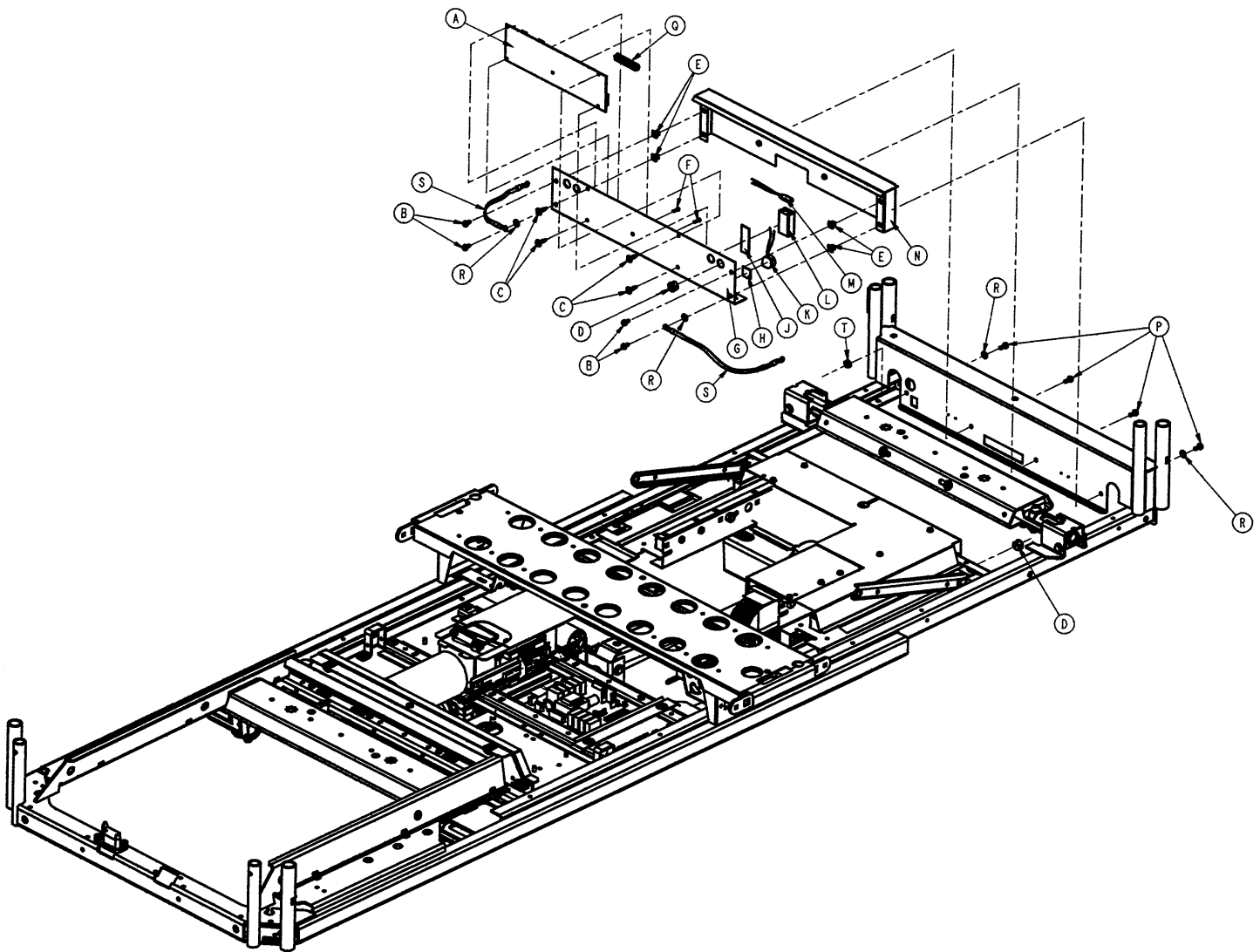


Item	Part No.	Part Name	Qty.
A	3000-300-115	Standoff	2
B	3-124	Hex Washer Hd. Screw	4
C	3000-306-5	Night Light Mtg. Bracket	2
D	3000-310-824	Night Light Lamp Cable	1
E	3000-300-617	Night Light Below Label	1
F	30-36	Split Grommet	2
G	3000-300-613	Scale Pwr. Sup. Fuse Label	1
H	3000-310-937	Night Light Assembly	1
J	9-31	Nylon Screw	2

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, HEADWALL IFC/NURSE CALL/BED EXIT P/N 3000-303-000

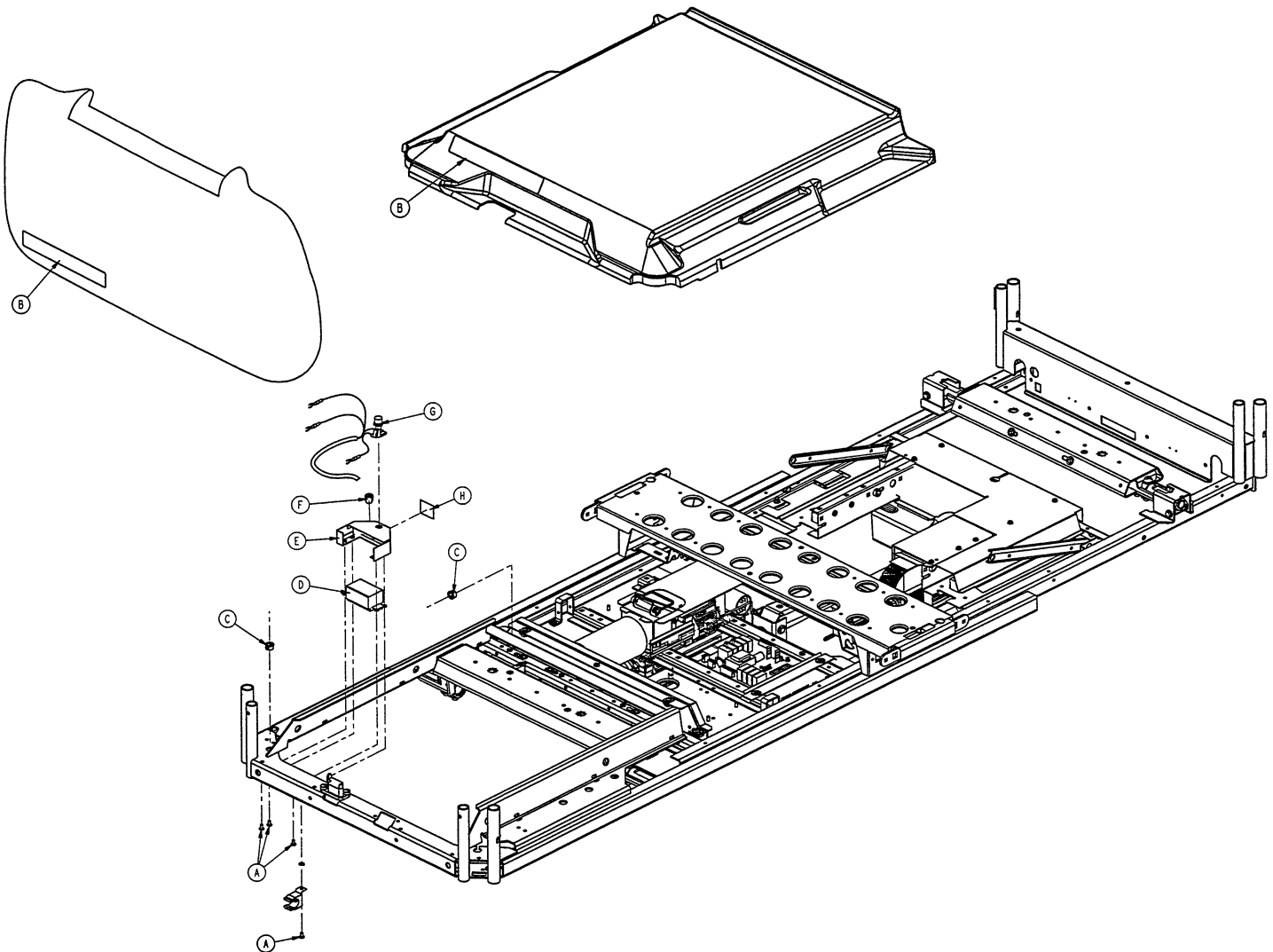


Item	Part No.	Part Name	Qty.	Item	Part No.	Part Name	Qty.
A	3000-303-935	Headwall IFC	1	K	3000-508-869	B/E Beeper	1
B	23-25	Hex Washer Hd. Screw	4	L	3000-303-871	Battery	1
C	3000-300-115	Standoff	4	M	3000-303-870	NC Battery Cable	1
D	30-36	Split Grommet	2	N	3000-303-8	Enclosure Cover	1
E	3000-300-2	Plastic Clip Nut	4	P	3-124	Hex Washer Hd. Screw	4
F	59-725	Female Screwlock	2	Q	59-710	Static Dissipative Cap	1
G	3000-303-10	Hdwall. Enc. Cover Ass'y	1	R	13-18	Ext. Tooth Lock Washer	4
H	3000-308-1	Tape, B/E Beeper	1	S	3000-300-802	Litter Ground Jumper	2
J	3000-300-402	2-Sided Tape Strip	1	T	16-41	Kep Nut	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, 110V OUTLET OPTION P/N 3000-320-000



Item	Part No.	Part Name	Qty.
A	7-3	Truss Hd. Screw	4
B	3000-300-616	Outlet Below Caution Label	2
C	30-36	Split Grommet	2
D	3000-320-849	110V Outlet	1
E	3000-320-1	110V Enclosure	1
F	34-133	Strain Relief	1
G	3000-320-842	Aux. AC Outlet Cable	1
H	3000-300-606	110V Outlet Fuse Label	1

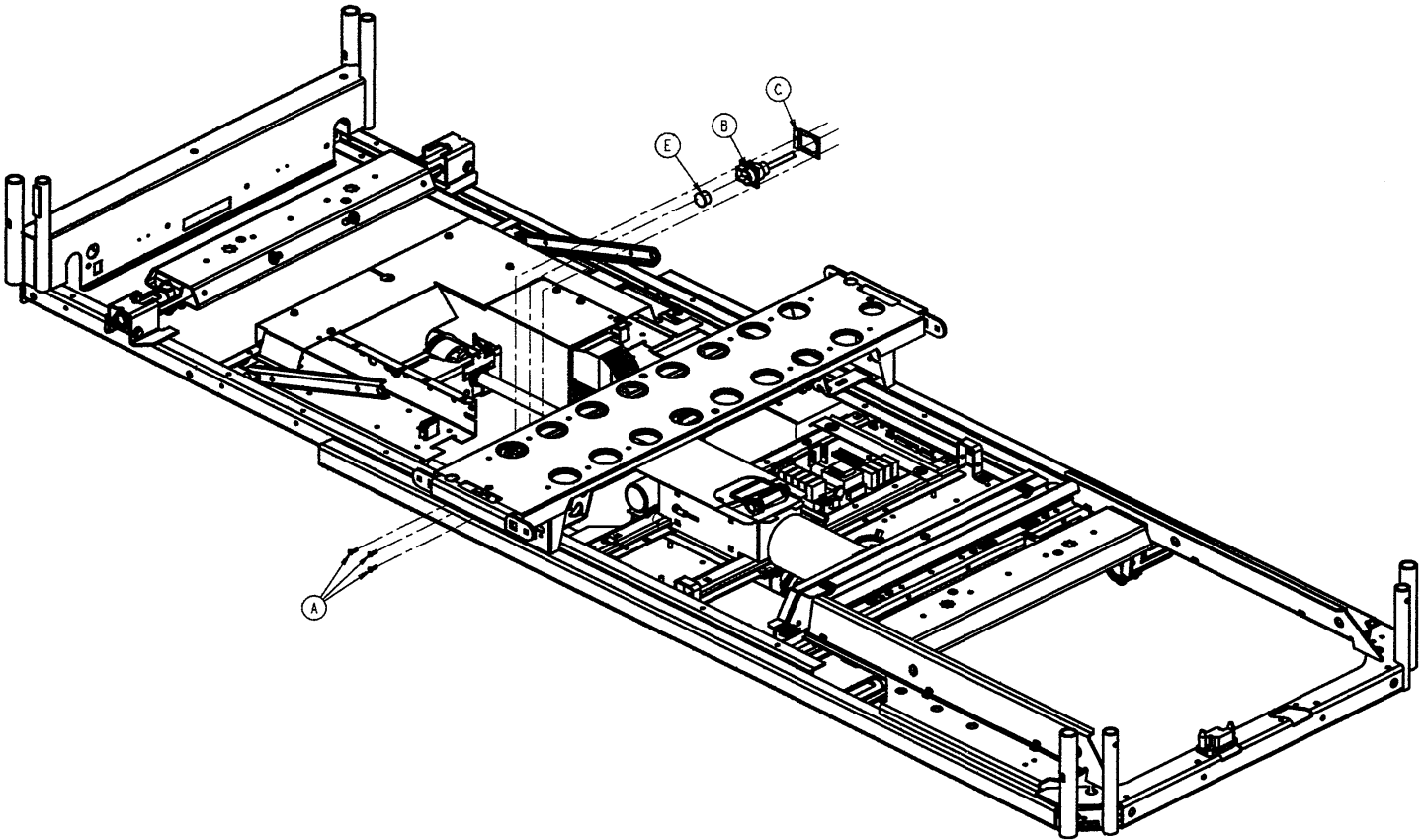
NOTE

Parts not identified are shown on standard litter assemblies.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, PENDANT PORT P/N 3000-314-400

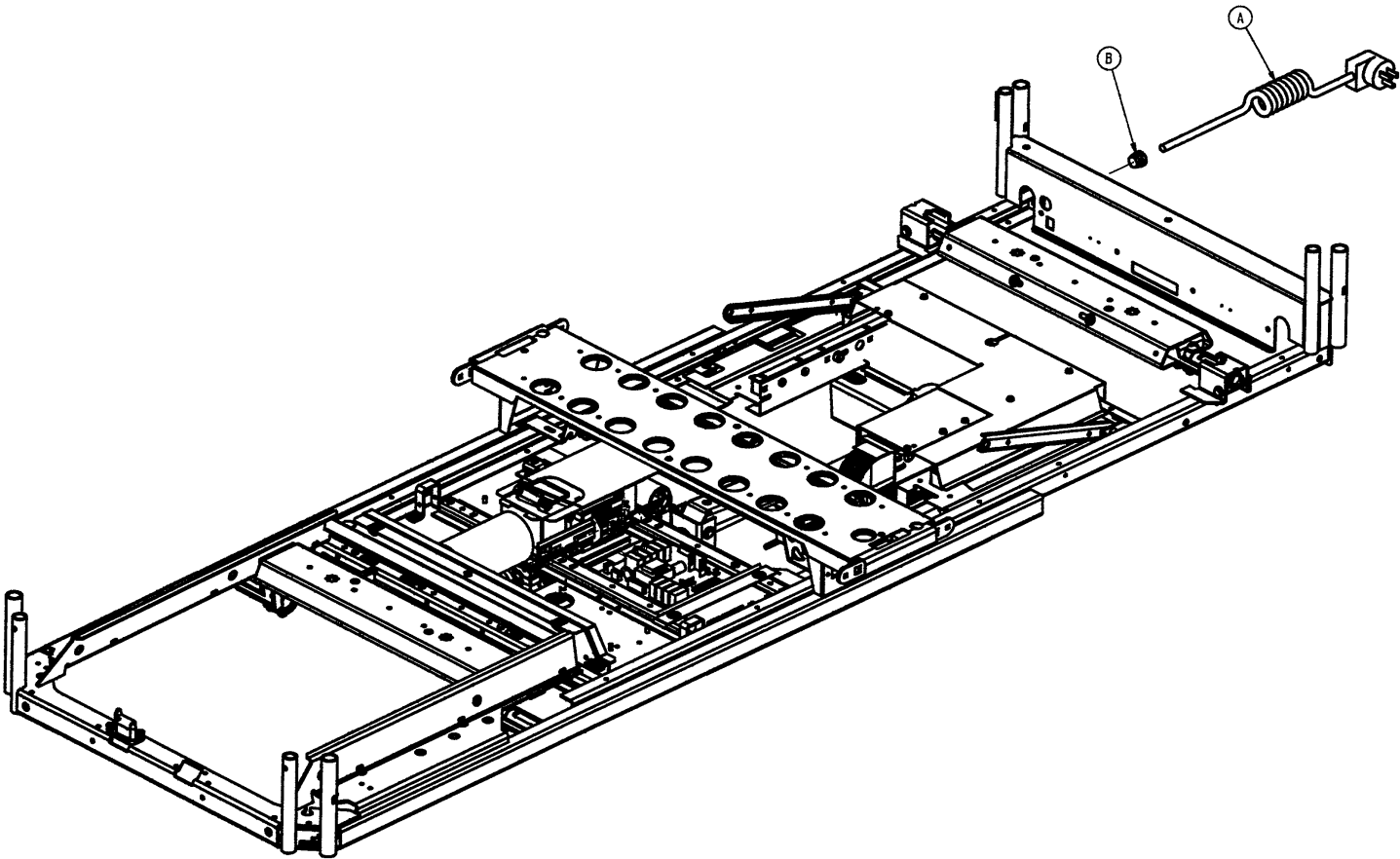


Item	Part No.	Part Name	Qty.
A	7-46	Phillips Truss Hd. Screw	3
B	3000-915-839	Pendant Port Cable Ass'y	1
C	3000-302-13	DMS Port Mtg. Bracket	1
D	52-276	Heyco Clamp (not shown)	2
E	59-711	Electro-Static-Free Plug	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, COIL CORD OPTION P/N 3000-323-10

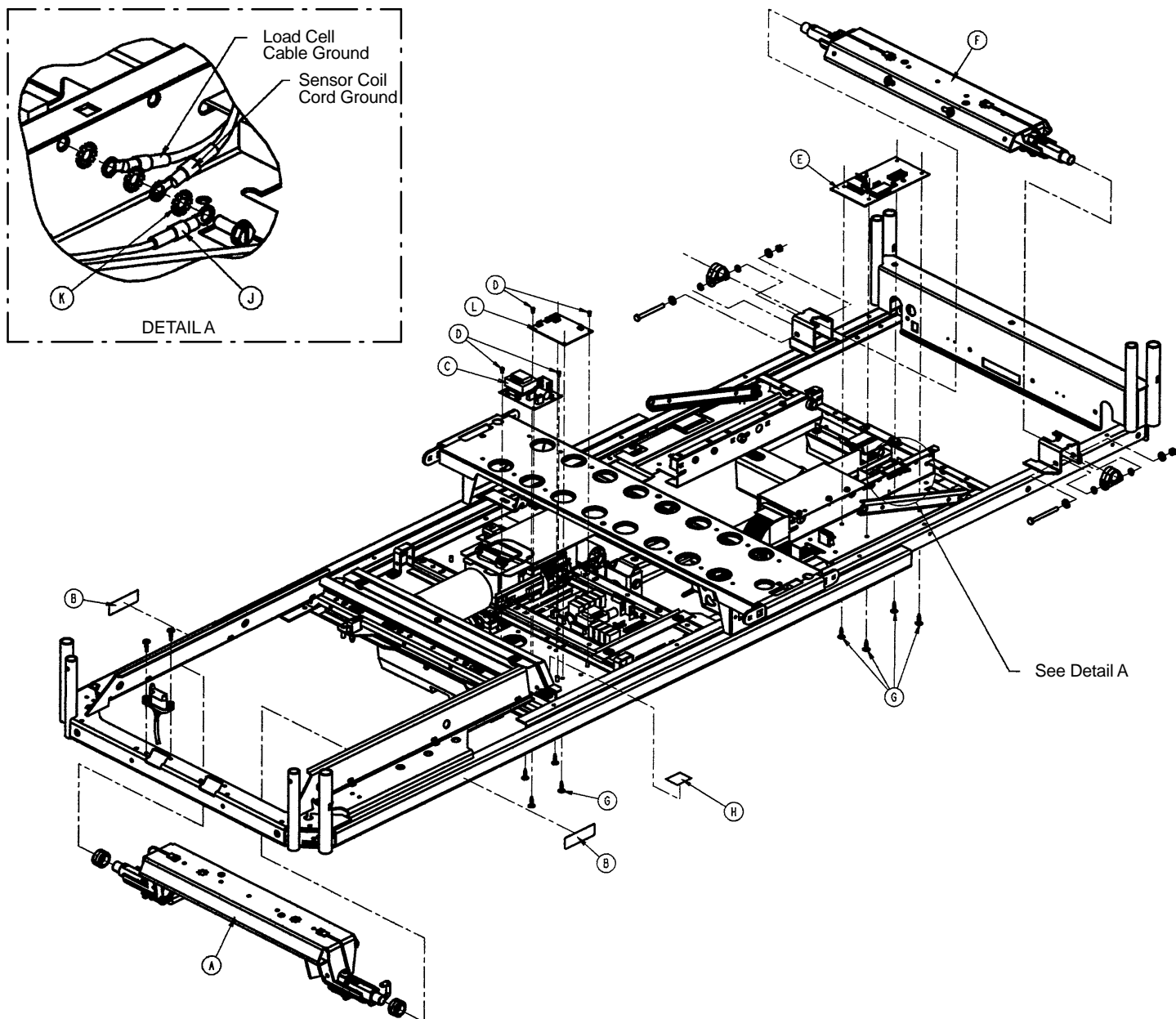


Item	Part No.	Part Name	Qty.
A	3000-323-850	Coiled Power Cord	1
B	30-45	Strain Relief	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ASSEMBLY, BED EXIT OPTION P/N 3000-308-000



Item	Part No.	Part Name	Qty.	Item	Part No.	Part Name	Qty.
A	(page 164)	Foot Lift Header Ass'y	1	F	(page 166)	Head Lift Header Ass'y	1
B	3000-300-601	Foley Bag Label	2	G	3000-300-115	Standoff	8
C	3000-307-953	Scale Power Supply Ass'y	1	H	3000-300-613	Fuse Label	1
D	9-31	Nylon Screw	4	J	3000-307-814	Scale Ground Wire	1
E	3000-308-959	CPU Ass'y, Bed Exit Only	1	K	13-18	Ext. Tooth Lock Washer	1
				L	3000-300-965	Serial IFC	1

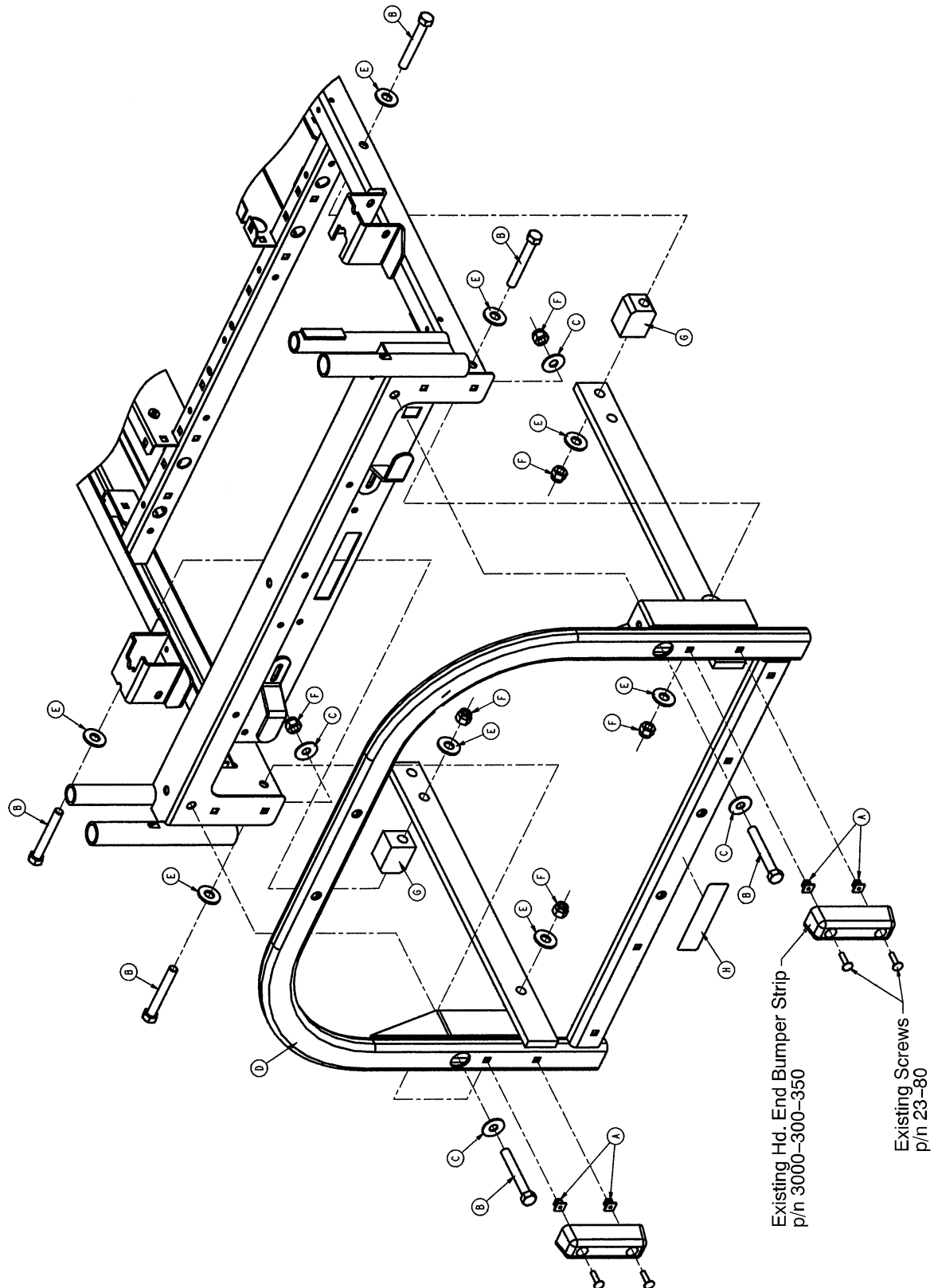
NOTE

Parts not identified are shown on standard litter assemblies.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ACCESSORY ADAPTER FRAME OPTION ASSEMBLY P/N 3000-333-000



Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

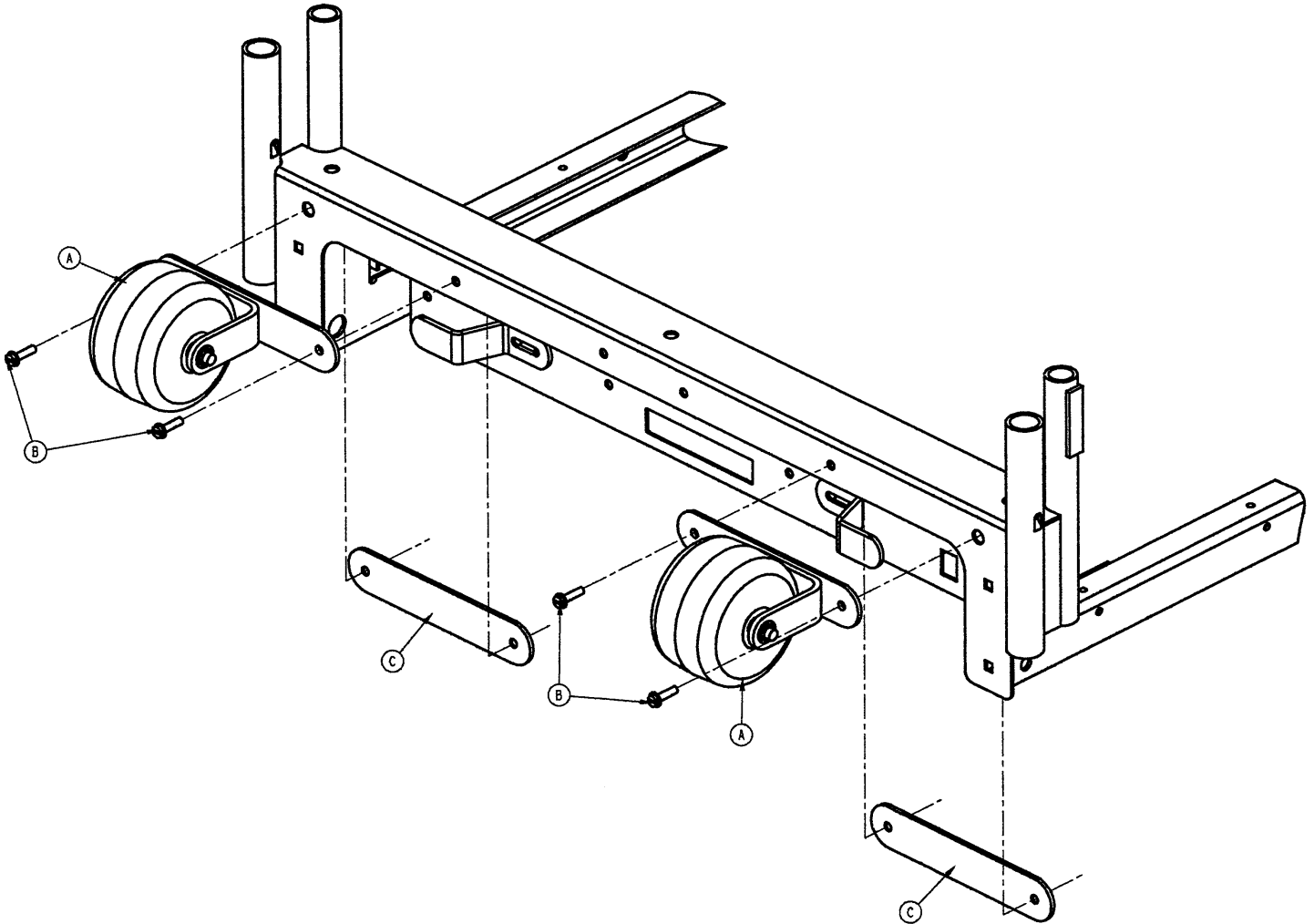
LITTER ACCESSORY ADAPTER FRAME OPTION ASSEMBLY P/N 3000-333-000

Item	Part No.	Part Name	Qty.
A	3000-300-2	Plastic Clip Nut	4
B	3-208	Hex Hd. Cap Screw	6
C	11-301	Flat Washer	4
D	3000-333-5	Frame	1
E	11-361	Flat Washer	8
F	16-35	Nylock Nut	6
G	3000-333-6	Block Spacer	2
H	3000-333-15	Accessory Adapter Label	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ROLLER OPTION ASSEMBLY P/N 3000-335-000

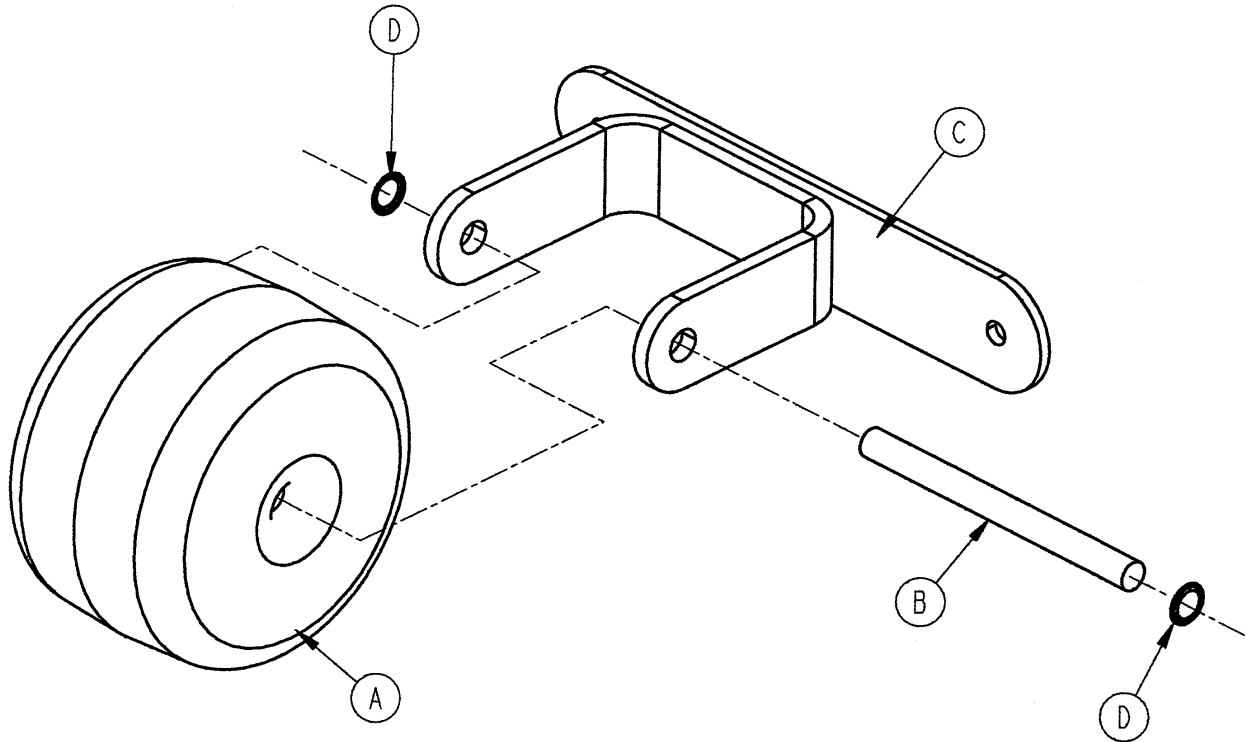


Item	Part No.	Part Name	Qty.
A	(page 157.7)	Roller Assembly	2
B	3-132	Hex Hd. Screw	4
C	3000-335-25	Roller Mounting Plate	2

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER ROLLER ASSEMBLY P/N 3000-335-5

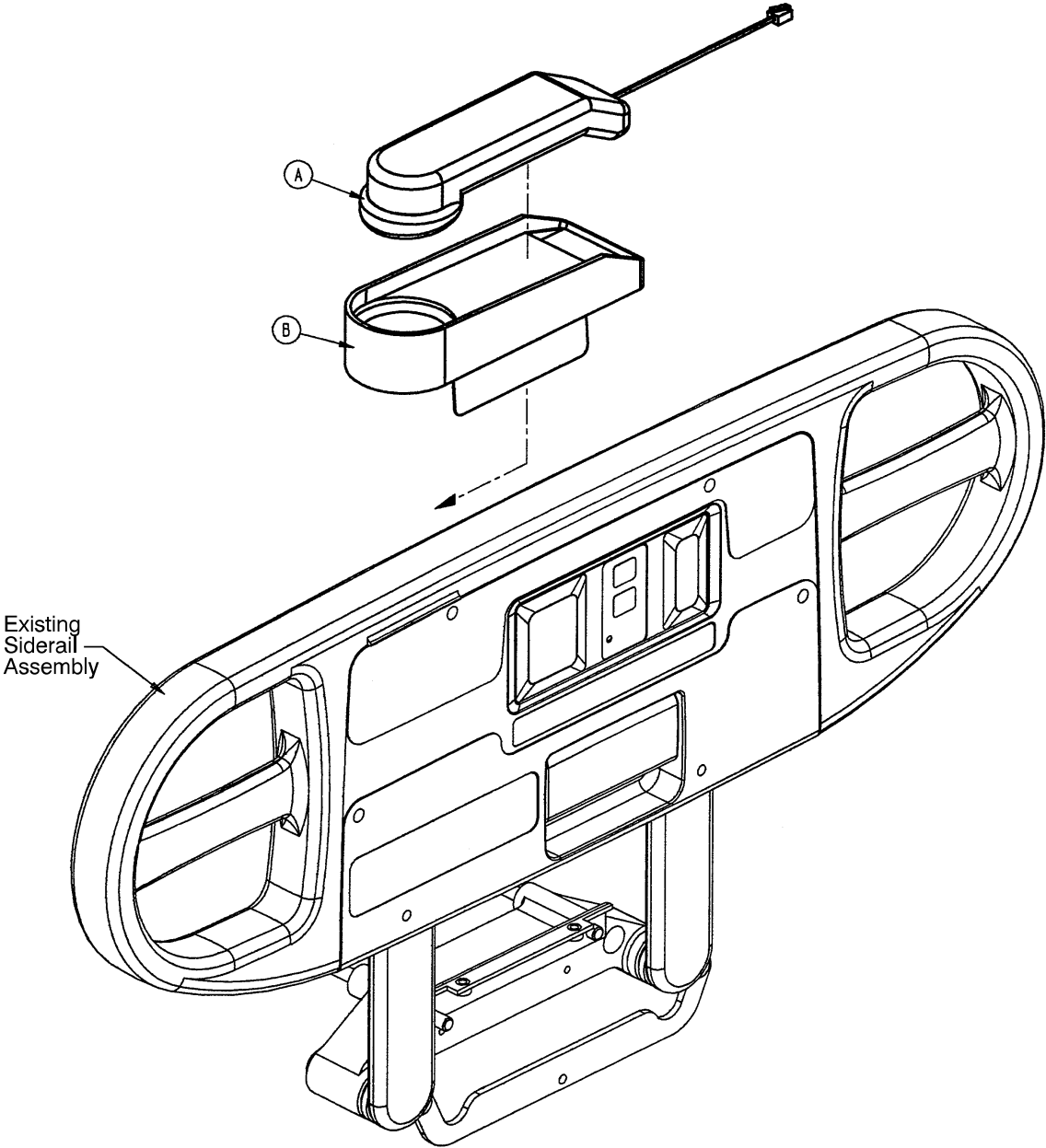


Item	Part No.	Part Name	Qty.
A	3000-335-11	Roller Bumper	1
B	3000-335-12	Roller Shaft	1
C	3000-335-20	Roller Bracket Assembly	1
D	52-727	Grooveless Retainer Ring	2

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER TELEPHONE OPTION ASSEMBLY P/N 3000-305-000

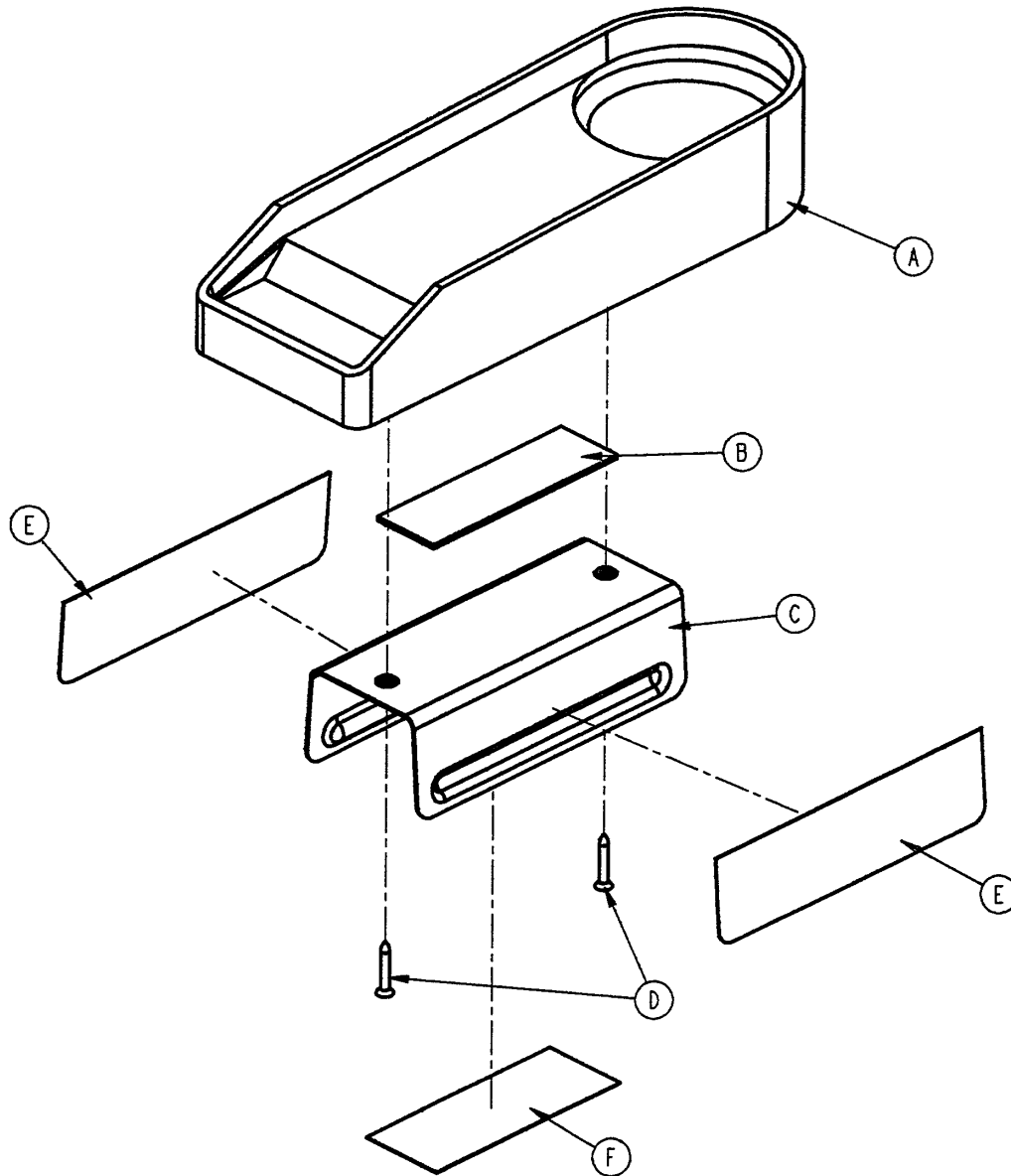


Item	Part No.	Part Name	Qty.
A	52-725	Telephone Handset	1
B	(page 157.9)	Phone Base Assembly	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

PHONE BASE ASSEMBLY P/N 3000-305-5

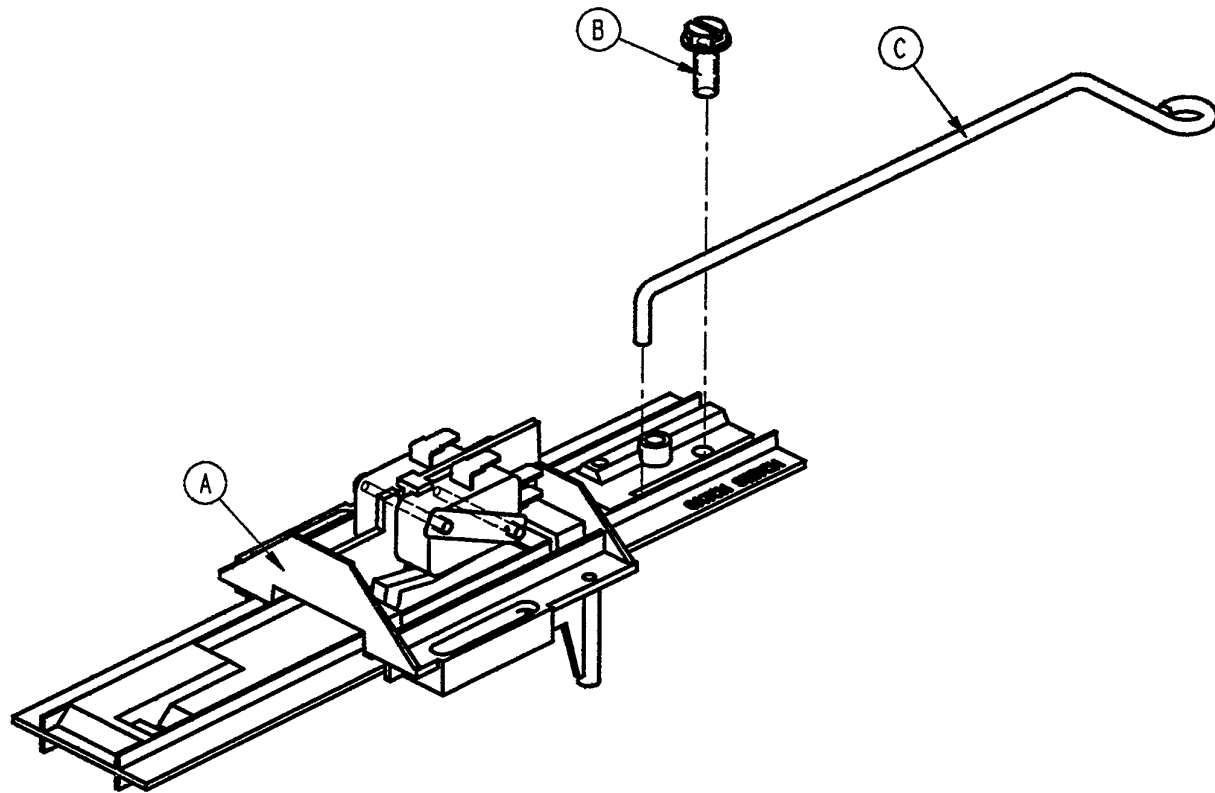


Item	Part No.	Part Name	Qty.
A	52-724	Telephone Base	1
B	44-29	Black Foam Tape	1
C	3000-305-1	Phone Bracket	1
D	23-107	Flat Hd. Mach. Screw	2
E	3000-305-11	Telephone Mounting Label	2
F	3000-305-12	Telephone I.D. Label	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

FOWLER LIMIT SWITCH ASSEMBLY P/N 3000-300-35



Item	Part No.	Part Name	Qty.
A	3000-300-40	Limit Switch Assembly	1
B	23-82	Hex Washer Hd. Screw	1
C	3000-300-37	Link Wire	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

GATCH DRIVE ASSEMBLY P/N 3000-300-400 (CONTINUED)

Item	Part No.	Part Name	Qty.
A	3-207	Hex Hd. Cap Screw	2
B	52-720	Nylon Flat Washer	2
C	3000-300-417	Gatch Motor Bracket	1
D	*3000-300-410	Gatch Motor Ass'y	1
E	21-139	Socket Set Screw	1
F	3000-300-425	Drive Motor Coupling	1
G	3000-300-455	CPR Isolation Bushing	3
H	*3000-300-412	Screw Drive Coupling	1
J	26-196	Groove Pin	2
K	3000-300-1	Litter Pivot Bushing	2
L	11-2	Flat Washer	2
M	3-129	Hex Hd. Cap Screw	1
N	3000-300-424	Hitch Pin	1
P	3000-300-420	Link Bushing	1
Q	3000-300-421	Gatch Link	1
R	3000-300-419	Gatch Nut	1
S	3000-300-418	Gatch Nut Sleeve	1
T	3000-300-428	Gatch Link Sleeve	1
U	3000-300-423	Link Wire	1
V	16-16	Nylock Nut	1
W	**3000-300-401	Capacitor	1
X	3000-300-402	Double-Sided Tape	1
Y	11-333	Flat Washer	1
Z	3000-300-415	Gatch Screw Bushing	2
AA	23-106	Hex Washer Hd. Screw	2
AB	(page 162)	Limit Switch Assembly	1
AC	52-283	Plastic Clip Nut	2
AD	*3000-300-411	Gatch Screw	1
AE	3-126	Hex Washer Hd. Screw	2
AF	3000-200-228	Mtr. Mtg. Plate Grommet	2
AG	3000-300-405	Gatch Brkt. Weldment	1
AJ	3000-300-113	Cable Tie (not shown)	2
AK	11-339	Shim Washer	1
AL	23-82	Hex Washer Hd. Screw	1
AM	3000-300-429	Steel Stop Tube	1
AN	13-18	Ext. Tooth Lock Washer	1
AP	11-3	Flat Washer	2
AQ	52-718	Molded Nylon Insulator	2
AR	11-359	Flat Washer	2
AS	7900-1-291	Flame Retardant Foam Tape	1
AT	11-302	Flat Washer	1

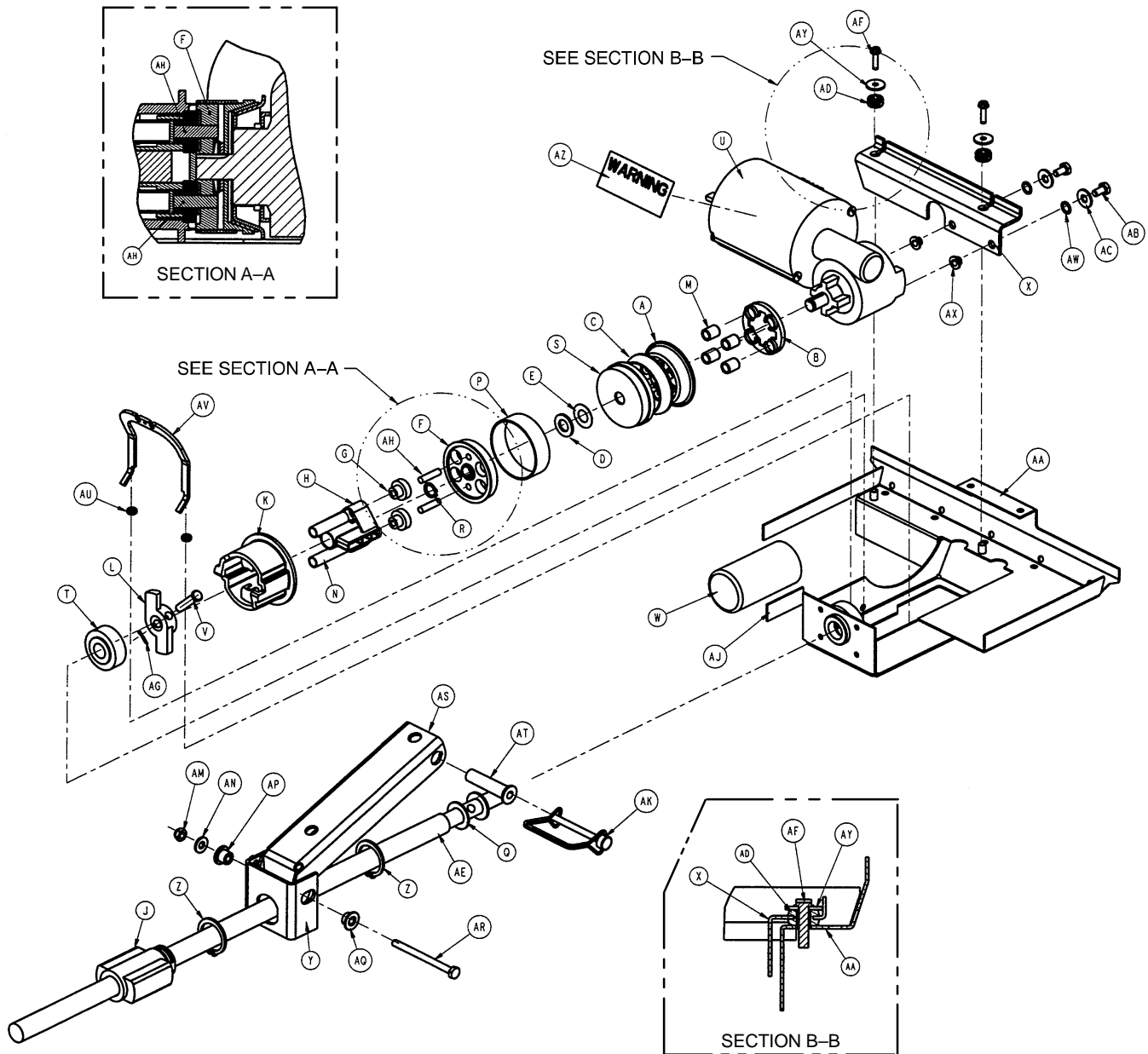
* See page 14 for replacement kit part number.

** See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

FOWLER DRIVE ASSEMBLY P/N 3000-300-450



Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

FOWLER DRIVE ASSEMBLY P/N 3000-300-450 (CONTINUED)

Item	Part No.	Part Name	Qty.
A	3000-300-451	CPR Spring Cup	1
B	3000-300-470	CPR Spring Seat	1
C	3000-300-452	CPR Brake Disc	1
D	3000-200-224	Idler Gear Thrust Washer	1
E	3000-200-225	CPR Thrust Bearing	1
F	3000-300-454	CPR Coupler	1
G	3000-300-455	CPR Isolation Bushing	2
H	*3000-300-456	CPR Isolator	1
J	*3000-300-457	CPR Ball Screw	1
K	*3000-300-461	CPR Decoupler	1
L	3000-300-462	CPR Wing	1
M	3000-300-463	CPR Brake Spring	4
N	3000-300-464	CPR Engagement Spring	2
P	3000-300-465	CPR Clutch Spring	1
Q	3000-300-466	CPR Thrust Bearing	1
R	28-131	Retaining Ring	1
S	3000-300-469	Brake Cup	1
T	3000-300-471	Tapered Roller Bearing	1
U	*3000-300-472	Motor	1
V	3000-300-473	Clevis Pin	1
W	**3000-300-453	Motor Capacitor	1
X	3000-300-443	Actuator Mounting Bracket	1
Y	3000-300-497	Fowler Link Bracket	1
Z	28-120	Retaining Ring	2
AA	3000-300-440	Fowler Actuator Weldment	1
AB	3-207	Hex Hd. Cap Screw	2
AC	11-3	Flat Washer	2
AD	3000-300-442	Fowler Drive Grommet	2
AE	3000-300-482	Thrust Washer	1
AF	3-126	Hex Washer Hd. Screw	2
AG	27-17	Cotter Pin	1
AH	26-231	Dowel Pin	2
AJ	3000-300-402	Double Stick Tape	1
AK	3000-300-424	Hitch Pin	1
AL	3000-300-114	Cable Tie	2
AM	16-28	Nylock Nut	1
AN	11-303	Flat Washer	1
AP	3000-300-1	Litter Pivot Bushing	1
AQ	3000-300-99	Modified Fowler Bushing	1
AR	3-206	Hex Hd. Cap Screw	1
AS	3000-300-495	Fowler Link	1
AT	3000-300-420	Link Bushing	1
AU	52-705	Grommet	2
AV	3000-300-658	CPR Release Arm	1
AW	52-719	Flat Nylon Washer	2
AX	52-718	Molded Nylon Insulator	2
AY	11-359	Flat Washer	2
AZ	3000-300-604	Warning Label	1

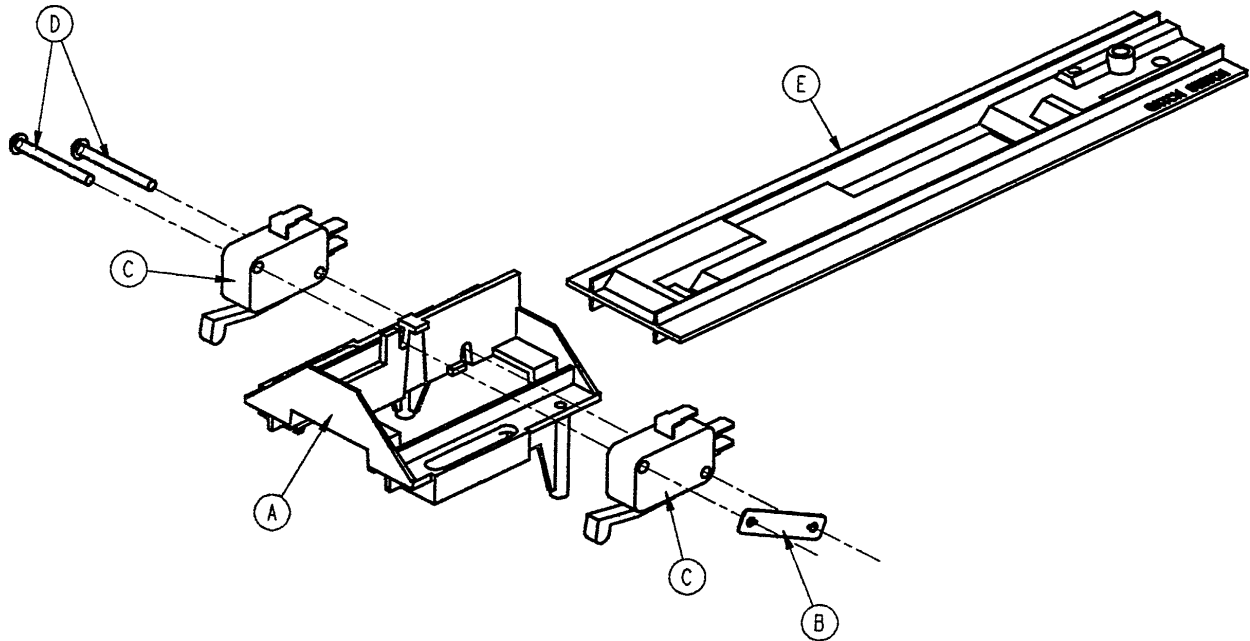
* See page 14 for replacement kit part number.

** See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LIMIT SWITCH ASSEMBLY P/N 3000-300-40



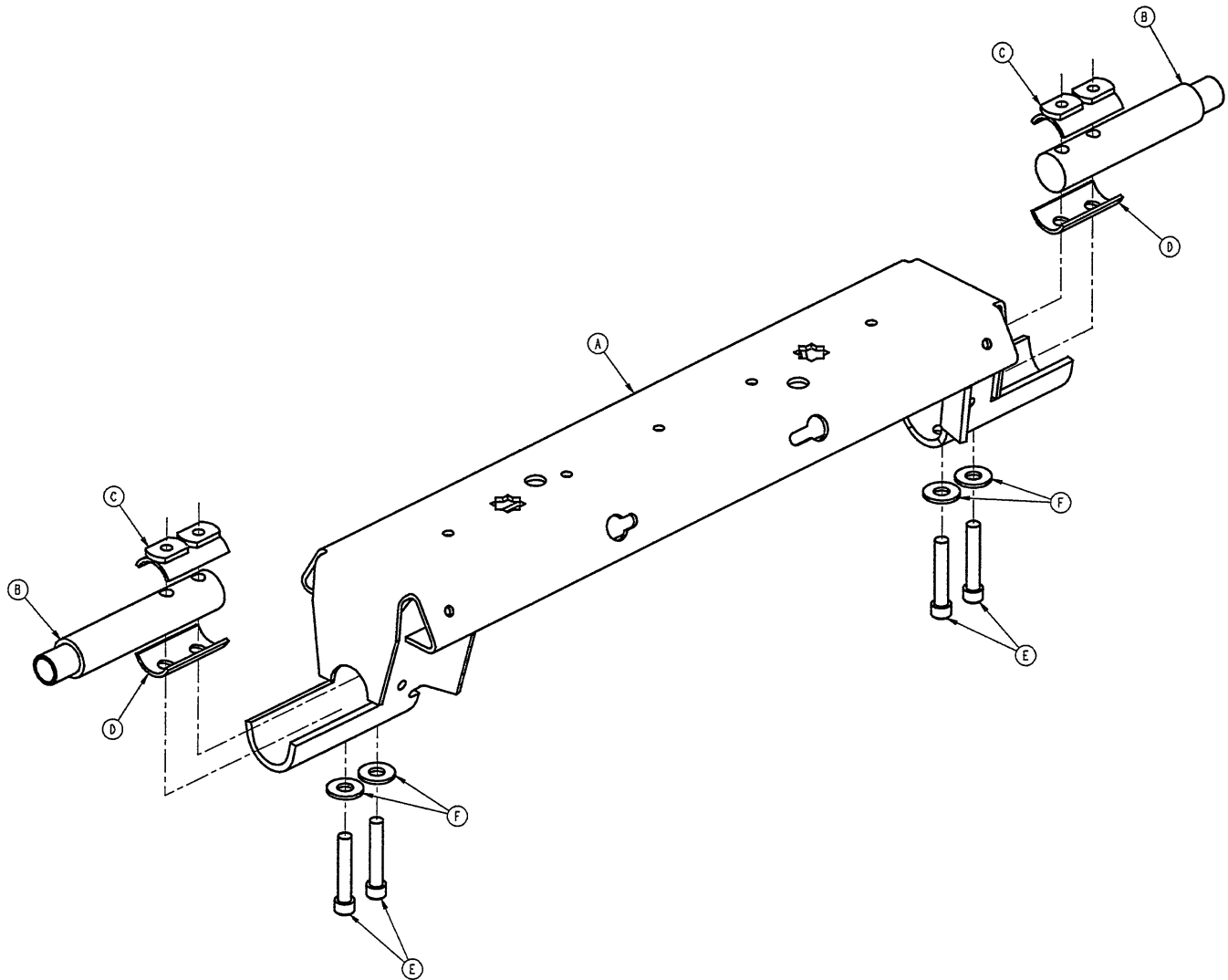
Item	Part No.	Part Name	Qty.
A	*3000-300-44	Cam Guide	1
B	16-69	Twin Fastener	1
C	3000-300-41	Micro Switch	2
D	2-3	Round Hd. Screw	2
E	3000-300-36	Gatch/Fowler Cam	1

* See page 14 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

FOOT LIFT HEADER ASSEMBLY, STANDARD P/N 3000-300-550

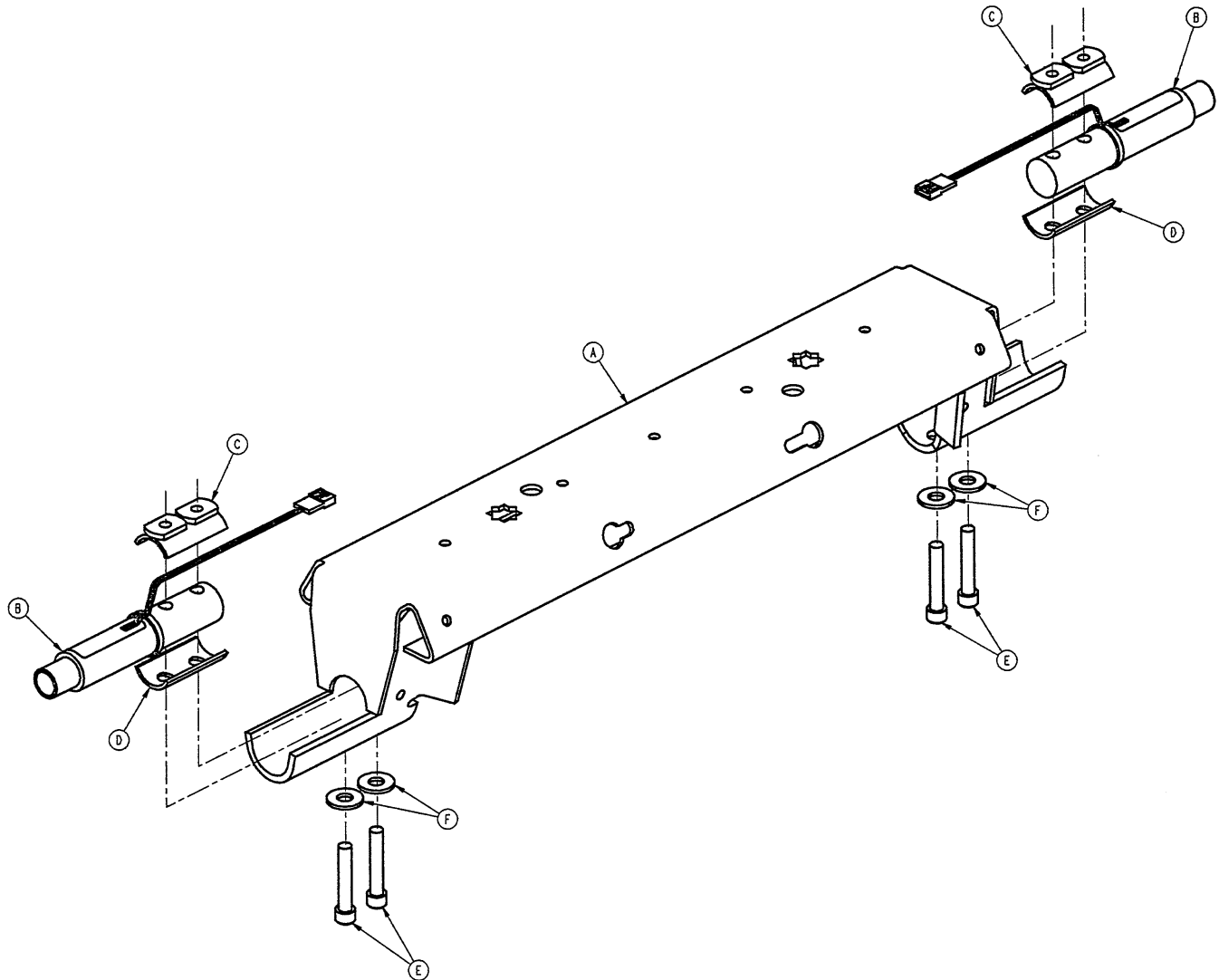


Item	Part No.	Part Name	Qty.
A	3000-300-575	Foot Lift Header	1
B	3000-300-510	"Imitation" Load Cell	2
C	3000-300-515	Mounting Bracket Ass'y	2
D	3000-300-511	Load Cell Mtg. Bracket	2
E	4-214	Soc. Hd. Cap Screw	4
F	11-307	Flat Washer	4

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

FOOT LIFT HEADER ASSEMBLY, OPTION (SCALE OR BED EXIT) P/N 3000-300-580



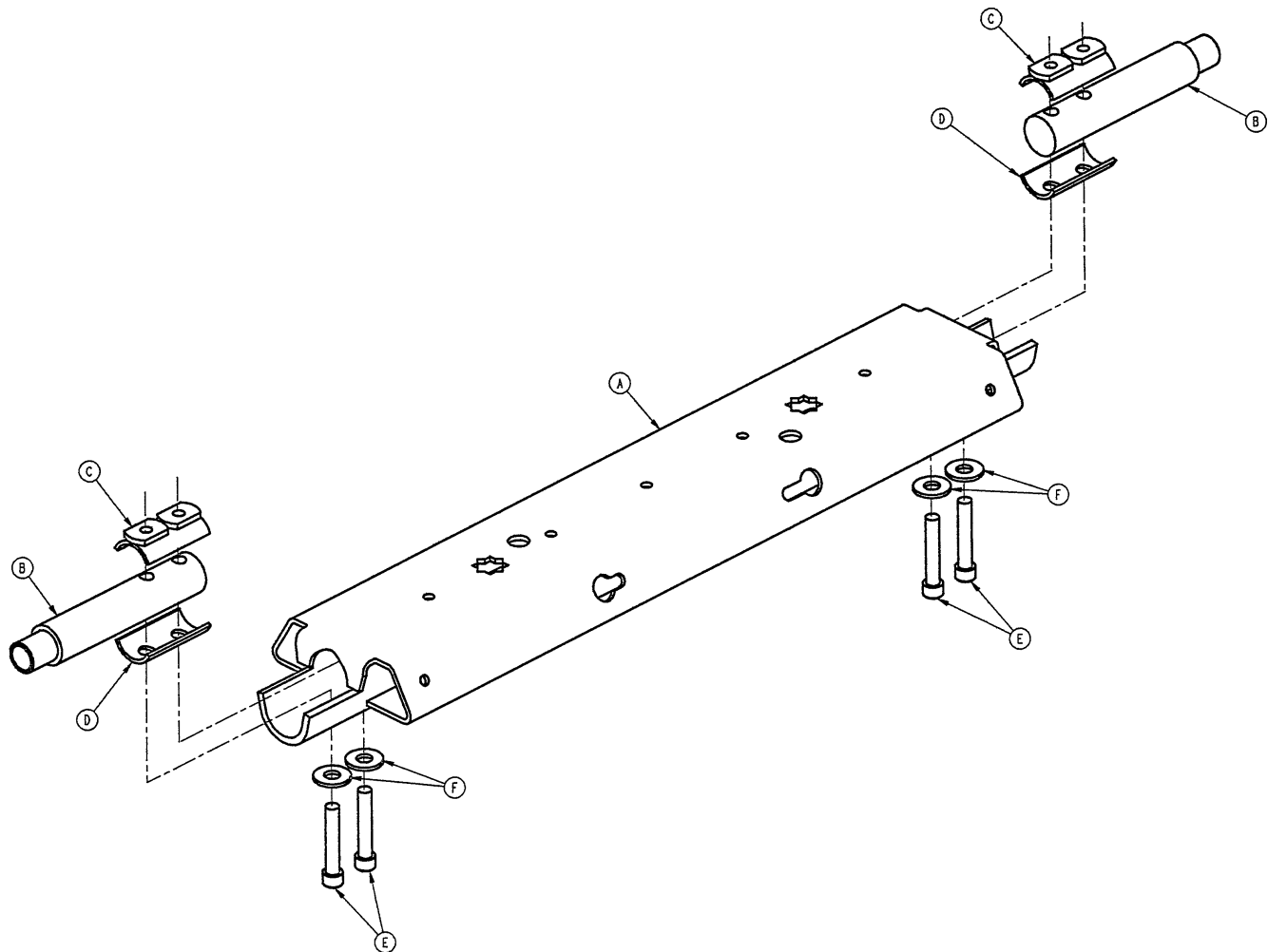
Item	Part No.	Part Name	Qty.
A	3000-300-575	Foot Lift Header	1
B	*3000-307-10	Load Cell	2
C	3000-300-515	Mounting Bracket Ass'y	2
D	3000-300-511	Load Cell Mtg. Bracket	2
E	4-214	Soc. Hd. Cap Screw	4
F	11-307	Flat Washer	4

* See page 14 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

HEAD LIFT HEADER ASSEMBLY, STANDARD P/N 3000-300-500

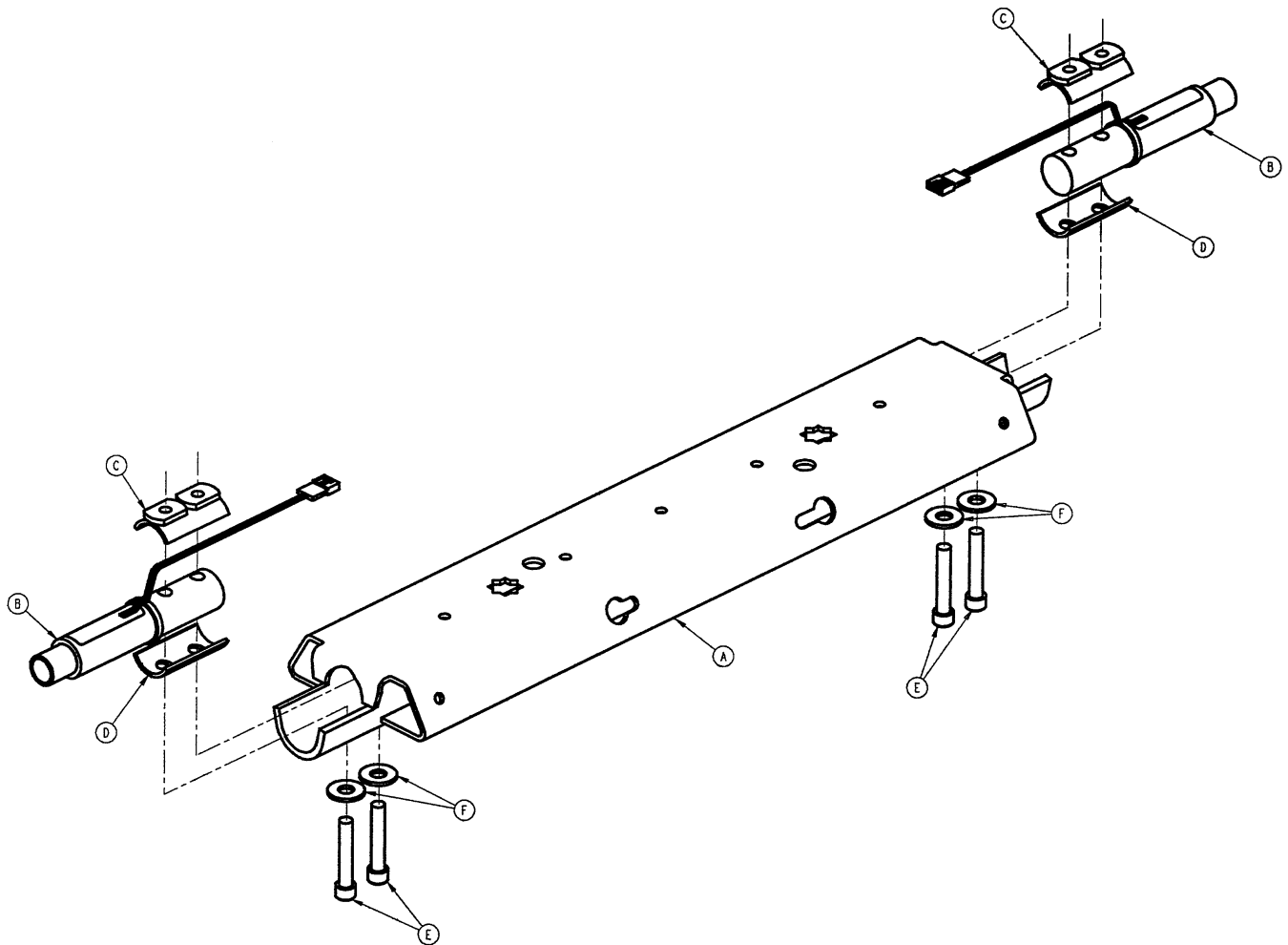


Item	Part No.	Part Name	Qty.
A	3000-300-525	Head Lift Header	1
B	3000-300-510	"Imitation" Load Cell	2
C	3000-300-515	Mounting Bracket Ass'y	2
D	3000-300-511	Load Cell Mtg. Bracket	2
E	4-214	Soc. Hd. Cap Screw	4
F	11-307	Flat Washer	4

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

HEAD LIFT HEADER ASSEMBLY, OPTION P/N 3000-300-590



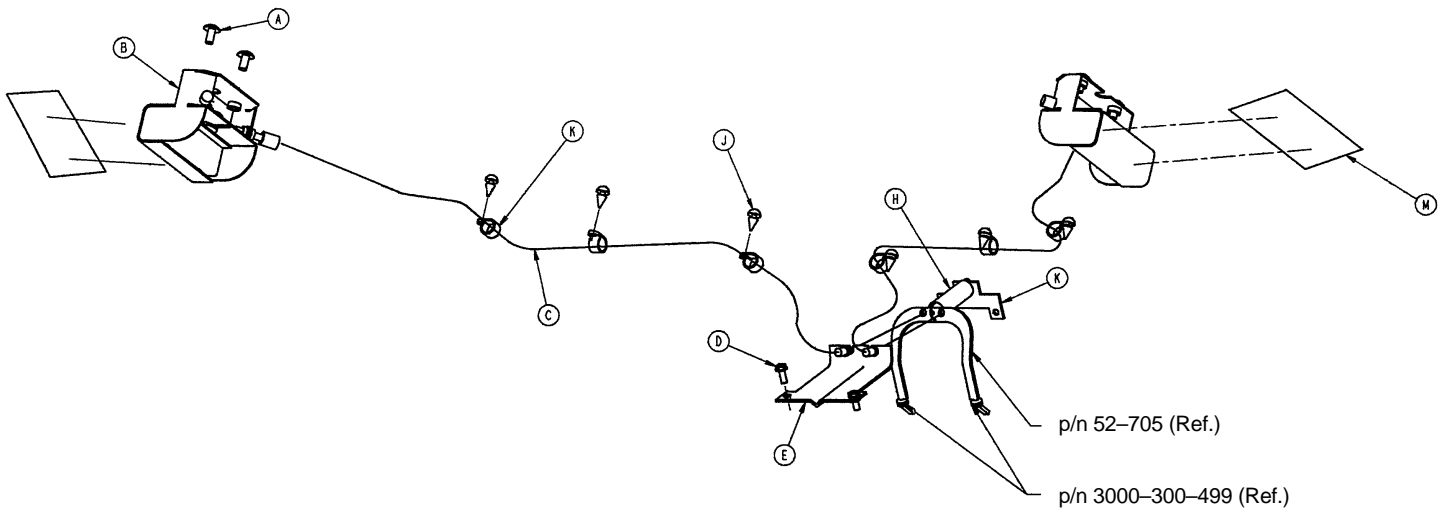
Item	Part No.	Part Name	Qty.
A	3000-300-525	Head Lift Header	1
B	*3000-307-10	Load Cell	2
C	3000-300-515	Mounting Bracket Ass'y	2
D	3000-300-511	Load Cell Mtg. Bracket	2
E	4-214	Soc. Hd. Cap Screw	4
F	11-307	Flat Washer	4

* See page 14 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

CPR RELEASE ASSEMBLY P/N 3000-300-650

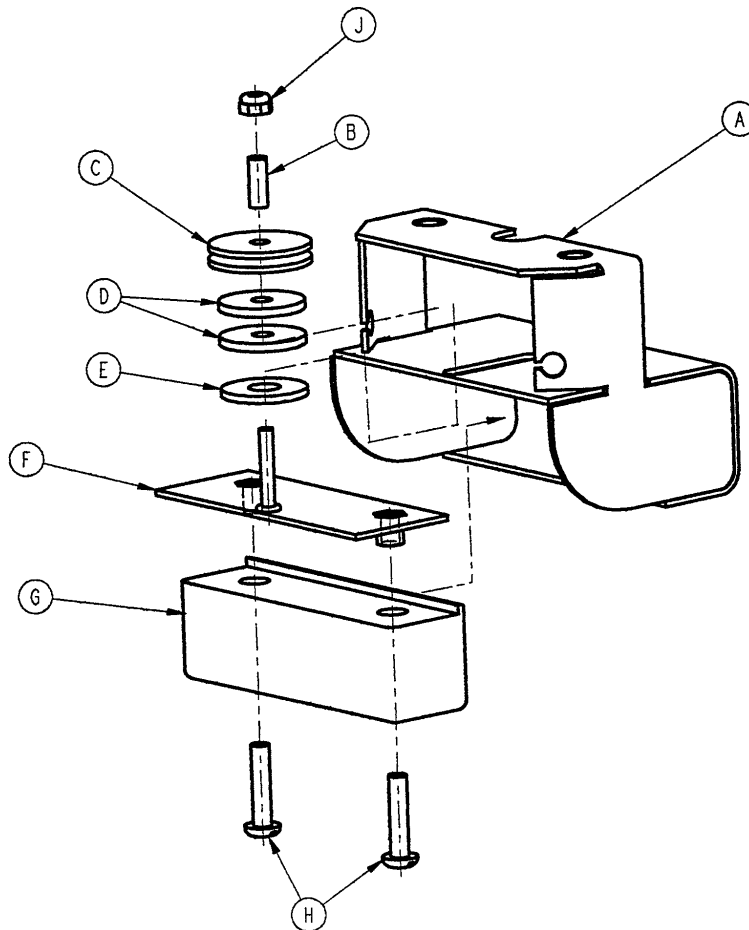


Item	Part No.	Part Name	Qty.
A	7-42	Phillips Truss Hd. Screw	4
B	(page 167.1)	CPR Handle Assembly	2
C	3000-300-665	CPR Cable Assembly	2
D	3-124	Hex Washer Hd. Screw	2
E	3000-300-480	CPR Conduit Bracket Ass'y	1
H	3000-300-664	CPR Spring	1
J	3000-300-477	CPR Conduit Stud	6
K	3000-300-478	CPR Conduit Clamp	6
L	3000-300-487	CPR Spring Bracket	1
M	3000-300-603	CPR Label	2

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

CPR HANDLE ASSEMBLY P/N 3000-300-651



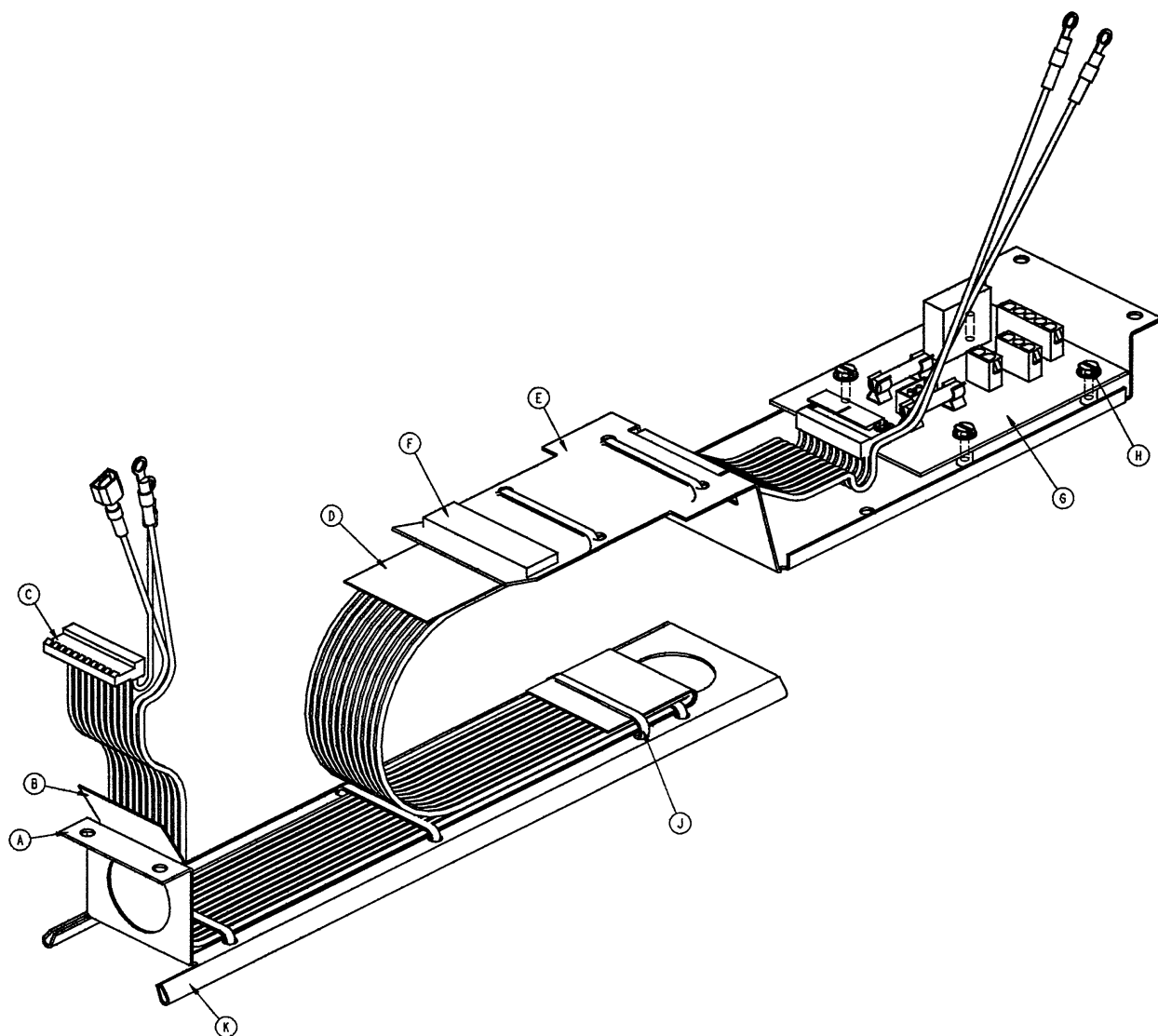
Item	Part No.	Part Name	Qty.
A	3000-300-652	CPR Bracket Assembly	1
B	3000-300-653	CPR Sleeve	1
C	3000-300-654	CPR Handle Pulley	1
D	3000-300-655	CPR Handle Washer	2
E	3000-300-656	CPR Trigger Washer	1
F	3000-300-657	CPR Trigger Top Assembly	1
H	50-41	Pan Hd. Screw	2
J	16-23	Nylock Nut	1

Notes

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

TRANSLATION CABLE ASSEMBLY P/N 3000-300-375*



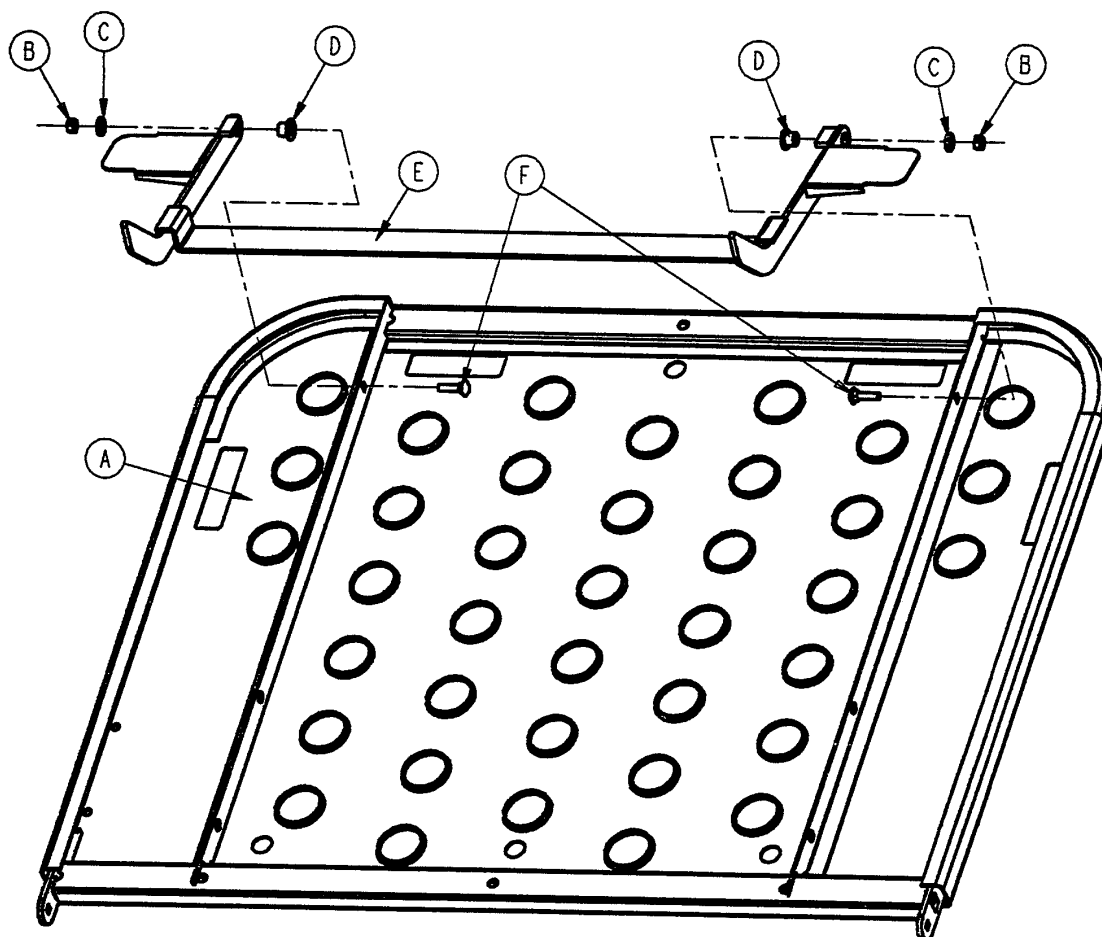
Item	Part No.	Part Name	Qty.
A	3000-300-27	Cable Track	1
B	3000-300-852	Junction Board Insulation	1
C	3000-300-814	Translation Cable	1
D	3000-300-851	Cable Insulation	1
E	3000-300-29	Junction Bracket	1
F	7900-1-291	Foam Tape	1
G	3000-300-961	Power Junction Assembly	1
H	3-128	Hex Washer Hd. Screw	4
J	3000-300-113	Cable Tie	6
K	52-275	Grommet	2

* See page 14 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

LITTER FOOT/PROP ASSEMBLY, P/N 3000-300-150

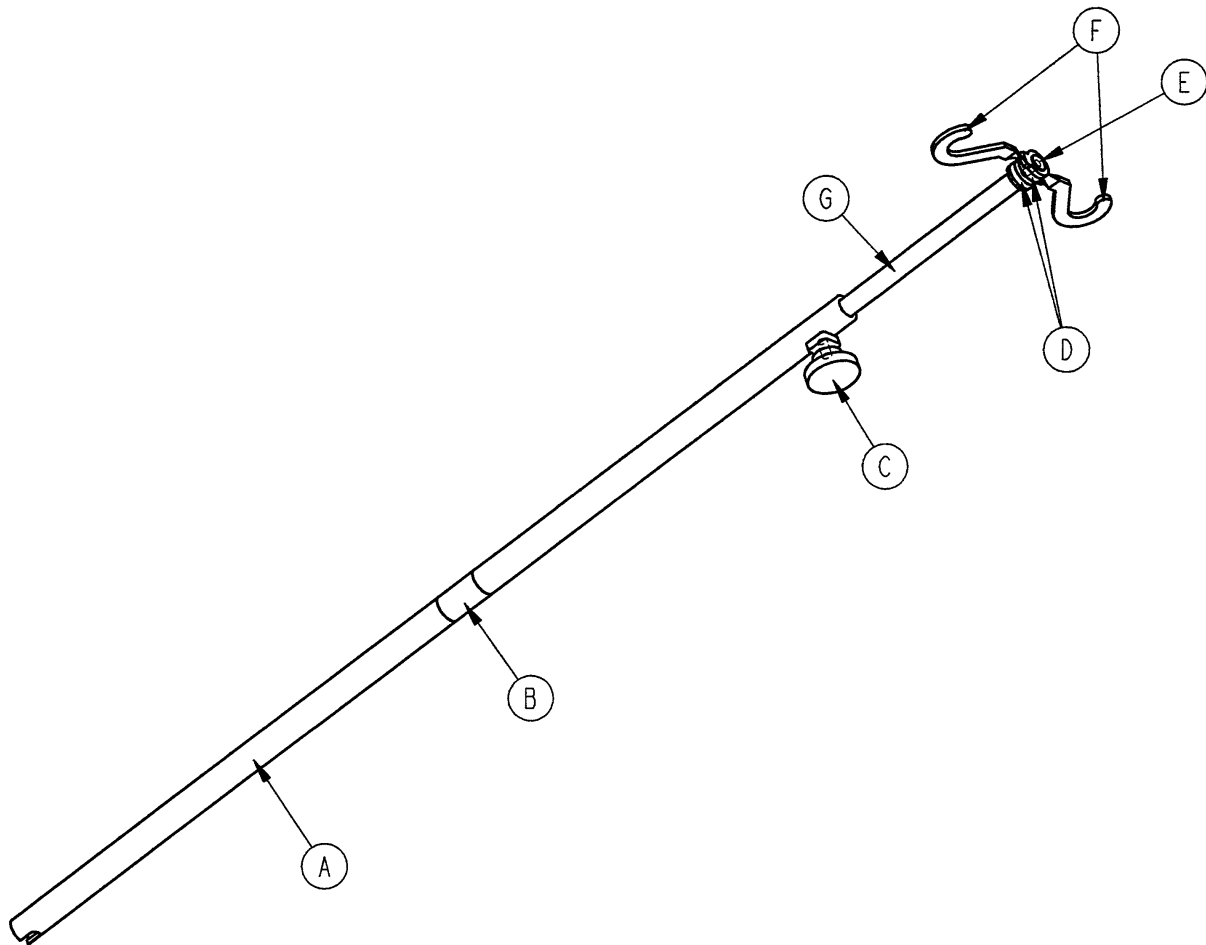


Item	Part No.	Part Name	Qty.
A	3000-300-175	Litter Assembly, Foot	1
B	16-71	Stover Top Lock Nut	2
C	11-303	Flat Washer	2
D	3000-300-1	Litter Pivot Bushing	2
E	3000-300-160	Foot Prop Assembly	1
F	5-19	Carriage Bolt	2

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

REMOVABLE I.V. POLE ASSEMBLY P/N 3000-300-80

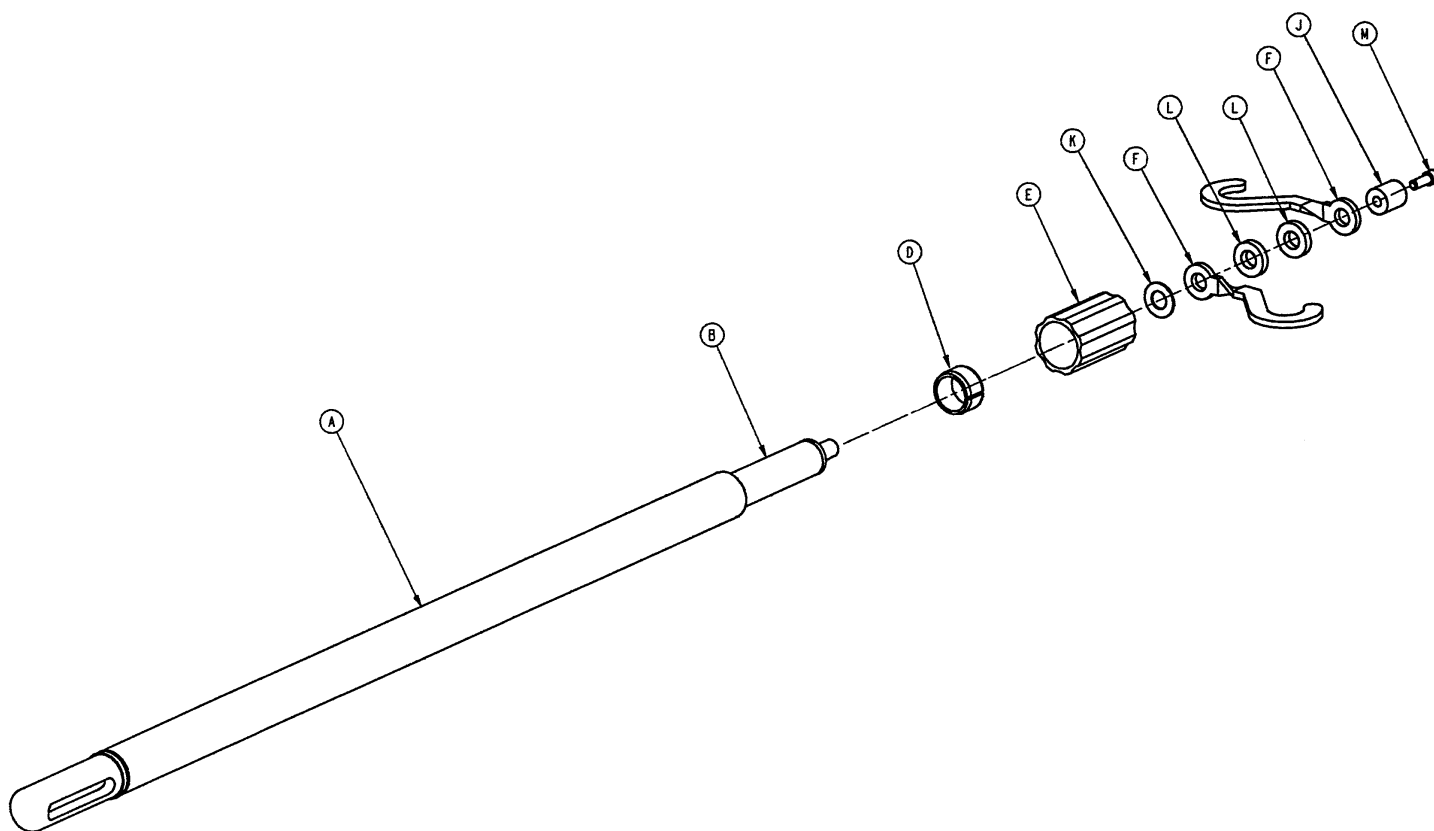


Item	Part No.	Part Name	Qty.
A	3000-300-81	Outer Tube	1
B	3000-300-89	I.V. Label	1
C	24-50	Fluted Knob	1
D	52-17	Spacer	2
E	7-40	Phillips Truss Hd. Screw	1
F	1010-59-16	I.V. Hook	2
G	3000-300-85	Inner Tube Assembly	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

PERMANENT I.V. POLE ASSEMBLY P/N 3000-311-26

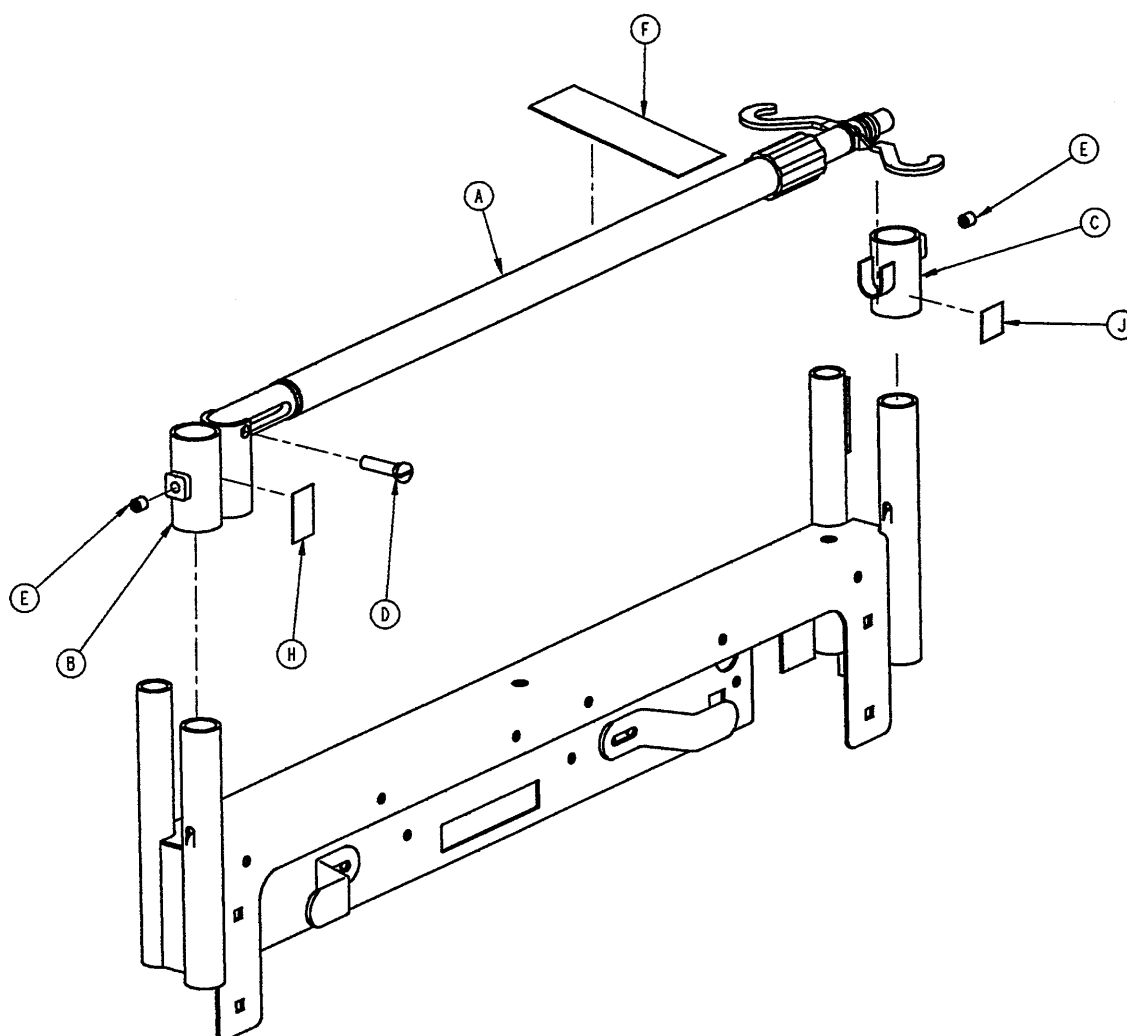


Item	Part No.	Part Name	Qty.
A	1010-59-24	Base Tube Assembly	1
B	1010-59-30	Extension Tube Assembly	1
D	1001-59-47	Lock Ring	1
E	1001-59-46	Lock Actuator	1
F	1010-59-16	I.V. Hook	2
J	3000-311-19	End Spacer	1
K	14-20	Flat Washer	2
L	52-17	Spacer	2
M	4-8	Soc. Hd. Cap Screw	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

PERMANENT I.V. POLE MOUNTING ASSEMBLY, HEAD END P/N 3000-311-10

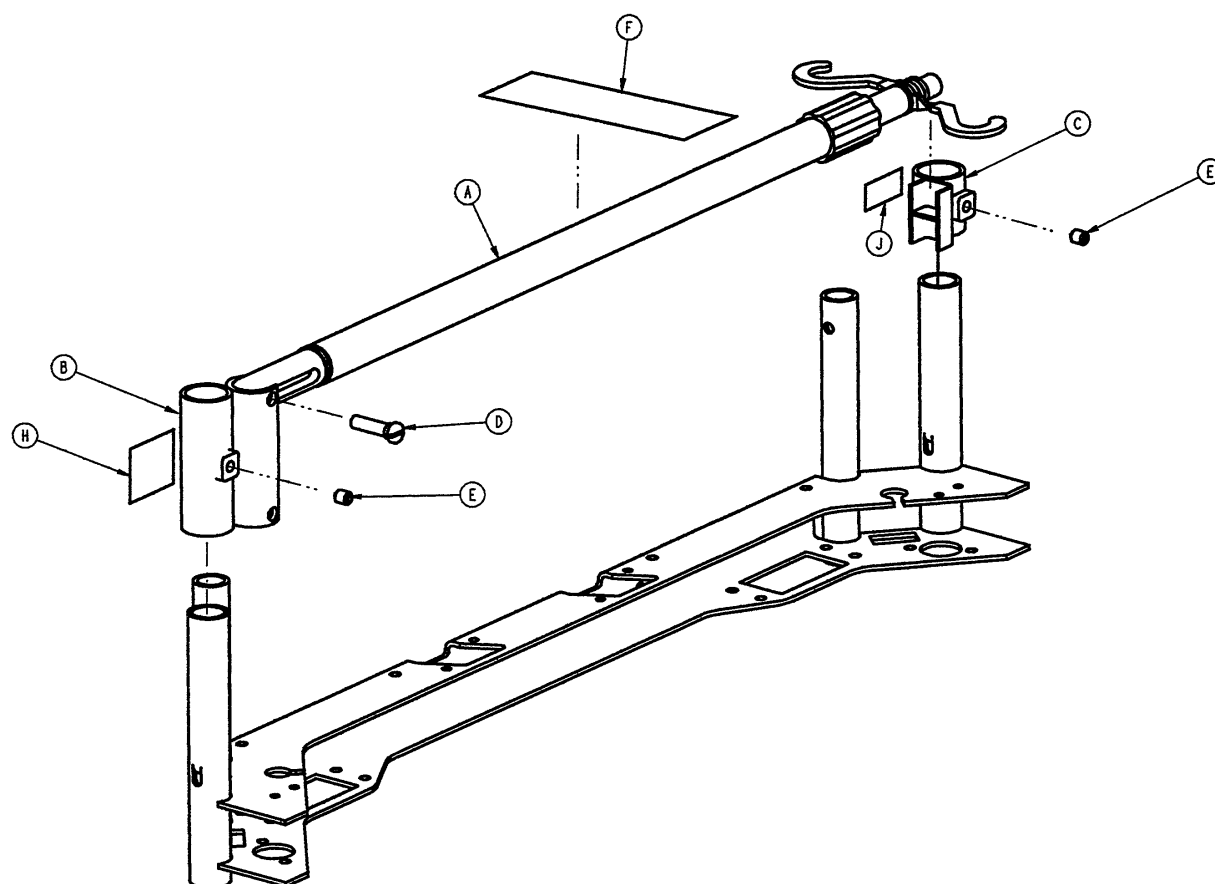


Item	Part No.	Part Name	Qty.
A	(page 171)	I.V. Assembly	1
B	3000-311-11	I.V. Receptacle Assembly	1
C	3000-311-16	I.V. Rest Assembly	1
D	1015-24-35	Retaining Pin	1
E	21-140	Set Screw	2
F	3000-311-5	I.V. Pole Label	1
H	3000-311-15	Receptacle Label	1
J	3000-311-6	Cradle Label	1

Appendix A – Assembly Drawings and Parts Lists

A.2 LITTER DRAWINGS (CONTINUED)

PERMANENT I.V. POLE MOUNTING ASSEMBLY, FOOT END P/N 3000-312-10

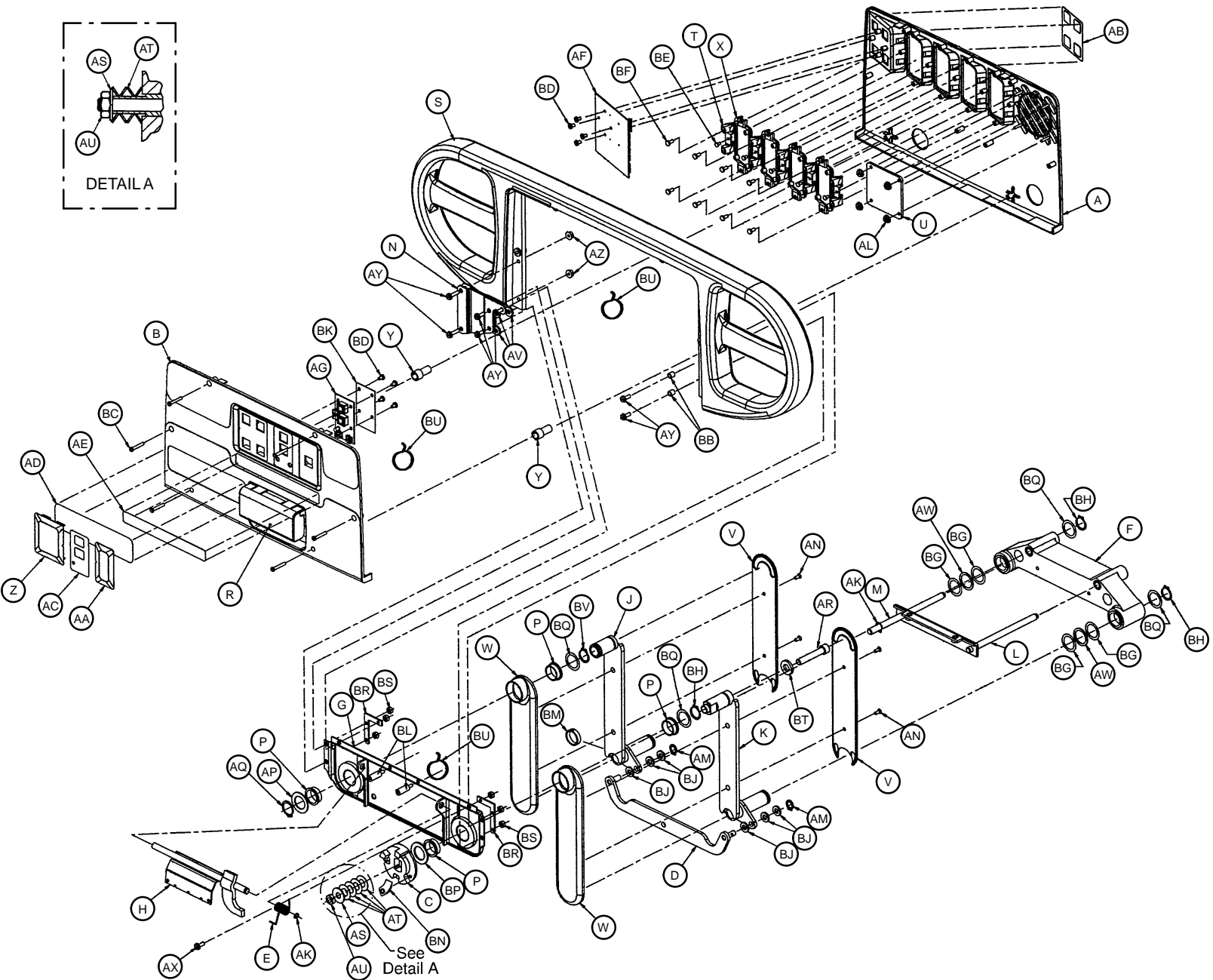


Item	Part No.	Part Name	Qty.
A	(page 171)	I.V. Assembly	1
B	3000-312-11	I.V. Receptacle Ass'y, Ft.	1
C	3000-312-35	I.V. Cradle Assembly	1
D	1015-24-35	Retaining Pin	1
E	21-140	Set Screw	2
F	3000-311-5	I.V. Pole Label	1
H	3000-312-7	Receptacle Label	1
J	3000-312-6	Cradle Label	1

Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS

LEFT HEAD END SIDERAIL ASSEMBLY P/N 3000-400-100 *



Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS (CONTINUED)

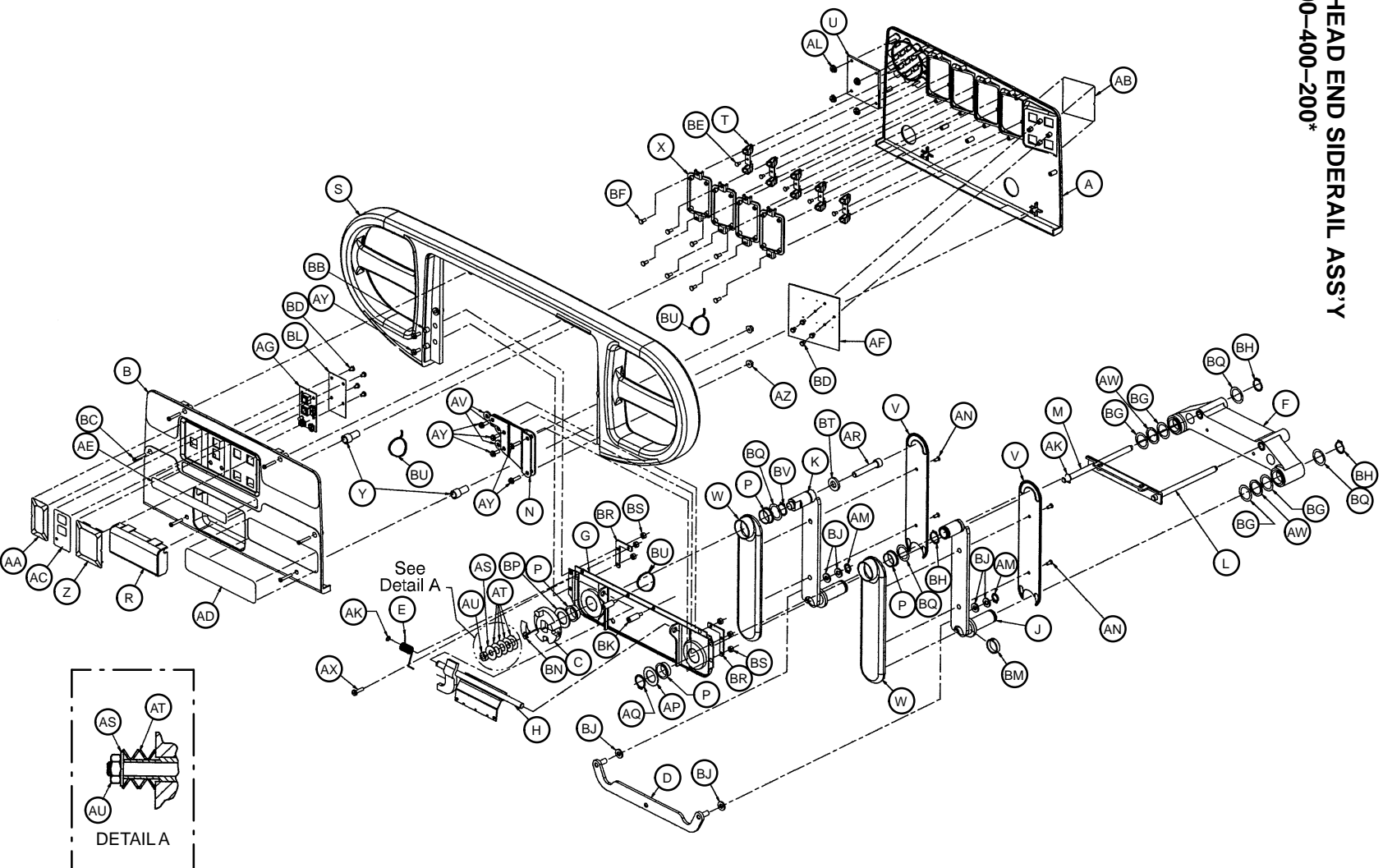
LEFT HEAD END SIDERAIL ASSEMBLY P/N 3000-400-100* (CONTINUED)

Item	Part No.	Part Name	Qty.	Item	Part No.	Part Name	Qty.
A	3000-400-101	Option Panel	1	AL	52-722	Thread Cutting Nut	4
B	3000-400-102	Outer Panel	1	AM	28-127	Retaining Ring	2
C	3000-400-592	Lock Plate, Left	1	AN	23-89	Fl. Hd. Self-Tap Screw	4
D	3000-400-18	Timing Link, Head End	1	AP	11-343	Shim Washer	1
E	3000-400-563	Torsion Spring	1	AQ	28-132	Bowed Retaining Ring	1
F	3000-400-9	Carrier Assembly	1	AR	4-212	Soc. Hd. Cap Screw	1
G	3000-400-30	Support Weldment	1	AS	11-301	Flat Washer	1
H	3000-400-21	Handle Weldment	1	AT	38-300	Spring Washer	4
J	3000-400-107	Arm Weldment, Hd., Ft.	1	AU	16-73	Jam Nut	1
K	3000-400-108	Arm Weldment, Hd., Hd.	1	AV	11-337	Flat Washer	3
L	3000-400-11	Glide Bracket Assembly	1	AW	11-338	Wave Washer	2
M	3000-400-544	Glide Rod	1	AX	3-124	H. Wash. Hd. Mach. Scr.	1
N	3000-400-15	Adapter Plate	1	AY	3-132	H. Wash. Hd. Mach. Scr.	7
P	3000-400-513	Flange Bearing	4	AZ	6-74	Flange Nut	2
R	3000-400-514	Handle	1	BB	3000-400-558	Siderail Spacer	2
S	3000-400-515	Head Rail	1	BC	23-90	Pan Hd. Tapping Screw	6
T	3000-400-516	LED Lens	5	BD	23-86	Pan Hd. Tapping Screw	8
U	3000-400-517	Speaker Seal	1	BE	23-105	Pan Hd. Tapping Screw	5
V	3000-400-518	Inner Arm Cover	2	BF	23-88	Pan Hd. Tapping Screw	8
W	3000-400-519	Outer Arm Cover	2	BG	11-305	Shim Washer	4
X	3000-400-535	Blank Module	4	BH	28-128	Retaining Ring	4
Y	3000-400-523	Panel Spacer	2	BJ	11-304	Shim Washer	6
Z	3000-400-524	Outer Motion Cover	1	BK	3000-400-572	Board Insulator	1
AA	3000-400-525	Outer Nurse Cover	1	BL	3000-400-561	Panel Standoff	2
AB	3000-400-547	Bed Motion Label	1	BM	3000-400-560	Impact Ring	1
AC	3000-400-549	Bed Up/Down Label	1	BN	3000-400-582	Lock Plate Ramp	1
AD	3000-400-555	MPS Label	1	BP	11-348	Washer	1
AE	3000-400-556	Warning/Caution Label	1	BQ	11-353	Shim Washer	4
AF	3000-400-946	Lt. Inside G/F Keybd. Ass'y	1	BR	3000-400-27	Reinforcement Bracket	2
AG	3000-400-943	Lt. U/D Keybd. Ass'y	1	BS	53-21	Weld Nut	6
AH	3000-400-887	Siderail Cable	1	BT	52-716	Washer	1
AJ	3000-400-886	Outside U/D Cable	1	BU	3000-300-114	Cable Tie	3
AK	28-126	Retaining Ring	2	BV	28-146	Ext. Retaining Ring	1

* See page 15 for replacement kit part number.

A.3 SIDERAIL DRAWINGS (CONTINUED)

RIGHT HEAD END SIDERAIL ASS'Y
P/N 3000-400-200*



Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS (CONTINUED)

RIGHT HEAD END SIDERAIL ASSEMBLY P/N 3000-400-200* (CONTINUED)

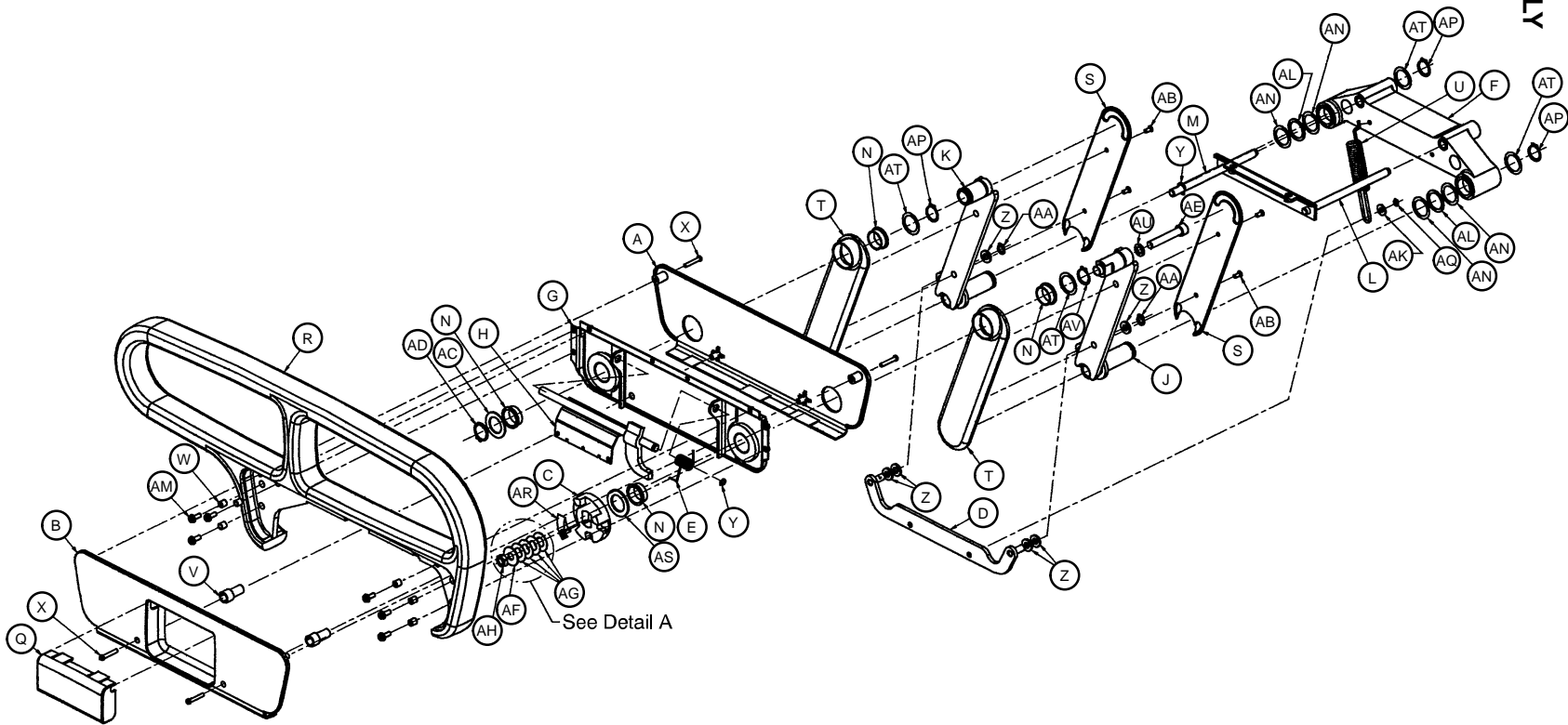
Item	Part No.	Part Name	Qty.	Item	Part No.	Part Name	Qty.
A	3000-400-201	Option Panel	1	AL	52-722	Thread Cutting Nut	4
B	3000-400-202	Outer Panel	1	AM	28-127	Retaining Ring	2
C	3000-400-593	Lock Plate, Right	1	AN	23-89	Fl. Hd. Self-Tap Screw	4
D	3000-400-18	Timing Link, Head End	1	AP	11-343	Shim Washer	1
E	3000-400-562	Torsion Spring	1	AQ	28-132	Bowed Retaining Ring	1
F	3000-400-9	Carrier Assembly	1	AR	4-212	Soc. Hd. Cap Screw	1
G	3000-400-30	Support Weldment	1	AS	11-301	Flat Washer	1
H	3000-400-20	Handle Weldment	1	AT	38-300	Spring Washer	4
J	3000-400-207	Arm Weldment, Hd., Ft.	1	AU	16-73	Jam Nut	1
K	3000-400-208	Arm Weldment, Hd., Hd.	1	AV	11-337	Flat Washer	3
L	3000-400-11	Glide Bracket Assembly	1	AW	11-338	Wave Washer	2
M	3000-400-544	Glide Rod	1	AX	3-124	H. Wash. Hd. Mach. Scr.	1
N	3000-400-15	Adapter Plate	1	AY	3-132	H. Wash. Hd. Mach. Scr.	7
P	3000-400-513	Flange Bearing	4	AZ	6-74	Flange Nut	2
R	3000-400-514	Handle	1	BB	3000-400-558	Siderail Spacer	2
S	3000-400-515	Head Rail	1	BC	23-90	Pan Hd. Tapping Screw	6
T	3000-400-516	LED Lens	5	BD	23-86	Pan Hd. Tapping Screw	8
U	3000-400-517	Speaker Seal	1	BE	23-105	Pan Hd. Tapping Screw	5
V	3000-400-518	Inner Arm Cover	2	BF	23-88	Pan Hd. Tapping Screw	8
W	3000-400-519	Outer Arm Cover	2	BG	11-305	Shim Washer	4
X	3000-400-535	Blank Module	4	BH	28-128	Retaining Ring	4
Y	3000-400-523	Panel Spacer	2	BJ	11-304	Shim Washer	6
Z	3000-400-524	Outer Motion Cover	1	BK	3000-400-561	Panel Standoff	2
AA	3000-400-525	Outer Nurse Cover	1	BL	3000-400-572	Board Insulator	1
AB	3000-400-548	Bed Motion Label	1	BM	3000-400-560	Impact Ring	1
AC	3000-400-549	Bed Up/Down Label	1	BN	3000-400-583	Lock Plate Ramp	1
AD	3000-400-555	MPS Label	1	BP	11-348	Flat Washer	1
AE	3000-400-556	Warning/Caution Label	1	BQ	11-353	Shim Washer	4
AF	3000-400-941	Rt. Inside G/F Keybd. Ass'y	1	BR	3000-400-27	Reinforcement Bracket	2
AG	3000-400-943	Rt. U/D Keybd. Ass'y	1	BS	53-21	Weld Nut	6
AH	3000-400-887	Siderail Cable	1	BT	52-716	Washer	1
AJ	3000-400-886	Outside U/D Cable	1	BU	3000-300-114	Cable Tie	3
AK	28-126	Retaining Ring	2	BV	28-146	Ext. Retaining Ring	1

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS

LEFT FOOT END SIDERAIL ASSEMBLY P/N 3000-400-300 *



Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS (CONTINUED)

LEFT FOOT END SIDERAIL ASSEMBLY P/N 3000-400-300* (CONTINUED)

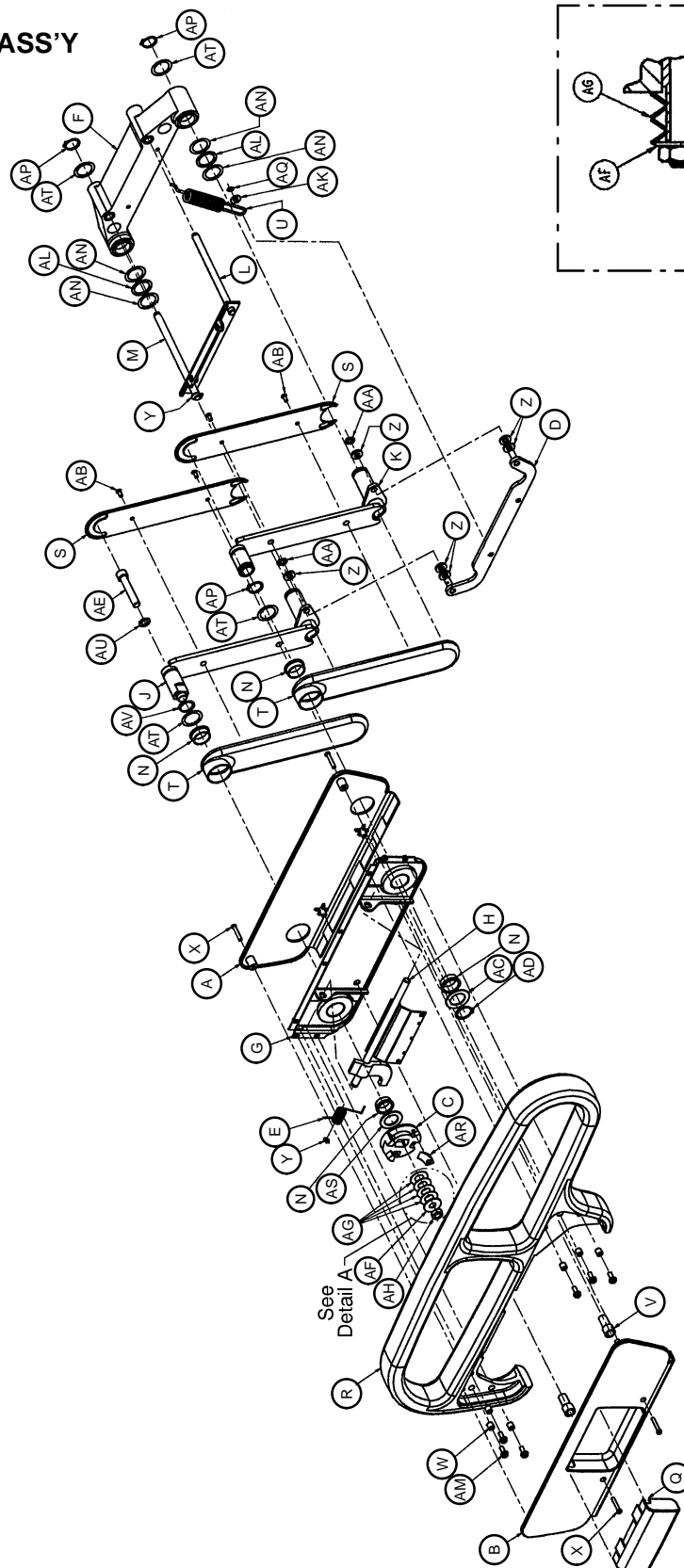
Item	Part No.	Part Name	Qty.
A	3000-400-526	Inner Panel	1
B	3000-400-527	Outer Panel	1
C	3000-400-581	Lock Plate, Left	1
D	3000-400-19	Foot End Timing Link	1
E	3000-400-563	Torsion Spring	1
F	3000-400-9	Carrier Assembly	1
G	3000-400-31	Support Weldment	1
H	3000-400-21	Handle Weldment	1
J	3000-400-307	Arm Wldmt., Lt., Foot, Head	1
K	3000-400-308	Arm Wldmt., Lt., Foot, Foot	1
L	3000-400-11	Glide Bracket Assembly	1
M	3000-400-544	Glide Rod	1
N	3000-400-513	Flange Bearing	4
Q	3000-400-514	Handle	1
R	3000-400-520	Foot Rail	1
S	3000-400-518	Inner Arm Cover	2
T	3000-400-519	Outer Arm Cover	2
U	3000-400-545	Tension Spring	1
V	3000-400-523	Panel Spacer	2
W	3000-400-558	Siderail Spacer	6
X	23-90	Pan Hd. Screw	4
Y	28-126	Retaining Ring	2
Z	11-304	Shim Washer	6
AA	28-127	Retaining Ring	2
AB	23-89	Flush Hd. Self-Tap. Screw	4
AC	11-343	Shim Washer	1
AD	28-132	Bowed Retaining Ring	1
AE	4-212	Soc. Hd. Cap Screw	1
AF	11-301	Flat Washer	1
AG	38-300	Spring Washer	4
AH	16-73	Jam Nut	1
AK	11-303	Flat Washer	1
AL	11-338	Wave Washer	2
AM	3-124	Hex Wash. Hd. Mach. Screw	6
AN	11-305	Shim Washer	4
AP	28-128	Retaining Ring	4
AQ	28-130	Retaining Ring	1
AR	3000-400-583	Lock Plate Ramp	1
AS	11-348	Flat Washer	1
AT	11-353	Shim Washer	4
AU	52-716	Washer	1
AV	28-146	External Retaining Ring	1

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS (CONTINUED)

RIGHT FOOT END SIDERAIL ASS'Y
P/N 3000-400-400*



Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS (CONTINUED)

RIGHT FOOT END SIDERAIL ASSEMBLY P/N 3000-400-400* (CONTINUED)

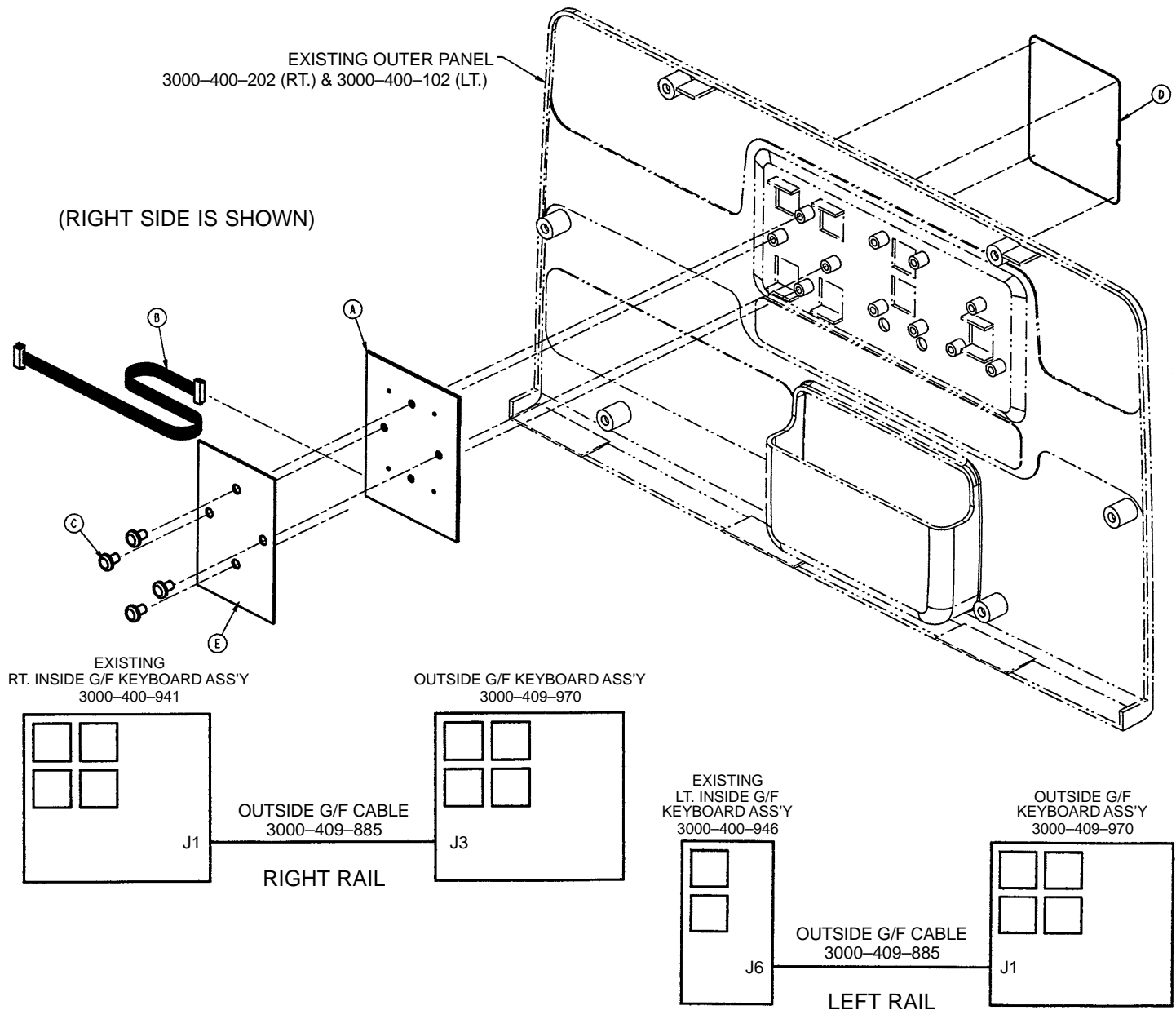
Item	Part No.	Part Name	Qty.
A	3000-400-526	Inner Panel	1
B	3000-400-527	Outer Panel	1
C	3000-400-580	Lock Plate, Right	1
D	3000-400-19	Foot End Timing Link	1
E	3000-400-562	Torsion Spring	1
F	3000-400-9	Carrier Assembly	1
G	3000-400-31	Support Weldment	1
H	3000-400-20	Handle Weldment	1
J	3000-400-407	Arm Wldmt., Rt., Ft., Hd.	1
K	3000-400-408	Arm Wldmt., Rt., Ft., Ft.	1
L	3000-400-11	Glide Bracket Assembly	1
M	3000-400-544	Glide Rod	1
N	3000-400-513	Flange Bearing	4
Q	3000-400-514	Handle	1
R	3000-400-520	Foot Rail	1
S	3000-400-518	Inner Arm Cover	2
T	3000-400-519	Outer Arm Cover	2
U	3000-400-545	Tension Spring	1
V	3000-400-523	Panel Spacer	2
W	3000-400-558	Siderail Spacer	6
X	23-90	Pan Hd. Screw	4
Y	28-126	Retaining Ring	2
Z	11-304	Shim Washer	6
AA	28-127	Retaining Ring	2
AB	23-89	Flush Hd. Self-Tap. Screw	4
AC	11-343	Shim Washer	1
AD	28-132	Bowed Retaining Ring	1
AE	4-212	Soc. Hd. Cap Screw	1
AF	11-301	Flat Washer	1
AG	38-300	Spring Washer	4
AH	16-73	Jam Nut	1
AK	11-303	Flat Washer	1
AL	11-338	Wave Washer	2
AM	3-124	Hex Wash. Hd. Mach. Screw	6
AN	11-305	Shim Washer	4
AP	28-128	Retaining Ring	4
AQ	28-130	Retaining Ring	1
AR	3000-400-582	Lock Plate Ramp	1
AS	11-348	Washer	1
AT	11-353	Shim Washer	4
AU	52-716	Washer	1
AV	28-146	External Retaining Ring	1

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS (CONTINUED)

SIDERAIL MOTION MODULE ASS'Y P/N 3000-409-13* (RIGHT) & 3000-409-12* (LEFT)



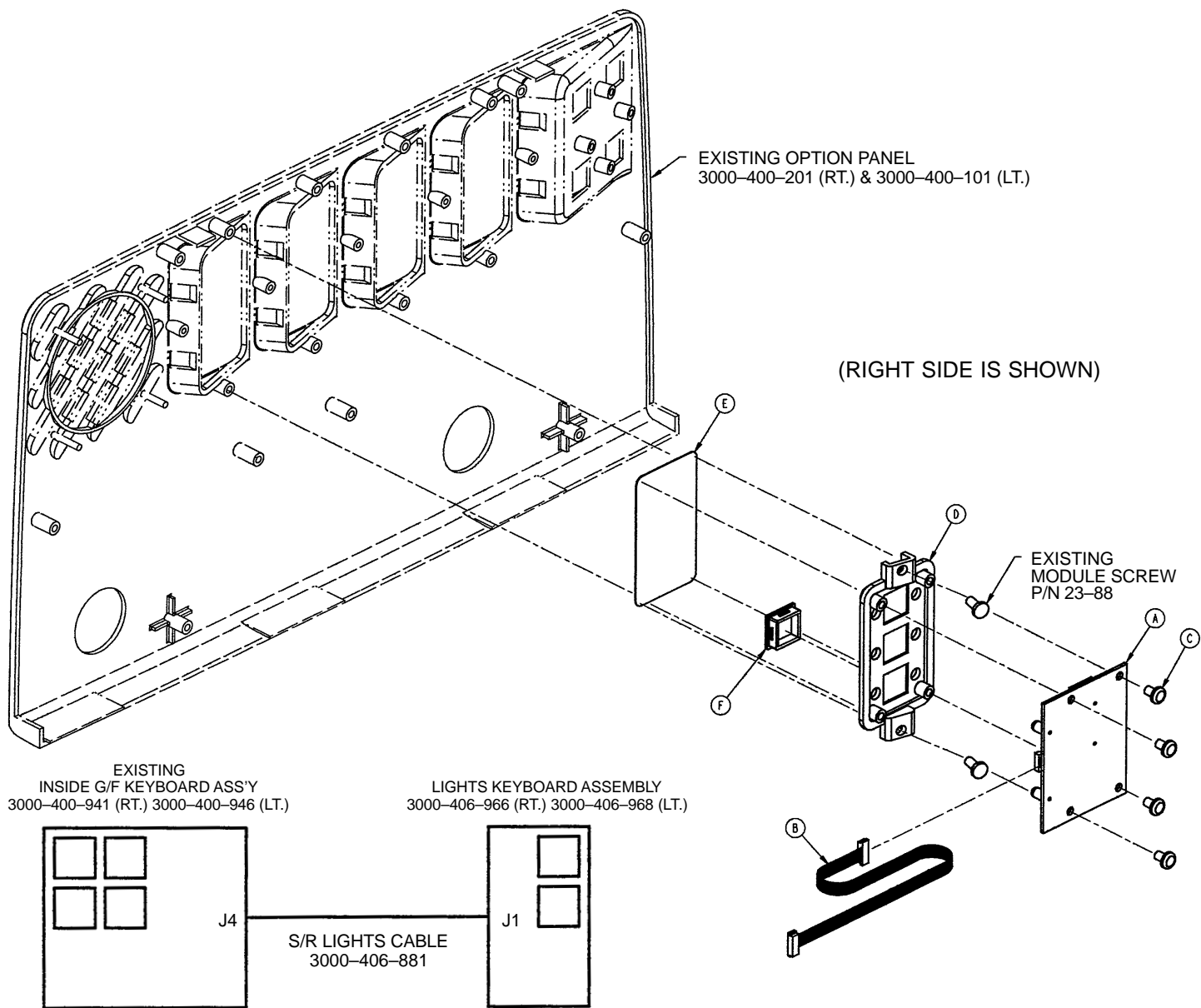
Item	Part No.	Part Name	Qty.
A	3000-409-970	Outside G/F Keyboard Ass'y	1
B	3000-409-885	Outside G/F Cable	1
C	23-86	Pan Hd. Tapping Screw	4
D	3000-400-547	Motion Label, Rt.	1
	3000-400-548	Motion Label, Lt.	1
E	3000-409-14	Board Insulator	1

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS (CONTINUED)

SIDERAIL LIGHTS MODULE ASS'Y P/N 3000-406-11* (RIGHT) & 3000-406-10* (LEFT)



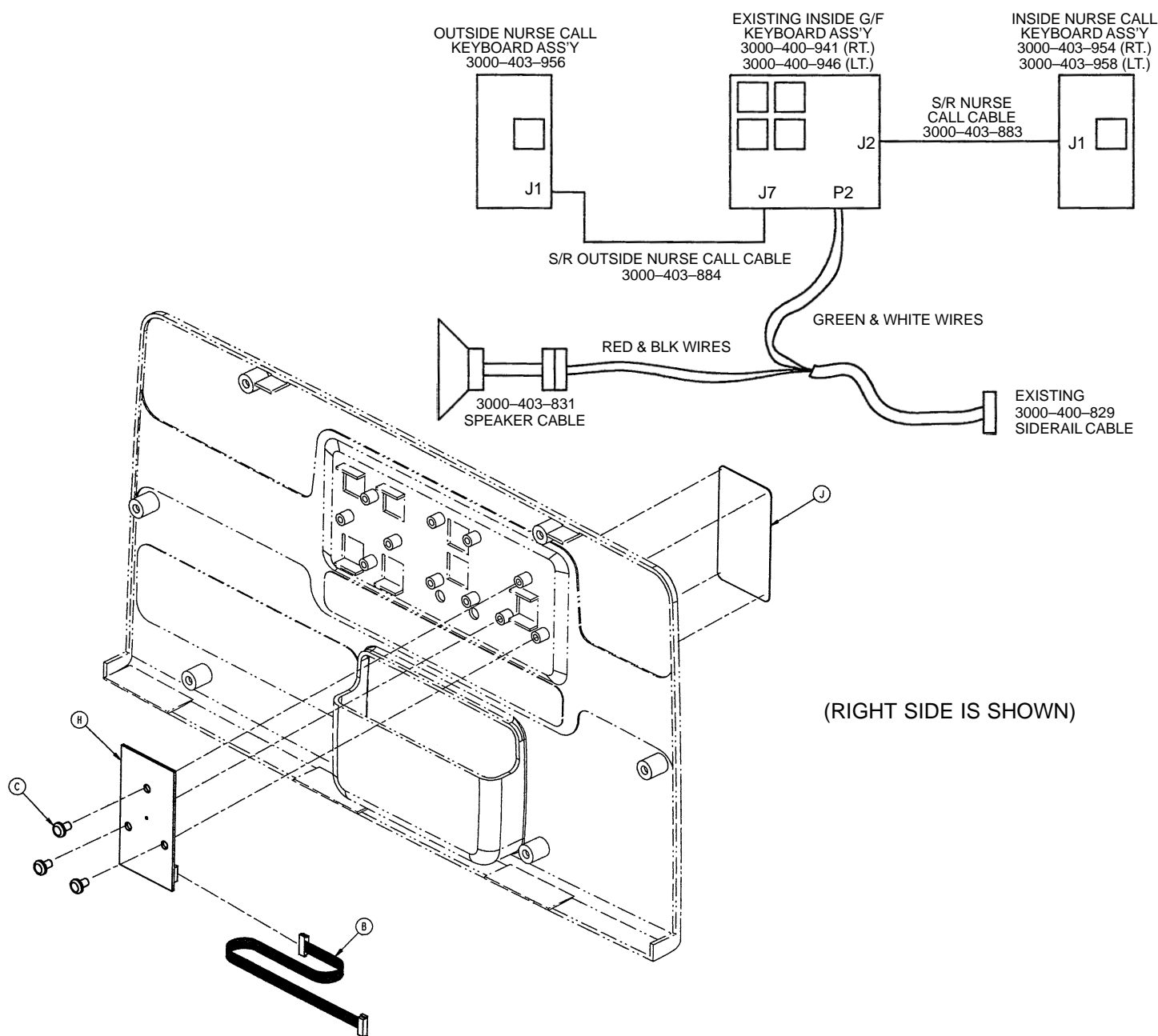
Item	Part No.	Part Name	Qty.
A	3000-406-966	Lights Keyboard Ass'y, Rt.	1
	3000-406-968	Lights Keyboard Ass'y, Lt.	1
B	3000-406-881	S/R Lights Cable	1
C	23-86	Pan Hd. Tapping Screw	4
D	3000-400-521	Module	1
E	3000-406-2	Lights Label	1
F	3000-400-522	Switch Cover	1

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS (CONTINUED)

SIDERAIL NURSE CALL MODULE ASS'Y P/N 3000-403-11* (RT.) & 3000-403-10* (LT.)



Item	Part No.	Part Name	Qty.	Item	Part No.	Part Name	Qty.
A	3000-403-954	Nurse Call Kybd. Ass'y, Rt.	1	F	3000-400-522	Switch Cover	2
	3000-403-958	Nurse Call Kybd. Ass'y, Lt.	1	G	3000-403-831	Speaker Cable	1
B	3000-403-883	S/R Nurse Call Cable	1	H	3000-403-956	Outside N/C Kybd. Ass'y	1
C	23-86	Pan Hd. Tapping Screw	7	J	3000-403-3	Nurse Call Label	1
D	3000-400-521	Module	1	K	3000-403-14	Board Insulator	1
E	3000-403-2	Nurse Call Label	1	M	3000-403-884	S/R Outside N/C Cable	1

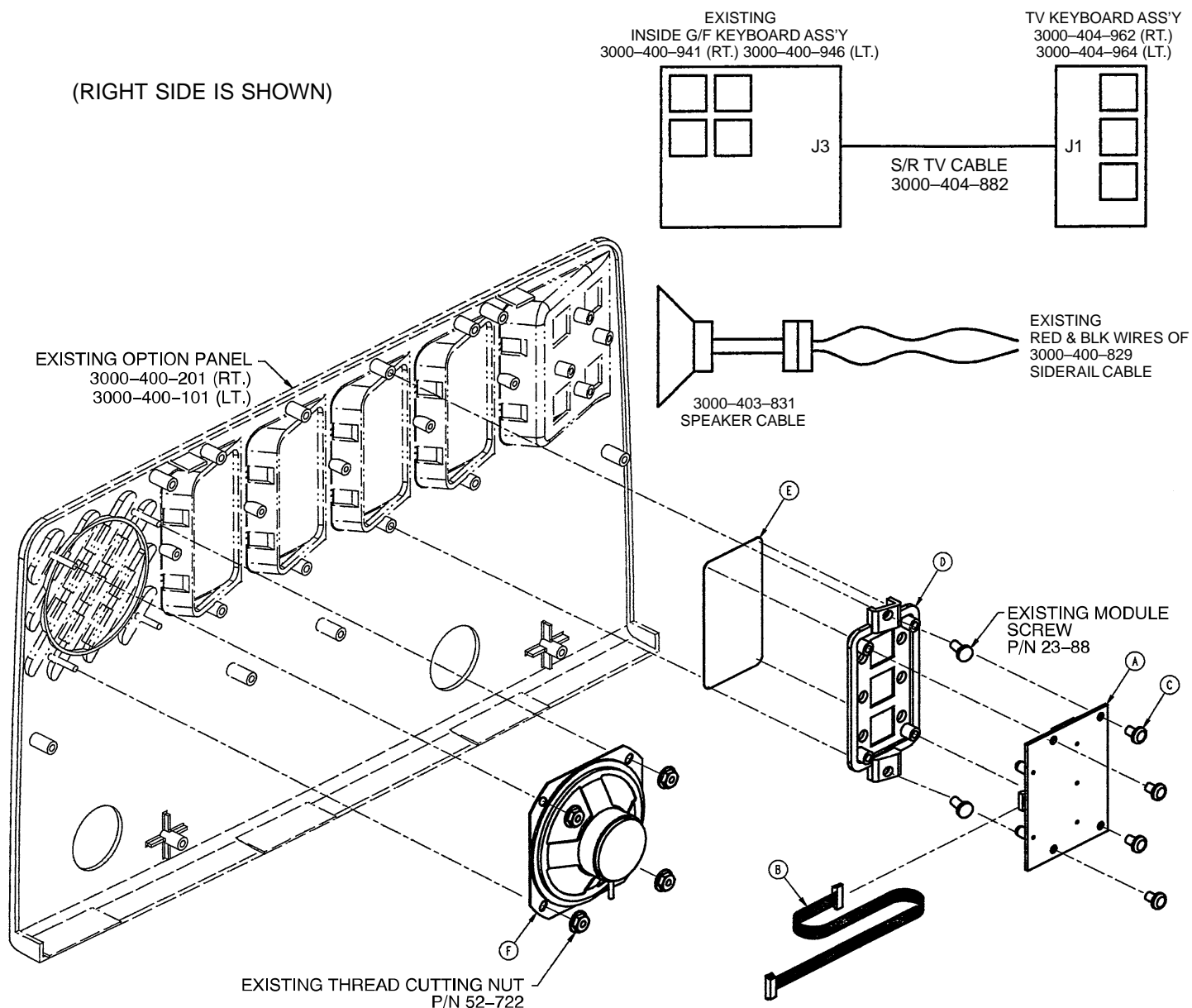
* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS (CONTINUED)

SIDERAIL TV/RADIO MODULE ASS'Y P/N 3000-404-11* (RIGHT) & 3000-404-10* (LEFT)

(RIGHT SIDE IS SHOWN)



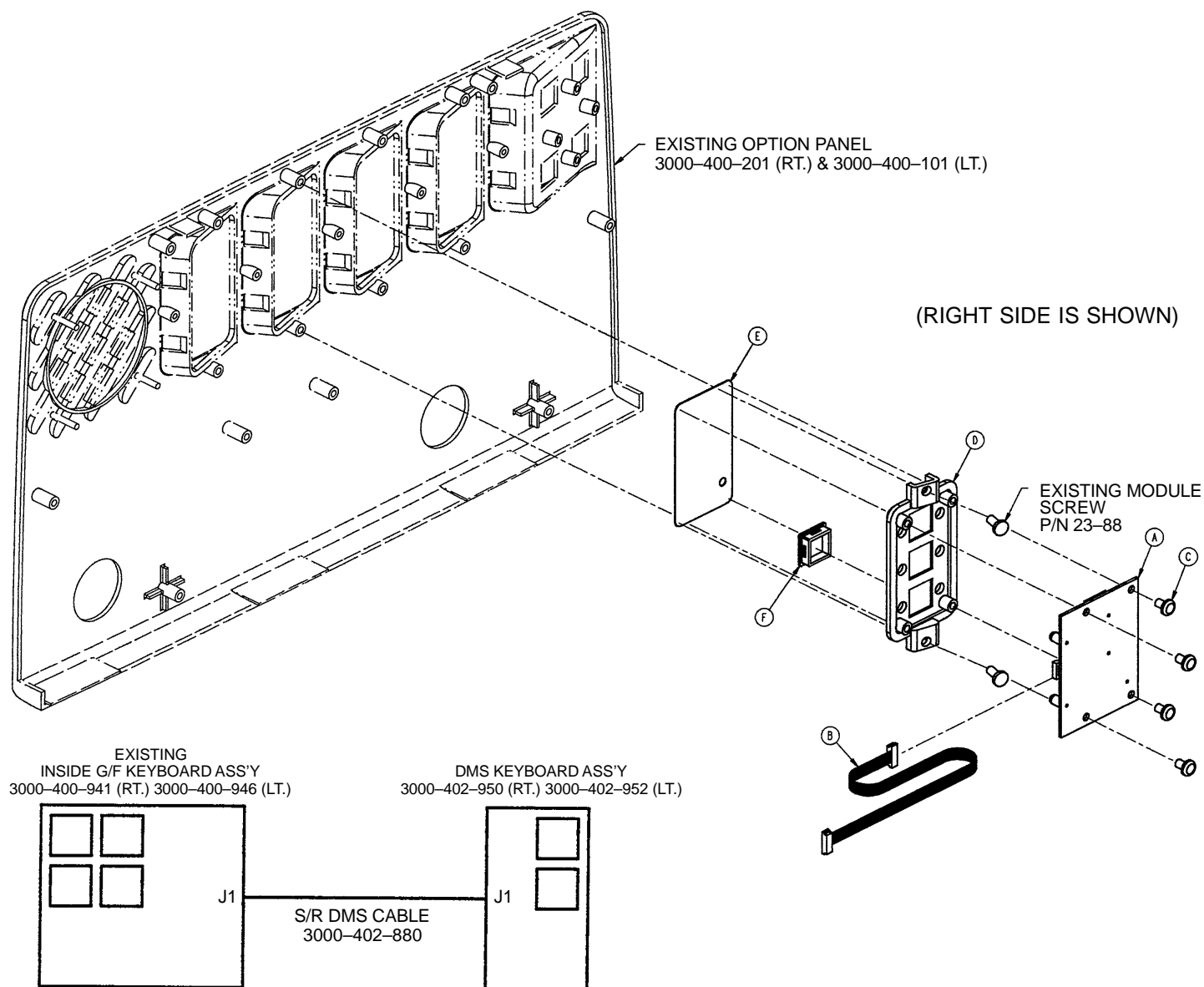
Item	Part No.	Part Name	Qty.
A	3000-404-962	T.V. Keyboard Ass'y, Rt.	1
	3000-404-964	T.V. Keyboard Ass'y, Lt.	1
B	3000-404-882	Siderail TV Cable	1
C	23-86	Pan Hd. Tapping Screw	4
D	3000-400-521	Module	1
E	3000-404-2	Label, T.V./Radio	1
F	3000-403-831	Speaker Cable	1

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.3 SIDERAIL DRAWINGS (CONTINUED)

SIDERAIL DMS MODULE ASS'Y P/N 3000-402-11* (RIGHT) & 3000-402-10* (LEFT)



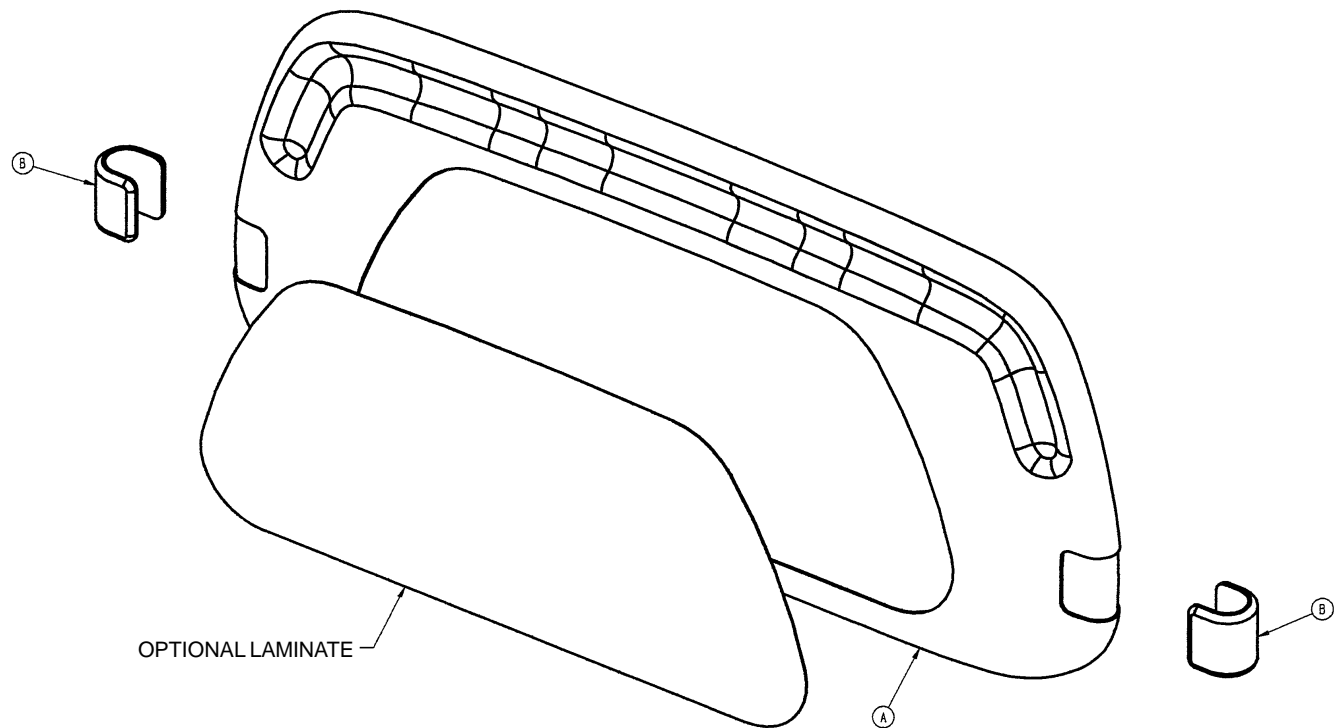
Item	Part No.	Part Name	Qty.
A	3000-402-950	DMS Keyboard Ass'y, Rt.	1
	3000-402-952	DMS Keyboard Ass'y, Lt.	1
B	3000-402-880	Siderail DMS Cable	1
C	23-86	Pan Hd. Tapping Screw	4
D	3000-400-521	Module	1
E	3000-402-2	Label, DMS	1
F	3000-400-522	Switch Cover	1

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.4 HEAD BOARD AND FOOT BOARD DRAWINGS

HEAD BOARD ASSEMBLY P/N 3000-600-000



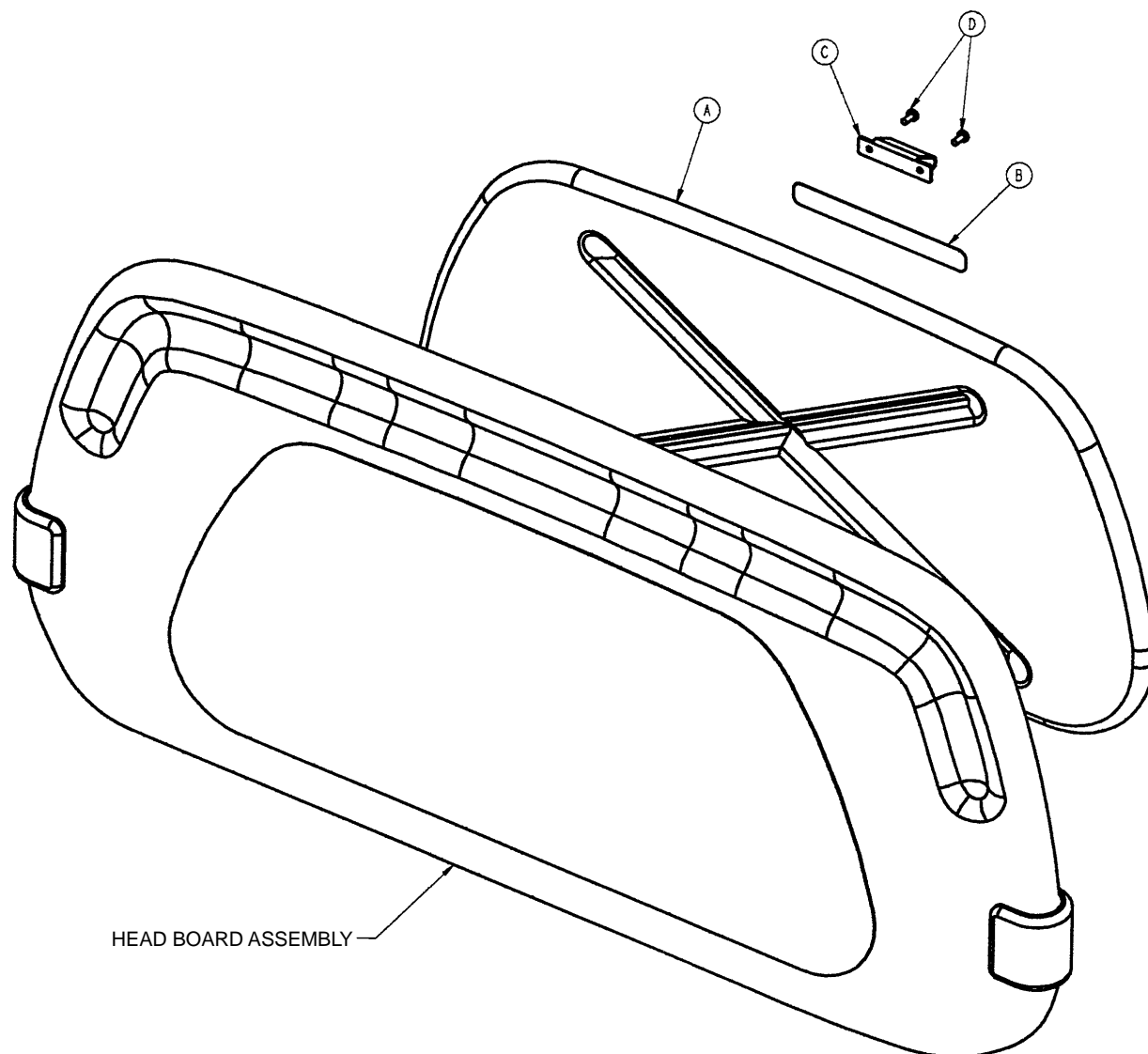
Item	Part No.	Part Name	Qty.
A	3000-600-10	Clamshell Assembly	1
B	*3000-500-7	"C" Bumper	2

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.4 HEAD BOARD AND FOOT BOARD DRAWINGS (CONTINUED)

CPR BOARD ASSEMBLY P/N 3000-526-10

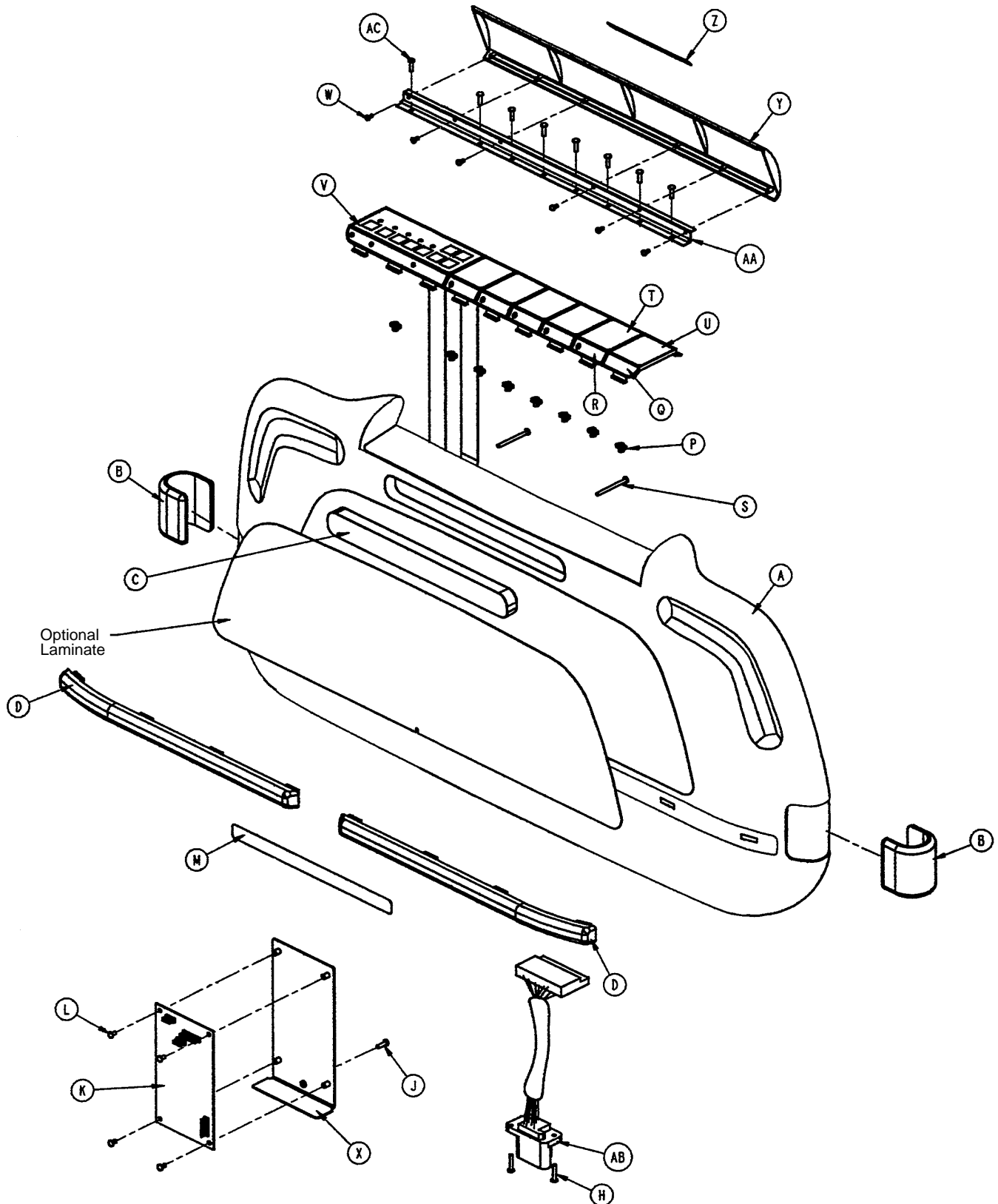


Item	Part No.	Part Name	Qty.
A	3000-526-1	CPR Board	1
B	3000-526-3	CPR Board Label	1
C	3000-526-2	CPR Head Board Clip	1
D	23-88	Pan Hd. Tapping Screw	2

Appendix A – Assembly Drawings and Parts Lists

A.4 HEAD BOARD AND FOOT BOARD DRAWINGS (CONTINUED)

FOOT BOARD ASSEMBLY P/N 3000-500-000



Appendix A – Assembly Drawings and Parts Lists

A.4 HEAD BOARD AND FOOT BOARD DRAWINGS (CONTINUED)

FOOT BOARD ASSEMBLY P/N 3000–500–000 (CONTINUED)

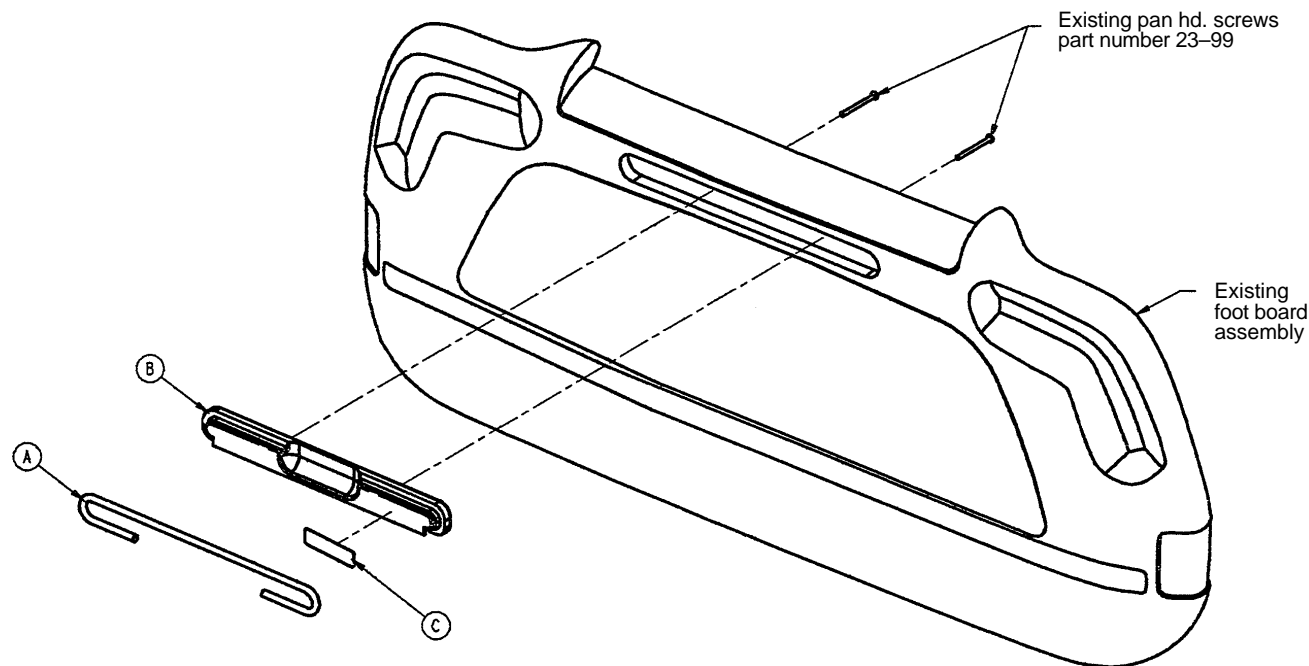
Item	Part No.	Part Name	Qty.
A	3000–500–10	Clam Shell Assembly	1
B	*3000–500–7	"C" Bumper	2
C	3000–500–8	Chart Rack Cover	1
D	3000–500–6	Bumper Strip	2
H	50–39	Pan Hd. Mach. Screw	2
J	50–37	Pan Hd. Mach. Screw	1
K	3000–500–955	Foot Board IFC Assembly	1
L	50–38	Pan Hd. Mach. Screw	4
M	3000–500–29	Hazard Label	1
N	3000–500–834	Ft. Bd. Keybd. Cbl. (not shown)	1
P	3000–500–64	Hinge Plate	1
Q	3000–500–27	Label	1
R	3000–500–26	Label	5
S	23–99	Phillips Pan Hd. Screw	2
T	3000–500–3	Blank Panel	5
U	3000–500–4	End Panel	1
V	3000–500–28	Std. Control Module Ass'y	1
W	23–91	Pan Hd. Tapping Screw	6
X	3000–500–16	Drawer	1
Y	*3000–500–1	Lid	1
Z	3000–500–25	Lid Label	1
AA	3000–500–11	Hinge	1
AB	3000–500–833	Foot Board Drawer Cable	1
AC	23–103	Pan Hd. Tapping Screw	8

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.4 HEAD BOARD AND FOOT BOARD DRAWINGS (CONTINUED)

CHART RACK ASSEMBLY P/N 3000-525-000

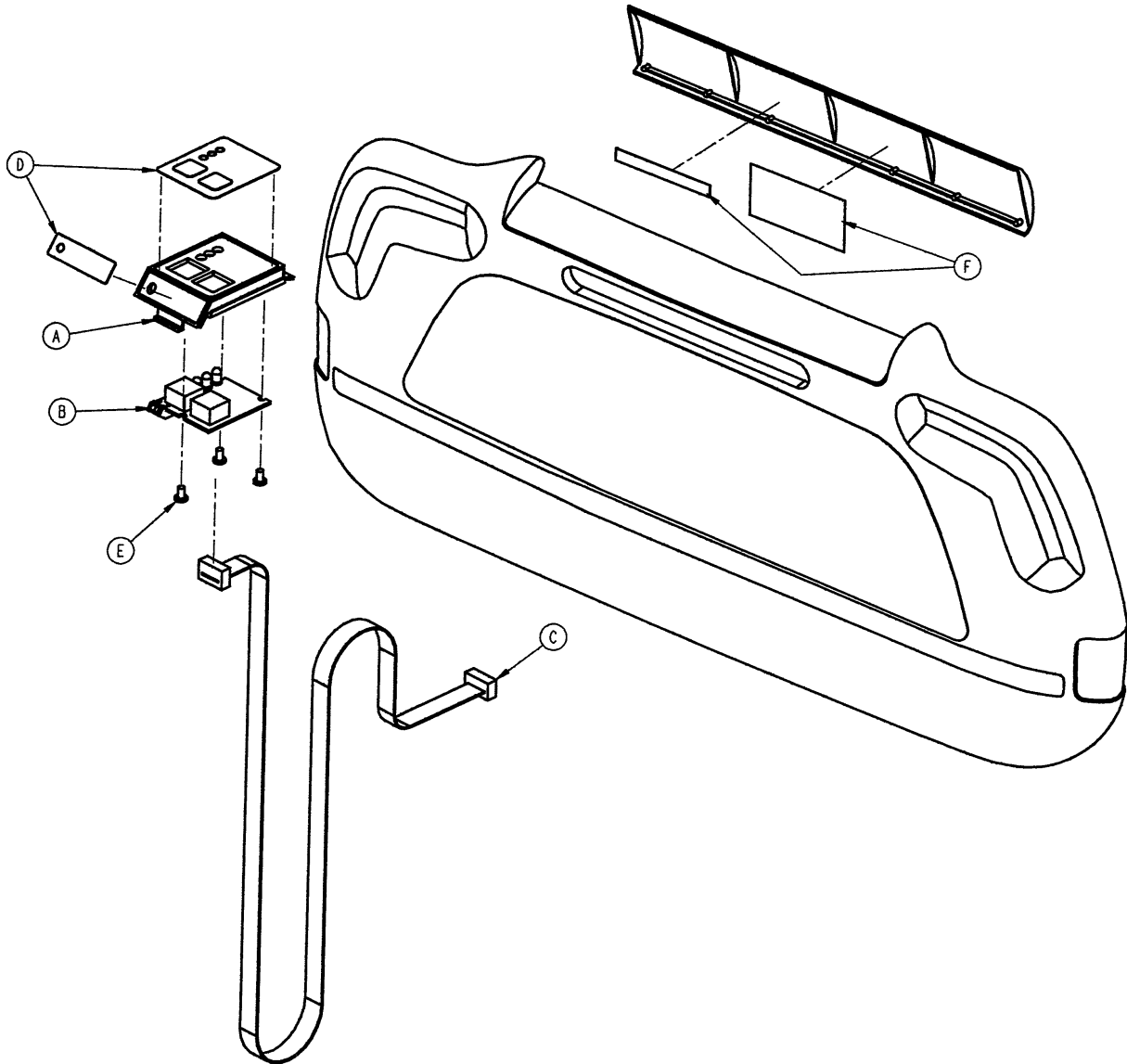


Item	Part No.	Part Name	Qty.
A	3000-525-2	Chart Rod	1
B	3000-525-1	Chart Rack	1
C	3000-525-4	Chart Rack Label	1

Appendix A – Assembly Drawings and Parts Lists

A.4 HEAD BOARD AND FOOT BOARD DRAWINGS (CONTINUED)

TAPE SWITCH BED EXIT MODULE ASSEMBLY P/N 3000-536-010

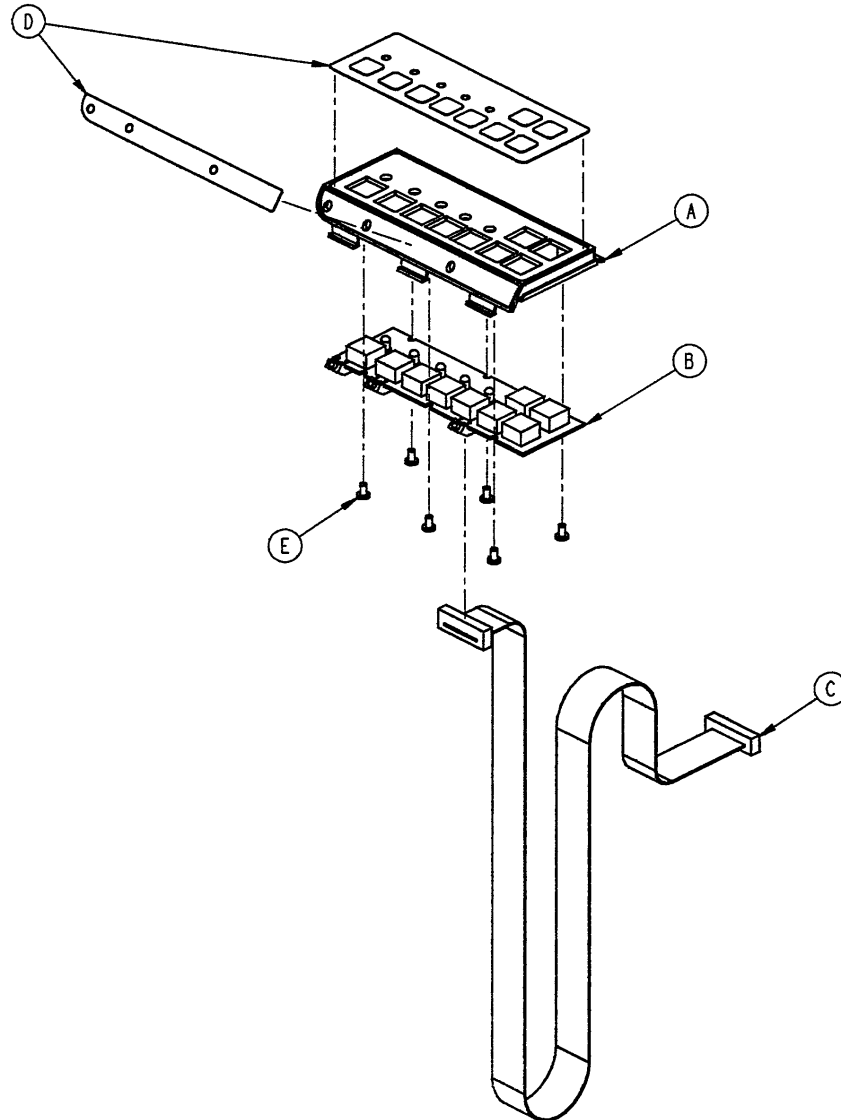


Item	Part No.	Part Name	Qty.
A	3000-508-1	Bed Exit Module	1
B	3000-536-972	Exit Keyboard Assembly	1
C	3000-500-836	Ft. Bd. Option Keyboard Cable	1
D	3000-536-2	Bed Exit Label	1
E	23-87	Pan Hd. Tapping Screw	3
F	3000-536-11	Scale Label	1

Appendix A – Assembly Drawings and Parts Lists

A.4 HEAD BOARD AND FOOT BOARD DRAWINGS (CONTINUED)

FOOT BOARD STANDARD MODULE ASSEMBLY P/N 3000-500-28*



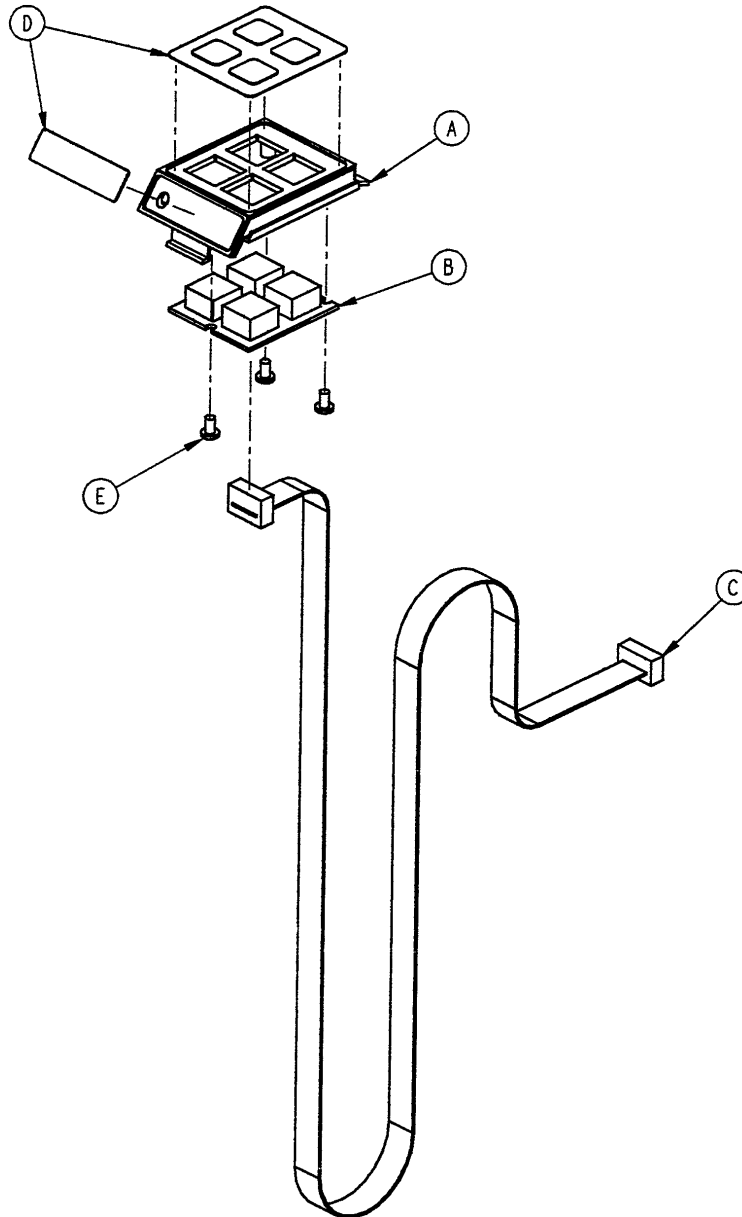
Item	Part No.	Part Name	Qty.
A	3000-500-2	Ft. Bd. Standard Module	1
B	3000-500-943	Ft. Bd. Keyboard Ass'y	1
C	3000-500-834	Ft. Bd. Keyboard Cable	1
D	3000-500-24	Ft. Bd. Std. Module Label	1
E	23-87	Pan Hd. Tapping Screw	6

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.4 HEAD BOARD AND FOOT BOARD DRAWINGS (CONTINUED)

FOOT BOARD GATCH/FOWLER MODULE ASSEMBLY P/N 3000-501-10*



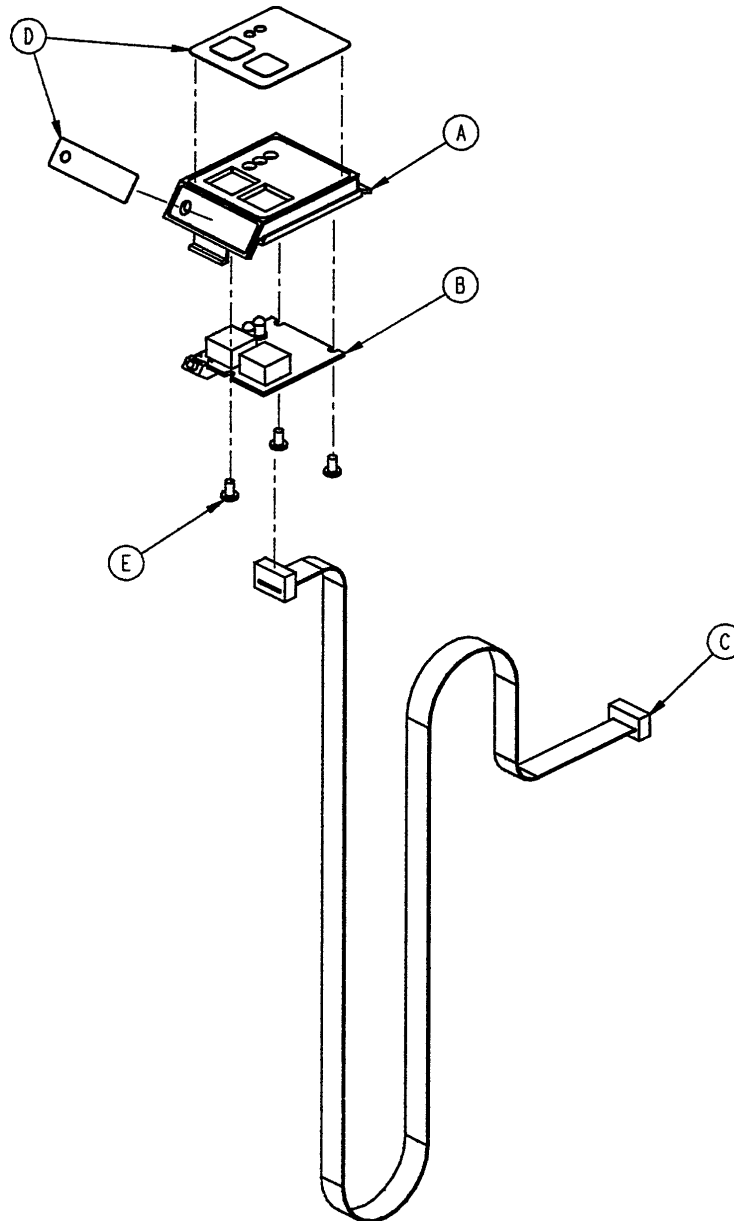
Item	Part No.	Part Name	Qty.
A	3000-501-1	Ft. Bd. Gatch/Fowler Module	1
B	3000-501-947	Ft. Bd. G/F Keyboard Ass'y	1
C	3000-500-836	Ft. Bd. Option Keybd. Cable	1
D	3000-501-2	Ft. Bd. G/F Module Label	1
E	23-87	Pan Hd. Tapping Screw	3

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.4 HEAD BOARD AND FOOT BOARD DRAWINGS (CONTINUED)

FOOT BOARD DMS MODULE ASSEMBLY P/N 3000-502-10*



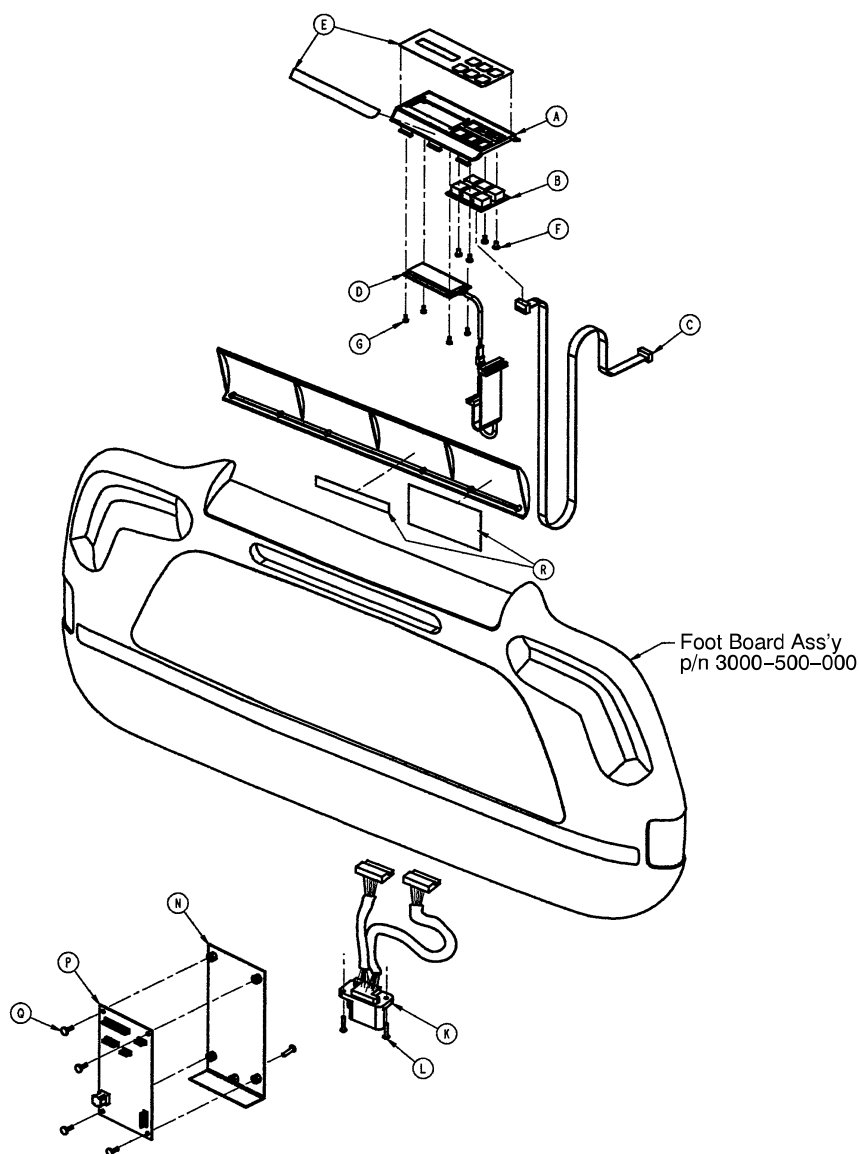
Item	Part No.	Part Name	Qty.
A	3000-508-1	DMS Module Panel	1
B	3000-502-951	Ft. Bd. DMS Keybd. Ass'y	1
C	3000-500-836	Ft. Bd. Option Keybd. Cable	1
D	3000-502-2	DMS Module Label	1
E	23-87	Pan Hd. Tapping Screw	3

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.4 HEAD BOARD AND FOOT BOARD DRAWINGS (CONTINUED)

FOOT BOARD SCALE MODULE ASSEMBLY P/N 3000-507-10*



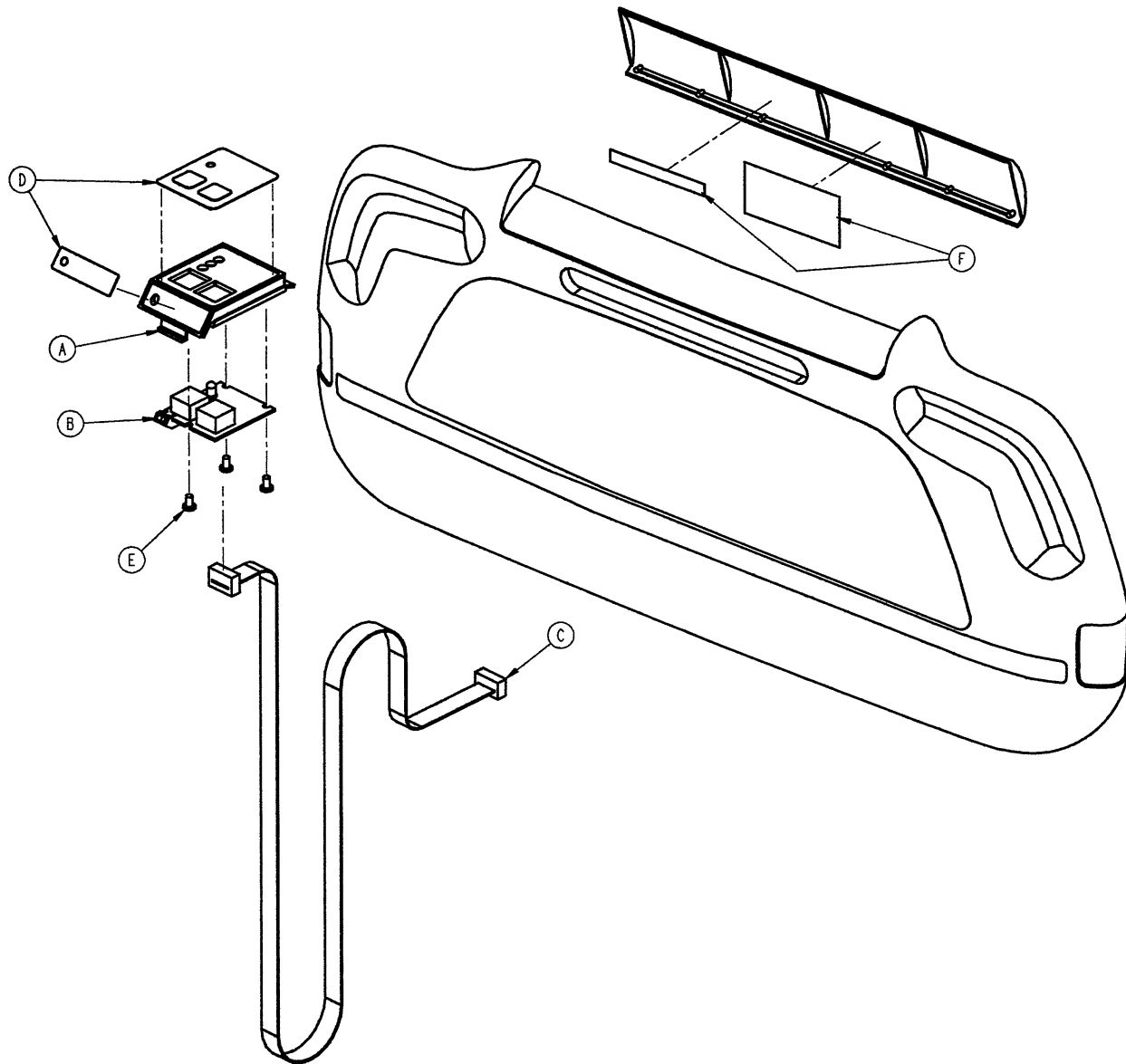
Item	Part No.	Part Name	Qty.	Item	Part No.	Part Name	Qty.
A	3000-507-1	Foot Board Scale Module	1	K	3000-500-835	Ft. Bd. Drawer Cable	1
B	3000-507-949	Ft. Bd. Scale Keybd. Ass'y	1	L	50-39	Pan Hd. Mach. Screw	2
C	3000-500-836	Ft. Bd. Option Keybd. Cbl.	1	M	50-37	Pan Hd. Mach Screw	1
D	3000-507-837	Scale Display Cable	1	N	3000-500-16	Drawer	1
E	3000-507-2	Scale Module Label	1	P	3000-507-957	Scale/Menu IFC Ass'y	1
F	23-87	Pan Hd. Tapping Screw	4	Q	50-38	Pan Hd. Mach. Screw	4
G	23-91	Pan Hd. Tapping Screw	4	R	3000-507-11	Scale Label	1

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

A.4 HEAD BOARD AND FOOT BOARD DRAWINGS (CONTINUED)

FOOT BOARD BED EXIT MODULE ASSEMBLY P/N 3000-508-10*

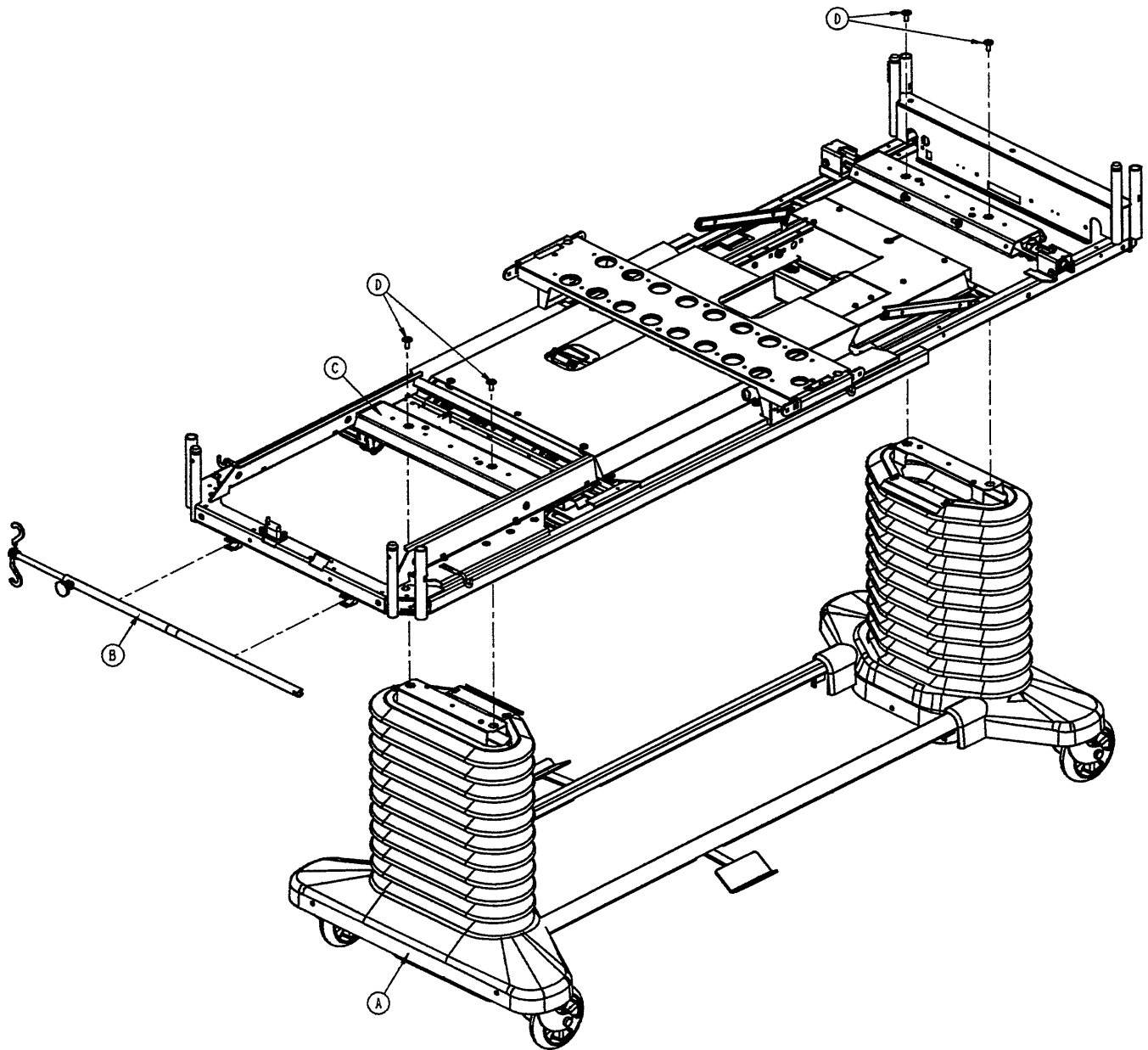


Item	Part No.	Part Name	Qty.
A	3000-508-1	Bed Exit Module	1
B	3000-508-945	Exit Keyboard Ass'y	1
C	3000-500-836	Ft. Bd. Option Keybd. Cable	1
D	3000-508-2	Bed Exit Label	1
E	23-87	Pan Hd. Tapping Screw	3
F	3000-508-11	Bed Exit Instruction Label	1

* See page 15 for replacement kit part number.

Appendix A – Assembly Drawings and Parts Lists

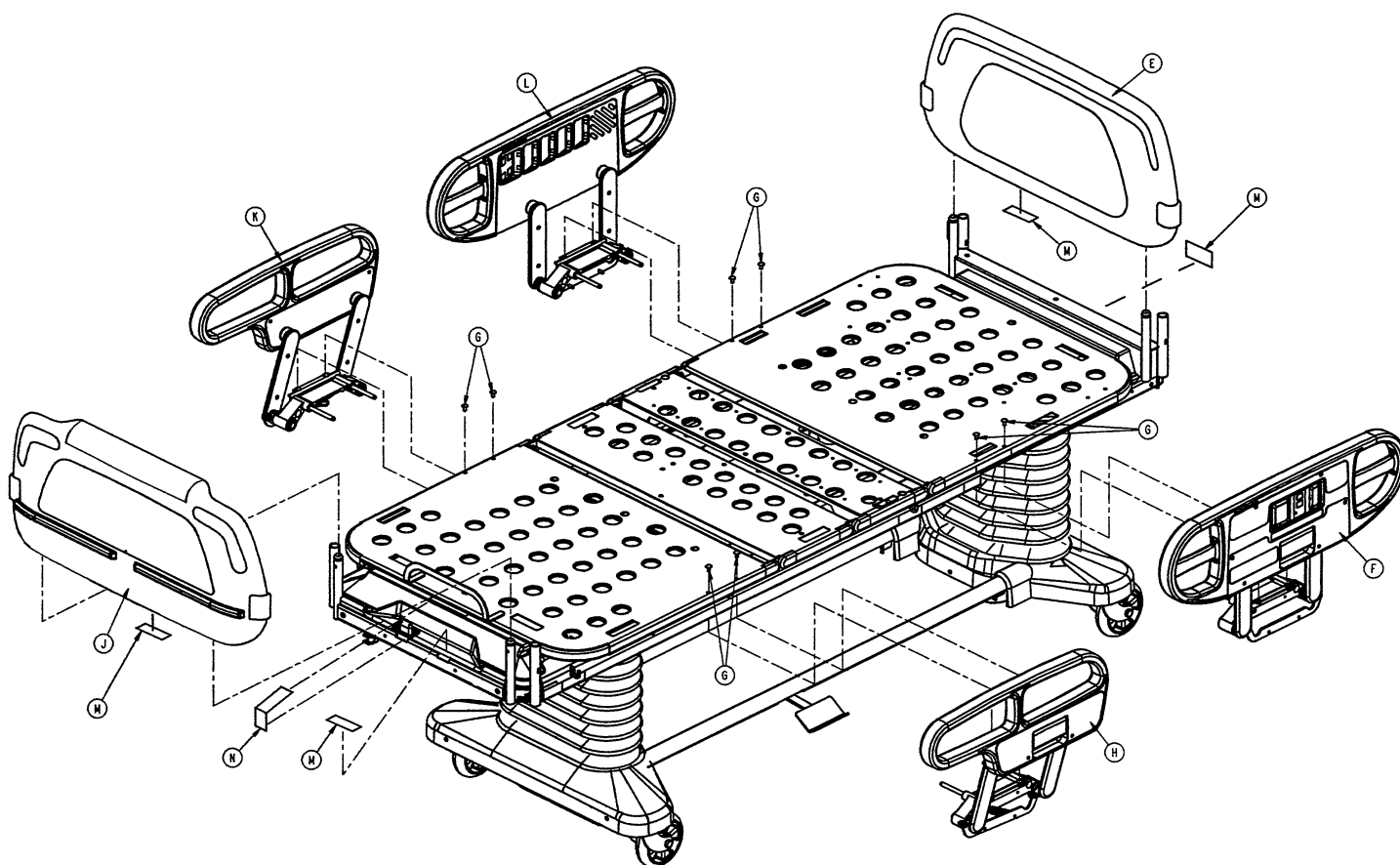
A.5 OVERALL BED ASSEMBLY DRAWING



Item	Part No.	Part Name	Qty.
A	(page 129–134)	Base Assembly	1
B	(page 170)	I.V. Pole Assembly	1
C	(page 149–151)	Litter Assembly	1
D	4–245	Flanged But. Hd. Cap Screw	4

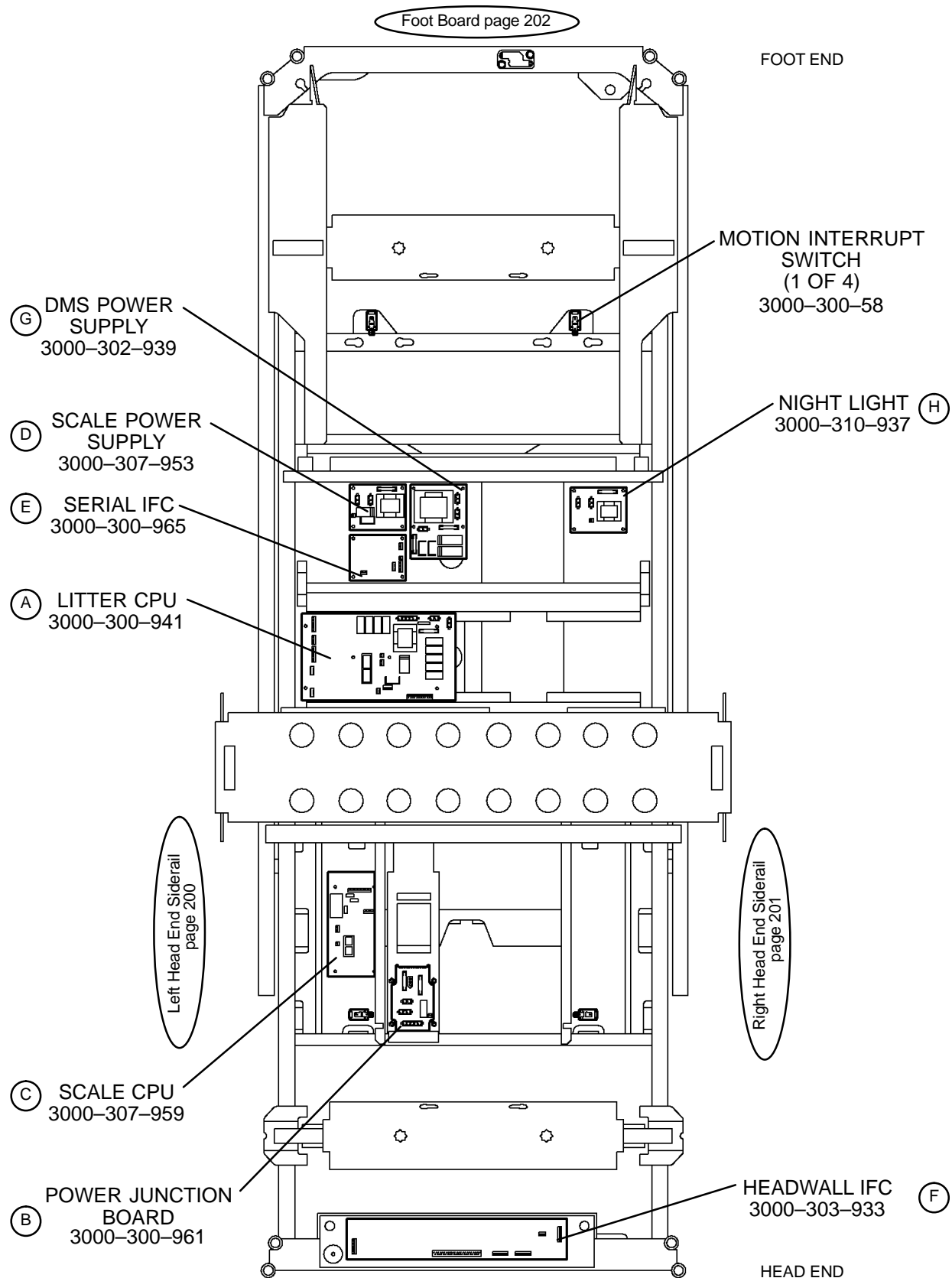
Appendix A – Assembly Drawings and Parts Lists

A.5 OVERALL BED ASSEMBLY DRAWING



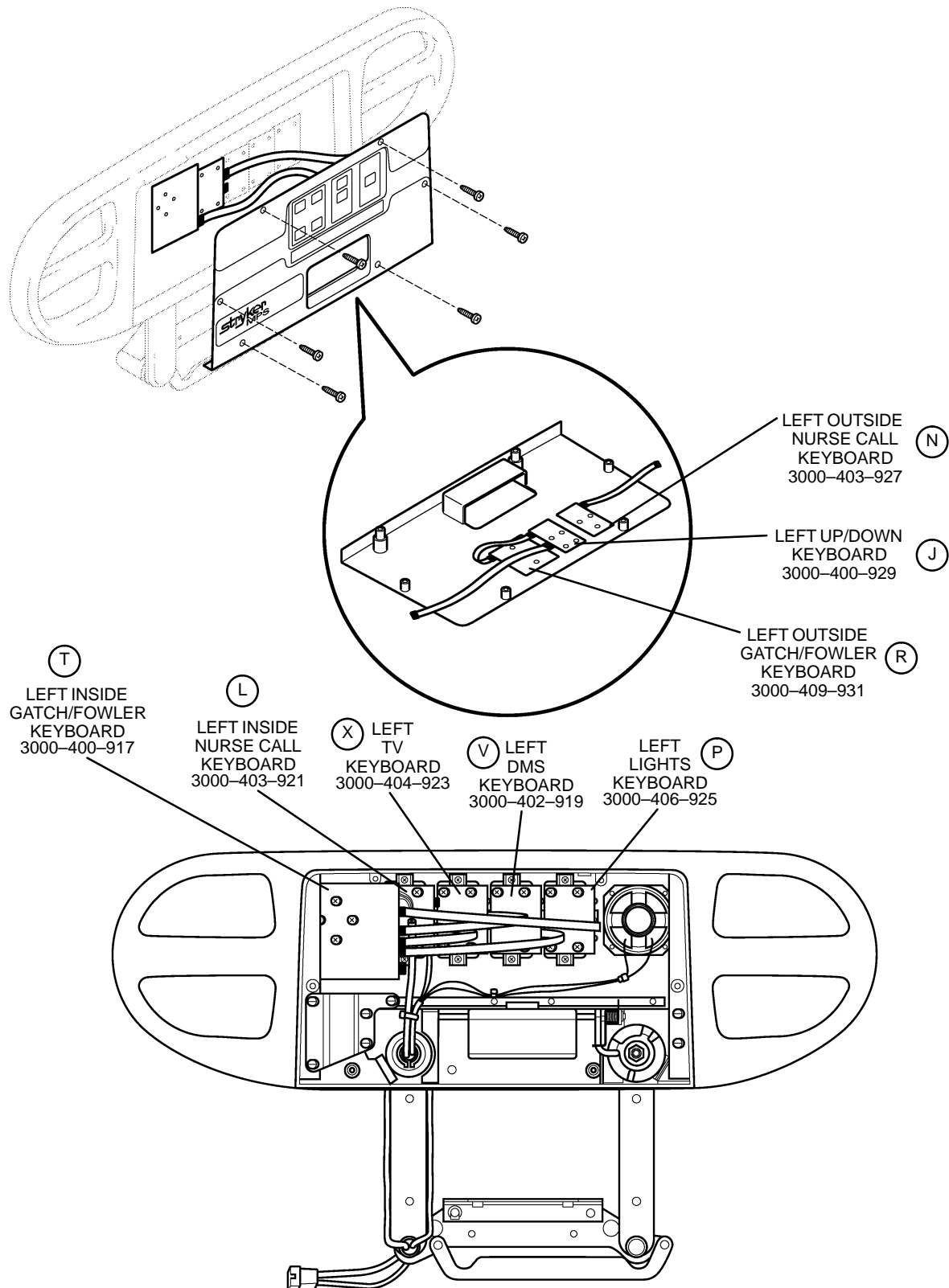
Item	Part No.	Part Name	Qty.
E	(page 188)	Head Board Assembly	1
F	(page 174, 175)	Left Head Siderail Ass'y	1
G	7-42	Truss Hd. Screw	8
H	(page 178, 179)	Left Foot Siderail Ass'y	1
J	(page 190, 191)	Foot Board Assembly	1
K	(page 180, 181)	Right Foot Siderail Ass'y	1
L	(page 176, 177)	Right Head Siderail Ass'y	1
M	3000-300-625	Date-Of-Manufacture Label	3
N	3000-300-641	Footboard Ground Label	1

B.1 BOARD LOCATION DIAGRAMS



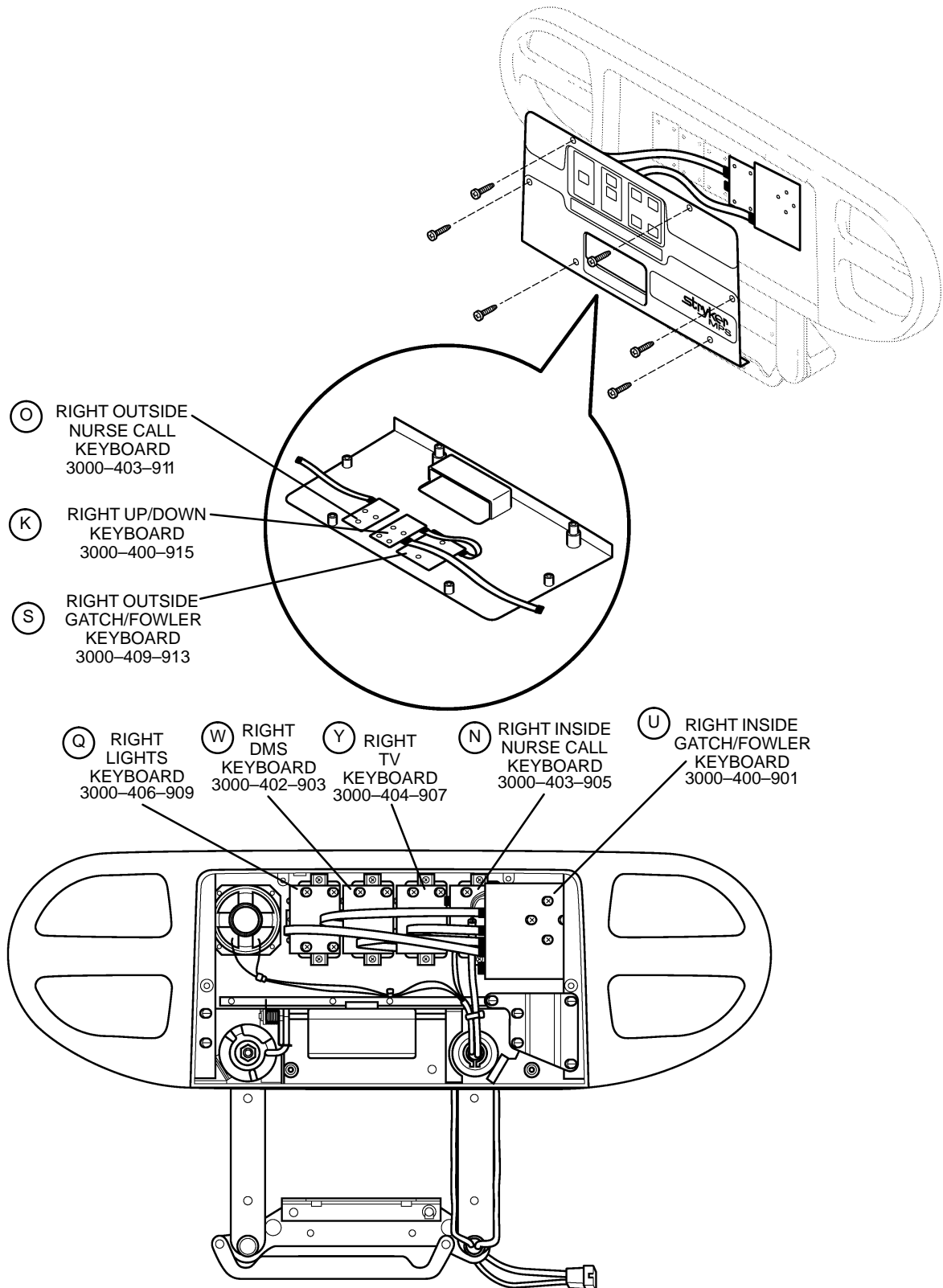
B.1 BOARD LOCATION DIAGRAMS (CONTINUED)

LEFT HEAD END SIDERAIL CIRCUIT BOARD LOCATIONS



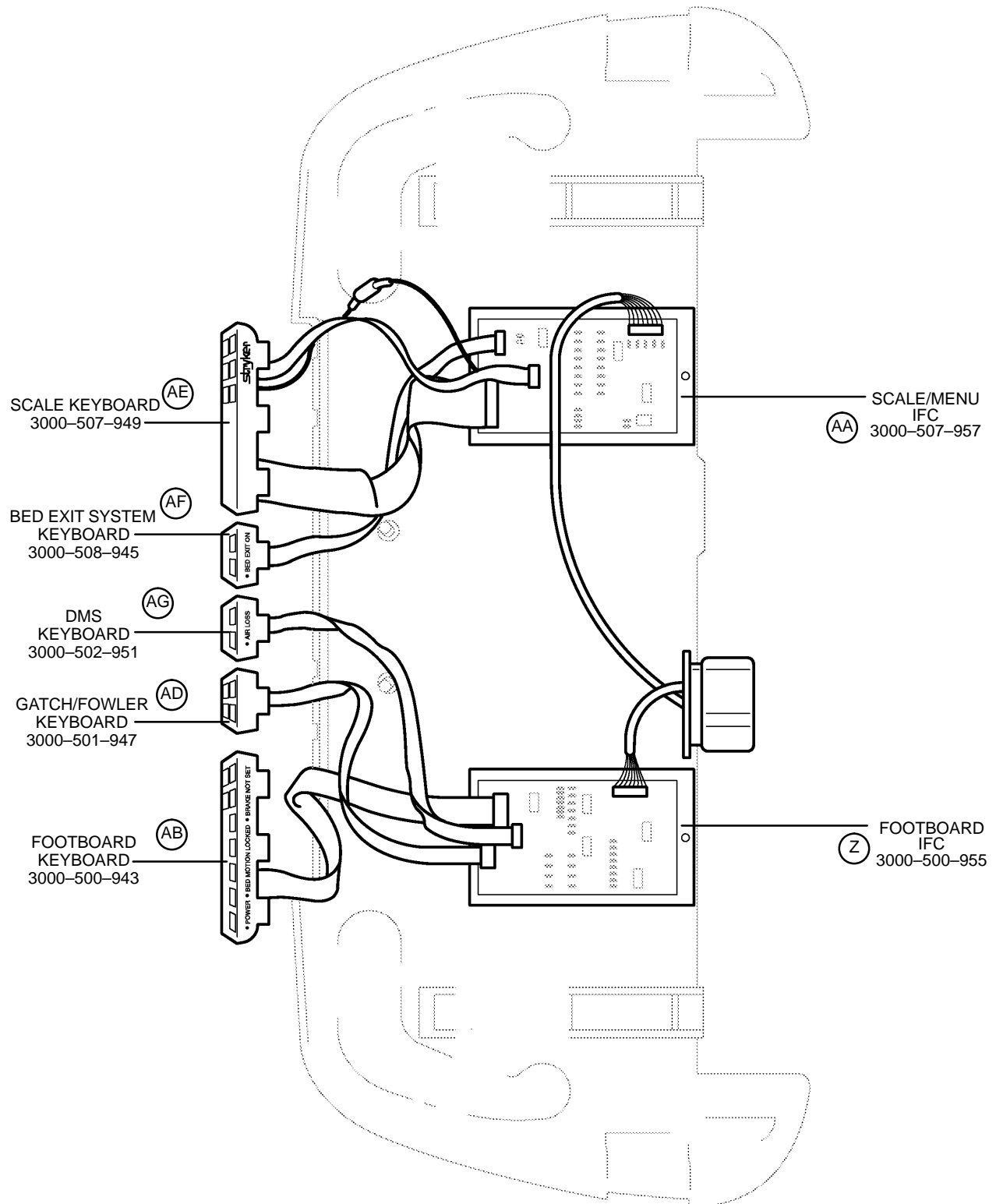
B.1 BOARD LOCATION DIAGRAMS (CONTINUED)

RIGHT HEAD END SIDERAIL CIRCUIT BOARD LOCATIONS

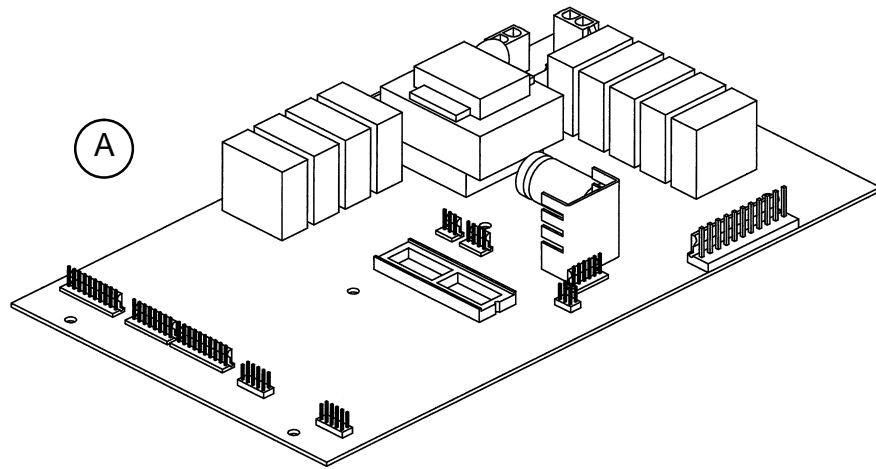


B.1 BOARD LOCATION DIAGRAMS (CONTINUED)

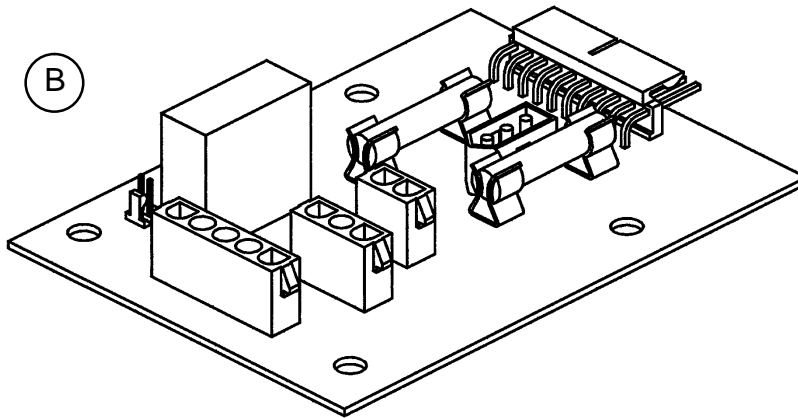
FOOT BOARD CIRCUIT BOARD LOCATIONS



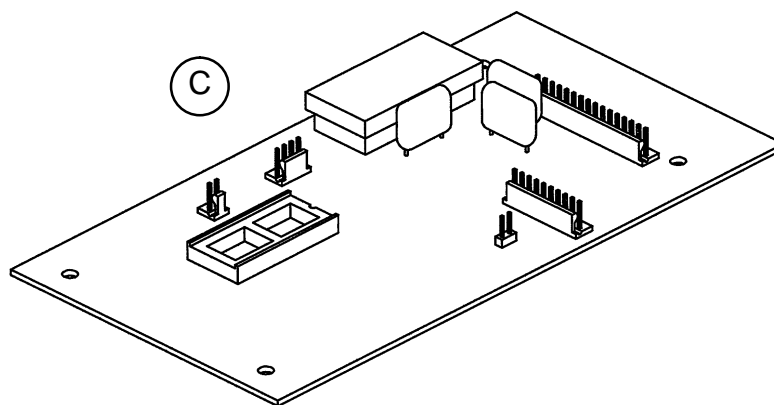
B.1 BOARD DRAWINGS



LITTER CPU PCB ASSEMBLY P/N 3000-300-941



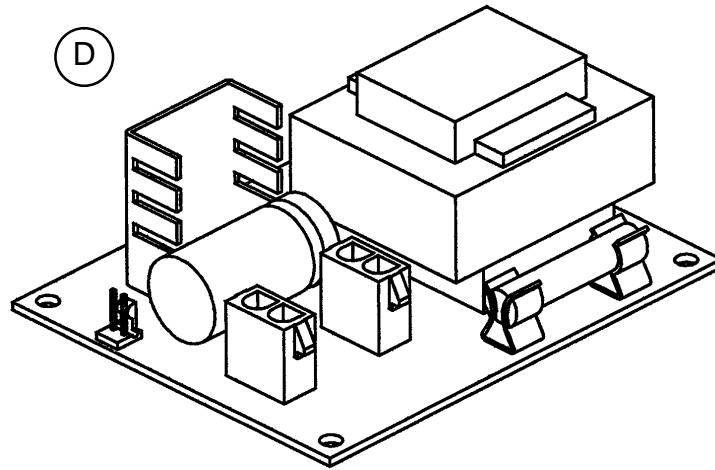
POWER JUNCTION PCB ASSEMBLY P/N 3000-300-961



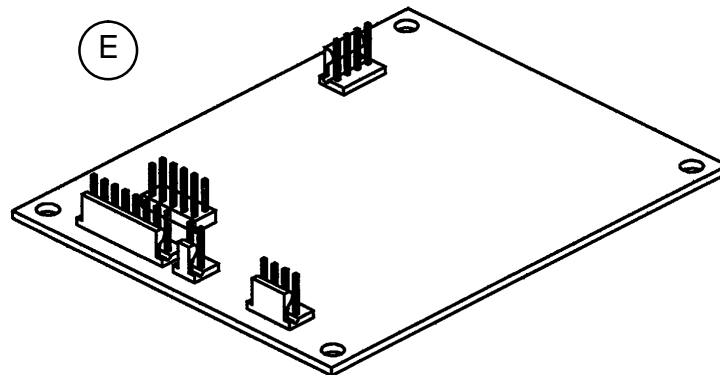
SCALE CPU PCB ASSEMBLY P/N 3000-307-959

SEE PAGE 199 FOR BOARD LOCATIONS.

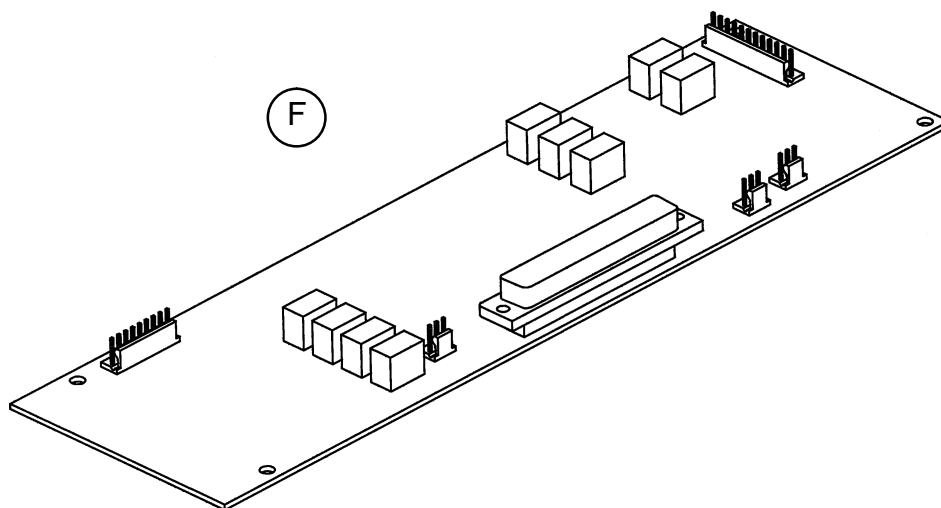
B.1 BOARD DRAWINGS (CONTINUED)



SCALE POWER SUPPLY PCB ASSEMBLY P/N 3000-307-953



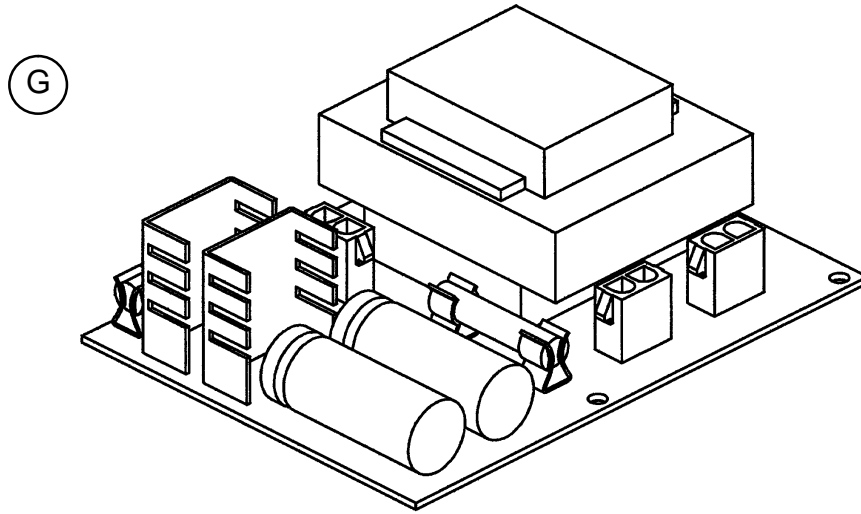
SERIAL IFC PCB ASSEMBLY P/N 3000-300-965



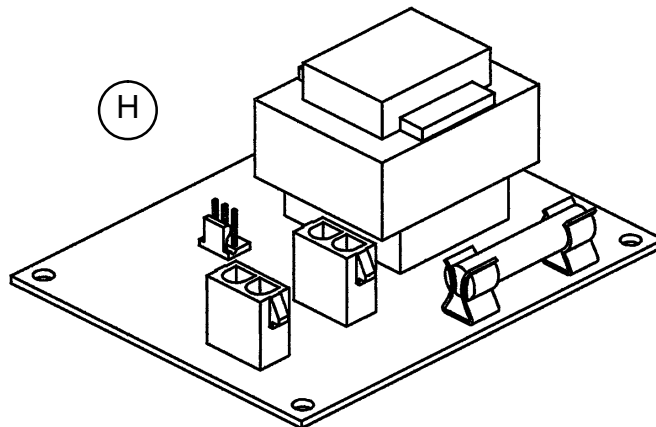
HEADWALL IFC PCB ASSEMBLY P/N 3000-303-933

SEE PAGE 199 FOR BOARD LOCATIONS.

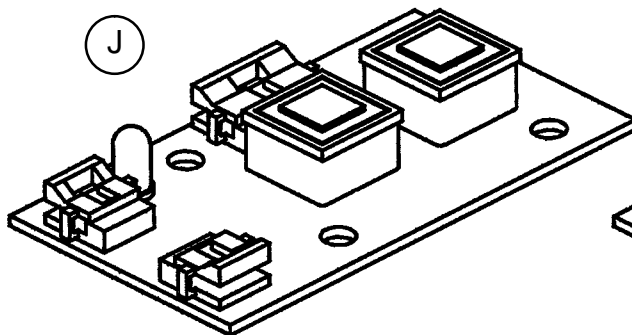
B.1 BOARD DRAWINGS (CONTINUED)



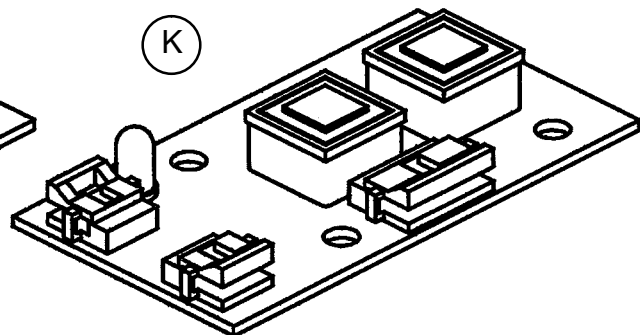
DMS POWER SUPPLY PCB ASSEMBLY P/N 3000-302-939



NIGHT LIGHT PCB ASSEMBLY P/N 3000-310-937



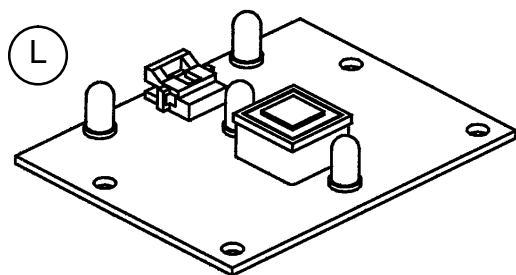
LEFT U/D KEYBOARD PCB ASSEMBLY
P/N 3000-400-929



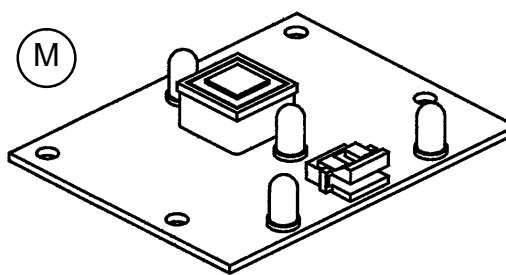
RIGHT U/D KEYBOARD PCB ASSEMBLY
P/N 3000-400-915

SEE PAGE 199-201 FOR BOARD LOCATIONS.

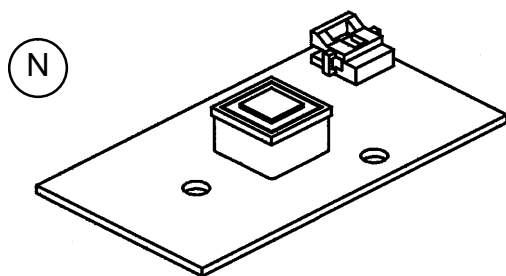
B.1 BOARD DRAWINGS (CONTINUED)



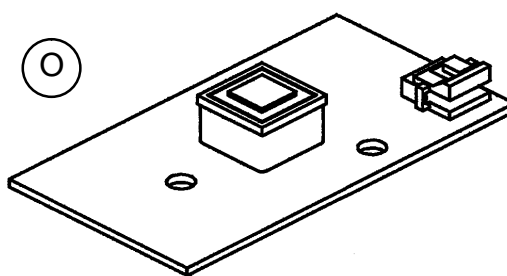
LEFT INSIDE NURSE CALL PCB ASSEMBLY
P/N 3000-403-921



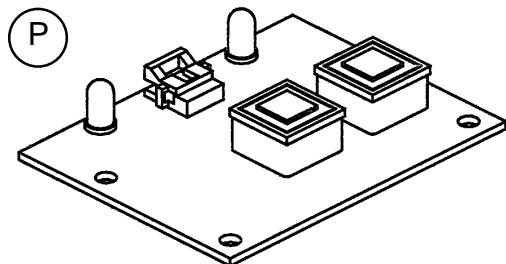
RIGHT INSIDE NURSE CALL PCB ASSEMBLY
P/N 3000-403-905



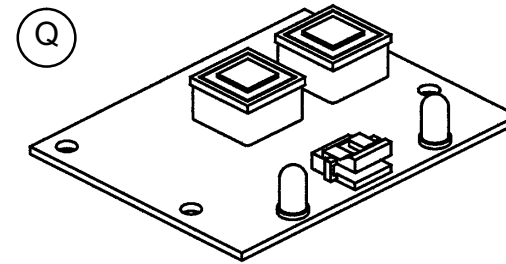
LEFT OUTSIDE NURSE CALL PCB ASSEMBLY
P/N 3000-403-927



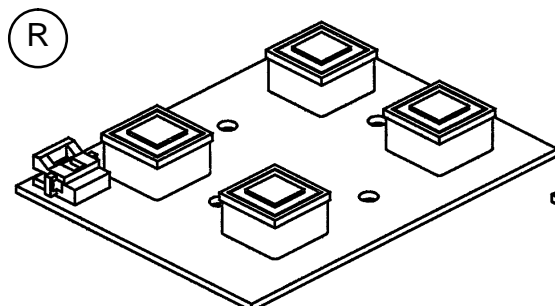
RIGHT OUTSIDE NURSE CALL PCB ASSEMBLY
P/N 3000-403-911



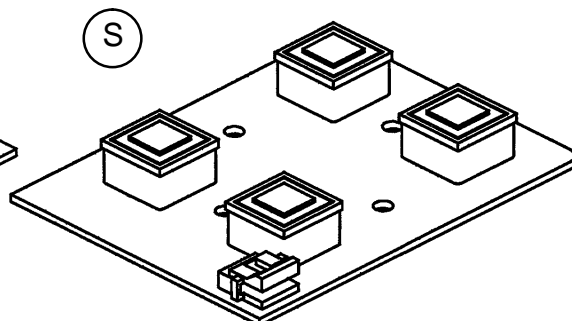
LEFT LIGHTS KEYBOARD PCB ASSEMBLY
P/N 3000-406-925



RIGHT LIGHTS KEYBOARD PCB ASSEMBLY
P/N 3000-406-909



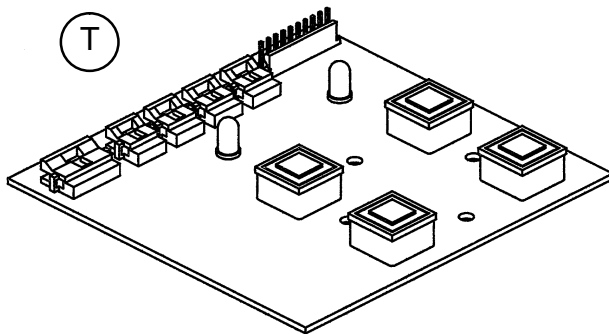
LEFT OUTSIDE GATCH/FOWLER PCB ASS'Y
P/N 3000-409-931



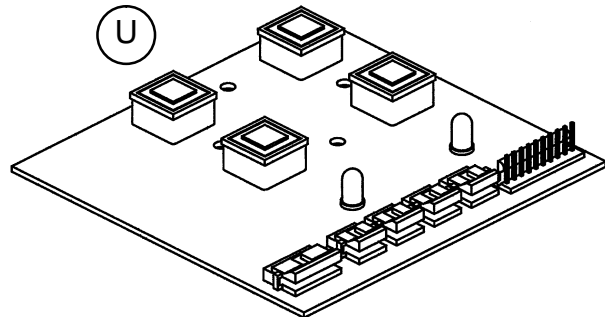
RIGHT OUTSIDE GATCH/FOWLER PCB ASS'Y
P/N 3000-409-913

SEE PAGE 200 & 201 FOR BOARD LOCATIONS.

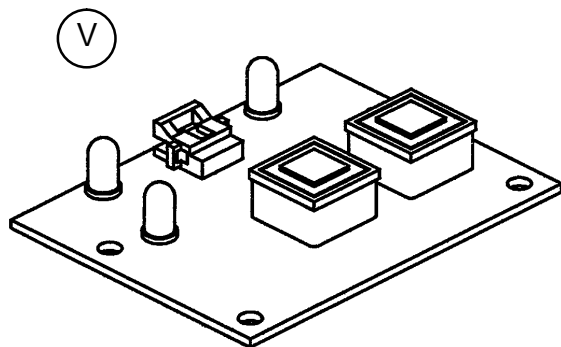
B.1 BOARD DRAWINGS (CONTINUED)



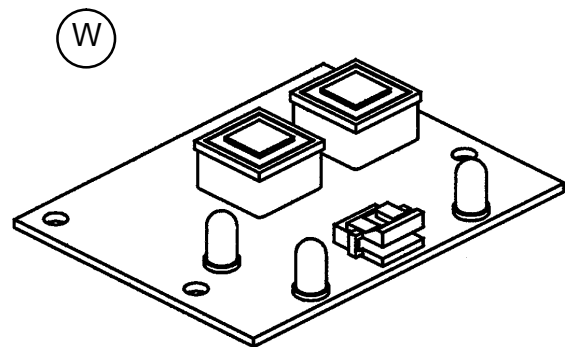
LEFT INSIDE GATCH/FOWLER PCB ASS'Y
P/N 3000-400-917



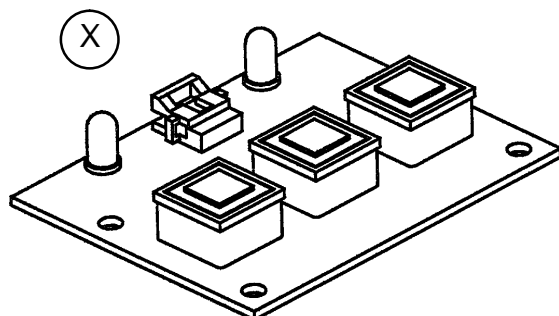
RIGHT INSIDE GATCH/FOWLER PCB ASS'Y
P/N 3000-400-901



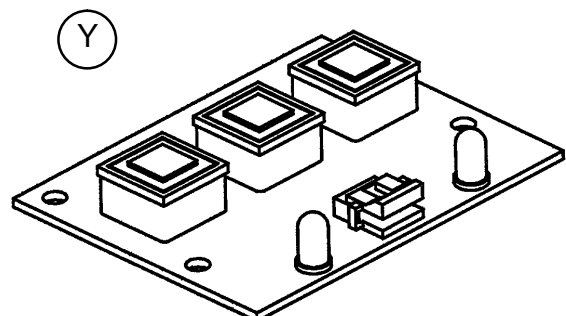
LEFT DMS KEYBOARD PCB ASSEMBLY
P/N 3000-402-919



RIGHT DMS KEYBOARD PCB ASSEMBLY
P/N 3000-402-903



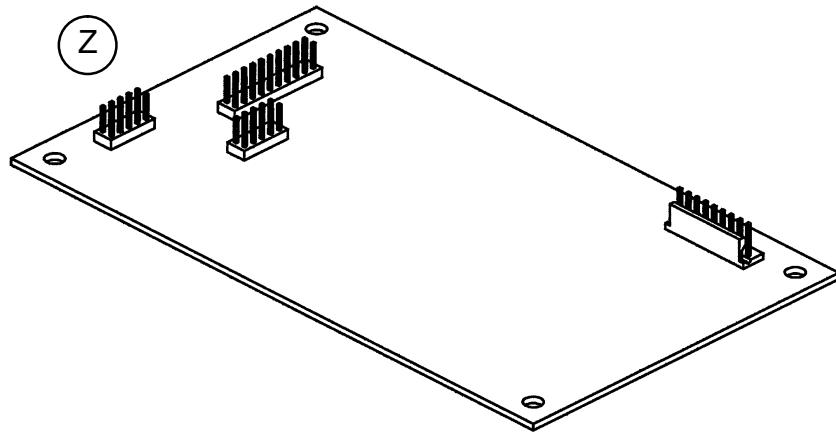
LEFT TV KEYBOARD PCB ASSEMBLY
P/N 3000-404-923



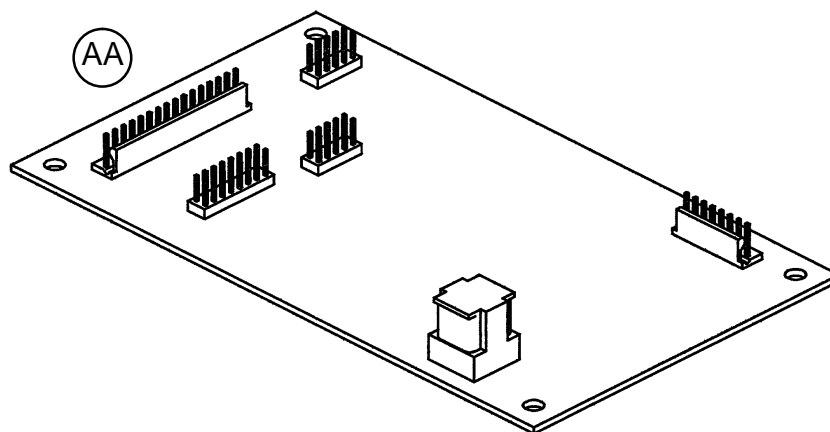
RIGHT TV KEYBOARD PCB ASSEMBLY
P/N 3000-404-907

SEE PAGE 200 & 201 FOR BOARD LOCATIONS.

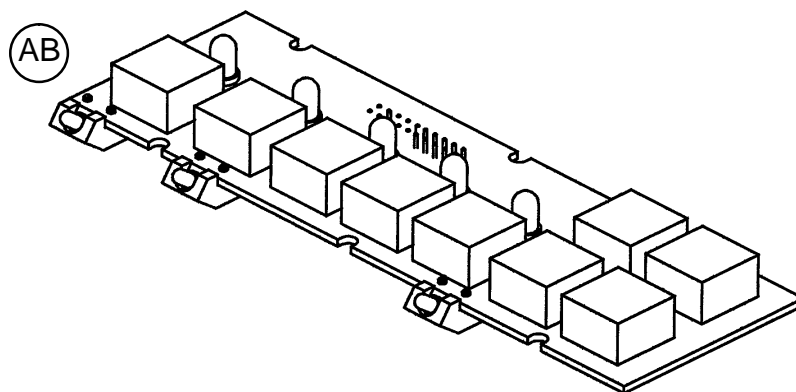
B.1 BOARD DRAWINGS (CONTINUED)



FOOT BOARD IFC PCB ASSEMBLY P/N 3000-500-955



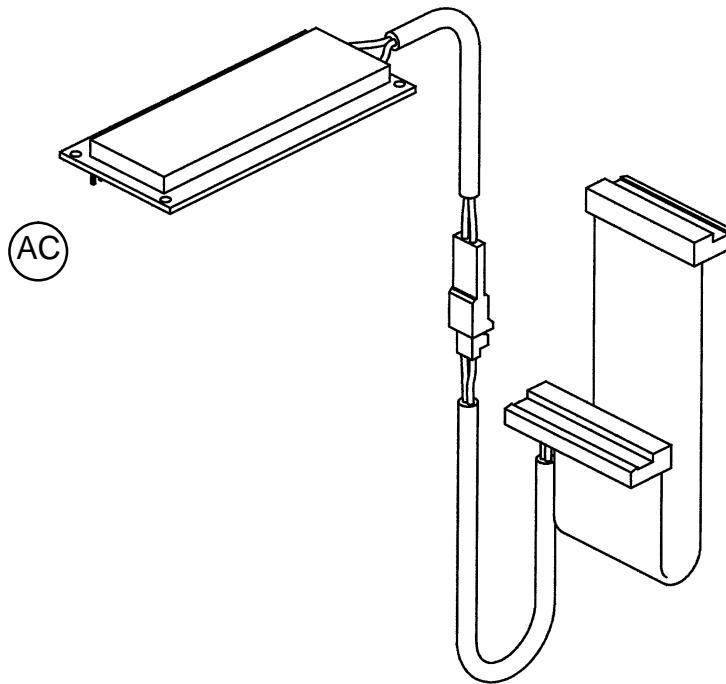
SCALE IFC PCB ASSEMBLY P/N 3000-507-957



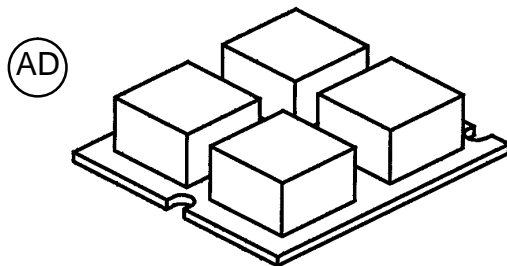
FOOT BOARD KEYBOARD PCB ASSEMBLY P/N 3000-500-943

SEE PAGE 202 FOR BOARD LOCATIONS.

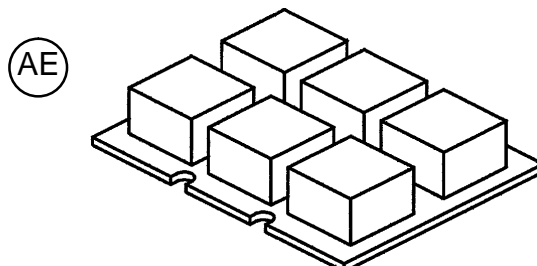
B.1 BOARD DRAWINGS (CONTINUED)



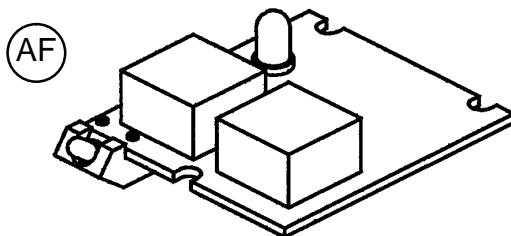
SCALE DISPLAY WITH CABLE PCB ASSEMBLY P/N 3000-507-837



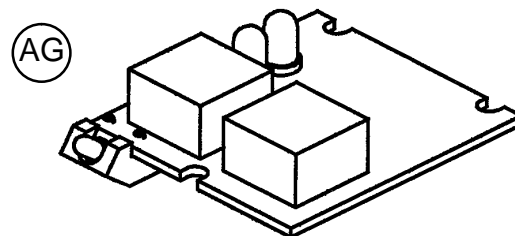
FOOT BOARD GATCH/FOWLER PCB ASSEMBLY
P/N 3000-501-947



SCALE KEYBOARD PCB ASSEMBLY
P/N 3000-507-949



BED EXIT KEYBOARD PCB ASSEMBLY
P/N 3000-508-945

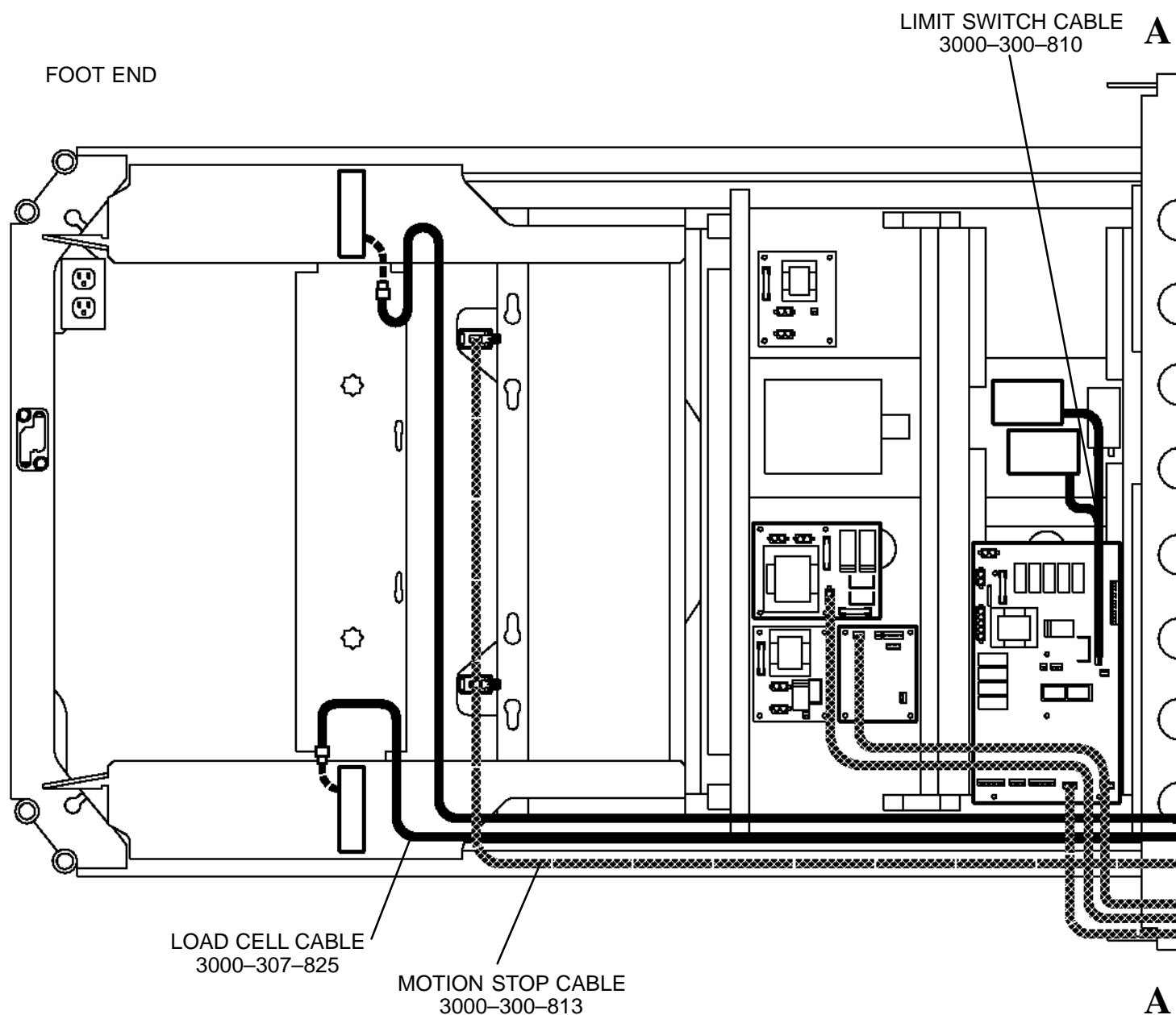


FOOTBOARD DMS PCB ASSEMBLY
P/N 3000-502-951

SEE PAGE 202 FOR BOARD LOCATIONS.

B.2 WIRING DIAGRAMS

BED WIRING DIAGRAMS

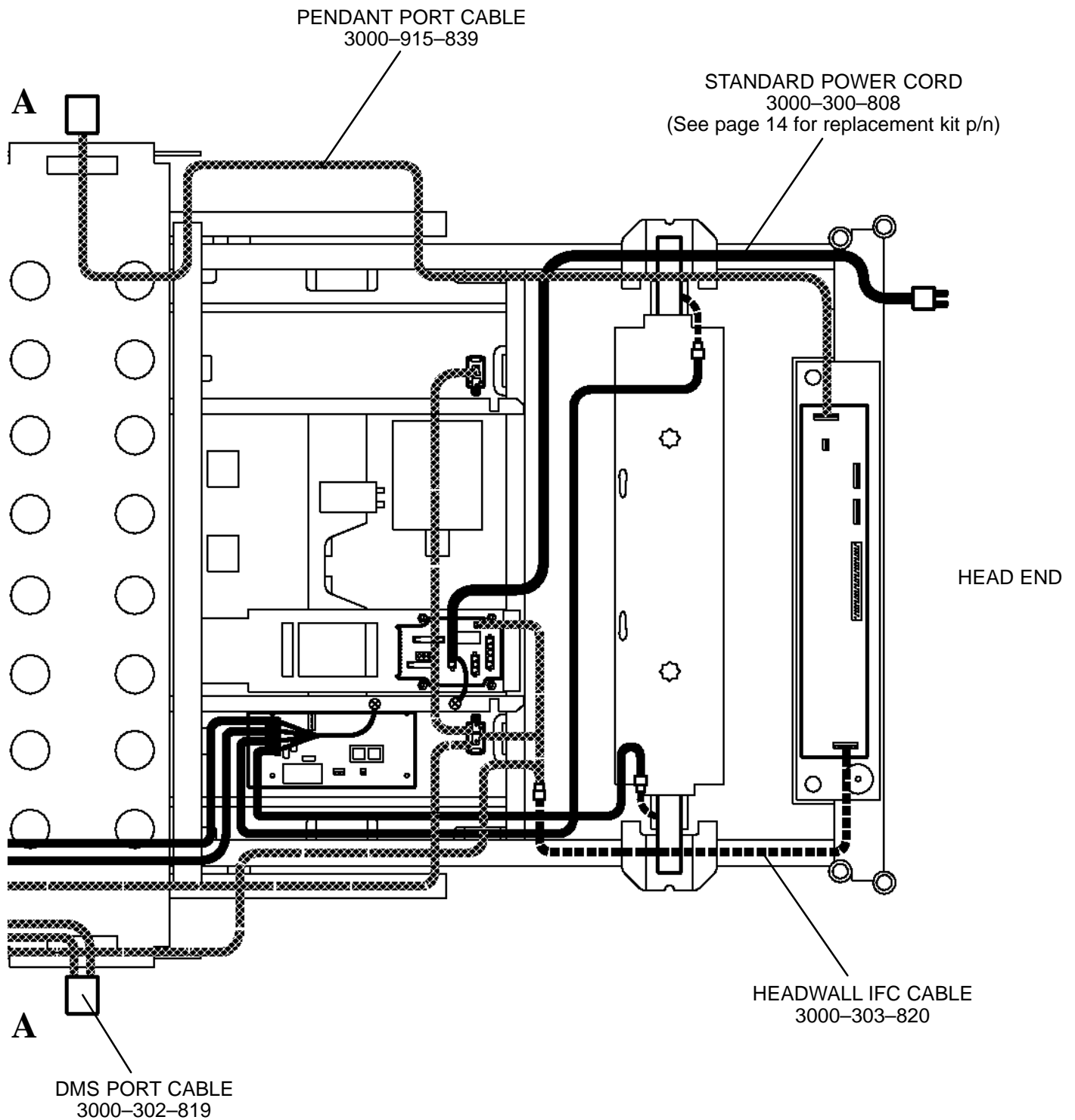


NOTE

Change in cable shading or pattern designates a different cable part number.

B.2 WIRING DIAGRAMS (CONTINUED)

BED WIRING DIAGRAMS (CONTINUED)

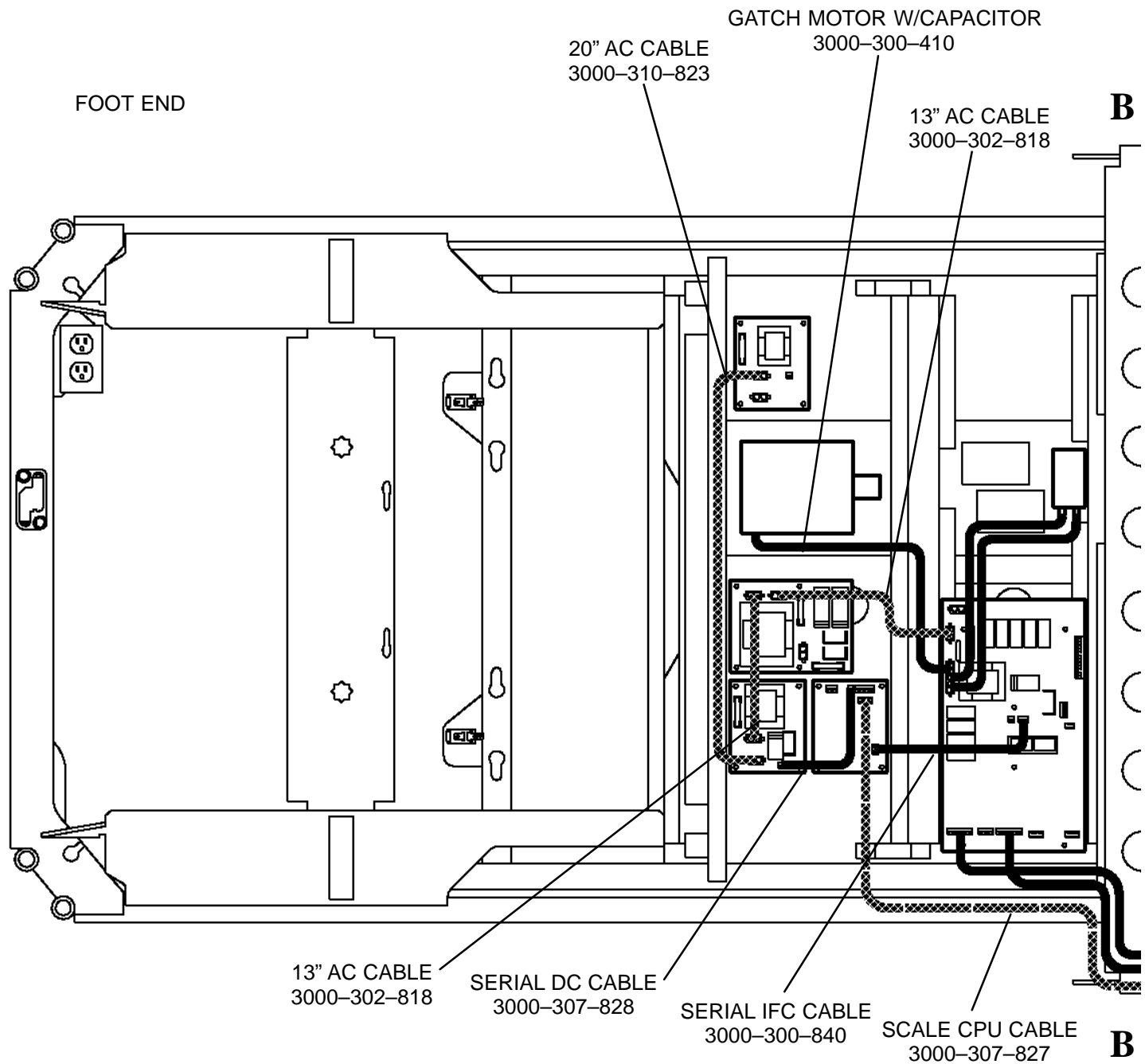


NOTE

Change in cable shading or pattern designates a different cable part number.

B.2 WIRING DIAGRAMS (CONTINUED)

BED WIRING DIAGRAMS (CONTINUED)

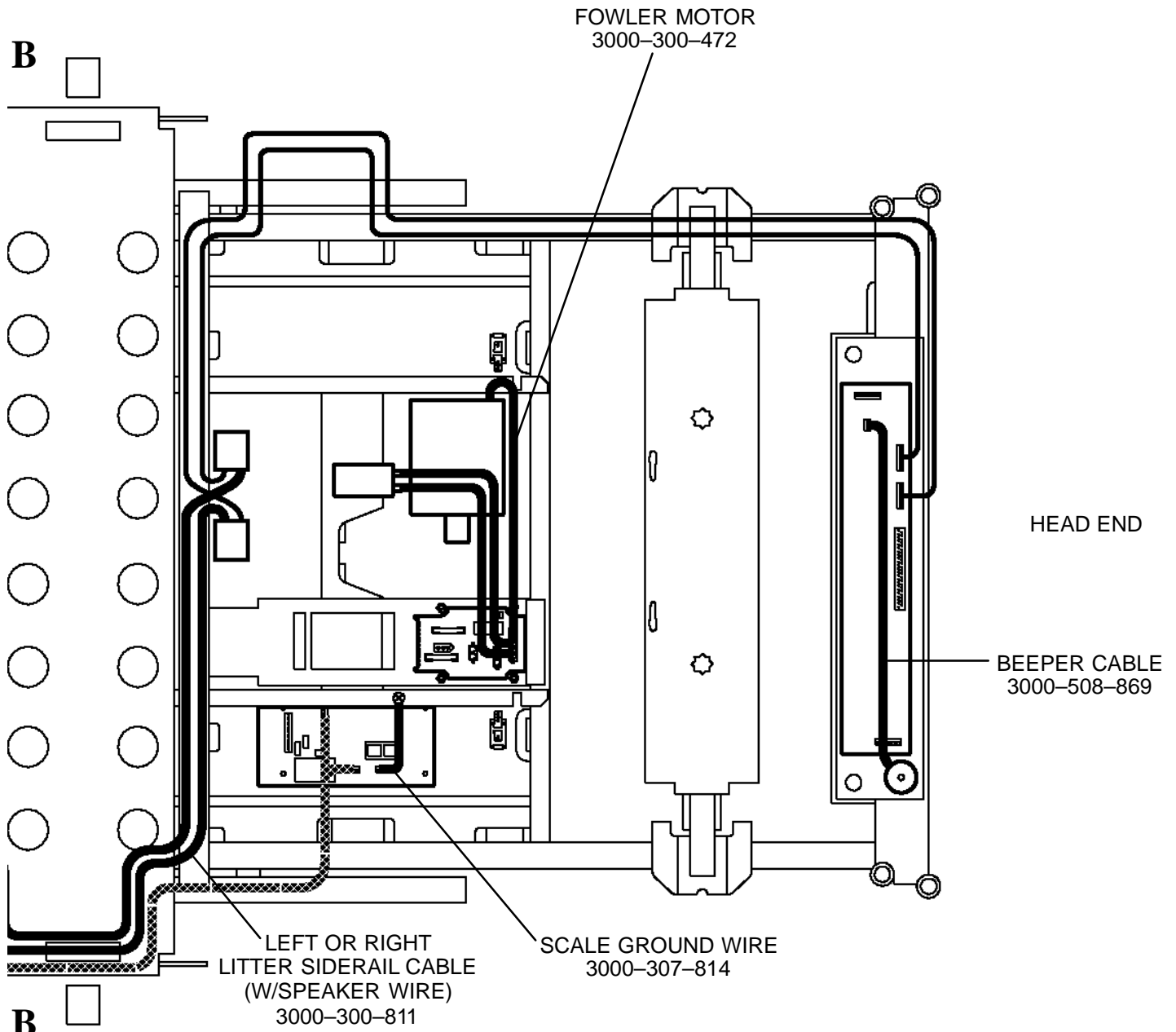


NOTE

Change in cable shading or pattern designates a different cable part number.

B.2 WIRING DIAGRAMS (CONTINUED)

BED WIRING DIAGRAMS (CONTINUED)

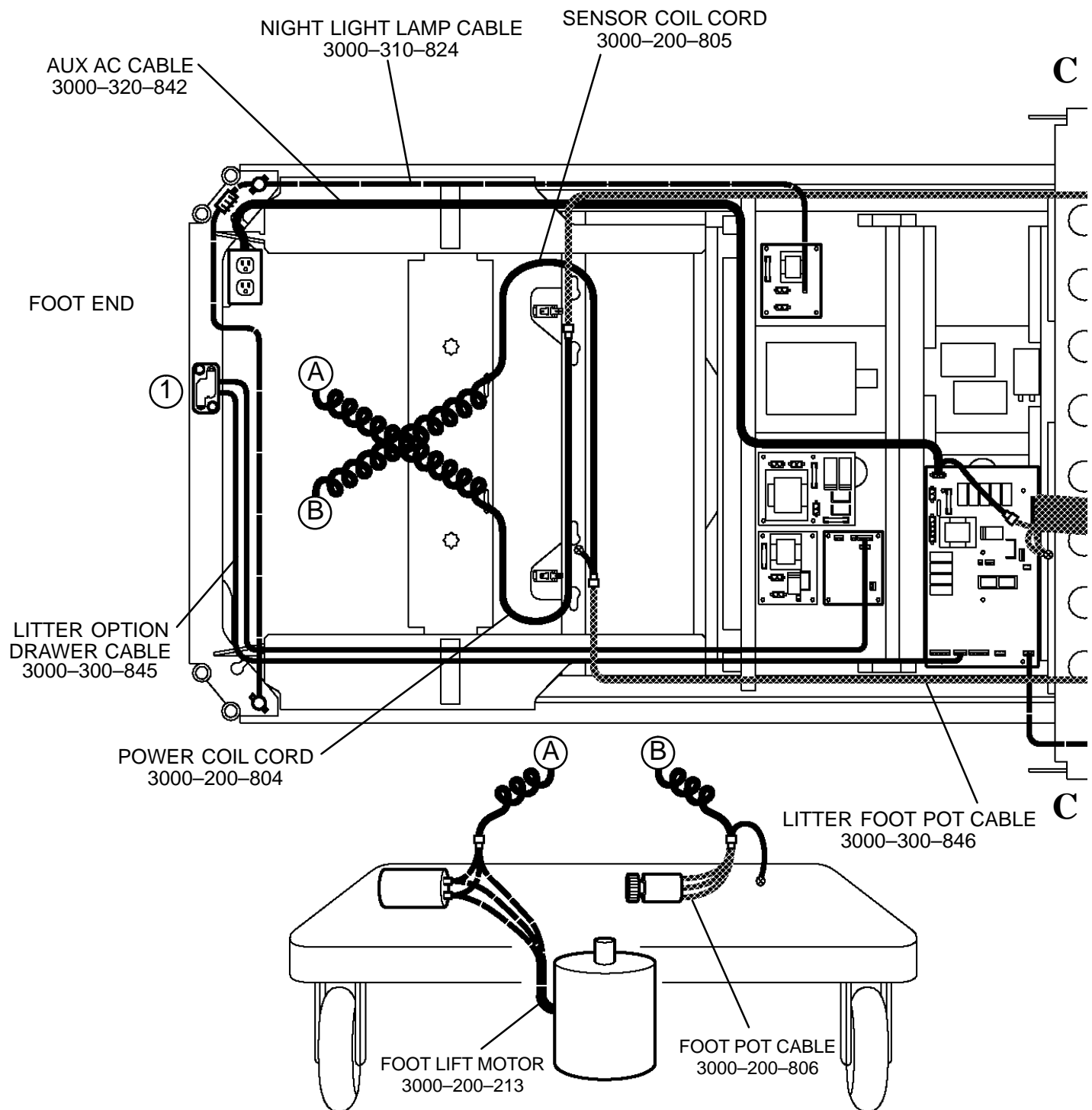


NOTE

Change in cable shading or pattern designates a different cable part number.

B.2 WIRING DIAGRAMS (CONTINUED)

BED WIRING DIAGRAMS (CONTINUED)



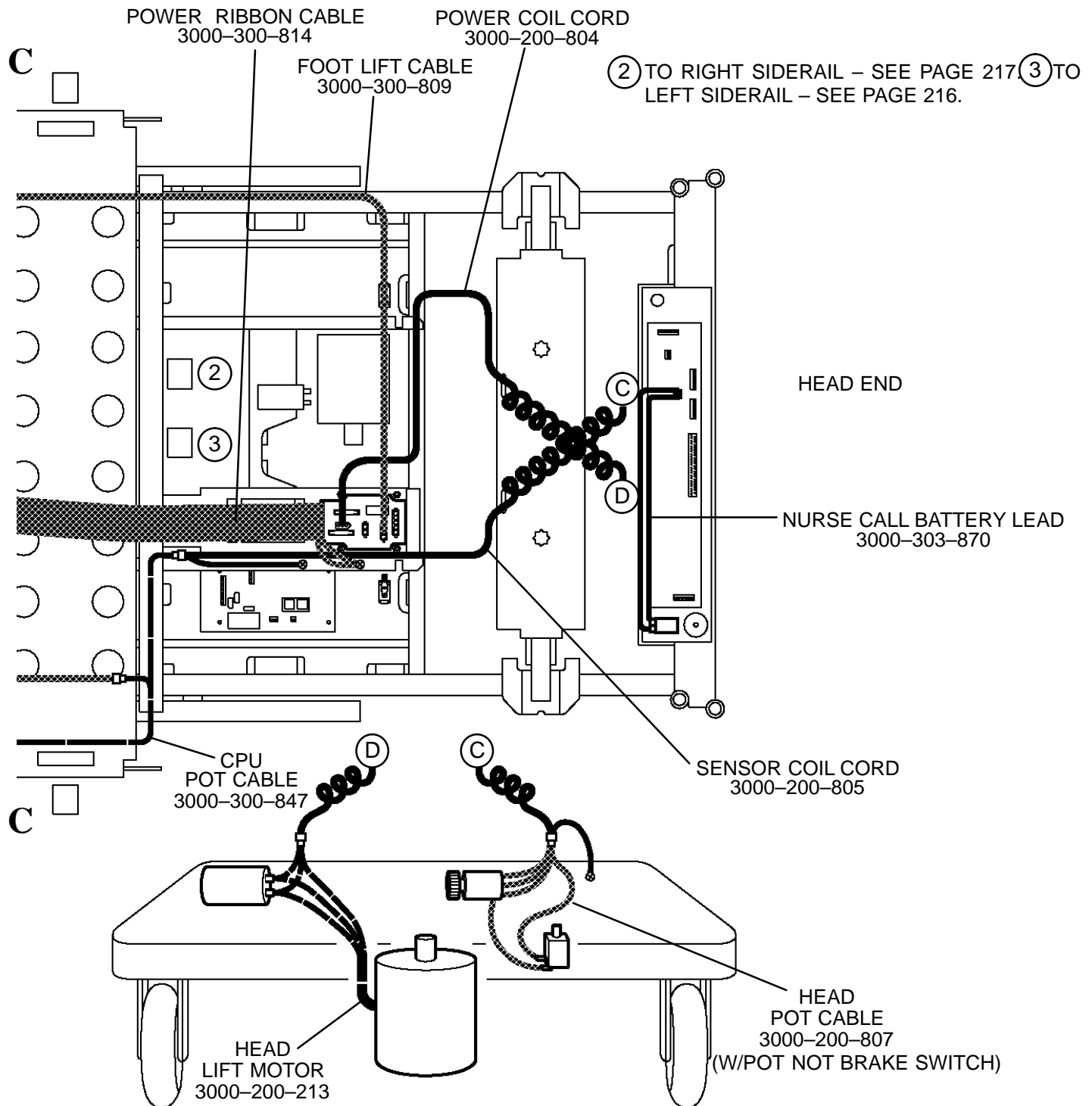
① TO FOOT BOARD – SEE PAGE 218.

NOTE

Change in cable shading or pattern designates a different cable part number.

B.2 WIRING DIAGRAMS (CONTINUED)

BED WIRING DIAGRAMS (CONTINUED)

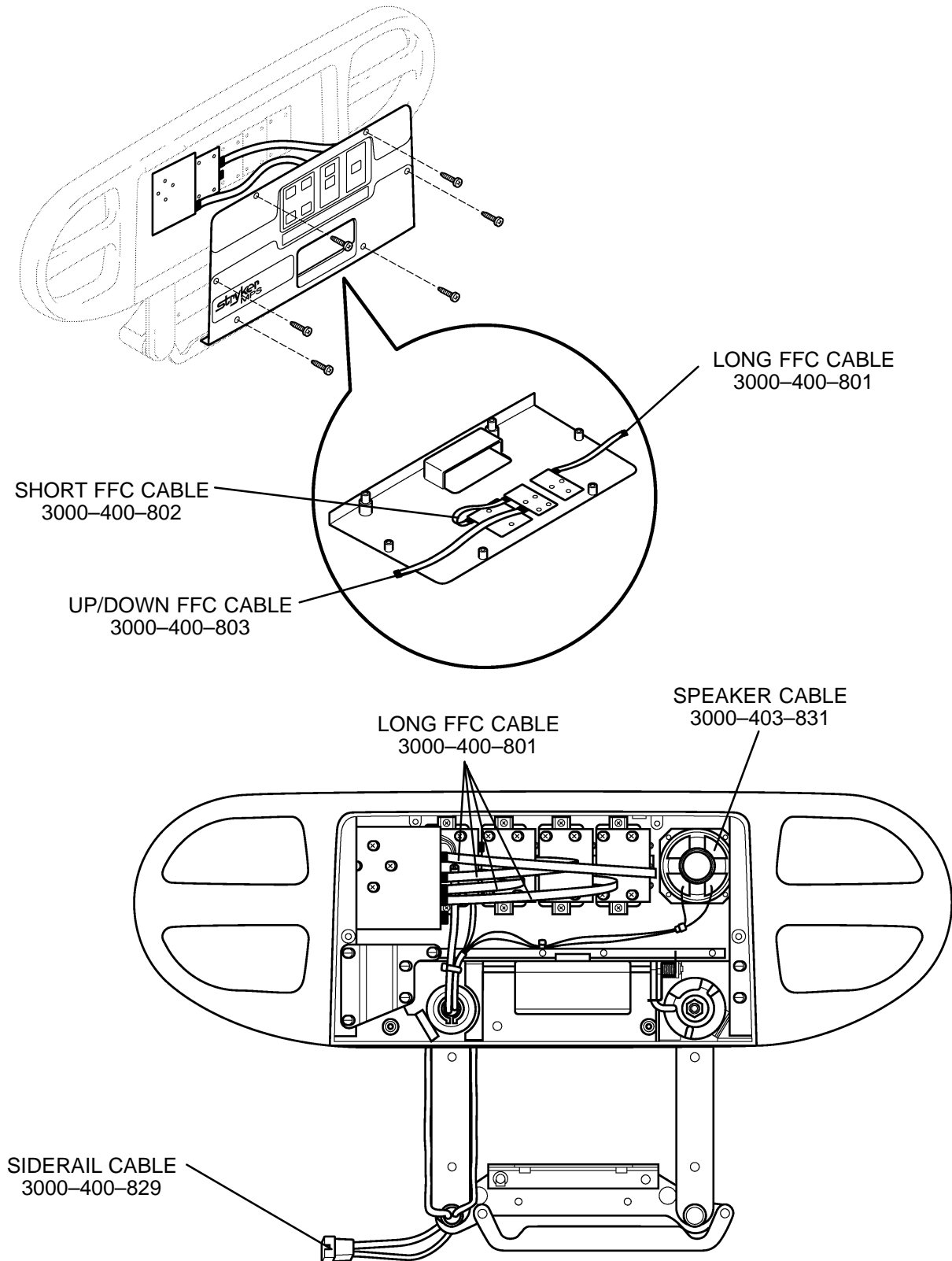


NOTE

Change in cable shading or pattern designates a different cable part number.

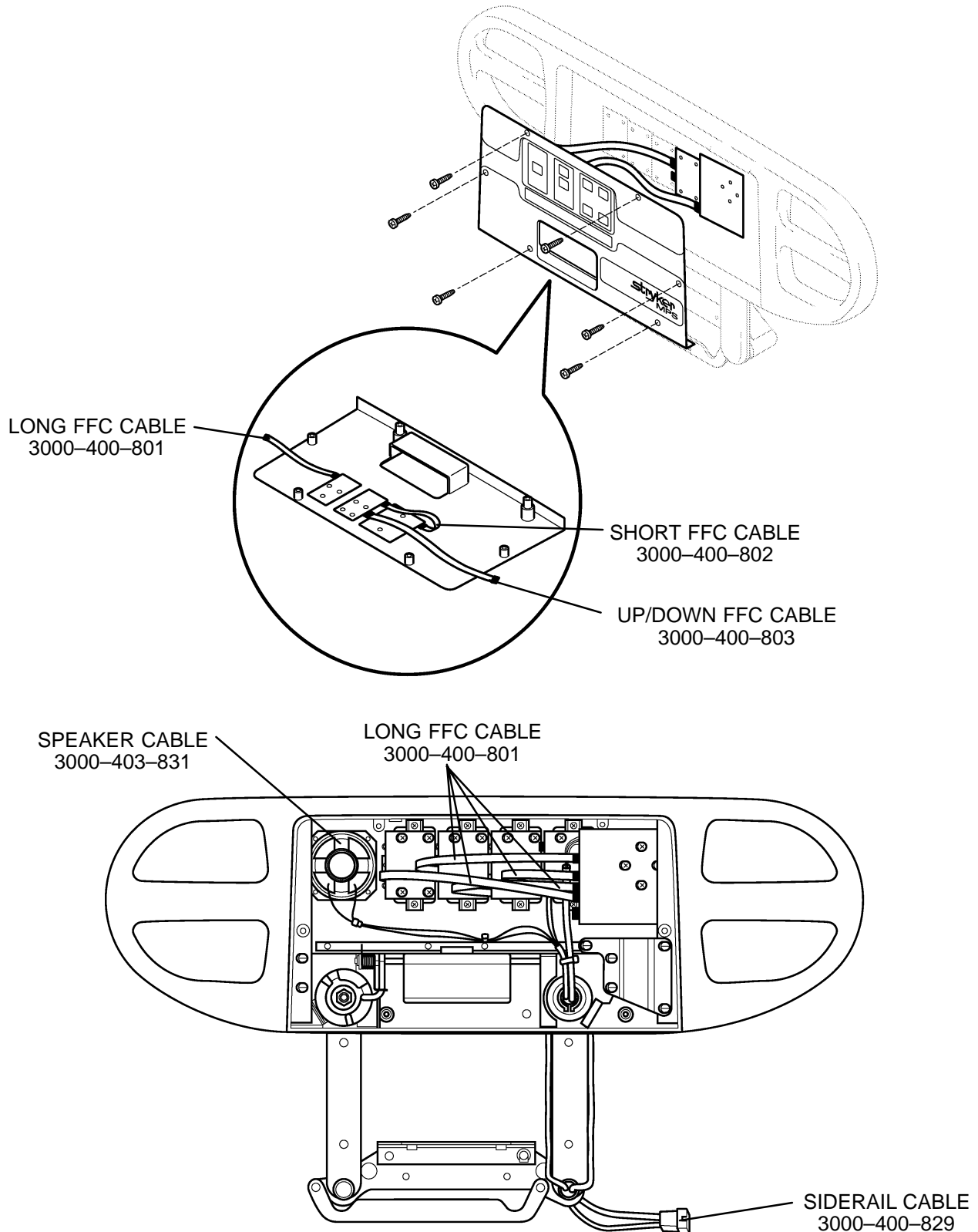
B.2 WIRING DIAGRAMS (CONTINUED)

LEFT SIDERAIL WIRING DIAGRAMS



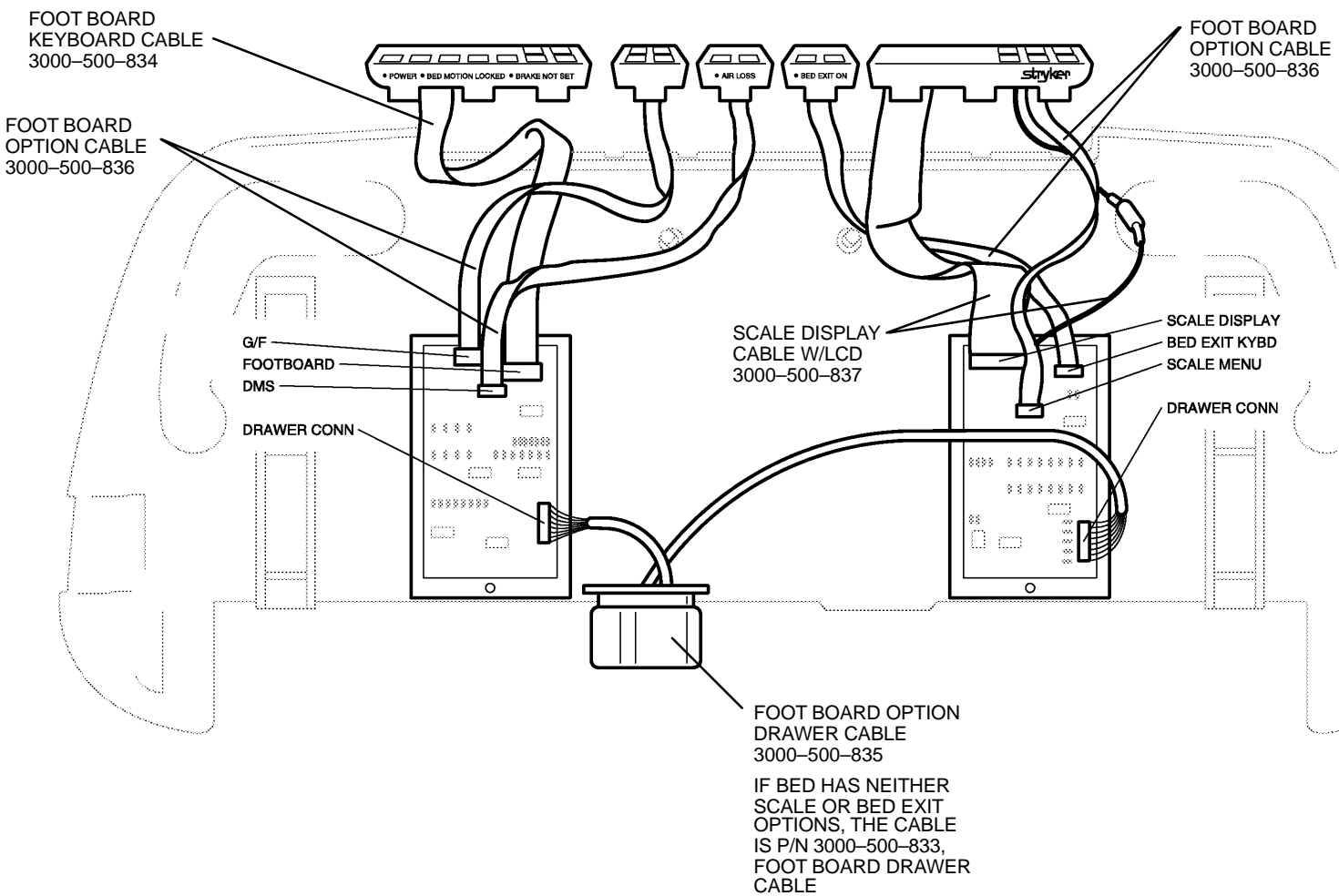
B.2 WIRING DIAGRAMS (CONTINUED)

RIGHT SIDERAIL WIRING DIAGRAMS



B.2 WIRING DIAGRAMS (CONTINUED)

FOOT BOARD WIRING DIAGRAM



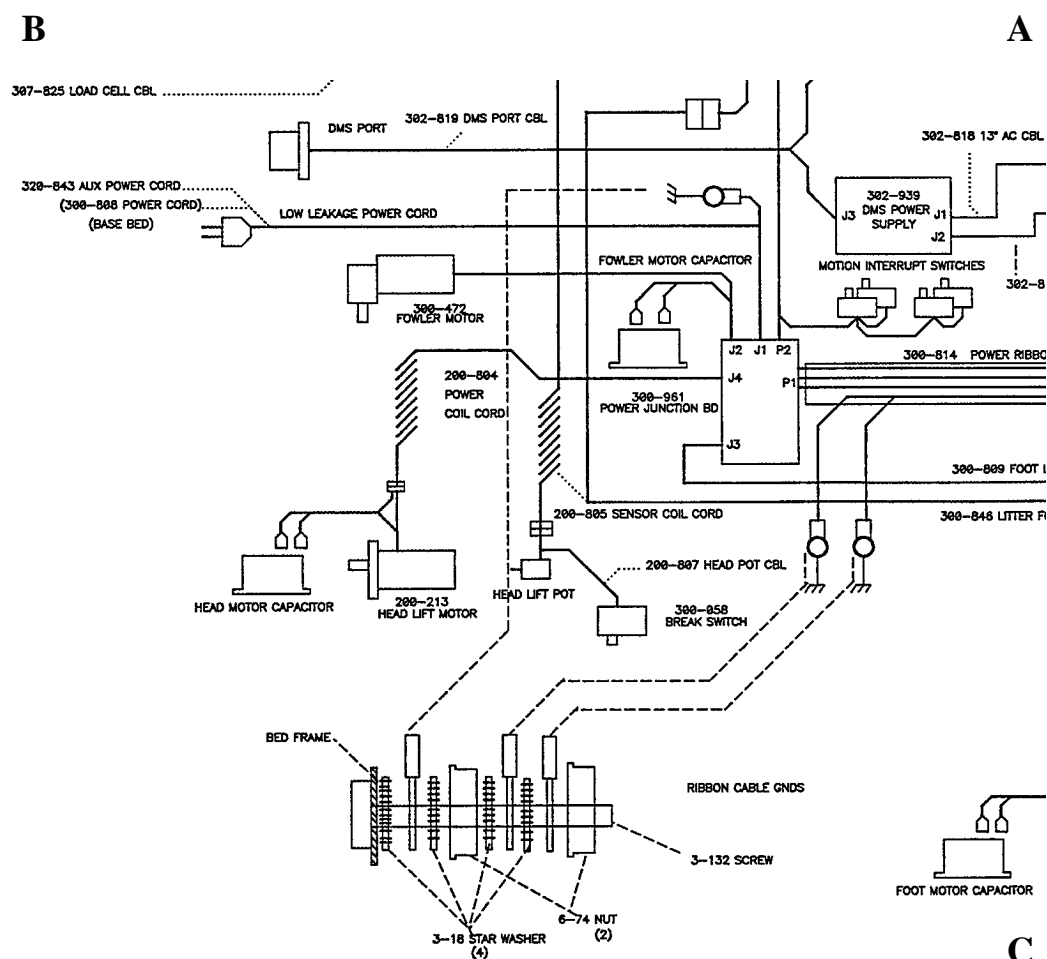
B.2 WIRING DIAGRAMS (CONTINUED)

BED WIRING BLOCK DIAGRAM – FULLY LOADED BED

The following four pages contain the bed wiring block diagram. For a representation of the entire bed, remove the pages from the book and match up A to A, B to B, etc.

B.2 WIRING DIAGRAMS (CONTINUED)

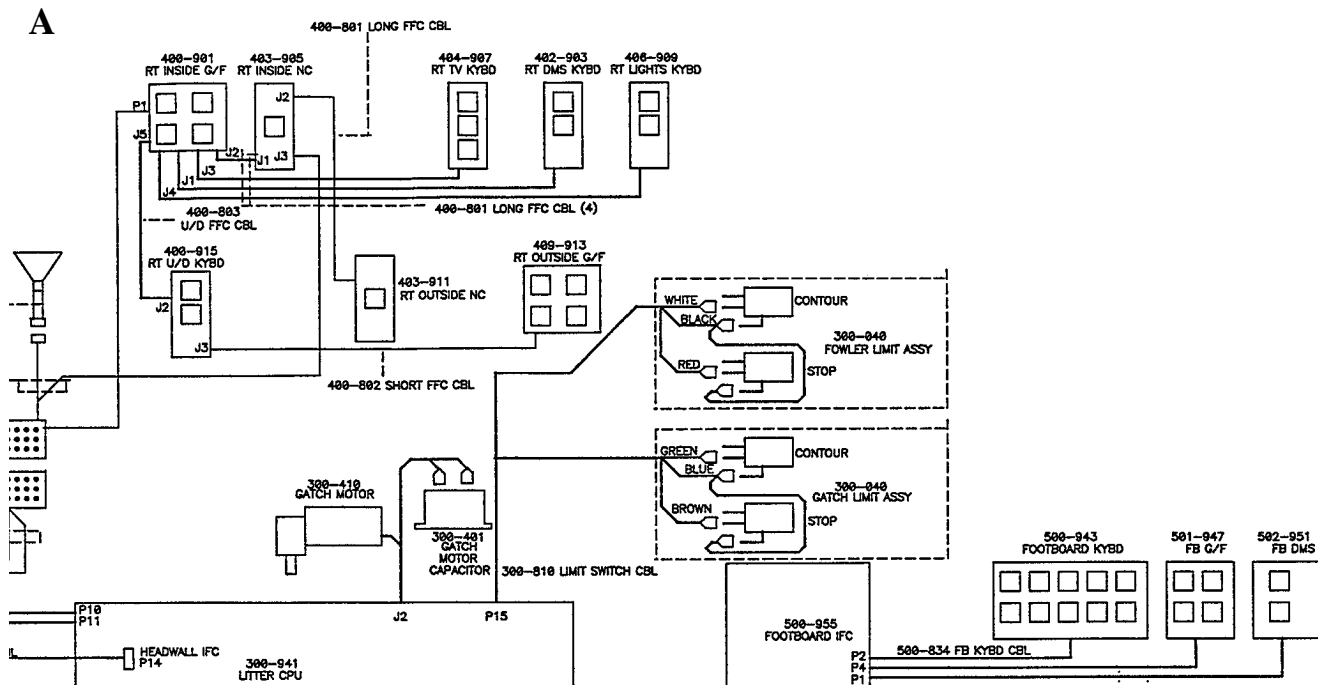
BED WIRING BLOCK DIAGRAM – FULLY LOADED BED (CONTINUED)



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B.2 WIRING DIAGRAMS (CONTINUED)

BED WIRING BLOCK DIAGRAM – FULLY LOADED BED (CONTINUED)



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Appendix B – Circuit Board Locations, Bed Wiring Diagrams

B.3 VOLTAGE CHARTS

BASE			
Component P/N	Voltage	Point of Measurement (+Meter Lead)	Reference Point (– Meter Lead)
Head/Foot Lift Motor p/n 3000–200–213	110 VAC	Motor Hot (black/red) wire	Neutral (white) Line
Head/Foot Capacitor p/n 3000–300–243	110 VAC	Capacitor (black/red) wire	Neutral (white) Line (Lift Motor neutral)
Head/Foot Lift Pots p/n 3000–200–806/807	+5 VDC	Potentiometer (terminal 3)	Potentiometer (terminal 1)
Brake Switch p/n 3000–300–58	+5 VDC	Brake Switch	Digital Ground (Negative lead of C18 on litter CPU board)

LITTER			
Component P/N	Voltage	Point of Measurement (+Meter Lead)	Reference Point (– Meter Lead)
DMS Port p/n 3000–302–819	+24 VDC	Pins 1,6,7 (tied in parallel)	Pins 3,8,12 (tied in parallel)
DMS Power Supply p/n 3000– 302–939	+24 VDC	J3, pin 2	J3, pin 1
DMS Power Supply p/n 3000– 302–939	110 VAC	J1, pin 2	J1, pin 1
DMS Power Supply p/n 3000– 302–939	110 VAC	J2, pin 2	J1, pin 1
Scale Power Supply p/n 3000–307–953	110 VAC	J2, pin 2	J2, pin 1
Scale Power Supply p/n 3000–307–953	110 VAC	J1, pin 2	J1, pin 1
Scale Power Supply p/n 3000–307–953	+12 VDC	P1, pin 1	P1, pin 2
Serial IFC p/n 3000–300–965	+12 VDC	P3, pin 1	P3, pin 2
Serial IFC p/n 3000–300–965	+12 VDC	P4, pin 1	P4, pin 4
Serial IFC p/n 3000–300–965	+12 VDC	P1, pin 7	P1, pin 6
Serial IFC p/n 3000–300–965	+12 VDC	P2, pin 7	P2, pin 6
Serial IFC p/n 3000–300–965	+12 VDC	P5, pin 1	P5, pin 4
Litter CPU p/n 3000–300–941	110 VAC	P1, pin 10	P1, pin 1
Litter CPU p/n 3000–300–941	110 VAC	P1, pin 3	P1, pin 2

Appendix B – Circuit Board Locations, Bed Wiring Diagrams

B.3 VOLTAGE CHARTS (CONTINUED)

LITTER (CONTINUED)			
Component P/N	Voltage	Point of Measurement (+Meter Lead)	Reference Point (– Meter Lead)
Litter CPU p/n 3000–300–941	+8 VDC	P12, pin 1	P12, pin 4
Litter CPU p/n 3000–300–941	+5 VDC	P13, pin 7	Digital Ground (negative lead of C18)
Litter CPU p/n 3000–300–941	+12 VDC	P14, pin 5	P14, pin 9
Litter CPU p/n 3000–300–941	+8 VDC +5 VDC	P10, pin 5 P10, pin 10	P10, pin 9 P10, pin 7
Litter CPU p/n 3000–300–941	+8 VDC +5 VDC	P11, pin 5 P11, pin 10	P11, pin 9 P11, pin 7
Litter CPU p/n 3000–300–941	+5 VDC	P15, pin 6	Digital Ground (negative lead of C18)
Litter CPU p/n 3000–300–941	110 VAC	J2, pins 2 & 3 (when Gatch motor is used)	J2, pin 1
Litter CPU p/n 3000–300–941	+8 VDC	P9, pin 5	P9, pin 7
Scale CPU p/n 3000–307–959	+5 VDC	JP1, pin 5	JP1, pin 4
Scale CPU p/n 3000–307–959	+12 VDC	JP1, pin 8	JP1, pin 4
Headwall IFC p/n 3000–303–933	+5 VDC	P5, pin 11	P1, pin 7
Headwall IFC p/n 3000–303–933	+12 VDC	P1, pin 5	P1, pin 7
Power Junction p/n 3000–300–961	+12 VDC (when a motion interrupt switch is pressed)	P2, pin 2	P2, pin1
Power Junction p/n 3000–300–961	110 VAC	P1, pin 1	P1, pin 9
Night Light p/n 3000–310–937	110 VAC	J1, pin 2	J1, pin 1
Night Light p/n 3000–310–937	12 VAC 24 VAC	P1, pin 2 P1, pin 3	P1, pin 1, P1, pin 1
110 VAC Receptacle p/n 3000–320–000	110 VAC	Receptacle	Receptacle, Neutral

B.3 VOLTAGE CHARTS (CONTINUED)

FOOTBOARD			
Component P/N	Voltage	Point of Measurement (+Meter Lead)	Reference Point (– Meter Lead)
Foot Board IFC p/n 3000–500–955	+8 VDC	P3, pin 5	P3, pin 7
Foot Board IFC p/n 3000–500–955	+5 VDC	P1, pin 3	P1, pin 6
Scale/Menu IFC p/n 3000–507–957	+12 VDC	P4, pin 7	P4, pin 6
Scale/Menu IFC p/n 3000–507–957	+5 VDC	P1, pin 10	P1, pin 6
Scale/Menu IFC p/n 3000–507–957	100 VAC (400 Hz)	P3, pin 15	P3, pin 16
Foot Board Keyboard p/n 3000–400–943	+5 VDC	P1, pin 6	Digital Ground (Foot Board IFC, P1, pin 6)
Foot Board Gatch/Fowler p/n 3000–501–947	+5 VDC	P1, pin 1	Digital Ground (Foot Board IFC, P1, pin 6)
Foot Board DMS p/n 3000–502–951	+5 VDC	P1, pin 3	Digital Ground (Foot Board IFC, P1, pin 6)
Scale Keyboard p/n 3000–507–949	+5 VDC	P1, pin 10	Digital Ground (Scale IFC, P1, pin 6)
Bed Exit Keyboard p/n 3000–508–945	+5 VDC	P1, pin 10	Digital Ground (Scale IFC, P1, pin 6)

Appendix B – Circuit Board Locations, Bed Wiring Diagrams

B.3 VOLTAGE CHARTS (CONTINUED)

SIDERAILS			
Component P/N	Voltage	Point of Measurement (+Meter Lead)	Reference Point (– Meter Lead)
Inside Gatch/Fowler p/n 3000–400–917 p/n 3000–400–901	+8 VDC +5 VDC	P1, pin 5 P1, pin 10	P1, pin 7 P1, pin 7
Outside Gatch/Fowler p/n 3000–409–931 p/n 3000–409–913	+5 VDC	J1, pin 1	Digital Ground (Inside Gatch/Fowler, P1, pin 7)
Up/Down p/n 3000–400–929 p/n 3000–400–915	+5 VDC	J2, pin 10	Digital Ground (Inside Gatch/Fowler, P1, pin 7)
Outside Nurse Call p/n 3000–403–927 p/n 3000–403–911	+5 VDC	J1, pin 2	Digital Ground (Inside Gatch/Fowler, P1, pin 7)
Inside Nurse Call p/n 3000–403–921 p/n 3000–403–905	+5 VDC	J1, pin 1	J1, pin 2
TV/Radio p/n 3000–404–923 p/n 3000–404–907	+5 VDC	J1, pin 1	Digital Ground (Inside Gatch/Fowler, P1, pin 7)
Room/Read Lights p/n 3000–406–925 p/n 3000–406–909	+5 VDC	J1, pin 1	Digital Ground (Inside Gatch/Fowler, P1, pin 7)
Integrated DMS p/n 3000–402–919 p/n 3000–402–903	+5 VDC	J1, pin 1	Digital Ground (Inside Gatch/Fowler, P1, pin 7)



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