

Cub™
GENERAL PEDIATRIC CARE STRETCHER
Model FL19F / FL19H
Product number for the United States: 0190



Technical Assistance and Parts

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Manufactured by Stryker Bertec Medical Inc

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TABLE OF CONTENTS

1. INTRODUCTION.....	4
1.1 Specifications	4
1.2 Technical Support.....	5
1.3 Warning / Caution / Note Definition.....	5
1.4 Safety Precautions	5
1.5 Warranty.....	7
Limited Warranty	7
To Obtain Service and/or Parts.....	7
Return Authorization.....	7
Damaged Merchandise	7
1.6 Symbols	7
1.7 Set-Up Procedures	8
1.8 Cleaning and Preventative Maintenance	10
1.9 Stretcher Illustration.....	12
2. STRETCHER OPERATION	13
2.1 Operating Base Controls	13
2.2 Applying the Brakes.....	14
Hydraulic Model.....	14
Fixed Height Model.....	14
2.3 Operating Directional 5th Wheel (Optional).....	14
2.4 Raising and Lowering Litter Height (Optional).....	15
2.5 Trendelenburg / Reverse Trendelenburg (Optional).....	15
2.6 Operating Fowler and Foot Sections.....	16
Manual Fowler Positioning.....	16
Pneumatic Fowler Positioning (Optional)	16
Foot Section Positioning	16
2.7 Operating Rails.....	17
2.8 Operating Access Doors (Optional)	17
2.9 Operating the Scale (Optional)	18
Scale Control Panel	18
Scale Operation.....	19
Preparing (Zeroing) the Scale for a New Patient	19
Storing in Memory a Weight Reading.....	19
Recalling on Display the Weight Stored in Memory.....	19
Zeroing the Weight Displayed and Stored in Memory	19
Zeroing the Memory.....	19
Adding or Removing Equipment with a Patient in the Stretcher	20
Changing the Unit of Measurement	20
Battery Replacement.....	20
2.10 Standard Accessory Bracket Usage	21
2.11 Premium Accessory Bracket Usage (Optional)	21
2.12 Oxygen Bottle Clamp Usage (Optional)	22
2.13 Operating the IV Caddy (Optional).....	22
2.14 Operating the Two-Stage Fixed IV Pole (Optional)	23
2.15 Operating the Three-Stage Fixed IV Pole (Optional).....	24
2.16 Chart Holder Usage (Optional)	25
3. ACCESSORIES	25

1. INTRODUCTION

This manual is designed to assist you with the operation of the CUB pediatric stretcher. It is extremely important for the patient's safety to read and understand all information in this manual before operating the stretcher. The manual must be available at all times to hospital staff for reference.

This Operations Manual is an integral part of the stretcher and should be included if the unit is sold or transferred.

1.1 SPECIFICATIONS *

Safe Working Load (Hydraulic Base)	100 lb (45 kg)
Maximum Static Weight Capacity	400 lb (181 kg)
Scale (Optional)	
- Capacity	Patients weighing 4 lb (1.8 kg) to 120 lb (54.4 kg)
- Precision	± 0.5 lb (0.2 kg)
- Power System	Battery operated - 4 x "C" Type, Alkaline, 1.5Vdc
- Electrical Rating **	6 Vdc, 0.15 A
- Environmental Conditions	
- Transport and Storage	
- Ambient Temperature	-30 to 50°C (-22 to 122°F)
- Relative Humidity	0 to 95%
- Atmospheric Pressure	500 to 1060 hPa
- Operating ***	
- Ambient Temperature	15.5 to 29.1°C (60 to 85°F)
- Relative Humidity	0 to 95%
- Atmospheric Pressure	700 to 1060 hPa
Overall Length/Width	
- w/Accessory Brackets	72 3/8" x 37 1/2" (184 cm x 95 cm)
Overall Weight	
- Hydraulic Base (w/o Options)	375 lb (170 kg)
- Fixed Height Base (w/o Options)	310 lb (140.6 kg)
Fowler Articulation Angle	
- Manually Activated	0°, 25°, 40°, 55°
- Pneumatically Assisted	0 to 50°
Height Range (to Litter Top)	
- Low	Hydraulic: 33" (84 cm) / Fixed Base: 33" (84 cm)
- High	Hydraulic: 40" (102 cm) / Fixed Base: 33" (84 cm)
Foot Section Angle	0°, 6°, 12°
Brake System	
- Hydraulic Base	Four Wheel Ring Brake System
- Fixed Height Base	Four Locking Casters
Trendelenburg/Reverse Trendelenburg	+ 9.5° / - 9.5°

* Stryker Bertec provides special attention to product improvement and reserves the right to change specifications without notice.

** Conforming to the following standards: CSA C22.2, No. 60601.1; UL2601-1; IEC/EN 60601-1.

*** Operating environment recommended to ensure the scale precision.

1.2 TECHNICAL SUPPORT

For questions regarding this product, contact the following Technical Service department or your local representative:

In Canada:

Stryker Bertec Medical Inc
1 800 428-5025
E-mail (in Canada): service@bertec.strykercorp.com
70, 5th Avenue, P. O. Box 128
L'Islet (Quebec), G0R 2C0, Canada

In the United States:

Stryker Medical
1 800 327-0770
6300 South Sprinkle Road
Kalamazoo, MI 49001-9799
USA

1.3 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

Notes provide special information to make maintenance easier or important instruction clearer.

1.4 SAFETY PRECAUTIONS

The following is a list of safety precautions that must be observed when operating or servicing the Cub Pediatric Stretcher. They are repeated throughout the manual, where applicable. For the patient's safety, carefully read and strictly follow them before operating or servicing this unit.



WARNING

- Hospital staff should ensure a safe environment to the patient by verifying that the stretcher components (rails, access doors, accessories, etc.) are in good condition and properly secured before placing a patient on the stretcher.
- The scale weighing zone is made up of all the upper part of the stretcher, including the safety end/siderails, the accessory brackets, the drainage bag hooks, and the chart holder (optional) located under the mattress support. Ensure no external object is in contact with the stretcher during a weighing or when zeroing the scale.
- Always apply the brakes when a patient is removed from or placed on the stretcher. Always engage the brakes unless the stretcher is being moved. Push on the stretcher to ensure the brakes are securely locked. Injury could result if a stretcher moves while a patient is placed or removed from the stretcher.
- When brakes are applied on a fixed height stretcher, be sure all four casters are locked to ensure a complete immobilization of the stretcher.
- To reduce risk of injury, ensure the litter is horizontal and in the lowest position with the rails fully raised when moving the pediatric stretcher with a patient on it.
- The rails must always remain in the highest position and the litter in the lowest position unless the patient is being tended. Never leave a patient unattended when the rails are lowered.



- Make sure that proper policies are applied to ensure the patient's safety when an IV pole and/or an oxygen bottle is used. The patient should not be able to reach nor manipulate them.
 - To prevent possible fire hazard when using an oxygen tent on a stretcher equipped with the scale system (optional), **do not** activate the scale. Also ensure that the rails are outside the tent.
 - To avoid injury to the patient and/or the user, ensure the rails are in **their highest position** before lowering the litter or placing it in one of the Trendelenburg positions, and that all equipment and people are removed from the area below and around the litter.
 - To avoid falls and injury, verify the rails and access doors are properly locked into position before leaving a patient unattended or after having moved a rail or an access door.
 - To avoid injury to the patient, ensure the patient's extremities are clear of all moving parts before operating a rail. Always ensure the rail is securely locked after moving it.
 - To avoid falls and injury, ensure that **both** access door open/close indicators (located on both lock release knobs) show green when the door is closed and locked into position.
 - Avoid using an access door or a rail handle as push/pull devices or damage to the unit or injury to the patient and/or user may occur.
 - To avoid injury to the patient and/or user, do not attempt to move the stretcher directly sideways with the steer mode engaged. The fifth steer wheel cannot pivot.
 - To avoid injury to the patient, verify the patient is safely positioned on the litter before lowering the siderail or operating the Fowler or foot section.
 - To avoid injury to the patient when raising or lowering the manual Fowler or the foot section, verify the support arm is securely engaged in the arm stoppers before releasing the Fowler or foot section.
 - When patient is able to climb out the stretcher or reaches the height of 35 in. (90 cm), the stretcher shall no longer be used.
 - Do not place cords, straps or similar items that could become wound around the patient's neck in or near the stretcher.
 - Do not leave objects or toys in the stretcher.
 - Do not use a water mattress with this stretcher.
 - To avoid injury to the patient, any mattress used on this stretcher must be at least 57 1/2" (146.05 cm) long by 29 3/8" (74.6 cm) wide and not less than 3" (7.6 cm) or more than 6" (15.3 cm) thick.
 - To avoid damage to the scale electronic components, do not lean on the accessory bracket housing the scale module.
 - Do not install a two or three stage fixed IV pole at the foot end of a stretcher equipped with the scale.
 - Failure to properly clean the mattress, or dispose of it if defective, may increase the risk of exposure to pathogenic substances and may bring about diseases to the patient and/or the user.
 - Do not use the stretcher if any components are missing or broken. Contact your dealer or Stryker Bertec for replacement parts. Use only replacement parts provided by Stryker Bertec.
 - Maximum static weight capacity = 400 lb (181.4 kg).
-

NOTE

Throughout the manual, the words "right" and "left" refer to the right and left sides of a patient lying face up on the stretcher.

1.5 WARRANTY

LIMITED WARRANTY

All Stryker Bertec products are guaranteed against material or workmanship defects, improper operation of mechanisms, and premature wear of stretcher components under normal use conditions.

For questions regarding the warranty, please contact our Technical Service department (see section 1.2) or your local representative.

TO OBTAIN SERVICE AND/OR PARTS

For an on-site diagnosis of a malfunction by a Stryker Bertec Field Service Representative or to order replacement parts (refer to section 1.5 of the pediatric stretcher Maintenance Manual for the part ordering procedure), contact our Technical Service department (see section 1.2) or your local representative.

RETURN AUTHORIZATION

Merchandise cannot be returned without approval from Stryker Bertec Technical Service department. An authorization number will be provided, which must be clearly printed on the returned merchandise. Stryker Bertec Medical reserves the right to charge shipping and restocking fees on returned items.

DAMAGED MERCHANDISE

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.** Upon prompt notification, Stryker Bertec will file a freight claim with the appropriate carrier for damages incurred. Claims will be limited in amount to the actual replacement cost. In the event that this information is not received by Stryker Bertec within the fifteen (15) day period following the delivery of the merchandise, or the damage was not noted on the delivery notice 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 5 days of invoice.

1.6 SYMBOLS



Warning, refer to accompanying documents



Type BF device

Battery-powered device with internal electrical source

IPX4 Protection from liquid splash



Direct current

1.7 SET-UP PROCEDURES

It is important to check that all the stretcher components operate properly before it is put into service.

NOTE

Some stretchers are equipped with one or both fixed endrails. Since stretchers are shipped with all four rails down, a special document describes the procedure to permanently install a fixed endrail. This document is part of the kit provided for the fixed endrail positioning and is to be found in a plastic envelop on the mattress as well as in annex A of the Cub Maintenance Manual.

Rail Verification (applies to mobile rails, see section 2.7):

- _____ Side/endrail handles operate properly, handle triggers and rotational movement operates smoothly.
- _____ Side/endrails raise and lower smoothly, and lock in the 9", 14" and upper positions when raised or lowered.
- _____ Side/endrails automatically stop at the 9" position when lowered without interruption (handle kept rotated to the left or right while lowering the rail) from upper positions. Rotating the handle to the left or right further lowers the rail from the 9" position to its lowest position under the mattress surface.

NOTE

On some stretchers, the 9" double safety lock may not be present.

Access Door Verification (applies to mobile access doors, see section 2.8)

- _____ Release knobs operate properly.
- _____ Access doors open, close and lock properly.
- _____ Both release knob open/close indicators show green when the door is closed and locked, and yellow when the door is open. Verify that the access doors are properly closed and locked when both open/close indicators show green.

Scale Verification (optional) (section 2.9)

- _____ Press and release the *Weigh/On* key. A weight will appear on the scale display four to ten seconds later. If the stretcher is unstable while the scale tries to weigh, the unstable stretcher icon (see icon and note page 19) will appear on the display. Repeat the current operation once the stretcher is stabilized. Next, press and keep pressed during at least two seconds the *Zero* key. A 0.0 lb/kg weight should appear on the display four to ten seconds later.

NOTE

The scale automatically shuts off after a 30 second period of inactivity, except during the *Change Equipment* procedure where the delay is three minutes. To reactivate the scale, press the *Weigh/On* key.

- _____ The weight reading can be displayed in pounds (lb) or kilograms (kg). Press the *lb / kg* key to switch from a weight reading unit to the other. The *lb / kg* key can be deactivated to prevent inadvertent use of the key. To do so, press and keep pressed for at least two seconds the *lb / kg* and *Memory* keys. Do the same operation to reactivate the *lb / kg* key.
- _____ Place a load whose weight is known on the mattress of the stretcher and press/release the *Weigh/On* key. A weight reading will be displayed four to ten seconds later. Ensure the weight displayed is precise to ± 0.5 lb (0.2kg) of the actual weight of the load.
- _____ The weight reading displayed can be stored. If needed, press/release the *Weigh/On* key. Press and keep pressed the *Memory* key during two seconds. Release the key when "Memory" appears on the screen. The load weight previously read by the scale should now be registered in memory.

- _____ The weight reading stored during the previous step can be erased. If needed, press/release the *Weigh/On* key. Simultaneously press and keep pressed the *Memory* and *Zero* keys during at least two seconds. The value stored is zeroed when the keys are released and 0.0 lb/kg appears on the screen.
- _____ Equipment can be added or removed from the stretcher when the patient is in it. Leave the load on the stretcher and press the *Weigh/On* key. A reading will appear on the display four to ten seconds later. Next, press the *Change Equipment* key; "*Change Equipment*" will appear on the screen four to ten seconds later. Add an extra load on the stretcher and press again the *Change Equipment* key. The weight of the initial load must reappear on the display four to ten seconds later with a precision of ± 0.5 lb (0.2 kg).

Base Control Verification (see section 2.1 to 2.5):

- _____ Optional steer pedal operates properly. Fifth steer wheel operational with steer pedal (green side of the pedal) engaged.
- _____ Optional brake pedal operates properly. All casters lock with brake pedal engaged (red side of the pedal).
- _____ Optional lift pedal operates properly. Litter raises and reaches maximum height (40" - 102 cm) when lift pedal is pumped.
- _____ Trendelenburg positions and litter descent are operational when uni-lower pedal (optional) is depressed using respectively the extremities and its centre.
- _____ All casters secure and swivel properly.
- _____ Fixed height stretcher four casters lock and unlock properly using the brake lever.

Litter Movement Verification (see section 2.6):

- _____ Optional assisted or manual Fowler operates properly.

NOTE

To raise the assisted Fowler, a slight push under the top part of the Fowler is needed to start its rise; to lower it, push down on its top part while lifting the activation lever.

- _____ Foot section support arm operates properly.

Other Equipment:

- _____ Ground chain secured to base.
- _____ Accessory brackets secure.
- _____ Optional IV Caddy arm (see section 2.13) secure and working properly.
- _____ Optional two or three-stage fixed IV pole (see sections 2.14 and 2.15) secured to accessory bracket and is easily stored on the adjacent accessory bracket.
- _____ Optional oxygen bottle clamp (see section 2.12) secured to hood.
- _____ Optional chart holder (see section 2.16) located under the mattress support secured to frame.

If any problems are found during bed set-up, contact the Technical Service department (see section 1.2).

1.8 CLEANING AND PREVENTATIVE MAINTENANCE

STRETCHER CLEANING AND MATTRESS CARE



CAUTION

Do not use harsh cleaners, solvents or detergents. Do not steam clean, hose off or ultrasonically clean the stretcher.

Germicidal disinfectants, used as directed, and/or chlorine bleach products are not considered mild detergents. These products are corrosive in nature and may cause damage to your stretcher if used improperly. If these types of products are used, ensure the stretchers are rinsed with clean water and thoroughly dried following cleaning. Failure to properly rinse and dry the stretchers will leave a corrosive residue on the surface of the stretcher, possibly causing premature corrosion of critical components. Failure to follow the above directions when using these types of cleaners may void this product warranty.

Stretcher Cleaning

Hand wash all surfaces of the stretcher with a soft cloth moistened with a solution of lukewarm water and a mild detergent.

Wipe the stretcher clean and dry thoroughly to avoid build up of cleaning solution.

Mattress Care



WARNING

Inspect the mattress after each use. Discontinue use if any cracks or rips are found in the mattress cover which may allow fluid to enter the mattress. Failure to properly clean the mattress, or dispose of it if defective, may increase the risk of exposure to pathogenic substances and may bring about diseases to the patient and/or user.

- **Inspection**

Implement local policies to address regular care, maintenance, and cleaning of mattress and cover. The cover cleaning procedure can be found below and/or on the mattress label.

Inspect mattress cover surface (also zip fasteners and cover inner surface if mattresses have zip fasteners) regularly for signs of damage. If the mattress cover is heavily stained or soiled, or is torn, remove the mattress from service.

- **Cleaning**

Stains: Wash with lukewarm water using a mild detergent. Rinse with water and let dry. For tough stains, use chlorine bleach diluted with ten parts of water.

PREVENTATIVE MAINTENANCE PROGRAM

This preventative maintenance program should be performed at least **twice** a year.

- ___ All fasteners secure.
- ___ All plastic covers (including the base hood) intact. Replace if broken. Patient's safety could be at stake if any plastic cover is cracked, as sharp edges may be present.
- ___ Lubricate where required (see Maintenance Manual, figure 2.2, page 12).
- ___ Calibrate the scale (optional) **once a year**. See section 3.7 of the Maintenance Manual, "Scale Calibration".
- ___ Review, **semi annually**, each function of the scale (optional). Refer to the verification of the scale in the Set-Up Procedure section (page 8). Should the weight reading precision be out of the acceptable range, i.e. ± 0.5 lb (0.2 kg) for weights between 4 to 120 lb, do not wait for the next annual scale calibration scheduled; proceed immediately to its calibration (see section 3.7 of the Maintenance Manual, "Scale Calibration").
- ___ Side/endrail handles trigger and rotating movement operates properly.
- ___ Side/endrails raise and lower smoothly, and lock in the 9", 14" and upper positions. If a siderail moves with difficulty, remove the brake shoe cover and adjust the position of the stop catches. Refer to step 11 of the "Central Column Assembly" replacement procedure, page 34 of the Cub Maintenance Manual.
- ___ Side/endrails automatically stop at the 9" position when lowered without interruption (handle kept rotated to the left or right while lowering the rail) from upper positions. Rotating the handle to the left or right further lowers the rail from the 9" position to its lowest position under the mattress surface.

NOTE

On some stretchers, the 9" double safety lock may not be present.

- ___ Optional access doors open, close and lock properly. Release knobs operate properly.
- ___ Check the optional access door open/close color indicators for proper operation. Green should appear when the door is closed and locked, and yellow when the door is open. Verify the access doors are closed and locked when both open/close indicators show green.
- ___ Optional assisted or manual Fowler operates properly.
- ___ Foot section support arm operates properly.
- ___ Optional brake pedal operates properly. All casters lock with the brake pedal engaged.
- ___ Optional steer pedal operates properly. Fifth steer wheel operational with the steer pedal engaged.
- ___ Optional lift pedal operates properly. Litter raises when the pedal is pumped.
- ___ Optional uni-lower pedal operates properly. Trendelenburg positions and litter descent are operational when uni-lower pedal is depressed.
- ___ All casters secure and swivel properly. Ground chain secured to frame and intact.
- ___ Fixed height stretcher four casters lock and unlock properly using the brake lever.
- ___ No oil leak on optional hydraulic jacks.
- ___ Optional hydraulic jacks holding properly.
- ___ Optional hydraulic jack oil level sufficient (see Maintenance Manual, section 3.2).
- ___ No rips or cracks in the mattress cover.
- ___ Optional retracting protective top secure and working properly.
- ___ Optional IV Caddy secure and working properly.
- ___ Standard or optional premium accessory brackets secure.

1.9 STRETCHER ILLUSTRATION

NOTE

The stretcher illustrated below is equipped with the following options: hydraulic base, fifth steer wheel, mobile side/endrails and access doors, and scale.

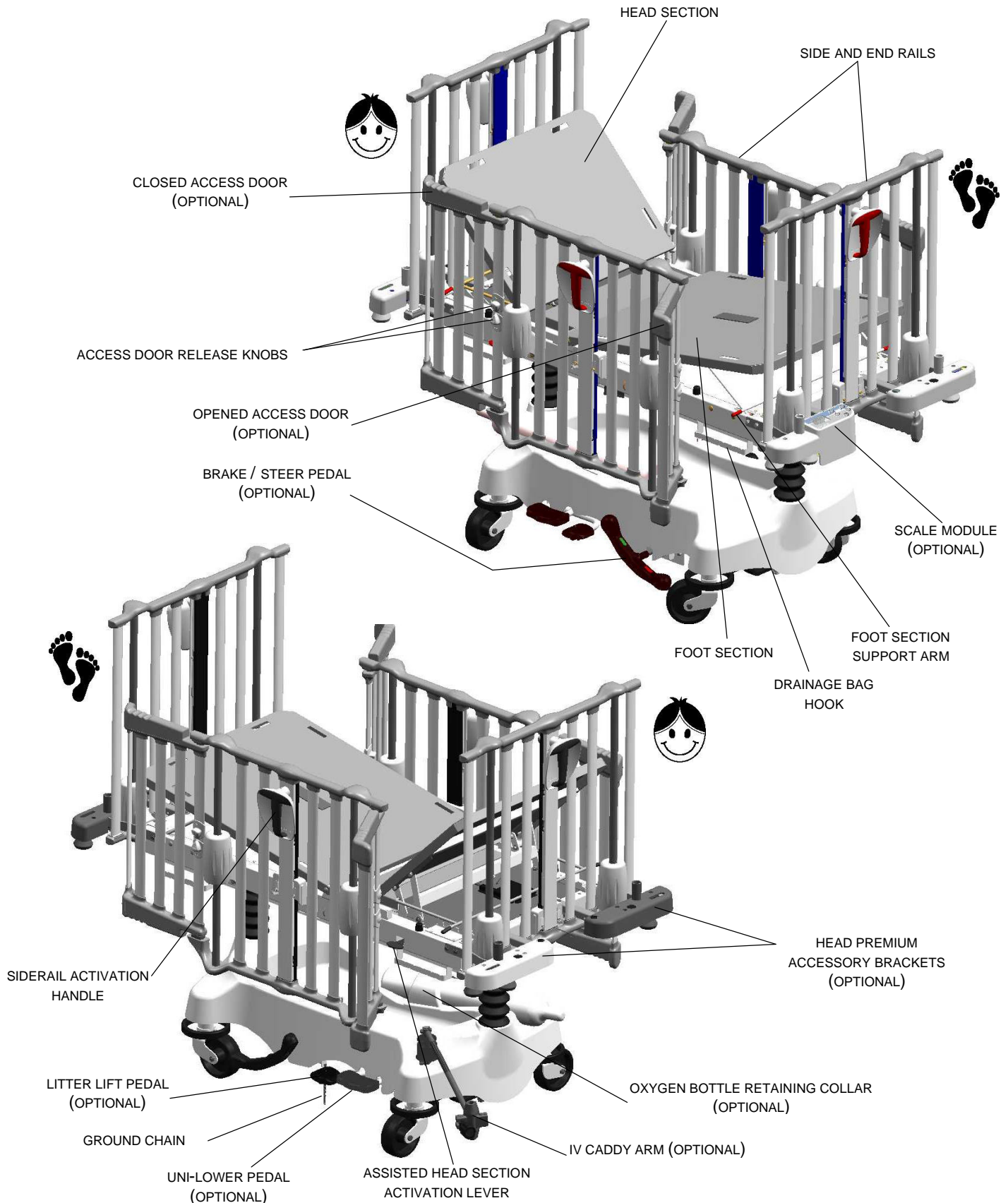


Figure 1.9

2. STRETCHER OPERATION

2.1 OPERATING BASE CONTROLS

Two types of base are available: the fixed height base and the hydraulic base. The configuration schematically illustrated below has the hydraulic base and fifth steer wheel options.

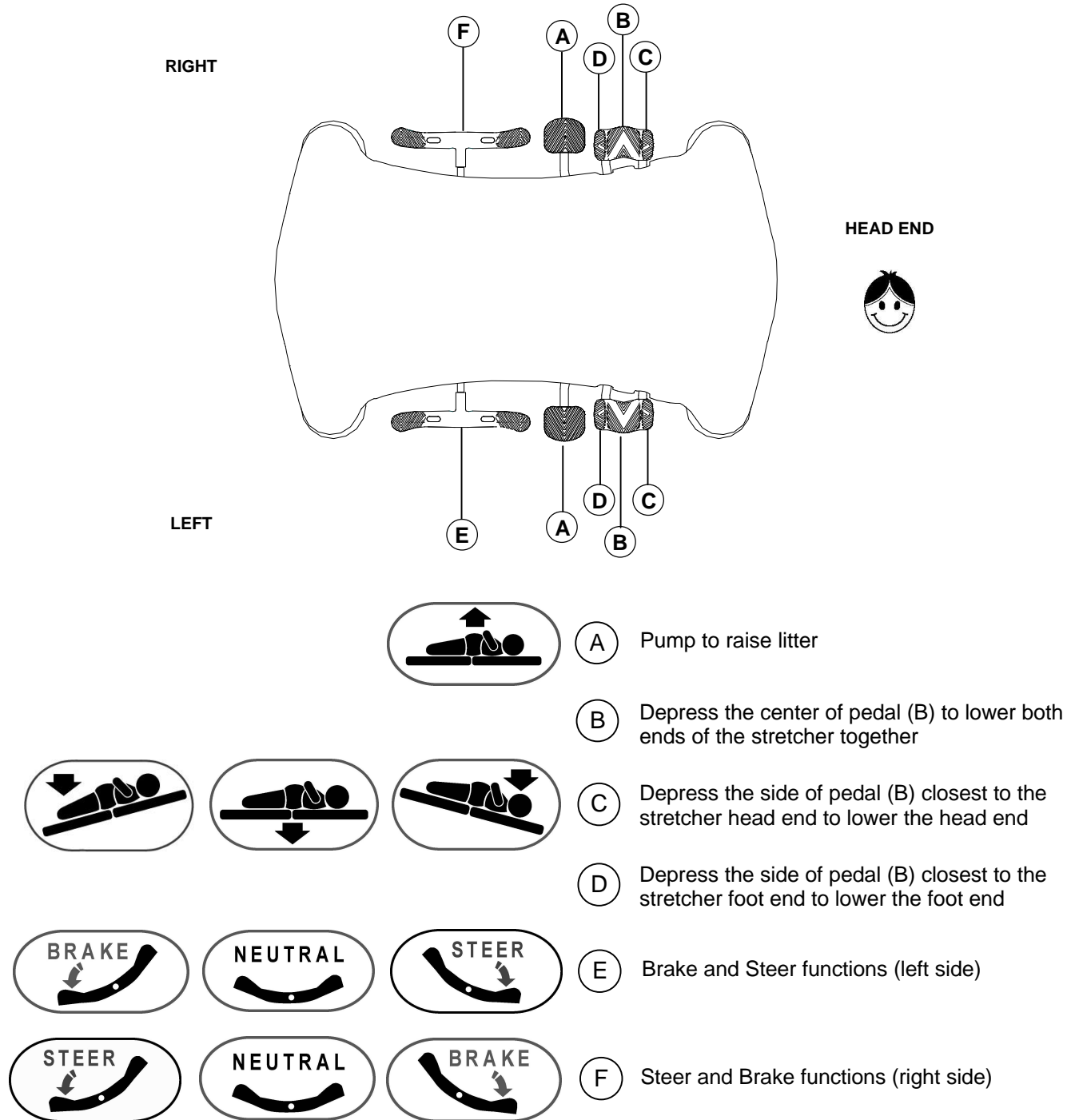


Figure 2.1

2.2 APPLYING THE BRAKES



WARNING

Always apply the brakes when a patient is removed from or placed on the stretcher. Always engage the brakes unless the stretcher is being moved. Push on the stretcher to ensure the brakes are securely locked. Serious injury could result if a stretcher moves while a patient is placed or removed from the stretcher. If brakes do not hold properly, refer to your stretcher maintenance manual for the brake adjustment procedure.

NOTE

To each of the two types of stretcher base available corresponds a different brake system: a pedal operated four-wheel brake system for the optional hydraulic base and four separate locking casters for the fixed height base.

HYDRAULIC BASE

- To **engage** the brakes at the left side of the stretcher, push fully down on the left side of the pedal (E, page 13).
- To **engage** the brakes at the right side of the stretcher, push fully down on the right side of the pedal (F, page 13).
- To **disengage** the brakes at either side of the stretcher, move the pedal to neutral position.

FIXED HEIGHT BASE



WARNING

When brakes are applied, ensure all four casters are locked to ensure complete stabilization of the stretcher.

- To **engage** the caster brakes, press fully down on all four caster brake levers (A).
- To **disengage** the caster brake, depress the opposite side of the brake lever with your foot or lift up with your toe under the brake lever.

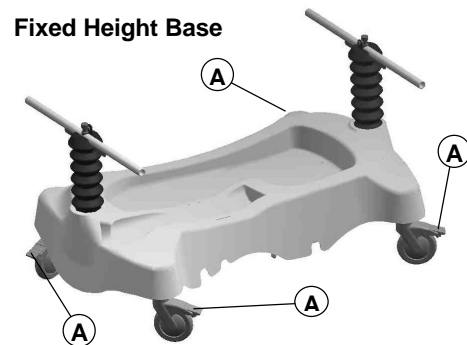


Figure 2.2

2.3 OPERATING DIRECTIONAL 5TH WHEEL (OPTIONAL)



WARNING

To reduce risk of injury, ensure the litter is horizontal and in the lowest position with the rails fully raised when moving the pediatric stretcher with a patient in it. To avoid injury to the patient and/or user, or damage to the stretcher, do not attempt to move the stretcher directly sideways with the steer mode engaged. The fifth steer wheel cannot pivot.

The purpose of the steer mode (5th steer wheel) is to help guide the stretcher when transporting a patient along a straight line and also for pivoting at corners.

- To **engage** the steer mode at the left side of the stretcher, push fully down on the right side of the pedal (E, page 13).
- To **engage** the steer mode at the right side of the stretcher, push fully down on the left side of the pedal (F, page 13).
- To **disengage** the steer mode at either side of the stretcher, move pedal to neutral position.

NOTE

Positioning the pedal in neutral enables the stretcher to be moved in any directions, including sideways.

2.4 RAISING AND LOWERING LITTER HEIGHT (OPTIONAL)

**WARNING**

To avoid injury to the patient and/or the user, ensure the rails are in **their highest position** before lowering the litter or placing it in one of the Trendelenburg positions, and that all equipment and people are removed from the area below and around the litter.

Be sure to move any equipment that may be in the way before raising or lowering the litter.

- To **raise** the litter height, pump pedal (A, page 13) repeatedly until the desired height is achieved.
- To **lower** both ends of the litter together, depress the center of pedal (B, see page 13) until the desired height is achieved. To lower only the head end of the litter, depress the side of pedal (B, page 13) closest to the head end. To lower only the foot end of the litter, depress the side of pedal (B, page 13) closest to the foot end.

2.5 TRENDELENBURG / REVERSE TRENDELENBURG (OPTIONAL)

NOTE

The litter height must be raised first in order to achieve a Trendelenburg position.

**WARNING**

To avoid injury to the patient and/or the user, ensure the rails are in **their highest position** before lowering the litter or placing it in one of the Trendelenburg positions, and that all equipment and people are removed from the area below and around the litter.

- For **Trendelenburg** positioning (head down), depress the side of pedal (B, page 13) closest to the stretcher head end.
- For **Reverse Trendelenburg** positioning (foot down), depress the side of pedal (B, page 13) closest to the stretcher foot end.

NOTE

The higher the litter is before a Trendelenburg positioning, the greater the Trendelenburg angle will be. (Maximum Trendelenburg angles: +9.5° to -9.5°).

2.6 OPERATING FOWLER AND FOOT SECTIONS

NOTE

Two types of Fowler are available: manually operated and pneumatically assisted. The foot section is manually operated.



WARNING

To avoid injury, verify the patient is safely positioned on the litter before lowering the siderail and operating the Fowler or foot section.

To avoid injury when raising or lowering the manual Fowler or the foot section, verify the support arm is securely engaged in the arm supports before releasing the Fowler or foot section.

MANUAL FOWLER POSITIONING

- To **raise** the Fowler, manually lift it up. As the Fowler is raised, the support arm (A) will fall into position and engage the support brackets into one of the three available angular positions: 25°, 40° and 55°.
- To **adjust** the Fowler angle, lift it up slightly with one hand and with the other, lift one of the support arm handles (A) to disengage it from the support brackets. Engage the support arm at the desired position. To flatten the Fowler, hold the handle while lowering the Fowler to flat and release the support.

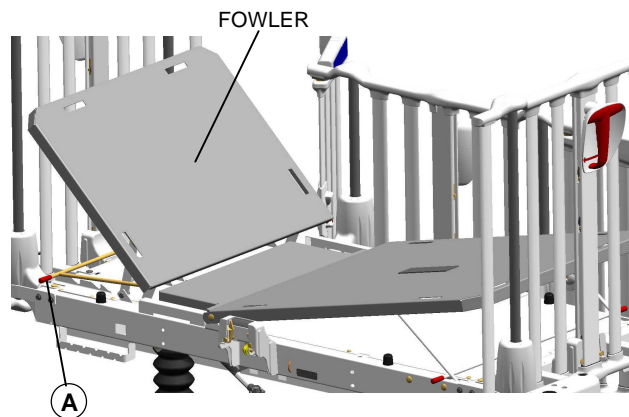


Figure 2.6A

PNEUMATIC FOWLER POSITIONING

- To **raise** the Fowler, lift up the right or left activation lever (B) while exerting momentarily a slight push under the right or left top corner of the Fowler to trigger its assisted rise. Release the lever once the desired height is achieved.
- To **lower** the Fowler, push down the upper part of the Fowler while lifting up the right or left activation lever (B). Release the lever once the desired height is achieved.

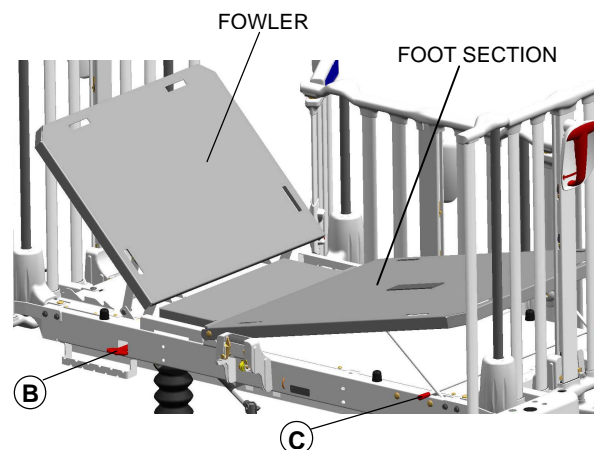


Figure 2.6B

FOOT SECTION POSITIONING

- To **raise** the foot section, lift it up manually. As the foot section is raised, the support arm will fall into position and engage the support brackets into one of the two available angular positions: 6° and 12°.
- To **lower** the foot section to the next position or to flat, lift it up with one hand and with the other lift one of the support arm handles (C) to disengage it from the support brackets. Lower the foot section and release the support so that it engages in the support brackets of the next position or lower to flat, releasing the support only at the end.

2.7 OPERATING RAILS



WARNING

To avoid injury, ensure the patient's extremities are clear of all moving parts before operating a rail. Always ensure the rail is securely locked after moving it.

The rails must always remain in the highest position and the litter in the lowest position unless a patient is being tended. Never leave a patient unattended when the rails are lowered.

To avoid falls and injury, verify the rails and access doors are properly locked into position before leaving a patient unattended or after having moved a rail or an access door.

- To **raise** a siderail/endrail, grasp the top bar or the handle (A) and pull the rail up to the desired height. No turning of the handle to any side is necessary. The rail will lock into one of the three available positions: 9", 14" and 26". A "click" will be heard as available locking positions are crossed.

NOTE

To ensure the rails are safely locked into position, verify that the arrow pointers (B) are aligned.

- To **lower** a siderail/endrail, grasp the handle (A). Activate the trigger, turn handle to the left or right and guide the rail down to the desired height. Return the handle back to vertical to lock the rail into desired position.

NOTE

For safety reasons, side/endrails automatically stop and lock at the 9" position, even if the handle is kept turned during the rail descent.

On some stretchers, the double safety lock at 9" may not be present.

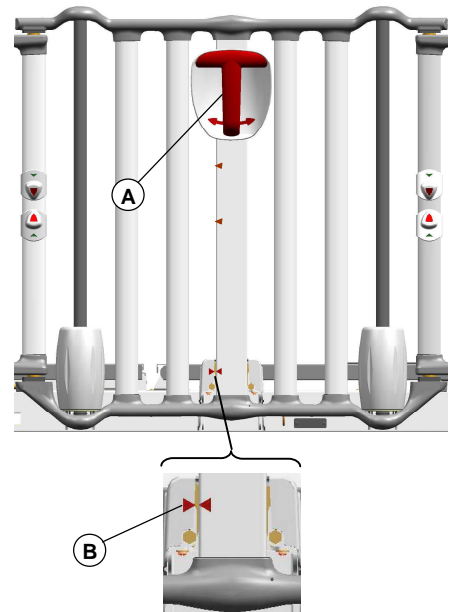


Figure 2.7

2.8 OPERATING ACCESS DOORS (OPTIONAL)



WARNING

To avoid falls and injury, ensure the access door open/close indicators (located on both release knobs) show green when the door is closed and locked into position.

- To **open** an access door, squeeze the two release knobs (A) located on each access door pivot bar and open the access door. The open/close indicators (B) will show yellow.
- To **close** an access door, return it back to the closed position and it will automatically lock. The open/close indicators (B) will show green. If one of them remains yellow, it means that the door is not completely closed; open and close the door again.

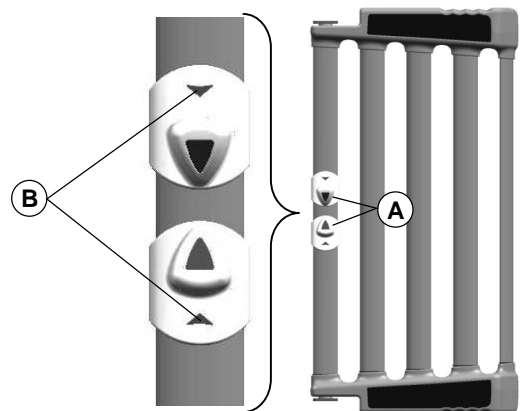


Figure 2.8

2.9 OPERATING THE SCALE (OPTIONAL)

The Cub scale system allows the reading of a patient's weight in pounds (lb) or kilograms (kg) with a ± 0.5 lb (0.22 kg) precision. The reading can be stored in memory. The system also allows to add or remove a device or accessory from the stretcher without removing the patient.

SCALE CONTROL PANEL



CAUTION

To avoid damage to the scale electronic components, do not lean on the accessory bracket housing the scale module.

Do not use a two or three stage fixed IV pole at the foot end of a stretcher equipped with the scale.

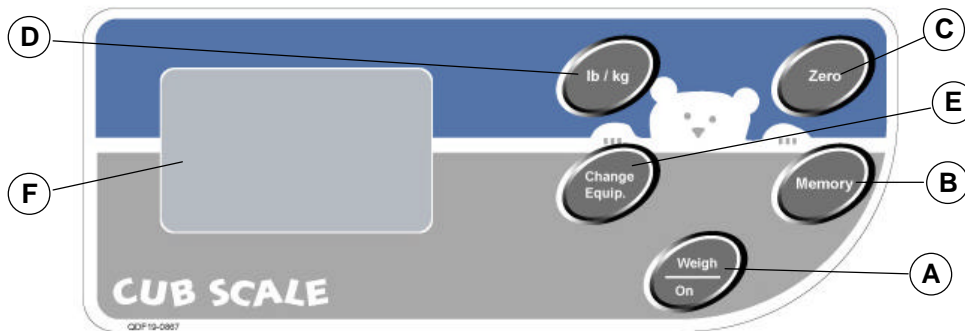



Figure 2.9

A: Weigh/On: Activates the scale. A weighing is performed when this key is pressed and released. A weight will be displayed on the display four to ten seconds later. However, no weight is displayed if the Error -Ex.x or the movement () icon appears on display. The error will have to be corrected (see section 3.7 of the Maintenance Manual) or the stretcher stabilized before using again the scale.

NOTE

The scale of the Cub does not work in continuous mode. It must be activated using the *Weigh/On* key each time a reading of the patient's weight is required.

B: Memory: Stores the result of the weighing or recalls on display the weight stored.

C: Zero: Zeroes the weight displayed on screen and the weight stored.

D: lb / kg: Changes the unit of measurement (lb or kg).

E: Change Equipment: To remove or add equipment from the stretcher without removing the patient.

F: Scale display

NOTE

The scale will auto shut off after an inactivity period of 30 seconds, except during the Change Equipment operation where three minutes are allowed. Simply press the *Weigh/On* key to reactivate the scale.

If the patient weighs more than 120 lb (54 kg), the "**Error - E05**" message will appear on the display to indicate that the scale should not be used in these conditions, as its maximal weighing capacity is exceeded.


Some other error messages may be displayed while operating the scale. Refer to section 3.7 of the Maintenance Manual to know their signification and what to do when they appear.

SCALE OPERATION

**WARNING**

The scale weighing zone is made up of all the upper part of the stretcher, including the safety end/siderails, the accessory brackets, the drainage bag hooks, and the chart holder (optional) located under the mattress support. Ensure no external object is in contact with the stretcher during a weighing or when zeroing the scale.

NOTE

 The opposite icon may appear at any time when using the scale. It indicates that the scale is unable to take a reading of the patient's weight because the stretcher is unstable. Simply stabilize the stretcher and repeat the current operation.

The **Memory**, **Change Equipment** and **Zero** keys may be used to stop the weight reading process when the operation currently used does not need a weight reading to be displayed.

A. Preparing (Zeroing) the Scale for a New Patient

- Prepare the stretcher for the new patient (sheets, pillows, equipment, etc.).
- Press and release the *Weigh/On* key to activate the scale. A weight reading will appear on the display four to ten seconds later during which a three-hyphen line will flash.
- Press and keep pressed the *Zero* key during at least two seconds. Release the key; the weight displayed and the weight stored will be zeroed four to ten seconds later.
- Install the patient in the stretcher and press/release the *Weigh/On* key. The patient's weight will be displayed four to ten seconds later.

**CAUTION**

To maintain the scale precision, it is recommended to zero the scale at least once a week. Note that the patient must be removed from the stretcher before zeroing the scale.

B. Storing in Memory a Weight Reading

- Press the *Weigh/On* key in order to activate the scale. Wait for the reading to be displayed.
- Press and keep pressed the *Memory* key during two seconds. Release the key when the "Memory" message appears on the display. The weight previously read is now stored.

C. Recalling on Display the Weight Stored in Memory

- Press/release the *Weigh/On* key to activate the scale. Do not wait for the weight to be displayed, proceed immediately with the next step.
- Press the *Memory* key. The value stored will be displayed along with "Memory". To leave the *Memory* mode, press/release again the *Weigh/On* key.

D. Zeroing the Weight Displayed and Stored in Memory

- Press the *Weigh/On* key to activate the scale. Do not wait for the weight to be displayed, proceed immediately with the next step.
- Press and keep pressed the *Zero* key during at least two seconds. Release the key; the weight displayed and the weight stored will be zeroed four to ten seconds later.

E. Zeroing the Memory Only

- Press the *Weigh/On* key to activate the scale. Do not wait for the weight to be displayed, proceed immediately with the next step.
- Simultaneously press and keep pressed the *Memory* and *Zero* keys during at least two seconds. Release the keys. The screen will display 0.0 lb/kg.

F. Adding or Removing Equipment with a Patient in the Stretcher

- Press the *Weigh/On* key to activate the scale. You may proceed immediately with the next step, but if you want to compare the weight reading resulting from the *Change Equipment* procedure with the patient's weight reading before the procedure, let the weigh process display a weight reading and note the weight.
- Press the *Change Equipment* key. The "*Change Equipment*" message will appear on the display four to ten seconds later. **NOTE:** the scale will auto shut off if this step takes more than three minutes. The operation will then have to be started over.
- Add or remove from the stretcher the equipment. Then, press again the *Change Equipment* key. The unchanged patient's weight will reappear on the screen four to ten seconds later.

NOTE

To prevent erroneous weight readings of a patient in the stretcher, the *Change Equipment* mode of the scale **must** be used **every time** an object, whatever the object, is added or removed from the scale weighing zone.

Should an object be prematurely (without using the *Change Equipment* procedure) added or removed from a stretcher occupied by a patient, the scale must imperatively be zeroed (see procedure A on page 19) after removing the patient from the stretcher.

G. Changing the Unit of Measurement

- Press the *Weigh/On* key to activate the scale. A weight reading will appear on the display four to ten seconds later.
- Press the *lb /kg* key to change from pounds (lbs) to kilograms (kg) or conversely.
- The *lb /kg* key can be deactivated to prevent inadvertent use of the key. To do so, press and keep pressed for at least two seconds the *lb /kg* and *Memory* keys. Do the same to reactivate the *lb /kg* key.

BATTERY REPLACEMENT

The electronic system of the scale is powered by four alkaline C type batteries (1.5V). To replace them, proceed as follows:

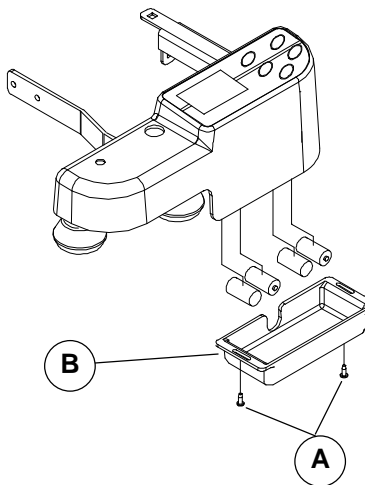



Figure 2.9A

NOTE

 The opposite icon will appear on the display to notify that the batteries must be replaced.

1. Using a Phillips screwdriver, remove the 2 screws (A) holding the cover (B) of the battery enclosure.
2. Remove the four batteries and replace them with four new alkaline C type batteries (1.5V). Make sure the battery polarity is respected when installing them in the enclosure.
3. Replace the cover.
4. Zero the scale (see procedure A, previous page) without a patient in the stretcher before returning it to service.



CAUTION

Use only 1.5 V alkaline batteries. The use of batteries other than the one recommended may damage the scale electronic components.

Remove the batteries if the scale module or the stretcher will not be used for long periods.

2.10 STANDARD ACCESSORY BRACKET USAGE

Standard accessory brackets are installed at the four corners of the stretcher to support an optional vertical oxygen bottle holder, optional removable IV poles and/or an optional retracting protective top. A convenient rubber bumper completes the bracket assembly.

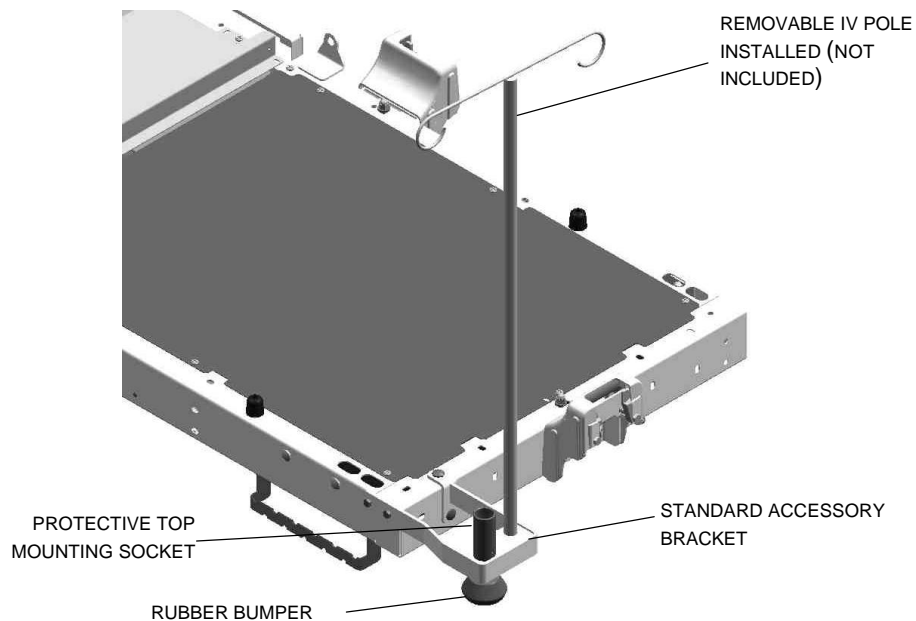


Figure 2.10

2.11 PREMIUM ACCESSORY BRACKET USAGE (OPTIONAL)

The pediatric stretcher may be equipped with optional premium accessory brackets to hold different pieces of equipment needed for patient care. Designed to be mounted at one or both ends of the stretcher, they come in set of two or four. See illustration below for the support socket functions.

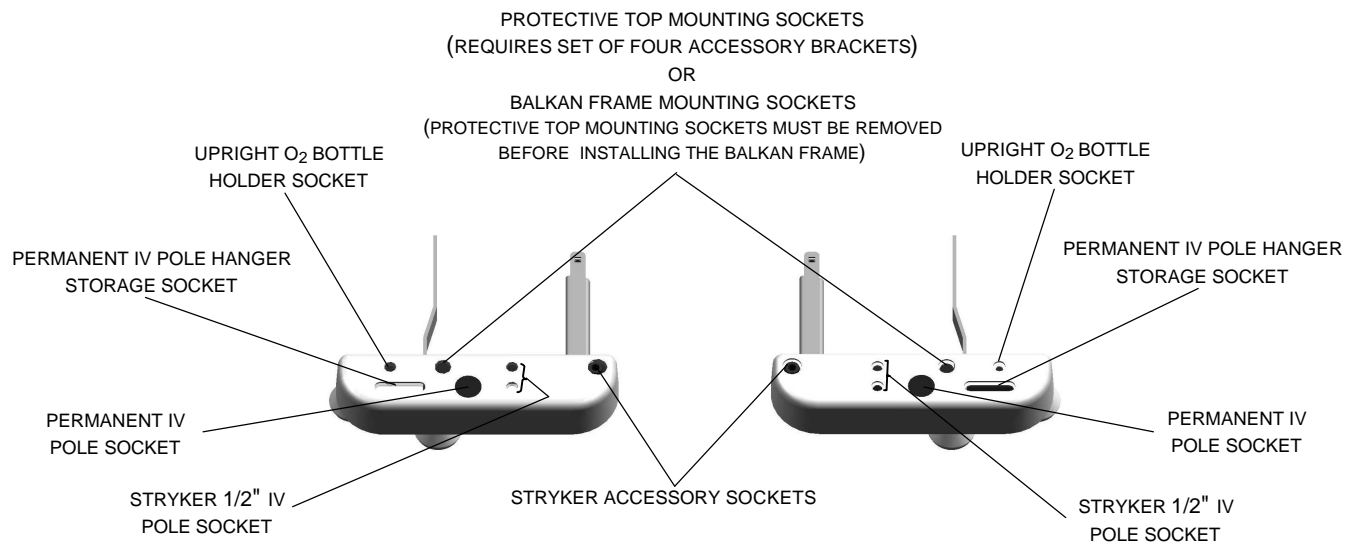


Figure 2.11

NOTE

In the case of a stretcher equipped with the scale, the premium accessory bracket housing the scale module can only receive the post of the protective top. Moreover, the accessory bracket adjacent to the bracket housing the scale module can not receive the two or three-stage fixed IV pole, for this one, once folded, cannot be stored on the adjacent bracket housing the scale.

2.12 OXYGEN BOTTLE CLAMP USAGE (OPTIONAL)

An oxygen bottle clamp (A) may be installed on the base hood to secure an oxygen bottle installed in the cavity provided on the hood. Slide the bottle into the cavity, bottom first.

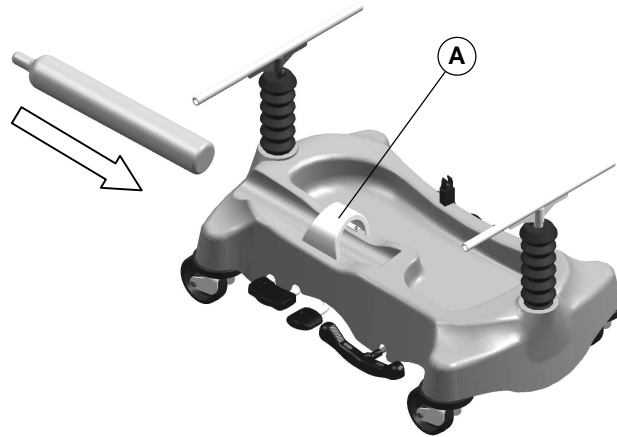


Figure 2.12

2.13 OPERATING THE IV CADDY (OPTIONAL)



WARNING

The IV Caddy enables an IV pole on casters to be transported when the stretcher is moved. Always ensure the IV Caddy is secured tightly on the IV pole before transporting to avoid damaging the IV pole or causing injury to the patient or user.

1. Lift the IV Caddy from the storage clip.
2. Pivot the IV Caddy to the desired position.
3. Turn knob (A) counter clockwise to loosen the pole clamp (C).
4. Pivot the knob (A) away from the clamp (B). The clamp (C) may then be opened.
5. Place the IV pole into the clamp (B). Close the clamp (C) around the IV pole and pivot the knob (A) back into position.
6. Turn the knob clockwise to tighten it. The IV pole is now ready to move with the stretcher.
7. To remove the IV pole from the IV Caddy, turn knob (A) counter clockwise to loosen the pole clamp.
8. Pivot the knob away from the clamp (B), open the clamp and remove the IV pole from the IV Caddy.
9. Store the IV Caddy.

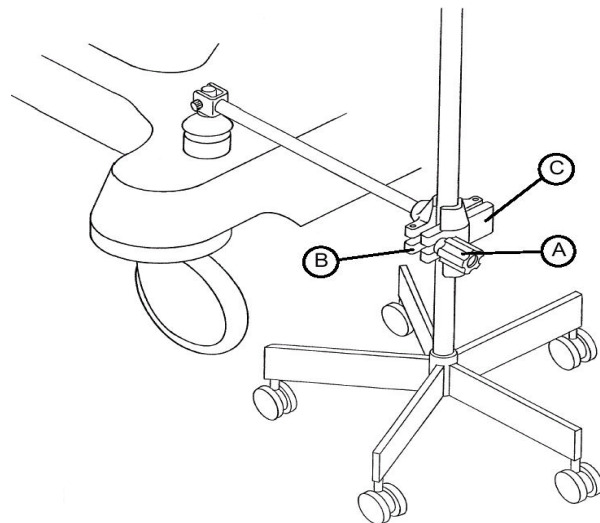
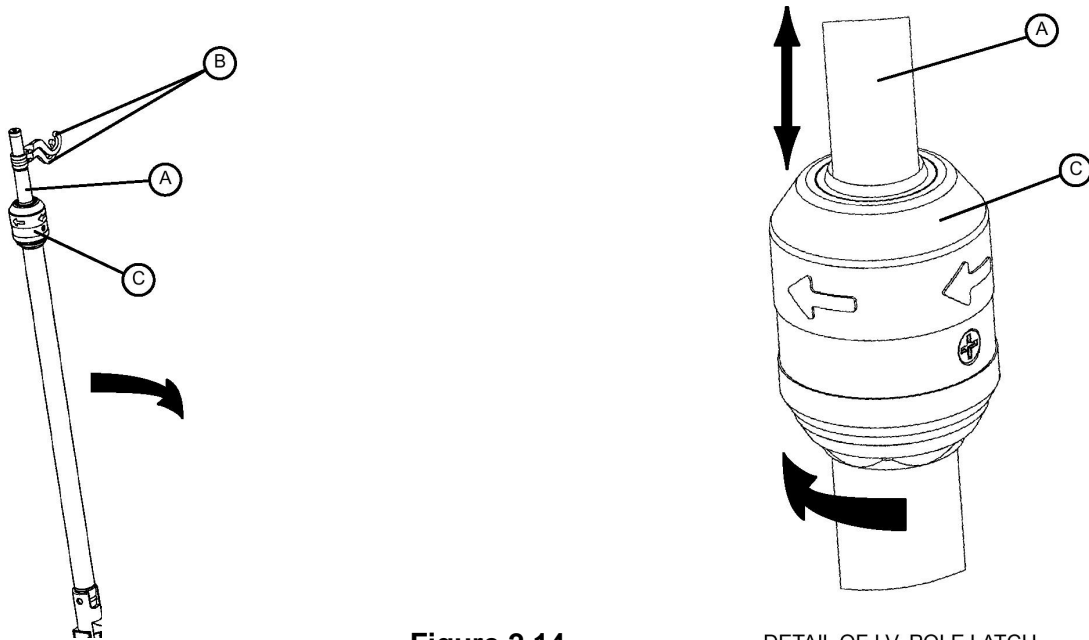


Figure 2.13



CAUTION

Always store the IV Caddy when not in use to avoid damaging it when the stretcher is moved.

2.14 OPERATING THE TWO-STAGE FIXED IV POLE (OPTIONAL)**Figure 2.14**

DETAIL OF I.V. POLE LATCH

**WARNING**

Make sure that proper policies are applied to ensure the patient's safety when an IV pole and/or an oxygen bottle are used. The patient should not be able to reach nor manipulate them.

To use the two-stage fixed IV pole

1. Lift and pivot the pole from the storage position and push it down until it is locked into the receptacle.
2. To raise the height of the pole, pull up on the telescoping portion (A) until it locks into place at its fully raised position. There are no intermediary positions for this section.
3. Rotate the IV pole hangers (B) to desired position and hang the IV bag.
4. To store the IV pole, turn the latch (C) clockwise until section (A) lowers. Lift up on the pole to remove it from its receptacle, fold it and insert the hangers into the storage location provided on the adjacent accessory bracket.

**CAUTION**

The weight of the IV bags should not exceed 40 lb (18 kg).

Do not install a two or three-stage fixed IV pole at the foot end of a stretcher equipped with the scale.

2.15 OPERATING THE THREE-STAGE FIXED IV POLE (OPTIONAL)

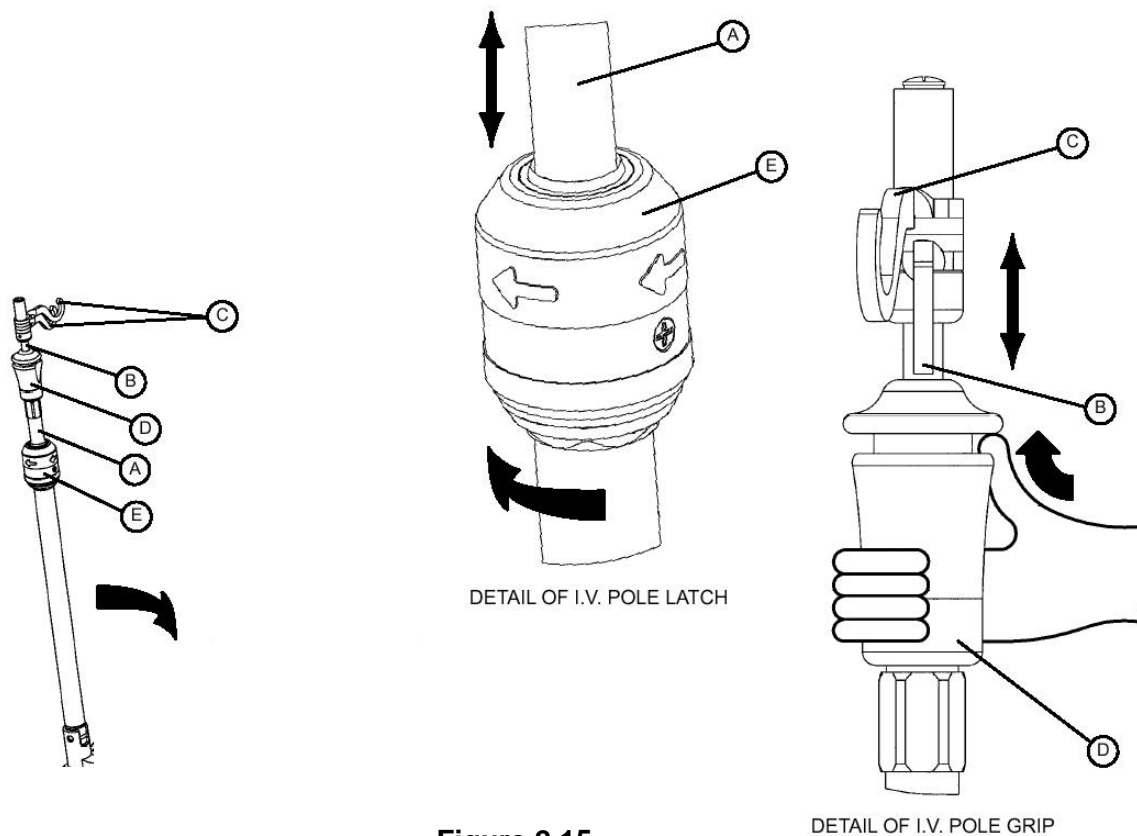


Figure 2.15



WARNING

Make sure that proper policies are applied to ensure the patient's safety when an IV pole and/or an oxygen bottle are used. The patient should not be able to reach nor manipulate them.

To use the three-stage fixed IV pole

1. Lift and pivot the pole from the storage position and push it down until it is locked into the receptacle.
2. To raise the height of the pole, pull up on the first telescoping portion (A) until it locks into place at its fully raised position. There are no intermediary positions for this section.
3. For a higher IV pole, pull up on the second telescoping portion (B). Release the section (B) at any desired height and it will lock into place. To lower the section, push up on the red part of the handle while holding the section and lower the section to the desired height. Release the red part of the handle to lock the section into place.
4. Rotate the IV hangers (C) to the desired position and hang the IV bags.
5. To store the IV pole, push up on the red portion of the grip (D) while holding onto section (B) and lower it completely. Turn latch (E) clockwise to lower section (A). Lift up the pole to remove it from its receptacle, fold it and insert the hangers into the location provided on the adjacent accessory bracket.



CAUTION

The weight of the IV bags should not exceed 40 lb (18 kg).

Do not install a two or three-stage fixed IV pole at the foot end of a stretcher equipped with the scale.

2.16 CHART HOLDER USAGE (OPTIONAL)

Available in two sizes, the optional chart holder, located under the litter on either or both sides of the stretcher, is a convenient storing device allowing the patient's medical records to follow when the patient is transferred from one care unit to another.

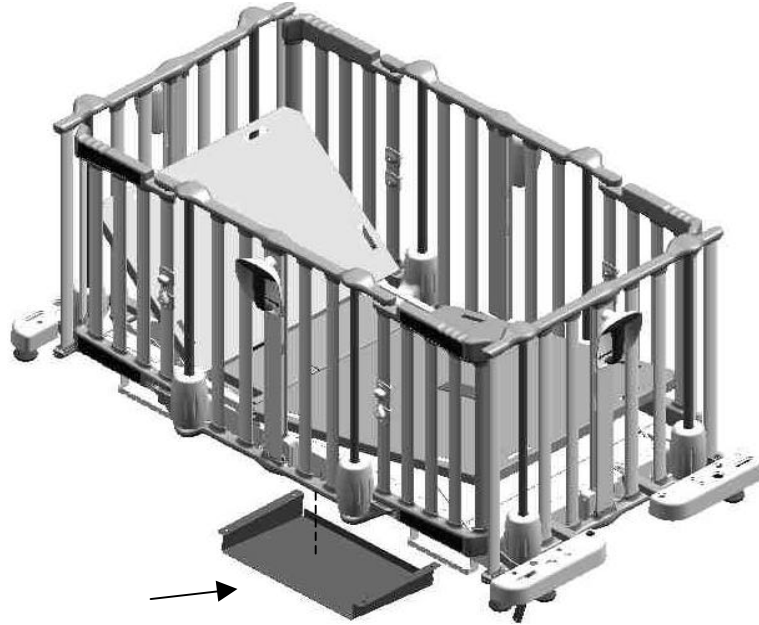


Figure 2.16

3. ACCESSORIES

Below is the list of all the accessories available for the Cub stretcher, and, when applicable, their maximum working load.

- Removable 1/2" Ø IV pole with adjustable height.
- Retractable protective top.
- Upright oxygen bottle holder. Maximum working load: 75 lb (34 kg).

NOTE

The upright oxygen bottle holder can not be installed on the right accessory bracket at the foot end of a stretcher equipped with the scale (optional).

- Protective pad.
- Defibrillator tray. Maximum working load: 40 lb (18 kg).

NOTE

The defibrillator tray can not be installed at the foot end of a stretcher equipped with the scale (optional).

- Monitor tray. Maximum working load: 40 lb (18 kg).