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## **Thermaltek Series**

**1030 Emergency Care Warming Stretcher**

**1031 Emergency Care Warming Litter**

**1530 PACU Warming Stretcher**

**1531 PACU Warming Litter**

### **OPERATIONS MANUAL**

**For Parts or Technical Assistance**

**1-800-327-0770**

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# Introduction

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## INTRODUCTION

This manual is designed to assist you with the operation of the 1030 Thermaltek Series Emergency Care Stretcher and the 1530 Thermaltek Series PACU Bed. All procedures referring to the stretcher litter operation also apply to the 1031 and the 1531 Warming Litters. Read the manual thoroughly before using the equipment or beginning any maintenance on it.

## SPECIFICATIONS

Maximum Weight Capacity	500 pounds
Overall Bed Length \ Width	83" \ 34"
Minimum \ Maximum Bed Height	22" \ 35.5"
Fowler Angle	0 to 90 degrees
Knee Gatch Angle	0 to 35 degrees
Trendelenberg \ Reverse Trendelenberg	+15 to -18 degrees
Electrical Requirements	110 VAC, 60 Hz, 8.0 Amp

## WARNING / CAUTION / NOTE DEFINITION

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

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### WARNING

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

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### 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 maintenance easier or important instructions clearer.

# Preventative Maintenance

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## CLEANING

1. Hand wash all surfaces of the bed with warm water and mild detergent. Dry thoroughly.
2. Clean Velcro **AFTER EACH USE**. Saturate Velcro with disinfectant and allow disinfectant to evaporate. (Appropriate disinfectant for nylon Velcro should be determined by the hospital.)

## NOTE

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 stretcher if used improperly. If these types of products are used to clean Stryker patient handling equipment, measures must be taken to insure 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's warranty.

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## CAUTION

Do not steam clean or hose off the Thermaltek Series Warming Stretcher. Do not immerse any part of the stretcher. Some of the internal parts of the stretcher are electric and may be damaged by exposure to water.

## BIANNUAL CHECKLIST

- \_\_\_\_\_ All fasteners secure
- \_\_\_\_\_ Siderails move and latch properly
- \_\_\_\_\_ All casters lock with brake pedal engaged
- \_\_\_\_\_ Steer function working properly
- \_\_\_\_\_ All casters secure and swivel properly
- \_\_\_\_\_ Body restraints working properly
- \_\_\_\_\_ I.V. pole intact and operating properly
- \_\_\_\_\_ Oxygen bottle holder intact and operating properly
- \_\_\_\_\_ Fowler operates and latches properly
- \_\_\_\_\_ Knee Gatch operates properly
- \_\_\_\_\_ Trendelenberg/Reverse Trendelenberg operating properly
- \_\_\_\_\_ No rips or cracks in mattress cover, warmer sleeves or warmer overlay
- \_\_\_\_\_ Transfer boards intact and operating properly
- \_\_\_\_\_ Ground chain intact
- \_\_\_\_\_ No leaks at hydraulic connections
- \_\_\_\_\_ Hydraulic jacks holding properly
- \_\_\_\_\_ Hydraulic drop rate set properly
- \_\_\_\_\_ Hydraulic oil level sufficient
- \_\_\_\_\_ Lubricate where required, including the brake adjuster assembly and brake cam
- \_\_\_\_\_ All electrical functions working properly
- \_\_\_\_\_ All outlet caps intact and operating properly
- \_\_\_\_\_ Power cord not frayed; no loose connections
- \_\_\_\_\_ No cables worn or pinched
- \_\_\_\_\_ All electrical connections tight; all grounds secure to frame
- \_\_\_\_\_ Ground impedance not more than 100 milliohms
- \_\_\_\_\_ Change both blower box filters, if needed

Serial No. \_\_\_\_\_

Completed By: \_\_\_\_\_ Date: \_\_\_\_\_

# Set-Up Procedures

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## SET-UP PROCEDURES

It is important that the Thermaltek Warming Stretcher is working properly before it is put into service. The following list will help check the stretcher.

1. Press down on the brake pedal and assure all four casters lock (page 13).
2. Assure the lift pedal works properly (page 12).
3. Check the Trendelenberg/Reverse Trendelenberg functions (page 12).
4. Check the siderail operation (page 13).
5. Plug the stretcher into a properly grounded hospital grade wall receptacle and assure the "Power" light on the control panel comes on.

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### WARNING

The 1030/1530 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.

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6. Push the "ON" key to begin warmer operation. ("AIR" light will turn on and fan will begin operating.)
7. Test each function on the control panels and assure that each is working properly (see control panel guide, page 6).

## OPERATING WARMER

### NOTE

The following instructions are also located on an instruction plate at the foot end of the stretcher.

### ON/OFF

Plug warming unit into a properly grounded wall receptacle.

- Power light will indicate power connection. Press "ON" to begin operation.
- Fan will begin operating.
- AIR light will be displayed.



### NOTE

Operation will stop whenever "OFF" is pressed.

## SETTING TEMPERATURE

### NOTE

Refer to page 7 for temperature conversion.

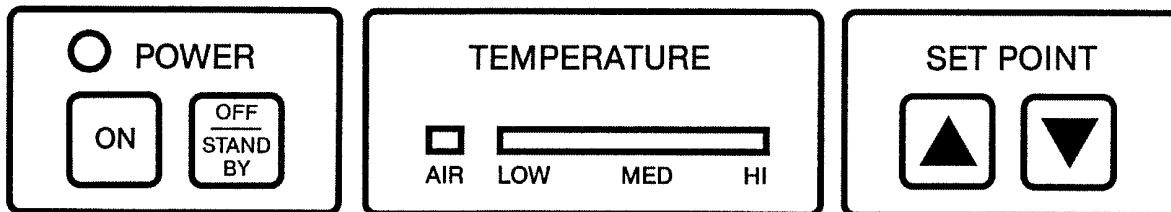
Set air temperature by pressing  or 

- The appropriate light will be displayed.
- Hold key down to scroll through temperature settings.
- Temperature setting choices are low, medium or high.

# Stretcher Operation

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## CONTROL PANEL GUIDE



### SYMBOL

### ACTION

 POWER

Power indicator lights when power cord is plugged into an appropriate power supply.

 ON

Warming operation begins.

 OFF  
STAND  
BY

Warming operation ends.



Increase air temperature set point. Hold key down to scroll.



Decrease air temperature set point. Hold key down to scroll.

## BAR GRAPH DISPLAY

Within the bar graph window, the air temperature range can be set at low, medium or high.

The control panel stores the last set point and returns to it the next time operation is initiated.

To determine which temperature setting is desired, see the temperature conversion chart on page 7 or on the instruction plate located at the foot end of the stretcher.

### NOTE

"AIR" can also be selected, to circulate ambient air to the patient, by scrolling down until the LED light at the low end of the display disappears and "AIR" light comes on.

# Stretcher Operation

## TEMPERATURE CONVERSION CHARTS

	LOW			MED			HIGH
*F°	80.0°	85.0°	90.0°	95.0°	100°	105°	110°
*C°	26.7°	29.4°	32.2°	35.0°	37.8°	40.6°	43.3°

### NOTE

The bar graph above represents the temperatures at the patient environment with a blanket over the patient.

	LOW			MED			HIGH
*F°	82.0°	90.0°	98.0°	106°	114°	122°	130°
*C°	27.8°	32.2°	36.7°	41.1°	45.6°	50.0°	54.4°

### NOTE

The bar graph above represents the temperatures at the internal heat source. These temperatures do not represent patient surface temperatures. They are generated from a heat sense element and are for reference only.

\* Standard deviation +/- 5 degrees F or +/- 3.2 degrees C.

## ALARMS

The warmer stretcher is equipped with high and low temperature alarms. If alarm sounds, turn stretcher off.

High Alarm: Be sure proper outlets are open.

Be sure blower is operating.

Refer to maintenance manual.

Low Alarm: Refer to maintenance manual.

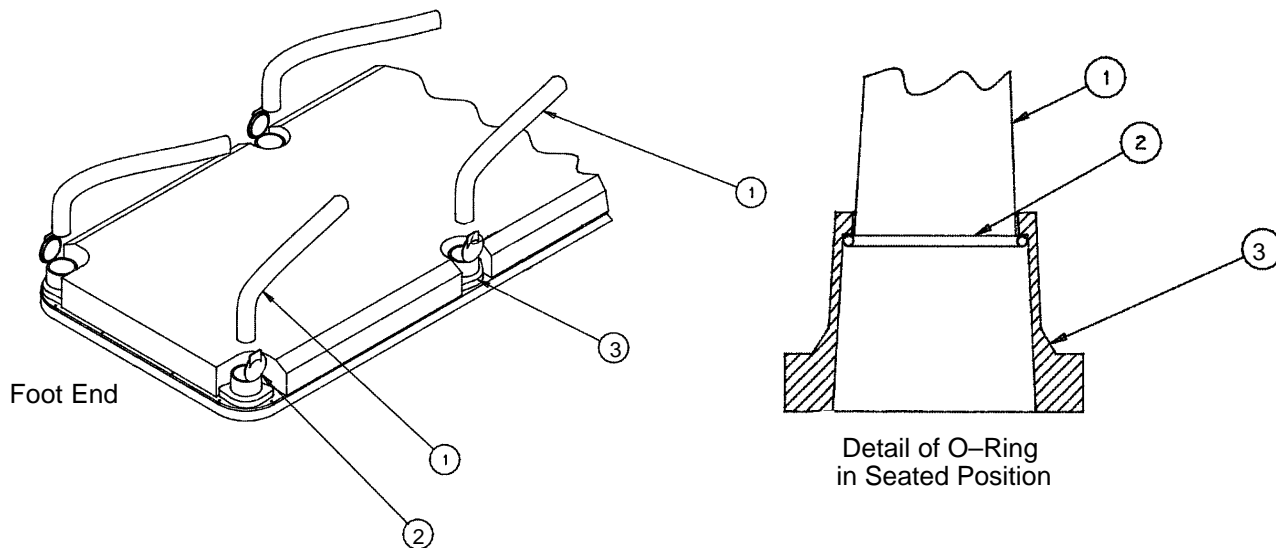


# Stretcher Operation

## USING THE WARMER SLEEVES

### Sleeve Diffusers (Disposable and Reusable)

1. To install sleeves (1), remove cap (2) from outlet (3). Place open end of sleeve into outlet so the o-ring inside the sleeve "seats" on the lip inside the outlet.



2. For positioning, place the tucked area of the sleeve (1) at a 30 to 45 degree angle toward the head end of the stretcher as shown in the illustration.
3. For storage, tuck the sleeve (1) inside of the outlet (3). Seal the cap (2) onto the outlet (3) to ensure a snug fit.

### NOTE

When using disposable sleeves, dispose of properly after being soiled. When using reusable sleeves, follow normal laundering procedure when soiled.

### Part Numbers for Replacement Sleeves:

1030-20 (Reusable Sleeves) – Qty. 24

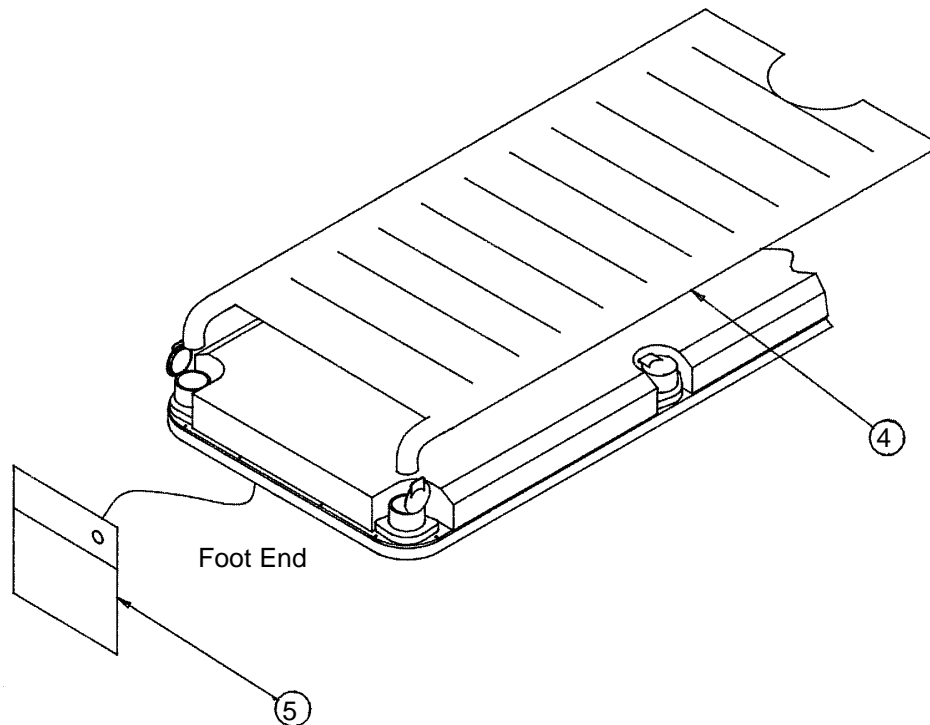
1030-29 (Disposable Sleeves) – Qty. 24

1030-20-1 (Reusable Sleeves) – Qty. 4

1030-29-1 (Disposable Sleeves) – Qty. 4

## USING THE WARMER OVERLAY

### Overlay Diffuser (Disposable and Reusable)



1. To install the overlay (4), place open end into outlets at the foot end of the stretcher so that the o-ring inside the sleeves on the overlay "seat" on the lip inside the outlet. Keep thigh outlets capped.
2. For storage, remove overlay and use overlay storage bag (5).

#### NOTE

When using a disposable overlay, dispose of properly after being soiled. When using a reusable overlay, follow normal hospital laundering procedure when soiled. (Overlay is reusable for up to 200 cleanings.)

#### Part Numbers for Replacement Overlays:

1030-21 (Reusable Overlay) – Qty. 6

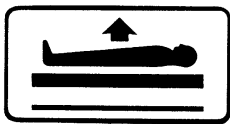
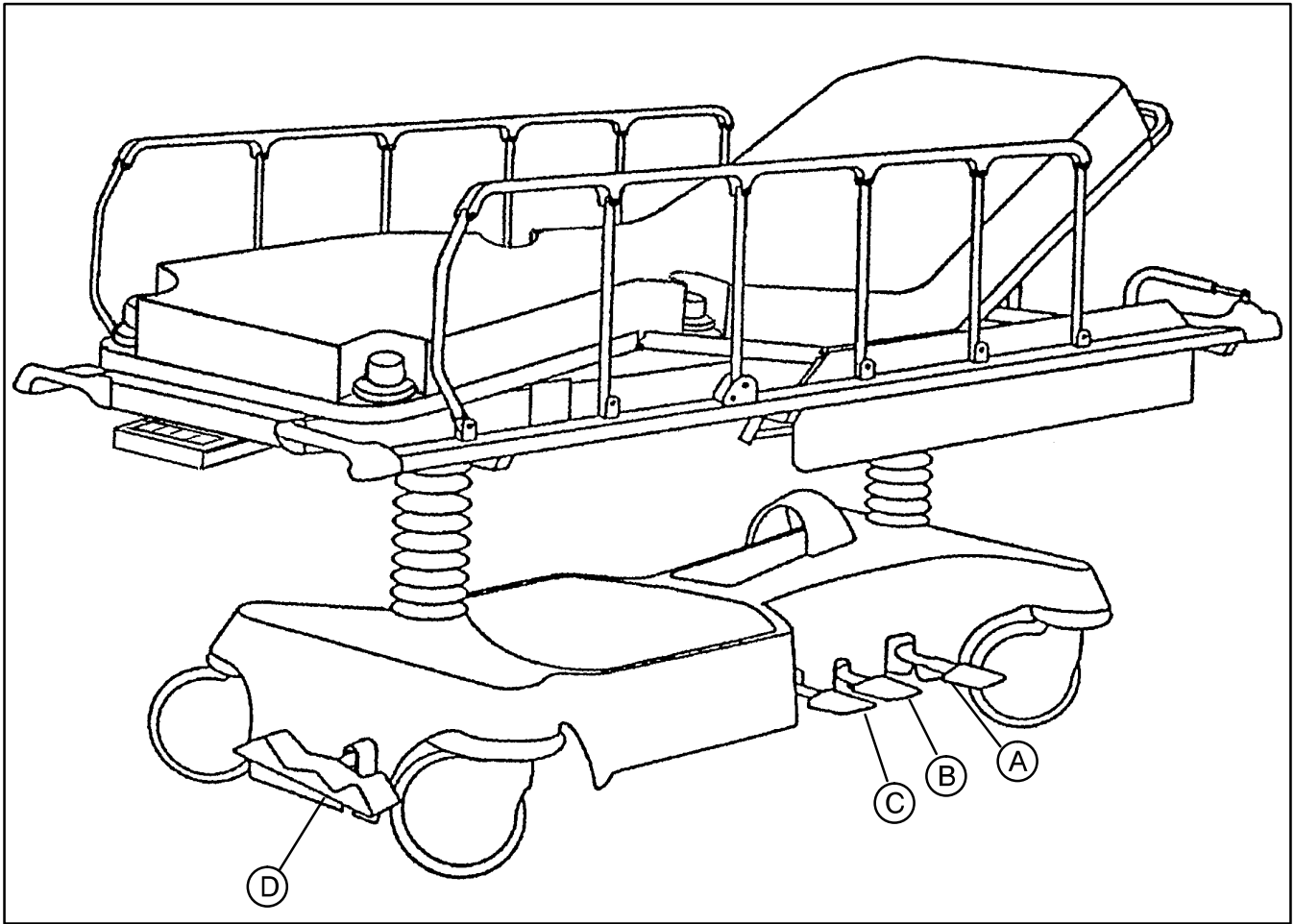
1030-21-1 (Reusable Overlay) – Qty. 1

1030-28 (Disposable Overlay) – Qty. 6

1030-28-1 (Disposable Overlay) – Qty. 1

1030-23 (Overlay Storage Bag) – Qty. 1

# Side Control Base Illustration



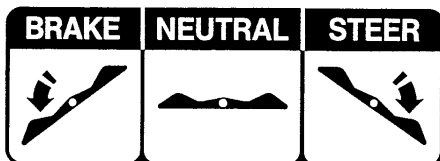
(A) Pump to raise litter



(B) Depress to lower head end

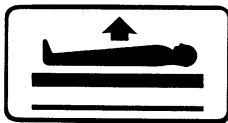
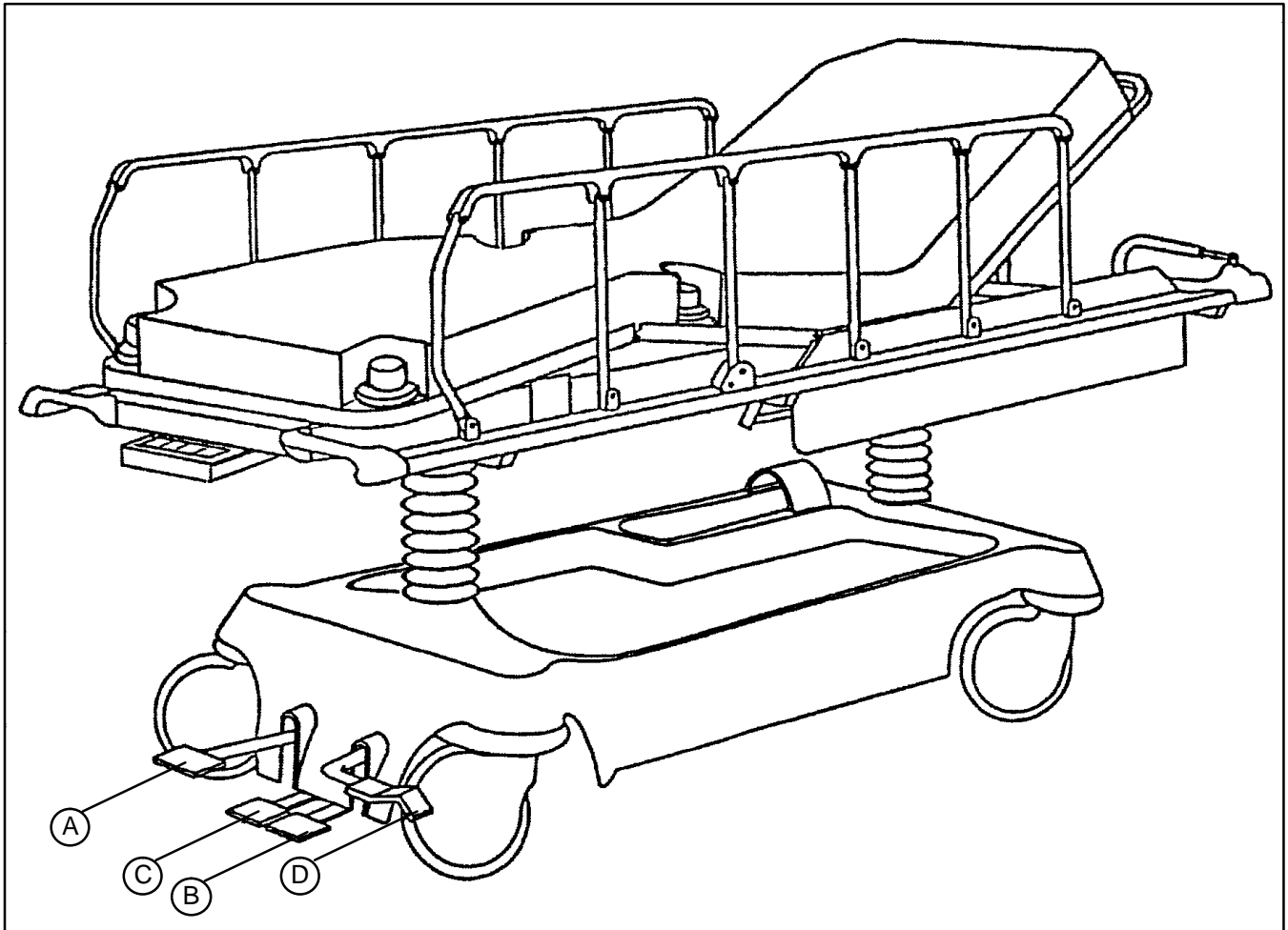


(C) Depress to lower foot end



(D) Brake and Steer functions

# End Control Base Illustration



(A) Pump to raise litter



(B) Depress to lower head end



(C) Depress to lower foot end



(D) Brake and Steer Functions

# Stretcher Operation

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## RAISING AND LOWERING LITTER HEIGHT

### NOTE

For user convenience, pump pedals and control pedals are located on both sides of the stretcher for "Dual Side Control" stretchers, or on both ends for "Dual End Control" stretchers.

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### CAUTION

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

To **raise** the litter height, pump the foot pump pedal (A) repeatedly until desired height is achieved. (See illustration, page 10 for side control stretchers or page 11 for end control stretchers).

To **lower** the litter height, depress pedal (B) to lower the head end and depress pedal (C) to lower the foot end of the stretcher. (See illustration, page 10 or page 11).

### NOTE

When lowering both ends of the stretcher simultaneously, activate both pedals (B) and (C) using the same foot.

## TRENDELENBERG/REVERSE TRENDELENBERG POSITIONING

### NOTE

Litter height must be raised first in order to achieve a Trend. or Reverse Trend. position.

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### CAUTION

Be sure to remove any equipment that may be in the way before lowering stretcher.

For **Trendelenberg** positioning (head down), depress pedal (B). (See illustration, page 10 or page 11).

For **Reverse Trendelenberg** positioning (foot down), depress pedal (C). (See illustration, page 10 or page 11).

### NOTE

The higher the litter is before pedals (B) or (C) are activated, the greater the Trend. or Reverse Trend. angle will be. (Maximum Trend. angle is +15 degrees. Maximum Reverse Trend. angle is -18 degrees.)

## OPERATING DIRECTIONAL STEERING CASTER/5TH WHEEL OPTIONS

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

### NOTE

Stretchers cannot be equipped with both steering caster and fifth wheel options. The choice was made at the time the stretcher was purchased.

**Important:** For proper "tracking" of the steer caster or fifth wheel options, push the stretcher approximately 10 feet to allow the wheels to face the direction of travel before engaging the steer pedal. If this procedure is not followed, proper "tracking" will not occur, causing difficulty with steering the stretcher.

The steer wheel is located at the foot end of the stretcher on the patient's left. The 5th wheel is located underneath the center of the base assembly.

To engage the steer wheel/5th wheel on a "Dual Side Control" stretcher, push the right side of pedal (D) to the full down position. (See illustration page 10).

To engage the steer wheel/5th wheel on a "Dual End Control" stretcher, pull pedal (D) to the full up position. (See illustration page 11).

# Stretcher Operation

## APPLYING THE BRAKE SYSTEM

### NOTE

For user convenience, the Brake/Steer pedal is located on both ends of the stretcher on both "Dual Side" and "Dual End" control stretchers.

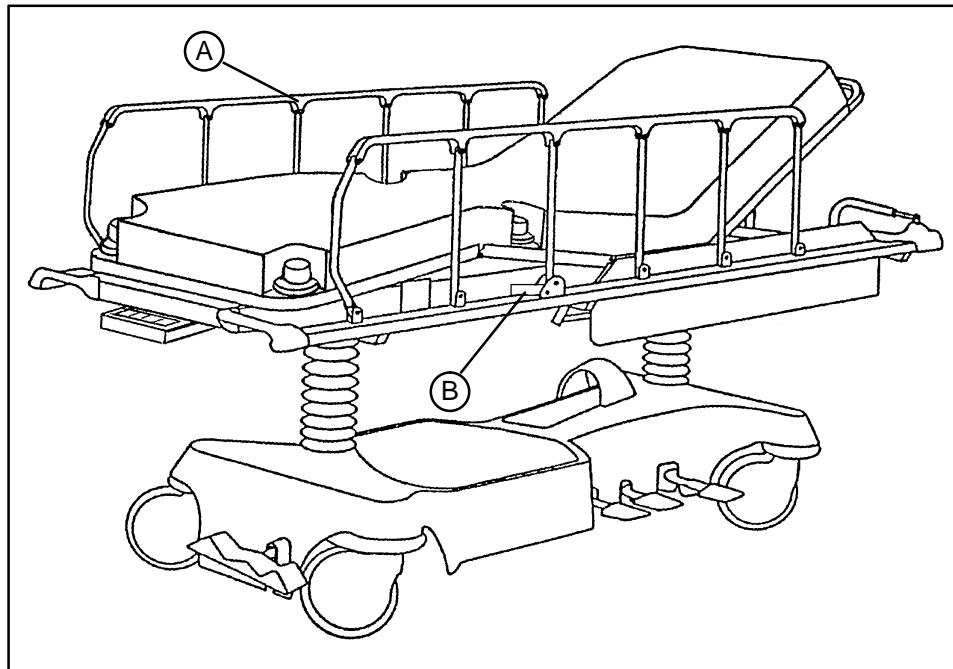
### CAUTION

If brakes do not hold properly, refer to your stretcher maintenance manual for "Brake Adjustment"

To engage the brakes on a "Dual Side Control" stretcher, push fully down on the left side of pedal (D). (See illustration page 10).

To engage the brakes on a "Dual End Control" stretcher, push fully down on pedal (D). (See illustration page 11).

## USING SIDERAILS



### CAUTION

Be sure the siderail latching mechanism (B) is working properly at all times. If it is not, refer to your stretcher maintenance manual for "Siderail Latch Adjustment".

**To engage siderails:** Pull up siderail (A) and raise to full up position so that latch (B) engages. (See illustration).

**To disengage siderails:** Pull up on latch (B) and guide siderail to the full down position.

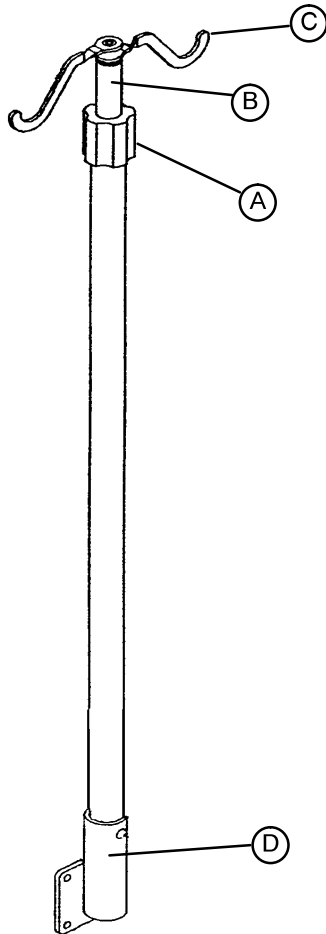
### CAUTION

Do not allow siderail to lower on its own.

# Stretcher Operation

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## OPERATING OPTIONAL PERMANENTLY ATTACHED I.V. POLE



### NOTE

An optional permanently attached I.V. Pole may have been installed at either the head, foot or both ends of the stretcher. The choice was made at the time the stretcher was purchased.

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### CAUTION

Push handles are installed on the stretcher for user convenience. It is not recommended to use the I.V. pole as a pushing device.

#### To use the I.V. pole:

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.

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### CAUTION

The weight of the I.V. bags should not exceed 40 pounds.

## USING PUSH HANDLES

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### CAUTION

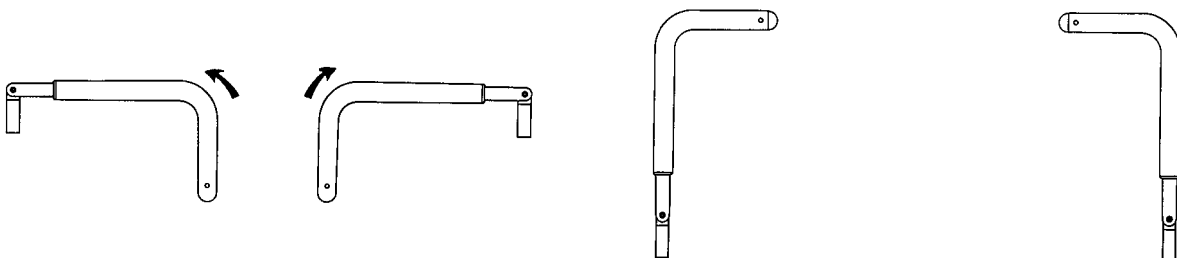
The push handles should always be used when transporting patients. They were installed for this purpose for user convenience. Avoid using other parts of the stretcher as push devices as damage may occur.

#### To use the push handles:

Pivot the handles up and push down until they are locked into position.

#### To store the push handles:

Lift the handles up and pivot them down to store in the handle rests.



## USING THE SAFR PATIENT TRANSFER BOARD

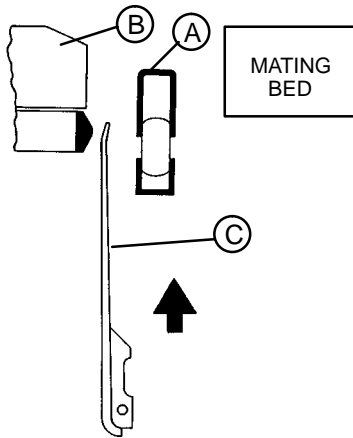
### WARNING

When using the SAFR Board to transfer a patient, **always** lock the brakes on all stretchers, beds, etc. being used and **always** be certain the transfer board is placed securely on the surface of the mating stretcher or bed. The patient stretcher and the mating surface must be at the same height before the patient is transferred.

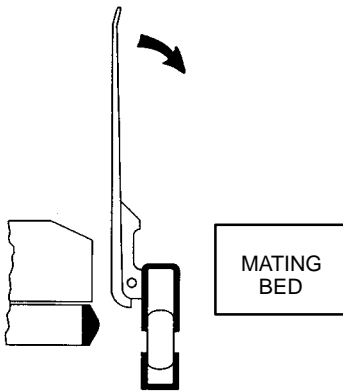
### Transferring Patients:

#### Note

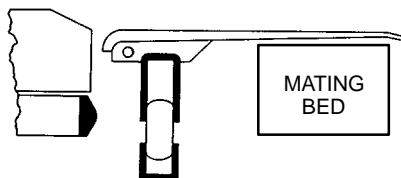
The transfer board (C) is located between the siderail (A) and the mattress (B). (See illustration).



1. Lower siderail (A) to full down position.
2. Raise the transfer board (C) from the bottom while lifting from the top.



3. When the transfer board is fully raised, it can be pivoted downward onto the surface of the mating bed or stretcher.



**Important:** Be sure the brakes have been applied on both the stretcher and the mating bed or stretcher before beginning step 4.

4. Using a sheet, draw the patient onto the mating bed or stretcher.



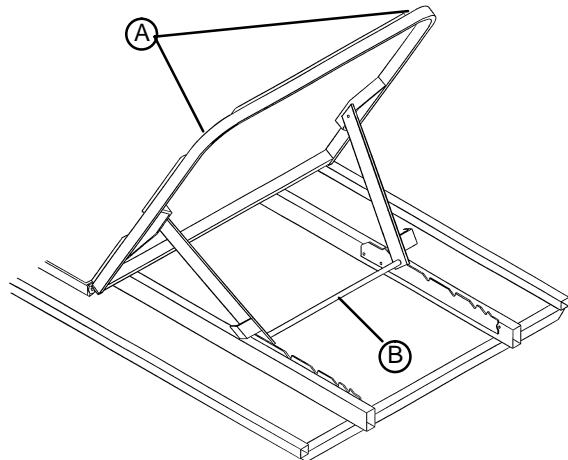
# Stretcher Operation

## OPERATING THE FOWLER

### NOTE

There are three types of fowler options: 1) manually operated, 2) crank operated, 3) pneumatic operated. The choice was made at the time the stretcher was purchased.

### Manual Fowler:

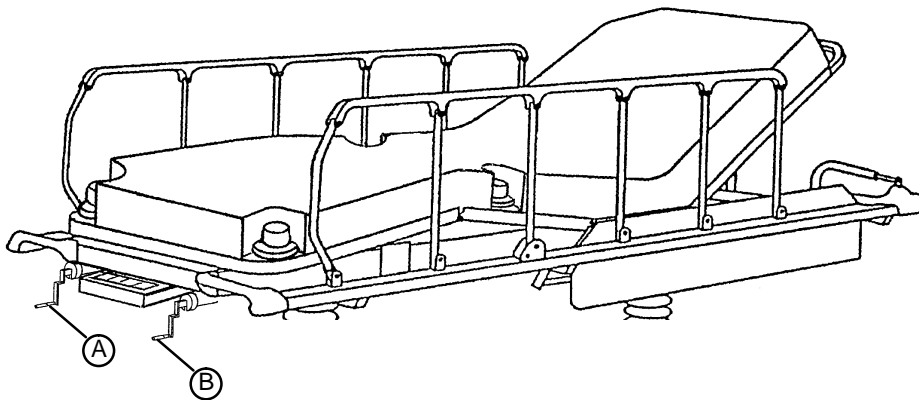


Lift up on handles (A). The brace assembly (B) will fall into position as the Fowler is raised to desired height.

### CAUTION

Be sure the brace assembly is securely locked in the Fowler supports before removing hands from handles.

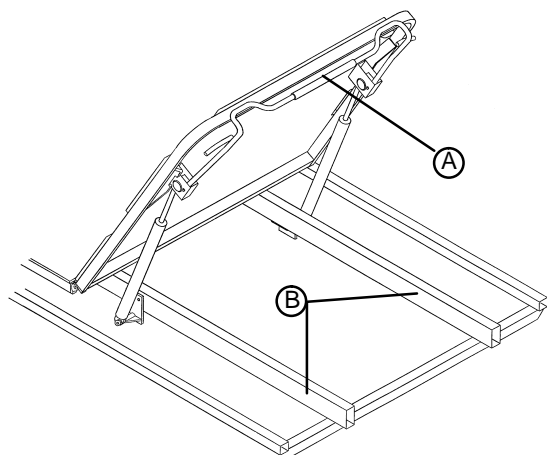
### Crank Fowler:



Turn crank handle (A) clockwise to raise Fowler, counter-clockwise to lower.

Turn crank handle (B) clockwise to raise Knee Gatch, counter-clockwise to lower.

### Pneumatic Fowler:



Squeeze handle (A) for pneumatic assist in lifting the Fowler to the desired height. Remove hand(s) from handle when desired height is achieved.

To lower, squeeze handle (A) and push down until Fowler has reached desired height. Remove hand(s) from handle when desired height is achieved.

### CAUTION

If pneumatic system appears to be difficult to operate, refer to the Stretcher Maintenance Manual for "Pneumatic Fowler Adjustment".

### WARNING

Keep hands/fingers clear of area between spine tubes (B) and Fowler when lowering. Injury could result.

## **Limited Warranty:**

Stryker Medical Division, a division of Stryker Corporation, warrants to the original purchaser that its products should be free from defects in material and workmanship for a period of one (1) year after date of delivery. Stryker's obligation under this warranty is expressly limited to supplying replacement parts and labor 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 Preventive Maintenance Inspections and repairs
- JCAHO paperwork for preventive maintenance
- Priority Emergency Service

### **Standard (Labor Only):**

- Labor and travel for *all* scheduled and unscheduled calls
- Biannual Preventive Maintenance Inspections and repairs
- JCAHO paperwork for preventive 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**

# Warranty

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## **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.** Upon prompt notification, Stryker will file 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.



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