

SPR-PLUS®  
Overlay System  
REF CL212

# stryker®

## Operations/Maintenance Manual















# Table of Contents

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Symbols and Definitions . . . . .	<a href="#">4</a>
Introduction . . . . .	<a href="#">5</a>
Product Description . . . . .	<a href="#">5</a>
Specifications . . . . .	<a href="#">6</a>
Contact Information . . . . .	<a href="#">7</a>
Product Illustration . . . . .	<a href="#">7</a>
Warning/Caution/Note Definition . . . . .	<a href="#">7</a>
Summary of Safety Precautions . . . . .	<a href="#">8</a>
Setup Procedures . . . . .	<a href="#">9</a>
Low Air Loss Overlay . . . . .	<a href="#">9</a>
Setting up the overlay . . . . .	<a href="#">9</a>
Operation Guide . . . . .	<a href="#">10</a>
Connecting the hose to the overlay . . . . .	<a href="#">10</a>
Optional CL360 Control Unit . . . . .	<a href="#">10</a>
Powering CL360 . . . . .	<a href="#">11</a>
Setting the Air Pressure for CL360 . . . . .	<a href="#">11</a>
Hand Check . . . . .	<a href="#">12</a>
Changing the bedding . . . . .	<a href="#">12</a>
Transferring the patient in and out of bed . . . . .	<a href="#">13</a>
CPR . . . . .	<a href="#">13</a>
Cleaning the Overlay . . . . .	<a href="#">14</a>
Cleaning CL360 Pump and Hoses . . . . .	<a href="#">14</a>
Troubleshooting . . . . .	<a href="#">15</a>
Quick Reference Replacement Parts List . . . . .	<a href="#">16</a>
EMC Information . . . . .	<a href="#">17</a>
Warranty . . . . .	<a href="#">22</a>
Limited Warranty . . . . .	<a href="#">22</a>
To Obtain Parts and Service . . . . .	<a href="#">22</a>
Return Authorization . . . . .	<a href="#">22</a>
Damaged Merchandise . . . . .	<a href="#">22</a>

# Symbols and Definitions

	General warning
	Caution
	Manufacturer
	Class II equipment
	Safe working load
	Earth ground
	Operating instructions
	Batch code
	Model
	Foot end

# Introduction

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This manual is designed to assist with the operation and maintenance of the Model CL212, **SPR-PLUS® Overlay System**. Carefully read this manual thoroughly before using or beginning maintenance on the support surface. To ensure safe operation of this equipment, it is recommended that methods and procedures are established for educating and training staff on the safe operation of the support surface.

## INTENDED USE

**SPR-PLUS®** is a single patient use, low air loss (LAL), overlay system intended to assist in the prevention and treatment of pressure ulcers. **SPR-PLUS** offers LAL to assist in microclimate management of the skin. **SPR-PLUS** is an appropriate overlay system to be used to assist in the prevention and treatment of all categories/stages of pressure ulcers including stages I, II, III, IV, Unstageable, and Deep Tissue Injury. The overlay system is recommended to be implemented in combination with clinical evaluation of risk factors and skin assessments made by a health care professional. The overlay is intended for use with either the CL360 pump or Stryker Air pump. The overlay system shall be used with a support surface at all times and is not meant to be used on a frame without a support surface.

## INTENDED PATIENT POPULATION

This overlay system is intended to be used with patients at risk for developing pressure ulcers, those who require therapy for pre-existing pressure ulcers, or any other patient under a health care professional's care, in a general hospital environment, acute care or home healthcare environment.

The safe working load for **SPR-PLUS** is 350 lb (158.8 kg). The patient must not exceed safe working load specified by the overlay, support surface, frame and accessories.

## INTENDED PART OF THE BODY

The overlay material can interact with all external skin.

## CONTRAINDICATIONS

The **SPR-PLUS** overlay is not intended to support a patient in a prone position.

The **SPR-PLUS** overlay system should not be used for patients with unstable spines.

## INTENDED USER PROFILE

The device will be used in acute care, general hospital care or home healthcare.

**Note:** The **Stryker Air™** pump is not currently approved for use in a home healthcare environment.

## INTENDED CONDITION OF USE

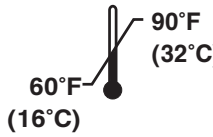



The device is not intended to be a sterile product nor is it intended to include a measuring function. **SPR-PLUS** is a single patient use disposable device and has a 30 day expected life.

## PRODUCT DESCRIPTION

The **SPR-PLUS (CL212)** is a single patient use, LAL, overlay system intended to assist in the prevention and treatment of pressure ulcers caused by pressure and shear.

# Introduction

## SPECIFICATIONS

SPR-PLUS®		
Material	Vinyl	
Dimensions	78" x 34"	198 cm x 86 cm
Weight	6 lb	2.72 kg
Safe Working Load	350 lb	158.8 kg
Single Patient Use Duration	30 Days	
Environmental Conditions		
Operating Ambient Temperature Range	 <p><b>Note:</b> If the CL360 pump is stored at temperatures below 60°F or above 90°F, the pump must be allowed to stabilize for one hour within the ambient temperature range before use.</p>	
Product Compliance		
Compliance Reference	Class II, double insulated equipment with functional earth ground.  Continuous operation Not classified for protection against harmful ingress of liquid	
CL360 Pump Specifications		
Dimensions	13" W x 12" L	33 cm x 31 cm
Weight	13 lb	6 kg
Input	120 V, 60 Hz, 1/4A, 20W	
Power Cord	15 ft, 16 AWG cord with hospital grade plug	
Overcurrent protection	2 fuses, 0.3A, Type 3AG, fast acting, 250VAC	
Output Pressure (Firmness Settings)	18 to 30 mmHg	
Current Leakage	100 µA maximum (chassis)	
Output Flow Rate	0.4 SCFM (12.5 lpm) minimum @ 30mmHg	
Ground Resistance	0.15 Ω or less nominal, 0.5 Ω maximum	
Classification	Class II, double insulated equipment with functional earth ground.  Type BF Equipment  Continuous operation Medical Equipment, classified with respect to electric shock, fire and mechanical hazards only, in accordance with UL2601-1 & CAN/CSA C22.2 No. 601.1.	



**Stryker reserves the right to change specifications without notice.**

**Note:** Refer to the Stryker Air Pump manual for specifications relating to this product.

# Introduction

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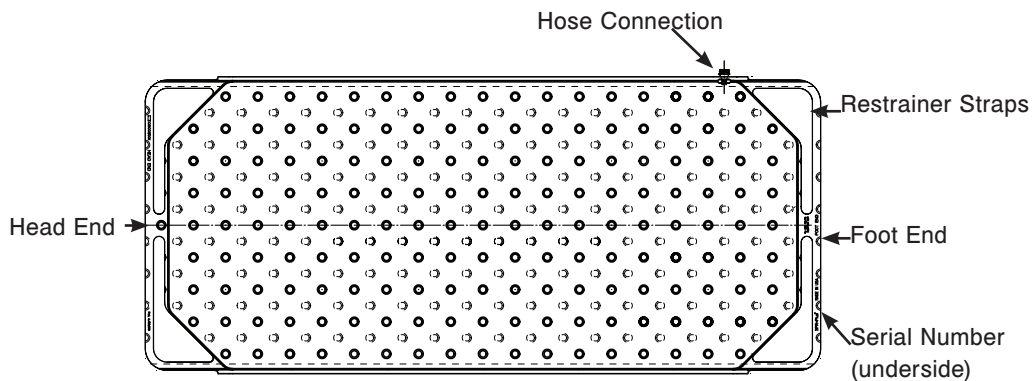
## CONTACT INFORMATION

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

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

Please have the serial number, located at the foot end of the overlay underside, available when calling Stryker Customer Service or Technical Support. Include the serial number in all written communication.

## PRODUCT ILLUSTRATION



## WARNING/CAUTION/NOTE DEFINITION

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

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### **WARNING**

Alerts the reader about a situation which, if not avoided, could result in death or serious injury. It may also describe potential serious adverse reactions and safety hazards.

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### **CAUTION**

Alerts the reader of a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the equipment or other property. This includes special care necessary for the safe and effective use of the device and the care necessary to avoid damage to a device that may occur as a result of use or misuse.

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### **NOTE**

Provides special information to make maintenance easier or important instructions clearer.

# Summary of Safety Precautions

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Carefully read and strictly follow the warnings and cautions listed on this page. Service only by qualified personnel.

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## **WARNING**

- Explosion hazard. Do not use in the presence of flammable anesthetics.
  - Risk of electric shock. Refer servicing to qualified service personnel.
  - To avoid the risk of patient injury, do not operate system with bed siderails down and patient unattended.
  - Do not reuse the **SPR-PLUS** to avoid the risk of cross-contamination and infection.
  - To avoid the risk of patient injury, disinfect the hoses, pump and power cord between patient installations, utilizing standard hospital protocol and disinfectants and manufacturers recommendations for cleaning.
  - To avoid the risk of patient injury, deflate overlay before performing CPR.
  - To avoid the risk of patient or operator injury, do not use overlay as a transfer device.
  - Keep bedding dry. Use incontinence pads if necessary. Failure to keep the patient's skin dry may lead to maceration.
  - If a large bulge in the top surface of the overlay is noticed, discontinue use and call Stryker Customer Service. Refer to the "Contact Information" on [page 7](#). A large bulge may cause the patient to roll over when not desired, resulting in potential injury or discomfort.
  - To avoid the risk of patient injury, ensure the cushion is secured to the mattress corners with the straps.
  - To avoid the risk of patient or operator injury or equipment damage, make sure the Pump is installed in a safe and stable manner on the bed.
  - To avoid the risk of patient or operator injury or equipment damage, make sure there is no potential interference between the Pump (tubing and power cord) and the bed while in operation.
  - To avoid the risk of patient or operator injury or equipment damage, remove the Pump when moving the bed.
  - To avoid the risk of equipment damage, do not sit or put objects on the Pump.
  - Consult the pump operations manual **BEFORE** connecting the system to the **SPR-PLUS** overlay.
- 

## **CAUTION**

- Use minimal layers of sheeting and incontinence pads. Too many layers between the patient's skin and the overlay will reduce the pressure redistributing capabilities of the therapy system.
  - Do not pull linens tightly over overlay, but leave loose. Tight sheets may cause "hammocking" and reduce effectiveness of therapy.
  - Some medical conditions may not respond to therapy of this type. Patient's skin should be inspected regularly for redness or breaks. If redness or breaks in the skin occurs, consult the attending physician
  - Medical Electrical Equipment needs special precautions regarding EMC, please refer to the EMC information provided by the manufacturer of the pump unit.
  - Ensure that all siderails are fully latched when in the raised position. Failure to do this could result in serious injury or death. Note: Siderails are intended to be a reminder to the patient of the unit's edges, not a patient restraining device.
  - Use of a mattress overlay reduces the effective height of the siderails above the sleep surface.
-



# Setup Procedures

## LOW AIR LOSS OVERLAY

Small holes in the overlay's top surface allows air flow around the patient to help reduce the potential for maceration. The special design of the overlay redistributes the patient's weight over the overlay surface and effectively redistributes tissue interface pressure below capillary closure pressure. Corner straps provide stability and a snug fit. The durable vinyl material is easy to clean (See Figure 1).

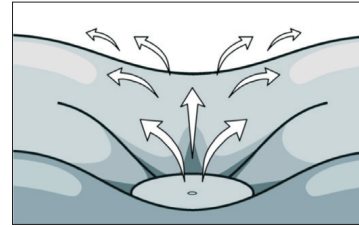


Figure 1 Low Air Loss Overlay Air Flow

## SETTING UP THE OVERLAY

### WARNING

- To avoid the risk of patient injury, do not operate system with bed siderails down and patient unattended.
- Keep bedding dry. Use incontinence pads if necessary. Failure to keep the patient's skin dry may lead to maceration.
- To avoid the risk of patient injury, ensure the cushion is secured to the mattress corners with the straps.
- If a large bulge in the top surface of the overlay is noticed, discontinue use and call Stryker Customer Service. Refer to the "Contact Information" on [page 7](#). A large bulge may cause the patient to roll over when not desired, resulting in potential injury or discomfort.

### CAUTION

- Use minimal layers of sheeting and incontinence pads. Too many layers between the patient's skin and the overlay will reduce the pressure redistributing capabilities of the therapy system.
- Ensure that all siderails are fully latched when in the raised position. Failure to do this could result in serious injury or death. Note: Siderails are intended to be a reminder to the patient of the unit's edges, not a patient restraining device.
- Use of a mattress overlay reduces the effective height of the siderails above the sleep surface.

1. Remove the overlay from the plastic bag and lay overlay across the bed with the hose connection on the left side of a supine patient (See Figure 2).
2. Make sure the hose connection location is easily accessible and the air holes are up when airflow is desired.

#### Note:

- When installed on an occupied bed, the overlay may be unrolled and re-rolled lengthwise.
  - If airflow is not desired, place the overlay with the holes down. The connector for the hose will then be at the foot end of the bed on the right side of a supine patient.
  - The set point indicator on the pump indicates the air pressure in the overlay.
  - If the overlay pressure is set too high, the internal overlay pressure may approach a level that does not provide adequate therapy.
  - If the overlay pressure is set too low, the patient may actually be lying on the mattress. This condition is called "bottoming".
3. Place retainer straps under mattress corners.

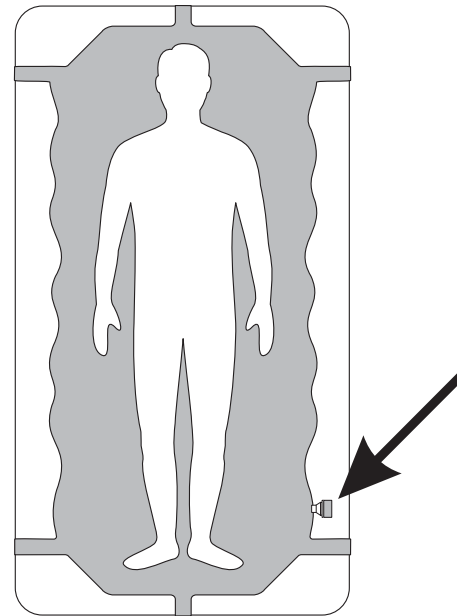


Figure 2 Hose Connection Location

# Operation Guide

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## CONNECTING THE HOSE TO THE OVERLAY

Screw the hose connector cap tightly to the overlay connector (See Figure 4). Do not cross the threads.

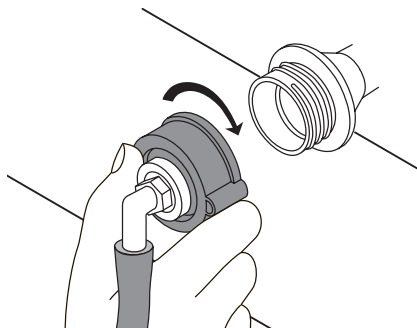


Figure 4 Attaching Hose to the Overlay

## OPTIONAL CL360 CONTROL UNIT

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### WARNING

- To avoid the risk of patient or operator injury or equipment damage, make sure the Pump is installed in a safe and stable manner on the bed.
  - To avoid the risk of patient or operator injury or equipment damage, make sure there is no potential interference between the Pump (tubing and power cord) and the bed while in operation.
  - To avoid the risk of patient or operator injury or equipment damage, remove the Pump when moving the bed.
  - To avoid the risk of equipment damage, do not sit or put objects on the Pump.
- 

The (CL360) control unit circulates air through the CL212 overlay maintaining pressure at a level selected by the operator. The control unit is equipped with a handle at the top and a bracket for hanging the unit on the bed. The control unit is operated from a front control panel. A hose is permanently attached to the control unit. A fitting on the upper left side panel connects the control unit to the hose.

**Note:** Do not attempt to remove the hose from the control unit.

# Operation Guide

## POWERING CL360

1. Turn on the unit using the ON/OFF switch located on the lower right front panel of the unit. After producing a short audible chime, the control unit will start inflating the overlay to the default setting of 24 mmHg.

**Note:** If the control unit produces a continuous audible alarm, the unit has failed its self-test. (Removed the control unit from service.)

2. The control unit will start inflating the overlay to the default setting of 24 mmHg. The overlay will inflate in approximately 10 minutes (slightly longer if a patient is lying on it.)

## SETTING THE AIR PRESSURE FOR CL360

### CAUTION

- The CL360 should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, the CL360 should be observed to verify normal operation in the configuration in which it will be used.
- Some medical conditions may not respond to therapy of this type. Patient's skin should be inspected regularly for redness or breaks. If redness or breaks in the skin occur, consult the attending physician.

The **SPR-PLUS** overlay system is capable of adjusting overlay pressure to five (5) set points over a range of 18 to 30 mmHg. The five (5) set points can be adjusted using the mmHg button and increments by 3 mmHg. The settings will return to the default setting of 24 mmHg if the unit experiences a loss of power (See Figure 6).

The CL360 pump is equipped with a flashing/audible alarm to alert the user that the actual pressure is out of the specified range. If the Alert indicator light is on, check the following:

- Alert LED will light when internal cell pressure varies from the desired set point by +/- 2 mmHg for more than 15 minutes.
- Alert LED will light and an audible alarm will sound if the internal cell pressure is outside the operating range (minimum and maximum set points) by +/- 2 mmHg for more than 30 minutes.

### Note:

- The set point indicator on the pump indicates only the air pressure in the overlay.
- If the overlay pressure is set too high, the internal overlay pressure may approach a level that does not provide adequate therapy.
- If the overlay pressure is set too low, the patient may actually be lying on the mattress. This condition is called "bottoming".

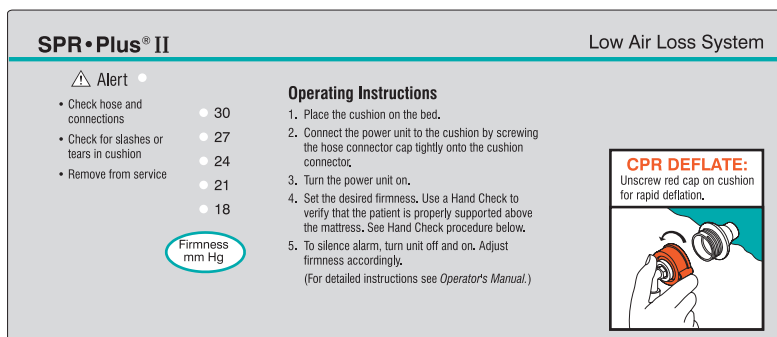


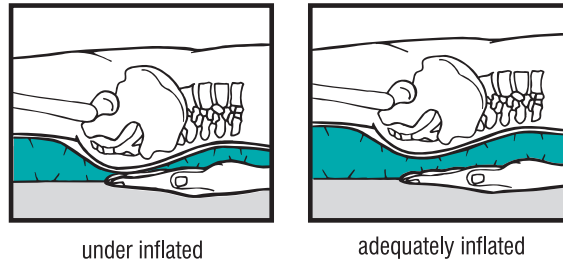
Figure 6: CL360 Control Panel

# Operation Guide

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## HAND CHECK

To ensure the patient is getting the proper therapy, a Hand Check should be performed to establish the correct pressure setting (See Figure 7). The Hand Check should be performed with the patient in the “worst case” position, which is usually the “side-lying” positioning. This position maximizes pressure at the sacrum.



**Figure 7 Hand Check**

1. Slide your hand, palm up with fingers flat, between the overlay and the mattress at the patient’s sacrum. As you slide your hand under the patient, be careful not to lean on the overlay or lift it at the side. These actions can lead to false readings.

**Note:** When performing the Hand Check with the patient supine, adjust the pressure set point so that you no longer feel the patient’s sacrum.

2. If you can feel the bony prominence, the overlay needs to be inflated more. Increase pressure an additional 3 mmHg by pressing the Firmness button on the pump.
3. Wait two (2) minutes and repeat the Hand Check.
4. If you cannot feel the bony prominence, then the overlay pressure is sufficient for providing therapy to the patient. If you cannot feel the bony prominence, repeat steps 1 through 3 until you no longer feel the patient’s bony prominence. Remember that the palm must be turned upward, flat (not cupped) and the fingers must be extended straight (not flexed).
5. When the correct Hand Check is achieved, it is recommended that the operator note the pressure set point on the control panel and record it on the patient’s chart.

**Note:**

- It is recommended that the Hand Check be repeated every shift.
- If the patient moves to a side-lying position, repeat the hand check to be sure that the overlay pressure is adequate and the patient is not bottoming.

## CHANGING THE BEDDING

Change the bedding per normal hospital procedures.

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 **CAUTION**

Do not pull linens tightly over overlay, but leave loose. Tight sheets may cause “hammocking” and reduce effectiveness of therapy.

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1. Linens should be loose to prevent “hammocking”.
2. Use minimal layers of sheeting and incontinence pads.

# Operation Guide

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## TRANSFERRING THE PATIENT IN AND OUT OF BED

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### WARNING

To avoid the risk of patient and operator injury, do not use the overlay as a transfer device.

---

1. Unscrew the hose connector cap from the overlay connector and turn the pump off.
2. The overlay will deflate in four to five (4-5) seconds under the weight of the patient. Deflation takes between ten to fifteen (10-15) seconds when there is no patient on the overlay.
3. Leave overlay deflated when transferring the patient in and out of bed.
4. Reconnect the hose to the overlay by screwing the hose connector cap tightly onto the overlay connector. Do not cross-thread the connector. Turn the pump on.
5. The overlay will inflate to the default setting of 24 mmHg in approximately ten (10) minutes.

## CPR

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### WARNING

To avoid the risk of patient injury, deflate the overlay before performing CPR.

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1. Unscrew the hose connector cap from the overlay. The overlay will deflate in four to five (4 to 5) seconds (See Figure 8).

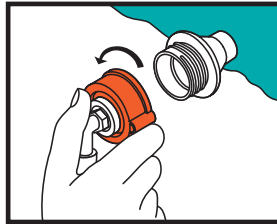


Figure 8 Deflating Overlay for CPR

2. Place CPR board between patient and overlay.
3. Proceed with CPR procedures.
4. To resume therapy, reconnect the hose connector cap and refer “Setting the Air Pressure for CL360” on [page 11](#) to assure proper therapy.

# Operation Guide

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## CLEANING THE OVERLAY

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### WARNING

- Do not reuse the **SPR-PLUS** overlay to avoid the risk of cross-contamination and infection.
- 

1. Clean overlay with soap, water, and a clean cloth.
2. Wipe dry. Do not use solvents or alcohol. Allow product to dry thoroughly.
3. Dispose of overlay in accordance with hospital waste management policy.

## CLEANING CL360 PUMP AND HOSES

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### WARNING

To avoid the risk of patient injury, disinfect the hoses, pump and power cord between patient installations, utilizing standard hospital protocol and disinfectants and manufacturers recommendations for cleaning.

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1. Clean and disinfect the hoses, pump, and power cord with soap, water, and a clean cloth.
2. Wipe dry with a clean dry cloth. Do not autoclave.
3. Coil the power cord and secure it with a tie-wrap.

#### Note:

- Refer to the Stryker Air pump manufacturer's operations manual for storage and cleaning recommendations.
- Blood and other fluids must be thoroughly cleaned from all surfaces before applying disinfectant. Apply a hospital grade disinfectant according to the manufacturer's instructions and hospital protocol. Allow to completely dry. The contact time is what makes the solution effective.

# Operation Guide

## TROUBLESHOOTING

Symptom	Possible Cause	Corrective Action
Alarm has been activated	<ol style="list-style-type: none"> <li>1. The alarm light, continuously, will activate if the actual pressure varies + 2 mmHg of the set pressure after 15 minutes. The alarm is usually an indication of an air leak or a kinked hose.</li> <li>2. Alarm light flashes and audible alarm sounds if actual pressure varies + 2 mmHg of the set pressure after 30 minutes</li> <li>3. If an audible is present and a button other than the alarm is flashing then a STUCK BUTTON is occurring</li> <li>4. If an audible is present and all of the LED's are flashing</li> </ol>	<ul style="list-style-type: none"> <li>• Check that the hose is properly connected.</li> <li>• Check the hose for cuts, holes or kinks. The hose should also be tightly connected to their respective connector.</li> <li>• Once the leak or kink has been resolved, the alarm will automatically turn off. To reset the alarm more quickly, turn the power OFF and then ON again.</li> <li>• In the third situation; Press the buttons to stop the alarm. If the alarm persists, call Stryker Technical Support</li> <li>• In the last situation, if the alarm persists, call Stryker Technical Support.</li> </ul>
Power Loss	Facility power outage, tripped circuit breaker, or possible internal damage.	<ul style="list-style-type: none"> <li>• Make sure the power cord is plugged in and power button is ON.</li> <li>• Check pump circuit breakers on the back of the pump Refer to manufacturers operations manual</li> <li>• Contact Technical Support</li> </ul>
Pump is inoperable	May be caused by other internal damage	<ul style="list-style-type: none"> <li>• Make sure the power cord is plugged into a live outlet.</li> <li>• Remove the unit from service. Contact Stryker's Technical Support.</li> </ul>
Overlay is flat	May be puncture, leak, disconnected from the pump or hose.	Check for disconnected or kinked hose, cut or punctured overlay. Replace defective overlay or pump.

# Quick Reference Replacement Parts List

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The parts and accessories listed on this page are currently available for purchase. Some of the parts identified on the assembly drawing parts in this manual may not be individually available for purchase. Please call Stryker Customer Service USA at 1-800-327-0770 for availability and pricing.

Part Name	Part Number
Stryker Air Pump	2861-000-002



# EMC Information

## CL360

<b>Guidance and manufacturer's declaration - electromagnetic emissions</b>		
The Model <b>CL360</b> is intended for use in the electromagnetic environment specified below. The customer or the user of the Model <b>CL360</b> should assure that it is used in such an environment.		
<b>Emissions test</b>	<b>Compliance</b>	<b>Electromagnetic environment - guidance</b>
RF emissions CISPR 11	Group 1	The Model CL360 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Group B	The Model CL360 is suitable for use in all establishments, including those directly connected to a public low voltage power supply network that supplies buildings used for domestic purposes
Harmonic emissions IEC 61000-3-2	NA on 120V unit	Not applicable
Voltage fluctuations flicker emissions IEC 61000-3-3	NA on 120V unit	Not applicable

# EMC Information

## CL360 (CONTINUED)

<b>Guidance and manufacturer's declaration - electromagnetic immunity</b>			
The Model <b>CL360</b> is intended for use in the electromagnetic environment specified below. The customer or user of the Model <b>CL360</b> should assure that it is used in such an environment.			
IMMUNITY test	EN/IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	$\pm 6$ kV contact $\pm 8$ kV air	$\pm 6$ kV contact $\pm 8$ kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrostatic fast transient/burst IEC 61000-4-4	$\pm 2$ kV for power supply lines  $\pm 1$ kV for input/output lines	$\pm 2$ kV for power supply lines  $\pm 1$ kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	$\pm 1$ kV differential mode  $\pm 2$ kV common mode	$\pm 1$ kV differential mode  $\pm 2$ kV common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions, and voltage variations on power supply input lines IEC 61000-4-11	NA on 120V unit	NA on 120V unit	NA on 120V unit
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	3A/m	3A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
<b>Note:</b> $U_T$ is the alternating current mains voltage prior to application of the test level.			


# EMC Information

## CL360 (CONTINUED)

<b>Guidance and manufacturer's declaration - electromagnetic immunity</b>			
The Model <b>CL360</b> is intended for use in the electromagnetic environment specified below. The customer or user of the Model <b>CL360</b> should assure that it is used in such an environment.			
<b>IMMUNITY test</b>	<b>EN/IEC 60601 test level</b>	<b>Compliance level</b>	<b>Electromagnetic environment - guidance</b>
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the model <b>CL360</b> , including cables, than the recommended separation distance calculated from the equation appropriate for the frequency of the transmitter.  <b>Recommended separation distance</b> $d=1.2\sqrt{P}$

# EMC Information

## CL360 (CONTINUED)

<b>Guidance and manufacturer's declaration - electromagnetic immunity</b>			
The Model <b>CL360</b> is intended for use in the electromagnetic environment specified below. The customer or user of the Model <b>CL360</b> should assure that it is used in such an environment.			
IMMUNITY test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Radiated RF EN/IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	<p>Portable and mobile RF communications equipment should be used no closer to any part of the Model <b>CL360</b>, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p><b>Recommended separation distance:</b></p> <p><math>D=(1.2)(\sqrt{P})</math></p> <p><math>D=(1.2)(\sqrt{P})</math> 80 MHz to 800 MHz</p> <p><math>D=(2.3)(\sqrt{P})</math> 800 MHz to 2.5 GHz</p> <p>where <math>P</math> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <math>d</math> is the recommended separation distance in meters (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, <sup>a</sup> should be less than the compliance level in each frequency range. <sup>b</sup></p> <p>Interference may occur in the vicinity of equipment with the following symbol:</p> <div style="text-align: center; margin-top: 10px;">  </div>
NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.			
NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
<sup>a</sup> Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Model <b>CL360</b> is used exceeds the applicable RF compliance level above, the Model <b>CL360</b> should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Model <b>CL360</b>			
<sup>b</sup> Over the frequency range 150 kHz to 80 MHz, field strengths are less than 3 V/m.			

# EMC Information

## CL360 (CONTINUED)

<b>Recommended separations distances between portable and mobile RF communication equipment and the Model CL360</b>			
<p>The Model <b>CL360</b> is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Model <b>CL360</b> can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Model <b>CL360</b> as recommended below, according to the maximum output power of the communications equipment.</p>			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $D=(1.2)(\sqrt{P})$	80 MHz to 800 MHz $D=(1.2)(\sqrt{P})$	800 MHz to 2,5 GHz $D=(2.3)(\sqrt{P})$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.36
100	12	12	23
<p>For transmitters rated at a maximum output power not listed above, the recommended separation distance <math>d</math> in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where <math>P</math> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.</p>			
<p>NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.</p>			
<p>NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			

# Warranty

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## LIMITED WARRANTY

Stryker Medical Division, a division of Stryker Corporation, warrants to the original purchaser **SPR-PLUS**, single patient use, Low Air Loss, Overlay System to be free from defects in material and workmanship for a period of thirty (30) days 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. If requested by Stryker, products or parts for which a warranty claim is made shall be returned prepaid to the factory. Any improper use or any alteration or repair by others in such manner as in Stryker's judgment affects the product materially and adversely shall void this warranty. Any repair of Stryker products using parts not provided or authorized by Stryker shall void this warranty. No employee or representative of Stryker is authorized to change this warranty in any way.

Stryker Medical's **SPR-PLUS** (CL212) product is designed for an expected service life of thirty (30) days under normal use, conditions

Stryker Medical's **Control Unit** (CL360) is warranted free of defects in material and workmanship for a period of one (1) year.

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 here under 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 USA at 1-800-327-0770.

## 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.





**Manufactured For**  
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USA



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