

# HoverSling®

From HoverTech International

## User Manual



# HOVERSLING® USER MANUAL

---

## Table of Contents

Symbol References .....02  
Intended Use and Precautions .....03, 04

**HOVERSLING® Introduction .....05**  
Part Identification–HoverSling .....06  
Part Identification–Air Supply.....07  
Air Supply Keypad Functions.....08  
Instructions for Use as a Transfer Mattress .....09  
Product Specifications/Required Accessories .....10, 11  
Instructions for Use as a Sling .....12–14  
Electromagnetic Compatibility Chart .....15–18  
Cleaning .....19  
Preventative Maintenance/Infection Control .....20  
Frequently Asked Questions.....21

**AIR SUPPLY .....22**  
Part Identification .....23  
Power Cord/Clamp Replacement .....24  
Handle Replacement.....25  
Feet or Bumper Replacement .....26  
Hose Removal .....27  
Air Filter and Air Filter Cover Replacement .....28  
Dust Cover/Hose Attachment Snap Replacement .....29  
Metal Cover Replacement .....30  
Cord Strap Replacement .....31  
Troubleshooting .....32

**General System Information**  
Components Parts List HTAIR .....33  
Warranty Statement .....34, 35  
Returns and Repairs .....36

# HOVERSLING® USER MANUAL

---

## Symbol Reference



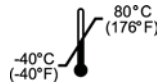
Attention! Please read accompanying documents.



This End Up



Type BF Applied Part



Temperature



Declaration of Conformity to Medical Device Directive



Humidity



Functional Earth (Ground)



Date of Manufacture



Alternating Current



Keep Dry



Underwriters Laboratory Agency Approval

120 V~:  
Medical Equipment with respect to electrical shock, fire and mechanical hazards only in accordance with UL 60601-1, IEC/EN 60601-1, CAN/CSA C22.2 No. 601.1

230 V~:  
Medical Equipment with respect to electrical shock, fire and mechanical hazards only in accordance with UL 60601-1, IEC 60601-1-2 CAN/CSA C22.2 No. 601.1

## Intended Use and Precautions

### Indications:

Patients unable to assist in their own lateral or vertical transfer. Patients whose weight or girth poses a potential health risk for the caregivers responsible for repositioning, vertically transferring or laterally transferring said patients.

### Contraindications:

Patients who are experiencing thoracic, cervical or lumbar fractures that are deemed unstable, unless using in conjunction with a spinal board on top of the HoverSling.

### Intended Care Settings:

Hospitals, long term or extended care facilities

### Precautions–General:

- Caregivers must verify that all caster brakes of bed and stretcher have been engaged prior to transfer or lift.
- Always use a minimum of two caregivers when operating the HoverSling.
- Product should only be used by trained personnel.
- Only use attachments and/or accessories that are authorized by HoverTech International.
- Before use a risk assessment shall be carried out to ensure that the correct size of HoverSling is being used for the patient.

### Precautions–HoverSling as a Sling:

- Ensure the HoverSling meets the patient's needs before using.
- A clinical assessment should be carried out by a qualified nurse and therapist before lifting patients using the HoverSling.
- Do not use the HoverSling lateral transfer handles to lift. Excessive force on the lateral transfer handles can cause the HoverSling to tear.
- Make sure the HoverSling is not attached to any object other than the hanger bar.
- Once the sling support straps are fully extended, make sure that they are properly connected to the hanger bar before the patient is lifted.
- Make sure patient is sitting securely in the HoverSling before transferring or lifting.
- Never lift a patient higher than is needed to complete the lift/transfer.
- Never leave the patient unattended while using the HoverSling.
- Use the HoverSling according to both the lift and HoverSling instructions.
- If the weight limit differs among the patient lift, hanger bar, and HoverSling, then the lowest weight limit applies.

## Intended Use and Precautions (continued)

### Precautions–HoverSling as an Air Transfer Mattress

- Never leave patient unattended on an inflated HoverSling. Never attempt a lateral transfer on an uninflated HoverSling.
- Ensure patient is centered on HoverSling before inflating.
- When transferring to or from a low air loss bed, set the bed mattress air flow to the highest level for a firm transfer surface.

### Precautions–HoverTech International Air Supply

- Route the power cord in a manner to ensure freedom from hazard.
- Avoid blocking the air intakes of the Air Supply.
- Use this product only for its intended purpose as described in this manual.

WARNING: For safety, always use a minimum of two people during patient transfer.

CAUTION: Avoid electric shock. Do not open Air Supply.

WARNING: Reference product specific manuals for additional operating instructions.

## Introduction

### Using the HoverSling® Transfer & Lift Device

The HoverSling is a product that combines HoverMatt technology and sling design into one single-patient use device. This combination allows seamless transition for lateral transfers and lift transfers, utilizing one product that can stay with the patient. It is radiolucent and artifact free, so patients can remain on the device for all ancillary procedures including Diagnostic Radiology, Nuclear Medicine, MRI, or Radiation Therapy. The HoverSling is available in two sizes to accommodate patient girth. The 34" HoverSling has a 700 lbs. (318 kg) weight limit, and the 39" HoverSling has a 1000 lbs. (454 kg) weight limit.

### The Principle of the HoverSling® Technology

**Lateral Transfer Application:** After the patient is placed on the HoverSling, low pressure air from the Air Supply will inflate the mattress. At the same time the air is supporting the patient, the air is escaping from the perforations in the underside of the HoverSling. The escaping air acts as a lubricant to reduce friction, which facilitates effortless transfers. With less force needed to transfer a patient, there is less physical effort and strain expended by caregivers, which results in a reduction of workers' compensation injuries. The HoverSling requires the caregiver to exert a force of approximately 15% of the patient's body weight for the transfer.

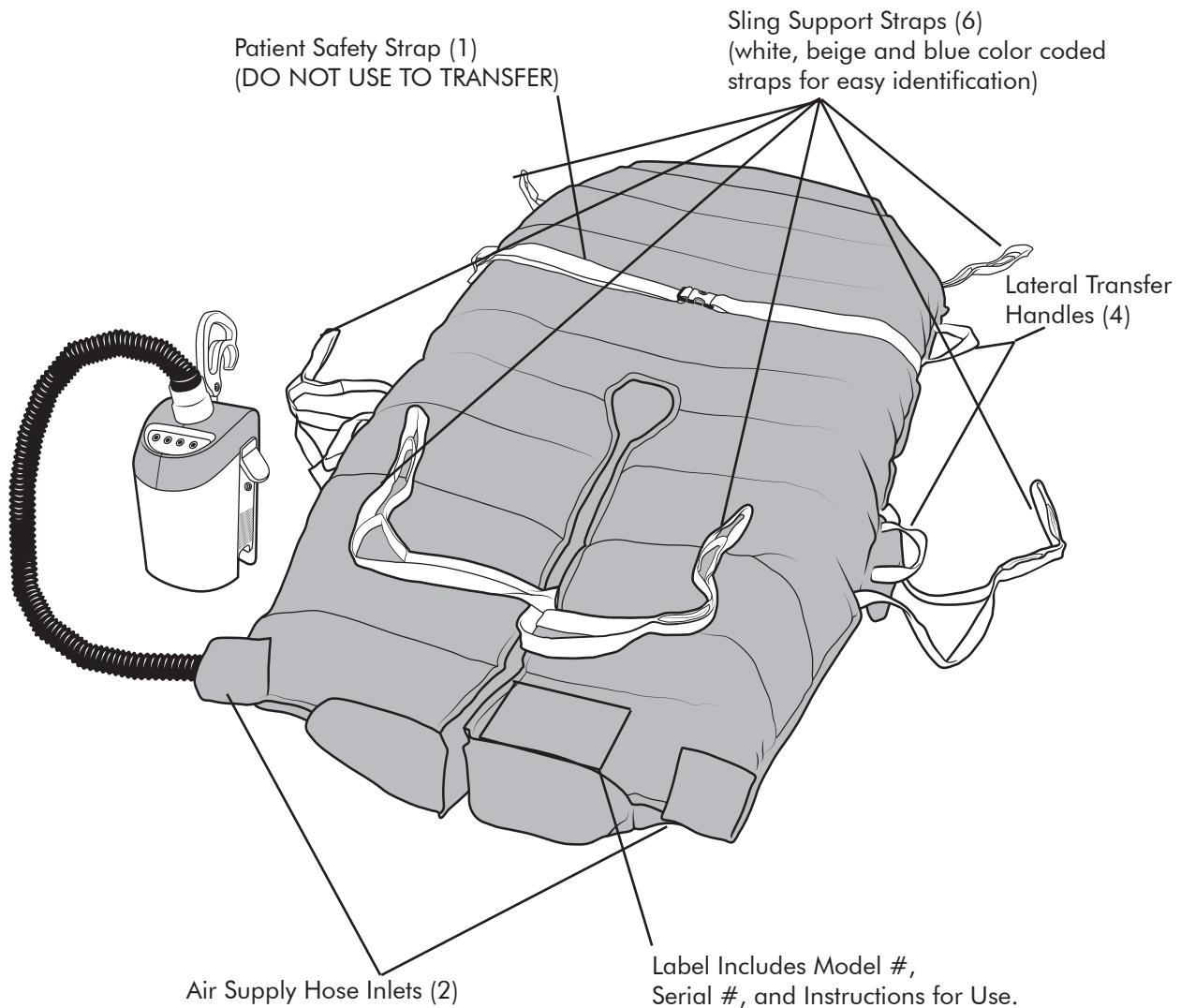
**Sling Application:** The sling application offers a general purpose design along with enhanced features to improve patient comfort. It utilizes a traditional wing and loop system that can be used with most traditional spreader bars to integrate easily into the health care facility.

### The Purpose of HoverSling® Technology

Consistent utilization of the HoverSling dramatically reduces back injuries to staff that are caused by lateral and vertical transfers and repositioning. In addition, fewer staff members are required to perform these tasks and a more comfortable transfer is provided for the patient.

# HOVERSLING® USER MANUAL

## Part Identification – HoverSling

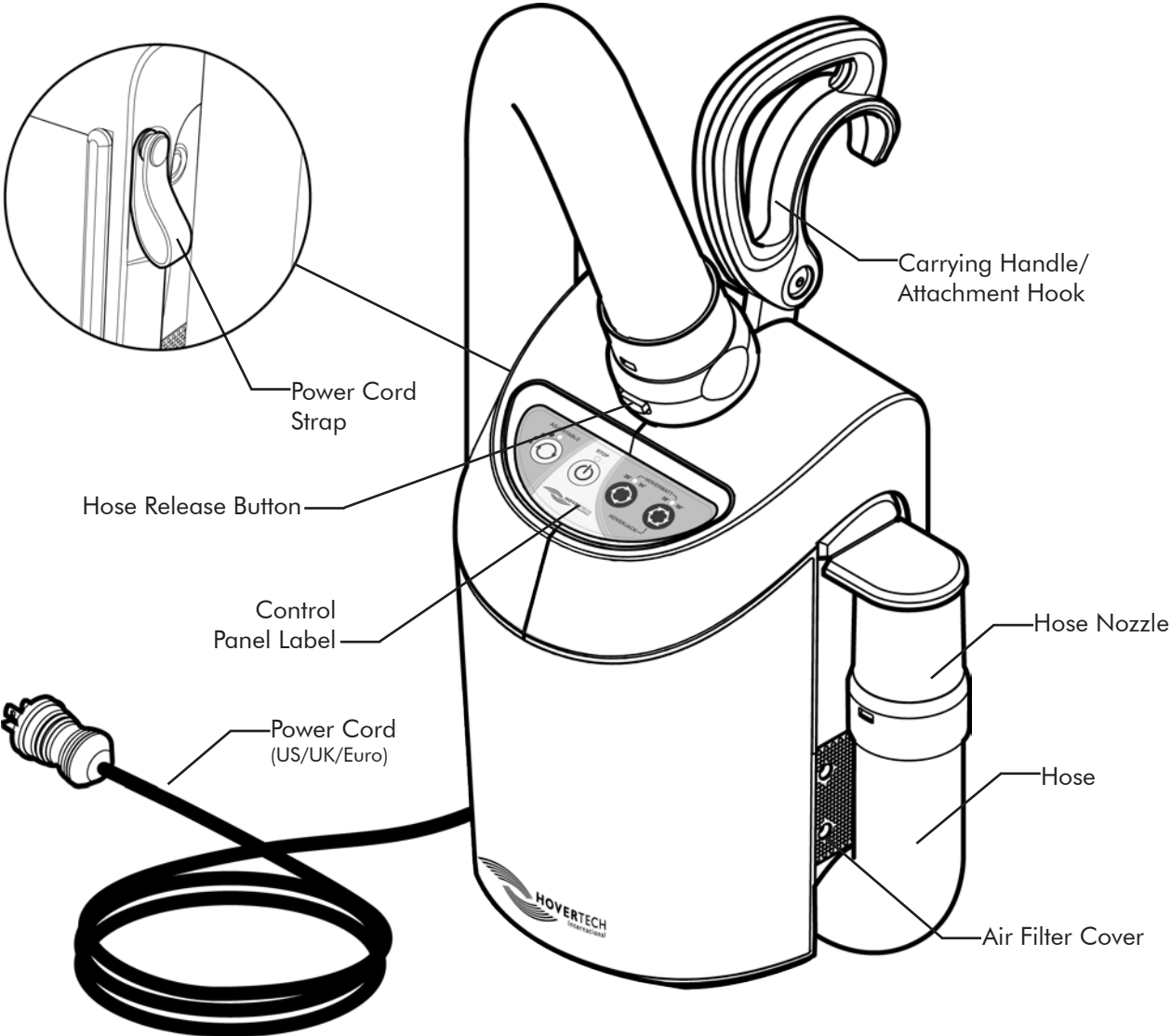


### Before each use, check to ensure:

- |                        |                               |                     |
|------------------------|-------------------------------|---------------------|
| ✓ Safety straps intact | ✓ Handles intact              | ✓ No tears or holes |
| ✓ Sling straps intact  | ✓ Do Not Launder label intact | ✓ No loose threads  |

# HOVERSLING® USER MANUAL

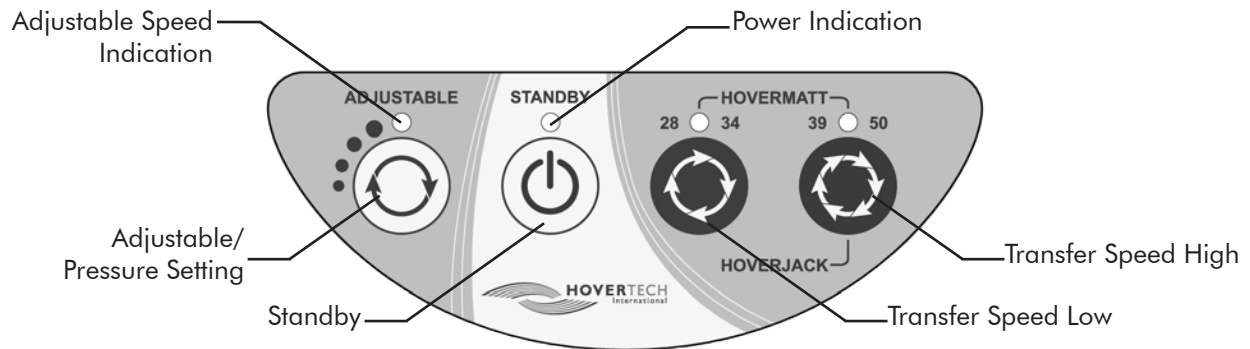
## Part Identification – Air Supply





# HOVERSLING® USER MANUAL

## Air Supply Keypad Functions



The Adjustable Keypad function has four different settings. Pressing the button once will result in the lowest inflation setting available. A second press of the button increases the air pressure and rate of inflation. Pressing the button a third time will again increase the rate of inflation. A fourth press of the button results in the highest inflation rate and air pressure available for HoverTech Accessories. The STANDBY button may be pressed at any time to cease all air flow.

NOTE: The LED will indicate the inflation speed by the number of flashes (i.e. two flashes equals the second inflation speed).

All of the settings in the Adjustable range are substantially lower than the HoverMatt® and HoverJack® settings. The Adjustable function is not to be used for transferring; it is only for use with HoverTech Accessories, which require a lower pressure for slow inflation.



Standby: Used to stop inflation/air flow.



HoverMatt® 28/34: For use with 28" & 34" HoverMatt® Air Transfer Mattresses and 34" HoverSling used as a lateral transfer mattress.



HoverMatt® 39/50 & HoverJack®: For use with 39" & 50" HoverMatt® Air Transfer Mattresses, 32" & 39" HoverJack® Air Patient Lifts, and 39" HoverSling.

## Instructions for Use as a Transfer Mattress

1. Ensure sling support straps are stowed in sleeves and the four (4) snaps located at the center leg and foot sections are connected.
2. Patient should be in a horizontal position for transfer/repositioning.

**Regardless of ease of patient movement, for safety, always use a minimum of two caregivers for the transfer.**

3. Place the HoverSling underneath patient using log-rolling technique and attach patient safety straps. Whatever the patient is lying on to keep the bed mattress clean can be placed on top of the HoverSling.
4. Plug the Air Supply power cord into an electrical outlet.
5. Insert the Air Supply hose nozzle into mattress in one of the two hose inlets located parallel to the foot end, and snap in place.
6. Be sure transfer surfaces are as close as possible and brake the wheels of the bed/stretcher.
7. If possible, transfer from a higher surface to a lower surface.
8. Turn on Air Supply by choosing the appropriate speed:



**HOVERMATT®**

Use for sizes:  
28" & 34"

Or



**HOVERMATT®**

Use for sizes:  
39" & 50"

9. Grasp transfer handles and pull patient on an angle, either head first or feet first, until patient is in desired position.
10. Ensure the patient is centered on the receiving equipment prior to deflation, especially if the width of the equipment receiving the patient is less than the width of the HoverSling.
11. Press Standby to deflate HoverSling and employ the bed/stretcher rails.

**NEVER LEAVE PATIENT UNATTENDED ON AN INFLATED HOVERSLING.**

## Product Specifications/Required Accessories

### HoverTech International Air Supply:

Classification:

- Not for use in the presence of flammable anesthetics or in a hyperbaric chamber or oxygen tent.
- Type of protection against electric shock: CLASS I EQUIPMENT
- Degree of protection against electric shock: TYPE BF APPLIED PART
- Protection against ingress of water: Ordinary (not protected).
- Mode of operation: CONTINUOUS OPERATION
- To remove supply mains, unplug equipment from wall.
- Use Temperature: 50° to 104° F (10° to 40° C)
- Use Humidity: 10% to 70% Non-Condensing
- Storage/Shipping Temperature: -40° to 176° F (-40° to 80° C)
- Storage/Shipping Humidity: 10% to 70% Non-Condensing
- Power Input: 120 V~, 60 Hz, 10 A (North American version)  
230 V~, 50 Hz, 6 A (European Version)
- Air Supply Dimensions: 12.5 x 7 x 7 inches (31.75 x 17.8 x 17.8 cm)
- Air Supply Weight: 11 lbs. (5 kg)
- Air Supply Material: Fire Retardant ABS/Stainless Steel
- Power Cord Length: 15 feet (457 cm)

### Required Accessory for use as an air transfer mattress:

HoverTech International Air Supply

Part# HTAIR1200 (North American Version)

Part# HTAIR2300 (European Version)

# HOVERSLING<sup>®</sup> USER MANUAL

---

## Product Specifications/Required Accessories

### HoverSling:

- Patient Weight Limit: 34" (86 cm) 700 lbs. (318 kg)  
39" (99 cm) 1000 lbs. (454 kg)

	HOVERSLING <sup>®</sup> Transfer & Lift Device
Material:	Nylon Twill and Non-Woven/Polypropylene Fiber
Construction:	Sewn
Width:	34" (86 cm) Inflated or 39" (99 cm) Inflated
Length:	75" (190 cm) Inflated

### Required Accessories for use as a sling:

Any patient lift with 2, 3, or 4 point hanger bars

Intended for use with:

- Mobile hoists with sling seats
- Hoist trolleys
- Stationary hoists fixed to the wall/walls, floor and/or ceiling
- Stationary free-standing hoists

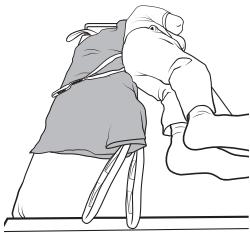
**All HoverTech International Products are Latex-Free.**

**For a full product listing go to [www.HoverMatt.com](http://www.HoverMatt.com).**

## Instructions for Use as a Sling

### Placing HoverSling – Patient in Bed

**Note: HoverSling has six (6) sling support straps that need to be attached.**



#### 1. Position patient

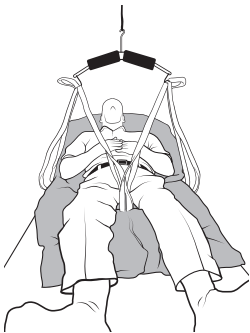
Option 1 – Place the HoverSling underneath patient using log-rolling technique with the apex of the sling's horseshoe at the coccyx of the patient. Elevate the head of the bed.

Option 2 – Elevate the head of the bed. Lean patient forward and slide sling behind patient's back until the apex of the horseshoe reaches the coccyx of the patient. Have patient lean back to hold sling in place.



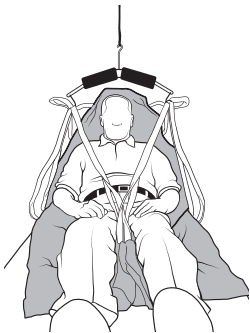
#### 2. Cross inside leg support straps and attach

Release inside leg snaps. Cross inside leg support straps by taking one leg support strap and passing it through the other on the opposite side. Attach inside leg supports to hanger bar.



#### 3. Attach outside leg support straps

Attach outside leg support straps to hanger bar.

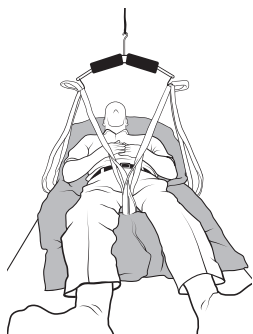


#### 4. Attach shoulder straps

Attach shoulder straps to the hanger bar for the proper safety and comfort of the patient. [Color coded strap loops provide easy identification to match strap placement on the left and right side of the patient. Shorter strap loops at shoulder (blue/beige) create a more upright sitting position, while longer shoulder and leg strap loops (white) increase recline angle and reduce hip flexion.]

## Instructions for Use as a Sling

### Disconnecting HoverSling–Patient in Bed



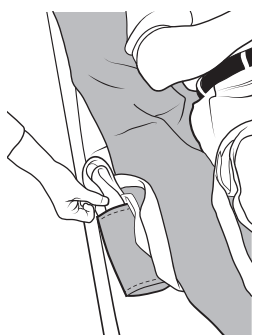
#### **1. Position patient and lower onto bed**

Position patient above center of bed. Raise head of bed and lower patient on to bed.



#### **2. Detach strap loops**

Detach strap loops from hanger bar.

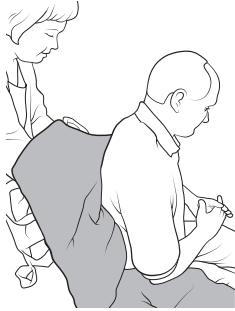


#### **3. Place the straps back into the strap pockets**

Place the straps back into the strap pockets on the inside and outside edges of the HoverSling.

## Instructions for Use as a Sling

### Placing HoverSling–Patient in Chair



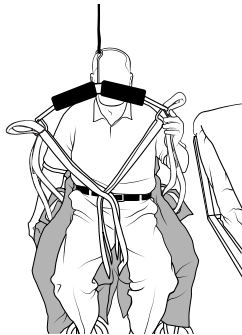
#### 1. Position patient

Release leg snaps. Lean patient forward. Place the apex of the sling's horseshoe behind the patient until you touch the seat ensuring the sling is centered on the patient's torso. Have patient lean back against the sling to hold it in place.



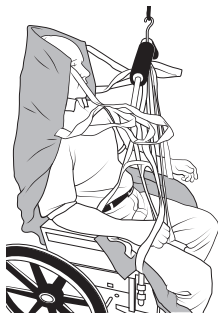
#### 2. Adjust leg sections

Place the leg sections along the side of the hips and legs, then place each leg section underneath each respective leg.



#### 3. Cross inside leg support straps and attach all leg straps

Cross inside leg support straps by taking one leg support strap and passing it through the other on the opposite side. Attach inside and outside leg support straps to hanger bar.



#### 4. Attach shoulder straps

Attach shoulder straps to the hanger bar for the proper safety and comfort of the patient. [Color coded strap loops provide easy identification to match strap placement on the left and right side of the patient. Shorter strap loops at shoulder (blue/beige) create a more upright sitting position, while longer shoulder and leg strap loops (white) increase recline angle and reduce hip flexion.]

For HTAIR-2300 ONLY


Guidance and Manufacturer’s Declaration – Electromagnetic Emissions		
<p>The HoverTech International Air Supply is intended for use in the electromagnetic environment specified below. The customer or the user of the HoverTech International Air Supply should ensure that it is used in such an environment.</p>		
Emissions Test	Compliance	Electromagnetic Environment Guidance
RF emissions CISPR11	Group 1	The HoverTech International Air Supply 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 CISPR11	Class A	The HoverTech International Air Supply is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC-61000-3-3	Complies	



For HTAIR-2300 ONLY

<b>Guidance and Manufacturer's Declaration – Electromagnetic Immunity</b>			
<p>The HoverTech International Air Supply is intended for use in the electromagnetic environment specified below. The customer or the user of the HoverTech International Air Supply should ensure that it is used in such an environment.</p>			
<b>Immunity Test</b>	<b>IEC 60601 Test Level</b>	<b>Compliance Level</b>	<b>Electromagnetic Environment-Guidance</b>
Electrostatic Discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 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%.
Electrical fast Transient/burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input-output lines	± 2 kV for supply mains ± 1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	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	< 5% $U_T$ (> 95% dip in $U_T$ ) For 0,5 cycle  40% $U_T$ (60% dip in $U_T$ ) For 5 cycles  70% $U_T$ (30% dip in $U_T$ ) For 25 cycles  < 5% $U_T$ (>95% dip in $U_T$ ) for 5 seconds	< 5% $U_T$ (> 95% dip in $U_T$ ) For 0,5 cycle  40% $U_T$ (60% dip in $U_T$ ) For 5 cycles  70% $U_T$ (30% dip in $U_T$ ) For 25 cycles  < 5% $U_T$ (>95% dip in $U_T$ ) for 5 seconds	Mains power quality should be that of a typical commercial or hospital environment. If the user of the HoverTech International Air Supply requires continued operation during mains interruptions, it is recommended that the HoverTech International Air Supply be powered from an uninterruptible power supply or a battery.
Power Frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical commercial or hospital environment.
<b>NOTE:</b> $U_T$ is the AC mains voltage prior to application of the test level			

For HTAIR-2300 ONLY

Guidance and Manufacturer's Declaration –Electromagnetic Immunity			
<p>The HoverTech International Air Supply is intended for use in the electromagnetic environment specified below. The customer or the user of the HoverTech International Air Supply should ensure that it is used in such an environment.</p>			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
<p>Conducted RF IEC 61000-4-6</p> <p>Radiated RF IEC 61000-4-3</p>	<p>3 Vrms 150 kHz to 80 MHz</p> <p>3 V/m 80 MHz to 2.5 GHz</p>	<p>3 V</p> <p>3 V/m</p>	<p>Portable and mobile RF communications equipment should be used no closer to any part of the HoverTech International Air Supply, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter</p> <p>Recommended separation distance  <math>d = 1.2 \sqrt{P}</math>  <math>d = 1.2 \sqrt{P}</math> 80 to 800 MHz  <math>d = 2.3 \sqrt{P}</math> 800 MHz to 2.5 GHz</p> <p>Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).</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 marked with the following symbol:</p> 
<p><b>NOTE 1:</b> At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p><b>NOTE 2:</b> These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.</p> <p>a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the device.</p> <p>b Over the frequency range 150 kHz to 80 MHz, the field strengths should be less than 3 V/m.</p>			

For HTAIR-2300 ONLY

<b>Recommended separation distances between portable and mobile RF communications equipment and the HoverTech International Air Supply</b>			
<p>The HoverTech International Air Supply is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the HoverTech International Air Supply can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the HoverTech International Air Supply as recommended below, according to the maximum output power of the communications equipment.</p>			
<b>Rated maximum output power of transmitter W</b>	<b>Separation distance according to frequency of transmitter m</b>		
	<b>15 kHz to 80 MHz <math>d=[3.5/V_1]\sqrt{P}</math></b>	<b>80 MHz to 800 MHz <math>d=[3.5/V_1]\sqrt{P}</math></b>	<b>800 MHz to 2.5 GHz <math>d=[7/E_1]\sqrt{P}</math></b>
0.01	0.12	0.12	0.23
0.10	.38	.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
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><b>NOTE 1:</b> At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.</p> <p><b>NOTE 2:</b> These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.</p>			

## Cleaning

### HoverSling® Transfer & Lift Device

The HoverSling is a single-patient use product and is not intended to be reprocessed. If the HoverSling is laundered, the perimeter seam thread will dissolve.

### Air Supply Cleaning and Maintenance

In between patient uses, the Air Supply can be cleaned by wiping down using a damp cloth with soap and water or mild neutral detergent. Dry using a clean, dry cloth or disposable paper towel.

Plastic, fitted hose covers are available.

\*Do not spray cleaners or liquids directly on the Air Supply.

**NOTE: CHECK YOUR LOCAL/STATE/FEDERAL/INTERNATIONAL GUIDELINES BEFORE DISPOSAL.**

## Preventive Maintenance

Prior to use, a visual inspection should be performed on the HoverTech International Air Supply to insure the power cord is not frayed or nicked, and that there is no visual damage that would render the Air Supply unusable.

The HoverSling should have all of its safety straps, sling support straps, and handles (reference Page 6 of the manual for all appropriate parts). There should be no tears or holes.

If any damage is found that would cause the HoverSling not to function as intended, the HoverSling should be removed from use.

If any damage is found that would cause the Air Supply not to function as intended, the Air Supply should be removed from use and returned to HoverTech International for repair (see page 36 Returns and Repairs).

The Air Supply has air filters on either side of the motor. These filters can be accessed by removing the small screws holding the filter cover in place. Filters should be cleaned by holding under warm running water. Allow to air dry. As preventive maintenance, filter cleaning should be performed monthly.

## Infection Control

HoverTech International offers superior infection control with our single-patient use HoverSling® Transfer & Lift Device.

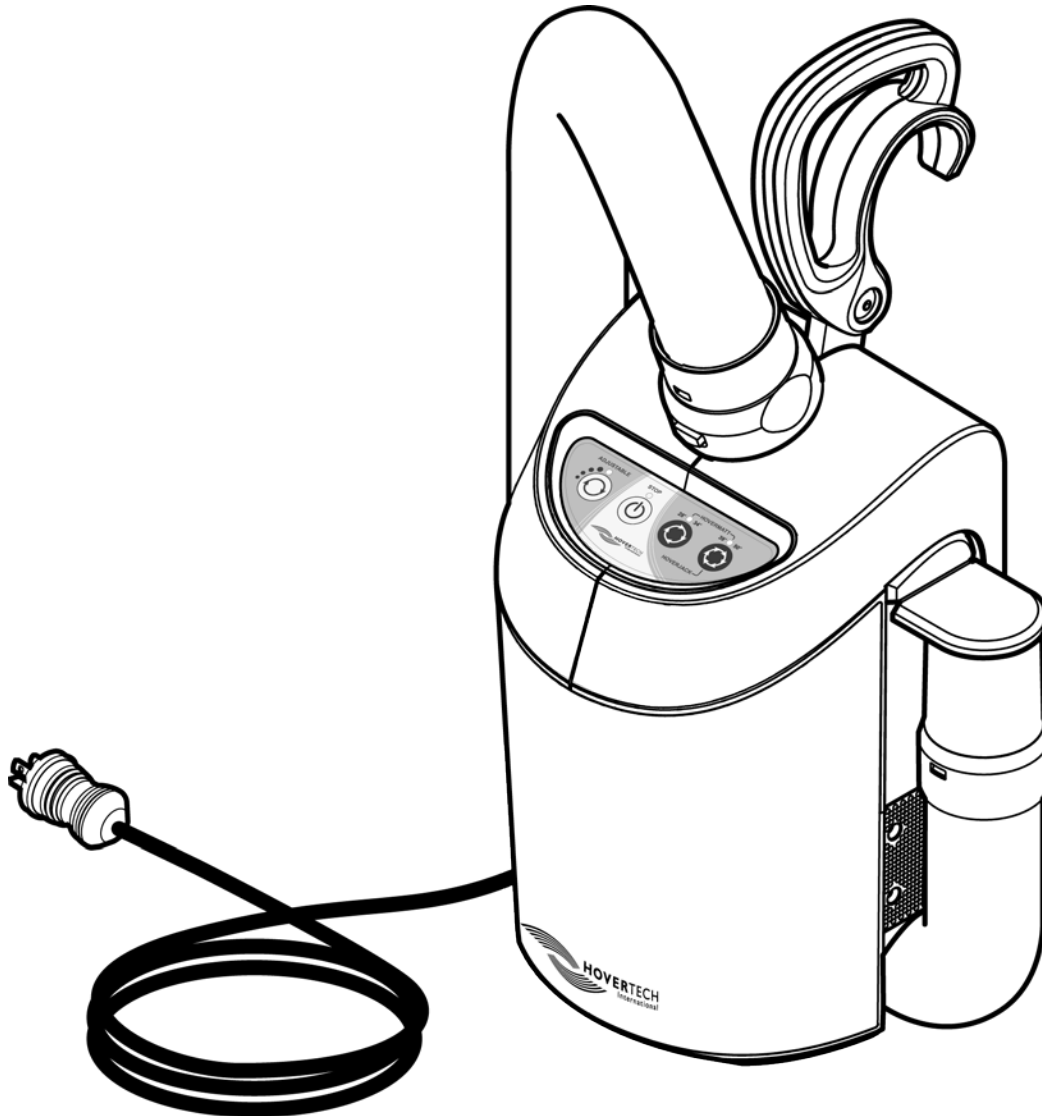
Whatever the patient is lying on to keep the hospital bed clean may be placed on top of the HoverSling to help keep it clean. If desired, the protector sheet or disposable sheet may be used to cover the transfer mattress (available for separate purchase). This sheet may also be placed under the transfer mattress, when log rolling the patient, to prevent the bottom of the HoverSling from coming in contact with the hospital bed sheets.

If the HoverSling is used on an isolation patient, the hospital should employ the same protocols/procedures it utilizes for the bed mattress and/or for the linen in that patient room.

## Frequently Asked Questions

1. *What is the weight limit of the HoverSling?*  
The patient weight limit is 700 lbs. (318 kg) for the 34" HoverSling and 1000 lbs. for the 39" HoverSling.
2. *Is the HoverSling latex free?*  
Yes.
3. *Is the HoverSling FDA Approved?*  
HoverTech International is registered with the FDA. The HoverSling is listed as a Class II device and is exempt from pre-market notification and approval.

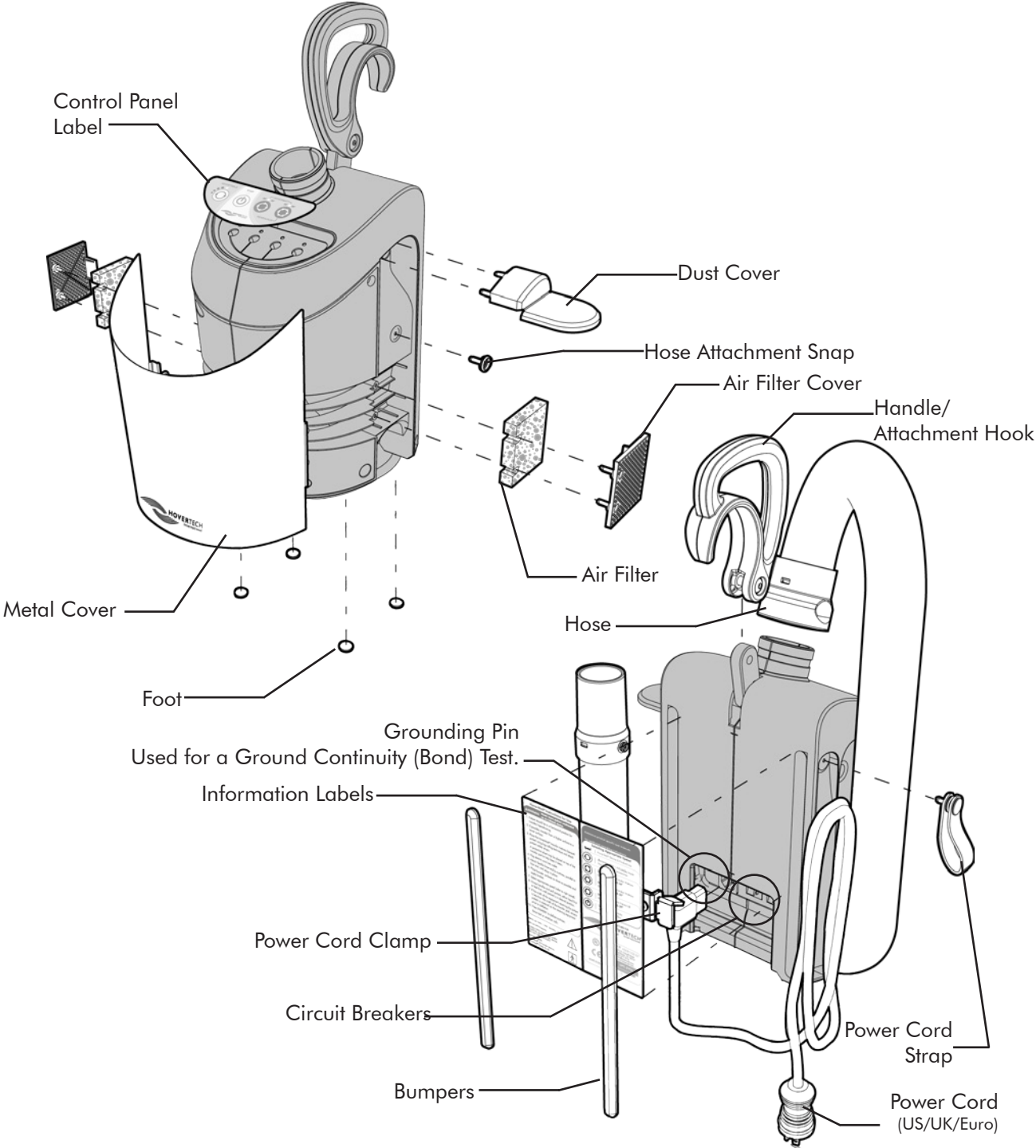
## AIR SUPPLY



**NO USER SERVICEABLE PARTS.**  
**Only qualified service personnel shall perform repairs on the HoverTech International Air Supply.**

# HOVERSLING® USER MANUAL

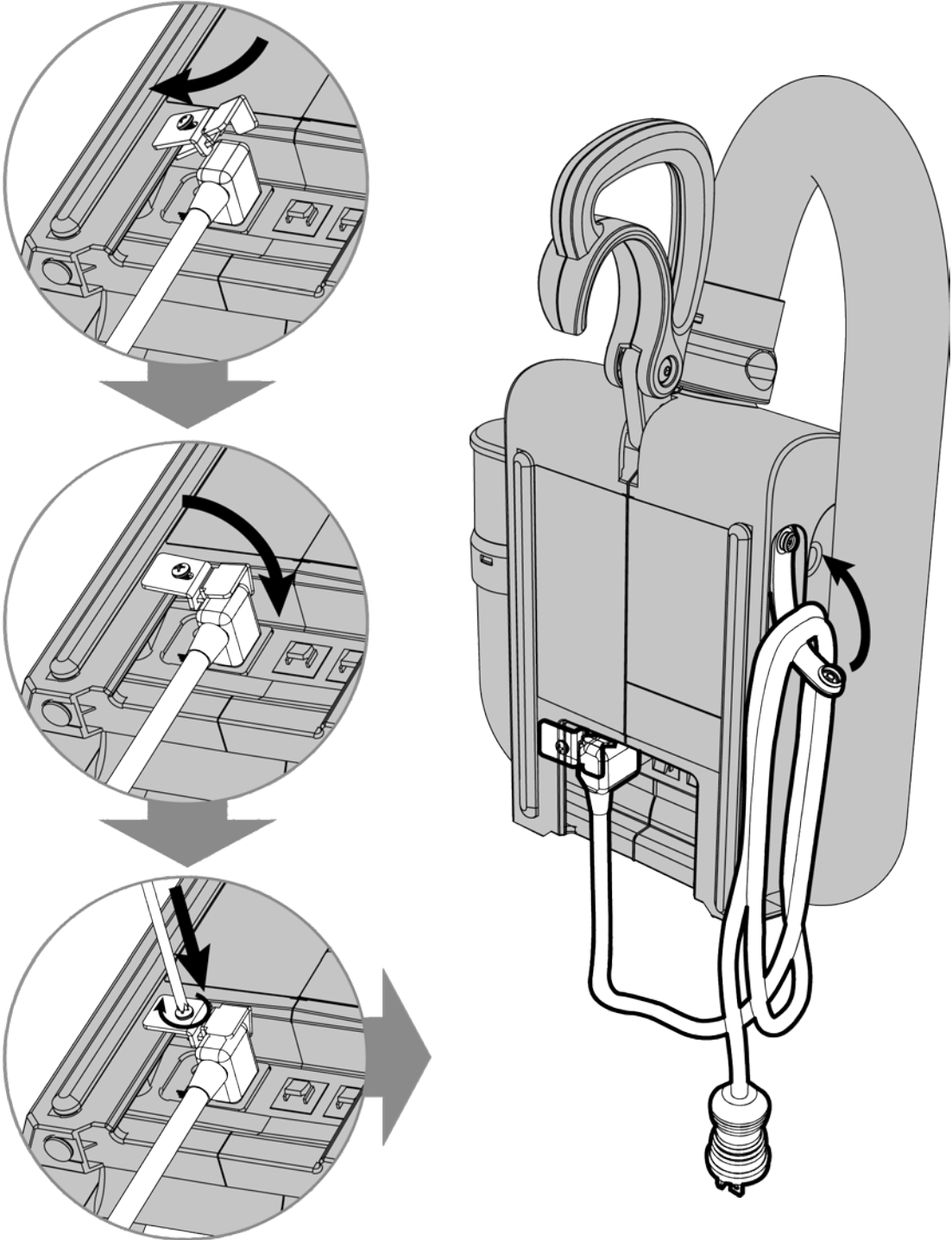
## Part Identification





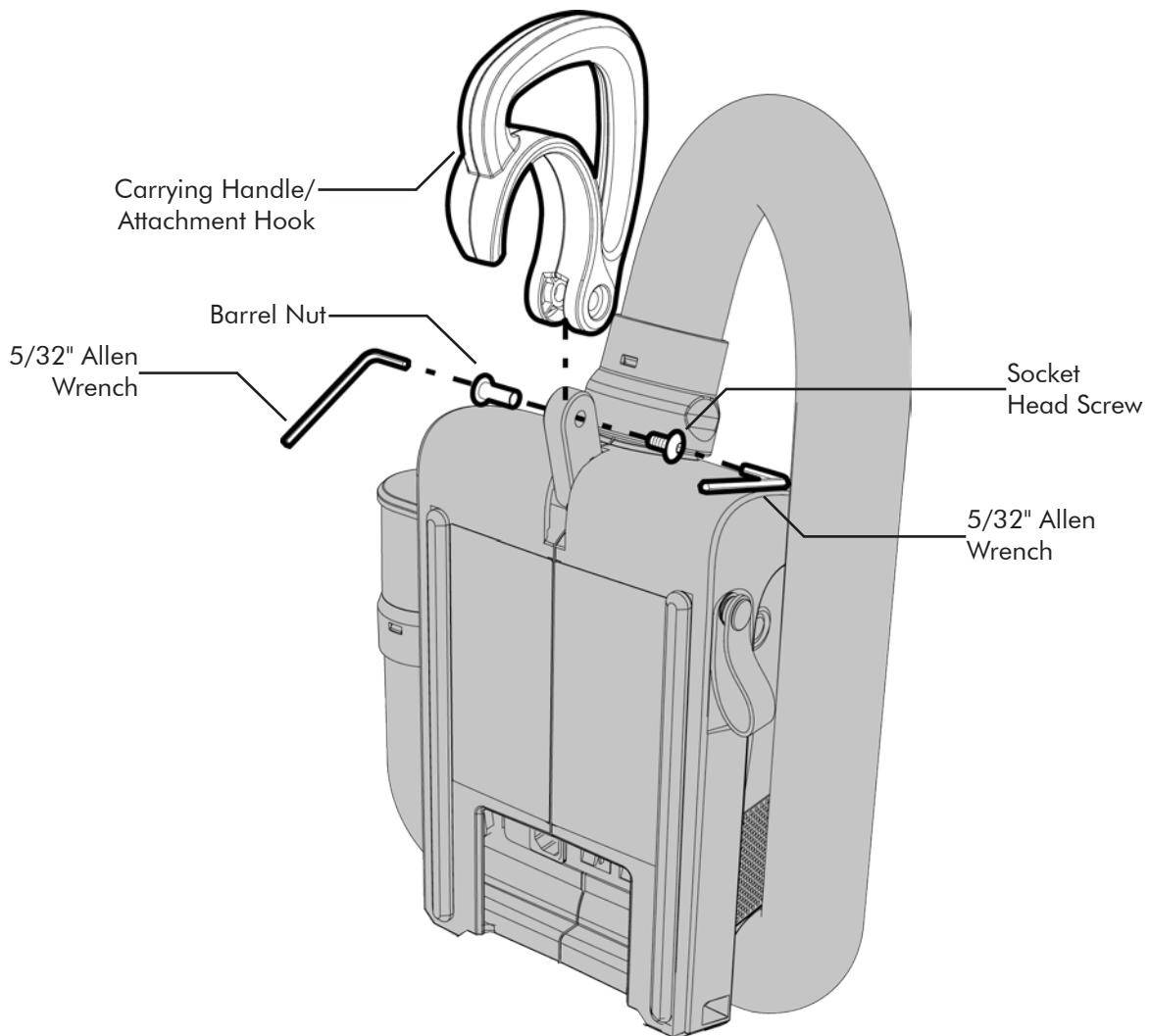
# HOVERSLING® USER MANUAL

## Power Cord/Clamp Replacement



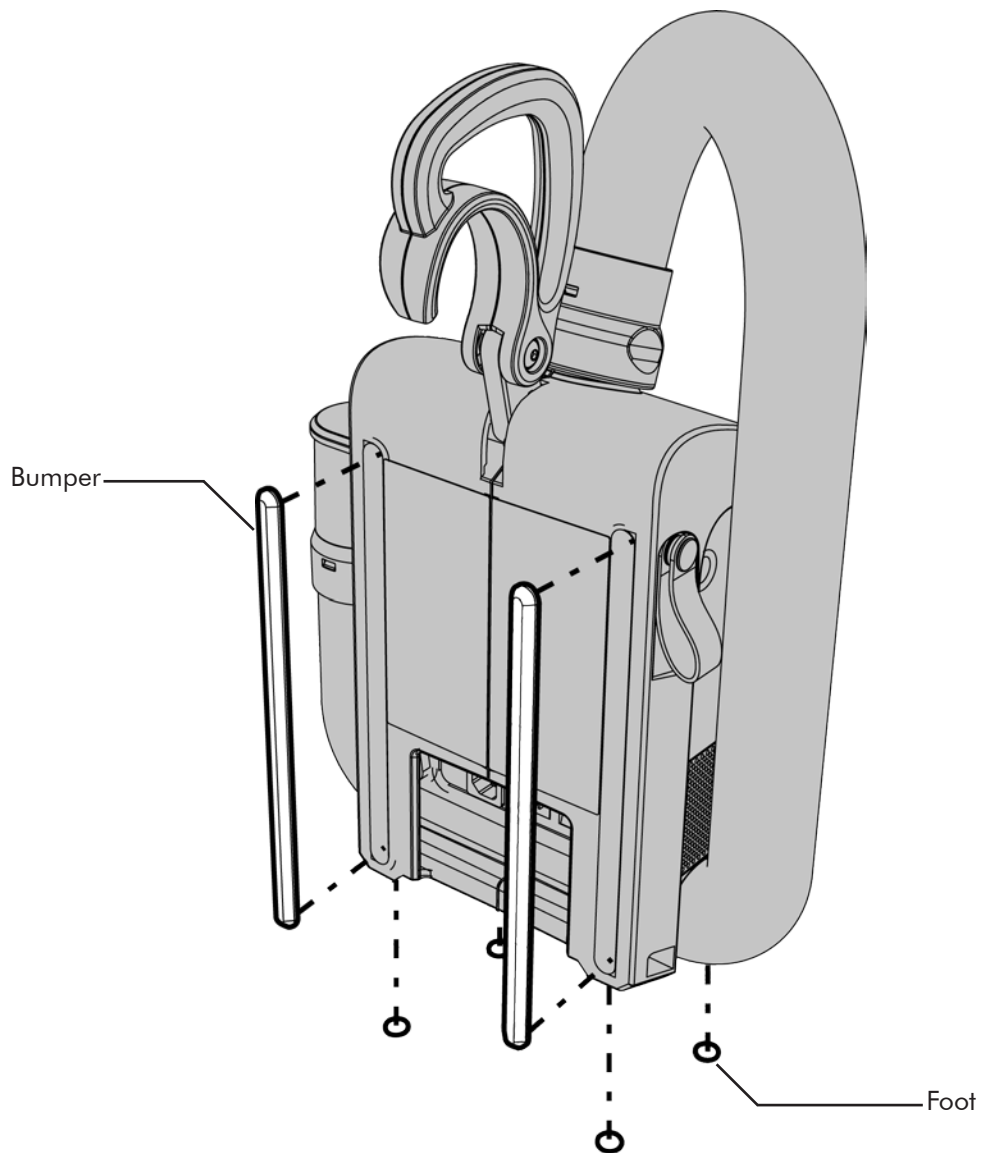
## Handle Replacement

1. Remove the damaged handle by unscrewing the socket head screw from the barrel nut using two 5/32" allen wrenches as shown.
2. Attach the new handle by reversing the process. When tightening the screw be sure that the handle can rotate easily. The screw is treated with thread lock to secure it in place.



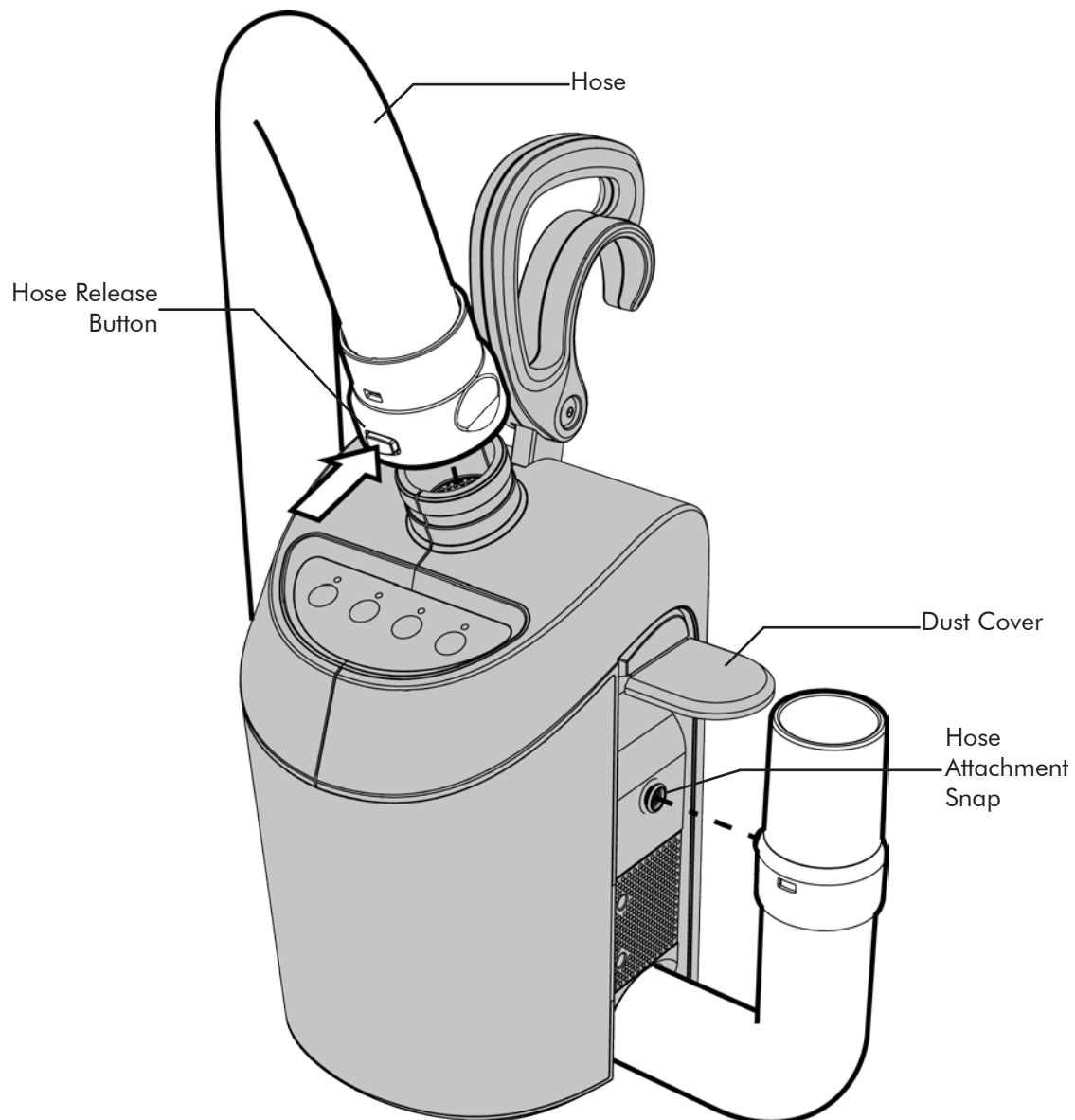
## Feet or Bumper Replacement

1. The feet and bumpers are held in place by a self-adhesive backing. Use a small, flat bladed screwdriver to pry up an edge and gently remove the foot or bumper.
2. Clean surface thoroughly to remove any excess adhesive that may have been left behind. Apply the new part by removing the backing material and position as shown. Press firmly to ensure adhesion.



## Hose Removal

1. Remove the damaged hose by lifting the dust cover slightly and unsnapping the hose from the side of the unit as shown.
2. Push the release button at the top of the unit to remove the hose.
3. Attach the new hose by reversing the process.



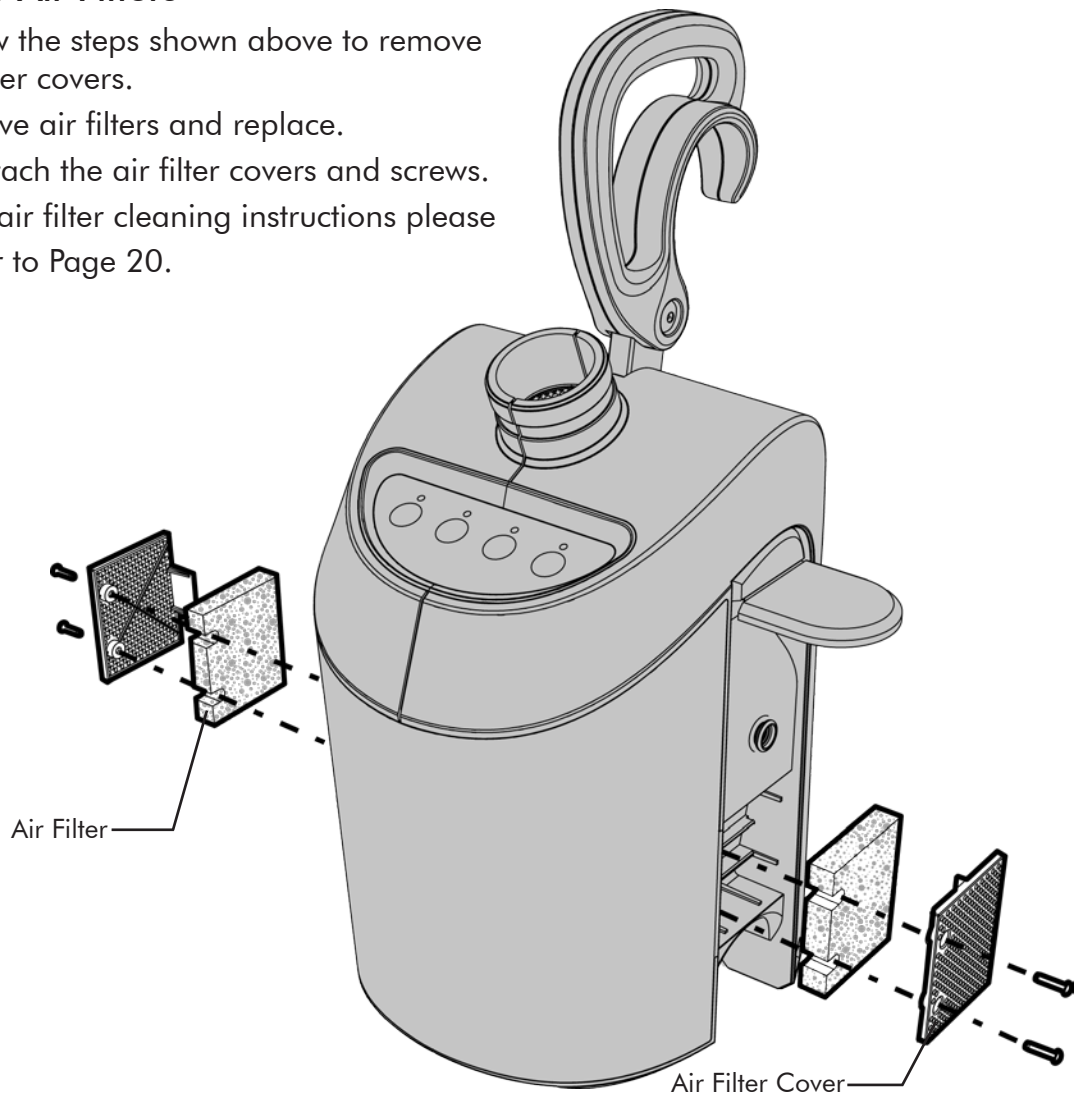
## Air Filter and Air Filter Cover Replacement

### To Remove Air Filter Covers

1. Disconnect hose from unit. (See page 27)
2. Remove the two phillips head screws on each side to detach the air filter covers.
3. Re-attach the new air filter covers and screws.

### To Remove Air Filters

1. Follow the steps shown above to remove air filter covers.
  2. Remove air filters and replace.
  3. Re-attach the air filter covers and screws.
- \* For air filter cleaning instructions please refer to Page 20.



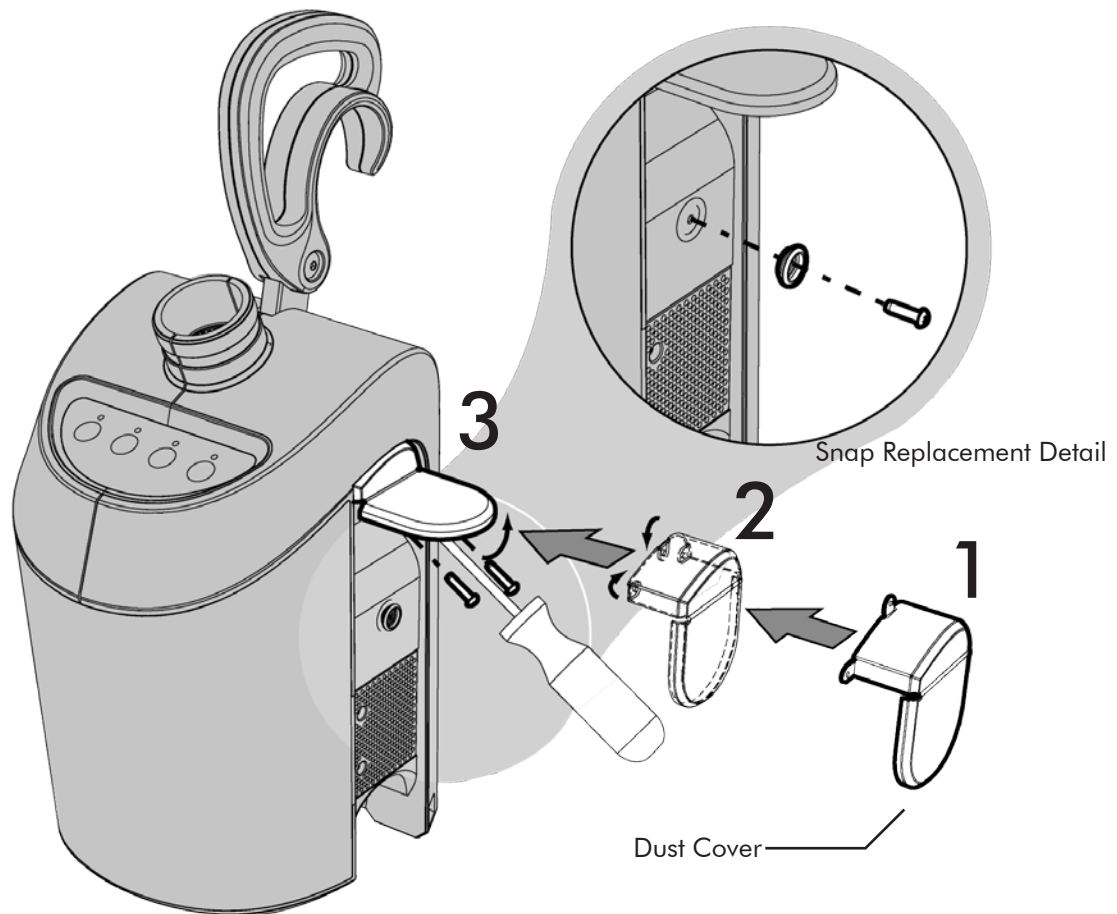
## Dust Cover/Hose Attachment Snap Replacement

### To Remove Dust Cover

1. Disconnect hose from unit. (See page 27)
2. Lift the cover "flap" to remove the 3 phillips head screws that attach the dust cover.
3. To replace dust cover, fold in the three flexible tabs. Then insert the screws one at a time starting with the top middle followed by the sides.

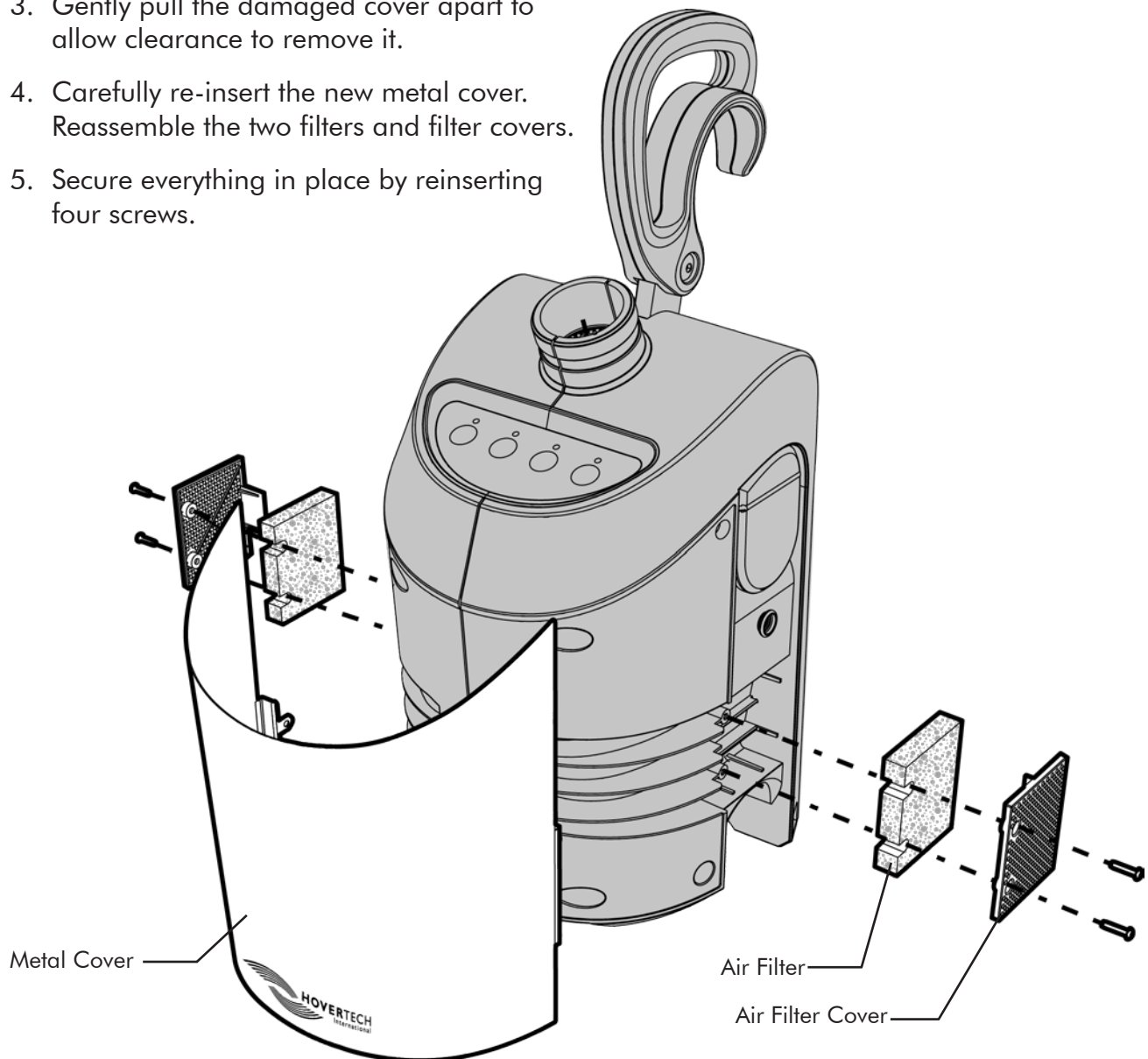
### To Remove Hose Attachment Snap

1. Disconnect hose from unit. (See page 27)
2. Remove the phillips head screw and snap.



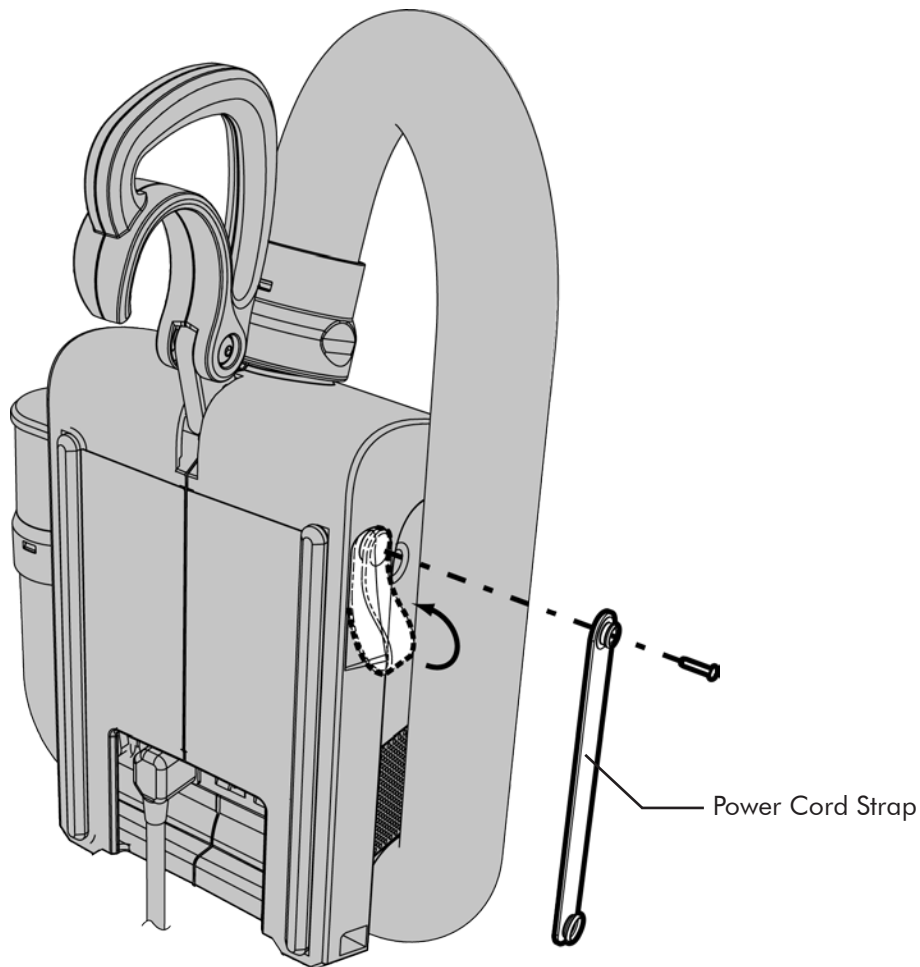
## Metal Cover Replacement

1. Disconnect hose from unit. (See page 27)
2. Remove the two phillips head screws on each side to detach the air filter covers. Remove the air filters.
3. Gently pull the damaged cover apart to allow clearance to remove it.
4. Carefully re-insert the new metal cover. Reassemble the two filters and filter covers.
5. Secure everything in place by reinserting four screws.



## Cord Strap Replacement

1. Unsnap the strap and remove power cord.
2. Detach the damaged cord strap by removing the screw as shown.
3. Reattach strap by positioning in place and securing it with the screw provided.





## Troubleshooting for HTAIR-1200/HTAIR-2300

	No Indicators (lights)	No Air Flow	No Button Function	Mattress Pressure Low	
X	X	X			Verify AC from wall Check power cord connections at air supply and wall Check circuit breakers on rear of air supply unit
X					Return unit for repair
	X				Return unit for repair
		X			Return unit for repair
			X		Check hose connections at air supply and mattress Check hose for rips/tears Check mattress for rips/tears Verify that air filters are clean

# HOVERSLING® USER MANUAL

---

## Component Parts List for HTAIR-1200/HTAIR-2300

HoverTech Part Number	Description
HTA-AF	Air Filters (sold in pairs)
HTA-AFC	Air Filter Cover with screws (sold in pairs)
HTA-B/F	Bumpers and Feet (sold as a kit)
HTA-CPL	Control Panel Label
HTA-DC	Dust Cover w/ screws (kit)
HTA-H/AH	Handle/Attachment Hook
HTA-HAS	Hose Attachment Snap
HTA-Hose	Hose Assembly
HTA-IL	Information Labels
HTA-MC	Metal Cover w/ screws
HTA-PCord	Power Cord
HTA-PCS	Power Cord Strap with screw
HTA-PCC	Power Cord Clamp

## Warranty Statement

The HoverSling and the HoverTech International Air Supplies are warranted to be free from defects in materials and workmanship. Warranty begins on date of in-service by a HoverTech International representative or shipment date.

### **HoverSling® Transfer & Lift Device:**

In the unlikely event that a problem arises as a result of a defect in materials or workmanship, we will promptly replace your item—at our expense and discretion using current models or parts performing the equivalent function—upon receipt of the original item to our repair department. You must pre-notify HoverTech International by phone (800-471-2776). Item is to be insured by you against loss during transportation and must be shipped with transportation and/or broker charges prepaid.

### **HoverTech International Air Supplies:**

In the unlikely event that a problem arises as a result of a defect in materials or workmanship, we will promptly repair your HoverTech International Air Supply or replace it if we feel that it cannot be repaired—at our expense and discretion using current models or parts performing the equivalent function—upon receipt of the original item to our repair department. You must pre-notify HoverTech International by phone (800-471-2776). Item is to be insured by you against loss during transportation and must be shipped with transportation and/or broker charges prepaid. Should any HoverTech International product be returned that is not covered under warranty, there will be a minimum \$100 service charge plus shipping costs. Lead time for repairs is approximately 2 weeks. Please refer to the Return and Repairs section of this Manual for return instructions.

This warranty is not an unconditional guarantee for the life of the product. Our warranty does not cover product damage that may result from use contrary to Manufacturer's instructions or specifications, misuse, abuse, tampering, or damage due to mishandling. Warranty specifically does not cover product damage that may result from using an air supply that produces more than 3.5 psi to inflate the HoverSling. Equipment that has been neglected, improperly maintained, repaired or altered by someone other than an authorized representative of Manufacturer, or operated in anyway contrary to the operating instructions, shall void this warranty.

## Warranty Statement (continued)

This warranty does not cover normal “wear and tear”. Component parts, particularly any optional equipment, valve caps, their attachments and cords, will show wear with use over time and eventually may need to be refurbished or replaced. This normal type of wear is not covered by our warranty, but we will provide prompt, high quality repair service and parts at a nominal cost.

HoverTech International’s liability under this warranty and on any claim of any kind for any loss or damage arising out of, connected with, or resulting from the design, manufacture, sale, delivery, installation, repair or operation of its products, whether in contract or tort, including negligence, shall not exceed the purchase price paid for the product and upon expiration of the applicable warranty period, all such liability terminates. The remedies which this warranty provides are exclusive and HoverTech International shall not be liable for any incidental or consequential damages.

There are no warranties, expressed or implied, which extend beyond this warranty statement. The provisions of these warranty clauses are in lieu of all other warranties, expressed or implied, and of all other obligations or liabilities on HoverTech International’s part and neither assumes nor authorizes any other person to assume for HoverTech International any other liability in connection with Manufacturer sale or lease of said products. HoverTech International makes no warranty of merchantability or fitness for a particular purpose. There is no warranty that the goods will be fit for a particular purpose. By accepting the goods, the buyer acknowledges that buyer has determined the goods are suitable for the buyer’s purposes.

**MANUFACTURER’S SPECIFICATIONS ARE SUBJECT TO CHANGE.**

## Returns and Repairs

All products being returned to HoverTech International must have a Return Goods Authorization Number issued from the company. Please call 800-471-2776 for an RGA #. Any products returned without the necessary RGA # may cause a delay in the repair time. If the product is not covered under warranty, a minimum charge of \$100 will be assessed for each repair. Should a repair charge be assessed, HoverTech International will notify the facility and a purchase order for the repair will need to be issued before the repair can be completed. Lead-time for repairs is approximately 2 weeks.

### All products should be sent to:

HoverTech International  
513 South Clewell St.  
Bethlehem, PA 18015

Attn: Repair Dept./RGA # \_\_\_\_\_  
Phone: 800-471-2776  
Fax: 610-694-9601

**HoverTech International**

513 South Clewell St.  
Bethlehem, PA 18015  
Phone: 800-471-2776  
[www.HoverMatt.com](http://www.HoverMatt.com)

