## Ordering Information

<table>
<thead>
<tr>
<th>Code No</th>
<th>Description</th>
<th>Shipping Unit</th>
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<tr>
<td>2031</td>
<td>AV Impulse System® Controller</td>
<td>1 each</td>
</tr>
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<td>5030</td>
<td>AV Impulse System® Controller</td>
<td>1 each</td>
</tr>
<tr>
<td>5076</td>
<td>Infant Foot Cover</td>
<td>1 each</td>
</tr>
<tr>
<td>5078</td>
<td>Infant Foot Cover</td>
<td>4 each/4 case</td>
</tr>
<tr>
<td>5080</td>
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</tr>
<tr>
<td>5090</td>
<td>Infant Foot Cover</td>
<td>4 each/4 case</td>
</tr>
<tr>
<td>5092</td>
<td>Infant Foot Cover</td>
<td>12 each/4 case</td>
</tr>
<tr>
<td>5094</td>
<td>Infant Foot Cover</td>
<td>12 each/4 case</td>
</tr>
<tr>
<td>6062</td>
<td>Right Hand</td>
<td>4 each/4 case</td>
</tr>
<tr>
<td>6064</td>
<td>Right Hand</td>
<td>4 each/4 case</td>
</tr>
<tr>
<td>6068</td>
<td>Left Hand</td>
<td>4 each/4 case</td>
</tr>
<tr>
<td>6069</td>
<td>Left Hand</td>
<td>4 each/4 case</td>
</tr>
<tr>
<td>6067</td>
<td>Right Foot</td>
<td>12 each/4 case</td>
</tr>
<tr>
<td>6063</td>
<td>Left Foot</td>
<td>12 each/4 case</td>
</tr>
<tr>
<td>6066</td>
<td>Infant Hand Cover</td>
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</tr>
<tr>
<td>6065</td>
<td>Infant Hand Cover</td>
<td>4 each/4 case</td>
</tr>
</tbody>
</table>

## Air Supply Hose

| 5027 | Hose Assemblies | 1 each |

## Infant Drape, Sack, Foot Cover, Knee Cover

<table>
<thead>
<tr>
<th>Weave cloth size</th>
<th>REGULAR</th>
<th>LARGE</th>
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</thead>
<tbody>
<tr>
<td>Mtr</td>
<td>6-21</td>
<td>22-42</td>
</tr>
</tbody>
</table>

Note: For Infant Drape, Sack, and Knee Cover Ends, two sets fit all.

**Produced by:** Tyco Healthcare

**Model:** 6060

**Operator’s Instruction Manual for Controller and Accessories**

**Tyco Healthcare**

**Kendall**

**AV Impulse System**

**Modell 6060**

**Federal Law restricts this device to sale, by or on the order of a physician**
Introduction

The venous reflux in the lower extremities is a very powerful natural blood pump during weight bearing and walking. Open vein, weight-bearing veins in the foot are forcibly emptied into the deep veins of the leg. The blood flow generated is highly pulsatile and is so powerful that it can overcome a calf cuff inflated to 100 mmHg. This action alone is sufficient to empty blood from the foot in the right ventricle of the heart in the weight position. A similar pumping mechanism exists in the palm and back of the hand. These important physiological processes led to the design of the A-V Impulse System Controller and Accessories.

The A-V Impulse System has been developed to mimic the natural function of walking on the circulation of blood in the legs. For the patient who is nonambulatory or partially ambulatory as a result of trauma, surgery or pathology, the system has been shown to increase substantially the circulation of blood to the legs. The A-V Impulse System can also enhance circulation to the arms by applying Impulse compression to the hand.

Venous reflux is accepted as being a major factor in the development of deep venous thrombosis. The A-V Impulse System has been shown to be highly effective in increasing the circulation of blood in patients with restricted mobility. It provides great benefits by reducing pain and swelling after injuries and surgery, by promoting venous return and reducing associated complications, and can assist in many indications where medical judgment assesses the need for increased blood circulation.

The maintenance of blood circulation in the extremities is essential to the limb's function. The A-V Impulse System achieves this simply, safely and efficiently.

The A-V Impulse System

The A-V Impulse System Model 300 consists of the main processor controller and a leg or arm display for optimal performance. Stationary or ambulatory, the user can easily set up and troubleshoot the system. The system consists of a controller connected by an air supply hose to specially designed Impulse pads - ImpFit.

The Impulse Impulse is rapidly inflated by a controlled Impulse of air that the controller. As the Impulse Impulse is inflated, the controller automatically allows the Impulse Impulse to deflate. To deliver the Impulse Impulse to the extremity, the Impulse Impulse pad must be inflated in the correct position. The Impulse Impulse pad is available in a range of sizes for feet, arms, and torso, and can be attached to the equipment using Velcro and a hook and loop fastener.

The system has built-in alarms and display to alert attention to adjustment requirements and to alert with equal trouble shooting.
Alarm Night Mode

The feature minimizes patient disturbance at night while still giving clear indication of a Low Sat. In Night Mode, the audible alarm sounds less frequently and the LCD flashes to draw attention in poorly lit conditions. To select Night Mode, double press the internal button, and it is shown on the LCD.

130 130 130

To cancel Night Mode, double press the internal button.

Error Codes

The retention of an error code signifies unit operation. If code E02 is displayed this shows that the over temperature protection has operated. Check that the air vents in the rear of the unit are unobstructed, that there is nothing preventing free air circulation around the unit and that the environment is not excessively hot. Allow the unit to cool and it will automatically reset. If the problem persists see INSTRUCTIONS page 19.

\[ \text{EP} \]

Indication

Leg Pads Incident to Fractures or Surgery

Reduces pain, improves range of motion and limb mobility, and expedites return of function following fracture or surgery.

Recommended guidelines

Continuous use until severity of pain is reduced or physician determines alternate therapy.

Leg Lacerations

Assist healing of external wastes.

Continuous use until clear severity is reduced or physician determines alternate therapy.

Venous Stasis/Venous Insufficiency

Treats venous stasis, venous insufficiency and varicose veins.

Temporary impairments such as temporary varices or disease conditions. Continue use until condition is resolved. For chronic impairments, vary depending on the severity of the patient's condition and activity level.

Lymphedema

Reduces lymphedema, including lymphedema secondary to trauma and/or surgery and reduces or controls chronic lymphedema, including post-polyarthritic lymphedema due to stroke or spinal cord injury.

As required, but at least 4 hours per day.

10. Hand Use

Acute Edema

Reduces acute edema, such as elevated compartment pressures, edema secondary to trauma and/or surgical procedures, and edema secondary to sprains, strains and other sports related injuries of the upper extremity.

Continuous use until edema is reduced.
Operating the System

The System is ready for operation once the following steps have been taken:

1. **Patient** is positioned on the foot and connected to the controller.
2. **Controller** power is supplied and on.
3. **Appropriate impermeable** parameters are set.

Before, place the patient into the foot as shown in the front view. The pressure is applied to the patient's foot position. The head and tail sections are now visible, allowing for checking or testing of the head.

**To start impulsion:**
- Press **RUN-STOP Patient Right** and/or **Patient Left button(s).**

**To stop impulsion:**
- Press **RUN-STOP Patient Right** and/or **Patient Left button(s).**

When a channel is turned on, the bottom section of the screen displays the controller, the air hose, and the patient. A few seconds before an impulse is due to be delivered, an arrow head flashes on the controller end of the hose icon. The arrow head moves down the hose, flashing one second before the impulse is delivered.

The impulse is shown on the impulse icon at the precise moment the impulse is delivered.

**Note:** The LED shows a foot icon during either foot or hand mode.

The impulse pressure progressively increases over a few cycles to achieve the set pressure. The system becomes active and connected to the patient. Once the set pressure has been reached, a checkmark (✓) appears next to the pressure display. The system's controller icon shows that the system is operating correctly.

The controller makes automatic adjustments for patient positioning and tightness of the foot. If the checkmark does not appear, check the fit of the foot.
**Preset Operating Parameters**

Once the foot second contraction is complete, the LCD shows the controller settings. The top section of the display shows the impulse settings (marking pressure and duration) and the bottom section graphically shows the state of the controller including which channel is running. Drreen in the lower section also provides a visual representation of any feedback or required adjustments.

The controller has three commonly used impulse pressure/duration settings programmed for user convenience. These settings are available through use of the PRESET button. The interval time defaults to 20 seconds for all preset settings.

### PRESET 1

<table>
<thead>
<tr>
<th>Use</th>
<th>Button to Press</th>
<th>Screen Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>hour or minute</td>
<td>PRESET</td>
<td>130</td>
</tr>
<tr>
<td>impulse duration</td>
<td>PRESET</td>
<td>130</td>
</tr>
</tbody>
</table>

**Preset 1 Details**

- Impulse pressure: 130 mmHg
- Impulse duration: 1 second

### PRESET 2

<table>
<thead>
<tr>
<th>Use</th>
<th>Button to Press</th>
<th>Screen Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>hour or minute</td>
<td>PRESET</td>
<td>130</td>
</tr>
<tr>
<td>impulse duration</td>
<td>PRESET</td>
<td>130</td>
</tr>
</tbody>
</table>

**Preset 2 Details**

- Impulse pressure: 130 mmHg
- Impulse duration: 1 second

### PRESET 3

<table>
<thead>
<tr>
<th>Use</th>
<th>Button to Press</th>
<th>Screen Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>hour or minute</td>
<td>PRESET</td>
<td>80</td>
</tr>
<tr>
<td>impulse duration</td>
<td>PRESET</td>
<td>80</td>
</tr>
</tbody>
</table>

**Preset 3 Details**

- Impulse pressure: 80 mmHg
- Impulse duration: 1 second

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**Step 3**

Wrap the inside of the Inflatable Foot cover over the top of the foot and then overlap the sides of the Inflatable Foot cover, pulling as tight as possible and secure with the fastener strap.

Next, wrap the fastener strap around the back of the heel and secure in place with the fastener strap.

Check that the finished foot cover is fitted securely and the patient is comfortable.

For Controller Directions see Section D.

**CAUTION**: For FULL SHAPED FOOT do not walk or weigh bearing on the IMMP and only inflate when fitted to the foot.

**WARNINGS**: Check for skin irritation and use a noninflatable padding according to clinical judgment.

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**Step 4**

Apply stockinette over foot, ankle and leg as required.

Avoid wrinkles.

**Step 5**

Select a cast pad.

Red graphics - Left, Blue graphics - Right.

Wrap WHEEL **Undercast** Padding around the foot. Place the foot centrally on the printed side of the castable pad as shown by the graphics on the pad.

**CAUTION**: The CAST INFLATION PAD MUST BE PLACED DIRECTLY UNDER THE ARM OF THE FOOT.

**Step 6**

With the pad control under the arm, wrap the strap over the top of the foot and secure with the adhesive tab. The pad tube tab should be on the inside of the foot pointing to the toe.

**Step 7**

Completely cover and secure the cast pad in place with WHEEL **Undercast** Padding. Ensure that cast padding is spread over calluses and on top of the foot to eliminate possible irritation. Cast normally and take extra care that the sides of the cast is securely finished, ensure the latex tubing does not stick or become obstructed.

**CAUTION**: Do not inflate the CAST PAD until the cast is fully hardened.

Use 1 second impulse duration for the cast limb.

For Controller Directions see Section D.