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About This Manual
This manual provides instructions for the Everest™ Integrated CPAP System. Read this manual thoroughly before using the device.

Precautions for Use
Describes the contraindications, warnings, and cautions associated with the Everest Integrated CPAP System.

Device Overview
Introduces the Everest Integrated CPAP System, including its Indications for Use, components, and a general description.

Powering the Everest Integrated CPAP Device
Explains the several choices available with the Everest Integrated CPAP System for powering the device.

Using the Everest Integrated CPAP System (without humidifier)
Explains using the Everest Integrated CPAP System without the humidifier. Skip this section if using the optional humidifier.

Using the Everest Integrated CPAP System (with humidifier)
Explains using the Everest Integrated CPAP System with the optional humidifier. Skip this section if not using the optional humidifier.

Adjusting Patient Settings
Read this section if your clinician advised you on adjusting your pressure ramp settings, or reporting your therapy session information.
Cleaning Instructions
Provides general cleaning instructions for the device and device components.

Specifications
Includes physical characteristics, performance specifications, and compliance information.

Warranty
Explains the system’s warranty information.

Troubleshooting
Provides helpful information for solving common problems.
Precautions for Use

This section describes the contraindications, warnings, and cautions associated with use of the Everest Integrated CPAP System. The following guidelines apply to this document:

**Warning!** indicates the possibility of serious injury or death to yourself or others.

**Caution!** indicates the possibility of minor injury or damage to the equipment.

**Note:** indicates a tip or feature to aid efficient operation of the device.

Contraindications

The Everest Integrated CPAP system is contraindicated in patients with the following conditions:

- Bullous lung disease
- Pathologically low blood pressure
- Pneumothorax or pneumomediastinum.
- Pneumocephalus has been reported in users using nasal CPAP. Caution should be used when prescribing CPAP for susceptible users such as those with cerebral spinal fluid (CSF) leaks; abnormalities of the cribriform plate; and a prior history of head trauma; and/or pneumocephalus

Warnings

- Caution: Federal law (United States) restricts this device to sale by or on the order of a physician.
- This device is not intended for life support.
- If the CPAP system is used for multiple patients (as in a clinical setting or for rental) a bacteria filter should be installed between the AEIOMed CPAP and the patient circuit tubing. Pressures must be verified by your care provider when optional accessories are in place.
- Note the location of the air inlet filter and keep this area clear of obstructions.
When operating properly, the CPAP system flushes out exhaled air through the vent in the patient interface. Exhaled air could be re-breathed if the CPAP blower is off, not operating properly, or the vent is blocked. Re-breathing exhaled air for longer than several minutes can, in some circumstances, lead to suffocation.

- **Fire hazard:** Do not smoke or use an open flame near a CPAP system.
- The airflow for breathing produced by this device can be as much as 10 °F higher than the temperature of the room. Exercise caution if the room temperature is warmer than 90°F (32°C).
- In ambient temperatures greater than 95°F (35°C) the CPAP unit must be placed at least 5’ (1.5m) away from the user.
- Do not block or otherwise obstruct the exhalation ports of the patient interface. Follow the Patient Interface Instructions for Use for your interface.
- This equipment is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.
- Emptying and cleaning the humidifier reservoir daily will help to prevent mold and bacteria growth.
- Use of accessories or a humidifier other than those defined in this manual is potentially unsafe.
- Operation of the output hose with the humidifier may be affected by normal clinical operation (e.g., covering the tubes with a blanket).
- The CPAP System is only to be used with the supplied and recommended accessories. Use of accessories not recommended may result in increased emissions or decreased immunity of the CPAP system.
- The CPAP System should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, the CPAP System should be observed to verify normal operation.
Oxygen Use Warnings

- If oxygen is used with this device, the oxygen flow must be turned off when the device is not in operation.
- Turn the device on before turning oxygen on. This will prevent oxygen from accumulating in the device.
- It is recommended that supplemental oxygen be administered at the mask.
- Do not inject oxygen through the air inlet of the device.
- At a fixed flow rate of supplemental oxygen, inhaled oxygen concentration will vary depending on the pressure settings, patient breathing patterns, mask selection and leak rate.

Cautions

- Do not sterilize the CPAP system.
- Power the CPAP system only from the AEIOMed supplied power supply, optional battery pack, or mobile power supply. See Appendix 1 for Reorder Numbers.
- Reference the Everest Integrated CPAP Patient Manual only after receiving appropriate training in the use of the CPAP system.
- At low CPAP pressures, the flow through the exhalation port may be inadequate to clear all exhaled gas from the airway. Some re-breathing may occur.
- Use patient interface devices with a leak flow rate of at least 12 L/min at 4 cm H2O.
- Contact your healthcare provider if you experience redness or skin irritation.
- Discontinue use of the CPAP device or humidifier if respiratory irritation occurs.
- Do not introduce liquids or objects into the CPAP device’s air inlet/outlet connector.
- Inspect the power cord for signs of wear or damage before each use. Replace the power cord if necessary.
• Reduce the humidity level if you observe excessive moisture in the flexible tubing.
• For safe operation, place the humidifier lower than the user.
• For proper operation, the humidifier must be level.
• AEIOMed, Inc. recommends replacing the 22 mm 6’ Output Hose after 6 months use.
• Use the humidifier only for its intended purpose as described in this manual.
• Use only those accessories provided or recommended by AEIOMed, Inc.
• Do not operate the humidifier if any of the parts are damaged, if it is not working properly, or if the humidifier has been dropped or mishandled.
• Do not use the humidifier if the water reservoir is leaking or is damaged in any way. Replace damaged parts before continuing use.
• Fill the humidifier with distilled water before each use.
• To protect the environment, some parts and accessories of the CPAP System must be disposed of in accordance with local regulations.
Device Overview

Indications for Use

The Everest Integrated CPAP System is intended for the therapy of adults over 66 lbs. (30 kg) with obstructive sleep apnea (OSA). The device delivers continuous positive airway pressure (CPAP), which prevents the patient’s upper airway from collapsing; thereby preventing obstructions that can interfere with spontaneous breathing.

This manual familiarizes users with the operation of the Everest Integrated CPAP System. Once users understand how to operate this device, they can manage the flow of positive air pressure in the airway during breathing, and thereby treat obstructive sleep apnea.

Use the Everest Integrated CPAP System only in accordance with a physician’s instructions. The prescribed pressure is continuous.
Inspecting the Everest CPAP Components

When you receive the package with the Everest Integrated CPAP system, unpack all items, including the manual, and inspect them to ensure they were not damaged during shipment. Report any missing or damaged items to your home health care provider.

The Everest CPAP System package includes the following items:

- CPAP Device
- Power Supply
- Power Cord
- Air Inlet Filter
- Patient Manual
- 22mm 6’ Output Hose

Optional Integrated Components

- Mobile Power Adapter
- Battery Pack
- Heated Humidifier

Refer to Appendix 1 for reorder numbers.
Description of the Everest Integrated CPAP System

The CPAP system delivers positive pressure from 4 to 20 cmH₂O to the patient, as prescribed by the clinician. The therapeutic pressure is continuous. The display panel presents delivered pressure, settings of the device, and the duration of therapy completed.

Standard User Operation

Normal operation consists of 3 modes: Off, Stand By and On.

**Off**: Not connected to a power source. Display is blank.

**Stand By**: Connected to a power source, but the blower is off.

**On**: Blower is on. The display shows the pressure setting. This example shows the pressure ramp symbol, and the setting for the optional humidifier is 3.

Buttons

- **Power**
  - Turns the blower off or on.

- **Ramp**
  - Turns ramp pressure on or off when the blower is on.

- **Humidifier**
  - Adjusts the optional humidifier’s heater settings when connected.
Powering the Everest CPAP Device

The Everest CPAP system offers several choices for powering your CPAP device: AC line power (an electrical wall outlet), optional battery pack, or optional mobile adapter.

Using an AC Line Power

Attach the power cord to the power supply.

Warning!  Use only AEIOMed supplied power cord.

Insert the power cord plug into AC line power.

To attach the power cord to the CPAP, rotate the square connector of the power supply so the arrow symbol appears on the left side. Insert the connector into the receptacle on the back of the Everest CPAP device. The CPAP device is ready for use.
Using the Optional Battery Pack

**Caution!**  Use only the AEIOMed battery pack available from your homecare provider.

**Note:**  Charge the battery pack for at least 5 hours before the first use.

Slide the CPAP device along the notched track of the battery pack, and secure it snugly in place.

Rotate the square connector of the battery pack so the arrow symbol appears on the left side. Insert the connector into the receptacle on the back of the Everest CPAP device. The CPAP device is ready for use.
Using the Optional Battery Pack and AC Line Power

**Note:** If an electrical wall outlet is available, use it. This will charge the battery pack and allow maximum use when AC line power is not available, such as during a power outage. The CPAP device switches automatically to battery power in such events.

**Note:** To charge the battery pack without the CPAP device attached, connect the power supply to the battery pack.

Complete the steps in the section above, **Using the Optional Battery Pack**.

Insert the power cord plug into AC line power.

Rotate the square connector of the power supply so the arrow symbol appears on the bottom. Insert the connector into the receptacle on the back of the battery pack. Insert the battery pack connector into the back of the CPAP.
Checking the Battery Pack’s Capacity

Locate the key on the bottom of the battery pack. Press and hold the key. Observe the number of illuminated lights, which provide an approximate indication of the capacity.

0 to 1 lights – Little or no charge remaining

4 lights – Full or near full charge

Note: For peak performance, AEIOMed recommends keeping the power supply or mobile adapter connected to the battery pack even after all 4 lights are illuminated.

Note: Battery life may vary depending on the pressure setting and humidifier setting. Monitoring charge time vs. usage time will help you understand how to optimize battery operation for your system.

Note: Occasionally (once per month), allow the battery to discharge completely followed by fully charging it for at least 5 hours. This can help keep the battery operating close to its maximum capacity as it ages. Individual results may vary.
Changing Battery Cells

**Note:** See Appendix 1 to order additional battery packs or battery cells.

Detach the Battery Pack from the CPAP device and humidifier. Disconnect any power sources.

Locate the battery cell screw located on the bottom of the battery pack. Loosen the screw with a flat blade screwdriver. The battery pack will retain the screw as you loosen it.

Remove the battery cell from the battery pack.

Insert the new battery cell into the battery pack.

Tighten the screw.

Reattach the CPAP components and reconnect the power connections.
Using the Optional Mobile Power Adapter

**Caution!** Use only the AEIOMed mobile power adapter and cables available from your homecare provider.

Your mobile power adapter is supplied with two cables, one to connect to your CPAP and the other to connect to a mobile power receptacle. Connect the appropriate cable to the power receptacle.

Rotate the square end of the other cable into the receptacle on the back of the CPAP device, making sure to line up the arrows on the left side. The CPAP display will come on, indicating that power is being supplied to your CPAP.

If you have any problems, try unplugging the cables and reconnecting them to make sure that you have a good connection.

**Using the Optional Battery Pack and Mobile Adapter**

**Note:** If a power receptacle for the mobile adapter is available, use it. This will charge the battery pack and allow maximum use while traveling.

**Note:** To charge the battery pack without the CPAP device attached, use the steps below.

Complete the steps in the section above, **Using the Optional Mobile Adapter**.
Rotate the square connector of the mobile adapter so the arrow symbol appears on the bottom. Insert into the receptacle on the back of the battery pack.

The Everest CPAP with a power source connected

When a power source is connected to the Everest CPAP device, the CPAP displays the total number of therapy hours* and a flashing hourglass symbol for 3 seconds. Your clinician or homecare provider may request that you report these hours.

Following the initial display of the therapy hours, the CPAP device is in Stand By Mode - the CPAP is ready, the blower is off, and the display shows the following:

```
AEIO
```

Note: If the CPAP loses power while delivering therapy, it will immediately resume delivering therapy as soon as power is restored (the CPAP will skip the initial therapy hours and Stand By screens).

* Therapy hours = operating time at therapy pressure, as monitored by the device.
Starting Therapy (without Humidifier)

Note: If you are using the humidifier, refer to Starting Therapy with a Humidifier.

Make sure that the CPAP device is connected to a power source. If necessary, refer to the section Powering the Everest CPAP device.

The CPAP device is in Stand By Mode - the CPAP is ready the blower is off, and the display shows the following:

![Display showing Stand By Mode](image)

Attach the patient interface airway connector to the 6’ flexible tubing.

Position the patient interface (mask), according to the instructions accompanying the patient interface selected by your care provider.

Press the on/off button.

Warning! Turn on the CPAP blower as quickly as possible after positioning the patient interface. Exhaled air could be re-breathed if the CPAP blower is off. Re-breathing exhaled air for longer than several minutes can, in some circumstances, lead to suffocation.
The blower is on, and the display shows the therapeutic pressure setting. Check that the hose and patient interface have a tight seal and that there are no excessive air leaks.

![10 cmH2O](image)

**Note:** If you remove or do not secure the patient interface, the device will reduce the pressure automatically within 30-60 seconds. This is called Interface Interrupt. It occurs when your patient interface (mask) is not securely positioned on your face and the air leak is excessive. Secure the interface and the pressure will increase to the prescribed level when you resume breathing.

If you do not breathe with a correctly positioned patient interface within one hour, the device will shut off the blower and enter Stand By Mode.
Using Ramp Pressure without a Humidifier (Optional Step)

The pressure ramp gradually increases the pressure setting, allowing you to ease into the therapy while falling asleep.

**Note:** If your clinician has instructed you to adjust your ramp settings, refer to *Adjusting Patient Settings*.

The CPAP’s blower is on.

![Pressure Display](image)

**Note:** You must start the blower before using pressure ramp. This allows you to adjust your patient interface at the full therapy pressure setting.

Press the ramp button.

![Ramp Button](image)

The pressure drops to a reduced level, and the display shows the ramp symbol. During ramp, the pressure gradually increases to the prescribed level.

![Ramp Progress](image)

**Note:** The actual pressure delivered during pressure ramp is not shown on the CPAP display. If the ramp symbol is present, the pressure being delivered is less than the prescribed level.
After pressure ramp completes, the ramp symbol disappears from the display.

Note: Pressing the Ramp button during the pressure ramp will return the device to the prescribed pressure setting. Pressing the Ramp button yet again will cause the device to restart the ramp period.

Note: When the blower is on, the display always shows the prescribed pressure setting—not the actual pressure delivered to the patient while in the pressure ramp period.

Note: Interface Interrupt is not active during pressure ramp.

Note: In the event of power loss during the pressure ramp, the CPAP will resume at the full prescribed pressure as soon as power is restored. To restart the pressure ramp period, press the Ramp button.
Stopping Therapy

The blower is on and the display shows the prescribed pressure setting:

![Display showing 10 cmH₂O pressure setting](image)

Remove the patient interface.

Press the on/off button.

![Power button](image)

The blower is off, and the device is in Stand By Mode.
Starting Therapy (with the Humidifier)

**Note:** If you are not using the humidifier, refer to Starting Therapy without Humidifier.

The optional heated humidifier relieves nasal dryness and irritation in patients by adding moisture to the air.

**Warning!** If moisture collects in the hose (sometimes referred to as rainout), stop therapy and adjust the humidity setting. Reducing the humidity setting usually stops the collection of moisture.

**Warning!** Do not spill water into the CPAP air outlet connector.

**Note:** The overheating sensor shuts off the heating element of the humidifier if there is no water.

Remove the humidifier reservoir from the humidifier base. Attach the humidifier to the CPAP base as shown:
Ensure that the clear lid is securely attached to the humidifier reservoir bottom. Push front of latch as shown to engage fully:

![Humidifier Lid](image)

Turn the humidifier so that the hose connector is facing up and fill the humidifier reservoir with distilled water to the Max Line. Wipe off excess water from the outside of the humidifier reservoir.

![Humidifier Reservoir](image)

Place the reservoir in the humidifier base and slide into position. The silicone seal in the clear lid will connect tightly to the CPAP air outlet.

![Humidifier Base](image)

Connect one end of the 6’ 22 mm flexible tubing to the humidifier connector. Ensure that latch is completely secure by pushing the latch toward the back of the humidifier.
Attach the patient interface airway connector to the 6’ flexible tubing.

If the humidifier is properly connected to the CPAP (and the CPAP is connected to a power source), the humidifier symbol appears on the lower right area of the display:

Pressing the humidifier button cycles through humidity settings:

The humidifier symbol without a number above it indicates that the humidifier is connected but the heat setting is off.

Note: Pressing the humidifier button when the humidifier is not connected does not change the humidifier setting.
Humidifier Preheat (Optional Step)

Preheating the humidifier provides immediate humidification of the air when you turn on the blower. If you do not want to use this feature, skip to the next section, Turning On the Blower.

**Warning!** Do not wear the patient interface while using preheat, since the blower is off. Exhaled air could be re-breathed. Re-breathing exhaled air for longer than several minutes can, in some circumstances, lead to suffocation.

The CPAP has power and the blower is off.

![Humidifier button](image)

Press the humidifier button.

![Humidifier setting on display](image)

The display shows the humidifier setting.

Allow the humidifier to preheat for 15-20 minutes. The heat will remain on until the blower is turned off. Continue with the next section, Turning On the Blower.
Turning on the Blower

The CPAP device has power and the blower is off. The preheated humidifier is active.

Position the patient interface (mask), according to the instructions accompanying the patient interface selected by your care provider.

Press the on/off button.

Warning! Turn on the blower as quickly as possible after positioning the patient interface. Exhaled air could be re-breathed if the CPAP blower is off. Re-breathing exhaled air for longer than several minutes can, in some circumstances, lead to suffocation.

The blower is on, and the display shows the prescribed pressure setting. Check that the hose and patient interface have a tight seal and that there are no excessive air leaks.

Note: If you remove or do not securely position the patient interface, the device will reduce the pressure automatically within 30-60 seconds. This is called Interface Interrupt. It occurs when your patient
interface (mask) is not securely positioned on your face and the air leak is excessive. Secure the interface and the pressure will increase to the prescribed level when you resume breathing.

If you do not breathe with a correctly positioned patient interface within one hour, the device will shut off the blower and enter Stand By Mode.

**Note:** The CPAP device recalls the humidity setting during therapy. The next time you begin therapy, the CPAP will use this same humidifier setting.

**Using Pressure Ramp with the Humidifier (Optional Step)**

The pressure ramp gradually increases the pressure setting, allowing you to ease into the therapy while falling asleep.

**Note:** If your clinician has instructed you to adjust your ramp settings, refer to *Adjusting Patient Settings*.

The CPAP’s blower is on:

![Blower On, 10 cmH₂O, 3 Settings]

**Note:** You must start the blower before using pressure ramp. This allows you to adjust your patient interface at the full therapy pressure setting.
Press the ramp button.

The pressure drops to a reduced level, and the display shows the ramp symbol. During pressure ramp, the pressure gradually increases to the prescribed level.

Note: The actual pressure delivered during pressure ramp is not shown on the CPAP display. If the ramp symbol is present, the pressure being delivered is less than the prescribed level.

After the ramp is complete, the ramp symbol disappears from the display.

Note: Pressing the Ramp button during the pressure ramp will return the device to the prescribed pressure setting. Pressing the Ramp button yet again will cause the device to restart the ramp period.

Note: When the blower is on, the display always shows the prescribed pressure setting—not the actual pressure delivered to the patient while in the pressure ramp period.
**Note:** Interface Interrupt is not active during pressure ramp.

**Note:** In the event of power loss during the pressure ramp, the CPAP will resume at the full prescribed pressure as soon as power is restored. To restart the ramp period, press the Ramp button.

**Stopping Therapy**

The blower is on and the display shows the prescribed pressure setting:

![Pressure Display](image)

Remove the patient interface.

Press the on/off button.

![Power Button](image)

The blower is off and device is in Stand By Mode (shown below).

Empty any remaining water from the humidifier reservoir and rinse it out thoroughly and allow to air dry.

**Note:** The humidifier shuts off when the blower is stopped. However, the CPAP remembers your humidity setting and will use that value the next time you start therapy.
Adjusting Patient Settings

You will typically use the settings configured by your clinician and will not need to adjust them. You may want to access patient settings if your clinician allowed you to adjust the ramp settings, or to report therapy session information to your clinician.

**Note:** When adjusting patient settings, ignore the symbols on the buttons. Instead, the symbol above the button reflects what will occur when you push the button.

Press this button to save the setting value and advance to the next screen.

Press this button to decrease the setting value:

Press this button to increase the setting value.

Accessing Patient Settings

Make sure the device is in Stand By Mode (following page). The CPAP device must have power, and the blower must be off.
Patient Settings consists of two parts: adjustment of pressure ramp settings and viewing therapy session information.

Ramp Settings

Press the middle button.

The display shows the duration in minutes for the pressure to ramp from the starting pressure to the prescribed pressure setting.

Adjust the duration using the buttons under the up and down symbols.

Note: If the up and down symbols are not on the display, your clinician has not allowed you to adjust the ramp settings.

Note: Selecting a value of 0 for the duration disables pressure ramp.
Press the NEXT button.

The display shows the starting pressure for the ramp.

**Note:** If this screen is skipped, it means that the ramp was disabled by setting the ramp duration to 0 minutes in the previous step or that it was not enabled by the provider.

Adjust the starting pressure using the buttons under the up and down symbols.

Press the NEXT button.

**Therapy Session Information**

The display shows the number of therapy sessions equal to or longer than 8 hours. You cannot adjust the value on this screen.
Press the NEXT button.

The display shows the number of therapy sessions equal to or longer than 6 hours (but less than 8 hours). You cannot adjust the value on this screen.

Press the NEXT button.
The display shows the number of therapy sessions equal to or longer than 4 hours (but less than 6 hours). You cannot adjust the value on this screen.

![Display showing 055 > 4]

Press the NEXT button.

![Next button]

The device is now ready.

![Device on]

**Cleaning Instructions**

The case of the Everest CPAP device is durable and does not require special cleaning or maintenance procedures. If the case becomes dirty, disconnect power from the unit and use a soft cloth dampened with warm water and mild liquid dish washing soap to clean it. Dry the device thoroughly before reconnecting the power source and turning on the device.
Warnings:

- Unplug the CPAP device before cleaning it.
- Do not submerge the CPAP device, heated humidifier reservoir base, battery pack, or battery charger in liquid.
- Prevent water from entering any of the device’s openings.
- Do not use harsh or abrasive cleaning agents to clean any CPAP components.
- Do not sterilize the CPAP device.
- Do not place cleaning materials, such as a cloth, into the CPAP air inlet or air outlet connector.
- To avoid electric shock, remove the power cord before cleaning. Do not immerse this device in any fluids.

Periodically remove the air inlet filter and rinse it with warm running water. Dry the filter thoroughly before reinstalling it in CPAP device. Clean the flexible tubing weekly by washing it in warm water with mild liquid dish washing soap. Allow the tubing to air dry thoroughly before use.

To clean the humidifier reservoir, separate the plastic lid from the reservoir bottom, and rinse with warm water and mild liquid dish washing soap. Do not immerse the reservoir bottom in liquid. Clean daily, and fill with distilled water.

Clean the humidifier base by using a soft cloth dampened with warm water and mild liquid dish washing soap. Dry with a cloth or allow to air dry.

Caution: Do not clean the humidifier components in the dishwasher.
# Specifications

## CPAP Physical Characteristics

<table>
<thead>
<tr>
<th>CPAP Device Weight:</th>
<th>2.2 lbs (1.00 kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPAP Device Dimensions:</td>
<td>4.8 in X 5.0 in X 5.0 in (11.4 cm X 12.7 cm X 12.7 cm)</td>
</tr>
<tr>
<td>Air Outlet Connector Port Dimensions:</td>
<td>22-mm diameter</td>
</tr>
</tbody>
</table>

## Humidifier Physical Characteristics

<table>
<thead>
<tr>
<th>Humidifier Weight:</th>
<th>0.97 lb (0.44 kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidifier Dimensions:</td>
<td>6.14 in X 3.45 in X 5.25 in (15.6 cm X 8.8 cm X 13.3 cm)</td>
</tr>
<tr>
<td>Humidifier Operating Volume:</td>
<td>0 to 240 ml</td>
</tr>
<tr>
<td>Humidifier Output:</td>
<td>≥ 10 mg/L</td>
</tr>
<tr>
<td>At H5 setting, 4 - 20 cmH₂O</td>
<td></td>
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</tbody>
</table>

## Battery Physical Characteristics

<table>
<thead>
<tr>
<th>Battery Weight:</th>
<th>1.58 lbs (0.73 kg)</th>
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<tbody>
<tr>
<td>Battery Life:</td>
<td>11 hours @ 10 cm without humidifier</td>
</tr>
<tr>
<td>Charging Requirement:</td>
<td>Use only AEIOMed supplied charger, reference Appendix 1</td>
</tr>
<tr>
<td>Battery Dimensions:</td>
<td>7.9 in X 2.0 in X 5.44 in (20.1 cm X 5.08 cm X 13.8 cm)</td>
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</table>

## Mobile Power Adapter Characteristics

<table>
<thead>
<tr>
<th>Mobile Power Adapter Input:</th>
<th>19.4 Vdc nominal.</th>
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<tbody>
<tr>
<td></td>
<td>12 to 15.5 Vdc</td>
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**CPAP Performance**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working pressure range:</td>
<td>4 to 20 cmH(_2)O</td>
</tr>
<tr>
<td><strong>CPAP Accuracy of Set Pressure</strong></td>
<td>(\pm 1) cmH(_2)O or (\pm 10%), Whichever is greater</td>
</tr>
<tr>
<td><strong>Accuracy of Time Display:</strong></td>
<td>(\pm 1) second</td>
</tr>
<tr>
<td>Maximum system shutdown pressure:</td>
<td>30 cmH(_2)O</td>
</tr>
<tr>
<td>Operating Atmospheric Pressure Range:</td>
<td>700 to 1060 mbar ((525 to 795 \text{ mmHg}))</td>
</tr>
<tr>
<td>Operating Temperature Range:</td>
<td>40 to 104°F ((5^\circ \text{ to } 40^\circ \text{C}))</td>
</tr>
<tr>
<td>Storage Temperature Range:</td>
<td>-30 to 150°F ((-34 \text{ to } 66^\circ \text{C}))</td>
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<tr>
<td>Operating Humidity Range:</td>
<td>10% to 95% relative humidity, non-condensing</td>
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<tr>
<td>Storage Humidity Range:</td>
<td>10% to 95% relative humidity, non-condensing</td>
</tr>
<tr>
<td>CPAP Sound level:</td>
<td>31 dbA</td>
</tr>
<tr>
<td></td>
<td>Sound pressure measured in compliance with Clause 26 of EN 17510-1:2002</td>
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**EN 60601-1 Compliance**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Specification</th>
</tr>
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<tbody>
<tr>
<td>Protection against electric shock:</td>
<td>Class II</td>
</tr>
<tr>
<td></td>
<td>Type BF</td>
</tr>
<tr>
<td>Degree of Protection against ingress of water:</td>
<td>IPX1</td>
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<tr>
<td></td>
<td>Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.</td>
</tr>
<tr>
<td></td>
<td>Continuous operation.</td>
</tr>
</tbody>
</table>
Manufacturer’s Declarations

Table 201: Electromagnetic Emissions
The CPAP System is intended for use in the electromagnetic environment specified below. The customer or the user of the CPAP System should ensure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Emissions test</th>
<th>Compliance</th>
<th>Electromagnetic environment – guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Radiated Emissions CISPR 11</td>
<td>Group 1</td>
<td>The CPAP System 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.</td>
</tr>
<tr>
<td>RF Conducted Emissions CISPR 11</td>
<td>Class B</td>
<td>The CPAP System is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.</td>
</tr>
<tr>
<td>Harmonic emissions IEC 61000-3-2</td>
<td>Class A</td>
<td></td>
</tr>
<tr>
<td>Voltage fluctuations/</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>flicker emissions IEC 61000-3-3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Table 202: Electromagnetic Immunity

The CPAP System is intended for use in the electromagnetic environment specified below. The customer or the user of the CPAP System should ensure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Immunity Test</th>
<th>IEC 60601 Test Level</th>
<th>Compliance Level</th>
<th>Electromagnetic Environment – Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrostatic Discharge (ESD)</td>
<td>±2, 4, 6 kV contact</td>
<td>±2, 4, 6, 8 kV air</td>
<td>Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.</td>
</tr>
<tr>
<td>IEC 61000-4-2</td>
<td>±8 kV air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical fast transient/burst</td>
<td>±2 kV for power supply lines</td>
<td>±2 kV for power supply lines</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>IEC 61000-4-4</td>
<td>±1 kV for input/output lines</td>
<td>±1 kV for input/output lines</td>
<td></td>
</tr>
<tr>
<td>Surge</td>
<td>±1 kV differential mode</td>
<td>±0.5*, 1 kV differential mode</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>IEC 61000-4-5</td>
<td>±2 kV common mode</td>
<td>±2 kV common mode</td>
<td></td>
</tr>
<tr>
<td>Voltage dips, short interruptions and voltage variations on power supply input lines</td>
<td>&lt;5 % $U_T$ (&gt;95 % dip in $U_T$) for 0.5 cycle</td>
<td>&lt;5 % $U_T$ (&gt;95 % dip in $U_T$) for 0.5 cycle</td>
<td>Mains power quality should be that of a typical commercial or hospital environment. If the user of the CPAP System requires continued operation during power mains interruptions, it is recommended that the CPAP System be powered from the battery.</td>
</tr>
<tr>
<td>IEC 61000-4-11</td>
<td>40 % $U_T$ (60 % dip in $U_T$) for 5 cycles</td>
<td>40 % $U_T$ (60 % dip in $U_T$) for 5 cycles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>70 % $U_T$ (30 % dip in $U_T$) for 25 cycles</td>
<td>70 % $U_T$ (30 % dip in $U_T$) for 25 cycles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;5 % $U_T$ (&gt;95 % dip in $U_T$) for 5 sec</td>
<td>&lt;5 % $U_T$ (&gt;95 % dip in $U_T$) for 5 sec</td>
<td></td>
</tr>
<tr>
<td>Power frequency (50/60 Hz) magnetic field</td>
<td>3 A/m</td>
<td>3 A/m</td>
<td>Power frequency magnetic fields should be at levels characteristic of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>IEC 61000-4-8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: $U_T$ is the A.C. mains voltage before application of the test level.

*Compliance level adjusted to meet FDA limits.
Table 204: Electromagnetic immunity

The CPAP System is intended for use in the electromagnetic environment specified below. The customer or the user of the CPAP System should ensure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Immunity Test</th>
<th>IEC 60601 Test Level</th>
<th>Compliance Level</th>
<th>Electromagnetic Environment - Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portable and mobile RF communications equipment should be used no closer to any part of the CPAP System, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conducted RF</th>
<th>3 Vrms</th>
<th>3 Vrms</th>
<th>Recommended Separation Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 61000-4-6</td>
<td>150 kHz to 80 MHz</td>
<td>10 KHz to 100 MHz*</td>
<td>$d = 1.17\sqrt{P}$</td>
</tr>
<tr>
<td>Radiated RF</td>
<td>3 V/m</td>
<td>10 V/m*</td>
<td>$d = 0.35\sqrt{P}$ 80 MHz to 800 MHz</td>
</tr>
<tr>
<td>IEC 61000-4-3</td>
<td>80 MHz to 2.5 GHz*</td>
<td>26 MHz to 2.5 GHz*</td>
<td>$d = 0.70\sqrt{P}$ 800 MHz to 2.5 GHz</td>
</tr>
</tbody>
</table>

Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,
¹ should be less than the compliance level in each frequency range.²

Interference may occur in the vicinity of equipment marked with the following symbol:

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.

¹ 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 CPAP System is used exceeds the applicable RF compliance level above, the CPAP System should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the CPAP System.

² Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

*Compliance level adjusted to meet FDA limits.
Table 206: Recommended separation distances between portable and mobile RF communications equipment and the CPAP System

The CPAP System is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the CPAP System can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the CPAP System as recommended below, according to the maximum output power of the communications equipment.

<table>
<thead>
<tr>
<th>Rated maximum output power of transmitter (W)</th>
<th>Separation distance according to frequency of transmitter (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>150 kHz to 80 MHz</td>
</tr>
<tr>
<td>0.01</td>
<td>d = 1.2√P</td>
</tr>
<tr>
<td>0.1</td>
<td>.12</td>
</tr>
<tr>
<td>1</td>
<td>.38</td>
</tr>
<tr>
<td>10</td>
<td>1.2</td>
</tr>
<tr>
<td>100</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80 MHz and 800 MHz, the separation distance for 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.

**Limited Warranty**

AEIOMed, Inc. warrants the Everest Integrated CPAP unit and heated humidifier to be free of defects in materials and workmanship and will perform in accordance with the product specifications for a period of 2 years from the date of sales by AEIOMed, Inc. to the dealer. The battery pack is similarly warranted for a period of 1 year, and the mobile power adapter is warranted for a period of 3 years from the date of sales by AEIOMed, Inc. to the dealer.
If the product fails to perform in accordance with the product specifications, AEIOMed, Inc. will repair or replace, at its option, any materials or parts of the Everest Integrated CPAP system, which upon AEIOMed’s examination appear defective. This does not cover damages caused by accident, misuse, abuse, alteration and other defects not related to material or workmanship. AEIOMed, Inc. will pay customary freight charges from AEIOMed, Inc. to dealer location only.

AEIOMED, INC. DISCLAIMS ALL LIABILITY FOR ECONOMIC LOSS, LOSS OF PROFITS, OVERHEAD OR CONSEQUENTIAL DAMAGES WHICH MAY BE CLAIMED TO ARISE FROM ANY SALE OR USE OF THIS PRODUCT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IN ADDITION, ANY IMPLIED WARRANTIES, INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR THE PARTICULAR PURPOSE ARE LIMITED TO TWO YEARS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE RIGHTS WHICH VARY FROM STATE TO STATE.

To qualify for repair, replacement or refund, the defective device must be returned to AEIOMed, Inc. within 30 days after the discovery of the defect. Any repair, replacement, or refund obligation would not apply if the device has been repaired or otherwise altered in a facility not authorized in writing by AEIOMed, Inc. To exercise your rights under this warranty, contact your local, authorized AEIOMed, Inc. dealer or AEIOMed, Inc. at 1313 5th Street SE, Minneapolis, MN 55414, 1-866-722-2507 or 1-612-455-0550.
<table>
<thead>
<tr>
<th>Problem</th>
<th>Probable Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discomfort due to a feeling of high pressure.</td>
<td>CPAP device pressure may be set too high.</td>
<td>1. Breath slowly through your nose with your mouth closed.  2. Use the ramp pressure, if available.  3. If the pressure remains problematic, contact your homecare provider.</td>
</tr>
<tr>
<td>Nose or throat irritation.</td>
<td>Dry air.</td>
<td>Connect a humidifier to the CPAP device, or add humidity to the room. Contact your provider.</td>
</tr>
<tr>
<td></td>
<td>Dirty air filter.</td>
<td>Change and/or clean the air inlet filter.</td>
</tr>
<tr>
<td>Everest Integrated CPAP device display is blank when connected to power.</td>
<td>Power source is not properly connected  AC power may not be active.  Battery is depleted.</td>
<td>Check all power connections.  Use another power outlet.  Test another device with this outlet.  Check the battery pack's capacity. Charge if necessary.</td>
</tr>
<tr>
<td>CPAP shuts off.</td>
<td>Hose disconnected from the device</td>
<td>Reconnect the hose.</td>
</tr>
<tr>
<td>“LBAT” appears on the display</td>
<td>Battery is depleted.</td>
<td>Charge the battery</td>
</tr>
<tr>
<td>No airflow from the CPAP system.</td>
<td>Device motor failure; or electronics failure.</td>
<td>Contact the provider’s technical service department.</td>
</tr>
<tr>
<td>“UNIT SHUT DOWN” appears on the display</td>
<td>Device detects an operating error.</td>
<td>Note code on display. Unplug and reconnect the power source. If error message continues, contact provider’s technical service department.</td>
</tr>
</tbody>
</table>
Pneumatic Functional Diagram

Symbols

- CPAP Output port
- Attention, consult accompanying documents
- Type BF applied part
- Ingress of water. Protection provided against vertical dripping.
- Caution: Federal Law (USA) restricts this device to sale by or on the order of a physician.
### Appendix 1: Reorder Numbers

<table>
<thead>
<tr>
<th>Item</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everest CPAP</td>
<td>EV1</td>
</tr>
<tr>
<td>Power Supply Assembly</td>
<td>PS</td>
</tr>
<tr>
<td>Everest Heated Humidifier</td>
<td>HH1</td>
</tr>
<tr>
<td>Humidifier Lid Replacement</td>
<td>LID1</td>
</tr>
<tr>
<td>Everest battery</td>
<td>BAT1</td>
</tr>
<tr>
<td>Battery Cell Replacement</td>
<td>CELL1</td>
</tr>
<tr>
<td>22mm 6’ Output Hose</td>
<td>CHOS</td>
</tr>
<tr>
<td>Mobile Power Adapter</td>
<td>MPA</td>
</tr>
<tr>
<td>Filter Media 2 Pack Assembly</td>
<td>FP2</td>
</tr>
<tr>
<td>Headrest with nasal seal</td>
<td>HRML</td>
</tr>
<tr>
<td>Patient Manual</td>
<td>EPM</td>
</tr>
</tbody>
</table>
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This page intentionally left blank