



REF 1146562



1146562 R00  
KGP 04/10/2020  
EN-INTL

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User manual



# Emergency Use Authorization

The Philips Respironics E30 Ventilator is provided globally for use under local emergency use authorizations, such as the US Food and Drug Administration (FDA) Emergency Use Authorization (EUA) for ventilators, Health Canada Interim Order for use in relation to COVID-19, and waiver of CE marking, which authorize its use for the duration of the COVID-19 public health emergency, unless terminated or revoked (after which the products may no longer be used).

## Read Before Using

If device is to be used invasively, at minimum, a rigorous external monitoring system needs to be in place, including all of the functionality and alarms that are required for monitoring critically ill and mechanically ventilated patients.

The Philips Respironics E30 device is compatible with all DreamStation oximetry capable accessory modules. See the DreamStation Oximetry Installation and Operation Guide for more information.

Please refer to all warnings in the Introduction of this manual. Below are critical warnings that the healthcare provider should be aware of.



### Warnings

#### Device usage

The Philips Respironics E30 ventilator is a multi-patient use device, but should only be used on a single patient at any given time.

#### Patient monitoring

Prior to placing a patient on the ventilator, a clinical assessment should be performed to determine:

- The device alarm settings
- Needed alternative ventilation equipment
- If an alternative monitor (i.e. an alarming Pulse Oximeter or Respiratory Monitor) should be used

#### Alternative Ventilation

For ventilator dependent patients, always have alternate ventilation equipment, such as a back-up ventilator, manual resuscitator, or similar device available. Ventilator dependent patients should be continuously monitored by qualified personnel. These personnel should be prepared to provide alternate therapy in the event of ventilator failure or inoperative equipment.

#### Oxygen

When using supplemental oxygen with this system, turn the device on before turning on the oxygen. Turn the oxygen off before turning the device off. This will prevent oxygen accumulation in the device. Explanation of the Warning: When the device is not in operation and the oxygen flow is left on, oxygen delivered into the tubing may accumulate within the device's enclosure. Oxygen accumulated in the device enclosure will create a risk of fire.

**Viral bacteria filter**

A viral bacteria filter must be installed in the patient circuit (between outlet of device and patient) to prevent contamination.

**Loss of Power**

The external alarm module or Uninterruptible Power Supply (UPS) must be used. If your device comes with an external alarm module, the device should be plugged into the facility's emergency backup power outlet (orange outlet), or a UPS should be used to provide battery back-up in the event of loss of AC mains power.

**Alarm indicators**

The high priority and medium priority alarms have the same auditory indication. These two alarm priorities are differentiated by visual indications. Red signals a high priority alarm and yellow signals a medium priority alarm. Please refer to Chapter 4 for additional alarm information.

**Humidification**

If the device is used invasively, a separate external humidifier is required.

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# 1. Introduction

This chapter provides an overview of the Philips Respironics E30 device. Take time to read the entire manual before using your device for the first time. This chapter includes:

- Package contents
- Intended use
- Safety information
- Symbols
- System overview

## 1.1 Package contents

Your Philips Respironics E30 system may include the following components. Some components are optional accessories that may not be packaged with the device.

- Device
- Humidifier
- User manual
- Power cord
- Power supply
- O<sub>2</sub> inlet port
- Reusable blue pollen filter
- Disposable light-blue ultra-fine filter (optional)
- Flexible tubing
- Power cord cable clamp and screw
- External alarm module kit or uninterruptible power supply (UPS)

## 1.2 Intended use

The Philips Respironics E30 ventilator is intended to provide invasive and non-invasive ventilatory support for individuals with Respiratory Insufficiency. It is specifically for the care of adult and pediatric patients >7 years of age and >18kgs. It is intended to be used in the hospital or other institutional healthcare environments, as well as spaces converted for the care of large numbers of COVID-19 patients (e.g. convention centers, university dormitories, motels). The Philips Respironics E30 ventilator is intended for use by qualified, trained personnel under the direction of a physician.

## 1.3 Safety information

### 1.3.1 Warnings

A warning indicates the possibility of injury to the user or operator.

<b>Device usage</b>	The Philips Respironics E30 ventilator is a multi-patient use device, but should only be used on a single patient at any given time.
	Operating the device for unintended purposes or with incompatible products could lead to fatal or other serious personal injury.
<b>Patient monitoring</b>	<p>Prior to placing a patient on the ventilator, a clinical assessment should be performed to determine:</p> <ul style="list-style-type: none"> <li>• The device alarm settings</li> <li>• Needed alternative ventilation equipment</li> <li>• If an alternative monitor (i.e. an alarming Pulse Oximeter or Respiratory Monitor) should be used</li> </ul>
<b>Alternative ventilation</b>	For ventilator dependent patients, always have alternate ventilation equipment, such as a back-up ventilator, manual resuscitator, or similar device available. Ventilator dependent patients should be continuously monitored by qualified personnel. These personnel should be prepared to provide alternate therapy in the event of ventilator failure or inoperative equipment.
<b>Personnel qualifications</b>	This manual serves as a reference. The instructions in this manual are not intended to supersede your health care professional's instructions regarding the use of the device.
	The prescription and other device settings should only be changed on the order of the supervising physician.
	The operator should read and understand this entire manual before using the device.
<b>Alarm indications</b>	The high priority and medium priority alarms have the same auditory indication. These two alarm priorities are differentiated by visual indications. Red signals a high priority alarm and yellow signals a medium priority alarm. Please refer to Chapter 4 for additional alarm information.
<b>Low pressure alarm</b>	Low Pressure Alarm could be caused by an excessive leak, blockage, or a device malfunction. Press the control dial to silence the alarm. Press the control dial again to acknowledge and remove the alarm from the screen. Remove your mask. Check for the following: dirty inlet filters, blocked air intake, excessive leak in the patient circuit. If the alarm continues, contact Philips Respironics.

<b>Operating and storage temperatures</b>	Do not use this device if the room temperature is warmer than 95°F (35°C) because the temperature of the airflow may exceed 109°F (43°C). This could cause thermal irritation or injury to the patient's airway.
	Do not use the device while positioned in a warm place, such as direct sunlight or near a heating appliance. These conditions can increase the temperature of the airflow and could cause thermal irritation or injury to the patient's airway.
	Do not use the ventilator outside of the environmental conditions listed in the specification section of this manual.
<b>Device start-up</b>	Make sure the device is working properly at start-up. Contact Philips Respironics or the product support team if these indications do not occur at start-up. See Chapter 3 for more information about device start-up.
<b>Viral bacteria filter</b>	A viral bacteria filter must be installed in the patient circuit (between outlet of device and patient) to prevent contamination.
<b>Patient circuits</b>	The ventilator should only be used with compatible patient interfaces (e.g., masks, endotracheal tubes, trachs, circuits and exhalation ports). Proper circuit setup is the responsibility of the healthcare professional. Patient interface should not be used unless the device is turned on and operating properly. The circuit's exhalation device should never be blocked.
	Explanation of warning: The device is intended to be used with special masks or connectors that have exhalation ports to allow continuous flow of air out of the mask. When the device is turned on and functioning properly, new air from the device flushes the exhaled air out through the exhalation device. However, when the device is not operating, enough fresh air will not be provided through the mask, and exhaled air may be rebreathed. Rebreathing of exhaled air can, in some circumstances, lead to suffocation.
	If you are using a full face mask (a mask covering both your mouth and your nose), the mask must be equipped with a safety (entrainment) valve; otherwise, a leak exhalation device must be added to the circuit.
	An exhalation port is required. Do not block the exhalation port. This can reduce airflow and result in rebreathing of exhaled air.
	At low expiratory pressures, the flow through the exhalation port may be inadequate to clear all exhaled gas from the tubing – some rebreathing may occur.
	Do not pull or stretch the tubing. This could result in circuit leaks.
	Verify operation of the Patient Disconnect alarm with any changes in the patient circuit.
<b>Improperly functioning ventilator</b>	If you notice any unexplained changes in the performance of the device, if it is making unusual sounds, if water is spilled into the enclosure, or if the enclosure is cracked or broken, discontinue use and contact Philips Respironics.

<p><b>Patient disconnect</b></p>	<p>You should not rely on any single alarm to detect a patient disconnect condition. The Low Minute Ventilation and Apnea alarms should be used in conjunction with the Patient Disconnect alarm.</p>
	<p>Test the operation of the patient disconnect function daily and whenever a change is made to the circuit. An increase in circuit resistance can prevent proper operation of some alarms.</p>
<p><b>Power cord</b></p>	<p>Route the power cord to the outlet in a way that will prevent the cord from being tripped over or interfered with by chairs or other furniture.</p>
	<p>This device is activated when the power cord is connected.</p>
	<p>Use only power cords supplied by Philips Respironics for this device. Use of power cords not supplied by Philips Respironics may cause overheating or damage to the device.</p>
<p><b>Accessories</b></p>	<p>Ensure accessories and parts are compatible before you connect a patient to the device. Consult the accessory's instructions before use. Electronic accessories that are not intended for use with this device may cause adverse performance including: increased electromagnetic emissions or decreased electromagnetic immunity of this equipment.</p>
<p><b>Oxygen</b></p>	<p>When administering fixed-flow supplemental oxygen, the oxygen concentration may not be constant. The inspired oxygen concentration will vary, depending on the pressures, patient flows and circuit leak. Substantial leaks may reduce the inspired oxygen concentration to less than the expected value. Appropriate patient monitoring should be used, as medically indicated, such as an alarming pulse oximeter.</p>
	<p>When using oxygen with this system, the oxygen supply must comply with local regulations for medical oxygen.</p>
	<p>Do not connect the device to an unregulated or high pressure oxygen source.</p>
	<p>Use an SpO<sub>2</sub> monitor to verify patient's oxygenation level.</p>
	<p>Oxygen supports combustion. Oxygen should not be used while smoking or in the presence of an open flame.</p>
	<p>Do not use the device in the presence of a flammable anaesthetic mixture in combination with oxygen or air, in the presence of nitrous oxide, or in an oxygen-enriched environment.</p>
	<p>Do not use the device near a source of toxic or harmful vapors.</p>
	<p>When using oxygen with this system, turn the device on before turning on the oxygen. Turn the oxygen off before turning the device off. This will prevent oxygen accumulation in the device. <b>Explanation of the Warning:</b> When the device is not in operation and the oxygen flow is left on, oxygen delivered into the tubing may accumulate within the device's enclosure. Oxygen accumulated in the device enclosure will create a risk of fire.</p>

<b>EMC</b>	Medical Electrical Equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this manual. The device should not be used adjacent to or stacked with other equipment. For more information, contact Philips Respironics or the product support team.
	Portable and Mobile RF Communications Equipment can affect Medical Electrical Equipment. See the EMC section of this manual for distances to observe between RF Generators and the ventilator to avoid interference.
	The Health Industry Manufacturers Association recommends that a minimum separation of six inches be maintained between a wireless phone and a pacemaker to avoid potential interference with the pacemaker.
<b>Maintenance</b>	Never operate the device if any parts are damaged or if it is not working properly. Replace damaged parts before continuing use.
	Periodically inspect electrical cords, cables, tubing, and accessories for damage or signs of wear. Discontinue use and replace if damaged.
<b>Cleaning</b>	To avoid electrical shock, always unplug the power cord from the wall outlet and/or external power supply module before cleaning the device.
	Do not immerse the device in any fluids or spray the device with water or cleaners. Clean the device with a cloth dampened with an approved cleaner.
<b>Humidifier</b>	For safe operation when using a humidifier, the humidifier must always be positioned below the breathing circuit connection at the mask. The humidifier must be level for proper operation.
<b>Humidification</b>	Humidification can increase the resistance of breathing system filters, and the operator must monitor the breathing system filter frequently for increased resistance and blockage to ensure the delivery of the therapeutic pressure. If the device is used invasively, a separate external humidifier is required.
<b>Not MR safe</b>	This device is not intended for MR environments.

## 1.3.2 Cautions

A caution indicates the possibility of damage to the device.

<b>Electrostatic Discharge (ESD)</b>	Do not use antistatic or conductive hoses or conductive patient tubing with the device.
	Pins of connectors marked with the ESD warning symbol shall not be touched and connections shall not be made without special precautions. Precautionary procedures include methods to prevent build-up of electrostatic charge (e.g., air conditioning, humidification, conductive floor coverings, non-synthetic clothing), discharging one's body to the frame of the equipment or system or to earth. It is recommended that all individuals that will handle this device understand these precautionary procedures at a minimum as part of their training.
	Before operating the device, ensure that the SD card/filter access door and the modem access door are both closed whenever any of the accessories such as the Link Module are not installed. Refer to the instructions that came with your accessory.
<b>Condensation</b>	Condensation may damage the device. If the device has been exposed to either very hot or very cold temperatures, allow it to adjust to room temperature (operating temperature) before starting therapy. Do not operate the device outside of the operating temperature range shown in the Specifications chapter later in this manual.
<b>Device Filters</b>	If not using the O <sub>2</sub> inlet port, a properly installed, undamaged Philips Respironics blue pollen filter is required for proper operation.
	Dirty inlet filters may cause high operating temperatures that may affect device performance. Regularly examine the inlet filters as needed for integrity and cleanliness.
	Never install a wet filter into the device. You must ensure sufficient drying time for the cleaned filter.
<b>Extension cords</b>	Do not use extension cords with this device.
<b>Device placement</b>	Do not place the device in or on any container that can collect or hold water.
	Do not place the device directly onto carpet, fabric, or other flammable materials.
	Do not plug the device into an outlet controlled by a wall switch.
<b>Cleaning</b>	Do not immerse the device or allow any liquid to enter the enclosure or the inlet filter.
	Do not steam autoclave the ventilator. Doing so will destroy the ventilator.
	Do not use harsh detergents, abrasive cleaners, or brushes to clean the ventilator system.

### 1.3.3 Notes

- This product is not made with DEHP, natural latex rubber or dry natural rubber in patient or operator accessible areas or in the air path or breathing circuit.
- See the Limited Warranty section of this manual for information warranty coverage.

### 1.3.4 Contraindications

If the patient has any of the following conditions, consult their health care professional before using the device:

- Inability to maintain a patent airway or adequately clear secretions
- At risk for aspiration of gastric contents
- Diagnosed with acute sinusitis or otitis media
- Allergy or hypersensitivity to the mask materials where the risk from allergic reaction outweighs the benefit of ventilatory assistance
- Epistaxis, causing pulmonary aspiration of blood
- Hypotension

When assessing the relative risks and benefits of using this equipment, the health care professional should understand that this device can deliver the pressure ranges indicated in the Control Accuracy table in Chapter 7. In the event of certain fault conditions, a maximum pressure of 60 cm H<sub>2</sub>O is possible.

## 1.4 Symbols glossary

The following symbols may appear on the device, power supply, and accessories:

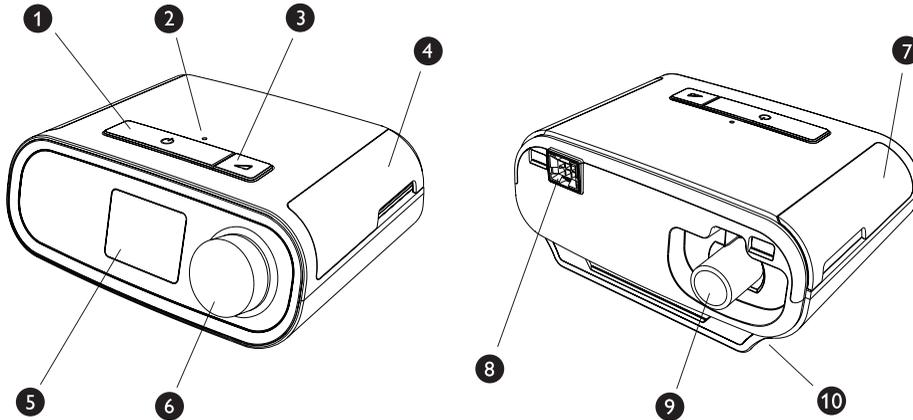
Symbol	Title and meaning
	Medical Device Indicates that the item is a medical device.
	Unique Device Identifier Indicates the Unique Device Identifier information
	Importer Indicates the entity importing the medical device into the locale.
	Operator's manual; operating instructions Consult instructions for use.

Symbol	Title and meaning
	AC power (Alternating current) Indicates on the rating plate that the equipment is suitable for alternating current only; to identify relevant terminals.
	DC power (Direct current) Indicates on the rating plate that the equipment is suitable for direct current only; to identify relevant terminals.
<b>IP22</b>	Drip proof equipment
	Caution, consult accompanying documents.
	Electrostatic sensitive devices (ESD warning symbol) Attention – Observe precautions for handling electrostatic sensitive devices.
	Class II equipment (Double Insulated) To identify equipment meeting the safety requirements specified for Class II equipment.
	For airline use. Complies with RTCA/DO-160G section 21, category M. Not applicable to Philips Respironics E30.
	Separate collection for electrical and electronic equipment per EC Directive 2012/19/EU.
	<i>Bluetooth</i> <sup>®</sup> symbol Indicates the device has Bluetooth capabilities. Not applicable to Philips Respironics E30.
	Non-ionizing electromagnetic radiation Indicates that the equipment includes RF transmitters.
	Serial Connection Identifies a connector for a serial data connection.
	Keep away from sunlight Indicates the medical device needs protection from light sources.
	Do not disassemble.
	Type BF applied part To identify a type BF applied part complying with IEC 60601-1.
	For indoor use only Equipment is designed primarily for indoor use.
	Therapy on/off (Stand-by) Identifies the button to turn therapy on or off (puts the device in a stand-by condition).

Symbol	Title and meaning
	<p>Ramp (Variability)</p> <p>To identify the control device by means of which a quantity is controlled. The controlled quantity increases with the figure width.</p> <p>Not applicable to Philips Respironics E30.</p>
	Patient breath indicator
	<p>Unlocking</p> <p>Identifies on a control that a function is not locked.</p>
	<p>Keep dry</p> <p>Indicates the medical device that needs to be protected from moisture.</p>
	<p>Fragile, handle with care</p> <p>Indicates the medical device can be broken or damaged if not handled carefully.</p>
	<p>Humidity limitation</p> <p>Indicates the range of humidity to which the medical device can be safely exposed.</p>
	<p>Temperature limit</p> <p>Indicates the storage temperature limits to which the medical device can be safely exposed.</p>
	<p>Packaging unit</p> <p>To indicate the number of pieces in the package.</p>
	<p>Manufacturer</p> <p>Indicates the medical device manufacturer.</p>
	<p>Date of Manufacture</p> <p>To indicate the date on which a product was manufactured.</p>
	<p>Country of Manufacturer</p> <p>To indicate the country of manufacture of the product.</p> <p><i>Note: When applied to the label, "CC" is replaced by the two letter country code.</i></p>
	<p>Reorder number</p> <p>Indicates the manufacturer's catalogue number so the medical device can be identified.</p>
	<p>Serial number</p> <p>Identify the manufacturer's serial number for the medical device.</p>

## 1.5 System overview

### 1.5.1 Device features



The figure above illustrates some of the device features, described in the following table.

#	Feature	Description
1	Therapy on/off button 	Starts and stops the airflow for therapy.
2	Ambient light sensor	Detects room light levels and adjusts brightness of LCD display screen. Not applicable to Philips Respironics E30.
3	Ramp button 	Activates the ramp feature during therapy. Not applicable to Philips Respironics E30.
4	Door, SD card & filter access	This door lifts open for access to the SD card and filter area.
5	LCD display screen	This is the User Interface for the therapy device.
6	Control dial	Turn the dial to scroll between options on the screen. Press the dial to choose an option and silence and acknowledge alarms.
7	Door, accessory access	This door lifts open for access to the (optional) accessories.
8	Humidifier connector	Humidifier connects to the back of the therapy device. The humidifier pin connector will attach here.
9	Air outlet port	Connect the tubing here.
10	Power inlet	Connect the power cord here.

## 1.6 How to contact Philips Respironics

Should you experience trouble with this equipment or require assistance setting up, using, or maintaining the device or accessories, please contact Philips Respironics. To contact Philips Respironics directly, call +1-724-387-4000, or go to [www.respironics.com](http://www.respironics.com) to find your local customer service contact information. You can also use the following address:

1001 Murry Ridge Lane  
Murrysville, Pennsylvania 15668-8550  
1-724-387-4000

Deutschland  
Gewerbestrasse 17  
82211 Herrsching, Germany  
+49 8152 93060



## 2. Therapy modes

This chapter describes the therapy modes and features available on the device.

### 2.1 Device therapy modes

Therapy Mode	Description
CPAP	Continuous Positive Airway Pressure; CPAP maintains a constant level of pressure throughout the breathing cycle.
S	Spontaneous Pressure Support; A therapy mode where breaths are patient-triggered and patient-cycled. The device triggers to IPAP (Inspiratory Positive Airway Pressure) in response to spontaneous inspiratory effort and cycles to EPAP (Expiratory Positive Airway Pressure) during exhalation. The device also cycles a patient-triggered breath if no patient exhalation effort is detected for 3 seconds. The level of Pressure Support delivered is determined by the difference between the IPAP and EPAP settings ( $PS = IPAP - EPAP$ )
S/T	Spontaneous/Timed Pressure Support; A therapy mode where each breath is patient-triggered and patient-cycled or machine-triggered and machine-cycled. S/T mode is similar to S mode, except that the device also will enforce a set minimum breath rate by, if necessary, providing machine (time) triggered breaths. For these breaths, the inspiratory time is also a set value.
PC	Pressure Control Pressure Support; A therapy mode where each breath is patient or machine-triggered and machine-cycled. PC mode is similar to S/T mode, except that all breaths are machine-cycled. This is a pressure-limited, machine or patient-triggered, time-cycled mode. The cycle time is determined by the Inspiratory Time setting.

### 2.2 Triggering

Auto-Trak is a combination of multiple triggering algorithms. The parameters of the algorithms are automatically set to synchronize the therapy with a variety of patients.



# 3. Device setup

This chapter details how to set up the device. This chapter includes:

- Installing and replacing the air filters
- Positioning the device
- Supplying AC power to the device
- Connecting the external alarm module kit or uninterruptible power supply (UPS)
- Connecting the breathing circuit
- Installing the O<sub>2</sub> inlet port
- Starting the device
- Menu and screen navigation

## 3.1 Installing and replacing the air filters

### Caution

**A properly installed, undamaged Philips Respironics blue pollen filter, or a filter installed on the oxygen inlet, is required for proper device operation.**

The device uses a blue pollen filter that is washable and reusable, and a light-blue ultra-fine filter that is disposable. The reusable blue filter screens out pollens, while the light-blue ultra-fine filter provides more complete filtration of very fine particles. The reusable blue filter must be in place at all times when the device is operating. The ultra-fine filter is recommended for people who are sensitive to tobacco smoke or other small particles.

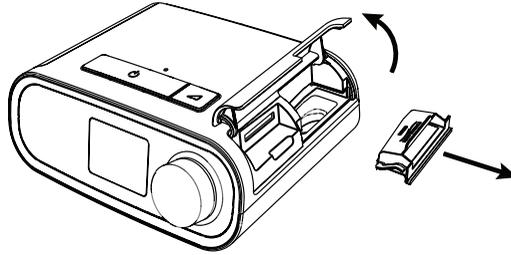
The reusable blue filter is supplied with the device. A disposable light-blue ultra-fine filter may also be included. If your filter is not already installed when you receive your device, you must at least install the reusable filter before using the device.

This device has an automatic air filter reminder. Every 30 days, the device will display a message reminding you to check your filters and replace them as directed.

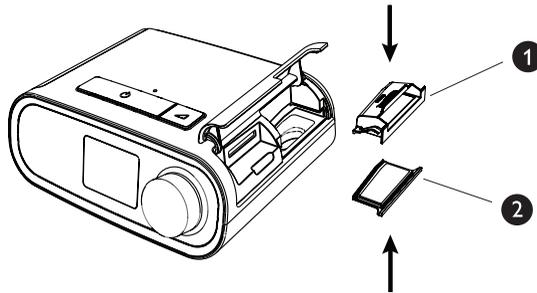
### Note

This message is a reminder only. The device does not detect the performance of the filters nor does it recognize when a filter has been cleaned or replaced.

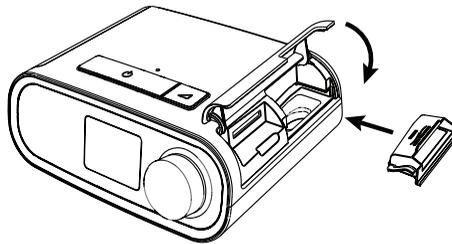
1. Lift up on the filter access door and swing open. If replacing, pull out the old filter assembly.



2. If applicable, place a clean, reusable blue pollen filter (1) on top of a new, optional disposable light-blue ultra-fine filter (2) and firmly snap them together.



3. Place the new filter assembly back in the side of the therapy device. Swing the door closed.



## 3.2 Positioning the device

Place the device on a firm, flat surface within easy reach, at a level lower than the patient's sleeping position. Or attach to the DreamStation Roll Stand per the accompanying instructions. Make sure the device is away from any heating or cooling equipment (e.g., forced air vents, radiators, air conditioners).

### Cautions

**Make sure the filter area on the side of the device is not blocked by bedding, curtains, or other items. Air must flow freely around the device for the system to work properly.**

**Do not place the device directly onto carpet, fabric, or other flammable materials.**

**Do not place the device in or on any container that can collect or hold water.**

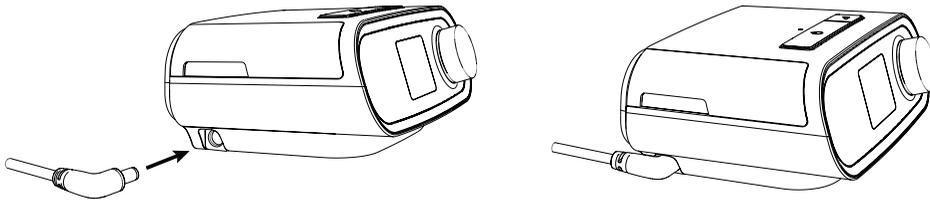
**Note**

When positioning the device, make sure that the power cable is accessible because removing power is the only way to turn off the device.

### 3.3 Supplying power to the device

Complete the following steps to operate the device using AC power:

1. Plug the external alarm module or UPS connector into the power inlet on the E30 ventilator. See Section 3.4 for additional details.

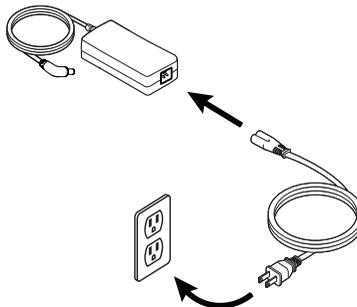
**Warning**

The external alarm module or Uninterruptible Power Supply (UPS) must be used. If your device comes with an external alarm module, the device should be plugged into the facility's emergency backup power outlet (orange outlet), or a UPS should be used to provide battery back-up in the event of loss of AC mains power.

**Note**

There is an accessory clip that can be used to secure the power cord and the external alarm module or UPS to prevent accidental disconnection. Route the cord through the clip and secure the clip to the enclosure of the device (and if applicable, the external alarm module) using the supplied screw. See instructions accompanying the accessory for additional information.

2. Plug the socket end of the AC power cord (included) into the power supply (also included).



3. Plug the pronged end of the AC power cord into an electrical outlet that is not controlled by a wall switch.

4. Plug the power supply cord's connector into the external alarm module or UPS connector.
5. Verify that the all connections are fully inserted. This will help to ensure that a secure, reliable electrical connection has been made.

#### Warning

Periodically inspect electrical cords and cables for damage or signs of wear. Discontinue use and replace if damaged.

#### Caution

Do not use extension cords with this device.

#### Important

To remove AC power, disconnect the power supply cord from the electrical outlet.

#### Note

If the Incorrect Power Supply icon appears on the screen, please repeat step 5. 

## 3.4 Connecting the external alarm module kit or uninterruptible power supply (UPS)

See instructions accompanying the external alarm module or UPS for setup and other additional details. For information when this accessory alarms, see Chapter 4.

#### Note

The UPS is not intended to be used to power your E30 ventilator, but for backup power purposes in the event of an unexpected loss of power.

The UPS must be placed at least 2 m (6.5 ft) away from the Philips Respironics E30 ventilator and patient.

Be certain to plug the UPS power cord directly into a wall outlet and not into a surge protector. The UPS outlets are powered whenever the UPS is switched ON. During a power outage, the UPS outlets will be powered for a limited time. Charging the UPS for at least 20 minutes before use will support back-up of a 2 minute alarm. The UPS may take up to 24 hours to complete a full charge.

If using an off-the-shelf UPS, below are instructions for how to set it up with the Philips Respironics E30 Ventilator:

1. Ensure the therapy device is turned off.
2. Plug the UPS into the wall outlet.
3. Plug the E30 ventilator power supply ( **REF** 1118499) into the UPS, ensuring that you plug into the UPS battery backup outlets. Press the power button on the UPS to turn it on.
4. Verify that the E30 ventilator and UPS are operating properly.

## Specifications

- Uninterruptible Power Supply: 110 to 240 v
- Operation time: > 1.5 hours

## 3.5 Connecting the breathing circuit

### Warnings

Do not pull or stretch the tubing. This could result in circuit leaks.

Inspect the tubing for damage or wear. Discard and replace the tubing as necessary.

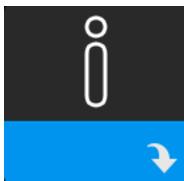
To use the system, connect the tubing to the air outlet on the back of the therapy device. Configure the breathing circuit based on patient needs.

## 3.6 Installing the O<sub>2</sub> inlet port

See instructions accompanying the O<sub>2</sub> inlet port for setup and other additional details.

## 3.7 Starting the device

1. Supply power to the device. Once the device powers on, the Home screen appears.



The first time the device is powered on, a pop-up may prompt you to set the time on the device. The default setting is Greenwich Mean Time, but you may adjust the time in 30 minute increments to match your local time zone. If you choose to skip this initial time setting, the time can always be adjusted under the My Setup menu.

### Note

This time setting is not displayed as a clock function on the device. It is only used to align a patient's therapy data with the provider's data reports.

2. Put the breathing circuit assembly on the patient. Refer to the instructions provided with your accessories.
3. Press the Therapy on/off button (⏻) on top of the device to turn on airflow and begin therapy. The current delivered pressure will display on the screen.
4. Make sure that no air is leaking from the patient interface. If necessary, adjust until the air leak stops. See the instructions provided with your accessories for more information.
5. Press and hold the Therapy on/off button for 2 seconds to turn off therapy.

**Note**

During therapy, if there is a mains interruption (i.e., power loss), therapy will resume once power is restored if power loss is shorter than 10 minutes. If power loss is greater than 10 minutes, the device will return to the Home screen once power is restored. From there, you may resume therapy as needed.

## 3.8 Navigating the device screens

The User Interface (UI) on this device allows you to adjust the device settings and view information about your therapy. The UI is composed of the display screen and the control dial. Rotate the control dial in either direction to scroll through the menus on the display screen. Press the control dial to open a menu.

To adjust a setting:

1. Rotate the control dial to your desired setting.
2. Press the control dial to select that setting.
3. Rotate the control dial to change the setting. The rotate dial icon  on any screen indicates to rotate the dial to perform an action.
4. Press the control dial again to save the setting change. The click dial icon  on any screen indicates to press the dial to perform an action.

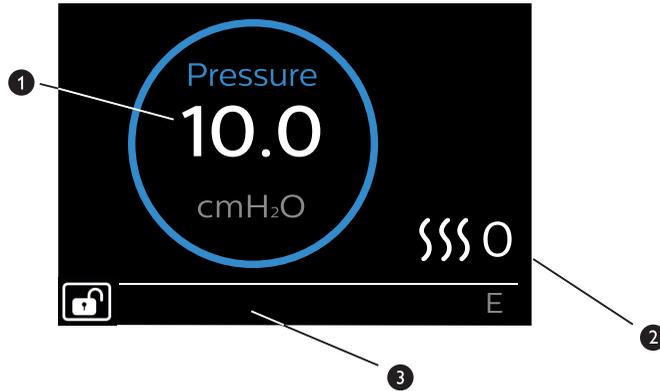
**Notes**

Pressing the dial when the down arrow  appears on any screen will take you to a sub-menu with more menu options. Pressing the dial when the up arrow  appears on any sub-menu will return you back to the main menu.

The screens shown throughout this guide are examples for reference only. Actual screens may vary based upon device model and provider settings.

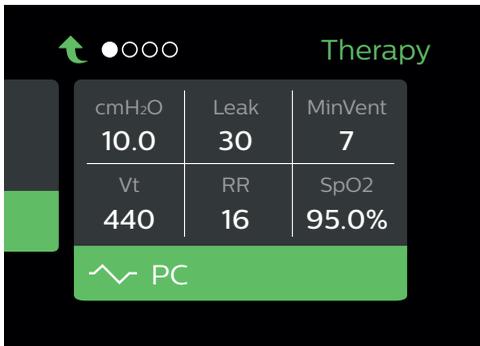
## 3.9 Menu navigation (with therapy on) and optional humidification settings

The following screen is displayed while therapy is turned on. The table below describes the different features that may appear on your screen. If an accessory is attached to the therapy device, additional symbols may appear. Refer to the instructions provided with the accessory for more information.



#	Feature	Description
1	Therapy pressure	Displays the current delivered pressure.
2	Adjustable humidifier setting	You can change this setting from 0 to 5. Only displays when humidifier is attached.
3	Enabled features	<p>If enabled, the following therapy features will display here:</p> <ul style="list-style-type: none"> <li>• Humidifier </li> <li>• I or E - indicates IPAP or EPAP state</li> <li>• Patient breath indication </li> <li>• Provider Mode Unlocked </li> </ul>

When Provider mode is unlocked, pressing the Therapy on/off button when the Therapy screen is displayed will show the monitoring screen below with displayed parameters.



- Pressure Setting
- Circuit Leak
- Minute Ventilation
- Tidal Volume
- Respiratory Rate
- SpO<sub>2</sub> (additional accessories required)

### 3.9.1 Adjusting the humidifier settings

If you have a humidifier, you can adjust humidifier settings while the device is delivering therapy by following these steps:

1. Turn the control dial in any direction to activate the humidifier setting.
2. Press the control dial to edit the setting.
3. Turn the control dial until you reach the desired setting. The setting increments when you turn the dial clockwise and decrements when you turn the dial counter-clockwise.
4. Press the control dial to save the setting.

### 3.10 Provider mode (with therapy off)

When turned on, the device is automatically set in Provider mode to allow for modification of device settings. You can choose between the following Provider mode screens, in addition to My Provider and My Setup (not shown below).



If locked, Provider mode can be accessed by following these steps:

1. Supply power to the device (if not already).
2. Once the device is powered, press and hold both the control dial and the Ramp button  on the device for at least 5 seconds.
3. You are now in Provider mode.

#### 3.10.1 Provider settings

The following sections will describe the options available from the Provider screens.



#### Therapy settings

Choosing this screen will take you to a sub-menu where you can adjust the device therapy modes and pressure settings. These settings are described here.

**Note**

Not all settings shown here will display on the device. The display will vary based on therapy device model and device settings.

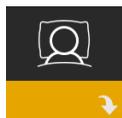
Icon	Text	Description
<b>CPAP S S/T PC</b>	Mode	Allows you to select a therapy mode. The default setting is S/T. The available modes are: CPAP, S, S/T, or PC Note: If the therapy mode is changed while the blower is turned on, a confirmation pop-up screen appears. Select Yes if you would like to activate the selected mode.
cmH <sub>2</sub> O	cmH <sub>2</sub> O	This setting is available only when CPAP mode is selected. Allows you to increase or decrease the CPAP pressure setting from 4 to 20 cmH <sub>2</sub> O in increments of 0.5.
IPAP	IPAP	Increase or decrease the Inspiratory Positive Airway Pressure (IPAP) from 4 to 30 cmH <sub>2</sub> O in increments of 0.5. You cannot set the IPAP setting lower than the EPAP setting.
EPAP	EPAP	Allows you to increase or decrease the Expiratory Positive Airway Pressure (EPAP) from 4 to 25 cmH <sub>2</sub> O in increments of 0.5.
BPM	BPM	Allows you to modify the Breaths Per Minute setting. You can choose between Off and 1 through 30 BPM.
Ti	Ti	Allows you to modify the Inspiratory Time setting. You may adjust the setting from 0.5 to 3.0 seconds in 0.1 increments. Only displays in PC mode and if BPM is not set to Off in S/T mode.



## Alarm settings

Choosing this screen will take you to a sub-menu where you can enable or disable the alarms described below.

Icon	Text	Description
	Patient Disconnect Alarm	You can enable or disable the Patient Disconnect alarm by choosing 0, 15, or 60 seconds. The alarm will sound when a large, continuous air leak is detected in the circuit for more than the specified alarm setting. The default is 15 seconds.
	Apnea Alarm	The Apnea alarm detects the cessation of spontaneous breathing. You can enable or disable the Apnea alarm by choosing 0 (off), 10, 20, 30, or 40 seconds. The alarm will sound when the time between patient-triggered breaths is greater or equal to the specified apnea alarm setting. The default is 0.
	Low Min Vent Alarm	You can enable or disable this alarm by choosing 0 (off) to 99 lpm in 1.0 increments. The alarm will sound when the patient's minute ventilation is less than or equal to the specified alarm setting. The default is 0.



## Comfort settings

Choosing this screen will take you to a sub-menu where you can adjust the humidification and pressure comfort settings. These settings are described here.

### Note

Not all settings shown here will display on the device. The display will vary based on therapy device model and device settings.

Icon	Text	Description
	Humidification	This setting enables what the patient can use. You can choose between Fixed or Adaptive (A) humidification. Fixed mode applies a constant heat on the humidifier heater plate. Under certain conditions and settings, this mode can allow condensation to occur in the tube. Adaptive mode adapts the heater plate temperature to the ambient conditions in the room, and is designed to not allow condensation to occur in the tube.
	Humidifier	This setting allows you to choose the desired humidity setting for the humidifier: 0, 1, 2, 3, 4 or 5.
	Tube Type	This setting allows you to select the correct size diameter tubing that you are using with the device. You can choose either (22) for the 22 mm tubing, or (15) for the 15 mm tubing.
	Tube Type Lock	This enables you to lock the Tube Type setting for either the 22 mm or the 15 mm tubing if you do not want the patient to change it.
	Mask Type	This setting allows you to adjust the setting based on mask type. Each Philips Respironics mask may have a System One resistance control setting. Contact Philips Respironics or the product support team if you cannot find this resistance setting for your mask.
	Mask Type Lock	This enables you to lock the Mask Type resistance setting if you do not want the patient to change it.



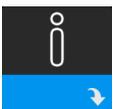
## Device settings

Choosing this screen will take you to a sub-menu where you can adjust the way the device displays information. These settings are described here.

### Note

Not all settings shown here will display on the device. The display will vary based on therapy device model and device settings.

Icon	Text	Description
	Language	This feature allows you to choose which language to display on the interface.
	Clear Default Reminders	Setting not applicable to Philips Respironics E30.
	Reset Data	Use the Reset Data function to clear patient data from the therapy device. After you press the control dial to execute Reset Data, the device will display a message asking you to confirm the reset. Press the control dial again to reset data in the device. Note: Reset Data resets blower hours that are visible to the patient, but it does not reset machine hours in the Provider Menu.
	Reset Blower Hours	Select <b>Yes</b> if you want to reset the blower hours (e.g., to track device usage between patients).
	Reset Therapy Hours	Select <b>Yes</b> if you want to reset the therapy hours back to the default of 0 hours.
	Provider Lock	This setting locks or unlocks Provider mode.



## Info Screens

Choosing this screen will take you to a sub-menu where you can view information on patient usage.



## Return to Patient Mode

Choosing this screen will exit Provider mode and the device will return to the Patient mode if Provider mode is locked. Provider mode will also time out after 5 minutes of inactivity and automatically return to the Patient mode if Provider mode is locked.

### Note

This screen will not appear if Provider mode is unlocked.

### 3.10.2 Updating software using the SD card

You can update the device software using the SD card. The software update must be done when the therapy is off.

1. Insert an SD card with the new software version into the device. A pop-up screen appears asking “Would you like to upgrade software?”
2. Turn the control dial to select **Yes** and then press the control dial to start the upgrade. The busy icon  appears while the upgrade is in progress. Do not remove power from the device.
3. If the software update is successful, the Change Accepted icon appears on the screen. Removed the SD card from the device to restart the device and use the new software.
4. If an SD card error is detected, the Change Rejected icon appears. Remove the SD card and reinsert. If the alert continues to occur, contact Philips Respironics at 1-800-345-6443 for a new SD card.

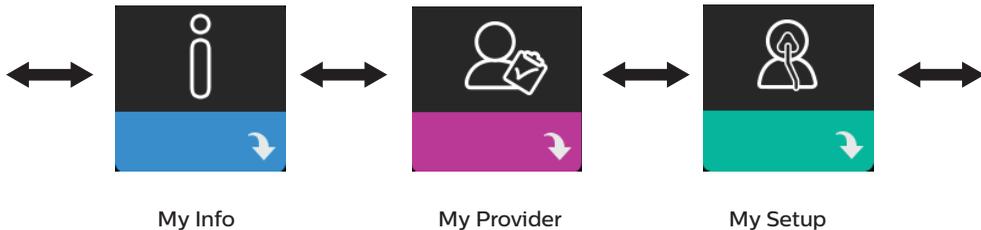


### Clearing patient data for multiple users

To clear patient data from the device, use the **Reset Data** option, available through the Device menu. See **Device settings** earlier in this document for more information.

## 3.11 Patient mode (with therapy off)

When Provider Mode is locked, you can scroll between the following options:



My Info	This menu provides summary statistics of therapy use.
My Provider	This menu where some device configurations can be viewed.
My Setup	This menu contains comfort settings that you can adjust as needed.

#### 3.11.1 My Info

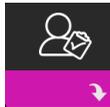
When you select **My Info**, you will be able to view the following screens. You cannot change settings in the My Info menu. These screens are only for reference.

**Note**

Additional icons may appear if optional accessories are being used (such as the oximetry module). Refer to the manual that accompanies the accessory for more information.

Icon	Text	Description
	Therapy Hours	This screen displays the amount of time the user is actually receiving therapy on the device for the most recent 1-day time frame. It also displays the average amount of time the patient is actually receiving therapy over the last 7 days and 30 days.
	Three Night Summary	Your device provides summary information about therapy use. It shows nightly usage for the last 3 sleep sessions (measured in 24 hour periods, ending at noon eachday). The most recent session is displayed in the right hand bar, labeled with the number of hours slept. A green bar indicates that the patient slept more than 4 hours, and a yellow bar indicates less than 4 hours of use.

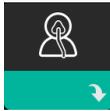
### 3.11.2 My Provider



When you select **My Provider**, you will be able to view the following screens. You cannot change settings in the Provider menu. These screens are only for reference.

Icon	Text	Description
	Therapy	This screen displays your therapy settings. Settings cannot be adjusted from this screen.
	Alarms	This screen displays your alarm settings. Settings cannot be adjusted from this screen.
	Device Info	This screen displays your therapy device information: serial number, model, and software version.
	Performance Check	Your device is equipped with a self-diagnostic tool called Performance Check. This tool can evaluate your device for certain errors. It also allows you to share key device settings with your home care service provider. Use Performance Check when directed to by your home care service provider. At conclusion of the scan, the screen displays a green check mark if no issue is detected. If device displays a red X, please contact your home care service provider for assistance.

### 3.11.3 My Setup



When you select **My Setup**, you will be able to view the following screens. You can change the settings in the Setup menu. These screens will only display if they are available and enabled on your device.

Icon	Text	Description
	Humidification	This displays the Humidification Mode being used. You can choose between Fixed or Adaptive Humidification.
	Mask type	This setting allows you to adjust the setting based on mask type. Each Philips Respironics mask may have a System One resistance control setting. Contact Philips Respironics or the product support team if you cannot find this resistance setting for your mask. Note: If a lock icon  is displayed on this screen, it indicates that your provider has locked this setting and you cannot change it.
	Tube type	This setting allows you to select the correct size diameter tubing that you are using with the device. You can choose either (22) for the 22 mm tubing, or (15) for the 15 mm tubing. Note: Tubing is identified on the cuff with the tubing identifier symbol: 15 or 22. Note: If a lock icon  is displayed on this screen, it indicates that your provider has locked this setting and you cannot change it.
	Language	This feature allows you to view your current language setting.
	Time	This setting allows you to adjust the time. The default setting is Greenwich Mean Time, but you may adjust the time in 30 minute increments to match your local time zone. Note: This time setting is not displayed as a clock function on the device. It is only used to align your therapy data for your Provider's data reports.
	Brightness	This feature allows you to adjust the screen brightness. The default setting is 100%. You can change the setting from 20%-100% brightness.

## 3.12 Altitude compensation

This device automatically compensates for altitude up to 7,500 feet. No manual adjustment is necessary.

# 4. Alarms, alerts, and troubleshooting

This chapter describes the alarms and alerts and what you should do if an alarm or alert occurs. Reference the Troubleshooting section if you experience any problems while using the device.

## 4.1 Device alarms

There are two types of alarms:

- High priority - Require immediate response by the operator.
- Medium priority - Require prompt response by the operator.

When an alarm condition occurs:

- The audible alarm sounds.
- A message appears on the screen describing the type of alarm.

## 4.2 Device alerts

Alerts are informational and confirmation messages that notify you of conditions that require attention but are not alarm conditions. Most alerts do not appear while therapy is being delivered. The different types of alerts are:

- Status - Message appears on the screen.
- Notification - Message appears on the screen.
- Alert - Message appears on the screen, and audible sound beeps once while alert is displayed.

## 4.3 Alarm and alert audible indicators

An audible indicator sounds when any of the following occurs:

- A device inoperative condition occurs
- An alarm condition occurs
- An alert message appears on the screen
- Warning!

### **Warning**

The high priority and medium priority alarms have the same auditory indication. These two alarm priorities are differentiated by visual indications. Red signals a high priority alarm and yellow signals a medium priority alarm.

Alarm/alert type	Audible indicator
Device Inoperative	When a device inoperative alarm occurs, a continuous audible indicator sounds. This sound repeats until the audible alarm is silenced. 
Power failure	See instructions accompanying the external alarm module or UPS for audible indicators applicable to your accessory.
High priority	When a high priority alarm is active, a series of beeps sounds in a 1 beep pattern, repeating half a second on, then one and a half seconds off. This pattern repeats until the cause of the alarm is corrected or the audible alarm is silenced. • •
Medium priority	When a medium priority alarm is active, a series of beeps sounds in a 1 beep pattern, repeating half a second on, then one and a half seconds off. This pattern repeats until the cause of the alarm is corrected or the audible alarm is silenced. • •
Alerts	When an alert appears on screen, a brief, 1-beep audible indicator sounds. •

### 4.3.1 Silencing an alarm

You can temporarily silence an alarm by pressing the control dial. The alarm is silenced for 60 seconds and then sounds again if the cause of the alarm has not been corrected. If another alarm occurs while the silence period is active, the audible alarm portion of the new alarm will not sound until the silence period expires. When the silence period expires, the alarm’s audible alarm is reactivated if the alarm condition has not be corrected.

## 4.4 Alarm message screens

When an alarm message is activated, an alarm screen is displayed, showing the text or icon specific to the most recent, highest priority alarm.

Pressing the control dial once will silence the audible alarm. Press the control dial again to remove the alarm screen from the display. Resetting the alarm allows you to return to the previous screen. If multiple alarms occur during the same period of time, the alarm screen will display the higher priority alarm (higher priority alarms take precedence over lower priority alarms).

## 4.5 What to do when an alarm occurs

Complete the following steps when an alarm occurs:

1. Observe the patient and ensure that adequate ventilation and oxygenation (if appropriate) are available.
2. Listen to the audible alarm and look at the alarm indicators.
3. Look at the display to check the alarm message that appears on-screen and whether it is red or yellow.
4. Press the control dial to temporarily silence the audible alarm. Or, press the control dial twice to acknowledge and remove the alarm from the screen.
5. Look up the alarm in the alarm descriptions in this chapter to determine the source of the alarm and the appropriate action.

## 4.6 External power fail alarm

When connected to the device, the external alarm module or UPS will provide an alarm when there is a power failure.

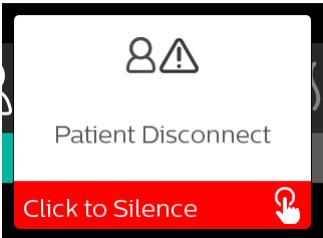
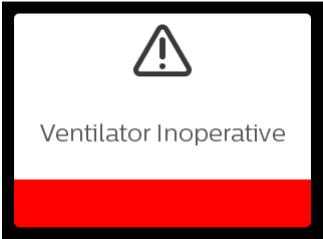
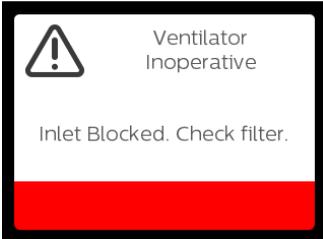
If this alarm is triggered on the external alarm module, first ensure that power supply is plugged into outlet, and that power failure alarm is connected to device and power supply. If using an UPS, ensure that it is connected and plugged in.

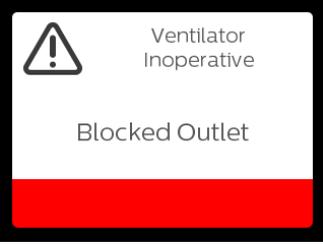
See instructions accompanying your accessory for further information.

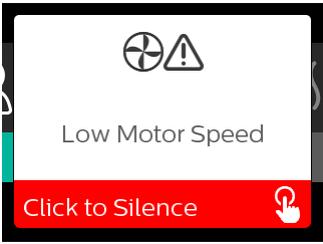
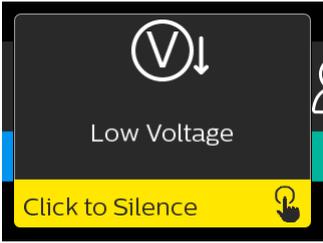
## 4.7 Alarm summary table

The following table summarizes the alarms. See **Alarm and alert audible indicators** earlier in this chapter for audible indicators for each alarm type.

Alarm	Priority	Device action	User action
Physiological alarms			
	High	Operates	This alarm occurs when the calculated minute ventilation is less than or equal to the alarm setting. Press the control dial to silence the alarm. Press the control dial again to acknowledge and remove the alarm from the screen. <b>Continue using your device.</b>

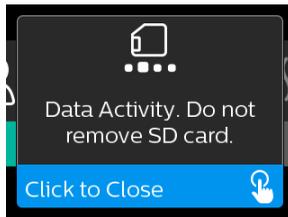
Alarm	Priority	Device action	User action
	High	Operates	<p>This alarm occurs when the patient has not triggered a breath within the time specified in the apnea alarm setting. The device continues to operate. The alarm will automatically terminate when two consecutive patient breaths are detected that meet the apnea alarm time setting.</p> <p>Press the control dial to silence the alarm. Press the control dial again to acknowledge and remove the alarm from the screen. <b>Continue using your device.</b></p>
	High	Operates	<p>This alarm occurs when the patient circuit is disconnected or has a large leak. Press the control dial to silence the alarm. Press the control dial again to acknowledge and remove the alarm from the screen. Reconnect the patient circuit or fix the leak. If the alarm continues, contact Philips Respironics or the product support team.</p>
Technical alarms			
	Device inoperative	Shuts down	<p>Press the control dial to silence the alarm. Disconnect the device from power. Immediately remove patient from ventilator and connect them to alternate source of ventilation. Contact Philips Respironics or the product support team.</p>
	Device inoperative	Shuts down	<p>Check device air inlet and O<sub>2</sub> inlet adapter are not obstructed. Check air filter(s) are installed properly and are clean; replace if needed. If the alarm continues, contact Philips Respironics or the product support team.</p>

Alarm	Priority	Device action	User action
 <p>Ventilator Inoperative</p> <p>Blocked Outlet</p>	Device inoperative	Shuts down	Check tube is not crushed or folded such that air flow is restricted. Check mask is attached properly and without any obstruction. If the alarm continues, contact Philips Respironics or the product support team.
Loss of power	Power failure	Shuts down	Immediately connect the ventilator to an alternate power source. If no alternate power source is available, immediately place the patient on an alternate source of ventilation. Then check your power connections. Make sure there is power at the outlet or power source. If the alarm continues, contact Philips Respironics or the product support team.
 <p>cm H<sub>2</sub>O ↓</p> <p>Low Pressure</p> <p>Click to Silence</p>	High	Operates	This could be caused by an excessive leak, blockage, or a device malfunction. Press the control dial to silence the alarm. Press the control dial again to acknowledge and remove the alarm from the screen. Remove your mask. Check for the following: dirty inlet filters, blocked air intake, excessive leak in the patient circuit. If the alarm continues, contact Philips Respironics or the product support team.
 <p>cm H<sub>2</sub>O ↑</p> <p>High Pressure</p> <p>Click to Silence</p>	High	Operates; if the alarm continues for 10 seconds, the alarm escalates to a device inoperable alarm.	This may be caused by a malfunctioning device. Press the control dial to silence the alarm. Press the control dial again to acknowledge and remove the alarm from the screen. Remove mask, and remove power from the device. Restore power. If the alarm continues, contact Philips Respironics or the product support team.

Alarm	Priority	Device action	User action
	High	Operates	This may be caused by a malfunctioning device. Press the control dial to silence the alarm. Press the control dial again to acknowledge and remove the alarm from the screen. Remove your mask, and remove power from the device. Restore power. If the alarm continues, contact Philips Respironics or the product support team.
	Medium	Operates	Press the control dial again to acknowledge and remove the alarm from the screen. Remove your mask. Remove power from the device. Confirm a compatible external alarm module or UPS is attached is attached. Switch to compatible power supply, if needed.

### 4.8 Alert summary table

The following table summarizes the alerts. See **Alarm and alert audible indicators** for audible indicators for each alert type.



Alert	Icon	Priority	Description	User action
Data Activity: Do not remove SD card.		Status	SD card read/write underway.	No action needed.

Alert	Icon	Priority	Description	User action
Oximetry: Good Connection (icon only)		Status	Displays on the therapy screen when the blower is on and 3 seconds of good connection is detected. Appears at the beginning of therapy. This screen will not display again if the oximetry sensor is removed and reapplied unless therapy is stopped and restarted.	No action needed.
Flow Sensor Error: Limited Therapy		Notification	Flow sensor malfunction.	Press the control dial to acknowledge and clear the message. Disconnect the device from power. Immediately remove patient from ventilator and connect them to alternate source of ventilation. Contact Philips Respironics or the product support team.
SD Card Removed.		Notification or Alert	Indicates SD card has been removed from therapy device and not reinserted before the start of the current therapy session.	Reinsert SD card, or press the control dial to clear alert.
Oximetry: Good Study (icon only)		Notification	After exiting therapy, the therapy device will display the Good Oximetry pop-up screen if the oximetry sensor maintained a good connection for at least 4 consecutive hours within a 24 hour window with breaks in therapy no greater than 1 hour each.	Press the control dial to acknowledge and clear the message.

Alert	Icon	Priority	Description	User action
SD Card Error: Remove and Reinsert		Notification	SD card error detected. Device cannot read the SD card. A problem may exist with the SD card or it was ejected during a writing activity, or it was inserted incorrectly.	Remove SD card and reinsert. If alert continues to occur, replace with another card or contact Philips Respironics or the product support team.
SD Card Full.		Notification	SD card is full.	Remove SD card and contact Philips Respironics or the product support team for a new SD card.
Humidification Error. Contact support if the problem persists.		Status	Humidifier error (only when humidifier is present) Humidifier heater plate error or humidifier not properly connected to therapy device.	Turn off device and disconnect from power. Detach the humidifier, visually check that electrical contacts are clear, then reconnect humidifier and power cord. If alert continues, contact Philips Respironics or the product support team.
The attached power supply does not support humidification.		Alert	Indicates that the attached power supply is not capable of supporting humidification.	Contact Philips Respironics or the product support team to obtain a compatible Philips Respironics power supply. Or, operate therapy device without humidifier.
Activate MODE?		Notification	Indicates mode change while blower is running or therapy is being delivered.	Choose Yes to accept new therapy mode, No to stay in current mode.
Check Power		Notification	Indicates an incompatible power supply is attached. Incompatible power supply, or power cord is not fully inserted into device's power inlet.	Confirm power cord is fully inserted into device's power inlet. Confirm a compatible Philips Respironics power supply is attached. Switch to compatible power supply if needed.
Busy		Status	Displayed when the device is temporarily inaccessible due to data communication.	No action needed.

Alert	Icon	Priority	Description	User action
Loading Language and Rebooting		Status	Displayed when a new language is selected from the menu.	No action needed.

## 4.9 Troubleshooting

Your device is equipped with a self-diagnostic tool called **Performance Check**. This tool can evaluate your device for certain errors. Use Performance Check when directed by Philips Respironics customer service.

The table below lists some of the problems you may experience with your device and possible solutions to those problems.

Problem	Why it happened	What to do
Nothing happens when you apply power to the device. The backlights on the buttons do not light.	There's no power at the outlet or the device is unplugged.	Ensure the device is properly plugged into an AC power source. If using a UPS, ensure the UPS is properly plugged into an AC power source and the UPS is turned ON. Make sure there is power available at the outlet. Make sure the AC power cord is connected correctly to the power supply and the power supply cord is securely connected to the device's power inlet. If the problem continues to occur, contact Philips Respironics or the product support team. Return both the device and power supply so they can determine if the problem is with the device or power supply.
The airflow does not turn on.	There may be a problem with the blower.	Make sure the device is powered correctly. Make sure the Home screen appears on the user interface. Press the Therapy button on top of the device to start airflow. If the airflow does not turn on, there may be a problem with your device. Contact Philips Respironics or the product support team.
The device's display is erratic.	The device has been dropped or mishandled, or the device is in an area with high Electromagnetic Interference (EMI) emissions.	Unplug the device. Reapply power to the device. If the problem continues, relocate the device to an area with lower EMI emissions (away from electronic equipment such as cellular phones, cordless phones, computers, TVs, electronic games, hair dryers, etc.). If the problem still occurs, contact Philips Respironics or the product support team.

Problem	Why it happened	What to do
<p>The airflow is much warmer than usual.</p>	<p>The air filters may be dirty. The device may be operating in direct sunlight or near a heater.</p>	<p>Clean or replace the air filters.</p> <p>The temperature of the air may vary somewhat based on your room temperature. Make sure that the device is properly ventilated. Keep the device away from bedding or curtains that could block the flow of air around the device. Make sure the device is away from direct sunlight and heating equipment.</p> <p>If using the humidifier with the device, check the humidifier settings and lower the setting, if possible. Make sure there is water in the humidifier water tank. Refer to the humidifier instructions to make sure the humidifier is working properly. If the problem continues, contact Philips Respironics or the product support team.</p>
<p>The airflow pressure feels too high or too low.</p>	<p>The Tubing type setting may be incorrect.</p>	<p>Make sure the Tubing type setting (22 or 15) matches the tubing that you are using (22 or 15 mm tubing). If the Tubing type setting has been changed, contact contact Philips Respironics or the product support team.</p>
<p>I'm having difficulty adjusting the heated humidifier setting.</p>	<p>The blower is not turned on, or the humidifier is not fully connected.</p>	<p>The humidifier settings can only be adjusted from the Therapy ON display screen. Confirm that the blower is turned on, and that the settings are visible on the right side of the screen, then adjust to desired comfort. If the blower is on but the humidifier settings are not displayed on the Therapy ON screen, then unplug the device. Confirm that the humidifier electrical contacts are not obstructed or damaged. Then reconnect the humidifier, and reconnect the device's power supply. Turn the blower on; if the settings are still not visible, contact contact Philips Respironics or the product support team.</p>
<p>I hear a leak or whistling sound coming from my therapy device or humidifier (not related to mask leak).</p>	<p>The therapy device air inlet may be obstructed. The humidifier or tube is not fully connected. The humidifier seals are not fully seated or are missing.</p>	<p>Check therapy device air inlet is not obstructed, and filters are clean and properly inserted. Confirm that the device, humidifier, and tube are connected properly and not leaking. Confirm that the humidifier lid seal and dry box seal are present and properly seated; if needed, gently press around the perimeter of the seals to reseal them.</p>

Problem	Why it happened	What to do
I accidentally spilled water into my humidifier basin.	The water chamber has been filled beyond the maximum fill line.	A small amount of water spilled in the basin of the humidifier will not harm your device. A small spill in the humidifier will evaporate under normal humidifier use. However, too much water in the humidifier basin could spill over the humidifier lid hinge and might damage your furniture. Disconnect power from the device. Remove the water chamber, pour out any excess water until the water level is at or below the maximum fill line and set the chamber aside. Separate the humidifier from the therapy device, and pour out the spilled water. Once the heater plate has cooled, wipe the inside of the humidifier with a paper towel or soft cloth. If needed, dry the underside of the humidifier and confirm that your table top is dry. Reconnect the humidifier and power supply, and reinstall the water chamber.

## 4.10 System checkout procedure

### 4.10.1 Verifying the pressure

#### Warning

If the device fails to perform within the stated specifications, contact Philips Respironics.

If part of your patient setup procedure is to verify actual pressure with a manometer, use the following instructions to be sure that the device is functioning properly. You can use the following equipment, or equivalent, to verify the pressure:

1. Philips Respironics Pressure Calibration Kit Includes:
  - Philips Respironics Whisper Swivel II
  - Philips Respironics O<sub>2</sub> Enrichment Final Assembly
  - Closed end cap
2. Flexible tubing
3. Pressure tubing
4. Device filter
5. Digital manometer or equivalent

### Minimum Specifications:

- 0 - 25 cmH<sub>2</sub>O (or better)
- ± 0.3 cmH<sub>2</sub>O accuracy
- ± 0.1 cmH<sub>2</sub>O resolution

To verify the pressure, complete the following steps:

1. Install the foam filter into the back of the device.
2. With the device unplugged, assemble the necessary equipment, as previously listed.
3. Turn the manometer on. If it does not display a reading of zero, adjust the manometer to calibrate it. If the manometer has variable settings for devices, set it to cmH<sub>2</sub>O.
4. Supply power to the device.
5. When in the Provider mode in Standby, scroll between the options to the Therapy screen.
6. Set the therapy parameters according to the patient specific data.
7. Set the device to the specific pressure value for the patient.
8. Press the Therapy on/off button.
9. Verify the pressure setting matches the pressure displayed on the manometer. If the pressure setting does not match the measured value for the device, contact Philips Respironics.
10. Press the Therapy on/off button. The unit is ready for patient use.

## 4.10.2 Verifying the alarms

Use the test setup from the Verifying the Pressure instructions in Section 4.10.1 for the following tests.

### Important

The following steps assume that the steps in Section 4.10.1 have been run first.

When testing is complete and before patient use, an authorized individual should adjust the device to the appropriate patient settings.

### Patient Disconnect Alarm Test

#### Note

The Patient Disconnect Alarm relies on a fixed relationship between the patient pressure settings and the open circuit flow of the patient circuit. Verify that the Patient Disconnect Alarm operates properly with the patient pressures and circuit.

1. When in the Provider mode in Standby, scroll between the options to the Therapy screen.
2. Scroll to the Alarm setting.
3. Set the Apnea alarm setting to Off, and press the dial to accept the setting.
4. Set the Patient Disconnect Alarm setting to 15 seconds, and press the dial to accept the setting.

5. Press the Therapy on/off button to start therapy. Verify the alarm occurs in approximately 15 seconds.
6. Press the dial to clear the alarm.
7. Set the Patient Disconnect Alarm setting to Off, and press the dial to accept the setting.
8. Return to the Main Menu to exit.

## Apnea Alarm Test

1. When in the Provider mode in Standby, scroll between the options to the Therapy screen and set the mode to S mode.
2. Scroll to the Alarm setting.
3. Press the dial and select the Apnea alarm.
4. Set the time setting to 10 seconds, and press the dial to accept the setting.
5. Press the Therapy on/off button.
6. Trigger a patient breath by holding your hand over the outlet and ensuring the E/I changes on the display.
7. Verify the alarm occurs after approximately 10 seconds.
8. Press the dial to clear the alarm.
9. Set the Apnea setting to Off, and press the dial to accept the setting.
10. Return to the Main Menu to exit.

## Low Minute Ventilation Alarm Test

1. When in the Provider mode in Standby, scroll between the options to the Therapy screen and set the mode to S/T mode.
2. Connect the device to an approved circuit, Whisper Swivel II leak device, and test lung. Press the Therapy on/off button
3. Observe the displayed Min Vent parameter, and take note of the value displayed.
4. Scroll to the Alarm setting.
5. Press the dial and select the Low Minute Ventilation alarm.
6. Set the Low Minute Ventilation Alarm to a value greater than the displayed Min Vent parameter on the Monitoring screen, and press the dial to accept the setting. Verify the alarm occurs. This may take about 30 seconds.
7. Press the dial to silence the alarm, and wait for one minute until the alarm sounds again.
8. Press the dial to clear the alarm.
9. Set the Low Minute Ventilation alarm setting to Off, and press the dial to accept the setting.
10. Return to the Main Menu to exit.

## **Loss of Power Alarm Test**

1. While the device is providing therapy, unplug the power cord and verify that an alarm is triggered on the external alarm module or UPS.
2. Reconnect power and verify that the device resumes providing therapy.

# 5. Accessories

There are several optional accessories available for the Philips Respironics E30 device. Contact Philips Respironics or the product support team for additional information on the available accessories. When using optional accessories, always follow the instructions enclosed with the accessories.

## 5.1 DreamStation humidifier

You can use the heated humidifier with your device. A humidifier may reduce nasal dryness and irritation by adding moisture to the airflow.

### Warning

**The DreamStation Humidifier is not for use with intubated patients. For intubated patients, please use an external humidifier.**

**For safe operation, the humidifier must always be positioned below the breathing circuit connection at the mask. The humidifier must be level for proper operation.**

### Note

Refer to the DreamStation Heated Humidifier Manual and the Philips Respironics E30 Humidifier Addendum to complete setup information.

## 5.2 Link module

The Link Module is able to receive oximetry data and transfer it to the therapy device. For use in a laboratory setting, the Link Module also includes an RS-232 (or “DB9”) port to allow remote control of the device by a personal computer.

### Warnings

**If you notice any unexplained changes in the performance of this device, if it has been dropped or mishandled, if water is spilled into the enclosure, or if the enclosure is broken, discontinue use. Contact Philips Respironics or the product support team.**

**Repairs and adjustments must be performed by Philips Respironics-authorized service personnel only. Unauthorized service could cause injury, invalidate the warranty, or result in costly damage.**

**Do not use any accessories, detachable parts, and materials not recommended by Philips Respironics. Incompatible parts or accessories can result in degraded performance.**

### Notes

Please consult the instructions that accompany the Link Module for installation and removal.

There are no SpO<sub>2</sub> alarms available.

To clean the module, remove the module from the therapy device. Wipe the outside of the device with a cloth slightly dampened with water and a mild detergent. Let the device dry completely before reinstalling into the therapy device.

Dispose of the module following the same disposal instructions for your therapy device.

## 5.3 Oximeter

The DreamStation oximetry system, when part of the Philips Respironics E30 device, measures and displays %SpO<sub>2</sub> and heart rate in adult and pediatric patients.

### Warning

Use only Philips Respironics recommended SpO<sub>2</sub> cables and pulse oximeter sensors. Use of incompatible sensors can result in inaccurate pulse oximeter performance.

## 5.4 DreamStation roll stand

There is a roll stand available for use with your device. Please see the instructions included with your roll stand for more information.

## 5.5 Supplemental oxygen

Oxygen may be added anywhere in the patient circuit up to 30 LPM of low flow oxygen into the patient circuit, and up to 60 LPM of low flow oxygen into the inlet of the device.

Please note the warnings in Chapter 1 when using oxygen with the device.

## 5.6 SD card

The device does not come with an SD card, but does have an SD card slot on the side of the device. If inserted, an SD card can record information.

# 6. Cleaning

This chapter details how to clean and disinfect the device, O<sub>2</sub> inlet port, and filters in the hospital or institutional environment.

## 6.1 Cleaning and replacing the device filters

Under normal usage, you should clean the reusable blue pollen filter at least once every two weeks and replace it with a new one every six months. The light-blue ultra-fine filter is disposable and should be replaced after 30 nights of use or sooner if it appears dirty. **DO NOT** clean the ultra-fine filter.

### Caution

**Dirty inlet filters may cause high operating temperatures that may affect device performance. Regularly examine the inlet filters as needed for integrity and cleanliness.**

1. Turn the device off and disconnect from the power source before cleaning.
2. Remove the filter(s) from the device. Refer to the **Installing and replacing the air filters** section of this manual.
3. Examine the filter(s) for cleanliness and integrity.
4. To clean the reusable blue pollen filter, first detach the light-blue ultra-fine filter if applicable, and set aside or dispose of as needed. Then take the reusable filter to the sink, turn it upside down, and run warm tap water through the white filter media to rinse away any debris. Next, lightly shake the filter to remove as much water as possible. Allow the filter to air dry completely before reinstalling it. If the reusable blue pollen filter is torn, replace it. (Only Philips Respironics-supplied filters should be used as replacement filters.)
5. If the light-blue ultra-fine filter is dirty or torn, replace it.
6. Reinstall the filters. Refer to the **Installing and replacing the air filters** section of this manual.

### Caution

**Never install a wet filter into the device. You must ensure sufficient drying time for the cleaned filter.**

## 6.2 Hospital and institution cleaning: device and O<sub>2</sub> inlet port exterior

### Warning

**If you are using the device on multiple users, discard and replace the viral bacteria filter between patients.**

**To avoid electrical shock, always unplug the power cord from the wall outlet before cleaning the device. DO NOT immerse the device in any fluids.**

**Note**

Refer to the DreamStation Heated Humidifier user manual for cleaning the humidifier between patient use.

If you are using the device and O<sub>2</sub> inlet port on multiple users, complete the following steps to clean between patient use:

1. Turn the device off and disconnect from the power source.
2. Remove the blue pollen filter and light-blue disposable ultra-fine filter (if using).
3. Clean the device and the O<sub>2</sub> inlet port exterior using a mild liquid dishwashing detergent. Use a mixture of 1 teaspoon (5 milliliters) dishwashing detergent/1 gallon (3.8 liters) of water.
4. Allow to air dry.

## 6.3 Hospital and institution disinfection: device and O<sub>2</sub> inlet port exterior

**Warning**

If you are using the device on multiple users, discard and replace the viral bacteria filter between patients.

**Cautions**

Only the hospital and institution cleaning and disinfection procedure listed in this guide is recommended by Respironics. Use of other cleaning and disinfecting processes, not specified by Respironics, may affect the performance of the product.

Follow all instructions from the manufacturer of the disinfectant product. Any deviation from these instructions, the manufacturer's instructions, or agents not listed in this guide may impact the performance of the product. Review all applicable instructions for additional warnings and cautions.

**Note**

Refer to the DreamStation Heated Humidifier user manual for disinfecting the humidifier between patient use.

If you are using the device and O<sub>2</sub> inlet port on multiple users, complete the following steps to disinfect between patient use:

1. Turn the device off and disconnect from the power source.
2. Remove the blue pollen filter and light-blue disposable ultra-fine filter (if using).
3. Clean the outside of the device and O<sub>2</sub> inlet port only. Use a cloth soaked with water and a mild detergent to clean only the exterior of the device and of the O<sub>2</sub> inlet port.

4. Use one of the following to disinfect all exterior surfaces of the device and O<sub>2</sub> inlet port:
  - 70% Isopropyl Alcohol (Device and O<sub>2</sub> Inlet Port)
  - DisCide Towelettes (Device ONLY)
  - 10% Chlorine Bleach solution (Device ONLY)
5. Pay close attention to all corners and crevices.
6. Allow the device to dry completely before plugging in the power cord and re-inserting the filter(s).

## 6.4 Service

The device does not require routine servicing or preventative maintenance other than inspection for normal wear or damage and device cleaning.

### Warning

**If you notice any unexplained changes in the performance of this device, if it is making unusual or harsh sounds, if it has been dropped or mishandled, if water is spilled into the enclosure, or if the enclosure is broken, disconnect the power cord and discontinue use. Contact Philips Respironics.**



# 7. Specifications, end of use, and EMC

## 7.1 Specifications

### 7.1.1 Environmental

Operating Temperature	5°C to 35°C (41°F to 95°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Relative Humidity (operating & storage)	15 to 95% (non-condensing)
Atmospheric Pressure:	101 to 77 kPa (0 - 2286 m / 0 - 7500 ft)

### 7.1.2 Physical

Dimensions	15.7 x 19.3 x 8.4 cm (6.2" L x 7.6" W x 3.3" H)
Weight (Device with power supply)	Approximately 1.28 kg (2.83 lbs)

### 7.1.3 Service life

The Philips Respironics E30 Ventilator is provided globally for use under local emergency use authorizations, such as the US Food and Drug Administration (FDA) Emergency Use Authorization (EUA) for ventilators, Health Canada Interim Order for use in relation to COVID-19, and waiver of CE marking, which authorize its use for the duration of the COVID-19 public health emergency, unless terminated or revoked (after which the products may no longer be used).

### 7.1.4 Standards compliance

This device is designed to conform to the following standards:

- IEC 60601-1 General Requirements for Basic Safety and Essential Performance of Medical Electrical Equipment
- EN 60601-1-2 Electromagnetic Compatibility

### 7.1.5 IEC 60601-1 classification

Type of Protection Against Electric Shock	Class II Equipment
Degree of Protection Against Electric Shock	Type BF Applied Part
Degree of Protection against Ingress of Water	Device: Drip Proof, IP22 Link Module: Drip Proof, IP22 80W power supply: Drip Proof, IP22
Mode of Operation	Continuous

## 7.1.6 Electrical

AC Power Consumption (with 80W power supply) Note: Power supply is part of the medical electrical equipment.	100 – 240 VAC, 50/60 Hz, 2.0-1.0 A
DC Power Consumption	12 VDC, 6.67 A
Fuses	There are no user-replaceable fuses.

## 7.1.7 Intake port filters

Pollen Filter	100% Polyester 88% Efficient @ 7-10 micron size
Ultra-fine Filter	Blended Synthetic Fiber 95% Efficient @ 0.5-0.7 micron size

## 7.1.8 Control accuracy

Parameter	Range	Accuracy
IPAP	4 - 30 cmH <sub>2</sub> O	± 2.5 cmH <sub>2</sub> O*
EPAP	4 - 25 cmH <sub>2</sub> O	± 2.5 cmH <sub>2</sub> O*
CPAP	4 - 20 cmH <sub>2</sub> O	± 2.5 cmH <sub>2</sub> O*
Breath rate	0 to 30 BPM	greater of ± 1 BPM or ±10% of setting
Inspiration time	0.5 to 3 seconds	± (10% of setting + 0.1 second)

\*Pressure measured at the patient connection port with or without the integrated heated humidifer (no patient flow).

## 7.1.9 Pressure accuracy

Pressure increments: 4.0 to 30.0 cmH<sub>2</sub>O (in 0.5 cmH<sub>2</sub>O increments)

Maximum static pressure accuracy, according to ISO 80601-2-70:2015:

Parameter	Static Accuracy
10 cmH <sub>2</sub> O*	± 3.0 cmH <sub>2</sub> O

Static pressure accuracy has a measurement uncertainty of 3.7%

Maximum dynamic pressure variation, according to ISO 80601-2-70:2015:

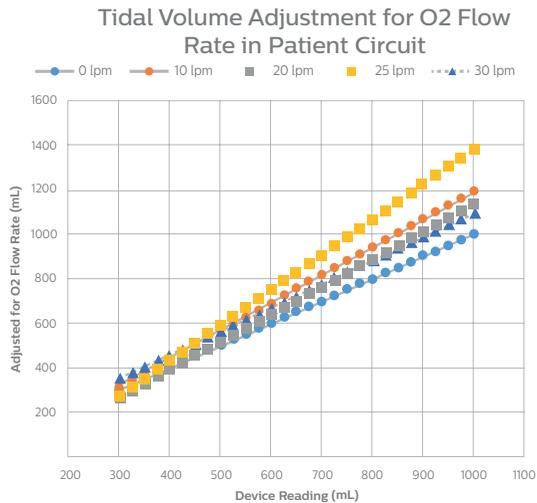
Pressure	10 BPM	15 BPM	20 BPM
< 10 cmH <sub>2</sub> O	± 0.4 cmH <sub>2</sub> O	± 0.5 cmH <sub>2</sub> O	± 0.8 cmH <sub>2</sub> O
≥ 10.0 to 20 cmH <sub>2</sub> O	± 0.5 cmH <sub>2</sub> O	± 0.8 cmH <sub>2</sub> O	± 1.0 cmH <sub>2</sub> O

Dynamic pressure accuracy has a measurement uncertainty of 4.3%

## 7.1.10 Displayed parameter accuracy

Parameter	Accuracy	Resolution	Range
Estimated Leak Rate	$\pm (5 + 15\% \text{ of reading})$ LPM	1 LPM	0 to 200 LPM
Tidal Volume*	$\pm (25 + 15\% \text{ of reading})$ mL	1 mL	0 to 2000 mL
Respiratory Rate	greater of $\pm 1$ BPM or $\pm 10\%$ of reading	1 BPM	0 to 60 BPM
Minute Ventilation*	$\pm (1 + 15\% \text{ of reading})$ LPM	1 LPM	0 to 99 LPM

\* Accuracies apply with no/low O<sub>2</sub> bleed (less than 10 LPM) in the patient circuit. If higher than, use the correction volume graph listed below. No tidal volume correction is required when using the inlet O<sub>2</sub> port.



## 7.2 End of use

The Philips Respironics E30 Ventilator is provided globally for use under local emergency use authorizations, such as the US Food and Drug Administration (FDA) Emergency Use Authorization (EUA) for ventilators, Health Canada Interim Order for use in relation to COVID-19, and waiver of CE marking, which authorize its use for the duration of the COVID-19 public health emergency, unless terminated or revoked (after which the products may no longer be used).

## 7.3 Disposal

Separate collection for electrical and electronic equipment per EC Directive 2012/19/EU. Dispose of this device in accordance with local regulations.

## 7.4 EMC information

Your unit has been designed to meet EMC standards throughout its Service Life without additional maintenance. There is always an opportunity to relocate your device within an environment that contains other devices with their own unknown EMC behavior. If you believe your unit is affected by locating it closer to another device, simply separate the devices to remove the condition.

### Pressure and Flow Accuracy

The device is designed to perform within the pressure and flowrate accuracies specified in the user manual. If you suspect that the pressure and/or flow rate accuracy is affected by EMC interference, remove power and relocate the device to another area. If performance continues to be affected, discontinue use and contact Philips Respironics.

### SpO<sub>2</sub> and Pulse Rate Accuracy

The device is designed to capture the SpO<sub>2</sub> and Pulse Rate oximetry data within the accuracy specification described in the sensor manufacturer’s instructions for use. When 4 hours of successful oximetry data have been achieved, the device indicates this to the user by displaying “Oximetry: Good Study”. If you suspect that your unit is affected by EMC interference, remove power and relocate the device to another area. If performance continues to be affected, discontinue use and contact Philips Respironics.

Guidance and Manufacturer’s Declaration - Electromagnetic Emissions – This device is intended for use in the electromagnetic environment specified below. The user of this device should make sure it is used in such an environment.

EMISSIONS TEST	COMPLIANCE	ELECTROMAGNETIC ENVIRONMENT - GUIDANCE
RF emissions CISPR 11	Group 1	The device uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The device is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/Flicker emissions IEC 61000-3-3	Complies	
Emission of Radio Frequency Energy RTCA/DO-160G Section 21	Category M	This device is suitable for use onboard commercial airplanes inside passenger cabin.

Guidance and Manufacturer's Declaration - Electromagnetic Immunity – This device is intended for use in the electromagnetic environment specified below. The user of this device should make sure it is used in such an environment.

IMMUNITY TEST	IEC 60601 TEST LEVEL	COMPLIANCE LEVEL	ELECTROMAGNETIC ENVIRONMENT - GUIDANCE
Electrostatic Discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 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 home or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode ±2 kV for common mode	Mains power quality should be that of a typical home or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% UT (>95% dip in UT) for 0.5 cycle at 45 degree increments  70% UT (30% dip in UT) for 0.5 seconds  <5% UT (>95% dip in UT) for 5 seconds	<5% UT (>95% dip in UT) for 0.5 cycle at 45 degree increments  70% UT (30% dip in UT) for 0.5 seconds  <5% UT (>95% dip in UT) for 5 seconds	Mains power quality should be that of a typical home or hospital environment. If the user of the device requires continued operation during power mains interruptions, it is recommended that the device be powered from an uninterruptible power supply.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical hospital or home environment.
NOTE: UT is the a.c. mains voltage prior to application of the test level.			

Guidance and Manufacturer's Declaration - Electromagnetic Immunity – This device is intended for use in the electromagnetic environment specified below. The user of this device should make sure it is used in such an environment.

IMMUNITY TEST	IEC 60601 TEST LEVEL	COMPLIANCE LEVEL	ELECTROMAGNETIC ENVIRONMENT - GUIDANCE
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz  6 Vrms Amateur Radio & ISM Bands between 150 kHz and 80 MHz	3 Vrms 150 kHz to 80 MHz  6 Vrms Amateur Radio & ISM Bands between 150 kHz and 80 MHz	Portable and mobile RF communications equipment should be used no closer to any part of the device, including cables, than the recommended 30 cm separation distance.  Interference may occur in the vicinity of equipment marked with the following symbol: 
Radiated RF IEC 61000-4-3	10 V/m 80 MHz to 2.7 GHz	10 V/m	



# Limited warranty

Respironics, Inc., a Philips company (“Philips Respironics”), warrants that the Philips Respironics E30 Ventilator will be free from defects of workmanship and materials and will perform in accordance with the product specifications for a period of one (1) year from the date of shipment by Philips Respironics to the customer. If the product fails to perform in accordance with the product specifications, Philips Respironics will repair or replace – at its option – the defective product, material or part. Philips Respironics will pay customary freight charges from Philips Respironics to the dealer location only. This warranty does not cover damage caused by accident, misuse, abuse, alteration, water ingress, and other defects not related to material or workmanship. The Philips Respironics Service department shall examine any devices returned for service, and Philips Respironics reserves the right to charge an evaluation fee for any returned device as to which no problem is found after investigation by Philips Respironics Service.

This warranty is non-transferable and Philips Respironics reserves the right to charge for warranty service of failed product not purchased directly from Philips Respironics or authorized distributors.

Philips Respironics 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. The Department of Health and Human Services Declaration Under the Public Readiness Act for Medical Countermeasures Against COVID-19 applies to the Philips Respironics E30 Ventilator in the United States.

This warranty is given in lieu of all other express warranties. In addition, any implied warranties – including any warranty of merchantability or fitness for the particular purpose – are limited to two years. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary by jurisdiction.

To exercise your rights under this warranty, contact Respironics, Inc. at:

1001 Murry Ridge Lane  
Murrysville, Pennsylvania 15668-8550  
1-724-387-4000

Deutschland  
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**Note: For Australian and New Zealand customers, this warranty replaces the warranty contained above.**

1. Respironics, Inc., a Philips company (“Philips Respironics”), warrants that the Products shall be free from defects of workmanship and materials and will perform in accordance with the Product specifications.
2. This warranty is valid for a period of one (1) year from the date of purchase from Philips Respironics or an authorized Philips Respironics dealer.
3. If the Product is found to contain a defect of workmanship or materials or fails to perform in accordance with the Product specifications during the applicable warranty period, Philips Respironics will repair or replace, at its option, the defective material or part.

4. The customer is responsible for returning the product to an authorised Philips Respironics dealer, and collecting the product from the authorised Philips Respironics dealer after repair or replacement, at its own cost. Philips Respironics is responsible only for the freight cost of transporting the product between the authorised Philips Respironics dealer and Philips Respironics. Philips Respironics reserves the right to charge an evaluation and postage fee for any returned Product where no problem is found following investigation.
5. This warranty does not cover:
  - a. products purchased outside of Australia or New Zealand;
  - b. damage caused by accident, misuse, abuse, alteration, pest infestation, liquid ingress, and other defects not related to materials or workmanship.
3. The warranty provided by Philips Respironics herein is not transferrable by the Buyer in the event of any sale or transfer of Products purchased by the Buyer from an authorized Philips Respironics dealer.
4. To the extent permitted by law, where the Buyer has the benefit of an implied guarantee under the Australian Consumer Law, but the Product is not of a kind ordinarily acquired for personal, domestic or household use or consumption Philips Respironics' liability shall be limited, at the option of Philips Respironics, to the replacement or repair of the Product or the supply of an equivalent Product.
5. To exercise your rights under this warranty, contact your local authorised Philips Respironics dealer. A list of all authorised dealers is available at the following link: <http://www.philips.com.au/healthcare>. Alternatively, you can make a claim under this warranty by contacting Philips Respironics directly at: Philips Electronics Australia Limited, 65 Epping Road, North Ryde NSW 2113, Australia. Tel: 1300 766 488, Email: [repairs-src@philips-easyconnect.com](mailto:repairs-src@philips-easyconnect.com).
6. The following statement is provided to a Buyer who is a “consumer” under the Australian Consumer Law: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the good repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
7. The following statement is provided to a Buyer who is a “consumer” under the Consumer Guarantees Act 1993, New Zealand: Our goods come with guarantees that cannot be excluded under the Consumer Guarantees Act 1993. This guarantee applies in addition to the conditions and guarantees implied by that legislation.

**AUSTRALIAN SPONSOR DETAILS:**

Philips Electronics Australia Ltd.  
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Australia



