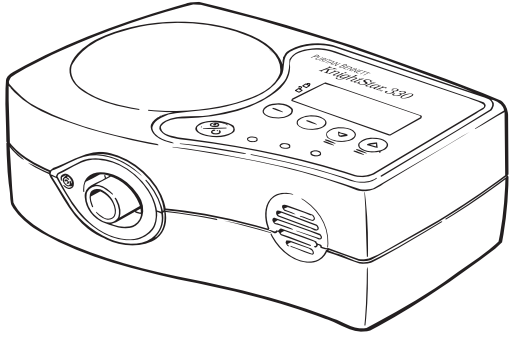
PURITAN
BENNETT

KnightStar® 330
Bi-Level® Ventilator



Y-500009-00 Rev. G

User's Manual

Contents

Introduction

The Puritan Bennett *KnightStar 330* ventilator is intended to assist patients with ventilation when they are experiencing respiratory insufficiency or obstructive sleep apnea. It is designed to help patients by providing two levels of pressure, referred to as inspiratory and expiratory pressure. Patients who use the *KnightStar 330* should weigh at least 30 kg (66 lbs) and be able to breathe on their own.

Read this entire book before using the *KnightStar 330*. This book will help you use the device safely and effectively. If you have any questions about the device or its use, contact your physician or home care provider.

The *KnightStar 330* has been prescribed to assist your breathing by supplying air through a circuit. This product allows you to inhale and exhale at separate pressure levels.

CAUTION:
Never block the vent hole in the interface.

CAUTION:
Before using the KnightStar 330, be sure to read and understand the information found in the section entitled: "What the Patient and Caregiver Must Know" on page 36.

The regimen for the treatment of your disease is prescribed by your physician. Your physician has prescribed various settings that are preset into the product. Unless otherwise directed by your physician, no setting adjustments are required.

To begin using the *KnightStar 330,* you will need the proper tubing and interfaces, as follows:

- Tubing: either standard 6-ft (1.8 m) or optional 8-ft (2.4 m)
- Interfaces: Puritan Bennett noninvasive interfaces (nasal pillows/masks) or interface circuits

Nasal pillows and masks are available from your home care provider.

The Puritan Bennett *KnightStar 330* is a bi-level ventilator that provides continuous positive airway pressure (CPAP), and is indicated for assisted ventilation.

Cautions and Warnings

The following words found in this document have special significance.

WARNING: Means that there is a possibility of injury or death to yourself or others.

CAUTION: Means that there is the possibility of damage to the device or other property.

NOTE:

Indicates information of particular interest for more efficient and convenient operation.

CAUTIONS:

Federal (U.S.A.) law restricts this device to sale by or on the order of a physician.

Inspect the inlet air filter often. Remove the foam filter from the rear panel and clean it at least once per week. Hand wash the filter in warm soapy water, rinse, and pat dry with a towel. Let the filter air dry completely before reinstallation.

For optimal performance, start the Knight-Star 330 system before putting on the mask or interface.

WARNINGS:

In using this equipment, it is important that you read, understand, and follow the instructions and warnings in this user's manual.

This ventilator is intended to augment patient breathing. IT MUST NOT BE USED AS A LIFE SUPPORT VENTILATOR. It is not intended to provide the total ventilatory requirements of the patient.

This product is intended for use only as prescribed by a physician.

To reduce the risk of strangulation, be sure to route the tubing away from the head.

Patients who receive supplemental oxygen should be aware that hazards exist with combustible materials and flames or sparks in the presence of oxygen. Do not smoke in the presence of oxygen.

Exhaled carbon dioxide (CO_2) is vented through the hole in the interface or the hole in the adapter on the nasal interface. Do not tape, seal or block this hole.

Configure the KnightStar 330 system as shown in this manual for safe and effective operation.

Explosion Hazard - The equipment is not suitable for use in the presence of a flammable anaesthetic mixture with air, or with oxygen or nitrous oxide.

WARNINGS (continued)

To avoid electrical shock:

- **Do not use if power cord or plug is damaged**
- **Unplug all power cords before cleaning**
- **Do not use near water such as sinks, shower or bathtubs**

Keep the tubing circuit and power cord away from heated surfaces.

Use only interface circuits provided by your physician.

Do not set the KnightStar 330 on or within 3 feet (1 m) of electric or electronic appliances, such as space heaters, electric blankets, or televisions. Do not operate cordless phone near the device. Doing so may result in device malfunction.

Never drop or insert any object into the air outlet or any other opening on the unit or hose.

Do not allow water to come in contact with the unit.

Should you experience nasal or airway dryness, skin sensitivity, runny nose, ear pain, sinus discomfort, daytime sleepiness, mood change, disorientation, or memory lapse when using this device, discontinue use and call your physician.

Contact your home care company if the equipment malfunctions in any way. Do not attempt to open the device case. Only qualified personnel may service this equipment.

WARNINGS (continued)

Be sure to clean the KnightStar 330 and the breathing circuit before use.

The KnightStar 330 should never be used with improper or unapproved accessories. Placing the unit on uneven surfaces or using it with improper or unapproved accessories could result in tipping of the unit, causing device damage, or possible injury.

The KnightStar 330 should never be operated where the air intake might ingest gases from external sources, gas stoves, engine exhaust or anaesthesia machines. Placing the unit in such an area may result in asphyxiation.

If the display indicators on the unit are inoperative, the unit must be checked by the proper personnel.

Under certain conditions, some alarms may not occur. For example: (1) The leak alarm may not occur if patient breath efforts are not detected, as in the case of excessively large leaks; and (2) The low pressure alarm may not occur under conditions such as these: an incorrect alarm threshold setting, or air pathway resistance.

Check all alarms and settings for correct alarm operation prior to use.

However, when the device is not operating, a substantial proportion of exhaled air and carbon dioxide may be rebreathed. Rebreathing of carbon dioxide can, in some circumstances, lead to suffocation.

WARNINGS (continued)

The KnightStar 330 and all other bi-level pressure devices should be used only with interfaces recommended by the device's manufacturer or by your physician. A mask should not be used unless the device is turned on and operating properly. The vent hole(s) associated with the mask should never be blocked. The vent hole(s) allows a continuous flow of air out of the mask.

When the device is turned on and functioning properly, fresh air from the device flushes the exhaled air out through the mask vent hole. However, when the device is not operating, a substantial proportion of exhaled air and carbon dioxide may be rebreathed.

Rebreathing of carbon dioxide can increase levels of CO_2, and in some circumstances may even result in death.

The KnightStar 330 should be used with care to avoid overheating the patient when the room temperature exceeds 90 °F (32.2 °C), since under certain conditions the patient outlet gas flow can be as much as 6.7 °F (3.7 °C) degrees warmer than room temperature.

For your health and comfort, clean the interface or interface circuit regularly. Follow the cleaning instructions that came with your interface or interface circuit.

The KnightStar 330 equipment has been tested and found to comply with the limits for medical devices to IEC 601-1-2:1993 (or EN 60601-1-2:1994 or Medical Device Directive 93/42/EEC). This testing shows the device provides reasonable protection against harmful interference in a typical medical installation.

WARNINGS (continued)

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to other devices or is negatively impacted by other devices, the user is encouraged to try to correct the interference by one or more of the following measures:

- **Reorient or relocate the devices**
- **Increase the separation between the devices**
- **Connect the equipment to an outlet on a different circuit**
- **Consult the manufacturer or your local representative for help**

Be careful when handling the KnightStar 330 during or immediately after use. Under specified operating conditions, some surfaces of the unit may become hot to the touch. This is a normal occurrence and is typical of this type of device.

Note:

At the end of the *KnightStar 330's* useful life, return the device to the manufacturer for proper disposal.

Symbols

Table 1 lists descriptions for the various symbols that appear on the *KnightStar 330*.

Table 1. Symbols

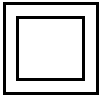
Symbol	Description
	Attention, consult accompanying manual
	Alternating current (AC power from wall outlet)
	Direct current (battery power)
	Type BF equipment, degree of protection against electrical shock
	Class 2 equipment, double insulation design

Table 1. Symbols (continued)

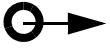
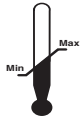
Symbol	Description
	Alarm condition
CE 0123	CE Mark: This device complies with the requirements of Medical Device Directive 93/42/EEC concerning medical devices
	A/C power cord connection
	Air outlet connector (blower connector)
	External Battery/DC power connector
	RS-232 communications connector

Table 1. Symbols (continued)

Symbol	Description
	UL mark, classified by Underwriters Laboratories Inc. with respect to electric shock, fire, and mechanical hazards only in accordance with standards UL2601-1 and CAN/CSA C22.2 No. 601.1-M90.
IPX1	Drip proof
SN	Serial Number
REF	Product model number
	Storage temperature range

KnightStar 330 Components

The *KnightStar 330* components are shown in Figure 1.

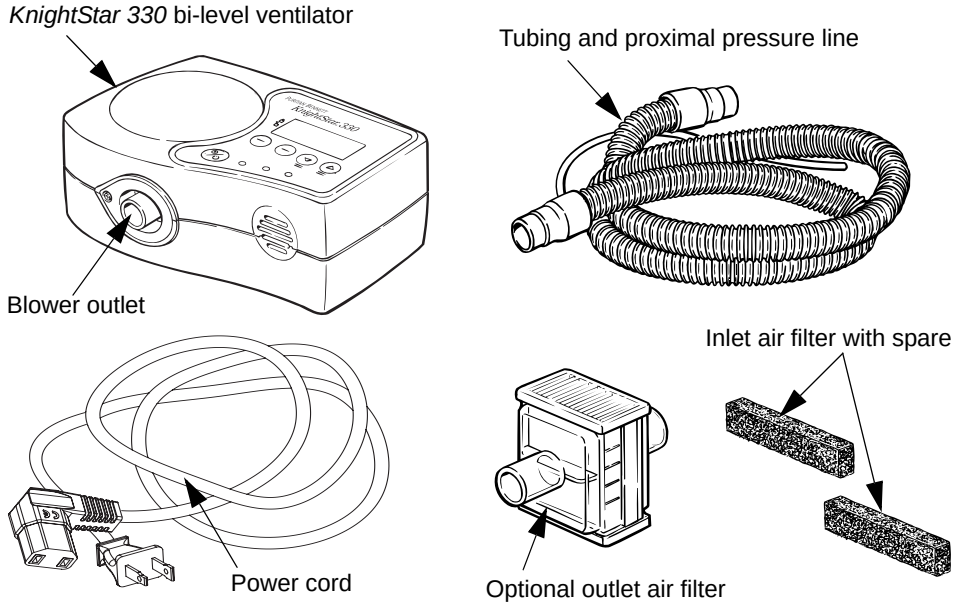


Figure 1. KnightStar 330 Components

Control Panel Display

The control panel display (shown in Figure 2) provides an easy-to-read format for mode, settings, and patient parameters. The display lights when the **Mode** button is pressed. It will remain lit for about 60 seconds after the last button is pressed.

Control Panel Buttons

The control panel buttons are shown in Figure 2 and described in Table 2.

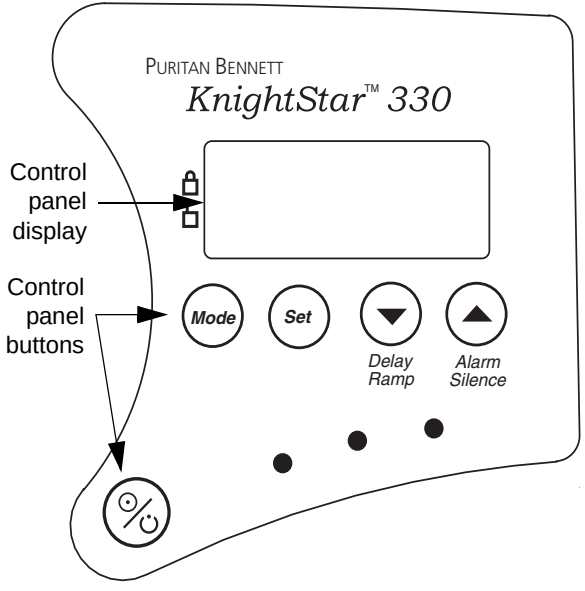


Figure 2. KnightStar 330 Control Panel

Table 2: Control Panel Buttons

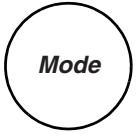
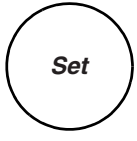
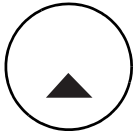
Symbol	Name	Function
	On/Off	Turns the *KnightStar 330* on or off. Turn the *KnightStar 330 on* with a *quick* press and release of the **On/Off** button. The device retains the prescription settings last entered. To turn the device *off*, press and *hold* the **On/Off** button for 3 seconds.
	Mode	Scrolls through various device modes. Press the **Mode** button to scroll through various modes, as follows: CPAP, I/EPAP, A/C. **Note:** If the "Lockout" function is active, the **Mode** button will not operate.
	Set	Scrolls through the available parameters. Press **Set** once to show the settable parameters (delay, start pressure, ramp duration). Press **Set** again to scroll through the remaining parameters.

Table 2: Control Panel Buttons (continued)

Symbol	Name	Function
 *Delay Ramp*	Delay/Ramp	Starts or stops the *Delay/Ramp* function. Press the **▼/Delay/Ramp** (Down Arrow/Delay/Ramp) button to start the *Delay/Ramp* function, if inactive; press the **▼/Delay/Ramp** button to stop this function, if active.
	Down Arrow	Decreases a selected setting value when in *Settings* mode. Press the **▼/Delay/Ramp** (Down Arrow) button once to decrease a setting value by one decrement.
 *Alarm Silence*	Alarm Silence	Mutes an active alarm. Press the**▲/Alarm Silence** (Up Arrow/Alarm Silence) button once to silence an active alarm for one minute.
	Up Arrow	Increases a selected setting value when in *Settings* mode. Press the **▲/Alarm Silence** button once to decrease a setting value by one increment.
	Display Secondary Screen	In *AC* or *I/E* mode, when the main display screen is shown, pressing this button displays the V̇ and I:E ratio if there are no active alarms.

▼/Delay/Ramp Button. Press the **▼/Delay/Ramp** button to start the *Delay/Ramp* feature. When the delay is started, both inhale and exhale pressures will decrease to the Ramp Start pressure, which the user may set. The delay time can be set from 0 to 30 minutes.

After the delay time has elapsed, pressure will slowly ramp up to the prescribed pressures.

The *Delay* mode can be cancelled by again pressing the ▼/**Delay/Ramp** button. Once started, the delay time can be restarted by again pressing the ▼/**Delay/Ramp** button.

Control Panel Indicators

The *KnightStar 330* control panel features LED indicators (shown in Figure 3) that illuminate in response to specific device or tubing circuit problems.

Note:

Refer to "Problem Solving" on page 32 for possible causes and corrective actions for visible/audible indicators.

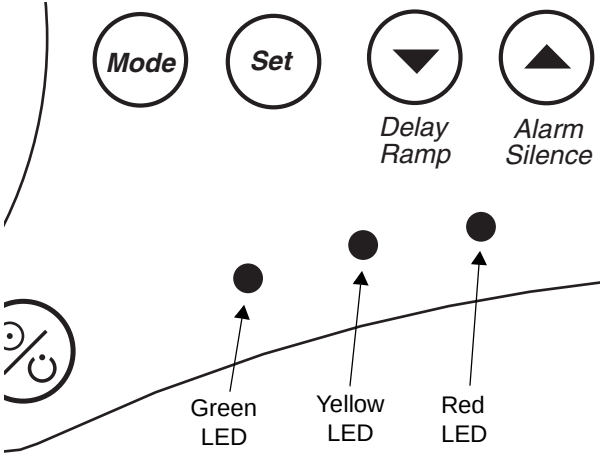


Figure 3. Control Panel LED Indicators

A *high priority* alarm is indicated by a flashing ***red*** LED, along with an audible alarm that beeps five times at intervals of ten seconds.

A *medium priority* alarm is indicated by a flashing ***yellow*** LED, along with an audible alarm that beeps three times at intervals of 25 seconds.

A *low priority* condition is indicated by an illuminated ***yellow*** LED (*without an audible alarm*).

An illuminated ***green*** LED indicates the presence of power, whether from the wall outlet or external battery.

WARNING:

There is no audible alarm built into the KnightStar 330 to indicate that the patient has stopped breathing.

KnightStar 330 Air Outlet Assembly

The *KnightStar 330* air outlet assembly (shown in Figure 4) consists of:

- Air outlet
- Optional outlet air filter

Air Outlet. The air outlet is a 22-mm conical port where the outlet air filter and tubing circuit are connected.

Optional Outlet Air Filter. This optional, single-patient filter removes contaminants and microbes as small as 0.2 microns from the outlet air. It is disposable, and must be replaced between patients. Be sure to inspect the filter regularly and replace it when noticeably dirty or discolored. Refer to "Replacing the Optional Outlet Filter" on page 27. Frequency of replacement can vary, depending on usage and environmental conditions. Contact your home care provider for replacement filters.

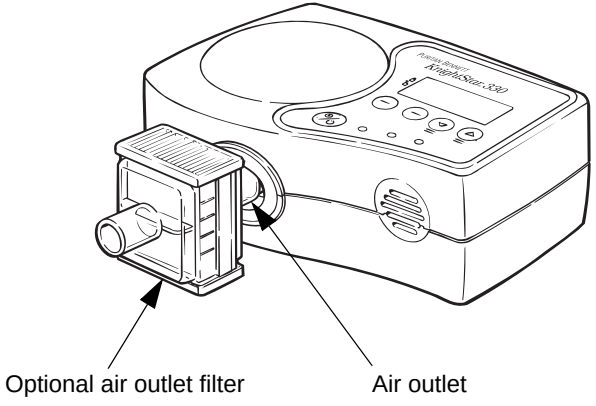


Figure 4. Air Outlet

NOTE:
Before using the *KnightStar 330* for the first time, read the section on "Cleaning" on page 25.

Power On Self-Test

To ensure proper operation, each time the device is turned on a power on self-test automatically runs. When you turn the *KnightStar 330* on, it displays the copyright notice, manufacturer's name, and firmware version, then beeps and flashes the LEDs before beginning its normal operation. This is a signal to you that the *KnightStar 330* is operating correctly. If this sequence does not run properly, call your home care provider for service.

Follow these instructions for using your *KnightStar 330* system at home.

1. Set the unit near the bedside on a stable flat surface before you begin operation of the product.

2. Plug one end of the power cord into the back of the unit and the other into an electrical outlet.

3. Press the **On/Off** button located on the top panel of the *KnightStar 330*. The unit will go through a power-on self-test, and will then automatically deliver your prescription settings.

4. Connect your tubing to the optional filter, or directly onto the unit's blower outlet, and then put on your nasal mask or interface circuit.

5. Adjust the tubing so that it will not pull on the interface circuit when you lie down. Adjust the headgear until you are comfortable.

6. Relax and take slow deep breaths through your nose.

7. Press the **On/Off** button for three seconds to turn the unit off.

Using the Delay/Ramp

The *Delay/Ramp* feature enables you to reduce the start pressure at the beginning of the night to make it more comfortable for you to fall asleep. You can also use the delay if you have to get up at night and have trouble going back to sleep. The time of delay is prescribed by your physician and is preset by your home care provider between 0 (no delay) and 30 minutes. Your physician may choose a preset delay time of 0. When set to 0, the delay feature is *inactive* and pressing the **▼/Delay/Ramp** button (located on the top panel) has no effect.

1. To start the delay, simply press the **▼/Delay/Ramp** button any time the blower is operating. The pressure will drop to a low value.

   After the prescribed delay period, the pressure will automatically step-up to your prescribed pressure at a gentle rate that should not awaken you. The pressure will remain at the prescription setting for the rest of the night—unless you press the **▼/Delay/Ramp** button again.

2. If at any time you want to stop the delay, simply press the ▼/**Delay/Ramp** button again and the delay will be cancelled. You can also reset the delay time by cancelling and then restarting the delay.

3. The ramp starts immediately after the delay. During the ramp, pressure will gradually change from the start pressure to the prescribed pressure.

Using Supplemental Oxygen

If your physician determines that you need supplemental oxygen, an oxygen source may be connected to the device.

The oxygen supply connects to the *KnightStar 330* system at the outlet of the blower, or at optional outlet air filter (if used). Connect the oxygen supply tubing to the small port on the oxygen adapter, as shown in Figure 5.

WARNING:

Always observe all fire and safety rules associated with the use of oxygen. Oxygen vigorously accelerates combustion. Do not smoke or have an open flame in any room where oxygen is in use.

Always power on the system before starting oxygen flow. Stop oxygen flow before powering the system off. Oxygen delivered into the ventilator tubing may accumulate within the device, creating the risk of fire. Do not use supplemental oxygen at flows above 15 L/min.

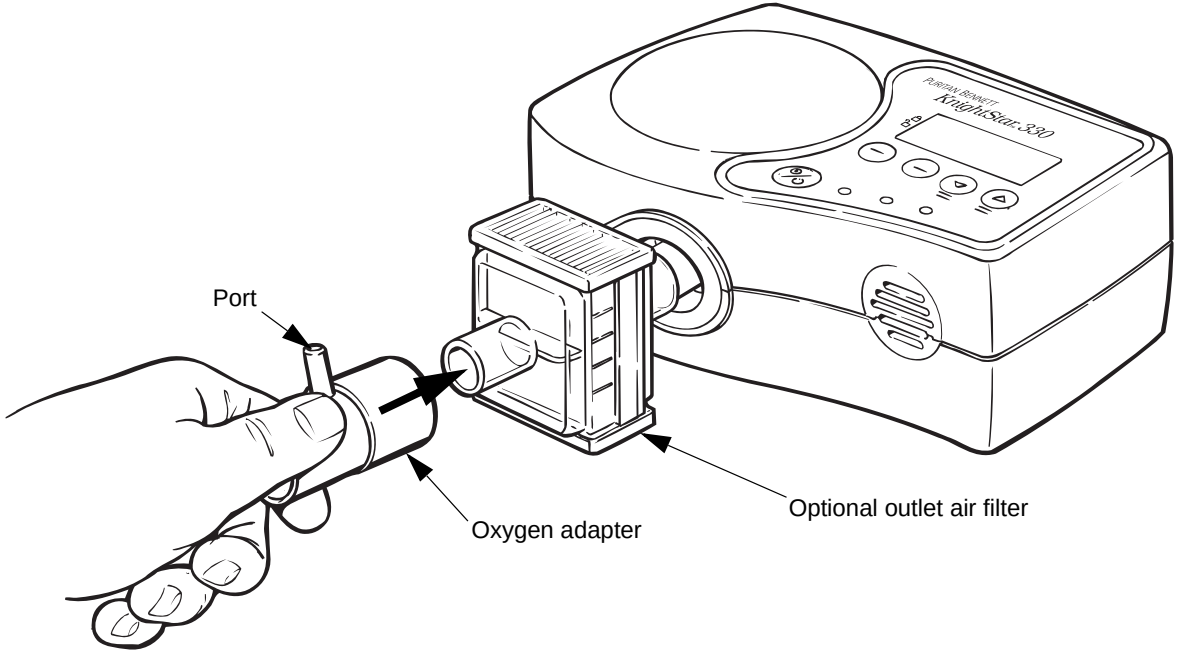


Figure 5. Connecting the Oxygen Adapter to the Air Outlet

Cleaning

It is important to clean all of the equipment regularly. Do not use any cleaning method other than that described here.

Cleaning the Tubing

Before you use the tubing for the first time, clean it with warm soapy water; then, rinse it thoroughly with tap water to remove soap residue and allow it to dry.

Cleaning the Exterior

WARNING:

Always unplug the KnightStar 330 from all electrical power sources before cleaning. Do not allow water to enter any opening on the unit.

Clean the surfaces of the *KnightStar 330* by wiping with a cloth dampened with warm soapy water, then wiping dry.

Cleaning the Inlet Filter

Inspect the inlet filter often by removing the inlet baffle (removable plastic cover on the back of the unit). Clean the filter once per week—or more often, if necessary.

1. Remove the plastic baffle from the back of the unit.

2. Remove the inlet filter and wash it in warm soapy water.

3. Rinse the filter well to remove all soap.

4. Pat the filter dry with a towel.

5. Let the filter dry completely before reinstalling.

6. Replace the filter if it is torn or soiled.

7. Install a spare inlet filter; or, reinstall the clean, dry filter.

8. Reattach the plastic inlet baffle.

Replacing the Optional Outlet Filter

The optional outlet filter is disposable, and should be inspected regularly and replaced when noticeably dirty or discolored. Frequency of replacement can vary, depending on usage and environmental conditions. Contact your home care provider for replacement filters.

For optimal performance with the *KnightStar 330*, use only Puritan Bennett-approved filters.

Using the Optional Humidifier

A humidifier may be used with the *KnightStar 330* if the patient is experiencing nasal discomfort due to low moisture content in the input air.

WARNING:

Do not allow water to come into contact with the KnightStar 330 or other electrical apparatus. To prevent electrical hazard, remove the source of power if water is suspected of entering the KnightStar 330. Do not fill the reservoir when it is in the housing. Use only distilled or sterile water to fill the reservoir.

Note:

For information regarding operation, connection, and cleaning, refer to the instructions included with the humidifier.

To use the humidifier, follow these steps:

1. Place the *KnightStar 330* on top of the humidifier housing and its reservoir. Refer to Figure 6.

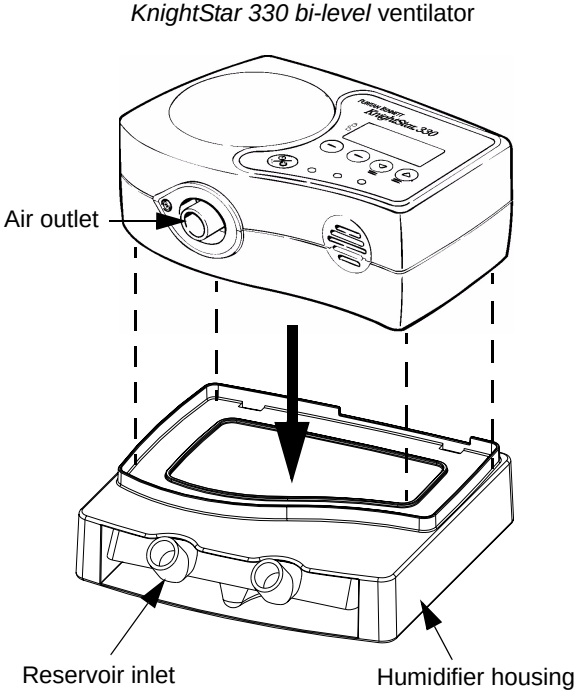


Figure 6. Placing the KnightStar 330 on Top of the Humidifier Housing

2. Remove the reservoir from the housing and fill it to the FILL LINE (Figure 7) with distilled or sterile water.

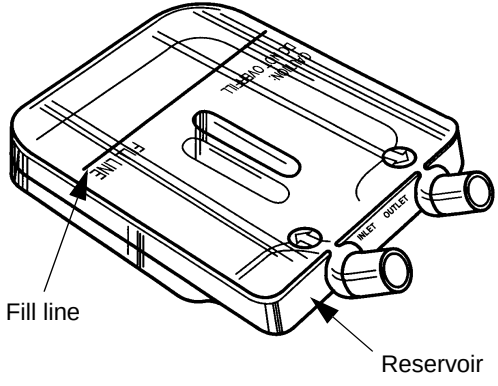


Figure 7. Reservoir Fill Line

3. The reservoir is designed to hold water for only one night's use.

4. Slide the reservoir gently back into the housing.

5. Connect the short humidifier tubing (Figure 8) between the *KnightStar 330* and the inlet of the reservoir.

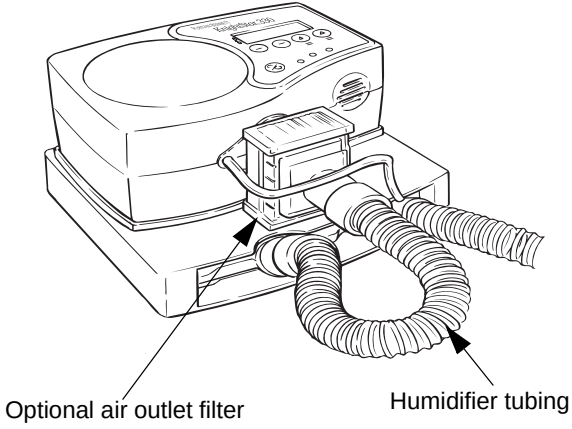


Figure 8. Humidifier Tubing

External Battery

When power from a wall outlet is unavailable, the *KnightStar 330* can run on a 12 V external battery. Use a special cable from Puritan Bennett to connect the ventilator to the battery. Use batteries approved only by Puritan Bennett.

Electrical power from a 12-volt external battery pack can operate the *KnightStar 330*. A 32-ampere/hour external battery provides power for at least eight hours. A seven ampere-hour battery provides power for three hours.

Carefully connect the battery to the device. Follow the instructions that came with the battery.

CAUTION:

Do not connect an external battery to the KnightStar 330 at the same time that the device is receiving power from a wall outlet. Only one power source should be attached to the KnightStar 330 at a time.

Problem Solving

Any unusual system event results in one or all of the following:

- Error code display
- LED illumination
- Audible alarm sounding

To mute an alarm for one minute, press the **▲/Alarm Silence** button.

A *high priority* alarm is indicated by a flashing *red* LED, along with an alarm that beeps five times at intervals of 10 seconds.

A *medium priority* alarm is indicated by a flashing *yellow* LED, along with an alarm that beeps three times at intervals of 25 seconds.

A *low priority* alarm is indicated by a lighted *yellow* LED—without an audible alarm.

Table 3 lists some possible problems and ways to correct them.

Table 3: Troubleshooting Checklist

Problem	Indicators	Possible Cause	Corrective Action
No airflow out of device	No alarm or displayed symbol.	1. Internal electronic failure. 2. Corrupted prescription settings.	1. Contact your home care provider for repair. 2. Contact your home care provider.
Low airflow out of device	No alarm or displayed symbol.	1. Delay activated. 2. Internal electronic problem. 3. Blocked device air inlet.	1. Stop the delay. 2. Contact your home care provider for repair. 3. Move rear of device away from the wall and all objects.
Power loss	Display is blank. LED flashes and alarm sounds if power is lost while operating. No **green** LED.	1. Faulty power cord connection. 2. Wall outlet power failure.	1. Check power cord connections at back of device and wall outlet. 2. Verify Mains A/C power is available at wall outlet. If not, connect external battery. Ensure **green** LED on top of device is illuminated. LED stops flashing upon resuming operation from standby mode.

Table 3: Troubleshooting Checklist (continued)

Problem	Indicators	Possible Cause	Corrective Action
Internal malfunction	Alarm and flashing LED. Displayed symbol is ##. The segment ## is the 2-digit error code.	Internal electronic problem.	Disconnect power, then reapply power. If condition persists, contact your home care provider for repair.
Overpressure	Alarm and flashing LED. Displayed symbol is 55.	Internal electronic problem.	Disconnect power, then reapply power. If condition persists, contact your home care provider for repair.
High pressure	Alarm and flashing yellow LED. Displayed symbol is P.	Kinked or blocked tubing.	Verify that the tubing has not collapsed, and that there are no sharp bends. Reposition the device, tubing, or accessories, as applicable.
Low pressure	Alarm and flashing LED. Displayed symbol is P.	1. Tubing circuit leak, or tubing is disconnected. 2. Small, proximal pressure tubing is not connected to port next to device air outlet.	1. Reposition interface pillows or mask. Check tubing connections at device air outlet and patient interface. If tubing is punctured or disconnected, replace it or reconnect it, as applicable. 2. Verify proper tubing connection. Disconnect tubing & reinstall, as applicable.

Table 3: Troubleshooting Checklist (continued)

Problem	Indicators	Possible Cause	Corrective Action
Circuit leak	Alarm and flashing LED. Displayed symbol is .	Tubing circuit leak, or tubing is disconnected.	Reposition nasal pillows or mask. Check tubing connections at device air outlet and patient interface. If tubing is punctured or disconnected, replace it or reconnect it, as applicable.
Low breath rate	No alarm. Steady **yellow** LED. Displayed symbol is .	Your breath rate is lower than the prescribed setting.	If you experience signs of distress, contact your physician.

Note:

Consult your clinician to change the high and low pressure settings.

Table 4 lists topics that patients and caregivers must understand in order to use this device successfully. Some of these topics do not apply to some patients, and some patients may require more information. It is the responsibility of the physician or clinical educator to ensure that the patient and caregiver understand the appropriate topics.

For more information, see *Learning Objectives for Positive Pressure Ventilation in the Home* (National Center for Home Mechanical Ventilation, Denver, CO., July 1993). This book is available from Puritan Bennett.

Table 4: Patient/Caregiver Checklist

The patient and caregiver must understand:	
❑	The need for bi-level ventilation.
❑	The schedule for ventilation.
❑	The supplies required for ventilation, and the sources of each.
❑	Whom to contact for medical emergencies, equipment emergencies, or power emergencies.
❑	How to contact other resources for assistance (health aides, attendants, therapists, and so on).
❑	The principles of operation for the bi-level ventilator.
❑	Power sources for the ventilator, and how to connect each.
❑	The settings for the bi-level ventilator parameters, and the importance of each.
❑	How to perform a user self-test of the bi-level ventilator, and how to respond if the self-test fails.

Table 4: Patient/Caregiver Checklist (continued)

The patient and caregiver must understand:	
❑	The ventilator alarm settings, and the purpose and function of each.
❑	How to respond to bi-level ventilator alarms.
❑	What to do if the bi-level ventilator alarms inappropriately.
❑	The parts and purpose of the patient circuit.
❑	How and when to clean and replace the patient circuit.
❑	How to recognize and respond to problems with the patient circuit.
❑	The parts and purpose of the nasal interface or mask.
❑	Care of the nasal interface or mask.
❑	How to recognize and respond to problems with the nasal interface or mask.
❑	The oxygen setting, and why it is required.
❑	How to connect the oxygen source to the bi-level ventilator.

Table 4: Patient/Caregiver Checklist (continued)

The patient and caregiver must understand:	
❑	How to determine the quantity of oxygen being delivered, and how to adjust the quantity.
❑	Safety rules for the use of oxygen.
❑	How and why to monitor the patient's condition.
❑	How to check the patient's vital signs.
❑	The significance of the patient's ease of breathing.
❑	What to note about the patient's skin, mucous membranes, and secretions, and their significance.
❑	How to recognize the signs of infection, and how to respond.
❑	The importance of routine medical appointments and medical testing.
❑	Equipment and phone numbers to have available in cases of emergency.
❑	How to respond to dyspnea.

Table 4: Patient/Caregiver Checklist (continued)

The patient and caregiver must understand:	
❑	How to recognize and respond to problems with the bi-level ventilator.
❑	How to recognize and respond to problems with the oxygen supply.
❑	Techniques to prevent aspiration of vomit.
❑	The importance of coordinating care for the patient.
❑	Resources for respite care.
❑	Choices about future care.
❑	The purpose of advanced directives.
❑	Optional outlet air filters should be replaced in accordance with the filter manufacturer's instructions.

Index

Note:

Digits of the device serial number refer to the date of manufacture. For example, May 21, 2001 would be represented as 010521 (Y-502**010521**22).

CE 0123 This device complies with the requirements of Medical Device Directive 93/42/EEC.

Y-500009-00 Rev G

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