



# Home Medical Equipment Operating, Safety & Cleaning Instructions

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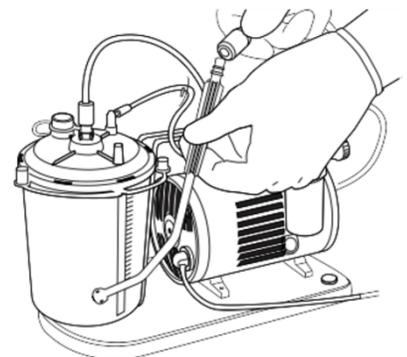
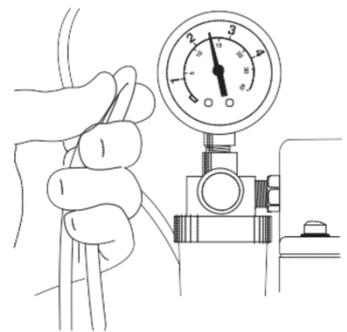
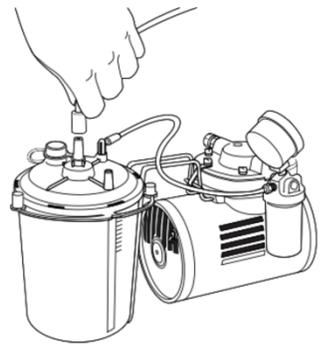
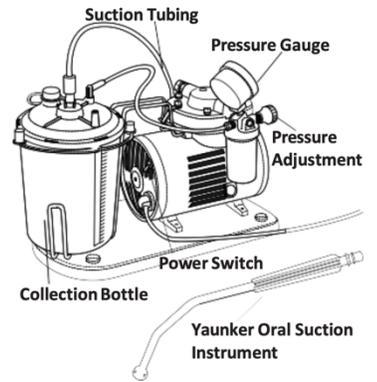
# Aspirator (Suction Machine)

## Overview

An aspirator (also known as a suction machine) removes secretions from the airways and allows the patient to breathe easier. Suctioning may be performed orally, nasally or through a tracheotomy opening.

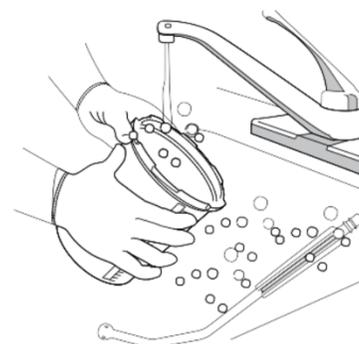
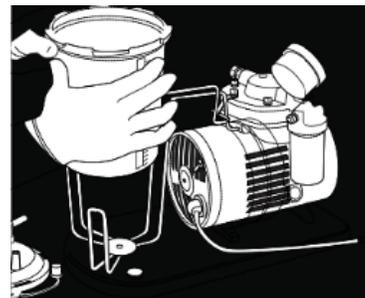
## Operating Instructions

1. Place Suction Machine on a flat surface near the patient.
2. Connect short tubing from suction machine fitting to the port on the collection bottle labeled “SUCTION” or “VACUUM”.
3. Connect larger tubing port on the collection bottle labeled “PATIENT”.
4. Plug suction machine power cord into appropriate electrical outlet.
5. Turn on power switch.
6. Occlude the end of the tubing while reading pressure gauge. Adjust pressure based on patient type:
  - Adult = 100 to 120 cmH2O
  - Children = 80 to 100 cmH2O
  - Infants = 60 to 80 cmH2O
7. Attach suction instrument to connecting tubing.
8. Introduce suction instrument into the patient’s mouth above the tongue and advance into the back of the throat. Use caution as this may cause the patient to gag.
9. Aspirate secretions into the collection bottle.
10. After each use, aspirate a small amount of water to prevent secretions from drying in the instrument or tubing and causing an obstruction.
11. Store suction instrument in its sleeve or a paper towel to keep it free from dust and other contamination.



## Cleaning Instructions

1. Discard contents of canister into toilet daily.
2. Wash canister and tubing with warm, soapy water.
3. Rinse under cold running water.
4. Allow to air dry.
5. Once every 3 days after washing, soak canister for 30 minutes in a solution of 1 part white vinegar and 3 parts water. Do not soak tubing in solution.
6. Rinse under cold running water.
7. Allow to air dry.
8. Dispose of white vinegar and water.



## Troubleshooting

Problem	Possible Cause	Corrective Action
Aspirator will not work.	Aspirator not plugged into outlet.	Ensure aspirator plugged in outlet.
	Household fuse blown.	Check fuse/breaker box.
	Power switch is in "off" position.	Check power switch on device.
No suction from tubing/no pressure reading on gauge.	Suction canister lid is not tight.	Ensure canister lid is secure.
	Tubing not connected to canister.	Check tubing connections.
	Pressure gauge set too low.	Increase pressure setting.
	Canister full.	Empty canister contents.
Unable to adjust vacuum	Defective regulator.	Contact equipment provider to replace unit.

***\*Contact your local medical equipment supplier if you are unable to correct problem.***

# Nebulizer Compressor

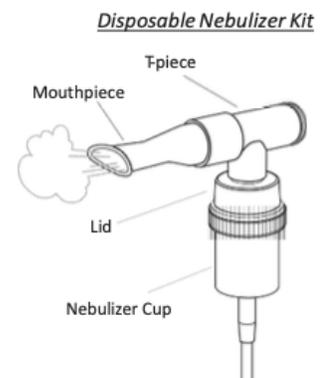
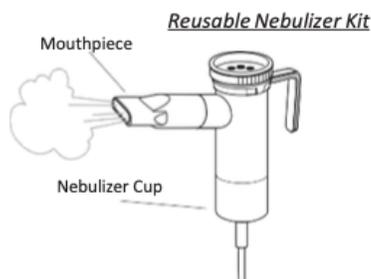
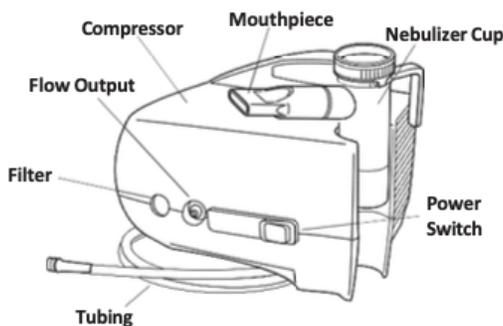
## Overview

A nebulizer compressor is a device to convert liquid medication into a mist for inhalation. The nebulizer compressor is very portable and lightweight. Some units can be powered with an optional battery pack for greater convenience. Nebulizer therapy uses a prescribed drug. Never increase your frequency of treatments or volume of medication without the specific approval of your physician.



## Operating Instructions

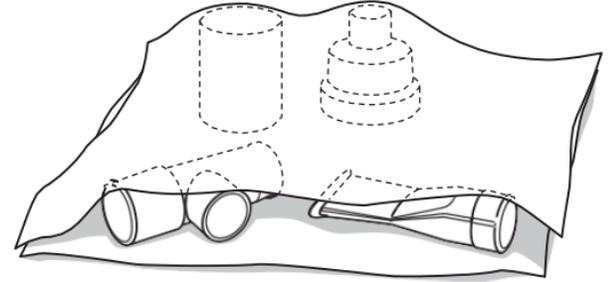
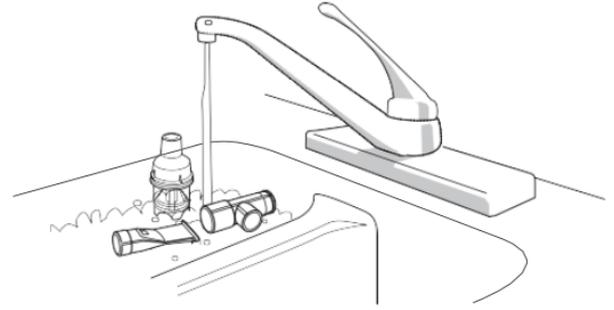
1. Place compressor on a flat level surface.
2. Assemble nebulizer kit.
3. Fill medication cup with prescribed solution.
4. Attach tubing to the flow output valve on the compressor and to the port on the medication cup.
5. Plug the power cord into an appropriate electrical outlet.
6. Turn compressor power switch on.
7. Nebulizer kit will begin to create white medication mist.
8. Place lips over mouthpiece and breathe normal.
9. Take deep breath every 30-60 sec. and hold for a count of 5.
10. If unable to hold nebulizer in mouth, use a face mask with treatment.
11. For infants, direct the mist at the nose and mouth.
12. Continue treatment until medication cup is empty (approximately 10–15 minutes). Listen for sputtering sound.
13. Turn compressor power switch off.
14. Rinse mouth after taking certain nebulizer treatments (e.g., steroid inhalers).



# Cleaning Instructions

## After Each Treatment

1. Disassemble nebulizer kit.
2. Wash with warm, soapy water.
3. Rinse thoroughly under cold running water.
4. Place nebulizer parts on a paper towel to air dry and cover with another paper towel to keep off dust.

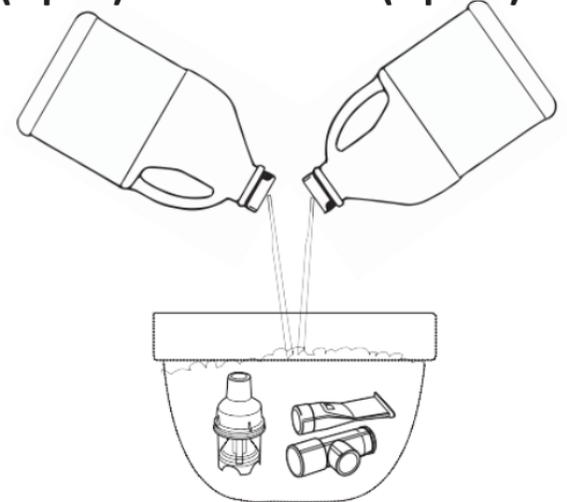


## Every Other Day

1. After rinsing, soak all nebulizer parts (except tubing) in a solution of 1 part white vinegar and 3 parts water for 30 minutes.
2. Rinse parts thoroughly under cold running water.
3. Place nebulizer parts on a paper towel to air dry and cover with another paper towel to keep off dust.
4. Discard vinegar/water solution.

**White Vinegar  
(1 part)**

**Water  
(3 parts)**



## Tubing

Tubing (replace every 2 weeks with disposable neb; every 6 months with non-disposable neb). Wipe with damp cloth if soiled. Do not attempt to soak/clean tubing.

## Replacement Schedule for Supplies

- Disposable Nebulizer Kit: Every 2 weeks
- Reusable Nebulizer Kit: Every 6 months

## Troubleshooting

Problem	Possible Cause	Corrective Action
Medication is not making a mist.	Nebulizer cup is not clean.	Clean nebulizer cup and reassemble. Use a new nebulizer kit if needed.
	Nebulizer cup is not properly assembled.	Reassemble nebulizer cup. Use a new nebulizer kit if needed.
Medication leaks out of the nebulizer cup.	Nebulizer cup is cross-threaded.	Unscrew cap from nebulizer cup and reassemble.
Compressor does not turn-on	Unit is not plugged in.	Plug in unit. If unit is plugged in, check fuse box for tripped breaker.
Compressor does not have enough flow.	Filter is dirty.	Replace filter.

**\*Contact your medical equipment supplier if you are unable to resolve the problem.**

# Oxygen equipment - Oxygen Safety

## Overview

It is estimated between 700,000 and 1,000,000 people in America use oxygen therapy in the home. When used properly, oxygen is very safe. It has many benefits including extending life expectancy, improving activity levels, reducing symptoms such as shortness of breath and reducing damage to the heart and other body organs. However, when used inappropriately, it can present a hazard. Here are some guidelines to follow for safe and effective use.

## Physician's Order

Oxygen is a drug that requires a prescription from your physician. Notify your physician if you choose to stop using your oxygen. Never adjust your oxygen flow without your doctor's permission.

## Fire Risk

Three things are necessary for a fire: a combustible material (i.e. something that will burn); an ignition source (i.e. a spark, flame, or high temperature to get the fire going); and oxygen. While oxygen itself is not flammable, it must be present for a fire to occur. Higher concentrations of oxygen such as when using oxygen therapy, result in easier ignition, higher flame temperatures and extremely fast flame spread. When using oxygen, combustibles in close contact with oxygen such as clothing, blankets or hair are more prone to catch fire and if they ignite, burn hotter and the flame will spread faster.

To use oxygen safely, maintain at least **10 feet** between oxygen equipment (including tubing) and any flame or other heat source such as cooking stoves, fireplaces and candles.

Avoid using products on your face that contain petroleum-based ingredients, as they are flammable (e.g., petroleum jelly, mentholated rubs, some lip balms and lotions). If you use these types of products, check the label and use products that are not petroleum-based.

Remember to post "No Smoking" signs on the entry doors of your home and where oxygen is used or stored. It is also recommended to have a working smoke detector and fire extinguisher in the home.

## Oxygen Concentrators

Only plug device into a properly grounded outlet that is not being used to power any large appliances and do not use extension cords or multi-outlet adapters. Keep equipment away from walls, drapes, curtains, bedspreads, etc.

## Portable Oxygen Concentrators

Bring extra charged batteries with you during travel. If using in a vehicle, keep at least one window partially open for ventilation. Do not use the device in pulse mode during sleep.

## Oxygen Cylinders

Keep oxygen cylinders secured in rack or upright, to prevent from falling or rolling; do not store them in extreme temperatures and do not transport them in the trunk of a car.

If liquid oxygen ever leaks from the unit, do not touch it.

## Travel Tips

1. Most travel companies require at least 2 weeks notice if you will be using oxygen on your trip.
2. Most airlines require at least 4 weeks notice if you need oxygen during your flight.
3. If traveling by plane, request a direct flight, if possible.
4. Most airlines allow you to bring a portable oxygen concentrator on board.

# OXYGEN



**NO SMOKING OR OPEN  
FLAMES WITHIN 10 FEET**

**Place oxygen - no smoking sign at all entrances of the residence**

# Oxygen Concentrator

## Overview

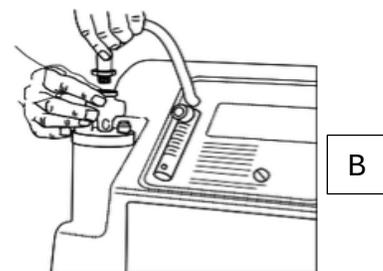
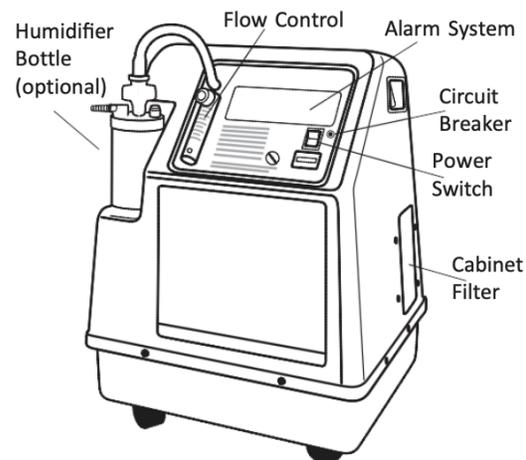
An oxygen concentrator is an electrically operated device that draws in room air, separates the oxygen from the other gases in the air and delivers the concentrated oxygen to you. The concentrator acts like a strainer. It traps oxygen and releases the other gases (mostly nitrogen) back into the room air. This process goes on continuously until the oxygen inside the unit is highly concentrated.

Oxygen concentrators are available in different sizes and models. However, all models have the same basic parts: a power switch to turn the unit on and off, a flow selector that regulates the amount of oxygen you receive and an alarm system that alerts you if the power is interrupted.

Oxygen is a drug. Do not increase or decrease oxygen flow rate unless directed by your physician.

## Operating Instructions

1. Place concentrator in a well-ventilated area, at least 12-18 inches away from walls, drapes or curtains.
2. Placement should be in an area where alarm is still audible.
3. Keep equipment at least 10 feet away from open flame, heat source, stoves, smoking, etc.
4. Keep equipment away from combustible materials (grease, oil, lotions, and petroleum based products).
5. Do not plug equipment into a power strip or extension cord or plug into an outlet that already supplies power to another large appliance.
6. Use power switch to start concentrator (alarm sounds briefly).
7. Turn flow control knob until the middle of the ball is at the prescribed rate (for rotary dial, turn knob until prescribed rate appears). FIG A.
8. Connect nasal cannula (or oxygen tubing) directly to the oxygen flow outlet (or humidifier if prescribed). FIG B.
9. If using humidifier, add distilled water up to maximum fill line on jar.
10. Fit the nasal cannula to face by inserting the 2 prongs into the nose (prongs curve down).
11. Slide nasal cannula tubing over and behind each ear.
12. Slide tubing adjuster upward under the chin (not too tight). FIG C.
13. Use oxygen at the prescribed rate for prescribed hours or activities.



## Cleaning Instructions

### Nasal Cannula:

Wipe with damp cloth if soiled and replace weekly (more often if you have a cold).

### Tubing:

Wipe with damp cloth if soiled and replace monthly. Do not attempt to soak tubing.

### Cabinet: (weekly)

Wipe outside cabinet with a clean damp cloth (water only, do not use cleaning solutions).

### Filter: (weekly)

1. Remove filter element.
2. Wash filter in warm, soapy water.
3. Rinse in cold running water.
4. Squeeze filter in paper towel to dry.
5. Replace filter element.

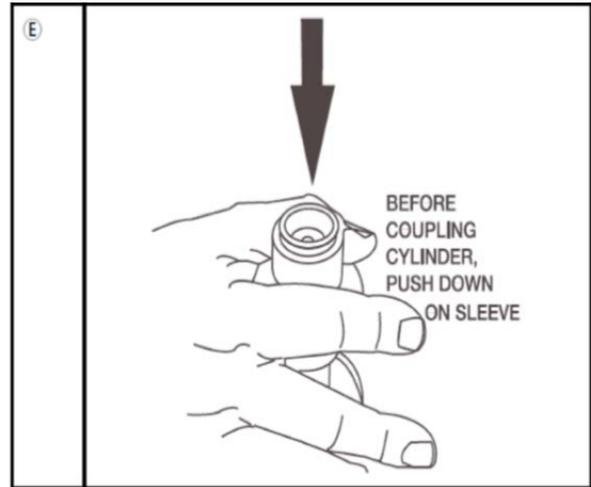
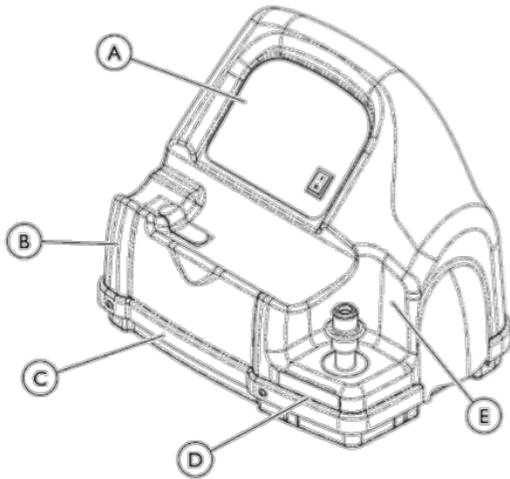


## Troubleshooting

Problem	Possible Cause	Corrective Action
No oxygen flowing from system.	Cannula or nipple adapter not connected tightly.	Check connection at cannula and nipple adapter.
Water blocking oxygen tubing.	Overfilling the humidifier bottle or tubing lying on a cold floor.	Add water trap to catch water or use a dehumidifier.
Unit not operating (power failure alarm sounds).	Plug not firmly in wall.	Check plug at outlet.
	Concentrator circuit breaker tripped.	Press reset button on back of concentrator.
Unable to dial prescribed flow rate.	Electrical power outage.	Use back-up oxygen system until power is restored.
	Obstructed humidifier bottle.	Disconnect humidifier bottle. If pressure is restored, replace humidifier bottle.

# Invacare® HomeFill® Oxygen System

Label Locations “A thru E” ( locate and read all labels carefully)



## Compressor Operation Checklist

Each time the HomeFill Compressor is used to fill a cylinder, complete the following checklist:

- Ensure the concentrator has been On for at least thirty (30) minutes.
- Perform the prefill inspection on the cylinder.
- Connect the cylinder to the compressor.
- Push the compressor power switch to the On ( I ) position.
- Examine the indicator lights on the control panel.
- Disconnect and remove the full cylinder.
- Push the compressor power switch to the Off ( O ) position.
- If filling another cylinder, repeat this checklist.

### WARNING!

- NEVER use tools of any kind to connect/disconnect the cylinder and the compressor. Otherwise, sever injury and/or damage may occur.
- DO NOT drop oxygen cylinders. Use two hands when handling/transporting oxygen cylinders. Otherwise, injury or damage may occur.
- DO NOT use a liquid leak detector to test for leaks.



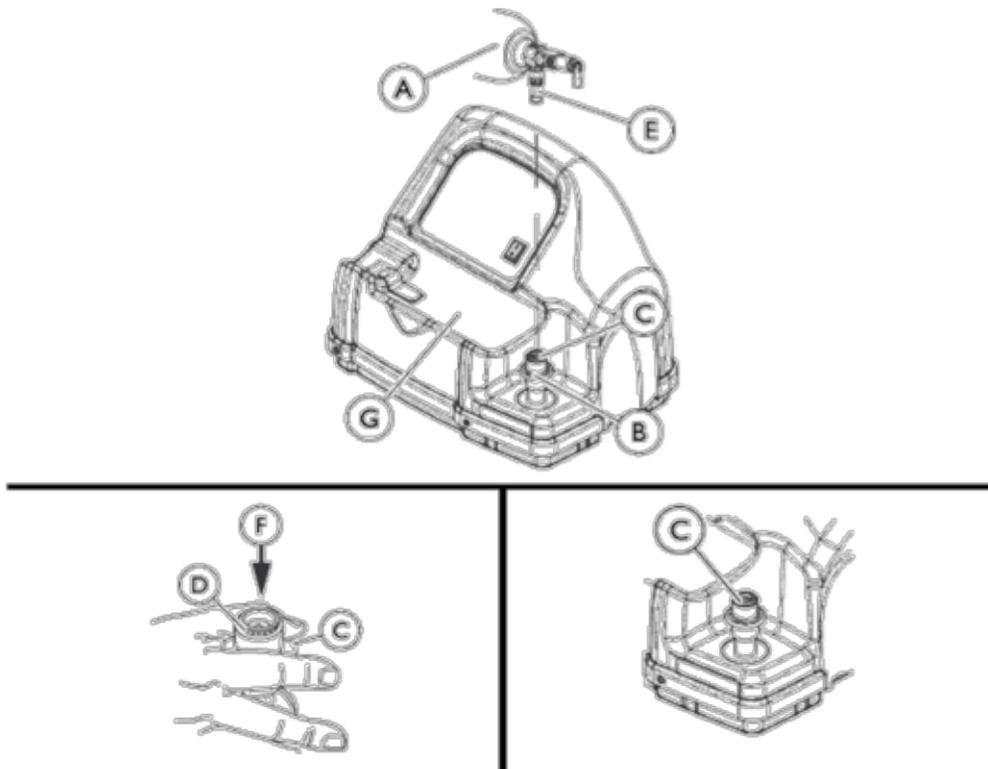
To identify a HomeFill compatible cylinder (A), look for a black stripe (B) in the green area (C) on the top of the cylinder and look for the HomeFill label (D).

## Connecting the Cylinder to the Compressor

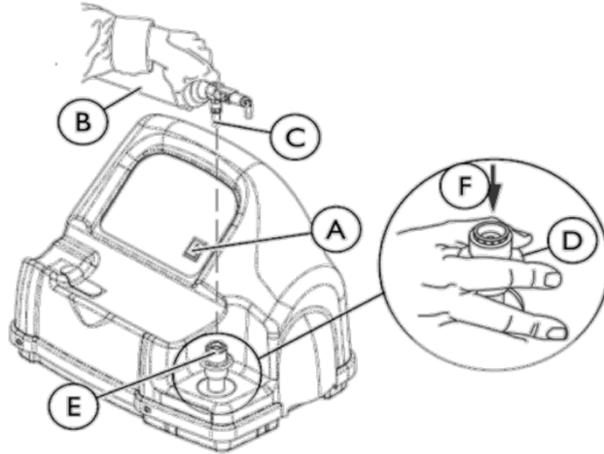
1. Examine the cylinder gauge. If the cylinder pressure is less than 1500 psig, proceed to STEP For location of the cylinder gauge, refer to the cylinder's manual. If the cylinder pressure is greater than 1500 psig, DO NOT attempt to top off this cylinder. It may not fill.
2. Set the regulator flow dial on the cylinder(A)to Off.
3. Remove the cylinder and connector fill port covers (if present).
4. Momentarily push DOWN on the outer ring (sleeve) (B) of the connector fill port to reset the connector.

If the outer ring (sleeve) is in the UP position, the connector fill port will not be able to accept the cylinder fill port (E). Pushing DOWN (F) momentarily will reset the connector fill port to accept the cylinder fill port.

5. Grasp the cylinder in the area behind the cylinder fill port.
6. Position the cylinder in the compressor cradle (G).
7. Align the cylinder fill port with the connector fill port.
8. Pull UP on the outer ring(sleeve)of the connector fill port while pushing DOWN on the cylinder to couple the cylinder fill port into the connector fill port.
9. The cylinder is properly connected when an audible “click” is heard.



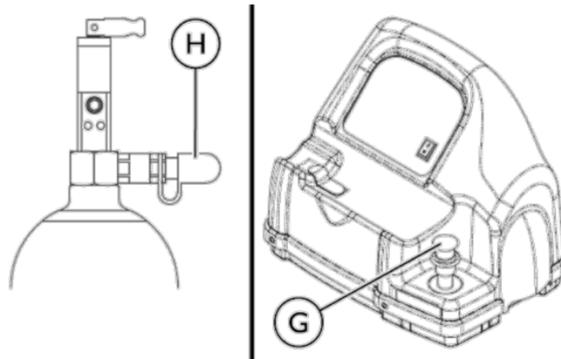
## Disconnecting the Cylinder from the Compressor



### WARNING!

— NEVER use tools of any kind to connect/disconnect the cylinder and the compressor. Otherwise, severe injury and/or damage may occur.

1. When the cylinder fill port is disconnected from the connector fill port, release the outer ring (sleeve) of the connector fill port and use two hands to remove the cylinder from the compressor cradle.
  2. Press the compressor power switch(A) to the Off position.
  3. Grasp the cylinder(B)in the area behind the cylinder fill port (C).
  4. With the other hand, grasp the outer ring (sleeve) of the connector fill port (E) and push DOWN (F).
  5. Lift up on the cylinder to remove from the connector fillport.
  6. Place the fillport covers onto the connector fillport(G) and cylinder fillport(H).
- When using the post valve type cylinder, attach an oxygen regulator per manufacturer instructions.
7. Examine the cylinder gauge to ensure cylinder is full (needle pointing into GREEN area). If the cylinder is not full, perform the following:
  8. a. Repeat *Connecting the Cylinder to the Compressor instructions* .  
b. If cylinder is not full after second attempt to fill, contact the provider.



### WARNING!

— The fillport cover on the connector fillport and the cylinder fillport MUST be replaced after filling and whenever not in use. If either of the fillport covers are missing contact your healthcare provider before using.

## Turning the Compressor On and Off

1. Make sure the concentrator is On.

The maximum oxygen concentrator flow rate for patient use is listed in the table below. Otherwise, the oxygen level to the compressor will be <90% and the compressor will not fill the cylinder.

Oxygen Concentrator	Maximum Output Flow for Patient Use
5L models	3 L/min
10L models	5 L/min

Patients with a higher prescribed flow should not refill a cylinder while receiving supplemental oxygen treatment from the oxygen concentrator. If your concentrator is not in the ranges listed in the table, refer to your user manual or contact your provider.

2. Set the concentrator flowrate to the patient to one of the following settings. Refer to the concentrator User Manual.
  3. Make sure the cylinder is connected to the compressor. Refer to *Connecting the Cylinder to the Compressor* page 20.
  4. Push the power switch on the control panel to the On ( I ) position.
5. Examine the control panel. The following sequence of events should occur:
- 0-3 minutes – The O<sub>2</sub> Below Normal (YELLOW) light and/or wait light if equipped will be lit while the compressor warms up.
  - After three minutes – The FILLING (GREEN) light will be on while the cylinder is filling.
  - The FULL (GREEN) light will be on when the cylinder is finished filling.

Proceed to STEP 6.

The O<sub>2</sub> BELOW NORMAL (YELLOW) light may come on if the oxygen level from the concentrator has not yet reached or drops below 90%. The compressor will begin or resume filling when the oxygen level reaches 90%. If light does not go Off within 10 minutes, refer to *Troubleshooting*. If the ATTENTION (RED) light and audible alarm are on, refer to *Troubleshooting*.

6. Remove the full cylinder. Refer to *Disconnecting the cylinder from the Compressor instructions*
7. Push the power switch to the Off position.

## Cleaning the Compressor Filter

### WARNING!

— Push the power switch to Off ( O ) position and unplug the compressor before cleaning.

— DO NOT operate the compressor without the filter installed.

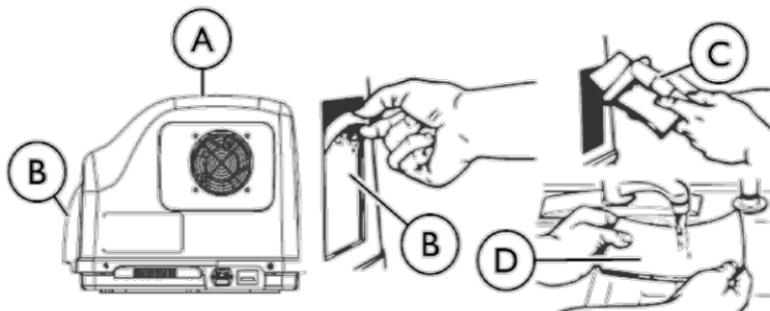
### CAUTION!

— DO NOT unplug by pulling on cord. To unplug, grasp the plug not the cord, otherwise, damage may occur.

All compressors have one filter on the back of the cabinet.

Perform this procedure at least once a week.

1. Unplug the compressor(A). Grasp the plug not the cord.
2. Remove the filter(B).
3. Clean the filter with a vacuum cleaner(C) or wash in warm soapy water and rinse thoroughly (D).
4. Dry the filter thoroughly before reinstallation.



### Troubleshooting

Problem	Solution
No indicator lights on when compressor turned on.	<ol style="list-style-type: none"> <li>1. Turn compressor Off.</li> <li>2. Check that power cord is properly plugged into the compressor and wall outlet.</li> <li>3. Turn the compressor On.</li> <li>4. Clean air filter. <i>Refer to Cleaning the Compressor Filter.</i></li> <li>5. If performing Steps 1-4 does not cause any indicator lights to come on, contact your home health care provider.</li> </ol>
RED Light On	<ol style="list-style-type: none"> <li>1. Check the cylinder gauge to see if it is full:               <ul style="list-style-type: none"> <li>• Cylinder full – Remove the cylinder and turn the unit Off.</li> <li>• Cylinder not full – Proceed to Step 2.</li> </ul> </li> <li>2. Check that the cylinder is connected properly.</li> <li>3. Turn the compressor Off.</li> <li>4. Remove the cylinder and reinstall.</li> <li>5. Turn the compressor On. If cylinder is not full and is connected properly, the compressor may have internal failure. Contact your home health care provider.</li> </ol>

Problem	Solution
Compressor cycles on and Off Or O <sub>2</sub> Below Normal (yellow) and filling (green) lights are alternating or O <sub>2</sub> below normal (yellow) light goes On and Off	<ol style="list-style-type: none"> <li>1. Check that the concentrator liter flow setting is at or below the flow setting listed in <i>Turning the Compressor On and Off</i>. If necessary, adjust the liter flow setting (refer to the concentrator User manual). Wait at least 20 minutes for the GREEN light to appear. If it does not appear, proceed to step 2.</li> <li>2. The concentrator may need service, contact your home health care provider.</li> </ol>
O <sub>2</sub> below normal (YELLOW) light stays On	<ol style="list-style-type: none"> <li>1. Ensure the concentrator has warmed up for at least 20 minutes. If it has not been 20 minutes, turn the compressor Off until the concentrator warms up. If the YELLOW light still remains on proceed to step 2.</li> <li>2. Inspect the connection between the compressor and the concentrator for damage or pinching. <ul style="list-style-type: none"> <li>• If damaged, replace.</li> <li>• If pinched, straighten tubing. Turn the compressor Off for at least 10 seconds. Turn the compressor On. If the YELLOW light still remains on after 10 minutes, proceed to step 3.</li> </ul> </li> <li>3. The concentrator may need service, contact your home health care provider.</li> </ol>
Fill times exceed maximum as recommended fill times OR GREEN filling light stays On.	<ol style="list-style-type: none"> <li>1. Ensure the cylinder regulator is set to Off.</li> <li>2. Check the recommended fill times shown in the individual cylinder's manual.</li> <li>3. Check that the cylinder is connected properly. Turn the compressor Off. Remove the cylinder and reinstall. Turn the compressor On.</li> <li>4. Check the compressor/concentrator line for proper connection and/or damage (i.e. – leaks or kinks).</li> <li>5. Check that the concentrator liter flow setting is at or below the flow setting listed in <i>Turning the Compressor On and Off</i>. If necessary, adjust the liter flow setting (refer to the concentrator User manual). If the GREEN filling light does not go Off, the compressor and/or concentrator may need service. Contact your home health care provider.</li> </ol>
Excessive noise when compressor is On.	<ol style="list-style-type: none"> <li>1. Call home health care provider.</li> </ol>
Hissing sound from Regulator when flow selector is Off.	<ol style="list-style-type: none"> <li>1. Turn flow selector Off.</li> <li>2. If hissing sounds continue, call home health care provider</li> </ol>
Regulator is On but O <sub>2</sub> is not being delivered.	<ol style="list-style-type: none"> <li>1. Refill cylinder.</li> <li>2. Check that cannula is straight and not pinched. If damaged, replace.</li> <li>3. Call home health provider for service.</li> </ol>

# Portable Oxygen Concentrator

## Overview

A portable oxygen concentrator (or POC) is a portable device used to provide oxygen therapy to patients at substantially higher oxygen concentrations than the levels of ambient air. It is very similar to a home oxygen concentrator but is smaller in size and more mobile. The portable oxygen concentrator makes it easy for patients to travel freely; they are small enough to fit in a car and most of the major concentrators are now FAA-approved.

Most of the current portable oxygen concentrator systems provide oxygen on a pulse (on-demand) delivery in order to maximize the purity of the oxygen. The latest models can be powered from main electrical supply, 12v DC (car, boat, etc.) or battery packs.

Approximate battery durations for Pulse Flow settings at 20 BPM and Continuous Flow settings when the battery is fully charged (may vary based on activity level, battery condition, and age of device):

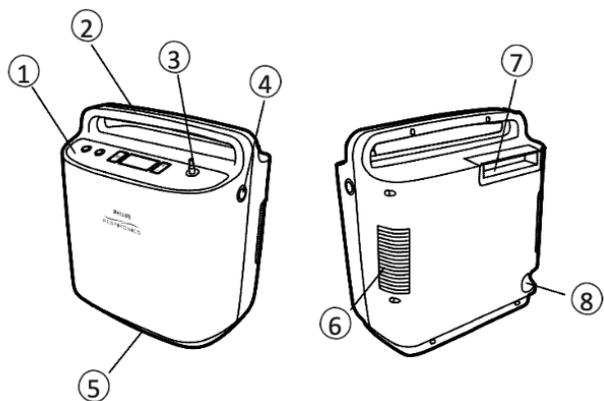
- Pulse Dose Setting = 2 (3.5 hours)
- Continuous Flow Setting = 2 (0.7 hours or 40 min)

Please note, POCs may not be suitable for all O2 users, including:

- Individuals whose prescribed liter flow exceeds POC capabilities
- Individuals unable to trigger pulse dose

While POCs may have advantages over portable tanks, they also have disadvantages:

- POC purity levels are < 100%, as provided by tanks
- Combined POC/ battery weight can exceed weight of smaller portable tanks
- Battery condition is critical in determining maximum battery life, but is impossible to determine
- Charging POC batteries can take 4 hours
- No alarms and mechanical failure less likely with portable tanks

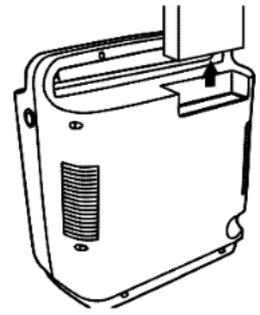


Item	Description	Function
1	Control Panel	Control switches and LCD display
2	Carrying Handle	Hand grip area for lifting and transporting the device
3	Patient Cannula Connector	Oxygen output and connection point for patient cannula
4	Power Input Connector	Connection point for Philips Respironics-provided external power supplies: AC line voltage, vehicle DC
5	Air Exhaust Vent	Air outlet for enclosure ventilation fan
6	Air Intake Vent	Air inlet for enclosure ventilation fan
7	Battery	Rechargeable lithium-ion battery with integrated handle used to remove and install battery pack
8	Data Port	Input-Output data communication with the device. <b>Caution: For use by authorized service personnel only.</b>

Your POC device comes with one rechargeable lithium ion battery.

**To insert it correctly, follow these steps.**

1. Place your device in a well-ventilated location and make sure it is turned off.
2. To remove the battery, insert your fingers into the opening in the battery handle.
3. Steadily pull upward on the handle until the battery is released from the enclosure. Continue to lift the battery until it is entirely removed from the battery compartment.
4. If the device has been operating, the surfaces may be warm to the touch. This is normal.
5. Check the battery gauge by pressing the white button on the battery and watch how many LEDs light up.
6. If the batteries are low, you can recharge them.

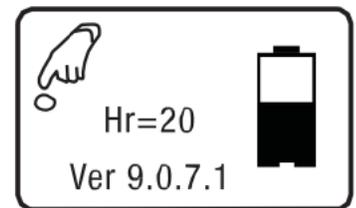


**To insert the battery**

1. Insert your fingers into the opening in the battery handle and grip the handle between your fingers and thumb.
2. Position the battery over the battery compartment in the top, rear corner of the SimplyGo enclosure with your fingers pointing toward the handle. The battery compartment is shaped so that there is only one way the battery can be inserted and align the battery correctly.
3. Lower the battery into its compartment until the handle contacts the equipment enclosure. Firmly push on the battery handle until it snaps into place in the enclosure top.
4. After the battery is inserted, check to make sure the battery handle is level with or slightly below the top of the plastic case.
5. Momentarily depress the Power key, and the following should occur:

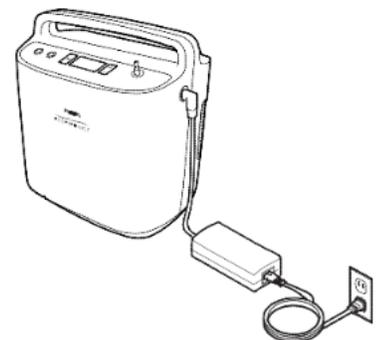
No. of LEDs	Battery Charge
4 LEDs Light:	75% to 100% full
3 LEDs Light:	50% to 75% full
2 LEDs Light:	25% to 50% full
1 LED Lights:	10% to 25% full
1 LED Blinks 3 Times:	Battery is less than 10% and needs to be recharged

- The LCD and the 5 Key backlights turn ON
- The screen shown here displays on the LCD
- If you do not see the battery symbol or the device does not turn on, the battery is not installed correctly. Re-insert the battery and make sure it snaps in place.



**Charging the Battery**

1. Connect the AC Power Supply's output cable to the SimplyGo power input connector.
2. Connect the AC Power Cord's connector into the AC power supply.
3. Connect the power cord plug into an AC outlet. The light on the AC Power Supply lights up and the cooling fan turns on. This is normal. The fan will run the entire time it is charging to keep the battery cool.
4. When charging is complete (this takes four hours or less), disconnect the AC Power Supply and store it with the AC Power Cord for future use.



## Device Warm-Up Breathing

When you turn on your SimplyGo device, it will sense if you are breathing from it. If you are not yet breathing through the cannula, SimplyGo will begin to pulse automatically about once every five seconds.

The purpose of this “device warm-up breathing” is to help the device warm up faster. As soon as you begin breathing through the cannula, the device will begin delivering pulses based on your breathing. Device warm-up breathing occurs only when you first turn on the device. You may begin breathing from the SimplyGo at any time. If the device does not sense a breath after two minutes, a No Breath alarm will sound.

## Operating Modes

This section describes additional operating screens on the SimplyGo device.

### Pulse Mode Screen:

When the device is in the Pulse operating mode, it detects when the user begins to take a breath and then delivers a pulsed volume of oxygen determined by the setting number, during inhalation. If no breath is detected for a period of time, the system automatically delivers the pulsed volume of oxygen determined by the setting number at a fixed rate of 12 breaths per minute. If no breath is detected for 2 minutes, the device signals an alarm and shuts down after 30 minutes.

### Continuous Flow Mode Screen:

In Continuous Flow operating mode, a constant flow of oxygen is supplied based on the setting number (in liters per minute):

- .5LPM, 1LPM, 1.5 LPM, 2.0 LPM

Caution: When the SimplyGo device is connected to a CPAP device, you can only use the Continuous Flow operating mode.

### Sleep Mode Screen

The Sleep operating mode is similar to the Pulse Mode. The device detects when the user begins to take a breath using a more sensitive detection level. The SimplyGo then delivers a pulsed volume of oxygen determined by the setting number. During inhalation, a low amplitude and longer pulse duration is used to make sleeping more comfortable. If no breath is detected for a period of time, the system automatically delivers a continuous flow of oxygen at a rate of 2.0 LPM.

### To Use The Device:

1. Connect a nasal cannula to the patient cannula connector on top of the device, as shown. Ensure that the cannula is routed to prevent it from being pinched or kinked to avoid a disruption of oxygen flow.
2. To start the device, press the Power button. After the first press, the display screen and the 5 button backlights turn on and you will see a screen similar to the one shown below.
3. Press the Power button a second time to place the device in operating mode. This second press helps prevent unwanted starts or inadvertent changes in oxygen flow.



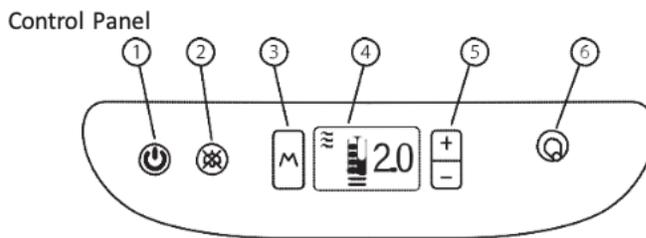
- Every time it starts up, the device starts producing oxygen to meet the specified setting. It may take up to ten minutes to reach the specified purity levels for the setting. It is safe to begin breathing from the SimplyGo device immediately.

- Breathing from the device will cause it to reach oxygen purity levels faster than ten minutes. The dot in the lower right corner of the LCD display is the pulse symbol. It appears whenever you take a breath and the device delivers a pulse of oxygen.

### Cleaning Instructions

The exterior covers of the device and Rechargeable battery should be cleaned as needed:

1. Turn the device off and disconnect from the power source before cleaning.
2. If the battery is removed, wipe the battery bay and battery with a dry cloth.
3. Clean the device exterior using a damp cloth with a mild household cleaner and wipe it dry.



Item	Description	Function
1	Power	Turns the device On and Off
2	Alarm Silence	Turns the audible alarm
3	Mode	Selects one of the three possible operating states of the device
4	Display Screen	Shows information about the operating status of the device
5	Plus (+)/ Minus (-)	+ Increases the displayed setting; - Decreases the displayed setting
6	Patient Cannula Connector	Oxygen output and connection point for patient cannula

### Troubleshooting

Problem	Possible Cause	Corrective Action
Device won't power on	Battery is depleted	Use the AC or DC power cords to operate the device (with the battery inserted) to recharge the battery. If this does not resolve the problem contact your home care provider.
	Battery is not installed correctly	Remove the battery and reinstall it correctly.
	Power button not pressed twice	Press the power button twice.
Device will not trigger a pulse of oxygen	The unit is not powered on	Press the power button twice.
	Cannula tubing is kinked or twisted	Make sure tubing is connected properly to the oxygen outlet port and that it is not obstructed.
	Device malfunction	Contact your home care provider.
Oxygen not at full concentration	Device is warming up	Wait 10 minutes for the device to deliver oxygen at the prescribed concentration. If the condition persists, contact your home care provider.
Alarm occurs	The device needs your attention	See the alarm indicators and screen symbols section for information about specific alarms and what you should do.

**\*Contact your medical equipment supplier if you are unable to resolve the problem.**

## Alarm Indicators & Screen Symbols

Visual, Audio Indicators	Description	What To Do
 <p>3 short beeps + 1 long beep</p>	<p><b>No Breath Alarm</b> This alarm occurs when a breath is not detected for a period of 2 minutes or more. It can be silenced by pressing the Alarm symbol. This alarm becomes silent as soon as a breath is detected. If no breath is detected after approximately 30 minutes, the device shuts down to conserve power. <i>(This alarm is inactive for ten minutes after startup.)</i></p>	<p>Check connection from the cannula to the device. Make sure the nasal cannula is correctly positioned on your face and that you are breathing through your nose. Make sure the cannula tubing is not kinked or obstructed.</p>
 <p>3 long beeps + 1 short beep</p>	<p><b>Low Oxygen Concentration Alarm</b> This alarm occurs when the device is delivering a lower concentration of oxygen than specified. This alarm can be silenced by pressing the Alarm symbol.</p>	<p>Change to another source of oxygen and contact your equipment provider.</p>
 <p>1 long beep after 2 minutes</p>	<p><b>High Breath Rate Alarm</b> This alarm indicates that the user's breath rate is exceeding the capacity of the device. The device is still working properly and is still providing oxygen at the rate specified for the setting. The beeps can be silenced by pressing the Alarm symbol.</p>	<p>The indicator resets itself when the breath rate is reduced. If this indicator regularly occurs, contact your home care provider.</p>
 <p>3 short beeps + 3 long beeps</p>	<p><b>Technical Fault Alarm</b> This alarm occurs when: a) the battery runs out or b) the device has a general malfunction and the device is no longer operating properly. The device may or may not shut down depending on the severity of the alarm. This alarm can be silenced if the symbol appears on-screen.</p>	<p>Recharge the battery and try to restart the device. If this alarm occurs again, change to another source of oxygen and contact your home care provider.</p>
 <p>1 short beep</p>	<p><b>Low Battery Alarm</b> This alarm occurs when approximately 17 minutes of battery life remains. Remaining battery life is dependent on your device settings and your activity level. The empty battery symbol flashes on-screen.</p>	<p>Replace the battery or connect to a power source. (Press the Alarm symbol to silence the alarm.)</p>
 <p>3 long beeps + 1 short beep</p>	<p><b>No Flow Alarm</b> This alarm occurs when the device detects there is no oxygen flowing in the patient cannula.</p>	<p>Check the cannula for kinks or other obstructions that are stopping oxygen flow through it.</p>

Visual, Audio Indicators	Description	What To Do
 <p>Alternating short and long beeps</p>	<p><b>Depleted Battery Alarm</b> This alarm occurs when approximately two minutes of battery life remains. The battery symbol flashes on-screen.</p>	<p>Replace or recharge battery. (Press Alarm symbol to silence the alarm.)</p>
	<p><b>Alarm Silence Symbol</b> Appears when you press the Alarm Silence button.</p>	<p>No further action is needed.</p>
	<p><b>Attention</b> This symbol appears when corrective action is required.</p>	<p>Make sure it has been placed correctly in the case so that the outlet vents are in the front. The vents should be visible through the slot at the bottom. If the alarm continues, contact your home care provider.</p>
	<p><b>Pulse Mode Indicator</b> This symbol appears when the device is operating in Pulse mode.</p>	<p>If this is your Mode setting, no action is needed. If this is not your Mode setting, press the Mode button until your proper Mode setting appears.</p>
	<p><b>Sleep Mode Indicator</b> This symbol appears when the device is operating in Sleep mode.</p>	<p>If this is your Mode setting, no action is needed. If this is not your Mode setting, press the Mode button until your proper Mode setting appears.</p>
	<p><b>Continuous Flow Mode Indicator</b> This symbol appears when the device is operating in Continuous Flow Mode.</p>	<p>If this is your Mode setting, no action is needed. If this is not your Mode setting, press the Mode button until your proper Mode setting appears.</p>
	<p><b>On/Off Symbol</b> Appears when device is powered on or is ready to be turned on or off.</p>	<p>To prevent inadvertent starts and stops, the device requires two presses of the power button to turn it on and off.</p>

# Oxygen Cylinders

## Overview

High pressure oxygen cylinders provide short-term supplemental oxygen for necessary travel while away from your stationary unit and for use during emergency situations. Oxygen cylinders are not to be used while at home in place of your stationary unit. Oxygen cylinders are available in a variety of sizes to provide portability while traveling away from the home. The cylinders are made portable through the use of a wheeled cart or small shoulder bag. Often, an oxygen conserving device is applied to a cylinder to extend the duration of the tank.

## Operating Instructions

### Continuous Flow Portable System

1. Remove tape from cylinder valve.

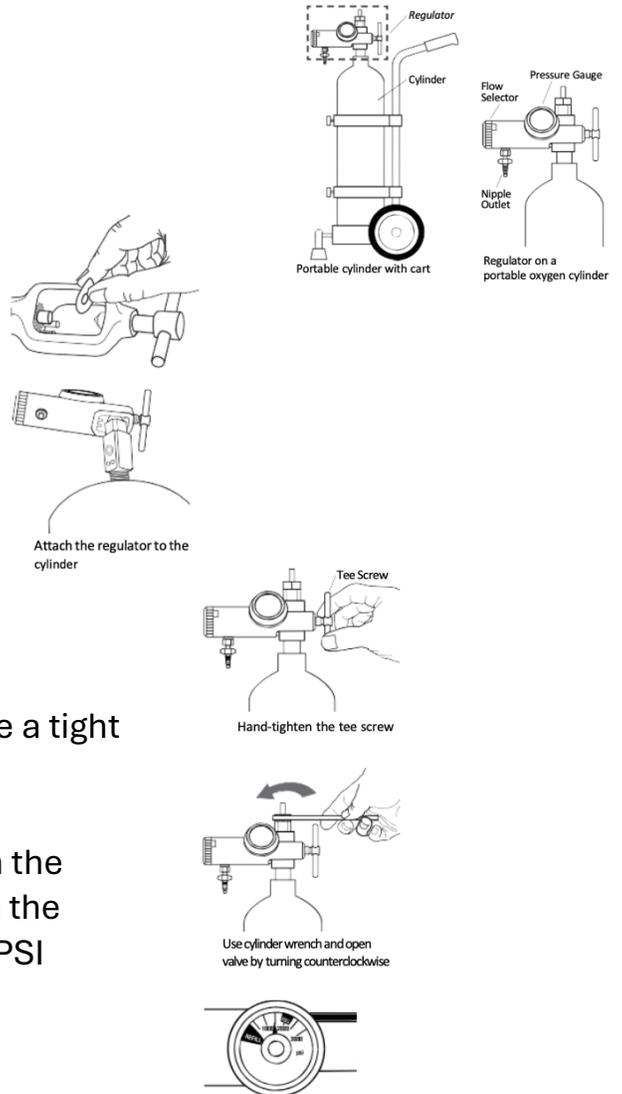
2. Using cylinder wrench, slightly open then close cylinder valve to blow away any dust or debris from the outlet.

3. Check pins on regulator to ensure washer is present and is not damaged.

4. Place the regulator over the top of the cylinder post and align the pins with the opening on the cylinder.

5. Turn the T-handle clockwise (to the right) to create a tight seal between the cylinder and regulator.

6. Use cylinder wrench to open valve. The needle on the pressure gauge will register the amount of oxygen in the cylinder. A full cylinder shows approximately 2,000 PSI on the gauge.



## Safety Instructions

! Keep oxygen cylinders in a well-ventilated area at least 10 feet from open flames or heat sources.

! Keep oxygen cylinders away from combustible materials (grease, lotions, solvents, etc.).

! Do not store oxygen cylinders in a closet.

! Do not store oxygen cylinders standing upright unless in a rack or cart.

! Do not transport oxygen cylinders in the trunk of a car.

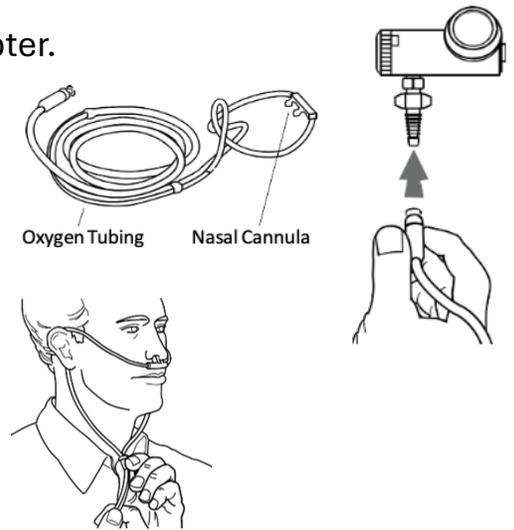
! Do not change oxygen liter flow unless directed by your physician.

7. Attach end of tubing from nasal cannula to the nipple adapter.

8. Set flow control to prescribed rate.

9. Place nasal cannula in nose and secure tubing over and behind each ear.

10. When finished using oxygen, turn flow control counterclockwise (to the right) to turn off oxygen.



### Stationary Back-up System (H or M Cylinder)

1. If necessary, remove the white tape on the cylinder.

2. Open the cylinder valve slightly by turning counterclockwise. This will blow off any dust in the orifice of the cylinder outlet. Close the valve tightly.

3. Attach the regulator to the cylinder by threading the regulator connector nut clockwise on the cylinder outlet. Tighten firmly with a cylinder wrench.

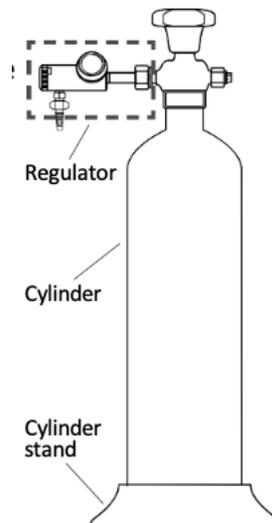
4. Attach a nipple adapter to the regulator outlet and attach the oxygen tubing to the nipple adapter.

5. Slowly open the cylinder valve by turning counterclockwise.

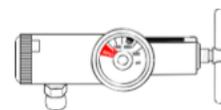
6. Adjust flow to prescribed rate.

7. Place nasal cannula in nose and secure tubing over and behind ears.

8. When finished using oxygen, turn flow control counterclockwise (to the right) to turn off oxygen.



Backup oxygen cylinders are for emergency use only (power outage or concentrator malfunctioning).



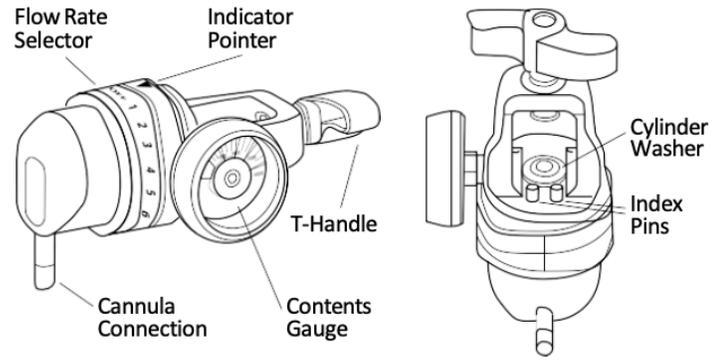
To obtain a replacement backup cylinder, contact your local RespriMed office when the backup cylinder gauge reads 500 psi.

# Oxygen Conserving Device

An oxygen conserving device extends the lifespan of your oxygen cylinders by delivering oxygen only on inspiration, therefore conserving the amount of oxygen you use.

## Pneumatic Powered Device

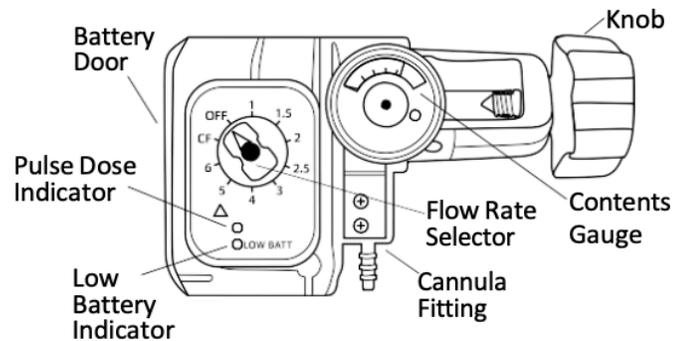
1. Remove protective tape from cylinder valve.
2. Use cylinder wrench to slightly open, then close cylinder valve to blow away any dust or debris in the cylinder outlet.
3. Place the regulator over the top of the cylinder post. Align the pins with the opening on the cylinder.
4. Turn the t-handle clockwise (to the right) to create a hand-tight seal between the cylinder and regulator.
5. Use cylinder wrench to open valve.
6. Attach the connecting tubing from a dual-lumen nasal cannula (required) to the conserving device.
7. Set Flow control to prescribed rate.



Typical pneumatic oxygen conserving devices

## Electronic Battery Powered Conserving Device

1. Remove protective tape from cylinder valve.
2. Use cylinder wrench to slightly open, then close cylinder valve to blow away any dust or debris in the cylinder outlet.
3. Place regulator over the top of the cylinder post and align pins with the opening on the cylinder.
4. Turn the t-handle clockwise (to the right) to create seal between the cylinder and regulator.
5. Use cylinder wrench to open valve.
6. Attach the end tubing from nasal cannula to the conserving device.
7. Place nasal cannula in nose and secure tubing over and behind each ear.
8. Set flow control to prescribed rate. Conserving device will deliver a puff of oxygen at the prescribed setting, usually on inspiration and may not happen with each breath.



Typical electronic oxygen conserving device

## Check/Change Battery

1. Press battery check button on top for current status or look for low battery light.
  2. To replace battery, open battery door, remove old battery and replace with same type/size.
- Note: If batteries are needed for device and RespriMed personnel are in the home, please request replacement(s) and ensure proper operation.

## Troubleshooting

Problem	Possible Cause	Corrective Action
No oxygen flowing from cannula	Cylinder is empty.	Check pressure gauge. If cylinder is empty, replace with new full cylinder.
	Cannula connection to regulator is loose.	Check tubing connection to regulator.
	Cylinder valve is off.	Check cylinder valve to ensure it is open.
	Flow control is off.	Check flow control to ensure it is on.
	Battery is dead (if using battery operated conserving device).	Change battery in device.
	Not using special double lumen cannula (if using pneumatic conserving device).	Connect double lumen nasal cannula to device.
Oxygen cylinder hisses and leaking oxygen.	Regulator is not tightly connected to cylinder.	Turn cylinder off. Tighten regulator connection to cylinder.

*\*Contact your medical equipment supplier if you are unable to resolve the problem.*

## Usage Hours by Cylinder Size

FLOW RATE	1	1.5	2	2.5	3	4	5
<b>B (M6)</b>							
Pulse Dose	8.3	5.5	4.1	3.3	2.8	2.1	1.7
Continuous Flow	2.7	1.8	1.4	1.1	0.9	0.7	0.6
<b>C</b>							
Pulse Dose	12.1	8.1	6.1	4.9	4.0	3.0	2.4
Continuous Flow	4.0	2.7	2.0	1.6	1.3	1.0	0.8
<b>D</b>							
Pulse Dose	21.0	14.0	10.5	8.4	7.0	5.2	4.2
Continuous Flow	6.9	4.6	3.5	2.8	2.3	1.7	1.4
<b>E</b>							
Pulse Dose	34.4	23.0	17.2	13.8	11.5	8.6	6.9
Continuous Flow	11.4	7.6	5.7	4.6	3.8	2.8	2.3
<b>M Back-Up</b>							
Continuous Flow	57.0		28.0		19.0	14.0	11.0

# Positive Airway Pressure (PAP) Device

## Overview

Most people using Positive Airway Pressure (PAP) devices have a condition known as Obstructive Sleep Apnea (OSA). During sleep, the muscles in the back of the throat relax causing the upper airway to become smaller. This is especially true during the deepest stages of sleep (called Rapid Eye Movement or REM sleep). In some individuals, the upper airway can collapse, causing a blockage of air movement into the lungs. When airflow is stopped for at least 10 seconds, it is referred to as apnea, and can occur many times each hour and hundreds of times each night.

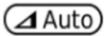
## Control Panel

 Start/Stop button	Press to start/stop therapy. Press and hold for three seconds to enter power save mode.
 Dial	Turn to navigate the menu and press to select an option. Turn to adjust a selected option and press to save your change.
 Home button	Press to return to the Home screen.



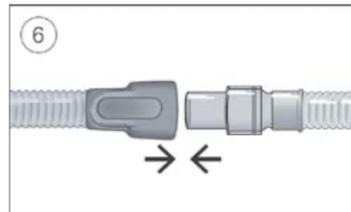
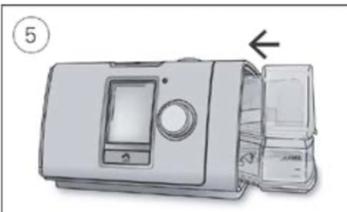
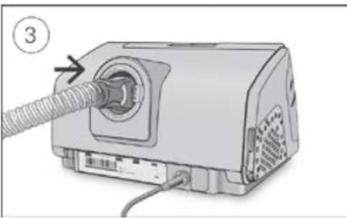
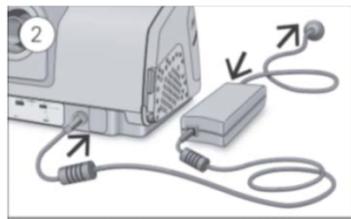
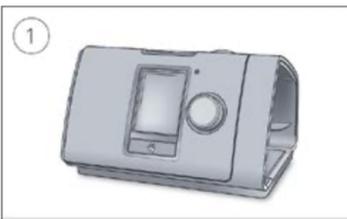
Different icons may be displayed on the screen at different times including:

#	Device Feature	Description
1	Air outlet	Connect the tubing here
2	Air filter cover	Replace air filter here
3	Power inlet	Plug power connector here
4	Serial number and device number	Identifies manufacturer serial/device number
5	Water tub	Fill with distilled water up to max water level
6	Screen	Displays unit information
7	Adapter Cover	Cover for adapter
8	SD card cover	Place SD card here

	Ramp Time
	Ramp Time Auto
	Humidity
	Humidifier warming
	Humidifier cooling
	Wireless signal strength (green)
	Wireless transfer not enabled (gray)
	No wireless connection
	Airplane Mode

## Operating Instructions

1. Place the device on a stable level surface. Be careful not to place the device where it can be bumped or where someone is likely to trip over the power cord. Keep the area around the device dry, clean and clear of anything (e.g., clothes or bedding) that could block the air inlet or cover the power supply unit.
2. Plug the power connector into the rear of the device. Connect one end of the power cord into the power supply unit and the other end into the power outlet.
3. Connect the air tubing firmly to the air outlet located on the rear of the device.
4. Open the water tub and fill it with distilled water up to the maximum water level mark. Do not fill the water tub with hot water.
5. Close the water tub and insert it into the side of the device.
6. Connect the free end of the air tubing firmly onto the assembled mask. See the mask user guide for detailed information.



## Cleaning Instructions

### Nasal Mask, Full Face Mask and Tubing (daily)

1. Wash in warm water with mild detergent.
2. Rinse thoroughly under cold running water.
3. Shake off excessive water.
4. Allow to air dry on a paper towel and cover parts with another paper towel to keep dust off.

### Headgear or Chinstrap (weekly)

1. Machine or hand wash in mild detergent if soiled
2. Allow to air dry.

### Humidifier (every 3 days)

1. Wash in warm water with mild detergent.
2. Rinse thoroughly under cold running water.
3. Shake off excessive water.
4. Soak humidifier for 30 minutes in a solution of 1 part white vinegar and 3 parts water.
5. Rinse thoroughly under cold running water.
6. Shake off excessive water.
7. Allow to air dry on a paper towel and cover with another paper towel to keep dust off.
8. Dispose of white vinegar and water.

## Preventative maintenance

You should regularly check the water tub, air tubing and the air filter for any damage.

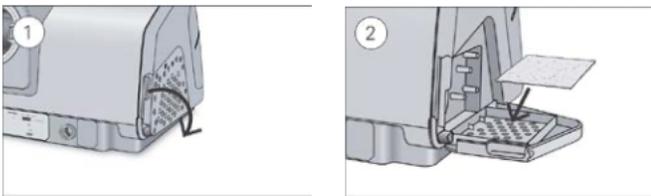
1. Check the water tub:

- Replace it if it is leaking or has become cracked, cloudy or pitted.
- Replace it if the seal is cracked or torn.
- Remove any white powder deposits using a solution of one part household vinegar to 10 parts water.

2. Check the air tubing and replace it if there are any holes, tears or cracks.

3. Check the air filter and replace it at least every six months. Replace it more often if there are any holes or blockages by dirt or dirt.

### To replace air filter:



1. Open the air filter cover and remove the old air filter. The filter is not washable or reusable.

2. Place a new air filter onto the air filter cover and then close it. Make sure the air filter is always fitted to prevent water and dust from entering the device.

### Reassembling

When the water tub and air tubing are dry, you can reassemble the parts.

1. Connect the air tubing firmly to the air outlet located on the rear of the device.
2. Open the water tub and fill it with distilled room temperature water up to the maximum water level mark.
3. Close the water tub and insert it into the side of the device.
4. Connect the free end of the air tubing firmly onto the assembled mask.

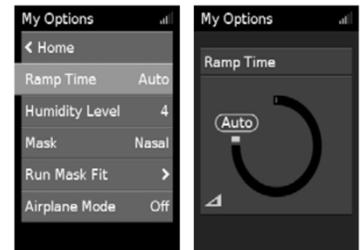
## Ramp Time

Designed to make the beginning of therapy more comfortable, Ramp Time is the period during which the pressure increases from a low start pressure to the prescribed treatment pressure.

Set the Ramp Time to Off, 5 to 45 minutes or Auto. When Ramp Time is set to Auto, the device will detect when you have fallen asleep and then automatically rise to the prescribed treatment pressure.

### To adjust Ramp Time:

1. In My Options, turn the dial to highlight Ramp Time and then press the dial.



2. Turn the dial to adjust the ramp time to your preferred setting and press the dial to save the change.

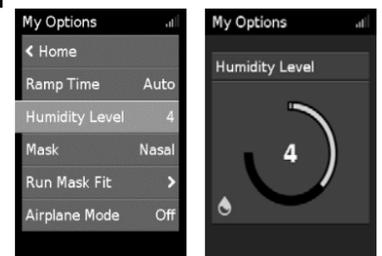
### Humidity Level

The humidifier moistens the air and is designed to make therapy more comfortable. If you are getting a dry nose or mouth, turn up the humidity. If you are getting any moisture in your mask, turn down the humidity.

You can set the Humidity Level to Off or between 1 and 8, where 1 is the lowest humidity setting and 8 is the highest humidity setting.

To adjust the Humidity Level:

1. In My Options, turn the dial to highlight Humidity Level and then press the dial.
2. Turn the dial to adjust the humidity level and press the dial to save the change.



## Mask Fit

Mask Fit is designed to help you assess and identify possible air leaks around your mask.

To check Mask Fit:

1. Fit the mask as described in the mask user guide.
2. In My Options, turn the dial to highlight Run Mask Fit and then press dial. The device starts blowing air.



3. Adjust the mask, mask cushion and Headgear until you get a good result. To stop Mask Fit, press the dial or Start/Stop. If you are unable to get a good mask seal, talk to your care provider.

## Starting Therapy

1. Fit your mask
2. Press Start/Stop or breathe normally if SmartStart™ is enabled. You will know that therapy is on when the Sleep Report screen is displayed.

The current treatment pressure is gradually increasing and you will see a spinning circle. Once the prescribed treatment pressure is reached, the entire circle will be green.



The screen will go black automatically after a short period of time. You can press Home or the dial to turn it back on. If power is interrupted during therapy, the device will automatically restart therapy when power is restored.

The AirSense 10 device has a light sensor that adjusts the screen brightness based on the light in the room.

## Stopping Therapy

1. Remove your mask
2. Press Start/Stop or if SmartStart™ is enabled, therapy will stop automatically after a few seconds.

The Sleep Report now gives you a summary of your therapy session.

Usage hours – indicates the number of hours of therapy you received last session

Mask Seal – indicates how well your mask sealed:

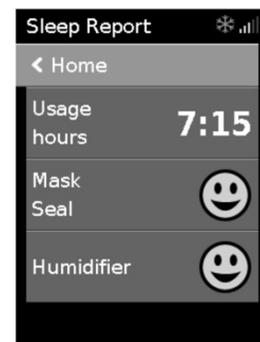
- 😊 Good mask seal.
- 😞 Needs adjusting, see Mask Fit.

Humidifier – Indicates if your humidifier is working properly:

- 😊 Humidifier working.
- 😞 Humidifier might be faulty, contact your provider.

If set by your care provider, you will see: Events per hour – Indicates the number of apneas and hypopneas experienced per hour.

More Info – Turn the dial to scroll down to view more detailed usage data.



## Troubleshooting

Problem	Possible Cause	Corrective Action
Air is leaking from around mask.	Mask may be fitted incorrectly.	Make sure your mask is fitted correctly. See your mask user guide for fitting instructions or use the Mask Fit function to check your mask fit and seal.
Dry or blocked nose.	Humidity level may be set too low.	Adjust the Humidity level. If you have ClimateLineAir heated air tubing, see the ClimateLineAir user guide.
Droplets of water on nose, in the mask and air tubing.	Humidity level may be set too high.	Adjust the Humidity level. If you have ClimateLineAir heated air tubing, see the ClimateLineAir user guide.
Mouth is very dry and uncomfortable.	Air may be escaping through your mouth.	Increase the Humidity Level. You may need a chin strap to keep your mouth closed or a full face mask.
Air pressure in mask seems too high (it feels like I am getting too much air).	Ramp may be turned off.	Use the Ramp Time option.
Air pressure in mask seems too low (it feels like I am not getting enough air).	Ramp may be in progress.	Wait for air pressure to build up or turn Ramp Time off.
Screen is black.	Backlight on the screen may have turned off. It turns off automatically after a short period of time.	Press Home or the dial to turn it back on.
	Power may not be connected.	Connect the power supply and make sure the plug is fully inserted.
Therapy has stopped, but the device is still blowing air.	Device is cooling down.	Device blows a small amount of air in order to avoid condensation in the air tubing. It will stop automatically after 30 minutes.
Water tub is leaking.	Water tub may not be assembled correctly.	Check for damage and reassemble the water tub correctly.
	Water tub may be damaged or cracked.	Contact your care provider for replacement.

# Routinely Changing Your PAP Supplies

## **Mask Replacement (every 6 months or as needed)**

Constant use and routine cleaning of your mask causes it to become less effective over time leading to decreased comfort and non-compliance with your therapy.

Routine replacement helps protect your health by eliminating the potential health risks associated with a contaminated and worn out mask.

## **Headgear & Chinstrap (replaced with mask replacement)**

Most headgear and chinstraps are made out of neoprene, which stretches to accommodate your facial and head structure. As it stretches out over time it hampers the mask's ability to form a strong seal. Cinching the headgear or chinstrap tighter because of an improper fit results in a poor mask seal, possible sores on the face, strap marks and headaches.

## **Tubing (annually or as needed)**

Unseen to the naked eye, tiny holes may develop and can compromise the accurate delivery of air pressure. Even with routine cleaning a buildup of germs can still occur.

Remember anything in the tubing is being breathed directly into your lungs, which can lead to respiratory issues.

## **Filters (disposable filters: check monthly and replace if soiled or every 6 months) (non-disposable filters: every 6-12 months)**

Replacing filters can add life to your machine. Just as you should routinely change your furnace or air conditioning filters at home, or the filters in your automobile, you should regularly change the filters in your machine for optimum care.

## **Humidifier Water Chamber**

Replace annually, or sooner if broken or seal is not sufficient.

# Volume Ventilator

## Overview

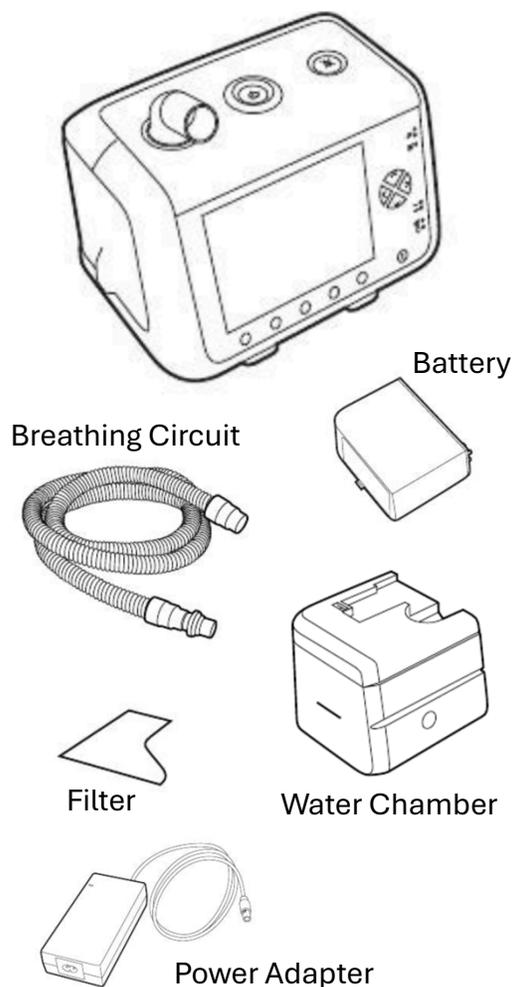
A volume ventilator also known as a respirator, is used to mechanically assist breathing by delivering air to the lungs. A volume ventilator may be ordered for use only at night, during limited daytime hours or around the clock, depending on your condition.

Volume ventilators used in the home are small, lightweight and portable; operate on household electrical current with an internal backup battery in case of power outage. It is advisable to have an external backup battery or generator readily available in case of power outage or an emergency. A manual resuscitator or “self-inflating bag” should be kept readily available to provide positive pressure ventilation to the patient following suctioning and in case of equipment malfunction.

## Operating Instructions

1. Ventilator must be placed on flat level surface at or below patient’s head at all times.
2. Humidifier must be placed on a stand or attached to the ventilator (positioned lower than the patient’s head).
3. Fill humidifier with distilled water only.
4. Plug ventilator and humidifier directly into grounded electrical outlet. Do not use extension cords or multi-outlet adapters.
5. Attach small section of corrugated tubing between ventilator and inlet on humidifier.
6. Connect patient circuit to outlet on humidifier.
7. Add water trap to lowest point on patient circuit.
8. Power on ventilator and humidifier.
9. Connect oxygen source (if required) and set to prescribed rate.
10. Ensure ventilator controls are set at prescribed settings. Do not change settings unless instructed by the physician.
11. Before connecting patient, perform leak test by occluding the end of circuit and observe high pressure alarm indicating circuit passes leak test. If high pressure alarm does not sound, check all connections on circuit and humidifier and test again.

Breas 45LS Ventilator

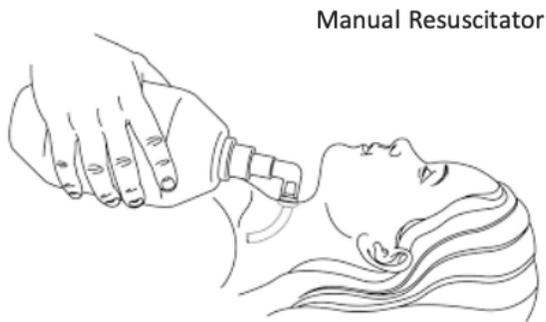


Luisa Ventilator



12. When alarm sounds, observe patient breathing effort and recheck ventilator control settings. All alarms indicate a potential safety risk to the patient.

**\*IF IN DOUBT, DISCONNECT PATIENT FROM CIRCUIT AND USE MANUAL RESUSCITATOR (WITH OXYGEN IF PRESCRIBED) UNTIL PROBLEM CAN BE CORRECTED!**

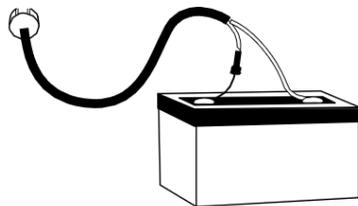


13. Refill humidifier bottle with distilled water as necessary.

14. Empty water trap as necessary.

15. In case of power failure, the portable ventilators with switch to an internal battery. The internal battery will last approximately 1 hour when fully charged.

it is also recommended to have an external battery to last from 4 to 24 hours.



### **Changing Ventilator Circuit & Humidifier (Replace every 4 weeks)**

It is recommended to have two (2) people available when changing the circuit. You should have the following items assembled (patient ready) before you disconnect the patient:

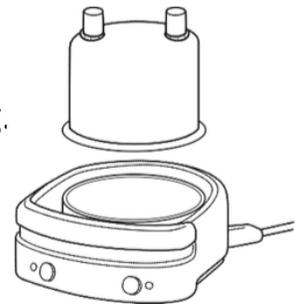
1. Clean ventilator circuit
2. Clean humidifier chamber
3. Manual resuscitator
4. Oxygen source (if prescribed)

### **Changing Ventilator Circuit**

1. Wash your hands.
2. Place manual resuscitator at patient's side.
3. Have clean circuit assembled and ready.
4. Disconnect dirty tubing from ventilator and patient.
5. Ventilate patient with manual resuscitator (and oxygen if ordered).
6. Connect clean circuit to ventilator.
7. Check circuit for leaks before reconnecting patient.
8. After patient is reconnected, check for a rise in chest and pressure manometer during next inspiration.
9. Wash your hands.

### **Changing Humidifier Chamber**

1. Wash your hands.
2. Fill clean humidifier with distilled water.
3. Disconnect patient circuit from trach tube and attach resuscitation bag.
4. Have 1 caregiver gently squeeze bag to meet patient normal respiratory breathing rate while the other caregiver changes humidifier.
5. Disconnect patient circuit and small corrugated tubing from humidifier.
6. Replace dirty humidifier chamber with clean chamber.
7. Reconnect small corrugated tubing from ventilator to inlet on clean humidifier chamber.
8. Reconnect patient circuit to outlet on clean humidifier chamber.
9. Check circuit for leaks before reconnecting patient.
10. Remove resuscitation bag from trach tube and reconnect circuit.
11. After patient is reconnected, check for a rise in chest and pressure manometer during next inspiration.
12. Wash your hands.



## Cleaning Instructions

### Ventilator Circuit

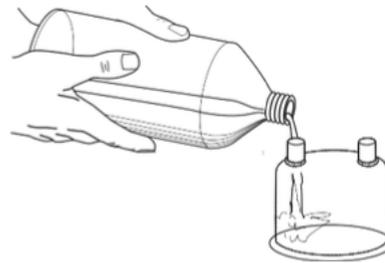
Clean As Needed (Replace every 4 weeks)

1. Disassemble and wash reusable circuit (or reusable parts) in warm, soapy water using a mild liquid detergent.
2. Rinse thoroughly under cold running water.
3. Soak entire circuit (or reusable parts) in a solution of 1 part white vinegar and 3 parts water for 30 minutes.
4. Rinse thoroughly under cold running water.
5. Shake off excessive water.
6. Allow to air dry on a paper towel and cover with another paper towel to keep off dust.
7. Reassemble circuit and store in sealed plastic bag.

### Humidifier:

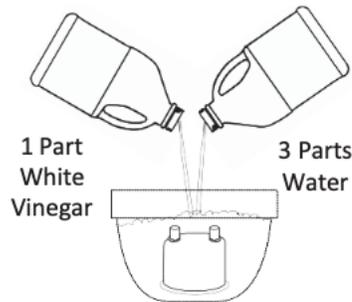
#### Daily

1. Refill humidifier chamber up to the maximum level with distilled water.



#### Weekly

1. Wash humidifier chamber in warm, soapy water using a mild liquid detergent.
  2. Rinse thoroughly with cold running water.
  3. Soak humidifier in a solution of 1 part white vinegar and 3 parts water for 30 minutes.
  4. Rinse thoroughly under cold running water.
- Shake off excess water and allow to air dry on a paper towel, covering with another clean paper towel to keep off dust.



When dry, store in a sealed plastic bag.

### Filters:

1. Check foam filters weekly, clean with warm water as needed.
2. Squeeze thoroughly to remove excess water and allow time to completely dry before reinstalling.
3. Replace cloth filters (if equipped) as necessary

### Surface:

1. Clean surface as needed with a damp (water only) cloth. Do not spray or use any cleaning products on the equipment.

## Troubleshooting

Problem	Possible Cause	Corrective Action
Frequent low pressure alarms	Patient disconnected or circuit connection is not tight	Verify circuit firmly connected to trach. Confirm all other connections are tight.  Ensure low pressure alarm is at correct setting.
Frequent high pressure alarms	Buildup of secretions in patient's airway.	Suction patient.
	Water accumulated in patient circuit.	Empty water traps on circuit.
Low power alarms	Internal battery is running down.	Connect ventilator to a wall circuit or external battery source.  If no power source available, remove patient from ventilator and ventilate with a manual resuscitation bag.

\*Contact your medical equipment supplier if you are unable to resolve the problem.

**IN CASE OF EMERGENCY, DIAL 911 IMMEDIATELY**



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