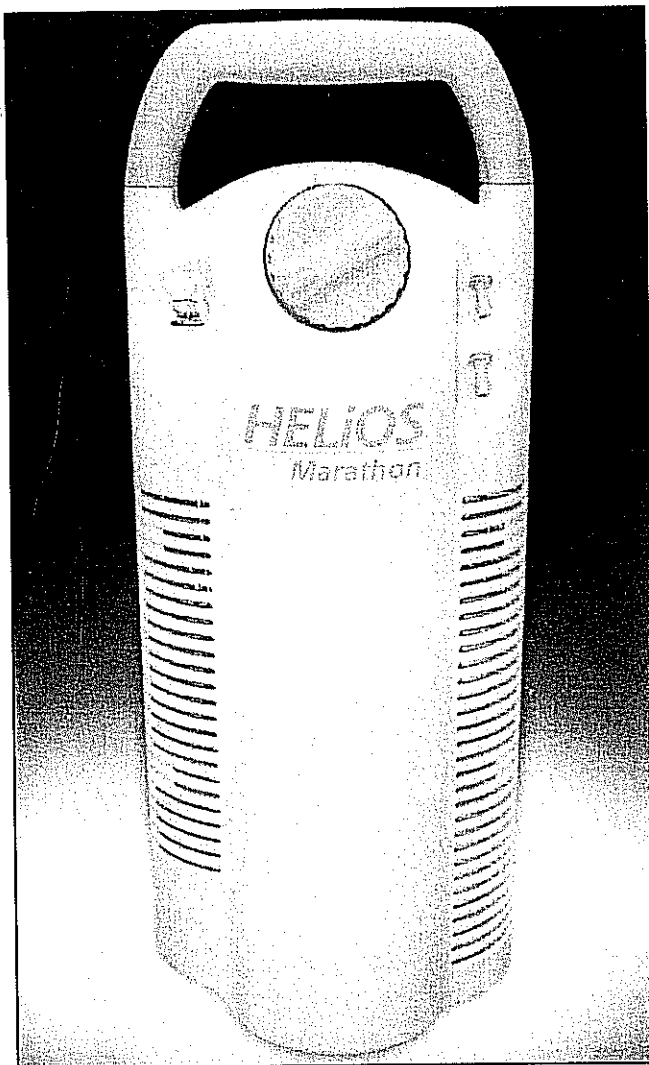


HELIOS® Marathon™

Model: H850



Home Use Guide

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H850 Safety Information

This section contains important safety information related to general use of the *HELiOS*[®] Marathon H850 Personal Oxygen System, which consists of the H850 Portable and a Reservoir.

Other important safety information appears throughout the manual in sections that relate specifically to the precautionary information. Be sure to read all text surrounding all precautionary information.

Before use, carefully read this manual and all precautionary information in boldface type, and product specifications.

Warnings



Warnings are identified by the WARNING symbol shown above or other relevant symbols, as shown on the following two pages.

Warnings alert the user to potential serious outcomes (death, injury, or adverse events) to the patient or user.



WARNING: Oxygen supplied from this equipment is for supplemental use and is not intended to be life supporting or life sustaining. This equipment is not intended for use by patients who would suffer immediate, permanent, or serious health consequences as a result of an interruption in the oxygen supply.



Do not smoke near this equipment. Keep cigarettes or burning tobacco away from the area where equipment is operated.



Keep flammable materials away from this equipment. Oils, grease, including facial creams and petroleum jelly, ignite easily and may burn rapidly in the presence of oxygen. Never lubricate any part of this equipment.



Do not touch liquid oxygen or parts that have been in contact with liquid oxygen. Liquid oxygen is extremely cold (-297 °F / -183 °C). When touched, liquid oxygen, or parts of the equipment that have been carrying liquid oxygen, can freeze skin and body tissue.



Always keep the Reservoir in an upright position.



Always keep the H850 Portable in one of the following positions: upright, flat on its back or any position in between.



WARNING: When transporting the H850 Portable, position the H850 horizontally, flat side down, to ensure it does not tip over. Tipping over and falling off a transport surface could damage the H850 Portable or cause personal injury.



Keep this equipment away from electrical appliances. Use and store Reservoir and H850 Portable at least five feet from electrical appliances that may cause heat or sparks.



Keep oxygen equipment away from open flames. Use and store Reservoir and H850 Portable at least five feet away from equipment such as furnaces, water heaters, and stoves that may contain open flames.



Keep equipment in a well-ventilated area at all times. The Reservoir and H850 Portable periodically release small amounts of oxygen gas that must be ventilated to prevent buildup. Do not store liquid oxygen equipment in a closet, car trunk, or other confined area. Do not place blankets, draperies, or other fabrics over equipment.



Do not carry the H850 Portable under your clothing. The Reservoir and H850 Portable normally vent oxygen. Wearing a H850 Portable under clothing may saturate fabrics with oxygen and cause them to burn rapidly if exposed to sparks or flame. It may take several hours for oxygen levels in fabric to return to normal.



Keep dry.



WARNING: Never tamper with the equipment. Doing so could create a hazardous condition and possibly cause the equipment to work improperly.



WARNING: Always keep tubing or oxygen supply line away from path of walking to avoid potential trip or fall.



WARNING: Use only with recommended supply line. Connecting the H850 Portable to a wrong gas source could cause inhalation of hazardous substances.



WARNING: Do not open the vent valve during non-fill use, or put it into any position other than the closed, upright, or vertical position.

Cautions



Cautions are identified by the CAUTION symbol shown above.

Cautions alert the user to exercise care necessary for the safe and effective use of the H850 Personal Oxygen System.



CAUTION: Consistent with the recommendations of the medical community on the use of conserving devices (which includes the nasal cannula), it is recommended that the H850 Personal Oxygen System be qualified on patients in the situations it will be used (rest, exercise, sleep). Differences in nasal cannula design may vary the ability to trigger a conserving device.



CAUTION: Although there are no risks associated with the disposal of any components within this device, in the interests of environmental protection, it is recommended that all used or faulty components that are under warranty be returned to the manufacturer.



CAUTION: Remove the 9 volt battery from the Reservoir contents indicator if it will not be used for some time (see manual section *Low Battery Level*). Carefully dispose of the 9 volt battery from the Reservoir contents indicator with due regard for the environment.








Notes



Notes are identified by the NOTE symbol shown above.

Notes are listed before or after procedural steps or information and provide additional guidelines or information on the subject being described.

Definition Of Symbols

Symbol	Definition
	Reservoir Full
	Reservoir Empty
	Portable Full
	Portable Half Full
	Portable Empty
	Low Battery
IPX1	Drip Proof
	Type BF (Electrical Safety)

Introduction

Your *HELiOS*[®] Marathon H850 Personal Oxygen System is designed to store and deliver oxygen at a prescribed rate. The system consists of the H850 Portable and a Reservoir.

It is recommended that you breathe your prescribed oxygen rate from the H850 Portable. The H850 Portable can be supplied with oxygen for you to breathe in two ways.

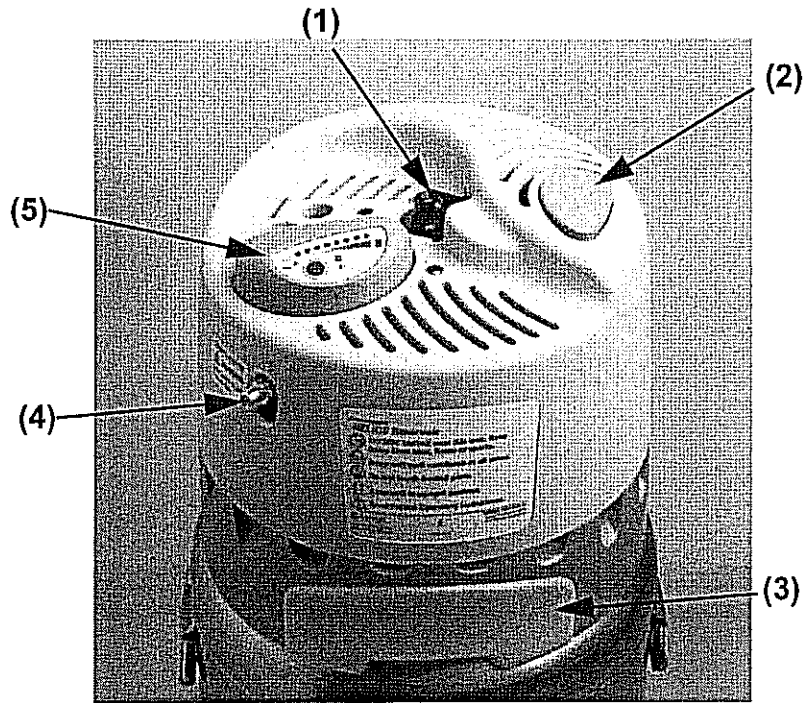
1. You may fill the H850 Portable with liquid oxygen so you can be free to move about your home or leave your home for extended periods.
2. You can connect the H850 Portable to the *HELiOS* Reservoir. See the section *Connecting the H850 Portable to the HELiOS Reservoir*.

The H850 System was designed to maximize your freedom of movement. You can fill the H850 Portable with liquid oxygen from the Reservoir every day to use as far from the Reservoir as you desire.

When you are in your home and not moving about, such as in the evening or while you are sleeping, you are encouraged to connect the H850 Portable to a *HELiOS* Reservoir with an oxygen supply line (demand mode only). When the H850 Portable is connected to a *HELiOS* Reservoir in this manner, the oxygen you breathe is supplied by the Reservoir.

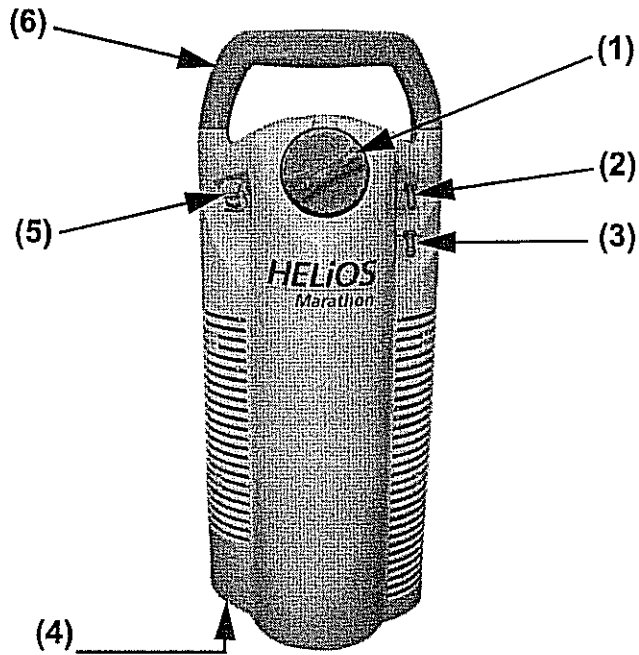
Your oxygen supplier or home care provider must refill your Reservoir periodically depending upon your rate of oxygen use.

Reservoir



- (1) **Liquid Oxygen Fill Connector:** Used to fill the H850 Portable with liquid oxygen.
- (2) **Release Button:** Used to disengage the Portable from the Reservoir after filling.
- (3) **Moisture Container:** Used to collect water that may accumulate.
- (4) **Oxygen Outlet Connector:** Used to directly supply gaseous oxygen to the Portable or to an external flow control.
- (5) **Contents Indicator:** Displays amount of liquid oxygen remaining in the Reservoir.

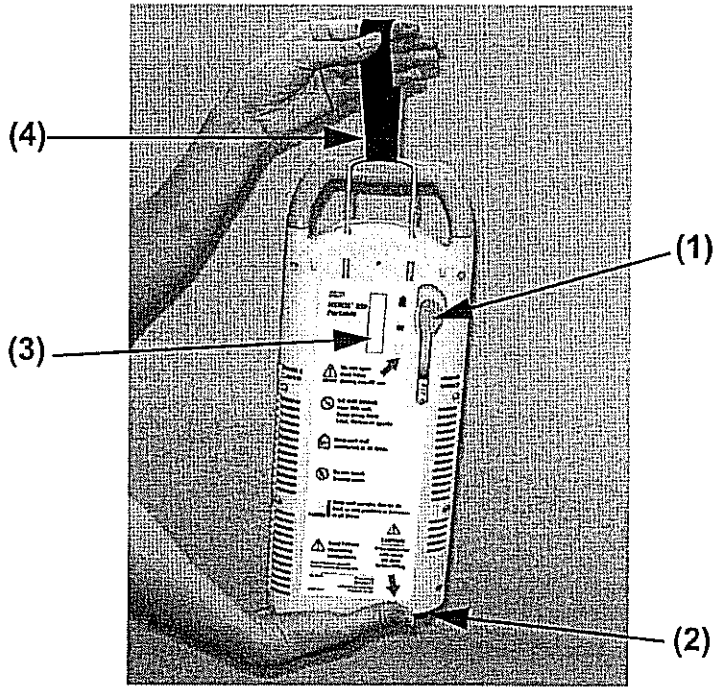
H850 Portable — front view



- (1) **Flow Control Knob:** Adjustable, rotary valve used to control the rate of oxygen delivery and to select either continuous flow or demand flow.
- (2) **Oxygen Delivery Connector:** Attach one tube of dual-lumen cannula to receive oxygen from the H850 Portable.
- (3) **Sense Connector:** Attach one tube of dual-lumen cannula to start and stop oxygen flow with each breath.
- (4) **Liquid Oxygen Fill Connector (on the bottom):** Used to connect H850 Portable to the Reservoir during the filling process.

- (5) **Oxygen Inlet Connector:** Attach oxygen supply line to supply H850 Portable with gaseous oxygen from the Reservoir.
- (6) **Carrying Handle**

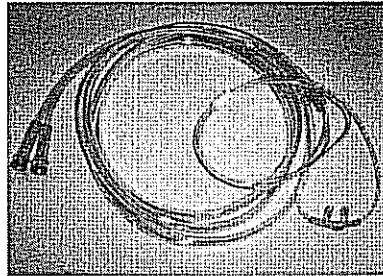
H850 Portable — rear view



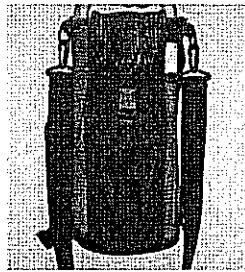
- (1) **Vent Valve:** Used to start and stop the filling process.
- (2) **Liquid Oxygen Fill Connector:** Used to fill the H850 Portable with liquid oxygen.
- (3) **Contents Indicator:** Displays the amount of liquid oxygen in the H850 Portable.
- (4) **Contents Indicator Strap:** Used to lift the H850 Portable to measure the amount of oxygen it contains.

Other parts of your personal oxygen system include:

Dual-lumen
Cannula



Back Pack
(optional)



How To Use Your H850 Personal Oxygen System

Filling the H850 Portable

Fill the H850 Portable from the Reservoir as follows:



WARNING: Using a dry, lint free cloth that is clean, wipe the fill connector dry on both the Reservoir and H850 Portable before filling to prevent freezing and possible equipment failure.



WARNING: Extreme cold hazard. Do not press or disturb the poppet (shown below) in the center of the fill connector on the Reservoir. This will cause a release of liquid oxygen from the fill connector.



1. Check the contents indicator on the Reservoir by pressing the blue button to ensure there is enough liquid oxygen for filling purposes. If the yellow light comes on, you may proceed with filling the H850 Portable, but you should inform your oxygen supply company.
2. Using a clean, dry, oil-free cloth, wipe the male fill connector on the Reservoir and female fill connector on the H850 Portable.
3. Position the H850 Portable over the recessed area in the top of the Reservoir. (Figure 1).

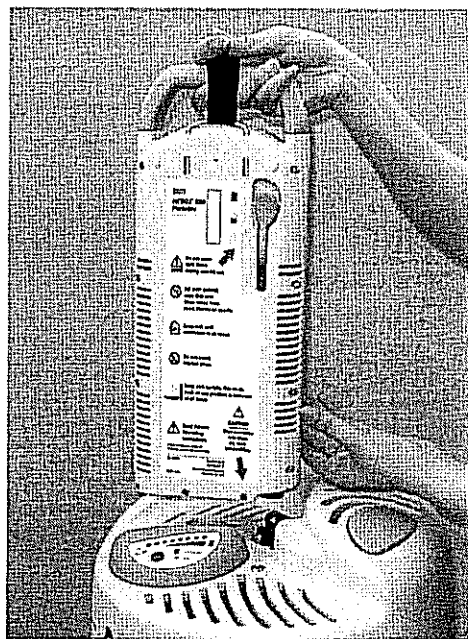


Figure 1: Positioning the H850 Portable for filling

4. Carefully lower the H850 Portable into place, ensuring that the fill connectors are properly aligned.

5. Place one or both hands on top of the H850 Portable and press straight down directly over the fill connector, being careful not to depress the release button on the Reservoir when engaging (Figure 2). This will lower the H850 Portable approximately 3/8 inch (10 mm). Continue to apply downward force to ensure the fill connectors remain engaged.
6. While holding the H850 Portable in the fill position, Figure 2, pull down and hold the vent valve lever in the open position (90° from the normal OFF position). A hissing noise should be noticeable. During filling, maintain a slight downward force on the H850 Portable with one hand to keep the H850 Portable steady, and maintain proper filling position. Do not allow the Portable to move upward until fill is complete.



WARNING: Do not open the vent valve during non-fill use. Excessive discharge of liquid oxygen could create a fire hazard and/or cause personal injury.

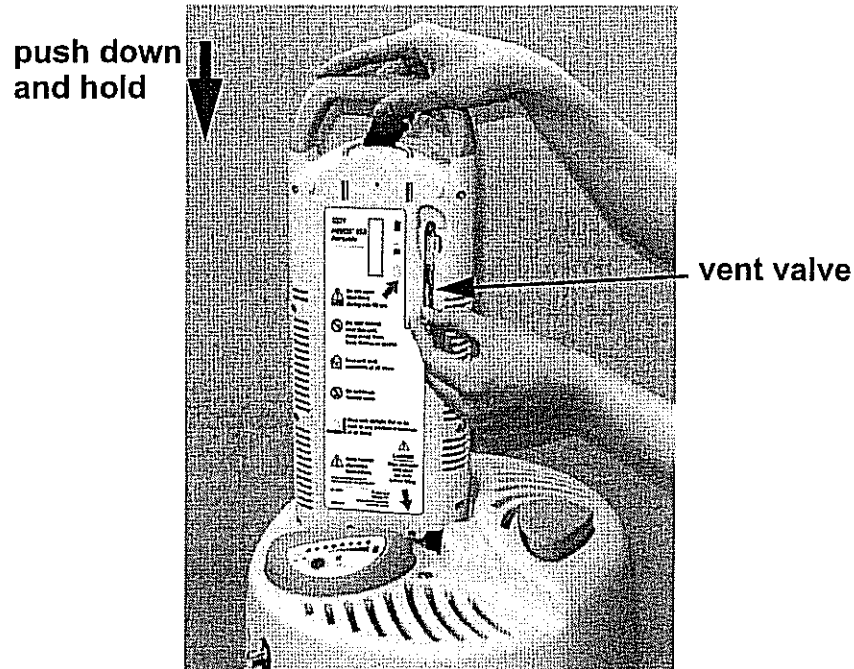


Figure 2: Filling the H850 Portable



Note: Fill time is usually between 60 and 80 seconds when the H850 Portable is empty. The amount of time to fill the H850 Portable depends on the amount of oxygen remaining in the H850 Portable.



WARNING: Do not leave the H850 Portable unattended during the filling operation.

7. When you notice a change in the sound of venting gas followed by a dense, white vapor forming around the Reservoir cover, close the H850 Portable vent valve by returning the vent lever to the upright position.



CAUTION: If the vent valve fails to close and the hissing continues, remove the H850 Portable by depressing the H850 Portable release button on the Reservoir. Ensure that the Portable is kept upright and is not tipped at all during this time. The H850 Portable will stop venting in a few minutes. Allow the H850 Portable to warm until you can close the vent valve. The H850 Portable may require as much as 60 minutes to restore adequate pressure for accurate oxygen flow. An alternate source of oxygen, such as a flow control valve attached to the Reservoir, can be used if needed.



Note: For shorter planned use times, you can partially fill the H850 Portable by closing the vent valve sooner than normal. The H850 Portable will then be lighter to carry.

8. Disengage the H850 Portable from the Reservoir by holding the carrying handle and depressing the release button (Figure 3). Always hold the H850 Portable with at least one hand when attempting to disengage it.

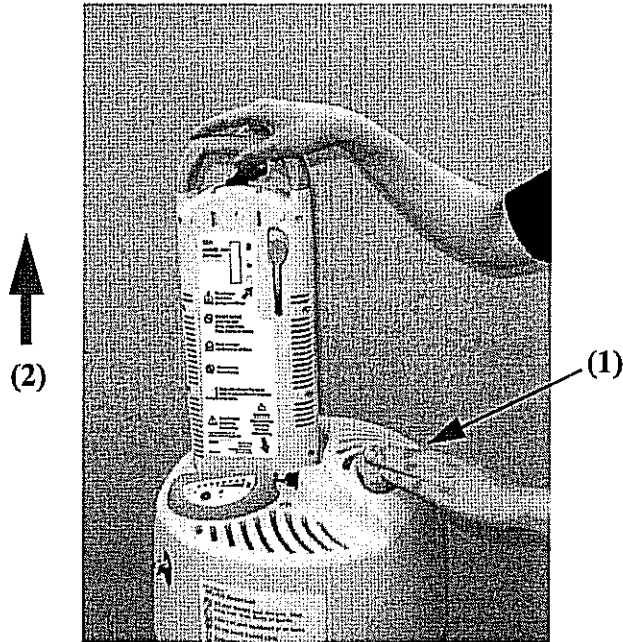


Figure 3: Disengaging the H850 Portable

- (1) Press H850 Portable release button.
- (2) Lift H850 Portable up and off the Reservoir.



CAUTION: If the H850 Portable will not disengage easily from the Reservoir, they may have become frozen. Do not use force. Simply allow a few minutes for the frozen parts to warm, then disengage the H850 Portable when the ice has melted.



WARNING: If a major liquid oxygen leak from the Reservoir fill connector occurs when you disengage the H850 Portable — that is, a steady stream of liquid oxygen — step away from the Reservoir and notify your oxygen supplier immediately. Stay away from the Reservoir until your supplier ensures that it is safe.



CAUTION: If a minor liquid oxygen leak from the Reservoir fill connector occurs when you disengage the H850 Portable, re-engage and disengage the portable to help dislodge any ice or other obstruction. If the liquid oxygen leak persists, notify your oxygen supplier.



Note: Immediately after filling, you may hear a slight hissing sound from the H850 Portable. This is normal and will stop after a few minutes.



CAUTION: If the hissing sound from the H850 Portable does not stop within a few minutes after a fill, and excessive visible frosting develops on the Portable, see Note 3 in the *Troubleshooting* section.

9. Check the oxygen contents indicator, Figure 4, to make sure the H850 Portable is filled to the desired level. The amount of liquid oxygen contained in the H850 Portable is measured by an internal scale that is built into it. To operate the contents indicator:
 - a. Lift the H850 Portable by the contents indicator strap;
 - b. Push the bottom backside of the H850 Portable so that it is straight up and down; and

- c. Observe the green bar that displays the liquid oxygen contents level inside the clear window.

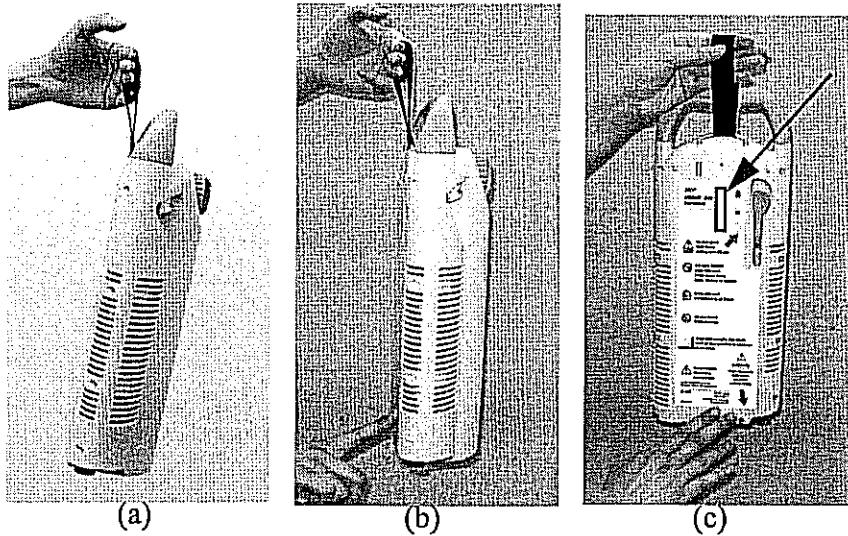


Figure 4: Checking H850 Portable oxygen contents



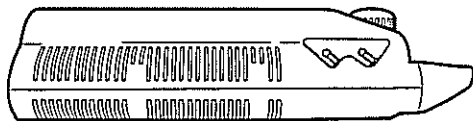
Notes:

1. Do not try to overfill the H850 Portable. Once you hear the change in the sound of venting gas and see the cloud of white vapor, the H850 Portable is full. Continuing the fill process will not put any more oxygen in the H850 Portable. Overfilling may cause drops of liquid oxygen to spray from the bottom of the H850 Portable.
2. After each fill, do not try to refill the H850 Portable again for at least 30 minutes. This will prevent the possibility of the H850 Portable wasting oxygen and prevent the vent valve from potentially freezing.

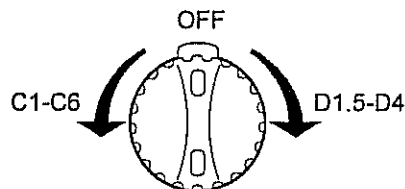
3. The number of times that you have to fill up or top off your H850 Portable depends on which setting is prescribed by your doctor and the frequency of your breath rate. On average, a setting of 2 in demand mode lasts about 18 hours. However, the actual time may vary depending on your particular circumstances. For example, if you use your H850 Portable in the rain, excess moisture may reduce oxygen duration of the H850 Portable.
4. The H850 Portable can be filled from Puritan Bennett Companion C21, C31, C41, Companion Low Loss C31LL, HELiOS H36, H46, HELiOS-Universal U36 and U46 reservoirs.



CAUTION: If the H850 Portable is filled from a reservoir other than a H36 or H46, it may take a wait time in excess of 60 minutes after fill for accurate oxygen flow. Lay the H850 Portable on its back, as illustrated (A), and set the Flow Control knob to OFF (B), during the wait time.



(A) Lay H850 Portable on its back.



(B) Set Flow Control knob to OFF.

Breathing From the H850 Portable

In order to breathe from your H850 Portable, you must do so through a dual-lumen nasal cannula. The nasal cannula has two connections at the H850 Portable. One connection is used to sense when you inhale, the other connection is used to supply oxygen into your nose as you inhale.

Connect a dual-lumen cannula to your H850 Portable as follows:

1. Attach both ends of the dual-lumen cannula to the H850 Portable as shown below. Either end of the dual-lumen cannula may be attached to either connector on the H850 Portable (Figure 5).

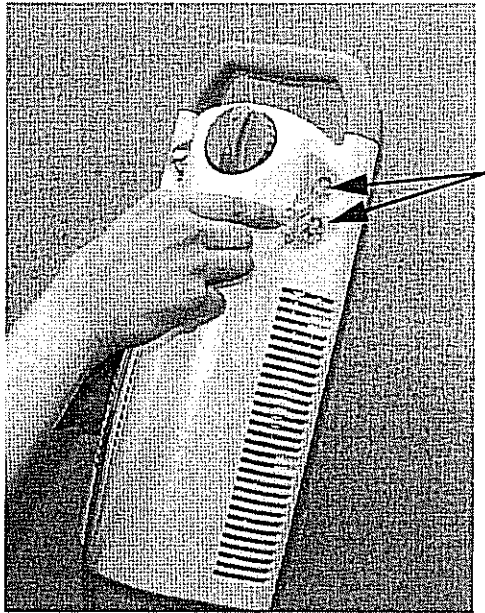


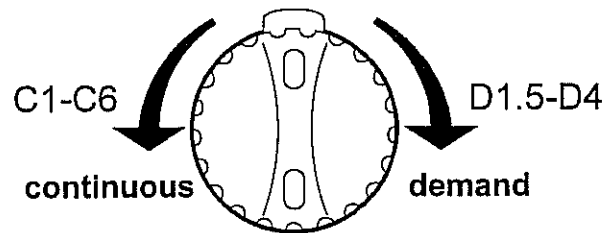
Figure 5: Attaching the dual-lumen cannula



Note: The lower connector is used to sense when you inhale. The upper connector is used to supply oxygen to your nose.

2. The H850 Portable has two delivery modes: continuous and demand. Turn the flow control knob on the top of the H850 Portable counterclockwise for continuous flow rates or clockwise for demand flow rates (Figure 6A). Continuous settings are number C1 through C6. Demand flow rates are number D1.5 through D4 (Figure 6B).

(A)



(B)



Figure 6: Setting the flow rate

Set your rate to the setting prescribed by your physician. The flow setting value should be clearly readable in the center of the window. The H850 Portable will not deliver oxygen to you if the flow control knob is set between flow settings.

When a demand mode setting is selected, oxygen will be delivered only while you inhale. You should notice a small pulse at the beginning of each breath. Oxygen is delivered during this pulse, and continues as long as you inhale. Oxygen flow stops when you stop inhaling. It is normal for the device to occasionally skip a breath or to pulse twice in one breath.

When continuous mode is selected, oxygen is delivered continuously at the rate displayed on the flow control knob. For example, the 1 setting delivers continuous flow oxygen at 1 L/min.

The table below shows approximate use times for your H850 Portable after it has been completely filled. The usage values shown reflect a breathing pattern that is typical for oxygen patients.

Approximate Use Times for a Full H850 Portable Note: Your Use Times May Vary	
Flow Control Setting	Duration in Hours
Continuous Flow	
C1	10.5
C2	5.5
C3	3.5
C4	2.5
C5	2.0
C6	1.5
Demand Flow	
D1.5	22.5
D2	18.5
D2.5	16.0
D3	11.5
D4	9.5



Note: Your use time may vary substantially from the use times listed in the table. You should learn through experience how long the H850 Portable will last given your particular breathing patterns and activity level.



CAUTION: You must use a dual-lumen cannula of 7-foot length or shorter (see accessories list at the end of this manual) to ensure proper oxygen delivery from the H850 Portable. Make sure both connections of the dual-lumen cannula are firmly attached to the H850 Portable oxygen outlet and sensor connectors.

3. With the tips of the cannula and lip rest pointing downward and toward you, place the two tips into your nostrils. Run the tubing over your ears and then slide the sleeve up under your chin until the cannula feels comfortable (Figure 7). Then breathe normally.

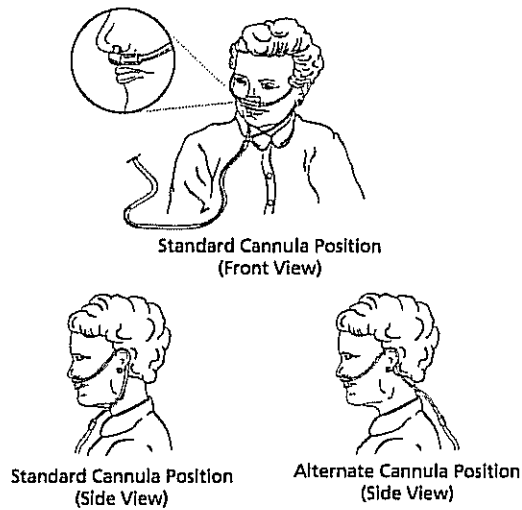


Figure 7: Cannula placement



Notes:

- Make sure that the tips remain in your nostrils and do not slide to one side.
 - Occasionally water droplets caused by exhaled humidity may accumulate in the cannula. This may disrupt the operation of the oxygen conserving device. If this happens, replace the moist cannula with a dry one. Allow the moist cannula to dry before using it again.
 - Currently, there are two dual-lumen cannula designs available for use with the H850. One cannula provides sensing and delivery of oxygen in each nostril. This is the best one to use when experiencing a blocked nasal passage. The other provides oxygen only to one side of the nose and senses when to provide oxygen on the other. Also, the tips are slightly smaller and softer.
4. The contents indicator will show approximately how much liquid oxygen remains in the H850 Portable. To ensure you have enough oxygen to meet your needs, check the indicator periodically. When checking the contents, remove any carry accessories and make sure your nasal cannula is not pulling on the H850 Portable.

check
contents
indicator



Positioning of H850 Portable During Use



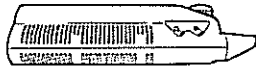
WARNING: Always keep the H850 Portable in one of the following positions: upright, flat on its back or any position in between.

Your H850 Portable was designed to operate in a variety of positions for your convenience:

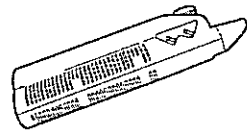
- a. sitting upright
- b. lying flat on its back
- c. angled, anywhere in between upright and flat on its back



(a)



(b)

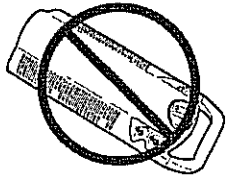


(c)

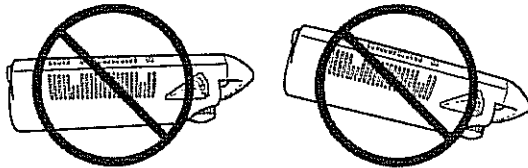
It is important to always keep the H850 Portable in one of these positions or liquid oxygen may escape. This will shorten the time you can be away from home.

Unacceptable H850 Portable positions include:

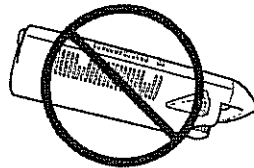
- a. lying on its back with the handle lower than the bottom of the H850 Portable
- b. lying on its front or edge
- c. lying on its front with the handle lower than the bottom of the H850 Portable



(a)



(b)



(c)



CAUTION: If your H850 Portable was placed in an unacceptable position for more than five minutes, check the contents level to see how much oxygen remains, and set the H850 Portable in an acceptable position for at least 15 minutes before attempting to fill it. Placing the H850 Portable in an unacceptable position may cause loss of oxygen or vent valve lever to become too cold for filling.

Connecting the H850 Portable to the *HELiOS* Reservoir

When you are in your home and not moving about, such as in the evening or while you are sleeping, you are encouraged to connect the H850 Portable to the *HELiOS* Reservoir with an oxygen supply line for use in demand mode; that is D1.5 through D4.

To keep from wasting oxygen, you should connect the H850 Portable to the Reservoir at least 10 hours per 24 hour period. It is important that the H850 Portable be nearly empty so that the oxygen from the H850 Portable comes directly from the Reservoir. This will maximize the efficiency of the system. Connect your H850 Portable to the Reservoir as follows:

1. Thread the oxygen supply line nut onto the Reservoir oxygen supply outlet as pictured below (Figure 8). Make sure the oxygen supply line and connection is tight. If a hissing sound is heard, tighten until the hissing stops.

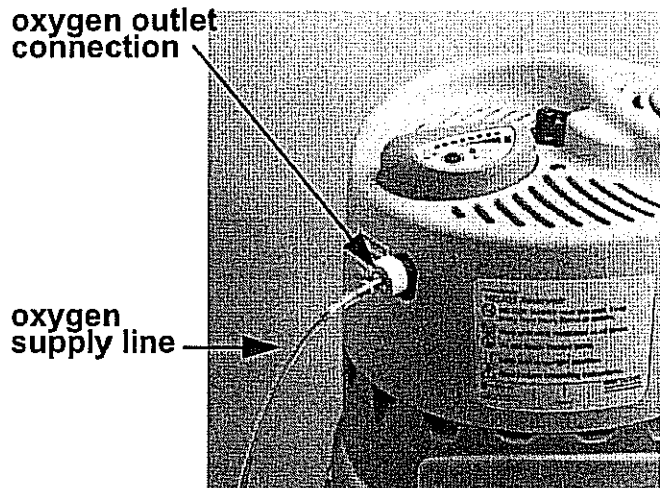


Figure 8: Connecting supply line to Reservoir

2. Connect the opposite end of the oxygen supply line to the H850 Portable at the oxygen supply connector by pushing the supply line into the connector (Figure 9). The connectors should snap together. If the supply line does not easily engage into the H850 Portable, push the silver release button on the H850 Portable connector and try again.

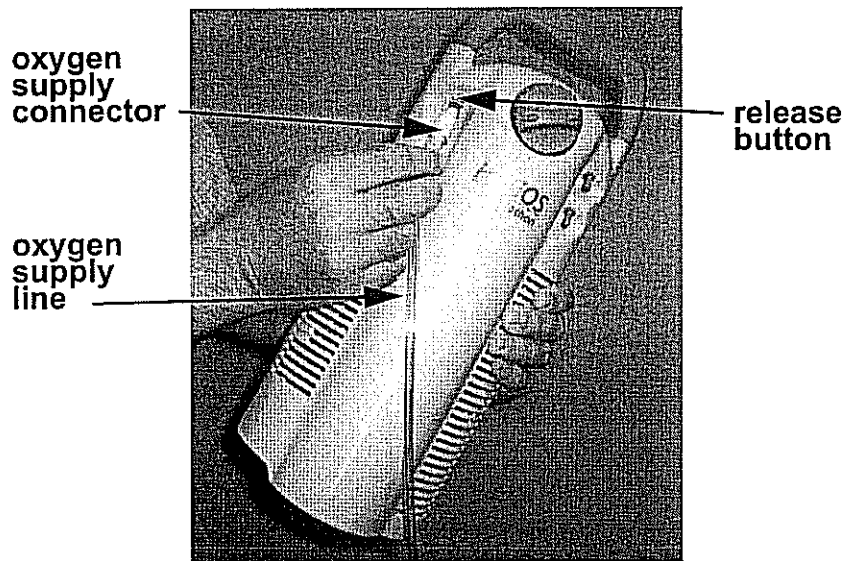


Figure 9: Connecting supply line to H850 Portable

3. You can now breathe off the H850 Portable as long as there is oxygen in the Reservoir. You can determine the oxygen contents in the Reservoir by pushing the blue button on the Reservoir contents indicator (reference Figure 11). If you get a green light, the level is fine. If the yellow light appears, inform your oxygen supply company.



CAUTION: When the *HELiOS* Reservoir and the H850 Portable are connected, avoid putting the unrolled supply line in places where it might be damaged or tripped over. One sign of damage is frost on the supply line, indicating that a puncture or cut is causing an oxygen leak. If this occurs, disconnect the supply line from the Reservoir.

4. To disconnect the supply line from the H850 Portable, push the release button and gently remove the supply line from the connector.



Note: If you need continuous flow while breathing off the *HELiOS* Reservoir, an external flow control must be used to supply this flow rate. The Puritan Bennett part number for this external flow control is B-701655-00. Contact your home care provider for further details on setup and use. Also, see the section *External Flow Control* in this manual.

Maintenance

Moisture Container

If moisture is collected, empty by pulling out the moisture container and pouring the water into a sink for disposal (Figure 10). To reinstall the moisture container push it into the Reservoir housing until it is held firmly in place. Empty the container when the water reaches the full (1/1) line or water may spill onto your floor.

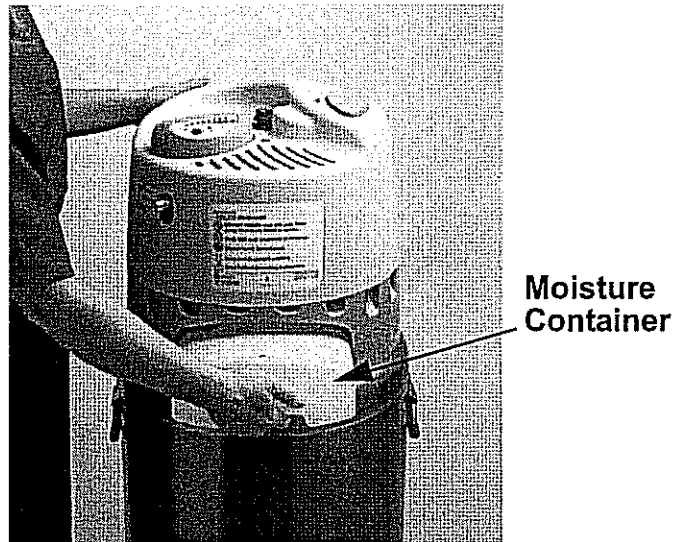


Figure 10: Moisture container

Low Liquid Oxygen Level

To determine the oxygen contents in the Reservoir, push the blue button on the contents indicator (Figure 11). If you get a green light, the level is fine. If the yellow light appears, inform your oxygen supply company.



Figure 11: Checking Reservoir oxygen contents

Low Battery Level

A yellow light appears on the Reservoir contents indicator when the battery needs to be replaced. This should happen rarely. Your oxygen supply company may change your battery at their next visit or if you choose to change the battery, use a coin to open the battery door as shown below (Figure 12). Use only a 9 volt alkaline battery as pictured (Figure 13).



Figure 12: Battery door



Figure 13: Battery replacement

Cleaning

Do not use alcohol, solvents, polishes, or any oily substance on oxygen equipment. If cleaning is necessary, use only warm water and a mild dish washing detergent. Dampen a cloth in the detergent and water solution and wipe the outside surfaces of the equipment until clean.



CAUTION: Do not allow water into any of the controls, the fill connector, or the oxygen supply connector.



CAUTION: Never attempt to repair or disassemble this equipment. You could create a hazardous condition or cause equipment failure. If you have problems, questions, or are unsure if equipment is operating properly, call your liquid oxygen supplier.

Troubleshooting

The following information is intended to help you troubleshoot and solve simple operational problems that you may experience when using your H850 Portable.

1. The H850 Portable does not pulse after filling.

If during the filling process, the H850 Portable is disengaged with the vent valve lever down, pressure may be reduced within the H850 Portable causing a delay in the conserving device function. It may require as much as 60 minutes to restore adequate pressure for accurate oxygen flow. Additionally, improper filling or lower than normal operating pressure in the Reservoir will contribute to the H850 Portable not pulsing.

2. The H850 Portable makes a hissing sound.

Hissing can occur to maintain the correct operating pressure within the H850 Portable. It is most likely to hiss after filling or when the position of the H850 Portable is changed. Hissing can last for approximately 10 minutes after filling. Additionally, it can occur when the flow control valve is at a low setting.

3. Excessive frost and hissing.

- Some hissing and frosting on the H850 Portable is normal. If, however, the hissing sound from the H850 Portable continues after a fill or anytime during usage, combined with excessive frosting on the H850 Portable, stop using the H850 Portable and contact your Homecare Provider.
- Excessive frost formation on the H850 Portable 30 minutes after a fill while the Flow Control knob is in the OFF position may be a result of possible system malfunction. Stop using the H850 Portable and contact your Homecare Provider for service.

4. The H850 Portable stops pulsing during use.

- Ensure that both connections of the dual-lumen cannula are firmly attached to the Oxygen Outlet and Sensor connectors.
- Change the cannula if water droplets are present from humidified exhaled gas. Replacing the cannula with a dry one enhances the ability of the H850 Portable to pulse.
- Ensure that the cannula is not kinked or pinched.
- Ensure that the cannula tips remain in your nostrils and do not slide to one side.
- Ensure that there is oxygen in the H850 Portable.
- With the cannula on, close your mouth and breathe only through your nose to verify that the H850 Portable has stopped pulsing.

5. The H850 Portable does not fill.

- Verify that there is oxygen in the Reservoir. If the Reservoir has a pressure gauge, make sure it reads between 24-psi and 48-psi.
- Ensure that the H850 Portable and Reservoir fill connectors are fully engaged throughout the filling process.

6. The H850 Portable vent valve does not close properly at the end of the filling process.

If the vent valve fails to close and the hissing sound and oxygen vapor cloud continue, carefully remove the H850 Portable by depressing the release button on the Reservoir. Venting from the bottom of the H850 Portable will stop in a few minutes. Keeping the H850 Portable upright, allow it to warm until you can close the vent valve. The H850 Portable may require as much as 60 minutes to restore adequate pressure for accurate oxygen flow. If needed, use an alternate source of oxygen such as a flow control valve attached to the Reservoir.

7. Frost forms on the oxygen supply line connected to the Reservoir.

Frost on the supply line is most likely the result of a leaky connection or a split in the line. If the connection at the Reservoir outlet is leaking, keep tightening the nut until the leak stops. If the supply line is split or damaged, disconnect the line from the Reservoir and contact your home care provider.

8. The H850 Portable does not disengage easily from the Reservoir after filling.



WARNING: Do not bend over the Reservoir fill connector when disengaging the Portable. Contact with liquid oxygen can cause personal injury.

The H850 Portable and Reservoir fill connectors may have become frozen. Do not use force. Allow a few minutes for the frozen parts to warm, then disengage the H850 Portable when the ice has melted. To prevent the Reservoir and H850 Portable from freezing together, always wipe the male fill connector on the Reservoir and the female fill connector on the H850 Portable with a clean, dry, oil-free cloth before filling.

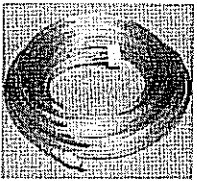
Accessories

The following accessories are available to help you obtain the most benefit from your H850 System.



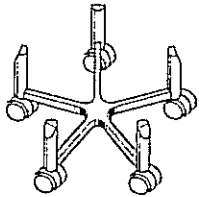
Dual-Lumen Cannula

An oxygen cannula delivers oxygen from the H850 Portable to your nose. The cannula has two connections: One senses when you inhale; the other delivers oxygen to you while you inhale.



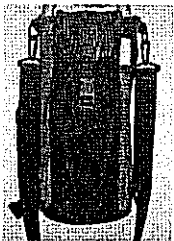
Oxygen Supply Line

The supply line is used to connect your H850 Portable to your Reservoir. When the H850 Portable is connected, the oxygen you breathe comes from the Reservoir. For instructions on how to connect the supply line refer to the section in this manual, *Connecting the H850 Portable to the HELiOS Reservoir*.



Roller Base

The roller base allows the liquid oxygen delivery person to roll the Reservoir to your door before taking it from the house to fill. It is not recommended to patients to roll the Reservoir around frequently in the house. The Reservoir is very heavy and should not be tipped over.



H850 Portable Back Pack

The H850 Portable Back Pack makes it convenient to carry the H850 Portable with you wherever you go.

External Flow Control

An external flow control is available to attach to your HELiOS Reservoir (Figure 14). If your physician determines that you need an external flow control, your oxygen supply company should provide it. It should be attached as shown in the picture below.

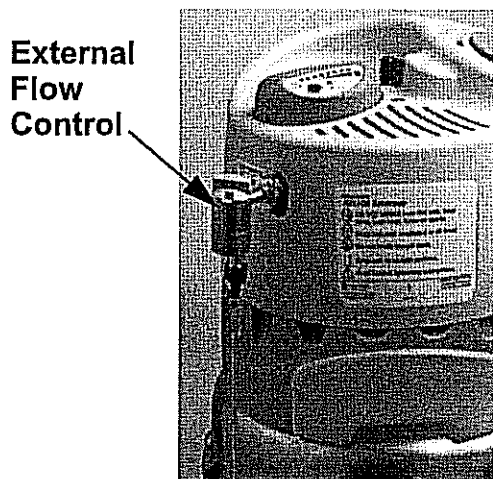
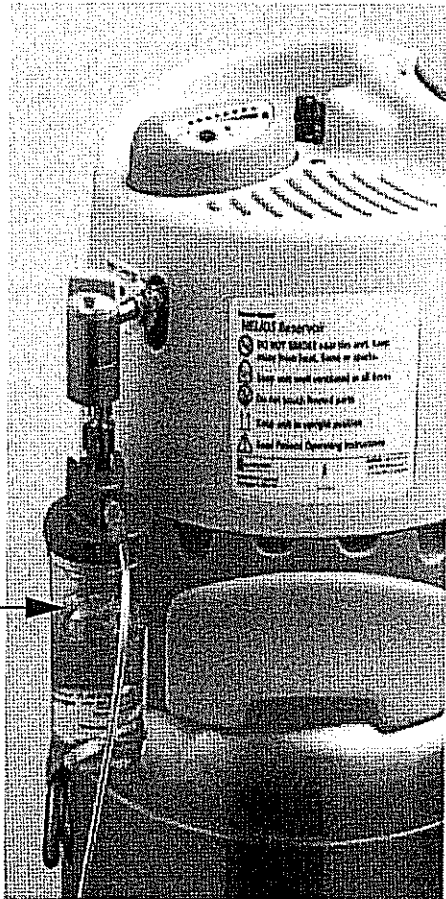


Figure 14: External flow control

You may also be instructed to use a humidifier bottle with an external flow control (Figure 15). When using an external flow control, your oxygen supply company will supply you with a supply line and a single-lumen cannula for use with the Reservoir.



Humidifier
bottle

Figure 15: Humidifier bottle with external flow control



WARNING: An external flow control that can be set higher than 10 L/min should not be attached to your HELiOS Reservoir.

Accessories

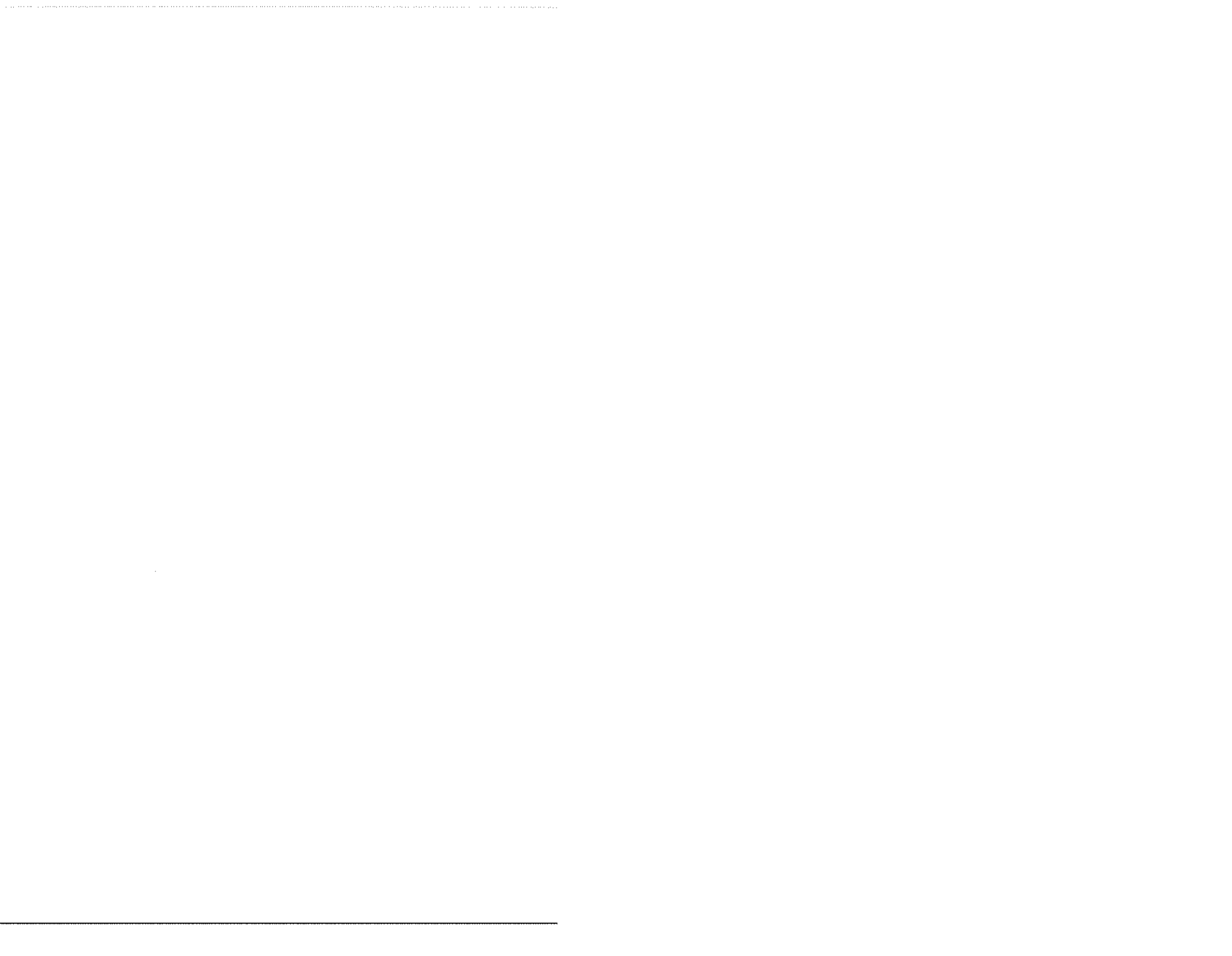
Accessory Part Numbers	Description
B-701511-00	Dual-Lumen Cannula - 3 ft./0.9 m Length (Sense and delivery in each nostril)
6-778058-00	Dual-Lumen Cannula - 5 ft./1.5 m Length (Sense and delivery in each nostril)
6-778057-00	Dual-Lumen Cannula - 7 ft./2.1 m Length (Sense and delivery in each nostril)
B-701931-00	Dual-Lumen Cannula -4 ft./1.2 m Length (Sense and delivery in separate nostrils)
B-701930-00	Dual-Lumen Cannula - 7 ft./2.1 m Length (Sense and delivery in separate nostrils)
B-701656-00	Oxygen Supply Line - 50 ft./15.2 m Length
B-701432-00	Oxygen Supply Line, Extension - 50 ft./15.2 m Length
B-701537-00	Roller Base
B-701655-00	0-10 LPM External Flow Control
069209	Back Pack, H850 Portable

Specifications

Environmental Specifications

Operating: -20 °C to 40 °C (-4 °F to 104 °F)
95% maximum relative humidity

Storage: -40 °C to 70 °C (-40 °F to 158 °F)
95% maximum relative humidity



Important Information About Your Prescription

Your name: _____

Doctor's name: _____

Doctor's phone number: _____

Date your H850 Portable was received: _____

Prescribed oxygen flow setting:

- during sleep
- at rest
- during exercise

Home care company's name: _____

Home care company's phone number: _____

Emergency contact's name: _____

Emergency contact's phone number: _____

Special Instructions:
