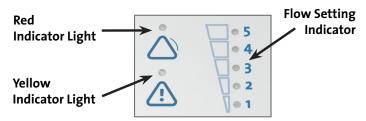
6. Audible and Visual Indicators



The concentrator has an audible alarm and three visual indicators (green, yellow and red).

Notifications

The concentrator monitors various parameters during operation and utilizes an intelligent alarm system to indicate a malfunction of the concentrator.

Mathematical algorithms and time delays are used to reduce the probability of false alarms while still ensuring proper notification of an alarm condition If multiple alarm conditions are detected, the highest priority alarm will be displayed.

To insure that audible notifications may be heard, the operators position must be determined to suit the surrounding noise level.

Note that failure to respond to the cause of an alarm condition for low, medium and high priority alarms potentially will result in discomfort or reversible minor injury only and develop within a period of time sufficient to switch to a backup source of oxygen.

The following notification messages are accompanied by an audible and/or visual indicator.

Indicator	Condition/Action/Explanation	
Flow rate on LED Display	Current flow rate of oxygen being displayed at a setting from 1-5 liters per minute.	
Flow rate indicator	Flow status indicator is green.	
Red Indicator Light	Column maintenance is required within 30 days. Contact your equipment provider to arrange service.	

Low Priority Alarms

The following low priority alarm messages are accompanied by a **double beep** and a **solid yellow light**.

Indicator	Condition	Action/ Explanation
	Low Oxygen	Concentrator is producing oxygen at a slightly decreased level. Contact your equipment provider to arrange service.
$\begin{array}{c} 3 & \bigcirc & \bigcirc & 5 \\ \bullet & & \bigcirc & \bullet \\ \bullet & & & \bullet \\ \bullet & & & 0 \circ 2 \\ \hline & & & & & 0 \circ 1 \end{array}$	Service Needed	The concentrator is operating to specification but requires service at the earliest convenience. Contact your equipment provider to arrange service.
$ \begin{array}{c} 2 & \bigcirc & \bigcirc & 5 \\ \circ & & \bigcirc & 64 \\ \circ & & & \circ & 3 \\ \bullet & & & \circ & 2 \\ \bullet & & & \circ & 1 \\ \end{array} $	Sensor Fail	One of the concentrator's sensors has malfunctioned. If the condition persists, contact your equipment provider to arrange service.
Flow setting flashing \circ \sim \circ	Low Flow	The concentrator is producing oxygen at a slightly decreased rate. If condition persists, contact your equipment provider to arrange service.

Medium Priority Alarms

The following medium priority alarm messages are accompanied by a triple beep, repeated every 25 seconds, and a **flashing yellow light.**

Indicator	Condition	Action/ Explanation
$5 \overset{\circ}{\frown} \overset{\bullet}{\frown} \overset{\bullet}{\bullet} $	Oxygen Error	The concentrator is producing oxygen at a low concentration. Switch to a backup oxygen source and contact your equipment provider to arrange service.
$\begin{array}{c} 4 & \circ \\ & & & & \circ 5 \\ \bullet & & & \bullet 4 \\ \hline & & & \circ 3 \\ \hline & & & & \circ 2 \\ \hline & & & & \circ 1 \end{array}$	Flow Error	Proper oxygen delivery has not been detected. Check for kinked tubing. If condition persists, switch to a backup oxygen source and contact your equipment provider to arrange service.

High Priority Alarms

The following high priority alarm messages are accompanied by a five beep pattern, repeated every 10 seconds and a **flashing yellow light** warning indicating immediate response by the operator is required.

Indicator	Condition	Action/ Explanation
5 °° ••• ••• ••• ••• ••• ••• ••• ••• •••	Fire Hazard	Smoke has been detected inside the device and device is shutting down. Allow the concentrator to air out in a smoke-free environment and restart. If condition persists, switch to a backup source of oxygen and contact your equipment provider.
$4 \overset{\circ}{\underset{\bullet}{\overset{\circ}{\overset{\circ}{\overset{\circ}{\overset{\circ}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}{\overset{\circ}}}{}{}}{\overset{\circ}}{\overset{\circ}}}{}{}}{\overset{\circ}}{$	System Hot	Concentrator temperature is too high for operation. Ensure air intake and outlet vents have clear access and particle filters are clean. Allow the concentrator to cool for 10 minutes and restart. If condition persists, switch to a backup source of oxygen and contact your equipment provider.
$\begin{array}{c} 3 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$	System Cold	Concentrator temperature is too cold for operation. Allow the concentrator to warm up in a room temperature environment for 10 minutes and restart. If condition persists, switch to a backup source of oxygen and contact your equipment provider.
$ \begin{array}{c} 2 & \circ & \circ & \circ & \circ \\ \circ & \circ & \circ & \circ & \circ & \circ \\ \circ & \circ & \circ & \circ & \circ & \circ \\ \circ & \circ & \circ & \circ & \circ & \circ & \circ \\ \circ & \circ \\ \circ & \circ \\ \circ & \circ &$	System Error	Switch to a backup source of oxygen and contact your equipment provider.
Sound indicator only	Power Error	Concentrator lost power during operation. Try unplugging the power cord and plugging it back in. If alarm does not reset, press and hold the power button down for 2 seconds. If condition persists, switch to a backup source of oxygen and contact your equipment provider.

NOTE When power is lost during operation, the buzzer will alarm continuously.

7. Troubleshooting

Contact your home care provider if you need assistance with the device.

Problem	Possible Cause	Recommended Solution
Any problem accompanied by information on concentrator display, visual and/or audible indicators	Refer to Chapter 4	Refer to Chapter 4
Concentrator does not power on when On/Off button is pressed	Power cord is not connected properly	Check power cord for proper connection
	Malfunction	Contact your equipment provider
No oxygen	Concentrator is not powered on	Press On/Off button to power concentrator
	Cannula is not connected properly or is kinked or obstructed	Check cannula and its connection
	The oxygen tubing or cannula is faulty	Inspect and replace the items if necessary

8. Cleaning, Care and Maintenance

Cleaning and Care

Periodically you may clean the outside case using a cloth dampened with a mild liquid detergent (such as Dawn™) and water.

Follow manufacturer's instructions on cleaning and care of concentrator accessories; clean or replace these accessories according to your healthcare provider or respective manufacturer's instructions for use.