

LIBERTY2®

User Manual



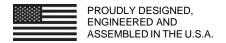
301-0005V & 301-0005VP PORTABLE OXYGEN CONCENTRATOR Oxlife Liberty and Oxlife Liberty2

USER: Read this manual before operating the device and save this manual for future reference.

HEALTH-CARE PROVIDER: This manual must be provided to the end user.







Symbols Reference/Safety Information

Icon	Meaning	lcon	Meaning		
!	Caution represents the possibility of damage to the equipment	<u>^</u>	Warning represents the possibility of harm to the operator or patient		
	No smoking while using or near device	8	Not suitable for use in the presence of a flammable anesthetic mixture		
	No open flames		Do not incinerate battery		
	Indoor Use Only*		Use no grease or oils		
\otimes	Do not disassemble	X	Do not dispose of in household waste		
	Refer to instructions		Keep dry in transport and storage		
i	Electronic instructions for use available		Class II equipment		
∱	Type BF equipment	${R\!\!\!/}_{\!$	Prescription only		
	Recycle battery		Manufacturer		
IP22	Drip proof equipment	===	Direct current		
\sim	Alternating current				

^{*}Refers to AC power supply and DC power cord, not the Oxlife Liberty® device.

Device Symbols

lcon	Meaning	Icon	Meaning
ψ	Power button	(2)	Cell connected
М	Menu button	1	GPS signal
+	Increase flow setting	2	RDM connected (Tech Support Only)
_	Decrease flow setting	-∿∘	Provider Information
58%	Battery charge status	•	Alarm
	AC/DC battery charging indicator	(Breath detection
.al	Cell signal strength	0	Device status
A	Exit		AC/DC power
*	Airplane mode	TECHNOLOGY	Contains Dynamic Network Analysis [®] (DNA) technology
	Device Language		

Specifications

Dimensions				
Device Dimensions	H: 10 in (25.4 cm) W: 9 in (22.9 cm) D: 3.5 in (8.9 cm)			
	Weights			
Device Weight	6.36 lbs. (2.88 kg)			
Battery	1.14 lbs. (0.52 kg)			
AC Charger	1.60 lbs. (0.72 kg)			
DC Charger	0.39 lbs. (0.17 kg)			
	Modes of Operation			
Continuous Mode	301-0005V Five Settings, 0.5 to 1.5 in 0.25 LPM increments.			
	301-0005VP Seven settings, 0.5 to 2.0 in 0.25 LPM increments.			
	Maximum deviation in flow rate is ± 10%. Flow maintained with outlet pressure ranging from 0 to 5.0 psig (0-34kPa)			
Pulse Mode	301-0005V			
	Settings 1 to 9 (160ml to 1500mL/minute)			
	Bolus volumes are in 8mL increments, from 8 to 75mL.			
	301-0005VP			
	Settings 1 to 10 (160ml to 1600ml/minute)			
	Bolus volumes are in 8mL increments, from 8 to 80mL			
	Maximum deviation of volume per breath is ±15% across all environmental conditions.			
Breath Sensitivity	The device will deliver a bolus based on a trigger pressure range of -0.08 to -0.35 cmH2O.			
Battery Specification	Rechargeable 14.4V Lithium-Ion Battery			
External Power Supply Power Input	AC power: 100 - 240 VAC, 50/60 Hz@ 2.5 amps DC power: 11.5-15 VDC; Recommended: 10A outlet at 12V			
Operating Altitude	0-13,123ft or (0-4000m)			

Oxygen Purity	91% ±4% (87 - 95%); Measured purity values are within ±2% of actual values; There is no variation in purity within the operating altitude. This applies to the full range of environmental operating conditions.
Operating Temperature	50°F (10°C) to 104°F (40°C)
Operating Humidity	10% - 95% @ 82.4°F (28°C)
Operating Atmospheric Pressure	1060hPa to 630hPa
Operating Environment	Free of smoke, pollutants, and fumes.
Transport/Storage Temperature	-4°F (-20°C) to 140°F (60°C)
Transport/Storage Humidity	0 -95% non-condensing
Operating Time	24 hours per day when connected to an external AC or DC power source. This is a continuous operation device.
Cannula Specification	DO NOT use cannula tubing longer than 7ft (2.13m) when using Pulse Flow Mode. DO NOT use cannula tubing longer than 50ft (15.25m) when using Continuous Flow Mode.
Sound Level	The volume that the device will reach at maximum settings will be ~ 52.3 dBA. The volume at setting 2 Pulse will be ~ 44.4 dBA.
Alarm Sound Level	All alarms triggered by the device will be 85 dBA or higher at 10cm from the unit.
Maximum Outlet Pressure	Maximum outlet pressure is 7.4 psig (51kPa)
Service Life	Device: 5yrs, Accessories: 1yr

Contraindications

- Under certain circumstances, the use of non-prescribed oxygen therapy can be hazardous. This device should only be used when prescribed by a clinician.
- Not for use in the presence of aerosol sprays or flammable anesthetics.
- Additional monitoring may be required, as appropriate, for use by geriatric, pediatric, or any other patient unable to hear, see or interpret alarms or communicate discomfort.
- ▲ The Oxlife Liberty[®] is not appropriate for any patient who would experience adverse health consequences as a result of a temporary interruption in oxygen therapy.
- The availability of an alternate source of supplemental oxygen is recommended in the case of power interruption or a mechanical failure of the device. Consult your healthcare provider for a recommendation of an alternate source of oxygen.
- ▲ It is the patient's responsibility to arrange for an alternate oxygen supply when traveling. O₂ Concepts® assumes no liability for persons choosing not to adhere to manufacture recommendations.
- Use of the device by patients with tracheotomy, under the recommendation of a qualified clinician, will require the use of appropriate clinical apparatus or attachments.

Indications for Use

The O2 Concepts® Oxlife Liberty® is indicated on a prescription basis for the administration of supplemental oxygen. It is not intended for life support.

Section 2: Safety Guidelines

Device Safety Guidelines

- AVOID EXPOSURE TO OPEN FLAMES OR CREATION OF ANY SPARK NEAR YOUR OXLIFE LIBERTY. THIS INCLUDES SPARKS FROM STATIC ELECTRICITY CREATED BY ANY TYPE OF FRICTION. PROTECT ELECTRICAL POWER CORDS FROM SHARP EDGES TO AVOID ELECTRICAL SHOCK AND SERIOUS PHYSICAL INJURY.
- Locate the Oxlife Liberty® in a well-ventilated area to allow for adequate air intake. Avoid the intake of airborne pollutants, smoke, or fumes. Wind or strong drafts can adversely affect accurate delivery of oxygen therapy.
- Use only approved accessories as specified in this User Manual. Use of non-approved accessories may cause serious damage to the device and will void the warranty.
- Use only parts recommended by the manufacturer to ensure proper function and to avoid the risk of fire and burns.
- Incompatible parts or accessories can result in degraded performance.
- Locate oxygen tubing and power cords away from hot surfaces and in a manner to prevent tripping hazards.
- DO NOT modify the device. Any modifications made to the device may impair performance or damage equipment and will void the warranty.
- DO NOT operate the device in an enclosed space, such as a closet, as it will impair device function.
- DO NOT cover the device or block the side vents or the exhaust ports located on the bottom of the device as it may impair device function.
- DO NOT drop or insert any objects or liquid into any opening.
- **DO NOT** leave your Oxlife Liberty® or batteries in your vehicle or trunk. Extreme heat or cold may damage your device and/or batteries.
- DO NOT ship the Oxlife Liberty® with the battery installed. Batteries must be shipped separately and packaged appropriately to avoid damage.
- Meep the device away from potential household pests to avoid infestation that will impair device performance and will void the warranty.

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 - (1) This device may not cause harmful interference, and
 - (2) This device must accept any interference received, including interference that may cause undesired operation.
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 12 inches (30cm) to any part of the Oxlife Liberty[®] including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
- Use of accessories, transducers, or cables other than those specified by O₂ Concepts[®] could result in increased electromagnetic emissions or decreased electromagnetic immunity of the device and result in improper operation.
- Use of the device adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, the device as well as other stacked equipment should be observed to verify that they are operating normally.
- The device is suitable to use in a CISPR 11 Group 1 Class B environment for radiated emissions.

Patient Safety Guidelines

- M DO NOT SMOKE WHILE USING THIS DEVICE. KEEP ALL MATCHES, LIT CIGARETTES, CANDLES, OR OTHER SOURCES OF IGNITION AT LEAST 10 FEET FROM THE DEVICE. THIS DEVICE PRODUCES ENRICHED OXYGEN GAS WHICH ACCELERATES COMBUSTION.
- A PRESCRIBED MODE AND FLOW SETTINGS SHOULD ONLY BE ADJUSTED UNDER THE ADVICE OF A PHYSICIAN.
- Outdoor use must be conducted using battery power.
- Monitor children and pets when in proximity to the device.
- Keep cannula tubing away from children and pets to avoid danger of choking or strangulation.
- If you feel discomfort or are experiencing a medical emergency while undergoing oxygen therapy, seek medical assistance immediately to avoid harm.
- **DO NOT** use the device with a damaged power cord or plug to avoid injury.
- ▲ DO NOT operate the device on wet surfaces or in standing water, and do not submerge or expose to water or precipitation to avoid serious injury or damage to the device. If the Oxlife Liberty® has been dropped, damaged, or exposed to water please contact your authorized dealer or healthcare provider for inspection and possible service of the device.
- DO NOT come in contact with the device when wet to avoid serious injury or the chance of shock.
- Use only water-based lotions or salves that are oxygen compatible before and during oxygen therapy. DO NOT use oil, grease, or petroleum-based products on or near the device to prevent accidental ignition.
- DO NOT lubricate fittings, connections, tubing or other accessories to avoid the risk of fire and burns.
- **DO NOT** use the device with an extension cord.
- Open flames during oxygen therapy are dangerous and are likely to result in fire or death. DO NOT allow open flames within ten (10) feet (3m) of the oxygen concentrator or any oxygen carrying accessories.
- Oxygen makes it easier for a fire to start and spread.

- ▲ DO NOT leave the nasal cannula or mask on bed coverings or chair cushions. If the oxygen concentrator is turned on, but not in use, the oxygen will make the materials flammable. Turn the oxygen concentrator off when not in use to prevent oxygen enrichment.
- ▲ SMOKING DURING OXYGEN THERAPY IS DANGEROUS and is likely to result in facial burns or death. DO NOT allow smoking within the same room where the oxygen concentrator or any oxygen carrying accessories are located. If you intend to smoke, you must always turn the oxygen concentrator off, remove the cannula and leave the room where the oxygen concentrator is located. If you are unable to leave the room, you must turn the oxygen concentrator off and remove the cannula before smoking.
- To ensure you are receiving the therapeutic amount of oxygen according to your medical condition, the Oxlife Liberty® must be used only after one or more settings have been individually determined or prescribed by a physician for you at your specific activity levels. The Oxlife Liberty® must be used with the specific combination of parts and accessories that were used while your settings were determined.
- Replace cannula as recommended by the cannula manufacturer. Cannulas may become contaminated with body fluids or expired gases during use.
- Use of this device outside of the stated altitude, temperature or humidity ranges is expected to adversely affect the flowrate and the percentage of oxygen and, consequently, the quality of oxygen therapy.

Battery and Power Supply Safety Guidelines

- Use of non-approved battery or power supply may cause serious damage to the device and will void the warranty.
- Store the battery in a cool dry place when not in use to enhance battery life.
- Remove the battery from the device if it will not be used for an extended period of time to enhance battery life.
- Locate the external power supply in the open air to prevent overheating when in use.
- U.S. Department of Transportation (DOT) and United Nations (UN) regulations require that the battery be removed from the device when checked as luggage on international flights.
- The battery may explode if exposed to or disposed of in a fire.
- Meep the battery away from children to prevent injury.
- DO NOT drive over, drag or place objects on the power cords to avoid damage.
- Use of a frayed or damaged AC or DC power supply cable may compromise basic safety with regard to the electromagnetic disturbances over the expected service life.
- DO NOT attempt to disassemble the battery or power supply. Doing so will void the warranty and may cause personal injury.
- DO NOT use the battery or power supply for anything other than its intended purpose. Doing so may damage the device or cause personal injury.
- DO NOT drop the battery or expose it to mechanical shock. If the battery is damaged, discontinue use and dispose of it properly to avoid personal injury.
- DO NOT expose the battery to water or other liquids. If the battery gets wet, discontinue use and dispose of it properly to avoid personal injury.
- DO NOT expose the battery to excessive heat or cold outside of specifications as it may affect performance.
- Use caution when handling the DC plug adapter. This plug may get hot with use. Ensure DC plug socket is clean of debris which may cause overheating.

Section 3: Product Description

Device and Accessories

- The use of certain humidifiers and administration accessories not specified for use with this oxygen concentrator may impair performance. Your physician, healthcare provider or authorized dealer will recommend the proper accessories for your use.
- Your physician, healthcare provider or authorized dealer will recommend the proper cannula for your use. Ensure that the selected cannula is compliant to ISO 80601-2-69 Medical Electrical Equipment, Particular requirement for basic safety and essential performance of oxygen concentrator equipment.
- The configuration of the equipment and accessories must be determined for each individual patient.

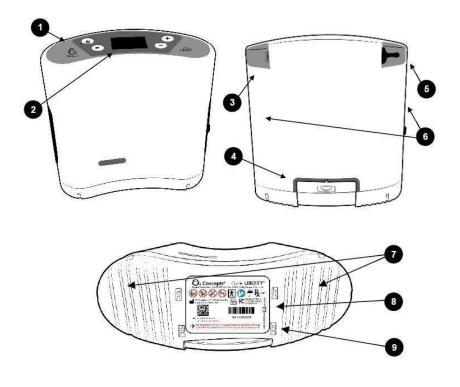
This manual applies to the following accessories:

- > Battery
- > AC Power Supply
- > DC Power Cord
- Accessory Bag
- Carry Bag
- > Cannula (not included)

This manual does not apply to the following accessory items sold separately:

> Desktop Battery Charger

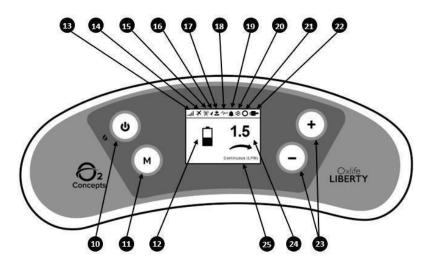
Feature Identification



- 1. Control Panel
- 2. LCD Display
- 3. External Power Input
- 4. Rechargeable Battery
- 5. Oxygen Outlet Port

- 6. Side Vents
- 7. Exhaust Ports
- 8. Device Serial Number
- 9. FAA Approval Statement

Understanding the Control Panel



- 10. Power Button
- 11. Mode Button
- 12. Battery Status/Battery Charging Indicator
- 13. Cell Signal Strength
- 14. Airplane Mode
- 15. Cell Connected
- 16. GPS Signal
- 17. RDM Connected (Tech Support Only)
- RDM Mode
 (Tech Support Only)

- 19. Alert/Alarm Indication
- 20. Breath Detection
- Green Status Circle Open circle during warm-up. A Filled circle indicates flow and purity are within specifications.
- 22. External Power Source
- 23. Increase/Decrease & Scroll Buttons
- 24. Device Setting
- 25. Mode Setting

Section 4: Operating Instructions

Before Operating

Your authorized dealer or healthcare provider has demonstrated the proper operation of your Oxlife Liberty[®]. This manual provides product information and operating instructions and should be saved for future reference to help you safely operate your device. If you have any further questions, contact your authorized dealer or healthcare provider.

This equipment must be placed into service in accordance with the information provided in the accompanying documents.

DO NOT operate the Oxlife Liberty[®] without first reading the Safety Guidelines included in **SECTION 2** of this manual.

Please follow all operating instructions.

Before each use, ensure that side vents are clean and in place and that cannula and power cord connections are intact.

If you are relocating your Oxlife Liberty® from an extreme environment, allow the device to return to the specified operating temperature and humidity ranges before use.

Operating your device outside of specified ranges may damage your device, impact device performance and may void your warranty.

See Operating Temperature and Humidity Ranges listed in the Specification Table.

Fully charge battery before first use.

The essential performance of the Oxlife Liberty® is to produce 91% ±4% oxygen at all continuous settings and pulse flow settings.

Locating Your Device

Place the Oxlife Liberty[®] in a well-ventilated area free of smoke, fumes, pollutants, and away from direct sunlight. Avoid high humidity environments.

Ensure side vents and exhaust ports are not obstructed.

Proper placement and positioning of the device is critical to the effectiveness of the oxygen therapy.

The Oxlife Liberty® MUST be located so that alarms can be heard.

Position the oxygen supply tubing and power cords in a manner that prevents kinking, air flow obstructions, and tripping hazards.

DO NOT operate the device in an enclosed space, such as a closet.

DO NOT locate the Oxlife Liberty[®] near any flammable materials or cleaning product or in the direct path of any heat source such as a stove, heat register or a car heater. Keep the Oxlife Liberty[®] at least 10 feet (3m) from hot sparking objects or open flame.

Device Settings

Turn the device on by pressing the Power button. **U**

Press the Mode button M to select Continuous or Pulse Mode.

Press the Increase + or Decrease - buttons to select the desired flow rate.

Turn the device off by pressing the Power button. •



When the device is powered on it will enter a five (5) minute warm-up period to reach desired performance. The warm-up period is indicated on the display screen by a green ring that becomes a green circle once warm up is complete.

THE PROPER FLOW MODE AND FLOW RATE ARE PRESCRIBED BY YOUR PHYSICIAN. DO NOT CHANGE THESE SETTINGS WITHOUT CONSULTING YOUR PHYSICIAN.

PULSE MODE SHOULD ONLY BE USED UNDER THE DIRECTION OF YOUR PHYSICIAN. APPROPRIATE AND SAFE PULSE MODE SETTINGS MUST ACCOMMODATE THE INDIVIDUAL PATIENT'S LIFESTYLE INCLUDING REST, TRAVEL AND EXERCISE.

DEVICE OXYGEN DELIVERY SETTINGS SHOULD BE PERIODICALLY REASSESSED FOR THE EFFECTIVENESS OF THE OXYGEN THERAPY.

The patient is the intended operator.

Consult your healthcare provider if you are feeling unwell, which may indicate too much or too little oxygen. These side effects are not immediate or life threatening.



Continuous (LPM)

CONTINUOUS MODE

In Continuous Mode the device will deliver a continuous flow of oxygen through the nasal cannula. The oxygen is measured in Liters per Minute or LPM.

Pulse

PULSE MODE

In Pulse Mode the device will detect your breath and deliver a measured pulse of oxygen or bolus through the nasal cannula. The breath detect icon will flash on the control panel with each breath.

Pulse Mode Bolus Volumes (mL)

Breaths per Minute	1	2	3	4	5	6	7	8	9	10*
15	8.0	16.0	24.0	32.0	40.0	48.0	56.0	65.0	75.0	80.0
20	8.0	16.0	24.0	32.0	40.0	48.0	56.0	65.0	75.0	80.0
25	6.4	12.8	19.2	25.6	32.0	38.4	44.8	52.0	60.0	64.0
30	5.3	10.7	16.0	21.3	26.7	32.0	37.3	43.3	50.0	53.3
35	4.6	9.1	13.7	18.3	22.9	27.4	32.0	37.1	42.9	45.7
40	4.0	8.0	12.0	16.0	20.0	24.0	28.0	32.5	37.5	40.0

^{*}Pulse Mode setting 10 available with the Liberty2 device.

Pulse Mode No Breath Detection

When the device has not detected a breath for 45 seconds, the screen will turn amber, sound a 3-beep sequence and the text "No Breath" will flash on the screen. If the device does not detect a breath after an additional 15 seconds, the device will beep once and switch to Continuous Mode.

No Breath Detection Recovery

While in this condition, the breath detection icon on the top of the screen will turn red. The device will check for inspiration for 20 seconds every 15 minutes. If a breath is detected, the device will return to the last Pulse Mode setting. If no breath is detected, the device will stay in Continuous Mode and check for inspiration every 15 minutes.

The device will return to the last Pulse Mode setting at next power up or if the power source is changed.

Installing and Removing the Battery

To install battery, align battery with battery slot in device and slide until battery clicks into place.

To remove battery, depress button and slide battery toward you.

- Turn off the device before removing the battery.
- DO NOT use the Oxlife Liberty® without a battery installed.



Typical Battery Operation Times

Continuous Mode Settings	Operating Time/Hours
0.5	3.25
0.75	2.5
1.0	2
1.25	1.75
1.5	1.5
1.75*	1.25
2.0*	1
Pulse Mode Settings	Operating Time/Hours
1	4.5
2	4
3	3.5
4	3
5	2.5
6	2
7	1.75
8	1.75
9	1.25
10*	1.25

*Continuous Mode settings 1.75 and 2.0 and Pulse Mode setting 10 are available with the Oxlife Liberty2 device.

Battery operating times are based on a new, fully charged battery and are ± 10%.

Battery operating time will degrade with battery age, number of charge cycles and operating environment.

Battery Time Management

The Oxlife Liberty[®] is equipped with a rechargeable lithium-ion battery that is not user serviceable.

The battery will degrade over time from standard use. The rate of such degradation is dependent upon the frequency of operation of the device under battery power as well as the frequency and length of associated battery charging cycles.

The manufacturer recommends that the user regularly monitor battery performance by viewing the battery charge level indicator on the battery and the device display. Batteries should be replaced at least every two years.

With the combined use of the battery, AC power supply, and DC power cord you may extend your time away from home. Using the AC and DC power cords whenever possible will improve battery life. The battery will charge in the device, when plugged into an external power source.

Battery Charge Status is displayed on the control panel. As the charge level increases on the battery, the battery icon will turn solid in proportionate levels. When the battery is fully charged (over 95%) the battery icon will appear solid.

The Oxlife Liberty® battery includes a battery charge status indicator located on the front of the battery. Simply press the "PUSH" button on the battery to display the remaining battery life in 25% increments.



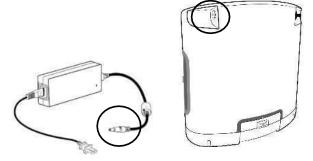
The typical time to recharge a fully discharged battery is under 2.5 hours with the device plugged into the AC power supply and powered off. Battery charge times while the device is running will vary depending on elected setting.

To maximize battery life:

- > Store battery in a cool, dry place when not in use. Store battery with at least 50% capacity remaining.
- If using multiple batteries, uniquely label each battery to ensure each battery is rotated equally.
- > Charge batteries every three (3) months when not in use.

There is no routine maintenance or service required for the Oxlife Liberty® rechargeable batteries other than the periodic replacement as described above.

AC Power Supply



- Use only the AC power supply (800-1083) provided with this device. Use of power cords not supplied by O₂ Concepts[®] may cause overheating or damage to the device and will void the warranty.
- The power supply is not water resistant.
- DO NOT place anything in the power supply port other than the supplied AC or DC power cords.
- Ensure the power supply is in a well-ventilated area. The power supply may become hot during operation. Allow the power supply to cool before handling.

The AC power supply consists of the following components:

- > Power supply with attached power supply cable to connect to the device.
- > AC power input cable

When powered on, the green LED on the power supply will be illuminated.

The AC power supply charges the battery using a 100-240V 50/60 Hz outlet (a typical wall outlet in your home). The AC power supply allows use of your Oxlife Liberty® while simultaneously charging the battery.

To use the AC power supply, connect the power cord to the AC power converter (brick). Connect the power supply to a wall outlet and then to the Oxlife Liberty[®]. The external power icon will be displayed on the control panel.

The AC power supply will charge the battery at all settings.

Recommendation for Use

Do not use electrical outlets controlled by a switch.

When changing power sources, wait for the control panel to display the new power icon and the unit to beep before removing the original source.

The detachable power supply cord to the power supply is the means of isolating the unit from the power supply main.

If the AC power supply is removed from the device, wait 10 seconds before re- applying power.

When traveling internationally, a standard, applicable, international power plug adapter will be required.

DC Power Cord



The DC power cord allows use of your Oxlife Liberty[®] device from a vehicle's 12-volt DC outlet in all settings while the vehicle is running. A 12-volt, 15-amp outlet is recommended for use with the device. The external power source icon will be displayed on the control panel. DC power is not sufficient to rapid charge the battery at all settings. Details on battery charging speeds are provided per settings below.

Device Settings	Flow Mode	Battery Charging Speed
0.5 – 1.0	Continuous	
1 – 4	Pulse	Rapid Charge
1.25 – 1.5	Continuous	
5 – 10	Pulse	Trickle Charge
1.75 – 2.0	Continuous	No Charge

Each vehicle's DC power outlet varies in specifications and performance. Moreover, such performance may be adversely impacted by one or more applications simultaneously drawing DC power (e.g., cell phones, media players, other electrical systems in the vehicle). In addition, DC power may fluctuate more significantly in stop and go driving conditions.

If your vehicle's DC voltage output drops below device power requirements, the device will alert. In this condition, the device's performance should be monitored. A flow setting reduction may improve DC performance. If a vehicle's DC voltage output continues to decrease, the device will alarm and then shut down. Switch to battery power to continue using your device.

Use only the DC power cord (800-1079) provided with this device. Use of power cords not supplied by O2 Concepts may cause overheating or damage to the device and will void the warranty.

Recommendations for Use

When operating the Oxlife Liberty[®] in your vehicle, ensure that the device is securely stowed and will not get damaged during transport.

Ensure that side vents and exhaust ports are not blocked.

The battery may not charge at any setting if the engine is not running.

Use the DC outlet closest to the car battery.

DO NOT leave the device plugged into the vehicle when the engine is not running.

DO NOT use the Oxlife Liberty® with any power splitting devices.

DC Power Cord User Information Guide

Starting the device on DC power

- ALWAYS have the vehicle's engine running BEFORE plugging in your Oxlife Liberty[®].
- Plug DC power cord into the device **BEFORE** plugging into the vehicle's DC outlet.
- 3. Plug DC power cord into the vehicle's DC outlet.
- 4. Remove the DC power cord from the vehicle's DC outlet when the engine is not running.

Disconnecting the device from DC power

 When the device is OFF, disconnect the DC power cord from the vehicle's DC outlet.

The device will beep once and switch to internal battery power.

DC Power Cord Troubleshooting Guide

Event	Solution
Battery Not Charging	 Reduce the device mode to the lowest setting on either Pulse or Continuous mode and wait for charging icon to appear. Slowly increase settings to determine if charging can be achieved at prescribed setting. Each vehicle's DC power performance varies and may limit achieving the desired flow rate. Refer to DC Power Cord pg. 31 for further details on how charging occurs at different flow settings.
Depleted Battery Charging	A fully depleted battery may not begin charging unless the device is powered off. The lightning bolt may not display initially in the battery icon until the battery has charged to a minimum level.
Device Alerting / Beeping Intermittently	 Occurs when the DC voltage supplied by the vehicle drops in and out of the minimal DC input threshold required for device use. Using a lower flow setting* may improve DC outlet performance.
Low External Power Alarm	 To reduce potential device shut down on DC power, eliminating other sources of power draw can improve performance. Examples of electrical systems that draw power away from the DC outlet include air conditioning. Using a lower flow setting* may improve DC outlet performance. Check your vehicle's user manual or consult an auto technician to determine if your vehicle's DC power amperage and wattage are sufficient. The device requires 12 volts (10 amps) to power reliably at all settings.

^{*} Consult your healthcare provider for advice on changing settings.

Carry Bag

The Oxlife Liberty® carry bag provides protection and allows you to easily take your device with you for your daily activities.

Always use your Oxlife Liberty® in the supplied carry bag.

Check that the adjustable shoulder strap is secure, and the battery access zipper is closed before each use.



The Oxlife Liberty[®] is inserted into the carry bag from the bottom zippered section of the carry bag.

Ensure that side vents are aligned with the openings in the carry bag and access zipper is closed.

The battery can be accessed via the zipper without removing the device from the carry bag.

The carry bag is designed with an external pocket to carry your Oxlife Liberty® accessories or an additional battery.

Accessory Bag

The Accessory Bag is designed to carry your Oxlife Liberty® accessories including the AC power supply, DC power cord and extra batteries.



Cannula Use

- Your physician, healthcare provider or authorized dealer will recommend the proper cannula for your use.
- Ensure selected cannula is compliant to ISO 80601-2-69 Medical Electrical Equipment, particular requirement for basic safety and essential performance of oxygen concentrator equipment.



- Use of a cannula not specified for use with oxygen may impair the performance of your device.
- ▲ **DO NOT** use cannula tubing longer than 7 feet (2.13m) in Pulse Flow Mode.
- DO NOT use cannula tubing longer than 50 feet (15.25m) in Continuous Flow Mode.
- A single lumen nasal cannula rated at 6 liters per minute is required to ensure proper oxygen delivery.
- To ensure proper oxygen flow, confirm that the cannula is not pinched or blocked in any way.
- The cannula fitting may be tight.
- DO NOT use grease or oils to lubricate the oxygen outlet port.

Read and follow the instructions included with the cannula and provided by your authorized dealer.

Regularly clean and replace your cannula as instructed by the manufacturer and authorized dealer or healthcare provider.

O₂ Concepts[®] recommends the following cannulas by Salter Labs:

For Pulse Mode Use: 7ft (2.13m) cannula: Part #16SOFT-7, or equivalent.

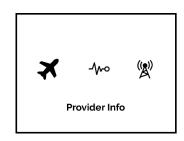
For Continuous Mode Use: 50ft (15.25m) cannula: Part #OTC-203-50, or equivalent.

Accessing the Menu Screen

The provider screen shows information about the device's status and run hours.

To access the Menu screen:

- > Press the Mode (M) and Minus (-) buttons simultaneously.
- > Press the Plus (+) button or Minus (-) button to scroll through the screen options.
- To enter and exit a screen, press the Mode (M) button.
- > Select the icon to enter the provider screen.



Run Hours:

The run hours are the total life hours the device has run.

(Example: Run Hrs: 69, where the device has been run a total of 69 hours)

SN:0097640001 08/18/22 11:27:19 Ver:4.27/4/6 Run Hrs: 69 D:4/0:200 R:0/0:0 Sg:22 T B1:46 M:47 B:33 O2:32 B1:21mA 8% 920 5

VIN:23.8 23.7 AlrmNone Cell:Connected Mode:[cont] Flow: 1.8 Pur:91 O2:0% PR:0 PF:0.0 -4:00:00 1/1

Voltage In:

Voltage In is the voltage that the device is receiving from an external power source such as the AC power supply or DC power cord.

(Example: VIN: 23.8 where 23.8 is in volts)

SN:0097640001 08/18/22 11:27:19 Ver:4.27/4/6 Run Hrs: 69 D:4/0:200 R:0/0:0 Sg:22 T B1:46 M:47 B:33 O2:32 B1:21mA 8% 920 5

VIN:23.8 23.7 AirmNone Cell:Connected Mode:[cont] Flow: 1.8 Pur:91 O2:0% PR:0 PF:0.0 -4:00:00 1/1

Cell Status and Signal Strength:

The cell status is listed in the eighth row. (Example: Cell: Connected)

The cell signal strength is listed in the third row on a scale of 0 - 31. (Example: Sg:22)

SN:0097640001 08/18/22 11:27:19 Ver:4.27/4/6 Run Hrs: 69 D:4/0:200 R:0/0: Sg:22 T B1:46 M:47 B:35 U2:32 B1:21mA 8% 920 5 VIN:23.8.23.7 ArmNone Cell:Connected Mode:[cont] Flow: 1.0 Pul:91 O2:0% PR:0 PF:0.0 -4:00:00 1/1

Changing Device Language

Device language is available in English, French, German, Italian and Spanish.

To change device language:

- > Press the Mode (M) and Minus (-) buttons simultaneously to access the Menu screen.
- > Press the Plus (+) button to scroll to the language icon (\(\pi\)).
- > Press the Mode (M) button and the current language will be displayed.
- > Press the Plus (+) button to scroll through the language choices.
- > Press the Mode (M) button to select language and then the Plus (+) button to confirm.

Section 5: User Alerts and Alarms

The functionality of the alarm system is verified automatically by the unit upon start up by the unit flashing three (3) visual display colors and audible indicators. There will be delays that are greater than ten (10) seconds inherent to specific alarms, and these delays are explained in detail for each alarm in the following tables. To ensure that audible alarm notifications are heard, the maximum distance the user can be from the device is dependent on surrounding noise levels. When two alarm conditions occur at the same time, the higher priority condition will be displayed.

Indefinite Acknowledge (Alarm Mute)

In an alert or alarm condition, pressing the power button momentarily will put the device into an indefinite acknowledge state or alarm mute. In this state, the alarm will be silenced, and the screen will stop flashing. The device will stay in this state until powered off or until a higher-priority alarm is activated.

DO NOT IGNORE ALERTS OR ALARMS

Alarm and Alert Screen Descriptions



The LCD screen will be RED in Alarm Mode

Low Purity Alarm When oxygen levels drop below 72% for 60 seconds, (technical) the screen will flash red, sound a 10-beep sequence (high priority) repeated after 2.5 seconds of silence and the text "Low Purity" will flash on the screen. The alarm will continue to sound until the power button is pressed momentarily to silence the audio; or the power button is held to power off the unit: or 15 seconds has expired at which time the device will power off. Solutions Clean or replace side vents. Change to another source of oxygen and contact your authorized dealer. **Low Battery Alarm** When battery power is depleted, the pump shuts off, the (technical) screen will flash red at 2Hz, sound a 10-beep sequence repeated after 2.5 seconds of silence and the text "Low (high priority) Battery" will flash on the screen. The alarm will continue to sound until the power button is pressed momentarily to silence the audio; or the power button is held to power off the unit; or 15 seconds has expired at which time the device will power off. Plug into an external power source. Replace depleted Solutions battery with a charged battery.

Low External Power Alarm (technical) (high priority)

When the voltage from an external power source falls below 10 volts (as measured by the device internally), the screen will flash red at 2Hz, sound a 10-beep sequence repeated after 2.5 seconds of silence and the text "Low External Power" will flash on the screen.

The alarm will continue to sound until the power button is pressed momentarily to silence the audio; or the power button is held to power off the unit; or 15 seconds has expired at which time the device will power off.

Solutions

Ensure all charging connections are intact.
Ensure the battery is installed.
Refer to the DC user guide section of this manual.
Change to another source of power and contact your authorized dealer.

Unauthorized Battery Alarm (technical) (high priority)



If the device detects that a battery other than an Oxlife Liberty® battery has been installed in the device, the battery icon will show an exclamation point within the battery outline. If no other power source is present, the screen will flash red at 2Hz, sound a 10-beep sequence repeated after 2.5 seconds of silence and the text "Unauthorized Battery" will flash on the screen. The alarm will continue to sound until the power button is pressed momentarily to silence the audio; or the power button is held to power off the unit; or 15 seconds has expired at which time the device will power off.

Solutions

Remove unauthorized battery and replace with an authorized Oxlife Liberty® battery.

Over Temperature Alarm

(technical) (high priority)



Over Temperature

will power off.

The maximum operating temperature of the enclosure and pump is 70°C. If either of these component temperatures are reached for 15 seconds, the screen will flash red at 2Hz, sound a 10-beep sequence repeated after 2.5 seconds of silence and the text "Over Temperature" will flash on the screen.

The alarm will continue to sound until the power button is pressed momentarily to silence the audio; or the power button is held to power off the unit; or 15 seconds has expired at which time the device

Solutions

Relocate the device to improve airflow or to a cooler environment and allow the device to reach operating temperature. Utilize an alternate source of oxygen if necessary and contact your authorized dealer.

Invalid Motor Temperature Alarm (technical) (high priority)



When the motor temperature is out of a valid range for 15 seconds, the screen will flash red at 2Hz, sound a 10-beep sequence repeated after 2.5 seconds of silence and the text "Invalid Motor Temperature" will flash on the screen. The alarm will continue to sound until the power button is pressed momentarily to silence the audio; or the power button is held to power off the unit; or 15 seconds has expired at which time the device will power off.

Solutions

Relocate the device to improve airflow or to a cooler environment and allow the device to reach operating temperature. Utilize an alternate source of oxygen if necessary and contact your authorized dealer.

Invalid Box Temperature Alarm (technical)

(high priority)



When the internal box temperature is out of a valid range for 15 seconds, the screen will flash red at 2Hz, sound a 10-beep sequence repeated after 2.5 seconds of silence and the text "Invalid Box Temperature" will flash on the screen. The alarm will continue to sound until the power button is pressed momentarily to silence the audio; or the power button is held to power off the unit; or 15 seconds has expired at which time the device will power off.

Solutions

Relocate the device to improve airflow or to a cooler environment and allow the device to reach operating temperature. Utilize an alternate source of oxygen if necessary and contact your authorized dealer.

Invalid Flow Alarm (technical) (high priority)



When the pulse volume is out of a valid range by 15% for 60 seconds the screen will flash red at 2Hz, sound a 10-beep sequence repeated after 2.5 seconds of silence and the text "Invalid Flow" will flash on the screen. The alarm will continue to sound until the power button is pressed momentarily to silence the audio; or the power button is held to power off the unit; or 15 seconds has expired at which time the device will power off.

Solutions

Check cannula connection. Repair or replace tubing. Clean or replace side vents. Move device to ensure adequate air flow. Ensure device is oriented for operation, vertically with display visible or horizontally. Change to another source of oxygen and contact your authorized dealer.

No Flow Alarm (technical) (high priority)	When the flow of oxygen is stopped for 45 seconds, the screen will flash red at 2Hz, sound a 10-beep sequence repeated after 2.5 seconds of silence and the text "No Flow" will flash on the screen. The alarm will continue to sound until the power button is pressed momentarily to silence the audio; or the power button is held to power off the unit; or 15 seconds has expired at which time the device will power off.
Solutions	Check cannula connection. Repair or replace tubing. Clean or replace side vents. Move device to ensure adequate air flow. Change to another source of oxygen and contact your authorized dealer.

DO NOT IGNORE ALERTS OR ALARMS

Alerts



The LCD screen will be AMBER in Alert Mode

No Breath Alert (technical) (low priority)	When the device has not detected a breath for 45 seconds, the screen will turn amber, sound a 3-beep sequence and the text "No Breath" will flash on the screen. If the device does not detect a breath after an additional 15 seconds, the device will beep once and switch to Continuous Mode. While in this condition, the breath detection icon on the top of the screen will turn red. The device will check for inspiration for 20 seconds every 15 minutes. If a breath is detected, the device will return to the last Pulse Mode setting. If no breath is detected, the device will stay in Continuous Mode and check for inspiration every 15 minutes. The device will return to the last Pulse Mode setting at next power up or if the power source is changed.
Solutions	Check the cannula for kinks or obstructions. Ensure patient is breathing through their nose.
Low Purity Alert (technical) (low priority)	When oxygen levels drop below 85% for 60 seconds, the screen will turn amber, sound one beep every 30 seconds and the text "ALERT Low Purity" will flash on the screen. Pushing the Power button once momentarily silences the alert.
Solutions	Clean or replace side vents. Contact your authorized dealer.

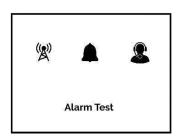
	,
Low Battery Alert (technical) (low priority)	When calculated battery run time reaches 6 minutes remaining, the screen will turn amber, sound one beep every 30 seconds and the text "ALERT Low Battery" will flash on the screen. Pushing the Power button once momentarily silences the alert.
Solutions	Connect to an external power source. Replace depleted battery with a charged battery.
Unauthorized Battery Alert (technical) (medium priority)	If the device detects that a battery other than an Oxlife Liberty® battery has been installed in the device, the battery icon will show an exclamation point within the battery outline. The device will continue to run if AC or DC power is present. The screen will turn amber, sound a 3-beep sequence repeated after 15 seconds of silence and the text "Unauthorized Battery" will flash on the screen. Pushing the Power button once momentarily silences the alert.
Solutions	Remove unauthorized battery and replace with an authorized Oxlife Liberty® battery.
Low External Power Alert (technical) (medium priority)	When the voltage from an external power source falls to 10.5 volts or less (as measured by the device internally) for 3 seconds, the screen will turn amber, sound a 3- beep sequence repeated after 15 seconds of silence and the text "ALERT Low Ext Power" will flash on the screen. Pushing the Power button once momentarily silences the alert.
Solutions	Ensure all charging connections are intact. Ensure the battery is installed. Refer to the DC user guide section of this manual. Change to another source of power and contact your authorized dealer.

DO NOT IGNORE ALERTS OR ALARMS

Alarm System Test

Use this test to verify that the alarm system is working properly. This test includes screen color, screen flashing sequence, and audible alarm sequence. Follow the steps in the procedure listed below.

- Simultaneously press the Mode (M) button and Minus (-) button to enter the Menu screen.
- Press the Plus button (+) or Minus button (-) to scroll to the Alarm Test icon.
- > Press the Mode button (M) to select Alarm Test.

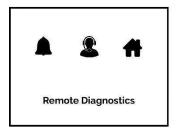


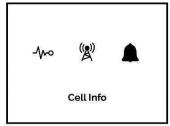
The system will begin by testing the High Priority Alarm. The High Priority Alarm consists of a 10-beep sequence separated by 2.5 seconds of silence and the LCD screen flashes red. The alarm symbol will appear on the screen.

The device will automatically enter the Medium Priority Alarm test once the High Priority Alarm sequence has concluded. Pressing the Mode (M) button while the High Priority Alarm test is in progress will terminate the High Priority Alarm test and start the Medium Priority Alarm. The Medium Priority Alarm consists of a 3-beep sequence separated by 15 seconds of silence and the LCD screen will flash amber. The alarm symbol will appear on the screen.

The device will automatically enter the Low Priority Alarm test once the Medium Priority Alarm sequence has concluded. Pressing the Mode button (M) while the Medium Priority Alarm test is in progress will terminate the Medium Priority Alarm test and start the Low Priority Alarm. The Low Priority Alarm consists of a single, 1-beep and a solid amber LCD screen. The alarm symbol will appear on the screen.

At the conclusion of the test, the menu screen will appear. Use the Plus button (+) or Minus button (-) to toggle to the Home screen. Press the Mode button (M) to return to the home screen.





The Remote Diagnostics and Cell Info screens are for use solely by O_2 Concepts® or your provider's technical support.

Section 6: Maintenance and Cleaning

Maintenance

Routine cleaning of the side vents, and the device care and cleaning, as described below, are the only routine maintenance by the user necessary for the operation of the Oxlife Liberty[®].

There is no routine maintenance or service to the Oxlife Liberty® lithium-ion rechargeable batteries other than periodic replacement as described in the section on Battery Time Management, page 28.

All other maintenance or service **MUST** be conducted by a qualified Oxlife Liberty® service technician. **DO NOT** attempt to disassemble or perform any maintenance on your device. Any such attempt will void the warranty.

Pre-Use Functional Check

A trained service technician can qualitatively verify that the device is ready for use by performing the following protocols:

- > Connect the nasal cannula to the cannula port on the device. Set the device to Continuous Mode. The technician should be able to hear the flow of oxygen by placing the outlet of the nasal cannula near his or her ear (do not direct flow straight at ear to avoid discomfort).
- > The technician should be able to feel the flow of oxygen by placing a finger roughly a half inch from the outlet of the nasal cannula.
- > Place the end of the nasal cannula in a half-full cup of water. Verify that there are bubbles from the output of the nasal cannula.

Device Care and Cleaning

Side Vent Cleaning

Routine cleaning of the side vents as described below and periodic cleaning of the exterior of the device is the only routine maintenance.

To keep your Oxlife Liberty® working properly, it is recommended you clean the side vents weekly. If the Oxlife Liberty® is used in a dusty environment, more frequent cleaning of the side vents may be required.



Follow these simple directions to clean the side vents:

- 1. Remove the side vent.
- Wash the vent by running under warm tap water using a mild detergent.
- 3. Rinse thoroughly under warm, running water.
- 4. Tap the side vent on a counter or hard surface several times to remove excess water.
- It is important to allow the vent to dry completely before reinserting into the device. Moisture from wet or damp side vents may damage your device.
- Never use your Oxlife Liberty[®] without side vents installed.
- We recommend that you keep extra side vents to use as a replacement while one is drying. Contact your authorized dealer for extra side vents.

Device and Battery Cleaning

- Unplug your Oxlife Liberty[®] and remove the battery before cleaning.
- Do not submerge your device or any accessories or allow water to enter the device.

Clean the exterior of your device and/or battery using a soft cloth dampened with a mild detergent and water and wipe dry. Clean the outside of the device monthly or more frequently, as needed.

- **DO NOT** spray or soak the case or front panel.
- DO NOT spray or soak battery contacts.
- DO NOT use alcohol, ethylene chloride, benzalkonium chloride or petroleum-based cleaners.

AC Power Supply and DC Power Cord Cleaning

Unplug your Oxlife Liberty® and/or power supply before cleaning.

Clean the AC power supply and DC power cord using a soft cloth dampened with a mild detergent and water and wipe dry.

Carry Bag Cleaning

Remove the device from the carry bag before cleaning.

Follow these simple directions to clean the Carry Bag:

- The carry bag can be cleaned using a damp cloth or by washing in a washing machine alone, on a gentle cycle, using cold water and a mild detergent.
- Allow the carry bag to air dry thoroughly.
- 3. Ensure the carry bag is completely dry before use.

Cannula Cleaning

Clean and replace the cannula as instructed by the manufacturer and your healthcare provider.

Disinfection

Between patients, the exterior of the device, carry bag, and battery should be disinfected.

Clean the item as instructed above.

Per manufacturer's instructions, disinfect device exterior, carry bag and battery using Oxycide (or similar product) with a soft cloth.

DO NOT use alcohol, ethylene chloride, benzalkonium chloride or petroleum-based cleaners.

Device Disposal

This product may contain substances that could be harmful to the environment if inappropriately disposed of in landfills. Follow local governing ordinances and recycling plans regarding disposal of the device.

Battery Disposal

The battery is rechargeable and can be recycled. Always return batteries to your healthcare provider or an authorized dealer for proper disposal. You can also contact your local government offices for proper disposal instructions for a lithium-ion battery.

Section 7: Traveling

Before traveling, be sure to pack the following:

- Accessory Bag
- > Carry Bag
- > AC Power Supply
- > DC Power Cord
- > Fully Charged Battery (and extra batteries if required)
- > User Manual

Also, bring contact information for your healthcare provider, authorized dealer and/or physician.

When traveling internationally, an applicable standard international power plug adapter is required.

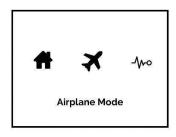
Please note that many air carriers require prior notification (usually at least 48 hours) for passengers traveling with portable oxygen concentrators. In addition, carriers may also require advanced submission of a medical verification statement from your physician. You should confirm any notification and verification requirement with your specific carrier.

Not all air carriers provide an electrical outlet aboard the aircraft, so you should have sufficient batteries (or a confirmed alternative power source) to account for at least 150% of your total travel time, including, but not limited to: (A) commuting time to and from the airport; (B) transition time in and out of airports; (C) the duration of your flight; and (D) any unexpected delays. Please be aware that battery requirements may vary based upon your personal setting.

If traveling by train, bus or boat contact your carrier to inquire about power port/outlet availability.

Entering and Exiting Airplane Mode

The cellular connection must be deactivated prior to flight on any commercial aircraft.



To enter and exit Airplane Mode, follow the steps listed in the procedure below.

- 1. Simultaneously press the Mode (M) and Minus (-) buttons to enter the Menu screen.
- 2. Press (+) or (-) buttons to scroll to Airplane Mode icon.
- 3. Press Mode button (M) to enter Airplane Mode menu.
- 4. Press Plus button (+) to activate Airplane Mode.
- 5. Press Mode button (M) to select displayed mode.
- 6. Press Plus button (+) to confirm or Minus button (-) to cancel.
- 7. Press Plus button (+) or Minus button (-) to scroll to the Home icon.
- 8. Press Mode button (M) to return to the Home screen.

The device will exit Airplane Mode after 24 hours or the user manually re-enters Normal Mode.

To manually re-enter Normal Mode, follow instructions above.