

 **ZOPEC EXPLORE Oxygen**  
*Professional Sleep Guardian*

**576 Wh with Platinum UPS Technology**

# USER MANUAL

**Universal CPAP, BiPap and Oxygen Battery**

**Professional Model: 21160KC**



# IMPORTANT – BEFORE FIRST USE

- 1. Initial Charge/Battery Reset:** Please charge Zopec Explore Oxygen battery (~12 hours) until 100% charged (LED = FF) before first use. It is normal if the capacity does not change for 8 - 10 hours. If charging issues occur, please run your CPAP with humidifier until it turns off on its own then try recharging again. This deep discharge resets the battery. See troubleshooting section if charging issues persist.
- 2. Heated Humidifier and Heated Tube Impact on CPAP Running Time:**
  - **Longest Running Time:** NOT using Heated Humidifier and Heated Tube.
  - **Shortest Running Time:** Using Both Heated Humidifier and Heated Tube will reduce about 75 - 80% of the CPAP running time.
  - **Heated Humidifier:** With Heated Humidifier ON, it will reduce CPAP running time by about 50 - 60%. It takes a lot of power to evaporate water.
  - **Heated Tube:** With Heated Tube ON, it will reduce CPAP running time by an additional 50 - 60%. If you don't have water pooling issues in the CPAP tubing (rain-out), then you wouldn't need to use a Heated Tube.
- 3. Instruction for Turning Off the Heated Humidifier and Heated Tube:**
  - **ResMed AirSense 10 and AirCurve 10:**
    - i. Go to "MyOptions" and change "ClimateControl" to "Manual". NOTE: this must be done first. Otherwise, the automatic climate control will turn the heated humidifier and heated tube back ON without notice.
    - ii. Next, turn "Humidity Level" and "Tube Temp" to "OFF". If you don't have a heated tube, just turn the "Humidity Level" to "OFF".
    - iii. Exit "MyOptions" and re-enter "MyOptions" to verify that "Climate Control" is in "Manual" and "Humidity Level" and "Tube Temp" are "OFF".
  - **Philips Respironics DreamStation**, detach the heated humidifier and plug the CPAP hose directly to the back of the CPAP Unit.
  - **All Other Machines**, detach the heated humidifier if possible and just run the CPAP unit. Please call or email us if you don't know how to turn off your heated humidifier and heated tube.
- 4. Test CPAP Run Time (paper towel test):** We recommend to test your machine run time with your settings first before sleeping with it. At the end of the CPAP hose, remove your mask and put paper towel inside the CPAP hose. Turn the machine on and just let a little air through the CPAP hose. This imitates breathing. Simply run the CPAP with a fully charged battery during the day and determine the run time.
- 5. Maintenance:** Fully charge battery to 100% (LED = FF) monthly for maintenance.
- 6. Contact Us:** We are proud to provide best-in class customer service so please contact us with assistance any time. Below is our contact information:
  - Zopec Medical Website: [www.zopec.com](http://www.zopec.com)
  - Email: [info@zopec.com](mailto:info@zopec.com)
  - Phone: Please see our website "Contact Us" for the current phone numbers.



**Congratulations!** You just purchased the most advanced battery for Home Respiratory Care! Zopec Explore Oxygen will provide UPS protection against power outages and you can run heated humidifier and heated tube. You will no longer lose sleep due to power outages again! Below are the key product features:

- **Platinum Level UPS Technology:** Uninterrupted sleep when power outages occur!
  - This UPS supports running humidifier and heated tube (i.e., ResMed AutoClimate Control)
  - Battery stays at 100% as standby power. Auto-Switch to battery power instantly with sensors.
  - Doesn't hurt battery life plugged in 24/7! Normally uses wall power with Pass-Through.
- **Mega Battery Capacity:** 576 Wh / 160 Ah. (about 2 car batteries but only 7.5 lb.!)
  - Sleep 8 - 12 hours with humidifier and heated tube. (i.e., ResMed AutoClimate Control)
  - Sleep 16 - 24 hours with humidifier (medium setting) and no heated tube
  - Sleep 42 - 64 hours without humidifier and heated tube (up to 8 nights of sleep!)
- **Solid State Peltier Cooling:** Battery is 100% silent! No cooling fans.
- **Panasonic Lithium Ion Cells:** Same brand as Tesla vehicles use! Smallest, lightest, best quality!
- **Super Light and Compact:** 7.5 lb. 10.25" x 6.25" x 3.25" in. (2 car batteries weigh 80 lb.!)
- **Two 110V AC Outlets (world):** Works with all machine brands and models. Very Easy to Use!
  - Just plug in the battery! No need for special adapters, inverters, or voltage matching!
  - Powers Mac/PC laptops, internet modems, phones, tablets, lights, or any device < 250W
- **Solar Panel Charger (optional):** Allows travelling in remote areas.
- **Unlimited Linking Technology:** No limit on linking up batteries to get more capacity!

**Thank you for choosing Zopec Explore Batteries!**

## 1. PRODUCT CONTENT

1. Zopec Explore Oxygen Battery
2. Wall Charger
3. Fast Car Charger
4. Travel Pouch
5. User Manual
6. Storage Box

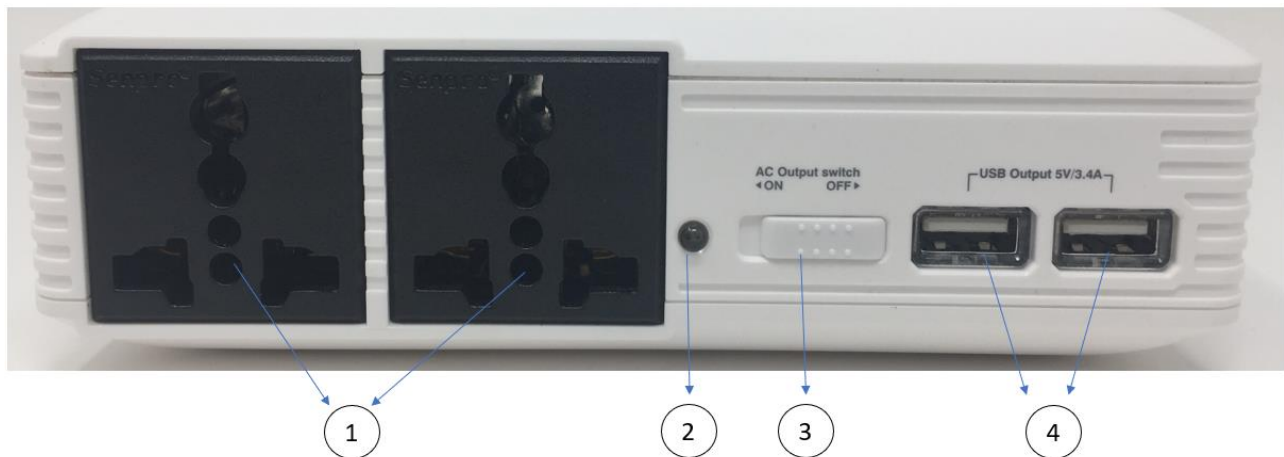


## 2. Warnings

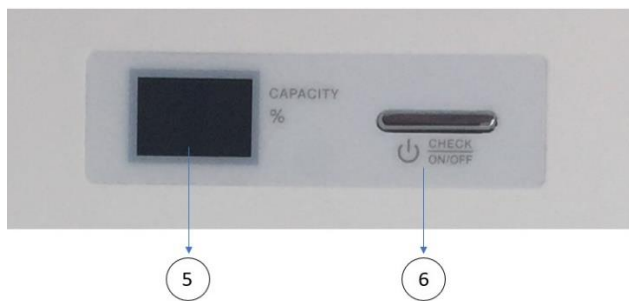
- DO NOT USE for LIFE SUPPORT.
- Do not drop or disassemble the battery
- Keep battery dry and away from liquid
- Keep battery away from flammable and explosive materials
- Use only the Zopec Explore wall charger, car charger, and solar panel charger
- Do not use the battery beyond the operating temperatures (32 - 115°F (0 - 45°C))
- Follow the local regulations when disposing the battery

## 3. PRODUCT DIAGRAM

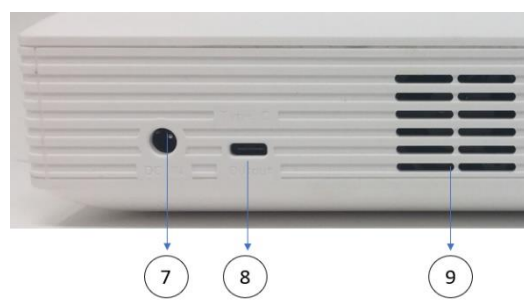
Front of Battery



Top of Battery



Side of Battery



1. Two 110V AC Outlets (note: they can power two devices at the same time)
2. AC Outlet Indicator (note: Red LED Light: Red = ON, Dark = OFF)
3. AC Outlet Switch (note: Must turn on Battery First before turning on AC Outlets)
4. Fast USB Ports (2)
5. Digital Capacity % LED Display. (note: "FF" means 100%)
6. Battery ON/OFF and % Capacity Check Switch (note: Press and hold to turn on battery and show % capacity. Press and hold to turn the battery off.)

7. Recharging Port (note: use this port for all chargers including wall charger, car charger, and solar panel charger)
8. USB Type-C port
9. Cooling Window (noise free)

## PRODUCT SPECIFICATIONS

<b>Professional Model</b>	21160KC
<b>Dimensions (L x W x H)</b>	10.25" x 6.25" x 3.25" (in)
<b>Weight</b>	7.5 lb
<b>Capacity</b>	576 Wh / 160 Ah
<b>AC Output</b>	250W (110V/60Hz)
<b>Working Temperature</b>	32 - 115°F (0 - 45°C)
<b>USB-C Output (1 port)</b>	15W (5V/3A)
<b>USB-A Output (2 ports)</b>	17W (DC 5V, 3.4A)
<b>Fast Car Charger</b>	Input: 12V DC, Output: 24V DC
<b>Universal Wall Charger</b>	Input: 100 - 240V, 50/60 Hz
<b>FAA/TSA Compliant</b>	<b>No</b>
<b>Recharge Time</b>	12 hours or less
<b>Warranty</b>	1 Year

## 5. INSTRUCTION FOR USE

- Before first use, please charge battery to 100%. (LED = "FF"). To charge, first plug the wall charger to the wall outlet. Next, connect the wall charger to the battery Recharging Port on the side of the battery.
- To use the battery, you need to turn on the battery first and then the AC Outlet:
  1. To turn on the battery, press and hold the Battery ON/OFF Switch on the top of the battery until the Capacity % LED Display turns ON.
  2. To turn on the AC Outlet, slide the AC Outlet Switch to ON and the Red LED light of the AC Outlet Indicator turns ON.
- Plug in your device and the device should turn ON and be ready for use.
- After use, just press and hold the Battery ON/OFF Switch on the top of the battery to turn off (LED Display turns off).



## 5.1 UPS Technology for Power Outages:

- To set up this backup power mode, just keep the battery charging while running your machine. The AC Outlet must be ON with red LED light ON.
- When there is no power outage, the battery will run the wall power through a Pass-through (bypass). Therefore, it does not hurt the battery life.
- When a power outage occurs, the battery senses the Pass-through has zero current flow and switches instantaneously to battery power. You would sleep through the power outage uninterrupted without knowing it even occurred.
- Note: Please verify that the % capacity stays at 100% or “FF”. If you see the battery started to drain, then please lower your heated tube setting until the battery capacity stays at 100% or “FF”.
- This UPS battery is designed to stay under the bed. If you put in a drawer, make sure it is vented. This battery comes with all safety features including over current, over voltage, and over temp. It is safe to be on the floor. See below:



## 5.2 Unlimited Linking Technology:

- To get additional machine running time, you can purchase multiple batteries and link them together. There is no limit on how many batteries you can link together. Essentially, you can get any amount of power you want.
- To link 2 batteries, link up as you are recharge the first battery using the next battery. Continue this set up to link more batteries. Please note that **the CPAP machine must plug into the first battery**. It will draw from all batteries because they are all linked.
- In backup power mode, have the last battery in the link charge from a wall outlet.
- Note: When drawing from multiple batteries, it may not draw from the batteries in order. That is normal. The power draw is based on the path of least resistance.



### 5.3 Recharging Options (Wall Charger, Car Charger and Solar Panel Charger):

- All charging plugs in to the Recharging Port of the battery.
- The wall charger is a universal power supply and works with all power sources worldwide (100 – 240V, 50 – 60 Hz). You just need the outlet adapter to plug into the outlet of that country.
- The car charger requires a 12V DC cigarette lighter or power outlet. For some new cars, you may have a 110V outlet, you can use your wall charger to charge.
- Solar Panel Charger: The charging speed varies significantly with weather. A sunny, dry and warm weather will charge the fastest. For example, a sunny and cold or overcast weather will not charge nearly as efficiently.

### 5.4 Air Travel: **(NOT COMPLIANT WITH FAA/TSA)**

- Zopec Explore oxygen has a capacity of 576 Wh and is NOT FAA/TSA compliant for air travel. The FAA/TSA limit is 160 Wh for Lithium Ion batteries.

## 6. CPAP Run Time: (see Zopec.com for updates)

### 6.1: Heated Humidifier and Heated Tube are Both OFF.

(Note: For BiPap, reduce the run time by 20%)

CPAP Brand	CPAP Model	Pressure (cm H2O)	Heated Humidifier and Heated Tube	Machine Run Time (Hours)
Philips Respironics	DreamStation	10	Both OFF	64
		15	Both OFF	48
	DreamStation Go	10	Both OFF	64
		15	Both OFF	50
ResMed	AirSense 10	10	Both OFF	50
		15	Both OFF	42
	ResMed S9	10	Both OFF	60
	AirMini	10	Both OFF	60
		15	Both OFF	54
Drive DeVilbiss	IntelliPap I / II	10	Both OFF	52
3B Medical	RESmart / Luna II	10	Both OFF	52
Somnetics	Transcend	10	Both OFF	64
Breas HDM	Z1 / Z2	10	Both OFF	64





### 6.2: Heated Humidifier is ON at Mid-Level and Heated Tube is OFF.

(Note: For BiPap, reduce the run time by 20%)

CPAP Brand	CPAP Model	Pressure (cm H2O)	Heated Humidifier	Heated Tube	Machine Run Time (Hours)
Philips Respironics	DreamStation	10	On (3)	OFF	24
		15	On (3)	OFF	18
ResMed	AirSense 10	10	On (4)	OFF	24
		15	On (4)	OFF	18

### 6.3: Heated Humidifier and Heated Tube are ON at Mid-Level.

(Note: BiPap run time is less due to higher pressure and bi-level motor movements)

CPAP Brand	CPAP Model	Pressure (cm H2O)	Heated Humidifier	Heated Tube	Machine Run Time (hours)
Philips Respironics	DreamStation	10	On (3)	On (3)	12
		15	On (3)	On (3)	10
	DreamStation BiPap	IPAP = 20 EPAP = 15	On (3)	On (3)	8
ResMed	AirSense 10	10	On (4)	On (71F)	12
		15	On (4)	On (71F)	10
	AirCurve 10 BiPap	IPAP = 20 EPAP = 15	On (4)	On (71F)	8

## 7: Run Time for Portable Oxygen Concentrator and Other Devices:

We are continuing to collect engineering data on battery run times for POC and other home portable devices. As we collect more data, we will update our website ([www.zopec.com](http://www.zopec.com)) and publish run time tables. For now, please read below to estimate the battery run time of your device and settings:

- All portable devices have rechargeable batteries either built-in internally or detachable.
- Most of the device batteries have capacity about 98 Wh or 27,000 mAh. Please read your device specification and determine the capacity of your device battery.
- The Zopec Explore Oxygen has a capacity of 576 Wh and 160,000 mAh. Please note that the device batteries use DC power and this battery uses AC power so you need to subtract 30% efficiency loss for estimation.
- For example, this battery will approximately recharge a 27,000 mAh device battery ~ 4 times (i.e., 160,000 mAh / 27,000 mAh \* 70%).



- Based on how long your device battery runs and how many times your device can be recharged by the Zopec Explore Oxygen battery, you can determine the battery run time. Note: this is an estimate. Exact run time needs to be tested.

## 8. Troubleshooting

- **Battery Will Not Charge or Would Not Hold Charge:**
  - Most likely, the battery just need a reset. This is done by doing a deep discharge. Please run your CPAP machine or a lamp until it turns off on its own. This depletes and resets the battery. Please try charging again.
  - This is a high capacity lithium ion battery and sometimes it takes 2 – 3 depletion cycles to reset the battery
- **Battery Run Time Not Lasting as Long:**
  - Please make sure to follow the instructions in this manual to turn off the heated humidifier and heated tube then try again. You can increase the run time to lower the heated humidifier and heated tube settings.
  - If you have a **ResMed CPAP machine**, most likely the automatic ClimateControl turned the heated humidifier and heated tube back ON without you knowing. Please enter “MyOptions” and make sure the Climate Control is in “Manual” before turning the humidity level and tube temp to OFF, then try again.
- **No Power to the AC Outlet:** Please follow the instruction to turn ON the battery and the AC outlet. Please make sure that the red LED is ON, which means the AC Outlet is ON. If the red LED light is ON and there is no power to the AC Outlet, then please contact us for further assistance.
- **Electrical Sparks:** When you plug into the recharging port or the AC Outlet, you may see occasional sparks. That is typically from static electricity and is normal. It will not harm you or the battery. To avoid it, you can try grounding yourself by touching a large metal surface before recharging or plugging your device into the battery.

With unresolved problems, please contact your vendor or us for further assistance.

## 9. Limited Warranty

Zopec Medical warrants that your purchased product shall be free from defects in material and workmanship from the date of purchase for the period specified below:

1. Zopec Explore Batteries: 1 year
2. Solar Panel Charger: 1 year
3. Wall Charger: 1 year
4. Car Charger: 1 year

Our Limited Warranty is only valid when the defective item is accompanied by a proof of purchase. Please note our warranty does not cover product failure that is caused by user negligence such as water, physical, and disassembling damages. If we determine that it is warranty eligible, then a new replacement will be provided.

For all warranty claims, please contact the original seller and they will work with us on the proper warranty claim process.

## **10. Contact Us:**

We are proud to provide best-in class customer service so please contact us with assistance any time. Below is our contact information:

- Zopec Medical Website: [www.zopec.com](http://www.zopec.com)
- Email: [info@zopec.com](mailto:info@zopec.com)
- Phone: Please see our website “Contact Us” for the current phone numbers.

**End of User Manual.**



**576 Wh with Platinum UPS Technology**

Zopec Medical LLC.

10044 Flanders CT NE, Suite 300, Minneapolis, MN 55449, USA

Website: [www.zopec.com](http://www.zopec.com)

Technical Support Email: [info@zopec.com](mailto:info@zopec.com)

Phone: Please see our website “Contact Us” for the current phone numbers