

# Tips & Tricks

of the Eclipse,  
Eclipse 2  
Concentrators



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# AC Operations

- When plugged in to an outlet, the Eclipse is NOT “portable”, unplug the AC Adapter when you walk away
- Loss of Power Alarm
  - Outlet not working
  - Dimmer switch
  - Wall switch outlet
- Ensure the Power cord is plugged into AC Adapter and Eclipse



# DC Operations

- Have your car running before you plug the Eclipse into the outlet
- Recommend to use in Pulse Mode (Prescription Only)
- Recommend to remove the Battery
- Sit the unit backwards to vent properly
- Secure the Eclipse & accessories to prevent damage



# Battery Operation



## Warm Battery (104° F & Above)

- Allow battery to cool for 20 minutes
- Avoid Direct Sunlight
- Do not place in Fridge or Freezer (for cooling)

## Cold Starts (20° F & Below)

- Remove Battery from Eclipse
- Allow to warm up for 1-2 hrs
- Do not Charge Power Cartridge



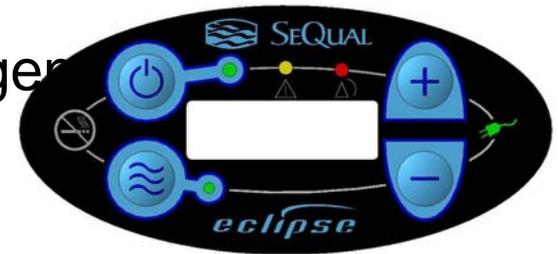
# Battery Calibration

## – Provider Calibrating Battery

- When an Eclipse is returned – Deplete the remaining charge
- Test your Purity & Flow during discharge

## – End User Calibrating Battery

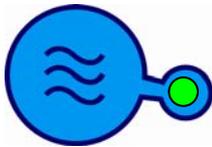
- After a day trip and the battery is already low (15% - 10% capacity)
- Run the battery down in a spare room, to avoid hearing the alarm
- Use a 50' Nasal Cannula if the oxygen is needed and being used



# Flow Modes

## Continuous Flow

- Understand your battery life on the different settings
- Calibration will give you the best times on your Power Cartridge



## Pulse Flow (autoSAT™)

- autoSAT is like “Cruise Control” in your car
- The number on the pulse setting has no correlation to your Liter flow in the continuous mode
- Have pulse oximetry done at rest and exercise to find your correct setting
- Pulse flow time out 45 – 60 sec's (E2).

# Accessories



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# Accessories (cont.)

## Humidifier Bottle (Part# 7116)

- CPAP blocks breath detection in Pulse Mode – Use Continuous Flow
- Humidifier Bottle blocks breath detection in Pulse Mode – Use Continuous Flow
- When ambulating, be careful not to allow water to splash or back flow into the Eclipse – Remove Humidifier Bottle



# Accessories (cont.)

## **Large Wheel Cart** (Part # 7090)

- Recommended for areas with snow and rain
- Easier to pull over grass and gravel verses the small wheel cart

## **Profile Cart** (Part # 7092)

- Fits under Airplane seat as stowed luggage
- Fits in Travel Case to transport the Eclipse



# Accessories (cont.)

## Protective Cover (Part # 5052)

- Covers are water resistant NOT water proof
- Protects from nicks & scratches



## Bags (Part # 5010)

- Organize your accessories
- Attaches to cart inline with Eclipse



# Accessories (cont.)

## Desktop Battery Charger (Part # 7112)

- Always have a battery ready to go
- Great for customer with multi batteries
- Does not calibrate the battery to the Eclipse



# Travel Approved

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"The Eclipse is definitely equivalent to and possibly better than continuous flow oxygen. We were able to take some of our patients up to high altitudes of nearly 10,000 feet and were always able to find a setting to keep them adequately oxygenated. In terms of keeping patients saturated, the Eclipse compares to continuous liquid flow oxygen," - John Goodman, BS, RRT, Transtracheal Systems

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# Travel Approved

## Air Travel

- Travel Battery Guide
- Fill out the approved paperwork
- Anticipate layovers & Delays
- Plug into Laptop Station at Airport



**FAA Approved**



for use on passenger aircraft



# Travel Approved

## Trains

- Travel Battery Guide
- Fill out the approved paperwork
- Notify the Train personnel of the Eclipse at least 12 hours before departure
- Have a minimum of 4 hours of battery life for your trip. Do not rely on trains electrical system



# Travel Approved

## Ships

- Fill out the approved paperwork
- Notify the Cruise Ship of your Eclipse at least 48 hrs before departure
- Contact the “Special Needs Coordinator” about bringing your Eclipse onboard



# Diagnostics & Repairs



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# Diagnostics & Repairs

## PM

- PM every as needed (more frequent with High Pollutants)
- Have your customer bring in the Eclipse (They are mobile)
- Remove all Power before PM
- Use ESD Control measures
- PM Kit (Part# 5022)





# Diagnostics & Repairs

## DC (Cars, Boats & RV's)

- Test the Eclipse on the vehicles (New)
  - Remove the battery from the Eclipse & plug the Eclipse into the Vehicle
  - Start the Eclipse on the Lowest setting in continuous flow
  - Increase the Liter flow incrementally until it alarms
- Test the Eclipse on the vehicles (Old)
  - Use 12v DC Adapter to test the Eclipse directly from the vehicles battery



# Diagnostics & Repairs

## Troubleshooting

- Alarms Events & System Status Codes

Valid Codes

Invalid Codes



# Diagnostics & Repairs

## Alarms & Event Codes

Alarm	Priority	Green	Yellow	Red	Alarm	Code
All OK, warm-up done	13/None	ON	OFF	OFF	OFF	00
Warm-up: %O <sub>2</sub> < 85	12/Low	ON	ON	OFF	OFF	08
Warm-up: %O <sub>2</sub> < 70	11/Low	ON	ON	ON	OFF	04
Cannot Charge Battery	10/Low	N/A	ON	OFF	OFF	01
No breath for 45 seconds	9/Medium	ON	ON	OFF	OFF	20
70% < %O <sub>2</sub> < 85%	8/Medium	OFF	(1s/1s)	OFF	OFF	08
Flow rate error	7/Medium	OFF	(1s/1s)	OFF	(0.5s/119.5s)	20
Warm battery	6/Medium	ON	(1s/1s)	OFF	(0.5s/119.5s)	02
Low battery	6/Medium	ON	(1s/1s)	OFF	2 Beeps 0.5s/0.5s every 30s	10
DC cable detected	4/Medium	N/A	(1s/1s)	OFF	(0.5s/1.5s)	N/A
%O <sub>2</sub> < 70	3/High	OFF	OFF	(0.25s/0.25s)	3 Beeps (0.5s/0.5 every 120s)	04
Loss of power	2/High	OFF	OFF	(0.25s/0.25s)	ON	40
Malfunction	1/High	OFF	OFF	ON	10s then silence	N/A

# Diagnositics & Repairs

## System Status Codes

Malfunction	Code	Resolution
Invalid RESET	80	<p>Remove <b><u>ALL</u></b> Power Sources (External Power &amp; Power Cartridge) for <u>20 sec's</u> then restart Eclipse.</p> <p>If problem persist replace and/or repair unit.</p>
I/O port failure	81	
RAM failure	82	
FLASH failure	83	
EEPROM failure	84	
IPC watchdog timeout	90	
Compressor motor stalled	94	
Battery communication failure	95	
IPC failure	A0	
Product pressure sensor failure	A1	
Breath pressure sensor failure	A2	
Ultrasonic failure	A3	
Loss of product tank pressure failure	A5	
Purity calibration data failure	A6	
Flow calibration data failure	A7	
Breath sensitivity data failure	A8	
Hour of operation data failure	A9	
Invalid assembly option	AA	
Ambient pressure sensor failure	AB	

# Diagnostics & Repairs

## EDAT (Part # 5535)

- Attach & secure cable to the Eclipse when upgrading the unit
- $ICA1 + ICA2 / 13.2 = \text{Battery Capacity \%}$   
 $5.36 + 5.42 / 13.2 = 0.8166 (82\%)$



# Diagnostics & Repairs

## Repairs

- #1 Screwdriver – wont strip screw out - #2 will
- Torque Setting (1, 2, 5, 20) in lbs
- O2 Spec's Range: 87 – 95.9
- Sieve Dusters -> Replace both ATF & Compressor
- Cigarette Smoke kills (Filters, Tubing, Compressor & ATF)
- Ensure Power Manger Board is level
- Power Harness – Fish hook around manifold



# Tips & Tricks

of the Eclipse, Eclipse 2  
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Thank you for  
your interest



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