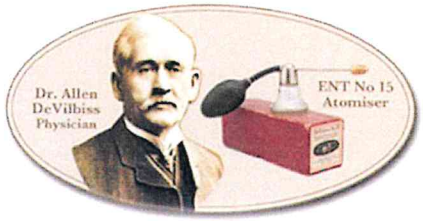
DEVILBISS HEALTHCARE



10 Liter Oxygen Concentrator
Model 1025

Factory Drive DeVilbiss Healthcare, Somerset Pennsylvania, USA

26.07.2022

DRIVE DEVILBISS HEALTHCARE

Agenda

- 1025KS – 10L Oxygen Concentrator
- Features and Benefit
- Technical FAQ

OXYGEN CONCENTRATOR 1025KS

SPECIFICATIONS

	1025KS
Size (H x B x T)	62,2 x 34,2 x 30,4 cm
Weight	19 Kg
Flow	2,0 - 10 l/ min
Oxygen Percentage	87% - 96%
Outlet Pressure	20.0 ± 1.0 psi
Outlet Pressure Auxiliary Port	<15 psi / 2LPM Fflow (max. 6LPM Flow)
Power Consumption	664 Watt average
Alarms	Low Oxygen
	Power Failure
	System Failure
	No Flow
	High Temperature
	High Pressure

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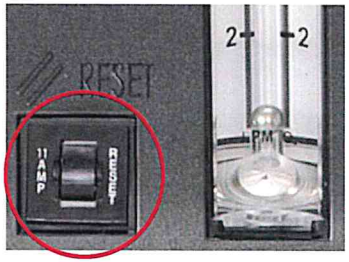
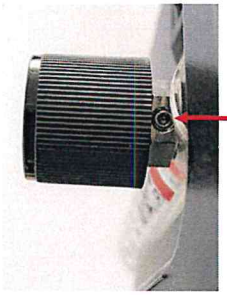
OXYGEN CONCENTRATOR 1025KS

FRONT VIEW – FLOWMETER / RESET

- For therapy setting – ball should be centered
- Do not set Flow > 10 LPM – high flow alarm
- Do not set Flow < 2 LPM - low flow alarm



- RESET – Circuit breaker



- Locking screw with 1/16th inch Allen wrench
- Prevents unintented setting

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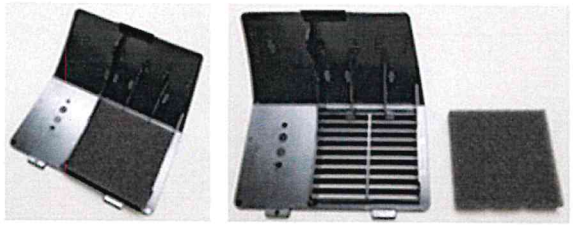
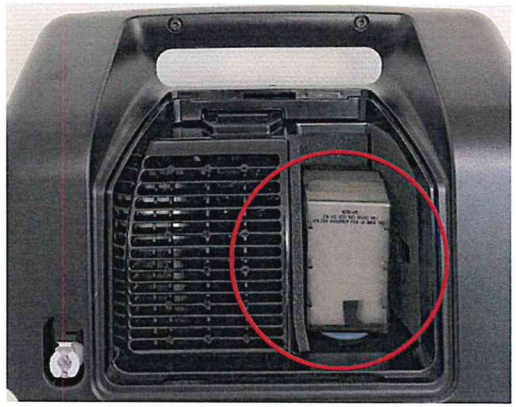
BACK VIEW





- Filter Door
  - design improves intake airflow
  - Gross particle filter – optional
  - Backwards compatible - interchangeable
- Long – Life Filter

Air intake holes
on bottom of filter

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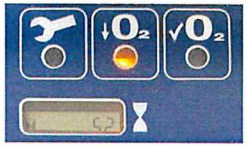
BACK VIEW

- Auxiliary Oxygen Port
  - Can be used to fill oxygen cylinders with an FDA-cleared cylinder filling device
  - The filling device must be designed to use oxygen from a concentrator
  - Maximum recommended flow is 6 LPM when an oxygen bottle is being filled with oxygen from the auxiliary port
- Outlet pressure <15 psi
- Flow setting 2LPM – 6 LPM

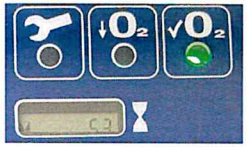
OXYGEN CONCENTRATOR 1025KS

DISPLAY – LEDS / HOUR METER

- Device test at start



- Low O2 at warm up
- Can last several minutes



- Therapeutic oxygen level obtained

- O2 level below 60%
- Beeping audible alarm and red LED
- System failure

- Digital hour meter
- Decimal value – anything right hand side is a 1/10th of an hour
- 5.5 = Five and a half hours
- 55.0 = Fifty five hours

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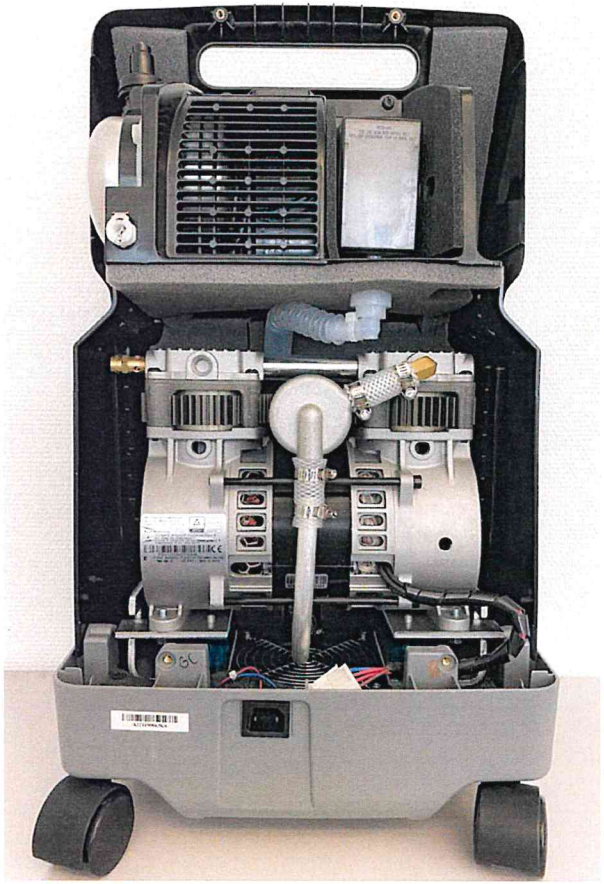
REAR INSIDE



- Compressor Filter
- Compressor with Pressure relief valve

Old Style (no longer used)

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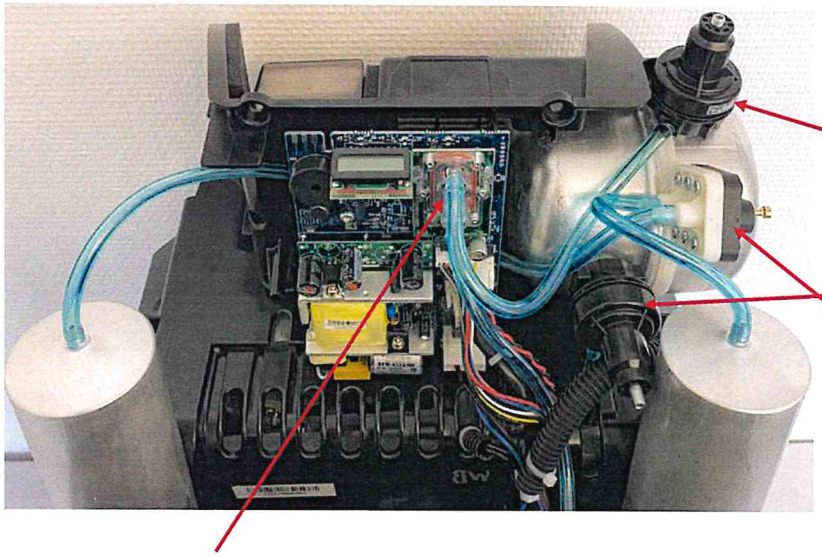
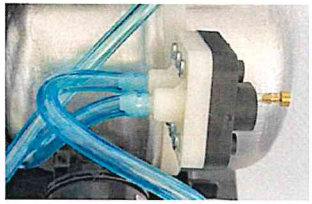
FRONT INSIDE



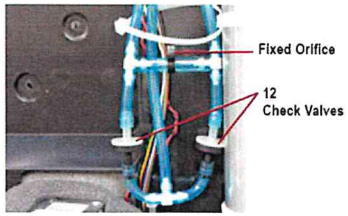
- O2 Outlet pressure regulator – 20 PSI
- Auxiliary pressure regulator – 8.5 PSI



- New Purge Manifold

- PC-Board with OSD (Oxygen Sensing Device)
- OSD monitors the oxygen produced by the unit

Purge Harness Assembly



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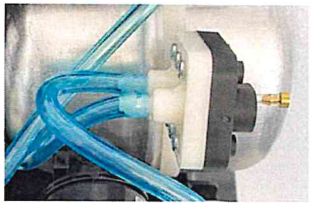
TESTING



- Purge Manifold allows easy pressure testing at accumulator tank
- Attach pressure gauge to the fitting. Turn Concentrator on and set flow to 10 LPM
- During each timed cycle, the average pressure in the oxygen accumulator tank will rise and fall.
- High and low pressure should be consistent. All consecutive high pressures should be within 2 psi of each other, and all consecutive low pressures should be within 2 psi of each other.
- Higher pressure may be related to bad sieve beds – check concentration!
- Lower pressure maybe related to occluded filters, tubing connections or compressor

TYPICAL PEAK ACCUMULATOR TANK PRESSURE RANGE @ 10LPM		
Altitude	**Psi**	**kPa**
0 to 457 m 0 to 1500 ft.	25-36	172-248
457 to 914 m 1500 to 3000 ft.	21-33	145-228
914 to 1524 m 3000 to 5000 ft.	21-30	145.207

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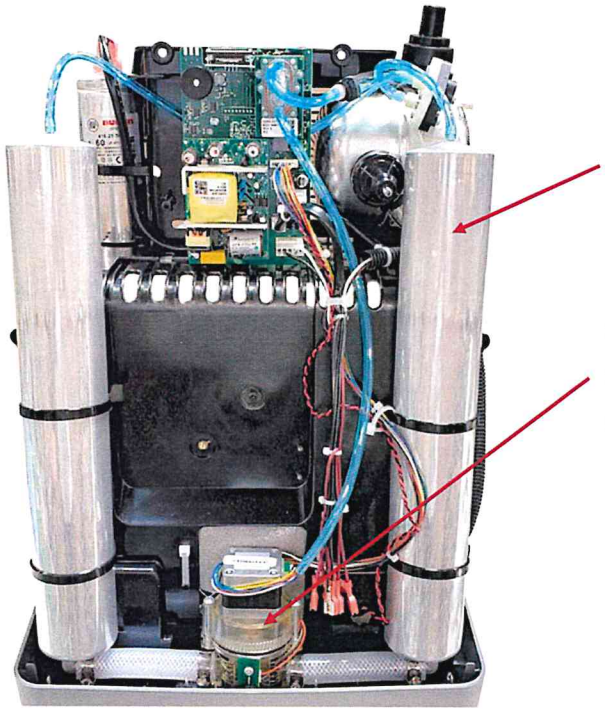
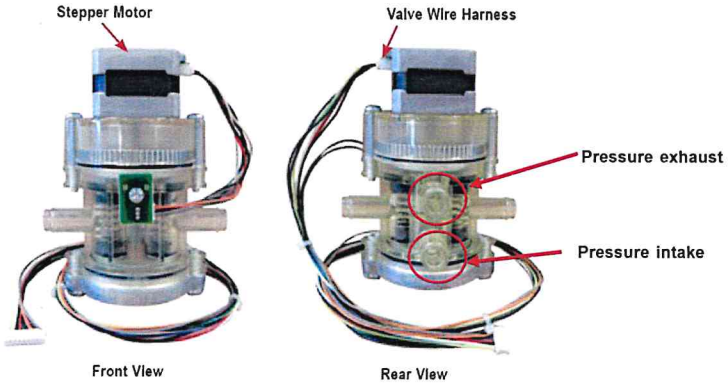
FRONT INSIDE



- Sieve Beds
- Best-in-Class sieve bed design & production
- Sieve material is stored in climate controlled, zero humidity atmosphere
- Automated filling process for each sieve bed

- Rotary Valve
- Unique design
- Less sensitive to contamination



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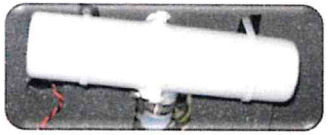
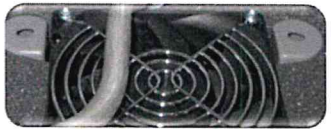
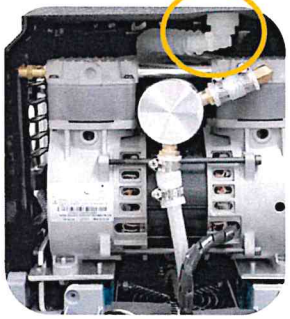
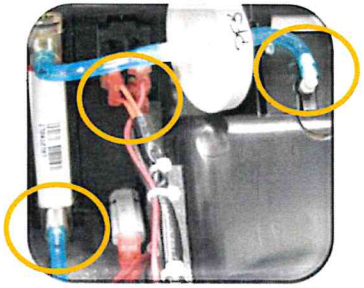
DO NOT OVERLOOK THE OBVIOUS WHEN TROUBLESHOOTING









Quick Visual Inspection:

- Loose hoses / big leaks
- Broken fitting
- Broken or disconnected wire
- Is flow meter set properly?
- Is cooling fan running?
- Audible or visual alarms not working
- Damaged line cord or cabinet part

Loud or Unusual Noises

- PR valve exhausting pressure
- Intake hose disconnected
- Exhaust muffler broken or disconnected
- Whistling noise (regulator or manifold)

General Observations

- Unusual smell or odor
- Very warm to the touch

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OXYGEN CONCENTRATOR 1025KS

FEATURES AND BENEFIT

- Assembled in the USA and built in the same shell as the 5 Liter, the 10 Liter Concentrator is also compatible with cylinder transfill systems
- With a weight of 19Kg and an identical footprint to the 5-liter Concentrator 525 unit, the 1025 is substantially smaller and lighter than competitive 10 Liter concentrators
- Capable of delivering to 96% of O_2 purity from 2 to 10 LPM
- Exclusive DeVilbiss OSD® (Oxygen Sensing Device), standard on every unit, monitors the oxygen produced and ensures patient safety
- Equipped with accessible patient controls, bright LEDs that can be seen from a distance, protected cannula fitting and recessed humidifier nook to prevent damage
- Supports oxygen tubing 15 meters plus 2,1 m cannula
- High outlet pressure supports additional equipment
- Easy to service

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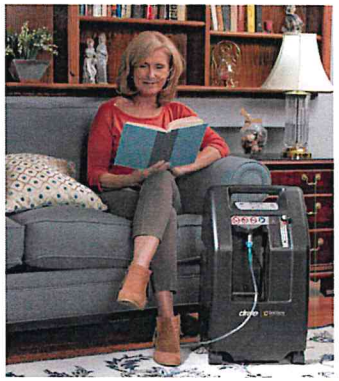
Thank You!