

EASYFLOW5

Oxygen Concentrator Service Manual

Model PM4300 Series



PRECISION MEDICAL

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Preface

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This manual is intended to guide and help a qualified service technician in the safe handling, service, repair and performance verification of the PM4300 Series “EasyFlow 5” Stationary Oxygen Concentrator. A qualified service technician should be trained in the safe handling of oxygen equipment and understand its inherent dangers.

DO NOT attempt to use or perform any service function on the PM4300 series Stationary Oxygen Concentrator unless you have read and understand this manual as well as the User Manual.

Definition of terms

AC	Alternating Current
ESD	Electro Static Discharge
SOC	Stationary Oxygen Concentrator
OVP	Operation Verification Procedure
PCB	Printed Circuit Board

Safety Symbols information - Warnings and Cautions



DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

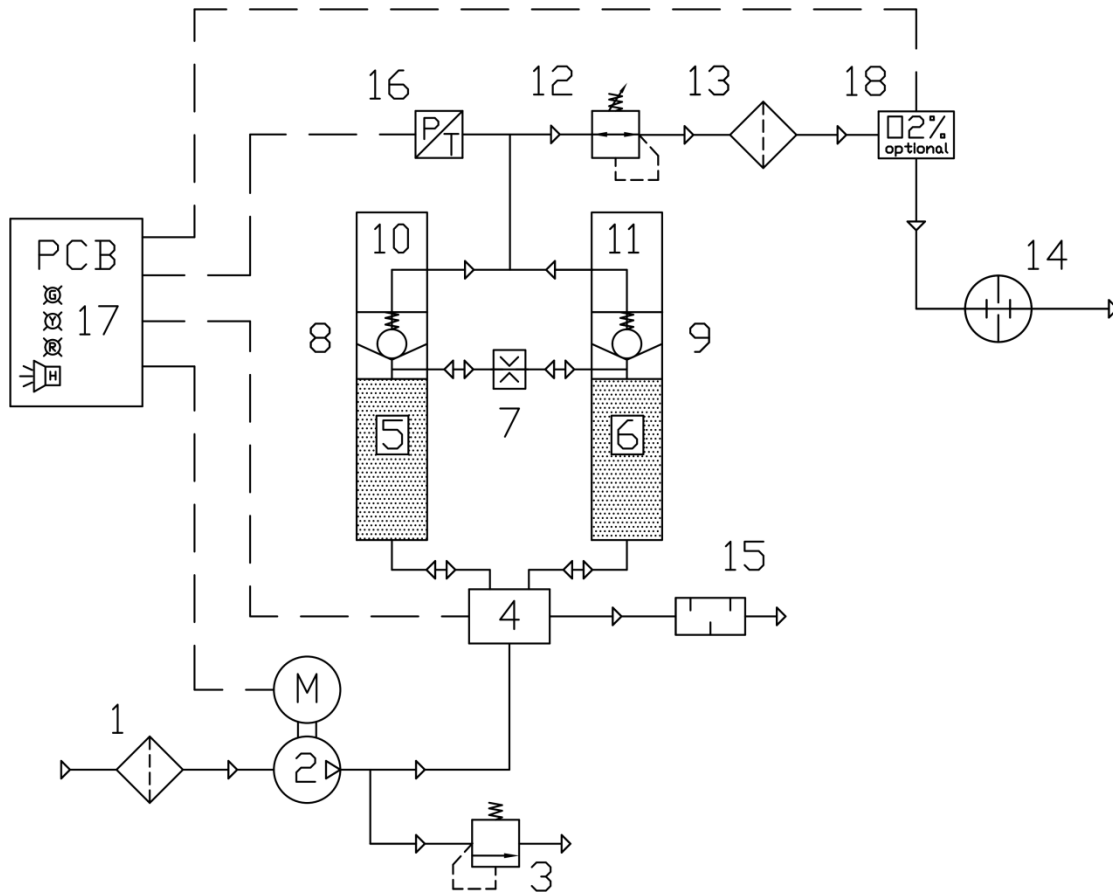
Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

	<p>PM4300 Series with respect to electrical shock, fire and mechanical hazards only in accordance with ANSI/AAMI ES60601-1 (2005, 3rd ed), CAN/CSAC22.2 No. 60601-1 (2008) 62NA</p>
	<p>Follow instructions for use</p>
	<p>General Mandatory Action Sign</p>
	<p>Dangerous Voltage</p>
	<p>No Smoking</p>
	<p>General Alarm</p>
	<p>Type BF Equipment</p>
	<p>No Oil or Grease</p>
	<p>This device may contain electrical components that are hazardous to the environment. DO NOT dispose device into standard trash. Contact your local waste management for disposal of Electronic Equipment.</p>

Theory of Operation



Air enters the system through the compressor intake muffer/filter (1). The compressor (2) increases the air pressure to approximately 30 psig (2 Bar). The compressed air is then directed through the dual solenoid valve (4) (see note) to one of the molecular sieve beds (5 or 6). As compressed air passes through the selected sieve bed, nitrogen is stripped from the air and a high concentration of oxygen passes through. After a predetermined time, the dual solenoid reverses operation, and compressed air passes through the other sieve bed.

Note: The dual solenoid valve is controlled by an electronic circuit board (17) which determines the time interval for each concentrated oxygen producing cycle. This is based on the demand from the output flow selection of the dial flow control valve (14).

Inside the bed, concentrated oxygen developed from the molecular sieve beds (5 or 6) splits into two streams. One stream flows through a check valve (8 or 9) into a product tank (10 and 11) where it is stored for use. This stored concentrated oxygen is then routed to the point of use by way of a pressure regulator (12), a filter (13), an optional oxygen sensor (18), and a user selectable dial flow control valve (14). The other stream of concentrated oxygen flows through a pressure-reducing orifice (7) to the other molecular sieve bed (5 or 6) to desorb the nitrogen that was stored in the sieve from the previous cycle. The desorbed nitrogen flows to atmosphere through the dual solenoid valve (4) and a muffer (15).

If a situation arises where the system pressure becomes elevated above normal operating pressures at the compressor a mechanical preset pressure relief valve (3) will relieve this elevated pressure. Also, if the cycle pressure at the product tank (10 and 11) rises above or falls below the normal operating range an electronic pressure sensor (16) will create an alarm condition and shut the concentrator down. This system shut down is denoted by an audible alarm (17) along with an illuminated led (17).

Warnings and Cautions

WARNING

Oxygen supplied from this device is for supplemental use and is not intended to be life supporting or life sustaining.

This device is not intended for use by patients who would suffer immediate, permanent, or serious health consequences as a result of an interruption in the oxygen supply.

- DO NOT smoke in an area where oxygen is being administered.
- DO NOT use near any type of flame or flammable/explosive substances, vapors or atmosphere.
- DO NOT use oils, greases, lubricants or any combustible materials on or near this product. Wash hands properly prior to usage.

TO AVOID INCREASED RISK OF FIRE

- Keep oxygen equipment away from open flames. Use and store the EasyFlow 5 Concentrator at least five (5) feet away from equipment such as furnaces, water heaters, and stoves that may contain open flames.
- Keep equipment in a well-ventilated area at all times.
- High concentrations of oxygen can cause rapid burning of other substances.
- DO NOT place blankets, draperies, or other fabrics over equipment.
- NO OXYGEN is delivered in between settings.

CAUTION

- Only individuals instructed and trained in its use should operate this device.
- DO NOT use liquid leak detector to test for leaks.
- DO NOT autoclave.
- DO NOT gas sterilize.
- DO NOT clean with aromatic hydrocarbons.
- DO NOT immerse device in any kind of liquid.
- Avoid dropping the device or placing it in a position where it could fall and become damaged.
- DO NOT block the outlet fitting or kink the cannula tubing when the device is in use.
- Store device in a clean area when not in use.

Specifications:

Weights:

Device: 29.6 lbs (13.4 kg)

Device Boxed for shipping: 33.9 lbs (15.38 kg)

Dimensions:

Height: 17.0 in (43.2 cm)

Width: 12.25 in (31.1 cm)

Depth: 17.125 in (43.5 cm)

Power: 115 ±10% VAC; 60Hz 3.2 A; 350 watts

Oxygen Concentration: ≥87% - up to 6,900 Ft (2103.1 m)

≥85% - >6,900 Ft (2103.4 to 3048 m)

Outlet Pressure: 8 psi ±10%

Outlet Temperature: Within 1.3°F of ambient

Sound Level: 53 dBA

Operating Conditions:

Temperature: 50°F to 95°F(10°C to 35°C)

Altitude: Up to 10,000 ft (3,048 m)

Storage Conditions:

Temperature: - 29.2°F to 140°F(- 34°C to 60°C)

Max. Humidity: 95% non-condensing

Cannula Requirement: Maximum 7 foot long adult standard single lumen oxygen nasal cannula with a maximum 40 ft crushproof extension tubing

Flow Settings (l/min): 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0

Flow Accuracy:

.5 l/min -0.0 / +400 ml of setting - up to 10,000 Ft (3048 m)

1.0 to 1.5 l/min ± 200 ml of setting - up to 6,900 Ft (2103.1 m)

±20% of setting 6901 to 10,000 Ft (2103.4 to 3048 m)

2.0 to 5.0 l/min ±10% of setting - up to 6,900 Ft (2103.1 m)

±20% of setting 6901 to 10,000 Ft (2103.4 to 3048 m)

Equipment Classification:

Class II - with respect to protection from electrical shock

Type BF - degree of protection against electrical shock

IPX1 - degree of protection against ingress of liquids

Mode of Operation - Continuous

Volatile Organic Compound (VOC) and Particulate Requirements:

The oxygen delivered from the EasyFlow Concentrator meets the following requirements for particulate levels, VOC levels, carbon monoxide levels, carbon dioxide levels and ozone levels.

EPA PM2.5 Particulate Matter

ASTM D5466 Ozone Levels

21 CFR 801.415 Carbon Monoxide Levels

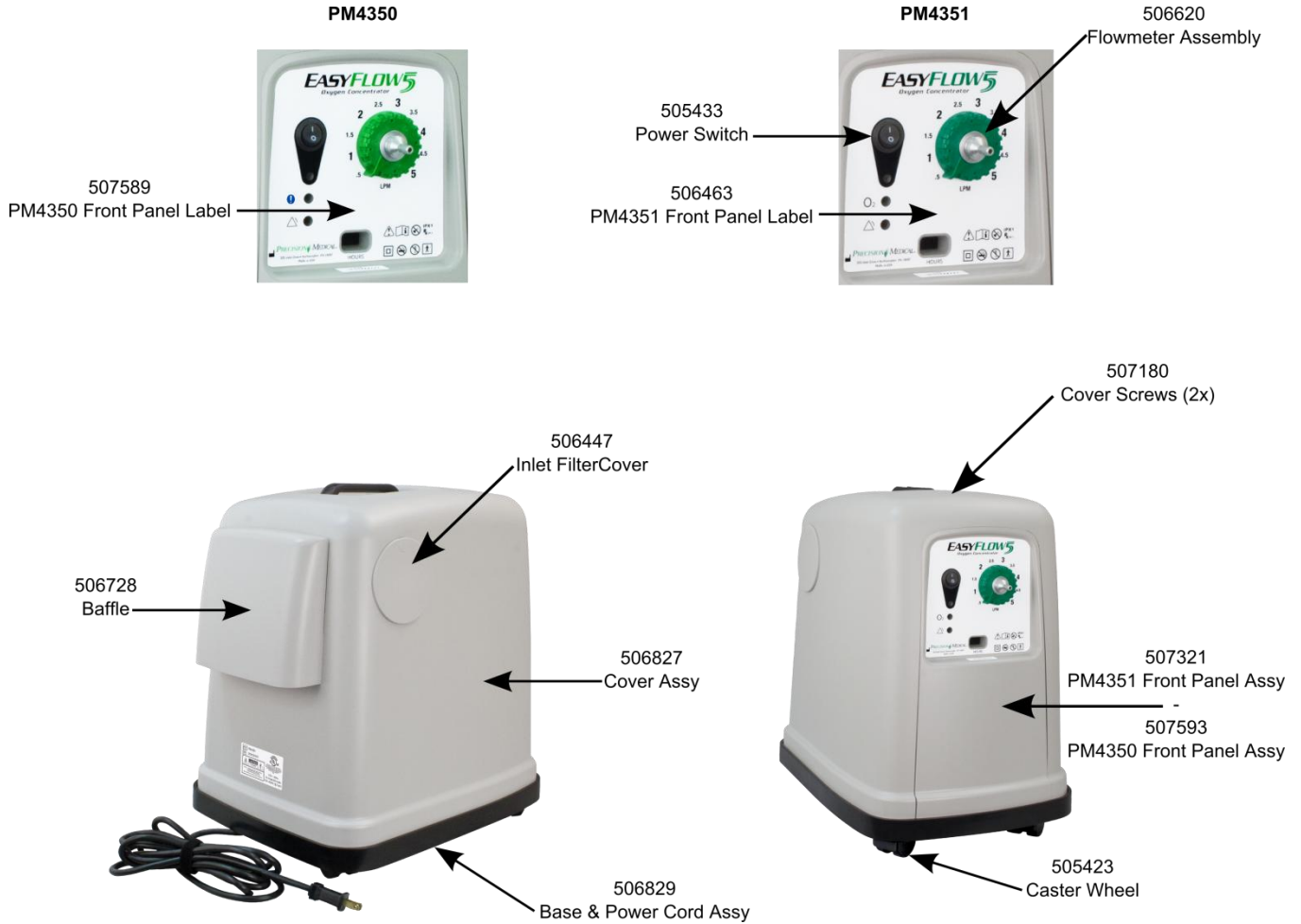
EPA NAAQS Carbon Monoxide Carbon Dioxide Levels

OSHA Permissible Exposure Limits

Standard Test Method for Determination of Volatile Organic Chemicals in Atmospheres

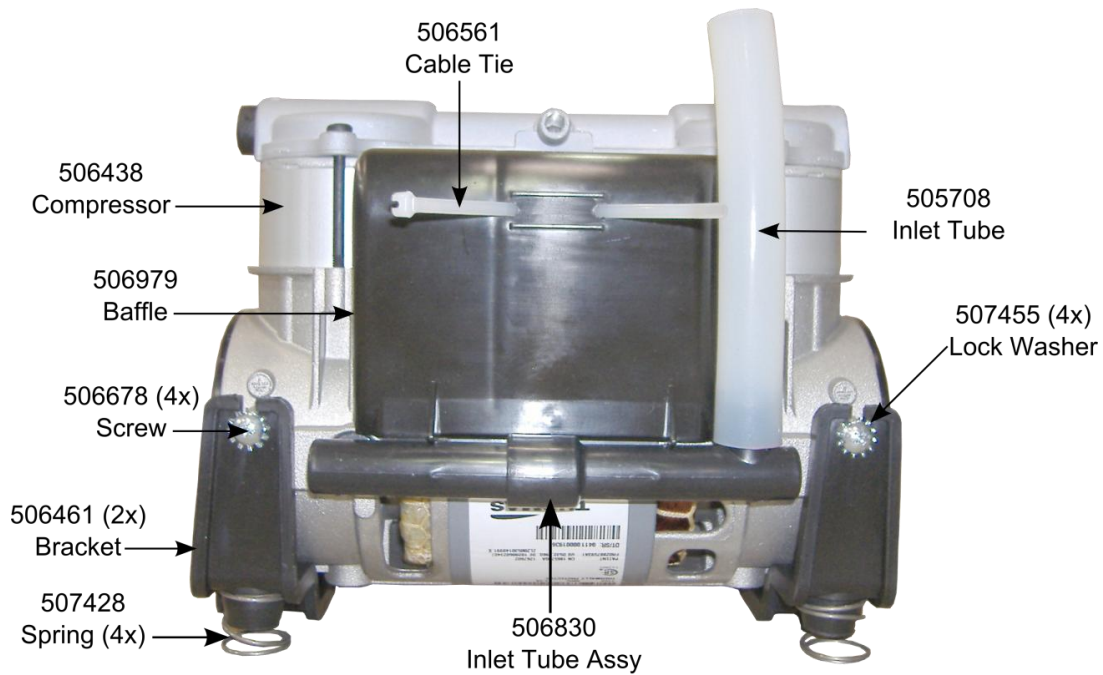
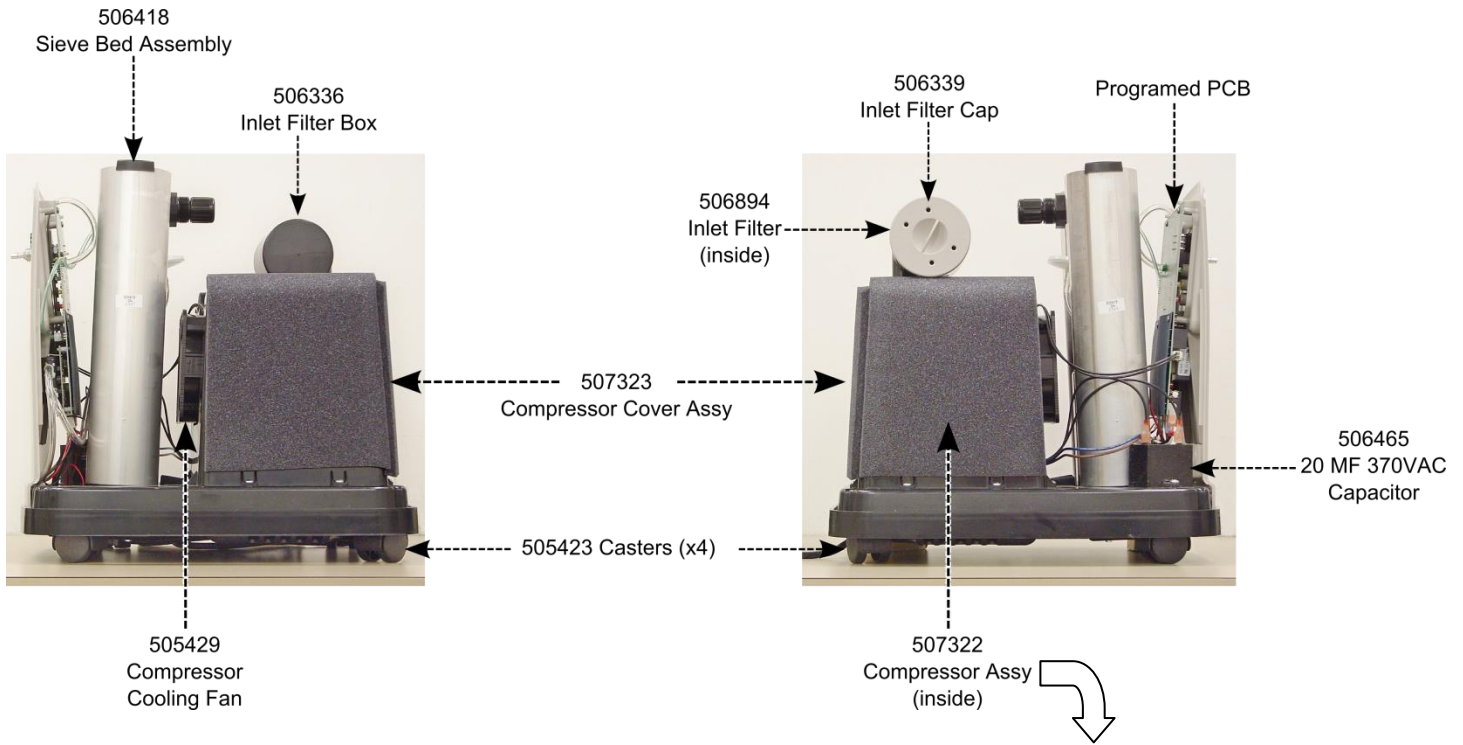
Component Description

External



Part #	Description	Includes
506829	Base & Power Cord Assembly	506333 – Base 505933 – Power Cord
507321	PM4351 Front Panel Assembly	506463 – Label 506620 – Flowmeter Assembly 506395 – PCB with PM4351 Firmware 505433 – Power Switch 506639 – Hose Clamp
507593	PM4350 Front Panel Assembly	505433 – Power Switch 507589 – Label 506639 – Hose Clamp 507591 – PCB with PM4350 Firmware
506827	Cover Assembly	506332 – Cover 506338 – Handle




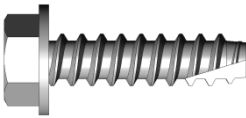
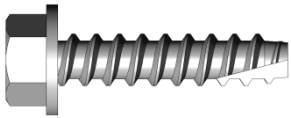
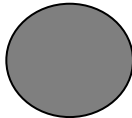
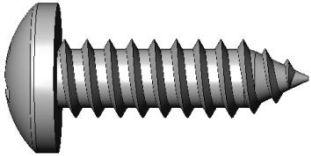
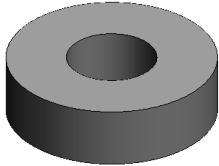
Internal



507322 - Compressor Assembly

Part #	Description	Includes
507323	Compressor Cover Assy	505429 – Fan 505595 – Fan Wire Harness 507001 – Cover

Miscellaneous

 <p>506639 – Nylon Hose Clamp (Flowmeter & O2 Sensor)</p>	 <p>505932 – 11/16" Pinch Clamp (Sieve Bed Hose)</p>	 <p>506763 – Tubing Sleeve Clamp (Pressure Sensor)</p>
 <p>507320 - #8 .625LG Hex Screw (Sieve Beds to Base) 2 ea</p>	 <p>505470 - #10 .750LG Hex Screw (Cover to Base) 4 ea</p>	 <p>506807 - Compressor Spring Pad (Under Compressor each Spring) 2 per</p>
 <p>506627 - #10 Phillips Screw (Compressor Tray, Compressor Cover & Capacitor) 12 ea</p>		 <p>506923 - Rubber Washer (Under Sieve Beds) 2 ea</p>

Maintenance / Cleaning

WARNING

- Prior to cleaning, ensure the EasyFlow 5 Oxygen Concentrator is turned off and unplug.
- DO NOT spray or apply any cleaners directly onto the device.
- DO NOT allow any liquids to drip inside any case openings.
- DO NOT use harsh and/or flammable chemicals to clean the device.
- DO NOT clean with aromatic hydrocarbons.

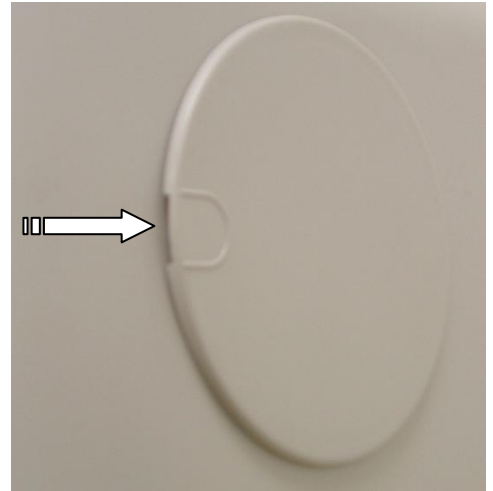
Perform cleaning as required.

Cabinet:

1. Turn the EasyFlow 5 Oxygen Concentrator to the "OFF" (O) position.
2. Unplug the device from the AC power source before cleaning.
3. Clean exterior surfaces of the device with a cloth dampened with disinfectant solution. Example: Sporicidin® Brand Disinfectant Solution.
4. Allow device to thoroughly air dry.
5. When not in use, store the device in a clean area free from grease, oil and other sources of contamination.

Inlet Filter:

1. Remove the Inlet Filter Cover by inserting the tip of a flat blade screwdriver into the slot shown and prying off.
2. Grasp center of Inlet Filter Cap and pull to remove.
3. Remove Filter.
4. Wash Filter with mild detergent.
5. Rinse thoroughly with water and allow to thoroughly air dry.
6. Reinstall Filter back into the Inlet Filter Box.
7. Grasp center of Inlet Filter Cap and push into place.
8. Snap Inlet Filter Cover back into opening of the device cover.



Returns

Returned products require a Returned Goods Authorization (RGA) number, contact Precision Medical, Inc. All returns must be packaged in sealed containers to prevent damage. Precision Medical, Inc. will not be responsible for goods damaged in transit. Refer to Precision medical, Inc. Return Policy available on the Internet, www.precisionmedical.com.

Disposal Instructions

This device contains components that are hazardous to the environment. DO NOT dispose device into standard trash. Contact your local waste management for disposal of Medical Electrical Devices.



Troubleshooting

Visual Indicator / Problem	Audible Alarm	Probable Cause	Remedy
YELLOW indicator flashes	Repeated beeping	Flow to patient is occluded	Remove occlusion, kink or block in patient cannula
When device is turned "ON", device does not function and the GREEN Power Indicator does not light.	Continuous	Concentrator is not properly plugged into electrical outlet.	Make sure Concentrator is properly plugged into the electrical outlet.
RED General Alarm Indicator is "ON" steady or continuously blinking; device stops functioning.	Repeated beeping	System malfunction.	Turn power switch "OFF" and wait 5 minutes, then turn back "ON". If condition persists, turn the concentrator "OFF", connect to another source of oxygen and contact your Provider.

Visual Indicator / Problem	Audible Alarm	Probable Cause	Remedy
RED General Alarm Indicator flashes once, device momentarily stops functioning, and then automatically restarts.	Single beep	Momentary AC power interruption.	It is normal for this to occur occasionally (such as during severe weather); however, if this condition persists, connect to another source of oxygen and contact your Provider.
GREEN Power Indicator is "ON", YELLOW and RED General Alarm Indicators are flashing and device is running	Repeated beeping	Device overheating	Internal temp above 109° Move Concentrator to a cooler location. Ensure Concentrator is positioned away from curtains or drapes, hot air registers or heaters. Be certain to place the Concentrator so all sides are at least 6 in. (15.24 cm) away from a wall or other obstruction. DO NOT place concentrator in a confined area.
RED General Alarm Indicator is flashing while beeping, device stops functioning.	Repeated beeping	Device overheated	Move Concentrator to a cooler location. Ensure Concentrator is positioned away from curtains or drapes, hot air registers or heaters. Be certain to place the Concentrator so all sides are at least 6 in. (15.24 cm) away from a wall or other obstruction. DO NOT place concentrator in a confined area.
(PM4351 ONLY) YELLOW Oxygen Concentration Indicator is "ON" steady.	None	Low oxygen concentration.	Continue to use concentrator and contact your Provider.
(PM4351 ONLY) YELLOW Oxygen Concentration and RED General Alarm Indicators are "ON" while beeping; device stops functioning.	Repeated beeping	Very low oxygen percentage.	Turn the concentrator "OFF", connect to another source of oxygen and contact your Provider.
No flow from nasal cannula.	None	<ol style="list-style-type: none"> 1. Kinked tubing. 2. Nasal cannula has become disconnected from oxygen outlet on concentrator or from extension tubing. 3. Connection between bubble humidifier and oxygen outlet on concentrator has become loose. 4. Flow Selector is in between settings. 	<ol style="list-style-type: none"> 1. Check tubing and nasal cannula for kinks. 2. Check cannula and tube fittings for proper connection. 3. Tighten bubble humidifier bottle. 4. Set Flow Selector to a flow setting.

Visual Indicator / Problem	Audible Alarm	Probable Cause	Remedy
Limited or no oxygen flow.	None	Dirty or obstructed bubble humidifier, or leak present.	Remove the bubble humidifier bottle and if flow is restored, clean or replace the bubble humidifier.
Condensation collects in the oxygen tubing when you do not use a bubble humidifier bottle.	None	Concentrator not properly ventilated, elevated operating temperatures.	Ensure Concentrator is positioned away from curtains or drapes, hot air registers or heaters. Be certain to place the Concentrator so all sides are at least 6 in. (15.24 cm) away from a wall or other obstruction. DO NOT place the Concentrator in a confined area. DO NOT OVERFILL bubble humidifier. Allow the oxygen tubing to dry out, or replace with new tubing.

Alarm Indicators

PM4351 O2 Sensor Model



Power On Indicator

O₂



Low O2 Indicator



General Alarm Indicator

PM4350 Non-O2 Sensor Model



Power On Indicator



General Mandatory Action
Required Indicator



General Alarm Indicator

Front Panel Assembly Replacement

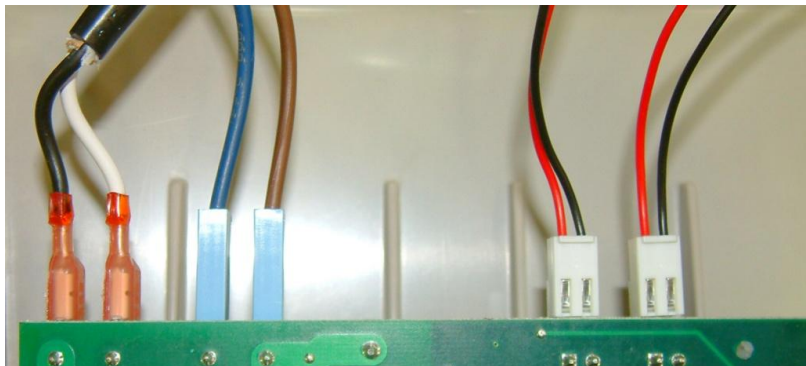
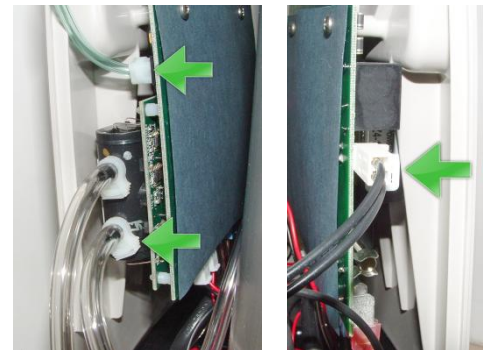
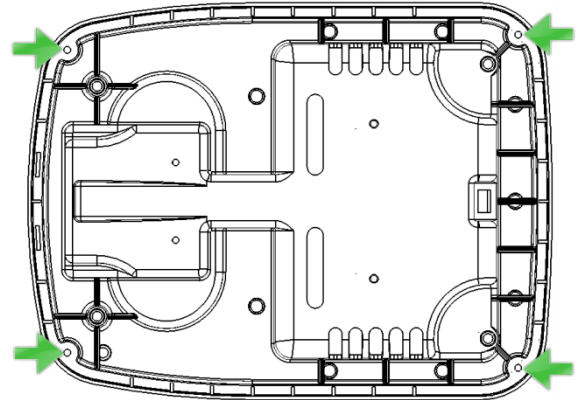
(PM4350 – 507593 PM4351 – 507321)

Disassembly

Tools and equipment required:

- #2 Phillips Screwdriver
- 5/16 Hex Nut Driver
- Small Diagonal Cutting Pliers
- Needle Nose Pliers

1. Switch the device power to the off position.
2. Unplug the device from the AC power source.
3. Place the device onto a table or bench top.
4. Using a Phillips Head Screwdriver, remove the two (2) Screws located on top of Enclosure in front of the Handle and set aside.
5. Gently lay the device onto one of its sides.
6. Using 5/16 Hex Nut Driver, remove the four corner Hex Screws and set aside.
7. While holding the Top Enclosure and Base together, return the device back to an upright position.
8. Grasp the Handle on the Top Enclosure and lift upward to remove it from the Base Assembly.
9. Using Needle Nose Pliers, slide Tubing Sleeve Clamp on Blue/Green tubing off bard.
10. Carefully remove the Blue/Green Tube from the Pressure Sensor on the PCB.
 - 10.1. Set aside Clamp for re-assembly.
11. **For PM4351 Models:**
 - 11.1. Release Nylon Hose Clamp on Tubing connected to the bottom port of the Oxygen Sensor.
 - 11.2. Remove the bottom Tube connected to the bottom port of the Oxygen Sensor.
 - 11.3. Set aside Nylon Hose Clamp for re-assembly.
12. Unplug Fan Wire Harness connected to left side of the PCB.
13. Carefully lift the Front Panel Assembly upward and lay it down in front of the device.
14. Disconnect all Wire Connectors shown below.
15. Remove the Front Panel assembly from the device.



Reassembly

(Reference Disassembly Photos)

1. Lay Front Panel Assembly in front of device.
2. Connect all Wires as shown in step 14 of the [Front Panel Assembly Replacement; Disassembly](#).
 - 2.1. From left to right; Black, White, (Power Cord) Blue, Brown, (Compressor) Red/Black, Red/Black
 - 2.1.1. The Red/Black wires are from the Sieve Bed Valves and may be interchanged.
3. Lift Front Panel Assembly upward then lower it into slots located in the front of the Base Assembly.
4. Connect Wire Harness from Fan to Connector on left side of PC Board.
5. Slide Clamp onto thin Blue/Green Tube from Sieve Bed Assembly.
6. Push end of Blue/Green Tube onto Pressure Sensor located on PC Board.
7. Slide Clamp on Blue/Green Tube over barb on Pressure Sensor.
8. Slide Clamp onto remaining Tube from Sieve Bed Assembly.
9. **FOR PM4350 Non O2 Sensor Model ONLY;**
 - 9.1. Attach Tube with connector from Front Panel to Tube from Sieve Bed and secure with Clamp.
10. **FOR PM4351 O2 Sensor Model Only;**
 - 10.1. Push tube onto remaining port of Oxygen Sensor on PC Board and secure with Clamp.
 - 10.1.1. Tube should rest on top of Exhaust Housing on Sieve Bed Assembly.
11. Align and lower Top Cover onto device while ensuring Front Panel Assembly is properly captured.
12. Insert an Alignment Tool thru hole in Top Cover and into mounting hole on Sieve Bed Assy.
13. Ensure Top Cover is properly lowered and then remove the alignment tool.
14. Insert and secure Screw thru Top Cover and into opposite mounting hole on Sieve Bed Assembly.
15. Remove Alignment Tool and insert second Screw thru Top Cover and into remaining mounting hole on Sieve Bed Assembly and secure.
16. Secure Top Cover to Base using Hex Screws (x4).
17. Verify device is operating to specifications as described in the Final Test section of this Manual.



Dial Flowmeter Replacement (506620)

Disassembly

Tools and equipment required:

Phillips Screwdriver

½" Wrench

Needle Nose Pliers

⚠WARNING When handling the PCB, always use ESD Protection.

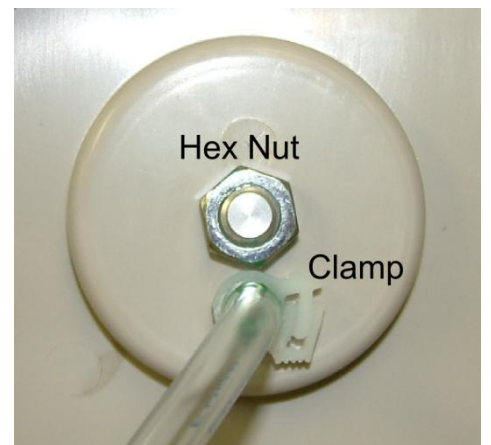
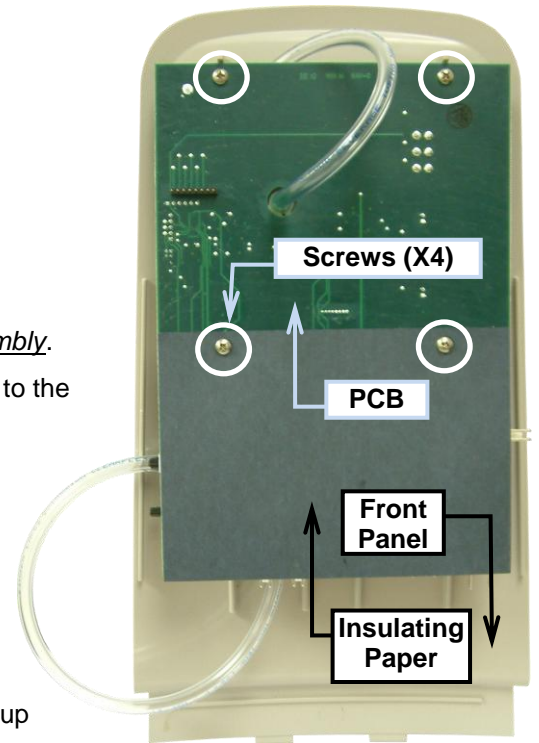
1. Follow steps all steps for *Front Panel Assembly Replacement; Disassembly*.
2. Using a Phillips Screwdriver, remove the four Screws securing the PCB to the Front Panel and set aside.
3. Remove Insulating Paper and set aside.
4. From the top right hand corner of the PCB (as shown) pull the PCB upward to disengage the Power Switch from the PCB.
5. Position the PCB so that the backside of the Dial Flowmeter is exposed.
 - 5.1. Keep Tubing inserted thru PCB hole as shown.
6. Disengage Hose Clamp on Tube on back of Dial Flowmeter and slide it up and off the Barb.
7. Using Needle Nose Pliers, remove the Tube off the Dial Flowmeter Barb.
8. Using a ½" wrench, remove Dial Flowmeter Hex Nut.
9. Remove Dial Flowmeter from the Front Panel.

Reassembly

(Reference Disassembly Photos)

⚠WARNING When handling the PCB, always use ESD Protection

1. Insert new Dial Flowmeter from front side of the Front Panel, aligning the center Stud and Barb with the corresponding openings.
2. Apply Loctite[®] 425 to threads of Flowmeter Assembly.
3. While holding Flowmeter Outlet Fitting, tighten Hex Nut.
4. Place Tube onto Flowmeter Barb. Tube should cover entire Barb.
5. Slide Clamp onto Tube at barb of Flowmeter and engage.
 - 5.1. Leave approximately 1/8" gap between Clamp and Front Panel.
6. Position the PCB back into place while ensuring terminals for Power Switch are aligned and the Tubing from the Dial Flowmeter is routed as shown.
7. Press PCB terminal connectors onto Power Switch.
8. Place Insulating Paper over bottom half of PCB, aligning the two (2) top holes with the two (2) lower holes on the PCB.
9. Using the four (4) #6 pan head Phillips Screws secure the PCB to the Front Panel as shown.
10. Follow all steps for *Front Panel Assembly Replacement; Reassembly*.



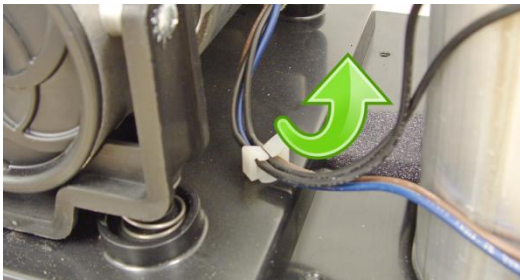
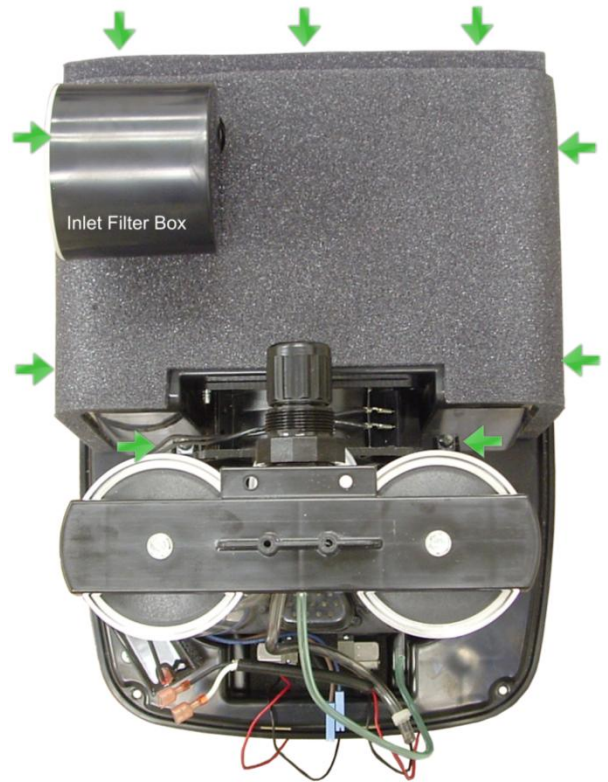
Compressor Assembly Replacement (507322)

Disassembly

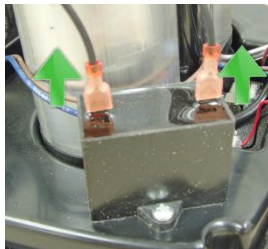
Tools and equipment required:

- #2 Phillips Screwdriver
- Diagonal Cutting Pliers
- Needle Nose Pliers

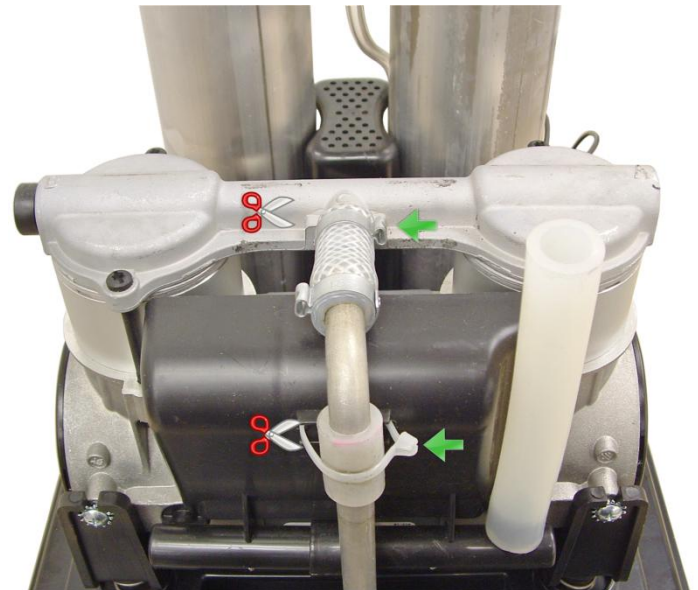
1. Follow all steps for Front Panel Assembly Replacement; Disassembly.
2. Grasp Inlet Filter Box and pull upward to remove from the Compressor Cover.
3. Using a Phillips screwdriver, remove the nine (9) Screws securing the Compressor Cover to the Base and set aside.
4. Remove Compressor Cover by lifting upward and set aside.
5. Using Diagonal Cutting Pliers, cut and remove Hose Clamp on center port of Compressor indicated in photo.
6. Using Diagonal Cutting Pliers, cut and remove Cable Tie securing the Compressor Baffle to the metal tubing as indicated in photo.
7. Slide Hose off of center Barb on Compressor.
8. Remove Compressor Baffle from the Compressor.



9. Remove Compressor wires from Saddle Mount.
10. Disconnect Compressor Wires connected to Capacitor.



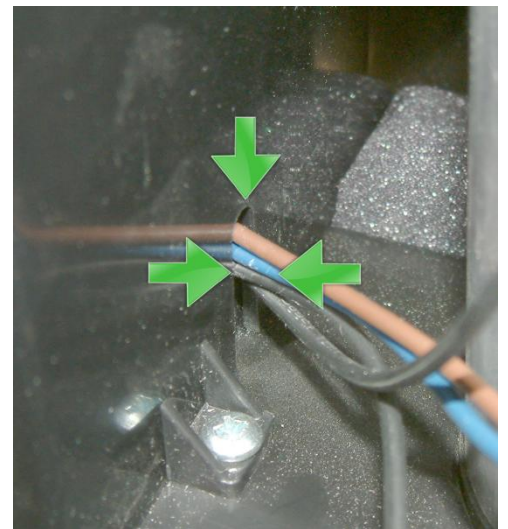
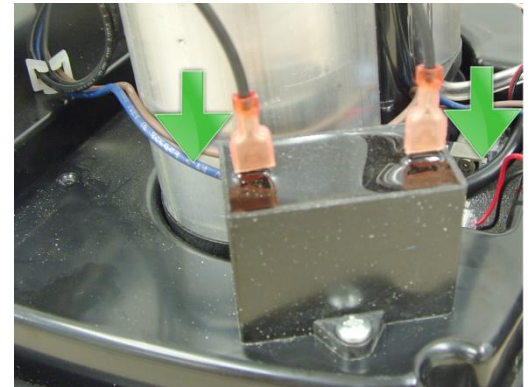
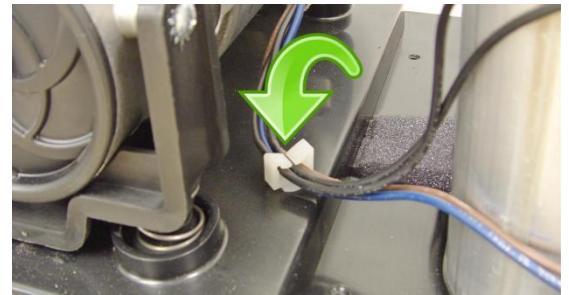
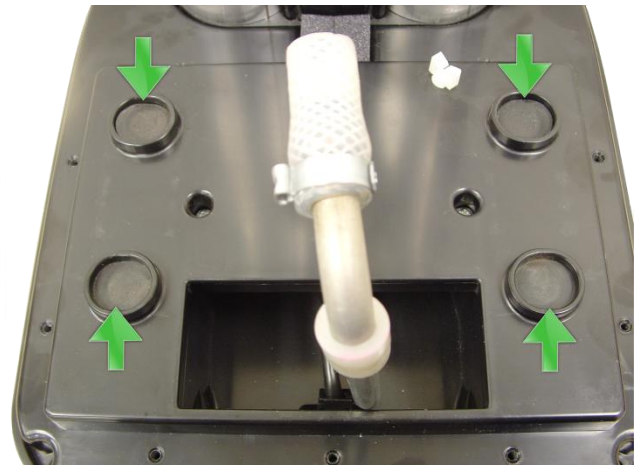
11. Lift the Compressor up and off the Base.



Reassembly

(Reference Disassembly Photos)

1. Place Compressor Assembly, center port facing to the back of the device, onto the Compressor Tray while ensuring to get each Spring into the corresponding Pad locations.
 - 1.1. Ensure 2 Rubber Pads are in each Pad locations
2. Insert Tie Wrap thru the center of the Compressor Baffle.
3. Place Compressor Baffle onto the Compressor as shown in photo in Disassembly section above.
4. Slide an 11/16" Pinch Clamp onto Hose on metal Tube.
5. Slide Hose from metal Tube onto center port on Compressor.
6. Secure the Hose to the Compressor by tightening Clamp.
7. Secure the Compressor Baffle to the metal Tube using the Cable Tie.
8. Route the Compressor Wires around the front of the Compressor and around the side of the Sieve Bed Tube and insert into Saddle Mount as shown.
9. Connect the two (2) Black Wires from the Compressor to the Capacitor. (polarity is not important)
10. Place Compressor Cover, Fan towards the Sieve Beds, over the Compressor.
 - 10.1. Ensure to capture all the Compressor Wires into slot on Compressor Cover.
 - 10.2. Ensure Inlet Tube on Compressor is aligned with corresponding hole on Compressor Cover.
11. Using a Phillips screwdriver, secure the Compressor Cover to the Base with the nine (9) Screws.
12. Insert Inlet Filter Box into Compressor Cover by aligning the tab on the Filter Box with the slot on the Compressor Cover.
 - 12.1. Compressor Inlet Tube should be inserted into the Filter Box.
13. Follow all steps for Front Panel Assembly Replacement; Reassembly.



Sieve Bed Assembly Replacement (506418)

Disassembly

Tools and equipment required:

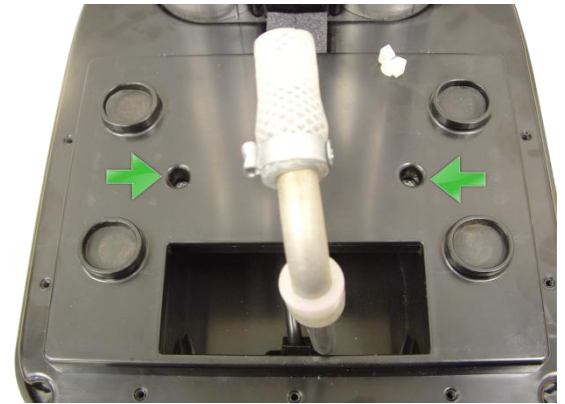
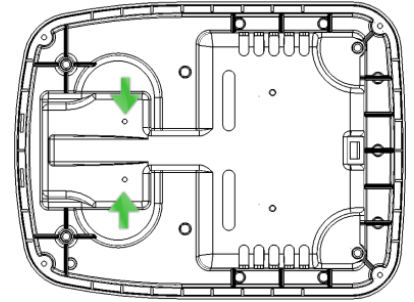
#2 Phillips Screwdriver

¼" Hex Nut Driver

Diagonal Cutting Pliers

Needle Nose Pliers

1. Follow all steps for Front Panel Assembly Replacement; Disassembly.
2. Follow all steps for Compressor Assembly Replacement; Disassembly.
3. Gently lay the device onto one of its sides.
4. Using ¼" Hex Nut Driver, remove the two Screws securing the Sieve Bed Assembly.
5. While holding the Sieve Bed Assembly and Base together, return the device back to an upright position.
6. Using a Phillips screwdriver, remove the two center Compressor tray Screws.
7. Remove Tray
8. Lift Sieve Bed Assembly up and out of the Base.



Reassembly

1. Ensure Foam is properly placed into the Base as shown.
 - 1.1. Power Cord should be on top of Foam.
2. Lower Sieve Bed Assembly into Base while ensuring the White Tubing is captured in the Foam with the Power Cord and the mounting holes align with the hole in the Base.
3. While holding the Sieve Bed Assembly and Base together, lay the device on one of its sides.
4. Secure the Sieve Bed Assembly to the Base using the two (2) #8 Hex Screws.
5. Feed the end of the metal Tube from the Sieve Bed Assembly thru the rectangular opening on the Compressor Tray and position it on the Base.
6. Using a Phillips screwdriver, secure with Screws, the Compressor Tray to the Base.
7. Follow steps all steps for Compressor Assembly Replacement; Reassembly.



Final Test

Test Requirements for Stationary Oxygen Concentrator

1. Ensure Device Power Switch is in off position “O”.
2. Plug Device into a 120 VAC source.
3. Turn Dial Flowmeter on Device to Setting 5.
4. Power on (I) Device.
 - 4.1. When powering on Device, verify a momentary audible “beep” is heard and that the Green, Yellow and Red LEDs on Front Panel illuminate for 1 second and then only the Green LED remains illuminated.
5. Verify Fan is pulling air into the Device by placing your hand under the Base and verifying you feel air moving.
6. Allow Device to run a minimum of 3 minutes.
7. Attach hose from a calibrated oxygen flow monitor to outlet of flowmeter.
8. Verify all flow settings are within the specified tolerance.
9. Return the Flow Selector back to setting 5.
10. Disconnect flow monitor from the Device outlet and connect a calibrated Oxygen Monitor/Analyzer.
11. Verify O₂ concentration is within the specified tolerance.
12. Disconnect the Oxygen Monitor/Analyzer from the Device outlet.
13. Unplug the Device from 120 VAC source while Power Switch is still in on (I) position.
14. Verify a continuous audible alarm is heard.
15. Turn The Device off by pressing Power Switch to off (O) position.
16. The continuous audible alarm should stop.



Specification Table

Position	Flow Setting	Tolerance (LPM)
1	0.50	0.50 – 0.90
2	1.0	0.90 – 1.30
3	1.5	1.30 – 1.70
4	2.0	1.80 – 2.20
5	2.5	2.25 – 2.75
6	3.0	* 2.70 – 3.30
7	3.5	* 3.15 – 3.85
8	4.0	* 3.60 – 4.40
9	4.5	* 4.05 – 4.95
10	5.0	4.85 – 5.15

* Flow must be greater than the previous setting



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