

OXYGEN MANUAL

72-Hour Follow-up Oxygen Survey



72-Hour Follow-up Ventilator Survey



Leave Us A Review





Welcome to the Veterans Affairs Home Oxygen Program through Mid-Cities Home Medical Delivery Service.

Please read through this Home Oxygen Instruction Manual, as it will help you become familiar with the program and your new equipment. If you should have any questions, please call one of our phone numbers for assistance:

Texas Patients: 1 (888) 450-6676 or (972) 641-7445 Arizona and California Patients: 1 (833) 986-4267 Hearing Impaired Patients: May use Texas Relay by calling 1 (800) 735-2988

Mid-Cities Home Medical Delivery Service is a home oxygen and medical equipment company. We process your doctors' orders just like a pharmacy. We cannot change, add, or remove items delivered without a doctor's order. Mid-Cities Home Medical is responsible for providing supplies and manufacturer required maintenance of your equipment. You or your Caregiver are responsible for general cleaning and supply changes. Should you have a question about your prescription order or if you need assistance, please contact your local VA Pulmonary Clinic. **Contact numbers are available for you on pages 6-7.**

Office Hours:

The office is open 8:30-5:00 Monday through Friday. Weekends, afterhours or holidays the phones are answer by an answering service operator. They will take a message for the office. Patients with an emergency, like broken equipment, may have a staff member paged.

Texas Patients: 1 (888) 450-6676 or (972) 641-7445 Arizona and California Patients: 1 (833) 986-4267

Patients with Computers:

Our website: <u>www.Mid-CitiesMedical.com</u>. You may contact us by email with nonemergency questions or comments.

Our email address: Orders@Mid-CitiesMedical.com

Training Video:

QR Codes are used throughout this manual to allow patients to quickly access video training materials and other options.



Follow-up Survey: VA Patients are requested by the VA Medical Centers to complete a survey about your overall educational training, equipment setup and delivery performance. You can take the survey at your earliest convenience by going to our online survey.

The online survey is at: <u>https://mid-citiesmedical.com/survey</u>

Patients that do not complete this survey within three days of their setup will receive a phone call from our office to go over the survey questions.

72-hour Follow-up Survey

Patients are requested by the VA Medical Centers to complete a survey about your overall educational training, equipment setup and delivery performance. NOTE: If we do not receive your survey answers within 72-hours, one of our associates will contact you directly.

https://www.mid-citiesmedical.com/survey

Leave Us a Review

We ask that you please provide a review (praise or comment) of our products and services. Reviews not only improve but also to let others know that Mid-Cities Medical cares about delivering of "World-Class Customer Service." If you find our information to be helpful, write us a review!

https://mid-citiesmedical.com/about/praises/



How to scan a QR code with your iPhone Camera app

Open the Camera app from the Home Screen, Control Center, or Lock Screen.
 Select the rear facing camera. Hold your device so that the QR code appears in the viewfinder in the Camera app. Your device recognizes the QR code and shows a notification.

3. Tap the notification to open the link associated with the QR code.

How to scan a QR code with your Android Camera app

- 1. On your compatible Android phone or tablet, open the built-in camera app.
- 2. Point the camera at the QR code.
- 3. Tap the banner that appears on your Android phone or tablet.
- 4. Follow the instructions on the screen to finish signing in.



VA Hospitals and patient are served through Local Branches



Our team is waiting to assist you.

VISN 17 – Texas

Mid-Cities Medical - 1 (888) 450-6676

North Texas serviced from Grand Prairie, TX Central Texas serviced from Woodway, TX & Austin, TX South Texas serviced from San Antonio, TX Valley Coastal Bend service from Corpus Christi and Mercedes, TX

VISN 22 – Arizona

Mid-Cities Medical - 1 (833) 986-4267

VA Phoenix serviced from Gilbert, AZ VA Prescott serviced from Prescott, AZ VA Tucson serviced from Tucson, AZ

CalOx Inc. - 1 (866) 519-2414

VISN 22 – Southern California

Mid-Cities Medical – 1 (833) 986-4267

Loma Linda serviced from Redland, CA San Diego serviced from San Diego, CA

CalOx Inc. - 1 (866) 519-2414

Los Angeles serviced from Los Angeles, CA Long Beach serviced from Los Angeles, CA



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Emergency and VA Phone Number List:

Life threatening emergencies:

9-1-1

If you or a loved one is having a medical emergency and needs immediate assistance, call the number above.

State Emergency Preparedness and Information Line: 2-1-1

Veterans Crisis Line:

If you are thinking about suicide, speak with someone that can help you or family member. 1 (800) 273-8255, Text 838255 or <u>Confidentialchat@VeteransCrisisLine.net</u>

Hearing Impaired:

To use Teletype for the Deaf (TTY) services: 711

VISN 17 – Texas

Veteran's Administration: Hours of Operation: Monday - Friday 8:00 am - 4:30 pm

VA North Texas (Dallas) Healthcare System:	(214) 857-0548 (main)
Toll Free:	Toll-free: 1 (800) 849-3597 Ext. 70548
Home Oxygen Coordinator:	
Nestor	(214) 857-1598
John	(214) 857-0567

After hours, call 911 or call/come to the Dallas VA Urgent Care Clinic: (214) 857-1975

VA Central Texas Healthcare System:	
Temple:	(254) 778-4811 (main)
Waco:	(254) 752-6581 (main)
Toll Free:	Toll-free: 1 (800) 423-2111
Home Oxygen Coordinator:	
Temple – Linda Stock	Ext. 31074
Austin – Caroline Molina	
VA South Texas Healthcare System:	
San Antonio:	(210) 617-5300
Kerrville:	Toll-free: 1 (866) 487-1563
Toll Free:	Toll-free: 1 (888) 686-6350
	1011-1122. 1 (888) 080-0550
Home Oxygen Coordinator:	1011-1122. 1 (000) 000-0550
Home Oxygen Coordinator: Dean Hardin	Ext. 14877
Dean Hardin	Ext. 14877



VISN 22 – Arizona

Veteran's Administration: Hours of Operation: Monday - Friday 8:00 am - 4:30 pm

Phoenix VA Medical Center	(602) 277-5551
Prescott VA Medical Center	(928) 445-4860
Tucson VA Medical Center	(520) 792-1450

VISN 22 – Southern California

Veteran's Administration: Hours of Operation: Monday - Friday 8:00 am - 4:30 pm

VA Loma Linda

VA Long Beach

VA San Diego

VA Greater Los Angeles

Tollfree: 1 (800) 741-8387 Local number: 909-825-7084

Tollfree: 1 (888) 769-8387 Local Number: 562-826-8000

Tollfree: 1 (877) 222-8387 Local Number: 858-552-8585

Tollfree: 1 (800) 698-2411 Local Number: 213-253-5000





Oxygen is medicine:

Oxygen is a prescription drug. Oxygen has no known drug interactions. It requires an annual renewal. Oxygen is given to people to treat a lung condition or other illnesses. Oxygen therapy may last from a few weeks to a several years. If your lung function improves, your doctor may discontinue your oxygen therapy and send a cancellation prescription.

If you notice any of these symptoms, speak with your VA doctor. Your doctor can review your symptoms, do tests, and determine if you need oxygen therapy. The VA doctor and Home Oxygen clinic staff will explain how much oxygen to use and how often to use it. It is important that you wear your oxygen at least the minimum time prescribed. Once on oxygen therapy, these problems should decrease.

Signs you may need Oxygen therapy:

- 1. Decrease in your ability to perform daily activities comfortably
- 2. Increased shortness of breath
- 3. Unexplained confusion
- 4. Elevated heart rate
- 5. Increased fatigue
- 6. Headache

Signs Oxygen therapy is helping:

- 1. You can be more active.
- 2. You have more energy to care for yourself.
- 3. Heartrate decreases.
- 4. You feel more rested after sleep
- 5. Shortness of breath is decreased
- 6. Fewer headaches



Oxygen and other Medications:

Understanding your healthcare and the medications you are on is important to your overall health. Be your own advocate. We recommend that you always take all your medications with you when visiting your doctor's appointment. If your doctor prescribes new medication, ask questions.

- Why is there a change?
- Is it a replacement of a medication or in addition to what you are taking?
- Is there any possible drug interaction between the new medication and what you are currently taking?
- Compare your refilled pills to your old pills. If they look different, call your pharmacist. Do not take them until you verify, they are the correct.



Discontinuation from Oxygen Program

The V.A. Medical Center has the right to discontinue oxygen for patients that do not meet safety, maintenance, and usage requirements. These requirements are:

- Failure to keep your annual VA Medical Center Home Oxygen renewal appointment.
- Failure to allow Mid-Cities access to equipment and oxygen on the route day or during other appointments.
- Failure to allow the liquid oxygen provider, access to the home.
- For smoking while on Oxygen.
- For failure to enroll in and actively participate in a smoking cessation program.
- For safety issues that could cause injury to yourself or others in the community.
- Threats of physical violence or terroristic threats in person, over the phone, written, or electronically sent to any VA or Mid-Cities staff member, employee, or representative.
- For missing two or more home appointments.
- Failure to allow home inspection visits by the VA Medical Center, Mid-Cities Home Medical and Accreditation Inspection Compliance Officers.
- Your lung function is better, and your doctor determines you no longer need oxygen therapy.



Patient Privacy:

In accordance with the HIPAA patient privacy law, Mid-Cities Home Medical staff members are required to establish identity of all callers. Staff members are required by this law to make sure the person they are speaking to on the phone is authorized to receive patient information. You or your family may be asked to give us two or more of the following.

- Patient's full name
- Last four of social security number
- Physical Address

- Date of Birth
- Phone Number
- Next of Kin (if on record)

Please NOTE:

- If your call is transferred to another staff member, you may be asked again to verify your identity as required by law.
- Staff members will not release any information until they are sure of patient identity.

You can make restrictions to your account at any time. Just ask the Customer Experience Team to mail out a HIPAA form. We will update your record when we received the form back from you.

Requesting a copy of your patient information:

For copies of prescriptions and other documentation, you must submit a written request form at your local VA Medical Center. We cannot release any VA owned information. All requests for documentation must be done through your VA Medical Center.



Home Safety Training



Patient and Home Safety:

Protecting yourself and others from injury is important. In this section, you will get tips on how to keep yourself safe and how to make your home safer. We will cover personal safety, oxygen safety and fall risk reduction.

Emergency Action Planning:

During a Power Outage or Equipment Failure, your oxygen concentrator will not work.

- You will need to begin using your emergency back-up oxygen or battery supported back-up ventilator.
- Call your power company and report the outage. Ask the power company for an estimated power restoration time.
- Call our emergency number for assistance, report how much back-up you have in the home. We can help you estimate how long your emergency backup oxygen will last and arrange for an emergency service.
 - Texas Residence call 1 (888) 450-6676
 - Arizona Residence call: 1 (866) 519-2414
 - o California Residence call: 1 (833) 986-4267

Personal Safety:

Oxygen is an accelerant. This means that it is like gasoline. It causes things to burn hotter and faster than without it. As an Oxygen patient, you need to be aware of potential fire hazards in your home.

- Tell visitors, "Oxygen is in use".
- Post "no smoking" signs to remind others not to smoke.
- Never smoke in a home or locations where oxygen is used.
- Help Police & Fire identify you and your home are someone needing additional assistance in an emergency. Check with local authorities to see if they have a list.
- Make your home a priority for evacuation assistance.
- Remember to keep oxygen away from heat sources, open flame(s), heat producing products, heating elements, heat vapors, and sparking items.

Community Safety: Be aware of your public surroundings. Avoid public areas where there are active flames, sparks, heat sources, heat producing products, heating elements, heat vapors or other safety hazards in use. If you live in a multi-family building, be sure that your neighbors are aware that you have oxygen in your home and ask that they refrain from smoking around you. Encourage them to ask questions about your Home Oxygen therapy. Encourage them to develop an exit plan for their home in case on an emergency.

Keep oxygen away from open flames, sparking items and heat sources

Oxygen is heavier than room air and causes items to catch fire easily. Oxygen tends to collect in facial hair, furniture, clothing, rugs, and bedding. Sudden flash point fires occur when oxygen concentrates in those areas and is then exposed to a heat source. Some examples of heat sources are small or large appliances, vapors, sparks, and open flames. These fires may occur suddenly and with or without warning. Despite previous experiences with heat sources, you should always practice caution when using oxygen. Fire can cause property damage, injuries, burns and death.



Never use oxygen while on or near an open flame, heat source, sparking item or heat producing item. These include but are not limited to:

- Cigarette, pipe, cigar, E-cig/vaping pen, or other smoking materials or systems
- Candles, matches or lighters
- Sparking toys or tools
- Flame or heater coil Water heater or furnace
- Fireplace/gas or electric heater
- Household appliances and items with a heating element, produces heat vapors, or open flames including stove or oven (electric, wood or gas), air fryer, barbecue grill, or smoker. Household appliances no matter the size; large or small. It is that heat and heat vapors produced by that item, which is the hazard, even if the unit itself is not hot to the touch or the heating element is not easily identified. Even the small ovens and toasters can cause a fire if exposed to an oxygen source.

Oxygen Safety Precautions:

No Smoking/Vaping/E-Cigarette is allowed while you are on the VA Home Oxygen program. Patients may call their local VA Medical Center about smoking cessation programs, medications, patches, or gums. While working your cessation program, here are some safety tips for smoking. Do not smoke/vape inside the home when your oxygen is in use (tanks, liquid, or concentrator). By moving outside, you move out of the oxygen enriched environment with flammable items like rugs, furniture, and other soft materials inside your home.

Practice the 25 x 10 rule:

- Turn off your oxygen
- Move 25 feet or more away from oxygen tanks and equipment.
- Going outside the home is best.
- Wait 10 minutes before lighting any smoking materials

Do not use petroleum-based oil or grease: Avoid using these products on you or any part of the oxygen equipment. Oil and grease burn easier when mixed with oxygen. Always read the label or check with your pharmacist about oxygen safe products.

Use Products like:	Avoid petroleum-based creams such as:
KY Jelly ™	Hair Cream
Burt's Bee's wax ™	Hair Tonics
Natural products	Vaseline ™
Nasal Ease ™	Some lotions, oils, and creams

Reduce Static Shock Dangers & Electrical Safety: Keep humidity levels normal. Static electricity, due to low humidity levels can cause sparks, which could lead to a fire. In the winter months, you can use a humidifier or boil water to increase the humidity level in the home. Avoid wearing shoes or clothing that increase electrical charges and static shock creation. Plug your equipment directly into the wall. Extension cords and surge protectors can spark when they fail. Make sure electrical appliances are in good working order. Sparks from faulty equipment can lead to a fire.



Have a fire plan

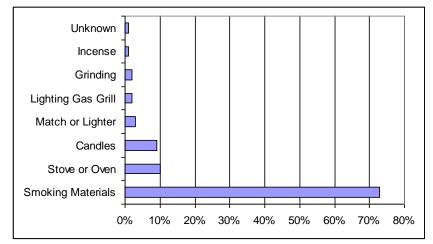
- Have an escape route for every room in your home and practice your plan twice a year.
- Keep evacuation paths clear of debris or trash
- Smoke detector & alarm must be checked monthly to verify it is working.
 - Smoke Detectors can be purchased at most local retailers.
 - Some local Fire Departments can issue, offer installation and placement suggestions.
 Smoke Detectors to people currently without detectors in their home. (See local Fire Department for participation)
 - You or Caregiver is responsible for checking them each month.
- Have a fire extinguisher
- If you have difficulty evacuating, keep a phone next to you so that you can call 9-1-1.
- Have a pre-determined meeting place outside your home so that your family and guests can meet out of the way of emergency personnel.

Oxygen Fire Facts:

182 House fires occur each year and involve Oxygen and its equipment.

- These fires cause an average of 46 civilian deaths per year.
- These fires cause an average of 60 civilian injuries per year.
- One quarter of oxygen related fires end in a death.

As shown below, smoking is by far the leading cause of burns, fires, and deaths related to medical oxygen. This is closely followed by cooking while using oxygen and using oxygen around candles. By practicing the safety tips, you can reduce your chances of injury or death.



Heat Source in 2003-2006 Medical Oxygen-Related Burns Seen at Hospital Emergency Rooms

Source: CPSC's National Electronic Injury Surveillance System



Tank storage:

Always store oxygen tanks in a carrier, cart, fill station or storage rack provided. Do not leave tanks loose around the home, on top of furniture or under other items even if empty.

If a rack is not available:

- Lie tanks flat on the floor
- Keep stems toward the wall and out of walkway
- Keep tanks together in one location
- Do not store under bed, furniture, or in a closet
- To request a new rack, call Mid-Cities Medical
 - Texas Patients: 1 (888) 450-66760
 - Arizona and California Patients: 1 (833) 986-4267

Large M/H "Torpedo type" Emergency Tanks:

- H or M tank should always remain in its stand.
- Do not store M or H outside or in a closet.
- If stand is missing or not available, lie flat on floor with stem out of walkway.
- Do not use any tank as a hanger for clothing, hats, or other articles.
- Call Mid-Cities to request a H stand.



Fall Risk Reduction:

Maintaining a safe home is important to the safety of you the patient and those that visit your home. Many patients are not aware that tripping and falling are the most common form of patient injury. To make things worse, once a patient has fallen, they are more likely to have repeated falls often increasing patient injuries.

Things you can do to help reduce falls in the home:

- Light up your world. Add higher watt light bulbs to add additional light to your rooms.
- Turn on your lights at night or add night lights to areas that you go in the evenings.
- Do not wear or walk around in: Sock feet, slick sole shoes, or loose, floppy shoes
- Remove loose rugs. Rugs should have a slip resistant backing. If that backing is worn or missing; remove it from your home.
- Keep walkways free of cords, tubing, cables and trash or debris.
- Make sure walkways and evacuation paths are always clear.
- Clean up liquid or oily spills immediately.
- If you are on medication that cause light headedness or dizzy spells, use caution until you know how the medication will affect you.



Home Oxygen Equipment Summation & Definitions:

Your VA doctor has written a prescription for your specific oxygen therapy and equipment. Below are the basic terms and definitions. This will help you understand that an item is the correct medical term and what the item does. Mid-Cities will go over each item specifically ordered for you during your setup and will give you specific instructions on the use and care of all your oxygen equipment.

Trans-fill system (UltraFill Station & Home Fill System): This is a special tank filling station that allows prescribed patients to fill their specifically stemmed oxygen tanks.

Oxygen Concentrator Is a machine that takes in room area, concentrates the oxygen, and delivers it to you through the oxygen tubing. This machine is designed to run 24 hours a day with a continuous flow of oxygen. It is electrically powered. The Concentrator is to be used whenever you are at home.

Liquid Oxygen: Is the liquid form of oxygen.

- Base unit is the storage container which holds the liquid oxygen
- Portable unit is the refillable liquid oxygen carrier used for outside the home, doctor's visits, and other outside activities.

Oxygen Tanks: These are metal cylinders that store oxygen gas under high pressure.

- Standard Oxygen tanks come in sizes: H, M, E, D, C and B.
- Refillable oxygen tanks come in sizes: E, D, C and B.

Regulator Is a set of pressure gauges that are attached to the top of an oxygen tank. The purpose of the Regulator is to control the amount of oxygen flowing out of the tanks into the oxygen tubing.

There are two types of Regulators:

- Continuous flow provides a continuous flow of oxygen when open.
- Conservation "Pulse Dose" Regulator provides a "Pulse" of oxygen when the patient initiates a breath.

You are now ready to learn about your specific equipment, supplies, and program.



What program are you on?

UltraFill System or Home Fill System – pages 18-28 Standard Concentrator – pages 29-31 Liquid Oxygen System – pages 32-33 Oxygen Tanks & Regulators – pages 34-40 Supplies & Miscellaneous – pages 41-52



UltraFill Concentrator & Home Fill Station

This section will cover:

- The equipment that makes up an UltraFill system
- The purpose
- Maintenance required by patient
- Operation summary
- Transportation of this unit
- The setup checklist
- The trouble shooting guide.

If further assistance is needed; contact our office

- Texas patients at 1 (888) 450-6675
- California patients at 1 (833) 986-4267

The UltraFill System is three parts:

- The concentrator on the right
- The Ultrafill "Fill station" on the left
- The specialized Ultrafill tanks



Millennium M10



UltraFill System & Everflo Concentrator

The purpose:

This oxygen program will allow patients to fill their own oxygen tanks in their home. It gives you the flexibility to live your life on your schedule. You do not have to wait for monthly tank deliveries. You become responsible for filling your own oxygen tanks. Patients on this program should get in the habit of filling their tanks whenever they return home. Unlike standard tanks that must be empty, the Ultrafill tank can be "topped off" whenever you come back home without emptying it out.



Maintenance:

The Ultrafill concentrator and Fill station do not require regular manufacturer maintenance like other standard concentrators units. The concentrator and Fill Station use a double insulated 2 prong power plugs and should be plugged directly into the wall outlet. <u>Do not use power strips or extension cords it can cause power alarms on these units.</u>

Weekly:

To remove excess dust and debris, wipe off exterior cabinet and including back filter area, with a cloth dampened by water.

- Do not clean with petroleum-based cleaners or chemical sprays.
- Do not open the filter or hose panels
- Do not wipe inside the unit.

Patient to change Cannula

Every two weeks:

Patient or Caregiver is responsible for changing supplies. See supply changing schedule page 42.

Quarterly:

Mid-Cities Home Medical will come out on your route day to perform a Routine Concentrator Maintenance. This checkup includes the oxygen purity, the flow from the unit and safety check of the home and oxygen system.

Annually:

Mid-Cities Home Medical will perform the Manufacturer required maintenance and replacement of Fire safety device.

Back-up Tank:

At least one of your large E tanks is designated as your emergency back-up. This tank should always be filled and have a red paper collar on it. It is not to be used except in an actual emergency, natural disaster, equipment failure or power outage. You are responsible for keeping this tank clearly marked. Should you need an Emergency Back-up Collar ask your technician or call our office.

Questions:

How big is the Ultrafill system?	9″ x 20″ x 25.5
What is the weight of the UltraFill?	45 pounds
What is the noise level of the UltraFill?	<44 dBA
What is the UltraFill power consumption?	110 Watts
What is the altitude rating of the UltraFill?	0 to 7,500 ft. (
What are the operating and storage temperatures?	
Operating: 55 to 90° F (13 to 32° C)	
Storage: -30 to 160° F (-34 to 71° C)	

9" x 20" x 25.5" 45 pounds <44 dBA 110 Watts 0 to 7,500 ft. (0 to 2,286 m)



Operation Summary:

The concentrator takes room air and converts to a purified oxygen. Part of the oxygen is pumped to the concentrator for patient use while filling. The other part of the oxygen is pumped to the Filling Station by the connected tubing. The Filling Station then pumps the oxygen into the tank. The tank automatically stops filling when the pressure reaches 3000 psi. The UltraFill is designed to automatically detect a magnet in the stem of the 3000-psi cylinder. It senses the magnet when the tank is connected to the Filling Station. Once the tank is filled, you can eject it and used it for portable oxygen outside the home.

You may use your concentrator while filling:

- **5-liter concentrators may be used at 3 liters or less while filling a tank.** Always use your prescribed liter flow.
- **10-liter concentrator may be used at 7 liters or less while filling a tank.** Always use your prescribed liter flow.

Always use your prescribed liter flow only. Do not adjust your liter flow. It does not fill tanks faster. It causes one or both the units to alarm because the oxygen and its purity level cannot be maintained at higher flow rates when filling your tank.

Tank Fill & Usage Times for UltraFill Tank:

*Estimated duration in hours based on 20 breathes per minute

Size	Fill time	1	2	3	4	5	6	CF2	CF4
B Tank	1H 45 Min	10.5	6.2	4.3	3.5	3.0	2.6	1.4	.07
D Tank	3H 5 Min	20.9	12.4	8.5	6.9	5.9	5.24	2.8	1.2
E Tank	7H 20 Min	43.6	25.8	17.7	14.5	12.3	10.9	5.7	2.8

Reminder: You must push the black fill button to start filling the tank

Continuous Flow Time Estimates for UltraFill Tanks:

3000 PSI	1	2	3	4	5	6	7	8
B Tank	3	1.4	1.09	.7	.4	.3	.25	.2
D Tank	6	3.15	2.15	1.4	1.2	1.05	.55	.45
E Tank	10	5	3.45	2.8	2.15	1.5	1.3	1.2



How to Safely Transport you unit

 Correct transport method over uneven surface The proper method for moving the UltraFill device is to: Remove the cylinder Either lift the unit using its two handles or pull the device along its long orientation using one handle.
Incorrect transport method over uneven surface Never attempt to move the UltraFill device with the cylinder attached or by pushing the top of the unit along its width wise.

NOTE: The unit can lay flat to transport but must be upright to operate properly for filling purposes.

Do you have a yellow or red light or an alarm?

Get on your emergency back-up tank. An H, M or E tank may be provided to you for "Emergency oxygen". In the event of a power failure or equipment malfunction, you should use your emergency back-up tank.

Continue to the trouble shooting area on page 24.

If you have completed the trouble shooting guide on the next page and the alarm is still sounding or the unit will not run, got on your emergency tank, and call Mid-Cities.

- Texas Patients: 1 (888) 450-6676
- Arizona and California Patients: 1 (833) 986-4267



How to operate your UltraFill System:

To the left is an hour video about the UltraFill System and how to operate it. It will walk you through the various components and how to fill tanks. If you would rather you the written instructions, please continue to the next page.

How to use an oxygen tank is on pages 34-40



Visual Example	Written Instructions	What to double check
	Make sure the Concentrator and Ultrafill system are plugged into the wall outlet and that the connector tubing is connected between the units.	Check to make sure they are plugged into the wall outlet snuggly. Make sure the hose is connected to each unit and there are no kinks in the line.
6 8 0 00	Turn on the Oxygen Concentrator	Green light on top panel should be lit. If not, check that the power cord is plugged in, and the power button is depressed. If the problem persists, consult the Troubleshooting guide.
	Oxygen concentration level is properly set. EverFlo should be at or below 3 LPM. Millennium M10 should be at or below 7 LPM.	Check the concentrator's flow meter. This is done by looking at the black ball floating on the front of the concentrator
	Turn on the UltraFill Filling Station.	Green light on top panel should be lit. If not, check that the power cord is plugged in, and the power button is depressed. If the problem persists, consult the Troubleshooting guide.
	Conserver or regulator is in the "Off" position.	Inspect Visually Regulator to make sure it reads "Off" or "O"
	Check to make sure the tank valve is closed.	Turn the valve head clockwise until tight.



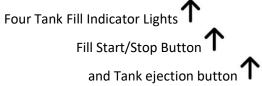
Cylinder is properly connected to the UltraFill device. There should be a "Click" when stem connects NOTE: Patients can push stem into fill adaptor with the palm of their hand and body weight.	One or more lights on the fill- level indicator are solid. No lights should be flashing.
Press the Black Fill Start/Stop button	If cylinder is not full, one light on the fill-level indicator will flash.
When tank is full, all four blue lights will be solid. Press the BLUE ejection button. NOTE: Patients may also push with the heel of the palm.	All lights on the fill-level indicator are solidly lit. If a light is blinking it is not full yet.

Oxygen Tank Cradle and B tank Stand igstarrow and Fill port connector igstarrow

Power Switch

Alarm lights \rightarrow







Trouble Shooting the UltraFill System:

Condition:	Troubleshooting Step:	Corrective action:
Devi NOTE: The unit can lay flat to transport but must be upright to operate properly for filling purposes.	 Verify that the cylinder is connected to the fill coupler (fill level LEDs lit). Verify that the fill Start/Stop button is depressed. 	 If all 4 LEDs are constantly lit, the cylinder is full and ready for use. If all 4 fill level indicator LEDs are not lit and none are blinking, again depress the fill Start/Stop button. Still not working. Texas Patients call: 1 (888) 450-6676 California Patients call: 1 (833) 986-4267
Flashing Yellow light and an intermittent alarm Means that the unit has a loss of pressure fault.	 Check oxygen flow at the transfer tubing connection of concentrator. Check for kinks in the oxygen tube between the concentrator and UltraFill. Ensure regulator is set to the "Off" position. Make sure the cylinder valve is closed (turn clockwise). 	 If the line is kinked, straighten the tubing, and retry filling. Set the regulator in "Off" position and retry filling. Close cylinder valve and retry filling. Still not working. Texas Patients call: 1 (888) 450-6676 California Patients call: 1 (833) 986-4267
Solid Yellow Light No Alarm The unit has detected a less then 90% oxygen purity fault	Check the concentrator's oxygen purity at the patient cannula port.	 If concentrator purity is less than 90 percent, remove the concentrator's inlet filter and retry filling. If the concentrator's oxygen purity is greater than or equal to 90 percent. Still not working. Texas Patients call: 1 (888) 450-6676 California Patients call: 1 (833) 986-4267
Constant Green Light Constant Yellow Light Flashing Red Light Constant Alarm. The device has detected a possible less than 90% and the oxygen within the cylinder is less than 90 percent.	 Empty oxygen from the cylinder. Check the concentrator's oxygen purity at the cannula port. 	 If concentrator purity is less than 90 percent, remove the concentrator's inlet filter and retry filling. Still not working. Texas Patients call: 1 (888) 450-6676 California Patients call: 1 (833) 986-4267
Constant Red Light Constant Alarm The device has detected a failure.	Call Mid-Cities Medical	Texas Patients call: 1 (888) 450-6676 California Patients call: 1 (833) 986-4267



Invacare Home Fill System

Much like the Respironics UltraFill System, the Invacare Home Fill System has similar benefits and options. The system comes with the following items:

- Filling System
- Manufacturer specific tank
- A rack that allows the Fill System to sit onto of the Concentrator
- The Home Oxygen Concentrator with Fill Port

Together these components make up the Invacare Home Fill System. This system allows patients a Concentrator for home use and the availability to fill tanks, as needed, for use outside the home; without waiting on VA Medical Center approval or Mid-Cities Medical to deliver. Therefore, the Home Fill System gives patients more flexibility to live their lives on in a way that best suits their lifestyle.

Initial Setup

Understand how to use your equipment is very important. The training you received at the time of delivery can be overwhelming for some patients. Therefore, we are including a training section in this manual to give your reference materials as you need them.





Manufacturer Training Information: Invacare has created a YouTube video that will walk you through the sets to inspect, fill, and maintain your Home Fill system. Please see the web address below or scan the QR Code to the left:

https://www.youtube.com/watch?v=eVw8AmwMAgc

Disclaimer: Invacare is a manufacturer of Home Medical Equipment. Their training video is solely focused on the act of operating the Home Fill System and not Home Safety requirements. **Those are addressed on pages 9-16 and 25-28 of this training manual.** Your technician will also go over both the equipment's use and all the safety requirements found in this manual.



For those patients that would rather walk through the steps at their own rate, below is some basic instructions from Invacare.

- Choosing a location
 - \circ $\;$ That is close to your oxygen concentrator.
 - Near a power outlet which will allow you to plug both the Concentrator and the Compressor cords directly into the wall.
 - Make sure that you have at least 3" from walls, furniture, or drape to allow for proper airflow.
 - DO NOT use unit in closet, outside, near heat sources or open flames, or around smokers. See owner's manual for full list of safety instructions.
- Put the correct rack on your Concentrator
- Place the Compressor in the rack
- Make sure the power cord is installed into the back of the compressor and plug into wall outlet.
- Insert the Interconnect hose to the back of the concentrator
- Insert the Interconnect hose to the side of the compressor.

Cylinder Filling - Equipment use Checklist

- Run the concentrator at least 30 minutes
- Inspect Tanks
- Run the Compressor for about 10-15 minutes to allow the unit to warm up. Turn the power switch to the ON (I) position.
- Make sure the Fill Port ring is down and you can see the green dots
- Install the tank
- Engage the Fill Ring. You should hear a click.
- Do not attempt to engage while the "Filling" indicator light is lit.
- When the Compressor "Full" indicator light is lit you can remove your tank.
- Depress the Fill Ring
- Remove the full cylinder from the compressor
- If you **are going** to fill additional tanks, repeat the steps above until you have completed all the tank fill you require.
- If you are not going to fill another tank, turn the power switch to the OFF (O) position.

Cylinder Inspections:

- Make sure the cylinder that you are going to fill is below 1500 PSI. If greater than 1500 PSI, DO NOT attempt to fill the tank
- If you leave your regulator on the tank, make sure it is in the OFF position.



Concentrator Settings:

You should always use your concentrator at your doctor's prescribed level. If your prescription level is changed, please notify Mid-Cities Medical immediately and ask for the Intake Department. This will allow our team to request you updated prescription and adjust your Invacare Home Fill equipment if needed.

NOTE:

Platinum 5 Concentrators must be set at 3 LPM or less when filling. Platinum 10 Concentrator must be set at 5 LPM or less when filling.

It is important that you remember to warm up both your concentrator and the compressor prior to use and filling. You want to make sure that you run both for several minutes to assure that the oxygen processing system is fully working and engaged. Be sure to turn off the Concentrator and Compressor units when not in use.

Cylinder Fill Times:

Cylinder Filling Times	HF2PC9	HF2PCL4	HF2PCL6	
Normal	2 hr. 20 min	60 Min	1 hr. 25 min	
Maximum	2 hr. 45 min	1 hr. 20 min	1 hr. 50 min	

NOTE:

Platinum 5 Concentrators must be set at 3 LPM or less when filling. Platinum 10 Concentrator must be set at 5 LPM or less when filling.

Maintenance:

Properly cleaning your Invacare units is very important. Patients or their caregivers are responsible for weekly maintenance.

- Unplug the compressor from the wall. Do not pull on the cord.
- Remove the filter
- Clean with a vacuum cleaner or wash with warm soapy water and rinse thoroughly.
- Make sure the filter is completely dry before reinstalling onto the Compressor.
- To clean the cabinet, use a damp cloth or sponge, with a mild household cleaner. Do not attempt to clean inside the machine or allow moisture or cleaner to get into the machine.



Trouble Shooting your Compressor

Indicator Light Color	Compressor Status	Effect			
None	Compressor off	O2 flowing to user if			
		concentrator is on			
O2 below normal – Yellow	Compressor is on & warming up.	 Cylinder filling not started 			
	Usually less than 3 minutes	 O2 flowing to user if 			
		concentrator is on			
	O2 from the Concentrator is <90%	 Cylinder filling stops and will 			
		restart when O2 is >90%			
		 O2 flowing to user if 			
		concentrator is on			
Filling – Green	Compressor is on and cylinder is	 Cylinder is filling 			
	filling. O2 from concentrator is > 90%	 O2 flowing to user if 			
		concentrator is on			
Full – Green	Compressor is on. Cylinder is finished	 Cylinder filling stops 			
	filling. Remove cylinder.	 Cannot fill another cylinder 			
	OR	until the compressor is turned			
	Cylinder is not attached properly.	Off and on again.			
	Check connection.	 O2 flowing to user if 			
		concentrator is on			
Attention – Red	Compressor is on.	Compressor does not begin to			
(Audible Alarm)		fill or stops filling			
	Cylinder NOT filling	• Unit must be turned Off and			
		one before filling can occur			
	Causes:	• O2 flowing to user if			
	Full cylinder is attached when the	concentrator is on			
	unit was turned on. Replace with				
	empty cylinder				
	OR				
	Internal failure – Contact Mid-Cities				
	Texas Patients: 1 (888) 450-6676				
	Arizona and California Patients:				
	1 (833) 986-4267				



Standard Concentrator Program

OXYGEN CONCENTRATOR

An Oxygen Concentrator is a lightweight, easily moveable, electric-powered three-pronged ground outlet plug in device that uses room air to deliver continuous Oxygen Therapy. This unit is used to provide oxygen directly from the machine to the patient. It is not capable of filling tanks. **This machine must be checked and maintained monthly by Mid-Cities Home Medical on Route Day.**



Invacare Oxygen Concentrator

How to use and Standard Oxygen Concentrator:



Respironics Oxygen Concentrator

- Plug three-pronged power cord/grounding plug directly into a grounded outlet.
- Turn main power switch to "ON' position.
- Set the flow meter to your prescribed flow rate. This is done by turning the flow meter knob to the left (counterclockwise) until the ball moves to the proper level.
- Attach the humidifier bottle by screwing it onto the threaded coupler.
 - Filling the Humidifier Bottle
 - Separate the bottle from the lid.
 - Fill the humidifier bottle with distilled or tap water between the Max and Min lines
 - Reattach jar to lid.
- Add supplies: attach 1-foot extension, two Firesafe Valves, oxygen tubing and cannula.





Weekly:

The patient or caregiver is to clean Invacare cabinet cooling air filter. Remove it from the sides, wash it (warm water wash or use mild soap and water), rinse well, squeeze it dry, and reinsert it.

NOTE: Respironics Concentrators do not require cabinet filter maintenance.

The patient or caregiver is to wipe down the cabinet of the Invacare or Respironics Concentrator with a clean, water dampened cloth to remove dust and debris. The vendor is not responsible for weekly maintenance.

Supplies are to be changed by patient or caregiver. See detailed changing schedule on page 42

Never place the concentrator within 12 inches of the walls, furniture, windows, curtains, or any other obstructions to the airflow into your unit.

Trouble Shooting your Standard Concentrator:

Get on your emergency tank. It will provide you with "Emergency oxygen". In the event of a power failure or equipment malfunction, you should use your emergency back-up tank. **See How to use an Oxygen Tank on page 34.**

Before you call for help with your concentrator or oxygen equipment, please try the following:

Check for power at the outlet. If the Concentrator does not come on after being shut off for a time, try plugging a lamp or radio in the same outlet. This is to verify that the circuit is not tripped in the home. NOTE: If the outlet is linked to a wall switch, make sure the switch is in the on position.

If the Concentrator was running, but then shut off:

- Make sure unit is plugged directly into the wall outlet and not on an extension cord or surge protector.
- Push the white reset button/switch. NOTE: Respironics does not have a reset button/switch.
- Press the power toggle switch.
- The concentrator should start.

Check the flow meter on the front of the unit. Was it turned all the way up or down by mistake?

- If so, adjust the pressure up or down to reach your prescribed level.
- o If it does not have a flow, repeat the steps above before calling for service.

If the unit is running, but you are not getting any oxygen:

• Check all the tubing from the machine to the end of the cannula for pinches, kinks, or disconnections along the line.



Look at the humidifier bottle. Is it bubbling?

- If not, change to a fresh bottle. If there is still no bubbling, call for service.
- If the bottle is bubbling but no oxygen is coming through the line:
 - Unscrew the jar from the lid
 - Reattach making sure the jar and the lid are not cross threaded.
 - If oxygen does not start to flow, replace the humidifier.

To test for Oxygen flow:

- Dip the prongs of the nasal cannula in a glass of water.
- If there are bubbles, then you are getting Oxygen.
- If there are no bubbles, call for service.

NOTE: After changing the humidifier bottle, if you hear a "banging" noise coming from the front of the concentrator, you may have over-tightened the humidifier nut. It needs to be snug tightened only.

If you have done all of this and the alarm is still sounding or the unit will not run, call Mid-Cities.

Texas Patients: 1 (888) 450-6676 Arizona and California Patients: 1 (833) 986-4267



Liquid Oxygen System

Liquid Oxygen Systems

NOTE: Liquid oxygen has a limited-service area. Primary delivery areas are limited by the manufacturer. If there is no service for your area, your VA doctor may prescribe a different oxygen plan for you.



Liquid Base

A liquid base is a storage unit in which liquid oxygen is stored within the home. These home use units come in 75# and 100# bases. The bases are filled weekly or every other week depending upon the patient's liter flow. This unit is used to transfill the Portable unit and act as a continual source of Oxygen within the home.

Liquid Portable



A portable liquid system is to be used when a patient is outside the home. This unit comes in two basic units a Continual Flow portable system and a Helios Pulse-dose system. (Shown above)

The Continual liquid portable is issued to patients that need a continual flow of oxygen.

The Pulse-dose Helios unit is provided to patients that need extended time outside the home. There are two types of Helios the Helios Portable and the Helios Marathon. Both systems are used for patients that can tolerate Oxygen output in a breath per breath dosing method.



Liquid Oxygen Duration

Liters	Portable	Hours	Hours	BASE	Hours and Day Conversion				
Per	Continuous	Helios	Marathon	50#	Day	75#	Day	100#	Day
Min.	Hours	Pulse	Pulse		Length		Length		Length
1	10.5	13		288.1	12	425.3	17.75	562.6	23.5
1.5		12	22.5	192	8	283.5	11.75	375	15.5
2	5.5	10	18.5	144	6	212.6	9	281.3	11.75
2.5		8.5	16	115.2	4.75	170.1	7	225	9.5
3	3.5	6.5	11.5	96	4	141.7	6	187.5	8
3.5		6		82.3	3.5	121.5	5	160.7	6.75
4	5	5	9.5	72	3	106.3	4.5	140.6	5.75
4.5				57.6	2.5	85	3.5	112.5	4.5
5	2								
6	1.5			48	2	70.8	3	93.7	4
8				36	1.5	53.1	2.25	70.3	3
10				28.8	1	42.5	1.75	56.2	2.25
15				N/A	0	N/A	0	N/A	0

Portable Units - Continuous Flow, Helios, and Marathon:

Continuous Flow (Cont) is based on the Manufacturer's Averaged Duration Chart.

Pulse Dose (P/D) - All Ambulatory ranges are calculated assuming a breath rage of 20 breaths per minute in Pulse Dose (PD) mode. Time on Portable may vary in accordance with each patient's individual breath rate.

Base Unit Time – 50, 75, and 100-pound Base Units



Oxygen Tanks & Regulators

Type of Tanks:

H or M Tank (Large Torpedo type):

These large tanks are not meant to be used for portable oxygen outside the home. They mainly have two basic purposes

- Cluster Headache patients that have frequent attacks and require a very high liter flow for treatment.
- Emergency backup for high liter flow patients in rural areas.
- They may also be issued as emergency backup to patients in the event of a natural disaster (i.e., hurricane, tornado, or ice storm) where the power is to be out for several days or weeks.





Standard Portable Oxygen Tank:

These smaller portable tanks to be used by the patient for outside the home. These tanks come in B, D and E sizes. They may be carried in a bag or pulled in a cart. They are not refillable by the patient or vendor. They must be filled by a certified medical oxygen tank service provider. These tanks will have stickers on them that indicate the lot number of when each tank was filled by the service company. This is to assure patient safety and batch purity.

UltraFill and Home Fill Portable Oxygen Tank:

These are smaller portable tanks to be used by the patient for outside the home. These tanks come in two sizes B and E. They may be carried in a bag or pulled in a cart. These type tanks are refillable due to a special spout on the tanks. This special stem allows Ultrafill and Home Fill patients to refill the tank in the home. These tanks have serial numbers on them and are assigned to specific patients based on their doctor's prescription only.





"Cracking" an Oxygen Tank

"CRACKING" an oxygen tank refers to the process of quickly turning an oxygen tank on and off before attaching the regulator. This is done to blow dust out of the openings of an oxygen tank before adding the regulator. If dust particles are not blown away, they can damage the regulator.

"CRACKING" an H or M Tank:

- 1. Turn the hand wheel Left (counterclockwise), by hand
- 2. You will hear the oxygen escaping a loud hissing sound.
- 3. Then quickly turn the hand wheel Right (clockwise).
- 4. You will no longer hear hissing when completely closed.
- 5. You are ready to install your H Regulator. See Page 34.

Emergency Oxygen Back-up Tanks/System:

Emergency tanks can be E, M or H size tanks. They are issued to you dependent upon your prescribed liter flow and the distance it takes to reach you from our office. It should be three time the amount of time to reach you: conversion charts available in this manual. This tank should always be filled and have a red paper collar on it. UltraFill patient should always keep their tanks filled and notify Mid-Cities should they have any filling issues. Standard tank patients should never use their back-up except in cases of equipment failure or in cases of emergency. Should you need an Emergency Back-up Collar ask your technician or call our office.

- Texas Patients call: 1 (888) 450-6676
- California Patients call: 1-833-986-4267

How to "Crack" your Standard or Ultrafill Portable tank:

- 1. Remove the plastic safety seal from a Standard Portable tank.
 - Reminder: this step only for standard oxygen tanks only.
 - If you received a standard oxygen tank without a safety seal. DO NOT USE, the tank. Call Mid-Cities.
 - Texas Patients: 1 (888) 450-6676
 - Arizona and California Patients: 1 (833) 986-4267
- 2. Turn the top of the cylinder valve left (counterclockwise) with a wrench or toggle handle.
- 3. For a couple of seconds, let the oxygen escape. You should hear a loud hissing sound.
- 4. Then quickly turn the top of the cylinder valve right (clockwise) with the wrench to stop the leaking oxygen.
- 5. You should no longer hear any hissing when completely closed.
- 6. You tank is now ready to install your Conserver or Regulator. See page 36.



Types of Regulators and Conservers

H or M Tank (Large Torpedo type) Regulator



This is an H or M tank Continuous flow regulator.

This regulator looks different from a portable tank regulator. You can tell them apart because the large tank regulator has a large bolt type nut which threads onto the large opening of the H or M tank. It is designed to thread directly to the stem of the tank and not down over it.

Portable Tank Regulators



This is a Continuous Flow Regulator.

This type of regulator is designed to give patients a constant flow of oxygen. This regulator is designed to go over the stem of a portable tank and then tightened to the stem. This type of regulator may be used on a Standard or Ultrafill Portable Tank.



This is a Pulse Dose Conserving Regulator

This type of regulator is designed to give the patient a "pulse" or "puff" of oxygen each time the patient breaths. This allows tanks to last longer because they are not constantly flowing. NOTE: This type of regulator will not give oxygen to the patient until the patient breaths through their nose and triggers the oxygen sensor. Patients should be checked out by the VA prior to being prescribed a Conservation regulator. This regulator is designed to go over the stem of a portable tank and then tightened to the stem. This type of regulator may be used on a Standard or Ultrafill Portable Tank.



Regulator Assembly:

The ability to properly assemble, install and remove, your regulator and/or conservation "pulse dose" device is a key factor for tank use. In this section we will cover the installation and removal of either the large M or H tank continual flow regulator and the smaller tank B, D or E tank continual flow or pulse dose regulator. Please review the sections below to better understand each installation process.

H or M TANK Continual Flow Regulator Installation:

- Place the nut onto the tank valve make sure hard plastic washer is in place
- Tighten with an oxygen wrench
- Put a Nipple Adaptor onto the Regulator Spout
- Attach Tubing and Cannula to use
- Turn the Hand-Wheel Counter-Clockwise to open.
- Set your liter flow to your prescribed setting.
- Always keep Red Emergency Back-up Collar on your tank

B, C, D or E Portable Oxygen Tank (Standard or UltraFill) with continuous or conservation regulator:

- Loosen the thumb screw handle of the Regulator or Conserver
- Make sure the rubber washer is on the inside of the regulator neck
- Align the pins inside the neck of the regulator into the two pin holes on the tanks stem.
- Hold in place and Hand-tighten the Thumb screw. Do not over tighten. You could break the handle or warp the washer.
- Turn the tank on by turning the top of the tank stem left with plastic oxygen wrench.
- Read the pressure gauge.
 - A full tank is 1500 PSI or greater. If you receive a low fill or empty tank, please call us immediate.
 - Cylinders fill pressures vary from the Manufacturer due to time of year and transport requirements.
- Attach the oxygen tubing and fire safe valve to the nipple adapter.
- Turn the regulator to your prescribed liter flow rate.
- When the tanks are not in use, turn off both the tank valve with the wrench and the regulator liter flow dial.









Turning off your Portable Oxygen Tank:

Continual Flow Regulator:

- Using the plastic oxygen wrench, turn the tank stem clockwise.
- If you are using a continual flow tank, the pressure will automatically start to drop to zero. You can take off your cannula when it reaches zero.
- Do not just turn the regulator to zero or off. Leaving pressure on the regulator can damage the regulator.
- Conserving "Pulse Dose" Regulator Device:
- Using the plastic oxygen wrench, turn the tank stem clockwise.
- You will need to perform one of the two following actions to take the pressure of the regulator.
- Take several breaths through your nose on the cannula. You will see the pressure gauge begin to fall to zero.
- Turn your conserver's liter flow setting to CF 2 or CF4. This is a continual flow setting. The gauge will automatically begin to fall to zero even if you are not breathing in on the oxygen.

Moving the regulator to a new tank:

- You must bleed off any oxygen pressure between the tank and the regulator before you can move the conserver to another tank.
- Once the pressure is low or zero, you should be able to hand loosen the thumb screw enough to remove it from the tank's stem.
- Never force a Conservation Regulator off a tank with plyers or Vise grips. This can damage the conserver and risk possible injury. Always double check the pressure gauge is zero before attempting to remove any type of regulator. If it cannot easily be removed call the office:
 - Texas Patients: 1 (888) 450-6676
 - Arizona and California Patients: 1 (833) 986-4267



Oxygen Tank Storage Rack



H or M Cylinder Stands

Due to the size and weight, the H and M cylinders are placed in a Stand to secure the tank while in the home. H and M tank stands may be plastic or metal. There should be thumb screws on the base to help tighten the base to the tank to prevent it from tipping over.

Portable Oxygen Tank Storage Holders

E Cart:

An E Cart is a metal tank holder with a handle and two wheels. It will hold both D and E size tanks. This allows the patient to push or pull their oxygen instead of carrying on their bodies.





B or D tank Bag:

A tank bag is designed to allow a patient to carry or wear their B or D tank on or across their body. The tank and regulator should fit into the bag and zip up. Do not carry the bag unzipped because tanks may fall out and be damaged. When not being carried, the bag should be secured in the tank rack.

Oxygen Tank Rack:

Tank patients that have four (4) or more oxygen cylinders must have an oxygen tank rack. The purpose of this rack is to keep all your tanks in a centralized and secure location. Notify Mid-Cities Home Medical immediately if you have lost or had your rack damaged or stolen. Each Tank rack hold up to 8 tanks.



Store tanks:

- In a rack or lying flat
- In an open area
- All tanks together
- Out of walkway
- Tank stems pointed toward the wall not into the room

Do not store tanks:

- Under furniture
- Next to a heat source
- In a closet
- Near an open flame
- In a high traffic area
- In a path to be a trip hazard
- Outside
- Under clothing/covering
- Leaning against a wall or other item
- Hanging for a chair or door handle
- Loose in home



HOW LONG WILL MY CONTINUOUS FLOW REGULATOR LAST?

DCI	1		1.5		2		2.5		3		4	
PSI	LPM											
TIME	HRS	DAYS										
2000	103	4.5	69	2.75	52	2.2	41	1.75	34	1.55	26	1.2
1500	78	3.2	52	2.2	39	1.75	31	1.5	26	1.25	19	.75
1000	52	1.2	34	1.5	25	1.2	21	.75	17	.75	13	.5
750	39	1.75	25	1.2	19	.75	16	.5	13	.5	10	.25
500	2	1.5	17	.75	13	.5	10	.2	8	.2	6	.2

"H" TANK DURATION TABLE

"E" TANK DURATION TABLE

PSI	1 LPM	2 LPM	3 LPM	4 LPM
2000	9 HOURS	4 HOURS	3 HOURS	2 HOURS
1500	7 HOURS	3 HOURS	2 HOURS	1.5 HOURS
1000	4.5 HOURS	2 HOURS	1.5 HOURS	1 HOUR
500	2 HOURS	1 HOUR	45 MINUTES	30 MINUTES

HOW MUCH DO MY TANKS WEIGH AND MANY CUBIC FEET DO THEY HOLD?

Tank Size	Dimensions	Weight lbs.	Weight kgs	Cubic feet*	Cubic liters
E or ME	4.38" x 25.4"	7.8	3.5	24	680
D or MD	4.38" x 16.7"	5.4	2.5	15	425
C or M9	4.38" x 10.9"	3.8	1.7	9	255
B or M6	3.21" x 11.8"	2.3	1	6	170

*National Fire Safety Standards require that 300 cubic feet or less be store in a building. Your VA Medical Center may write for more than the number of pounds allowed. However, they are aware that Mid-Cities Medical must comply with this National safety standard.





M2 Cylinder							
O2 Capacity	Cylinder Weight						
40 liters			1.4	lbs			
Regulator							
Liter Flow	1	2	3	4	5		
Hours	0.7	0.3	0.2	0.2	0.1		
Conserving Device							
Liter Flow	1	2	3	4	5		
Hours	2.4	1.5	1.2	0.9	0.8		

M4 Cylinder							
O2 Capacity	Cylinder Weight						
113 liters	2.3 lbs						
Regulator							
Liter Flow	1	2	3	4	5		
Hours	1.9	1	0.6	0.5	0.4		
Conserving Device							
Liter Flow	1	2	3	4	5		
Hours	6.7	4.3	3.2	2.6	2.1		



M6 Cylinder								
O2 Capacity	Cylinder Weight							
165 liters	165 liters			2.9 lbs				
Regulator								
Liter Flow	1	2	3	4	5			
Hours	2.7	1.4	0.9	0.7	0.5			
Conserving Device								
Liter Flow	1	2	3	4	5			
Hours	9.8	6.3	4.7	3.8	3.1			

ML6 Cylinder								
O2 Capacity	O2 Capacity			Cylinder Weight				
165 liters	165 liters			2.9 lbs				
Regulator								
Liter Flow	1	2	3	4	5			
Hours	2.7	1.4	0.9	0.7	0.5			
Conserving Device								
Liter Flow	1	2	3	4	5			
Hours	9.8	6.3	4.7	3.8	3.1			



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Supplies and Miscellaneous Information



Patient/Caregiver Supplies and Connectors changing schedule:

TEXAS VISN 17 Patients: (as of February 1, 2022)

Replace as need Humidifier (Wat	• •	Water trap (W	ater catcher)	No Smoking sign on the door/entrance					
Daily: Trach Collar and accessories (corrugated tubing)									
Weekly:									
Cannulas	Cannulas 4' tubing 7' tubing Disposable mask (by prescription)								
	Equipment Cleaning: Wipe down the hard-plastic cabinet with a water dampened soft cloth; make sure not wet.								
 Invacare Concentrator Maintenance: Wash/Rinse Intake Cabinet Filter with warm water Pat dry with paper towel or let air-dry Replace in cabinet 									
Every 2 weeks: 25' tubing	•								
Replace every si	i x months: Rep	blace batteries in	Smoke Detecto	r					
Yearly: Fire Safety Valve	e Kit 1' Tub	ing Fire sa	fe Valve	Recertify home's fire extinguisher					
 Mid-Cities Medical performs: Manufacturer recommended Preventative Maintenance Service. It includes the following: HEPA filters Cabinet filters on some concentrator models, Humidifier adaptor, and new Green Service Tag 									
CALIFORNIA VISN 22 Patients:									
Replace as Needed (PRN): Water Trap Humidifiers									
Every 3 Days: Trachea Collars and accessories (corrugated flex tubing and large volume nebulizer									
Every 2 weeks: Cannulas Oxymizers Disposable Mask (by prescription)									
Every 6 months:	Every 6 months: 25' Tubing 50' tubing Replace batteries in Smoke Detector								
Yearly: Fire Safety Valve	Yearly:Fire Safety Valve Kit1'TubingFire safe ValveRecertify your home's fire extinguisher								
Mid-Cities Medical performs:									

Mid-Cities Medical performs:

Manufacturer recommended Preventative Maintenance Service. It includes the following: HEPA filters, Cabinet filters on some concentrator models, Humidifier adaptor, and new Green Service Tag



Supplies and Connectors



Cannula – Oxygen delivery device. It is worn by placing the oxygen prongs up the nose, running the tubing along the cheeks, behind the ears, and then is tightened under the chin. **Cannula should be according to schedule on page 42.**



Extension Tubing – Straight, colored hoses of various lengths to assist patient with movement throughout the home and while on oxygen tanks. Extension tubing is universal and may be used with all Concentrators, Portable tanks, Liquid Base and Portable systems. **Tubing should be according to schedule on page 42.**



Straight line adaptor - connects two extension tubes together





Swivel Adaptor – connects two hoses together and allows the hose to rotate "swivel" preventing kinks and curling of the extension tubes.

Water Traps – Is an inline connector that fits between two extensions tubing to collect excess water from the line. The water is condensed moisture from the Humidifier. It most commonly occurs when the seasons change or when the tubing lays on a cooler floor. The water trap is designed for the oxygen and moisture to flow in one side, the water to drop to the bottom of the trap and the oxygen to continue through to the other extension tube to the patient.

Fire Safety Device:

The Fire Safety device is a safety feature installed into the oxygen line to help restrict the oxygen flow if there is a spark, static electricity, or fire close to the oxygen source. Per Veterans' Affairs, the VA Medical Center and the Manufacturer, patients are to have 2 Fire Safety Valves installed on all oxygen devices. Patients must have one Fire Safety Valve at the machine, tank, or portable device and one Fire Safety Valve at the Cannula closest to you. It does not matter if you are a smoker or non-smoker. This is the VA's National Patient Standard and is required for all VA oxygen patients.



Instructions on installation and use:

The Fire safety device should lay open to the air. Do not cover the device with bedding, blankets, clothing, etc.

The Fire safety valve is reusable. Do not throw away when changing your supplies.

If you have lost your valve, it is damaged or if there has been a fire, contact Mid Cities Medical.

- Texas Patients: 1 (888) 450-6676
- Arizona and California Patients: 1 (833) 986-4267

Cleaning:

Every two weeks wipe down the hard exterior with a rubbing alcohol dampened cloth or disinfecting wipe. **DO NOT POUR RUBBING ALCOHOL INTO OR SOAK THE VALVE**. It will destroy the safety valve and may cause hard, injury or death due to valve failure.

Assembly instructions:



You will need the following:

- 1 Humidifier Bottle
- 1 1' extension tubing
- 2 Extension tubing (not to exceed 50 feet total in length)
- 2 Fire Safety Valves
- 1 Cannula





- 1. Thread the top of the Humidifier/Water bottle to the threaded end of the Humidifier adaptor.
- 2. Place the one-foot extension on the outflow nipple located on the side of the Humidifier lid.
- 3. Insert Fire Safety Valve into one-foot line.
- 4. Insert the first green extension tubing on the other side of the Fire Safety Valve
- 5. Insert the second Fire Safety Valve into the opposite end of the first extension tube.
- 6. Connect the All-in-one cannula or second extension tube to the end of the Fire Safety Valve.
- 7. If you used a second extension tube, then add a standard Cannula/Nose Piece

Alternate Assembly Instructions without Humidifier for Concentrators or Tanks:

- From the machine/regulator put on extension tubing
- Add Fire safety cannula valve.
- Push in the valve until it reaches the preferred connection depth. (3 notches)
- Add extension tubing
- Add the second FireSafe Valve
- Add Cannula or Mask

Safety Notice:

If your oxygen is to catch fire for any reason, it will burn down the line to the FireSafe Valve. The device should stop the in-line fire. However, you need to be aware of something that could allow a fire to continue to burn.

- 1. If the FireSafe Valve is cracked or damaged.
- 2. If the fire reaches a loop in the hose before it can burn around the valve. The fire can spread around the loop and continue past the FireSafe Valve to the secondary valve.
- 3. If you allowed liquid to get into the FireSafe Valve and damage the internal control device.

If you suspect that your valve has been damaged, please contact Mid-Cities Medical for additional valves. Remember, that the best safety prevention measure is never to smoke or engage in fire hazard behaviors. Patients that do engage in those behaviors can end up burned, disfigured or dead. They can also cause property damage to their home and those in their community. Never use FireSafe Valves as your sole source of fire safety prevention. You must actively protect yourself and those around you by using smart oxygen use practices covered throughout this manual.



The Humidifier: (Water bottle)

The humidifier moistens the oxygen to help prevent the drying of nasal passages. Humidifiers are issued as prescribed.

To use the humidifier:

- 1. Remove the bottom portion of the humidifier bottle by unscrewing it from the top portion.
- 2. Fill with tap or distilled water until the maximum water line is reached.
- 3. Place the bottom of the jar in the palm of your hand and then screw the top portion back onto the bottle.
- 4. Attach the humidifier to the concentrator by the humidifier adaptor.
- 5. Attach the extension tubing & cannula.
- 6. Replace your humidifier with a new one every other week.

Care of your Humidifier

- 1. Rinse out the humidifier jar every two days with warm tap water.
- 2. Clean once a week:
 - a. Unscrew the lid of the humidifier from the jar
 - b. Empty the contents of the water bottle.
 - c. Wash all parts in soapy water.
 - d. Rinse all parts well with warm water.
- 3. Place the parts of the humidifiers on a clean towel and let them air dry.
- 4. Refill the humidifier bottle with distilled (which is best) or tap water (can be used but could increase mineral build up).
- 5. Make sure lid is straight on the jar.
 - a. Be careful not to cross-thread lid and jar!
 - b. If you do the jar will bubble but the oxygen will leak from the lid.
 - c. Take apart and reassemble if this happens
- 6. Tighten the lid. Be careful not to over tighten!
- 7. Disposable humidifier bottles that should be discarded every other week

Oxymizers – Are a conservation device used ONLY with CONTINUOUS FLOW REGUALTORS. They cannot be used with a Pulse Dose/Conserver Regulator. Oxymizers work by filling both the oxygen tubing and an extra reservoir. When a patient breath in from an Oxymizer, they breathe in both the oxygen in the line and the oxygen in the reservoir; doubling the amount of oxygen they receive at one time. Because of this, continuous oxygen patients run their tanks at half the normally prescribed flow.





To make it easier to understand:

A patient on 4 LPM by standard cannula can use 2 LPM with an Oxymizer. This allows patients' tanks to last longer because they are using them at a lower liter flow setting; due to the reservoir inside the Oxymizer.

NOTE: Oxymizer must be used on continual flow regulator only.

There are two basic types of Oxymizers Mustache and Pendant.

To Use a Pendant Oxymizer:

- Uncoil the tubing holding onto the section with the nasal prongs.
- Place the nasal prongs into your nose and adjust to fit comfortably.
- Extend the tubing across your cheekbones.
- Place the tubing over your ears.
- Adjust the chin adjustment on the tubing to fit comfortably.
- The Pendant should rest against your chest.
- Oxymizer must be used on continual flow regulator only.



To Use a Mustache Oxymizer:

- Uncoil the tubing holding onto the section with the nasal prongs.
- With the back of the face piece toward you, pick up the Oxymizer. Place the nasal prongs into your nose and adjust to fit comfortably.
- Place the tubing over your ears and under your chin.
- Slide the chin adjustment loop up toward your chin to hold the cannula snugly and comfortably against your face.





Route Day Schedule:

Patients are seen on a monthly route day. This route day is assigned by geographical location. Routes are run in a specific pattern. Once you are seen, your schedule time should roughly be the same each month.

At the VAMC's request, patients may receive a 3-hour morning, midday, or afternoon delivery window. (NOTE: Some Technicians give out shorter time windows then required by the VA.) Patients may request to be seen between specific timeframes. However, there is no guarantee that a technician can reach you at the requested time. You may be rescheduled with a different delivery technician and/or date.

You can determine future deliveries by going to the day of the week and then counting to the appropriate week. For example, the Fourth Wednesday; go to Wednesday on your calendar and then count down to the fourth week. Routes are moved due to weather, vehicle breakdowns, holidays, and office closures. Holiday closures appear monthly in the newsletter. The calendar shows two to three months in advance so patients are aware of the change and can adjust their schedules.

Notify your Electric Company

It is your responsibility to notify your local electricity provider that you are on Oxygen and need special consideration when it comes to power outages and restoration.

Here is what you will need to do:

- Contact your local power provider at the number located on your monthly statement
- Request an emergency power restoration form
- Fill out this form and have it signed by your Primary Care Physician or V.A. Medical Doctor
- Return the completed form to your chosen power company

In the event of a power loss, contact Mid-Cities Home Medical Equipment immediately. At that time, we will determine the amount of oxygen that you have left in your tanks. We then can estimate how many hours of oxygen you have left. Our "on-call staff" will be dispatched prior to you running out of oxygen.

DO NOT WAIT until you are out of tanks to contact us. We are not an emergency response company, if you run out of oxygen you will need to go to the hospital or call 911.



Traveling with Oxygen - The VA Medical Center will cover two trips per patient per year. The total amount of time allowed during these two trips can total four weeks per year. Once a patient has exceeded four week or two trips, the VAMC may no longer cover your travel services. You, the patient, may be responsible for all charges and expenses accrued from your travel. Those travel expenses are not eligible for reimbursement by the VA Medical Center. The VA Medical Center may also refuse travel services for any patient that does not contact the VA 4-6 weeks prior to departure. Making travel plans through the VA does



not guarantee you travel equipment. All requests must be approved by the VA. No request can be changed by Mid-Cities Home Medical without VA approval. If for any reason you need to cancel or delay your trip you must contact your VA Medical Center. To take advantage of this benefit you must complete the following steps.

Make Your Plans: Plan your trip.

4 to 6 weeks prior:

Contact your VA Home Oxygen Team or Pulmonary/Respiratory Department Provide them with the required information

- Travel Dates Departure and Return
- How you are traveling Plane, Bus, Car, RV, or Train
- If plane, the total time of your flight including layovers
- Tell them where you are going.

NOTE: International travel may not be covered by the VA Medical Center. Please contact your local VA Home Oxygen Coordinator for additional information and facts.

Hotel – Address and Phone number

Home – Family or Friend's address and phone numbers

If you are planning multiple stops or connections over the length of the trip, you will need the contact address and information for each stop.

Cruise ship – Port information and Cruise provider contact information.

They will evaluate your travel plans. The VA will make an approval decision and if we will issue travel equipment or perform and end destination setup. They will send Mid-Cities Home Medical Equipment a prescription.

Two Weeks Prior:

Mid-Cities should contact you if travel equipment has been ordered.

A delivery date will be made for any equipment ordered.

You should start using the equipment immediately to make sure you are comfortable using the equipment and can tolerate its output.

If for any reason you cannot use the equipment or have difficulty breathing while on equipment, contract the VA Respiratory Department immediately so additional travel plans can be made for you.



One Week Prior:

If end destination plans were prescribed for you, you should receive a call from Mid-Cities. We will provide you with the Company name and contact phone number of the Oxygen provider in your travel area. You will be able to contact them directly to arrange delivery, verify destination contact address and number or ask questions.

If you have not heard from the VA or Mid-Cities by this time, contact both immediately. Make sure that your travel order has not been lost or on hold for any reason.

VA Oxygen Equipment:

The oxygen equipment provided to you by the VA Medical Center is the property of the VA and Mid-Cities Medical. The equipment is on loan to you. It is issued according to your VA prescription. This equipment is provided at no cost to you, by the VA and Mid-Cities Medical. Check with the VA about any charges that you might be charged to you or your insurance.

You can use the equipment if you remain in good standing with the VA Medical Center, complete your yearly Oxygen renewal visit and live within the service area of your primary VA hospital. If you move for any reason, you must contact both your VA Respiratory/Pulmonary Department and Mid-Cities Medical. If for any reason you do not remain in good standing, your prescription expires or is not renewed or you move outside the coverage area, you must return all the oxygen equipment and tanks.

Moving:

You will no longer qualify for oxygen service from VISN 17 or VISN 22 VA program when move outside the coverage area. Patients moving outside the VA coverage area should contact the VA immediately with a new address and telephone number. This will allow the VA to create a temporary coverage moving order for equipment, travel support and/or temporary (30 Days) oxygen coverage at the end destination. Do not move with the VA equipment without prior VA and/or Mid-Cities Medical consent.

See pages 6-7 for VA contact phone numbers.

Equipment and Tanks are not your private property. They belong to the VA Medical Center and Mid-Cities Home Medical Delivery Service. Therefore, it must be returned once you are set-up with your new VA Home Oxygen Program or 30 days whichever comes first.

Contact Mid-Cities to arrange for shipping boxes and return postage shipping tags.

- Texas Patients: 1 (888) 450-6676
- Arizona and California Patients: 1 (833) 986-4267



DISASTER OXYGEN PLAN

Emergency assistance: Call 9-1-1

Emergency Preparation Information Call 2-1-1

Mid-Cities Home Delivery Service is not an emergency medical response company. In the event of all lifethreatening emergencies, you must contact 911 or go to the nearest emergency medical center.

Mid-Cities Home Medical Delivery Service will:

- Determine the affected area.
- Encourage patients to use their backup oxygen and/or proceed to the closest local rescue, shelter or hospital until service can be established.
- Work with local law enforcement to gain access to the area as soon as possible.
- Work with local vendors and our staff to reach the patients in the area.
- In the event of a Catastrophic Natural Disaster or Emergency event, the patient should go to the nearest hospital. It is the responsibility of the patient and the family to know the location and the telephone number of the closest emergency medical care center.

Hospital Listings may be found in:

- Your home phone book
- On the internet
- Cell phone search app like Red Cross App

Emergency care will be triaged by the following:

- Level of Ventilators and Oxygen use prescription (Continuous to Sleep only)
- Liter flow rate from your prescription (Highest to lowest flow rates)
- The amount of oxygen present in your home (lowest amount of oxygen to highest amount)

Emergency back-up tank(s) are for emergencies only. They are the source of your oxygen in cases of an emergency, equipment failure, and other disasters. If you are having an emergency and are using your emergency back-up tank. Contact us at the numbers below.

- Texas Patients: 1 (888) 450-6675
- Arizona and California Patients: 1 (833) 986-4267

Emergencies can happen at any time. It is important to be prepared, have a plan, and know where to evacuate, who to contact, and what to take with you.





Grievances and Complaints:

Patients and caregivers shall be given an opportunity to participate in decisions regarding their service and to voice grievances regarding their service. Patients and caregivers shall be able to do so without fear of discrimination, reprisal, or unreasonable disruption of service.

When you call our office – Texas Patients 1 (888) 450-6676, Arizona and California patients 1 (833) 986-4267 – to file your grievance, the following steps will occur.

- A Report will be created outlining the information on the perceptions of care report.
- Arrange for repair or service of equipment
- We will speak with the involved employees
- Submit the information collected to Operations Manager for review.
- The Operations Management shall take any action deemed necessary.

Joint Commission Contact Information:

As a patient serviced by a company that is Joint Commission accredited, it is your right as a patient to contact the Joint Commission on Accreditation of Healthcare Organizations at (630) 792-500 regarding any safety concern you may have with Mid-Cities Home Medical Delivery Service, LLC.

Dear VA Patient:

Thank you for reading your Home Oxygen Manual. Please keep this manual with your Home Oxygen equipment so you can quickly reference information when you need a refresher. You may want to consider reading through the manual a couple of times just to make sure you fully understand all the training materials. We look forward to serving your Home Oxygen needs. We also want to thank you for your service to our country. Welcome to the VA Home Oxygen program.



Thank you,

The Mid-Cities Medical Team