



Home » REACT HEALTH » REACT HEALTH ML4 Cylinder with PulseDose Conserver User Manua

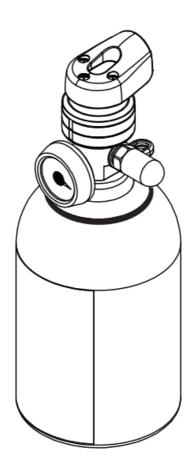


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**REACT HEALTH ML4 Cylinder with PulseDose Conserver** 



### **Specifications**

- Product Name: React Health ML4, ML6 and M9 Cylinder with Conserver
- Service Life: Conserver 5 years from the date of manufacture; Cylinder tested every five years

### **Product Information**

The React Health ML4, ML6, and M9 Cylinder with Conserver is designed to provide oxygen supplementation for patients. It is essential to read the manual thoroughly before using the product to ensure safe and proper usage.

## **Safety Information**

**DANGER! Risk of Injury or Death:** This product is an oxygen supplement and should not be used as life-supporting equipment. It should only be used by patients who can breathe spontaneously without the assistance of a machine.

### **Intended Use**

The product is intended for use by the oxygen patient only. It should not be shared with

others for any purpose. Patients who breathe through their mouths should not use this product.

### **Service Life**

The conserver has a service life of five years from the date of manufacture when used correctly as per the manual. The cylinder's service life is based on testing every five years and following the safety instructions provided.

This manual MUST be given to the user of the product. BEFORE using this product, read this manual and save for future reference.

### Introduction

On February 1, 2023, Ventec Life Systems®, dba React Health, completed the purchase of the Invacare Respiratory product line. Invacare branded products sold before this date are compatible with Ventec or React Health branded product sold after this date. Any references to "approved" concentrators, cylinders or accessories noted in this manual are inclusive of Invacare, Ventec and React Health branded products

### **GENERAL**

### **Symbols**

Signal words are used in this manual and apply to hazards or unsafe prac-tices which could result in personal injury or property damage. See the information below for definitions of the signal words.



## DANGER

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



### **WARNING**

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 property damage or minor injury or both.

Indicates a hazardous situation that could result in damage to property if it is not avoided.

 $\stackrel{\smile}{\mathbb{I}}$  Gives useful tips, recommendations and information for efficient, trouble-free use.



### **Intended Use**

This cylinder assembly is intended to store, regulate, and deliver supplemental oxygen to patients who may have difficulty extracting oxygen from the air they breathe. It is for patients who would normally receive the oxygen via a nasal cannula. This device delivers USP 93±3% oxygen at a number of different flow settings and may increase the drying out of airways. This product is to be used as an oxygen supplement and is not intended to be life-supporting or life-sustaining.

### DANGER!

Risk of Injury or Death

This product is to be used as an oxygen supplement and is not intended to be lifesupporting or life-sustaining. ONLY use this product if the patient is capable of spontaneous breath, able to inhale and exhale without the use of a machine.

### **WARNING!**

Risk of Injury or Damage

Use of this product outside of the intended use and specifications has not been tested and may lead to product damage, loss of product function, or personal injury.

 DO NOT use this product in any way other than described in the specifications and intended use sections of this manual.

#### **User Profile**

No specific product knowledge or training is required, other than what is contained in this manual, to operate the product. It is not intended for supplying oxygen therapy during refilling. This product is intended to be used by or under adult supervision only after reading and understanding the instructions and warnings of this user manual.

Only personnel instructed and trained in the use of the HomeFill®cylinder assembly should operate this product.

The use of this product is limited to the oxygen patient. Cylinder assemblies MUST be used only by the oxygen patient and are not to be distributed to any other individual for any purpose.

This product is NOT to be used by patients who breathe through their mouths.

### Service Life

#### **WARNING!**

Risk of Injury or Damage

The product has been tested for the service life stated in this manual. Use of the product beyond this time period may cause injury or product damage.

- ONLY use the product for the service life stated in this manual. DO NOT exceed the service life of the product.
- Perform all maintenance according to the recommended schedule in this manual.

The expected service life of the conserver is five years from date of manufacture when used in accordance with the safety instructions, maintenance intervals and correct use stated in this manual. Refer to the Maintenance section.

The expected service life of the cylinder is based on testing the cylinder every five years and using it in accordance with the safety instructions, maintenance intervals and correct use stated in this manual.

- Refer to the following procedures located in this manual:
  - 4.4.1. The Hydrostatic Testing Date
  - 4.4.2 External Examination
  - 6. Maintenance

### **Limited Warranty**

THE WARRANTY BELOW HAS BEEN DRAFTED TO COMPLY WITH FEDERAL LAW APPLICABLE TO PRODUCTS MANUFACTURED AFTER JULY 4, 1975.

This warranty is extended only to original purchaser who purchases this product when new and unused from React Health or a dealer. This warranty is not extended to any other person or entity and is not transferable or assignable to any subsequent purchaser or User. Coverage under this warranty will end upon any such subsequent sale or other transfer of title to any other person. This warranty gives you specific legal rights and you may also have other legal rights which may vary from state to state.

React Health warrants this product to be free from defects in materials and workmanship for a period of three years from date of purchase from React Health or a dealer, with a copy of the seller's invoice required for coverage under this warranty.

For Model Nos. HF2PCL4, HF2PCL6 and HF2PC9, React Health warrants the PulseDose® conserver or regulator (NOT including the cylinder) to be free from defects in materials and workmanship for a period of two years from date of purchase from React Health or a dealer, with a copy of the seller's invoice required for coverage under

this warranty.

DO NOT OPEN OR ATTEMPT TO SERVICE UNLESS SERVICE IS PROVIDED BY A REACT HEALTH-CERTIFIED TECHNICIAN; otherwise, this will void any and all warranties. If within such warranty periods any such product shall be proven to React Health's satisfaction to be defective, such product shall be repaired or replaced, at React Health's option. This warranty only applies to the labor for repairs performed by the React Health Service Department or React Health dealers. It does not apply to the labor performed by the purchaser or user. This warranty does not include normal wear and tear, failure to adhere to the product instructions, or shipping charges incurred in replacement part installation or repair of any such product. React Health's sole obligation and your exclusive remedy under this warranty shall be limited to such repair or replace-ment. Routine maintenance items, such as filters, are excluded from this warranty.

Terms and conditions of the warranty are part of the general terms and conditions particular to the individual countries in which this product is sold.

Contact information for your local React Health office is located on or inside the back cover of this manual.

LIMITATIONS AND EXCLUSIONS: THE FOREGOING WARRANTY SHALL NOT APPLY TO PRODUCTS SUBJECTED TO NEGLIGENCE, ACCIDENT, IMPROPER OPERATION, MAINTENANCE OR STORAGE, SOOT OR SMOKE-FILLED ENVIRONMENTS, OR OTHER THAN NORMAL APPLI-CATION, USE OR SERVICE, OR TO PRODUCTS MODIFIED WITHOUT REACT HEALTH'S EXPRESS WRITTEN CONSENT (INCLUDING, BUT NOT LIMITED TO, MODIFICATION THROUGH THE USE OF UNAUTHORIZED PARTS OR ATTACHMENTS) OR TO PRODUCTS DAMAGED BY REASON OF REPAIRS MADE TO ANY COMPONENT WITHOUT THE SPECIFIC CONSENT OF REACT HEALTH OR TO PRODUCTS DAMAGED BY CIRCUMSTANCES BEYOND REACT HEALTH'S CONTROL.

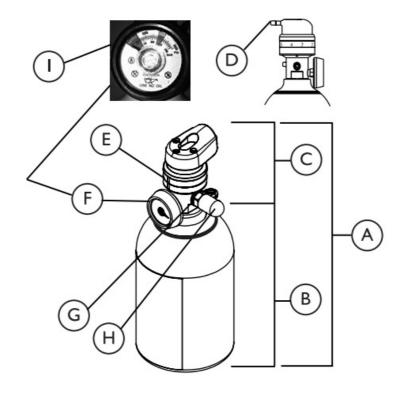
THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES WHATSOEVER, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS

FOR A PARTICULAR PURPOSE, AND THE SOLE REMEDY FOR VIOLATIONS OF ANY WARRANTY WHATSOEVER, SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT PURSUANT TO THE TERMS CONTAINED HEREIN. THE APPLICATION OF ANY IMPLIED WARRANTY WHATSOEVER SHALL NOT EXTEND BEYOND THE DURATION OF THE EXPRESS WARRANTY PROVIDED HEREIN. REACT HEALTH SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGE, OR LIMITATION OF HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU. THIS WARRANTY SHALL BE EXTENDED TO COMPLY WITH STATE/PROVINCIAL LAWS AND REQUIREMENTS.

## **Component Identification**

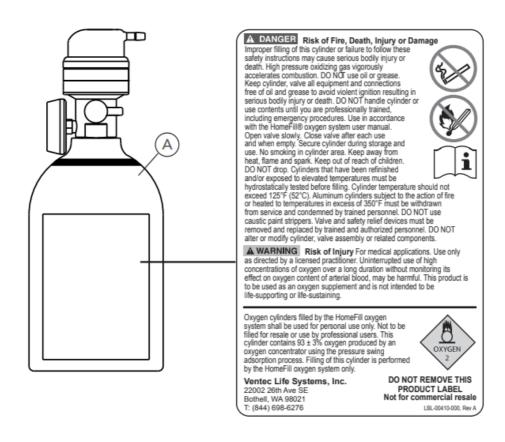
Item	Description
A	Cylinder Assembly
В	Cylinder
С	Conserver
D	Outlet Connection
E	Flow Dial
F	Cylinder Gauge
G	Cylinder Fillport
Н	Cylinder Fillport Cover
I	Cylinder Gauge Needle



Note: Cover of cannula connection removed from this view

## **Safety**

### **Label Locations**



Serial number located above product label shown here.

Note: HomeFill cylinders include a black ring A to indicate that the oxygen in the cylinder

was generated by an oxygen concentrator and therefore is 90-96% pure.

### **General Guidelines**

In order to ensure the safe installation, assembly and operation of the product these instructions MUST be followed.

### **DANGER!**

Risk of Death, Injury or Damage

Improper use of this product may cause death, injury or damage. This section contains important information for the safe operation and use of this product.

- DO NOT use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as user manuals, service manuals or instruction sheets supplied with this product or optional equipment.
- If you are unable to understand the warnings, cautions or instructions, contact a
  healthcare professional, dealer or technical personnel before attempting to use this
  equipment.
- Check ALL external components and carton for damage. In case of damage, or if the product is not working correctly, contact a technician or React Health for repair.
- THE INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.
- Use this cylinder in accordance with the HomeFill compressor user manual.
- DO NOT handle the cylinder assembly or use the contents until you are professionally trained, including emergency procedures. Training required to operate the product is contained in the user manual.
- This product is not intended for supplying oxygen therapy during refilling.
- This product is intended to be used by or under adult supervision.
- Oxygen Cylinders filled by the React Health HomeFill oxygen system shall be used for personal use only. They are not to be filled for resale or use by professional users.
- This cylinder is to be used with the React Health HomeFill oxygen system. This
  cylinder contains 93±3%oxygen produced by an oxygen concentrator using the
  pressure swing adsorption process.

ALWAYS open the flow dial slowly and set it to OFF after each use and when empty.

Risk Of Death, Injury, Or Damage From Fire

Textiles, oil or petroleum substances, grease, greasy substances and other combustibles are easily ignited and burn with great intensity in oxygen-enriched air and when in contact with oxygen under pressure. To avoid fire, death, injury or damage:

- DO NOT SMOKE while using this product.
- DO NOT use near OPEN FLAME or IGNITION SOURCES.
- DO NOT use any lubricants on the cylinder.
- NO SMOKING signs should be prominently displayed.
- Avoid creation of any spark near oxygen equipment. This includes sparks from static electricity created by any type of friction.
- Keep all matches, lighted cigarettes, electronic cigarettes or other sources of ignition out of the room in which this cylinder is located and away from where oxygen is being delivered.
- Keep the oxygen tubing, cord, and cylinder out from under such items as blankets, bed coverings, chair cushions, clothing, and away from heated or hot surfaces including space heaters, stoves, and similar electrical appliances.

#### **CAUTION!**

Federal (statutory) law restricts this device sale to or on the order of a medical practitioner licensed by a governmental agency where he/she practices.

• ONLY a licensed medical practitioner may order the purchase or use of this device.

## **Operating Information**

### **DANGER!**

Risk of Fire

Dirt or contaminants on the cylinder assembly or conserver can cause fire, injury or death.

• DO NOT use if dirt or contaminants are present on or around cylinder or conserver.

- DO NOT use or fill cylinder assembly if the cylinder fillport is dirty or contaminated.
   Contact your provider for service or repair.
- DO NOT allow oil from your hands or other sources to come into contact with the compressor coupling or cylinder assembly fittings. These substances may become flammable in the presence of oxygen and cause injury. Examples of items to avoid are hand cream or lotion, cooking oil, suntan oil or sunblock and similar oily products. If you use these types of products React Health suggests you wash your hands prior to using the HomeFill system. If the cylinder fillport should come in contact with such substances, contact your provider for service. Avoid touching the cylinder fillport.
- NEVER oil or lubricate the compressor coupler or cylinder fillport. NEVER use any
  penetrating oil or lubricant such as WD-40® or 3-IN-ONE®. If connection difficulty is
  experienced, verify that the cylinder fillport is being inserted straight down into the
  compressor coupler. If continued difficulty is experienced, contact your provider for
  assistance.
- DO NOT clean with aromatic hydrocarbons, including, but not limited to benzene and toluene.

Dirt or contaminants on the cylinder assembly or conserver can cause fire, injury or death.

- DO NOT use cleaning/disinfecting solutions on the fillport fitting.
- DO NOT use ozone cleaners.
- DO NOT immerse product in any kind of liquid.
- DO NOT allow any kind of liquid to get inside openings of the conserver.
- DO NOT spray cleaning/disinfecting solutions on product.
- DO NOT autoclave.
- DO NOT gas sterilize with ethylene oxide.
- DO NOT attempt to repair cylinder assembly. All repairs MUST be performed by React Health or in a React Health approved repair center.
- Store cylinder assembly in a clean, dry and cool area when not in use.

### **DANGER!**

Risk of Injury or Death

To avoid choking or ingestion of chemicals from airway contamination:

• DO NOT use the product in the presence of pollutants, smoke, fumes, flammable anesthetics, cleaning agents, or chemical vapors.

Contaminants in the oxygen may cause injury or death.

- DO NOT use if the oxygen has an unusual odor.
- DO NOT use if particulates are inhaled.
- Contact React Health or a dealer for service.

To avoid injury or damage from product misuse:

- The flow dial should be turned with normal pressure from one's hand. If the flow dial is stiff to turn, do not force, otherwise damage or injury could occur.
- DO NOT use supplemental oxygen from outlet connection for driving any medical equipment.

### **CAUTION!**

Risk of Injury or Damage

To reduce the risk of injury or damage from dropped or impacted cylinder assemblies:

- Use two hands when handling/transporting oxygen cylinders.
- Only use React Health carrying bag.
- DO NOT allow cylinder assemblies to tip or fall. DO NOT drop cylinder assemblies.
- Secure gas cylinders so they cannot fall.
- Ensure cylinder is always in upright position when not connected to the HomeFill compressor.
- DO NOT allow cylinders to impact inanimate objects.

## **Risk of Damage**

To avoid product damage:

• DO NOT block the outlet fitting or kink the cannula when the product is in use, as this

may damage the unit.

• DO NOT fill the cylinder assembly outdoors or anywhere below 13°C (55°F).

### **DANGER!**

Risk of Injury or Death

The cannula can cause tripping, falling, or other injury if improperly positioned and secured. To avoid injury or death:

- The cannula MUST be routed and secured properly.
- DO NOT position the cannula around the neck. Ensure the patient can move freely while wearing the cannula.
- Avoid positioning cannulas across areas of high foot traffic (i.e. aisles, doorways, hallways, etc.)

### **WARNING!**

Risk of Injury or Death

To avoid choking and/or strangulation from tubing entanglement:

- Keep children and pets away from nasal cannula and tubing.
- Close supervision is necessary when the nasal cannula is used by or near children and/or disabled persons.

To reduce the risk of injury or death from illness:

- Before the first patient use, the provider MUST disinfect the product. Refer to the Disinfecting section.
- Replace the nasal cannula on a regular basis. Check with your equipment provider or physician to determine how often the cannula should be replaced.
- DO NOT share cannulas between patients.

The cylinder poses no biocompatibility hazards and is latex and phthalate free. The biocompatibility of cylinder accessories may vary by manufacturer. React Health accessories such as the cylinder bag and oxygen tubing are latex and phthalate free. Refer to the packaging on any cylinder accessories to determine the biocompatibility hazard.

The cylinder assembly MUST be emptied of gas prior to shipping by courier or postal service. Refer to Emptying the Cylinder Assembly.

Because the cylinder contains magnetic, ferrous material, it is not suitable to be in an MRI room.

Be sure all connections are tight and leak free. DO NOT use a liquid leak detector to test for leaks. Leaks are indicated by loss of pressure when the cylinder assembly is not in use and by hissing sounds. This product is equipped with a relief valve. If you hear a loud hissing or popping sound coming from the product, discontinue use of product, turn the flow dial to the "Off" setting, and contact your dealer/Home Care equipment provider.

- ALWAYS confirm prescribed dose before administering to patient and monitor on a frequent basis.
- NO OXYGEN is delivered when the conserver flow dial setting is "Off".
- DO NOT use a humidifier with this product.
- Keep cylinder in a well ventilated place.
- This product is designed to operate with a standard or high flow single lumen, adult oxygen nasal cannula with a maximum length of 2.1 m (7 ft).
- The cannula is for single patient use only.
- Cannula MUST be installed on outlet connection prior to use.
- Refer to the HomeFill User Manual for additional warnings, cautions and safety instructions.

## Setup

## **Dealer Setup**

### **WARNING**

- Before the first patient use, the provider MUST disinfect the product. Refer to the Disinfecting section.
- Before patient use, the provider MUST check the hydrostatic testing date. Refer to The Hydrostatic Testing Date section.

## Risk of Injury

For medical applications, it is very important to select the prescribed level of oxygen

flow. Uninterrupted use of high concentrations of oxygen over a long duration, without monitoring its effect on oxygen content of arterial blood, may be harmful.

- Use ONLY as directed by a licensed practitioner.
- DO NOT increase or decrease the flow unless a change has been prescribed by your physician or therapist.

### **User Setup**

### **WARNING!**

 When receiving the cylinder assembly from the provider, the user/patient MUST perform a receiving inspection. Refer to the Receiving Inspection section.

### **Receiving Inspection**

Remove product from package and inspect for damage. If there is any damage, DO NOT use. Contact your dealer/Home Care equipment provider.

### **Cylinder Prefill Inspection**

### **WARNING!**

Risk of Injury or Damage

- Oxygen cylinder assemblies shall be used for personal use only. Not to be filled for resale or use by profes-sional users.
- Filling of cylinder assemblies is performed by React Health HomeFill Oxygen System only.
- This cylinder assembly is to be used with the HomeFill system. This cylinder contains 93±3% oxygen produced by an oxygen concentrator using the pressure swing adsorption process.
- DO NOT handle the cylinder assembly or use contents until you are professionally trained, including emergency procedures.
- Use this cylinder assembly in accordance with the HomeFill user manual.
- Secure the cylinder assembly during storage and use. DO NOT drop.
- No smoking in cylinder assembly area. Keep away from heat, flame or spark.

• Keep out of the reach of children.

### **DANGER!**

Risk of Injury or Death

- Improper filling or abuse of this cylinder assembly, or failure to follow these safety instructions may cause serious bodily injury or death. High pressure oxidizing gas vigorously accelerates combustion.
- DO NOT alter or modify cylinder assembly or related components.
- DO NOT use oil or grease. Keep cylinder, all equip-ment and connections free of oil and grease to avoid violent ignition resulting in serious bodily injury or death.

### The Hydrostatic Testing Date

Aluminum cylinders MUST undergo testing every five years.

### **DANGER!**

Risk of Death, Injury or Damage from Fire

To avoid fire, death, injury or damage:

- Cylinders that have been refinished and/or exposed to elevated temperatures MUST be hydrostatically tested before filling. Cylinder temperature should not exceed 60° C (140° F). Aluminum cylinders subject to the action of fire or heated temperatures in excess of 177° C (350° F) MUST be withdrawn from service and condemned by trained personnel. DO NOT use caustic paint strippers. Valve and safety relief devices MUST be removed and replaced by trained and authorized personnel. DO NOT alter or change valve assembly.
- All cylinders MUST be inspected before attempting to fill; otherwise, injury or damage may occur.

#### **WARNING!**

Risk of Injury

To reduce the risk of injury:

• DO NOT fill cylinders that have not been tested in the past five years. Otherwise,

serious personal injury may result. Contact your dealer/Home Care equipment provider for replacement.

### **External Examination**

### **WARNING!**

Risk of Injury or Damage

To reduce the risk of injury or product damage:

- DO NOT use the cylinder if any of the following items are found. Contact your dealer/Home Care equipment provider for a replacement.
  - Examine the outside of the cylinder for the following conditions.
     If they exist, contact your provider for service.
    - Dents or dings, arc burns, oil or grease, any other signs of damage that
       might cause a cylinder to be unacceptable or unsafe for use
  - 2. Examine the cylinder for evidence of fire or thermal damage. Evidence includes charring or blistering of the paint, or other protective coating or heat sensitive indicator. If fire or thermal damage is found, contact your dealer/Home Care equipment provider for a replacement. 3. Inspect the cylinder assembly for the following conditions. If they exist, contact your provider for a replacement.
    - Debris, oil or grease, noticeable signs of damage, signs of corrosion, signs of excessive heat or fire damage, signs of pressure leaks.

## **Usage**

### **Before Use**

### WARNING!

Risk of Injury or Damage

Defective or inoperable cylinders may cause injury or damage.

- All cylinders MUST be inspected before attempting to fill.
- If the cylinder is found to be defective or does not work properly, contact a React Health dealer or qualified technician for service or replacement.
- Before filling a cylinder assembly, read and follow the information in Cylinder Prefill

Inspection and External Examination.

### Connecting/Disconnecting the Cylinder Assembly to/from the Compressor

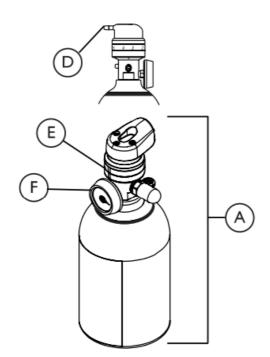
Refer to the HomeFill Compressor user manual for operating instructions to connect and disconnect the cylinder to the HomeFill Compressor.

### **Cylinder Assembly Operation**

### **DANGER!**

Risk of Fire

- NEVER smoke in an area where oxygen is being administered.
- NEVER use near any type of flame or flammable/explosive substances, vapors or atmosphere.



- Prior to each use, inspect product for visible damage. Refer to the External
   Examination section. DO NOT use if any damage is found.
   If for any reason, any label becomes illegible or lost, contact your dealer/Home Care equipment provider.
- 2. Inspect the cylinder gauge **F** to ensure the pressure is at least 1500 psig (10342 kPa). If below 1500 psig (10342 kPa), then refill the cylinder assembly using the HomeFill system.

### **WARNING!**

- When cylinder gauge needle enters red zone, it is recommended to switch to a different source of O2 and refill the cylinder assembly on the React Health HomeFill Compressor.
- 3. Position the cylinder assembly  $\bf A$  so the outlet connection  $\bf D$  is pointing away from the user and any other person(s).

### **WARNING!**

Risk of Injury

To reduce the risk of injury:

- DO NOT direct flow of oxygen at any person, or flammable material when adjusting the flow dial **E** .
- 4. Turn the flow dial **E** to setting "Off".
- 5. Remove the outlet connection cap, if present.
- 6. Attach a standard or high flow single lumen adult oxygen nasal cannula with a maximum length of 2.1 m (7 feet) to the product's outlet connection according to the cannula manufacturer's instructions.

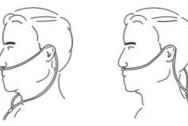
### DANGER!

Risk of Injury or Death

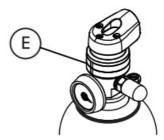
The cannula can cause tripping, falling, or other injury if improperly positioned and secured. To avoid injury or death:

- The cannula MUST be routed and secured properly.
- DO NOT position the cannula around the neck. Ensure the patient can move freely while wearing the cannula.
- Avoid positioning cannulas across areas of high foot traffic (i.e. aisles, doorways, hallways, etc.)

DO NOT use pediatric cannulas with this product.



- 7. Place the cannula over your ears and position the prongs in your nose as instructed by your Health Care provider or cannula manufacturer.
- 8. Ensure there are no kinks or twists in the cannula tubing.



9. Turn flow dial E to the prescribed setting.

### **WARNING!**

- To avoid injury to patient, ALWAYS confirm prescribed setting before administering to patient and monitor flow on a frequent basis.
- Only use the React Health carrying bag.
- 10. Breathe through the nose and feel a flow of oxygen as you inhale.

  When set to a PulseDose® setting, oxygen will only be provided during inhalation.
- 11. When finished using the cylinder assembly, turn the flow dial to setting "Off".

### **Maintenance**

### **WARNING!**

Risk of Injury or Damage

Lack of product maintenance can lead to injury and loss of product function or damage.

- Maintenance MUST be performed ONLY by qualified personnel.
- Regular maintenance is necessary to assure proper operation.

#### **DANGER!**

Risk of Fire

Dirt or contaminants on the cylinder assembly or conserver can cause fire.

- DO NOT use or fill cylinder assembly if the cylinder fillport is dirty or contaminated.
   Contact your provider for service or repair.
- DO NOT clean with aromatic hydrocarbons, including, but not limited to benzene and toluene.
- DO NOT use cleaning/disinfecting solutions on the fillport fitting.
- DO NOT immerse product in any kind of liquid.
- DO NOT allow any kind of liquid to get inside openings of the conserver.
- DO NOT spray cleaning/disinfecting solutions on product.
- All repairs MUST be performed by React Health or in a React Health approved repair

center.

### **WARNING!**

Risk of Injury or Damage

- The cylinder assembly MUST be disconnected from the HomeFill and emptied of gas prior to cleaning or disinfecting.
- Refer to Emptying the Cylinder Assembly. The fillport cover MUST also be installed.
- All cylinders MUST be inspected before attempting to fill; otherwise, injury or damage may occur. Refer to Cylinder Prefill Inspection.

The cannula does not require maintenance and needs to be replaced at the manufacturer's recommended interval.

The conserver should be inspected and tested at a minimum every 5 years. This inspection and test MUST be performed by React Health or by a React Health-approved repair center.

The aluminum cylinder must undergo hydrostatic testing every 5 years. Refer to The Hydrostatic Testing Date.

## **Emptying the Cylinder Assembly**

#### **DANGER**

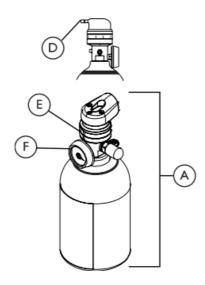
Risk of Fire

- NEVER smoke in an area where oxygen is being administered.
- NEVER use near any type of flame or flammable/explosive substances, vapors or atmosphere.
- DO NOT direct flow of oxygen at any person, or flam-mable material when adjusting the flow dial.

### **CAUTION**

Risk of Damage

 DO NOT completely empty the cylinder. Otherwise, damage to the cylinder could occur.



- 1. Position the cylinder assembly A so the outlet connection D is pointing away from the user and any other person(s).
- 2. Turn the flow dial to setting "Off".
- 3. Turn the flow dial E to 2 LPM cont setting.
- Examine the cylinder gauge F until the pressure is below 500 psig (3447 kPa).
   Cylinder pressure is below 500 psig (3447 kPa) when the cylinder gauge needle is in the red zone.
- 5. Turn the flow dial E to setting "Off".

### Cleaning

Refer to the safety information in the Maintenance section before performing this procedure.

Follow the cleaning/disinfectant product manufacturer's instructions for use, handling, storage and disposal of the product.

Follow this procedure to clean the cylinder assembly as required when visibly soiled.

- 1. Ensure the cover is installed on the fillport.
- 2. Clean exterior surfaces of the cylinder with a lint free cloth dampened with 70% isopropyl alcohol.
- 3. Clean the exterior surfaces of the conserver with a dry, lint free cloth.
- 4. If the conserver is still visibly soiled, clean with a lint free cloth dampened with 70% isopropyl alcohol. DO NOT wipe the fillport or outlet fitting.
- 5. Wipe the cylinder and conserver with a dry lint free cloth. Ensure the product is dry

before using.

## **Disinfecting**

Refer to the safety information in the Maintenance section before performing this procedure.

Follow the cleaning/disinfectant product manufacturer's instructions for use, handling, storage and disposal of the product.

This procedure is for disinfecting the cylinder assembly and is to be performed by the provider prior to a patient change and as otherwise required.

## Recommended disinfectant products:

- Quaternary ammonium-based wipes selected by the provider for the desired disinfecting characteristics
- 70% isopropyl alcohol wipes
  - 1. Ensure the cover is on the fillport.
  - 2. If heavily soiled, first clean the cylinder assembly. Refer to the Cleaning section.
  - Use a wipe to disinfect the external surfaces of the conserver and cylinder. Follow the disinfectant manufacturer's instructions. DO NOT wipe the fillport or outlet connection.
  - 4. Wipe the cylinder and conserver with a dry lint free cloth. Ensure the product is dry before using.

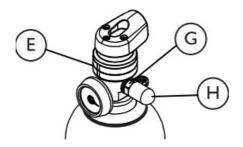
#### **REUSE**

#### **WARNING**

Before transferring the product to a different user, providers MUST inspect the product for damage and disinfect the product. Refer to the following procedures:

- Disinfecting
- Cylinder Prefill Inspection
- The Hydrostatic Testing Date
- External Examination

The cylinder assembly can be transferred to a different patient. The cannula is for single patient use only.



### **Storage**

- 1. Ensure the flow dial **E** is turned to setting "Off".
- 2. Place the cover **H** on the fillport **G**.
- 3. Store product in a clean, dry and cool area free from grease, oil, and other sources of contamination.

### **Optional Accessories**

### **WARNING!**

Risk of Injury or Damage

Use of non-React Health accessories may result in serious injury or damage.

- React Health products are specifically designed and manufactured for use in conjunction with React Health accessories. Accessories designed by other manufacturers have not been tested by React Health and are not recommended for use with React Health products.
- DO NOT use non-React Health accessories.
- To obtain React Health accessories, contact React Health by phone or at www.ReactHealth.com.

The following optional accessories are available for use with this product are carry bags HF2PCL6BAG, HF2PC9BAG and HF2PCL4BAG.

### **After Use**

### **Disposal**

This product has been supplied from an environmentally aware manufac-turer that complies with the Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/CE. This product may contain substances that could be harmful to the environment if disposed of in places (landfills) that are not appropriate according to legislation.

Follow local governing ordinances and recycling plans regarding disposal of the product or components normally used in operation.

The device does not generate waste or residue in operation.

- DO NOT dispose of the device in the normal waste stream.
- Any accessories not part of the device MUST be handled in accordance with the individual product marking for disposal.

### **Wear and Tear**

React Health reserves the right to ask for any item back that has an alleged defect in workmanship. See Warranty that shipped with the product for specific warranty information.

Refer to the Maintenance section for proper preventative maintenance schedule and use of the product.

## **Troubleshooting**

If the Regulating Cylinder fails to function, consult the Troubleshooting guide. If problem cannot be corrected, consult your Dealer/Home Care equipment provider.

Problem Possible Cause Solution
---------------------------------

	Flow dial at setting "Off"	Adjust flow dial to pres cribed setting.
No flow.	<ol> <li>Cylinder empty.</li> <li>Flow dial is between set tings.</li> <li>Conserver not sensing breath.</li> </ol>	<ol> <li>Fill or replace cylinder.</li> <li>Set dial so indicator po ints to a setting.</li> <li>Check position of can nula in nose. Do not breath</li> </ol>
	5. Kinked or blocked cann ula.	e through mouth.  5. Check to see if the ca nnula is kinked.

## **Technical Description**

React Health Oxygen Cylinder with PulseDose Conserver is an oxygen storage product that can deliver up to 5 L/min of pulse flow oxygen to the patient via a nasal cannula. The cylinder assembly is designed to store compressed oxygen up to 2,100 psig (14479 kPa). The conserver reduces the pressure at the cannula connection to 50 psig (345 kPa) and contains a rotary flow dial that is used to adjust the oxygen flow rate to the prescribed setting. The cylinder assembly is filled with USP 93±3% oxygen using its proprietary fill port that allows filling only through the use of a React Health HomeFill System. The duration of oxygen flow between fills is dependent on the size of the cylinder and the flow setting.

## **Specifications**

Settings		
Conserver S/N Range:	75,000+	
Pulse Settings:	1, 2, 3, 4, & 5	

Flow Settings:	2 L/min Continuous	
Savings Ratio:	Up to 5.7:1	

Pressures		
Conserver S/N Range:	75,000+	
Inlet Pressure Range:	300–2100 psig	
Internal Regulated Pressure:	50 psig	
Max Fill Pressure:	2100 psig (14479 kPa)	
	3025–3360 psig at 72°F	
Burst Pressure:	(20857–23166	
	kPa at 22.2°C)	

Environmental Operating Temperature Range		
Conserver S/N Range:	75,000+	
Operating Conditions Temperat ure:	35°F to 105°F (1.7°C to 40.6°C)	
Altitude:	0 to 10,000 ft (0 to 3071 m)	
Storage Conditions Temperatur e:	-40°F to 140°F (-40°C to 60°C)	
Maximum Humidity:	95% RH	

# **Assembly Dimensions**

Conserver S/N Ra	75,000+		
Model:	HF2PCL4	HF2PCL6	HF2PC9
Weight:	3.6 lbs (1.63 kg)	4.1 lb (1.86 kg)	5.1 lb (2.31 kg)
Overall Length:	8.9 in (22.2 cm)	10.9 in (27.7 cm)	14 in (35.5 cm)
Diameter:	4.4 in (11.1 cm)	4.4 in (11.1 cm)	4.4 in (11.1 cm)

Cylinders			
Cylinder Si ze:	ML4	ML6	M9
Volume (H2 O):	0.67 L (0.024 ft 3)	1.0 L (0.035 ft 3)	1.7 L (0.061 ft 3)
Oxygen Ca pacity:	113 L (4 ft 3)	170 L (6 ft 3)	255 L (9 ft 3)

React Health 5475 Rings Road Suite 550

Dublin, OH 43017

844-698-6276

www.reacthealth.com

## Manufacturer

Ventec Life Systems , Inc. 22002 26th Ave SE Bothell, WA 98021 USA

## **FAQ**

Q: Can this product be used as life-supporting equipment?

**A:** No, this product is intended for oxygen supplementation only and should not be used as life-supporting or life-sustaining equipment.

### Q: Who can use this product?

**A:** This product is limited to oxygen patients who can breathe spontaneously without the need for a machine. It should not be used by patients who breathe through their mouths.

## **Documents / Resources**



REACT HEALTH ML4 Cylinder with PulseDose Conserver [pdf] User Man

ML4, ML6, M9, ML4 Cylinder with PulseDose Conserver, Cylinder, Cylinder with PulseDose Conserver, PulseDose Conserver, Conserver

### References

- User Manual
- REACT

HEALTH

• Conserver, CYLINDER, Cylinder with PulseDose Conserver, M9, ML4, ML4 Cylinder with PulseDose Conserver, ML6, PulseDose Conserver, REACT HEALTH

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