

# USER MANUAL

## **EASYPULSE<sup>5</sup>** *Oxygen Conserving Regulator*

**1900 SERIES**  
**(CGA 870 Connection)**



**SAVE THESE INSTRUCTIONS**

**⚠ CAUTION**

Federal (USA) law restricts this device to sale by or on the order of a physician.

Precision Medical, Inc.  
300 Held Drive  
Northampton, PA 18067 USA

Tel: 610-262-6090  
Fax: 610-262-6080

# CONTENTS

RECEIVING INSPECTION .....	1
INTENDED USE .....	1
SAFETY SYMBOL DESCRIPTION .....	2
SPECIFICATIONS, WARNINGS .....	3
WARNINGS CONTINUED, CAUTIONS .....	4
PRODUCT DIAGRAM .....	5
OPERATING INSTRUCTIONS .....	6
CLEANING / MAINTENANCE .....	8
TROUBLESHOOTING .....	8
PARTS LIST .....	9
WARRANTY .....	10

## RECEIVING INSPECTION

Remove product from package and inspect for damage. If there is any damage, do not use. Contact your dealer/homecare equipment provider.

## INTENDED USE

To regulate high pressure cylinders that provide 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. The device delivers 100% oxygen at a number of different flow settings. It is intended to be used as an oxygen saving device that reduces the drying out of the airways.

### DANGER

This product is not intended as a life-sustaining or life-supporting device.

## READ ALL INSTRUCTIONS BEFORE USING

Read and understand this manual before using the product. This manual is provided for your safety and to prevent damage to the product.

If there is anything you do not understand, do not use the product; contact your dealer/homecare equipment provider.

# SAFETY SYMBOLS

## **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**

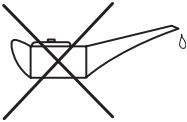
CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

## **CAUTION**

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



Attention, consult ACCOMPANYING DOCUMENTS



Symbol for "USE NO OIL"



Symbol for "NO SMOKING"



Symbol for "COVERING DEVICE WITH GARMENTS WILL PRODUCE OXYGEN ENRICHED ATMOSPHERE"



Symbol for "SINGLE USE"

# SPECIFICATIONS

**Inlet Pressure Range:** 300 - 3000 psi (2068 - 20684 kPa)

**Internal Regulated Pressure:** 50 psi (345 kPa)

**Pressure Gauge Accuracy:** 3 - 2 - 3 % of full scale

## Dimensions:

Weight 10.4 oz (295 g)

Overall Length 4.75" (12.07 cm)

Width 2.63" (6.67 cm)

Height 2.50" (6.35 cm)

**Pulse Settings:** 1, 2, 3, 4, & 5 LPM Equivalentents

**Flow Settings:** 2 LPM Continuous

**Savings Ratio:** Up to 5.7:1

**Cannula Requirement:** Maximum 7 foot (2.1 m) long standard adult single lumen oxygen nasal cannula.

## Operating Conditions:

Temperature: 35°F (1.7°C) to 105°F (40.6°C)

Altitude: Sea level to 10,000 ft (0 to 3048 m)

## Storage Conditions:

Temperature: -40°F (-40°C) to 140°F (60°C)

Maximum Humidity: 95% Non-condensing

**Oxygen Cylinder Connection:** CGA 870 Valve

Specifications are subject to change without prior notice.

## ⚠WARNING

- NEVER smoke in an area where oxygen is being administered.
- ALWAYS confirm prescribed dose before administering to patient and monitor on a frequent basis.
- Do NOT use if dirt or contaminants are present on or around cylinder, valve, product or connecting devices.
- NEVER use near any type of flame or flammable/explosive substances, vapors or atmosphere.
- Always follow ANSI and CGA standards for Medical Gas Products and Flowmeters (E-7) and Oxygen Handling (G-4).
- NO OXYGEN is delivered when the pointer ▽ is aligned with "OFF".

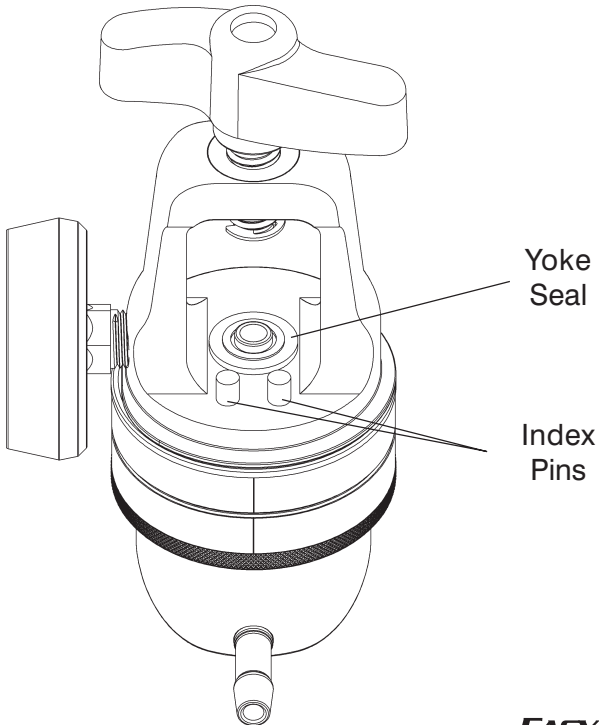
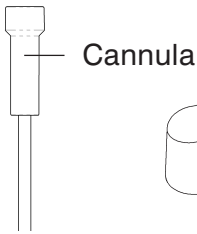
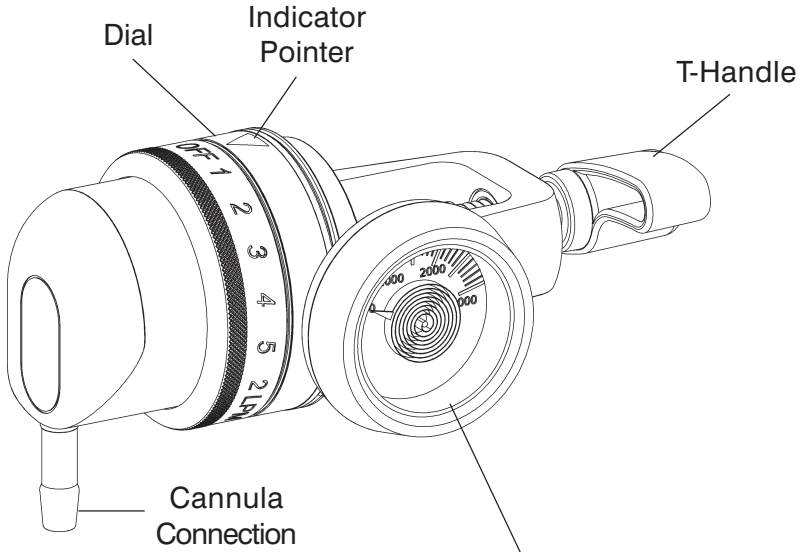
## **⚠WARNING**

- Do NOT use oils, greases, organic lubricants or any combustible materials on or near this product. Wash and dry hands properly prior to usage.
- Do NOT use a humidifier with this product.
- Use only USP grade medical oxygen.
- Do NOT allow cylinders to tip or fall. Secure gas cylinders so they cannot fall. For optimum safety keep cylinder upright whenever possible.
- Keep cylinder valve closed at all times when cylinder is not in use.
- Do NOT store cylinders near sources of heat or flame.
- This product is NOT to be used by patients who breathe through their mouths.
- 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, close cylinder valve, and contact your dealer/homecare equipment provider.
- Do NOT use while sleeping without consulting your health care provider.
- This product is designed to operate with a single lumen, adult cannula with a maximum length of 7 feet (2.1 m).
- The cannula is for single patient use only.

## **⚠CAUTION**

- Only personnel instructed and trained in its use should operate this product.
- Product contains magnetic, ferrous material that may affect the results of an MRI.
- Do NOT autoclave.
- Do NOT gas sterilize with Ethylene Oxide.
- Do NOT clean with aromatic hydrocarbons.
- Store product in a clean area when not in use.
- Avoid dropping the product or placing it in a position where it could fall and become damaged.
- Consistent with the recommendations of the medical community on the use of conserving devices, it is recommended that the Oxygen Conserving Regulator be qualified on patients in the situations it will be used (rest, exercise, sleep).

# PRODUCT DIAGRAM



# OPERATING INSTRUCTIONS

1. Prior to each use, inspect product and cylinder valve for visible damage. Do NOT Use if any damage is found.  
**NOTE:** *If for any reason, any label becomes illegible or lost, contact your dealer/homecare equipment provider.*
2. Inspect product and cylinder valve to ensure they are free of oils, greases or other contaminants.  
**NOTE:** *For operational instructions on how to operate the cylinder confer with your dealer/homecare equipment provider.*  
**NOTE:** *Conservor should only be used on cylinders with a contents gauge.*
3. Position the cylinder so the oxygen cylinder valve outlet is pointing away from the user and any other person(s).
4. Before installing oxygen conserving regulator, “crack” cylinder valve by opening the valve slightly and closing.
5. Be sure oxygen conserving regulator is in the “OFF” position. Align “OFF” with the indicating pointer ▽.

## ⚠WARNING

Do NOT direct flow of oxygen at any person, or flammable material when cracking the cylinder.

6. Be sure the CGA 870 connection high pressure inlet has a yoke seal. Do NOT use without yoke seal.  
**NOTE:** *For optimum safety, use only a Precision Medical, Inc. yoke seal part number 1221.  
The yoke seal supplied with the product is reusable.  
Do NOT use plastic yoke seals.*
7. Attach the product to the oxygen cylinder valve.
8. Hand tighten T-handle clockwise until tight.

## CAUTION

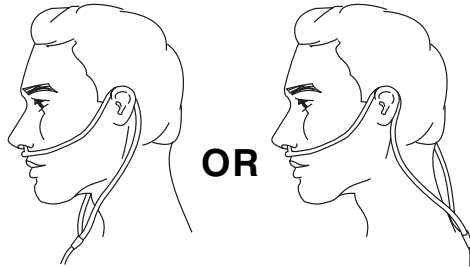
- Never use tools to tighten T-handle. This can lead to over tightening and will cause damage to the product.
- Be sure all connections are tight and leak free.
- Do NOT use liquid leak detector to test for leaks.
- Do NOT block the cannula connection or kink cannula tubing when the product is in use, this may damage the unit.

9. Attach a **standard adult single Lumen oxygen nasal cannula**, no longer than 7 feet (2.1 m) to the product's outlet according to the cannula manufacturer's instructions.

### ⚠CAUTION

Do NOT use pediatric, low flow nasal cannulas or oxygen masks with this product.

10. Place the cannula over your ears and position the prongs in your nose as instructed by your healthcare provider or cannula manufacturer.



11. Slowly open cylinder valve counterclockwise, until completely open.
12. Turn dial until indicating pointer  $\nabla$  is aligned with the prescribed setting.

### ⚠WARNING

- When pointer on contents gauge enters red zone, (500 psi (3447 kPa) and below), it is recommended to change to a full oxygen cylinder.
- **NO OXYGEN** is delivered in between settings.

**To avoid injury to patient:**

- ALWAYS confirm prescribed setting before administering to patient and monitor flow on a frequent basis.

13. Breathe through the nose and feel a pulse of oxygen as you inhale.

**NOTE:** When on a pulse setting, there is flow or a pulse only at the beginning of each breath. If you do not feel the pulse at the beginning of each breath, check the setting.

**NOTE:** Because each patient's breathing pattern is different and the environment varies, it may be difficult to feel some low setting pulses.

14. To remove product from cylinder:

- **Completely close oxygen cylinder valve clockwise.**
- Turn conserver dial to “2LPM continuous” position.
- Wait for oxygen to stop flowing from conserver.
- Remove conserver from cylinder valve.
- **Do NOT** try to loosen T-handle beyond stop. Damage to product will occur.



## ⚠ WARNING



- Be sure to use the bag designed for the EasyPulse5 to prevent an oxygen enriched environment.
- Do NOT place the unit under clothing while in use. When this product is in use a small amount of oxygen is vented. Wearing the unit under clothing may saturate fabrics with oxygen and cause them to burn rapidly if exposed to sparks or flame. It may take several hours for oxygen levels in fabrics to return to normal.
- ALWAYS insert cylinder and product into bag, cylinder first with gauge facing mesh. Reference accessory photo, (pg. 9).

## ⚠ DANGER

NEVER attempt to remove product from a cylinder unless the cylinder valve is closed.

## CLEANING / MAINTENANCE

1. After each use, clean exterior of the product with a clean, lint free cloth dampened with water. **Allow unit to dry prior to use.**
2. Store product in a clean area free from grease, oil, and other sources of contamination.

## CAUTION

- Do NOT use cleaning solutions.
- Do NOT immerse product in any kind of liquid.
- Do NOT attempt to repair product.
- All repairs must be performed by Precision Medical, Inc.

## TROUBLESHOOTING

If the **Oxygen Conserving Regulator** fails to function, consult the troubleshooting guide on page 9.

If problem cannot be corrected, consult your dealer/homecare equipment provider. ANY product returned to Precision Medical, Inc. for repair must be packaged so as to prevent shipping damage. Repairs for damage due to improper packaging will be charged to the customer.

<b>Problem</b>	<b>Probable Cause</b>	<b>Remedy</b>
A. No flow	<ol style="list-style-type: none"> <li>1. Cylinder valve closed</li> <li>2. Regulator in "OFF" position</li> <li>3. Cylinder empty</li> <li>4. Dial not set at increment</li> <li>5. Conservor not sensing breath</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn on cylinder</li> <li>2. Set to prescribed setting</li> <li>3. Replace cylinder</li> <li>4. Set dial so indicator points to a setting</li> <li>5. Check position of cannula in nose Do not breathe through mouth</li> </ol>
B. Leaking at cylinder connection	<ol style="list-style-type: none"> <li>1. Missing or defective yoke seal</li> <li>2. Defective cylinder valve</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace yoke seal</li> <li>2. Contact your dealer/homecare equipment provider</li> </ol>

## REPLACEMENT PARTS LIST

<b>Description</b>	<b>Part #</b>	<b>Description</b>	<b>Part #</b>
Cannula	503944	User Manual	504203
Yoke Seal	1221		

## ACCESSORIES

<b>Description</b>	<b>Part #</b>
Carry Bag M6	503920
Carry Bag M4/M6	504184
Carry Bag ML6/M9	504185



## **LIMITED WARRANTY AND LIMITATION OF LIABILITY**

Precision Medical, Inc. warrants that the Easy Pulse Oxygen Conserving Regulator (the Product) will be free of defects in workmanship and/or material for the following periods:

Two (2) years from date of shipment.

Should any failure to conform to this warranty appear within the applicable period, Precision Medical, Inc. shall, upon written notification thereof and substantiation that the goods have been stored, installed, maintained and operated in accordance with Precision Medical, Inc.'s instructions and standard industry practice, and that no modifications, substitutions, or alterations have been made to the goods, correct such defect by suitable repair or replacement at its own expense.

**ORAL STATEMENTS DO NOT CONSTITUTE WARRANTIES.**

The representative of Precision Medical, Inc. or any retailers are not authorized to make oral warranties about the merchandise described in this contract, and any such statements shall not be relied upon and are not part of the contract for sale. Thus, this writing is a final, complete and exclusive statement of the terms of that contract.

**THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTY OF QUALITY, WHETHER EXPRESS OR IMPLIED.**

Precision Medical, Inc. shall not under any circumstances be liable for special, incidental or consequential damages including but not limited to lost profits, lost sales, or injury to person or property. Correction of non-conformities as provided above shall constitute fulfillment of all liabilities of Precision Medical, Inc. whether based on contract, negligence, strict tort or otherwise. Precision Medical, Inc. reserves the right to discontinue manufacture of any product or change product materials, designs, or specifications without notice.

Precision Medical, Inc. reserves the right to correct clerical or typographical errors without penalty.

# *PRECISION* *MEDICAL*®

**Authorized EU Representative:**

EMERGO EUROPE, INC.

Molenstraat 15  
2513 BH The Hague  
NETHERLANDS

***ISO 13485 Certified***

Precision Medical, Inc.  
300 Held Drive  
Northampton, PA 18067 USA

Toll Free Tel: 800-272-7285  
Toll Free Fax: 800-352-1240  
Tel: 610-262-6090  
Fax: 610-262-6080

Visit us on the Web: [www.precisionmedical.com](http://www.precisionmedical.com)