ACARE

VSY/ VSW/ VSC Series

Medical Regulator

OPERATING INSTRUCTIONS

IMPORTANT

PLEASE READ THOROUGHLY AND FOLLOW DIRECTIONS CAREFULLY BEFORE OPERATING EQUIPMENT.

FDA CE 2460 **GMP** ISO 13485 CERTIFIED

● IMPORTANT

OPERATING INSTRUCTIONS FOR PISTON/ DIAPHRAGM OXYGEN THERAPY REGULATORS

⚠ CAUTION

PLEASE READ THOROUGHLY AND FOLLOW DIRECTIONS CAREFULLY BEFORE OPERATING EQUIPMENT.

⚠ WARNING

Oxygen is a non-flammable gas, however, oxygen substantially increases its risk to become flammable materials when combined with oxygen, oil, grease and other hydrocarbons. These materials should never be used or applied on any part of the oxygen cylinder, cylinder valve or other equipments used with oxygen.

● GENERAL SAFETY INFORMATION

1. These regulators are intended for the administration of oxygen to patients that are deemed by a physician to need increased oxygen levels to improve or stabilize their breathing conditions.

2. Oxygen is non-flammable gas ; however. All materials which burn in air will burn MUCH more rapidly in the presence of oxygen. OIL AND/OR GREASE BECOME HIGHLY COMBUSTIBLE IN THE PRESENCE OF OXYGEN! USE NO OIL or grease or any other petroleum based or flammable substance on or around oxygen equipment!

3. Standard industry cautions should be exercised when used in other applicable situations. These regulators may also be used in emergency situations (some models do not reach flows consistent with emergency applications). In any situation requiring emergency oxygen, call a physician or Emergency Medical Service technician immediately. This unit is an inhaler, and is useful only on persons who are breathing prior to administering oxygen.

4. If using a humidifier or similar device, remove the device from the regulator before changing the cylinder, DO NOT allow the fluids to enter.

5. Inspect the cylinder valve and regulator thoroughly for dust, oil and grease. Wipe dusty parts with a damp cloth. DO NOT USE THE CYLINDER IF OIL OR GREASE IS PRESENT! Inform your gas supplier of this condition immediately.

6. Oxygen therapy and emergency oxygen regulators are pressure reducing devices which lower the pressure of the oxygen from a cylinder to a level which can safely be used.

7. NO SMOKING - Remove matches, cigarettes, lighters and lighter fluids from the patient and from the oxygen therapy area before administering oxygen. Remove other flammable materials from the area.

8. DO NOT USE THE OXYGEN REGULATOR OF OIL, GREASE OR ANY CONTAMINATION IS PRESENT OR IF DAMAGE IS PRESENT! Take the regulator to a qualified repair technician for cleaning and/or repairing before use. Inspect the regulator inlet filter in the inlet connection to be sure it is clean. If it appears dirty, take it to a qualified repair technician for replacement.

● INLET CONNECTION DESCRIPTION

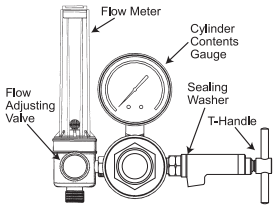

Fig. 1
Flow Meter Regulator

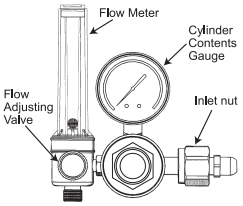

Fig. 2
Flow Meter Regulator

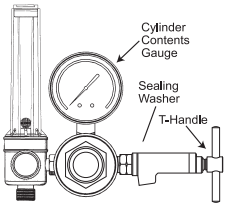

Fig. 3
Central Type Regulator

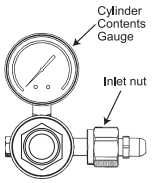

Fig. 4
Central Type Regulator

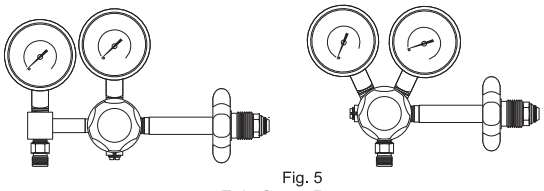

Fig. 5
Twin-Gauge Regulator

Medical regulators come in a variety of types and models and may be equipped with one of these cylinder inlet connections.

Fig. 1 & 3. For REGULATORS HAVING A CGA 870 YOKE INLET CONNECTION
Turn the "T" handle clockwise to tighten the regulator, being sure the "T" handle screw point is seated in the dimple on the cylinder post valve. Tighten until secure to provide a leak proof connection.

Regulator with Yoke inlet connection.
- **CGA 870 (Pin-Intex)**

Fig. 2, 4 & 5. REGULATOR WITH NUT AND SWIVEL INLET CONNECTION
- **CGA 540 (Bull-Nose)**
- **CGA 992 (BS)**
- **DIN 477**
- **Japanese**

CGA 540, CGA992, DIN 477 or Japanese (Fig. 2, 4 & 5) with Nut and Swivel. There is no sealing washer used with this connection. Tighten this fitting to the larger cylinder valves with a wrench. For hand-tight model, please tighten the hand wheel tightly without a wrench.

NOTICE:

Regulators purchased with open 1/8", 1/4", 3/8" or 1/2" NPT regulator ports must be assembled to their intended system.

Back pressure in excess of 2 PSI will cause inaccuracy of the delivery gauge reading in flow gauge regulators.

Common causes of back pressure are twisted hoses or very long horses between the regulator outlet and user, or any restrictions to flow occurring in that area.

Some regulator models may be supplied with an open 1/4"-18NPT outlet port for connection to customers' piping. Always use thread sealants compatible with the gasses involved.

Use 15 to 20 ft.-lbs. Torque for assembly. Always leak test connections before putting into service.

CONNECTING THE REGULATOR TO A CYLINDER

Medical oxygen regulators are generally supplied with either CGA 540 nut or nipple combination which threads onto the cylinder valve or a CGA 870 yoke type connection which is secured to the valve by the tightening of a "T" handle.

1. Be sure the sealing washer is in place on the yoke inlet.

2. With the valve outlet facing away from you, slightly open the oxygen cylinder post valve to purge any undetectable debris from the valve seat, then re-close the valve.

PRESSURIZING THE REGULATOR

a. Turn the flow adjusting knob counter-clockwise (on) until the center of the ball corresponds with the line indicating the rate of flow prescribed by your physician.

b. For piston type regulator, the outlet pressure of the preset regulator has been factory preset. Do not attempt to re-adjust this setting.

c. For diaphragm type regulator, the output pressure can be adjusted. There is a semicircle cover in front of regulator body. After removing the cover, the output pressure can be adjusted by tool.

Allow the gas pressure in the regulator to completely escape. The flow gauge and high pressure gauge needle should come to rest against the stop pin when all gas has escaped from the regulator.

⚠ WARNING
Do not use high concentrations of oxygen for more than 5 hours without 1 hour interruptions.

⚠ WARNING
Do not adjust the output pressure without training.

REGULATOR LEAK TESTING

The regulator is leaking and must be moved from service and returned for repair. Remember to always turn the cylinder valve fully off before removing or loosening the regulator connection.

⚠ WARNING
The maximum and minimum operating service temperatures shall be no greater than 140 °F (60 °C) and no less than 0 °F (-18 °C).

ADJUSTING THE OXYGEN FLOW

Before opening the oxygen cylinder valve be sure that the flow adjusting knob of the regulator is in the off position. This can be accomplished by turning the adjusting knob all the way out counter-clockwise.

- Preset regulator models have no adjusting knob and rely on the cylinder valve to turn gas on and off.
- For flow meter regulators, turn the flow adjusting knob on the flow meter clockwise (off) until snug.

CLOSING THE REGULATOR

If the regulator will be used again in a short time (one hour or less) Turn the flow adjusting valve to the "OFF" position.

If the regulator will not be used for a longer period of time, turn the cylinder valve clockwise to the "OFF" position. After there is no pressure reading on the gauges, turn the flow adjusting valve to the "OFF" position.

⚠ CAUTION:
Do not use or store near heat or flame.
Do not puncture the cylinder in any way.
Do not attempt to remove the cylinder valve.
Never throw the cylinder into fire or incinerate.

⚠ WARNING
The maximum and minimum operating service temperatures shall be no greater than 140 °F (60 °C) and no less than 0 °F (-18 °C).

REMOVING THE REGULATOR FROM A CYLINDER

⚠ WARNING
NEVER attempt to remove a regulator from a cylinder if the pressure gauge(s) show pressure! DO NOT attempt to move the cylinder unless the regulator has been removed and the cylinder cap (when applicable) is in place.

It is not necessary to remove the regulator unless the cylinder is being exchanged for a new one.

A cylinder with less than 300 PSI showing on the high pressure gauge should be exchanged for a full cylinder to ensure an adequate supply of oxygen.

Be sure the cylinder valve is closed.

Open the regulator momentarily to relieve all pressure before removing it from the cylinder.

Remove the regulator from the cylinder loosening the inlet connection counter-clockwise.

CE 2460

EC REP **MEDIPRO**
Villapark Business Park, Av Quitapesares 8
Building 8, Villaviciosa de Odon (Madrid) 28670
Spain

Manufactured by:

ACARE

Acare Technology Co., Ltd

6F.-3, No.24, Wuquan 2nd Rd., Xinzhuang Dist.,
New Taipei City 24892 Taiwan

TEL: +886-2-2298-8170

FAX: +886-2-2298-8560

http://www.acaretech.com

Made in Taiwan

20170808 Version: 4.0