ACARE
Acare Technology Co., Ltd.

VST Series

Click Style Oxygen Regulator

OPERATING INSTRUCTIONS

IMPORTANT
PLEASE READ THOROUGHLY AND FOLLOW DIRECTIONS CAREFULLY BEFORE OPERATING EQUIPMENT.

CAUTION
The Law (Taiwan, R.O.C) restricts this device to be sold to physician or on the order of a physician.

FDA CE 2460 **GMP** ISO 13485 CERTIFIED

● CLOSING THE OXYGEN CYLINDER VALVE

1. With the oxygen still flowing, turn the cylinder valve or wrench clockwise until sung.
2. Allow the gas pressure in the regulator to completely escape.
3. After all pressure has been relieved, turn the regulator to the off position.

This can be accomplished by turning the adjusting knob counterclockwise to the "0" flow position. Don't force the knob beyond this point.

● REMOVING THE REGULATOR FROM THE OXYGEN CYLINDER

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

If a humidifier bottle is used, disconnect it from the regulator before removing the regulator from the cylinder. This prevents water from entering the regulator.

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

1. Be sure the cylinder valves is closed.
2. Open the regulator momentarily to relieve all pressure before removing it from the cylinder.

For regulators having a CGA870 yoke inlet connection, turn the “T” handle counterclockwise until the yoke can be slipped up over the cylinder valve. Be sure to support the regulator during removal.
The device contains an internal relief valve which is designed to relieve excess pressure if the regulator malfunction occurs. The relief valve is designed to operate as a safety mechanism, it's not intend to maintain the downstream pressure or flow within normal limits. In the event of the malfunction, excess pressure will be vented either intermittently or continuously by this safety feature. If the situation occurs, the cylinder valves should be turned off immediately and the regulator removed from service until repaired.

NOTE:
- Backpressure in excess of 2 psi will cause inaccuracy of the delivery flows that are indicated on the adjusting knob. Common causes of backpressure are that the hose is kinked, hose is too long between the user and regulator, or any barriers restrict the flow occurring in that area.
- Don't cover or block vent hole in regulator body with labels, decals, or other adhesive material. Blocking vent may inadvertently affect regulator preset pressure, resulting in inaccurate flow rates.

● EQUIPMENT SET-UP

For filled cylinder set-up, the following steps should be followed.
1. Support the cylinder in some manner to keep it from falling or rolling over.
2. Remove the protective dust cover (if present) from the cylinder valve.
3. Inspect the cylinder valve for traces of dirt, dust, oil or grease, especially on the face of the cylinder valve where the regulator connects.

   ⚠ WARNING
   If oil or grease is visible or suspected, don't use the cylinder. Inform the oxygen supplier of this condition immediately.

   ⚠ CAUTION:
   If any leakage of the oxygen cylinder is detected, turn the valve stem or handle clockwise until the cylinder valve is closed. If leakage persists, place the cylinder outdoors and inform the gas supplier immediately.

4. Inspect the regulator for dirt, dust, oil or grease, especially in the area of the inlet connection.

   ⚠ WARNING
   If oil or grease is visible or suspected, don't use the regulator. Don't attempt to clean or repair the regulator. Have it serviced by qualified personnel.

5. Dirt or dust can be removed safely with a lint-cloth. Be sure debris is not left on the cleaned surface.

⚠ 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).

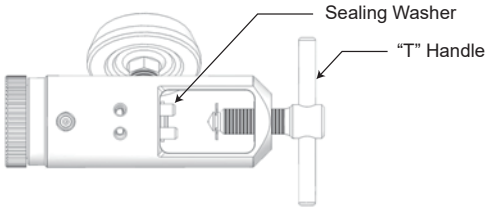
● CONNECTING THE REGULATOR TO THE OXYGEN CYLINDER

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

● FOR REGULATORS HAVING A CGA 870 YOKE INLET CONNECTION

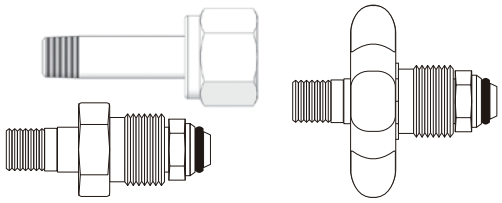
1. Be sure the sealing washer is in place on the yoke inlet.
2. With the valve outlet facing away from you, open the oxygen cylinder valve slightly to purge any undetectable debris from the valve seat, then re-close the valve.
3. Slip the yoke over the cylinder post valve and fit the yoke pins into the holes in the cylinder valve. The pins should fit into their respective holes easily. Don't force the pins into the holes.
4. Turn the "T" handle clockwise to tighten the regulator, being sure the "T" handle screw point is seated in the dimple on the cylinder valve. Tighten until secure to provide a leak-proof connection.
5. Attach the oxygen supply tubing to the regulator outlet connection.

* For three outlets use, please consult to professional.



● FOR REGULATORS HAVING A NUT AND NIPPLE INLET CONNECTION - CGA 540, CGA 992, DIN 477, Japanese

1. Remove the protective dust cover from the inlet nut.
2. With the valve outlet facing away from you, open the oxygen cylinder valve slightly to purge any undetectable debris from the valve seat, then re-close the valve.
3. Thread the regulator inlet connection nut onto the cylinder valve in a clockwise direction.
4. Tighten the nut with a suitable wrench until secure to provide a leak-proof connection. (For hand-tight model, please tighten the hand wheel tightly.)
5. Attach the oxygen supply tubing to the regulator outlet connection.



● USE AND CARE OPENING THE OXYGEN CYLINDER VALVE

1. Before opening the oxygen cylinder valve, please be sure the flow control regulator is in the off position. This can be accomplished by turning the adjusting knob counterclockwise to the "0" flow position. Don't force the knob beyond this point.

2. Stand behind the cylinder valve so that the cylinder is between you and the regulator.

⚠ CAUTION:
Never stand in front of the cylinder outlet or regulator when opening the cylinder valve.

3. Slowly turn the cylinder valve handle or wrench counterclockwise to open the valve. The valve should be open approximately one turn (i.e. 360°)

4. If a hissing sound is heard, there is the leak in the cylinder valve, regulator to cylinder connection, or in the regulator. Close the cylinder valve and open the regulator momentarily to relieve all pressure by turning the adjusting knob clockwise and wait for the oxygen flow to stop. Then turn the regulator off by turning the adjusting knob counterclockwise to the "0" flow position.

Retighten the regulator to cylinder connection and repeat the test. Should the hissing sound continue one or more of the following conditions exist.

- The sealing washer is leaking and should be replaced. Make sure the cylinder valve is fully turned off before removing the regulator.
- The cylinder valve is leaking. Place the cylinder outdoors and inform the gas supplier immediately. Don't attempt to use the cylinder.
- The regulator is leaking and must be removed from service and returned for repair.

⚠ CAUTION:
Turn the cylinder valve fully off before removing the regulator or loosening the yoke connection.

Never attempt to repair any part of the regulator or cylinder valve. This equipment should be checked and repaired. If necessary, check every 2 years or when malfunction occurs or is suspected. Repairs must be performed by a qualified personnel.

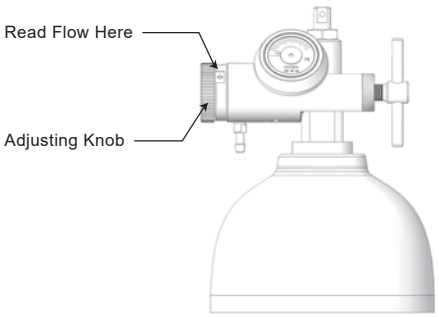
● ADJUSTING OXYGEN FLOW RATES FOR FLOW CONTROL REGULATOR

The adjusting knob on the end of the regulator determines the oxygen flow out of the regulator provide no back pressure exist. Although the adjusting knob "clicks" into the specified flows on the knob, oxygen does flow out of the regulator in between the "clicks" of the knob.

For emergency oxygen applications turn the adjusting knob clockwise until the flow indicated on the knob is a minimum 6 LPM. Use the mask to deliver the oxygen, (refer to instructions enclosed with mask) immediately call a physician or other qualified emergency services such as Paramedics and/ or EMT (Emergency Medical Technician Services).

For oxygen therapy applications turn the adjusting knob clockwise (flow) until the flow on the knob is indicating the flow prescribed by your physician.

For emergency mobile or field unit models provide adjustable flow rates up to 25 LPM by turning the adjusting knob clockwise until the flow on the knob indicates the required level of flow rate.
(Only the regulator can supply 25 LPM flow rate)



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For regulators having a CGA540 nut and nipple inlet connection, loosen the nut with a wrench turning it in a counterclockwise direction. Once loose, the nut can be turned by hand until it is disengaged from the cylinder valve. Be sure to support the regulator during removal.

● REGULATOR CLEANING

If cleaning of the cylinder regulator is desired, the exterior surface can safely be wiped off with a clean, lint-free cloth and alcohol.

● WARRANTY

This unit is warranted under normal use against any and all manufacturing defects from date of purchase for a period of 1 year.

● Operation

It is very important to keep product in original packaging for 12-24 hours to acclimatize to room temperature before use.
The operating and storage temperature for the regulator should reflect typical environmental conditions of a medical facility environment.
Operation Environmental limits: -18ºC ~ 60ºC (0ºF~140ºF)
Recommended Environmental operation limits:15ºC ~ 29ºC (59ºF~84ºF)
Storage Environmental limits: -40ºC ~ 60ºC (-40ºF~140ºF)
Humidity: Max 95 % non condensing

● DISPOSAL INSTRUCTIONS

Dispose of the Product in accordance with the local regulators.

Please Recycle

⚠ WARNING
Product should be cleaned before being disposed of. Potential for Biohazard.

CE 2460

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