

R-36 SERIES "B" CYLINDER REGULATORS

Regulator Model	P/N	Gas Service	Connection, CGA No.		Rated Max. Delivery Pressure, psig	Pressure Gauge, psig	
			Inlet	Outlet ♦		Cylinder	Delivery
R-36-75-540	21185	Oxygen	540	022	75	4000	100
R-36-500-540	21573	Oxygen	540	*	500	4000	600
R-36-15-510	21184	Acetylene	510	023	15	400	30
R-36-15-300	21314	Acetylene	300	023	15	400	30
R-36-75-580	21313	Inert Gas ■	580	032	75	4000	100
R-36-125-580	21364	Inert Gas ■	580	*	125	4000	200
R-36-500-580	21365	Inert Gas ■	580	*	400	4000	600
R-36-75-BS	22435	Oxygen	BS	022	75	4000	100
R-36-15-BS	22436	Acetylene	BS	023	15	400	30
R-36-75-320	22582	Carbon Dioxide	320	032	75	4000	100
R-36-75-590	22581	Air	590	033	75	4000	100

♦CGA-022 (formerly "B" oxygen)—9/16-in.—18 RH male connection.
CGA-023 (formerly "B" fuel gas)—9/16-in.—18LH male connection.
CGA-032 (formerly "B" inert gas)—5/8-in.—18RH female connection.

* 1/4-in. 37° Flared Tube Fitting

■ Inert gas includes nitrogen, argon, and helium.

NOTE: Hoses used with these regulators should have a working pressure at least equivalent to the maximum gauge reading, with a safety factor of at least 3 to 1.

ACCESSORY:

CO₂ Heater, P/N 950578 - Connects between CO₂ cylinder and regulator permitting CO₂ flow up to 180 cfh without "freezing up" at regulator. A standard electrical extension cord of appropriate length with 3-prong connections will be required.



These **INSTRUCTIONS** are for experienced operators. If you are not fully familiar with the principles of operation and safe practices for oxy-fuel gas equipment, we urge you to read our booklet, "Precautions and Safe Practices for Gas Welding, Cutting, and Heating", Form 2035. Do NOT permit untrained persons to install, operate, or maintain this equipment. Do NOT attempt to install or operate this equipment until you have read and fully understand these Instructions. If you do not fully understand these Instructions, contact your supplier for further information.

The regulators covered by these Instructions are listed by Underwriter's Laboratories only when using parts manufactured by ESAB Welding & Cutting Products to the specifications on file with Underwriter's Laboratories, Inc., and when they are used in the gas service for which they are designed and listed. The use of other parts voids the manufacturer's warranty.

IMPORTANT: For packing purposes, the pressure-adjusting screw of the regulator may be either turned in or packed separately. If installed in regulator, back out screw (turn counterclockwise) until it turns freely. If packed separately, install the screw in the regulator cap and turn it in (clockwise) only one or two turns.

For Safety Precautions, Installation, & Operating Instructions, see other side.

Be sure this information reaches the operator.
You can get extra copies through your supplier.



ESAB Welding & Cutting Products



Safety Precautions

- OXYGEN causes many metals and other materials to burn violently.
- INERT GAS OR CARBON DIOXIDE can cause suffocation in confined spaces.
- FUEL GAS can explode in air or oxygen.
 - Keep regulator clean and in good repair. Do NOT oil or grease regulator. Grease and oil on regulator or valve parts can cause regulator fires.
 - Always work in a well-ventilated area.
 - Prevent leaks and keep away from heat, flame, and sparks.
 - Do not change CGA inlet connection from number stamped on regulator body.
 - Follow Operating Instructions on this sheet.
 - This regulator must be installed, operated, and maintained only by trained servicemen.
 - For complete safety information on welding equipment, read form 2035 (oxy-fuel gas) and 52-529 (electric welding). For safety information on gases, see your supplier.

INSTALLATION AND OPERATION

TO CONNECT:

1. Open the cylinder or station valve slightly, for an instant. (This is termed 'cracking the valve'). This will blow out dust or dirt that may have collected in the valve outlet. Be sure to keep your face away from the valve outlet to protect your eyes from dust or dirt.

Never crack a fuel gas valve near sparks, flames or any other possible source of ignition.

2. **Make sure** the regulator pressure-adjusting screw is released by turning it counterclockwise until it turns freely.
3. Attach the regulator to the valve and tighten the connection nut with a wrench.
4. Open the cylinder valve slowly. (Open acetylene cylinder valves no more than 1-1/2 turns).

Never stand in front of or behind the regulator when opening the valve. Always stand to one side.

5. Attach the hose to the regulator outlet and to the equipment with which it is to be used. Tighten the connecting nuts with a wrench.

TO ADJUST PRESSURE:

1. To increase delivery pressure, turn the pressure adjusting screw clockwise. To decrease delivery pressure, turn the pressure-adjusting screw counterclockwise.
2. When making the initial delivery pressure adjustment, all valves downstream of the regulator must be open or you will not get a true working-pressure reading on the delivery-pressure gauge.

IMPORTANT: Before starting operations, test all connections with a Leak Test Solution that is suitable for oxygen service, such as P/N 998771 (8oz. container). Correct any leaks before starting work. Testing should be performed after torch or other gas-using device has been properly connected and with maximum delivery pressure in the delivery line.

TO RELEASE PRESSURE:

If operations are to be stopped for a half-hour or more, you should release all pressures from regulator. To do this, proceed as follows:

1. Close the cylinder valve.
2. Open all valves downstream of the regulator.
3. Wait until pressure has dropped to zero, then turn the pressure-adjusting screw counterclockwise until it turns freely.

NOTE: If a regulator is to be out of use for a few days or more, turn in the pressure-adjusting screw enough to move the valve stem off its seat. When the regulator is returned to use, be sure to back off the pressure-adjusting screw until it turns freely before pressure is admitted to the regulator.

MAINTENANCE

INLET FILTER:

Each regulator is equipped with a porous metal inlet filter, P/N 71Z33, pressed into the regulator inlet nipple. Filters should be examined each time a regulator is installed on a cylinder. Check for; presence, cleanliness and general appearance. No regulator should be connected to a cylinder or station valve unless it contains this filter. You can replace the filter if you have reason to do so. To remove a filter, insert a No. 1 'EZY-OUT' or a No. 6 wood screw (about 2-in. long) into the filter and pull it out. Press the new filter into the nipple with a 1/4-in. round metal rod.

REPAIR SERVICE:

Regulators in need of repair should be returned to your distributor or to ESAB Remanufacturing Center, 411 S. Ebenezer Road, Florence, SC 29501.

If you have your own properly-equipped and staffed repair facility, repair parts information for this regulator is available on request to your distributor or any sales region office. Request Form 15-301, which covers the regulators listed on this sheet.

NOTE: Safety release device equipped on oxygen and inert gas regulators is designed for regulator protection; not for hose or equipment downstream. If gas escapes through the vent holes of the cap, immediately close cylinder valve and then remove regulator from service for repair.



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