



ADI 3094-E

8000 Series 115-230 Volt Heated Regulators

INSTALLATION AND OPERATION INSTRUCTIONS

Before Installing, Operating, or Servicing, Read and Comply With These Instructions

Controls Corporation of America
1501 Harpers Road • Virginia Beach, VA 23454
To Order Call 1-800-225-0473 or 757-422-8330 • Fax 757-422-3125
www.concoa.com

March 2025
Revision E

USER RESPONSIBILITY

This equipment will perform in conformity with the description contained in this manual and accompanying labels and/or inserts when installed, operated, maintained, and repaired in accordance with the instructions provided. This equipment must be checked periodically. Improperly working equipment should not be used. Parts that are broken, missing, worn, distorted or contaminated, should be replaced immediately. CONCOA recommends that a telephone or written request for service advice be made to CONCOA Customer Service in Virginia Beach, Virginia.

PHONE: 1-800-225-0473, FAX: 1-757-422-3125,
or E-MAIL: info@concoa.com.

This equipment or any of its parts should not be altered without prior written approval by CONCOA. The user of this equipment shall have the sole responsibility for any malfunction that results from improper use, faulty maintenance, damage, improper repair, or alteration by anyone other than CONCOA or a service facility designated by CONCOA.

SAFETY

- a. The Regulator relief valve protects only the regulator and is not intended to protect any other equipment. Be sure the equipment with which it is used is also protected by relief device(s) if such equipment cannot fully withstand cylinder pressure.
- b. Never use the Regulator for gases other than labeled. Regulators with Compressed Gas Association (CGA) number 320, 326, and 580 are designed to withstand 3000 PSIG maximum inlet pressure. Regulators with CGA 680 inlet are designed to withstand 4700 PSIG. Do not interchange inlet fittings or parts between 3000 PSIG max regulators and 4700 PSIG max regulators. Use of fittings or parts other than intended could result in a hazardous condition.
- c. All connections to the Regulator must be clean. Remove dirt or other foreign matter from the Regulator and metal connecting parts with a clean lint free cloth. Clean all metal parts that come in contact with the gas stream to remove all traces of grease or oil.



- d. Never pressurize a Regulator that has loose or damaged parts or is in questionable condition. Never loosen a connection or attempt to remove a part until gas pressure has been relieved. Under pressure, gas can dangerously propel a loose part.
- e. Before transporting a cylinder that is not secured on a cart suitable for such transport, remove the Regulator and recap the cylinder.
- f. Stand to one side of the cylinder valve or Regulator when opening valve.

INTRODUCTION

This manual provides installation, operation, and service information for CONCOA 8000 Series Heated Single Stage Regulators. The 8005 and 8008 regulators are flowgauge regulators. Their operating pressure gauge is read in cubic feet per hour (cfh). For all other regulators in the 8000 series, the gauge is read in PSIG.

The 8000 series regulators are for use with nonsiphon-type cylinders. The 115-volt Regulator has a 1.3 amp heating system. The 230-volt has a .65 amp heating system. Both regulator heating systems consist of three 50-watt heating cartridges, a thermostat to provide automatic temperature control, and a safety thermostat cut-out. The heating system prevents flow reduction and eliminates the problem of regulator freeze up which causes reduction or stoppage of gas flow or malfunction of the Regulator.

INSTALLATION

- a. Observe the precautions listed in the SAFETY Section.
- b. Before attaching the regulator, open the cylinder valve to blow out any foreign matter from the outlet and close it.
- c. Connect the Regulator to the cylinder valve outlet, checking that the washer is in place on 320 CGA only. Tighten the connection nut with a proper size wrench.
- d. The 115-volt models are supplied with a short 3-wire cord and a molded grounded plug. No plug is provided on the 230-volt models due to the diversity of 230v. plugs.

Power Requirements

For 115 Volt AC Units: 100-127 VAC 50/60HZ, 150W

For 230 Volt AC Units: 197-252 VAC 50/60 HZ, 150W



To guard against potential shock and fire hazard: use a three-wire, grounded, extension cord (available from your distributor or local supplier); and protect the circuit with a suitable fuse or circuit breaker (heaters draw total 1.3 amp for the 115-volt models and .65 amp for the 230-volt models). Never remove ground prong from line cord plug.

- e. Plug the Regulator line (or extension) cord into a grounded receptacle. The heaters draw a total load of 150 watts.
- f. Connect downstream equipment hose to the adaptor. Slightly open equipment gas valve. Slowly open cylinder valve, and purge line to discharge contaminants. Close equipment valve several seconds after pure gas starts to flow from equipment. Open cylinder valve fully, and the required gas flow is ready for use.
- g. Close the cylinder valve, and remove line cord from the supply receptacle whenever the regulator is not in use.
- h. Test all connections for leaks by applying a leak detection solution.

OPERATION

1. TO ADJUST FLOW RATE OR PRESSURE

- a. With gas flowing at down stream end, slowly turn Regulator adjusting screw clockwise until desired flow or pressure is shown on operating gauge
- b. To reduce flow rate or pressure, turn adjusting screw counterclockwise while allowing gas to flow from downstream valve.

2. TO SHUT DOWN

- a. Close cylinder valve.
- b. Open downstream valve to drain lines.
- c. Close downstream valve and remove line cord.

SERVICE

GENERAL SERVICE PROCEDURE

A unit which is not functioning properly should not be used until all required repairs have been completed and the unit has been tested to ascertain that it is in proper operating condition. Gas equipment improperly operated or maintained can be hazardous. Service or repair of CONCOA Gas Equipment should NOT be attempted by anyone other than a qualified repair technician.



No such maintenance or repair should ever be undertaken or attempted by anyone not having such qualifications.

It is recommended that defective parts be replaced with a replacement part manufactured or sold by CONCOA. Repairs with non-CONCOA parts may pose a potential shock hazard.

Except for inspection and troubleshooting as indicated in this manual, it is recommended that all other servicing be done by a service facility authorized by CONCOA. Contact the CONCOA Authorized Distributor from whom you purchased the regulator or the nearest CONCOA Regional Sales Office for assistance.

If so advised, the unit should be sent to a service facility authorized by CONCOA, adequately packaged, in the original shipping container, if possible, and shipped prepaid with a statement of observed deficiency. Return trip transportation charges are to be paid by Buyer. In all cases other than where warranty is applicable, repairs will be made at current list price for the replacement part(s) plus a reasonable labor charge.



Checking or repair of this equipment which is limited to replacement of non-pressurized external parts such as electrical components may ordinarily be undertaken by a competent individual having experience in the maintenance and repair of equipment of this nature. No such checking or repair should ever be undertaken or attempted by anyone not having such qualifications.

TROUBLE INDICATIONS

Typical symptoms in the accompanying table indicate Regulator malfunctions requiring repair. Replace immediately with a clean, repaired and tested, or new Regulator.

CUSTOMER ASSISTANCE

In the event of equipment failure, call the CONCOA Customer Assistance Line: 1-800-225-0473. Please be prepared to provide the model number and serial number of the equipment involved and details regarding its application.

TROUBLE SHOOTING	
Symptom	Action
1. With no flow through the system (downstream valves closed and cylinder valve open) working pressure increasing steadily above set pressure.	Leak across the seat. <i>Field repair not advised.</i>
2. Gas leakage from spring case.	Loose or damaged diaphragm. <i>Field repair not advise.</i>
GAUGE 3. Gas leakage. 4. No return to zero. 5. Inconsistent repeat reading.	Damaged gauge. <i>Have replaced by authorized repair technician.</i>
6. Gas leakage from any joint.	Damaged or loose connection (fittings, gauges, or spring case) <i>Have repaired by authorized repair technician.</i>
7. Excessive drop in working pressure or flow.	Worn or sticking internal parts. <i>Have repaired by authorized repair technician.</i> Cylinder or upstream valve not fully opened. <i>Open Valve</i>
8. Gas leakage from relief valve.	Faulty valve. <i>Field Repair Not Advised</i> Seat leak. <i>Field Repair Not Advised</i>
9. Inadequate heat.	One or two heaters burned out. <i>Have repaired by authorized repair technician.</i> Faulty thermostat(s). <i>Have repaired by authorized repair technician.</i> Lack of power.

Warranty Information

This equipment is sold by CONTROLS CORPORATION OF AMERICA under the warranties set forth in the following paragraphs. Such warranties are extended only with respect to the purchase of this equipment directly from CONTROLS CORPORATION OF AMERICA or its Authorized Distributors as new merchandise and are extended to the first Buyer thereof other than for the purpose of resale.

For a period of one (1) year from the date of original delivery (90 days in corrosive service) to Buyer or to Buyer's order, this equipment is warrantied to be free from functional defects in materials and workmanship and to conform to the description of this equipment contained in this manual and any accompanying labels and/or inserts, provided that the same is properly operated under conditions of normal use and that regular periodic maintenance and service is performed or replacements made in accordance with the instructions provided. The foregoing warranties shall not apply if the equipment has been repaired: other than by CONTROLS CORPORATION OF AMERICA or a designated service facility or in accordance with written instructions provided by CONTROLS CORPORATION OF AMERICA, or altered by anyone other than CONTROLS CORPORATION OF AMERICA, or if the equipment has been subject to abuse, misuse, negligence or accident.

CONTROLS CORPORATION OF AMERICA's sole and exclusive obligation and Buyer's sole and exclusive remedy under the above warranties is limited to repairing or replacing, free of charge, at CONTROLS CORPORATION OF AMERICA's option, the equipment or part, which is reported to its Authorized Distributor from whom purchased, and which if so advised, is returned with a statement of the observed deficiency, and proof of purchase of equipment or part not later than seven (7) days after the expiration date of the applicable warranty, to the nearest designated service facility during normal business hours, transportation charges prepaid, and which upon examination, is found not to comply with the above warranties. Return trip transportation charges for the equipment or part shall be paid by Buyer.

CONTROLS CORPORATION OF AMERICA SHALL NOT BE OTHERWISE LIABLE FOR ANY DAMAGES INCLUDING BUT NOT LIMITED TO: INCIDENTAL DAMAGES, CONSEQUENTIAL DAMAGES, OR SPECIAL DAMAGES, WHETHER SUCH DAMAGES RESULT FROM NEGLIGENCE, BREACH OF WARRANTY OR OTHERWISE.

THERE ARE NO EXPRESS OR IMPLIED WARRANTIES WHICH EXTEND BEYOND THE WARRANTIES HEREINABOVE SET FORTH. CONTROLS CORPORATION OF AMERICA MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE EQUIPMENT OR PARTS THEREOF.



ADI 3094E