



Gas Mizer

INSTALLATION AND OPERATION INSTRUCTIONS

Before Installing or Operating, Read and Comply with These Instructions

Controls Corporation of America
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USER RESPONSIBILITY

This equipment will perform in conformity with the description contained in this manual and accompanying label and/or inserts when installed, operated, maintained and repaired in accordance with the instructions provided. This equipment must be checked periodically. Defective equipment should not be used. Parts that are broken, missing, plainly worn, distorted or contaminated, should be replaced immediately.

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

CUSTOMER SERVICE

Should such repair or replacement become necessary, Controls Corporation of America ("CONCOA") recommends that telephonic or written request for service advice be made to the CONCOA Customer Service in Virginia Beach, Virginia. PHONE: 1-800-225-0473; FAX: 1-757-422-3125; E-MAIL: e-mail@concoa.com. Please be prepared to provide the model number and serial number of the equipment involved, in addition to some details regarding its application.

GENERAL SAFETY PROCEDURES

Comply with all safety precautions given in torch instruction manual and the following:

- a. Left hand threaded connections must be on side marked FUEL GAS; right hand threaded connections on side marked OXYGEN.
- b. Test equipment for leaks regularly with an approved oxygen compatible leak detection fluid.
- c. Do not use equipment unless it is free from leaks.
- d. Before lighting pilot light, purge lines individually to eliminate unwanted mixtures of fuel gas and air or oxygen.
- e. Keep combustibles away from pilot light. Avoid releasing uncontrollable flammable gases or vapors near the pilot light.
- f. Do not use oil or oil bearing materials on or near devices through which oxygen flows. Oil or any other combustible material can ignite readily and burn vigorously in the presence of oxygen.

INTRODUCTION

Scope

This manual provides installation and operation information for the CONCOA Gas Mizer.

Use

The Mizer is an accessory for inside bench production and assembly line gas welding and heating operations. It is designed for use in the oxygen and fuel gas supply, low pressure line of a hand welding torch. When a hand torch is hung on the Mizer's hanger rod, oxygen and fuel gas are shut off.

Pilot light burner tips are not included with the Mizer, but are required for an installation. Order them separately for MAPP® gas, propane, acetylene, or natural gas.

Description

The inlet side of the Gas Mizer is equipped with a fuel gas pilot light. The inlet and outlet nipples are B size, RH for oxygen and LH for fuel gas. The Mizer's shut off valves can be individually adjusted by their seat adjustment screws. This seat adjustment controls ignition by: LEAD for ON and LAG for OFF.

INSTALLATION

SAFTEY

Install pressure regulators on cylinders (or pipeline branch). Comply with CONCOA manual *Safe Practices in Welding & Cutting*, ADE 872, and torch and regulator instruction manuals

- a. Secure the Gas Mizer on a bench or other horizontal surface, using four mounting holes. Position the Mizer so that when the torch is hung on the hanger, torch tip will point away from operator and in a safe direction.
- b. Connect the fuel gas hose to the inlet marked FUEL GAS and the oxygen hose to the other inlet. Refer to the above table for hose and fitting accessories. Turn off pilot light adjusting valve (clockwise).
- c. Connect torch hoses to respective Mizer outlets.
- d. Screw pilot light burner (for fuel gas to be used) into Mizer needle valve securely so that it does not leak.

- e. Purge lines individually, pressurize, and test for leaks at valve seats, valve stem packings, hose connections, and pilot light connections with an approved oxygen compatible leak detection fluid.

OPERATION

Pilot Light

With the torch off the hanger rod, turn the pilot light adjusting needle valve counterclockwise and immediately light the pilot with a sparklighter. Adjust the flame with the valve until satisfactory.

Use

Use the torch as usual but when through, instead of closing the torch valves, place the torch on the hanger rod to extinguish the flame. (Point flame away from bench as torch is hung.) For reuse, remove torch from hanger rod and without delay relight at pilot flame.

Pressure Settings

The Gas Miser does not affect regulator pressure settings for the torch. Use the same pressure settings at each regulator, as if this device were not in the torch system.

Hanger Rod Adjustment

When placing the Miser in operation, the hanger rod should be adjusted so that the hand torch will shut off the fuel gas and oxygen valves with its own weight:

- a. Close the pilot valve by turning the pilot valve T-handle clockwise until it stops. Tighten only enough to ensure a tight seal.
- b. With the torch off the hanger, adjust pressures and flames.
- c. When the torch is placed on the hanger rod, the flames should shut off. If the flames do not shut off, perform the following steps.
- d. Loosen the hanger rod adjustment screw and slide the hanger rod and torch to a point where the valves shut off fuel gas and oxygen supplies.
- e. Tighten the hanger rod adjustment screw and turn off the fuel gas and oxygen supplies.
- f. Readjust, if necessary, the seat adjusting screws. Gases shutting off simultaneously, flashing or popping can be eliminated by lagging the fuel adjustment screw.

NOTE

The seat adjusting screw is nylon; care should be taken to avoid stripping the threads when tightening the locknuts.

Removal From Service

- a. Shut off valves upstream of regulators.
- b. Open torch valves to bleed system before closing the regulator. This will ensure regulator is drained before repressurizing.
- c. Shut off regulators by turning the regulator adjusting screws counterclockwise.
- d. Remove Gas Mizer from system.

SERVICE

IMPORTANT

Send faulty equipment to a CONCOA-designated repair center for repairs. Special tools and techniques are required to repair such equipment. Personnel with experience with such equipment should perform repairs.

CAUTION

Shut off gas supplies at source before attempting inspection or service unless leak testing with an approved oxygen compatible leak detection fluid.

General

Servicing is usually required if gas escapes from the hand torch when it is on the hanger rod; test by hand pressure on the hanger rod.

If the torch and station outlet valves are closed, but the regulator indicates a slow change in pressure when the torch is off the hook, the quad-ring seal in the Mizer may be damaged. Damage to this seal will allow gas to escape past the thrust pin seal. This condition may also be caused by a hose connection; test with an approved oxygen compatible detection fluid.

Valve Seat Replacement

Send faulty equipment to a CONCOA-designated repair center for repairs.

CAUTION

Use only lubricants compatible with oxygen.

IMPORTANT

Hoses for use with acetylene only - Grades R and RM . Hoses for use with fuel gases (including acetylene) - Grade T.

NOTE

CGA G-1 5.3.3.13 To minimize the withdrawal of liquid solvent, acetylene should be withdrawn from the cylinder at a rate not to exceed 1/10 (one-tenth) of the capacity of the cylinder per hour during intermittent use. For full withdrawal of the contents of the cylinder on a continuous basis, the flow rate should be no more than 1/15 (one-fifteenth) of the capacity of the cylinder per hour.

NOTE

Check valves prevent the reverse flow of mixed gases. Regulator Check Valves "B" size 830 4199 Oxygen, 830 4200 Fuel. Torch Check Valves "B" size 831 4146 Oxygen, 831 4138 Fuel.

IMPORTANT

For Maximum Safety Use Flashback Arrestors

Regulator Mounted
Model -78 Resettable

Regulator Mounted
Model 65

Torch Mounted
Model 460

801 0786 "B" Size (Oxy.)

801 0536 "B" Size (Oxy.)

801 1466 "B" Size (Oxy.)

801 0789 "B" Size (Fuel)

801 0539 "B" Size (Fuel)

801 1469 "B" Size (Fuel)

UL Listed --- Meets OSHA Requirements --- Comply with ISO 5175

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 warranted 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.

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