



## **INSTALLATION**

The ControlAir Type 600 ratio relay, volume booster is designed for air service only. Maximum supply pressure is 250 psig. Maximum signal pressure is 150 psig for the 1:1 ratio; 75 psig for the 1:2 ratio; 50 psig for the 1:3 ratio, and 25 psig for the 1:6 ratio. Operating temperature is -40°F to 160°F.

Prior to installation clean all air lines to remove dirt and other debris. Apply a small amount of compound to the male threads only and install the volume booster so that the flow is in accordance with the IN and OUT ports as marked. The signal port is tapped into the volume booster through the 1/4" NPT or 1/4" BSP (U-option) connection on top of the unit. Make sure that all connections are tight and that the exhaust vent on the side of the volume booster is not blocked. The volume booster can be mounted in any position without effecting operation.

The use of a filter to remove dirt and liquid in the air line ahead of the booster is recommended for consistent performance. If an air line lubricator is used, it should be located downstream of the Type 600.

## **OPERATION**

Apply an input signal to the signal port. There are no manual controls on the volume booster.

## **OPTIONAL FIXED NEGATIVE BIAS**

The Type 600 is available with an optional  $4 \pm 1$  psig ( $0.3 \pm 0.07$  BAR) less than the signal pressure.

This option allows zero output when utilizing I/P transducers (such as the ControlAir Type 500X) that typically only are capable of providing pressures down to 3 psi. Note that the negative bias has a tolerance of  $\pm 1$  psi. This means that the actual bias will range from -3 psi to -5 psi. Use the zero adjustment of the I/P to reach desired setting.

## **MAINTENANCE**

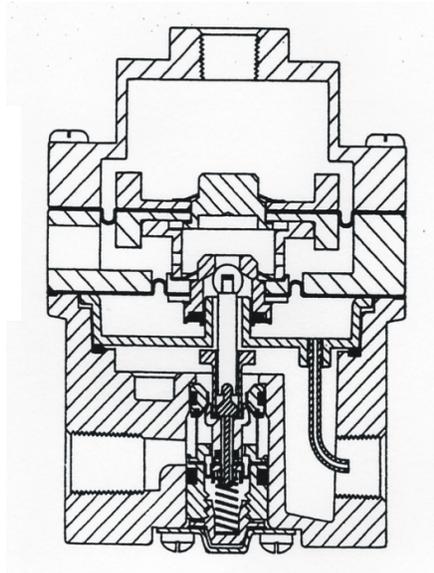
Occasional attention may be required due to the accumulation of foreign material in the instrument. The regulator is easily disassembled without removal from the line. Before this is done, however, shut off valve upstream of the volume booster to prevent escape of air when disassembled. Remove the two No. 8-32 screws on the bottom of the unit and pull out the pintle assembly. Wash inner valve assembly with solvent, exercising care to avoid damaging diaphragms and valve facings. Avoid such solvents as acetone, carbon tet, trichloroethylene. Replace assembly carefully.

If further attention is required, repair kits and replacement parts may be purchased.

The vent hole in the bonnet should be kept clean. A slight flow of air through this hole is necessary for the proper operation of the volume booster.

## REPAIR KITS

<u>Ratio</u>	<u>Repair Kit Part Number</u>
1:1	449-871-021
1:2	449-871-097
1:3	449-871-045
1:6	449-871-022



## LIMITED WARRANTY & DISCLAIMER

ControlAir, Inc. products are warranted to be free from defects in materials and workmanship for a period of eighteen months from the date of sale, provided said products are used according to ControlAir, Inc. recommended usages. ControlAir, Inc.'s liability is limited to repair, purchase price refund, or replacement in kind, at ControlAir, Inc.'s sole option, of any products proved defective. ControlAir, Inc. reserves the right to discontinue manufacture of any product or change product materials, design or specifications without notice. Note: ControlAir does not assume responsibility for the selection, use, or maintenance of any product. Responsibility for the proper selection, use, and maintenance of any ControlAir product remains solely with the purchaser and end user.

**WARNING:** These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under Specifications.

Before using these products with fluids other than air, for non-industrial applications, life-support systems, or other applications not within published specifications, consult ControlAir, Inc.