

INSTRUCTIONS FOR INSTALLING FIELD TYPE M + MG2 BAROMETRIC DRAFT CONTROLS

This is a dual purpose control.

Single Acting Control — The control is designated as Type M when the stop and two cover plates are in place. This control is for use with oil or solid fuels.
Double Acting Control — The control is designated Type MG2 when the stop and two cover plates are removed. The control is then for use with gas.

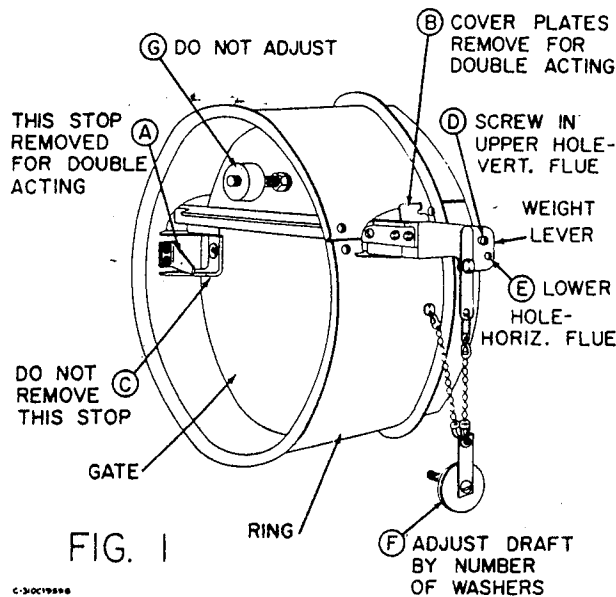


FIG. 1

C-39019998

The stop and two cover plates are painted a different color for easy identification. To remove the stop simply remove the two screws that hold it to the ring. (Fig. 1 A) To remove the cover plates, (Fig. 1 B) bend or break off the tab that goes through the small hole in the ring. **DO NOT REMOVE THE STOP ATTACHED TO THE GATE.** (Fig. 1 C)

Installation and Adjustment — See sections on control locations and collar installation.

Insert the draft control into the collar. The front face of the control **MUST BE PLUMB**. The bearing surfaces **MUST BE LEVEL** whether the control is on a horizontal, vertical or sloping flue pipe. Use a spirit level, plumb and level accurately. Secure the control in the collar by tightening the clamping screws. If the collar is supplied locally, the control may be held in place by small bolts or sheet metal screws. If the control has any tendency to sag, support it from the ceiling by wire or by strapping.

Vertical Flues — The control is shipped for installation in a vertical flue. The screw should be left in the top hole of the weight lever. (Fig. 1 D)

Horizontal Flues — For horizontal flues, remove the screw from the upper hole in the weight lever and insert it in the lower hole. (Fig. 1 E)

Adjusting the Control — The control must be adjusted to the desired draft setting by adding or removing the washer-type weights supported by the two chains. (Fig. 1 F) **DO NOT MOVE THE LARGE WEIGHTS ATTACHED DIRECTLY TO THE GATE** (Fig. 1 G) as they are used only for adjustment at the factory.

Control Locations

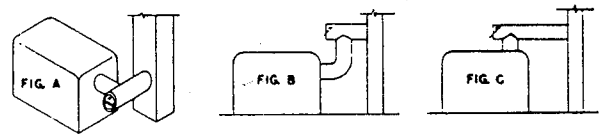
For gas fired equipment, the preferred installation is in a bull-head tee (see fig. A, B, C). Fig. D thru J show acceptable locations if it is not feasible to locate the control as per Fig. A, B, C.

Fig. D thru J are the best locations for oil or solid fuel. Locate the control as close as possible to the appliance but at least 12" toward the chimney beyond a stack switch. It must also be located at least 18" from a combustible ceiling or wall.

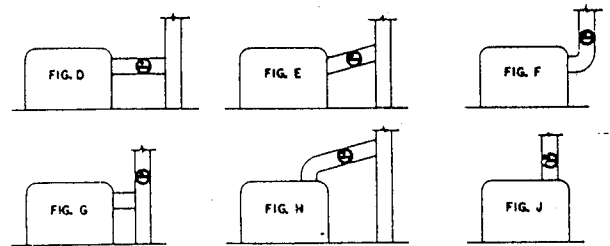
Do not install in a room separated from the appliance. Avoid installations in a chimney below where the flue enters unless no other space is available.

When this control is used on a gas-fired unit, consult your local gas company and/or city inspectors to obtain necessary approval before making the installation. Inspect the heating plant and building for conditions which might cause **PROLONGED** down drafts and have these conditions corrected. A chimney with its top lower than other parts of the roof or too close to a higher building may cause prolonged down-drafts. An exhaust fan of sufficient size and location may pull air down the chimney.

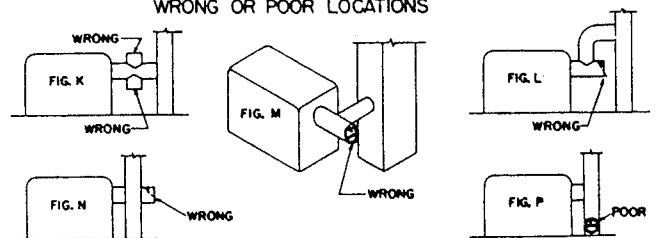
BEST LOCATIONS FOR GAS



BEST LOCATIONS FOR OIL OR SOLID FUELS



WRONG OR POOR LOCATIONS



What Draft Setting to Use

The regulator should be set to maintain as low a draft as will give good combustion. If the desired over-fire draft, taken through a small hole in the combustion

chamber, is not known, smoke readings, CO₂ and flue-gas temperature should be taken to determine if the draft setting is correct on oil equipment. CO₂ readings and a check to see that no CO is present are essential on gas fired equipment.

Gas — The usual practice with commercial and industrial gas fired plants is to adjust for CO₂ readings between 9% and 10%, or even higher, but this will depend upon the analysis of the gas and the type of burner equipment. Consult with the burner manufacturer.

Oil — Forced or induced draft burners can operate with low over-fire drafts. With a burner that depends entirely upon natural draft, the draft in the breeching

may need to be quite high (.20" to .50") to obtain proper over-fire conditions. It is essential that CO₂ readings be taken to determine the proper adjustment.

Coal — With a stoker, the fuel must be of normal thickness, and the stoker running, with its fan adjusted to approximately the correct setting. Drafts over the fire of .08" to .10" (or more) usually are sufficient. Have just enough draft so that no appreciable amount of gas puffs back into the room through cracks around the fire door at the time that the stoker starts. If there is objectionable smoke, increase drafts slightly. (Consult the stoker manufacturer for proper fuel bed and fan adjustment.)

FORM #4028(K)



FIELD CONTROLS
THE VENTING SOLUTIONS COMPANY

P/N DC01977000

Field Controls, LLC • 2630 Airport Road • Kinston, NC 28504
Phone: (252)522-3031 • Fax: (252)522-0214 • Web: www.fieldcontrols.com