

# INSTALLATION INSTRUCTION



## THE FIELD CONTROLS COMPANY DRAFT REGULATORS (3"-10") TYPES B34, AND DR READ CAREFULLY



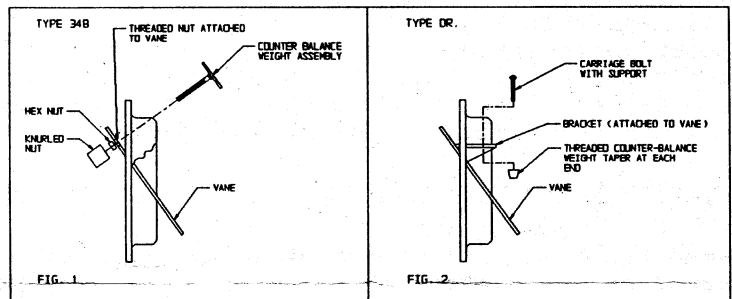
LISTED UNDER RE-EXAMINATION SERVICE OF UNDERWRITERS LABORATORIES INC. LISTED UNDER LABEL SERVICE OF CANADIAN STANDARDS ASSOCIATION. NOT CSA CERTIFIED FOR SOLID FUELS.

The regulator contained in this package is manufactured with careful precision. It is designed to regulate chimney draft with a high degree of accuracy and fuel efficiency. The control may be marked B-34 or DR. The basic draft adjustments are similar, but where variations apply, the following paragraphs will explain the procedure. Proper operation of the regulator depends upon proper installation and adjustment. Use a CO<sub>2</sub> indicator, stack thermometer and draft gauge to adjust oil or solid fuel burners. Domestic oil burners work best with the draft over fire of .01 to .02-inches W.C. Solid fuel burners work best with over-fire draft of .04 to .08. Excessively high draft settings over the fire create smokey fires and pulsation.

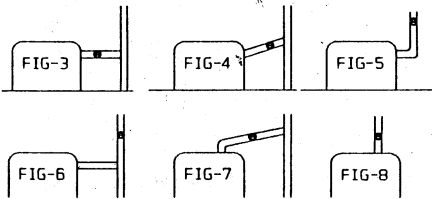
**Step 1** Weight assembly must be attached to damper prior to its installation in flue pipe, refer to appropriate illustration below.

**Step 2** LOCATION OF DRAFT CONTROL (See Figs. 3-8)

Locate the draft control as near to the furnace or boiler as possible. If the installation has a smoke pipe stack control, locate the regulator at least 18" away from the stack control.



### BEST LOCATIONS FOR OIL OR SOLID FUELS



\*Selected sizes CSA and UL approved. Not CSA certified for solid fuels.

**NOTE:** Damper must be mounted with the hinge pins horizontal and the face of the damper plumb for correct operation. This is done by rotating the damper section within the collar for any pipe position. Tighten screws to hold firmly in place.

**Step 3** BALANCING WEIGHT ASSEMBLY AND DRAFT ADJUSTMENT as shown in Fig. 1.

#### TYPE B-34 (See Fig. 1)

Assemble the "counter balance weight assembly" to the draft control as shown in Fig. 1. Thread "counter balance weight" through "threaded nut" attached to the vane. Assemble "hex nut" and "knurled nut" on front of vane.

Turn "knurled nut" counter clockwise for less draft, clockwise for more draft.

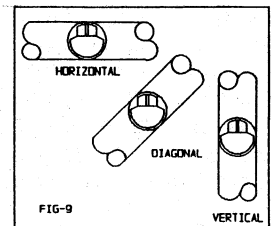
When adjustment is made for desired draft, lock the "counter balance weight assembly" in place by tightening the "hex nut" located under the "knurled nut" against the vane.

#### TYPE DR (See Fig. 2)

Assemble the "carriage bolt" through the "weight support bracket" attached to vane. Thread tapered "counter balance weight" on "carriage bolt" (tapered portion of weight must point toward bottom of draft control). For less draft, slide "counter balance weight assembly" toward "Low" position marked on the bracket; for more draft, slide "counter balance weight assembly" toward "Hi" position.

When adjustment is made for desired draft, tighten weight securely to "carriage bolt".

**VERTICAL INSTALLATION:** The 8" and 9" sizes, when mounted in vertical installations ONLY, require a small screw and nut (supplied) assembled in the hole at the bottom vane. The 6" and 7" regulators do not require this additional hardware in a vertical installation.



**Directions for Assembly/Installation of Collar**  
**READ CAREFULLY - DON'T GUESS**

If draft regulator is purchased without a collar or a tee joint, the depth "B" of the collar (Fig. 10) or the stub of the tee joint used must be of adequate length to avoid the damper plate entering the flue pipe - preventing flow interference. See Fig. 10 below.

**ONE-PIECE EARED COLLAR - (Fig. 1) Supplied**  
**W/3"-5" B34**

- Hook tongues "A" together to form a round collar.
- Pull the assembled collar outward until the tongues are seated in the slots and recess.
- With the tongues recessed, flatten tongues with a pair of pliers. Bend the tip of each tongue into the open slot, thus entirely closing the slot opening.
- Now bend the lugs "B" outward at a 90° angle. Insert bolt through lugs and place nut on it.
- Proceed with instructions starting at paragraph 2 (a) below under "TWO-PIECE EARED COLLAR".

**ONE-PIECE ROLLED COLLAR - (Fig. 2) Supplied**  
**W/6" & 7" B34 & DR**

- Bend the lugs "A" outward at 90° angle.
- Simply align the holes "B" toward the back of the collar and bolt together.
- Insert bolt through lugs "A", place a nut on it, but do not tighten until the damper section is in place.
- Proceed with instructions starting at paragraph 2 (a) below under "TWO-PIECE EARED COLLAR".

**TWO-PIECE ROLLED COLLAR - (Fig. 3) Supplied**  
**W/8" & 9" B34 & DR**

- Bend the lugs "A" outward at 90° angle. Simply align the holes "B" in the two collar halves and bolt together with the hardware supplied.
- Insert longer bolt through lugs "A" place nut on it but do not tighten until the damper section is in place.
- Proceed with instructions starting at paragraph 2 (a) below under "TWO-PIECE EARED COLLAR".

**TWO-PIECE EARED COLLAR - (Fig. 4) Supplied**  
**W/10" B34**

(a) Carefully form each half of Collar (B). Fig. 4, into a half circle and hook tongues "A" into the slots as shown. Bend the tongues "A" down almost flat; then pull the halves "B" outward until the tongues seat in the slots - and recess. It is important that this be done because the Collar will be too small if you fail to seat the tongues. Then flatten the tongues with a pair of pliers, bending the tip of each tongue "A" down into the open slot end, thus entirely closing the slot opening.

(b) Bend the lugs "C" outward at 90° angle. Insert the bolt through the holes and place nut on it but do not tighten until the damper section is in place.

2. (a) AFTER FABRICATING COLLAR COMPLETELY, place tabbed ends tightly against pipe, as shown in Fig. 5, so that open end of Collar faces outward. Mark through holes in tabs and drill or punch for metal screws. If holes are drilled about 1/16" toward back of pipe, this will assure that when Collar is fastened in place, it will be pulled firmly against pipe to make a good, tight joint.

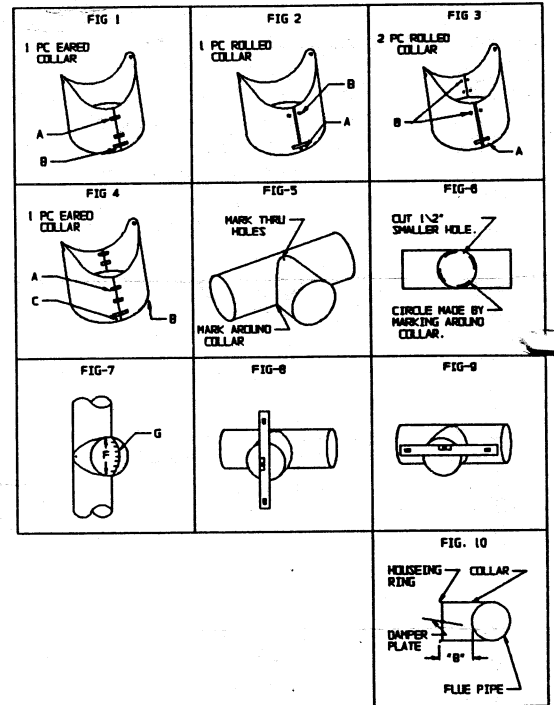
(b) After fastening Collar to pipe, mark around outside of Collar, Fig. 5.

3. (a) Take the Collar off and inscribe a circle inside the one just marked and about 1/2" apart as shown in Fig. 6, then cut out the inside circle, leaving opening "F", Fig. 7.

4. (a) Snip from edge of hold to outside circle in a series of slits approximately 1/2" apart as shown in "G", Fig. 7.

(b) Now fasten Collar back in place, Fig. 7, with metal screws and bend tabs "G", Fig. 7, outward against Collar to make a tight joint.

5. Figures 8 and 9 show method of checking Damper for "plumb" and hinge pins for "horizontal" after Damper is installed. This is important for proper draft control operation.



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