

FIG. 1—INSTALLATION DIMENSIONS IN INCHES AND [MILLIMETERS].

## INSTALLATION

### WHEN INSTALLING THIS PRODUCT...

1. Read these instructions carefully. Failure to follow them could damage the product or cause hazardous condition.
2. Check the ratings given in these instructions and on the product to ensure the product is suitable for your application.
3. Ensure the installer is a trained, experienced service technician.
4. After completing installation, use these instructions to check product operation.

### CAUTION

1. Do not bend contact arms or stops on the Pyrostat detector mechanism or make any adjustments other than those given in the instructions.
2. Remove the cardboard packing behind the drive shaft lever by pushing the packing up and pulling it straight out over the top of the lever. Do not remove packing by pulling sideways.
3. Ensure all wiring complies with applicable codes and ordinances.

### MOUNTING (Refer to Fig. 2)

Follow the mounting instructions supplied by the furnace, boiler, or burner manufacturer, if available. Otherwise, use the instructions provided below.

When replacing one of the controls listed on page 3, identify each leadwire as it is removed from the old control by marking the wire with the number of the RA116A or RA117A terminal to which it will be connected. Refer to Table 1 and 2 to translate the old terminal identifications to the new RA116A or RA117A terminal identifications.

TABLE 1—IDENTIFYING TERMINALS FOR RA116A REPLACEMENT.

TERMINAL IDENTIFICATION ON OLD CONTROL	TERMINAL IDENTIFICATION ON NEW RA116A
1, LH, or HOT LINE	1
2, LG, or LINE	2
3, 4, M, or MOTOR	3

TABLE 2—IDENTIFYING TERMINALS FOR RA117A REPLACEMENT.

TERMINAL IDENTIFICATION ON OLD CONTROL	TERMINAL IDENTIFICATION ON NEW RA117A
1, LH, or HOT LINE	1
2, LG, or LINE	2
3, M, or MOTOR	3
4, I, or IGNITION	4

If the position of the old control was satisfactory, install the new RA116A or RA117A in the same location as the old one, making sure to insert the bimetal element the same distance into the stack as the old element. If the old element was inserted more than 5-1/2 inches [140 millimeters], insert the new control 5-1/2 inches [140 millimeters] into the stack.

If the position of the old control was not satisfactory, close the old holes tightly with a metal plate and follow these instructions.

1. Follow these location considerations.

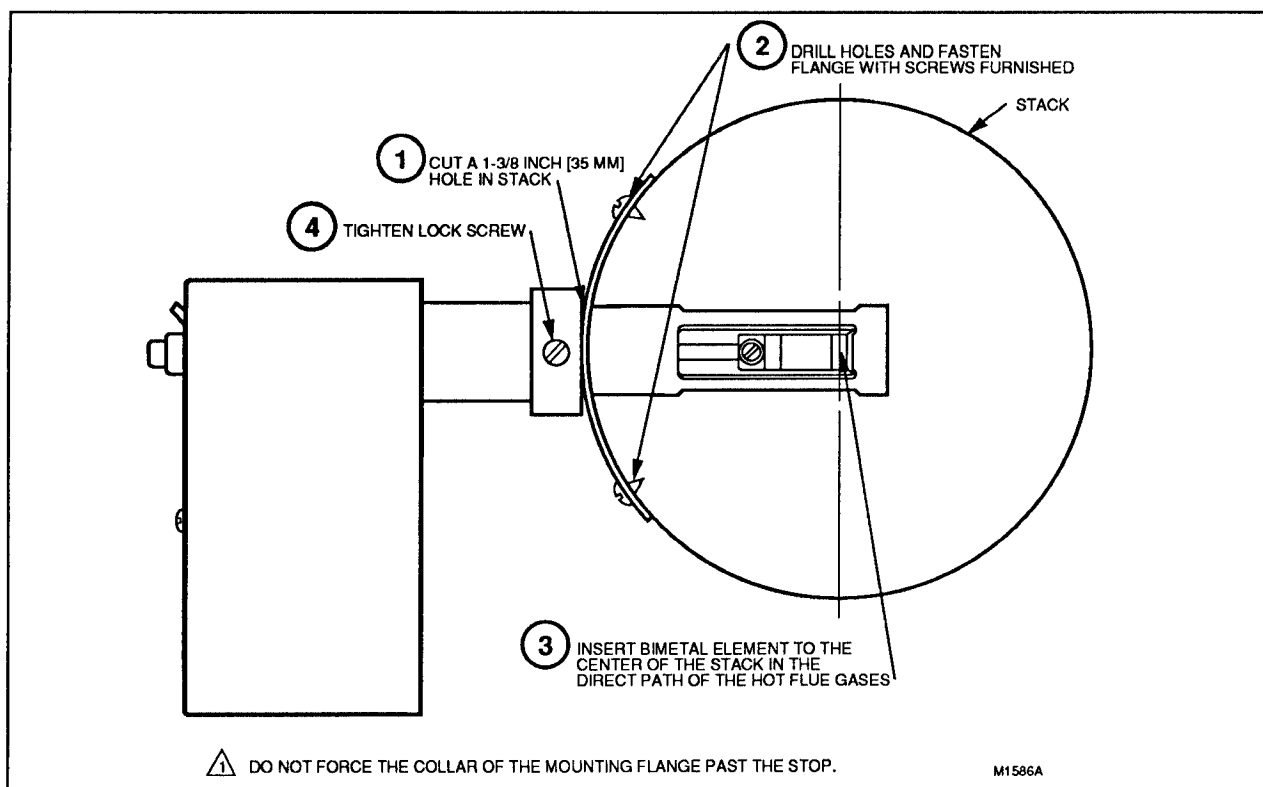


FIG. 2—MOUNTING AND LOCATION CONSIDERATIONS.

- Locate the control between the boiler or furnace and draft regulator.
- Locate the control as near as possible to the boiler or furnace.
- If mounting in an elbow, locate the element near the outer curve where the hottest gases flow.
- Do not locate the element where the temperature may exceed 1000° C [556° C].

2. Cut a 1-3/8 inch [35 millimeter] hole in the stack at the location desired.

3. Drill two holes and fasten the mounting flange using the screws provided. The flange should fit the mounting surface snugly, but it may be bent to fit a different radius stack or flattened to fit a flat surface. Do not force the collar or mounting flange past the stop.

4. Insert the bimetal element at the center of the stack in direct path of the hottest flue gases.

5. Tighten the lockscrew.

#### WIRING

Follow the appliance manufacturer's instructions, if available. Otherwise, follow the wiring diagrams shown in Fig. 3 through 7.

#### WIRING DIAGRAMS

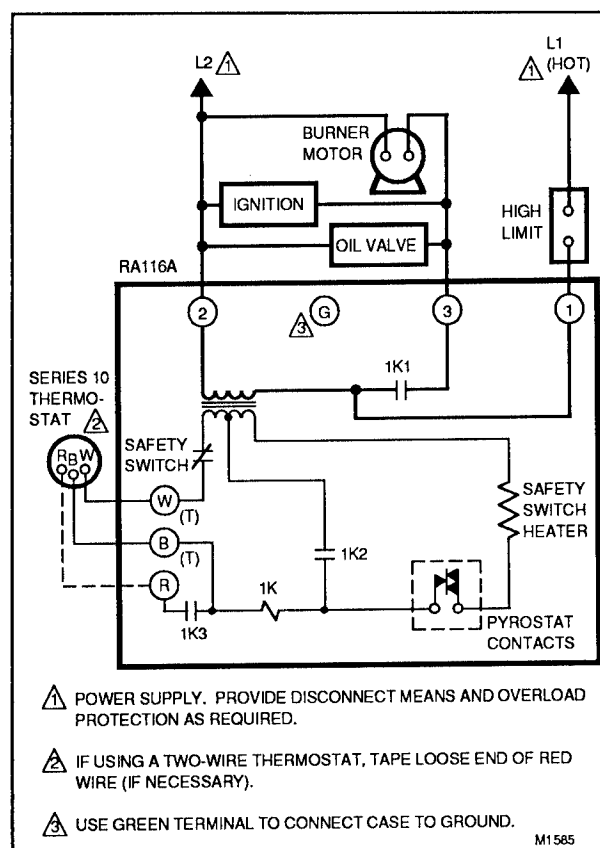


FIG. 3—RA116A WIRING DIAGRAM WITH A 24V, 3-WIRE THERMOSTAT.