HAZARD INTENSITY LEVELS

1. **DANGER: Failure to comply will result in severe personal injury or death and/or property damage.**
2. **WARNING: Failure to comply could result in severe personal injury or death and/or property damage.**
3. **CAUTION: Failure to comply could result in minor personal injury and/or property damage.**

REZNOR Thomas&Betts

OPTIONS CF AND CG STEPDOWN TRANSFORMERS

INSTALLATION FORM RGM 434/436-X (Version A)
Obsoletes Form 434/436-X-1

APPLIES TO: Models F, FE 25-400; B, BE 25-100 with Standard Direct Drive Motors

OPTION DESCRIPTION

The stepdown transformer option, which "steps-down" the supply power from either 230 or 460 volts to 115 volts, includes the transformer and the necessary parts to mount and wire the transformer. Since the mounting bracket becomes a part of the heater suspension, **read these instructions carefully before installation.**

Each option package includes a transformer and the parts listed below. The transformer is shipped in its original carton. Mounting and wiring components are shipped in a separate carton.

Figure 1 - Transformer, Bracket Assembly, BX Cable, Connectors, and Wires in the Stepdown Transformer Option Packages

HEATER MODEL	Option No.	Option Pkg P/N	Components (plus items below): P/N	TRANSFORMER
F 25-75	CF2 and CF4	102266	11279	.25 KVA Transformer, Type EP, 240-480 volt Primary / 115-240 Volt Secondary, Westinghouse #6E190
FE 25 and F 25 with Option CA1*	CG2 and CG4			
F 100-300	CF2 and CF4	102267	11100	.50 KVA Transformer, Type EP, 240-480 Volt Primary / 115-240 Volt Secondary, Westinghouse #6E191
B 25-50				
FE 50-100, 250 and F 50-100, 250 with Option CA1*	CG2 and CG4			
BE 25-50 and B 25-50 with Option CA1*				
FE 125-200, 300 and F 125-200, 300 with Option CA1*	CG2 and CG4	102268	11217	.75 KVA Transformer, Type EP, 240-480 Volt Primary / 115-240 Volt Secondary, Westinghouse #6E192
F400	CF2 and CF4	102269	16065	1.0 KVA Transformer, Type EP, 240-480 Volt Primary / 115-240 Volt Secondary, Westinghouse #6E193
B 75-100				
FE 400 and F 400 with Option CA1*	CG2 and CG4			
BE 75-100 and B 75-100 with Option CA1*				

*** Option CA1 is a 115 volt power venter.**

Components Common to All Option Packages

Qty	P/N	Description	Qty	P/N	Description
1	102261	Bracket Assembly	1	1417	90° Connector
1	51489	#10 x 1/2" lg Sheetmetal Screw	2	16358	Anti-Short Bushings
1	16247	5/16 x 3/4" lg Hex Head Cap Screw	1	5566	Black Wire, 14 ga x 30" long, 105°C
1	1333	5/16 Lock Washer	1	32525	White Wire, 14 ga x 30" long, 105°C
2	1087	Flat Washer	1	102264	Green Wire, 14 ga x 30" long, 105°C
1	2039	BX Cable 3/8 x 18" long	10	16354	Wire Nut 73B
1	16202	Straight Connector			

WARNING

Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury or death. Read the installation, operation, and maintenance instructions thoroughly before installing or servicing this equipment.

INSTALLATION INSTRUCTIONS

Installation should be done by a qualified agency in accordance with the instructions on this sheet and in compliance with all codes and requirements of authorities having jurisdiction.

IMPORTANT: The bracket for the stepdown transformer must be installed prior to suspending the heater. Do not fasten the transformer to the bracket before the heater is suspended.

INSTALLATION INSTRUCTIONS (cont'd)

1. Determine Correct Position for the Transformer Bracket

The bracket is always attached to the heater at a hanger bracket on the same side of the heater as the field supply wiring connection. Depending on the type of heater, there are three possible positions for installing the bracket. Read the following and determine the correct location for your particular installation.

- Model F and FE with Two-Point Suspension -- Select center suspension point (Remove and discard the side panel screw that is located next to this hanger bracket). (See Figure 3 below.)
- Model F and FE with Four Point Suspension and Model B and BE without an Optional Blower/Filter Cabinet -- Select suspension point closest to the field supply wiring connection. (See Figure 4.)
- Model B and BE with Optional Blower /Filter Cabinet -- Select suspension point closest to the front of the heater. (See Figure 5.)

2. Install Transformer Bracket

The bracket is designed to become a part of the suspension of the heater and has a threaded rod hanger hole identical to the one on the heater. The length of heater suspension required at this point will be shortened by two inches.

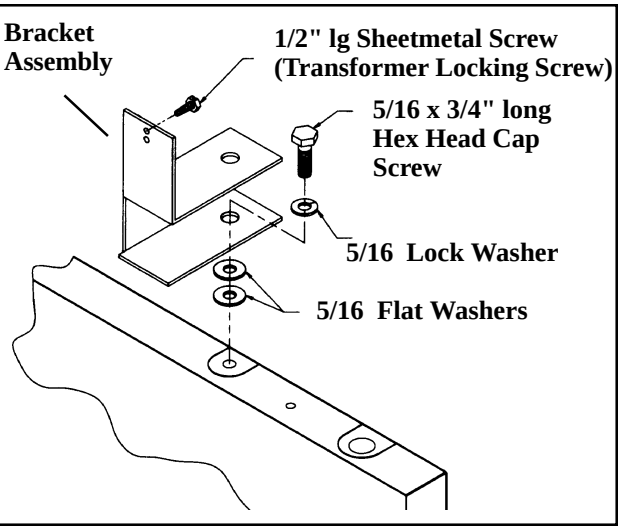
Follow the illustrated instructions in Figure 2.

Figure 2 - Install Transformer Bracket

Instructions:

1) Place the two flat washers over the hanger bracket hole.
2) Place the transformer bracket and lock washer in the position shown.
3) Attach these parts to the heater with the 5/16 x 3/4" long hex head screw.

IMPORTANT: Do not attach the transformer to the bracket until after the heater is suspended. When suspending the heater, remember that due to the transformer bracket, suspension is 2" shorter at that point.



3. Install and Wire the Stepdown Transformer

Before beginning transformer installation, be certain that the power is off.

1) Feed the wires through the conduit and place an anti-short bushing on each end of the conduit.
2) Attach the straight connector to the knockout hole in the side of the transformer.
3) Feed the wires into the connector and attach it to the conduit.
4) Hang the transformer on the bracket that was attached to the heater before suspension. Insert the locking screw as shown in Figure 2.
5) Following the diagram and connection information on the transformer, make the wiring connections. Since the transformer has dual primary and secondary voltages, extra care should be taken in making these connections.
6) Attach the 90° connector to the threaded hole on the heater for the supply wiring connection. Feed the wires through the connector and attach the connector to the conduit. Form a loop in the conduit between the transformer and the heater to take up any excess length. (Conduit provided is the same length for all suspension point location.) See Figure 3, 4, and 5.
7) Remove the wire access panel and make the wiring connections according to the diagram on the heater. Replace the panel.

4. Turn on the electric power and the gas and light the heater following the instructions on the lighting instruction plate.

Figure 3 - Transformer Location on a Heater with 2-Point Suspension

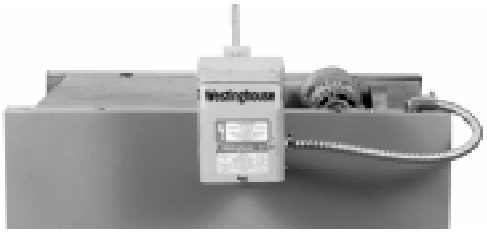


Figure 4 - Transformer Location on a Heater with 4-Point Suspension (without a blower cabinet)

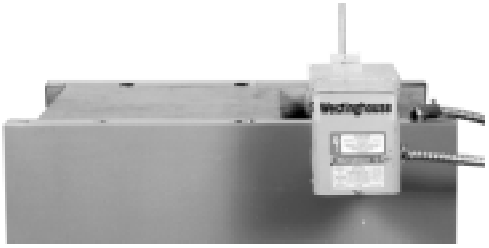


Figure 5 - Transformer Location on a Heater with 4-Point Suspension (with an optional blower cabinet)

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