

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.

REZNOR *Thomas&Betts*



"U" Heat Exchanger Tube with Reflector Option UB3

Installation Form RGM 456-U

APPLIES TO: **INFRA-REZ™ Heater Models TR/TR-H**

Description/Application

The "U" shaped heat exchanger tube is used to adapt this tubular radiant heater to a specific location and/or to provide a balance of radiant heat. The "U" heat exchanger tube may be installed in any length of system from 20 to 70 feet. Follow the selected configuration layout in Technical Form RGM 607 for suspension point dimensions. **IMPORTANT: LAYOUT THE 'U' SYSTEM ONLY AS ILLUSTRATED IN FORM RGM 607. The "U" heat exchanger tube must be located relative to the combus-**

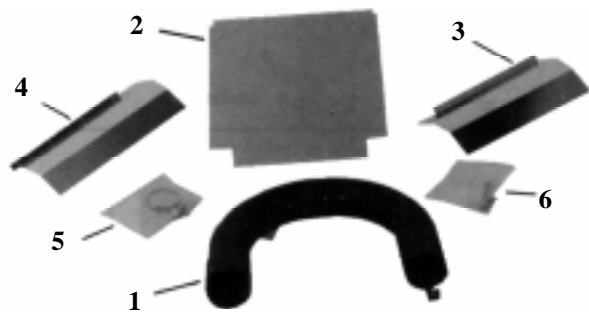
tion chamber and heat exchanger tubes. If the configuration is altered by use of a 5-ft heat exchanger tube, follow carefully the guidelines restricting the location of 5-ft heat exchanger tubes (Refer to Form RGM 607). **The straight tube length of the burner side of a "U" tube must always be equal to or longer than the straight tube length on the exhaust side.**

The "U" shaped heat exchanger tube option includes its own separate aluminum reflector which must be field assembled and installed.

Option UB3, Package P/N 120712, includes:

Code	Qty	P/N	Description
1	1	120534	"U" Heat Exchanger Tube
2	1	120993	Reflector Top
3	1	120994	Reflector Right Side
4	1	120995	Reflector Left Side
5	1	120719	Reflector Hardware Bag including:
	1	120716	1/2" Stainless worm-drive clamp
	1	120677	Reflector Bracket
	14	113275	Screws, #10-32 x 1/2" long
	14	26490	Nuts, Kep #10-32
	2	113807	Washers
6	1	116017	Tube Connecting Hardware Bag (includes parts list)

Figure 1 - Option UB3 Components



Installation Instructions -- Reference Heater Installation Manual

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

1. Install the burner/control box, combustion chamber tube, and any heat exchanger tubes before the "U" tube. Carefully read and follow the instructions in the heater installation manual and the hardware packages.
2. **Turbulator Strip Sections** -- If the following conditions apply, install two sections of the turbulator strip in the straight heat exchanger tube before attaching the elbow tube. Follow the instructions in the heater installation manual.

Install two turbulator strip sections before the elbow tube only when **BOTH** of the following conditions apply:

- 1) the "U" tube is **adjacent** to the tail pipe **AND**
- 2) the heater and installation comply with the following

*To install a heater above 2000 ft elevation, that heater must either be factory-built for the required elevation or field-converted to that elevation. Check the rating plate or field-conversion label for allowable installation site elevation.

Size	Elevation of Site*	with Straight Tube Length
75	0-8000 ft	40 feet
100	0-8000 ft	40, 45, 50 feet
125	0-8000 ft	40, 45, 50 feet
150	0-8000 ft	50, 55, 60 feet
175	0-2000 ft	50, 55, 60, 65, 70 feet
200	0-2000 ft	50, 55, 60, 65, 70 feet

3. **Connect the "U" Tube** -- Remove the "S" hook from the connecting hardware bag and attach it to the "top" hanger bracket. Slide the expanded end of the elbow tube over the last suspended tube. Follow the illustrated instructions in the hard-

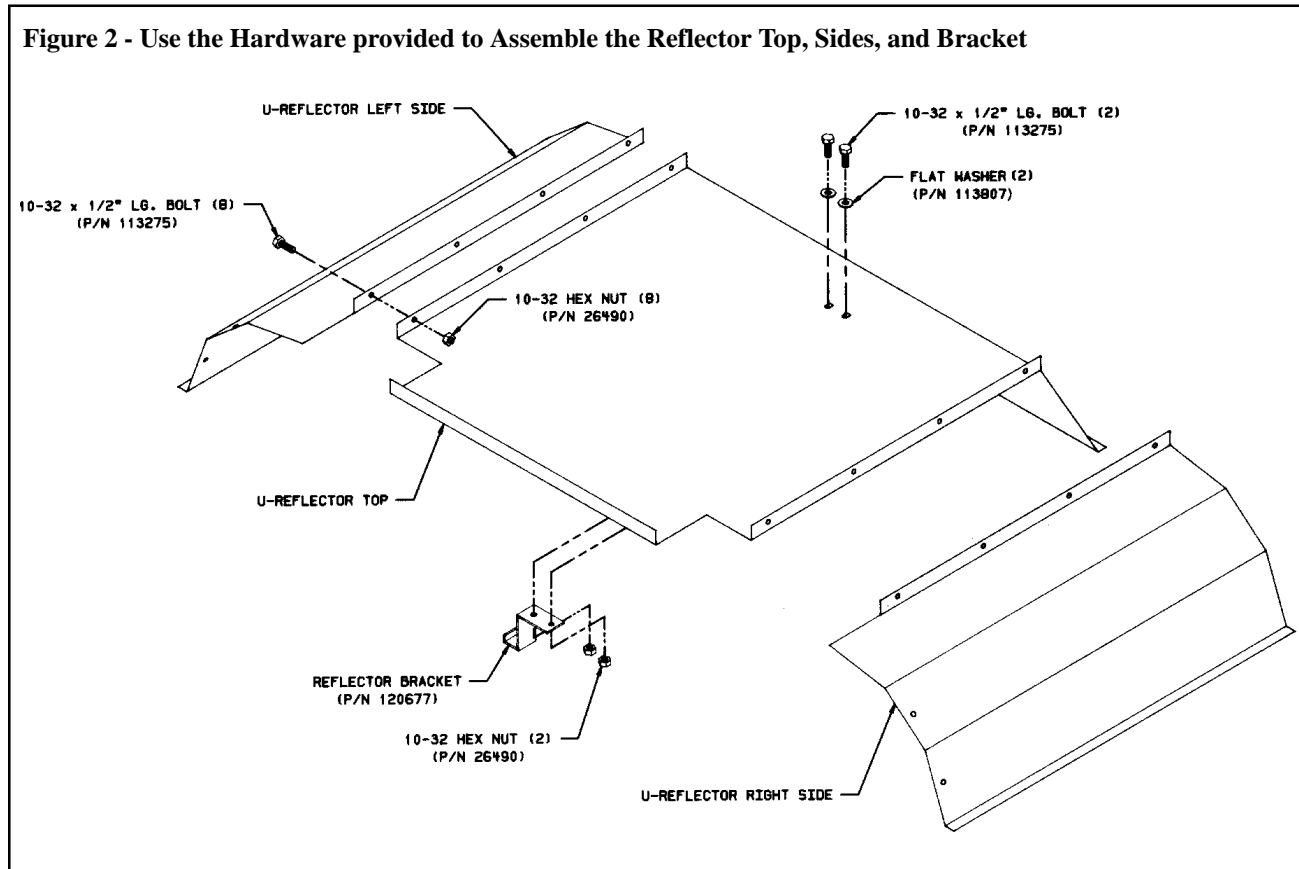
ware bag to connect the tubes (same procedure as the straight heat exchanger tubes).

4. Following the layout, suspend and connect the remainder of the tubular system according to the instructions in the heater installation manual.

MFG P/N 120720

Installation Instructions (cont'd)

- 5. Install Straight Reflectors** -- Follow the instructions in the heater installation manual to install the reflectors on the straight sections of pipe. (**NOTE:** If an optional side shield is included, install the reflector brackets shipped in the tube cartons **and** the reflector brackets in the side shield cartons -- total of four brackets and retainers per 10-ft tube.)
- 6. Assemble "U" Tube Reflector** -- Assemble the reflector top and sides and attach the reflector bracket as illustrated in Figure 2.



- 7. Install the Assembled "U" Tube Reflector** -- Position the assembled reflector on top of the "U" tube with the bracket at the center of the bend in the "U". Locate the two pre-drilled holes on both ends of the assembled reflector where it overlaps the adjoining straight reflectors. Mark the holes on the straight reflectors. Remove the "U" reflector assembly and carefully drill 7/32" holes in the straight reflectors.

Unfasten the worm clamp. Re-position the reflector on top of the tube with the bracket at the center of the "U". Wrap the clamp around the tube attaching the reflector bracket. Fasten the clamp to hold the reflector in place but do not tighten.

Use the remaining screws and nuts to attach the "U" tube reflector assembly to both adjoining straight reflectors. Tighten clamp securely.

- 8. Complete the installation** by following the instructions in the heater installation manual.

NOTE: The "U" tube reflector and the adjacent straight reflectors cannot be rotated.

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