

Installation Instructions

Air Diffusers For Vertical Unit Heaters

SERVICE REFERENCE

DIVISION 4	SECTION VUH
SALES REFERENCE (Supersedes PF449)	PF449-1
	161-057825-001
DATE	APRIL, 1999

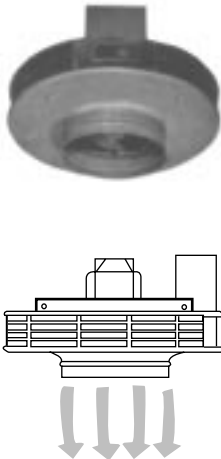
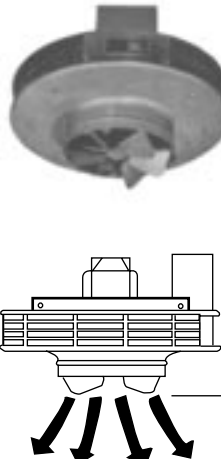
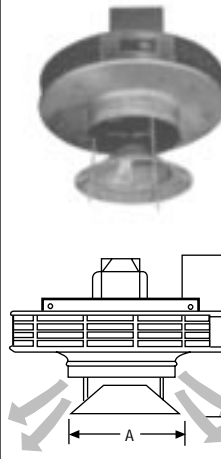
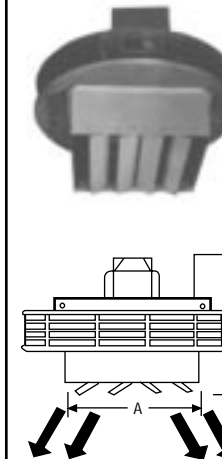
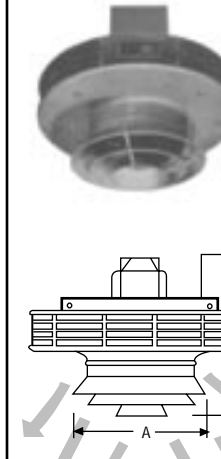
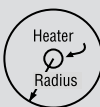
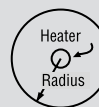
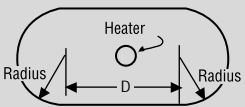
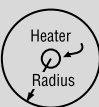
D I F F U S E R S	STANDARD HEATER	RADIAL DIFFUSER TYPE VUR	CONE DIFFUSER TYPE VUC	LOUVER DIFFUSER TYPE VUL	ANEMOSTAT DIFFUSER TYPE VUA
					

TABLE 1 – DIFFUSER MODEL NUMBERS, DIMENSIONS (IN.) AND MOUNTING WEIGHTS

Heater Model	Model	A	Wt. (Lbs.)	Model	A	B	Wt. (Lbs.)	Model	A	B	Wt. (Lbs.)	Model	A	B	Wt. (Lbs.)
VUH-B-05 thru VUH-B-10	VUR-ES	5	4 lb.	-	-	-	-	VUA-ES	17	5 1/2	4 lb.	-	-	-	-
VUH-B-05 thru VUH-B-25	-	-	-	VUC-S	16	13 1/4	3 lb.	VUL-S	17 1/4 sq.	7 1/4	9 lb.	-	-	-	-
VUH-B-15 thru VUH-B-25	VUR-S	6 1/2	4 LB.	-	-	-	-	VUA-S	19 1/4	11 1/4	4 lb.	-	-	-	-
VUH-B-30 thru VUH-B-50	VUR-L	9 1/2	8 lb.	VUC-L	22 1/2	16 1/2	7 lb.	VUL-L	23 1/4 sq.	7 1/4	14 lb.	VUA-L	30 1/2	15 1/2	11 lb.

TABLE 2 – MOUNTING HEIGHTS AND FLOOR COVERAGE (APPROXIMATE) (Dimensions in Feet)

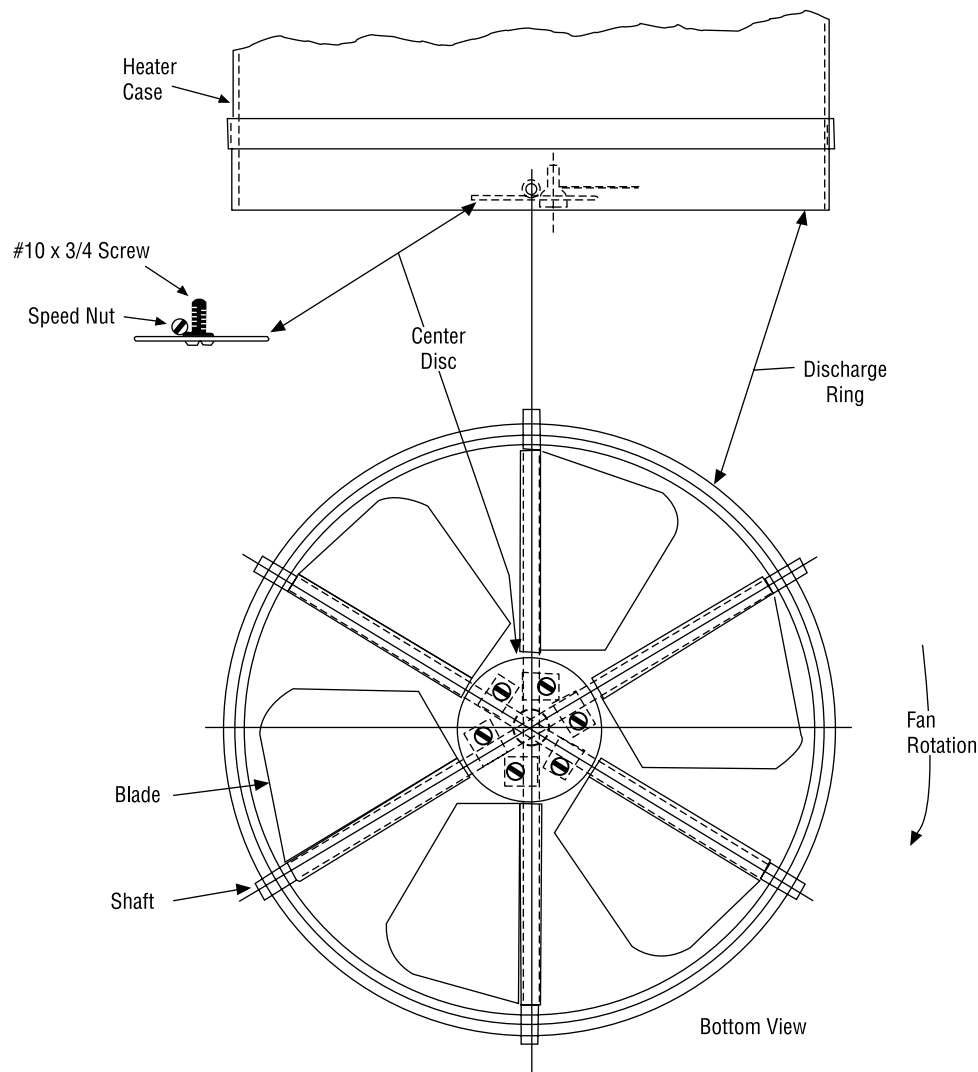
Heater Model	NO DIFFUSER		RADIAL DIFFUSER				CONE DIFFUSER		LOUVER DIFFUSER			ANEMOSTAT DIFFUSER	
	Mounting Height	Radius R	Open 45°		Vertical		Mounting Height	Radius R	Mounting Height	Radius R	D	Mounting Height	Radius R
VUH-B-05	10	13	11	16	12	13	10	15	8-10	7-9	19-22	10	13
VUH-B-07	12	15	12 1/2	18	14	15	12	17 1/2	9-12	8-10 1/2	21-25	12	15
VUH-B-10	14	19 1/2	16	23	17	19 1/2	14	22	9-14	11-13 1/2	27-32	14	19 1/2
VUH-B-15	25	20 1/2	20	23 1/2	29	20 1/2	18	22	18-25	12-14	28-33	25	20
VUH-B-20	23	21 1/2	19	24	26 1/2	21 1/2	17	23	17-23	12 1/2-14 1/2	30-35	23	21 1/2
VUH-B-25	20	22 1/2	17	24 1/2	23	22 1/2	15	24	13-20	13 1/2-15	32-36	20	22 1/2
VUH-B-30	33	32	23	36 1/2	38	32	29	35	23-33	19 1/2-21 1/2	47-51	33	33 1/2
VUH-B-40	30	33	23	36 1/2	35	33	20	35	21-30	20-22	48-52	30	34 1/2
VUH-B-50	27	34 1/2	21	36 1/2	31	34 1/2	19	36	19-27	21-22 1/2	50-54	27	35
H E A T E R							All dimensions in feet.						

*Single phase VUH-B-10, VUH-B-15 and VUH-B-20 not U.L. listed when used with Radial Diffuser.

**VUH-B-30, VUH-B-40 and VUH-B-50 not U.L. listed with Cone Diffuser.

NOTE: The data given in Table 2 is approximate and depends upon Unit Heater location and its surroundings such as obstructions, drafts, etc. Specific location and mounting height will vary with the installation.

RADIAL DIFFUSER INSTALLATION — TYPE VUR



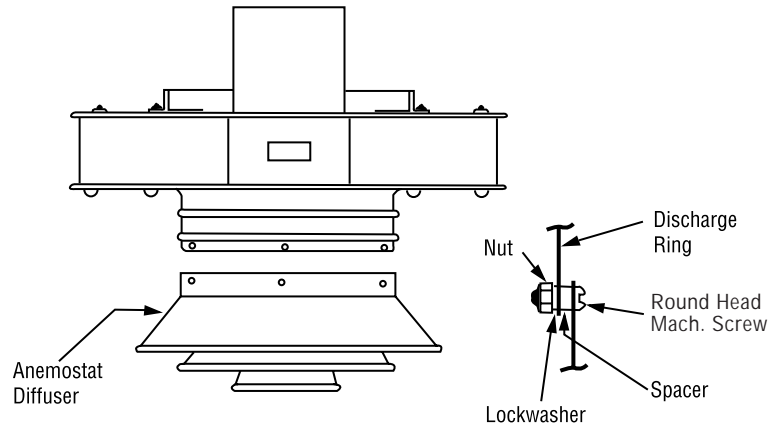
Assemble As Follows:

1. Slide one speed nut over the long end of shaft extending through blade. Repeat for all six blades, orienting the nut the same way on each.
2. Attach three adjacent blades to center disc loosely by means of the sheet metal screws and nuts.
3. Insert the three blades into matching holes in the discharge ring, leaving loose.
4. Attach the three additional blades to the discharge ring and to the center disc.
5. Center all blades radially so they will move freely without touching the discharge ring or the center disc.
6. Tighten screws partially, set blades at desired angular position in the direction of fan rotation and finish tightening screws.

ANEMOSTAT DIFFUSER INSTALLATION — TYPE VUA

Assemble As Follows:

1. Line up matching holes in VUA diffuser and discharge ring, placing the spacer between them.
2. Insert machine screw and lockwasher and tighten nut.



CONE DIFFUSER INSTALLATION — TYPE VUC

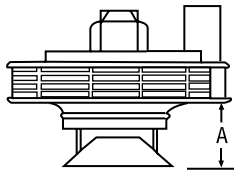
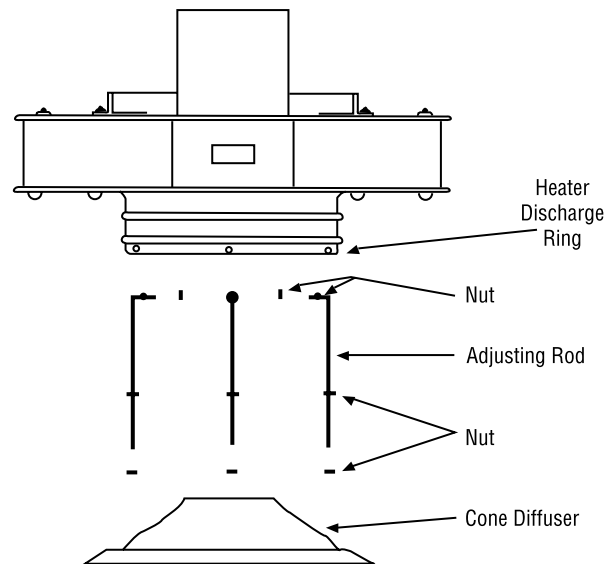


Table 3

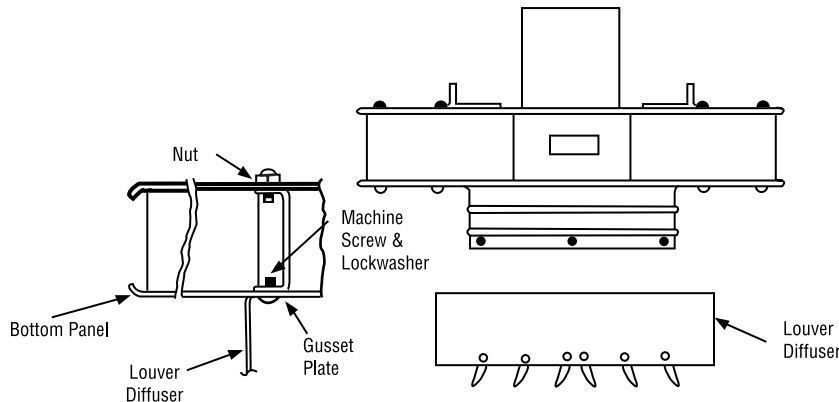
Heater Size	Diffuser Model	"A" Maximum
VUH-B-05 thru VUH-B-25	VUC-S	13 ¹ / ₄ "
VUH-B-30 thru VUH-B-50	VUC-L	16 ⁷ / ₈ "



Assemble As Follows:

1. With one nut on top end of each adjusting rod, place adjusting rods equally spaced in holes on heater discharge ring.
2. Place second nut on top end but do not tighten.
3. With one nut on lower end of each adjusting rod, locate VUC diffuser from holes provided in diffuser and place second nut on lower end, but do not tighten.
4. Adjust top nuts until adjusting rods are perpendicular to diffuser.
5. Adjust lower nuts until diffuser is in the right position for the desired air deflection and tighten. See Table 3 for maximum dimensions.

LOUVER DIFFUSER INSTALLATION — TYPE VUL



Assemble As Follows:

1. Remove the four $\frac{1}{4}$ " machine screws which hold the bottom panel of the heater to the heater chassis.
2. Turn diffuser blades to vertical position.
3. Place diffuser frame against bottom panel of heater and re-insert four machine screws through the gusset plates inside the louver frame and through the same holes in bottom panel from which machine screws were previously removed. Tighten the machine screws, making sure the lockwashers are still in place.

Note: The louver blades may be re-assembled to make the air pattern unidirectional. It is not recommended that the louver blades be closed more than 45°.

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