

HAZARD INTENSITY LEVELS

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

REZNOR *Thomas&Betts*

OPTIONS CD2, CD3, CD4 and CD5 DownturnAir Nozzles

INSTALLATION FORM RGM 434/436-DN (Version A)
Obsoletes Form 434/436-DN-4

APPLIES TO: Options CD2, 3, 4 - Models F, FE, B, BE; Option CD5 - Models B, BE

The option packages include:

	Option Pkg P/N	25-50		75		100		125		130		165		200		250-300		400		
		QTY	P/N	QTY	P/N	QTY	P/N	QTY	P/N	QTY	P/N	QTY	P/N	QTY	P/N	QTY	P/N	QTY	P/N	
OPTION CD2 - Downturn Nozzle with 25°-65° Variable Air Deflection Range (formerly identified as a 30° nozzle.)	Option Pkg P/N		98525		98526		98527		135512		98528		98529		98530		98531		98532	
Nozzle Side	2	97874	2	97874	2	97874	2	97874	2	97875	2	97875	2	97875	2	97875	2	97875	2	97875
Nozzle Top	1	97876	1	97877	1	97878	1	135509	1	97879	1	97880	1	97881	1	97882	1	97904	1	97904
Hanger Bracket	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386
Screws	10	11813	10	11813	10	11813	10	11813	10	11813	10	11813	10	11813	10	11813	10	11813	12	11813
OPTION CD3 - Downturn Nozzle with 50°-90° Variable Air Deflection Range (formerly identified as a 60° nozzle.)	Option Pkg P/N		98533		98534		98535		135513		98536		98537		98538		98539		98540	
Nozzle Side	4	97874	4	97874	4	97874	4	97874	4	97875	4	97875	4	97875	4	97875	4	97875	4	97875
Nozzle Top	2	97876	2	97877	2	97878	2	135509	2	97879	2	97880	2	97881	2	97882	2	97904	2	97904
Hanger Bracket	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386
Screws	16	11813	16	11813	16	11813	16	11813	16	11813	16	11813	16	11813	16	11813	16	11813	20	11813
OPTION CD4 - Downturn Nozzle with 25°-65° Variable Air Deflection Range and Vertical Louvers	Option Pkg P/N		98541		98542		98543		135510		98544		98545		98546		98547		98548	
Nozzle Side	2	97874	2	97874	2	97874	2	97874	2	97875	2	97875	2	97875	2	97875	2	97875	2	97875
Nozzle Top	1	97876	1	97877	1	97878	1	135509	1	97879	1	97880	1	97881	1	97882	1	97904	1	97904
Angle clip	2	97915	2	97915	2	97915	2	97915	2	97915	2	97915	2	97915	2	97915	2	97915	2	97915
Vertical Louver	4	95937	4	95937	4	95937	6	95937	4	95938	4	95938	6	95938	8	95938	10	95938	10	95938
Top/Btm Member	2	97852	2	97853	2	97854	2	97856	2	97854	2	97855	2	97856	2	97857	2	97857	2	97858
Hanger Bracket	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386	2	96386
Screws	24	11813	24	11813	24	11813	24	11813	24	11813	28	11813	28	11813	32	11813	32	11813	38	11813
OPTION CD5 - Downturn Nozzle with 50°-90° Variable Air Deflection Range and Vertical Louvers	Option Pkg P/N		124918		124919		124920		137302		124921		124922		124923		124924		124926	
Nozzle Side	4	97874	4	97874	4	97874	4	97874	4	97875	4	97875	4	97875	4	97875	4	97875	4	97875
Nozzle Top	2	97876	2	97877	2	97878	2	135509	2	97879	2	97880	2	97881	2	97882	2	97904	2	97904
Angle clip	2	97915	2	97915	2	97915	2	97915	2	97915	2	97915	2	97915	2	97915	2	97915	2	97915
Vertical Louver	4	95937	4	95937	4	95937	6	95937	4	95938	6	95938	6	95938	8	95938	10	95938	10	95938
Top/Btm Member	2	97852	2	97853	2	97854	2	97856	2	97854	2	97855	2	97856	2	97857	2	97857	2	97858
Screws	28	11813	28	11813	28	11813	28	11813	28	11813	32	11813	32	11813	36	11813	36	11813	40	11813

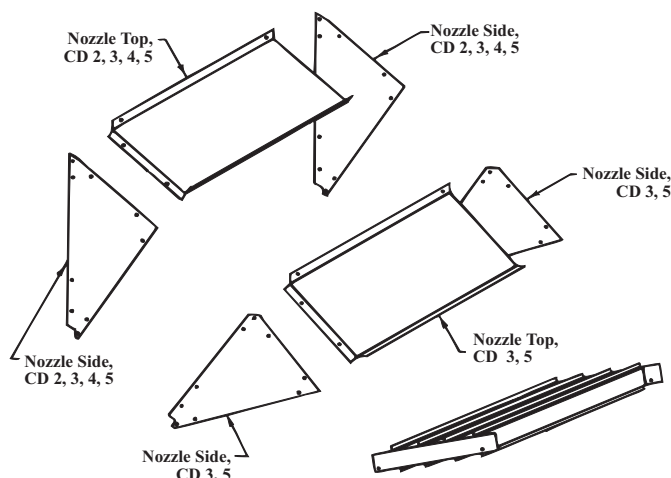
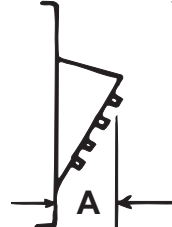


Figure 1 - Downturn Nozzle
Parts and Dimensions

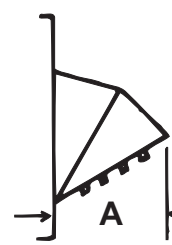
Horizontal Louvers on the heater must be removed and reinstalled in the outlet of the downturn nozzle.

Outlet Nozzle Options CD2 and CD4



Sizes	"A"	Range of Air Deflection
25-125	9"	25°-65°
165-400	13"	25°-65°

Outlet Nozzle Options CD3 and CD5



Sizes	"A"	Range of Air Deflection
25-125	16-1/2"	50°-90°
165-400	23-1/2"	50°-90°

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 service agency in accordance with the instructions on this sheet and in compliance with all codes and requirements of authorities having jurisdiction.

Follow the instructions in the appropriate Section(s) for the option package being installed:

<u>Option Pkg</u>	<u>Instructions</u>	<u>On Pages</u>
Option CD2	Section A	2-3
Option CD3	Section A	2-3
Option CD4	Sections A and B	2-4
Option CD5	Sections A and B	2-4

Tools Required: 5/16" Nut Driver

SECTION A (See Figures 2-6 on page 3.)

1. If the heater is installed, turn off the gas and the electric power.

2. Add Suspension Points

- If the heater is a Model F or FE factory equipped with four-point suspension (Option BJ6) or a Model B or BE, skip to Step 3. (NOTE: The two hanger brackets in the package will not be used.)
- If the heater is a Model F or FE equipped with standard two-point suspension, follow Steps a) through d) below to convert to four-point suspension. Two hanger brackets are included in the option package for this conversion.

WARNING: Failure to use four-point suspension could cause gas valve failure and subsequently personal injury, death, and/or property damage.

- Remove the carton, the wooden crate bottom, and the outer side panels of the heater.
- Position a new hanger bracket on the front portion of the inner side panel (See **Figure 2** for location). Remove the screw from the inner side panel at that location. Holding the bracket tight to the top of the heater, re-insert the screw through the slotted hole and attach the bracket to the inner side panel. The bracket must be tight to the top of the heater.
- Replace the outer side panel.
- Repeat Steps b) and c) on the opposite side of the heater.
- If the heater is already installed, suspend from the new hangers. (See **Figure 3**.) Heater must be level.

3. Remove the Horizontal Louver Assembly -- Remove the horizontal louver assembly that is factory-installed in the front of the heater (screws are on the sides). Save the screws and the louver assembly. This louver assembly will be re-inserted in the outlet of the downturn nozzle.

4. Install the Downturn Nozzle Side Panels -- Use the same holes and the screws that held the louver assembly (removed in Step 3) to attach the side panels of the downturn nozzle. (See **Figure 4**.)

5. Attach the Downturn Nozzle Top Panel -- Using the screws in the kit, attach the top of the downturn nozzle to the nozzle sides and to the front of the heater. (See **Figure 5**.)

INSTALLATION NOTE: Wherever possible, always insert screws with pointed ends inside the nozzle.

6. If installing either Option CD3 or CD5 (nozzles with two sets of side panels and two tops), attach the two additional nozzle side panels to the side panels already installed. Attach the additional top to the new sides and the top installed in Step No. 5. (See **Figure 6**.)

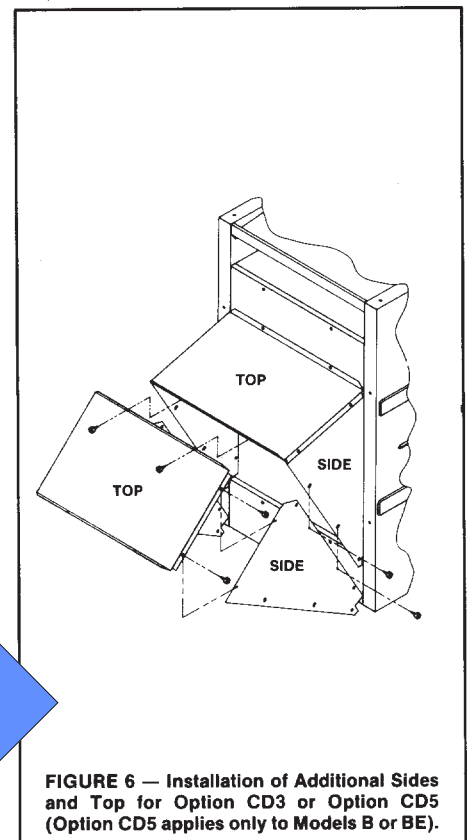
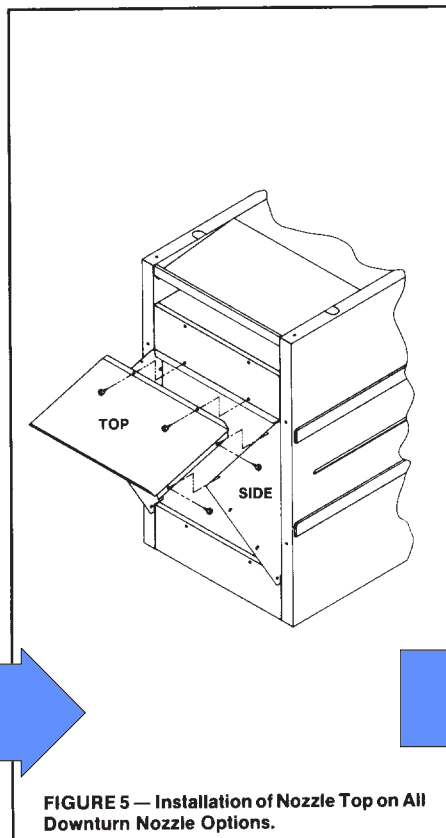
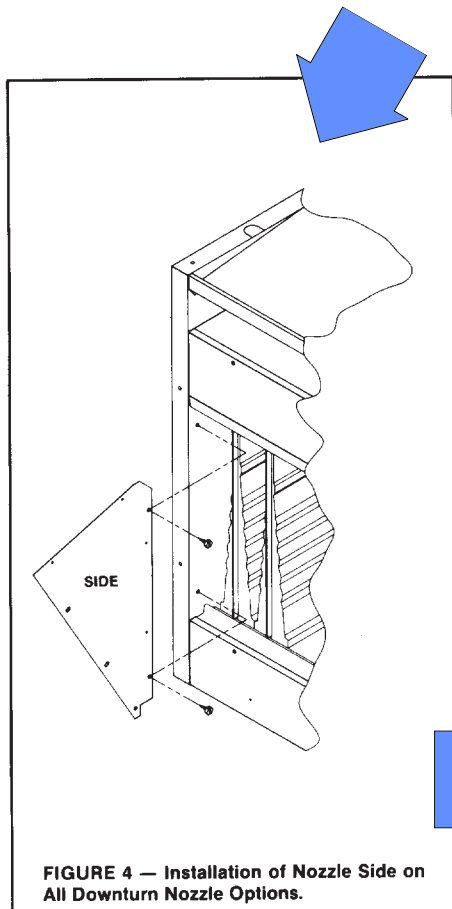
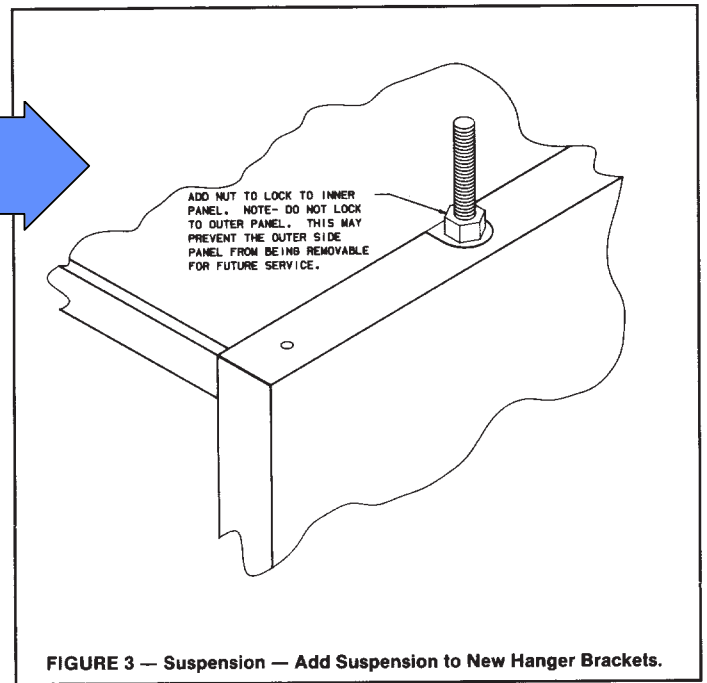
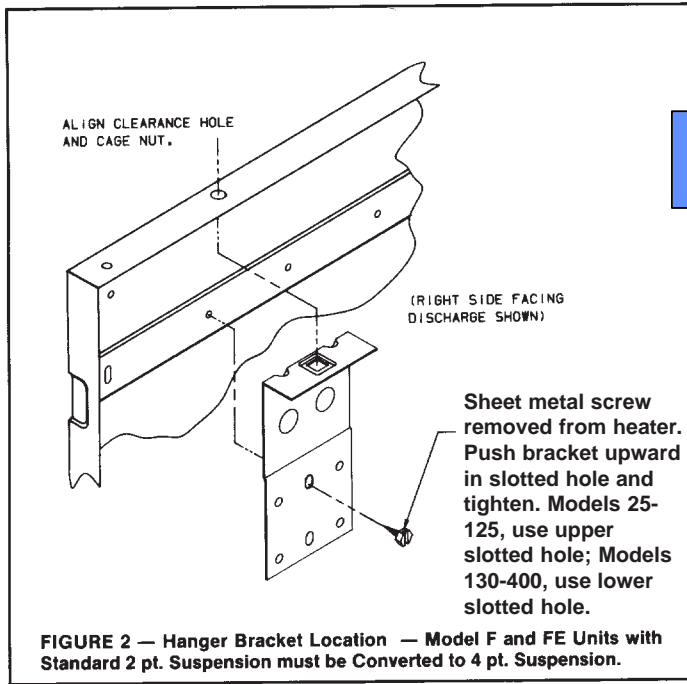
7. Re-Install the Horizontal Louver Assembly -- Attach the horizontal louver assembly removed from the front of the heater to the side panels at the outlet of the downturn nozzle. Adjust the louvers to obtain the desired air deflection.

CAUTION: To avoid getting burned, adjust the louvers while the heater is not in operation. If adjustment is required after the heater is in operation, wear protective gloves.

8. Installation of Option CD2 or CD3 is complete. If you are installing Option CD4 or CD5 (Option CD5 may be installed on blower models only), follow the instructions in Section B on page 4 to add the vertical louvers.

If option installation is complete and the heater is installed, be sure that it is level. Turn on the electrical power and the gas. Light the heater, following the lighting instructions.

If option installation is complete and the heater is not installed and the wooden crate bottom has been removed, the bottom of the heater must be supported with plywood or appropriately placed boards when it is raised for suspension. If the bottom is not protected, the bottom access panel could be damaged. Install the heater in accordance with the instructions provided in the heater installation manual.



SECTION B (See Figures 7 and 8)

Additional Instructions for Installing Vertical Louvers in Option CD4 and Option CD5

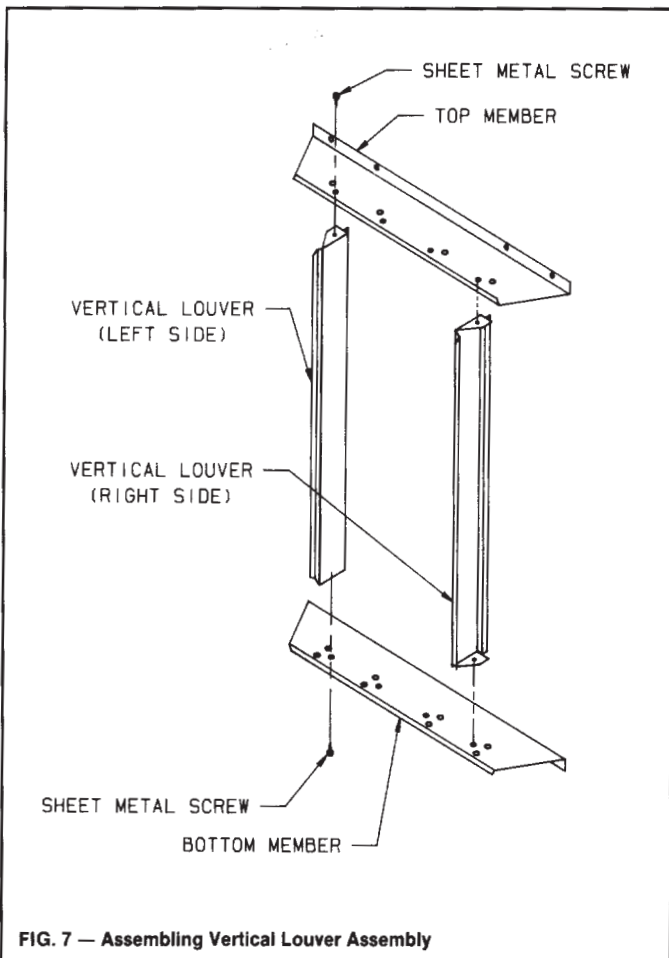
Follow the instructions that apply to your application for installing the downturn nozzle. If the heater is installed, do not re-light until the vertical louvers have been added.

1. Assemble the Louvers -- Assemble vertical louvers to the top and bottom members using the sheetmetal screws provided. (See Figure 7.)

- Vertical louver edges should extend beyond the front outer end of the louver top and bottom members.
- Stops are designed so that the right half of the louvers turn right and the left half of the louvers turn left.

2. Attach the Vertical Louver Assembly -- Screw the top of the vertical louver assembly to the top of the downturn nozzle.

3. Install Angle Clips (See Figure 8) -- Attach the angle clip to the nozzle sides and to the louver assembly bottom.

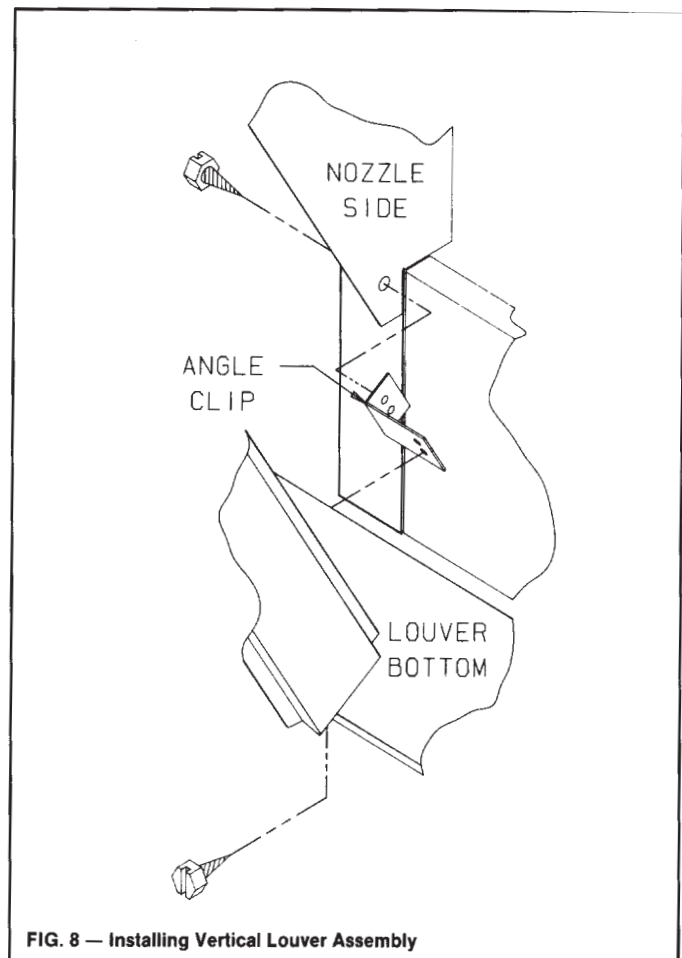


4. Installation is complete.

If the heater is installed, be sure that it is level. Turn on the electrical power and the gas. Light the heater, following the lighting instructions.

If the heater is not installed and the wooden crate bottom has been removed, the bottom of the heater must be supported with plywood or appropriately placed boards when it is raised for suspension. If the bottom is not protected, the bottom access panel could be damaged. Install the heater in accordance with the instructions provided in the heater installation manual.

CAUTION: To avoid getting burned, adjust the louvers while the heater is not in operation. If adjustment is required after the heater is in operation, wear protective gloves.



IMPORTANT: Do not install vertical louvers in combination with a downturn nozzle with a 50°-90° variable air deflection range (Option CD3) on a Model F or FE. That combination which is the same as Option CD5 is permissible only on blower units, Models B and BE.

Thomas & Betts

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MANUFACTURER OF GAS, OIL, ELECTRIC HEATING AND VENTILATING SYSTEMS
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