

DOWNTURN NOZZLE KIT INSTALLATION FOR GAS-FIRED UNIT HEATERS

OPTIONS CD2, CD3, CD4, AND CD5 FOR MODELS UBZ, UBXC, UBZ, UDX, UDXC, UDZ, AND UEZ

- Downturn nozzles are designed to direct the discharge air in a more vertical flow. Ensure that the unit location provides sufficient clearance for the nozzle option that is being installed.
- Refer to the installation manual provided with the heater for important safety information.
- Refer to [Table 1](#) for option descriptions.

Table 1. Downturn Nozzle Options

Option	Description	Option	Description
CD2	Downturn of from 25- to 65-degrees	CD4	CD2 nozzle with vertical louvers (option CD1)
CD3	Downturn of from 50- to 90-degrees	CD5*	CD3 nozzle with vertical louvers (option CD1)

*Option CD5 is available only on model UBZ, UBXC, and UBZ units.

KIT COMPONENTS

Ensure that all components listed in [Table 2](#) or [Table 3](#) are available before beginning installation.

Table 2. Kit Components—Models UBZ, UBXC, UBZ, UDX, UDXC, and UDZ

Table 2. Kit Components—Models UBX, UBXC, UBZ, UDX, UDXC, and UDZ								
Component	Option	Model	Unit Size (MBTUh)					
			30, 45	60, 75	100, 125	150, 175, 200	225, 250	300, 350, 400
			PN (Quantity)*					
Kit package	CD2	All	1036261	1036262	1036263	1036264	1036265	1036266
		UBZ, UDZ**	1036267	1036268	1036269	1036270	1036271	1036272
	CD3	All	1036273	1036274	1036275	1036276	1036277	1036278
		UBZ, UDZ**	1036279	1036280	1036281	1036282	1036283	1036284
	CD4	All	1036285	1036286	1036287	1036288	1036289	1036290
		UBZ, UDZ**	1036291	1036292	1036293	1036294	1036295	1036296
	CD5	UBX, UBXC, UBZ	1036306	1036307	1036308	1036309	1036310	1036311
		UBZ**	1036312	1036313	1036314	1036315	1036316	1036317
Right nozzle panel	CD2, CD4	All	1033918	1034681	1034682	1034683	1034684	1034685
	CD3, CD5		1033918 (2)	1034681 (2)	1034682 (2)	1034683 (2)	1034684 (2)	1034685 (2)
Left nozzle panel	CD2, CD4	All	1033917	1034676	1034677	1034678	1034679	1034680
	CD3, CD5		1033917 (2)	1034676 (2)	1034677 (2)	1034678 (2)	1034679 (2)	1034680 (2)
Top nozzle panel	CD2, CD4	All	1033919	1034671	1034672	1034673	1034674	1034675
	CD3, CD5		1033919 (2)	1034671 (2)	1034672 (2)	1034673 (2)	1034674 (2)	1034675 (2)
Nozzle bottom	CD2, CD4	All	1033921	1033921	1033921	1034669	1034669	1034670
	CD3, CD5		1033921 (2)	1033921 (2)	1033921 (2)	1034669 (2)	1034669 (2)	1034670 (2)
Nozzle blockoff	CD2, CD3, CD4, CD5	All	1036215	1034686	1036205	1036206	1036207	1036208
		UBZ, UDZ**	1036209	1036210	1036211	1036212	1036213	1036214
Blockoff panel	CD3, CD5	All	1033920	1036216	1036217	1036218	1036219	1036220
Louver frame	CD4, CD5	All	1028413	1028433	1028443	1033695	1033715	1033728
Vertical louver			1028418 (5)	1028434 (5)	1028441 (5)	1033904 (8)	1033961 (8)	1033730 (8)
Louver spring			195046 (5)	195046 (5)	195046 (5)	195046 (8)	195046 (8)	195046 (8)
Screw, sheet metal, 8-18 × 3/8			195638 (AR)					
*Quantity is one (1) unless otherwise indicated. AR = as required.								
**For model UBZ or UDZ units manufactured <i>before</i> 8 NOV 2022.								

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For model UBZ or UDZ units manufactured **before 8 NOV 2022.

DO NOT DESTROY. PLEASE READ CAREFULLY. KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

KIT COMPONENTS—CONTINUED

Table 3. Kit Components—Model UEZ						
Component	Option	Unit Size (MBTUh)				
		55	85	110	130, 180	260, 310
		PN (Quantity)*				
Kit package	CD2	1041269	1041272	1041275	1042599	1042600
	CD3	1041270	1041273	1041276	1042601	1042602
	CD4	1041271	1041274	1041277	1036297	1042603
Right nozzle panel	CD2, CD4	1036677	1036683	1036689	1042328	1042333
	CD3	1036677 (2)	1036683 (2)	1036689 (2)	1042328 (2)	1042333 (2)
Left nozzle panel	CD2, CD4	1036676	1036682	1036688	1042327	1042332
	CD3	1036676 (2)	1036682 (2)	1036688 (2)	1042327 (2)	1042332 (2)
Top nozzle panel	CD2, CD4	1036675	1036681	1036687	1042325	1042330
	CD3	1036675 (2)	1036681 (2)	1036687 (2)	1042325 (2)	1042330 (2)
Nozzle bottom	CD2, CD4	1036678	1036684	1036690	1042324	1042329
	CD3	1036678 (2)	1036684 (2)	1036690 (2)	1042324 (2)	1042329 (2)
Nozzle blockoff	CD2, CD3, CD4	1036680	1036686	1036692	1042326	1042331
Blockoff panel	CD3	1036679	1036685	1036691	1042597	1042598
Louver frame	CD4	1036666	1036668	1036670	1033902	1033728
Vertical louver		1036667 (6)	1036669 (6)	1036671 (7)	1033904 (8)	1033730 (8)
Louver spring		195046 (6)	195046 (6)	195046 (7)	195046 (8)	195046 (8)
Screw, sheet metal, 8-18 × 3/8		195638 (AR)				
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INSTALLATION

⚠ DANGER ⚠

Before installing a downturn nozzle, ensure that the unit is installed using four-point suspension in accordance with the installation manual provided with the unit.

1. Assemble top and side panels of downturn nozzle assembly (see [Figure 1](#)):

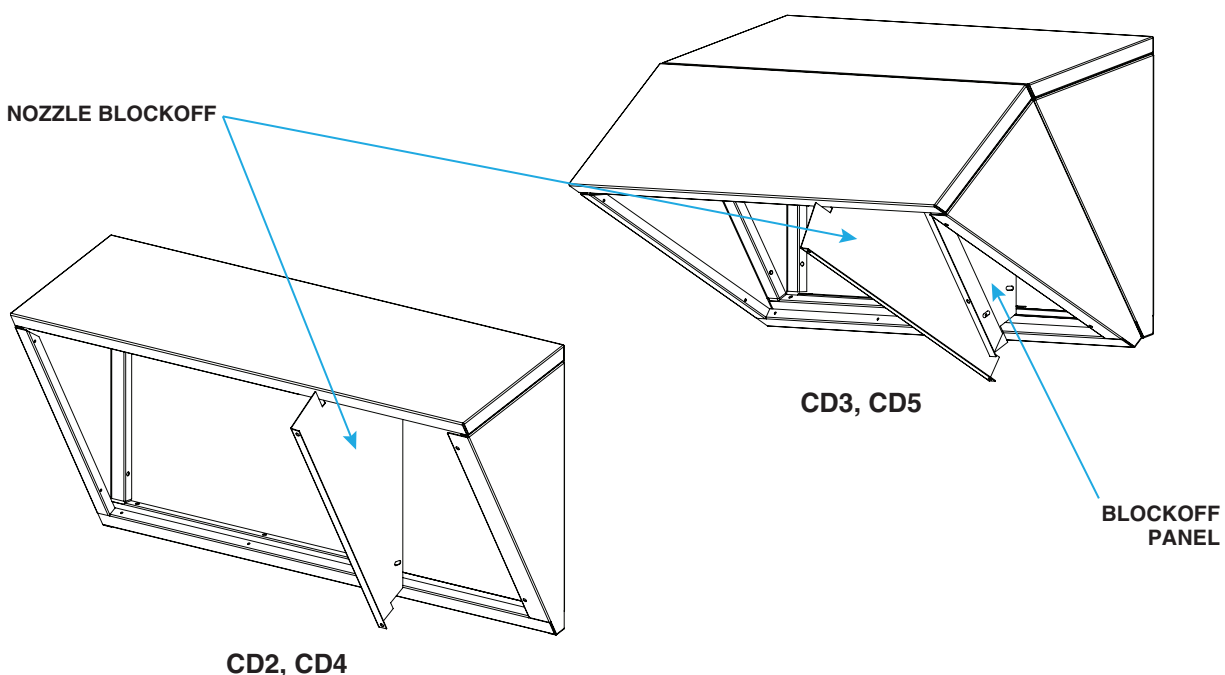


Figure 1. Downturn Nozzle Assemblies

- a. Secure right and left panels to top panel using screws from kit. Ensure that panel with slotted holes in bottom of panel is installed on door side of unit. Nozzle bottom will be added in step 7.
- b. If installing option CD3 or CD5, assemble second nozzle section—sections will be joined in step 6.
2. If heater is already installed, turn OFF gas and electric power. Allow time for louvers to cool before proceeding.
3. Remove access door:
 - a. Loosen screwlock and open door.
 - b. Disconnect door strap and remove door.
4. Remove face plate assembly (see **Figure 2**):
 - a. Remove and save two screws next to access door slots from back of face plate.
 - b. To access remaining screws that secure face plate, remove each horizontal louver. Push louver toward spring to compress spring and release louver. Remove and save each louver and spring.
 - c. Remove and save screws that secure face plate to unit and remove face plate assembly.

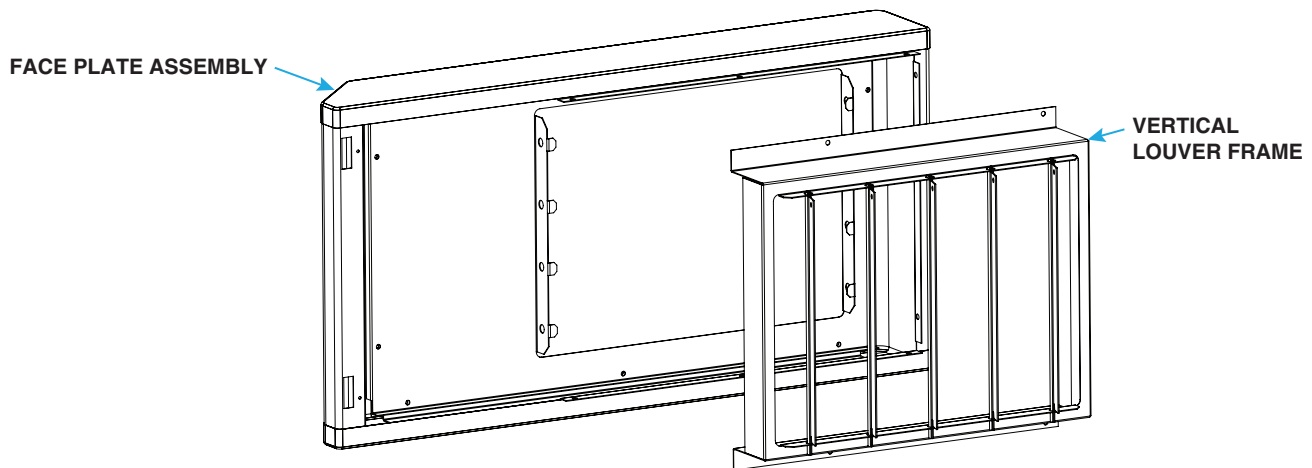


Figure 2. Typical Face Plate Assembly (with Vertical Louver Frame Shown)

NOTE: The vertical louver frame is installed only on units ordered with either option CD4 or CD5—vertical louvers (option CD1) with either a CD2 nozzle or a CD3 nozzle.

5. If installing option CD4 or CD5, position vertical louver frame (see **Figure 2**) in face plate outlet so that holes align and secure frame to face plate using screws from kit.
6. If installing option CD3 or CD5, position second assembled nozzle section in outlet of nozzle already installed. Secure second nozzle section to first nozzle section using screws from kit to create downturn with two sections (see **Figure 1**).
7. Mount downturn nozzle assembly to face plate assembly:
 - a. Position top and side panels assembled in step 1 on back of face plate assembly so that holes align and secure top panel using screws from kit. Do not install screws in side panels at this point.
 - b. Slide nozzle bottom (see **Figure 1**) into place so that it rests on small tabs on each side. Align holes and secure nozzle bottom to face plate using screws from kit.
 - c. Align holes and secure side panels to face plate using screws from kit.
8. Install downturn nozzle assembly with face plate assembly:
 - a. Position downturn nozzle assembly with face plate assembly so that holes align and secure nozzle to front of unit using existing screws.
 - b. Position nozzle blockoff (see **Figure 1**) so that holes align and secure to face plate using screws from kit.
 - c. If installing option CD3 or CD5, secure blockoff panel (see **Figure 1**) to nozzle blockoff.
 - d. Re-install existing two screws in back of face plate next to slots for access door.

INSTALLATION—CONTINUED

9. Re-install access door:
 - a. Place door tabs in slots and reconnect door strap.
 - b. Close door and tighten screwlock.

NOTE: Before installing the louvers, note the louver curve and determine how the louvers should be positioned to provide the optimal throw pattern. Depending on where the heater is installed and on the desired airflow direction, the louvers may be installed with their curves all in the same direction (either way) or the right half one way and the left the other.

10. Install and adjust louvers:
 - a. If installing option CD4 or CD5, install vertical louvers in louver frame:
 - (1) On notched end of louver, slide louver spring over tab.

NOTE: Depending on the desired throw pattern, the end of the louver with the spring can go either into the frame top or bottom.

- (2) With wider louver blade facing in toward heat exchanger, push tab with louver spring into hole in top or bottom louver frame (see [Figure 3](#))—spring compresses. Insert tab on other end of louver into opposite louver frame. For left airflow, compress spring into top louver frame. For right airflow, compress spring into bottom louver frame.

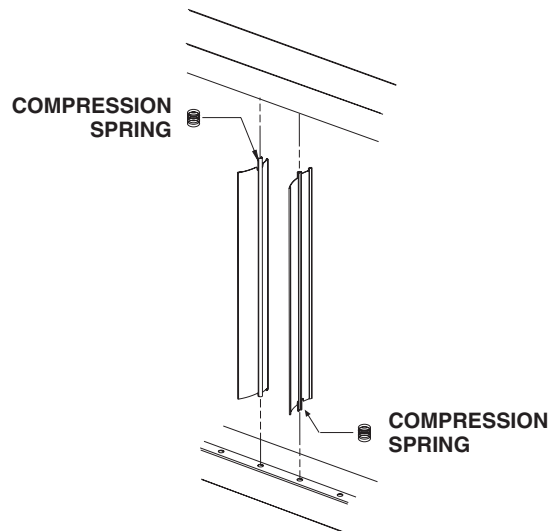


Figure 3. Vertical Louver Installation

- (3) Install all remaining louvers in accordance with steps 10a(1) and 10a(2).
 - b. Re-install horizontal louvers and springs.

⚠ WARNING ⚠

To avoid burns, adjust louvers while the heater is not in operation. If louvers must be adjusted while the heater is operating, wear protective gloves.

- c. Adjust all louvers to provide desired throw pattern.
11. Turn ON gas and electric power.
12. Light heater in accordance with lighting instructions and check for proper operation.

