

COOLING COIL CABINET INSTALLATION FOR AIR HANDLERS

OPTIONS AU2, AU11, AND AU12 FOR MODELS RPB, RPBL, AND SSCBL

⚠ DANGER ⚠

- Before installation, check the supporting structure to ensure that it has sufficient load-carrying capacity to support the weight of the unit along with any optional equipment.
- Do NOT install the cooling coil cabinet before lifting the packaged blower/furnace system into position. Lift the cooling coil cabinet separately. Do NOT install the cooling coil cabinet while the furnace is in operation.

GENERAL INFORMATION

The cooling coil cabinet is designed to enclose a field-supplied chilled water cooling coil and is shipped separately for field-installation. Cabinets alone (option AU2) have a horizontal discharge but may have an attached downturn plenum (option AU11 or AU12) for vertical discharge. Option AU11 is a cooling coil cabinet with a downturn plenum (option AQ5). Option AU12 is a cooling coil cabinet with a downturn plenum with dampers (option AQ8).

Important Safety Information

Refer to the installation manual provided with the heater for important safety information. Pay attention to all dangers, warnings, cautions, and notes highlighted in this manual. Safety markings should not be ignored and are used frequently throughout to designate a degree or level of seriousness.

Components

Ensure that required components (refer to [Table 1](#)) that are shipped inside the cooling coil cabinet are available before beginning installation.

Table 1. Cooling Coil Cabinet Components				
Component	Description	RPB Unit Size (MBTUh)		
		250, 300	350	400
		RPBL AND SSCBL Unit Size (MBTUh)		
		500, 600	700, 1050	400, 800, 1200
PN (Quantity)				
Duct connector	Top/bottom, 35-5/16	106338 (2)	—	
	Top/bottom, 40-13/16	—	106339 (2)	—
	Top/bottom, 46-5/16	—		106340 (2)
	Side, 18-13/16	106395 (2)		
Filler panel	Top	172362 (1)	172363 (1)	172364 (1)
	Left side	172357 (1)		
	Right side	172358 (1)		
Rubber gasket strip	3/32 × 1-1/8 × 53-7/8	103608 (1)	—	
	3/32 × 1-1/8 × 59-3/8	—	103609 (1)	—
	3/32 × 1-1/8 × 64-7/8	—		106310 (1)
Insulation	1 × 42 × 9	172546 (2)		
Sheet metal screw	#10 × 1/2	11813 (24)	11813 (25)	11813 (26)
	#14 × 3/4	105171 (8)		

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

GENERAL INFORMATION—CONTINUED

Dimensions

NOTE: Refer to the installation, operation, and maintenance manual provided with the unit for unit dimensions.

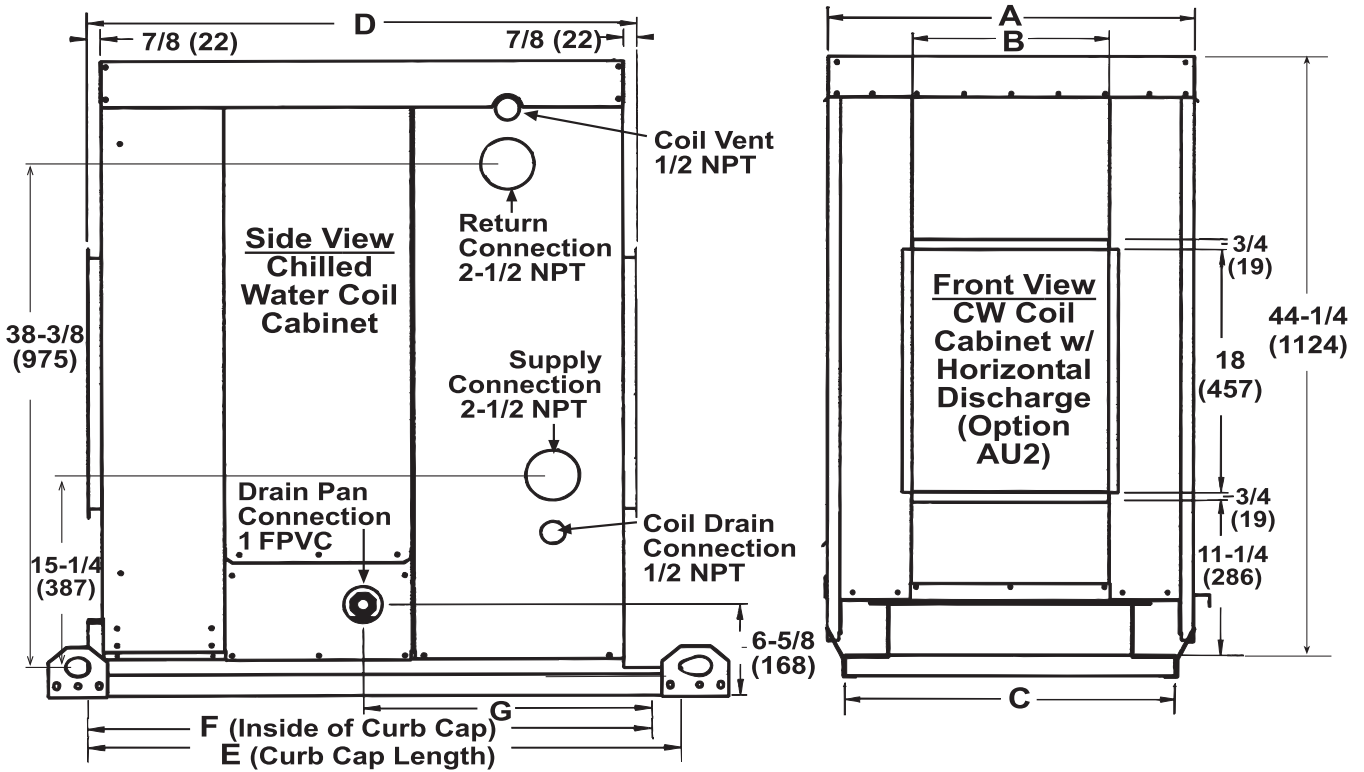


Figure 1. Cooling Coil Cabinet Dimensions (Refer to [Table 2](#))

Table 2. Cooling Coil Cabinet Dimensions			
Dimension (See Figure 1)	RPB Unit Size (MBTUh)		
	250, 300	350	400
	RPBL AND SSCBL Unit Size (MBTUh)		
	500, 600	700, 1050	400, 800, 1200
Inches (mm)			
A	47-3/4 (1213)	53-1/4 (1353)	58-3/4 (1492)
B	34-1/2 (876)	40 (1016)	45-1/2 (1156)
C	45-1/8 (1146)	50-5/8 (1286)	56-1/8 (1426)
D	56-3/8 (1432)	62 (1575)	67-3/8 (1711)
E	59-3/8 (1508)	64-7/8 (1648)	70-3/8 (1788)
F	83-3/8 (2118)*	88-7/8 (2257)*	94-3/8 (2397)*
G	57-3/8 (1457)	63 (1600)	68-3/8 (1737)
	81-3/8 (2067)*	87 (2210)*	92-3/8 (2346)*
	29-1/8 (740)	31-7/8 (810)	34-5/8 (879)

*With downturn plenum (option AQ5 or AQ8).

Weights

NOTE: Refer to the installation, operation, and maintenance manual provided with the unit for unit weights.

Table 3. Cooling Coil Cabinet Weights				
Option	Model	RPB Unit Size (MBTUh)		
		250, 300	350	400
		RPBL AND SSCBL Unit Size (MBTUh)		
		500, 600	700, 1050	400, 800, 1200
Pounds (kg)				
AU2	RPB, RPBL, SSCBL	394 (179)	449 (204)	507 (230)
AU11, AU12	RPB, RPBL	553 (251)	617 (280)	684 (311)

Required Tools

In addition to normally-required tools, a driver extension, a hammer, and a bar or short length of 2 × 4 will be required. Silicone caulking must be field-supplied.

INSTALLATION

NOTE: Two-position discharge dampers (option AU12) fit in the discharge air opening. The damper motor fits inside the downturn plenum cabinet.

1. After air handler unit is in place on roof curb or mounting rails, remove lifting lugs on discharge end of unit using 9/16-inch wrench or socket.
2. Lift cooling coil cabinet and position it with inlet side next to discharge opening of furnace. Remove lifting lugs on cabinet.
3. Slide cooling coil cabinet so that furnace duct flanges and cabinet butt together (see [Figure 2](#)).

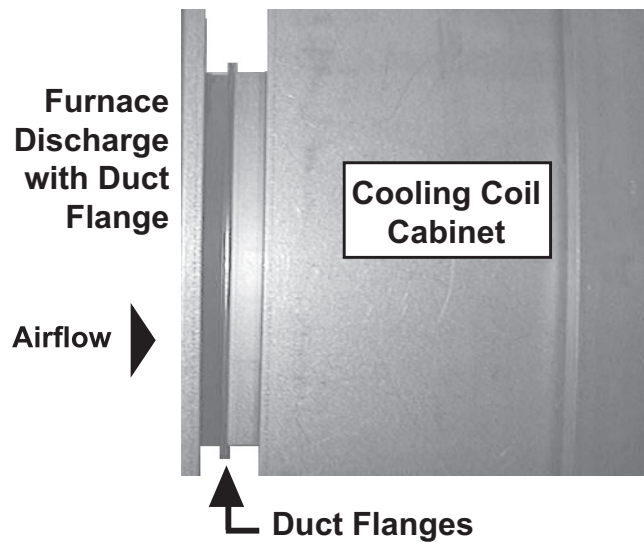


Figure 2. Cooling Coil Cabinet Mounting Position

INSTALLATION—CONTINUED

4. Join duct flanges:
 - a. Connect one side duct connector to both top and bottom duct connectors using #14 × 3/4 sheet metal screws (see [Figure 3](#), DETAIL A).
 - b. Install partially-assembled connectors with screw holes in top piece at open side (see [Figure 3](#), DETAIL B) into space between furnace and cooling coil cabinet. Tap with hammer—first on side, then on top, and lastly on bottom—until duct connector assembly is seated over both duct flanges.
 - c. Install other side duct connector and use driver extension to install #14 × 3/4 sheet metal screws that secure side connector to top and bottom connectors (see [Figure 3](#), DETAIL C). Ensure that top screws are vertical and bottom screws are horizontal and that U-shaped rectangular frame joins duct flanges on all four sides.

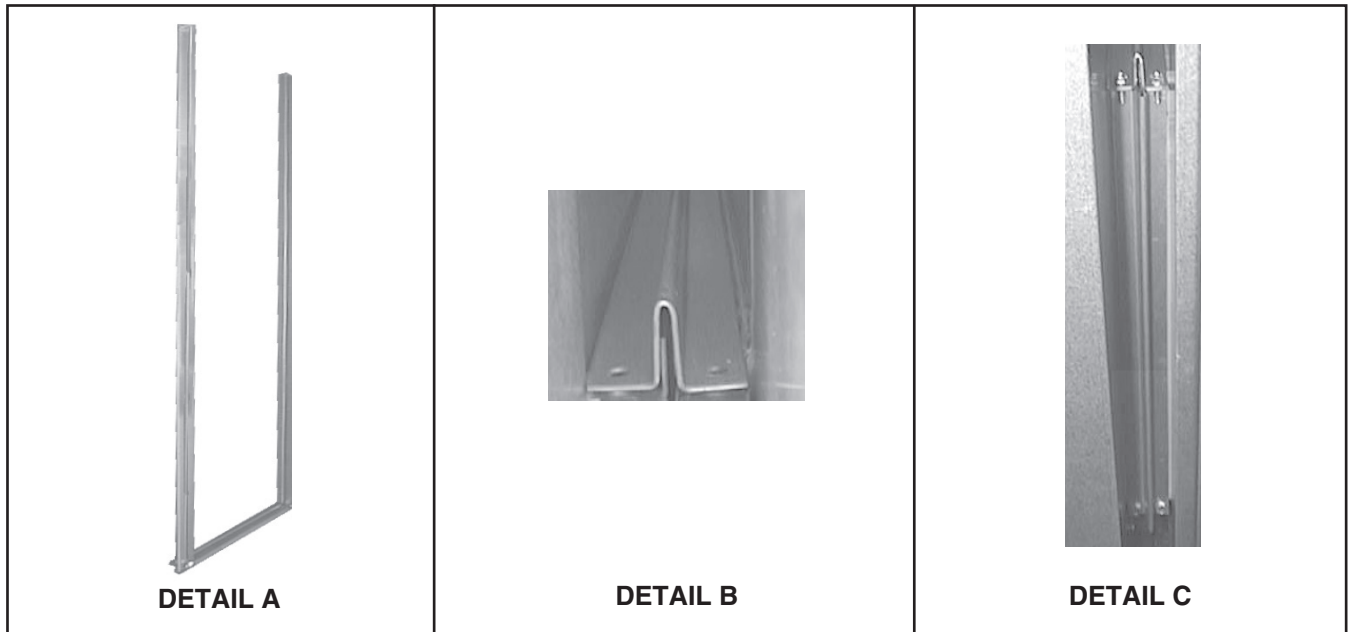


Figure 3. Duct Connector Assembly

5. If cabinet does not include downturn plenum with discharge damper, proceed to step 6. If installing an option AU12 cooling coil cabinet with downturn plenum cabinet equipped with optional discharge dampers, connect damper motor wires to terminal blocks in furnace electrical compartment as follows:
 - a. Drill three 7/8-inch holes ensuring that all holes are free of burrs:
 - (1) Remove control side door on discharge plenum. Locate discharge damper motor with three wires long enough to reach furnace section.
 - (2) On leg of downturn plenum next to cooling coil cabinet locate mounting screw shown in [Figure 5](#), DETAIL A and measure up 6 inches (152 mm). Drill first 7/8-inch hole at same center line as mounting screw.
 - (3) Remove cooling coil access panel(s).
 - (4) Locate coil blockoff plate and measure up 4 inches (102 mm) from bottom of blockoff plate. Drill second 7/8-inch hole at that location at center point of blockoff plate. Hole should be approximately even with first hole drilled in downturn plenum leg.
 - (5) On cabinet leg on entering air side of cooling coil cabinet, measure up 10 inches (254 mm) from bottom pan and then in 4 inches (102 mm) from edge. Drill third 7/8-inch hole at that location.
 - b. On outside of furnace section where flanges were joined in step 4, locate three hole plugs and remove center plug to expose 7/8-inch hole in cabinet leg (see [Figure 5](#), DETAIL B).

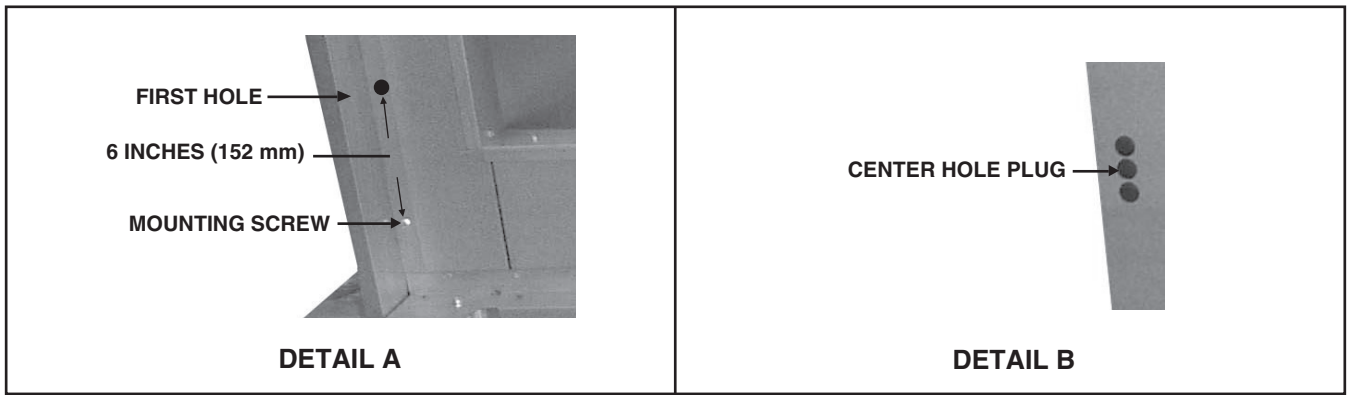


Figure 4. Discharge Damper Wiring Connections

- c. Run damper motor wires:
 - (1) Out through hole in discharge plenum leg, into cooling coil cabinet, and through blockoff plate across cabinet.
 - (2) Out through hole in cooling coil cabinet leg and into furnace section.
 - d. On bottom of electrical box in furnace section, remove hole plug below terminal blocks and route damper motor wires up through hole and into electrical box.
6. If downturn plenum is equipped with discharge dampers, field wiring, including drilling holes and running wires, is required. Connect wires in accordance with **Figure 4**.

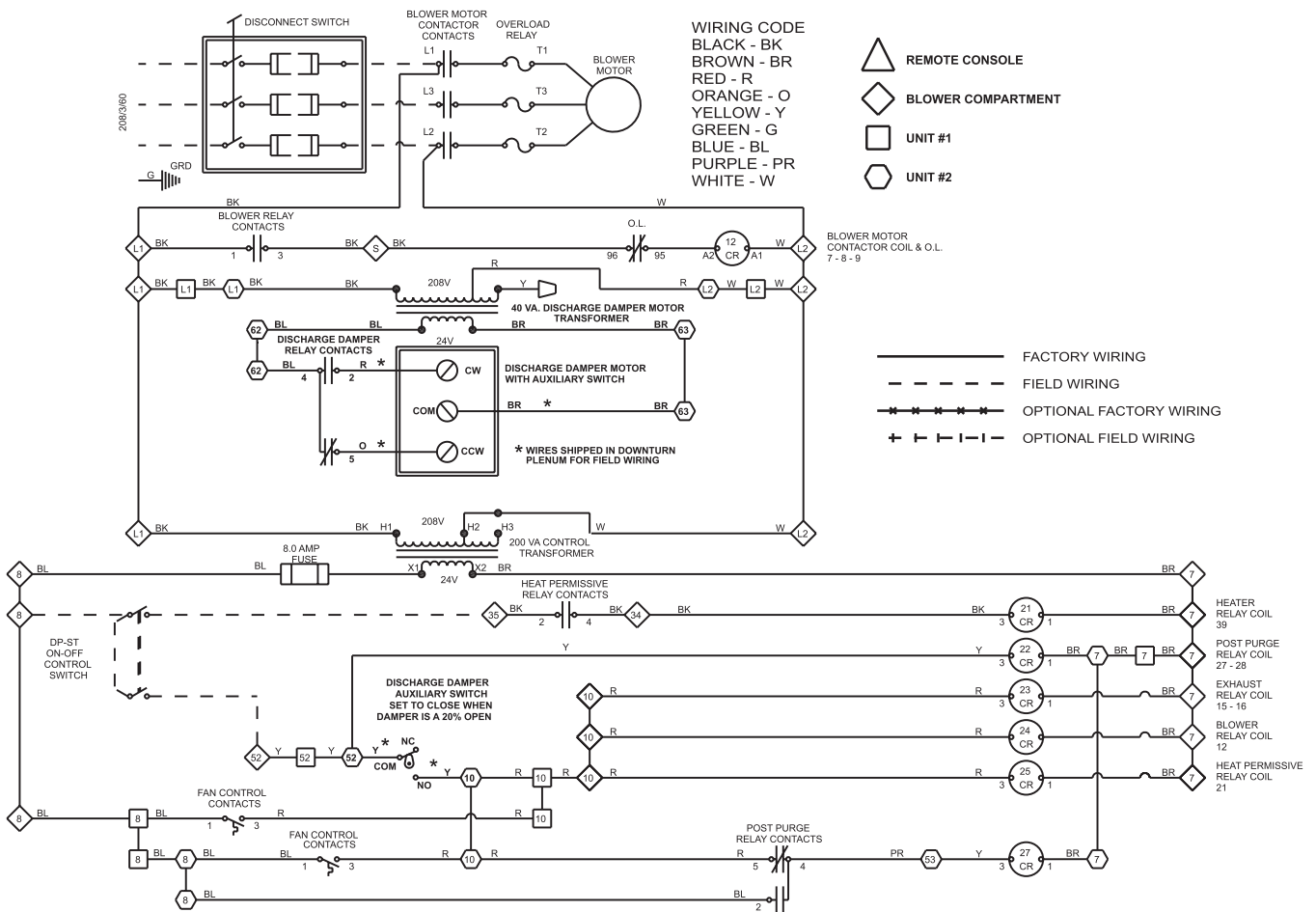


Figure 5. Wiring Hole Locations

INSTALLATION—CONTINUED

7. Install filler panels:

a. Remove cabinet panels (see [Figure 6](#)):

- (1) At side corners of both cooling coil cabinet and furnace, remove factory-installed screws that secure cabinet tops.
- (2) Remove row of screws across edge of cooling coil cabinet that secure cabinet top.

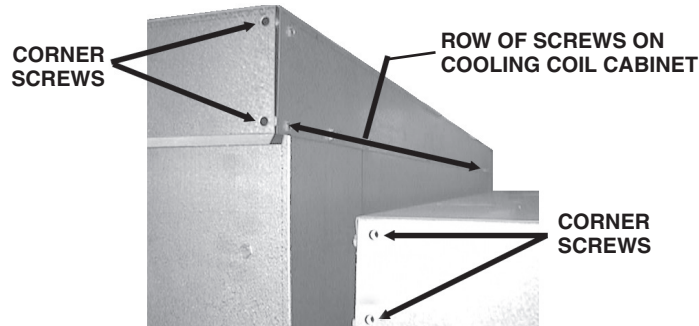


Figure 6. Cooling Coil Cabinet Screw Removal

b. Install side filler panels (see [Figure 7](#), DETAIL A):

NOTE: It may be easier to slide the filler panels in place with the door panels removed.

- (1) Install piece of insulation against inner panel of cooling coil cabinet.
- (2) Slide filler panel into place and secure using #10 × 1/2 sheet metal screws. Repeat on other side.

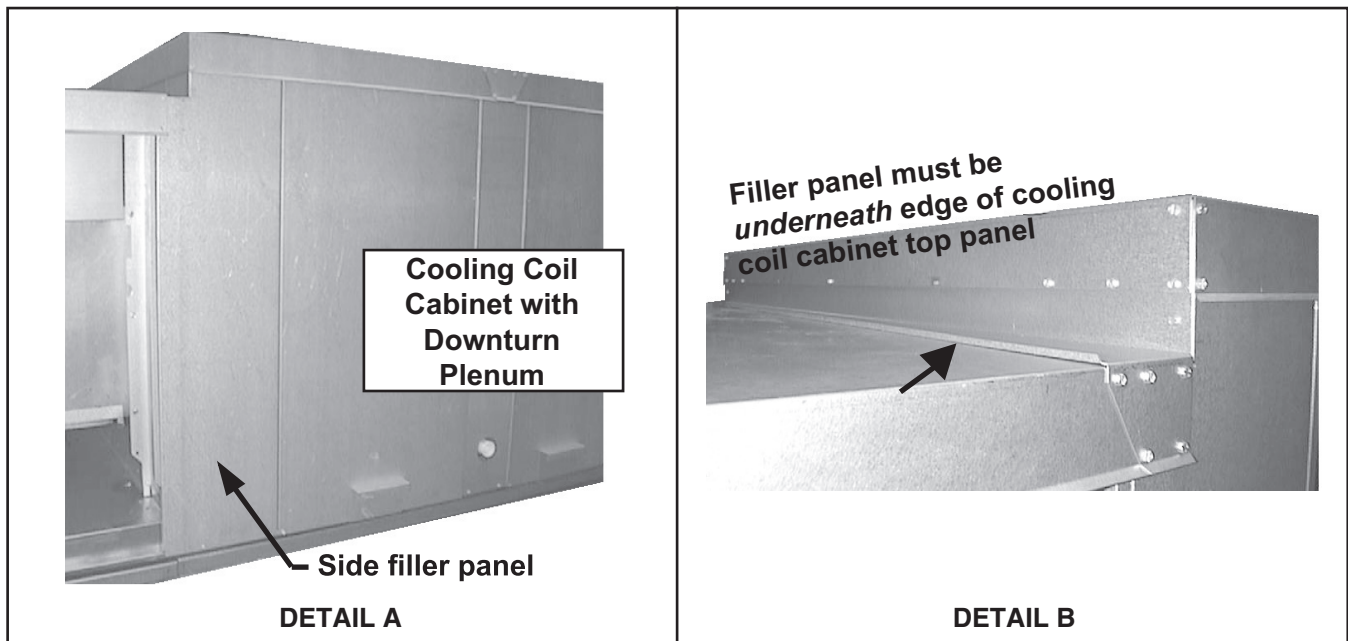


Figure 7. Filler Panel Installation

- c. Install top filler panel (see [Figure 7](#), DETAIL B):
 - (1) Remove backing from gasket strip and adhere it along edge of bottom of top filler panel.
 - (2) Slide top filler panel underneath edge of cooling coil cabinet top—edge of top panel may have to be pulled out slightly to slide panel underneath—panel must be between cooling coil cabinet top and end panel to prevent water from leaking into cabinet.
 - (3) Secure top filler panel using #10 × 1/2 sheet metal screws.
 - (4) Re-install any remaining screws removed in step 7a.
 - (5) Check for gaps and apply caulking as needed so that any gaps between top filler panel and furnace section top panel are sealed.
8. Apply silicone caulking where cooling coil cabinet curb cap meets furnace curb cap.
9. Follow instructions provided by cooling coil manufacturer to make cooling coil connections.
10. Complete installation in accordance with installation, operation, and maintenance manual provided with unit.

