

Installation Instructions

Applies to: Optional Return Air Filter Cabinet for Model CAUA

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Description/ Application

Optional return air filter cabinets for Model CAUA packaged heating systems are available in a variety of configurations (see illustrations above).

Installation instructions for all types are in this form. Select and apply the information for the option that matches your installation.

Option	Factory or Field	Filter Type	Applies to CAUA Sizes
CW4	Field assembled	2" Pleated	All
CW5	Field assembled	2" Permanent	All
CW6	Field assembled	2" Field-supplied (pleated or permanent only)	All
CW7	Field assembled	2" Pleated	All
CW12	Field assembled	2" Permanent	All
CW11	Field assembled	2" Field-supplied (pleated or permanent only)	All
CW8	Field assembled	2" Pleated	150 and 200
CW9	Field assembled	2" Permanent	150 and 200
CW10	Field assembled	2" Field-supplied (pleated or permanent only)	150 and 200
CW13	Factory assembled	2" Disposable	All
CW14	Factory assembled	2" Pleated	All
CW15	Factory assembled	2" Permanent	All
CW16	Factory assembled	2" Field-supplied (pleated or permanent only)	All

Optional Filter Cabinet Applications (X = available; ■ = not available or not for use at the CFM)																		
Model CAUA	150			200			250			300			350			400		
CFM	1800	2400	3000	2400	3000	3000	4000	5000	3000	4000	5000	4300	5000	6000	4300	5000	6000	
Option CW4	X	X	X	X	X	X	■	■*	X	■	■*	X	X	■	X	X	■	
Option CW5	X	X	X	X	X	X	X	■*	X	X	■*	X	X	X	X	X	X	
Option CW6	X	X	X	X	X	X	X	■*	X	X	■*	X	X	X	X	X	X	
Option CW7	X	X	X	X	X	X	X	X	X	X	X	X	X	■	X	X	■	
Option CW12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Option CW11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Option CW8	X	X	■	X	■	■	■	■	■	■	■	■	■	■	■	■	■	
Option CW9	X	X	X	X	X	■	■	■	■	■	■	■	■	■	■	■	■	
Option CW10	X	X	X	X	X	■	■	■	■	■	■	■	■	■	■	■	■	
Option CW13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Option CW14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Option CW15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Option CW16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

* For 5000 CFM on Sizes 250/300, either install a cabinet on the rear of the heater or two side cabinets (one on each side of the heater).

LARGE RETURN AIR FILTER CABINETS FOR ATTACHING TO REAR OR SIDE OF MODEL CAUA - OPTIONS CW 4, 5, 6, 7, 11, AND 12

Components - Options CW 4, 5, 6, 7, 11, and 12

Rear and **side** filter cabinets, Options CW 4, 5, 6, 7, 11 and 12, are shipped separately for field assembly and installation. (The cabinets are assembled as they are installed.) The table below lists the Package P/N's and the components in each package by package P/N and by Model Size.

Before beginning installation, verify that all parts are available at the job site.

Components by Option Package - CW 4, 5, and 6 attach to the side of the heater; CW 7, 12, and 11 attach to rear of heater.

Component Description	Component Usage by Location of the Return Air Inlet in the Filter Cabinet	150/200/ 250/300		350/400		150/200		250/300/ 350/400	
		Qty	P/N	Qty	P/N	Qty	P/N	Qty	P/N
Option CW4 (with 2" pleated filters) - Pkg P/N		166153		166156					
Option CW5 (with 2" permanent filters) - Pkg P/N		166154		166157					
Option CW6 (for field-supplied 2" filters) - Pkg P/N		166155		166158					
Option CW7 (with 2" pleated filters) - Pkg P/N						166153		166156	
Option CW12 (with 2" permanent filters) - Pkg P/N						166154		166157	
Option CW11 (for field-supplied 2" filters) - Pkg P/N						166155		166158	
		Filter cabinet attaches to side of heater with horizontal (rear) or vertical (top) inlet				Filter cabinet attaches to rear of heater with horizontal (rear) or vertical (top) inlet			
Bottom Panel	Vertical (Top) & Horizontal	1	160925	1	160926	1	160925	1	160926
Side Panel	Vertical (Top) & Horizontal	1	160634	1	160634	1	160634	1	160634
Rear or Top Inlet Panel (w/duct flange)	Vertical (Top) & Horizontal	1	160927	1	164520	1	160927	1	164520
Top Panel or Bottom Rear Panel	Vertical (Top) & Horizontal	1	160630	1	160631	1	160630	1	160631
Top Rear Panel	Vertical (Top) & Horizontal	1	160632	1	160633	1	160632	1	160633
Door Panel Assembly	Vertical (Top) & Horizontal	1	165033	1	165033	1	165033	1	165033
Door Channel	Vertical (Top) & Horizontal	2	160635	2	160635	2	160635	2	160635
Filter Support	Horizontal Inlet only	2	160636	2	165018	2	160636	2	165018
Filter Support Channel	Horizontal Inlet only	2	160923	2	160924	2	160923	2	160924
Filter Support	Vertical (Top) Inlet Only	2	164524	2	164525	2	164524	2	164525
Filter Channel Assembly	Vertical (Top) & Horizontal	1	165035	1	165036	1	165035	1	165036
Sheetmetal Screws #10-32 x 1/2" long	Vertical (Top) & Horizontal	54	113275	54	113275	54	113275	54	113275
Corner Braces	Vertical (Top) & Horizontal	2	166151	2	166151	2	166151	2	166151
2" Permanent Filters * in Options CW5 and CW12		4	104103	6	104103	4	104103	6	104103
2" Pleated Filters * in Options CW4 and CW7		4	104109	6	104109	4	104109	6	104109

*See page 6 for filter dimensions for cabinets installed with horizontal (rear) inlet air opening or page 8 for filter dimensions for cabinets installed with vertical (top) inlet air opening.

Installation Preparation - Options CW 4, 5, 6, 7, 11, and 12

FIRST, verify that the kit received is the appropriate one for the installation. Check the heater size and the CFM. (NOTE: Some side and rear packages are identical.)

SECOND, where the filter cabinet is going to be attached to the heater, find four embosses in the metal panel. For **side** attachment, see **FIGURE 1A**; for **rear** attachment, see **FIGURE 1B**. These embosses are corner indicators for the inlet air opening. Using tin snips or aviation shears, carefully cut straight lines between the corner marks until the opening is created.

CAUTION: The cut edges of the metal cabinet will be sharp.

THIRD, refer to the illustrations in **FIGURES 2A and 2B**. Select the appropriate illustration and drill the required 1/8" holes in the side or rear of the heater cabinet where the filter cabinet is being installed.

FIGURE 1A - Heater Inlet Air Opening Dimensions (inches and mm) for installing Side Filter Cabinet, Option CW4, CW5, or CW6

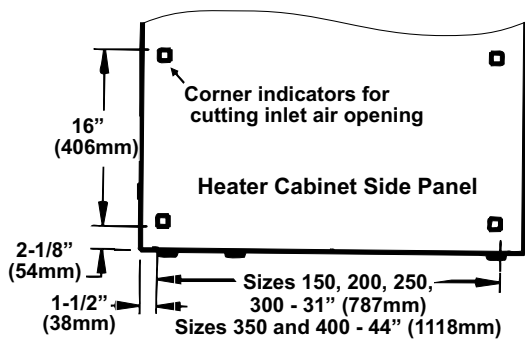


FIGURE 1B - Heater Inlet Air Opening Dimensions (inches and mm) for installing Rear Filter Cabinet, Option CW7, CW12, or CW11

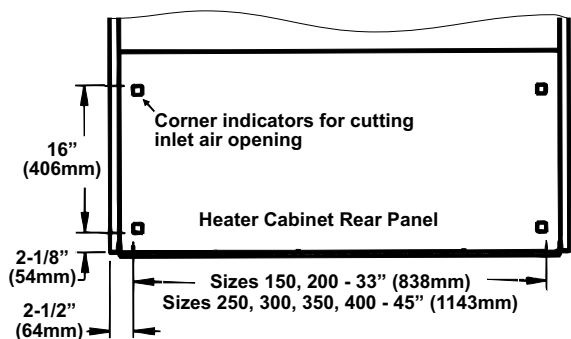


FIGURE 2A - Reference Drawing for Drilling 1/8" Holes in the SIDE of a Model CAUA Heater when Installing an Option CW 4, 5, or 6 Return Air Filter Cabinet

SIDE - Sizes	A	E
150, 200, 250, 300	8 (203)	5 (127)
350, 400	9 (229)	6 (152)

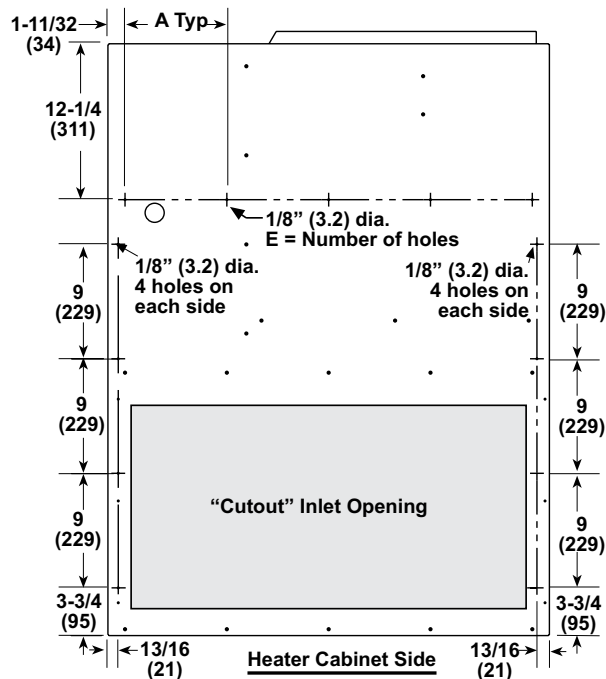
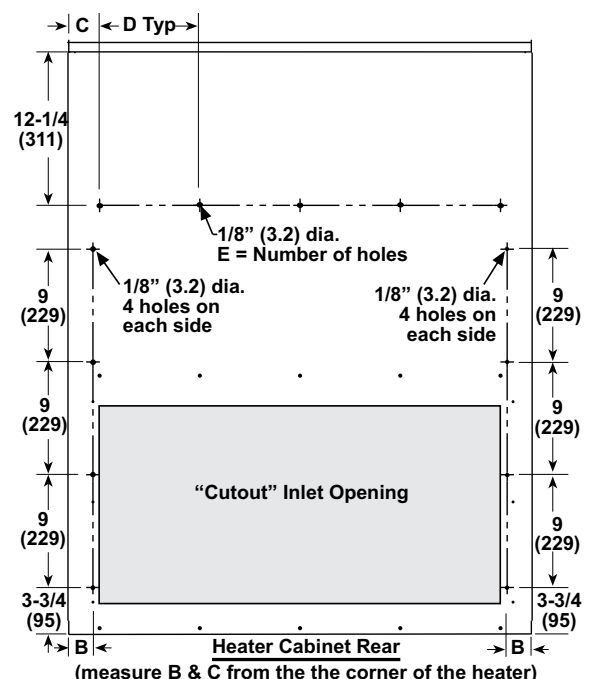


FIGURE 2B - Reference Drawing for Drilling 1/8" Holes in the REAR of a Model CAUA Heater when Installing an Option CW 7, 12, or 11 Return Air Filter Cabinet

REAR - Sizes	B	C	D	E
150, 200, 250, 300	2-15/32 (63)	3 (76)	8 (203)	5 holes
350, 400	1-29/32 (48)	2-1/2 (64)	9 (229)	6 holes



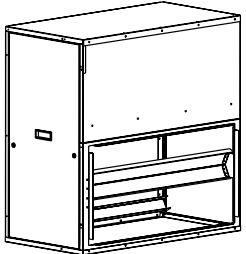
LARGE RETURN AIR FILTER CABINETS FOR ATTACHING TO REAR OR SIDE OF MODEL CAUA - OPTIONS CW 4, 5, 6, 7, 11, AND 12 (cont'd)

FOURTH, if the rear or side filter cabinet is a type that can be installed with either a vertical (top) or horizontal inlet opening, determine which way the cabinet will be installed. When assembling and attaching the cabinet, **be careful to follow the instructions for the inlet selected.**

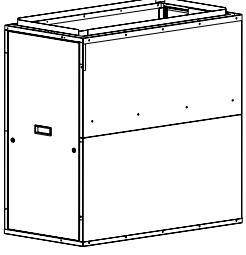
FIGURE 3 - Large Size Return Air Filter Cabinets with Horizontal (rear) Inlet or Vertical (top) Inlet for installation on the Side or Rear of a Model CAUA heater

Cabinet has one removable door that may be installed on either end.

Filter Cabinet Options CW 4, 5, 6, 7, 12, and 11 Assembled with a Horizontal (rear) Inlet



Filter Cabinet Options CW 4, 5, 6, 7, 12, and 11 Assembled with a Vertical (top) Inlet



Installation Instructions - Options CW 4, 5, 6, 7, 11, 12

If the heater is installed, disconnect the gas and the power supply. Carefully follow the instructions that apply:

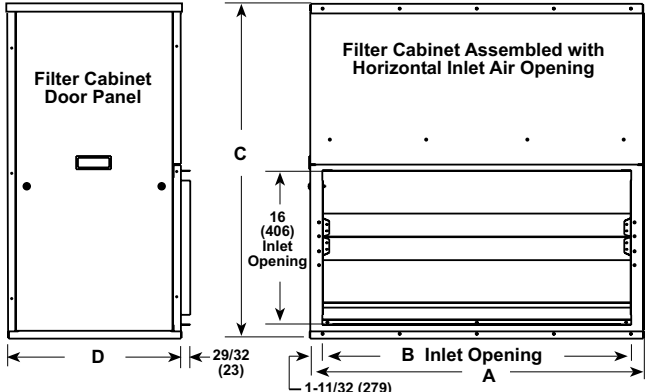
- If installing filter cabinet **Option CW 4, 5, 6, 7, 12, or 11** with a **horizontal (rear) return air inlet**, follow the instructions in **SECTION A**, starting below. (Options CW 4, 5, and 6 attach to the side of the heater; CW 7, 12, and 11 attach to the rear of the heater.)
- If installing filter cabinet **Option CW 4, 5, 6, 7, 12, or 11** with a **vertical (top) return air inlet**, follow the instructions in **SECTION B**, starting on page 6. (Options CW 4, 5, and 6 attach to the side of the heater; CW 7, 12, and 11 attach to the rear of the heater.)

INSTALLATION NOTES:

- 1) The illustrations do not show the entire heater, only the side or rear panel where the return air filter cabinet is being attached.
- 2) Because the filter cabinet is designed to be built with either a vertical (top) or horizontal inlet, not all screw holes will be used. Use the quantity of screws listed for each step.

SECTION A - Installation Instructions for a Return Air Filter Cabinet Options CW 4, 5, 6, 7, 11, and 12 with a *Horizontal (rear) Inlet*

FIGURE 4 - Dimensions - inches (mm) - of a Return Air Filter Cabinet with a Horizontal (rear) Inlet - Applies to Options CW 4, 5, 6, 7, 12, and 11

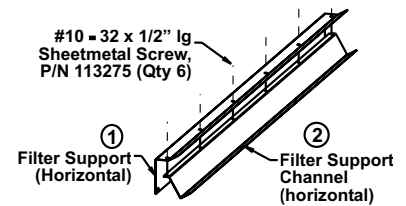


Sizes	Option CW	A	B	C	D
150 & 200	4, 5, 6, 7, 12, 11	34-11/16 (881)	32 (813)	34-3/4 (883)	18 (457)
250 & 300	4, 5, 6	34-11/16 (881)	32 (813)	34-3/4 (883)	18 (457)
	7, 12, 11	47-13/16 (1214)	45-1/8 (1143)	34-3/4 (883)	18 (457)
350 & 400	4, 5, 6, 7, 12, 11	47-13/16 (1214)	45-1/8 (1143)	34-3/4 (883)	18 (457)

STEP 1 Parts Required:

- ① 2 Filter Supports (NOTE: Refer to the illustration and select carefully as there is a filter support for the vertical (top) inlet configuration that will not be used when assembling the filter cabinet with a horizontal (rear) inlet.);
- ② 2 Filter Support Channels; 12 Screws

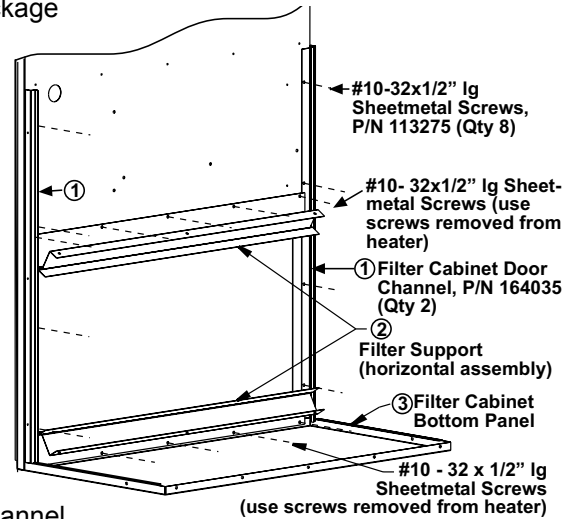
Instructions (Refer to Illustration) - Assemble a ② filter support channel and a ① filter support as illustrated. Total of two assemblies required.



STEP 2 Parts Required: ① 2 Filter Cabinet Door (or Side) Channels; ② 2 Assembled Filter Support/Channels (STEP 1); ③ 1 Filter Cabinet Bottom Panel; 8 Screws from the Package

Instructions (Refer to Illustration):

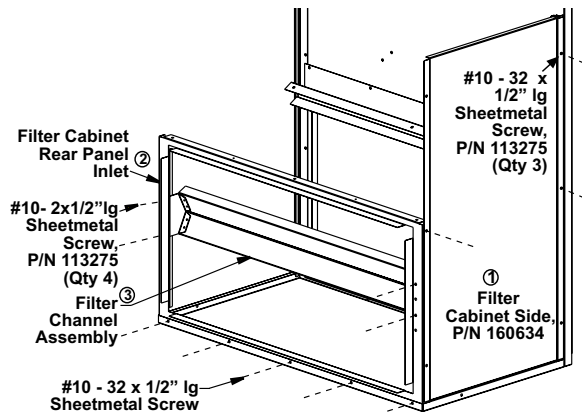
- 1) Using the "preparation" holes drilled in the heater cabinet (FIGURE 2A or 2B) and screws from the kit, attach the two ① cabinet door channels as illustrated.
- 2) Remove the screws along the bottom edge of the heater cabinet and use those screws to attach the filter cabinet pieces in the following sequence.
 - Position the ③ filter cabinet bottom panel against the heater cabinet.
 - Position one of the ② assembled filter support/channels on top of the bottom panel (channel "up" as illustrated).
 - Re-insert the screws securing both the bottom panel and the filter support/channel to the heater cabinet.
- 3) Remove the row of screws above the cutout area. Position the second ② filter support/channel assembly over the holes (channel "down" as illustrated). Re-insert the screws, securing the assembly to the heater cabinet.



STEP 3 Parts Required: ① 1 Filter Cabinet Side Panel; ② 1 Filter Cabinet Rear Inlet Panel (w/opening & duct flange); ③ 1 Filter Channel Assembly; 12 Screws from the Package

Instructions (Refer to Illustration):

- 1) One end of the filter cabinet will have an attached side panel, and the other will have a removable door panel. On the end that is selected for the permanently attached panel, use screws to secure the ① side panel to the channel (STEP 2).
- 2) Position the ② rear inlet panel; attach to the side panel and the bottom panel.
- 3) Position the ③ filter channel assembly as illustrated. Attach to the rear panel inlet.

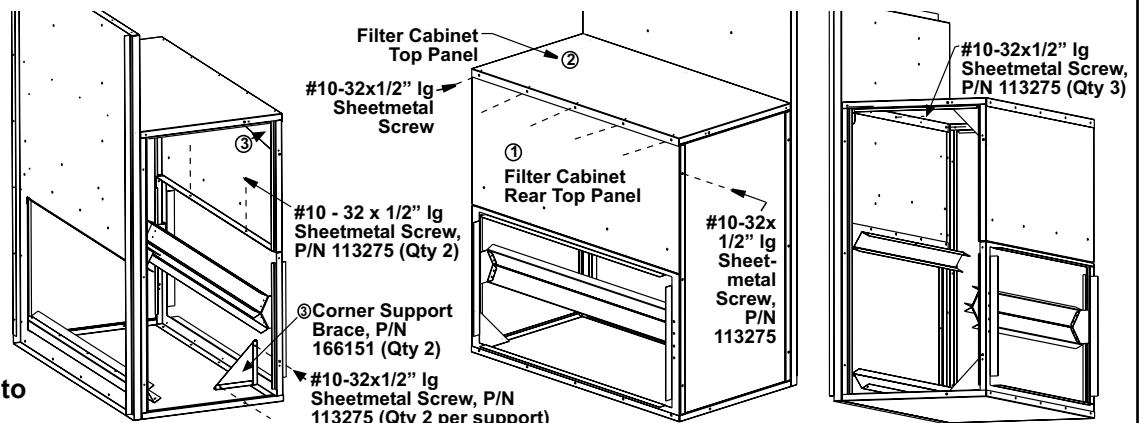


STEP 4 Parts Required:

- ① 1 Filter Cabinet Rear Top Panel
- ② 1 Filter Cabinet Top Panel
- ③ 2 Corner Support Braces 16 or 18 Screws

Instructions (Refer to the illustrations):

- 1) Position the ① rear top panel; attach to the side panel and the rear bottom inlet panel.
- 2) Position the ② top panel; attach to the rear top panel.
- 3) Reach inside the cabinet and attach the ② top panel to the heater cabinet.
- 4) To add structural support to the cabinet, position a triangular ③ support brace in the bottom outer corner on the door end of the cabinet. Fasten with two screws. Attach the other ③ corner brace in the top outer corner.



STEP 5 Horizontal Inlet - Install Filters

Parts Required: Filters (either shipped with the option package or field-supplied)

Instructions: Slide the filters into the filter rack channels.

Permanent or Pleated 2" Filters for Options CW4, CW5, or CW6				Permanent or Pleated 2" Filters for Options CW7, CW12, or CW11			
Size	CFM	FPM	Filters	Size	CFM	FPM	Filters
150	1800	281	(4) 16 x 16	150	1800	281	(4) 16 x 16
	2400	375	(4) 16 x 16		2400	375	(4) 16 x 16
	3000	469	(4) 16 x 16		3000	469	(4) 16 x 16
200	2400	375	(4) 16 x 16	200	2400	375	(4) 16 x 16
	3000	469	(4) 16 x 16		3000	469	(4) 16 x 16
250	3000	469	(4) 16 x 16	250	3000	313	(6) 16 x 16
	*4000	625	(4) 16 x 16		4000	417	(6) 16 x 16
	**5000	781	(4) 16 x 16; (4) 16 x 16		5000	521	(6) 16 x 16
300	3000	469	(4) 16 x 16	300	3000	313	(6) 16 x 16
	*4000	625	(4) 16 x 16		4000	417	(6) 16 x 16
	**5000	781	(4) 16 x 16; (4) 16 x 16		5000	521	(6) 16 x 16
					4300	448	(6) 16 x 16
350	4300	448	(6) 16 x 16	350	5000	521	(6) 16 x 16
	5000	521	(6) 16 x 16		*6000	625	(6) 16 x 16
	*6000	625	(6) 16 x 16		4300	448	(6) 16 x 16
400	4300	448	(6) 16 x 16	400	5000	521	(6) 16 x 16
	5000	521	(6) 16 x 16		*6000	625	(6) 16 x 16
	*6000	625	(6) 16 x 16				

NOTES:

* Requires 2" permanent filters.

** If installing filter cabinet that attaches to the side of the heater (Option CW 4, 5 or 6), two cabinets must be installed, one on each side.

STEP 6 Horizontal Inlet - Final Steps

Parts Required: Door Assembly

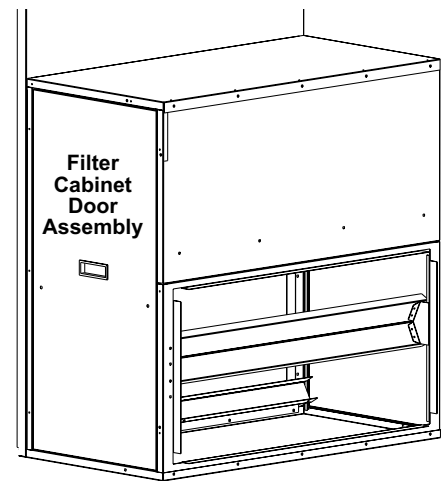
Instructions:

Install the door on the end of the filter cabinet. Fasten the latches.

Installation of the optional filter cabinet with a horizontal inlet is complete.

Duct flange dimensions for connecting ductwork are shown on page 4.

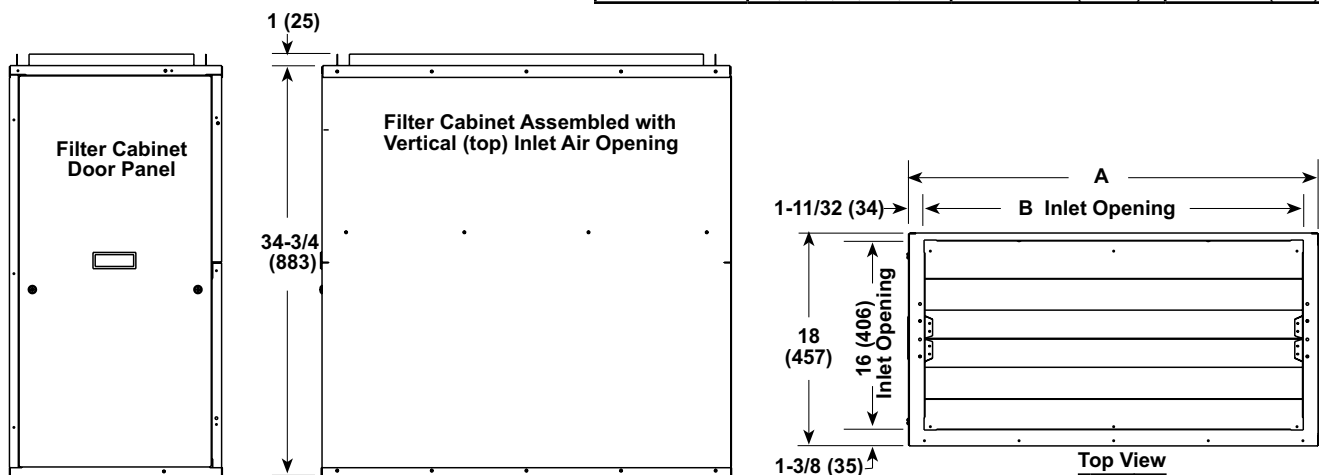
After heater installation is complete and return air ductwork is connected, turn on the electric and the gas and check for proper operation.



SECTION B - Installation Instructions for Return Air Filter Cabinet Options CW 4, 5, 6, 7, 11, and 12 with a Vertical (Top) Inlet

FIGURE 5 - Dimensions of a Filter Cabinet with a Vertical (Top) Inlet - inches (mm)

Sizes	Option CW	A	B
150 & 200	4, 5, 6, 7, 12, 11	34-11/16 (881)	32 (813)
250 & 300	4, 5, 6	34-11/16 (881)	32 (813)
	7, 12, 11	47-13/16 (1214)	45-1/8 (116)
350 & 400	4, 5, 6, 7, 12, 11	47-13/16 (1214)	45-1/8 (116)

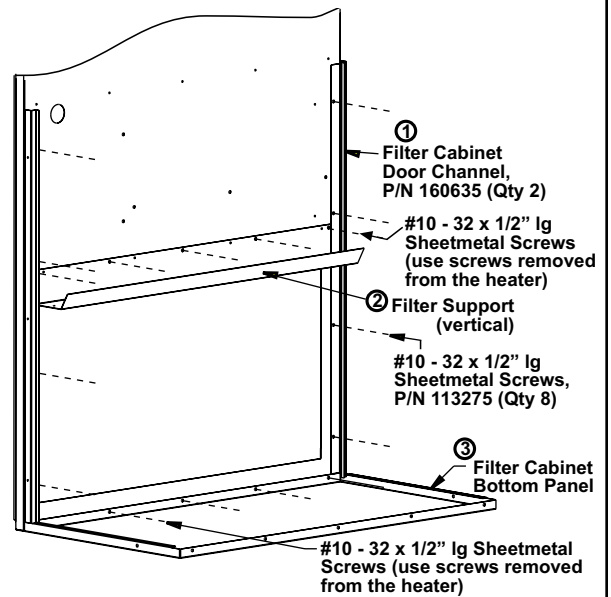


STEP 1 Parts Required:

- ① 2 Filter Cabinet Door (or Side) Channels
 - ② 1 Filter Support (NOTE: Refer to the illustration and select carefully as there is a filter support and a filter channel for the horizontal (rear) inlet configuration that will not be used when assembling the filter cabinet with a vertical (top) inlet.)
 - ③ 1 Filter Cabinet Bottom Panel
- 8 Screws from the Package

Instructions (Refer to Illustration):

- 1) Using the "preparation" holes drilled in the heater cabinet (FIGURE 2A or 2B) and screws from the kit, attach the two ① cabinet door channels as illustrated.
- 2) Remove the row of screws above the cutout area. Position the ② filter support over the holes (as illustrated). Re-insert the screws, securing the filter support to the heater cabinet.
- 3) Remove the screws along the bottom edge of the heater cabinet. Position the ③ filter cabinet bottom panel against the heater cabinet. Re-insert the screws attaching the filter cabinet bottom to the heater cabinet.

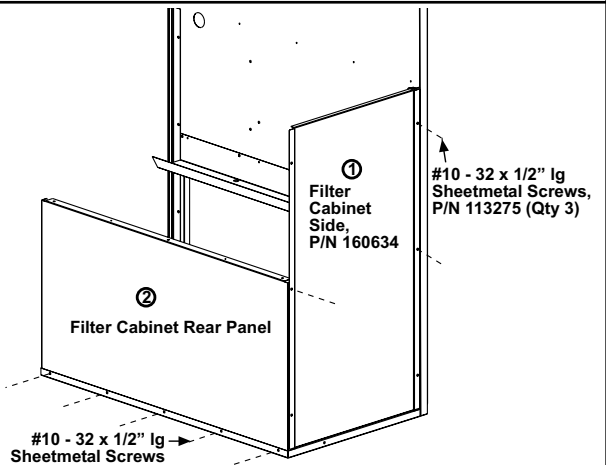


STEP 2 Parts Required:

- ① 1 Filter Cabinet Side Panel
 - ② 1 Filter Cabinet Bottom Rear Panel
- 8 or 9 Screws from the Package

Instructions (Refer to Illustration):

- 1) One end of the filter cabinet will have an attached side panel, and the other will have a removable door panel. On the end that is selected for the permanently attached panel, use screws to secure the ① side panel to the channel attached in STEP 1.
- 2) Position the ② bottom rear panel; attach to the side panel and the bottom panel.

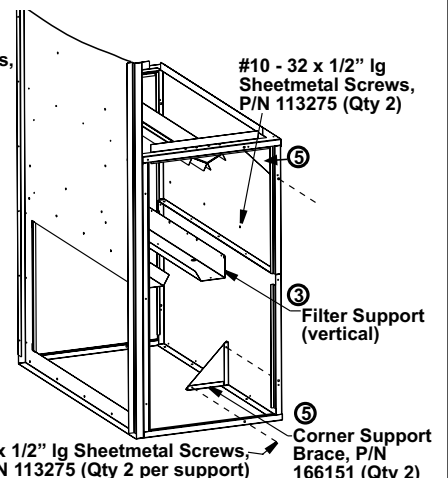
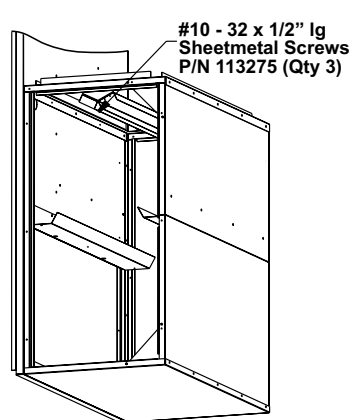
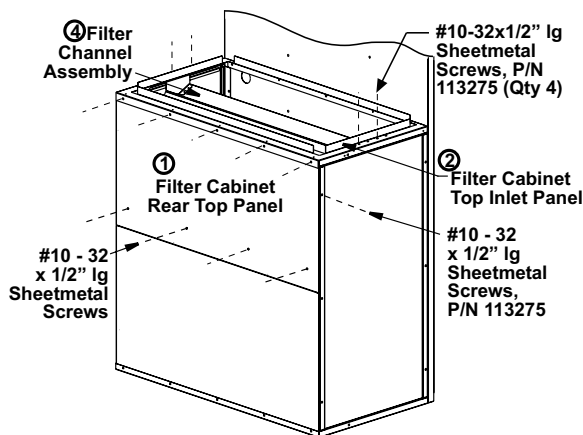


STEP 3 Parts Required:

- ① 1 Filter Cabinet Rear Top Panel
 - ② 1 Filter Cabinet Top Inlet Panel (with duct flange)
 - ③ 1 Filter Support
 - ④ 1 Filter Channel Assy
 - ⑤ 2 Corner Support Braces
- 22 or 24 Screws from the Pkg

Instructions (Refer to the illustrations):

- 1) Position the ① rear top panel; attach to the side panel and the rear bottom panel.
- 2) Position the ② top inlet panel; attach to the rear top panel.
- 3) Reach inside the cabinet and attach the ② top inlet panel to the heater.
- 4) Position the ③ filter support against the rear panel as illustrated. Attach with screws.
- 5) Position the ④ filter channel assembly across the inlet opening and attach with screws.
- 6) To add structural support to the cabinet, position a triangular ⑤ corner support brace in the bottom outer corner on the door end of the cabinet. Fasten with two screws. Position and attach the other ⑤ corner support brace in the top outer corner.



STEP 4 Horizontal Inlet - Install Filters

Parts Required: Filters (either shipped with the option package or field-supplied)

Instructions: Slide the filters into the filter rack channels.

Permanent or Pleated 2" Filters for Options CW4, CW5, or CW6			
Size	CFM	FPM	Filters
150	1800	281	(4) 16 x 16
	2400	375	(4) 16 x 16
	3000	469	(4) 16 x 16
200	2400	375	(4) 16 x 16
	3000	469	(4) 16 x 16
250	3000	469	(4) 16 x 16
	*4000	625	(4) 16 x 16
	**5000	781	(4) 16 x 16; (4) 16 x 16
300	3000	469	(4) 16 x 16
	*4000	625	(4) 16 x 16
	**5000	781	(4) 16 x 16; (4) 16 x 16
350	4300	448	(6) 16 x 16
	5000	521	(6) 16 x 16
	*6000	625	(6) 16 x 16
400	4300	448	(6) 16 x 16
	5000	521	(6) 16 x 16
	*6000	625	(6) 16 x 16

Permanent or Pleated 2" Filters for Options CW7, CW12, or CW11			
Size	CFM	FPM	Filters
150	1800	281	(4) 16 x 16
	2400	375	(4) 16 x 16
	3000	469	(4) 16 x 16
200	2400	375	(4) 16 x 16
	3000	469	(4) 16 x 16
	3000	313	(6) 16 x 16
250	4000	417	(6) 16 x 16
	5000	521	(6) 16 x 16
	3000	313	(6) 16 x 16
300	4000	417	(6) 16 x 16
	5000	521	(6) 16 x 16
	4300	448	(6) 16 x 16
350	5000	521	(6) 16 x 16
	*6000	625	(6) 16 x 16
	4300	448	(6) 16 x 16
400	5000	521	(6) 16 x 16
	*6000	625	(6) 16 x 16

NOTES:

* Application requires 2" permanent filters; do not use pleated filters.

** If installing filter cabinet that attaches to the side of the heater (Option CW 4, 5, or 6), two cabinets must be installed, one on each side.

STEP 5 Vertical (Top) Inlet - Final Steps

Parts Required: Door Assembly

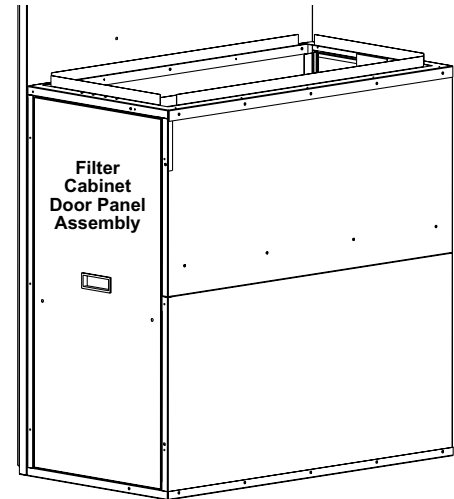
Instructions:

Install the door on the end of the filter cabinet. Fasten the latches.

Installation of the optional filter cabinet with a vertical (top) inlet is complete.

Duct flange dimensions for connecting ductwork are shown on page 6.

After heater installation is complete and return air ductwork is connected, turn on the electric and the gas and check for proper operation.



SMALL RETURN AIR FILTER CABINET FOR ATTACHING TO REAR OR SIDE OF MODEL CAUA 150 OR 200 - OPTIONS CW 8, 9, 10

Components - Options CW 8, 9, 10

Rear and **side** filter cabinets, Options CW 8, 9, and 10, are shipped separately for field assembly and installation. (The cabinets are assembled as they are installed.) The table on the right lists the Package P/N's and the components in each package by package P/N and by Model Size. Before beginning installation, verify that all parts are available at the job site.

Filter Cabinet Components by Option Package - CW Options that attach to rear or side		
	For Model CAUA	Sizes 150 and 200
	Option CW8 (with 2" pleated filters) - Pkg P/N	166159
	Option CW9 (with 2" permanent filters) - Pkg P/N	166160
	Option CW10 (for field-supplied 2" filters) - Pkg P/N	166161
Component Description	Filter cabinet attaches to side or rear of heater with horizontal (rear) inlet only	
	Qty	P/N
Bottom Panel	1	164537
Side Panel	1	164536
Rear or Top Inlet Panel (w/duct flange)	1	164533
Top Panel or Bottom Rear Panel	1	164537
Door Panel Assembly	1	166148
Door Channel	1	164535
Filter Support	2	164704
Filter Support Channel	2	164532
Filter Channel Assembly	1	166147
Sheetmetal Screws #10-32 x 1/2" long	20	113275
2" Permanent Filters * in Option CW9	4	114325
2" Pleated Filters * in Option CW8	2	114324

*See Step 5, page 11 for filter dimensions.

Installation Preparation - Options CW 8, 9, and 10

FIRST, verify that the kit received is the appropriate one for the installation. Check the heater size and the CFM.

SECOND, where the filter cabinet is going to be attached to the heater, find four embosses in the metal panel. For **rear** attachment, **see FIGURE 6B**; for **side** attachment, **see FIGURE 6A**. These embosses are corner indicators for the inlet air opening. Using tin snips or aviation shears, carefully cut straight lines between the corner marks until the opening is created.

CAUTION: The cut edges of the metal cabinet will be sharp.

THIRD, refer to the illustration in **FIGURE 7**. Drill the required 1/8" holes in the side or rear of the heater cabinet where the filter cabinet is being installed.

FIGURE 6A - Heater Inlet Air Opening Dimensions for installing Side Filter Cabinet, Option CW8 CW9, or CW10

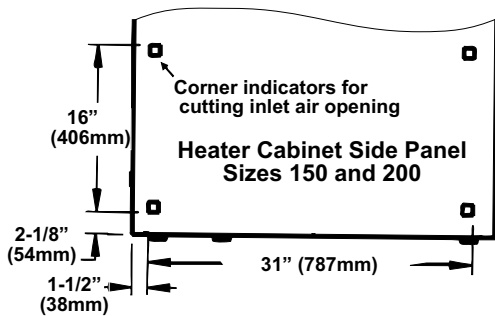


FIGURE 6B - Heater Inlet Air Opening Dimensions for installing Rear Filter Cabinet, Option CW8, CW9, or CW10

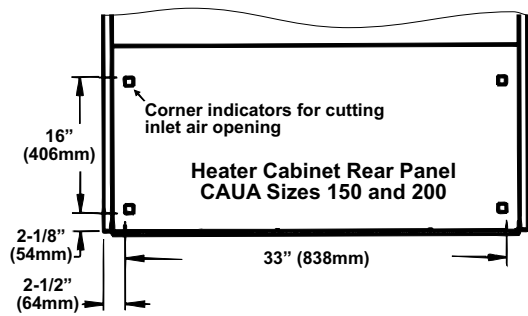
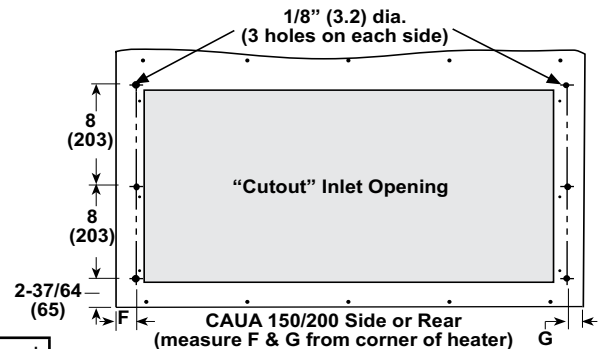


FIGURE 7 - Reference Drawing - inches (mm) for Drilling 1/8" Holes in the REAR or SIDE of a Model CAUA Size 150 or 200 when Installing an Option CW 8, 9, or 10 Filter Cabinet

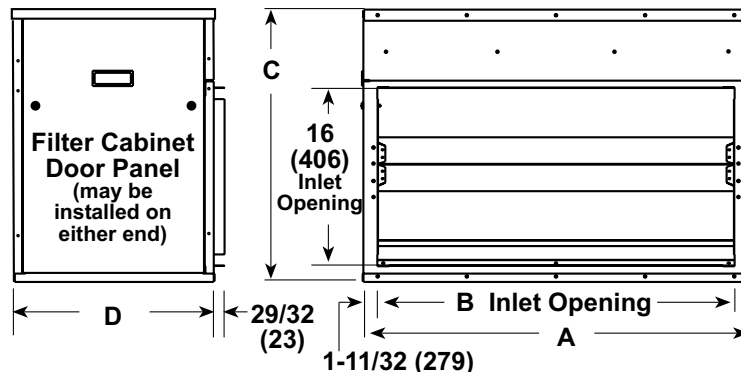
One end of the filter cabinet will have an attached panel, and the other will have a removable door panel for accessing filters. On the end that is selected for the door panel, use dimension "F" to drill holes. On the end that will have the attached panel, use dimension "G" to drill holes.



Sizes 150 & 200	F (use for "door" end)	G (use for "attached panel" end)
Side Panel	1-13/16 (46)	1-11/32 (34)
Rear Panel	2-15/32 (63)	2 (51)

Installation Instructions - Option CW 8, 9, or 10, Filter Cabinet for CAUA 150 and 200

FIGURE 8 - Dimensions - inches (mm) - of a Return Air Filter Cabinet with a Horizontal (rear) Inlet only - Options CW 8, 9, 10



Sizes	Option		A	B	C	D
150 and 200	CW 8, 9, and 10	inches	34-11/16	32	21-5/32	12-1/2
		mm	(881)	(813)	(537)	(318)

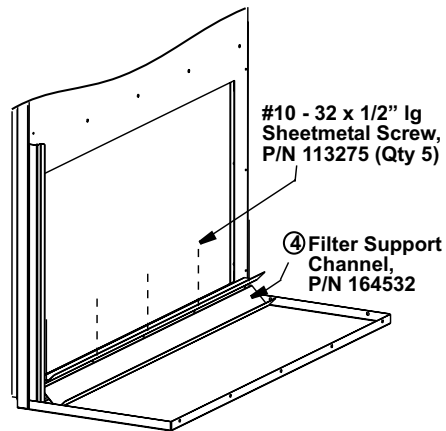
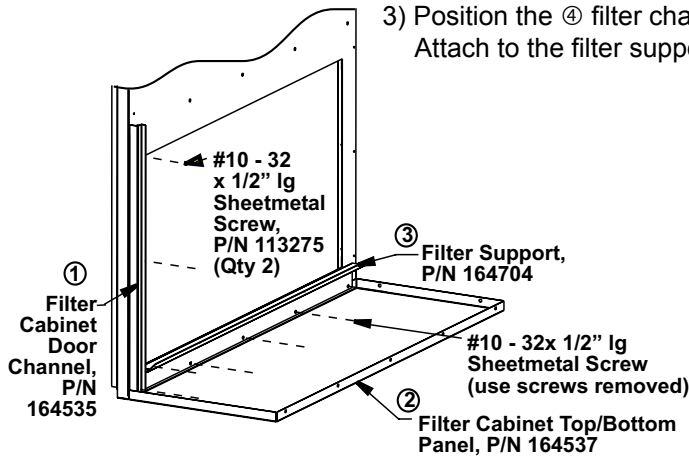
STEPS 1 and 2 Parts

Required:

- ① 1 Filter Cabinet Door Channel
 - ② 1 Filter Cabinet Bottom/Top Panel
 - ③ 1 Filter Support
 - ④ 1 Filter Support Channel
- 7 Screws from the Pkg

Instructions (Refer to Illustration):

- 1) One end of the filter cabinet will have an attached side panel, and the other will have a removable door panel. On the end that is selected for the door panel, use the "preparation" holes (located using dimension "F" in **FIGURE 7**) drilled in the heater cabinet and screws from the kit to attach the ① filter cabinet door channel.
- 2) Remove the screws along the bottom edge of the heater cabinet and use those screws to attach the filter cabinet pieces in the following sequence.
 - Position the ② filter cabinet bottom panel against the heater cabinet.
 - Position a ③ filter support on top of the bottom panel (as illustrated).
 - Re-insert the screws securing both the bottom panel and the filter support to the heater cabinet.
- 3) Position the ④ filter channel on the filter support (channel "up" as illustrated). Attach to the filter support.

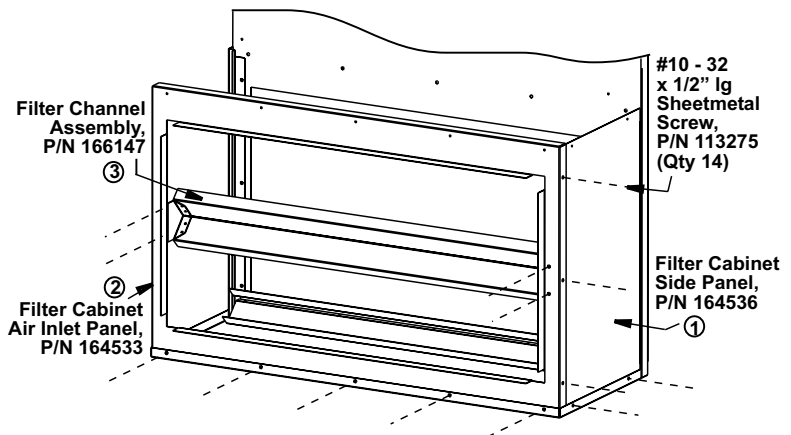


STEP 3 Parts Required:

- ① 1 Filter Cabinet Side; ② 1 Filter Cabinet Rear Inlet Panel (with opening and duct flange); ③ 1 Filter Channel Assembly; 13 Screws from the Pkg

Instructions (Refer to Illustration):

- 1) On the side of the cabinet without the door channel (STEP 1), position and attach the ① filter cabinet side panel.
- 2) Position the ② rear inlet panel; attach to the side panel and the bottom panel.
- 3) Position the ③ filter channel assembly as illustrated. Attach to the rear panel inlet.

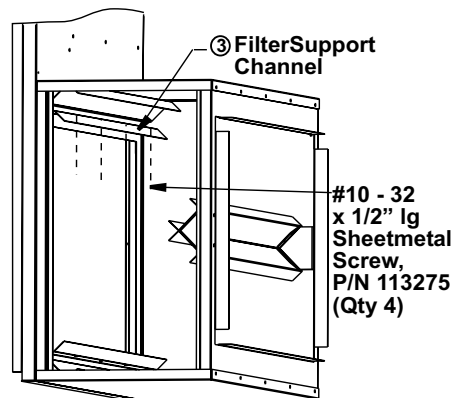
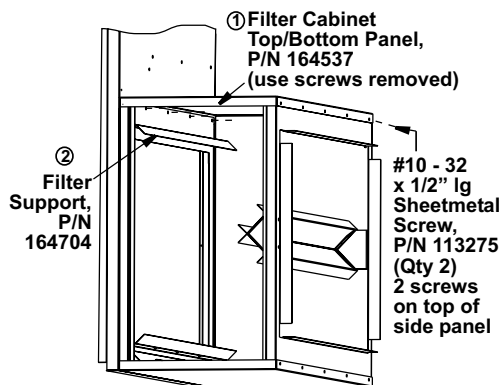


STEP 4 Parts Required:

- ① 1 Filter Cabinet Bottom/Top Panel
 - ③ 1 Filter Support Channel
 - ② 1 Filter Support
- 11 Screws from the Package

Instructions (Refer to Illustration):

- 1) Remove the row of screws above the cutout area. Position the ① top panel on the filter cabinet; position the ② filter support on top of the edge of the top panel; and re-insert the screws to attach both the top panel and the filter support to the heater. Use screws from the kit to attach the top panel to the rear inlet panel.



- 2) Position the ③ filter channel on the support (channel "down" as illustrated). Attach the channel to the support.

STEP 5 Install Filters

Parts Required:

Filters (either shipped with the option package or field-supplied)

Instructions:

Slide the filters into the filter rack channels.

Sizes of Permanent or Pleated 2" Filters for Options CW8, CW9, CW10				
Size	CFM	FPM	2" Filters	
			Pleated	Permanent
150	1800	375	(2) 12 x 32	(4) 12 x 16
	2400	500	(2) 12 x 32	(4) 12 x 16
	*3000	625	--	(4) 12 x 16
200	2400	500	(2) 12 x 32	(4) 12 x 16
	*3000	625	--	(4) 12 x 16

*Application requires 2" permanent filters; do not use pleated filters.

STEP 6 Final Steps

Parts Required:

Door Assembly

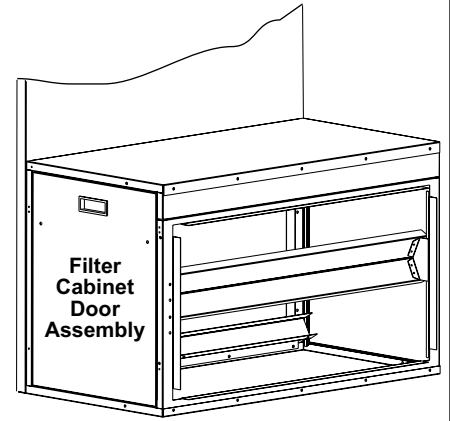
Instructions:

Install the door on the end of the filter cabinet.

Installation is complete.

Duct flange dimensions for connecting ductwork are shown on page 9.

After heater installation is complete and return air ductwork is connected, turn on the electric and the gas and check for proper operation.



BOTTOM RETURN AIR FILTER CABINET OPTIONS CW 13, 14, 15, AND 16

Components - Options CW 13, 14, 15, and 16

Bottom filter cabinets with bottom duct openings, Options CW 13, 14, 15, and 16 are shipped factory assembled. Package P/N by Option and Model Size are listed below.

Model CAUA Size	150 and 200	250 and 300	350 and 400
Option CW13 , Bottom filter cabinet with 2" disposable filters	195165	195166	195167
Option CW14 , Bottom filter cabinet with 2" pleated filters	195154	195155	195156
Option CW15 , Bottom filter cabinet with 2" permanent filters	195157	195158	195159
Option CW16 , Bottom filter cabinet with filter racks for field-supplied 2" filters	195160	195161	195162
<i>Filter P/N's and sizes:</i>			
Filters in Option CW13, 16 x 16 x 2 disposable filters	(6) 104101	(8) 104101	(12) 104101
Filters in Option CW14, 16 x 16 x 2 pleated disposable filters	(6) 104109	(8) 104109	(12) 104109
Filters in Option CW15, 16 x 16 x 2 permanent aluminum filters	(6) 104103	(8) 104103	(12) 104103

Installation Preparation - Options CW 13, 14, 15, and 16

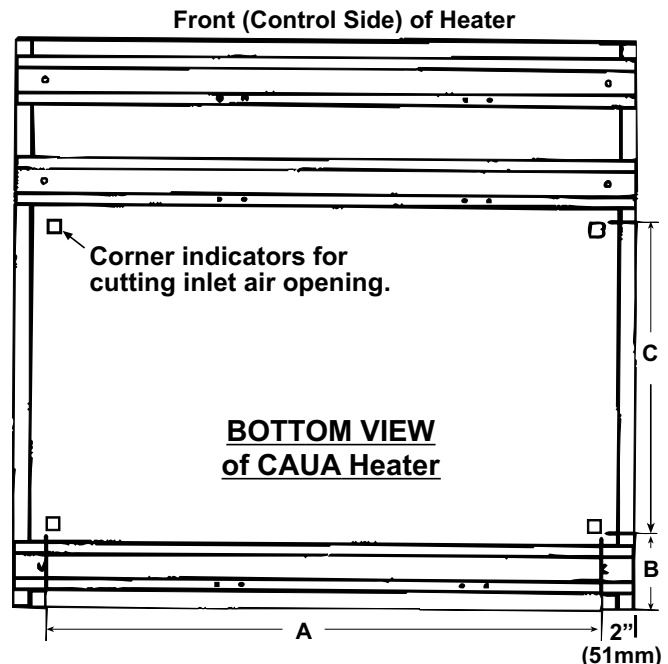
FIGURE 9 - Heater Inlet Air Opening Dimensions for installing *Bottom* Filter Cabinet, Option CW13, CW14, CW15, or CW16

CAUTION: The cut edges of the metal cabinet will be sharp.

Special instructions for bottom filter cabinet -
When cutting the opening in the bottom of the Model CAUA, the unit will have to be tipped. Provide adequate support for the unit during this process. If the installation includes an optional cooling coil and/or a discharge plenum, cut inlet air opening before adding these accessories.

WARNING: When cutting the inlet air opening in the bottom of a Model CAUA, provide adequate support for the unit.

Sizes	150, 200	250, 300	350, 400
A	34" (864mm)	46" (1168mm)	46" (1168mm)
B	4-5/8" (117mm)	4-3/4" (121mm)	4-7/8" (124mm)
C	19" (483mm)	16" (406mm)	32" (813mm)



**Installation
Instructions -
Options CW 13, 14,
15, and 16**

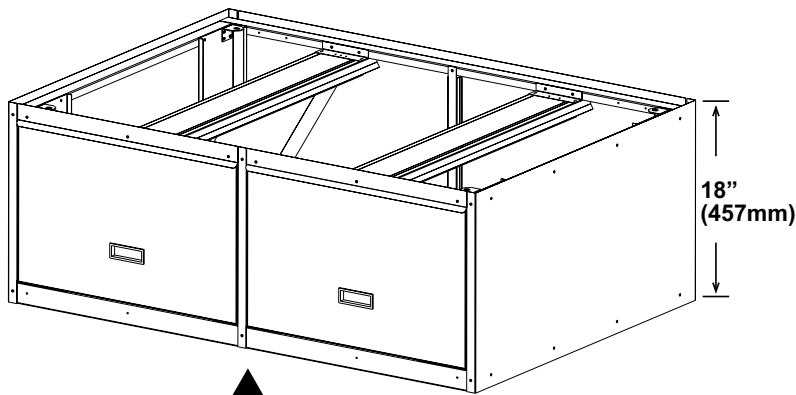
Option CW 13, 14, 15, and 16 return air filter cabinets are shipped factory assembled. Position the filter cabinet in its final location being careful to allow sufficient clearance on the filter access side. **After the filter cabinet is secure**, set the Model CAUA on the filter cabinet. (**NOTE:** Be sure hole has been cut in bottom of CAUA before placing it on the filter cabinet; see Installation Preparation on page 11.) The filter cabinet is designed so that there is no mechanical attachment required between the filter cabinet and the heater.

Attach return air duct to the duct flange on the bottom of the filter cabinet; see dimensions in **FIGURE 10**. This completes installation of a bottom filter cabinet.

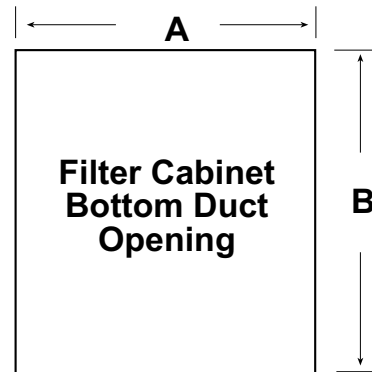
Sizes of field-supplied or replacement filters are listed in the component table on page 11.

After heater installation is complete, turn on the electric and the gas and check for proper operation.

FIGURE 10 - Bottom Filter Cabinet with Bottom Duct Connection, Options CW13, CW14, CW15, and CW16, supports the heater providing a filtered path for vertical return air.



Return air enters through the bottom of the filter cabinet. See duct opening dimensions on right. Cabinet may be placed with filter access doors on either front or rear of heater.



Front of Heater

Size	A		B	
	inches	mm	inches	mm
150	25-1/2	648	32	813
200	25-1/2	648	32	813
250	37-1/2	953	32	813
300	37-1/2	953	32	813
350	37-1/2	953	46	1168
400	37-1/2	953	46	1168

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