Technical Specifications

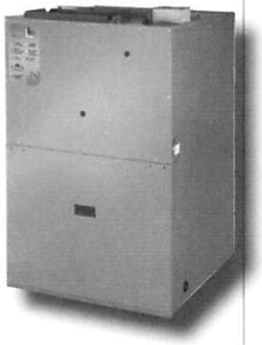
CERTIFIED TO CAN/CSA C22.2 No. 60335-2-40:22 / UL 60335-2-40, CSA/ANSI Z21.47, CAN/CSA 2.3, AND CAN/CGA STD. 2.17

P-C SERIES
11.7SEER2
Condensing Gas Heat / Electric Cooling

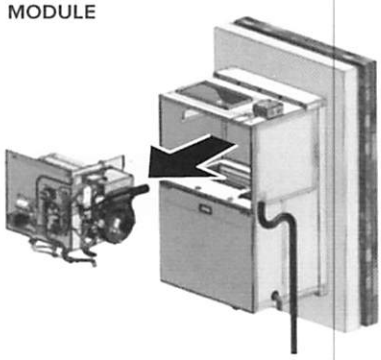
Self contained, high efficiency
Thru-The-Wall heating & cooling unit

Up to 96.8% AFUE | Input 15 000 - 50 000 BTU/h

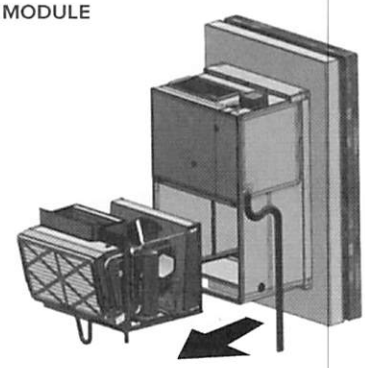
FEATURES



HEATING MODULE



COOLING MODULE



COMPATIBLE BOX SIZE

- Industry standard footprint for retrofit applications.
- Appliance shell dimensions: 43 1/8" High x 28" Wide x 32" Deep.
- Wall Sleeve dimensions where penetrating exterior wall: 44 7/8" High x 28 7/8" Wide.
- Standard TAUPE color.

HEATING FEATURES

- Up to 96.8% AFUE, Condensing, Single Stage Gas Furnace.
- Sealed burner tray – keeps cold external air from circulating in vestibule.
- Clear front manifold condensate cover for easy inspection and service troubleshooting.
- Stainless steel heat exchanger.

CIRCULATION BLOWER

- Dual Inlet Blower for higher flow rates / reduced air noise.
- Multi-Speed Electronically Commutated Motor for increased electrical efficiency.
- Supplied with standard size 16"x25"x1" MERV8 non-washable pleated air filter.

COOLING FEATURES

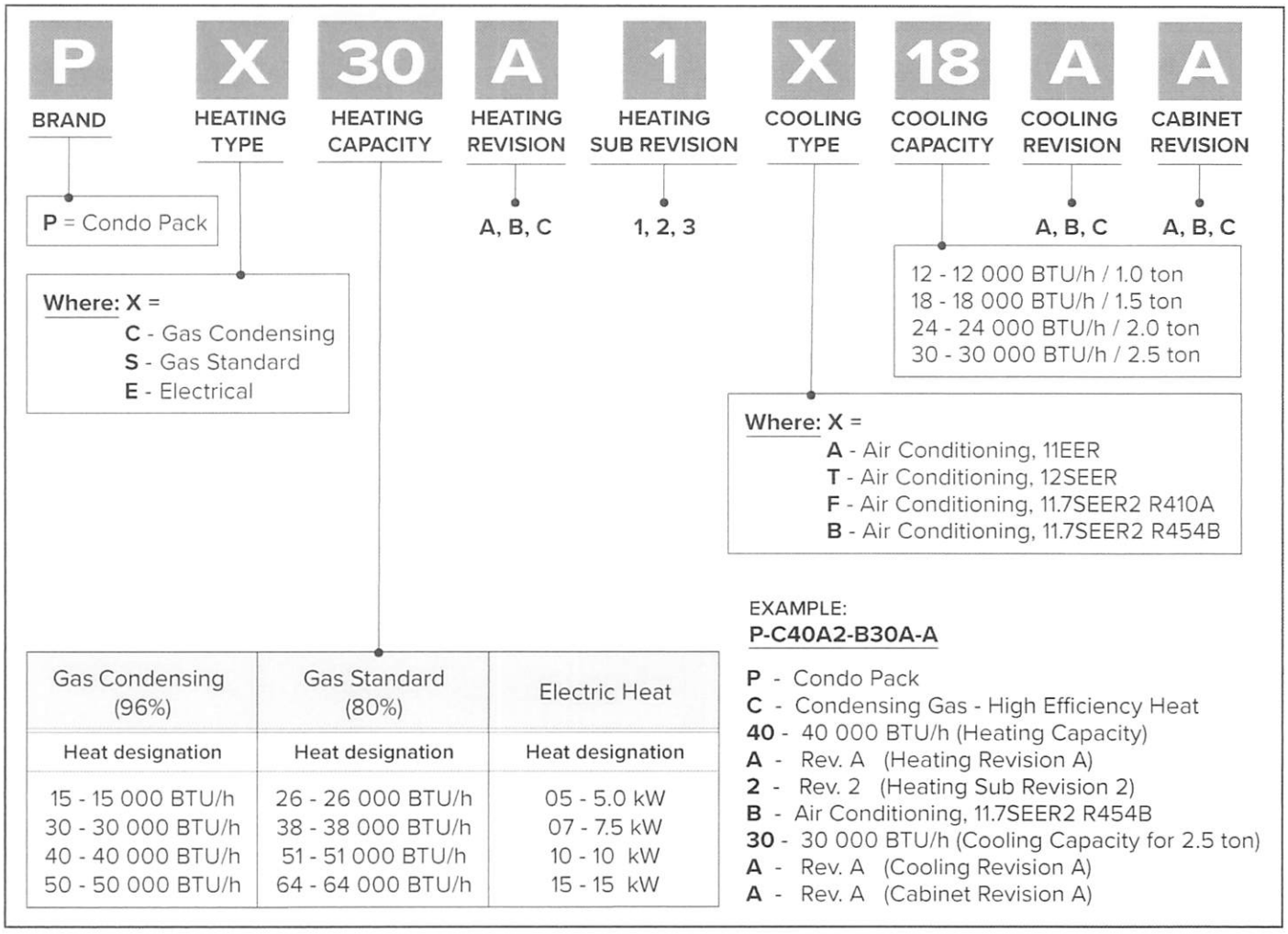
- Minimum 11.7SEER2 Efficiency.
- R454B Refrigerant System.
- All models installed with TXV, which ensures optimized efficiency.
- Micro-Channel Condenser and Evaporator Coils.
- High Efficiency compressors for all AC modules.
- B30A uses Two Stage compressor*
- One Piece motorized Condenser Fan design.

SERVICE ADVANTAGES

- Indoor access to all parts & maintenance needs.
- Innovative, dual slide-out chassis can be partially or fully removed for efficient servicing **("BXXA" cooling chassis only be swapped in "BXXA" cooling cabinets)**.
- Can perform direct replacement of the individual modules at the end of their service life instead of replacement of the complete appliance.
- All control harnesses are separated with modular quick disconnects so module swap outs do not require time consuming rewiring.
- With spare modules, building management can perform quick swap outs, maintaining indoor conditions in the apartment/condo, while troubleshooting non functioning units off line.

***Note:** To take full advantage of Two stage cooling for B30A module, a 2 stage thermostat is recommended.

NOMENCLATURE



Gas Condensing (96%)	Gas Standard (80%)	Electric Heat
Heat designation	Heat designation	Heat designation
15 - 15 000 BTU/h	26 - 26 000 BTU/h	05 - 5.0 kW
30 - 30 000 BTU/h	38 - 38 000 BTU/h	07 - 7.5 kW
40 - 40 000 BTU/h	51 - 51 000 BTU/h	10 - 10 kW
50 - 50 000 BTU/h	64 - 64 000 BTU/h	15 - 15 kW

EXAMPLE:

P-C40A2-B30A-A

P - Condo Pack
C - Condensing Gas - High Efficiency Heat
40 - 40 000 BTU/h (Heating Capacity)
A - Rev. A (Heating Revision A)
2 - Rev. 2 (Heating Sub Revision 2)
B - Air Conditioning, 11.7SEER2 R454B
30 - 30 000 BTU/h (Cooling Capacity for 2.5 ton)
A - Rev. A (Cooling Revision A)
A - Rev. A (Cabinet Revision A)

PERFORMANCE

TABLE 1.

HEATING	P-C15A1-B12A-A	P-C30A1-B12A-A	P-C30A1-B18A-A	P-C30A1-B24A-A
AFUE	96.80%	93%		
Input BTU/h	15,000	30,000		
Output BTU/h (AFUE)	14,500	28,000		
COOLING				
BTU/h	12,300		17,000	21,200
SEER2	11.70			
REF.	R454B			
WEIGHT (LB)	328		349	

HEATING	P-C40A1-B18A-A	P-C40A1-B24A-A	P-C40A2-B30A-A	P-C50A1-B18A-A	P-C50A1-B24A-A	P-C50A2-B30A-A
AFUE	91.7%			90.6%		
Input BTU/h	40,000			50,000		
Output BTU/h (AFUE)	37,000			45,300		
COOLING						
BTU/h	17000	21,200	26,400	17,000	21,200	26,400
SEER2	11.70					
REF.	R454B					
WEIGHT (LB)	349		366	349		366

ELECTRICAL

TABLE 2.

DESCRIPTION	1.0 TON B12A	1.5 TON B18A	2.0 TON B24A	2.5 TON B30A
Compressor Type	Rotary			Scroll
Compressor Rated Amps	5.2	7.7	9.5	14.6
Compressor LRA	31.4	42.9	51.7	82
MCA	11.3	14.9	17.1	23.6
Max Fuse/Breaker (A)	15	20	25	35
Indoor Fan FLA/HP/RPM	4.0/ 1/2 /1050			
Condenser Fan FLA/HP/RPM	0.9/ 1/4 /1100	1.3/ 1/3 /1120**	1.3/ 1/3 /1380**	1.4/ 1/3 /1400
Combustion Fan FLA	1.25			
Unit Input Voltage - Frequency - Phase	208/230V-60Hz-1PH			

GAS CONTROLS AND ADDITIONAL DATA		
IGNITION SYSTEM	SPARK IGNITION	
GAS CONNECTION	1/2" NPT	
GAS & AC CONDENSATE HOSE SIZE (Supplied)	1/2" ID and 5/8" ID	5/8"ID

** 1.5 ton & 2.0 ton models have two speed condenser fan motors: Speed 1 is for 1.5 ton & Speed 2 is for 2.0 ton.

*All specifications and designs can change without notice to allow for on-going improvements. Images may not be exactly as shown. Consult with your owner's manual for current information. Check all local and national building codes and gas regulations. Napoleon® is a registered trade mark of Wolf Steel Ltd.

AIR FLOW

TABLE 3.

Model	Heating/ Cooling	Actual Wire Colour	Setting	Speed Tap #	SCFM at External Static Pressure (in.WC)				
					0.1"	0.2"	0.3"	0.4"	0.5"
P-C15A1-B12A-A	C15A1	Red Wire	Factory	5	348	295	247	201	176
			High	4	468	422	382	338	298
	G-Continuous Fan	Black Wire	-	5	348	295	247	201	176
	B12A	Blue Wire	Factory	1	485	449	410	376	341
			High	3	614	584	551	521	490
P-C30A1-B12A-A	C30A1	Red Wire	Factory	4	456	415	378	336	299
			High	3	661	631	598	568	537
	G-Continuous Fan	Black Wire	-	5	348	295	247	201	176
	B12A	Blue Wire	Factory	1	485	449	410	376	341
			High	3	614	584	551	521	490
P-C30A1-B18A-A	C30A1	Red Wire	Factory	4	456	415	378	336	299
			High	3	661	631	598	568	537
	G-Continuous Fan	Black Wire	-	5	348	295	247	201	176
	B18A	Blue Wire	Factory	1	670	641	610	580	551
			High	2	707	680	651	621	592
P-C30A1-B24A-A	C30A1	Red Wire	Factory	4	456	415	378	336	299
			High	3	661	631	598	568	537
	G-Continuous Fan	Black Wire	-	5	348	295	247	201	176
	B24A	Blue Wire	Factory	1	831	806	780	754	728
			High	(1&4)*	993	972	948	926	903
P-C40A1-B18A-A	C40A1	Red Wire	Factory	3	663	631	598	566	536
			High	2	755	727	698	668	639
	G-Continuous Fan	Black Wire	-	5	348	295	247	201	176
	B18A	Blue Wire	Factory	1	670	641	610	580	551
			High	2	707	680	651	621	592
P-C40A1-B24A-A	C40A1	Red Wire	Factory	3	663	631	598	566	536
			High	2	755	727	698	668	639
	G-Continuous Fan	Black Wire	-	5	348	295	247	201	176
	B24A	Blue Wire	Factory	1	831	806	780	754	728
			High	(1&4)*	993	972	948	926	903
P-C40A2-B30A-A	C40A2	Red Wire	Factory	3	663	631	598	566	536
			High	2	755	727	698	668	639
	G-Continuous Fan	Black Wire	-	5	348	295	247	201	176
	B30A	Blue w / White	Low Stage-Factory	1	537	504	468	428	382
			Low Stage-High	2	755	727	698	668	639
		Blue Wire	High Stage Factory	3	954	932	910	887	867
			High Stage-High	(1&4)*	993	972	948	926	903
P-C50A1-B18A-A	C50A1	Red Wire	Factory	2	787	756	727	690	656
	G-Continuous Fan	Black Wire	-	5	348	295	247	201	176
	B18A	Blue Wire	Factory	1	670	641	610	580	551
			High	2	707	680	651	621	592

AIR FLOW

TABLE 3. *cont*

Model	Heating/ Cooling	Actual Wire Colour	Setting	Speed Tap #	SCFM at External Static Pressure (in.WC)				
					0.1"	0.2"	0.3"	0.4"	0.5"
P-C50A1-B24A-A	C50A1	Red Wire	Factory	2	787	756	727	690	656
	G-Continuous Fan	Black Wire	-	5	348	295	247	201	176
	B24A	Blue Wire	Factory	1	831	806	780	754	728
			High	(1&4)*	993	972	948	926	903
P-C50A2-B30A-A	C50A2	Red Wire	Factory	2	787	756	727	690	656
	G-Continuous Fan	Black Wire	-	5	348	295	247	201	176
	B30A	Blue w / White	Low Stage-Factory	1	537	504	468	428	382
			Low Stage-High	2	755	727	698	668	639
		Blue Wire	High Stage-Factory	3	954	932	910	887	867
			High Stage-High	(1&4)*	993	972	948	926	903

* ***IMPORTANT***: When using the B24A & B30A high tap, connect the Blue Wire to both taps (1&4).

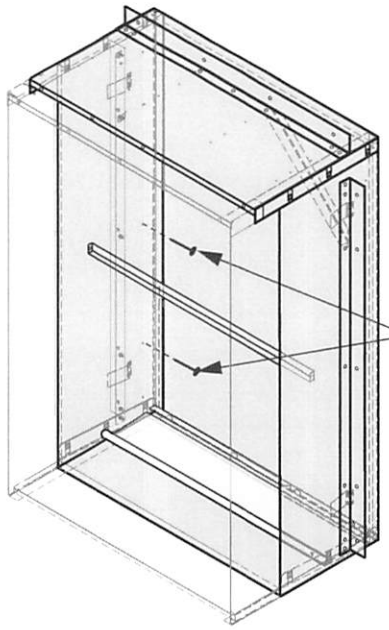
Speed taps must be connected as per Actual wire indicated above to perform the required function.

WALL SLEEVE DIMENSIONS

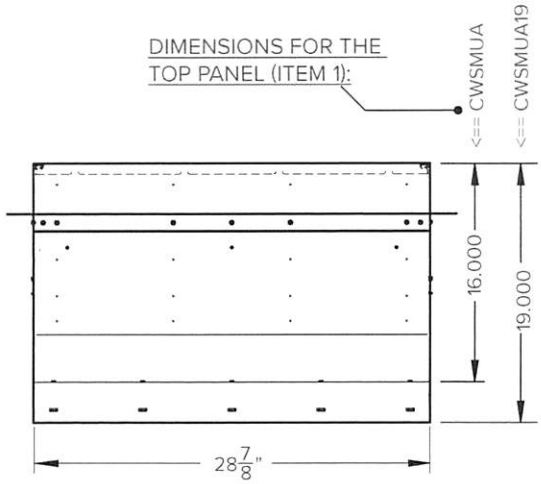
TWO DIFFERENT WALL SLEEVE MODELS ARE DEPICTED BELOW:

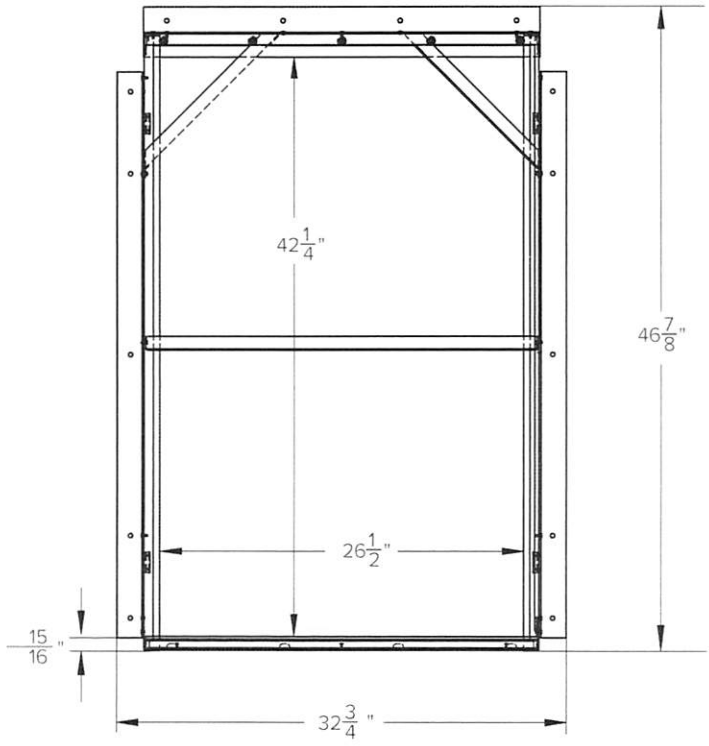
NOTE:
TO IMPROVE RIGIDITY AND REDUCTION IN VIBRATION WALL MOUNTING BRACKETS CAN BE USED TO AFFIX WALL SLEEVE TO BUILDING SUB STRUCTURE FROM INSIDE OR OUTSIDE OF THE BUILDING. ENGINEER/ARCHITECT TO CONSULT WITH CUSTOMER SOLUTIONS IF CLARIFICATION IS REQUIRED TO DETERMINE BRACKET LOCATION FOR SETTING THE DESIRED DEPTH OF WALL SLEEVE INTO WALL.

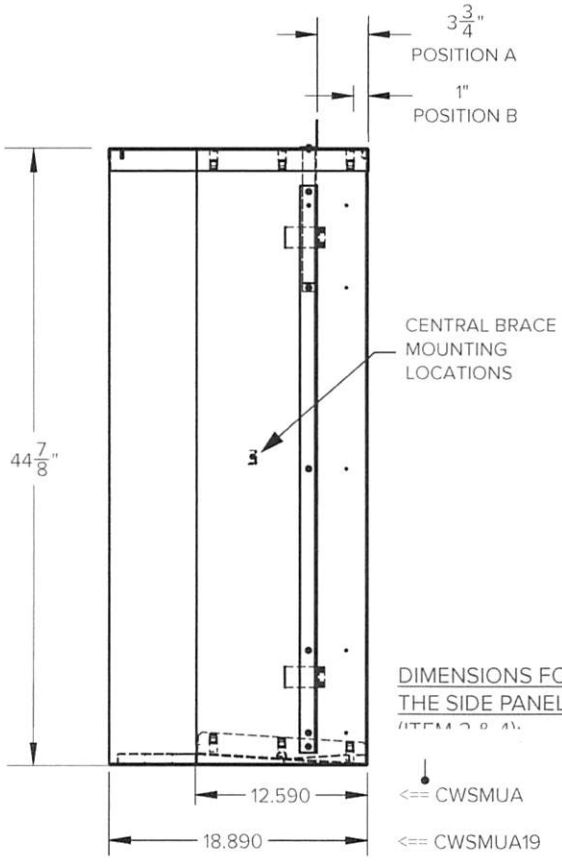
- CWSMUA
- CWSMUA19



DIMENSIONS FOR THE TOP PANEL (ITEM 1):





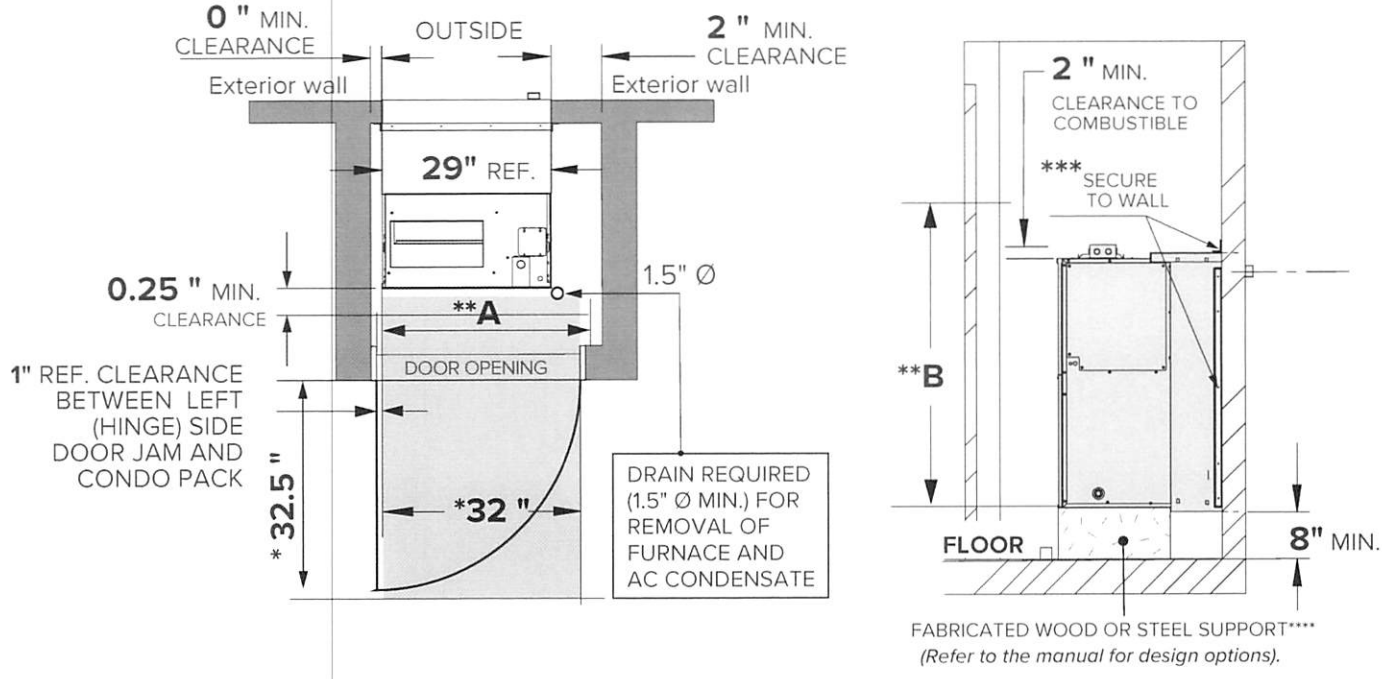


DIMENSIONS FOR THE SIDE PANELS (ITEM 2 & 4):

FIGURE 1

MINIMUM CLEARANCE

REQUIRED DUE TO UNIT'S DIMENSION & SAFETY STANDARD



NOTE

ADEQUATE SERVICE CLEARANCE MUST BE PROVIDED IN FRONT OF THE UNIT.

**** In certain jurisdictions, combustible material is not allowed to be exposed to return air. For such scenarios, refer to installation manual for alternate design options.

*** Engineer/Architect - to consult with customer solutions if clarification is required to determine bracket location for setting the desired depth of Wall Sleeve into wall.

** A clear and unobstructed passageway (dimension AxB) shall be provided to the unit, in accordance with the requirements of the local authorities having jurisdiction and with the National Fuel Gas Code, ANSI Z223.1 (latest edition) and the National Electrical Code in the United States or CAN/CGA-B149.1 & .2 and the Canadian Electrical Code CSA C22.1 Part 1 (latest edition) in Canada.

* The 32 " x 32.5 " unobstructed clearance is required in front of the unit for complete removal of heating and cooling module. Check local building codes for other applicable requirements.

IMPORTANT:

Prior to constructing interior closet walls in close proximity to the wall sleeve, the sealing of the wall sleeve and cabinet should be completed. Sealing after the walls are constructed can be difficult. Poor sealing will result in cold air infiltration that will affect Condo Pack. Refer to section *"Sealing: Wall Sleeve and Condo Pack cabinet".*

FIGURE 2

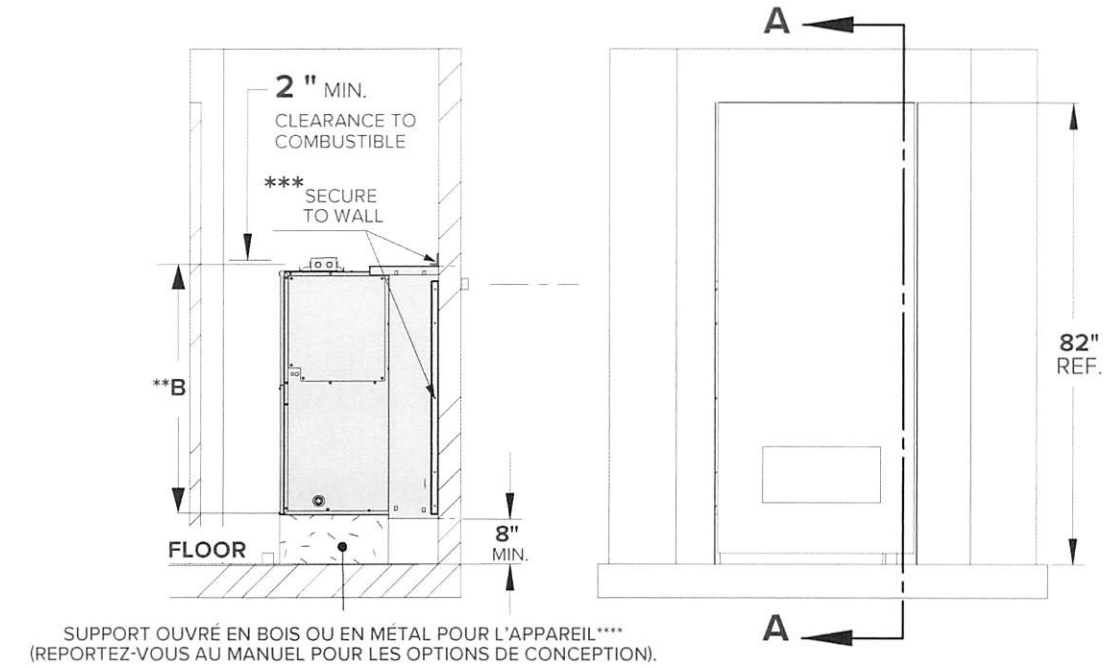
IMPORTANT:

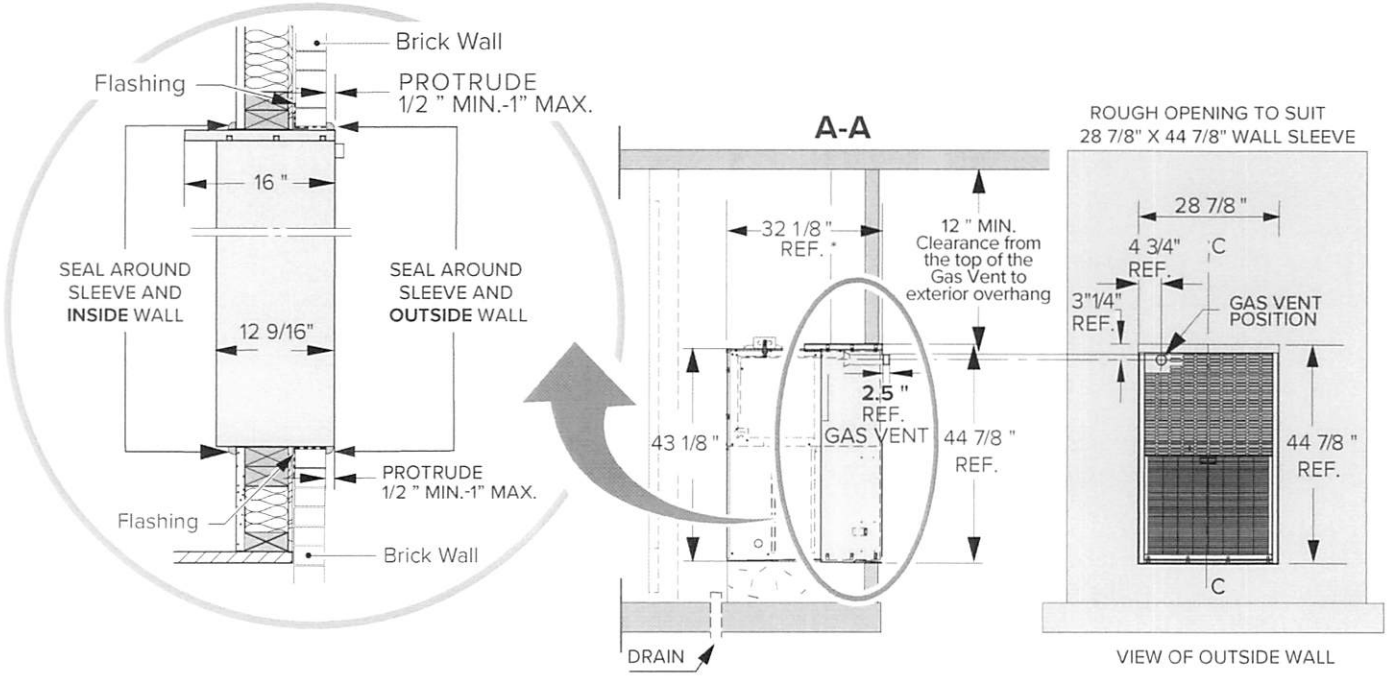
MINIMUM REQUIRED VERTICAL CLEARANCE OF A VENT TERMINAL AND OVERHANGING STRUCTURE FROM THE TOP OF THE GAS VENT IS 12" (MORE THAN 12" IS RECOMMENDED). CHECK LOCAL BUILDING CODES FOR OTHER REQUIREMENTS.

NOTE	**** *Refer to: Enclosure For Condo Pack Figure 1, page 5.*

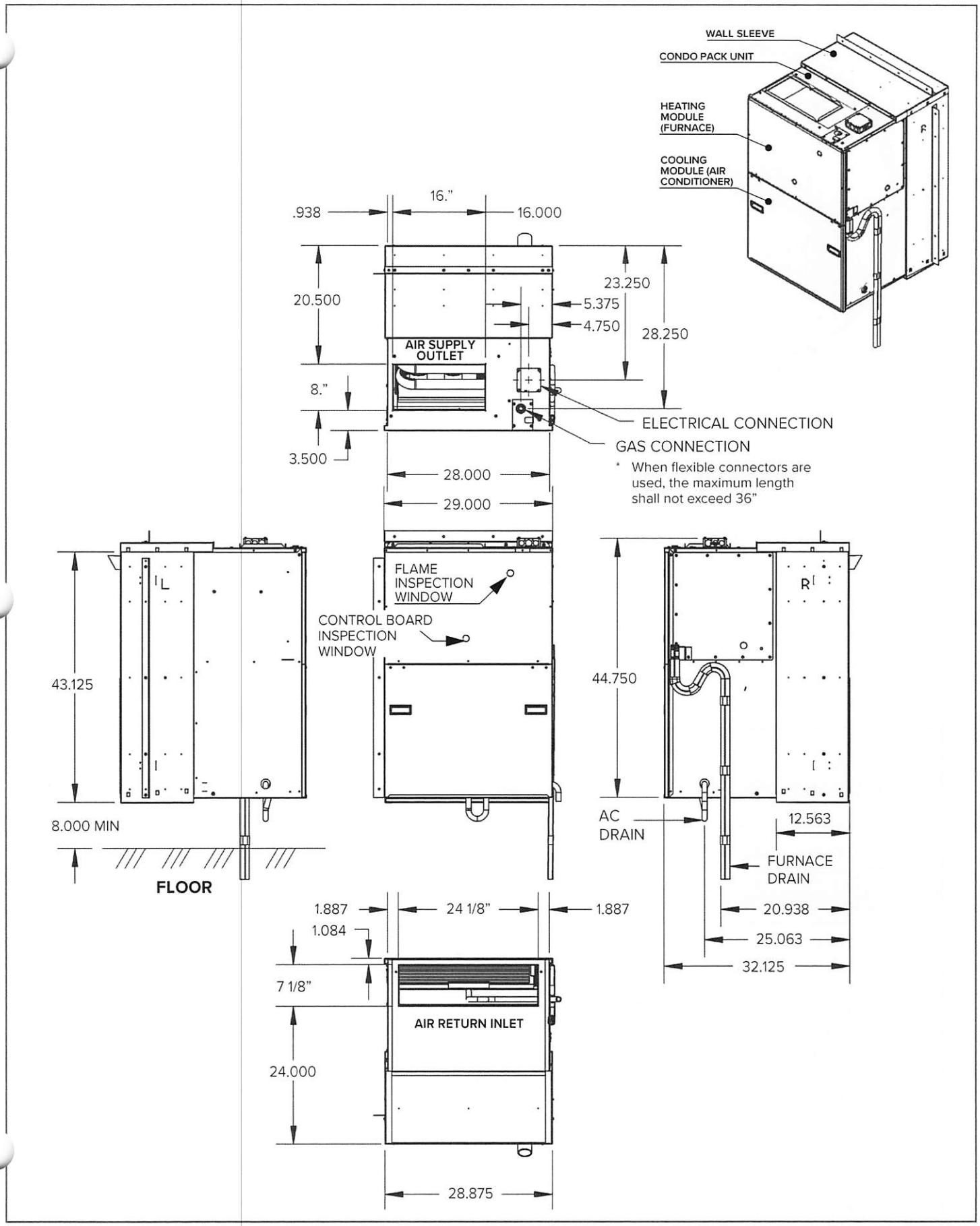
NOTE:

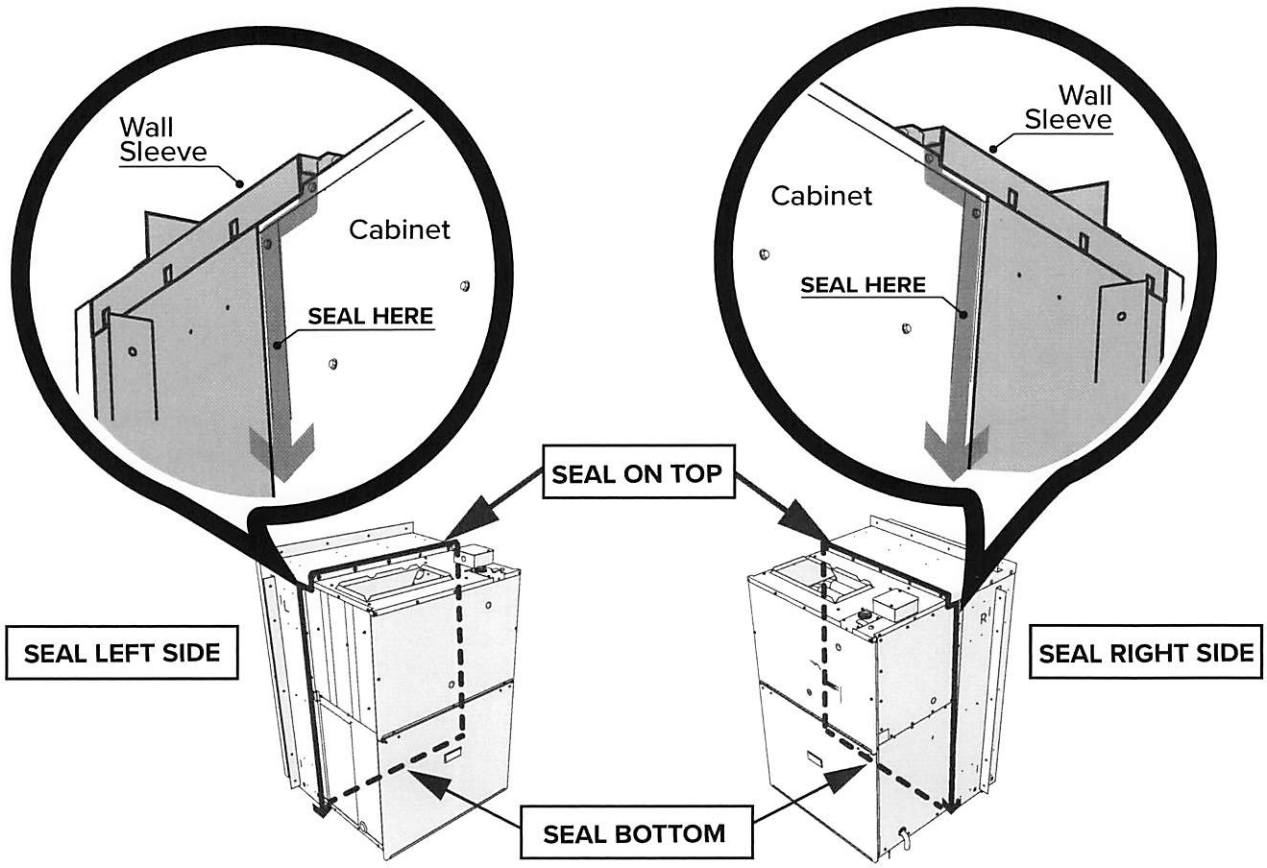
IT IS ALWAYS A GOOD PRACTICE TO MAXIMIZE THE CLEARANCE AS MUCH AS POSSIBLE BETWEEN VENT TERMINAL AND SURROUNDING STRUCTURES TO AVOID ANY POTENTIAL DAMAGE, DEGRADATION AND ICING, SINCE THE FLUE GASES CONTAIN WATER VAPOR AND ARE TYPICALLY MILDLY ACIDIC. CONSULT WITH EXTERIOR WALL FINISH MANUFACTURER FOR MORE INFORMATION.





CONDO PACK SHOWN IN WALL SLEEVE





Fill the clearance space between the sleeve and the cabinet with non-hardening caulking compound or non-expanding insulation foam as a protection against the snow, water, moisture and air infiltration.

⚠ IMPORTANT ⚠

THE CLEARANCE SPACE BETWEEN THE WALL SLEEVE AND THE CABINET MUST BE COMPLETELY SEALED ON ALL FOUR SIDES IN ORDER TO PREVENT THE MOISTURE AND AIR INFILTRATION.

⚠ WARNING ⚠

THESE INSTRUCTIONS ARE INTENDED AS AN AID TO QUALIFIED SERVICE PERSONNEL FOR PROPER INSTALLATION, ADJUSTMENT AND OPERATION OF THE UNIT. READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING INSTALLATION OR OPERATION. IMPROPER INSTALLATION, ADJUSTMENT, SERVICE, OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH. FOR INFORMATION AND ASSISTANCE CONSULT A QUALIFIED INSTALLER OR SERVICE AGENCY.

