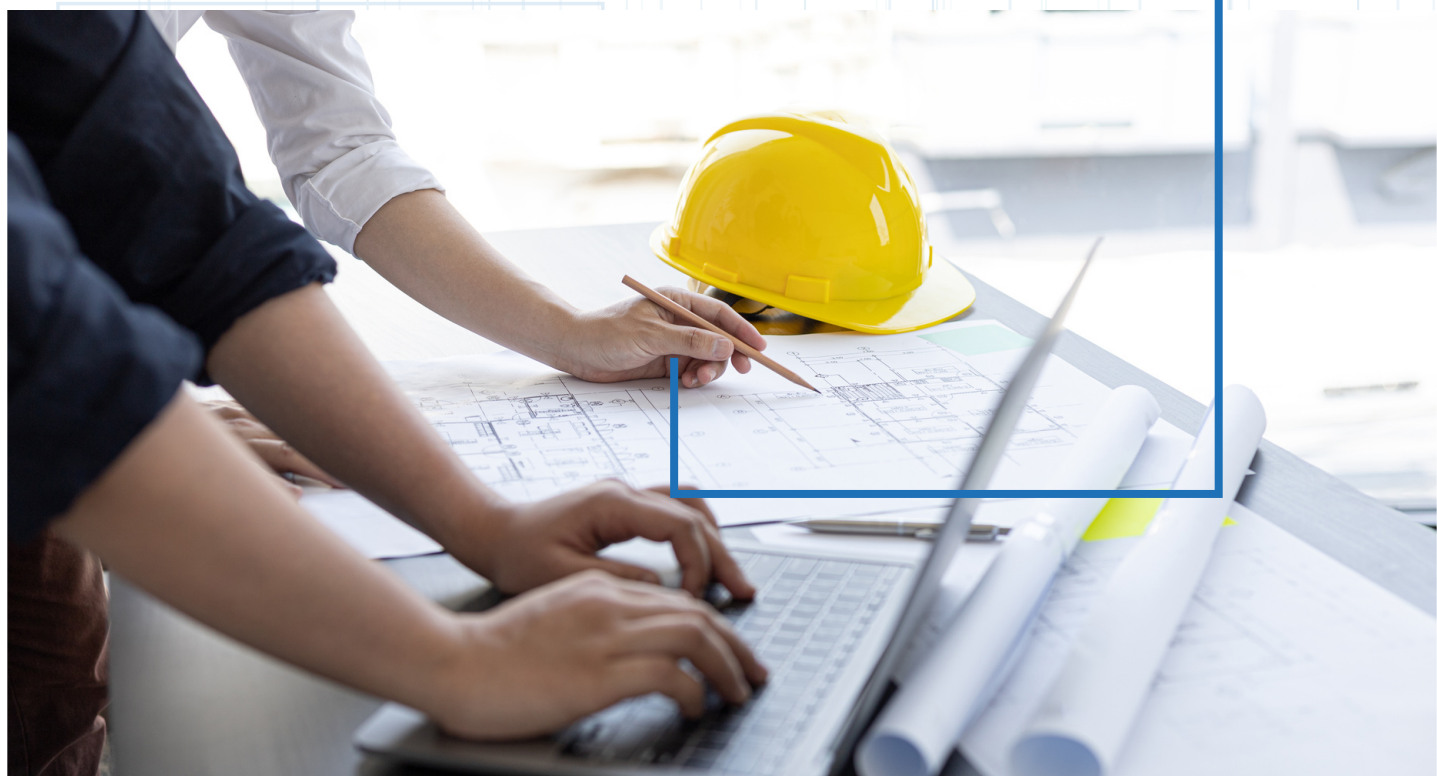


ARCHITECTS & ENGINEER SUBMITTAL SHEET

Inverter Vertical Terminal Heat Pump



GENUINE COMFORT

DELIVERING COMFORT CONSISTENTLY

Inverter Vertical Terminal Heat Pump

Job Name:		Engineer:	
Pruchaser:		Architect:	
Unit No.:		Contractor:	
Schedule:		Submitted to:	
Location:		Submitted by:	
Comment:		Date Submitted:	

SUBMITTAL SHEET

Genuine Comfort Inverter Vertical Terminal Heat Pump

Unit Size: 23-1/9W x 29-1/3H x 23-1/9D

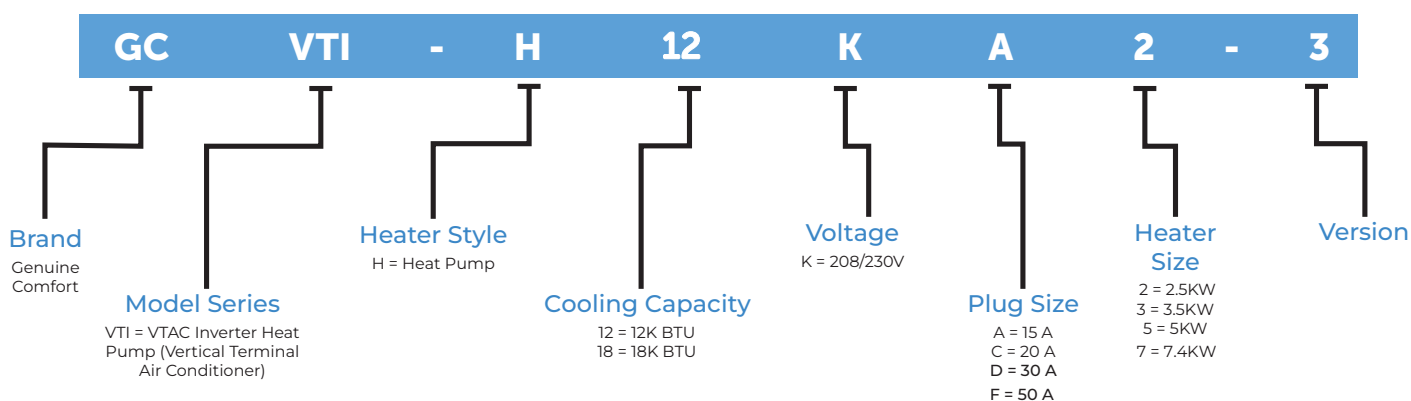
FEATURES

- "Ductable" to Multiple Rooms
- Three Indoor Fan Speeds
- Easily Reachable Disconnect Switch
- Error Code Display for easy Diagnostic
- Dual Motors for Quiet & Efficient Operation
- 24 Volt Wall Thermostat Control Option
- Compressor Time Delay Protection and Efficiency
- R32 Refrigerant
- Automated Room Freeze Protection (10C/50F)
- Low Ambient Operation Down to -15C
- Genuine Care Warranty: 1 Year Unit Replacement (if parts and labour is not available), 6 Year Parts Replacement



MODEL IDENTIFICATION

Example: GCVTI-H09KA2-3



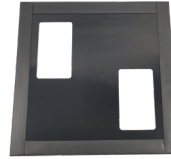
ACCESSORIES



**INTERIOR FRONT
PANEL**



**PLENUM
EXTENSION**



BASE



**ARCHITECTURAL
GRILLE**



**WIRED / WIRELESS
THERMOSTAT**



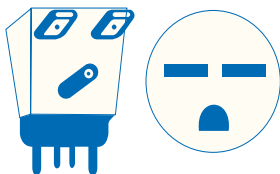
**OCCUPANCY
SENSOR THERMOSTAT**



EMS THERMOSTAT

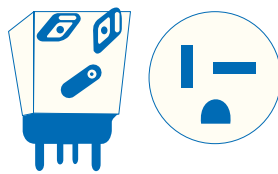
PLUG TYPE

TANDEM



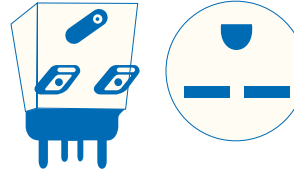
208V/230V 15A

PERPENDICULAR



208V/230V 20A

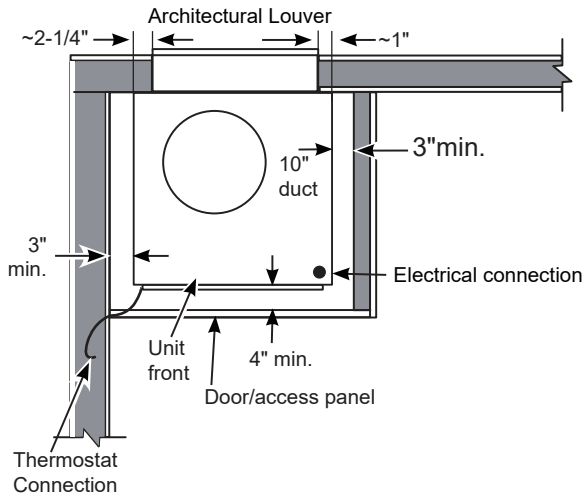
LARGE TANDEM



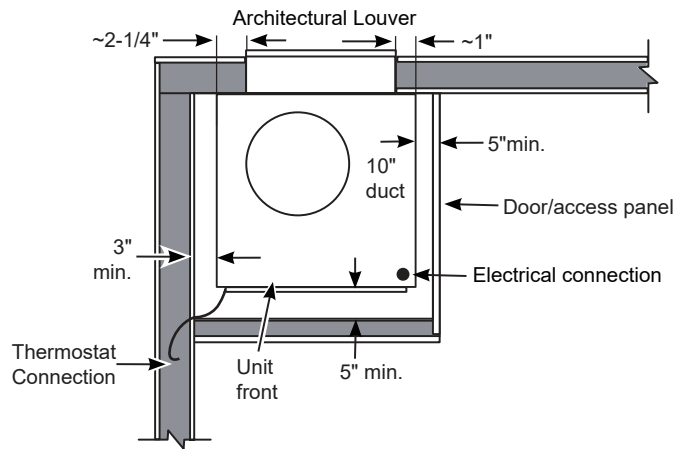
208V/230V 30A

INSTALLATION INSTRUCTIONS

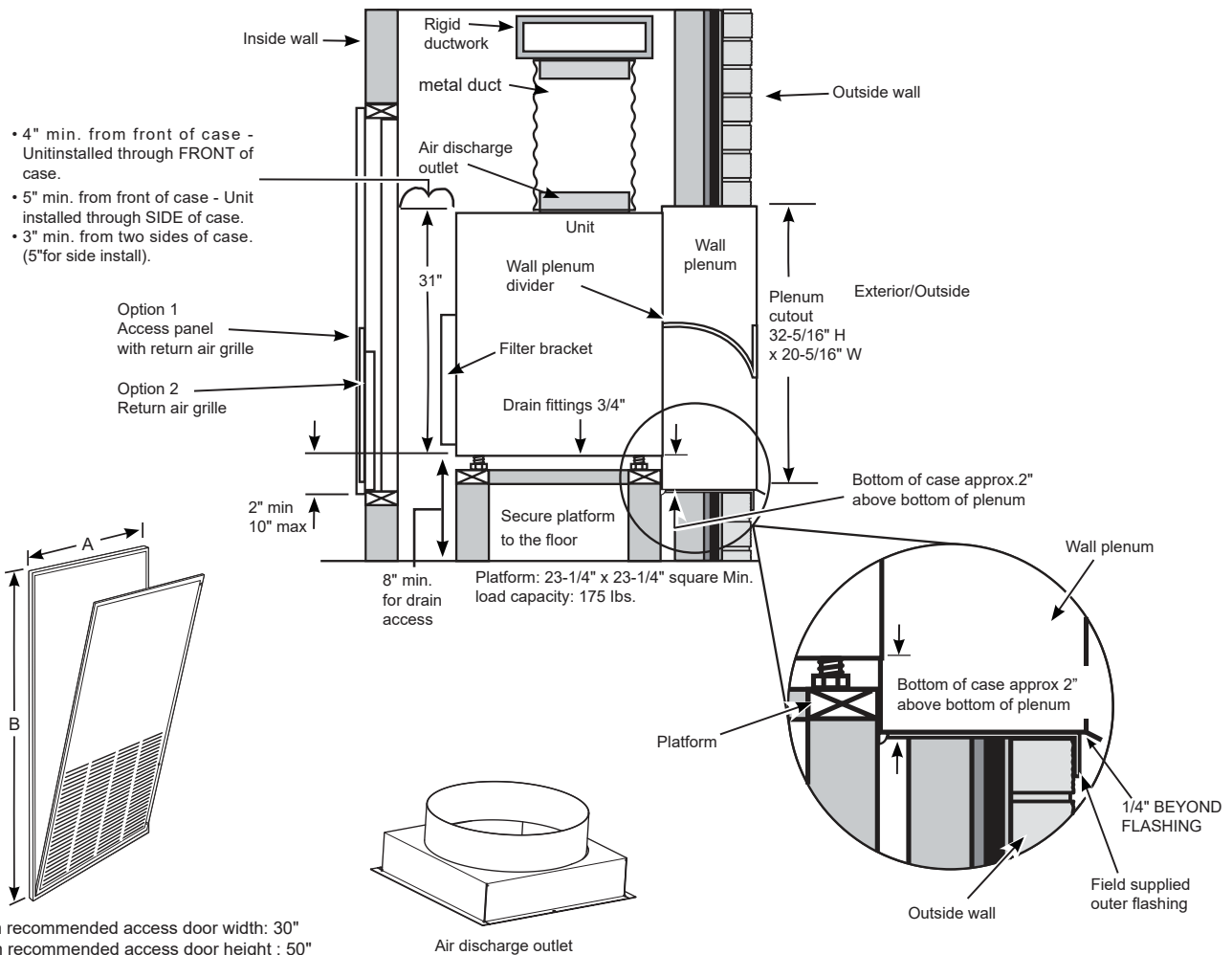
Unit Installed Through Front of Case (Top View):



Unit Installed Through Side of Case (Top View):



Side View



Closet Connection Locations

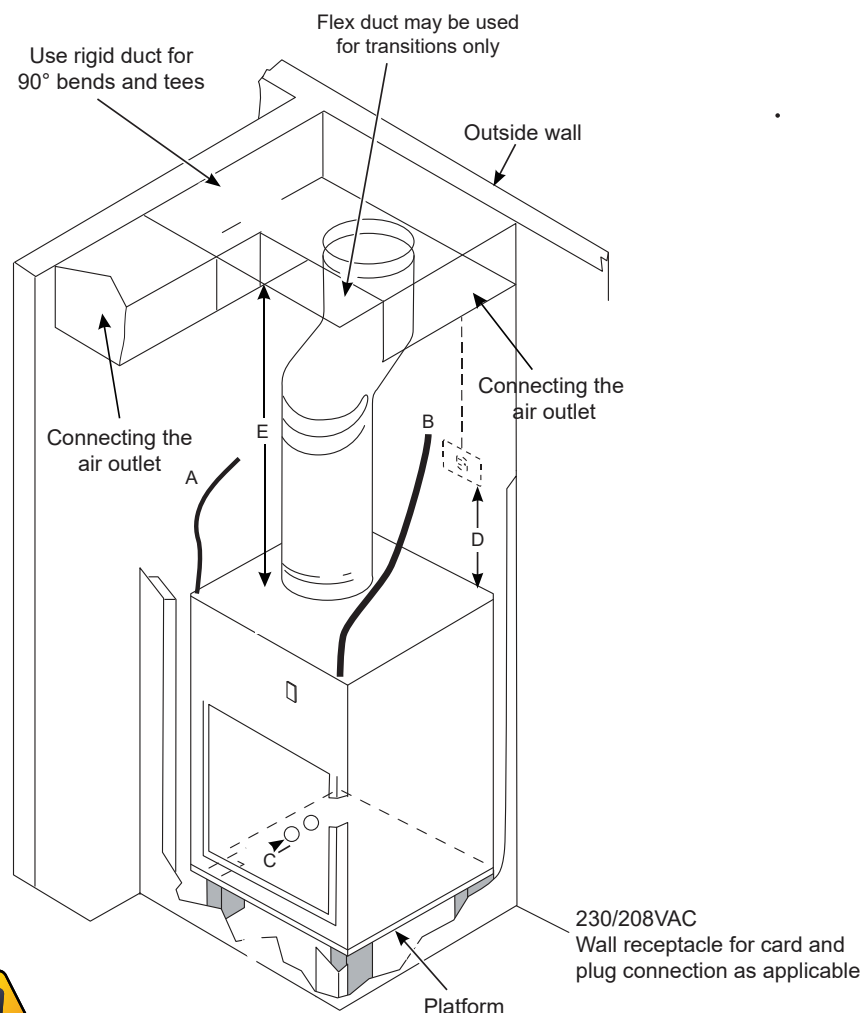
IMPORTANT: Plan and locate plenum, wall plug, drains and thermostat carefully to avoid interference. Hard-to-reach locations will make installation and service difficult!

Reference Dimensions

- A Thermostat cable
- B Power cord: 60" long if 230VAC or conduit entrance if 265VAC.
- C Condensate drains: 3/4" connector
 - Primary Drain - Centerline of cutout is approximately 5-1/4" from left case wall and 8-1/2" from back case wall.
 - Secondary Drain-centerline of cutout is approximately 6-1/2" from left case wall and 5- 1/4" from back case wall.
- D Typical wall plug: 6"-12" above case E 40" min.



Air outlet



WARNING

Supply duct is intended to distribute conditioned air through-out a single unit on one floor only. Unit space may be parti-tioned into rooms within the same unit, but supply air is not to be delivered to any other unit.

Provide adequate return air paths for rooms by established means. Do not attach a return air duct to the chassis or outer case.

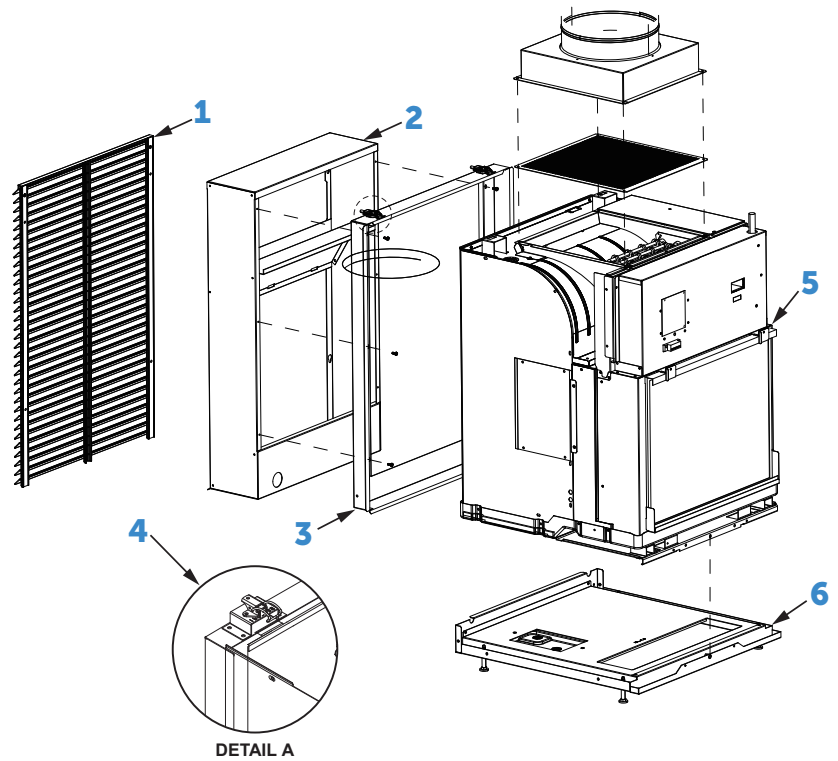


WARNING

To avoid the risk of property damage, personal injury, or death due to fire, use metal duct material only.

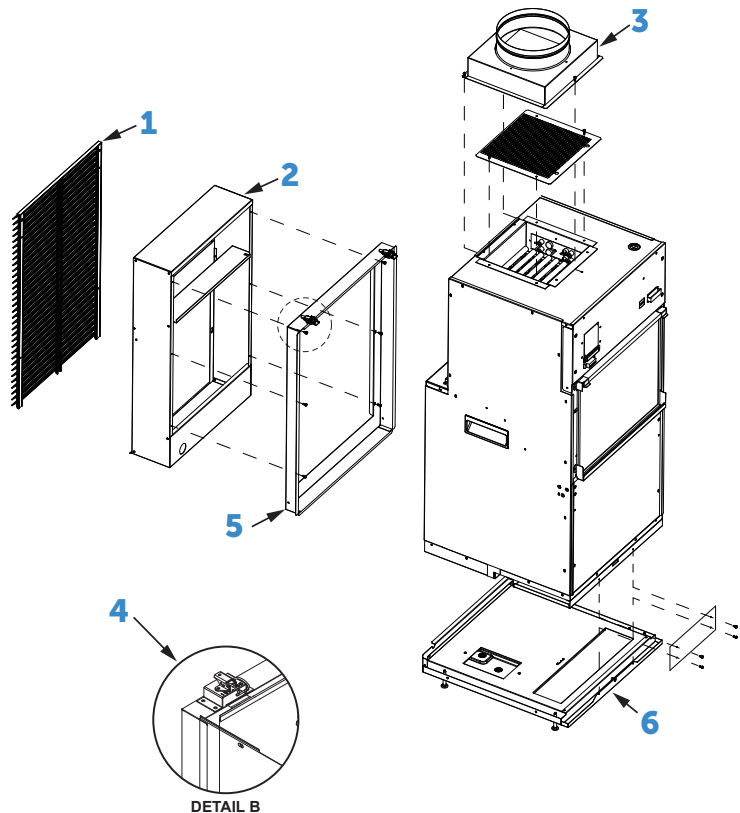
Accessories for Small Chassis Unit

1. Exterior Louver
2. Wall Plenum
3. Plenum Adapter
4. Draw Latch (2X)
5. Chassis
6. Drain Pan

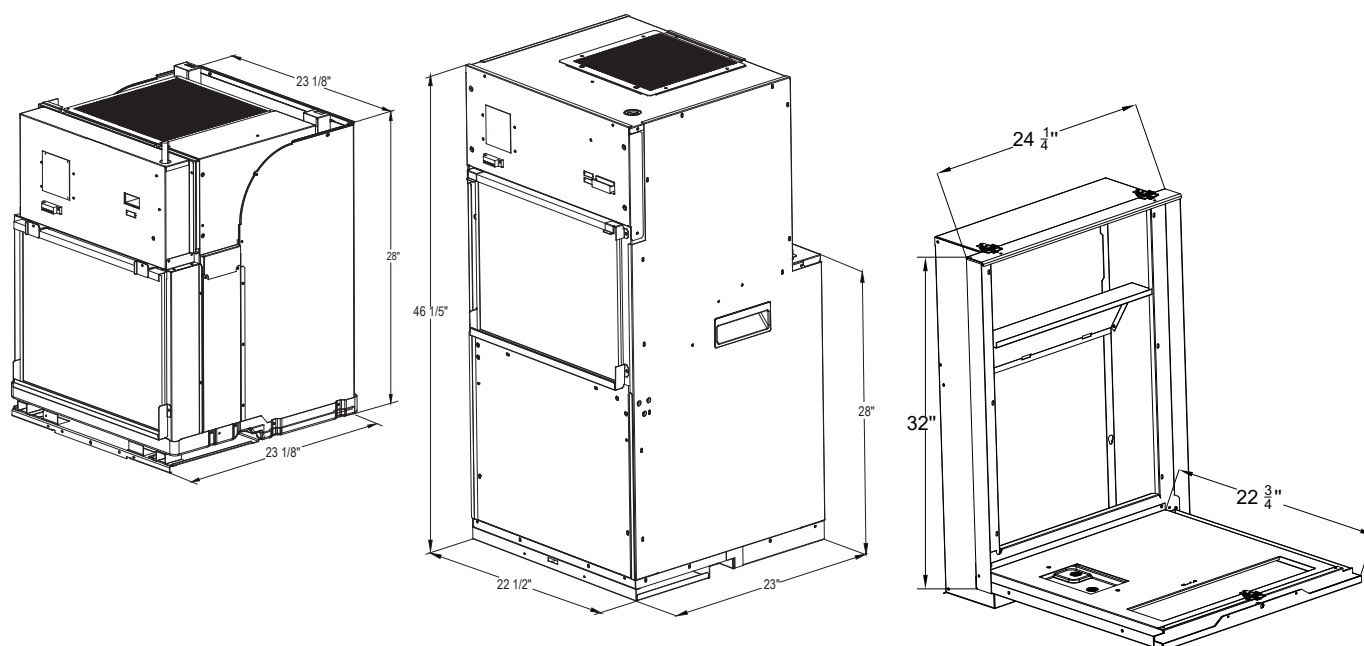


Accessories for Large Chassis Unit

1. Exterior Louver
2. Wall Plenum
3. Air Discharge plenum
4. Draw Latch (2X)
5. Plenum Adapter
6. Drain Pan



Dimensions Diagrams



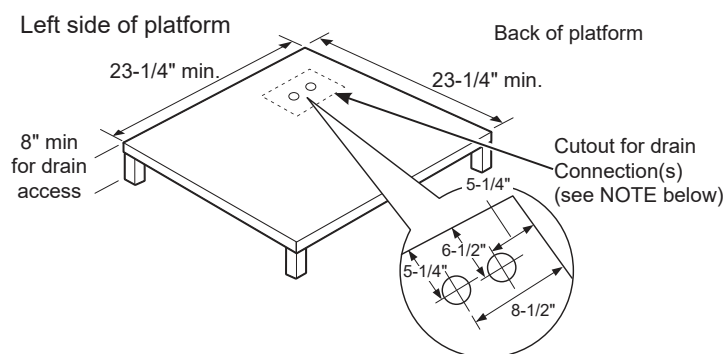
Base Platform Construction

The Space Constrained Products unit requires a field-supplied base platform (having a load-bearing capacity of 230 lb. minimum). For warranty purposes, the base platform must be constructed to ensure the unit chassis can be removed through the access panel.

Proceed as follows:

Base Platform Installation instructions

1. Construct a 23 1/4" min. x 23 1/4" min. square platform with legs to raise platform a minimum of 8" (12" recommended), see diagram above.
2. Make the drain hole cutout (size and location based on installation requirements).
3. Place the platform in the utility closet large enough to provide the following clearances between it and the interior surface of the walls/door/panel:
 - If Space Constrained Products unit is to be installed through the front of case: 4" minimum clearance from the front of the platform to inside of the closet door, 3" minimum clearance from each side of the case.
 - If Space Constrained Products unit is to be installed through the side of case: 5" minimum clearance from the front of the case, 5" minimum clearance from each side.
4. The platform legs must be positioned so access to the unit drain connections are not blocked. Align the platform with the opening of the wall plenum and secure to the floor using appropriate brackets and screws.



Note

When determining the closet depth, consideration must be given to the fact that the plenum will protrude into the closet because the plenum will be thicker than the exterior wall.



WARNING

Specific cutout size for drain connections needs to be determined by the installer for the given installation situation.

Wall Plenum

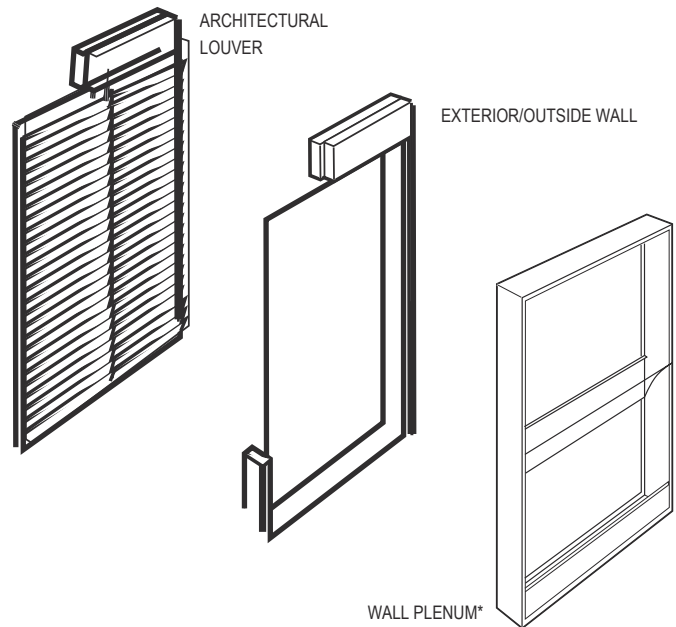
Since the Space Constrained Products unit itself does not install in the wall opening, the use of a wall plenum is necessary to contain and separate the outdoor air paths to prevent the discharge air from being drawn back into the unit. The plenum must be able to hold water in the bottom without leaking into the wall cavity.

The plenum is not loadbearing, so a proper header needs to be installed above the plenum just as over any window opening in the wall. If the building construction is brick, concrete block, or other non self-supporting material, a lintel must be installed over the plenum opening. The plenum is to be installed square and level in the opening and secured to the wall construction with screws or nails in the sides located a minimum of 2" from the bottom of the plenum. No nails or screws may be used in the bottom or top of the plenum to ensure against water entering the wall cavity. The plenum must be caulked (on all four sides) along the outdoor wall face and along the interior wall to prevent air infiltration and water intrusion.

The wall opening location for the plenum must extend 1" below the top of the Installation Platform. Since the platform must be a minimum of 8" off the floor, the cutout for the plenum must be a minimum of 7", plus the thickness of the platform base, off the interior finished floor.

We offers four plenum depths; the chioce of the correct plenum is determined by the thickness of the building's exterior wall. Each plenum is 19 7/8" wide by 32" high and requires a 20 1/8" wide by 32 1/4" high cutout in the wall.

Prepare the closet supply air duct work for later connection to the case. Plenum duct should be insulated to prevent condensation and to reduce air noise.

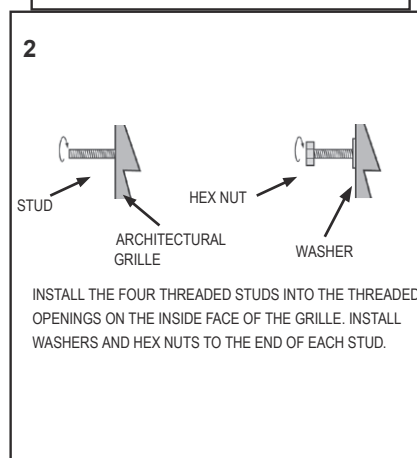
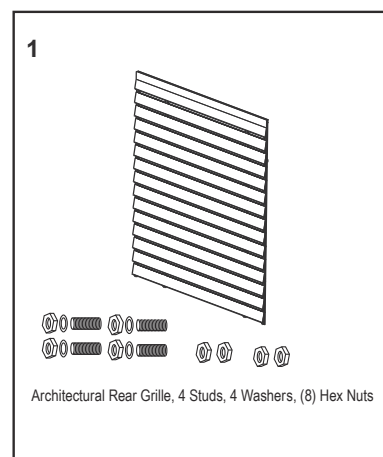


*Type 1:	6"D x 20"W x 32"H
*Type 2:	8"D x 20"W x 32"H
*Type 3:	2"D x 20"W x 32"H
*Type 4:	15"D x 20"W x 32"H

Architectural Exterior (Rear) Grille

The architectural rear grille directs condenser airflow and provides a protective barrier for the outdoor coil. Either the approved Standard or Architectural grille must be installed before installing the chassis.

1. Install the four threaded studs into the threaded openings on the inside face of the grille. Install a washer and one hex nut to the end of each stud.
2. Manipulate the grille out through the rear plenum opening. Be sure to keep a firm grip on the grille to prevent it from dropping and/or causing possible injury or property damage.
3. Attach the grille to the plenum by aligning and inserting the hex nut threaded onto the studs through the corresponding holes in the plenum.
4. Secure grille to the plenum by tightening the hex nut and adding and tightening an additional hex nut.

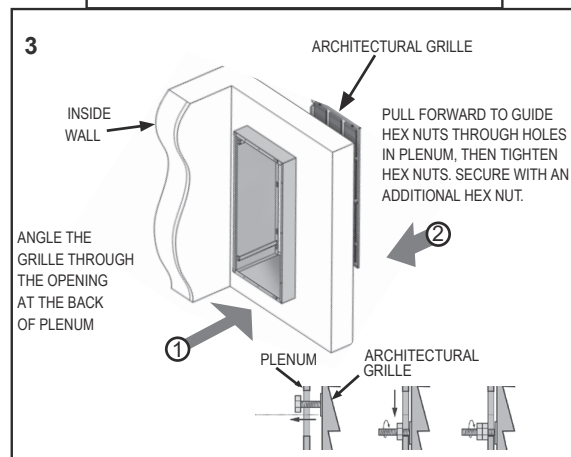
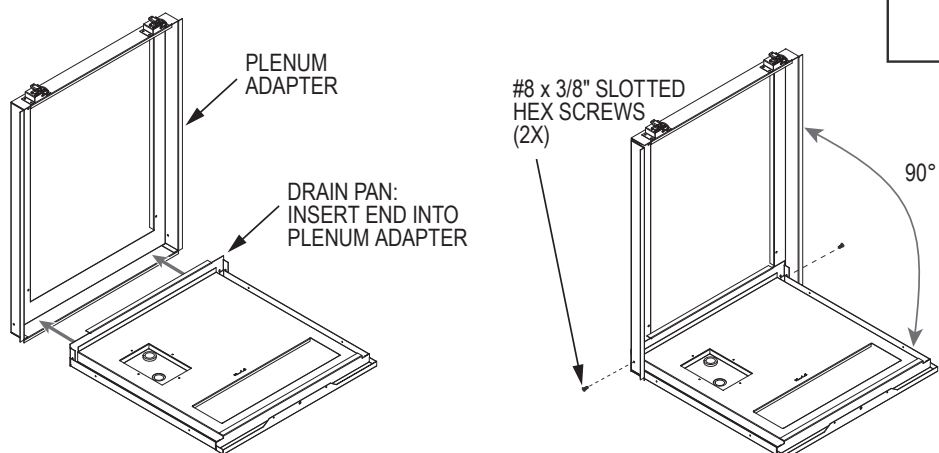


Plenum Adapter / Drain Pan Installation

The Plenum Adapter and Drain Pan are shipped unassembled and must be attached together prior to installation. When assembling, it is important that an angle of 90° is achieved between the upright Plenum Adapter and the horizontal Drain Pan as shown in figured below. This will ensure the two draw latches on the top of the Chassis align properly with their corresponding catches located on the Plenum Adapter.

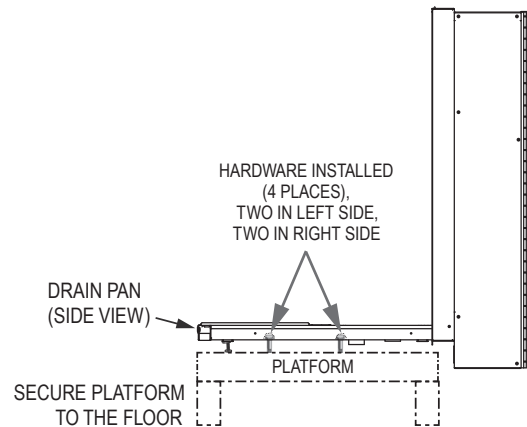
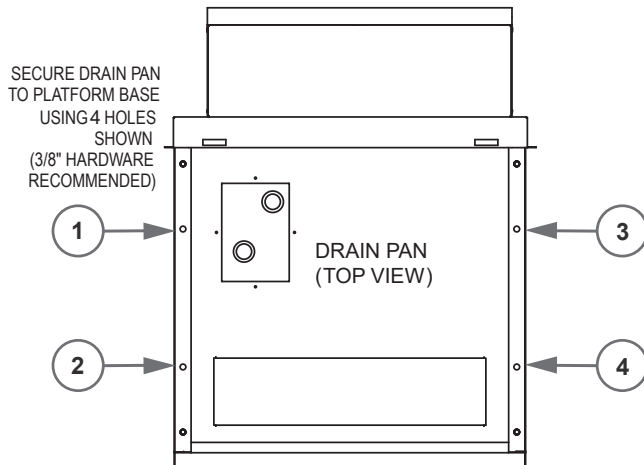
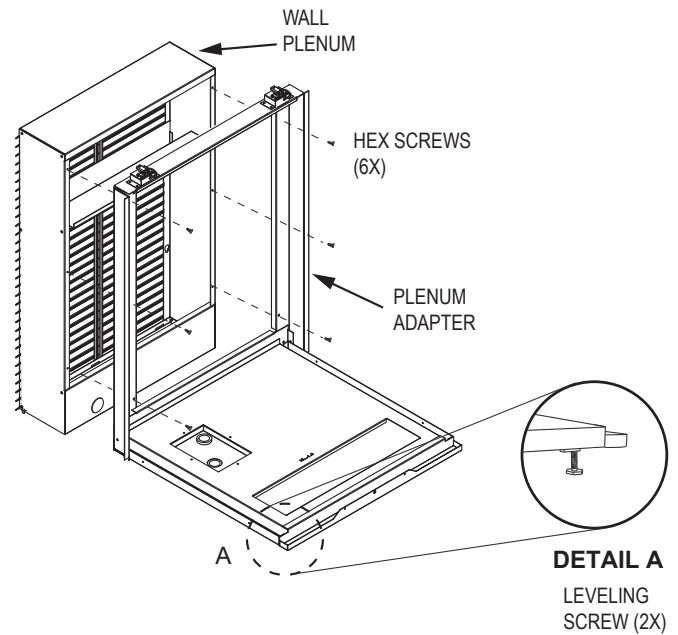
1. With the Plenum Adapter in an upright position, slide the rear end of Drain Pan into the bottom of the Plenum Adapter so the left and right side mounting screw holes are aligned.
2. Install two (2) #8 x 3/8" slotted hex screws (supplied) to secure the Drain Pan to the Plenum Adapter. Ensure the angle between the upright Plenum Adapter and the Drain Pan is as close as possible to 90°.

Installation Diagram



Attaching Drain Pan / Plenum Adapter to Wall Plenum

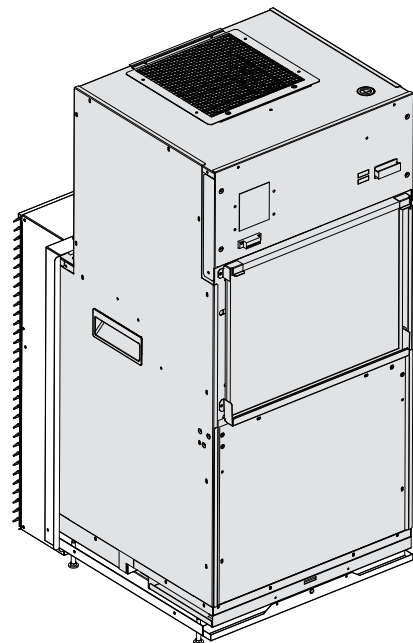
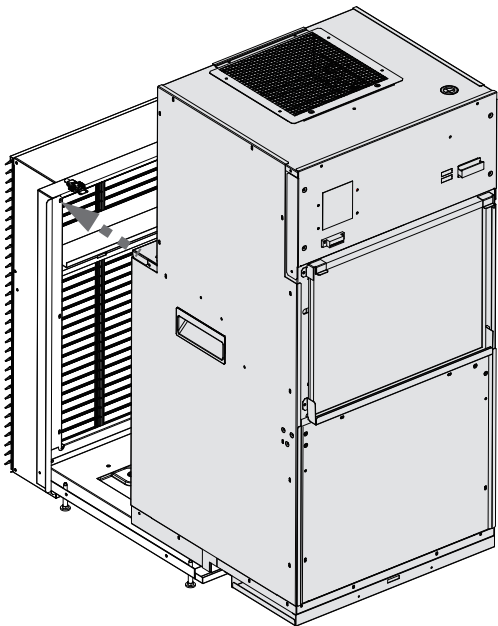
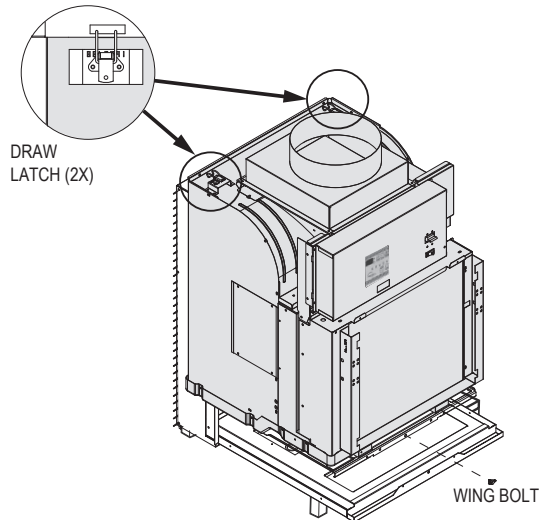
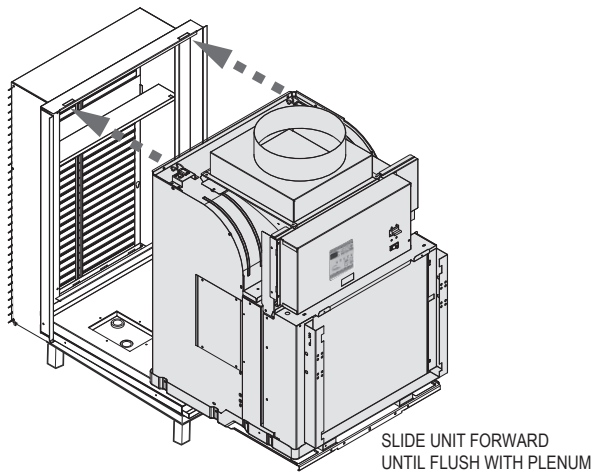
1. Align the screw holes in the Plenum Adapter with the corresponding screw holes in the Wall Plenum.
2. Attach the Plenum Adapter to the plenum opening using six (6) field-supplied sheet metal screws (stainless screws recommended).
3. Place the Drain Pan/Plenum Adapter onto the Base Platform in the closet with the outdoor side facing the Wall Plenum.
4. Place a level on the Drain Pan and adjust the two (2) Leveling Screws so Drain Pan is level in both front-to-back and left-to-right directions.
5. Using the indicated holes in the Drain Pan as a guide, drill holes into the base platform. Use four field-supplied bolts, washers and nuts ($3/8"$ dia. recommended) to secure the Drain Pan to the Base Platform. Do not tighten the bolts to the point of distorting the Drain Pan. Failure to properly secure the Drain Pan to the platform may result in excessive unit vibration and increased noise level.



Chassis Installation

The Space Constrained Products unit is packaged with the case and the front panel in place.

1. Place the unit (chassis) on the Drain Pan.
2. Install the Wing Bolt through the front of the Drain Pan and hand-tighten into the chassis.
3. Align the Plenum Adapter to the chassis (outdoor side) and secure using the two (2) draw latches on the chassis (see figure below).



SPECIFICATIONS (HEAT PUMP W/ ELECTRIC HEAT)

Model ID		GCVTI-H12KA2-3		GCVTI-H12KC3-3		GCVTI-H12KD5-3	
Power Supply	Voltage (1 Ph., 60Hz)	V	230/208V	230/208V	230/208V	230/208V	230/208V
	Capacity	Btu/h	12600 / 12600	12600 / 12600	12600 / 12600	12600 / 12600	12600 / 12600
Cooling	Capacity Range	Btu/h	5700-15300	5700-15300	5700-15300	5700-15300	5700-15300
	Input	W	1100/1100	1100/1100	1100/1100	1100/1100	1100/1100
	EER		11.1/11.1	11.1/11.1	11.1/11.1	11.1/11.1	11.1/11.1
Heating	Capacity	Btu/h	12300/12300	12300/12300	12300/12300	12300/12300	12300/12300
	Input	W	1115/1115	1115/1115	1115/1115	1115/1115	1115/1115
	COP		3.2	3.2	3.2	3.2	3.2
Electric Heater	Capacity	Btu/h	7472/9042	9980/12113	14450/17572	14450/17572	14450/17572
	Input	W	2190/2650	2925/3550	4235/5150	4235/5150	4235/5150
	COP		0.95/0.97	0.96/0.97	0.97/0.97	0.97/0.97	0.97/0.97
Max Input Consumption		W	2650	3550	5150	5150	5150
Max Current		A	11.6	15.50	22.4	22.4	22.4
Indoor Air Flow (L/H)		CFM	290/390	290/390	365/440	365/440	365/440
Indoor Sound Level (L/M/H)		dB(a)	60/62/64	60/62/64	60/62/64	60/62/64	60/62/64
Outdoor Sound Level (L/M/H)		dB(a)	66	66	66	66	66
Unit Dimensions (W x H x D)		inch	23-1/9 x 29-1/3 x 23-1/9	23-1/9 x 29-1/3 x 23-1/9	23-1/9 x 29-1/3 x 23-1/9	23-1/9 x 29-1/3 x 23-1/9	23-1/9 x 29-1/3 x 23-1/9
Package Dimension (W x H x D)		inch	25 x 32-1/16 x 26-3/16	25 x 32-1/16 x 26-3/16	25 x 32-1/16 x 26-3/16	25 x 32-1/16 x 26-3/16	25 x 32-1/16 x 26-3/16
Net/Gross Weight		lbs.	126 / 143	126 / 143	126 / 143	126 / 143	126 / 143
Refrigerant Type			R32	R32	R32	R32	R32
Operation Temperature (Indoor)	°C		16 - 32	16 - 32	16 - 32	16 - 32	16 - 32
	°F		60 - 90	60 - 90	60 - 90	60 - 90	60 - 90
Ambient Temperature (Outdoor)	°C (Cooling)		12 - 48	12 - 48	12 - 48	12 - 48	12 - 48
	°F (Cooling)		54 - 118	54 - 118	54 - 118	54 - 118	54 - 118
	°C (Heating)		-15 - 27	-15 - 27	-15 - 27	-15 - 27	-15 - 27
	°F (Heating)		5 - 81	5 - 81	5 - 81	5 - 81	5 - 81
Cord Type			LCDI-15A	LCDI-20A	LCDI-30A	LCDI-30A	LCDI-30A
Cord Length		Ft	6.5	6.5	6.5	6.5	6.5

SPECIFICATIONS (HEAT PUMP W/ ELECTRIC HEAT) (CONTINUED)

Model ID		GCVTI-H18KD5-3		GCVTI-H18KF7-3
Power Supply	Voltage (1 Ph., 60Hz)	V	230/208V	230/208V
	Capacity	Btu/h	18300/18300	18300/18300
Cooling	Capacity Range	Btu/h	8500 - 22400	8500 - 22400
	Input	WA	1890/1890	1890/1890
	EER		9.7/9.7	9.7/9.7
Heating	Capacity	Btu/h	18000/18000	18000/18000
	Input	WA	1640/1640	1640/1640
	COP		3.2	3.1
Electric Heater	Capacity	Btu/h	14689/17794	20831/25301
	Input	WA	4305/5215	6105/7415
	COP		0.95/0.96	0.96/0.97
Max Input Consumption		WA	5215	7415
Max Current		A	22.7	32.3
Indoor Air Flow (L/M/H)		CFM	635/675	635/720
Indoor Sound Level (L/M/H)		dB(a)	60/62/64	60/62/64
Outdoor Sound Level (L/M/H)		dB(a)	66	66
Unit Dimensions (W x H x D)		inch	22-11/16 x 47-1/6 x 24-3/14	22-11/16 x 47-1/6 x 24-3/14
Package Dimension (W x H x D)		inch	25 x 50 x 26-3/16	25 x 50 x 26-3/16
Net/Gross Weight		lbs.	126 / 143	126 / 143
Refrigerant Type			R32	R32
Operation Temperature (Indoor)	°C		16 - 32	16 - 32
	°F		60 - 90	60 - 90
Ambient Temperature (Outdoor)	°C (Cooling)		12 - 48	12 - 48
	°F (Cooling)		54 - 118	54 - 118
	°C (Heating)		-15 - 27	-15 - 27
	°F (Heating)		5 - 81	5 - 81
Cord Type			LCDI-30A	Hardwire
Cord Length		Ft	6.5	