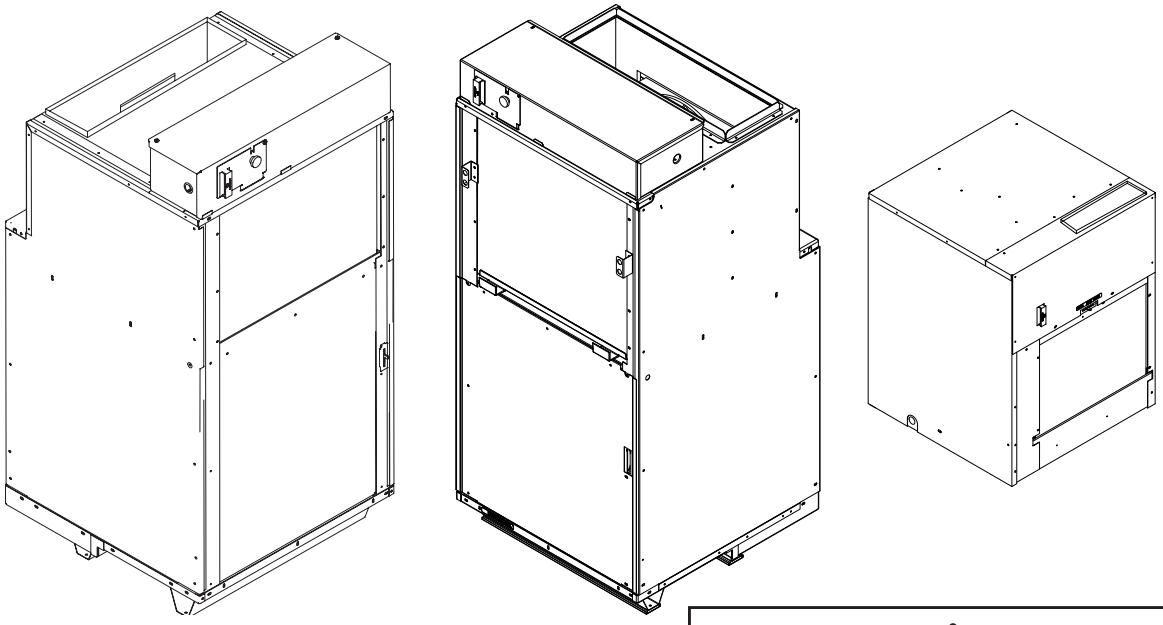
VTAC

Single Package Heat Pump

Installation Instructions & Operation Manual



ATTENTION INSTALLING PERSONNEL

As a professional installer you have an obligation to know the product better than the customer. This includes all safety precautions and related items.
Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings.
Often during installation or repair it is possible to place yourself in a position which is more hazardous than when the unit is in operation.
Remember, it is your responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.
Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.
The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.

WARNING

Do not bypass safety devices.

WARNING

Only personnel that have been trained to install, adjust, service, maintenance or repair (hereinafter, "service") the equipment specified in this manual should service the equipment.

This equipment is not intended for use by persons (including children) with reduced physical, sensory or mental capacities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the equipment.

The manufacturer will not be responsible for any injury or property damage arising from improper supervision, service or service procedures. If you service this unit, you assume responsibility for any injury or property damage which may result. In addition, in jurisdictions that require one or more licenses to service the equipment specified in this manual, only licensed personnel should service the equipment. Improper supervision, installation, adjustment, servicing, maintenance or repair of the equipment specified in this manual, or attempting to install, adjust, service or repair the equipment specified in this manual without proper supervision or training may result in product damage, property damage, personal injury or death.

19001 Kermier Rd., Waller, TX 77484 • www.amana-ptac.com
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IO-951
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Important Note to the Owner

This manual is to be used by qualified, professionally trained HVAC technicians only. Manufacturer does not assume any responsibility for property damage or personal injury for improper service procedures or services performed by an unqualified person.

IMPORTANT NOTES:
Before using this manual, check the serial plate for proper model identification.

THE INSTALLATION AND SERVICING OF THIS EQUIPMENT MUST BE PERFORMED BY QUALIFIED, EXPERIENCED TECHNICIANS ONLY.

Due to policy of continual product improvement, the right is reserved to change specifications and design without notice.

Important Note to the Servicer

Read this manual and familiarize yourself with the specific items which must be adhered to before attempting to service this unit. The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.

⚠ RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION.

⚠ WARNING

HIGH VOLTAGE
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



⚠ WARNING

HIGH VOLTAGE
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH. DO NOT SERVICE THIS UNIT WITHOUT FIRST SHUTTING OFF POWER TO THE UNIT FROM THE CIRCUIT BREAKER AND/OR REMOVING THE UNIT CORD SET PLUG FROM THE WALL OUTLET.



MODEL IDENTIFICATION GUIDE

Model Number	A	V	H	09	3	K	25	AXXX
A = Amana® Brand								Standard Model
V = Vertical PTAC								
H = Heat Pump								Electric Heater Size 25 = 2.5 kw 35 = 3.5 kw 50 = 5 kw 75 = 7.5 kw* 10 = 10kw* *24,000 BTU Units only
				09 = 9,000 12 = 12,000 18 = 18,000 24 = 24,000				
					Voltage 3 = 208/230v 4 = 265v			
						K = DOE AHRI 210/240 compliant		

MODEL IDENTIFICATION GUIDE

Model	AVH09	AVH12K	AVH18K	AVH24K
Cooling Data				
Total Cooling CAP. (Btu/hr) @95°F	9,000	11,000	17,600	21,800
Sensible Cooling Cap. (Btu/hr)	6,650	8,100	12,500	15,400
SEER2	11.9	11.9	11.9	11.9
EER2	10.6	10.6	10.6	10.6
Voltage	208/230	208/230	208/230	208/230
Heating Data				
Heat Pump Cap. (Btu/hr) @47°	8,200	10,400	16,000	18,500
Heat Pump Cap. (Btu/hr) @17°	4,500	5,600	9,000	12,000
COP	3.1	3.1	3.1	3.1
HSPF2	6.3	6.3	6.3	6.3
Heater Size (kW)	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0/7.5	2.5/3.4/5.0/7.5/10.0
Physical				
Dimensions (WxDxH)	23”x23”x32”	23”x23”x32”	23”x23”x47”	23”x23”x52”
Refrigerant	R410A			
Ventilation Air				
CFM	Up to 60			

Note: Due to continuing research in new energy-saving technology, specifications are subject to change without notice.

VTAC	Model Number	Total Refrigeration Amps	Total Electric Heat Amps	Electric Heat Watts	Electric Heat Amps	Compressor RLA/LRA	Blower Motor FLA.HP	Condenser Motor FLA/HP	MCA	MOP/ MOCP
AVH09K (230/208)	25AXXX	6.8	11.5/10.4	2450/2000	10.7/9.6	4.2/21	0.8-1/8	1.8-1/4	14.4	15
	34AXXX	6.8	15.4/14.0	3350/2740	14.6/13.2				19.3	20
	50AXXX	6.8	22.5/20.5	5000/4090	21.7/19.7				28.2	30
AVH12K (230/208)	25AXXX	7.3	11.5/10.4	2450/2000	10.7/9.6	4.7/23			14.4	15
	34AXXX	7.3	15.4/14.0	3350/2740	14.6/13.2				19.3	20
	50AXXX	7.3	22.5/20.5	5000/4090	21.7/19.7				28.2	30
AVH18K (230/208)	25AXXX	9.1	11.5/10.4	2450/2000	10.7/9.6	6.8/30	0.8-1/5	1.5-1/4	14.4	15
	34AXXX	9.1	15.4/14.0	3350/2740	14.6/13.2				19.3	20
	50AXXX	9.1	22.5/20.5	5000/4090	21.7/19.7				28.2	30
	75AXXX	9.1	33.4/30.3	7500/6135	32.6/29.5				41.8	45
AVH24K (230/208)	25AXXX	10.7	11.5/10.4	2450/2000	10.7/9.6	8.2/44		1.7-1/4	16	20
	34AXXX	10.7	15.4/14.0	3350/2740	14.6/13.2				19.5	25
	50AXXX	10.7	22.5/20.5	5000/4090	21.7/19.7				39.6	30
	75AXXX	10.7	33.4/30.3	7500/6135	32.6/29.5				41.8	45
	10AXXX	10.7	44.3/40.1	1000/8180	43.5/39.3				55.4	60

Note: All units must be hard wired with a properly sized breker. See unit nameplate for specific electrical requirements. Use HACR type breakers to avoid nulsance trips.

All field wiring must be done in accordance with NEC and local codes. It is the installer's responsibility that the electrical codes are met. The electrical requirement may change without notice.

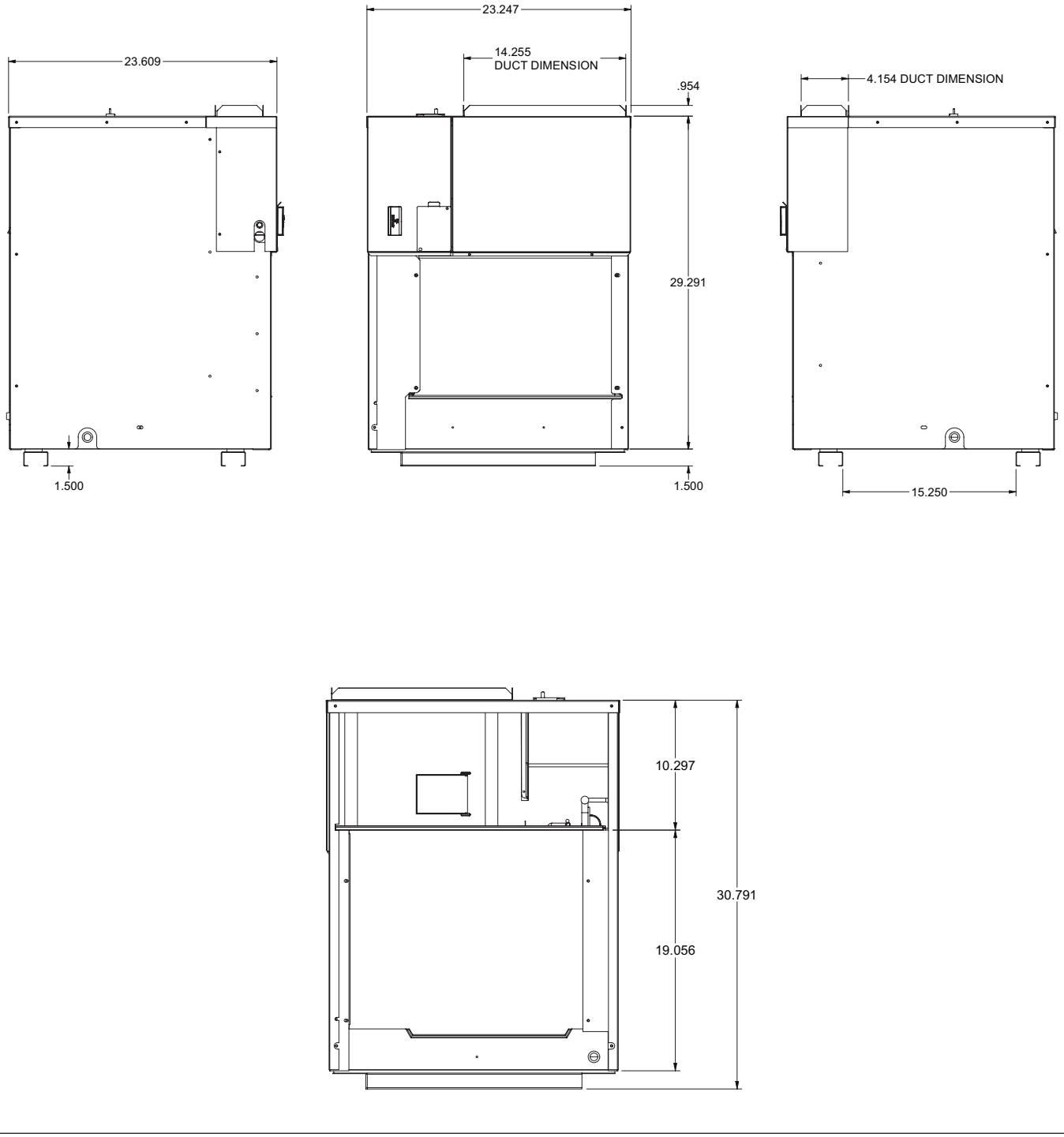
Electrical Requirements	
Wire Size	Use ONLY wire size recommended for single branch circuit.
Fuse/Circuit Breaker	Use ONLY type and size fuse or HACR circuit breaker indicated on unit's rating guide. Proper over current protection to the units is th responsibility of the owner.
Grounding	Unit MUST be grounded from branch circuit to unit, or through seperate ground wire provided on permanently connected units. Ensure that branch circuit or general purpose outlet is grounded.
Wire Sizing	Use recommended wire size given in tables and install a single branch circuit. All wiring must comply with local and national codes. NOTE: Use copper conductors only.

WARNING

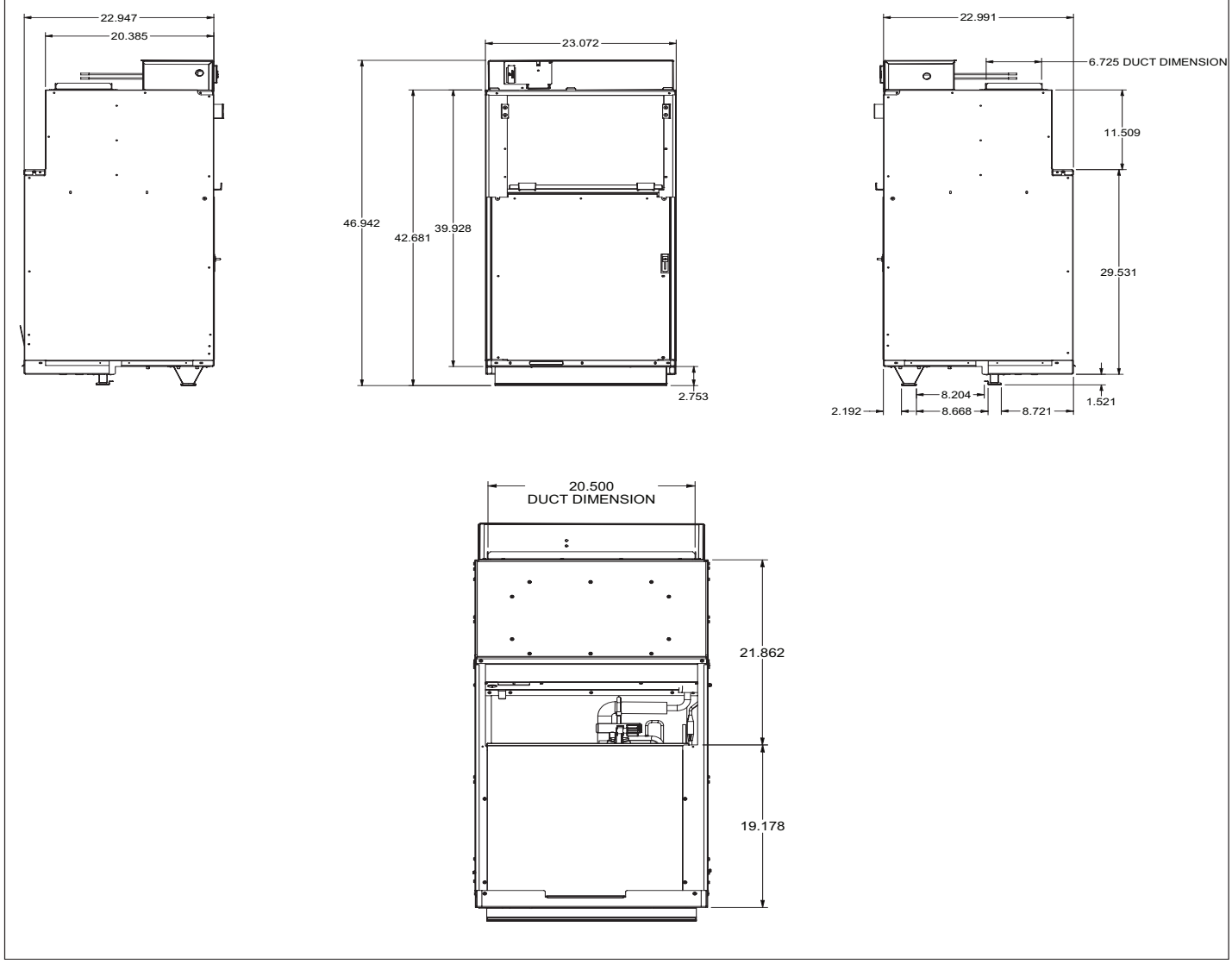


Electrical Shock Hazard
Turn OFF electric power before service or installation.
Unit must be properly grounded.
Other methods of grounding are permitted if performed in accordance with the "National Electric Code (NEC)/ American National Standards Institute (ANSI)"/National Fire Protection Association (NFPA) 70 and Local/State Codes.
In Canada, Electrical Grounding is to be in accordance with the Canadian Electric Code CSA C22.1.
Unit must have correct fuse or circuit breaker protection. Unit's supply curcuit must have the correct wire conductor size. All electrical connections and wiring must be installed by a qualified electrician and conform to the National Electrical Code and all local codes which have jurisdiction. Failure to do so can result in property damage, personal injury and/or death.

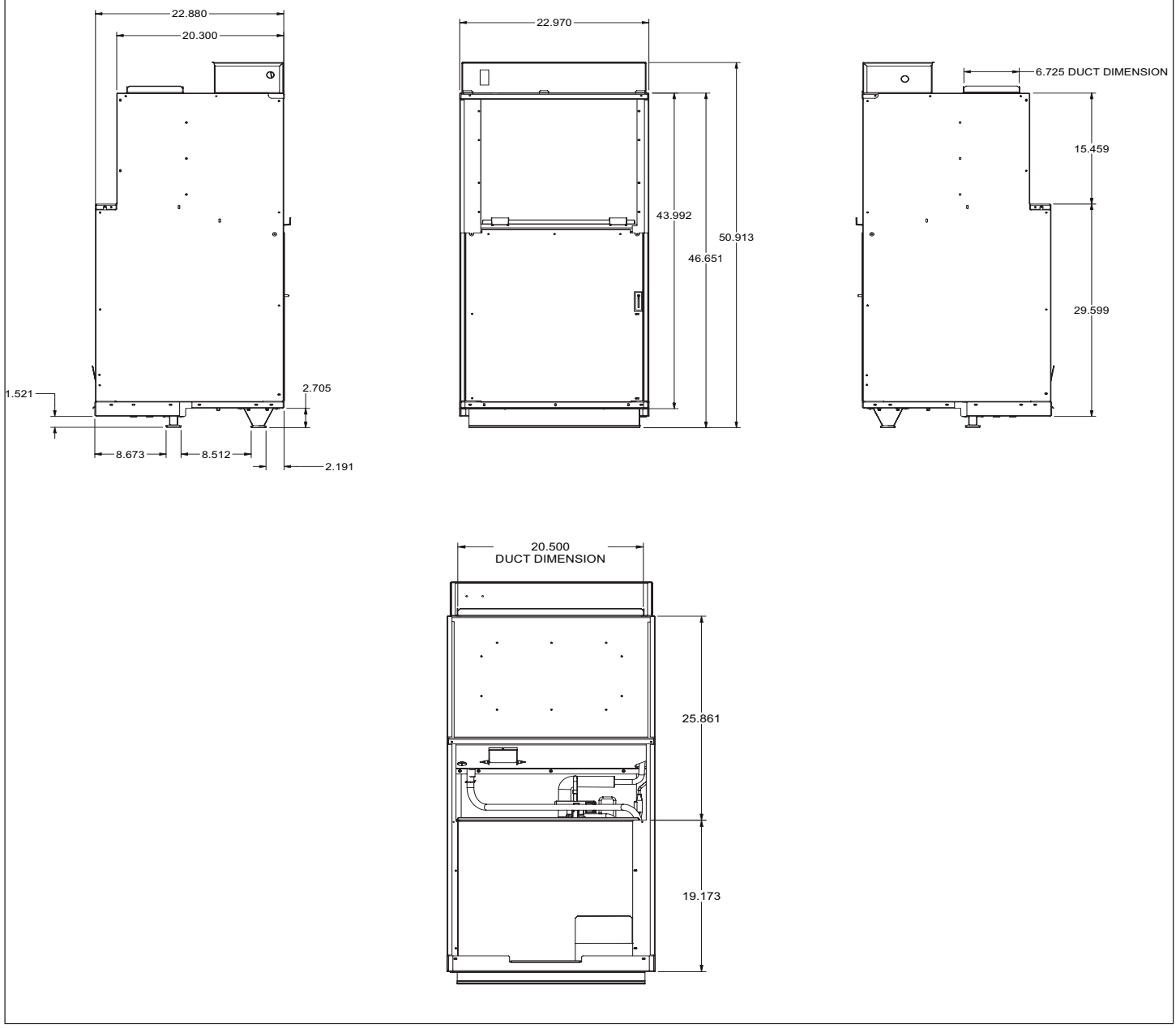
CHASSIS DIMENSIONS - AVH09/AVH12



CHASSIS DIMENSIONS - AVH18



CHASSIS DIMENSIONS - AVH24



AIR FLOW DATA

Indoor CFM & External Static Pressure

Model	AVH09		AVH12		AVH18		AVH24	
Fan Speed	Low	High	Low	High	Low	High	Low	High
ESP (“)	SCFM							
0.0”	360	420	360	460	620	705	675	765
0.05”	340	400	340	450	580	675	635	735
0.10”	325	385	325	430	550	640	600	700
0.15”	310	370	310	415	510	610	560	670
0.20”	295	355	295	400	480	585	525	635
0.25”	270*	325	270*	380	450	565	490	615
0.30”	260	300*	260	350*	400*	550	440*	600
0.35”	--	--	--	--	365	500	400	540
0.40”	--	--	--	--	320	450*	350	490*

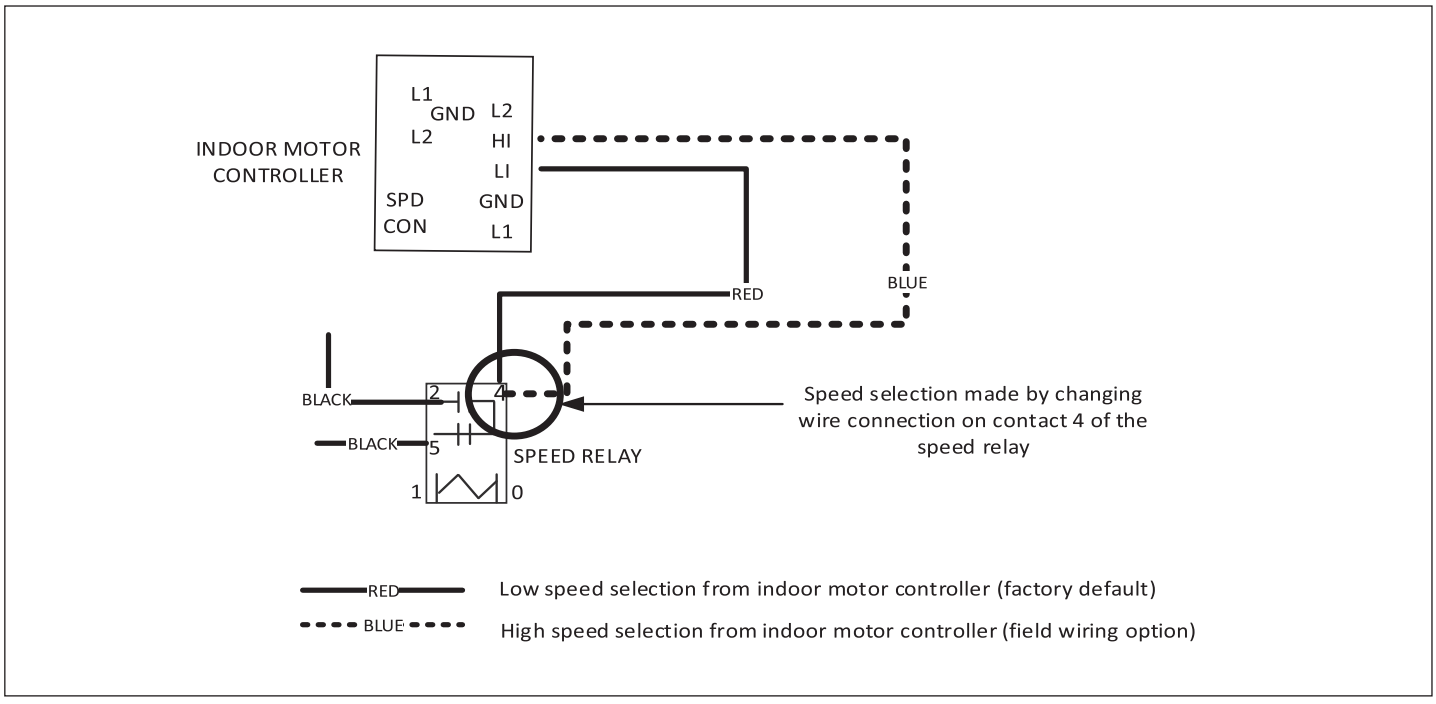
*Maximum Allowable Static. Units rated at 0.3” ESP.

Indoor airflow may be determined by measuring the external static pressure (ESP) of the duct system using an inclined manometer or magnahelic gauge and consulting the above chart to derive actual air flow. Under no circumstances should the VTAC be operated at a higher external static pressure than indicated above. Operation of the VTAC over the recommended ESP will result in inadequate airflow, leading to poor performance and/or premature component failure.

Blower Control

All VTAC, by default, will be configured to low speed blower operation. The speed setting can be changed to high speed by updating the speed tap settings on the fan control relay. The blower fan speed setting cannot be changed at the thermostat. Regardless of wiring GH and/or GL, the unit will continue to operate at the speed setting at the fan control relay.

Note: Any non-AMANA Brand thermostat or low voltage device being powered by the VTAC will need to be reviewed and approved for use.



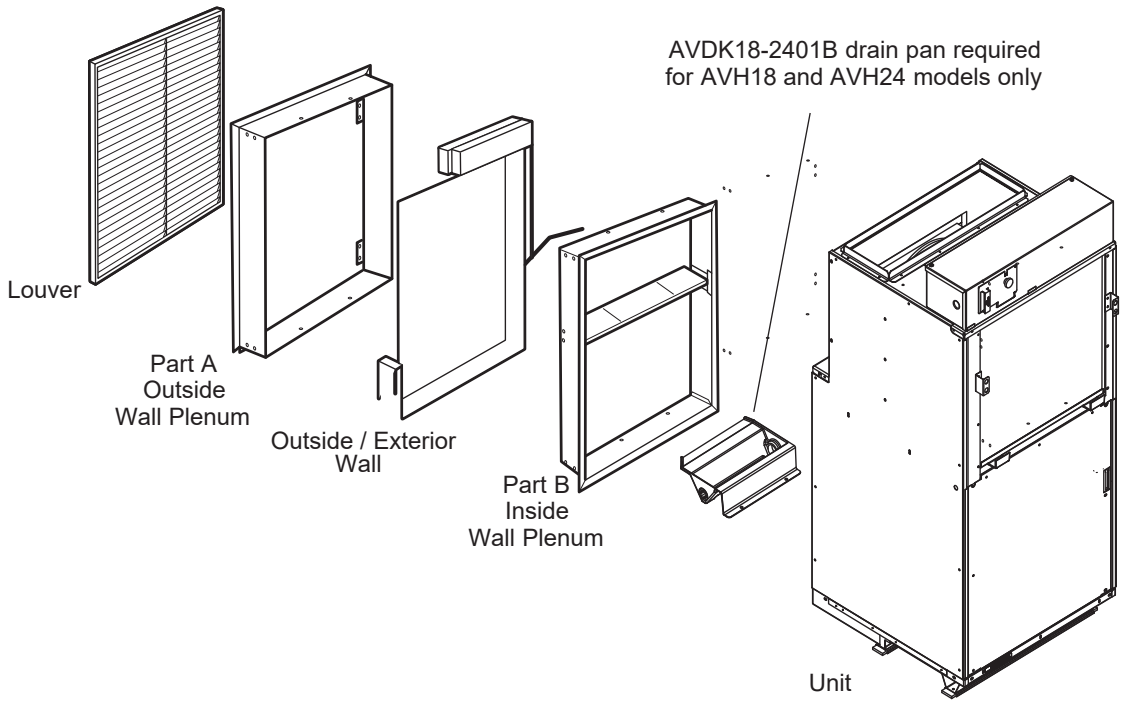
CONDENSER CFM & EXTERNAL STATIC PRESSURE

VTAC is designed to install through an exterior wall with a plenum (AVEWA05-08A, AVEW08-14A) and a AMANA Brand external louver .

Condenser External Static Pressure			
Model	Design		Maximum
	CFM	ESP (“WC)	ESP (“WC)
AVH09	650	0.03	0.12
AVH12	650	0.03	0.12
AVH18	950	0.03	0.12
AVH24	980	0.03	0.12

If the AMANA Brand designed plenum and louver combinations are not used, the selections and design must be evaluated by AMANA Brand to ensure the total pressure drop does not exceed the maximum allowable limits.

Typical Installation Overview



AVEWA05-08A = 5 1/2" - 8" D x 24 1/8" W x 30 3/8" H

AVEWA08-14A = 8" - 14" D x 24 1/8" W x 30 3/8" H

VTAC REQUIRED MINIMUM CLEARANCES

Building Exterior Unit Opening Requirements

VTAC units must be installed on an outside wall. Confined spaces and/or covered areas should be avoided. Units must be installed no closer than 12” apart when two units are side by side. If three or more units are to operate next to one another, maintain a minimum of 60” between units (Figure B) or pairs of units (Figure E). If more than two units are sharing a floor with adjacent, outset units, a minimum distance of 64” must be kept between units (Figure C). Also, a vertical clearance of 60” must be maintained (Figure A) between units. Units installed on the bottom floor must be mounted at least 6” off of the ground. If two units are facing each other, a minimum distance of 108” must be kept between units (Figure D).

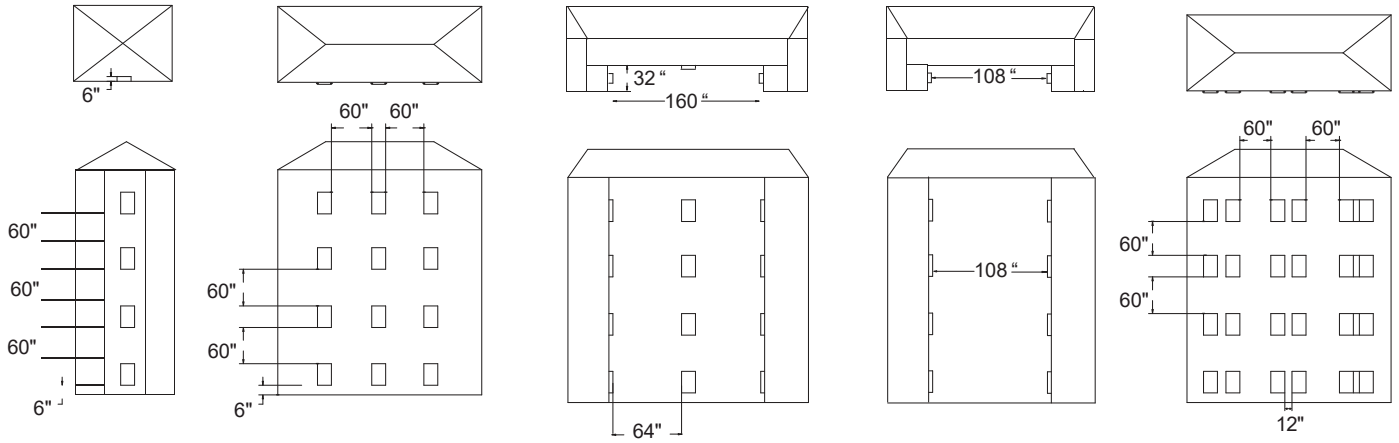


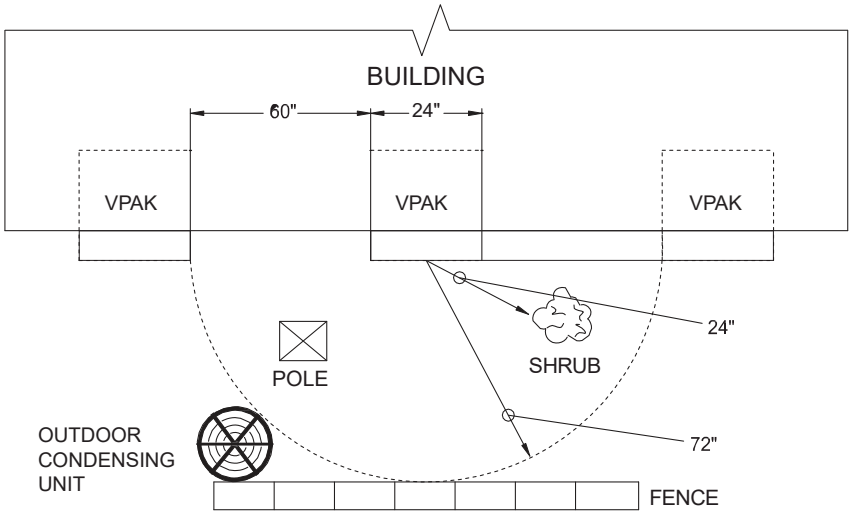
Figure A Figure B Figure C Figure D Figure E

Grill Clearance Requirements

Where obstructions are present use the following guidelines for proper spacing from the VTAC exterior louvered grill. It is recommended that ALL obstructions are a minimum of 72” from the exhaust.

For minor obstruction(s) such as lamp poles or small shrubbery, a clearance of 24” from the outdoor louver must be maintained.

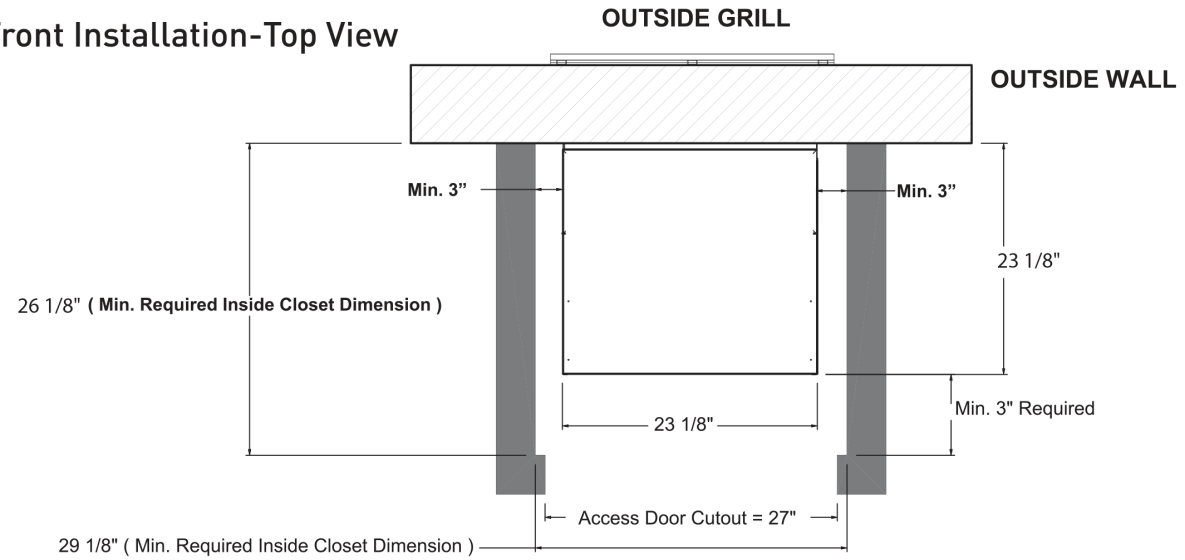
For major obstructions such as a solid fence, wall, or other heat rejecting devices like a condensing unit, a minimum distance of 72” must be kept.



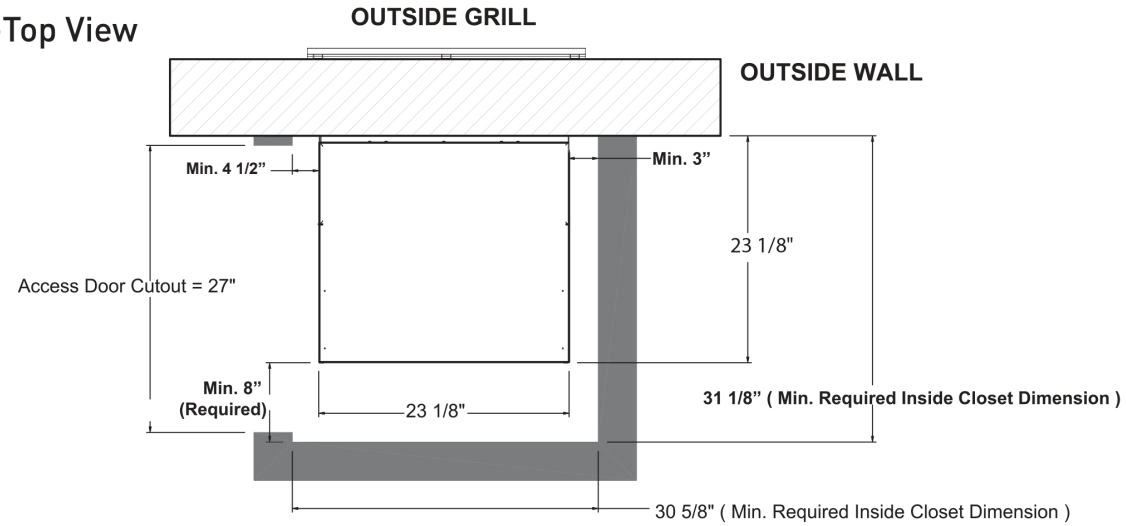
The the example pictured above is for reference only and does not represent all possible installations. Please contact AMANA Brand for information regarding effects of other installation arrangements.

CLOSET ORIENTATIONS & DIMENSIONS

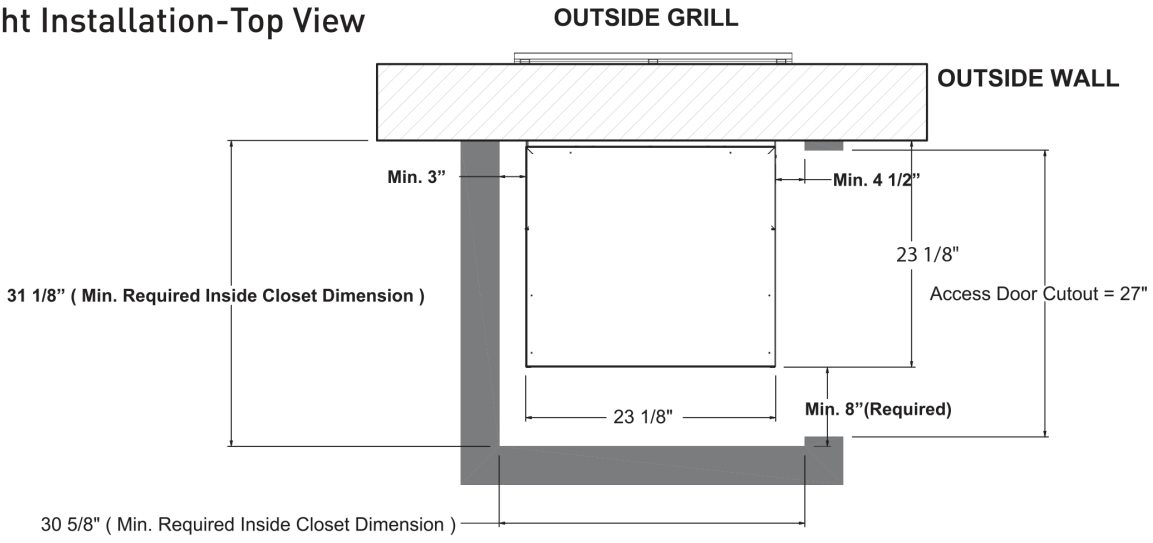
Front Installation-Top View



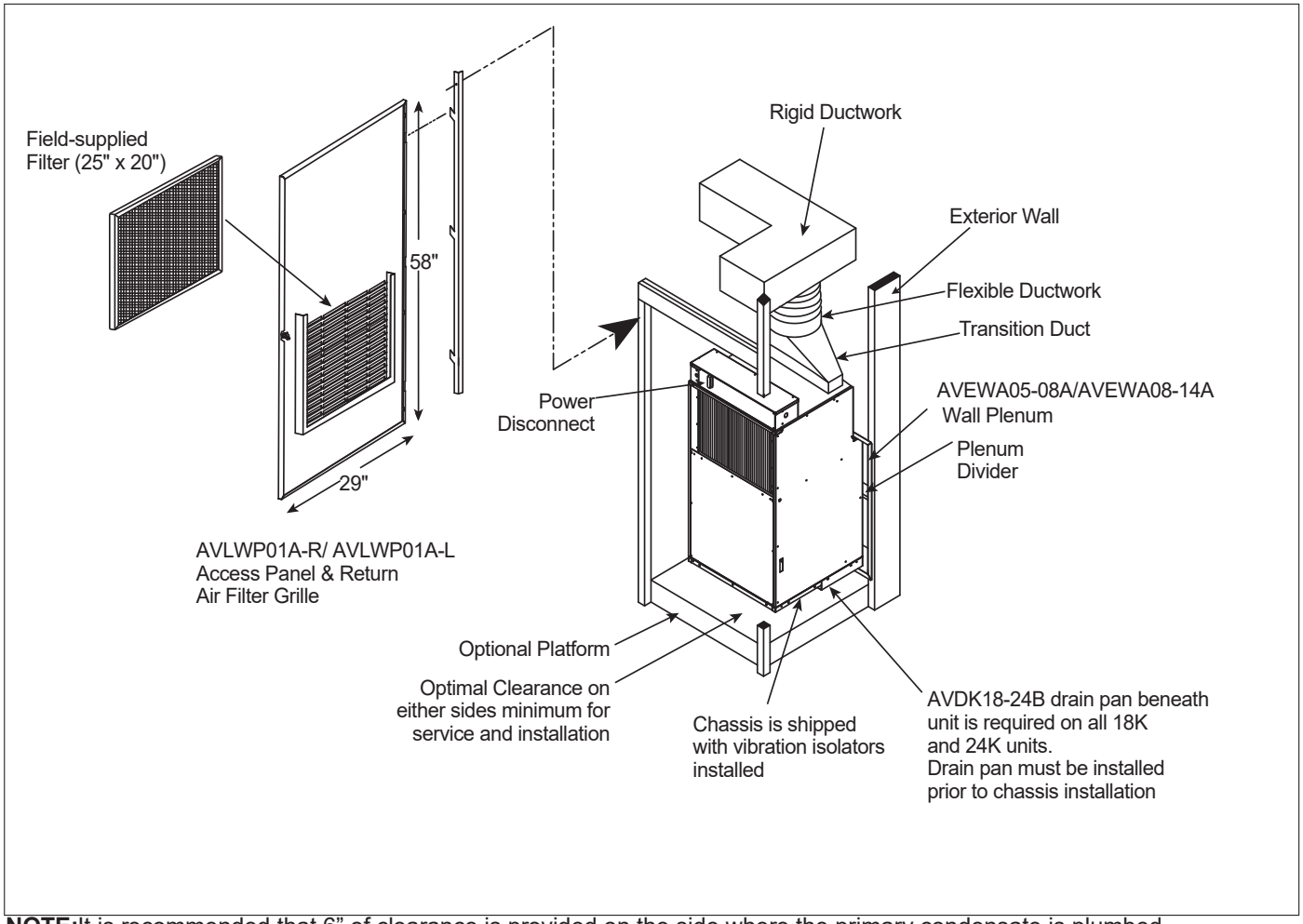
Left Installation-Top View



Right Installation-Top View



CLOSET VIEW

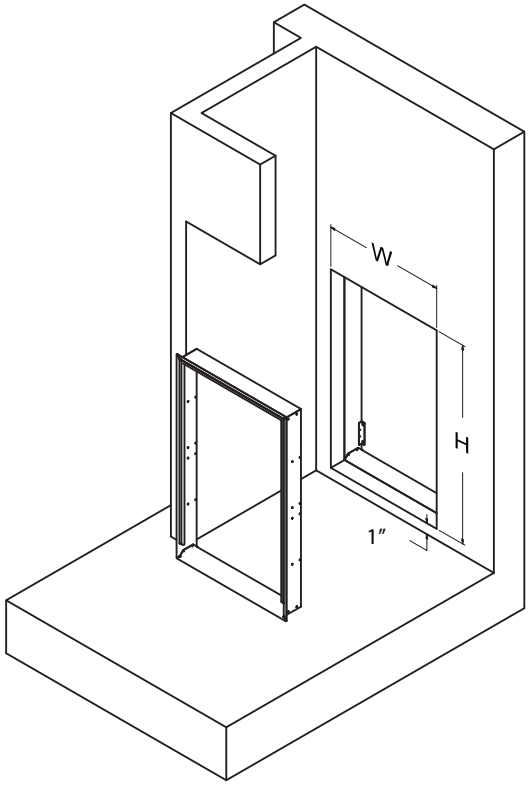


NOTE: It is recommended that 6” of clearance is provided on the side where the primary condensate is plumbed.

WALL OPENING DIMENSIONS

Exterior Wall Plenum Cut-Out

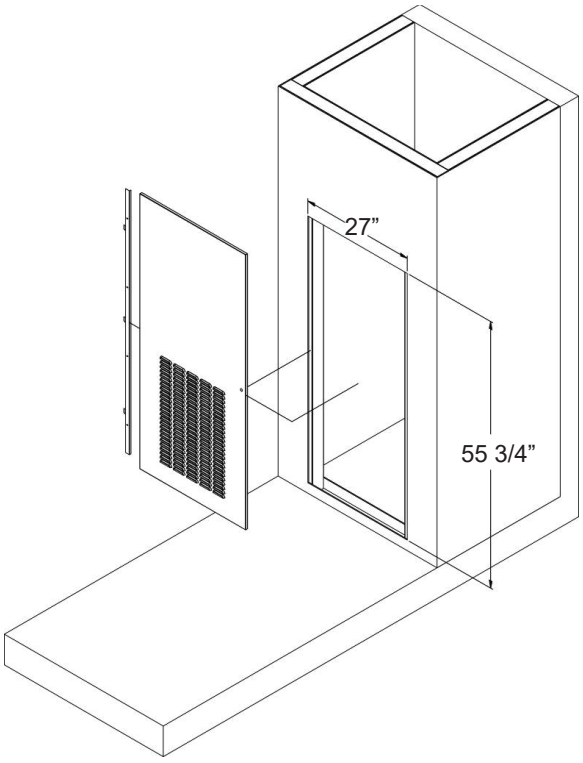
Dimensions (W x H):
24 5/8” x 30 7/8”



NOTE: The distance between the rough opening and the finished floor / platform must be 1”:

Return Air Access Door Wall Cut-Out

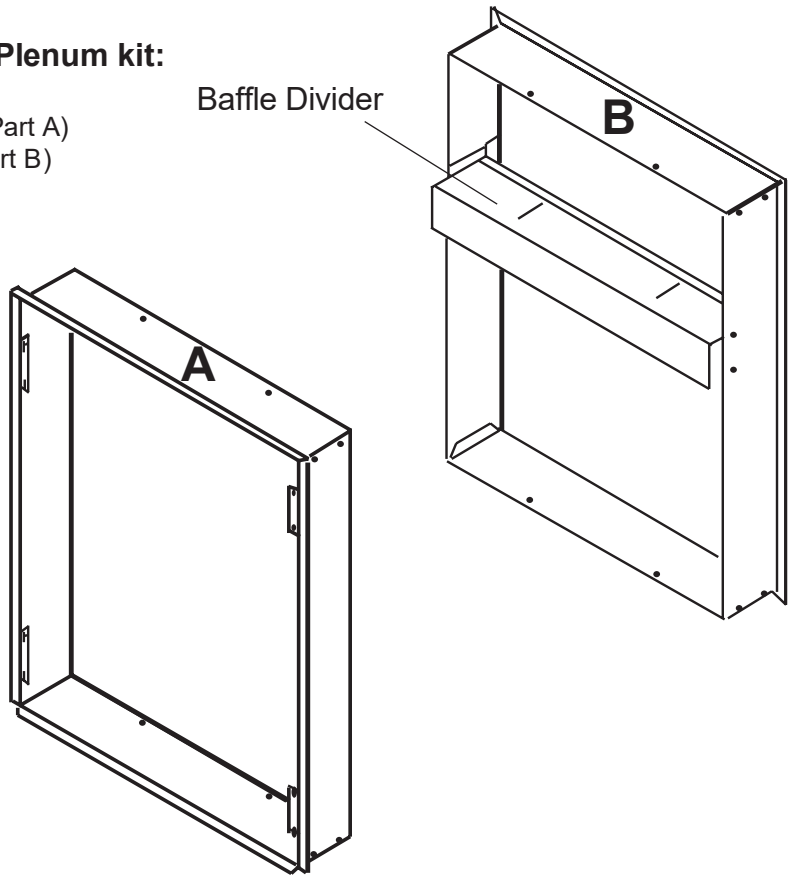
Dimensions (W x H):
27” x 55 3/4”



WALL PLENUM INSTALLATION

Parts included in Plenum kit:

Outside Plenum Half (Part A)
Inside Plenum Half (Part B)



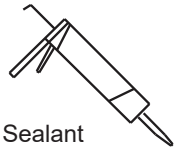
Field Supplied Parts:

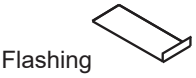
Sealant, attachment screws, and flashing
are field supplied. Silicone sealant is recommended.

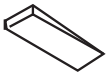
AVEWA05-08A adjust for walls up to 4”- 8” thick.

AVEWA08-14A adjust for walls up to 8” - 14” thick

All installations are similar.


Sealant

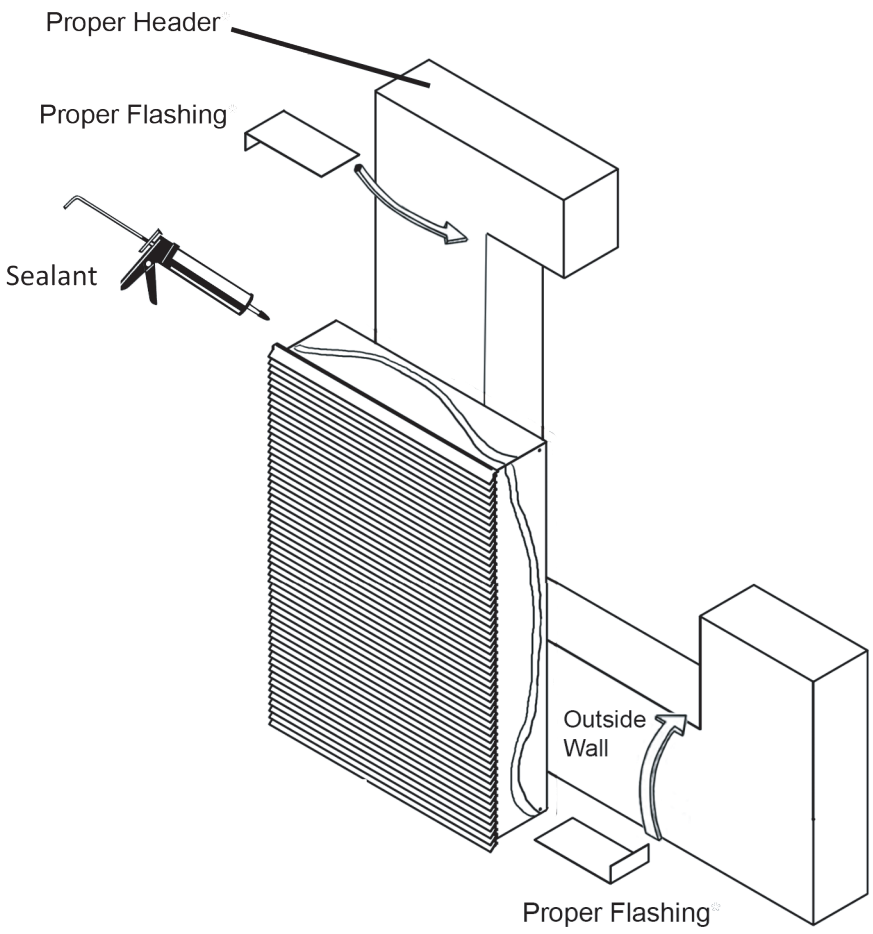

Flashing


Shim


1”-3” screws to at - tach the plenum assembly to the wall studs

WALL PLENUM INSTALLATION

Step 1 - Outside Wall Plenum Half

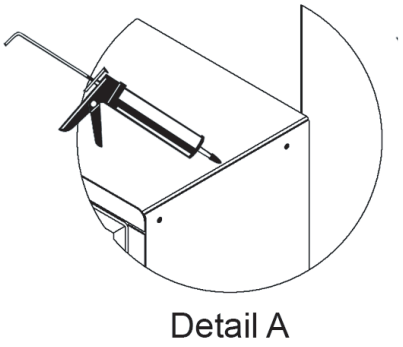


Note: The wall plenum is not designed to carry any structural load. A load bearing header must be built above the rough opening.

1. Prepare the rough opening. The rough opening should be lined with metal or wood. The plenum will warp if sealed against concrete or brick.
2. Dry fit the outside plenum half into the rough opening and check the fit and level.
3. Remove the outside plenum half, flash the rough opening to ensure proper fit and level.
4. Pre-installing the exterior louver (VPAL2) as shown above is optional (See Page 19).
5. Apply sealant to the outside plenum half and insert into the rough opening to ensure a water-tight seal. Ensure that the outside plenum half is securely attached to the framed opening.

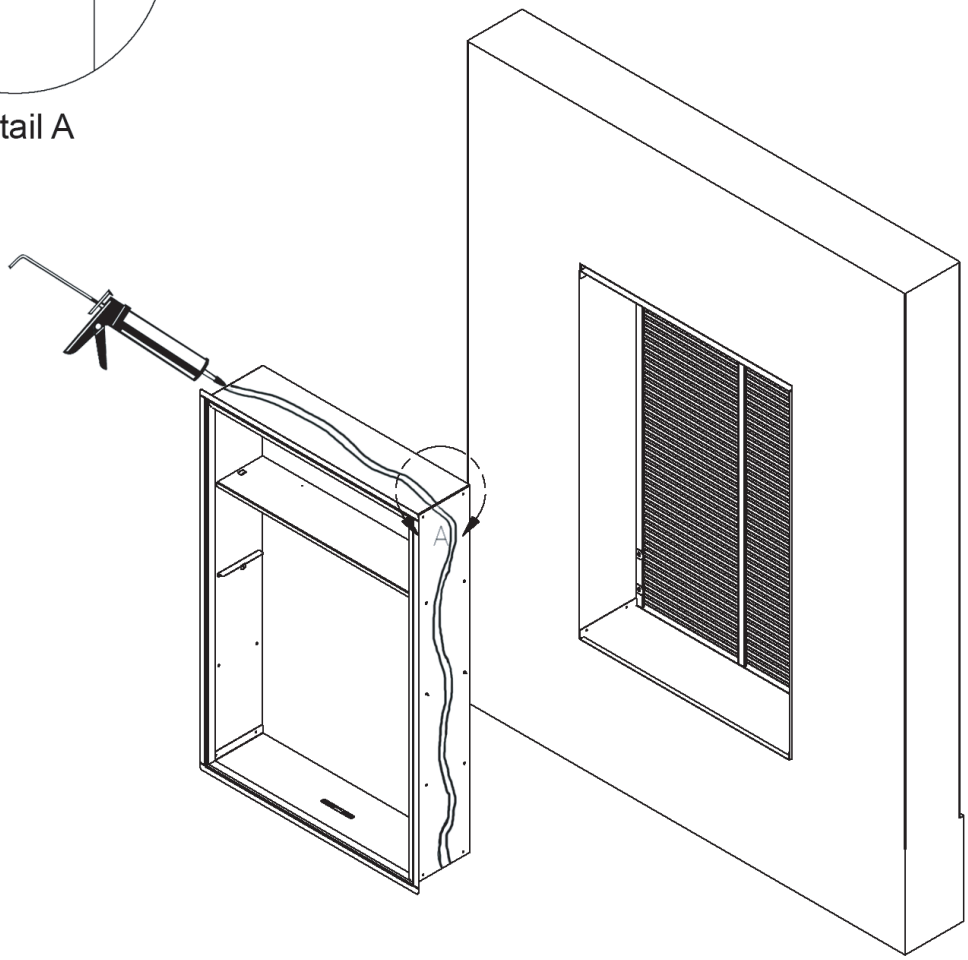
WALL PLENUM INSTALLATION

Step 2 - Inside Wall Plenum Half



Apply Sealant to all
4 flange corners and
unused holes.

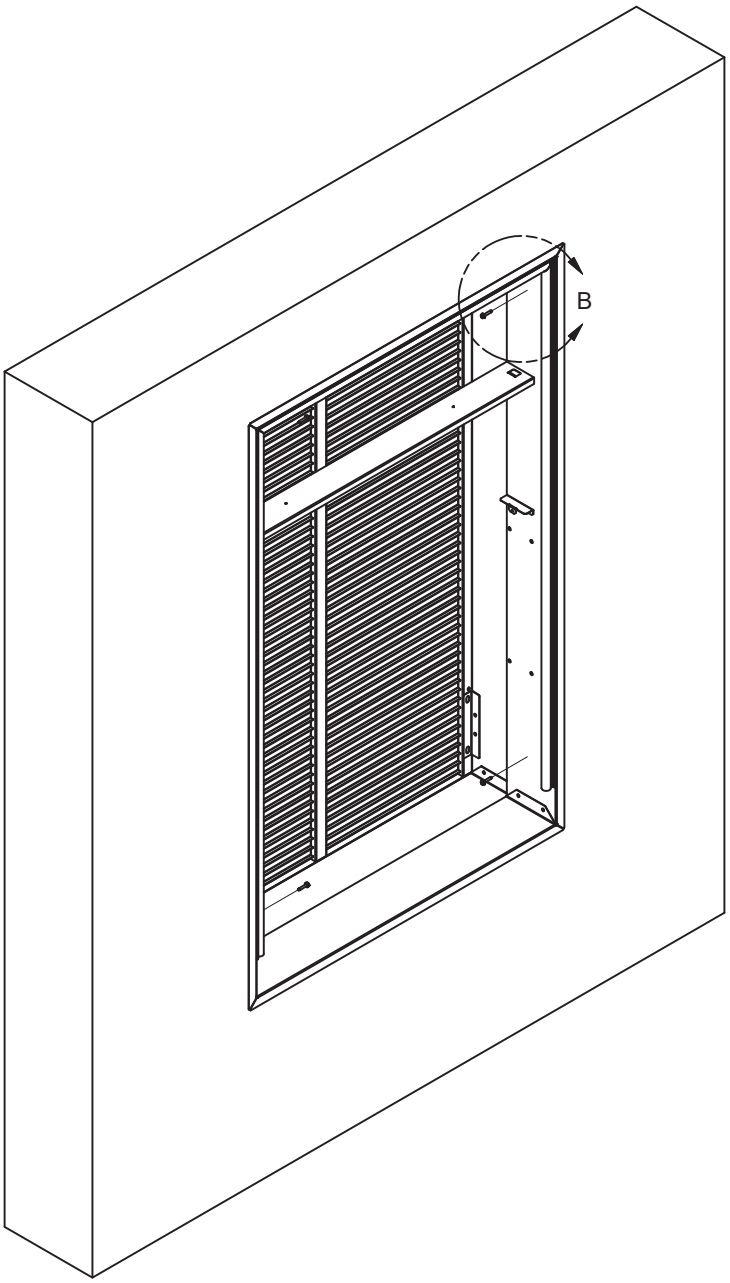
Detail A

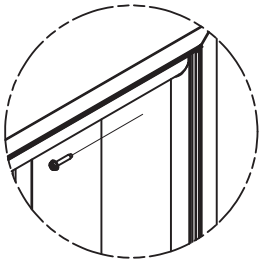


1. Apply sealant to all 4 flange corners and unused holes. See Detail A.
2. Flash the inside of the rough opening to ensure the proper fit and level.
3. Insert inside plenum half (Part B) into outside plenum half (Part A). Ensure that Part A does not back out of the rough opening.
4. Remove the inside plenum half.
5. Apply sealant to the inside plenum half and insert inside the outside plenum to ensure a water-tight seal.

WALL PLENUM INSTALLATION

Step 3 - Inside Wall Plenum (cont.)





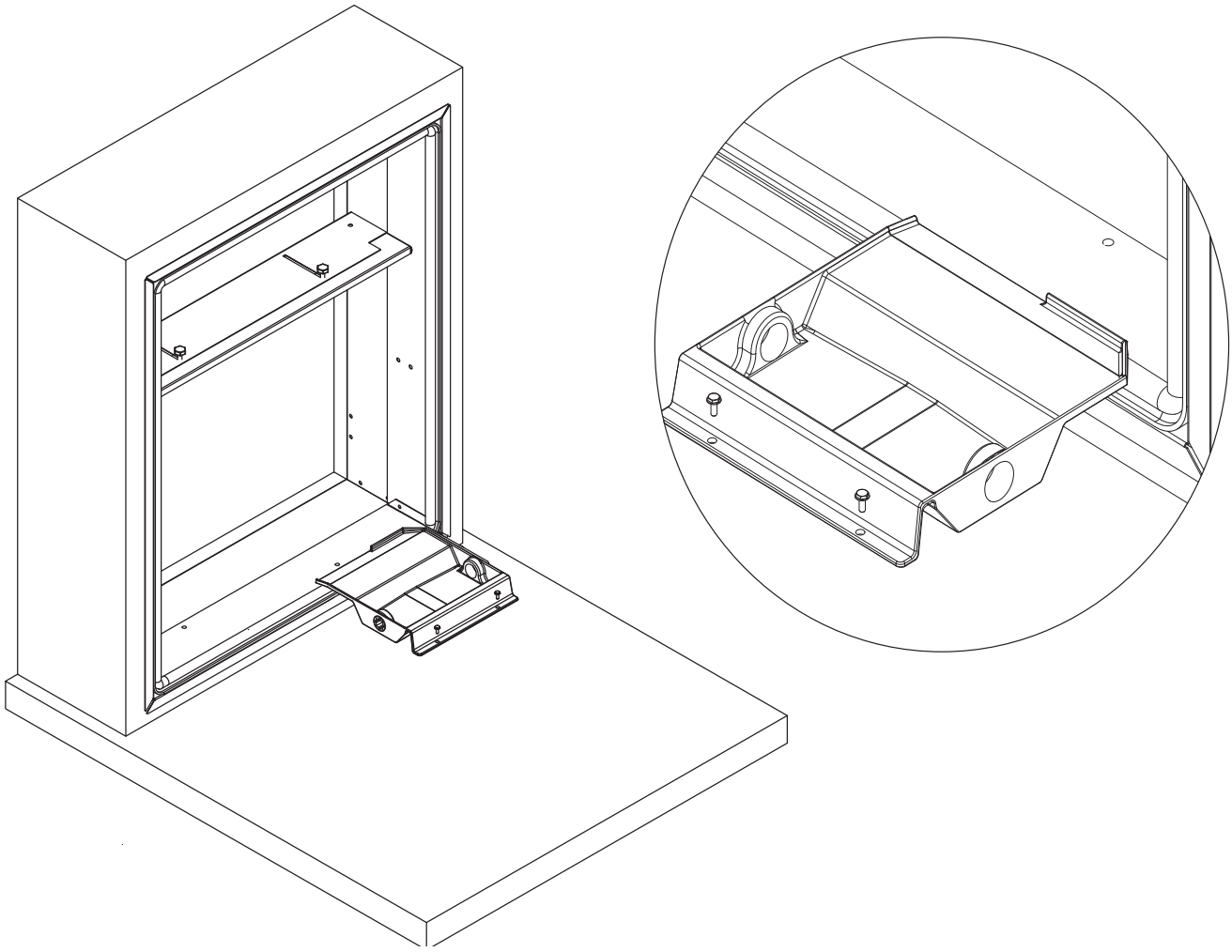
Detail B

NOTE: Do not place any screws, fasteners, or penetrating holes through the top or bottom of the plenum assembly.

1. Drill pilot holes on the interior of the inside plenum half (Part B) as show in Detail B. Pilot holes should be located approximately 4” from the top and bottom of the inside plenum half, on both the left and right sides.
2. Install fasteners through each pilot hole. Fastener must pass through both Part A and Part B. If the inside and outside plenum halves do not overlap at fastening point, be certain to drill extra holes where needed to secure both Part A and Part B to the rough opening.

WALL PLENUM INSTALLATION

Step 3a - Inside Wall Plenum Half AVH18 & AVH24 Drain Kit Installation

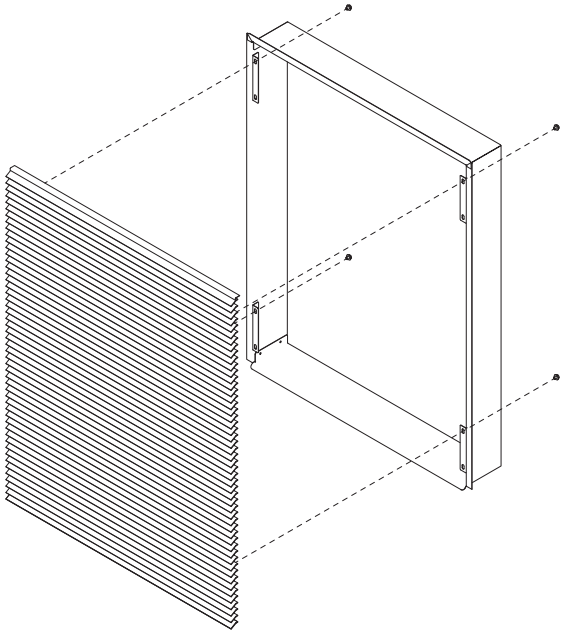


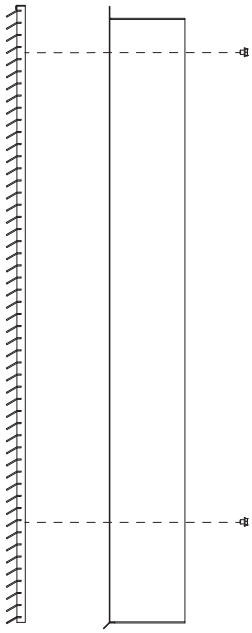
Note: The AVH18 and AVH24 models require installation of the large chassis drain kit (VPDP2). Please reference the VPDP2 installation manual for more detailed instructions.

1. Cut away gasket from the of the base of the inside wall plenum half the length of the drain kit beginning from the bottom right corner.
2. Place the AVDK18-24B where the gasket has been removed as shown above.
3. Ensure that the back lip of the AVDK18-24B is inserted no deeper than 1.5” into the exterior opening.
4. Secure the AVDK18-24B to the finished floor or platform.

LOUVER INSTALLATION

Installation of the louver PRIOR to wall plenum installation



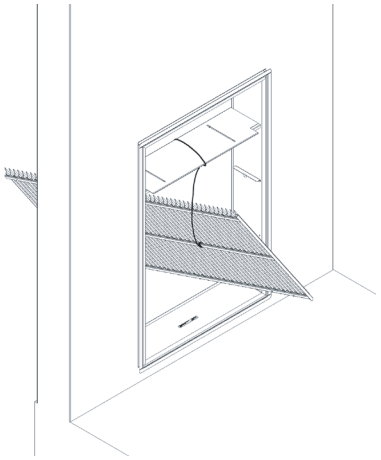


1. Hold the louver up to the outside plenum half (Part A) and line up the louver top with the very top edge of the ¾” flange.
2. Line up the wall plenum holes with the threaded holes in the louver and securely tighten fasteners.

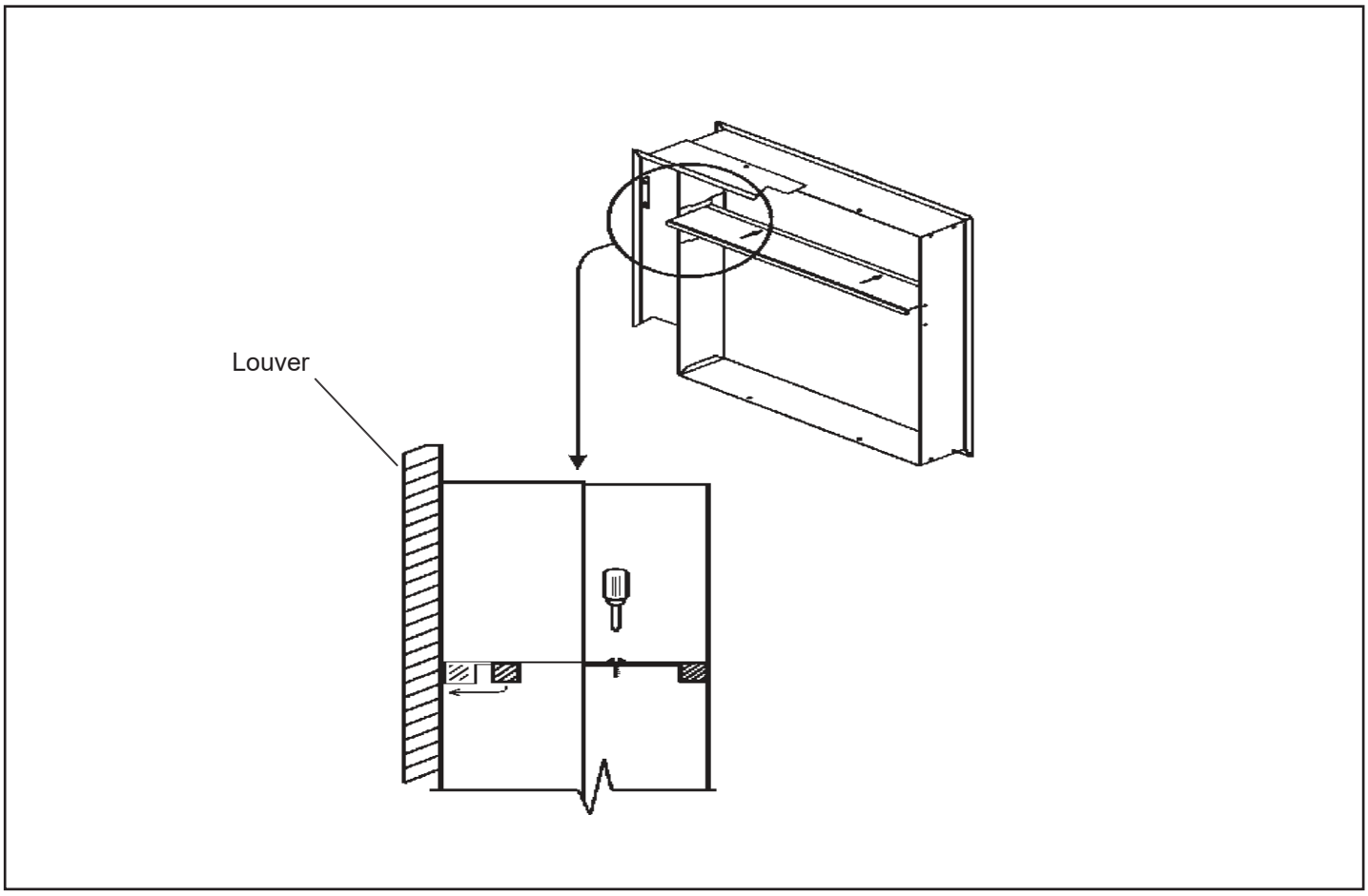
Installation of the louver AFTER the installation of wall plenum on elevated floors

From the interior of the utility closet:

1. Tie a rope or tether to the architectural louver and the divider in the wall plenum to prevent it from falling if dropped.
2. Turn the louver sideways and push the louver out below the divider in the wall plenum.
3. Pull the louver back against the wall plenum and align the holes.
4. Insert and tighten all eight provided fasteners. When the louver is secured, remove the safety tether.



FINAL WALL PLENUM AND ARCHITECTURAL LOUVER INSTALLATION



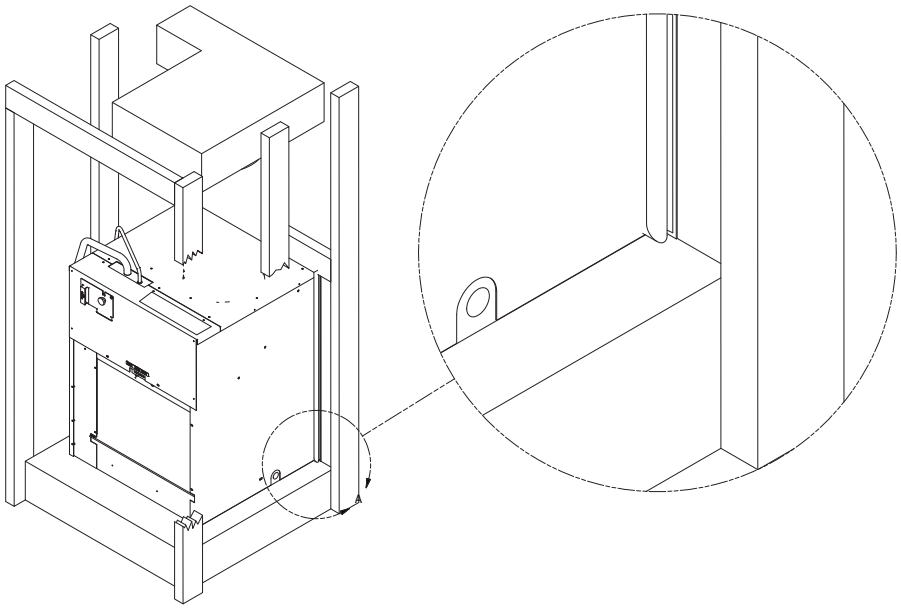
NOTE: ENSURE THAT THE WEATHER STRIP IS UNDAMAGED AND PROVIDES A CONTINUOUS SEAL AROUND THE INNER PERIMETER OF THE PLENUM.

Apply silicone grease or other non-petroleum-based lubricants to the weather strip to enhance the sealing capability of the weather strip and ease installation of the air conditioner chassis.

1. Loosen the two set screws located on the top side of the divider.
2. Slide the top part of the divider toward the outside until the sealing strip makes contact with the exterior louver.
3. Tighten the set screws to complete the adjustment.

NOTE: LET ALL FLASHING CURE COMPLETELY BEFORE INSTALLING THE CHASSIS.

CHASSIS INSTALLATION



1. Ensure that the wall plenum and louver are installed in accordance with the instructions listed on pages 13-18.
2. Place the chassis into the closet with the outdoor side facing the wall plenum opening.
3. Slide the chassis into the wall plenum until the plenum divider seal is established.

NOTE: THE VTAC CHASSIS MUST BE INSERTED INTO THE WALL PLENUM SO THAT THE PLENUM DIVIDER GASKET MAKES CONTACT WITH
THE PLASTIC CONDENSER BAFFLE ON THE UNIT. THE CHASSIS WILL FIT APPROXIMATELY 2 3/8" INTO THE WALL PLENUM.

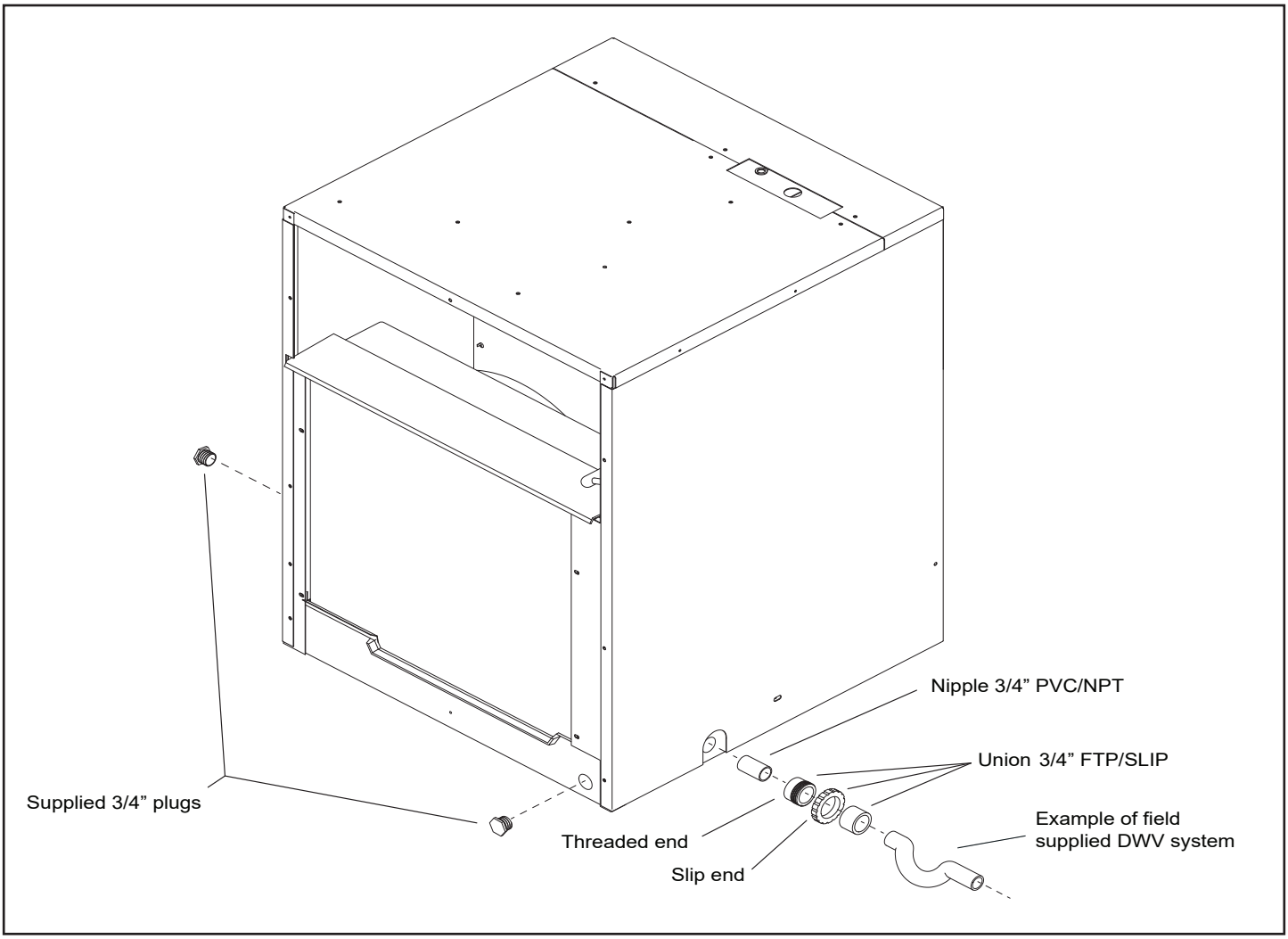
⚠ CAUTION

CUT/SEVER HAZARD
SOME EDGES MAY BE SHARP.
USE GLOVES OR OTHER HAND PROTECTION WHEN HANDLING THE UNIT.
FAILURE TO DO SO CAN RESULT IN MINOR TO MODERATE PERSONAL INJURY.

⚠ CAUTION

EXCESSIVE WEIGHT HAZARD
USE TWO OR MORE PEOPLE WHEN INSTALLING YOUR AIR CONDITIONER.
FAILURE TO DO SO CAN RESULT IN BACK OR OTHER INJURY.

PRIMARY DRAIN INSTALLATION



Failure to follow the following procedures may result in serious property damage. A field supplied secondary condensate pan or P-trap may be required. Check with local codes. In case of drainage system blockage, the unit base will allow excess water to flow out of the unit through the plenum and the architectural louver. It is critical to ensure that the drainage path is not blocked or obstructed in any way during installation.

1. The supplied drain kit must be connected to one of the three (left, right or rear) 3/4” FPT connections on the unit base pan. Use of rear fitting without connection to DWV system (drain, waste, vent) may result in staining of the outside wall.
2. Insert the provided 3/4” nipple into the determined connection using field-supplied Teflon tape or pipe joint compound.
3. With the slip end of a 3/4” union, connect to the nipple with Teflon tape or pipe joint compound.
4. Hand-tighten all fittings to prevent damage to unit or fittings.
5. Install a field-supplied drain system to the slip end of the union. A trap is recommended and drain connections should be connected to building DWV system. Pitch the drain line of a 1/4” downward slope for every foot (1’) of lateral horizontal run to the DWV.
6. Plug the two unused connection ports with the two provided 3/4” pipe plugs with field-supplied Teflon tape or pipe joint compound. Hand tighten to prevent damage to the unit or fittings. Do not thread metal or copper pipe fittings directly into unit.
7. Check the system for leaks.

INDOOR RETURN AIR GRILLE AND DUCTWORK INSTALLATION



Option 1

VPRG4/R Return Air Grille with Access Panel
A field-supplied (25" x 20") can be mounted inside the hinged access door. The door can be installed with the grille oriented at the top of the panel for improved sound attenuation.



Option 2

Field Supplied Return Air Grille
A field supplied return air grille divorced from the access panel must have a minimum 250 square inches of free area.

NOTE: ALL VTAC UNITS ARE SHIPPED WITH A 20" X 14" FILTER INSTALLED. IF A DIFFERENT FILTER HOLDER OR LOCATION IS TO BE USED, THE FILTER ON THE CHASSIS MUST BE REMOVED.

DUCTWORK

The supply duct system should be designed using a recognized method such as the equal fraction or velocity reduction method, using the appropriate duct calculator(s) for the type(s) of duct being used in the system. The duct system should be designed for a maximum friction rate of 0.3" with the AVH09 & AVH12, and 0.4" with the AVH18 & AVH24 water column taking into consideration all fittings, registers and/or diffusers.

NOTE: DO NOT OPERATE THE UNIT WITHOUT A SUPPLY DUCT ATTACHED. THE RETURN AIR TO THE VTAC UNIT MUST NOT BE DUCTED AND ALL UNITS MUST HAVE A FREE RETURN AIR CONFIGURATION TO PERFORM PROPERLY.

NOTE: FOR RETROFIT JOBS, ADDITIONAL CLEARANCE MAY BE REQUIRED FOR THE FIELD SUPPLIED 10" ROUND TO RECTANGULE TRANSITION DUCT FOR AVH09, AVH12, AVH18, & AVH24.

REMOTE THERMOSTAT CONNECTION

Remote Thermostat

All AMANA Brand VTAC units are configured to be controlled by using a dual stage heat/cool remote wall mounted thermostat.
The thermostat may be auto or manual changeover as long as the control configuration matches that of the VTAC unit.

To connect the wall mounted thermostat:
1. Pull the disconnect switch.
2. Unscrew and remove the control box panel.
3. Select which side to run your thermostat wire.
4. Run the wires through the side hole in the box to reach the connection terminal wiring.
5. Make the connections, appropriately matching the wires as shown in the wiring diagram.
6. Reattach the control box cover.

Terminal Code	Wire Connection Function
C	Common Ground Terminal
G	Call for Fan*
B	Call for Heat Pump (Reversing Valve)
Y	Call for Compressor
W2	Emergency Heat
R	24 VAC to Wall Thermostat

*Fan control as per page 8 of this IOM

Note: It is the installer's responsibility to ensure that all control wiring connections are made in accordance with the installation instructions. Improper connection of the thermostat control wiring and or tampering with the unit's internal wiring may result in property damage, personal injury, or death. Questions concerning proper connections to the unit should be directed to the factory.

Note: Any non-AMANA Brand thermostat or low voltage device being powered by the VTAC will need to be reviewed and approved for use.

Note: For additional information, please review the latest AMANA Brand VTAC Service Manual.

FINAL INSTALLATION CHECKLIST

WARNING

ELECTRICAL SHOCK HAZARD
TURN OFF ELECTRIC POWER BEFORE SERVICE OR INSTALLATION.
UNIT MUST BE PROPERLY GROUNDED.
UNIT MUST HAVE CORRECT FUSE OR CIRCUIT BREAKER PROTECTION. UNIT'S SUPPLY CURCUIT MUST HAVE THE CORRECT WIRE CONDUCTOR SIZE. ALL ELECTRICAL CONNECTIONS AND WIRING MUST BE INSTALLED BY A QUALIFIED ELECTRICIAN AND CONFORM TO THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES WHICH HAVE JURISDICTION. FAILURE TO DO SO CAN RESULT IN PROPERTY DAMAGE, PERSONAL INJURY AND/OR DEATH.



- Inspect and ensure that all components and accessories have been installed properly and that they have not been damaged during the installation process.
- Ensure that all installation instructions concerning clearances around the unit have been adhered to. Check to ensure that the unit air filter, indoor coil, and outdoor coil are free from any obstructions.
- Ensure that the circuit breaker(s) or fuse(s) and supply circuit wire size have been sized correctly.
- Check the condensate water drain(s) to ensure that they are adequate for the removal of condensate water and that they meet approval of the end user.
- Ensure that the entire installation is in compliance with all applicable national and local codes and ordinances having jurisdiction.
- ENSURE THAT THE SUPPLY VOLTAGE TO THE UNIT IS WITHIN THE OPERATING RANGE
- Secure all access panels (i.e. front cover and/or control box), apply power to the unit. The unit commissioning should be done at this time to ensure unit function.

NOTE: MAINTAINING A LOG FOR RECORDING THE DATES OF MAINTENANCE AND/OR SERVICE IS RECOMMENDED, AND SHOULD BE SUGGESTED TO THE OWNER OR OPERATOR OF THE EQUIPMENT.

- Present the owner or operator of the equipment with the Installation & Operation Manual, all accessory installation instructions, and the name, address and telephone number of the Authorized AMANA Brand Warranty Service Company in the area for future reference if necessary.

NOTE: THE UNIT IS NOT DESIGNED TO GUARANTEE CONTINUOUS OPERATION WITH OUTDOOR AMBIENT CONDITIONS GREATER THAN 115F.

UNIT OPERATION

FRESH AIR DOOR
The fresh air door is an "intake" system. It is opened via a slide mechanism on the front of the chassis located just above the indoor coil. Move the slide left to open and right to close the door. The system is capable of delivering up to 60 CFM of outdoor air.

LOW AMBIENT COMPRESSOR CUT OUT
Each chassis is equipped with low ambient protection that is protected with a low pressure switch. The feedback will prevent the compressor from operating at low suction temperatures.

HIGH AMBIENT COMPRESSOR CUT OUT
Each chassis is equipped with high ambient protection that is protect with a high pressure switch. The feedback will prevent the compressor from operation at high condensing temperatures.

HEAT PUMP OPERATION
The unit is designed to operate heat pump as the primary source of heating without a cutoff temperture. The cutoff temperature can be set at the thermostat ,depeding on the type of thermostat used. The unit will operate as heat pump until the thermostat sends an emergency heat (W2) signal to the equipment.

DEFROST MODE
When the outdoor coil accumulates enough frost, the unit will cycle through a defrost mode, during which the compressor and partial electric heat will operate concurrently so that the conditioned space is not compromised. Once the outdoor coil rises above 80F, the unit will resume its normal operation.

WARNING

THIS EQUIPMENT IS NOT INTENDED FOR USE DURING CONSTRUCTION. THE USE OF EQUIPMENT DURING CONSTRUCTION COULD RESULT IN PREMATURE FAILURE OF THE COMPONENTS AND/OR SYSTEM.

SERVICE

Servicing / Chassis Quick Change Outs

The chassis is designed for quick disconnect and change out. For minor electrical service, the control box cover lifts straight up after the screws and disconnect pull-out are removed. For major electrical,refrigeration, and fan service the chassis should be removed from the utility closet.

WARNING

Electrical Shock Hazard
Pull out electrical disconnect on front of the chassis and turn off all power to unit before servicing.
Failure to do so can result in property damage, personal injury and/or death.



Routine Maintenance Performing Routine Maintenance

With proper maintenance and care, your system will operate economically and dependably. Maintenance can be accomplished easily by referring to the following directions. However, before performing any maintenance, see above stated WARNING.

CAUTION

Cut/Sever Hazard
Some edges may be sharp.
Use gloves or other hand protection when handling the unit.
Failure to do so can result in minor to moderate personal injury.

Replace Air Filter

A dirty air filter reduces the efficiency of your VTAC unit and allows lint and dirt to accumulate on the indoor coil. Lint and dirt on the indoor coil can damage your unit. The air filter should be replaced as it becomes dirty. To replace the chassis mounted return air filter:

1. Slide the holders away from the filter.
2. Remove the filter.
3. Install a new disposable filter.
4. The unit filter sizes are 20″ x 14″ x 1″ or 20″ x 18″ x 1″ (VHA24)

Note:Do not operate your system without a filter in place or block the front of the unit return air opening.

Inspect and Clean Indoor Air Coil

Eventually, minor amounts of lint and dirt may pass through the filter and collect on the indoor-air coil. These minor accumulations can be carefully vacuumed away with a brush attachment on a vacuum cleaner. Care must be taken to avoid bending the aluminum fins on the coil. Bent fins should be straightened using a special fin tool available from most HVAC supply depots.

Inspect Outdoor Air (OA) Intake and Exhaust

The unit's outdoor-air intake and outdoor-air exhaust paths must remain clear. Keep it free of all debris, snow, or ice. The OA intake should also be kept free of obstructions. Blocking the OA exhaust or OA intake opening will reduce the efficiency of your unit and could damage it.

Inspect and Clean Condensate Drain

The condensate drain must be routed to a suitable drainage area. Check the unit condensate drain periodically. Keep it free of anything that may block or impede the flow of condensate water. If there is any accumulation of foreign matter in the drain pipe, it should be removed and cleaned. The entire drain line must be protected from freezing.

To Remove the Chassis from the Closet:

1. Switch the unit off at the thermostat.
2. Disconnect the power coming into the unit from the main breaker panel or the closet mounted disconnect.
3. Disconnect the electrical connection.
4. Disconnect the duct work.
5. Slide the chassis out of the wall plenum.
6. Slide and slightly lift chasis out of the utility closet.

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OBTAINING SERVICE

In the event this unit requires repair or servicing beyond what is covered in this manual, contact an authorized service organization.

To obtain an authorized servicer, contact your sales representative.

CUSTOMER FEEDBACK
We are very interested in all product comments.
Please fill out the feedback form on the following link:
https://daikincomfort.com/contact-us
You can also scan the QR code on the right to be directed to the feedback page.

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