AIRSYS
Balance the Environment

COM4T

AIRSYS COM4T Indoor Packaged Heat Pump

Installation and Operation Manual

Models

CV36N3A

CV60N3A

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, 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 appliance.

AIRSYS
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Greer, SC 29334
855-874-5380

https://airsysnorthamerica.com

Table of Contents

Chapter 1: Introduction

Using this Manual

Read this manual carefully before attempting to install or start the unit. Retain this manual for reference for the entire operational life of the unit. This manual provides information on the following topics:

- Product overview
- Instructions for physical, and electrical installation of heat pump units
- User's guide

For safety and to achieve the highest levels of performance, always follow the warnings and cautions in this manual when handling and operating the AIRSYS unit.

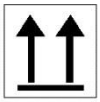
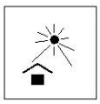
Danger. Emphasizes hazardous conditions that could cause personal injury or death.

Warning. Indicates where the operator must proceed with caution to avoid personal injury or damage to property.

Important. Indicates technical information critical for proper installation or operation.

Table 1 lists symbols that may appear on the external packaging.

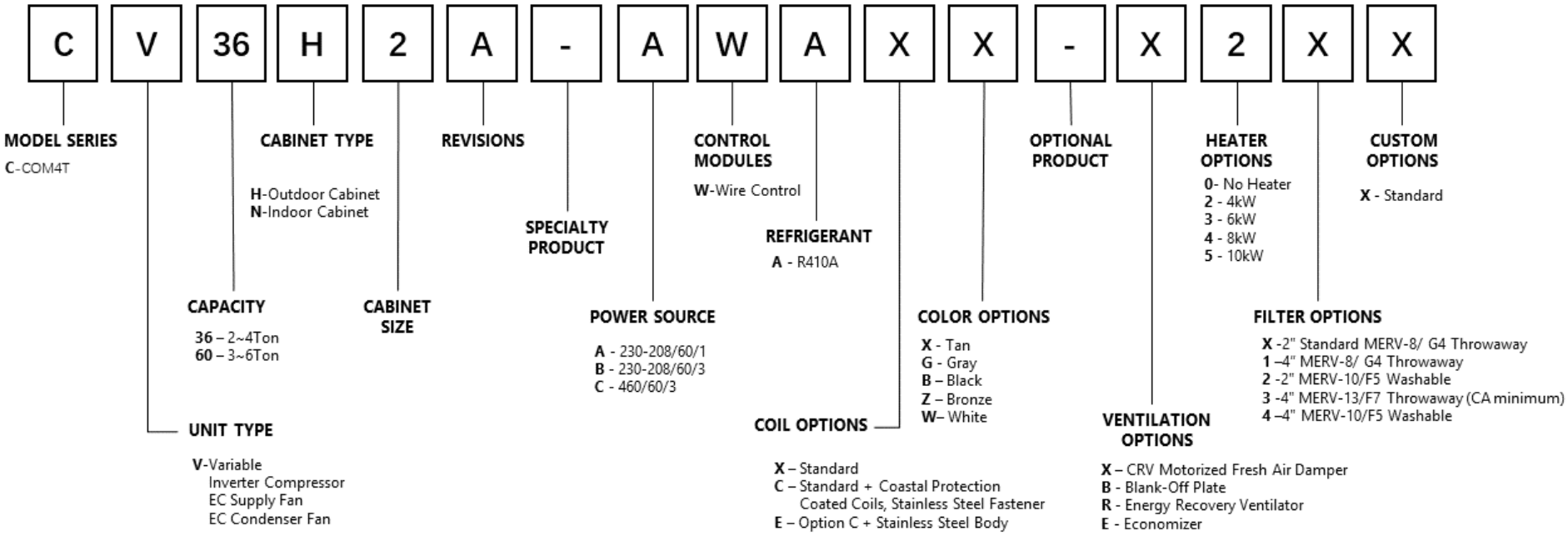
Table 1 : Packaging Symbols

Symbol	Description	Symbol	Description
	THIS SIDE UP Shows the orientation of the unit.		NO HOOKS Do not use hooks to lift the packed unit.
	FRAGILE Handle with care.		KEEP AWAY FROM HEAT The unit must be kept away from heat sources.
	PROTECT AGAINST RAIN: The packaged unit must be stored in a dry place.		DO NOT STACK

Model Number Nomenclature

Each unit is identified by a model number, such as CV36N3A-AWAXX-X2XX. The elements in the number are explained in Figure 1**Error! Reference source not found.**.

Figure 1: Model Number



Acronyms and Abbreviations

Table 2 lists acronyms and abbreviations used in this manual.

Table 2 : Acronyms and Abbreviations

Term	Meaning
A	Ampere, unit of electric current, or rate of flow of electricity
AAST	AIRSYS Authorized Service Technician
AUT/MAN	Automatic/Manual
BMS	Building Monitoring System
CFM	Cubic Feet per Minute
Com	Common
Comp	Compressor
Cond	Condenser
CRV	Commercial Room Ventilator
DC	Direct Current
EC	Electronically Commutated (Refers to variable speed evaporator/supply fan)
ERV	Energy Recovery Ventilator
Evap	Evaporator
FC	Free Cooling
HVAC	Heating, Ventilation, and Air Conditioning
Humid	Humidity
I/O	Input/ Output
kW	Kilowatt
LED	Light Emitting Diode
MC	Mechanical Cooling
N.C.	Normally Closed
N.O.	Normally Open
PSI	Pounds per Square Inch
PWM	Pulse Width Modulation
R	Read Only
RoHS	Restriction of Hazardous Substances Directive
R/W	Read/Write
Temp	Temperature
VAC	Voltage in Alternating Current
VDC	Voltage in Direct Current

Chapter 2: Product Overview

The AIRSYS COM4T Indoor Heat Pump is a self-contained energy efficient heating and cooling system, which is designed to offer maximum indoor comfort at a minimal cost without outside space. General airflow diagram is shown in Figure 2.

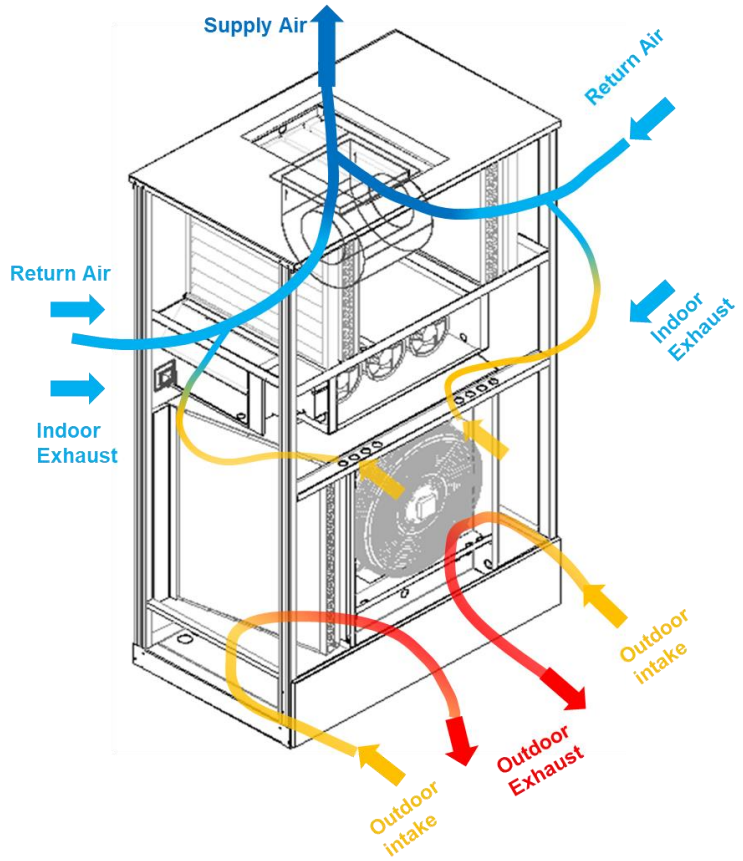


Figure 2 Basic Operation

The unit has built in filter. If using additional return filters, filter must be of sufficient size to allow a minimum airflow velocity of 400fpm.

Ventilation Options

Blank Off Plate

The blank-off plate prevents outside air from entering the building.
All capacity and efficiency ratings are based on installation of the blank off plate. This is recommended for maximum energy efficiency if no ventilation is needed.

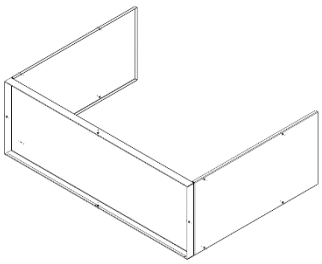


Figure 3: Blank Off Plate

Commercial Room Ventilator (CRV)

The power open, spring close, type fresh air damper allows outside fresh air to enter the building. The adjustable actuator allows varying amounts of outside air to enter the building.
There are (5) blade positions to adjust the airflow allowed into the building:

Table 3: CRV Air Flow Data

Fresh Air Flow (CFM)		
Damper Position	**CV36**	**CV60**
1	550	600
.8	450	550
.6	300	400
.4	180	250

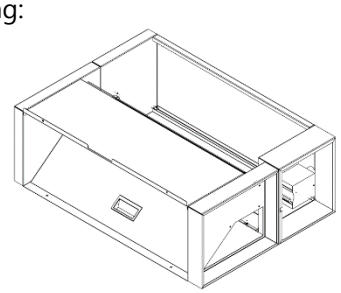


Figure 4: Commercial Room Ventilator

Energy Recovery Ventilator (ERV)

The energy recovery ventilator harvests energy contained in the exhaust air by mixing it with fresh air across a stationary cubic heat exchanger. The filter medium is designed to be pulled out for easy cleaning and replacement.

Table 4: ERV Characteristics

ERV characteristics		
Dial Position	**CFM**	**Efficiency**
6	450	54%
5	400	58%
4	350	62%
3	250	66%
2	220	70%

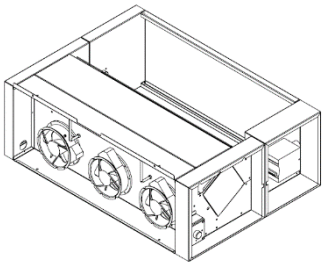
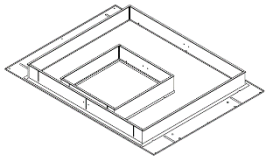


Figure 5: Energy Recovery Ventilator

Optional Accessories

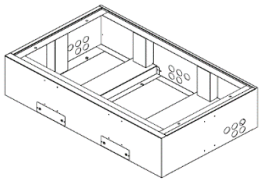
Window Duct Frame (Wall Sleeve)

Window duct frame allow smooth wall/window transition to the exterior of the building and separates exhaust air from fresh air intake to ensure efficient operation. Available for 8 or 13in window depth.



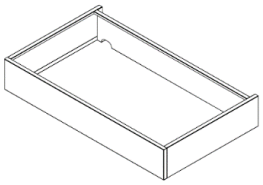
Base Extension

Base extension elevates the indoor unit when needed. The extension supports the weight the unit and provides cable entry. Available in 6, 9, and 14in height.



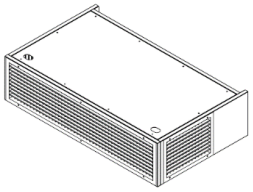
Top Cover Panel

Covers transitions to ducting from the top of the unit. Can be custom cut in the field for flexible height. Maximum height 8in.



Free Discharge Plenum

Free discharge plenum supplies horizontal air flow directly at the top of the indoor HVAC. Includes adjustable grille. Available in 8 or 12in height

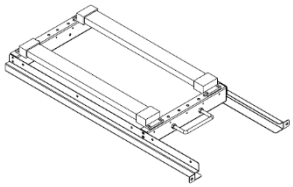


Side Cover Panel

Covers side transitions to walls. Can be custom cut in the field for flexible height. Available in 6 or 10in width.

PTC Electrical Heater

The PTC electrical heater has both fast thermal response time and low inrush current. A protection device will automatically cut current when unsafe levels are reached. The outer edge of the PTC heating component is designed with double insulation. When in contact with metal, it will not cause short circuits.



Non Standard Filters

2" MERV8/G4 pleated filters are standard with each unit. The filter slides into for easy serviceability. This filter can be serviced from the outside by removing the filter access panel. Filters are also available in MERV10/F5 and MERV13/F7.

Chapter 3: Installation

Installation Preparation

Unpack the unit carefully. Some parts are packed loosely and may move as the packaging is opened. Before discarding the box, check the packaging carefully for any parts or documents inside. Refer to Table 5 on Page 12 for the complete list of materials shipped with each unit.

Check for the following:

- The supply voltage meets the requirements as designated: 197-252VAC.
- The install location is clean and free of excess dirt and dust.
- Ensure that minimum clearance requirements are met (see Clearances on page14)
- The altitude of the installation is not above 6500ft (2000m).

Also verify that all installer provided items, listed in Table 6 on Page 13 are accounted for.

Danger: All the installation work must be done by a licensed professional. Installation that does not comply with the instructions herein can result in the loss of warranty coverage. AIRSYS shall not be held liable for any damage caused to persons or objects due to incorrect installation or operation of the units.

Warning: All wiring must comply with the local safety standards and building codes under all circumstances.

Warning: For outdoor use, the risk of electric shock can cause injury or death. Disconnect all remote electric power supplies before installation.

When no longer in use, disposal of equipment and materials must be compliant with local laws and standards.

Delivery

When the units are delivered, be sure to inspect them to verify that they have not been damaged during transport. Also verify that all requested accessories listed on the purchase order have been included.

Important: If packaging shows any signs of shipping damage, or potential shipping damage, it is very important to annotate shipping damage on the Bill of Lading prior to signing for the freight. In order to recover for any damage, please take detailed photographs of all the packaging before the external packaging is removed. Once detailed photos of the external packaging have been taken, then the external packaging may be removed so the items can be inspected further. Please document with photos any damage to the equipment that relates directly to the damage observed to the external packaging. Without the detailed photos, it will be very difficult to recover equipment loss.

Warranty

The warranty duration is **(60) months from the date of installation**. AIRSYS warrants that its products will be free from defects in materials and workmanship for a period of (60) months after installation.

AIRSYS will furnish, free of charge, all replacement parts for any component failures that occur within the warranty period. The customer is responsible for the cost of shipment of replacement material from AIRSYS North America.

Note: Warranty assumes the warranty registration card that accompanied the units in shipment is submitted. If the warranty registration card was not filled out and returned to the supplier, then the warranty will expire (60) months from the date of shipment for all components.

The warranty does not cover damage to the systems caused by misuse or abuse of the systems such as physical damage due to mishandling. The warranty does not cover damage caused by force majeure.

Important: Any mishandling of the equipment or modifications to the equipment, unless agreed upon in writing by AIRSYS, will void the warranty.

Moving the Unit

Forklifts are recommended for moving, loading, unloading, and positioning the COM4T unit for installation. If bands or ropes are used to create a sling, make sure that excessive force is not applied to the upper edges of the machines or the package to avoid cosmetic or material damage. When using spacing bars, protective materials are required around the units to prevent damage. To avoid damage to the units while moving or transporting, ensure the units always remain in the upright position.

General Safety Rules

Danger: Do not carry out any operation on the machines if you do not have sufficient knowledge of the operating principles and have not taken all the precautions that permit the system to operate in safe conditions.

Warning: Work on the electric board only after verifying prime power is disconnected. Do not apply power to the machine with the covers removed.

Important: Before carrying out inspections, maintenance operations, and safety checks, follow all accident-prevention standards such as wearing protective goggles and gloves.

Required Materials

AIRSYS Supplied Materials

Table 5: AIRSYS System Shipping Materials List has all the material supplied by AIRSYS. After opening the package, verify that all items are accounted for. If any material is missing, please contact an AIRSYS distribution center using the following information:

AIRSYS Cooling Technologies
Web: https://airsysnorthamerica.com
Email: ASNSupport@air-sys.us
Phone: 855-874-5380

Table 5: AIRSYS Provided Materials

System Shipping Materials List

No.	Part #	Item Description	Comments	CV36H2A	CV60H3A
1	4070142970	CV36N3A-AWA	Main Unit	1	N/A
2	4070143030	CV60N3A-AWA	Main Unit	N/A	1
3	-	Shipping list	In document pack	1	1
4	-	Installation and operation manual	In document pack	1	1
5	-	Blank nameplate	In document pack	1	1
7	8458707260	Cable ties, 300X4mm	In document pack	10	10
8	7151011110	Weather strips	In the box	3	3
9	8551016130	Hexagon flange bolts with cross recess, M5*16	In document pack, for door panel backup	2	2

Accessory Options:

No.	Part #	Item Description	Comments
1	2121009350	Blank Off Plate	See Ventilation Options in pg 8
2	2121009340	Fresh Air Damper (CRV)	See Ventilation Options in pg 8
3	2121008700	Energy Recovery Ventilator	See Ventilation Options in pg 8
4	2121009810	6in Base Extension	See Optional Accessories in pg 9
5	2121009780	9in Base Extension	See Optional Accessories in pg 9
6	2121009760	14in Base Extension	See Optional Accessories in pg 9
7	2121009500	8in Free Discharge Plenum	See Optional Accessories in pg 9
8	2121009510	12in Free Discharge Plenum	See Optional Accessories in pg 9
9	2121009520	Cover Panel - Top	See Optional Accessories in pg 9
10	2121009810	6in Cover Panel –Side	See Optional Accessories in pg 9
11	2121009820	10in Cover Panel –Side	See Optional Accessories in pg 9
12	2121009720	8in Window Duct Frame (Wall Sleeve)	See Optional Accessories in pg 9
13	2121009730	13in Window Duct Frame (Wall Sleeve)	See Optional Accessories in pg 9
14	2121009370	4kW Electrical Heater	See Optional Accessories in pg 9
15	2121009380	6kW Electrical Heater	See Optional Accessories in pg 9
16	2121009390	8kW Electrical Heater	See Optional Accessories in pg 9
17	2121009400	10kW Electrical Heater	See Optional Accessories in pg 9

Materials to be Supplied by Installer

Table 7 lists items required for installation that must be supplied by installer. The wire length and gauge depend on site-specific conditions. However, recommendations are provided.

Table 6: Installer Supplied Materials

No.	Item	Qty	Description	Comments
1	AC power supply cable	Same as number of units	1 set of two-wire cable per unit	Refer to Summary Electrical Ratings; Note the electric heater capacity.
2	AC panel breakers	1 or 2 per unit	1 for single circuit configuration, 2 for dual circuit configuration	Refer to Summary Electrical Ratings; Note the electric heater capacity.
3	Silicone sealant	As needed	Commercial grade outdoor silicone sealant	
4	Nylon zip-tie	As needed	Small nylon zip tie	For properly dressing cables and harnesses
5	Thermostat	1	Thermostat should have at least 2 stage heat pump compatibility	Required if not supplied by factory/distributor
6	Thermostat cable	As needed	24-32AWG	
7	M10 bolts	4	Secures unit to floor	Length depends on the floor material and thickness.
8	Wall Sleeve	2	Inner and outer wall sleeve	Required if factory wall sleeve not chosen or custom wall sleeve required
9	Window Louvre	1	Exterior louvre/grille	Required if not supplied by factory/distributor or custom louvre required

Summary Electrical Ratings (Wire Sizing)

Table 7: Electrical Ratings

		Single Circuit		Dual Circuit #1		Dual Circuit #2	
Mode	**Heater Size**	**MCA**	**MOP**	**MCA**	**MOP**	**MCA**	**MOP**
CV36N3A-A	0kW	23	40	--	--	--	--
	4kW	45	50	23	40	22	25
	6kW	55	60	24	40	32	35
	8kW	66	70	23	40	43	50
	10kW	76	80	23	40	54	60
CV60N3A-A	0kW	38	60	--	--	--	--
	4kW	59	80	38	60	22	25
	6kW	70	80	38	60	32	35
	8kW	81	90	38	60	43	50
	10kW	91	100	38	60	54	60

Note:

MCA = Minimum Circuit Ampacity (Wiring Amps)
MOP = Maximum Overcurrent Protection (HACR Breaker Size)

Physical Installation

Select the location for Installing the Unit

Select the location where the unit will be installed. Be certain that the floor can support the weight of the unit and that sufficient space is available for easy operation and installation. Refer to Table 8: Unit Dimensions and Weight below for unit dimensions and weights by model number.

Table 8: Unit Dimensions and Weight

Model	Unit	CV36N3A	CV60N3A
Width	in	48.1	48.1
Depth	in	29.5	29.5
Height	in	94.5	94.5
Weight	lbs	780	926

Clearances

Table 9: Clearances

	Unit	Recommended	Minimum
Side (To another unit)	in	48''	24''
Side (To airflow obstruction)	in	24''	12''
Front	in	48''	36''
Supply air	in	48''	36''

⚠ Important:

1. The floor selected for the unit must be strong enough to support both the static weight of the unit and the vibration of a unit under operation.
2. For any unit equipped with electrical heat, the supply grille should be at least three inches away from combustible material.

NOTE: To assist in the installation process, the following figures provide the unit dimensions to a tolerance of ± 1/16" (2 mm).

Physical Dimensions

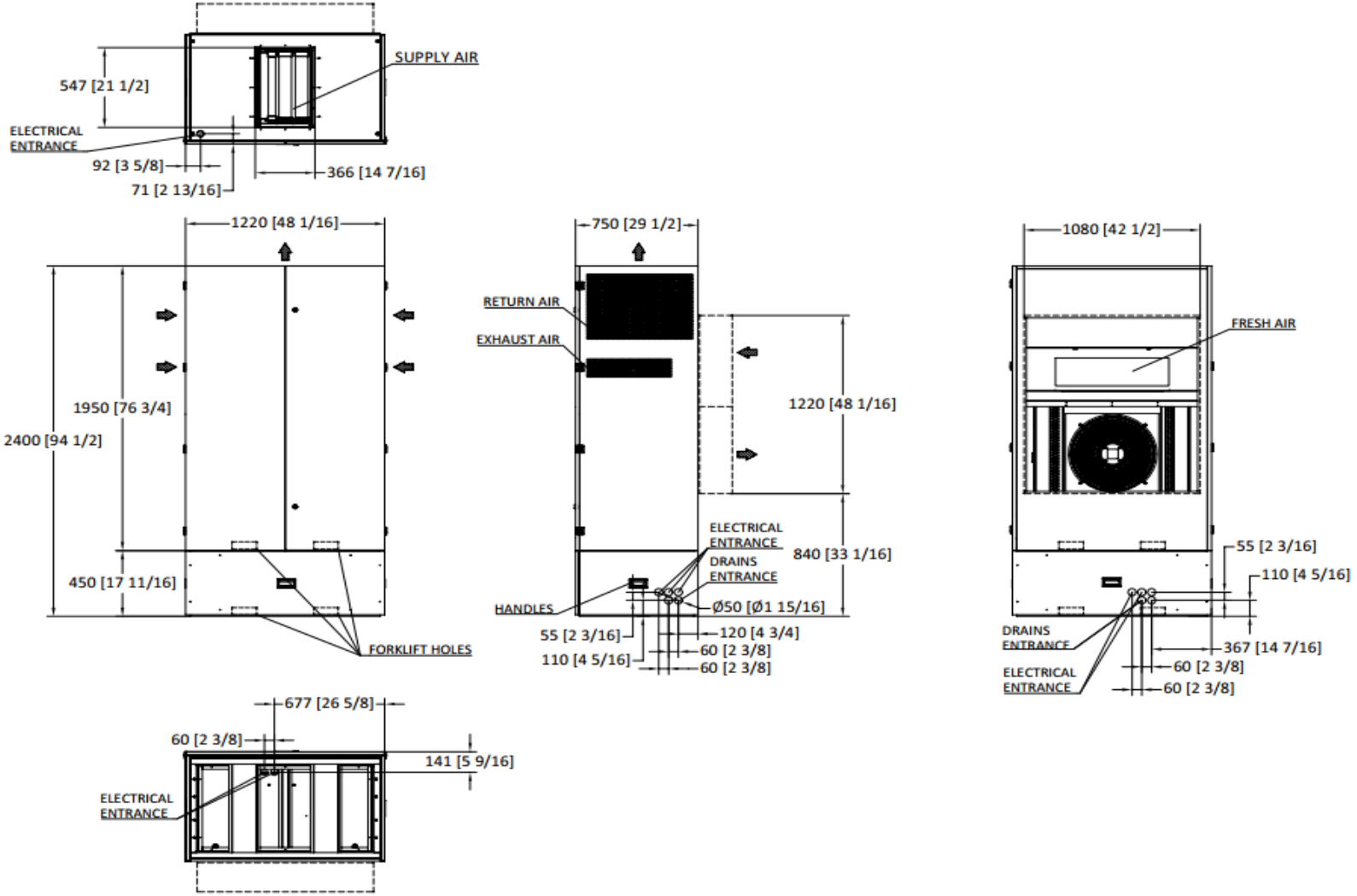


Figure 6: Physical Dimensions

Make Openings In the Wall

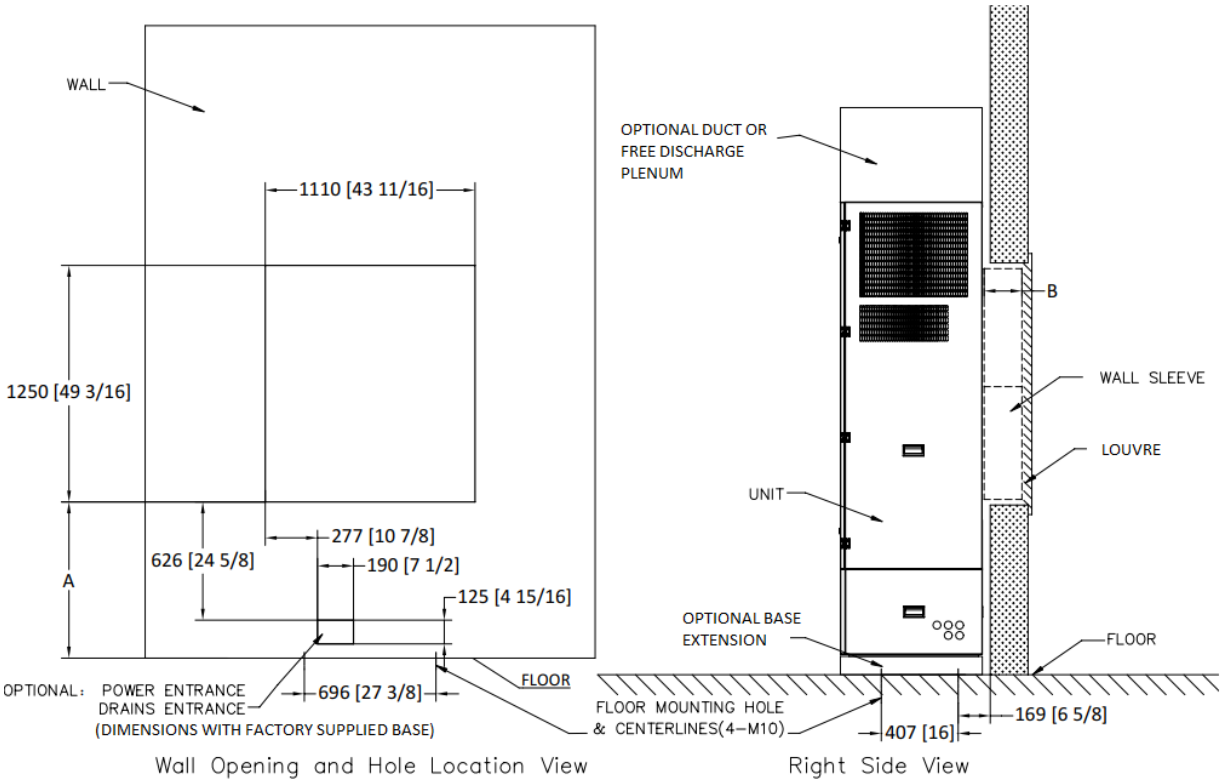


Figure 7: Wall Opening and Floor Hole Location View

Opening Height

Dimension	No Base	Standard Base	Base + 6in Extension	Base + 9in Extension	Base + 14in Extension
A	375 (14 3/4)	825 (32 1/2)	977 (38 1/2)	1053 (41 1/2)	1180 (46 1/2)

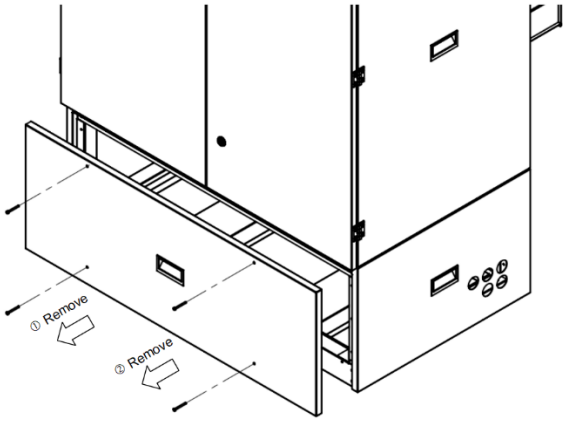
Wall Thickness

Dimension	8in Wall Sleeve	13in Wall Sleeve
B	117-207 (4 1/2 - 8)	190-340 (7 1/2 - 13 1/4)
Wall Thickness (w/ 1in Louvre)	142 - 232 (5 1/2 - 9)	215-365 (8 1/2 - 14 1/4)
Wall Thickness (w/ 2in Louvre)	168-258 (6 1/2 - 10)	241-391 (9 1/2 - 15 1/4)

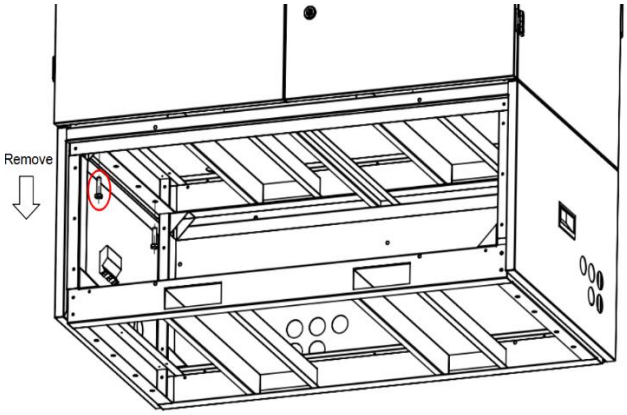
Disassembly of Base

Base can be separated from the main section to clear height limits. To disassemble the base:

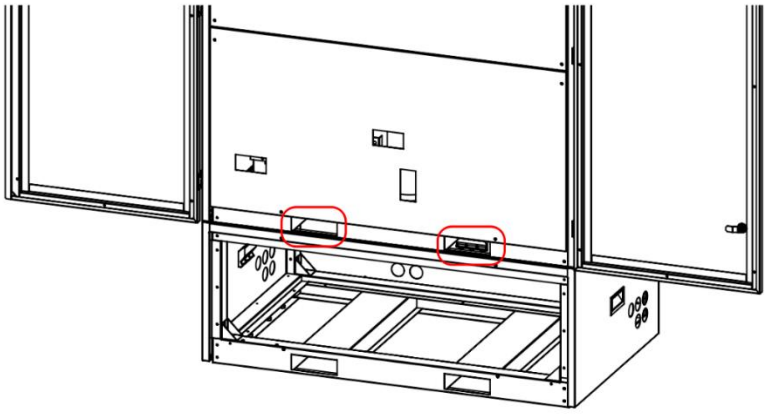
1. Remove front cover



2. Remove 4x M8 bolts



3. Use forklift to lift and move the main section of unit.



4. To reinstall the base, move main section onto base and secure using 4 M8 bolts

Install Wall Sleeve

1. Remove factory installed screws to allow configuring the telescoping wall sleeve.
2. Pull out inner section to desired depth
3. Secure sleeve with screws

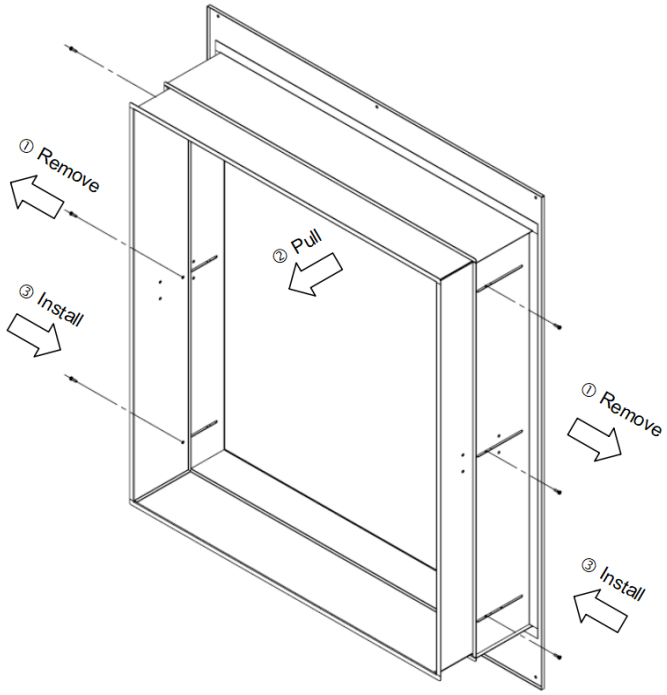


Figure 8: Configuring Wall Sleeve

4. Apply insulation around wall sleeve

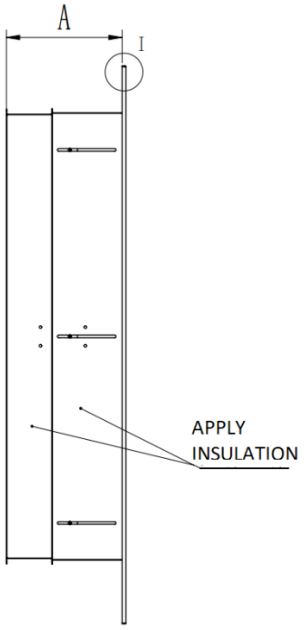


Figure 9: Wall Sleeve Insulation

5. Install outer sleeve on unit.

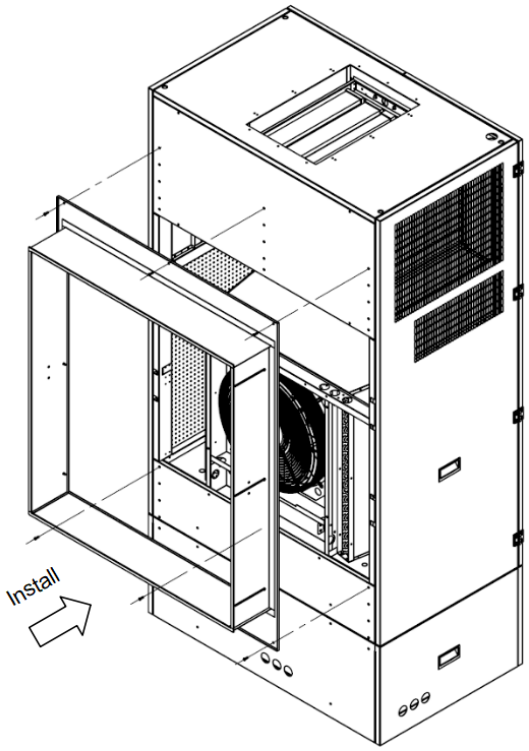


Figure 10: Outer Sleeve

6. Repeat step 1-5 for inner sleeve

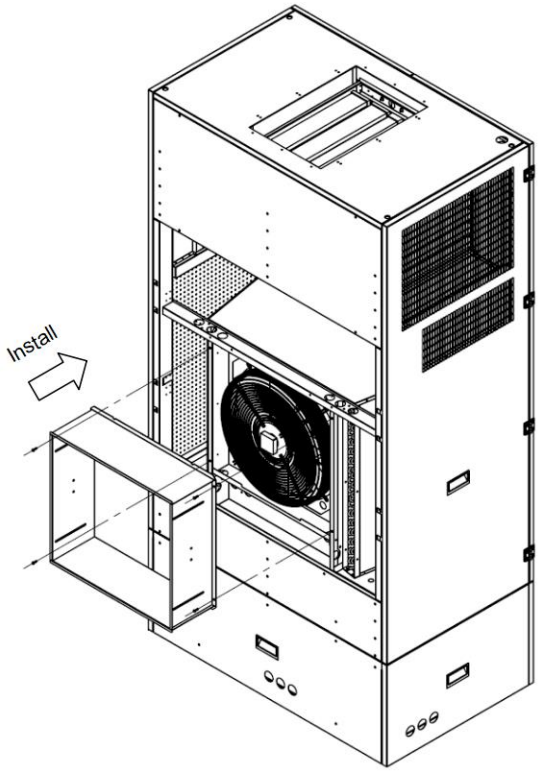


Figure 11: Inner Sleeve

Install Weather Stripping

Before mounting the unit, apply neoprene weather stripping around the openings to ensure an airtight closure, as shown in Figure 12: Install Weather Stripping.

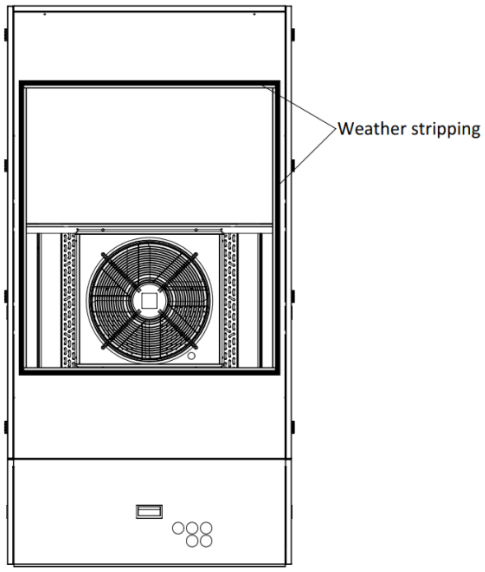


Figure 12: Install Weather Stripping

Position the Unit

⚠ **Important.** The unit is heavy. Exercise caution while putting the unit in place to prevent damage to the unit or personnel.

The unit must be installed in a level position. An inclination of more than 6-7 mm (± 1°) could cause the condensation tray to overflow.

Lift the unit from below with lifting equipment or tools. Use the screws (installer supplied) to affix the unit on the floor. Generally, this is done by following these steps:

1. Remove front cover
2. Position the unit next to the wall.
3. Secure unit using one M10 Bolts

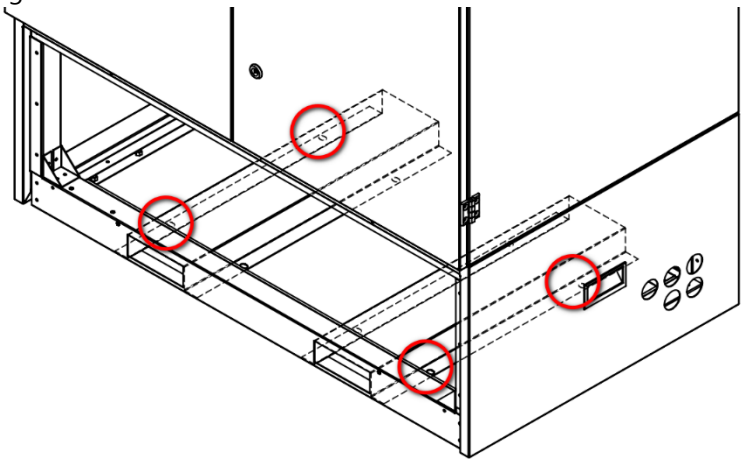


Figure 13: Securing to Floor

Seal Space between Wall Sleeve and Opening

To prevent unintended moisture and air penetration seal the gap with a layer of silicone sealant (installer provided, see Table 6: Installer Supplied Materials)

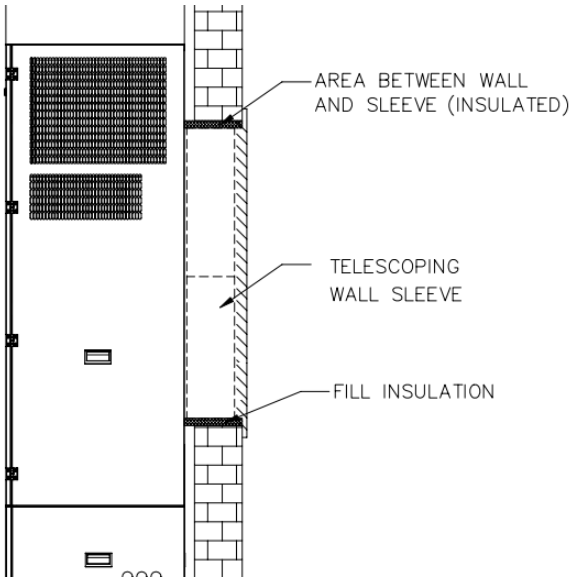


Figure 14: Gap Seal

Install Louver (Grille)

Install Louver on the exterior of the wall opening.

Duct Work

All duct work shall be properly sized for the airflow requirement of the equipment. A minimum of 1" of fiberglass insulation or equivalent is recommended to prevent energy loss and moisture build up. All joints shall be sealed to prevent leakage. Flexible joints shall be used to reduce noise transmission.

Maximum design external static pressure is 0.3in w.c. (75Pa). Excessive pressure may cause equipment failure and/or fire hazard.

Complete Electrical Connections

The unit shall be installed in accordance with National Electrical Code (NEC) regulations.

Cautions

Danger: Only an authorized service technician should make the electrical connections to the heat pump unit.

Important: The electrical wiring of the unit must comply with IEC standards or with appropriate national standards.

Danger: The power supply must be disconnected or turned off before working on the unit.

Important: Noncompliance with these instructions may cause damage to the unit. Not following instructions can void the warranty.

Important: No modification to the unit's electric circuit is allowed. If a change is required, it must be authorized by AIRSYS in writing.

Wiring-Main Power

Refer to Table 5 on page 13 for electrical ratings. All wiring must conform to all applicable national and local codes.

The unit rating plate lists a maximum fuse or circuit breaker size that is to be used with the equipment. The correct size must be used to ensure proper operation of the units.

Units can be wired with either a single or a dual circuit. See the instructions below for wiring each type of power input.

Single circuit connection:

- Connect main power to circuit breaker QS1

Dual Circuits connection:

- Disconnect factory jumper from QS1 to QF5
- Connect Circuit #1 power supply to QS1
- Connect Circuit #2 power supply to QF5

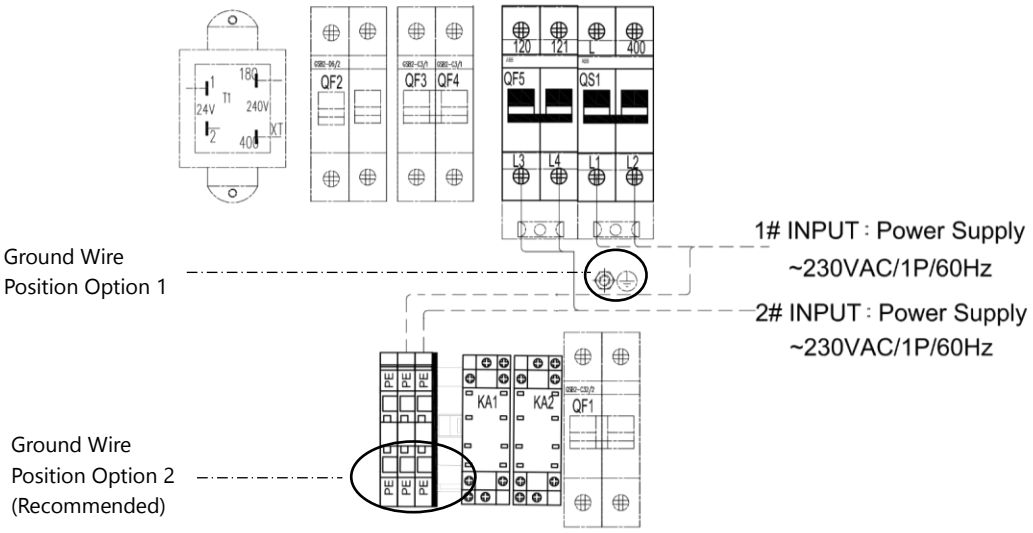


Figure 15: Power Wiring

Wiring-Low Voltage Wiring

Control wiring from the thermostat is landed on a terminal strip inside the unit. The table below indicates which terminals will be energized for system functions.

Table 10: Low Voltage Wiring

Function	G	O	Y1	Y2	W2	Dehum.
Fan Only	X					
Low Speed Cool	X	X	X			
High Speed Cool	X	X	X	X		
Low Speed Heat	X		X			
High Speed Heat	X		X	X		
Electric Heat (Opt.)	X				X	
Dehum. (Opt.)	X	X	X	X		X

Wiring-Electrical Heater (Optional)

If a heater is to be installed, refer to the diagram below for electrical connection.

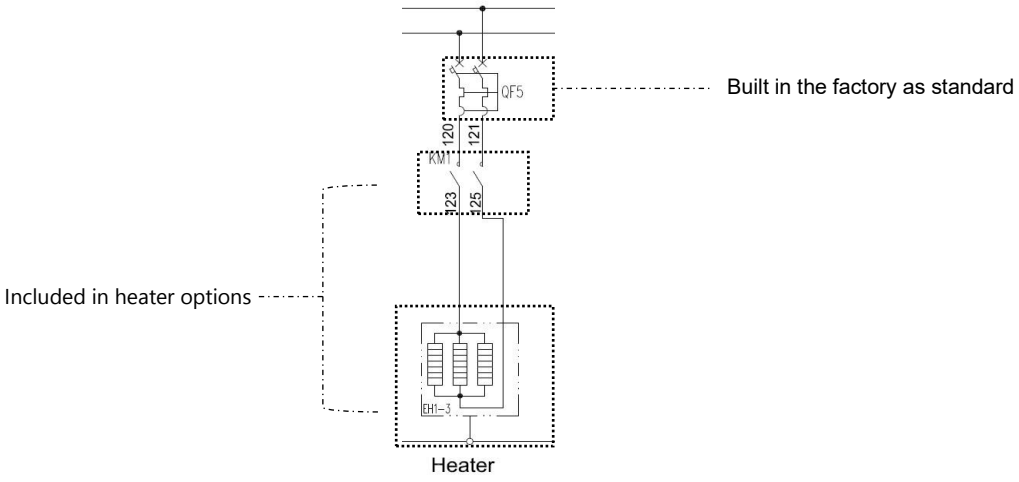


Figure 16: Heater Wiring

Dip Switch Settings (Optional)

Note: All units are factory configured. Changing these setting will change the fan speed and damper settings. Please reference the **SW1 Fresh Damper Setting**, as well as the **SW2 Max Supply Fan Setting** tables below when making any changes to the default settings.

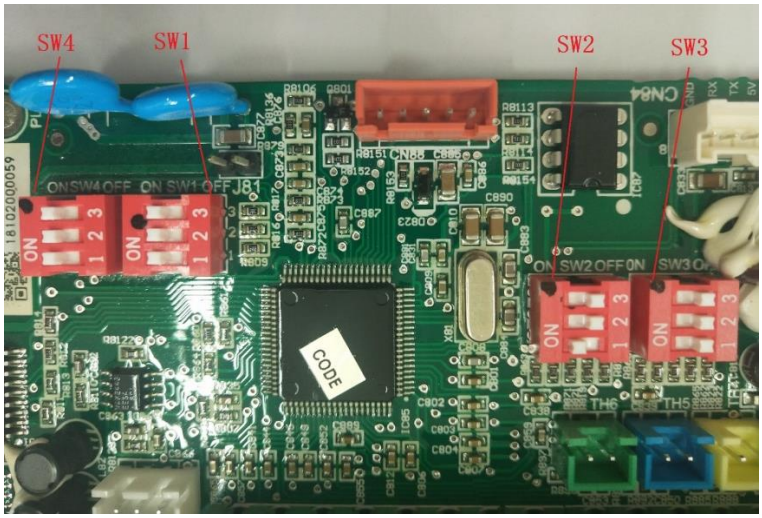


Figure 17: Switch Locations

SW1 Fresh Damper Setting				
SW1-1	**SW1-2**	**SW1-3**	**Max Damper Opening Level (less means less opening)**	**Optional or Default**
OFF	OFF	OFF	1	Optional
OFF	OFF	ON	2	Optional
OFF	ON	OFF	3	Optional
OFF	ON	ON	4	Optional
ON	OFF	OFF	5	Optional
ON	OFF	ON	6	Optional
ON	ON	OFF	7	Optional
ON	ON	ON	8	Default
SW2 Max Supply Fan Setting				
SW1-1	**SW1-2**	**SW1-3**	**Max Fan Speed Level (Less means lower speed)**	**Optional or Default**
OFF	OFF	OFF	1	Optional
OFF	OFF	ON	2	Optional
OFF	ON	OFF	3	Optional
OFF	ON	ON	4	Default
ON	OFF	OFF	5	Optional
ON	OFF	ON	6	Optional
ON	ON	OFF	7	Optional
ON	ON	ON	8	Optional
SW3 Model Selection				
SW3-1	**SW3-2**	**SW3-3**	**Model**	**Description**
OFF	OFF	OFF	CV36	3Ton
OFF	OFF	ON	CV48	4Ton
OFF	ON	OFF	CV60	5Ton
SW4 (Not Used)				

Complete the Installation Checklist

The installation checklist should be completed prior to starting the system to ensure that no steps have been omitted. Please complete the installation and wiring checklist below.

Date: _____ Unit Factory Number:_____(refer to the unit name plate)	
Verify Physical Installation	✓ or ✖
Weather stripping has been applied to the inner and outer wall sleeves	
All machines are securely fastened to the floor	
Space between wall sleeve and wall penetration sealed with silicone.	
Verify Electrical Installation	
The main voltage connections of heat pump unit are secured.	
The power connections between controller and units are secured.	

Turn on Component Breakers

After completing the checklist, turn on all breakers of all components in heat pump unit. Then reattach all covers and panels before turning on the breakers in the prime power panel.

Turn on Primary Power

Turn on the primary power breakers on the heat pump unit.

Chapter 4: System Operation

Sequence of Operation

Cooling and Heating

All units in the COM4T product line are equipped with variable speed compressors that can vary its frequency to meet capacity demand. The compressor speed will continuously modulate depending on return temperature and cooling/heating stage. When stage 1 command is received on Y1, the system will start the compressor at medium speed and slowly modulate between low to medium speed until a stable return temperature is found. When stage 2 command is received on Y2, the system will increase its speed and modulate between medium and high speed until a stable return temperature is found.

Compressor protection

After supplying power to the unit and after compressor has stopped, the compressor will remain off for 3 minutes to prevent short cycling. Low and high pressure alarms, if triggered 3 or more times in an hour, will prevent the compressor from running for 12 hours or until power is reset. A supply fan alarm, if triggered 5 or more times in an hour, will prevent the compressor from running for 12 hours or until power reset.

Aux/Emergency Heating

If auxiliary heaters are installed, they are triggered by W2 command.

Supply Fan (Indoor Blower)

The system will engage indoor blower when G command is received. If cool/heat command is received without G, the supply fan will also engage.

Defrost

Frost can build up on outdoor coil when the heat pump is operating in low temperatures and can adversely affect rate of heat transfer. If conditions are met, the automatic defrost function will engage to prevent frost buildup.

When the heating mode has been running for at least 4 minutes AND coil temperature is below 23°F for at least 10 minutes AND coil temperature is lower than outdoor air temperature by at least 15°F, defrost will engage. When defrost mode starts, the reversing valve is disengaged, and compressor runs at high speed to heat the outdoor coil. Defrost will disengage immediately after coil temperature reaches 64°F OR coil temperature stays above 50°F for 2 minutes OR continuous defrost for 10 minutes.

Dehumidification (optional)

When dehumidification is triggered on the *dehum* command, the EEV and compressor will automatically adjust to maximum latent (moisture removal) capacity. The system can seamlessly transition between cooling/heating and dehumidification without restarting the system.

Alarms

When a problem occurs during operation of the unit, the alarm will be expressed by a blinking code on the main control board. Depending on the severity of the alarm, various components are automatically shut down. The system will restart most of these devices without human intervention after a defined delay period. However, manual reset is required when certain alarms occur three times within an hour (configurable). A description of all system alarms is given below.

Alarm Code	Blinks		Alarm name	Error action	Recovery time
	Fast	Slow			
1		1	High pressure switch	Stops unit	Mechanical cooling will be locked after three occurrences. Lockout is reset via power reset or after 12 hours.
2		2	DC overvoltage	Stops unit	3min
3		3	DC undervoltage	Stops unit	3min
4		4	Overcurrent	Stops unit	3min
5		5	IPM temperature high	Stops unit	3min
6		6	PFC temperature high	Stops unit	3min
7		7	DC overvoltage immediately stop unit	Stops unit	3min
8		8	DC undervoltage immediately stop unit	Stops unit	3min
9		9	Compressor steps loss	Stops unit	3min
11	1	1	Current phase loss	Stops unit	3min
12	1	2	Compressor phase loss	Stops unit	3min
13	1	3	FO pull down	Stops unit	3min
14	1	4	FO voltage low level	Stops unit	3min
15	1	5	Current check circuit	Stops unit	3min
16	1	6	Current sensor error	Stops unit	3min
17	1	7	Communication error	Stops unit	3min
21	2	1	Return temperature sensor error	Alarm will be indicated without stopping unit	
22	2	2	Outside temperature sensor error	Alarm will be indicated without stopping unit	
23	2	3	Discharge temperature sensor error	Stops unit	
24	2	4	Suction temperature sensor error	Alarm will be indicated without stopping unit	
25	2	5	Evaporator coil temperature sensor error	Alarm will be indicated without stopping unit	
26	2	6	Condenser coil temperature sensor error	Alarm will be indicated without stopping unit	
27	2	7	High pressure via sensor	Alarm will be indicated without stopping unit	
28	2	8	Low pressure via sensor	Alarm will be indicated without stopping unit	
29	2	9	Humidity sensor 1 error	Alarm will be indicated without stopping unit	
31	3	1	Humidity sensor 2 error	Alarm will be indicated without stopping unit	

Alarm Code	Blinks		Alarm name	Error action	Recovery time
	Fast	Slow			
32	3	2	Communication error between control board and driver	Stops unit	3min
34	3	4	Terminal connection error	Stops unit	3min
35	3	5	Low pressure switch	Stops unit	Mechanical cooling will be locked after three occurrences. Lockout is reset via power reset or after 12 hours.
36	3	6	High pressure protection	Stops unit	Mechanical cooling will be locked after three occurrences. Lockout is reset via power reset or after 12 hours.
41	4	1	High discharge temperature protection	Stops unit	Mechanical cooling will be locked after three occurrences. Lockout is reset via power reset or after 12 hours.
42	4	2	High condenser temperature protection	Stops unit	Mechanical cooling will be locked after three occurrences. Lockout is reset via power reset or after 12 hours.
43	4	3	High evaporate temperature protection	Stops unit	Mechanical cooling will be locked after three occurrences. Lockout is reset via power reset or after 12 hours.
44	4	4	Evaporator temperature antifreeze protection	Stops unit	Mechanical cooling will be locked after three occurrences. Lockout is reset via power reset or after 12 hours.
45	4	5	Condenser fan overload	Stops unit	Mechanical cooling will be locked after five occurrences. Lockout is reset via power reset or after 12 hours.
46	4	6	Supply fan overload	Stops unit	Mechanical cooling will be locked after five occurrences. Lockout is reset via power reset or after 12 hours.
47	4	7	Electrical heater overload	Stop electrical heater	3min
48	4	8	Low input voltage	Stops unit	3min
49	4	9	Supply fan error with speed feedback	Stops unit	Mechanical cooling will be locked after five occurrences. Lockout is reset via power reset or after 12 hours.

Complete the Registration Card

The information on the registration card is critical for establishing the warranty start point.
The nameplate with the required information can be found on the outside of the unit. Information must be recorded on the AIRSYS Product Warranty Registration Card. The registration card can also be submitted online at:
https://airsysnorthamerica.com/support/warranty-registration/

AIRSYS PRODUCT WARRANTY REGISTRATION CARD

PRODUCT INFORMATION

HVAC #1	Model #:_____	Serial #:_____
HVAC #2	Model #:_____	Serial #:_____
HVAC #3	Model #:_____	Serial #:_____
HVAC #4	Model #:_____	Serial #:_____
HVAC #5	Model #:_____	Serial #:_____
HVAC #6	Model #:_____	Serial #:_____

INSTALLATION INFORMATION

Street address:_____ City:_____ State:_____ Zip:_____

Date Install Completed:____/____/_____ Installation Company:_____

Installer Name:_____ Phone #:_____ Email:_____

OWNERSHIP INFORMATION

Owner:_____

Site Supervisor Name:_____ Phone #:_____ Email:_____

REGISTRATION ONLINE: airsysnorthamerica.com/support/warranty-registration

BY EMAIL: Scan and send to: ASNSupport@air-sys.com
By MAIL: AIRSYS Product Registration, 7820 Reidville Rd. Greer, SC 29334