



# Thru-the-Wall Comfort for all types of Multi-Family Construction

## Installation Guide

### Comfort Pack Electric U-Series

**11.7 SEER2  
OPTIONAL ELECTRIC HEAT**

This unit should be installed in an  
**Outside Wall For  
Thru-The-Wall  
Installation Only!**

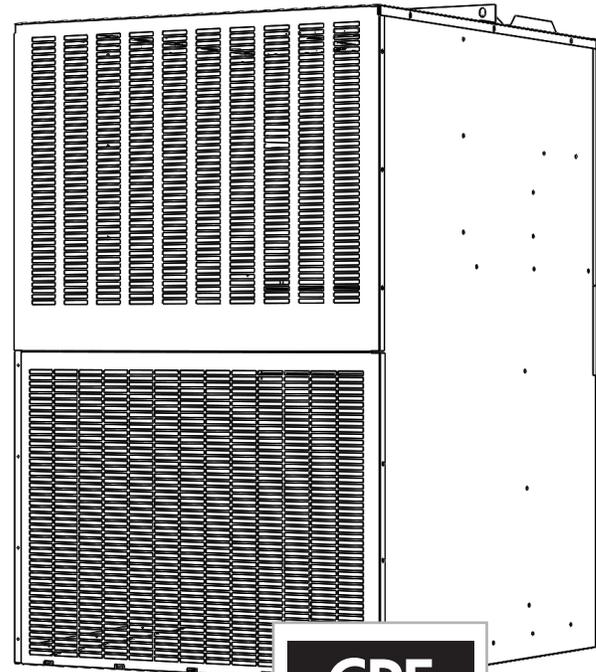
Read Installation Manual  
Prior To Starting The Installation.

Please fill in the following information and file it for future reference.

MODEL NO. \_\_\_\_\_

SERIAL NO. \_\_\_\_\_

INSTALL DATE \_\_\_\_\_



**CPE  
U-Series:**

This manual must be left with the homeowner for future reference.



**National Comfort Products**  
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(800) 523-7138  
[www.nationalcomfortproducts.com](http://www.nationalcomfortproducts.com)

*Go Thru-the-Wall*

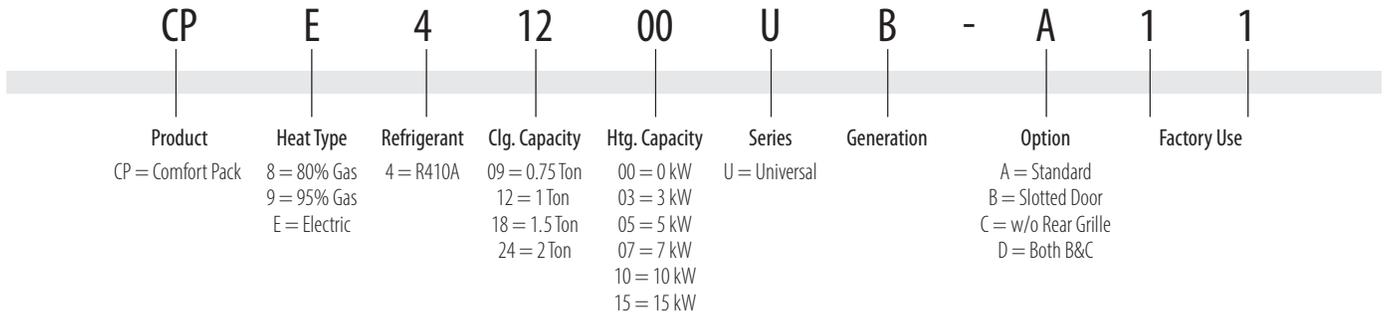


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**IMPORTANT NOTE: DO NOT DESTROY OR DISCARD THIS MANUAL.  
IT SHOULD BE KEPT IN A SAFE PLACE FOR FUTURE REFERENCE.**

## Comfort Pack Nomenclature



## Safety Warnings

This appliance is not intended for use by those (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instructions 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.

This appliance is intended to be installed up to 10,000 ft (3,000 m) above sea level.

This appliance only uses R410A refrigerant.

This is a safety alert symbol. When you see this symbol on labels or in manuals, be alert to the potential for personal injury.

Pay particular attention to words such as **DANGER**, **WARNING** or **CAUTION**.

**DANGER** indicates an imminently hazardous situation, which will result in **serious injury or death**.

**WARNING** indicates a potentially hazardous situation, which could potentially result in **serious injury or death**.

**CAUTION** indicates a potentially hazardous situation, which may result in **minor or moderate injury**. It is also used to alert against practices that are unsafe and can result in property damage.

**⚠ WARNING**

INSTALLATION AND REPAIR OF THIS UNIT SHOULD BE PERFORMED ONLY BY INDIVIDUALS MEETING THE REQUIREMENTS OF AN "ENTRY LEVEL TECHNICIAN" AS SPECIFIED BY NATIONAL CODES. ATTEMPTING TO INSTALL OR REPAIR THIS UNIT WITHOUT SUCH BACKGROUND MAY RESULT IN PRODUCT DAMAGE, PERSONAL INJURY OR DEATH.

**⚡ WARNING**

HIGH VOLTAGE!  
DISCONNECT ALL POWER BEFORE SERVING. FAILURE TO DO SO MAY RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

**⚠ CAUTION**

USE CARE WHEN HANDLING COMPRESSORS. SOME TEMPERATURES COULD BE HOT!

**⚠ CAUTION**

COMPRESSORS SHOULD NEVER BE USED TO EVACUATE THE AIR CONDITIONING SYSTEM. VACUUMS THIS LOW CAN CAUSE INTERNAL ELECTRICAL ARCING RESULTING IN A DAMAGED OR FAILED COMPRESSOR.

**⚠ WARNING**

THE UNIT MUST BE PERMANENTLY GROUNDED. FAILURE TO DO SO CAN CAUSE ELECTRICAL SHOCK RESULTING IN SEVERE PERSONAL INJURY OR DEATH.

**"USE COPPER SUPPLY WIRES ONLY"**

**⚠ WARNING**

FOR YOUR SAFETY, DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE. SUCH ACTIONS COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH.

**⚠ CAUTION**

THESE UNITS ARE NOT APPROVED FOR MOBILE HOME APPLICATIONS. SUCH USE COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH.

**⚠ WARNING**

THESE INSTRUCTIONS ARE INTENDED AS AN AID TO QUALIFIED, LICENSED SERVICE PERSONNEL FOR PROPER INSTALLATION, ADJUSTMENT AND OPERATION OF THIS UNIT. READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING INSTALLATION OR OPERATION. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN IMPROPER INSTALLATION, ADJUSTMENT, SERVICE OR MAINTENANCE POSSIBLY RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

**⚠ WARNING**

DO NOT USE OXYGEN TO PURGE LINES OR PRESSURIZE SYSTEM FOR LEAK TEST. OXYGEN REACTS VIOLENTLY WITH OIL, WHICH CAN CAUSE AN EXPLOSION RESULTING IN SEVERE PERSONAL INJURY OR DEATH.

## Optional Heat Kit Operation

The optional heat kit (CPEHK) includes open-wire resistance heating elements with automatic reset thermal overloads, as well as branch circuit breakers for short-circuit and electrical overload protection.

The Comfort Pack with CPEHK is designed to be used with residential single-stage cooling two-stage heating wall thermostats with automatic or manual mode changeover. Automatic changeover thermostats must include a deadband to prevent cycling between cooling and heating modes. **Single-pole, single-throw thermostats are not suitable for use with Comfort Packs installed with optional Heat Kits.** The unit also contains controls to automatically adjust the indoor blower motor speed for cooling and heating modes.

Each heat kit contains 2 electrical heat banks with the exception of the 15kW model which has 3 banks:

### APPROXIMATE COLD RESISTANCE

3kW	2 Banks	30.4 ohms per bank
5kW	2 Banks	20.8 ohms per bank
7kW	2 Banks	14.81 ohms per bank
10kW	2 Banks	10.4 ohms per bank
15kW	3 Banks	10.4 ohms per bank

When a call for heat is active sending power to the W1 and W2 heating terminals on the control board, the board will begin to sequence the heating outputs to energize the heat contactors. Once W1 is energized the board will sequence output W1A after a 3 second delay and W1B after a 28 second delay. Once W2 is energized the board will sequence out W2 after a 45 second delay. Once W1, W2, or G is energized the fan will be operated. Once de-energized the fan will run for an additional 5 seconds.

### Faults

If multiple inputs are received with a cooling input (Y) than the board will automatically fault and run in cooling.

### Cooling Blower Operation

Cooling fan will delay 5 seconds on a call for cooling and will delay off when a call is terminated for the duration of the board jumper set point. (A = 5 sec., B = 30 sec., C = 60 sec., & D = 90 sec.)

### Before You Start

This unit is shipped with a cooling chassis installed in the cabinet. Prior to installing the unit in the wall opening, the shipping bolts located at the bottom on both sides of the cabinet must be removed to allow for removal of the cooling chassis. 1/4" hole plugs provided with the unit should be installed in the holes to prevent air leakage. Shipping bolts are located on both sides below this sticker:

**THE SHIPPING BOLTS MUST BE REMOVED PRIOR TO INSTALLATION OF THE CABINET TO PERMIT REMOVAL OF THE CHASSIS. INSTALL THE HOLE PLUGS PROVIDED.**

14299588

**This unit is designed and approved for through-the-wall installation only. The unit must be installed a minimum of 8" above finish floor. If this unit is installed in a residential garage, it must be installed so that the ignition source and burners are located not less than 18 inches (457 mm) above the floor, and it must be located or protected to avoid physical damage by vehicles. The entire unit must not be installed outside.** The grille side of the unit should extend 3/4" beyond the exterior wall to allow moisture that may enter the outdoor section to drain. The pitch of the internal drain pans toward the outside will assure proper drainage when the cabinet is installed level. **Masonry walls must have a lintel to support the wall.**

The interior of the unit may be installed with zero clearances to adjacent combustible surfaces. **The unit shall not be installed directly on carpeting, tile or other combustible material, except wood flooring.** In order to be able to remove the chassis, 29" of open area must be left unobstructed in front of the access panels. The 3/4" O.D. drain pan connection should be connected to the building drain using the flexible tubing included and a trap. The secondary drain offers protection from overflow.

The secondary drain feature is piped into the base of the unit and drains through the weep holes outside. Reconnect 3" piece of clear flexible tubing to secondary drain on drain pan. Position secondary drain through grommet of chassis and connect to flexible tubing (prime trap prior to operating).

The grille side must be kept free of any obstructions that will reduce or alter the air flow pattern.

If an optional architectural grille is to be used on standard units, the stamped grille provided **must** be removed. Consult the factory prior to ordering product(s) that require an optional architectural grille.



## CAUTION

**THE INSTALLATION OF THIS APPLIANCE MUST CONFORM TO THE REQUIREMENTS OF THE NATIONAL FIRE PROTECTION ASSOCIATION; THE NATIONAL ELECTRIC CODE, ANSI/NFPA NO. 70 (LATEST EDITION) IN THE UNITED STATES; THE CANADIAN ELECTRICAL CODE PART 1, CSA 22.1 (LATEST EDITION) IN CANADA; AND ANY STATE OR PROVINCIAL LAWS OR LOCAL ORDINANCES. LOCAL AUTHORITIES HAVING JURISDICTION SHOULD BE CONSULTED BEFORE INSTALLATION IS MADE. SUCH APPLICABLE REGULATIONS OR REQUIREMENTS TAKE PRECEDENCE OVER THE GENERAL INSTRUCTIONS IN THE MANUAL.**

### TO REMOVE THE CHASSIS FROM THE CABINET:

TURN OFF POWER TO THE UNIT. REMOVE THE TWO LOWER ACCESS PANELS FROM THE CABINET. DISCONNECT THE DRAIN LINE FROM THE EVAPORATOR COIL DRAIN CONNECTION. DISCONNECT THE SECONDARY DRAIN FLEXIBLE TUBING & TRAP TO AVOID DAMAGE (PRIME TRAP WHEN REINSTALLING). DEPRESS AND HOLD THE RELEASE LATCH ON THE CHASSIS POWER WIRING CONNECTOR AND UNPLUG IT FROM THE CABINET POWER WIRING CONNECTOR.

DEPRESS AND HOLD THE RELEASE LATCH ON THE CONTROL WIRING CONNECTOR AND UNPLUG IT FROM THE CABINET CONTROL WIRING CONNECTOR. UNFASTEN THE SCREWS ATTACHING THE INDOOR BLOWER COVER PLATE AND REMOVE IT FROM THE UNIT. TEMPORARILY SECURE THE CHASSIS POWER AND CONTROL WIRING AND CONNECTORS TO THE TOP OF THE INDOOR COIL COVER TO PREVENT DAMAGE DURING CHASSIS REMOVAL.

CAREFULLY SLIDE THE CHASSIS OUT OF THE CABINET BY GRASPING BOTH SIDES OF THE EVAPORATOR COIL DRAIN PAN AND PULLING TOWARD YOU WHILE KEEPING THE CHASSIS CENTERED IN THE CABINET. AS THE CHASSIS IS REMOVED, KEEP THE CHASSIS LEVEL UNTIL THE OUTDOOR FAN COVER PASSES THE CABINET SEALS. **DAMAGE TO THE CABINET SEALS WILL RESULT IF THE CHASSIS IS NOT KEPT LEVEL UNTIL THE OUTDOOR FAN COVER HAS PASSED THE CABINET SEALS.** AFTER THE CHASSIS IS REMOVED, IT SHOULD BE HANDLED USING THE CHASSIS BASE AND EVAPORATOR DRAIN PAN, NOT BY USING REFRIGERANT PIPING OR THE OUTDOOR FAN MOUNT. THE BOTTOM OF THE CHASSIS IS NOT SMOOTH AND WILL DAMAGE FLOORS IF SLID.

**TO INSTALL THE CHASSIS INTO THE CABINET:**

**TURN OFF POWER TO THE UNIT.** TEMPORARILY SECURE THE CHASSIS POWER AND CONTROL WIRING AND TURN OFF POWER TO THE UNIT. TEMPORARILY SECURE THE CHASSIS POWER AND CONTROL WIRING AND CONNECTORS TO THE TOP OF THE INDOOR COIL COVER TO PREVENT DAMAGE DURING CHASSIS INSTALLATION. PLACE THE OUTDOOR COIL SECTION OF THE CHASSIS ONTO THE CABINET RAILS. LIFT THE REAR OF THE CHASSIS USING THE EVAPORATOR COIL DRAIN PAN SO THAT THE CHASSIS IS LEVEL AND CENTERED AS IT IS PUSHED IN THE CABINET. **DAMAGE TO THE CABINET SEALS WILL RESULT IF THE CHASSIS IS NOT KEPT LEVEL UNTIL THE OUTDOOR FAN COVER HAS PASSED THE CABINET SEALS, AND IF THE CHASSIS IS NOT KEPT CENTERED IN THE CABINET.** AFTER THE CHASSIS IS ALL THE WAY IN THE CABINET, CHECK THAT THE CHASSIS IS CENTERED IN THE CABINET BY VERIFYING THAT IT IS IN CONTACT WITH THE CABINET SEALS ON BOTH SIDES.

INSTALL THE INDOOR BLOWER COVER PLATE AND SECURE IT WITH SCREWS. INSTALL THE CHASSIS POWER WIRE CONNECTOR AND THE CONTROL WIRING CONNECTOR INTO THEIR RESPECTIVE CABINET WIRING CONNECTORS SO THAT THE CONNECTORS LATCH. CONNECT THE DRAIN LINE TO THE EVAPORATOR COIL DRAIN CONNECTION. RECONNECT 3" PIECE OF CLEAR FLEXIBLE TUBING TO SECONDARY DRAIN ON DRAIN PAN. POSITION SECONDARY DRAIN THROUGH GROMMET OF CHASSIS AND CONNECT TO FLEXIBLE TUBING (PRIME TRAP PRIOR TO OPERATING). INSTALL THE LOWER ACCESS PANEL ON THE CABINET. TURN ON POWER TO THE UNIT.

**ALL phases of this installation must comply with NATIONAL, STATE AND LOCAL CODES. The manufacturer assumes no responsibility for equipment installed in violation of any code requirements.**

**Be sure that the electrical data specified on the unit rating plate corresponds to what is available at the installation site and NEC for installation requirements.**

**This unit MUST be installed in an outside wall for thru-the-wall installation ONLY.**

**Be sure that the electrical service provided to the building can handle the load imposed by the unit.**

**IMPORTANT — This Document is customer property and is to remain with this unit. Please refer to service information pack upon completion of work to register the unit's warranty. These instructions do not cover all variations in systems or provide for every possible contingency to be met in connection with the installation. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to your installing dealer or local distributor before contacting the manufacture.**

**NOTE: THE UNIT MUST NEVER BE PLACED ON ITS SIDE OR UPSIDE DOWN AS THE COMPRESSOR OIL WILL RUN IN THE COOLING CIRCUIT AND SERIOUSLY DAMAGE THE UNIT.**

## Installation

**NOTE: THESE INSTALLATION AND MAINTENANCE INSTRUCTIONS SHOULD BE LEFT WITH THE UNIT FOR FUTURE REFERENCE.**

This unit must be installed in accordance with all applicable codes. This unit is not to be used for temporary heating or cooling of buildings or structures under construction.

**FOR MAXIMUM PERFORMANCE, IT IS IMPERATIVE THAT THE COOLING CHASSIS AIR DIVIDER BE SEALED TO THE CABINET AIR SEAL. ANY LEAKAGE WILL ALLOW OUTSIDE UNCONDITIONED AIR TO INFILTRATE AND MIX WITH THE CONDITIONED AIR. THIS CONDITION WILL DEGRADE UNIT PERFORMANCE. ALL UNITS SHOULD BE INSPECTED FOR THIS CONDITION, AS DURING TRANSPORTATION AND INSTALLATION THE SEALS CAN BE DISTURBED. IF REQUIRED, A LIGHT BEAD OF CAULKING IS RECOMMENDED TO SEAL THE CHASSIS TO THE AIR SEAL TO ELIMINATE LEAKAGE.**

**OUTSIDE UNCONDITIONED AIR MUST NOT BE INTRODUCED INTO THE RETURN AIR STREAM OF THIS UNIT IF THE MIXED AIR TEMPERATURE FALLS BELOW 55°F IN HEATING MODE AT DESIGN CONDITIONS. THIS CONDITION MAY ALSO DEGRADE THE PERFORMANCE OF THE UNIT AND IMPROPER APPLICATIONS COULD VOID EQUIPMENT WARRANTY.**

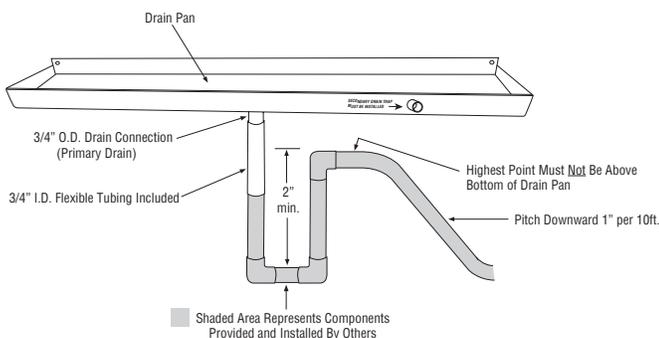
The unit must be installed through an exterior wall with the back end extending 3/4" past the outside wall surface. Provide support inside the building for the unit near the return air opening. There should be enough clearance around the supports to route return ductwork to the unit or allow for unrestricted airflow in an open return configuration. To reduce the possible transmission of sound and vibration, a resilient material such as rubber or cork should be installed between the support and the base of the unit. All spaces around the top, sides, and bottom of the exterior grille area should be caulked and sealed to the wall, making sure that the openings for drainage in the bottom edge are not blocked.

If the optional wall sleeve is used, caulk the spaces between the sleeve and the wall. Completely fill the clearance on all sides between the unit and the wall sleeve with a polyurethane foam sealant (follow manufacturer's suggested application manual).

**NOTE: FOR EASE OF INSTALLATION, INSTALL THE CABINET INTO THE WALL SLEEVE FIRST WITHOUT THE COOLING CHASSIS. THEN SLIDE COOLING CHASSIS IN AFTER CABINET IS IN PLACE.**

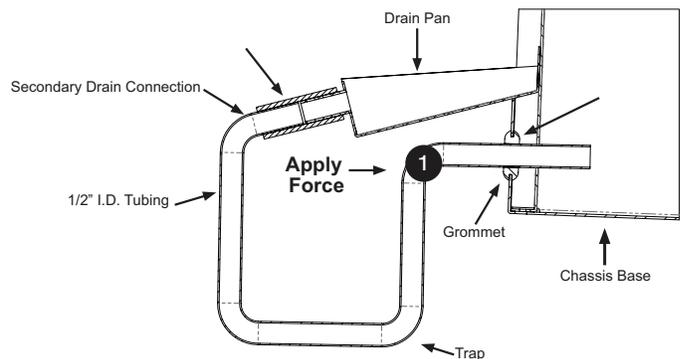
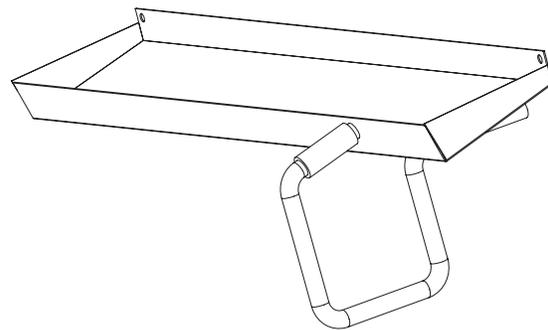
## Drainage

The 3/4" I.D. flexible tubing included should be connected to the Comfort Pack primary drain connection so that it can easily be disconnected if the cooling chassis must be removed. A trap at least 2" deep should be provided close to the drain pan. The tubing should not be higher than the bottom of the unit drain pan at any point to assure proper drainage and allow chassis removal. The drain line should pitch downward at least 1" per 10 ft. to an open building drain trap.



## Secondary Drain Trap Install Instructions:

1. The trap and 2" piece of clear flexible 1/2" ID tubing are shipped loose to prevent damage. They should be installed after the Comfort Pack unit is installed and the return air connection completed.
2. The trap must be primed (filled with water) for proper operation of the secondary drain system. This may be done prior to installation of the trap or after.
3. Insert trap into the grommet located in chassis base pan.
  - a. Apply force to section 1 (refer to drawing below)
  - b. Ensure at least .5" - 0.75" of tubing is inserted into the grommet
  - c. PVC should be flush with drain pan connection

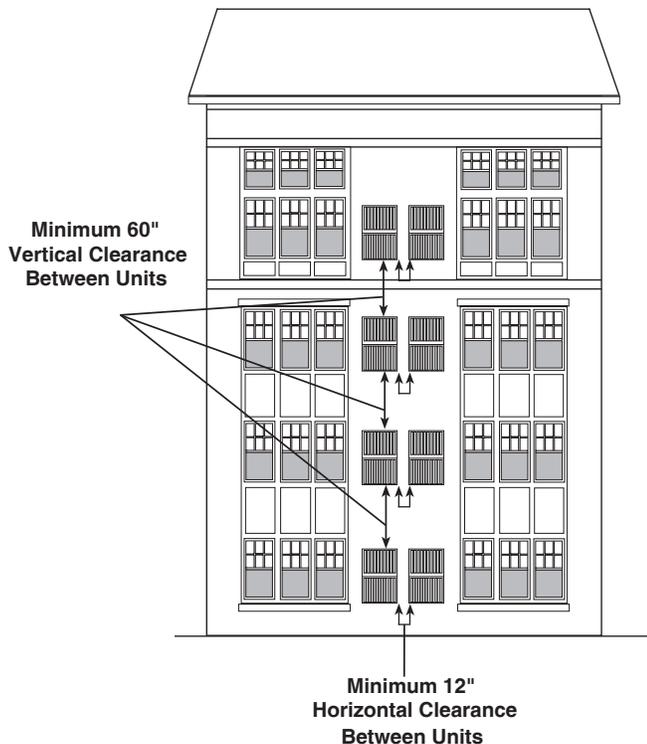


4. Position the trap as shown and slide the 2" piece of clear flexible tubing about 1" onto the top end of the trap. Slide the top of the flexible tube on the trap onto the bottom of the 1/2" OD secondary drain connection and push the top of the trap up. The trap should be positioned so that there is only a small gap between the top of the trap and the bottom of the secondary drain connection.

5. To avoid damage whenever the slide-out chassis has to be removed from the cabinet, remove the secondary drain trap before sliding the chassis out. After the chassis is reinstalled in the cabinet, prime the trap with water before reinstalling it.

## Clearances

For proper unit performance and maximum operating life please maintain the following minimum installation clearances.



\*Less than 12" Call National Comfort Products

**Comfort Pack** units must be installed through an outside wall. Confined spaces and/or covered areas should be avoided. Consult the factory if unclear of clearances required. Units must be installed a minimum of **12"** apart when two units are side by side. If three or more units are to operate next to one another, allow a minimum of **60"** between units or pairs of units. Also, a vertical clearance of **60"** should be maintained between units. Units installed on the bottom floor should be mounted at least **8"** off of the ground.

The unit is designed and approved for thru the wall installation only. The unit must be installed a minimum of **8"** above a finished floor. If the unit is installed in a residential garage, it must be installed so that the ignition source and burners are located not less than **18"** above the floor, and it must be located or protected to avoid physical damage by vehicles.

## Unit Location Considerations

In thru-the-wall installation, due to the various types of wall construction, it is not possible to provide detailed instructions. The following is a list of general requirements and cautions for installing these units.

**The unit must be installed level, both - top front to back and left to right.**

1. Masonry walls must have a lintel to support the wall.
2. Extend the unit approximately 3/4" beyond the outside surface of the wall. Optional mounting angles can be purchased from the factory or field fabricated for locating and mounting the unit in the wall.
3. The wall opening across the top and bottom must be flashed.
  - a. During periods of rain and wind the primary drainage path may not be adequate to handle the load. Secondary precautions may also be required but not limited to the following:
    - Seal flashing to unit
    - Floor drain
    - Additional field sealing of sheet metal joints
    - Sealing of unused access opening
4. Clearances to air inlets and outlets must be adequate to ensure no air flow obstructions or recirculation of condenser air flow.
5. Some architectural designs of buildings will require the unit to be mounted behind a decorative grille. The performance (capacity and efficiency) of the unit may be reduced with the use of these decorative grilles. The less resistive these grilles are to air flow, the better the units performance will be. Outdoor louvers provided by others must be approved by NCP to maintain unit performance and warranty. **Care must be taken to locate the condenser coil away from loose debris that may clog intake.**
6. If the unit is mounted behind a decorative grille, one or both of the following items must be done to eliminate recirculation of air to the unit:
  - a. The front of the unit must be mounted tight to the inside of the architectural grille
  - b. A barrier must be provided to prevent recirculation of air to the unit (mixing of inlet and outlet air) when the front of the unit is mounted back from the inside of the architectural grille
7. The unit must not be mounted in dead-end hallways or areas where there is no fresh outside air circulation. Cool fresh outside air must be provided for best unit operation. Thru-the-wall units may not be located where hot exhausts from clothes dryer vents, kitchen vents, steam vents or corrosive fumes could come in contact with coil side of unit.
8. 30" clearance is required for service accessibility on the inside service panel.
9. If more than one unit is to be installed in the same area a min. of 60" vertical must be maintained between units to minimize recirculation of condenser exhaust air.
10. Care must be taken when locating the unit. Locate away from bedrooms as operational sounds may be objectionable.

## Electrical

**All wiring must be installed in accordance with applicable codes.**

The unit is factory wired for 230/1/60 power. For 208/1/60 power systems, the wiring to the primary side of the control transformer should be changed from the 240-volt connection to the 208-volt connection to provide proper operation of the control system.

**The operating voltage of the unit is from 196 to 244 volts. Operating the equipment outside of these limits will void the warranty.**

## Electrical Supply and Connections

All electrical wiring and connections, including electrical grounding must be made in accordance with the National Electric Code ANSI/NFPA No. 70 (latest edition) or, in Canada, the Canadian Electrical Code, Part I-C.S.A. Standard C22.1. In addition, the installer should be aware of any local ordinances or utility company requirements that might apply.

Check the rating plate for the supply voltage and current requirements. A dedicated line voltage supply with fused disconnect switch should be run directly from the main electrical panel to the unit. All external wiring must be within approved conduit and have a minimum temperature rise rating of 60°C. Conduit from the disconnect switch must be run so as not to interfere with the service panels.

## Controls

Field wiring between the unit and the wall thermostat (by others) may be low voltage for Class 2 systems. The location of the wall thermostat should be 4 to 5 feet above the floor and carefully selected so that the thermostat senses the temperature of the largest conditioned area, without being influenced by drafts, sun exposure or outside temperature.

## Electrical Connections

**NOTE:** Make certain that the volts, hertz, and phase correspond to that specified on the unit rating plate, and that the service provided by the utility is sufficient to handle the additional load imposed by this equipment.

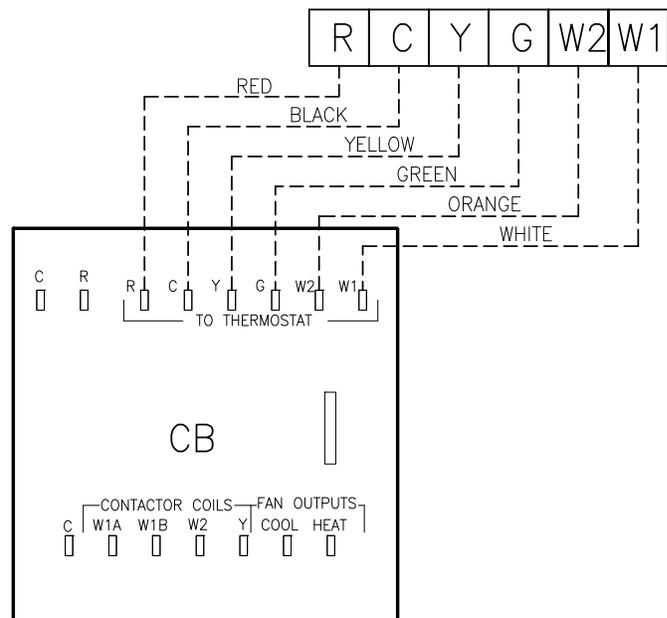
Make all electrical connections in accordance with the National Electrical Code and any pertinent local codes or ordinances. Use a separate branch electrical circuit for this unit. Locate a disconnecting means within sight of and readily accessible to the unit.

- a. Line Voltage Connections
- b. Connect the single phase power supply to unit breaker terminal L1 and L2
- c. Connect ground wire to lug
- d. Low Voltage Connections

When locating the room thermostat, it should be in the natural circulating path of room air. Avoid locations where the thermostat would be exposed to cold air infiltration; drafts from windows, doors or other openings leading to the outside; exposure to air currents from warm-or-cold air registers or to exposure where the natural circulation of the air is cut off, such as behind doors, above or below mantels, shelves, etc.

## Electrical - Low Voltage

### Thermostat Connections Models



**NOTE: IF A 2 STAGE THERMOSTAT IS NOT USED CONNECT BOTH WHITE(W1) AND ORANGE(W2) WIRES TOGETHER. THESE WIRES ARE ONLY NEEDED ON COMFORT PACKS INSTALLED WITH CPEHK**

### Electrical - High Voltage

NOMINAL VOLTAGE	MINIMUM VOLTAGE	MAXIMUM VOLTAGE
208-230	196	244

### High Voltage Power Supply

**WARNING**

LIVE ELECTRICAL COMPONENTS!

During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

The high voltage power supply must agree with the equipment nameplate.

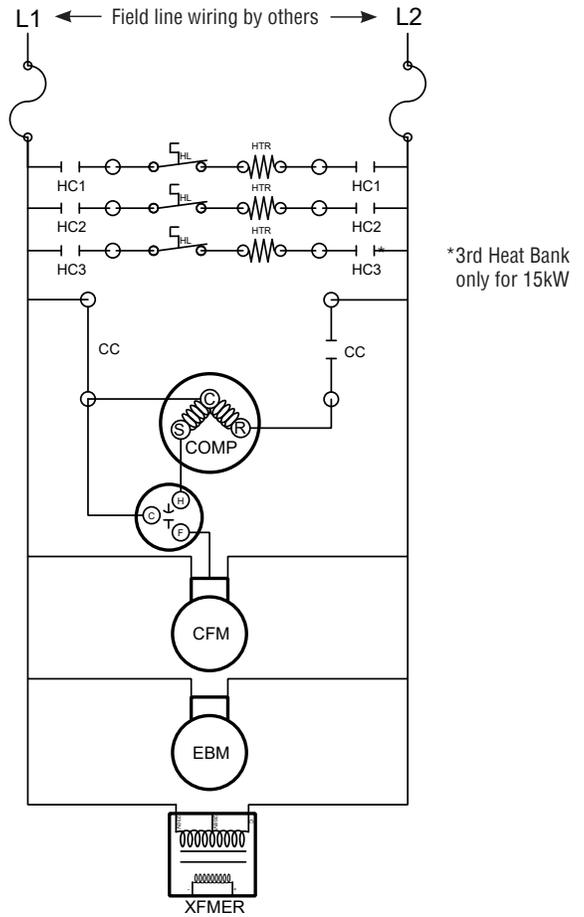
*OR*

Make certain that the volts, hertz, and phase correspond to that specified on the unit rating plate, and that the service provided by the utility is sufficient to handle the additional load imposed by this equipment.

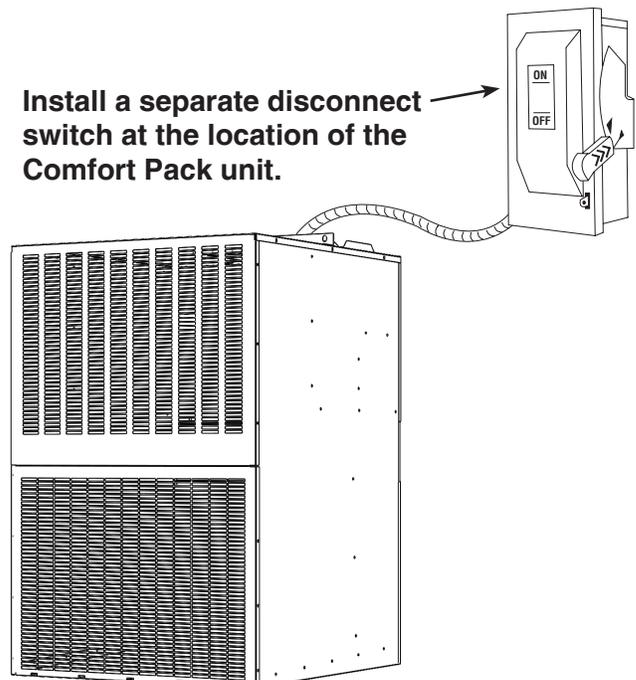
Power wiring must comply with national, state, and local codes.

Follow instructions on unit wiring diagram located on the inside of the access door, or cabinet and in the wiring diagrams included with the unit.

### Wiring Schematic / Optional Electric Heat 3, 5, 7, 10 & 15kW

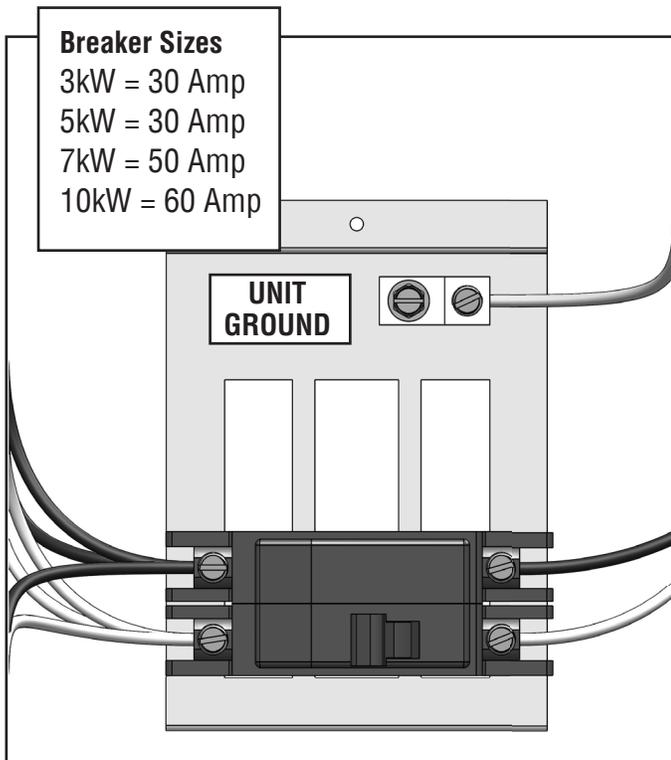


**Install a separate disconnect switch at the location of the Comfort Pack unit.**

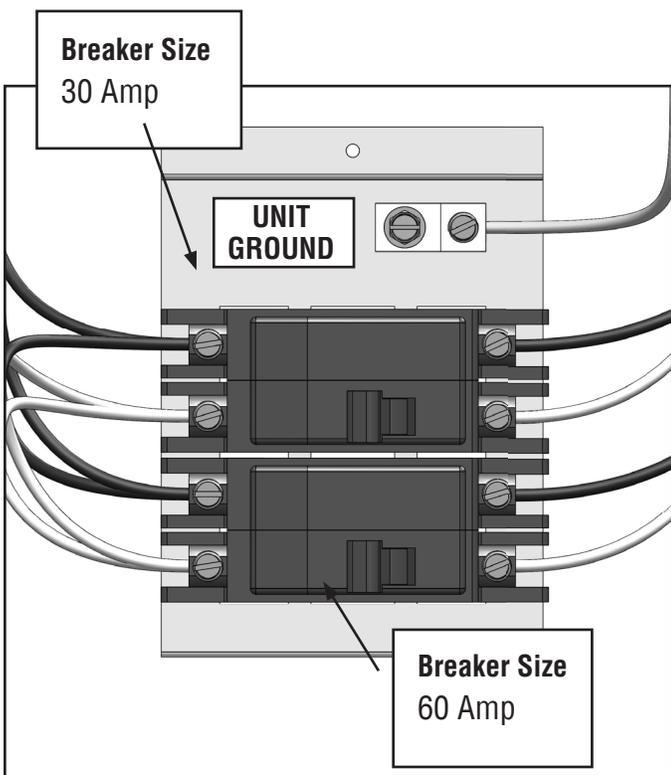


## High Voltage Diagram

### 3, 5, 7, 10KW Fuse Box



### 15KW Fuse Box



## Maintenance and Service

The 16" x 25" x 1" filter on the cooling chassis must be maintained regularly to ensure that the unit provides optimal performance and energy efficiency. The intervals between replacements depends entirely on the cleanliness of the return air to the unit and the time that the indoor blower operates. The air filter is accessible by removing the lower access panel. The filter should be inspected and replaced as needed and is not washable. Substituting the air filter with media other than the type provided with the unit is not recommended, since other materials may cause additional static pressure, which could reduce the air delivery of the unit. **The unit should never be operated without the air filter and access panels in place.**

### Cooling Chassis

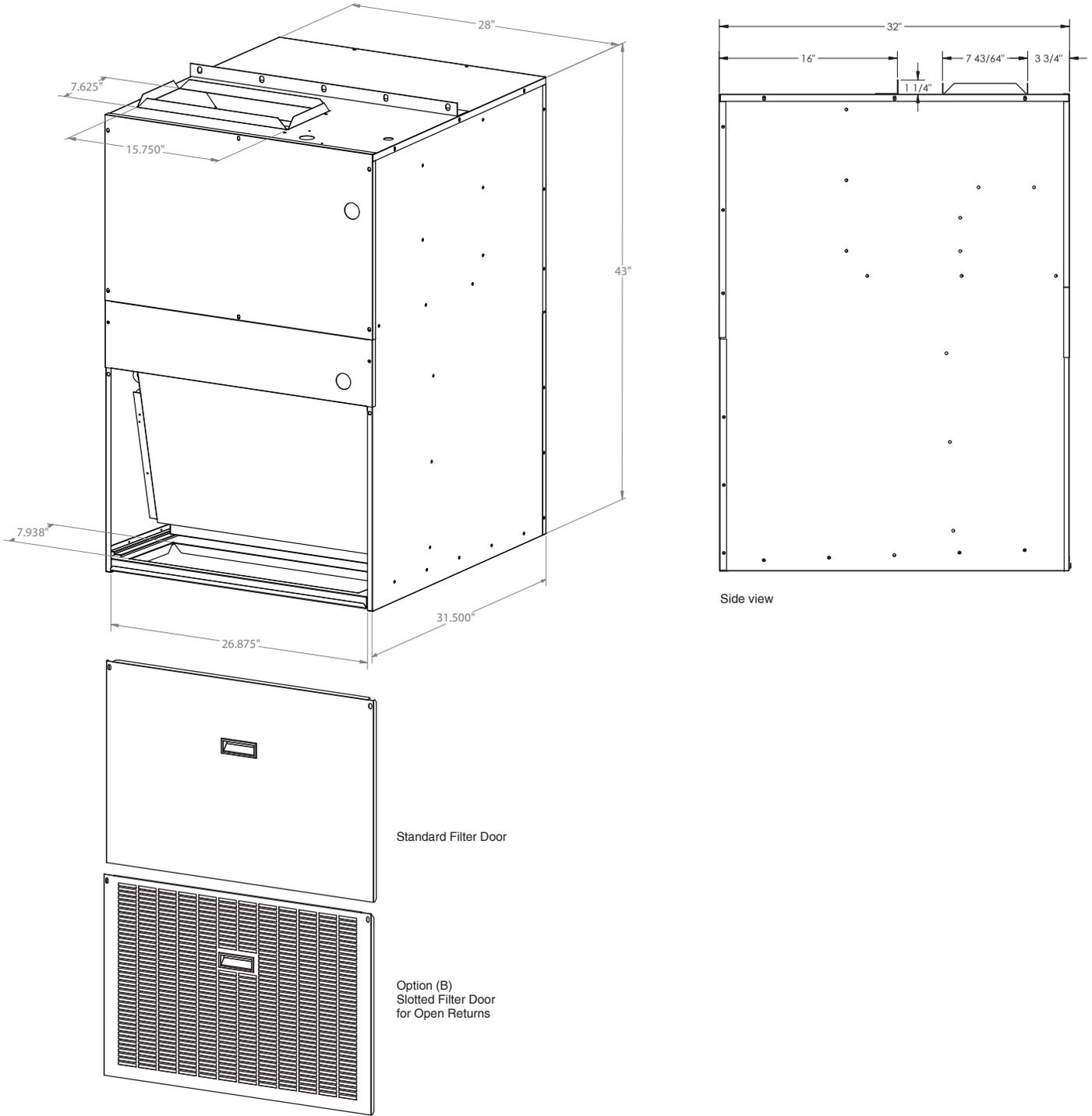
The cooling chassis contains all items related to the cooling functions of the unit, and also contains the indoor blower and motor for the optional heating function. For extensive servicing, qualified personnel may choose to remove the cooling chassis from the unit and take it to a work area. Spare chassis are recommended so that extensive servicing can be performed outside the living space. This will prevent introducing dirt or doing damage in the living area, and could help to eliminate significant disruption of the air conditioning and heating functions in the living areas.

The indoor blower motor and the outdoor fan motor have permanently lubricated bearings and do not require routine service. The refrigeration system is sealed and factory charged with R-410A so that routine maintenance is not required. The electrical controls do not require routine service. Cleaning of the outdoor coil, indoor coil, drain pan, and inside the bottom of the chassis are recommended at least once a year, and more often if the equipment is operated in a dusty or hostile environment. The outdoor coil is an aluminum microchannel condensing coil with an anti-corrosion coating that requires specific precaution when cleaning. It is recommended to rinse the coil using a low pressure hose (less than 70 psi) to prevent buildup of dirt and debris. Rinse from the outside of the coil in, making sure to protect the condenser motor from water damage during the cleaning process. Leaves, twigs, and other large debris should be removed with a soft, non-metallic bristle brush prior to rinsing of the coil to prevent debris from being forced between the fins. Care should be taken not to use the brush horizontally across the fins as they are easily damaged.

**DO NOT USE CHEMICALS, HOUSEHOLD BLEACH, OR ACID CLEANERS AS THEY WILL ACCELERATE CORROSION ON THE COIL. AVOID USING PRESSURE WASHERS, HIGH PRESSURE HOSES, OR HIGHLY COMPRESSED AIR TO CLEAN THE COIL. DOING SO CAN PERMANENTLY DAMAGE THE COIL, REDUCE UNIT PERFORMANCE, AND VOID THE WARRANTY.**

**Power to the unit should always be turned off before performing service or removing the cooling chassis from the unit.** One power connector and one control circuit connector are provided for easy disconnecting and re-connecting of the wires between the cooling chassis and cabinet. The controls enclosure cover must be removed to allow access to the screws holding the indoor blower cover plate to the cooling chassis and cabinet. **After reinstalling the cooling chassis, the indoor blower cover plate and controls enclosure cover must be reinstalled.**

### Comfort Pack CPE Dimension Drawing



NOTE: Unit must be mounted a minimum of 8 inches above finished floor.

**Performance Data**

11.7 SEER2												
Model	Nominal Cooling Tons	Cooling Btu/h	Sensible Btu/h	Charge R-410A (oz)	Heat Kit	Heat Btu/h		Heating kW		Heating Amps		Shipping Weight (lbs.)
						208V	230V	208V	230V	208V	230V	
CPE40900UB	0.75	9,600	7,000	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	315
	0.75	9,600	7,000	28	CPEHK03	8,900	10,900	2.61	3.19	12.54	13.89	315
	0.75	9,600	7,000	28	CPEHK05	13,100	16,000	3.84	4.69	18.45	20.38	315
	0.75	9,600	7,000	28	CPEHK07	18,300	22,400	5.36	6.56	25.78	28.54	315
	0.75	9,600	7,000	28	CPEHK10	26,000	32,000	7.62	9.38	36.63	40.77	315
CPE41200UB	1.0	12,000	8,600	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	315
	1.0	12,000	8,600	30	CPEHK03	8,900	10,900	2.61	3.19	12.54	13.89	315
	1.0	12,000	8,600	30	CPEHK05	13,100	16,000	3.84	4.69	18.45	20.38	315
	1.0	12,000	8,600	30	CPEHK07	18,300	22,400	5.36	6.56	25.78	28.54	315
	1.0	12,000	8,600	30	CPEHK10	26,000	32,000	7.62	9.38	36.63	40.77	315
CPE41800UB	1.5	17,300	12,500	43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	325
	1.5	17,300	12,500	43	CPEHK03	8,900	10,900	2.61	3.19	12.54	13.89	325
	1.5	17,300	12,500	43	CPEHK05	13,100	16,000	3.84	4.69	18.45	20.38	325
	1.5	17,300	12,500	43	CPEHK07	18,300	22,400	5.36	6.56	25.78	28.54	325
	1.5	17,300	12,500	43	CPEHK10	26,000	32,000	7.62	9.38	36.63	40.77	325
	1.5	17,300	12,500	43	CPEHK15	39,000	48,000	11.43	14.06	54.94	61.15	325
CPE42400UB	2.0	21,600	15,600	43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	350
	2.0	21,600	15,600	43	CPEHK03	8,900	10,900	2.61	3.19	12.54	13.89	350
	2.0	21,600	15,600	43	CPEHK05	13,100	16,000	3.84	4.69	18.45	20.38	350
	2.0	21,600	15,600	43	CPEHK07	18,300	22,400	5.36	6.56	25.78	28.54	350
	2.0	21,600	15,600	43	CPEHK10	26,000	32,000	7.62	9.38	36.63	40.77	350
	2.0	21,600	15,600	43	CPEHK15	39,000	48,000	11.43	14.06	54.94	61.15	350

**Electrical Data**

Model	Heat Kit	Voltage	Compressor		Condenser Motor			Blower		Total Amps		MCA		MOP	
			RLA	LRA	HP	RLA	LRA	HP	RLA	208V	230V	208V	230V	208V	230V
CPE40900UB	N/A	208/230-1-60	3.9	21.0	1/4	2.4	--	1/3	2.6	8.9	8.9	9.9	9.9	15	15
	CPEHK03	208/230-1-60	3.9	21.0	1/4	2.4	--	1/3	2.6	15.1	16.5	19.0	20.6	20	25
	CPEHK05	208/230-1-60	3.9	21.0	1/4	2.4	--	1/3	2.6	21.1	23.0	26.3	28.7	30	30
	CPEHK07	208/230-1-60	3.9	21.0	1/4	2.4	--	1/3	2.6	28.4	31.1	35.5	39.0	40	40
	CPEHK10	208/230-1-60	3.9	21.0	1/4	2.4	--	1/3	2.6	39.2	43.4	49.2	54.1	50	60
CPE41200UB	N/A	208/230-1-60	4.7	29.5	1/4	2.4	--	1/3	2.6	9.7	9.7	10.9	10.9	15	15
	CPEHK03	208/230-1-60	4.7	29.5	1/4	2.4	--	1/3	2.6	15.1	16.5	19.0	20.6	20	25
	CPEHK05	208/230-1-60	4.7	29.5	1/4	2.4	--	1/3	2.6	21.1	23.0	26.3	28.7	30	30
	CPEHK07	208/230-1-60	4.7	29.5	1/4	2.4	--	1/3	2.6	28.4	31.1	35.5	39.0	40	40
	CPEHK10	208/230-1-60	4.7	29.5	1/4	2.4	--	1/3	2.6	39.2	43.4	49.2	54.1	50	60
CPE41800UB	N/A	208/230-1-60	6.5	37.5	1/4	1.83	3.6	1/3	2.6	10.9	10.9	12.6	12.6	15	15
	CPEHK03	208/230-1-60	6.5	37.5	1/4	1.83	3.6	1/3	2.6	15.1	16.5	19.0	20.6	20	25
	CPEHK05	208/230-1-60	6.5	37.5	1/4	1.83	3.6	1/3	2.6	21.1	23.0	26.3	28.7	30	30
	CPEHK07	208/230-1-60	6.5	37.5	1/4	1.83	3.6	1/3	2.6	28.4	31.1	35.5	39.0	40	40
	CPEHK10	208/230-1-60	6.5	37.5	1/4	1.83	3.6	1/3	2.6	39.2	43.4	49.2	54.1	50	60
	CPEHK15	208/230-1-60	6.5	37.5	1/4	1.83	3.6	1/3	2.6	57.5	63.7	48.1	53.0	50	60
CPE42400UB	N/A	208/230-1-60	8.4	37.0	1/4	2.4	--	1/2	3.8	14.6	14.6	16.7	16.7	15	15
	CPEHK03	208/230-1-60	8.4	37.0	1/4	2.4	--	1/2	3.8	22.3	24.2	20.5	22.1	25	25
	CPEHK05	208/230-1-60	8.4	37.0	1/4	2.4	--	1/2	3.8	29.6	32.3	27.8	30.2	30	35
	CPEHK07	208/230-1-60	8.4	37.0	1/4	2.4	--	1/2	3.8	40.4	44.6	37.0	40.5	40	45
	CPEHK10	208/230-1-60	8.4	37.0	1/4	2.4	--	1/2	3.8	58.7	64.9	50.7	55.6	60	60
	CPEHK15	208/230-1-60	8.4	37.0	1/4	2.4	--	1/2	3.8	58.7	64.9	49.1	54.0	50	60
											24.6	27.0	25	30	

**Other Options**

CPWS	Wall Sleeve (Unassembled)
CPWSA	Wall Sleeve Adapter (Unassembled)
CPLG	Architectural Louver Grille
CPLG-S	Architectural Louver Grille for Sleeve
CPLG-P	Architectural Louver Grille Painted
CPLG-SP	Architectural Louver Grille for Sleeve Painted
CPSG-P	Stamped Grille Painted
A	Standard
B	Slotted Door
C	Without Rear Grille
D	Both B & C

NOTE: National Comfort Products offers Architectural Louver Grilles for all models. Outdoor grilles provided by others must be approved by National Comfort Products to maintain unit performance and warranty coverage. See Comfort Pack Architectural Options Specification Sheet for more details.

208 V												
Comfort Pack with Electric Heat Kit CFM and Temperature Rise 3kW Input												
UNIT SIZE	COLOR	SPEED	.1" w.c.	TD	.2" w.c.	TD	.3" w.c.	TD	.4" w.c.	TD	.5" w.c.	TD
CPE40900UB	Red	1	760	10.8	745	11.1	730	11.3	715	11.5	700	11.8
	Yellow	2	650	12.7	640	12.9	630	13.1	615	13.4	600	13.7
	Blue	3	560	14.7	535	15.4	520	15.8	510	16.2	500	16.5
	Black	4	440	18.7	425	19.4	410	20.1	390	21.1	370	22.3
	Orange	5	390	21.1	360	22.9	330	25.0	310	26.6	290	28.4
CPE41200UB	Red	1	760	10.8	745	11.1	730	11.3	715	11.5	700	11.8
	Yellow	2	650	12.7	640	12.9	630	13.1	615	13.4	600	13.7
	Blue	3	560	14.7	535	15.4	520	15.8	510	16.2	500	16.5
	Black	4	440	18.7	425	19.4	410	20.1	390	21.1	370	22.3
	Orange	5	390	21.1	360	22.9	330	25.0	310	26.6	290	28.4
CPE41800UB	Red	1	760	10.8	745	11.1	730	11.3	715	11.5	700	11.8
	Yellow	2	650	12.7	640	12.9	630	13.1	615	13.4	600	13.7
	Blue	3	560	14.7	535	15.4	520	15.8	510	16.2	500	16.5
	Black	4	440	18.7	425	19.4	410	20.1	390	21.1	370	22.3
	Orange	5	390	21.1	360	22.9	330	25.0	310	26.6	290	28.4
CPE42400UB	Red	1	870	9.5	850	9.7	830	9.9	810	10.2	790	10.4
	Yellow	2	760	10.8	745	11.1	730	11.3	715	11.5	690	11.9
	Blue	3	680	12.1	665	12.4	650	12.7	630	13.1	610	13.5
	Black	4	590	14.0	565	14.6	540	15.3	525	15.7	510	16.2
	Orange	5	440	18.7	425	19.4	410	20.1	400	20.6	390	21.1

Comfort Pack with Electric Heat Kit CFM and Temperature Rise 5kW Input												
UNIT SIZE	COLOR	SPEED	.1" w.c.	TD	.2" w.c.	TD	.3" w.c.	TD	.4" w.c.	TD	.5" w.c.	TD
CPE40900UB	Red	1	760	16.0	745	16.3	730	16.6	715	17.0	700	17.3
	Yellow	2	650	18.7	640	19.0	630	19.3	615	19.7	600	20.2
	Blue	3	560	21.7	535	22.7	520	23.3	510	23.8	500	24.3
	Black	4	440	27.6	425	28.5	410	29.6	390	31.1	370	32.8
	Orange	5	390	31.1	360	33.7	330	36.8	310	39.1	290	41.8
CPE41200UB	Red	1	760	16.0	745	16.3	730	16.6	715	17.0	700	17.3
	Yellow	2	650	18.7	640	19.0	630	19.3	615	19.7	600	20.2
	Blue	3	560	21.7	535	22.7	520	23.3	510	23.8	500	24.3
	Black	4	440	27.6	425	28.5	410	29.6	390	31.1	370	32.8
	Orange	5	390	31.1	360	33.7	330	36.8	310	39.1	290	41.8
CPE41800UB	Red	1	760	16.0	745	16.3	730	16.6	715	17.0	700	17.3
	Yellow	2	650	18.7	640	19.0	630	19.3	615	19.7	600	20.2
	Blue	3	560	21.7	535	22.7	520	23.3	510	23.8	500	24.3
	Black	4	440	27.6	425	28.5	410	29.6	390	31.1	370	32.8
	Orange	5	390	31.1	360	33.7	330	36.8	310	39.1	290	41.8
CPE42400UB	Red	1	870	13.9	850	14.3	830	14.6	810	15.0	790	15.4
	Yellow	2	760	16.0	745	16.3	730	16.6	715	17.0	690	17.6
	Blue	3	680	17.8	665	18.2	650	18.7	630	19.3	610	19.9
	Black	4	590	20.6	565	21.5	540	22.5	525	23.1	510	23.8
	Orange	5	440	27.6	425	28.5	410	29.6	400	30.3	390	31.1

 = Factory Recommended Heat Speed Setting

208 V												
Comfort Pack with Electric Heat Kit CFM and Temperature Rise 7kW Input												
UNIT SIZE	COLOR	SPEED	.1" w.c.	TD	.2" w.c.	TD	.3" w.c.	TD	.4" w.c.	TD	.5" w.c.	TD
CPE40900UB	Red	1	760	22.3	745	22.7	730	23.2	715	23.7	700	24.2
	Yellow	2	650	26.1	640	26.5	630	26.9	615	27.6	600	28.2
	Blue	3	560	30.3	535	31.7	520	32.6	510	33.2	500	33.9
	Black	4	440	38.5	425	39.9	410	41.3	390	43.4	370	45.8
	Orange	5	390	43.4	360	47.1	330	51.3	310	54.7	290	58.4
CPE41200UB	Red	1	760	22.3	745	22.7	730	23.2	715	23.7	700	24.2
	Yellow	2	650	26.1	640	26.5	630	26.9	615	27.6	600	28.2
	Blue	3	560	30.3	535	31.7	520	32.6	510	33.2	500	33.9
	Black	4	440	38.5	425	39.9	410	41.3	390	43.4	370	45.8
	Orange	5	390	43.4	360	47.1	330	51.3	310	54.7	290	58.4
CPE41800UB	Red	1	760	22.3	745	22.7	730	23.2	715	23.7	700	24.2
	Yellow	2	650	26.1	640	26.5	630	26.9	615	27.6	600	28.2
	Blue	3	560	30.3	535	31.7	520	32.6	510	33.2	500	33.9
	Black	4	440	38.5	425	39.9	410	41.3	390	43.4	370	45.8
	Orange	5	390	43.4	360	47.1	330	51.3	310	54.7	290	58.4
CPE42400UB	Red	1	870	19.5	850	19.9	830	20.4	810	20.9	790	21.4
	Yellow	2	760	22.3	745	22.7	730	23.2	715	23.7	690	24.6
	Blue	3	680	24.9	665	25.5	650	26.1	630	26.9	610	27.8
	Black	4	590	28.7	565	30.0	540	31.4	525	32.3	510	33.2
	Orange	5	440	38.5	425	39.9	410	41.3	400	42.4	390	43.4

Comfort Pack with Electric Heat Kit CFM and Temperature Rise 10kW Input												
UNIT SIZE	COLOR	SPEED	.1" w.c.	TD	.2" w.c.	TD	.3" w.c.	TD	.4" w.c.	TD	.5" w.c.	TD
CPE40900UB	Red	1	760	31.7	745	32.3	730	33.0	715	33.7	700	34.4
	Yellow	2	650	37.0	640	37.6	630	38.2	615	39.1	600	40.1
	Blue	3	560	43.0	535	45.0	520	46.3	510	47.2	500	48.1
	Black	4	440	54.7	425	56.6	410	58.7	390	61.7	370	65.1
	Orange	5	390	61.7	360	66.9	330	73.0	310	77.7	290	83.0
CPE41200UB	Red	1	760	31.7	745	32.3	730	33.0	715	33.7	700	34.4
	Yellow	2	650	37.0	640	37.6	630	38.2	615	39.1	600	40.1
	Blue	3	560	43.0	535	45.0	520	46.3	510	47.2	500	48.1
	Black	4	440	54.7	425	56.6	410	58.7	390	61.7	370	65.1
	Orange	5	390	61.7	360	66.9	330	73.0	310	77.7	290	83.0
CPE41800UB	Red	1	760	31.7	745	32.3	730	33.0	715	33.7	700	34.4
	Yellow	2	650	37.0	640	37.6	630	38.2	615	39.1	600	40.1
	Blue	3	560	43.0	535	45.0	520	46.3	510	47.2	500	48.1
	Black	4	440	54.7	425	56.6	410	58.7	390	61.7	370	65.1
	Orange	5	390	61.7	360	66.9	330	73.0	310	77.7	290	83.0
CPE42400UB	Red	1	870	27.7	850	28.3	830	29.0	810	29.7	790	30.5
	Yellow	2	760	31.7	745	32.3	730	33.0	715	33.7	690	34.9
	Blue	3	680	35.4	665	36.2	650	37.0	630	38.2	610	39.5
	Black	4	590	40.8	565	42.6	540	44.6	525	45.9	510	47.2
	Orange	5	440	54.7	425	56.6	410	58.7	400	60.2	390	61.7

 = Factory Recommended Heat Speed Setting

208 V												
Comfort Pack with Electric Heat Kit CFM and Temperature Rise 15kW Input												
UNIT SIZE	COLOR	SPEED	.1" w.c.	TD	.2" w.c.	TD	.3" w.c.	TD	.4" w.c.	TD	.5" w.c.	TD
CPE41200UB	Red	1	760	47.3	745	48.2	730	49.2	715	50.3	700	51.3
	Yellow	2	650	55.3	640	56.2	630	57.1	615	58.4	600	59.9
	Blue	3	560	64.2	535	67.2	520	69.1	510	70.5	500	71.9
	Black	4	440	81.7	425	84.6	410	87.7	390	92.2	370	97.1
	Orange	5	390	92.2	360	99.8	330	108.9	310	116.0	290	123.9
CPE41800UB	Red	1	760	47.3	745	48.2	730	49.2	715	50.3	700	51.3
	Yellow	2	650	55.3	640	56.2	630	57.1	615	58.4	600	59.9
	Blue	3	560	64.2	535	67.2	520	69.1	510	70.5	500	71.9
	Black	4	440	81.7	425	84.6	410	87.7	390	92.2	370	97.1
	Orange	5	390	92.2	360	99.8	330	108.9	310	116.0	290	123.9
CPE42400UB	Red	1	870	41.3	850	42.3	830	43.3	810	44.4	790	45.5
	Yellow	2	760	47.3	745	48.2	730	49.2	715	50.3	690	52.1
	Blue	3	680	52.9	665	54.1	650	55.3	630	57.1	610	58.9
	Black	4	590	60.9	565	63.6	540	66.6	525	68.5	510	70.5
	Orange	5	440	81.7	425	84.6	410	87.7	400	89.9	390	92.2

230 V												
Comfort Pack with Electric Heat Kit CFM and Temperature Rise 3kW Input												
UNIT SIZE	COLOR	SPEED	.1" w.c.	TD	.2" w.c.	TD	.3" w.c.	TD	.4" w.c.	TD	.5" w.c.	TD
CPE40900UB	Red	1	760	13.3	745	13.5	730	13.8	715	14.1	700	14.4
	Yellow	2	650	15.5	640	15.8	630	16.0	615	16.4	600	16.8
	Blue	3	560	18.0	535	18.9	520	19.4	510	19.8	500	20.2
	Black	4	440	22.9	425	23.7	410	24.6	390	25.9	370	27.3
	Orange	5	390	25.9	360	28.0	330	30.6	310	32.6	290	34.8
CPE41200UB	Red	1	760	13.3	745	13.5	730	13.8	715	14.1	700	14.4
	Yellow	2	650	15.5	640	15.8	630	16.0	615	16.4	600	16.8
	Blue	3	560	18.0	535	18.9	520	19.4	510	19.8	500	20.2
	Black	4	440	22.9	425	23.7	410	24.6	390	25.9	370	27.3
	Orange	5	390	25.9	360	28.0	330	30.6	310	32.6	290	34.8
CPE41800UB	Red	1	760	13.3	745	13.5	730	13.8	715	14.1	700	14.4
	Yellow	2	650	15.5	640	15.8	630	16.0	615	16.4	600	16.8
	Blue	3	560	18.0	535	18.9	520	19.4	510	19.8	500	20.2
	Black	4	440	22.9	425	23.7	410	24.6	390	25.9	370	27.3
	Orange	5	390	25.9	360	28.0	330	30.6	310	32.6	290	34.8
CPE42400UB	Red	1	870	11.6	850	11.9	830	12.2	810	12.5	790	12.8
	Yellow	2	760	13.3	745	13.5	730	13.8	715	14.1	690	14.6
	Blue	3	680	14.8	665	15.2	650	15.5	630	16.0	610	16.5
	Black	4	590	17.1	565	17.9	540	18.7	525	19.2	510	19.8
	Orange	5	440	22.9	425	23.7	410	24.6	400	25.2	390	25.9

 = Factory Recommended Heat Speed Setting

230 V												
Comfort Pack with Electric Heat Kit CFM and Temperature Rise 5kW Input												
UNIT SIZE	COLOR	SPEED	.1" w.c.	TD	.2" w.c.	TD	.3" w.c.	TD	.4" w.c.	TD	.5" w.c.	TD
CPE40900UB	Red	1	760	19.5	745	19.9	730	20.3	715	20.7	700	21.2
	Yellow	2	650	22.8	640	23.1	630	23.5	615	24.1	600	24.7
	Blue	3	560	26.5	535	27.7	520	28.5	510	29.0	500	29.6
	Black	4	440	33.7	425	34.9	410	36.1	390	38.0	370	40.0
	Orange	5	390	38.0	360	41.2	330	44.9	310	47.8	290	51.1
CPE41200UB	Red	1	760	19.5	745	19.9	730	20.3	715	20.7	700	21.2
	Yellow	2	650	22.8	640	23.1	630	23.5	615	24.1	600	24.7
	Blue	3	560	26.5	535	27.7	520	28.5	510	29.0	500	29.6
	Black	4	440	33.7	425	34.9	410	36.1	390	38.0	370	40.0
	Orange	5	390	38.0	360	41.2	330	44.9	310	47.8	290	51.1
CPE41800UB	Red	1	760	19.5	745	19.9	730	20.3	715	20.7	700	21.2
	Yellow	2	650	22.8	640	23.1	630	23.5	615	24.1	600	24.7
	Blue	3	560	26.5	535	27.7	520	28.5	510	29.0	500	29.6
	Black	4	440	33.7	425	34.9	410	36.1	390	38.0	370	40.0
	Orange	5	390	38.0	360	41.2	330	44.9	310	47.8	290	51.1
CPE42400UB	Red	1	870	17.0	850	17.4	830	17.8	810	18.3	790	18.8
	Yellow	2	760	19.5	745	19.9	730	20.3	715	20.7	690	21.5
	Blue	3	680	21.8	665	22.3	650	22.8	630	23.5	610	24.3
	Black	4	590	25.1	565	26.2	540	27.4	525	28.2	510	29.0
	Orange	5	440	33.7	425	34.9	410	36.1	400	37.0	390	38.0

Comfort Pack with Electric Heat Kit CFM and Temperature Rise 7kW Input												
UNIT SIZE	COLOR	SPEED	.1" w.c.	TD	.2" w.c.	TD	.3" w.c.	TD	.4" w.c.	TD	.5" w.c.	TD
CPE40900UB	Red	1	760	27.3	745	27.8	730	28.4	715	29.0	700	29.6
	Yellow	2	650	31.9	640	32.4	630	32.9	615	33.7	600	34.6
	Blue	3	560	37.0	535	38.8	520	39.9	510	40.7	500	41.5
	Black	4	440	47.1	425	48.8	410	50.6	390	53.2	370	56.1
	Orange	5	390	53.2	360	57.6	330	62.9	310	66.9	290	71.5
CPE41200UB	Red	1	760	27.3	745	27.8	730	28.4	715	29.0	700	29.6
	Yellow	2	650	31.9	640	32.4	630	32.9	615	33.7	600	34.6
	Blue	3	560	37.0	535	38.8	520	39.9	510	40.7	500	41.5
	Black	4	440	47.1	425	48.8	410	50.6	390	53.2	370	56.1
	Orange	5	390	53.2	360	57.6	330	62.9	310	66.9	290	71.5
CPE41800UB	Red	1	760	27.3	745	27.8	730	28.4	715	29.0	700	29.6
	Yellow	2	650	31.9	640	32.4	630	32.9	615	33.7	600	34.6
	Blue	3	560	37.0	535	38.8	520	39.9	510	40.7	500	41.5
	Black	4	440	47.1	425	48.8	410	50.6	390	53.2	370	56.1
	Orange	5	390	53.2	360	57.6	330	62.9	310	66.9	290	71.5
CPE42400UB	Red	1	870	23.8	850	24.4	830	25.0	810	25.6	790	26.3
	Yellow	2	760	27.3	745	27.8	730	28.4	715	29.0	690	30.1
	Blue	3	680	30.5	665	31.2	650	31.9	630	32.9	610	34.0
	Black	4	590	35.2	565	36.7	540	38.4	525	39.5	510	40.7
	Orange	5	440	47.1	425	48.8	410	50.6	400	51.9	390	53.2

 = Factory Recommended Heat Speed Setting

230 V												
Comfort Pack with Electric Heat Kit CFM and Temperature Rise 10kW Input												
UNIT SIZE	COLOR	SPEED	.1" w.c.	TD	.2" w.c.	TD	.3" w.c.	TD	.4" w.c.	TD	.5" w.c.	TD
CPE40900UB	Red	1	760	39.0	745	39.8	730	40.6	715	41.4	700	42.3
	Yellow	2	650	45.6	640	46.3	630	47.0	615	48.2	600	49.4
	Blue	3	560	52.9	535	55.4	520	57.0	510	58.1	500	59.3
	Black	4	440	67.3	425	69.7	410	72.3	390	76.0	370	80.1
	Orange	5	390	76.0	360	82.3	330	89.8	310	95.6	290	102.2
CPE41200UB	Red	1	760	39.0	745	39.8	730	40.6	715	41.4	700	42.3
	Yellow	2	650	45.6	640	46.3	630	47.0	615	48.2	600	49.4
	Blue	3	560	52.9	535	55.4	520	57.0	510	58.1	500	59.3
	Black	4	440	67.3	425	69.7	410	72.3	390	76.0	370	80.1
	Orange	5	390	76.0	360	82.3	330	89.8	310	95.6	290	102.2
CPE41800UB	Red	1	760	39.0	745	39.8	730	40.6	715	41.4	700	42.3
	Yellow	2	650	45.6	640	46.3	630	47.0	615	48.2	600	49.4
	Blue	3	560	52.9	535	55.4	520	57.0	510	58.1	500	59.3
	Black	4	440	67.3	425	69.7	410	72.3	390	76.0	370	80.1
	Orange	5	390	76.0	360	82.3	330	89.8	310	95.6	290	102.2
CPE42400UB	Red	1	870	34.1	850	34.9	830	35.7	810	36.6	790	37.5
	Yellow	2	760	39.0	745	39.8	730	40.6	715	41.4	690	42.9
	Blue	3	680	43.6	665	44.6	650	45.6	630	47.0	610	48.6
	Black	4	590	50.2	565	52.4	540	54.9	525	56.4	510	58.1
	Orange	5	440	67.3	425	69.7	410	72.3	400	74.1	390	76.0

Comfort Pack with Electric Heat Kit CFM and Temperature Rise 15kW Input												
UNIT SIZE	COLOR	SPEED	.1" w.c.	TD	.2" w.c.	TD	.3" w.c.	TD	.4" w.c.	TD	.5" w.c.	TD
CPE41200UB	Red	1	760	58.2	745	59.4	730	60.6	715	61.9	700	63.2
	Yellow	2	650	68.1	640	69.1	630	70.2	615	71.9	600	73.7
	Blue	3	560	79.0	535	82.7	520	85.1	510	86.7	500	88.5
	Black	4	440	100.5	425	104.1	410	107.9	390	113.4	370	119.6
	Orange	5	390	113.4	360	122.9	330	134.1	310	142.7	290	152.6
CPE41800UB	Red	1	760	58.2	745	59.4	730	60.6	715	61.9	700	63.2
	Yellow	2	650	68.1	640	69.1	630	70.2	615	71.9	600	73.7
	Blue	3	560	79.0	535	82.7	520	85.1	510	86.7	500	88.5
	Black	4	440	100.5	425	104.1	410	107.9	390	113.4	370	119.6
	Orange	5	390	113.4	360	122.9	330	134.1	310	142.7	290	152.6
CPE42400UB	Red	1	870	50.9	850	52.0	830	53.3	810	54.6	790	56.0
	Yellow	2	760	58.2	745	59.4	730	60.6	715	61.9	690	64.1
	Blue	3	680	65.1	665	66.5	650	68.1	630	70.2	610	72.5
	Black	4	590	75.0	565	78.3	540	81.9	525	84.3	510	86.7
	Orange	5	440	100.5	425	104.1	410	107.9	400	110.6	390	113.4

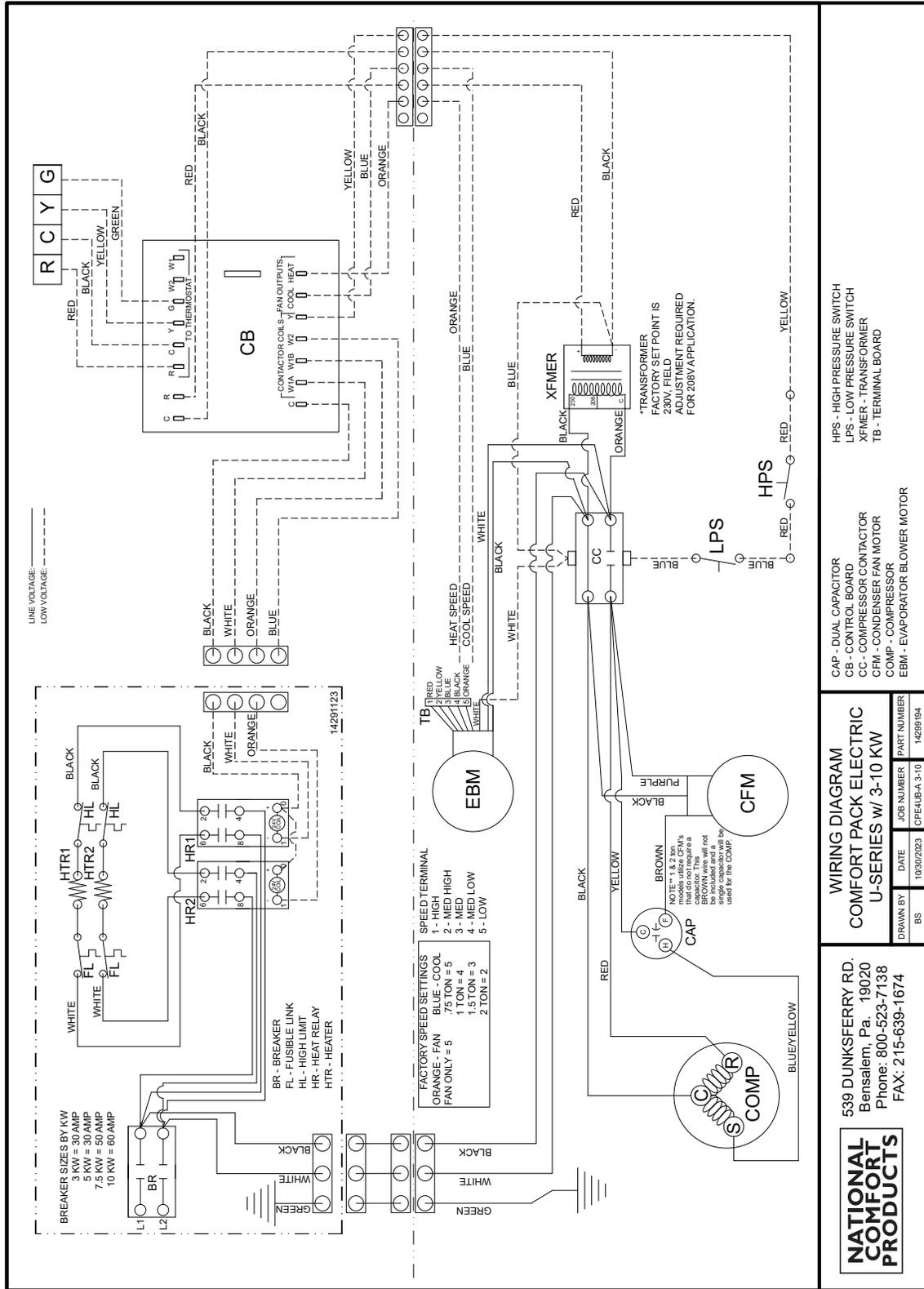
 = Factory Recommended Heat Speed Setting

**Air Flow Data**

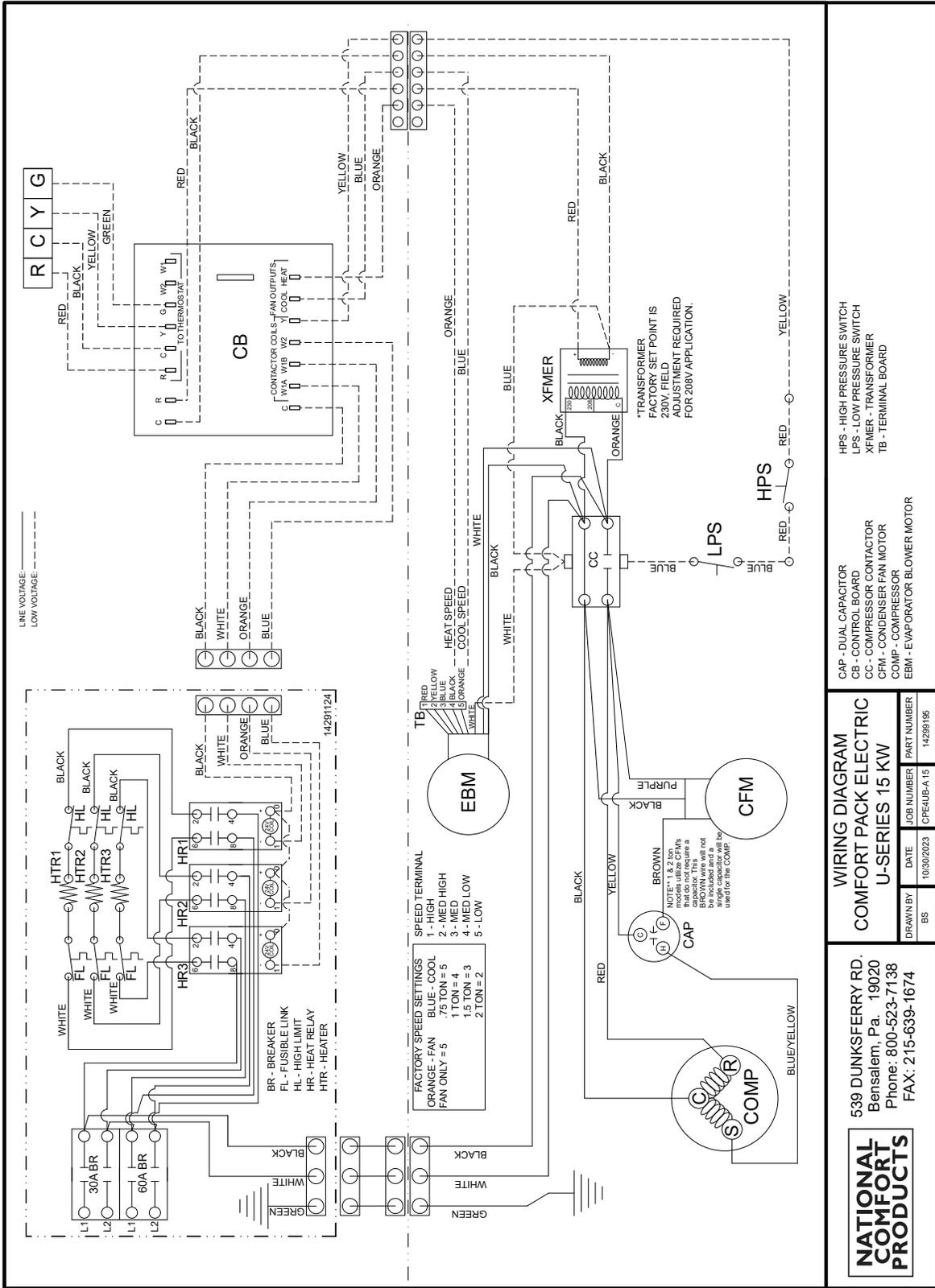
Models	Color	Speed Tap	ESP (in wc) / CFM				
			0.1	0.2	0.3	0.4	0.5
CPE40900UB	Red	1	760	745	730	715	700
	Yellow	2	650	640	630	615	600
	Blue	3	560	535	520	510	500
	Black	4	440	425	410	390	370
	Orange	5	390	360	330	310	290
CPE41200UB	Red	1	760	745	730	715	700
	Yellow	2	650	640	630	615	600
	Blue	3	560	535	520	510	500
	Black	4	440	425	410	390	370
	Orange	5	390	360	330	310	290
CPE41800UB	Red	1	760	745	730	715	700
	Yellow	2	650	640	630	615	600
	Blue	3	560	535	520	510	500
	Black	4	440	425	410	390	370
	Orange	5	390	360	330	310	290
CPE42400UB	Red	1	870	850	830	810	790
	Yellow	2	760	745	730	715	690
	Blue	3	680	665	650	630	610
	Black	4	590	565	540	525	510
	Orange	5	440	425	410	400	390



Wiring Schematic - 3-10kW



Wiring Schematic - 15kW



DRAWN BY		DATE	JOB NUMBER	PART NUMBER
BS		10/30/2023	CPEUB-A-15	14291196

539 DUNKSFERRY RD.  
Bensalem, Pa. 19020  
Phone: 800-523-7138  
FAX: 215-639-1674



<b>Replacement Parts Guide   Cabinet Parts</b>	
Part Description	Part Number
Control Board	14262041
Wire Harness - Control	14230025
Wire Harness - Power	14230029
Top Mount Angle	14256101
Side Seal Retainer	14256163
Left Side Panel	14256423
Right Side Panel	14256424
Top Panel	14256425
Lower Discharge Grille	14256437
Upper Intake Grille	14256438
Horizontal Air Divider	14256513
Vertical Air Divider	14256514
Electric Heater Mount	14256519
Bottom Panel	14256600
Rail	14256605
Blower Cover Mtg Strap	14256811
Cabinet Air Seal	14256813
Indoor Blower Cover Plate	14256814
Lower Access Panel	14256123-01
Controls Cover	14256169-01
Top Access Panel	14256522
Breaker Patch Plate	14256523

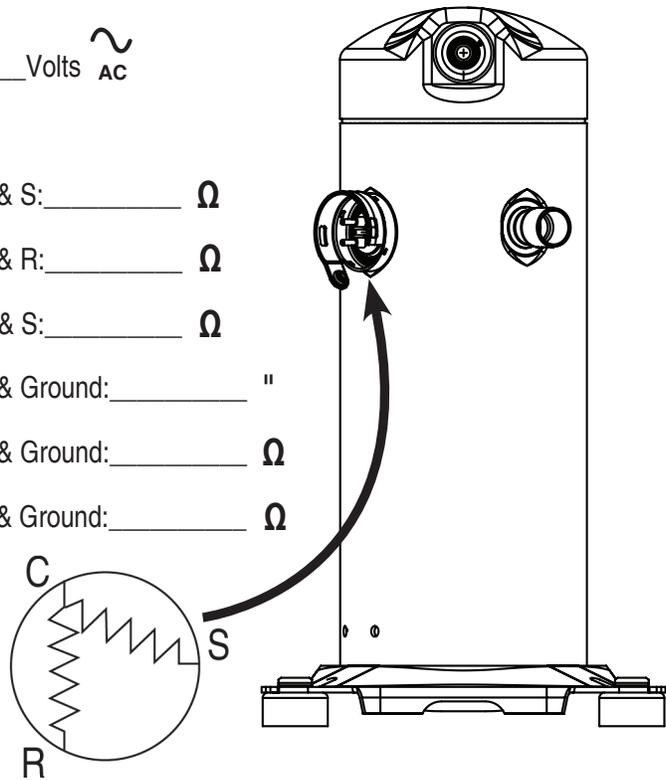
Replacement Parts Guide   Chassis Parts				
Part Description	Part Number			
	0.75 Ton	1.0 Ton	1.5 Ton	2.0 Ton
Chassis Model	CPC-4UB-09-1	CPC-4UB-12-1	CPC-4UB-18-1	CPC-4UB-24-1
Base Pan	14256431	14256431	14256431	14256431
Indoor Coil	14208392	14208392	14208301	14208301
Outdoor Coil	14208388	14208388	14208389	14208389
Compressor	14210269	14210249	14210251	14210252
Compressor Accessories	RECHI 272 ACCESS	RECHI 272 ACCESS	RECHI 382 ACCESS	RECHI 492 ACCESS
Capacitor	14225387	14225387	14225395	14225397
TXV	14275147	14275146	14275117	14275118
Outdoor Fan Motor	14270057	14270057	14270044	14270057
Outdoor Coil Mount	14256430		14256434	
Drier	14275947			
Outdoor Fan	14214042			
Outdoor Motor Mount	14270101			
Indoor Blower Motor	14270063/14270066			14270064/14270067
Blower Wheel	14214022			
Blower Housing	14214023			
Indoor Motor Mount	14270108			
Air Divider	14256415			
Indoor Coil Cover	14256647			
Indoor Coil Drain Pan	14256098			
Air Filter	14232002			
Wire Harness Controls	14230024			
Power Connecting Plugs	14230026			
Compressor Harness	14230057			
Contactora	14262082			
Transformer 208/240-24V	14262087			
5-Pole Terminal Board	14263062			
Low Pressure Switch	14265026			
High Pressure Switch	14256029			
3/4" ID Drain Tube	14275616			



**IMPORTANT!!!**  
**BEFORE REMOVING A WARRANTY COMPRESSOR,**  
**PLEASE FILL OUT THE FOLLOWING**  
**AND CALL (800) 523-7138.**

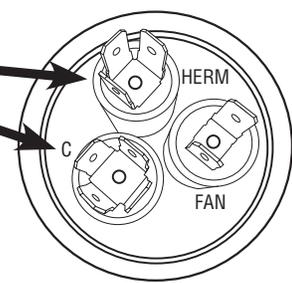
**REMOVAL OF COMPRESSOR WITHOUT FACTORY VERIFICATION  
 CAN LEAD TO WARRANTY CREDIT BEING DENIED**

1. Incoming Voltage to Compressor at Contactor is: \_\_\_\_\_ Volts  $\sim$  AC
2. Compressor Starting AMP Draw: \_\_\_\_\_  $\text{---}\text{W}\text{---}$ <sub>R</sub>
3. Compressor Winding OHM Reading between Terminals C & S: \_\_\_\_\_  $\Omega$
4. Compressor Winding OHM Reading between Terminals C & R: \_\_\_\_\_  $\Omega$
5. Compressor Winding OHM Reading between Terminals R & S: \_\_\_\_\_  $\Omega$
6. Compressor Winding OHM Reading between Terminals C & Ground: \_\_\_\_\_ "
7. Compressor Winding OHM Reading between Terminals R & Ground: \_\_\_\_\_  $\Omega$
8. Compressor Winding OHM Reading between Terminals S & Ground: \_\_\_\_\_  $\Omega$



9. Run Capacitor Reading from HERM to COM: \_\_\_\_\_  $\mu$ F
10. Start Capacitor Reading if Used: \_\_\_\_\_  $\mu$ F

TOP VIEW OF CAPACITOR



- 11. If the Compressor is Operating Please Indicate the Following:**
- Suction Pressure: \_\_\_\_\_ psig      Discharge Pressure: \_\_\_\_\_ psig
- Super Heat: \_\_\_\_\_ F      Subcooling: \_\_\_\_\_ F



*A Division of National Refrigeration & Air Conditioning Products, Inc.*

539 Dunksferry Road | Bensalem, PA 19020 | 215-244-1400 | 1-800-523-7138

## COMFORT PACK LIMITED WARRANTY

1. National Comfort Products warrants to its customers that its product shall be free from defects in material and workmanship under normal use and regular service and maintenance as follows:

**HEAT EXCHANGERS** (Gas units only): for twenty years from the date of original installation.

**ALL OTHER PARTS:** For all other parts except the Heat Exchanger, for five years from the date of original installation.

Customer must register the product within 60 days of purchase. If Customer cannot adequately document date of installation, then, for purposes of determining the warranty period, the date of installation shall be 60 days from the date of purchase.

2. This warranty does not extend to any damages or losses due to misuse, accident, abuse, neglect, normal wear and tear, negligence (other than National Comfort's), unauthorized modification or alteration; use beyond rated capacity; unsuitable power sources or environmental conditions; improper installation, repair, handling, maintenance or application; damage as a result of fire, wind, floods, lightning, or corrosive conditions; or any other cause not the fault of National Comfort. By way of example and without limitation, the following do not constitute a defect in workmanship and materials and are not covered by this warranty: slugging of liquid refrigerant or oil, unstable line voltage, lightning, operating without proper lubrication, and operating without factory provided safeties. Any installation that impairs or impedes air flow negatively impacts performance and causes premature equipment failure that voids this warranty. For example, installation behind a brick façade or the addition of a brick pattern façade, i.e. pigeon holes impedes air flow and shall void this warranty. No warranty will apply if the input section exceeds the rated input as indicated on the nameplate by more than 5%, or if the heat section in the judgement of the manufacture has been subject to misuse, negligence, accident, corrosive atmospheres, atmospheres contacting any contaminant (silicone, aluminum oxide, etc.), excessive thermal shock, physical damage, impact, abrasion, unauthorized alterations, or operation contrary to the manufacture's printed instructions, or if the serial number has been altered, defaced, or removed.

### 3. SOLE WARRANTY

The warranties identified herein constitute National Comfort's sole and exclusive warranties with respect to the goods and are in lieu of and exclude all other warranties, express or implied, arising by operation of law or otherwise, including without limitation, merchantability and fitness for a particular purpose whether or not the purpose or use has been disclosed to National Comfort in specifications, drawings or otherwise, and whether or not National Comfort's goods are specifically designed and/or manufactured by National Comfort for Customer's use or purpose.

### 4. LIMITATION OF REMEDY

The sole and exclusive remedy for breach of any warranty hereunder (other than the warranty provided herein) shall be limited to repair, replacement, credit or refund of the purchase price to distribution as set forth herein.

National Comfort is not responsible for any other item including but not limited to local transportation, freight, removal of any compressor or part, any labor associated therewith, service or diagnosis calls, refrigerant, or costs for returning any defective compressor or part.

### 5. LIMITATION OF WARRANTY

NATIONAL COMFORT MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ORAL OR WRITTEN, RELATED TO THE GOODS, INCLUDING ANY WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE EXPRESSLY DISCLAIMED. NATIONAL COMFORT SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR LOSSES FROM ANY CAUSE WHATSOEVER, INCLUDING, WITHOUT LIMITATION, LOSS OF USE, COMMERCIAL PROFITS, OR CUSTOMER GOODWILL, AND ANY OTHER CLAIMS BASED ON CONTRACT OR TORT, WHETHER OR NOT ARISING FROM NATIONAL COMFORT'S NEGLIGENCE.

National Comfort shall not be liable for damages caused by delay in performance and the remedies of Customer set forth in this agreement are exclusive. In no event, regardless of the form of the claim or cause of action (whether based in contract, infringement, negligence, strict liability, other tort or otherwise) shall National Comfort's liability to Customer and/or its customers exceed the price paid by Customer for the specific goods or portion of the goods provided by National Comfort giving rise to the claim or cause of action, and Customer shall indemnify and hold harmless National Comfort for any damages incurred by National Comfort in excess thereof. Customer agrees that in no event shall National Comfort's liability to Customer and/or its customers extend to include incidental, consequential, or punitive damages.

Continued on next page

The term “consequential damages” shall include, but not be limited to, loss of anticipated profits, business interruption, loss of use, revenue, reputation and data, costs incurred, including without limitation, for capital, fuel, power and loss or damage to capital or equipment. Customer agrees that all instructions and warnings supplied by National Comfort will be passed on to those persons who use the Goods. National Comfort’s Goods are to be used in their recommended applications and all warning labels adhered to the Goods by National Comfort are to be left intact.

It is expressly understood that any technical advice furnished by National Comfort before or after delivery in regard to the use or application of the Goods is furnished without charge, and National Comfort assumes no obligation or liability for the advice given or results obtained, all advice being given and accepted at Customer’s sole risk.

## 6. WARRANTY PROCEDURE

For All Warranty Claims. Customer must register the product with National Comfort within 60 days from purchase. Failure to timely register the product may void the warranty. Any claim for warranty shall be made within thirty days of discovery and in any event, within thirty days from removal of the compressor or part from the unit. Failure to make a timely claim shall void the warranty. Prior authorization from National Comfort is required for all warranty claims. Any claim for warranty must be first reported to National Comfort in writing specifying the unit, serial number, date of purchase and date of original installation. Customer shall also request a Return Material Authorization (“RMA”) from National Comfort to initiate the warranty claim process. Issuance of an RMA by National Comfort is not an acknowledgment that the defect is covered by this Warranty. Any replacement compressor or part is warranted for the original product warranty, or for one year from the date of shipment of the replacement compressor/part, whichever is later.

**A. Heat Exchangers.** In addition to the above-reference requirements, customer is also required to purchase a replacement heat exchanger and return the original heat exchanger to National Comfort at National’s discretion, freight prepaid. If National Comfort determines that there is a defect in material or workmanship in the heat exchanger that is covered by this Warranty, then National Comfort shall credit Customer for the cost of the new replacement heat exchanger. If National Comfort determines that the defect in material or workmanship is not covered by this Warranty, then no credit shall be issued. A copy of the invoice of the replacement heat exchanger and completed RMA must accompany the original heat exchanger for which warranty is claimed. National Comfort reserves the right to request additional documentation. The failure to follow this procedure shall render the warranty void.

**B. Compressors.** In addition to the above-referenced requirements, Customer is also required to purchase a replacement compressor and return the original compressor to National Comfort at National’s discretion. If the defect is reported to National Comfort within one year from the date of original installation or within 20 months from the date of manufacture of the compressor (as determined by the compressor serial number), whichever occurs first, then Customer may take the compressor to any Authorized Copeland Distributor for replacement of said compressor. If the defect is reported to National Comfort after one year from the date of installation or after 20 months from the date of manufacture of the compressor (as determined by the compressor serial number), whichever occurs first, but before the expiration of five years from the date of installation, then the compressor should be returned to National Comfort at National’s discretion and Customer shall purchase a new compressor. If National Comfort determines that there is a defect in material or workmanship that is covered by this Warranty, then National shall credit Customer for the cost of the new replacement compressor. If National Comfort determines that the defect in material or workmanship is not covered by this Warranty, then no credit shall be issued. A copy of the invoice of the replacement compressor and completed RMA must accompany the compressor. National Comfort, at its sole discretion, may also require Customer to supply the compressor tag. The failure to follow this procedure shall render the warranty void.

**B. Other Parts.** In addition to the above-referenced requirements, Customer is required to purchase a replacement part for the original part for which Customer is making a warranty claim. The original part for which warranty is claimed is to be returned to National Comfort at National’s discretion, freight prepaid. If National Comfort determines that there is a defect in material or workmanship in the part that is covered by this Warranty, then National Comfort shall credit Customer for the cost of the new replacement part. If National Comfort determines that the defect in material or workmanship is not covered by this Warranty, then no credit shall be issued. A copy of the invoice of the replacement part and completed RMA must accompany the original part for which warranty is claimed. National Comfort reserves the right to request additional documentation. The failure to follow this procedure shall render the warranty void.

## 7. SHIPPING INSTRUCTIONS

**A. Compressors.** Returned compressors must be totally secured by use of shipping lugs taken from the replacements compressors and clearly marked with the RMA number. Do not use tape, rags or putty to seal the compressor. Line connections should be sealed with rubber plugs. All compressors must be securely bolted, banded, and stretch wrapped to a skid in the upright position.

**B. Parts.** All other returned parts must be securely packaged and clearly marked with its corresponding RMA number provided from NCP.







**NATIONAL  
COMFORT  
PRODUCTS**  
**HEATING & A/C EQUIPMENT**

**National Comfort Products®**  
*A Division of National Refrigeration & Air Conditioning Products, Inc.*

539 Dunksferry Road | Bensalem, PA 19020  
1-800-523-7138

[www.nationalcomfortproducts.com](http://www.nationalcomfortproducts.com)

