

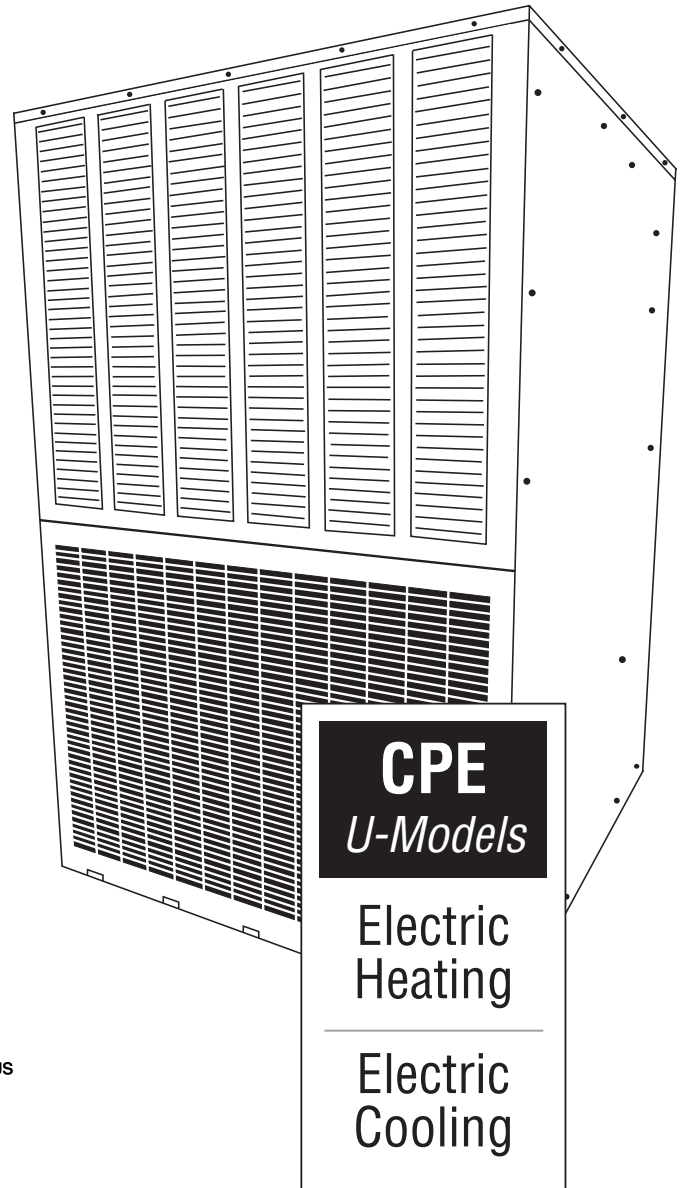


Thru-the-Wall Packaged Heating & Cooling Units

# Installation Guide

## Comfort Pack Universal Series

This unit should be installed in an **OUTSIDE WALL FOR THRU-THE-WALL INSTALLATION ONLY!**



9.0  
EER



*Please read the entire installation guide before starting the installation.*

### National Comfort Products®

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

539 Dunksferry Road • Bensalem, PA 19020 • (215) 244-1400 • **1-800-523-7138** • Fax: (215) 639-1674

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

## ***Safety First!***

### **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 scroll compressors. Some temperatures could be hot!

### **CAUTION**

Scroll 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”**

## ***Safety First!*** (continued)



### **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.



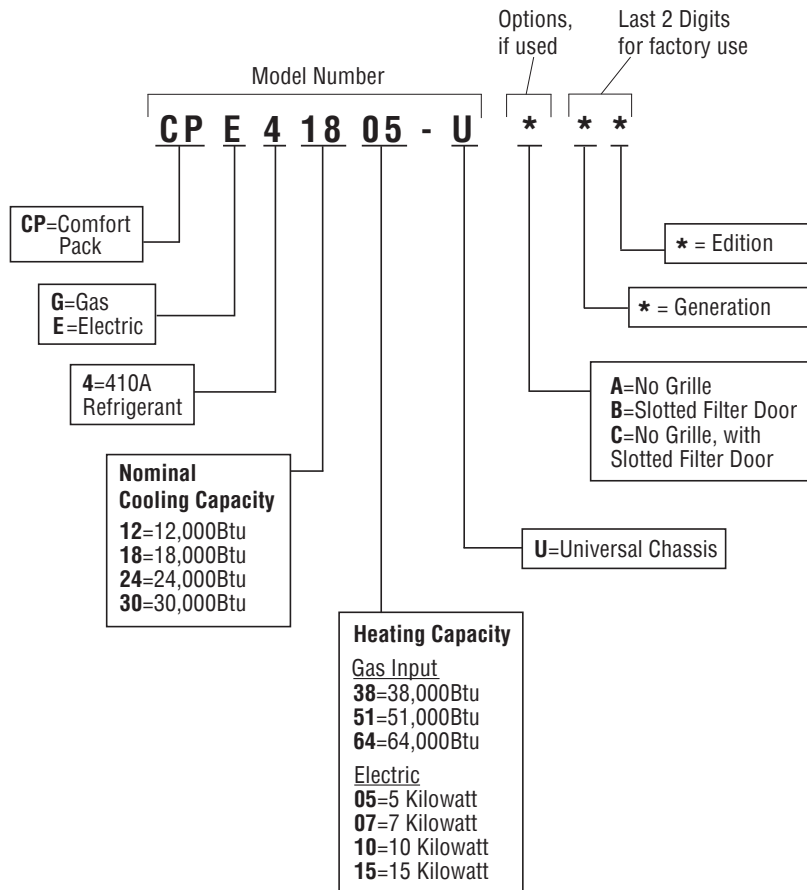
### **WARNING**

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.

## Comfort Pack Nomenclature

**\*Note:** Standard units (with no options) will have no letter after the “U” in the name.

Example: **CPE41805-U**



## Operation

The cabinet includes open-wire resistance heating elements with automatic reset thermal overloads, as well as branch circuit fuses for short-circuit and electrical overload protection.

The Comfort Pack is designed to be used with residential single-stage cooling and single-stage heating wall thermostats (U11) models or two-stage heating (U12) models 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 Pack.** The unit also contains controls to automatically adjust the indoor blower motor speed for cooling and heating modes.

Each unit is equipped with 2 electrical heat banks with the exception of the 15kw model which has 3 banks:

### APPROXIMATE COLD RESISTANCE

5kw @ 240 volts	2 Banks	20.8 ohms per bank
7kw @ 240 volts	2 Banks	14.81 ohms per bank
10kw @ 240 volts	2 Banks	10.4 ohms per bank
15kw @ 240 volts	3 Banks	10.4 ohms per bank

### U11-Models

When a call for heat is initiated from (w) on the T-stat the 1st contactor will be powered along with the blower. The 2nd contactor will be powered after an adjustable time entry (factory set for 30 seconds) elapses. When a call for heat is terminated, both/all contactors will be de-energized.

### U12-Models

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.

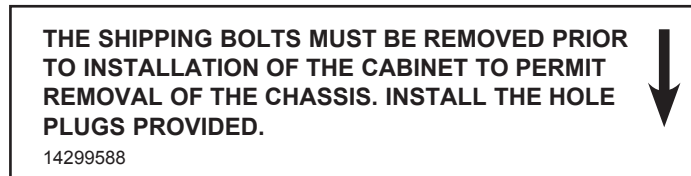
### Cooling Blower Operation

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:



**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 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 and louvered grille provided **must** be removed. Consult the factory prior to ordering product(s) that require an optional architectural grille.

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).

## ***Before You Start*** (continued)



### **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 LOWER ACCESS PANEL 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.

REMOVE THE SCREWS ATTACHING THE CONTROLS ENCLOSURE TO THE INDOOR COIL COVER. REMOVE THE SCREWS FROM THE INDOOR BLOWER COVER PLATE. REMOVE THE PLATE 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 THE CHASSIS 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. POSITION THE CONTROLS ENCLOSURE AND SECURE IT TO THE INDOOR COIL COVER WITH SCREWS. 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.



## Installation Guide for Comfort Pack (CPE) Units

**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 manufacturer.

**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.

#### **INSTALLATION:**

**This unit must be installed in accordance with all applicable codes. This unit is not to be used for temporary heating 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.**

The unit should be provided with support inside the building in the area of the return air opening. The support should be high enough to allow for return air provisions to the unit. 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.

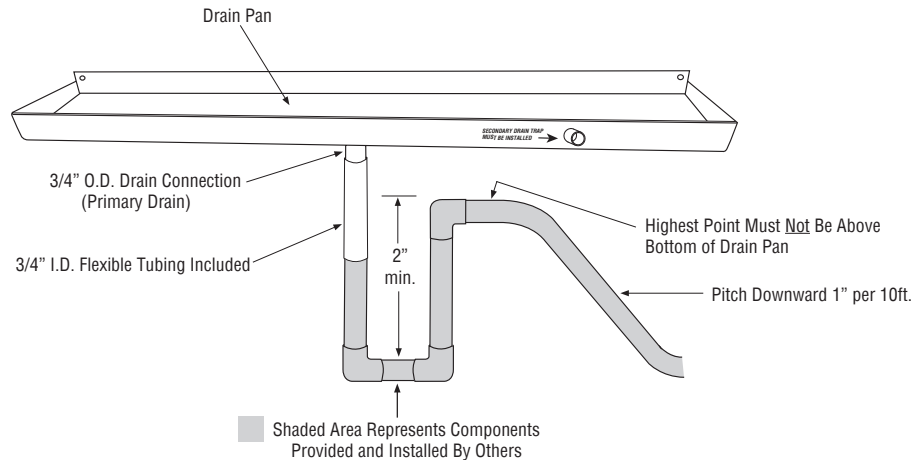
If the optional wall sleeve is used, caulk the spaces between the sleeve and the wall. Completely fill the clearance on all sides between the unit and the wall sleeve with a polyurethane foam sealant (follow manufacturer's suggested application manual). Provide the unit with support inside the building in the area of the return air opening. Slide the unit into the wall sleeve and fasten the unit to the sleeve with the five screws provided with the sleeve.

**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.

# Installation Guide for Comfort Pack (CPE) Units

## Drainage

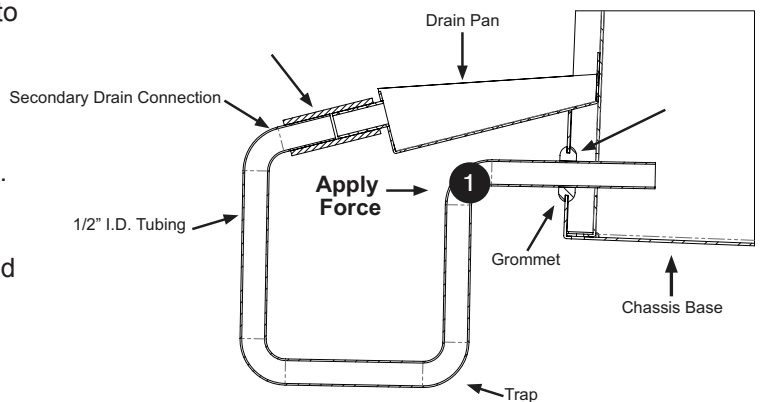
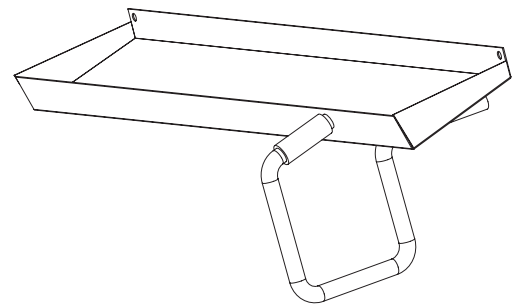
The 3/4" I.D. flexible tubing included should be connected to the Comfort Pack primary drain connection so that it can easily be disconnected if the cooling chassis must be removed. A trap at least 2" deep should be provided close to the drain pan. The tubing should not be higher than the bottom of the 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:

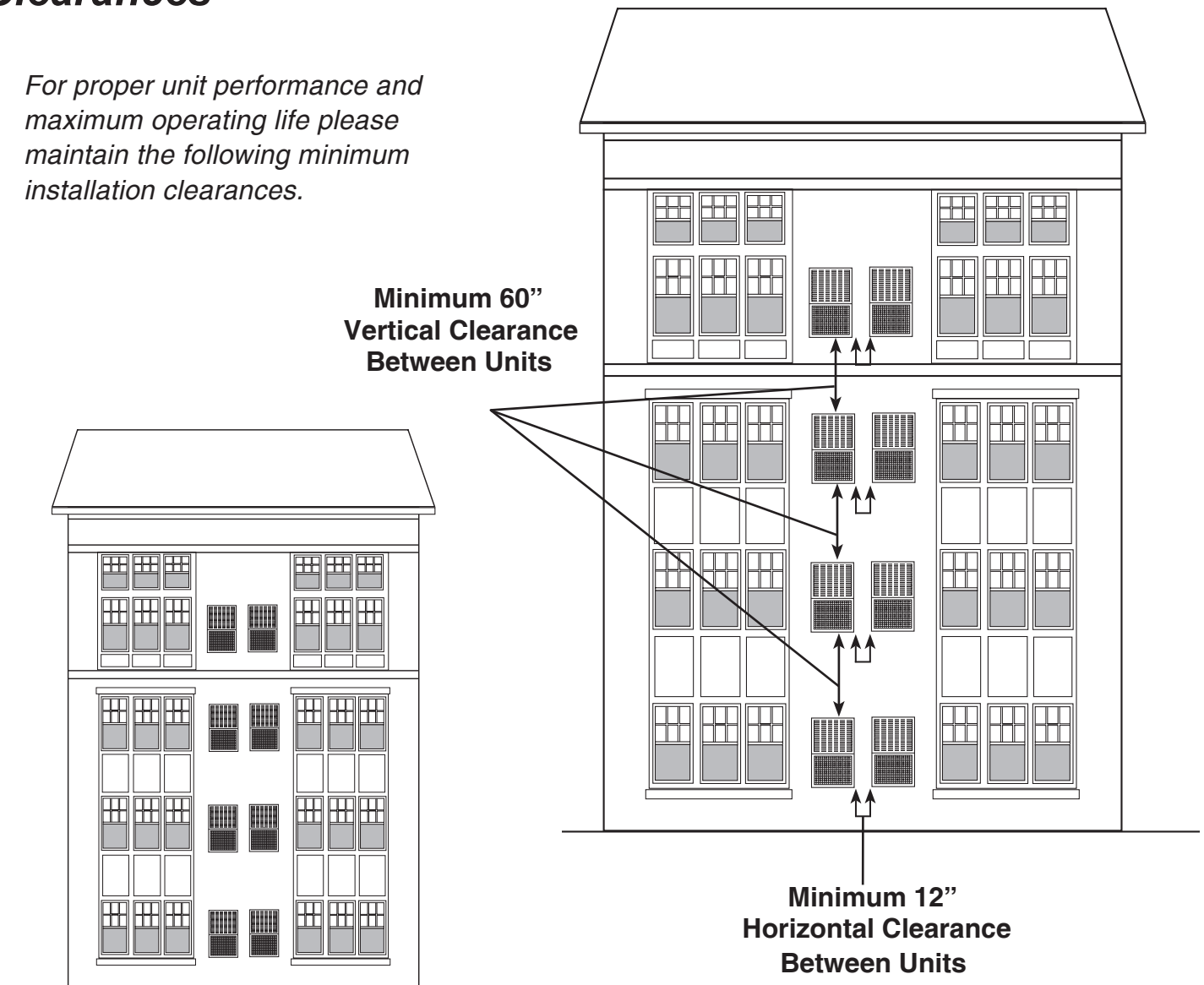
1. The trap and 2" piece of clear flexible 1/2" ID tubing are shipped loose to prevent damage. They should be installed after the Comfort Pack unit is installed and the return air connection completed.
2. The trap must be primed (filled with water) for proper operation of the secondary drain system. 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 to the on the right)
  - 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.

### Secondary Drain



## 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 is 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 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 197 to 253 volts. Operating the equipment outside of these limits will void the warranty.

### ***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 fuse blower 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.

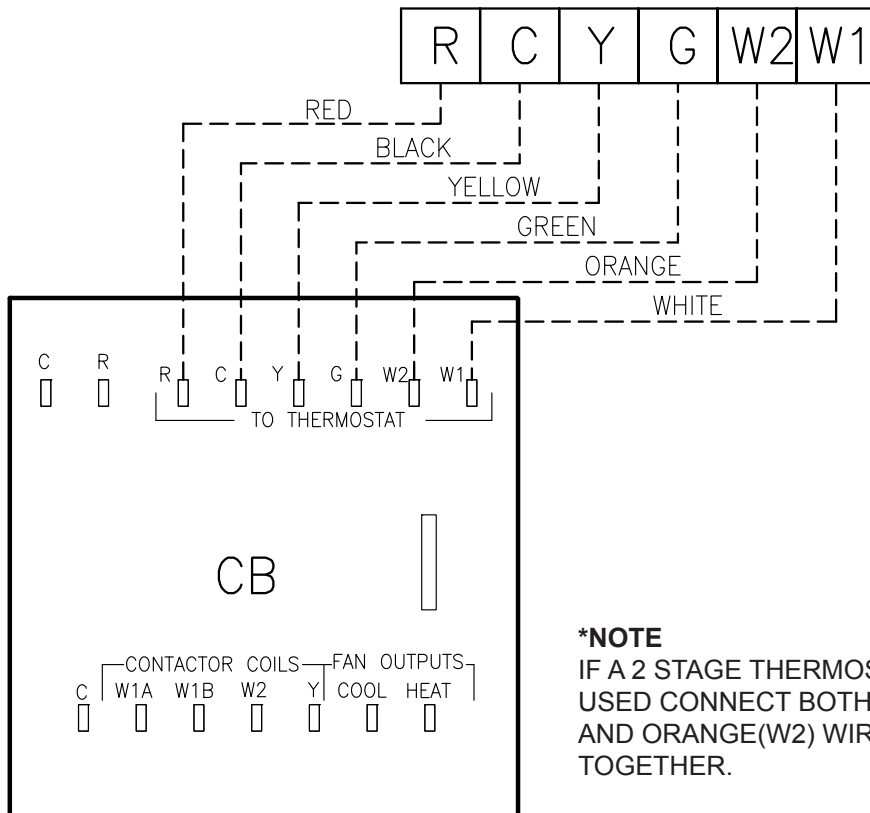
## Electrical - Low Voltage

### Low Voltage Maximum Wire Length

Table defines the maximum total length of low voltage wiring from the outdoor unit, to the indoor unit and to the thermostat.

24 VOLTS	
WIRE SIZE	MAX. WIRE LENGTH
18 AWG	150 Ft.
16 AWG	225 Ft.
14 AWG	300 Ft.

### THERMOSTAT CONNECTIONS U-12 MODELS



## Installation Guide for Comfort Pack (CPE) Units

### Electrical - High Voltage

NOMINAL VOLTAGE	MINIMUM VOLTAGE	MAXIMUM VOLTAGE
<b>208-230</b>	<b>197</b>	<b>253</b>

### 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.

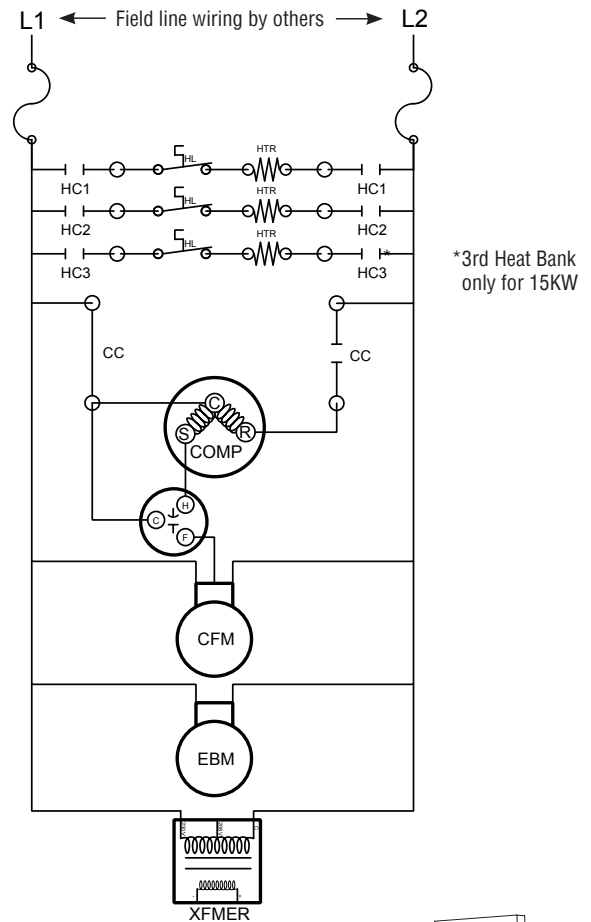
*OR*

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.

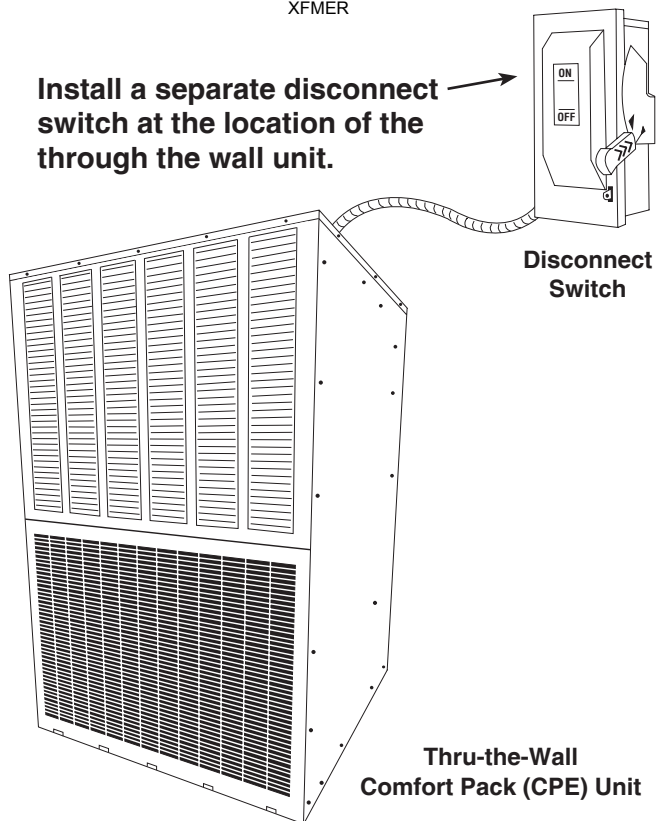
Power wiring must comply with national, state, and local codes.

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/Electric Heat - 5, 7, 10 & 15Kw



**Install a separate disconnect switch at the location of the through the wall unit.**



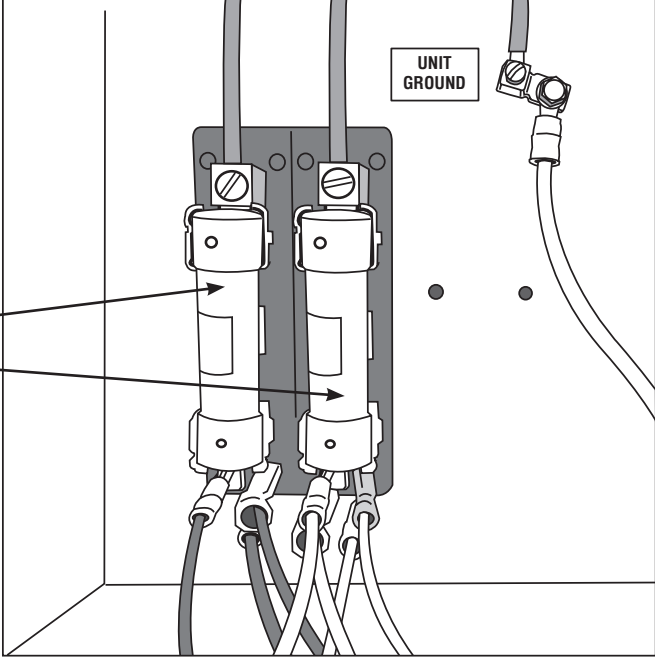


# High Voltage Diagrams

5, 7, 10KW Fuse Box

Fuse Sizes

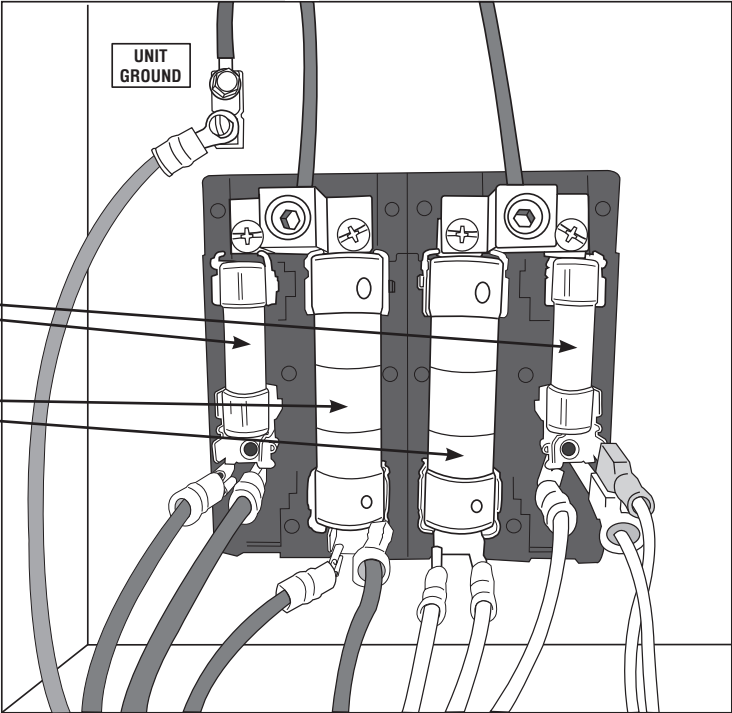
- 5KW = 30 Amp
- 7KW = 50 Amp
- 10KW = 60 Amp



15KW Fuse Box

Fuse Sizes

- 30 Amp
- 60 Amp



### ***Maintenance***

The 16" x 25" x 1" filter on the cooling chassis must be maintained regularly to assure that the unit provides optimal performance and energy efficiency. The intervals between replacing 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.**

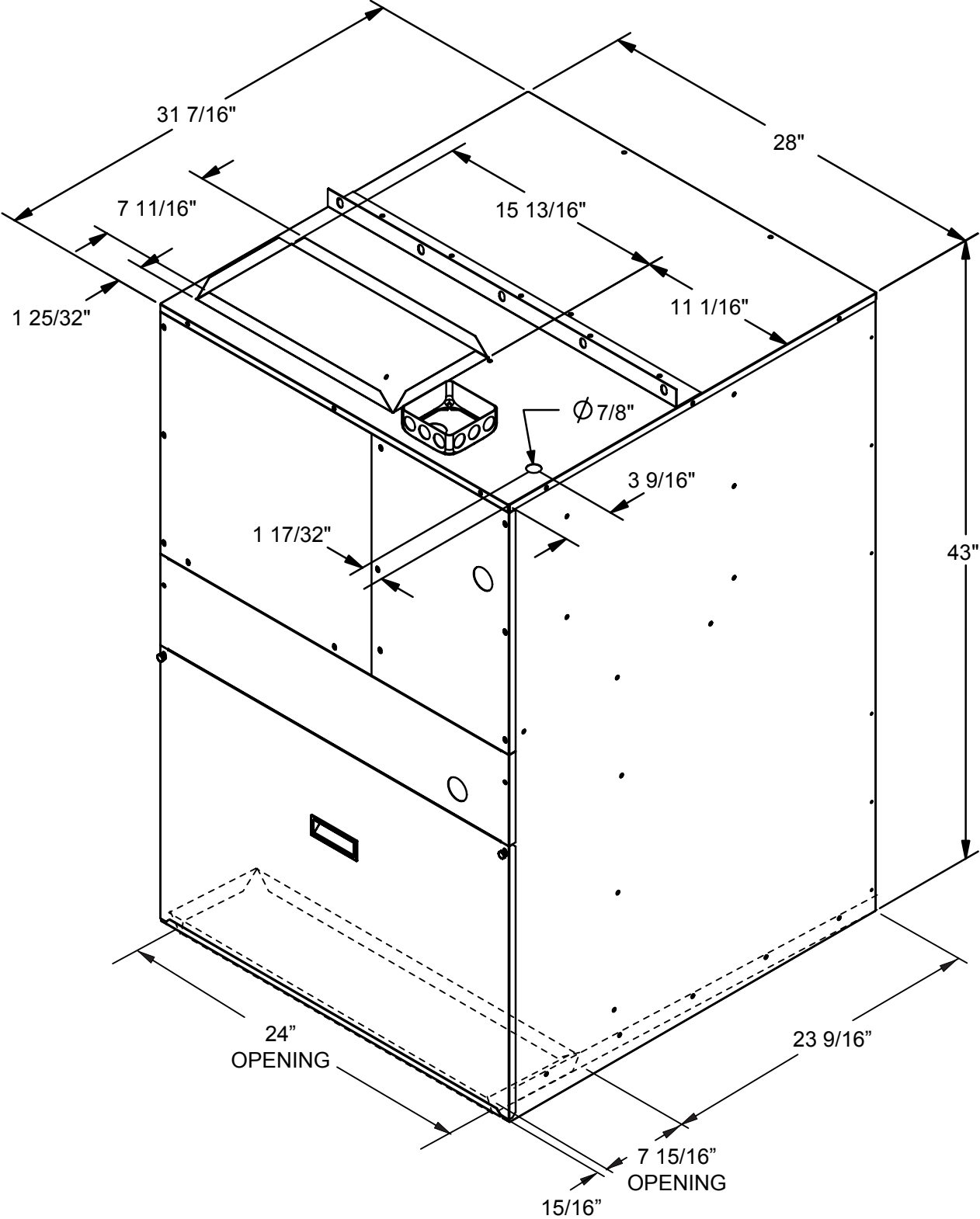
#### **Cooling Chassis**

The cooling chassis contains all items related to the cooling functions of the unit, and also contains the indoor blower and motor for the 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. 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 electrical controls do not require routine service.

**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.**

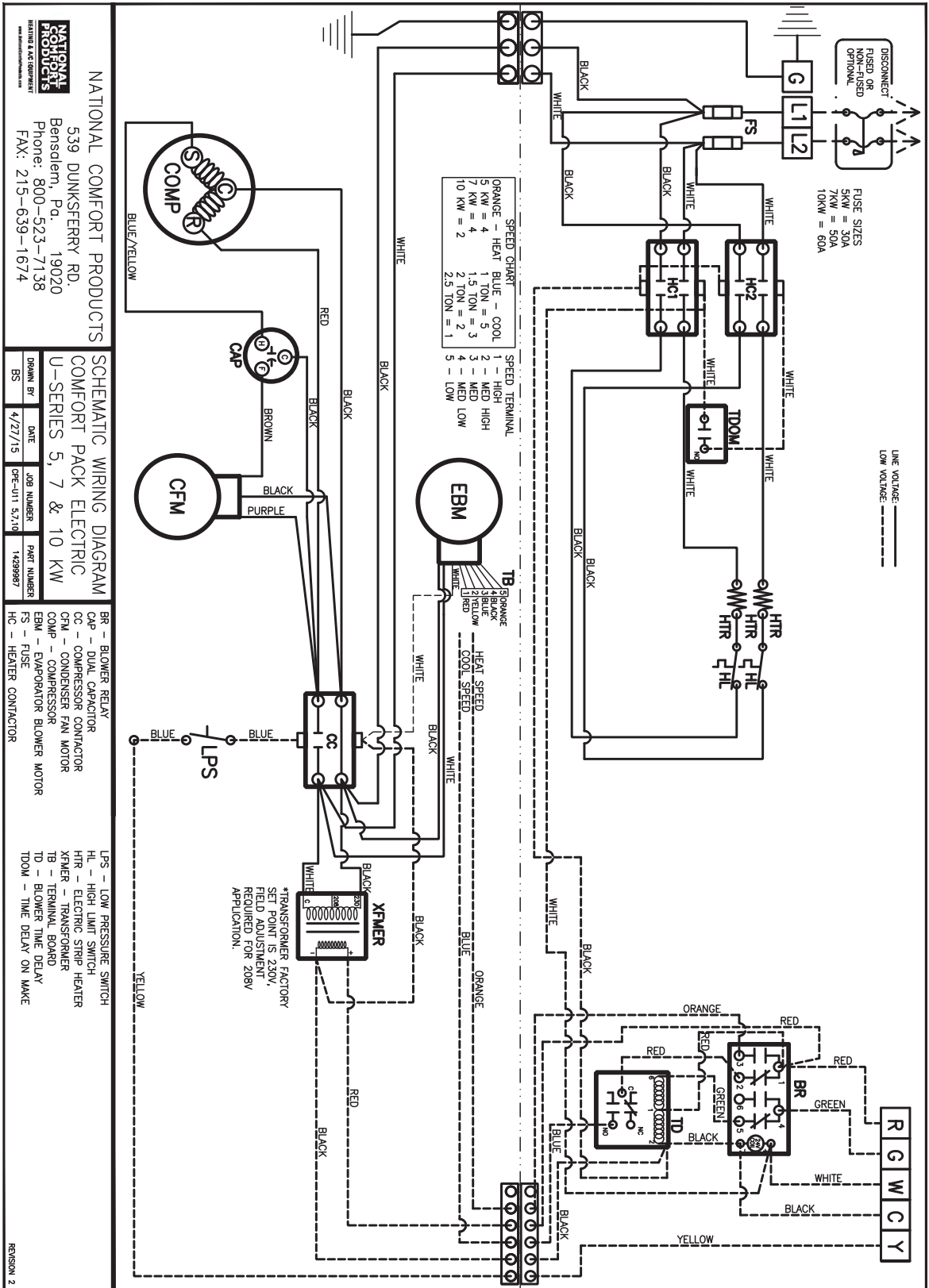
Comfort Pack (CPE) Dimensional Drawing





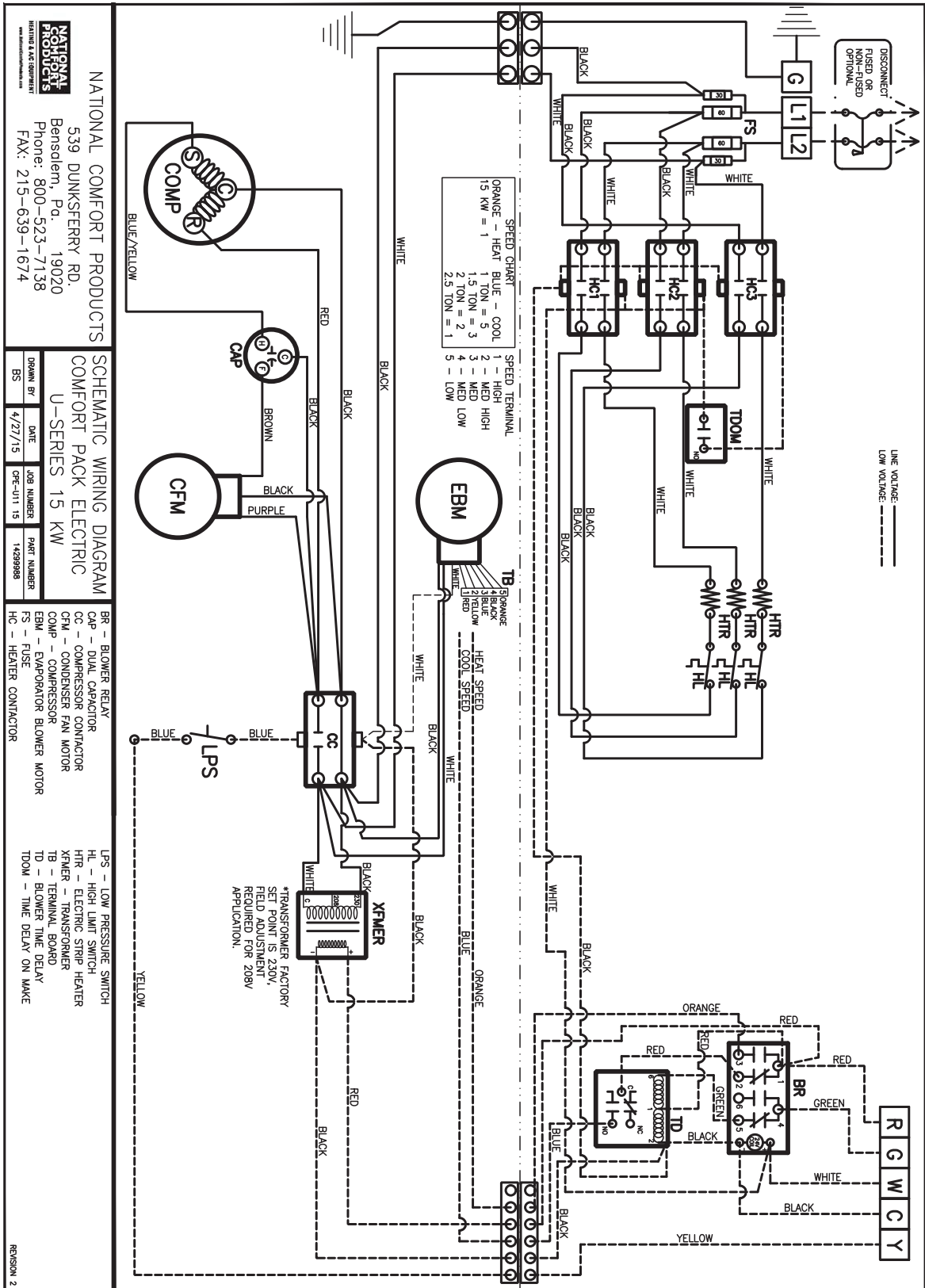
# Installation Guide for Comfort Pack (CPE) Units

## U-11 Wiring Schematic/Electric Heat - 5,7, & 10Kw



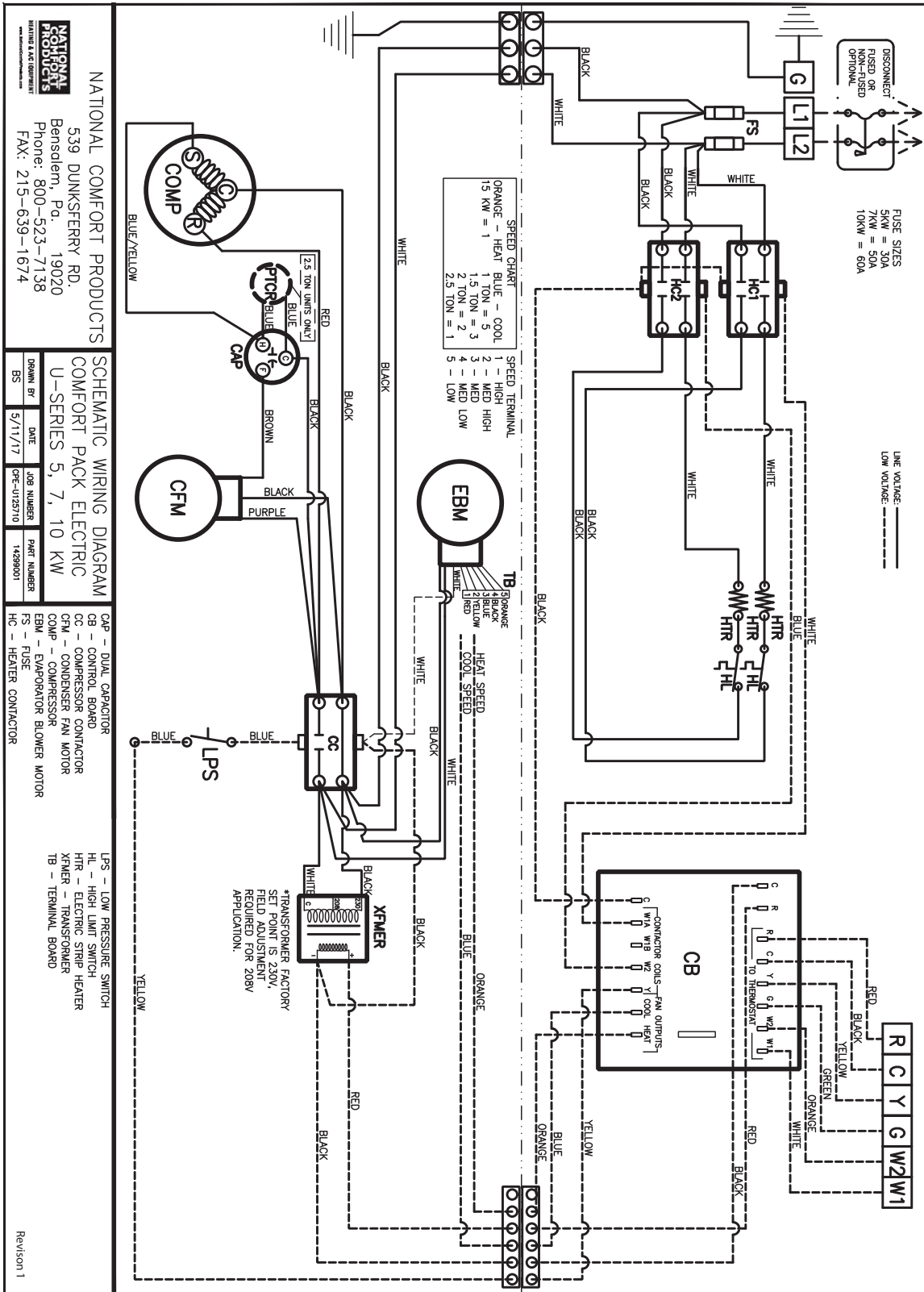
# Installation Guide for Comfort Pack (CPE) Units

## U-11 Wiring Schematic/Electric Heat - 15Kw



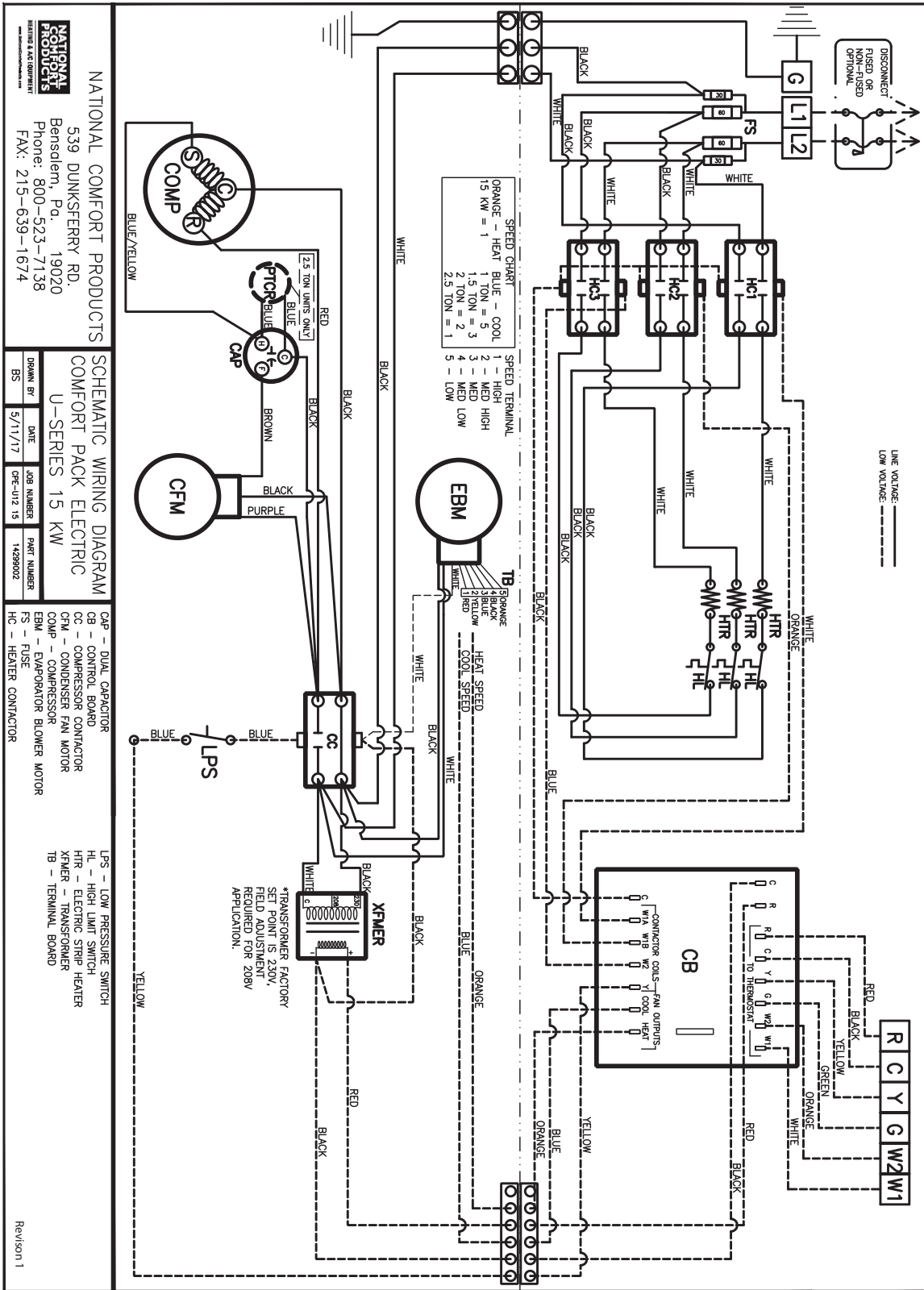
# Installation Guide for Comfort Pack (CPE) Units

## U-12 Wiring Schematic/Electric Heat - 5,7, & 10Kw



# Installation Guide for Comfort Pack (CPE) Units

## U-12 Wiring Schematic/Electric Heat - 15Kw





# Installation Guide for Comfort Pack (CPE) Units

CPE - ELECTRICAL DATA												
MODEL	VOLTAGE	COMPRESSOR		INDOOR BLOWER MOTOR			OUTDOOR FAN MOTOR			TOTAL AMPS	MINIMUM CIRCUIT AMPACITY	MAXIMUM OVERCURRENT PROTECTOR
		RLA	LRA	HP	FLA	LRA	HP	FLA	LRA			
CPE41205-U***	208-230/60/1	5.5	26.0	1/3	3.0	-	1/4	1.8	3.6	25.0	31.4	35
CPE41207-U***	208-230/60/1	5.5	26.0	1/3	3.0	-	1/4	1.8	3.6	34.0	42.5	45
CPE41210-U***	208-230/60/1	5.5	26.0	1/3	3.0	-	1/4	1.8	3.6	47.2	59.0	60
CPE41805-U***	208-230/60/1	8.3	44.0	1/3	3.0	-	1/4	1.8	3.6	25.1	31.4	35
CPE41807-U***	208-230/60/1	8.3	44.0	1/3	3.0	-	1/4	1.8	3.6	34.0	42.5	45
CPE41810-U***	208-230/60/1	8.3	44.0	1/3	3.0	-	1/4	1.8	3.6	47.2	59.0	60
CPE41815-U***	208-230/60/1	8.3	44.0	1/3	3.0	-	1/4	1.8	3.6	69.3	86.6	90
CPE42405-U***	208-230/60/1	12.8	58.0	1/3	3.0	-	1/4	1.8	3.6	25.1	31.4	35
CPE42407-U***	208-230/60/1	12.8	58.0	1/3	3.0	-	1/4	1.8	3.6	34.0	42.5	45
CPE42410-U***	208-230/60/1	12.8	58.0	1/3	3.0	-	1/4	1.8	3.6	47.2	59.0	60
CPE42415-U***	208-230/60/1	12.8	58.0	1/3	3.0	-	1/4	1.8	3.6	69.3	86.6	90
CPE43010-U***	208-230/60/1	11.6	74.0	1/3	3.0	-	1/4	1.8	3.6	47.2	59.0	60
CPE43015-U***	208-230/60/1	11.6	74.0	1/3	3.0	-	1/4	1.8	3.6	69.3	86.6	90

\*\*\* See page 3 for details.

CPE - PERFORMANCE DATA							
MODEL	COOLING BTUH	HEATING BTU @ 230V	HEATING BTU @ 208V	EER (outside temp.)	HEATING KW		SHIP WT.
				95°	230	208	
CPE41205-U***	12,000	17,000	14,000	9.0	5	4.1	315
CPE41207-U***	12,000	23,800	19,400	9.0	7	5.7	315
CPE41210-U***	12,000	34,000	27,600	9.0	10	8.1	315
CPE41805-U***	18,000	17,000	14,000	9.0	5	4.1	325
CPE41807-U***	18,000	23,800	19,400	9.0	7	5.7	325
CPE41810-U***	18,000	34,000	27,600	9.0	10	8.1	325
CPE41815-U***	18,000	51,000	41,600	9.0	15	12.2	325
CPE42405-U***	22,400	17,000	14,000	9.0	5	4.1	350
CPE42407-U***	22,400	23,800	19,400	9.0	7	5.7	350
CPE42410-U***	22,400	34,000	27,600	9.0	10	8.1	350
CPE42415-U***	22,400	51,000	41,600	9.0	15	12.2	350
CPE43010-U***	27,400	34,000	27,600	9.0	10	8.1	360
CPE43015-U***	27,400	51,000	41,600	9.0	15	12.2	360

\*\*\* See page 3 for details.

OPTIONAL ACCESSORIES	
CPWS	WALL SLEEVE (UNASSEMBLED)
CPWSA	WALL SLEEVE ADAPTOR (UNASSEMBLED)
CPLG	ARCHITECTURAL LOUVER GRILLE
CPLG-S	ARCHITECTURAL LOUVER FOR SLEEVE
CPLG-P	ARCHITECTURAL LOUVER GRILLE (PAINTED)
CPLG-SP	ARCHITECTURAL LOUVER FOR SLEEVE (PAINTED)
PAINTED LOUVER	STAMPED GRILLE (PAINTED)
UA	OMITED STAMPED LOUVER AND GRILLE
UB	SLOTTED FILTER DOOR
UC	COMBINATION OF (-A) AND (-B) SEE ABOVE CONSULT FACTORY FOR OTHER COMBINATIONS

**Note:** All specifications are subject to change without notice.

# Installation Guide for Comfort Pack (CPE) Units

Comfort Pack Electric CFM and Temperature Rise @ 240 Volts												
UNIT SIZE	COLOR	SPEED	0.1	ΔT	0.2	ΔT	0.3	ΔT	0.4	ΔT	0.5	ΔT
CPE41205	Red	1	780	22.4	770	22.7	760	23.0	725	24.1	680	25.7
	Yellow	2	715	24.5	690	25.4	660	26.5	620	28.2	560	31.3
	Blue	3	620	28.2	580	30.2	520	33.7	450	38.9	380	46.1
	Black	4	550	31.8	500	35.0	430	40.7	340	51.5	240	72.9
	Orange	5	415	42.2	325	53.9	225	77.8				
CPE41805	Red	1	780	22.4	770	22.7	760	23.0	725	24.1	680	25.7
	Yellow	2	715	24.5	690	25.4	660	26.5	620	28.2	560	31.3
	Blue	3	620	28.2	580	30.2	520	33.7	450	38.9	380	46.1
	Black	4	550	31.8	500	35.0	430	40.7	340	51.5	240	72.9
	Orange	5	415	42.2	325	53.9	225	77.8				
CPE42405	Red	1	780	22.4	770	22.7	740	23.7	705	24.8	660	26.5
	Yellow	2	720	24.3	680	25.7	635	27.6	590	29.7	530	33.0
	Blue	3	600	29.2	560	31.3	500	35.0	430	40.7	365	48.0
	Black	4	535	32.7	485	36.1	415	42.2	325	53.9	230	76.1
	Orange	5	410	42.7	320	54.7	225	77.8				
CPE41207	Red	1	780	31.5	770	31.9	760	32.4	725	33.9	680	36.2
	Yellow	2	715	34.4	690	35.6	660	37.3	620	39.7	560	43.9
	Blue	3	620	39.7	580	42.4	520	47.3	450	54.7	380	64.7
	Black	4	550	44.7	500	49.2	430	57.2	340	72.3		
	Orange	5	415	59.3	325	75.7						
CPE41807	Red	1	780	31.5	770	31.9	760	32.4	725	33.9	680	36.2
	Yellow	2	715	34.4	690	35.6	660	37.3	620	39.7	560	43.9
	Blue	3	620	39.7	580	42.4	520	47.3	450	54.7	380	64.7
	Black	4	550	44.7	500	49.2	430	57.2	340	72.3		
	Orange	5	415	59.3	325	75.7						
CPE42407	Red	1	780	31.5	770	31.9	740	33.2	705	34.9	660	37.3
	Yellow	2	720	34.2	680	36.2	635	38.7	590	41.7	530	46.4
	Blue	3	600	41.0	560	43.9	500	49.2	430	57.2	365	67.4
	Black	4	535	46.0	485	50.7	415	59.3	325	75.7		
	Orange	5	410	60.0	320	76.9						
CPE41210	Red	1	780	44.9	770	45.5	760	46.1	725	48.3	680	51.5
	Yellow	2	715	49.0	690	50.7	660	53.0	620	56.5	560	62.5
	Blue	3	620	56.5	580	60.4	520	67.3	450	77.8		
	Black	4	550	63.6	500	70.0	430	81.4				
	Orange	5	415	84.3								
CPE41810	Red	1	780	44.9	770	45.5	760	46.1	725	48.3	680	51.5
	Yellow	2	715	49.0	690	50.7	660	53.0	620	56.5	560	62.5
	Blue	3	620	56.5	580	60.4	520	67.3	450	77.8		
	Black	4	550	63.6	500	70.0	430	81.4				
	Orange	5	415	84.3								
CPE42410	Red	1	780	44.9	770	45.5	740	47.3	705	49.7	660	53.0
	Yellow	2	720	48.6	680	51.5	635	55.1	590	59.3	530	66.0
	Blue	3	600	58.3	560	62.5	500	70.0	430	81.4		
	Black	4	535	65.4	485	72.2	415	84.3				
	Orange	5	410	85.4								
CPE43010	Red	1	820	42.7	780	44.9	740	47.3	700	50.0	660	53.0
	Yellow	2	720	48.6	680	51.5	635	55.1	590	59.3	530	66.0
	Blue	3	600	58.3	560	62.5	500	70.0	430	81.4		
	Black	4	535	65.4	485	72.2	415	84.3				
	Orange	5	410	85.4								
CPE41815	Red	1	780	67.3	770	68.2	760	69.1	725	72.4	680	77.2
	Yellow	2	715	73.4	690	76.1	660	79.6	620	84.7		
	Blue	3	620	84.7								
	Black	4										
	Orange	5										
CPE42415	Red	1	780	67.3	770	68.2	740	71.0	705	74.5	660	79.6
	Yellow	2	720	72.9	680	77.2	635	82.7	590	89.0		
	Blue	3	600	87.5								
	Black	4										
	Orange	5										
CPE43015	Red	1	820	64.0	780	67.3	740	71.0	700	75.0	660	79.6
	Yellow	2	720	72.9	680	77.2	635	82.7	590	89.0		
	Blue	3	600	87.5	560							
	Black	4										
	Orange	5										

### Legend

Not Recommended

Factory Setting

\*All values are approximate

\*Do not operate with supply temperature above 150°F

# Installation Guide for Comfort Pack (CPE) Units

Comfort Pack Electric CFM and Temperature Rise @ 230 Volts												
UNIT SIZE	COLOR	SPEED	0.1	ΔT	0.2	ΔT	0.3	ΔT	0.4	ΔT	0.5	ΔT
CPE41205	Red	1	780	20.6	770	20.9	760	21.2	725	22.2	680	23.6
	Yellow	2	715	22.5	690	23.3	660	24.4	620	25.9	560	28.7
	Blue	3	620	25.9	580	27.7	520	30.9	450	35.7	380	42.3
	Black	4	550	29.2	500	32.1	430	37.4	340	47.3	240	67.0
	Orange	5	415	38.7	325	49.5	225	71.4				
CPE41805	Red	1	780	20.6	770	20.9	760	21.2	725	22.2	680	23.6
	Yellow	2	715	22.5	690	23.3	660	24.4	620	25.9	560	28.7
	Blue	3	620	25.9	580	27.7	520	30.9	450	35.7	380	42.3
	Black	4	550	29.2	500	32.1	430	37.4	340	47.3	240	67.0
	Orange	5	415	38.7	325	49.5	225	71.4				
CPE42405	Red	1	780	20.6	770	20.9	740	21.7	705	22.8	660	24.4
	Yellow	2	720	22.3	680	23.6	635	25.3	590	27.2	530	30.3
	Blue	3	600	26.8	560	28.7	500	32.1	430	37.4	365	44.0
	Black	4	535	30.0	485	33.1	415	38.7	325	49.5	230	69.9
	Orange	5	410	39.2	320	50.2	225	71.4				
CPE41207	Red	1	780	29.0	770	29.3	760	29.7	725	31.2	680	33.2
	Yellow	2	715	31.6	690	32.7	660	34.2	620	36.4	560	40.3
	Blue	3	620	36.4	580	39.0	520	43.4	450	50.2	380	59.5
	Black	4	550	41.1	500	45.2	430	52.5	340	66.4		
	Orange	5	415	54.4	325	69.5						
CPE41807	Red	1	780	29.0	770	29.3	760	29.7	725	31.2	680	33.2
	Yellow	2	715	31.6	690	32.7	660	34.2	620	36.4	560	40.3
	Blue	3	620	36.4	580	39.0	520	43.4	450	50.2	380	59.5
	Black	4	550	41.1	500	45.2	430	52.5	340	66.4		
	Orange	5	415	54.4	325	69.5						
CPE42407	Red	1	780	29.0	770	29.3	740	30.5	705	32.0	660	34.2
	Yellow	2	720	31.4	680	33.2	635	35.6	590	38.3	530	42.6
	Blue	3	600	37.7	560	40.3	500	45.2	430	52.5	365	61.9
	Black	4	535	42.2	485	46.6	415	54.4	325	69.5		
	Orange	5	410	55.1	320	70.6						
CPE41210	Red	1	780	41.2	770	41.8	760	42.3	725	44.3	680	47.3
	Yellow	2	715	45.0	690	46.6	660	48.7	620	51.9	560	57.4
	Blue	3	620	51.9	580	55.4	520	61.8	450	71.4	380	84.6
	Black	4	550	58.5	500	64.3	430	74.8				
	Orange	5	415	77.5								
CPE41810	Red	1	780	41.2	770	41.8	760	42.3	725	44.3	680	47.3
	Yellow	2	715	45.0	690	46.6	660	48.7	620	51.9	560	57.4
	Blue	3	620	51.9	580	55.4	520	61.8	450	71.4	380	84.6
	Black	4	550	58.5	500	64.3	430	74.8				
	Orange	5	415	77.5								
CPE42410	Red	1	780	41.2	770	41.8	740	43.4	705	45.6	660	48.7
	Yellow	2	720	44.7	680	47.3	635	50.6	590	54.5	530	60.7
	Blue	3	600	53.6	560	57.4	500	64.3	430	74.8	365	88.1
	Black	4	535	60.1	485	66.3	415	77.5				
	Orange	5	410	78.4								
CPE43010	Red	1	820	39.2	780	41.2	740	43.4	700	45.9	660	48.7
	Yellow	2	720	44.7	680	47.3	635	50.6	590	54.5	530	60.7
	Blue	3	600	53.6	560	57.4	500	64.3	430	74.8	365	88.1
	Black	4	535	60.1	485	66.3	415	77.5				
	Orange	5	410	78.4								
CPE41815	Red	1	780	61.8	770	62.6	760	63.5	725	66.5	680	70.9
	Yellow	2	715	67.4	690	69.9	660	73.1	620	77.8	560	86.1
	Blue	3	620	77.8	580	83.1						
	Black	4	550	87.7								
	Orange	5										
CPE42415	Red	1	780	61.8	770	62.6	740	65.2	705	68.4	660	73.1
	Yellow	2	720	67.0	680	70.9	635	75.9	590	81.7		
	Blue	3	600	80.4	560	86.1						
	Black	4										
	Orange	5										
CPE43015	Red	1	820	58.8	780	61.8	740	65.2	700	68.9	660	73.1
	Yellow	2	720	67.0	680	70.9	635	75.9	590	81.7		
	Blue	3	600	80.4	560	86.1						
	Black	4										
	Orange	5										

### Legend

Not Recommended

Factory Setting

\*All values are approximate

\*Do not operate with supply temperature above 150°F

# Installation Guide for Comfort Pack (CPE) Units

Comfort Pack Electric CFM and Temperature Rise @ 220 Volts												
UNIT SIZE	COLOR	SPEED	0.1	ΔT	0.2	ΔT	0.3	ΔT	0.4	ΔT	0.5	ΔT
CPE4120S	Red	1	780	18.9	770	19.1	760	19.4	725	20.3	680	21.6
	Yellow	2	715	20.6	690	21.3	660	22.3	620	23.7	560	26.3
	Blue	3	620	23.7	580	25.4	520	28.3	450	32.7	380	38.7
	Black	4	550	26.7	500	29.4	430	34.2	340	43.3	240	61.3
	Orange	5	415	35.4	325	45.3	225	65.4				
CPE4180S	Red	1	780	18.9	770	19.1	760	19.4	725	20.3	680	21.6
	Yellow	2	715	20.6	690	21.3	660	22.3	620	23.7	560	26.3
	Blue	3	620	23.7	580	25.4	520	28.3	450	32.7	380	38.7
	Black	4	550	26.7	500	29.4	430	34.2	340	43.3	240	61.3
	Orange	5	415	35.4	325	45.3	225	65.4				
CPE4240S	Red	1	780	18.9	770	19.1	740	19.9	705	20.9	660	22.3
	Yellow	2	720	20.4	680	21.6	635	23.2	590	24.9	530	27.7
	Blue	3	600	24.5	560	26.3	500	29.4	430	34.2	365	40.3
	Black	4	535	27.5	485	30.3	415	35.4	325	45.3	230	63.9
	Orange	5	410	35.9	320	46.0	225	65.4				
CPE4120T	Red	1	780	26.5	770	26.8	760	27.2	725	28.5	680	30.4
	Yellow	2	715	28.9	690	30.0	660	31.3	620	33.3	560	36.9
	Blue	3	620	33.3	580	35.6	520	39.7	450	45.9	380	54.4
	Black	4	550	37.6	500	41.3	430	48.1	340	60.8	240	86.1
	Orange	5	415	49.8	325	63.6						
CPE4180T	Red	1	780	26.5	770	26.8	760	27.2	725	28.5	680	30.4
	Yellow	2	715	28.9	690	30.0	660	31.3	620	33.3	560	36.9
	Blue	3	620	33.3	580	35.6	520	39.7	450	45.9	380	54.4
	Black	4	550	37.6	500	41.3	430	48.1	340	60.8	240	86.1
	Orange	5	415	49.8	325	63.6						
CPE4240T	Red	1	780	26.5	770	26.8	740	27.9	705	29.3	660	31.3
	Yellow	2	720	28.7	680	30.4	635	32.6	590	35.0	530	39.0
	Blue	3	600	34.4	560	36.9	500	41.3	430	48.1	365	56.6
	Black	4	535	38.6	485	42.6	415	49.8	325	63.6	230	89.9
	Orange	5	410	50.4	320	64.6						
CPE41210	Red	1	780	37.7	770	38.2	760	38.7	725	40.6	680	43.3
	Yellow	2	715	41.1	690	42.6	660	44.6	620	47.4	560	52.5
	Blue	3	620	47.4	580	50.7	520	56.6	450	65.4	380	77.4
	Black	4	550	53.5	500	58.8	430	68.4	340	86.5		
	Orange	5	415	70.9								
CPE41810	Red	1	780	37.7	770	38.2	760	38.7	725	40.6	680	43.3
	Yellow	2	715	41.1	690	42.6	660	44.6	620	47.4	560	52.5
	Blue	3	620	47.4	580	50.7	520	56.6	450	65.4	380	77.4
	Black	4	550	53.5	500	58.8	430	68.4	340	86.5		
	Orange	5	415	70.9								
CPE42410	Red	1	780	37.7	770	38.2	740	39.7	705	41.7	660	44.6
	Yellow	2	720	40.9	680	43.3	635	46.3	590	49.9	530	55.5
	Blue	3	600	49.0	560	52.5	500	58.8	430	68.4	365	80.6
	Black	4	535	55.0	485	60.6	415	70.9				
	Orange	5	410	71.7								
CPE43010	Red	1	820	35.9	780	37.7	740	39.7	700	42.0	660	44.6
	Yellow	2	720	40.9	680	43.3	635	46.3	590	49.9	530	55.5
	Blue	3	600	49.0	560	52.5	500	58.8	430	68.4	365	80.6
	Black	4	535	55.0	485	60.6	415	70.9				
	Orange	5	410	71.7								
CPE41815	Red	1	780	56.6	770	57.3	760	58.1	725	60.9	680	64.9
	Yellow	2	715	61.7	690	63.9	660	66.9	620	71.2	560	78.8
	Blue	3	620	71.2	580	76.1	520	84.8				
	Black	4	550	80.2	500	88.2						
	Orange	5										
CPE42415	Red	1	780	56.6	770	57.3	740	59.6	705	62.6	660	66.9
	Yellow	2	720	61.3	680	64.9	635	69.5	590	74.8	530	83.2
	Blue	3	600	73.5	560	78.8	500	88.2				
	Black	4	535	82.5								
	Orange	5										
CPE43015	Red	1	820	53.8	780	56.6	740	59.6	700	63.0	660	66.9
	Yellow	2	720	61.3	680	64.9	635	69.5	590	74.8	530	83.2
	Blue	3	600	73.5	560	78.8	500	88.2				
	Black	4	535	82.5								
	Orange	5										

### Legend

Not Recommended

Factory Setting

\*All values are approximate

\*Do not operate with supply temperature above 150°F

# Installation Guide for Comfort Pack (CPE) Units

Comfort Pack Electric CFM and Temperature Rise @ 208 Volts												
UNIT SIZE	COLOR	SPEED	0.1	ΔT	0.2	ΔT	0.3	ΔT	0.4	ΔT	0.5	ΔT
CPE41205	Red	1	780	16.9	770	17.1	760	17.3	725	18.1	680	19.3
	Yellow	2	715	18.4	690	19.1	660	19.9	620	21.2	560	23.5
	Blue	3	620	21.2	580	22.7	520	25.3	450	29.2	380	34.6
	Black	4	550	23.9	500	26.3	430	30.6	340	38.7	240	54.8
	Orange	5	415	31.7	325	40.5	225	58.4				
CPE41805	Red	1	780	16.9	770	17.1	760	17.3	725	18.1	680	19.3
	Yellow	2	715	18.4	690	19.1	660	19.9	620	21.2	560	23.5
	Blue	3	620	21.2	580	22.7	520	25.3	450	29.2	380	34.6
	Black	4	550	23.9	500	26.3	430	30.6	340	38.7	240	54.8
	Orange	5	415	31.7	325	40.5	225	58.4				
CPE42405	Red	1	780	16.9	770	17.1	740	17.8	705	18.6	660	19.9
	Yellow	2	720	18.3	680	19.3	635	20.7	590	22.3	530	24.8
	Blue	3	600	21.9	560	23.5	500	26.3	430	30.6	365	36.0
	Black	4	535	24.6	485	27.1	415	31.7	325	40.5	230	57.2
	Orange	5	410	32.1	320	41.1	225	58.4				
CPE41207	Red	1	780	23.7	770	24.0	760	24.3	725	25.5	680	27.2
	Yellow	2	715	25.8	690	26.8	660	28.0	620	29.8	560	33.0
	Blue	3	620	29.8	580	31.9	520	35.5	450	41.1	380	48.6
	Black	4	550	33.6	500	37.0	430	43.0	340	54.3	240	77.0
	Orange	5	415	44.5	325	56.8	225	82.1				
CPE41807	Red	1	780	23.7	770	24.0	760	24.3	725	25.5	680	27.2
	Yellow	2	715	25.8	690	26.8	660	28.0	620	29.8	560	33.0
	Blue	3	620	29.8	580	31.9	520	35.5	450	41.1	380	48.6
	Black	4	550	33.6	500	37.0	430	43.0	340	54.3	240	77.0
	Orange	5	415	44.5	325	56.8	225	82.1				
CPE42407	Red	1	780	23.7	770	24.0	740	25.0	705	26.2	660	28.0
	Yellow	2	720	25.7	680	27.2	635	29.1	590	31.3	530	34.9
	Blue	3	600	30.8	560	33.0	500	37.0	430	43.0	365	50.6
	Black	4	535	34.5	485	38.1	415	44.5	325	56.8	230	80.3
	Orange	5	410	45.1	320	57.7	225	82.1				
CPE41210	Red	1	780	33.7	770	34.1	760	34.6	725	36.3	680	38.7
	Yellow	2	715	36.8	690	38.1	660	39.8	620	42.4	560	47.0
	Blue	3	620	42.4	580	45.3	520	50.6	450	58.4	380	69.2
	Black	4	550	47.8	500	52.6	430	61.1	340	77.3	240	109.6
	Orange	5	415	63.4	325	80.9						
CPE41810	Red	1	780	33.7	770	34.1	760	34.6	725	36.3	680	38.7
	Yellow	2	715	36.8	690	38.1	660	39.8	620	42.4	560	47.0
	Blue	3	620	42.4	580	45.3	520	50.6	450	58.4	380	69.2
	Black	4	550	47.8	500	52.6	430	61.1	340	77.3	240	109.6
	Orange	5	415	63.4	325	80.9						
CPE42410	Red	1	780	33.7	770	34.1	740	35.5	705	37.3	660	39.8
	Yellow	2	720	36.5	680	38.7	635	41.4	590	44.6	530	49.6
	Blue	3	600	43.8	560	47.0	500	52.6	430	61.1	365	72.0
	Black	4	535	49.1	485	54.2	415	63.4	325	80.9		
	Orange	5	410	64.1	320	82.2						
CPE43010	Red	1	820	32.1	780	33.7	740	35.5	700	37.6	660	39.8
	Yellow	2	720	36.5	680	38.7	635	41.4	590	44.6	530	49.6
	Blue	3	600	43.8	560	47.0	500	52.6	430	61.1	365	72.0
	Black	4	535	49.1	485	54.2	415	63.4	325	80.9		
	Orange	5	410	64.1	320	82.2						
CPE41815	Red	1	780	50.6	770	51.2	760	51.9	725	54.4	680	58.0
	Yellow	2	715	55.2	690	57.2	660	59.8	620	63.6	560	70.4
	Blue	3	620	63.6	580	68.0	520	75.8	450	87.6		
	Black	4	550	71.7	500	78.9						
	Orange	5										
CPE42415	Red	1	780	50.6	770	51.2	740	53.3	705	55.9	660	59.8
	Yellow	2	720	54.8	680	58.0	635	62.1	590	66.8	530	74.4
	Blue	3	600	65.7	560	70.4	500	78.9				
	Black	4	535	73.7	485	81.3						
	Orange	5										
CPE43015	Red	1	820	48.1	780	50.6	740	53.3	700	56.3	660	59.8
	Yellow	2	720	54.8	680	58.0	635	62.1	590	66.8	530	74.4
	Blue	3	600	65.7	560	70.4	500	78.9				
	Black	4	535	73.7	485	81.3						
	Orange	5										

### Legend

Not Recommended
Factory Setting

\*All values are approximate

\*Do not operate with supply temperature above 150°F

## Installation Guide for Comfort Pack (CPE) Units

<b>COMFORT PACK - CFM (w/ Dry Coil)</b>							
<b>UNIT SIZE</b>	<b>COLOR</b>	<b>SPEED</b>	<b>0.1" w.c</b>	<b>0.2" w.c</b>	<b>0.3" w.c</b>	<b>0.4" w.c</b>	<b>0.5" w.c</b>
<b>CPE412</b>	Red	1	780	770	760	725	680
	Yellow	2	715	690	660	620	560
	Blue	3	620	580	520	450	380
	Black	4	550	500	430	340	240
	Orange	5	415	325	225	X	X
<b>CPE418</b>	Red	1	780	770	760	725	680
	Yellow	2	715	690	660	620	560
	Blue	3	620	580	520	450	380
	Black	4	550	500	430	340	240
	Orange	5	415	325	225	X	X
<b>CPE424</b>	Red	1	780	770	740	705	660
	Yellow	2	720	680	635	590	530
	Blue	3	600	560	500	430	365
	Black	4	535	485	415	325	230
	Orange	5	410	320	225	X	X
<b>CPE430</b>	Red	1	790	780	740	700	660
	Yellow	2	720	680	635	590	530
	Blue	3	600	560	500	430	365
	Black	4	535	485	415	325	230
	Orange	5	410	320	225	X	X

# Installation Guide for Comfort Pack (CPE) Units

## REPLACEMENT PARTS GUIDE

To assure accuracy in providing the correct parts, please provide the unit model designation and serial no. with the parts order. The model designation breakdown is shown below:

CABINET				CHASSIS			
ITEM	DESCRIPTION	PART NO.	MODEL	ITEM	DESCRIPTION	PART NO.	MODEL
1	Top Panel	14256607	All	1	Air Divider	14256109D	All
2	Top Mount Angle	14256101	All	2	Outdoor Coil Mount	14256113	All
3	Upper Louvered Panel	14256102	All	3	Indoor Coil Cover	14256117	All
4	Lower Intake Grille	14256103	All	4	Indoor Coil Drain Pan	14256173	All
5	Right Side Panel	14256412	All	5	Air Filter 16" x 25" x 1"	14232002	All
6	Left Side Panel	14256609	All	6	Outdoor Fan	14214027	All
7	Bottom Panel	14256600	All	7	Wire Harness Control Chassis	14230024	All
8	Rail (2 req'd)	14256605	All	8	Power Connection Plug	14230026	All
9	Cabinet Air Divider - Horizontal	14256606	All	9	Compressor Harness w/Plug (Rotary)	14230045	1 & 1.5
10	Cabinet Air Divider - Vertical	14256140V	All		Compressor Harness w/Plug (Scroll)	14230044	2
11	Cabinet Air Seal	14256160-01	All		Compressor Harness w/Plug (Recip)	14230036	2.5
12	Indoor Blower Cover	14256814	All	10	Contactora	14262082	All
13	Blower Cover Mounting Strap	14256811	All	11	Transformer 208/240-24	14262087	All
14	Left Access	14256017	All (U12)	12	5-Pole Terminal Board	14263062	12, 18
15	Right Access	14256018	All (U12)	13	Evaporator Blower Motor	14270055	All
16	Upper Access Panel	14256159	All (U11)	14	Condenser Fan Motor	14270044	All
17	Fuse Access Door	14256127	All (U11)	15	Outdoor Motor Mount	14270101	All
18	Lower Access Panel	14256123-01	All	16	3/4" ID Drain Tube x 17"	14275616	All
19	Air Deflector	14256145	All	17	Ground Lug	14208228	All
20	Side Seal (4.33' req'd)	14231012	All	18	Drier	14275635	All (U11)
21	Bottom Seal (2.13' req'd)	14231013	All	19	Drier	14275947	All (U12)
22	Air Seal Gasket (3.50' req'd)	14231014	All				
23	Access Hinge Door (2 req'd)	14295022	All (U11)				
24	Power Connection Plug	14230029	All				
25	Wire Harness Control Cabinet	14230025	All				
26	Catch-Fuse Access Door	14256144	All (U11)				
27	Electric Heater, 5KW	14208313	5 KW				
28	Electric Heater, 7KW	14208299	7 KW				
29	Electric Heater, 10KW	14208312	10 KW				
30	Electric Heater, 15KW	14208311	15 KW				
31	Control Board	14262041	All (U12)				
32	Time Delay On Make Adjustable	14262054	All (U11)				
33	Off Delay Timer, 90 Sec 24VAC	14262057	All (U11)				
34	Relay Timer, DP/DT 24VAC	14262093	All (U11)				
35	Contactora 2 Pole (Element)	14262094	2 Req. 5,7, 10 KW 3 Req. 15 KW				
36							
37	Fuse, 30 Amps/250V	14693026	(2) required 5 KW				
38	Fuse, 50 Amps/250V	14693045	(2) required 7 KW				
39	Fuse, 60 Amps/250V	14693028	(2) required 10, 15 KW				
40	Fuse Panel, 2 Poles, 30 Amps	14693031	5 KW				
41	Fuse Panel, 2 Poles, 60 Amps	14693030	7,10 KW				
42	Fuse Panel, 4 Poles, 30/60 Amps	14693029A	15 KW				

# Installation Guide for Comfort Pack (CPE) Units

## REPLACEMENT PARTS GUIDE

(Continued...)

<b>CHASSIS</b>			
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>PART NO.</b>	<b>MODEL</b>
<b>CP41.0-U1.0</b>			
1	Base	14256642	12
2	Indoor Coil	14208305	12
3	Outdoor Coil	14208307	12
4	Compressor	14210235	12
5	Dual Run Capacitor 40/5	14225372	12
6	TXV	14275089	12
<b>CP41.5-U1.0</b>			
1	Base	14256642	18
2	Indoor Coil	14208305	18
3	Outdoor Coil	14208354	18
4	Compressor	14210225	18
5	Low Pressure Switch	14265026	18
6	Dual Run Capacitor 40/5	14225372	18
7	TXV	14275088	18
<b>CP42.0-U1.0</b>			
1	Base	14256613	24
2	Indoor Coil	14208301	24
3	Outdoor Coil	14208354	24
4	Compressor	14210236	24
5	Low Pressure Switch	14265026	24
6	Dual Run Capacitor 40/5	14225372	24
7	TXV	14275086	24
<b>CP42.5-U1.0</b>			
1	Base	14256641	30
2	Indoor Coil	14208304	30
3	Outdoor Coil	14208362	30
4	Compressor	14210219	30
5	Low Pressure Switch	14265026	30
6	Dual Run Capacitor 40/5	14225372	30
7	TXV	14275087	30



# Installation Guide for Comfort Pack (CPE) Units



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

539 Dunksferry Road | Bensalem, PA 19020 | 215-244-1400 | 1-800-523-7138 | Fax: 215-639-1674

## 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 ten 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

# Installation Guide for Comfort Pack (CPE) Units

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 scroll 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.



# Installation Guide for Comfort Pack (CPE) Units

## ENGINEERING SPECIFICATION GUIDE

### 1. Product Name

National Comfort Products – Comfort Pack

### 2. Manufacturer

National Comfort Products  
539 Dunksferry Road, Bensalem, PA 19020  
Phone: (800) 523-7138:  
Fax: (215) 639-1674  
**Email:** sales@NationalComfortProducts.com  
**Website:** www.NationalComfortProducts.com

### 3. Product Description

**Comfort Pack** is a SPVU heating and cooling unit designed for the multi-family industry. It is self-contained heating and cooling thru the wall packaged unit available with gas or electric heat. Thru the wall operation saves money and time with simple and easy installation, and removes the need for long line sets or electrical runs.

#### Models

CPG – Gas Heat (Natural or LP) w/ Electric Cooling  
CPE – Electric Heat w/ Electric Cooling

**Capacities** natural gas is not available we offer heating packages of 5, 7.5, 10 and 15 KW.

#### Materials

Cabinet to be constructed of Pre-Painted Galvanized Steel

**Color** – Neutral tone finish of Tan

#### Voltage

Factory wired for 230 Volts 1 Phase 60 Hertz and can be field adjusted for 208 Volts. Operating voltages are from 197 to 253 Volts. All CPE ratings are based at 230 Volts.

#### Indoor Air Flow

Top Supply (outlet), Bottom Return (inlet) (Approved for front/open return if local codes apply)(Optional return boot available for top return designs)

#### Filter

Factory filter easily accessed by thumb screw mounted panel w/ filter retainer rod.

#### Slide Out Chassis

Serviceable slide out cooling section with Coremax refrigeration service ports. 5 Speed DC blower motor. Evaporator and Condenser Coils shall be fabricated of raised lanced aluminum fins mechanically bonded to seamless rifled copper tubes.

#### Secondary Drain

Secondary condensate drain with trap piped to outdoor section of unit for drainage thru exterior weep holes providing extra protection and indication of primary drain blockages.

#### Slide Out Furnace (Gas)

Serviceable slide out gas furnace assembly with stainless steel heat exchanger.

#### Sequencing Control (Electric)

Two stage heat sequencing triac control board.

### 4. Technical Data Limitations

All installations should factor a proper building heat loss/gain, along with appropriate duct sizing, gas mains and riser sizing, and electrical supply wiring to be figured by a professional engineer familiar with local and national codes.

### 5. Standard Controls & Components

Equipped to operate with a standard (1H/1C or 2H/1C) low voltage thermostat. Factory mounted junction box provided for field wiring. 16x25x1 washable air filter. Gas units equipped with dual LED diagnostic light. 3/4" o.d. primary drain connection with flexible tubing provided.

### 6. Install

Recommended installation with CPWS wall sleeve for clean finish and future service accessibility. A 29" wide by 29" deep open area must be provided unobstructed in front of the access panels for chassis and furnace service removal.

### 7. Sales

Comfort Pack is available thru a variety of wholesalers. Contact the factory to help locate a nearby distributor for price and availability.

### 8. Warranty

5 Year warranty on all parts, 5 year warranty on compressor and 10 year warranty of the heat exchanger (gas only). 90 day labor warranty.

### 9. Service

The Comfort Pack is equipped with a slide out cooling chassis and a slide out furnace for simple maintenance and service. All standard maintenance instructions can be found in the installation guides.

### 10. Technical Support

Factory technical assistance is available to help with any concerns or situations regarding the Comfort Pack.

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

**National Comfort Products**  
*A Division of National Refrigeration and Air Conditioning Products, Inc.*  
539 Dunksferry Road • Bensalem, PA 19020-5908  
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