

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

# Installation Guide

## Electric Heat Kit

*Please read the entire installation guide  
before starting the installation.  
All phases of this installation must comply  
with National, State and Local codes.*

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

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

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

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

*Go Thru-the-Wall*



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**Important:** This document is customer property and is to remain with this unit

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

## ATTENTION INSTALLING PERSONNEL

Prior to installation, thoroughly familiarize yourself with this Installation Manual. Observe all safety warnings. During installation or repair, caution is to be observed. It is your responsibility to install the product safely and to educate the customer on its safe use.

### **WARNING**

#### **FIRE, ELECTRICAL SHOCK, HAZARD**

After connecting all wires, check all screws of breaker and make sure all screws are properly tight.

Failure to do so will result in breaker malfunction, fire, death, personal injury or property damage.

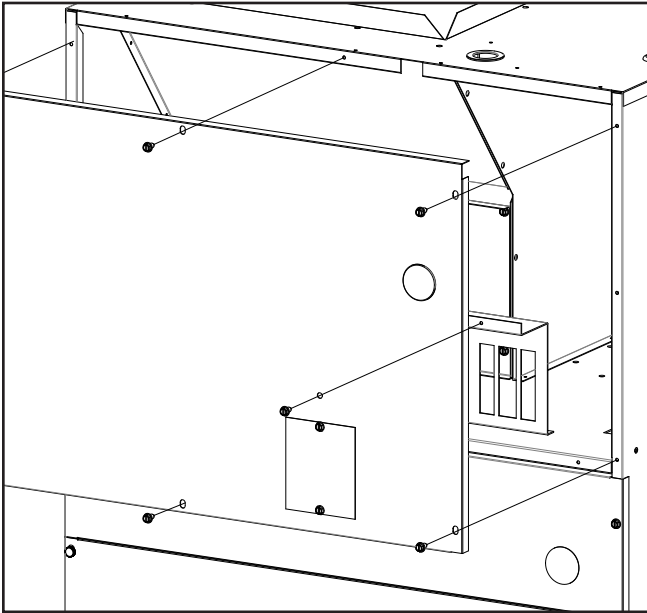
### **CAUTION**

- **ENSURE THAT ALL POWER IS DISCONNECTED PRIOR TO ATTEMPTING INSTALLATION OF THIS HEATER KIT. THERE MAY BE MORE THAN ONE DISCONNECT SERVICING THE UNIT.**
- **A MEANS OF STRAIN RELIEF AND CONDUCTOR PROTECTION MUST BE PROVIDED AT THE SUPPLY WIRE ENTRANCE INTO CABINET.**
- **USE COPPER CONDUCTORS ONLY.**
- **INSTALLATION MUST FOLLOW NATIONAL ELECTRIC CODE AND OTHER APPLICABLE CODES.**

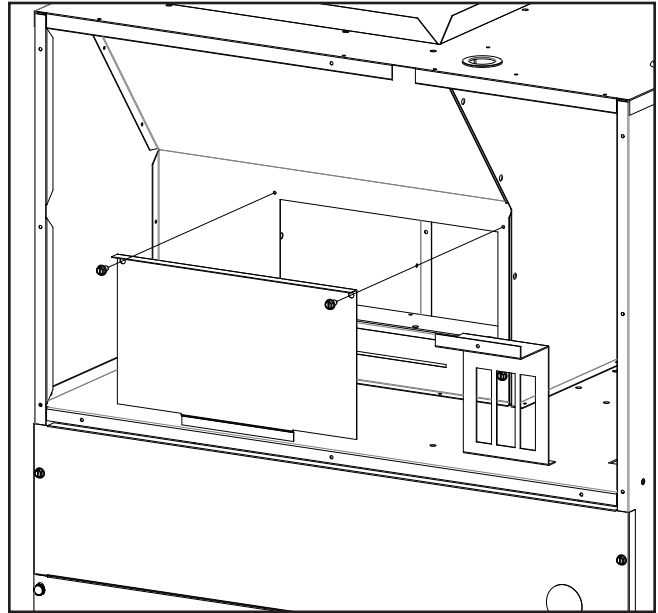
If this appliance is installed in an enclosed area such as a garage or utility room with any carbon monoxide producing appliance, ensure the area is properly ventilated.

## Comfort Pack Installation (For Installation In Air Handler See Page 9)

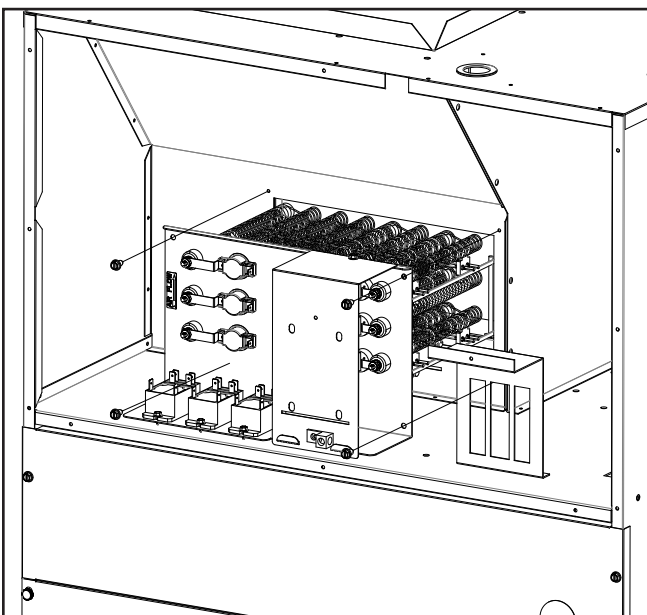
1. Remove the upper access panel from the cabinet.



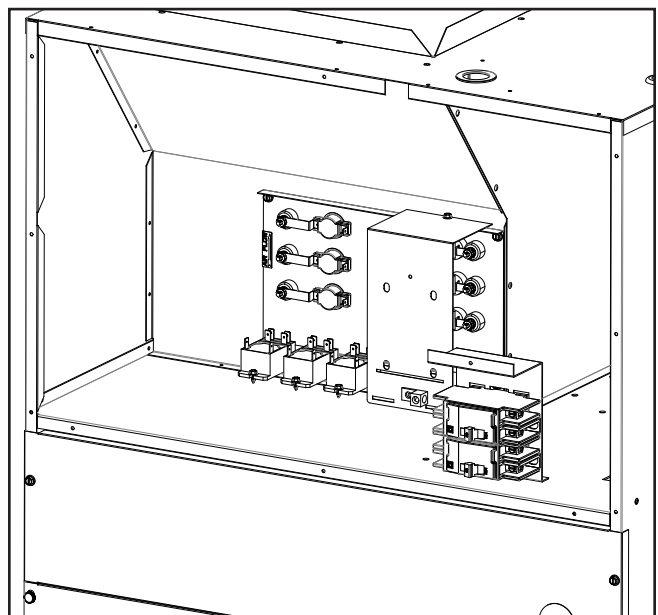
2. Remove the heater cover plate from the unit. Keep the two screws to reuse in the next step.



3. Insert the heater banks into the opening and secure with four screws (additional screws can be found in accessories kit).

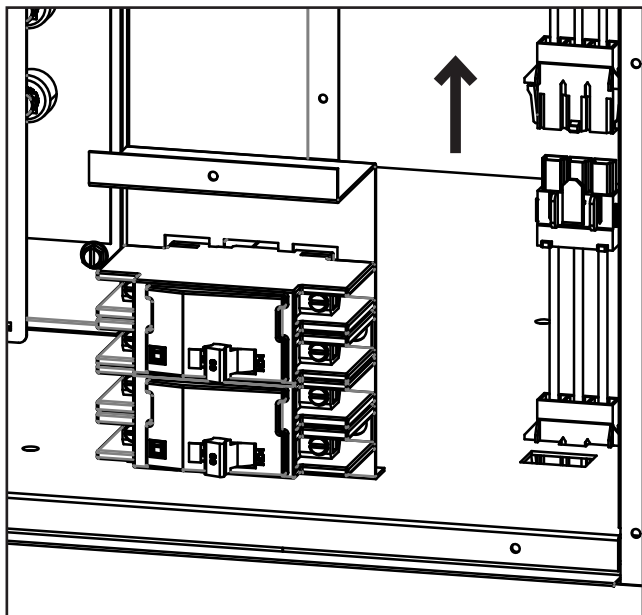


4. Mount the circuit breaker(s) to the bracket at the front of the furnace section.

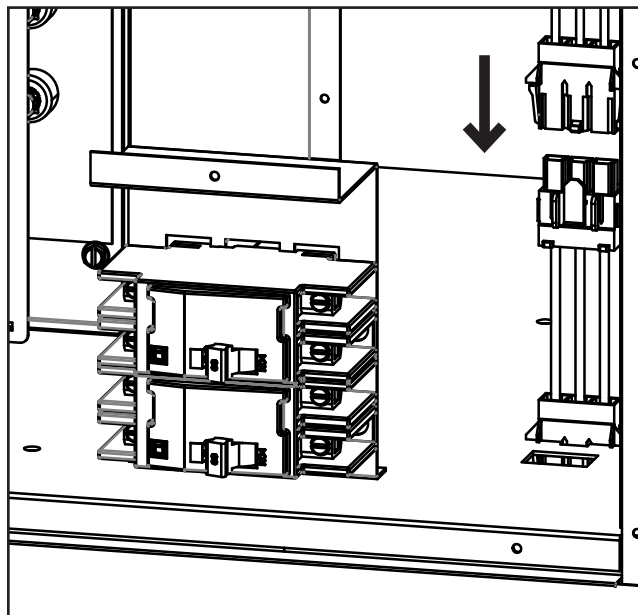


## Comfort Pack Installation (Continued)

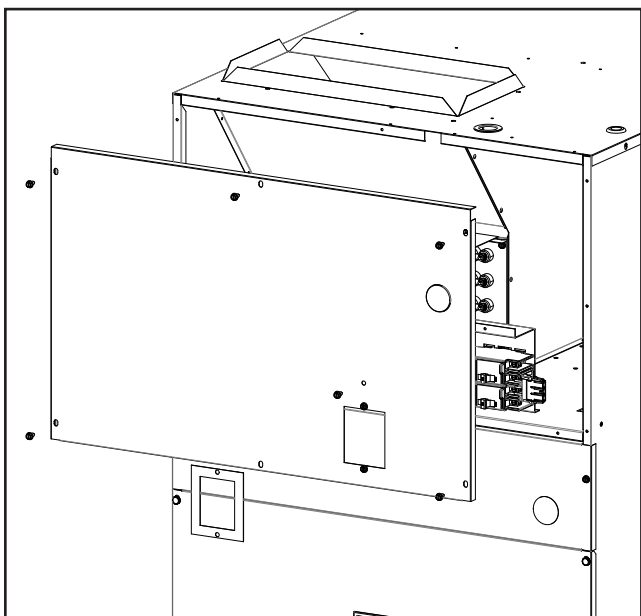
5. Disconnect and remove the cabinet power wiring harness from the adapter plug at the horizontal air divider.



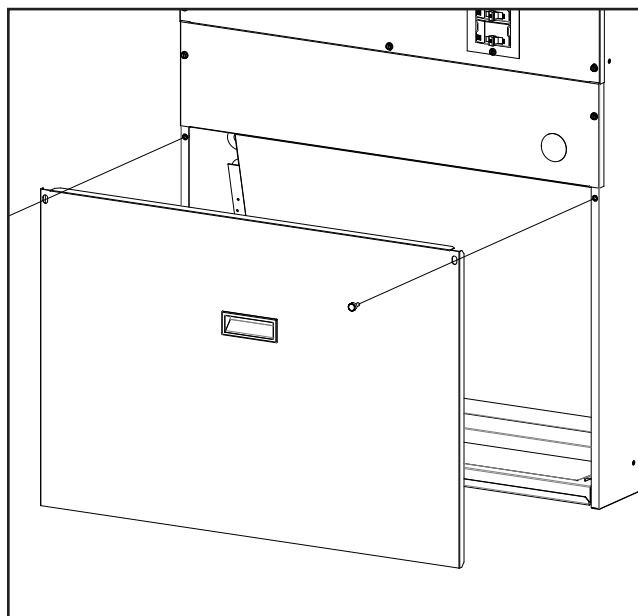
6. Connect the Power and Control wiring harnesses from the Heat Kit to their associated connectors. Then connect the external power wiring to the free end of the Heat Kit circuit breaker(s). Refer to the Unit Installation Manual for instructions and complete wiring diagram.



7. Reinstall the upper access panels and install the corresponding breaker patch plate from the accessories kit.

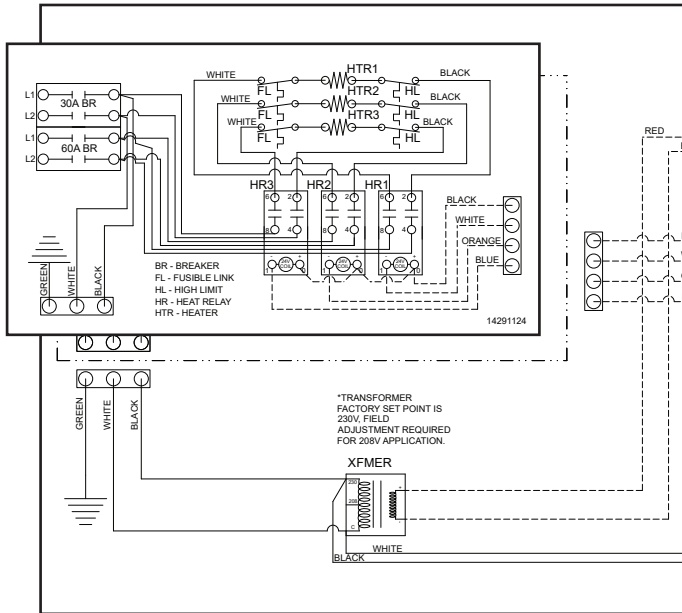


8. Remove the filter access panel.

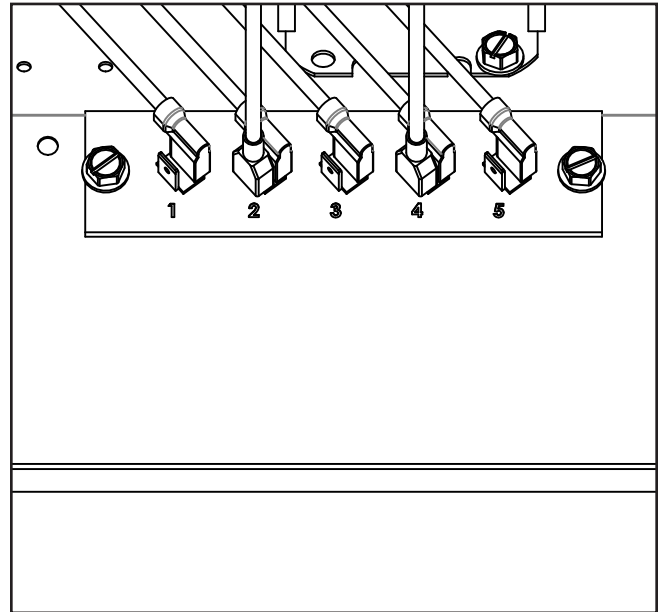


## Comfort Pack Installation (Continued)

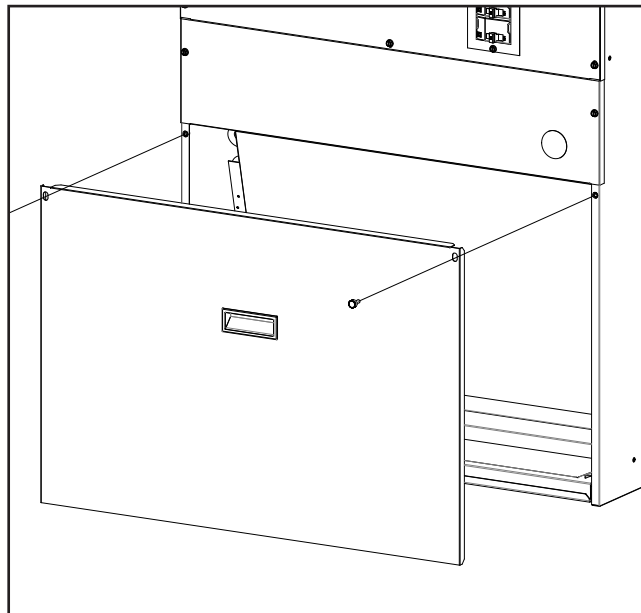
9. Affix the wiring diagram label included in the accessories kit on the dotted line area of the cabinet's wiring diagram.



10. Set the appropriate blower speed tap (orange wire) on the blower speed control board. Refer to the Comfort Pack Installation Manual for airflow tables and proper setting.



11. Reinstall the filter access panel.



12. On the Unit's Data Tag, check off the box next to the heat kit that was installed in the unit.

<p><b>NATIONAL COMFORT PRODUCTS AIR HANDLER</b> SIX CONDENSERY ROW: BENDALE, PA, U.S.A.</p> <p>For Indoor Installation Only (IPDS) / Pour Installation à l'Intérieur seulement</p> <p>MODEL NO. / NUMÉRO DU MODÈLE SERIAL NO. / NUMÉRO DE SÉRIE</p> <p>NOTE: Use with outdoor unit R-410A refrigerant only. (REMARQUE: À utiliser avec l'unité extérieure avec le réfrigérant R-410A uniquement.)</p> <p>Max. Allow. Pressure (L.A. Pression Maximale Admissible) Min. Test Pressure (La Pression d'Essai Minimale)</p> <p>PSIG KPA PSIG KPA</p> <p>ELECTRICAL RATING - CARACTÉRISTIQUE ÉLECTRIQUE PH VOLT MINIMUM VOLTAGE - VOLTAGE MINIMUM</p> <p>SHORT CIRCUIT CURRENT (Courant De Court-Circuit) BLOWER MOTOR (Moteur De La Ventilateur) SP FLA (230V/208V)</p> <p>HEATING DESCRIPTION - DESCRIPTION DE CHAUFFAGE</p> <table border="1"> <thead> <tr> <th>Check Box</th> <th>Heat Kit Model No.</th> <th>Heating KW</th> <th>MCA (Max. Circuit Ampacity)</th> <th>Breaker Size (Max. Fuse or)</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>None</td> <td>0</td> <td>0</td> <td>4.0 4.0 15 15</td> </tr> <tr> <td><input type="checkbox"/></td> <td>CPEHK-03-A</td> <td>3.2</td> <td>5.82</td> <td>22.1 20.8 25 25</td> </tr> <tr> <td><input type="checkbox"/></td> <td>CPEHK-05-A</td> <td>4.68</td> <td>8.33</td> <td>39.2 37.9 30 30</td> </tr> <tr> <td><input type="checkbox"/></td> <td>CPEHK-07-A</td> <td>6.58</td> <td>11.37</td> <td>45.0 39.0 40 40</td> </tr> <tr> <td><input type="checkbox"/></td> <td>CPEHK-10-A</td> <td>9.35</td> <td>17.44</td> <td>55.8 50.8 60 60</td> </tr> <tr> <td><input type="checkbox"/></td> <td>CPEHK-15-A</td> <td>14.02</td> <td>25.47</td> <td>84 80.2 80 80</td> </tr> </tbody> </table> <p>MINIMUM SPACING TO COMBUSTIBLE SURFACES (P. 17) SPACER(S) MINIMUM AUX SURFACES COMBUSTIBLES (P. 17)</p> <p>USE COPPER CONDUCTORS ONLY. MOTORS ARE THERMALLY PROTECTED. (UTILISER UNiquement DES CONDUCTEURS EN CUivre. LES MOTEURS SONT PROTÉGÉS THERMIQUEMENT.)</p> <p>MAXIMUM OUTLET AIR TEMPERATURE 200 °F (TEMPÉRATURE MAXIMALE DE L'Air À SORTIR 200 °F)</p>		Check Box	Heat Kit Model No.	Heating KW	MCA (Max. Circuit Ampacity)	Breaker Size (Max. Fuse or)	<input type="checkbox"/>	None	0	0	4.0 4.0 15 15	<input type="checkbox"/>	CPEHK-03-A	3.2	5.82	22.1 20.8 25 25	<input type="checkbox"/>	CPEHK-05-A	4.68	8.33	39.2 37.9 30 30	<input type="checkbox"/>	CPEHK-07-A	6.58	11.37	45.0 39.0 40 40	<input type="checkbox"/>	CPEHK-10-A	9.35	17.44	55.8 50.8 60 60	<input type="checkbox"/>	CPEHK-15-A	14.02	25.47	84 80.2 80 80	<p>ELECTRICAL RATING - VOLTS PH HZ</p> <p>SHORT CIRCUIT CURRENT (Courant De Court-Circuit)</p> <p>kA RMS SYMMETRICAL (kilo ampères RMS SYMÉTRIQUE)</p> <p>HEATING DESCRIPTION</p> <p>Check Box Heat Kit Model No. Heating KW</p> <p><input type="checkbox"/> None 0 0</p> <p><input type="checkbox"/> CPEHK-03-A 3.2 2.0</p> <p><input type="checkbox"/> CPEHK-05-A 4.68 3.3</p> <p><input type="checkbox"/> CPEHK-07-A 6.58 5.0</p> <p><input type="checkbox"/> CPEHK-10-A 9.35 7.0</p> <p><input type="checkbox"/> CPEHK-15-A 14.02 11.0</p> <p><b>Note: When Installing an Electric Heat Breaker size selection and put a check</b> <b>(REMARQUE: Lors de l'installation d'un tableaut ci-dessus pour la sélection de la correspondante.)</b></p> <p>MAX. EXTERNAL STATIC PRESSURE 0.3</p>
Check Box	Heat Kit Model No.	Heating KW	MCA (Max. Circuit Ampacity)	Breaker Size (Max. Fuse or)																																	
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<input type="checkbox"/>	CPEHK-15-A	14.02	25.47	84 80.2 80 80																																	

## Heater Specifications – Comfort Pack

Model	Heat Kit	Nominal Heater Size	Heater Capacity (Btuh)		Total Amps		MCA		MOP	
			230V	208V	230V	208V	230V	208V	230V	208V
CPE41200U*	CPEHK-03-A	3 kW	10,900	8,900	16.9	15.6	20.4	18.7	25	20
	CPEHK-05-A	5 kW	16,000	13,100	23.3	21.4	28.4	26.0	30	30
	CPEHK-07-A	7 kW	22,400	18,300	31.6	28.8	38.8	35.3	40	40
	CPEHK-10-A	10 kW	32,000	26,000	43.7	39.7	53.8	48.9	55	50
CPE41800U*	CPEHK-03-A	3 kW	10,900	8,900	16.9	15.6	20.4	18.7	25	25
	CPEHK-05-A	5 kW	16,000	13,100	23.3	21.4	28.4	26.0	30	30
	CPEHK-07-A	7 kW	22,400	18,300	31.6	28.8	38.8	35.3	40	40
	CPEHK-10-A	10 kW	32,000	26,000	43.7	39.7	53.8	48.9	55	50
	CPEHK-15-A	15 kW	47,800	39,200	64.0	58.1	79.2	71.9	80	75
CPE41240U*	CPEHK-03-A	3 kW	10,900	8,900	17.8	16.5	21.3	19.0	25	25
	CPEHK-05-A	5 kW	16,000	13,100	24.2	22.3	29.3	26.9	30	30
	CPEHK-07-A	7 kW	22,400	18,300	32.5	29.7	39.7	36.2	40	40
	CPEHK-10-A	10 kW	32,000	26,000	44.6	40.6	54.7	49.8	55	50
	CPEHK-15-A	15 kW	47,800	39,200	64.9	59.0	80.1	72.8	85	75
CPE413000T*	CPEHK-03-A	3 kW	10,900	8,900	17.8	16.5	23.2	23.2	35	35
	CPEHK-05-A	5 kW	16,000	13,100	24.2	22.3	29.3	26.9	35	35
	CPEHK-07-A	7 kW	22,400	18,300	32.5	29.7	39.7	36.2	40	40
	CPEHK-10-A	10 kW	32,000	26,000	44.6	40.6	54.7	49.8	55	50
	CPEHK-15-A	15 kW	47,800	39,200	64.9	59.0	80.1	72.8	85	75

## Unit Compatibility\*

### Comfort Pack

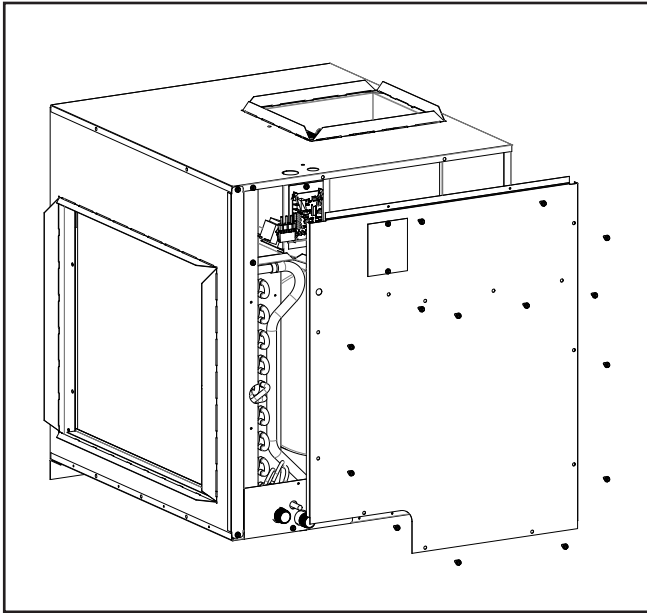
CPE40900U\*  
 CPE41200U\*  
 CPE41800U\*  
 CPE42400U\*  
 CPE43000T\*

\*List is subject to change without notice.

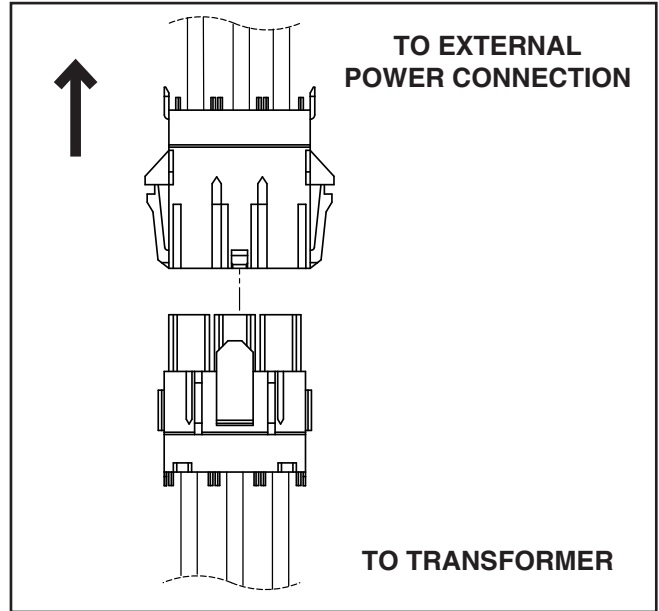


## Multi-Family Air Handler Installation

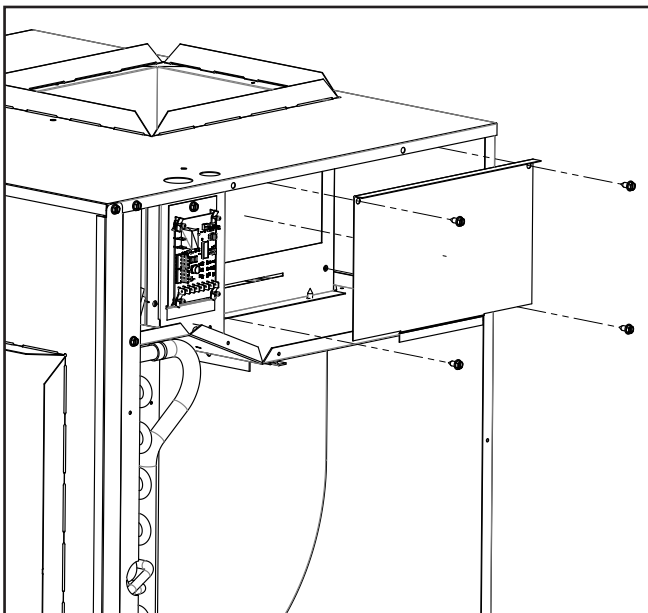
1. Remove the access panels from the cabinet.



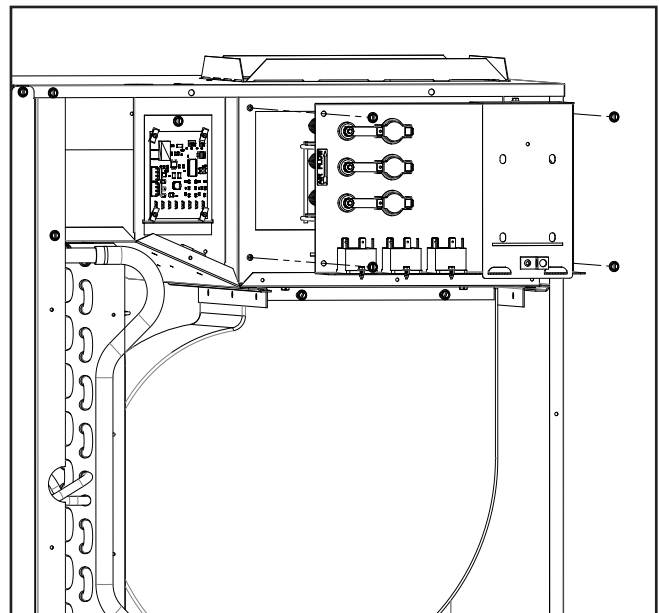
2. Disconnect and remove the air handler's existing power wire harness.



3. Remove the heater cover plate from the unit. Keep the four screws to reuse in the next step.

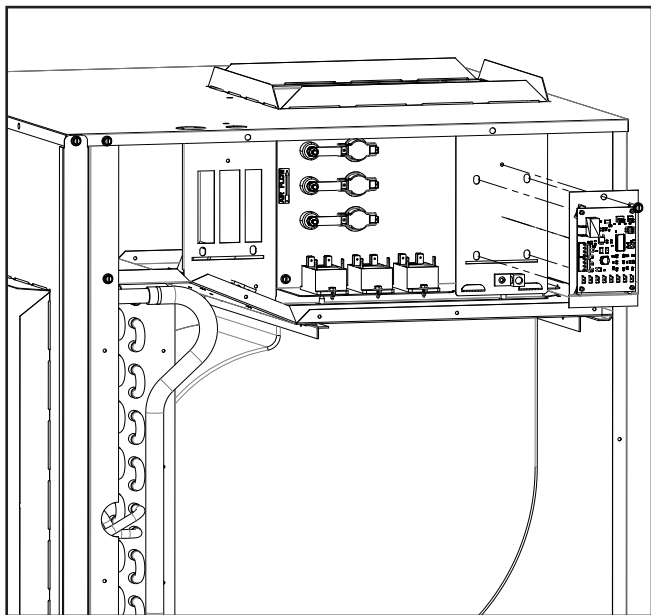


4. Insert the heating banks into the opening and secure with four screws.

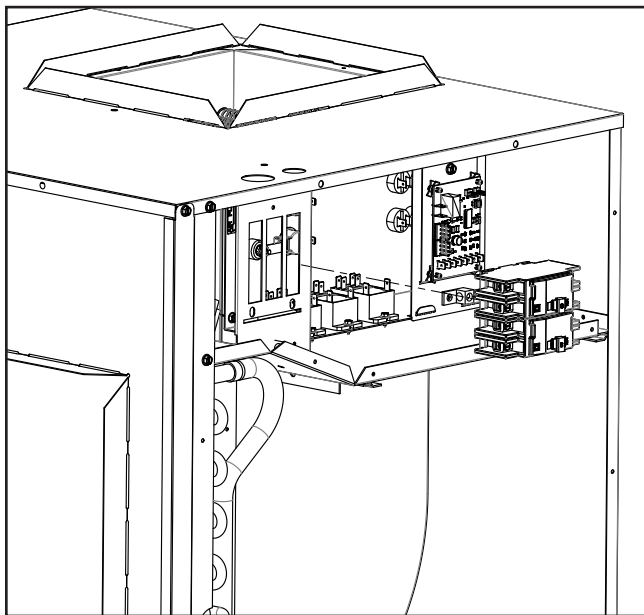


## Multi-Family Air Handler Installation (Continued)

5. Move the control board from the front board bracket to the bracket on the heat kit.

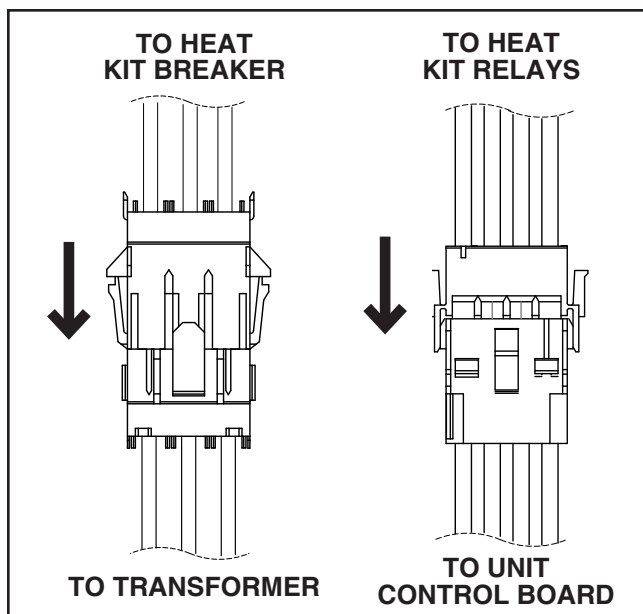
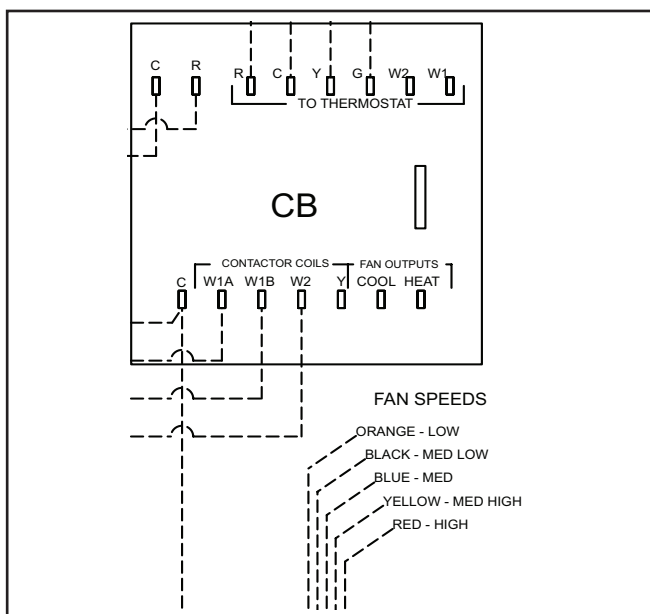


6. Mount the circuit breaker(s) to the front board bracket.



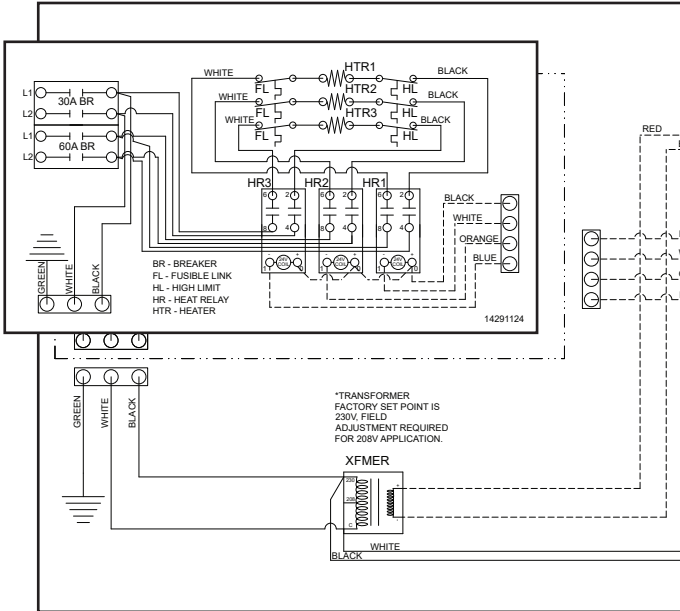
7. Connect the appropriate speed tap wires from the blower motor to the Cooling and Heater Fan Output terminals on the Control Board. Refer to the Air Handler Installation Manual for the airflow tables and proper speed setting. Note: In the case where Cooling and Heating motor speeds are the same, a terminal splitter and jumper wire will be required.

8. Connect the Power and Control wiring harnesses from the Heat Kit to their associated connectors in the Air Handler. Connect the external power wiring to the free end of the Heat Kit circuit breaker(s). Refer to the Unit Installation Manual for Instructions and complete wiring diagram.

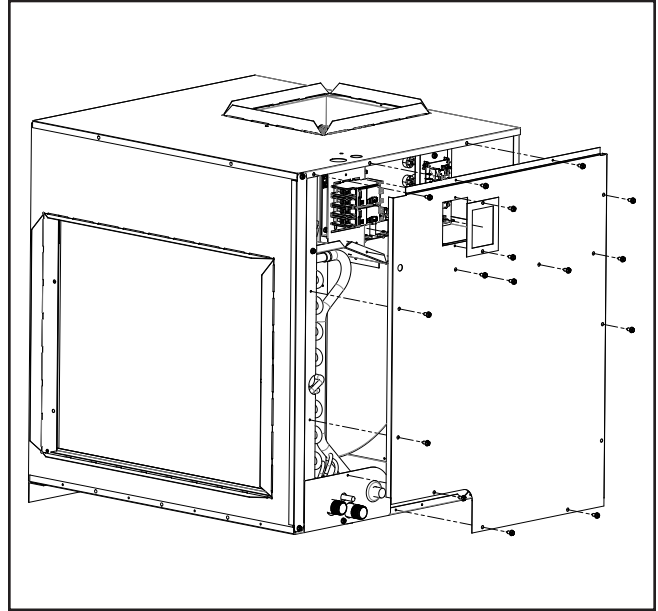


## Multi-Family Air Handler Installation (Continued)

9. Affix the wiring diagram label included in the Heat Kit in the dotted lined area on the air handler's wiring diagram.



10. Reinstall the upper access panels and install the corresponding breaker patch plate from the accessories kit.



11. On the Air Handler's Data Tag, check off the box next to the heat kit that was installed in the unit.

<p><b>NATIONAL COMFORT PRODUCTS AIR HANDLER</b>                  518 SUNBERRY RD. BEASLEY, PA 15009                  For Indoor Installation Only (SPIC) / Pour Installation à l'intérieur seulement</p> <p>MODEL NO. / NUMÉRO DU MODÈLE: _____ SERIAL NO. / NUMÉRO DE SÉRIE: _____</p> <p>NOTE: Use with outdoor unit R-410A refrigerant only.                  (REMARQUE: À utiliser avec l'unité extérieure avec le réfrigérant R-410A uniquement.)</p> <p>Max. Allow. Pressure (La Pression Maximale Admissible)      Max. Test Pressure (La Pression D'essai Maximale)</p> <p>PSIG      PSIG                  KPA      KPA</p> <p>ELECTRICAL RATING - CARACTÉRISTIQUE ÉLECTRIQUE                  PH      HZ      MINIMUM VOLTAGE / VOLTAJE MINIMUM</p> <p>SHORT CIRCUIT CURRENT (Courant De Court-Circuit)      BLOWER MOTOR (Moteur De La Soufflerie)                  kA RMS SYMMETRICAL (En ampères RMS SYMÉTRIQUE)      HP</p> <p>FLA (208V/230V)</p> <p>HEATING DESCRIPTION - DESCRIPTION DE CHAUFFAGE</p> <table border="1"> <thead> <tr> <th>Check Box</th> <th>Heat Kit Model No.</th> <th>Heating kW</th> <th>HP</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>None</td> <td>0</td> <td>0</td> </tr> <tr> <td><input type="checkbox"/></td> <td>CPEHK-03-A</td> <td>3.2</td> <td>2.5</td> </tr> <tr> <td><input type="checkbox"/></td> <td>CPEHK-05-A</td> <td>4.68</td> <td>3.5</td> </tr> <tr> <td><input type="checkbox"/></td> <td>CPEHK-07-A</td> <td>6.58</td> <td>5.0</td> </tr> <tr> <td><input type="checkbox"/></td> <td>CPEHK-10-A</td> <td>9.35</td> <td>7.0</td> </tr> <tr> <td><input type="checkbox"/></td> <td>CPEHK-15-A</td> <td>14.02</td> <td>11.0</td> </tr> </tbody> </table>		Check Box	Heat Kit Model No.	Heating kW	HP	<input type="checkbox"/>	None	0	0	<input type="checkbox"/>	CPEHK-03-A	3.2	2.5	<input type="checkbox"/>	CPEHK-05-A	4.68	3.5	<input type="checkbox"/>	CPEHK-07-A	6.58	5.0	<input type="checkbox"/>	CPEHK-10-A	9.35	7.0	<input type="checkbox"/>	CPEHK-15-A	14.02	11.0	<p>ELECTRICAL RATING -                  VOLTS      PH      HZ</p> <p>SHORT CIRCUIT CURRENT                  (Courant De Court-Circuit)</p> <p>kA RMS SYMMETRICAL                  (kilo ampères RMS SYMÉTRIQUE)</p> <p>HEATING DESCRIPTION</p> <p>Check Box      Heat Kit Model No.      Heating kW</p> <p>230V      208V</p> <p>MAX. EXTERNAL STATIC PRESSURE 6.5" WC                  (PRESSION STATIQUE EXTERNE MAX. 6.5" WC)</p> <p>MINIMUM SPACING TO COMBUSTIBLE SURFACES 6" (ESPACEMENT MINIMUM AUX SURFACES COMBUSTIBLES 6")</p> <p>USE COPPER CONDUCTORS ONLY. MOTOR AND THERMAL PROTECTED                  UTILISER UNiquement DES CONDUCTEURS EN CUIVRE. LES MOTEURS SONT                  PROTÉGÉS THERMIQUEMENT.</p> <p>MAXIMUM OUTLET AIR TEMPERATURE 200°F                  (TEMPÉRATURE MAXIMALE DE L'AIR DE SORTIE 200°F)</p>
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## Heater Specification – Air Handler

Model	Heat Kit	Nominal Heater Size	Heater Capacity (Btuh)		Total Amps		MCA		MOP	
			230V	208V	230V	208V	230V	208V	230V	208V
NAH424MF*-L*	CPEHK-03-A	3 kW	10,900	8,900	17.7	16.5	22.1	20.6	25	25
	CPEHK-05-A	5 kW	16,000	13,100	24.2	22.3	30.2	27.9	35	30
NAH424MF*-R*	CPEHK-07-A	7 kW	22,400	18,300	32.4	29.7	40.5	37.2	45	40
NAH430MF*-L*	CPEHK-10-A	10 kW	32,000	26,000	44.5	40.6	55.6	50.8	60	60
NAH430MF*-R*	CPEHK-15-A	15 kW	47,800	39,200	43.17/22.85	39.36/20.98	54.0/28.6	49.2/26.2	60/30	50/30

## Unit Compatibility\*

### Multi-Family Air Handler

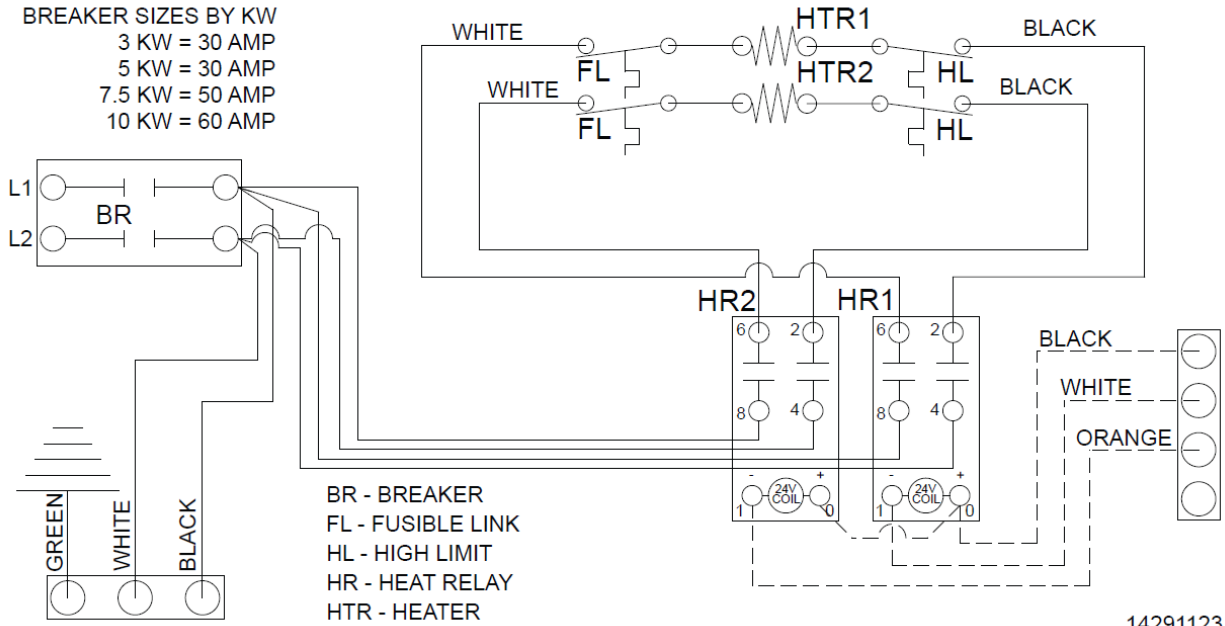
NAH424MFA

NAH430MFA

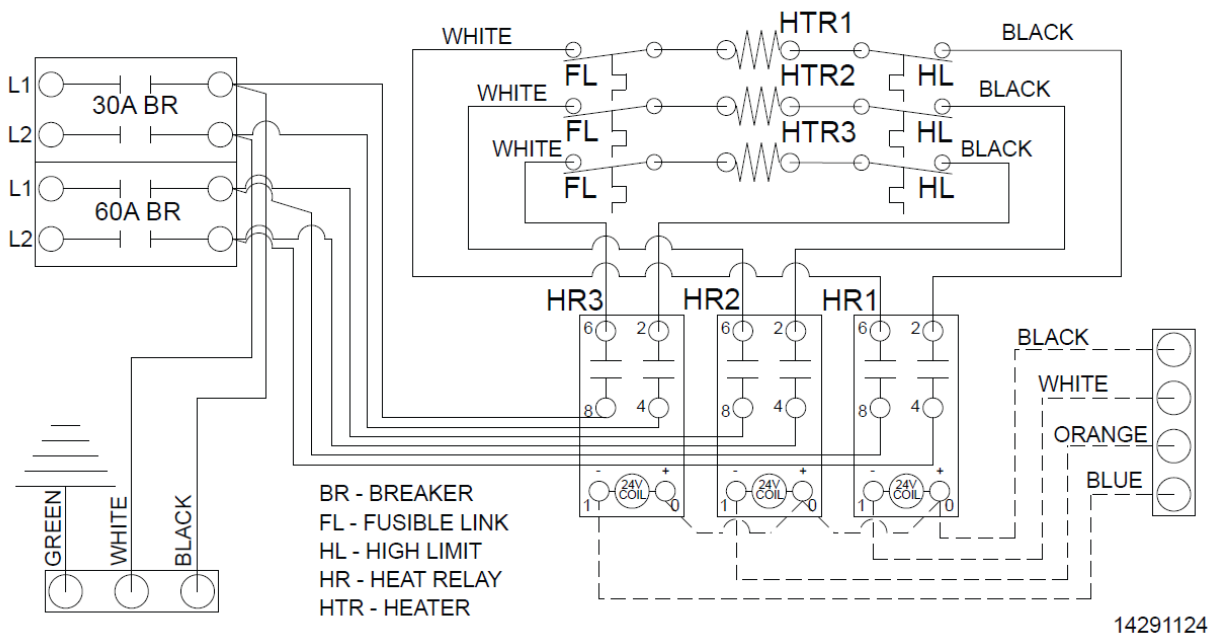
\*List is subject to change without notice.

## Wiring Diagrams

### CPEHK-03/05/07/10-A



### CPEHK-15-A









**National Comfort Products®**

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

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