# INSTALLATION INSTRUCTIONS 

## ELECTRIC HEAT PACKAGES

## Models:

EHW4TA-A05 EHW4TA-B18 EHW4TA-C09 EHW4TA-C15 EHW4TA-F14 EHW4TH-A05 EHW4TH-A10 EHW4TH-A15 EHW4TH-B18 EHW4TH-C06 EHW4TH-C09 EHW4TH-C15 EHW5TA-A05 EHW5TA-B18

EHW5TH-A10
EHW6TA-B18
EHW05A-B15B
EHW05A-B18B
EHW05A-C09
EHW05A-C15
EHW05H-B18B
EHW60A-B09B
EHW70A-B09B
EHW70A-B18B
EHW72A-A10B
EHW72A-A15B
EHW72A-A20B EHWA05-A05B

EHWA05-A10B EHWH04-A10B EHWA05-A15B EHWH04-A15B EHWA05-A20B EHWH04-A20B EHWA05-B09B EHWA05-B15B EHWA05-B18B EHWA05A-C09
EHWA05A-C15
EHWA05A-F14 EHWA60-A05B
EHWA60-B09
EHWH04-A04B
EHWH04-A05B

EHWH04-B18
EHWH05-B06B
EHWH05-B09B
EHWH05-B15B
EHWH05A-C09
EHWH05A-C15
EHWH42-A05B
EHWH42-A10B
EHWH42-A15B
EHWH42-C06

For Use with SH, WA and WH Series Wall-Mounted Air Conditioners and Heat Pumps
(See Tables 1A-1I for Model Usage Matrix)


Bard Manufacturing Company, Inc. Bryan, Ohio 43506
www.bardhvac.com

| Manual: | $2100-254 \mathrm{~J}$ |
| :--- | :--- |
| Supersedes: | $2100-254 \mathrm{I}$ |
| Date: | $11-23-15$ |

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## DESCRIPTION OF EOUIPMENT

The EHWA and EHWH series electric heater packages are field-installable heater packages suitable for use with Bard wall mount air conditioners and heat pumps. The packages consist of the electric heat strip, the heater control base (which includes the heat contactors and circuit breaker or pull disconnects), installation instructions and wiring diagrams. See Table 2 on page 8 for nominal electrical data and BTU output. Before installation, check unit serial plate to ensure the heater package model to be installed is listed as a heater package that is suitable for use with the Bard wall mount hi boy unit (see Figure 6 on page 17).

## IMPORTANT

The equipment covered in this manual is to be installed by trained, experienced service and installation technicians.

## SHIPPING DAMAGE

Upon receipt of equipment, the carton should be checked for external signs of shipping damage. If damage is found, the receiving party must contact the last carrier immediately, preferably in writing, requesting inspection by the carrier's agent.

## $\triangle$ WARNING

Only use factory-provided heaters in approved combinations of heater models to unit models as shown in tables 1A-1I. Failure to use approved combinations as shown or modification to heaters could result in fire causing damage, bodily injury or death.

## UNPACKING ELECTRIC HEAT PACKAGE

Remove the heat package from the shipping carton. The heat package must consist of the following:

1. Basic heater.
2. Electric heat control base and wiring.
3. Installation instructions.
4. Two wiring diagrams, one to be applied to unit.
5. Adhesive label to re-mark serial plate to indicate new model number. This is attached to the front of these instructions.

TABLE 1A
R-22 Heater Usage by Model Matrix

| $\begin{gathered} \text { 230/208V } \\ 1 \text { Phase } \end{gathered}$ | $\begin{aligned} & \underset{1}{N} \\ & \underset{\sim}{N} \\ & \underset{3}{3} \end{aligned}$ | $\begin{aligned} & \underset{i}{i} \\ & \underset{\sim}{\underset{1}{3}} \end{aligned}$ | $\begin{aligned} & \mathbb{1} \\ & + \\ & \infty \\ & \frac{1}{4} \\ & 3 \end{aligned}$ |  | $\begin{aligned} & \mathbb{I} \\ & \pm \\ & \infty \\ & \frac{1}{4} \\ & 3 \end{aligned}$ | $\begin{aligned} & \stackrel{a}{\sim} \\ & \underset{\sim}{O} \\ & \underset{\sim}{3} \\ & 3 \end{aligned}$ | $\begin{aligned} & \overleftarrow{1} \\ & \underset{\sim}{O} \\ & \hat{6} \\ & \vdots \end{aligned}$ | $\begin{aligned} & \mathbb{1} \\ & N \\ & \text { O } \\ & 0 \\ & \frac{1}{3} \end{aligned}$ | $\begin{aligned} & \frac{1}{0} \\ & \hat{O} \\ & \hat{0} \\ & \frac{1}{3} \end{aligned}$ |  | $\begin{aligned} & \underset{1}{1} \\ & \underset{\sim}{\grave{N}} \\ & \vdots \end{aligned}$ | $\begin{aligned} & \mathbb{I} \\ & N \\ & \underset{O}{N} \\ & \underset{3}{3} \end{aligned}$ | $\begin{aligned} & \underset{\sim}{\underset{N}{N}} \\ & \underset{\sim}{\Psi} \\ & \vdots \end{aligned}$ | $\begin{aligned} & \underset{\Delta}{\underset{N}{2}} \\ & \underset{\sim}{\underset{T}{3}} \end{aligned}$ | $\begin{aligned} & \underset{\sim}{1} \\ & \dot{N} \\ & \underset{\sim}{\infty} \\ & \underset{\Sigma}{\top} \end{aligned}$ | $\begin{aligned} & \mathbb{I} \\ & \underset{N}{1} \\ & \stackrel{\infty}{\infty} \\ & \stackrel{T}{3} \end{aligned}$ | $\begin{aligned} & \mathbb{M} \\ & M \\ & \infty \\ & \underset{3}{+} \end{aligned}$ | $$ | a N ô or $\frac{1}{3}$ | $\mathbb{S}$ N O $\stackrel{0}{1}$ 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EHWA05-A05B | X | X | X | X |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EHWA05-A10B | X | X | X | X |  | X | X |  | X | X | X |  |  |  |  |  | X |  |  | X |
| EHWA05-A15B | X |  | X |  |  |  | X |  |  |  | X |  |  |  |  |  |  |  |  |  |
| EHWA05-A20B | X |  | X |  |  |  | X |  |  |  | X |  |  |  |  |  |  |  |  |  |
| EHWA60-A05B |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |
| EHWH04-A04B |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |
| EHWH04-A05B |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | X |  |
| EHWH04-A10B |  |  |  |  | X |  |  | X |  |  |  | X |  |  |  |  |  | X | X |  |
| EHWH04-A15B |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |
| EHWH04-A20B |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  | X |  |  |
| EHWH42-A05B |  |  |  |  |  |  |  |  |  |  |  |  | X | X | X | X |  |  |  |  |
| EHWH42-A10B |  |  |  |  |  |  |  |  |  |  |  |  | X | X | X | X |  |  |  |  |
| EHWH42-A15B |  |  |  |  |  |  |  |  |  |  |  |  | X |  | X |  |  |  |  |  |




TABLE 1D
R-410A Heater Usage by Model Matrix

| $\begin{gathered} 230 / 208 \mathrm{~V} \\ 1 \text { Phase } \end{gathered}$ | 4 4 $\vdots$ $\vdots$ $\vdots$ |  | $\begin{aligned} & \mathbb{1} \\ & \underset{4}{4} \\ & 0.0 \\ & \$ \end{aligned}$ |  | $\begin{aligned} & 4 \\ & 4 \\ & 4 \\ & 0 \\ & 3 \end{aligned}$ | $\begin{aligned} & \text { r } \\ & \text { \# } \\ & 0 \\ & 0 \\ & 3 \end{aligned}$ | $\begin{aligned} & \mathbb{\pi} \\ & \ddot{\#} \\ & 0 \\ & 0 \\ & 3 \end{aligned}$ | $\begin{aligned} & \mathbb{1} \\ & \# \\ & \vdots \\ & \vdots \\ & \vdots \end{aligned}$ | $\begin{aligned} & \mathbb{Z} \\ & \# \\ & \pm \\ & \underset{I}{*} \\ & \underset{S}{2} \end{aligned}$ |  | $\begin{aligned} & \mathbb{Z} \\ & \# \\ & \pm \\ & \infty \\ & \$ \\ & \$ \end{aligned}$ |  | 4 + + 3 3 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EHWAO5-A05B | X | X | X | X |  | X |  |  |  |  |  |  |  |  |  |
| EHWA05-A10B | X | X | X | X | x | X | X | x |  |  |  |  |  |  |  |
| EHWA05-A15B | X |  | x |  | x |  |  | x |  |  |  |  |  |  |  |
| EHWA05-A20B | X |  | X |  | X |  |  | X |  |  |  |  |  |  |  |
| EHWA05HA20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| EHWH04-A04B |  |  |  |  |  |  |  |  | X |  | X |  |  |  |  |
| EHWH04-A05B |  |  |  |  |  |  |  |  |  |  |  |  | X | X |  |
| EHWH04-A10B |  |  |  |  |  |  |  |  |  |  |  |  | X | X | X |
| EHWH04-A15B |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| EHWH04-A20B |  |  |  |  |  |  |  |  |  |  | x |  | X |  |  |
| EHWH42-A05B |  |  |  |  |  |  |  |  | X | X | X | X |  |  |  |
| EHWH42-A10B |  |  |  |  |  |  |  |  | X | X | X | X |  |  |  |
| EHWH42-A15B |  |  |  |  |  |  |  |  | X |  | X |  |  |  |  |
| EHWH42-A05B |  |  |  |  | X |  |  | X |  |  |  |  |  |  |  |

\# - Indicates numeric revision level (e.g., 1, 2, 3, ...)

TABLE 1E
R-410A Heater Usage by Model Matrix

| $\begin{aligned} & \text { 230/208V } \\ & 1 \text { Phase } \end{aligned}$ |  |  | $\begin{aligned} & \mathbb{K} \\ & { }^{\prime} \\ & \hline \infty \\ & \vdots \\ & \vdots \end{aligned}$ |  | $\begin{aligned} & \neq 1 \\ & *^{\prime} \\ & 8 \\ & \frac{1}{3} \\ & 3 \end{aligned}$ | $\begin{aligned} & \frac{1}{3} \\ & + \\ & \frac{1}{8} \\ & 6 \\ & 3 \end{aligned}$ | a <br>  <br>  <br> 0 <br> 3 <br> 3 | $\begin{aligned} & \mathbb{K} \\ & k^{\prime} \\ & \stackrel{N}{N} \\ & \vdots \end{aligned}$ |  |  | $\begin{aligned} & \Psi \\ & x^{\prime} \\ & \frac{1}{\infty} \\ & \frac{7}{4} \end{aligned}$ | $\begin{aligned} & \mathbb{Z} \\ & \stackrel{x}{x} \\ & \frac{1}{\infty} \\ & \vdots \\ & 3 \end{aligned}$ | $\begin{aligned} & \mathbb{K} \\ & \text { * }^{\prime} \\ & \hline 0 \\ & 0 \\ & 3 \end{aligned}$ |  <br> + <br> 1 <br> 0 <br> 0 <br> 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EHW4TA-A05 | X | X | X | X |  | X |  |  |  |  |  |  |  |  |
| EHWA05-A10B | X | X | X | X | X | X | X | X |  |  |  |  |  |  |
| EHWA05-A15B | X |  | X |  | X |  |  | x |  |  |  |  |  |  |
| EHWA05-A20B | X |  | X |  | X |  |  | X |  |  |  |  |  |  |
| EHWA05HA20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EHWH04-A04B |  |  |  |  |  |  |  |  | X |  | X |  |  |  |
| EHWH04-A05B |  |  |  |  |  |  |  |  |  |  |  |  | X | X |
| EHW5TH-A10 |  |  |  |  |  |  |  |  |  |  |  |  | X | X |
| EHWH04-A15B |  |  |  |  |  |  |  |  |  |  |  |  | X |  |
| EHWH04-A20B |  |  |  |  |  |  |  |  |  |  | X |  | X |  |
| EHW4TH-A05 |  |  |  |  |  |  |  |  | X | X |  |  |  |  |
| EHWH42-A05B |  |  |  |  |  |  |  |  |  |  | X | X |  |  |
| EHW4TH-A10 |  |  |  |  |  |  |  |  | X | X | X | X |  |  |
| EHW4TH-A15 |  |  |  |  |  |  |  |  | X |  |  |  |  |  |
| EHWH42-A15B |  |  |  |  |  |  |  |  |  |  | X |  |  |  |
| EHW5TA-A05 |  |  |  |  | X |  |  | X |  |  |  |  |  |  |
| EHW72A-A10B |  |  |  |  |  |  |  | X |  |  |  |  |  |  |
| EHW72A-A15B |  |  |  |  |  |  |  | X |  |  |  |  |  |  |
| EHW72A-A20B |  |  |  |  |  |  |  | X |  |  |  |  |  |  |

*     - Indicates alphabetic revision level (e.g., A, B, C, ...)

TABLE 1F
R-410A Heater Usage by Model Matrix

| $\begin{gathered} 240 / 220 \mathrm{~V} \\ 230 / 208 \mathrm{~V} \\ 3 \text { Phase } \end{gathered}$ | $\begin{aligned} & \infty \\ & \underset{y}{*} \\ & \underset{\sim}{\underset{~}{7}} \end{aligned}$ |  |  |  |  |  | $\infty$ + 0 0 3 3 | $\begin{aligned} & \text { 毋 } \\ & \text { \# } \\ & \text { O} \\ & 0 \\ & 3 \end{aligned}$ | $\begin{aligned} & w \\ & \text { 芹 } \\ & 0 \\ & 3 \end{aligned}$ | $\begin{aligned} & \infty \\ & \text { + } \\ & \frac{1}{8} \\ & \vdots \end{aligned}$ |  |  | $\begin{aligned} & \infty \\ & \ddagger \\ & \ddagger \\ & \pm \\ & \vdots \\ & \vdots \end{aligned}$ | $\begin{aligned} & \infty \\ & \underset{\sim}{\#} \\ & \stackrel{T}{\infty} \\ & \stackrel{\infty}{+} \end{aligned}$ | $\begin{aligned} & \infty \\ & \# \\ & 7 \\ & 1 \\ & 0 \\ & 3 \end{aligned}$ |  | $\begin{aligned} & 0 \\ & 1 \\ & \# \\ & \frac{r}{2} \\ & 3 \end{aligned}$ | $n$ $\#$ $\#$ c 0 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EHW05A-B18B |  |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |
| EHW05H-B18B |  |  |  |  |  |  |  |  |  |  |  |  | X |  | X |  |  |  |
| EHW60A-B09B |  |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |  |  |
| EHW70A-B09B |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |
| EHW70AHB09B |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| EHW70A-B18B |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  | X |  |
| EHW70AHB18B |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |
| EHWA05-B09B | X | X | X | X | X | X |  |  | x |  |  |  |  |  |  |  |  |  |
| EHWA05-B15B | X |  |  | X |  |  | X | X | X | X |  |  |  |  |  |  |  |  |
| EHWA05-B18B | X | X |  | X | X |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EHWH05-B06B |  |  |  |  |  |  |  |  |  |  | X | X | X | X |  |  |  |  |
| EHWH05-B09B |  |  |  |  |  |  |  |  |  |  | X | X | X | X | X | X | X |  |
| EHWH05-B15B |  |  |  |  |  |  |  |  |  |  | X |  | X |  | X |  |  |  |
| EHW05A-B15B |  |  | X |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |

\# - Indicates numeric revision level (e.g., 1, 2, 3, ...)

TABLE 1G
R-410A Heater Usage by Model Matrix

| $\begin{gathered} 240 / 220 \mathrm{~V} \\ 230 / 208 \mathrm{~V} \\ 3 \text { Phase } \end{gathered}$ | $\begin{aligned} & \infty \\ & \dot{\prime}^{\prime} \\ & \stackrel{1}{N} \\ & \underset{3}{7} \end{aligned}$ | $\begin{aligned} & \infty \\ & \stackrel{\infty}{*} \\ & \stackrel{1}{N} \\ & \underset{3}{3} \end{aligned}$ |  | $\begin{aligned} & \infty \\ & \stackrel{\infty}{+_{1}^{\prime}} \\ & \hline \infty \\ & \vdots \\ & \vdots \end{aligned}$ |  |  | $\infty$ $x^{\prime}$ $\vdots$ 0 3 3 | $\infty$ 0 $\vdots$ $<$ $\vdots$ 3 |  | $\begin{aligned} & \infty \\ & c^{\prime} \\ & \stackrel{1}{N} \\ & \underset{3}{2} \end{aligned}$ |  |  | $\begin{aligned} & \infty \\ & x^{\prime} \\ & \mathbf{x}^{\infty} \\ & \vdots \\ & \vdots \end{aligned}$ | $\begin{aligned} & \infty \\ & \stackrel{\rightharpoonup}{*} \\ & \stackrel{+}{\infty} \\ & \stackrel{\infty}{\infty} \\ & \stackrel{+}{+} \end{aligned}$ | $\begin{aligned} & \infty \\ & x^{\prime} \\ & { }^{\prime} \\ & \hline 0 \\ & 3 \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EHW5TA-B18 |  |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| EHW4TH-B18 |  |  |  |  |  |  |  |  |  |  |  |  | X |  | X |  |
| EHW60A-B09B |  |  |  |  |  |  | X | X |  |  |  |  |  |  |  |  |
| EHW70A-B09B |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |
| EHW6TA-B18 |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |
| EHWA05-B09B | X | X | X | X | X | X |  |  | X |  |  |  |  |  |  |  |
| EHWA05-B15B | X |  |  | X |  |  | X | X | X | X |  |  |  |  |  |  |
| EHW4TA-B18 | X | X |  | X | X |  |  |  |  |  |  |  |  |  |  |  |
| EHWH05-B06B |  |  |  |  |  |  |  |  |  |  | X | X | X | X |  |  |
| EHWH05-B09B |  |  |  |  |  |  |  |  |  |  | X | X | X | X | x | X |
| EHWH05-B15B |  |  |  |  |  |  |  |  |  |  | X |  | X |  | X |  |
| EHW05A-B15B |  |  | X |  |  | X |  |  |  |  |  |  |  |  |  |  |

*     - Indicates alphabetic revision level (e.g., A, B, C, ...)

TABLE 1H
R-410A Heater Usage by Model Matrix

| $\begin{gathered} 414 V \\ 460 V \\ 3 \text { Phase } \end{gathered}$ |  |  |  |  | 0 0 0 0 8 3 |  | 0 1 0 0 3 3 | 0 0 0 0 3 3 | $\begin{aligned} & \text { u } \\ & \text { + } \\ & 0 \\ & 0 \\ & 3 \end{aligned}$ | $\begin{aligned} & 0 \\ & 1 \\ & \mathbb{Z} \\ & \vdots \\ & \vdots \end{aligned}$ |  |  | $\begin{aligned} & 0 \\ & \ddot{7} \\ & \underset{T}{N} \\ & \underset{\sim}{\Psi} \end{aligned}$ | $\begin{aligned} & 0 \\ & \underset{1}{\#} \\ & T \\ & \infty \\ & \$ \end{aligned}$ |  | $\begin{aligned} & 0 \\ & \# \\ & \mathbb{I} \\ & 0 \\ & 8 \end{aligned}$ | $\begin{aligned} & 0 \\ & \text { O } \\ & \text { T } \\ & 0 \\ & 3 \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EHWA05A-C09 | X | X | X | X | X | X | X | X | X | X | X |  |  |  |  |  |  |  |  |
| EHWA05A-C15 | X |  |  | X |  |  | X |  |  | X |  |  |  |  |  |  |  |  |  |
| EHWA05A-F14 |  |  | X |  |  | X |  |  | X |  | X |  |  |  |  |  |  |  |  |
| EHWH05A-C09 |  |  |  |  |  |  |  |  |  |  |  | X | X | X | X | X | X |  |  |
| EHWH05A-C15 |  |  |  |  |  |  |  |  |  |  |  | X |  | X |  | X |  |  |  |
| EHWH42-C06 |  |  |  |  |  |  |  |  |  |  |  | X | X |  | X |  |  |  |  |
| EHW05A-C09 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | X |
| EHW05A-C15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | X |

\# - Indicates numeric revision level (e.g., 1, 2, 3, ...)

TABLE 11
R-410A Heater Usage by Model Matrix

|  | $\begin{aligned} & U \\ & \underset{y}{4} \\ & \underset{N}{ \pm} \\ & \vdots \end{aligned}$ |  |  |  | 0 0 4 0 4 4 |  | 0 1 4 0 3 3 | 0 0 0 0 0 3 | 4 4 0 0 3 3 | $\begin{aligned} & 0 \\ & \# \\ & \underset{y}{N} \\ & \underset{3}{3} \end{aligned}$ | $\begin{aligned} & \frac{4}{1} \\ & \# \\ & \underset{\sim}{N} \\ & \underset{3}{3} \end{aligned}$ |  |  | $\begin{aligned} & 0 \\ & \neq \\ & \# \\ & 1 \\ & 0 \\ & \$ \\ & \vdots \end{aligned}$ |  | $\begin{aligned} & 0 \\ & \# \\ & \# \\ & 1 \\ & 0 \\ & 3 \end{aligned}$ | $\begin{aligned} & 0 \\ & 00 \\ & \# \\ & \hline 0 \\ & 0 \\ & 3 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EHW4TA-C09 | X | X | X | X | X | X | X | X | X | X | X |  |  |  |  |  |  |
| EHW4TA-C15 | X |  |  | X |  |  | X |  |  | X |  |  |  |  |  |  |  |
| EHW4TA-F14 |  |  | X |  |  | X |  |  | X |  | X |  |  |  |  |  |  |
| EHW4TH-C09 |  |  |  |  |  |  |  |  |  |  |  | X | X | X | X | X | X |
| EHW4TH-C15 |  |  |  |  |  |  |  |  |  |  |  | X |  | X |  | X |  |
| EHW4TH-C06 |  |  |  |  |  |  |  |  |  |  |  | X | X |  | X |  |  |

*     - Indicates alphabetic revision level (e.g., A, B, C, ...)

TABLE 2
Electrical Data and BTU Output

| Heater Package Model | Volts | Phase | Nominal KW | Nominal BTU |
| :---: | :---: | :---: | :---: | :---: |
| EHWA05-A05B | 240/208 | 1 | 5/3.75 | 17,065/12,800 |
| EHW4TA-A05 | 240/208 | 1 | 5/3.75 | 17,065/12,800 |
| EHWA05-A10B | 240/208 | 1 | 10/7.5 | 34,130/25,600 |
| EHW72A-A10B | 240/208 | 1 | 10/7.5 | 34,130/25,600 |
| EHWA05-A15B | 240/208 | 1 | 15/11.25 | 51,200/38,400 |
| EHW72A-A15B | 240/208 | 1 | 15/11.25 | 51,200/38,400 |
| EHWA05-A20B | 240/208 | 1 | 20/15 | 68,260/51,200 |
| EHW72A-A20B | 240/208 | 1 | 20/15 | 68,260/51,200 |
| EHWA05-B09B | 240/208 | 3 | 9/6.75 | 30,600/23,030 |
| EHW60A-B09B | 240/208 | 3 | 9/6.75 | 30,600/23,030 |
| EHW70A-B09B | 240/208 | 3 | 9/6.75 | 30,600/23,030 |
| EHW70A-B18B | 240/208 | 3 | 18/13.5 | 30,600/23,030 |
| EHW6TA-B18 | 240/208 | 3 | 18/13.5 | 30,600/23,030 |
| EHWA05-B15B | 240/208 | 3 | 15/11.25 | 51,200/38,400 |
| EHW05A-B15B | 240/208 | 3 | 15/11.25 | 51,200/38,400 |
| EHWA05-B18B | 240/208 | 3 | 18/13.5 | 61,430/46,100 |
| EHW4TA-B18 | 240/208 | 3 | 18/13.5 | 61,430/46,100 |
| EHW05A-B18B | 240/208 | 3 | 18/13.5 | 61,430/46,100 |
| EHW5TA-B18 | 240/208 | 3 | 18/13.5 | 61,430/46,100 |
| EHW05H-B18B | 240/208 | 3 | 18/13.5 | 61,430/46,100 |
| EHW4TH-B18 | 240/208 | 3 | 18/13.5 | 61,430/46,100 |
| EHWA05A-C09 | 480 | 3 | 9 | 30,700 |
| EHW4TA-C09 | 480 | 3 | 9 | 30,700 |
| EHWA05A-C15 | 480 | 3 | 15 | 47,000 |
| EHW4TA-C15 | 480 | 3 | 15 | 47,000 |
| EHWA60-A05B | 240/208 | 1 | 5/3.75 | 17,065/12,800 |
| EHW5TA-A05 | 240/208 | 1 | 5/3.75 | 17,065/12,800 |
| EHWA60-B09 | 240/208 | 3 | 9/6.75 | 30,600/23,030 |
| EHW4THA05 | 240/208 | 1 | 5/3.75 | 17,065/12,800 |
| EHWH42-A05B | 240/208 | 1 | 5/3.75 | 17,065/12,800 |
| EHWH42-A10B | 240/208 | 1 | 10/7.5 | 34,130/25,600 |
| EHW4TH-A10 | 240/208 | 1 | 10/7.5 | 34,130/25,600 |
| EHW4TH-A15 | 240/208 | 1 | 15/11.25 | 51,200/38,400 |
| EHWH42-A15B | 240/208 | 1 | 15/11.25 | 51,200/38,400 |
| EHWH42-C06 | 480 | 3 | 6 | 20,475 |
| EHW4TH-C06 | 480 | 3 | 6 | 20,475 |
| EHWH04-A04B | 240/208 | 1 | 4/3 | 13,650/10,240 |
| EHWH04-A05B | 240/208 | 1 | 5/3.75 | 17,065/12,800 |
| EHWH04-A10B | 240/208 | 1 | 10/7.5 | 34,130/25,600 |
| EHW5TH-A10 | 240/208 | 1 | 10/7.5 | 34,130/25,600 |
| EHWH04-A15B | 240/208 | 1 | 15/11.25 | 51,200/38,400 |
| EHWH04-A20B | 240/208 | 1 | 20/15 | 68,260/51,200 |
| EHWH04-B18 | 240/208 | 3 | 18/13.5 | 61,430/46,100 |
| EHWH05-B09B | 240/208 | 3 | 9/6.75 | 30,600/23,030 |
| EHWH05-B15B | 240/208 | 3 | 15/11.25 | 51,200/38,400 |
| EHWH05A-C09 | 480 | 3 | 9 | 30,700 |
| EHW4TH-C09 | 480 | 3 | 9 | 30,700 |
| EHWH05A-C15 | 480 | 3 | 15 | 47,000 |
| EHW4TH-C15 | 480 | 3 | 15 | 47,000 |
| EHWH05-B06B | 240/208 | 3 | 6/4.5 | 20,475/15,356 |
| EHW05A-C09 | 480 | 3 | 9 | 30,700 |
| EHW05A-C15 | 480 | 3 | 15 | 47,000 |

## WIRING MAIN POWER

1. On all installations, size unit power supply wiring for the minimum circuit ampacity requirement for the unit and heater package combination listed on the unit serial plate.

For existing installations, addition or upgrading of a heater package may require that larger supply wires be run to the unit. Resize all power supply wires for the minimum circuit ampacity rating listed on the unit serial plate that is applicable for the combination of unit and heater package.

## $\triangle$ WARNING

Install properly sized power supply leads for the unit/heater combination minimum circuit ampacity as listed on the unit serial plate. Hazard of fire. Failure to install properly sized conductors could result in fire.
2. All heater packages covered by this manual are factory wired for a single supply circuit. The following heater packages are field convertible to a dual supply circuit if required or desired.

| EHWH04-A05B | EHW72A-A10B |
| :--- | :--- |
| EHWH04-A10B | EHW72A-A15B |
| EHWH04-A15B | EHW72A-A20B |
| EHWH04-A20B | EHWA05-A15 |
| EHWH42-A05B | EHWA05-A20B |
| EHWH42-A10B |  |

EHWH42-A15B
3. To convert the above heater packages to dual circuit configuration before installation, loosen four (4) screws holding jumper bar in place and remove jumper bar. Circuit $A+B$ are now identified on the heater package (see Figure 1).

Wire should be sized to the minimum circuit ampacity as specified on the serial plates of units that accept these heater packages for circuits $A+B$.

FIGURE 1 Electrical Connections


## INSTALLATION OF HEATER PACKAGE

1. Disconnect all power to unit before installation.

## $\triangle$ WARNING

Disconnect all power to unit before installing heater package. Hazard of electrical shock. Failure to disconnect power could result in injury or death.
2. Before installation, check unit serial plate to ensure that the heater package model to be installed is listed as a heater package suitable for use with the unit.

Under no circumstances shall a heater package be installed in a unit if the model number of the heater package does not appear on the unit serial plate.

## $\triangle$ WARNING

Install only heater packages listed on unit serial plate. Hazard of fire or electrical shock. Failure to install listed heater package could result in fire, injury or death.
3. Remove electric heater access panel and control panel cover, both inner and outer (see Figure 2).
4. All heaters are installed with the thermal cutoffs positioned to the top of the unit. Install heat strip(s) through heater access opening. Position heat strip support rod in heater support hole 1, 2 or 3 as indicated in Table 3 (page 12) and Figure 3 (page 13). Secure in place with two (2) sheet metal screws in mounting holes. On heater packages with two heat strips, install 9KW or 10KW heater first in position closest to the outlet air frame (see Figures 4E and 4F on page 15).
5. Install heater control base into top of control panel as shown in Figure 5 on page 16. Secure with four (4) sheet metal screws provided.
6. Plug male 6-pin connector into mating connector mounted in control panel (see Figure 5).
7. Connect red compressor supply lead to L1 of terminal block. Connect black compressor supply lead to L2 of terminal block. If 3 phase, connect yellow supply lead to $L 3$ of terminal block. See Figure 5 and wiring diagram.
8. Route wires from heater control base up through raceway in top right corner of control panel to the heaters (see Figure 5).
9. Wire heater package per wiring diagram supplied with this heater package. All wires are stamped with wire numbers that correspond with terminal numbers on the wiring diagram and stamped numbers on the heat strip. Limit switch wires are terminated with insulated quick connect terminals. See Figure 4.
10. Attach adhesive wiring diagram directly above unit wiring diagram on inner control panel cover.
11. Recheck all wiring. Break out appropriate circuit breaker tabs on inner control panel cover to allow trip lever to protrude. Replace control panel and heater access panels
12. Resupply power to the unit and check for proper operation.
13. Re-mark serial plate with self-adhesive label attached to the front of this manual (see Figure 6 on page 17).

FIGURE 2 Installation of Heater Package


TABLE 3
References to Figures 3 and 4 by Model Number

|  | Heater Package Model Number | Figure 3 <br> Rod Support and Screw Mounting Position | Figure 4 <br> Heater Terminal Identification Drawing |
| :---: | :---: | :---: | :---: |
| 1. | EHWA05-A05B, EHW4TA-A05 | 1 | 4A |
| 2. | EHWA05-A10B, EHW72A-A10B | 1 | 4B |
| 3. | EHWA05-A15B, EHW72A-A15B | $1+3$ | 4D |
| 4. | EHWA05-A20B, EHW72A-A20B | $1+3$ | 4F |
| 5. | EHWA05-B09B | 1 | 4 C |
| 6. | EHWA05-B15B | $1+3$ | 4E |
| 7. | EHWA05-B18B, EHW4TA-B18 | $1+3$ | 4 E |
| 8. | EHWA05-C09, EHW4TA-C09 | 1 | 4 C |
| 9. | EHWA05A-C15, EHW4TA-C15 | $1+3$ | 4 E |
| 10. | EHWH42-A05B, EHW4TH-A05 | 1 | 4A |
| 11. | EHWA42-A10B, EHW4TH-A10 | 1 | 4B |
| 12. | EHWH42-A15B, EHW4TH-A15 | $1+3$ | 4D |
| 13. | EHWA60-A05B, EHW5TA-A05 | 1 | 4A |
| 14. | EHWA60-B09 | 1 | 4 C |
| 15. | EHWH04-A04B | 1 | 4A |
| 16. | EHWH04-A05B | 1 | 4A |
| 17. | EHWH04-A10B, EHW5TH-A10 | 1 | 4B |
| 18. | EHWH04-A15B | $1+3$ | 4D |
| 19. | EHWH04-A20B | $1+3$ | 4F |
| 20. | EHWH04-B09B | 1 | 4C |
| 21. | EHWH05-B15B | $1+3$ | 4 E |
| 22. | EHWH04-B18 | $1+3$ | 4 E |
| 23. | EHWH05A-C09, EHW4TH-C09 | 1 | 4C |
| 24. | EHWH05A-C15, EHW4TH-C15 | $1+3$ | 4 E |
| 25. | EHWH42-C06, EHW4TH-C06 | 1 | 4 C |
| 26. | EHWH05-B06B | 1 | 4C |
| 27. | EHW05A-B18B, EHW5TA-B18 | $1+3$ | 4 E |
| 28. | EHW05H-B18B, EHW4TH-B18 | $1+3$ | 4E |
| 29. | EHW60A-B09B | 1 | 4C |
| 30. | EHW70A-B09B | 1 | 4 C |
| 31. | EHW70A-B18B, EHW6TA-B18 | $1+3$ | 4E |
| 32. | EHW05A-B15B | $1+3$ | 4 E |
| 33. | EHW05A-C09 | 1 | 4C |
| 34. | EHW05A-C15 | $1+3$ | 4 E |

FIGURE 3
Rod Support and Screw Mounting Positions


FIGURE 4

## A Through D



FIGURE 4

## $E$ and $F$



NTTE: THERMAL CLTTIFSS TD BE AT MIS-421 E
TIP IF AIR FRAME WHEN INSTALLING.

FIGURE 5
Installing Heater Base and Connecting Wiring


FIGURE 6
Serial Plate Label



[^0]:    Climate Control Solutions

