

INSTALLER'S GUIDE

18-GJ48D1-3A-EN

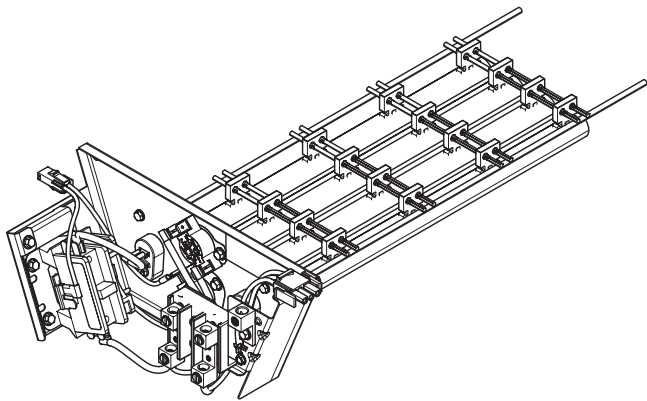
ALL phases of this installation must comply with NATIONAL,
STATE AND LOCAL CODES

Models:

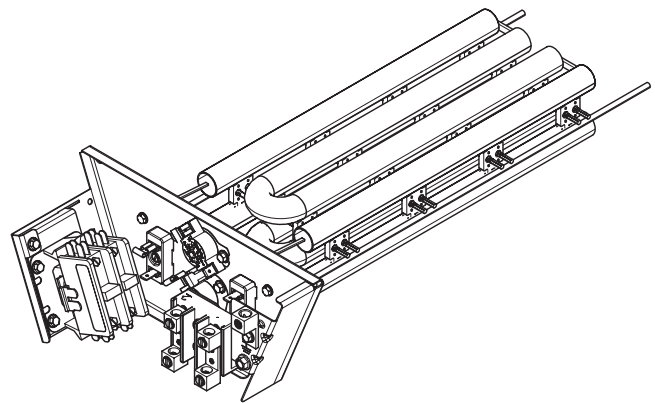
BAYECAA05LG1B
BAYECAA08LG1B
BAYECAA10LG1B

Supplementary Electric Heaters for Hyperion™ and ForeFront™ Series GAF2 Air Handler Installations

IMPORTANT — This Document is customer property and is to remain with this unit. Please return to service information pack upon completion of work.



BAYECAA05LG1B



BAYECAA08LG1B
BAYECAA10LG1B

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Section 1. Safety Information

WARNING

SAFETY HAZARD! This information is intended for use by individuals possessing adequate backgrounds of electrical and mechanical experience. Any attempt to repair a central air conditioning product may result in personal injury and/or property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

WARNING

HAZARDOUS VOLTAGE! Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized. Failure to disconnect power before servicing could result in death or serious injury.

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.

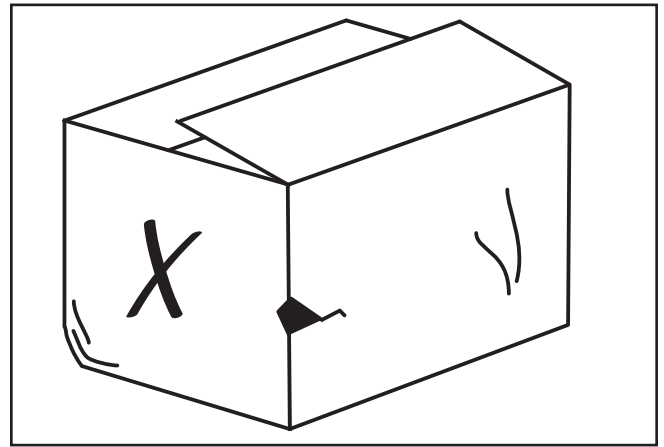
CAUTION

SAFETY HAZARD! Sharp Edge Hazard. Be careful of sharp edges on equipment or any cuts made on sheet metal while installing or servicing. Personal injury may result.

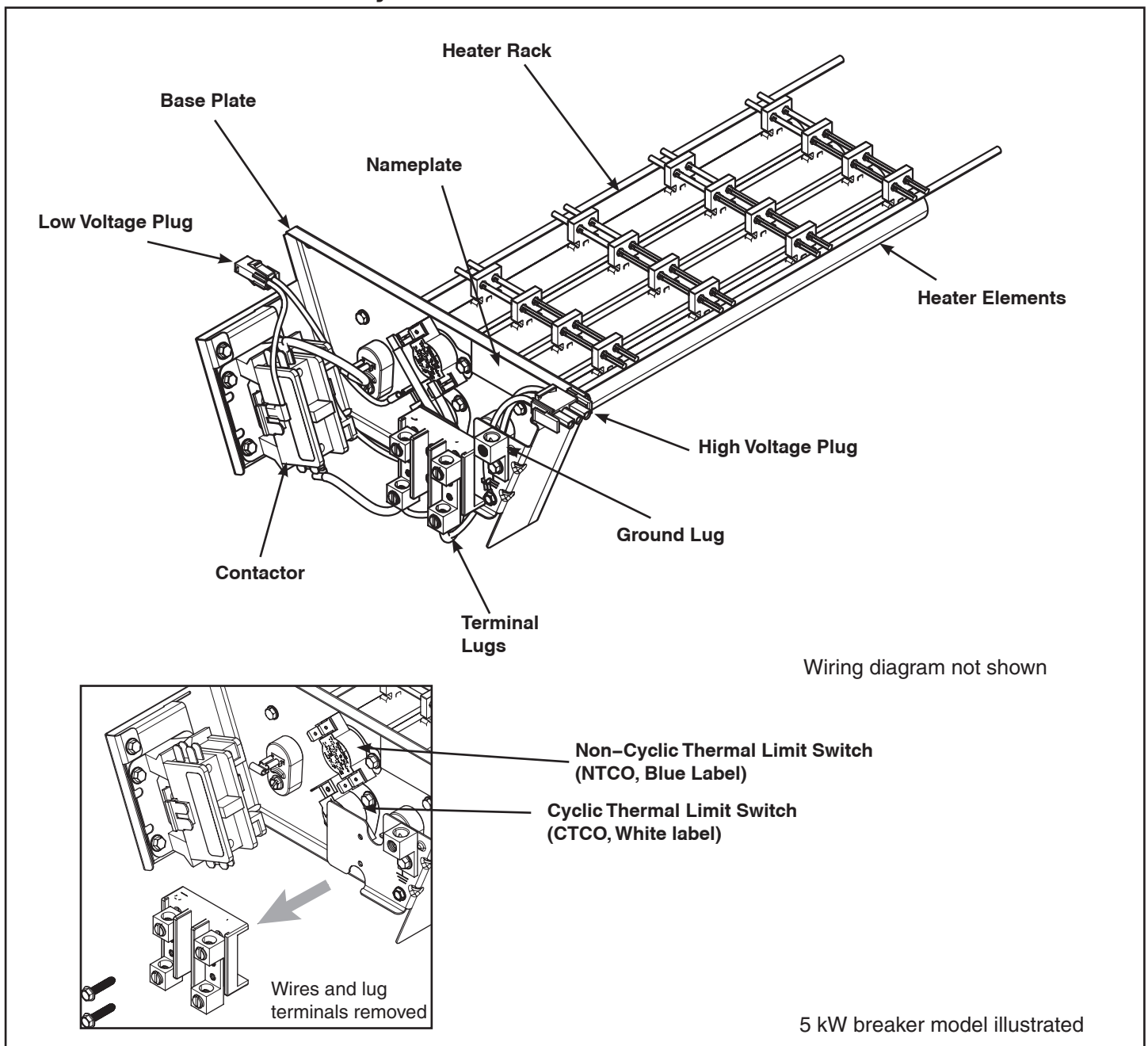
Section 2. General Information

This electric heater accessory is designed to provide power directly to the air handler from the accessory heater's power supply, eliminating the need for additional circuits. The power and control wiring each use a single wire harness to connect the heater and the air handler.

1. Check the heater nameplate to confirm that the selected heater is approved for use with the air handler.
2. Check the components received for damage. Report any defects or shortages to the transportation company immediately.
3. Be sure the power supply matches the listing shown on the heater nameplate.

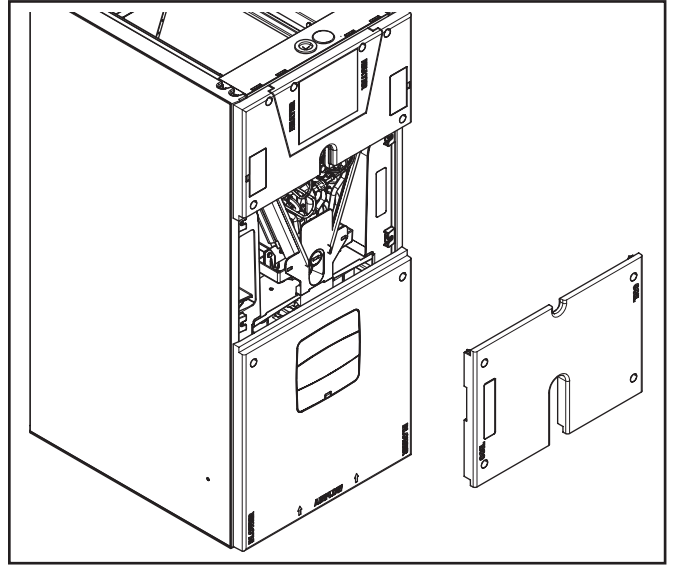


Section 3. Heater Assembly Labeled

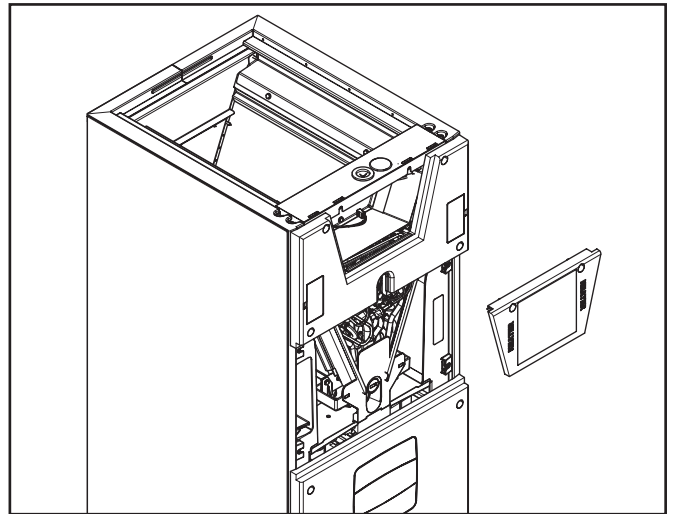


Section 4. Install Heater

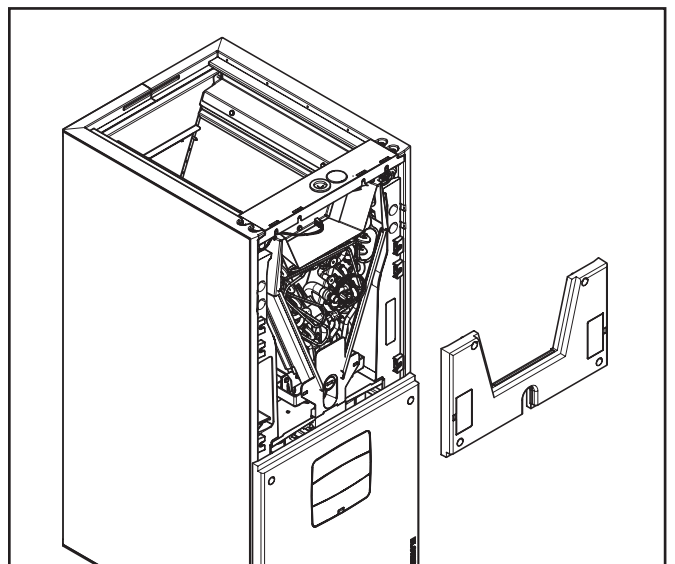
STEP 1 - Remove the four screws holding the Coil Compartment Panel and remove the panel. Set panel and screws aside.



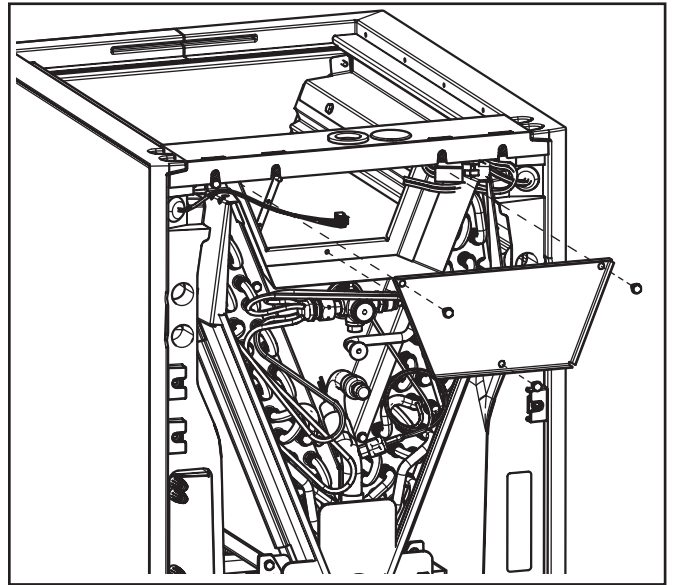
STEP 2 - Remove the two screws holding the Heater Compartment Panel and remove the panel. Set panel and screws aside.



STEP 3 - Remove the four screws holding the Line Set Panel and remove the panel. Set panel and screws aside.

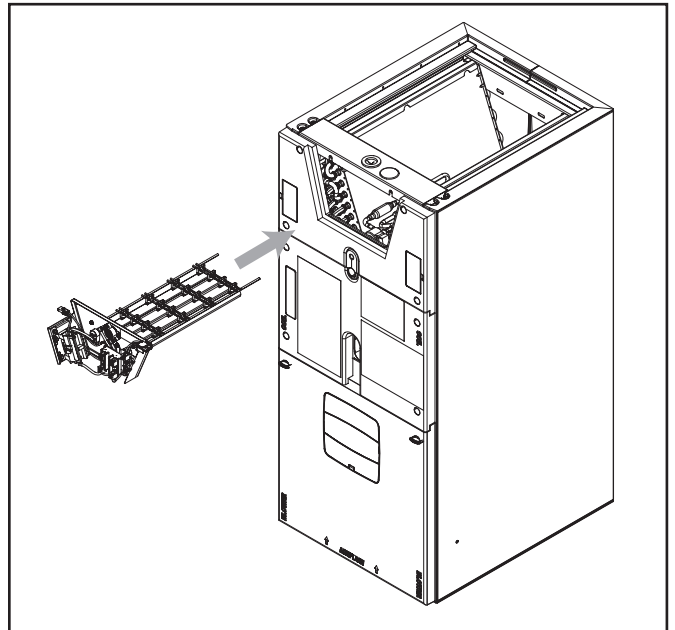


STEP 4 - Remove the three screws holding the Heater Blank Off Plate and remove the plate. The screws must be retained for later use. The Blank Off Plate may be discarded.



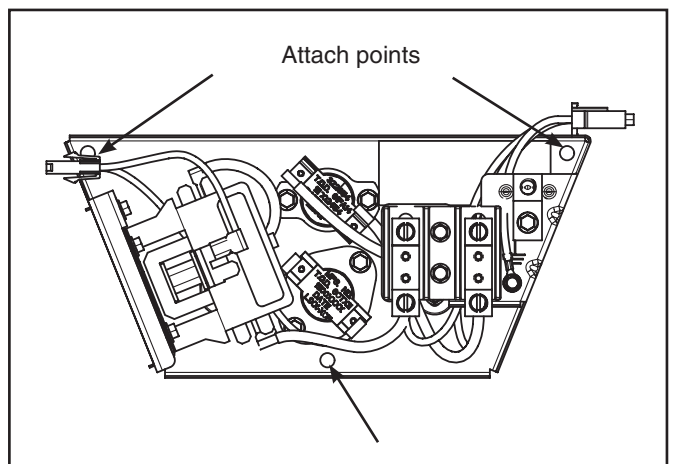
STEP 5 - Insert heater assembly into heater compartment.

1. Move factory wiring out of the way.
2. Slide heater into heater compartment of air handler.



STEP 6 - Attach heater to coil assembly.

1. Use three screws removed in Step 4 to attach the heater to the coil flanges in the locations shown on the heater at the right.

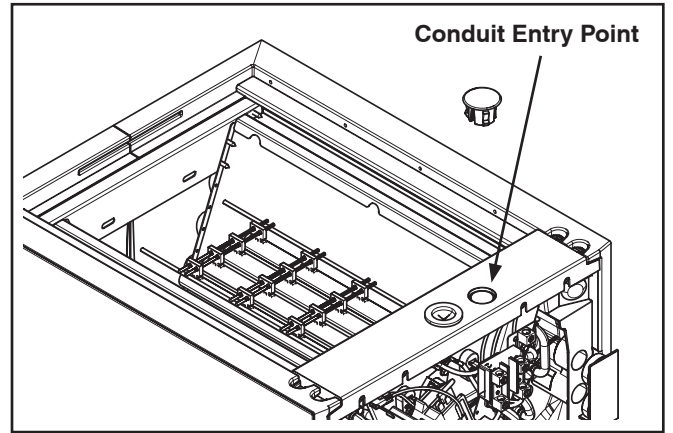


Section 5. Electrical Connections

STEP 1 - Route High Voltage wiring to unit.

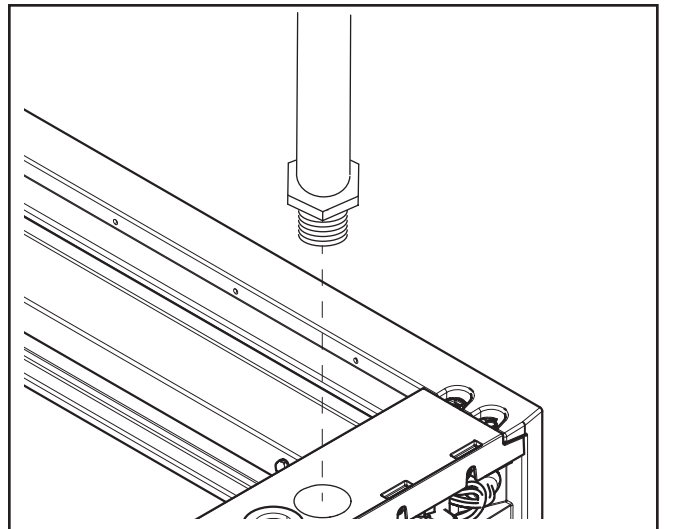
STEP 2 - The conduit entry point is located on the top of the unit when in the Upflow configuration.

1. Remove plug from the entry point, if present.

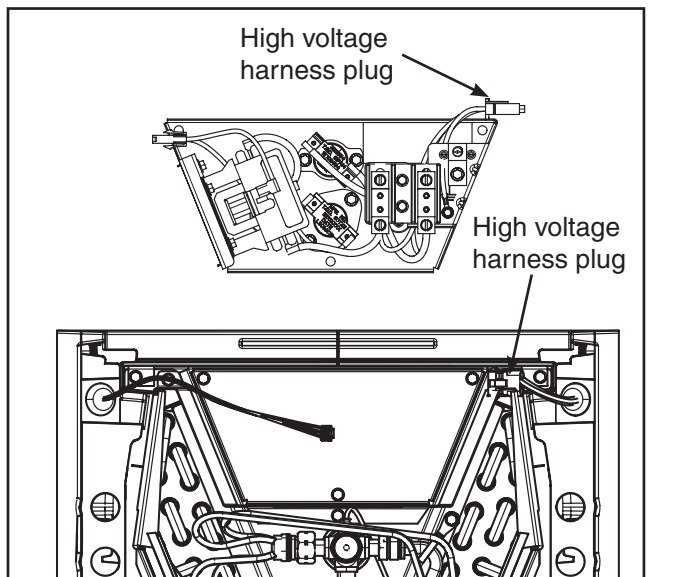


STEP 3 - Route conduit (if used) to the entry point and connect.

1. Use one hand to secure the conduit nut from inside of the heater compartment.
2. Connect field supplied 3/4" conduit to conduit nut.



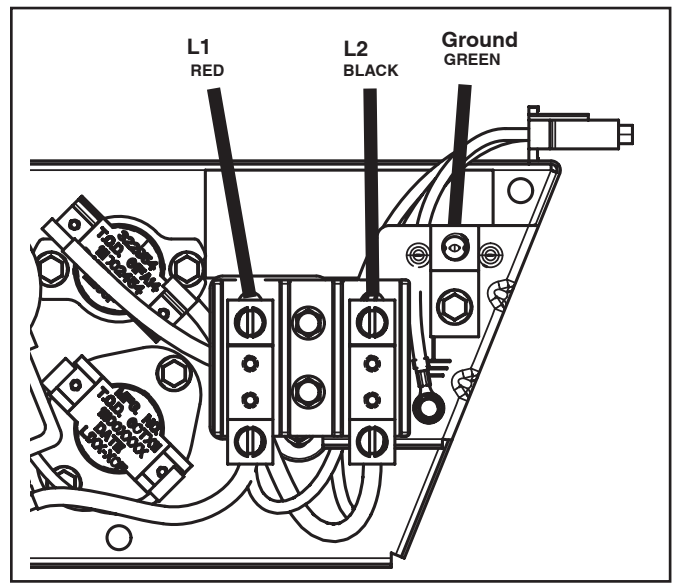
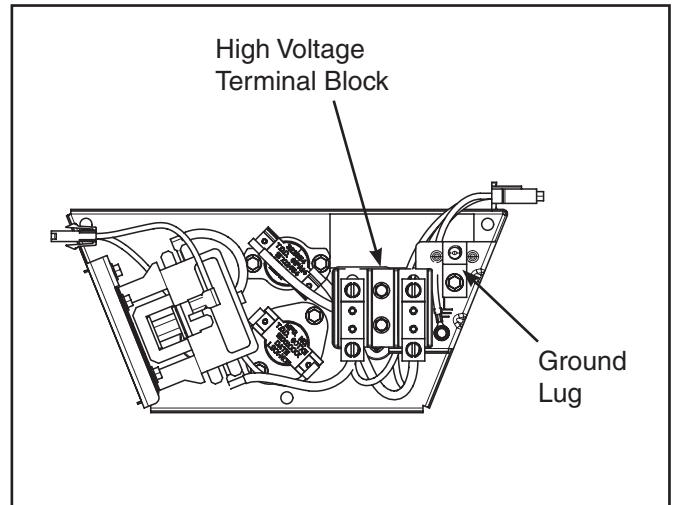
STEP 4 - Connect the mating high voltage harnesses on the heater and the air handler cabinet.



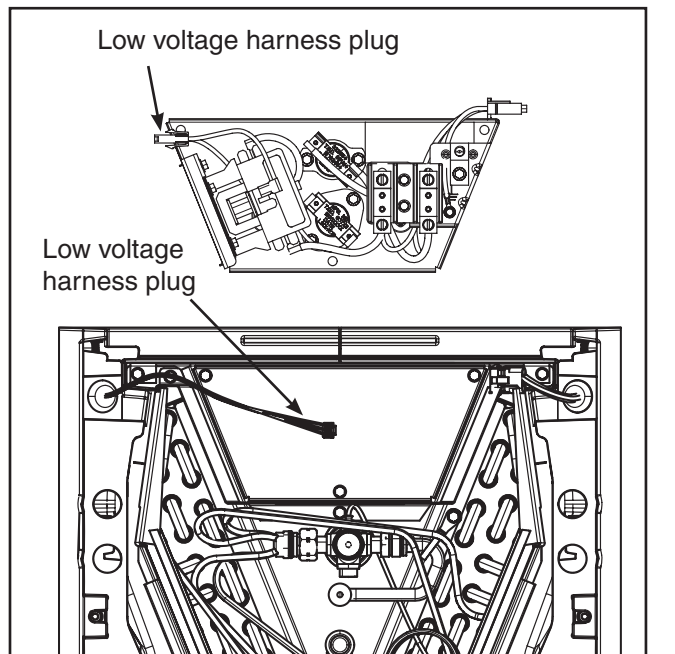
STEP 5 – Connect high voltage wiring

1. Connect L1, L2, and Ground to the lugs on the terminal block on the heater as illustrated.

Note: Minimum terminal screw torque is 35 in-lbs.

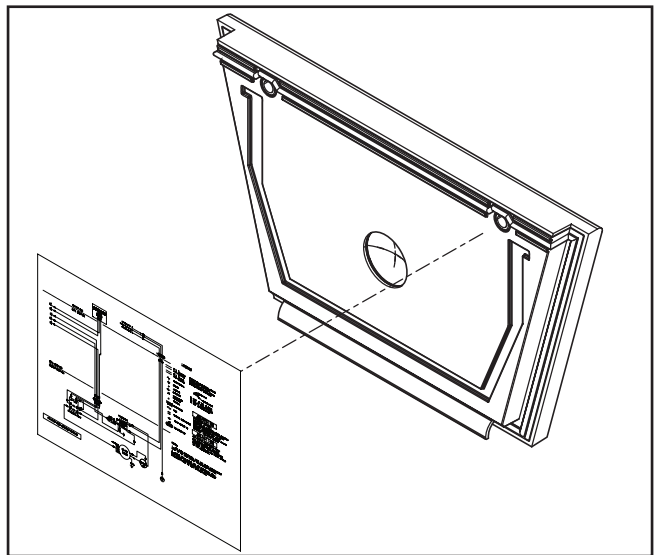
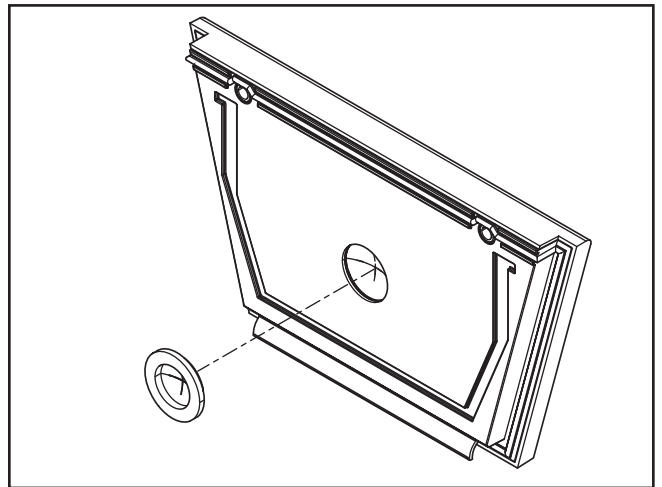


- ## STEP 6 - Connect the mating low voltage harnesses on the heater and the air handler cabinet.

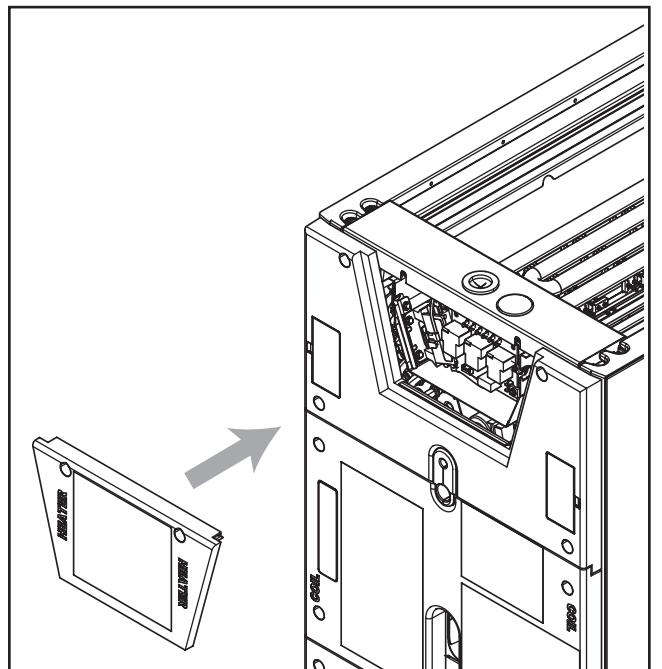


STEP 7 – Place Wiring Diagram.

1. Remove the plug from the back of the Heater Panel.
2. Attach the wiring diagram, included in the documentation packet, to the back of the heater compartment panel.



STEP 8 – Follow Section 4, Steps 1-3 in reverse to replace Line Set Panel, Heater Panel, and Coil Panel.



Section 6. Tables

Important: The BAYEC* electric heat accessory is a compact heater with lugs and may only be used with the GAF2 air handlers.

BAYEC -- HEATER DATA							
Heater Model No.	Number of Circuits	240 VOLT			208 VOLT		
		Capacity		Heater Amps per Circuit	Capacity		Heater Amps per Circuit
		kW	BTUH		kW	BTUH	
BAYECAA05LG1B	1	4.80	16400	20	3.60	12300	17.3
BAYECAA08LG1B	1	7.68	26200	32	5.76	19700	27.7
BAYECAA10LG1B	1	9.60	32800	40	7.20	24600	34.6

MINIMUM HEATER AIRFLOW CFM – HEATER MATRIX			
MODEL NO.	BAYECAA05LG1B	BAYECAA08LG1B	BAYECAA10LG1B
	W-OUT HP / WITH HP	W-OUT HP / WITH HP	W-OUT HP / WITH HP
GAF2A0A18S11S	TAP 1 / TAP 3	TAP 2 / TAP 3	TAP 2 / TAP 3
GAF2A0A24S21S	TAP 1 / TAP 2	TAP 2 / TAP 3	TAP 1 / TAP 3
GAF2A0A30S21S	TAP 1 / TAP 1	TAP 2 / TAP 2	TAP 1 / TAP 3
GAF2A0A36S31S	TAP 1 / TAP 1	TAP 1 / TAP 1	TAP 1 / TAP 1
GAF2A0A36M31S	TAP 1 / TAP 2	TAP 5 / TAP 5	TAP 1 / TAP 3

SEE AIR HANDLER NAMEPLATE OR PRODUCT DATA FOR EXCEPTIONS

Section 7. Sequence of Operation

7.1 Sequence of Operation

GAF2 Sequence of Operation

See unit, electric heat, and field wiring diagrams for additional information.

Continuous Fan

1. R-G contacts close on comfort control sending 24VAC to the blower relay
2. Relay contacts 1 and 3 close.
3. The blower will now run on the selected speed. Speed is field selectable.

Heatpump OD (cooling)

1. R-Y contacts close on the comfort control sending 24VAC to the OD unit.
2. R-G contacts close on comfort control sending 24VAC to the blower relay
3. Relay contacts 1 and 3 close
4. The blower will now run on the selected speed. Speed is field selectable
5. R-O contacts on the comfort control close sending 24VAC to the switch over valve on the OD unit.

Heatpump OD (heating)

1. R-Y contacts close on the comfort control sending 24VAC to the OD unit.
2. R-G contacts close on comfort control sending 24VAC to the blower relay
3. Relay contacts 1 and 3 close.
4. The blower will now run on the selected speed. Speed is field selectable.

Cooling OD

1. R-Y contacts close on the comfort control sending 24VAC to the OD unit.
2. R-G contacts close on comfort control sending 24VAC to the blower relay
3. Relay contacts 1 and 3 close
4. The blower will now run on the selected speed. Speed is field selectable

Electric Heating

1. R-W contacts close on the comfort control sending 24VAC to energize the heat contactor.
2. R-G contacts close on comfort control sending 24VAC to the blower relay
3. Relay contacts 1 and 3 close
4. The blower will now run on the selected speed. Speed is field selectable
5. Contacts 4 & 6 on the blower relay close providing the interlock circuit to allow the electric heat relays to operate

Important: *The comfort control must be setup to control R-G contacts with a call for electric heat. This closes the interlock circuit and allows the heat relay circuit to be energized.*

Section 8. Warranty

ADDITIONAL TERMS:

THIS LIMITED WARRANTY AND LIABILITY SET FORTH HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES AND LIABILITIES, WHETHER IN CONTRACT OR IN NEGLIGENCE. EXPRESS OR IMPLIED, IN LAW OR IN FACT. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THE APPLICABLE PRODUCT WARRANTY. COMPANY DOES NOT AUTHORIZE ANY PERSON TO CREATE FOR IT ANY OBLIGATION OR LIABILITY IN CONNECTION WITH THE PRODUCTS.

NOTWITHSTANDING ANYTHING IN THIS LIMITED WARRANTY TO THE CONTRARY, COMPANY SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL AND/OR PUNITIVE DAMAGES, WHETHER BASED ON CONTRACT, WARRANTY, TORT (INCLUDING, BUT NOT LIMITED TO, STRICT LIABILITY OR NEGLIGENCE), PATENT INFRINGEMENT OR OTHERWISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. COMPANY'S MAXIMUM LIABILITY HEREUNDER IS LIMITED TO THE ORIGINAL PURCHASE PRICE OF THE PRODUCTS.

No action arising out of any claimed breach of this limited warranty may be brought by a Purchaser more than one (1) year after the cause of action has arisen.

This limited warranty gives you specific legal rights, and you may also have other rights as otherwise permitted by law. If this Product is considered a consumer product, please be advised that some local laws do not allow limitations on incidental or consequential damages, how long a warranty lasts based on registration, or how long an implied warranty lasts, so that the above limitations may not fully apply. Refer to your local laws for your specific rights under this limited warranty.

Consumer Relations
20 Corporate Woods Dr.
Bridgeton, MO 63044

Or visit our website at www.trane.com or www.americanstandardair.com
GW-658-2314

Base Limited Warranty

Subject to the terms and conditions of this limited warranty, Trane U.S., Inc. ("Company") extends a limited warranty against manufacturing defects for the product(s) identified in **Tables 1, 1A, 1B** attached hereto ("Products") that are installed in a residential/multi-family application (personal, family or household purposes) under normal use and maintenance in the United States and Canada.

This limited warranty applies to Products manufactured on or after August 1, 2011.

In order to maximize the available benefits under this limited warranty, the Purchaser (as defined below) should read it in its entirety. All repairs of Product parts covered under this limited warranty must be made with authorized service parts and by a licensed HVAC service provider. Additionally, commercial applications are treated differently under this limited warranty as stated in **Tables 1, 1A, 1B** attached hereto. For purposes of this limited warranty, "commercial applications" shall mean any application other than for personal, family, or household use.

TERM: The limited warranty period for Products as stated in **Tables 1, 1A, 1B** attached hereto. If the Purchaser properly registers the Product, the limited warranty period shall be extended as stated in **Tables 1, 1A, 1B** attached hereto. Regardless of registration, the Commencement Date for a limited warranty period shall be the date that the original installation is complete and all Product start-up procedures have been properly completed and verified by an installer's invoice. If the installation and start-up date cannot be verified by the installer's invoice, the Commencement Date shall be sixty (60) days after the factory manufacture date which is verified by the Product serial number. Where a Product is installed in a newly constructed home, the Commencement Date is the date the Purchaser purchased the residence from the builder. Proof of Product purchase, installation, and/or closing date of the residence may be required to confirm the Commencement Date.

The installation of Product replacement parts under this limited warranty shall not extend the original warranty period. The warranty period for any Product part replaced under this limited warranty is the applicable warranty period remaining under the original Product warranty. **WHO IS COVERED:** This limited warranty is provided only to the original owner and his or her spouse ("Purchaser") of the residence where the Products are originally installed. This warranty is not transferable except according to terms stated on the applicable website identified below under Registration Requirements. Company has the right to request any and all proof of Product purchase or installation and/or closing date of the residence.

WHAT COMPANY WILL DO: Company may request proof of Product purchase and/or installation in order to provide Product parts under this limited warranty. As Company's only responsibility and Purchaser's only remedy under this limited warranty, Company will furnish a replacement part to the licensed HVAC service provider, without charge for the part only, to replace any Product part that fails due to a manufacturing defect under normal use and maintenance. The Purchaser must pay for any and all shipping and handling charges and other costs of warranty service for the replacement part. If a Product part is not available, Company will, at its option, provide a free suitable substitute part or provide a credit in the amount of the then factory selling price for a new suitable substitute part to be used by the Purchaser towards the retail purchase price of a new Company product. Any new Product purchase shall be at Purchaser's sole cost and expense including, but not limited to, all shipping, removal, and installation costs and expenses.

REGISTRATION REQUIREMENTS: All Products must be properly registered online by the Purchaser within sixty (60) days after the Commencement Date to receive the registered limited warranty terms. To register online, go to: <http://www.americanstandardair.com/servicesupport/pages/warranty.aspx> and click "Begin Online Registration." If a Purchaser does not register within this stated time period, the base limited warranty terms shall apply.

ELIGIBILITY REQUIREMENTS: The following items are required in order for the Products to be covered under this limited warranty:

- The Products must be in the same location where they were originally installed.
- The Product must be properly installed, operated, and maintained by a licensed HVAC service provider in accordance with the Product specifications or installation, operation, and maintenance instructions provided by Company with each Product. Failure to conform to such specifications and/or instructions shall void this limited warranty. Company may request written documentation showing the proper preventative maintenance.
- All Product parts replaced by Company under this limited warranty must be given to the servicing provider for return to Company.
- Air handlers, air conditioners, heat pumps, cased or uncased coils and stand-alone furnaces must be part of an Air Conditioning, Heating, and Refrigeration Institute rated and matched system or a specification in a Company provided bulletin or otherwise approved in writing by a Company authorized representative.

EXCLUSIONS: The following are not covered by this limited warranty:

- Labor costs including, but not limited to, costs for diagnostic calls or the removal and reinstallation of Products and/or Product parts.
- Shipping and freight expenses required to ship Product replacement parts.
- Failures, defects, or damage (including, but not limited to, any loss of data or property) caused by (1) any third party product, service, or system connected or used in conjunction with the Products; (2) any use that is not designed or intended for the Products; (3) modification, alteration, abuse, misuse, negligence, or accident; (4) improper storage, installation, maintenance, or operation including, but not limited to, operation of electrical equipment at voltages other than the range specified on the Product nameplate; (5) any use in violation of written instructions or specifications provided by Company; (6) any acts of God including, but not limited to, fire, water, storms, lightning, or earthquakes; or any theft or riots; or (7) a corrosive atmosphere or contact with corrosive materials such as, but not limited to, chlorine, fluoquine, salt, provided that indoor and outdoor coils will only be covered if a Sea Coast Kit is installed, sulfur, recycled waste water, urine, fertilizers, rust, or other damaging substances or chemicals.
- Products purchased direct including, but not limited to, Internet or auction purchases and purchases made on an uninstalled basis.
- Cabinets or cabinet pieces that do not affect product performance, air filters, refrigerant, refrigerant line sets, belts, wiring, fuses, surge protection devices, non-factory installed driers, and Product accessories (unless otherwise specified).
- Increased utility usage costs.

REFRIGERANT POLICY: (1) Manufacturer-Installed Refrigerant: Beginning on January 1, 2010, R-22 refrigerant will no longer be used as a manufacturer-installed refrigerant as required by federal regulation. All Products with manufacturer-installed refrigerant will include R410-A refrigerant. Any and all expenses or costs associated with replacing Product parts that are not R-410A compatible will not be covered by the terms and conditions of this limited warranty. (2) Non-Manufacturer Installed Refrigerant: For Products manufactured and sold by the Company without refrigerant, only manufacturer approved and genuine alternate refrigerants shall be used. The use of contaminated, counterfeit, non-genuine, or non-manufacturer approved alternate refrigerant will void this limited warranty. (3) All Products: Products include a liquid line filter drier which must be replaced when a compressor replacement is necessary. A suction line filter drier must be added for compressors defined as burnouts and failure to do so will void this warranty. Non-approved refrigerant and/or non-approved refrigerant system additives including, but not limited to dyes will void this limited warranty.

Table 1B: Warranty Time Periods for Installed Accessories in Air Handlers and Packaged Units

COVERAGE TERMS FOR RESIDENTIAL APPLICATIONS: Pursuant to the Trane U.S., Inc. ("Company") limited Warranty terms and conditions, the following Products are covered for the time periods as stated below:

Electric Heaters for Multi-Position Air Handlers
HEATERS: Installed in GAM2, GAM5 GAT2, & TAM4 Air Handlers: BAYEA
Limited Warranty Period: ten (10) years

HEATERS: Installed in GAF2 Air Handlers: BAYEC
Limited Warranty Period: ten (10) years

HEATERS: Installed in TAM7, TAM8 & TAMG Air Handlers: BAYEV
Limited Warranty Period: ten (10) years

HEATERS: Installed in 4FWCAF, 4FWHAIF Air Handlers: BAYHTR, BAYHTRDS, BAYHTRBK
Limited Warranty Period: ten(10) years

HEATERS: Installed in TEM Air Handlers: BAYHTR15
Limited Warranty Period: ten (10) years

HEATERS: Installed in TMM Air Handlers: BAYHTRMS
Limited Warranty Period: ten (10) years

HEATERS: Installed in 4TEE & 4TEEC Air Handlers: BAYHTR14
Limited Warranty Period: ten (10) years

Optional Accessories for Multi-Position Air Handlers
UV-C LIGHTS: Installed in GAF2, GAM2, GAM5, GAT2, TAM4, TAM7 & TAM8, TAMG Air Handlers: BAYUVC
Limited Warranty Period: Ballast - ten (10) years, Bulbs - one (1) year

COMPRESSOR CONTROL MODULE: Installed in TAM8 Air Handlers: BAY24CCVK
Limited Warranty Period: ten (10) years

Hydronic Heaters for Multi-Position Air Handlers
HOT WATER COIL: Installed in GAM5 Air Handlers: BAYWAAA05, BAYWABB07 or BAYWACC08
Limited Warranty Period: ten (10) years

HOT WATER COIL: Installed in TAM7 & TAMG Air Handlers: BAYVW & BAYWA
Limited Warranty Period: ten (10) years

HOT WATER COIL: Installed in TAM8 Air Handlers: BAYVW
Limited Warranty Period: ten (10) years

Electric Heaters for Packaged Units
HEATERS: Installed in 4TC3 & 4, 4WC3, 4 & 6 Packaged Units: BAYHTRV
Limited Warranty Period: ten (10) years

HEATERS: Installed in 4WHC Packaged Units: BAYHTRC
Limited Warranty Period: ten (10) years

Optional Accessories for Packaged Units
UV-C LIGHTS: Installed in 4TC3 & 4, 4WC3, 4 & 6, 4YC3, 4 & 6, 4DC4 & 6 Packaged Units: BAYUV
Limited Warranty Period: Ballast - ten (10) years, Bulbs - one (1) year

ECONOMIZERS: Installed in 4TC3 & 4, 4WC3, 4 & 6, 4YC3, 4 & 6, 4DC4 & 6 Packaged Units: BAYECON
Limited Warranty Period: ten (10) years

MOTORIZED DAMPER: Installed in 4TC3 & 4, 4WC3, 4 & 6, 4YC3, 4 & 6, 4DC4 & 6 Packaged Units: BAYDMPR
Limited Warranty Period: ten (10) years

About Trane and American Standard Heating and Air Conditioning
Trane and American Standard create comfortable, energy efficient indoor environments for residential applications.
For more information, please visit www.trane.com or www.americanstandardair.com

The manufacturer has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

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