


<b>ELECTRIC HEATER MODEL</b>	<b>INSTALLATION INSTRUCTIONS</b>	<b>TRANE</b>
<b>WGM Series</b>	Date: 08/25/17	<b>GAM5A(B)0 18-60 / GAT2A0 42-60 / TAM4A0 18-60 / AAM4A0 18-60 / TAM9 24-60 / GAM2A0 18-60 AIR HANDLERS</b>

### GENERAL

This electric heater series is engineered, designed, and approved to be installed in the **TRANE GAM5A(B)0 (18-60) / TAM4A0 (18-60) / AAM4A0 (18-60) / GAT2AM0 (42-60) / GAM2A0 (18-60) / TAM9A0 (24-60)** Air Handlers. Before proceeding, check the heater label for correct voltage and KW requirements.

Installation and servicing of this equipment should only be performed by trained and qualified personnel. Before proceeding with the heater installation, inspect thoroughly for shipping damage. Notify the shipper immediately if any damage is found. Check all porcelain insulators for breakage and inspect heater element wire to see that none have been deformed. Clean all dirt, dust and moisture from equipment. Check for proper clearances of live parts, between phases, and to ground. Make sure that all required barriers are in place. Check conductors run in multiple to insure that they are properly wired. Refer to installation instructions for complete unit installation details. **Verify that all elements are properly secure in their ceramic holders.**

**WARNING** 

Before performing service or maintenance operations on system, turn off all main power switches. There may be more than one disconnect. Turn off accessory heater power switch if applicable. Electrical shock can cause personal injury. ***TAG DISCONNECT SWITCH(ES) WITH A SUITABLE WARNING LABEL.***

### HEATER INSTALLATION

1. Refer to the base unit installation instructions as required  
Affix Warren Installer label to the equipment access panel.
2. WGM heaters will have to be modified to fit different (A,B,or C) cabinet sizes. **For A-type cabinets no filler plates or endcap adjustments are required.** Prior to installation refer to Table #1 for adjustments required.

**B-TYPE CABINETS:**

- a) Loosen the heater baffle screws and install filler plate marked "A" on each side of the heater frame (see fig.1). Tighten the screws loosened and add a screw to the bottom of each plate.
- b) Loosen the heater adjustment bracket screws located on the heater baffle and slide out to the required length (18-5/8"). Tighten screws.
- c) Install retainer tabs on each side of heater plate (see fig. 2). These tabs are used to secure the heater in place.

**C-TYPE CABINETS:**

- a) Loosen the heater baffle screws and install filler plate marked "B" on each side of the heater frame (see fig.1). For 20 Kw models use filler plate marked "C". Tighten the screws loosened and add a screw to the bottom of each plate.
- b) Loosen the heater adjustment bracket screws located on the heater baffle and slide out to the required length (20-5/8"). Tighten screws.
- c) Install retainer tabs on each side of heater plate (see fig. 2). These tabs are used to secure the heater in place.

3. Cut and install edge guard provided on the front of heater flange (including the filler plates).
4. Remove blower section access panel of the air handler and unplug and dispose of pigtail harness.
5. Move air handler wiring and plugs out of the way. Slide heater assembly into blower section by aligning the adjustment bracket on the baffle end into the grooves provided inside the cabinet (see fig 3).
6. Secure heater control plate to air handler by sliding the retainer tabs into recess installation. in the air handler cabinet (see fig. 2 ). Tighten screw to hold tab securely. On A-type cabinets install the right side tab only.



Fig. 1 - Filler plate installation.



Fig. 2- Installed retainer tab.



Fig. 3 - Heater recess

## BREAKER MODELS

1. A breaker filler plate is included with all breaker models. Filler plate must be used to seal tight the breaker opening.
2. Align the filler plate cut-out with the upper section of the breaker. Press the filler plate firmly around the upper edge of the breaker(s). Apply even pressure to all sides of the filler plate. See fig. 4

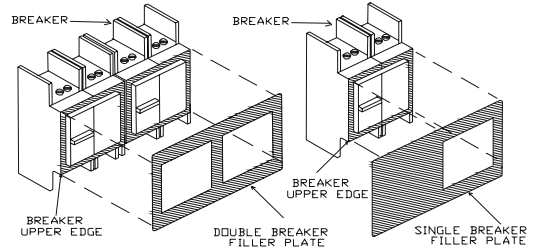


Fig. 4

## ELECTRICAL CONNECTIONS

1. All electrical connections, wire sizes and type and conduit sizes shall meet the National Electric Code, State and Local Codes. Main power supply, minimum wire sizes, circuits, fusing, etc. is shown on schematic wiring diagrams. **NOTE:** Use copper wire only.
2. Refer to base unit instructions for recommended wiring procedures.
3. Connect the 3-pin plug on the heater to the 3-pin receptacle plug on the Air Handler.
4. Connect the 4-pin low voltage harness on the heater to the corresponding 4-pin receptacle on the air handler.
5. **480V "A" model:** The transformer is for use on applications where 480V heaters are being wired into 208/240 volt single phase AHU. The single point transformer must be externally mounted and secured with screws onto the air handler unit. Use the louvered transformer cover (provided) for protection of this part (see fig. 5). For wiring purposes the wiring on the transformer is labeled and color coded (refer to schematic).
6. 480V "non transformer" model: Dual source circuit is required to power the electric heater and unit separately.
7. **Be sure that all electrical terminal connections, clamps, screws, etc. are tight before proceeding. Verify that there are no possible shorts to ground.**
8. Check wiring diagram supplied with heater for specific connections and information.
9. Check operation as described in startup section.

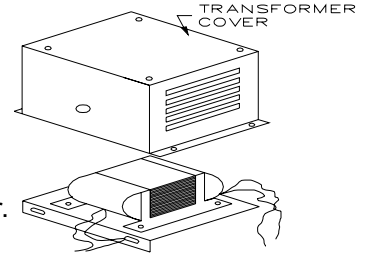


Fig. 5

## START-UP AND CHECK-OUT

**CAUTION:** Before proceeding, verify that all wiring is correct per factory approved schematic. Notify factory immediately of any discrepancies.

1. Refer to base unit installation instructions as required.
2. Check for loose terminal connections.
3. Check that all fuse and circuit breaker short circuit interrupting ratings are adequate.
4. Turn on unit and heater power.
5. Set thermostat to call for heat.
6. Check operation of heater.
7. Check that air flow across heater is at or above minimum recommended fan speed (see table 2 for speed tap adjustments).
8. Any modification or repairs to this equipment without written permission from the factory will be done at the installer's own risk and expense.

WGM 5.0-15.0 Kw HEATER EQUIPPED WITH	GAM5A0 AIRHANDLER		
	A-TYPE CABINET	B-TYPE CABINET	C-TYPE CABINET
BRACKET A	NOT REQUIRED	REQUIRED	REQUIRED
BRACKET B	REQUIRED	REQUIRED	REQUIRED
SLIDING BRACKET	ADJUSTMENT NOT REQUIRED	SLIDE OUT TO 18-9/16"	SLIDE OUT TO 20-9/16"
RETAINER TAB	(1) REQUIRED	(2) REQUIRED	(2) REQUIRED
WGM 20.0 Kw HEATER EQUIPPED WITH	A-TYPE CABINET	B-TYPE CABINET	C-TYPE CABINET
BRACKET C	N/A	REQUIRED	REQUIRED
SLIDING BRACKET	N/A	SLIDE OUT TO 18-9/16"	SLIDE OUT TO 20-9/16"
RETAINER TAB	N/A	(2) TABS REQUIRED	(2) TABS REQUIRED

Table 1 - Heater adjustments required prior to installation.

### PACKAGE CONTENTS

1. Heater assembly
2. Installation Instructions
3. Installer label.
4. Wiring Diagram.
5. (8) screws.
6. (1) set "A" & "B" filler plates.
7. (1) set "C" filler plates (20 Kw only).
8. (2) retainer tabs.
9. Edge guard.

EQUIPMENT MODEL	WGM0502(B) WGM0505(A)	WGM0802(B) WGM0805(A)	WGM1002(B) WGM1005(A)	WGM1502B(S) WGM1505(A)	WGM2002B(S) WGM2005(A)
	W-OUT HP / WITH HP	W-OUT HP / WITH HP	W-OUT HP / WITH HP	W-OUT HP / WITH HP	W-OUT HP / WITH HP
GAM5A0A18	TAP3 / TAP4	TAP3 / TAP4	TAP4 / TAP5		
GAM5A0A24	TAP3 / TAP4	TAP3 / TAP4	TAP4 / TAP5		
GAM5A0A30	TAP2 / TAP3	TAP3 / TAP4	TAP3 / TAP4	TAP4 / TAP5	
GAM5A0A36	TAP2 / TAP3	TAP2 / TAP3	TAP4 / TAP5	TAP4 / TAP5	
GAM5A0A42	TAP2 / TAP3	TAP2 / TAP3	TAP2 / TAP3	TAP3 / TAP4	
GAM5A0A48	TAP2 / TAP3	TAP2 / TAP3	TAP2 / TAP3	TAP3 / TAP4	TAP3 / TAP4
GAM5A0A60	TAP2 / TAP3	TAP2 / TAP3	TAP2 / TAP3	TAP3 / TAP4	TAP3 / TAP4

Table 2 - Minimum Heater Airflow CFM