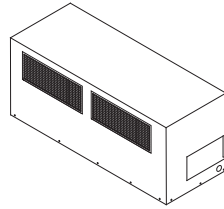


## Installation Instructions

# Discharge Plenum for Electric Heat



Model Number:	Used With:
BAYPLNM030*	TWE051, 060
BAYPLNM031*	TWE072, 076, 090
BAYPLNM032*	TWE101, 120
BAYPLNM033*	TWE126, 150, 156, 180
BAYPLNM034*	TWE201, 240, 251, 300

### SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

May 2020

ACC-SVN120G-EN

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## 1 Warnings, Cautions, and Notices

Read this manual thoroughly before operating or servicing this unit. Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

<b>WARNING</b>	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
<b>CAUTION</b>	Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe equipment or property-damage only accidents.
<b>NOTICE</b>	Indicates a situation that could result in equipment or property-damage only accidents.

### Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants-including industry replacements for CFCs such as HCFCs and HFCs.

### Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

## 2 WARNING

**Proper Field Wiring and Grounding Required!**  
Failure to follow code could result in death or serious injury. All field wiring MUST be performed by qualified personnel. Improperly installed and grounded field wiring poses FIRE and ELECTROCUTION hazards. To avoid these hazards, you MUST follow requirements for field wiring installation and grounding as described in NEC and your local/state electrical codes.

## WARNING

**Personal Protective Equipment Required!**  
Installing/servicing this unit could result in exposure to electrical, mechanical and chemical hazards. Before installing/servicing this unit, technicians MUST put on all Personal Protective Equipment (PPE) recommended for the work being undertaken. ALWAYS refer to appropriate SDS sheets and OSHA guidelines for proper PPE. When working with or around hazardous chemicals, ALWAYS refer to the appropriate SDS sheets and OSHA guidelines for information on allowable personal exposure levels, proper respiratory protection and handling recommendations. If there is a risk of arc or flash, technicians MUST put on all necessary Personal Protective Equipment (PPE) in accordance with NFPA70E for arc/flash protection PRIOR to servicing the unit. Failure to follow recommendations could result in death or serious injury.

## WARNING

**Follow EHS Policies!**  
Failure to follow instructions below could result in death or serious injury.

- All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.
- Non-Trane personnel should always follow local regulations.

## 3 WARNING

**Hazardous Voltage w/Capacitors!**  
Failure to disconnect power and discharge capacitors before servicing could result in death or serious injury. Disconnect all electric power, including remote disconnects and discharge all motor start/run capacitors before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized. For variable frequency drives or other energy storing components provided by Trane or others, refer to the appropriate manufacturer's literature for allowable waiting periods for discharge of capacitors. Verify with an appropriate voltmeter that all capacitors have discharged.

For additional information regarding the safe discharge of capacitors, see PROD-SVB06A-EN.

## WARNING

**Heavy Objects!**  
Failure to follow instructions below or properly lift unit could result in unit dropping and possibly crushing operator/technician which could result in death or serious injury, and equipment or property-only damage. Ensure that all the lifting equipment used is properly rated for the weight of the unit being lifted. Each of the cables (chains or slings), hooks, and shackles used to lift the unit must be capable of supporting the entire weight of the unit. Lifting cables (chains or slings) may not be of the same length. Adjust as necessary for even unit lift.

## 4 General

The discharge plenum is required when mounting electric heat on the air handler for in space application. Check Table 1 to ensure that you have the proper accessory before attempting to install.

### Inspection

Inspect the shipping carton and its contents. Check for concealed damage before it is stored or used.

If damaged, it must be reported to, and claims made against the transportation company. Replace damaged parts with authorized parts only.

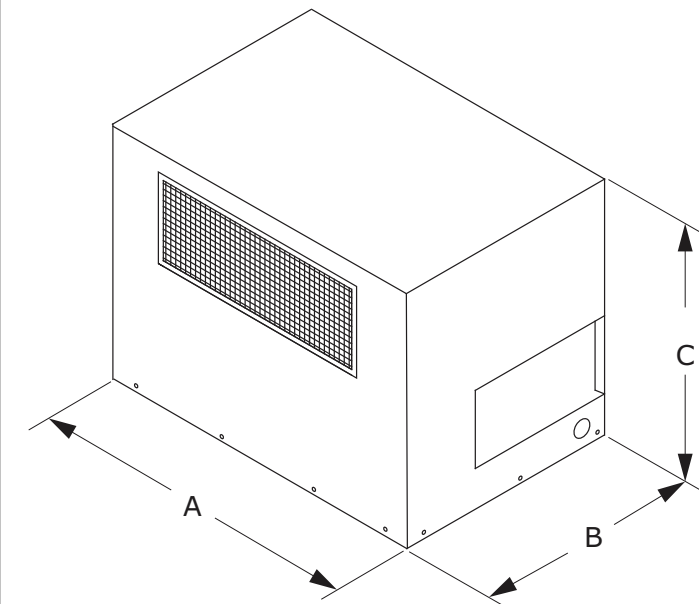
### Dimensional Data

Table 1. Dimensional data

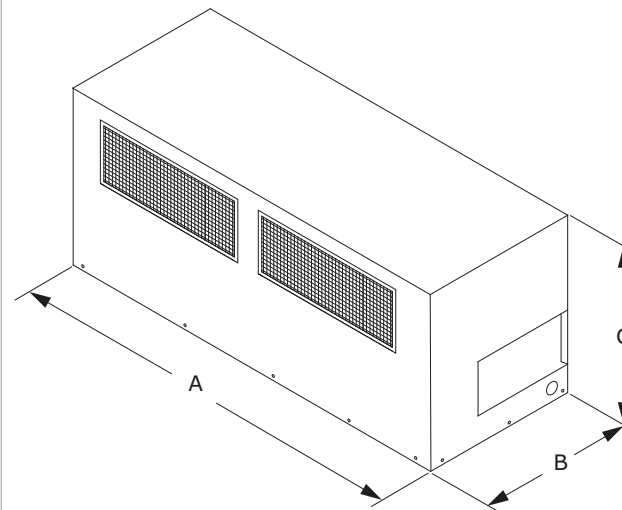
D/C Plenum Model No.	Dim A	Dim B	Dim C	Net Wt	Air Handler Used With	Electric Heater Used With
BAYPLNM030* (Figure 1)	38-1/16	22-15/16	29-1/8	115	TWE051/060	BAYHTRS117* BAYHTRR315* BAYHTRR415*(a)
BAYPLNM031* (Figure 1)	47-7/8	25-7/8	29-1/8	160	TWE072/076/090	BAYHTRS117* R123*, R315* N325*, R415*(a), N425*(a)
BAYPLNM032* (Figure 1)	63-7/8	25-7/8	29-1/8	195	TWE101/120	BAYHTRS117* R123*, R315* N325*, R415*(a), N425*(a)
BAYPLNM033* (Figure 2)	80-1/8	29-3/8	35-1/8	235	TWE126/150/ 156/180	BAYHTRP330* BAYHTRP430*(a)
BAYPLNM034* (Figure 2)	92-15/16	31-3/8	35-1/8	265	TWE201/240/ 251/300	BAYHTRP330* BAYHTRP430*(a)

(a) Also used on 380/50Hz units.

5 Figure 1. BAYPLNM030\*, 031\*, 032\*



6 Figure 2. BAYPLNM033\*, 034\*



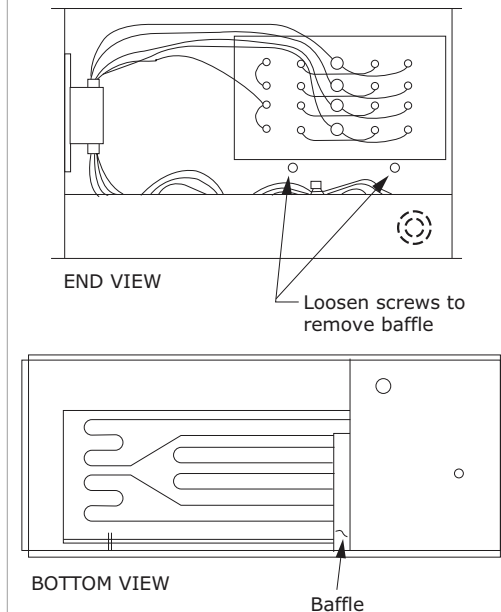
### Installation

1. Ensure all power to the air handler has been disconnected and locked out.

**Note:** Plenum kits to be independently supported in the horizontal application in addition to the unit supports.

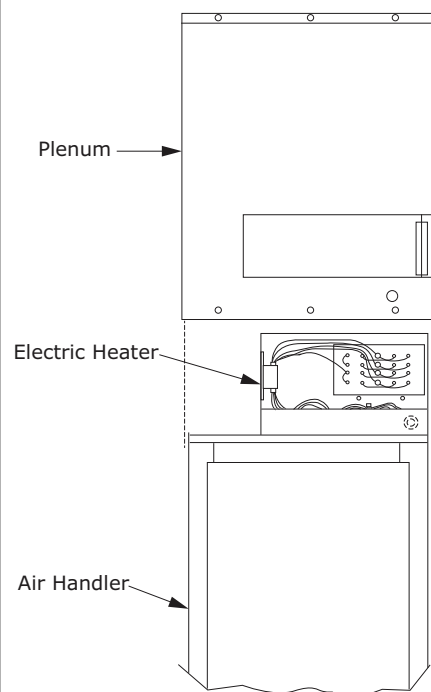
**Note:** Remove the electric heater from its carton. Notice the BAYHTRS/N/R heaters (For TWE0051, 060, 072, 076, 090, 101 and 120) have a limit control thermostat baffle. This sheet metal baffle shields air flow movement across the thermostat(s). For proper operation of the electric heater in the plenum, remove this baffle in the following heaters; BAYHTRS117\*, N325\*, R415\* and N425\*. To remove this baffle see Figure 3.

7 Figure 3. Removing baffle



- Remove the electric heater control box cover and discard. Remove covers from both ends of the BAYHTRP heaters (for TWE126, 150, 156, 180, 201, 240, 251 and 300 units).
- Mount electric heat on the air handler according to the installation instructions supplied with it, but do not connect the wiring at this time.
- With hinged door to the control end of the unit, place plenum over heater. See Figure 4.

Figure 4. Placement of plenum

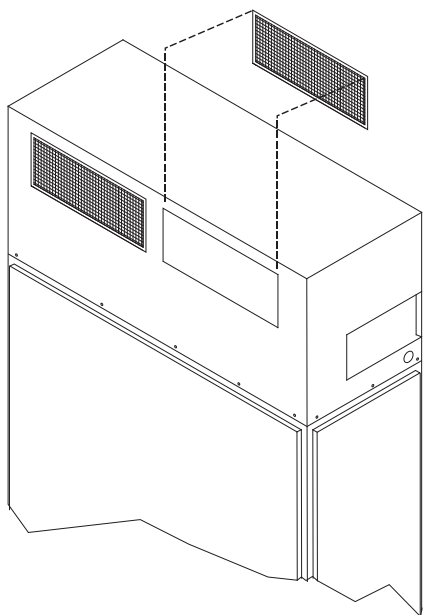


**Note:** If ceiling constraints dictate, lay the air handler on its side while the heater and plenum are being mounted.

5. When mounting is complete, stand the air handler in its upright position.

6. Allow plenum to slide down over the edge of the air handler until it stops (approximately 1 and 1/2 inch).
7. Remove grille(s) from plenum to gain access, secure plenum to heater. See figure below.

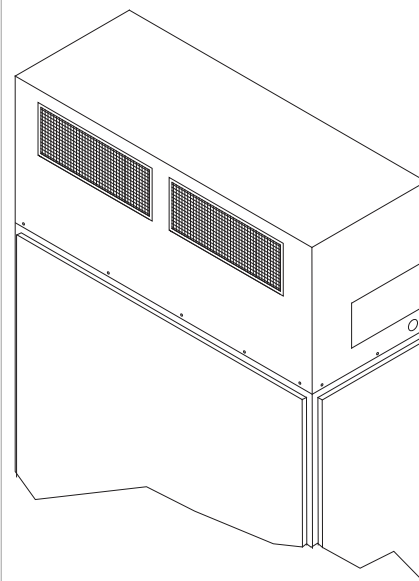
Figure 5. Securing plenum to heater



8. Reaching through the opening created by removing the grille(s), attach the plenum to the heater with screws provided.
9. Replace the grille(s).

10. Attach the plenum to the air handler with drill screws provided. These screws are positioned horizontally on both ends and one side. See Figure 6.
11. Complete installation of the electric heater assembly by connecting the wiring according to the wiring diagrams provided with the electric heater installer's guide.
12. Close plenum door and replace screw that secures it.

Figure 6. Completed installation



**Note:** For proper air flow see the accessory static pressure drop table (Table 2) in this installation guide. Reference the fan performance tables in the air handler Service Facts for motor and sheave requirements.

Table 2. Accessory static pressure drop

Electric Heat Plenum Model	Air Handler Model	HtrKW	CFM	Accessory Static Pressure Drop <sup>(a)</sup>	HtrKW	CFM	Accessory Static Pressure Drop <sup>(a)</sup>
BAYPLNM030*	TWE051/060	15-17	2000	0.46	-	-	-
			2100	0.50	-	-	-
			2200	0.55	-	-	-
			2300	0.60	-	-	-
BAYPLNM031*	TWE072/076/090	15-17	2400	0.66	-	-	-
			2000	0.29	2000	0.30	
			2200	0.35	2200	0.36	
			2400	0.40	2400	0.42	
			2625	0.47	2625	0.49	
			2700	0.50	2700	0.52	
			2850	0.55	23-25	2850	0.58
			3000	0.61	3000	0.64	
3150	0.68	3150	0.71				
BAYPLNM032*	TWE101/120	15-17	3300	0.74	3300	0.78	
			3450	0.81	3450	0.85	
			3600	0.88	3600	0.93	
			3500	0.56	3500	0.64	
			3600	0.59	3600	0.68	
			3800	0.66	3800	0.75	
			4000	0.73	23-25	4000	0.84
			4200	0.80	4200	0.92	
4400	0.88	4400	1.01				
4600	0.96	4600	1.11				
4800	1.05	4800	1.20				

Table 2. Accessory static pressure drop (continued)

Electric Heat Plenum Model	Air Handler Model	HtrKW	CFM	Accessory Static Pressure Drop <sup>(a)</sup>	HtrKW	CFM	Accessory Static Pressure Drop <sup>(a)</sup>
BAYPLNM033*	TWE126/150/156/180	30	5250	0.34	-	-	-
			5400	0.36	-	-	-
			5700	0.40	-	-	-
			6000	0.45	-	-	-
			6300	0.49	-	-	-
			6600	0.54	-	-	-
			6900	0.59	-	-	-
7200	0.64	-	-	-			
BAYPLNM034*	TWE201/240	30	7000	0.50	-	-	-
			7200	0.53	-	-	-
			7600	0.59	-	-	-
			8000	0.66	-	-	-
			8400	0.72	-	-	-
			8800	0.79	-	-	-
			9200	0.87	-	-	-
9600	0.94	-	-	-			
BAYPLNM034*	TWE251/300	30	8000	0.66	-	-	-
			8500	0.74	-	-	-
			9000	0.83	-	-	-
			9500	0.93	-	-	-
			10000	1.03	-	-	-
			10500	1.14	-	-	-
			11000	1.25	-	-	-
			11500	1.37	-	-	-
12000	1.49	-	-	-			

(a) Includes heater, plenum, inlet and outlet grilles, louver opening of 42 degrees, return air filter, and wet coil.

Figure 7. Optional grille configuration - as shipped

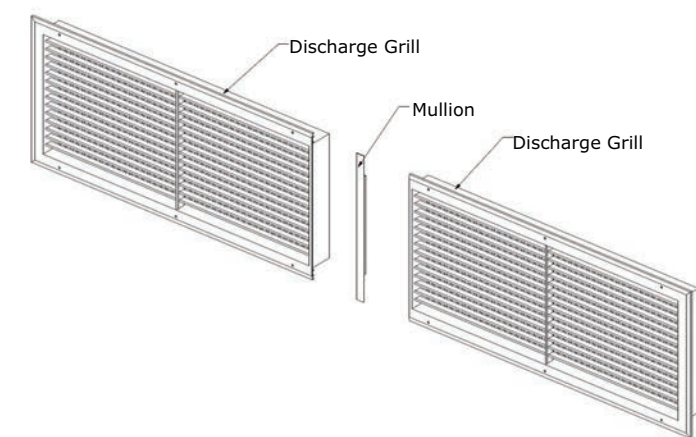


Figure 8. Optional grille configuration - as installed

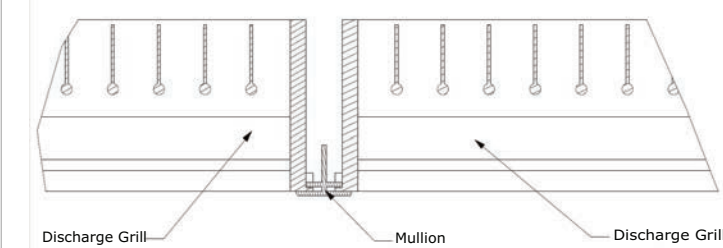
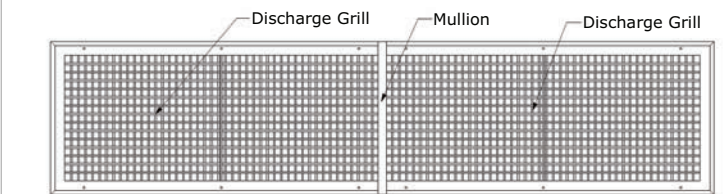


Figure 9. Optional grille configuration - front view



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