Installer's Guide

18-GE17D1-1

Variable Speed -- Communicating Modular Blowers

4TBE0C04A
4TBE0C08A

⚠ WARNING: HAZARDOUS VOLTAGE - DISCONNECT POWER BEFORE SERVICING

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

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

These Modular Blowers can be configured for Communicating or 24v modes. In communicating mode with a communicating comfort control the Modular Blower can support all properly matched communicating outdoor units (heat pump and cooling only), single-stage non-communicating cooling only, and electric heat only applications. In 24v mode with a 24v comfort control the Blower Module can support any properly matched non-communicating outdoor unit, single or multistage, heat pump or cooling only as well as electric heat only applications.

CONTENTS

A. GENERAL INFORMATION

⚠ WARNING

SAFETY HAZARD!
This information is for use by individuals having 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

FIRE HAZARD!
The modular blower must not be installed with the back-side down. Doing so could result in a fire hazard. Installing the unit back-side down could result in death or serious injury.

⚠ CAUTION

EQUIPMENT DAMAGE!
To prevent shortening its service life, the modular blower should not be used during the finishing phases of construction. The low return air temperatures can lead to the formation of condensate. Condensate in the presence of chlorides and fluorides from paint, varnish, stains, adhesives, cleaning compounds, and cement creates a corrosive condition which may cause rapid deterioration of the cabinet and internal components.

These instructions do not cover all variations in systems or provide for every possible contingency. Should further information be desired or particular problems arise which are not covered sufficiently by this manual, contact your local distributor or the manufacturer as listed on the modular blower nameplate.

INSPECTION

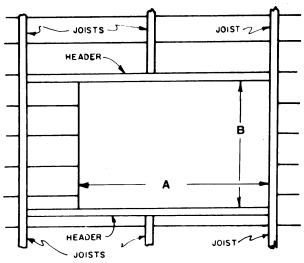
Check carefully for any shipping damage. This must be reported to and claims made against the transportation company immediately. Check to be sure all major components are in the unit. Any missing parts should be reported to your supplier at once, and replaced with authorized parts only.

⚠ CAUTION

SAFETY HAZARD!
Cardboard packing material must be removed from inside the blower assembly before starting the unit. Failure to do so may cause indoor blower motor failure.

⚠ CAUTION

SAFETY HAZARD!
For modular blowers not equipped with a factory installed electric heater, a field installed heater is available from the dealer. Only heaters built by Trane are approved for use in the modular blower. These heaters have been certified to UL standards to provide safe and reliable operation. A list of approved heaters is provided on the modular blower rating nameplate. Heaters that are not factory approved could cause damage and are not covered under equipment warranty.



FLOOR OPENING - SIZE		
MODEL NO.	A	B
TAYBASE100	23-3/4	14-13/16

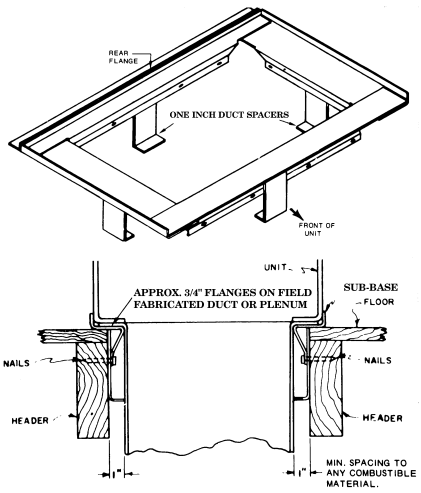


Figure 1. Sub-base

B. INSTALLATION LIMITATIONS & RECOMMENDATIONS

The general location of the modular blower is normally selected by the architect, contractor and/or home owner for the most effective application and satisfaction.

NOTE: Condensation may occur on the surface of the modular blower when installed in an unconditioned location. When units are installed in unconditioned spaces, verify that all electrical penetrations on the modular blower are sealed completely.

These modular blowers are suitable for installation in a closet, alcove or utility room with free, non-ducted, air return, using the area space as a return air plenum. With ducted supply air, if the minimum clearances to combustible materials and service access are observed, the above installations are suitable.

This area may also be used for other purposes, including an electric hot water heater - **but in no case shall a fossil fuel device be installed and/or operated in the same closet, alcove or utility room.**

In addition, these modular blowers are suitable for installation in an attic, garage or crawl space with ducted supply and return air.

This equipment has been evaluated in accordance with the Code of Federal Regulations, Chapter XX, Part 3280 or the equivalent. "SUITABLE FOR MOBILE HOME USE"

For proper installation the following items must be considered:

1.If adequate power is available and correct according to nameplate specifications.

2.Insulate all ducts, particularly if unit is located outside of the conditioned space.

3.Pursuant to Florida Building Code 13-610.2.A.2.1, this unit meets the criteria for a factory sealed modular blower.

4.To ensure maximum efficiency and system performance, the existing supply and return duct system static pressures must not exceed the total available static pressure of the modular blower. Reference ACCA Manual D, Manual S and Manual RS along with the modular blower Product Data and Service Facts for additional information.

5.It is recommended that the outline drawing be studied and dimensions properly noted and checked against selected installation site. By noting in advance which knockouts are to be used, proper clearance allowances can be made for installation and possible future service.

6.When the modular blower with supplementary heater is to be installed in the downflow position on combustible flooring an accessory sub-base (TAYBASE100) must be used. See Figure 1.

7.If supplementary heat is to be added, power supply must be sufficient to carry the load. In addition, minimum air flow settings, unit and duct clearances to combustible material must be maintained as stated on the modular blower rating nameplate.

IMPORTANT: For modular blowers not equipped with a factory installed electric heater, a field installed heater is available from Trane. Only heaters built by Trane are approved for use in the modular blower. These heaters are certified to UL standards to provide safe and reliable operation. A list of approved heaters is provided on the modular blower rating nameplate. Heaters that are not factory approved could cause damage and are not covered under equipment warranty.

NOTE: If modular blower is used WITHOUT a supplementary electric heater, a sheetmetal plate is required to cover the open hole in the airflow system (See Figure 2). In addition, ensure that the cabinet is sealed air tight where the field wires enter the unit.

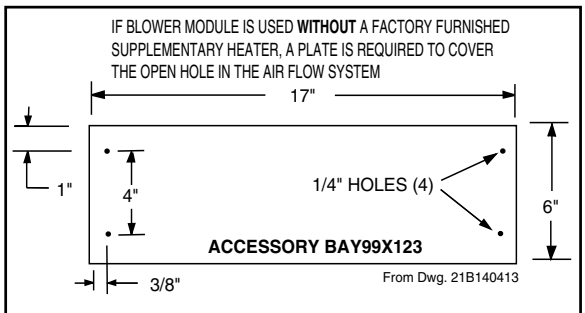


Figure 2. Cover Plate

8.If the unit is installed without a return air duct, applicable local codes may limit this modular blower to installation only in a single story residence & within conditioned space.

9.If side, front or rear return is required, modular blower must be elevated or placed on a plenum (TAYPLNM100). Connecting return duct directly to the side, front or rear of the cabinet is not approved.

10. When external accessories are used, the additional height and width requirements must be considered in the overall space needed.

11. These units are not approved for outdoor installation.

12. These units are approved for draw-through application only.

13. **Steam and Flow-through Fan Power Duct-mounted Humidifiers**

Follow the humidifier installation instructions. These should only be installed on the supply air side of the system.

14. These modular blower units do not come equipped for internal filter installation. Trane recommends that an external filter be installed within the system.

C. UNIT INSTALLATION

1.Position unit on Pedestal or other suitable foundation. If Pedestal is not used, a frame strong enough to support the total weight must be provided. Provide a minimum height of 14 inches for proper unrestricted airflow.

2.If a return air duct is connected to the modular blower, it must be the same dimensions as shown in the outline drawing on page 14.

3.Pedestal and unit should be isolated from the foundation using a suitable isolating material.

4. If the unit is suspended, it must be supported from the bottom near both ends. The service access must remain unobstructed. See Figure 3.

5. **Openings where field wiring enters the cabinet must be completely sealed.** Location of power entry is shown on the Outline Drawing. Use 2.5" clear stickers provided to seal all unused electrical knockouts. See Figure 4.

6. After ductwork connections are made, seal air-tight and per Local codes.

IMPORTANT: The BAYHTR** electric heat accessory, designed for use with this modular blower, may include up to a combination of three 30 and / or 60 amp circuit breakers to provide an electrical disconnect for service personnel that are intended to help protect internal electrical components in the event of a short circuit or ground fault. As designed, the circuit breakers supplied in the BAYHTR** accessory do not provide over-current protection of the branch circuit.

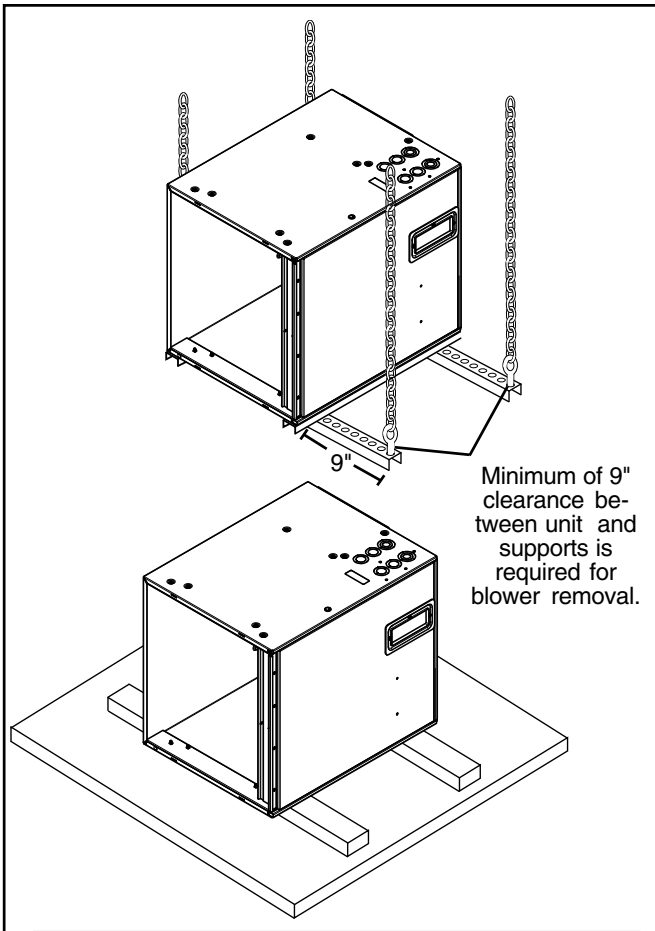
D. Duct Connections

The supply and return air ducts should be connected to the unit with flame retardant duct connectors. Convertible duct flanges are provided on the discharge opening to provide a "flush fit" for 3/4" or 1-1/2" duct board applications, see the Outline drawing on page 14 for sizes of the duct connections. After the duct is secured, seal around the supply duct to prevent air leakage.

The COMM control box must be removed to install or service heater accessory or communicating controls, see Figure 5. An illustration of the convertible duct flanges is provided in Figure 7.

IMPORTANT: Do NOT cover up control box screws with duct work. See Figure 5.

NOTE: If needed, a duct board return connection can be made to the inlet flange using tape and/or mastic.



NOTE: Modular Blower suspension is shown without coil or ductwork attached. Additional support may be required depending on your application. Your application will determine the coil and ductwork configuration for your needs. The unit requires support when suspended regardless of application.

Figure 3. Possible Unit Suspension Options

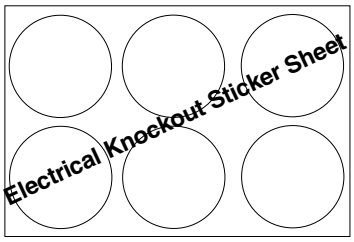


Figure 4. Knockout Sticker Sheet

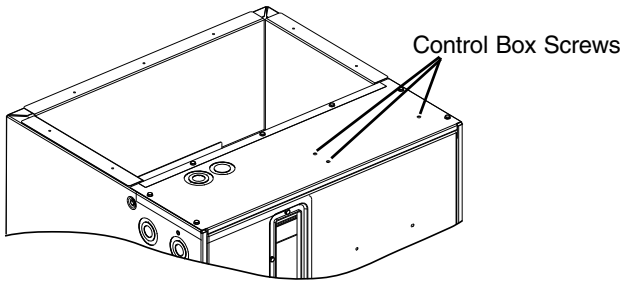


Figure 5. Control Box Screw Locations

E. Connecting Flange

1. Remove the two connecting flanges from the blower compartment by cutting the zip ties that secure them. Be careful not to tear the insulation.

2. Attach the gasket found in the accessory box to flanges.

   a. Cut gasket into two equal sized pieces.

   b. Place flange on flat surface and apply one piece of gasket to the flange surface that has the screw holes, not the tool clearance cutouts. On one flange, cover the end surface where the two pieces will mate together. See Figure 6.

3. Attach flange pieces to unit using ten (10) self-tapping sheetmetal screws found in accessory box.

   a. Attach back flange first by aligning to the corners of the unit and using six (6) screws. Flanges are identical and can be used interchangeably. See Figure 7.

   b. Attach the front flange by butting the ends of the flange to the previously secured back flange using the remaining four (4) screws in the holes on the sides of the flange. Do Not use the two holes on the front of the flange as this will hinder blower servicing.

NOTE: The outside surface of the flange pieces must be insulated with field supplied insulation after connecting to the unit.

See Figure 7 for an illustration of how connecting flanges should be applied.

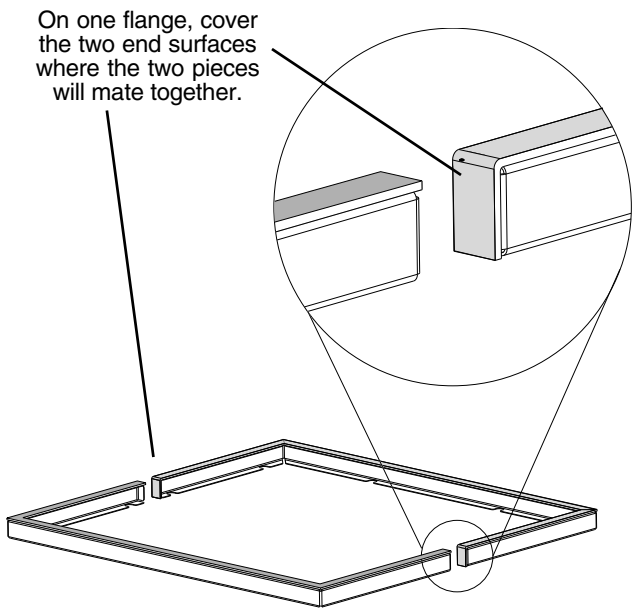


Figure 6. Gasket Installation

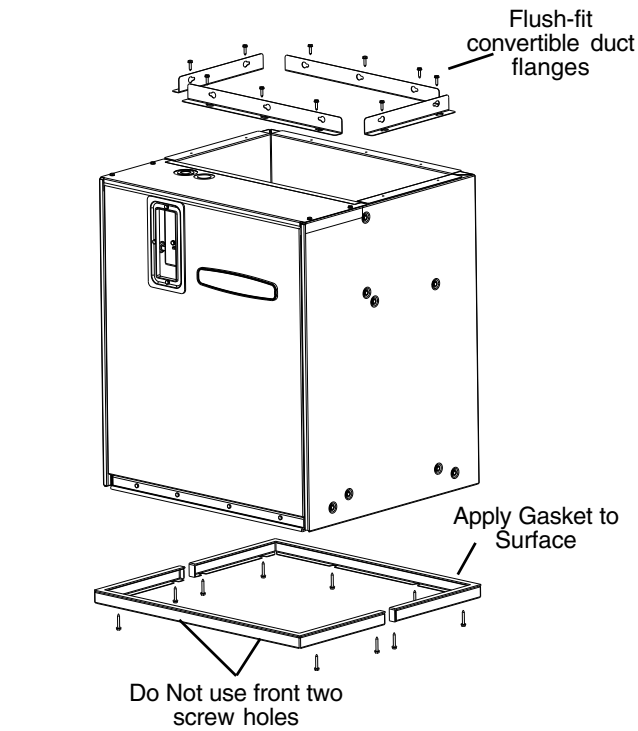


Figure 7. Flange Connections

F. Electrical - Power Wiring

⚠ WARNING

SAFETY HAZARD! TO PREVENT INJURY OR DEATH DUE TO ELECTRICAL SHOCK OR CONTACT WITH MOVING PARTS, LOCK UNIT DISCONNECT SWITCH IN OPEN POSITION BEFORE SERVICING UNIT.

1. These modular blowers are shipped from the factory wired for 230 volts. The units may be wired for 208 volts. Follow instructions on unit wiring diagram located on blower housing and in the Service Facts document included with the unit.

2. The selection of wire and fuse sizes should be made according to the Minimum Branch Circuit Ampacity and the Maximum Overcurrent Device listed on the unit nameplate.

3.Field wiring diagrams for electric heaters and unit accessories are shipped with the accessory.

4.Wiring must conform to National and Local codes.

If an electric heater is not installed, connections are made through the 7/8" knockout into the modular blower junction box to the two power leads and ground wire connections which are located near the discharge of the blower.

IMPORTANT: When supplementary heaters are installed, inspect to insure that all packaging material has been removed.

NOTE: If modular blower is used with or without a heater, the electrical entry hole as well as any other cabinet penetrations must be sealed air-tight.. Therefore, the branch circuit(s) shall be sized and protected according to the unit nameplate.

G. Control Wiring

1.Connect wiring between indoor unit, outdoor unit and Comfort Control. The use of color-coded low-voltage wires is recommended.

2.A low voltage terminal board is provided for control wiring, and is located on the left side of the cross brace near the bottom of the unit.

3.If the low voltage wiring diagram is not listed in this installer's guide for the particular application, refer to the wiring diagram located on the control box cover of the outdoor unit or in the outdoor unit's service facts.

Communicating Control Wiring	
WIRE SIZE	MAX. WIRE LENGTH*
18 AWG	250 FT

NEC Class II Wiring - 24 VOLTS	
WIRE SIZE	MAX. WIRE LENGTH**
18 AWG	150 FT
16 AWG	225 FT.
14 AWG	300 FT.

Table 1 — Control Wiring

* The maximum total cable length for the entire Comfort Control communicating system is 500 ft. 18 AWG.

** Maximum **total** length of low voltage wiring from outdoor unit, to indoor unit, and to Comfort Control.

H. Airflow Adjustment

Blower speed changes are made using the User Interface mounted on the communicating control box. See Figure 8. The modular blower control board controls the serial motor.

NOTE: Serial motors have bearings which are permanently lubricated and under normal use lubrication is not recommended.

When paired with a communicating outdoor unit, the modular blower control board will auto-discover the outdoor unit size. Default settings are 400 CFM/ton and 1.5 minute at 100% CFM off delay. For other airflow settings, access the User Interface (See Figure 8) to select options or use the options in the communicating comfort control. The full menu is listed in Figure 9.

When modular blower is to be used in 24 VAC mode, access the User Interface to change the comfort control mode to 24 VAC, match the airflow for the outdoor unit size (tons), adjust the cooling airflow (CFM/ton), set the Fan on/off-delay options, and adjust the heating airflow per the Nameplate specifications on the modular blower. See Figure 10. If the airflow needs to be increased or decreased, see the Blower Performance Table in the Service Facts.

Information on changing the speed of the blower motor for your specific outdoor model size is in the Blower Performance Table.

Be sure to set the airflow for the correct tonnage. Refer to the User Interface for correct setting.

If the optional humidistat is used, remove R-BK jumper from the low voltage terminal board (not shown) and install the humidistat between R and BK. (Jumper R to O for cooling-only/non-heat pump systems with a humidistat.)

I. Unit Test Mode

Unit Test Mode (Modular Blower)

The system must be idle or the comfort control switched to OFF before the Unit Test will run the air handler. The unit will work the same way in either Communicating or 24 VAC modes.

To access the Unit Test Mode scroll down through the User Interface Information Menu until you see the Unit Test option. Press ENTER. When prompted select YES and press ENTER. When the User Interface displays ARE YOU SURE? select YES and press ENTER to begin the Unit Test.

NOTE: While in Test Mode all comfort control requests will be ignored but if any button on the User Interface is pressed, the Unit Test will exit. The Unit Test will exit if a fault is detected during the test sequence.

The Unit Test will perform the following steps without delays.

1.Start blower at 50% airflow and Energize EAC relay.

2.After 10 seconds, go to 100% airflow for 10 seconds.

(User Interface displays UNIT TEST – BLWR)

3.Energize Y1 relay for 15 seconds with 100% airflow.

(User Interface displays UNIT TEST – COOL)

4.De-energize Y1 relay and go to Electric Heat airflow.

(User Interface displays UNIT TEST – HEAT)

5.Energize blower interlock and stage 1 heat relay.

6.Energize humidifier relay.

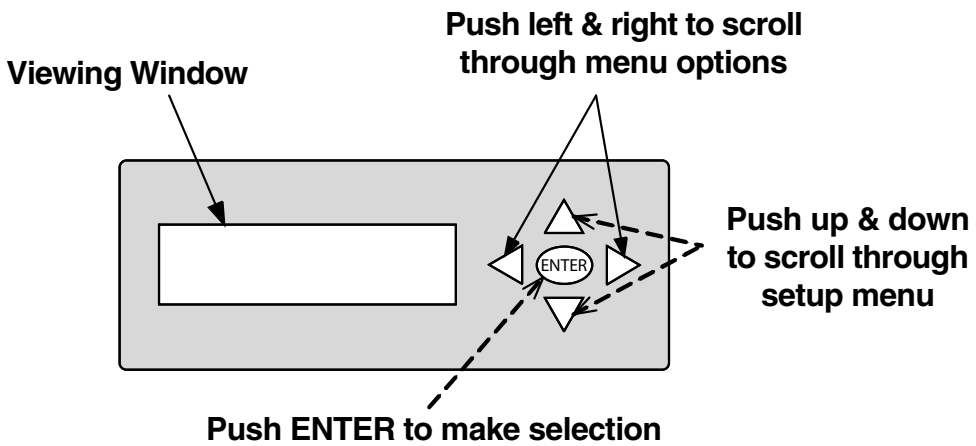
7.After 1 second energize stage 2 heat relay.

8.After 1 more second energize stage 3 heat relay.

9.After 5 seconds de-energize blower interlock, stage 1, 2 & 3 heat, humidifier and EAC relays.

(User Interface displays UNIT TEST – EXIT)
Displayed for three seconds

NOTE: Airflow is default or programmed selections.



User Interface pictured above adjusts variable speed airflow options.

Figure 8. User Interface

USER INTERFACE MENU - COMMUNICATING MODE

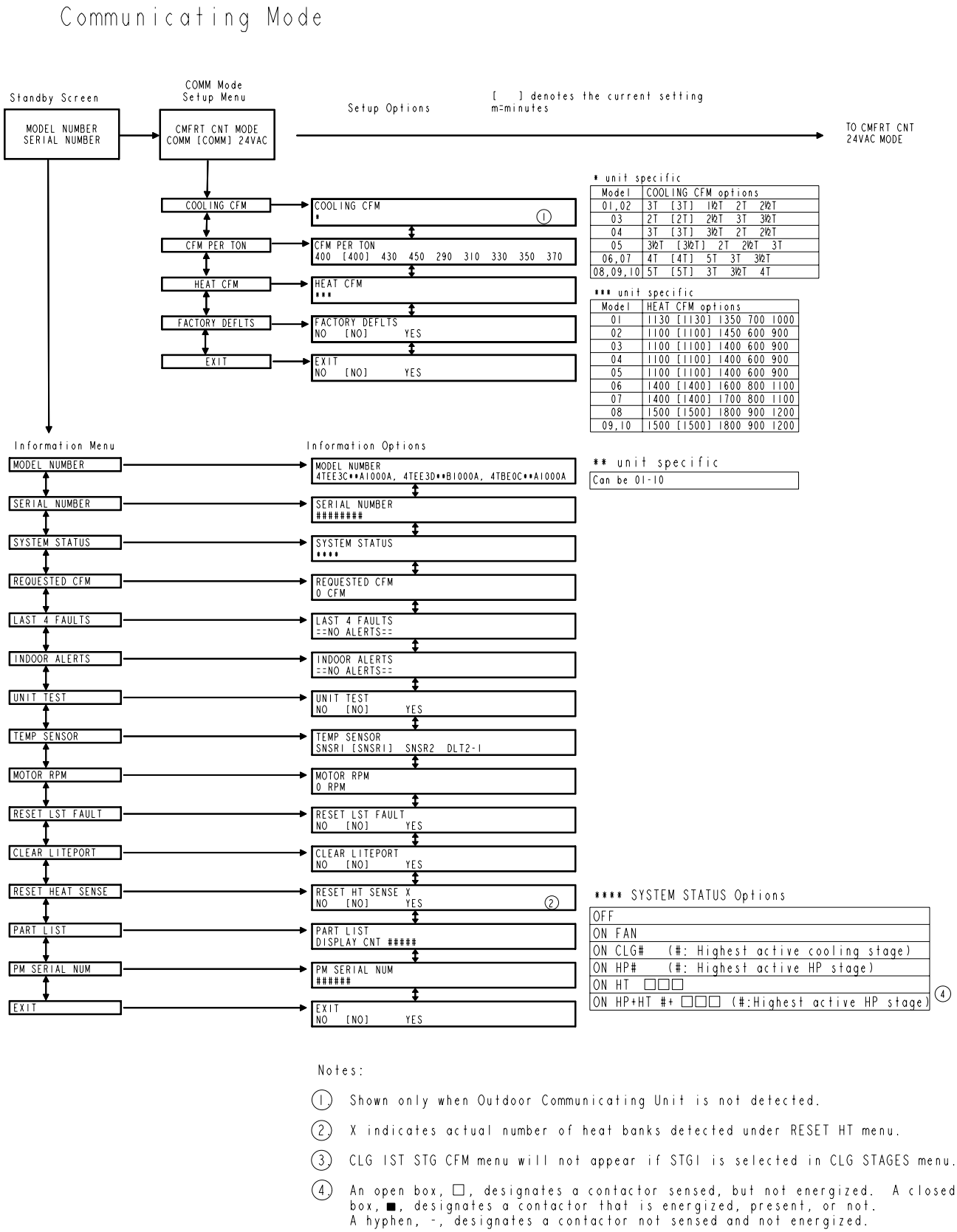
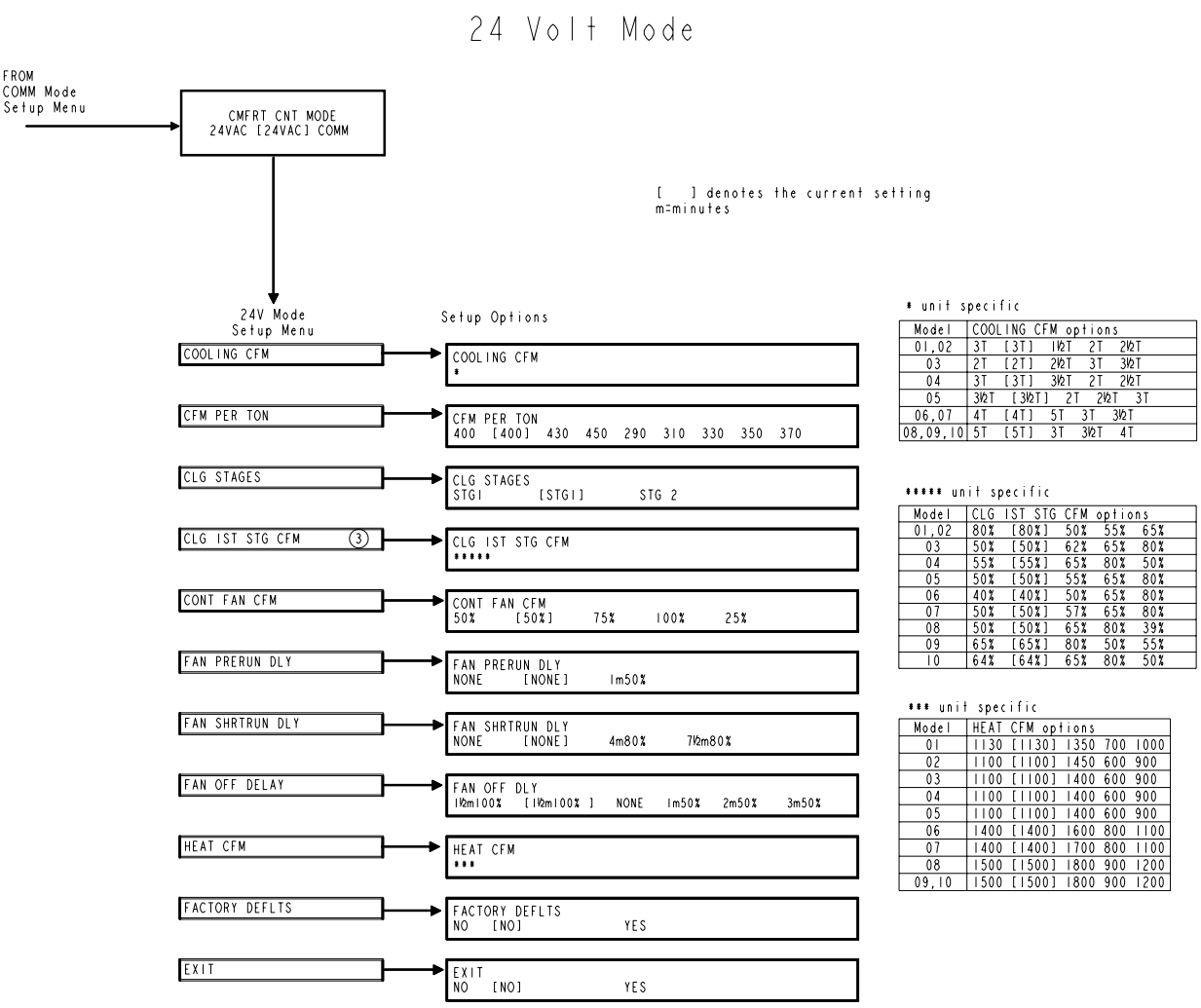


Figure 9. User Interface Menu - Communicating Mode

USER INTERFACE MENU- 24 VAC MODE



* unit specific

Model	COOLING CFM options
01,02	3T [3T] 1½T 2T 2½T
03	2T [2T] 2½T 3T 3½T
04	3T [3T] 3½T 2T 2½T
05	3½T [3½T] 2T 2½T 3T
06,07	4T [4T] 5T 3T 3½T
08,09,10	5T [5T] 3T 3½T 4T

***** unit specific

Model	CLG IST STG CFM options
01,02	80% [80%] 50% 55% 65%
03	50% [50%] 62% 65% 80%
04	55% [55%] 65% 80% 50%
05	50% [50%] 55% 65% 80%
06	40% [40%] 50% 65% 80%
07	50% [50%] 57% 65% 80%
08	50% [50%] 65% 80% 39%
09	65% [65%] 80% 50% 55%
10	64% [64%] 65% 80% 50%

*** unit specific

Model	HEAT CFM options
01	1130 [1130] 1350 700 1000
02	1100 [1100] 1450 600 900
03	1100 [1100] 1400 600 900
04	1100 [1100] 1400 600 900
05	1100 [1100] 1400 600 900
06	1400 [1400] 1600 800 1100
07	1400 [1400] 1700 800 1100
08	1500 [1500] 1800 900 1200
09,10	1500 [1500] 1800 900 1200

Notes:

(1) Shown only when Outdoor Communicating Unit is not detected.

(2) X indicates actual number of heat banks detected under RESET HT menu.

(3) CLG IST STG CFM menu will not appear if STGI is selected in CLG STAGES menu.

(4) An open box, ☐, designates a contactor sensed, but not energized. A closed box, ■, designates a contactor that is energized, present, or not. A hyphen, -, designates a contactor not sensed and not energized.

PRINTED FROM D802613P01 REV 3

Figure 10. User Interface Menu - 24 VAC Mode

J. Modular Blower Flash Codes

Alert Notification				Alert Code	Alert Group	Alert Description
Fault LED	**COMM LED**	**User Interface Display**	**Comfort Control Display**			
Solid ON ‡	N/A	CNTRL FAULT †	ERR 18	**18**	Control Failure	Internal Control Error
Solid ON ‡	N/A	CHECK FUSE †	N/A +	**92**	Fuse Failure	24V Fuse Open Error
1 Flash *	N/A	EXT SW OPEN *	ERR 106 *	**106**	External Shutdown Fault	External Shutdown Input Open Error
2 Flash	N/A	PM MEM ERR	ERR 114	**114**	PM Bad or Missing Fault	PM Data Corrupt Error
		PM MISSING				PM Missing Error
		ID MTR ERR				Motor Mismatch Error
		PM UNIT ERR	N/A			PM Unit Data Error
		CAP MISMATCH				Compressor Capacity Mismatch Error
		PM DATA ERR				PM Data Section Error
3 Flash **	Fast Flash	NO SYS CLK	ERR 91	**91**	Communication Inactive Fault	COMM Bit Master Clock Error
		SYS COMM ERR				COMM Heat/Cool Demand Error
3 Flash	N/A	BLW COMM ERR				Serial Motor Communication Inactive Error ¹
3 Flash **	Fast Flash	SYS COMM CRC	N/A	**90**	Communication Busy Fault	COMM System Busy Error
3 Flash	N/A	BLW COMM CRC				Serial Motor Communication Busy Error
4 Flash	N/A	HT+LK ON ERR	ERR 105	**105**	Heater Interlock Relay Fault	Both Interlock Relay & Heater Relay Stuck Closed Error
		INTLK ON ERR				Interlock Relay Stuck Closed Error
		NTLK OFF ERR				Interlock Relay Stuck Open Error
4 Flash	N/A	HT ON ERR	ERR 104	**104**	Heater Relay Fault	Heater Relay Stuck Closed Error
		HT OFF ERR				Heater Relay Stuck Open Error
5 Flash *	N/A	DAS RNG ERR *	ERR 118 *	**118**	Discharge Air Temperature Fault	Discharge Air Temperature Range Error
		DAS UL ERR *				Discharge Air Temperature Upper Limit Error
		DAS LL ERR *				Discharge Air Temperature Lower Limit Error
5 Flash *	N/A	DAS SHORT *	N/A	**52**	Discharge Air Sensor Fault	Discharge Air Sensor Short Error
		DAS OPEN *				Discharge Air Sensor Open Error
6 Flash *	N/A	RAS RNG ERR *	N/A	**117**	Return Air Temperature Fault	Return Air Temperature Range Error
6 Flash *	N/A	RAS SHORT *	N/A	**110**	Return Air Sensor Fault	Return Air Sensor Short Error
		RAS OPEN *				Return Air Sensor Open Error
7 Flash	N/A	Y1 ON ERR	ERR 101	**101**	Y1 Relay Fault	Y1 Relay Stuck Closed Error
		Y1 OFF ERR				Y1 Relay Stuck Open Error
8 Flash	N/A	TWIN ERROR	N/A	**19**	Twinning Fault	Air Handler Twinning Error
9 Flash	N/A	DEMAND ERR *	N/A	**123**	Demand Configuration	Heat/Cool Demand Conflict Error*
		HT CFG ERR				Electric Heat Configuration Error

Notes:

† If Air Handler processor is reset or fuse is open, COMM Alert cannot be reported; if the processor is reset the User Interface will not be updated

* Alert flash code will not be implemented for initial release

** COMM communication errors may also be flashed on Fault LED

‡ LitePort™ transmissions will be allowed during ON flash codes

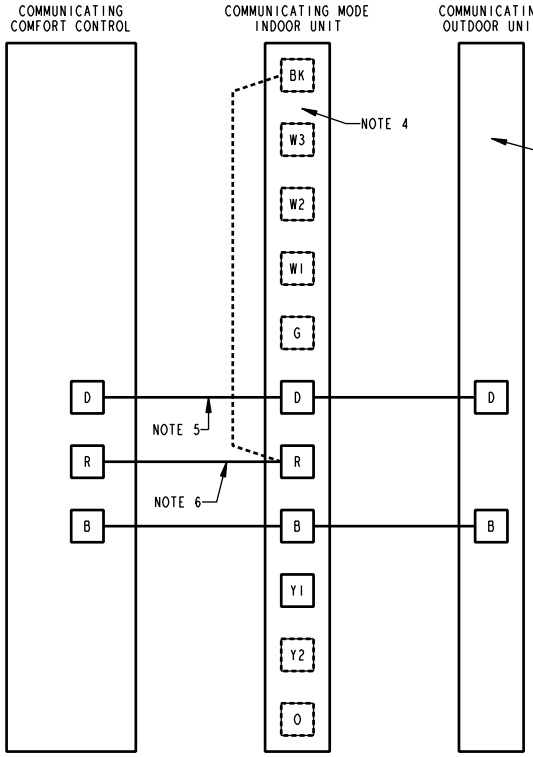
\+ Fuse alert notification level would show on Comfort Control, but when fuse is open the COMM bus has no power

¹ Comfort Control will switch system to "OFF" until this fault condition clears

Printed from D802247P01REV06

K Field Wiring - Reference Only

COMMUNICATING INDOOR UNIT WITH COMMUNICATING COMFORT CONTROL & COMMUNICATING OUTDOOR UNIT



LEGEND

------ FACTORY WIRING

——— FIELD WIRING

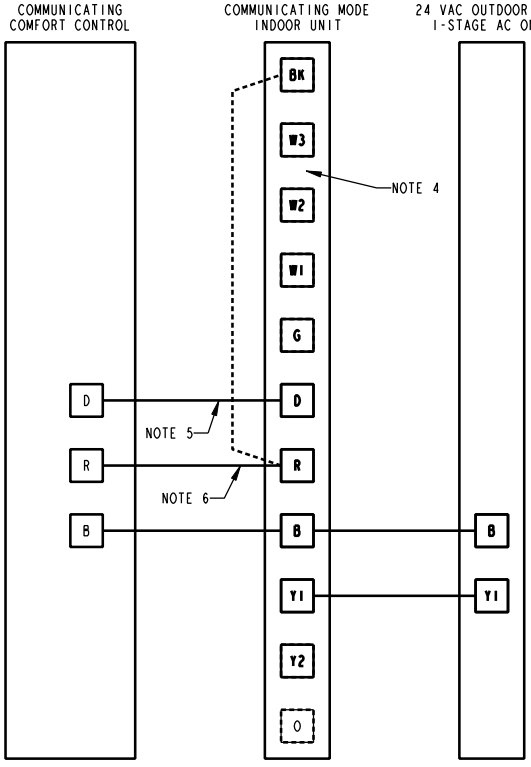
T — TERMINAL MAY OR MAY NOT BE PRESENT ON UNIT

NOTES:

1. SEE WIRING DIAGRAMS IN SERVICE FACTS FOR COMPLETE WIRING INFORMATION.
2. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR.
3. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
4. IN COMMUNICATING MODE, UNUSED TERMINALS ARE NOT FUNCTIONAL. DO NOT USE.
5. "D" IS THE DATA LINE. INSTALLER TO SELECT A WIRE COLOR.
6. TO CONNECT OPTIONAL DEVICES (SUCH AS A FLOAT SWITCH) WIRE IN SERIES FROM INDOOR "R" TO COMFORT CONTROL "R".
7. WHEN CONVERTING OUTDOOR UNIT TO 24 VAC MODE, USE 24 VAC HARNESS ACCESSORY (BAYACHP024*).

PRINTED FROM D802614P01 REV01

COMMUNICATING INDOOR UNIT WITH COMMUNICATING COMFORT CONTROL & 24 VAC SINGLE STAGE COOLING



LEGEND

------ FACTORY WIRING

——— FIELD WIRING

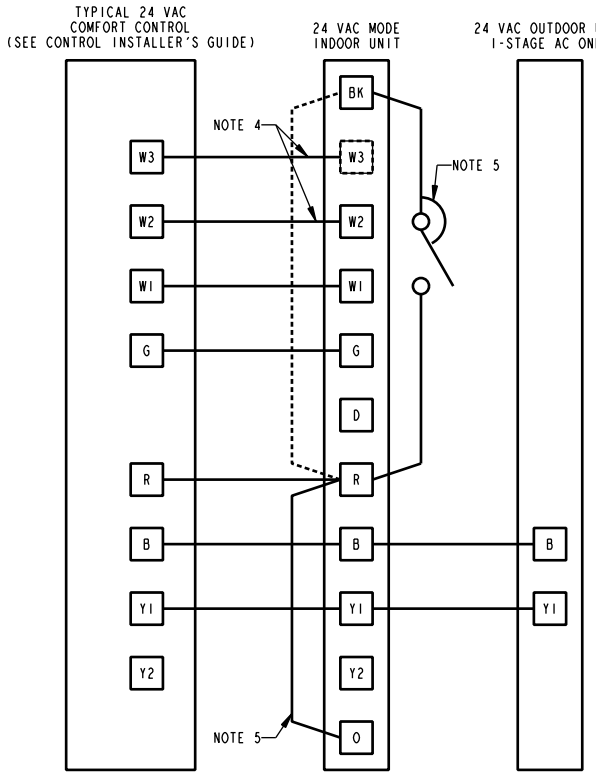
T — TERMINAL MAY OR MAY NOT BE PRESENT ON UNIT

NOTES:

1. SEE WIRING DIAGRAMS IN SERVICE FACTS FOR COMPLETE WIRING INFORMATION.
2. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR.
3. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
4. IN COMMUNICATING MODE, UNUSED TERMINALS ARE NOT FUNCTIONAL. DO NOT USE.
5. "D" IS THE DATA LINE. INSTALLER TO SELECT A WIRE COLOR.
6. TO CONNECT OPTIONAL DEVICES (SUCH AS A FLOAT SWITCH) WIRE IN SERIES FROM INDOOR "R" TO COMFORT CONTROL "R".

PRINTED FROM D802614P02 REV01

COMMUNICATING INDOOR UNIT WITH 24 VAC COMFORT CONTROL & 24 VAC SINGLE STAGE COOLING



LEGEND

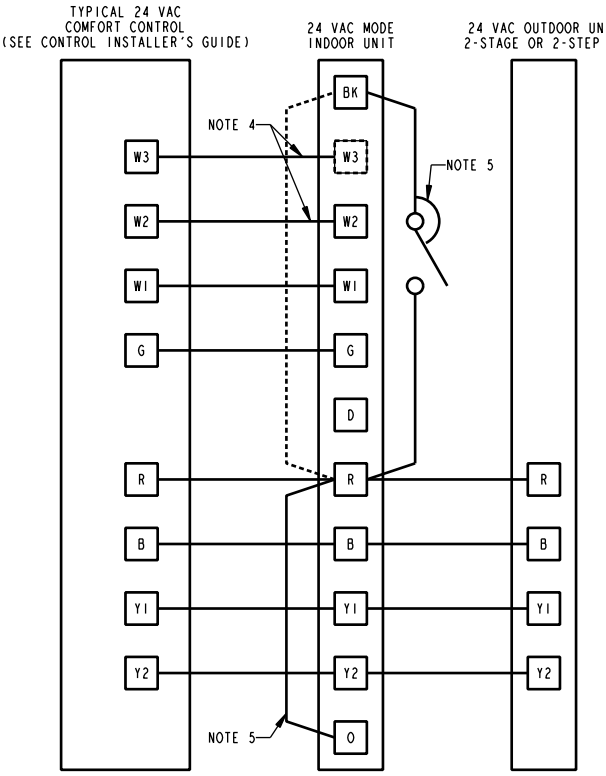
------	FACTORY WIRING
———	FIELD WIRING
T	TERMINAL MAY OR MAY NOT BE PRESENT ON UNIT

NOTES:

1. SEE WIRING DIAGRAMS IN SERVICE FACTS FOR COMPLETE WIRING INFORMATION.
2. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR.
3. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
4. OPTIONAL FIELD WIRING. CONNECT ONLY IF THESE HEATING STAGES ARE USED.
5. CONNECTIONS TO "R" , "BK", AND "O" MUST BE MADE AS SHOWN FOR PROPER OPERATION WITH OPTIONAL HUMIDISTAT IN COOLING. FACTORY "R" TO "BK" JUMPER ON TERMINAL BLOCK MUST BE REMOVED ON AIR HANDLING UNITS. FACTORY "R" TO "BK" JUMPER ON FURNACE CONTROL MUST BE CUT ON FURNACES.

PRINTED FROM D802614P03 REV01

COMMUNICATING INDOOR UNIT WITH 24 VAC COMFORT CONTROL & 24 VAC 2-STAGE OR 2-STEP COOLING



LEGEND

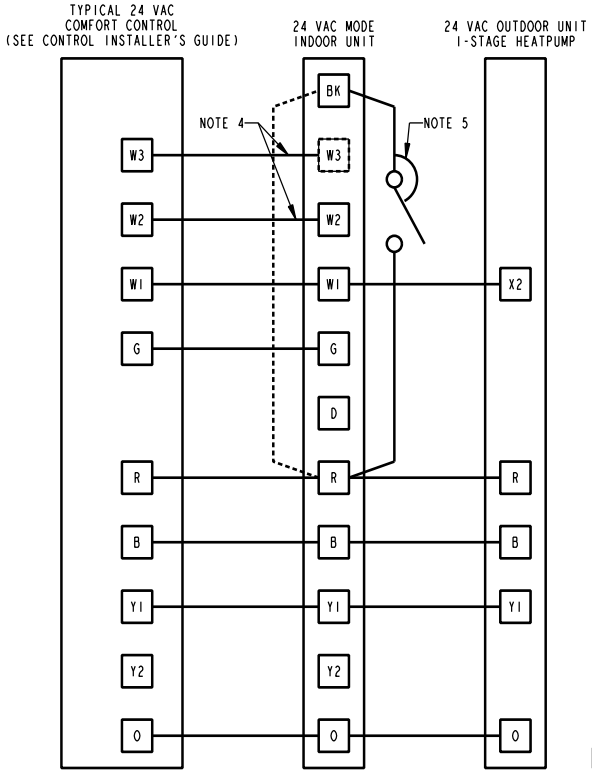
------	FACTORY WIRING
———	FIELD WIRING
T	TERMINAL MAY OR MAY NOT BE PRESENT ON UNIT

NOTES:

1. SEE WIRING DIAGRAMS IN SERVICE FACTS FOR COMPLETE WIRING INFORMATION.
2. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR.
3. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
4. OPTIONAL FIELD WIRING. CONNECT ONLY IF THESE HEATING STAGES ARE USED.
5. CONNECTIONS TO "R" , "BK", AND "O" MUST BE MADE AS SHOWN FOR PROPER OPERATION WITH OPTIONAL HUMIDISTAT IN COOLING. FACTORY "R" TO "BK" JUMPER ON TERMINAL BLOCK MUST BE REMOVED ON AIR HANDLING UNITS. FACTORY "R" TO "BK" JUMPER ON FURNACE CONTROL MUST BE CUT ON FURNACES.
6. SEE USER INTERFACE 24 VAC MODE SETUP MENU FOR 1ST STAGE CFM OPTIONS.
   2-STAGE = 39-64%
   2-STEP = 65-80%

PRINTED FROM D802614P04 REV01

COMMUNICATING INDOOR UNIT WITH 24 VAC COMFORT CONTROL & 24 VAC SINGLE STAGE HEAT PUMP



LEGEND

------ FACTORY WIRING

——— FIELD WIRING

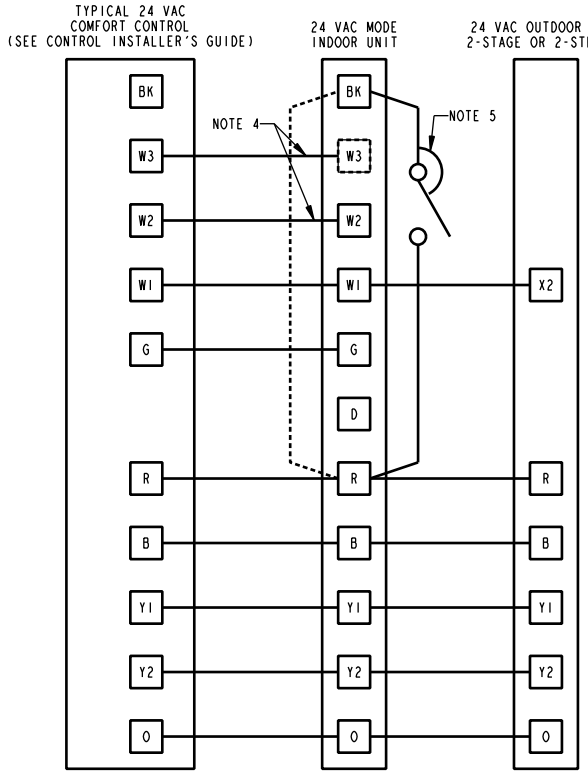
[T] TERMINAL MAY OR MAY NOT BE PRESENT ON UNIT

NOTES:

1. SEE WIRING DIAGRAMS IN SERVICE FACTS FOR COMPLETE WIRING INFORMATION.
2. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR.
3. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
4. OPTIONAL FIELD WIRING. CONNECT ONLY IF THESE HEATING STAGES ARE USED.
5. CONNECTIONS TO "R" , "BK", AND "O" MUST BE MADE AS SHOWN FOR PROPER OPERATION WITH OPTIONAL HUMIDISTAT IN COOLING. FACTORY "R" TO "BK" JUMPER ON TERMINAL BLOCK MUST BE REMOVED ON AIR HANDLING UNITS. FACTORY "R" TO "BK" JUMPER ON FURNACE CONTROL MUST BE CUT ON FURNACES.
6. ON FURNACE APPLICATIONS, COMFORT CONTROL MUST BE DUAL FUEL COMPATIBLE (SEE CONTROL INSTALLERS GUIDE) OR MUST USE TAYPLUSI03.

PRINTED FROM D802614P05 REV01

COMMUNICATING INDOOR UNIT WITH 24 VAC COMFORT CONTROL & 24 VAC 2-STAGE OR 2-STEP HEAT PUMP



LEGEND

------ FACTORY WIRING

——— FIELD WIRING

[T] TERMINAL MAY OR MAY NOT BE PRESENT ON UNIT

NOTES:

1. SEE WIRING DIAGRAMS IN SERVICE FACTS FOR COMPLETE WIRING INFORMATION.
2. LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR.
3. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT NAMEPLATE. POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
4. OPTIONAL FIELD WIRING. CONNECT ONLY IF THESE HEATING STAGES ARE USED.
5. CONNECTIONS TO "R" , "BK", AND "O" MUST BE MADE AS SHOWN FOR PROPER OPERATION WITH OPTIONAL HUMIDISTAT IN COOLING. FACTORY "R" TO "BK" JUMPER ON TERMINAL BLOCK MUST BE REMOVED ON AIR HANDLING UNITS. FACTORY "R" TO "BK" JUMPER ON FURNACE CONTROL MUST BE CUT ON FURNACES.
6. ON FURNACE APPLICATIONS, COMFORT CONTROL MUST BE DUAL FUEL COMPATIBLE (SEE CONTROL INSTALLERS GUIDE) OR MUST USE TAYPLUSI03.
7. SEE USER INTERFACE 24 VAC MODE SETUP MENU FOR IST STAGE CFM OPTIONS.
   2-STAGE = 39-64%
   2-STEP = 65-80%

PRINTED FROM D802614P06 REV01

L. Electrical Connections To EAC

⚠ 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.

PROCEDURE:

1) On the communicating system's modular blower, remove the blower access panel.

2) Remove the communicating control box cover.

3)Locate the red jumper wire which is attached from EAC to R on the Communicating Systems PCB. Confirm it is connected. If there is not a jumper wire installed, then one must be installed in this location in order for the air cleaner to function properly.

4) Replace the Communicating control box cover.

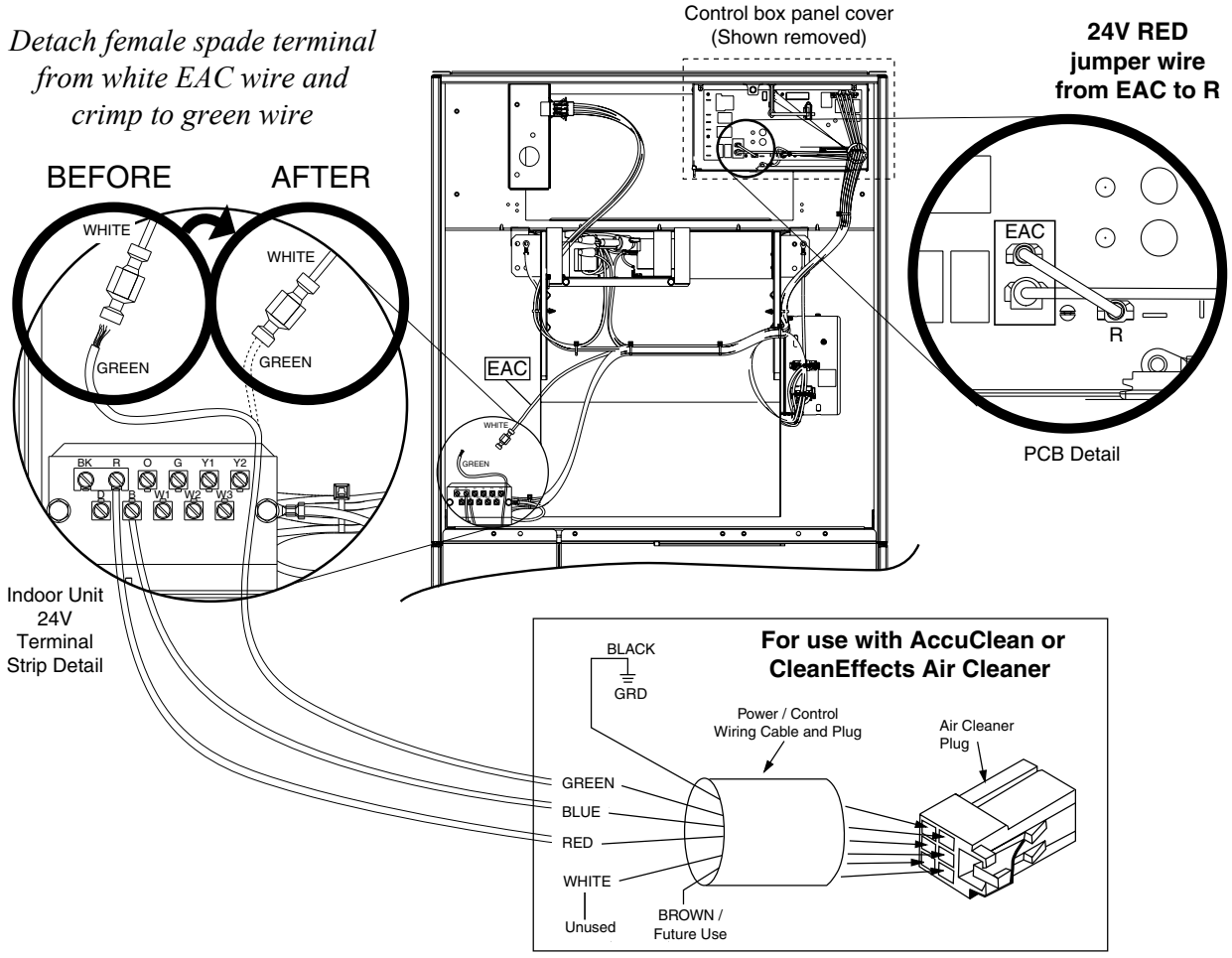
5) Locate the white wire coming from the Communicating System Modular Blower PCB labeled "EAC". The wire will have a male spade terminal connected to it and a female spade terminal inserted into the male terminal. Remove the female spade terminal and crimp it to the green wire on the air cleaner harness.

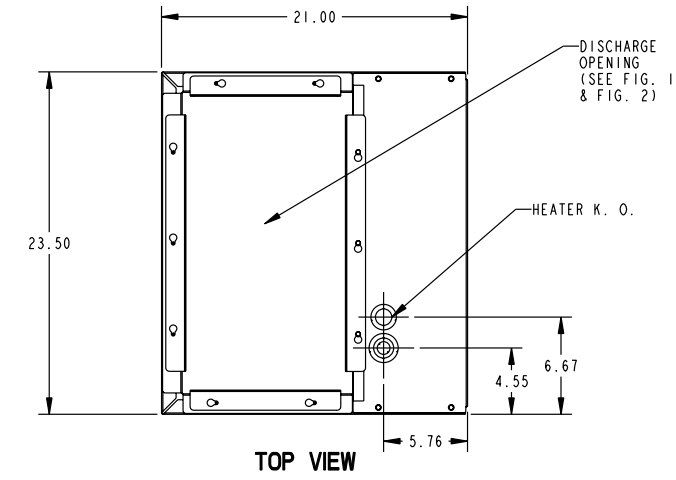
6)Connect the green wire from the air cleaner harness to the white wire on the Communicating Systems Modular Blower.

7) Using the wire harness supplied with the air cleaner, connect the Red and Blue wires from the air cleaner harness to "R" and "B" on the Indoor Unit 24V Terminal Strip respectively.

8)Connect the Black wire from the air cleaner wire harness to earth ground by attaching the wire to a grounded screw that is connected to the metal air handler chassis.

9) Replace the blower access panel.





TOP VIEW

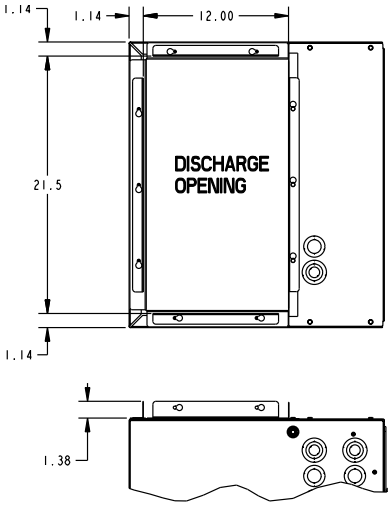
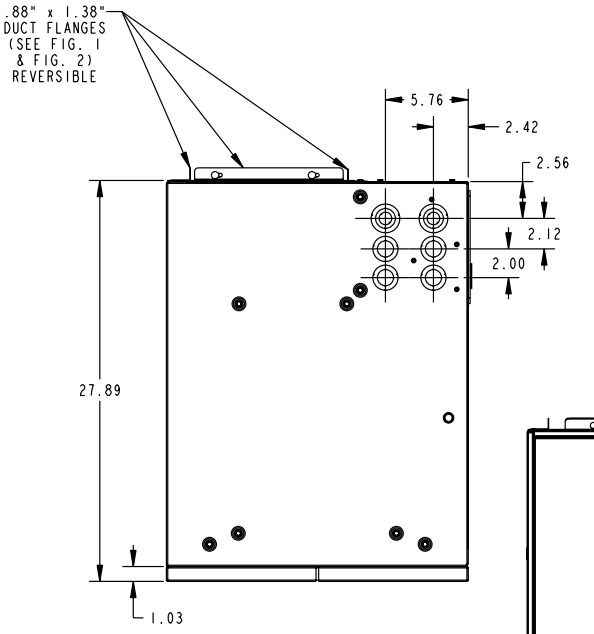
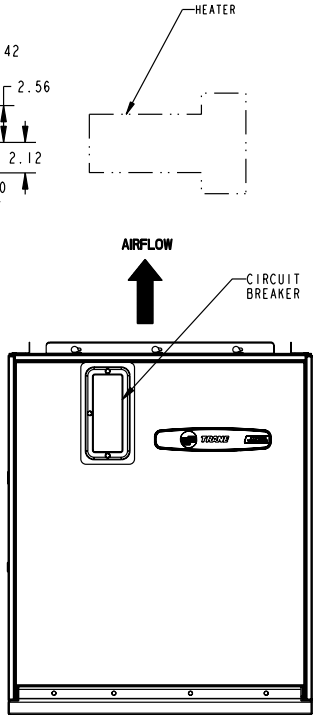


FIG. 1



SIDE VIEW



VERTICAL UPFLOW

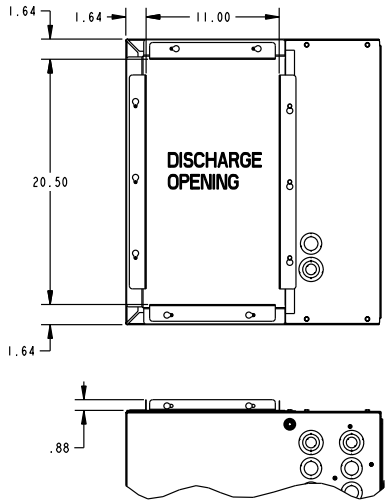
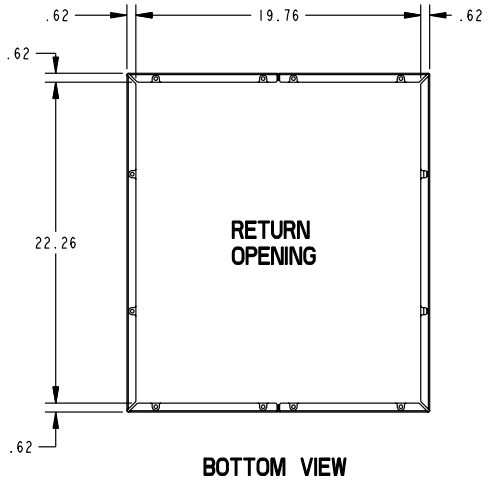


FIG. 2



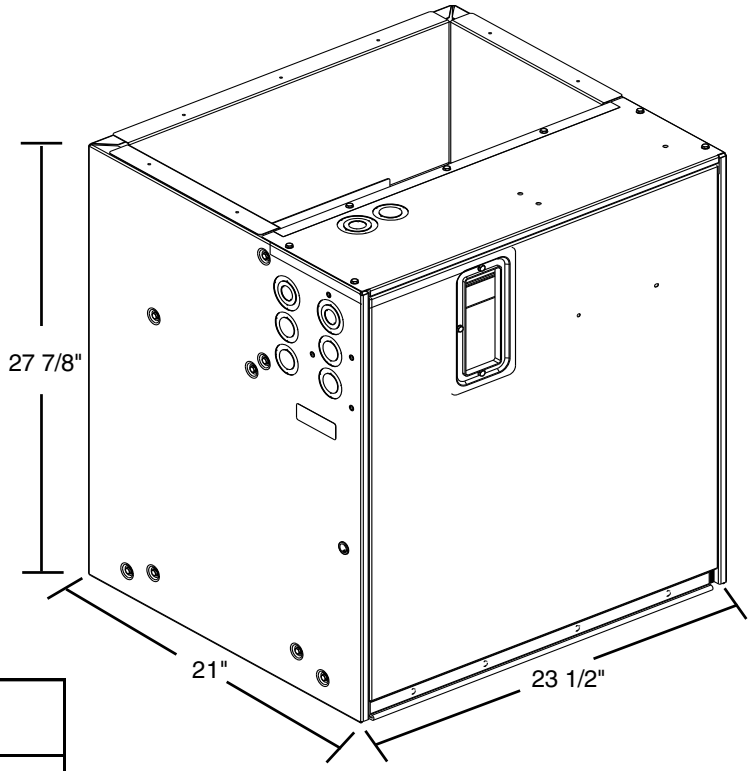
BOTTOM VIEW

MINIMUM UNIT CLEARANCE TABLE		
	TO COMBUSTIBLE MATERIAL (REQUIRED)	SERVICE CLEARANCE (RECOMMENDED)
SIDES	0"	2"
FRONT	0"	21"
BACK	0"	0"
INLET DUCT	0"	1"
OUTLET DUCT	1"*	

* 1" FOR THE PLENUM AND THE FIRST 3 FT. OF OUTLET DUCT WHEN ELECTRIC HEATERS ARE INSTALLED.

From Dwg. D802865rev0

Figure 11. Outline Drawing



Model No.	H	W	D
4TBE0C04A	27 7/8"	23 1/2"	21"
4TBE0C08A			

Figure 12. Dimensional Data

M. Checkout Procedures

1. Check the modular blower installation in accordance with the instructions on page 3.
2. "Operational Procedure" for the system installation can be found in the outdoor unit installer guide and will be compatible with this modular blower.

After installation has been completed, it is recommended that the modular blower be checked against the following checklist.

1. Make sure power is "OFF" at power disconnect switch.
2. Check all field wiring for tight connections. See that grounding of unit is in accord with code.
3. Make sure unit suspension (if used) is secure and that there are no tools or loose debris in, around or on top of the unit.
4. Check all duct outlets; they must be open and unrestricted.
5. Check power supply for correct requirements per unit nameplate.
6. Energize the system and carefully observe its operation; make any necessary adjustment.
7. Instruct owner, engineer (if possible) on proper operating procedure and leave Use and Care Manual with owner.

N. Supplementary Heaters Checkout Procedures

IMPORTANT: IF a heater is USED, see "limitations and recommendations" to determine if the heater requires a SPECIAL CIRCUIT.

1.Be sure the disconnect switch is "OFF", and safety label (if any) is attached.
2.Check on field wiring for tight connections and grounding according to codes.
3.Check circuit protection for proper size per nameplate specifications.
4.Check control box panel — in place and secured.

NOTE: OPERATION OF HEATERS MUST BE CHECKED DURING THE OPERATION CHECK OF THE TOTAL SYSTEM.

O. General Guidelines

When applying a coil to the modular blower unit we make the following recommendations:

- The coil must be installed on air entering side of the Modular Blower
- To help prevent water damage to home or modular blower/components verify the airflow being delivered does not exceed the coil manufacturer's specifications for maximum face velocity
- At start-up verify the total external static of installed system does not exceed the static pressure limits listed on the nameplate of the modular blower
- If ChargeAssist™ is used to charge system, charge must be verified using manufacturer's charging chart found in the outdoor unit's Service Facts.

Disclaimer
The manufacturer does not make any representation or warranty regarding the performance, reliability, or ratings of third party coils.

Trane
6200 Troup Highway
Tyler, TX 75707

06/09

For more information contact your local dealer (distributor)