

## Installation Instructions

# Gas Heater Conversion

## Foundation™ Packaged Rooftop Units

17.5 Tons

Model Number: GDK210A\*(S,H,Z)

### 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.

September 2024

ACC-SVN314A-EN

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## 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:

**WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION** 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 practices.

**NOTICE** 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.

### 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.

### 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/national electrical codes.

### WARNING

#### Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury. Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, MUST follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- Before installing/servicing this unit, technicians MUST put on all PPE required for the work being undertaken (Examples; cut resistant gloves/sleeves, butyl gloves, safety glasses, hard hat/bump cap, fall protection, electrical PPE and arc flash clothing). ALWAYS refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, ALWAYS refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labeling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.
- If there is a risk of energized electrical contact, arc, or flash, technicians MUST put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, PRIOR to servicing the unit. NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.

### 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.

### WARNING

#### R-454B Flammable A2L Refrigerant!

Failure to use proper equipment or components as described below could result in equipment failure, and possibly fire, which could result in death, serious injury, or equipment damage. The equipment described in this manual uses R-454B refrigerant which is flammable (A2L). Use ONLY R-454B rated service equipment and components. For specific handling concerns with R-454B, contact your local representative.

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## General Information

**Important:** Conversion should be made prior to installation of equipment at job site.

- Carefully review installation instructions.
- If the unit is installed in a horizontal configuration, the factory-installed gas orifice spuds, air orifice plate, and TCO1 limit must be replaced with the gas orifice spuds, air orifice plate, and TCO1 limit for horizontal applications shipped in the heater compartment. See [Figure 7, p. 2](#) for TCO1 installation location and [Figure 6, p. 2](#) for the location for these ship-with parts.

### Inspection

1. Unpack all components of the kit.
2. Check carefully for shipping damage. If any damage is found, report it immediately, and file a claim against the transportation company. Unpack all components of the kit.

### Parts List

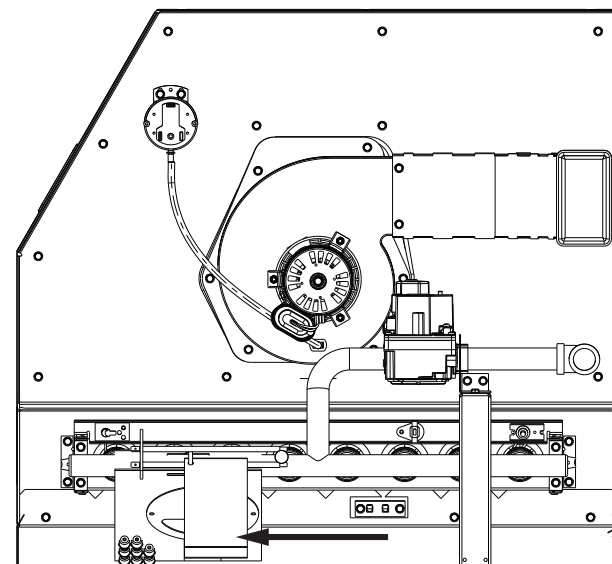
Table 1. Parts list

Qty	Description
8	Drill Size 0.125-in. Orifice Spuds
1	0.158-in. Air Orifice Plate, Part No. 438718370008
1	Label - Supplement Heating Data - English
1	Label - Supplement Heating Data - French

## Installation

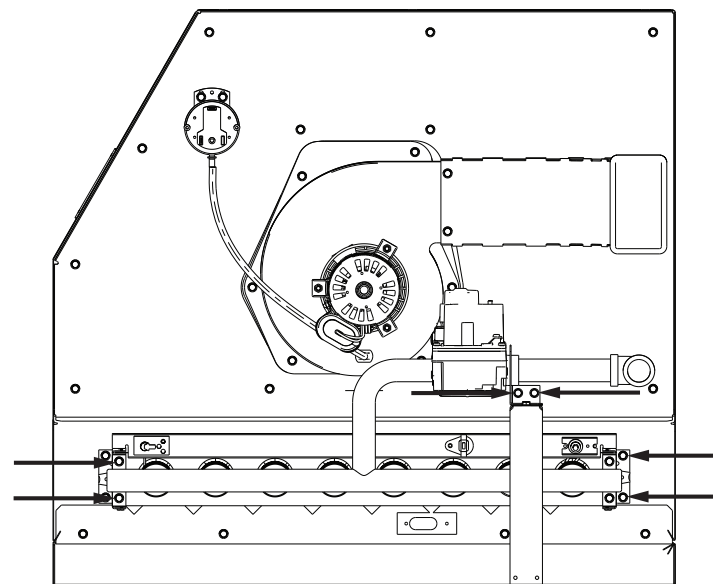
1. Remove the gas heat section access panel.
2. Remove ship-with parts attached to the gas manifold vertical leg. See [Figure 1](#).

Figure 1. Gas orifice spuds, air orifice, supplement heating data label shipping location



3. Remove six screws from manifold bracket. See [Figure 2](#).

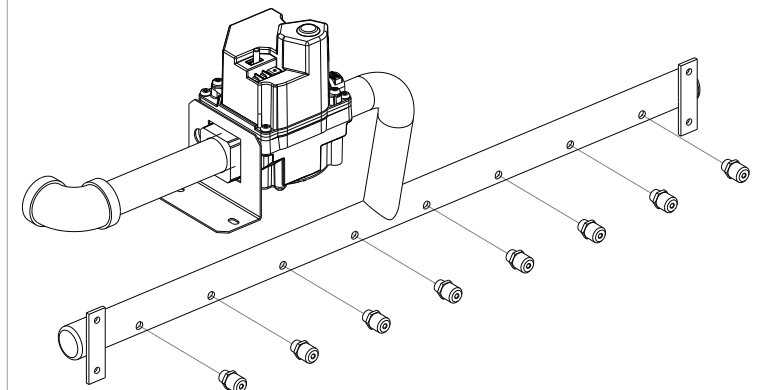
Figure 2. Remove screws from manifold bracket



4. Remove the natural gas orifice spuds from the manifold. See [Figure 3, p. 1](#).
5. Install the ship-with, natural gas orifice spuds. Engage threads of manifold and tighten orifice three- and one-half turns.

**Note:** Do not over torque gas orifice spuds.

7. Remove six screws securing the inducer blower assembly. See [Figure 4, p. 2](#) and [Figure 5, p. 2](#).
8. Remove three screws securing the air orifice plate. See [Figure 4, p. 2](#).
9. Using three screws, install the ship-with, air orifice plate.



6. Disconnect the inducer motor wiring harness.



Figure 4. Remove screws from inducer blower assembly and air orifice plate

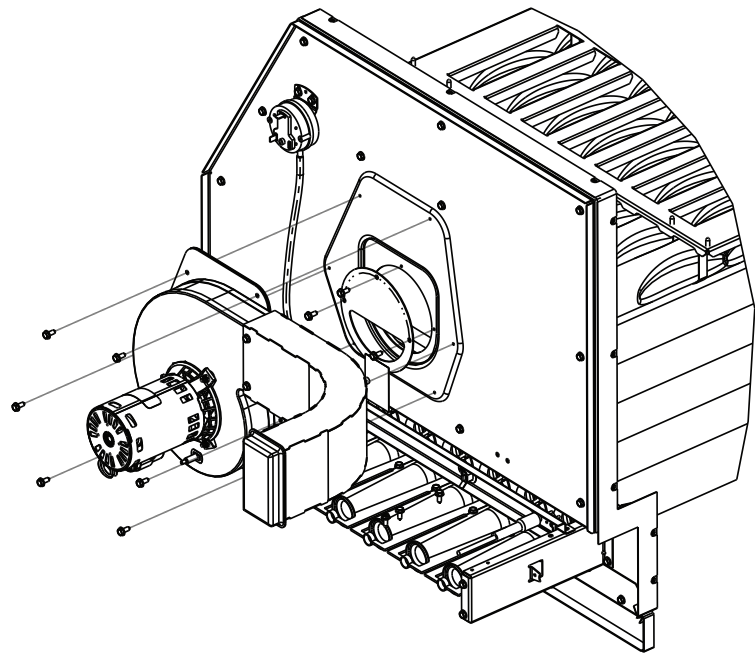
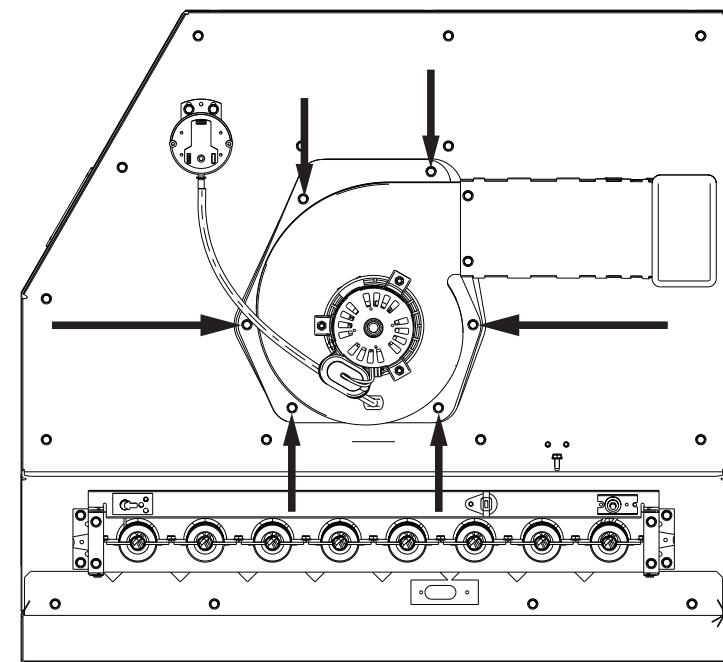


Figure 5. Remove screws from inducer blower assembly



10. Install the inducer blower assembly using six screws. Confirm exhaust screen (Figure 5) is positioned properly in the center ID post.
11. Connect the inducer blower wire harness.
12. Install the manifold bracket using six screws.
13. Remove the TCO1 limit attached to the gas manifold vertical leg. See Figure 6, p. 2.
14. Remove and discard the factory-installed, downflow TCO1 limit.
15. Install the ship-with TCO1 limit for horizontal operation. See Figure 7, p. 2.
16. Reinstall the gas heat access panel.

Figure 6. TCO1 limit ship-with location

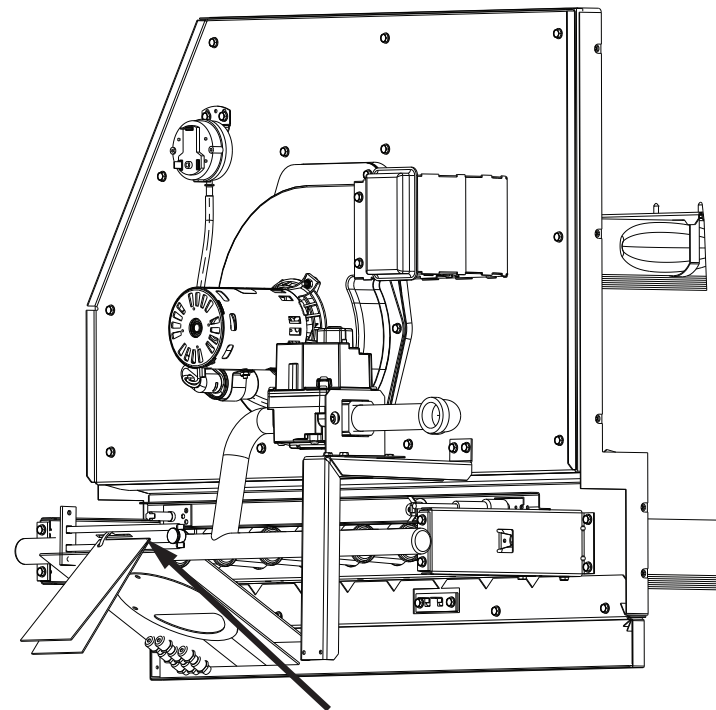
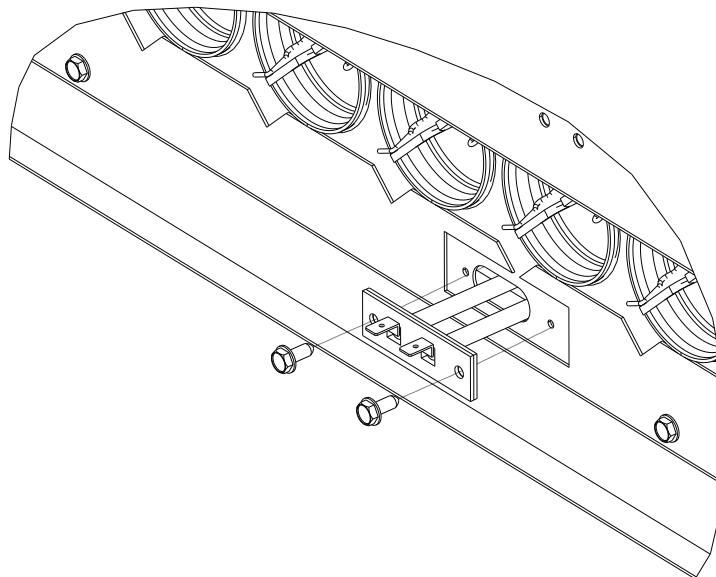




Figure 7. TCO1 limit factory-installed location



17. Once the conversion is complete, scratch off the ink square (to the right-hand side of), **SCRATCH INK OFF SQUARE WHEN USING SUPPLEMENTAL HEATING DATA** on both English and French nameplate.
18. Paste the ship-with supplemental heating data label over the existing heating data on both English and French nameplate. See Figure 8, p. 2.

Figure 8. Location for pasting supplemental heating data label

TRANE MONTERREY, NL 68600		<b>FOUNDATION™</b>	
AIR CONDITIONING SYSTEMS EQUIPMENT, SELF-CONTAINED UNIT			
THIS UNIT COMPLIES WITH THE ENERGY EFFICIENCY RATINGS OF ASHRAE 90.1		LISTED COOLING PORTION OF HEATING AND COOLING UNIT. GAS HEATING PORTION CLASSIFIED BY UL IN ACCORDANCE WITH ANSI Z21.47-2016 / CSA 2.3-2016.	
MODEL NO.	Click here		
SERIAL NO.	Click here		
DATE OF MFG.	Click here		
<b>ELECTRICAL DATA</b>			
RATED VOLTAGE	Click here	VOLT. RANGE	Click here
CONTROL CIRCUIT VOLTS	24 VAC	Click Here	Click here
MIN. CIRCUIT AMPACITY	Click here	Click here	Click here
MAX. OVERCURRENT PROT.	Click here	Click here	Click here
COMPR#1	QTY	PH	HZ
Click here	Click here	Click here~	Click
COMPR#2	Click here	Click here~	Click
FAN(S)	QTY	PH	HZ
COND.	Click here	Click here~	Click
EVAP. STD	Click here	Click here~	Click
EVAP. O/S	Click here	Click here~	Click
MISC. LOAD	N/A	Click here	Click here
RLA-VOLTS	Click here	LRA	Click here
Click here	Click here	Click here	Click here
FLA-VOLTS	Click here	HP	Click here
Click here	Click here	Click here	Click here
SCRATCH INK OFF SQUARE WHEN OVERSIZE MOTOR IS INSTALLED			
<b>DATA FOR UNITS WITH POWERED EXHAUST ACCESSORY ONLY</b>			
POWERED EXHAUST MODEL	Click Here	STANDARD EVAP MOTOR	OVERSIZE EVAP MOTOR
	MCA	MOP	MCA
	Click	Click	Click
			Click
<b>COOLING DATA</b>			
Click here	FACTORY CHARGED	MAX ALLOWABLE PRESSURE	
CIRCUIT#1	Click here	600 PSI	
CIRCUIT#2	Click here	4137 Kpa	
<b>HEATING DATA – UNIT EQUIPPED FOR NATURAL GAS</b>			
RATED HEATING INPUT	Click here to enter text.		
HEATING OUTPUT	Click here to enter text.		
MIN. HEATING INPUT	Click here to enter text.		
HEATING THERMAL EFFICIENCY	Click here to enter text.		
TEMP. RISE	Click here to enter text.		
MAX. OUTLET AIR TEMP.	Click here to enter text.		
MAX. EXT. STATIC PRESS.	Click here to enter text.		
MIN. EXT. STATIC PRESS.	Click here to enter text.		
MAX. GAS SUPPLY PRESS.	14 IN. W.C. (3487 PA)		
MIN. GAS SUPPLY PRESS. FOR INPUT ADJ.	Click here to enter text.		
FOR USE AT ALTITUDES OF	0-2000 FT. (0-610 M)		
MIN. AMBIENT TEMP.	-40 DEG F (-40 DEG C)		
MANIFOLD PRESS. (RATED INPUT)	Click here to enter text.		
MANIFOLD PRESS. (MIN. INPUT)	Click here to enter text.		
ORIFICE DRILL SIZE	Click here to enter text.		
Click here to enter text.	Click here to enter text.		
<b>GENERAL DATA</b>			
MAX DISCHARGE TEMP IS 83 DEG C.			
CLEARANCES TO COMBUSTIBLE MATERIAL W/O ELECTRIC HEAT (INCHES): TOP - 72IN. (1.8 M); L.SIDE-24IN. (610 MM); R. SIDE-24IN. (610 MM); FRONT-24IN. (610 MM); BACK-18IN. (457 MM); DUCT - 0IN. (0MM)			
THIS UNIT SHOULD BE INSTALLED AND REGULARLY MAINTAINED IN ACCORDANCE WITH THE SERVICE LITERATURE MANUAL(S).			
FOR OUTDOOR USE			
43891201 Rev A	ASSEMBLED IN MEXICO	X38002718010	
<a href="http://www.trane.com/patent">www.trane.com/patent</a>			

TRANE MONTERREY, NL 68600		<b>FOUNDATION™</b>	
CLIMATISATION EQUIPEMENT DES SYSTEMES, UNITE AUTONOME			
CET APPAREIL EST CONFORME AUX TAUX DE RENDEMENT ENERGETIQUE DE L'ASHRAE 90.1		UNITE DE REFRIGERATION ET CHAUFFAGE COMBINE.	
MODELE N°	Click here		
NUMERO DE SERIE.	Click here		
DATE DE FABRICATION.	Click here		
<b>DONNEES ELECTRIQUES</b>			
TENSION NOMINALE	Click here	VOLT. PLAGE	Click here
VOLTS DU CIRCUIT DE COMMANDE	24 VAC	Click Here	Click here
MIN. INTENSITE DU CIRCUIT	Click here	Click here	Click here
MAX. PROTECTION CONTRE LA SURINTENSITE	Click here	Click here	Click here
COMPR#1	QTE	PH	HZ
Click here	Click here	Click here~	Click
COMPR#2	Click here	Click here~	Click
VENTILATEUR(S)	QTE	PH	HZ
COND.	Click here	Click here~	Click
EVAP. STD	Click here	Click here~	Click
EVAP. Systeme d'exploitation	Click here	Click here~	Click
DIVERS CHARGE	N/A	Click here	Click
GRATTER L'ENCRE DE L'EQUERRE LORSQUE LE MOTEUR SURDIMENSIONNE EST INSTALLE		Click here	Click here
RLA-VOLTS	Click here	LRA	Click here
Click here	Click here	Click here	Click here
FLA-VOLTS	Click here	HP	Click here
Click here	Click here	Click here	Click here
SCRATCH INK OFF SQUARE WHEN OVERSIZE MOTOR IS INSTALLED			
<b>DONNEES POUR LES UNITES AVEC ACCESSOIRE D'ECHAPPEMENT MOTORISE UNIQUEMENT</b>			
MODELE D'ECHAPPEMENT MOTORISE	Click Here	STANDARD MOTEUR EVAP	MOTEUR EVAP SURDIMENSIONNE
	MCA	MOP	MCA
	Click	Click	Click
			Click
<b>DONNEES DE REFRIGERATION</b>			
Click Here	CHARGE EN USINE	PRESSION MAXIMALE DE CONCEPTION	
CIRCUIT N°1	Click Here	600 PSI	
CIRCUIT N°2	Click Here	4137 Kpa	
<b>DONNEES DE CHAUFFAGE – APPAREIL EQUIPE AU GAZ NATUREL</b>			
PUISSANCE DE CHAUFFAGE NOMINALE	Click here to enter text.		
SORTIE DE CHAUFFAGE	Click here to enter text.		
MIN. PUISSANCE DE CHAUFFAGE	Click here to enter text.		
RENDEMENT THERMIQUE DU CHAUFFAGE	Click here to enter text.		
TEMP. ELEVATION	Click here to enter text.		
MAX. TEMPERATURE DE L'AIR DE SORTIE	Click here to enter text.		
MAX. EXT. PRESSION STATIQUE.	Click here to enter text.		
MIN. EXT. PRESSION STATIQUE.	Click here to enter text.		
MAX. PRESSION DE L'ALIMENTATION EN GAZ.	14 IN. W.C. (3487 PA)		
MIN. PRESSION DE L'ALIMENTATION EN GAZ. POUR LE REGLAGE DE L'ENTREE	Click here to enter text.		
POUR UNE UTILISATION A DES ALTITUDES DE	0-2000 FT. (0-610 M)		
MIN. TEMP. AMBIANTE	-40 DEG F (-40 DEG C)		
PRESSION DU COLLECTEUR (ENTREE NOMINALE)	Click here to enter text.		
PRESSION DU COLLECTEUR (MIN. ENTREE)	Click here to enter text.		
TAILLE DE PERÇAGE DE L'ORIFICE	Click here to enter text.		
Click here to enter text.	Click here to enter text.		
<b>DONNEES GENERALES</b>			
LA TEMPERATURE MAXIMALE DE DECHARGE EST DE 83 DEG C.			
DEGAGEMENTS AUX MATERIAUX COMBUSTIBLES AVEC/SANS CHAUFFAGES ELECTRIQUES (POUCES) : TOP - 72 PO. (1.8 M); CÔTE GAUCHE - 24 POUCES. (610 MM); CÔTE DROIT-24 POUCES. (610 MM); AVANT - 24 PO. (610 MM); ARRIERE - 18 PO. (457 MM); CONDUIT - 0 PO. (0 MM)			
CET APPAREIL DOIT ÊTRE INSTALLE ET ENTRETENU REGULIEREMENT CONFORMEMENT AU(X) DOCUMENT(S) SUR L'ENTRETIEN.			
POUR UNE UTILISATION EN EXTERIEUR – IPX4			
43891202 Rev A	ASSEMBLED IN MEXICO	X39002718010	
<a href="http://www.trane.com/patent">www.trane.com/patent</a>			

Paste supplemental heating data label over the dotted area

Trane and American Standard create comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit [trane.com](http://trane.com) or [americanstandardair.com](http://americanstandardair.com).

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