

# City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

<b>Location of Construction:</b> 36 MARKET ST		<b>Owner Name:</b> 36 MARKET ST		<b>Permit No:</b> 06-0059		<b>Issue Date:</b> JAN 24 2006		<b>CBL:</b> 032 F002001	
<b>Business Name:</b>		<b>Contractor Name:</b> Gelinas HVAC Services Inc.		<b>Owner Address:</b> 20 MILK ST		<b>Phone:</b>			
<b>Lessee/Buyer's Name</b>		<b>Phone:</b>		<b>Contractor Address:</b> 2 Washington Ave SE Portland		<b>Phone:</b> 207 8850771			
<b>Past Use:</b> Commercial		<b>Proposed Use:</b> Commercial/ Replace existing units w/ Lennox RTV's		<b>Permit Type:</b> HVAC		<b>Zone:</b> B-3			
<b>Proposed Project Description:</b> Replace existing units w/ Lennox RTV's				<b>Permit Fee:</b> \$210.00		<b>Cost of Work:</b> \$20,500.00		<b>CEO District:</b> 1	
<b>legal use; 1st floor restaurant offices above the 1st floor</b>				<b>FIRE DEPT:</b> <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied TO NFPA 54 AND 90B		<b>INSPECTION:</b> Use Group: HVAC Type: 1/23/06			
				<b>Signature:</b> Greg Cass		<b>Signature:</b> [Signature]			
				<b>PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)</b>					
				<b>Action:</b> <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied					
				<b>Signature:</b>		<b>Date:</b>			

<b>Permit Taken By:</b> Idobson	<b>Date Applied For:</b> 01/12/2006	<b>Zoning Approval</b>		
<ol style="list-style-type: none"> <li>This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</li> <li>Building permits do not include plumbing, septic or electrical work.</li> <li>Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</li> </ol>		<b>Special Zone or Reviews</b> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan <input type="checkbox"/> Major <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> <b>Date:</b> 1/19/06	<b>Zoning Appeal</b> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied <b>Date:</b>	<b>Historic Preservation</b> <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied <b>Date:</b>

Any exterior work requires a separate review approval

## CERTIFICATION

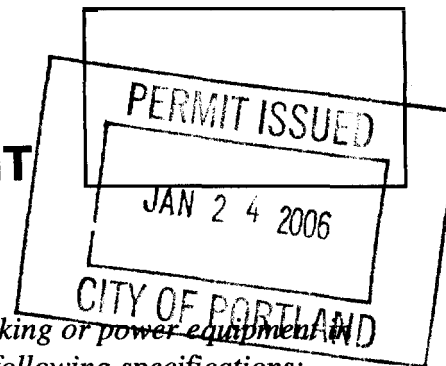
I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE	DATE	PHONE	



FILL IN AND SIGN WITH INK

# APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT



To the **INSPECTOR OF BUILDINGS, PORTLAND, ME.**

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL 36 market st Portland, ME. Use of Building Commercial Date 1/3/06

Name and address of owner of appliance E.L.C market st. INC.

Installer's name and address GELINAS HVAC Services INC

Telephone (207)

## Location of appliance:

- ☐ Basement ☐ Floor  
☐ Attic ☒ Roof

## Type of Fuel:

- ☒ Gas ☐ Oil ☐ Solid

Appliance Name: Lennox RTU'S

U.L. Approved ☒ Yes ☐ No

Will appliance be installed in accordance with the manufacturer's installation instructions? ☒ Yes ☐ No

IF NO Explain: \_\_\_\_\_

## The Type of License of Installer:

- ☐ Master Plumber # \_\_\_\_\_  
☐ Solid Fuel # \_\_\_\_\_  
☐ Oil # \_\_\_\_\_  
☒ Gas # PNT1078  
☐ Other \_\_\_\_\_

## of Chimney:

- ☐ Masonry Lined  
Factory built N/A

☐ Listing # N/A

UL# N/A

Distance from back of unit to center of flame N/A feet.

Cost of 20,500.00

Permit Fee: \$ 210.00

## Approved

Fire: \_\_\_\_\_

Ele.: \_\_\_\_\_

Bldg.: \_\_\_\_\_

Signature of Installer William W. Selma

## Approved with Conditions

- ☐ See attached letter or requirement

Inspector's Signature \_\_\_\_\_

Date Approved \_\_\_\_\_

White - Inspection

Yellow - File

Pink - Applicant's

Gold - Assessor's Copy

**City of Portland, Maine • Building or Use Permit**

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<b>Permit No:</b> 06-0059	<b>Date Applied For:</b> 01/12/2006	<b>CBL:</b> 032 F002001
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<b>Location of Construction:</b> 36 MARKET ST	<b>Owner Name:</b> 36 MARKET ST	<b>Owner Address:</b> 20 MILK ST	<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b> Gelinas HVAC Services Inc.	<b>Contractor Address:</b> 2 Washington Ave Scarborough	<b>Phone</b> (207) 885-0771
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> HVAC	

<b>Proposed Use:</b> Commercial/ Replace existing units w/ Lennox RTV's	<b>Proposed Project Description:</b> Replace existing units w/ Lennox RTV's
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**Dept:** Zoning      **Status:** Approved      **Reviewer:** Marge Schmuckal      **Approval Date:** 01/19/2006  
**Note:**      **Ok to Issue:** ☐

**Dept:** Building      **Status:** Approved      **Reviewer:** Mike Nugent      **Approval Date:** 01/23/2006  
**Note:**      **Ok to Issue:** ☒

**Dept:** Fire      **Status:** Approved with Conditions      **Reviewer:** Cptn Greg Cass      **Approval Date:** 01/20/2006  
**Note:**      **Ok to Issue:** ☐

1) Install to comply with NFPA 90 B. And NFPA 54.

**L & L STRUCTURAL  
ENGINEERING SERVICES, INC.**

Six Q Street  
South Portland, ME 04106  
Phone: (207) 787-4830  
Fax: (207) 789-5432

January 11, 2006

Mr. Bill Gelinas  
Gelinas HVAC  
2 Washington Avenue  
Scarborough, Maine 04074

Subject: Analysis of the Roof Structure to Support HVAC Units for the building  
located 36 Market Street, Portland, Maine

Dear Mr. Gelinas,

As per your request we have reviewed and analyzed the existing roof structure at the aforementioned building in Portland, Maine. The purpose of our analysis and review was to determine if the existing roof structure is capable of safely supporting the proposed HVAC units to be installed on top of the roof. The proposed HVAC units, according to information provided by your office, are LENNOX TU T-Class (Model TGA090H2BS 1Y) 7.5 to 12.0 ton capacity units with an operational weight of 1360 pounds. The unit footprint is approximately 8'-3" x 4'-10". There are three units proposed to be installed on the roof. Two of the proposed units are to be installed on the west side of the roof near the center of the roof. The third unit is proposed to be located on the east side of the roof at approximately a quarter of the distance across the width of the building.

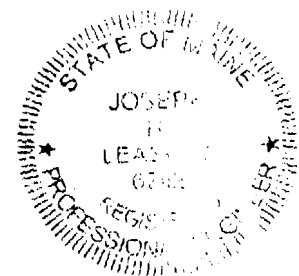
The existing flat roof structure consists of original 3"x9 1/4" timber joists that have been reinforced relatively recently with additional 2-2x10 joists "sistered" to each side of the original joists spaced at approximately 20" on center. The roof joists are supported on the exterior brick walls and an interior timber-bearing wall at the center of building. The maximum roof joist span is approximately 16'-3" between the exterior brick bearing wall and the interior central timber bearing wall. Our analysis and review of the roof structure was performed utilizing the 2003 International Building Code (IBC) adopted by the City of Portland and considering the Building Code Requirements for the material utilized in the existing roof structure. The existing roof structure is currently supporting HVAC units with similar weights and locations. The existing roof structure is capable of supporting the proposed HVAC units at the locations previously described in addition to the code stipulated roof loading.

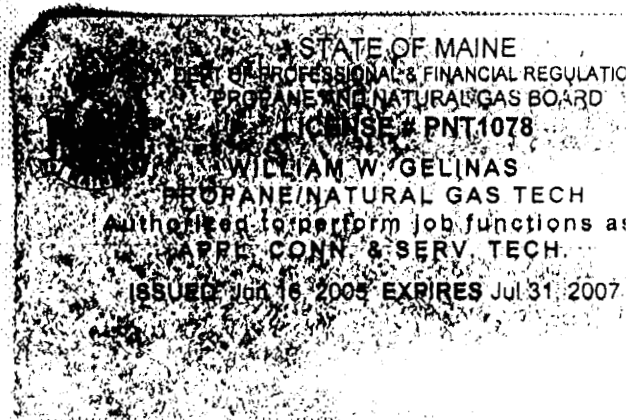
If you have any further questions or require any additional information and/or technical assistance, please do not hesitate to call.

Sincerely,

L&L Structural Engineering Services, Inc.

Joseph H. Leasure, P.E.  
Principal





**STATE OF MAINE**  
DEPARTMENT OF PROFESSIONAL & FINANCIAL REGULATION  
35 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0035  
(207) 624-8606

*William W. Gelinas*

SIGNATURE REQUIRED



## ENGINEERING DATA

new unit

## PACKAGED GAS / ELECTRIC

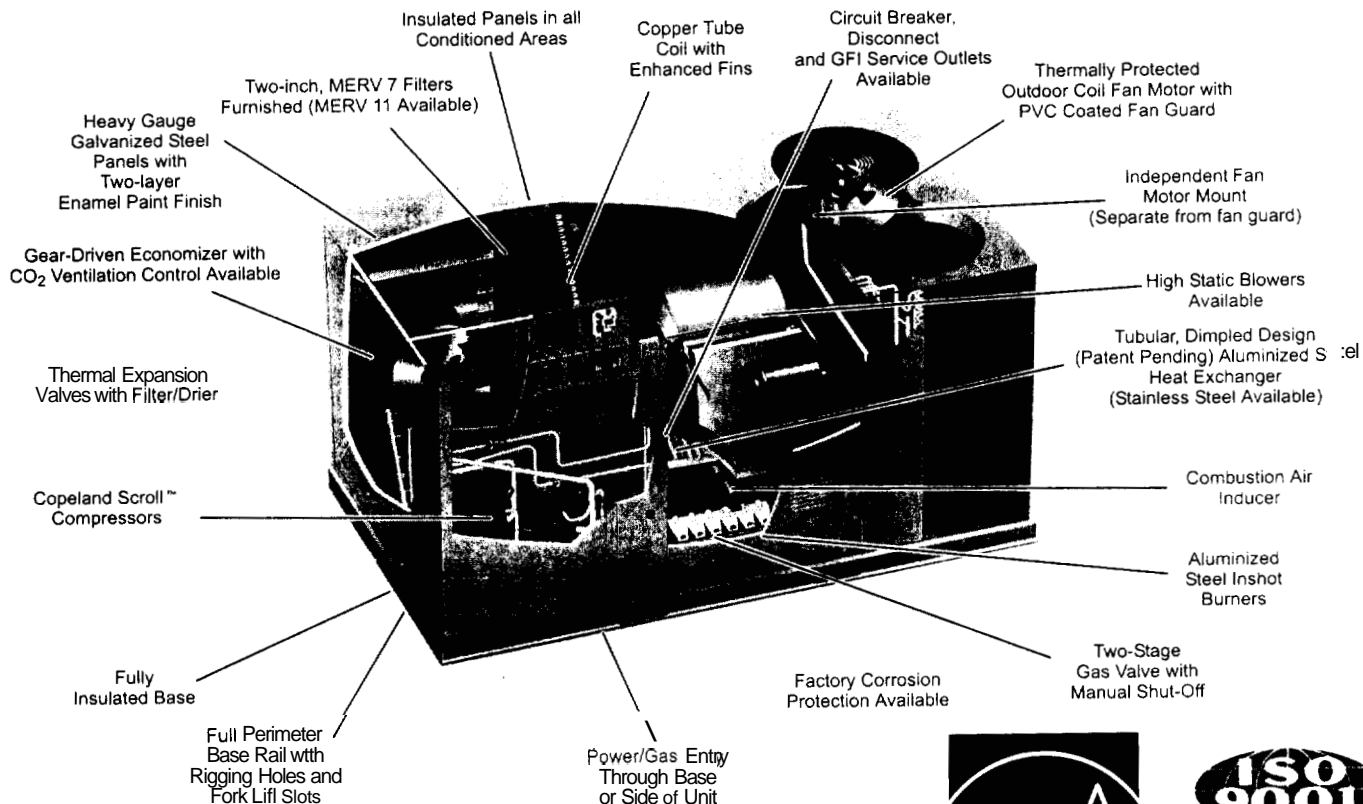
**TG**

## T-CLASS™ ROOFTOP UNIT - 60HZ

7.5 to 12.5 Tons

Bulletin No 210392

April 2004



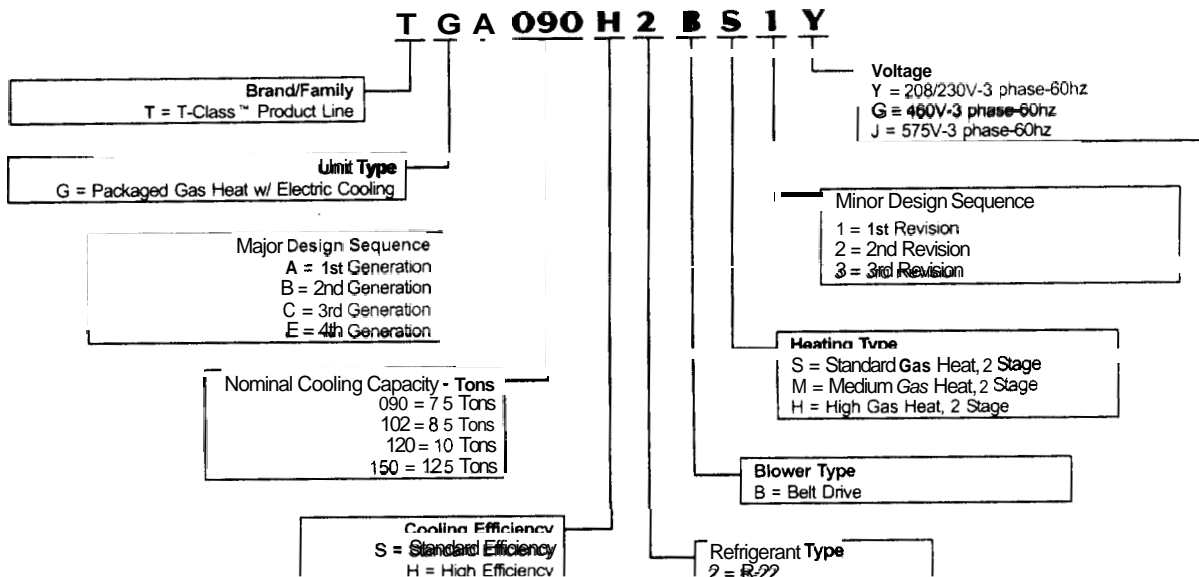
TGA120

Shown With Optional Economizer

**ASHRAE 90.1  
COMPLIANT**



## MODEL NUMBER IDENTIFICATION



NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

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# OPTIONAL ACCESSORIES - SEE PAGES 3-4 FOR DETAILED DESCRIPTIONS

Item		7.5 ton 090	8.5 ton 102	10 ton 120	12.5 ton 150
Cabinet Accessories	Coil Guards	TAHGKGC10/15 LTHSDKGC10/15			
	Hail Guards				
Ceiling Diffusers	Horizontal Discharge Conversion Kit				
	Step-Down - Net Weight	RTD11-95 88 lbs. (40 kg)	RTD11-135 205 lbs. (93 kg)	RTD11-185 392 lbs. (178 kg)	
	Flush - Net Weight	FD11-95 75 lbs. (34 kg)	FD11-135 174 lbs. (79 kg)	FD11-185 289 lbs. (131 kg)	
	Transitions (Supply and Return) - Net Weight	LASRT08/10 30 lbs (14 kg)	LASRT10/12 32 lbs (15 kg)	LASRT15 36 lbs. (16 kg)	
Controls	Blower Proving Switch	LTABPSK LTADFSK See Pages 18-21 LTASASDK10/36 LTRASDK-10130			
	Dirty Filter Switch				
	L Connection* Network				
	Smoke Detector - Supply				
	Smoke Detector - Return				
Cooling Accessories	PVC Condensate Drain Trap	LTACDKP03/36 <b>208/230V - TACHK10/15-Y - 460V - TACHK10/15-G</b> <b>575V - TACHK10/15-J</b>  LTACDKC03/36 TAHPK10/15 TALAK10115			
	Compressor Crankcase Heater				
	Copper Condensate Drain Trap				
	High Pressure Switch				
	Low Ambient Kit				
Economizer	Economizer * Net Weight	TAREMD10/15 - 47 lbs. (21 kg)  LAOAH10/15 - 11 lbs. (5 kg) (2) 16 x 25 x 1 in. (406 x 635 x 25 mm)  TASEK03/36  LTADEK03/36 LTASEK03/36 TAMEK03/36			
	Economizer Outdoor Air Hood - Net Weight				
	Number and Size of Filters				
	Economizer Temperature Control (Sensible) for differential temperature control, order two kits				
	Economizer Enthalpy Control • Differential				
	Economizer Enthalpy Control - Outdoor				
Barometric Relief	Economizer Modulating Sensor Kit				
	Down-Flow Barometric Relief Dampers - Net Weight	LAGED10/15 - 8 lbs (4 kg) LAGEH09/15 LAGEDH03/15 - 8 lbs (4 kg)			
	Hood for Down-Flow LAGED				
Horizontal Barometric Relief Dampers - Net Weight					
Outdoor Air Dampers	Damper Section (down-flow) - Automatic - Net Weight	TAOADM10/15 - 31 lbs (14 kg) LAOAD10115 - 26 lbs (12 kg)  LAOAH10/15 - 11 lbs (5 kg) (2) 16 x 25 x 1 in (406 x 635 x 25 mm)			
	Damper Section (down-flow) - Manual • Net Weight				
	Outdoor Air Hood (down-flow) Net Weight Number and Size of Filters				
Power Exhaust	Power Exhaust Fan - Net Weight	LAPEF10/15 28 lbs (13 kg)			
Electrical Accessories	HACR Circuit Breaker	TAHBK10/15-* (indicate size)  TADK10/15-80 (80A) TADK10/15-150 (150A) LTAGFIK10115			
	Disconnect Switch				
	GFI Service Outlets				
Filters	MERV 11 High Efficiency	AFK-11 (18 x 24 x 2 specify four per unit)			
Heating Accessories	Combustion Air Intake Extensions	LTACAIK10/15  LTACWK10/15-Y - 208/230V, LTACWK10/15-J - 575V LTAGPSK10/15 (Through Curb), LTAGPB10/15 (Through Unit Base) LTALPGK-130- Standard Heat, LTALPGK-180- Medium Heat LTALPGK-240- High Heat  LTAWEK10115			
	Cold Weather Kit				
	Gas Piping Kit				
	LPG/Propane Kits				
	Vertical Vent Extension Kit				
Indoor Air Quality (CO <sub>2</sub> ) Sensors	CO <sub>2</sub> Sensor Duct Mounting Kit	LTIAQSDMK03/36 LTAIAQSWDK03/36 LTAIAQSWN03/36 LTAIAQSND03/36 LTAIAQSDMBN03/36 LTIAQABD03/36 LTAIAQSHM03/36			
	Sensor - white case CO <sub>2</sub> display				
	Sensor * white case no display				
	Sensor - black case CO <sub>2</sub> display				
	Sensor - duct mount, black, no display				
	Aspiration Box for duct mounting				
	Handheld CO <sub>2</sub> Monitor				
Standard Roof Curbs	14 in (356 mm) height - Net Weight	LARMF10/15-14 - 126 lbs (57 kg)			
	24 in (610 mm) height - Net Weight	LARMF10/15-24 - 174 lbs (79 kg)			
Cliplock 1000 Roof Curbs	14 in. (356 mm) height - Net Weight	LARMF10/15S-14 - 126 lbs (57 kg)			
	18 in. (457 mm) height - Net Weight	LARMF10/15S-18 - 156 lbs (71 kg)			
	24 in. (610 mm) height - Net Weight	LARMF10/15S-24 - 174 lbs (79 kg)			

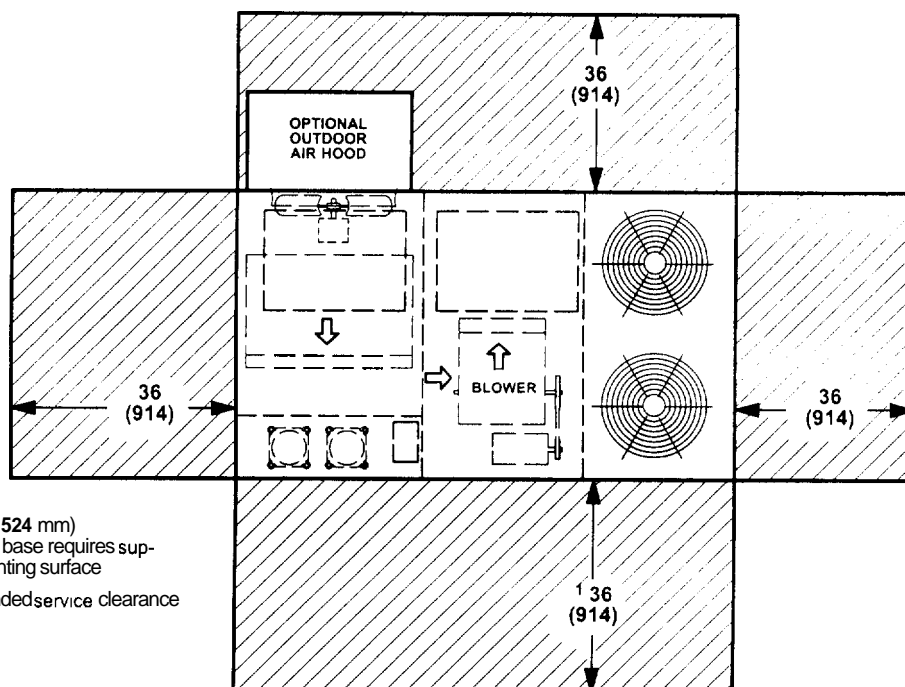
General Data			Nominal Tonnage		7.5 Ton		8.5 Ton	
			Model No		TGA090S2B		TGA102S2B	
			Efficiency Type		Standard		Standard	
Cooling Performance	Gross	Cooling Capacity - Btuh (kW)	93,000 (27.2)			104,000 (30.5)		
		<sup>1</sup> Net Cooling Capacity - Btuh (kW)	90,000 (26.4)			100,000 (29.3)		
		ARI Rated Airflow - cfm (L/s)	3000 (1415)			3400 (1605)		
	Total Unit Power (kW)		8.9			9.9		
	<sup>1</sup> EER (Btuh/Watt)		10.1			10.1		
	<sup>2</sup> Integrated Part Load Value (Btuh/Watt)		10.5			10.5		
	Refrigerant Charge Furnished (HCFC-22)	Circuit 1	7 lbs 0 oz (3.18 kg)			7 lbs 8 oz (340 kg)		
		Circuit 2	6 lbs 8 oz (2.95 kg)			7 lbs 0 oz (3.18 kg)		
3 Sound Rating Number (dB)			88			88		
Performance	Input - Btuh (kW)	First Stage	84,500 (24.8)	117,000 (34.3)		84,500 (24.8)	117,000 (34.3)	
		Second Stage	130,000 (38.1)	180,000 (52.7)		130,000 (38.1)	180,000 (52.7)	
		Second Stage	104,000 (30.5)	144,000 (42.2)		104,000 (30.5)	144,000 (42.2)	
	CSA Thermal Efficiency		80.0%			80.0%		
	Gas Supply Connections		3/4 in. npt			3/4 in. npt		
	Gas Supply Pressure	Natural	7 in. w.c. (1.7 kPa)			7 in. w.c. (1.7 kPa)		
		LPG/Propane	11 in. w.c. (2.7 kPa)			11 in. w.c. (2.7 kPa)		
	Compressor - Number & Type			(2) Scroll			(2) Scroll	
Condenser Coil	Net face area - sq. ft. (m²)		29.3 (2.72) total			29.3 (2.72) total		
	Tube diameter - in. (mm)		3/8 (9.5)			3/8 (9.5)		
	Number of rows		1			1		
	Fins per inch (m)		20 (787)			20 (787)		
Condenser Fans	Motor horsepower (W)		(2) 1/3 (249)			(2) 113 (249)		
	Motor rpm		1075			1075		
	Total Motor watts		700			700		
	Diameter - in. (mm) - no. of blades		(2) 24 (610) - 3			(2) 24 (610) - 3		
	Total air volume - cfm (L/s)		8000 (3775)			8000 (3775)		
Evaporator Coil	Net face area - sq. ft. (m²)		10.5 (0.98) total			10.5 (0.98) total		
	Tube diameter - in. (mm)		3/8 (9.5)			3/8 (9.5)		
	Number of rows		3			3		
	Fins per inch (m)		14 (551)			14 (551)		
	Drain Connection - no. & size		(1) 1 in. NPT coupling			(1) 1 in. NPT coupling		
	Expansion device type		Balanced Port Thermostatic Expansion Valve, removeable power head					
Standard Indoor Blower and Drive	<sup>4</sup> Belt Drive - Nominal motor output		2 hp (1.5 kW)			2 hp (1.5 kW)		
	Maximum usable output (US Only)		2.3 hp (1.7 kW)			2.3 hp (1.7 kW)		
	Drive kit		kit #1 - 680 - 925 rpm			kit #1 - 680 - 925 rpm		
	Wheel nominal diameter x width - in. (mm)		(1) 15 x 15 (381 x 381)			(1) 15 x 15 (381 x 381)		
Filters	Type of filter		Disposable, pleated MERV 7 (standard) or MERV 11 (optional)					
	Number and size - in. (mm)		(4) 18 x 24 x 2 (457 x 610 x 51)			(4) 18 x 24 x 2 (457 x 610 x 51)		
Electrical characteristics			208/230V, 460V or 575V - 60 hertz - 3 phase					

1

4

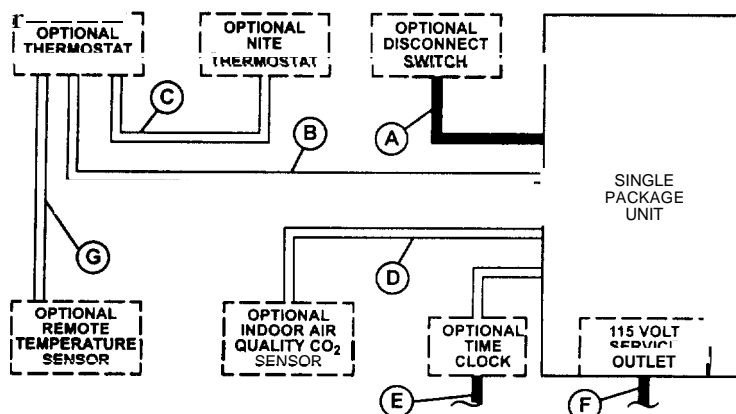


## INSTALLATION CLEARANCES - INCHES (MM)



## FIELD WIRING

### ELECTRO-MECHANICAL, ELECTRONIC OR HONEYWELL T7300 THERMOSTAT CONTROL SYSTEM

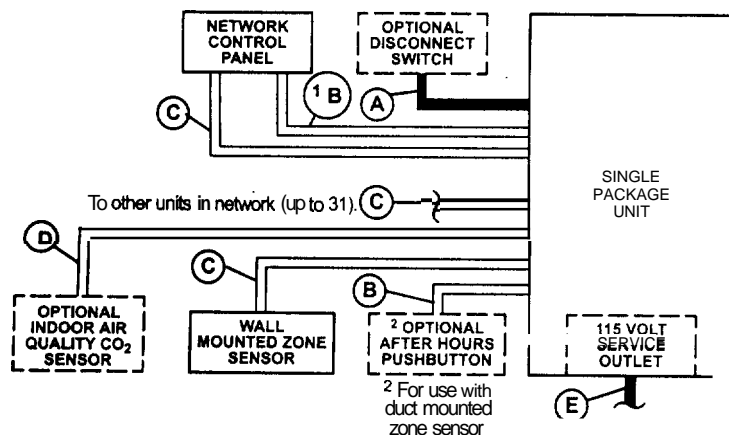


- A - Three wire power (See Electrical Data Table)
- B - Six wire low voltage (Electro-Mechanical)  
Seven wire low voltage (Electronic)  
Nine wire low voltage (Honeywell T7300)  
Ten wire low voltage (Honeywell T7300 with Service LED)
- C - Two wire low voltage (Electro-Mechanical Only)
- D - Four wire low voltage (All Systems)
- E - Two wire power
- F - Two wire power (115 volt)
- G - Two wire low voltage  
- Seven wire low voltage (T7300 Room Sensor with override)

— field wiring not furnished —

NOTE — All wiring must conform to NEC or CEC and local electrical codes

### L CONNECTION<sup>W</sup> NETWORK THERMOSTAT CONTROL



- A - Three wire power (See unit Electrical Data Table)
- B - Two wire low voltage 20 AWG minimum
- C - One twisted pair with shield (Belden type 88761) or equivalent (Must be daisy chained to each unit if more than one unit is connected to Network Control Panel)
- D - Four wire low voltage 20 AWG minimum
- E - Two wire power (115 volt)

— Field wiring not furnished —

NOTE — All wiring must conform to NEC or CEC and local electrical codes

<sup>1</sup> Optional wall-mount transformer may be used to power the NCP instead of using the unit's 24vac