

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 06-0352	Issue Date: PERMIT ISSUED MAR 30 2006	CBL: 184 G001001
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Location of Construction: 602 Brighton Ave	Owner Name: Joseph R. Mazziotti	Owner Address: 555 Forest Ave.	Phone: 207-775-3148
Business Name:	Contractor Name: Portland Airconditioning, Inc.	Contractor Address: 205 Lincoln St. Portland	Phone: 207-767-4567
Lessee/Buyer's Name	Phone:	Permit Type: CITY OF PORTLAND	Zone: D
Past Use: Commercial- Professional Offices	Proposed Use: Commercial- Professional Offices/ install an exterior Carrier Comfort Air Conditioner	Permit Fee: \$93.00	Cost of Work: \$7,200.00
Proposed Project Description: install an exterior Carrier Comfort Air Conditioner		CEO District: 3	FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied TO N L P A 54
		INSPECTION: Use Group: B Type: HVAC	Signature: Greg Cass Signature: JMB 3/29/06
		PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Signature: _____ Date: _____	

Permit Taken By: Idobson	Date Applied For: 03/16/2006	Zoning Approval		
<ol style="list-style-type: none"> This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. Building permits do not include plumbing, septic or electrical work. 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.. 	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: 3/17/06	Zoning Appeal <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 Date:	Historic Preservation <input checked="" 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 Date:	

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	

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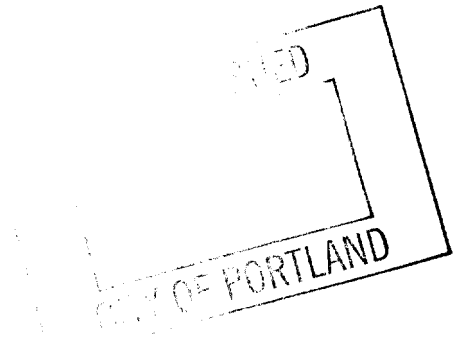
Permit No: 06-0352	Date Applied For: 03/16/2006	CBL: 184 G001001
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Business Name:	Contractor Name: Portland Airconditioning, Inc	Contractor Address: 205 Lincoln St. S. Portland
Lessee/Buyer's Name	Phone:	Permit Type: HVAC
Proposed Use: Commercial- Professional Offices/ install an exterior Carrier Comfort Air Conditioner		Proposed Project Description: install an exterior Carrier Comfort Air Conditioner

**Note:****Ok to Issue:**

- 1) Separate permits are required for electrical work

Dept: Fire**Status:** Approved with Conditions**Reviewer:** Cptn Greg Cass**Approval Date:** 03/17/2006**Note:****Ok to Issue:**

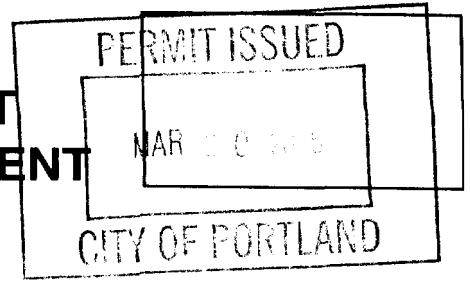
- 1) Install shall comply with NFPA 54





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 ~~204 AT 2~~ 184-G-1 Use of Building Commercial Date 3/15/06
 Name and address of owner of appliance Joseph A R Mazziatti
002 Brighton
 Installer's name and address Portland Airconditioning Inc
40 Manson Libby Road, Scarborough, ME Telephone 207.885-1256
 FAX 207.885-1259

Location of appliance:

- Basement Floor
 Attic Roof

Type of Fuel:

- Gas Oil Solid
 electric

Appliance Name: Carrier

U.L. Approved Yes No

Will appliance be installed in accordance with the manufacture's installation instructions? Yes No

IF NO Explain: _____

The Type of License of Installer:

- Master Plumber # _____
 Solid Fuel # _____
 Oil # _____
 Gas # PNT 434
 Other _____

Type of Chimney:

- Masonry Lined
 Factory built _____
 Metal
 Factory Built U.L. Listing # _____
 Direct Vent
 Type _____ UL# _____
 NOT APPLICABLE

Type of Fuel Tank

- Oil
 Gas

Size of Tank not applicable

Number of Tanks 0

Distance from Tank to Center of Flame 0 feet.

Cost of Work: \$ 2,200.00

Permit Fee: \$ 0

Approved

Fire: _____
 Ele.: _____
 Bldg.: _____

Approved with Conditions

- See attached letter or requirement

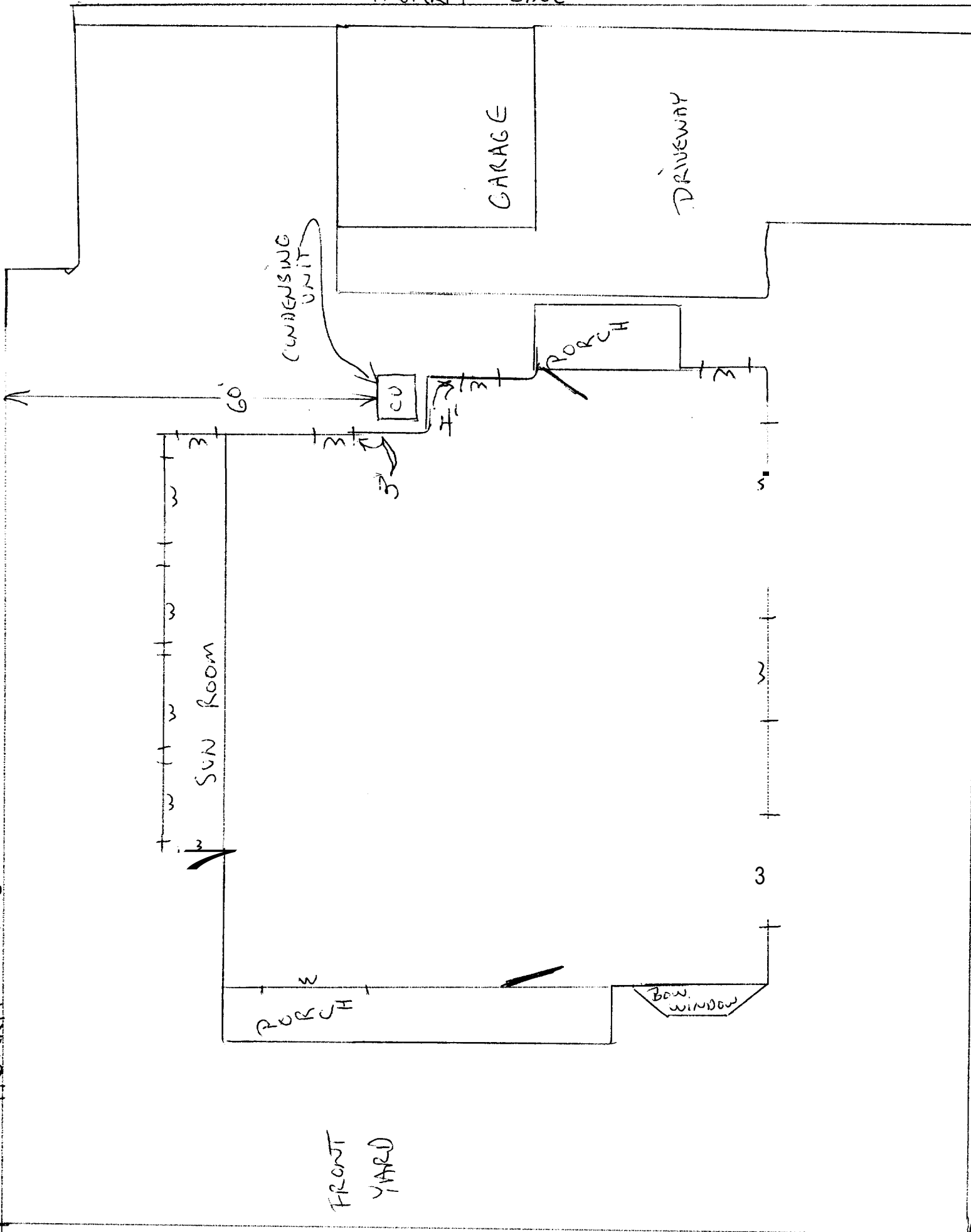
Inspector's Signature _____

Date Approved _____

Signature of Installer _____

PROPERTY LINE

PROPERTY LINE



BRIGHTON AVE

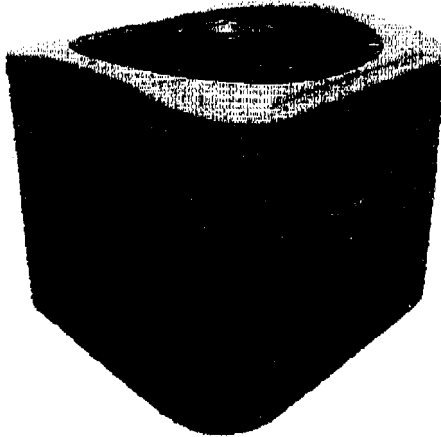
FRONT YARD

24ACR3
 Comfort™ Series 13 Air Conditioner
 Sizes 18 To 60
 1-1/2 To 5 Nominal Tons



Turn to the Experts

Product Data



Comfort
 S E R I E S

INDUSTRY LEADING FEATURES / BENEFITS

Efficiency

- 13 SEER / 11.0 EER (Nominal)
- Microtube Technology™ refrigeration system
- Indoor air quality accessories available

Sound

- Sound level as low as 74 dBA
- Compressor sound blanket

Comfort

- System supports Thermostat™ or standard thermostat controls
- TechAssist™ with 6 step diagnostics at-a-glance

Reliability

- Front-seating service valves
- Scroll compressor
- Internal pressure relief valve
- Internal thermal overload
- High pressure switch
- Low pressure switch
- Filter drier
- Balanced refrigeration system for maximum reliability

Durability

WeatherArmor™ protection package:

- Solid, Durable sheet metal construction
- Louvered coil guard
- Baked-on, complete coverage, powder paint
- Color matched ceramic coated screws

Applications

- Long-line - up to 250 ft. total equivalent length, up to 200 ft condenser above evaporator, or up to 80 ft. evaporator above condenser (See Longline Guide for more information.)
- Low ambient (down to -20° F) with accessory kit

Warranty

- 10 year limited compressor warranty
- 5 year limited parts warranty

PHYSICAL DATA



UNIT SIZE SERIES	18-30	24-30	30-30	36-30	48-30	60-30	60-36/42
Operating Weight (lb)	143	149	166	188	225	265	271
Shipping Weight (lb)	165	171	193	214	253	299	304
Compressor Type	Scroll						
REFRIGERANT	Freon® (R-22)						
Control	TXV (R-22 Hard Shutoff)						
Charge (lb)	4.8	4.75	5.16	6.1	7.15	9.25	11.6/12.4
COND FAN	Propeller Type, Direct Drive						
Air Discharge	Vertical						
Air Qty (CFM)	1880	2200	3170	3170	4050	4050	4050
Motor HP	1/2	1/10	1/5	1/5	1/5	1/5	1/5
Motor RPM	1100	1100	800	800	800	800	800
COND COIL							
Face Area (sq. ft.)	11.48	13.13	12.83	17.25	21.58	27.88	20.12
Fins per in.	25	29	25	25	26	25	20
Rows	1	1	1	1	1	1	2
Circuits	3	4	4	4	3	7	7
VALVE CONNECT. (in. ID)							
Vapor	5/8	5/8	3/4	9/4	7/8	7/8	7/8
Liquid	3/8"						
REFRIGERANT TUBES* (in. OD)							
Vapor (0-80 ft. Tube Length)	5/8		3/4		7/8		1-1/8
Liquid (0-250 ft. Tube Length)	3/8						

* For tubing runs between 80 and 200 ft. horizontal or 20 ft. vertical differential (250 ft. Total Equivalent Length), consult the Longline Guideline.
 Note: See unit installation instruction for proper installation.

24ACR5

**VAPOR LINE SIZING AND COOLING CAPACITY LOSS
 1-STAGE AIR CONDITIONER APPLICATIONS**

LONG LINE APPLICATION: An application is considered "Long Line" when the total equivalent tubing length exceeds 80 ft. or when there is more than 20 ft. vertical separation between indoor and outdoor units. These applications require additional accessories and system modifications for reliable system operation. The maximum allowable total equivalent length is 250 ft. The maximum vertical separation is 200 ft. when outdoor unit

is above indoor unit, and up to 60 ft. when the outdoor unit is below the indoor unit. Refer to Accessory Usage Guideline below for required accessories. See Long-Line Application Guideline for required piping and system modifications. Also, refer to the table below for the acceptable vapor tube diameters based on the total length to minimize the cooling capacity loss.

Unit Nominal Size (Btu/h)	Acceptable Liquid Line Diameter (in. OD)	Acceptable Vapor Line Diameter OD (in.)	Cooling Capacity Loss (%) Total Equivalent Line Length (ft.)														
			Standard Application			Long Line Application Requires Accessories											
			25	50	80	80+	100	125	150	175	200	225	250				
18000 R-22 AC	3/8	5/8	0	1	1												
		3/4	0	0	0												
24000 R-22 AC	3/8	5/8	0	1	3												
		3/4	0	0	0												
30000 R-22 AC	3/8	5/8	1	3	5												
		3/4	0	1	1												
36000 R-22 AC	3/8	5/8	0	0	0												
		3/4	0	1	2												
42000 R-22 AC	3/8	5/8	0	1	3												
		3/4	1	2	3												
48000 R-22 AC	3/8	5/8	0	1	1												
		3/4	0	0	0												
60000 R-22 AC	3/8	5/8	1	2	3												
		3/4	0	0	0												

Standard Length = 80 ft. or less total equivalent length

Applications in the area may have height restrictions that limit allowable total equivalent length when outdoor unit is below indoor unit. See Long-Line Application Guidelines.

9/26/2005 COOLING PERFORMANCE FOR COMBINATION RATINGS

24ACR336A30

Indoor Model	Cooling Capacity	Factory Enhance	Standard	SEER		TXV	TDR+TXV	EERA	Furnace Model
				TDR	TXV				
*CAR**3617A**	34,000	TXV		13.00				11.00	
CAR**3614A**	34,000	TXV		13.00				11.00	
CAR**3621A**	34,000	TXV		13.00				11.00	
CAR**4221A**	34,600	TXV		13.00				11.00	
CAR**4224A**	34,600	TXV		13.00				11.00	
CNRV**3617A**	34,200	TXV		13.00				11.00	
CNRV**3621A**	34,200	TXV		13.00				11.00	
CNRV**4221A**	34,600	TXV		13.00				11.00	
CNRH**3617A**	34,200	TXV		13.00				11.00	
CNRH**4221A**	34,600	TXV		13.00				11.00	
CNRF**3818A**	34,200	TXV		13.00				11.00	
CSRH**3612A**	34,600	TXV		13.00				11.00	
CSRH**4212A**	34,600	TXV		13.00				11.00	
CC5A/CD5AA036	34,200	NONE		12.90				10.70	
CC5A/CD5AW036	34,200	NONE		12.80				10.70	
CC5A/CD5AA042	34,200	NONE		12.90				10.70	
CC5A/CD5AW042	33,600	NONE		12.70				10.70	
CF3AA03A	33,600	NONE		12.70				10.70	
CF5AA036	34,000	NONE				12.70		10.70	
CK3BA036	34,200	NONE				12.75		10.70	
CK3BA042	34,200	NONE				12.90		10.70	
CK5A/CK5BA036	34,200	NONE				12.90		10.70	
CK5A/CK5BT036	34,200	NONE				12.90		10.70	
CK5A/CK5BW036	34,200	NONE				12.90		10.70	
CK5A/CK5BA042	34,200	NONE				12.90		10.70	
CK5A/CK5BT042	34,200	NONE				12.90		10.70	
CK5A/CK5BE042	34,400	NONE				13.00		11.00	
FA4CNF_C036	34,200	TDR&TXV	13.00					11.00	
FA4CNF_C042	35,000	TDR&TXV	13.00					11.00	
FC4DNF_B036	34,800	TDR&TXV	14.00					11.50	
FC4DNF_B042	35,000	TDR&TXV	14.00					11.50	
F(A,B)4BN(F,C)036	33,800	TDR				12.50		10.70	
F(A,B)4BN(F,B,C)042	34,200	TDR				12.80		10.70	
FC4CNF036	33,600	TDR&TXV	12.50					10.70	



ELECTRICAL DATA

UNIT SIZE	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MIN WIRE SIZE	MIN WIRE SIZE	MAX LENGTH (FT)ii	MAX LENGT H (FT)ii	MAX FUSE** or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA		60° C	75° C	60° C	75° C	
18-30	208/230/1	253	197	40.3	7.7	0.5	10.3	14	14	76	73	15
24-30				54.0	10.4	0.75	13.8	14	14	57	54	20
30-30				68.0	14.1	1.2	18.8	14	14	42	40	30
36-30				77.0	14.4	1.2	19.2	12	12	65	62	30
42-30				104.0	19.2	1.2	25.2	13	10	79	75	40
48-30				137.0	20.2	1.2	26.4	10	10	78	72	40
60-30				141.0	25.3	1.2	32.9	8	8	94	90	50

* Permissible limits of the voltage range at which the unit will operate satisfactorily.
 † If wire is applied at ambient greater than 30° C (86° F), consult table 310-18 of the NEC (ANSI/NFPA 70). The ampacity of non-metallic-sheathed cable (NM), trade name ROMEX, shall be that at 60° C (140° F) conditions, per the NEC (ANSI/NFPA 70) Article 338-26, if other than uncoated (no-plated), 60 or 75° C (140 or 167° C) insulation, copper wire (solid wire for 10 AWG or smaller, stranded wire for larger than 10 AWG) is used, consult applicable tables of the NEC (ANSI/NFPA 70).
 ‡ Length shown is as measured 1 way along wire path between unit and service panel, for voltage drop not to exceed 2%.

** Time-Delay fuse.

- FLA - Full Load Amps
- LRA - Locked Rotor Amps
- MCA - Minimum Circuit Amps
- RLA - Rated Load Amps

NOTE: Control circuit is 24-V on all units and requires external power source. Copper wire must be used from service disconnect to unit.
 All motors/compressors contain internal overload protection.

A-WEIGHTED SOUND LEVEL (DBA)

UNIT SIZE	STANDARD RATING	TYPICAL OCTAVE BAND SPECTRUM (without tone adjustment)						
		125	250	500	1000	2000	4000	8000
18-30	74	49.5	59.5	64.5	65.5	64.0	60.0	54.0
24-30	75	52.5	60.5	67.0	70.0	65.5	61.5	56.5
30-30	75	56.0	62.5	67.5	70.0	65.5	60.5	56.5
36-30	75	55.0	60.5	68.5	72.0	66.0	62.5	56.0
42-30	75	58.5	60.5	66.5	70.5	66.5	62.0	63.0
48-30	75	53.5	61.0	65.0	69.5	64.5	61.5	60.0
60-30	75	56.0	64.0	68.0	70.0	65.0	61.5	60.5
60-31	75	59.5	63.0	67.0	69.5	65.5	62.0	59.0

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

UNIT SIZE-SERIES	REQUIRED SUBCOOLING (°F)
18-30	14
24-30	7
30-30	9
36-30	8
42-30	11
48-30	9
60-30	12
60-31	13

21ACR3

FACTORY-INSTALLED HEATER OPTIONS**

MODEL	5, 8, 10	5, 8, 10	5, 8, 10, 15	5, 8, 10, 15	8, 10, 15	8, 10, 15	10
FAN/COIL	5, 8, 10	5, 8, 10	5, 8, 10	5, 8, 10	10	8, 10	10
FAN/COIL	5, 8, 10	5, 8, 10	5, 8, 10, 15	5, 8, 10, 15	8, 10, 15	8, 10, 15	10

* Includes factory-installed disconnect
 ** For field-installed heater/fan coil combinations, see Accessory electric heaters on pg. 11.

**FAN COIL ELECTRICAL DATA
 (UNITS WITHOUT ELECTRICAL HEAT)**

	VOLTS (1 PHASE)	FLA†	MIN CKT AMPS	BRANCH CIRCUIT	
				Min Wire Size Awg*	Fuse Amps
	208/230	1.5	1.8	14	15
	208/230	1.8	2.3	14	15
	208/230	2.4	3.0	14	15
	208/230	2.7	3.4	14	15
	208/230	2.9	3.7	14	15
	208/230	4.3	5.4	14	15
	208/230	5.4	6.8	14	15
	208/230	5.2	6.5	14	15

* Use copper wire only. Use 75°C only in this application. When using non-metallic (NM) sheathed cable, wire size required should be based on that of 60°C conductors, instead of wire sizes shown in table above per NEC Article 336-28.

† Based on F84B.

FLA — Full Load Amps

NOTE: If branch circuit wire length exceeds 100 ft, consult NEC 215-2 to determine maximum wire length. Use 2% voltage drop.

ELECTRIC HEATER INTERNAL PROTECTION*

HEATER KW	PHASE	FUSE QTY/SIZE	CKT BKR QTY/SIZE†
3	1	—	1/60
5	1	—	1/60
8	1	—	1/60
10	1	—	2/60
15	1	2/50 - 2/60	2/60
20	1	4/60	—
24	3/1	6/60	—
30	3/1	8/60	—
9	1/3	—	—
15	3	—	—
18	3	—	—

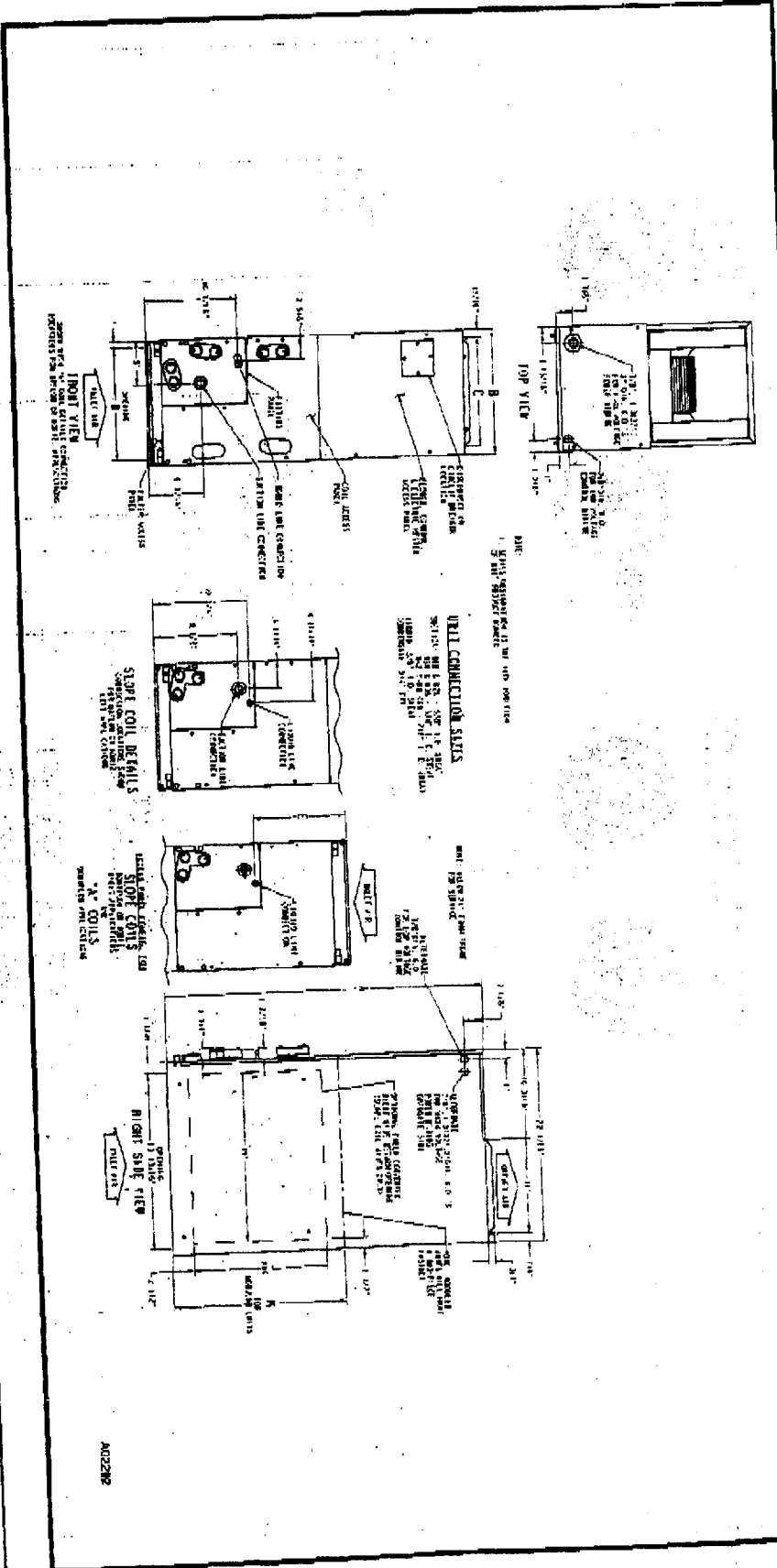
* 5-, 8-, 10-kw factory-installed heat has no internal protection. 15-kw factory-installed heat is internally protected with fuses.
 † Circuit breakers are 2 pole.

ESTIMATED SOUND POWER LEVEL (dBA)

CONDITIONS	OCTAVE BAND CENTER FREQUENCY*								
	CFM	Ext Static Pressure	63	125	250	500	1000	2000	4000
800	0.25	64.7	60.7	58.7	53.7	51.7	49.7	45.7	
800	0.25	66.0	62.0	58.0	55.0	53.0	51.0	47.0	
1000	0.25	67.0	63.0	59.0	56.0	54.0	52.0	48.0	
1200	0.25	67.8	63.8	59.8	56.8	54.8	52.8	48.8	
1400	0.25	68.4	64.4	60.4	57.4	55.4	53.4	49.4	
1600	0.25	69.0	65.0	61.0	58.0	56.0	54.0	50.0	
2000	0.25	70.0	66.0	62.0	59.0	57.0	55.0	51.0	
2000	0.25	70.0	66.0	62.0	59.0	57.0	55.0	51.0	

* Estimated sound power levels have been derived using the method described in the 1987 ASHRAE HVAC Systems & Applications Handbook, Chapter 52, p. 52.7.

Dimensions



COIL TYPE	A		B		C		D		E		Ht	J		
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm		In.	mm	
Slope 1	42-1/16	1084.3	14-5/16	368.5	12-7/16	316.0	12-5/16	312.7	10-7/16	265.1	—	12.0	304.8	
Slope	47-1/16	1211.5	17-5/8	447.5	15-3/4	400.1	15-5/8	396.9	15-3/8	390.5	—	17.0	431.8	
Slope	49-5/8	1260.5	17-5/8	447.5	15-3/4	400.1	15-5/8	396.9	15-3/8	390.5	—	17.0	431.8	
Slope	53-7/16	1357.3	21-1/8	536.5	19-1/4	489.0	19-1/8	485.8	19-3/16	487.0	28-5/16	719.1	19.0	482.6
A	49-5/8	1260.5	21-1/8	536.5	19-1/4	489.0	19-1/8	485.8	15-1/16	388.3	28-5/16	719.1	—	—
A	53-7/16	1357.3	21-1/8	536.5	19-1/4	489.0	19-1/8	485.8	19-1/2	485.3	28-5/16	719.1	—	—
A	59-3/16	1503.4	24-1/16	627.0	22-3/4	577.9	22-1/16	578.2	26-1/4	641.5	34-1/16	865.2	—	—

* Descriptions and dimensions apply to all versions (FMAB, FBAB, and FCAC), unless otherwise specified.
 † Applicable for modular units only.

13121

Physical data



MODEL	FA4B	018	024	030	036	042	048	054	060	070
SHIPPING WT (Lb) FA	92	100	117	118	137	150	167	—	—	—
SHIPPING WT (Lb) FB/FC	96	112	120	127	146	157	175	—	—	201
REFRIGERANT METERING DEVICE	Bypass AccuRater (FA4B, FB4B); TXV Factory installed on FC4C									
PISTON SIZE	55	63	70	76	84	88	96	—	—	101
TXV SIZE †	—	2 ton	2-1/2 ton	3 ton	3 ton	4 ton	5 ton	4 ton	5 ton	—
COIL										
Rows and Fins Per In.	2 and 14.5	3 and 14.5	3 and 14.5	3 and 14.5	3 and 14.5	3 and 14.5	3 and 14.5	3 and 14.5	3 and 14.5	3 and 14.5
Face Area (Sq Ft)	2.23	2.23	2.97	2.97	3.46	4.45	5.93	7.42	7.42	—
Configuration	Slope	Slope	Slope	Slope	Slope	A	A	A	A	—
FAN										
Air Discharge CFM (Nominal)	650	850	1100	1300	1500	1700	2000	1700	2000	—
Motor Hp (PSC)	1/5**	1/4	1/3**	1/3	1/2	3/4	3/4	1/2	3/4	—
FILTER ‡	21-1/2 x 13		21-1/2 x 16-3/8		21-1/2 x 19-7/8			21-1/2 x 23-5/8		

* Fan coil units with hard shut-off TXV may require compressor hard start components. Refer to outdoor unit specifications.
 † FC4C factory-installed TXV is hard shut-off, bypass flow-type for heat pump application.
 ‡ Filter must be field supplied for FA4B units. (See Accessory Kits.)
 ** FA4B018 fan coil has a 1/10 Hp motor
 FA4B030 fan coil has a 1/4 Hp motor
 NOTE: Descriptions and dimensions apply to all versions (FA4B, FB4B, FC4C, etc.), unless otherwise specified.

Cabinet configuration options

MODEL	FA4B	018	024	030	036	042	048	054	060	070
	1-piece	1-piece	1-piece	1-piece	1-piece	1-piece	1-piece	1-piece	—	—
	1-piece	1-piece	1-piece	1-piece	1-piece or Modular	1-piece or Modular	1-piece or Modular	1-piece or Modular	—	Modular
	—	1-piece	1-piece	1-piece	1-piece	1-piece	1-piece	1-piece	Modular	Modular

Kathy