Carrier

040

48AJ,~~AK,AW,AY020-030~~ With Scroll Compressor and *Comfort*Link™ Control Single Package Rooftop Units Electric Cooling/Gas Heating

Installation Instructions

CONTENTS

SAFETY CONSIDERATIONS

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform the basic maintenance functions of cleaning coils and filters and replacing filters. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tags and labels attached to the unit, and other safety precautions that may apply.

Follow all safety codes. Wear safety glasses and work gloves. Use quenching cloth for unbrazing operations. Have fire extinguishers available for all brazing operations.

⚠ WARNING

Before performing service or maintenance operations on unit, turn off main power switch to unit. Electrical shock could cause personal injury.

⚠ WARNING

1. Improper installation, adjustment, alteration, service, or maintenance can cause property damage, personal injury, or loss of life. Refer to the User's Information Manual provided with this unit for more details.
2. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

What to do if you smell gas:

1. DO NOT try to light any appliance.
2. DO NOT touch any electrical switch, or use any phone in your building.
3. IMMEDIATELY call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
4. If you cannot reach your gas supplier, call the fire department.

⚠ WARNING

Disconnect gas piping from unit when pressure testing at pressure greater than 0.5 psig. Pressures greater than 0.5 psig will cause gas valve damage resulting in hazardous condition. If gas valve is subjected to pressure greater than 0.5 psig, it *must* be replaced before use. When pressure testing field-supplied gas piping at pressures of 0.5 psig or less, a unit connected to such piping must be isolated by closing the manual gas valve(s).

INSTALLATION

Step 1 — Provide Unit Support

⚠ CAUTION

1. All panels must be in place when rigging.
2. Unit is not designed for handling by fork truck.

ROOF CURB — For vertical discharge units, assemble or install accessory roof curb in accordance with instructions shipped with this accessory. See Fig. 1-3. Install insulation, cant strips, roofing, and counter flashing as shown. Ductwork can be installed to roof curb before unit is set in place. Curb should be level. This is necessary to permit unit drain to function properly. Unit leveling tolerance is shown in Fig. 1-3. Refer to Accessory Roof Curb Installation Instructions for additional information as required. When accessory roof curb is used, unit may be installed on class A, B, or C roof covering material.

IMPORTANT: The gasketing of the unit to the roof curb is critical for a watertight seal. Install gasket with the roof curb as shown in Fig. 1-3. Improperly applied gasket can also result in air leaks and poor unit performance.

ALTERNATE UNIT SUPPORT — When the preferred curb or slab mount cannot be used, support unit with sleepers on perimeter, using unit curb support area. If sleepers cannot be used, support long sides of unit (refer to Fig. 4-10) with a minimum number of 4-in. x 4-in. pads spaced as follows: 48AJ,AK,AW,AY020-035 units require 3 pads on each side; 48AJ,AK,AW,AY040-050 units require 4 pads on each side; 48AJ,AK,AW,AY060 units require 6 pads on each side. Unit may sag if supported by corners only.

Step 2 — Rig and Place Unit — Inspect unit for transportation damage. See Tables 1-3 for physical data and specifications. File any claim with transportation agency.

Do not drop unit; keep upright. Use spreader bars over unit to prevent sling or cable damage. This unit must be handled with a crane and can not be handled by a fork truck. Level by using unit frame as a reference; leveling tolerance is shown in Fig. 1-3. See Fig. 10 for additional information. Unit operating weight is shown in Table 2.

NOTE: On retrofit jobs, ductwork may be attached to old unit instead of roof curb. Be careful not to damage ductwork when removing old unit. Attach existing ductwork to roof curb instead of unit.

Four lifting lugs are provided on the unit base rails as shown in Fig. 4-9. Refer to rigging instructions on unit.

POSITIONING — Maintain clearance, per Fig. 4-9, around and above unit to provide minimum distance from combustible materials, proper airflow, and service access.

Do not install unit in an indoor location. Do not locate unit air inlets near exhaust vents or other sources of contaminated air. For proper unit operation, adequate combustion and ventilation air must be provided in accordance with Section 5.3 (Air for Combustion and Ventilation) of the National Fuel Gas Code, ANSI Z223.1 (American National Standards Institute).

Although unit is weatherproof, guard against water from higher level runoff and overhangs.

Locate mechanical draft system flue assembly at least 4 ft from any opening through which combustion products could enter the building, and at least 4 ft from any adjacent building. When unit is located adjacent to public walkways, flue assembly must be at least 7 ft above grade.

ROOF MOUNT — Check building codes for weight distribution requirements. See Fig. 10. Unit operating weight is shown in Table 2.

Step 3 — Field Fabricate Ductwork — Secure all ducts to building structure. Use flexible duct connectors between unit and ducts as required. Insulate and weatherproof all external ductwork, joints, and roof openings with counter flashing and mastic in accordance with applicable codes.

NOTE: Due to width of the horizontal supply/return ductwork, provisions should be made for servicing of the outdoor air filters (i.e., catwalk over ductwork).

Ducts passing through an unconditioned space must be insulated and covered with a vapor barrier. Outlet grilles must not lie directly below unit discharge. The return duct must have a 90-degree elbow before opening into the building space if the unit is equipped with power exhaust.

To attach ductwork to roof curb, insert duct approximately 10 to 11 in. up into roof curb. Connect ductwork to 14-gage roof curb material with sheet metal screws driven from inside the duct.

⚠ WARNING

For vertical supply and return units, tools or parts could drop into ductwork and cause an injury. Install a 90-degree elbow turn in the supply and return ductwork between the unit and the conditioned space. If a 90-degree elbow cannot be installed, then a grille of sufficient strength and density should be installed to prevent objects from falling into the conditioned space.

Step 4 — Make Unit Duct Connections

48AJ AND AK UNITS — Unit is shipped for through-the-bottom duct connections. Field-fabricated ductwork should be **attached to the roof curb.** Supply and return duct dimensions are shown in Fig. 4-6. Air distribution is shown in Fig. 11. Refer to installation instructions shipped with roof curb for more information.

48AW AND AY UNITS — Remove shipping covers from supply and return air openings. Attach field-supplied ductwork to unit. Connect to the unit with a single duct for **all** supply openings and with a single duct for all return openings. Splitting of the airflow into branch ducts should not be done at the unit. Sufficient duct length should be used prior to branching to ensure the air temperatures are well mixed within the ductwork. See Fig. 7-9 for duct opening dimensions. Secure all ducts to building structure. Air distribution is shown in Fig. 7-9 and Fig. 12.

Install accessory barometric relief or power exhaust in the field-fabricated return ductwork. Refer to Step 10 — Position Power Exhaust/Barometric Relief Damper Hood section on page 40 for more information.

Instructions continued on page 17.

Table 1 — Physical Data — 48AJ,AK,AW,AY Units (cont)

UNIT 48AJ,AK,AW,AY	035	040	050	060
NOMINAL CAPACITY (tons)	35	40	50	60
BASE UNIT OPERATING WEIGHT (lb)	See Operating Weights Table			
COMPRESSOR				
Quantity ... Type (Ckt 1, Ckt 2)	1...SR*812AT, 1...SR*942AT/2...SR*942AT	2...SR*942AT/2...SM125	2...SM125/1...SM125, 1...SM175	1..SM160,1..SM175/ 1..SM160,1..SM175
Number of Refrigerant Circuits	2	2	2	2
Oil (oz) (Ckt 1, Ckt 2)	Precharged	Precharged	Precharged	Precharged
REFRIGERANT TYPE	R-22			
Operating Charge (lb-oz)				
Circuit 1	33-0	34-8	56-8	77-0
Circuit 2	38-0	45-8	52-8	75-0
CONDENSER COIL†	Cross-Hatched 3/8" Copper Tubes, Aluminum Lanced, Aluminum Pre-Coated, or Copper Plate Fins			
Quantity	1	2	2	2
Rows ... Fins/in.	4 ... 15	2 ... 15 / 4 ... 15	4 ... 15	4...15
Total Face Area (sq ft)	33.3	66.7	66.7	100
CONDENSER FAN	Propeller Type			
Nominal Cfm	14,500	30,000	25,600	38,400
Quantity... Diameter (in.)	2 ... 30	4 ... 30	4 ... 30	6 ... 30
Motor Hp	1	1	1	1
EVAPORATOR COIL	Cross-Hatched Copper Tubes, Aluminum Plate Fins			
Tube Size (in.)	1/2	1/2	1/2	1/2
Rows ... Fins/in.	6 ... 16	4 ... 16	6 ... 16	4 ... 17
Total Face Area (sq ft)	31.3	31.3	31.3	48.1
EVAPORATOR FAN	Centrifugal Type			
Quantity ... Size (in.)	2 ... 20 X 15	2 ... 20 X 15	2 ... 20 X 15	3 ... 20 X 15
Type Drive	Belt	Belt	Belt	Belt
Nominal Cfm	14,000	16,000	18,000	24,000
Motor Hp	15 / 20 / 25	15 / 20 / 25	20 / 25 / 30	25 / 30 / 40 (High Eff.) / 40 (Prem. Eff.)
Motor Frame Size	254T / 256T / 284T	254T / 256T / 284T	256T / 284T / 286T	284T / 286T / 324T / 324T
Motor Bearing Type	Ball	Ball	Ball	Ball
Maximum Allowable Rpm	1300	1300	1300	1200
Motor Pulley Pitch Diameter	5.1 / 5.7 / 6.2	5.3 / 5.7 / 7.5	5.7 / 6.2 / 6.7	5.3 / 5.9 / 6.5 / 9.5
Nominal Motor Shaft Diameter (in.)	1 5/8 / 1 5/8 / 1 7/8	1 5/8 / 1 5/8 / 1 7/8	1 5/8 / 1 7/8 / 1 7/8	1 7/8 / 1 7/8 / 2 1/8 / 2 1/8
Fan Pulley Pitch Diameter (in.)	8.7 / 8.7 / 8.7	9.5 / 9.5 / 11.1	9.5 / 9.5 / 9.5	9.1 / 9.5 / 9.5 / 13.7
Nominal Fan Shaft Diameter (in.)	1 15/16	1 15/16	1 15/16	1 15/16
Belt Quantity	2 / 2 / 2	2 / 2 / 2	2 / 2 / 2	3 / 3 / 3 / 3
Belt Type	5VX500 / 5VX530 / 5VX550	5VX530 / 5VX550 / 5VX590	5VX550 / 5VX570 / 5VX570	5VX530 / 5VX550 / 5VX570 / 5VX630
Belt Length (in.)	50 / 53 / 55	53 / 55 / 59	55 / 57 / 57	53 / 55 / 57 / 63
Pulley Center Line Distance (in.)	15.0-17.9 / 15.0-17.9 / 15.0-17.9	15.0-17.9 / 15.0-17.9 / 14.6-17.6	15.0-17.9 / 14.6-17.6 / 14.6-17.6	15.2-17.5 / 14.7-17.2 / 14.2-17.0 / 14.2-17.0
Factory Speed Setting (rpm)	1025 / 1147 / 1247	976 / 1050 / 1182	1050 / 1142 / 1234	1019 / 1087 / 1197 / 1197
FURNACE SECTION				
Supply Line Pressure Range	5.0-in. wg min/13.5-in. wg max.			
Rollout Switch Cutout Temp (F)††	225	225	225	225
Burner Orifice Diameter (in ...drill size)				
Natural Gas Std	.111 ... 34	.120 ... 31	.120 ... 31	.120 ... 31
Liquid Propane Alt	.089 ... 43	.096 ... 41	.096 ... 41	.096 ... 41
Thermostat Heat Anticipator Setting				
Stage 1 (amps)	0.24	0.24	0.24	0.36
Stage 2 (amps)	0.13	0.13	0.13	0.13
Gas Input (Btuh) Stage 1 (Low Heat/High Heat)	262,500/394,000	300,000/600,000	300,000/600,000	582,000/873,000
Stage 2 (Low Heat/High Heat)	350,000/525,000	400,000/800,000	400,000/800,000	776,000/1,164,000
Efficiency (Steady State) (%)	82	82	82	82
Temperature Rise Range	15-45/35-65	10-40/3 -60	10-40/30-60	10-40/30-60
Manifold Pressure (in. wg)				
Natural Gas Std	3.5	3.5	3.5	3.3
Liquid Propane Alt	3.5	3.5	3.5	3.3
Gas Valve Quantity	2	2	2	3
HIGH-PRESSURE SWITCH (psig)				
Cutout	426	426	426	426
Reset (Auto.)	320	320	320	320
RETURN-AIR FILTERS				
Quantity ... Size (in.) Standard	10 ... 20 x 24 x 2	10 ... 20 x 24 x 2	10 ... 20 x 24 x 2	16 ... 20 x 24 x 2
Pleated	5 ... 20 x 20 x 4	~~5 ... 20 x 30 x 4~~	5 ... 20 x 20 x 4	8 ... 20 x 20 x 4
	5 ... 20 x 24 x 4	~~5 ... 20 x 24 x 4~~	5 ... 20 x 24 x 4	8 ... 20 x 24 x 4
OUTDOOR-AIR FILTERS				
Quantity...Size (in.)	8...16 x 25 x 2 4...20 x 25 x 2			12...16 x 25 x 2 6...20 x 25 x 2
POWER EXHAUST	Direct Drive, Single-Phase Motors (Factory-Wired for High Speed Operation), Forward-Curved Fan Wheels with Backdraft Dampers on Each Fan Housing			
Motor, Quantity...Hp	4...1			6...1
Fan, Diameter...Width (in.)	11 x 10			11 x 10

LEGEND

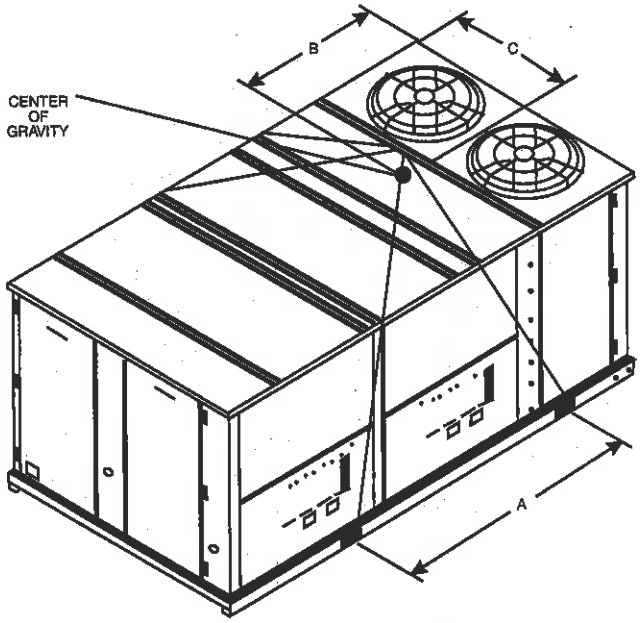
Al — Aluminum
Cu — Copper

†Sizes 020-040: Circuit 1 uses the lower portion of condenser coil, Circuit 2 uses the upper portion.
Sizes 050-060: Circuit 1 uses the left condenser coil, Circuit 2 the right. All units have intertwined evaporator coils.
††Rollout switch is manual reset.

⚠ CAUTION - NOTICE TO RIGGERS:

ALL PANELS MUST BE IN PLACE WHEN RIGGING.

NOTE: Rig with four cables and spread with two 92 inch (2337 MM) spreader bars. Maintain a distance of 74 inches (1880 MM) from top of unit to eyehook.



MODEL	WEIGHT		A		B		C	
	LBS.	KGS.	INCHES	MM	INCHES	MM	INCHES	MM
50AJ/AK/AM020	4607	2090	87.7	2227	70.9	1801	42.0	1067
48AJ/AK/AMD020	4697	2131	87.7	2227	71.9	1826	42.5	1080
48AJ/AK/AME020	4777	2167	87.7	2227	72.8	1849	43.0	1092
50AW/AY/AX020	4695	2125	87.7	2227	70.9	1801	42.0	1067
48AW/AY/AXD020	4737	2149	87.7	2227	71.9	1826	42.5	1080
48AW/AY/AXE020	4817	2185	87.7	2227	72.8	1849	43.0	1092
50AJ/AK/AM025	4680	2123	87.7	2227	68.0	1727	43.9	1115
48AJ/AK/AMD025	4770	2164	87.7	2227	69.1	1755	44.3	1125
48AJ/AK/AME025	4850	2200	87.7	2227	69.6	1768	44.6	1133
50AW/AY/AX025	4758	2158	87.7	2227	68.0	1727	43.9	1115
48AW/AY/AXD025	4810	2182	87.7	2227	69.1	1755	44.3	1125
48AW/AY/AXE025	4890	2218	87.7	2227	69.6	1768	44.6	1133
50AJ/AK/AM027	4873	2210	87.7	2227	68.0	1727	43.9	1115
48AJ/AK/AMD027	4963	2251	87.7	2227	69.1	1755	44.3	1125
48AJ/AK/AME027	5043	2287	87.7	2227	69.6	1768	44.6	1133
50AW/AY/AX027	4951	2246	87.7	2227	68.0	1727	43.9	1115
48AW/AY/AXD027	5003	2269	87.7	2227	69.1	1755	44.3	1125
48AW/AY/AXE027	5083	2306	87.7	2227	69.6	1768	44.6	1133
50AJ/AK/AM030	5023	2278	87.7	2227	68.0	1727	43.6	1107
48AJ/AK/AMD030	5113	2319	87.7	2227	69.1	1755	44.0	1118
48AJ/AK/AME030	5193	2356	87.7	2227	69.6	1768	44.3	1125
50AW/AY/AX030	5101	2314	87.7	2227	68.0	1727	43.6	1107
48AW/AY/AXD030	5153	2337	87.7	2227	69.1	1755	44.0	1118
48AW/AY/AXE030	5233	2374	87.7	2227	69.6	1768	44.3	1125
50AJ/AK/AM035	5229	2372	87.7	2227	68.3	1735	46.5	1181
48AJ/AK/AMD035	5434	2465	87.7	2227	69.4	1763	46.9	1191
48AJ/AK/AME035	5594	2537	87.7	2227	70.0	1778	47.2	1199
50AW/AY/AX035	5422	2459	87.7	2227	68.3	1735	46.5	1181
48AW/AY/AXD035	5474	2483	87.7	2227	69.4	1763	46.9	1191
48AW/AY/AXE035	5634	2556	87.7	2227	70.0	1778	47.2	1199
50AJ/AK/AM040	5769	2617	87.7	2227	90.8	2306	46.5	1181
48AJ/AK/AMD040	5974	2710	87.7	2227	92.3	2344	46.9	1191
48AJ/AK/AME040	6134	2782	87.7	2227	93.8	2383	47.2	1199
50AW/AY/AX040	5962	2704	87.7	2227	90.8	2306	46.5	1181
48AW/AY/AXD040	6014	2728	87.7	2227	92.3	2344	46.9	1191
48AW/AY/AXE040	6174	2801	87.7	2227	93.8	2383	47.2	1199
50AJ/AK/AM050	6338	2875	87.7	2227	89.2	2266	46.1	1171
48AJ/AK/AMD050	6543	2968	87.7	2227	90.7	2304	46.5	1181
48AJ/AK/AME050	6703	3040	87.7	2227	92.2	2342	46.8	1189
50AW/AY/AX050	6531	2962	87.7	2227	89.2	2266	46.1	1171
48AW/AY/AXD050	6583	2986	87.7	2227	90.7	2304	46.5	1181
48AW/AY/AXE050	6743	3059	87.7	2227	92.2	2342	46.8	1189
50AJ/AK/AM060	8598	3900	161.7	4106	123.6	3139	44.6	1133
48AJ/AK/AMD060	8838	4009	161.7	4106	130.7	3320	46.6	1184
48AJ/AK/AME060	9078	4118	161.7	4106	137.7	3498	48.6	1235
50AW/AY/AX060	8813	3998	161.7	4106	123.6	3139	44.6	1133
48AW/AY/AXD060	8878	4027	161.7	4106	130.7	3320	46.6	1184
48AW/AY/AXE060	9128	4140	161.7	4106	137.7	3498	48.6	1235

NOTE:
Add 312 lbs (142 kg) for export crating. (020-035 units)
Add 346 lbs (157 kg) for export crating. (040-050 units)
Add 588 lbs (266 kg) for export crating. (060 units)
Add 220 lbs (100 kg) for copper condenser coil. (020-035 units)
Add 380 lbs (172 kg) for copper condenser coil. (040, 050 units)
Add 651 lbs (295 kg) for copper condenser coil. (060 unit)

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Fig. 10 — Rigging Information

Table 2 — Operating Weights

48AJ,AK,AW,AY Units

UNIT	BASE UNIT WEIGHTS — lb							
	020	025	027	030	035	040	050	060
48AJD/AKD	3842	3915	4032	4182	4435	4975	5446	7388
48AJE/AKE	3922	3995	4112	4262	4595	5135	5606	7628
48AWD/AYD	3882	3955	4072	4222	4475	5015	5486	7428
48AWE/AYE	3962	4035	4152	4302	4635	5175	5646	7678

OPTION/ ACCESSORY	OPTION/ACCESSORY WEIGHTS — lb							
	020	025	027	030	035	040	050	060
Barometric Relief	300	300	300	300	300	300	300	450
Power Exhaust	450	450	450	450	450	450	450	675
Mod. Power Exhaust	500	500	500	500	500	500	500	725
Cu Tubing/Cu Fin Condenser Coil	220	220	220	220	285	285	380	651
Outdoor Air Hood Crate and Packaging (Less Hoods' Weight)	45	45	45	45	45	45	45	45
	(Packaging Only)				(Packaging Only)			
Outdoor Air Hoods/Filters	170	170	170	170	170	170	170	255
Roof Curb (14-in.)	365	365	365	365	410	410	410	585

CV MOTOR WEIGHTS — lb			
MOTOR HP	UNIT VOLTAGE	HIGH EFFICIENCY IFM	PREMIUM EFFICIENCY IFM
5	230/460	78	94
	575	78	92
10	230/460	118	164
	575	118	156
15	230/460	150	217
	575	150	220
20	230/460	212	250
	575	212	258
25	230/460	240	309
	575	240	319
30	230/460	283	355
	575	283	359
40	230/460	372	415
	575	372	410

LEGEND

Cu — Copper
CV — Constant Volume
FIOP — Factory-Installed Option
HP — Horsepower
IFM — Indoor Fan Motor
VAV — Variable Air Volume
VFD — Variable Frequency Drive

VAV MOTOR WEIGHTS — lb			
MOTOR HP	UNIT VOLTAGE	HIGH EFFICIENCY IFM	PREMIUM EFFICIENCY IFM
5	230/460	125	141
	575	163	177
10	230/460	204	250
	575	204	242
15	230/460	238	305
	575	240	310
20	230/460	348	386
	575	304	350
25	230/460	377	446
	575	375	454
30	230/460	480	552
	575	418	494
40	230/460	637	680
	575	587	625

NOTES:
1. Base unit weight includes outdoor-air hoods. Base unit weight does NOT include indoor-fan motor. ADD indoor-fan motor, FIOPs, and accessories for TOTAL operating weight.
2. The VAV motor weights include indoor fan motor and the VFD (variable frequency drive), VFD transducers, and associated wiring.

Table 3 — Evaporator Fan Motor Data

UNIT SIZE 48AJ,AK, AW,AY	MOTOR HP	MOTOR SHAFT DIA. (in.)	FAN SHAFT SPEED (rpm)	MOTOR SHEAVE	MOTOR SHEAVE PITCH DIAMETER (In.)	BUSHING DIAMETER (In.)	FAN SHEAVE	FAN SHEAVE PITCH DIAMETER (in.)	BUSHING DIAMETER (In.)	BELT (Quantity)	BELT TENSION (lb at .25 in.)
020	5	1.125	677	BK55	4.8	NONE - 1.125	1B5V124	12.4	B - 1.9375	BX56	8
	10	1.375	895	2BK50	4.4	NONE - 1.375	2B5V86	8.6	B - 1.9375	BX50	8
	15	1.625	1096	2B5V56	5.7	B - 1.625	2B5V90	9.1	B - 1.9375	(2) 5VX530	9
025	5	1.125	677	BK55	4.8	NONE - 1.125	1B5V124	12.4	B - 1.9375	BX56	8
	10	1.375	962	1B5V60	6.1	H - 1.375	1B5V110	11.1	B - 1.9375	5VX570	11
	15	1.625	1106	2B5V54	5.5	B - 1.625	2B5V86	8.7	B - 1.9375	(2) 5VX530	9
027	10	1.375	819	2BK50	4.4	NONE - 1.375	2B5V94	9.4	B - 1.9375	(2) BX50	8
	15	1.625	1096	2B5V56	5.7	B - 1.625	2B5V90	9.1	B - 1.9375	(2) 5VX530	10
	20	1.625	1187	2B5V58	5.9	B - 1.625	2B5V86	8.7	B - 1.9375	(2) 5VX530	11
030	10	1.375	884	2BK50	4.4	H - 1.375	2B5V94	9.5	B - 1.9375	(2) BX50	8
	15	1.625	1096	2B5V56	5.7	B - 1.625	2B5V90	9.1	B - 1.9375	(2) 5VX530	9
	20	1.625	1187	2B5V58	5.9	B - 1.625	2B5V86	8.7	B - 1.9375	(2) 5VX530	11
035	15	1.625	1005	2B5V50	5.0	B - 1.625	2B5V86	8.7	B - 1.9375	(2) 5VX500	9
	20	1.625	1147	2B5V56	5.7	B - 1.625	2B5V86	8.7	B - 1.9375	(2) 5VX530	10
	25	1.875	1247	2B5V62	6.2	B - 1.875	2B5V86	8.7	B - 1.9375	(2) 5VX530	11
040	15	1.625	976	2B5V52	5.3	B - 1.625	2B5V94	9.5	B - 1.9375	(2) 5VX530	10
	20	1.625	1050	2B5V56	5.7	B - 1.625	2B5V94	9.5	B - 1.9375	(2) 5VX550	11
	25	1.875	1182	2B5V74	7.5	B - 1.875	2B5V110	11.1	B - 1.9375	(2) 5VX590	11
050	20	1.625	1061	2B5V56	5.7	B - 1.625	2B5V94	9.4	B - 1.9375	(2) 5VX550	10
	25	1.875	1154	2B5V62	6.2	B - 1.875	2B5V94	9.4	B - 1.9375	(2) 5VX570	11
	30	1.875	1247	2B5V66	6.7	B - 1.875	2B5V94	9.4	B - 1.9375	(2) 5VX570	13
060	25	1.875	1019	3B5V52	5.3	B - 1.875	3B5V90	9.1	B - 1.9375	(3) 5VX530	12
	30	1.875	1086	3B5V58	5.9	B - 1.875	3B5V94	9.5	B - 1.9375	(3) 5VX550	12
	40 High	2.125	1197	3B5V64	6.5	B - 2.125	3B5V94	9.5	B - 1.9375	(3) 5VX570	14
	40 Premium	2.125	1214	2B5V94	9.5	B - 2.125	2B5V136	13.7	B - 1.9375	(2) 5VX630	15

NOTES:
1. Motor shaft speed is 1750 rpm. The fan shaft diameter is $1^{15}/_{16}$ inches.
2. All indoor fan motors meet the minimum efficiency requirements as established by the Energy Policy Act of 1992 (EPACT), effective October 24, 1997.

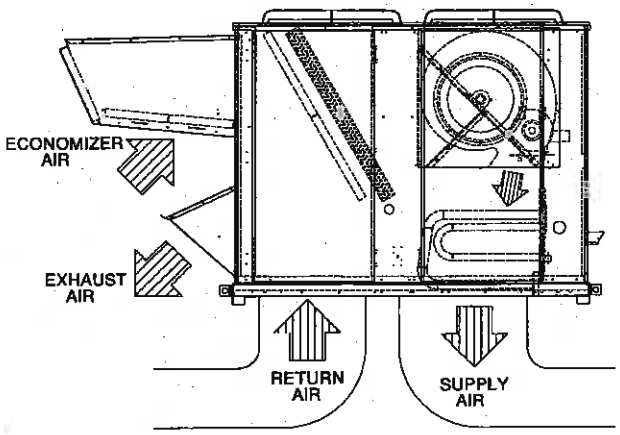


Fig. 11 — Air Distribution — Thru-the-Bottom

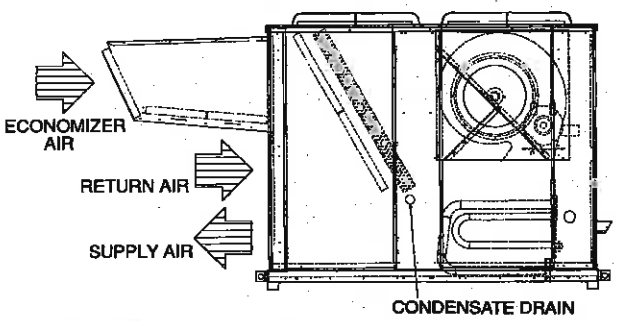


Fig. 12 — Air Distribution — Thru-the-Side

Table 5 — Electrical Data — 48AJ,AK,AW,AY Units (cont)

UNIT SIZE 48A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2								
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	MCA	MOCP*
030	208	187	229	23	184	23	184	21.8	184	21.8	184	2	6.5 (ea)	10	30.8	— 23.6	141.1 164.7	150 175
														15	46.2	— 23.6	160.4 184.0	200 225
														20	59.4	— 23.6	176.9 200.5	225 250
	230	207	253	23	184	23	184	21.8	184	21.8	184	2	6.6 (ea)	10	28.0	— 23.6	137.8 161.4	150 175
														15	42.0	— 23.6	155.3 178.9	175 200
														20	54.0	— 23.6	170.5 193.9	200 225
	460	414	508	10.2	90	10.2	90	11	90	11	90	2	3.3 (ea)	10	14	— 12.6	66.5 79.1	80 90
														15	21	— 12.6	75.3 87.9	90 100
														20	27	— 12.6	82.8 95.4	100 110
	575	518	632	9	73	9	73	9	73	9	73	2	2.6 (ea)	10	11	— 12.6	55.0 68.0	60 80
														15	17	— 12.6	62.5 75.1	70 90
														20	22	— 12.6	68.7 81.3	90 100
035	208	187	229	21.8	184	25.6	190	25.6	190	25.6	190	2	6.5 (ea)	15	46.2	— 23.6	169.4 193.6	200 225
														20	59.4	— 23.6	185.9 209.5	225 250
														25	74.8	— 23.6	205.1 228.7	250 300
	230	207	253	21.8	184	25.6	190	25.6	190	25.6	190	2	6.6 (ea)	15	42.0	— 23.6	164.3 187.9	200 225
														20	54.0	— 23.6	179.3 202.9	225 250
														25	68.0	— 23.6	196.8 220.4	250 250
	460	414	508	11	90	13.5	95	13.5	95	13.5	95	2	3.3 (ea)	15	21.0	— 12.6	84.4 97.0	100 110
														20	27.0	— 12.6	91.9 104.5	110 125
														25	34.0	— 12.6	100.6 113.2	125 125
	575	518	632	9	73	10.2	75	10.2	75	10.2	75	2	2.6 (ea)	15	17.0	— 12.6	66.1 78.7	80 90
														20	22.0	— 12.6	72.3 84.9	90 100
														25	27.0	— 12.6	78.6 91.2	100 110
040	208	187	229	25.6	190	25.6	190	34.3	265	34.3	265	4	6.5 (ea)	15	46.2	— 23.6	203.6 227.2	225 250
														20	59.4	— 23.6	220.1 243.7	250 300
														25	74.8	— 23.6	239.3 262.4	300 300
	230	207	253	25.6	190	25.6	190	34.3	265	34.3	265	4	6.6 (ea)	15	42.0	— 23.6	198.7 222.3	225 250
														20	54.0	— 23.6	213.7 237.3	250 250
														25	68.0	— 23.6	231.2 254.8	250 300
	460	414	508	13.5	95	13.5	95	16	120	16	120	4	3.3 (ea)	15	21.0	— 12.6	98.5 111.1	110 125
														20	27.0	— 12.6	106.0 118.6	125 125
														25	34.0	— 12.6	114.7 127.3	125 150
	575	518	632	10.2	75	10.2	75	12.9	80	12.9	80	4	2.6 (ea)	15	17.0	— 12.6	77.9 90.5	90 100
														20	22.0	— 12.6	84.1 96.7	100 110
														25	27.0	— 12.6	90.4 103.0	110 125

See Legend and Notes on page 21.

Table 5 — Electrical Data — 48AJ,AK,AW,AY Units

UNIT SIZE 48A	VOLTAGE 3 PH, 60 Hz	VOLTAGE RANGE		COMPRESSOR								CONDENSER FAN MOTOR		EVAPORATOR FAN MOTOR		POWER EXHAUST	POWER SUPPLY	
				Cir A, No. 1		Cir A, No. 2		Cir B, No. 1		Cir B, No. 2								
		Min	Max	RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	Qty	FLA	Hp	FLA	FLA (total)	MCA	MOCP*
020	208	187	229	23	184	23	184	23	184	—	—	2	6.5 (ea)	5	16.7	— 23.6	104.5 128.1	125 150
														10	30.8	— 23.6	120.5 144.1	150 150
														15	46.2	— 23.6	139.8 163.4	175 200
	230	207	253	23	184	23	184	23	184	—	—	2	6.6 (ea)	5	15.2	— 23.6	103.2 126.8	125 150
														10	28.0	— 23.6	117.2 140.8	125 150
														15	42.0	— 23.6	134.7 158.3	175 200
	460	414	508	10.2	90	10.2	90	10.2	90	—	—	2	3.3 (ea)	5	7.6	— 12.6	47.4 60.0	50 70
														10	14.0	— 12.6	54.7 67.3	60 80
														15	21.0	— 12.6	63.5 76.1	80 90
	575	518	632	9	73	9	73	9	73	—	—	2	2.6 (ea)	5	6.1	— 9.6	40.6 50.2	50 60
														10	11.0	— 9.6	46.0 55.6	50 60
														15	17.0	— 9.6	53.5 63.1	70 80
025	208	187	229	21.8	184	25.6	190	25.6	190	—	—	2	6.5 (ea)	5	16.7	— 23.6	109.1 132.7	125 150
														10	30.8	— 23.6	124.5 148.1	150 175
														15	46.2	— 23.6	143.8 167.4	175 200
	230	207	253	21.8	184	25.6	190	25.6	190	—	—	2	6.6 (ea)	5	15.2	— 23.6	107.8 131.4	125 150
														10	28.0	— 23.6	121.2 144.8	125 150
														15	42.0	— 23.6	138.7 162.3	175 200
	460	414	508	11	90	13.5	95	13.5	95	—	—	2	3.3 (ea)	5	7.6	— 12.6	55.6 68.2	60 80
														10	14.0	— 12.6	62.1 74.7	70 80
														15	21.0	— 12.6	70.9 83.5	90 100
	575	518	632	9	73	10.2	75	10.2	75	—	—	2	2.6 (ea)	5	6.1	— 9.6	43.3 52.9	50 60
														10	11.0	— 9.6	48.4 58.0	50 60
														15	17.0	— 9.6	55.9 65.5	70 80
027	208	187	229	25.6	190	25.6	190	25.6	190	—	—	2	6.5 (ea)	10	30.8	— 23.6	128.3 151.9	150 175
														15	46.2	— 23.6	147.6 171.2	175 200
														20	59.4	— 23.6	164.1 187.7	200 225
	230	207	253	25.6	190	25.6	190	25.6	190	—	—	2	6.6 (ea)	10	28.0	— 23.6	125.0 148.6	150 175
														15	42.0	— 23.6	142.5 166.1	175 200
														20	54.0	— 23.6	157.5 181.1	200 225
	460	414	508	13.5	95	13.5	95	13.5	95	—	—	2	3.3 (ea)	10	14.0	— 12.6	64.6 77.2	70 90
														15	21.0	— 12.6	73.4 86.0	90 100
														20	27.0	— 12.6	80.9 93.5	100 110
	575	518	632	10.2	75	10.2	75	10.2	75	—	—	2	2.6 (ea)	10	11.0	— 12.6	49.6 62.6	60 70
														15	17.0	— 12.6	57.1 69.7	70 80
														20	22.0	— 12.6	63.3 75.9	80 90

See Legend and Notes on page 21.

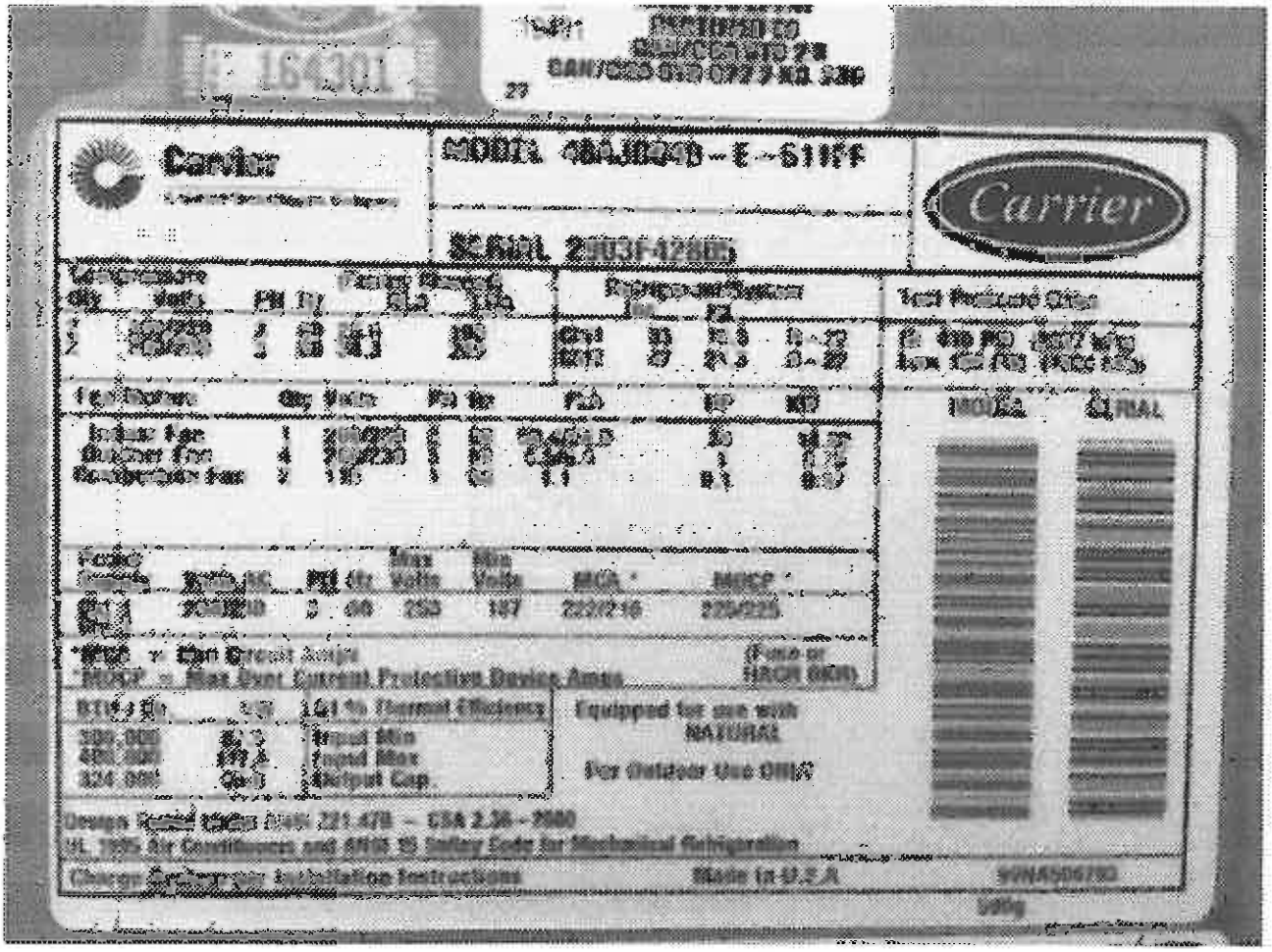
Operation & Maintenance
For
Dalton Public Schools
Fort Hill

Item: Rooftop Unit

Manufacturer: Carrier

Location	Voltage	Model No.
~~Office Area~~	~~208/3~~	~~48AJD040-E-511FT~~
South Hall	208/3	48AJD040-E-511FT

Ser # 2903F42805


Carrier
Carrier
Made in U.S.A.