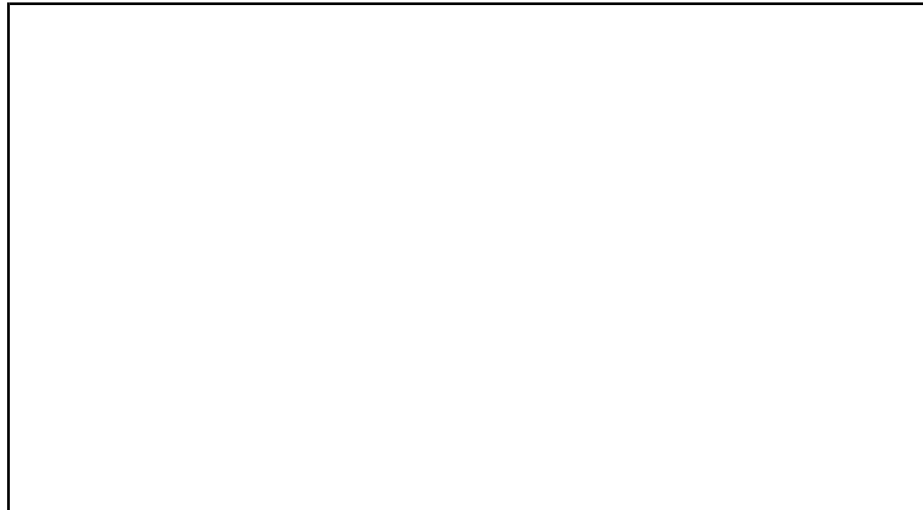




48/50EJ,EK,EW,EY038, 044, 048
SINGLE-PACKAGE COOLING UNITS
VARIABLE VOLUME
CONSTANT VOLUME
FACTORY-INSTALLED OPTIONAL HEAT
GAS HEAT
ELECTRIC HEAT

- **PERFORMANCE DATA**
- **CERTIFIED DIMENSION PRINT**
- **CERTIFIED ROOF CURB DIMENSION PRINT**



Date:	Supersedes:	48/50EJ,EK,EW,EY038,044,048 SINGLE-PACKAGE COOLING UNITS FACTORY-INSTALLED OPTIONAL HEAT GAS HEAT/ELECTRIC HEAT	48/50EJ,EK,EW,EY	Rev.: -4SB
JOB NAME:		LOCATION:		
BUYER:		BUYER P.O. #	CARRIER #	
UNIT NUMBER:		MODEL NUMBER:		
PERFORMANCE DATA CERTIFIED BY:			DATE:	

DESCRIPTION

The 48/50EJ,EK,EW,EY "E-SERIES" rooftops are Carrier's new industry leading single piece 35-45 ton rooftop units, intended for large Commercial/Industrial retrofit/replacement and new construction projects. These units are specifically engineered to facilitate the replacement of earlier Carrier rooftop models in this size range by eliminating any requirement to replace the current roof curb.

Both dedicated downshot and side supply/return models are offered. Roof curb mounted, downshot supply/return models are designated 48/50EJ (constant volume CV), and 48/50EK (variable air volume VAV). Dedicated side supply/return models are 48/50EW (CV) and 48/50EY (VAV).

All 48/50EJ,EK,EW,EY models feature the E-SERIES's industry leading industrial grade cabinet construction with fully hinged tool-less entry access panels, gear drive low leak economizer and hood assembly, EERs up to 10.4 superior fan performance up to 3.5" of external static, dual independent refrigeration circuits with 06D or 06E semi-hermetic compressors and service valves, upgradeable Direct Digital Controls, variable frequency drives on all VAV models and available centrifugal fan power exhaust.



ARI STANDARD
360



ALL 208/230
460 VOLT UNITS



STANDARD UNIT FEATURES

Unit compatible with Carrier Comfort Network or stand-alone operation.
Self-diagnostic run test confirms control and component operation at unit commissioning.
Remote start/stop capability.
Supply air temperature reset. (VAV only).
Remote monitoring of alarms using CCN.
Large hinged access doors.
Standard one-year warranty.
Standard unit as factory assembled is listed by ETL and ETL, Canada.
Units are rated in accordance with ARI Standard 360.
115-volt and 24-volt control circuit.
Two-inch disposable-type return air filters.
Dual semi-hermetic Carrier compressors with service valves and crankcase heaters.
Fixed blower drive.
Lifting lugs.
Dual electrically and mechanically independent refrigeration circuits.
Circuit breaker protection for all power components.

Short-cycle compressor protection.
Sloped, aluminized steel condensate pan.
Stand-alone diagnostics.
Integrated economizer utilizing direct-coupled actuator and low leak gear driven dampers.
Single point electrical service entry.
Prepainted, galvanized steel cabinet.
Anti-microbial, Tuff Skin Rx cleanable insulation.
Compressor protection includes high- and low-pressure cutouts.
Evaporator fan motor protected by circuit breakers.
Condenser fan motors are totally enclosed, fan cooled with internal protection.
Low outdoor temperature cooling to 35° F as standard.
VFD (Variable Frequency Drive) on Variable Volume models.
Two-stage cooling on Constant Volume units.
Up to 6 stages of unloading for capacity control.
Compatible with 37H and 45 Series PIC terminals to form a Digital Air Volume System.

STANDARD HEATING FEATURES

Five-year non-prorated warranty on electric heater elements is standard when heater is factory installed.
Integrated Gas Unit Controller (IGC) with diagnostics.
Induced-draft combustion.
Two-stage gas valves with redundant 100% shutoff feature.

Direct spark gas ignition.
Aluminized steel tubular heat exchangers.
Five-year non-prorated warranty on heat exchanger.
Heat limit switches, flame roll-out switches, combustion air fan switches and time relay interlocks.

PERFORMANCE DATA

Unit Operating Weight _____ lb

Curb Weight _____ lb

COOLING

Gross Total Capacity _____ Btuh

@ Condenser Air Temperature _____ °F

Gross Sensible Capacity _____ Btuh

Compressor Power Input _____ kW

Indoor Entering Air db _____ °F wb _____ °F

Cfm _____ External Static Pressure _____ in. wg

Indoor Fan Motor Size _____ Hp

Exhaust Fan Motor Size _____ Hp

HEATING

Heating Capacity:

Stage 1 _____ Btuh

Stage 2 _____ Btuh

Heating Capacity Total _____ Btuh

Stage 1 _____ kW

Stage 2 _____ kW

Heating Capacity Total _____ kW

ELECTRICAL DATA

Power Supply to Unit _____ Volts _____ Phase _____ Hz

Minimum Circuit Amps _____ Maximum Fuse Amps _____

FIELD-INSTALLED "ELECTRONIC EXPANSION BOARD" FEATURES

Building Purge Mode — flush building interior with outdoor air to remove contaminants before occupancy (CCN and Power Exhaust required).

Provides a discrete output with occupancy control for use as specified by the customer.

Smoke Control functions (Building Pressurization and Smoke Purge) are provided through software. Terminals are provided to interface with field supplied smoke/fire panel (Power Exhaust required).

Enthalpy control can be provided using field-installed accessory enthalpy controls.

Economizers control field configurable to: maintain a minimum economizer set point position OR maintain the minimum economizer position based on input from an IAQ sensor (field supplied 4-20 mA).

FACTORY-INSTALLED OPTIONS

- ☐ Barometric Relief
- ☐ Non-Modulating Centrifugal Fan Power Exhaust (CV)
- ☐ Modulating Centrifugal Fan Power Exhaust (VAV)
- ☐ Electric Heaters
- ☐ Copper Tube/Copper Fin Condenser Coil
- ☐ Pre-Coated Aluminum Fin Condenser Coil
- ☐ Alternate Horsepower Supply Fan Motors
- ☐ Alternate Horsepower, High-Efficiency Supply Fan Motors

FIELD-INSTALLED ACCESSORIES

- ☐ Optional 4-Year Extended Compressor Warranty
- ☐ Roof Curb with Full Perimeter Support
- ☐ Condenser Coil Hail Guard
- ☐ Compressor Suction Pressure Unloaders
- ☐ Motormaster® III Head Pressure Control
- ☐ Electronic Timeclock for Stand Alone VAV Applications
- ☐ Thermostat and Subbase
- ☐ Non-Modulating to Modulating Power Exhaust Conversion Kit
- ☐ LP Gas Conversion Kit
- ☐ Space Temperature Sensor
- ☐ Space Temperature Sensor with Offset
- ☐ Electronic Expansion Board
- ☐ IAQ Sensor
- ☐ Enthalpy Control
- ☐ Differential Enthalpy Control

CERTIFIED DIMENSION PRINT



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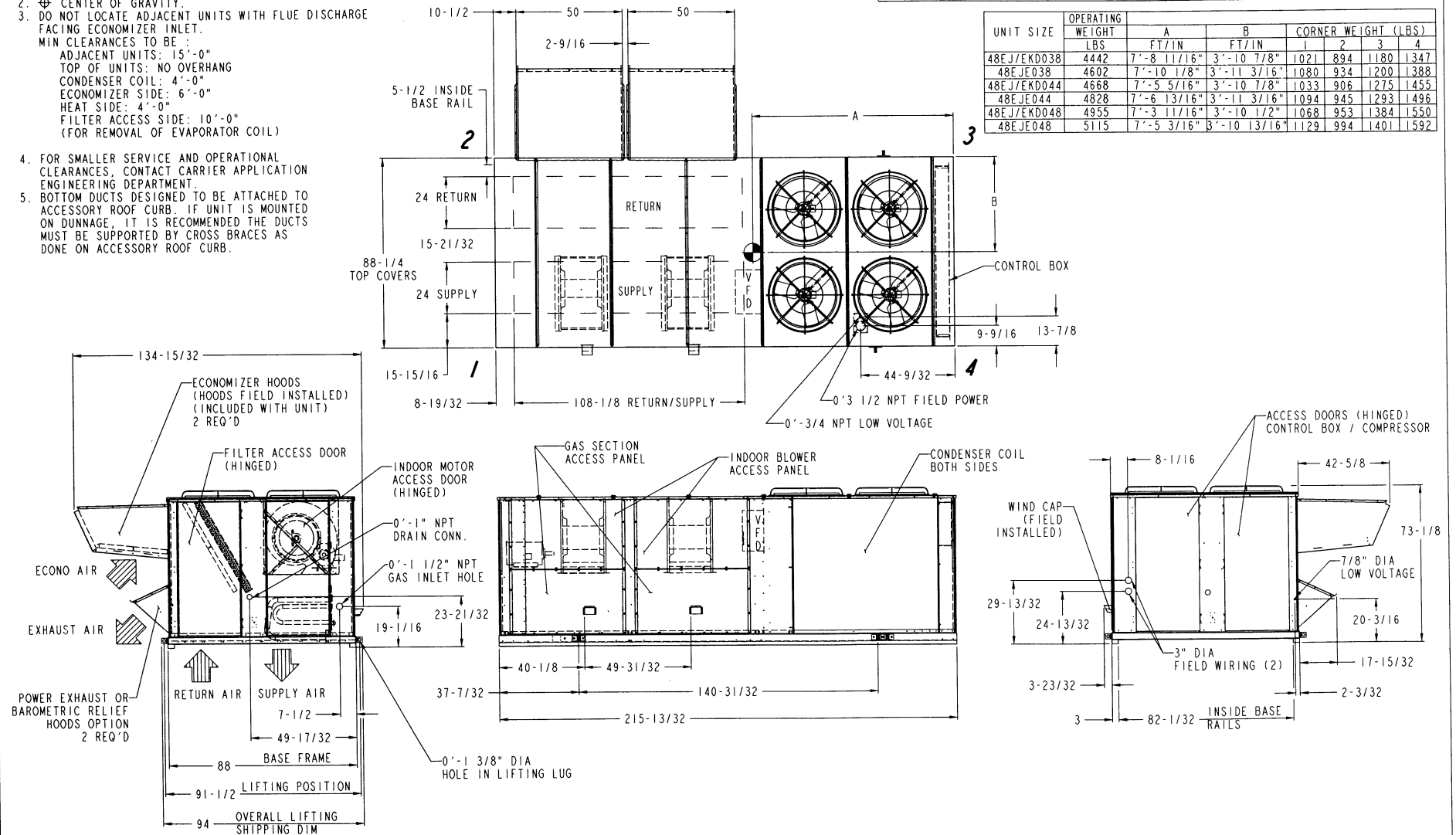
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NOTES:

1. WEIGHTS INCLUDE ECONOMIZER (STD).
2. ⊕ CENTER OF GRAVITY.
3. DO NOT LOCATE ADJACENT UNITS WITH FLUE DISCHARGE FACING ECONOMIZER INLET.
MIN CLEARANCES TO BE:
ADJACENT UNITS: 15'-0"
TOP OF UNITS: NO OVERHANG
CONDENSER COIL: 4'-0"
ECONOMIZER SIDE: 6'-0"
HEAT SIDE: 4'-0"
FILTER ACCESS SIDE: 10'-0"
(FOR REMOVAL OF EVAPORATOR COIL)
4. FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES, CONTACT CARRIER APPLICATION ENGINEERING DEPARTMENT.
5. BOTTOM DUCTS DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB. IF UNIT IS MOUNTED ON DUNNAGE, IT IS RECOMMENDED THE DUCTS MUST BE SUPPORTED BY CROSS BRACES AS DONE ON ACCESSORY ROOF CURB.

UNIT SIZE	OPERATING WEIGHT LBS	A		B		CORNER WEIGHT (LBS)			
		FT/IN	FT/IN	FT/IN	FT/IN	1	2	3	4
48EJ/EKD038	4442	7'-8 11/16"	3'-10 7/8"	10'21	8'94	1180	1347		
48EJE038	4602	7'-10 1/8"	3'-11 3/16"	10'80	9'34	1200	1388		
48EJ/EKD044	4668	7'-5 5/16"	3'-10 7/8"	10'33	9'06	1275	1455		
48EJE044	4828	7'-6 13/16"	3'-11 3/16"	10'94	9'45	1293	1496		
48EJ/EKD048	4955	7'-3 11/16"	3'-10 1/2"	10'68	9'53	1384	1550		
48EJE048	5115	7'-5 3/16"	3'-10 13/16"	11'29	9'94	1401	1592		



DATE	SUPERCEDES	48EJ/EK 038-048 GAS HEAT (BOTTOM SUPPLY/RETURN UNITS)	48EJ400853	REV E
10-09-96	09-12-96			

CUT ALONG DOTTED LINE

CUT ALONG DOTTED LINE

CERTIFIED DIMENSION PRINT

- NOTES:
1. WEIGHTS INCLUDE ECONOMIZER (STD).
 2. $\oplus$ CENTER OF GRAVITY.
 3. DO NOT LOCATE ADJACENT UNITS WITH FLUE DISCHARGE FACING ECONOMIZER INLET. MIN CLEARANCES TO BE :
ADJACENT UNITS: 15'-0" [4572]
TOP OF UNITS: NO OVERHANG
CONDENSER COIL: 4'-0" [1219]
ECONOMIZER SIDE: 6'-0" [1829]
HEAT SIDE: 4'-0" [1219]
FILTER ACCESS SIDE: 10'-0" [3048]
(FOR REMOVAL OF EVAPORATOR COIL)
 4. FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES, CONTACT CARRIER APPLICATION ENGINEERING DEPARTMENT.
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 6. DIMENSIONS IN [] ARE IN MILLIMETERS.



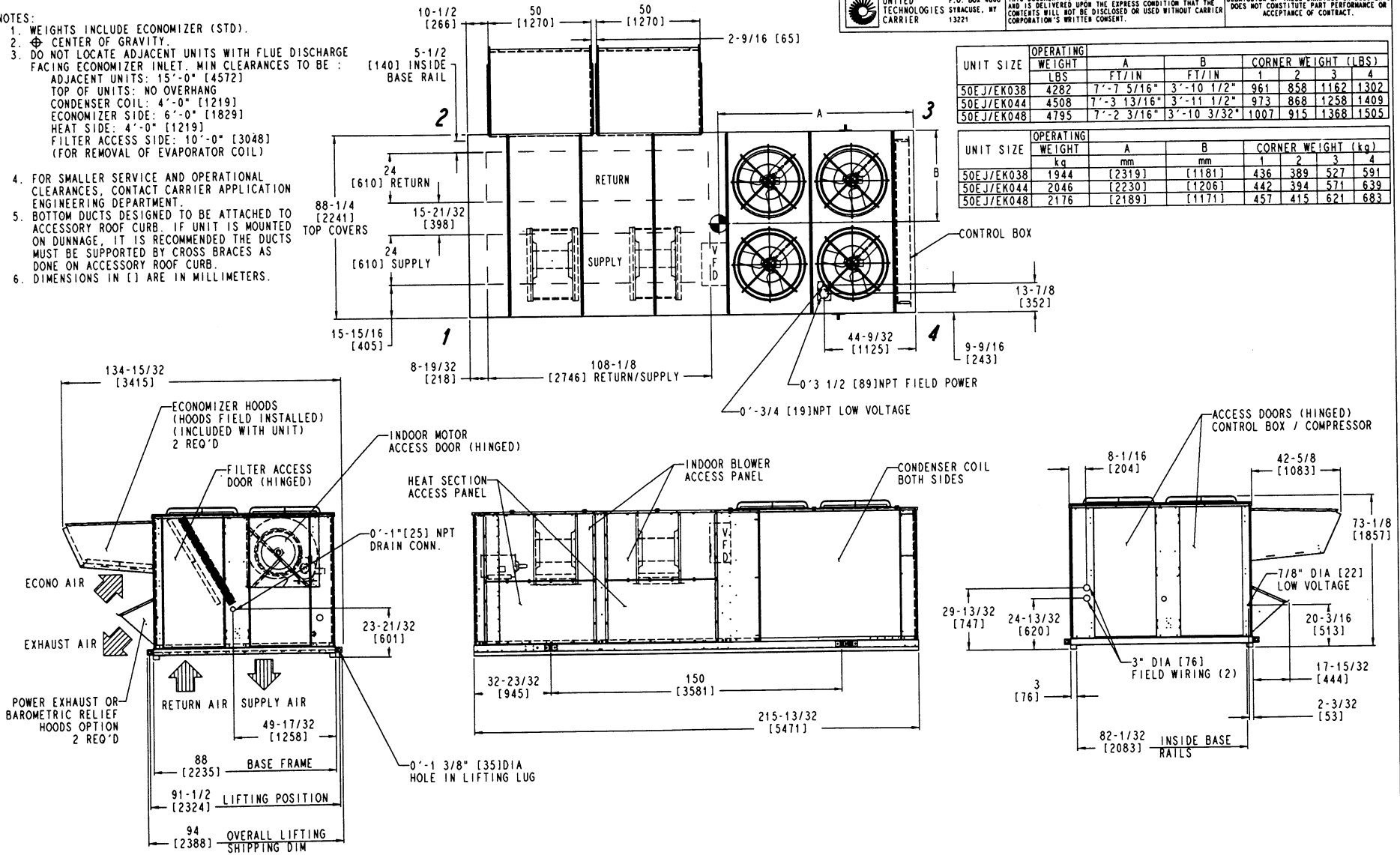
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UNIT SIZE	OPERATING		A		B		CORNER WEIGHT (LBS)			
	WEIGHT		FT/IN		FT/IN		1	2	3	4
50EJ/EK038	4282		7'-7 5/16"		3'-10 1/2"		961	858	1162	1302
50EJ/EK044	4508		7'-3 13/16"		3'-11 1/2"		973	868	1258	1409
50EJ/EK048	4795		7'-2 3/16"		3'-10 3/32"		1007	915	1368	1505

UNIT SIZE	OPERATING		A		B		CORNER WEIGHT (kg)			
	WEIGHT		mm		mm		1	2	3	4
50EJ/EK038	1944		[2319]		[1181]		436	389	527	591
50EJ/EK044	2046		[2230]		[1206]		442	394	571	639
50EJ/EK048	2176		[2189]		[1171]		457	415	621	683



DATE	SUPERCEDES	50EJ/EK 038-048 ELECTRIC HEAT (BOTTOM SUPPLY/RETURN UNITS)	48EJ400851	REV
09-11-96	07-15-96			E

CERTIFIED DIMENSION PRINT

NOTES:

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CONDENSER COIL: 4'-0"
ECONOMIZER SIDE: 6'-0"
HEAT SIDE: 4'-0"
FILTER ACCESS SIDE: 10'-0"
(FOR REMOVAL OF EVAPORATOR COIL)
4. FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES, CONTACT CARRIER APPLICATION ENGINEERING DEPARTMENT.



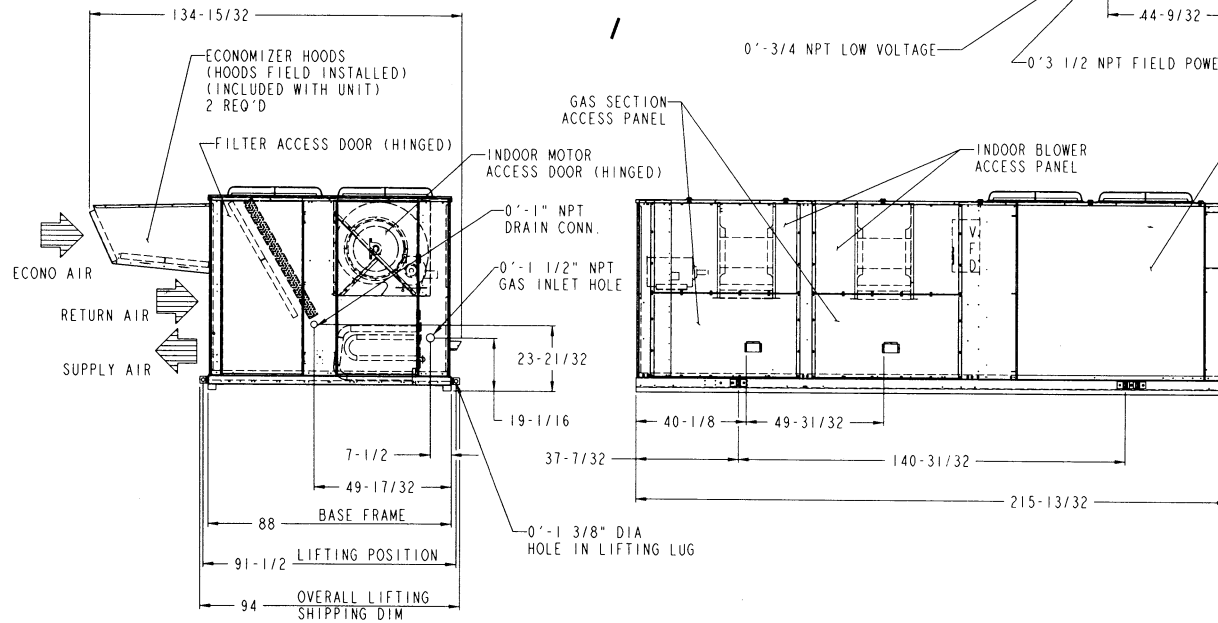
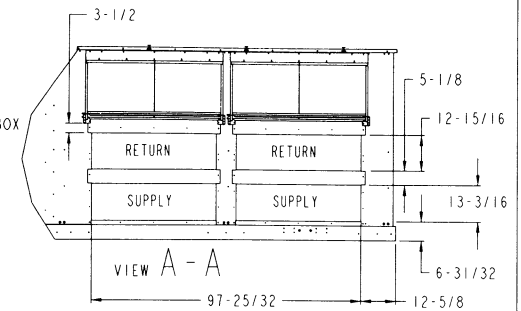
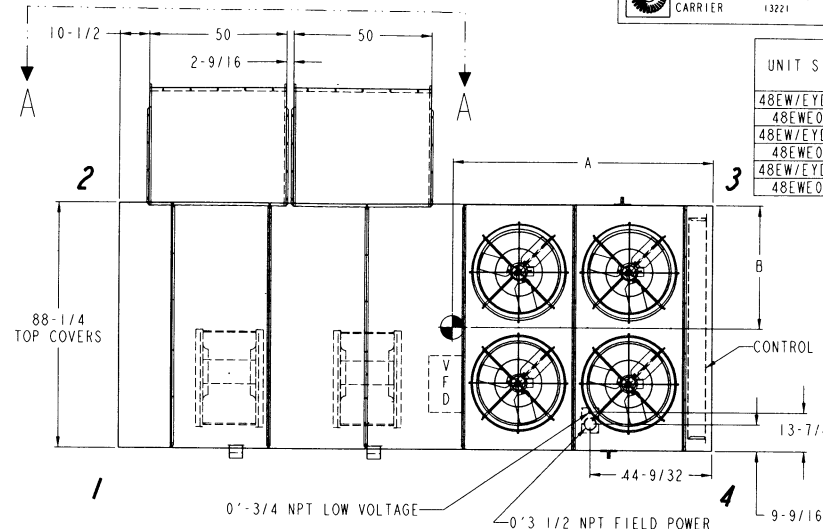
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UNIT SIZE	OPERATING				CORNER WEIGHT (LBS)			
	WEIGHT	A	B		1	2	3	4
	LBS	FT/IN	FT/IN					
48EW/EYD038	4442	7'-8 11/16"	3'-10 7/8"	1021	894	1180	1347	
48WE038	4602	7'-10 1/8"	3'-11 3/16"	1080	934	1200	1388	
48EW/EYD044	4668	7'-5 5/16"	3'-10 7/8"	1033	906	1275	1455	
48WE044	4828	7'-6 13/16"	3'-11 3/16"	1094	945	1293	1496	
48EW/EYD048	4955	7'-3 11/16"	3'-10 1/2"	1068	953	1384	1550	
48WE048	5115	7'-5 3/16"	3'-10 13/16"	1129	994	1401	1592	



DATE	SUPERCEDES	48EW/EY 038-048 GAS HEAT (SIDE SUPPLY/RETURN UNITS)	48EJ400854	REV E
10-10-96	09-12-96			

CUT ALONG DOTTED LINE

CUT ALONG DOTTED LINE

CERTIFIED DIMENSION PRINT

NOTES:

- WEIGHTS INCLUDE ECONOMIZER (STD).
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(FOR REMOVAL OF EVAPORATOR COIL)
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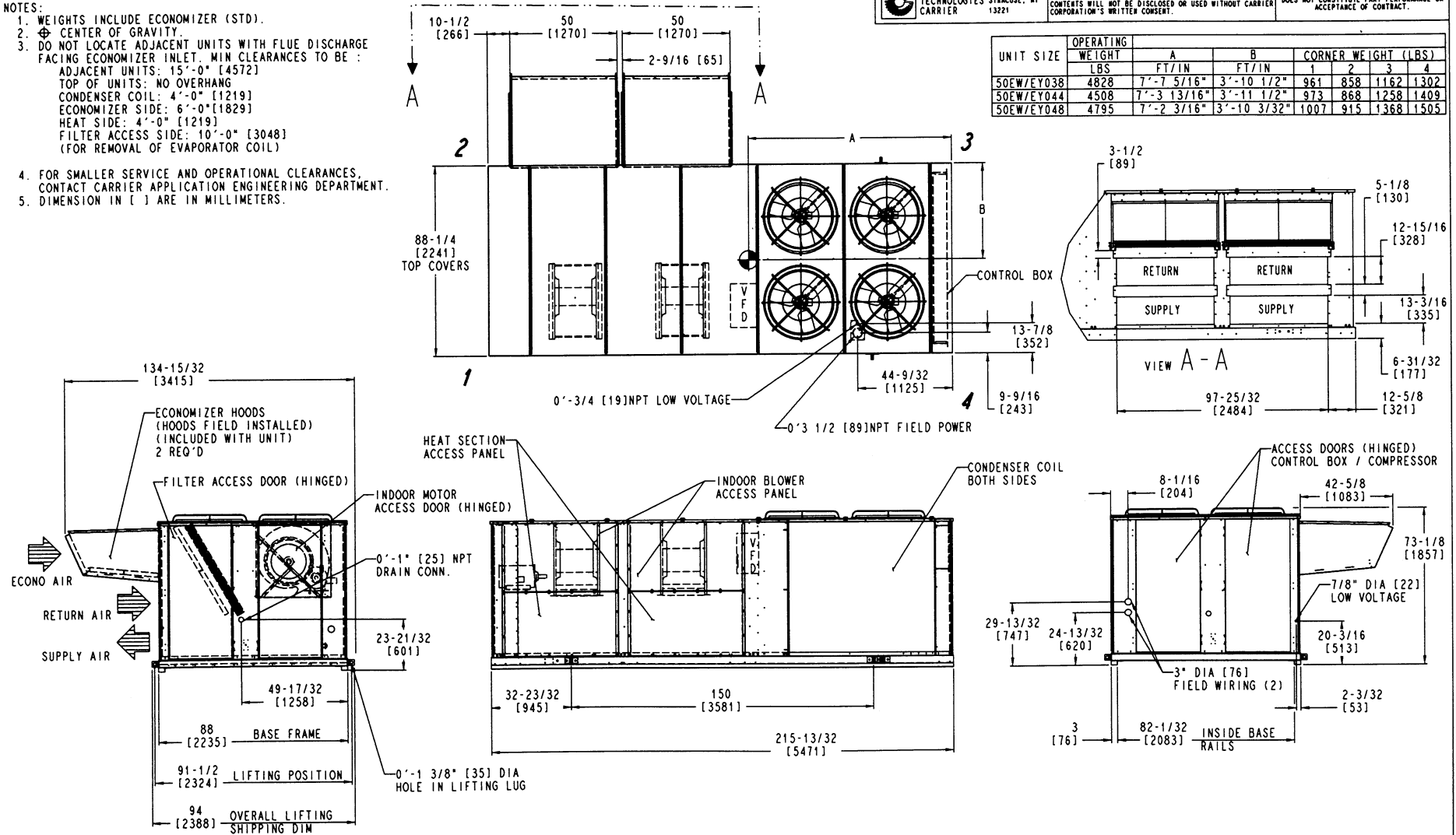


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UNIT SIZE	OPERATING WEIGHT LBS	A		B		CORNER WEIGHT (LBS)			
		FT/IN		FT/IN		1	2	3	4
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50EW/EY044	4508	7'-3 13/16"		3'-11 1/2"		973	868	1258	1409
50EW/EY048	4795	7'-2 3/16"		3'-10 3/32"		1007	915	1368	1505



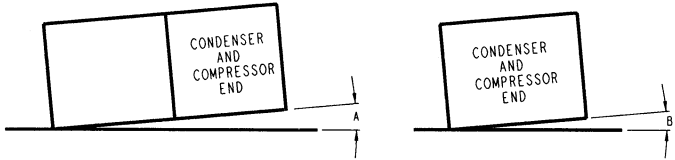
DATE	SUPERCEDES	50EW/EY 038-048 ELECTRIC HEAT (SIDE SUPPLY/RETURN UNITS)	48EJ400852	REV E
09-12-96	07-15-96			

CERTIFIED ROOF CURB DIMENSION PRINT

NOTE:

- 1. UNLESS OTHERWISE SPECIFIED ALL DIM ARE TO OUTSIDE OF PART.
- 2. ROOFCURB ACCESSORY CRFCURB006A00 IS SHIPPED DISASSEMBLED.
- 3. ALL ROOFCURB PARTS: 14 GA GALVANIZED STL.
- 4. UNITS WITH ELECTRIC HEAT MUST BE INSTALLED WITH 90° ELBOW ON THE SUPPLY DUCT PRIOR TO ANY SUPPLY TAKE OFFS OR BRANCHES.
- 5. DIMENSIONS IN [] ARE MILLIMETERS.

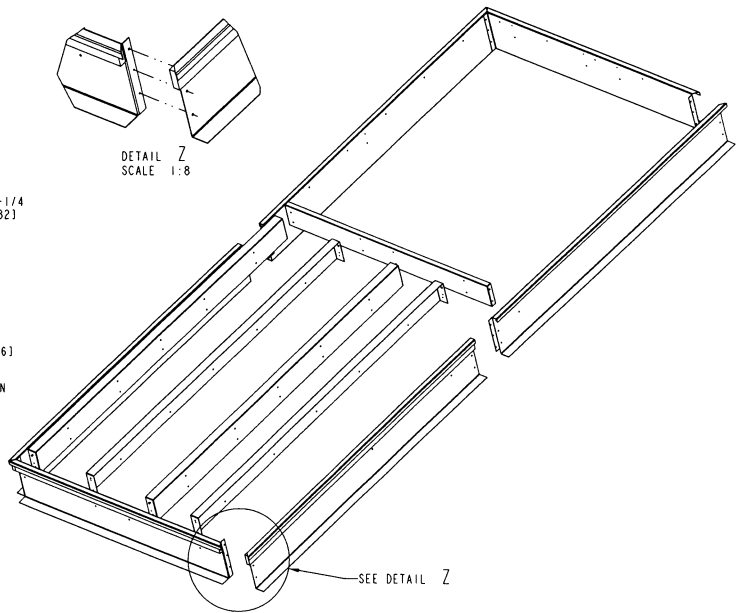
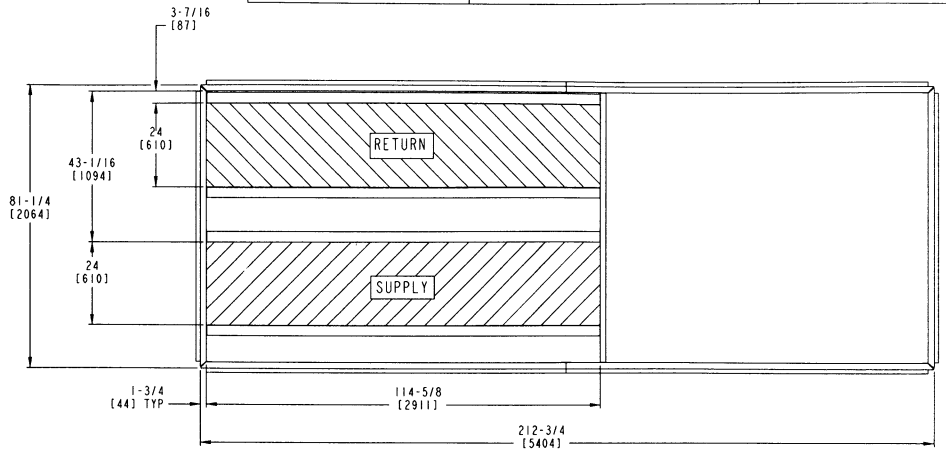
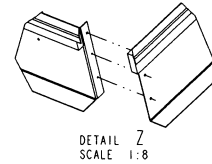
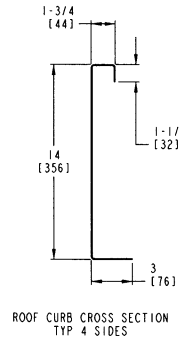
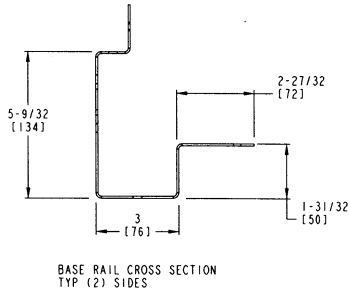
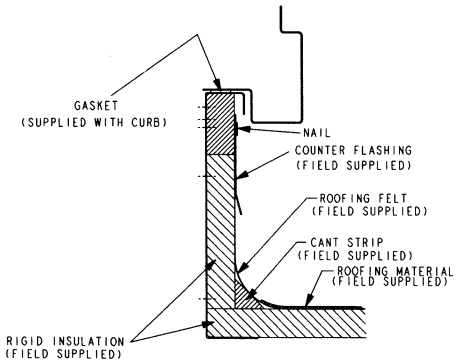
NOTE:
TO PREVENT STANDING WATER IN THE DRAIN PAN OF THE
INDOOR SECTION, AND THE HEAT EXCHANGERS
UNIT CAN ONLY BE PITCHED AS SHOWN.



DIMENSIONS
(DEGREES AND INCHES)

A			B		
DEG.	IN.	mm	DEG.	IN.	mm
1.0	2.9	73	.50	.75	19

UNIT LEVELING TOLERANCES
*FROM EDGE OF UNIT TO HORIZONTAL



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DATE	SUPERCEDES	48/50EJ/EK 038-048	48EJ500748	REV
04-29-96	04-11-96			D