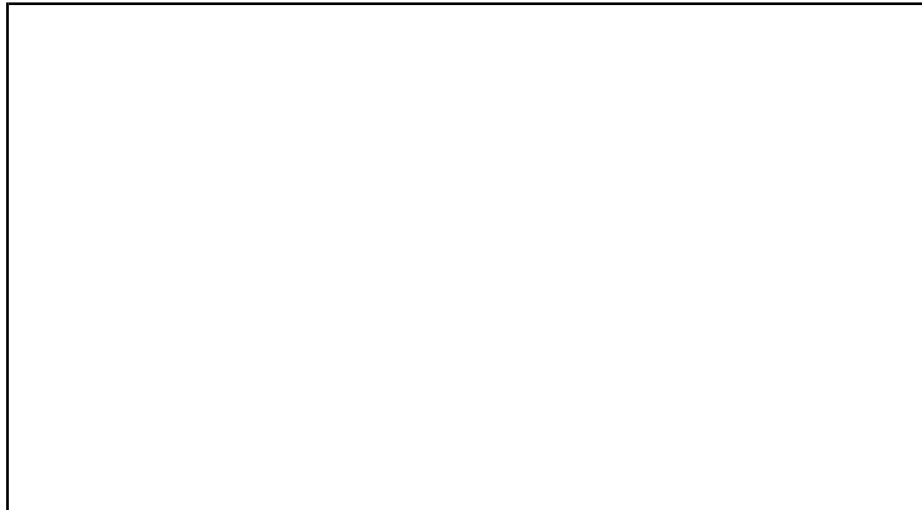




**50JB034, 038, 044, 048, 054, 064
HORIZONTAL SUPPLY AND RETURN
SINGLE-PACKAGE COOLING UNITS
EXTENDED CHASSIS
CONSTANT VOLUME/VARIABLE VOLUME
PRODUCT INTEGRATED CONTROLS
CARRIER COMFORT NETWORK COMPATIBLE**

- PERFORMANCE DATA**
- TYPICAL FIELD WIRING**
- CERTIFIED DIMENSION PRINTS**
- CERTIFIED ROOF CURB
DIMENSION PRINTS**



Date:	Supersedes:	50JB034, 038, 044, 048, 054, 064 SINGLE-PACKAGE COOLING UNITS, EXTENDED CHASSIS PRODUCT INTEGRATED CONTROLS	50JB	Rev.:
JOB NAME:		LOCATION:		
BUYER:		BUYER P.O. #	CARRIER #	
UNIT NUMBER:		MODEL NUMBER:		
PERFORMANCE DATA CERTIFIED BY:			DATE:	

DESCRIPTION



50JB units are completely packaged, pre-wired and precharged cooling only units with PRODUCT INTEGRATED CONTROLS.

50JB units are built for horizontal supply and return applications. Their waterproof construction makes them ideally suited for installation on the accessory roof curb which is NRCA approved or slab mounting. Units are either CONSTANT VOLUME or VARIABLE AIR VOLUME depending on the factory-installed options selected.

Units include space and coil tracks downstream of evaporator for field or factory installation of auxiliary devices.

PRODUCT INTEGRATED CONTROL FEATURES

STANDARD CONTROL FUNCTIONS

Unit compatible with CARRIER COMFORT NETWORK or stand alone operation.
 Constant Volume or Variable Air Volume control.
 Four to six stages of compressor unloading possible.
 Supply fan control based on occupancy schedule using 365-day electronic timeclock with holiday scheduling.
 Time schedule override through the space temperature sensor provided with the unit.
 Compatible with 37H and 45 Series PIC terminals to form a Digital Air Volume system (DAV).
 Building pressurization control in conjunction with modulating power exhaust option.
 Supply duct static pressure controlled through inlet guide vanes or field or factory supplied inverter.
 Head pressure control to -20° F. Head pressure controlled by saturated condensing temperature, low ambient control utilizes Motormaster® II fan cycling.
 Lead-lag compressor control to even out run time.

Self-diagnostic run test confirms control and component operation at unit commissioning. Self-diagnostic troubleshooting codes indicate the reason unit tripped to expedite unit repair. Codes expand to English Text.
 Control of a two-speed supply fan motor on CV applications. (Two-speed motor available on Special Order.)
 Building Purge Mode flushes building interior with outdoor air to remove contaminants before occupancy.
 Adaptive Optimal Start minimizes the amount of time and energy required before entering the occupied mode.
 Unoccupied Mode Free Cooling — units with optimal economizer will utilize free cooling whenever possible to maintain the unoccupied set point.
 Input/Output of data and monitoring of alarms can be done remotely using Building Supervisor, or at the unit using the accessory HSIO module.
 Delayed Mechanical Cooling — units with optional economizer will utilize cooling to cool the space 3 degrees below the occupied set point to delay the need for mechanical cooling.

ADDITIONAL CONTROL FUNCTIONS AVAILABLE THROUGH FACTORY-INSTALLED “OPTION MODULE”

Provides a discrete output with occupancy control for use as specified by the customer.
 Controls a field installed humidifier using a 4 to 20 mA or 2-stage output. Requires accessory humidity sensor.
 Smoke Control functions (Building Pressurization and Smoke Purge) are provided through software. Terminals are provided to interface with field supplied smoke/fire panel.
 Provides a 4 to 20 mA output to direct or reverse proportional hot water control valve for field supplied hydronic heating coil. Requires a field supplied freeze-stat to protect coil.
 Factory installed suction and discharge pressure transducers and suction temperature thermistors allow remote monitoring of these parameters and superheat to provide enhanced remote diagnostics.
 Differential enthalpy control can be provided using field installed accessory humidity sensors.

Economizer 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 0 - 10 volt),
 OR
 — Maintain a constant cfm of outdoor air intake (Requires accessory Outdoor Air CFM package),
 OR
 — Look at all three above and maintain minimum economizer position based on the dominant parameter.

UNIT FEATURES

Large hinged access doors.
Standard one-year product warranty.
Standard unit as factory-assembled is listed by ETL and/or ETL, Canada.
Units are rated in accordance with ARI Standard 360.
115-volt and 24-volt control circuit.
Semi-hermetic Carrier compressors.
Crankcase heaters.
Circuit breaker protection for all power components.
Compressor protection includes high and low pressure cutouts.
Single low rpm supply fan with 2-in. deflection springs under fan sled.

High efficiency indoor motors (supply and exhaust).
Tuff-Skin Rx anti-microbial insulation.
Sloped condensate pan.
Manual adjustable outside air intake for up to 25% outside air.
Cabinet made of prepainted galvanized steel.
Evaporator-fan motors are protected by circuit breakers.
Condenser-fan motors are internally protected.
Single-point electric service entry.
Dual refrigeration circuits.
Lifting lugs.
Two-inch disposable-type return air filters.

PERFORMANCE DATA

Unit Operating Weight _____ lb Cfm _____ External Static Pressure _____ in. wg
Indoor Entering Air db _____ F wb _____ F Curb Weight _____ lb

COOLING

Gross Total Cap. _____ Btuh @ Condenser Air Temp _____ F
Gross Sensible Capacity _____ Btuh
Compressor Power Input _____ kW
Indoor Fan Motor Size _____ Hp
Return Fan Motor Size _____ Hp

HEATING

NO UNIT MOUNTED HEAT AVAILABLE

ELECTRICAL DATA

Power Supply to Unit _____ Volts _____ Phase _____ Hertz
Minimum Circuit Amps _____ Maximum Fuse Amps _____

OPTIONS AND ACCESSORIES

FACTORY-INSTALLED OPTIONS

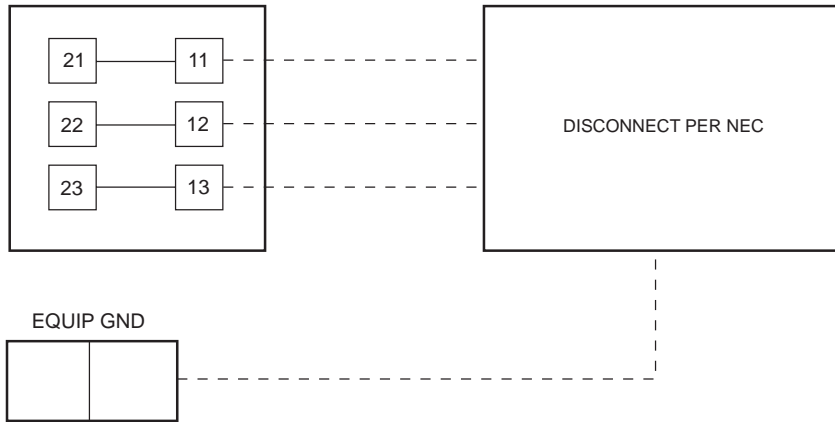
- Control Option Module
- Two-inch Pleated Filters (30%)
- Bag Filters with Prefilters (90%)
- Inlet Guide Vanes or Variable Frequency Drives
- Alternate Motor and Drive
- Premium-Efficiency Motor and Drive (208/230, 460v)
- Alternate Premium-Efficiency Motor and Drive (208/230, 460v)
- Economizer with Low Leak Dampers and Spring Return Motor
- Copper Condenser Coil
- Hot Gas Bypass
- Non-Fused Unit Disconnect

FIELD-INSTALLED ACCESSORIES

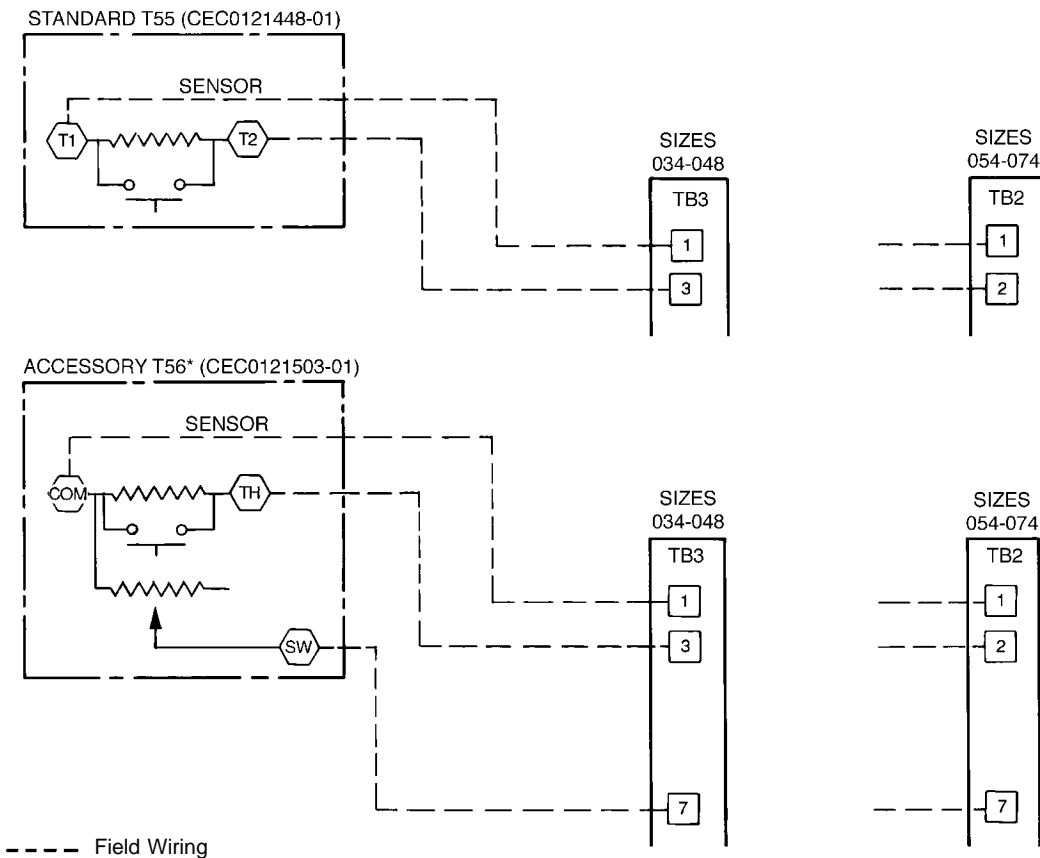
- Roof Curb with Full Perimeter Support (30, 35, 40, 45 ton)
- Roof Curb with Condenser and Support (50, 60 ton)
- Roof Curb to Enclose the Condenser Section (50, 60 ton)
- Outdoor Air Cfm Package
- Local Interface Device
- Differential Enthalpy Control Sensor
- Condenser Coil Guard
- Space Sensor with Set Point Adjustment
- Optional 4-Year Extended Compressor Warranty
- HSIO Keypad and Display Module (required for initial start-up)
- _____
- _____
- _____

TYPICAL FIELD WIRING

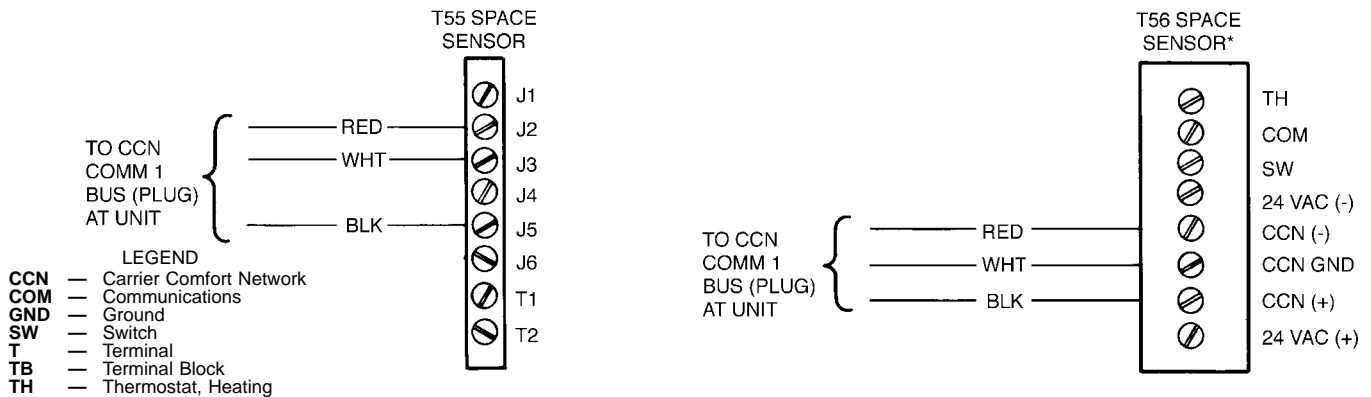
FIELD POWER WIRING CONNECTIONS



FIELD CONTROL WIRING TYPICAL SPACE TEMPERATURE SENSOR WIRING



CCN COMMUNICATIONS BUS WIRING TO OPTIONAL SPACE SENSOR RJ11 CONNECTOR



CUT ALONG DOTTED LINE

CUT ALONG DOTTED LINE

CERTIFIED DIMENSION PRINT



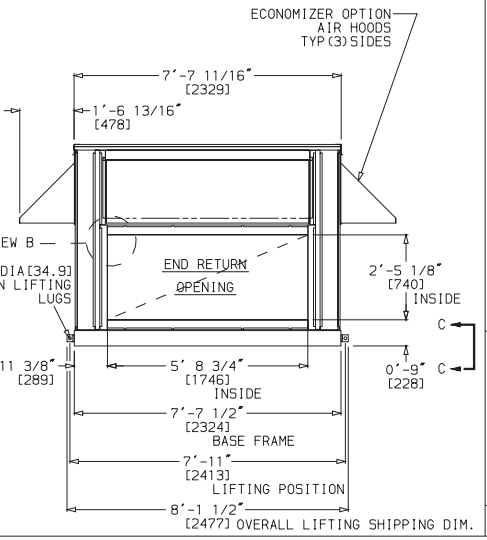
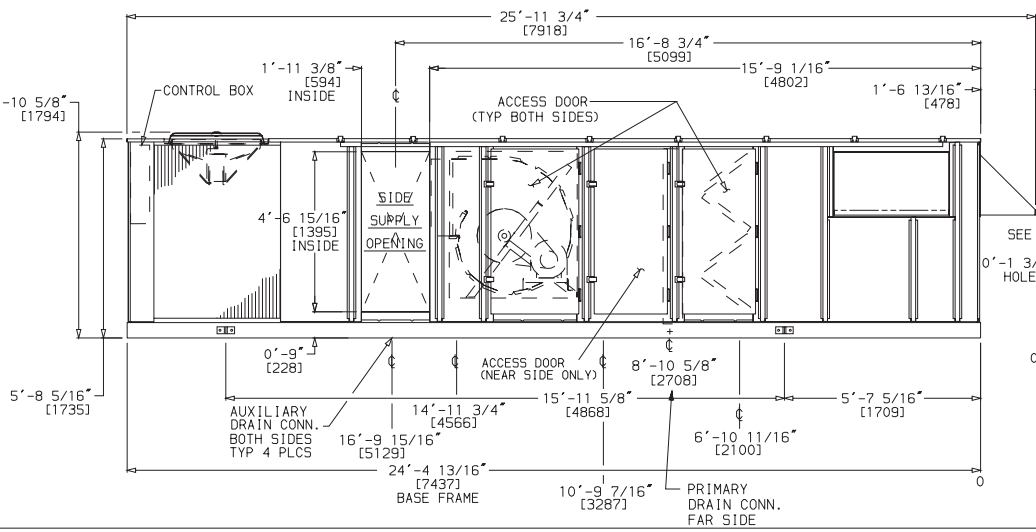
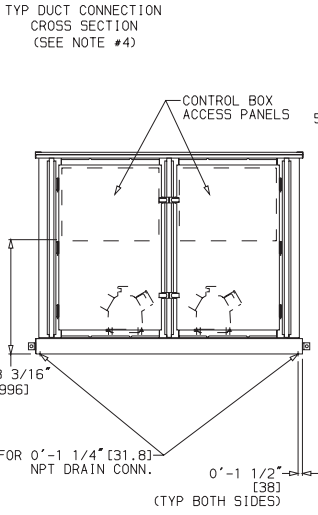
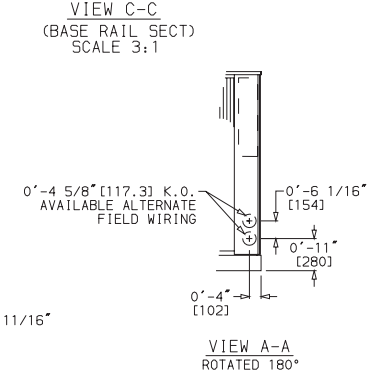
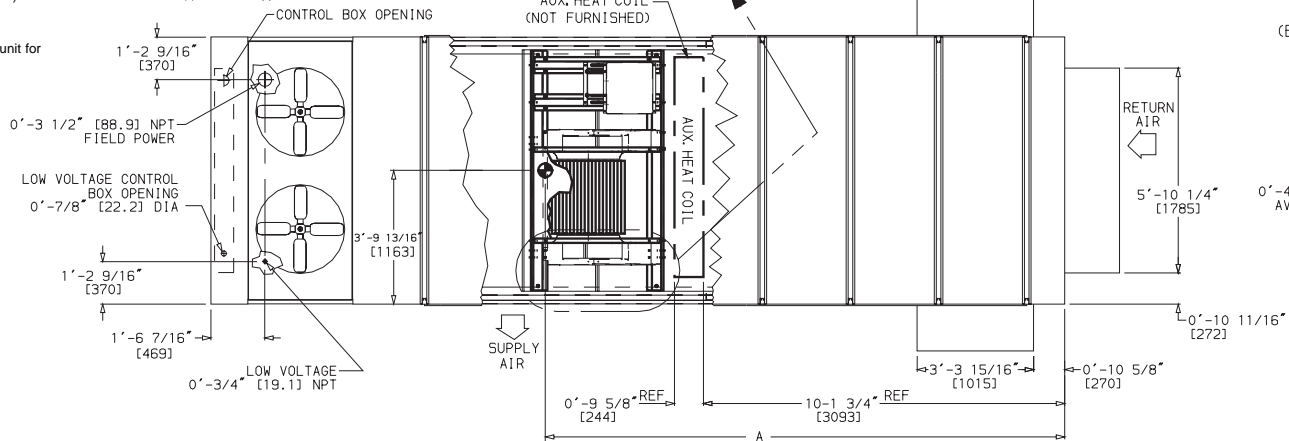
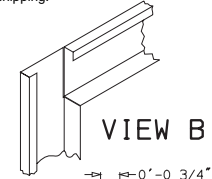
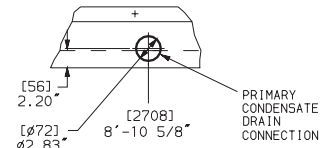
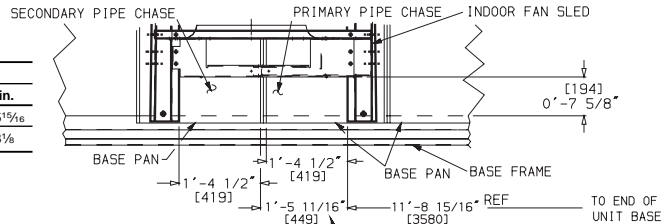
P O BOX 4808
SYRACUSE N. Y.
13221

THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT.

SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT

- NOTES:**
- Dimensions in [] are in millimeters.
 - Center of Gravity includes economizer. Unit weight does not include economizer or heating coil.
 - Unit clearances:
Top — Do not restrict condensers fans
Control Box End — 6'-0"
Sides — 6'-0"
Economizer End — 6'-0" (except power exhaust units 10'-0")
For smaller service and operating clearances, contact Carrier Application Engineering Department.
 - Suggested field connections to be made inside or outside of 2.28 in. (32.5 mm) flange.
 - When the unit is slab mounted, plug the factory drilled auxiliary condensate drain holes.
 - Auxiliary heating coil is field supplied and installed.
 - Auxiliary heating coil dimensions (maximum):
Length (header included), 7'-0 1/4" [2140]
Width, 0'-9 5/8" [244]
Height, 4'-5 1/4" [1370]
 - Economizer side hoods are folded inside unit for shipping.

UNIT SIZE	WEIGHT		A	
	lb	kg	mm	ft-in.
50JB034	6470	2934	4418	14-5 1/16
50JB038	6595	2991	4474	14-8 1/4



50JB034,038 (EXTENDED CHASSIS)

CERTIFIED DIMENSION PRINT



UNITED TECHNOLOGIES
CARRIER

P O BOX 4808
SYRACUSE N. Y.
13221

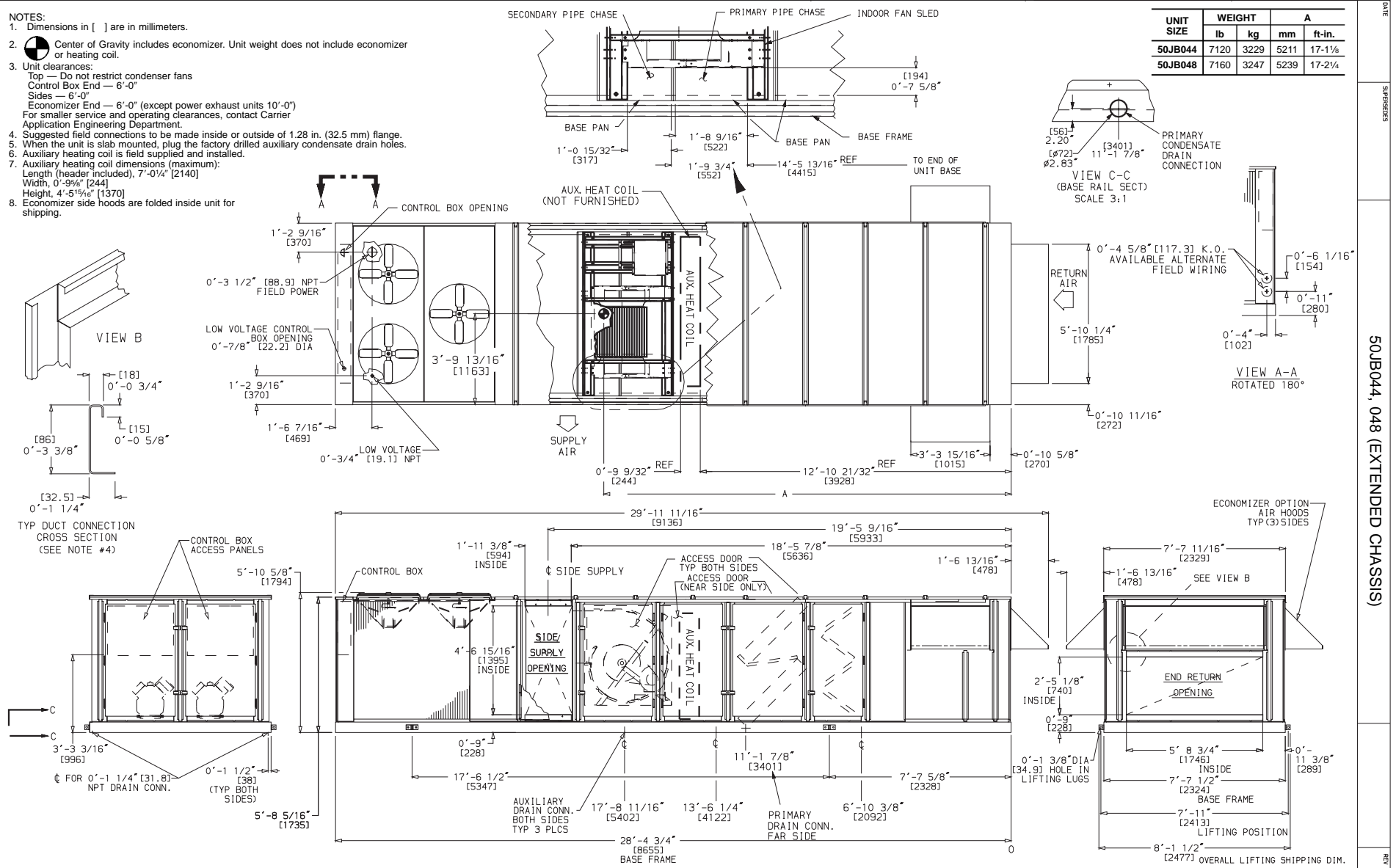
THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT.

SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT

NOTES:

- Dimensions in [] are in millimeters.
- Center of Gravity includes economizer. Unit weight does not include economizer or heating coil.
- Unit clearances:
Top — Do not restrict condenser fans
Control Box End — 6'-0"
Sides — 6'-0"
Economizer End — 6'-0" (except power exhaust units 10'-0")
For smaller service and operating clearances, contact Carrier Application Engineering Department.
- Suggested field connections to be made inside or outside of 1.28 in. (32.5 mm) flange.
- When the unit is slab mounted, plug the factory drilled auxiliary condensate drain holes.
- Auxiliary heating coil is field supplied and installed.
- Auxiliary heating coil dimensions (maximum):
Length (header included), 7'-0 1/4" [2140]
Width, 0'-9 5/8" [244]
Height, 4'-5 1/8" [1370]
- Economizer side hoods are folded inside unit for shipping.

UNIT SIZE	WEIGHT		A	
	lb	kg	mm	ft-in.
50JB044	7120	3229	5211	17-1 1/8
50JB048	7160	3247	5239	17-2 1/4



50JB044, 048 (EXTENDED CHASSIS)

DATE

SHEET NO.

REV

CUT ALONG DOTTED LINE

CUT ALONG DOTTED LINE

CERTIFIED DIMENSION PRINT



UNITED TECHNOLOGIES CARRIER

P O BOX 4808 SYRACUSE N. Y. 13221

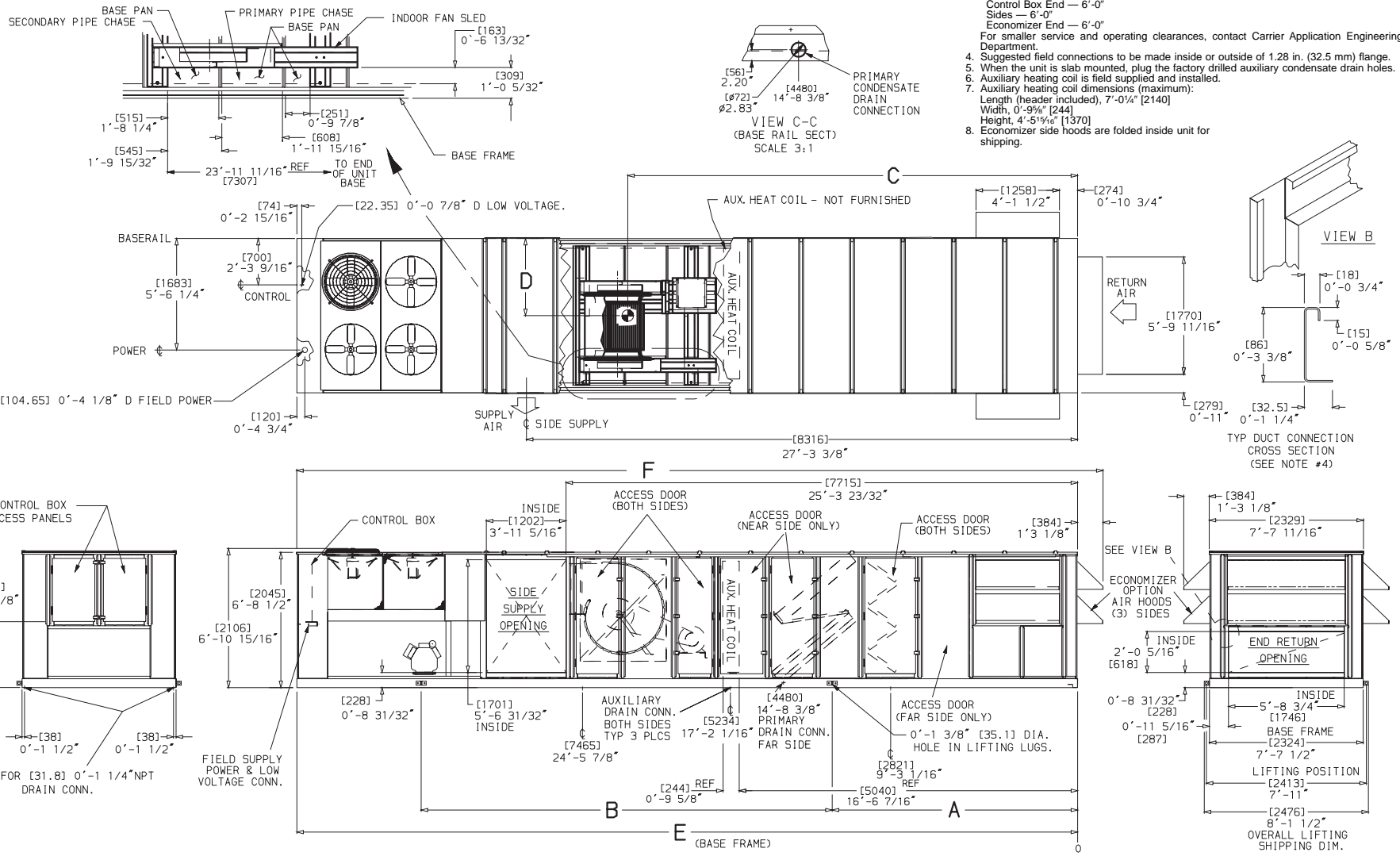
THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT.

SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT

UNIT SIZE	WEIGHT		A		B		C		D		E		F	
	lb	kg	mm	ft-in.	mm	ft-in.	mm	ft-in.	mm	ft-in.	mm	ft-in.	mm	ft-in.
50JB054	8800	3990	2959	9-8 1/2	6940	22-9 3/4	6393	20-11 1/16	1163	3-9 25/32	11 780	38-7 13/16	12 164	39-10 7/8
50JB064	9100	4127	2959	9-8 1/2	6940	22-9 3/4	6393	20-11 1/16	1163	3-9 25/32	11 780	38-7 13/16	12 164	39-10 7/8

NOTES:

- Dimensions in [] are in millimeters.
- Center of Gravity includes economizer. Unit weight does not include economizer or heating coil.
- Unit clearances:
Top — Do not restrict condenser fans
Control Box End — 6'-0"
Sides — 6'-0"
Economizer End — 6'-0"
For smaller service and operating clearances, contact Carrier Application Engineering Department.
- Suggested field connections to be made inside or outside of 1.28 in. (32.5 mm) flange.
- When the unit is slab mounted, plug the factory drilled auxiliary condensate drain holes.
- Auxiliary heating coil is field supplied and installed.
- Auxiliary heating coil dimensions (maximum):
Length (header included), 7'-0 1/4" [2140]
Width, 0'-9 9/16" [244]
Height, 4'-5 1/4" [1370]
Economizer side hoods are folded inside unit for shipping.



UNIT
SURFACES
50JB054,064 (EXTENDED CHASSIS)
REV

CERTIFIED ROOF CURB DIMENSION PRINT



UNITED TECHNOLOGIES CARRIER

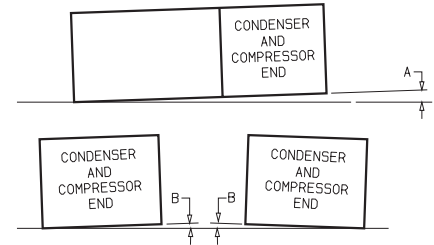
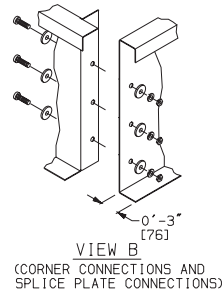
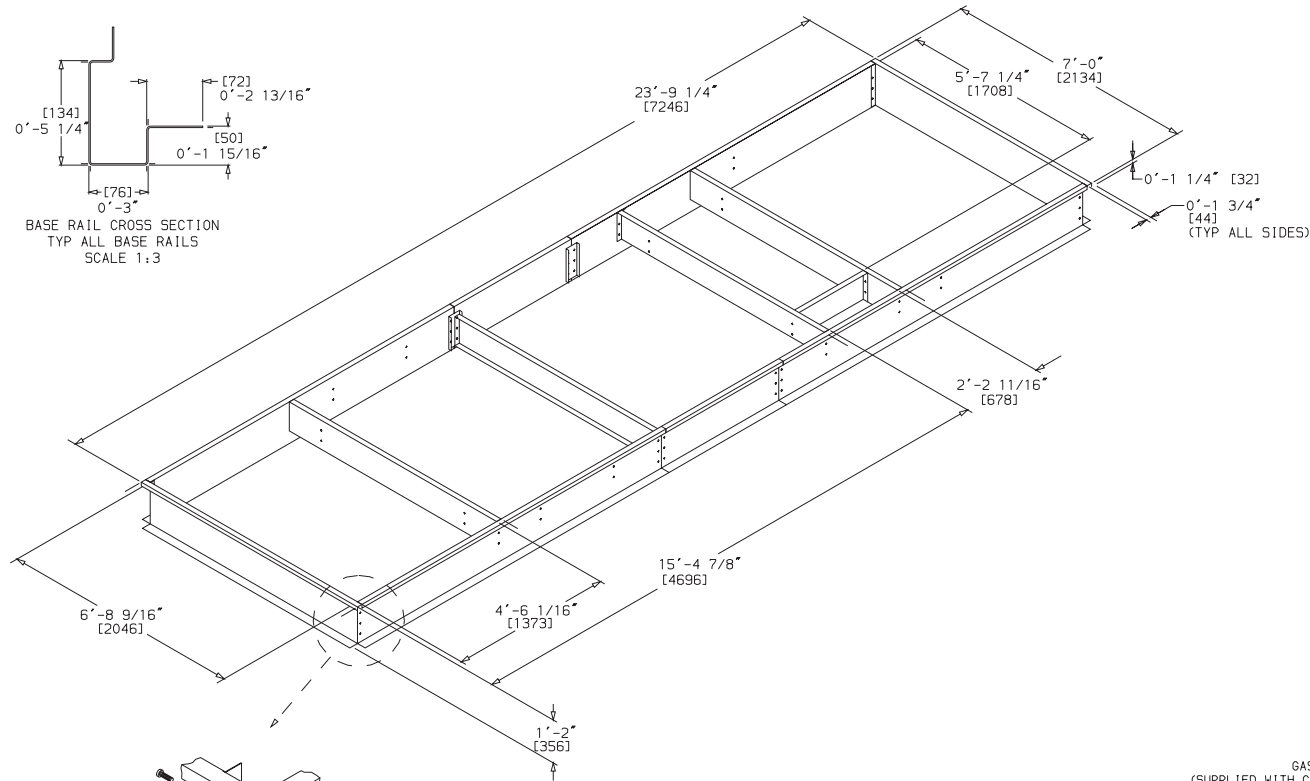
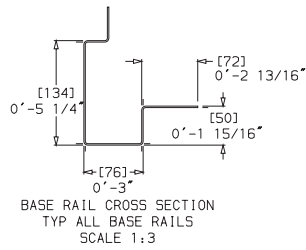
P O BOX 4808 SYRACUSE N. Y. 13221

THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT.

SUBMISSIONS OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT

NOTES:

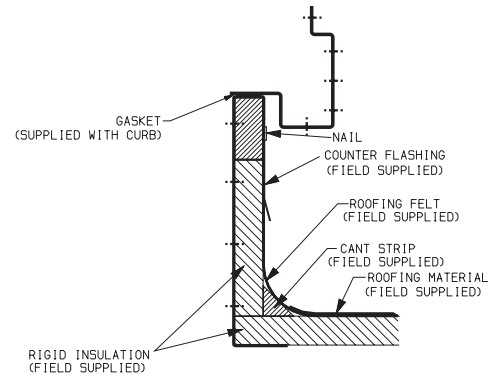
1. ROOF CURB IS SHIPPED DISASSEMBLED.
2. ROOF CURB: 14 GA. [VA03-56] STL.
3. DIMENSIONS IN [] ARE MILLIMETERS.



DIMENSIONS (degrees and inches)

A		B	
DEG.	IN.	DEG.	IN.
1.0	2.0	.50	.75

UNIT LEVELING TOLERANCES
*From edge of unit to horizontal.



DATE: _____
SYMBOLS: _____
ROOF CURB — 50JB034, 038 (EXTENDED CHASSIS)
REV: _____

CUT ALONG DOTTED LINE

CUT ALONG DOTTED LINE

CERTIFIED ROOF CURB DIMENSION PRINT



UNITED TECHNOLOGIES CARRIER

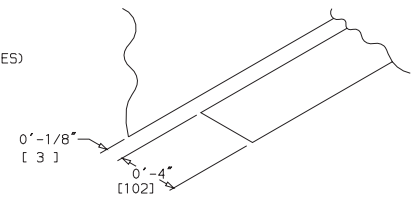
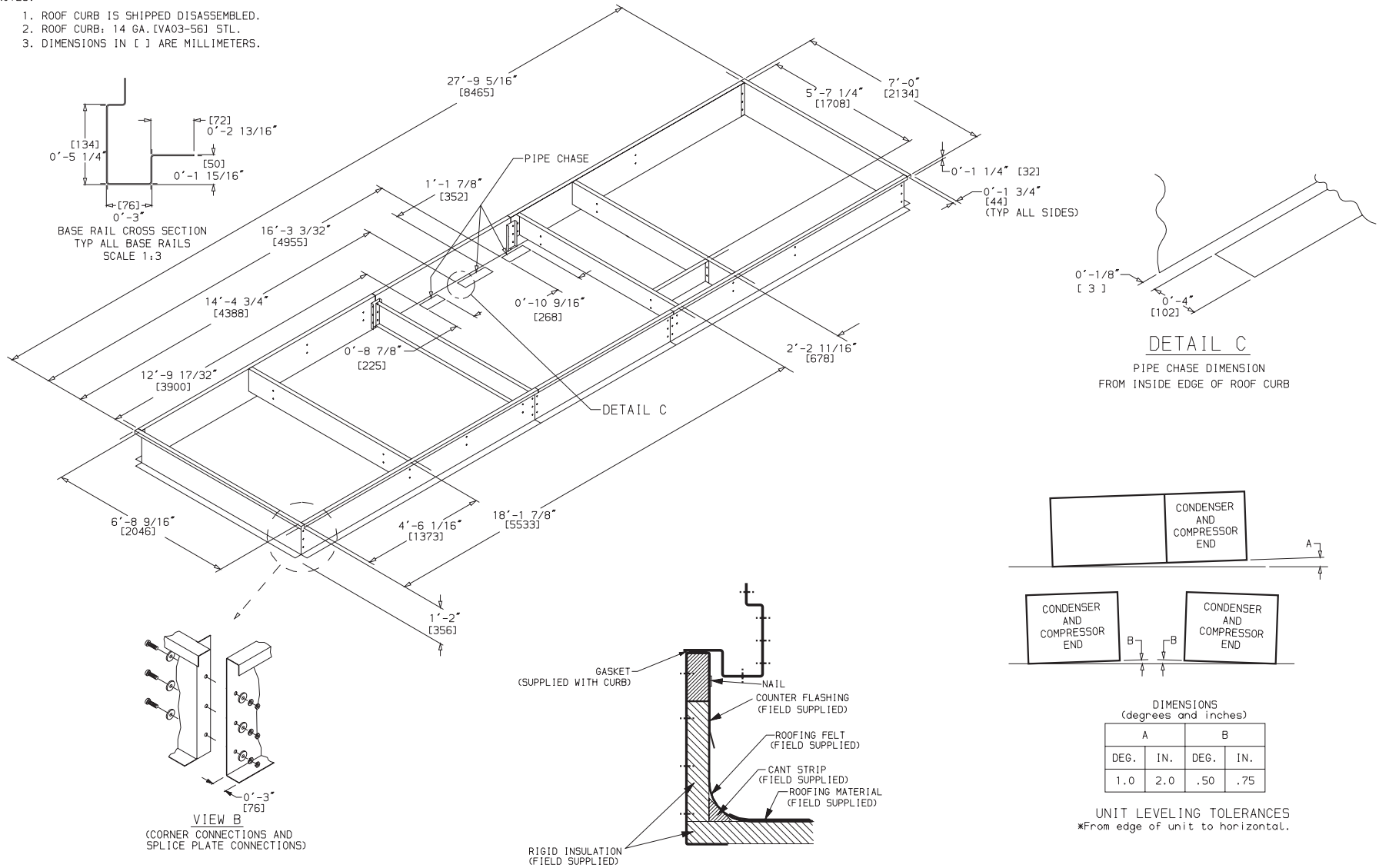
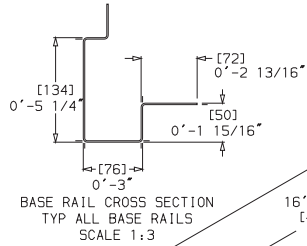
P O BOX 4808 SYRACUSE N. Y. 13221

THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT.

SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT

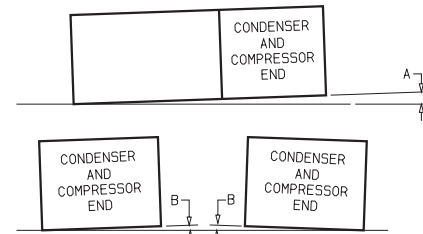
NOTES:

1. ROOF CURB IS SHIPPED DISASSEMBLED.
2. ROOF CURB: 14 GA. [VA03-56] STL.
3. DIMENSIONS IN [] ARE MILLIMETERS.



DETAIL C

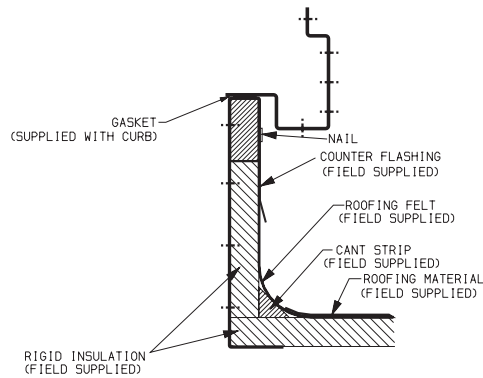
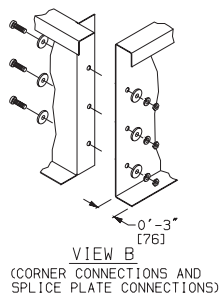
PIPE CHASE DIMENSION FROM INSIDE EDGE OF ROOF CURB



DIMENSIONS (degrees and inches)


A		B	
DEG.	IN.	DEG.	IN.
1.0	2.0	.50	.75

UNIT LEVELING TOLERANCES
*From edge of unit to horizontal.

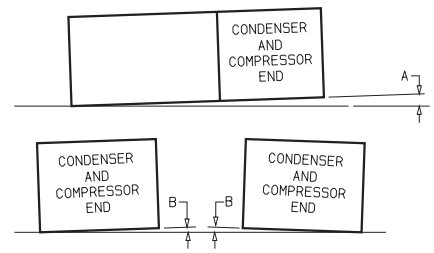
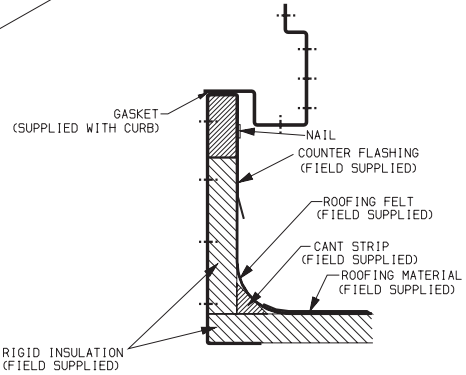
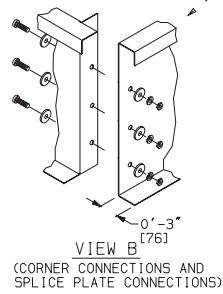
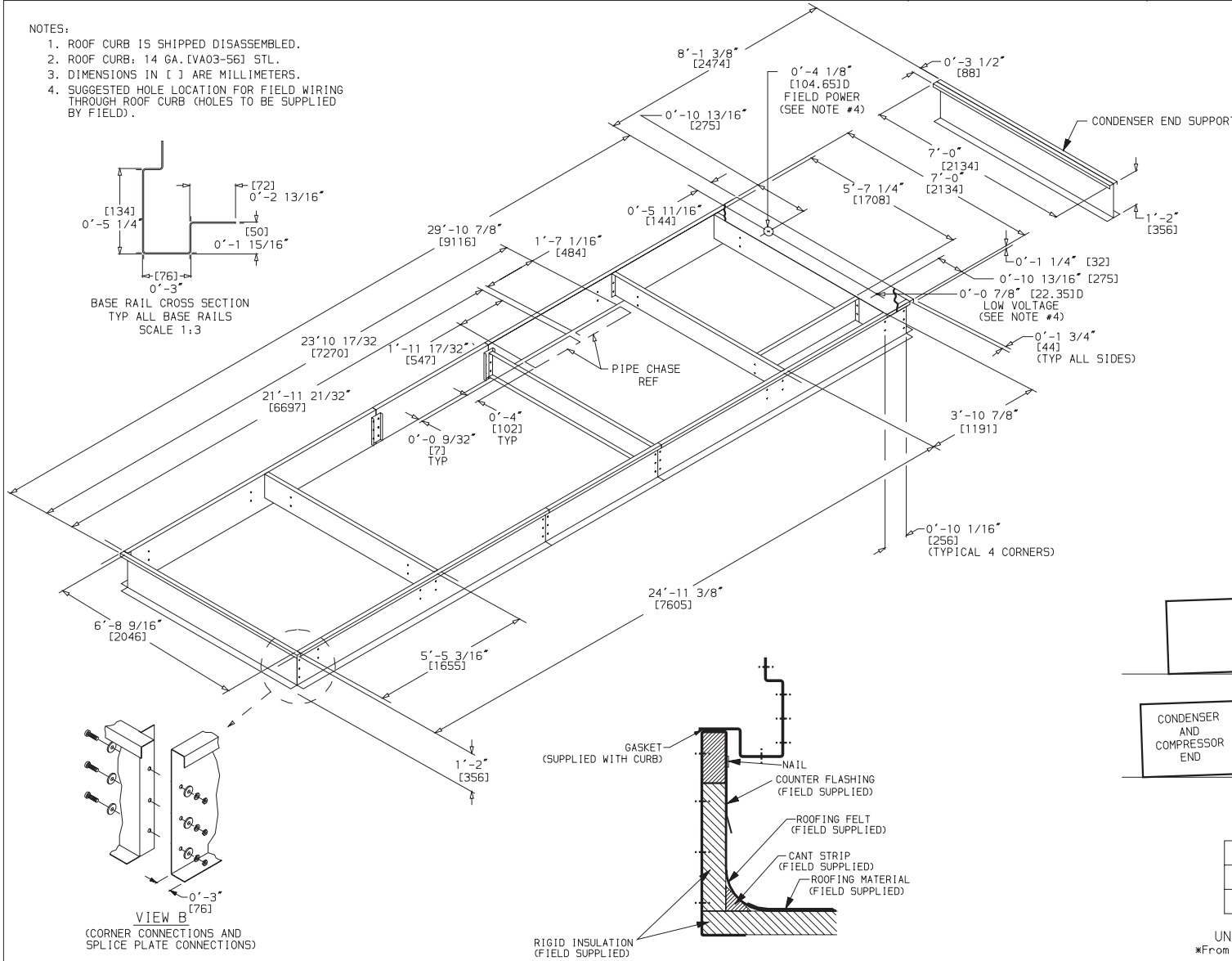
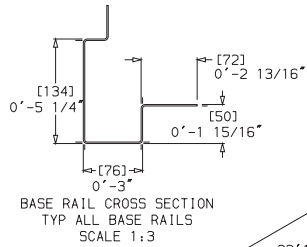


DATE: _____
SHEET NO: _____
ROOF CURB — 50JB04, 048 (EXTENDED CHASSIS)
REV: _____

CERTIFIED ROOF CURB DIMENSION PRINT

 UNITED TECHNOLOGIES CARRIER	P O BOX 4808 SYRACUSE N. Y. 13221	THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT.	SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT
	DATE: _____ SUBMITTED: _____		

- NOTES:
1. ROOF CURB IS SHIPPED DISASSEMBLED.
 2. ROOF CURB: 14 GA. [VA03-56] STL.
 3. DIMENSIONS IN [] ARE MILLIMETERS.
 4. SUGGESTED HOLE LOCATION FOR FIELD WIRING THROUGH ROOF CURB (HOLES TO BE SUPPLIED BY FIELD).



DIMENSIONS (degrees and inches)

A		B	
DEG.	IN.	DEG.	IN.
1.0	2.0	.50	.75

UNIT LEVELING TOLERANCES
*From edge of unit to horizontal.

DATE: _____
SUBMITTED: _____
ROOF CURB — 50JB054.064 (EXTENDED CHASSIS)

CUT ALONG DOTTED LINE

CUT ALONG DOTTED LINE

CERTIFIED ACCESSORY ROOF CURB DIMENSION PRINT



UNITED TECHNOLOGIES
CARRIER

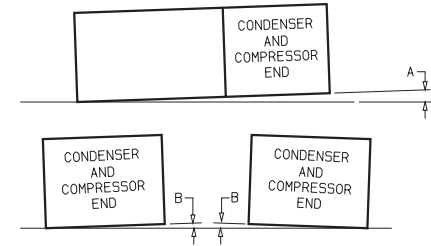
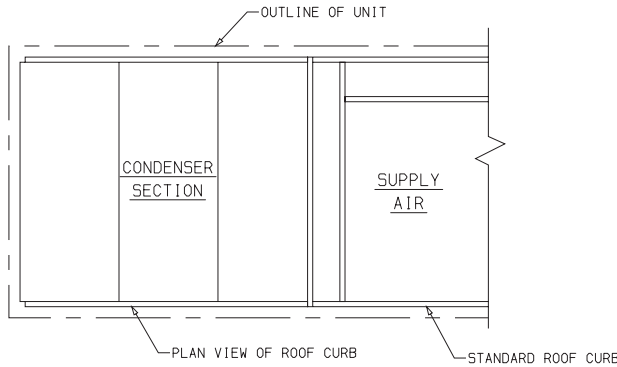
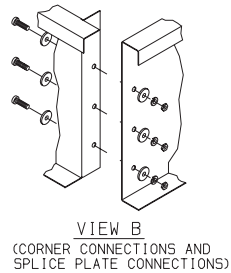
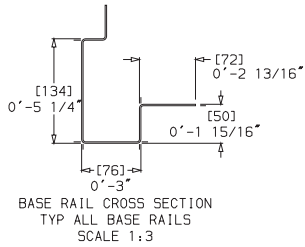
P O BOX 4808
SYRACUSE N. Y.
13221

THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT.

SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT

NOTES:

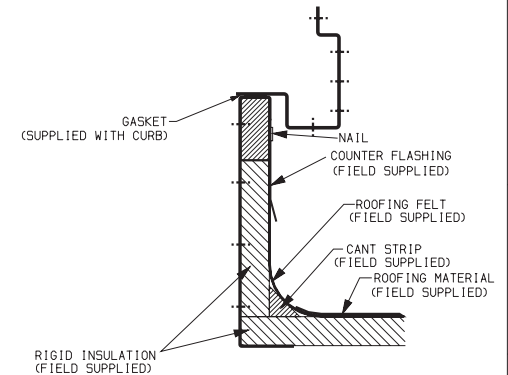
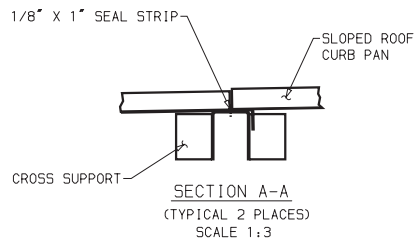
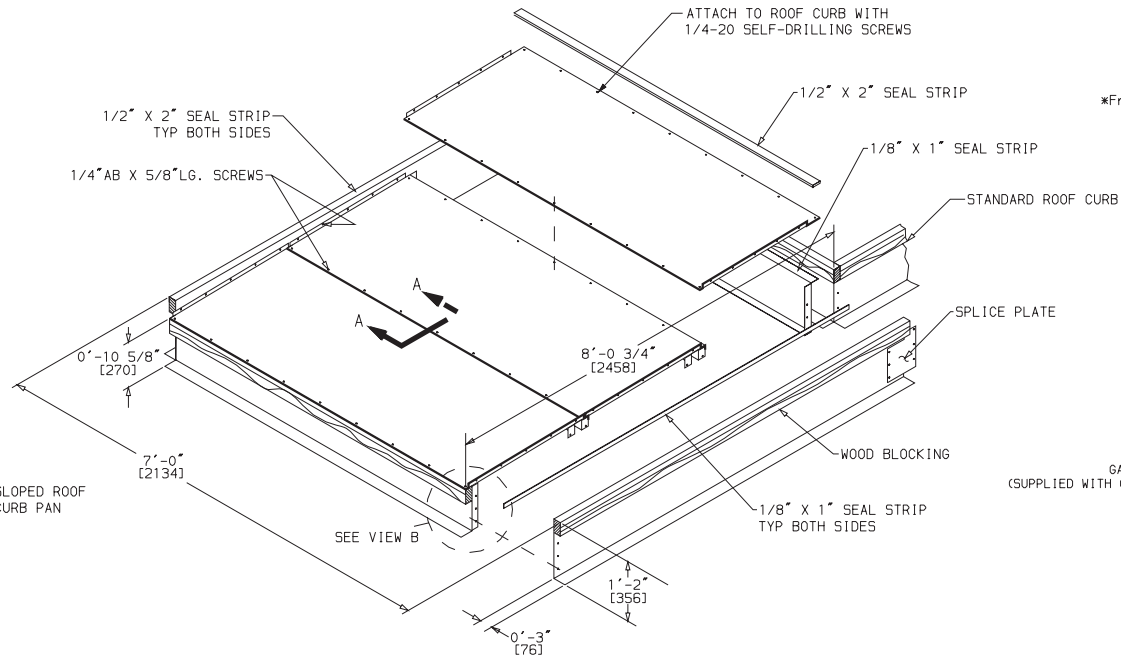
1. ROOF CURB ACCESSORY IS SHIPPED DISASSEMBLED.
2. DIMENSIONS IN [] ARE MILLIMETERS.
3. ROOF CURB: 14 GA. [VA03-56] STL.
ROOF CURB PANS: 16 GA. [VA03-56] STL.



DIMENSIONS (degrees and inches)

A		B	
DEG.	IN.	DEG.	IN.
1.0	2.0	.50	.75

UNIT LEVELING TOLERANCES
*From edge of unit to horizontal.



DATE

SUBMITTER

ACCESSORY ROOF CURB — 50JB054, 064

REV