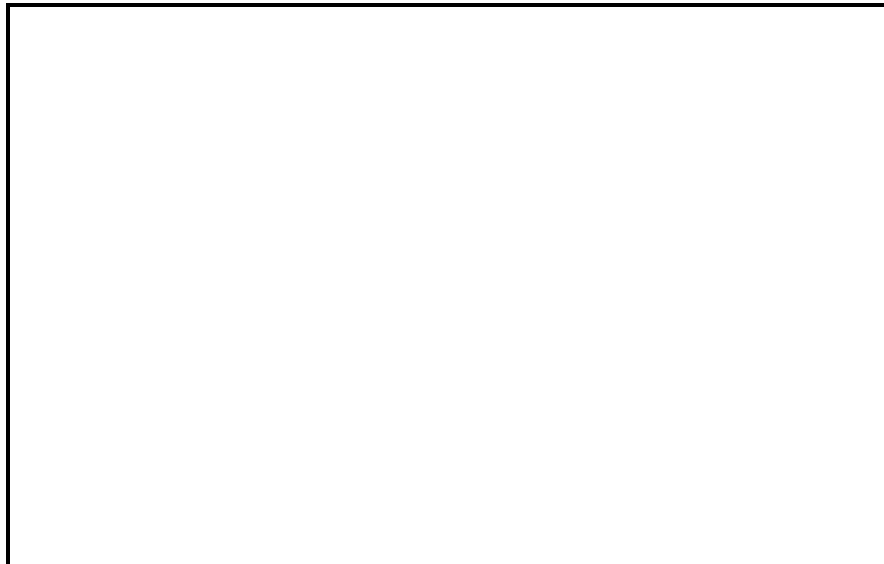




Submittal Data

- **PERFORMANCE DATA**
- **CERTIFIED DIMENSION PRINTS**
- **CERTIFIED ROOF CURB
DIMENSION PRINTS**
- **SERVICE OPTION DIMENSION
PRINTS**



Job Data: _____ Location: _____
 Buyer: _____ Buyer P.O.# _____ Carrier: _____
 Unit Number: _____ Model Number: _____
 Unit Designation: _____
 Performance Data Certified By: _____



DESCRIPTION

50TM units are one-piece rooftop cooling units with optional electric heat. All units are pre-wired and pre-charged with R-22 at the factory. Units are factory tested in both heating and cooling modes. The 50TM units have bottom air openings for separate supply and return ductwork. The 50TM unit is intended for installation on an accessory curb (ordered separately). Horizontal supply and return connections are also possible with a factory-preassembled, horizontal conversion adapter roof curb accessory (ordered separately). Bottom discharge on concentric applications requires a transition duct (field-supplied) external to the unit.

50TM

FEATURES

- All units meet ASHRAE minimum efficiency Standard 90.1.
- Standard one-year product warranty.
- Five-year warranty on the compressor (50TM016). One year warranty on the compressor (50TM020-028).
- Units are rated in accordance with ARI standard 360. Standard unit is certified and listed by ETL and ETL, Canada.
- Low outdoor temperature cooling operation to 40°F (4°C) as standard.
- Dual freeze-stat protection is provided as standard.
- Dual scroll compressors with internal linebreak protection (TM028 has 3 compressors, circuit #1 has 2 compressors in tandem).
- Indoor and outdoor coils constructed of aluminum fins mechanically bonded to seamless internally grooved copper tubes.
- Dual TXVs (thermostatic expansion valves) metering devices.
- Liquid line filter driers provided in each refrigeration circuit.
- Optional gear-driven EconoMi\$er IV equipped with microprocessor controller that includes CO₂ ventilation control capability.
- Manually adjustable outside air intake for up to 25% outside air.
- Automatic changeover (when used with an auto-changeover thermostat).
- Single point electric connections. Disconnect in accordance with NEC must be field-supplied and installed.
- All units utilize 2-stage cooling.
- Belt drive adjustable evaporator fan.
- Choice of low-medium or high-static indoor fan drive capability.
- Cabinet made of pre-painted, galvanized steel with baked enamel finish.
- Cooling systems have low and high-pressure switches. Two in. disposable type return air filters are factory installed.
- Provision for alternate end return in base unit. Horizontal supply available by using accessory curb. EconoMi\$er IV may be used with horizontal supply and return.
- Direct drive propeller condenser fans with vertical discharge.

PERFORMANCE DATA

Unit Operating Weight _____ lb

Curb Weight _____ lb

Cooling

Gross Total Capacity: _____ Btuh
at Condenser Air Temperature _____ °F

Gross Sensible Capacity: _____ Btuh

Compressor Power Input: _____ kW

Indoor Entering db _____ °F wb _____ °F

Airflow _____ 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 Overcurrent Protection _____

SUBMITTAL DATA

Job Name _____

Architect _____

Engineer _____

Contractor _____

Unit Designation _____

OPTIONS AND ACCESSORIES

FACTORY-INSTALLED OPTIONS

- Fully Integrated EconoMiSer IV, gear driven with Belimo Actuator (2-10vDC signal) and controller
- Cu/Cu (tube/fin) condenser coils
- Cu/Cu (tube/fin) condenser and evaporator coils
- E-coat Al/Cu condenser
- E-coat Cu/Cu condenser
- Pre-Coated Al/Cu Condenser Coils
- Hinged Access Panels
- Service Option Package (hinged access panels, non-fused disconnect, non-powered 115v convenience outlet)
- Manual 25% Outside Air Damper
- Low-med static capability indoor fan drive
- High static capability indoor fan drive
- Low kW range electric heater
- Mid kW range electric heater

OPTIONAL WARRANTIES

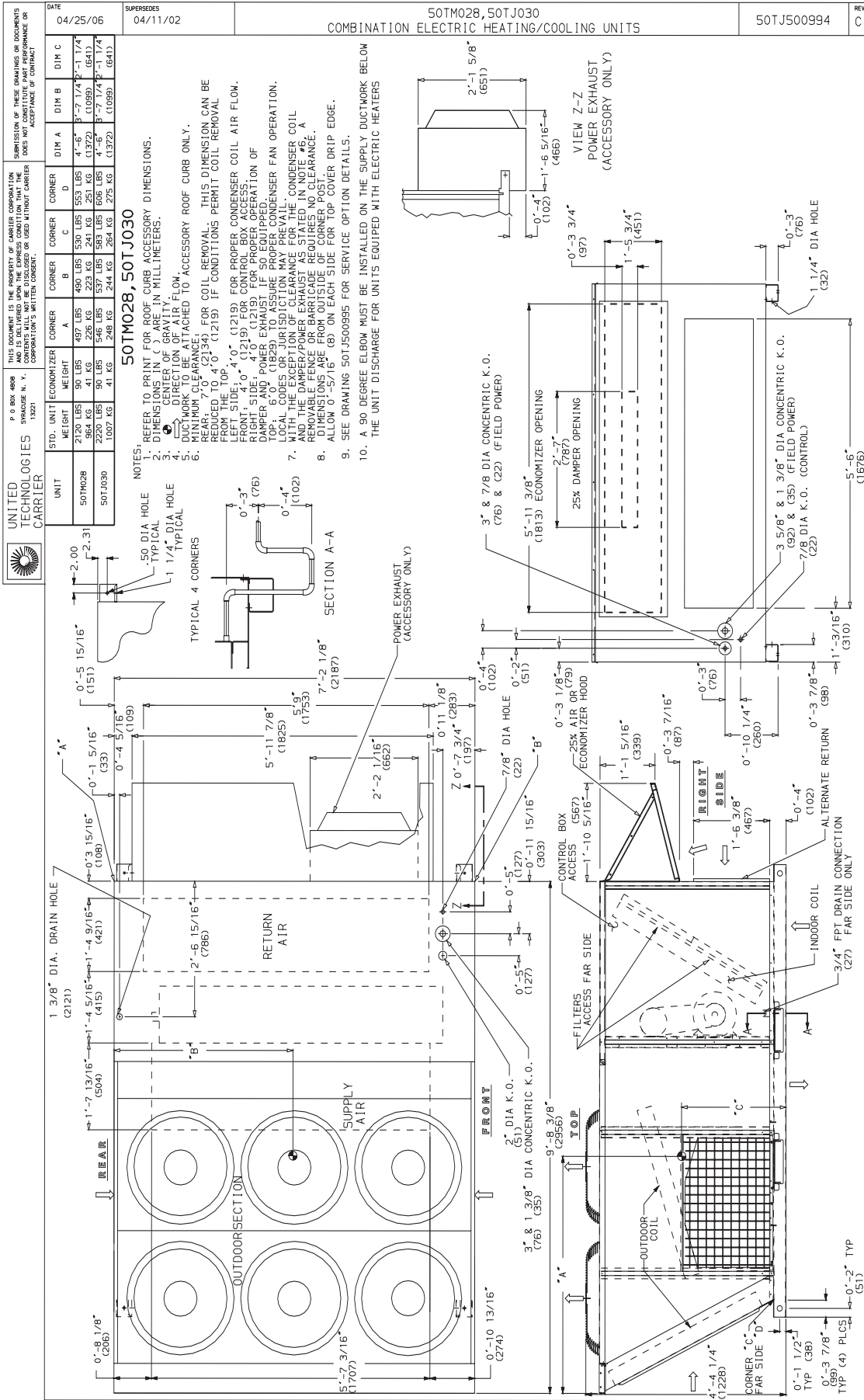
- (2nd to 5th Year) Extended Protection Plan on the Compressor (020, 025, 028)

FIELD-INSTALLED ACCESSORIES

- Fully Integrated EconoMiSer IV, gear driven with controller and Belimo Actuator (2-10v DC signal)
- EconoMiSer 2, gear driven with Belimo Actuator (4-20mA signal) and without controller
- Outdoor Air and Return Air Temperature Sensors (differential dry bulb control)
- Return Air Enthalpy Sensor (single enthalpy control)
- Outdoor and Return Air Enthalpy Sensors (differential enthalpy control)
- CO₂ Sensor-Duct Mount
- CO₂ Sensor-Wall Mount
- Winter Start Package
- Roof Curb (14-in.)
- Roof Curb (24-in.)
- Roof Curb (Horizontal Supply)
- Factory Preassembled, Horizontal Conversion Adapter Roof Curb (TM016, 020 and 025 Only)
- Power Exhaust
- Barometric Relief
- Thermostat and Subbase
- Two-Position Damper Package
- Motormaster® Control allows operations down to -20°F
- Low Ambient Kit-Down to 10°F (016, 020, 028)
- Low Ambient Kit-Down to 25°F (025)
- Hail Guard (016, 020, 025)
- Hydronic (Glycol) Coil
- Electric Heat
- Outdoor Air Thermostat
- Time Guard II compressor anti-cycle protection

50TM

CERTIFIED DIMENSION PRINT
50TM028



CERTIFIED ROOF CURB DIMENSION PRINT 50TM028

ROOF CURB ACCESSORY	CURB HEIGHT	DESCRIPTION
CRRFCURB025A00	1'-2" [356]	ROOF CURB 14" HIGH

UNITED TECHNOLOGIES STRAHLER, NY
CARRIER

P.O. BOX 4888
ROSELAND, NJ 07068

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DIMENSIONS (DEGREES AND INCHES)

UNIT	A	B
	DEG.	IN.
ALL	.28	.45
	.28	.43

MAX CURB LEVELING TOLERANCES:
FROM EDGE OF UNIT TO HORIZONTAL

CONDENSATE DRAIN

COMPRESSOR AND CONDENSER END

PLAN VIEW OF ROOF CURB

OUTLINE OF UNIT

ATTACH DUCT WORK TO UNITS

KEEP THIS AREA CLEAR FOR POWER (GAS ENTRY FOR GAS FIRED ROOFTOPS)

REF. SUPPLY OPENING

SLOPED PANEL

INSULATED PANEL

SUPPLY OPENING CURB

INSULATED PANEL

RETURN OPENING CURB

6' - 2 1/4" (1886)

1' - 10" (659)

1' - 7 13/16" (304)

1' - 10 3/4" (579)

0' - 5 1/4" (132)

1' - 3/16" (310)

1' - 3/16" (310)

7' - 5 1/16" (2262)

SECTION A-A

UNIT OPENINGS

SUPPLY AIR

RETURN AIR

OPTIONAL RETURN

OPTIONAL SIDE SUPPLY

DUCT SUPPLIED

FIELD SUPPLIED

RIGID INSULATION (FIELD SUPPLIED)

MAIL

COUNTER FLASHING (FIELD SUPPLIED)

ROOFING ELBOW (FIELD SUPPLIED)

CAULK STRIP (FIELD SUPPLIED)

ROOFING MATERIAL (FIELD SUPPLIED)

GASKET (SUPPLIED WITH CURB)

1'-4 3/16" (421)

1'-4 5/16" (415)

1'-7 13/16" (504)

MITERED CORNERS TOP ONLY

TYP. 6 PLACES

0' - 1 3/4" (44)

0' - 2" (51)

0' - 1 1/4" (32)

HEIGHT FROM TABLE

6' - 2 1/4" (1886)

7' - 5 1/16" (2262)

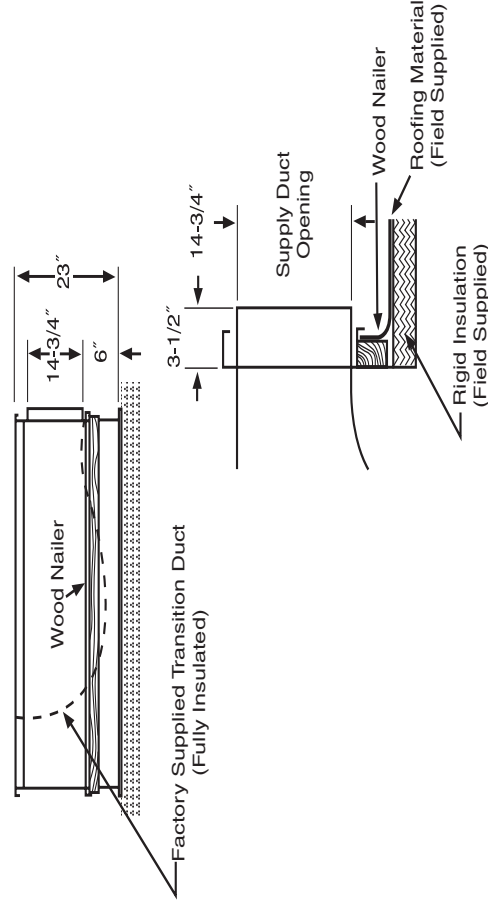
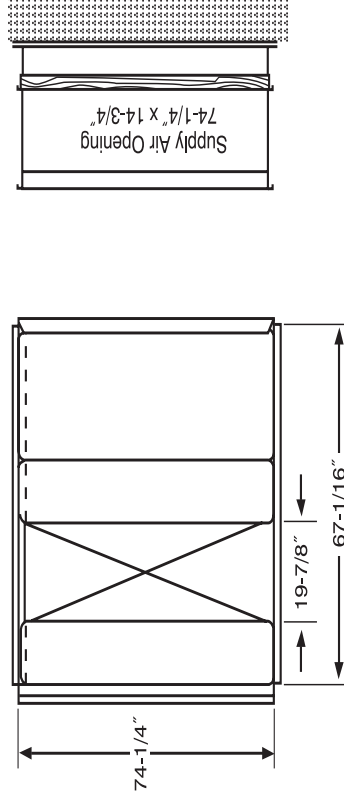
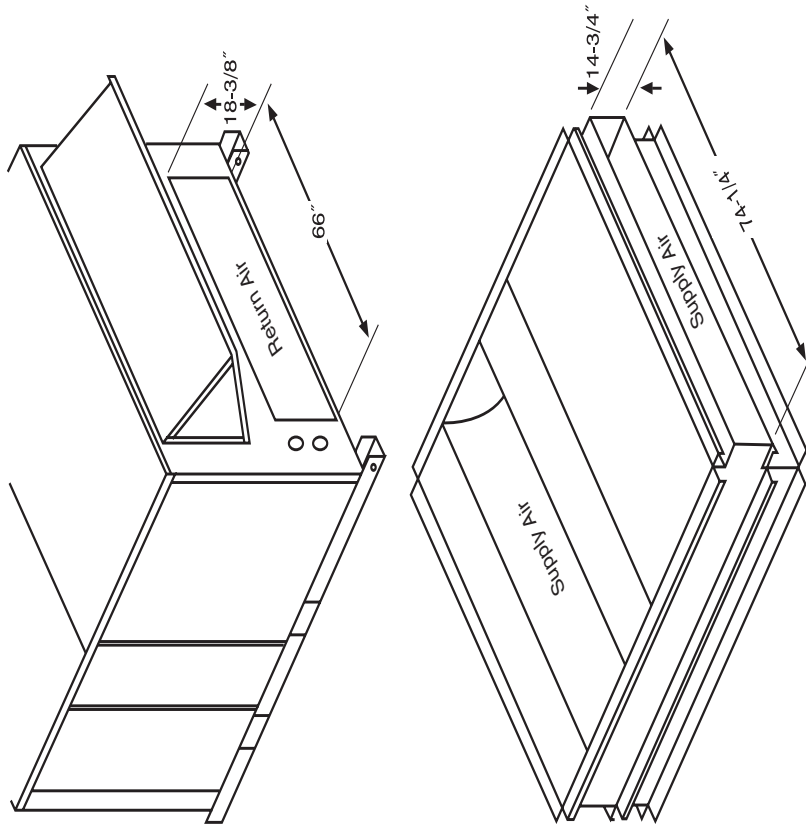
NOM. 5/4" X 4" TYP 4 PLACES

NOTES:

1. ROOF CURB ACCESSORY IS SHIPPED DISASSEMBLED.
2. DIMENSIONS IN () ARE IN MILLIMETERS.
3. DIRECTION OF AIRFLOW.
4. ROOF CURB: 16 GA. (VA03-56) STEEL.
5. TO PREVENT THE HAZARD OF STAGNANT WATER BUILD-UP IN THE DRAIN PAN OF THE INDOOR SECTION, UNIT CAN ONLY BE PITCHED AS SHOWN.
6. INSULATED PANELS: 1" THICK NEOPRENE COATED 1-1/2 LB DENSITY.
7. A 90° ELBOW MUST BE INSTALLED ON THE SUPPLY DUCT WORK BELOW THE UNIT DISCHARGE FOR UNITS EQUIPPED WITH ELECTRIC HEATERS.

DATE	date	SUPERCEDES	supercedes	drawing_description	50TJ501152	REV	-
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**HORIZONTAL SUPPLY/RETURN ADAPTER DIMENSION DRAWING
50TM016-025 ONLY**



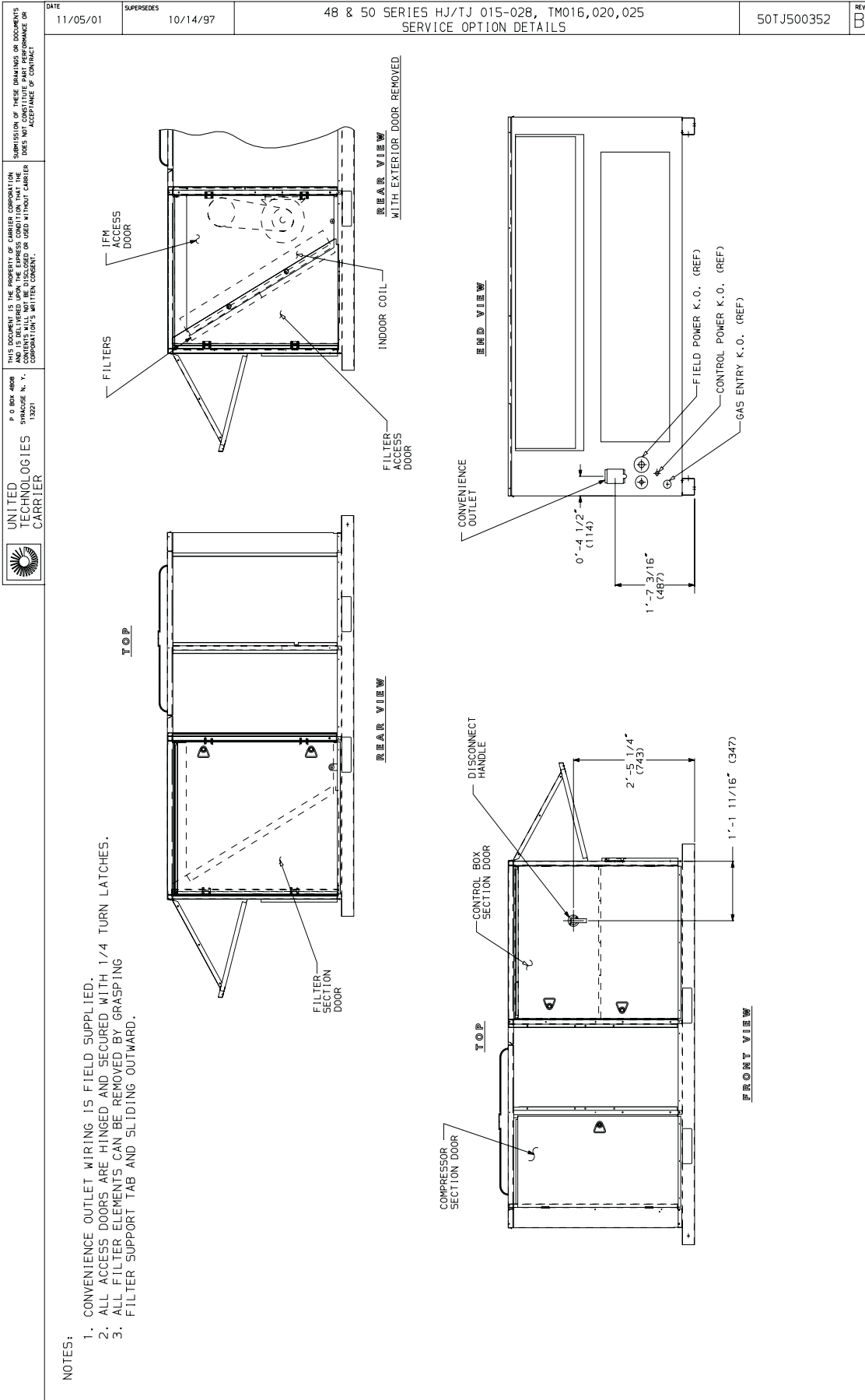
**FACTORY PRE-ASSEMBLED HORIZONTAL
SUPPLY/RETURN ADAPTOR ACCESSORY
CRRFCURB013A00**

PKG NO. REF.	CURB HEIGHT(ht)	DESCRIPTION
CRRCURB013A00	1'-11" (589)	Factory Pre-Assembled Horizontal Adapter Curb with Transition Duct

C06342

50TM

SERVICE OPTION DIMENSION PRINT 50TM016-025



SERVICE OPTION DIMENSION PRINT 50TM028



UNITED
TECHNOLOGIES
CARRIER

P O BOX 4808
SYRACUSE N. Y.
13201

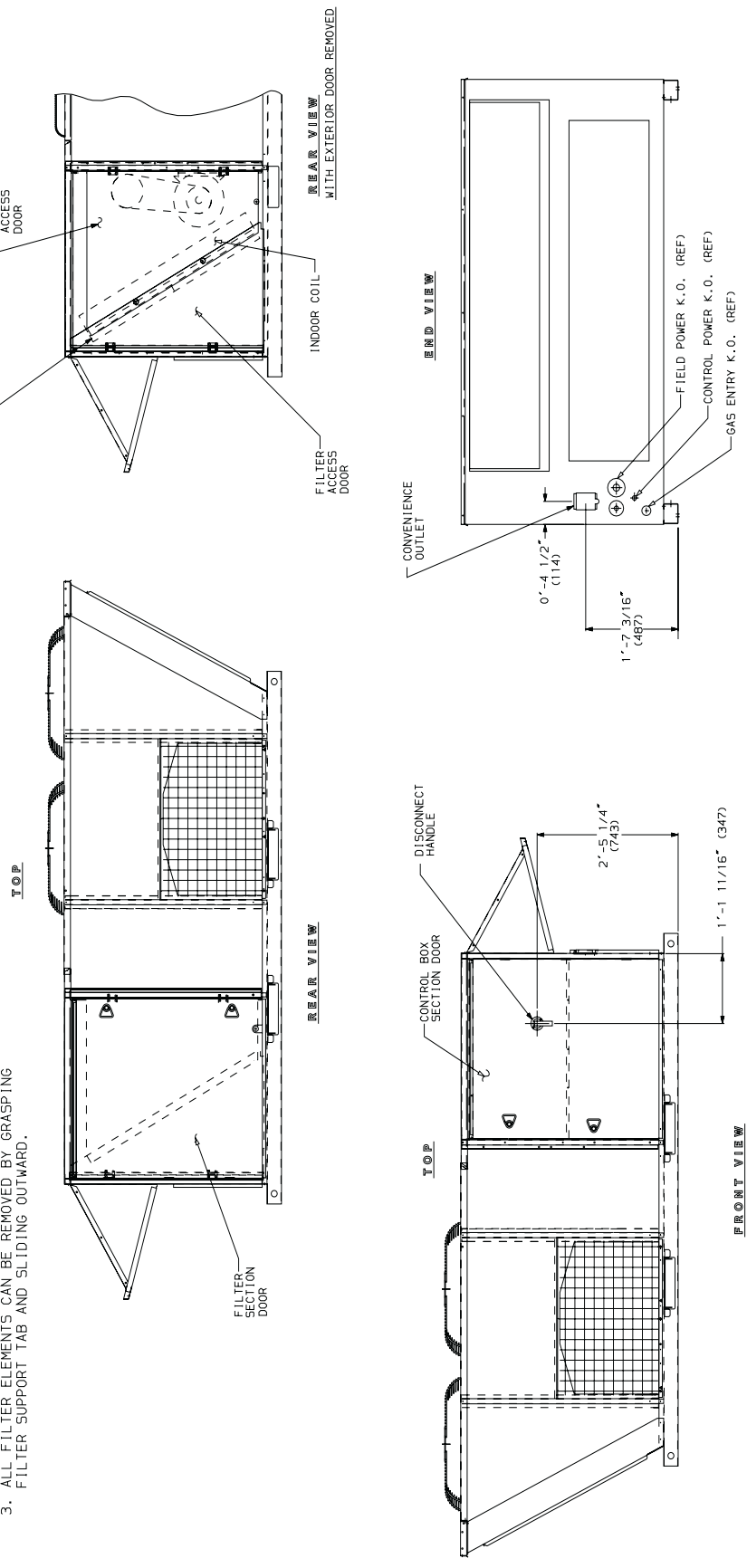
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DATE	09/27/01	SUPERSEDES	48 & 50TM028	REV	A
			SERVICE OPTION DETAILS	50TJ500995	

NOTES:

1. CONVENIENCE OUTLET WIRING IS FIELD SUPPLIED.
2. ALL ACCESS DOORS ARE HINGED AND SECURED WITH 1/4 TURN LATCHES.
3. ALL FILTER ELEMENTS CAN BE REMOVED BY GRASPING FILTER SUPPORT TAB AND SLIDING OUTWARD.



C06344

50TM