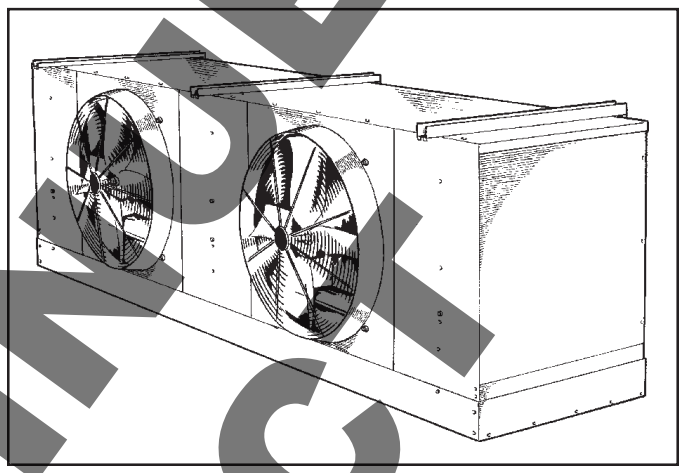
JBCT
AIR, HOT GAS AND ELECTRIC DEFROST BLAST COOLERS

SPECIFICATIONS INSTALLATION, OPERATION AND MAINTENANCE MANUAL



5 T0 15 TONS AT 10 °F (5.5 °C) T.D.
34 °F (1 °C) AND HIGHER (AIR DEFROST)
-40 °F (-40 °C) AND ABOVE
MEDIUM & LOW TEMP APPLICATIONS
ELECTRICAL POWER:
208-230/3/60, 460/3/60, 575/3/60

Bulletin: T30-JBCT-PDI-11
1048287

NOMENCLATURE

JBCT A 143 E L S B

- **JBCT** — TRENTON JUMBO UNIT COOLER
- **A** — SERIES/GENERATION: A = 1st GENERATION
- **143** — CAPACITY: BTUH @ 20°F EVAP TEMP @ 10°F TD 60Hz; e.g. 143 = 143,000 BTU @ 10°F TD
- **E** — TYPE OF DEFROST: A = AIR DEFROST; E = ELECTRIC DEFROST; H = 3 PIPE HOT GAS MODEL; R = REVERSE CYCLE HOT GAS
- **L** — ELECTRICAL CHARACTERISTICS: H = 208-230/3/60; K = 460/3/60; L = 575/3/60
- **S** — OPTIONAL TOTALLY ENCLOSED AIR OVER MOTOR: S = STANDARD OPEN DRIP PROOF; T = T.E.A.O. MOTOR
- **B** — OPTIONAL THROW BOOSTER: N = NO THROW BOOSTER; B = THROW BOOSTER

- Incoloy defrost heaters mounted in slots on both sides of cooling coils on electric defrost models.
- 3 - Pipe or reverse cycle hot gas defrost system.
- Factory installed hot gas check valve.
- Factory installed fan delay and defrost termination thermostats on gas and electric defrost models.
- Hinged side panels allow easy access for refrigeration circuit and electrical compartment.
- Schrader fitting and external equalizer line.
- Rugged high efficiency steel bladed fans.
- Plug-in motors with moulded lead and connector.
- Unit is shipped upright for convenient handling and quick installation.
- Corrosion resistant, easy to clean vinyl coated fan guards.
- Electrical terminals with recessed connections for dependable operation.

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SPECIFICATIONS

CAPACITY DATA

	Model	Fin Spacing FPI	No. of Fans	Capacity** at 20 °F (-6 °C)		Capacity** at -20 °F (-28 °C)	
				MBH 10 °F TD	KW 5.5 °C TD	MBH 10 °F TD	KW 5.5 °C TD
AIR DEFROST	JBCT 085A	7	2	84.4	24.8	-	-
	JBCT 100A	7	2	99.6	29.2	-	-
	JBCT 115A	7	2	114.6	33.7	-	-
	JBCT 125A	7	2	124.7	36.6	-	-
	JBCT 140A	7	3	140.0	41.1	-	-
	JBCT 160A	7	3	159.9	46.9	-	-
	JBCT 180A	7	3	179.9	52.8	-	-
ELECTRIC AND HOT GAS DEFROST MODELS	JBCT 064 *	6	2	75.6	22.2	64.2	18.9
	JBCT 077 *	6	2	90.7	26.6	77.0	22.6
	JBCT 089 *	6	2	104.8	30.7	89.0	26.2
	JBCT 101 *	6	2	119.9	35.1	101.0	29.7
	JBCT 110 *	6	3	129.5	37.9	110.1	32.4
	JBCT 126 *	6	3	149.3	43.7	126.9	37.3
	JBCT 143 *	6	3	169.1	49.5	143.7	42.3
	JBCT 059 *	5	2	69.7	20.4	59.2	17.4
	JBCT 072 *	5	2	84.7	24.8	71.9	21.1
	JBCT 085 *	5	2	99.2	29.0	84.3	24.8
	JBCT 097 *	5	2	114.6	33.6	97.4	28.6
	JBCT 103 *	5	3	121.4	35.6	103.1	30.3
	JBCT 120 *	5	3	141.9	41.6	120.6	35.5
	JBCT 138 *	5	3	162.6	47.6	138.2	40.6
	JBCT 053 *	4	2	62.8	18.4	53.4	15.7
	JBCT 066 *	4	2	77.2	22.6	66.0	19.4
	JBCT 078 *	4	2	91.4	26.8	77.6	22.8
	JBCT 091 *	4	2	107.2	31.4	91.1	26.8
	JBCT 094 *	4	3	110.8	32.5	94.2	27.7
	JBCT 112 *	4	3	131.2	38.4	111.5	32.8
	JBCT 129 *	4	3	152.3	44.6	129.4	38.1

AIR FLOW DATA

	Model	No. of Fans	Fin Spacing	Air Flow			
				Std. JBCT		With 30" Booster	
				CFM	Throw Feet	CFM	Throw Feet
AIR DEFROST	JBCT 085	2	7	17560	50	17560	91
	100	2	7	16480	47	16480	86
	115	2	7	15480	44	15480	80
	125	2	7	14600	42	14600	77
	140	3	7	23190	44	23190	80
	160	3	7	21630	41	21630	75
	180	3	7	20310	39	20310	71
ELECTRIC AND HOT GAS DEFROST MODELS	JBCT 053	2	4	18520	53	18520	97
	066	2	4	17760	51	17760	93
	078	2	4	16880	48	16880	88
	091	2	4	16120	46	16120	84
	094	3	4	25230	48	25230	88
	112	3	4	23910	45	23910	82
	129	3	4	22650	43	22650	78
	JBCT 059	2	5	18180	52	18180	95
	072	2	5	17260	49	17260	89
	085	2	5	16400	47	16400	86
	097	2	5	15580	44	15580	80
	103	3	5	24540	47	24540	86
	120	3	5	23100	44	23100	80
	138	3	5	21780	41	21780	75
	JBCT 064	2	6	17860	51	17860	93
	077	2	6	16860	48	16860	88
	089	2	6	15920	45	15920	83
	101	2	6	15080	43	15080	78
	110	3	6	23910	45	23910	83
	126	3	6	22350	43	22350	77
	143	3	6	21000	40	21000	73

** No allowance made for fan heat - add 3,412 BTUH (1,000 watt) per HP to room load for motor heat.
• E = Electric Defrost • H = 3 Pipe Hot Gas Defrost • R = Reverse Cycle Hot gas Defrost

EVAPORATOR TEMPERATURE CORRECTION FACTORS

Saturated Evaporator Temperature	20 °F	10 °F	-0 °F	-10 °F	-20 °F	-30 °F	-40 °F
	-6.7 °C	-12.2 °C	-17.8 °C	-23.3 °C	-28.9 °C	-34.4 °C	-40 °C
Correction Factor	1.00	.98	.95	.91	.85	.79	.72

FAN MOTOR ELECTRICAL DATA

AIR DEFROST MODEL NO.	HOT GAS AND ELECTRIC MODEL NO.	Fan Motor Qty/HP	Type of Motor	H 208-230/3/60 Total F.L.A.	H 208-230/3/60 M.C.A.	H 208-230/3/60 M.O.P.	K 460/3/60 Total F.L.A.	K 460/3/60 M.C.A.	K 460/3/60 M.O.P.	L 575/3/60 Total F.L.A.	L 575/3/60 M.C.A.	L 575/3/60 M.O.P.
JBCT 085A 100A 115A 125A	053 059 064 066 072 077 078 085 089 091 097 101	2/1	Std. Open Drip Proof	8.4 / 8.0	9.5	15	4.0	4.5	15	3.0	3.4	15
			Optional TEFC	8.4 / 8.0	9.5	15	4.0	4.5	15	3.2	3.6	15
JBCT 140A 160A 180A	094 103 110 112 120 126 129 138 143	3/1	Std. Open Drip Proof	12.6 / 12.0	13.7	20	12.0	13.0	20	4.5	4.9	15
			Optional TEFC	12.6 /12.0	13.7	20	12.0	13.0	20	4.8	5.2	15

M.C.A. = Minimum Circuit Ampacity
M.O.P. = Maximum Overcurrent Protection

DEFROST HEATER ELECTRICAL DATA

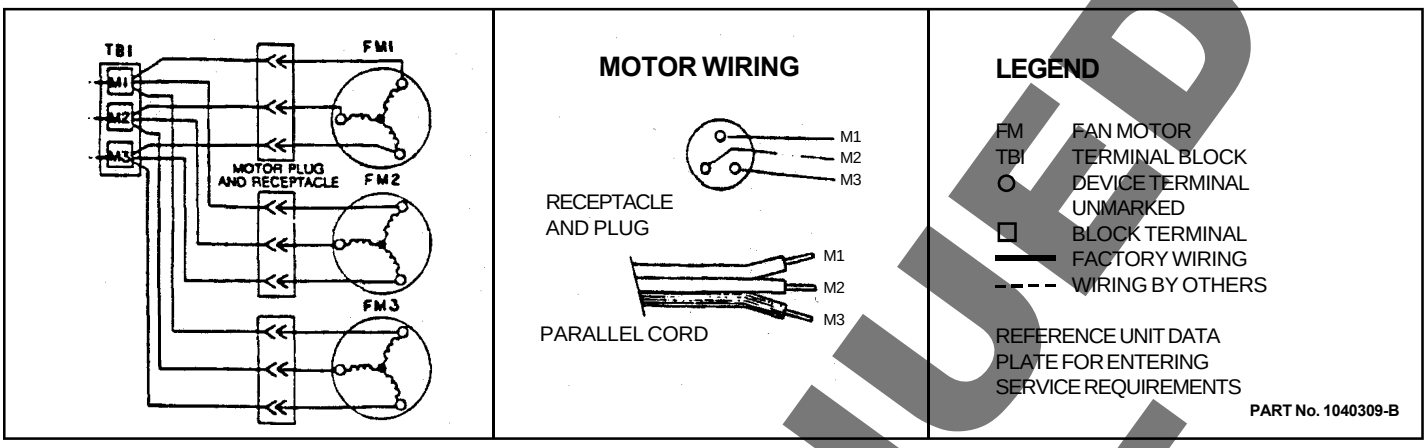
ELECTRIC DEFROST MODEL NO.	Fan Motor No.	Total heater kW	H 208-230/3/60 Total F.L.A.	H 208-230/3/60 M.C.A.	H 208-230/3/60 M.O.P.	K 460/3/60 Total F.L.A.	K 460/3/60 M.C.A.	K 460/3/60 M.O.P.	L 575/3/60 Total F.L.A.	L 575/3/60 M.C.A.	L 575/3/60 M.O.P.
053 059 064	2	14.0	38.1/42.2	40/48	50/60	21.1	24	30	16.9	20	25
066 072 077	2	19.6	48/53.1	48/56	60/70	26.5	28	35	21.2	24	30
078 085 089	2	22.4	57.2/63.3	64/64	80/80	31.6	32	40	25.3	28	35
091 097 101	2	22.4	57.2/63.3	64/64	80/80	31.6	32	40	25.3	28	35
094 103 110	3	22.4	57.2/63.3	64/64	80/80	31.6	32	40	25.3	28	35
112 120 126	3	25.2	57.2/63.3	64/64	80/80	31.6	32	40	25.3	28	35
129 138 143	3	28.0	67/74.1	72/80	90/100	37.0	40	50	29.6	32	40

REFRIGERATION OPERATING CHARGE

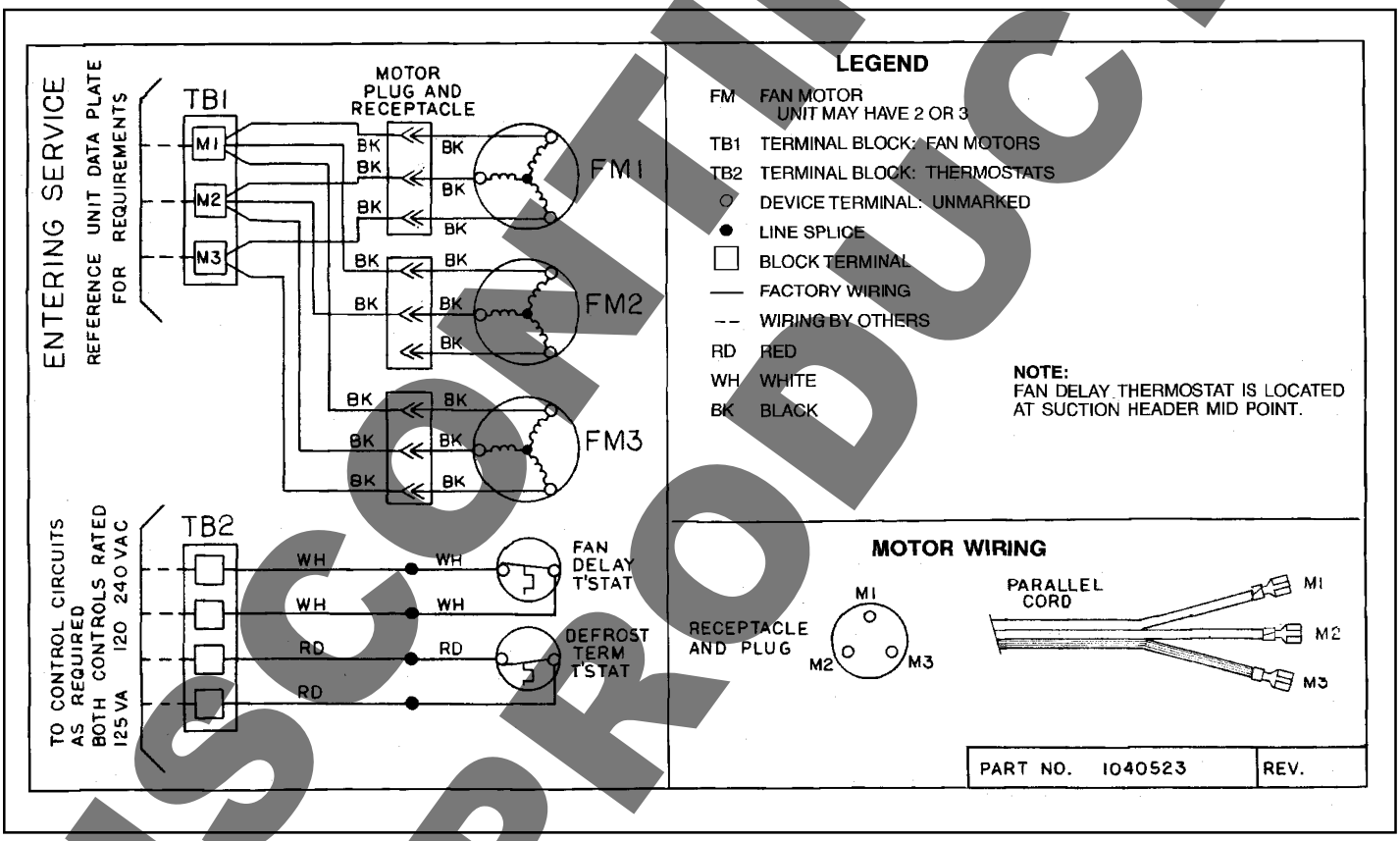
AIR DEFROST MODEL NO.	HOT GAS AND ELECTRIC DEFROST MODEL NO.	R-404A lb	R-404A kg	R-22 lb	R-22 kg	R-502 lb	R-502 kg
085	053 059 064	35.2	16.0	39.1	17.8	40.4	18.3
100	066 072 077	46.1	21.0	51.4	23.4	53.0	24.1
115	078 085 089	57.2	26.0	63.7	29.0	65.6	29.8
125	091 097 101	68.2	31.0	75.9	34.5	78.2	35.6
140	094 103 110	63.7	29.0	71.0	32.3	73.2	33.3
160	112 120 126	76.9	35.0	85.6	38.9	88.3	40.1
180	129 138 143	92.4	42.0	102.8	46.7	106.0	48.2

Refrigerant charge with 30% full coil @ 20 °F S.S.T.

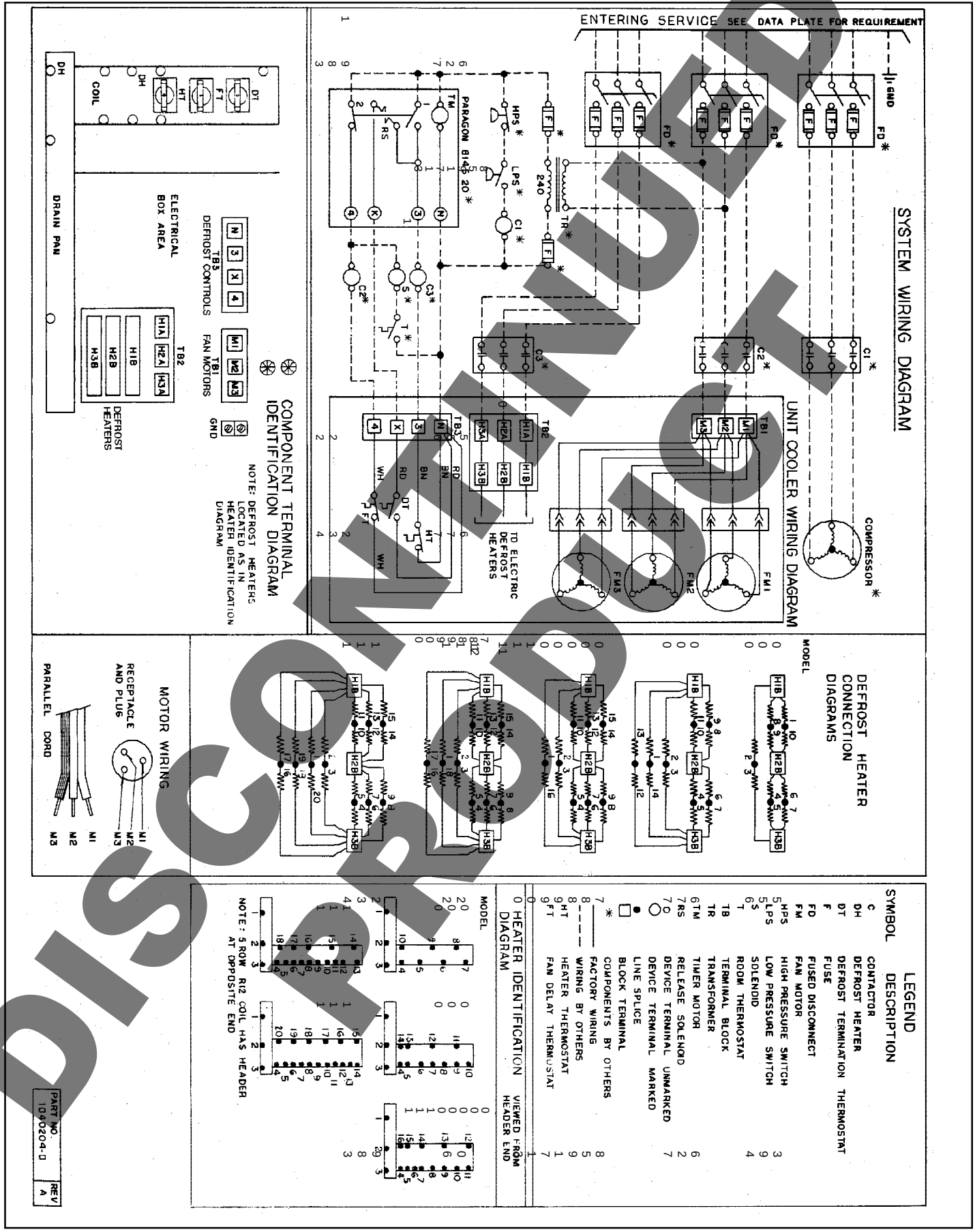
AIR DEFROST WIRING DIAGRAM



HOT GAS DEFROST WIRING DIAGRAM

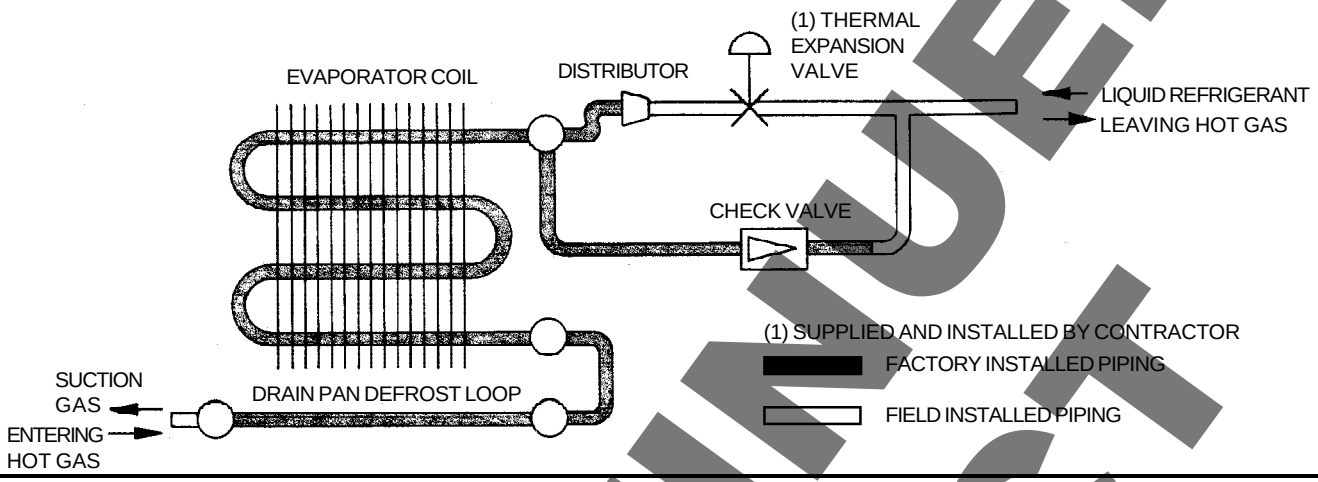


ELECTRIC DEFROST WIRING DIAGRAM

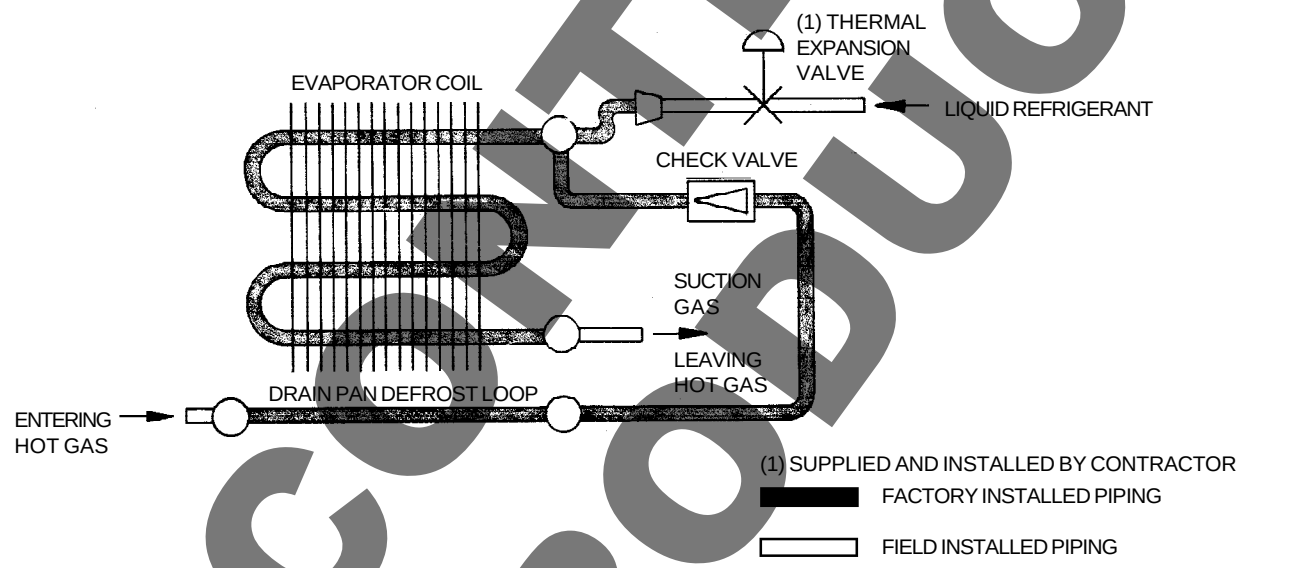


HOT GAS DEFROST REFRIGERATION PIPING SCHEMATICS

REVERSE CYCLE DEFROST SYSTEM

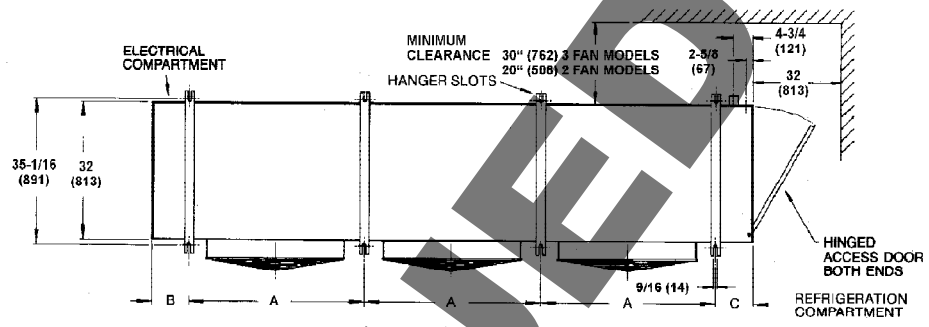


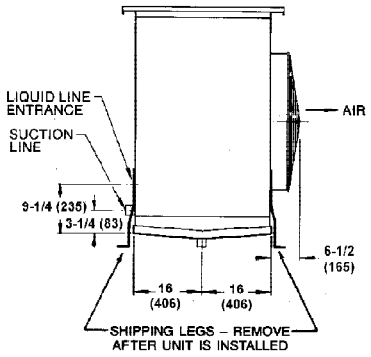
3 - PIPE DEFROST SYSTEM

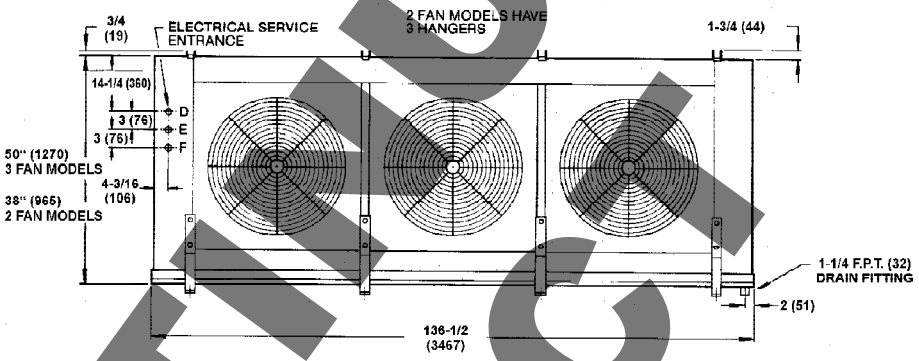


AIR AND ELECTRIC DEFROST MODELS

ELECTRICAL SERVICE ENTRANCE KNOCKOUTS		
	2 FAN MODELS	3 FAN MODELS
Motors - D	7/8: Dia. 22mm	7/8" & 1-3/32"Dia. 22mm & 28mm
Controls - E	7/8" Dia. 22mm	7/8" Dia. 22mm
Heaters - F	1-3/32", 1-23/64" & 1-23/32" Dia 22mm, 35mm & 44mm	1-3/32", 1-23/64" & 123/32" Dia. 22mm, 35mm & 44mm







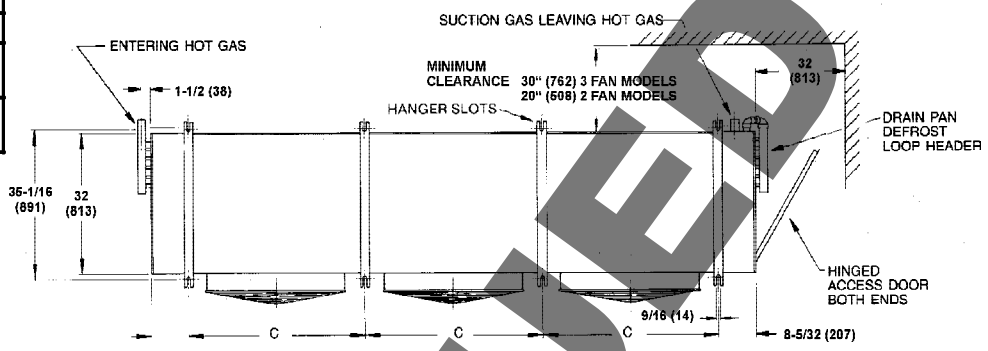
DIMENSIONS AND WEIGHTS

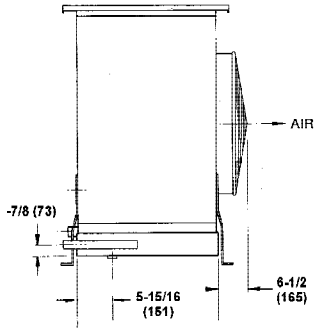
	MODEL	HEIGHT		HANGERS						REFRIGERANT CONNECTIONS (1)		UNIT WEIGHT	
				A		B		C		LIQUID	SUCTION		
		Inches	mm	Inches	mm	Inches	mm	Inches	mm	R-12, R-22 R-502	R-12, R-22 R-502	Lb.	kg
AIR DEFROST	JBCT 085 A	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	830	376
	JBCT 100 A	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	900	408
	JBCT 115 A	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	1000	454
	JBCT 125 A	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	1100	499
	JBCT 140 A	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1225	556
	JBCT 160 A	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1305	592
	JBCT 180 A	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1390	631
ELECTRIC DEFROST MODELS	JBCT 064 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	830	376
	JBCT 077 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	900	408
	JBCT 089 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	1000	454
	JBCT 101 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	1100	499
	JBCT 110 E	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1225	556
	JBCT 126 E	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1305	592
	JBCT 143 E	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1390	631
	JBCT 059 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	830	376
	JBCT 072 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	900	408
	JBCT 085 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	1000	454
	JBCT 097 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	1100	499
	JBCT 103 E	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1225	556
	JBCT 120 E	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1305	592
	JBCT 138 E	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1390	631
	JBCT 053 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	830	376
	JBCT 066 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	900	408
	JBCT 078 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	1000	454
	JBCT 091 E	38	965	60 1/16	1526	8 1/16	205	8 3/16	208	1 3/8	2 1/8	1100	499
	JBCT 094 E	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1225	556
	JBCT 112 E	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1305	592
	JBCT 129 E	50	1270	40 1/16	1018	8 5/32	207	8 5/32	207	1 3/8	2 1/8	1390	631

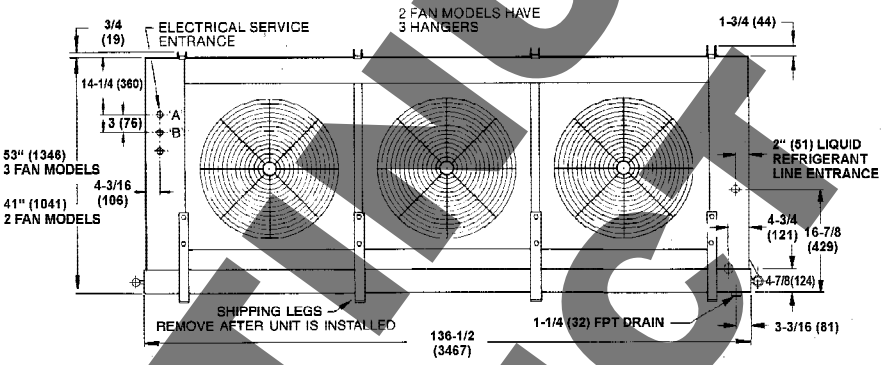
(1) O.D. in inches

Electrical Service Entrance Size		
	2 Fan	3 Fan
Motors A	7/8" Dia. 22mm	1-23/32" Dia. 44mm
Controls B	7/8" Dia. 22mm	1-23/32" Dia. 44mm

3 PIPE DEFROST MODEL

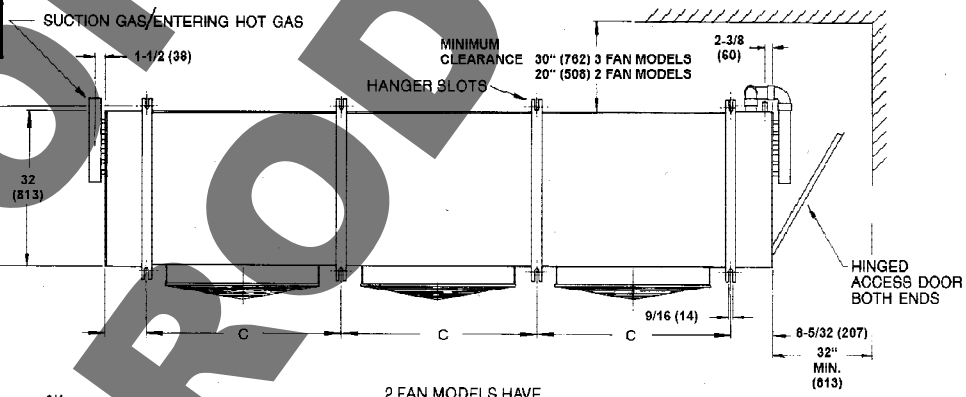


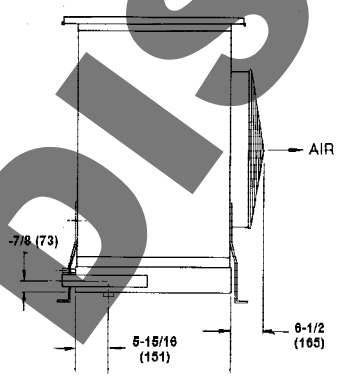


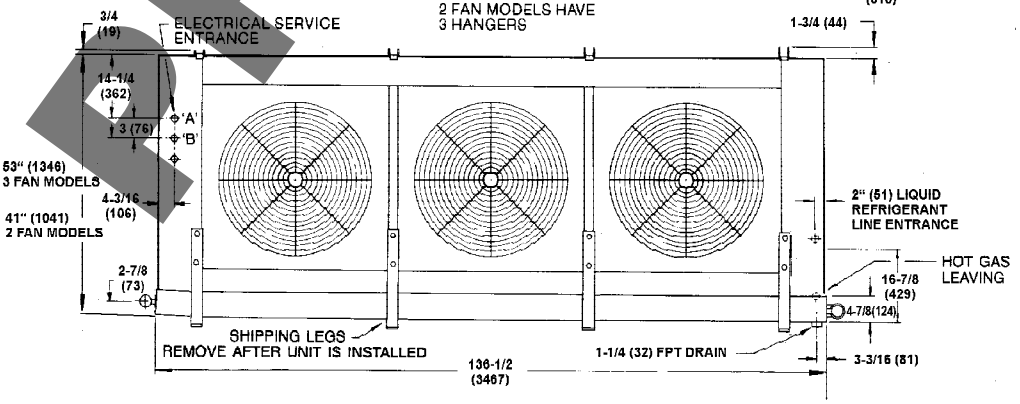


Electrical Service Entrance Knockouts		
	2 Fan Models	3 Fan Models
Motors - A	7/8" 22mm	1-23/32" 44mm
Controls - B	7/8" 22mm	1-23/32" 44mm

REVERSE CYCLE DEFROST MODEL







DIMENSIONS AND WEIGHTS

HOT GAS DEFROST MODEL	HEIGHT		HANGERS		REFRIGERANT CONNECTIONS (1)				HOT GAS CONNECTIONS				UNIT WEIGHT	
	Inches	mm	C		LIQUID		SUCTION		3-PIPE		REVERSE		Lb.	kg
			Inches	mm	R-12	R-22 R-502	R-12	R-22 R-502	ENT.	LVG.	ENT.	LVG.		
JBCT 064 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	830	376
JBCT 077 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	900	408
JBCT 089 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	1000	454
JBCT 101 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	1100	499
JBCT 110 H/R	53	1346	40 1/16	1018	1 5/8	1 3/8	2 5/8	2 1/8	1 5/8	2 5/8	2 5/8	1 5/8	1225	556
JBCT 126 H/R	53	1346	40 1/16	1018	1 5/8	1 3/8	2 5/8	2 1/8	1 5/8	2 5/8	2 5/8	1 5/8	1305	592
JBCT 143 H/R	53	1346	40 1/16	1018	1 5/8	1 3/8	2 5/8	2 1/8	1 5/8	2 5/8	2 5/8	1 5/8	1390	631
JBCT 059 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	830	376
JBCT 072 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	900	408
JBCT 085 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	1000	454
JBCT 097 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	1100	499
JBCT 103 H/R	53	1346	40 1/16	1018	1 5/8	1 3 /8	2 5/8	2 1/8	1 5/8	2 5/8	2 5/8	1 5/8	1225	556
JBCT 120 H/R	53	1346	40 1/16	1018	1 5/8	1 3/8	2 5/8	2 1/8	1 5/8	2 5/8	2 5/8	1 5/8	1305	592
JBCT 138 H/R	53	1346	40 1/16	1018	1 5/8	1 3/8	2 5/8	2 1/8	1 5/8	2 5/8	2 5/8	1 5/8	1390	631
JBCT 053 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	830	376
JBCT 066 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	900	408
JBCT 078 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	1000	454
JBCT 091 H/R	41	1041	60 1/16	1526	1 3/8	1 3/8	2 1/8	2 1/8	1 3/8	2 1/8	2 1/8	1 3/8	1100	499
JBCT 094 H/R	53	1346	40 1/16	1018	1 5/8	1 3 /8	2 5/8	2 1/8	1 5/8	2 5/8	2 5/8	1 5/8	1225	556
JBCT 112 H/R	53	1346	40 1/16	1018	1 5/8	1 3/8	2 5/8	2 1/8	1 5/8	2 5/8	2 5/8	1 5/8	1305	592
JBCT 129 H/R	53	1346	40 1/16	1018	1 5/8	1 3/8	2 5/8	2 1/8	1 5/8	2 5/8	2 5/8	1 5/8	1390	631

(1) O.D. in inches

INSTALLATION INSTRUCTIONS

INSPECTION

Careful inspection of all parts when received for loss or damage in transit is very important - Remember, you, the consignee, must make any claim necessary against the transportation company. Shipping damage or missing parts, when discovered at the outset, will prevent later unnecessary and costly delays.

Ensure that the electrical characteristics are as ordered. Save all tags and instruction sheets for reference by installer and owner.

LOCATION

The unit location in the room should be selected to ensure uniformair distribution throughout the entire space to be refrigerated. Make sure that the fan does not blow directly out or pull in through an opened door and that the product does not obstruct the free circulation of air.
When installing the unit adjacent to a wall, sufficient clearance must be provided to allow free air movement to the coil.
Clearance must be provided at each end of the unit to allow access to refrigerant piping and electrical compartment.
See dimensional drawings for clearance requirements.

INSTALLATION

Note: These units draw air through the coil and discharge air from the fan side (see P. 4).

JBCT Unit Coolers are supplied with shipping legs to allow units to be shipped in an upright position. Units are lifted into place with shipping skid attached to mounting legs.

Slotted hanger brackets take 1/2" (12.7mm) hanger rods. For fast, convenient mounting, install washer and nuts on hanger rods prior to lifting units. Rods may be lifted into slots and are held securely in place by tangs on hangers

After unit coolers are hung in place, remove shipping legs from units by removing the two 5/16" (8mm) bolts from each shipping leg.
Note: Shipping legs must be removed to allow hinged drain pan to open.

DRAIN LINE

If unit cooler is mounted flush to ceilling, the staggered heigh hanger will provide a positive pitch for drainage of condenser.
If units are suspended below the ceilling, the installer should provide adequate pitch to the unit by adjusting the location of the hanger rod nuts.

Note: Check for adequate drainage by pouring water into the drain pan.

Insulated copper tube should be run from the drain connection, sloping at least 4" (102mm) per foot. A trap outside of the room will prevent warm air entering through the tubing. Connection should be made to proper drainage facilities that comply with local regulations.

If room temperatures are below freezing, it is necessary to heat the drain line to prevent condensate from freezing in the drain line. Electric heating cable or electric tape (by others) is used for this purpose. The drain line heater should be connected for continuous operation; it is also recommended that the drain line be insulated. A heat output of 20 watts per lineal foot of 1" (25mm) drain line in a 0°F (-18 °C) room is usually satisfactory. 115 volt cable and tape is available from your local refrigeration wholesaler. Two 115 volts heaters (by others) of the same wattage may be wired for use on 230 volt system

ELECTRICAL

Wire system in accordance with governing standards and local codes. See wiring diagrams on P. 4 for unit cooler wiring diagram.
P. 2 shows operating current, minimum ampacity and maximum fuse sizing for fan motors.

Note: Electrical wiring is to be sized in accordance with minimum ampacity rating.

The defrost termination thermostats, fan delay thermostats and defrost heater safety thermostat are factory supplied and factory wired to a terminal block. See figure and component identification diagram on wiring diagram for electrical compartment arrangement.

A hinged end panel provides quick access to the electrical compartment.

INSTALLATION INSTRUCTIONS

AFTER START UP

1. Check the oil level to be sure the oil charge is correct.

2. On the initial start up, the fans do not start until coil temperature is pulled down to approximately 26 °F (-3 °C)
   Also, it is normal for the fans to cycle a few times until the room temperature is pulled down.

3. After the room is pulled down, make sure that the expansion valve is properly set so that the coil frosts evenly all the way through.

4. Heavy moisture loads are usually encountered when starting the system for the first time. This will cause a rapid build-up of frost on the unit cooler. During the initial pull down, we suggest that the frost build-up be watched and defrosted manually as required.

MAINTENANCE

1. Periodic checking and cleaning of the coil surface when necessary should be done, using a whisk or brush. Drain pans are hinged to provide convenient access to the inside coil surface.

2. Motors are permanently lubricated type and require no further lubrication.

REFRIGERATION SYSTEM

Refrigerant line sizes are important and should be the same size as the coil connections, or larger, depending on the length of run. Consult recommended refrigerant line sizes charts (Refrigeration Engineering Manuals or other recognized sources of information) when sizing refrigerant lines.

Refrigerant piping and control systems should be designed to prevent possible liquid slugging of the compressors on start-up after the defrost cycle.

Select an externally equalized expansion valve best suited to the coil and the application on the basis of the manufacturer's ratings. Install the expansion valve in the refrigeration piping compartment.

A 1/4" (6mm) O.D. equalizer line has been provided for the externally equalized expansion valve connection.

A Schrader valve fitting is supplied at the suction gas header to provide convenient pressure readings.

The refrigerant distributor is sized and installed at the factory and is supplied with a factory sized nozzle.

A hinged end panel provides quick access to the refrigeration piping compartment.

SYSTEM CHECK

1. All wiring should be in accordance with local codes.
2. All refrigerant lines should be properly sized and checked for any possible leaks.
3. Be sure system is charged with the proper refrigerant.
4. Make sure that the expansion valve thermal bulb is securely strapped to the suction line.
5. The system should include a liquid line drier and strainer.
6. The suction, discharge and receiver service valves must be open.
7. Check that the fans turn freely and turn in clock wise rotation.
8. Pour enough water into the drain pan to allow a good check on drainage and seal the trap.

AIR DEFROST MODELS

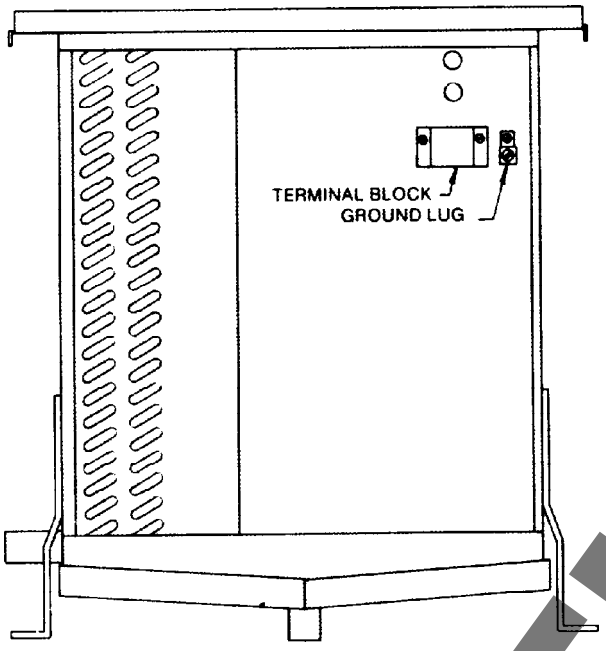


FIGURE 2 - ELECTRICAL COMPARTMENT

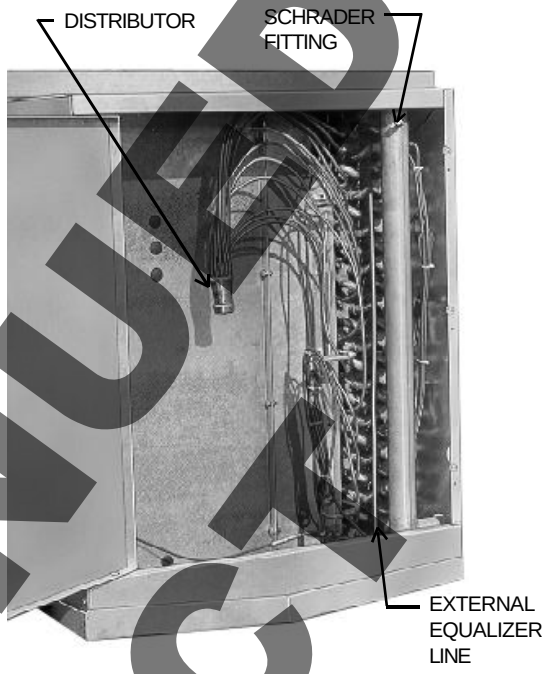


FIGURE 3 - REFRIGERATION COMPARTMENT

ELECTRIC DEFROST MODELS

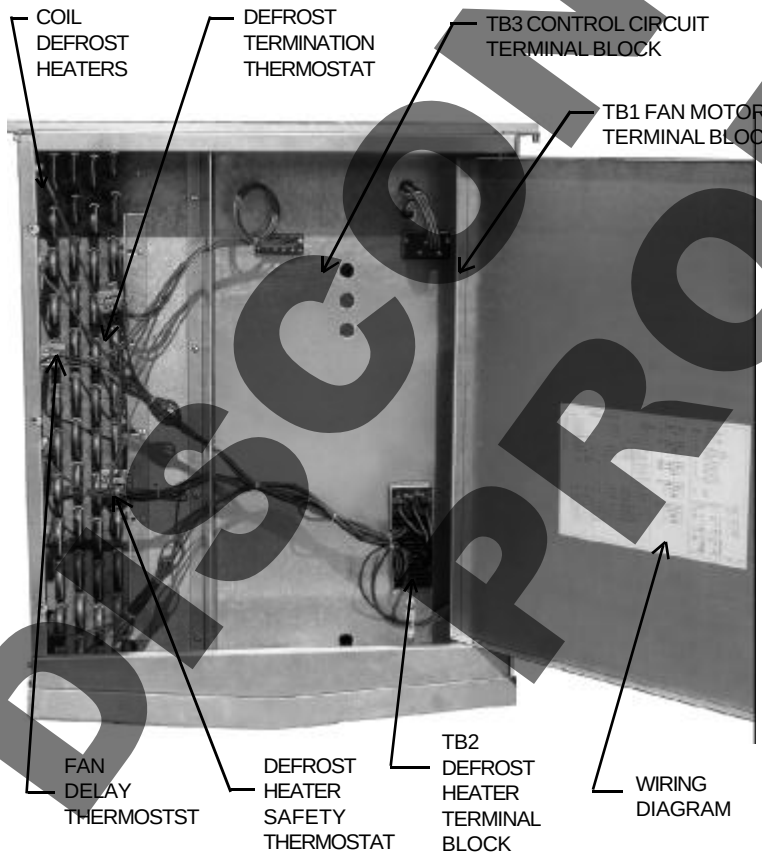


FIGURE 2 - ELECTRICAL COMPARTMENT

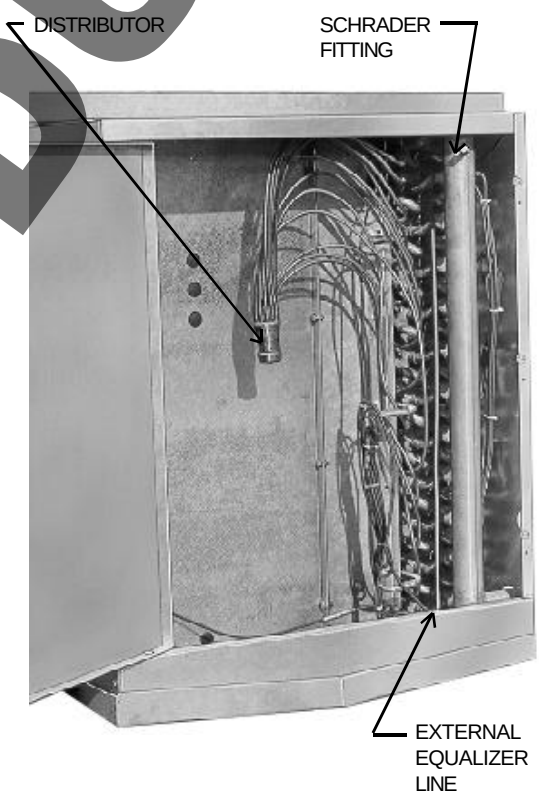
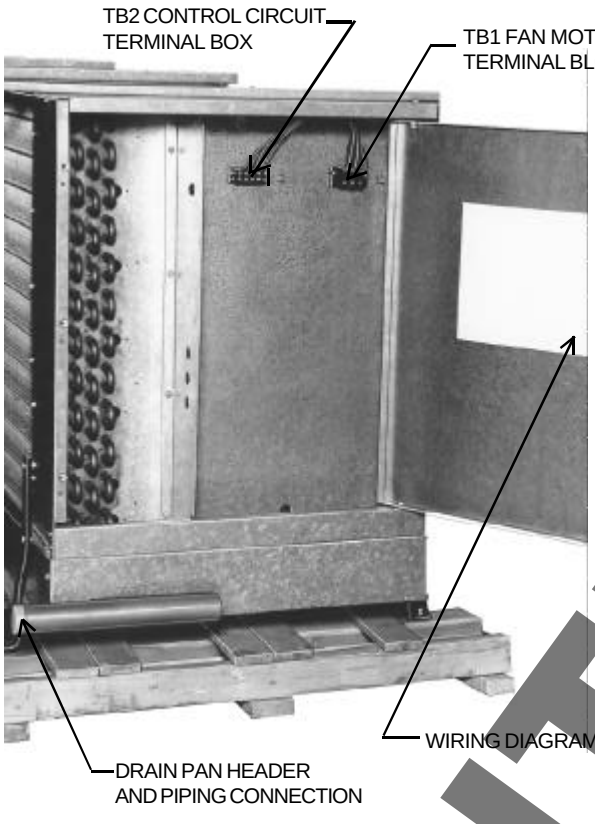
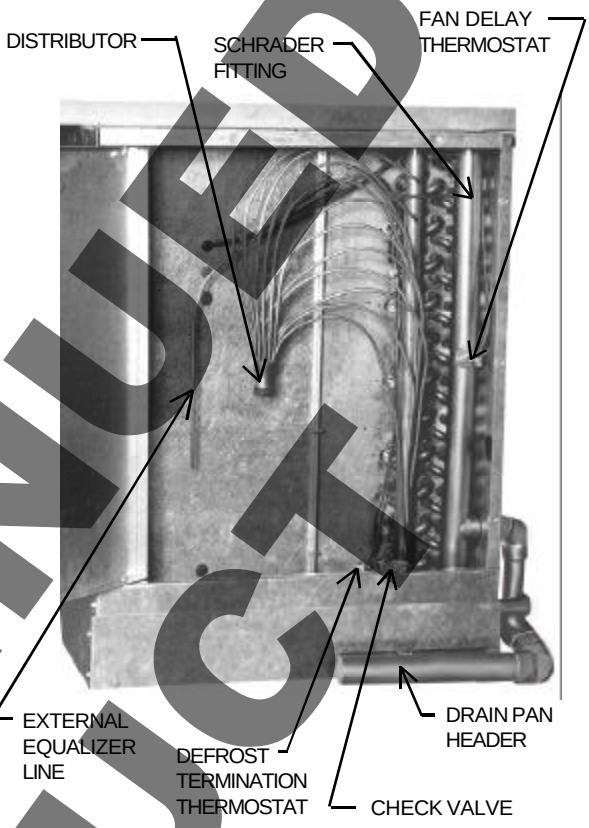


FIGURE 3 - REFRIGERATION COMPARTMENT

HOT GAS DEFROST MODELS





SERVICE PARTS LIST

FAN MOTORS	**PART NUMBER**
1 HP ODP 208-230/3/60	1040154
1 HP OPD 460/3/60	1040155
1 HP ODP 575/3/60	1040156
MOTOR MOUNT	1040158
FAN BLADE 30"	1040158
FAN MOTOR TERMINAL BLOCK TB1	1040160
DEFROST CONTROL TERMINAL BLOCK TB2	1040161
DEFROST HEATER TERMINAL BLOCK TB3	1040162
FAN DELAY THERMOSTAT	1040240
DEFROST TERMINATION THERMOSTAT	1040239
COIL DEFROST HEATERS	
208-230/3/60	1040167
460/3/60	1040166
575/3/60	1040165
DRAIN PAN DEFROST HEATERS	
208-230/3/60	1040167
460/3/60	1040166
575/3/60	1040165
THROW BOOSTER	1040695

DISCONTINUED PRODUCT

PROJECT INFORMATION

System	
Model Number	Date of Start-Up
Serial Number	Service Contractor
Refrigerant	Phone
Electrical Supply	Fax

REFRIGERATION TRENTON PRODUCTS™

NATIONAL REFRIGERATION & AIR CONDITIONING CANADA CORP.

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