

**Warning:**  
Terminal block NOT for  
case-to-case  
wire connection!

Item	Part #	Description	Wiring Item #	Item	Part #	(Qty)	Description	Wiring Item #
<b>FAN ASSEMBLIES, AND THERMOSTATS</b>				<b>HEATERS</b>				
A.		Fan Assembly	(1)	H.			Electric Defrost Heaters (8)	
	0047000	Standard motor			0387032	(2)	2 Door Models	
	0315470	Fan Blade, 34° pitch			0387033	(2)	3 Door Models	
	0439053	Optional Energy Efficient Motor			0387034	(2)	4 Door Models	
B.	0386938	Standard Non-adjustable Defrost Thermostat	(2)		0387035	(2)	5 Door Models	
C.		Optional Adjustable Refrigeration Thermostat	(3)	I.			Drain Pan Heater (9)	
							(Electric & Kool Gas)	
D.	0344662	Defrost Limit Thermostat	(4)				(120V)	
E.	0338130	Relay Control Thermostat or Fan and Anti-sweat Heater Thermostat	(5)		0387036	(1)	2 Door Models	
					0387037	(1)	3 Door Models	
					0387038	(1)	4 Door Models	
					0387039	(1)	5 Door Models	
<b>RELAYS</b>				<b>LAMPS AND BALLASTS</b>				
F.	0342598	Anti-Sweat Control Relay (120V)	(6)	J.			One-Lamp Ballast	
G.	0342599	Fan Control Relay (208V)	(7)				Two-Lamp Ballast	
							Export Ballast	
				K.			Fluorescent Lamp,	
							Standard 40W	

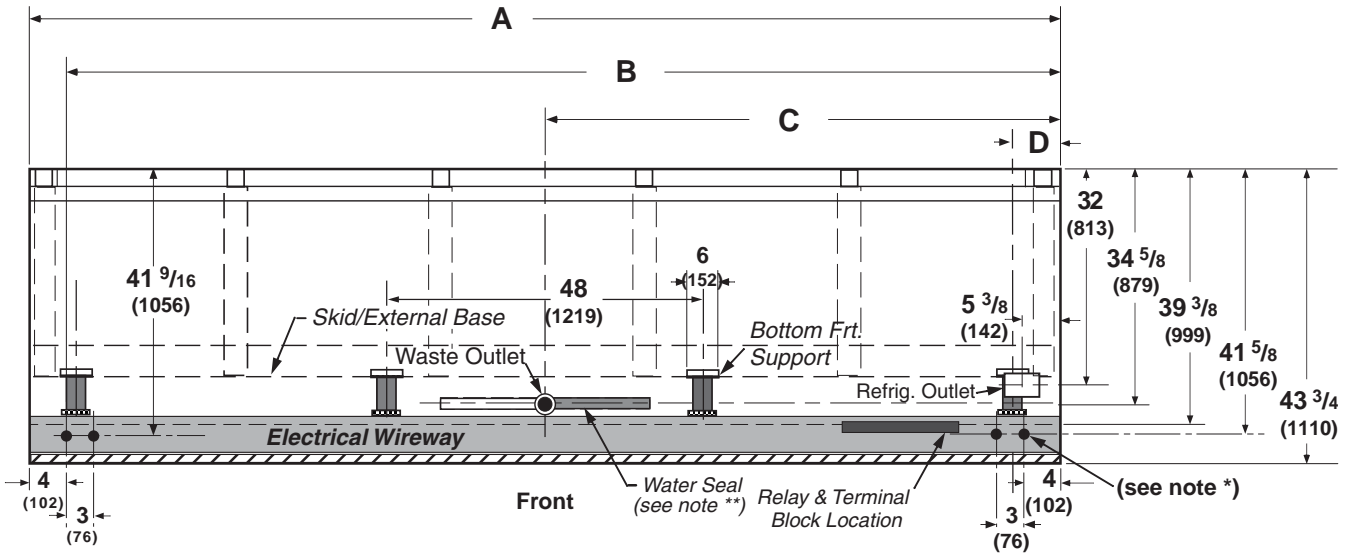
*Refer to door manufacturer's manual for replacement door parts.*

**NOTE: Changed items have been underlined.**

**Reach-In  
2, 3, 4, & 5 Door**

**RL-RM-RMF  
Plan View**

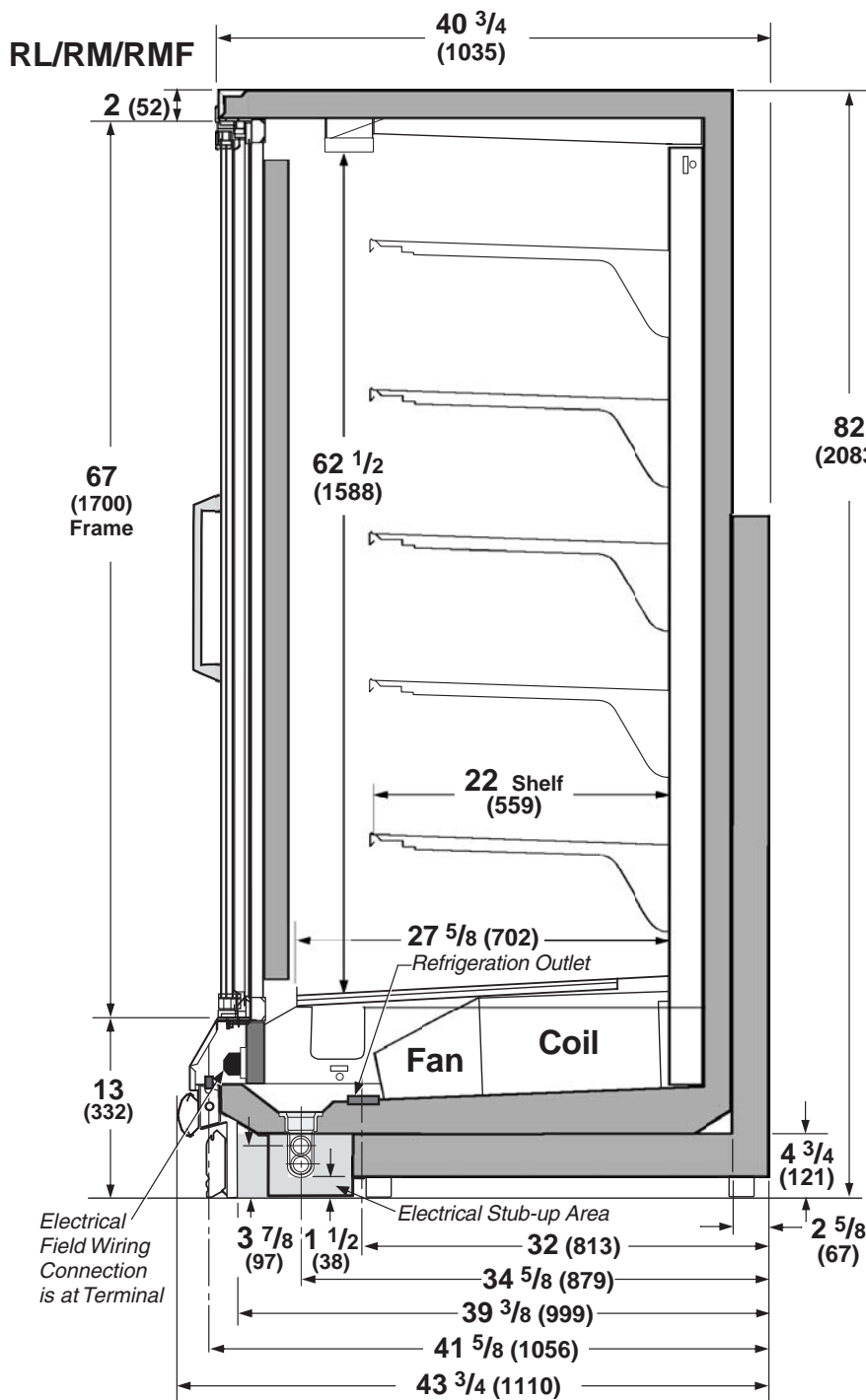
Dimensions shown as in. & (mm).



	2 Dr	3 Dr	4 Dr	5 Dr
<b>General</b>				
<b>(A)</b> Case Length (without ends or partitions)	62 (1575)	92 1/2 (2350)	122 7/8 (3121)	153 3/8 (3896)
Maximum O/S dimension of case back to front (Includes bumper)	43 3/4 (1111)	43 3/4 (1111)	43 3/4 (1111)	43 3/4 (1111)
Back of case to rear of splashguard	39 3/8 (1000)	39 3/8 (1000)	39 3/8 (1000)	39 3/8 (1000)
Width of Skidrail	4 1/2 (114)	4 1/2 (114)	4 1/2 (114)	4 1/2 (114)
Width of Bottom Front Support	6 (152)	6 (152)	6 (152)	6 (152)
Stub-up area between front skidrail and splashguard	6 3/8 (1000)	6 3/8 (1000)	6 3/8 (1000)	6 3/8 (1000)
<b>Electrical Service</b>				
RH end of case to the center of nearest knockout	4 (102)	4 (102)	4 (102)	4 (102)
<b>(B)</b> RH end of case to the center of LH knockout	58 (1473)	88 1/2 (2248)	118 7/8 (3019)	149 3/8 (3794)
Back O/S of case to center of knockout	41 5/8 (1057)	41 5/8 (1057)	41 5/8 (1057)	41 5/8 (1057)
* NOTE: Electrical Field Wiring Connection Point is at terminal.				
<b>Waste Outlet</b>				
<b>(C)</b> Right end of case to center of waste outlet	23 3/4 (603)	54 1/4 (1378)	46 1/4 (1175)	76 5/8 (1946)
Back O/S of case to center of waste outlet	34 5/8 (879)	34 5/8 (879)	34 5/8 (879)	34 5/8 (879)
<b>Water Seal</b>				
Edge of water seal to center of waste outlet	11 (279)	11 (279)	11 (279)	11 (279)
Outside diameter of drip piping	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
** NOTE: Field installed water seal outlets, tees, and connectors are shipped with case				
<b>Refrigeration Outlet</b>				
RH end of case to center of RH refrigeration outlet	5 3/8 (137)	5 3/8 (137)	5 3/8 (137)	5 3/8 (137)
Back O/S of case to center of refrigeration outlet	32 (813)	32 (813)	32 (813)	32 (813)
<b>(D)</b> Outside bottom front supports from end of case	6 3/4 (170)	6 3/4 (170)	6 3/4 (170)	6 3/4 (170)
Center bottom front support from Centerline	24 (610)	24 (610)	24 (610)	24 (610)
Distance between Center and Outside supports will vary				

# Reach-in 2, 3, 4 and 5 Door Models

Dimensions shown as in. & (mm).



**Impact RL**  
With Anthony Doors  
**Frozen Food & Ice Cream**

## REFRIGERATION DATA

**Note:** This data is based on store temperature and humidity that does not exceed 75°F and 55% R.H.

	FF	IC
Discharge Air (°F)	-5	-12
Evaporator (°F)	-11	-19
Unit Sizing (°F)	-14	-22
<i>Btu/hr/Door*</i>	FF	IC
Parallel	1560	1650
Conventional	1600	1690

**82 (2083)** \*For all refrigeration equipment other than Hussmann, use conventional Btu values.

## DEFROST DATA

	FF	IC
Frequency (hr)	24	24
Defrost Water (lb/Dr/day)	1.2	1.2

(± 15% based on case configuration and product loading).

<i>ELECTRIC</i>	FF	IC
Temp Term (°F)	48°	48°
Failsafe (minutes)	40	40

<i>GAS</i>	FF	IC
Duration (minutes)	20	20

*OFFTIME*  
Not Recommended

## CONVENTIONAL CONTROLS

Low Pressure Backup Control

	FF	IC
CI/CO (Temp °F)**	-18°/-34°	-26°/-45°

Indoor Unit Only, Pressure Defrost Termination (Temp °F)\*\*  
Not Recommended

\*\*Use a Temperature Pressure Chart to determine PSIG conversions.

## PHYSICAL DATA

Drip Pipe (in.)	1 1/4
Liquid Line (in.)	3/8
Suction Line (in.)	7/8

Estimated Charge (lb)\*\*\*

2Dr	1.8
3Dr	2.7
4Dr	3.6
5Dr	4.6

\*\*\*This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound.

Length Added to Lineup by each

Standard End (in.)	2
Optional End with Window (in.)	1 1/2
Optional Partition (in.)	1 1/2

**NOTE:** The bumpers are 4 in. (102 mm) wide. The center of the bumper is 5 1/2 in. (140 mm) from the floor.

**NSF Certification:** These merchandisers are manufactured to meet ANSI/National Sanitation Foundation (NSF®) Standard #7 requirements.

<b>Impact RL</b> With Anthony Doors <b>Frozen Food &amp; Ice Cream</b>
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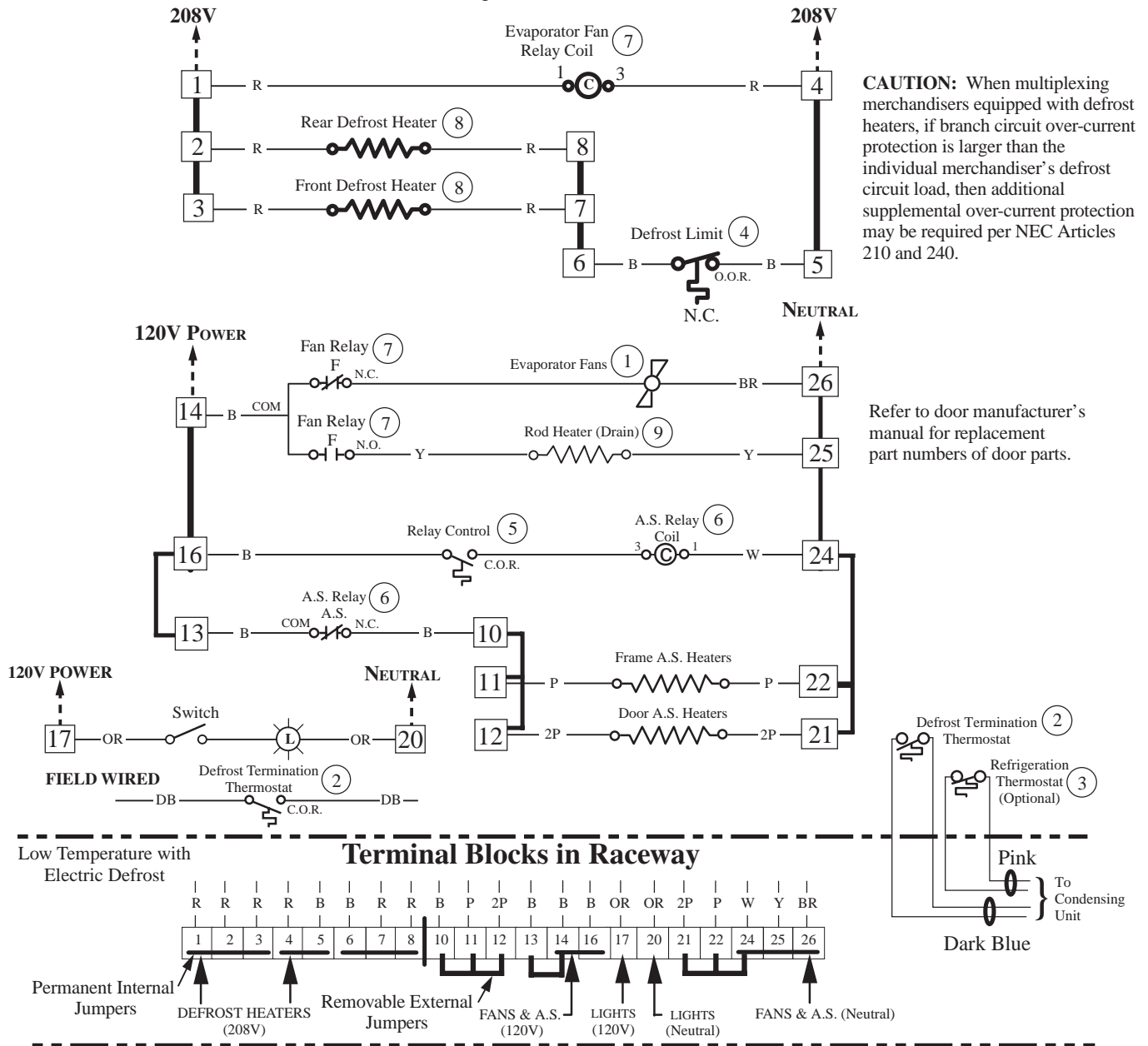
## Electrical Data

	2Dr	3Dr	4Dr	5Dr					
<b>Number of Fans</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>					
<b>Merchandiser</b>		<b>Amperes</b>				<b>Watts</b>			
	<b>2Dr</b>	<b>3Dr</b>	<b>4Dr</b>	<b>5Dr</b>	<b>2Dr</b>	<b>3Dr</b>	<b>4Dr</b>	<b>5Dr</b>	
<b>Fans</b>									
Standard	1.40	2.10	2.80	3.50	110	165	220	275	
Energy Efficient	0.76	1.14	1.52	1.90	50	75	100	125	
(Export: 220V 50 hz)	0.76	1.14	1.52	1.90	108	162	216	270	
<b>Anti-sweat Heaters</b>									
Doors	2.18	3.27	4.36	5.45	262	392	523	654	
(Export: 220V 50 hz)	1.18	1.77	2.36	2.95	260	389	519	649	
Frames	1.60	2.35	3.06	3.81	192	282	367	457	
(Export: 220V 50 hz)	0.88	1.27	1.68	2.08	194	279	370	458	
<b>Min. Circuit Ampacity</b>									
With Standard Fans	5.36	7.90	10.40	12.94					
With Energy Efficient Fans	4.64	6.86	9.404	11.26					
<b>Max. Over Current Protection</b>	20	20	20	20					
(Export: 220V 50 hz)	20	20	20	20					
<b>Defrost</b>									
Drain Heaters (120V)	0.63	1.25	2.00	2.57	75	150	240	300	
(Export: 220V 50 hz)	0.38	0.76	1.22	1.52	84	167	268	334	
<b>208V 1Φ Electric Defrost</b>	8.20	13.0	18.0	22.8	1706	2720	3734	4750	
(Export: 220V 50 hz)	8.70	13.8	19.0	24.2	1804	2877	3949	5024	
<b>Standard Vertical Lighting</b>	<b>2Dr</b>	<b>3Dr</b>	<b>4Dr</b>	<b>5Dr</b>	<b>2Dr</b>	<b>3Dr</b>	<b>4Dr</b>	<b>5Dr</b>	
<b>Anthony Doors (120V)</b>	<b>1.45</b>	<b>1.94</b>	<b>2.42</b>	<b>2.91</b>					
(Export: 220V 50 hz)	0.79	1.06	1.32	1.59					
<b>Ardco Doors (120V)</b>	<b>1.89</b>	<b>2.34</b>	<b>3.06</b>	<b>3.51</b>					
(Export: 220V 50 hz)	NA	NA	NA	NA					

# Fan and Heater Circuits - Electric Defrost (standard) Low Temperature

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red P = Purple 2P = Purple (2 Bands) DB = Dark Blue B = Black THESE ARE MARKER COLORS (WIRE MAY VARY.)  
BR = Brown Y = Yellow OR = Orange W = White



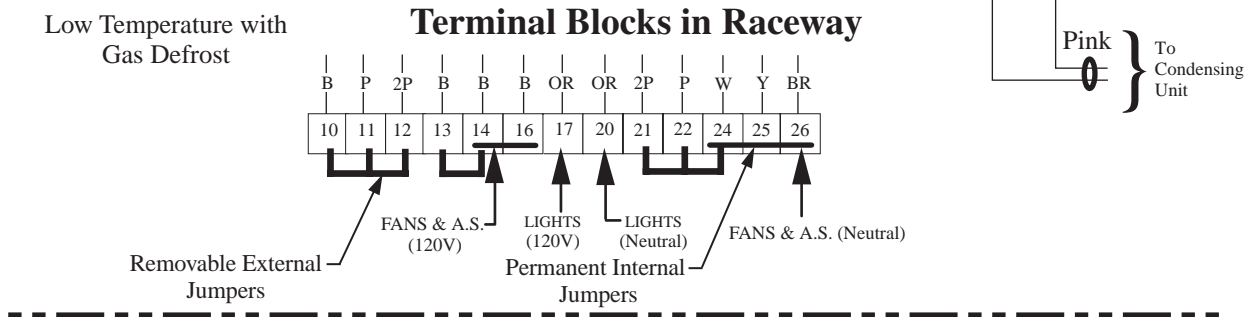
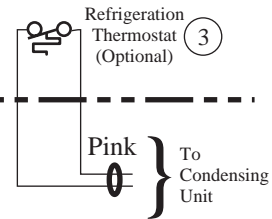
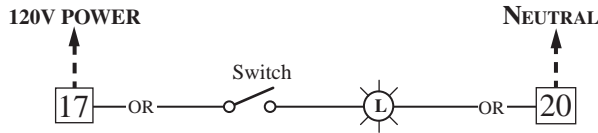
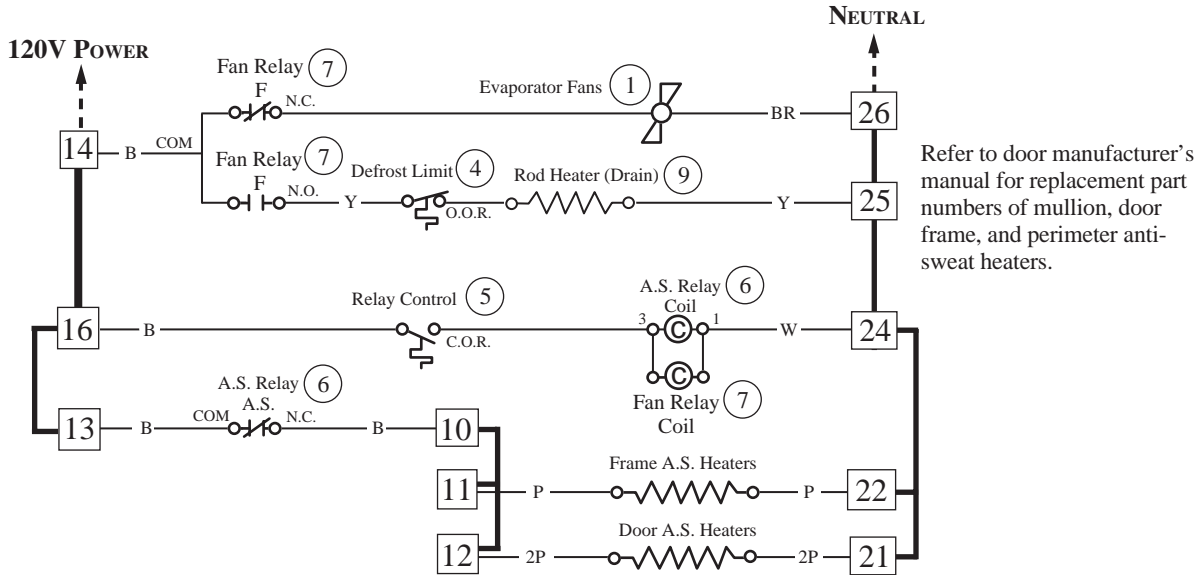
## Electric Defrost Sequence - Low Temperature

- Power from the defrost contactor energizes Defrost Heaters and 208V Evaporator Fan Relay Coil (7). Relay Contacts open the fan circuit and energizes the Drain Pan Heater.
- If the Defrost Heater raises internal air temperature above 90°F, the Defrost Limit Thermostat (4) will open.
- Temperature rise of the evaporator closes the Relay Control Thermostat (5) at about 35°F, energizing 120V A.S. Relay Coil (6). This relay's contacts open the Frame and Door Heater Circuits.
- When Defrost Termination Thermostat ends defrost period, the defrost contactor opens the Defrost Heater and Evaporator Fan Relay Coil Circuits. The Drain Pan Heater goes off and fans are on.
- Temperature fall of the evaporator opens the Relay Control Thermostat (5) at about 20°F, de-energizing 120V A.S. Relay Coil (6). A.S. Relay Contacts close the Frame and Door Heater Circuits.

# Fan and Heater Circuits - Gas Defrost (optional) Low Temperature

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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BR = Brown Y = Yellow OR = Orange W = White  
THESE ARE MARKER COLORS (WIRE MAY VARY.)



## Gas Defrost Sequence – Low Temperature

1. Defrost vapor enters evaporator causing a rise in temperature. At about 35°F the Control Relay Thermostat (5) closes the Fan Relay Coil (7) and Control Relay Coil (6) circuit. The Coil opens the Fan, Door Heater, and Frame Heater circuits, while energizing the Drain Pan Heater (9).
2. If the Drain Pan Heater (9) raises internal air temperature above 90°F, the Heater Limit Thermostat (4) will open.
3. When the defrost timer ends a defrost period, the evaporator temperature will start to fall. At about 20°F, the Control Relay Thermostat will open, de-energizing the Control Relay Coil and Fan Relay Coil (7). Control and Fan Relay's will open the Drain Pan Heater circuits, and will close the Fan, Door Heater, and Frame Heater circuits.