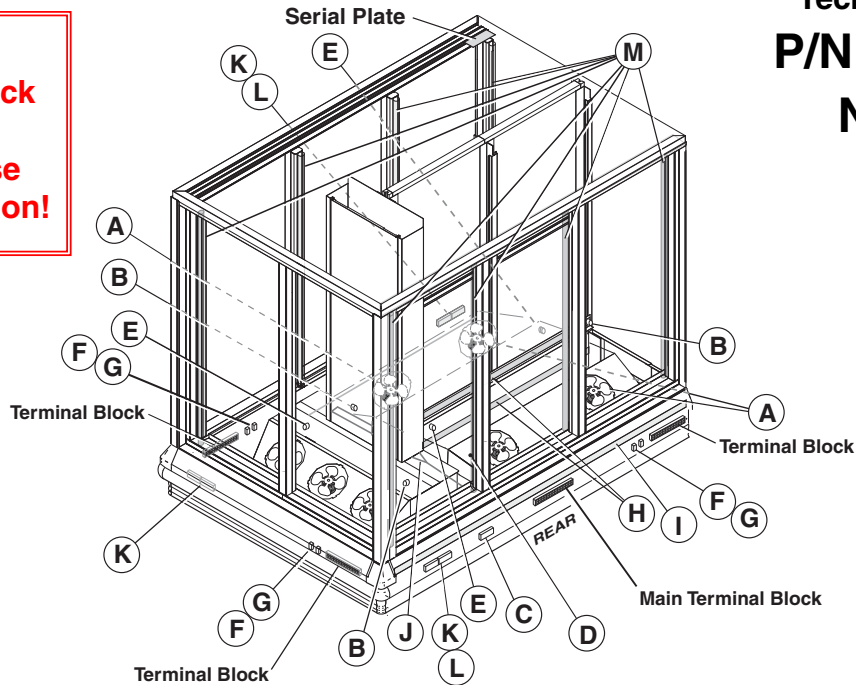


Warning:
Terminal block
NOT for
case-to-case
wire connection!



We reserve the right to change or revise specifications and product design in connection with any feature of our products. Such changes do not entitle the buyer to corresponding changes, improvements, additions or replacements for equipment previously sold or shipped.

Item	Part #	Description	Wiring Item #	Item	Part #	Qty	Description	Wiring Item #
FAN ASSEMBLIES, AND THERMOSTATS				HEATERS				
A.	12W Standard	Fan Assembly	(1)	H.	Electric Defrost Heaters			
	0047000	Fan Motor, Evaporator (MO.4410103)			0441755	(2)	208V Front (HE.4850346)	(8)
	0461805	Fan Blade (FB.4780446)			0463891	(2)	208V Rear (HE.4850358)	(8)
	12W Optional Energy Efficient	Fan Assembly	(1)		0444685	(2)	208V End (HE.4850502)	(8)
	0477655	Fan Motor, Evaporator (MO.4410546)		I.	Drain Pan Heater — Electric & Kool Gas			
	0461805	Fan Blade (FB.4780446)			0387037	(2)	120V (HE.4850240)	(9)
B.	0474033	Standard Non-adjustable Defrost Thermostat (CT.4440726)	(2)	J	Flue Reheater 120V (HE.4850573)			
C.		Optional Adjustable Refrigeration Thermostat	(3)		0444712		120V (HE.4850573)	(10)
D.	0344662	Defrost Limit Thermostat (CT.4440261)	(4)	LAMPS, BALLASTS, LED FIXTURES AND POWER SUPPLY				
E.	0461814	Relay Control Thermostat or Fan and Anti-sweat Heater Thermostat (CT.4481296)	(5)	K.	0489698	2	Lamp Ballast (BA.4481596)	
RELAYS							0489699	3 Lamp Ballast (BA.4481739)
F.	0342598	Anti-Sweat Control Relay (120V) (RL.4480238)	(6)		0424649		Export Ballast (BA.0424649)	
G.	0342599	Fan Control Relay (208V) (RL.4480237)	(7)	M.			Standard Fluorescent Lamp	
							Replace with like fixtures	
				L.	0499399		LED Power Supply (EP.4481668)	
				M.			LED Fixture	
							Replace with like fixtures	

Refer to INNOVATOR REACH-IN GLASS DOOR INSTALLATION AND SERVICE *manual*, P/N 0425683, for Innovator and Innovator II door and frame replacement parts.

NOTE: Revision G updates LED electrical data, Page 4.

NOTE: For LED lighting parts contact your Hussmann service representative at 1-800-922-1919. Please have your model and serial number available.



Engineering Plan Views

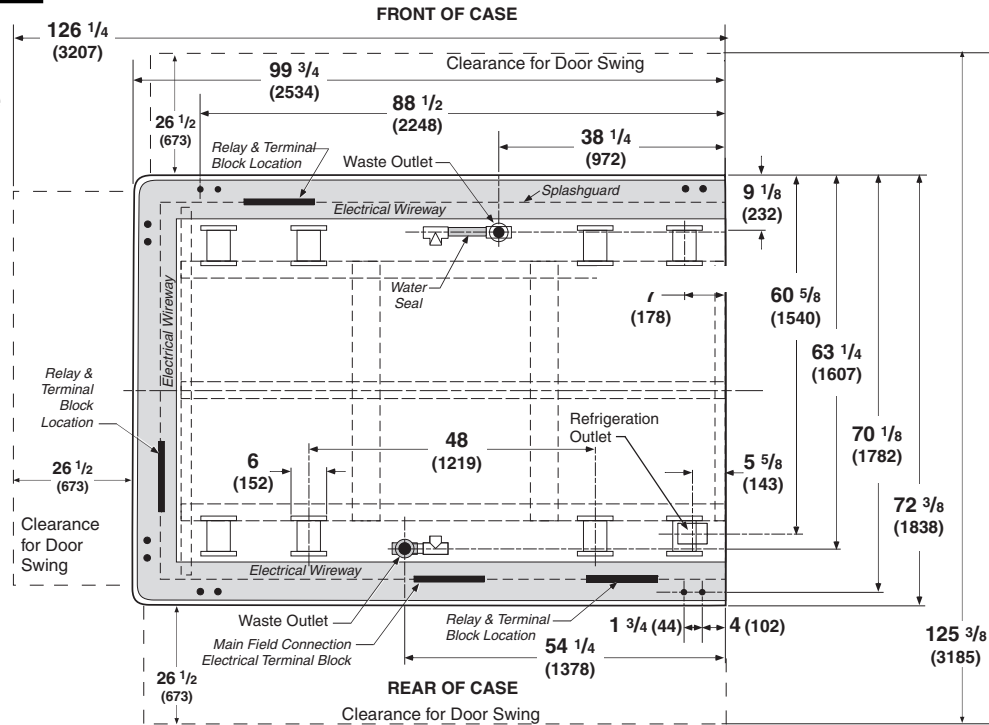
PHYSICAL DATA

Merchandiser Drip Pipe (in.)	1 1/4
Merchandiser Liquid Line (in.)	5/8
Merchandiser Suction Line (in.)	1 1/8

Dimensions shown as in. & (mm).

Reach-in Narrow Island Unitized End Case

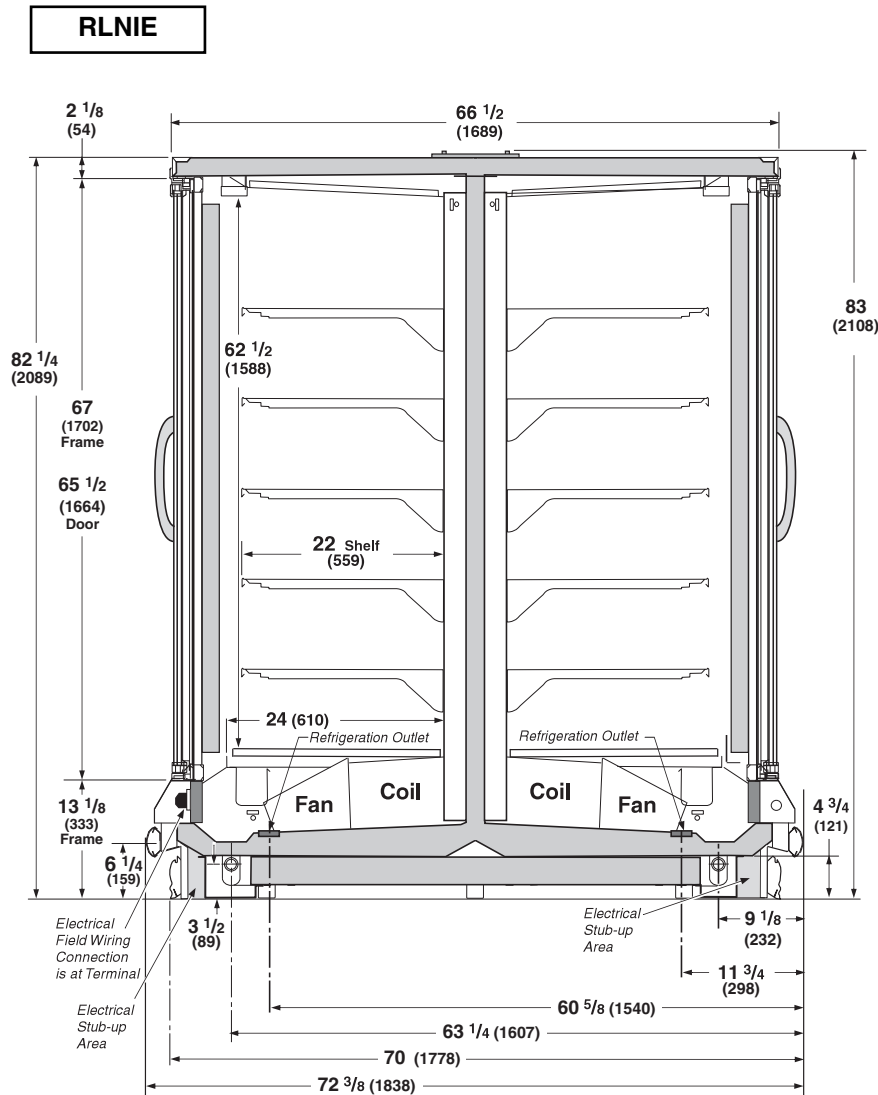
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		RLNIE
General		
Case Length		99 3/4 (2534)
Maximum O/S dimension of case back to front <i>(Includes bumpers)</i>		72 3/8 (1838)
Width of skid rail		3 3/4 (95)
Width of Bottom Front Support		6 (152)
Stub-up area between front skid rail and splashguard		9 (229)
Electrical Service*		
RH end of case to the center of nearest knockout		4 (102)
RH end of case to the center of LH knockout		88 1/2 (2248)
Back O/S of case to center of knockout <i>(Electrical Field Wiring Connection Point is at terminal.)</i>		70 1/8 (1781)
Waste Outlet		
RH end of case to center of waste outlet in back of case		38 1/4 (972)
RH end of case to center of waste outlet in front of case		54 1/4 (1378)
Back O/S of case to center of waste outlet		63 1/4 (1607)
Water Seal		
Edge of water seal to center of waste outlet		13 (330)
Schedule 40 drip piping		1 1/4 (32)
<i>Field installed water seal outlets, tees, and connectors are shipped with case.</i>		
Refrigeration Outlet		
RH end of case to center of refrigeration outlet		5 5/8 (142)
Back O/S of case to center of refrigeration outlet		60 5/8 (1541)
Outside bottom front supports from end of case		7 (178)
Distance between centerlines of bottom front supports		48 (1219)

Reach-in Narrow Island, End and Center Unitized

Dimensions shown as in. & (mm).



NSF Certification

This merchandiser model is manufactured to meet ANSI/NSF (National Sanitation Foundation) Standard #7 requirements for construction, materials & cleanability.

**Impact RLNIE
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)	0	-11
Evaporator (°F)	-11	-19
Unit Sizing (°F)	-14	-22

<i>Btu/hr/case</i>	FF	IC
Parallel	9,500	9,800
Conventional	9,700	10,000

*Optional LED lighting reduces the refrigeration load by 600 Btu/hr/case. Optional Energy Efficient Fan motors reduce refrigeration load by 654 Btu/hr/case.

DEFROST DATA

	FF	IC
Frequency (hr)	24	24
Defrost Water (lb/day)	8.6	8.6

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

<i>ELECTRIC</i>	FF	IC
Temp Term (°F)	48	48
Failsafe (minutes)	45	45

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

OFFTIME Not Recommended

Standard Defrost Thermostat

Close on rise: close 48°F — open 33°F

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.

Estimated Charge (lb/case)**

RLNIE	5.4
--------------	-----

**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
Insulated Partition (in.)	1 1/2

Impact RLNIE
Frozen Food & Ice Cream

Husmann recommends against frame heater cycling with Innovator doors to prevent door seals from freezing to the frames and tearing.

Electrical Data

			RLNIE	
Number of Fans – 12W			7	
			Amperes	Watts
Merchandiser				
Evaporator Fans				
120V	60Hz	Standard	4.55	350
120V	50Hz	Standard	5.25	399
220V	60Hz	Export	2.31	350
220V	50Hz	Export	2.66	399
120V	60Hz	Energy Efficient	2.10	126
220V	60Hz	Energy Efficient	1.05	126
Door Anti-sweat Heaters (on fan circuit)				
120V	50/60Hz	Standard	6.17	740
220V	50/60Hz	Export	3.36	744
Frame Anti-sweat Heaters (on fan circuit)				
120V	50/60Hz	Standard	3.14	376
220V	50/60Hz	Export	1.71	376
Frame Anti-sweat Heaters (on fan circuit)				
120V	50/60Hz	Standard	1.67	200
220V	50/60Hz	Export	0.87	200
Minimum Circuit Ampacity				
120V	60Hz	Standard	15.73	
120V	50Hz	Standard	16.43	
220V	60Hz	Export	8.45	
220V	50Hz	Export	8.80	
120V	60Hz	Energy Efficient	13.28	
220V	60Hz	Energy Efficient	7.19	
Maximum Over Current Protection 120V			20	
Maximum Over Current Protection 220V			15	
Defrost				
Drain Heaters (120V 60Hz)			1.89	225
Export (230V 50Hz)			1.02	252
Electric Defrost (208V 3 Phase) per phase value			11.70	2426
Standard Vertical Lighting				
Innovator* Doors (120V)			4.50	540
Export (230 V 50Hz)			2.25	554
Optional LED Lighting				
Husmann EcoShine™ [27 W] (120V)			1.58	189
Husmann EcoShine™ [27 W] [220V (Export)]			0.86	189
Husmann EcoShine™ [16 W] (120V)			0.93	112
Husmann EcoShine™ [16 W] [220V (Export)]			0.51	112
Husmann EcoShine™ [20 W] (120V)			1.17	140
Husmann EcoShine™ [20 W] [220V (Export)]			0.58	140
Gelcore (120V)			1.68	203
Gelcore [220V (Export)]			0.91	203

* Innovator or Innovator II

Product Data

<i>Recommended Usable Cube</i> ¹ (Cu Ft/Case)	148.52 ft ³ /Case (4.21 m ³ /Case)
<i>ARI Total Display Area</i> ² (Sq Ft/Case)	131.90 ft ² /Case (12.25 m ² /Case)
<i>Shelf Area</i> ³ (Sq Ft/Case)	185.65 ft ² /Case (17.25 m ² /Case)

¹ ARI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]

² Computed using ARI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]

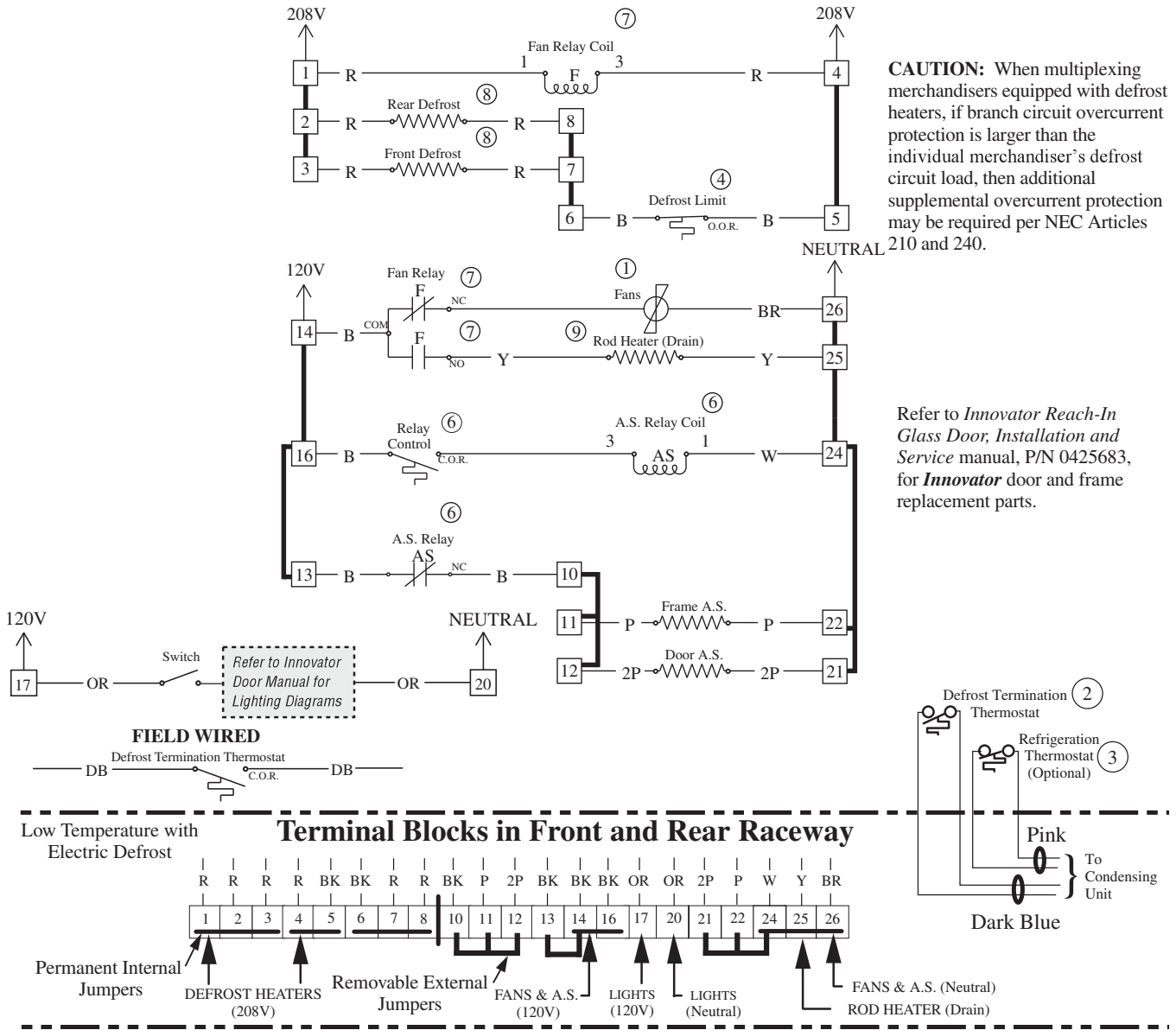
³ Shelf surface area is composed of bottom deck plus standard shelf complement, as shown in the Hussmann *Product Reference Guide*. The standard shelf complement for this model is (5) rows of 22-inch shelves.

ESTIMATED SHIPPING WEIGHT ⁵	
Case	<i>RLNIE</i>
lb (kg)	1980 (900)
⁵ Actual weights will vary according to optional kits included.	

Wiring Diagram is per side — two circuits required per case.

Fan and Heater Circuits - Electric Defrost (standard) RLNIE Front and Rear Compartment

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS
 R = Red P = Purple 2P = Purple (2 Bands) DB = Dark Blue BL = Black
 LB = Light Blue BR = Brown Y = Yellow OR = Orange W = White
THESE ARE MARKER COLORS (WIRE MAY VARY.)

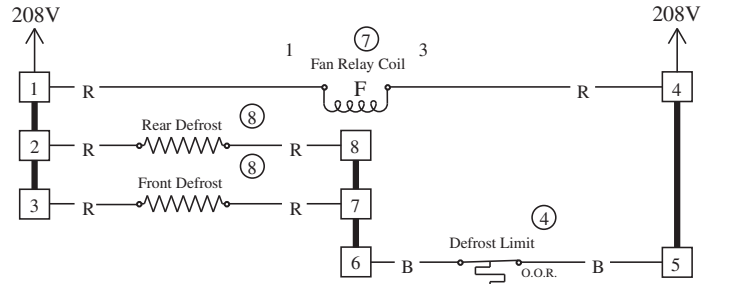


Front and Rear Compartments Connect to Main Terminal Block at Rear (see Page 8).

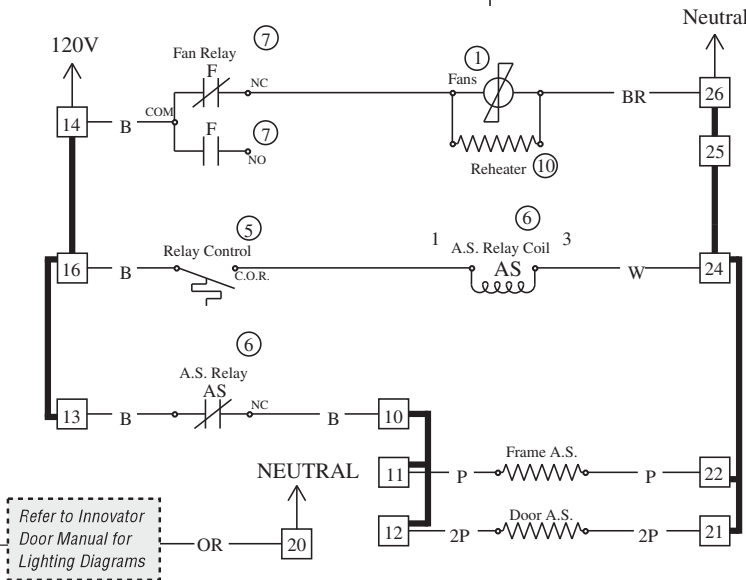
Wiring Diagram is per side — two circuits required per case.

Fan and Heater Circuits - Electric Defrost (standard) RLNIE End Compartment

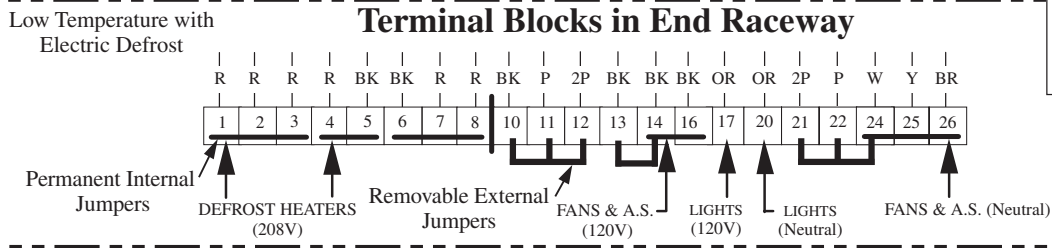
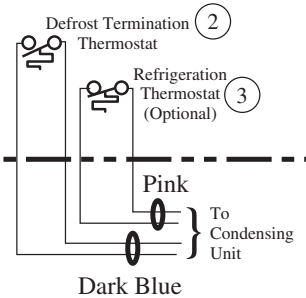
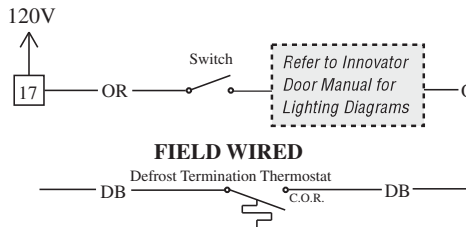
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CAUTION: When multiplexing merchandisers equipped with defrost heaters, if branch circuit overcurrent protection is larger than the individual merchandiser's defrost circuit load, then additional supplemental overcurrent protection may be required per NEC Articles 210 and 240.

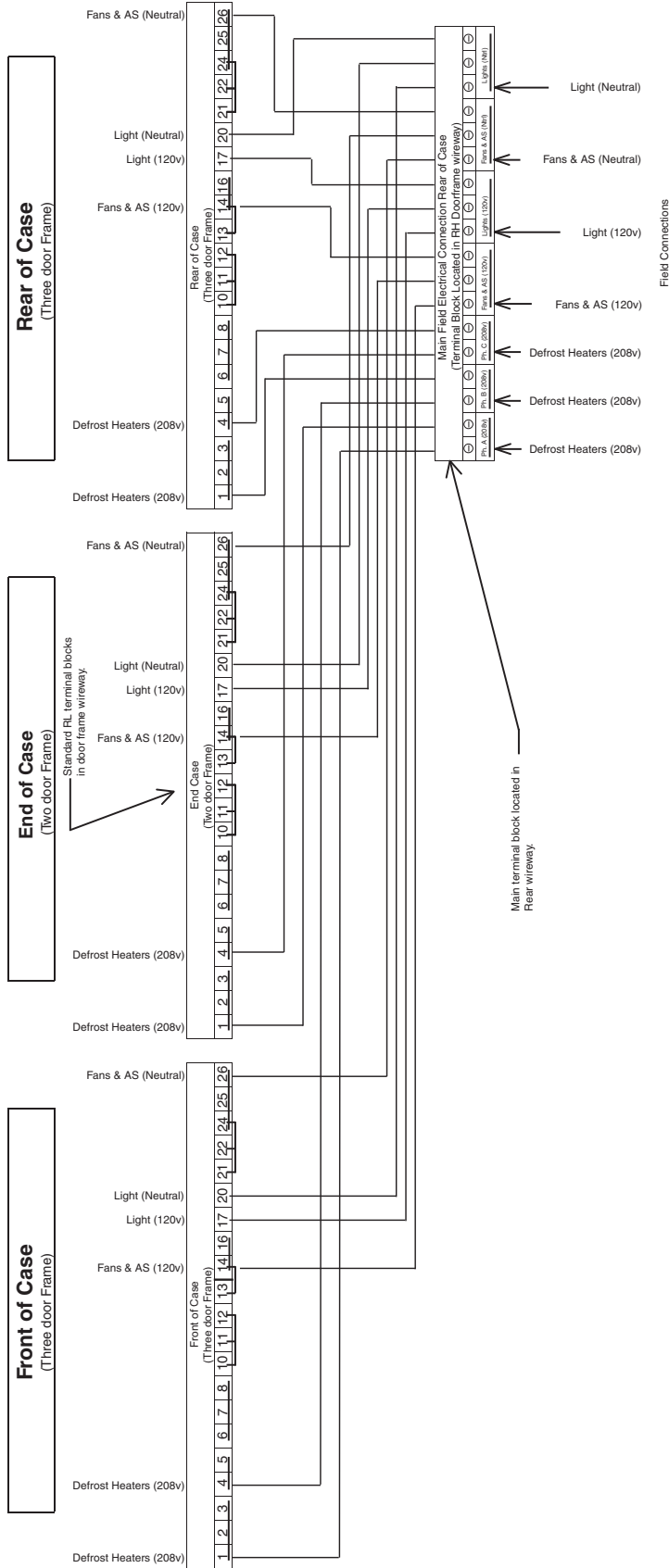


Refer to *Innovator Reach-In Glass Door, Installation and Service manual*, P/N 0425683, for *Innovator* door and frame replacement parts.



End Compartment Connects to Main Terminal Block at Rear (see Page 8).

RLNIE Wiring Diagram for Electric Defrost



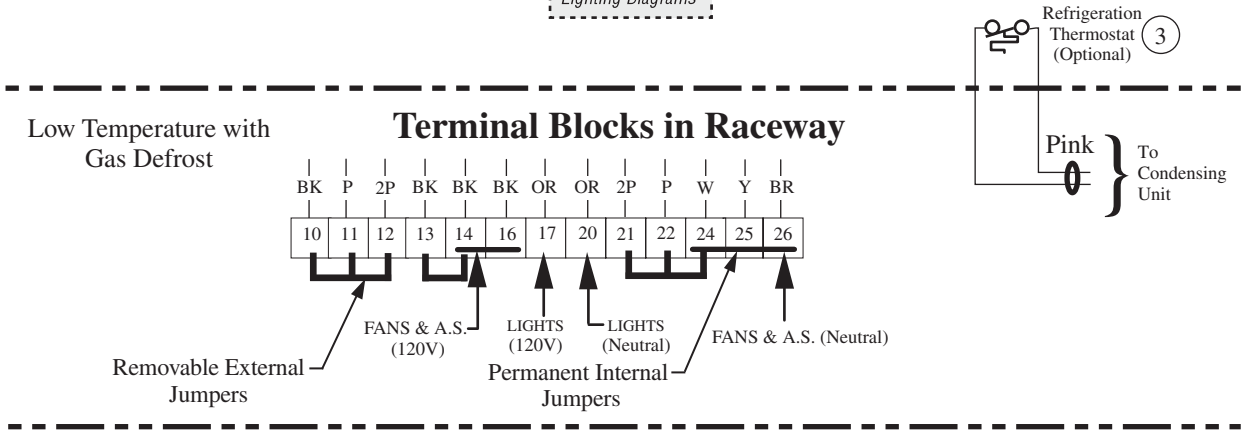
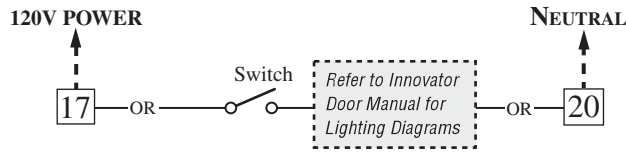
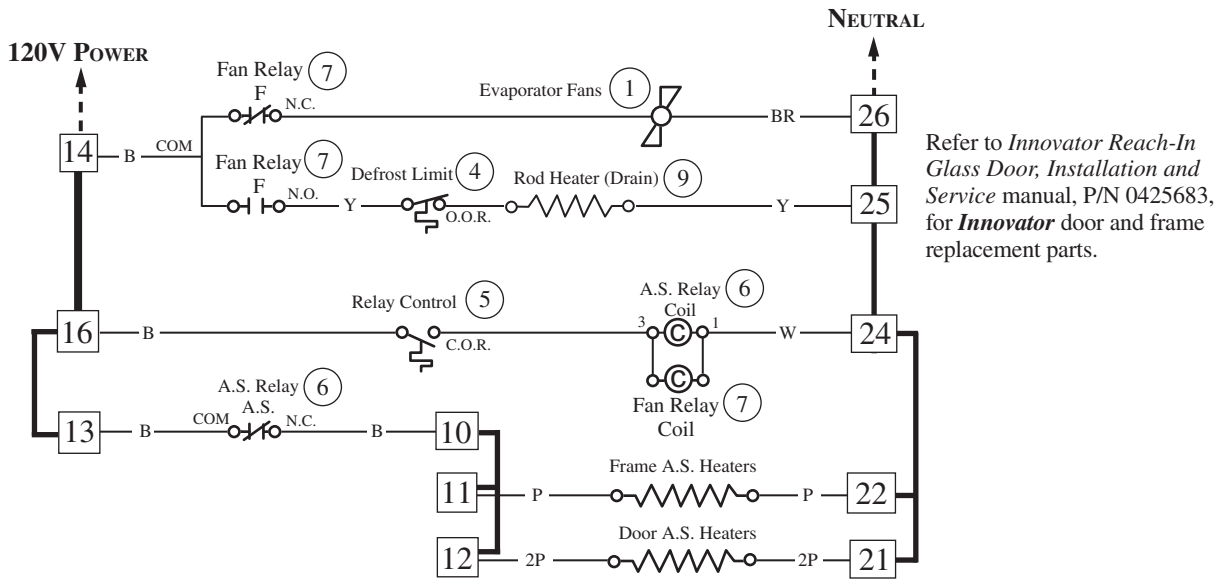
Electric Defrost Sequence - Low Temperature

1. 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.
2. If the Defrost Heater raises internal air temperature above 90°F, the Defrost Limit Thermostat (4) will open.
3. 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.
4. 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.
5. 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.

Wiring Diagram is per side — two circuits required per case.

Fan and Heater Circuits - Gas Defrost (optional) RLNIE Front and Rear Compartment

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS
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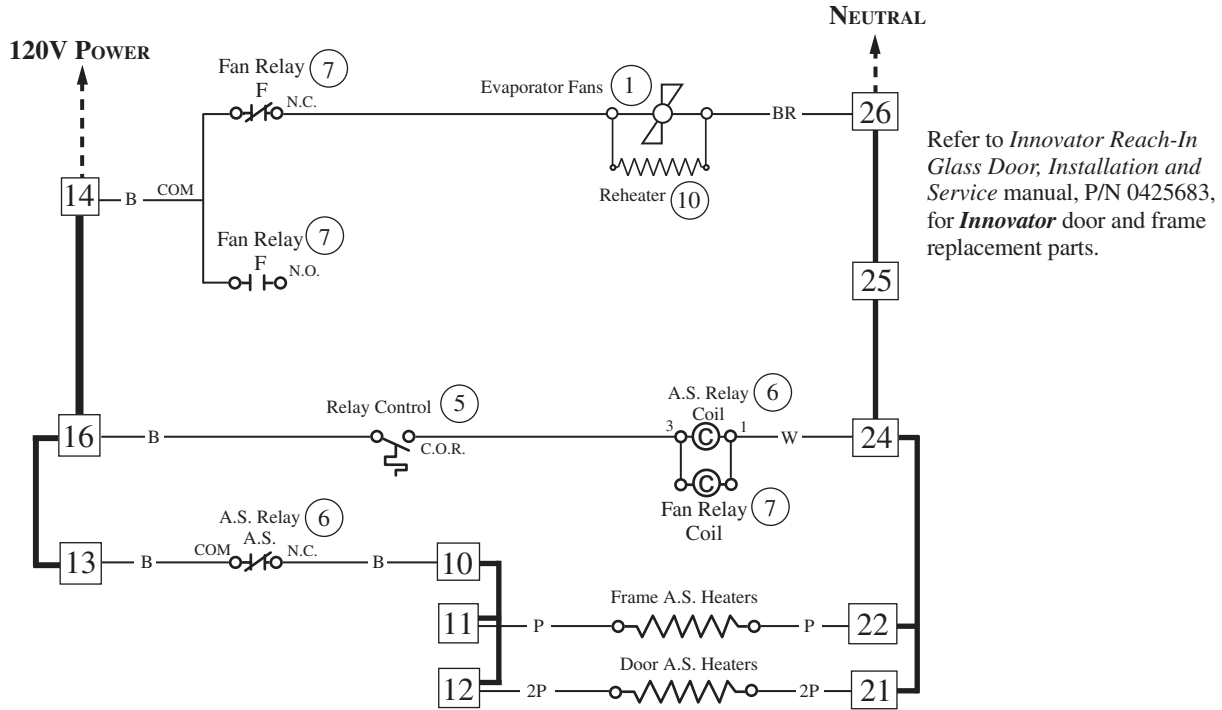


Front and Rear Compartments Connect to Main Terminal Block at Rear (see Page 11).

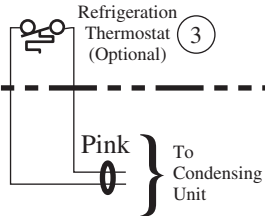
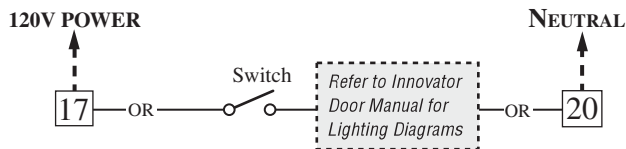
Wiring Diagram is per side — two circuits required per case.

Fan and Heater Circuits - Gas Defrost (optional) RLNIE End Compartment

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS
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 LB = Light Blue BR = Brown Y = Yellow OR = Orange W = White
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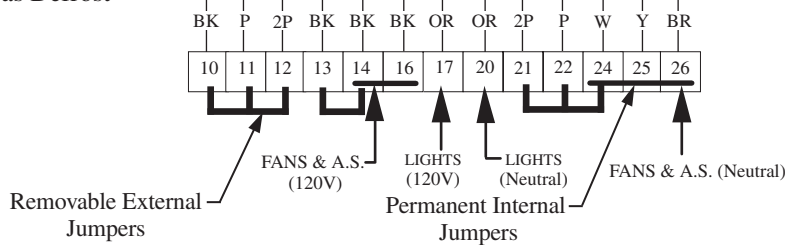


Refer to *Innovator Reach-In Glass Door, Installation and Service manual*, P/N 0425683, for *Innovator* door and frame replacement parts.



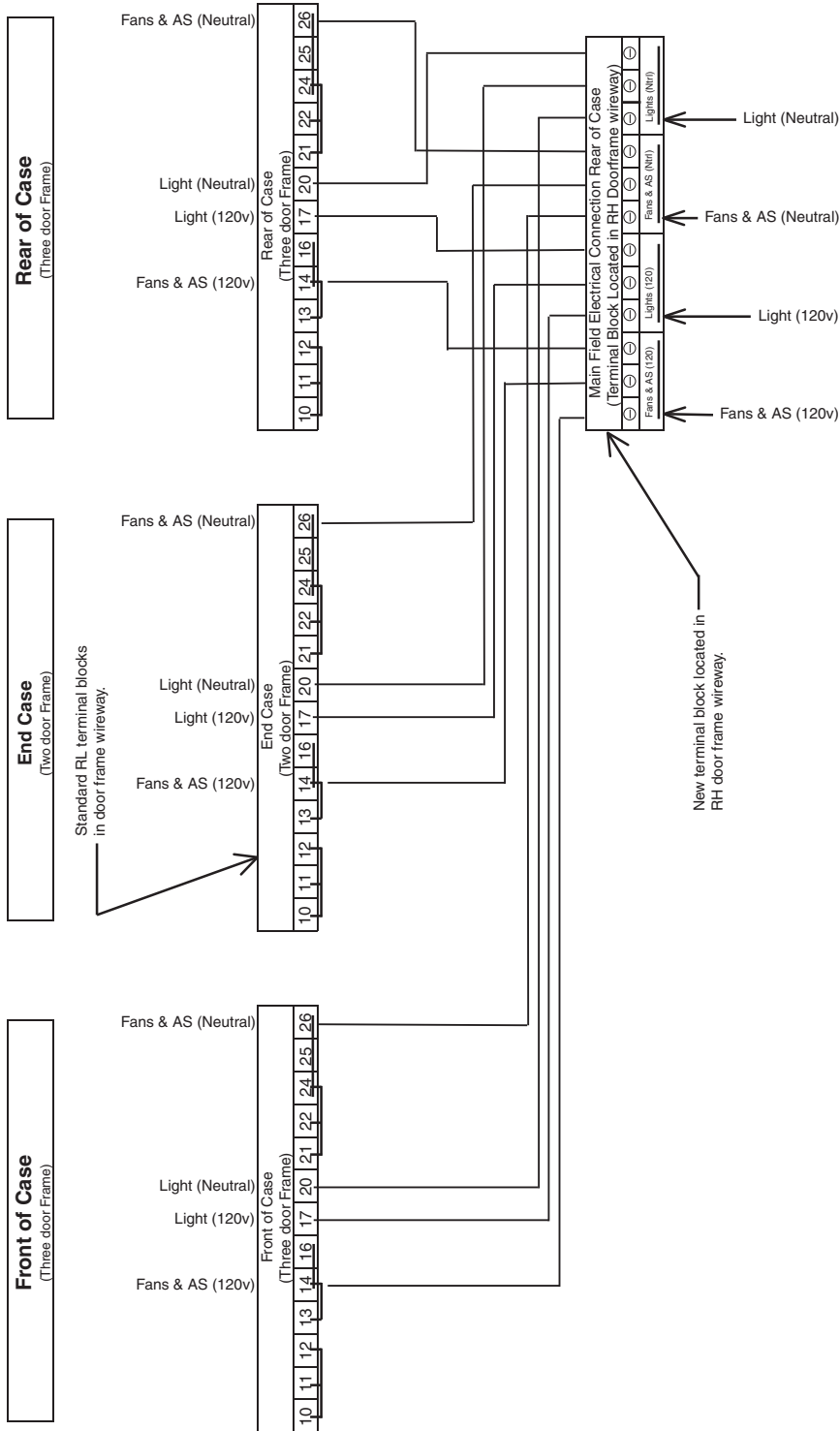
Low Temperature with Gas Defrost

Terminal Blocks in Raceway



End Compartment Connects to Main Terminal Block at Rear (see Page 11).

RLNIE Wiring Diagram for Gas Defrost



Gas Defrost Sequence - Low Temperature

- 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).
- If the Drain Pan Heater (9) raises internal air temperature above 90°F, the Heater Limit Thermostat (4) will open.
- 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.