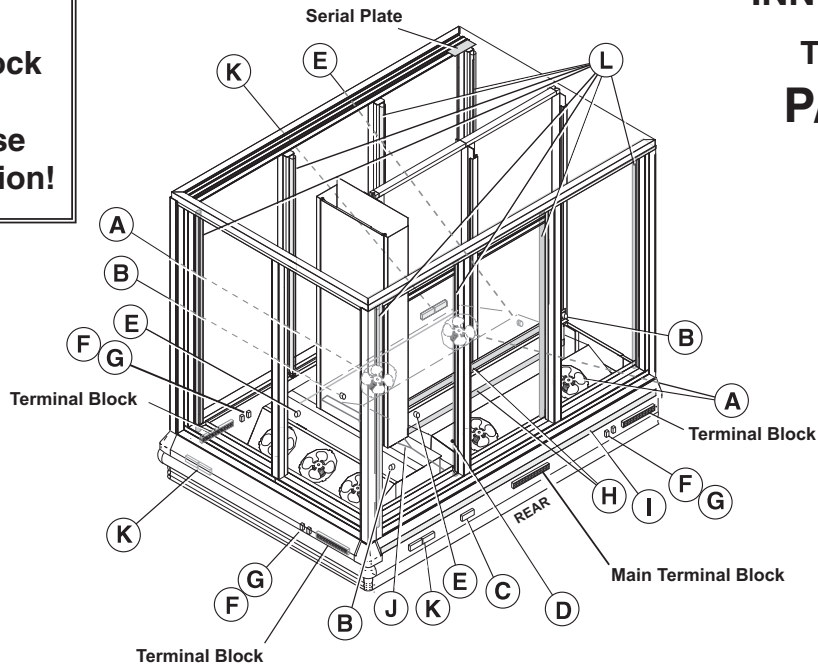


Warning:
Terminal block
NOT for
case-to-case
wire connection!



DOE 2017
Energy Efficiency
Compliant

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 Energy Efficient	Fan Assembly	(1)	H.	Electric Defrost Heaters		
	0477655	Fan Motor, Evaporator (MO.4410546)			3015372 (2) 208V Front (HE.4850346)		(8)
	0461805	Fan Blade (FB.4780446)			3015376 (2) 208V Rear (HE.4850358)		(8)
B.	0474033	Standard Non-adjustable Defrost Thermostat (CT.4440726)	(2)		0444685 (2) 208V End (HE.4850502)		(8)
C.		Optional Adjustable Refrigeration Thermostat	(3)	I.	Drain Pan Heater — Electric & Kool Gas		
D.	0344662	Defrost Limit Thermostat (CT.4440261)	(4)		0387037 (2) 120V (HE.4850240)		(9)
E.	0461814	Relay Control Thermostat or Fan and Anti-sweat Heater Thermostat (CT.4481296) (KG Only)	(5)	J	Flue Reheater 120V		
					0444712 120V (HE.4850573)		(10)
RELAYS				LED FIXTURES AND POWER SUPPLY			
F.	0342598	Anti-Sweat Control Relay (120V KoolGas) (RL.4480238)	(6)	K.	0499399 LED Power Supply (EP.4481668)		
G.	0342599	Fan Control Relay (208V) Electrical Defrost (RL.4480237)	(7)	L.	LED Fixture		
					Replace with like fixtures		

(Note: A complete list of vertical LED replacement lamps can be found at Hussmann.com/TechnicalInfoAndParts)

Refer to INNOVATOR REACH-IN GLASS DOOR INSTALLATION AND SERVICE manual, PIN 0425683, for Innovator, Innovator II and Innovator III door and frame replacement parts.

Data sheet-Excel-RLNIE

Note: Revision E: April 2017. Updated LED energy values. Other changes marked with a bar, circle or underline.

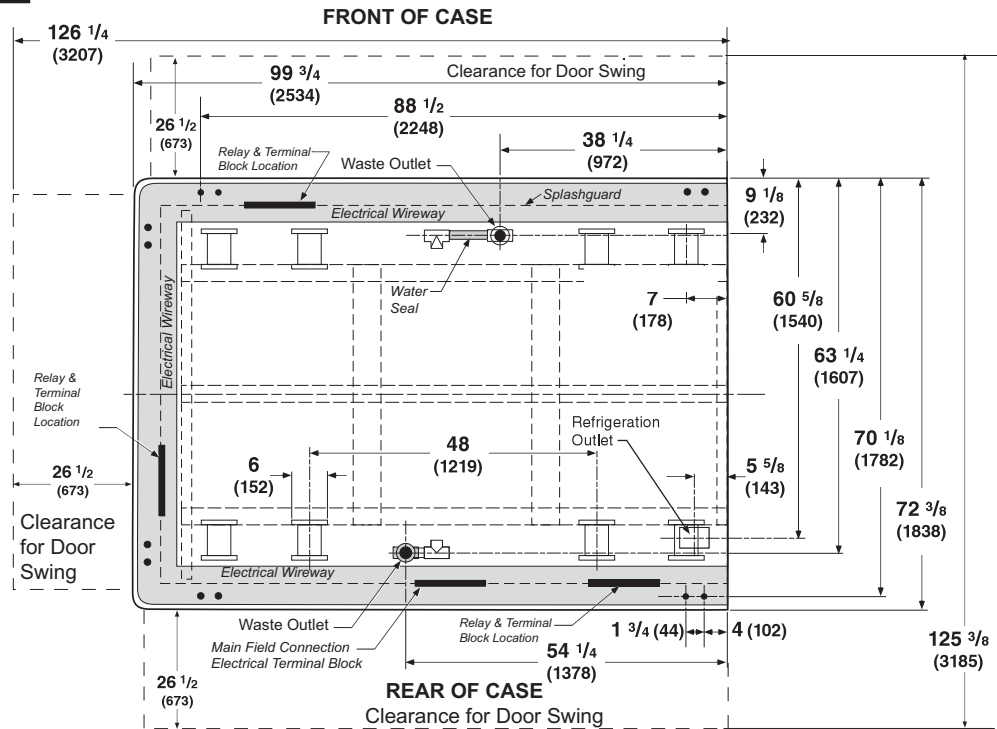
Engineering Plan Views

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

11-2009



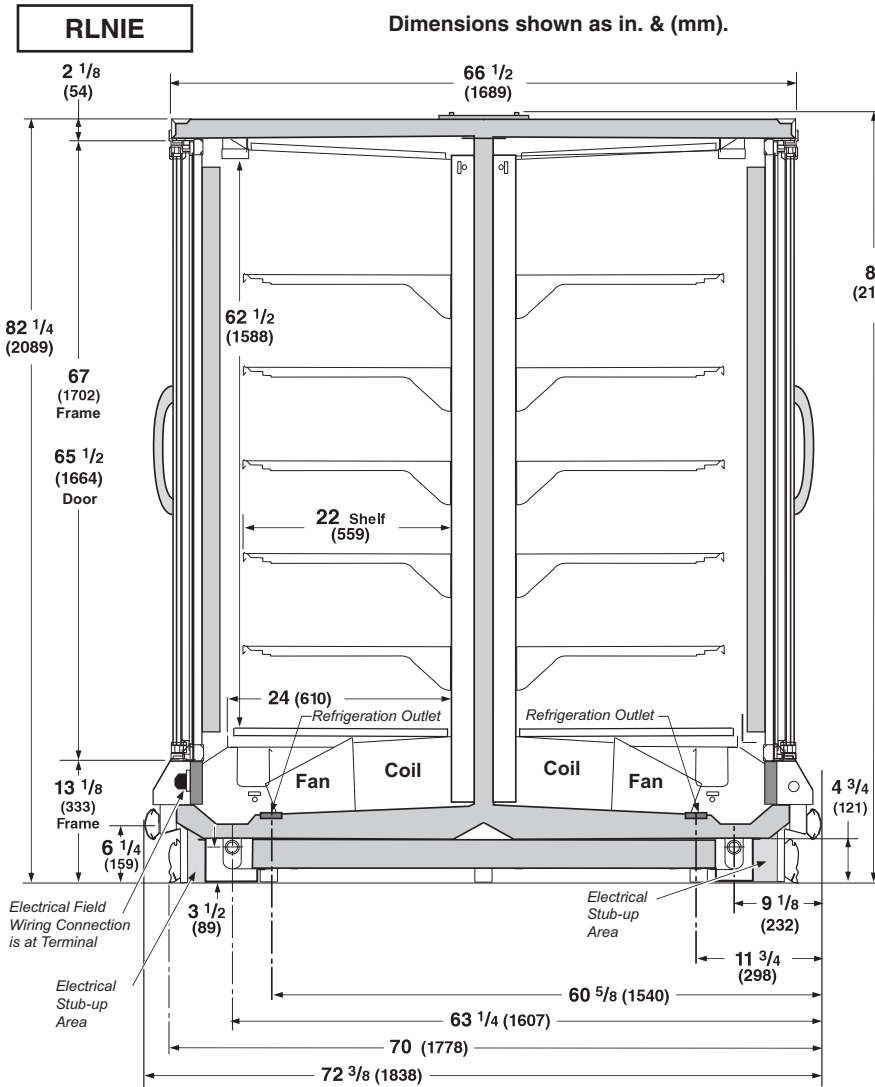
	RLNIE
General	
Case Length <i>(Each solid end adds 2 in. (51 mm) to length of lineup; each window end or insulated partition adds 1 1/2 in. (38 mm).</i>	99 3/4 (2534)
Maximum O/S dimension of case back to front <i>(Includes bumpers)</i>	72 3/8 (1838)
Width of skid rail	3 3/4 (95)
Width of Bottom Front 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 <i>Field installed water seal outlets, tees, and connectors are shipped with case.</i>	1 1/4 (32)
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



Husmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2017 energy efficiency standards.

Standard Reach-in configuration consists of Innovator I doors, energy efficient fan motors, and EcoShine II LED vertical lighting.



Estimated Charge Per Case**

RLNIE 5.4 lb 73 oz 2.45 kg

**This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8 oz / 0.2 kg).

Anti-sweat controls are standard for all low temperature Reach-in cases with Innovator I doors.

NSF Certification

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

RLNIE

With Innovator Doors or Innovator III Doors
Low Temperature

REFRIGERATION DATA[§]

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

	FF	IC	AHRI Rating*
Discharge Air (°F)	0	-11	-2
Evaporator (°F)	-11	-19	-7
Unit Sizing (°F)	-14	-22	-10

*With door A/S controller

Btu/hr/case

INNOVATOR I			
Parallel	7,125	7,350	6,905
Conventional	7,275	7,500	7,050

INNOVATOR III			
Parallel	6,745	7,250	
Conventional	6,890	7,400	

§ Average evaporator temperature shown. Use dew point for high glide refrigerants for unit sizing. Care should be taken to use the dew point in PT tables for measuring and adjusting superheat. Adjust evaporator pressure as needed to maintain discharge air temperature shown.

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.

RLNIE

With Innovator Doors or Innovator III Doors
Low Temperature

Hussmann recommends against frame heater cycling with *Innovator* doors or *Innovator III* doors to prevent door seals from freezing to the frames and tearing.

Electrical Data

	RLNIE	
	7	
	Amperes	Watts
Number of Fans – 12W		
Evaporator Fans		
120V 50/60Hz Innovator	2.10	126
240V 50/60Hz Export Innovator	1.05	126
Door Anti-sweat Heaters (on fan circuit)		
120V 50/60Hz Innovator*	6.10	728
120V 50/60Hz Innovator III	3.44	416
240V 50/60Hz Export Innovator	3.36	744
220V 50/60Hz Export Innovator III	NA	NA
* Maximum door watts without anti-sweat cycling controls shown.		
Frame Anti-sweat Heaters (on fan circuit)		
120V 50/60Hz	3.14	376
240V 50/60Hz Export	1.71	376
Flue Heater (on fan circuit)		
120V 50/60Hz	1.4	168
220V 50/60Hz	0.9	200
Minimum Fan Circuit Ampacity		
120V 50/60Hz Innovator	13.0	
120V 50/60Hz Innovator III	10.3	
240V 50/60Hz Export Innovator	7.2	
240V 50/60Hz Export Innovator III	3.9	
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

ONLY LIGHTING CONFIGURATIONS THAT ARE COMPLIANT WITH THE U.S. DEPT. OF ENERGY (DOE) 2017 REGULATION ARE AVAILABLE FOR SALE FOR USE IN THE U.S.A.

Standard Vertical LED Lighting

Hussmann EcoShine II™ - A (120V)	1.24	148.4
Hussmann EcoShine II™ - A (220V Export)	0.67	148.4

Optional Vertical LED Lighting

Hussmann EcoShine II™ - B (120V)	1.40	167.7
Hussmann EcoShine II™ - B (220V Export)	0.76	167.7

Anti-sweat controls are standard for all low temperature Reach-in cases with Innovator I doors.

Product Data

<i>Recommended Usable Cube</i> ¹ (Cu Ft/Case)	148.52 ft ³ /Case (4.21 m ³ /Case)
<i>AHRI Total Display Area</i> ² (Sq Ft/Case)	104.32 ft ² /Case (9.68 m ² /Case)
<i>Shelf Area</i> ³ (Sq Ft/Case)	185.65 ft ² /Case (17.25 m ² /Case)

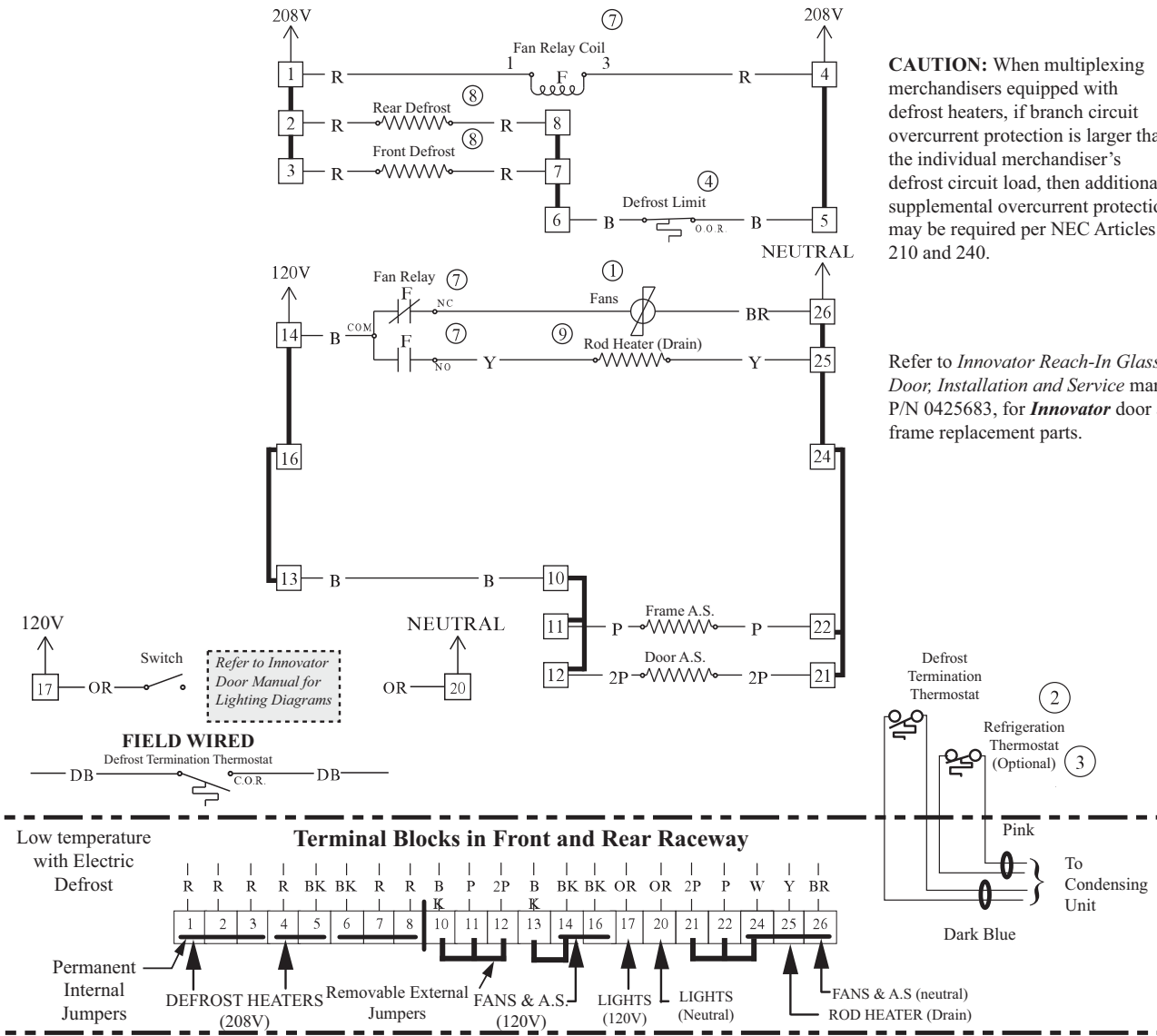
¹ AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
² Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]
³ Shelf surface area is composed of bottom deck plus standard shelf complement, as shown in the Hussmann *Product Reference Guide*. The standard shelf complement for this model is (5) rows of 22-inch shelves.

ESTIMATED SHIPPING WEIGHT ⁴	
Case	<i>RLNIE</i>
lb (kg)	1980 (900)
⁴ 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 BK = Black
 LB = Light Blue BR = Brown Y = Yellow OR = Orange W = White
THESE ARE MARKER COLORS (WIRE MAY VARY)

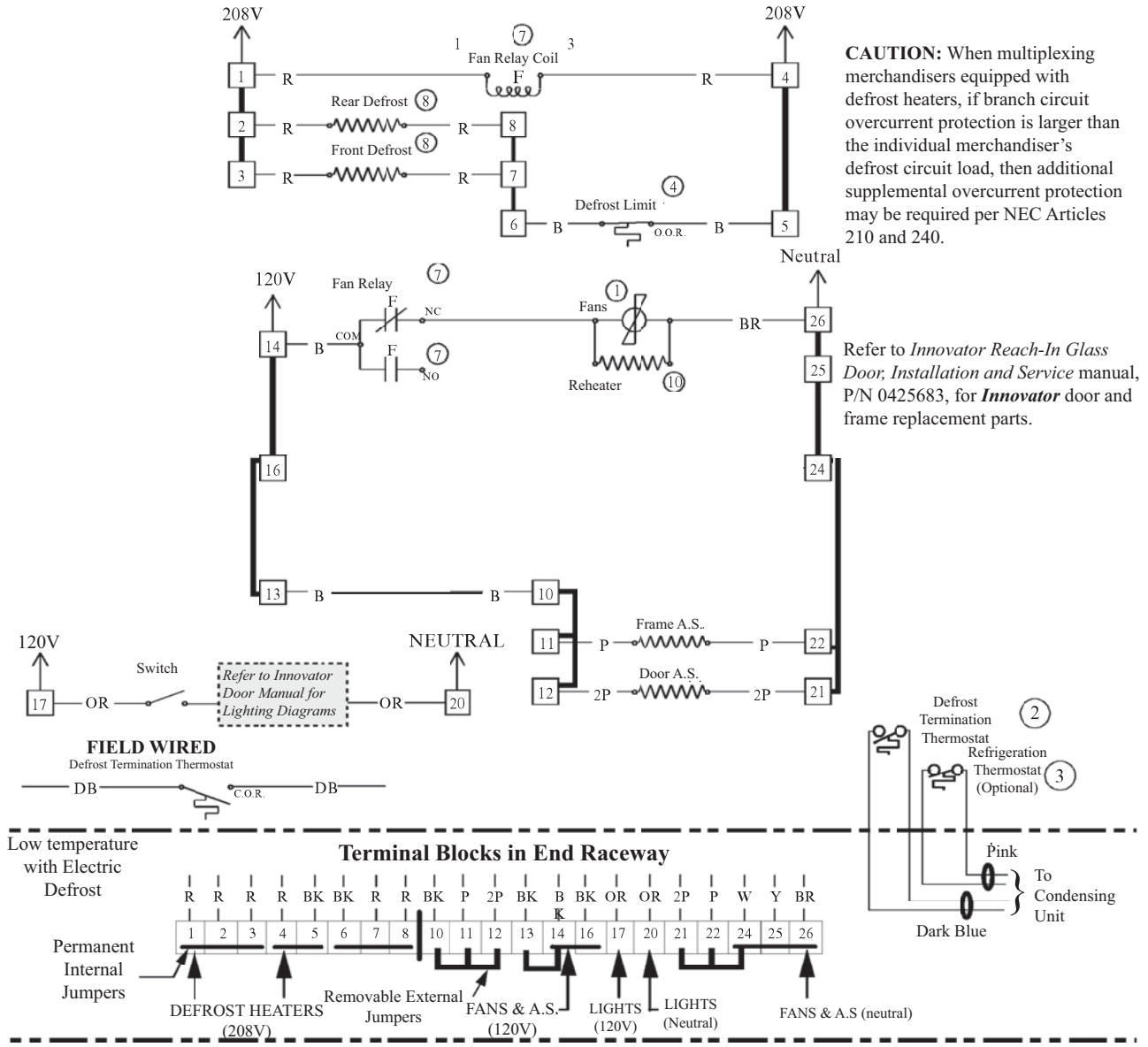


Front and Rear Compartments Connect to Main Terminal Block at Rear (see Page 8).

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

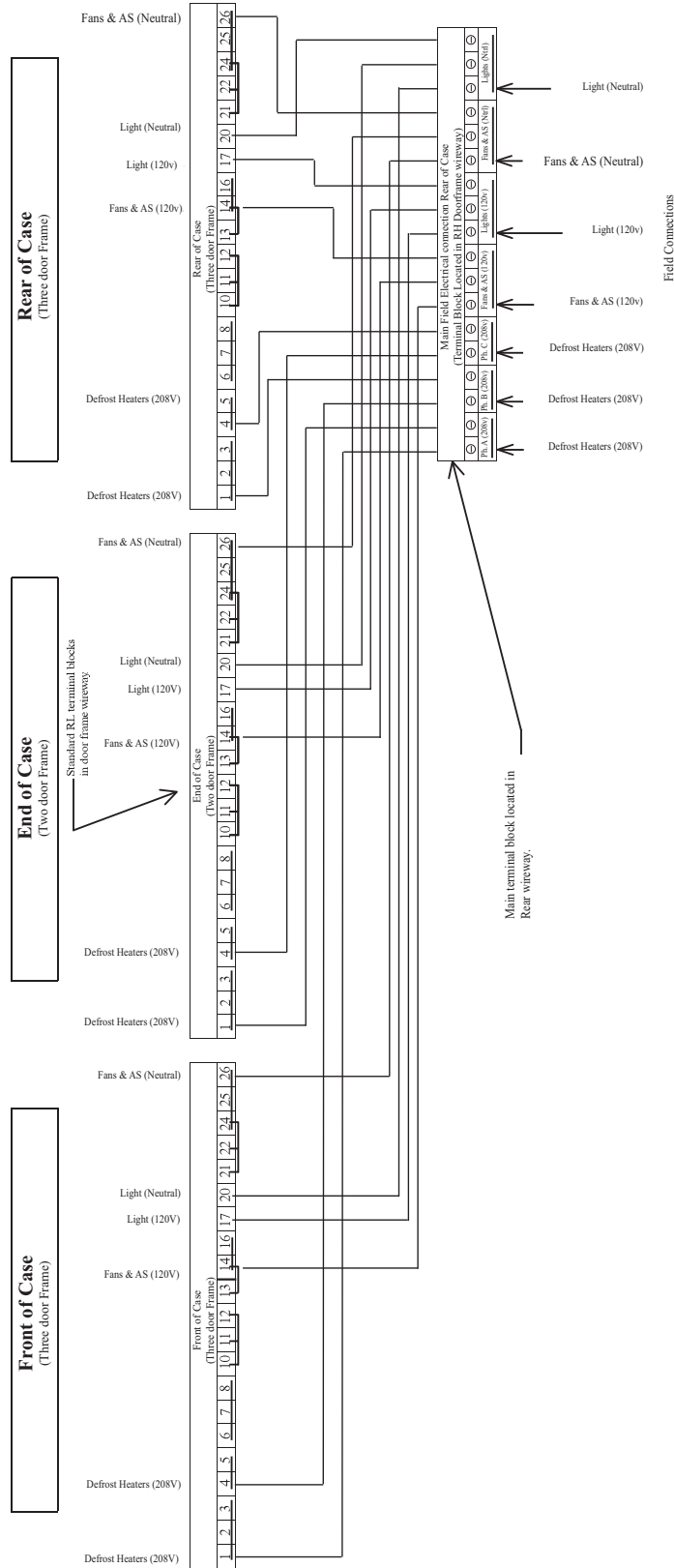
Fan and Heater Circuits – Electric Defrost (standard) RLNIE End Compartment

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



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

RLNIE Wiring Diagram for Electric Defrost

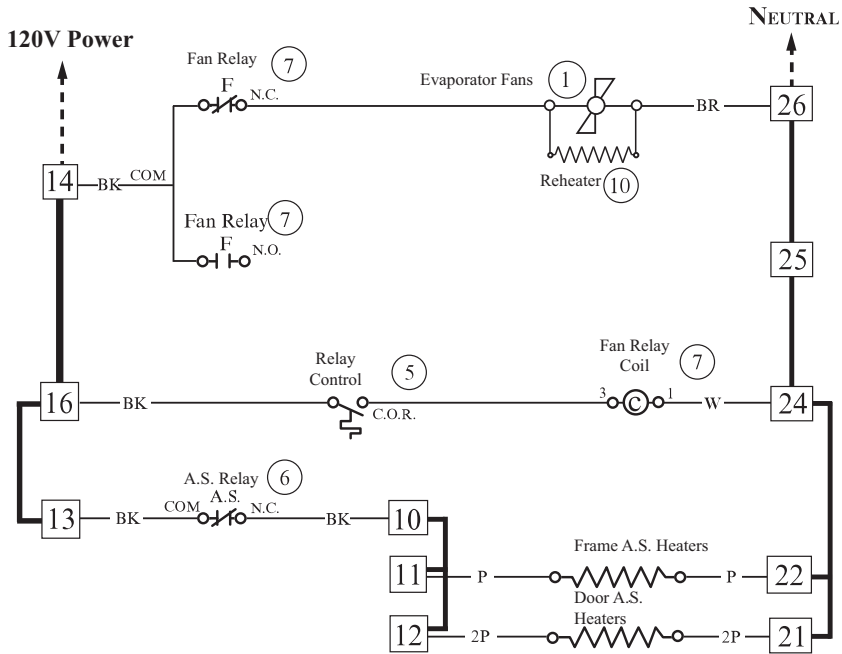


Electric Defrost Sequence - Low Temperature

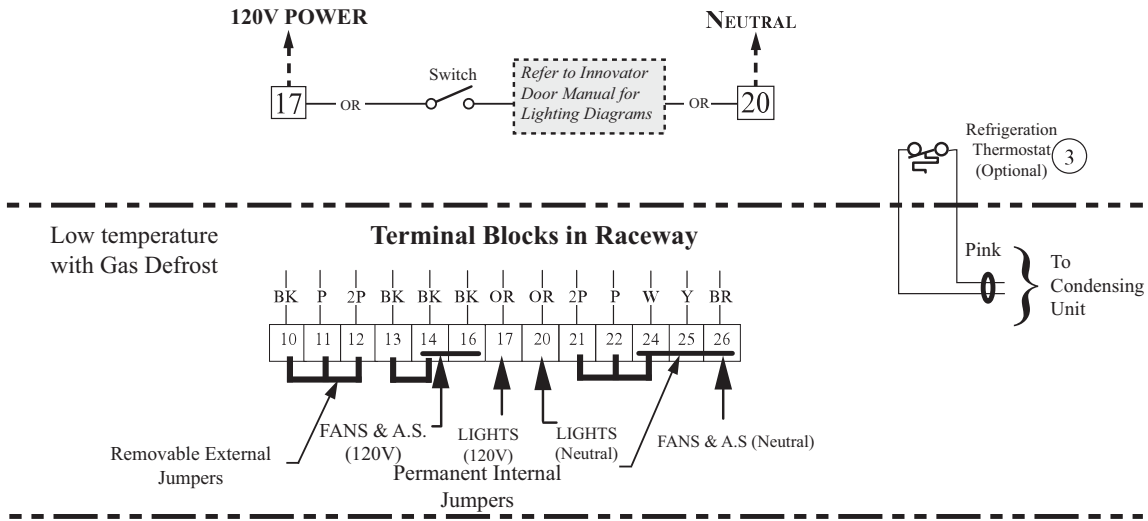
1. Power from the defrost contactor energizes Defrost Heaters and 208V Evaporator Fan Relay Coil (7). Relay Contacts open the fan circuit and energizes the Drain Pan Heater.
2. If the Defrost Heater raises internal air temperature above 90°F, the Defrost Limit Thermostat (4) will open.
3. Temperature 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.

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

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

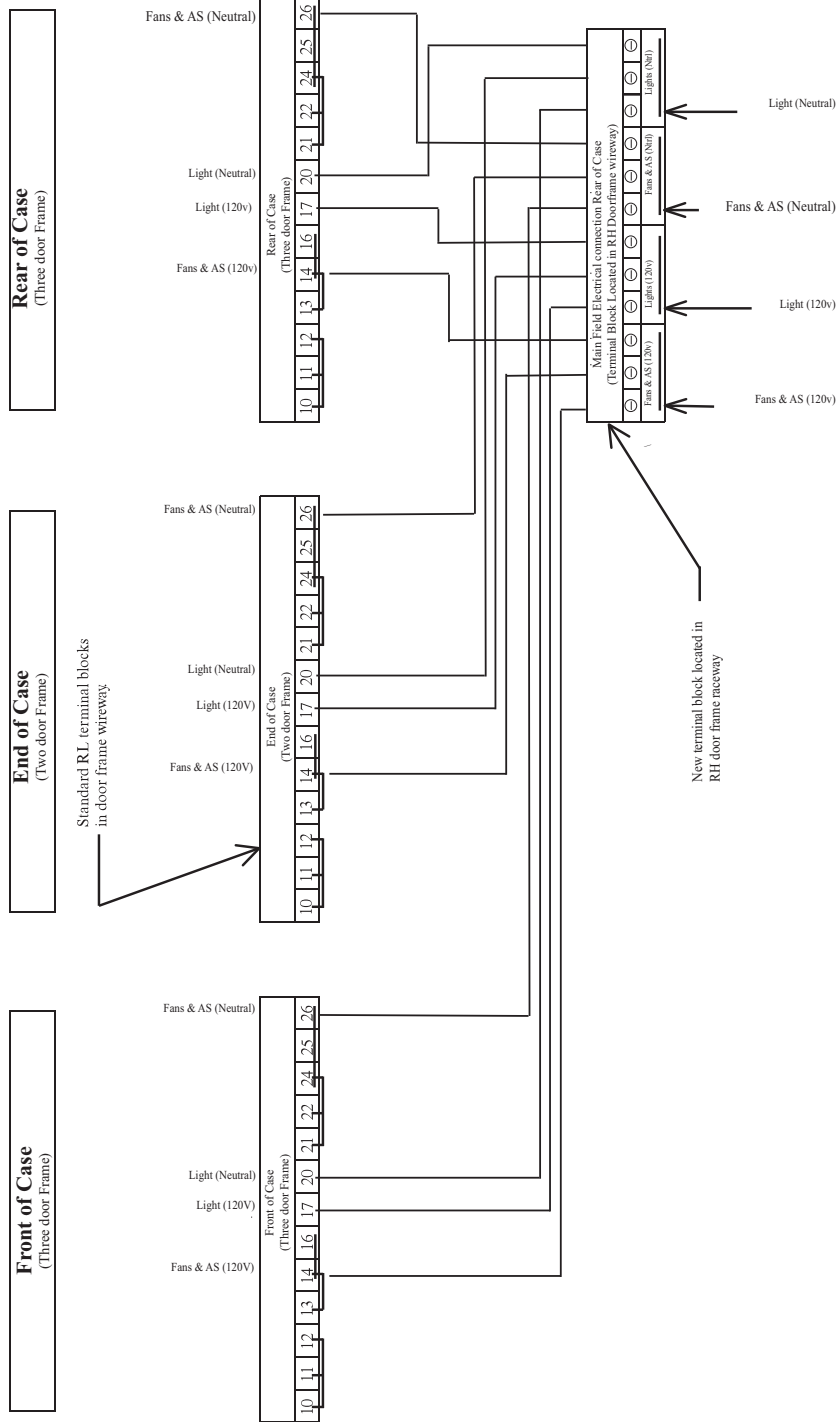


Refer to *Innovator Reach-In Glass Door, Installation and Service manual*, P/N 0425683, for *Innovator* door and frame replacement parts.



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