



for **RL** with INNOVATOR Doors

or INNOVATOR III Doors

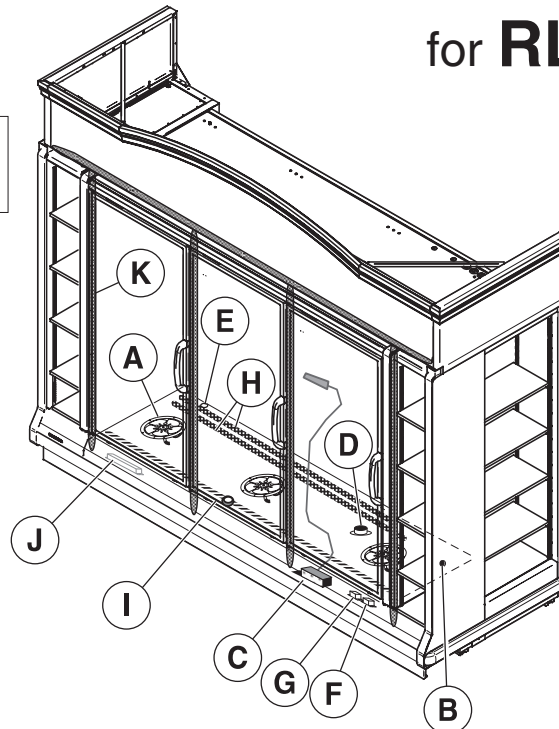
**P/N 0520876\_J**

**NSF® Certified**

January 2018

**DOE 2017**  
Energy Efficiency  
Compliant

OPTIONS SHOWN:  
• Arch Facade



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.

**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 (CONTINUED)</b>				
A.	<b>12W Standard Energy Efficient Fan Assembly</b>		(1)	I.	Drain Pan Heater — Electric & KoolGas (120V)	(9)		
	0477655	Fan Motor, Evaporator (MO.44105460)			0387036	(1)	2 Door Models (HE.4850239)	
	0461805	Fan Blade (FB.4780446)			0387037	(1)	3 Door Models (HE.4850240)	
					0387038	(1)	4 Door Models (HE.4850241)	
B.	0474033	Standard Non-adjustable Defrost Thermostat (CT.4440726)	(2)	<b>LED FIXTURES AND POWER SUPPLY</b>				
C.	Optional Adjustable Refrigeration Thermostat		(3)	J.	0499399	Power Supply (EP.4481668)	(10)	
D.	0344662	Defrost Limit Thermostat (CT.4440261)	(4)	K.	Door Lamp, LED			
E.	0461814	Relay Control Thermostat or Fan and Anti-sweat Heater Thermostat (CT.4481296) (KG Only)	(5)		050908300	4100K Center (BU.4441330)	(11)	
					050908400	4100K End (BU.4441331)	(11)	
					<i>(Note: A complete list of vertical LED replacement lamps can be found at Hussmann.com/TechnicalInfoAndParts)</i>			
<b>RELAYS</b>								
F.	0342598	Anti-Sweat Control Relay (120V) (RL.4480238) (KG Only)	(6)					
G.	0342599	Fan Control Relay (208V) (RL.4480237)	(7)					
<b>HEATERS</b>								
H.	Electric Defrost Heaters – Front (208V)		(8)					
	3015372	(1) 2 Door Models (HE.4850346)						
	3015373	(1) 3 Door Models (HE.4850337)						
	3015374	(1) 4 Door Models (HE.4850347)						
	Electric Defrost Heaters — Rear (208V)		(8)					
	3015376	(1) 2 Door Models (HE.4850358)						
	3015377	(1) 3 Door Models (HE.4850359)						
	3015379	(1) 4 Door Models (HE.4850360)						

**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-LifeLine RL SADG

Note: Revision J: Updated wiring diagrams on page 8 and 9.

# Engineering Plan Views

Reach-In  
2, 3 & 4 Door

## Plan View LifeLine Premier Stand Alone Dry Goods Kit Applied to RL / RM 08-2009

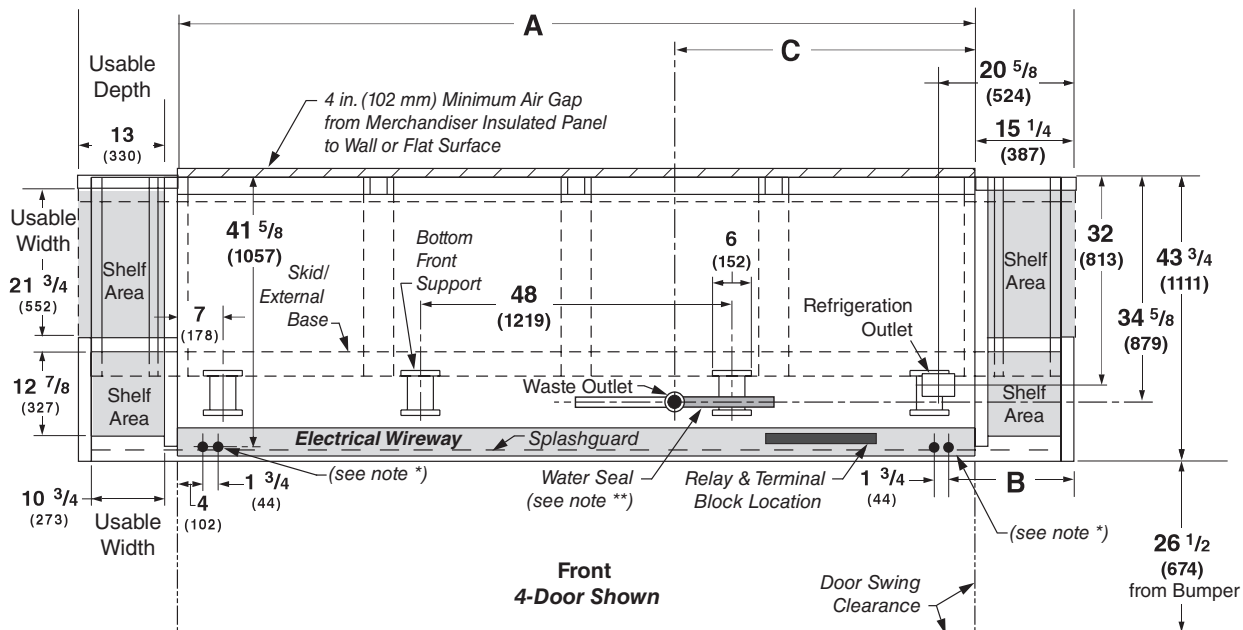
### PHYSICAL DATA

Merchandiser Drip Pipe (in.)	1 1/4
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	5/8

Illustrated below is a 4-door merchandiser with Stand Alone Dry Goods cabinets.

Refer to chart on Page 3 for detailed dimensional information on options.

Dimensions shown as in. & (mm).







**Plan View Dimensions for  
LifeLine Premier Stand Alone Dry Goods Kit Options**

**LifeLine Premier  
Stand Alone Dry Goods Kit**

**RL** With Innovator Doors  
or Innovator III Doors

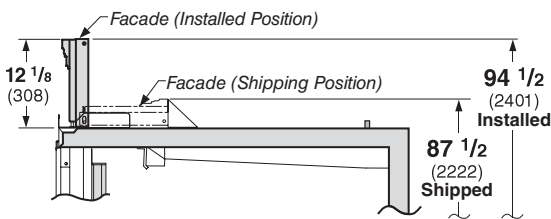
**Low Temperature**

Abbreviations: DG = Dry Goods section	2 Dr	3 Dr	4 Dr	5 Dr	
<b>General</b>					
(A) Merchandiser Length DG includes 4 ends and dry goods cabinets	92 1/2 (2350)	123 (3124)	153 3/8 (3896)	<b>The Stand Alone Dry Goods Cabinet is not offered in the 5-door length.</b>	
<b>**NOTE:</b> Each solid end adds approximately 2 3/8 in (60 mm) to length of line up; each partition add approximately 2 3/4 in (70 mm);					
case to case joints can add approximately 1/8 in (3 mm) for gasket material.					
Maximum O/S dimension of merchandiser back to front ***	43 3/4 (1111)	43 3/4 (1111)	43 3/4 (1111)		
*** Includes bumper. Add 26 1/2 in. (673 mm) for door swing.					
Interior width of front dry goods cabinet	10 3/4 (273)	10 3/4 (273)	10 3/4 (273)		
Interior depth of front dry goods cabinet	12 7/8 (327)	12 7/8 (327)	12 7/8 (327)		
Interior width of each side dry goods cabinet	22 (559)	22 (559)	22 (559)		
Interior depth of each side dry goods cabinet	10 3/4 (273)	10 3/4 (273)	10 3/4 (273)		
Back of merchandiser to rear of splashguard	39 7/8 (1013)	39 7/8 (1013)	39 7/8 (1013)		
Width of Skid rail	3 3/4 (95)	3 3/4 (95)	3 3/4 (95)		
Width of Bottom Front Support	6 (152)	6 (152)	6 (152)		
Stub-up area between front support and splashguard	3 1/8 (79)	3 1/8 (79)	3 1/8 (79)		
<b>Electrical Service</b> 					
(B) RH end of merchandiser to the center of nearest knockout DG	19 1/4 (489)	19 1/4 (489)	19 1/4 (489)		
RH end of merchandiser to the center of LH knockout	58 (1473)	88 1/2 (2248)	118 7/8 (3019)		
Back O/S of merchandiser to center of knockout	41 5/8 (1057)	41 5/8 (1057)	41 5/8 (1057)		
<i>* NOTE: Electrical Field Wiring Connection Point is at terminal.</i>					
<b>Waste Outlet</b> 					
(C) Right end of merchandiser to center of waste outlet DG	39 (991)	69 1/2 (1765)	61 1/2 (1562)		
Back O/S of merchandiser to center of waste outlet	34 5/8 (879)	34 5/8 (879)	34 5/8 (879)		
Back O/S of merchandiser with bump-out to center of waste outlet †	46 5/8 (1184)	46 5/8 (1184)	46 5/8 (1184)		
<b>Water Seal</b> 					
Edge of water seal to center of waste outlet	13 (330)	13 (330)	13 (330)		
Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)		
<i>** NOTE: Field installed water seal outlets, tees, and connectors are shipped with merchandiser.</i>					
<b>Refrigeration Outlet</b> 					
RH end of merchandiser to center of RH refrigeration outlet DG	20 5/8 (524)	20 5/8 (524)	20 5/8 (524)		
Back O/S of merchandiser to center of refrigeration outlet	32 (813)	32 (813)	32 (813)		
Back O/S of merchandiser with bump-out to center of refrigeration outlet †	44 (1118)	44 (1118)	44 (1118)		
Outside bottom front supports from end of merchandiser	6 3/4 (170)	6 3/4 (170)	6 3/4 (170)		
Outside bottom front supports from end of merchandiser DG	6 3/4 (170)	6 3/4 (170)	6 3/4 (170)		
Center bottom front support from Centerline	24 (610)	24 (610)	24 (610)		
Center bottom front support from Centerline DG	19 (483)	24 (610)	24 (610)		
<i>Distance between Center and Outside supports will vary</i>					

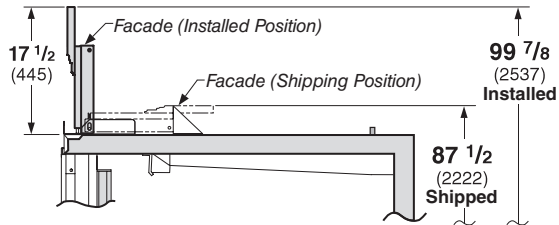
**LifeLine Premier Stand Alone Dry Goods Kit**

**RL** With Innovator Doors or Innovator III Doors

**Low Temperature**

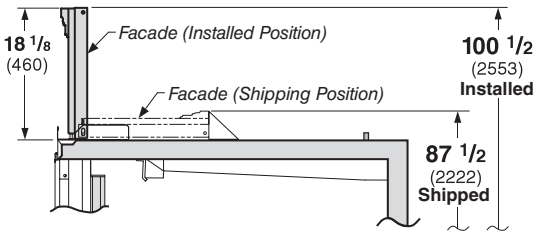


12 in. Straight Facade

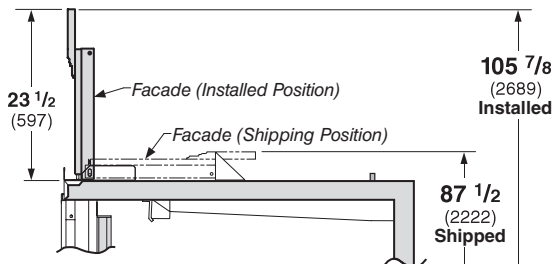


12 in. Arch Facade

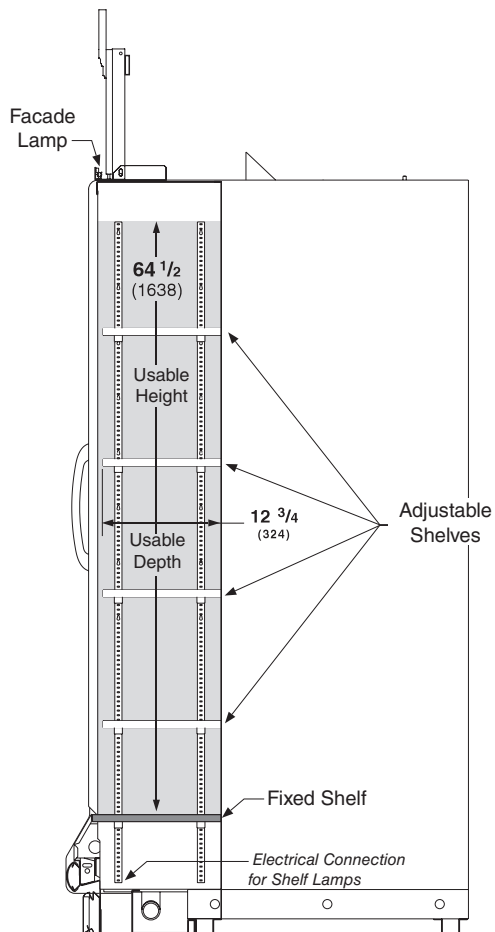
**Facade Options in Cross Section**



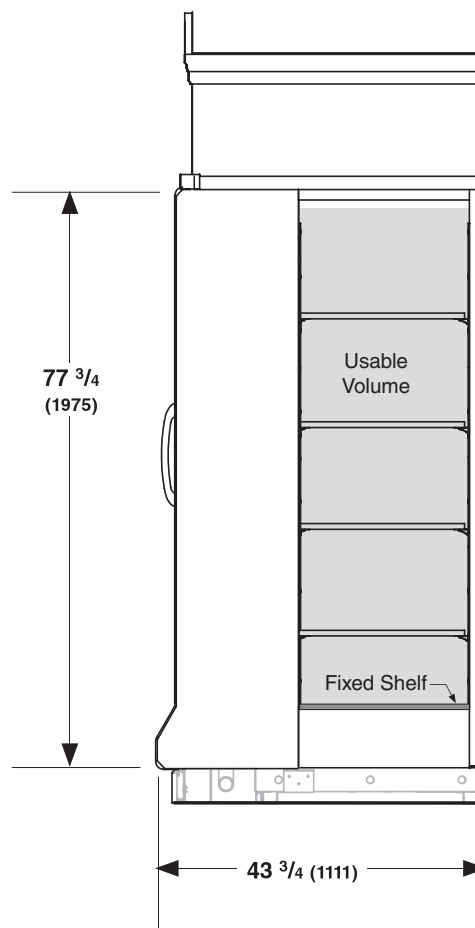
18 in. Straight Facade



18 in. Arch Facade



**Dry Goods Cross-Section**



**End Profiles**

# LifeLine Premier Reach-in 2, 3 and 4 Door Models



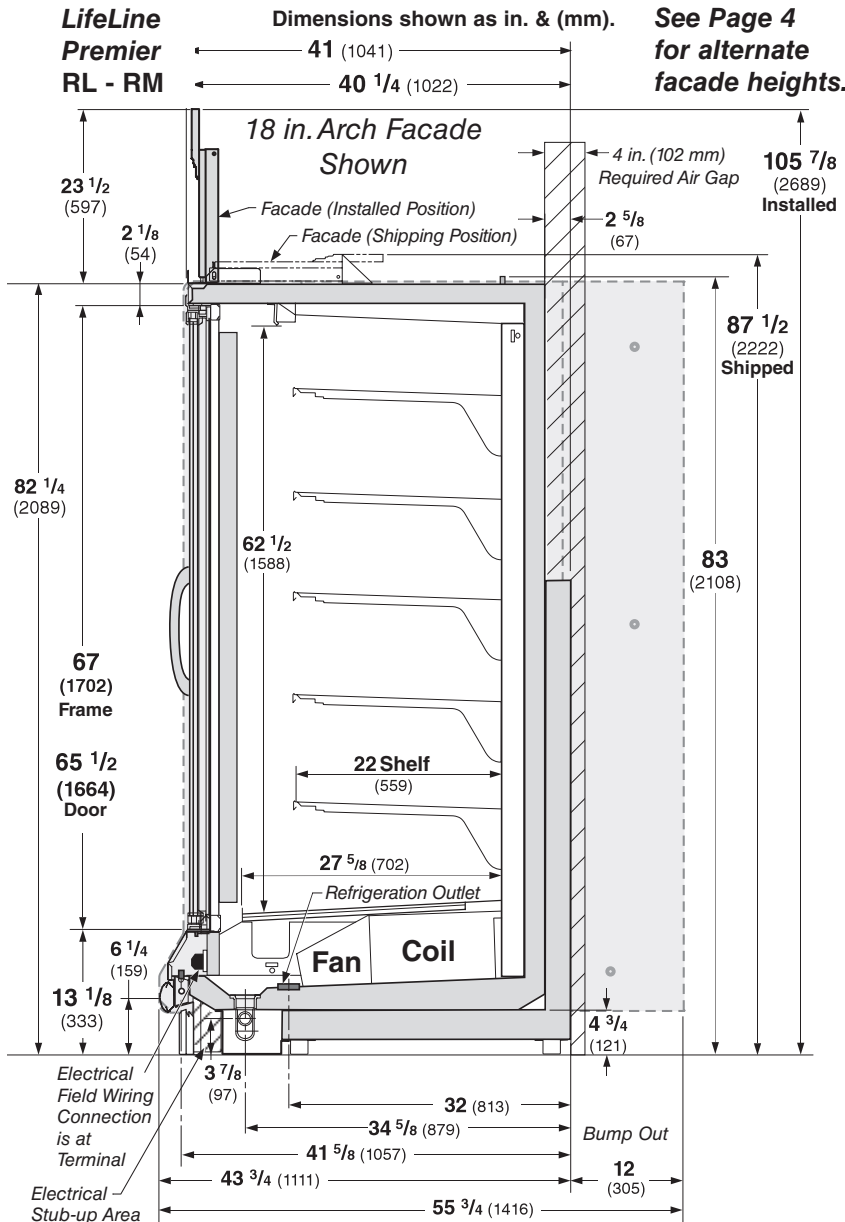
All RL and RM models meet or surpass the requirements of the DOE 2017 energy efficiency standards.

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

## LifeLine Premier Stand Alone Dry Goods Kit

**RL** With Innovator Doors or Innovator III Doors

Low Temperature



### REFRIGERATION DATA<sup>§</sup>

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)	-5	-12	-2
Evaporator (°F)	-11	-19	-7
Unit Sizing (°F)	-14	-22	-10

\*With door A/S controller

### Btu/hr/Door

	FF	IC	AHRI Rating*
<b>INNOVATOR</b>			
Parallel	955	1065	910
Conventional	970	1085	940
<b>INNOVATOR III</b>			
Parallel	935	1035	
Conventional	955	1055	

§ 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/Dr/day)	1.2	1.2

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

	FF	IC
<b>ELECTRIC</b>		
Temp Term (°F)	48°	48°
Failsafe (minutes)	45	45
<b>GAS</b>		
Duration (minutes)	20	20
<b>OFFTIME</b>	Not Recommended	

### CONVENTIONAL CONTROLS

	FF	IC
<b>Low Pressure Backup Control</b>		
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. Anti-sweat controls are standard for all low temperature Reach-in cases with Innovator I doors.

### Estimated Charge \*\*\*

2Dr	1.8 lb	29 oz	0.8 kg
3Dr	2.7 lb	43 oz	1.2 kg
4Dr	3.6 lb	58 oz	1.6 kg

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

### NSF Certification

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

**LifeLine Premier Stand Alone Dry Goods Kit****RL** With Innovator Doors or Innovator III Doors  
**Low Temperature****Husmann 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**

	2Dr	3Dr	4Dr			
<b>Number of Fans—12W</b>	<b>2</b>	<b>3</b>	<b>4</b>			
	<b>Amperes</b>			<b>Watts</b>		
<b>Merchandiser</b>	<b>2Dr</b>	<b>3Dr</b>	<b>4Dr</b>	<b>2Dr</b>	<b>3Dr</b>	<b>4Dr</b>
<b>Energy Efficient Evaporator Fan</b>						
120V 50/60Hz	0.60	0.90	1.20	36	54	72
240V 50/60Hz Export Innovator	0.30	0.45	0.60	36	54	72
<b>Door Anti-sweat Heaters (on fan circuit)</b>						
120V 50/60Hz Innovator*	1.5	2.3	3.0	182	273	364
120V 50/60Hz Innovator III	0.9	1.3	1.7	104	156	208
240V 50/60Hz Export Innovator	0.8	1.2	1.5	183	275	367
220V 50/60Hz Export Innovator III	NA	NA	NA	NA	NA	NA
* Maximum door watts without anti-sweat cycling controls shown.						
<b>Frame Anti-sweat Heaters (on fan circuit)</b>						
120V 50/60Hz	0.78	1.18	1.57	94	141	188
240V 50/60Hz Export	0.45	0.67	0.89	107	161	215
<b>Minimum Fan Circuit Ampacity</b>						
120V 50/60Hz Innovator	3.1	4.9	6.8			
120V 50/60Hz Innovator III	2.5	3.9	5.5			
240V 50/60Hz Export Innovator	1.8	2.9	4.0			
240V 50/60Hz Export Innovator III	1.0	1.6	2.3			
<b>Maximum Over Current Protection 120V</b>	<b>20</b>	<b>20</b>	<b>20</b>			
<b>Maximum Over Current Protection 240V</b>	<b>15</b>	<b>15</b>	<b>15</b>			
<b>Defrost</b>						
Drain Heaters (120V)	0.63	1.25	2.00	75	150	240
(Export: 220V 50 Hz)	0.34	0.76	1.22	84	168	269
(Export: 240V 50 Hz)	0.41	0.83	1.33	100	200	320
<b>208V 1Ø</b> Electric Defrost	6.72	10.08	13.46	1400	2100	2800
(Export: 220V 50 Hz)	7.11	10.66	14.24	1564	2345	3133
(Export: 240V 50 Hz)	7.76	11.65	15.53	1864	2796	3728
<b>Standard Vertical LED Lighting</b>						
	<b>2Dr</b>	<b>3Dr</b>	<b>4Dr</b>	<b>2Dr</b>	<b>3Dr</b>	<b>4Dr</b>
Husmann EcoShine II™ - A (120V)	0.31	0.46	0.62	37.1	55.6	74.2
Husmann EcoShine II™ - A (220V Export)	0.17	0.25	0.34	37.1	55.6	74.2
<b>Optional Vertical LED Lighting</b>						
Husmann EcoShine II™ - B (120V)	0.36	0.52	0.68	43.2	62.3	81.4
Husmann EcoShine II™ - B (220V Export)	0.20	0.28	0.37	43.2	62.3	81.4

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

\* Dry Goods sections are not available on 5-Door models.

**LifeLine Premier  
Stand Alone Dry Goods Kit**

**RL** With Innovator Doors  
or Innovator III Doors

**Low Temperature**

**Product Data (Refrigerated Area Only)**

<i>Recommended Usable Cube</i> <sup>1</sup> (Cu Ft/Dr)	23.46 ft <sup>3</sup> /Dr (0.66 m <sup>3</sup> /Dr)
<i>AHRI Total Display Area</i> <sup>2</sup> (Sq Ft/Dr)	13.04 ft <sup>2</sup> /Dr (1.21 m <sup>2</sup> /Dr)
<i>Shelf Area</i> <sup>3</sup> (Sq Ft/Dr)	29.32 ft <sup>2</sup> /Dr (2.72 m <sup>2</sup> /Dr)

<sup>1</sup> AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft<sup>3</sup>/ft [m<sup>3</sup>/m]

<sup>2</sup> Computed using AHRI 1200 standard methodology: Total Display Area, ft<sup>2</sup> [m<sup>2</sup>]/Unit of Length, ft [m]

<sup>3</sup> 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.

**Product Data (Dry Goods Area Only)**

<i>Front DG TOTAL Gross Usable Cube</i> (2 DG per merchandiser)	10.77 ft <sup>3</sup> / (0.30 m <sup>3</sup> )
<i>Side DG TOTAL Gross Usable Cube</i> (2 DG per merchandiser)	10.77 ft <sup>3</sup> / (0.30 m <sup>3</sup> )

**ESTIMATED SHIPPING WEIGHT<sup>4</sup>**

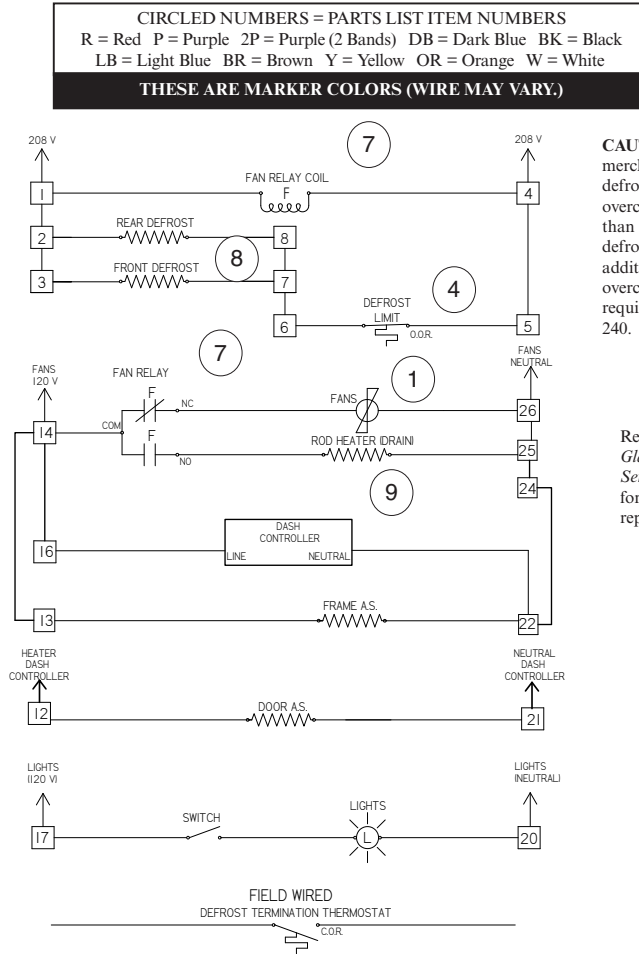
	<i>2 Dr</i>	<i>3 Dr</i>	<i>4 Dr</i>	<i>5 Dr</i>	<i>Solid End (each)</i>
<i>LifeLine Premier Stand Alone Dry Goods Merchandiser (12-Inch Facade, no Arch)</i>					
<b>lb (kg)</b>	1507 (684)	1820 (826)	2135 (968)	NA	NA
<i>LifeLine Premier Stand Alone Dry Goods Merchandiser (18-Inch Facade, no Arch)</i>					
<b>lb (kg)</b>	1537 (697)	1855 (841)	2175 (987)	NA	NA

Add 10 lb (5 kg) for Arch

<sup>4</sup> Actual weights will vary according to optional kits included.

# Fan and Heater Circuits - Electric Defrost (standard)

## Low Temperature

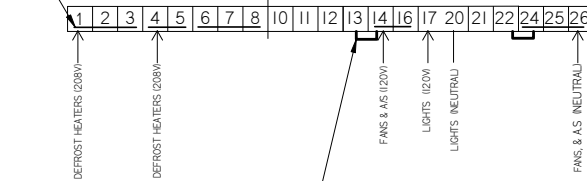


**CAUTION:** When multiplexing merchandisers equipped with defrost heaters, if branch circuit overcurrent protection is larger than the individual merchandiser's defrost circuit load, then additional supplemental overcurrent protection may be required per NEC Articles 210 and 240.

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

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THE HEAVY LINES DRAWN INSIDE THE TERMINAL BLOCKS REPRESENT PERMANENT INTERNAL JUMPERS.



THE HEAVY LINES DRAWN OUTSIDE THE TERMINAL BLOCKS REPRESENT REMOVABLE EXTERNAL JUMPERS.

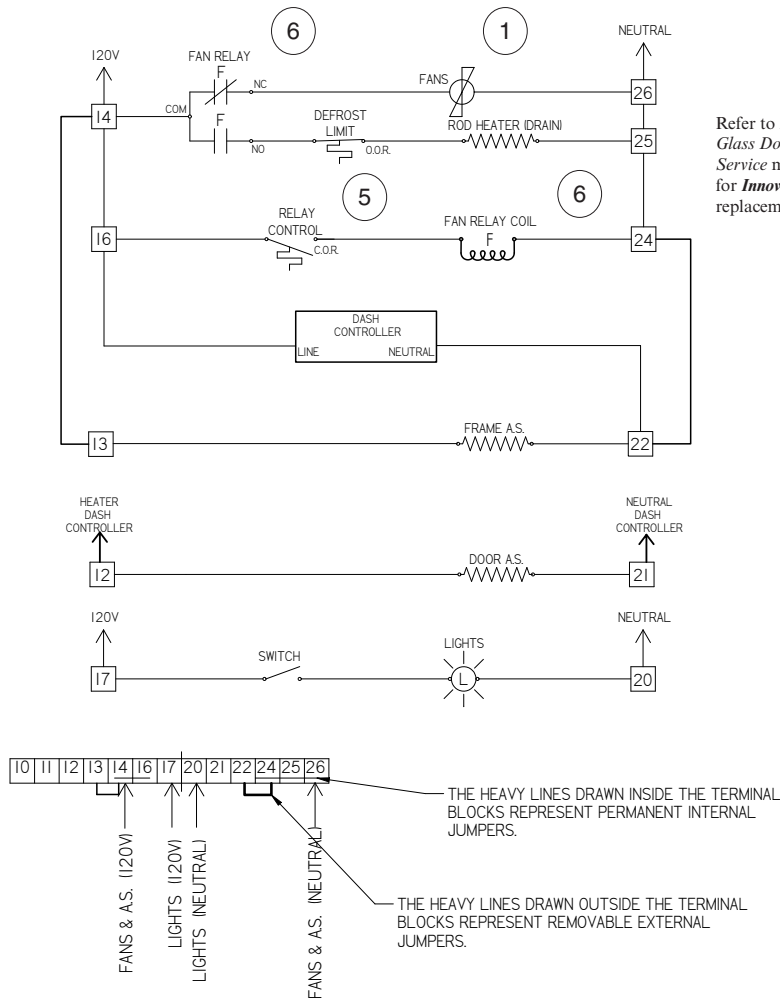
### Electric Defrost Sequence - Low Temperature

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. 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.
4. Standard low temperature Reach In cases with Innovator I doors are shipped with the DASH controller for door anti-sweat heater control installed. Do not connect the DASH controller input to a centralized anti-sweat system. It must be connected to a continuous 120V circuit for proper operation.
5. If the case is connected to a centralized anti-sweat controller that meets DOE compliance requirements, the DASH controller is not installed on the case. Feed the 120V controller output into terminal #12.
6. Options may be installed that have additional or replacement wiring diagrams.
7. Reach In cases with Innovator III doors do not have the DASH controller.



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

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.)**

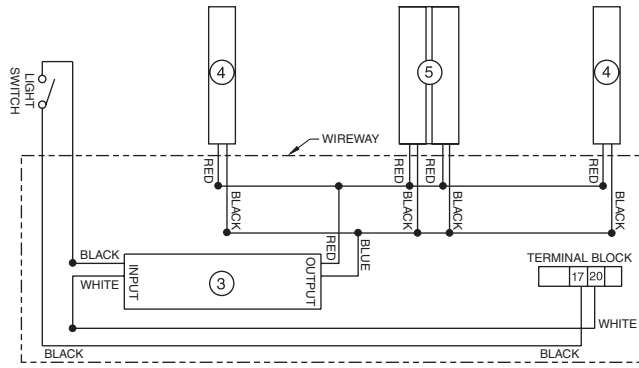


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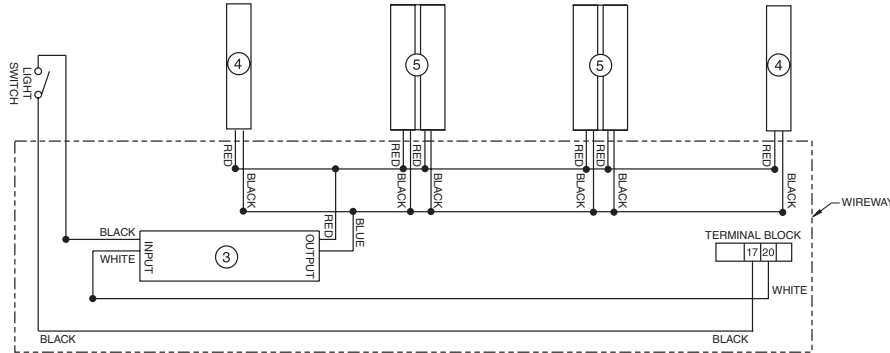
### Gas Defrost Sequence - Low Temperature

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.
4. Standard low temperature Reach In cases with Innovator I doors are shipped with the DASH controller for door anti-sweat heater control installed. Do not connect the DASH controller input to a centralized anti-sweat system. It must be connected to a continuous 120V circuit for proper operation.
5. If the case is connected to a centralized anti-sweat controller that meets DOE compliance requirements, the DASH controller is not installed on the case. Feed the 120V controller output into terminal #12.
6. Options may be installed that have additional or replacement wiring diagrams.
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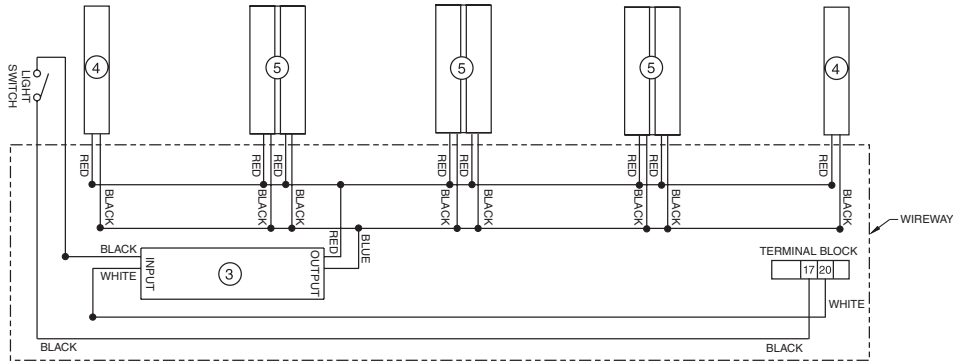
**Standard  
Vertical  
Lighting  
Husmann  
EcoShine™  
LED  
Fixtures**



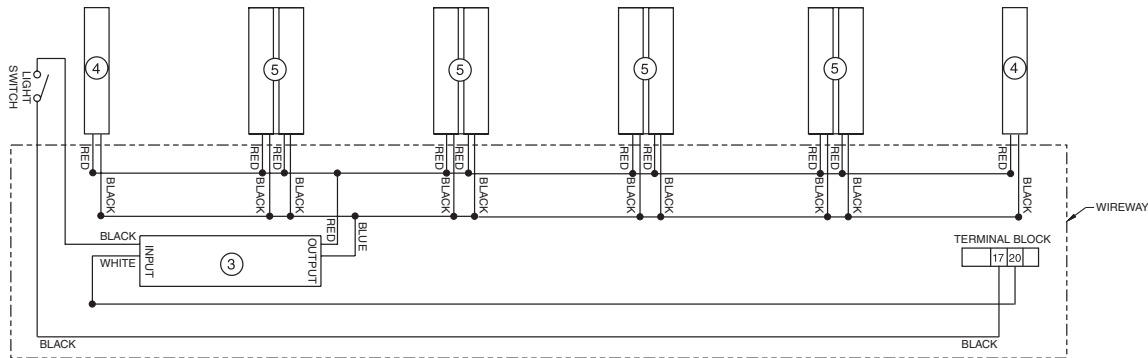
2 DOOR LED LIGHT WIRING DIAGRAM



3 DOOR LED LIGHT WIRING DIAGRAM



4 DOOR LED LIGHT WIRING DIAGRAM



5 DOOR LED LIGHT WIRING DIAGRAM

**WARNING**

All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

● = 120v Power    ○ = 120v Neutral    ⌊ = Field Ground    ≡ = Case Ground