HUSSMANN LifeLine Premier Series



LifeLine Premier RLNI

with INNOVATOR Doors

or INNOVATOR III Doors

Technical Data Sheet P/N 0520880_J **NSF®** Certified January 2018

> **DOE 2017 Energy Efficiency** Compliant

Serial Plate OPTIONS SHOWN: · Facade Arch

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

Data sheet-Reach-in RLNI

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.

(9)

(10)

(11)

(12)

(13)

Item	Part #	Description	Wiring I	tem#	Item	Part #	(Qty)	Description	Wiring Item	#
FAN A	SSEMBLIES, AN	D THERMOSTATS			НЕАТЕ	RS (CONTINUE	D)			
	0477655 0461805	Fan Blade (FB.4	porator (MO.4410546) 780446)	(1)	I.	0387036 0387037 0387038	(1) (1) (1)	2 Door Mod 3 Door Mod 4 Door Mod	oolGas (120V) lels (HE.4850239) lels (HE.4850240) lels (HE.4850241)	
В.	0474033	Thermostat (CT	djustable Defrost	(2)		0387039	(1)	5 Door Mod	lels (HE.4850242)	
C. D. E.	0344662 0461814	djustable Refrigerati Defrost Limit The Relay Control The Fan and Anti-sw (CT.4481296) (Kontrol Relay (120V) (RL) Relay (208V) Electronic Limit The Relay (208V) Electronic Limi	on Thermostat nermostat (CT.4440261) Thermostat or weat Heater Thermostat (G Only)		LED I J. K.	Door Lamp, 050908300 050908400 (Note: A con	Pov LED 4100 4100 applete list at Hussm p, LED 2900	OK Center OK End of vertical LEI ann.com/Techn OK 29.5 In. Le	P.4481668) (BU.4441330) (BU.4441331) D replacement lamp icalInfoAndParts) ength (BU.4441411) ength (BU.4441412)	(13)
HEATE										
Н.	Electric De 3015372 3015373 3015374 3015375	(1) 3 Door 1 (1) 4 Door 1	ont (208V) Models (HE.4850346) Models (HE.4850337) Models (HE.4850347) Models (HE.4850323)	(8)						
	Electric De	frost Heaters — Re	ear (208V)	(8)						
Data	3015376 3015377 3015378 3015379	(1) 2 Door 1 (1) 3 Door 1 (1) 4 Door 1	Models (HE.4850358) Models (HE.4850359) Models (HE.4850360) Models (HE.4850361)		INST for 1	ALLATION .	AND SE	RVICE man or II and In	GLASS DOOR wal, PIN 04256 unovator III do	

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

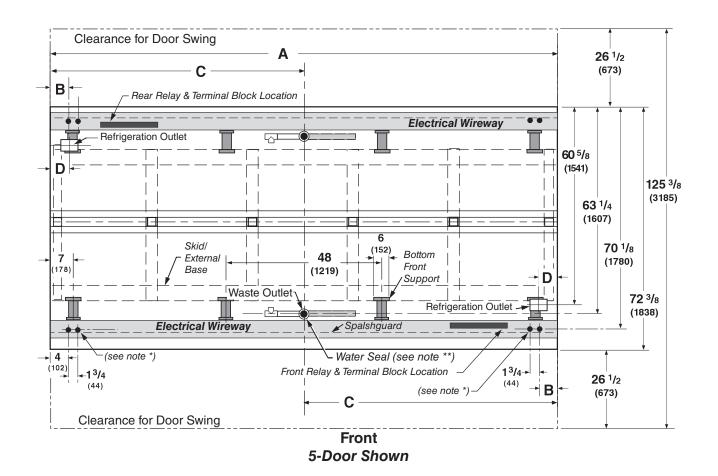
Engineering Plan Views

Reach-In 2, 3, 4 & 5 Door

LifeLine Premier RLNI Plan View 09-2009

PHYSICAL DATA	
Merchandiser Drip Pipe (in.)	$1^{-1}/4$
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	5/8

Dimensions shown as inches and (mm).



Base 5-door merchandiser is shown above, without Partitions or Ends. Dry Goods cabinets and Bump Out not available on island models. Refer to chart on Page 3 for detailed dimensional information on options.

Plan View Dimensions for LifeLine Premier Options

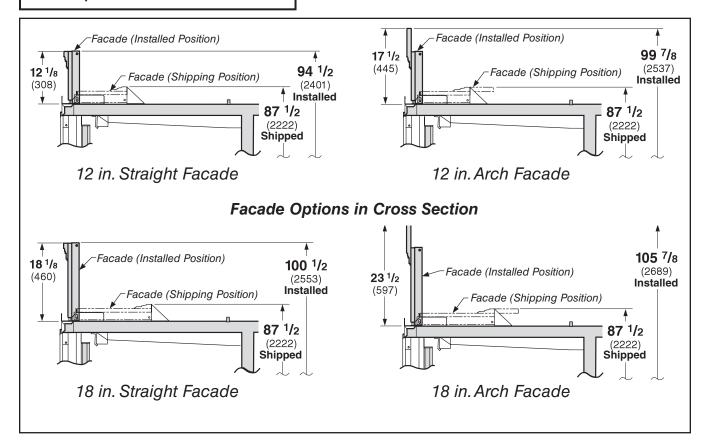
LifeLine Premier RLNI

With Innovator Doors or Innovator III Doors

Low Temperature

	2 Dr	3 Dr	4 Dr	5 Dr
General				
(A) Merchandiser Length	62 (1575)	92 1/2 (2350)	122 7/8 (3121)	153 3/8 (3896)
**NOTE: 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 ***	72 3/8 (1838)	72 3/8 (1838)	72 3/8 (1838)	72 3/8 (1838)
*** Includes bumper. Add 53 in. (1346 mm) for door swing.				
Width of Skid rail	3 3/4 (95)	3 3/4 (95)	3 3/4 (95)	3 3/4 (95)
Width of Bottom Front Support	6 (152)	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)	3 1/8 (79)
Electrical Service				
(B) RH end of merchandiser to the center of nearest knockout	4 (102)	4 (102)	4 (102)	4 (102)
RH end of merchandiser to the center of LH knockout	58 (1473)	88 1/2 (2248)	118 7/8 (3019)	149 3/8 (3794)
* NOTE: Electrical Field Wiring Connection Point is at terminal.			, ,	
Waste Outlet (C) Right end of merchandiser to center of waste outlet	23 7/8 (606)	54 1/4 (1378)	46 1/4 (1175)	76 ⁵ /8 (1946)
Water Seal				
Edge of water seal to center of waste outlet	13 (330)	13 (330)	13 (330)	13 (330)
Schedule 40 PVC drip pipe	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 merchandiser.				, ,
Refrigeration Outlet				
(D) RH end of merchandiser to center of RH refrigeration outlet	5 3/8 (136)	5 3/8 (136)	5 3/8 (136)	5 3/8 (136)
Back O/S of merchandiser to center of refrigeration outlet	60 5/8 (1541)	60 5/8 (1541)	60 5/8 (1541)	60 5/8 (1541)
Outside bottom front supports from end of merchandiser	7 (178)	7 (178)	7 (178)	7 (178)
Distance between centerlines of Center bottom front support	48 (1219)	48 (1219)	48 (1219)	48 (1219)
Distance between Center and Outside supports will vary				

With Innovator Doors or Innovator III Doors Low Temperature



LifeLine Premier Narrow Island Reach-in 2, 3, 4 and 5 Door Models

DOE 2017 Energy Efficiency Compliant Hussmann 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.

See Page 4 Dimensions shown as inches and (mm). for alternate LifeLine facade heights. Premier **RLNI** 66 1/2 (1689) 18 in. Arch Facade 23 1/2 Shown de (Installed Position) 23 1/2 2 1/8 105 7/8 (597)62 1/2 82 1/4 (1588) (2089) 87 1/2 (2222) Shipped (1702)Frame 65 1/2 22 Shelf (559) (1664)Door 4 3/4 24 (610) (121)Coil Coil Fan Electrical 13 ¹/8 9 1/8 Stub-up 3 ¹/₂ (89) (333) (232) Area Frame Electrical Field Wiring 60 ⁵/8 (1540) 63 1/4 (1607) Connection is at Terminal 70 (1778) 72 3/8 (1838)

Estimated Charge per Side ***

Stub-up

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
5Dr	4.6 lb	74 oz	2.1 kg

***This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately 0.5 lb (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 RLNI

With Innovator Doors or Innovator III Doors

Low Temperature

Refrigeration data is PER SIDE.

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*
) –5	-12	-2
-11	– 19	- 7
	-22	-10
865	970	840
880	990	855
815	940	
830	960	
temper	ature sho	own. Use
,	_	
	9 –5 –11 –14 er 865 880 815 830 temperade refri) -5 -12 -11 -19 -14 -22 er 865 970 880 990 815 940

§ 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/side/	day)	1.2
1.2		

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

	,		
ELECTRIC	FF	IC	
Temp Term (°F)	48°	48°	
Failsafe (minutes)	45	45	
GAS			
Duration (minutes)	20	20	
OFFTIME	Not Recom	mended	l

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.

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 IS PER SIDE — TWO CIRCUITS REQUIRED PER CASE.

ELECTRICAL DA	TA IS PE	R SIDE	— TWU	CIRCUITS	S REQUIR	EU PER	CASE.	
Electrical Data								
	2Dr	3Dr	4Dr	5Dr				
Number of Fans—12W	2	3	4	5				
		A 100					14/	-tt-
Merchandiser	2Dr	3Dr	peres 4Dr	5Dr	2Dr	3Dr	4Dr	atts 5Dr
Mei Citatidisei	201	301	401	וטט	201	301	401	301
Energy Efficient Evaporator Fan								
120V 50/60Hz	0.60	0.90	1.20	1.50	36	54	72	90
240V 50/60Hz Export Innovator	0.30	0.45	0.60	0.75	36	54	72	90
Door Anti-sweat Heaters (on fan circuit)								
120V 50/60Hz Innovator*	1.5	2.3	3.0	3.8	182	273	364	455
120V 50/60Hz Innovator III	0.9	1.3	1.7	2.2	104	156	208	260
240V 50/60Hz Export Innovator	0.8	1.2	1.5	1.9	183	275	367	459
220V 50/60Hz Export Innovator III	NA	NA	NA	NA	NA	NA	NA	NA
* Maximum door watts without anti-sweat cycling								
Frame Anti-sweat Heaters (on fan circuit)								
120V 50/60Hz	0.78	1.18	1.57	1.97	94	141	188	236
240V 50/60Hz Export	0.45	0.67	0.89	1.12	107	161	215	269
Minimum Fan Circuit Ampacity								
120V 50/60Hz Innovator	3.1	4.9	6.8	8.6				
120V 50/60Hz Innovator III	2.5	3.9	5.5	7.0				
240V 50/60Hz Export Innovator	1.8	2.9	4.0	4.9				
240V 50/60Hz Export Innovator III	1.0	1.6	2.3	2.8				
Maximum Over Current Protection 120V	20	20	20	20				
Maximum Over Current Protection 240V	15	15	15	15				
Defrost								
Drain Heaters (120V)	0.63	1.25	2.00	2.57	75	150	240	300
(Export: 220V 50 Hz)	0.34	0.76	1.22	1.53	84	168	269	336
(Export: 240V 50 Hz)	0.41	0.83	1.33	1.67	100	200	320	400
208V 1Ø Electric Defrost	6.72	10.08	13.46	16.82	1400	2100	2800	3500
(Export: 220V 50 Hz)	7.11	10.66	14.24	17.79	1564	2345	3133	3914
(Export: 240V 50 Hz)	7.76	11.65	15.53	19.42	1864	2796	3728	4660
Standard Vertical LED Lighting	2Dr	3Dr	4Dr	5Dr	2Dr	3Dr	4Dr	5Dr
Hussmann EcoShine II TM - A (120V)	0.31	0.46	0.62	0.77	37.1	55.6	74.2	92.7
• • • • • • • • • • • • • • • • • • • •								
Hussmann EcoShine II™ - A (220V Export)	0.17	0.25	0.34	0.42	37.1	55.6	74.2	92.7
Optional Vertical LED Lighting								
Hussmann EcoShine II™ - B (120V)	0.36	0.52	0.68	0.84	43.2	62.3	81.4	100.5

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

0.20

0.28

Hussmann EcoShine II™ - B (220V Export)

0.37

0.46

43.2

62.3

81.4

100.5

With Innovator Doors or Innovator III Doors

Low Temperature

PRODUCT DATA IS PER SIDE.

Product Data

 Recommended Usable Cube 1 (Cu Ft|Dr)
 22.80 ft³/Dr (0.65 m³/Dr)

 AHRI Total Display Area 2 (Sq Ft|Dr)
 13.31 ft²/Dr (1.24 m²/Dr)

 Shelf Area 3 (Sq Ft|Dr)
 28.50 ft²/Dr (2.65 m²/Dr)

ESTIMATED SHIPPING WEIGHT 4								
	2 Dr	3 Dr	4 Dr	5 Dr	Solid End (each)			
Standard <i>LifeLine P</i>	Premier Merchandiser (12-In	nch Facade, no Arcl	n)					
lb (<i>kg</i>)	1204 (546)	2320 (1052)	3094 (1403)	3868 (1454)	110 (50)			
Standard <i>LifeLine P</i>	Premier Merchandiser (18-1	nch Facade, no Arc	eh)					
lb (kg)	1244 (564)	2380 (1080)	3174 (1440)	3968 (1800)	110 (50)			
Add 10 lb (5 kg) for	r Arch each side							

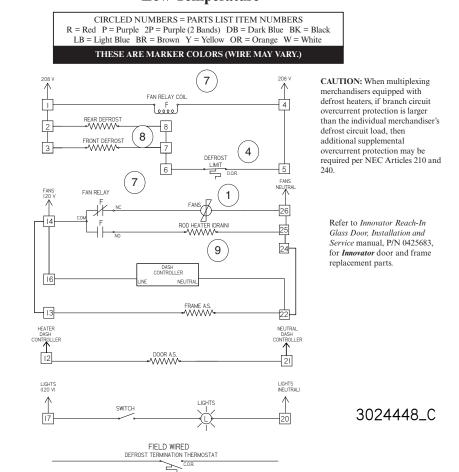
⁴ Actual weights will vary according to optional kits included.

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.

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



| 10 | 11 | 12 | 13 | <u>14 | 16</u> | 17 | 20 | 21 | 22 <u>24 | 25 | 26</u>

HTS (120V)

Electric Defrost Sequence - Low Temperature

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

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.

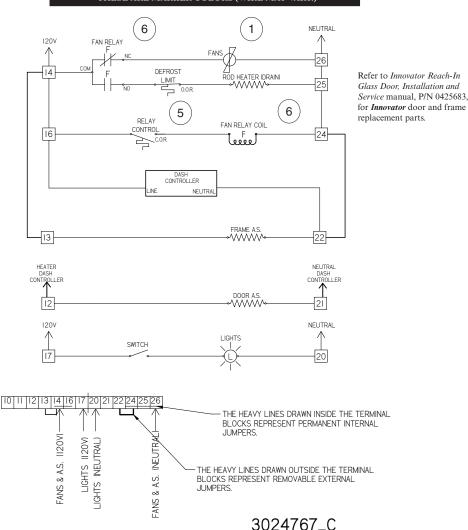
THE HEAVY LINES DRAWN OUTSIDE THE TERMINAL BLOCKS REPRESENT REMOVABLE EXTERNAL JUMPERS.

- 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 antisweat 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

 $\begin{array}{c} CIRCLED\ NUMBERS = PARTS\ LIST\ ITEM\ NUMBERS \\ R = Red\ P = Purple\ 2P = Purple\ (2\ Bands)\ DB = Dark\ Blue\ BK = Black \\ LB = Light\ Blue\ BR = Brown\ Y = Yellow\ OR = Orange\ W = White \end{array}$

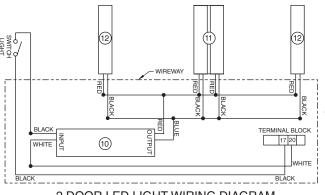
THESE ARE MARKER COLORS (WIRE MAY VARY.)



Gas Defrost Sequence - Low Temperature

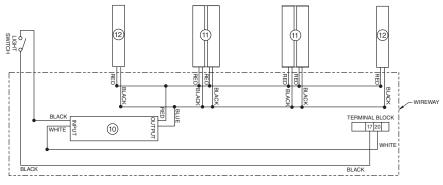
- 1. Defrost vapor enters evaporator causing a rise in temperature. At about 35°F the Control Relay Thermostat (5) closes the Fan Relay Coil (7) and Control Relay Coil (6) circuit. The Coil opens the Fan, Door Heater, and Frame Heater circuits, while energizing the Drain Pan Heater (9).
- 2. If the Drain 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.
- 4. Standard low temperature Reach In cases with Innovator I doors are shipped with the DASH controller for door antisweat 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.



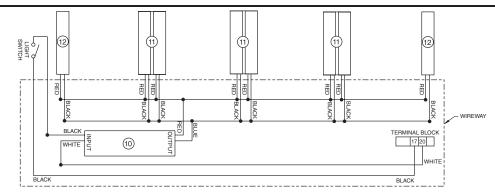


Wiring Diagram is per side two circuits required per case.

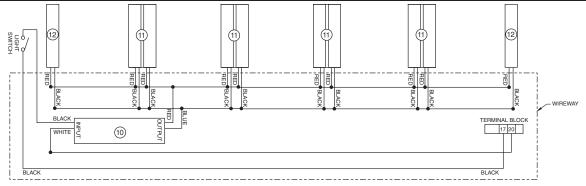
2 DOOR LED LIGHT WIRING DIAGRAM



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

- \bullet = 120v Power
- \bigcirc = 120v Neutral
- $\frac{1}{2}$ = Field Ground
- mm = Case Ground

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

With Innovator Doors or Innovator III Doors

Low Temperature

Optional Lighting Circuits

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

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

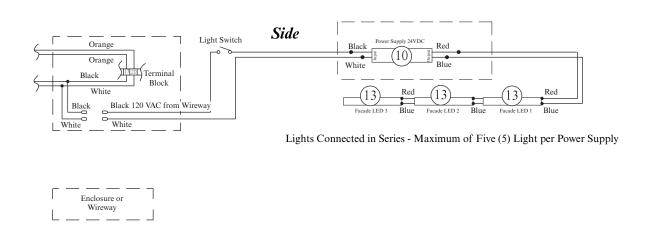
R = Red P = Purple 2P = Purple (2 Bands)

DB = Dark Blue BK = Black

BR = Brown Y = Yellow OR = Orange W = White

THESE ARE MARKER COLORS (WIRE MAY VARY.)

External Facade LED Wiring



WARNING

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

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

• = 120v Power \bigcirc = 120v Neutral $\frac{1}{2}$ = Field Ground \overrightarrow{mm} = Case Ground

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