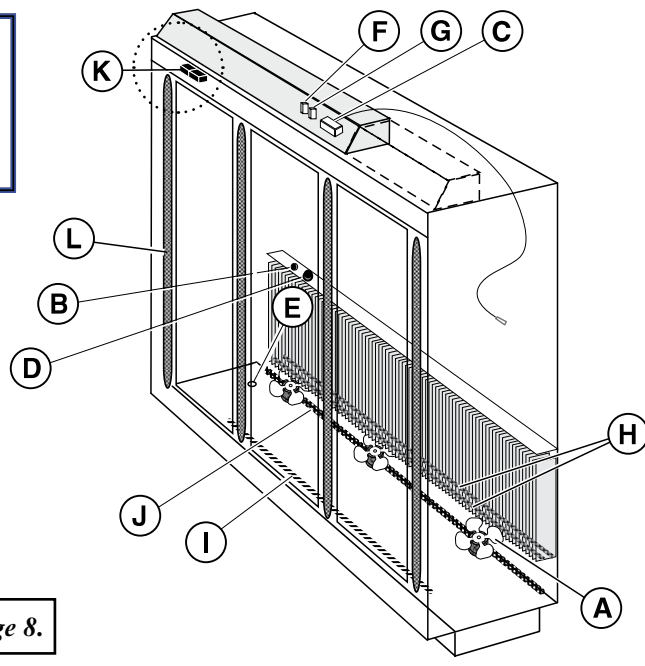


DOE 2012
Energy Efficiency
Compliant

Refrigeration and electrical connections are on top. Overhead piping and electrical circuits are required.

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.

220V Parts List is on Page 8.



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

Item	Part #	Description	Wiring Item #	Item	Part # (Qty)	Description	Wiring Item #
FAN ASSEMBLIES, AND THERMOSTATS				HEATERS (CONTINUED)			
(A)	Fan Assembly		(1)	(J)	Koolgas Supplemental Heater – Plenum (120V)		(10)
	0477658	Standard Energy Efficient Motor			0452980 (1)	2 Door Models	
	0315470	Fan Blade			0452981 (1)	3 Door Models	
(B)	0331798	Standard Non-adjustable Defrost Thermostat	(2)		0452982 (1)	4 Door Models	
(C)		Optional Adjustable Refrigeration Thermostat	(3)		0452983 (1)	5 Door Models	
(D)	0440423	Defrost Limit Thermostat	(4)	LED FIXTURES AND POWER SUPPLY			
(E)	0446007	Relay Control Thermostat or Fan and Anti-sweat Heater Thermostat	(5)	K.	0499399	LED Power Supply	
RELAYS				L.		LED Fixture	
(F)	0342598	Control Relay (120V KoolGas)	(6)	<i>Replace with like fixtures</i>			
(G)	0342599	Control Relay (208V)	(7)	NOTE: For LED lighting parts contact your Hussmann service representative at 1-800-922-1919. Please have your model and serial number available. Descriptions including size and color are at WWW.HUSSMANN.COM/SERVICEANDPARTS.			
HEATERS							
(H)	Electric Defrost Heaters (208V)		(8)				
	0461938 (1)	2 Door Models					
	0461939 (1)	3 Door Models					
	0461940 (1)	4 Door Models					
	0461941 (1)	5 Door Models					
(I)	Drain Pan Heater (Electric & Kool Gas) (120V)		(9)				
	0508199 (1)	2 Door Models					
	0508200 (1)	3 Door Models					
	0508201 (1)	4 Door Models					
	0508202 (1)	5 Door Models					

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

Data sheet-Reach-in RLT

NOTE: Revision E adds NOTE on page 2. Other changes marked by bar, underline or circle.

Engineering Plan Views

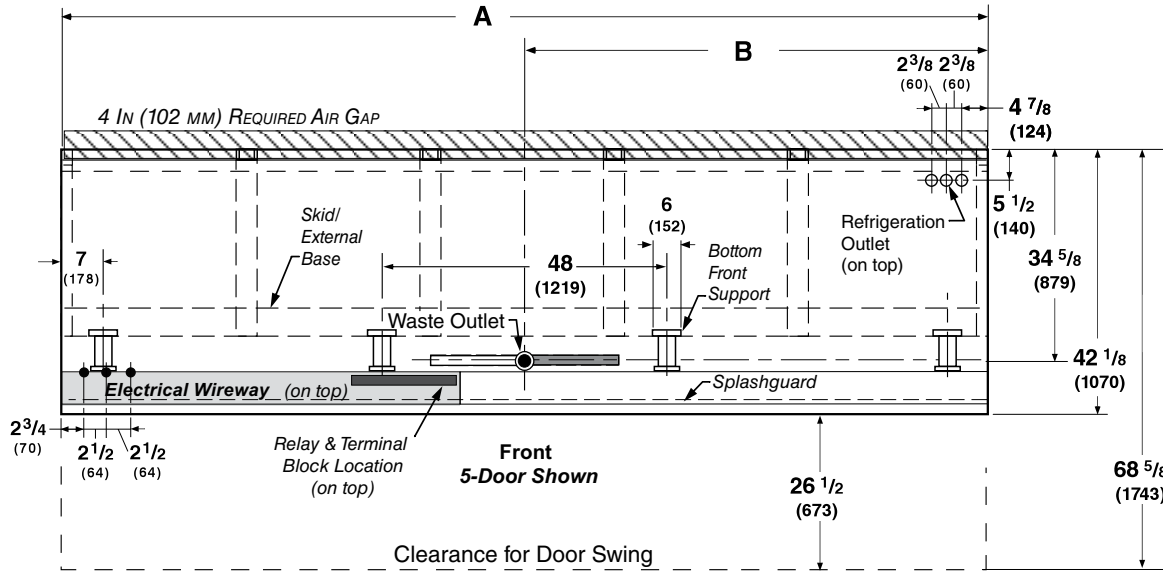
Refrigeration and electrical connections are on top.
Overhead piping and electrical circuits are required.

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

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

Dimensions shown as inches & (mm).

06-2009



	2 Dr	3 Dr	4 Dr	5 Dr
General				
(A) Case Length (without ends or partitions)	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 outside dimension of case back to front (Includes bumper)	42 1/8 (1070)	42 1/8 (1070)	42 1/8 (1070)	42 1/8 (1070)
Back of case to front of splashguard	39 (991)	39 (991)	39 (991)	39 (991)
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 Skid rail and splashguard	6 1/2 (165)	6 1/2 (165)	6 1/2 (165)	6 1/2 (165)
Electrical Service				
Left hand end of case to the center of nearest knockout	2 3/4 (70)	2 3/4 (70)	2 3/4 (70)	2 3/4 (70)
Right hand end of case to the center of center knockout	56 3/4 (1441)	87 1/4 (2216)	117 5/8 (2988)	148 1/8 (3762)
Back outside of case to center of knockout	31 5/8 (803)	31 5/8 (803)	31 5/8 (803)	31 5/8 (803)
Raceway Length	62 (1575)	62 (1575)	62 (1575)	62 (1575)
*NOTE: Electrical Field Wiring Connection Point is at terminal.				
Waste Outlet				
(B) Right end of case to center of waste outlet	23 7/8 (606)	54 1/4 (1378)	46 1/4 (1175)	76 5/8 (1946)
Back outside of case to center of waste outlet	34 5/8 (879)	34 5/8 (879)	34 5/8 (879)	34 5/8 (879)
Water Seal				
Edge of water seal to center of waste outlet	13 (330)	13 (330)	13 (330)	13 (330)
Schedule 40 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.				
Refrigeration Outlet				
(TOP OF MERCHANDISER)				
RH end of case to center of RH refrigeration outlet	7 1/4 (184)	7 1/4 (184)	7 1/4 (184)	7 1/4 (184)
Back outside of case to center of refrigeration outlet	5 1/2 (140)	5 1/2 (140)	5 1/2 (140)	5 1/2 (140)
Outside bottom front supports from end of case	7 (178)	7 (178)	7 (178)	7 (178)
Center bottom front support from Centerline	24 (610)	24 (610)	24 (610)	24 (610)
Distance between Center and Outside supports will vary. Top piping is standard in the RLT case.				

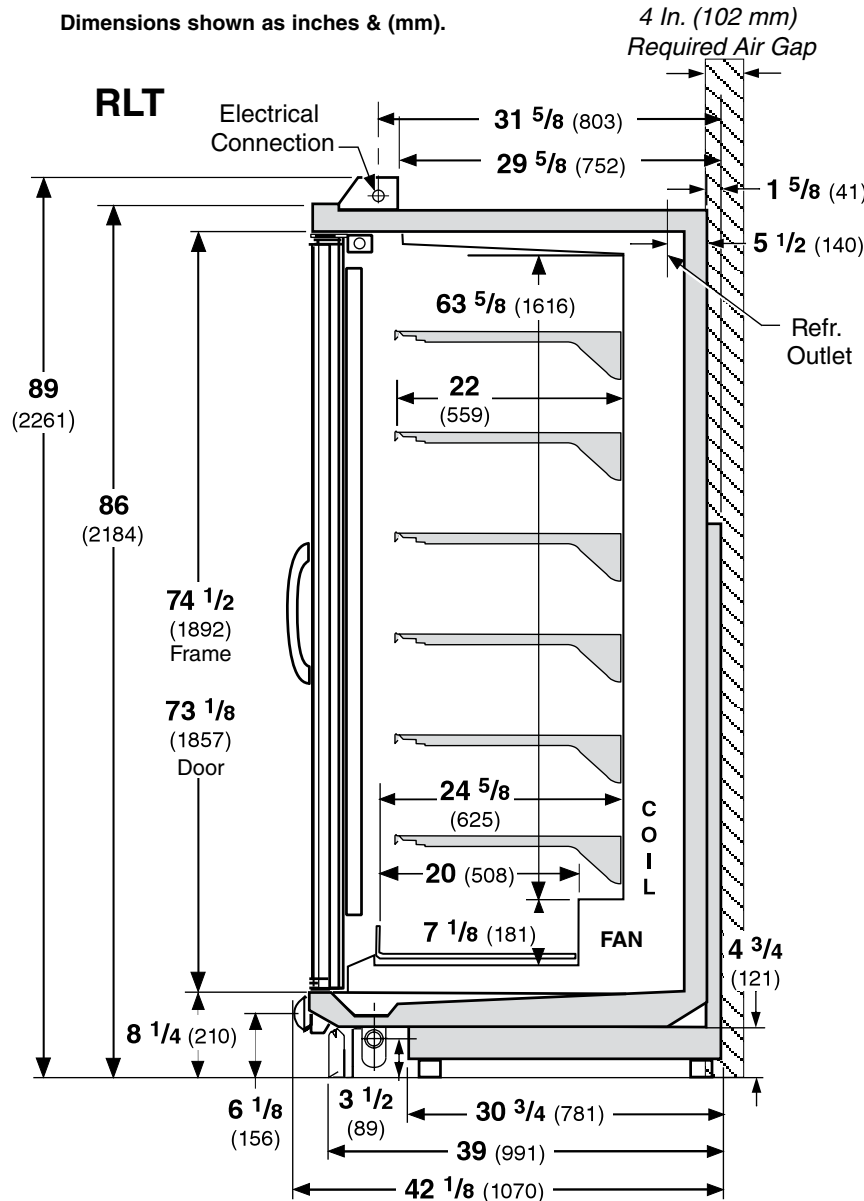
Tall Reach-in 2, 3, 4 and 5 Door Models

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



All RL and RM models meet or surpass the requirements of the DOE 2012 energy efficiency standards.

Refrigeration and electrical connections are on top. Overhead piping and electrical circuits are required.



NSF Certification

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

RLT

With 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
Discharge Air (°F)	-5	-12
Evaporator (°F)	-11	-19
Unit Sizing (°F)	-14	-22

Btu/hr/Door*

	FF	IC
INNOVATOR III Parallel	1100	1290
Conventional	1125	1315

* Optional EcoShine 27W LED's add 20 Btu/hr/door.

DEFROST DATA

	FF	IC
Frequency (hr)	24	24
Defrost Water (lb/Dr/day)	1.2	1.3

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

	FF	IC
Temp Term (°F)	54°	54°
Failsafe (minutes)	48	48

	FF	IC
Duration (minutes)	22	22

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.

Estimated Charge ***	FF	IC	RLT
2 Dr	2.3 lb	37 oz	1.0 kg
3 Dr	3.2 lb	51 oz	1.4 kg
4 Dr	4.1 lb	66 oz	1.8 kg
5 Dr	5.1 lb	82 oz	2.3 kg

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

RLT

With Innovator III Doors
Low Temperature

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

Electrical Data

	2Dr	3Dr	4Dr	5Dr				
Number of Fans	2	3	4	5				
	Amperes				Watts			
	2Dr	3Dr	4Dr	5Dr	2Dr	3Dr	4Dr	5Dr
Energy Efficient Evaporator Fan								
120V 50/60Hz Innovator III	1.65	2.5	3.3	4.1	125	188	250	313
220V 50/60Hz Export Innovator III	0.9	1.4	1.8	2.3	125	188	250	313
Door Anti-sweat Heaters (on fan circuit)								
120V 50/60Hz Innovator III	0.8	1.2	1.6	2.0	94	140	187	234
220V 50/60Hz Export Innovator III (ALWAYS*CLEAR)	NA	NA	NA	NA	NA	NA	NA	NA
Frame Anti-sweat Heaters (on fan circuit)								
120V 50/60Hz Innovator III	0.96	1.43	1.92	2.4	115	172	230	288
220V 50/60Hz Export Innovator III	0.5	0.8	1.1	1.3	115	172	230	288
Minimum Circuit Ampacity								
120V 50/60Hz Innovator III Electric Defrost	5.3	6.5	8.5	10.6				
120V 50/60Hz Innovator III Koolgas Defrost	5.1	8.0	10.9	13.8				
220V 50/60Hz Exp. Innovator III Electric Defrost	2.3	2.8	3.6	4.5				
220V 50/60Hz Exp. Innovator III Koolgas Defrost	2.9	4.6	6.3	7.8				
Maximum Over Current Protection 120V	20	20	20	20				
Maximum Over Current Protection 220V	20	20	20	20				
Defrost								
Drain Heaters (Kool-Gas or Electric)								
120V 50/60Hz Standard	2.5	2.6	3.1	3.5	297	317	366	419
220V 50/60Hz Export	1.35	1.44	1.6	1.9	297	317	366	419
Kool-Gas Supplemental Heaters								
120V 50/60Hz Standard	2.3	3.8	5.2	6.6	276	456	624	792
220V 50/60Hz Export	1.8	2.9	3.9	5.0	404	633	861	1090
Electric Defrost Heater								
208V 50/60Hz Standard	7.7	11.5	15.4	19.2	1600	2400	3200	4000
220V 50/60Hz Export	7.0	10.4	13.9	17.4	1600	2400	3200	4000

ONLY LIGHTING CONFIGURATIONS THAT ARE COMPLIANT WITH THE U.S. DEPT. OF ENERGY (DOE) 2012 REGULATION ARE AVAILABLE FOR SALE FOR USE IN THE U.S.A.

Standard Vertical LED Lighting 4100K	2Dr	3Dr	4Dr	5Dr	2Dr	3Dr	4Dr	5Dr
Hussmann EcoShine II™ [22 W] (120V)	0.36	0.54	0.72	0.90	43	65	86	108
Hussmann EcoShine II™ [22 W] (220V Export)	0.20	0.29	0.39	0.49	43	65	86	108

Optional Vertical LED Lighting	2Dr	3Dr	4Dr	5Dr	2Dr	3Dr	4Dr	5Dr
EcoShine II Plus [24 W] (120V)	0.36	0.52	0.68	0.84	43	62	81	100
EcoShine II Plus [24 W] (220V) Export	0.18	0.26	0.34	0.42	43	62	81	100
GE Illumination (120V)	0.30	0.45	0.60	0.75	36	54	72	90
GE Illumination (220V Export)	0.16	0.25	0.33	0.41	36	54	72	90

Product Data

<i>Recommended Usable Cube</i> ¹ (Cu Ft/Dr)	24.95 ft ³ /Dr (0.71 m ³ /Dr)
<i>AHRI Total Display Area</i> ² (Sq Ft/Dr)	13.59 ft ² /Dr (1.26 m ² /Dr)
<i>Shelf Area</i> ³ (Sq Ft/Dr)	32.38 ft ² /Dr (3.01 m ² /Dr)

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 (6) rows of 22-inch shelves.

ESTIMATED SHIPPING WEIGHT ⁴						
Case	1 Dr	2 Dr	3 Dr	4 Dr	5 Dr	Solid End
						(each)
lb (kg)	NA (NA)	926 (420)	1290 (585)	1637 (743)	2006 (910)	60 (27)

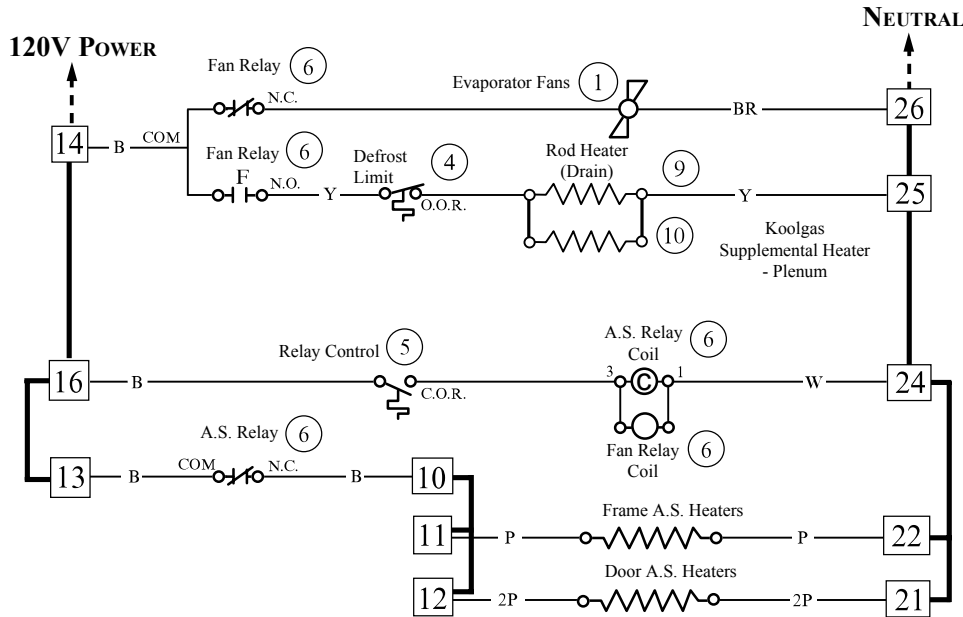
⁴ Actual weights will vary according to optional kits included.

Fan and Heater Circuits – Gas Defrost (optional)

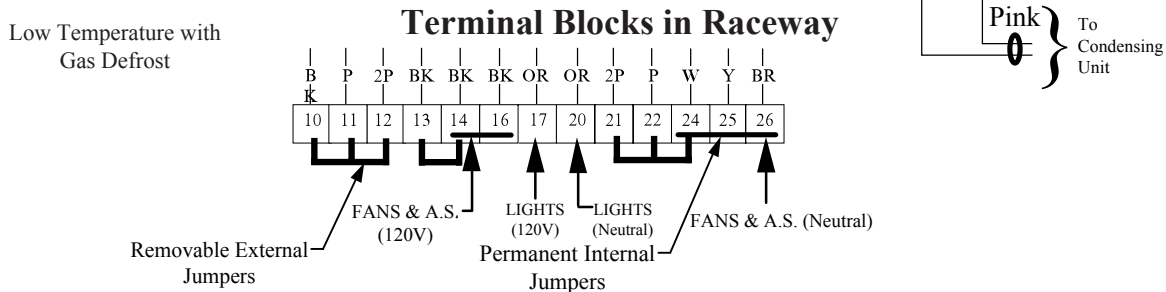
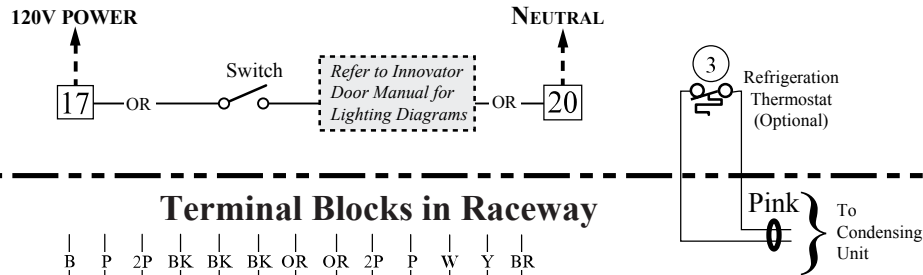
Low Temperature

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS
 R = Red P = Purple 2P = Purple (2 Bands) DB = Dark Blue BK = Black
 LB = Light Blue Pink = Pink 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.



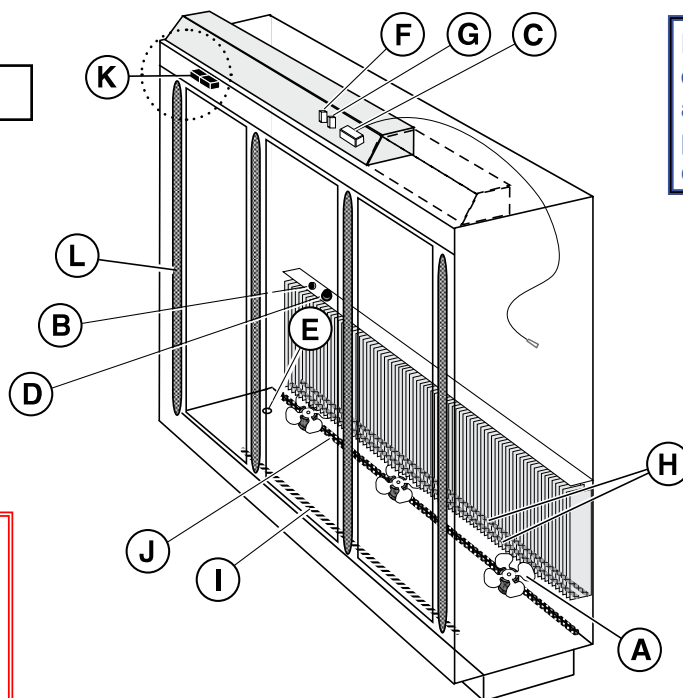
Gas Defrost Sequence - Low Temperature

1. Defrost vapor enters evaporator causing a rise in temperature. At about 35°F the Control Relay Thermostat (5) closes the Fan Relay Coil and Control Relay Coil (6) circuit. The Coil opens the Fan, Door Heater, and Frame Heater circuits, while energizing the Drain Pan, Bottom, and Plenum Heaters (9), (10) and (11).
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.

RLT (220V) with INNOVATOR III Doors

June 2015

120V Parts List is on Page 1.



Refrigeration and electrical connections are on top. Overhead piping and electrical circuits are required.

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

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ItemPart #	Description	Wiring Item #	ItemPart #	(Qty)	Description	Wiring Item #
FAN ASSEMBLIES, AND THERMOSTATS						
(A)	Fan Assembly	(1)	(K)		Koolgas Supplemental Heater (220V) – Plenum	(10)
	0435101 Standard Energy Efficient Motor			(1)	0460118 2 Door Models	
	0315470 Fan Blade			(1)	0460119 3 Door Models	
(B)	0331798 Standard Non-adjustable Defrost Thermostat	(2)		(1)	0460120 4 Door Models	
				(1)	0460121 5 Door Models	
(C)	Optional Adj. Refrigeration Thermostat	(3)	LED FIXTURES AND POWER SUPPLY			
(D)	0440423 Defrost Limit Thermostat	(4)	J.	0499399	LED Power Supply	
(E)	0446007 Relay Control Thermostat or Fan and Anti-sweat Heater Thermostat	(5)	K.		LED Fixture	
RELAYS						
(F)	0342599 Control Relay (220V)	(6)	NOTE: For LED lighting parts contact your Hussmann service representative at 1-800-922-1919. Please have your model and serial number available. Descriptions including size and color are at WWW.HUSSMANN.COM/SERVICEANDPARTS.			
(G)	0342599 Control Relay (220V)	(7)				
(H)	0460133 Transformer					
HEATERS						
(I)	Electric Defrost Heaters (208V)	(8)				
	0460114 (1) 2 Door Models					
	0460115 (1) 3 Door Models					
	0460116 (1) 4 Door Models					
	0460117 (1) 5 Door Models					
(J)	Drain Pan Heater (220V) Electric & Kool Gas	(9)				
	0460110 (1) 2 Door Models					
	0460111 (1) 3 Door Models					
	0460112 (1) 4 Door Models					
	0460113 (1) 5 Door Models					

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