

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 #	Description	Wiring Item #
FAN ASSEMBLIES, AND THERMOSTATS				ELECTRIC DEFROST HEATERS (CONTINUED)			
A.	12W Standard Energy Efficient Fan Assembly			ANTI-SWEAT HEATERS			
	0477655	Fan Motor, Evaporator (MO.4410546)	(1)	J.	Return Air Heater		(10)
	0142780	Fan Blade (FB.0142780) embossing toward motor			0486052	4 ft. (HE.4850701)	
B.	0522287	Fan Motor – Muffin, Ambient High Efficiency 120V, 4.5W, CW (MO.4411037)	(2)		0486053	6 ft. (HE.4850702)	
C.	0440420	Fan Motor, Reversing Non-Refrigerated (Electric Defrost) 120V, 9W, CW (MO.4410302)	(3)		0486054	8 ft. (HE.4850627)	
	0141070	Fan Blade (FB.0141070) embossing toward motor			0486055	12 ft. (HE.4850660)	
	0058698	Fan Motor, Non-Refrigerated (Gas Defrost) 120V, 7W, CW (MO.4410102)	(3)	K.	Main Anti-Sweat Heater (Honeycomb Divider)		(11)
	0141070	Fan Blade (FB.0141070) embossing toward motor			0494989	4 ft (HE.4850723)	
D.	0474130	Standard Non-Adjustable Bi-metal Electric Defrost Thermostat (CT.4440737)	(4)		0494990	6 ft (HE.4850724)	
	0358566	Optional Non-Adjustable Bi-metal Gas Defrost Thermostat (CT.0358566)			0494991	8 ft (HE.4850725)	
E.	Optional Adjustable Refrigeration Thermostat		(5)		0494992	12 ft (HE.4850726)	
ELECTRIC DEFROST HEATERS				L.	Optional Front Rail Heater		(12)
F.	0123592	Relay, DPDT 208V coil (RL.4440495)	(6)		0494998	4 ft (HE.4850727)	
G.	0442232	Heater Limit Thermostat (CT.4481090)	(7)		0494999	6 ft (HE.4850728)	
H.	Defrost Heater		(8)		0495000	8 ft (HE.4850729)	
	0487482	4, 8 & 12 ft (HE.4481533)			0495001	12 ft (HE.4850730)	
	0495023	6 ft (HE.4850742)		LAMPS AND BALLASTS			
I.	Defrost Heater		(9)	M.	Ballast, Electronic		(13)
	0486060	4 ft (HE.4851042)			0466233	1 lamp (BA.4481300)	
	0486061	6 ft (HE.4850669)			0466234	2 lamps (BA.4480823)	
	0486062	8 ft (HE.4850692)			0466235	3 lamps (BA.4480901)	
	0486063	12 ft (HE.4850653)		N.	Fluorescent Lamp		(14)
					<i>Replace with like fixtures</i>		
				LED FIXTURES AND POWER SUPPLY			
				P.	0501213	Power Supply (EP.4481861)	(15)
				Q.	LED Canopy Fixture		(16)
					<i>Replace with like fixtures</i>		
				R.	LED Shelf (Rail) Fixture		(17)
					<i>Replace with like fixtures</i>		

Data sheet-Excel-F6L

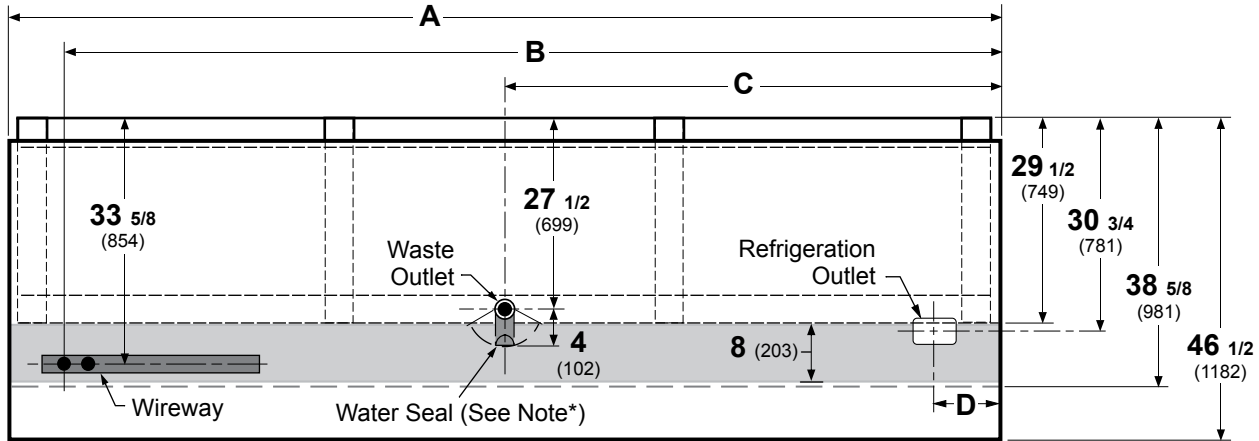
Note: Revision G: Added note on page 3. Other changes marked with a bar, circle or underline.

Engineering Plan Views

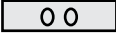



PHYSICAL DATA	
Merchandiser Drip Pipe (in.)	1 1/2
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	1 1/8

F6L
Frozen
06-2010

Dimensions shown as inches & (mm).



FRONT

	4 ft	6 ft	8 ft	12 ft
General				
(A) Case Length (without ends or partitions)	48 1/4 (1226)	72 1/4 (1835)	96 3/8 (2448)	144 1/2 (3670)
<i>NOTE: Each end or insulated partition adds 1 1/2 inch to lineup.</i>				
Maximum O/S dimension back to front (with bumper)	46 1/2 (1182)	46 1/2 (1182)	46 1/2 (1182)	46 1/2 (1182)
Back of case to front of splashguard	38 5/8 (981)	38 5/8 (981)	38 5/8 (981)	38 5/8 (981)
Width of skid rail	4 1/8 (105)	4 1/8 (105)	4 1/8 (105)	4 1/8 (105)
RH end of case to outside edge of external support	1 3/8 (35)	1 3/8 (35)	1 3/8 (35)	1 3/8 (35)
Distance between inside edges of external support and center support	NA	28 1/2 (724)	40 1/2 (1029)	40 1/2 (1029)
Distance between inside edges of center supports	NA	NA	NA	43 7/8 (1114)
Distance between inside edges of external supports	37 (940)	NA	NA	NA
Stub-up area between front skid rail and splashguard	8 (203)	8 (203)	8 (203)	8 (203)
Electrical Service  (Electrical Field Wiring connection point)				
(B) RH End of case to center of farthest knockout	40 1/4 (1022)	64 1/4 (1632)	88 3/8 (2245)	138 7/8 (3527)
Back of case to center of end knockout	35 3/8 (899)	35 3/8 (899)	35 3/8 (899)	35 3/8 (899)
Length of electrical wireway	34 5/8 (879)	34 5/8 (879)	34 5/8 (879)	34 5/8 (879)
Waste Outlet 				
(C) RH End of case to the center of waste outlet	24 1/8 (613)	48 1/8 (1222)	72 1/4 (1835)	72 1/4 (1835)
Back O/S of case to center of waste outlet	27 1/2 (699)	27 1/2 (699)	27 1/2 (699)	27 1/2 (699)
Water Seal 				
Edge of water seal to center of waste outlet	4 (102)	4 (102)	4 (102)	4 (102)
Schedule 40 diameter drip pipe	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)
<i>(Field installed water seal outlets, tees, and connectors are shipped with the merchandiser.)</i>				
Refrigeration Outlet 				
Back of case to center of refrigeration outlet	30 5/8 (778)	30 5/8 (778)	30 5/8 (778)	30 5/8 (778)
(D) RH end of case to center of refrigeration outlet	9 (229)	9 (229)	9 (229)	9 (229)

Multi-Deck, 6 Display Levels

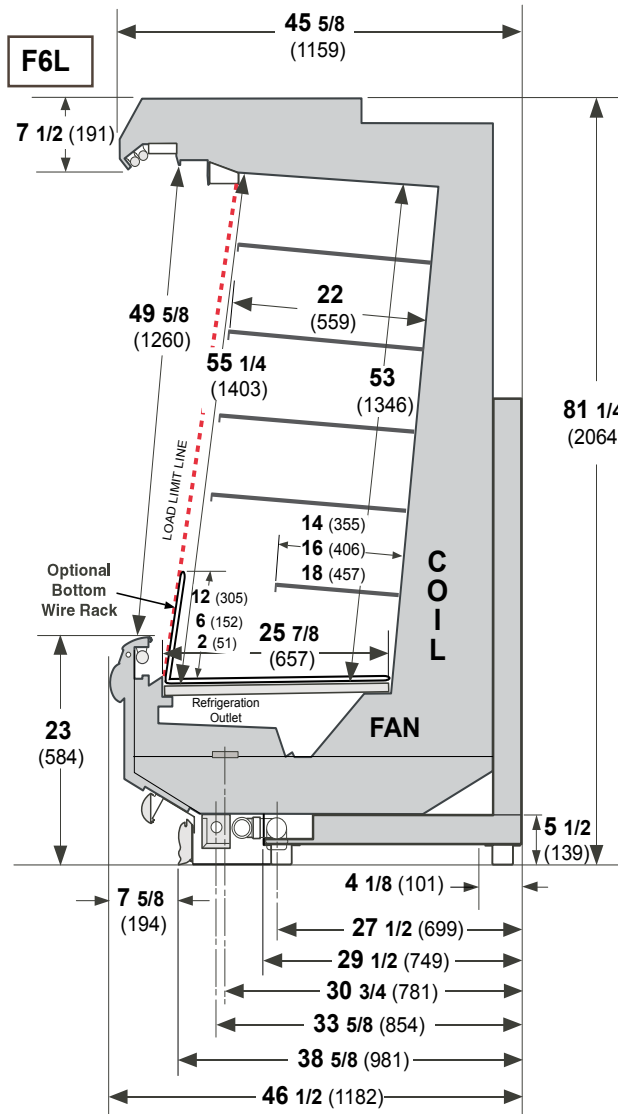


Hussmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2017 energy efficiency standards.

Excel F6L
Multi-Deck Frozen Food

Dimensions are shown as inches & (mm).

For typical operation, the shelf size and positions must be as specified in the cross section. For more information, see the Installation and Operation manual.



REFRIGERATION DATA§

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

	F6L	F6L*
Discharge Air (°F)	-8	-3
Evaporator (°F)	-16	-9
Unit Sizing (°F)	-19	-12

§ 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.

	F6L	F6L*
Btu/hr/ft*		
Parallel	1755	1660
Conventional	1850	1750

* = Non-0 Return Code

DEFROST DATA

	F6L
Frequency (hr)	8
Defrost Water (lb/ft/day)	8.6

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

ELECTRIC REVERSE AIR DEFROST

Temp Term (°F)	60°
Failsafe (minutes)	30

GAS DEFROST

Temp Term (°F)	NA
Failsafe (minutes)	22

OFFTIME NA

CONVENTIONAL CONTROLS

Low Pressure Backup Control

	F6L
CI/CO (Temp °F)**	-20°/-39°

Indoor Unit Only, Pressure Defrost

Termination (Temp °F)**	48°
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**Use a Temperature Pressure Chart to determine PSIG conversions.

Estimated Charge ***	F6L		
4 ft	1.8 lb	29 oz	0.8 kg
6 ft	2.5 lb	40 oz	1.1 kg
8 ft	3.5 lb	56 oz	1.6 kg
12 ft	5.1 lb	82 oz	2.3 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.

Excel F6L Multi-Deck Frozen Food

Electrical Data

Number of Fans	4 ft	6 ft	8 ft	12 ft					
Main Evaporator	2	4	4	6					
Ambient	1	2	2	3					
Non-Refrigerated	1	2	2	3					
		Amperes				Watts			
	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft	
Main Evaporator Fans (12W)									
120V 50/60 Hz Standard Energy Efficient	0.60	1.20	1.20	1.80	36	72	72	108	
Ambient Fans (4.5W)									
120V 60Hz High Efficiency	0.10	0.20	0.20	0.3	4.5	9	9	13.5	
Non-Refrigerated Fan (9W, Reversing) – Standard Electric Defrost Only									
120V 60Hz Standard	0.24	0.48	0.48	0.72	25	50	50	75	
Non-Refrigerated Fans (7W) – Optional Gas Defrost Only									
120V 60Hz Standard	0.50	1.00	1.00	1.50	39	78	78	117	
Anti-Sweat Heaters – Constant On									
Main Divider Anti-sweat Heaters	0.75	1.00	1.50	2.25	90	120	180	270	
Return Grille Air Heaters	0.83	1.25	1.67	2.50	100	150	200	300	
Minimum Circuit Ampacity – Standard Electric Defrost									
120V 50/60 Hz Standard Energy Efficient	1.74	3.60	4.23	6.34					
Minimum Circuit Ampacity – Optional Gas Defrost									
120V 50/60 Hz Standard Energy Efficient	2.06	4.25	4.88	7.31					
Optional Hand Rail Anti-Sweat Heater 120V	0.56	0.78	1.11	1.67	67	94	133	200	
Maximum Over Current Protection 120V	20	20	20	20					
Maximum Over Current Protection 230V	NA								
Electric Defrost Heaters 208V 1ph									
Modular U-Shaped	3.29	4.76	6.58	9.87	685	990	1370	2055	
Full Length Rod	4.71	7.07	9.42	14.15	980	1470	1960	2943	
Total Defrost Heaters	8.00	11.83	16.00	24.02	1665	2460	3330	4998	
Standard Lighting (T-8 fluorescent)									
1 Row Canopy & 1 Row Rail	0.49	0.80	0.98	1.42	59	92	118	170	
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.									
Optional Lighting (T-8 fluorescent)									
2 Row Canopy & 1 Row Rail	0.75	1.38	1.47	2.13	89	138	177	255	
EcoShine II Canopy									
EcoShine II	0.16	0.26	0.32	0.48	19.3	31.6	38.6	58.0	
EcoShine II HO	0.22	0.33	0.44	0.66	26.5	39.5	53.0	79.4	
1 Row Rail	0.08	0.12	0.16	0.25	9.9	14.1	19.8	29.7	

Please note: some combinations of fluorescent lights on this case model may not be compliant with DOE 2017 and may not be available to order in the US and Canada. More lighting options are available with LED lights. The Hussmann Product Configurator will not allow lighting options that do not comply with the DOE 2017 standards.

Product Data

<i>Recommended Usable Cube</i> ¹ (Cu Ft/Ft)	7.73 ft ³ /ft (0.72 m ³ /m)
<i>AHRI Total Display Area</i> ² (Sq Ft/Ft)	4.14 ft ² /ft (1.26 m ² /m)
<i>Shelf Area</i> ³ (Sq Ft/Ft)	11.32 ft ² /ft (3.45 m ² /m)

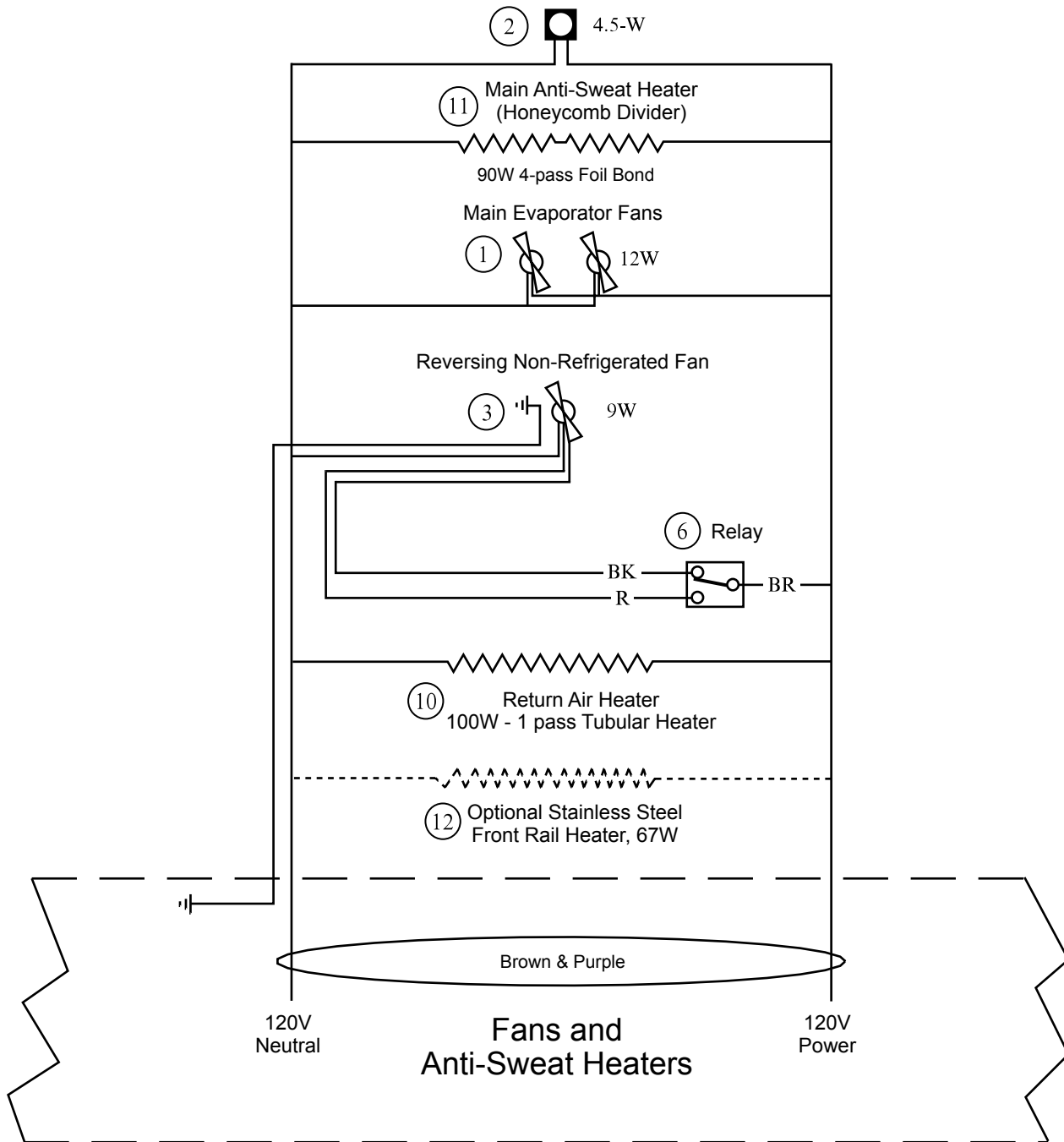
- ¹ AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
- ² Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]
- ³ Shelf surface area is composed of bottom deck plus standard shelf complement, as shown in the Hussmann **Product Reference Guide**. The standard shelf complement for this model is (4) rows of 22-inch shelves and (1) row of 18-inch shelves.

ESTIMATED SHIPPING WEIGHT ⁴					
Case	<i>4 ft</i>	<i>6 ft</i>	<i>8 ft</i>	<i>12 ft</i>	Solid End
					<i>(each)</i>
lb (kg)	1000 (454)	1300 (590)	1700 (771)	2000 (907)	100 (45)
⁴ Actual weights will vary according to optional kits included.					

Electric Defrost Fans & Anti-Sweat Heaters

4 ft. Wiring Diagram

Ambient Air Curtain - Muffin Fan



WARNING

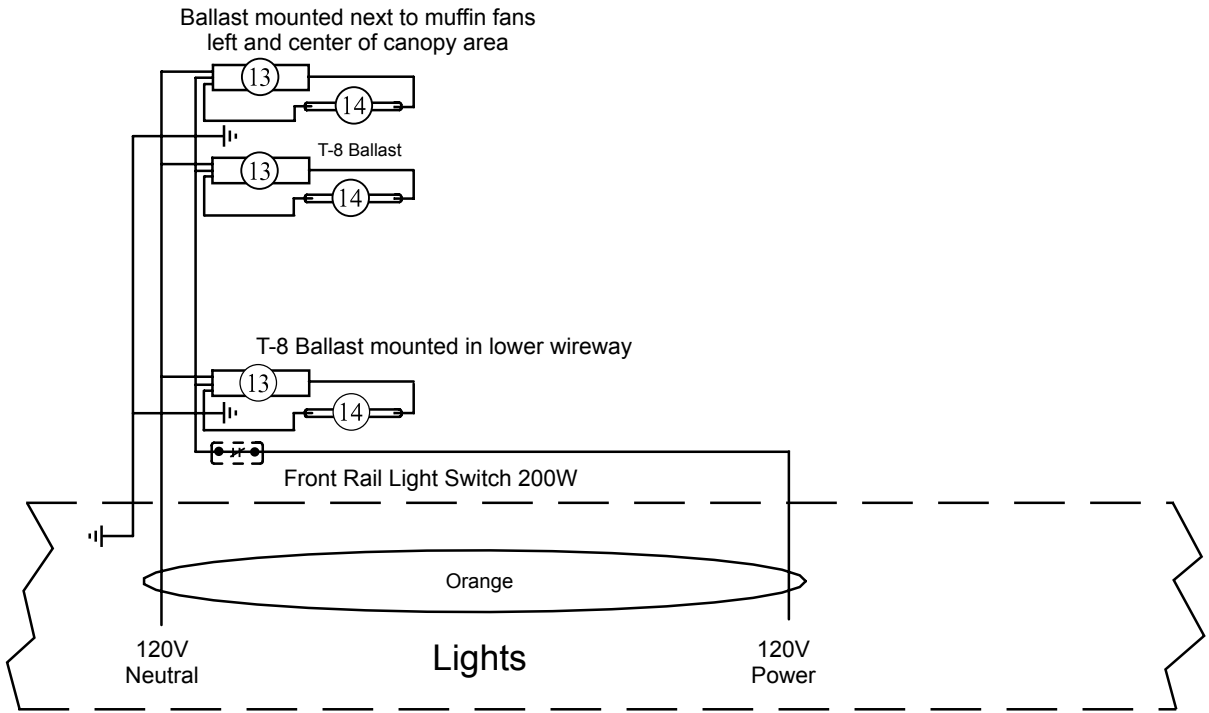
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

R = Red Y = Yellow G = Green BL = Blue BK = Black BR = Brown W = White

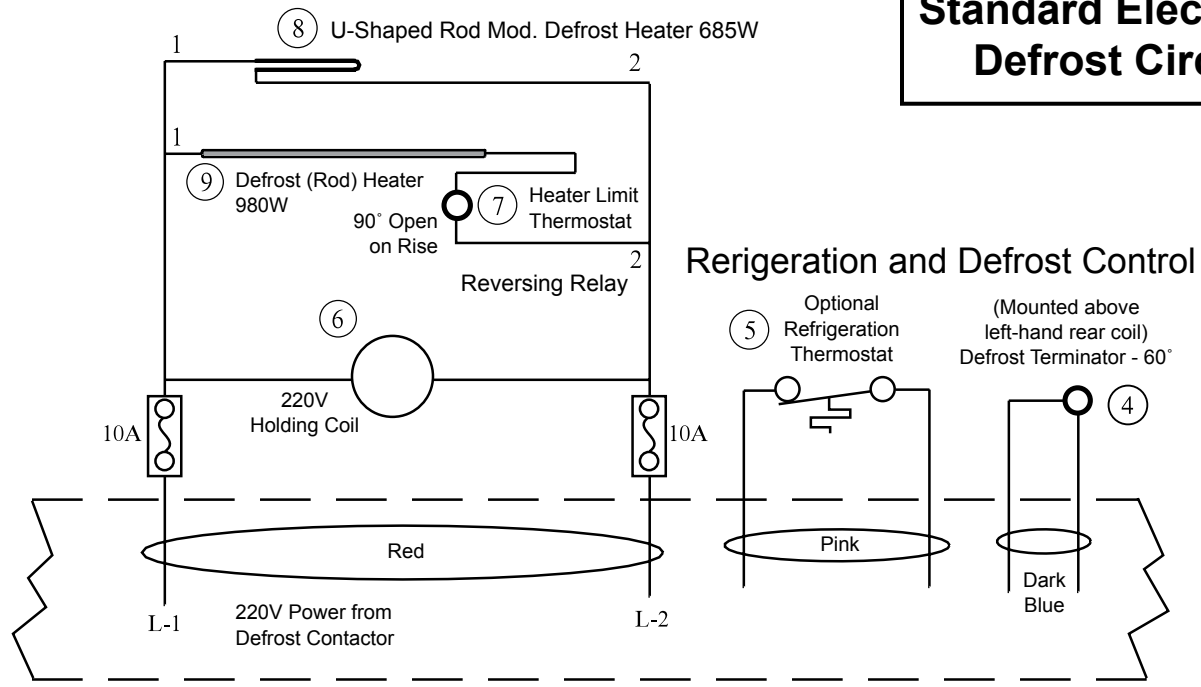
**Standard Electric
Light Circuit**

**4 ft. Wiring Diagram
Lighting Circuit**



**Standard Electric
Defrost Circuit**

Defrost Circuit



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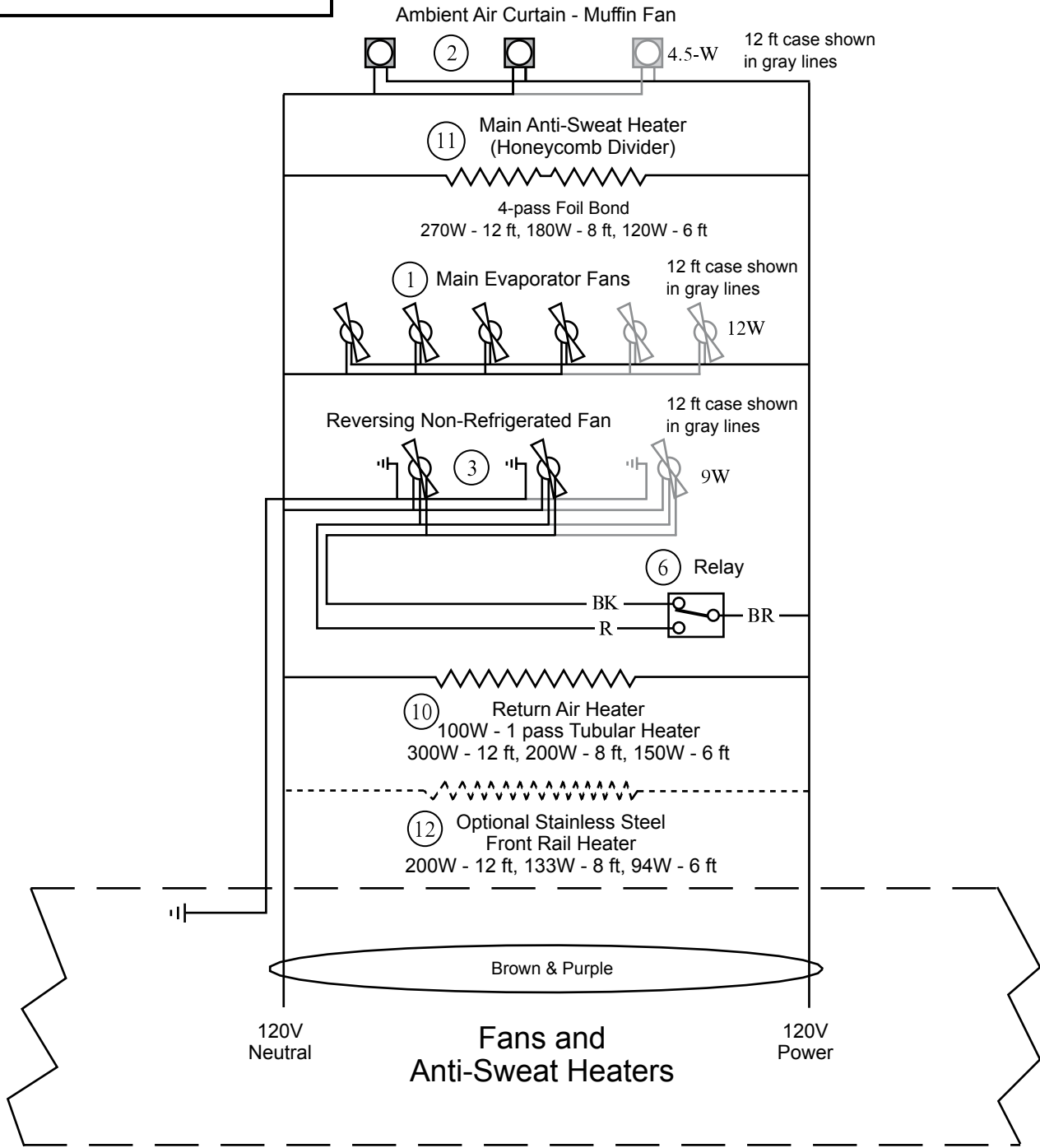
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Electric Defrost Fans & Anti-Sweat Heaters

6, 8, & 12 ft. Wiring Diagram



WARNING

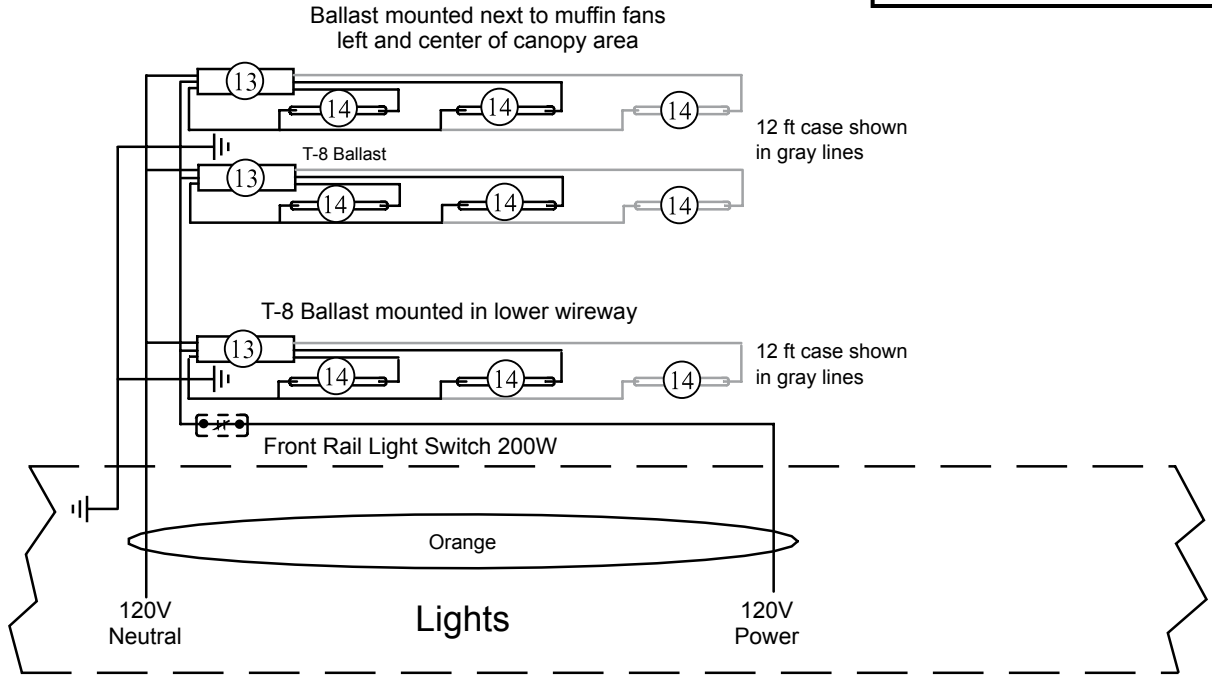
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Grayed components in 12 foot models only

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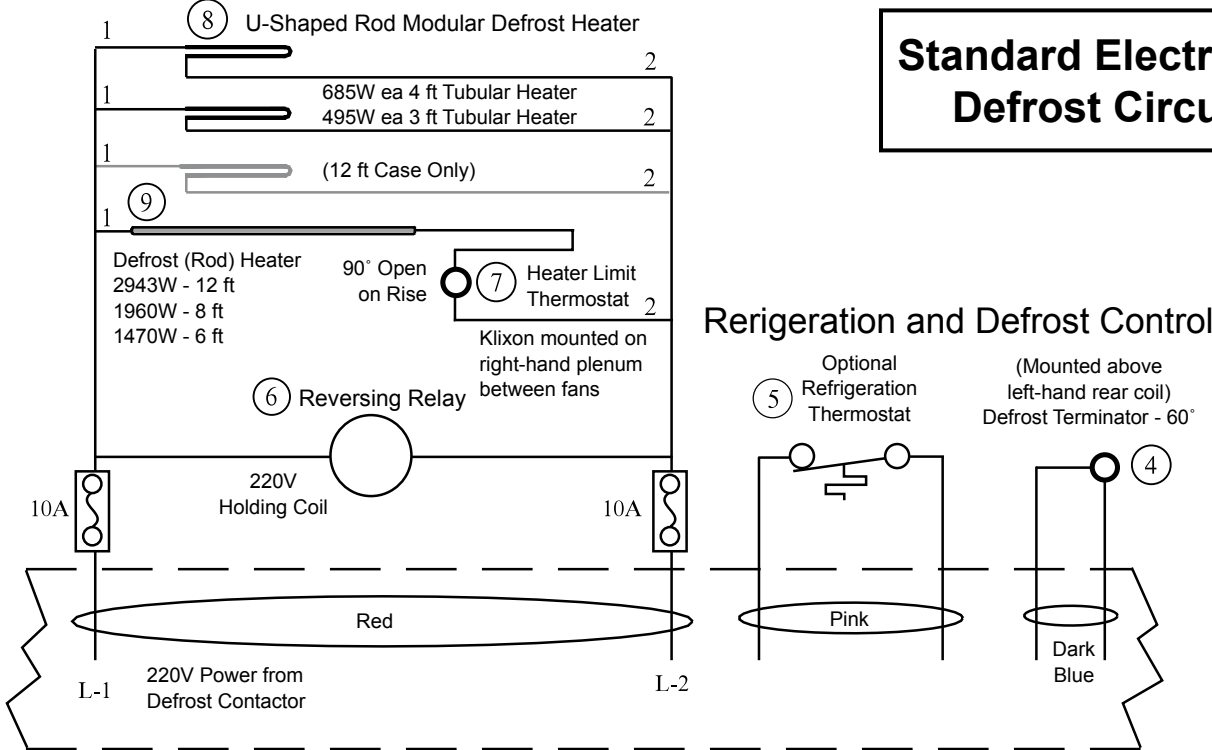
6, 8, & 12 ft. Wiring Diagram Lighting Circuit

Standard Electric Light Circuit



Defrost Circuit

Standard Electric Defrost Circuit



WARNING

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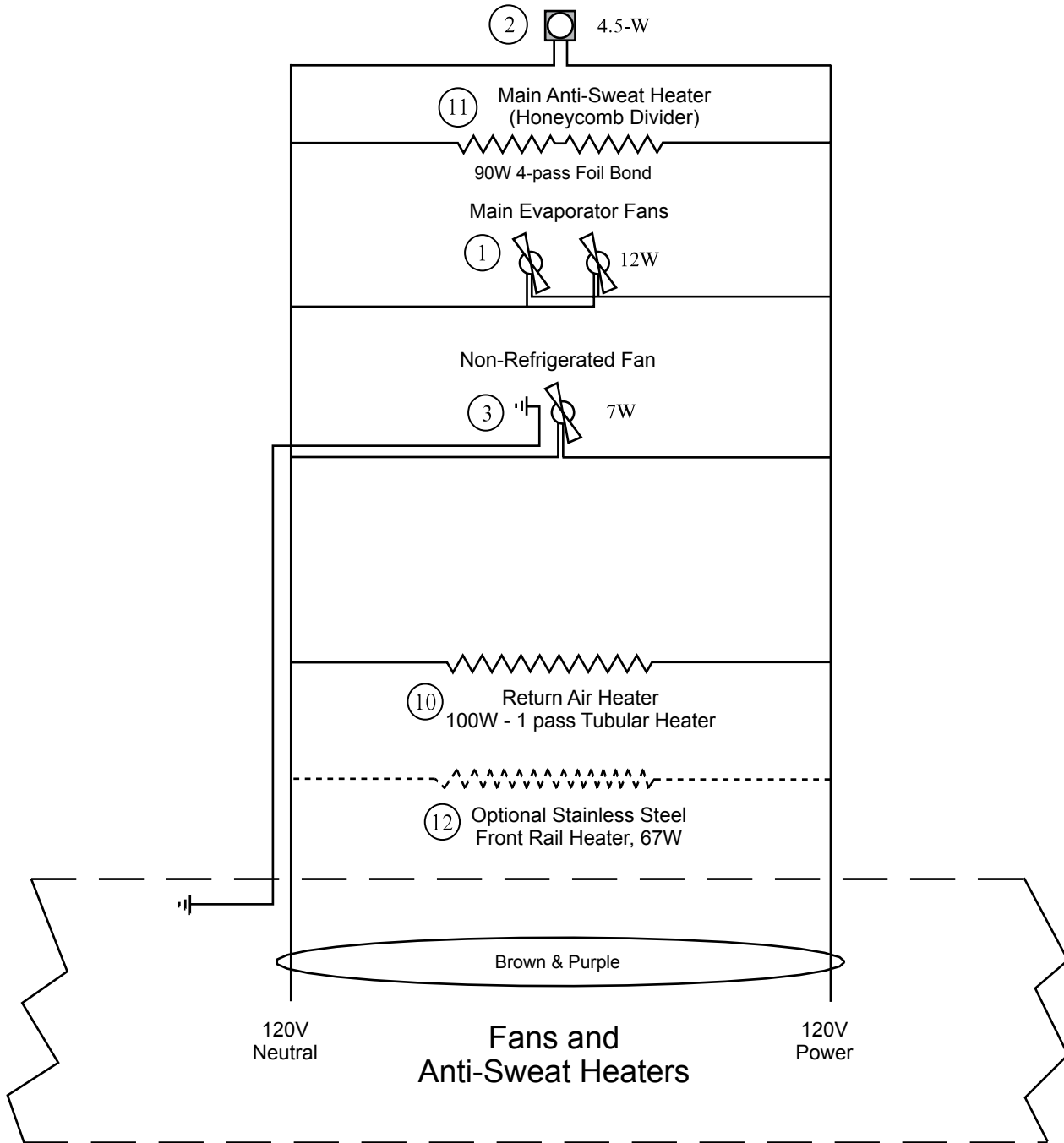
Grayed components in 12 foot models only

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Gas Defrost Fans & Anti-Sweat Heaters

4 ft. Wiring Diagram

Ambient Air Curtain - Muffin Fan



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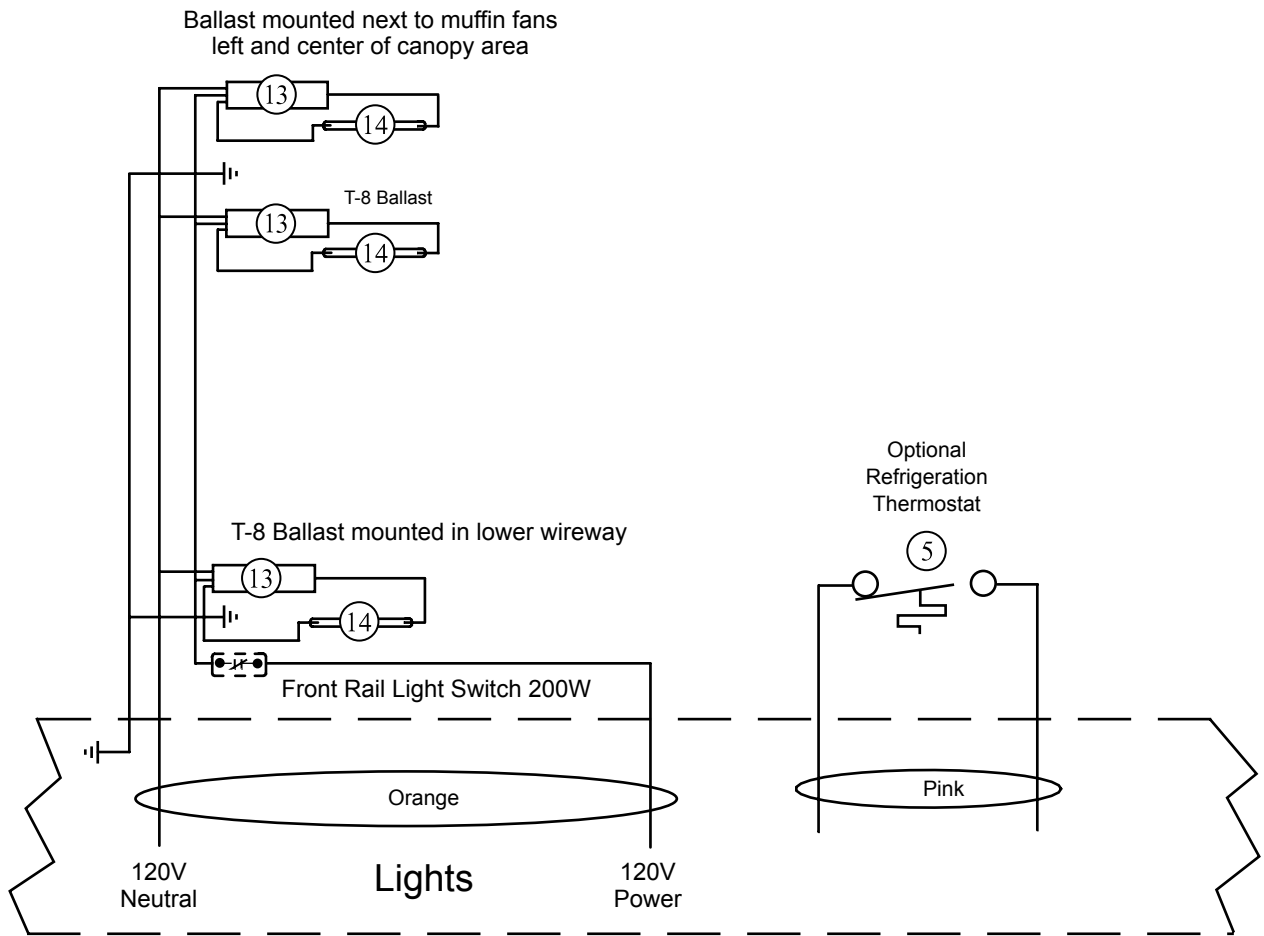
All components must have mechanical ground, and the merchandiser must be grounded.

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Gas Defrost Light Circuit & Thermostat

4 ft. Wiring Diagram Lighting Circuit



WARNING

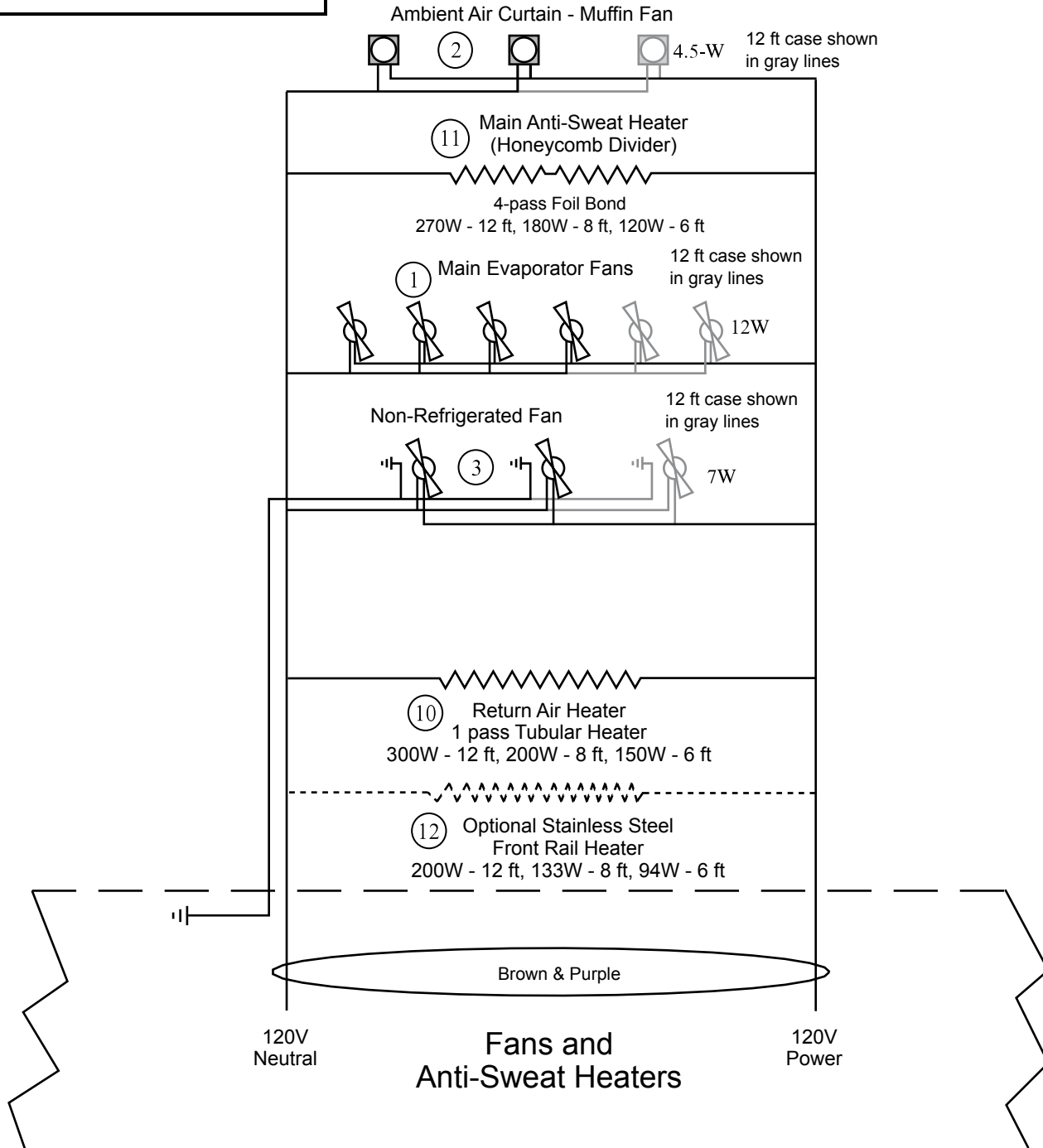
All components must have mechanical ground, and the merchandiser must be grounded.

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R = Red Y = Yellow G = Green BL = Blue BK = Black W = White

Gas Defrost Fans & Anti-Sweat Heaters

6, 8, & 12 ft. Wiring Diagram



WARNING

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Grayed components in 12 foot models only

R = Red

Y = Yellow

G = Green

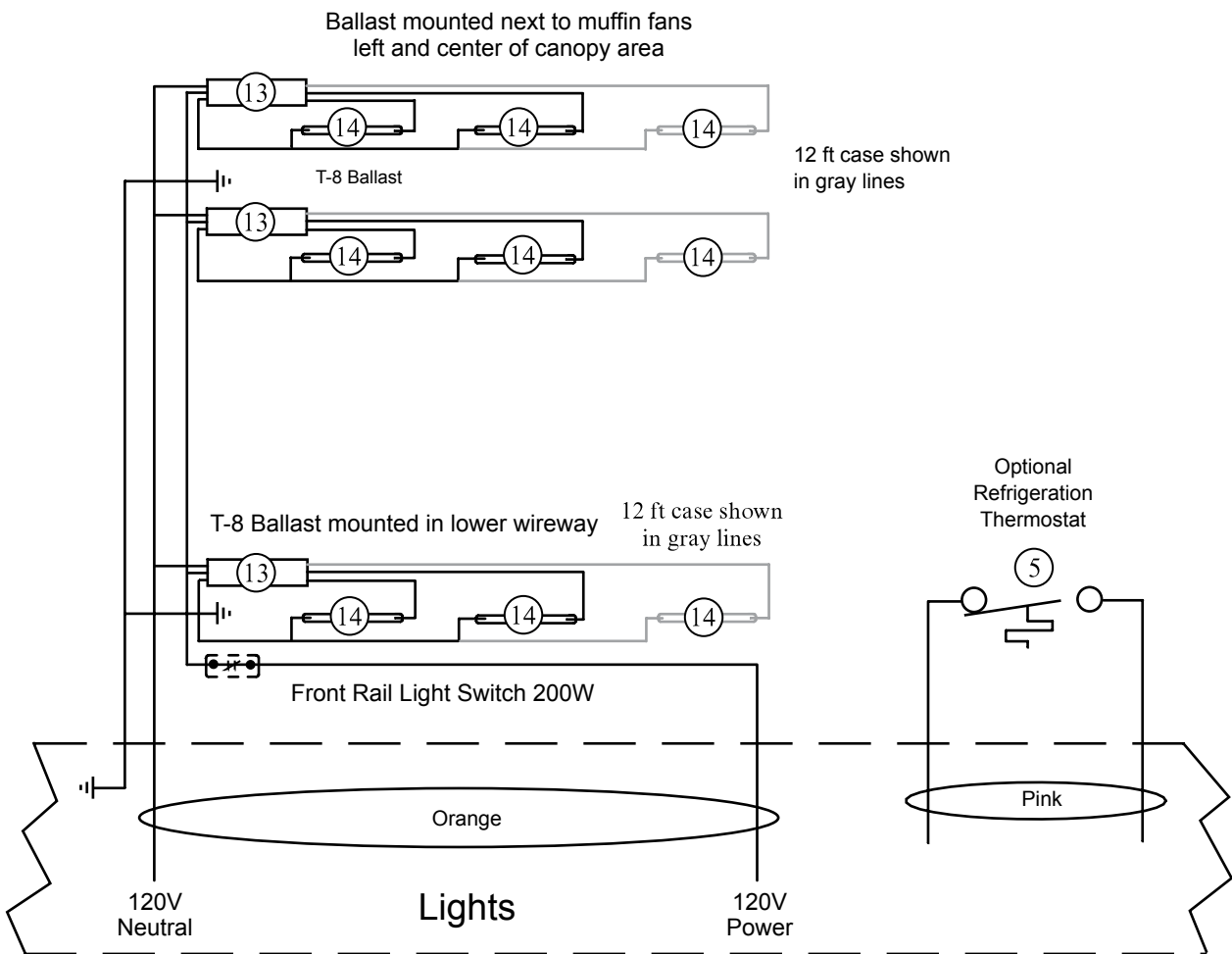
BL = Blue

BK = Black

W = White

Gas Defrost Light Circuit & Thermostat

6, 8, & 12 ft. Wiring Diagram Lighting Circuit



WARNING

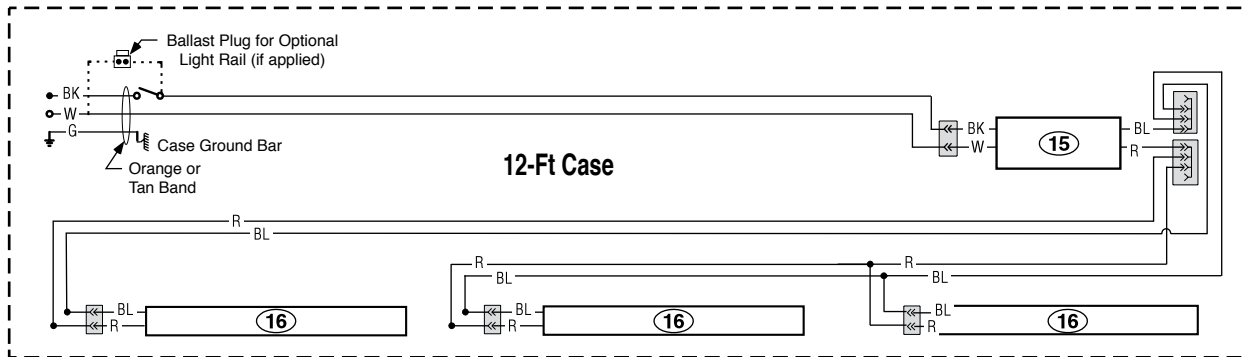
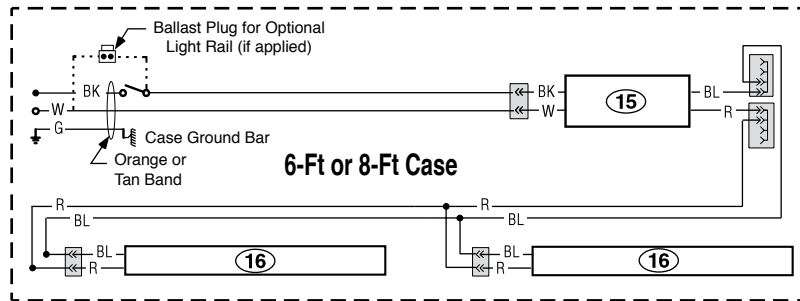
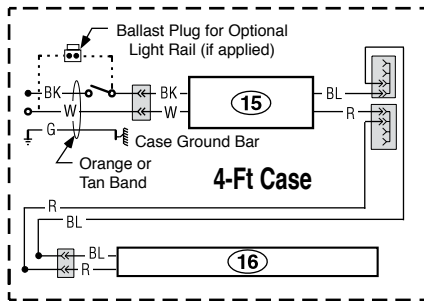
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Grayed components in 12 foot models only

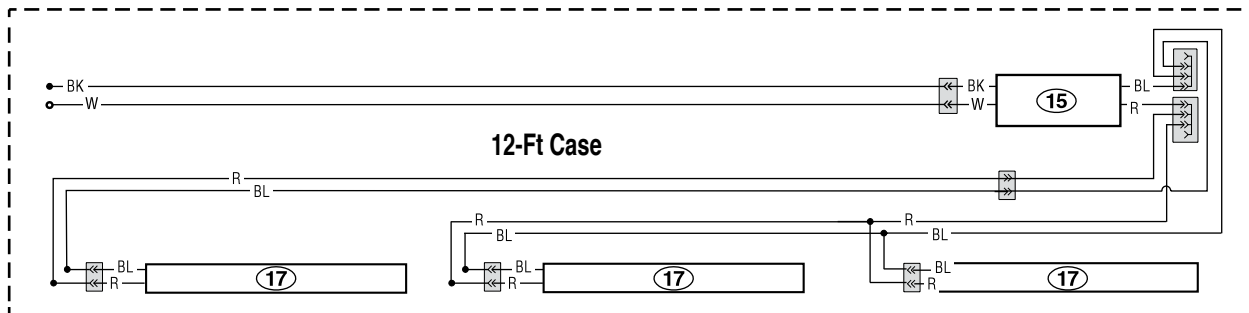
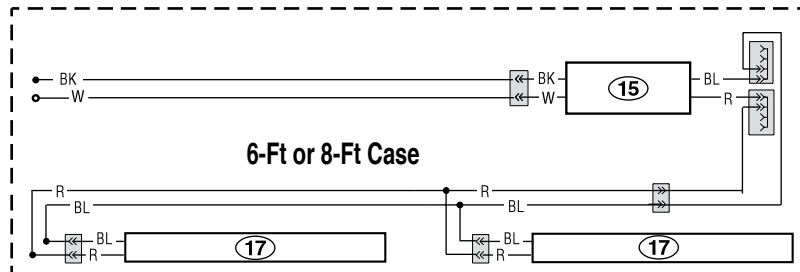
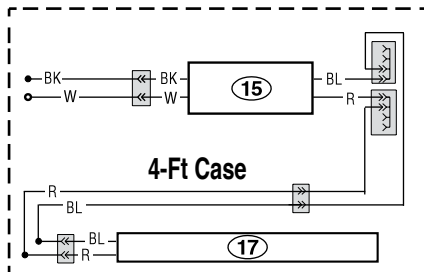
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Optional Canopy and Rail Light Circuits — LED Fixtures

EcoShine II LED Canopy Lighting – 1 Row



EcoShine II LED Rail Lighting – 1 Row



WARNING

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● = 120V POWER ○ = 120V NEUTRAL ⊥ = FIELD GROUND ≡ = CASE GROUND