

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

Data sheet-Excel-F6

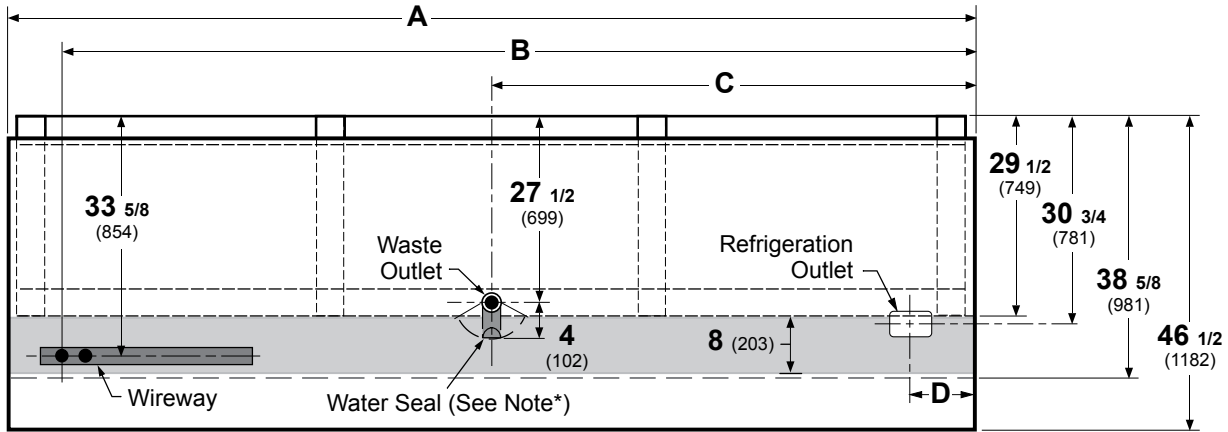
Note: Revision H: Added note on page 3. Other changes marked with a bar, circle or underline.

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

F6
Frozen
06-2010

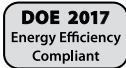
Dimensions shown as inches & (mm).



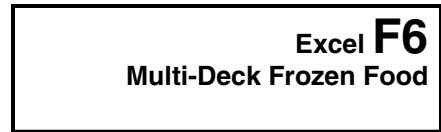
FRONT

	4 ft	6 ft	8 ft	12 ft
General				
(A) Case Length (<i>without ends or partitions</i>)	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 (<i>with bumper</i>)	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  (<i>Electrical Field Wiring connection point</i>)				
(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

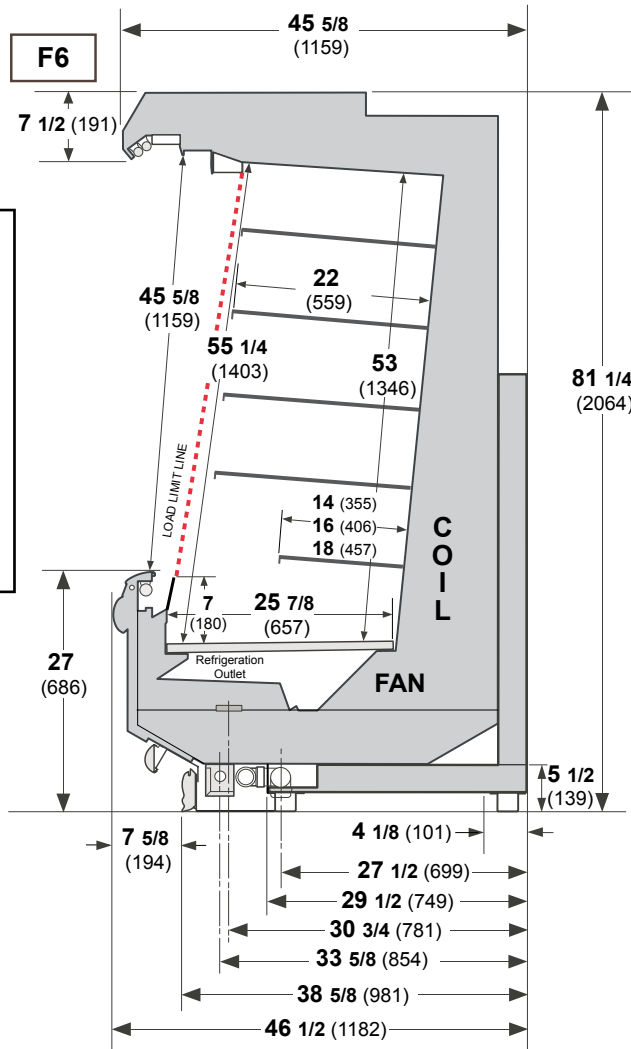


Hussmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2017 energy efficiency standards.



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.



Estimated Charge ***			F6
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.

REFRIGERATION DATA§

	F6	F6*
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.		
<i>Btu/h/ft</i>	F6	F6*
Parallel	1490	1410
Conventional	1570	1485
* = Non-0 Return Code		

DEFROST DATA

	F6
Frequency (hr)	12
Defrost Water (lb/ft/day)	8.2
(± 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	
C/CO (Temp °F)**	F6 -20°/-39°
Indoor Unit Only, Pressure Defrost Termination (Temp °F)**	
	48°

**Use a Temperature Pressure Chart to determine PSIG conversions.

Excel F6 Multi-Deck Frozen Food
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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	4.98	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

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)	3.75 ft ² /ft (1.14 m ² /m)
<i>Shelf Area</i> ³ (Sq Ft/Ft)	11.32 ft ² /ft (3.45 m ² /m)

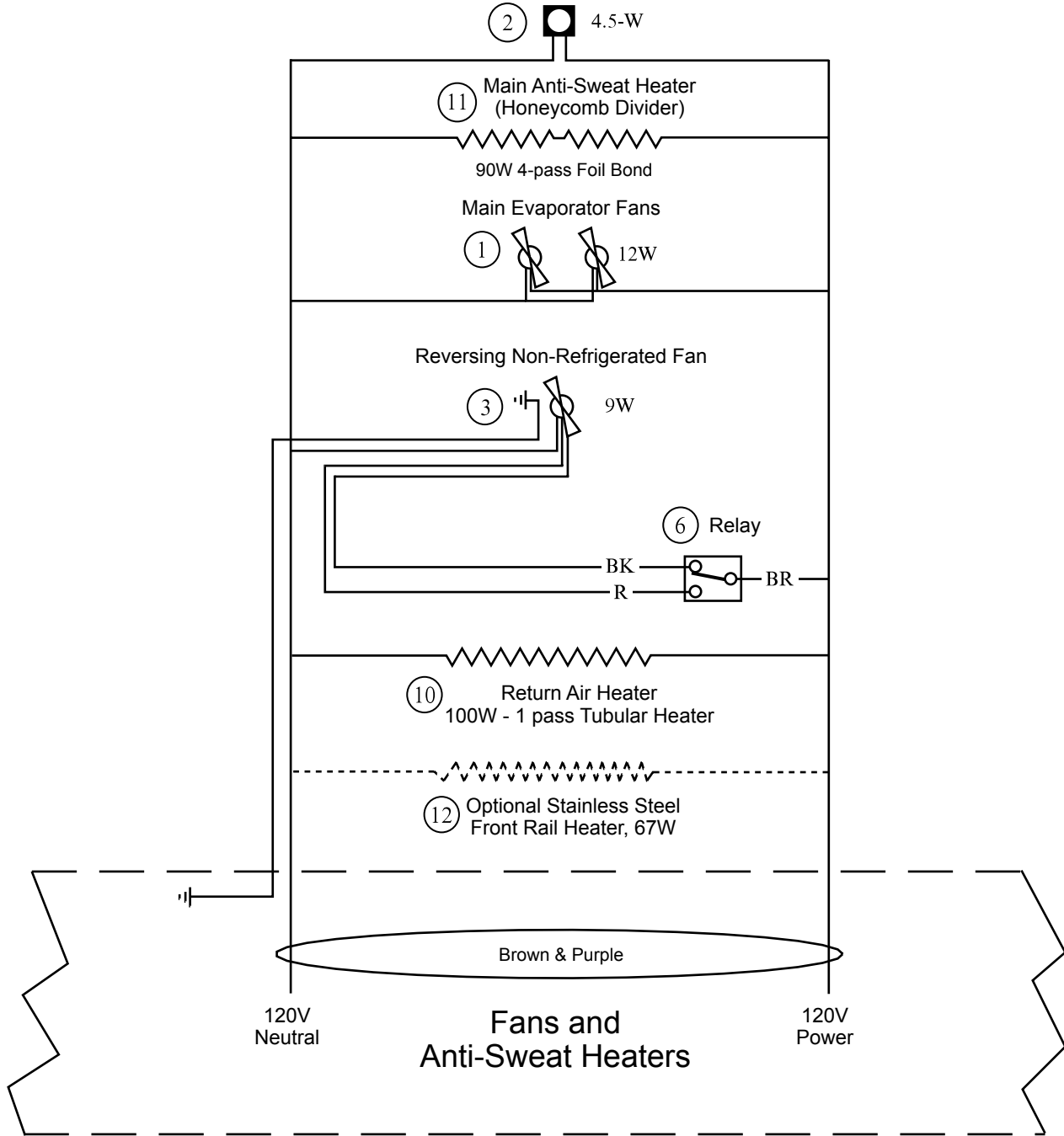
- ¹ AHRI Refrigerated Volume less shelving and other unusable space: Refrigerated Volume/Unit of Length, ft³/ft [m³/m]
- ² Computed using AHRI 1200 standard methodology: Total Display Area, ft² [m²]/Unit of Length, ft [m]
- ³ Shelf surface area is composed of bottom deck plus standard shelf complement, 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

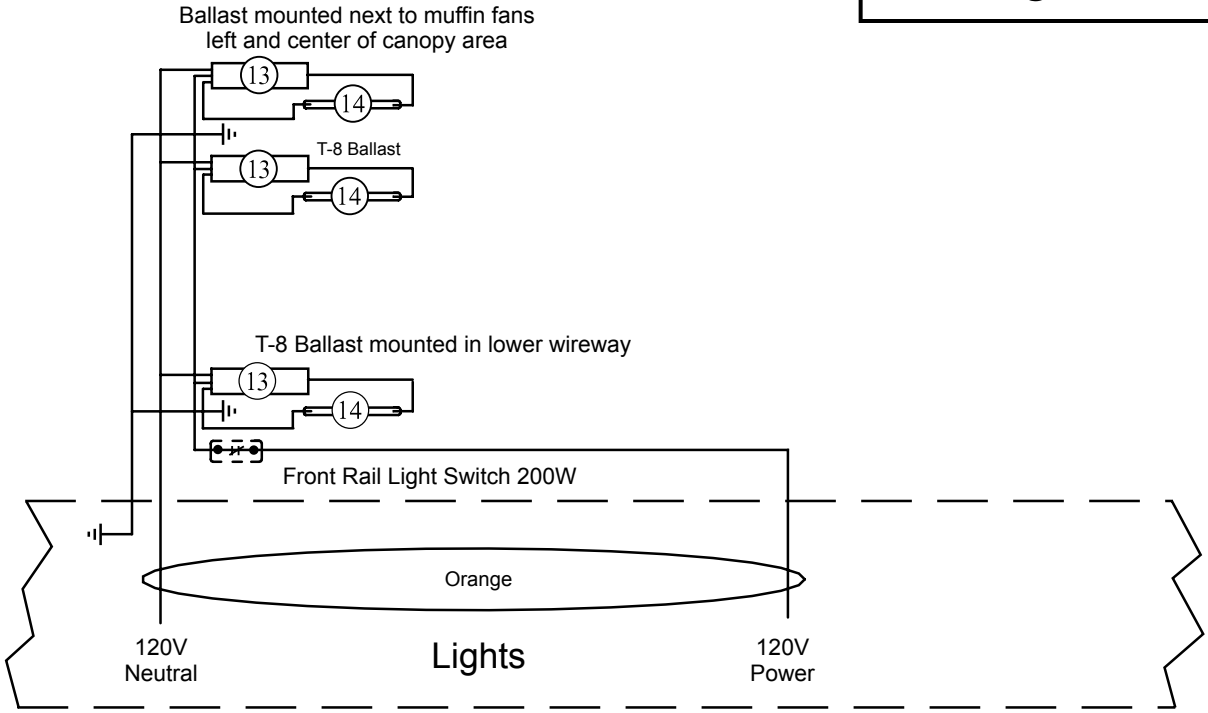
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

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

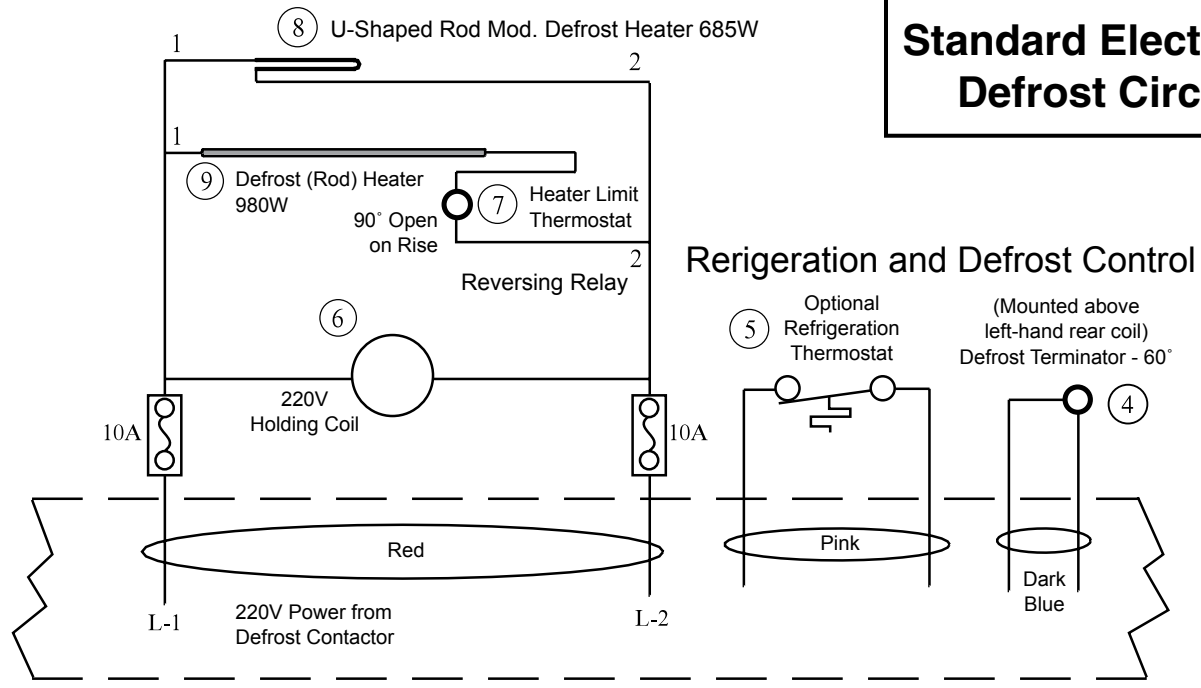
4 ft. Wiring Diagram Lighting Circuit

**Standard Electric
Light Circuit**



Defrost Circuit

**Standard Electric
Defrost Circuit**



WARNING

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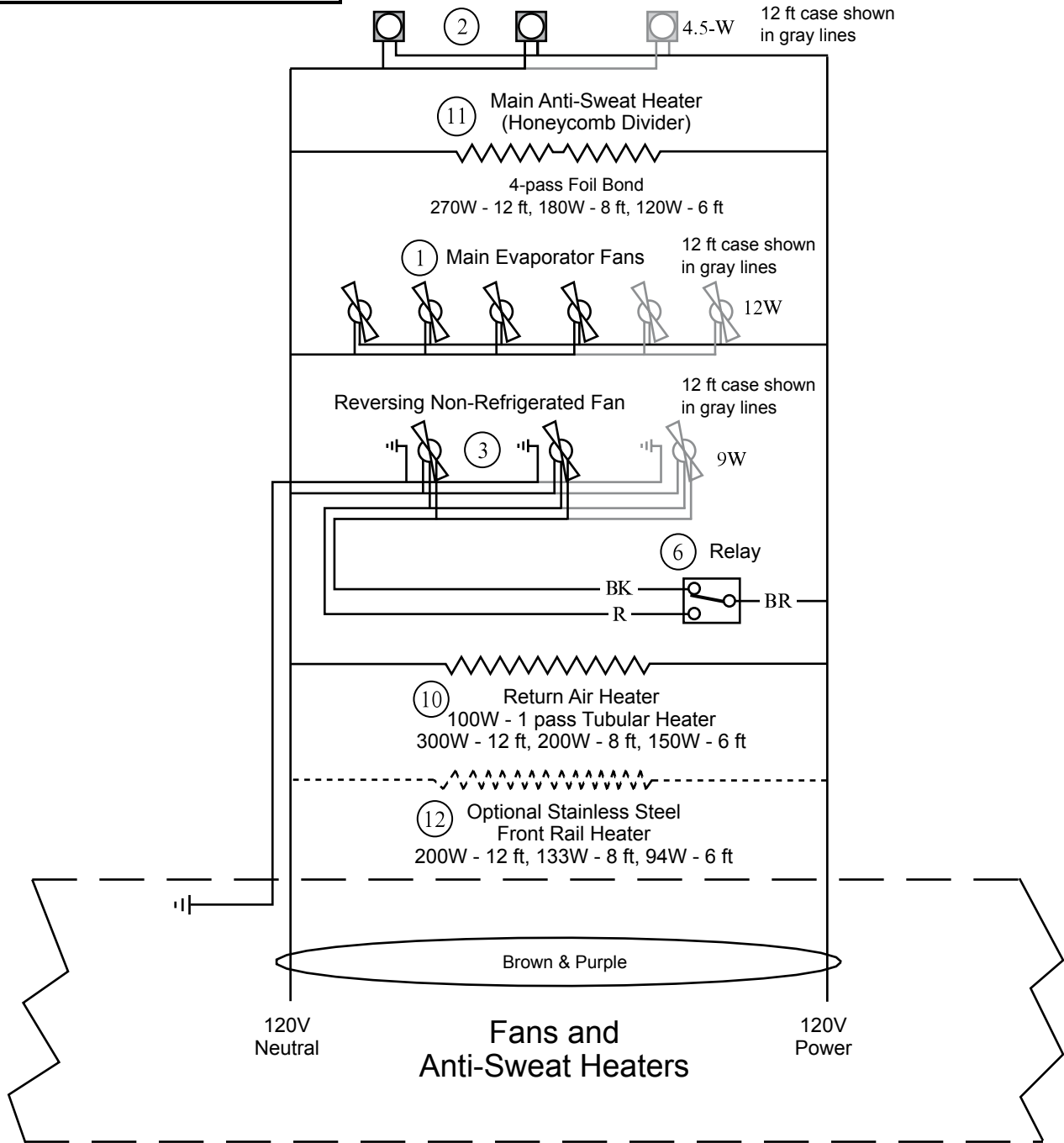
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Electric Defrost – Fans & Anti-Sweat Heaters

6, 8, & 12 ft. Wiring Diagram

Ambient Air Curtain - Muffin Fan



WARNING

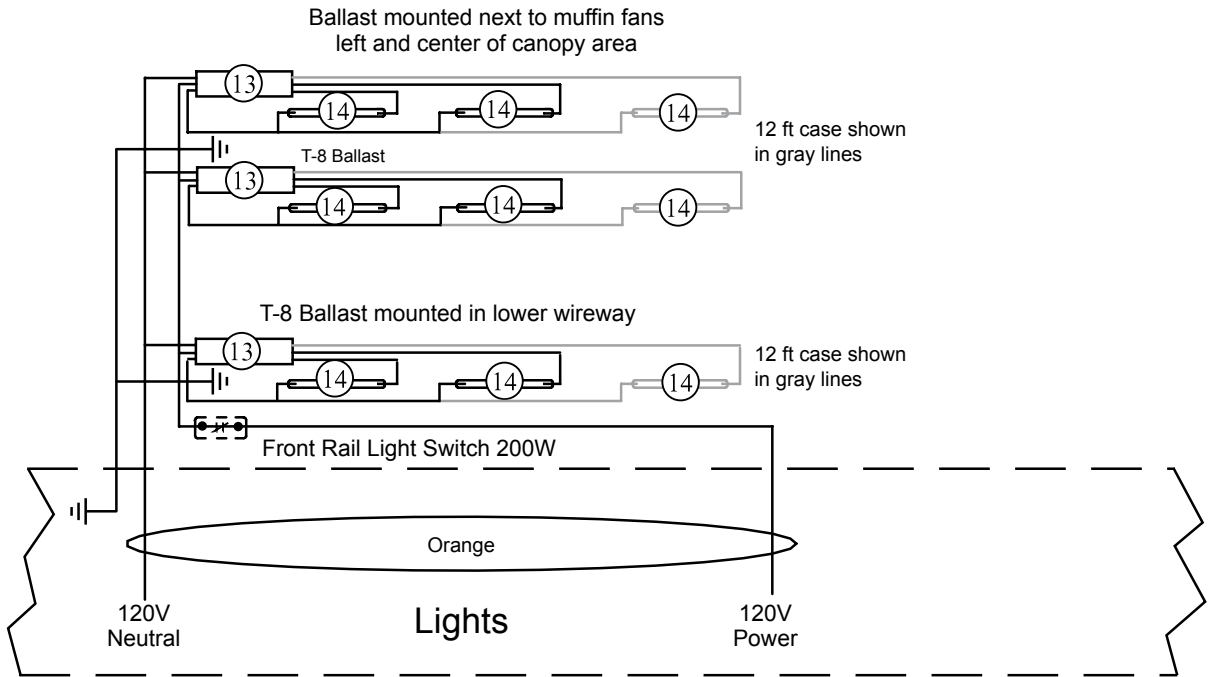
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 Grayed components in 12 foot models only

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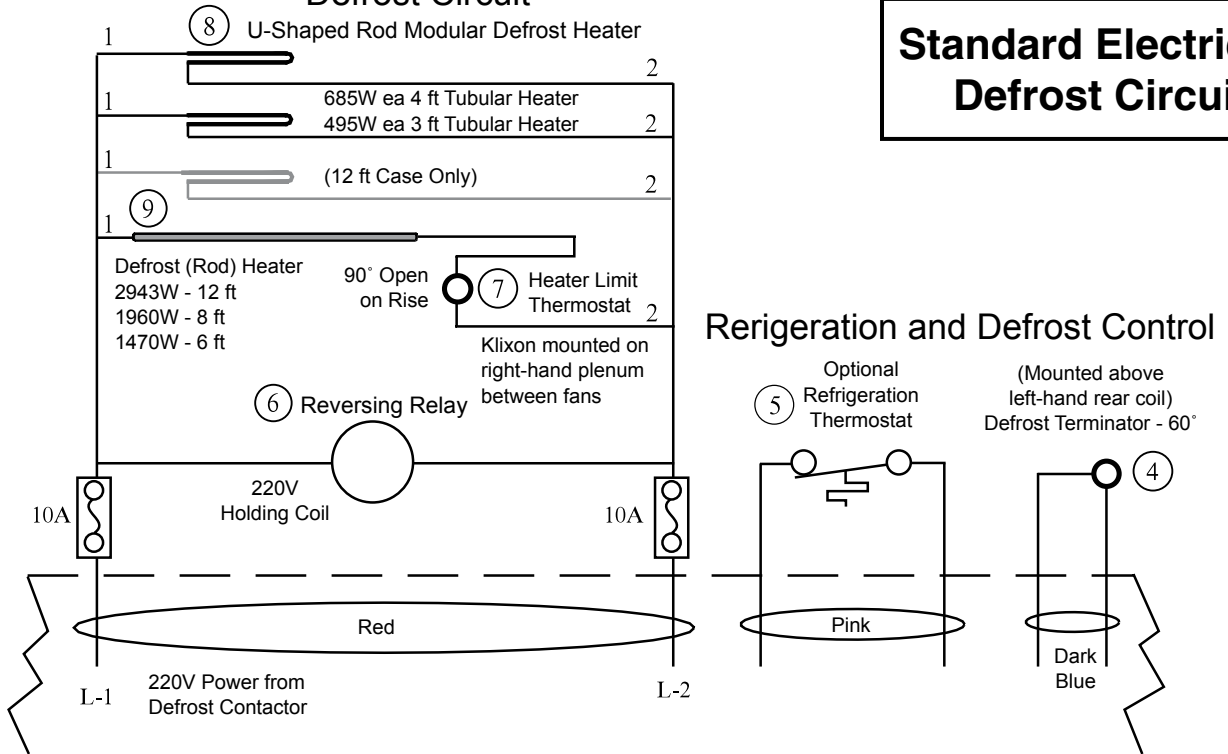
6, 8, & 12 ft. Wiring Diagram Lighting Circuit

Standard Electric Light Circuit



Defrost Circuit

Standard Electric Defrost Circuit



WARNING

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CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

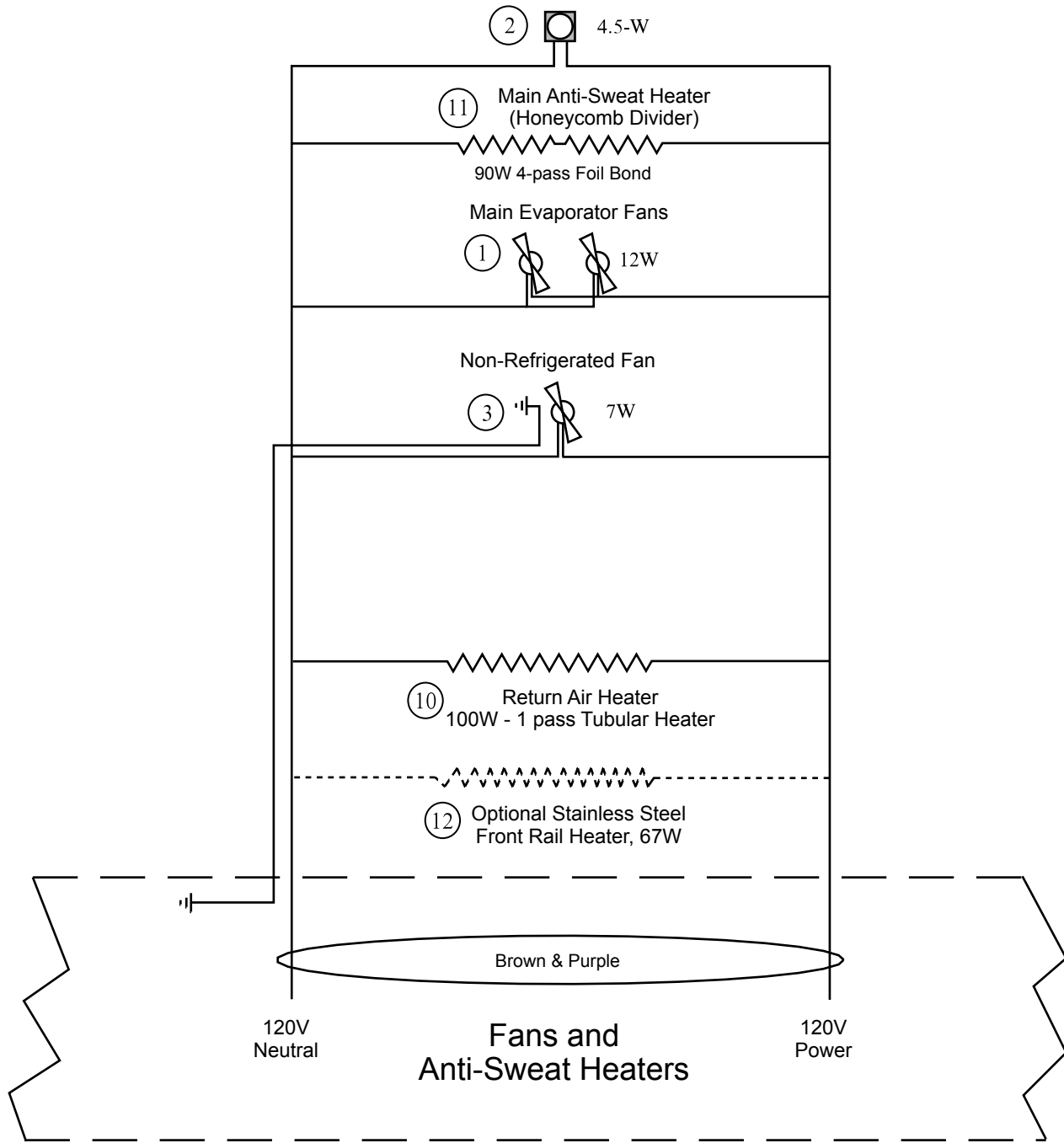
Grayed components in 12 foot models only

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Gas Defrost – Fans & Anti-Sweat Heaters

4 ft. Wiring Diagram

Ambient Air Curtain - Muffin Fan



WARNING

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R = Red

Y = Yellow

G = Green

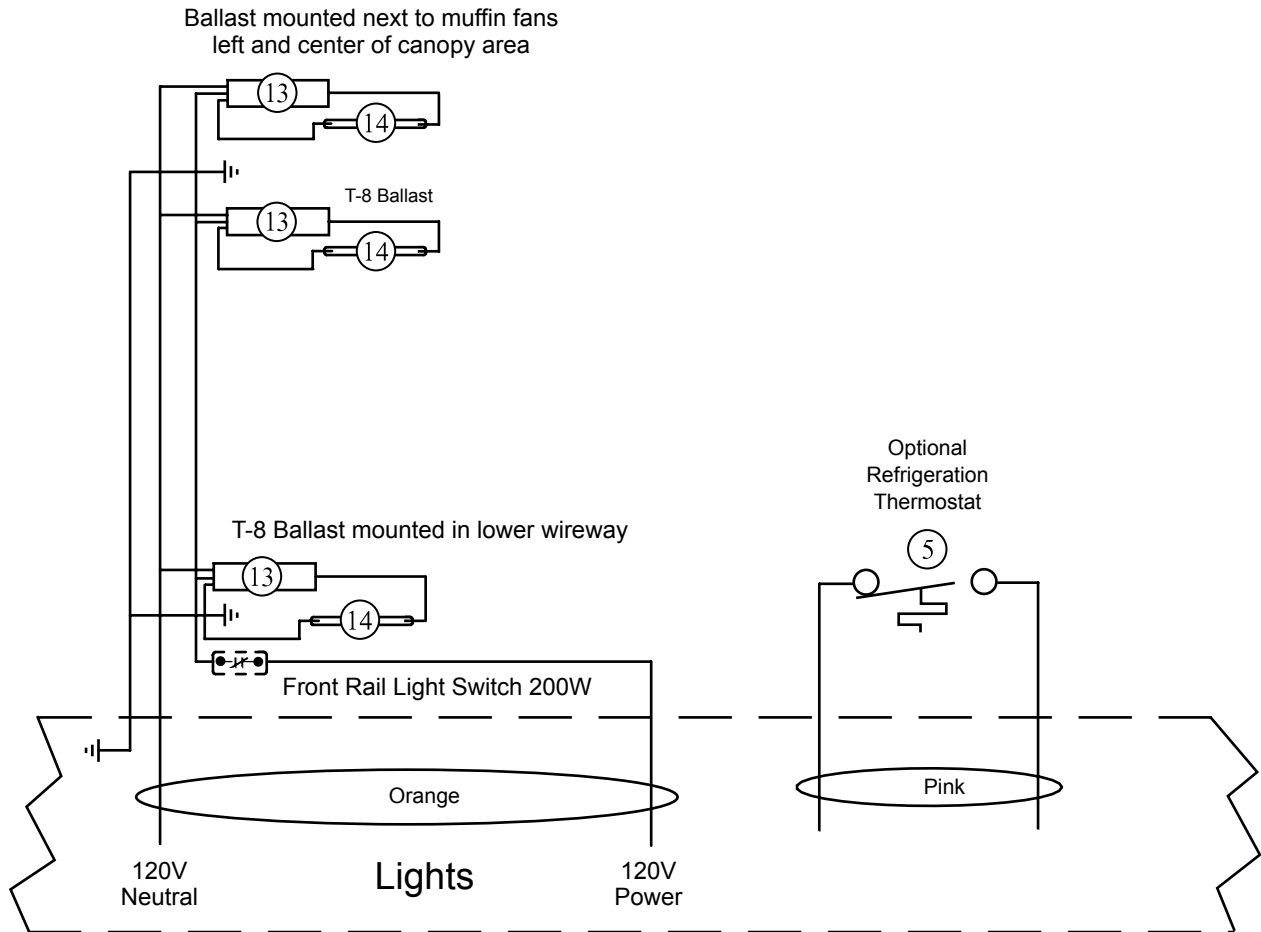
BL = Blue

BK = Black

W = White

Gas Defrost Light Circuit & Thermostat

4 ft. Wiring Diagram Lighting Circuit



WARNING

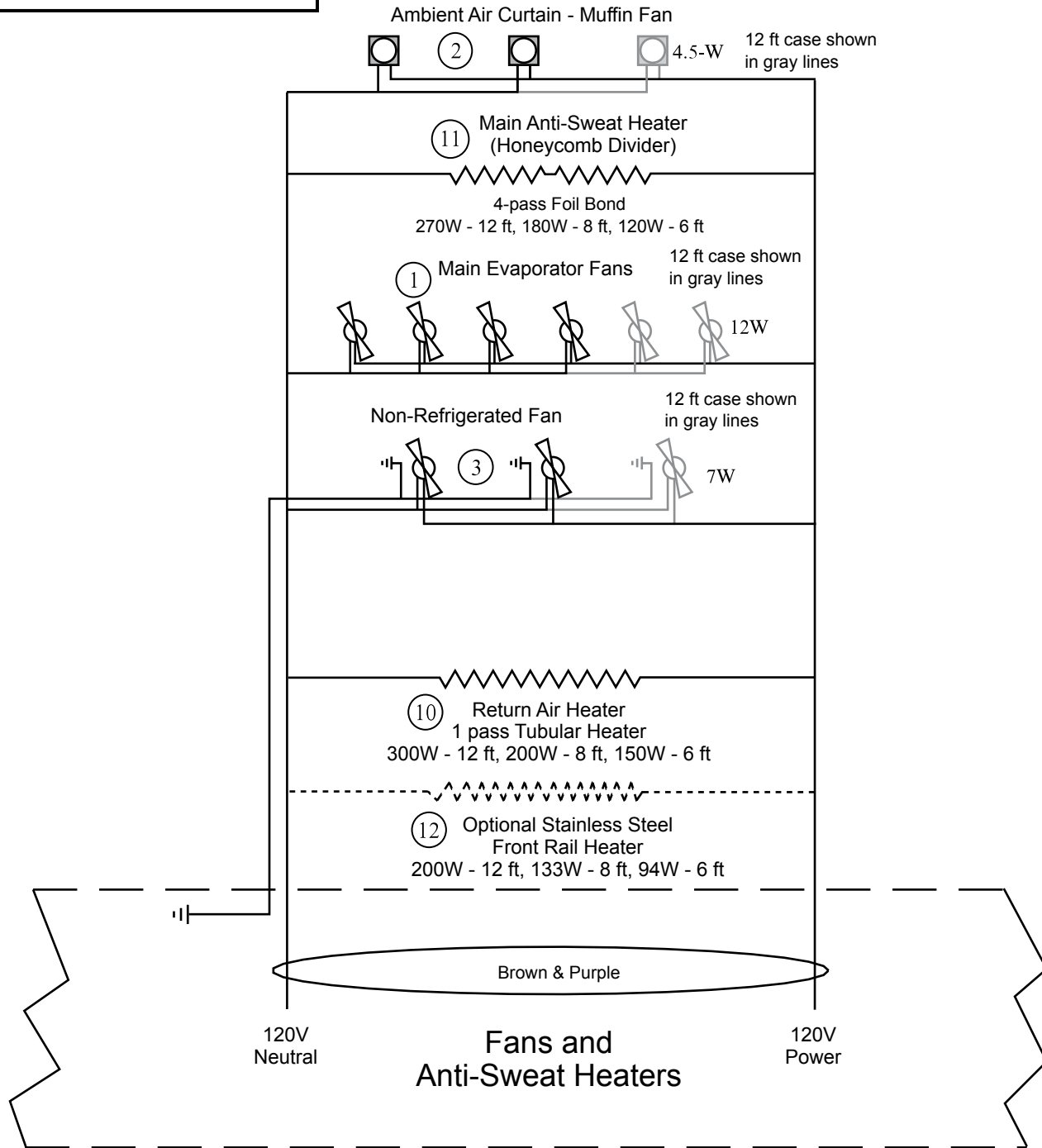
All components must have mechanical ground, and the merchandiser must be grounded.

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Gas Defrost – Fans & Anti-Sweat Heaters

6, 8, & 12 ft. Wiring Diagram



WARNING

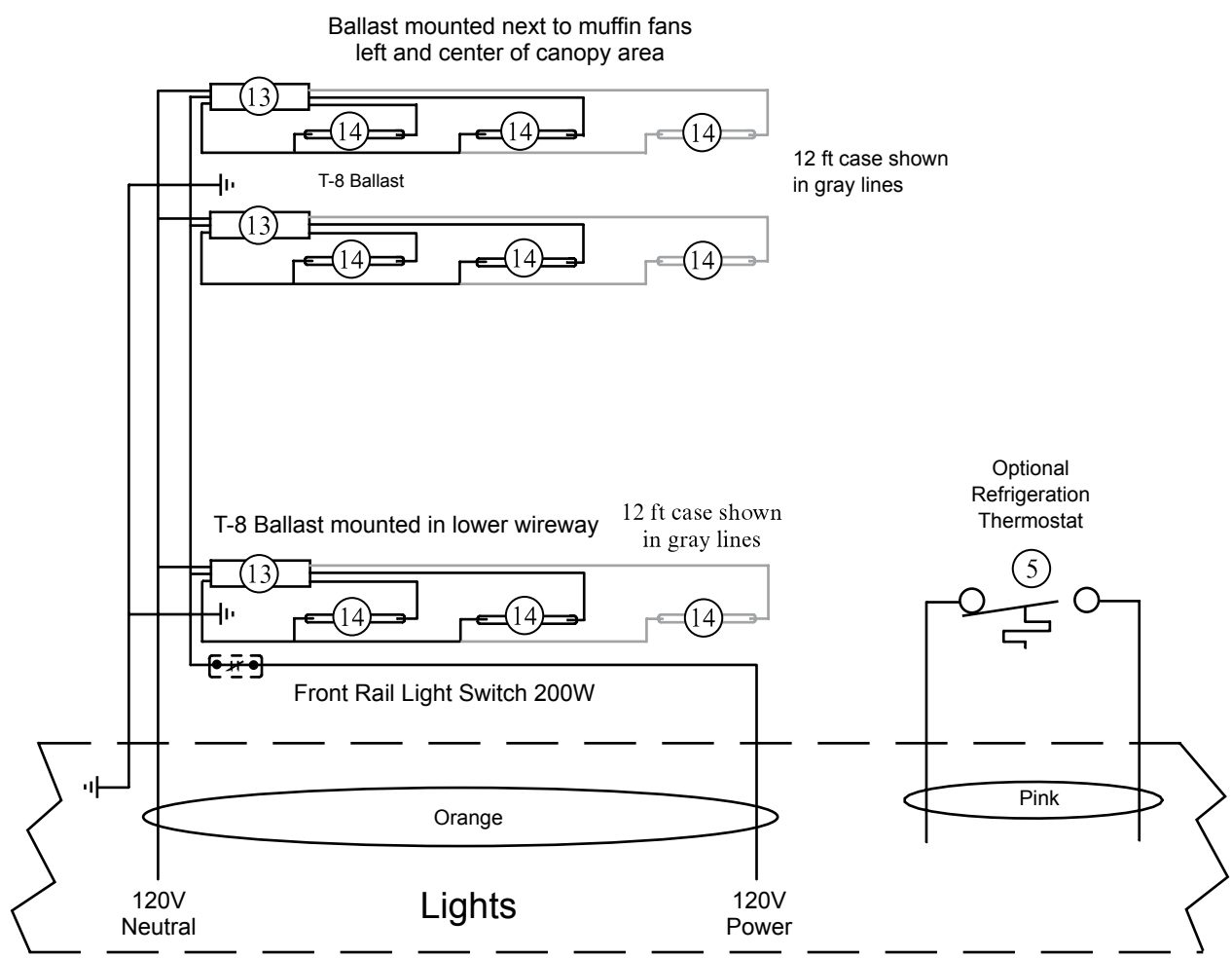
All components must have mechanical ground, and the merchandiser must be grounded.

CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS
Grayed components in 12 foot models only

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Gas Defrost Light Circuit & Thermostat

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



WARNING

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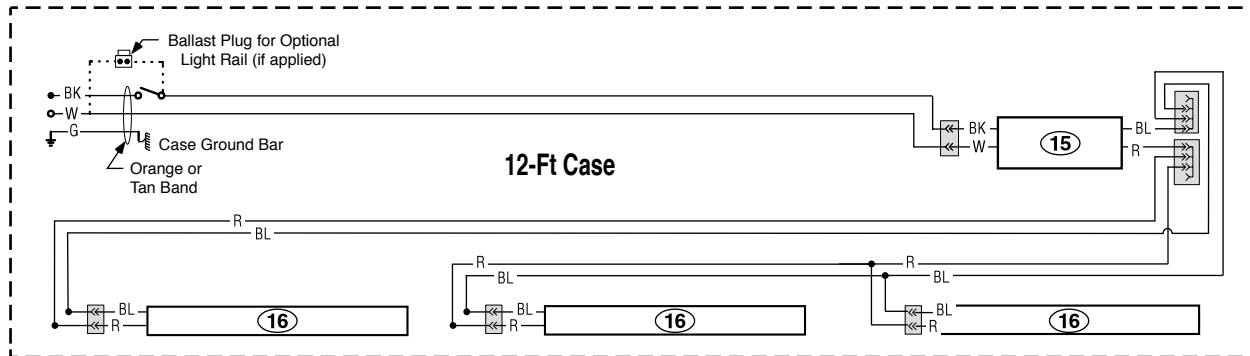
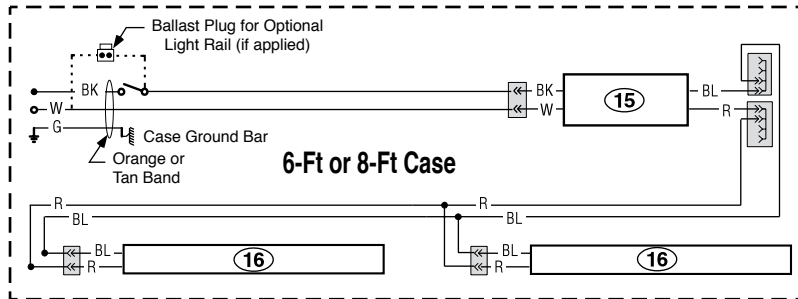
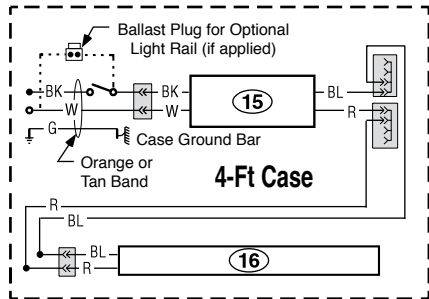
CIRCLED NUMBERS = PARTS LIST ITEM NUMBERS

Grayed components in 12 foot models only

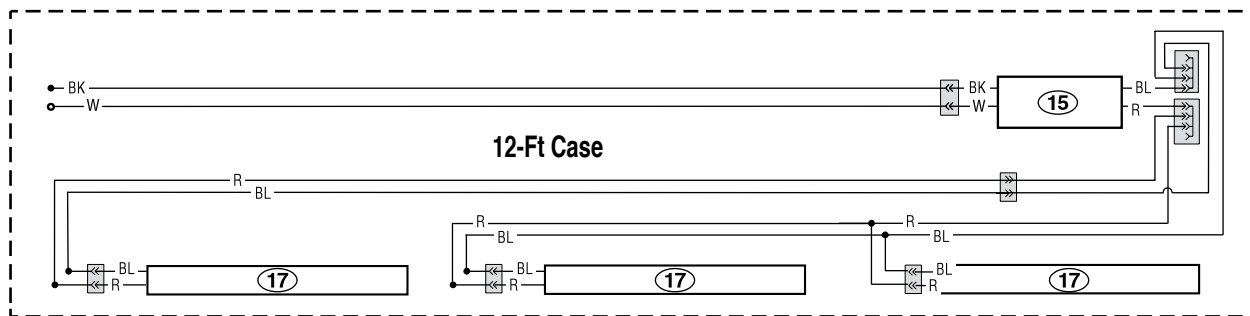
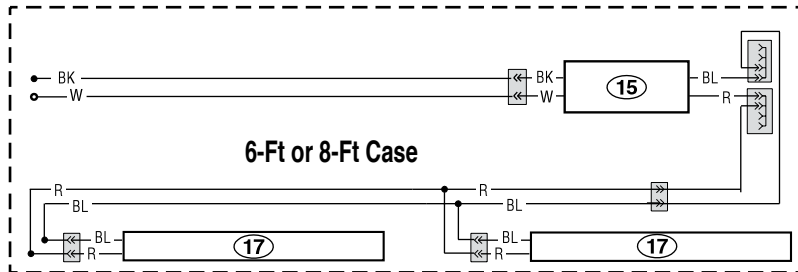
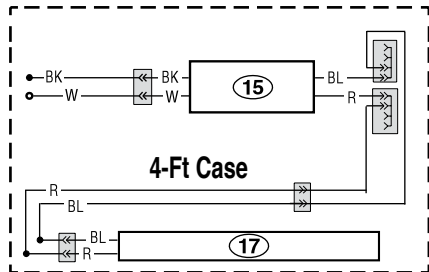
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Optional Canopy and Rail Light Circuits – LED Fixtures

EcoShine II LED Canopy Lighting – 1 Row



EcoShine II LED Rail Lighting – 1 Row



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