HUSSMANN®
Excel

SMB

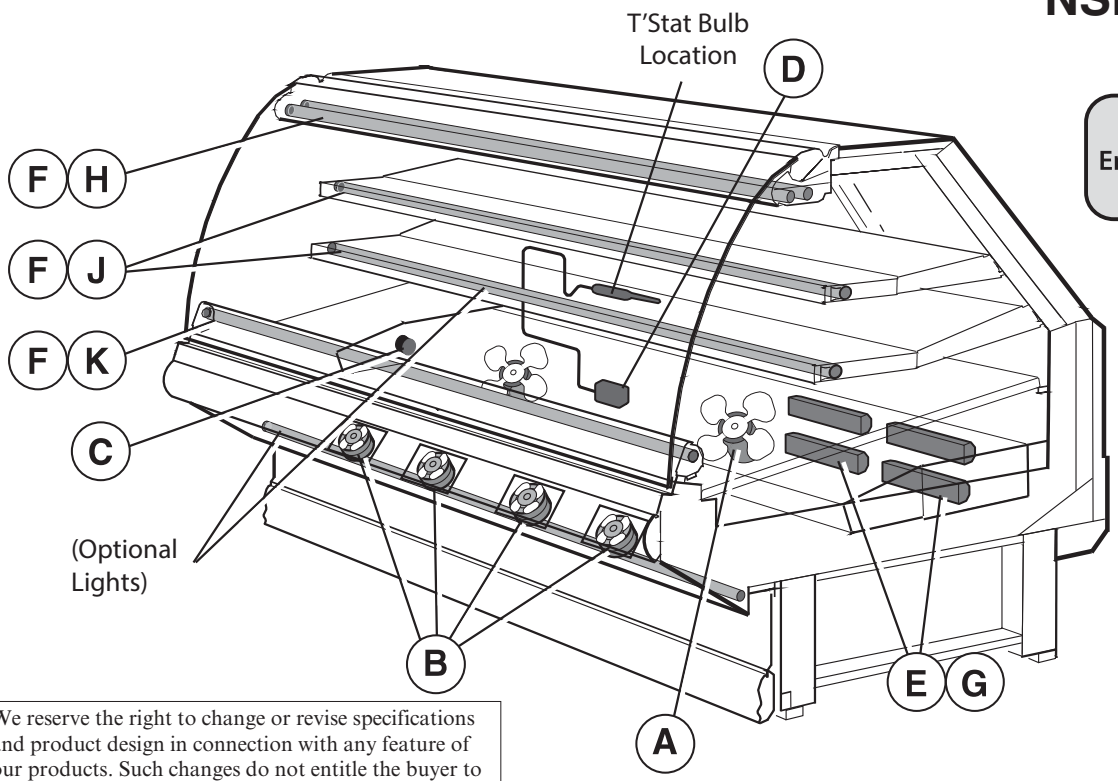
Technical Data Sheet

P/N 0522397_E

NSF® Certified

April 2017

DOE 2017
Energy Efficiency Compliant



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 #
FAN ASSEMBLIES AND THERMOSTATS			
A.	0392457	Fan Motor, Evaporator - 120V	(1)
	0409512	Fan Blade - 120V (embossing toward motor	
	0436517	Fan Motor, Evaporator - 230V	
	0409513	Fan Blade - 230V embossing toward motor	
B.	0522287	Fan Motor, Ambient - 120V	(2)
	0404552	Fan Motor, Ambient - 230V	
C.	0382028	Standard Non-adjustable Defrost Thermostat	(3)
D.	0137880	Optional Adjustable Refrigeration Thermostat	(4)
LAMPS AND BALLASTS			
E.		Electronic Ballast	(5)
	0355716	**2 lamps** 120V	
	0355398	**3 lamps** 120V	

Item	Part #	Description	Wiring Item #
E.		Electronic Ballast (CONTINUED)	(5)
	0440215	**2 lamps** 230V 50-60 Hz	
	0428652	**3 lamps** 230V 50-60 Hz	
	0385104	Ballast Transformer 230V 50-60 Hz, per ballast	
F.		Fluorescent Lamp *Replace with like fixtures*	(6)
LED FIXTURES AND POWER SUPPLY			
G.	0501213	Power Supply	(7)
H.		LED Canopy Fixture *Replace with like fixtures*	(8)
J.		LED Shelf Fixture *Replace with like fixtures*	(9)
K.		LED Rail Fixture *Replace with like fixtures*	(10)

Data sheet-Excel-SMB

Note: Revision E: April 2017. Updated LED energy values. Other changes marked with a bar, circle or underline.

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Spanish P/N 3026944

Engineering
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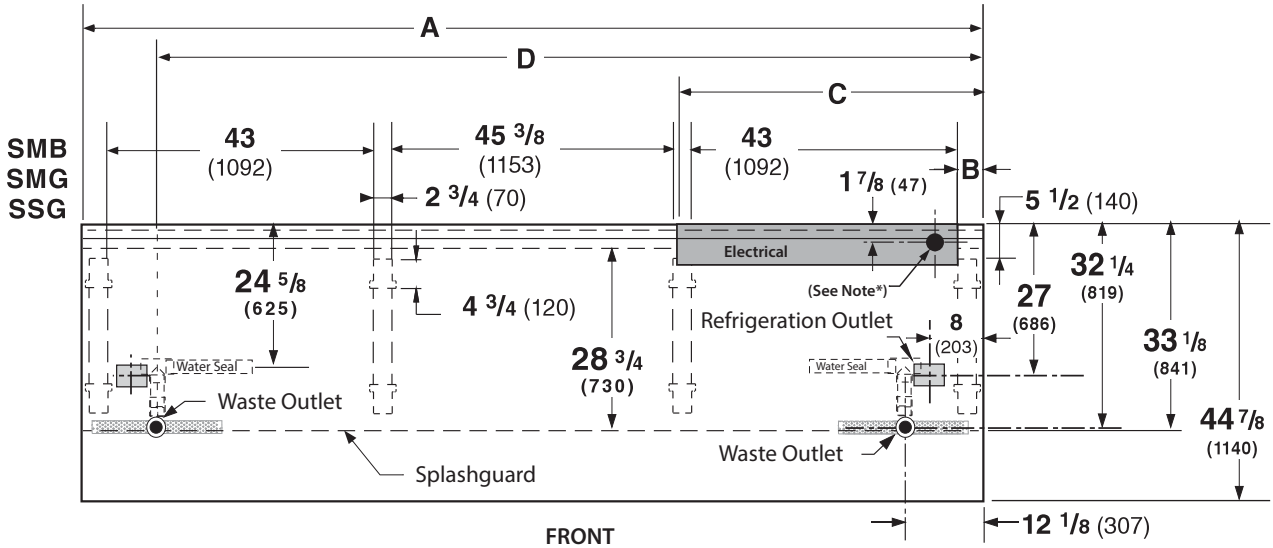
PHYSICAL DATA	
Merchandiser Drip Pipe (in.)	1 1/2
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	5/8

Dimensions shown as in. and (mm).



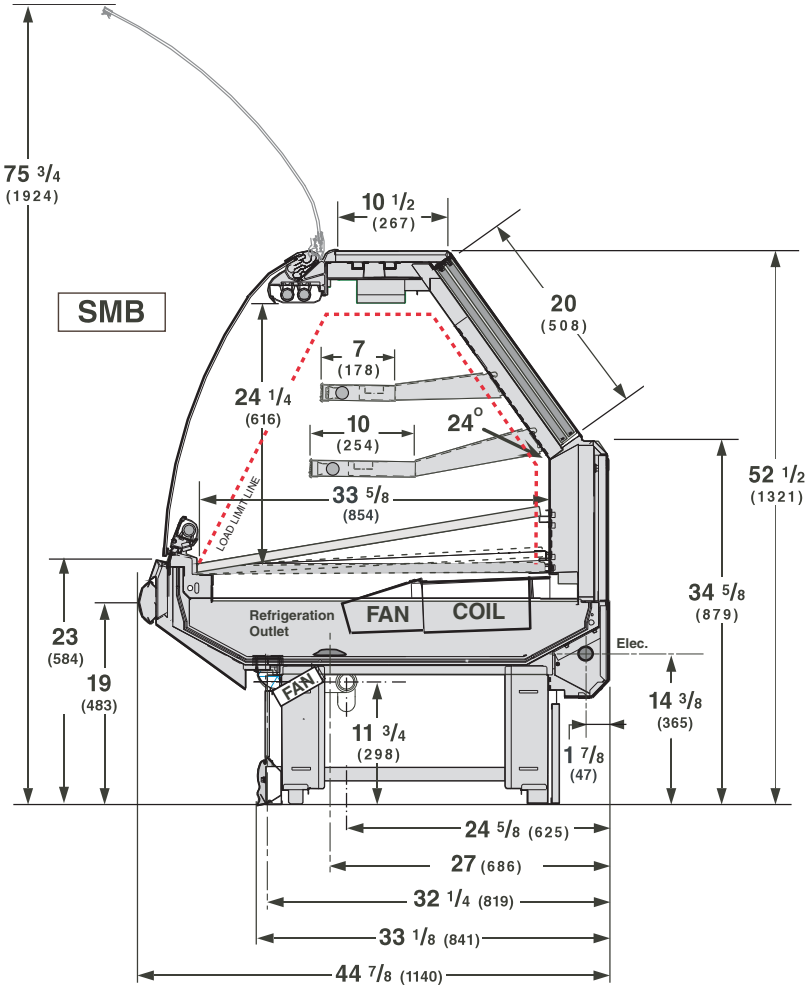
		4 ft	6 ft	8 ft	12 ft
General					
(A)	Case Length	48 1/4 (1226)	72 1/4 (1835)	96 3/8 (2448)	144 1/2 (3670)
	Maximum O/S dimension of case back to front *(Note: Includes bumper)*	44 7/8 (1140)	44 7/8 (1140)	44 7/8 (1140)	44 7/8 (1140)
	Back of case to front of splashguard	33 1/8 (841)	33 1/8 (841)	33 1/8 (841)	33 1/8 (841)
	Center of rear legs to center of front legs	23 1/2 (598)	23 1/2 (598)	23 1/2 (598)	23 1/2 (598)
Each End and Partition adds 1 1/2 in. (38 mm) to the length of the lineup.					
Electrical Service					
(B)	RH end of case to Electrical raceway right edge	3 7/8 (98)	3 7/8 (98)	3 7/8 (98)	3 7/8 (98)
(C)	RH end of case to Electrical raceway left edge	41 3/8 (1051)	32 3/4 (831)	40 1/8 (1019)	44 1/2 (1131)
	Back of case to center of knockout	1 7/8 (47)	1 7/8 (47)	1 7/8 (47)	1 7/8 (47)
* Electrical Field Wiring Connection Point					
Waste Outlet					
(D)	RH End of case to the center of LH waste outlet	36 1/4 (921)	60 1/4 (1530)	84 3/8 (2143)	132 1/2 (3366)
	RH End of case to the center of RH waste outlet	12 1/8 (307)	12 1/8 (307)	12 1/8 (307)	12 1/8 (307)
	Back O/S of case to center of waste outlets	32 1/4 (819)	32 1/4 (819)	32 1/4 (819)	32 1/4 (819)
	Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
** Field installed water seal outlets, tees, and connectors are shipped with the merchandiser.					
Refrigeration Outlet					
	Back of case to center of refrigeration outlet	27 (686)	27 (686)	27 (686)	27 (686)
	RH end of case to center of refrigeration outlet	8 (203)	8 (203)	8 (203)	8 (203)
	Outside diameter of the liquid line	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)	3/8 (9.5)
	Outside diameter of the suction line	5/8 (16)	5/8 (16)	5/8 (16)	5/8 (16)

Excel SMB
Meat & Delicatessen

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.

Dimensions shown as in. and (mm).



PHYSICAL DATA

Estimated Charge (lb)**

4 ft	0.75 lb	12 oz	0.35 kg
6 ft	1.0 lb	16 oz	0.5 kg
8 ft	1.5 lb	24 oz	0.7 kg
12 ft	2.0 lb	32 oz	0.9 kg

**This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately 0.5 lb (8 oz / 0.2 kg).

Length Added to Lineup by:

Each Plastic End w/ Bumper (in.)	3 1/2
Each End/Partition (in.)	1 1/2

NSF Certification

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

REFRIGERATION DATA

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

	SMB§
Discharge Air (°F)	24
Evaporator (°F)	18
Unit Sizing (°F)	16

§ 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.

Btulhrlft	SMB
Parallel	420
Conventional	450

DEFROST DATA

	SMB
Frequency (hr)	12
Defrost Water (lb/ft/day)	0.20

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

OFFTIME	SMB
Temp Term (°F)	43°
Failsafe (minutes)	90

ELECTRIC OR GAS Not Recommended

Standard Defrost Thermostat

Close on rise: close 43°F — open 33°F

CONVENTIONAL CONTROLS

Low Pressure Backup Control

	SMB
CI/CO (Temp °F)*	**11°F / 1°F**

Indoor Unit Only, Pressure Defrost Termination (Temp °F)*

Not Recommended

*Use a Temperature Pressure Chart to determine PSIG conversions.

Electrical Data

Number of Fans	**4 ft**	**6 ft**	**8 ft**	**12 ft**
Refrigeration (120V 60Hz) – **4W**	**1**	**2**	**2**	**3**
Ambient Air Wipe – 4.5W	**2**	**4**	**4**	**6**
Export Refrigeration (230V 50Hz) – **4W**	**1**	**2**	**2**	**3**
Export Ambient Air Wipe – 15W	**2**	**4**	**4**	**6**

	Amperes				**Watts**			
Merchandiser	**4 ft**	**6 ft**	**8 ft**	**12 ft**	**4 ft**	**6 ft**	**8 ft**	**12 ft**
Evaporator Fans								
Standard (120V 60Hz)	0.31	0.62	0.62	0.93	24	48	48	72
Export: 230V 50Hz	0.18	0.36	0.36	0.54	27	54	54	81
Ambient Air Wipe Fans								
Standard High Efficiency (120V 60Hz)	0.2	0.4	0.4	0.6	9	18	18	27
Export: 230V 50Hz	0.3	0.6	0.6	0.9	50	100	100	150
Constant On Anti-sweat Heaters	NA	NA	NA	NA	NA	NA	NA	NA
Cycling Anti-sweat Heaters	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Circuit Ampacity								
With Standard Fans (120V 60Hz)	0.64	1.28	1.28	1.91				
With Export Fans (230V 50Hz)	0.6	1.2	1.2	1.83				
Maximum Over Current Protection 120V	**20**	**20**	**20**	**20**				
Electric Defrost Heaters (208V)	NA	NA	NA	NA	NA	NA	NA	NA
Gas Defrost Heaters (208V)	NA	NA	NA	NA	NA	NA	NA	NA

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.

Standard Lighting (T8 Fluorescent)	**4 ft**	**6 ft**	**8 ft**	**12 ft**	**4 ft**	**6 ft**	**8 ft**	**12 ft**
2 Row Canopy	0.49	0.80	0.98	1.42	58	92	116	170
1 Row Rail	0.26	0.40	0.49	0.71	30	46	59	85
Optional Lighting (T8 Fluorescent)								
1 Row Ledge	0.26	0.40	0.49	0.71	30	46	59	85
2 Row Shelves	0.49	0.80	0.98	1.42	58	92	116	170
Ecoshine II								
Canopy 2 Row Front	0.16	0.23	0.33	0.49	19.8	28.2	39.5	59.3
Canopy 2 Row Front HO	0.28	0.39	0.56	0.84	33.4	46.4	66.8	100.2
1 Row Rail	0.08	0.12	0.16	0.25	9.9	14.1	19.8	29.7
1 Row of Shelves	0.08	0.12	0.16	0.25	9.9	14.1	19.8	29.7
2 Row of Shelves	0.16	0.23	0.33	0.49	19.8	28.2	39.5	59.3

115V Lighting Circuit Total = Standard Lighting + Total Optional Lighting + Optional Shelf Lighting
120V LED Lighting Circuit Total = Canopy Lighting + Shelf Lighting + Rail Lighting
230V Lighting Circuit Total = Multiply 115V Lighting Circuit Total by 0.52

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

Recommended Usable Cube [1] ***(Cu Ft/Ft)***	2.61 ft^3/ft (0.24 m^3/m)
AHRI Total Display Area [2] ***(Sq Ft/Ft)***	3.34 ft^2/ft (1.02 m^2/m)
Shelf Area [3] ***(Sq Ft/Ft)***	4.22 ft^2/ft (1.29 m^2/m)

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

[2] Computed using AHRI 1200 standard methodology: Total Display Area, ft^2 [m^2]/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 one 7-inch shelf and one 10-inch shelf.

ESTIMATED SHIPPING WEIGHT [4]

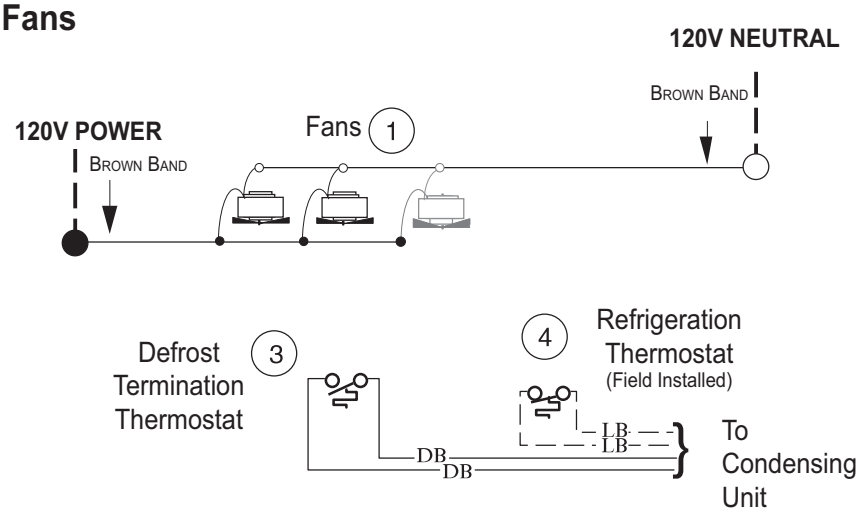
Case					**Solid End**	**Glass / Plastic End**
	4 ft	***6 ft***	***8 ft***	***12 ft***	***(each)***	***(each)***
lb *(kg)*	700 (318)	800 (363)	900 (408)	1300 (590)	70 (32)	100 (45)

[4] Actual weights will vary according to optional kits included.

Fan Wiring Offtime Defrost

4 ft case has 1 Fan
6 ft case has 2 Fans
8 ft case has 2 fans
12 ft case has 3 Fans

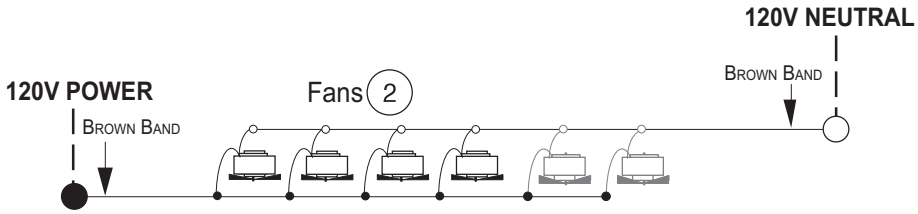
Fans



Ambient Fan Wiring Glass Air Wipe

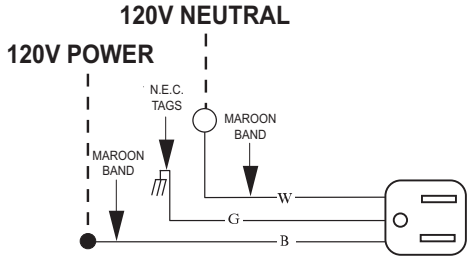
4 ft case has 2 Fans
6 ft case has 3 Fans
8 ft case has 4 fans
12 ft case has 6 Fans

Fans



Receptacles

Electric Service Receptacle



WARNING

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

Circled numbers = Parts List Item Numbers

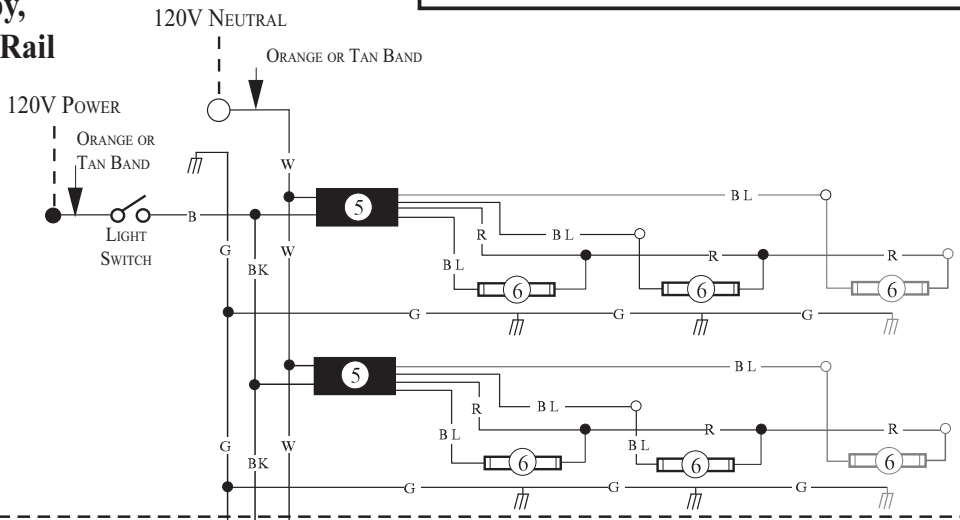
Grayed components in 12 foot models only.

R = Red G = Green BL = Blue LB = Light Blue DB = Dark Blue BK = Black

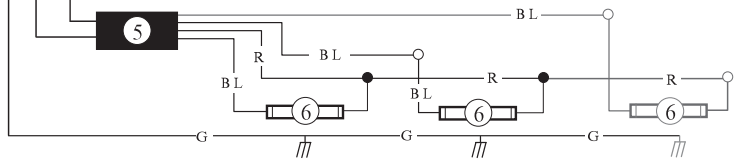
● = 120V Power ○ = 120V Neutral ⏚ = Field Ground ⏚ = Case Ground

Fluorescent Light Circuits

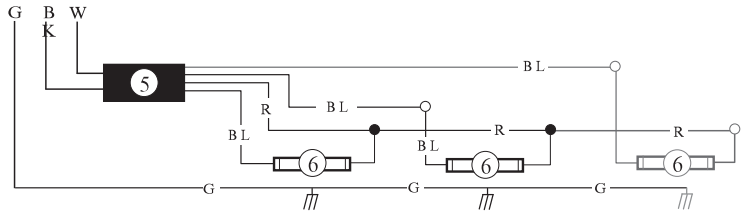
Standard Lighting
2 Row Canopy,
1 Row Interior Rail



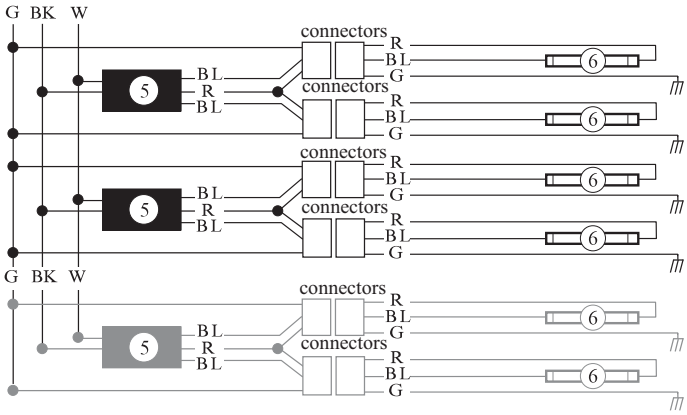
Rail Light Circuit



Optional Ledge Light Circuit



Optional Shelf Harness and Light Circuits



WARNING

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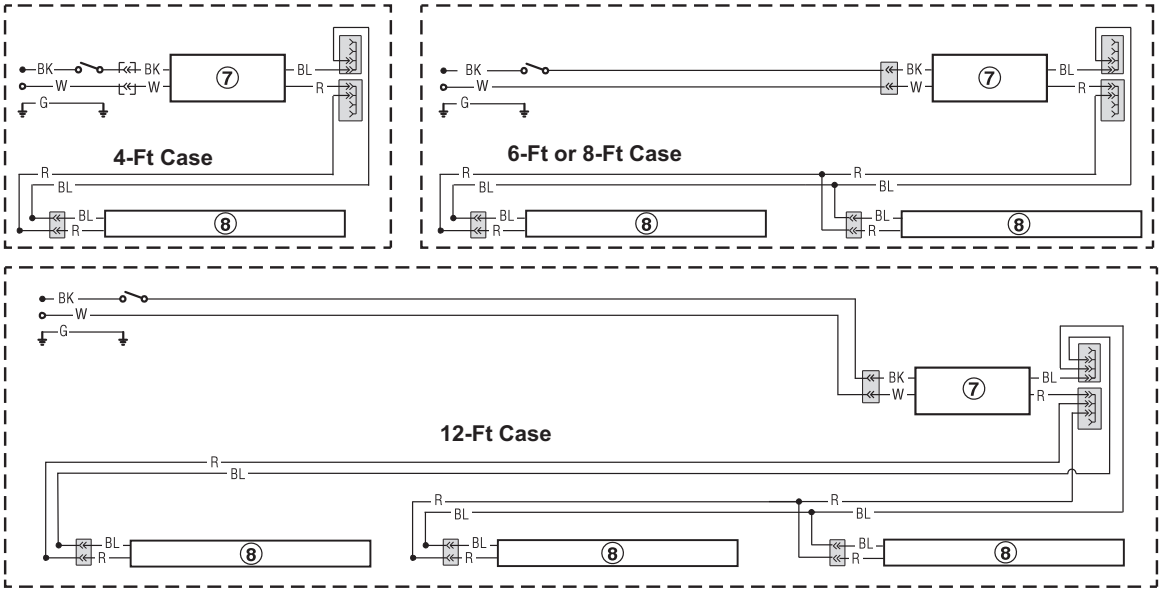
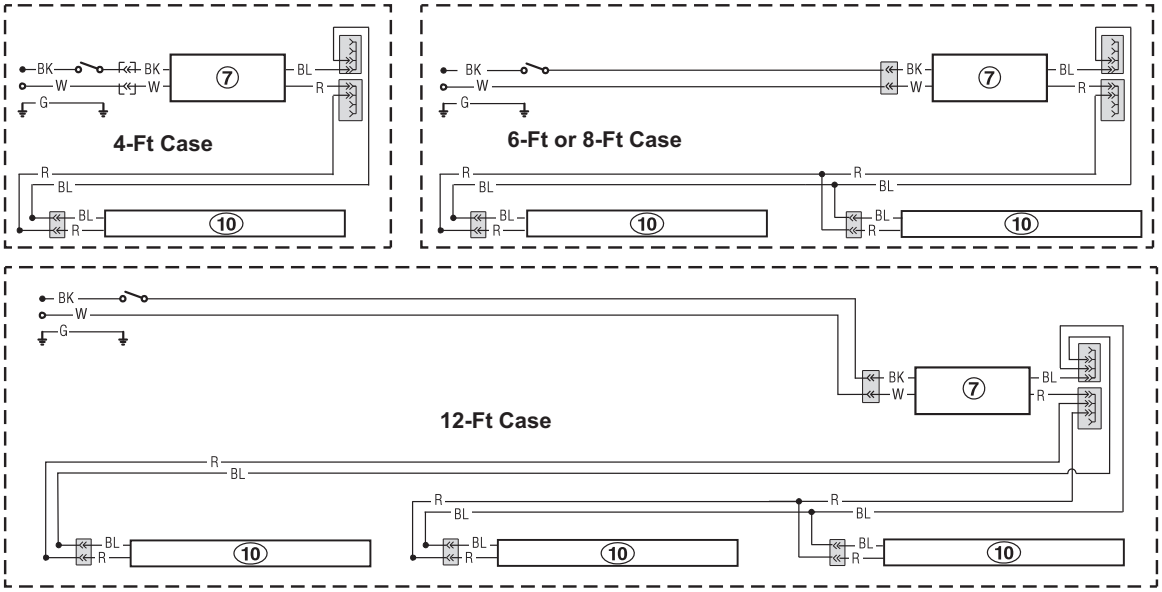
Optional LED Lighting

EcoShine II LED Canopy Lighting - 1 Row



EcoShine II LED Rail Lighting - 1 Row



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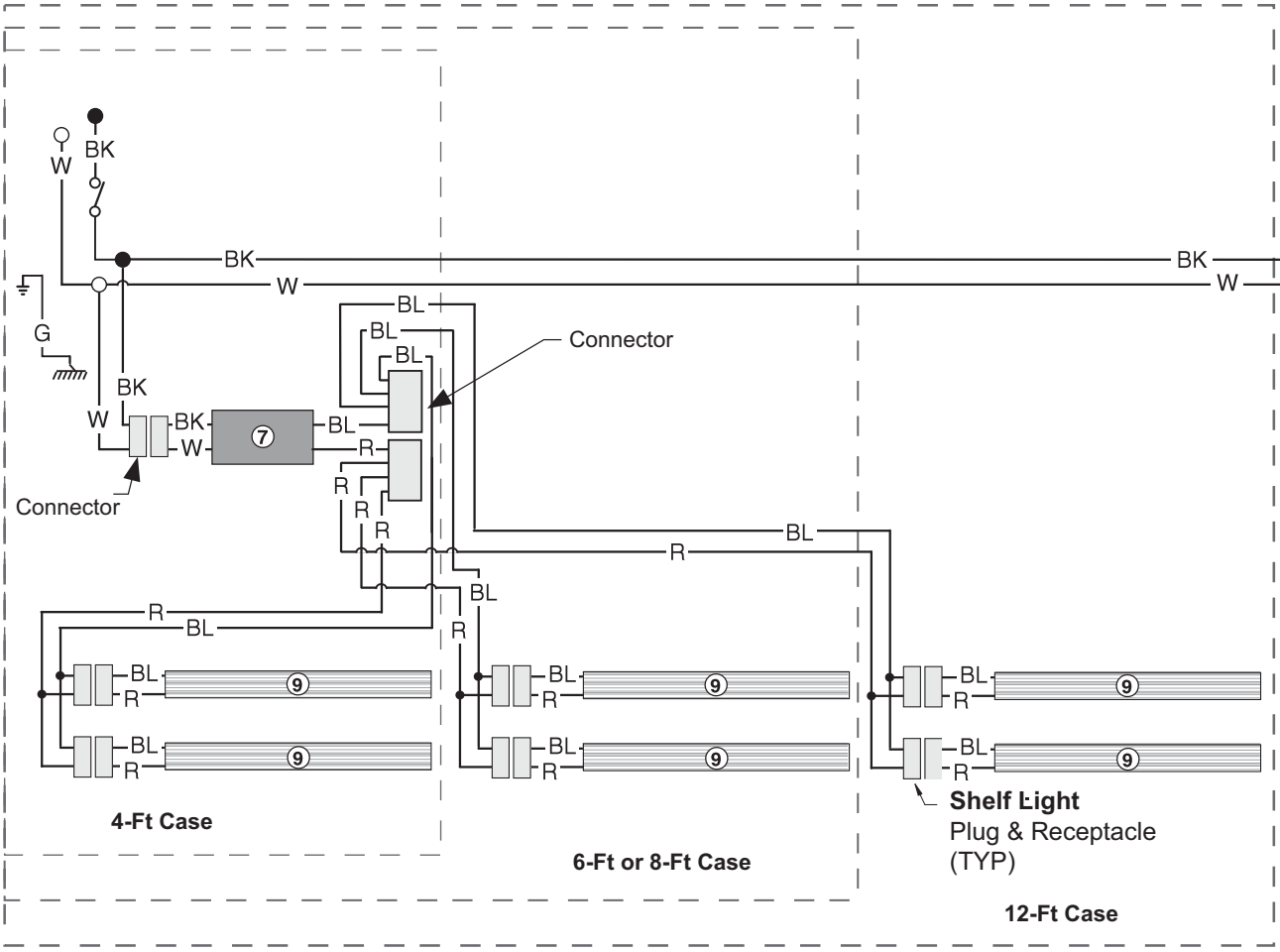
● = 120V Power ○ = 120V Neutral = Field Ground = Case Ground

Optional Shelf Harness and LED Light Circuits for Two Rows of Shelves



WARNING

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● = 120V Power ○ = 120V Neutral ⏚ = Field Ground ⫽ = Case Ground