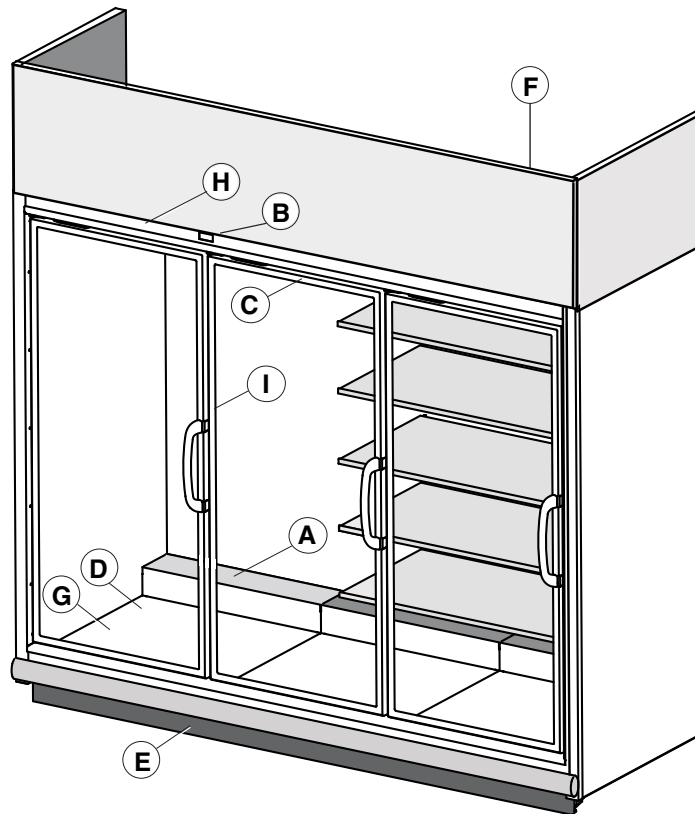


Freedom Line merchandisers are top mount refrigeration ready



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.

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

Item	Part #	Description	Wiring Item #	Item	Part #	Description	Wiring Item #
FAN ASSEMBLIES, AND THERMOSTATS				LED FIXTURES AND POWER SUPPLY			
A.	4W Standard Energy Efficient Fan Assembly		(1)	H.	0547639	Power Supply	(7)
	0530147	Fan Motor, Evaporator		I.	Door Lamp, LED		
	0557935	Fan Blade			0530530	4100K Center	(8)
						4100K End	(9)
CONTROL PANEL							
B.	3007826	Dixell XR75 Control	(2)				
C.	0334802	Dixell Discharge Air Sensor	(3)				
D.	0334802	Dixell Defrost Sensor	(4)				
REFRIGERATION							
E.	0539352	Condensate Pump	(5)				
	0539353	Condensate Float Switch					
F.	0538255	Condensate Pan & Heater (Evapoway)	(6)				
G.	0460992	TEV 2 Door Models					
	0460993	TEV 3-4-5 Door Models					

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

Note: Revision L: Updated refrigerant charges.

Engineering Plan Views

Reach-In
2, 3, 4 & 5 Door

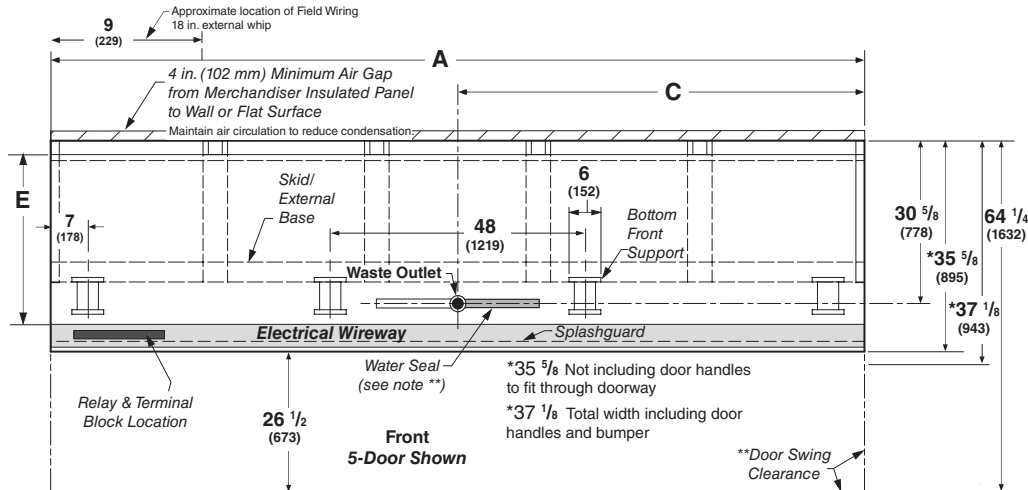
Freedom Line RFLNS - RFMNS Plan View 01-2014

PHYSICAL DATA

Merchandiser Drip Pipe (in.)	1
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	5/8

Dimensions shown as inches and (mm).

Freedom Line — Standard Narrow Footprint Plan View 2, 3, 4 & 5 Door



Plan View Dimensions for Freedom Line Options

	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)
Maximum O/S dimension of merchandiser back to front *	37 1/8 (943)	37 1/8 (943)	37 1/8 (943)	37 1/8 (943)
<i>(Each solid end adds approximately 2 3/8 in (60 mm) to length of line up; each partition adds approximately 2 3/4 in (70 mm); case to case joints can add approximately 1/8 in (3 mm) for gasket material.)</i>				
** Add 26 1/2 in. (673 mm) for door swing.				
Back of merchandiser to rear of splashguard	32 7/8 (835)	32 7/8 (835)	32 7/8 (835)	32 7/8 (835)
Width of Skid rail	3 3/8 (86)	3 3/8 (86)	3 3/8 (86)	3 3/8 (86)
Width of Bottom Front Support	6 (152)	6 (152)	6 (152)	6 (152)
<i>Fork lift pocket spacing (center to center) is 11 in. and the max blade width is 4 in. for all cases.</i>				
Electrical Service (dimensions are approximate)				
(B) LH end of merchandiser to field wiring connection	9 (229)	9 (229)	9 (229)	9 (229)
* NOTE: Electrical Field Wiring Connection Point is at top.				
Waste Outlet				
(C) Right end of merchandiser to center of waste outlet	23 3/4 (602)	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 (25)	1 (25)	1 (25)	1 (25)
** NOTE: Field installed condensate removal system shipped with merchandiser.				
Refrigeration Interface				
(D) RH end of merchandiser to center of refrigeration interface	5 3/8 (136)	5 3/8 (136)	5 3/8 (136)	5 3/8 (136)
* NOTE: Refrigeration Interface point is at top.				
Outside bottom front supports from end of merchandiser	7 (178)	7 (178)	7 (178)	7 (178)
Center bottom front support from Centerline	24 (610)	24 (610)	24 (610)	24 (610)
<i>Distance between Center and Outside supports will vary</i>				

Freedom Line Narrow Footprint Reach-in
Top-Mount-Refrigeration Ready
2, 3, 4 and 5 Door Models



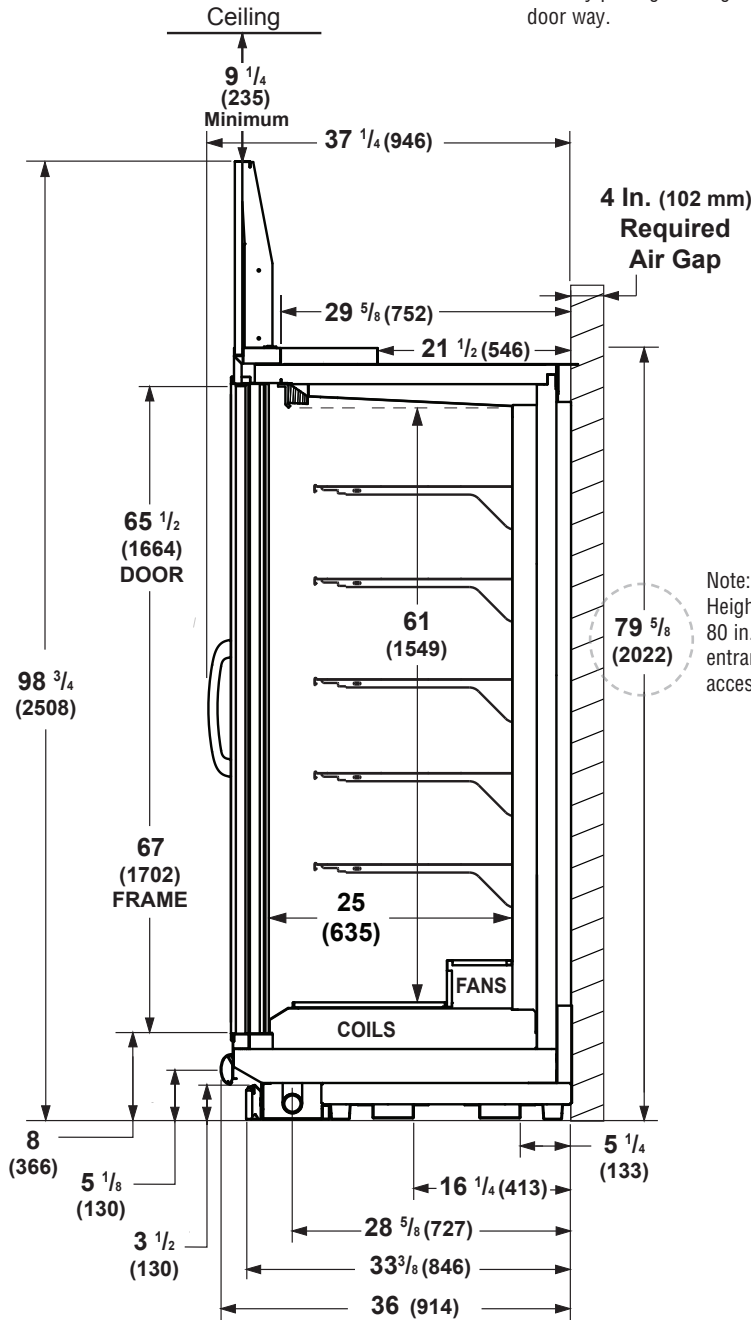
Hussmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2017 energy efficiency standards.

Provide adequate clearance for air circulation at rear to reduce condensation.

Note: An optional Louvered Facade Panel kit is available that will allow for the top spacing minimum clearance of 3 inches (76 mm).

Dimensions shown as inches and (mm).

Note: Facade is field-installed for easy passage through door way.



Freedom Line RFMNS

With Innovator Doors
Medium Temperature

REFRIGERATION DATA

Note: This data is based on store temperature and humidity levels that do not exceed NSF guidelines.

	MEDIUM TEMP
Discharge Air °F	36
Average Evaporator* °F	30
Unit Sizing °F	28

BTU/HR/DOOR	NSF TYPE I	NSF TYPE II
Temp (°F) /R.H.	75°/55%	80°/55%
INNOVATOR		
Parallel	415	470
Conventional	430	490

§ 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

Frequency (hr)	24
Defrost Water (lb/Dr/day)	0.36
(± 15% based on case configuration and product loading.)	

OFFTIME

Temp Term (°F)	48
Failsafe (minutes)	40

CONVENTIONAL CONTROLS

	Cut In	Cut Out
HPC (psig)	320	395
LPC (psig)	15	5

Working charge with recommended Condensing Unit installed:

2Dr	2.5 lb	40.0 oz	1.13 kg
3Dr	3.4 lb	54.4 oz	1.54 kg
4Dr	4.3 lb	68.8 oz	1.95 kg
5Dr	5.3 lb	84.8 oz	2.40 kg

NSF Certification

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

Freedom Line RFMNS
 With Innovator Doors
 Medium Temperature

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

Electrical Data

	2Dr	3Dr	4Dr	5Dr					
Number of Fans—4W	2	3	4	5					
		Amperes				Watts			
Merchandiser	2Dr	3Dr	4Dr	5Dr	2Dr	3Dr	4Dr	5Dr	
Evaporator Fan									
120V / 60Hz Standard Energy Efficiency	0.24	0.36	0.48	0.60	16	24	32	48	
Door Anti-sweat Heaters (on fan circuit)	NA								
Frame Anti-sweat Heaters (on fan circuit)									
120V 50/50Hz Standard	0.39	0.59	0.79	0.99	47	71	94	118	
Condensate Pan Heater 120V	5.0	5.0	5.0	5.0	600	600	600	600	
Condensate Pump 120V	0.20	0.20	0.20	0.20	8.7	8.7	8.7	8.7	
Defrost	NA								
Standard Vertical LED Lighting	2Dr	3Dr	4Dr	5Dr	2Dr	3Dr	4Dr	5Dr	
Hussmann EcoShine II™ [22 W] (120V)	0.31	0.46	0.62	0.77	37	56	74	93	

Case electrical data only shown for reference. For total electrical circuit requirements (MCA and MOPD) refer to condensing unit data sheet, part number 0541774.

† Notes:

1. Electrical input requirements: One 120V 60Hz single phase circuit for the RFMNS 2 and 3, one 208/230V 60Hz, 4 wire single phase circuit for RFMNS 4 and 5.
2. External whip is provided for 208/230V 4 wire, and 120V connection.

A qualified electrician should perform all wiring in accordance with the NEC code and/or all local codes. Wire sizing must take into account the total distance from the electrical panel to the Freedom case.

Freedom Line RFMNS

With Innovator Doors

Medium Temperature

Product Data

<i>Recommended Usable Cube</i> ¹ (Cu Ft/Dr)	20.95 ft ³ /Dr (0.59 m ³ /Dr)
<i>AHRI Total Display Area</i> ² (Sq Ft/Dr)	12.66 ft ² /Dr (1.18 m ² /Dr)
<i>Shelf Area</i> ³ (Sq Ft/Dr)	27.20 ft ² /Dr (2.53 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 (5) rows of 21-inch wire shelves.

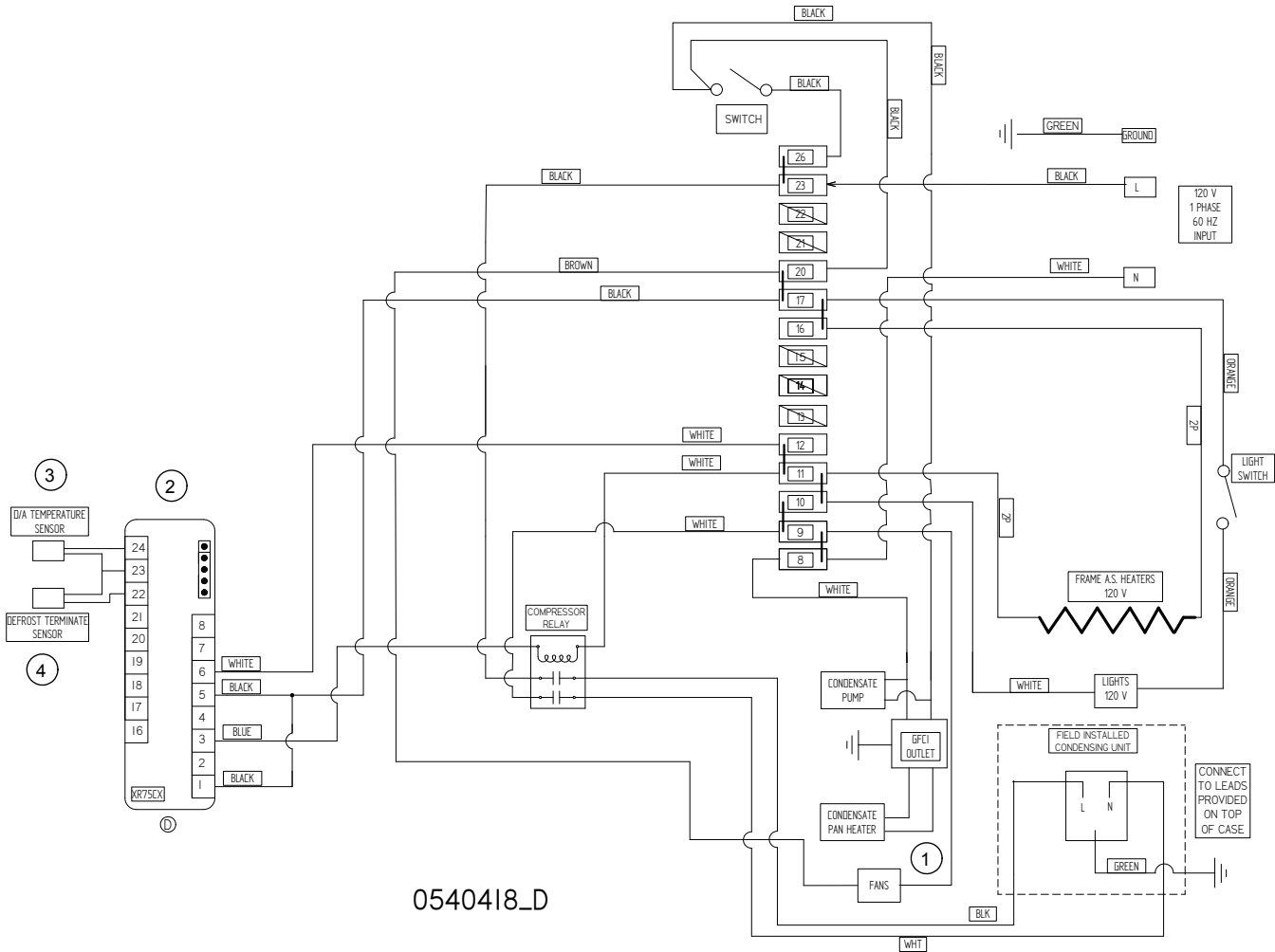
ESTIMATED SHIPPING WEIGHT⁴

	<i>2 Dr</i>	<i>3 Dr</i>	<i>4 Dr</i>	<i>5 Dr</i>	<i>Solid End (each)</i>
Standard Freedom Line Merchandiser (20-Inch Facade)					
lb (kg)	1005 (456)	1262 (572)	1688 (766)	2070 (939)	74 (34)

⁴ Actual weights will vary according to optional kits included.

Freedom Line RFMNS

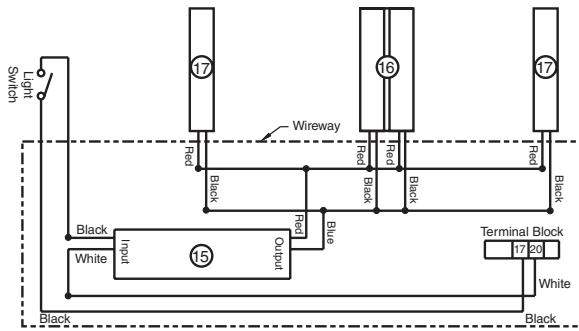
With Innovator Door
Medium Temperature



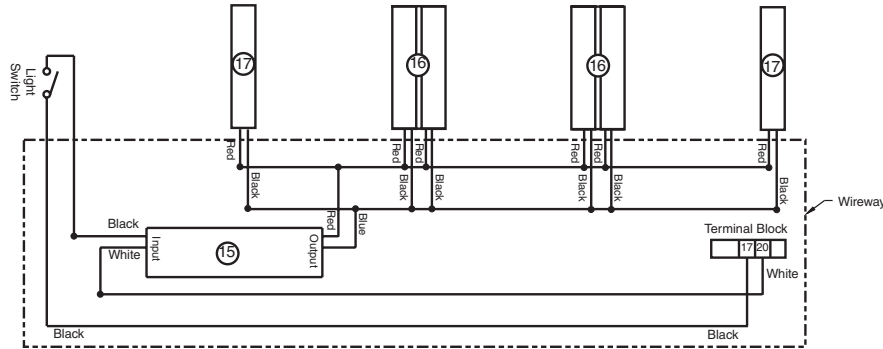
Dixell Wiring Diagram — Medium Temperature Reach-in with 2 or 3 Doors 120V

Freedom Line RFMNS
 With Innovator Door
 Medium Temperature

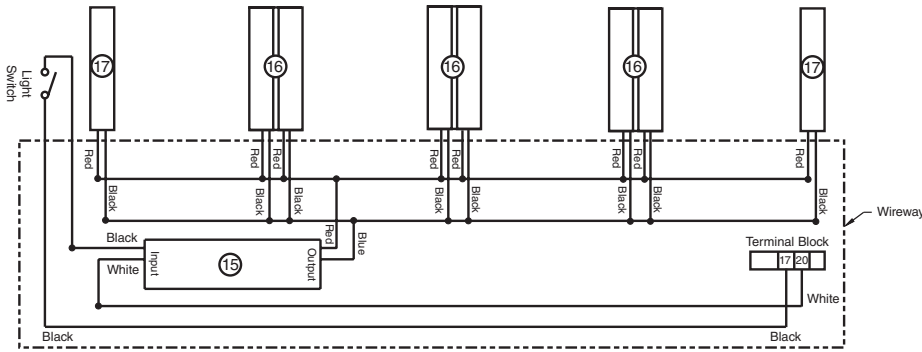
**Optional
 Lighting
 LED
 Fixtures
 Hussmann
 EcoShine™**



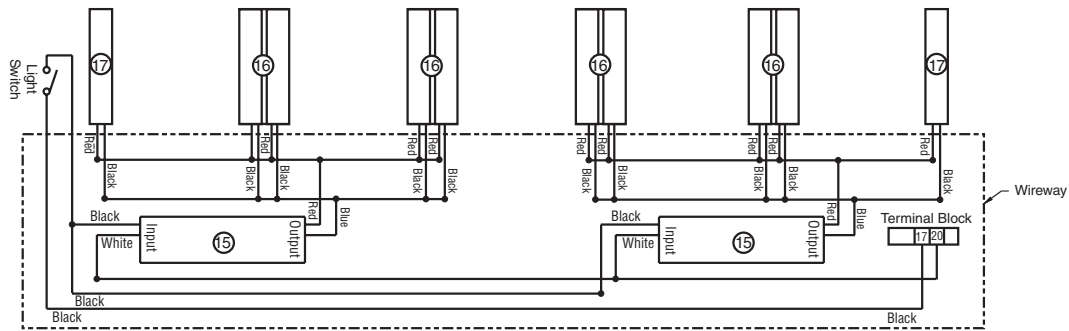
2 Door LED Light Wiring Diagram



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

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

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