

HUSSMANN®



Freedom Line Reach-In Cases

RFLN, RFMN

Designed to give you exceptional merchandising with the convenience and flexibility of field-installed refrigeration on top of case or from a remote location

www.hussmann.com

Freedom Line Reach-In Cases



Refrigeration options include field installed top condensing unit or piping to a remote system.

Full size reach-in doors allow more product facings than typical self-contained cases.

Narrow front-to-back footprint reduces floor space requirement.

The Freedom Line provides all the merchandising power of a remote supermarket reach-in, plus the flexibility of various refrigeration options and the mobility of a drainless case.

Based on the RLN/RMN narrow footprint platform, Freedom Line RFLN AND RFMN Reach-ins are ideal for small footprint food stores and other applications where flexibility and no floor drains are important.

A decorative facade makes this a visually powerful merchandising platform that can help attract and influence shoppers.

Available Sizes:

- 2, 3, 4, and 5 door models.
- Can be connected to create line-ups.
 - Plexiglass partitions used between like temperature cases.
 - Solid partitions used between medium and low temp cases.
- Fits through 36" x 83" doorway with easy removal of exterior parts.

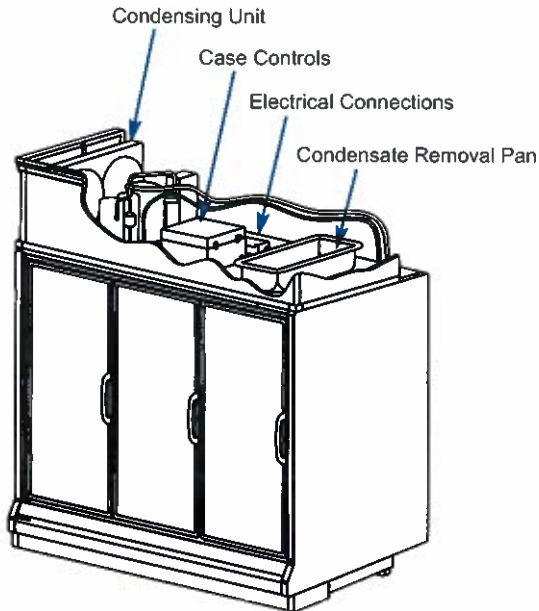


Freedom Line Flexibility: Refrigeration Options

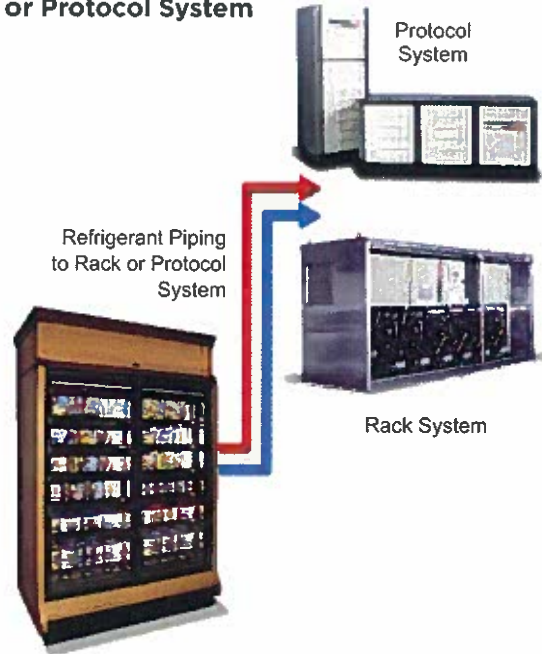
Easy Installation:

- No drains required: condensate removal system with pump and condensate pan are factory installed.
- Refrigeration lines are pre-charged and pre-piped to top of case with quick-connect, threaded couplings for easy condensing unit installation.
- Pre-wired and labeled to simplify electrical connections.
- Decorative facade conceals top-mounted refrigeration and electrical components.

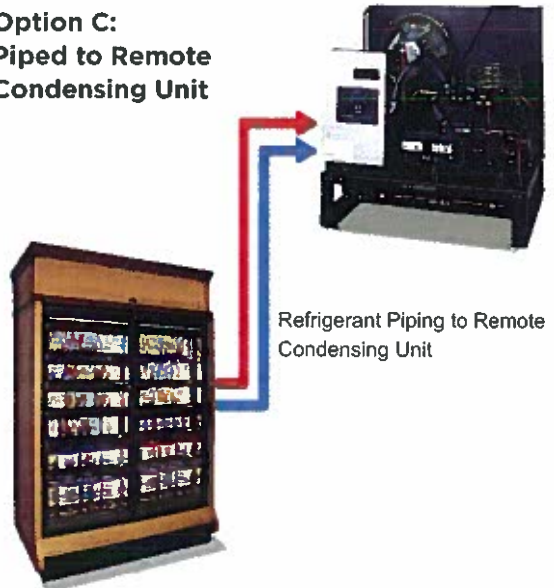
Option A: Top Field Mounted Condensing Unit



Option B: Remotely Piped to Rack or Protocol System



Option C: Piped to Remote Condensing Unit



Freedom Line

- Great Merchandising
- Maximum Energy Efficiency
- Refrigeration Options
- Easy, Flexible Installation



Large Display with Narrow Footprint

- Full-size reach-in solution to increase product facings and improve sales.
- More display capacity than typical self-contained models.
- Narrow footprint keeps required floor space to a minimum.

Extremely Energy Efficient

- Highly efficient design helps keep energy costs lower than other options.

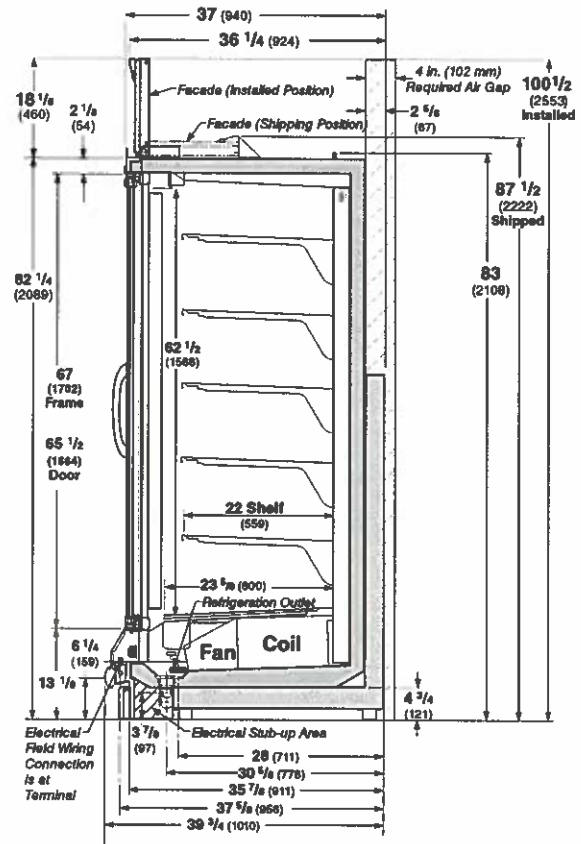
Factory Installed Electronic Controls

- Temperature and defrost controls.
- Time clock.

Optional

- Sound and visual temperature alarm.

RFLN, RFMN



Fits through 36" x 83" doorway with easy removal of exterior parts.



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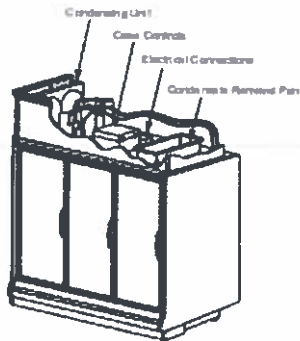
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Freedom Line Flexibility: Refrigeration Options

Easy Installation:

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- Pre-wired and labeled to simplify electrical connections.
- Decorative facade conceals top-mounted refrigeration and electrical components.

Option A: Top Field Mounted Condensing Unit



Big Lots Option A

Option B: Remotely Piped to Rack or Protocol System



Option C: Piped to Remote Condensing Unit



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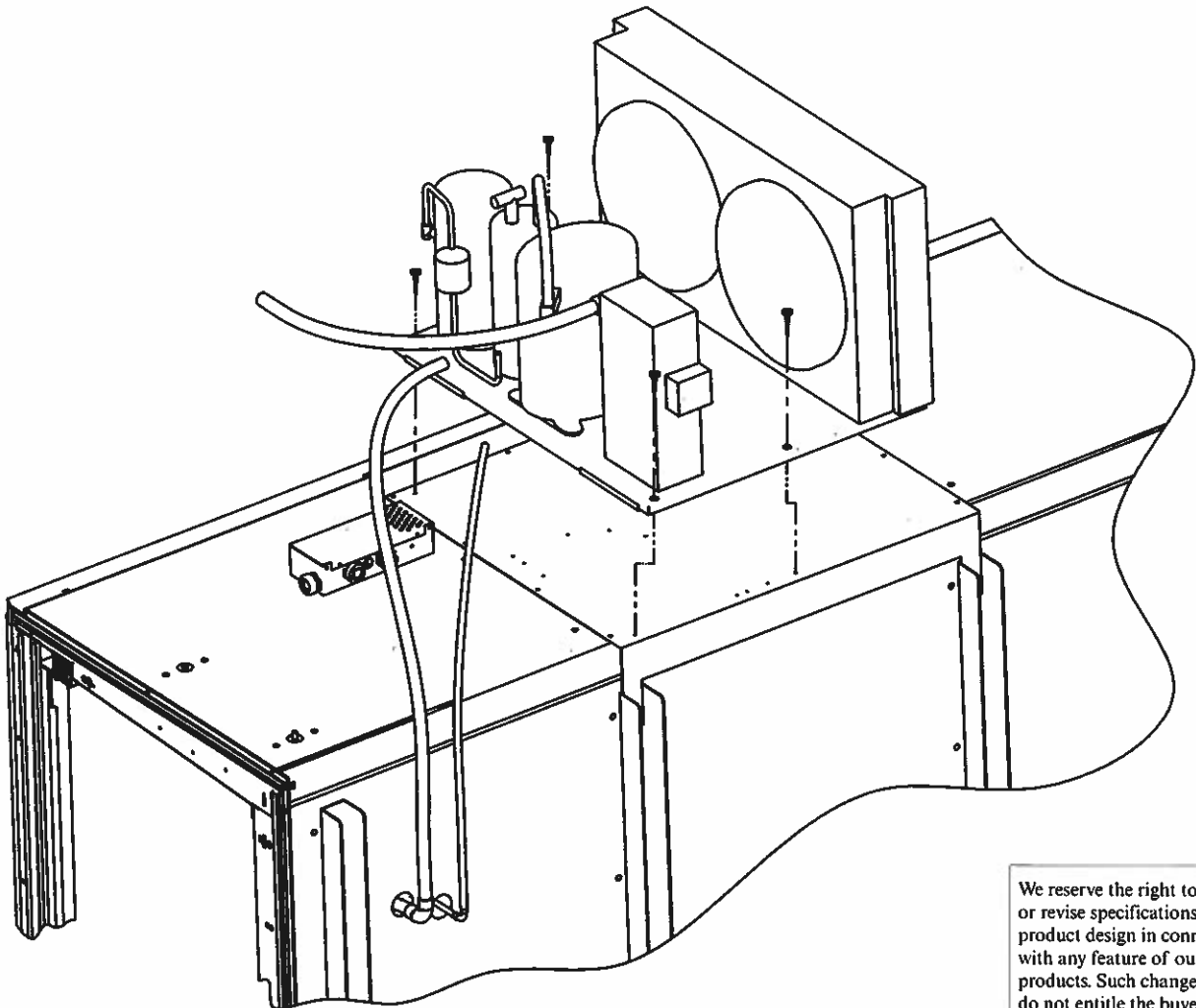
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Freedom Line Condensing Units

Technical Data Sheet

P/N 0526765_C

November 2012



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.

NOTE: Revision C adds note on page 2, and condensate pan MOPD on page 3. Other changes marked by bar, underline or circle.

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Freedom Line
Condensing Units for
Reach-in Cases

Case wiring must be on a separate circuit. See Freedom Case data sheet for case circuit requirements.

Condensing Unit	TCLA	TCLB	TCLC	TCLD	TCMA	TCMB	TCMC	TCMD
Application	Low Temperature				Medium Temperature			
	2 Door	3 Door	4 Door	5 Door	2 Door	3 Door	4 Door	5 Door
Voltage/ 60Hz / 1 Phase	208/230	208/230	208/230	208/230	120	120	208/230	208/230
Condensing Unit Only Minimum Circuit Ampacity (MCA)	<u>12.8</u>	17.2	16.6	26.7	10.7	8.4	6.7	9.7
Maximum Overcurrent Protection Device (MOPD)	20	25	25	35	15	15	15	15
Compressor LRA	46	59.2	59.2	87	34.6	29	24.8	33.7
Heat of Rejection (Btu/hr)	4300	6300	8280	10300	1810	2580	3230	4010
Dimensions (inches)								
Height	13.8	16.2	19.0	19.0	14.2	11.8	11.8	13.1
Length	24.0	24.1	25.9	25.8	10.5	16.2	16.1	24.0
Width	17.1	18.3	34.0	34.0	16.0	15.3	12.8	17.0
Shipping Weight (lbs)	120	145	201	226	36	49	50	60
Receiver Capacity (lbs R404A)	5.4	5.4	6.4	6.1	1.7	2.3	2.4	5.6
Oil Recharge (oz)	24	45	45	45	16	16	12	15
Refrigerant Connections (inches)								
Liquid Line	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Suction Line	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$
Dimensions (inches)								
Height	16.1	17.2	19.0	19.0	16.1	17.2	11.8	13.1
Length	24.0	24.0	25.2	25.2	24.0	24.0	25.2	25.2
Width	18.3	18.3	34.0	34.0	18.3	18.3	34.0	34.0
Shipping Weight (lbs)	116	127	200	286	116	127	200	286

Freedom Line
Condensing Units for
Multi-Deck Cases

Condensing Unit Application	TCMXA TCMXB TCMXC TCMXD				TCMXA TCMXB TCMXC TCMXD			
	CF5X Medium Temperature				DF5NX Medium Temperature			
	4 ft	6 ft	8 ft	12 ft	4 ft	6 ft	8 ft	12 ft
Voltage/ 60Hz / 1 Phase	230	230	230	230	230	230	230	230
Minimum Circuit Ampacity (MCA)	11.7	16.5	21.9	28.7	11.7	16.5	21.9	28.7
Condensing Unit Only Maximum Overcurrent								
Protection Device (MOPD)	15	20	35	45	15	20	35	45
MCA	11.7	16.5	21.9	28.7	11.7	16.5	21.9	28.7
RLA	7	12.4	15.7	20.7	7	12.4	15.7	20.7
LRA	34.2	56	61	100	34.2	56	61	100
MOPD with Condensate Pans	25	30	50	60	25	30	50	60
MCA with Condensate Pans	16.92	24.33	32.33	41.74	16.92	24.33	32.33	41.74
R404A Charge (lbs)	4.0	6.0	8.0	12.0	4.0	6.0	8.0	12.0
Accumulator Capacity (lbs)	NA	NA	6.11	6.11	NA	NA	6.11	6.11
Oil Recharge (oz)	24	45	46	49	24	45	46	49
Heat of Rejection (Btu/hr)	11,557	22,948	22,948	34,304	11,805	16,402	23,248	34,704
Refrigerant Connections (inches)								
Liquid Line	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Suction Line	$\frac{5}{8}$	$\frac{7}{8}$	$\frac{7}{8}$	1 $\frac{1}{8}$	$\frac{5}{8}$	$\frac{7}{8}$	$\frac{7}{8}$	1 $\frac{1}{8}$
Dimensions (inches)								
Height	16.1	17.2	19.0	19.0	16.1	17.2	11.8	13.1
Length	24.0	24.0	25.2	25.2	24.0	24.0	25.2	25.2
Width	18.3	18.3	34.0	34.0	18.3	18.3	34.0	34.0
Shipping Weight (lbs)	116	127	200	286	116	127	200	286
Condensate Water Heater								
Volts	230	230	230	230	230	230	230	230
Amps	5.22	7.83	10.43	13.04	5.22	7.83	10.43	13.04
Wattage	1200	1800	2400	3000	1200	1800	2400	3000

Replacement Part Numbers:
 Condensate Pan & Heater
 1.5 kW — TP.4919651
 1.0 kW — TP.4919662

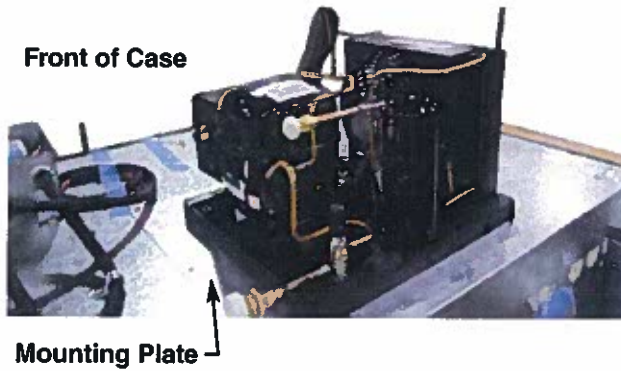
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REFRIGERATION / ELECTRICAL / SAFE-NET III

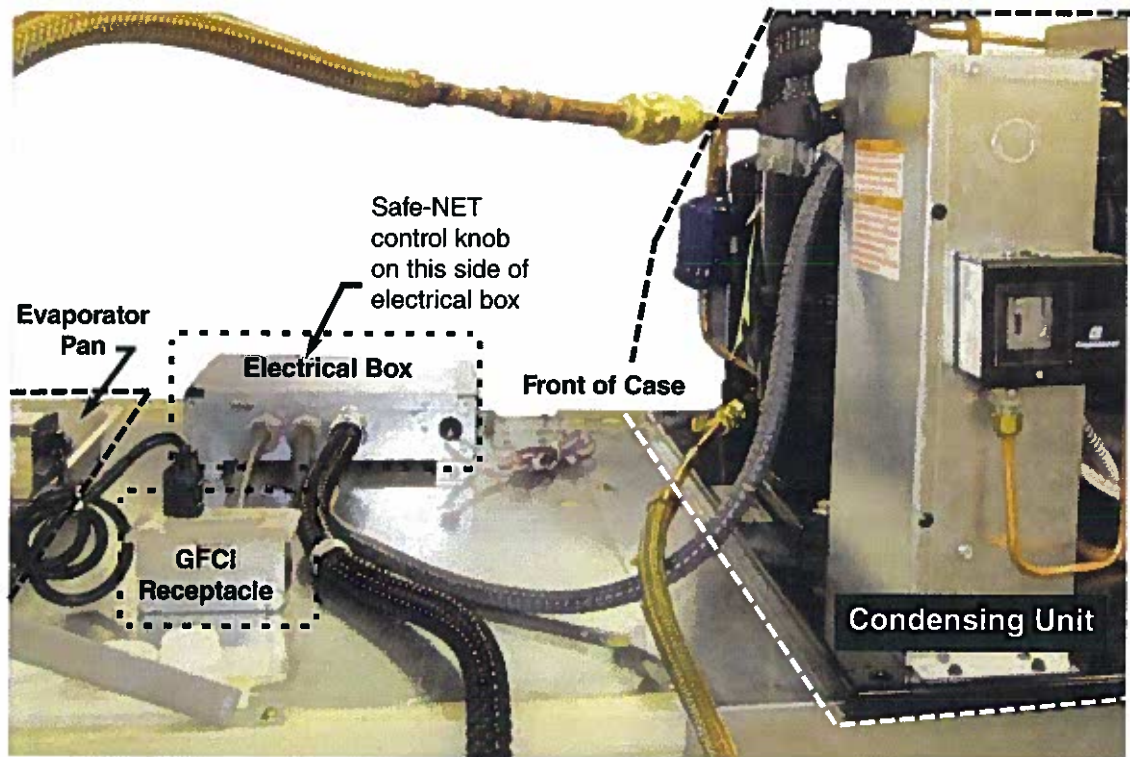
FIELD INSTALLATION OF CONDENSING UNIT

A mounting plate is provided on top of the case with pilot holes that provide specific attachment points for the condensing unit base. The mounting plate is located above the next to last door on the right.

After mounting the condensing unit, the electrical box and GFCI receptacle must be re-attached to the top. The condensate pan, if provided, is packed inside the case and must also be installed on top of the case and plugged into the 120V GFCI outlet provided. The TCMA, TCMB, and TCLA units have integral condensate pans, so an external pan is not required.



Exact component location is not critical; however, the components should be mounted in the general locations shown to ensure that electrical connections reach, and the condensate pan has adequate air flow from the condenser, and the Safe-NET adjustment knob is accessible.



Recommended Component Locations

ABOUT QUICK CONNECT COUPLINGS

Quick Connect fittings are provided on both the case inlet and outlet lines, and on Hussmann's TCL and TCM series of condensing units. The case and condensing unit are pre-charged with the correct amount of R404A refrigerant, and the lines are sealed. Connecting the Quick Connects together breaks the seals to connect the refrigeration lines of the unit to the case. The Quick Connects must be properly torqued to avoid refrigerant leaks.

CONNECT LINES

Mount the suction line and liquid line to the condensing unit. When ready to connect, remove protector caps and plugs from the Quick Connect couplings.

If necessary, carefully wipe coupling seats and threaded surfaces with a clean cloth to prevent the inclusion of dirt or any foreign material in the system.

Lubricate male half diaphragm and synthetic rubber seal with refrigerant oil. Thread the coupling halves together by hand to ensure proper mating of threads. Use proper size wrenches (on coupling body hex and on union nut) and tighten until coupling bodies "bottom" or a definite resistance is felt.

Using a marker or ink pen, mark a line lengthwise from the coupling union nut to the bulkhead. Tighten an additional 1/4 turn; the misalignment of the line will show the amount the coupling has been tightened. This final quarter turn is necessary to ensure the formation of a leakproof joint.

If a torque wrench is used, the following torque values are recommended:

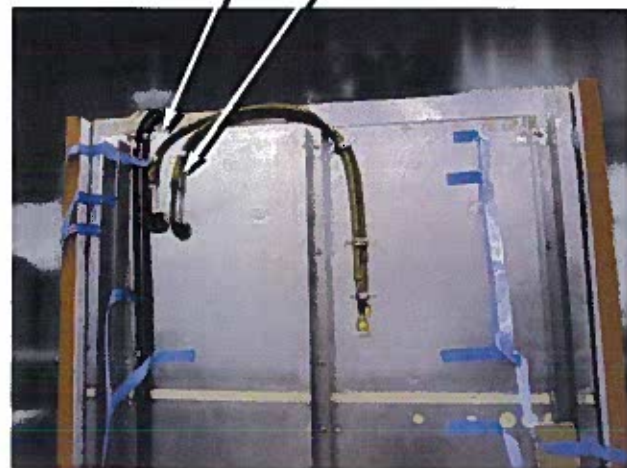
Coupling Size	Foot Pounds (Ft. Lbs.)
3/8 in.	10-12
5/8 in.	35-45



Inlet Quick Connect

Outlet Quick Connect

Inlet Quick Connect





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