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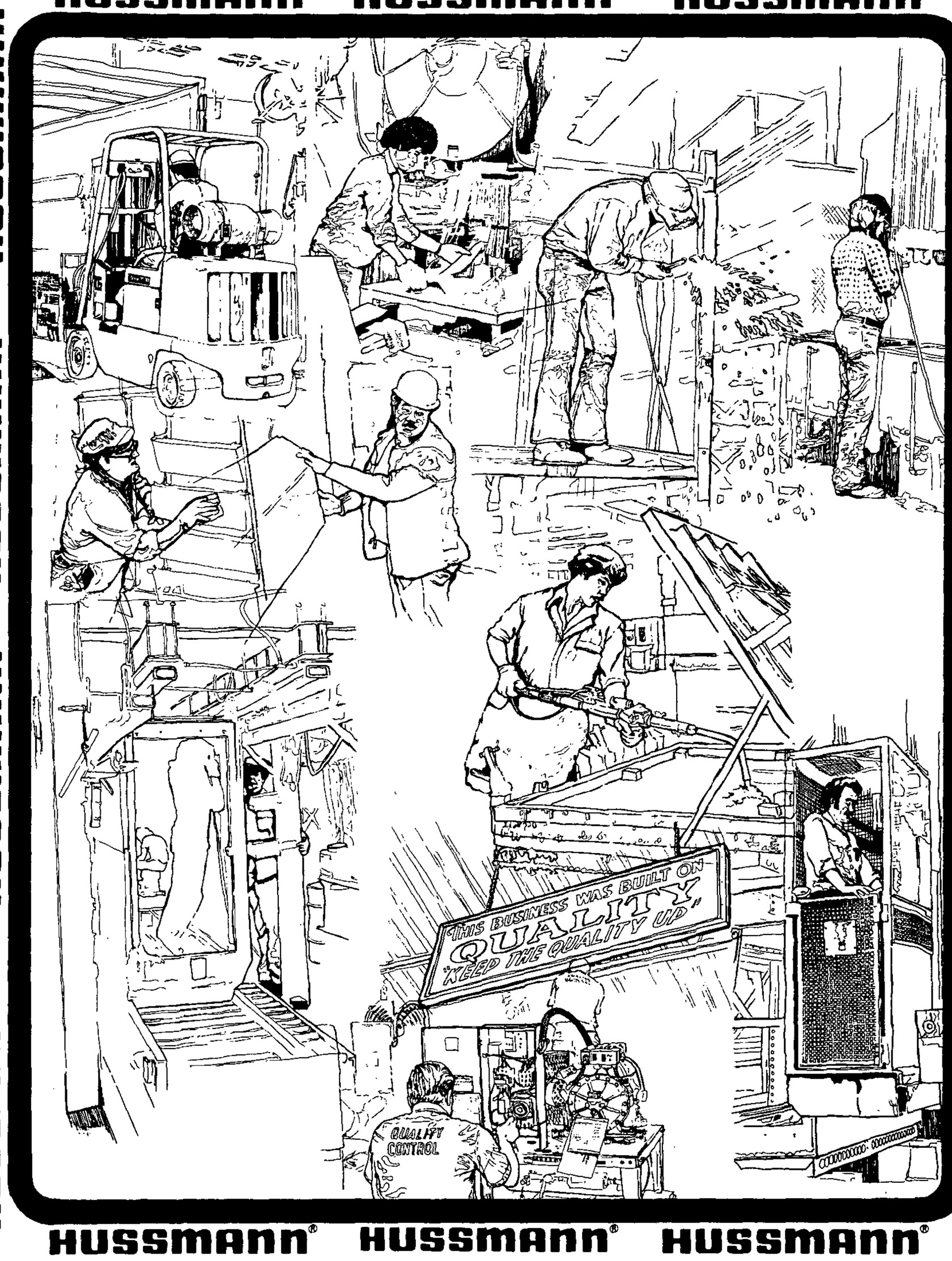
CORPORATION



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JVMRS

SUSPENDED REAR ROLL-IN

REFRIGERATED DAIRY MERCHANDISER

INSTALLATION / SERVICE INSTRUCTIONS

ENG.NO.251223F

March, 1989
Supersedes #251223E
Dated November, 1986
Section 5

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IMPORTANT
KEEP IN STORE FOR FUTURE REFERENCE

Quality that sets industry standards.

THIS MERCHANDISE CONFORMS TO THE
COMMERCIAL REFRIGERATOR MANUFACTURER'S ASSOCIATION
HEALTH AND SANITATION STANDARD

CRS-S1-86

HUSSMANN® 12999 St. Charles Rock Road • Bridgeton, MO 63044 USA • (314) 291-2000 • FAX (314) 298-4767

Eng. #251223

SECTION 1

GENERAL INFORMATION

MODEL DESCRIPTION

The JVMRS model is a refrigerated dairy display merchandiser designed for installation against an opening in the cooler wall. Once installed, the product can be rolled directly from the cooler through the rear of the JVMRS and into the refrigerated display area with a minimum amount of labor or customer inconvenience.

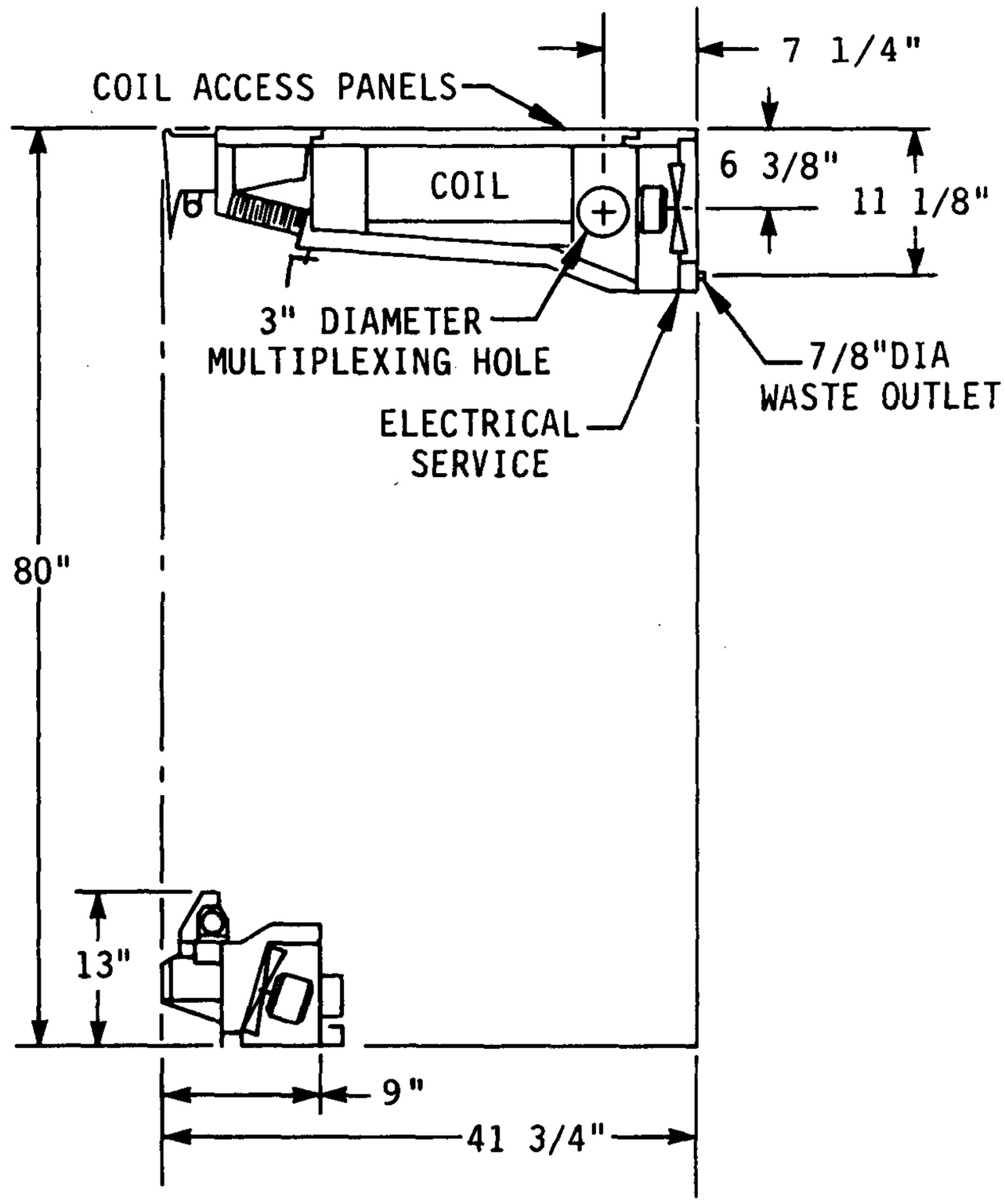
The JVMRS is manufactured in two sections; a Coil Package and a Front Package.

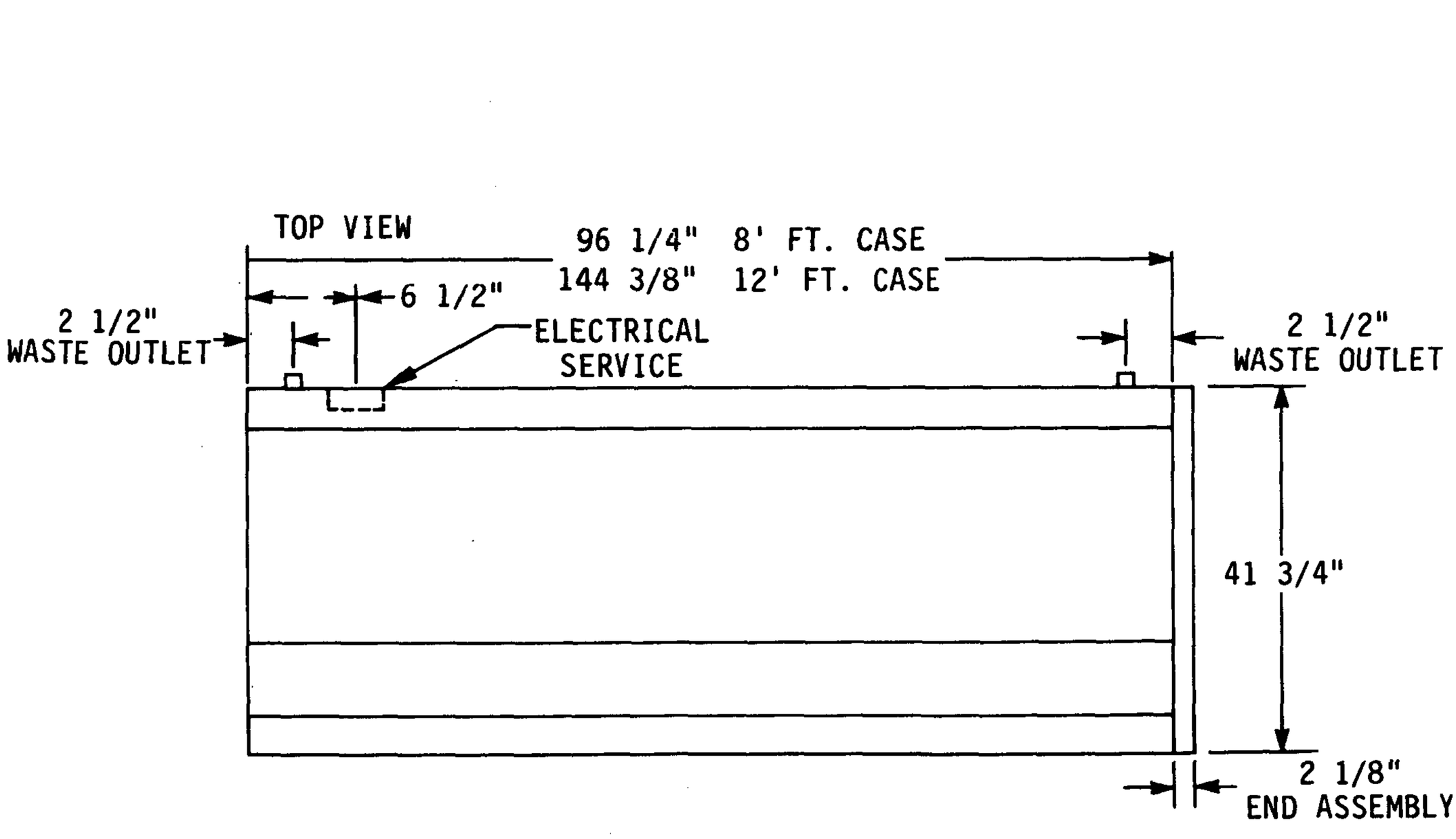
The Coil Package is to be suspended against the cooler wall, above the opening, from an adequate supporting structure in the store.

The Front Package completes the JVMRS model once it has been aligned with the coil package and anchored to the floor.

APPLICATION

This medium temperature merchandiser is designed for air conditioned stores where temperature and humidity are maintained at or below 75°F dry bulb temperature and 55% relative humidity. The cooler compartment behind the JVMRS must be refrigerated.


7 1/4"
COIL ACCESS PANELS
COIL
6 3/8"
11 1/8"
3" DIAMETER
MULTIPLEXING HOLE
7/8"DIA
WASTE OUTLET
ELECTRICAL
SERVICE
80"
13"
9"
41 3/4"


TOP VIEW
96 1/4" 8' FT. CASE
144 3/8" 12' FT. CASE
6 1/2"
2 1/2"
WASTE OUTLET
ELECTRICAL
SERVICE
2 1/2"
WASTE OUTLET
41 3/4"
2 1/8"
END ASSEMBLY

SECTION 2

INSTALLATION

SHIPPING DAMAGE

All equipment should be thoroughly examined for shipping damage before and when unloading.

This equipment has been carefully inspected at our factory and the carrier has assumed responsibility for safe arrival. If damaged, either apparent or concealed, claim must be made to the carrier.

APPARENT LOSS OR DAMAGE

If there is an obvious loss or damage, it must be noted on the freight bill or express receipt and signed by the carrier's agent, otherwise, carrier may refuse claim. The carrier will supply the necessary claim forms.

CONCEALED LOSS OR DAMAGE

When loss or damage is not apparent until after equipment is uncrated, a claim for concealed damage is made. Upon discovering damage, make request in writing to carrier for inspection within 15 days and retain all packing. The carrier will supply inspection report and required claim forms.

LOCATION

This refrigerator, like all other open type refrigerators, is sensitive to air disturbances. Air currents passing around this refrigerator will seriously impair its performance. Do not allow air currents, electric fans, open windows, doors, etc. to create air currents around this refrigerator.

INSTALLATION

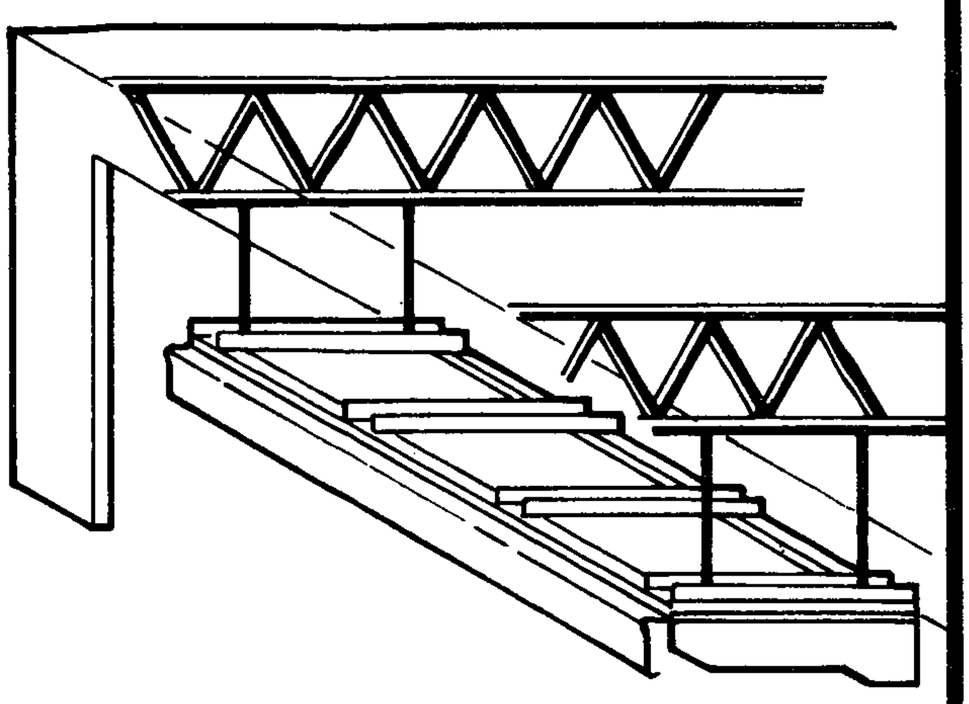
The JVMRS is designed in two sections: the Coil Package and the Front Package.

The Coil Package must be suspended above the cooler wall opening from an adequate support structure such as store roof joists or "I" beams, located on top of the cooler.

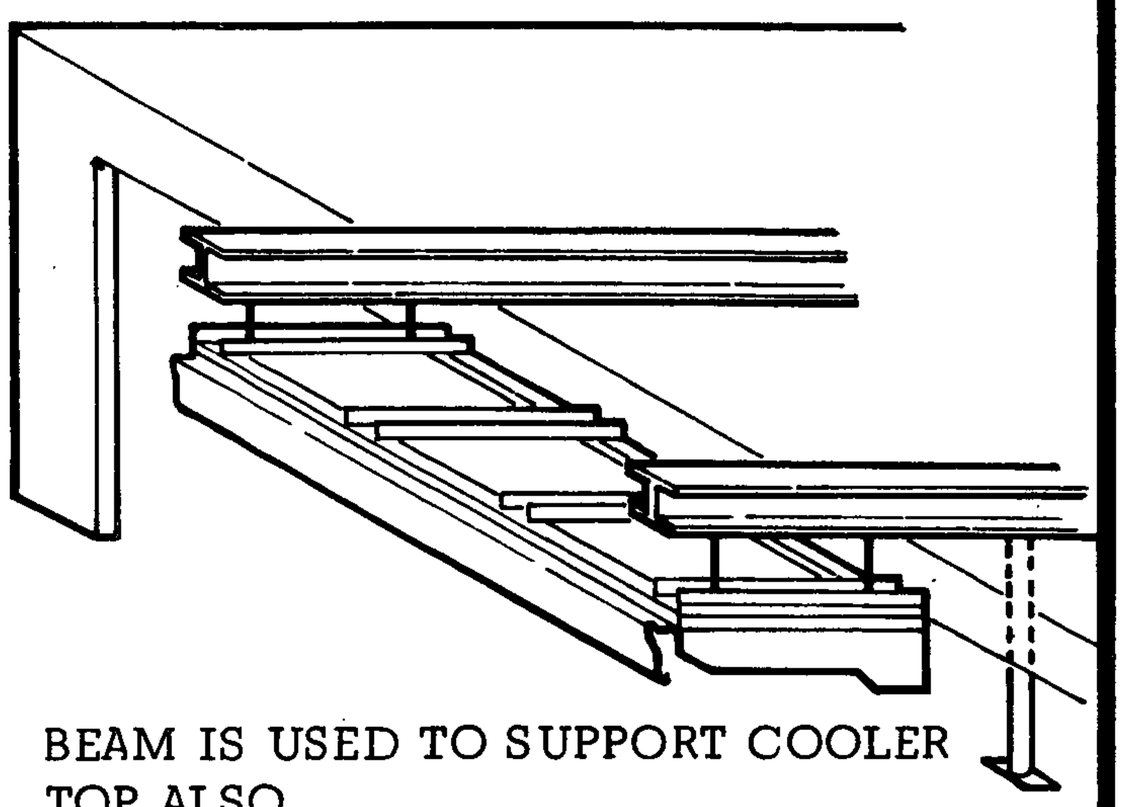
It is imperative that both the method and materials used to suspend the coil package be of sufficient strength to support the coil package and any additional weight load when optional display shelving may be used.

SUGGESTED SUSPENSION METHODS

STORE JOIST



CANTILEVERED "I" BEAM



BEAM IS USED TO SUPPORT COOLER TOP ALSO.

BEAMS ARE TO BE ANCHORED TO AN ADEQUATE SUPPORTING STRUCTURE AT THE REAR.

DISCLAIMER

These methods of securing the JVMRS COIL PACKAGE are SUGGESTIONS only. It is imperative that the installer and user assure themselves of the store's structural capabilities. Hussmann does not assume liability for any consequences resulting from the failure of store structure or material used in installation.

COIL PACKAGE ESTIMATED WEIGHTS

	8' Model	12' Model
COIL PACKAGE	450	675
*OPTIONAL SHELVING & UPRIGHTS	250	375
**PRODUCT LOAD	1500	2250

* = 46" Uprights and 3 rows of shelves
** = Maximum product load per shelf 250 lbs.

Steel channels with prelocated suspension holes are provided on top of the coil package to fasten the suspension (drop) rods. To provide necessary suspension support for the JVMRS coil package, the following table and recommended minimums should be followed:

IMPORTANT: Each drop rod should not be less than ½" O D nor longer than 12 feet.

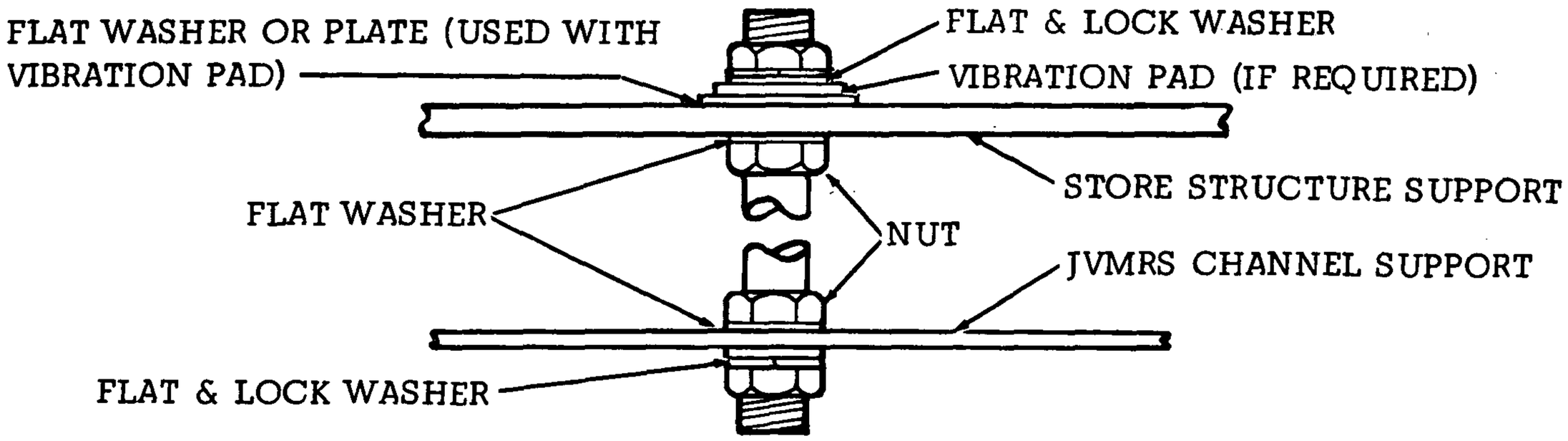
Each coil package MUST be supported with two (2) drop rods at each end of coil package tied to adequate support structure.

Additional drop rods may be required to support the 12' coil package if optional shelves are to be added to the coil package.

Should a machine room or machinery be located over the ceiling that supports the suspension of the coil package, vibration pads must be used to prevent loosening of the drop rods.

RECOMMENDED SUSPENSION TABLE
(Drop Rod Requirements)

CASE LENGTH	SHELF ROW QUANTITIES PER CASE			
	0-1	2	3	4
8'	4 RODS	4 RODS	4 RODS	4 RODS
12'	4 RODS	6 RODS	6 RODS	6 RODS



DROP ROD INSTALLATION

-INSTALLING THE JVMRS-

Install the Coil Package to the selected store structural support using the suggested drop rod size, quantity and fastening method, or as locally engineered. The Coil Package must be leveled.

Fasten the rear, top suspension channel of the Coil Package to the cooler wall to prevent sway or lateral movement. The channel has holes for this purpose.

Align the Front Package with the Coil Package then anchor the Front Package to the floor.

Seal the rear of the Coil Package to the cooler wall and the Front Package to the floor using a good grade butyl sealant.

JOINING

This refrigerator is of sectional construction; two or more may be joined in line to give one continuous display area with only one pair of end assemblies. The following material is shipped inside with each JVMRS. See following illustration.

PARTS LIST

ITEM	QUANTITY	DESCRIPTION
1.	1	1/2x1x180" Gasket
2.	1	Canopy Joint Trim
3.	1	Front Rail Joint Trim
4.	1	Kick Rail Joint Trim
5.	7	5/16-18x3/4" Cap Screw
6.	7	5/16" Flat Washer
7.	7	5/16-18 Nut Retainer
8.	8	#8x1/2" Truss Head Sheet Metal Screw

STEP 1. Install NUT RETAINERS (Item 7) to the end frame of one JVMRS.

STEP 2. Apply GASKET (Item 1) to end frame of one JVMRS.

1. Do not stretch gasket.
2. Overlap gasket at joints and splices.
3. Remove paper backing after gasket has been applied.

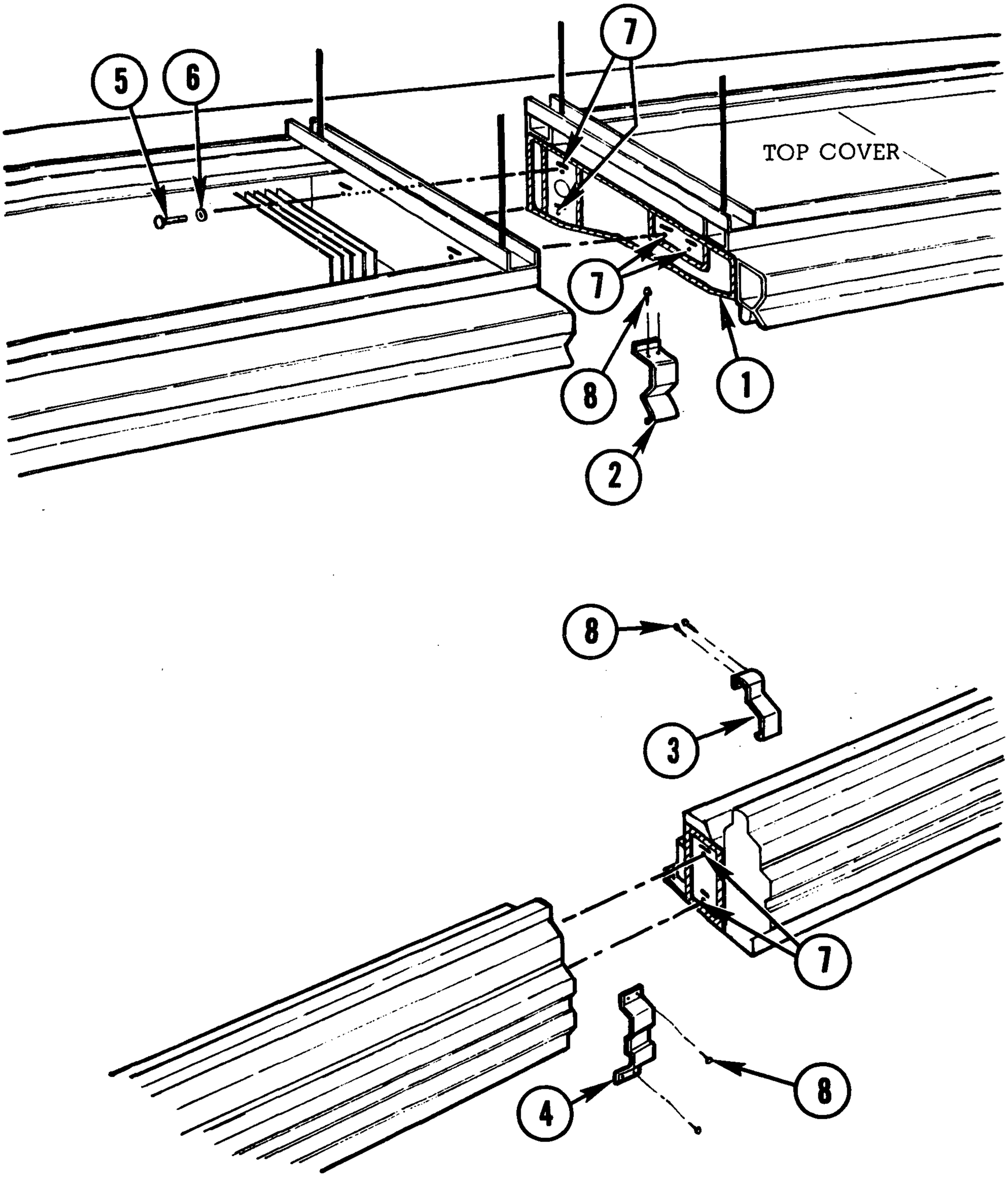
STEP 3. Slide the FRONT RAIL JOINT TRIM (Item 3) onto one of the cases loosely, until they have been joined.

STEP 4. Move second JVMRS into alignment with the first, compressing the gasket for a good seal and install per previous instructions.

STEP 5. Remove the Top Cover, as shown in illustration for access to joining holes. Fasten the cases together using CAP SCREWS (Item 5) and FLAT WASHERS (Item 6).

STEP 6. Replace the items removed in the previous Step and seal the exterior top joint using a butyl sealant.

STEP 7. Reposition the FRONT RAIL JOINT TRIM (Item 3) installed in Step 3, install CANOPY JOINT TRIM (Item 2) and KICK RAIL JOINT TRIM (Item 4) centered over the joint then fasten in place using SHEET METAL SCREWS (Item 8).


5
6
7
TOP COVER
7
8
1
2
8
3
7
4
8

REAR CURTAIN INSTALLATION

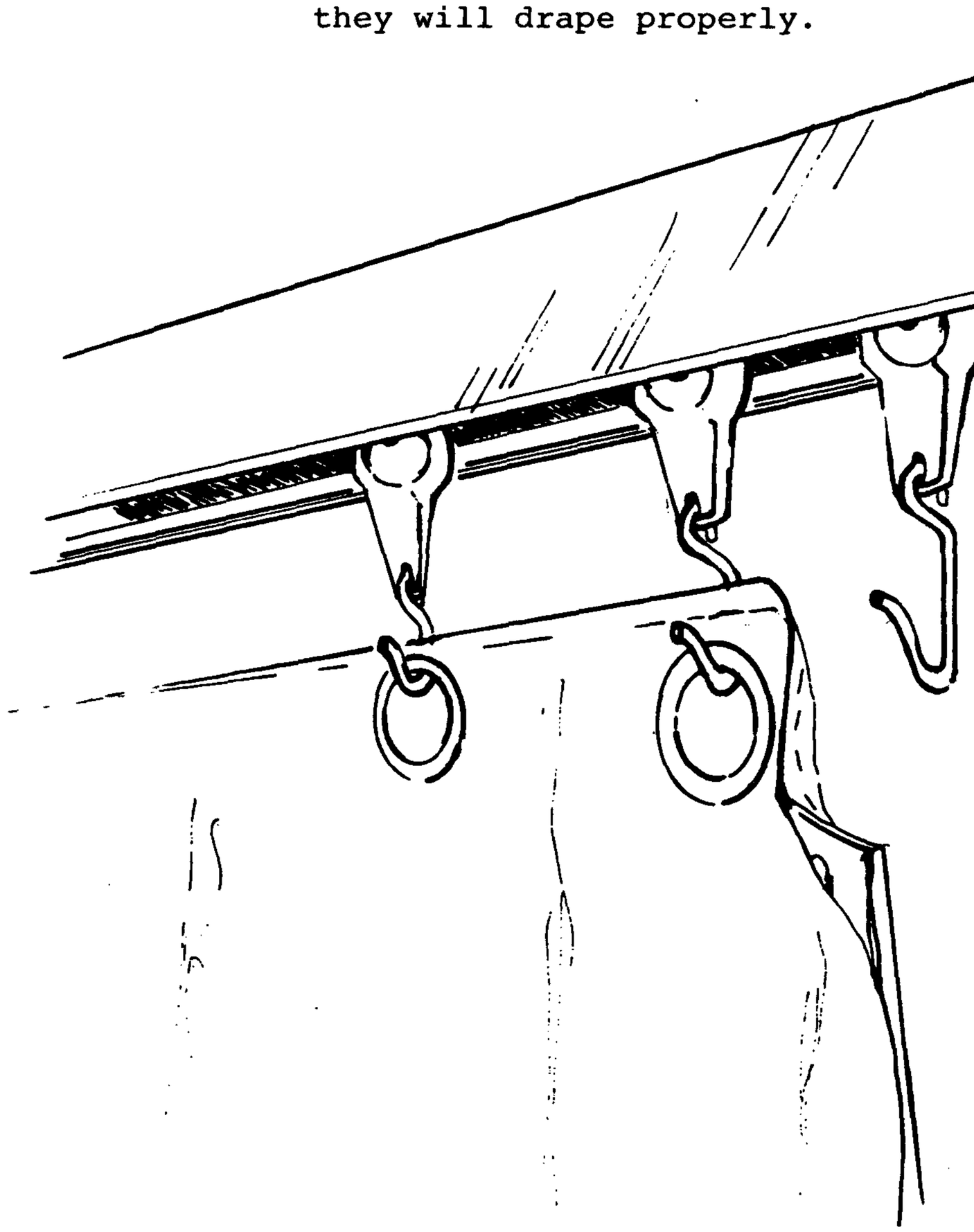
Each refrigerator is furnished with rear curtains that are packaged separately to avoid damage or loss in shipment. These curtains are to be installed as shown in the following illustration.

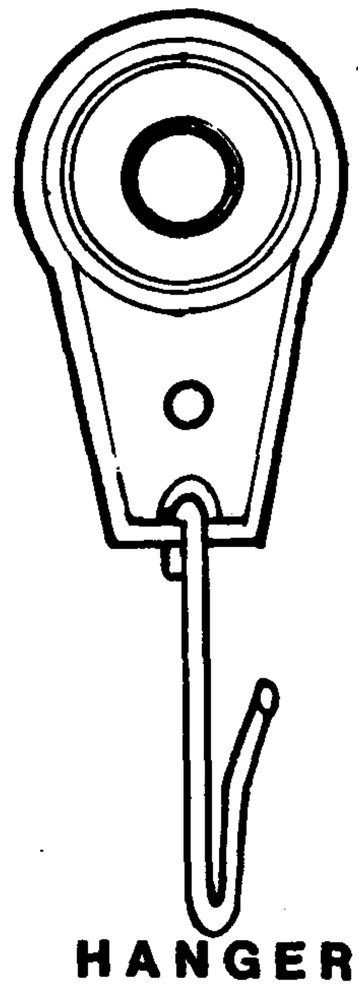
DESCRIPTION	QUANTITY	
	8' case	12' case
Curtain	2	3
Hanger	22	33
Stop Clip	2	2

A. Slide all hangers onto track at rear of the refrigerator.

B. Snap a stop clip onto the track at each end of the track.

C. Curtains should be installed using ALL hangers so that they will drape properly.





DRIP PIPING

A 7/8 inch O D copper waste outlet extends from the rear at each end of the JVMR coil package to which installer furnished drip piping is to be attached. Both waste outlets should be used to carry defrost water to a drain outlet. The possibility of defrost water overflowing the drain trough, when one end of the trough is lower than the other, is eliminated when both outlets are used.

SPLASHGUARD

The splashguard is shipped factory installed on every JVMR. These splashguards can be adjusted to the floor by loosening the screws which fasten it and allowing the splashguard to drop to floor level and then retighten the screws.

SEALING SPLASHGUARD TO FLOOR

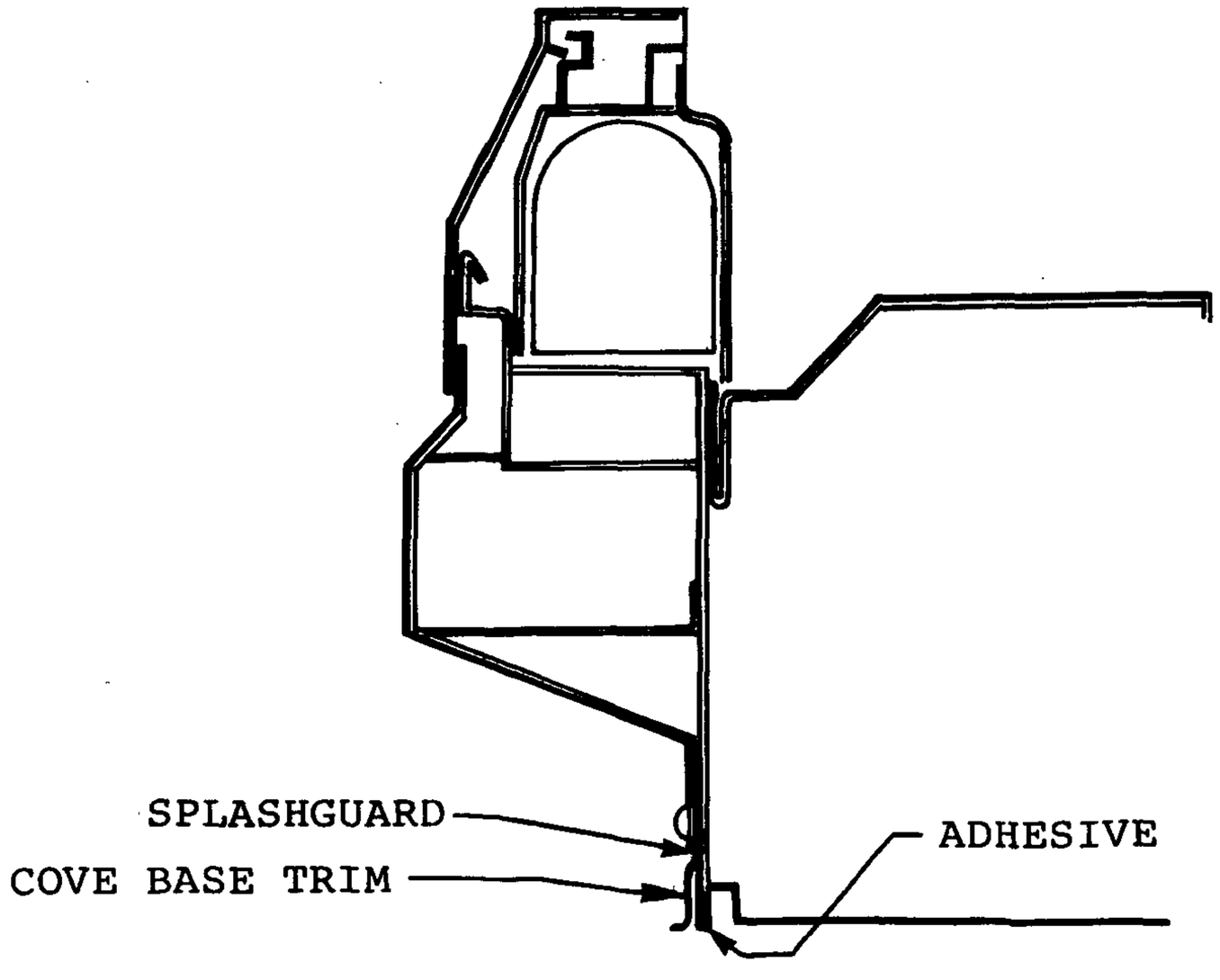
If required by local sanitary codes or if customer desires, the splashguard may be sealed to the floor using a vinyl cove base trim such as produced by Armstrong, Kentile, Johnson, etc. The size needed will depend on how much the floor is out of level.

When installing the cove base trim:

Remove all dirt, wax and grease fron the surface area of the splashguard where adhesion will be necessary to insure a good secure installation.

Apply a good adhesive to the cove base trim and allow proper drying time according to directions supplied with the product.

Install the cove base trim to the splashguard so that the trim is flush to the floor.



DECOR INSTALLATION

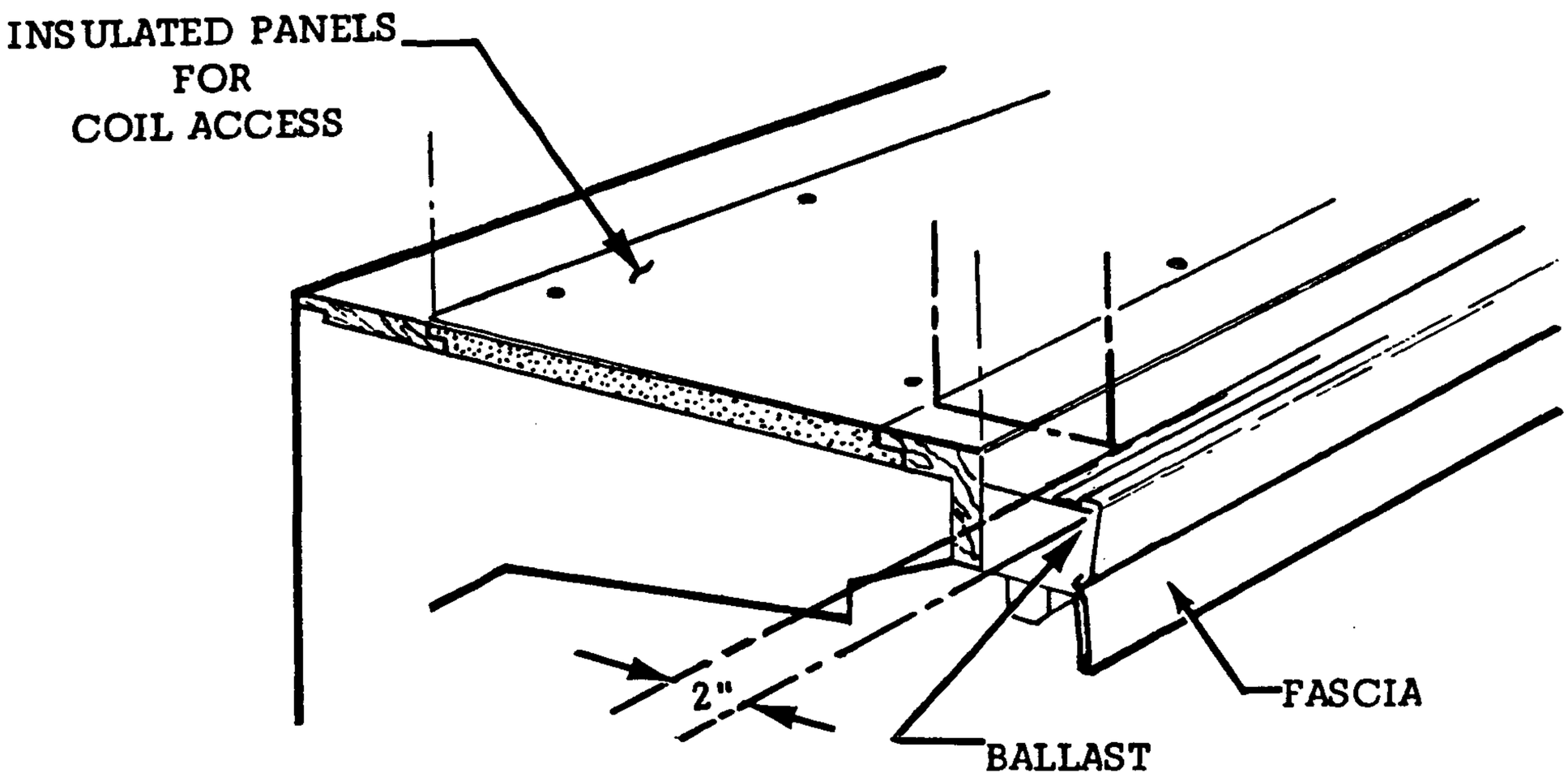
To minimize servicing difficulties the following criteria should be considered prior to installing any "Decor" structure above these refrigerators.

I. Ballast Access:

The lamp ballasts are located behind the fascia and any decor structure should not interfere with removal of the fascia. The fascia is removed by removing the screws along its top and rotating it out and down. The decor should allow at least a 2" clearance for fascia removal.

II. Coil Access:

Should it ever be necessary to service the refrigerator's coil, the top insulated panels will need to be removed. When rear access is impossible, less labor and customer distraction will result if the decor structure is constructed with easily removable panels.



SECTION 3

REFRIGERATION

REFRIGERANT

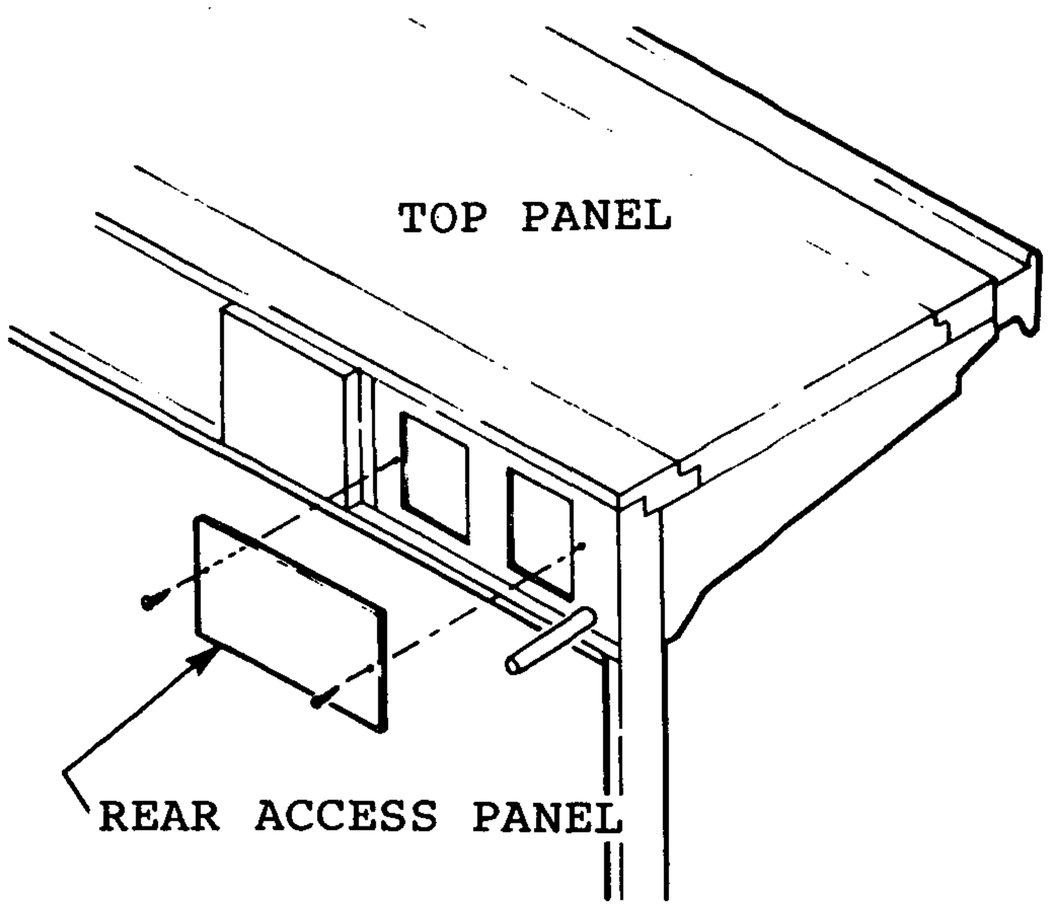
These refrigerators will be equipped for operation on R-502 refrigerant unless otherwise specified on the factory order. The correct type of refrigerant will be stamped on the refrigerator's serial plate located at the left hand end on the front assembly.

REFRIGERANT PIPING

LINE SIZES: Liquid Line.....3/8" O D
Suction Line....1 1/8" O D

LINE CONNECTIONS

The refrigerant line connections are located at the right hand end of the coil package. For access to the line connections, remove the rear access panel. For complete access to the coil, removable panels have been provided on top of the JVMRS. Should it ever be necessary to remove the top panels, make certain that their gasket material is all in place when reinstalling.



MULTIPLEXING

Piping of refrigerators operating on the same refrigeration system may be run from refrigerator to refrigerator through the end frame openings provided for this purpose. **DO NOT RUN REFRIGERANT LINES THROUGH REFRIGERATORS THAT ARE NOT ON THE SAME REFRIGERATION SYSTEM** or poor refrigeration control and compressor failure can occur.

LINE SIZING

Refrigerant lines should be sized as shown on the refrigeration legend that is furnished for the store (not furnished by Hussmann). If a legend has not been furnished, refer to the Hussmann Application Engineering Manual for guidance.

OIL TRAPS

"P" traps (oil traps) must be installed at the base of all suction line vertical risers.

PRESSURE DROP

Pressure drop can rob the system of capacity. To keep the pressure drop to a minimum, keep the refrigerant line run as short as possible using a minimum number of elbows. Where elbows are required, use long radius elbows only.

INSULATION

For refrigerators with other than KOOLGAS defrost: the suction and liquid lines should be clamped or taped together and insulated for a minimum of 30' from the refrigerator; for refrigerators with KOOLGAS defrost, the suction and liquid lines should not contact each other and should be insulated separately for a minimum of 30' from the refrigerator. Additional insulation for the balance of the liquid and suction lines is recommended wherever condensation drippage is objectionable

REFRIGERATION PARTS LIST (Sporlan Nomenclature)

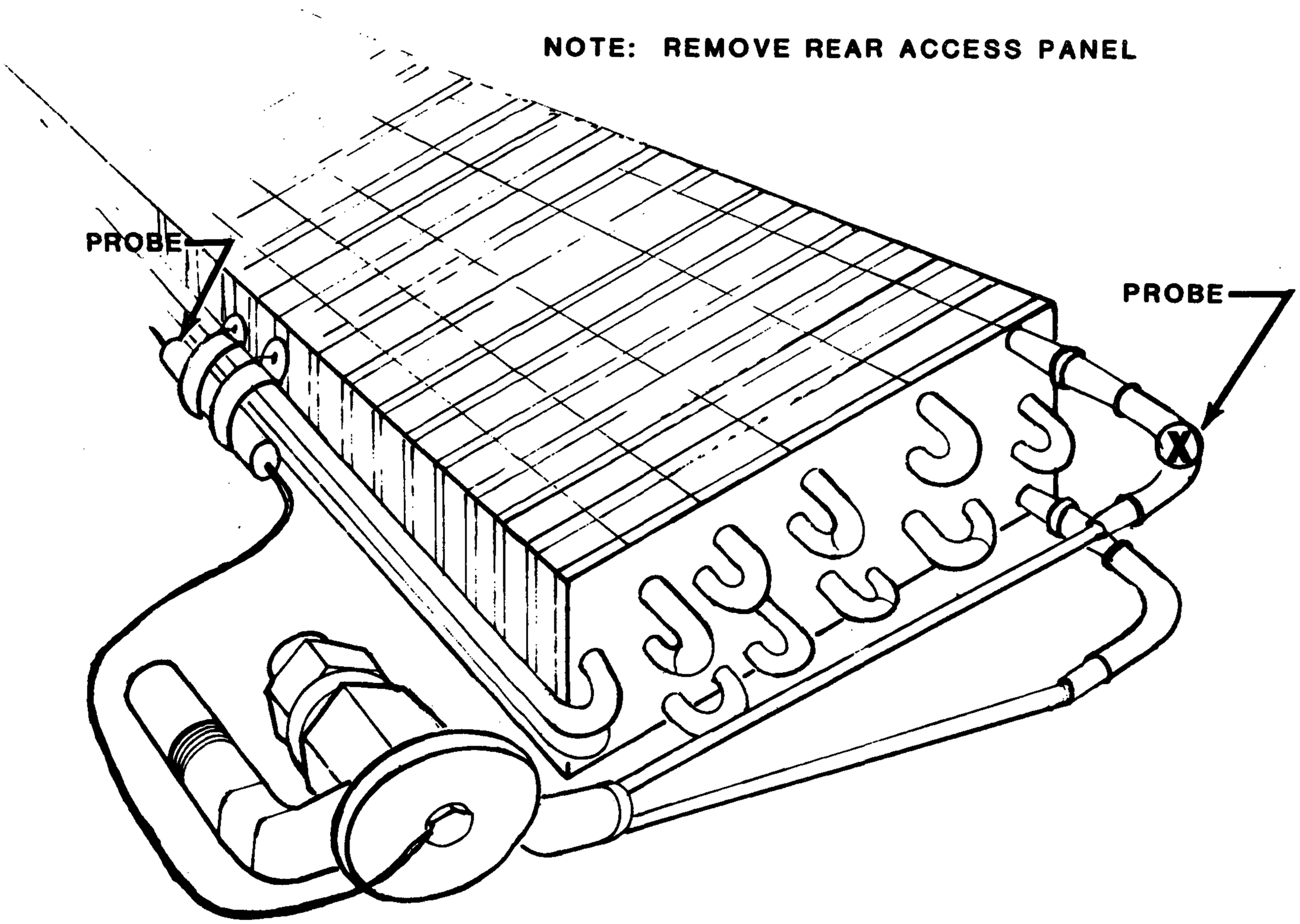
CASE MODEL	TYPE OF REFRIGERANT	BALANCED PORT EXPANSION VALUE	DISTRIBUTOR	
			OFF-TIME	KOOLGAS
JVMRS-8	R-502 R-22 R-12	BFRE-A-C BFVE-A-C BFFE-A-C	D115-2-¼-1 D115-2-¼-1 D115-2-¼-1	D116-2-¼-1 *
JVMRS-12	R-502 R-22 R-12	BFRE-C-C BFVE-A-C BFFE-C-C	D115-2-¼-1 D115-2-¼-1 D115-2-¼-1	D116-2-¼-1 *

*These refrigerant distributors are provided with a special 3/8" side outlet port which allows the liquid condensed in the coil during defrost to bypass the expansion valve and flow into the liquid line.

EXPANSION VALVE ADJUSTMENTS

Expansion valves must be adjusted to fully feed the evaporator. Before attempting to adjust valves, make sure the evaporator is free of or only lightly covered with frost, and that the JVMRS is within 10°F of its expected operating temperature. Adjust valves as follows:

Attach two sensing probes (either thermocouple of thermistor) to the evaporator; one under the clamp holding the expansion valve bulb and the other securely taped to the evaporator inlet line (see illustration). Some "hunting" of the expansion valve is normal. The valve should be adjusted so that during the hunting, the greatest difference between the two probes is 3 to 5°F. With the adjustment, during a portion of the hunting, the temperture difference between the probes will be less then 3° (at times as low as 0°F. Make adjustments of no more than one-half turn of the valve stem at a time and wait for at least fifteen minutes before rechecking the probe temperature and making further adjustments.



CONTROLS AND ADJUSTMENTS - CONVENTIONAL MULTIPLEXING

Refrigeration temperature should be controlled by a refrigeration thermostat. When the optional refrigeration thermostat is factory installed, it will be installed as shown on the following page. Both the JVMRS and the cooler to which it is attached should be connected to the same condensing unit.

Defrost is time initiated and time terminated.

APPLICATION	REFRIGERATION CONTROLS			DEFROST CONTROL	
	DISCHARGE AIR TEMPERATURE (1)	REFRIGERANT	EVAPORATOR PRESSURE REGULATOR (COOLER)(2)	Defrost Frequency	Failsafe (3)
Dairy	28° to 30°F	R-502	46 psig	Every 6 Hours	60 min.

(1) Measure discharge air temperature at the center of the discharge honeycomb. Set thermostat to open its contacts at the discharge air temperature shown.

(2) Both the JVMRS and the cooler to which it is attached should be connected to the same condensing unit.

(3) Defrosts are time initiated and time terminated. Both the JVMRS and the cooler coils must be defrosted at the same time.

The defrost timer on outdoor condensing units must be a time terminated type and control a liquid line solenoid for pumpdown prior to defrost only. The failsafe setting must be increased 4 minutes to compensate for the pumpdown period.

CONTROLS AND ADJUSTMENTS - MIXED MULTIPLEXING

REFRIGERATION CONTROL:

Refrigeration temperature may be controlled by either a refrigeration thermostat or a CDA valve (Close on Drop in Air temperature). The CDA valve, if used, will be installed at the condensing unit with its sensor mounted in the refrigerator in the same location as the refrigeration thermostats sensing bulb. For complete wiring and adjustment information refer to the Instruction manual furnished with the condensing unit.

Defrost is time initiated and time terminated.

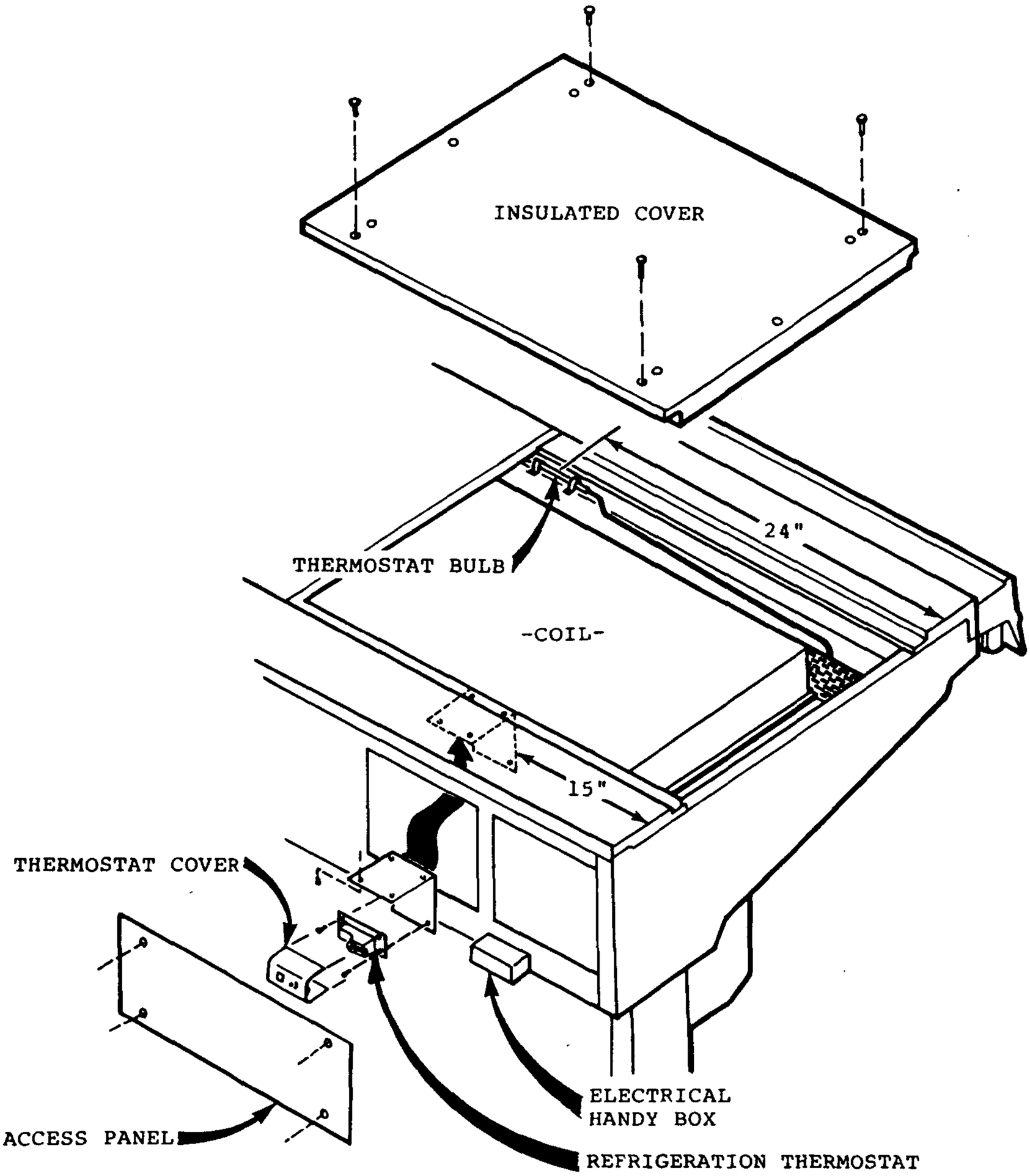
APPLICATION	REFRIGERATION CONTROL (1)	DEFROST CONTROL (2)	
	Discharge Air Temperature	Defrost Frequency	Length of Defrost
Dairy	30°F	Every 6 Hours	60 min

(1) Measure discharge air temperature at the center of the discharge honeycomb. Adjust the refrigeration control (CDA valve or refrigeration thermostat) to maintain the discharge air temperature shown.

(2) Defrosts are time initiated and time terminated. Both the JVMRS and the cooler coils must be defrosted at the same time.

REFRIGERATION THERMOSTAT (OPTIONAL)

Factory installation of the optional thermostat is shown below. The bulb is located above the coil approximately 24" from left hand end of case.



CDA SENSOR LOCATION (OPTIONAL)

When specified, the CDA SENSOR will be factory installed in the same location as the refrigeration thermostat bulb. Its leads will be routed into the electrical handy box and identified with a tag.

Refer to the CDA VALVE vendor literature furnished with the condensing unit for wiring information.

SECTION 4

ELECTRICAL

CONNECTIONS

All electrical connections for the JVMRS are to be made in the junction box located at the rear, right-hand end of the coil package as shown below.

The front package fan and light circuits are to be connected in parallel with those in the coil package by the installer. The light switch, located at the left-hand end of the canopy light fixture is to control all the JVMRS lighting. (Canopy, Front Rail, and Optional Shelf Lighting)

Where a "load bearing" end or partition assembly is installed, an internal wireway will be provided in these assemblies to route field wiring of the front package fan and light circuits to those in the coil package.

If more than one JVMRS is installed, the front package raceway (remove kickrail) and canopy wireway (remove fascia) can be used to route field wiring of the front package to the appropriate coil package fan and light circuits.

Make certain that BOTH the coil package and the front package are grounded.

WIRING IDENTIFICATION

Leads for all electrical circuits are identified by colored plastic bands which correspond to the "color code sticker" located near the electrical entrance box. Shown below.

"COLOR CODE STICKER"

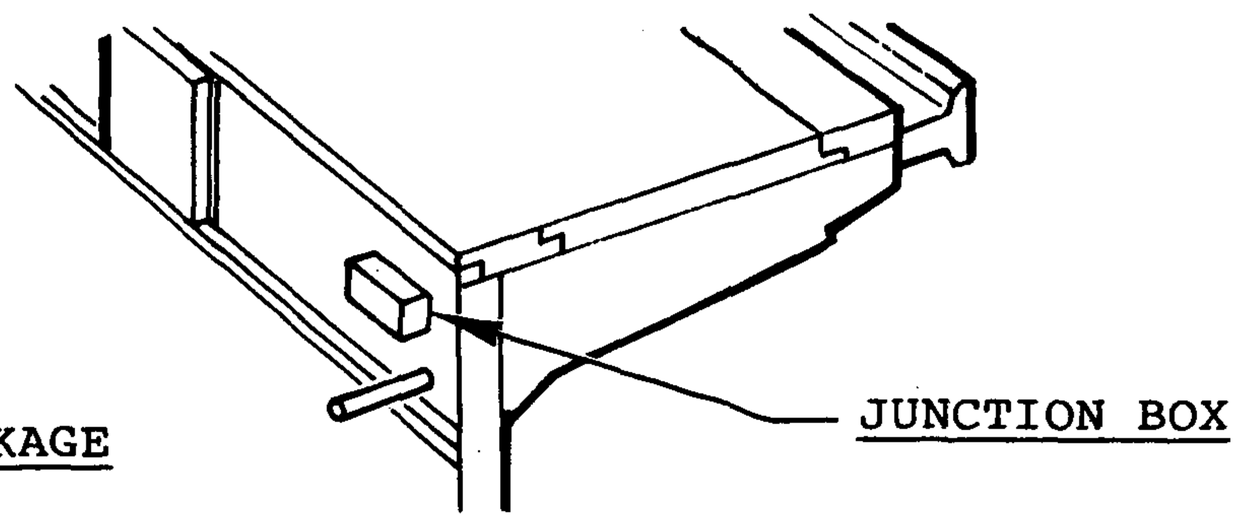
WIRING COLOR CODE

LEADS FOR ALL ELECTRICAL CIRCUITS ARE IDENTIFIED BY A COLORED PLASTIC BAND: NEUTRAL WIRE FOR EACH CIRCUIT HAS EITHER WHITE INSULATION OR A WHITE PLASTIC SLEEVE IN ADDITION TO THE COLOR BAND.

PINK .....REFRIG. THERMOSTAT LOW TEMP	GREEN*.....GROUND
LIGHT BLUE.....REFRIG. THERMOSTAT NORM. TEMP.	ORANGE OR TAN.....LIGHTS
DARK BLUE.....DEFROST TERM. THERMOSTAT	MAROON.....RECEPTACLES
PURPLE.....ANTI-SWEAT HEATERS	YELLOW.....DEFROST HEATERS, 120V
BROWN.....FAN MOTORS	RED*.....DEFROST HEATERS, 208V

* EITHER COLORED SLEEVE OR COLORED INSULATION

ELECTRICIAN NOTE: CASE MUST BE GROUNDED



SERIAL PLATE AMPERAGES

Serial Plate Amperages are the amperage figures that are stamped on the refrigerator Serial Plate. All field installed wiring must be sized to the Serial Plate Amperage, however, the actual amps may be less than that specified.

Model	120 Volt, 60 Hertz Electrical Circuits	
	Fans	Lights ⚠1
JVMRS-8	6.0 amps	10.4 amps
JVMRS-12	9.0 amps	16.2 amps

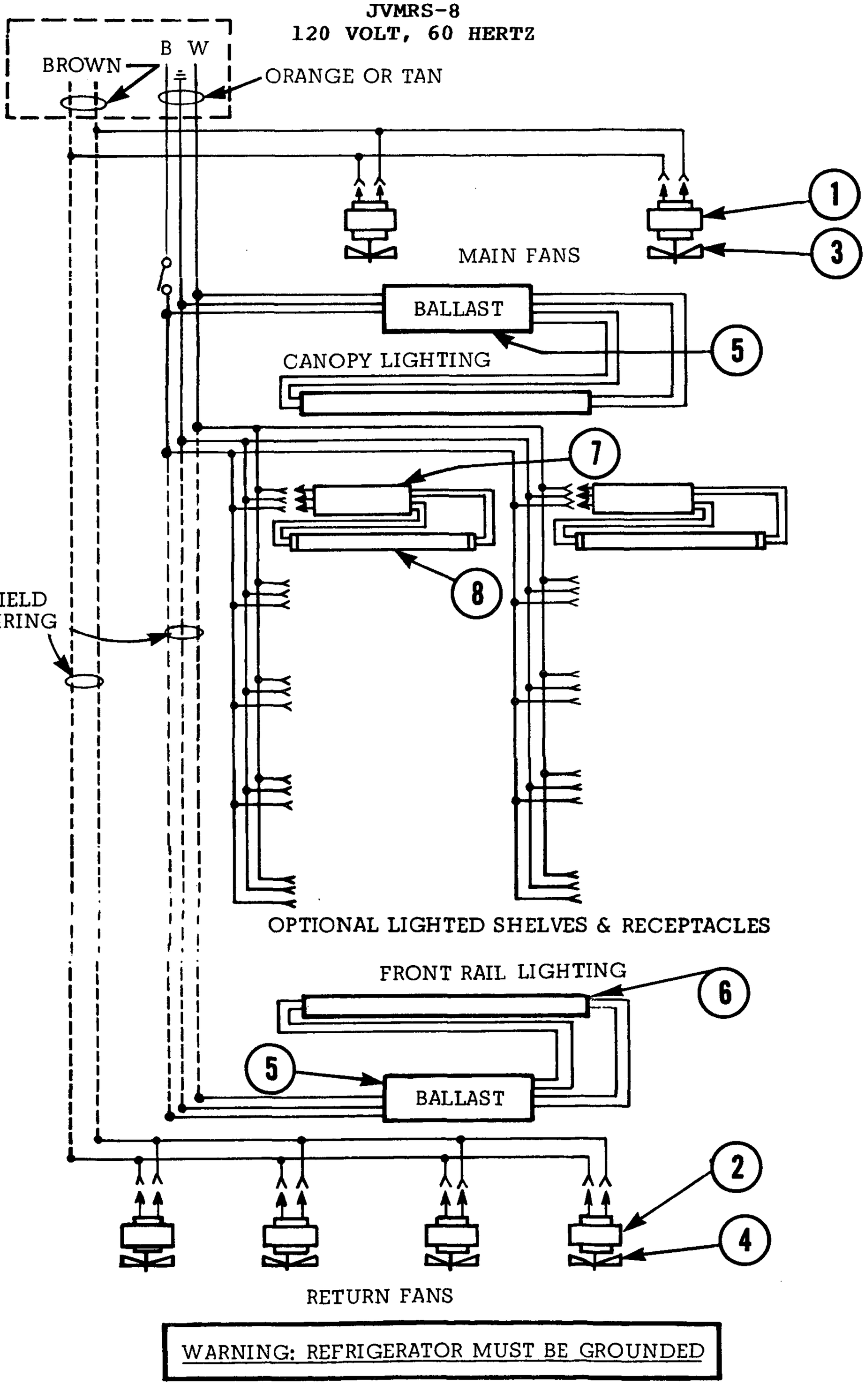
⚠1 The lighting circuit should be separate from the fan motors to prevent the fans from being turned off by mistake when the store lighting is turned off. FAN MOTORS MUST OPERATE CONTINUOUSLY.

The amperage figures shown for the light circuit contains the requirements for the maximum amount of lighted shelving.

In addition to the circuits listed above, the following will also require control wiring from the refrigerators to their condensing units. See wiring diagrams in this section.

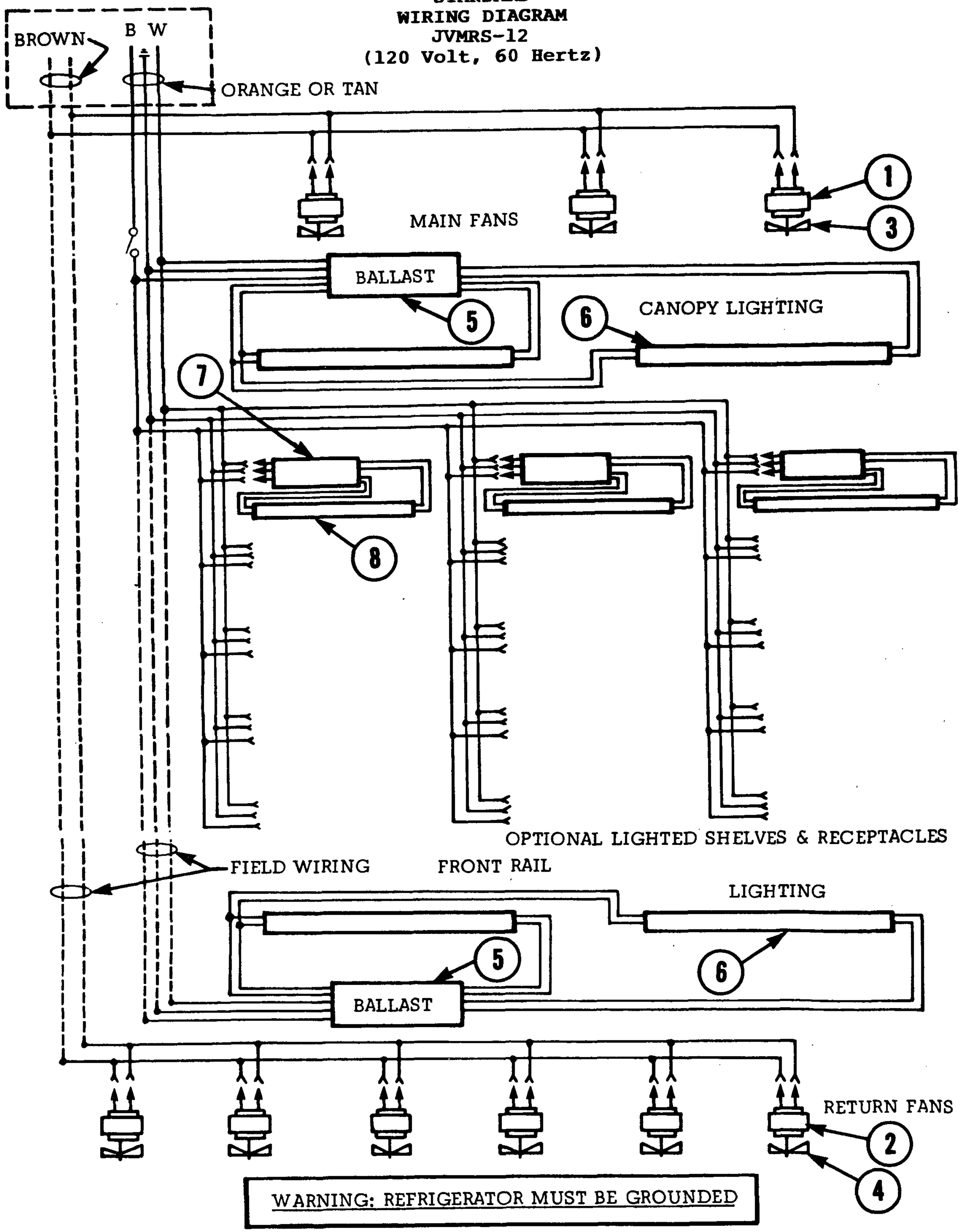
REFRIGERATION THERMOSTAT or CDA SENSOR: Both of these items are optional controls that need to be wired to the condensing unit control panel when they are installed.

STANDARD WIRING DIAGRAM JVMRS-8 120 VOLT, 60 HERTZ



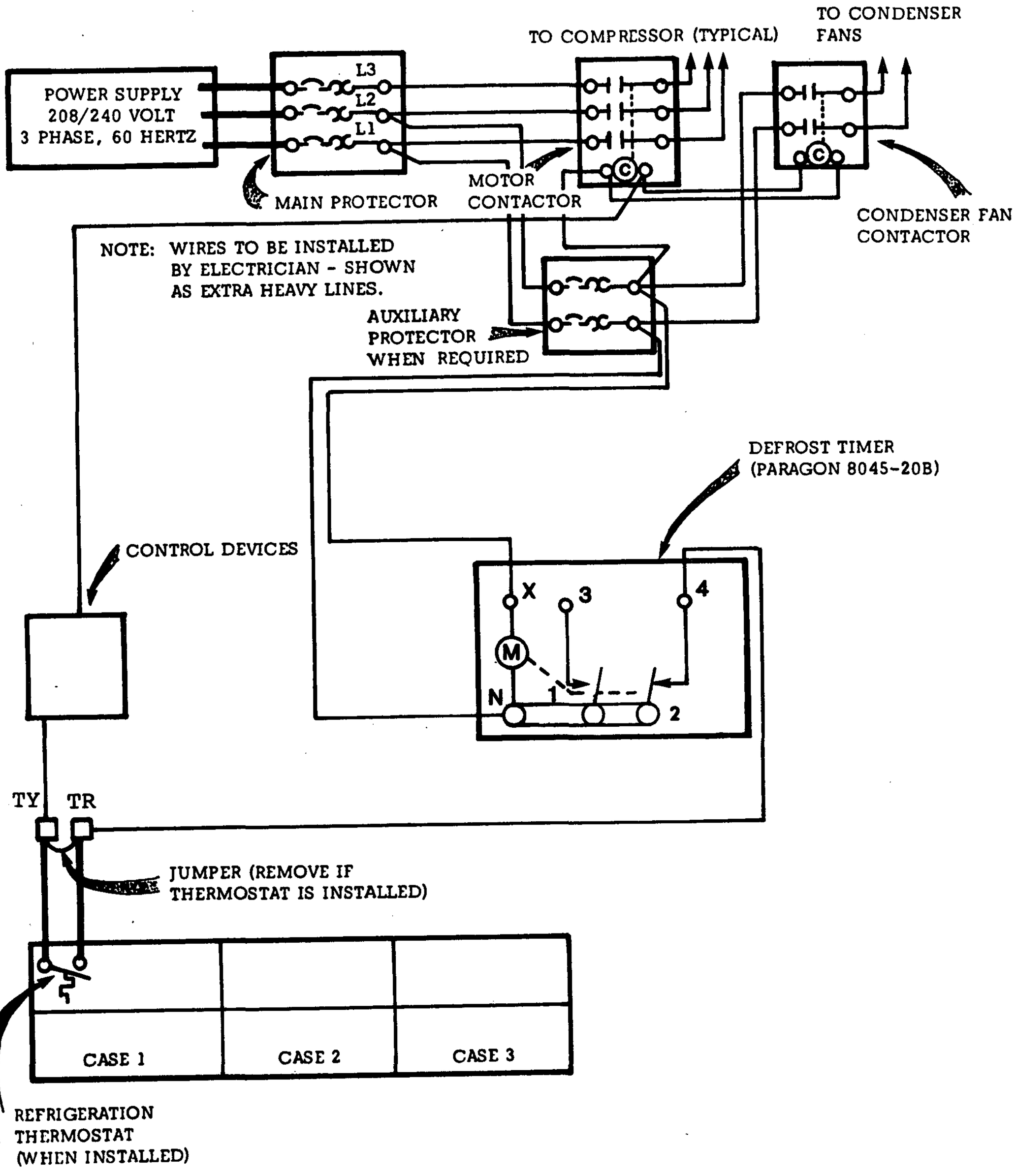
WARNING: REFRIGERATOR MUST BE GROUNDED

STANDARD WIRING DIAGRAM JVMRS-12 (120 Volt, 60 Hertz)



WARNING: REFRIGERATOR MUST BE GROUNDED

CONVENTIONAL MULTIPLEXING - INDOOR TYPE UNIT
CONDENSING UNIT & CONTROL PANEL WIRING DIAGRAM



WARNING
REFRIGERATOR MUST BE GROUNDED

CONVENTIONAL MULTIPLEXING - OUTDOOR TYPE UNIT
CONDENSING UNIT & CONTROL PANEL WIRING DIAGRAM

WARNING
REFRIGERATOR MUST BE GROUNDED

ELECTRICAL REPLACEMENT PARTS

ITEM NO.	PART NO.	DESCRIPTION
1	045781	Fan Motor - 30W CW GE5KSP51GL-295HS
2	137883	Fan Motor - 9W CW EMS SPR 9EVI
3	327665	Fan Blade - Embossing to Motor 10" - 35°
4	141071	Fan Blade - Embossing to Motor Morrill FV 800 CW 40S
5	147091	Ballast - 8' Case GE 8G 3900
	137843	Ballast - 12' Case GE 8G 1141 WT
6	137846	Fluorescent Lamp 8' Case F96T12/CW/H.O.
	137847	Fluorescent Lamp - 12' Case F72T12/CW/H.O.
7	140013	Ballast - Optional Shelf GE 8G 1075
8	020725	Fluorescent Lamp - Optional Shelf F40T12/CWX
9	253451	Optional Refrigeration Thermostat

SECTION 5

USER INFORMATION

STOCKING AND STOCK ROTATION

Merchandise should not be placed in this refrigerator until at least six hours after being put into operation and all controls have been adjusted. At no time should any product, displays, or other items extend over the front assembly return grille so as to block or disturb the airflow curtain.

THE CURTAINS AT THE REAR OF THE JVMRS, WHICH CLOSE OFF THE COOLER COMPARTMENT, MUST BE DRAWN AND KEPT CLOSED EXCEPT WHEN STOCKING THE MERCHANDISER. ADVERSE REFRIGERATION PERFORMANCE WILL RESULT IF THESE CURTAINS ARE LEFT OPEN FOR LONG PERIODS OF TIME.

Dairy products are perishable and, to prevent spoilage due to excessive display time, should be rotated.

CARE AND CLEANING

In the JVMRS the store floor will be the interior display area. Since milk and other spillage will occur, the floor should be cleaned and disinfected at least once a week.

When cleaning, use caution to prevent water or other liquids from entering the fan vents located on the interior side of the front assembly.

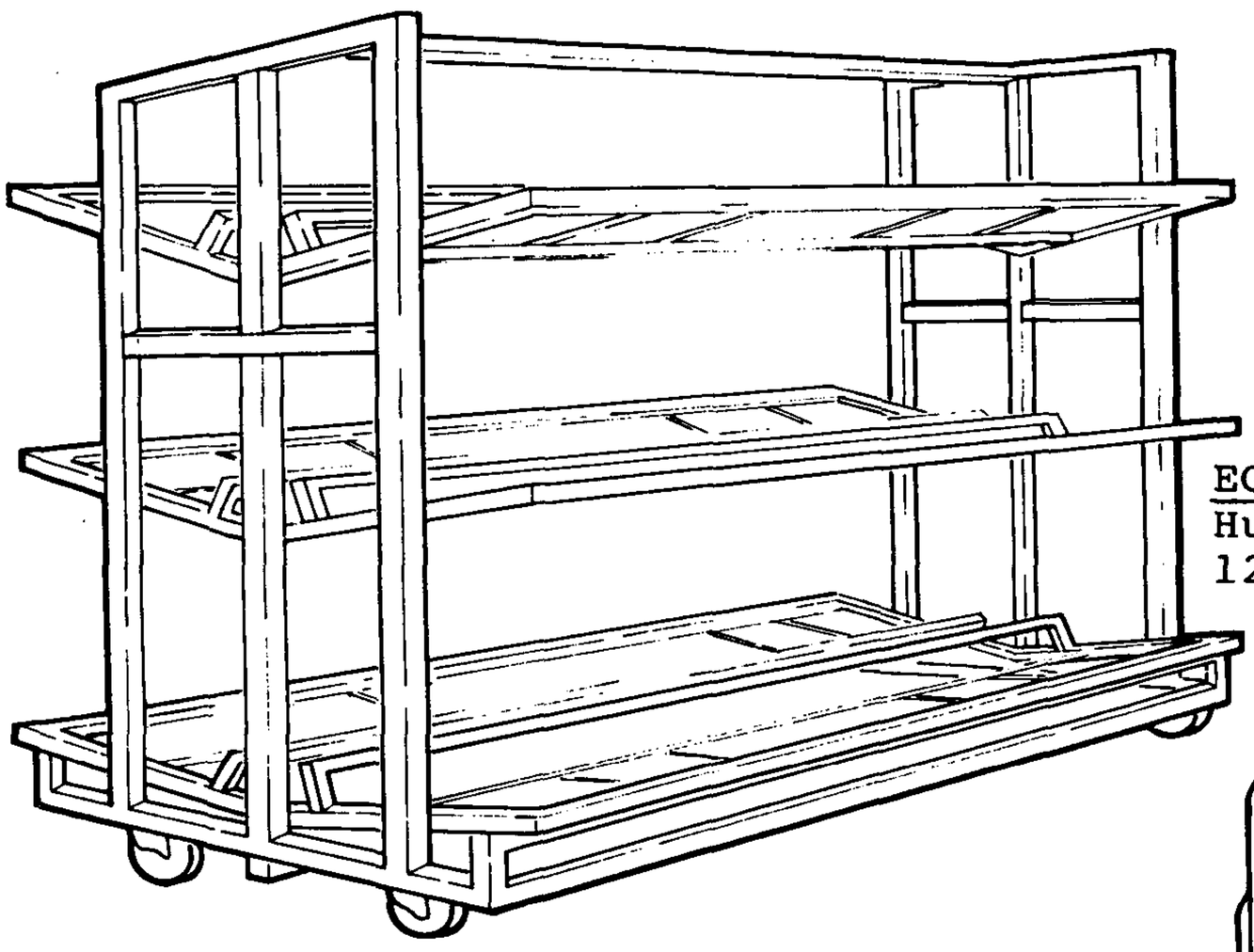
To preserve the exterior finish when cleaning, use warm water and a mild detergent. DO NOT USE ABRASIVE CLEANERS OR STEEL WOOL SCOURING PADS.

The honeycomb of the coil package and the return flue should be periodically cleaned by a refrigeration serviceman, approximately every six months. See "Honeycomb Cleaning" on Page 6-5.

ACCESSORIES

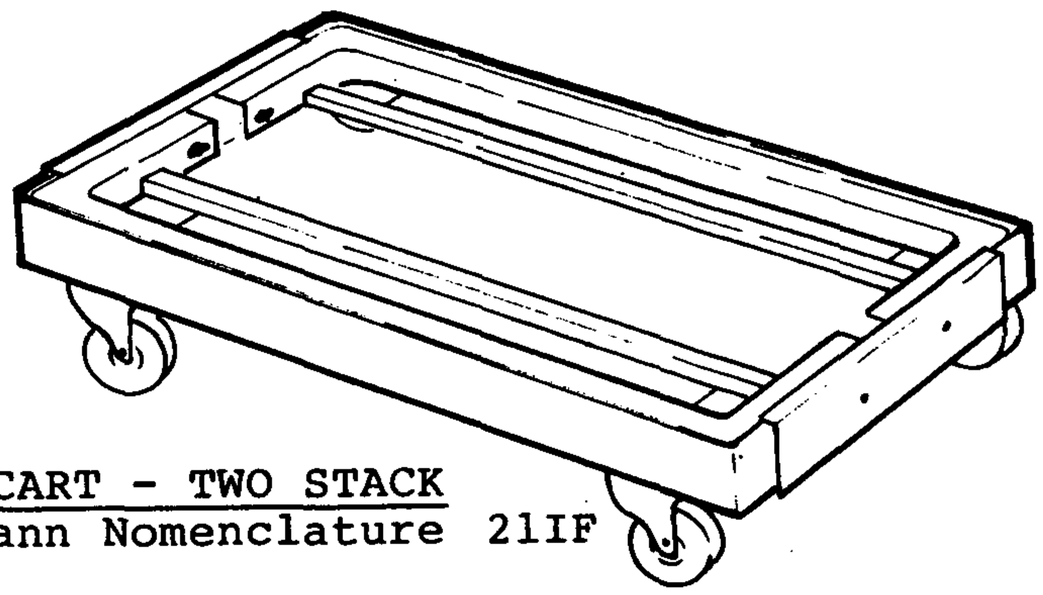
Various display arrangements can be derived by utilizing combinations of shelves and mobile dairy carts. These carts are designed for rapid loading, ease of maneuvering and sales appeal.

When loaded, these carts will easily glide into the JVMRS from the rear and can be positioned beneath shelving if so desired.



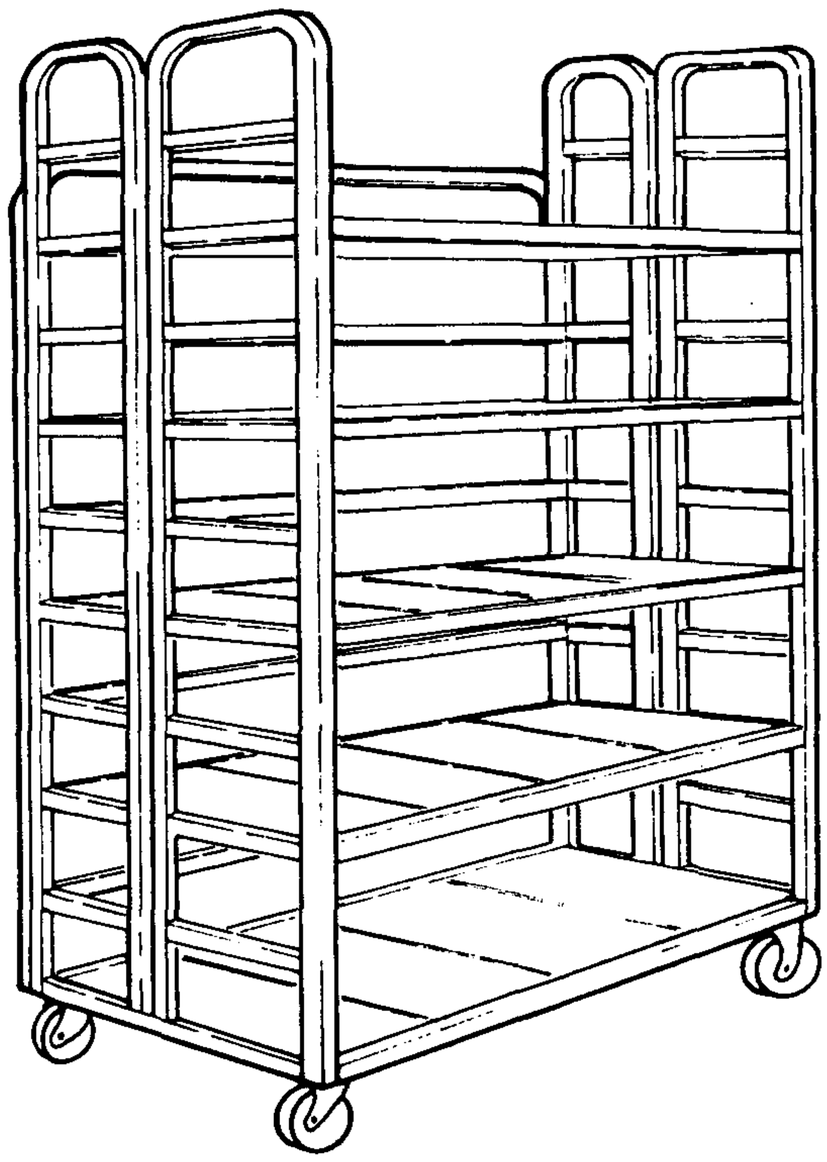
EGG MERCHANDISER - 3 TIER
Hussmann Nomenclature 20IF
12 EGG BASKET CAPACITY

A 4 Tier Egg Merchandiser (67IF) with a capacity of 16 Egg Baskets is also available.



MILK CART - TWO STACK
Hussmann Nomenclature 21IF

*When these milk carts are used it is important that a 24" shelf be installed above them to assist proper air flow.

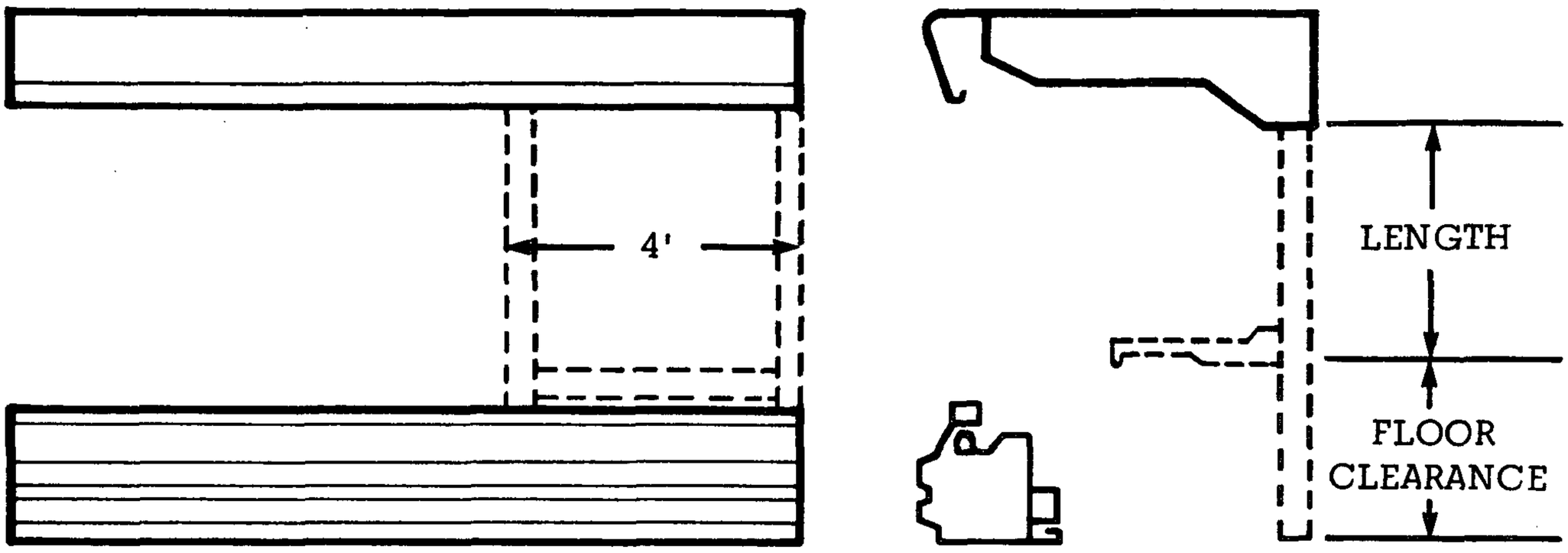


*MILK CART (Cumberland)
Hussmann Nomenclature 28IK
270 (½) Gallon Capacity
Hussmann Nomenclature 68IK
180 (½) Gallon Capacity

OPTIONAL SHELVING

Product display shelving, lighted or unlighted, may be added to this case with the addition of shelf upright kits. These kits are in 4 ft. sections and may be installed to the entire length or any 4 ft. section of the case. The floor clearance beneath the lowest part of the shelf upright ranges from 0" to 55". Various mobile merchandising carts may be used beneath some of the shelf upright kits.

SHELF UPRIGHTS



HUSSMANN NOMENCLATURE	LENGTH	FLOOR CLEARANCE
15IF	66 3/4"	0
66IF	45 1/2"	21 1/4"
65IF	34 3/4"	32"
64IF	23 3/4"	43"
19IF	13 3/4"	53"
76IF	11 3/4"	55"

Shelves not included with uprights.

Shelves are available with depth measurements ranging from 14" to 22" and either lighted or unlighted.

A special shelf is available in 20" and 22" depth measurements with an inverted bracket that allows these shelves to be positioned in the lowest possible position on the uprights.

SECTION 6

SERVICE TIPS

WARNING

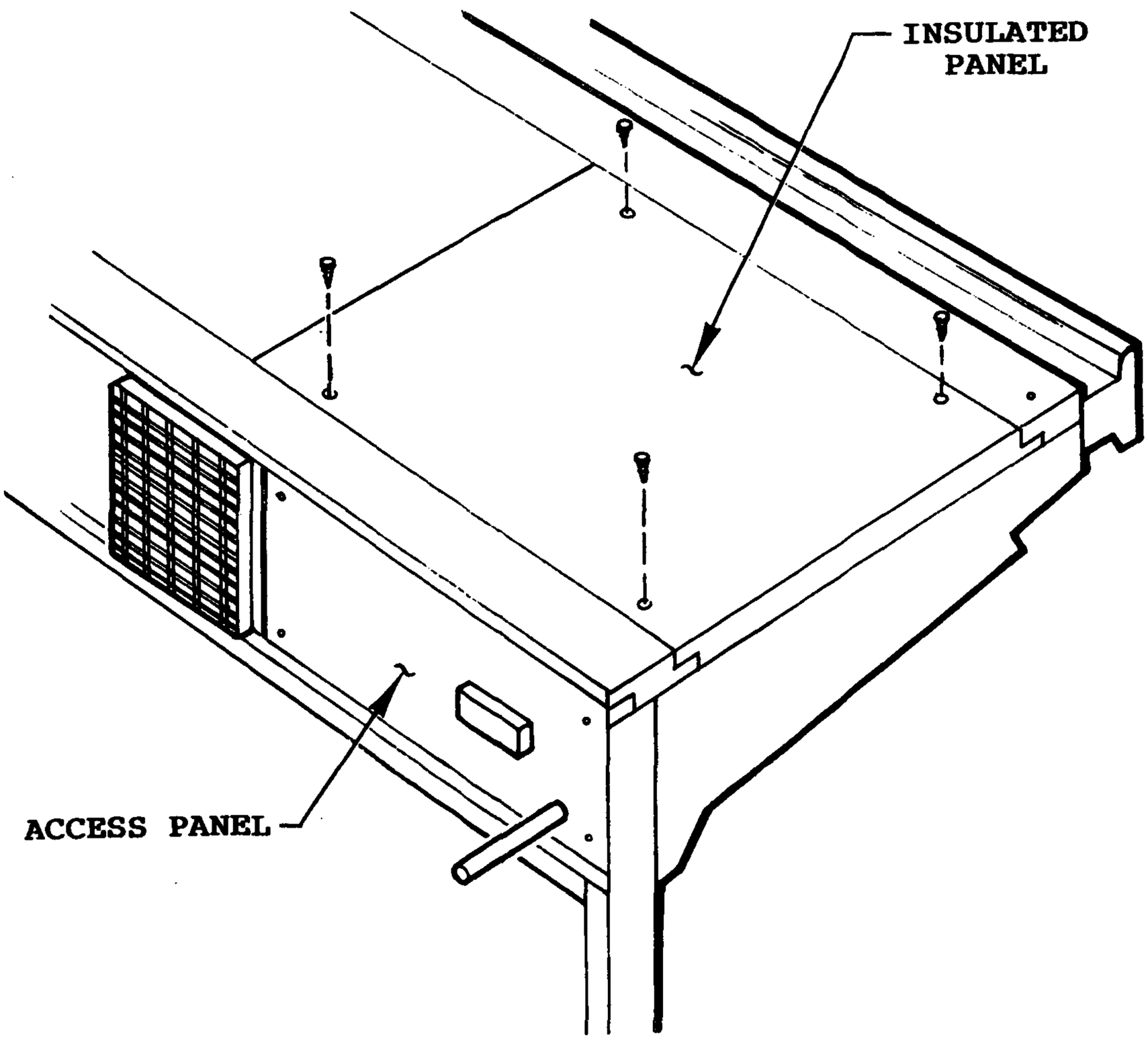
ALWAYS DISCONNECT THE ELECTRICAL POWER AT THE MAIN DISCONNECT WHEN SERVICING OR REPLACING ANY ELECTRICAL COMPONENT OF THIS REFRIGERATOR. THIS INCLUDES, BUT IS NOT LIMITED TO SUCH ITEMS AS FANS, HEATERS, THERMOSTATS AND FLUORESCENT LAMPS.

ACCESS TO COIL PACKAGE

A. Limited Access to the line connection and expansion valves, is provided at the rear of the JVMRS through panels located at each end of the JVMRS.

B. Complete Access can be obtained by removing the insulated panels located on top of the JVMRS.

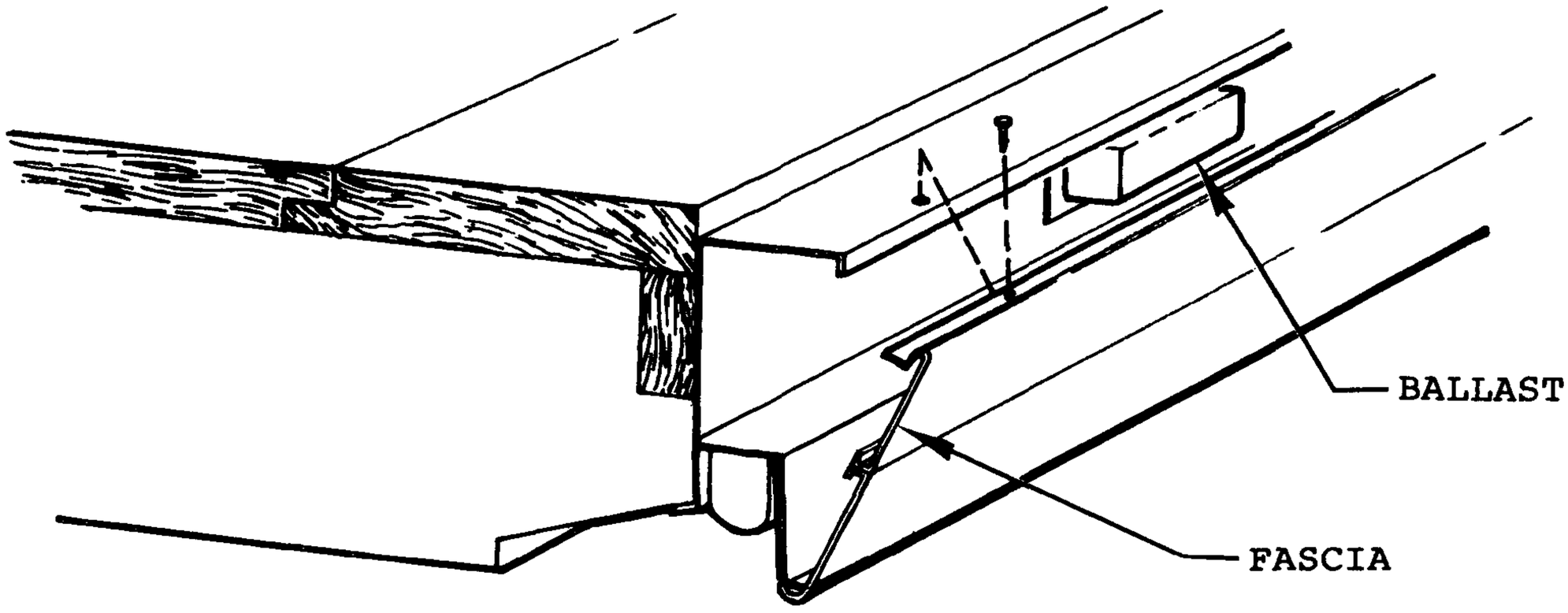
When reinstalling the insulated panels, make certain that the gasketing has not been damaged during either removal or reinstallation.



BALLAST REPLACEMENT (Canopy Lighting)

The ballast for the canopy fluorescent lamps is located inside the canopy light fixture at the left hand end of the case. For access to the ballast:

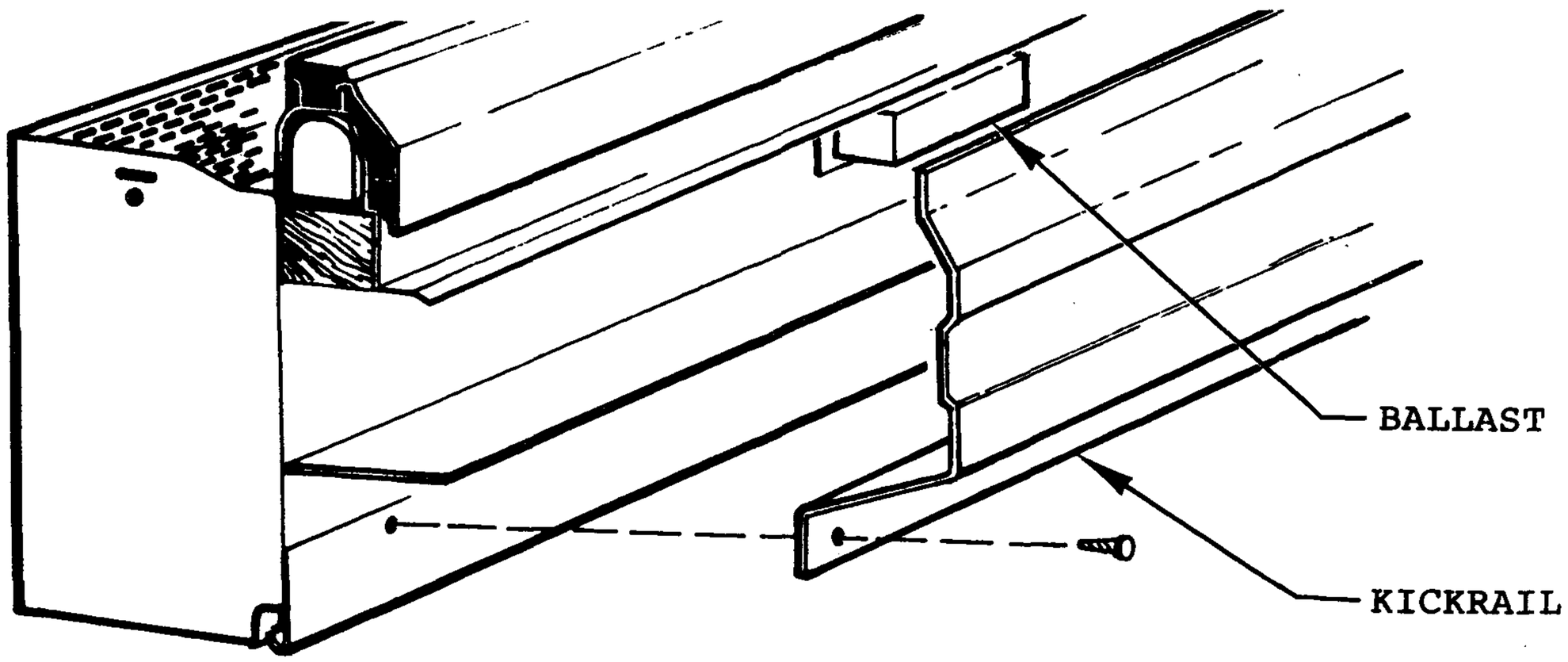
a. Remove the screws that fasten the fascia to the exterior top of the case.
b. Pull the top of the fascia forward and rotate it down to remove it from the case.
c. Replace or service the ballast as required and replace the fascia in reverse order of removal.



BALLAST REPLACEMENT (Lower Ledge Lighting)

The ballast for the lower ledge fluorescent lamps is located inside the raceway at the left hand end of the case. For access to the ballast:

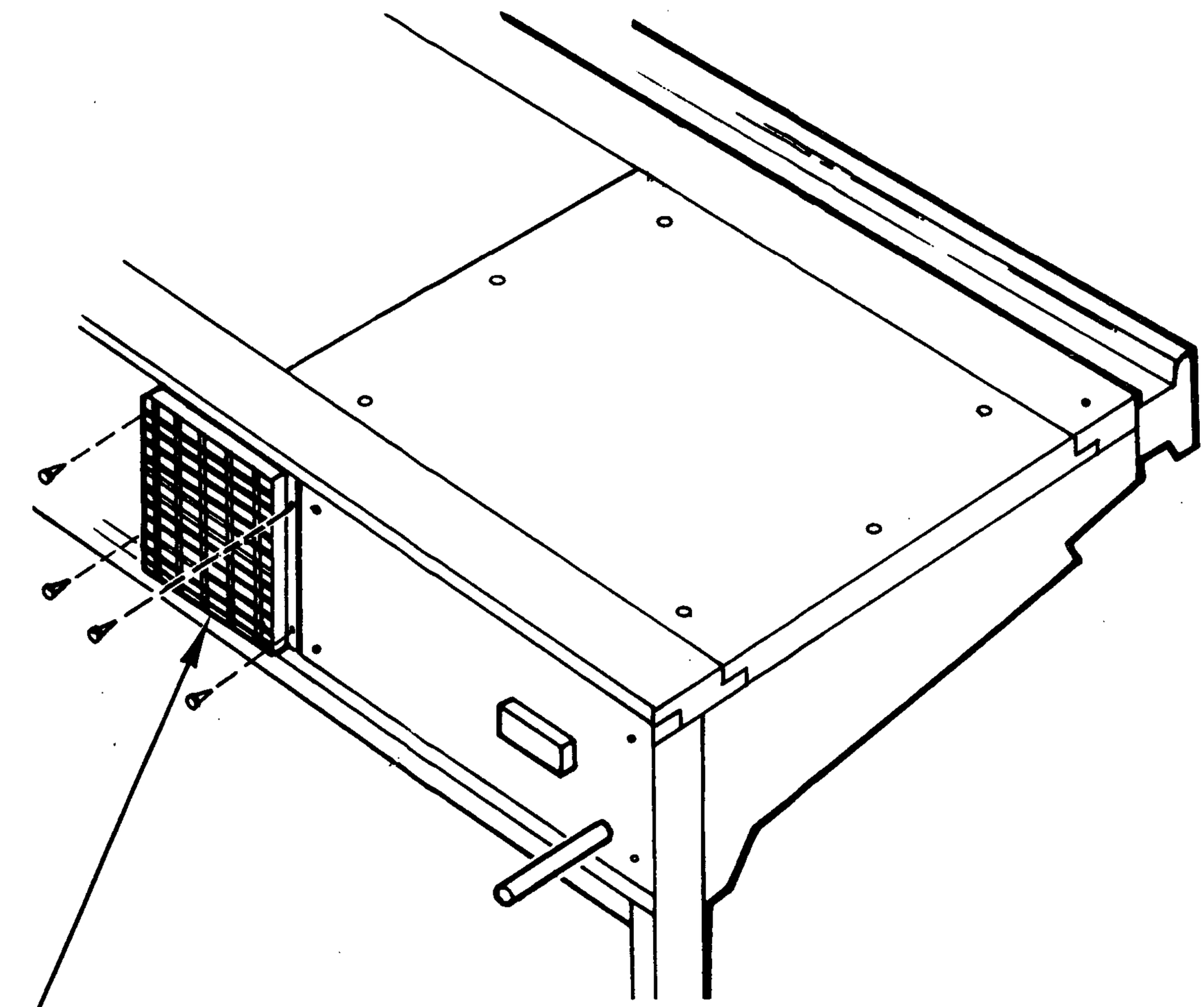
a. Remove the screws that fasten the kickrail to the front of the case.
b. Pull the bottom of the kickrail forward and rotate it down to remove it from the case.
c. Replace or service the ballast as required and replace the kickrail in reverse order of removal.



FAN BLADE REPLACEMENT GRILLS (MAIN FAN SYSTEM)

These fans are located at the rear of the coil package behind the protective grills. SHOULD THESE FAN MOTORS OR BLADES EVER NEED SERVICING, ALWAYS REPLACE THE FAN BLADES WITH THE RAISED EMBOSSED SIDE OF THE BLADE TOWARD THE MOTOR.

a. DISCONNECT POWER TO FANS
b. Remove protective grill over fan.
c. If servicing fan motor, remove motor mount casting and disconnect fan from fan harness.
d. Service or replace parts and replace all items.



PROTECTIVE GRILL
OVER EACH FAN

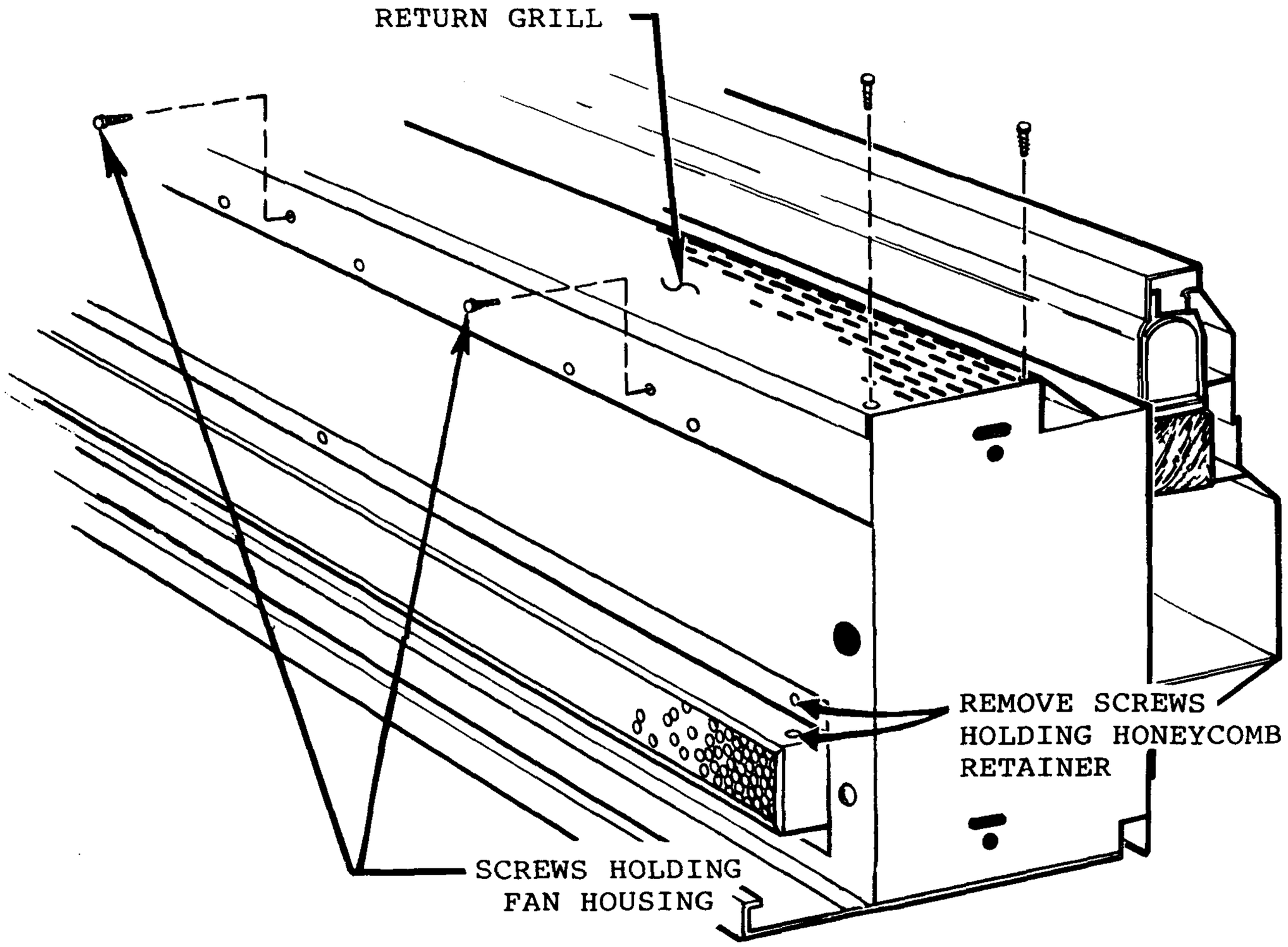
FAN BLADE REPLACEMENT (RETURN FAN SYSTEM)

These fans are located in the lower front package beneath the return grill. SHOULD THESE FAN MOTORS OR BLADES EVER NEED SERVICING, ALWAYS REPLACE THE FAN BLADES WITH THE RAISED EMBOSSED SIDE OF THE BLADE TOWARD THE MOTOR.

a. DISCONNECT POWER TO FANS.
b. Remove the return grill over fans.
c. Remove the screws holding the fan housing to the rear of the front package.

There are two fans for every fan housing, remove only the two upper screws as shown below to free the housing.

c. Disconnect the fans from the fan harness and lift the entire fan housing up through the return flue.
d. Service or replace parts and replace all items.



To remove the return flue honeycomb:

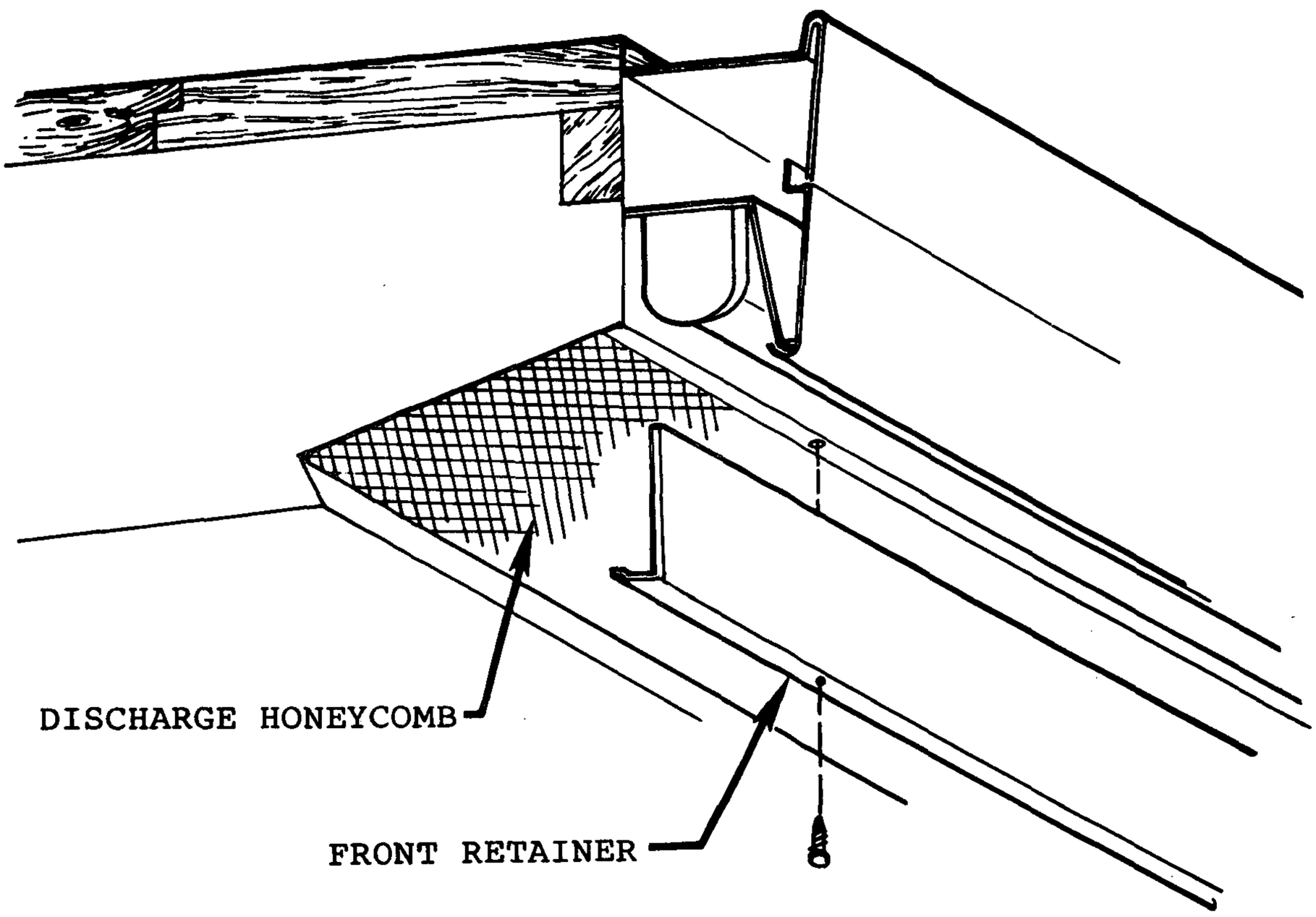
Remove the entire honeycomb retainer which will expose the honeycomb. See above illustration.

To clean, follow instructions on the next page.

HONEYCOMB CLEANING

To remove the discharge honeycomb:

a. Remove the front honeycomb retainer fastened to the interior top of the case.
b. Remove the honeycomb, pulling down the front.
c. Clean or replace the honeycomb. Clean the honeycomb with either a vacuum or soap and water. Be sure to rinse the honeycomb and dry thoroughly prior to replacing it back into the case.



REPAIRING ALUMINUM COIL

The aluminum coils used in Hussmann merchandisers may be easily repaired in the field. Materials are available from local refrigeration wholesalers.

Hussmann recommends the following solders and technique:

Solders

Aladdin Welding Products Inc.
P.O. Box 7188
1300 Burton St.
Grand Rapids, MI 49507
(616) 243-2531

X-Ergon
1570 E. Northgate
P.O. Box 2102
Irving, TX 75062
(800) 527-9916

Technique

1. Locate Leak.
2. Remove all pressure.
3. Brush area UNDER HEAT.
4. Use Prestolite torch only. Number 6 tip.
5. Maintain separate set of stainless steel brushes and use only on aluminum.
6. Tin surface around area.
7. Brush tinned surface UNDER HEAT, thoroughly filling the open pores around leak.
8. Repair leak. Let Aluminum melt solder, NOT the torch.
9. Don't repair for looks. Go for thickness.
10. Perform a leak check.
11. Wash with water.
12. Cover with a good flexible sealant.

NOTE:

Hussmann Aluminum melts at .....1125° F
Aladdin 3-in-1 rod at .....732° F
X-Ergon Acid core at .....455° F
Factory Solder at aluminum
to copper transitions .....855° F