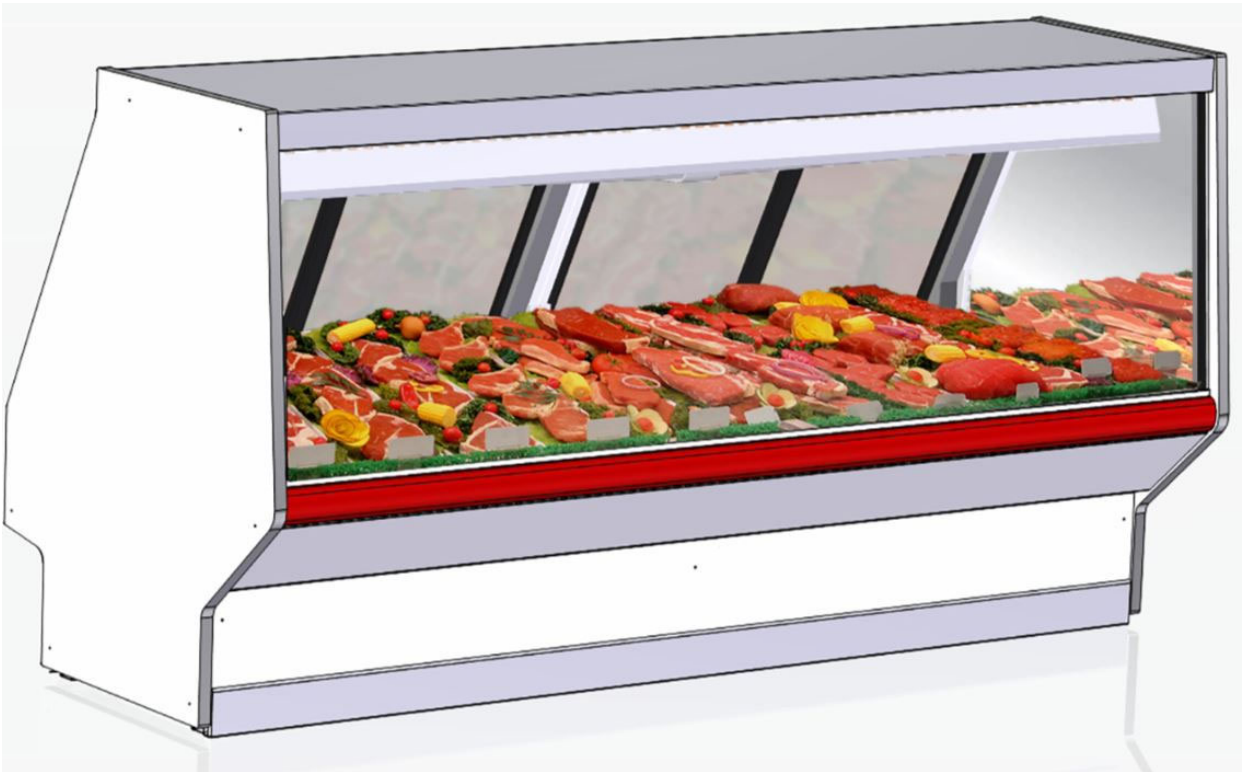


HUSSMANN®

Q3-MX-HV MERCHANTISER

Q3-MX-HV-8
Q3-MX-HV-12



Installation, Operation and Service Manual

P/N 3226241

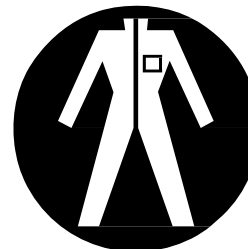
September 2025

Rev. C

	<h2>BEFORE YOU BEGIN</h2> <p>Read these instructions completely and carefully.</p>	
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PERSONAL PROTECTION EQUIPMENT (PPE)


Personal Protection Equipment (PPE) is required whenever installing or servicing this equipment. Always wear safety glasses, gloves, protective boots or shoes, long pants, and a long-sleeve shirt as required when installing or servicing this equipment.








This warning does not mean that Hussmann products will cause cancer or reproductive harm, or is in violation of any product-safety standards or requirements. As clarified by the California State government, Proposition 65 can be considered more of a 'right to know' law than a pure product safety law. When used as designed, Hussmann believes that our products are not harmful. We provide the Proposition 65 warning to stay in compliance with California State law. It is your responsibility to provide accurate Proposition 65 warning labels to your customers when necessary. For more information on Proposition 65, please visit the California State government website.

ANSI Z535.5 DEFINITIONS

 • **DANGER** – Indicate[s] a hazardous situation which, if not avoided, will result in serious injury.

 • **WARNING** – Indicate[s] a hazardous situation which, if not avoided, could result in serious injury.

 • **CAUTION** – Indicate[s] a hazardous situation which, if not avoided, could result in minor or moderate injury.

 • **GROUNDING CONNECTION** – Indicate[s] a grounding connection on the appliance.

• **NOTICE** – *Not related to personal injury* – Indicates[s] situations, which if not avoided, could result in damage to equipment.



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IMPORTANT
KEEP IN STORE FOR FUTURE REFERENCE
Quality that sets industry standards!

1299 St. Charles Rock Road Bridgeton, MO 63044-2483
U.S. & Canada 1-800-922-1949 Mexico 800-890-2900
www.hussmann.com

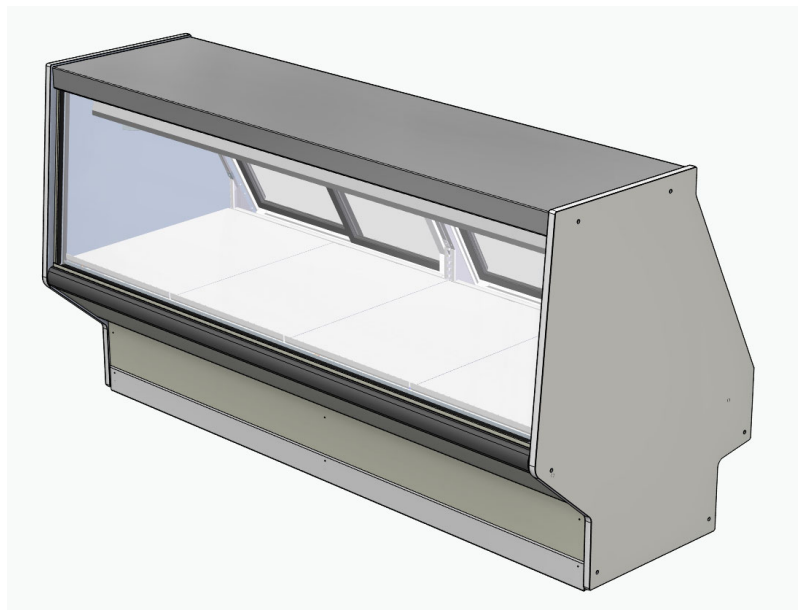
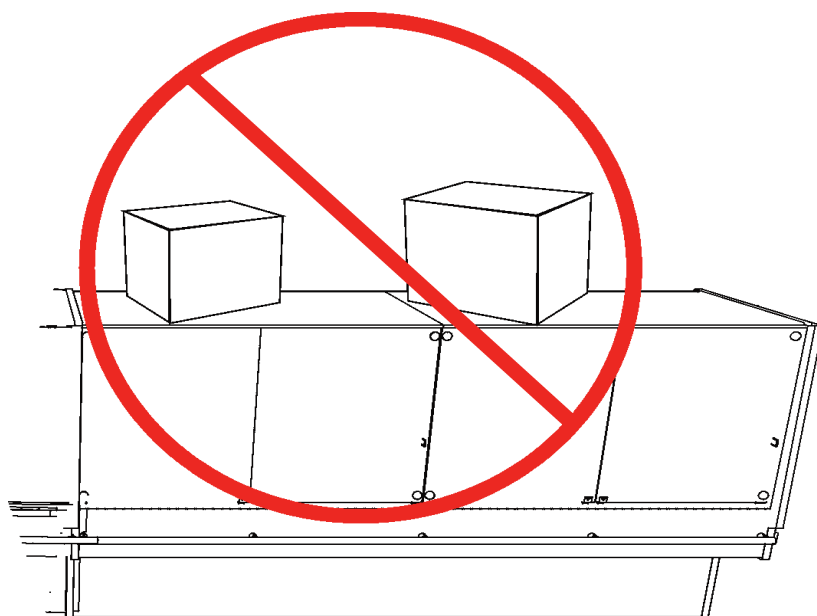
© 2024 Hussman Coporation

Notice



-DO NOT Load or stand over the top of the case.
Glass breakage may occur if precautions are disregarded.

-Broken glass can cause lacerations, cuts, and puncture wounds which may result in severed arteries or tendons, amputations, eye injuries, or exposure to disease.



IMPORTANT

-DO NOT ATTEMPT TO
MOVE THE MERCHANDISER
BY APPLYING FORCE TO
THE GLASS/PLEX AREA
(EVEN IF WOODEN BRACES
ARE PRESENT)

-APPLY PUSHING FORCES
NEAR THE LINER / TUB
AREA IN ORDER TO BRING
MERCHANDISERS TO THE
FINAL POSITION

General Information

Case Description:

Description: Service Merchandiser

Shipping Damage: All equipment should be thoroughly examined for shipping damage before and during 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 Immediately.

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 necessary claim forms.

Concealed Loss or Damage: When loss or damage is not apparent until after all equipment is uncrated, a claim for concealed damage is made. Make request in writing to carrier for inspection within 15 days and retain all packaging. The carrier will supply inspection report and required claim forms.

Shortages: Check your shipment for any possible shortages of material. If a shortage should exist and is found to be the responsibility of Hussmann, notify Hussmann. If such a shortage involves the carrier, notify the carrier immediately, and request an inspection. Hussmann will acknowledge shortages within ten days from receipt of equipment.

Hussmann Product Control: The serial number and shipping date of all equipment have been recorded in Hussmann's files for warranty and replacement part purposes. All correspondence pertaining to warranty or parts ordering must include the serial number of each piece of equipment involved, in order to provide the customer with the correct parts.

Location/Store Conditions: The Q3-MX-HV merchandiser has been designed for use only in air-conditioned stores where temperature and humidity are maintained at or below 75°F Dry bulb and 55% relative humidity. See specification sheets for setting changes. DO NOT allow air conditioning, electric fans, ovens, open doors or windows (etc.) to create air currents around the merchandiser, as this will impair its correct operation.

Keep this booklet with the case at all times for future reference.

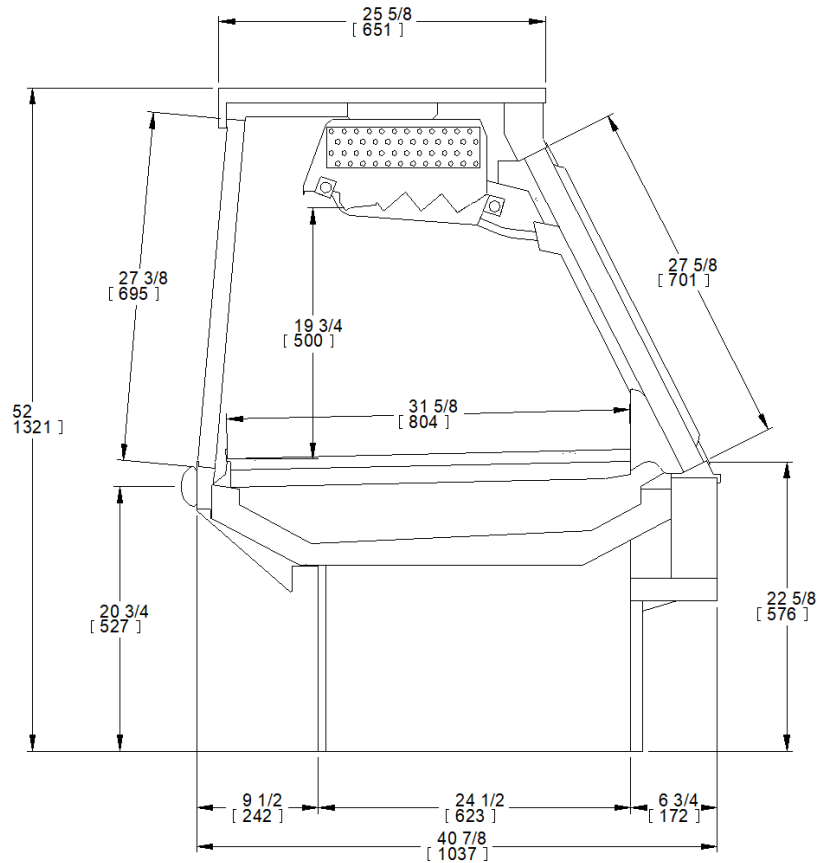
HUSSMANN®



This equipment is to be installed to comply with the applicable NEC, Federal, State, and Local Plumbing and Construction Code having jurisdiction.

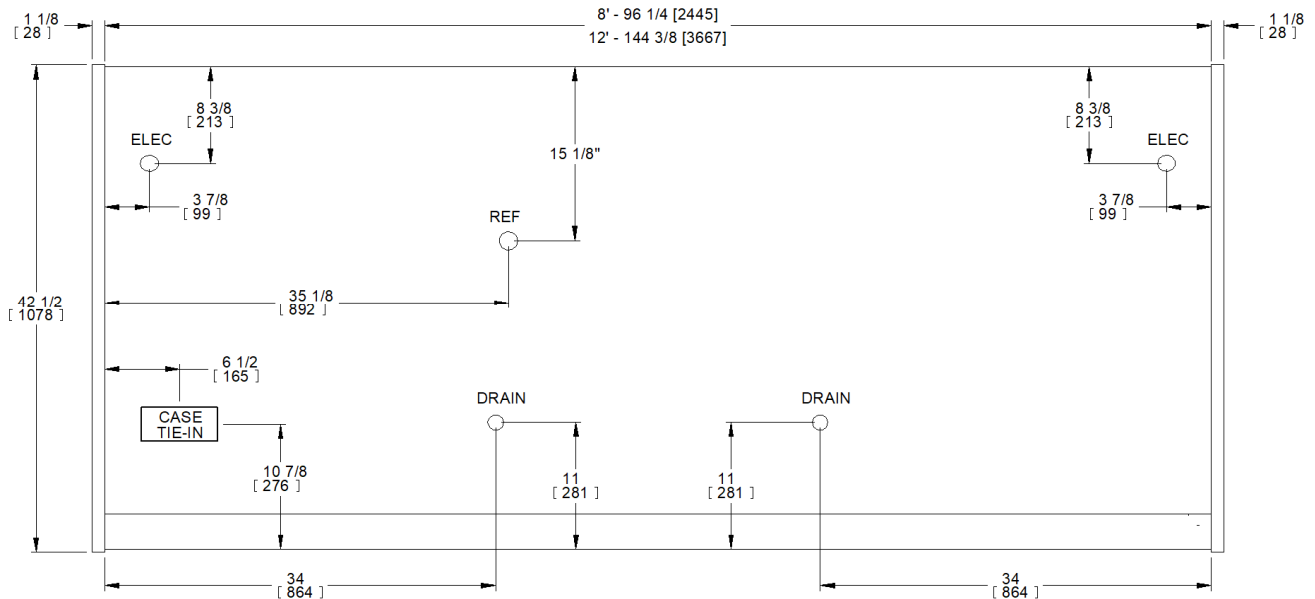
Case Sections

Q3-MX-HV-8
Q3-MX-HV-12



Case Plan Views

Q3-MX-HV-8
Q3-MX-HV-12

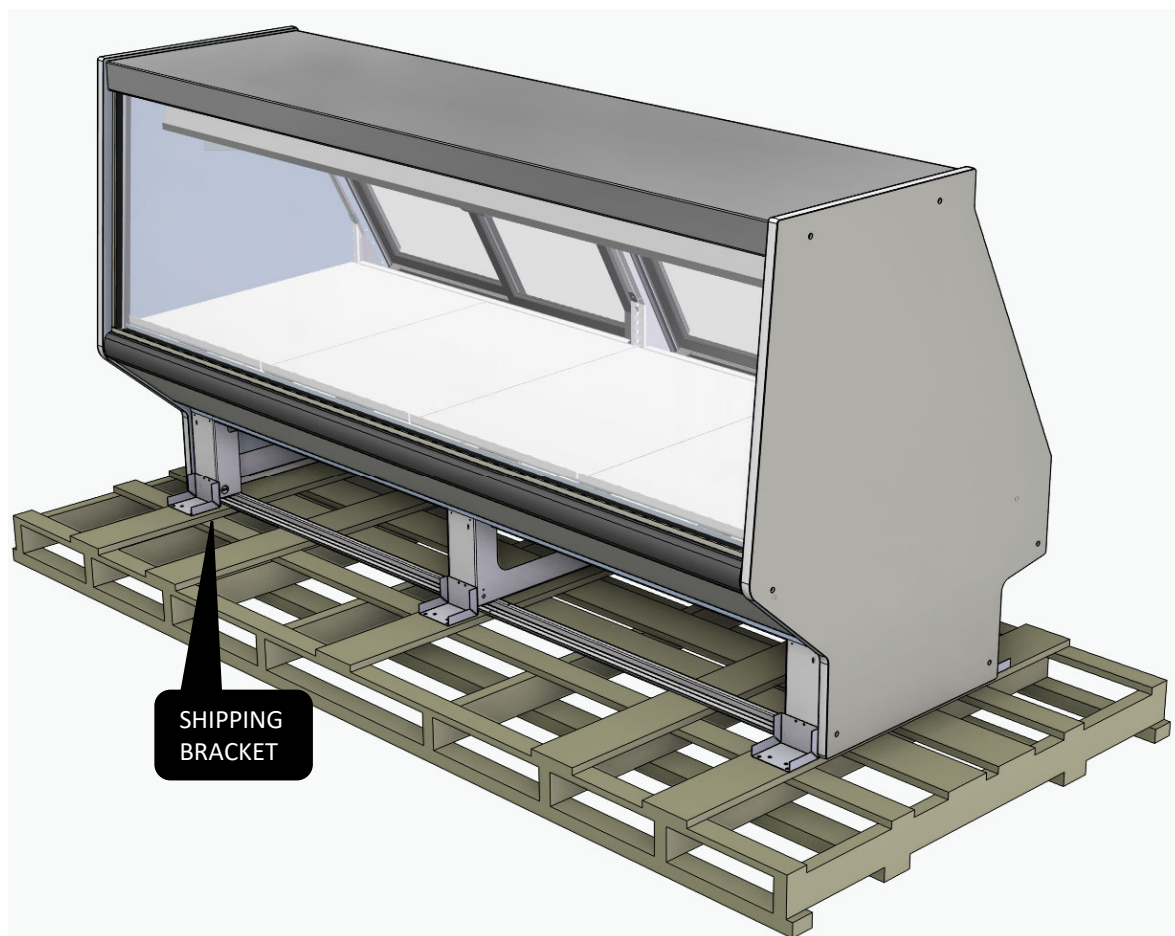


Installation – Preparation

Receiving Case and Preparing for Installation

IMPORTANT

-PLASTIC WRAP MAY BE REMOVED TO ACCESS PARTS, WARNINGS, AND INSTRUCTIONS

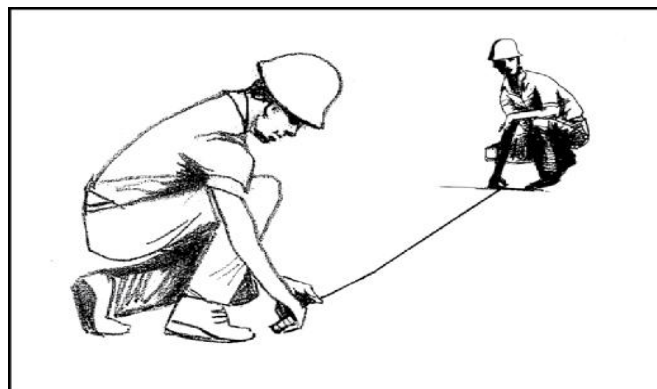


Prepare By:

1. Inspect equipment for damage. Any claim for loss or damage must be made to the carrier. The carrier will provide any necessary inspection/claim form. If there is 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.
2. Read instructions and warnings on handling and transportation. Ensure the proper transportation equipment is being used.
3. Survey and mark out the installation area and plan footprint. Snapping chalk lines is recommended.

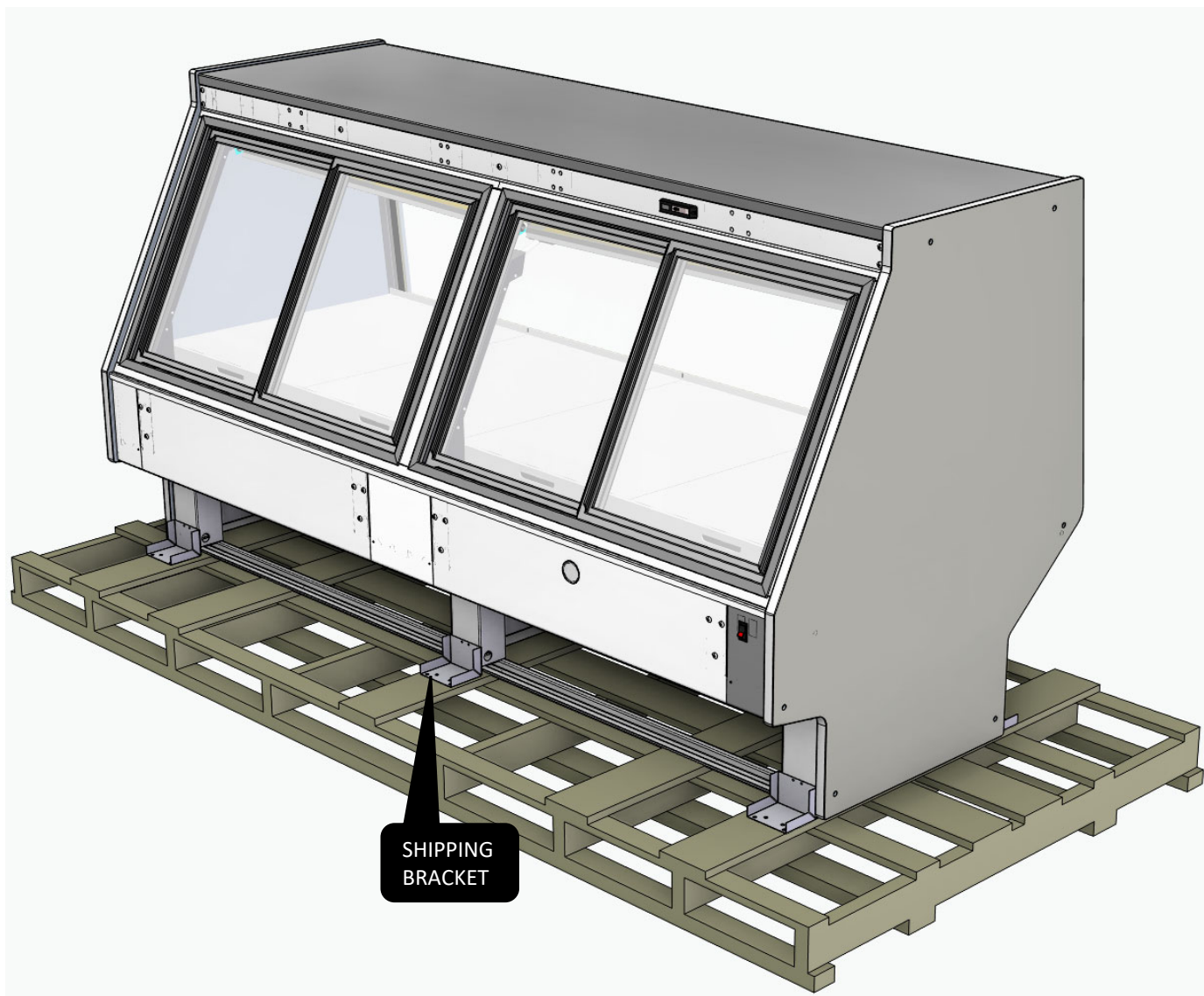
Snapping Chalk Lines

Mark floors with Chalk snap lines where cases are to be located. Chalk lines are to run along the base or legs of cases.



Installation – Preparation

Receiving Case and Preparing for Installation



Unpacking:

(Screwdriver / Drill bit will be required to remove shipping brackets)

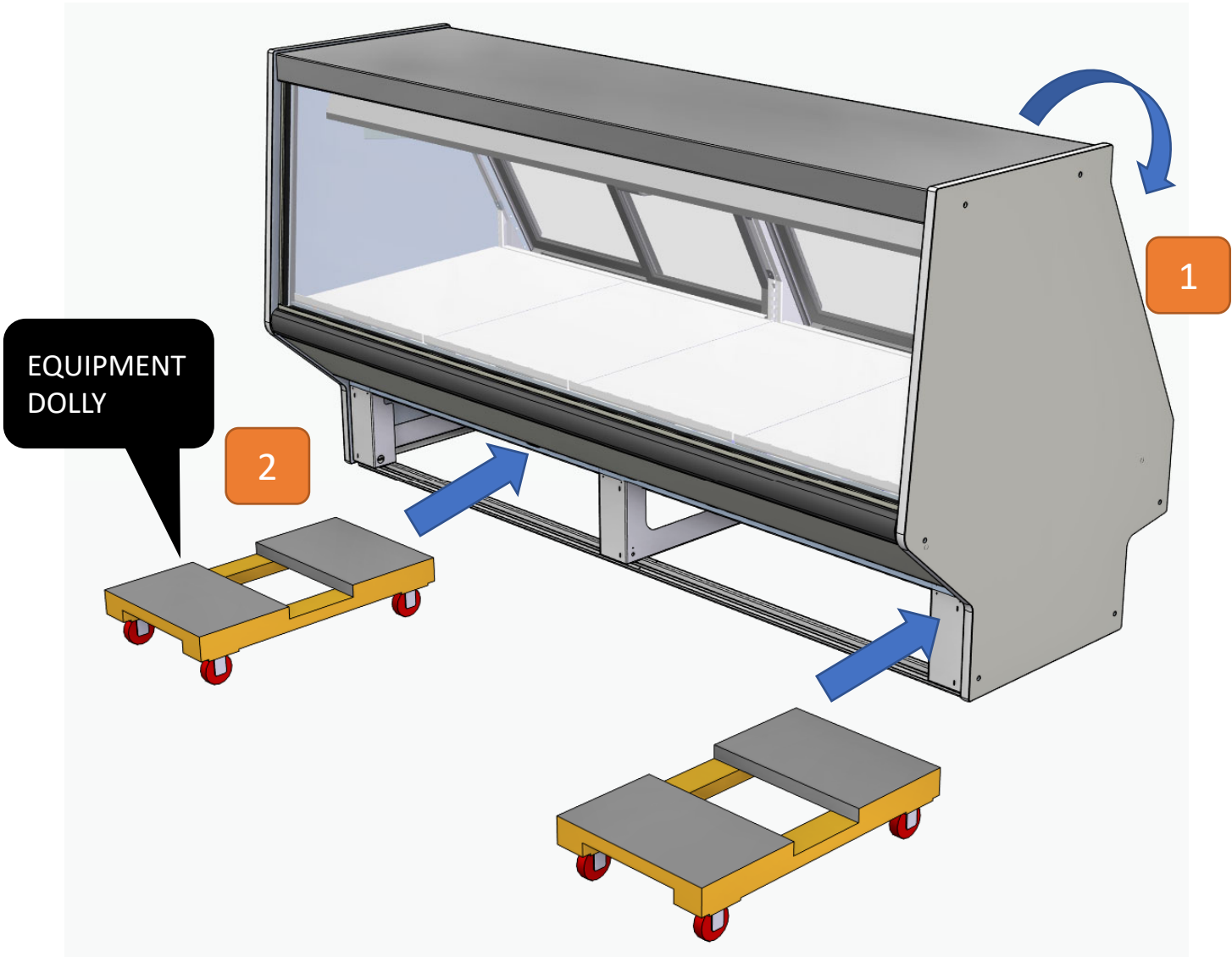
1. Remove any plastic, packing material & tape holding loose panels.
2. Set panels aside and install once case is in the final location.
3. Remove the rest of the plastic & packaging material.
4. Remove shipping brackets from base legs.
5. Lift up case from the bottom only and place in desired location.

Installation – Lifting and Transportation – Using Dolly

Q3-MX-HV Transportation Using Dolly

- 1. The Q3-MX-HV can be lifted or tilted back to place furniture dolly under bottom of case.
- 2. Ensure the case is balanced before attempting to place on dolly.
- 3. Lift the case only as high as necessary to place a dolly.

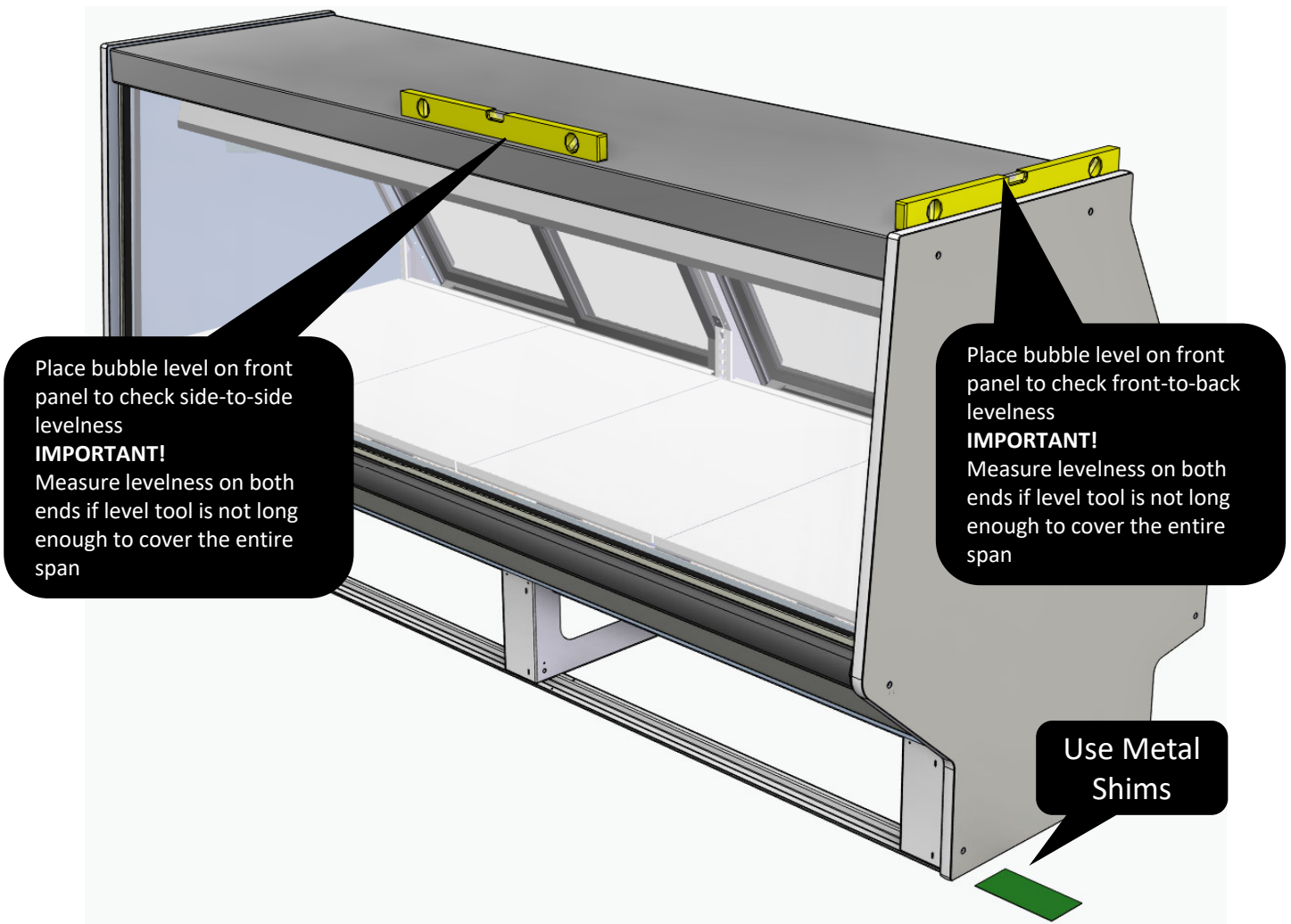
Lift from the bottom only



 **WARNING**
Improper placement of dolly can damage the base and other components. Always use a spotter to place the dolly and ensure even support. Ensure hands are clear before setting the load down on the dolly.

Installation – Method for Leveling Q3-MX-HV Merchandisers

Important: See the suggestions for setting cases on uneven floors before setting lineups and leveling cases. Using this suggestion will result in the fewest required adjustments to case levels.



NOTICE

Longer length cases may require shims along the center portion of the case to maintain proper case alignment, performance, and drainage.

Level the Case sequentially, Using Metal Shims

1. Check levelness left-to-right first (This usually requires the most correction on a single side)
2. Adjust front-to-back levelness after ensuring left-to-right levelness (Shims normally inserted in pairs during this check).

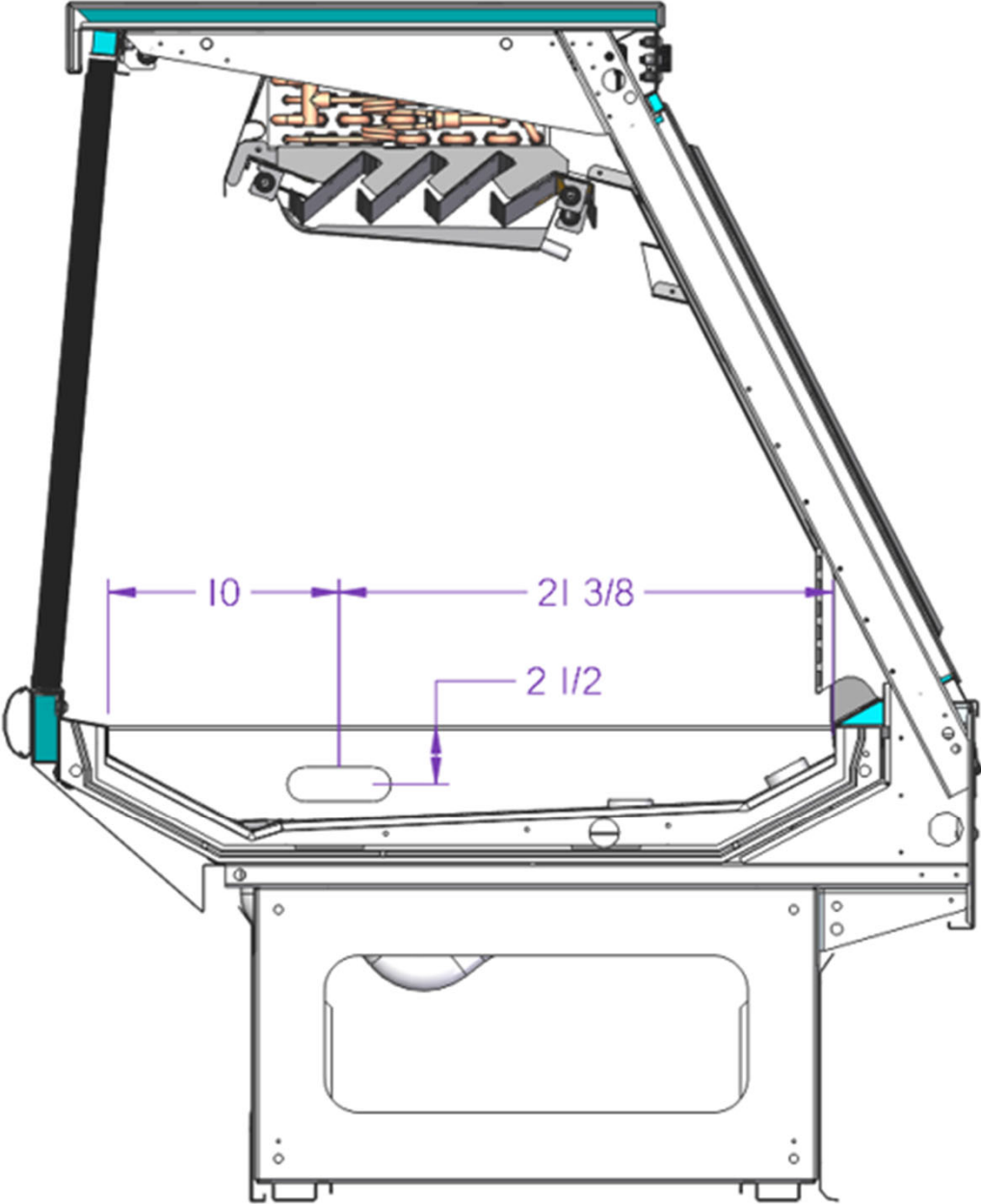
Important: Always level the first case in the lineup. All other cases should be driven from its levels.

Note: The use of metal shims is recommended to prevent shim deterioration over time

Installation – Joining/Sealing

Setting and Joining

Before the cases are joined, see the knockout location for case-to-case mechanical runs.

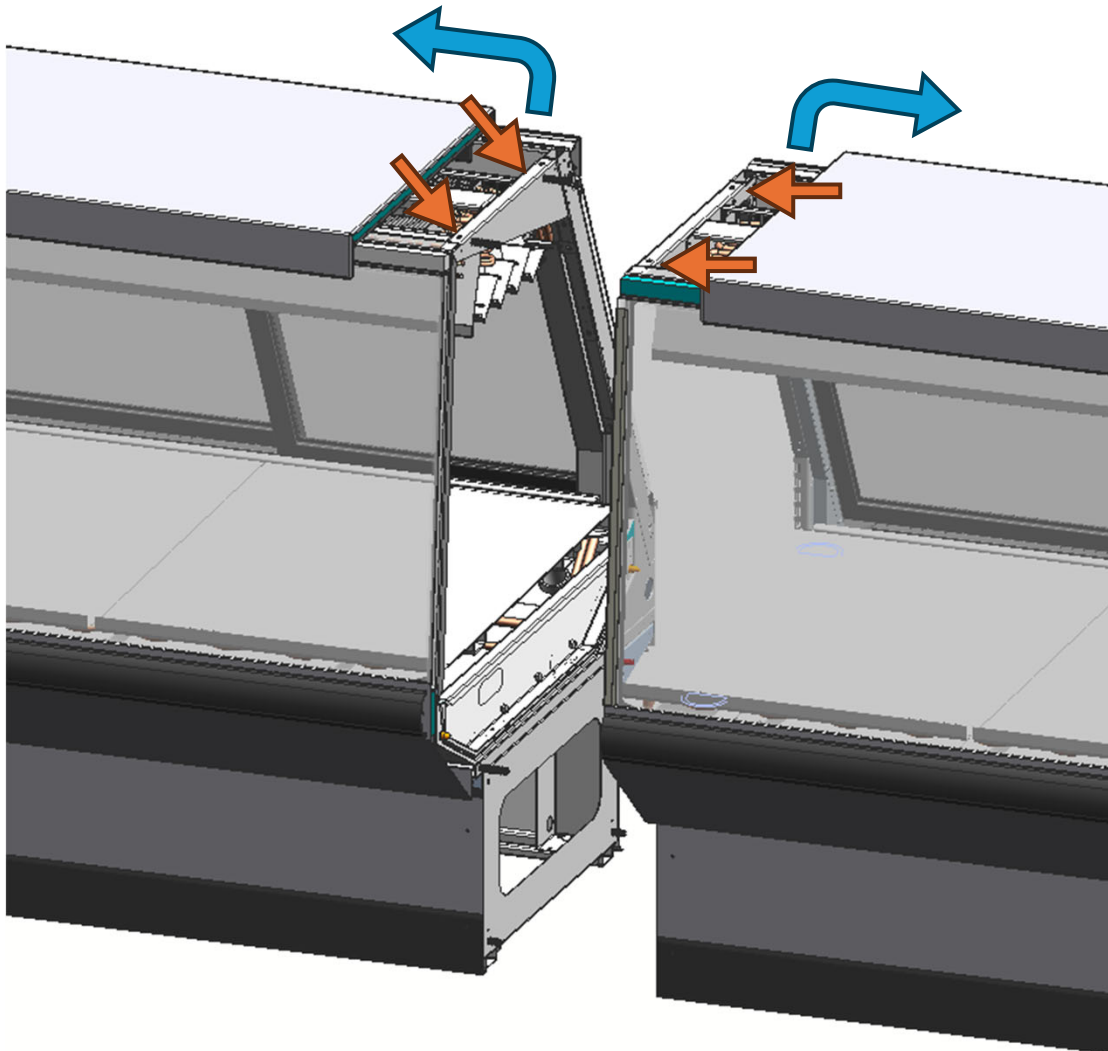


Installation – Joining/Sealing

Setting and Joining (cont'd)

The sectional construction of these models enable them to be joined in line to give the effect of one continuous display.

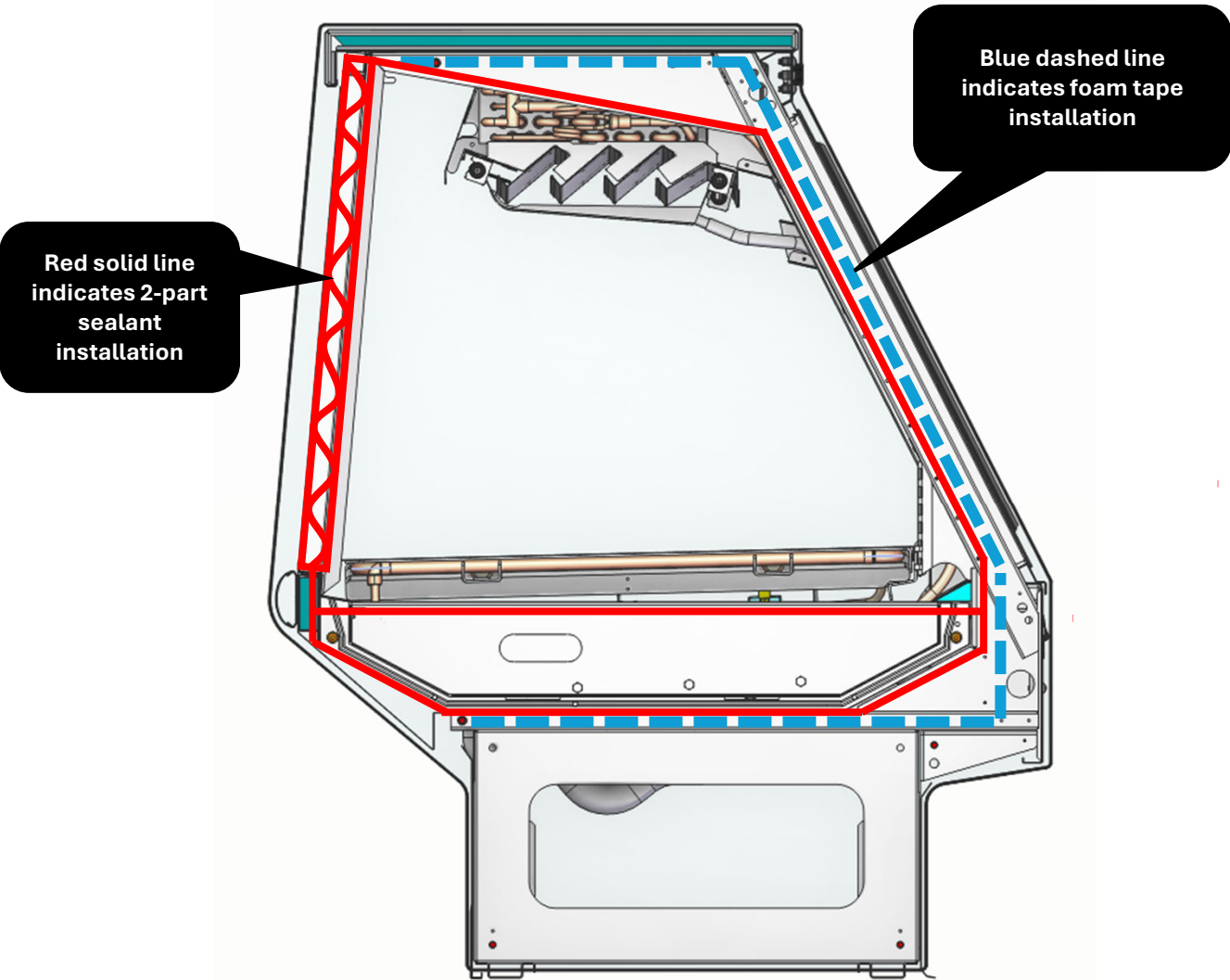
1. Using Case blueprints, measure off and mark on the floor the exact dimensions of where the cases will sit. Snap chalk line for front and back positions of base rail or pedestal. Mark the location of each joint front and back. Find the highest point throughout the lineup. FLOORS ARE NORMALLY NOT LEVEL! Determine the highest point of the floor; cases will be set off this point. All cases in the entire lineup must be brought up to the highest level of the case sitting at the highest point in the lineup.
2. Set the first case over the highest part of the floor and adjust the base so that the case is level by using shims. Reference "Installation – Method for Leveling Q3-MX-HV Merchandisers" section in the I/O Manual.
3. Set the second case within one foot (1') of the first case. Keep the supports along the length of the case and far end of case. Level the case to the first using the instructions in step one.
4. Lift and slide the case top assembly 6" to 8" to one side to access the upper case bolting locations. See image below:



Installation – Joining/Sealing

Setting and Joining (cont'd)

- 5. Apply supplied foam tape (item U from pack list/check sheet) to the first case. Gasket area is shown using a dashed line in illustration below.
- 6. Apply a liberal bead of case joint sealant (two-part item S from pack list/check sheet) to first case. Sealant area is shown using a solid line in illustration below.

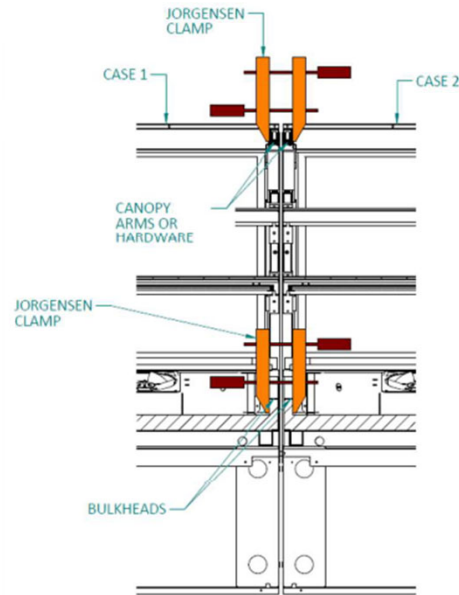
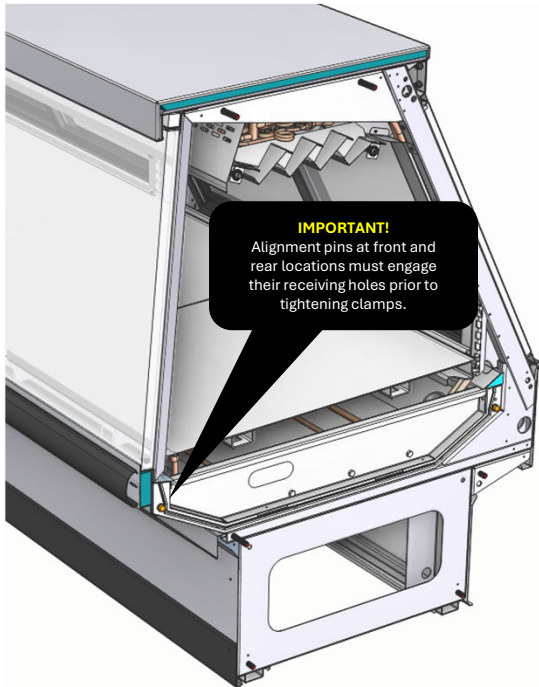


- 7. Slide second case up to first case snugly. Use alignment pins and corresponding holes as a guide. Then level second case to the first case so glass front, bumper and top are flush.
- 8. To compress sealant at joint, use two Jurgenson wood clamps or similar. Make sure case is level from front to back and side to side on inside bulkheads at joint.
- 9. Attach sections together via the bolts pictured in the illustration below.

Installation – Joining/Sealing

Bolting

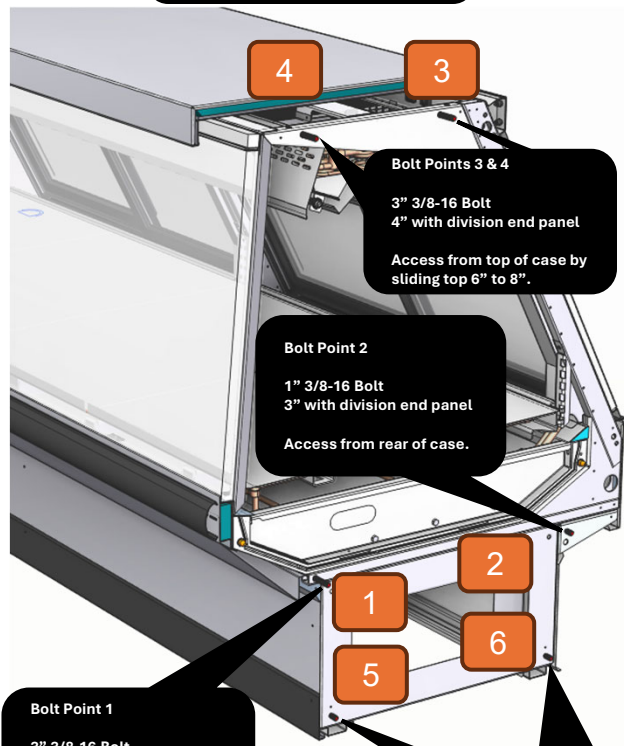
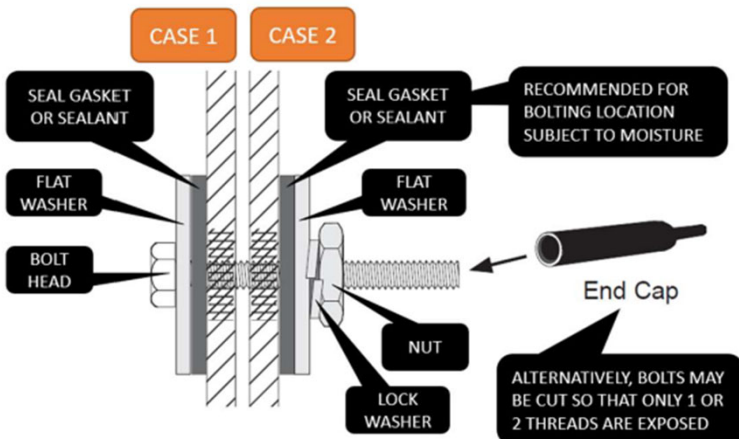
Important: See previous step. Ensure Alignment pins are engaged. Ensure gasket and or sealant is installed. Clamps should be holding the case together while the bolts/nuts are started. Remove clamps only after all 4 bolting points are snug.



IMPORTANT!
Most of the clamping forces should be applied at the bulkhead or at the base legs if necessary. Be careful not to overtighten.

1. Bolt Sequence shown in the graphic.
2. Start with the lower section first. Hand tighten
3. Check for alignment, gasket pinching, or obstructions. Make corrections as necessary.
1. Engage canopy bolts.
2. Hand Tighten Canopy Bolts
3. Return to bolt point 1 and start to snug in sequence using a wrench or ratchet.
4. Remove Clamps. Check Joint Gaps. Correct if required.

Note: Use washers on all bolt head and nuts to distribute clamping force and prevent panel crushing.



Bolt Point 1
3" 3/8-16 Bolt
4" with division end panel
Access from front of case behind lower body panel.

Bolt Points 3 & 4
3" 3/8-16 Bolt
4" with division end panel
Access from top of case by sliding top 6" to 8".

Bolt Point 2
1" 3/8-16 Bolt
3" with division end panel
Access from rear of case.

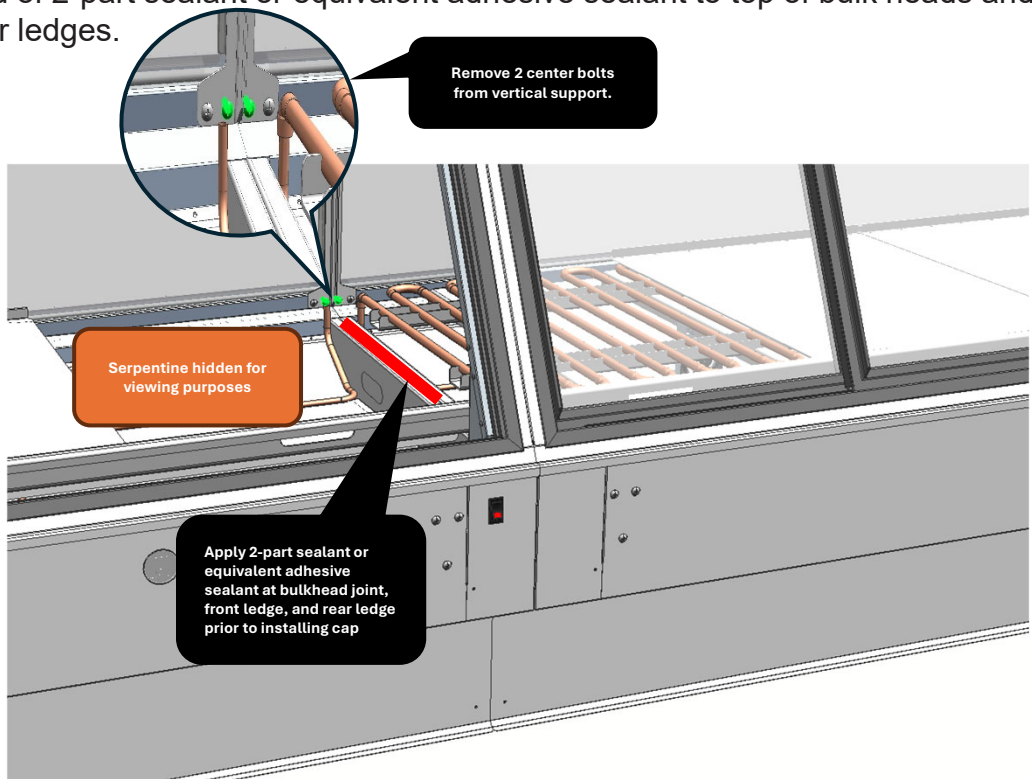
Additional Bolt Points 5 & 6
1" 3/8-16 Bolt
3" with division end panel
Access behind body panels.

NOTE: End caps must be placed over exposed threads in food product areas to maintain NSF compliance.

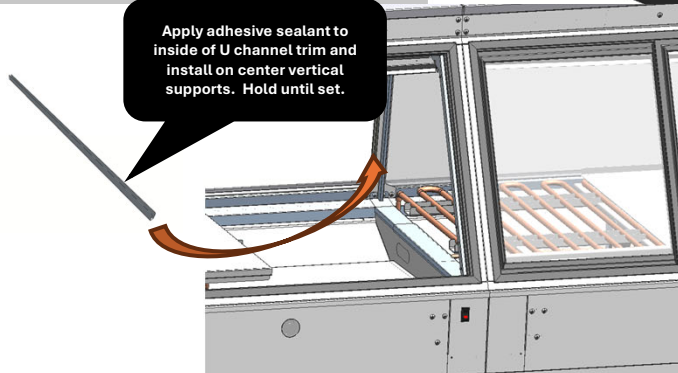
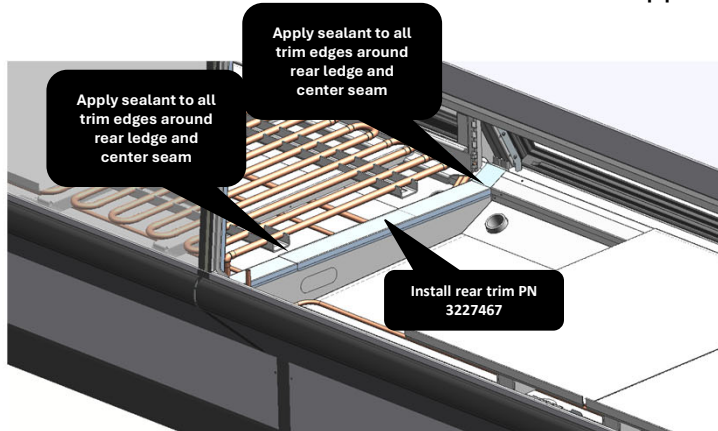
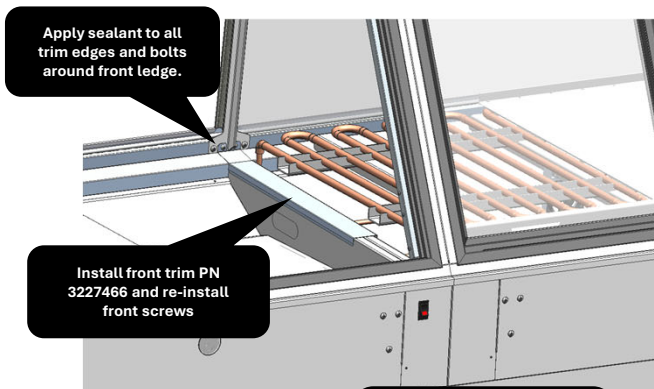
Installation – Joining/Sealing

Interior Joint Trim & Sealing

1. Remove 2 center bolts from vertical supports.
2. Apply bead of 2-part sealant or equivalent adhesive sealant to top of bulk heads and center joint of front & rear ledges.



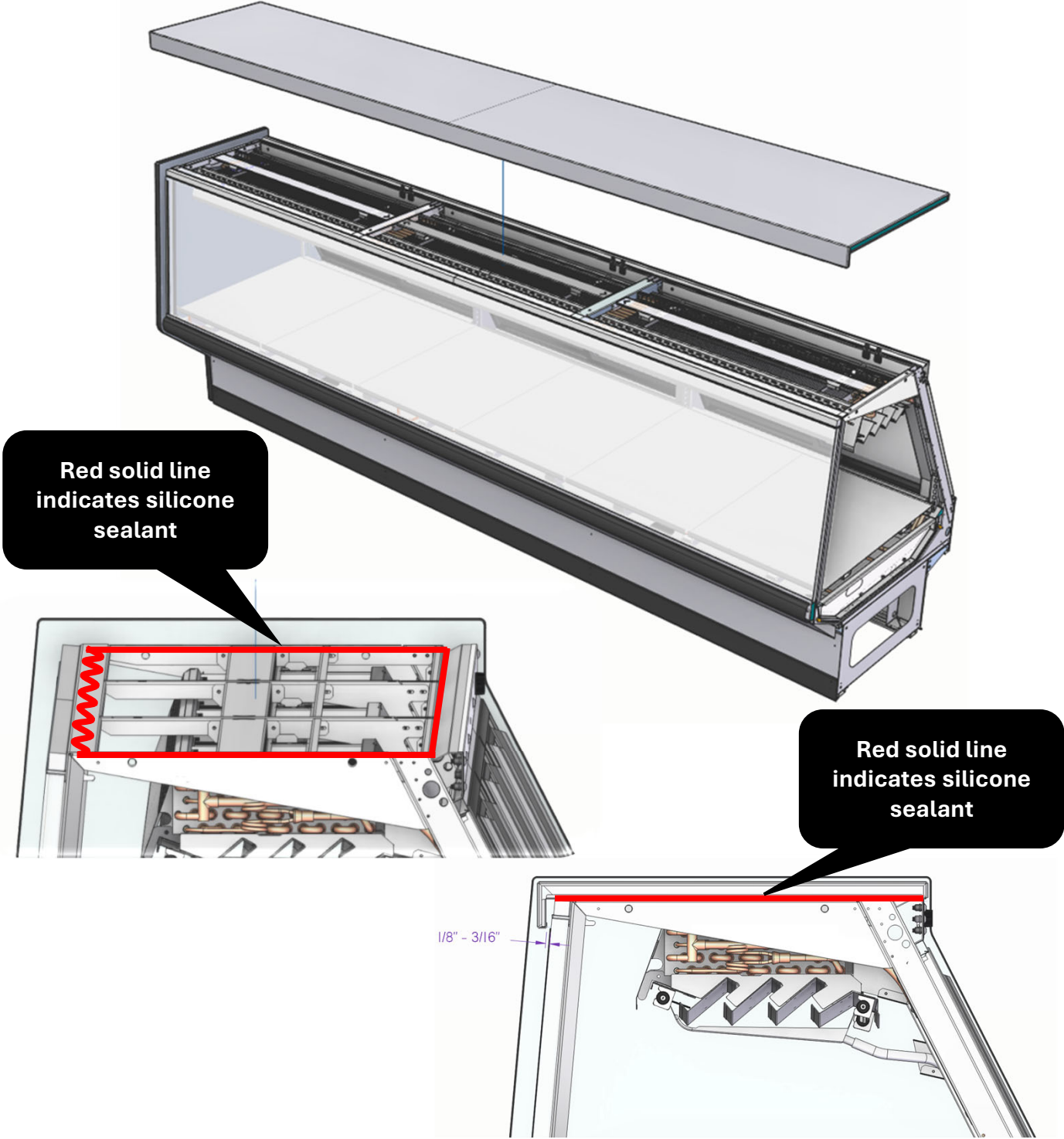
3. Slip on stainless steel front & rear bulkhead caps under the refrigeration piping (as pictured below), re-install 2 center bolts, and apply sealant to bulkhead cap edges around front & rear ledge, front bolts, and seam between joints.
4. Apply adhesive sealant to inside of U channel center trim and install on center vertical supports. Hold until set.



Installation – Joining/Sealing

Setting and sealing case top

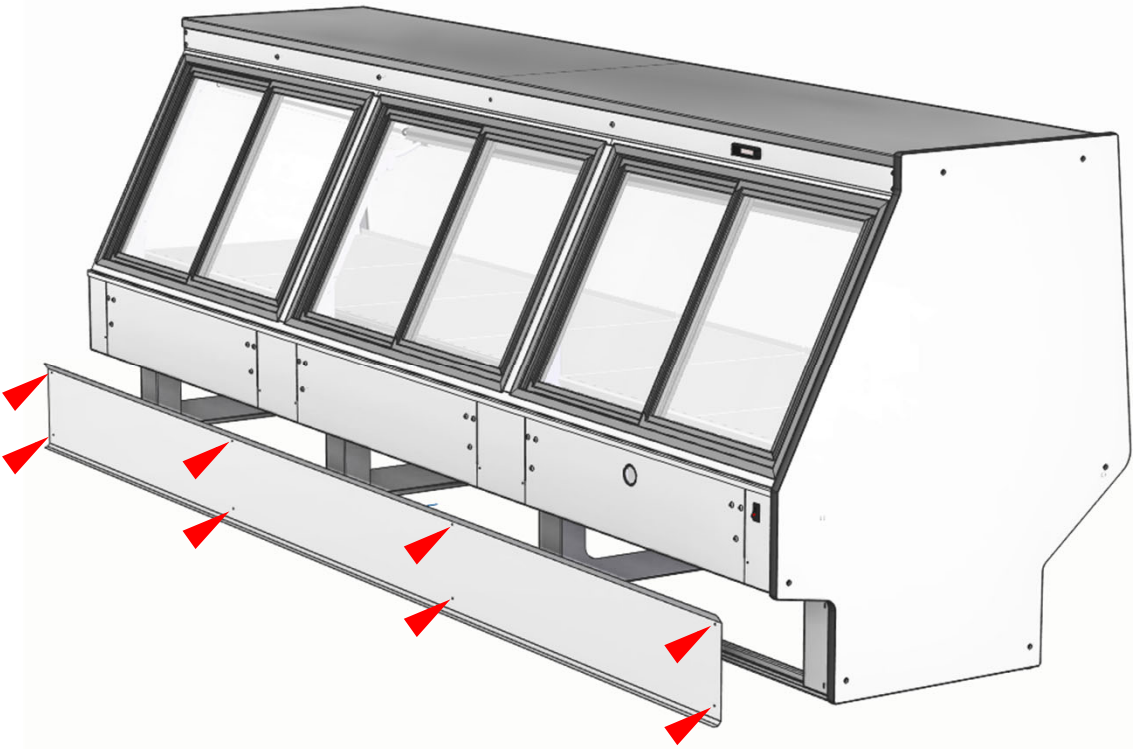
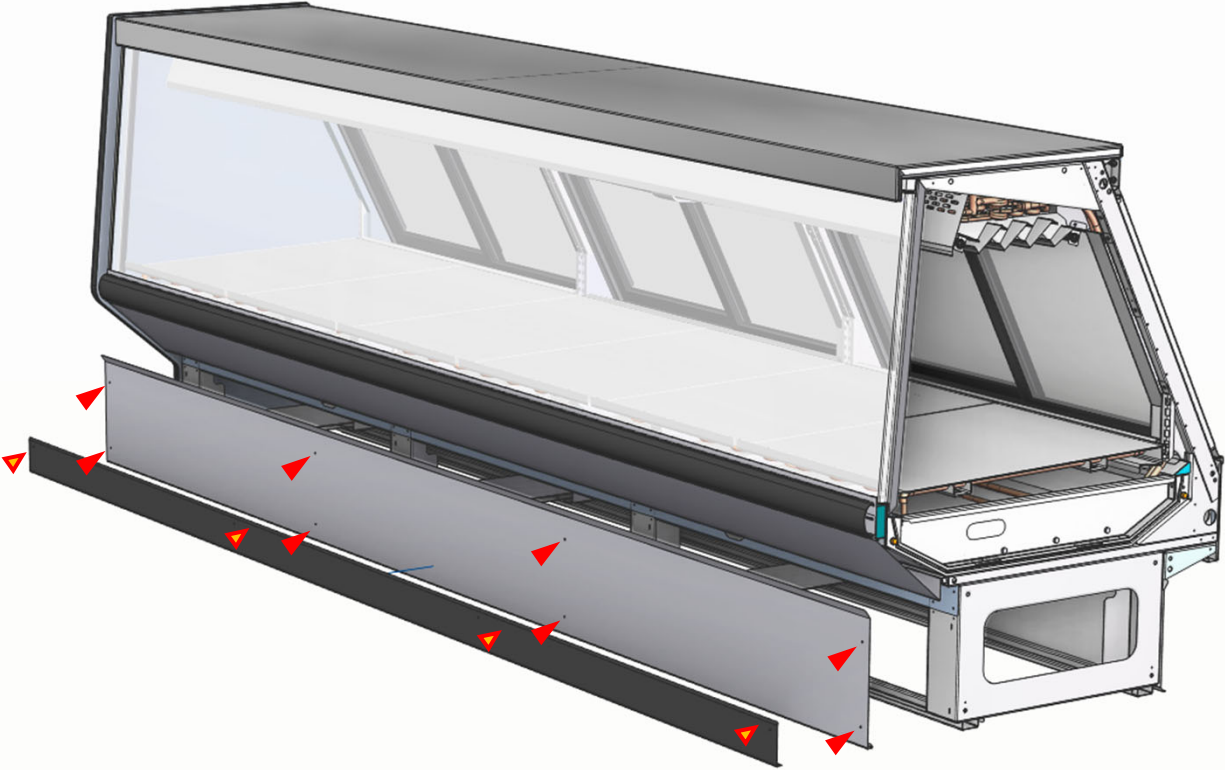
- 1. On first case, lift top assembly and apply silicone sealant to front, rear, and side channels on case as pictured below.
- 2. Set assembly onto case, leaving 1/8" to 3/16" space between front interior lip and the front glass.
- 3. On subsequent cases, apply silicone sealant to the open end and repeat above steps.
- 4. Set subsequent top making sure the top and front edges are flush.



Installation – Joining/Sealing

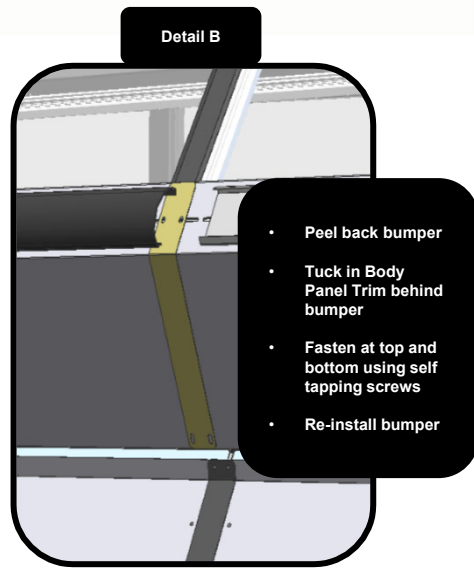
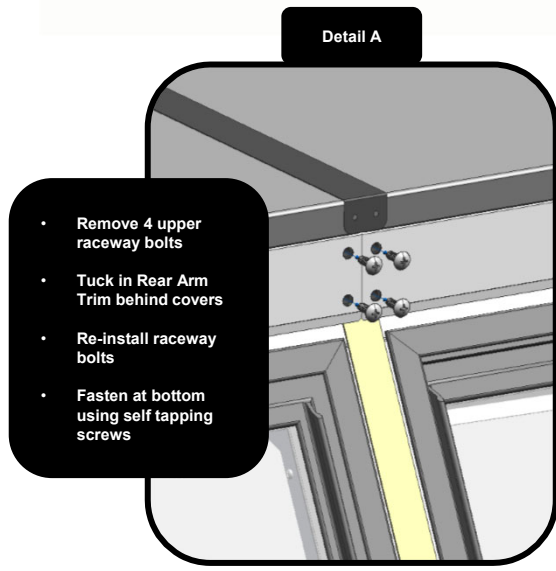
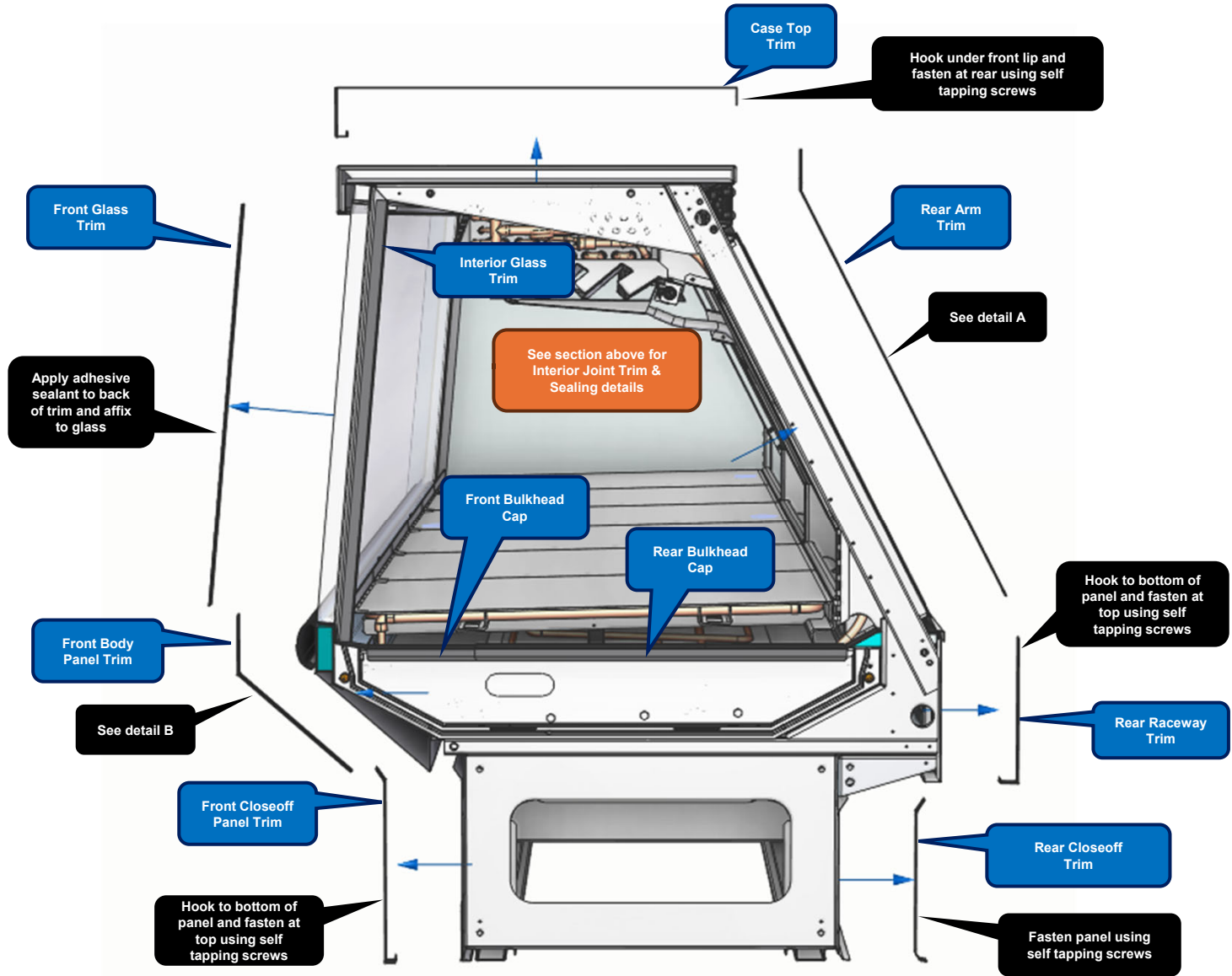
Installing Front and Rear Body Panel

A Phillips screwdriver/drill bit will be required in order to install or remove Front and Rear Body Panels and optional Front Kick Plate. Fasten at indicated locations with Panel-Colored self tapping screws.

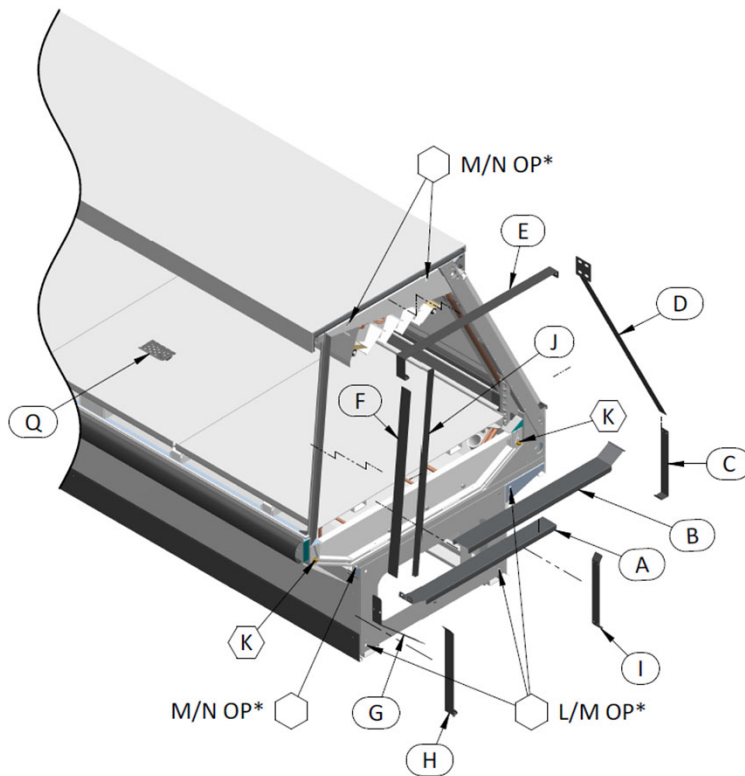


Installation – Joint Trim – Shipped Loose to Job Items

Cases in lineups have been shipped with a Loose to Job vacuum packed kit. Locate that kit and identify parts before installing joint trim. See images below.



Installation – Joint Trim Check Sheet



GRAPHIC	OPTION	VIEW	CHK	PART#	DESCRIPTION	QTY
A	LINEUP ONLY	STAINLESS	<input type="checkbox"/>	3227466	CAP-Q3-MXINTBLU-HEAD FRNT	1
B		STAINLESS	<input type="checkbox"/>	3227467	CAP-Q3-MXINTBLU-HEAD REAR	1
C		REAR EXT COLOR	<input type="checkbox"/>	3223764	JOINT TRIM-Q3-MX RACEWAY CUR	1
		STAINLESS	<input type="checkbox"/>			
D		REAR EXT COLOR	<input type="checkbox"/>	3223766	JOINT TRIM-Q3-MX REAR ARM CAP	1
		STAINLESS	<input type="checkbox"/>			
E		STAINLESS	<input type="checkbox"/>	3220247	TRIM-Q3-MX-HV TOP JOINT	1
F		STAINLESS	<input type="checkbox"/>	3220246	TRIM-Q3-MX-HV FRNT GLS CNTR	1
G		FRONT PNL COLOR	<input type="checkbox"/>	3220248	TRIM-Q3-MX-HV FRNT BODY PNL JNT	1
		STAINLESS	<input type="checkbox"/>			
H		FRONT PNL COLOR	<input type="checkbox"/>	3227270	TRIM-Q3-MX FRNT C/OFF JNT 48H	1
		STAINLESS	<input type="checkbox"/>			
		FRONT PNL COLOR	<input type="checkbox"/>	3227272	TRIM-Q3-MX FRNT C/OFF JNT 50H	
		STAINLESS	<input type="checkbox"/>			
		FRONT PNL COLOR	<input type="checkbox"/>	3220249	TRIM-Q3-MX FRNT C/OFF JNT 52H	
		STAINLESS	<input type="checkbox"/>			
I		FRONT PNL COLOR	<input type="checkbox"/>	3227274	TRIM-Q3-MX FRNT C/OFF JNT 54H	1
		STAINLESS	<input type="checkbox"/>			
		REAR C/OFF COLOR	<input type="checkbox"/>	3227271	TRIM-Q3-MX REAR C/OFF JNT 48H	
		STAINLESS	<input type="checkbox"/>			
	REAR C/OFF COLOR	<input type="checkbox"/>	3227273	TRIM-Q3-MX REAR C/OFF JNT 50H		
	STAINLESS	<input type="checkbox"/>				
	REAR C/OFF COLOR	<input type="checkbox"/>	3223763	TRIM-Q3-MX REAR C/OFF JNT 52H	1	
	STAINLESS	<input type="checkbox"/>				
	REAR C/OFF COLOR	<input type="checkbox"/>	3227276	TRIM-Q3-MX REAR C/OFF JNT 54H		
	STAINLESS	<input type="checkbox"/>				
J		STAINLESS	<input type="checkbox"/>	3227974	TRIM-Q3-MX FRNT UP RIGHT CHAN	1
K			<input type="checkbox"/>	0376408	ALIGNMENT PIN	2
L	BOLTING CASE TO CASE (NO END PANEL)		<input type="checkbox"/>	0000416	BOLT, 3/8 - 16 X 1"	3
M			<input type="checkbox"/>	300-03-0875	BOLT, 3/8 - 16 X 3"	3
N		CASE WITH END PANEL (COMM ON OR DIVISION)		<input type="checkbox"/>	300-03-0885	BOLT, 3/8 - 16 X 4"
O			<input type="checkbox"/>	300-03-1370	NUT, 3/8 - 16	6
P			<input type="checkbox"/>	300-03-1320	WASHER, 3/8"	12
Q	STANDARD PART		<input type="checkbox"/>	0462289	DRAIN SCREEN	2
R	STANDARD PART		<input type="checkbox"/>	051036900	PVC DRAIN TRAP	2
S			<input type="checkbox"/>	100-01-0105	SEALER PR-943.2-PART BLK	2
T			<input type="checkbox"/>	100-01-0121	SEALANT DE/AN 255.2 WHITE (BUTYL)	2
U			<input type="checkbox"/>	200-02-0303	FOAM TAPE 3/4" X 1/2 X 5 YRDS	1

User Information

Start Up

See the merchandisers Data Sheet Set for refrigerant settings and defrost requirements. Bring merchandisers down to the operating temperatures listed on the Data Sheet.

Product Loading

It is important that the case is not overloaded with product, this would block the airflow. Proper loading of product ensures the case refrigerates as specified.

CAUTION: Obstructing air will affect case performance which could potentially lead to case failure.

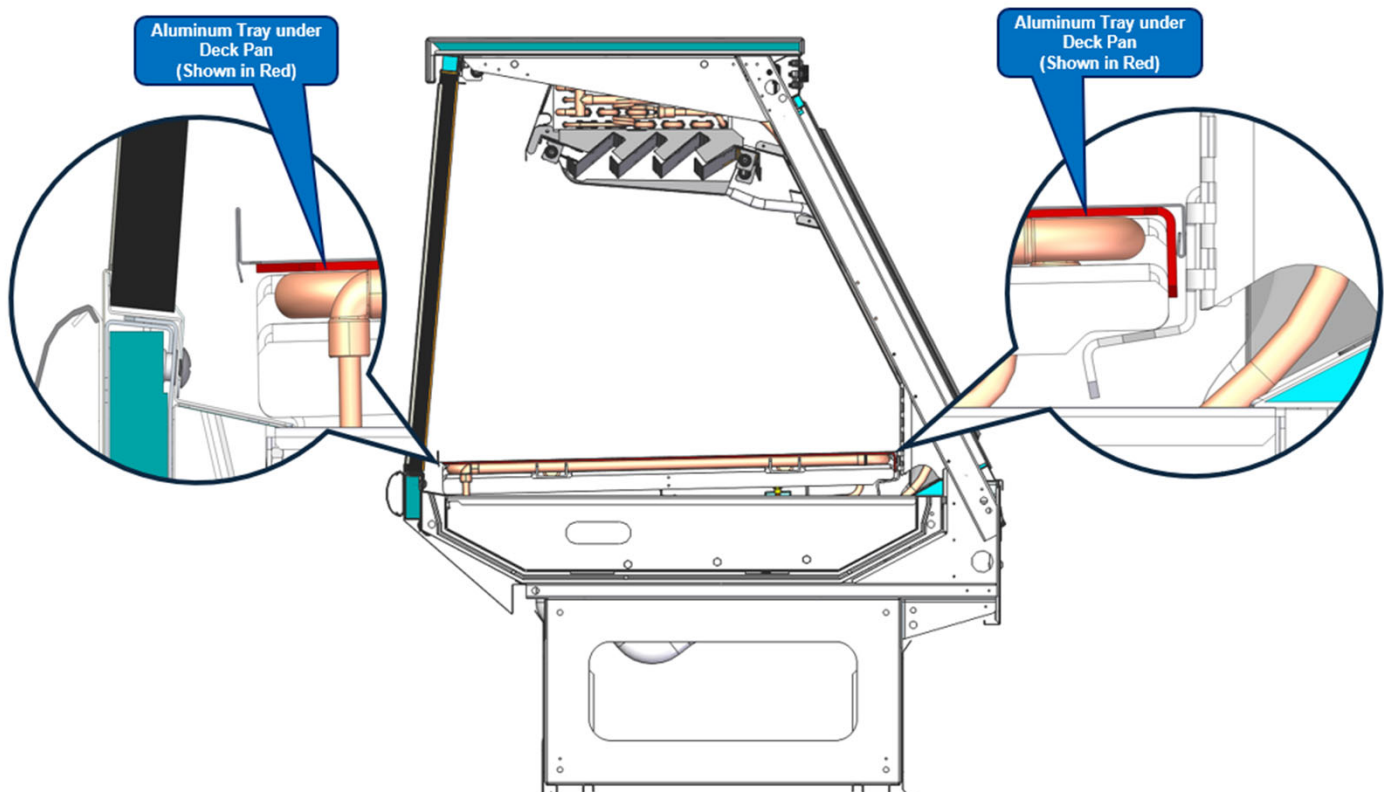
Case	Do not exceed Max Load (evenly distributed) per pan.
Q3-MX-HV-8-R	800 lbs. (362.9 kg)
Q3-MX-HV-12-R	1200 lbs. (544.3kg)

Circulation Fan

The circulation fan switch should stay on during normal operation and turned off during loading of product.

Aluminum Tray Removal

See below.



User Information

Pre-Power Checklist

- Review all safety warnings on the case and in this manual (pg. 1-3).
- Examine the entire case for any shipping damage (pg 8-9).
- The case should be level.
- Verify that the power source has matching voltage and amp ratings.

Powered Up Checklist

- Verify the case temperatures and adjust the controller as needed, consult data sheet.
- Allow the case to operate at least two (2) hours before placing product inside to ensure the case is at proper operating temperature.
- Load the case per loading requirements (pg 14).

Maintenance

Case Cleaning

Long life and satisfactory performance of any equipment are dependent upon the care it receives. To ensure long life, proper sanitation and minimum maintenance costs, the merchandiser should be thoroughly cleaned, all debris removed, and interiors washed down weekly.

Exterior Surfaces

The exterior surfaces must be cleaned with a mild detergent without chloride and warm water to protect and maintain their attractive finish. **NEVER USE ABRASIVE CLEANSERS OR SCOURING PADS.**

Cleaning Bumpers

Clean bumpers with household spray cleaners.

Cleaning Under Merchandiser

Remove lower body panels. Use a vacuum with a long wand attachment to remove accumulated dust and debris from under the merchandiser.

Cleaning Stainless Steel Surfaces

Use non-abrasive cleaning materials, and always polish with the grain of the steel. Use warm water or add a mild detergent to the water and apply with a cloth. Always wipe dry after wetting.

Use non-chlorine containing cleaners such as window cleaners and mild detergents. Do not use cleaners containing salts as this may cause pitting and rusting of the stainless-steel finish. Do not use bleach.

Clean frequently to avoid build-up of hard, stubborn stains. A stainless-steel cleaning solution may be used periodically to minimize scratching and remove stains.

Rinse and wipe dry immediately after cleaning. Never use hydrochloric acid (muriatic acid) on stainless steel.

Interior Surfaces

The interior surfaces may be cleaned with most domestic detergents, ammonia-based cleaners and sanitizing solutions that do not contain chloride with no harm to the surface.

Cleaning Coils

NEVER USE SHARP OBJECTS AROUND COILS.

Use a soft brush or vacuum brush to clean debris from coils. Do not puncture Coils! Do not bend fins. Contact an authorized service technician if a coil is punctured, cracked, or otherwise damaged.

ICE in or on the coil indicates the refrigeration and defrost cycle is not operating properly. Contact an authorized Service Technician to determine the cause of icing and to make proper adjustments as necessary. To maintain product integrity, move all product to a cooler until the merchandiser has returned to normal operating temperatures.

Do Not Use:

- Abrasive cleaners and scouring pads, as these will damage the finish.
- Solvent, oil or acidic based cleaners on any interior surfaces.

Maintenance

NSF Compliant Sealing of The Case to The Floor

When the appliance is designed to be sealed to the floor or countertop the following procedure must be followed to establish proper sanitary operation. First, ensure the floor area is clean and free from debris. Begin by positioning the appliance in its designated installation spot, ensuring sufficient clearance on the back and sides according to the specified "Clearances" for proper ventilation. Next, level the appliance from front to back and side to side, as described in "Method for Leveling." Once level, outline the base of the appliance on the floor. Then, lift and support the front of the appliance. Apply a bead of NSF-approved sealant to the floor, positioned about 1/2 inch (13 mm) inside the front part of the outline. The bead should be substantial enough to cover the entire appliance surface when lowered onto it. Afterward, raise and support the rear of the appliance and apply the sealant to the floor along the remaining three sides. Finally, carefully lower the appliance and inspect it to ensure a complete seal around the entire perimeter and clean off any extra sealant as necessary. Once the appliance is sealed in accordance with these procedures, the result is intended to prevent liquid spillage on adjacent surfaces of the floor or countertop from passing under inaccessible portions of the equipment.

Cleaning Process Overview:

- Remove the product and all loose debris to avoid clogging the waste outlet.
- Store product in a refrigerated area such as a cooler during the cleaning process.
- Remove only as much product as can be taken to the cooler in a timely manner.
- **First, turn off refrigeration, then disconnect electrical power to merchandiser.**
- Thoroughly clean all surfaces with soap and hot water.
 - Do not use steam or high-pressure water hoses to wash the interior.
 - These techniques will damage sealing causing leaks and poor performance.
- Avoid direct contact between fan motors and cleaning or rinse water.
- While cleaning, ensure that the condensate pans are cleared of foreign debris. These pans are designed for water only.
- Rinse with hot water, but DO NOT flood.
 - Never introduce water faster than the waste outlet can drain.
- Allow merchandiser to completely dry before resuming operation.
- After cleaning has been completed, remember to restore refrigeration and power back to merchandiser.

Electrical

Merchandiser Electrical Data

The data sheets provide merchandiser electrical data. Refer to the technical data sheets and merchandiser serial plate for electrical information.

Electrical Connections

All wiring must comply with NEC and local codes. All electrical connections including both supply circuits are to be made in the electrical J-Box.

Field Wiring

Field wiring must be sized for component amperes stamped on the serial plate (refer to page 30 for location). Actual ampere draw may be less than specified.

Identification of Wiring

Leads for all electrical circuits are identified by colored plastic bands. These bands correspond to the color code sticker (shown below) located inside the merchandiser's wireway cover.

Electrical

Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times, the manufacturer's maintenance and service guidelines shall be followed. If in doubt, consult the manufacturer's technical department for assistance.

⚠ WARNING

— LOCK OUT / TAG OUT —

To avoid serious injury from electrical shock, always disconnect the electrical power at the main disconnect when servicing or replacing any electrical component. This includes, but is not limited to, such items as doors, lights, fans, heaters, and thermostats.

STANDARD CASE WIRE COLOR CODE CODIGO DE COLORES DE LOS ALAMBRES PARA LAS VITRINAS ESTANDAR CODE COULER POUR FILS DE BOITIER NORMALISE		
COLOR DESCRIPTION	DESCRIPCION	DESCRIPTION
■ GROUND	TIERRA MASA	MASSE
■ ANTI-SWEAT	ANTICONDENSACION	ANTI-SUINTEMENT
■ LIGHTS	LUCES	ECLAIRAGE
■ RECEPTACLES	ENCHUFES	PRISE DE COURANT
■ T-STAT/SOLENOID 230VAC	TERMOSTATO/SOLENOIDE (230VAC)	SOUPAPE A SOLENOID (230 VAC)
■ T-STAT/SOLENOID 115VAC	TERMOSTATO/SOLENOIDE (115VAC)	SOUPAPE A SOLENOID (115 VAC)
■ T-STAT/SOLENOID 24VAC	TERMOSTATO/SOLENOIDE (24VAC)	SOUPAPE A SOLENOID (24 VAC)
■ FAN MOTORS	VENTILADORES	VENTILATEUR
BLUE CONDENSING UNIT	UNIDAD DE CONDENSACION	UNITE DE CONDENSATION

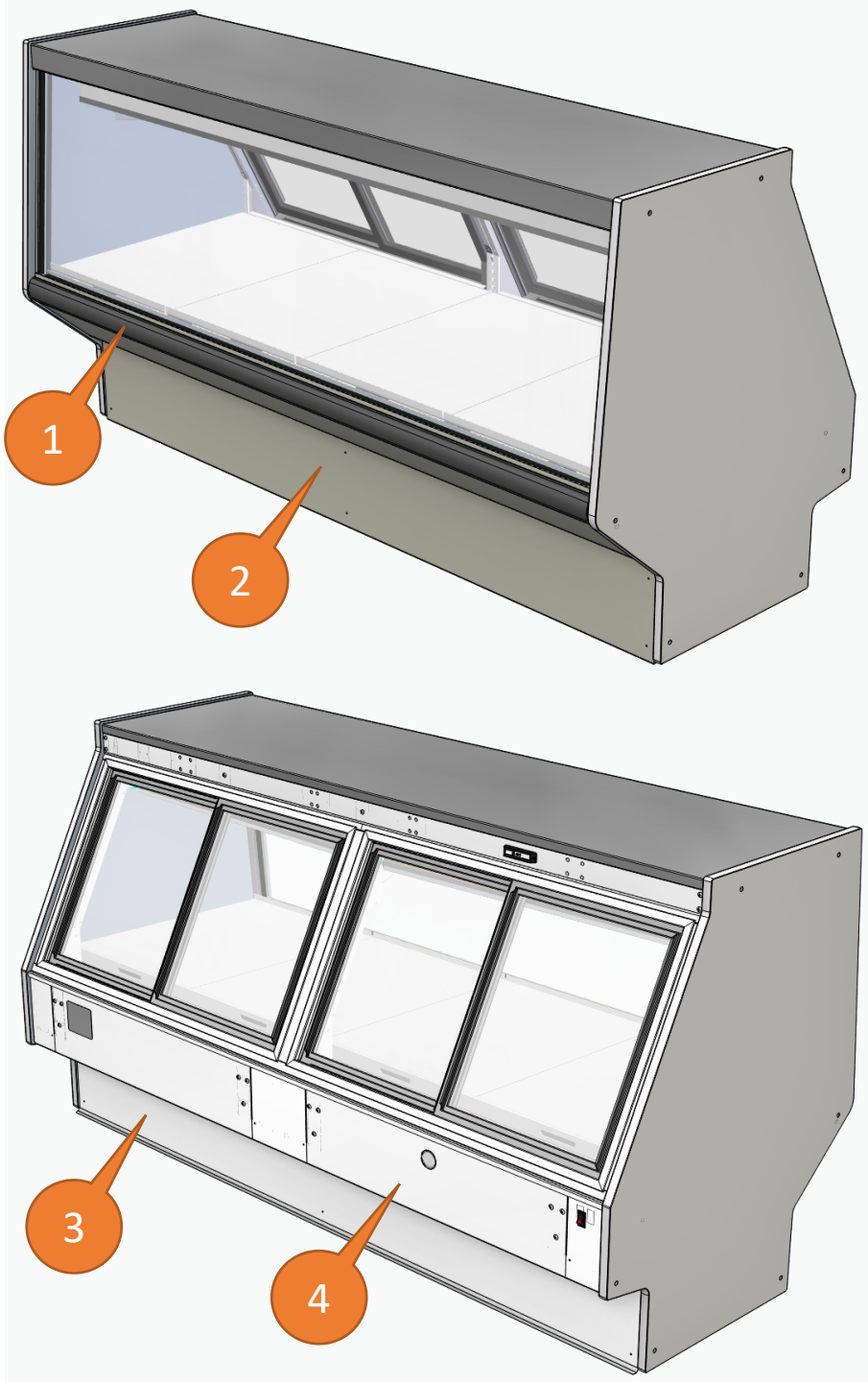
USE COPPER CONDUCTORS ONLY
UTILISEZ LES CONDUCTEURS DE CUIVRE SEULEMENT
UTILICE LOS CONDUCTORES DE COBRE SOLAMENTE

430-01-0338 R101003

Electrical Component Locations

Removing Panels

The Front Upper & Lower Panel can be removed by unfastening the screws from panels (tools required).



- 1. Front Upper Panel
- 2. Front Lower Panel
- 3. Rear Panel
- 4. Rear Raceway Cover

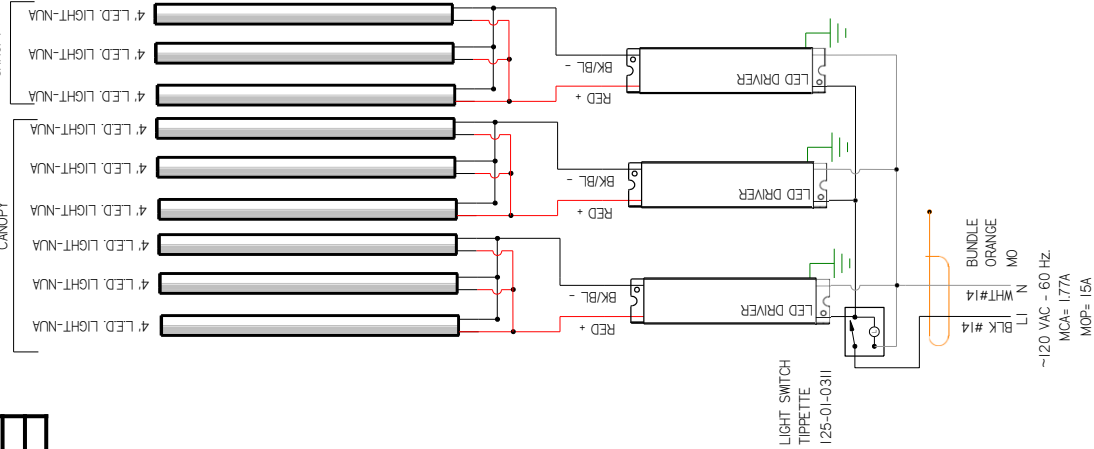
Wiring Diagram Index

Q3-MX-HV-8-R	8'	3214542
Q3-MX-HV-12-R	12'	3225967

LOADING	
120V	
450	

LIGHT CIRCUIT
1.42A 153W @ 120V

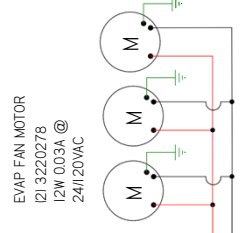
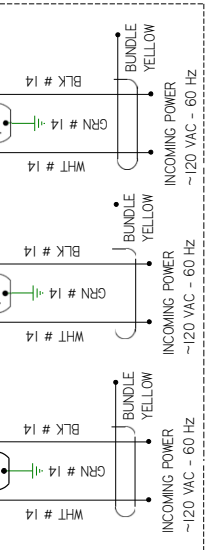
OPTIONAL
CANOPY



REVISION HISTORY			
REV	ECN	DATE	DESCRIPTION
A	ECN-COD-0020950	B-24-25	RELEASED TO PRODUCTION
			REV BY (CHKD BY) APPR BY
			CB CB CB

CIRCUIT # 2 optional

LOADING	
120 V	
LI 450	



LIGHT SWITCH
TIPPETTE
125-01-0311
FX ONLY NOT MX

- NOTES:
1. PRINTED DOCUMENT REQUIRED SETTING: ALL COLORS BLACK & WHITE
 2. CASE & ANY REMOVABLE PANEL WITH ELECTRICAL PARTS MUST BE GROUNDED.
 3. WHEN PASSING WIRES THROUGH METAL HOLES A GROMMET MUST BE USED

WIRE MARKER COLORS/ABBREVIATIONS	
BLACK = MBK	MAROON =
BLUE = MBL	MMR ORANGE =
BROWN = MBR	MO PINK = MPI
DARK BLUE = MDB	PURPLE = MP
GREEN = MG	RED = MR
LIGHT BLUE = MLB	YELLOW = MYL

UL COLOR CODES / ABBREVIATIONS	
RED = RD	WHITE = WT
BLACK = BK	GREEN = GN
BLUE = BL	BROWN = BN
YELLOW = YL	ORANGE = OR
GRAY = GR	OR VIOLET = VT

FACTORY 14GA WIRE	
FACTORY LOGGA WIRE	
FIELD WIRE	
DO NOT SCALE DRAWING	
SHEET 1 OF 1	

HUSSMANN
DIAGRAM-Q3-
MX/FX- HV-12-R
3225967
 REV. A

Refrigeration

Refrigerant

The correct type of refrigerant will be stamped on each merchandiser's serial plate. See the following image for serial plate location.



Service Note on Refrigeration Piping

The refrigerant line connections are at the left center side of the case (as viewed from the front) under the deck-pans. The merchandiser will have a through-hole in the tub liner that allows lines to exit the merchandiser for liquid and suction line connections. After connections have been made, make certain to seal this outlet thoroughly (if not sealed at factory already). Seal both the inside and outside. We recommend using an expanding polyurethane foam insulation to fill large gaps, then finishing the seal with a Silicone type sealant to prevent any water leaks.

Line Sizing

Refrigerant should be sized as shown on the refrigeration legend that is furnished for the store or according to the ASHRAE guidelines

Oil Traps

Oil traps must be installed at the base of all suction line vertical risers on refrigerated cases.

 **CAUTION**

Refrigeration lines are under pressure. Refrigerant must be recovered before attempting to make any connections.


**ATTENTION
INSTALLER**

It is the contractor's responsibility to install case(s) according to local construction and health codes.

 **WARNING**

— LOCK OUT / TAG OUT —

To avoid serious injury from electrical shock, always disconnect the electrical power at the main disconnect when servicing or replacing any electrical component. This includes, but is not limited to, such items as doors, lights, fans, heaters, and thermostats.

Refrigeration

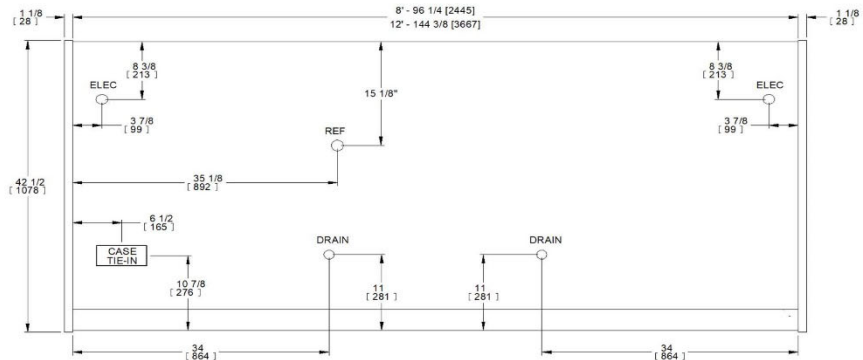
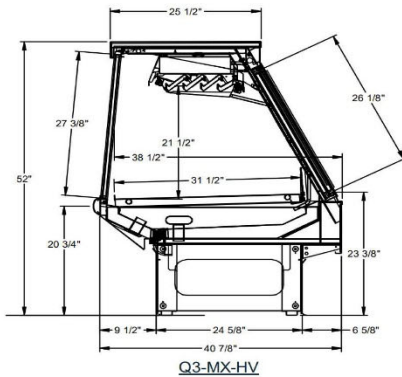


MEAT/FISH SERVICE
HUSSMANN - Q3-MX-HV-R (CHINO)

REVISION DATE 04/11/25



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



REFRIGERATION DATA:

CASE LENGTHS	CASE USAGE	CAPACITY *** (BTU/HR/FT)		TEMPERATURE (°F)			VELOCITY (FT/MIN)
		RATING CONDITION		EVAPORATOR (°F)	DISCHARGE AIR ** (°F)		
		NSF 7	AHRI 1200	NSF 7	AHRI 1200	NSF 7	
8', 12' - NO SHELF	MEAT/FISH	325	285	20	20	30-35	50-75

CASE LENGTHS	EST. REFG. CHRG. 404A (LBS)	GLYCOL (20°F INLET, 6° RISE)			
		GRAVITY		SERPENTINE	
		GPM	PSI	GPM	PSI
8'	2.2	0.6	2.7	0.4	2.4
12'	3.5	0.8	6.3	0.6	5.6

**DISCHARGE AIR MEASURED BELOW GRAVITY COIL DRIP TRAY
 ***REFRIGERATION NOTES:

- 1) BTU'S INCLUDE CANOPY LIGHTS. ADD 10 BTUS/FT FOR EACH ADDITIONAL ROW OF LIGHTS
- 2) ADJUSTMENTS TO CONTROL SETTINGS SHOULD BE MADE IN 1°F INCREMENTS DEPENDING UPON MEAT DEPT AMBIENT CONDITIONS
- 3) AHRI 1200 RATING POINT FOR ENERGY CONSUMPTION COMPARISON ONLY
- 4) USE DEW POINT FOR HIGH GLIDE REFRIGERANTS. CARE SHOULD BE TAKEN TO USE THE DEW POINT IN P/T TABLES FOR MEASURING AND ADJUSTING SUPERHEAT. ADJUST EVAPORATOR PRESSURE AS NEEDED TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SHOWN.
- 5) THE PRINCIPAL COOLING EFFECT IN FISH CASES IS ACCOMPLISHED WITH A TRADITIONAL ICE BED. THE REFRIGERATION PRESERVES THE ICE AND MAINTAINS A COLD PROTECTIVE LAYER OVER THE PRODUCT.
- 6) RATING CONDITION IS NSF TYPE I, 75°F/55% RH

REFRIGERATION DATA CONTINUED:

ELEC. THERMOSTAT / AIR SENSOR SETTINGS				DEFROST TYPE	TIME (MIN)	DEFROST FREQUENCY (#/DAY)	TERM. TEMP (°F) COIL ONLY	DRIP TIME	DEFROST WATER (LBS/DAY/FT)
LOCATION	CUT IN (°F)	CUT OUT (°F)	NO SHELF						
GRAVITY COIL DECK COILS	29	28	NO SHELF	OFF TIME	40	3	42	N/A	0.9

END PANEL WIDTH KEY		
# OF END PNLS	END PNL WIDTH (IN.)	TOTAL ADDED LENGTH (IN.)
1	1.125	1.125
2	1.125	2.25

ELECTRICAL DATA:

STANDARD FANS, HEATERS, LED LIGHTS (115 VOLT)

CASE LENGTH	CIRCULATION FANS			STANDARD CANOPY LIGHTS		OPTIONAL ADDITIONAL CANOPY LIGHTS		MAXIMUM LIGHT LOAD (ALL OPTIONS)		CASE SOLENOIDS		MAX ELECTRICAL LOAD	
	# OF FANS	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS
8'	2	0.24	6	0.40	48	0.20	24	0.60	72	0.28	34	1.12	111
12'	3	0.36	9	0.60	72	0.30	36	0.90	107	0.28	34	1.54	150

CONVENIENCE OUTLETS (UP TO 3 OPTIONAL, RATING PER CIRCUIT)		
# OUTLETS	VOLTS	AMPS
1	115	15
1	115	15

Refrigeration

Installing Drip Piping

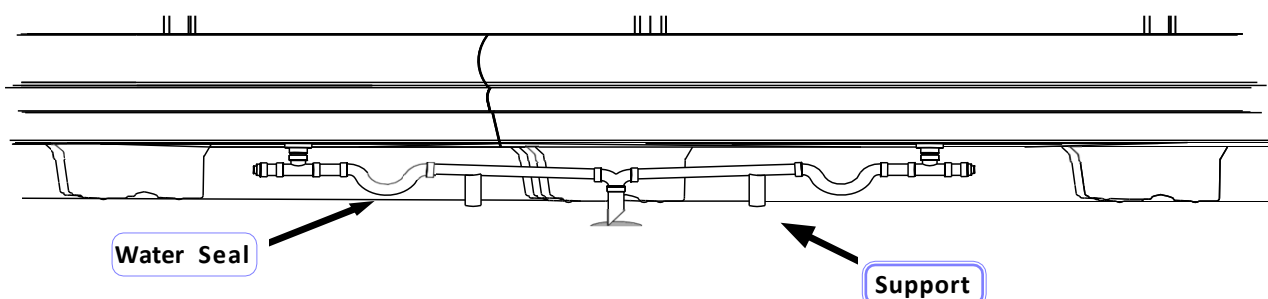
Poorly or improperly installed drip pipes can seriously interfere with the merchandiser's operation and result in costly maintenance and product losses.

Optional drip pipe arrangements are shown on the next page. It is the installing contractor's responsibility to consult local agencies for local code requirements. Assemble the components using field-supplied PVC primer and glue according to the manufacturers direction.

Please follow the recommendations listed below when installing drip pipes to ensure proper installation.

1. When connecting drip piping, the "water seal" must be used as part of the drip piping to prevent air leakage or insect entrance. Never use two water seals in series in any one drip pipe. Double water seals in series will cause an air lock and prevent draining.
2. Pitch the drip piping in the direction of flow. There should be a minimum pitch of $\frac{1}{4}$ " per ft (20 mm per 1 m).
3. Avoid long runs of drip piping. Long runs make it impossible to provide the pitch necessary for good drainage.
4. All connections must be watertight and sealed with the appropriate PVC or ABS cement.
5. Ensure that drip piping is supported to relieve any stress on drip pipe connectors and drain hub. Drip piping **MUST** be supported no
6. Provide a suitable air break between flood rim of the floor drain and outlet of drip pipe. To meet code on low base merchandisers, it may be necessary to install a field-supplied drip pipe reducer. An alternative is to cut the last section of drip pipe at an angle.
7. Prevent drip pipes from freezing: Do not install drip pipes in contact with uninsulated suction lines. Suction lines should be insulated with a nonabsorbent insulation material. Where drip pipes are located in dead air spaces, such as between merchandisers or between a merchandiser and a store wall, provide means to prevent freezing.

Drip Piping Example for Standard Case Height (Not for Ultra Low Front Cases)



Never use drip piping smaller than the nominal diameter of the pipe or water seal supplied with the merchandiser.

Refrigeration

Before Beginning Any Service or Repair:

Verify that all repair parts are identical models to the ones they are replacing. Do not substitute parts such as motors, switches, relays, heaters, compressors, power supplies or solenoids.

Use only Hussmann approved parts approved through the Hussmann Performance Parts Website. <https://parts.hussmann.com/>

Refrigeration

Refrigerant Removal and Evacuation

When breaking into the refrigerant circuit to make repairs – or for any other purpose – conventional procedures shall be used. The following procedure shall be adhered to:

- a) safely remove refrigerant following local and national regulations;
- b) purge the circuit with inert gas;
- c) evacuate;
- d) purge with inert gas;
- e) open the circuit by cutting or brazing.

The refrigerant charge shall be recovered into the correct recovery cylinders if venting is not allowed by local and national codes. This process might need to be repeated several times. Compressed air or oxygen shall not be used for purging refrigerant systems.

System Charging

In addition to conventional charging procedures, the following requirements shall be followed.

- a) Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
- b) Cylinders shall be kept in an appropriate position according to the instructions.
- c) Ensure that the REFRIGERATING SYSTEM is earthed prior to charging the system with refrigerant.
- d) Label the system when charging is complete (if not already).
- e) Extreme care shall be taken not to overfill the REFRIGERATING SYSTEM.

Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas. The system shall be leak-tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

When connecting hoses between the refrigeration system, manifold gauges, and refrigerant cylinder, ensure that the connections are secure. Ensure that contamination of different refrigerants does not occur when using charging equipment.

Refrigeration

Decommissioning

Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant. It is essential that electrical power is available before the task is commenced.

- a) Become familiar with the equipment and its operation.
- b) Isolate the system electrically.
- c) Before attempting the procedure, ensure that:
 - i) mechanical handling equipment is available, if required, for handling refrigerant cylinders;
 - ii) all personal protective equipment is available and being used correctly;
 - iii) the recovery process is supervised at all times by a competent person;
 - iv) recovery equipment and cylinders conform to the appropriate standards.
- d) Pump down refrigerant system, if possible.
- e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
- f) Make sure that cylinder is situated on the scale before recovery takes place.
- g) Start the recovery machine and operate in accordance with instructions.
- h) Do not overfill cylinders (no more than 80% volume liquid charge).
- i) Do not exceed the maximum working pressure of the cylinder, even temporarily.
- j) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
- k) Recovered refrigerant shall not be charged into another REFRIGERATING SYSTEM unless it has been cleaned and checked.

Water Outlet And Water Seal

The condensate water outlet is located on the right and left side of the merchandiser. The outlet has a factory installed, external water seal.

Troubleshooting

Problem	Possible Cause	Possible Solution
Case temperature is too warm.	Ambient conditions may be affecting the case operation.	Check case position in store. Is the case located near an open door, window, electric fan or air conditioning vent that may cause air currents? Case must be located minimum 15 Ft away from doors or windows. Cases are designed to operate at 55% Relative humidity and a temperature of 75-80°F.
	Discharge air temp is out of spec.	Check evaporator fan operation. Check electrical connections and input voltage.
		Fans are installed backwards. Check airflow direction.
		Fan blades are installed incorrectly. Make sure fan blades have correct pitch and are per specification.
		Check to see that fan plenum is installed correctly. It should not have any gaps.
	Case is in defrost.	Check defrost settings. See Technical Specifications section.
	Product is outside of the load limit area, blocking airflow.	Redistribute product so it does not exceed load limit. There is a sticker on the inside of the case indicating what the maximum load line is. See page 21 for details.
Coil is freezing over.	Return air is blocked, make sure debris is not blocking the intake section.	
	Coil close-offs are not installed. Inspect coil to make sure these parts are on the case.	
Condensing coil or evaporator coil is clogged or dirty.	Clean coil.	
Case temperature is too cold.	The t-stat temp is set too low.	Check settings. See Technical Specifications section.
	Ambient conditions may be affecting the case operation.	Check case position in store. Is the case located near an open door, window, electric fan or air conditioning vent that may cause air currents? Case must be located minimum 15 Ft away from doors or windows. Cases are designed to operate at 55% Relative humidity and a temperature of 75-80°F.
Condensation on plex / glass.	Ambient conditions may be affecting the case operation.	Check case position in store. Is the case located near an open door, window, electric fan or air conditioning vent that may cause air currents? Case must be located minimum 15 Ft away from doors or windows. Cases are designed to operate at 55% Relative humidity and a temperature of 75-80°F.

Troubleshooting Cont'd

Problem	Possible Cause	Possible Solution
Water has pooled under case.	Case drain is clogged.	Clear drain.
	PVC drains under case may have a leak.	Repair as needed.
	Case tub has unsealed opening.	Seal as needed.
	If the case is in a line-up, case to case joint is missing or unsealed.	Install case to case joint and seal as needed.
	Evaporator pan is overflowing (if applicable).	Check electrical connection to evaporator pan. Check float assembly, it should move freely up and down the support stem. Clear any debris.
Case is not draining properly.	Case is not level.	Level the case.
	Drain screen is plugged.	Clean drain screen and remove any debris.
	Drain or P-trap is clogged.	Clear any debris.
Frost or ice on evaporator coil.	Evaporator fans are not functioning.	Check electrical connections.
	Defrost clock is not functioning.	Case should be serviced by a qualified service technician.
	Coil is freezing over.	Return air is blocked, make sure debris is not blocking the intake section.
Coil close-offs are not installed. Inspect coil to make sure these parts are on the case.		

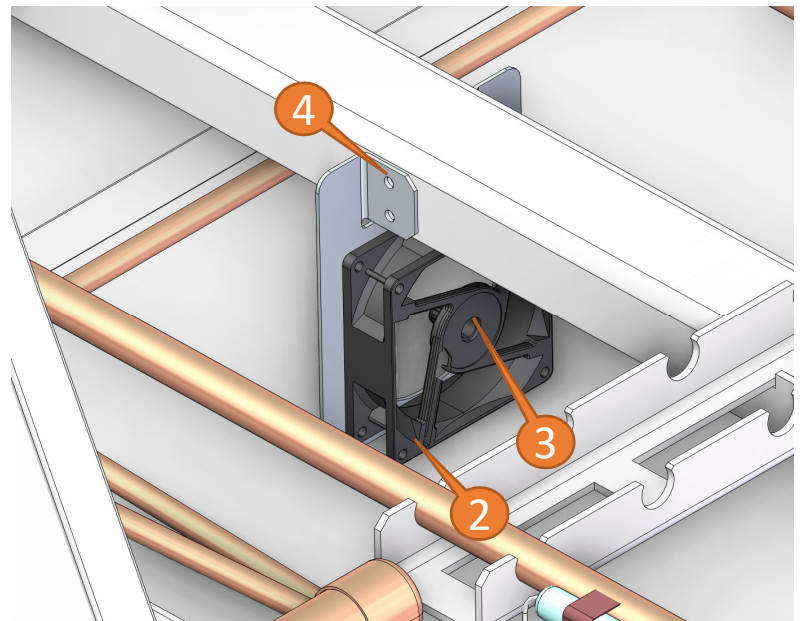
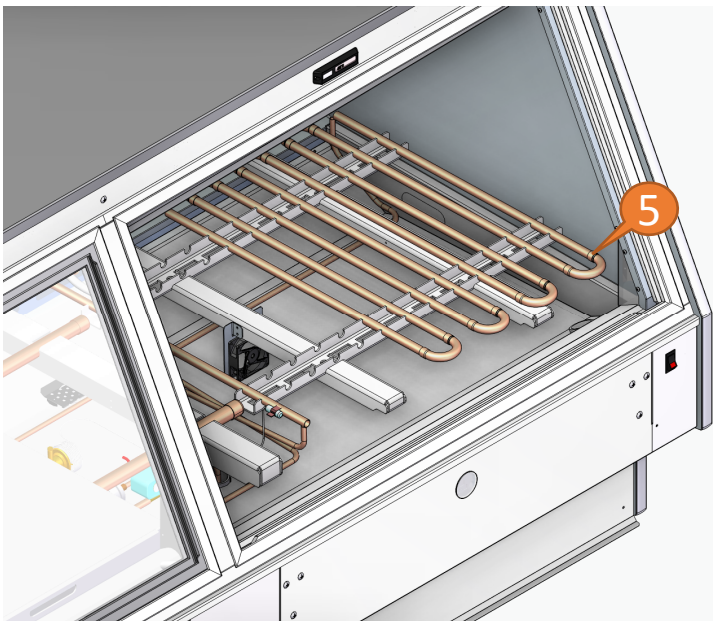
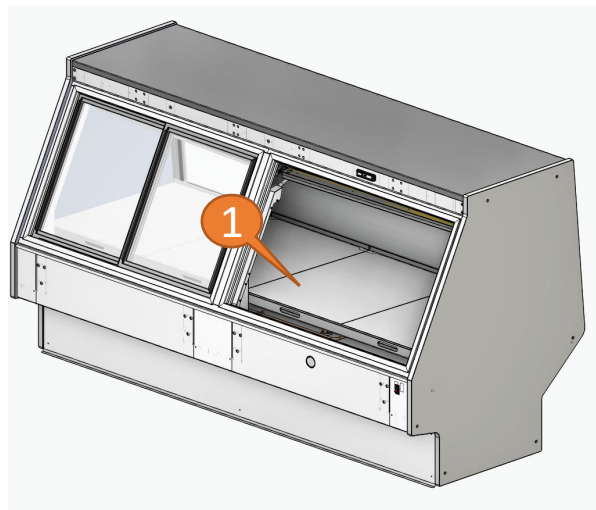
Service

Fan Replacement.

Disconnect electrical power before starting motor replacement. Lift and remove Deck Pans and Aluminum Plates (1) to access Fan (3). The modular Serpentine Coil must be lifted for easier access to Fans. (5). Remove Screws (4) from Fan Motor bracket. Disconnect motor connection and remove Fan Motor (2).

See Image Below.

To install, reverse order from above (Doors removed for clarity).



1. Deck Pan/Aluminum Plate
2. Fan Connection
3. Fan
4. Screw
5. Serpentine Coil

Service cont'd

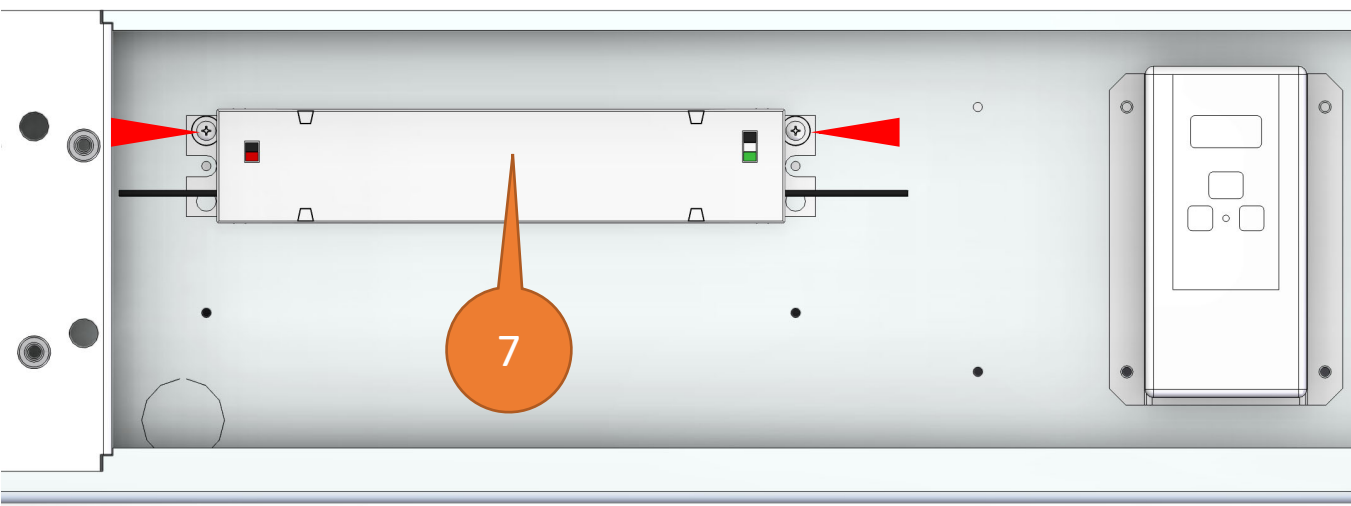
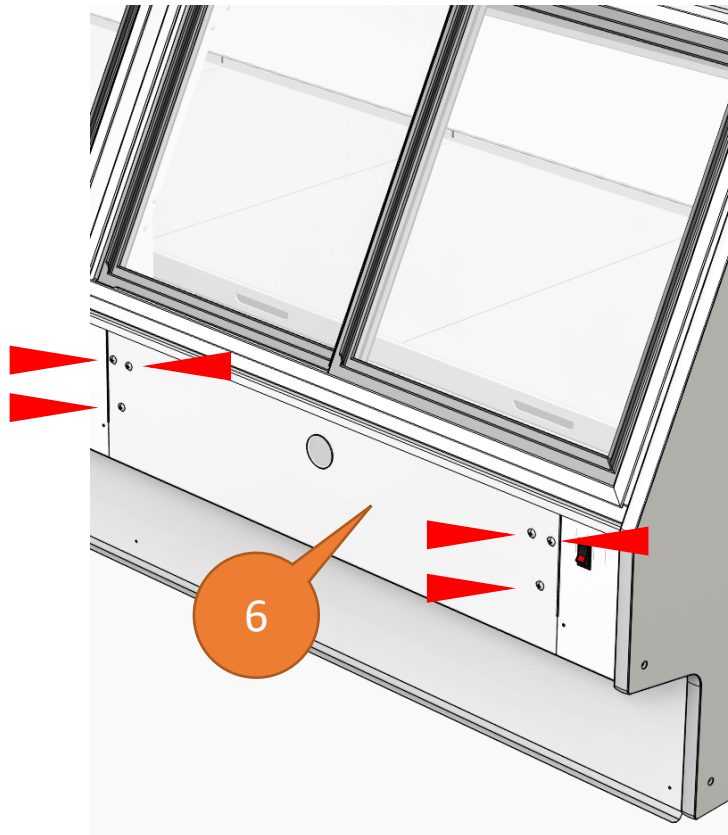
LED Driver Replacement

Disconnect electrical power before starting LED Driver replacement. Remove Raceway Cover to access LED Driver. Raceway Cover needs to be removed to access the LED driver, remove screws (red arrows indicate locations). Disconnect LED Driver wires from connector/blocks/harnesses (noting existing locations). Refer to wiring diagram for reference. Remove screws holding LED Driver (red arrows indicate locations) and replace. Reverse order to connect LED Driver and install all covers.

See Image Below.

See page 18 for panel removal

- 6. Raceway Cover
- 7. LED Driver



Service cont'd

Every working procedure that affects safety means shall only be carried out by competent persons.

If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available on hand. A dry chemical or CO2 fire extinguisher should be adjacent to the charging area.



WARNING

— LOCK OUT / TAG OUT —

To avoid serious injury from electrical shock, always disconnect the electrical power at the main disconnect when servicing or replacing any electrical component. This includes, but is not limited to, such items as doors, lights, fans, heaters, and thermostats.



HUSSMANN[®]

**To obtain warranty information
or other support, contact your
Hussmann representative.
Please include the model and
serial number of the product.**

**Hussmann Warranty / Technical Assistance
(800) 592-2060**

Hussmann Corporation, Corporate Headquarters: Bridgeton, Missouri 63044 2014