



## Q3SSM4R,Q3SSM6R,Q3SSM8R, Q3SSM12R

### Medium Temperature Remote Cases



# Installation & Operation Manual

## **IMPORTANT** Keep in store for future reference!

### P/N 3068445\_B

December 2018

MANUAL- I/O Q3 SSM RMT



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

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#### TABLE OF CONTENTS

#### ANSI Z535.5 DEFINITIONS ..... iv

#### INSTALLATION

UL Listing
Federal / State Regulation 1-1
Hussmann Product Control 1-1
Shipping Damage1-1
Location
Unloading
Exterior Loading
Shipping Skid 1-2
Merchandiser Leveling 1-3
Serial Plate Location1-4
Start Up Check List 1-5

#### **ELECTRICAL / REFRIGERATION**

Merchandiser Electrical Data 2-	-1
Field Wiring 2-	1
Electrical Connections	1
Electrical Outlet 2-	-1
Wiring Color 2-:	2
Electrical Circuit Identification2-	-2
Waste Outlet and P-TRAP	-2

#### **START UP / OPERATION**

Start up 3-1	
TEV Adjustment	
Load Limits 3-1	
Stocking 3-1	
Thermometer	

#### MAINTENANCE

Care and Cleaning 4-1
Removing Scratches from Bumper 4-2
Cleaning Under Fan Plenum 4-2
Cleaning Discharge Air Louvers 4-2
Cleaning Stainless Steel Surfaces 4-3
Cleaning Coils
Self-Contained Refrigeration Equipment
Maintenance Check List 4-5

#### SERVICE

Replacing Fan Motors and Blades	5-1
Replacement Parts List	. 5-2

#### APPENDIX

Technical Data	A-1
Shipping Weights	A-2
Wiring Diagrams	A-3
Bumper Installation	A-8

#### WARRANTY

#### **REVISION HISTORY**

REVISION B – updated California Warning and ABS drain fitting

#### **REVISION A – ORIGINAL ISSUE**



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 death or serious injury.



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



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

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

#### INSTALLATION

#### P/N 3068445 B

#### **UL LISTING**

These merchandisers are manufactured to meet ANSI/ UL 471 standard requirements for safety. Proper installation is required to maintain the listing.

#### FEDERAL / STATE REGULATION

These merchandisers at the time they are manufactured, meet all federal and state/ provincial regulations. Proper installation is required to ensure these standards are maintained. Near the serial plate, each merchandiser carries a label identifying the environment for which the merchandiser was designed for use.

 $\begin{array}{l} ANSI/NSF-7 \ Type \ I-Display \ Refrigerator \, / \\ Freezer \\ Intended \ for \ 75^\circ F \ (24^\circ C) \, / \ 55\% RHAmbient \ Application \end{array}$ 

ANSI/NSF-7 Type II – Display Refrigerator / Freezer Intended for  $80\,^\circ\text{F}$  /  $55\,^\circ\text{KH}$  Ambient Application

ANSI/NSF-7 – Display Refrigerator Intended for Bulk Produce

#### **HUSSMANN PRODUCT CONTROL**

The serial number and shipping date of all equipment is 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. This is to ensure the customer is provided with the correct parts.

> Recommended operating ambient temperature is between 65°F (18°C) to 75°F (23.9°C). Maximum relative humidity is 55%.

#### SHIPPING DAMAGE

All equipment should be thoroughly examined for shipping damage before and during unloading. This equipment has been carefully inspected at our factory. Any claim for loss or damage must be made to the carrier. The carrier will provide any necessary inspection reports and/or claim forms.

#### **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.

#### **Concealed Loss or Damage**

When loss or damage is not apparent until after equipment is uncrated, retain all packing materials and submit a written response to the carrier for inspection within 15 days.

#### LOCATION

These merchandisers are designed for displaying products in air conditioned stores where temperature is maintained at or below the ANSI / NSF-7 specified level and relative humidity is maintained at or below 55%.

Placing refrigerated merchandisers in direct sunlight, near hot tables or near other heat sources could impair their efficiency. Like other merchandisers, these merchandisers are sensitive to air disturbances. Air currents passing around merchandisers will seriously impair their operation. Do NOT allow air conditioning, electric fans, open doors or windows, etc. to create air currents around the merchandiser.

#### UNLOADING

#### **Unloading from Trailer:**

Lever Bar (also known as a Mule, Johnson Bar, J-bar, Lever Dolly, or Pry Lever)

Move the merchandiser as close as possible to its permanent location and remove all packaging. Check for damage before discarding packaging. Remove all separately packed accessories such as kits and shelves.

Improper handling may cause damage to the merchandiser when unloading.

To avoid damage:

- 1. Do not drag the merchandiser out of the trailer. Use a Johnson bar (mule).
- 2. Use a forklift or dolly to remove the merchandiser from the trailer.



Do NOT stand or walk on top of merchandiser. Do not store items or flammable materials atop the unit.

Product should always be maintained at proper temperature. This means that from the time the product is received, through storage, preparation and display, the temperature of the product must be controlled to maximize the life of the product.

#### **EXTERIOR LOADING**

#### Do NOT walk on top of merchandisers or

damage to the merchandisers and serious personal injury could occur.

Merchandisers are not structurally designed to support external loading such as the weight of a person.

#### SHIPPING SKID

Each merchandiser is shipped on a skid to protect the merchandiser's base, and to make positioning the case easier.

Remove the top of the crate and detach walls from each other. Lift crate from the skid. Unscrew the case from the skid. The fixture can now be lifted off the crate skid. *Lift only at base of skid!* Remove any braces and/or skids attached (blanket wrapped merchandiser may have skids).

#### DO NOT LAYMERCHANDISER OVER ON THE FLOOR TO REMOVESKID.

Once the skid is removed, the merchandiser must be lifted —NOT PUSHED— to reposition. To remove the skid, remove screws attaching skid to the merchandiser.

Check floor where cases are to be set to see if it is a level area. Determine the highest part of the floor.



Do NOT remove shipping crate until the merchandiser is positioned for installation.

#### **1-3 INSTALLATION**

#### MERCHANDISER LEVELING

#### Be sure to position merchandisers properly.

Level the merchandiser by all four corners. Merchandiser(s) must be installed level to ensure proper operation of the refrigeration system, and to ensure proper drainage of defrost water.

All cases were leveled and joined prior to shipment to insure the closest possible fit when cases are joined in the field. When joining, use a carpenters level and adjust legs accordingly. The legs on the Q3-SS are adjustable and do not require shims. Simply screw the leg up or down to adjust height.

Installation

 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. This may be done a few different ways.

a) Walk the floor looking for any mounds or dips.

b) Use a stringlevel.

c) Use a transit.

If a wedge is used in the middle of a lineup, the wedge must be set on the highest point on the floor FIRST, with the rest if the lineup being leveled from it. The Q3-SSM case has adjustable legs to allow for leveling.

- 2. Set first case over the highest part of the floor and adjust legs so that case is level. Remove side and back leg braces after case is set and joined.
- 3. Set second case within one foot (1') of the first case, and remove leg skids. Keep the supports along the length of the case and far end of case. Level case to the first using the instructions in step one.
- 4. Apply masking tape 1/8" in from end of case on inside and outside rear mullion and body work on both cases to bejoined.

5. Apply liberal bead of case joint sealant (butyl) to first case. Sealant area is shown using a dotted line in illustration in Step 8. Apply heavy amount to cover entire shaded area. **DO NOT USE PERMAGUM!** 

#### DO NOT USE PERMAGUM!



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

6. Slide second case up to first case snugly. Then level second case to the first case so glass front, bumper and topare flush.

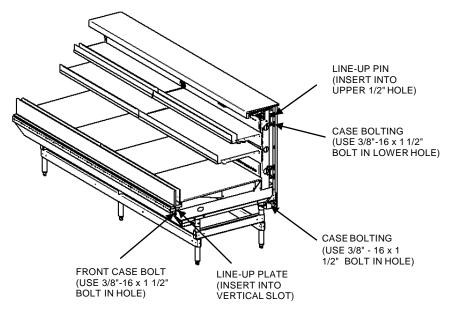


7. To compress butyl at joint, use two Jurgenson wood clamps. Make sure case is level from front to back and side to side on inside bulkheads at joint.

#### P/N 3068445 \_B

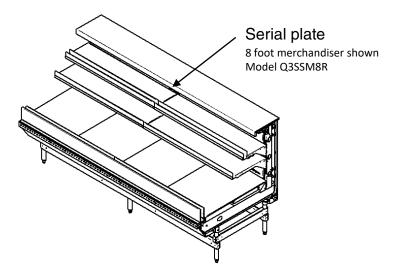
- 8. Attach sections together via the bolts pictured in the illustration below.
- 9. Apply bead of butyl to top of bulk heads and slip on stainless steel bulkhead cap. Also apply silicone to seam between joints.
- 10. Use finger to smooth silicone as thin as possible at masking tape on inside and outside of rear mullion (apply additional silicone if necessary). Remove tape applied on line #4.
- 11. Remove front, back and end shipping braces.

Q3-SS Refrigerated Wedges and Standard Cases Line up taper pins and line-up plates with holes on adjoining case. Bolting is located at the rear of the case, behind the air discharge wall, and behind the front body panel. The cases are bolted together in front by means of a bracket located behind the front panel. Remove the front panel by unscrewing these bottom screws.



#### SERIAL PLATE LOCATION

The serial plate is located on the inside of the merchandiser's display area as shown below.



#### Hussmann Self-Contained Refrigeration Equipment Start Up Check List

\*\*\*Please note that failure to follow this start-up document may void your factory warranty\*\*\*

Step	Startup Activity	Check						
1	Locate, read and maintain install/operation manual in a safe place for future reference.							
2	Examine unit. Confirm there is NO damage or concealed damage.							
3	Level the unit, side to side and front to rear.							
4	Remove all shipping brackets/compressor straps/boltsetc.							
5	Unit must be run on a dedicated electrical circuit without the use of an extension cord.							
6	Ensure that the proper electrical requirements for the equipment are supplied.							
7	Verify field electrical connections are tight.							
8	Verify all electrical wiring is secured and clear of any sharp edges or hot lines.							
9	Verify the condensate drain line is properly trapped and pitched.							
10	Verify all required clearances on the sides and back of unit.							
11	Verify there are no air disturbances external to the unit. Heat and air registers, fans, and doors etc.							
Advise	Advise owner/operator that merchandiser must operate at temperature for 24 hrs prior to lo ling with product.							

Form HSCW01 Rev. 30MAY12 P/N 0525209\_B

#### LEGAL DISCLAIMER:

Hussmann shall not be liable for any repair or replacements made without the written consent of Hussmann, or when the product is installed or operated in a manner contrary to the printed instructions covering installation and service which accompanied such product.

NOTES:

#### **ELECTRICAL/ REFRIGERATION**

#### MERCHANDISER ELECTRICAL DATA

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

#### **FIELD WIRING**

Field wiring must be sized for component amperes stamped on the serial plate. Actual ampere draw may be less than specified.

#### **ELECTRICAL CONNECTIONS**

All wiring must be in compliance with NEC and local codes.

#### **ELECTRICAL OUTLET**

Before the merchandiser is connected to any wall circuit, use a voltmeter to check that the outlet is at 100% of the rated voltage. The wall circuit must be dedicated for the merchandiser. Failure to do so voids the warranty. Do not use an extension cord. Never plug in more than one merchandiser per electrical circuit.

- Always use a dedicated circuit with the amperage stated on the unit.
- Plug into an outlet designed for the plug.
- Do not overload the circuit
- Do not use long or thin extension cords. Never use adapters.
- If in doubt, call an electrician.

#### ALWAYS CHECK THE SERIAL PLATE FOR COMPONENT AMPERES

#### Wiring Color Code

#### Standard Case Wire Color Code

Color Decsription	<u>Color</u>
Ground	- – Green
Anti-Sweat	Purple
📕 Lights	Orange
	Yellow
T-Stat/Solenoid 230VAC	<ul> <li>- Red/Black</li> </ul>
T-Stat/Solenoid 115VAC	White/Black
T-Stat/Solenoid 24VAC	- Red/White
Fan Motors	Brown
Blue Condensing Unit	
Use Copper Conductors (	Dnly
430-01-0338 R101003	

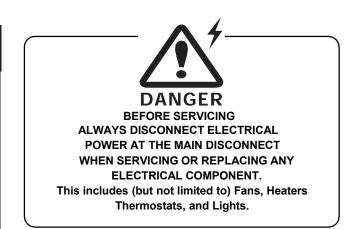
#### CASE MUST BE GROUNDED

NOTE: Refer to label affixed to case to determine the actual configuration as checked in the "TYPE INSTALLED" boxes.

#### **Electrical Circuit Identification**

Standard lighting for all models will be full length fluorescent lamps located within the case at the top. The switch controlling the lights, the plug provided for digital scale, and the thermometer are located at the rear of the case mullion. The receptacle that is provided on the exterior back of these models is intended for computerized scales with a five amp maximum load, not for large motors or other high wattage appliances. It should be wired to a dedicated circuit.

**Electrical Service Receptacles (When Applicable)** The receptacles located on the exterior of the merchandiser are intended for scales and lighted displays. They are not intended nor suitable for large motors or other external appliances.



#### Field Wiring and Serial Plate Amperage

Field Wiring must be sized for component amperes printed on the serial plate. Actual ampere draw may be less than specified. Field wiring from the refrigeration control panel to the merchandisers is required for refrigeration thermostats. Case amperes are listed on the wiring diagram, but always check the serial plate.

#### **LED Driver Location**

Drivers are located within the access panel that runs the length of the rear of the case. Refer to diagram on page 4.

Ashrae Color Code

NOTE: All other manufacturers have no standard sensor codes.

#### Waste Outlet and P-TRAP

The waste outlet is located off the center of the case on one side allowing drip piping to be run lengthwise under the fixture.

A 1-1/2" P-TRAP and threaded adapter are supplied with each fixture. The P-TRAP must be installed to prevent air leakage and insect entrance into the fixture.

NOTE: PVC-DWV solvent cement is recommended. For installation or maintenance of the P-TRAP use only adhesive compatible with ABS fittings.



Item # 18s279

#### **START UP**

Follow the controller start up procedures as detailed in Section 3 of this manual.

Each self contained merchandiser has its own evaporator coil and a pre-set thermostatic expansion valve (TEV). The TEV has been factory set at design conditions to provide the recommended performance.

#### **TEV ADJUSTMENT**

Expansion valves may be adjusted to fully feed the evaporator. Before attempting to adjust valves, make sure the evaporator is clear or only lightly covered with frost, and the merchandiser is within 10°F of its expected operating temperature.

Adjust the valve as follows:

a. Attach a probe to the suction line near the expansion valve bulb.

b. Obtain a pressure reading from the factory installed Schraeder valve. Convert the pressure reading to a saturated temperature for the refrigerant.

Temperature (b) minus Temperature (a) is the superheat. The valve should be adjusted so that the greatest difference between the two temperatures is  $3^{\circ}F$  to  $5^{\circ}F$ .

Make adjustments of no more than 1/2 turn of the valve stem at a time and wait for at least 15 minutes before rechecking the probe temperature and making further adjustments.

#### LOAD LIMITS

Each merchandiser has a load limit decal. Shelf life of perishables will be short if load limit is violated.

At no time should merchandisers be stocked beyond the load limits indicated.

#### LOAD LIMIT

#### STOCKING

Product should NOT be placed inside the merchandisers until merchandisers are at proper operating temperature.

## Allow merchandiser 24 hours to operate before loading product.

Proper rotation of product during stocking is necessary to prevent product loss. Always bring the oldest product to the top and set the newest to the bottom.

Air discharge and return flues must remain open and free of obstruction at all times to provide proper refrigeration and air curtain performance.

Do not allow product, packages, signs, etc. to block these grilles. Do not use non-approved shelving, baskets, display racks, or any accessory that could hamper air curtain performance.

Do not allow product to be placed outside of the designated load limits in the illustration.

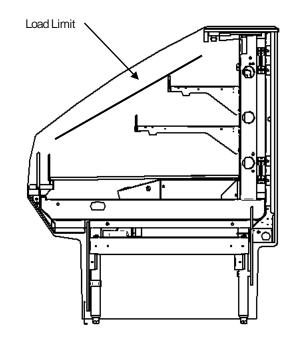
HUSSMANN CORPORATION • BRIDGETON, MO 63044-2483 U.S.A. Q3 Remote Merchandisers

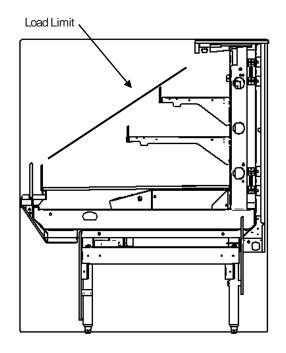
#### THERMOMETER

Q-Series models have a solar thermometer. The thermometer is located at the top interior of the merchandiser.



Product will be degraded and may spoil if allowed to sit in a non-refrigerated area.





#### 4-1 MAINTENANCE

#### CARE AND CLEANING

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

#### **Exterior Surfaces**

The exterior surfaces must be cleaned with a mild detergent and warm water to protect and maintain their attractive finish. Never use abrasive cleansers or scouring pads.

#### **Interior Surfaces**

The interior surfaces may be cleaned with most domestic detergents, ammonia based cleaners and sanitizing solutions with no harm to the surface.

### Do NOT Use:

•Abrasive cleansers and scouring pads, as these will mar the finish.

•Coarse paper towels on coated glass.

•Ammonia-based cleaners on acrylic parts.

•Solvent, oil or acidic based cleaners on any interior surfaces.

•Do not use high pressure water hoses.



Product will be degraded and may spoil if allowed to sit in a non-refrigerated area.

#### Do:

•Remove the product and all loose debris to avoid clogging the waste outlet.

•Store product in a refrigerated area such as a cooler. Remove only as much product as can be taken to the cooler in a timely manner.

#### •Disconnect electrical power before cleaning.

•Thoroughly clean all surfaces with soap and hot water. **Do Not use steam or high water pressure hoses to wash the interior.** 

These will destroy the merchandisers' sealing causing leaks and poor performance.

•Take care to minimize direct contact between fan motors and cleaning or rinse water.

•Do NOT flood merchandiser with water. Never introduce water faster than the waste outlet caN remove it.

•Allow merchandisers to dry before resuming operation.

•After cleaning is completed, turn on power to the merchandiser.



Do NOT allow cleaning agent or cloth to contact food product.

Q3 Remote Merchandisers

## 

Do NOT use HOT water on Cold glass Surfaces. This can cause the glass to shatter and could result in personal injury. Allow glass fronts, to warm before applying hot water.

#### **REMOVING SCRATCHES FROM BUMPER**

Most scratches and dings can be removed using the following procedure.

- 1. Use steel wool to smooth out the surface area of the bumper.
- 2. Clean area.
- 3. Apply vinyl or car wax and polish surface for a smooth glossy finish.

#### **CLEANING UNDER FAN PLENUM**

After cleaning be sure the plenum is properly lowered into position or producT loss will resulT due to improper refrigeration.

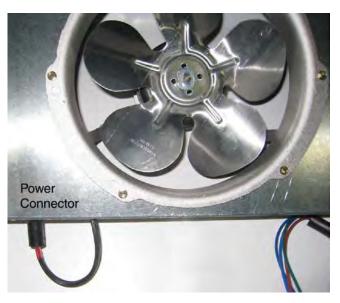


#### - LOCKOUT/ TAGOUT-

To avoid serious injury or death 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.

# **WARNING**

#### SHUT FANS OFF DURING CLEANING PROCESS.



#### **CLEANING DISCHARGE AIR LOUVERS**

Discharge air louvers should be cleaned every six months. Dirty louvers will cause merchandisers to perform poorly. The louvers may be cleaned with a vacuum cleaner. Soap and water may be used if all water is removed from the louvers cells before replacing. Be careful not to damage the louvers.

## 

#### DO NOT FLOOD!

Use only enough water necessary to clean surface. Water must not drip down the case!

## Never use ammonia based cleansers, abrasive cleansers, or scouring pads.

#### CLEANING STAINLESS STEEL SURFACES

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

Use alkaline chlorinated or 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.

#### **CLEANING COILS**

Condenser coils should be cleaned at least once per month. Additional cleaning may be needed depending on the operational environment. A dirty condenser blocks normal airflow through the coils.

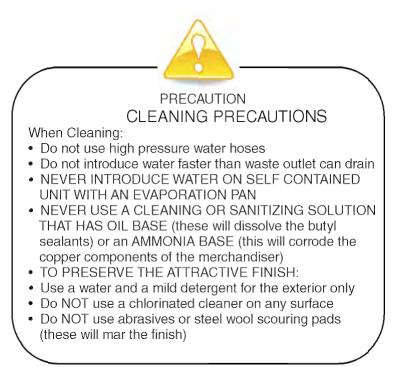
Airflow blockage increases energy consumption and reduces the merchandiser's ability to maintain operating temperature.

To clean the coils, use a vacuum cleaner with a wand attachment and a soft (non-metallic) brush to remove dirt and debris. Do not bend coil fins. Always wear gloves and protective eye wear when cleaning near sharp coil fins and dust particles.

#### *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 adjustments as necessary. To maintain product integrity, move all product to a cooler until the unit has returned to normal operating temperatures.



4-5

#### MAINTENANCE

#### P/N 3068445 B

**** Warranty does not cover issu	es cause	u by im	prope	rinsta	mation	or lack (	DI DASIC	preventa	auve ma	untenanc
Record starting date										
Store Name and Number Store Address										
Unit Model Number										
Unit Serial Number										
ctor/Technician										
	Tech	nician								
	PM	date								
DM activity For viewel increasion items, denote "als or										
PM activity-For visual inspection items, denote "ok or complete" in the column to right when PM has been		Semi-								
performed. For measured data requested, record data	Quarterly	Annually	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
requested in the appropriate column to the right)		Annuarry								
Check in with store manager, record any complaints or issues										
hey have with unit.	Х			L			ļ			
_ook unit over for any damage, vibrationsor abnormalnoise.	х									
/erify unit is level side to side and front to rear.	X									
Confirm refrigerant lines properly are secured and not touching										
ubbing other lines, wires or frame work.	x									
/erify fan motors and motor mounts are tight.	X									
Confirm fan blade/s are tight and not rubbing or hitting.	x									
Make sure all electrical connections, factory and field, aretight.	х									
/erify electrical connections at lamps are they secure and dry.	х									
Check for and replace any frayed or chaffed wiring.	Х									
Check all electrical wiring make sure it is secured and not on										
any sharp edges or hot lines.	х									
Check for air disturbances external I to the unit. Heat and air										
egisters, fans, and doors etc.	X									
Check for water leaks.	Х									
Clean evaporator coil/s and fan blade/s. Do not use anacid										
base cleaner. Rinse off any cleaner residue.	-	X								
Clean discharge air honeycombs or grilles. Do not use an acid base cleaner. Rinse off anycleaner residue.		х								
Clean condenser coil/s and fan blade/s. Do not use an acid base		A								
Cleaner. Rinse off any cleaner residue.		х								
Clean condensate drain pan and drain line.		х								
/erify condensate drain lines are clear and functioning.	1	X		1			1		1	
Record voltage reading at unit with unit off?	+	X		<u> </u>						
/erify condenser and evaporator fans are working.	v	л		-					1	
Record condenser and evaporator rans are working.	X									
·	X									
Record condenser air outlet temperature	X									
s condenser air inlet or air exhaust restricted or recirculating?	х									
/erify there are no visual oil or refrigerant leaks.	Х			<u> </u>			L			
Record voltage reading with unit running.		х								
Record compressor amp draw.		х								
Record defrost heater voltage and amp draw.		х								
Record anti-sweat heater voltage and amp draw.		х								
Record case product temperature.	х								1	
Record unit discharge air temperature.	х								1	
Record unit return air temperature.	x									
Record ambient conditions around unit (wet Bulb temperature									1	
and dry bulb temperature).	х									

Technician Notes:

Form HSCW03 Rev-29 OCTOBER13

Verify clearances on sides/back of unit.

Manual for proper controller operation.

Confirm door switches function.

Check unit controller for proper operation. See controller or 1/0

Verify unit doors and lids work and are sealed correctly.

Verify that all the panels, shields and covers are in place.

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NOTES:

#### 5-1 SERVICE

## **REPLACING FAN MOTORS AND BLADES**

Should it ever be necessary to service or replace the fan motors or blades be certain that the fan blades are reinstalled correctly. **The** 

blades must be installed with raised embossing (part number on plastic blades) positioned as indicated on The parts list.

For access to these fans:

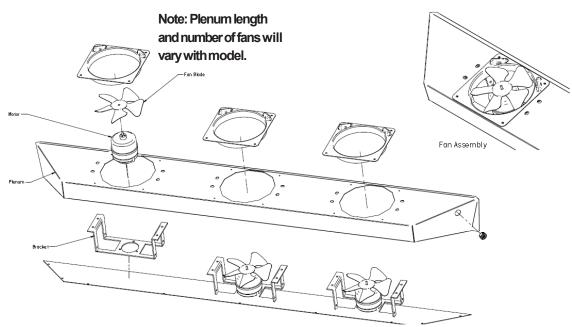
- 1. Remove product and place in a refrigerated area. Turn off power to the merchandiser.
- 2. Remove bottom display pans.
- 3. Disconnect fan from wiring harness.
- 4. Remove fan blade.
- 5. Lift fan plenum and remove screwsholding bottom of motor to fan basket.
- 6. Replace fan motor and blade.
- 7. Lower fan plenum.
- 8. Reconnect fan to wiring harness.
- 9. Turn on power.
- 10. Verify that motor is working and blade is turning in the correct direction.

## A WARNING

#### — LOCKOUT/ TAGOUT—

To avoid serious injury or death 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.

- 11. Close air gaps under fan plenum. Warmer air moving into refrigerated air reduces effective cooling. If the plenum does not rest against the case bottom without gaps, apply foam tape to the bottom of the fan plenum to reduce improper air movement. Use silicone sealant to close other gaps.
- 12. Reinstall display pans. Bring merchandiser to operating temperature before restocking.



**Q3 Remote Merchandisers** 

### **Replacement Parts List**

	Part Number	Q3331014K	0322100K	03221019K	7322INI 15K
Drain Trap	18S279	Х	Х	Х	Х
Cover Drain	0301266	Х	Х	Х	Х
Thermometer (solar)	0517730	Х	Х	Х	Х
Product-stop 4ft X 6.250in (shelves)	3067833	Х			Х
Product-stop 4ft X 4.625in (shelves)	3067834	Х			Х
Product stop 6ft X 4.625in (shelves)	3046301		Х		Х
Product stop frt 6ft X 6.250in (shelves)	3044954		Х		Х
Product-stop 8ft X 4.625in (shelves)	3061677			Х	
Product-stop frt 8ft X 6.250in (shelves)	3061678			Х	
Switch led light	1801241	Х	Х	Х	Х
Power supply 1000w 24VDC	3013744	Х	Х	Х	Х

#### Part Number Q3SSM4R Q3SSM6R Q3SSM8R Q3SSM12R

#### Refrigeration

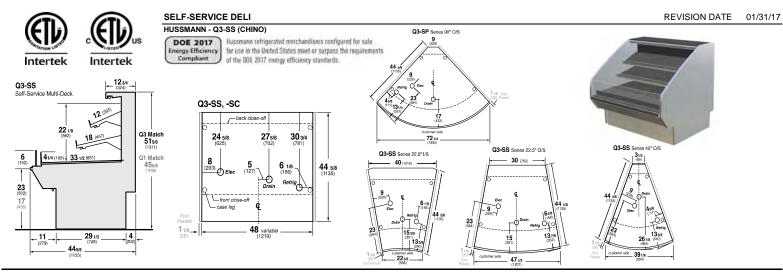
Description	Part Number	Q3SSM4R	Q3SSM6R	Q3SSM8R	Q3SSM12R
Evaporator 4 ft	0498770	Х			
Evaporator 6 ft	050033700		Х		
Evaporator 8 ft	0500335			Х	
Evaporator 12ft	0500333				X
Plastic collar fan	0409510	Х	Х	Х	Х
Fan blade for motor 6 3/4 "25'	0409512	X	X	X	X
Evaporator fan motor (115V, 4W)	0477653	Х	Х	Х	X
Bracket fan motor	0552827	X	X	Х	X

#### Harnesses

Description	Part Number	Q3SSM4F	Q3SSM6R	Q3SSM8R (	23SSM12R
Canopy Led harness	0523772	Х	Х	Х	Х
Shelf led harness	0523768	Х	Х	Х	Х

#### Sheet Metal Replacement Parts Painted

Description	Part Number	Q3SSM4R	Q3SSM6R	Q3SSM8R	Q3SSM12R
Panel-frnt RMT 4ft	3067824	Х			
Panel-frnt RMT 6ft	3066891		Х		
Panel-frnt RMT 8ft	3061672			Х	
Panel-frnt RMT 12ft	3062991				Х
Pan Q2-SS 2 TP air deck	0552840	Х	Х	Х	Х
Pan-Q3-SS 24 W BTM air deck	0552846	Х	Х	Х	Х
Wall-int RMT 4ft	3061684	Х		Х	Х
Wall-int RMT 3ft	3066900		X		



#### **REFRIGERATION DATA:**

CASE LENGTHS/		•	CITY *** FT) (TOTAL /EDGES)	٦	EMPERAT	URE (°F)	VELOCITY
WEDGES	CASE USAGE	RATING CONDITION EVAPORATOR		DISCHARGE AIR ** (°F)	(FT/MIN)		
		NSF 7	AHRI 1200	NSF 7	AHRI 1200	NSF 7	NSF 7
4',5',6',8',10',12'	SS DELI	850	850	20	20	28~32	150~200
4',5',6',8',10',12'	MEAT	880	850	18	20	26~30	150~200
22.5° IS	SS DELI	2700	2700	20	20	28~32	150~200
22.5° OS	SS DELI	2600	2600	20	20	28~32	150~200
45° IS	SS DELI	1610	1610	20	20	28~32	150~200
45° OS	SS DELI	1376	1376	20	20	28~32	150~200
90° OS	SS DELI	3200	3200	20	20	28~32	150~200
REAR STORAGE	SS DELI	100	90	20	26	30~34	380~600

CASE	EST. REFG. CHRG.	GLYCOL INLET, 6		GLYCOL (20°F INLET, 6° RISE)			
LENGTHS		FRO	NT	REAR ST	ORAGE		
	404A (LBS)	GPM PSI		GPM	PSI		
4'	0.5	1.3	3.4	0.1	0.0		
5'	0.7	1.6	5.4	0.2	0.1		
6'	0.7	1.9	7.7	0.2	0.2		
8'	1.0	2.5	3.5	0.3	0.4		
10'	1.4	3.0	6.2	0.3	0.6		
12'	1.5	3.6	7.1	0.4	0.8		
22.5° IS	0.3	0.9	1.7	N/A	N/A		
22.5° OS	0.3	0.8	1.6	N/A	N/A		
45° IS	0.3	0.5	0.8	N/A	N/A		
45° OS	0.2	0.4	0.4	N/A	N/A		
90° OS	0.3	1.0	2.0	N/A	N/A		

Г

END PANEL WIDTH KEY

### \*\*FRONT DISCHARGE AIR MEASURED INSIDE AIR CURTAIN HONEYCOMB \*\*\*REFRIGERATION NOTES:

1) BTU'S INCLUDE CANOPY LIGHTS. ADD 10 BTUS/SHELF/FT FOR EACH SHELF (LIGHT)

2) AHRI 1200 RATING POINT FOR ENERGY CONSUMPTION COMPARISON ONLY

3) 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.

4) RATING CONDITION IS NSF TYPE I, 75°F/55% RH.

#### REFRIGERATION DATA CONTINUED:

KEI KIGEKAHON										_			
LOCATION		IERMOS OR SET CUT IN (°F)	TAT / AIR TINGS CUT OUT (°F)	DEFROST TYPE	TIME (MIN)	DEFROST FREQUENCY (#/DAY)	TERM. TEMP (°F) COIL	DRIP TIME	DEFROST WATER (LBS/DAY/FT)		# OF END PNLS	END PNL WIDTH (IN.)	TOTAL ADDED LENGTH (IN.)
SELF SERVICE	SS DELI	30	27				0NLY 48		9.1		1	1.125	1.125
SELF SERVICE	MEAT	28	25	OFF TIME	30	4	48	N/A	10.3		2	1.125	2.25
REAR STORAGE	DELI	35	32	]			45		0.7	]			

#### ELECTRICAL DATA: STANDARD FANS, HEATERS, LED LIGHTS (115 VOLT)

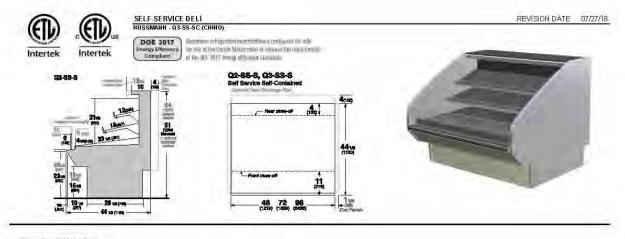
ELECTRICAL DA	IA:	STAND	ARD FANS,	HEATERS,	LED LIG	HIS (115 V	VOLI)												
CASE LENGTH	EVAPORATOR FANS			REFRIGERATED REAR STORAGE (OPTIONAL) EVAP FANS		-		OPTIONAL LED SHELF LIGHTS				ANTI-SWEAT HEATERS (ON FAN CIRCUIT)				6			
	# OF EVAP FANS	BLADE DIA. (IN.)	BLADE PITCH (°)	AMPS	WATTS	# OF EVAP FANS	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS	# OUTLE TS	OLTS	AMPS
4'	2	6.7	25	0.2	16	1	0.3	9	0.1	10	0.2	21	0.3	31	N/A	N/A	N/A	N/A	N/A
5'	2	6.7	20	0.2	16	1	0.3	9	0.1	13	0.1	13	0.2	26	N/A	N/A	N/A	N/A	N/A
6'	3	6.7	25	0.4	24	1	0.3	9	0.1	15	0.1	15	0.3	31	N/A	N/A	N/A	N/A	N/A
8'	4	6.7	25	0.5	32	1	0.3	9	0.2	21	0.2	21	0.4	41	N/A	N/A	N/A	N/A	N/A
10'	4	6.7	20	0.5	32	1	0.3	9	0.2	26	0.2	26	0.5	52	N/A	N/A	N/A	N/A	N/A
12'	6	6.7	25	0.7	48	1	0.3	9	0.3	31	0.2	21	0.4	51	N/A	N/A	N/A	N/A	N/A
22.5° IS	1	6.7	15	0.1	8	N/A	N/A	N/A	0.1	8	0.0	4	0.1	12	N/A	N/A	N/A	N/A	N/A
22.5° OS	2	6.7	25	0.2	16	N/A	N/A	N/A	0.1	8	0.1	10	0.2	18	N/A	N/A	N/A	N/A	N/A
45° OS	1	6.7	25	0.1	8	N/A	N/A	N/A	0.0	4	0.0	4	0.1	8	N/A	N/A	N/A	N/A	N/A
45° IS	1	6.7	25	0.1	8	N/A	N/A	N/A	0.0	4	0.1	7	0.1	11	N/A	N/A	N/A		N/A
90° OS	3	6.7	20	0.4	24	N/A	N/A	N/A	0.0	4	0.1	14	0.2	18	N/A	N/A	N/A	N/A	N/A

		UP HON		DUIPUILE			
CASE LENGTH	CANOPY H.O.		OPTION	AL SHELF	MAX. H.O. LED LOAD		
	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS	
4'	0.1	15	0.3	30	0.4	46	
5'	N/A	N/A	N/A	N/A	N/A	N/A	
6'	0.2	26	0.2	26	0.5	52	
8'	0.3	30	0.3	30	0.5	61	
10'	N/A	N/A	N/A	N/A	N/A	N/A	
12'	0.4	46	0.3	30	0.7	76	
22.5° IS	N/A	N/A	N/A	N/A	N/A	N/A	
22.5° OS	N/A	N/A	N/A	N/A	N/A	N/A	
45° OS	N/A	N/A	N/A	N/A	N/A	N/A	
45° IS	N/A	N/A	N/A	N/A	N/A	N/A	
90° OS	N/A	N/A	N/A	N/A	N/A	N/A	

#### **OPTIONAL HIGH OUTPUT LED LIGHTS (115 VOLT)**

#### Appendix A — Technical Data A-1

#### P/N 3068445 \_B



#### **REFRIGERATION DATA:**

CASE LENGTHS	CASE USAGE	CONVENTIONAL CAPACITY ** (BTU/HR/FT)	DISCHARGE AIR*(°F) (SEE SETPOINTS BELOW)	VELOCITY (FT/MIN)
2'3'4'5'6'8'	SSDEU	1040	22~26	150~200

\*FRONT DISCHARGE AIR MEASURED INSIDE AIR CURTAIN HONEYCOMB \*\*REFRIGERATION NOTES: 1) CAPACITY FOR REFERENCE ONLY 2) 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.

3) RATING CONDITION IS NSF TYPE 1, 75%/55% RH

CONTROLLER / AIR SENSOR SETTINGS				FANGARE	DEFROST	TERM.	DRIP	DEFROST	
USAGE	SET POINT (°F)	DIFFER- ENTIAL (°F)	DEFROST TYPE	FAILSAFE TIME (MIN)	FREQUENCY (#/DAY)	TEMP (°F) AIR	TIME (MIN)	WATER (LBS/DAY/FT)	
MEAT	20	8	1	· · · · · · · · · · · · · · · · · · ·		-	1		
DELI	24	8	OFF TIME	50	4	48	NA	4.2	
PRODUCE	28	8	1	1.	1	1 hereit			

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

4) DEFROST IS BASED ON TERMINATION TEMP, WHICH UNDER NORMAL CIRCUMSTANCES,

IS SHORTER THAN FAILSAFE TIME.

#### ELECTRICAL DATA:

STANDARD FANS, HEATERS, LED LIGHTS (115 VOLT)

	EVAPORATOR FANS		CANOPY LIGHTS OPTIONAL LED ALED SHELF LIGHTS				ANTI-SWEAT HEATERS (OPTIONAL)		CONVENIENCE OUTLETS (OPTIONAL)							
CASE LENGTH	#OF EVAP FANS	BLADE DIA. (IN.)	BLADE PITCH (°)	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS	# OUTLETS	VOLTS	AMPS
2'	1	6.7	20	0.12	8	0.09	1 11	0.09	10	0.18	20	0.17	20	N/A	N/A	N/A
3'	2	6.7	25	0.24	16	0,17	19	0.13	15	0.30	35	0.17	20	N/A	N/A	N/A
4'	2	6.7	25	0.24	16	0.23	27	0.18	21	0.41	48	0.17	20	N/A	N/A	N/A
5'	2	6.7	20	0.24	16	0.30	34	0.23	26	0.52	60	0.26	30	N/A	N/A	N/A
6'	3	6.7	25	0.36	24	0.34	39	0.27	31	0.60	69	0.26	30	N/A	N/A	N/A
8'	4	6.7	25	0.48	32	0.47	54	0.36	41	0.83	95	0.35	40	N/A	N/A	N/A

#### CONDENSING UNIT AND EVAPORATIVE PANS

CASE LENGTH	1.1.1	CONDE	NSING UN	Т	EVAPORAT	IVE PAN	NEMA PLUG	EST. REFG.		
	NOM. HP	REFRIG.	Hz/Ph	VOLTS	RLA	AMPS	WATTS		CHRG. (LBS	
2'	1/4	R-404A	60 / 1	115	8	8.33	1000	L5-30P	2.8	
3'	1/3	R-404A	60 / 1	115	7.2	8.33	1000	L5-30P	3.3	
4	1/2	R-404A	60 / 1	115	10.5	12.50	1500	L5-30P	3.7	
5'	3/4	R-404A	60/1	240	6.8	6.25	1500	L6-20P	5.6	
6'	3/4	R-404A	60 / 1	240	9.0	6.25	1500	L14-30P	5.6	
8'	1	R-404A	60/1	240	10.0	6.25	1500	L14-30P	6.6	

#### OPTIONAL HIGH OUTPUT LED LIGHTS (115 VOLT)

CASE LENGTH	LIG	HTS	OPTION	AL SHELF	MAX. H.O. LED LOAD			
	AMPS	WATTS	AMPS	WATTS	AMPS	WATTS		
2"	N/A	N/A	N/A	N/A	N/A	N/A		
3'	0.21	24	0.32	36	0.52	60		
4'	0.28	32	0.35	41	0.63	73		
5'	N/A	N/A	N/A	N/A	N/A	N/A		
6'	0.41	47	0.29	34	0.70	81		
8.	0.56	64	0.44	51	1.00	115		

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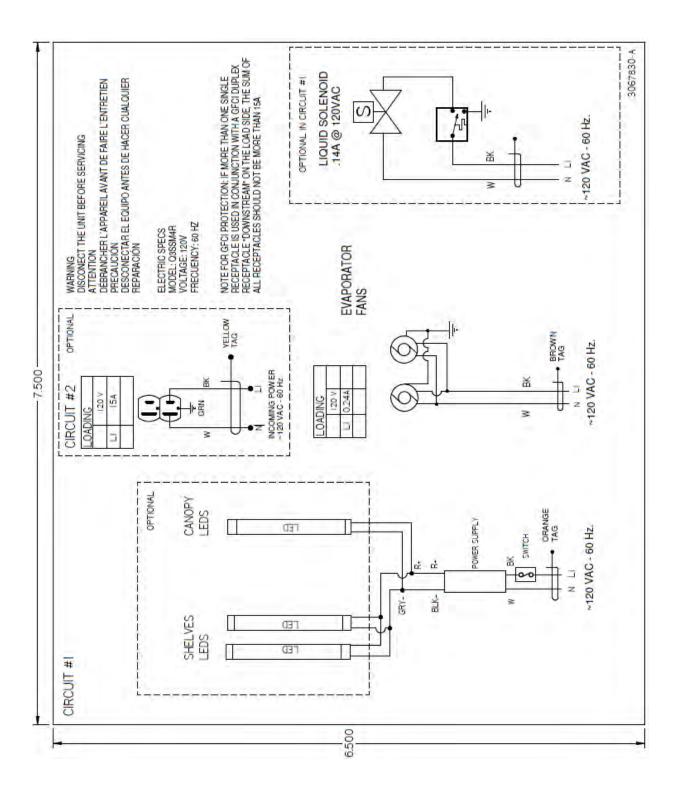
**Q3 Remote Merchandisers** 

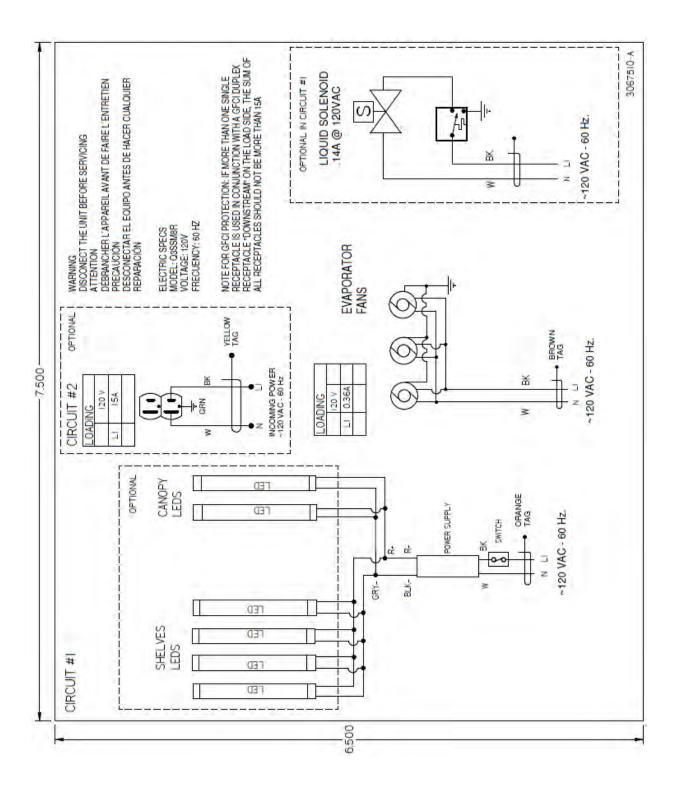
#### ESTIMATED SHIPPING WEIGHT

#### Case

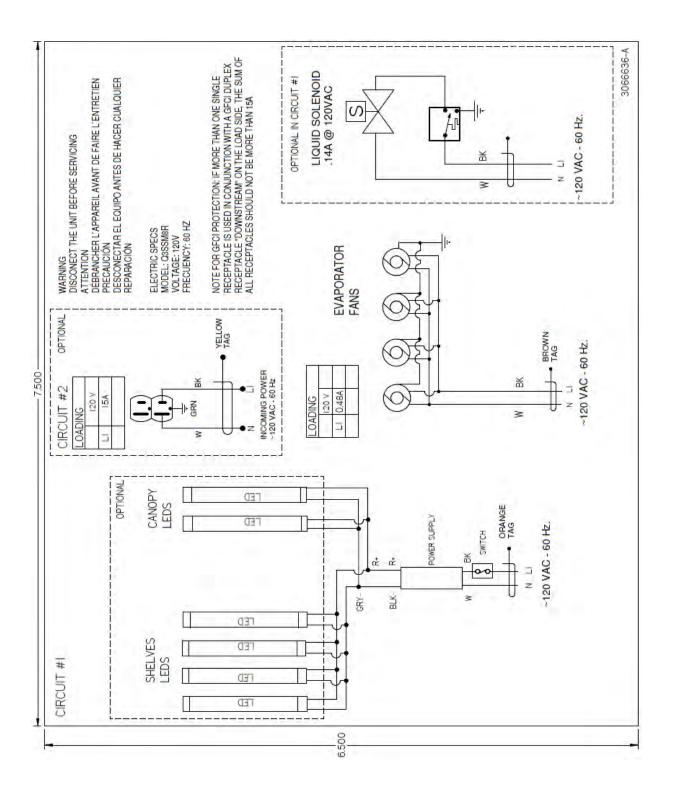
		(with shipping crate)
Q3SSM4R	551 lb(250 kg)	617 lb(280 kg)
Q3SSM6R	794 lb(360 kg)	959 lb(435 kg)
	1058 lb(480 kg)	
Q3SSM12R	1588 lb(720 kg)	1918 lb(870 kg)

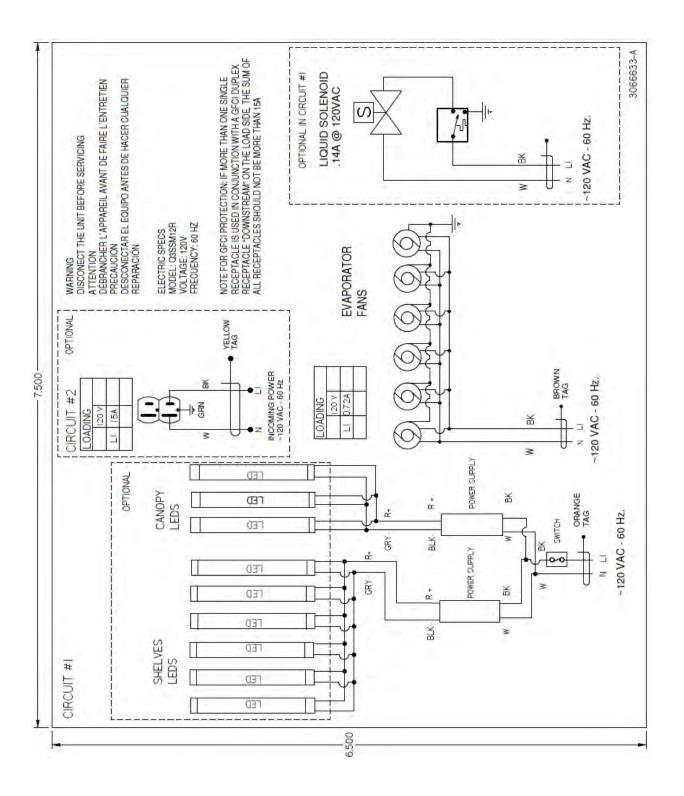
Actual weights will vary according to optional kits included.





**Q3 Remote Merchandisers** 





**Q3 Remote Merchandisers** 

## HUSSMAnn

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

Hussmann Corporation, Corporate Headquarters: Bridgeton, Missouri, U.S.A. 63044-2483 01 October 2012

#### **Bumper Installation Instructions**



Step 1: Make sure the aluminum channel and end caps are installed.



Step 3: Starting on one end: while inserting the bumper, push it up against the end cap to prevent the bumper from shrinking after installation (when it gets cold).



Step 2: Use silicone lubricant to help the bumper slide into the channel.



Step 4: As you insert the bumper into the channel with one hand, pull the bumper toward you with the other to open the inside lips. Slowly apply pressure by rolling the bumper into the track.Boston Series 2000

- NOTE: Flexible top: Over cut vinyl 1/8" for every 4' section for the flexible top to ensure a proper fit.
- NOTE: Rigid Top: Do not over cut.



1. Attach the base and end/corner cap to the desired surface by inserting #8 pan head screws through the pre-slotted holes in both the end cap and the base. Insert screws through the two holes of end cap and tighten.



- 2a. Flexible Top: Butt end of the vinyl top against end/corner cap. While applying pressure, bend back vinyl top so that vinyl legs are positioned within the base grooves. Roll vinyl top over full length of base, then tap with rubber mallet to ensure vinyl is securely locked into the base.
- 2b. **Rigid Top:** Snap the Rigid Top over the Rigid Base.



3. If necessary wipe clean with any household cleaning product.

#### Helpful Hints:

- For best results, before cutting, install a scrap piece of base into vinyl top to achieve a clean cut.
- Set the uncoiled flexible vinyl at room temperature 24 hours prior to installation.
- Lubricate the inside of the vinyl with soapy water or silicone before installing.
- Over cut the flexible vinyl and compression fit. Adding the additional materials will compensate for stretching which occurs during installation.

#### Boston 2000 Eco Series



1. Attach the base and end/corner cap to the desired surface by inserting #8 pan head screws through the pre-slotted holes in both the end cap and the base. Insert screws through the two holes of end cap and tighten.



- 2a. **Flexible Top:** Butt end of the vinyl top against end/corner cap. While applying pressure, bend back vinyl top so that vinyl legs are positioned within the base grooves. Roll vinyl top over full length of base, then tap with rubber mallet to ensure vinyl is securely locked into the base.
- 2b. **Rigid Top:** Snap the Rigid Top over the Rigid Base.



3. If necessary wipe clean with any household cleaning product.

#### **Helpful Hints:**

- For best results, before cutting, install a scrap piece of base into vinyl top to achieve a clean cut.
- Set the uncoiled flexible vinyl at room temperature 24 hours prior to installation.
- Lubricate the inside of the vinyl with soapy water or silicone before installing.
- Over cut the flexible vinyl and compression fit. Adding the additional materials will compensate for stretching which occurs during installation.

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**Q3 Remote Merchandisers** 

Boston 1000 Series

#### Installation (Cont'd)

NOTE: Flexible top: Over cut vinyl 1/8" for every 4' section for the flexible top to ensure a proper fit.

NOTE: Rigid Top: Do not over cut. Installation



1. Attach the base and end/corner cap to the desired surface by inserting #8 pan head screws through the pre-slotted holes in both the end cap and the base. Insert screws through the two holes of end cap and tighten.



2a. Flexible Top: Butt end of the vinyl top against end/corner cap. While applying pressure, bend back vinyl top so that vinyl legs are positioned within the base grooves. Roll vinyl top over full length of base, then tap with rubber mallet to ensure vinyl is securely locked into the base. 2b. Rigid Top: Snap the Rigid Top over the Rigid Base.



3. If necessary wipe clean with any household cleaning product.

#### **Helpful Hints:**

- For best results, before cutting, install a scrap piece of base into vinyl top to achieve a clean cut.
- Set the uncoiled flexible vinyl at room temperature 24 hours prior to installation.
- Lubricate the inside of the vinyl with soapy water or silicone before installing.
- Over cut the flexible vinyl and compression fit. Adding the additional materials will compensate for stretching which occurs during installation.

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