

HUSSmann®

RHR-HEX, RHR2-HEX, RHR 1/2 HEX ISLAND HOT FOOD CASE



P/N IGHTRHR-HEX, RHR2HEX2, RHR 1/2 HEX, RHR SQUARE-0310

1. General Instructions

HUSSMANN®/CHINO

A publication of HUSSMANN® Chino
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This Booklet Contains Information on:

The **RHR-HEX** is a self-service Hot Food Hexagon-shaped Island Stand, available in 4 and 6 foot sizes.

The **RHR2-HEX** is a similar unit, with the addition of a second shelf: Both feature surface and overhead food warmers, but both are also available with an overhead Radiant Heat option.

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.

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 Chino, *notify Hussmann Chino*. If such a shortage involves the carrier, *notify the carrier immediately*, and request an inspection. Hussmann Chino will acknowledge shortages within ten days from receipt of equipment.

Hussmann Chino Product Control

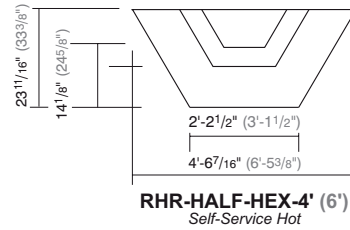
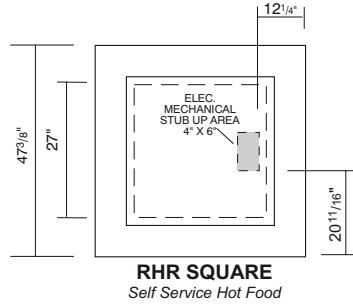
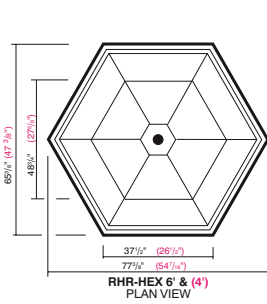
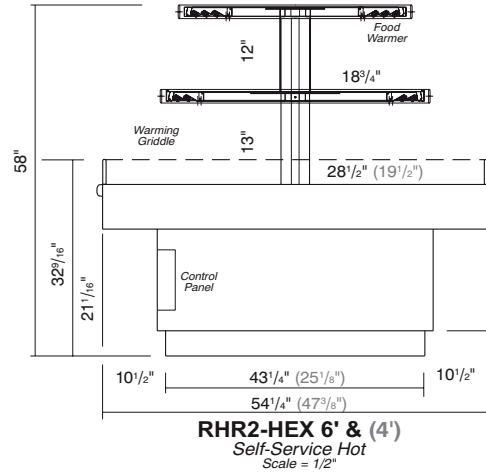
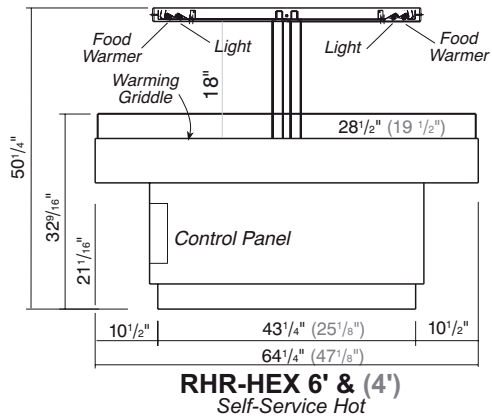
The serial number and shipping date of all equipment has been recorded in Hussmann's files for warranty and replacement part purposes. All correspondence pertaining to warranty or parts ordering must include the serial number of each piece of equipment involved, in order to provide the customer with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

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

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3. Cut and Plan Views



4. Installation



IMPORTANT: It is imperative that cases be leveled front to back and side to side prior to joining. A level case is necessary to ensure proper operation.

Leveling

1. Check floor where cases are to be set to see if it's level. Determine where the highest part of the floor Cases will be shimmed off this point Using case blueprints, measure off and mark on floor the exact dimensions of the case footprint Snap chalk line for front and back position of base rail. Mark location of each joint front and back. Use a transit to find the highest point along both lines. Mark the difference, and place the appropriate number of shims required to maintain high-point level.

Bumper Installation Instructions



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



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



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 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.

5. Electrical

Wiring Color Code

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 Circuit Identification

Standard lighting for all models will be fluorescent lamps located within the case at the top.

The switch controlling the lights and heaters are located within an access panel on the side of the case.



DANGER

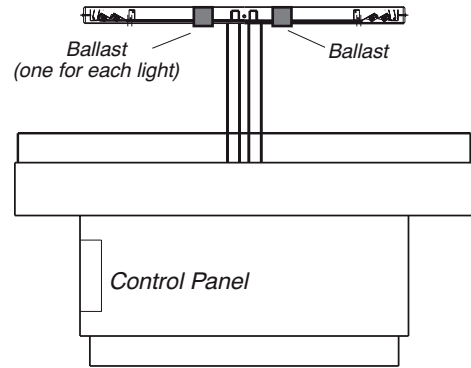
**BEFORE SERVICING
ALWAYS DISCONNECT ELECTRICAL
POWER AT THE MAIN DISCONNECT
WHEN SERVICING OR REPLACING ANY
ELECTRICAL COMPONENT.**

**This includes (but not limited to) Fans, Heaters
Thermostats, and Lights.**

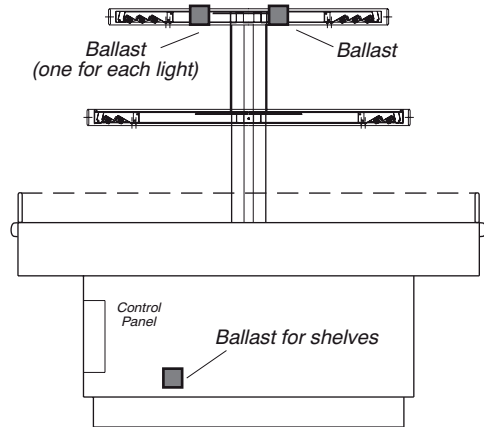
Field Wiring and Serial Plate Amperage

Field Wiring must be sized for component amperes printed on the serial plate. Actual ampere draw may be less than specified. Case amperes are listed on the wiring diagram, but due to parts availability they may vary slightly. Always check the serial plate for the actual loads.

Ballast Location



RHR-HEX 6' & (4')
Self-Service Hot



RHR2-HEX 6' & (4')
Self-Service Hot
Scale = 1/2"

6. User Information

Food Handling

These hot tables are for short-term holding and display of precooked hot foods. They are not intended to cool or reheat food. The temperature of the food should be approximately 160°F when first put into the hot table. Any attempt to use the hot table to display large amounts of food for long periods of time will result in dehydrated, overcooked and unsafe food. The quality of food will progressively worsen as the length of time increases. The deterioration of product quality is a function of time and temperature. All products are affected even though in a gravy or other liquid. They may appear to withstand the temperature better than “dry” foods such as fried chicken but this is not necessarily true. ALL foods will continue to be affected by prolonged exposure to elevated temperatures.

The following guidelines are provided only as a general guide for the use of this equipment. The local health agency for your area can provide specific temperature requirements.

Critical attention must be given to the heat controls for these hot tables. Both the upper and lower heat controls must be adjusted to maintain proper food temperatures. Hot foods should be held at a minimum temperature of at least 140°F (60°C) according to 1993 FDA Food Code. However, increasing the temperature too high will also cause the food to overcook, dry out, lose its flavor, texture and color. Food held for prolonged periods at high temperatures will also lose some of their nutritional value.

All griddle type units are designed to maintain temperatures above the FDA guideline of 140°F. This is product temperature, not air or griddle temperature. Due to the open design of these units, they must be loaded with product for proper operation. When units are empty, they experience rapid rise of heated air from air outside the case. This action gives empty units a false, lower than desired, temperature reading. Loading the case traps the air at the griddle, raising temperatures to the 165°F to 185°F range, keeping product well above the FDA guidelines. Remember, these units must be loaded with product to maintain safe product temperature.

Different foods will require different control settings. The type of food, the quantities of food and length of time that it is to remain in the hot table must be considered when establishing control settings. Therefore, it must be the user's responsibility to establish the correct control settings to maintain the food at the safest, tastiest and most saleable condition.

***FOOD TEMPERATURES CAN BE
ACCURATELY DETERMINED ONLY
THROUGH THE USE OF FOOD
THERMOMETERS!***

Important Operation Tips:

- Preheat case 30 minutes before loading product using higher settings.
- **Using thermometer**, check product before loading in case (150°F-160°F).
- At start, set lamps to “3”. After loading, recheck temperature every 1/2 hour to see that unit is operating properly. Adjust the thermostat (a higher number for hotter and a lower number for cooler) to maintain product temperature of 140°F (60°C) minimum. The setting will depend on the type of product being displayed. Be sure to test product temperature with a thermometer frequently for good product maintenance.
- Food should maintain contact directly with the “griddle” at all times.

Controls

There are three sets of controls for the hex case, each behind its own access panel located on the side of the case. The dial with the numbered settings is for the griddle. The other dials/switches are for the overhead lights and heating components.

Overhead Heating System

Cal rod units are located above the griddles to provide top heat. **To obtain the proper food temperatures, they must be adjusted. Settings may vary depending on food composition. Maximum limits should be avoided to prevent overcooking or drying out food.**

Care and Cleaning

Long life and satisfactory performance of any equipment is dependent upon the care it receives. With this in mind, all of the exposed work surfaces of these hot tables have been made entirely of easy to clean stainless steel.

Stainless steel is one of the easiest materials to clean and keep clean. Normally it is just a matter of wiping spills off the surface when they happen followed by a thorough cleaning with soap and water at the end of the day. Frequent and regular cleaning will prevent the buildup of baked on difficult to remove spills. Many types of cleansers are available and safe to use on stainless steel. However, ordinary steel wool and steel brushes should not be used. Small particles of the steel may become imbedded into the stainless steel surfaces that will eventually rust and stain.

User Information (Cont'd)

General Cleaning Rules

1. ALLOW SURFACES TO COOL BEFORE HANDLING.
2. Clean frequently and regularly.
3. Rinse thoroughly after cleaning.
4. Remove surface spills immediately with a damp cloth.

Stainless Steel Cleaning and Care

There are three basic things, which can break down your stainless steel's passivity layer and allow corrosion.

1. Mechanical Abrasion

Mechanical Abrasion means those things that will scratch the steel's surface. Steel Pads, wire Brushes, and Scrapers are prime examples.

2. Water

Water comes out of our tap in varying degrees of hardness. Depending on what part of the country you live in, you may have hard or soft water. Hard water may leave spots. Also, when heated, hard water leaves deposits behind that if left to sit, will break down the passive layer and rust your stainless steel. Other deposits from food preparation and service must be properly removed.

3. Chlorides

Chlorides are found nearly everywhere. They are in water, food and table salt. One of the worst perpetrators of chlorides can come from household and industrial cleaners.

Don't Despair! Here are a few steps that can help prevent stainless steel rust.

1. Use the Proper Tools

When cleaning your stainless steel products, take care to use non-abrasive tools. Soft Clothes and plastic scouring pads will NOT harm the steel's passive layer. Stainless steel pads can also be used but the scrubbing motion must be in the same direction of the manufacturer's polishing marks.

2. Clean With the Polish Lines

Some stainless steels come with visible polishing lines or "grain". When visible lines are present, you should ALWAYS scrub in a motion that is parallel to them. When the grain cannot be seen, play it safe and use a soft cloth or plastic scouring pad.

3. Use Alkaline, Alkaline Chlorinated or Non-chloride Containing Cleaners

While many traditional cleaners are loaded with chlorides, the industry is providing an ever increasing choice of non-chloride cleaners. If you are not sure of your cleaner's chloride content contact your cleaner supplier. If they tell you that your present cleaner contains chlorides, ask for an alternative. Also, avoid cleaners containing quaternary salts as they also can attack stainless steel & cause pitting and rusting.

4. Treat your Water

Though this is not always practical, softening hard water can do much to reduce deposits. There are certain filters that can be installed to remove distasteful and corrosive elements. Salts in a properly maintained water softener are your friends. If you are not sure of the proper water treatment, call a treatment specialist.

5. Keep your Food Equipment Clean

Use alkaline, alkaline chlorinated or non-chlorinated cleaners at recommended strength. Clean frequently to avoid build-up of hard, stubborn stains. If you boil water in your stainless steel equipment, remember the single most likely cause of damage is chlorides in the water. Heating cleaners that contain chlorides has a similar effect.

6. RINSE, RINSE, RINSE

If chlorinated cleaners are used you must rinse, rinse, rinse and wipe dry immediately. The sooner you wipe off standing water, especially when it contains cleaning agents, the better. After wiping the equipment down, allow it to air dry for the oxygen helps maintain the stainless steel's passivity film.

7. Never Use Hydrochloric Acid (Muriatic Acid) on Stainless Steel

8. Regularly Restore/Passivate Stainless Steel

User Information (Cont'd)

Cleaning Instructions

1. Turn temperature control knobs to OFF position.
2. Allow unit to cool completely.
3. Wipe entire unit with clean cloth and mild detergent.

The EXTERIOR surfaces of these hot tables must be cleaned with a mild detergent and warm water to protect and maintain their attractive finish. Never use abrasive cleaners or scouring pads.

TO REMOVE "BAKED-ON" SPLATTER, GREASE OR LIGHT DISCOLORATION TO STAINLESS STEEL.

CLEANSING AGENT

APPLICATION

Grade F Italian Pumice.....Scour or rub with damp cloth
Liquid NuSteel.....Scour with small amount on dry cloth

Paste NuSteel

Household Cleansers.....Rub with damp cloth

TO REMOVE HEAT TINT OR HEAVY DISCOLORATION

CLEANSING AGENT

APPLICATION

Allen Stainless Steel Polish.....Small amount on damp cloth

Birdsall "Staybright"Rub with damp cloth

Wyandotte

Bab-O

Nusteel.....Rub with stainless steel wool

Plexiglass and Acrylic Care

Cleaning

Clean with plenty of nonabrasive soap (or detergent) and lukewarm water, using the bare hand to feel and dislodge any caked-on dirt. A soft, grit-free cloth, sponge, or chamois may be used, but only as a means of carrying the water to the plastic. Dry with a clean damp chamois or clean soft cloth such as cotton flannel. Hard, rough cloths or paper towels will scratch the acrylic and should not be used.

Waxing

If after removing dirt and grease, the acrylic can be waxed with a good grade commercial wax. This will improve the appearance of the surface by filling in most minor scratches. Wax should be applied in a thin even coat, and brought to a high polish by rubbing lightly with a dry clean soft cloth, such as a cotton flannel. Excessive rubbing may cause scratching and/or buildup an electrostatic charge, which attracts dust and dirt to the surface. Blotting with a clean damp cloth is recommended to remove charge.

Antistatic Coatings

For acrylic used indoors, antistatic coatings successfully prevent the accumulation of electrostatic charge for periods of several months, if the surface is not washed or wiped down with a wet cloth. Between applications of the antistatic coatings, the parts need only be dusted with a soft clean cloth to maintain a good appearance. In use, liquid antistatic coatings should be applied in a very thin even coat. If beads appear as it is applied, the coat is too thick and the excess should be removed with another cloth. Allow the coating to dry, then bring to a high gloss with a soft cloth.

Cleaning Precautions

CAUTION

CLEANING PRECAUTIONS

When cleaning:

- Do not use high pressure water hoses
- Do not introduce water faster than waste outlet can drain
- NEVER INTRODUCE WATER ON SELF CONTAINED UNIT WITH AN EVAPORATOR PAN
- NEVER USE A CLEANING OR SANITIZING SOLUTION THAT HAS AN OIL BASE (these will dissolve the butyl sealants) or an AMMONIA BASE (this will corrode the copper components of the case)
- TO PRESERVE THE ATTRACTIVE FINISH:
- DO USE WATER AND A MILD DETERGENT FOR THE EXTERIOR ONLY
- DO NOT USE A CHLORANITED CLEANER ON ANY SURFACE
- DO NOT USE ABRASIVES OR STEEL WOOL SCOURING PADS (these will mar the finish)

7. Maintenance



DANGER

ALWAYS DISCONNECT ELECTRICAL POWER AT THE MAIN DISCONNECT WHEN SERVICING OR REPLACING ANY ELECTRICAL COMPONENT. This includes (but not limited to) Fans, Heaters, Thermostats, and Lights.

Replacing Overhead Heat Lamps

Overhead Halogen and Merco lamps are designed to last through many hours of use. Should there be a need to replace one, it is as simple as replacing a standard fluorescent light bulb.



CAUTION

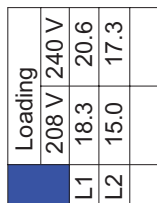
The Heat lamps used in these cases get EXTREMELY HOT! NEVER touch a lamp until the case has had ample time to cool down! It is also highly recommended to handle lamps with gloves or use a cloth rag - not just for the heat factor, but also the oils in your fingers will drastically shorten the life of the lamp.

1. Turn light switch to OFF before replacing any lighting components.
2. Disconnect light fixture by removing power cord from socket in the right rear interior corner of the merchandiser.
3. Place the shelf on a flat surface to remove the clear plastic protective shield from the fixture. Carefully insert one finger between the fixture socket and the protective shield. Use other hand to “pinch” lens cover (and simultaneously hold the fixture in place) while lifting with inserted finger. When shield separates from fixture at one end, remove it by SLOWLY pulling remainder of shield away from fixture.
4. Remove lamp by depressing spring loaded socket at end of fixture, and swinging opposite end of lamp from it's former position.
5. Using gloves or covering for lamp, insert new lamp into spring loaded socket, depressing socket until opposite end of lamp properly enters stationary light socket.
6. Return lamp to original position by lightly pinching it in from each side, and inserting shield flanges into fixture channel. Continue process along length of lamp shield until it is in it's final proper position.
7. Return lamp to original position by lightly pinching it in from each side, and inserting shield flanges into fixture channel. Continue process along length of lamp shield until it is in it's final proper position.

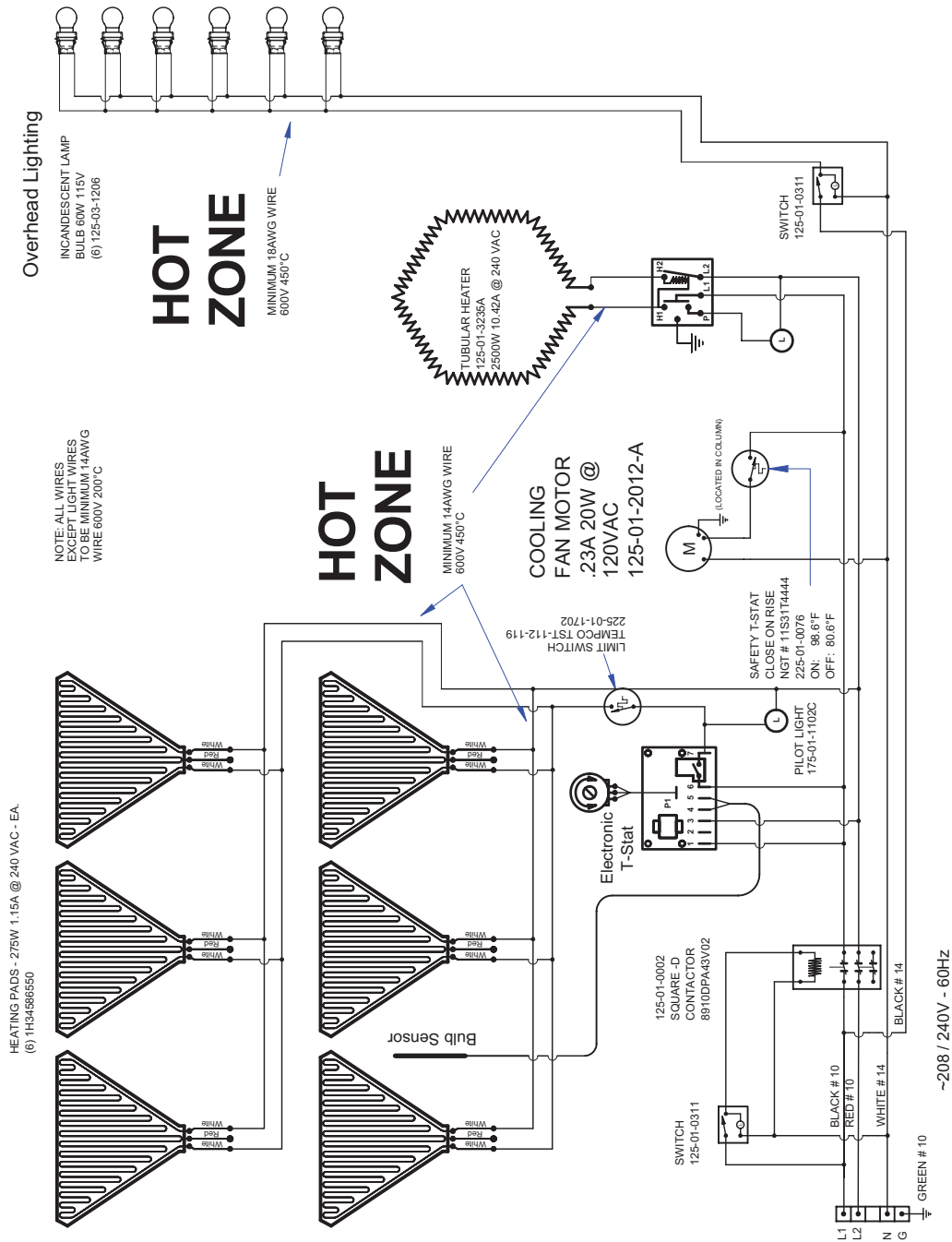
8. Electrical Wiring Diagrams

RHR-HEX	RHR-HEX	4'	W6100012
		5' 6"	W6100002
		4'	W6100020
		6'	W6100015
	RHR-Square	4'	W6100005

9. Wiring Diagrams



3806W @ 208VAC
4944W @ 240VAC



Revisions:		By:	Date:
No.	Description:		
B	Update dwg; add limiters to griddle circuit; revise load ratings	JR	10/23/08
C	Add wire temperature ratings on dwg	JR	1/16/09
D	Change heater pads to 1.5W/in ²	JR	2/19/10

Hussmann Corporation
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Chino, CA. 91710
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Lic #: 644406

Project Title: RHR-Hex-4' basic

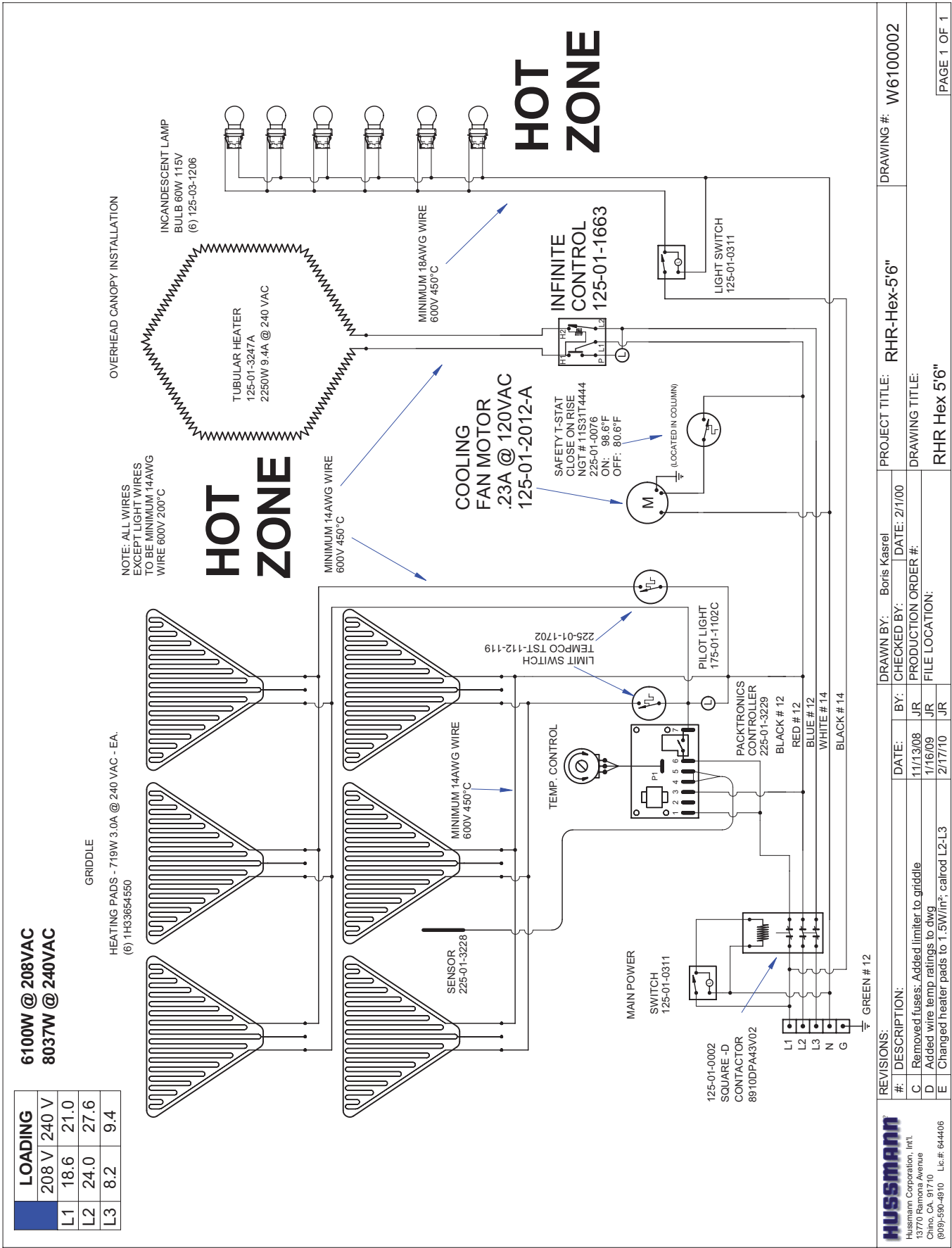
Drawn By: D.Q.UAN
Checked By:
Date: 06.12.2000
Next Assembly: final

Project Title: RHR-Hex-4" basic

Drawing Title: RHR Hex 4" Case Wiring

Drawing No.:
W6100012
Sheet 1 of 1

Wiring Diagrams (Cont'd)



Wiring Diagrams (Cont'd)

4451W @ 208VAC
5760W @ 240VAC

LOADING		208 V	240 V
L1	21.4	24.0	
L2	16.8	19.4	

HOT ZONE

NOTE: CASE MUST BE GROUNDED

HEATING PADS - 275W 1.15A @ 240 VAC - EA.
(6) 1H34586550

GRIDDLE

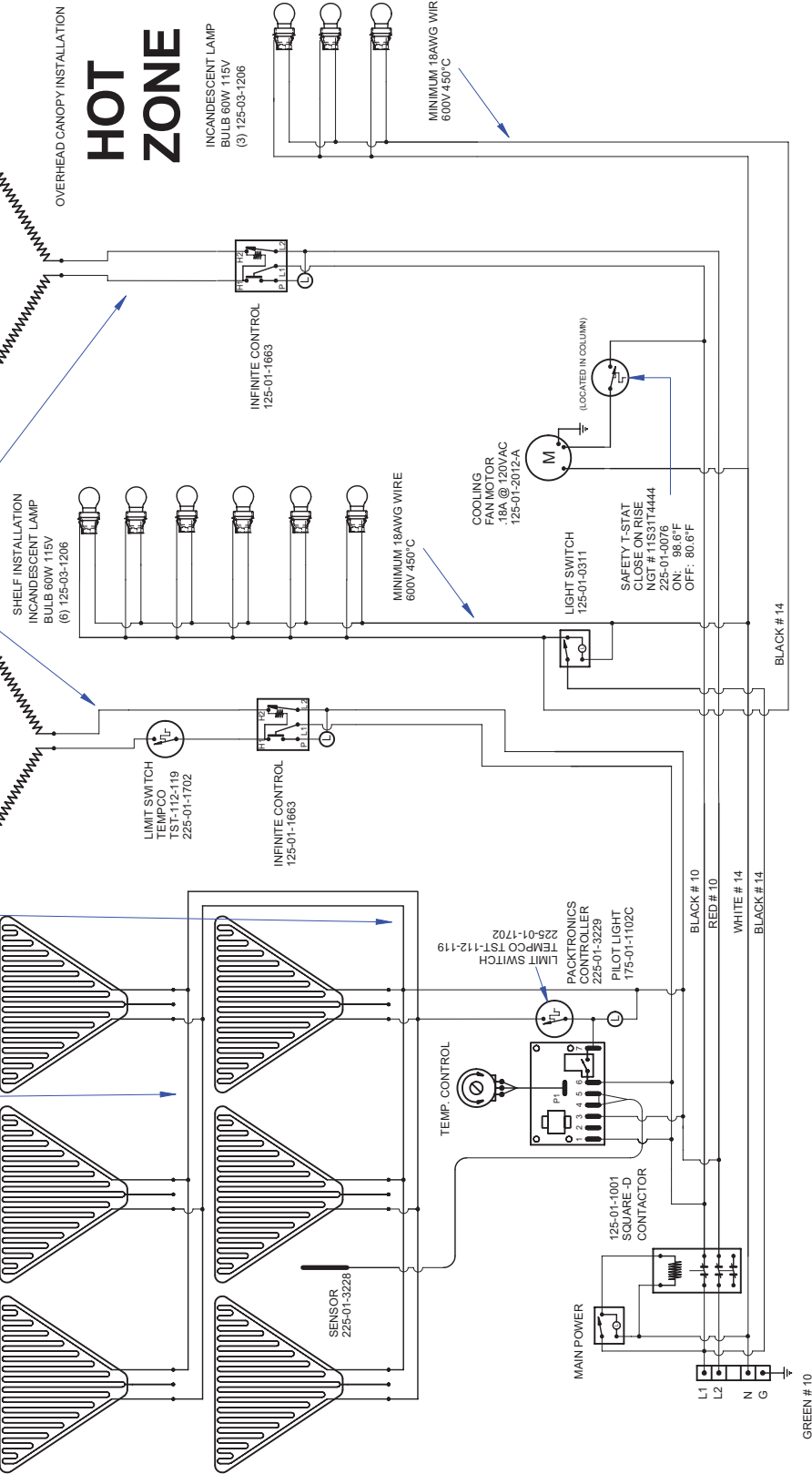
MINIMUM 14AWG WIRE
600V 450°C

MINIMUM 14AWG WIRE
600V 450°C

HOT ZONE

NOTE: ALL WIRES EXCEPT LIGHT WIRES TO BE MINIMUM 14AWG WIRE 600V 200°C

TUBULAR HEATER
125-01-1006A
1800W 7.5A 240 VAC



HUSSMANN
Hussmann Corporation, Inc.
13770 Remond Avenue
Chino, CA 91710
(909) 590-4910 Lic.# 644406

REVISIONS:

#	DESCRIPTION:	DATE:	BY:
E	Added wire temp. ratings to dwg.	1/16/09	JR
F	Remove 225-01-1702 from caloids; add inf. switch	1/23/09	JR
G	Change heaters pads to 1.5W/in ² ; add limiter to shelf	2/19/10	JR

DRAWN BY: D QUAN

CHECKED BY: JR

DATE: 08/05/05

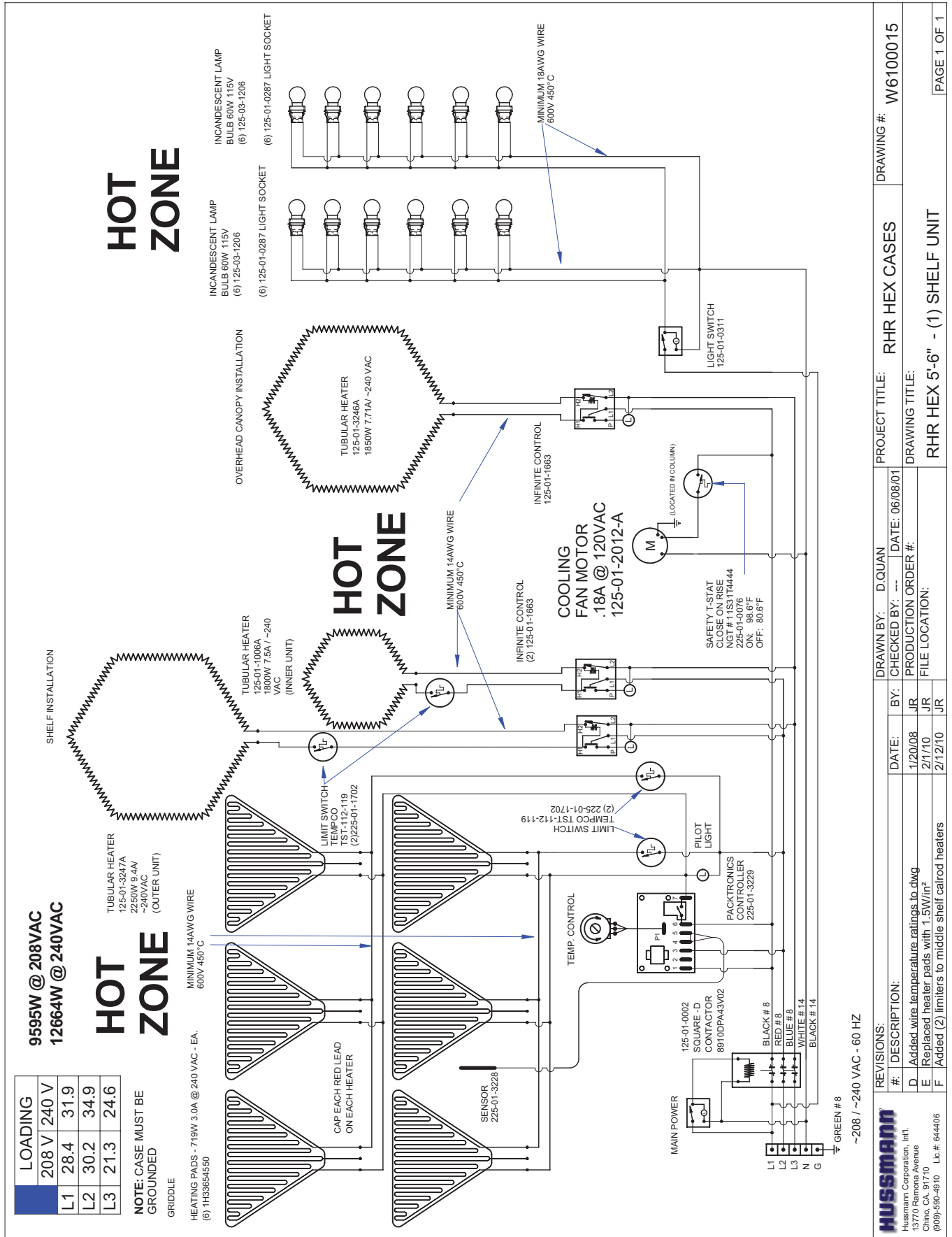
PROJECT TITLE: RHR-HEX-2 HEX CASES

DRAWING TITLE: RHR-HEX-2-4' CASE W/ SHELF UNIT

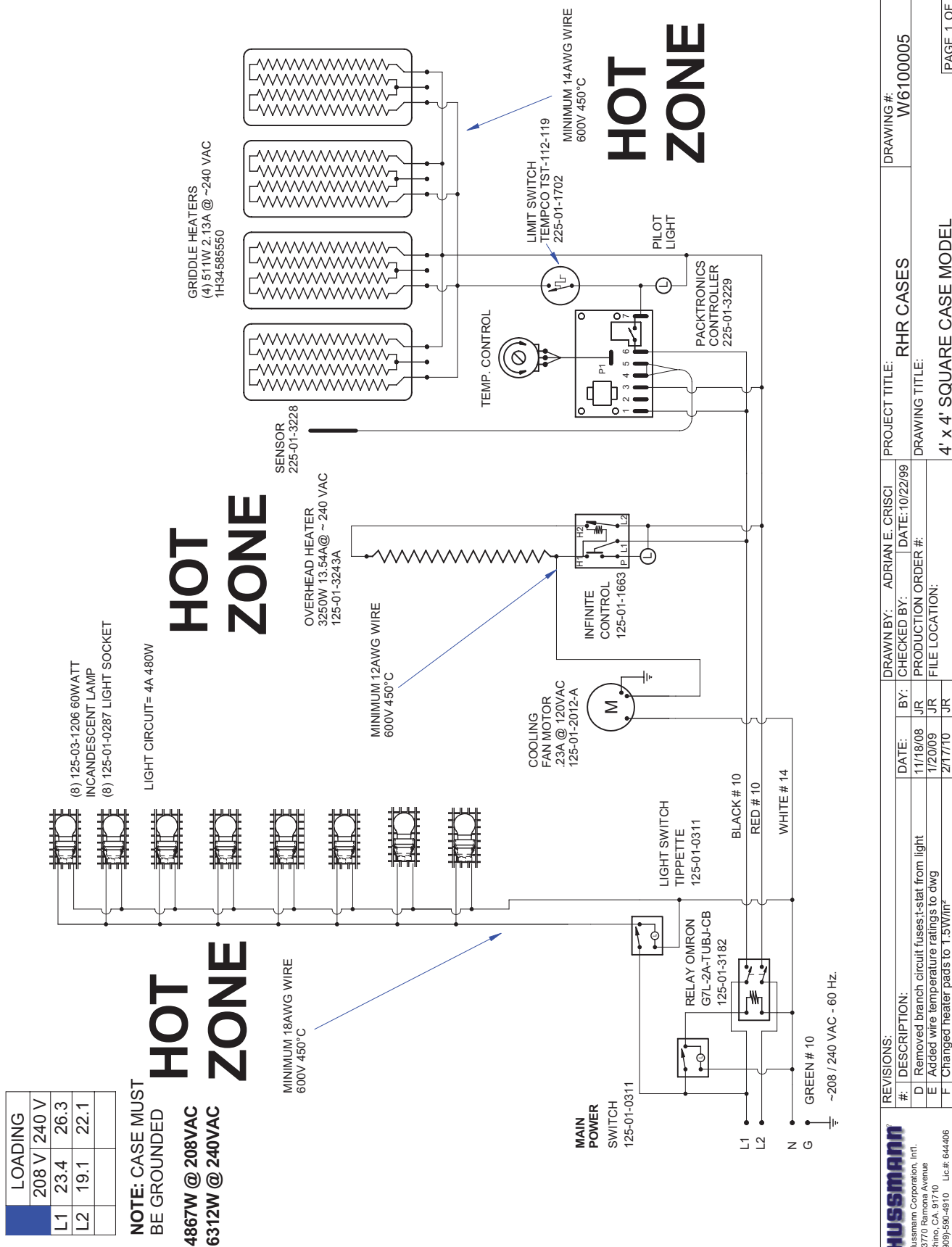
DRAWING #: W6100020

PAGE 1 OF 1

Wiring Diagrams (Cont'd)



Wiring Diagrams (Cont'd)



10. Troubleshooting Guide

Problem	Possible Cause	Possible Solution
Product not holding temperature.	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°F.
	Unit not preheated.	Preheat case before loading product.
	Heat settings too low	Adjust shelf/griddle control setting.
	Low voltage.	Using volt meter make sure line voltage matches serial plate voltage.
	Product held too long	Hold product for recommended time.
	Product not placed correctly in case.	Place product in case per recommendations.
	Product not hot when placed in case.	Place prepackaged hot food in case.
No shelf heat.	Faulty shelf heater.	Check and replace if necessary.
	Faulty control.	Check and replace if necessary.
	Loose wiring on heater.	Check wiring/electrical connections.
	Temperature setting "Off".	Increase shelf heat setting.
No griddle heat.	Faulty griddle heater.	Check and replace if necessary.
	Faulty control.	Check and replace if necessary.
	Loose wiring on heater.	Check wiring/electrical connections.
	Temperature setting "Off".	Increase griddle heat setting.
No hot/soup well heat.	Faulty hot/soup well.	Check and replace if necessary.
	Loose wiring on hot/soup well.	Check wiring/electrical connections.
Main Power switch on but case is inoperative.	Open Circuit.	Check to see that cord is plugged in if plug is provided. Check wiring/electrical connections for hard wired cases. Check line voltage. Check power switch and replace if defective.
Condensation on 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°F.
	Inadequate air circulation.	Check if air sweep fans are functioning, check electrical connections.
	There is not enough heat provided in the airflow.	Check if air sweep heater is functioning, check electrical connections.
	There are glass gaps on the side of the case.	See glass adjustment section.
	Glass is not completely shut.	Close glass correctly.
	Calrods may not be working.	Check calrod operation.
	Well control setting is too high.	Check that well setting is not above "7" on control knob.

Troubleshooting Guide (Cont'd)

Problem	Possible Cause	Possible Solution
Large gap is visible on bottom of front glass or glass can't be opened because it is too low.	Glass Height adjusters need to be adjusted.	See Glass Adjustment section.
Large gaps are visible in between glass panels or glass rubs against end panel.	Glass/glass clamp assembly needs to be adjusted.	See Glass Adjustment section.
Front glass does not stay open and falls closed.	Glass shock/piston may need to be replaced.	Case should be serviced by a qualified service technician.
Lights do not come on.	Ballast/light socket wiring.	Check electrical connections. See Electrical Section and check wiring diagram.
	Ballast needs to be replaced.	Case should be serviced by a qualified service technician. See Electrical Section.
	Lamp socket needs to be replaced.	Case should be serviced by a qualified service technician.
	Lamp needs to be replaced.	See Maintenance Section.
	Light Switch needs to be replaced.	Case should be serviced by a qualified service technician.

11. Appendices

Appendix A. - Temperature Guidelines

- 1.0 Hot cases are tested to maintain all hot food at 140°F - 150°F. These cases are not designed to heat up or cook food. It is the user's responsibility to stock the hot food cases immediately after the cooking of the food with a pulp temperature of at least 150°F to 160°F.

All griddle type units are designed to maintain temperatures above the FDA guideline of 140°F. This is product temperature, not air or griddle temperature. Due to the open design of these units, they must be loaded with product for proper operation. When units are empty, they experience rapid rise of heated air from air outside the case. This action gives empty units a false, lower than desired, temperature reading. Loading the case traps the air at the griddle, raising temperatures to the 165°F to 185°F range, keeping product well above the FDA guidelines. Remember, these units must be loaded with product to maintain safe product temperature.

Appendix B. - Application Recommendations

- 1.0 The installer should perform a complete start-up evaluation prior to the loading of food into the hot food case, which includes such items as:
- a) Initial temperature performance, Griddles and Hot Wells.
 - b) Observation of outside influences such as drafts, radiant heating from the ceiling and from lamps. Such influence should be properly corrected or compensated for.
 - c) Complete start-up procedures should include
 1. Heat/display lamps are lighting.
 2. Indicator lamps on control panel(s) are working
 3. Auto-fill is functioning properly (Service cases)
 4. Hot Griddles are functioning.

Appendix C. - Field Recommendations

- 1.0 The most consistent indicator of display hot case performance is temperature of the product itself.

NOTE: Public Health will use the temperature of the product in determining if the hot case will be allowed to display potentially hazardous food. For the purpose of this evaluation, product temperature above the FDA Food Code 1993 temperature for potentially hazardous food will be the first indication that an evaluation should be performed. It is expected that all hot case will keep food at the FDA Food Code 1993 temperature for potentially hazardous food.

- 1.1 The following recommendations are made for the purpose of arriving at easily taken and understood data which, coupled with other observations, may be used to determine whether a hot case is working as intended:
- a) **INSTRUMENT** - A stainless steel stem-type thermometer is recommended and it should have a dial a minimum of 1 inch internal diameter. A test thermometer scaled only in Celsius or dually scaled in Celsius and Fahrenheit shall be accurate to 1°C (1.8°F). Temperature measuring devices that are scaled only in Fahrenheit shall be accurate to 2°F. The thermometer should be checked for proper calibration. (It should read 32°F when the stem is immersed in an ice water bath).
 - b) **LOCATION** - The thermometer must be inserted into the food itself to acquire proper food pulp temperature.
 - c) **READING** - The thermometer reading should be made only after it has been allowed to stabilize, i.e., maintain a constant reading. Loading Product: Cases should be allowed to heat up for one hour before product is loaded. Temperature adjustments: Allow 4 hours after adjustment has been made before testing pulp temperature of product.
 - d) **OTHER OBSERVATIONS** - Other observations should be made which may indicate operating problems, such as unsatisfactory product, feel/appearance.

Appendices (Cont'd)

Appendix D. - Recommendations to User

1.0 The manufacturer should provide instructions and recommendations for proper periodic cleaning.

The user will be responsible for such cleaning, including the cleaning of equipment within the compartment and the hot area(s). Cleaning practices, particularly with respect to proper refrigerator unloading and warm-up, must be in accordance with applicable recommendations.

1. Allow the case to preheat for one hour prior to loading.
2. Hot foods should enter the case directly after cooking or no lower than 150° - 160°F. The Hot Cases are not designed to heat up or cook food.
3. Self Service - be sure to display product in single layer in direct contact with heating surface.
4. All griddle type units are designed to maintain temperatures above the FDA guideline of 140°F. This is product temperature, not air or griddle temperature. Due to the open design of these units, they must be loaded with product for proper operation. When units are empty, they experience rapid rise of heated air from air outside the case. This action gives empty units a false, lower than desired, temperature reading. Loading the case traps the air at the griddle, raising temperatures to the 165°F to 185°F range, keeping product well above the FDA guidelines. Remember, these units must be loaded with product to maintain safe product temperature.
5. Check the food pulp temperature frequently with a thermometer to make sure it is at the proper holding temperature. Hot foods should be at 140°F. The thermometer must be inserted into the food itself for the proper temperature.

6. Do not display more food than will be sold within a 4 hour period.
7. When restocking, bring older food to the front, and stock fresher food on top.
8. Clean spills as soon as they happen.
9. Fingerprints and food splatter will drastically shorten bulb life. Clean splatter off the bulbs immediately with a soft cloth. When handling bulbs, wear cotton gloves or use a cotton rag/towel.
10. When "freshening" foods such as macaroni and cheese with added water, heat the water in a clean container until it is 10°F to 20°F above the desired holding temperature of the food. This will keep the food at a safe serving temperature. Depending on the amount of water, the temperature can drop 10°F to 20°F in as little as five minutes.
11. When transferring hot foods in the heated merchandiser to clean pans, preheat the clean pan. Transferring hot foods to room temperature pans can cause the temperature of the food to drop 20°F or more thus causing food to be at an unsafe serving temperature.
12. Clean spills as they happen simply by wiping with a cloth. Be sure to use a dry cloth on very hot surfaces to prevent steam burns.
13. Turn the equipment off and allow to cool before cleaning.
14. To remove "baked-on" splatter from Stainless Steel, the following may be used

Grade F Italian Pumice	Scour or rub with a damp cloth
Liquid NuSteel	Scour with a small amount of a dry cloth
	Paste NuSteel
Household Cleaners	Rub with a damp cloth
Coopers Stainless Steel Cleaner	
Allen Stainless Steel Polish	

Service Record

Last service date:	By:
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The *MODEL NAME* and *SERIAL NUMBER* is required in order to provide you with the correct parts and information for your particular unit.
They can be found on a small metal plate on the unit.
Please note them below for future reference.

MODEL:

SERIAL NUMBER:
