OPERATOR'S MANUAL

INFRARED HEATSINK™ HOLDING UNITS



U.S. and Foreign Patents Pending

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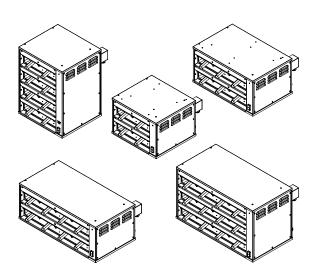
IRHSE22-V

IRHSE23-V

IRHSE24-V

IRHSE42-V

IRHSE34-V



MODELS

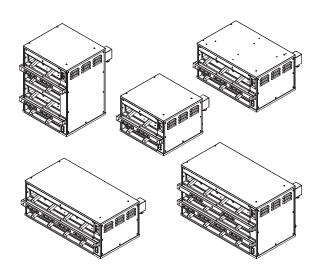
IRHSE22-T

IRHSE23-T

IRHSE24-T

IRHSE42-T

IRHSE34-T



IMPORTANT INFORMATION, READ BEFORE USE. PLEASE SAVE THESE INSTRUCTIONS.

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MANUFACTURER'S INTRODUCTION

The IRHSE Holding Unit was developed specifically to address the needs of restaurant operations and profitability. Extended hold times with improved food quality and consistency were achieved through the **innovative integration of three proven, patented Duke technologies: Ethernet communications, HeatSink** and InfraRed. This gives you the ability to precisely control the environment in each pan, allowing customized settings for each food product. These technologies give you the ability to maintain gold standard sensory attributes at significantly extended hold times while delivering hotter food to your customers.

There are two IRHSE models: IRHSE-V and IRHSE-T. The IRHSE-V model provides an enhanced user interface (via a panel) and expanded product management functionality. The IRHSE-T model provides a standard timer bar user interface and daypart switch. Both models provide the same extended hold time and ethernet communications functionality.

In addition to providing the most robust and reliable solution technically possible, we also made the following improvements from the previous FWM PHU model:

- Upgraded to a more robust Duke timer bar and control system on IRHSE-T models
- Introduced the ViSOR[™] panel device on the IRHSE-V models to serve as both an advanced user interface and also the communication device to the larger Duke ViSOR[™] system
- Eliminated plastic lids and replaced with a robust Pan HeatSink™ Cover for broiled foods
- Eliminated grease migration concerns
- Eliminated plastic faceplate and plastic lid capture system

Throughout this manual, you will uncover more details about the benefits and advantages that the Duke IRHSE will bring to your restaurant. Thank you for your purchase and as always, your feedback is appreciated.

IMPORTANT SAFETY INSTRUCTIONS

Throughout this manual, you will find the following safety words and symbols that signify important safety issues with regards to operating or maintaining the equipment.



Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



Indicates Important Information



Indicates electrical shock hazard which, if not avoided, could result in death or serious injury and/or equipment damage.



Indicates hot surface which, if not avoided, could result in minor or moderate injury.

In addition to the warnings and cautions in this manual, use the following guidelines for safe operation of the unit.

- Read all instructions before using equipment.
- For your safety, the equipment is furnished with a properly grounded cord connector. Do not attempt to defeat the grounded connector.
- Install or locate the equipment only for its intended use as described in this manual.
- Do not use corrosive chemicals in this equipment.
- Do not operate this equipment if it has a damaged cord or plug, if it is not working properly, or if it has been damaged or dropped.
- This equipment should be serviced by qualified personnel only. Contact the nearest Duke authorized service facility for adjustment or repair.
- Do not block or cover any openings on the unit.
- Do not immerse cord or plug in water.
- Keep cord away from heated surfaces.
- Do not allow cord to hang over edge of table or counter.

The following warnings and cautions appear throughout this manual and should be carefully observed.

- Turn the unit off, disconnect the power source and allow unit to cool down before performing any service
 or maintenance on the unit.
- The procedures in this manual may include the use of chemical products. You must read the Material Safety Data Sheets before using any of these products.
- The unit should be grounded according to local electrical codes to prevent the possibility of electrical shock. It requires a grounded receptacle with dedicated electrical lines, protected by fuses or circuit breaker of the proper rating, in accordance with all applicable regulations.
- Disposal of the unit must be in accordance with local environmental codes and/or any other applicable codes.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

INSTALLATION

UNPACKING UNIT

Inspect the shipping carton and/or container, carefully noting any exterior damage on the delivery receipt; also note any damage not evident on the outside of the shipping container (concealed damage). Contact the carrier immediately and file a damage claim with them. Save all packing materials when filing a claim. Freight damage claims are the responsibility of the purchaser and are not covered by the warranty.

- Follow the instructions on the Carton Box for unpacking the unit.
- Inspect unit for damage such as, broken glass, etc.
- Report any dents or breakage to source of purchase immediately.
- Do not attempt to use unit if damaged.
- Remove all materials from unit interior.
- If unit has been stored in extremely cold area, wait a few hours before connecting power.

INSTALLATION CODES AND STANDARDS

In the United States, the IRHSE must be installed in accordance with the following:

- State and local codes.
- 2. National Electrical Code (ANSI/NFPA No. 70, latest edition) available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.
- 3. Vapor Removal from Cooking Equipment, (NFPA-96, latest edition) available from NFPA.
- 4. Sealed to the counter upon which the equipment is placed per NSF/ANSI 4 standard.

In Canada, the IRHSE must be installed in accordance with the following:

- 1. Local codes.
- 2. Canadian Electrical Code (CSA C22.2 No. 3, latest edition) available from the Canadian Standards Association, 5060 Spectrum Way, Mississauga, Ontario, Canada L4W 5N6.

UNIT PLACEMENT

- Do not install unit next to, below or above source of heat such as oven or deep fat fryer.
- Install unit on level counter top surface.
- Outlet should be located so that plug is accessible when the unit is in place.
- Do not install unit in the direct path of air-conditioned airflow.

The following minimum clearances must be maintained between the warmer and any combustible or non-combustible substance:

Unit	Clearance
Right Side	0"
Left Side	0"
Rear	OPEN
Floor	0"

Proper airflow around unit will cool the electrical components. With restricted airflow, the unit may not operate properly and the life of the electrical components may be reduced.

AWARNING /



ELECTRICAL SHOCK HAZARD UNIT MUST BE SAFETY GROUNDED, EARTHED. DO NOT MODIFY, DEFEAT ELECTRICAL CONNECTIONS OR ALTER PLUG.

ELECTRICAL CONNECTIONS

A WARNING BEFORE CONNECTING THE UNIT TO THE POWER SOURCE, VERIFY THAT THE VOLTAGE AND PHASE OF THE POWER SOURCE ARE IDENTICAL TO THE VOLTAGE AND PHASE INFORMATION ON THE DATA LABEL.

EARTHING INSTRUCTIONS

THE UNIT MUST BE GROUNDED. Grounding reduces risk of electric shock by providing an escape wire for the electric current if an electrical short occurs. This unit is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into a receptacle that is properly installed and grounded.

Consult a qualified electrician or service agent if grounding instructions are not completely understood, or if doubt exists as to whether the unit is properly grounded.

DO NOT USE AN EXTENSION CORD. If the product power cord is too short, have a qualified electrician install a three-slot receptacle (or the country specific receptacle for International Units). This unit should be plugged into a dedicated circuit with the electrical rating as provided on the product data plate.

IRHSE CONNECTIONS

STEP 1: REMOVE 2 SCREWS SECURING COVER BOX TO ETHERNET CONNECTOR PLATE.



STEP 4: PLUG ETHERNET CABLE INTO RECEPTACLE OF REAR CONNECTOR PLATE.



STEP 2:
ROUTE ETHERNET
CABLE THROUGH
STRAIN RELIEF
NUT THEN STRAIN
RELIEF BODY
INTO BOX. LEAVE
APPROX. 6" OF
ETHERNET CABLE
INSIDE OF COVER
BOXASASERVICE
LOOP.



STEP 5: CONFIRM THAT ETHERNET CABLE IS NOT PINCHED BETWEEN COVER AND REAR PLATE, SECURE WITH 2 SCREWS AND TIGHTEN.



STEP 3:
INSTALL THE SPLIT
RUBBER SLEEVE
OVER THE CABLE,
INSERT INTO STRAIN
RELIEF BODY,
THREAD ON NUT AND
TIGHTEN.



STEP 6:
CONNECT EXTERNAL
ETHERNET CABLE (CAT5E
OR BETTER) FROM REAR
ON IRHSE TO INTERSECT™
OR VISOR™ DNA. REFER
TO YOUR PRODUCT
MANAGEMENT SYSTEM'S
OPERATIONS MANUAL
FOR MORE INFORMATION.



TEMPERATURE VERIFICATION

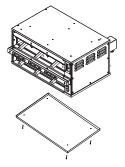
TEMPERATURE CHECK PROCEDURE

- A digital temperature meter that has been calibrated must be used to get an accurate temperature reading. Use a thermocouple surface temperature probe to measure temperatures.
- 2. No pans should be in wells during the pre-heat and temperature check. Pre-heat the warmer for 30 minutes before taking any temperature readings. Do not take readings unless the cavity has been empty for 30 minutes. This will allow the temperature to stabilize and will prevent false readings.
- 3. The warmer cavity should be cleaned and empty before the temperature is checked. Avoid any air drafts that might flow through the cavity.
- 4. Locate the surface temperature probe in the center of each pan location.
- 5. All temperature controls exhibit a swing in temperature as the control cycles on and off while regulating to the set point. The correct calibration temperature is the average of several readings taken over a period of 20 minutes after the warmer has been pre-heated. The average temperature should be no greater than ± 5°F (± 3°C) from the set point.

STACKING UNITS

The IRHSE Holding Unit is designed to allow limited stacking capabilities. This section outlines how to safely stack the holding unit.

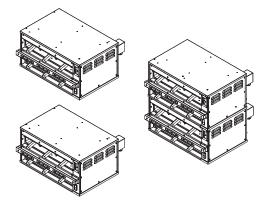
Step 1



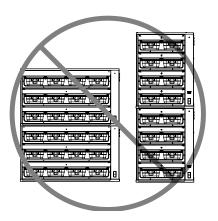
Remove the base pan from the unit that will be on top. The pan is held in place by four screws on the bottom of the unit.

Step 2

Place bottom unit into position then stack the next unit on top. The top of the lower holding unit rests inside of the base of the upper unit.



A WARNING TIP HAZARD! DO NOT STACK IRHSE42 OR IRHSE34 UNITS. DO NOT EXCEED 2 HOLDING UNITS PER STACK. DO NOT PLACE HOLDING UNIT STACKS ON SURFACES THAT MAY EASILY TIP OVER.



PROPER USE OF HEAT SINK COVERS & PAN TRIVETS

Each IRHSE is provided with pan covers and pan trivets to maximize food quality and hold times. Proper usage of each is important and is outlined below:

Product Type	Duke Pan Heat Sink Cover	Duke Metal Pan Trivet
Broiled	yes	no
Fried	no	yes

Consult your Kitchen Operations Manual for any modifications to the above based on your specific food requirements.

CLEANING GUIDE

or hose.

ACAUTION Electrical shock hazard. Do not wash with water jet

DO NOT USE CAUSTIC CLEANERS, ACIDS, AMMONIA PRODUCTS OR ABRASIVE CLEANERS OR ABRASIVE CLOTHS. THESE CAN DAMAGE THE STAINLESS STEEL AND PLASTIC SURFACES.

AWARNING



Bottom and sides of warmer wells are very hot and

cool slowly.

DAILY CLEANING

Stainless Steel Surfaces

To prevent discoloration or rust on stainless steel several important steps need to be taken. Stainless steel contains 70-80% iron which will rust. It also contains 12-30% chromium which forms an invisible passive film over the steel surface which acts as a shield against corrosion. As long as the protective layer is intact, the metal will not corrode. If the film is broken or contaminated, outside elements can begin to breakdown the steel and begin to form rust or discoloration.

Proper cleaning of stainless steel requires soft cloths or plastic scouring pads.

A CAUTION

Never use steel pads, wire brushes or scrapers.

Cleaning solutions need to be alkaline based or nonchloride cleaners. Any cleaner containing chlorides will damage the protective film of the stainless steel. Chlorides are also commonly found in hard water, salts and household and industrial cleaners. If cleaners containing chlorides are used, be sure to rinse repeatedly and dry thoroughly upon completion.

Routine cleaning of stainless steel can be done with soap and water. Extreme stains or grease should be cleaned with a non-abrasive cleaner and plastic scrub pad. It is always good to rub with the grain of the steel. There are also stainless steel cleaners available which can restore and preserve the finish of the steels protective layer.

Early signs of stainless steel breakdown can consist of small pits and cracks. If this has begun, clean thoroughly and start to apply stainless steel cleaners in an attempt to restore the passivity of steel.

A WARNING NEVER USE AN ACID **BASED CLEANING SOLUTION! MANY** FOOD PRODUCTS HAVE AN ACIDIC CONTENT WHICH CAN DETERIORATE THE FINISH. BE SURE TO CLEAN ALL FOOD PRODUCTS FROM ANY STAINLESS STEEL SURFACE. COMMON ITEMS INCLUDE, TOMATOES, PEPPERS AND OTHER VEGETABLES.

A WARNING THE POWER MUST BE TURNED OFF AND DISCONNECTED AT ALL TIMES WHEN PERFORMING MAINTENANCE OR REPAIR FUNCTIONS.

CAUTION NEVER USE A HIGH-PRESSURE WATER WASH FOR THIS CLEANING PROCEDURE AS WATER CAN DAMAGE ELECTRICAL COMPONENTS

CAUTION ELECTRICAL SHOCK HAZARD. DO NOT WASH WITH WATER JET OR HOSE.

DANGER GLASS: INSPECT GLASS DAILY FOR CHIPS, CRACKS, OR BREAKING. DISCARD ALL FOOD AND NOTIFY MANAGER IF ANY CHIPS, CRACKS, OR BROKEN GLASS ARE FOUND. DO NOT USE EQUIPMENT. ALL GLASS MUST BE IN GOOD CONDITION BEFORE USING EQUIPMENT TO HOLD FOOD.

RECOMMENDED SUPPLIES

Cleaning Towels

Non-Scratch Scrub Pad

KAY™ Degreaser

KAY® SINK SANITIZER, KAYQUAT™ Sanitizer, or compatible sanitizer

PROCEDURE

- Turn unit off, unplug, and allow to cool for 30 minutes.
- 2. Remove all holding pans and heat sink covers. Wash, rinse, and sanitize at the 3-compartment sink.
- 3. Allow to air dry.
- Spray a cleaning towel, or non-scratch scrub pad when necessary, with soapy solution or KAY™ Degreaser. Fully clean upper glass surfaces by hand, as well as lower heat sink surfaces.

IMPORTANT: Use clean, sanitizer-soaked towels (Important: towels must be wrung out so that they are damp and not dripping, dripping towels may harm the unit.)

DAILY INSPECTION CHECKLIST:

- Inspect glass for chips, cracks, or breaking.
 Make sure that:
- Unit is free of any visible food soils.
- Unit is free of grease or soils in holding compartment.
- Exterior of unit is free of smudges or soil.
- Holding pans are free of any food soil residue.
- Pans are free of damage such as cracks.

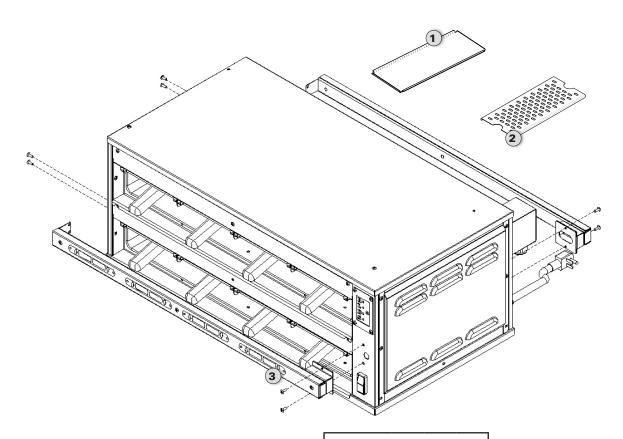
A CAUTION

Take care when reaching in the cabinet. Pan and lid guides present sheet metal edges which could be sharp.

NOTE: Never spray cleaning solution directly onto the cabinet.

- If daily cleaning is performed routinely, deeper, more aggressive, cleaning methods can be avoided. Over longer periods of time, fried food product can accumulate and bake on to the upper glass surfaces of the compartments.
- 6. Use a sanitizer-soaked towel and wipe out all compartments on the holding unit. Wipe top compartments first, and then lower compartments.

PARTS LIST AND ILLUSTRATIONS



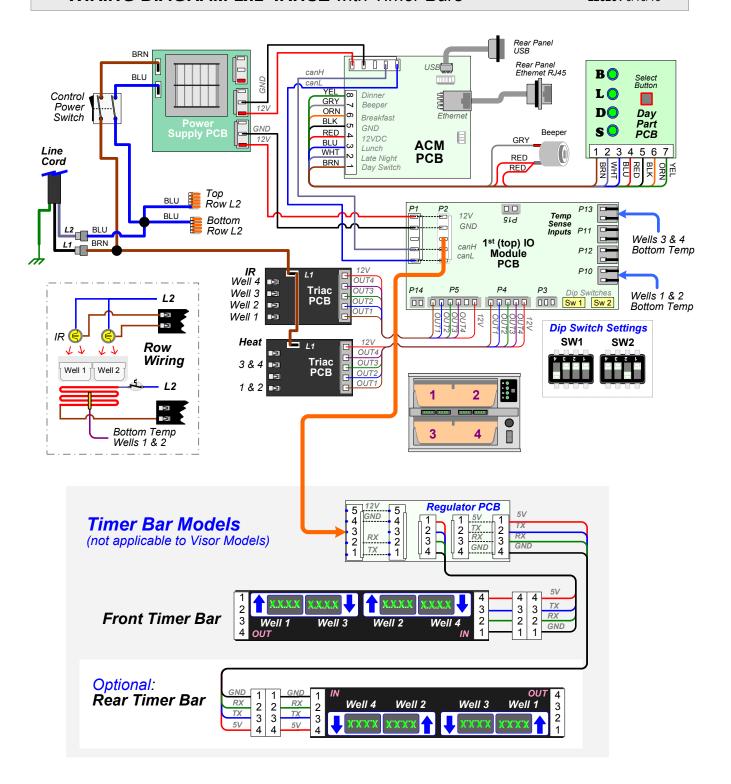
			Qty Per Unit				
	P/N	Part	2X2	2X3	2X4	4X2	3X4
0	166011	LID	AR***	AR***	AR***	AR***	AR***
2	E30951	TRIVET PAN	AR***	AR***	AR***	AR***	AR***
3	1059-0526	2X2 TIMER BAR FRONT ASY MENU BAR 2W	1	NA	NA	NA	NA
	1059-0526	2X2 TIMER BAR REAR ASY MENU BAR 2W	1	NA	NA	NA	NA
	1059-0560	2X3 TIMER BAR FRONT ASY MENU BAR 3W	NA	1	NA	NA	NA
	1059-0560	2X3 TIMER BAR REAR ASY MENU BAR 3W	NA	1	NA	NA	NA
	1059-0512	2X4 TIMER BAR FRONT ASY MENU BAR 4W	NA	NA	1	NA	NA
	1059-0512	2X4 TIMER BAR REAR ASY MENU BAR 4W	NA	NA	1	NA	NA
	1059-0526	4X2 TIMER BAR FRONT ASY MENU BAR 2W	NA	NA	NA	2	NA
	1059-0526	4X2 TIMER BAR REAR ASY MENU BAR 2W	NA	NA	NA	2	NA
	1059-0518	3X4 TIMER BAR FRONT ASY TOP MENU BAR 4W	NA	NA	NA	NA	1
	1059-0512	3X4 TIMER BAR BOTH ASY BOTTOM MENU BAR 4W	NA	NA	NA	NA	1 or 2
	1059-0523	3X4 TIMER BAR REAR ASY TOP REAR MENU BAR 4W	NA	NA	NA	NA	1

IRHSEWIRING SCHEMATICS FOR PANELS AND TIMER BARS

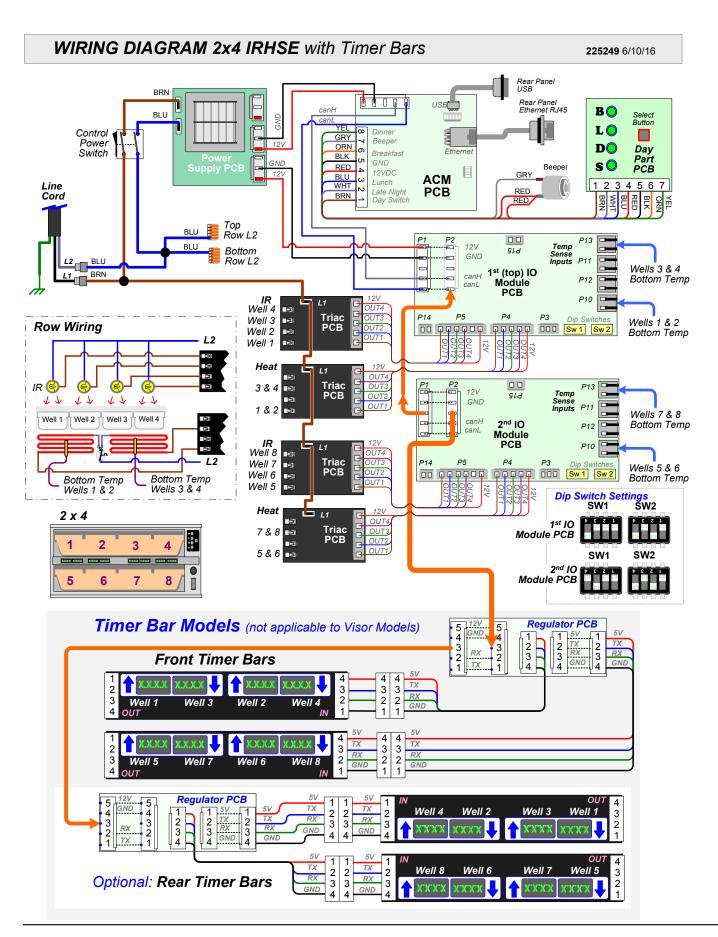
The top portion of the diagram shows the base IRHSE. The lower part of the diagram represents the timer bar section of the unit.

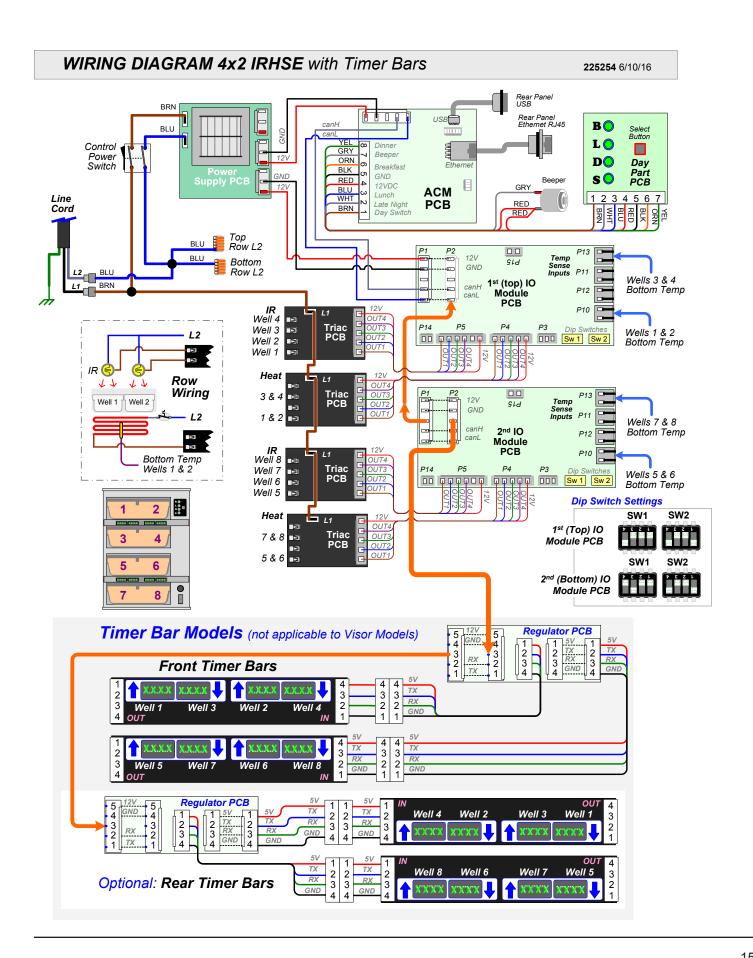
WIRING DIAGRAM 2x2 IRHSE with Timer Bars

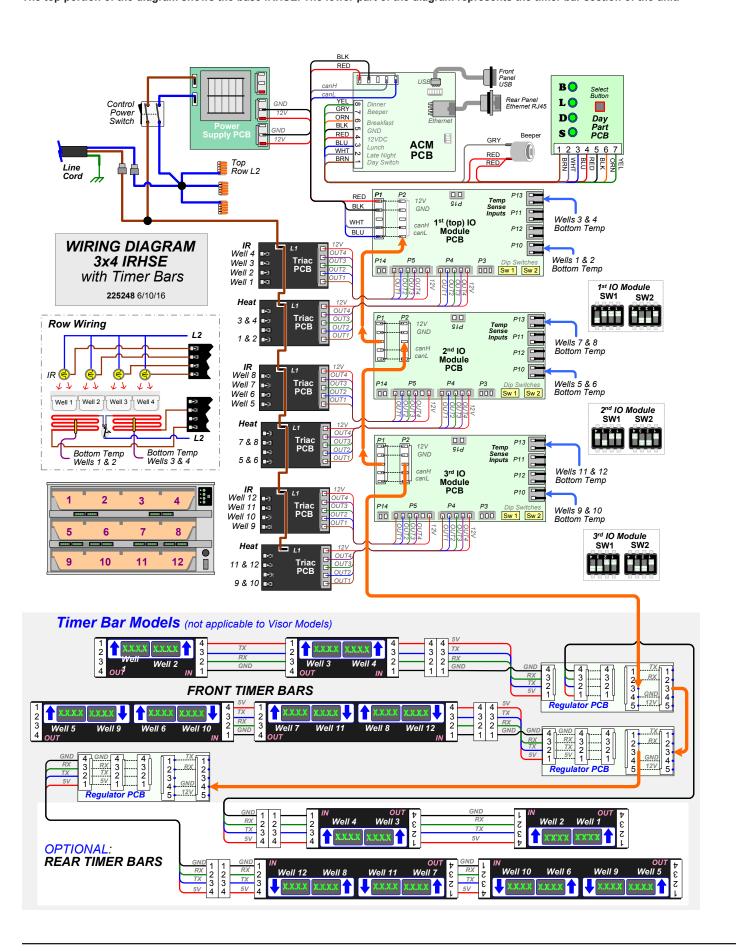
225251 6/10/16



WIRING DIAGRAM 2x3 IRHSE with Timer Bars 225250 6/10/16 BLK RED BRN USB canH BO Select Button GND Rear Panel Ethernet RJ45 Control GRY Power Beeper 12V D ORN Day Line Switch Ethernet Breakfast Part PCB BLK Cord GND GND Beeper RFD 12VDC GRY ACM BLU Lunch 1 2 3 4 5 6 7 WHT **PCB** RFD Тор Late Night Day Switch BRN BRN BE RE ORN BLU RED Row L2 BLU Bottom L2 BLU BRN Row L2 RED P1 P13 L1 12V Temp Sense Inputs Sld GND WHT canH IO Module P12 🗖 BLU PCB Wells 4, 5, & 6 P10 Bottom Temp Well 4 Top IR OUT8 Triac PCB Well 3 Top IR **■**31 OUT7 P14 P3 OUT6 Well 2 Top IR Wells 1, 2, & 3 Bottom Temp OUT5 Well 1 Top IR 💷 **Dip Switch Settings** SW2 Well 6 Top IR Well 4, 5, 6 Heat Triac PCB Well 5 Top IR Well 1, 2, 3 Heat L2/N Triac PCB 10 10 10 10 1 2 3 Typical per 6 Well Well Well Row Diagram HEAT 150W per Well PCB L2/N **Timer Bar Models** 5 12V 4 GND Regulator PCB 5 4 (not applicable to Visor Models) TX 3 2 3 2 1 2 3 4 2 3 2 3 RX RX Front Timer Bars TX TX 3 3 2 1 3 3 RX RX Well 5 Well 1 Regulator PCB 5 4 GND 1 2 3 4 1 2 3 4 3 2 1 2 3 4 3 2 1 RX Optional: Rear Timer Bars 1 2 3 Well 6 Well 3 Well 5 Well 2 3 Well 4 Well 1 2 3 3 TX ХЯ TX ΧI



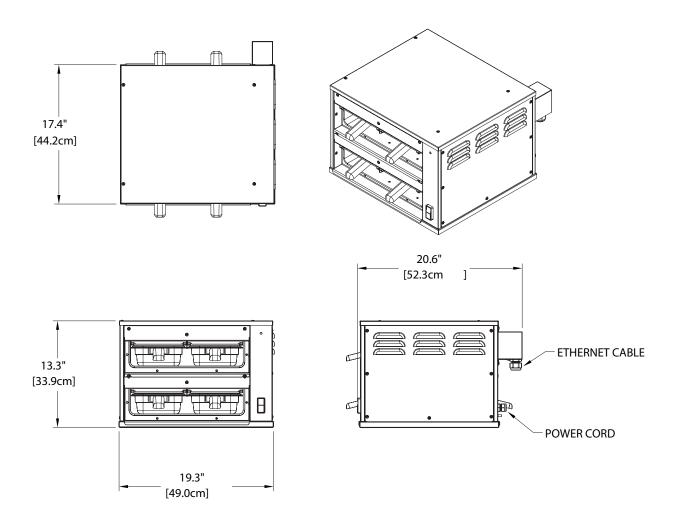




IRHSE-V SPECIFICATIONS FOR PANELS

IRHSE22-V Specification Sheet

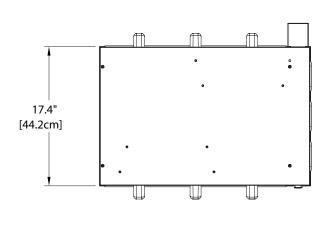
Model Number:	Electrical:	Cord Cap:	Shipping Weight:
IRHSE22-2082V0R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	110 lbs/50 kg
IRHSE22-2402V0R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	110 lbs/50 kg

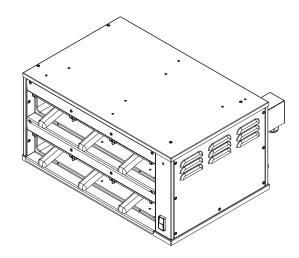


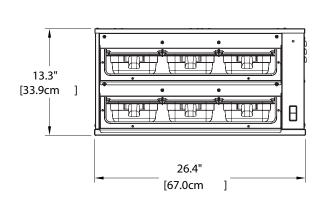
Compliance Declaration				
COMMERCIAL COOKING APPLIANCE	Standard: UL197	File: KNGT.E17421		
CUL COMMERCIAL APPARIEL DE QUISINE	Standard: CSA-C22.2 No. 109	File: KNGT7.E17421		
	Standard: ANSI / NSF 4	File: TSQT.E157479		
<u> </u>	WEEE RoHS Directive 2002/96/EC			

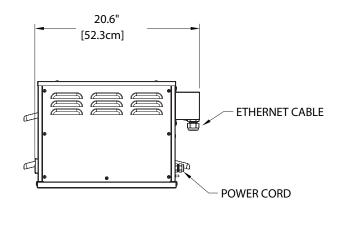
IRHSE23-V Specification Sheet

Model Number:	Electrical:	Cord Cap:	Shipping Weight:
IRHSE23-2082V0R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	125 lbs/57 kg
IRHSE23-2402V0R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	125 lbs/57 kg





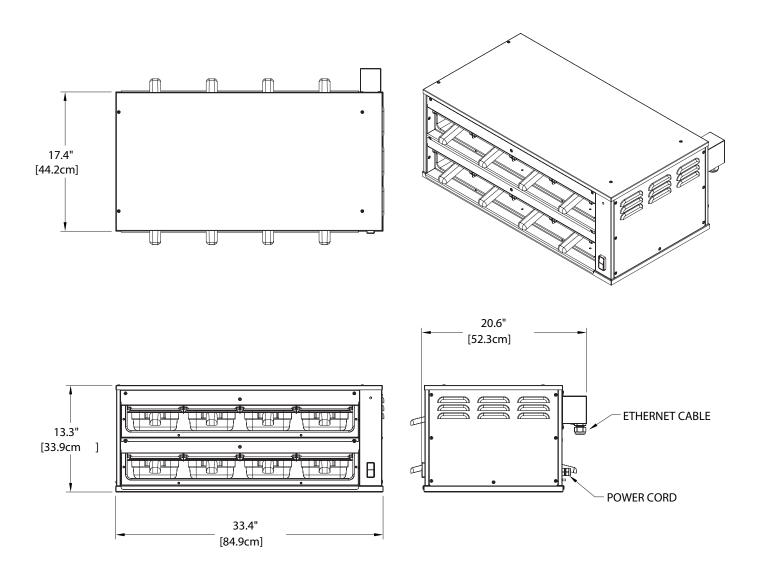




Compliance Declaration				
LISTED COMMERCIAL COOKING APPLIANCE	Standard: UL197	File: KNGT.E17421		
CUL COMMERCIAL APPARIEL DE QUISINE	Standard: CSA-C22.2 No. 109	File: KNGT7.E17421		
	Standard: ANSI / NSF 4	File: TSQT.E157479		
<u> </u>	WEEE RoHS Directive 2002/96/EC			

IRHSE24-V Specification Sheet

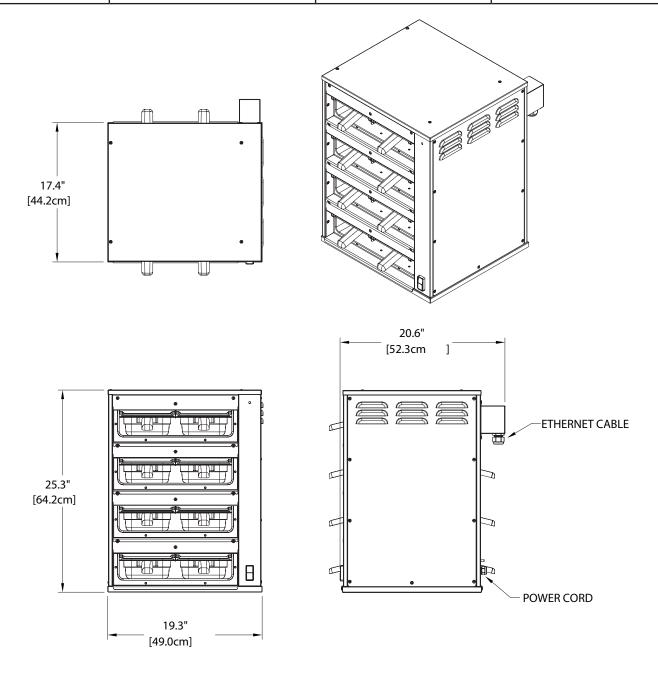
Model Number:	Electrical:	Cord Cap:	Shipping Weight:
IRHSE24-2084V0R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	160 lbs/73 kg
IRHSE24-2404V0R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	160 lbs/73 kg



Compliance Declaration				
LISTED COMMERCIAL COOKING APPLIANCE	Standard: UL197	File: KNGT.E17421		
CUL INDEXER COMMERCIAL APPARIEL DE QUISINE	Standard: CSA-C22.2 No. 109	File: KNGT7.E17421		
	Standard: ANSI / NSF 4	File: TSQT.E157479		
2	WEEE RoHS Directive 2002/96/EC			

IRHSE42-V Specification Sheet

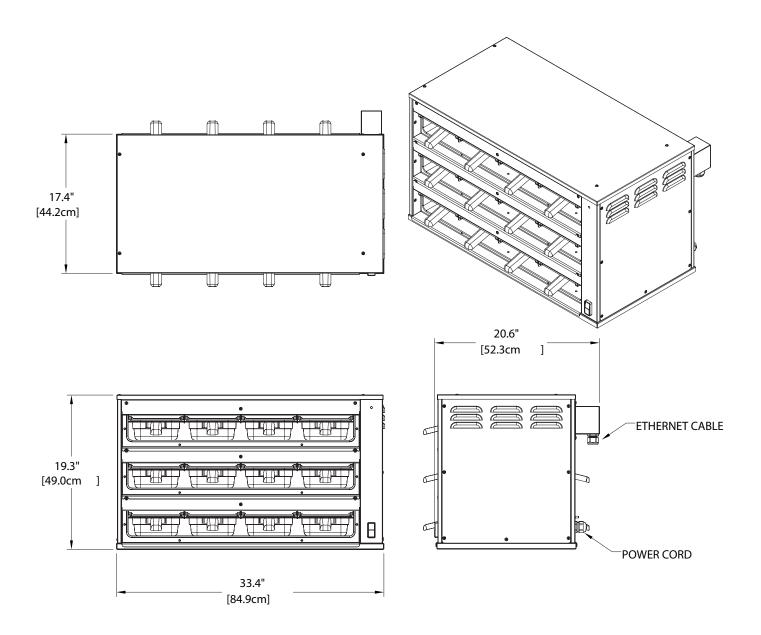
Model Number:	Electrical:	Cord Cap:	Shipping Weight:
IRHSE42-2084V0R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	160 lbs/73 kg
IRHSE42-2404V0R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	160 lbs/73 kg



Compliance Declaration			
COMMERCIAL COOKING APPLIANCE	Standard: UL197	File: KNGT.E17421	
CUL COMMERCIAL APPARIEL DE QUISINE	Standard: CSA-C22.2 No. 109	File: KNGT7.E17421	
	Standard: ANSI / NSF 4	File: TSQT.E157479	
2	WEEE RoHS Directive 2002/96/EC	,	

IRHSE34-V Specification Sheet

Model Number:	Electrical:	Cord Cap:	Shipping Weight:
IRHSE34-2086V0R	208 V ~, 16 A, 50/60 Hz	NEMA 6-20P	230 lbs/105 kg
IRHSE34-2406V0R	240 V ~, 16 A, 50/60 Hz	NEMA 6-20P	230 lbs/105 kg



Compliance Declaration				
LISTED COMMERCIAL COOKING APPLIANCE	Standard: UL197	File: KNGT.E17421		
CUL INDEXER COMMERCIAL APPARIEL DE QUISINE	Standard: CSA-C22.2 No. 109	File: KNGT7.E17421		
	Standard: ANSI / NSF 4	File: TSQT.E157479		
2	WEEE RoHS Directive 2002/96/EC			

IRHSE-V OPERATING INSTRUCTIONS FOR PANELS

This new Duke IRHSE technology allows you to precisely control the environment in each pan, allowing customized settings for each food product. This gives you the ability to maintain gold standard sensory attributes at significantly extended hold times while delivering hotter food to your customers. To accomplish this, each food product has a tailored Heatsink™ temperature and InfraRed Lamp pulse rate. To ensure optimal hold quality, the user would press the button on the ViSOR™ corresponding with the pan location to activate a hold cycle. This starts the appropriate IR pulse rate as well as the timer countdown.

BASIC OPERATION - OPERATING PROCEDURE

- Ensure proper heat sink covers are inserted into the correct location (broiled & moisture sensitive products only).
- Ensure metal trivets are inserted into pans for fried products.
- Upon turning ON, allow the holding unit to heat for at least 30 minutes or until the temperature displayed is in the holding range.
- If the temperature display in the well icon displays a High or Low Temperature Fault or a Disabled message at any time after the preheat period, discontinue use of the affected pan location(s) until the holding unit can be serviced.

- 1. Status colors: Used for indicating the status of the pan.
 - a. Blue Timer is inactive no product in pan
 - b. Green Timer is Active product in pan (use first)
 - Flashing Green = Time required to cook fresh product is less than remaining hold time (cook more product)
 - d. Orange Product to be used next.
 Use Green first.
- 2. The operation of the IRHSE unit takes place through ViSOR™. ViSOR™ does not allow direct programming of the recipes. The recipe parameters are automatically loaded into ViSOR™ from the Duke ViSOR™ portal. Refer to the ViSOR™ System Operations Manual for detailed operating instructions.

OPERATION - TIMER FUNCTIONALITY



Sample ViSOR™ screen image showing an array of pans/product with status indicators.

IRHSE-V TROUBLESHOOTING

Green LED Behavior:	Meaning
steady "ON"	connected state, NO lamp, RTD, or heater faults
steady flashing	NOT connected
triple flash	heater fault
single flash	lamp fault
double flash	RTD fault

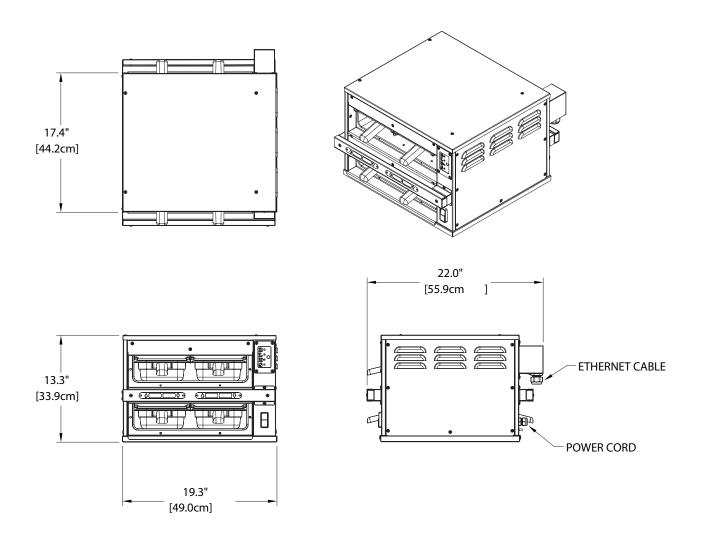


Advanced troubleshooting and diagnostics are a part of the ViSOR™ system. The panels will display other helpful information. Refer to your product management system's operations manual for more information.

IRHSE-T SPECIFICATIONS

IRHSE22-T Specification Sheet

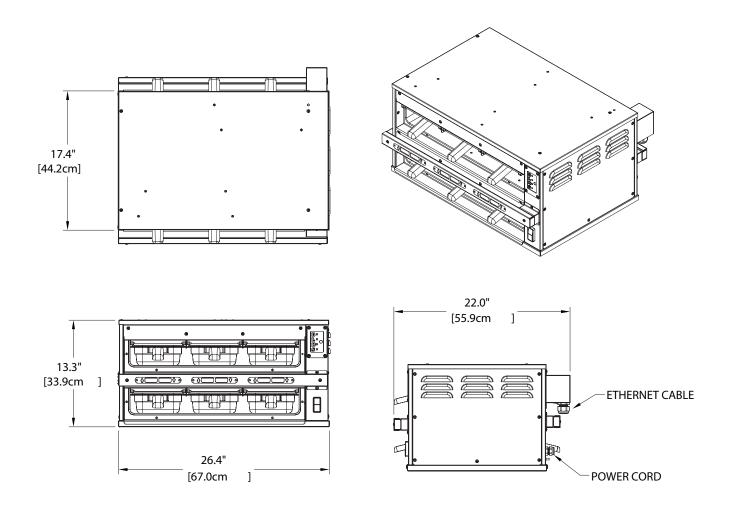
Model Number:	Electrical:	Cord Cap:	Shipping Weight:
IRHSE22-2082T1R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	110 lbs/50 kg
IRHSE22-2082T2R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	110 lbs/50 kg
IRHSE22-2402T1R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	110 lbs/50 kg
IRHSE22-2402T2R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	110 lbs/50 kg



Compliance Declaration			
COMMERCIAL COOKING APPLIANCE	Standard: UL197	File: KNGT.E17421	
CUL COMMERCIAL APPARIEL DE QUISINE	Standard: CSA-C22.2 No. 109	File: KNGT7.E17421	
	Standard: ANSI / NSF 4	File: TSQT.E157479	
<u> </u>	WEEE RoHS Directive 2002/96/EC		

IRHSE23-T Specification Sheet

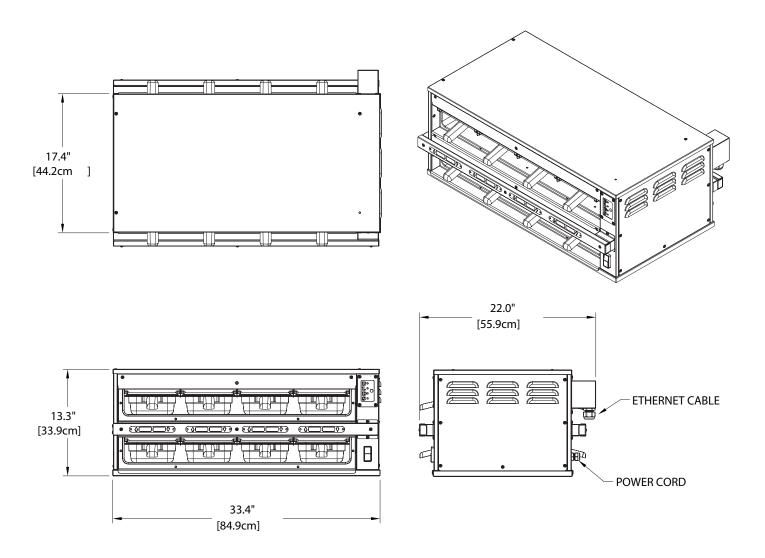
Model Number:	Electrical:	Cord Cap:	Shipping Weight:
IRHSE23-2082T1R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	143 lbs/65 kg
IRHSE23-2082T2R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	143 lbs/65 kg
IRHSE23-2402T1R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	143 lbs/65 kg
IRHSE23-2402T2R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	143 lbs/65 kg



Compliance Declaration			
COMMERCIAL COOKING APPLIANCE	Standard: UL197	File: KNGT.E17421	
CUL COMMERCIAL APPARIEL DE QUISINE	Standard: CSA-C22.2 No. 109	File: KNGT7.E17421	
	Standard: ANSI / NSF 4	File: TSQT.E157479	
2	WEEE RoHS Directive 2002/96/EC		

IRHSE24-T Specification Sheet

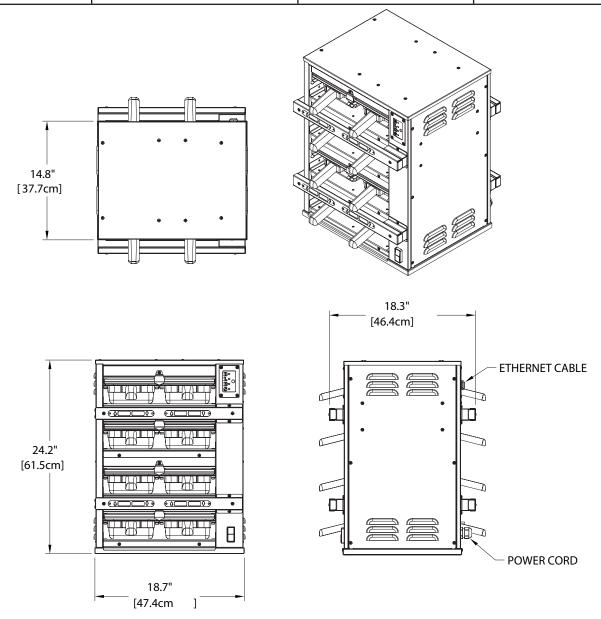
Model Number:	Electrical:	Cord Cap:	Shipping Weight:
IRHSE24-2084T1R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	181 lbs/82 kg
IRHSE24-2084T2R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	181 lbs/82 kg
IRHSE24-2404T1R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	181 lbs/82 kg
IRHSE24-2404T2R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	181 lbs/82 kg



Compliance Declaration			
COMMERCIAL COCKING APPLIANCE	Standard: UL197	File: KNGT.E17421	
CUL COMMERCIAL APPARIEL DE QUISINE	Standard: CSA-C22.2 No. 109	File: KNGT7.E17421	
	Standard: ANSI / NSF 4	File: TSQT.E157479	
<u> </u>	WEEE RoHS Directive 2002/96/EC		

IRHSE42-T Specification Sheet

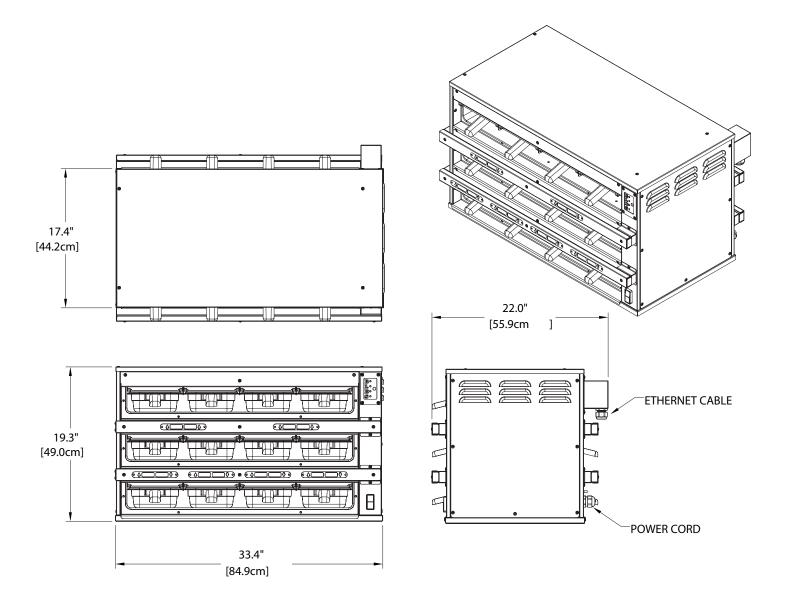
Model Number:	Electrical:	Cord Cap:	Shipping Weight:
IRHSE42-2084T1R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	187 lbs/85 kg
IRHSE42-2084T2R	208 V ~, 12 A, 50/60 Hz	NEMA 6-15P	187 lbs/85 kg
IRHSE42-2404T1R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	187 lbs/85 kg
IRHSE42-2404T2R	240 V ~, 12 A, 50/60 Hz	NEMA 6-15P	187 lbs/85 kg



Compliance Declaration			
COMMERCIAL COOKING APPLIANCE	Standard: UL197	File: KNGT.E17421	
CUL COMMERCIAL APPARIEL DE QUISINE	Standard: CSA-C22.2 No. 109	File: KNGT7.E17421	
	Standard: ANSI / NSF 4	File: TSQT.E157479	
<u> </u>	WEEE RoHS Directive 2002/96/EC	,	

IRHSE34-T Specification Sheet

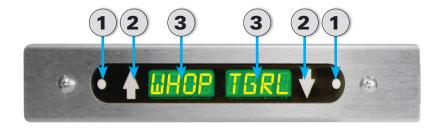
Model Number:	Electrical:	Cord Cap:	Shipping Weight:
IRHSE34-2086T1R	208 V ~, 16 A, 50/60 Hz	NEMA 6-20P	243 lbs/110 kg
IRHSE34-2086T2R	208 V ~, 16 A, 50/60 Hz	NEMA 6-20P	243 lbs/110 kg
IRHSE34-2406T1R	240 V ~, 16 A, 50/60 Hz	NEMA 6-20P	243 lbs/110 kg
IRHSE34-2406T2R	240 V ~, 16 A, 50/60 Hz	NEMA 6-20P	243 lbs/110 kg



Compliance Declaration				
COMMERCIAL COOKING APPLIANCE	Standard: UL197	File: KNGT.E17421		
CUL INDEXER COMMERCIAL APPARIEL DE QUISINE	Standard: CSA-C22.2 No. 109	File: KNGT7.E17421		
(1)	Standard: ANSI / NSF 4	File: TSQT.E157479		
Z	WEEE RoHS Directive 2002/96/EC			

IRHSE-T OPERATING INSTRUCTIONS FOR TIMER BARS

TO ENSURE OPTIMAL HOLD QUALITY, THE USER WOULD PRESS THE BUTTON ON THE TIMER BAR CORRESPONDING WITH THE PAN LOCATION TO ACTIVATE A HOLD CYCLE. THIS STARTS THE TIMER COUNTDOWN.



1. Status LED's: Indicates status of the pan

- a. Non-Illuminated timer is inactive no product in pan.
- b. Green timer is active *product in pan* (use 1st)
- c. Amber timer is active product in pan (use next)
- d. Non-Illuminated timer active *product in pan* (use later)
- e. Flashing Green cook warning time reached (cook more product)
- f. Flashing Red product is expired (discard)

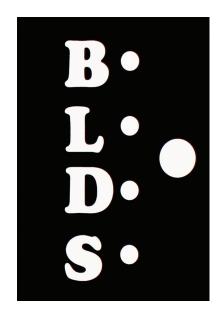
2. Arrow buttons

- a. Used for starting and stopping the timer
- b. Used to access menu mode
- c. Indicates which pan the adjacent status LED and pan display are linked to

3. Pan Display

- In startup mode it will display spinning bars then transition to PRE HEAT, and then cycle through the bottom actual temp and top actual temp
- b. Once unit reaches the recipe set points it will display product name. (If associated recipe requires a lid display will toggle prod name, lid.)
- Unit will display product name and hold time remaining (display will alternate between the two when a timer is active)

- ENSURE PROPER HEAT SINK COVERS ARE INSERTED INTO THE CORRECT LOCATION (BROILED AND MOISTURE SENSITIVE PRODUCTS ONLY).
- ENSURE METAL TRIVETS ARE INSERTED INTO THE PANS FOR FRIED PRODUCTS.
- UPON TURNING ON, ALLOW THE HOLDING UNIT TO HEAT FOR AT LEAST 30 MINUTES OR UNTIL THE TEMPERATURE DISAPPEARS AND THE TIMER BARS DISPLAY THE PREPROGRAMMED PRODUCT NAMES.
- IF THE TIMER BARS DISPLAY "HIGH" OR "LOW" AT ANY TIME AFTER THE PRE-HEAT PERIOD, DISCONTINUE USE OF THE AFFECTED PAN LOCATION(S) UNTIL THE HOLDING UNIT CAN BE SERVICED.



PUSHING THIS BUTTON WILL CYCLE THE UNIT THROUGH THE DIFFERENT DAYPARTS AND SHOW PRODUCTS ASSOCIATED WITH EACH MENU.

- B Breakfast
- L Lunch
- **D** Dinner
- **S** Snack

MENU MODES:

- Press and hold the paired arrows for a display segment for 3 seconds to enter Menu Mode.
 Display will toggle (NAME, product name)
- 2. 1st button press will display (ACT TEMP, actual temp)
- 3. 2nd button press will display (**SET TEMP**, **set point temp**)
- 4. 3rd button press will display (**LID**, **ON** or **OFF**)
- 5. 4th button press will display (IDLE IR, IR duty cycle %)
- 6. 5th button press will display (PH 1/IR/phase 1 IR duty cycle %, TIME, phase 1 time (hh:mm))
- 7. 6th button press will display (PH 2/IR/phase 2 IR duty cycle %, TIME, phase 2 time (hh:mm))
- 8. 7th button press will display (PH 3/IR/phase 3 IR duty cycle %, TIME, phase3 time (hh:mm))
- 9. 8th button press will display (**TRBO**, time in seconds)
- 10.9th button press will display (COOK/ MORE/TIME, cook more time in minutes (hh:mm))
- 11.10th button press will display (**FIRM**, **actual firmware version**)

IRHSE-T FAULT DISPLAYS FOR TIMER BARS

Fault:	Display Toggle:	Cause:
Heater Fault Low	"HTR/FALT/LOW"	Temperature is 20 below set point for over 10 minutes
Heater Fault High	"HTR/FALT/HIGH"	Temperature is 40 above set point for over 10 minutes
CAN Error	"CAN/ERR"	IO3 board missing from CAN bus
IO3 Board Configuration Fault	"IO3/CNFG/FALT"	IO3 board DIP switch setting error
Temperature Sensor Fault	"TEMP/SENS/FALT"	RTD temperature sensor is shorted or open/missing
Lamp Fault	"BULB/ERR"	Bad IR bulb

IRHSE-T ETHERNET DIAGNOSTICS

LED Behavoir	Meaning
any menu LED solidly illuminated	disconnected
any menu LED illuminated followed by each menu LED sequentually illuminating; this cycle repeating every 10 seconds	connected

