

# KAIRAK™

## INSTRUCTION MANUAL KRD PAN CHILLERS



KAIRAK. 4401 Blue Mound Rd., Fort Worth, TX 76106, Phone: (714) 870-8661, Web: [www.kairak.com](http://www.kairak.com)

© KAIRAK, a division of ITW Food Equipment Group LLC. All Rights Reserved.

# TABLE OF CONTENTS

<b>1. THE SERIAL TAG</b>	<b>PAGE 2</b>
<b>2. RECEIPT INSPECTION</b>	<b>PAGE 3</b>
<b>3. INSTALLATION</b>	
<b>A-Installing the Pan Chiller</b>	<b>PAGE 3</b>
<b>B-Refrigeration Lines (Remote Units)</b>	<b>PAGE 4</b>
<b>C-Electrical Connections</b>	<b>PAGE 4</b>
<b>4. PRESTART CHECKS</b>	
<b>A-Defrost Time Clock Settings</b>	<b>PAGE 5</b>
<b>B-Leaving Food Product In Throughout The Night</b>	<b>PAGE 6</b>
<b>C-Temperatures Control Settings</b>	<b>PAGE 7</b>
<b>5. OPERATION</b>	
<b>A-Pan Chiller</b>	<b>PAGE 7</b>
<b>B-Shutdown For Extended Periods</b>	<b>PAGE 7</b>
<b>6. MAINTENANCE PROCEDURES</b>	
<b>A-Cleaning</b>	<b>PAGE 8</b>
<b>7. CONDENSING UNIT (SELF-CONTAINED MODELS)</b>	<b>PAGE 10</b>
<b>8. TROUBLESHOOTING GUIDE</b>	<b>PAGE 11</b>
<b>9. WARRANTIES</b>	<b>PAGE 12</b>

# 1. THE SERIAL TAG

The serial tag is a permanently affixed label on which is recorded vital electrical and refrigeration data about your Kairak product, as well as the model and serial number. This tag is located inside the top opening on all standard KRD Pan Chiller models. Prior to installation, test the electrical service to assure that it agrees with the specifications of the equipment marked on the serial tag.

## READING THE SERIAL TAG

- **Serial** = The permanent ID# of your Kairak unit
- **Model** = The model # of your Kairak unit
- **Volts** = Voltage
- **Hz** = Cycle
- **PH** = Phase
- **Total Current** = Maximum amp draw
- **Minimum Circuit** = Minimum circuit ampacity
- **Lights** = Light wattage
- **Heaters** = Heater amperage (Hot Food units only)
- **Refrigerant** = Refrigerant type used
- **Design Pressure** = High & low side operating pressures and refrigerant charge
- **Agency Labels** = Designates agency listings

<b>SERIAL</b>	<b>MODEL</b>	
<b>VOLTS</b>	<b>HZ</b>	<b>PH</b>
<b>TOTAL CURRENT</b>	<b>AMPS</b>	
<b>MINIMUM CIRCUIT</b>	<b>AMPS</b>	
<b>MAXIMUM OVERCURRENT PROTECTION</b>		<b>AMPS</b>
<b>LIGHTS</b>	<b>WATTS</b>	
<b>HEATERS</b>	<b>AMPS</b>	
<b>REFRIGERANT</b>	<b>TYPE</b>	<b>OZ</b>
<b>DESIGN PRESSURE</b>	<b>HIGH</b>	<b>LOW</b>
<b>REFRIGERANT</b>	<b>TYPE</b>	<b>OZ</b>
<b>DESIGN PRESSURE</b>	<b>HIGH</b>	<b>LOW</b>



FIG. 1

## 2. RECEIPT INSPECTION

All Kairak products are factory tested for performance and are free from defects when shipped. The utmost care has been taken in crating this product to protect against damage in transit.

You should carefully inspect your Kairak unit for damage during delivery. If damage is detected, you should save all the crating materials and make note on the carrier's Bill Of Lading describing the damage. A freight claim should be filed immediately. If damage is subsequently noted during or immediately after installation, contact the respective carrier and file a freight claim. There is a fifteen (15) day limit to file freight damage with the carrier. Under no condition may a damaged unit be returned to Kairak without first obtaining written permission (return authorization). You may contact Kairak customer care at (714) 870-8661 to request a return.

## 3. INSTALLATION

### **3A - INSTALLING THE PAN CHILLER:**

Self-contained units must be installed with sufficient air circulation for the condensing unit. Venting must include provisions for both air intake and exhaust. Failure to provide adequate ventilation may cause severe compressor damage, and will void warranty. Both self-contained and remote units require a counter cut-out that is    inch less than the overall outer dimension of the pan chiller. Refer to the specification sheet for your particular unit.

# 3. INSTALLATION (CONT.)

## 3B - REFRIGERATION LINES (REMOTE UNITS):

**WARNING: REFRIGERATION LINES ARE SHIPPED UNDER PRESSURE. USE CAUTION WHEN OPENING LINES.**

Location of the refrigeration lines varies depending on installation needs. The suction line is 3/8" copper tubing and is marked "Suction". The supply line is 1/4" copper. See "Electrical Connections" section for wiring instructions.

A Control Box, which contains the on/off switch, expansion valve, solenoid valve, time clock and temperature controller, is supplied with the drop-in. Some drop-in units are shipped with this control box loose. If this is the case, refrigeration lines and power supply must be attached to this box then routed to the drop-in.

Cut refrigeration tubing with tube cutter (not a hacksaw) and deburr end of tube. Degrease tubing prior to field connection. Use Silfos 5% for refrigerant line brazing. 50/50 or cold solder is not acceptable.

If no holding charge is evident upon opening lines, contact Kairak Parts and Service Department at 800-833-1106 immediately.

For system charge, follow remote refrigeration system manufacturer's instructions.

## 3C - ELECTRICAL CONNECTIONS:

Refer to the wiring diagram shipped with the unit located inside the compressor compartment or on the back of the unit.

### **CORD CONNECTED UNITS (Self-Contained models)**

Plug the unit into a properly sized outlet. See data plate located inside lower storage cabinet for circuit sizing.

**WARNING: THIS MACHINE IS PROVIDED WITH A THREE-PRONGED GROUNDING PLUG. THE OUTLET TO WHICH THIS PLUG IS CONNECTED MUST BE PROPERLY GROUNDED. IF THE RECEPTACLE IS NOT THE PROPER GROUNDING TYPE, CONTACT AN ELECTRICIAN.**

# 4. PRESTART CHECKS

## 4A - DEFROST TIME CLOCK SETTINGS:

Never apply power to a Kairak unit without setting the time clock to the correct time of day. (Note: All time clocks are preset at the factory to turn the Pan Chiller “off at 12:00 midnight and back on at 5:00 a.m.” unless otherwise instructed by customer).

On self-contained units, the time clock is located on the compressor compartment housing.

To set the time of day, rotate the disc in the direction of the arrows (clockwise rotation) to align the hands to the correct time of day. (See Fig. 2)

To change time clock setting, the tripper pins must be reconfigured. Each pin on the time clock represents 15 minutes. Tripper pins pulled out away from center of time clock represent refrigeration off. Tripper pins pushed toward center indicate refrigeration on. If system runs only during normal working hours and food has been removed from pan chiller at night, the time clock must be set to shut pan chiller off at closing time and to turn on one hour prior to putting the food in the pan chiller the next day. (See Fig. 2)

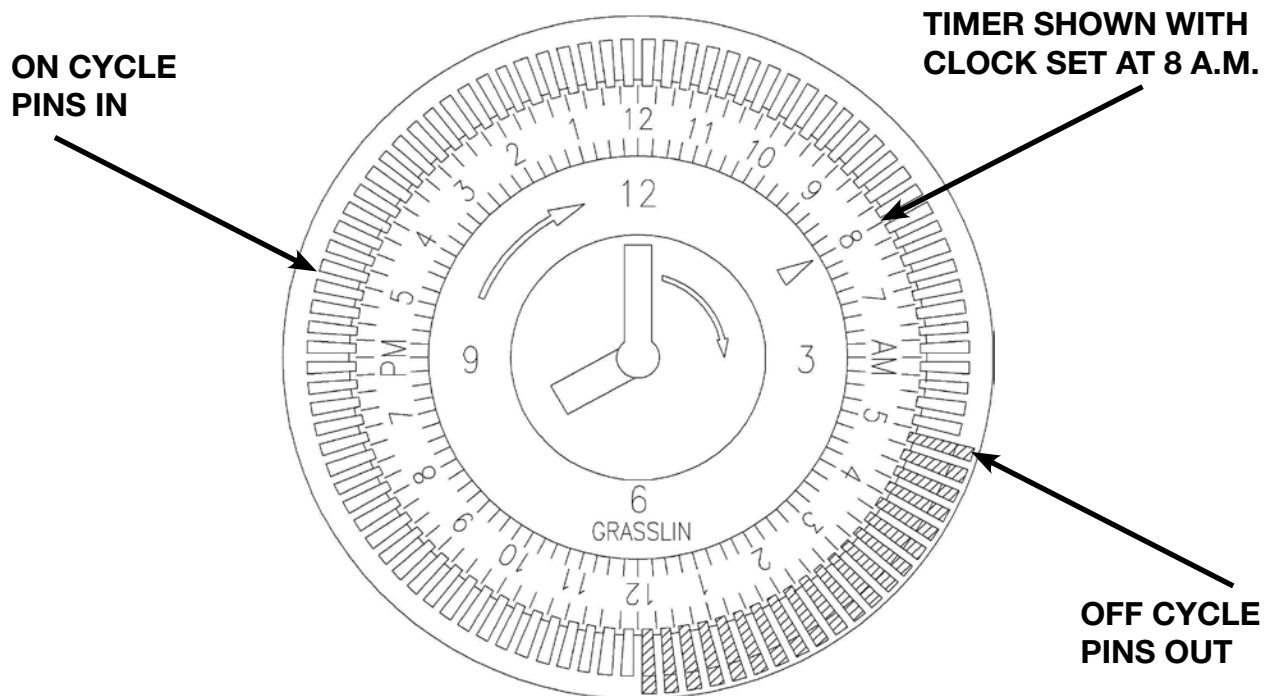


FIG. 2

## 4. PRESTART CHECKS (CONT.)

### 4B - LEAVING FOOD PRODUCT IN THROUGHOUT THE NIGHT:

If leaving the food product in the pan chiller overnight, defrost time clock needs to be set to cycle off and on throughout the night. Time clock must be set to run for 15 minutes on and 60 minutes off consistently until the night cover is removed the next day. To change the setting, set the pins to desired cycle times. Each tripper pin represents 15 minutes. Tripper pins pulled out away from center of time clock represent refrigeration off. Tripper pins pushed toward center indicate refrigeration on. Make sure time clock is set to correct time of day. (See Fig. 3).

Plastic wrap should be placed over exposed food prior to closing the night cover to help prevent condensation from getting into the food. **The night cover must be closed if food is being left in the pan chillers overnight.**

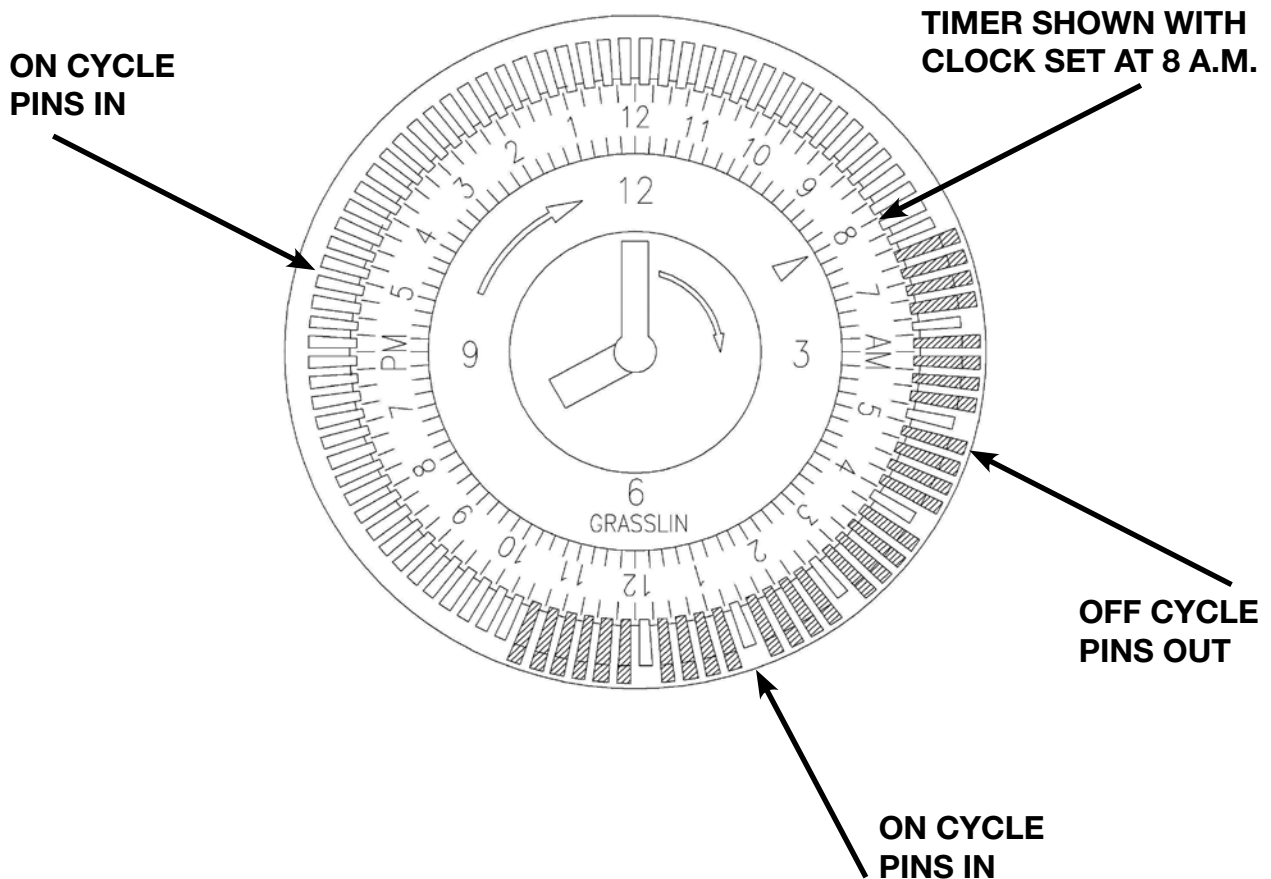


FIG. 3

## 4. PRESTART CHECKS (CONT.)

### 4C - TEMPERATURE CONTROL SETTINGS:

All temperature settings are preset at the factory but local conditions may necessitate slight adjustments.

On both self-contained and remote units, the temperature control marked should be set at 23° F with a 3° F differential. The operating display range should read between 20°F and 28° F. The temperature control settings are “locked” to avoid unauthorized adjustments. Therefore, an authorized service technician must make adjustments to the set point.

## 5. OPERATION

**NOTE: PAN CHILLER SYSTEM MUST BE PERIODICALLY SHUT DOWN FOR PROPER DEFROST AND FUNCTIONING OF THE UNIT. (SEE INSTRUCTIONS FOR SETTING DEFROST TIME CLOCK).**

### 5A - PAN CHILLER:

To insure proper food temperatures are maintained in exposed insert pans, the following conditions are recommended:

1. No direct air blowing on food product from other equipment in the kitchen.
2. Room ambient temperatures of 86°F or less around working area of pan chiller.
3. Food sits a minimum of 1 inch below top of insert pan.
4. All shelving mounted over insert pans (with heated equipment above it) must be insulated.
5. Occasional stirring of certain foods may be required in order to maintain consistent temperatures.
6. Some food products chill faster than others i.e., lettuce, diced tomatoes, etc. Double pans will help prevent over chilling.
7. For remote refrigerators with pan chiller systems, it is imperative that the existing refrigeration equipment must be sized properly and in good working condition.

### 5B - SHUTDOWN FOR EXTENDED PERIODS:

For an extended period of time, disconnect the electrical power. As soon as the divider bars have defrosted, wipe out the pan chiller cavity.



# 6. MAINTENANCE PROCEDURES

## 6A - CLEANING:

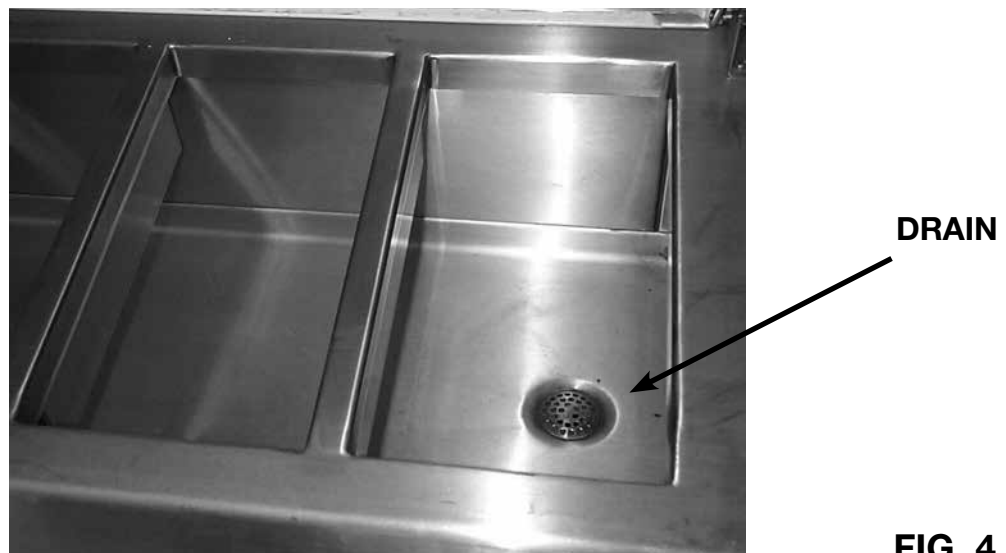
**WARNING: DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING ANY PARTS ON THE UNIT.**

**DO NOT HOSE DOWN OR POUR WATER OR LIQUID CLEANERS IN THE PAN CHILLER COMPARTMENT AS THIS COULD CAUSE DAMAGE TO THE PAN CHILLER AND REQUIRE AN AUTHORIZED SERVICE TECHNICIAN TO REPAIR. FAILURE TO FOLLOW THIS INSTRUCTION WILL VOID WARRANTY.**

The drain is provided for condensate runoff during the defrost cycle. Use a soft cloth or sponge to clean the pan chiller. Always exercise caution to avoid getting the fan assembly wet.

There are two drains in the pan chiller. Both drains must be cleared/cleaned regularly for proper operation. Drains should be cleaned a minimum of once a month.

The top drain in the pan chiller compartment is shown in Fig.4. A removable screen has been provided to prevent the drain from clogging. Clear drain of dirt and debris so that condensate can flow freely. This drain is provided for condensate run off from defrosting of chiller plates.



**FIG. 4**

# 6. MAINTENANCE PROCEDURES (CONT.)

## 6A - CLEANING (CONTINUED):

A second drain located below the fan assembly in the pan chiller must also be properly maintained and functional. (See Fig. 5). To access this drain, remove the fan shroud and fan housing assembly. (A 7/16" hex socket is required to remove the fan assembly cap screws). Clear drain of dirt and debris so that condensate can flow freely. This drain is provided for condensate run off from defrost cycle.

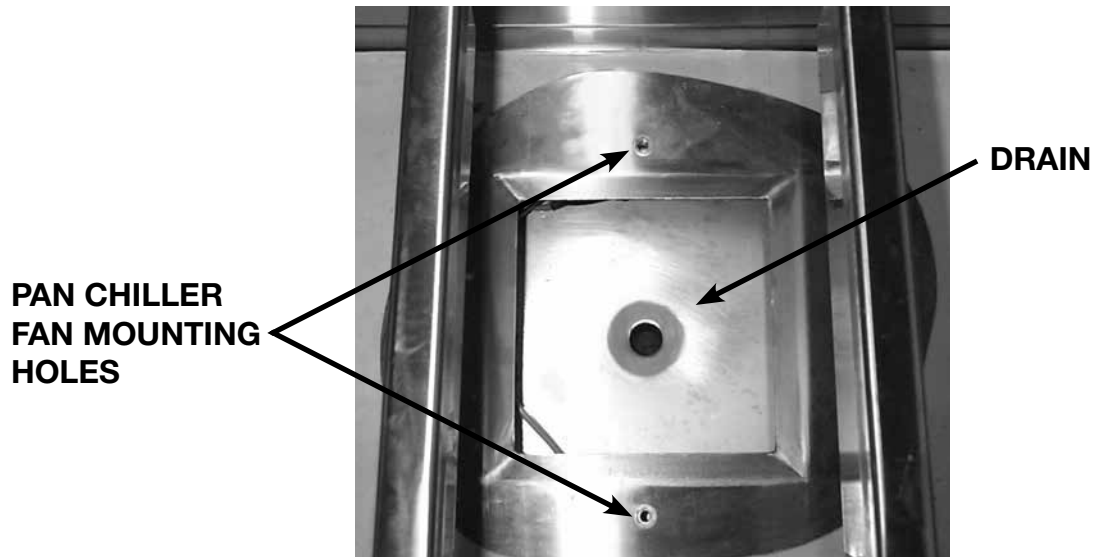


FIG. 5

## 7. CONDENSING UNIT (SELF-CONTAINED MODELS)

**WARNING: DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING ANY PARTS ON THE UNIT.**

The condensing unit coil must be cleaned regularly on self-contained models for optimal performance. The operating environment will affect the required frequency of cleaning. However, coils should be cleaned a minimum of once every three months. Air must be able to freely circulate through the condenser. Unit performance and operating efficiency are significantly affected by the amount of air passing through the condenser. Condenser fins that are clogged with dirt and debris greatly reduce required airflow. Failure to keep the coil fins clean may cause premature compressor failure, which will not be covered by warranty.

The condensing unit is located at the bottom of the unit. To access the condenser coil, remove the slotted access panel to the right of the controls. The panel is held in place with 6 phillips head sheet metal screws. Carefully clean dirt and lint from the condenser coil using a vacuum cleaner or soft brush; do not use a wire brush. These units do not have a removable filter. Replace slotted access panel. Reconnect electrical supply.

# 8. TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE
1. Compressor fails to operate	<ul style="list-style-type: none"><li>• Power failure.</li><li>• Plug loose in receptacle or unplugged.</li><li>• Blown fuse or tripped circuit breaker.</li><li>• Main power switch is Off.</li><li>• Temperature controls or time clock not set properly.</li></ul>
2. Condensing unit operates for prolonged periods or continuously.	<ul style="list-style-type: none"><li>• Evaporator coil is iced up or dirty.</li><li>• Excessive load of warm food.</li></ul>
3. Pan Chiller not holding temperature.	<ul style="list-style-type: none"><li>• Temperature control and/or time clock not set properly.</li><li>• Fan not operating.</li><li>• Coil iced up.</li></ul>

# 9. WARRANTIES

Kairak's warranty coverage warrants that Kairak-branded products are free of defects in materials and factory workmanship. The following applies to all Kairak Model and Serial numbers.

Kairak's warranty is extended only to the original purchaser and shall not apply to any failures resulting from damage in transit, improper installation, alteration, normal wear, misuse, abuse, improper voltage, accident or negligence. The warranty excludes; T-stat adjustments, time clock adjustments, gaskets, cutting boards, filters, clogged drains, ice build-up with no mechanical failures, and the loss of contamination of food due to mechanical or electrical failure. Warranty does not apply outside the United States.

In order to be covered under this warranty, prior authorization to perform the necessary and appropriate service must be obtained from the factory. Model and Serial number must be provided at the time of service request. Kairak does not assume responsibility for any expenses, including labor, parts or travel expenses incurred without such prior authorization. Kairak shall not be liable, whether in contract or in tort or under any other legal theory for loss of use, revenue or profit, substitute use or performance, incidental, indirect or special and/or consequential damages, loss of refrigerant or for any other loss or cost of similar type. Such related charges will be back charged to the responsible party. The decision of the Kairak Service and Warranty, as to whether a defect is within the terms of this warranty shall be final.

Failure to object or provision contained in a customer's purchase order or other communication shall not be deemed as a waiver of terms or conditions of their warranty, nor shall it be considered acceptance of such provisions. This warranty supersedes and is in lieu of all other warranties, expressed or implied and of other obligations of liabilities, on the part of Kairak.

In case of freight damage, do not refuse shipment, but call agent's attention to its condition, making careful note of the details on freight bill before freight charges are paid. File claim for damages with freight agent immediately.

**BLU FIXTURES** manufactured by Kairak hold a 3-year parts and labor warranty. Kairak holds a 5-year compressor warranty, with a one-time compressor only replacement after the first year. Kairak will warranty the labor to replace the compressor for the first three years, 30 days from the ship date. After the first three years, labor, tax, shipping and miscellaneous parts will not be included. Please contact our warranty department for compressor replacement procedures during the warranty period. BLU remote Fixtures are designed to operate with Kairak remote systems only. Violation of these terms will void all warranty.

**REFRIGERANT FIXTURES** manufactured by Kairak hold a 1-year parts and labor warranty. Kairak holds a 5-year compressor warranty, with a one-time compressor only replacement after the first year. Kairak will warranty the labor to replace the compressor for the first year, 30 days from the ship date. After the first year, labor, tax, shipping and miscellaneous parts will not be included. Please contact our warranty department for compressor replacement procedures during the warranty period.

**REMOTE SYSTEMS** manufactured by Kairak hold a 1-year parts and 90-day labor warranty on the remote system, with an option to purchase 1-year labor warranty at the time of purchase order receipt. This warranty does not apply to motors, switches, controls, accessories or parts manufactured by others and purchased by Kairak, unless the manufacturer warranties the same to Kairak. Kairak holds a 5-year compressor warranty, with a one-time compressor only replacement after the first year. Kairak will warranty the labor to replace the compressor for the first year, 30 days from the ship date. After the first year, labor, tax, shipping and miscellaneous parts will not be included. Please contact our warranty department for compressor replacement procedures during the warranty period.

**TO REQUEST AUTHORIZED SERVICE, CALL THE KAIRAK SERVICE AND WARRANTY HOTLINE: (800) 833-1106.** After-hour requests must be urgent in nature and documented with Kairak's after-hours service line prior to service being performed. Kairak is responsible for straight time only, unless otherwise approved by the warranty department.

# NOTES



**KAIRAK. 4401 Blue Mound Rd., Fort Worth, TX 76106, Phone: (714) 870-8661, Web: [www.kairak.com](http://www.kairak.com)**

© KAIRAK, a division of ITW Food Equipment Group LLC. All Rights Reserved.