

# **-40° F ICE CREAM HARDENING CABINET MODEL HIHC55ATH INSTRUCTION MANUAL**



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## IMPORTANT INFORMATION

Please read this manual carefully BEFORE installing your HUSSMANN HARDENING CABINET and RETAIN FOR FUTURE REFERENCE.

### Please note:

- All Freezer units are equipped with an energy-saving fan delay control, which prevents the interior fans from operating until the evaporator coil reaches proper temperature. Therefore, at initial start-up, the fans will not turn on immediately. THIS IS NORMAL. Allow sufficient time for the evaporator coil to reach its proper operating temperature.
- No floor drains or plumbing connections are required since all models are completely self-defrosting and use an automatic defrost condensate water evaporating system.
- The cabinet must be allowed to reach normal temperature before placing any food inside. Allow the compressor to cycle at least three times before loading product into cabinet.

### PRIOR TO PERFORMING WARRANTY SERVICE CALL THE FACTORY FOR AUTHORIZATION.

### RECEIVING SHIPMENT

Prior to leaving the factory, each cabinet is thoroughly inspected and performance tested for up to 18 hours to assure proper operating temperatures.

#### **Check for shipping damage:**

Check the crate thoroughly for signs of shipping damage. If signs of shipping damage are present:

1. If damage is severe and obvious, refuse shipment. The carrier will return cabinet to factory. Call factory immediately noting shipment was refused and we will ship a replacement cabinet and handle the freight claim.
2. If no obvious crate damage is present:  
Within 2 hours of receiving the cabinet from the carrier, remove the front and side panels to inspect for concealed damage.

Form HRI-2

a. If concealed damage is found:

Call carrier immediately and save all crating materials and file necessary freight claim with carrier.

b. If no concealed damage is present:

Reassemble crate to protect cabinet for delivery to final location. <sup>Page 1</sup>

### CHOOSING A LOCATION

**Floor Load** - The floor at the final location must be able to support the weight of a fully loaded cabinet and must be solid enough to prevent vibration. For estimating purposes, each cubic foot of storage space usually weighs about 35 pounds. On a level surface, minor unevenness can be compensated for by the adjustable legs or shimming the base or casters.

**Ventilation** - Low ambient temperatures (below 50 degrees F) are as harmful as high ambient temperatures. These excessive heat ranges will definitely affect the performance of the cabinet. Cabinets should never be placed in front of windows or glass doors where sun shines on cabinet for any length of time. If cabinet is in front of window, etc., provide an awning or shade to shield cabinet from direct sunlight.

**Clearance** - When the condensing unit is located in the bottom of the cabinet, leave an air space of at least 3" in back of cabinet for venting the hot air from the unit compartment. If the condensing unit is located on top of cabinet, it is not necessary to leave space behind the cabinet. However, 12" clearance is required from top of cabinet to ceiling.

### INSTALLATION & SETUP

Measure all doorways and passages before moving cabinet to its final location. One or two section upright cases may be laid down on end to pass through low door openings, after removing shelves, etc. shipped inside cabinet.

### CAUTION

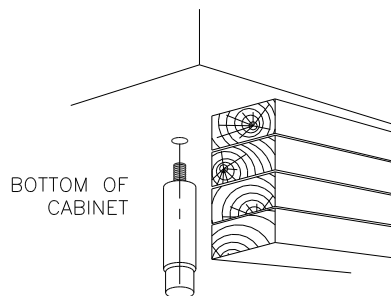
Lay cabinet on pads or thick blankets to avoid damage to cabinet finish. After cabinet is set upright, check for oil leaks in compressor compartment. If oil leak is found, call qualified service person before attempting to operate cabinet.

## REMOVING CRATE & SKID

Remove crate carefully to prevent damage to exterior surfaces of cabinet. The cabinet is bolted to a wooden skid with four hex head bolts. After skid removal, **the cabinet should never be moved without a dolly to avoid damage to cabinet bottom or floor.**

## INSTALLING LEGS or CASTERS

Heavy adjustable legs are provided with all cabinets so that the cabinet may be leveled perfectly and also to keep it off the floor so that it can be properly cleaned underneath. To install the legs do not lay the cabinet down either on its back or sides. Always keep it in an upright position. Tilt the cabinet back far enough to fit the front legs and place a block of wood or some similar supports under it until the front legs are securely installed. Next, tilt the cabinet forwards and install the rear legs in a like manner. After all legs are installed, **level the cabinet** by using the adjustable portion of the legs as needed. This is very important to insure proper drainage and door operation. Level cabinet **from end to end and from front to back.**



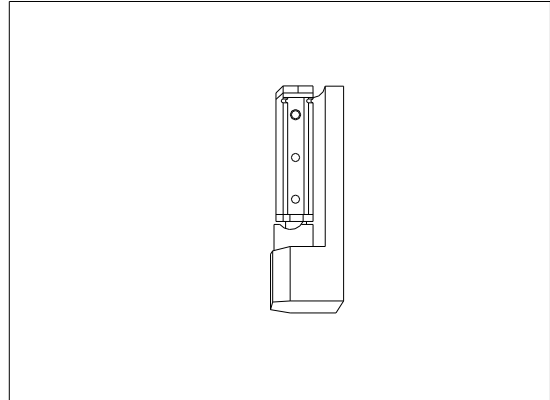
**Installing casters:** Casters are supplied as optional equipment. Install casters in the same manner that legs are installed.

## REMOVING DOORS & HINGES

Lift door up and off hinge pin. Using a Phillips head screwdriver, remove hinges. When re-assembling door and hinges, tighten hinge screws slightly and hang door. Check to be sure that door is properly aligned.

## If doors require realignment:

1. Open door 90 degrees and lift door off hinges.
2. Using a hammer and a block of wood, tap door hinge either left or right as required to raise or lower handle side of door until proper alignment is achieved.
3. Tighten hinge screws until hinge is properly secured to prevent door from sagging.



## DOOR HINGE ADJUSTMENTS

### To adjust door away from cabinet face

1. Remove hinge cap.
2. Loosen door screws about 3 turns.
3. Move door away from cabinet face. Hinge adjustment plate moves toward the front edge of the door hinge.
4. Tighten screws. Note: both top and bottom hinges must have the same adjustment.

### To adjust door toward cabinet face

1. Proceed as above, but reverse step 3.

## CONDENSATE DISPOSAL SYSTEM

### WARNING

The condensate disposal system is designed to dispose of the water from the evaporator only under normal operating conditions. When cases are used with ice or when additional water is generated by the case through abnormal usage or ambient conditions, a floor drain or similar arrangement might be required.

## ELECTRICAL SUPPLY

Be sure a qualified electrician or refrigeration service person checks to see that the wire size is adequate to carry the load of the cabinet being installed and that the circuit breaker or fuse is of the "time delay" type. Each refrigerator or freezer should be connected to its own circuit for best operation and to avoid possible product loss due to other defective electrical appliances. A 5% deviation from the specified electrical requirements will result in poor performance, shorten the life of electrical components and VOID your warranty. If your cabinet is rated 12 amps or below, a standard three prong grounding power plug is provided. Be sure to plug directly into a properly grounded three-prong receptacle.

### **IMPORTANT**

Do not, under any circumstances, cut or remove the round grounding prong from the power plug. If your cabinet is rated 16 amps or above, an electrician must run proper size wiring to the power box.

Always check the amperage rating of the condensing unit and the complete cabinet (see serial tag on cabinet) to determine the size power line required. Any excessive amperage drawn due to low voltage will affect the performance and shorten the life span of the cabinet.

### **START-UP OF CABINET**

It is strongly recommended that a qualified refrigeration service person be present to make a complete check prior to start-up.

- Check all refrigeration lines for damage, which may have occurred during shipping or installation.
- Check that all wires are clear of the fans and that the fan blades run freely.
- Check unit compartment for oil leaks.

Clean interior of cabinet with mild soap followed by a rinse with warm baking soda solution. Dry interior completely.

## CLEANING AND MAINTENANCE

To Keep your cabinet operating and looking like new requires just minutes a week.

### **Weekly or sooner as required:**

(Remember to disconnect the power source before cleaning and remove all products and place in a proper cooler.)

1 .Clean interior and exterior including shelves with a mild soap or detergent solution followed by a rinse with warm baking soda solution (one cup of baking soda to one gallon of warm water). **Dry interior completely.**

2 .**Vacuum and brush** the condensing unit compartment especially the condenser coil (looks like a small auto radiator). If grease and dirt has accumulated on condenser coil, use a strong cleaning solution and thoroughly rinse the solution away. If you find any oil in the condensing unit compartment, call a qualified service person immediately.

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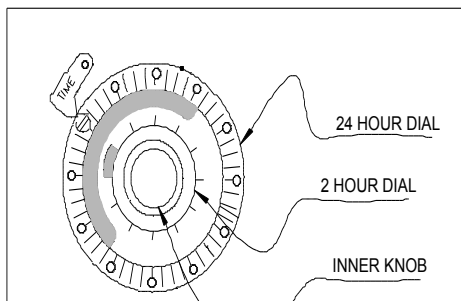
### IMPORTANT

Be sure the compressor cycles three times and proper temperature is achieved prior to loading product into cabinet.

#### Freezers (-40° F)

Freezers are equipped with a time initiated, temperature terminated, automatic electric defrost system. The timing device is factory preset to provide interval defrost cycling. The setting will be adequate for most conditions. However, defrost time periods can be adjusted to meet your specific requirements. The time clock should be set for the correct time of day. See illustration:

**TO SET DEFROST INTERVALS** Place start pins in outer (24 hour) dial at the time of day that defrost cycles are to begin. **CAUTION** Leave at least one hole between each adjacent pin.



**TO SET TIME OF DAY:** Grasp knob in the center of the inner (2 hour) dial and rotate it in a counter-clockwise direction. This will revolve the outer dial. Line up the correct time of day on the outer dial with the time pointer.

**Do not try to set the time control by grasping the outer dial. Rotate the inner dial only.**

#### TO SET BACK-UP DEFROST FAIL-SAFE:

This safety feature is preset at the factory and should not require adjustment. If resetting becomes necessary, push and rotate pointer on inside (2 hour) dial until it is opposite desired time.

Note: All Freezer units are equipped with an energy-saving fan delay control, which prevents the interior fans from operating until the evaporator coil reaches proper temperature. Therefore, at initial start-up, the fans will not turn on immediately. **THIS IS NORMAL.** Allow sufficient time for the evaporator coil to reach its proper operating temperature. The temperature control is located near the compressor. To lower the temperature, turn the shaft clockwise. This is a screwdriver adjustment. **Do not place food in cabinet for at least four hours after initial start-up to allow cabinet to cool to proper operating temperature.**

#### CONTROL PANEL

**Digital Thermometer** .Provides a convenient and accurate visual method of determining cabinet inside temperature without opening the doors.

**PARTS AND SERVICE** .When contacting the factory regarding your equipment or when ordering parts, always give the model number and serial number found on the serial tag affixed to the cabinet.

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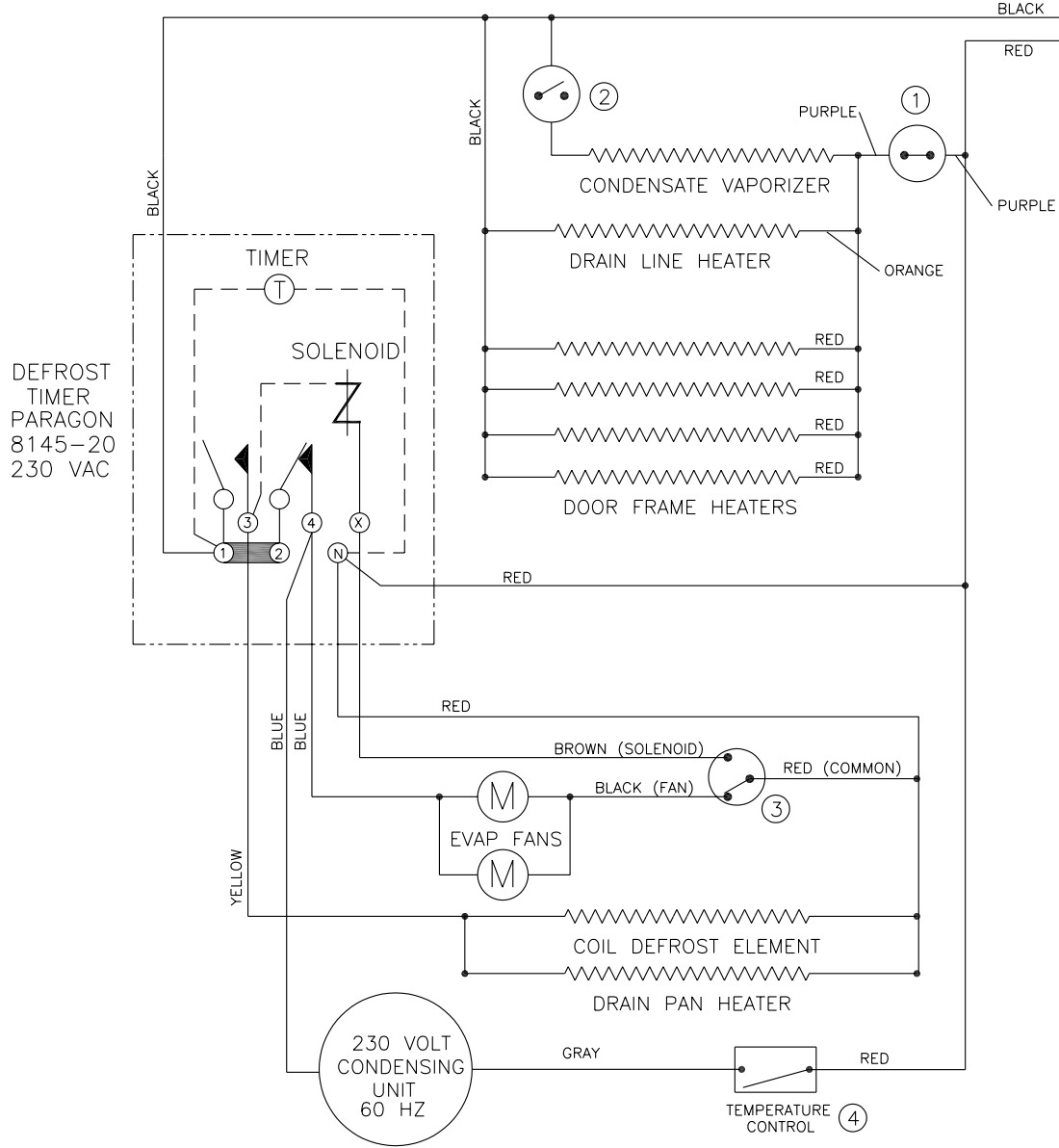
## SPECIFICATIONS

<b>MODEL HIHC55ATH</b>	
<b>W/D/H</b>	<b>55 x 32 x 82</b>
<b>Doors</b>	<b>4 Half Doors</b>
<b>Shelving</b>	<b>8</b>
<b>Amps</b>	<b>10.1 @ -30° F</b>
<b>Voltage</b>	<b>208/230/60</b>
<b>Horse Power</b>	<b>1 1/2 HP</b>
<b>Temp Control</b>	<b>Factory set @ -20° F - 30° F</b>
<b>Cut-In</b>	<b>-14° F</b>
<b>Cut-Out</b>	<b>7° F</b>
<b>Defrost Timer</b>	<b>4 times per day</b>
<b>Failsafe</b>	<b>32 mintues</b>
<b>Pressures (70° F ambient, -30° F cabinet temp)</b>	<b>2 lbs low side, 210 lbs high side</b>

# WIRING DIAGRAM

FREEZER (-40) 230 VOLTS

POWER SUPPLY:  
230 V. 60 CY 1 PH.



- ① CAVITY THERMOSTAT CLOSES +25°F OPENS +40°F
- ② VAPORIZER THERMOSTAT CLOSES +35°F OPENS +175°F
- ③ FAN DELAY/DEFROST LIMIT CLOSES +14°F OPENS +54°F
- ④ THERMOSTAT, CABINET AIR TEMPERATURE

RANCO CONTROL #010-1000  
RANGE: -55° - 0°F  
DIFF: 3° - 20°F

SHOWN WITH FREEZER IN OPERATION AND  
CONDENSING UNIT CYCLED OFF

REVISIONS:	NO	DATE	BY
	1		
	2		
	3		
	4		

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