INSTRUCTIONS

HQC135 & HQC200 QUICKCHILLERS

MODEL

HQC135	*ML-124069*
HQC200	*ML-124070*

HOBART
CORPORATION
701 S. RIDGE AVENUE
TROY, OHIO 45374-0001
937 332-3000
www.hobartcorp.com

FORM 34643 Rev. A (Sept. 2001)

Model HQC135 QuickChiller

Model HQC200 QuickChiller

TABLE OF CONTENTS

Installation, Operation, Use and Care of Model HQC135 & HQC200 QuickChillers

SAVE THESE INSTRUCTIONS

GENERAL

The HQC135 QuickChiller is designed for rapid chilling of 135 pounds of food (9 pounds of food per pan in 15 pans) from 150°F to 37°F in approximately 90 minutes. The rapid chilling process preserves food quality, texture and nutritional value for up to 5 days. As many as 5 chillings can be handled per 8 hour shift. The chiller can accommodate a roll-in rack or cart which will hold 15 full-size 12" x 20" x 2 1/2" pans (2 pans per level). Maximum cart dimensions are 27 1/2" wide x 30 3/8" deep x 74 3/4" high.

The Model HQC200 QuickChiller is designed for rapid chilling of 200 pounds of food (9 pounds per pan in 22 pans) from 150°F to 37°F in approximately 90 minutes.

Chill time is dependent upon product type, thickness, density, thermal conductivity and type of covering. For best results, approximately 9 pounds of product per pan is recommended. If more product is being chilled, the time required to chill will be increased. A thin covering (plastic wrap or aluminum foil) on the top of the pan is recommended.

The stainless steel interior has radiused corners for ease of cleaning (per NSF Standard Number 7); exterior sidewalls are also stainless steel. Location of RS232 port is standard in front behind the printer door and optional at the top.

The SmartChill™ controller provides the ability to:

- Select the chill mode: By Product, By Time or By Temperature.
- Display the current air and product temperatures and time.
- Monitor product temperature with four smart probes to reduce chances of freezing.
- Select Soft Chill to reduce the chances of freezing in the final phase of chilling.
- Provide service diagnostics to quickly check machine functions and control circuitry.
- Send Chill Cycle data via RS232 port to SmartChill™ computer software, state-of-the-art HACCP data management.

The standard printer provides the ability to:

- Print data from the last or any chill cycle with time, date and temperature information.
- Charts chill temperatures vs. time at intervals that can be set by the supervisor.

An optional second printer can print a condensed 'Label' type of report with Product and User info.

- Printers provide HACCP reporting of chill data.

Chillers can be shipped either with panels fully assembled or disassembled for on-site assembly.

The condensing unit on model HQC135 can be remote or self-contained. On model HQC200, the condensing unit is always remote.

INSTALLATION

UNCRATING

Immediately after unpacking, check for possible shipping damage. If the chiller is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Before installing, check the electrical service to make sure it agrees with the electrical specifications on the rating plate located on the side panel inside the cabinet on the hinge side.

Fully assembled units have the coil and fan unit, probes and controls prewired. Place assembled unit in final position ready for connection of refrigeration lines and electrical supply. Compressor unit can be located remote or self-contained (mounted on top of the cabinet with quick-connect couplings and lines in place). Alternatively, the chiller can be shipped disassembled (knocked down), requiring on-site assembly. When chillers are shipped dissassembled, lay out panels in a staging area. Lay panels on foam blocks used for packing to avoid scratches on the panels. Identify fasteners and components.

LOCATION

Allow reasonable clearance for installation of electrical and refrigeration lines above the chiller cabinet.

INSTALLATION WITH OPTIONAL INSULATED FLOOR PANEL

The chiller can be ordered with an optional 3" deep floor panel, without a floor panel or with a stainless steel sheet floor. When installed with 3" insulated floor panel, the chiller can be installed in a recessed area of the floor or with an optional ramp.

The floor panel is preferred to be installed in a recessed area so carts can roll flat into the Chiller. When installing a recessed floor, a pit must be constructed in the concrete slab at least 4 inches in depth with a ½" clearance around the perimeter. The 4 inch depth is a minimum requirement. Floor panels are 3 inches in depth, the remaining inch is used for sand to facilitate leveling (Fig.1). The interior floor of the cabinet should be even with the building floor.

INSTALLATION WITHOUT OPTIONAL INSULATED FLOOR PANEL

If no insulated floor panel is ordered, black vinyl screeds are provided. The wall panels of the chiller cabinet are inserted in the black vinyl screeds during installation (Fig. 2). The chiller should be installed on a smooth level surface. If necessary, further leveling may be provided by shimming between the floor and wall panels.

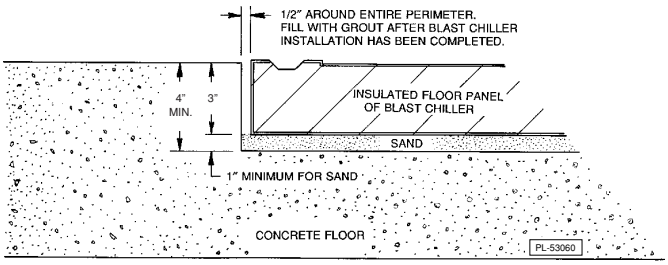


Fig. 1

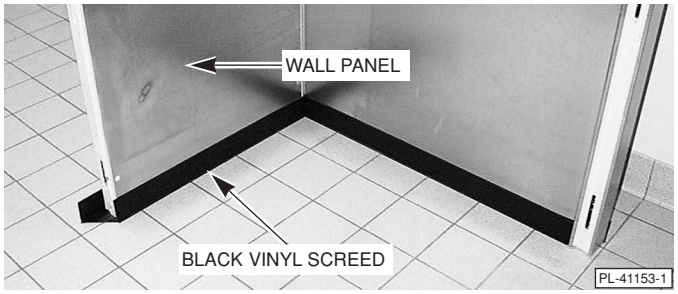


Fig. 2

INSTALLATION WITH OPTIONAL STAINLESS STEEL SHEET METAL FLOOR

The stainless steel sheet metal floor can be glued directly to the building floor before erection of the QuickChill cabinet. Mark the 40" x 50" floor area where the QuickChill will be erected.

Make sure the floor is level before proceeding. If the floor is not level the wall panels will not be vertical, the roof panels will not fit properly and the hinged door will not operate properly.

Both the building floor and the stainless steel sheet must be clean, dry and free from grease, oil, wax or other surface contaminants.

Avoid glue contact with skin or eyes. Provide adequate ventilation. Do not breathe fumes. Follow the glue manufacturer's instructions. Refer to assembly instructions shipped with the floor.

Allow at least 24 hours for the glue to set before beginning installation of the QuickChill cabinet.

PANEL ASSEMBLY

Each panel is locked in place with the Cam Fast lock using the hex tool supplied (Fig. 3). Each wall panel is locked to its adjacent sides and roof. When an insulated floor panel is provided, wall panels are cam locked to the insulated floor panel. If no insulated floor panel is supplied, each wall panel should be installed with its black vinyl screed fitted on the bottom of the panel. Cam locks are turned completely clockwise or counterclockwise (locking arm retracted) before placing panels together; lock by turning the hex tool ¾ turn in reverse. Access to cam locks is provided inside the cabinet. Cam locks should have their locking arm retracted before placing panels together; lock by turning the hex tool. Check wall panels for plumb occasionally during assembly (Fig. 4). Assemble wall panels in numerical order:

1 FLOOR (Optional)
2 REAR (Rear Door & Frame, Optional)
3 LEFT SIDE
4 RIGHT SIDE
5 COIL & FAN UNIT
6 DOOR & FRAME
7 CEILING

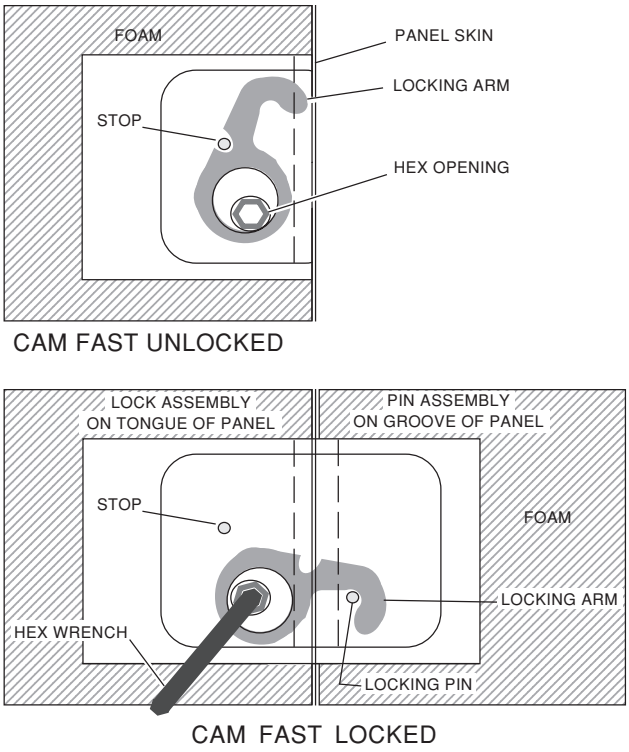


Fig. 3

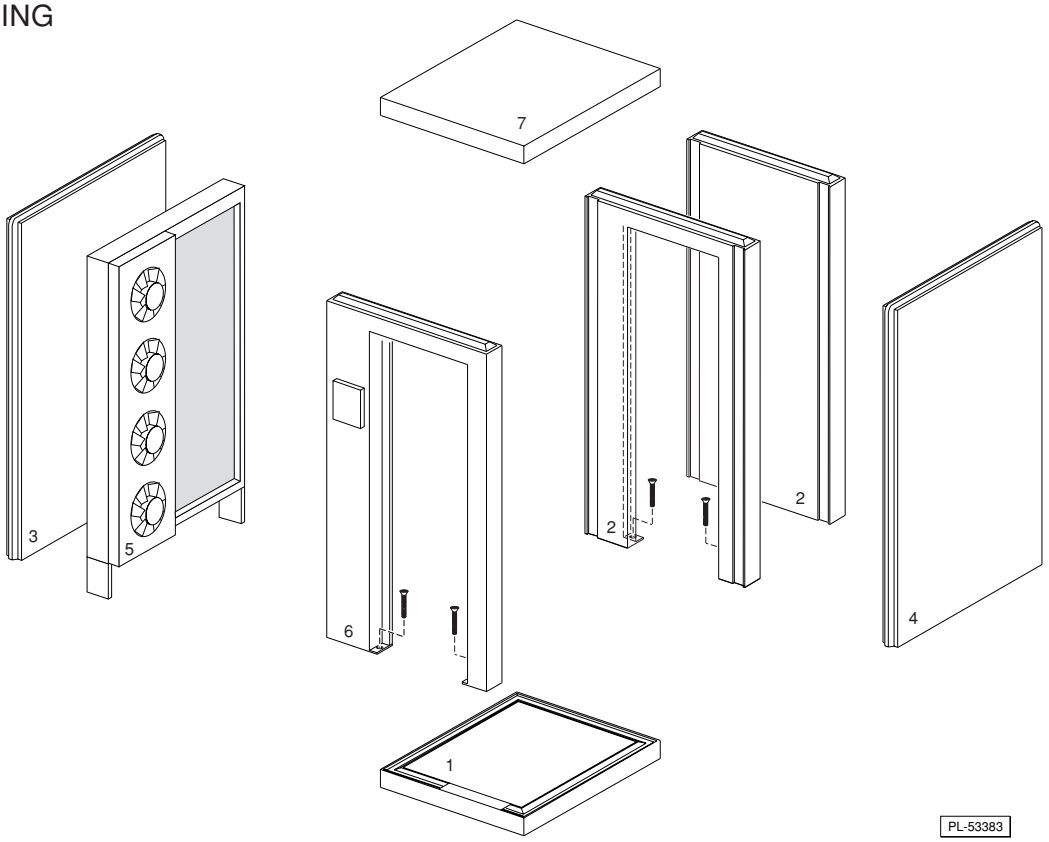


Fig. 4

ASSEMBLY

If a 3" insulated floor is supplied, position and level floor panel first. Cam lock the wall panels to the insulated floor panel. Black vinyl screeds are only supplied if the insulated floor panel is not ordered. If the stainless steel sheet metal floor is to be installed, refer to the Technical Data / MSDS from the adhesive manufacturer and follow the Assembly Instructions provided.

For all panels, peel off all vinyl coverings to expose the stainless steel surfaces inside and outside.

Lock wall panels to rear panel (Fig. 5). Cabinet must be plumb and level. Shimming may be installed inside the screed, between the screed base and the bottom of the panel itself.

Install coil and fan section on the left side if the cabinet is right hinged and vice-versa. Two pre-attached nuts are foamed inside the panel to accept $^{3}/_{8}$" bolts. Tighten the coil and fan section in place. Make sure the gasket is in place around the back of the coil and fan section. This gasket should prevent the condensate water from dripping behind the pan onto the cabinet floor.

If installing with black vinyl screeds, remove door from hinges of door frame. Remove the shipping brace from the bottom of the door frame. Install the door frame by locking to side wall panels. If insulated floor panel is present, cam lock to floor panel. Reinstall the door in its hinges (Fig. 6).

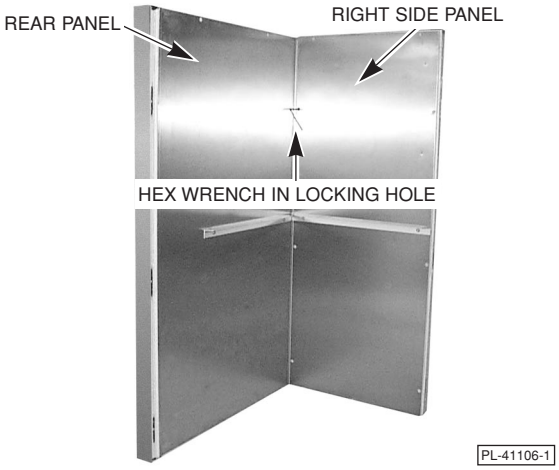


Fig. 5

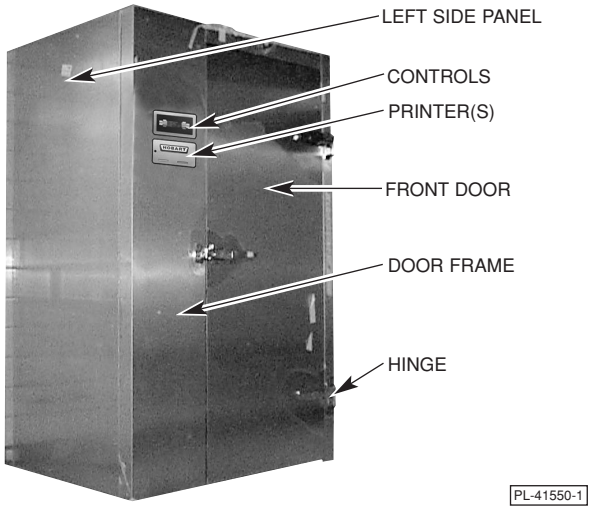


Fig. 6

Position and cam-lock the roof to the wall and door frame panels. Cabinets without an insulated floor panel must have both sides of the door frame anchored to the building floor (Fig. 4). Using a #19 drill bit appropriate for the floor construction, make two .166" diameter holes in the floor where each side of the door jam must be anchored. Before fastening to the floor, make sure the door frame is the same width at top and bottom and that the door closes and fits well. Fasten the door jam to the floor using the two cement screws, supplied. If the door handle is out of adjustment, the door strike can be moved in or out as follows: 1) Loosen both screws. 2) Move strike in or out as needed. 3) Re-tighten both screws.

Install plug buttons in all cam lock holes (Fig. 7).

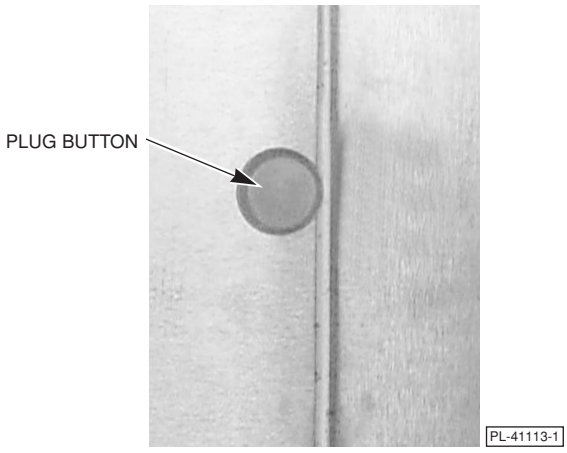


Fig. 7

INTERNAL ELECTRICAL CONNECTIONS

Remove the lid from the electrical box on top of the cabinet (Fig. 8). On the front of the cabinet, remove two screws and swing the control panel open. On the front of the cabinet beside the control panel, turn the black knob and swing the printer panel open.

From the top of the cabinet, inside the electrical box, insert a short plastic tube into the plastic tubes foamed into the door frame panel. Refer to TUBE #1 and TUBE #2 in Fig. 8.

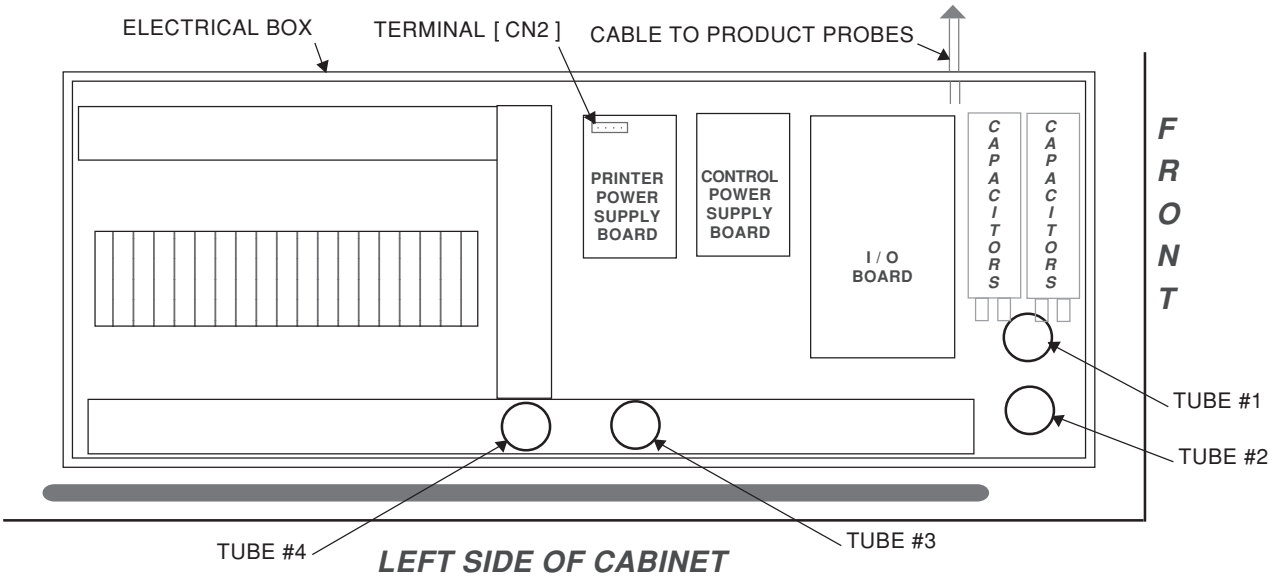


Fig. 8

Push the power wires connector, labeled M, down through TUBE #1 (Fig. 8) to the recess behind the control panel. Connect this connector (which includes 6 wires for the door switch, door frame heaters and on-off switch) to its mating connector, labeled M (Fig. 9).

Feed the terminal for the two small black and two small red wires from the printer(s) up through the empty TUBE #2 (Fig. 8) and connect it to terminal [CN2] on the printer power supply board (Fig. 8).

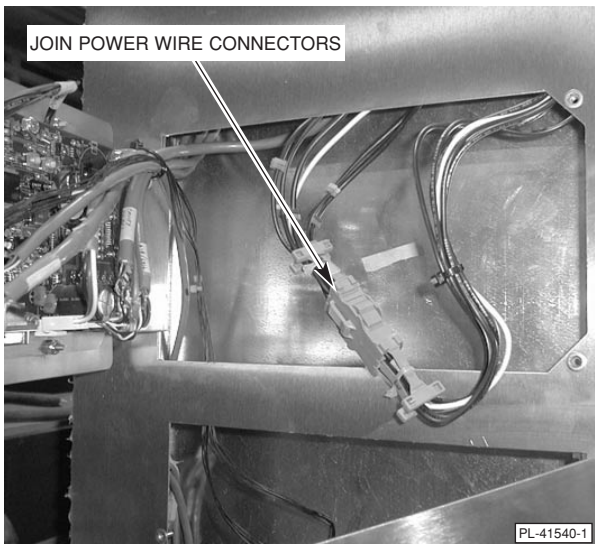


Fig. 9

Push the four control cables with connectors [J5], [J7], [J9] and [J12] down TUBE #2. Refer to the table below and Figs. 8 and 10. Connect the four cable connectors to the control board as shown in Fig. 11. Attach the cables to the hinge with the wire-wrap provided.

Once all wires are connected and secured in the controller section, pull up the excess length so the wires do not hang freely in the controller section (Fig. 9).

From the top electrical box, seal TUBE #1 and TUBE #2 (Fig. 8) around the wires so warm air and foreign matter do not reach down the tubes into the controller section. Duct seal (putty) is supplied with the cabinet.

CONTROL CABLES

LABEL ON CABLE	NUMBER OF WIRES	LABEL ON CONNECTOR	LABEL ON CONTROL BOARD
CAVITY PROBES	8	J5	CAVITY PROBES
AIR / COIL	4	J7	COIL
PWR	3	J12	PWR
I / O BOARD	10	J9	I / O BOARD

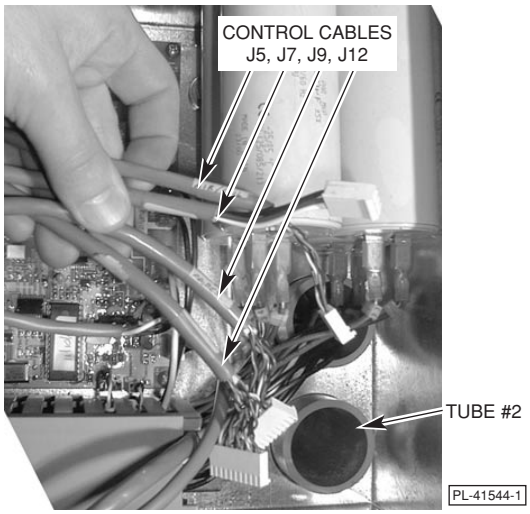


Fig. 10

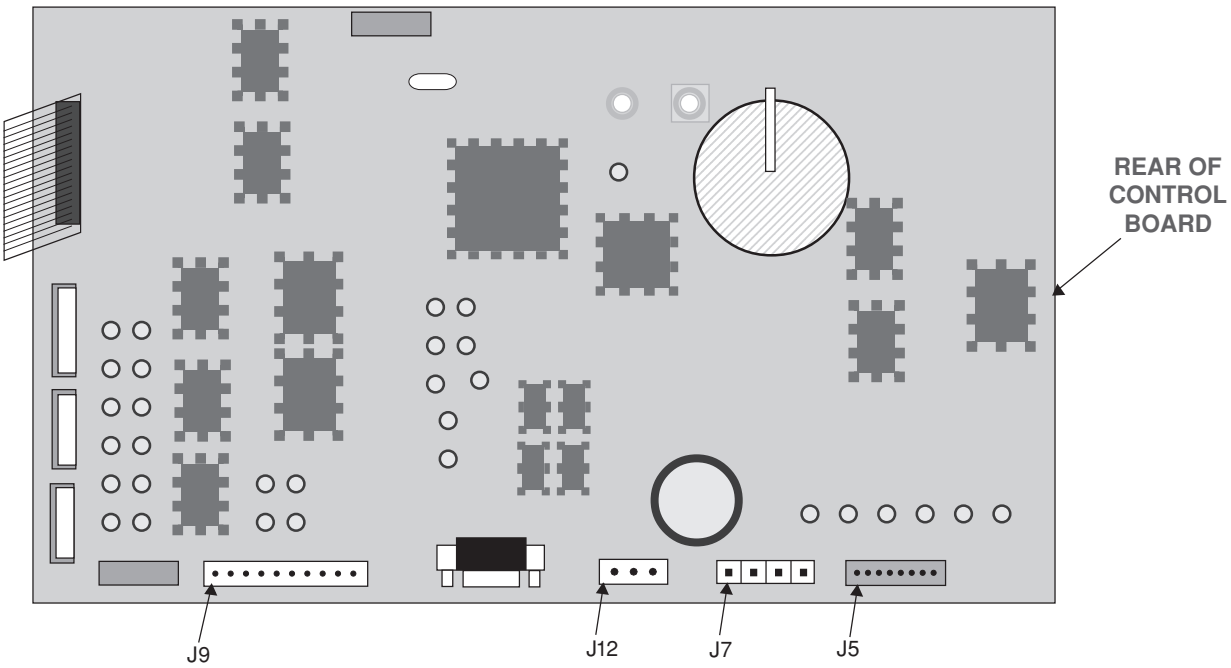


Fig. 11

Product Probe Assembly

The product probe junction box is assembled on the side wall panel behind the door hinges. Remove the cover from the product probe junction box. Push the product probe wires down from the ceiling through the hole at the top of the product probe juction box (Fig. 12). Extend the connectors so Connector #1 is at the top, Connector #2 is next, Connector #3 is below Connector #2, and Connector #4 is at the bottom.

Place #1 product probe cable through the upper slot in the product probe junction box so the grommet on the cable fits the slot; connect the connector end of the product probe cable to the #1 mating connector inside the product probe junction box (Fig. 13). In the same manner connect the second, third and fourth product probe cables to the appropriate mating connectors: The #2 connector is second from top position, #3 is third from top position and #4 is the bottom position (Fig. 13).

Install the cover over the product probe junction box using the two screws previously removed (Fig. 14).

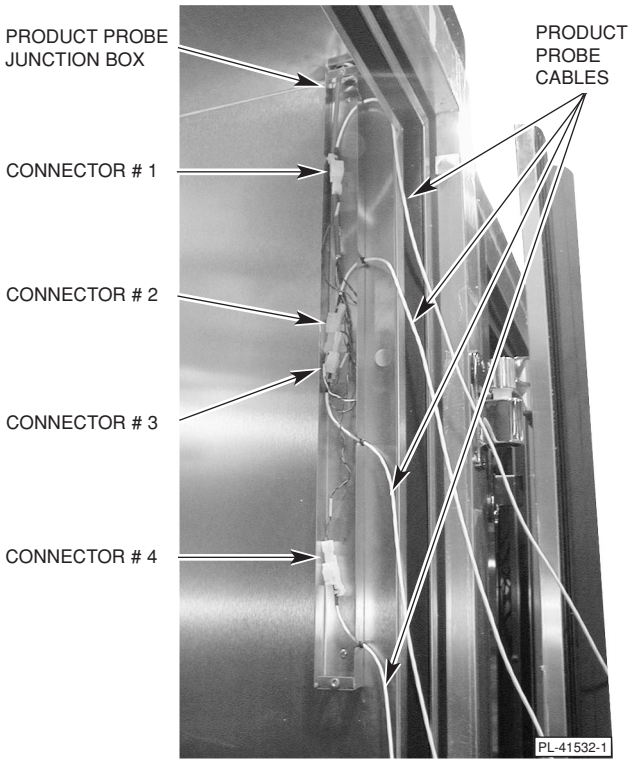


Fig. 12

From the top electrical box, seal the hole around the probe wires so warm air and foreign matter do not reach down the hole into the product probe junction box. Duct seal (putty) is supplied with the cabinet.

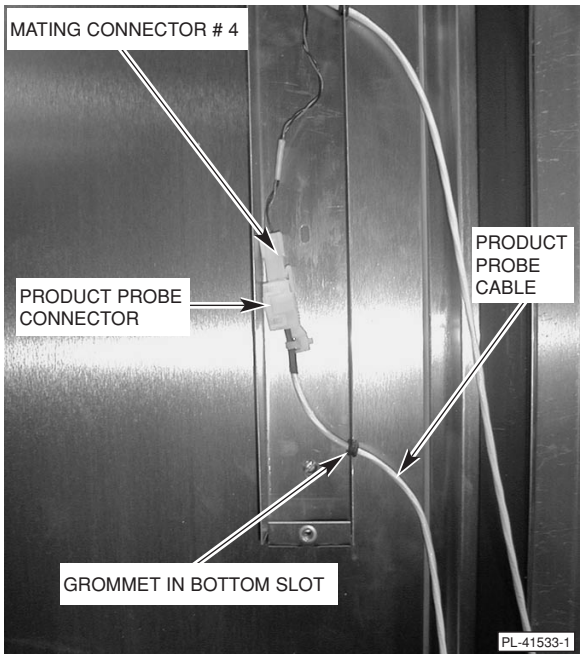


Fig. 13

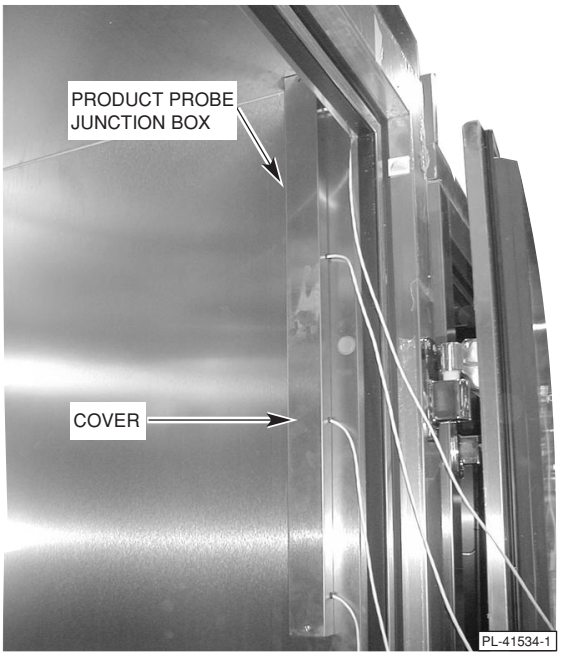


Fig. 14

Temperature Control Sensors

Push the three refrigeration temperature control sensors down through TUBE #3 (Fig. 8) from the electrical box on top of the cabinet (Fig. 15). Install the three temperature control sensors in their proper locations. Install the Air sensor (Fig. 16) on the side panel. Place the Coil sensor on the refrigeration coil header (Fig. 17). Install the Over-temp sensor (Fig. 18) at the top of the left wall panel, inside the cabinet.

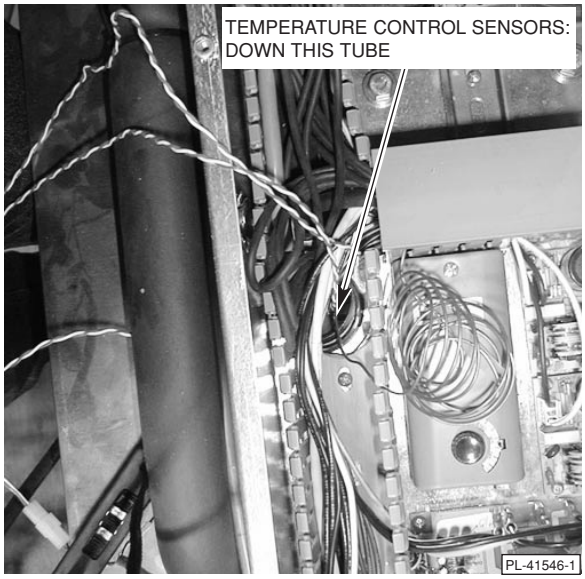


Fig. 15

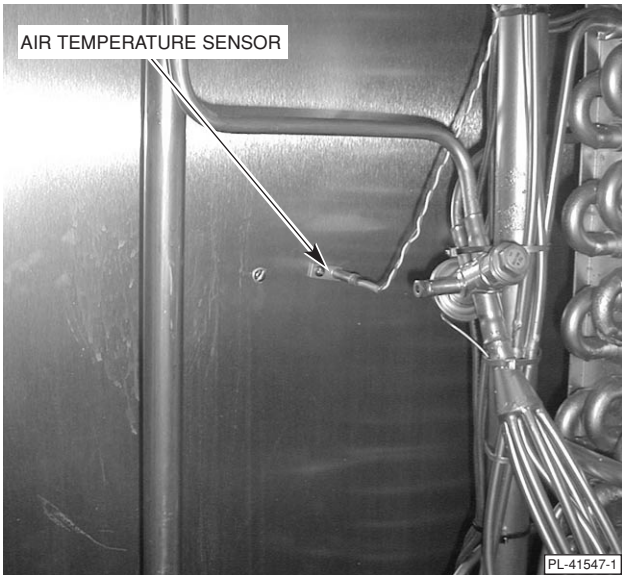


Fig. 16

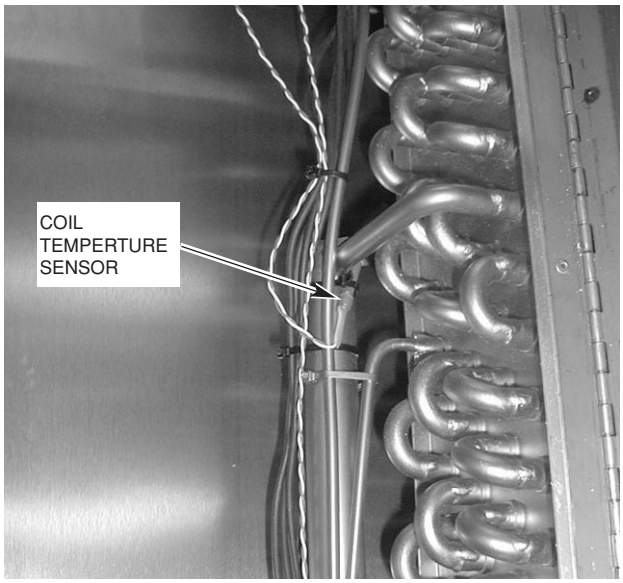


Fig. 17

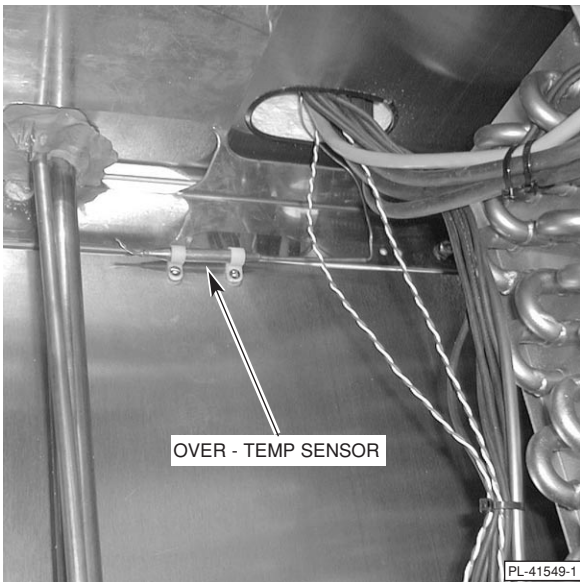


Fig. 18

Fans and Defrost Heaters

Bring all connector blocks from the coil and fan section (fans and defrost heaters) up through TUBE #3 and TUBE #4 to the electrical box (refer to Fig. 8, page 8). Mate the connector blocks with matching connector blocks from the ceiling electrical box. Seal TUBE #3 and TUBE #4 around the wires with proper insulation. Duct seal (putty) is supplied with the cabinet.

If an optional rear pass-thru door is included, connect the additional mating connector blocks for the door switch and door perimeter heater wires.

REFRIGERATION CONNECTIONS

On top-mounted, self-contained HQC135, all refrigeration lines are of the proper length. Assemble by connecting the quick couplers. Brazing and welding are not required. Lines are pre-charged with R-404A refrigerant.

On cabinets with remote condensing units, proceed with all refrigeration brazing that needs to be done to bring suction and liquid lines out of the cabinet interior. Bring liquid line from the interior to the solenoid valve installed on top of the cabinet. On standard units, refrigeration lines go out through the ceiling hole. Seal hole around the lines with proper insulation. Duct Seal (putty) is supplied with the cabinet.

Suction and liquid lines have to be installed between the cabinet and the remote compressor. Refrigeration installation and start-up must then be done by a professional refrigeration technician, using recognized industry-standard procedures.

DRAIN LINE INSTALLATION

The drain tube begins at the $^{7}/_{8}$" O.D. stainless steel connection at the bottom of the drain pan, underneath the coil and fan section. If the drain outlet was not selected and drilled, make a hole in the wall panel to exit the drain line. From the stainless steel connection, the drain should either go straight to the front, straight to the rear, or straight to the side. Sufficient copper pipe is supplied to exit the cabinet. Install this copper pipe by attaching it to the stainless steel connection using a small self-tapping screw.

Once the drain exits the cabinet, it must be trapped per local code before being extended to an open floor drain. The clearance area around the drain tube where it exits the panel wall must be sealed with an NSF approved sealer.

INTERIOR FINISH DETAILS

Plates are provided on the top front of the coil and fan section. Move the plates up to cover the holes on top of the coil and fan section. Run a bead of silicone sealant all around the coil and fan section, between its stainless steel structure and the foamed walls. Install the cover for the coil and fan section using the six wing bolts, supplied. The square openings should be placed in front of the fan units — louvers, in front of the coil. Fans will not start if the cover is not in its proper position.

INSTALLATION OF REMOTE ALARM (OPTIONAL)

The Chiller provides a connection for a remote alarm that operates when the buzzer sounds on completion of a chill cycle. This output is a set of normally open relay contacts which close when an alarm occurs. Connections are made to terminals 5 and 6 located in the junction box on the roof per the wiring diagram and these restrictions:

1. Maximum remote alarm rating: 120V at 2 amps resistive or 100 watt incandescent lamp.
2. Connection must be made with 600 volt insulated wire suitable for supply voltage. Do not use bell wire, lamp cord or similar type wire.

ELECTRICAL CONNECTIONS

WARNING: ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER LOCAL ELECTRICAL CODES.

WARNING: DISCONNECT ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH INDICATING THAT YOU ARE WORKING ON THE CIRCUIT.

Whether the condensing unit is remote or mounted on top of the cabinet (available on HQC135 only), there is a separate power supply for the condensing unit. There is no electrical connection between the cabinet electrical box and the condensing unit electrical box.

ELECTRICAL DATA

Model	Cabinet / Compressor	H.P.	BTU/hr	Volts / Hertz / Phase	Minimum Circuit Ampacity AMPS	Maximum Fuse Size AMPS
HQC135	Cabinet: Controls & Fans, etc. **Plus one compressor from the list below:**	n.a.	n.a.	120 / 208 - 240 / 60 / 1	10.9	20
	Indoor Air-Cooled Hermetic Compressor Self-Contained or Remote	3 1/4	20,400	208 - 230 / 60 / 1	29.1	40
				208 - 230 / 60 / 3	20.1	30
				480 / 60 / 3	9.6	15
	Indoor Water-Cooled Hermetic Compressor Self-Contained or Remote	3 1/4	19,700	208 - 230 / 60 / 1	23.6	40
				208 - 230 / 60 / 3	14.6	25
				480 / 60 / 3	8.0	15
	Indoor Air-Cooled Semi-Hermetic Compressor Remote Only	3	24,800	208 - 230 / 60 / 3	21.9	30
	Indoor Water-Cooled Semi-Hermetic Compressor Remote Only	3	21,600	208 - 230 / 60 / 3	15.5	25
	Outdoor Semi-Hermetic Compressor Remote Only	3	25,400	208 - 230 / 60 / 3	21.0	30

HQC200	Cabinet: Controls & Fans, etc. **Plus one compressor from the list below:**	n.a.	n.a.	120 / 208 - 240 / 60 / 1	10.9	20
	Indoor Air-Cooled Hermetic Compressor Remote	5	32,900	208 - 230 / 60 / 1	42.0	60
				208 - 230 / 60 / 3	29.5	45
				480 / 60 / 3	14.8	20
	Indoor Air-Cooled Semi-Hermetic Compressor Remote	5	35,800	208 - 230 / 60 / 3	32.3	50
				480 / 60 / 3	15.5	20
	Outdoor Semi-Hermetic Compressor Remote	5	39,680	208 - 230 / 60 / 3	37.1	60
				480 / 60 / 3	17.7	25
	Indoor Water-Cooled Hermetic Compressor Remote	5	30,545	208 - 230 / 60 / 1	38.7	60
				208 - 230 / 60 / 3	26.2	40
				480 / 60 / 3	13.5	20
	Indoor Water-Cooled Semi-Hermetic Compressor Remote	5	39,975	208 - 230 / 60 / 3	27.9	50
				480 / 60 / 3	13.1	20

CAUTION: **Before connecting the electrical power to the service connection box, measure all voltages with a voltmeter. L1 to Neutral and L2 to Neutral should measure approximately 120 VAC.**

INSTALLATION — REMOTE CONDENSING UNITS

Prior to installing the condensing unit, test the electrical service to assure that it agrees with the specifications on the data plate located on the condensing unit frame.

GENERAL

The Model HQC135 Chiller can be purchased with a remote condensing unit. The HQC200 will always be provided with a remote condensing unit. Condensing unit sizes are 3 or 3 1/4 HP for HQC135 and 5 HP for HQC200. Condensing units are available for indoor air-cooled, indoor water-cooled or outdoor application, to be specified at time of order. Compressor is available in hermetic or semi-hermetic types for HQC135 and HQC200.

DUE TO THE VARIED NATURE, COMPLEXITY AND UNIQUENESS OF REMOTE CONDENSING UNIT INSTALLATIONS, THE HOBART WARRANTY DOES NOT COVER REMOTE INSTALLATION WORK AND DOES NOT COVER CONDENSING UNITS SUPPLIED BY OTHERS.

ELECTRICAL CONNECTIONS

WARNING: ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER LOCAL ELECTRICAL CODES.

WARNING: DISCONNECT ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH TO INDICATE THAT YOU ARE WORKING ON THE CIRCUIT.

Install electrical conduit and wiring (not supplied) from the power supply to the terminal junction box on the condensing unit. Proper supply voltage, maximum fuse/circuit breaker sizes and minimum circuit amperage can be found on the condensing unit data plate. On outdoor condensing units, wiring must be encased in watertight conduit and use watertight fittings.

It is recommended that a disconnect switch (not supplied) be located near the remotely installed condensing unit for installing or servicing.

Refer to page 13.

CONDENSER RECOMMENDATIONS

For indoor installations, place the condensing unit in a cool, dry place that is easily accessible for installation, cleaning and maintenance. The condenser must be located a minimum of 2 feet from a wall or obstruction. For air-cooled condensing units located in machine rooms or air restricted areas, ventilation is needed to dissipate the heat produced by the condenser. The condenser heat varies during the chilling cycle but could be considered for ventilation purposes to be as follows:

3 or 3 1/4 HP Condensing Unit	50,000 BTU/h
5 HP Condensing Unit	73,000 BTU/h

PIPE SIZING GUIDELINES

Piping design and line sizing is the responsibility of the installer. The following table can be used as a guideline. The 'Net Distance to Condensing Unit' column allows 50% of the Distance for the equivalent restriction to refrigerant flow caused by elbows. We recommend the installer minimize restriction to refrigerant flow by incorporating the following features in their design: Use fewer elbows; use long radius elbows when possible; use 45° elbows instead of 90° elbows, if possible. A vertical suction riser greater than 3 to 4 feet in height should have a P trap at the base to facilitate oil return up the riser. For long vertical risers, an additional P trap is recommended for each 20 feet of riser to assure proper oil movement.

Model	Total Equivalent Length	Less Equivalent Length Allowance for Elbows	Net Distance to Condensing Unit	Suction Line Size	Liquid Line Size
HQC135	Less Than 45 Feet	15 Feet	Less Than 30 Feet	7/8"	3/8"
	From 45 to 300 Feet	100 Feet	From 30 to 200 Feet	1 1/8"	1/2"
	Over 300 Feet	100 Feet	Over 200 Feet	1 3/8"	1/2"
HQC200	Less Than 75 Feet	25 Feet	Less Than 50 Feet	1 1/8"	1/2"
	From 75 to 375 Feet	125 Feet	From 50 to 250 Feet	1 3/8"	1/2"
	Over 375 Feet	125 Feet	Over 250 Feet	1 5/8"	5/8"

Additional information is available from your compressor manufacturer's system design manual.

OUTDOOR CONDENSING UNITS

Outdoor condensing units are equipped with weather resistant outdoor covers, crankcase heaters and head pressure valves to control the flow of refrigerant through the condenser.

Refrigerant charging of the system in ambients above 70°F requires additional charging equal to the pounds necessary to flood the condenser under low ambient conditions, as defined in the chart below:

MODEL	CONDENSING UNIT (HP)	APPROXIMATE ADDITIONAL R-404A CHARGE
HQC135	3 or 3 1/4	8 lbs
HQC200	5	15 lbs

Charging of the system with refrigerant in ambients below 70°F requires caution to prevent overcharging since the pressure control valve will already be partially functioning and the amount of additional charge must be determined.

VALVE AND PRESSURE SETTINGS

LOW PRESSURE CONTROL SETTING
(Refrigerant R-404A)

Low Pressure Cut-In	30 psig
Low Pressure Cut-Out	10 psig

The ideal superheat at the evaporator outlet is 8 – 10°F.

WATER COOLED CONDENSING UNITS

Water cooled condensing units are equipped with water valves which control the rate of water flow through the condenser based upon compressor head pressure. The maximum allowable working pressure on these valves is 150 psig, so a pressure reducing valve may be required. The location of the condensing unit should be such that it will not be exposed to ambient temperatures below freezing. A chart of water flow requirements for condensing units (page 17) is based upon incoming water temperature and is expressed in gallons per hour per 1,000 BTU/hr refrigeration.

BTU/hr capacities are:

MODEL	HP	BTU/HR CAPACITY
HQC135	3 or 3 1/4	24,800 at 10°F Suction and 105°F Condensing
HQC200	5	35,800 at 10°F Suction and 105°F Condensing

The water cooled condensing units may be plumbed in series for use with city water supplies or plumbed in parallel for connection to a cooling tower. All water cooled condensing units are refrigerant cooled, and therefore should have superheat settings to maintain return gas temperatures not to exceed 65°F. For additional information, refer to Copeland Technical Bulletin AE 1174-R6, dated January 1, 1985. A copy is available through your sales representative.

WATER FLOW REQUIREMENT FOR COPELAND WATER COOLED CONDENSING UNITS *
Gallons per hour per 1,000 BTU/hr (Net)

Operating Conditions	Temperature Difference, Entering Water to Condensing			
	20°F T.D.		30°F T.D.	
	Series Water Flow	Parallel Water Flow	Series Water Flow	Parallel Water Flow
90°F Condensing				
45°F Evap.	8.1	10.1	5.5	6.8
15°F Evap.	8.9	11.1	6.0	7.5
-10°F Evap.	10.0	12.5	6.8	8.5
100°F Condensing				
45°F Evap.	8.2	10.3	5.6	6.9
15°F Evap.	9.2	11.5	6.2	7.8
-10°F Evap.	10.4	13.0	7.1	8.8
110°F Condensing				
45°F Evap.	8.5	10.5	5.7	7.1
15°F Evap.	9.5	11.8	6.4	8.0
-10°F Evap.	10.9	13.5	7.4	9.2

* Reproduced from Copeland Technical Bulletin AE 1174-R6, dated 1/1/85.

OPERATION

CONTROLS (Fig. 19)

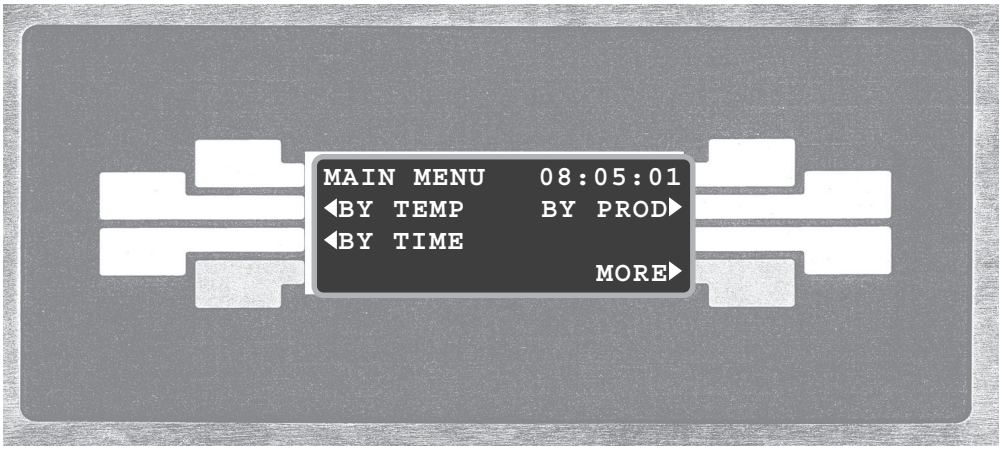


Fig. 19

START-UP

```
SmartChill
HQC135
INITIALIZING
VERSION 1.00
```

The screen at left is displayed when the chiller is first turned on.

OVER TEMPERATURE

If CAUTION HI AIR 160°F displays, turn the chiller off, open the door and allow the excessively high temperature and humidity to evacuate the chamber. Then restart the chiller and resume the chill cycle.

Choose a selection from the menu that appears on the control's display by pressing the button graphically connected to the display prompt. Four buttons are arranged on the left and four on the right.

For example, to select By Temp, press the second button on the left.

PROBES

During a chill cycle, insert probes in pans of food to monitor temperatures. Probes should not touch bottom of pan. Place probe in the middle of the food for best temperature indication.

Probe 1 is the upper probe in the cabinet (Fig. 20). Probe 2 is next, followed by Probe 3. Probe 4 is at the bottom.

```
CHILLING   AIR: 14°F
 1 159°F    156°F 3
 2 154°F    157°F 4
0:00:03  ADD/REMOVE▶
```

Fig. 20

DOOR SWITCH

When the door is opened, the door switch shuts off fans and DOOR OPEN displays. If the door is open for 30 seconds, the refrigerant valve closes. If the door is open for 120 seconds (or the *DOOR OPEN* time setting on page 34), a buzzer sounds. After the door closes, timer and chiller operations resume.

FAN DOOR SWITCH

A fan door switch also shuts the fans and refrigerant valve off if the metal fan grill is not properly fastened in place. A notice displays: WARNING !!! FAN DOOR IS OPEN. CALL HOBART SERVICE FOR REPAIR. If the operator and supervisor cannot shut the interior fan door, contact Hobart Service. The chiller will not operate with the fan door open.

PRINTER SUPPLIES

Printer supplies are available from your local Hobart sales and service office.

The standard printer uses 2¼" thermal printer paper, Hobart Part Number 434409, per roll. Minimum order quantity: 50 rolls per 1 case. Roll length is 80 feet.

The optional label printer uses peel-off label stock, Hobart Part Number 434408, per roll. Minimum order quantity: 50 rolls per 1 case. Each roll contains 225 labels.

LOADING ROLL STOCK ONTO THE PRINTERS (Fig. 21)

Plain Thermal Paper

A roll is placed on the printer shaft. The ends of the printer shaft are installed in the two roll holders. Follow the diagram on the back of the printer so the paper is correctly fed through the printer. The bottom of the roll feeds down over the feeder bar and into the printer. The printer mechanism will automatically advance the paper through the slot. If this is done properly, the correct side of the thermal paper can be activated by the thermal printer head.

Adhesive-Backed Label Stock for Optional Label Printer

A roll of label stock is placed on the printer shaft. The ends of the printer shaft are installed in the two roll holders. Follow the diagram on the back of the printer so the paper is correctly fed through the printer. The bottom of the roll feeds down over the feeder bar and into the printer. The printer mechanism will automatically advance the label paper through the slot.

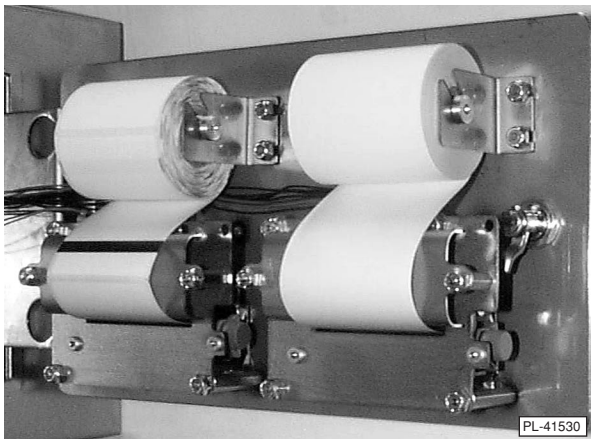


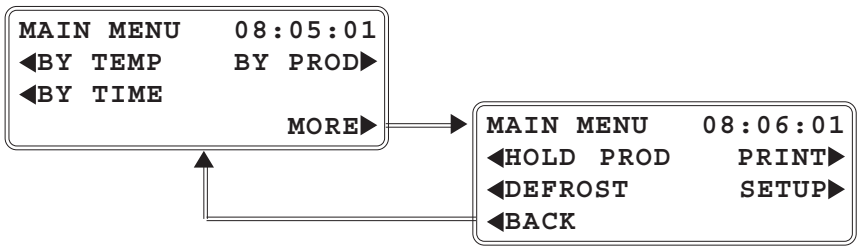
Fig. 21

WHEN POWER IS RESTORED AFTER A POWER INTERRUPTION

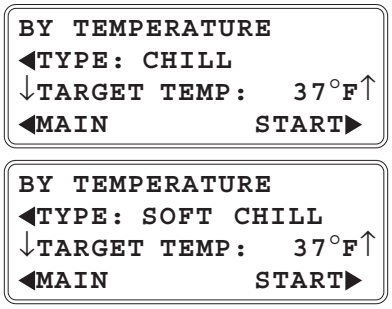
```
CYCLE INTERRUPTED:
FROM  3/15/01 10:17
UNTIL  3/15/01 13:22
CONT. CHILLING    OK▶
```

The display indicates the time and duration of any power interruption that occurs during a Chill cycle. The operator can make appropriate decisions about food stored in the chiller. Press OK to continue. A *CYCLE INTERRUPT* report is printed. Then, the system resumes at the previous activity. Return to the Main Menu for any other action.

NOTE: The display indicates *CYCLE INTERRUPTED* any time the power switch is turned off and on during any chilling, holding, or freezing mode. Always stop chilling by returning to the Main Menu before turning the power switch off.



BY TEMP — *Chill Cycle is complete when any (or all) product probe(s) reaches the Target Temp.*



From the Main Menu, select BY TEMP.

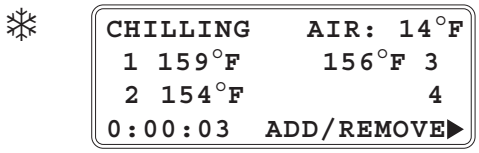
- Select the Type: CHILL or SOFT CHILL.

MODEL	BY TEMP	FACTORY PRESET TARGET TEMP	RANGE
HQC135 HQC200	CHILL	37°F	33 TO 40°F*
	SOFT CHILL	37°F	33 TO 40°F*

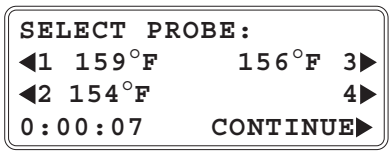
* Range can be extended to 55°F by supervisor if desired — see page 35.

- To adjust the TARGET TEMP: Press ↓ or ↑.
- Insert probes in product — smart probes sense temperature of product and are automatically selected.
- Close the door.
- To begin Chilling, select START.

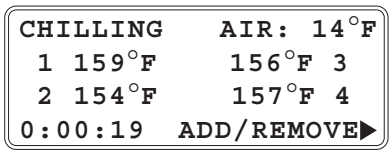
  (MAIN returns to the Main Menu.)



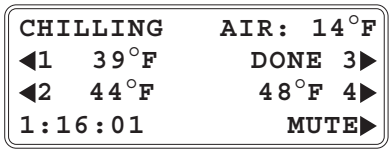
- To add more product while chilling: Open door; insert probe in product; close door; press ADD/REMOVE.



- If any probes are *OFF*, select the desired probe(s).
- Press CONTINUE.



- The chill time displays in the lower left corner — Hr: Min: Sec.



☛ A probe has reached the target temperature.

- Press MUTE or select the 'done' probe's number to silence the buzzer.

  (This step is repeated as each probe reaches the target temperature; see next page.)

```
CHILLING    AIR: 14°F
◀1   39°F      DONE 3▶
◀2   44°F      48°F 4▶
1:16:01   ADD/REMOVE▶
```

- Press ADD/REMOVE.
- If all probes are 'done,' the display goes to HOLDING.

```
HOLDING     AIR: 37°F
◀1 DONE        DONE 3▶
◀2 DONE        DONE 4▶
1:16:01   ADD/REMOVE▶
```

```
SELECT PROBE:
◀1   39°F      DONE 3▶
◀2   44°F      48°F 4▶
1:16:08    CONTINUE▶
```

- Select the 'done' probe's number to remove it.
- Remove all product associated with the 'done' probe.

```
SELECT PROBE:
◀1   39°F    REMOVE 3▶
◀2   44°F      48°F 4▶
1:16:28    CONTINUE▶
```

- Select any other probe's number to stop cycle and remove it. Answer YES or NO.

```
STOP CYCLE ON #2

REMOVE PRODUCT?
◀NO                YES▶
```

- Press CONTINUE.

```
PRINT PROBE #3


◀NONE          RECORD▶
```

- Select NONE to continue chilling with no report.
- Or, select RECORD to print a Chill Report on Probe #3. Refer to the alternate Print Probe menu at the bottom of this page.

```
CHILLING    AIR: 13°F
 1   39°F          3
 2   44°F      48°F 4
1:17:42   ADD/REMOVE▶
```

```
CHILLING    AIR: 14°F
◀1   DONE          3
◀2   40°F      44°F 4▶
1:19:02         MUTE▶
```

- Repeat from ☛ as each probe reaches the target temperature.

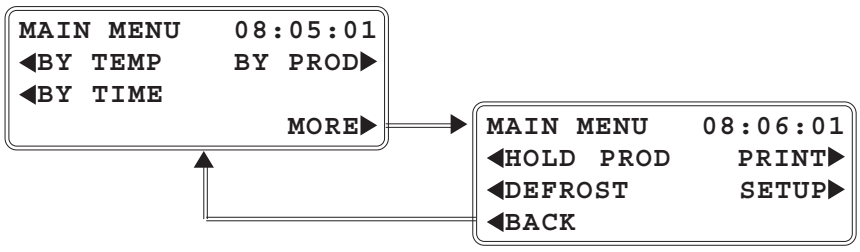
```
PRINTING

PLEASE WAIT...
```

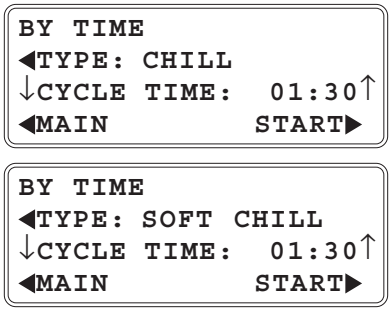
- When all probes are done, return to the Main Menu.

```
PRINT PROBE #3
               RECORD▶
                LABEL▶
◀NONE            BOTH▶
```

- If equipped with the optional label printer, an alternate Print Probe menu, shown at left, permits the choice of printing . . . RECORD, LABEL or BOTH . . . types of reports.



BY TIME — *Timer counts down until cycle is done.*



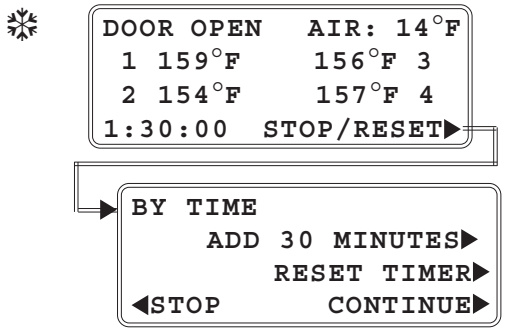
From the Main Menu, select BY TIME.

- Select the Type: CHILL or SOFT CHILL.

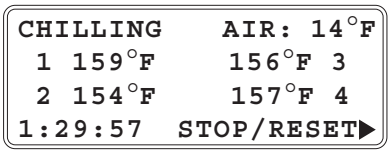
MODEL	BY TEMP	INITIAL TIME SETTING	TIME RANGE
HQC135 or HQC200	CHILL	01:30	00:01 TO 24:00
	SOFT CHILL	01:30	00:01 TO 24:00

- To adjust the CYCLE TIME: Press ↓ or ↑.
- To begin Chilling, select START.

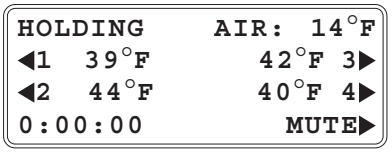
  (MAIN returns to the Main Menu.)



- Close the door.
- If probes are utilized, they will display temperature but will have no effect on the chilling process.
- Select STOP/RESET to obtain these menu items:
  - ADD 30 MINUTES adds 30 minutes to the timer.
  - RESET TIMER re-starts at the original time setting.
  - CONTINUE resumes the cycle at the time remaining.
  - STOP allows a report to be printed and then returns to Main Menu.

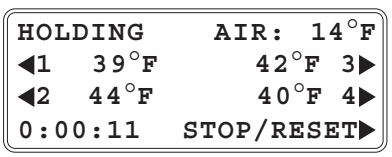


- Time Remaining displays in the lower left corner — Hr: Min: Sec.

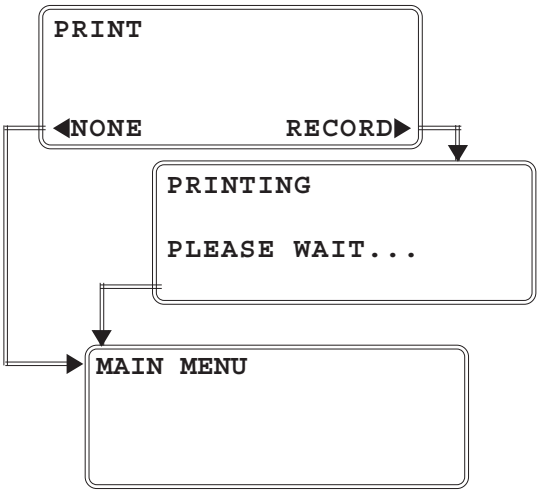


☛ The timer has counted down to 0:00:00. The chiller changes to HOLDING Mode.

- Press MUTE to silence buzzer.



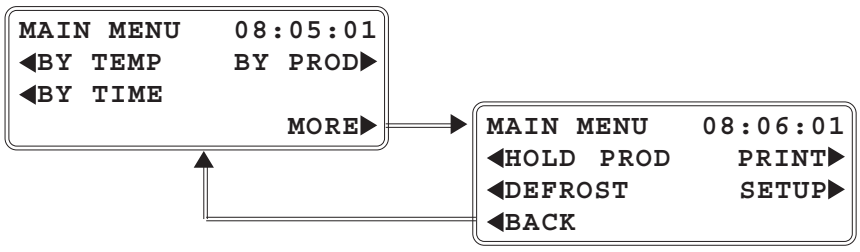
- The total time since the cycle was finished is displayed — Hr: Min: Sec.
- Remove all chilled product.
- Press STOP/RESET.



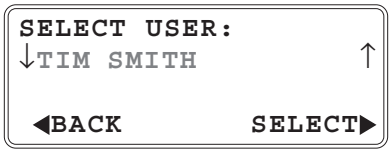
- Select NONE to continue without printing.
- Select RECORD to print a Chill Report. If equipped with the optional label printer, refer to the alternate Print menu below. **NOTE**: Chilling BY TIME does not retain Product Probe temperature data in memory and will not print TEMP vs. TIME information.

- After printing or selecting NONE, return to the Main Menu.

- If equipped with the optional label printer, an alternate Print menu, shown at left, permits the choice of printing . . . RECORD, LABEL or BOTH . . . types of reports.

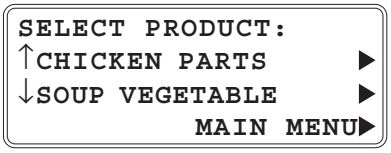


BY PROD — *Recalls programmed chill parameters for the product, either BY TEMP or BY TIME.*



From the Main Menu, select BY PROD.

- If two or more users have been entered, use the ↓ or ↑ keys until the user's name is displayed. Then press SELECT.

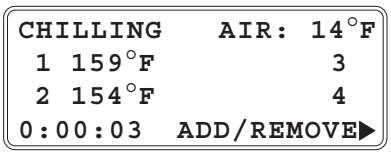


- The two products displayed are the most recently chilled products. The ↓ key will access the next enabled product from the product list, etc.
- Press the ▶ key beside the product name to recall that product's chill parameters.

  (MAIN returns to the Main Menu.)

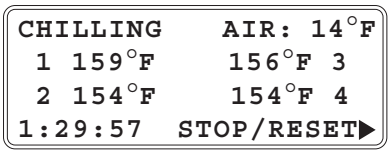
NOTE: If the product you wish to select is on the Product List on page 26 but is not available from the Select Product screen, it needs to be enabled. The Supervisor should refer to Setup Products, page 28.

If the selected product was set to chill BY TEMP:



- Follow the cycle run information on pages 20 – 21 beginning at ❄.

If the selected product was set to chill BY TIME:



- Follow the cycle run information on pages 22 – 23 beginning at ❄.

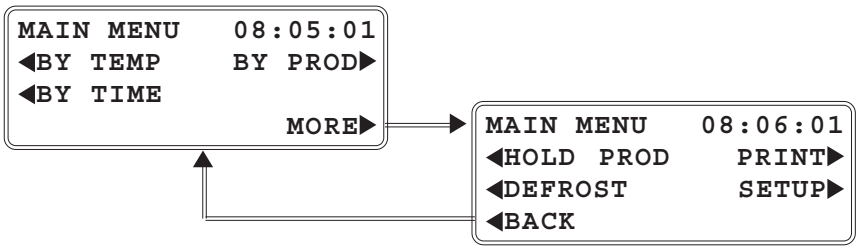
NOTE: If the chill parameters for the product you selected do not chill the way you want, the product's chill settings need to be edited. The Supervisor should refer to Setup Products, page 28.

PRODUCT LIST

Any product from the PRODUCT LIST can be chilled using the BY PROD mode, once it has been enabled in Setup Products (page 28). Only CHICKEN PARTS and SOUP VEGETABLE are initially enabled as preset at the factory.

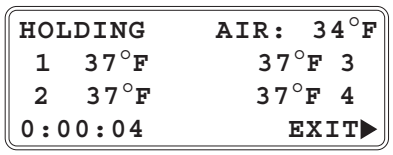
NOTE: All products are initially set in the BY TEMP – CHILL mode with a Target Temp of 37°F and Hold Temp of 37°F.

☐ ASPARAGUS	☐ LAMB	☐ SALAD POTATO
☐ BEANS	☐ LASAGNA	☐ SANDWICHES
☐ BEANS BAKED	☐ LIVER	☐ SAUCE
☐ BEEF	☐ MACARONI & CHEESE	☐ SAUCE CHEESE
☐ BEEF CREAMED	☐ MACARONI & GROUND BEEF	☐ SAUCE MEAT
☐ BEEF ROAST	☐ MEAT	☐ SAUCE TOMATO
☐ BEEF TIPS	☐ MEAT GROUND	☐ SAUSAGE
☐ BROCCOLI	☐ MEAT LOAF	☐ SOUP BEAN
☐ CABBAGE STUFFED	☐ MEAT SLICED	☐ SOUP CREAM OF CELERY
☐ CARROTS	☐ MEAT WITH SAUCE	☐ SOUP POTATO
☐ CASSEROLE	☐ OATMEAL	☐ SOUP TOMATO
☐ CEREAL COOKED	☐ PASTA	■ SOUP VEGETABLE
☐ CHICKEN & DUMPLINGS	☐ PEAS	☐ SPAGHETTI
■ CHICKEN PARTS	☐ PEPPERS STUFFED	☐ STARCH DISH
☐ CHICKEN POT PIE	☐ PORK	☐ STEAK
☐ CHOWDER CORN	☐ PORK CHOPS	☐ STEAK CHOPPED
☐ COLE SLAW	☐ POTATO MASHED	☐ STEAK SALISBURY
☐ COMBINATION DISHES	☐ POTATO SLICED	☐ STEAK SWISS
☐ CORN	☐ POTATOES	☐ STEW
☐ DRESSING CORNBREAD	☐ POTATOES SCALLOPED	☐ STEW BEEF
☐ FISH BAKED	☐ POULTRY	☐ TACO MEAT
☐ FISH BREADED	☐ POULTRY SLICED	☐ TUNA SALAD
☐ GRAVY	☐ POULTRY WITH SAUCE	☐ TURKEY BREAST
☐ GRITS	☐ PRE PLATES	☐ TURKEY ROAST
☐ HAM	☐ RICE	☐ VEAL CHOPS
☐ JELLO	☐ ROAST WHOLE	☐ VEGETABLES



HOLD PROD — *After Chilling or when selected, runs the chiller like a regular refrigerator.*

From the Main Menu, select MORE and HOLD PROD.



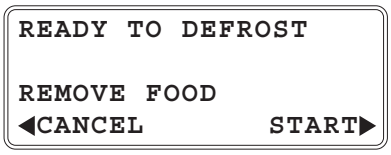
(Temperatures are indicated for air and probes.)

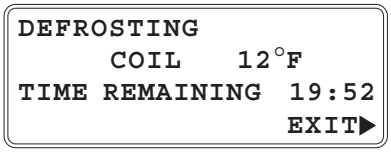
(Timer indicates the run time. No printed reports are available.)

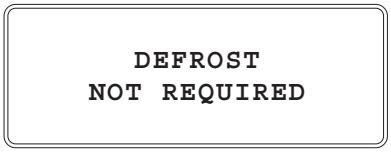
(EXIT returns to the Main Menu; however, Hold mode continues until another selection is made.)

DEFROST

NOTE: DEFROST starts automatically after 6 hours of chilling but only if operating in Holding mode.







From the Main Menu, select MORE and DEFROST.

- To begin Defrosting, remove food and select START.

  (CANCEL returns to the Main Menu.)

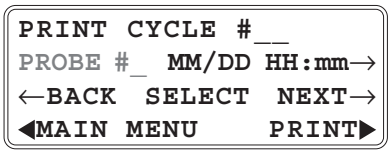
- The DEFROST cycle runs 20 minutes or until the Coil Temperature reaches 50°F.

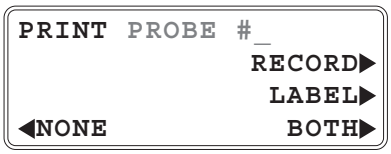
  (EXIT returns to the Main Menu.)

- If DEFROST NOT REQUIRED is displayed, return to Main Menu is automatic.

PRINT — *Once a chill cycle is done, data can be printed.*

From the Main Menu, select MORE and PRINT.





- The last chill cycle displays Probe # (if BY TEMP), MM/DD (month/day), and HH:mm (hour:minute). Probe # will not display if the chill cycle was BY TIME.
- Select the Cycle you want to print by pressing ← (for previous) and → (for next).
- Press PRINT.

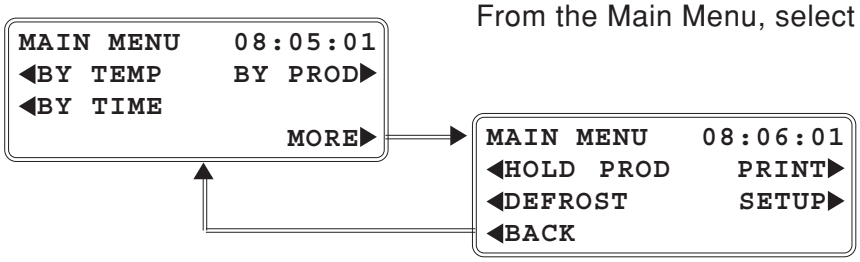
  (MAIN returns to the Main Menu.)

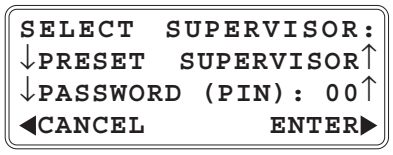
- To print, select RECORD, LABEL or BOTH. After printing, the display returns to the Main Menu.

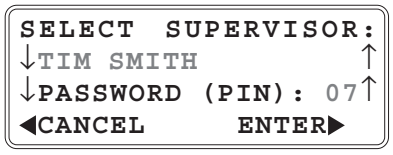
  (NONE returns to the Main Menu.)

SETUP

From the Main Menu, select MORE and SETUP.

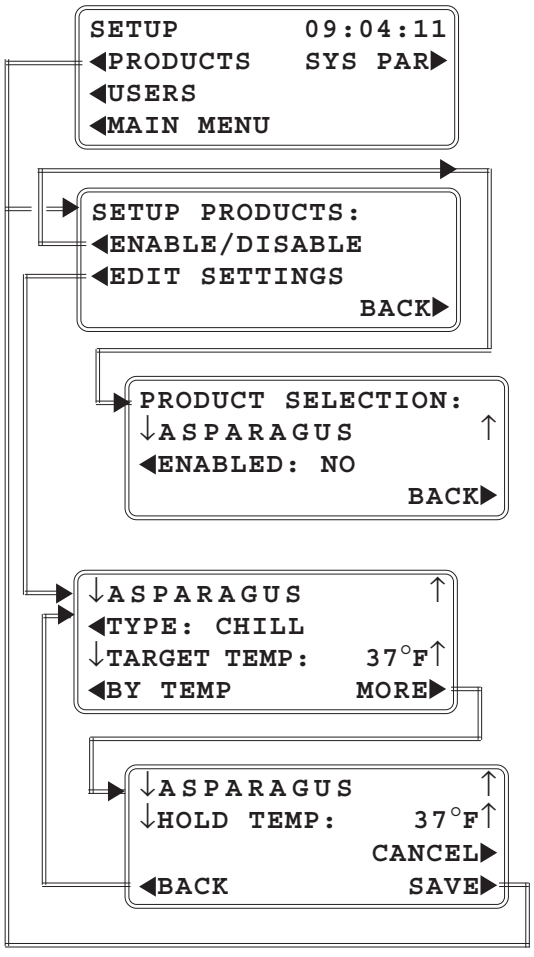






- When you first enter SETUP, only Preset Supervisor is available. On the PASSWORD (PIN) line, use the ↓ or ↑ keys until 57 is displayed as the Preset Supervisor's Personal Identification Number. Press ENTER.
- If users have already been set up, select the supervisor's name using the ↓ or ↑ keys. On the next line, use the ↓ or ↑ keys to enter their Password (or Personal Identification Number). Press ENTER.

PRODUCTS



- From Setup, select PRODUCTS.
- Select ENABLE / DISABLE to choose what products are enabled from the Product List. Only an enabled product is available to chill BY PROD. Go to ☞.
- Select EDIT SETTINGS to adjust chill parameters for any product that has already been enabled. Go to ➢.

  (BACK returns to SETUP.)

☞ After selecting ENABLE / DISABLE, use the ↓ or ↑ keys to select a product from the list. Press ◀ to change ENABLED: NO to YES to enable the product or to change YES to NO to disable it. The two most recently chilled products cannot be disabled.

- BACK saves the 'enabled' and returns to SETUP PRODUCTS.

➢ After selecting EDIT SETTINGS, use the ↓ or ↑ keys to select a product. Finish all ⊗ steps to change any settings.

⊗ Select the Type: CHILL or SOFT CHILL.

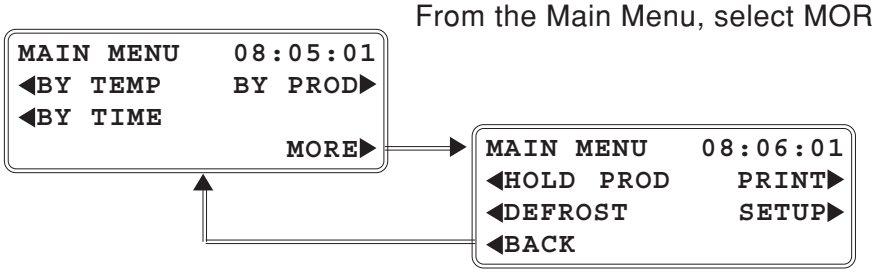
⊗ Select BY TEMP or BY TIME. Use the ↓ or ↑ keys to adjust the TARGET TEMP if BY TEMP is displayed, or to adjust the CYCLE TIME if BY TIME is displayed.

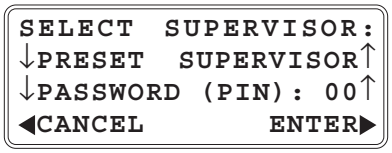
⊗ Select MORE and use the ↓ or ↑ keys to adjust the HOLD TEMP.

⊗ Press SAVE to keep the changes and return to SETUP PRODUCTS. (CANCEL returns to SETUP PRODUCTS without saving the changes. BACK returns to the previous screen).

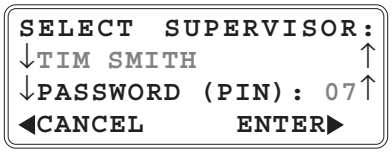
SETUP

From the Main Menu, select MORE and SETUP.



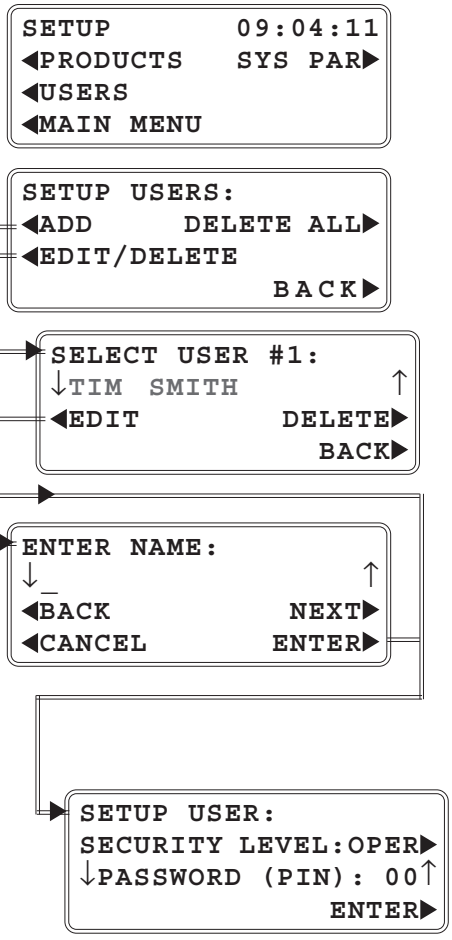


- When you first enter SETUP, only Preset Supervisor is available. On the PASSWORD (PIN) line, use the ↓ or ↑ keys until 57 is displayed as the Preset Supervisor's Personal Identification Number. Press ENTER.



- If users have already been set up, select the supervisor's name using the ↓ or ↑ keys. On the next line, use the ↓ or ↑ keys to enter their Password (or Personal Identification Number). Press ENTER.

USERS



- From Setup, select USERS.

  (MAIN MENU returns to the Main Menu.)

- Press ADD to add a user to the roster. The first user entered will automatically be given Supervisor status.

  (DELETE ALL removes all users from the roster.)

  (EDIT / DELETE allows a user's security level or PIN to be revised or the user removed from the roster.)

- To ENTER NAME: Press the ↓ or ↑ keys until the first letter of the user's name is entered; then, press NEXT to move the cursor one space to the right. Repeat this step until all letters of the user's name are entered. BACK moves the cursor one space to the left to edit.

- Press ENTER to save the user's name, as displayed.

  (CANCEL aborts the process.)

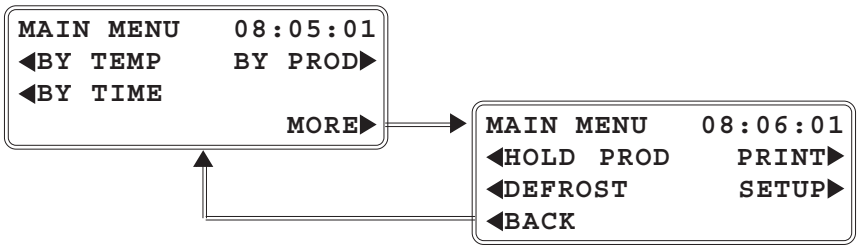
- Press ▶ to change the security level from OPER to SUPV or from SUPV to OPER. See above, operator level security is only available after the first user is entered.

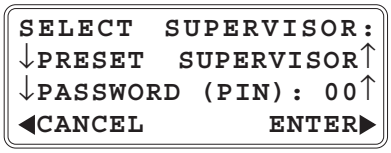
- Use the ↓ or ↑ keys to select the user's PASSWORD (PIN).

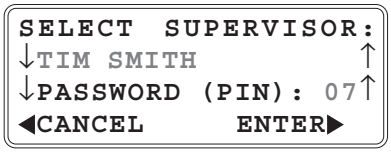
- Press ENTER to save the user's security level and PIN. Return to SETUP USERS.

SYS PAR

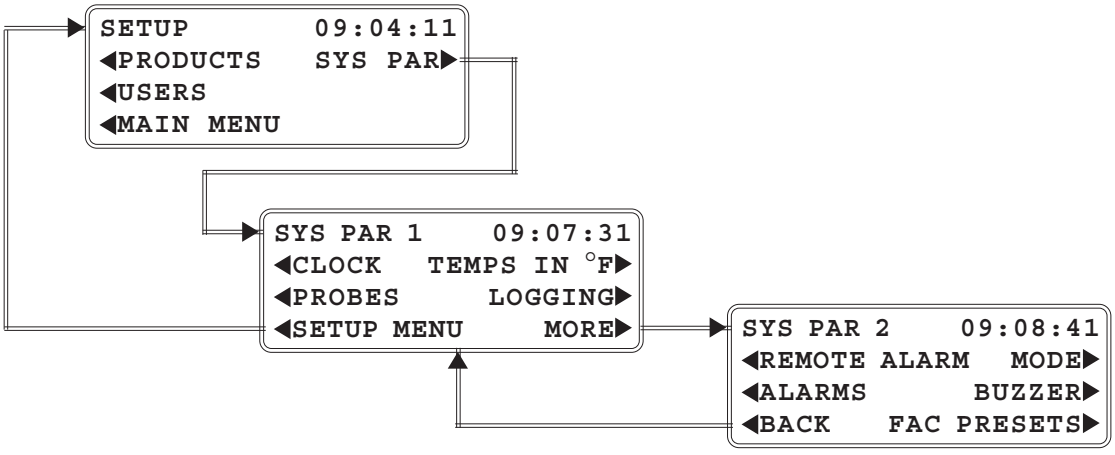
- From the Main Menu, select MORE and SETUP.





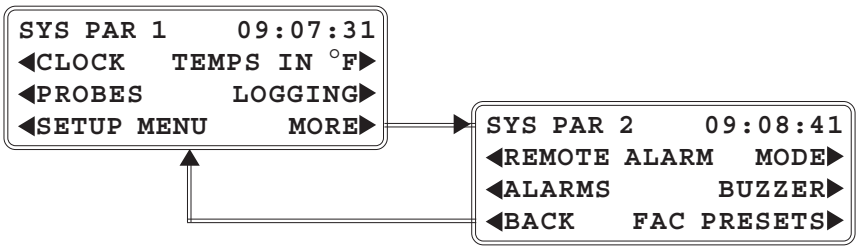


- When you first enter SETUP, only Preset Supervisor is available. On the PASSWORD (PIN) line, use the ↓ or ↑ keys until 57 is displayed as the Preset Supervisor's Personal Identification Number. Press ENTER.
- If users have already been set up, select the supervisor's name using the ↓ or ↑ keys. On the next line, use the ↓ or ↑ keys to enter their Password (or Personal Identification Number). Press ENTER.
- From Setup, select SYS PAR.
- Refer to the diagram below to access Sys Par settings (pages 31 – 37).



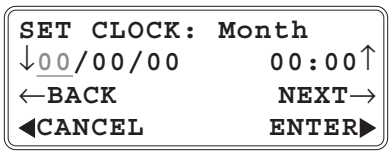
- From Sys Par 1, select MORE to access Sys Par 2.

- Access the Sys Par 1 menu as shown on page 30.

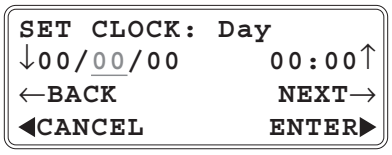


- From Sys Par 1, select CLOCK.

CLOCK

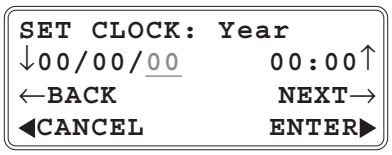


- Set the Month using the ↓ or ↑ keys.
- Select NEXT to move to the Day field.

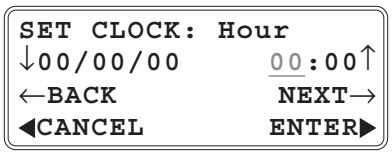


- Set the Day using the ↓ or ↑ keys.
- Select NEXT to move to the Year field.

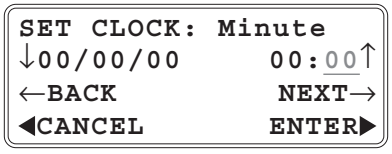
  (BACK returns to the previous screen.)



- Set the Year using the ↓ or ↑ keys.
- Select NEXT to move to the Hour field.



- Set the Hour using the ↓ or ↑ keys.
- Select NEXT to move to the Minute field.

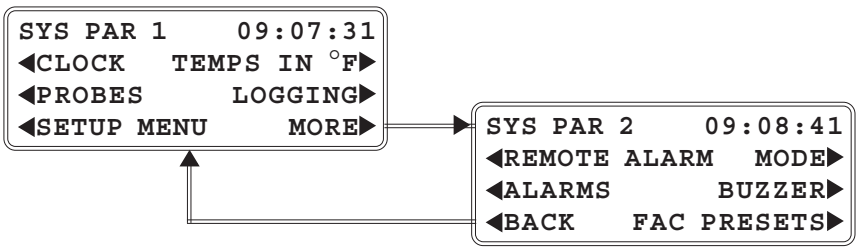


- Set the Minutes using the ↓ or ↑ keys.

  (NEXT returns to the Month field.)

  (CANCEL returns to Main Menu without saving.)
- Press ENTER to save the clock settings.

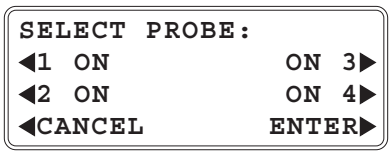
- Access the Sys Par 1 menu as shown on page 30.



- From Sys Par 1, select PROBES.

PROBES

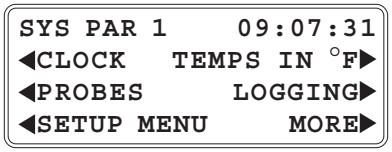
(Probe #'s 1 – 4 should be ON.)



- Select any probes marked OFF to turn them ON.
- Select ENTER to save any changes.

  (CANCEL returns to Sys Par 1 without saving any changes.)

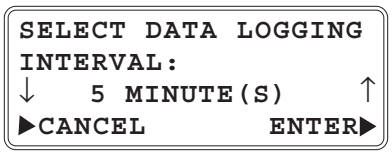
TEMPS IN °F



- From Sys Par 1:

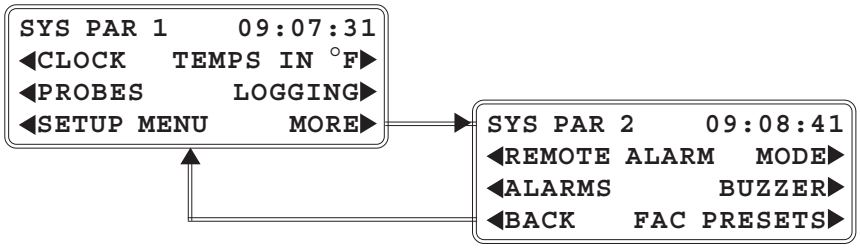
  (TEMPS IN °F indicates the control uses Fahrenheit temperatures.)
- If TEMPS IN °C is displayed, select it to change the control from Celsius to Fahrenheit temperatures.

LOGGING



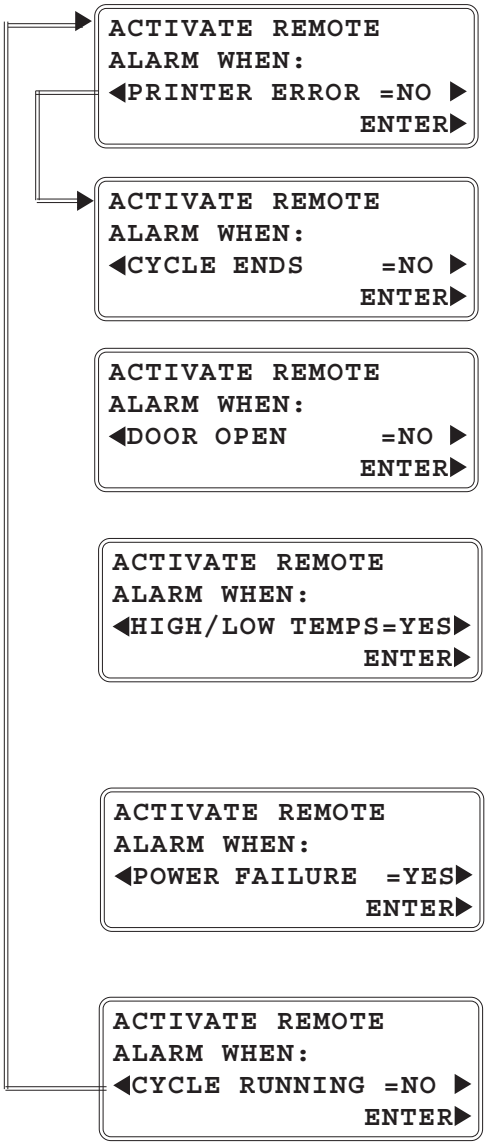
- From Sys Par 1, select LOGGING.
- Use the ↓ or ↑ keys to set the Data Logging Interval. This determines how often the data will be logged in memory. Range = 5, 10, 15, or 30 Minutes.
- ENTER accepts the change and returns to SYS PAR 1.
- CANCEL reverts back to the previously entered Data Logging Interval and returns to SYS PAR 1.

- Access the Sys Par 2 menu as shown on page 30.



- From Sys Par 2, select REMOTE ALARM.

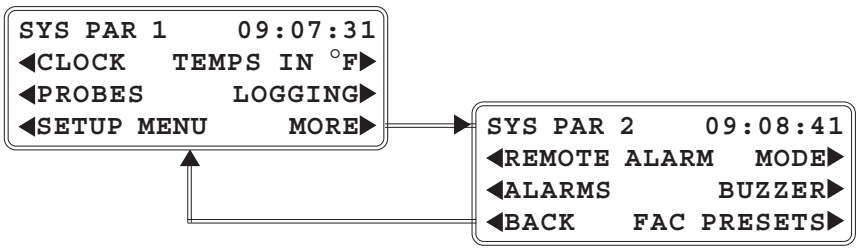
REMOTE ALARM



- Yes closes the Remote Alarm circuit in the event of a printer error. (Use ▶ to change No to Yes, etc.)
- Press ◀ to move to the next field.
- Yes closes the Remote Alarm circuit when the cycle ends. (Use ▶ to change No to Yes, etc.)
- Press ◀ to move to the next field.
- Yes closes the Remote Alarm circuit whenever the door is open for longer than the 'Door Open' alarm time setting on page 34. (Use ▶ to change No to Yes, etc.)
- Press ◀ to move to the next field.
- Yes closes the Remote Alarm circuit if temperature is sensed above the High Temperature limit or below the Low Temperature limit. (Use ▶ to change Yes to No, etc.) Refer to page 35 to set the High Alarm and Low Alarm temperatures.
- Press ◀ to move to the next field.
- Yes closes the Remote Alarm circuit when power is restored after a power interruption. (Use ▶ to change Yes to No, etc.)
- Press ◀ to move to the next field.
- Yes closes the Remote Alarm circuit when a cycle is running. The Cycle Running option has a higher precedence and overrides all other Remote Alarm options, resetting them to NO. (Use ▶ to change Yes to No, etc.)

  (Pressing ◀ returns to . . . Printer Error.)
- Select ENTER to keep any changes and return to SYS PAR 2.

- Access the Sys Par 2 menu as shown on page 30.

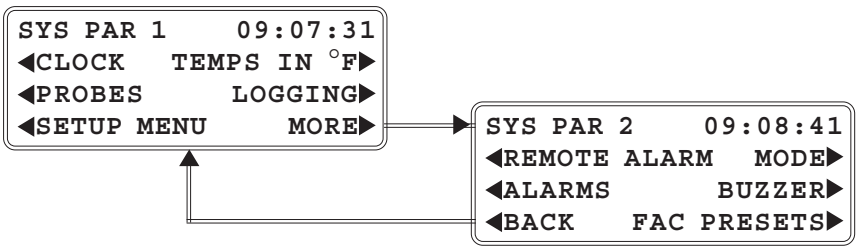


- From Sys Par 2, select ALARMS.

ALARMS

- Use the ↓ or ↑ keys to adjust the DOOR OPEN setting. Range = 0, 30, 60, 90, 120, 150, 180, 210, 240 seconds. Refer to page 30.
- Use the ↓ or ↑ keys to adjust the CLEAN COIL setting. Range = 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90 days. The CLEAN COIL setting determines how many days the compressor will run before a display appears to remind you to clean the condenser coil.
- Select ENTER to accept the displayed values and return to SYS PAR 2.

- Access the Sys Par 2 menu as shown on page 30.



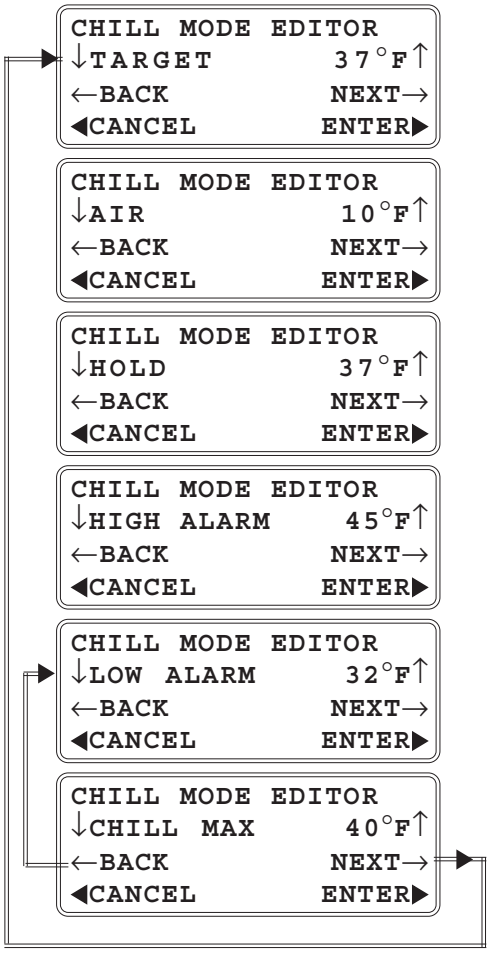
- From Sys Par 2, select MODE.

MODE

- From Mode Parameters, select CHILL.

  (BACK returns to SYS PAR 2.)

CHILL



- Set the TARGET Temp using the ↓ or ↑ keys.
  Range: [33°F to 40°F].
- Select NEXT to move to the next field.

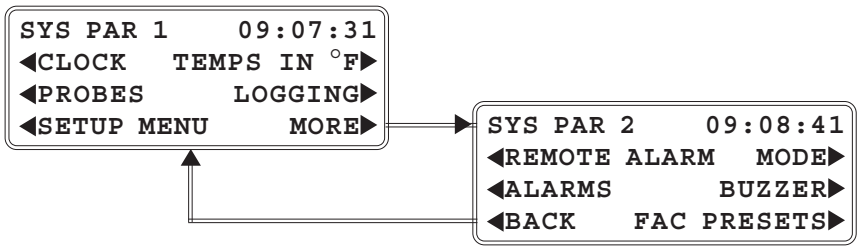
  (BACK returns to the previous field.)
- Set the AIR Temp using the ↓ or ↑ keys.
  Range: [10°F to 40°F].
- Select NEXT to move to the next field.
- Set the HOLD Temp using the ↓ or ↑ keys.
  Range: [10°F to 40°F].
- Select NEXT to move to the next field.
- Set the HIGH ALARM Temp using the ↓ or ↑ keys.
  Range: [35°F to 60°F].
- Select NEXT to move to the next field.
- Set the LOW ALARM Temp using the ↓ or ↑ keys.
  Range: [–30°F to 34°F].
- Select NEXT to move to the next field.
- Set the CHILL MAX Temp using the ↓ or ↑ keys.
  Range: [40°F to 55°F].

  (NEXT returns to the TARGET TEMP screen.)
- Select ENTER to keep any changes and return to Mode Parameters.

  (CANCEL retains the previous settings and returns to Mode Parameters.)

NOTE: To extend the Target Temp range for Chill and Soft Chill modes, first change the CHILL MAX value. Then change the Target Temp. The Target Temp range can be extended to as high as 55°F.

- Access the Sys Par 2 menu as shown on page 30.



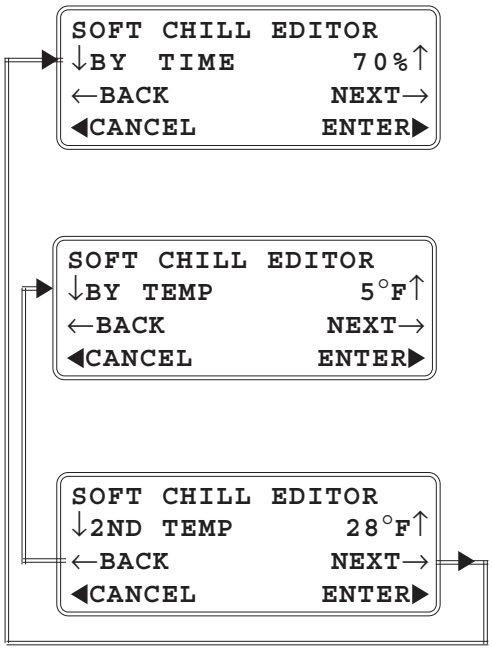
- From Sys Par 2, select MODE.

MODE

- From Mode Parameters, select SOFT CHILL.

  (BACK returns to SYS PAR 2.)

SOFT CHILL — *Assures against freezing by reducing air flow at end of cycle or by increasing air temp.*



[%] x Chill Time = Time when reduced air flow occurs.
Range: [10% to 90%].

- Set the By Time % using the ↓ or ↑ keys.
- Select NEXT to move to the next field.

[_°F] + Target Temp = Temp when reduced air flow occurs.
Range: [5 to 20 °F].

- Set the By Temp degrees using the ↓ or ↑ keys.
- Select NEXT to move to the next field.

  (BACK returns to the previous field.)

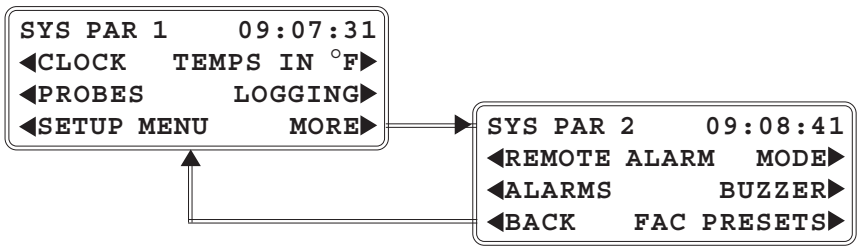
[2nd Temp] = Sets an alternate Air Temp during the Soft Chill cycle.
Range: [10°F to 40°F]. Normal Air Temp (regular chill cycle) = 10°F.

- Set the 2nd Temp degrees using the ↓ or ↑ keys.

  (NEXT returns to the By Time field.)
- Select ENTER to keep any changes and return to Mode Parameters.

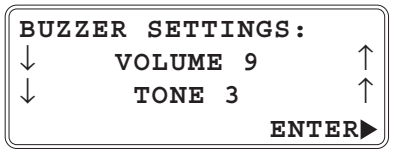
  (CANCEL retains the previous settings and returns to Mode Parameters.)

- Access the Sys Par 2 menu as shown on page 30.



- From Sys Par 2, select BUZZER.

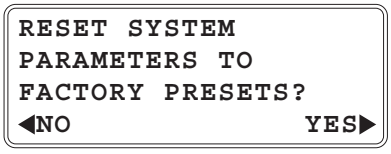
BUZZER



- Set the VOLUME [0 – 9] using the ↓ or ↑ keys.
- Set the TONE [1 – 8] using the ↓ or ↑ keys.
- Select ENTER to accept the displayed values and return to SYS PAR 2.

- From Sys Par 2, select FAC PRESETS.

FAC PRESETS



- Select YES to restore system parameters to the factory preset values and return to SYS PAR 2.
- Select NO to retain the present system parameters and return to SYS PAR 2.

GLOSSARY

Alarms — Sets the buzzer intervals after the Door is Open or when to be notified that the Compressor needs to be Cleaned.

Buzzer — The control's buzzer can have its volume and tone adjusted in the System Parameters.

By Temp — Chill cycle that terminates when the probes reach the Target Temperature.

By Time — Chill cycle that terminates after a set amount of time has lapsed.

By Prod — Chill cycle that terminates after a particular product's specified chill parameters are met (the parameters can be set either By Temp or By Time with specific cut-offs for a particular product.

Chill — Chilling Cycle that may end with either Time or Temperature controlled events. (Also see Soft Chill).

Clock — Allows the Date and Time to be entered so the system's clock correctly records chilling events.

Cycle # — The system assigns a consecutive number to each Chill Cycle.

Defrost — System Controlled Defrost occurs after six hours of chilling. The defrost will not begin during a chill cycle. The system waits until it is in Holding mode before starting the defrost cycle. The Defrost from the Main Menu is a manual defrost that will not run if selected and unneeded. The Defrost cycle requires about 20 minutes.

Fac Presets — Factory Presets are system parameters that are set at the factory but can be changed by the supervisor.

Hold Prod — After a chill mode has been done or when selected from the Main Menu, the chiller will act like a regular refrigerator.

Label — A condensed Chill Cycle Report that can be printed on adhesive-backed label stock by the optional second label printer.

Logging — The time interval at which Chill Cycle data (temperature vs. time) is logged into memory for record purposes. This time interval can be modified in Sys Par (System Parameters) by the supervisor. The range of settings available for this time interval is: 5, 10, 15, or 30 minutes.

Main Menu — The two initial menus available from the controller after the chiller is turned on.

Mode — Basic chiller operating parameters are available from Sys Par in Setup mode.

Chill mode parameters allow adjustment of the target temperature, the air temperature during chill mode, the hold mode temperature, the high alarm temperature, the low alarm temperature and the maximum chill mode target temperature.

Soft Chill mode parameters apply a modification of some of the Chill settings during the final portion of the chill cycle if Soft Chill is selected. Soft Chill provides additional protection against freezing of surfaces.

GLOSSARY cont.

Remote Alarm — The chiller can be wired to a remote alarm which will provide notification of certain irregularities: Printer Error, Cycle End, Door Open, High or Low Temperatures or Power Failure. If Cycle Running is chosen, the remote alarm circuit will close when a chill cycle is running and all other remote alarm settings are overridden (reset to NO). The supervisor can determine which events the remote alarm will announce by adjusting the settings in the Sys Par (System Parameters) section.

Setup — Specific control settings that can be set by the supervisor which determine how the chiller will operate.

Soft Chill — Type of chill process that moderates the temperatures and fan speed near the end of the chill cycle to provide less risk of freezing at the product's surface.

Supv — A Supervisor is a user who is allowed to identify the users and limit their access to system parameters, enable products to be selected, set specific product chill parameters, and change system parameters.

Sys Par — System Parameters are control settings that determine how the chiller will operate. These settings can be adjusted by the supervisor in Setup mode.

Temps in °C — If so displayed on the Sys Par 1 screen, all temperatures will be recorded in °C (Celsius).

Temps in °F — If so displayed on the Sys Par 1 screen, all temperatures will be recorded in °F (Fahrenheit).

Oper — An Operator is a user who is allowed to operate the chiller and make reports of chill cycles performed.

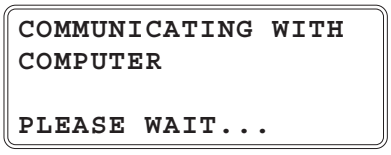
Print — Allows a report of any Chill Cycle and probe to be printed. Chillers equipped with the optional second printer can print the condensed 'Label' type of report. All Chillers can print the 'Record' type of report.

Probe # — Each probe is numbered and its temperature vs. time is recorded for each probe # during every chill cycle and the record can be printed, either at the end of the chill cycle or subsequently.

Product List — A list of products in system memory which can have individual chill parameters specifically set for each product (assuming that the product is already enabled). Refer to Setup Products.

Record — Type of report that can be printed by all chillers. This report provides a record of time vs. temperature for a specific Probe and Chill Cycle.

COMMUNICATION WITH SmartChill™



During communication with the SmartChill program on a PC, the screen at left displays.

MAINTENANCE

CLEANING

Wash, rinse, and sanitize the product probes before and after use as you would any food-contact utensil that measures temperature.

Chiller surfaces of stainless steel should be wiped clean with a damp cloth or mild cleaning solution. DO NOT flush with running water. Avoid the use of solvents around plastic or painted areas; clean these with a damp cloth moistened with a solution of mild detergent and warm water. Clean hinge hardware with a chrome cleaner. Use a solution of warm water and baking soda to clean the gasket; then wipe with a soft cloth. Hinges may require occasional lubrication of the plastic cam. The top of the chiller is not to be used for storage.

CONDENSER COIL

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

Check the condenser coil weekly. Air must be able to freely circulate through the condenser. This surface must be kept free of dirt and grease for proper system operation. Carefully clean dirt and lint from the condenser coil using a vacuum cleaner, whisk broom or soft brush; do not use a wire brush. **CAUTION: Do not damage the condenser coil fins.** Replace cover. Reconnect electrical power supply.

ERROR MESSAGES

Contact your Hobart service technician if either of the following error messages appears: [COMPRESSOR FAILURE], [DEFROST NOT WORKING].

MAINTENANCE PROGRAM

For additional information or to discuss a maintenance program, contact your local Hobart authorized refrigeration service company.