



OPERATOR'S M A N U A L



HEATED HOLDING CABINET

MODEL

HC-5

HC-15

HHC-900

HHC-902

HHC-903



HENNY PENNY
Engineered to Last

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These are the original version controlled Henny Penny instructions for Heated Holding Cabinet (HHC) Model HHC - 900, 902, 903 and Model HC - 5 and 15.

- HHC-900 - Full Cabinet
- HHC-902 - Stacked Cabinet
- HHC-903 - Half Size Cabinet
- HC-5 - Half Cabinet (Asian market)
- HC-15 - Full Cabinet (Asian market)

This manual is available on the Henny Penny Public website (www.hennypenny.com). Read these instructions completely prior to installation and operation of this appliance to ensure compliance to all required installation, operation and safety standards. Read and obey all safety messages to avoid damage to the appliance and personal injury.

This appliance is intended for commercial use in kitchens of restaurants, bakeries, hospitals, etc. but not for the continuous mass production of food such as in a factory setting. During use the units airborne A-weighted emission sound pressure is below 70 db(A). All repairs must be performed by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Always use strain relief. The provided power cord must be installed with a strain relief in a way that if the strain relief fails, wires L1, L2, L3 and N must draw taunt and fail first. If the supplied power cord or an existing one becomes damaged, do not use it; rather, replace it with a known good power cord. The power cord must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Proper daily, weekly, monthly, quarterly and yearly maintenance must be performed on this appliance to ensure safe and continuous operation. This appliance must never be cleaned with a water jet or steam cleaning tool. Cleaning brushes are shipped with the appliance and proper cleaning instructions are included in this manual.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with, clean or perform maintenance on the appliance.

This appliance is not intended to be operated by means of an external timer or a separate remote control system.

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Distributor Lists - Domestic and International

SECTION 1. INTRODUCTION

1-1. HEATED HOLDING CABINET

The Henny Penny Heated Holding Cabinet is a basic unit of food processing equipment designed to hold hot foods at proper temperature in commercial food operations. This cabinet keeps hot foods humid while maintaining temperature.

NOTICE



As of August 16, 2005, the Waste Electrical and Electronic Equipment directive went into effect for the European Union. Our products have been evaluated to the WEEE directive. We have also reviewed our products to determine if they comply with the Restriction of Hazardous Substances directive (RoHS) and have redesigned our products as needed in order to comply. To continue compliance with these directives, this unit must not be disposed as unsorted municipal waste. For proper disposal, please contact your nearest Henny Penny distributor.

1-2. FEATURES

- Easily cleaned
- Adjustable, thermostatically controlled heat
- Lift-off doors
- Easy access to electrical components
- Moist heat
- Removable control module
- Stainless steel construction
- Full perimeter magnetic door seals
- Lift out tray racks
- HHC-900 Series UL listed
- Venting system to limit humidity levels in cabinet (units with vent adjustment)
- Optional adjustable legs
- 200 lbs. (91 kgs) product capacity

1-3. PROPER CARE

As in any unit of food service equipment, the Henny Penny Heated Holding Cabinet does require care and maintenance. Requirements for the maintenance and cleaning are contained in this manual and must become a regular part of the operation of the unit at all times.

1-4. ASSISTANCE

Should you require outside assistance, just call your local independent Henny Penny distributor in your area, call Henny Penny Corp. 1-800-417-8405 toll free or 1-937-456-8405, or go to Henny Penny online at www.hennypenny.com.

1-5. SAFETY

The only way to ensure safe operation of the Henny Penny Heated Holding Cabinet is to fully understand the proper installation, operation, and maintenance procedures. The instructions in this manual have been prepared to aid you in learning the proper procedures. Where information is of particular importance or is safety related, the words NOTICE, CAUTION, or WARNING are used. Their usage is described below.



SAFETY ALERT SYMBOL is used with DANGER, WARNING, or CAUTION which indicates a personal injury type hazard.



NOTICE is used to highlight especially important information.



CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.



CAUTION used with the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



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

SECTION 2. INSTALLATION

2-1. INTRODUCTION

This section provides the installation instructions for the Henny Penny Heated Holding Cabinet.

NOTICE

Installation of this unit should be performed only by a qualified service technician.



Do not puncture the skin of the unit with drills or screws as component damage or electrical shock could result.

2-2. UNPACKING

The Henny Penny Heated Holding Cabinet has been tested, inspected, and expertly packed to ensure arrival at its destination in the best possible condition. The cabinet rests on cardboard pads that sit on a wooden skid. The racks inside the cabinet are secured with cardboard packing. The unit is then packed inside a heavy cardboard carton with sufficient padding to withstand normal shipping treatment.

NOTICE

Any shipping damages should be noted in the presence of the delivery agent and signed prior to his or her departure.

To remove the Henny Penny Heated Holding Cabinet from the carton, you should:

1. Carefully cut banding straps.
2. Lift the carton off the unit.
3. Lift the unit off the cardboard padding and skid.



Take care when moving the unit to prevent personal injury. The unit can weigh up to 500 lbs. (227 kg).

4. Open doors and remove packing from behind racks.
5. Peel off any protective covering from exterior of the cabinet.
6. The unit is now ready for location and set up.

2-3. LOCATION

The unit should be placed in an area where the doors can be opened without interruption and loading and unloading of product is easy. For proper operation, the cabinet must be level.



To avoid damage to the unit, do not set anything on top of the cabinet that might close the vent holes.

2-4. ELECTRICAL CONNECTION

The heated holding cabinet is available from the factory as a 120 VAC or 240 VAC unit for domestic use and as a 240 VAC unit for foreign use. The data plate, located on the side of the module, will specify the correct electrical supply. The unit requires a grounded receptacle with a separate electrical line protected by a fuse or circuit breaker of the proper rating. For European markets, verify the electrical plug meets the proper electrical rating and country type. See local authorities for proper standards.



To avoid electrical shock, the cabinet must be adequately and safely grounded (earthed) according to local electrical codes.

(FOR EQUIPMENT WITH CE MARK ONLY!)

To prevent electric shock hazard this appliance must be bonded to other appliances or touchable metal surfaces in close proximity to this appliance with an equipotential bonding conductor. This appliance is equipped with an equipotential lug for this purpose. The equipotential lug is marked with the following symbol



Refer to the table below for electrical ratings for the HHC-900.

Product Number	Volts	Watts	Amps
HHC-900	120	2086	17.5
HHC-900	230	1960	8.5
HHC-900	240	2086	9.0
HHC-900	240	3086	13.0
HHC-902 stackable	120	1586	13.0
HHC-903	100	1090	10.9
HHC-903	120	1586	13.0
HHC-903	230	1500	6.5
HHC-903	230	1960	8.5
HHC-903	240	2086	9.0

Product Number	Volts	Watts	Amps
HHC-903	240	3086	13.0
HC-5	220	1379	6.3
HC-5	230	1508	6.6
HC-5	240	1586	6.6
HC-15	240	2086	9.0
HC-15	230	1960	8.5

2-4. ELECTRICAL CONNECTION
(Continued)

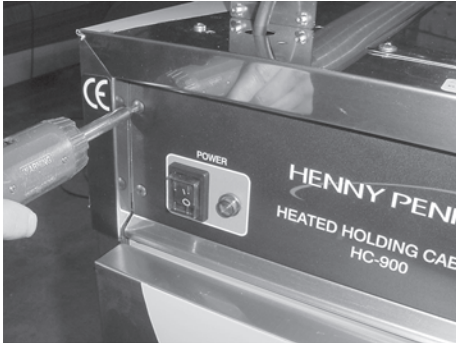


Figure 1

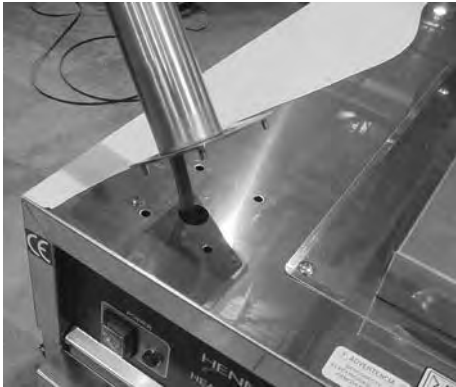


Figure 2



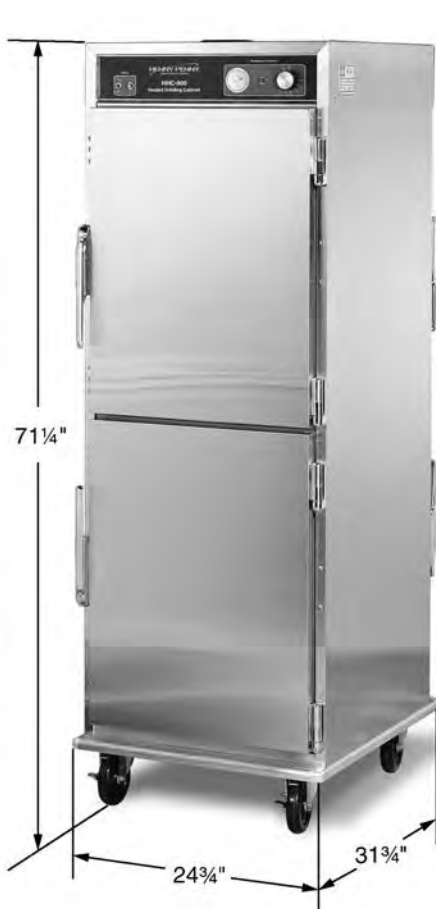
Figure 3

Optional Wireway Channel (“Chimney”) Mounting Instructions

For units with the electrical supply exiting the top of the module and running to the ceiling of the store, round, stainless steel channels are available to cover and protect the cord.

1. Using a Phillip’s-head screwdriver, remove the screws securing the front panel and pull panel down to access the holes in the top of the module. Figure 1.
2. Pull the cord through the channel to take the slack out of the cord and then match-up the studs on the channel to the holes in the top of the module and set the channel on the module.
3. Using the 4 nuts, shipped inside the unit, secure the channel to the module top.
4. Reattach the front panel. Figure 3.

2-5. CABINET DIMENSIONS



**Model HHC-900 &
Model HC-15**



Model HHC-902



**Model HHC-903 &
Model HC-5**

2.5 CABINET DIMENSIONS
(Continued)



Model HHC-906



Model HHC-908

SECTION 3. OPERATION

3-1. INTRODUCTION

This section provides operating procedures for the heated holding cabinets. The Introduction, Installation and Operation Sections should be read, and all instructions should be followed before operating the cabinet.

3-2. OPERATING CONTROLS AND COMPONENTS

Figures 3-1 through 3-5 identify and describe the function of all the operating controls and the major components of the cabinet.

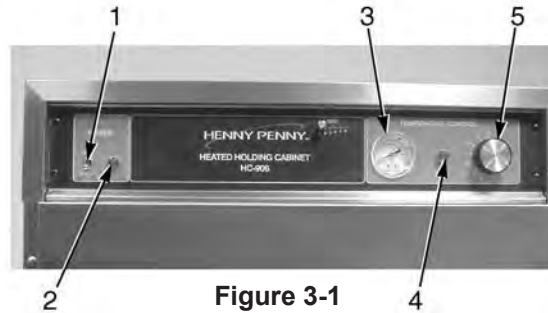


Figure 3-1

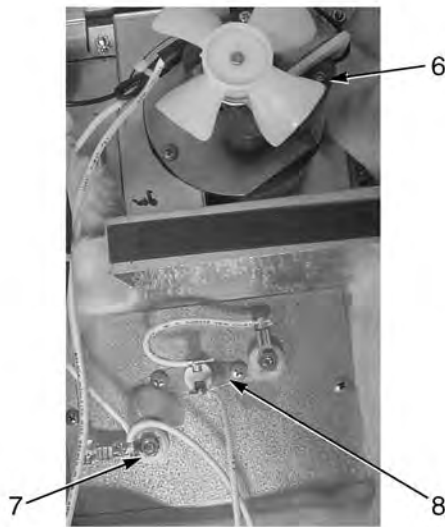


Figure 3-2



Figure 3-3



Figure 3-4



Figure 3-5

3-2. OPERATING CONTROLS AND COMPONENTS (Continued)

Fig. No.	Item No.	Description	Function
3-1	1	Power Switch	A toggle switch that switches electrical current to the unit
3-1	2	Power Light	Illuminates when the power switch is in the ON position and the components are energized
3-1	3	Thermometer	Indicates the air temperature inside the cabinet
3-1	4	Heat Light	Illuminates when the thermostat turns on the heaters
3-1	5	Thermostat	An electromechanical device that controls the temperature inside the cabinet
3-2	6	Blower Motor	Used to recirculate the hot humid air throughout the cabinet; there are two blower motor assemblies in the cabinets
3-2	7	Heater	Two, open-resistance, wire type heaters that provide heat throughout the cabinet; a standard full sized 120 VAC unit will have 1000 watt heaters; a standard full sized 240 VAC unit will have 1500 watt heaters; a standard 120V, HHC-903 unit will have 750 watt heaters
3-2	8	High Limit	A safety device mounted next to the heater which protects the unit from overheating
3-3	9	Fuse	A protective device that breaks the circuit when current exceeds the rated value; the fuse provides an overload protection for the electrical components; to remove the fuse, twist and pull the cap; the fuse is used only on the 120V/2000 watt units
3-4	10	Water Pan	Holds the water for creating humidity in the cabinet
3-5	11	Venting System (Units with vent adjustment only)	Controls the humidity levels in the cabinet

3-3. START-UP



Step 1



Step 2

NOTICE

Before using the heated holding cabinet, the unit should be thoroughly cleaned as described in the Cleaning Procedures Section of this manual.

1. To put the unit into operation, move the power switch to the ON position. The power light should now be illuminated and the blowers should be in operation.
2. Remove the water pan and put approximately 1" of hot water in the pan. Return the pan to its location.

NOTICE

Be sure to push the water pan in as far as it will go so that it does not block air from the thermometer and thermostat capillary tubes. This will ensure proper operation of these components.

3. Set the thermostat at #7 or approximately 180°F (82°C). When the heat light goes out, the unit is ready for operation.

NOTICE

The unit should take approximately 25-35 minutes to heat to temperature during start up. Be sure that the temperature light goes out before loading with product.

3-4. OPERATION WITH PRODUCT

1. Place the hot product on bun pans and insert between the cabinet racks.
2. Serve the product first that has been in the cabinet the longest.
3. In order to maintain a constant temperature, open the doors only as necessary to load and unload product.

3-5. VENT ADJUSTMENT



As mentioned in the Operating Controls and Component Section, the vent system limits the humidity level of the cabinet. The vent adjustments are very easy to follow.

The vent setting corresponds to the number of trays of product. With one tray of product, set the vent at No. 1. With two trays of product, set the vent at No. 2 and so on.

3-6. CLEANING PROCEDURES



Step 3

Daily:

Aluminum sheet pans slowly wear as they slide in and out of stainless steel holding rails to access product. As the pan slides against the rail, it can leave behind small traces of aluminum dust or small aluminum shavings. It is important that daily cleaning is performed to prevent aluminum dust/shavings from getting into the product being held in the unit.

1. Turn all controls to the OFF position.
2. Disconnect the electrical supply to the cabinet.



To avoid burns, allow the unit to cool before cleaning.

3. Open the doors and remove all trays from the cabinet.

3-6. CLEANING
PROCEDURES
(Continued)



Step 7



Step 9

4. Discard all warped or bent pans.

CAUTION

Failure to discard warped and/or bent pans may result in metal shavings/dust contaminating food products.

5. Take the trays to a sink and clean them thoroughly.
6. Remove the water pan and clean it with a soft cloth, soap, and water
7. Wipe the control panel with a damp cloth. Do not splash water around the controls.
8. Clean the exterior of the cabinet with a damp cloth.

CAUTION

Do not use steel wool, other abrasive cleaners or cleaners/sanitizers containing chlorine, bromine, iodine or ammonia chemicals, as these will deteriorate the stainless steel material and shorten the life of the unit.

Do not use a water jet (pressure sprayer) to clean the unit, or component failure could result.

9. Open the doors and remove side racks. Clean the racks with soap and water.
10. Clean the interior of the cabinet thoroughly with a cloth and soap water.
10. Put the side racks and water pan back into the cabinet.
11. Leave at least one door open over night to allow the unit to thoroughly dry out.

**3-7. OPERATING
CONTROLS -
COUNTDOWN TIMERS
(if applicable)**

These instructions are for both 13 and 5 count down timers.

Start-Up

1. Turn the power switch to the ON position.
2. The display shows the increase in temperature, indicating the unit is heating.
3. When the preset temperature is reached, the HEAT ON LED turns off and the display stays at the preset temperature.

Temperature Regulation

1. Press and hold the PROGRAM button.
2. The control beeps and “Prog Enter Code” shows in display.
3. Enter access code 1, 2, 3.
4. Press the INCREASE or DECREASE buttons to change the flashing setpoint temperature.
5. Press and hold the PROGRAM button to set the temperature and exit the programming mode.

Timer Operation

Each of the timers can be started, stopped, or cancelled, and not affect the status of the other timers.

1. Press the desired timer button.
2. The time remaining shows in the display.
3. At end of time cycle, an alarm sounds and “0:00” is displayed.
4. Press the timer to stop alarm and “---” is displayed.

Press and hold an active timer to cancel.

**3-7. OPERATING
CONTROLS -
COUNTDOWN TIMERS
(if applicable)
(Continued)**

Timer Regulation - All timers can be set to a different starting time.

1. Press and hold the PROGRAM button.
2. The control beeps and “Prog Enter Code” shows in display.
3. Enter access code 1, 2, 3.
4. Press the PROGRAM button, and “---” is displayed, along with all the timer settings.
5. Press the desired timer and the starting time flashes.
6. Press the INCREASE and DECREASE buttons to change the starting time.
7. Press the timer button to set the new starting time, and now a different timer button can be pressed, and its starting time can be changed.
8. When finished setting timers, press and hold the PROGRAM button to exit programming.

NOTICE

Exit the program mode at any time by pressing and holding the PROGRAM button. Also, if no buttons are pressed for 2 minutes, programming is exited automatically.

Timing Through Power Down

If a power failure occurs while a timer is running, the timer resumes the countdown when power is restored.

3-7. OPERATING CONTROLS - COUNTDOWN TIMERS (if applicable) (Continued)

Special Program Mode - Consists of Setup Mode and Tech Mode.

Setup Mode

- Fahrenheit or Celsius
- Initialize System - One button programming for times and temperatures

Fahrenheit or Celsius

1. Press and hold the PROGRAM button for 4 seconds.
2. “SetUP” and “Tech” are displayed.
3. Press a timer button under the word “SetUP”.

Ex: **Setup**

1	2
---	---

 Press either 1 or 2.

4. Enter access code 1, 2, 3.
5. “SetUP deg. F” is displayed.
6. Press the INCREASE or DECREASE buttons to toggle from “F” (Fahrenheit) and “C” (Celsius).
7. When correct setting displays, press the PROGRAM button to move to initialize system, or press and hold the PROGRAM button to exit programming.

NOTICE

CE and international units must have the temperature readings in Celsius. Follow above procedures and set to “C”.

Initialize System

1. Press and hold the PROGRAM button for 4 seconds.
2. “SetUP” and “Tech” are displayed.

3-7. OPERATING CONTROLS - COUNTDOWN TIMERS (if applicable) (Continued)

Initialize System (Continued)

3. Press a timer button under the word “SetUP”.

Ex: “SetUP”

1 2 Press either 1 or 2.

4. Enter access code 1, 2, 3.
5. “SetUP deg. F” is displayed.
6. Press PROGRAM button and “SetUP init sys” is displayed.
7. Press and hold either the INCREASE or DECREASE button.
8. The control beeps and the display counts down, 5, 4, 3, 2, 1, 0.
9. When display reaches “0”, release the button and the initialization is complete.

If the INCREASE or DECREASE button is released before “0” is displayed, the control will not initialize.

10. Press the PROGRAM button to return to the Fahrenheit/Celsius mode, or press and hold the PROGRAM button to exit programming.

Tech Mode

- Output test - heaters
- CPU calibration
- Temperature calibration
- Display tests
- Push-button test
- Total initialization

NOTICE

The Tech Mode is mostly used at the factory level. The output tests and temperature probe calibration are given below. For further information, call the Technical Services Department at Henny Penny, 1-800-417-8405, or 1-937-456-8405.

(Continued)

3-7. OPERATING CONTROLS - COUNTDOWN TIMERS (if applicable)

Output System

1. Press and hold the PROGRAM button for 4 seconds.
2. “SetUP” and “Tech” are displayed.
3. Press a timer button under the word “Tech”.

Ex: “Tech”

4 5 Press either 4 or 5.

4. Enter access code 1, 1, 2, 2, 1, 1, 2, 2.
5. “outP test Htr” is displayed.
6. Press the 5 timer button (under “Htr”) to turn heat and heat LED on and off.
7. Press the PROGRAM button to move to the next step, or press and hold the PROGRAM button to exit programming.

Temperature Calibration

1. Press and hold the PROGRAM button for 4 seconds.
2. “Setup” and “Tech” are displayed.
3. Press a timer button under the word “Tech”.


Ex: “Tech”

4 5 Press either 4 or 5.

4. Enter access code 1, 1, 2, 2, 1, 1, 2, 2.
5. “outP test Htr” is displayed.
6. Press the PROGRAM button 3 times until “CAL OFS Hi Probe 185” is displayed.
7. Press and hold number 1 timer (under “CAL”), while pressing the INCREASE and DECREASE buttons and set the display to match the actual cabinet temperature.
8. Press the PROGRAM button to move to the next step or press and hold the PROGRAM button to exit programming.

3-8. SIMPLEHOLD
CONTROLS
(if applicable)

Operation

1. Turn the power switch to the ON position and the actual temperature shows in the display.
To check the setpoint temperature, press and hold  .
2. Remove water pan and put about 1" (25.4 mm) of hot water in pan. Return pan to cabinet.




NOTICE

Be sure to push the water pan in as far as it will go, so that it does not block the air to the temperature probe, to ensure an accurate temperature reading

3. Allow unit to heat 25 to 30 minutes to reach setpoint temperature, and the heat LED flashes, before loading product into cabinet.




Programming



To change the setpoint temperature, press and hold  and then use   to set the desired setpoint temperature.

NOTICE




If the controls are **locked** the setpoint cannot be changed until the controls are **unlocked**. See Special Programming below.




To access the Special Program Mode:




With the Power Switch OFF, press and hold , and then turn the power switch on.




1. "°F" or "°C" shows in the display. To toggle between Fahrenheit and Celsius, press   .

3-8. SIMPLEHOLD
CONTROLS
(if applicable)
(Continued)

2. After entering the Special Program Mode, press  once and “int” shows in the display. Press and hold  or  and the display counts down “In3-In2-In1”. This reinitializes the controls and sets all controls to 0.

3. After entering the Special Program Mode, press and release  twice, and “Cal” shows in the display, followed by the current probe temperature. The probe can be calibrated $\pm 10^{\circ}$ F, and can be changed by using  .

4. After entering the Special Program Mode, press and release  three times, and “OP” shows in the display. Use   to toggle between “888” and a blank display. “888” turns all heat outputs on, and a blank display turns them off.

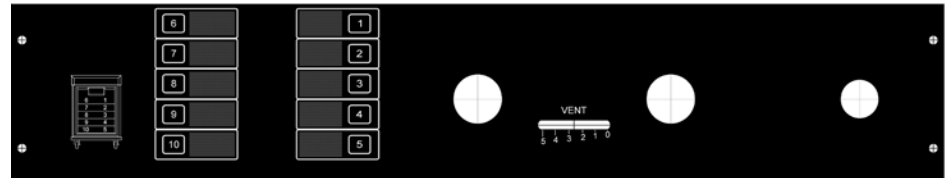
5. After entering the Special Program Mode, press and release  four times, and P=L, or P=U, shows in the display. Use   to toggle between L (lock), and U (unlock).

3-9. FRONT & REAR OPERATING CONTROLS-HHC-903-10 CDT

Front Controls



Rear Controls



Start-UP

1. Turn the power switch to the ON position.
2. The display shows the increase in temperature, indicating the unit is heating.

NOTICE

Press and hold  to view the setpoint temperature.

3. When the preset temperature is reached, the “HEAT ON” LED turns off and display stays at the preset temperature.

Timer Operation

Each of the timers can be started, stopped, or cancelled, and not affect the status of the other timers.

1. Press the desired timer button, from either the front or rear of the unit.
2. The time remaining flashes in both front and rear displays. If #2 timer is started on the front, #2 timer also shows timing down on the rear of the unit. If more than one timer is running, the timer with the least amount of time remaining flashes.
3. At end of time cycle, alarm sounds and “0:00” displays.
4. Press the timer to stop alarm and “---” is displayed.



Press and **hold** an active timer to cancel.

Vent Adjustment

The vent adjustment on the rear panel limits the humidity level inside the unit. Sliding the knob to a setting of 5 opens the two vent holes completely and a setting of 0 closes them.





3-9. FRONT & REAR OPERATING CONTROLS-HHC-903-10 CDT
Programming Temperature and Timers
(Continued)

1. Press and hold  until “Prog” shows in the display
2. Press  to change the flashing setpoint temperature.


NOTICE

If “LOC” shows in the display at this time, the programming controls are locked and must be unlocked. See Special Program Mode Section.

3. Press and release  to program the timers. Press any of the timer buttons, on either side of the unit, and when they are flashing, use  to set the timer in minutes

and seconds. If a timer is flashing on one side of the unit, the corresponding timer on the other side of the unit also flashes. For example, if timer #2 on the front of the unit is flashing, #2 on the rear of the unit also flashes. So, both front and rear timers are programmed at the same time.

NOTICE

More than one timer can be programmed at the same time if they are to be programmed with identical times. Just press the timers to be programmed and when they are all flashing, use  to set the time in all timers. Again, both front and rear timers will be programmed.

4. Press and hold  to exit the Program Mode and all settings are now programmed.



















SPECIAL PROGRAM MODE

This mode consists of:

- Fahrenheit or Celsius Programming
- Initialize System - One button programming for times and temperatures
- Probe Calibration
- Locking or Unlocking Programming
- Outputs Test

1. Turn power switch OFF and press and hold  until “SP” shows in the display, followed by the software version.

3-9. FRONT & REAR OPERATING CONTROLS-HHC-903-10 CDT
(Continued)

2. Press  when “°F” or “°C” shows in the display, use  to change the temperature reading from Fahrenheit to Celsius, or vice-versa. 
3. Press and release  and “int” shows in the display.
4. Press and hold  or  and display counts down, “in-3, in-2, in-1”. When “int SYS” shows in the display, release the  or  and the initialization is complete. The temperature and timers are now programmed to factory presets.
5. Press and release  and “CAL” shows in the display, followed by the probe temperature, inside the unit.
6. Use   to set the displayed temperature to match the actual temperature inside the unit.
7. Press and release  **twice** and “P= L or U” shows in the display. “P=L” means Locked and the setpoint temperature and timers CANNOT be programmed. “P=U” means Unlocked and the setpoint temperature and timers CAN be programmed. Use the   to toggle the display from “P=L” to “P=U” or vice-versa.
8. Press and release  and “OP” shows in the display. Use the   to toggle the outputs ON & OFF. When the outputs are ON, the HEAT ON LED should come on and “8888” shows in the display, indicating the outputs are working correctly.
9. Press and hold  to exit Special Program Mode and all modes will now be set.

SECTION 4. TROUBLESHOOTING

4-1. TROUBLESHOOTING GUIDE

Problem	Cause	Correction
Product not holding temperature	<ul style="list-style-type: none"> • Doors are left open • Thermostat set too low • Gasket torn or worn • Product held too long 	<ul style="list-style-type: none"> • Keep doors closed except to load and unload product • Increase thermostat setting by moving the knob to a higher number setting • Replace gasket • Hold product only for recommended time
Cabinet steaming - product becoming soggy	<ul style="list-style-type: none"> • Too much humidity inside the cabinet • Holding product too long • Vent not set properly (units with vent adjustment only) 	<ul style="list-style-type: none"> • Empty water from the water pan • Hold product for recommended time • Adjust vent per Vent Adjustment Section
Product dry	<ul style="list-style-type: none"> • No water in pan 	<ul style="list-style-type: none"> • Remove pan and add approximately 1” of hot water
Unit will not heat to desired temperature	<ul style="list-style-type: none"> • Thermometer not indicating true temperature • Doors being left open too much • Gasket torn or worn 	<ul style="list-style-type: none"> • Check cabinet temperature with another thermometer; have thermometer replaced if necessary • Only open doors as necessary • Replace gasket
Both blowers not working	<ul style="list-style-type: none"> • Faulty fuse (if unit is equipped) 	<ul style="list-style-type: none"> • Check fuse. See Operating Controls and Components Section. Figure 3-3

NOTICE

More detailed troubleshooting information is available in the Technical Manual, available at www.hennypenny.com, or 1-800-417-8405 or 1-937-456-8405.

**4-2. ERROR CODES -
COUNTDOWN TIMERS**

The CDT controls have built-in diagnostics which display error codes on the display. This section describes the codes.

Display	Cause	Panel Board Correction
"E-4"	Control board overheating	Turn switch to OFF position, then turn switch back to ON; if display still shows "E-4", the board is getting too hot; check for signs of overheating behind the control panel; once panel cools down the controls should return to normal; if "E-4" reappears, replace control board
"E-5"	Unit overheating	Turn switch to OFF position, then turn back to ON; if "E-5" reappears, the heating and blower circuits should be checked, along with the temperature probe; once the unit cools down, the controls should return to normal; if "E-5" reappears, replace control board
"E-6"	Temperature probe failure	Turn switch to OFF position, then back to ON; if "E-6" reappears, the temperature probe should be checked; once the temperature probe is repaired, or replaced, the controls should return to normal; if "E-6" reappears, replace control board
"E-41"	Programming failure	Turn switch to OFF position, then back to ON; if "E-41" reappears, the control should be reinitialized (see Operating Controls - Countdown Timer Section); if "E-41" reappears, replace control board
"E-50"	RAM failure	Turn switch to OFF position, then back to ON; if "E-50" reappears, replace control board
"E-51"	NOVRAM failure	Turn switch to OFF position, then back to ON; if "E-51" reappears, replace control board
"E-53"	EPROM failure	turn switch to OFF position, then back to ON; if "E-53" reappears, replace control board

GLOSSARY
HENNY PENNY HOLDING CABINETS

air temperature probe	a round device located inside the cabinet that measures the inside air temperature and sends that information to the control panel
concentration ring assembly	a metal assembly located in the water pan in the bottom of the unit that helps keep an even humidity level inside the cabinet
clean water pan setpoint	a preset temperature at which a sensor warns the operator that the water pan has excessive lime deposits
control panel	the components that control the operating systems of the unit; the panel is located on the top front surface of the cabinet
deliming agent	a cleaner used to remove lime deposits in the water pan
drain valve	a device that lets the water drain from the water pan into a shallow pan on the floor; the valve should be closed while the unit is in use if humidity is desired
float switch	a device that senses low water levels in the water pan
food probe	a sensor located outside the cabinet that, when inserted into the product, communicates the temperature of the product to the control panel
food probe receptacle	the connection where the food probe is inserted in order to communicate with the control panel
humidity sensor	a device that measures the percentage of humidity inside the cabinet during use
humidity setting	a preset moisture level at which the cabinet operates; this setting is programmed at the factory but can be changed in the field
LED	an electronic light on the control panel
minimum holding temperature	the lowest temperature at which a food product can be safely held for human consumption
module	the removable top part of the cabinet that contains all of the operating system
out of water trip point	a preset temperature at which a sensor warns the operator that the water pan needs refilled
parameters	a preset group of setpoints designed for holding specific food products at certain temperature and humidity levels
power switch	the ON/OFF switch that sends electricity to the unit's operating systems; this switch does not disconnect the electrical power from the wall to the unit
pressure sprayer	a device that shoots a stream of water under pressure; this device should NOT be used to clean a holding cabinet

probe clip	a metal holder that attaches to the outside of the control panel to hold the food probe when not in use; the clip is an optional accessory
product load capacity	the highest recommended number of pounds/kilograms of food product that can be safely held in the cabinet
proof function	a program used for allowing bread to rise
relative humidity	the humidity level outside the cabinet
setpoint	a preset temperature or humidity; the setpoint is a programmable feature
system initialization	a programming process that resets factory settings
temperature setting	a preset temperature up to which the cabinet will heat; this setting is programmed at the factory but can be changed in the field
vent activation switch	an automatic control that opens and closes the vent on the rear of the cabinet to maintain the preset humidity level
vented panels	openings on the cabinet that allow air access on the sides and rear of the module
water fill line	the line marked on the inside of the water pan that shows the maximum water level to prevent overflow onto the floor
water heater sensor	a part in the water heater that sends a message to the controls when the water pan is limed up or empty
water jet	a device that shoots a stream of water under pressure; this type of device should NOT be used to clean a holding cabinet
water pan	the area in the cabinet that holds water for creating humidity inside the cabinet



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