HENNY PENNY®
Global Foodservice Solutions

Henny Penny

Humidified Holding Cabinets

Model HHC-990

Model HHC-992

Model HHC-993

Model HHC-996

Model HHC-997

Model HHC-998

OPERATOR'S MANUAL

LIMITED WARRANTY FOR HENNY PENNY APPLIANCES

Subject to the following conditions, Henny Penny Corporation makes the following limited warranties to the original purchaser only for Henny Penny appliances and replacement parts:

NEW EQUIPMENT: Any part of a new appliance, except lamps and fuses, which proves to be defective in material or workmanship within two (2) years from date of original installation, will be repaired or replaced without charge F.O.B. factory, Eaton, Ohio, or F.O.B. authorized distributor. To validate this warranty, the registration card for the appliance must be mailed to Henny Penny within ten (10) days after installation.

REPLACEMENT PARTS: Any appliance replacement part, except lamps and fuses, which proves to be defective in material or workmanship within ninety (90) days from date of original installation will be repaired or replaced without charge F.O.B. factory, Eaton, Ohio, or F.O.B. authorized distributor.

The warranty for new equipment and replacement parts covers only the repair or replacement of the defective part and does not include any labor charges for the removal and installation of any parts, travel or other expenses incidental to the repair or replacement of a part.

EXTENDED FRYPOT WARRANTY: Henny Penny will replace any frypot that fails due to manufacturing or workmanship issues for a period of up to seven (7) years from date of manufacture. This warranty shall not cover any frypot that fails due to any misuse or abuse, such as heating of the frypot without shortening.

0 TO 3 YEARS: During this time, any frypot that fails due to manufacturing or workmanship issues will be replaced at no charge for parts, labor, or freight. Henny Penny will either install a new frypot at no cost or provide a new or reconditioned replacement fryer at no cost.

3 TO 7 YEARS: During this time, any frypot that fails due to manufacturing or workmanship issues will be replaced at no charge for the frypot only. Any freight charges and labor costs to install the new frypot as well as the cost of any other parts replaced, such as insulation, thermal sensors, high limits, fittings, and hardware, will be the responsibility of the owner.

Any claim must be presented to either Henny Penny or the distributor from whom the appliance was purchased. No allowance will be granted for repairs made by anyone else without Henny Penny's written consent. If damage occurs during shipping, notify the sender at once so that a claim may be filed.

THE ABOVE LIMITED WARRANTY SETS FORTH THE SOLE REMEDY AGAINST HENNY PENNY FOR ANY BREACH OF WARRANTY OR OTHER TERM. BUYER AGREES THAT NO OTHER REMEDY (INCLUDING CLAIMS FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES) SHALL BE AVAIL-ABLE.

The above limited warranty does not apply (a) to damage resulting from accident, alteration, misuse, or abuse; (b) if the equipment's serial number is removed or defaced; or (c) for lamps and fuses. THE ABOVE LIMITED WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS, AND ALL OTHER WARRANTIES ARE EXCLUDED. HENNY PENNY NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY OTHER OBLIGATION OR LIABILITY.

TABLE OF CONTENTS

SECTION 1. INTRODUCTION

1-1. HUMIDIFIED HOLDING CABINET

The Henny Penny humidified holding cabinets are designed to keep hot foods moist, while maintaining proper temperature. The units are electronically controlled for easy use and for consistent operation.

1-2. FEATURES

- Electronically controlled humidity and temperature
- Lift-off doors
- Stainless steel construction
- Easily maintained
- Lift-out tray racks
- Full perimeter magnetic door seals
- Easy access to electrical controls
- Food probe supplied to easily display food temperature

1-3. PROPER CARE

As in any unit of food service equipment, the Henny Penny humidified 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, or call Henny Penny Corp. 1-800-417-8405 toll free or 1-937-456-8405.

1-5. SAFETY

The Henny Penny Humidified Holding Cabinet has safety features incorporated. However, to ensure a safe operation, read and fully understand the proper installation, operation, and maintenance procedures. The instructions in this manual have been prepared to aid you in learning the proper proce-dures. Where information is of particular importance or safety related, the words WARNING, CAUTION, and NOTICE are used. Their usage is described below.

SAFETY ALERT SYMBOL is used with DANGER, WARN ING, 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

NOTICE

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

⚠ WARNING
SHOCK HAZARD

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

2-2. UNPACKING

The Henny Penny humidified holding cabinet has been tested, inspected, and expertly packed to ensure arrival at its destination in the best possible condition.

NOTICE

Note any shipping damage in the presence of the delivery agent and signed prior to his or her departure.

To remove the Henny Penny cabinet from carton:

1. Carefully cut banding straps.

2. Lift carton off the unit.

3. Lift the unit off the cardboard padding and skid.

⚠ WARNING
HEAVY OBJECT

Full-size cabinets weigh approximately 300 lbs. (136 kg). Care should be taken when lifting unit to prevent personal injury.

2-2.   UNPACKING (Continued)

4. Open doors and remove packing from behind racks and the water pan in the bottom of the unit.

5. Peel off any protective covering from the exterior of the cabinet.

6. The cabinet is now ready for location and use.

2-3.   LOCATION

Place the humidified holding cabinet in an area that allows the doors to be opened without interference of loading and unloading product. Also, keep the unit level for proper operation.

NOTICE

No minimum clearances are required for the rear and sides of the cabinet.

2-4. ELECTRICAL CONNECTION

To avoid electrical shock, the cabinet must be adequately and safely grounded (earthed) according to local electrical codes, and this appliance must be equipped with an external circuit breaker which will disconnect all ungrounded (unearthed) conductors. The main power switch on this appliance does not disconnect all line conductors.

(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

If the electrical supply to the unit is a cord and plug, then the electrical receptacle, for the plug, must be easily accessible. Refer to the table below for the electrical ratings for the HHC-990 series cabinets.

Model	Volts,60Hz	Phase	Amps	Watts
HHC-990	120	1	24.0	2880
	120	1	22.3	2680
	208	1	13.8	2880
	240	1	12.0	2876
	240	1	11.2	2676
	220-240-CE	1	11.6	2792
HHC-993/	120	1	17.3	2080
HHC-992	208	1	10.0	2080
	240	1	8.7	2076
	220-240-CE	1	8.3	1992
HHC-996	120	1	27.3	3280
	208	1	15.8	3280
	240	1	13.7	3276
	240	1	16.2	3876
	220-240-CE	1	13.3	3192
HHC-997/	120	1	17.3	2080
HHC-998	120	1	24.0	2880
	120	1	22.3	2680
	208	1	13.8	2880
	240	1	8.7	2076
	240	1	12.0	2876
	220-240-CE	1	8.3	1992
	220-240-CE	1	11.6	2792

2-5. CABINET DIMENSIONS AND WEIGHTS

31-3/4" (806 mm) 24-3/4" (628 mm)
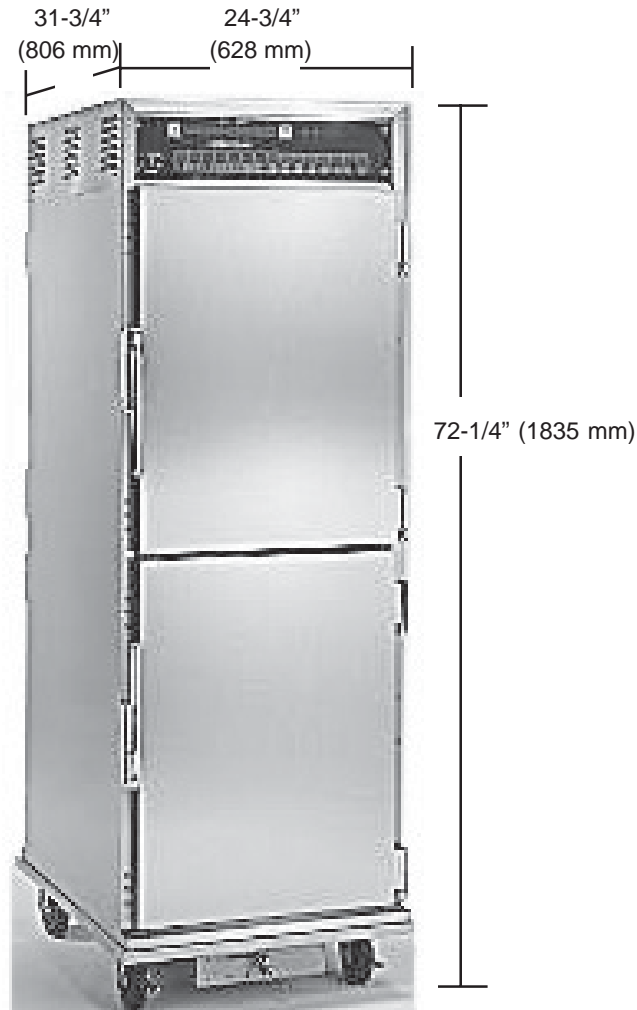
72-1/4" (1835 mm)

HHC-990

Unit	Height	Width	Depth	Shipping Weight
HHC-993	38" (965 mm)	24-3/4" (628 mm)	31-3/4" (806 mm)	220 lbs (100 kg)
HHC-990	72-1/4" (1835 mm)	24-3/4" (628 mm)	31-3/4" (806 mm)	367 lbs (167 kg)
HHC-992	76" (1930 mm)	24-3/4" (628 mm)	31-3/4" (806 mm)	493 lbs (224 kg)
HHC-998	38" (965 mm)	27-3/4" (705 mm)	31-3/4" (806 mm)	269 lbs (122 kg)
HHC-996	72-1/4" (1835 mm)	27-3/4" (705 mm)	31-3/4" (806 mm)	400 lbs (181 kg)
HHC-997	76" (1930 mm)	27-3/4" (705 mm)	31-3/4" (806 mm)	523 lbs (237 kg)

2-6. PROBE CLIP (OPTIONAL)

The probe clip is an accessory, that may be ordered as an option, to hold the food probe when not in use.
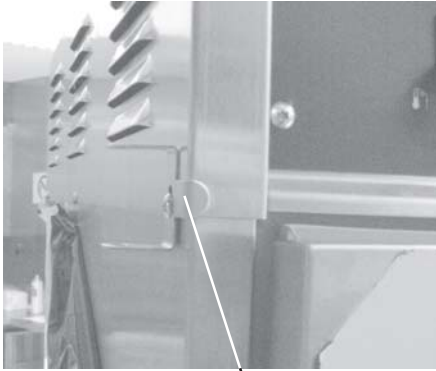
Probe Clip

Remove one of the module screws and mount the probe clip with that screw. See photo at left.

NOTICE

The food probe is accessed easier if the clip is mounted on the side of the unit that the door opens. See photo below.

Mount clip here.

HENNY PENNY™
Global Foodservice Solutions
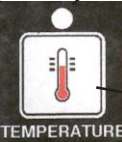
SECTION 3. OPERATION

3-1.   INTRODUCTION

This section provides explanations of all controls, along with operating procedures and daily maintenance. Read the Introduction, Installation and Operation Sections before operating the unit.

3-2.   OPERATING CONTROLS

Fig. No	Item No.	Description	Function
3-1	1	POWER Switch	A rocker switch that sends electrical current to the operating components when turned on
3-1	2	Temperature LED	Lights when the control calls for heat, and the unit should start heating; it goes out once the temperature inside the cabinet reaches the programmed temperature setting Press the TEMPERATURE Button to set the cabinet temperature
3-1	3	Digital Display	Shows the cabinet temperature, humidity settings, and the selections in the Program Mode; the temperature of the cabinet is shown by pressing the INFO button; if the temperature exceeds 300 °F (149°C), the display reads "E-5", TOO HOT".
3-1	4	Humidity LED	Lights when the control calls for humidity; it goes out once the humidity inside the cabinet, reaches the programmed humidity setting Press the HUMIDITY button to set the relative humidity inside the cabinet, and to choose between the Proofing and Holding Modes, when the unit is turned on
3-1	5	INFO	Press to view the food probe temperature, cabinet temperature and humidity, date and time; if pressed in the Program Mode, shows previous settings; pressing this along with [P] PROG accesses the Information Mode which has historic information on the cabinet's performance
3-1	6 & 7	DOWN UP	Used to adjust the value of the currently displayed setting in the Program Mode

3-2. OPERATING CONTROLS
(Continued)

3-1	8	PROG	Used to access the Program Modes; once in the Program Mode, it is used to advance to the next parameter; pressing this along with [i] INFO accesses the Information Mode which has historic information on the cabinet's performance
3-1	9	Food Probe Receptacle	After plugging the food probe into the receptacle, the meat probe can then be inserted into the product and the product temperature is displayed
3-1	10	Count Down Timers	Once a tray of food is placed in the cabinet, the appropriate timer is pressed, and the time remaining shows in the display above the timer number; once the timer counts down to zero, the display flashes "0:00", and the control beeps; the HHC-990 and 996 have 15 timers, and the HHC-993 and 998 have 5 timers

3-2. OPERATING CONTROLS
         (Continued)

Control Decal
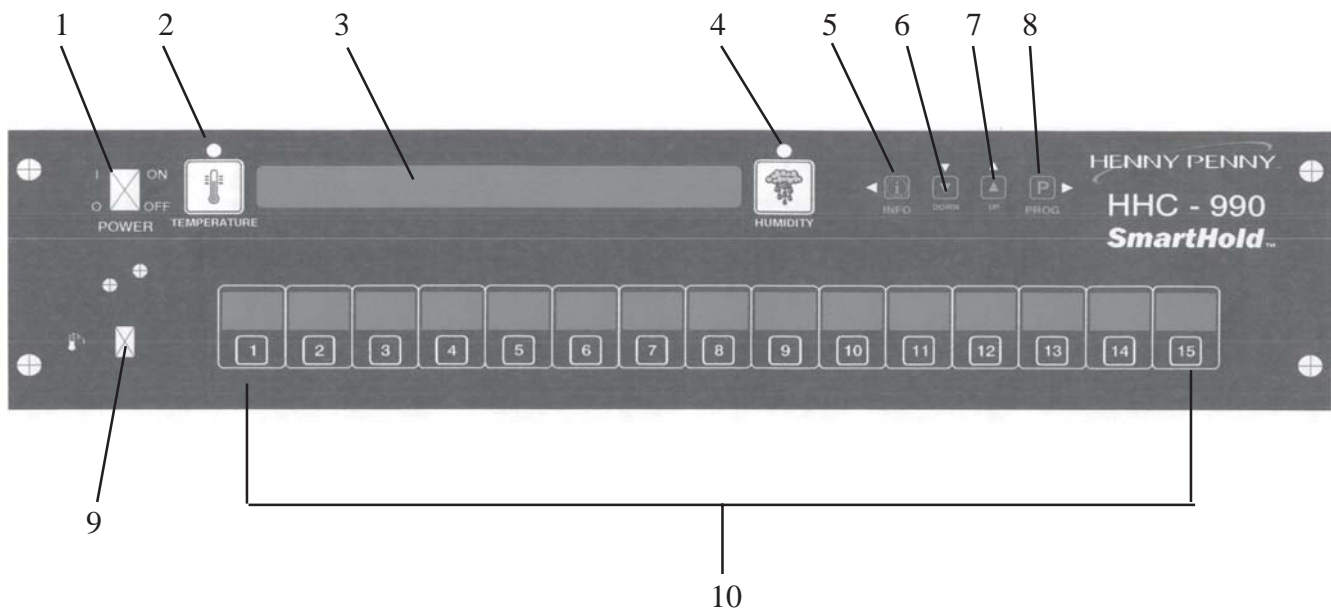
Figure 3-1

3-3. START-UP

NOTICE

Before using the humidified holding cabinet, thoroughly clean the unit as described in the Cleaning Procedures Section of this manual.

1. Plug unit into electrical receptacle, or turn on wall circuit breaker. With the POWER switch turned to OFF the display shows "POWER OFF."

NOTICE

With the POWER Switch off, the display may show "PURGING". This means the humidity has reached 95% inside the unit and the fan runs to help drop the humidity. Once the humidity reaches 92%, "POWER OFF" again shows in the display.

⚠ WARNING
SHOCK HAZARD

Even though POWER switch is OFF it does not disconnect all electrical supplies to the controls. Unplug power cord, or turn off wall circuit breaker before servicing any electrical components, or electrical shock could result.

2. Turn the POWER switch to ON, and the display shows "PUSH TO PROOF".

3. If the unit is to be used as a proofer, (80-140°F) (27-60°C), press the HUMIDITY button within 10 seconds, while thedisplay still shows "PUSH TO PROOF". If not, allow unit to heat normally, (140°-210°F) (60°-99°C).

4. Open door of unit and pour up to 3 gallons of water into bottom water pan, (minimum 1 gallon) up to the slot on the concentration ring. See figure 3-2.

⚠ WARNING
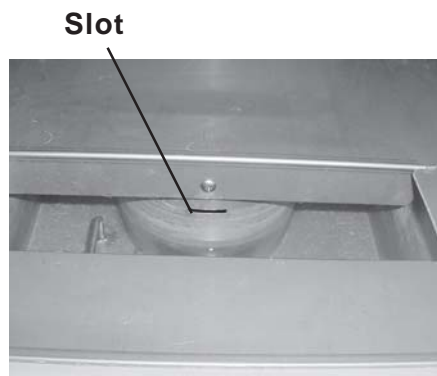
Do not overfill the water pan, or water could over flow and spill onto the floor, and personal injury could result.

Slot

Figure 3-2

3-3. START-UP (Continued)

5. Press the TEMPERATURE button to set the desired cabinet temperature. While the LED is flashing, press the UP and DOWN buttons until the desired temperature shows in the display.

6. Press the HUMIDITY button to set the desired cabinet humidity (OFF to 90%). While the LED is flashing, press the UP and DOWN buttons until the desired temperature shows in the display.

7. Allow the unit to preheat for about 1 hour prior to placing product in the cabinet. This allows the interior conditions to stabilize.

3-4. OPERATION WITH PRODUCT

1. The LEDs above the TEMPERATURE and HUMIDITY buttons go out when the desired temperature and humidity are reached inside the cabinet. Place hot product on pan and slide pan onto the racks of the cabinet.

NOTICE

The minimum holding temperature for potentially hazardous product is 150° F (66° C). Use the food probe to accurately display food temperature. Also, the cabinet product load capacity for the full size units is 375 lbs. (170 kg.), and 125 lb. (57 kg.) for the half-sized units. View the temperature at any time by pressing ⓘ .
INFO

2. Press the appropriate timer button (1-15), and the time, (hours:minutes), starts counting down in display.

3. At the end of the timing period, the control beeps, and "0:00" flashes in display.

NOTICE

A float switch in the water pan senses when the water level is low and the display shows "WATER LEVEL LOW". Add more water to the water pan.

4. Open the doors only as necessary to load and unload product. This helps to keep the interior conditions constant and saves energy.

3-5. CLEANING PROCEDURES

Figure 3-3

Daily:

1. Turn all controls off and disconnect electrical supply.

⚠ WARNING
BURN RISK

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

2. Open doors and remove all trays and racks from unit, and take them to a sink to thoroughly clean. Figure 3-3.

3. Wipe interior and exterior of cabinet with damp cloth, soap and water.

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, and glass 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.

4. Wipe the control panel with a damp cloth. Do not splash water around controls.

5. Reinstall racks, and leave a door partially open over night to allow interior cabinet to thoroughly dry.

3-5.   CLEANING
**   PROCEDURES (Continued)**

Figure 3-4

Weekly:

1.   Remove pans and racks from cabinet.

2.   Open drain valve and empty water pan into a shallow pan or floor drain. See Figure 3-4.

Hot water! Do not place your hand under the drain while draining the unit. Failure to follow this warning could result in severe burns and injury.

3.   Remove concentration ring assembly from water pan. See Figure 3-5.

Concentration ring could be hot! Allow to cool before removing, or burns could result.

4.   Wash the concentration ring in a dishwasher or sink.

5.   Liberally spray the water pan with a concentrated deliming agent and let stand for 10 minutes.

To avoid damage to the unit, delime the unit weekly.

6.   Scrub the pan with a brush and flush with water.

7.   Return concentration ring assembly to the water pan.

8.   Reinstall the racks and fill the water pan with water to the maximum water fill line.

9.   Unit is now ready for use.

Monthly:

1.   Remove the 2 screws securing the vented panel on the rear of the module and remove the panel, and clean vents.

2.   Using a cloth or sponge, clean the trough once a month.

SECTION 4. PROGRAMMING

This section explains the following programming functions.
• Timer programming
• Clock-set
• Special programming

4-1. TIMER PROGRAMMING

To enter the Program Mode:

1. Press and hold ⓟ **PROG** for 2 seconds, and "PROG TMRS"
    shows in display.

2. After 5 seconds, "ENTER CODE" shows in display.

3. Press [1] [2] [3] , and "PUSH TIMER BUTTON

    "TO SELECT FOR PROGRAMMING," followed by
    "USE UP AND DOWN TO CHANGE SELECTED
    TIMERS," scrolls through the display.

4. Press the desired timer button (1-15). (More than one can
    be programmed at one time).

5. Press ▽ **DOWN** △ **UP** to change the selected timer settings.

6. Once timers are set, press and hold the ⓟ **PROG**, and new timer
    settings become active and normal operation is resumed.

4-2. CLOCK SET
(Time-of-day, date, and
day of the week)

1. Press and hold ⓟ **PROG** for 5 seconds, and LEVEL 2, then
    "CLOCK SET" shows in display.

2. After 5 seconds, "ENTER CODE" shows in display.

3. Press [1] [2] [3] .

4. "CS-1, SET, HOUR", and the time of day (with the hour
    flashing) shows in the display.

5. Press the ▽ **DOWN** △ **UP** to change the hours.

**4-2. CLOCK SET
(Continued)**

6. Press 🅿 and "CS-2, SET, MINUTE" shows in the

PROG

display, with the minutes flashing.

7. Press ▽ △ to change the minutes.

DOWN **UP**

8. Press 🅿 and "CS-3, SET, MONTH" shows in the

PROG

display, along with the date (month flashing).

9. Press ▽ △ to change the month.

DOWN **UP**

10. Press 🅿 and "CS-4, SET, DATE" shows in the display,

PROG

with the date flashing.

11. Press ▽ △ to change the date.

DOWN **UP**

12. Press 🅿 and "CS-5, SET, YEAR" shows in the display,

PROG

with the year flashing.

13. Press ▽ △ to change the year.

DOWN **UP**

14. Press and hold 🅿 to exit programming.

PROG

4-3.   SPECIAL PROGRAMMING

This mode allows you to program the following:

SP-1   • Fahrenheit/celsius
SP-2   • Lock/unlock
SP-3   • Air temperature setpoint
SP-4   • Humidity setpoint
SP-5   • Proof air temperature
SP-6   • Proof humidity setpoint
SP-7   • Out of water tripp point
SP-8   • Clean water pan setpoint
SP-9   • System intialization
SP-10 • Audio volume
SP-11 • Audio tone
SP-12 • Audio effects
SP-13 • Language options

SP-1   Fahrenheit/Celsius

1. Press and hold the [P] **PROG** until "LEVEL 2", then "CLOCK SET" shows in the display.

2. Press [P] **PROG** again, then "SP PROG" shows in display.

3. After 5 seconds, "ENTER CODE" shows in display.

4. Press [1] [2] [3] and "SP-1, TEMP, UNITS" and "^{o}F" or "^{o}C" shows in the display.

5. Press the [▽ DOWN] [△ UP] to change temperature units.

SP-2   Lock/Unlock

6. Press [P] **PROG** and "SP-2, LOCK/UNLOCK PROGRAMMING' shows in display, along with either "LOCK" or "UNLOCK".

7. Press [▽ DOWN] [△ UP] to change lock the programming or unlock the programming.

SP-3   Air Temperature Setpoint

8. Press [P] **PROG** and "SP-3, AIRTEMP SETPOINT," and the preset cabinet temperature shows in display.

9. Press [▽ DOWN] [△ UP] to change the air temperature setpoint, 140°F (60°C) minimum, 210°F (99°C) maximum.

4-3. SPECIAL PROGRAMMING
(Continued)

SP-4   Humidity Setpoint

10. Press [P] **PROG** and "SP-4, HUMIDITY SETPOINT," and the preset humidity setpoint shows in display.

11. Press [▽ DOWN] [△ UP] to change the humidity setpoint, 0 to 90%.

SP-5   Proof Air Temperature Setpoint

12. Press [P] **PROG** and "SP-5, PROOF AIR TEMP," and the preset proofing air temperature shows in display.

13. Press [▽ DOWN] [△ UP] to change the proofing temperature, 80º F (27º C) minimum, 140º F (60º C) maximum.

SP-6   Proof Humidity Setpoint

14. Press [P] **PROG** and "SP-6, PROOF HUMIDITY SETPOINT," and the preset proofing humidity shows in display.

15. Press [▽ DOWN] [△ UP] to change the proofing humidity, 10 to 90%.

SP-7   Out of Water Trip Point

16. Press [P] **PROG** and "SP-7, OUT OF WATER TRIP POINT" and the preset trip point temperature shows in display. If the float switch fails, the trip point temperature is the water pan temperature at which the control senses the water pan is out of water. We recommend a trip point temperature of 450º F (232º C).

17. Press [▽ DOWN] [△ UP] to change the out-of-water trip point.

SP-8   Clean Water Pan Setpoint

18. Press [P] **PROG** and "SP-8, CLEAN WATER PAN SETPOINT," and the preset temperature, at which the controls senses that the water pan needs cleaned of lime, shows in the display. We recommend a setpoint temperature of 425º F (218º C).

19. Press [▽ DOWN] [△ UP] to change the setpoint.

4-3. SPECIAL PROGRAMMING
(Continued)

SP-9   **System Initialization (Factory Settings)**

20. Press [P] **PROG** and "SP-9, DO SYSTEM INIT" shows in display.

21. Press and hold [▽] **DOWN** until the display counts down from 3, and the display flashes "-INIT-," then "INIT*DONE". This completes the initialization, and sets the control to factory settings.

SP-10   **Audio Volume**

22. Press [P] **PROG** and "SP-10, AUDIO VOLUME," and the volume setting (1 to 10) shows in display. Press [1] to test volume.

23. Press [▽] **DOWN** [△] **UP** to change the volume.

SP-11   **Audio Tone**

24. Press [P] **PROG** and "SP-11, AUDIO TONE -(Hz)-" and the tone setting (50 to 2000) shows in display.

25. Press [▽] **DOWN** [△] **UP** to change the tone setting.

SP-12   **Audio Effects**

26. Press [P] **PROG** and "SP-12, AUDIO EFFECT" and the effect setting (0 to 3) shows in display.

27. Press [▽] **DOWN** [△] **UP** to change the pattern of the tone.

SP-13   **Language Options**

28. Press [P] **PROG** and "SP-13, LANGUAGE," and the preset language shows in the display.

29. Press [▽] **DOWN** [△] **UP** to change to English, French, German, Spanish, or Portuguese.

30. Press and hold the [P] **PROG** button anytime during programming to exit the Special Programming Mode.

NOTICE

For more information on the other settings of Special Programming, call your local Henny Penny distributor in your area, or call Henny Penny Corp. at 1-800-417-8405 or 1-937-456-8405.

![Henny Penny - Global Foodservice Solutions]

SECTION 5. TROUBLESHOOTING

5-1. TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	CORRECTION
Product not holding temperature	• Doors left open	• Keep doors closed except to load and serve product
	• Product held too long	• Hold product only for recommended times
	• Control temperature set too low	• Increase air temperature (SP-3) in Special Program Mode
	• Door gasket torn or worn	• Replace bad door gaskets
Cabinet steaming product soggy	• Humidity setpoint too high	• Decrease humidity setpoint (SP-4) in Special Program Mode
Product dry	• Humidity setpoint too low	• Increase humidity setpoint (SP-4) in Special Program Mode
	• No water in pan	• Pour water in water pan
Unit not heating	• Blown fuse	• Change 15 amp fuse
Unit not reaching set temperature	• Doors left open	• Keep doors closed except to load and serve product
	• Door gasket torn or worn	• Replace bad door gaskets

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.

HENNY PENNY™
Global Foodservice Solutions

5-2.   ERROR CODES AND
WARNINGS

The display shows the following error codes and warnings when a fault is detected, along with an alarm sound. Both the heat and humidity systems shut down, except when specified otherwise.

Display	Cause	Panel Board Correction
"E-4 CPU TOO HOT"	• Control board too hot; unit overheating or louvers clogged	• Turn switch to OFF position, then back to ON; if display still shows "E-4", the PC board is getting too hot; clean louvers and check cooling fan; if cooling fan is not working, have it replaced; once panel cools down, the controls should return to normal; if "E-4" persists, have the PC board replaced
"E-5 AIR TEMP TOO HOT"	• Faulty relay, PC board, or air probe	• Turn switch to OFF position, then back to ON; if display shows "E-5", the heating circuits and temperature probe should be checked; once the unit cools down, the controls should return to normal; if "E-5" persists, have the PC board replaced
"E-54A CPU TEMP SENSOR OPEN"	• Faulty PC board	• Turn switch to OFF position, then back to ON; if display shows "E-54A", the control should be re-initialized (see Programming Section); if the error code persists, have PC board replaced
"E-54B CPU TEMP SENSOR SHORTED"	• Faulty PC board	• Turn switch to OFF position, then back to ON; if display shows "E-54B", the control should be re-initialized (see Programming Section); if the error code persists, have PC board replaced
"E-6A AIR TEMP SENSOR FAILED OPEN"	• Faulty air probe	• Turn switch to OFF position, then back to ON; if the display shows "E-6", the temperature probe should be checked; once the temperature probe is repaired, or replaced, the controls should return to normal; if "E-6" persists, have the PC board replaced

5-2.   ERROR CODES AND
   WARNINGS (Continued)

Display	Cause	Panel Board Correction
"E-6B AIR TEMP SENSOR FAILED SHORTED"	• Faulty air temperature probe	• Turn switch to OFF position, then back to ON; if the display shows "E-6", the temperature probe should be checked; once the temperature probe is repaired, or replaced, the controls should return to normal; if "E-6"persists, have PC board replaced
"E-12A WATER HEATER SENSOR FAILED OPEN"	• Faulty water heater probe	• Turn switch to OFF position, then back to ON; if the display shows "E-12A", the water heater should be checked and repaired or replaced (the water heater probe is built into the water heater); the controls should return to normal; if "E-12A" persists, have PC board replaced
"E-12B WATER HEATER SENSOR FAILED CLOSED"	• Faulty water heater probe	• Turn switch to OFF position, then back to ON; if the display shows "E-12B", the water heater should be checked and repaired or replaced (the water heater probe is built into the water heater); the controls should return to normal; if "E-12B" persists, have PC board replaced
"E-17 HUMIDITY SENSOR FAILED"	• Faulty humidity sensor	• Turn switch to OFF position, then back to ON; if the display shows "E-17", the humidity sensor should be checked; once the humidity sensor is repaired, or replaced, the controls should return to normal; if "E-17" persists, have PC board replaced
"E-18 NO WATER, FLOAT SWITCH FAILED"	• Float switch stuck or faulty; faulty relay (stuck on);water pan needs cleaned; loose or faulty water heater sensor; acorn nuts on water heater cover loose, or water heater insulation missing or damaged	• Turn switch to OFF position, then back to ON; if the display shows "E-18", check and clean float switch; clean water pan; have relay and water heater sensor checked and replace if necessary; tighten acorn nuts on water heater cover; make sure 2 complete pieces of insulation are under the water heater cover; if "E-18" persists, have PC board replaced

NOTICE

A humidity error only shuts down the humidity system. If a humidity error occurs, and you want to use the cabinet without humidity, turn the humidity off by following the directions for SP-4, Humidity Setpoint, in Special Programming Section of this manual. Once the setpoint is off, the alarm stops, but the error code shows in display. (Includes "E-12A", "E-12B", "E-17" and "E-18").

5-2.   ERROR CODES AND
WARNINGS (Continued)

Display	Cause	Panel Board Correction
"E-41 SYSTEM DATA LOST"	• Memory scrambled	• Turn switch to OFF position, then back to ON; if the display shows "E-41", the control should be re-initialized (see Pro-gramming Section); if "E-41"persists, have PC board replaced
"E-46 DATA SAVE FAILED"	• Memory scrambled	• Turn switch to OFF position, then back to ON; if the display shows "E-46", the control should be re-initialized (see Pro-gramming Section); if "E-46"persists, have PC board replaced
"E-80 VENT STUCK OR BAD SWITCH"	• Vent on rear of module stuck or faulty vent activation switch	• Check vent on rear of module for obstruc-tions, or have vent activation switch replaced
"PLEASE DE-LIME WATER PAN"	• Water pan needs cleaned	• Follow the weekly cleaning procedures; this warning will <u>not</u> shut down the heat or humidity; if "PLEASE DE-LIME WATER PAN" persists, have PC board replaced
"WATER LEVEL LOW, PLEASE"	• Water pan low on water or empty	• Fill water pan, in bottom of unit, to the maximum water fill mark; this warning <u>won't</u> shut down the heat or humidity

G L O S S A R Y
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 moisure 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 removeable 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 inside 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