








# OPERATOR'S MANUAL

## HUMIDIFIED HOLDING CABINET

## MODEL

**AHC-990**
**AHC-993**




HENNY PENNY
Engineered to Last

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# 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.




**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

- 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
- Automatic water tank fill

## 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 procedures. 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, 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




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, 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.




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.




**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 under the water tank covers and remove the tape from the standpipe in the bottom of the unit.

5. Peel off all protective covering from the exterior of 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 electrical supply to 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 cabinets.

**AHC-993**

| Volts | Hertz | Phase | Amps | Watts |
|---|---|---|---|---|
| 100 | 50/60 | 1 | 18.6 | 1855 |
| 120 | 60 | 1 | 18.9 | 2267 |
| 208 | 60 | 1 | 10.9 | 2267 |
| 220-240 | 50/60 | 1 | 9.1 | 2179 |
| 240 | 50-60 | 1 | 9.4 | 2263 |

## 2-4. ELECTRICAL CONNECTION (Continued)

**AHC-990**

| Volts | Hertz | Phase | Amps | Watts |
|---|---|---|---|---|
| 120 | 60 | 1 | 24.0 | 2880 |
| 120 | 60 | 1 | 22.3 | 2680 |
| 200 | 50-60 | 1 | 13.2 | 2649 |
| 208 | 60 | 1 | 13.8 | 2880 |
| 240 | 50-60 | 1 | 12.0 | 2876 |
| 240 | 50-60 | 1 | 11.2 | 2676 |
| 220-240 | 50/60 | 1 | 11.6 | 2792 |

## 2-5. WATER CAPACITY & CONNECTIONS

Applies to the AHC-993 & AHC-990

- Water Reservoir - 3 gal. (11.4 liters) capacity
  - 2 gal. (7.6 liters) when in operation
- 1/4 in. cold water supply
- 1 in. or 3/4 in. drain connection

## 2-6. WATER QUALITY REQUIREMENTS

To help ensure continued reliability of water components, shown below is Henny Penny's recommended water specification that **should be adhered to**:

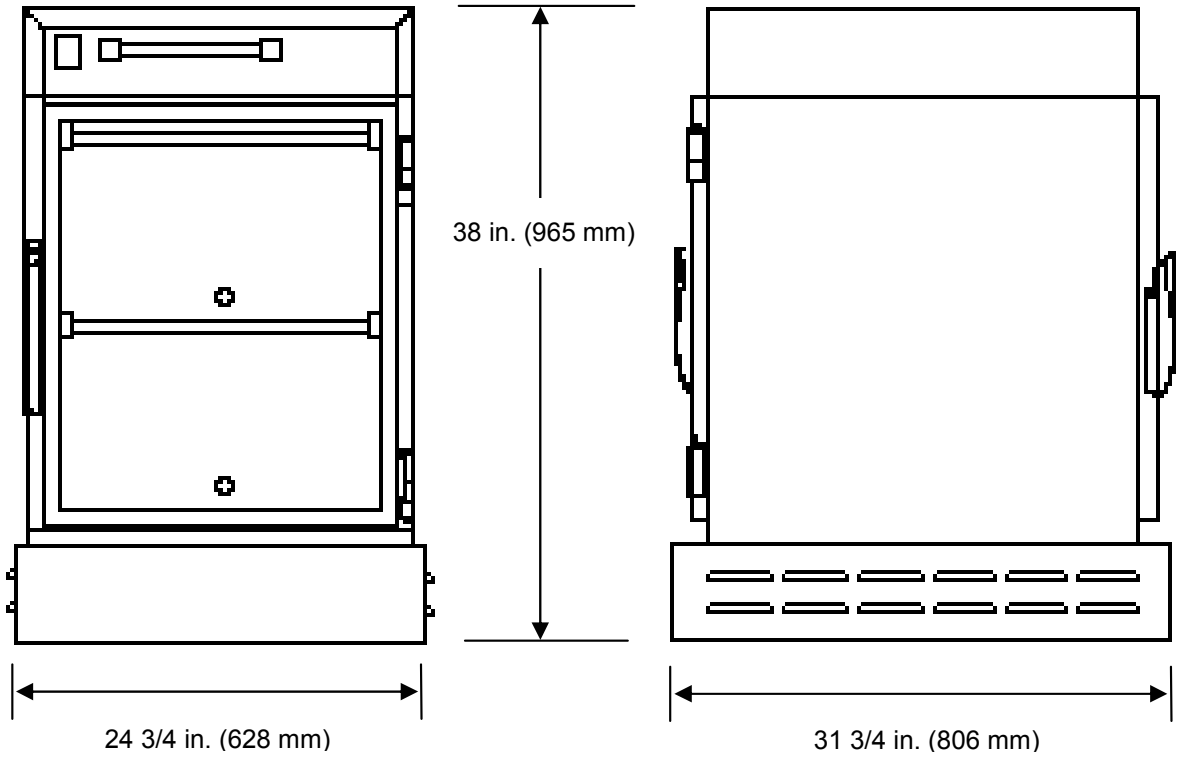
**Acceptable Element and Compound Levels**

Fe (Iron) < .1mg/l
Cl (Chlorine) < .1 mg/l
Cl2 (Chlorides and Salts) < 150 mg/l

**General Water Properties**

PH 7-8
Silica < 15 ppm
Hardness < 3 grains
Alkalinity < 20 ppm
Dissolved Solids < 60 ppm
Un-dissolved Solids < 5 microns

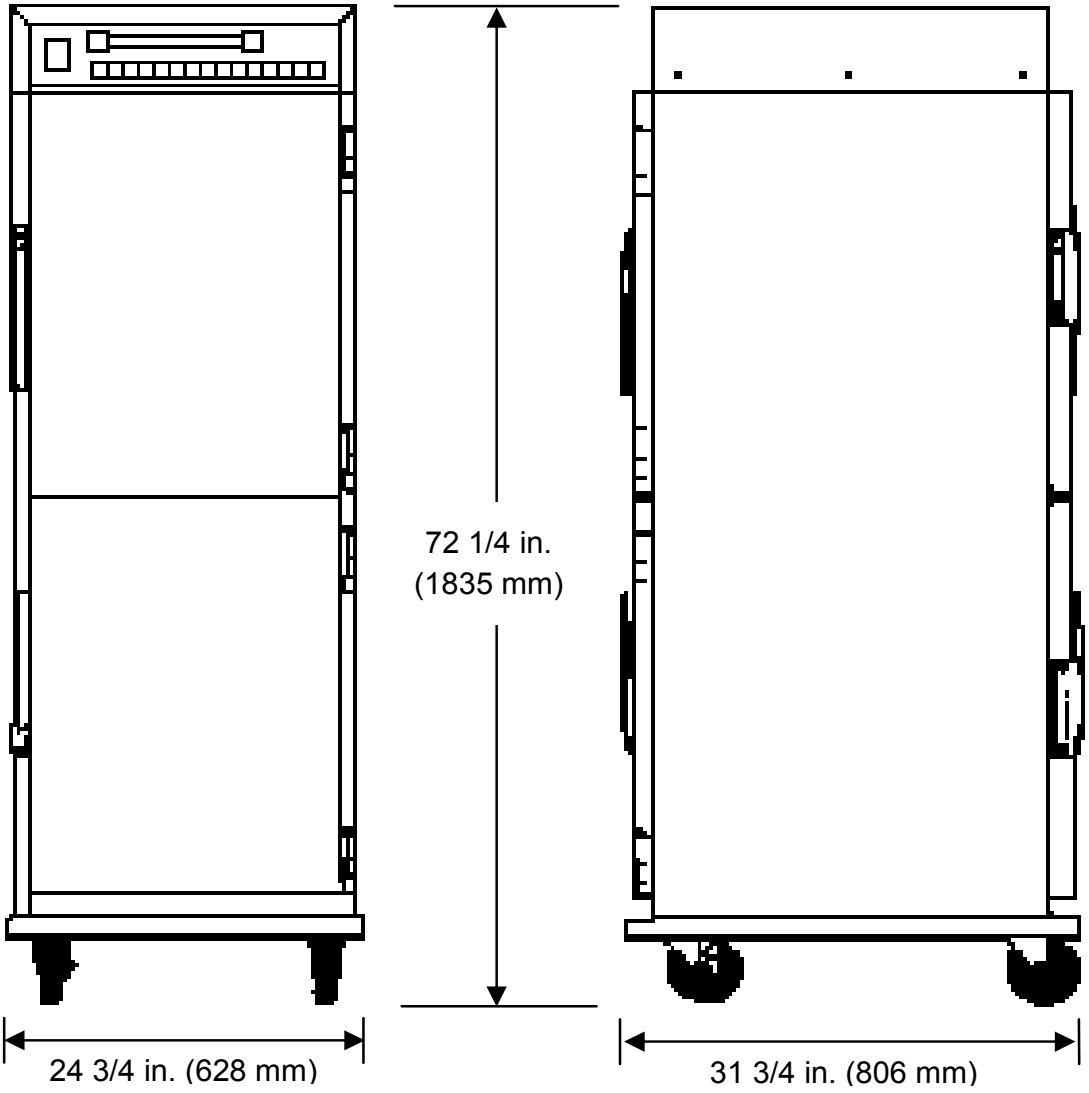
## 2-7. CABINET DIMENSIONS AND WEIGHTS




**AHC-993**

| Unit | Height | Width | Depth | Shipping Weight |
|---|---|---|---|---|
| AHC-993 | 38” (965 mm) | 24-3/4” (628 mm) | 31-3/4” (806 mm) | 220 lbs (100 kg) |

## 2-7. CABINET DIMENSIONS AND WEIGHTS (Continued)




**AHC-990**

| Unit | Height | Width | Depth | Shipping Weight |
|---|---|---|---|---|
| AHC-990 | 72-1/4” (1835 mm) | 24-3/4” (628 mm) | 31-3/4” (806 mm) | 367 lbs (167 kg) |

## 2-8. AHC-993 INSTALLATION GUIDELINES

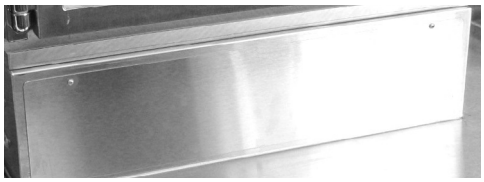
Due to the variations of equipment installations from one store to another, we are providing only a general process which the installer can use for reference or as a checklist. All electrical, water, and drain connections must comply with all federal, state, county, and local codes.

1. Unpack cabinet using paragraph 2-2 of this manual.

2. Position cabinet so controls face the store's drive-thru area.

**NOTICE**

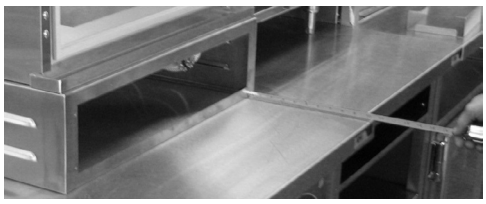
When locating, moving, or positioning the holding cabinet, be careful not to scratch the table surface.



**Steps 3 and 4**

3. Remove 2 screws and bottom panel at front of unit.

4. Remove 2 screws and bottom panel at rear of unit.



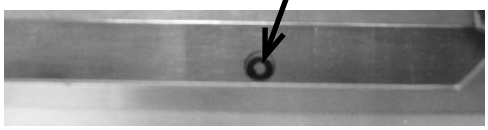
**Step 5**

5. Measure and center unit front to rear on the table top with one side flush with the table end.



**Cabinet Base Holes**
**(View from underneath cabinet)**

**Marked Hole on Table Top**

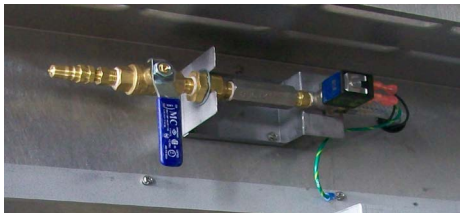


**Step 6**

6. Using the holes in the cabinet base as guides, mark 4 mounting hole locations in the table top.

**NOTICE**

ALL AHC-990 & AHC-993 units MUST have a water supply connection and a plumbed drain.



**Step 7**

7. Layout routing of 1/4 inch fill line from the holding cabinet male quick disconnect under the unit to a cold water source.

## 2-8. AHC-993 INSTALLATION GUIDELINES (Continued)



Step 8

8. Layout routing of drain line from a 3/4” side outlet or 1” bottom outlet in drain block under unit to an open drain.

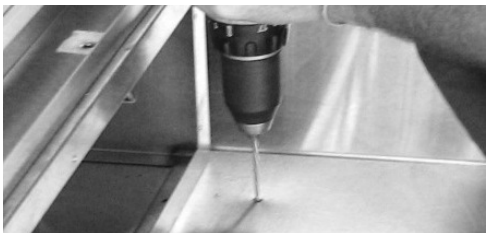
9. Layout routing of electrical power cord from the top of the cabinet to the proper receptacle.


Steps 12 and 14

10. Measure, mark, and drill or cut holes or other openings in table top and/or shelves as dictated by this specific installation to permit routing of water, drain, and electrical lines.

11. Fabricate the planned drain line.

12. Move unit to expose two marks at the front, center punch each mark, and drill 3/16” pilot holes.


Steps 12 and 14

13. Drill final holes using a 5/16” bit. Clean up all debris and metal shavings.

14. Shift cabinet position to expose two marks at the rear, center punch each mark, and drill 3/16” pilot holes.


Steps 13 and 15

15. Drill final holes using a 5/16” bit. Clean up all debris and metal shavings.

16. Position unit so the holes in the table top align with the mounting holes in the base.


Step 17

17. Install four 1/4” stainless steel screws and flat washers from underneath table and install four stainless steel flat washers and lock nuts on screws from above the base lip.

## 2-8. AHC-993 INSTALLATION GUIDELINES (Continued)



Step 18



Step 19



Step 22



Steps 25 and 26

18. 993's should have about 10" of clearance between them to accommodate the packaging shelving tower (see below).



Package shelving tower

HP part no. 03559

18. Perform a final positioning of the cabinet with one side flush with the table end and centered front to back on the table top. Tighten the fours bolts and nuts securely.

19. Apply a bead of clear silicone sealer around cabinet base to fill gaps between table top and base.

20. Connect water line and drain line to holding cabinet.

21. Connect electrical power to unit.

22. Operate holding cabinet and adjust water flow control valve so water does not overflow the fill tray and flood the cabinet. Acceptable flow is shown in photo at left.

**NOTICE**

If necessary, the shut-off valve under the unit can be used to help regulate the water flow into the water pan. Normally, these should be opened fully.

23. Be sure fill tray angles down so water flows freely into pan.

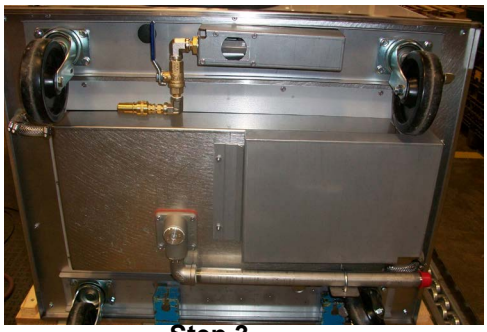
24. Check cabinet for proper operation and repair any water leaks.

25. Install bottom panel at front of unit with 2 screws.

26. Install bottom panel at rear of unit with 2 screws.

## 2-9. AHC-990 INSTALLATION GUIDELINES

Due to the variations of equipment installations from one store to another, we are providing only a general process which the installer can use for reference or as a checklist. All electrical, water, and drain connections must comply with all federal, state, county, and local codes.



Step 3

1. Unpack cabinet using paragraph 2-2 of this manual.
2. Position cabinet so controls are accessible.
3. Locate the cold water fill line and drain is under the unit. See photo at left.



Step 4

4. Layout routing of 1/4 inch fill line from the holding cabinet male quick disconnect under the unit to a cold water source. (Both male & female disconnects are supplied with the units)

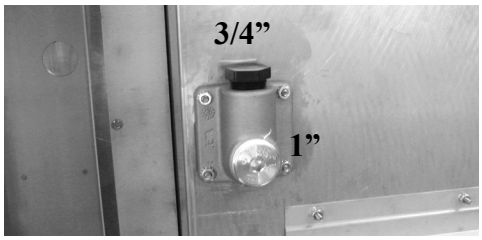


Step 5

5. Using an 1/8” to 1/4” reducer, a 1/4” x 6 ft. coiled hose (see below) can be attached to the female disconnect and the coiled hose is then connected to the in-coming water line.



## 2-9. AHC-990 INSTALLATION GUIDELINES (Continued)




Step 6

6. Layout routing of drain line from a 3/4” side outlet or 1” bottom outlet in drain block under unit to an open drain.



Step 7

7. Several options are available for the AHC-990 drains:
   a. Install cabinet over floor drain for nightly draining.
   b. Disconnect water line and roll cabinet to nearest floor drain for nightly draining.
   c. Use the Henny Penny drain kit, part no. 03697 for nightly draining. See photo at left.

8. Connect water line to holding cabinet.

9. Connect electrical power to unit.



Step 10

10. Operate holding cabinet and adjust water flow control valve so water does not overflow the fill tray and flood the cabinet. Acceptable flow is shown in photo at left.

**NOTICE**

If necessary, the shut-off valve under the unit can be used to help regulate the water flow into the water pan. Normally, these should be opened fully.

11. Be sure fill tray angles down so water flows freely into pan.

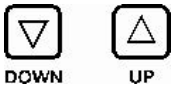
12. Check cabinet for proper operation and repair any water leaks.

# 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<br><br>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<br><br>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 |   | Press to view the cabinet temperature and humidity, date and time; if pressed in the Program Mode, shows previous settings; pressing this along with   accesses the Information Mode which has historic information on the cabinet’s performance |
| 3-1 | 6 & 7 |   | Used to adjust the value of the currently displayed setting in the Program Mode |

## 3-2. OPERATING CONTROLS (Continued)

| Fig. No. | Item No. | Description | Function |
|---|---|---|---|
| 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 INFO accesses the Information Mode which has historic information on the cabinet's performance |

# Control Decal

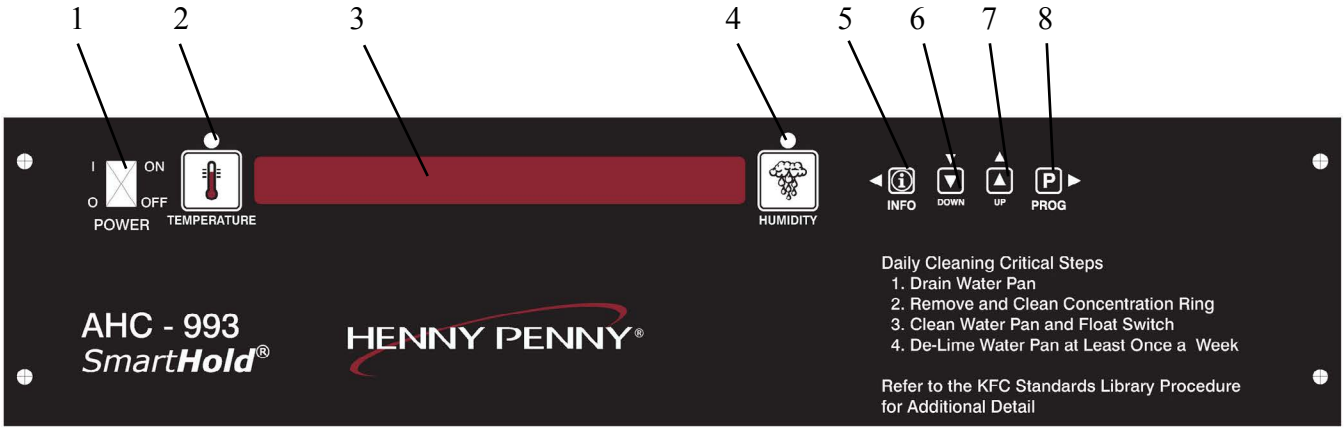



**Figure 3-1**

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




**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 on water supply.

3. Turn the POWER switch to ON, and the display cycles through a couple items and stops with “185°F” on the left and “50%” on the right.

4. The cabinet temperature is preset at 185°F (85°C). To change the temperature, press TEMPERATURE button and while the LED is flashing, press the UP and DOWN buttons until the desired temperature shows in the display.

5. The cabinet humidity is preset at 50%. To change the humidity level (10 to 90%), press HUMIDITY button and while the LED is flashing, press the UP and DOWN buttons until the desired humidity level shows in the display.

6. 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

### ATTENTION

When using the AHC-990/993 Humidity Controlled Cabinets, all Original Recipe products must use a new Milk and Egg packet (GIN 27414) instead of the current Milk and Egg (GIN 20131).

Standard hold times must be observed if you are not using the new Milk and Egg packet.

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.

**NOTICE**

The minimum holding temperature for potentially hazardous product is 150° F (66° C). Also, the cabinet product load capacity for the half size unit is 125 lb. (57 kg.). View the temperature at any time by pressing INFO.

2. Slide pans with hot product onto the racks of the cabinet.

**NOTICE**

If float switch in water pan senses low, or no water after 5 minutes, "WATER PAN NOT FILLING, CHECK WATER SUPPLY" shows in display. Check water fill system.

3. Open doors only as needed to load and unload product. This helps to keep interior conditions constant and saves energy.

## 3-5. CLEANING PROCEDURES

**Daily:**

1. Turn controls and water off and disconnect electrical supply.

**WARNING**
**BURN RISK**

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



**Figure 3-2**

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

3. Remove water pan covers and concentration ring from top of water pan and pull standpipe to drain water pan. Take covers and concentration ring to a sink to clean. Figure 3-3.

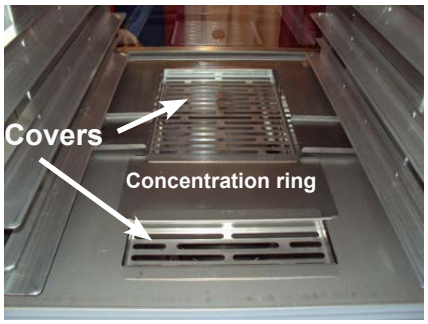



**Figure 3-3**

4. Clean water pan and float switch.

5. 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.*

## 3-5. CLEANING PROCEDURES (Continued)



Figure 3-4



Figure 3-5

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

7. Reinstall standpipe, concentration ring, water pan covers, racks, and leave a door partially open over night to allow interior cabinet to thoroughly dry.

**Weekly:**

1. Turn off controls & water and remove pans and racks from cabinet.

2. Allow unit and water to cool, then pull stand pipe out of drain hole to empty water pan. See Figure 3-3.




**Stand pipe could be hot! Allow to cool before removing or burns could result.**

3. Remove concentration ring assembly from water pan. See Figure 3-4.




**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. Reinstall concentration ring assembly in 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.

## 3-5. CLEANING PROCEDURES (Continued)

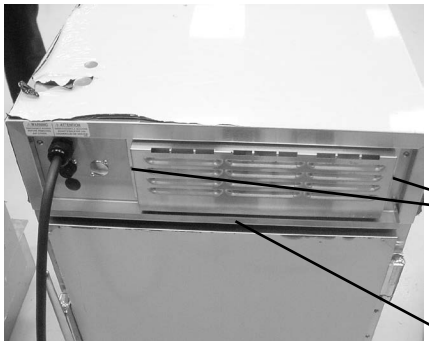


Figure 3-5

**Monthly:**

1. Remove the 2 screws securing the vented panel on the rear of the module, remove the panel, and clean vents. See Figure 3-5.
2. Using a cloth or sponge, clean the trough once a month.



**CAUTION**

*To avoid damage to the gasket, wipe clean daily*

1. Allow unit to cool. Open the doors.
2. Using a damp towel, wipe gaskets and door. Be sure that both gaskets and doors are free of grease build up.

# SECTION 4. PROGRAMMING

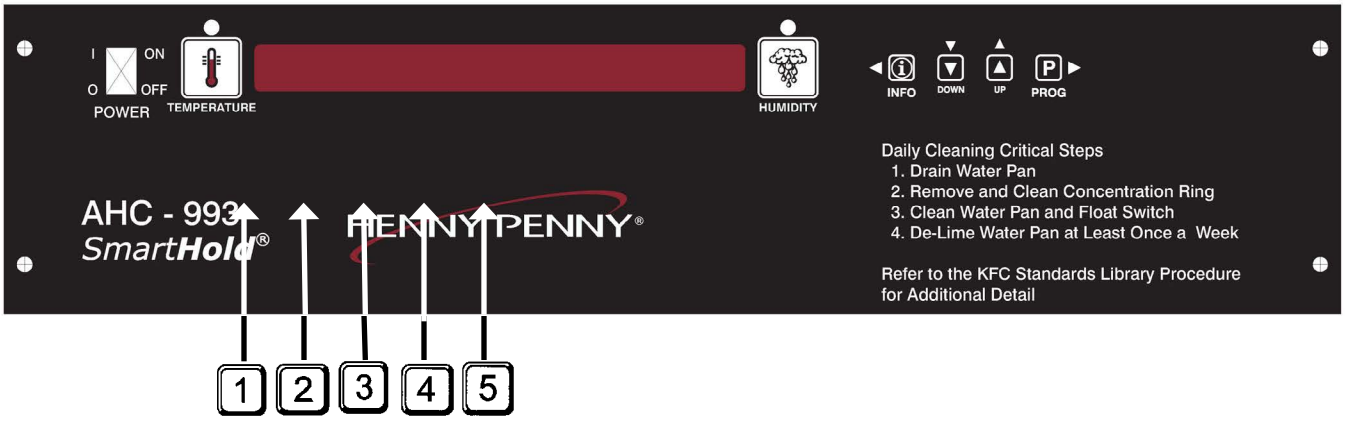
## 4-1. INTRODUCTION

This section explains the following programming functions.

- Clock-set
- Special programming

## 4-2. "HIDDEN BUTTONS"

To program the following features, 5 hidden buttons must be pressed.




## 4-3. CLOCK SET (Time-of-day, date, and day of the week)

1. Press and hold PROG for a few seconds until "L-2 LEVEL 2" followed by "CLOCK SET" shows in display.
2. After 5 seconds, "ENTER CODE" shows in display.
3. Press hidden buttons 1 2 3 See Section 4-2.

**NOTICE**

A total of 5 hidden buttons exist. If the wrong code is pressed, "INVALID CODE" scrolls across the display, and controls automatically exit the Program Mode.

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.

## 4-3. CLOCK SET (Continued)

6. Press PROG and "CS-2, SET, MINUTE" shows in the display, with the minutes flashing.

7. Press DOWN UP to change the minutes.

8. Press PROG and "CS-3, SET, MONTH" shows in the display, along with the date (month flashing).

9. Press DOWN UP to change the month.

10. Press PROG and "CS-4, SET, DATE" shows in the display, with the date flashing.

11. Press DOWN UP to change the date.

12. Press PROG and "CS-5, SET, YEAR" shows in the display, with the year flashing.

13. Press DOWN UP to change the year.

14. Press and hold PROG to exit programming.

## 4-4. 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 or Off
- SP-5 • Out of water trip point
- SP-6 • System intialization
- SP-7 • Audio volume
- SP-8 • Audio tone
- SP-9 • Audio effects
- SP-10 • Language options
- SP-11 • CE heat regulation
- SP-12 • Water fill option

### SP-1 Fahrenheit/Celsius

1. Press and hold PROG until "LEVEL 2", then "CLOCK SET" shows in the display.
2. Press PROG again, then "SP PROG" shows in display.
3. After 5 seconds, "ENTER CODE" shows in display.
4. Press hidden buttons 1 2 3 . See Section 4-2.

**NOTICE**

A total of 5 hidden buttons exist. If the wrong code is pressed, "INVALID CODE" scrolls across the display, and the controls automatically exits the Program Mode.

5. "SP-1, TEMP, UNITS" and "°F"or "°C" shows in the display.
6. Press the DOWN UP to change temperature units.

### SP-2 Lock/Unlock

7. Press PROG and "SP-2, LOCK/UNLOCK PROGRAMMING" shows in display, along with either "LOCK" or "UNLOCK".
8. Press DOWN UP to lock the programming or unlock the programming.

## 4-4. SPECIAL PROGRAMMING (Continued)

**SP-3 Air Temperature Setpoint**

9. Press PROG and "SP-3, AIR TEMP SET POINT," and the preset cabinet temperature shows in display.
10. Press DOWN UP to change the air temperature setpoint, 140° F (60° C) minimum, 210° F (99° C) maximum.

**SP-4 Humidity Setpoint**

11. Press PROG and "SP-4, HUMIDITY SET POINT," and the preset humidity setpoint shows in display.
12. Press DOWN UP to change the humidity setpoint from 10% to 90% or to turn the humidity system to OFF.

**SP-5 Out of Water Trip Point**

13. Press PROG and "SP-5, MAX WATER HTR SET POINT" or the preset trip point temperature shows in display. If float switch fails, 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 450° F (232° C).
14. Press DOWN UP to change the out-of-water trip point.

**SP-6 System Initialization (Factory Settings)**

15. Press PROG and "SP-6, DO SYSTEM INIT" shows in display.
16. 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-7 Audio Volume**

17. Press PROG and "SP-7, AUDIO VOLUME," and volume setting (1 to 10) shows in display. Press hidden button 1 to test volume. See Section 4-2.
18. Press DOWN UP to change the volume.

## 4-4. SPECIAL PROGRAMMING (Continued)

**SP-8 Audio Tone**

19. Press PROG and "SP-8, AUDIO TONE -(Hz)-" and the tone setting (50 to 2000) shows in display.
20. Press DOWN UP to change the tone setting.

**SP-9 Audio Effects**

21. Press PROG and "SP-9, AUDIO EFFECT" and the effect setting (0 to 3) shows in display.
22. Press DOWN UP to change the pattern of the tone.

**SP-10 Language Options**

23. Press PROG and "SP-10, LANGUAGE," and the preset language shows in the display.
24. Press DOWN UP to change to English, French, German, Spanish, or Portuguese.

**SP-11 CE Heat Regulation**

25. Press PROG and "SP-11, CE HEAT REG." and "NO" or "YES"shows in the display.
26. Press DOWN UP to change to "YES" if unit is CE, if it's a non-CE unit, change to "NO".

**SP-12 Water Fill Option**

27. Press PROG and "SP-12, WATER FILL OPTION" and "AUTO" or "MANUAL"shows in the display.
28. Press DOWN UP and select "AUTO" if unit has automatic water fill ability, or manual, if water pan has to be manually filled.
29. Press and hold 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.

# 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 |
| | • AHC-990 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 set too low | • Increase humidity setpoint (SP-4) in Special Program Mode |
| | • No water in pan | • Check water shut-off valve |
| Unit not reaching set temperature | • Doors left open | • Keep doors closed except to load and serve product |
| | • AHC-990 door gasket torn or worn | • Replace bad door gaskets |
| Water does not drain | • Drain clogged | • Remove drain obstruction |

**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.

## 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. See SP-4 to turn humidity OFF until service is provided |
| "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 Programming Section); if "E-41" 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")

## 5-2. ERROR CODES AND WARNINGS (Continued)

| Display | Cause | Panel Board Correction |
|---|---|---|
| "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 Programming 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 obstructions, or have vent activation switch replaced |
| "WATER LEVEL LOW, PLEASE ADD WATER" (Appears only if fill option is set to Manual) | • Water pan low on water or empty | • Fill water pan, in bottom of unit, to the maximum water fill mark; this warning won't shut down the heat or humidity |
| "WATER PAN NOT FILLING, CHECK WATER SUPPLY" (Appears only if fill option is set to Auto) | • Water supply turned off<br>• Water flow reduced<br>• Fill solenoid relay bad<br>• Fill solenoid valve bad | • Turn the water supply valve on<br>• Adjust flow control valve<br>• Check solenoid relay<br>• Check solenoid valve |
| "CALL SERVICE, WATER HEATER FAILURE | • Water heater relay bad<br>• Water heater bad | • Check water heater relay<br>• Check water heater |

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