

OPERATOR'S
M A N U A L

DISPLAY COUNTER WARMER

MODEL

CW-216
CW-114

HENNY PENNY
Engineered to Last

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SECTION 1. INTRODUCTION

1-1. DISPLAY COUNTER WARMER

The Henny Penny Display Counter Warmer is a basic unit of food processing equipment used to display the food product and maintain the temperature of hot foods in the commercial food service operation. This highly efficient, quality-built cabinet will keep hot foods at proper holding temperature with controlled humidity. The Henny Penny Display Counter Warmer has see-thru doors which allow viewing and also access to the hot foods. The CW-216 is a two tier cabinet and the CW-114 single base cabinet.

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

- Large, ten gallon water well
- Automatic water fill system with manual bypass
- Four removable sliding glass doors
- Stainless steel four pan display well (bottom)
- Thermostatic and thermometer water control
- Easy to keep clean
- Individual heater control
- Removable access panels for easy maintenance

1-3. PROPER CARE

As in any unit of food service equipment, the display counter warmer does require care and maintenance. Suggestions for this maintenance are contained in this manual. When repairs are required, they may be accomplished by following the repair steps contained in this manual.

1-4. ASSISTANCE

Should you require outside assistance, just call your local independent Henny Penny distributor in your area, call Henny Penny Corp. at 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 insure safe operation of the Henny Penny Display Counter Warmer 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 indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

The word WARNING is used to alert you to a procedure, that if not performed properly, might cause personal injury.

SECTION 2. INSTALLATION

2-1. INTRODUCTION

This section provides the installation instructions for the Henny Penny Display Counter Warmer.

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 Display Counter Warmer is tested, inspected, and expertly packed to insure arrival at its destination in the best possible condition. The cabinet has been bolted to a wooden skid. All glass items have been packed in cartons and taped inside the unit. The unit is then packed inside a triple wall corrugated carton with sufficient padding to withstand normal shipping treatment.

NOTICE

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

To remove the Henny Penny Display Counter Warmer from the carton, you should:

1. Carefully cut banding straps.

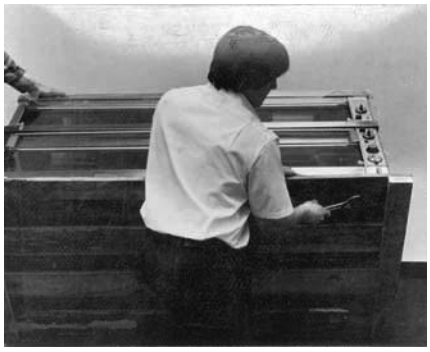
2-2. UNPACKING (Continued)

Step 2

2. Open top flaps and remove packing.

Step 3

3. Lift carton off skid.



Step 4

4. Remove four bolts from under skid.

2-3. LOCATION

Place the unit on a table, preferably with a cut-out opening below the cabinet to allow easy service connections and serviceability. When setting up the Henny Penny Display Counter Warmer, be sure to level the table.

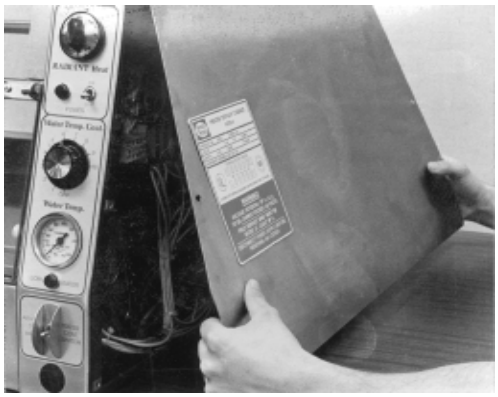
NOTICE

The unit has built-in draining capabilities, but this becomes ineffective when set on an unlevel table.

After the Henny Penny Display Counter Warmer has been leveled on the table, run a bead of silicone rubber (or equivalent sealant) around the perimeter of the unit, sealing it to the table top. You are now ready to make the electrical and drain connections to the unit.

2-4. REMOVE CONTROL END PANEL

1. Remove the seven screws fastening the end panel to the cabinet.
2. Slide bottom of end panel out first allowing top to drop below shelf edge.



Step 2

2-5. DRAIN CONNECTION

The drain can be connected to a 1 inch N.P.T. directly below the water well or to a 3/4 inch N.P.T. from the operator's side. We recommend the 1 inch N.P.T. connection as this allows straight down draining of the water.

2-6. ELECTRIC CONNECTION

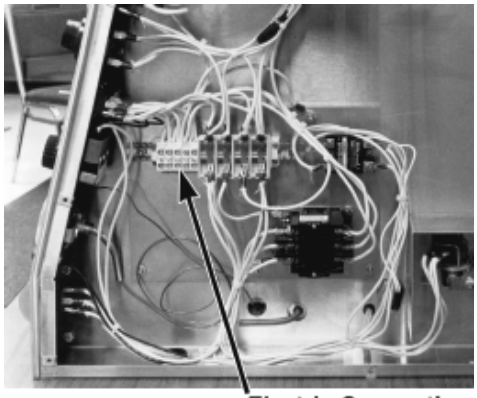
The display counter warmer is available from the factory wired for 208 or 230 volts, single phase 3-wire (includes neutral) or three phase 4-wire (includes neutral) 60 Hertz service. The proper power service cable must be provided at installation. Check the data plate on the side panel of the control end to determine the correct power supply.

This unit must be adequately and safely grounded. Refer to local electrical codes for correct grounding procedures. If unit is not adequately grounded, electrical shock could result.

(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

A separate disconnect switch with proper capacity fuses or breakers must be installed at a convenient location between the cabinet and the power source. The field supply wiring to the cabinet should be an insulated copper conductor rated for 600 volts and 90ºC.

2-6. ELECTRIC CONNECTION (Continued)



The electrical power can be connected from the bottom or from the operator's side. There is a 1-3/32 inch diameter hole from either connection. Again, we recommend the bottom connection as this will give a cleaner appearance to the unit. Please observe the electrical connection information on the data plate located on the side panel of the control end.

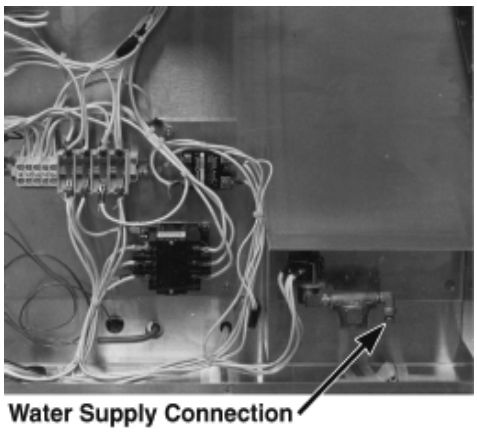
CAUTION

To avoid damage to unit, voltage potential of L_1 and L_2 to ground cannot exceed 125 volts.

2-7. ELECTRIC DATA TABLE

Model	Volts	Phase	Watts	Amps
CW-114	230	3	3400	13.2
CW-114	230	1	3400	16.3
CW-114	208	3	3400	13.8
CW-114	208	1	3400	17.6
CW-216	230	3	4160	14.4
CW-216	230	1	4160	21.0
CW-216	208	3	4160	15.3
CW-216	208	1	4160	22.5

2-8. WATER SUPPLY CONNECTION



The automatic water system has a 1/4 inch compression fitting for copper tubing. Hot water would be preferred. We recommend using the automatic water system as this will allow the unit to maintain a more even water temperature and help ensure that the unit never runs dry of water.

A straight-through bulkhead fitting is furnished with the unit for 1/4 inch copper tubing to protect the water line where it passes through the sheet metal.

Reinstall the end panel.

2-8. WATER SUPPLY CONNECTION (Continued)

NOTICE

This unit as manufactured requires the installation of an appropriate back-siphoning device (as per National Plumbing Code ASA-A40:8-1955) to be connected to the water inlet line. This device to be connected in accordance with basic plumbing code of the Building Officials and Code Administrators International, Inc. (BOCA), and the Food Service Sanitation Manual of the Food and Drug Administration (FDA).

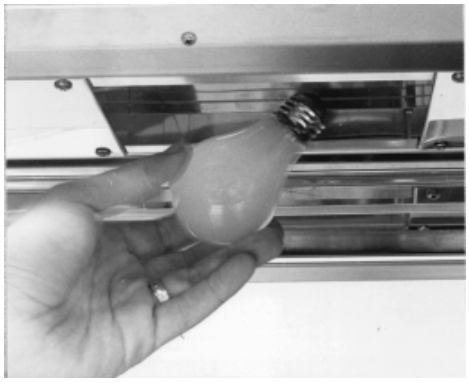
Install a water shut-off valve in a convenient location.

2-9. LIGHT BULBS AND GLASS PANELS

1. Cut the tape holding the doors shut and remove all boxes and boxes and packing. One carton contains the glass panels and the other contains the light bulbs.

2. Install the light bulbs and glass panels.

3. The unit is now ready to be cleaned per instructions in the Operations Section of this manual.



Step 2

Replacing Light Bulbs

WARNING
BURN RISK

Light bulbs and glass may be hot. Severe burns could result.

Step 1

1. Remove the glass panel by carefully pushing up on back of panel and sliding away from you. The panel will fall into your hand. See photo at left.

2. Remove the light bulb.

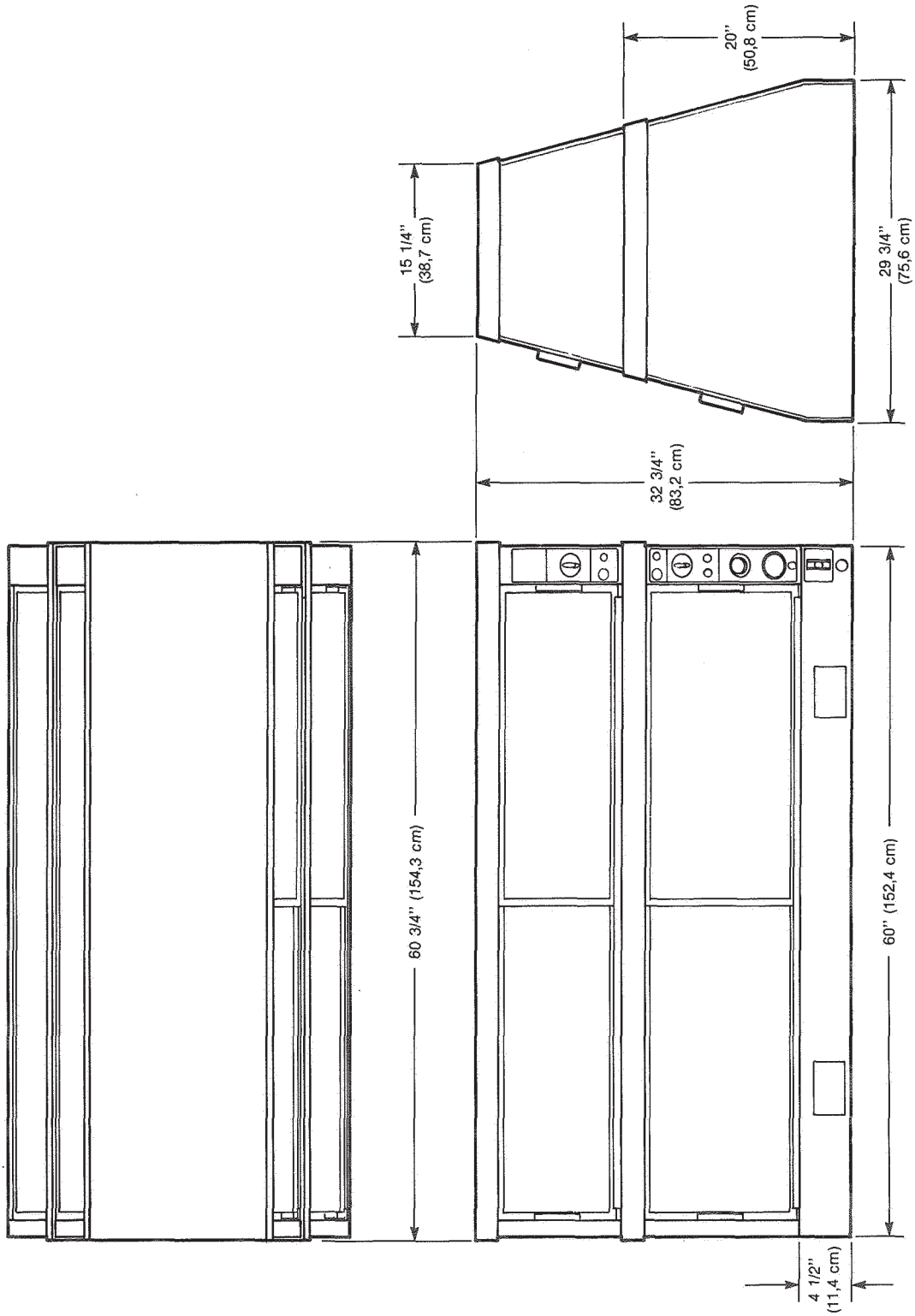
3. Replace the light bulb with a Westinghouse #60A19/35, 130 Volt bulb.

NOTICE

If this bulb is not available, a standard 60 watt bulb will work until a long life bulb can be obtained.

4. Replace the glass panel.

2-10. CABINET DIMENSIONS



Model CW-216

SECTION 3. OPERATION

3-1. INTRODUCTION

This section provides the daily operating procedure for your display counter warmer. Read the Introduction Section and this section before operating the cabinet. Also, refer to the Installation Section to be sure the cabinet has been properly installed.

3-2. OPERATING CONTROLS

The following figures identify and describe the function of all the operating controls and the major components of the cabinet.

3-2. OPERATING CONTROLS (Continued)

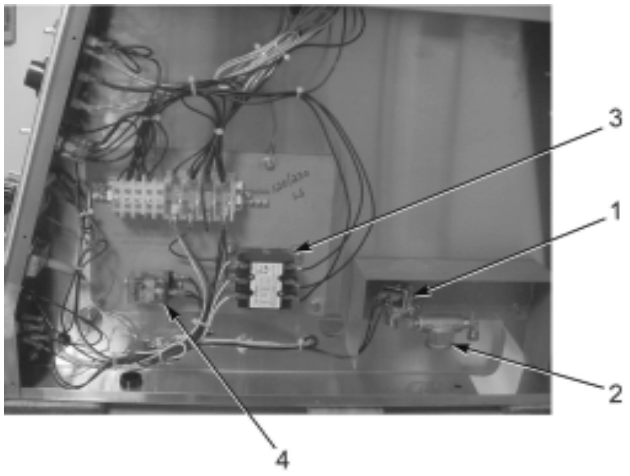


Figure 3-1

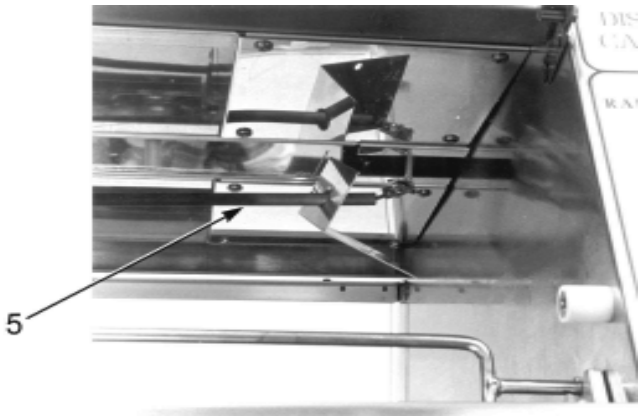


Figure 3-2

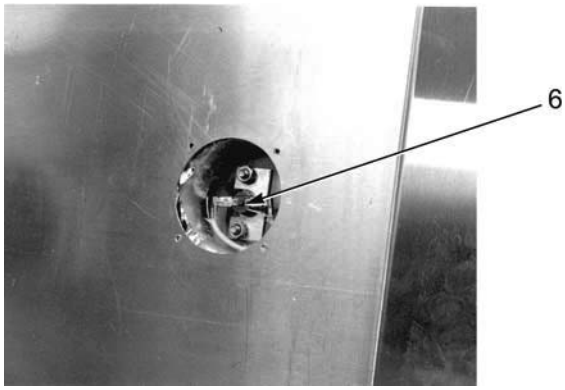


Figure 3-3

Figure 3-4

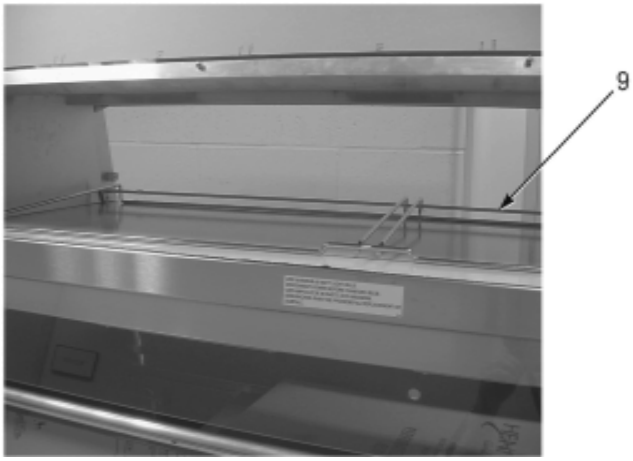


Figure 3-5

3-2. OPERATING CONTROLS (Continued)

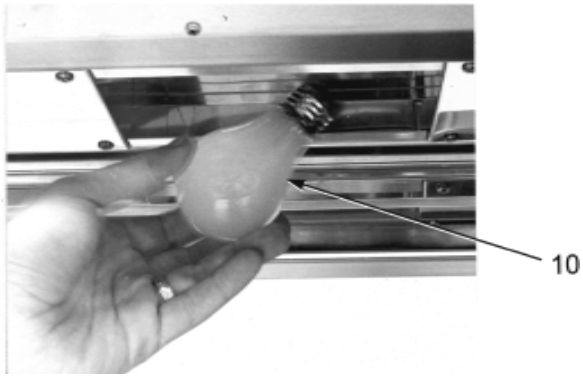


Figure 3-6

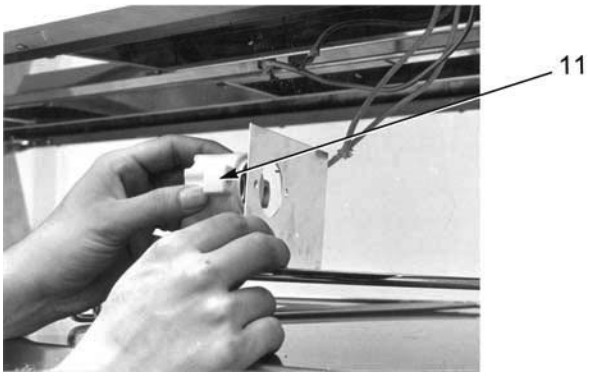


Figure 3-7

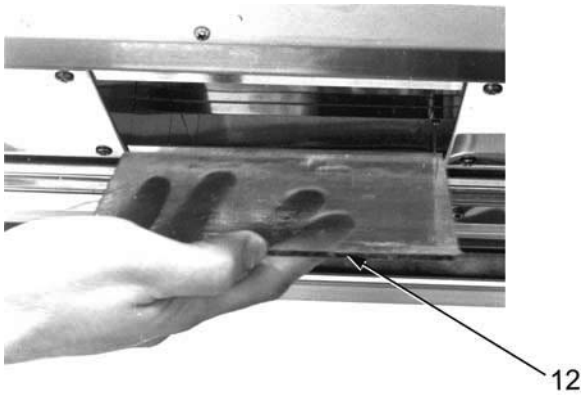


Figure 3-8

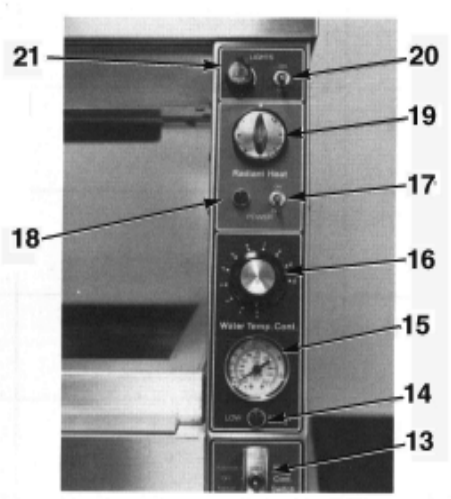


Figure 3-9

Figure 3-10

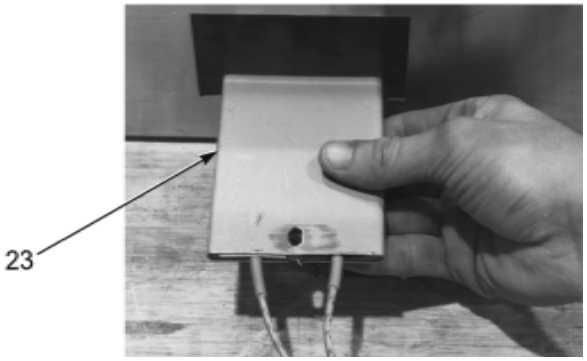


Figure 3-11

3-2. OPERATING CONTROLS (Continued)

Fig. No.	Item No.	Description	Function
3-1	1	Water valve	An electrical solenoid valve energized by the float switch or the water control switch (in manual position); when open, it allows water to flow into the water pan
3-1	2	Water strainer	A filter to prevent particles from plugging the water valve
3-1	3	Contactor	The relay that directs power to the water heaters
3-1	4	Relay	Shuts the heat off to the water pan when a low watercondition is sensed by the float switch
3-2	5	Radiant heater	A long tubular heater mounted in a reflector located in the ceiling panel of the unit
3-3	6	Hi-limit thermostat	A safety device mounted to the bottom of the water pan which detects an over temperature condition if the water pan runs dry
3-4	8	Water pan insert	Holds the pans in place over the water
3-5	9	Pan support-top	Tilts the pans used in the top toward the customer side of the unit
3-6	10	Light bulb	A 60 watt rated long-life bulb that should be replaced by a bulb of the same rating
3-7	11	Lamp socket	A high temperature ceramic socket for holding the light bulb
3-8	12	Tinted glass panel	Specially tempered colored glass with a thin film of silicone that protect the light bulbs and colors the light
3-9	15	Water control switch	A three-position switch on which the center position is off; in the position marked AUTOMATIC (up), water level in the unit will be controlled by the float switch; in the position marked MANUAL (down), water valve is opened directly by the switch; the MANUAL position is spring loaded so that the water valve will close when the switch is released
3-9	14	Water light	A light, operated directly by the float switch, that indicates low water conditions, regardless of the position of the water control switch; the low water level is indicated when the light is illuminated
3-9	15	Thermometer	Indicates the water temperature
3-9	16	Water Thermostat	An electro-mechanical device used to regulate the water temperature
3-9	17	Power Switch	A two-position, three pole switch used to turn on and off the heat and water control systems

3-2. OPERATING CONTROLS (Continued)

Fig. No.	Item No.	Description	Function
3-9	18	Power Light	Illuminates when the power switch is on and the heat and water system controls are energized; if the power light goes off during normal operation, this means the water pan hi-limit device has opened indicating that the unit is out of water
3-9	19	Radiant Heat Infinite Regulator	The infinite regulator is a time proportioning controller; the higher the number set means the radiant heat will be on a greater percentage of time
3-9	20	Light Switch	The light switch is a two-position, two pole switch used to turn the lights on and off
3-9	21	Light Fuse Holder	The fuse holder is a protective device for the lighting circuit; the fuse is a 15 amp rating and must be replaced by a fuse of the same size and rating
3-10	22	Float Switch	An electro-mechanical sensing device used to automatically control the water level in the water pan; the sensor can be inactivated by the water control switch; the sensor illuminates the low water light when it senses a low water condition
3-11	23	Water Heater	The water heater is a flat strip heater which measures approximately 3" wide by 25" long; there are two heaters rated at 1020 watts each attached to the bottom of the water pan

3-3. START-UP

Step 2

NOTICE

Before using, the Henny Penny Display Counter Warmer should be thoroughly cleaned as indicated in the Shut-down and Clean-up section of this manual.

1. Move all switches and controls on the cabinet to the OFF position.
2. Turn on power supply for the cabinet at the main circuit breaker.

3-3. START-UP (Continued)

Step 3

3. Place pans into the water pan insert.
4. Install and close the doors.
5. Turn the power switch to the ON position.
6. Turn the light switch to the ON position.
7. Turn the radiant heat switch to the desired setting. We recommend stating at 6 for the lower radiant. If you have upper radiant, start at 4. These settings are adjustable and may change as you become familiar with the food product in this unit.
8. Turn the water control switch to automatic.
9. After approximately 1 minute, turn the water thermostat to the desired setting. We recommend about 3.5 to 4 or a water temperature of 150ºF (66ºC).

3-4. OPERATION WITH PRODUCT

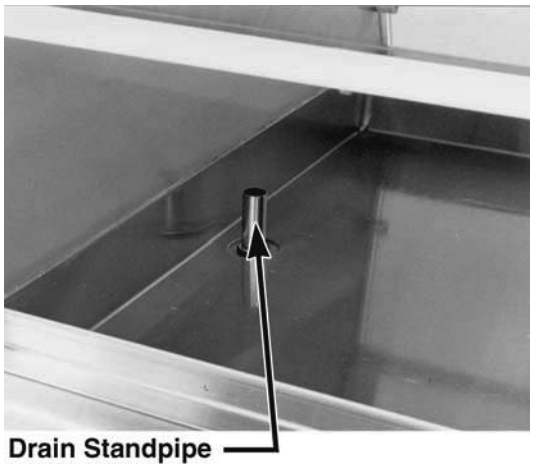
1. Place product in the pans.
2. Serve product from the outside edges first. The product closest to the door opened often will cool fastest.
3. Only leave the doors open when demand requires. During slow periods, keep the doors closed.

NOTICE

Open the doors only when product is being placed in or removed from the unit. Leaving the doors open for an extended period of time may create an improper environment for the product.

When checking the CW to make sure it's holding the product properly, use a temperature probe or pocket thermometer on the product and the water in the bottom of the unit. The product is kept warm by radiant heat and checking the air temperature inside the CW will NOT indicate if the product is holding at the proper temperature. Also, even though the unit has a thermometer on the controls for the water temperature, it may not accurate.

3-5. SHUT-DOWN AND CLEAN-UP



1. Turn the water thermostat to OFF.
2. Turn the radiant heat to OFF.
3. Turn the water control switch to OFF.
4. Remove the doors.
5. Remove all the pans.
6. Remove the drain standpipe.
7. Remove the insert from the water pan and clean with soap and water at sink.
8. If you have a two tier unit (CW-216), remove wire pan support from top section and clean with soap and water at sink.

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.

9. Clean all surfaces with a soft cloth, soap, and water.
10. Clean around electrical controls with a damp cloth.
11. Install the drain standpipe and insert.
12. Turn off the lights.
13. Turn off the power switch.
14. Leave the doors open until ready to use again.

SECTION 4. TROUBLESHOOTING

4-1. TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	CORRECTION
Product not holding temperature	• Doors are not kept closed	• Keep doors closed when possible
	• Product held too long	• Only hold product for recommended times
	• Water temperature too low	• Turn to higher setting
	• Radiant heat too low	• Turn to higher setting
	• Light bulbs out	• Replace as required, per Light Bulbs and Glass Panels Section
Doors are fogging	• Doors left open too much allowing doors to cool and cause condensation	• Keep doors closed when possible
	• Radiant heat not high enough	• Turn to higher setting
	• Water temperature too high	• See recommended settings and temperatures
Water will not fill	• Water supply has been shut-off or disconnected	• Check the water supply
Lights will not turn on	• Defective fuse	• Replace 15 amp fuse
Not all lights on	• Faulty light bulbs	• Replace with recommended bulb, per Light Bulbs and Glass Panels Section
Water will not reach desired temperature	• Bun pans are not over water	• Place perforated bun pans over water

NOTICE

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

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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