



Model HA4522

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Use & Care Manual

**Winston CVap[®] Holding/
Proofing Cabinet
Models HA4002, HA4003,
HC4009, and HA4500 Series**

DESCRIPTION

Congratulations on your purchase of a Winston CVap® Holding/Proofing Cabinet, the only warmer that utilizes patented CVap technology. You will benefit from longer hold times, better quality food, quicker service, higher productivity, and safer food temperatures.

CVap, with Controlled Vapor Technology, has been providing the foodservice industry with a superior method of holding foods since 1980. The Dual Heat System of CVap is combined with electronic differential controls to hold foods hot and moist, assuring the highest possible quality throughout long serving periods.

DUAL HEAT SYSTEM

The CVap Dual Heat System converts air and vapor into a dual heat agent that has two separate and independent qualities. First you turn the Food Temperature Dial to select the optimum serving temperature. Then you turn the Food Texture Dial to select from settings of moist, soft moist, firm moist, or crisp.

ELECTRONIC DIFFERENTIAL CONTROL

The two electronic differential control dials are easy to understand and reliable. **The controls never need field calibration.**

FOOD TEMPERATURE DIAL allows precise control of food temperature from 90°F (32°C) to 180°F (82°C).

FOOD TEXTURE DIAL maintains just cooked texture with settings labeled moist, soft moist, firm moist, and crisp. No guesswork required.

HOLDING/PROOFING CABINET

Winston's CVap Holding/Proofing Cabinets are designed for high quality hot food holding. Units are built with durable stainless steel construction, full insulation and designed for high volume usage.

Please review the step-by-step instructions contained in this manual to find out just how easy it is to hold hot foods at just-cooked quality, longer than ever before.

We want you to be happy with your new unit. Should you have any questions or comments, please feel free to call our customer service center at 1-800-234-5286.

Thanks for your business!



Read and understand this entire Use and Care Manual before operating your CVap® Holding appliance.

WARNING:

Operating this appliance can be dangerous.

Read, understand, and obey the following warnings. If you do not you could be burned, badly hurt, or killed!

- Have appliance serviced **ONLY** by a licensed electrician or trained servicer. Service of appliance involves electrical and high temperature hazards which **can cause death, personal injury or property damage.**
- If an electrical shock is felt when touching appliance, disconnect power cord immediately and call a trained servicer for repair. **If you don't, you could be electrocuted!**
- Always turn power switch off any time appliance is not in use. **If you don't, electric shock can cause death, personal injury or property damage.**
- Always perform daily cleaning procedures for this appliance. Build-up of food residues high in acid or chlorides **can cause permanent damage to the stainless steel and can contaminate foods!**
- Always allow appliance to cool before cleaning. **If you don't, you could be badly burned!**
- A large amount of hot vapor comes from the appliance when opening the door. To avoid contact, stand back from appliance and open door slowly. **If you don't, you could be badly burned!**

CAUTION: Clean evaporator daily to prevent chlorides (salts) from accumulating, causing the evaporator tank to corrode to the extent that leaks will occur. Experience has shown that leaks will occur only through failure to clean and rinse the evaporator daily. LEAKING EVAPORATORS ARE NOT COVERED UNDER WARRANTY.



INSTALLATION



SHIPPING DAMAGE

All equipment should be thoroughly examined for shipping damage before, during and after unloading. It has been carefully inspected at our factory and the **carrier has assumed responsibility for its safe arrival**. If the equipment is damaged, either apparent or concealed, **a claim must be made to the carrier**.

APPARENT LOSS OR DAMAGE

If there is an obvious loss or damage, it must be noted on the freight bill or express receipt and signed by the carrier's agent; otherwise, the carrier may refuse the claim. The carrier will supply the necessary forms.

CONCEALED LOSS OR DAMAGE

When loss or damage is not apparent until after the equipment is uncrated, a claim for concealed damage must be made. Upon discovering damage, make a request in writing to the carrier for inspection within 15 days, and retain all packing. The carrier will supply an inspection report and the required claim forms.

PHYSICAL

Note: all dimensions shown are for appliances supplied with standard 3" casters, except the HC4009, which is supplied with 2" casters.

Model	Height with Feet (IN/MM)	Width (IN/MM)	Depth (IN/MM)	Weight (LBS/KG)
HA4002	32.8/833	19.9/505	27.1/688	120/55
HA4003	35.7/907	19.9/505	27.1/688	135/61
HA4503	35.7/907	19.9/505	27.1/688	135/61
HA4507	35.9/909	27.6/701	34.5/876	210/96
HA4509	40.8/1036	27.6/701	34.5/876	225/102
HA4511	62.5/1588	29.0/701	34.5/876	280/127
HA4519	72.9/1852	27.6/701	34.5/876	355/162
HA4522	72.9/1852	27.6/701	34.5/876	405/184
HC4009	33.4/848	27.6/701	34.5/876	210/96

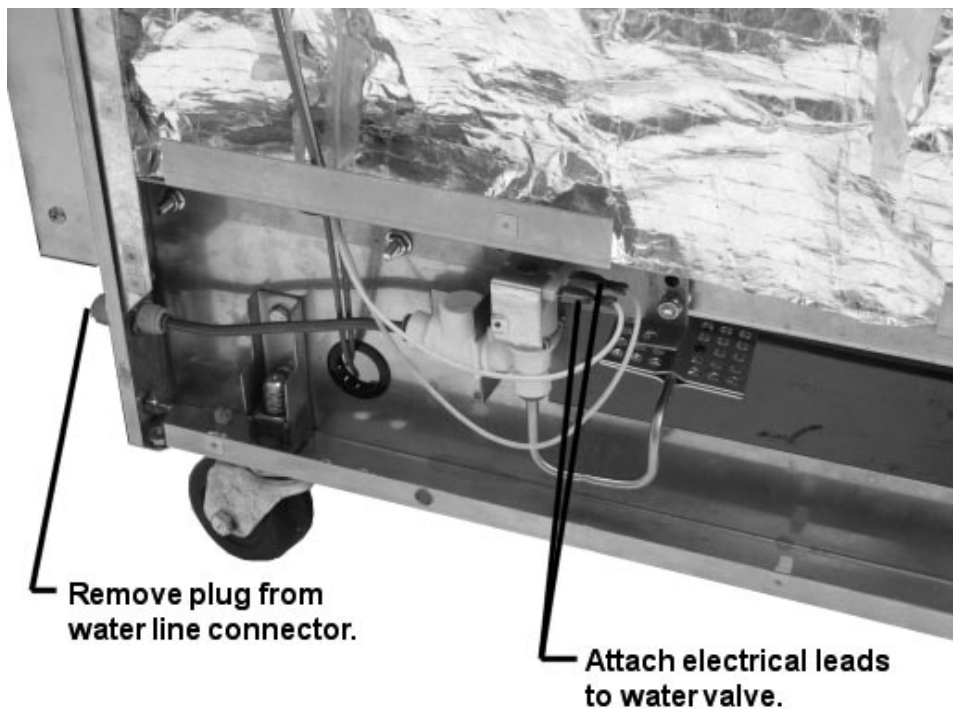
WATER SUPPLY

This appliance was made to operate with a supply of potable water in its evaporator. Water may be added to the evaporator either manually (by pouring) or automatically with the Automatic Water Fill System, if supplied (optional accessory).

If this appliance was shipped with an Auto Water Fill System, before plugging in and turning on the appliance for the first time, you must first attach both electrical leads to the water valve as shown in the photo below Step 1. You must also remove the plug in the end of the connector into which the water supply line is attached.

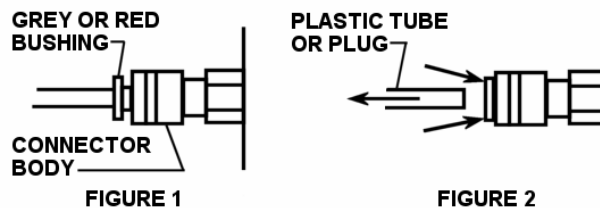


1. **DANGER: Unplug appliance from electrical outlet at wall or turn off circuit breaker before performing the next procedure.** To gain access to the water valve, it is necessary to remove the top panel from the appliance (3 screws each side), and then remove the left side panel by first removing all of the screws securing it in place. Attach the quick connect lead(s) to the water valve terminals as shown. Reassemble the side and top panels with screws in reverse order of disassembly.



2. To remove the plastic plug from the water line connector, with your fingers, carefully press in toward the body of the connector the small, gray plastic bushing that the plug is set into. Then gently pull the plug out of the connector. Do not try to force the plug out of the connector or you will damage the connector and it will leak after hooking the water line into it. See drawing below.

WATER INLET CONNECTOR QUICK RELEASE



PUSH GREY OR RED BUSHING EVENLY AGAINST CONNECTOR BODY BEFORE REMOVING PLASTIC TUBING OR PLUG.



INSTALLATION

If an Auto Water Fill System is supplied with (or added to) this appliance, then it must be hooked up to a potable water supply line. Winston RECOMMENDS that the tap valve included with the kit be attached to a **cold water**, copper, brass or steel line (the valve can handle any size line from 3/8" to 1"). The **maximum incoming water temperature may not exceed 140°F (60°C) and the incoming water pressure must be between 20 and 150 psi**. There are several reasons for the cold water recommendation. Hot water lines in many restaurants can be higher than 180 degrees F. Most CVap appliances are operated with the evaporator at temperatures below that. Even though the flow rate is very small into the cabinet through the water fill system (small amounts are added over short periods - different than the manual fill method whereby large amounts at a time are typically added), it takes longer to effectively cool a water bath upon introduction of hot water (even more pronounced at the beginning of the day) than it does to heat it when cold water is used. Another concern when using hot water is the potential for greater and faster scale build-up (compared to cold water lines) which may clog the saddle valve and incoming line. Finally, there are a number of plastic fittings that are used in the water fill system which are not exposed to heat during normal operation. Exposing them to high temperatures before the introduction of the water into the evaporator may reduce their life. While it is possible to tap into a hot water line it is just not necessary for this application and may expose a potential for problems which do not exist in cold water hook-ups. **CAUTION: Appliances with auto water fill systems MUST NOT BE ALLOWED TO RUN DRY. Heat damage to the water valve may result.**

Regardless of whether the evaporator is filled with water manually or automatically, as water evaporates from the dual heat surface of the evaporator, any minerals in the water will deposit on those surfaces. Consequently, the mineral deposits on the surfaces inhibit the ability to transfer heat through the deposits, and the stainless steel on which they are deposited can be degraded and destroyed. The first protection against this is the daily cleaning procedure. It is also recommended that your supplier of potable water be contacted for advice to minimize mineral deposit build-up. Experience has shown that leaks will occur only through failure to clean and rinse the evaporator daily. **LEAKING EVAPORATORS ARE NOT COVERED UNDER WARRANTY. This appliance is to be installed to comply with the applicable federal, state, or local plumbing codes.**



ELECTRIC

The appliance is shipped from the factory with an 8' type SJ cord. If a different cord is needed, have a licensed electrician use cord of equivalent type or better. Provide an electrical outlet by a licensed electrician to match plugs identified in the following table. For the convenience of servicer and operators, do not wire direct.

Following is a copy of the electrical information on the name plate for various models of Winston's CVap® Holding/Proofing Cabinets.

Model	Volts	Hertz	PH	Amps	Watts	Circuit Amp	Plug Type
HA4002	120	60	1	17.0	2040	US 20/CAN 30	US 5-20P/CAN 5-30P
INTERNATIONAL ONLY	230	50	1	8.6	1984	N/A	N/A
HA4003	120	60	1	17.0	2040	US 20/CAN 30	US 5-20P/CAN 5 30P
INTERNATIONAL ONLY	230	50	1	8.6	1984	N/A	N/A
HA4503	120	60	1	15.2	1824	20	5-20P
INTERNATIONAL ONLY	230	50	1	7.7	1763	N/A	N/A
HA4507	120	60	1	19.1	2290	US 20/CAN 30	US 5-20P/CAN 5-30P
INTERNATIONAL ONLY	230	50	1	9.3	2127	N/A	N/A
HA4509	120	60	1	19.1	2290	US 20/CAN 30	US 5-20P/CAN 5-30P
INTERNATIONAL ONLY	230	50	1	9.3	2127	N/A	N/A
HA4511	120	60	1	19.1	2290	US 20/CAN 30	US 5-20P/CAN 5-30P
INTERNATIONAL ONLY	230	50	1	9.3	2127	N/A	N/A
HA4519	120	60	1	19.1	2290	US 20/CAN 30	US 5-20P/CAN 5-30P
INTERNATIONAL ONLY	230	50	1	10.5	2127	N/A	N/A
HA4522	120	60	1	19.1	2290	US 20/CAN 30	US 5-20P/CAN 5-30P
INTERNATIONAL ONLY	230	50	1	8.8	2127	N/A	N/A
HC4009	120	60	1	18	2160	US 20/CAN 30	US 5-20P/CAN 5-30P
INTERNATIONAL ONLY	230	50	1	10.5	2412	N/A	N/A

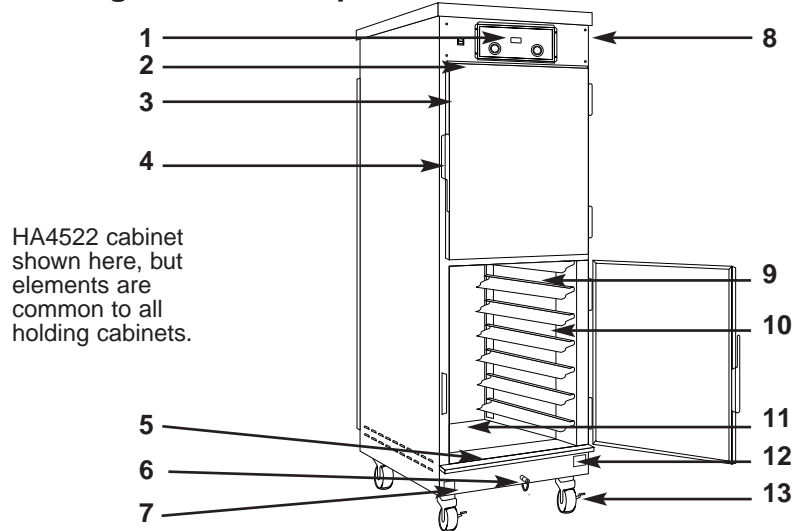
VENTING AND VENTILATION REQUIREMENTS

Ventilation clearances - Allow space around appliance for good air circulation. Installation of this appliance requires that a minimum 2" clearance from any obstruction or combustible material be maintained at all locations where there are ventilation holes in the appliance. The appliance must be installed with its supplied legs, feet, or casters. Countertop appliances specifically supplied without legs or casters may be set directly upon a countertop of non-combustible material. In this situation, the appliance may have to be sealed to the countertop with a food-grade silicone sealant (check local health codes). Half size appliances may be stacked upon each other using only a Winston supplied stacking kit and following the instructions enclosed with the kit. Your warranty may be void if you do not adhere to the instructions above.

Vent hood - Generally this appliance does not need to be installed under a mechanical ventilation system (vent hood). Check local health and fire codes for requirements specific to your location.



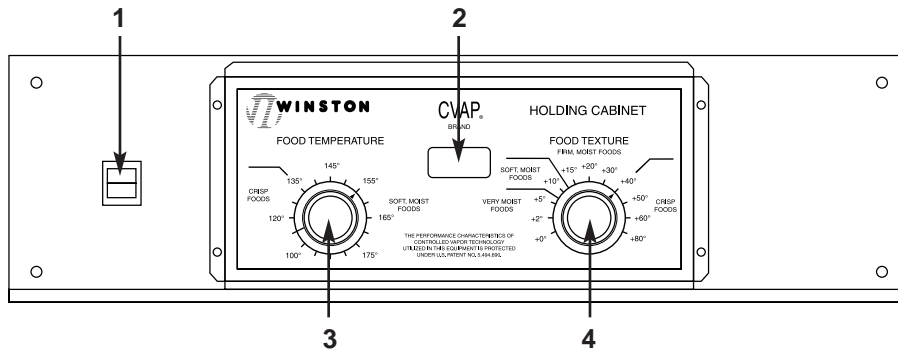
Holding Cabinet Component I.D.



1. **Control panel** provides precise FOOD TEMPERATURE and FOOD TEXTURE control with a differential electronic process controller.
2. **Danger Label** identifies appliance as high voltage. Appliance must be disconnected from power before servicing.
3. **Door Gasket** provides “locked in” moisture and temperature seal.
4. **Magnetic Door Latch** is used to open and close the door.
5. **Trough** collects moisture that condenses on door.
6. **Drain Cap** is removable for draining water from evaporator.
7. **U.L. Sanitation Label** shows that cabinet is in accordance with NSF standard.
8. **Cord Wrap** (behind unit) provides storage for power cord.
9. **Air Heaters** (not shown) are located on sides of cabinet. They provide air heat which establishes the differential above the water temperature to provide the optimum environment for precise food texture control.
10. **Adjustable Rack Supports** located on both sides inside cabinet hold trays, pans, shelves, and racks.
11. **Evaporator** is located inside cavity. Independent water heaters are located inside which establish the food temperature and optimum vapor conditions for foods.
12. **Name Plate** identifies model number and serial number (important for servicing and ordering parts), voltage, power, and electrical information.
Electrical Requirements Label identifies that cabinet is for use with an individual branch circuit only.
13. **Casters** provide easy movement when front casters are in unlocked position.



Controls



1. **Power Switch** provides voltage to cabinet circuitry.
2. **Digital Display** allows for reading of temperatures. The default temperature display is the temperature of the water in the evaporator. To view current air temperature, turn the Food Texture Dial up or down 5°F, then immediately back to set temperature. The Food Texture set temperature will be displayed for five seconds, then the display will show air temperature. Then in five seconds the default evaporator temperature will be displayed.
3. **Food Temperature Dial** identifies a temperature scale used for holding foods at various temperatures.
4. **Food Texture Dial** identifies a temperature scale to achieve various food textures. The “+” temperature scale indicates the temperature value added to the Food Temperature setting.



OPERATING INSTRUCTIONS

DAILY OPERATING PROCEDURES

CAUTION: Make certain evaporator has an adequate supply of water prior to turning on power switch. Water level should be approximately 1" (2.5 cm) from overflow.

1. Set appropriate temperatures. Food temperature is selected with the **FOOD TEMPERATURE (EVAPORATOR)** control (set in accordance with local health codes). Food Texture is selected with the **FOOD TEXTURE (AIR)** control. See Holding Guidelines on Page 9 for specific settings.

Food Holding Reference Chart		
PRODUCT	FOOD TEMP	FOOD TEXTURE
Very moist foods - Sauces, gravies, vegetables, etc.	140°F	+5°F
Soft moist foods - Bakery, meats, fish, chicken, etc.	140°F	+10°F
Firm moist foods - Finger foods, baked potatoes, etc.	140°F	+15-30°F
Crisp dry foods - Crispy fried chicken, french fries, etc.	140°F	+ 50-60°F

See Holding Guidelines Chart on page 9 for more product recommendations with F/C settings.

- NOTE: 1. The actual temperature of crisp dry foods may substantially exceed optimal serving temperatures ... making it necessary to reduce the **FOOD TEMPERATURE (EVAP)** setting as much as 20-30°F to obtain the desired temperature.*
- 2. Total Food Texture (air temperature) setting equals the addition of the **FOOD TEMPERATURE** (evaporator temperature) and **FOOD TEXTURE** settings. For example, a **FOOD TEMPERATURE** setting of 140°F and a **FOOD TEXTURE** setting of +10°F is equal to an evaporator temperature of 140°F and an air temperature of 150°F (140°F+10°F).*
2. Fill **EVAPORATOR** (for locations with hard water add 1 tablespoon white vinegar or lemon juice to water in evaporator to help prevent scale buildup). Get advice from your local water authority concerning possible water treatment necessary for the protection of the unit. Some water supplies are high enough in chemical content to be capable of destroying stainless steel if used untreated. While the water may be of low chemical content when fed into the evaporator, the evaporation process may concentrate the chemicals to a level which could cause a high interaction with the stainless steel. When available water is of unknown quality, automatic fill (optional) units should be connected to the water source through a deionizer/demineralizer. **Failure to do so will void the warranty!**
 3. Toggle **Power Switch** on. Allow 30 minutes for warm-up.
 4. Insert food.
 5. Adjust **FOOD TEMPERATURE** or **FOOD TEXTURE** dials as needed to maintain desired food quality.

KEEP DOOR(S) CLOSED WHEN NOT IN USE. If food temperature becomes too low during serving period, increase **FOOD TEMPERATURE (EVAPORATOR)** setting by 10-20°F to maintain desired food temperature.



GENERAL MARKET GUIDELINES

PRODUCT	FAHRENHEIT		CELSIUS	
	Food Temp F°	Food Texture F°	Food Temp C°	Food Texture C°
BREAD PRODUCTS				
Biscuits	140-150	+20	60-66	+11
Rolls	140-150	+10	60-66	+5
Danishes	140-150	+10	60-66	+5
Croissants	140-150	+10	60-66	+5
White/Wheat bread	140-150	+10	60-66	+5
French/Italian bread	140-150	+15	60-66	+8
Pancakes/Waffles	140-150	+10	60-66	+5
French toast	140-150	+10	60-66	+5
Fruit pies	140-150	+15	60-66	+8
Gingerbreads	140-150	+15	60-66	+8
DAIRY & EGG PRODUCTS				
Eggs (Benedict, fried, scrambled, poached)	145-150	+5	62-66	+2
Omelets	150-160	+10	66-71	+5
Puddings/Custards	140-150	+5	60-66	+2
MEATS				
Beef (Prime rib, roasts, steaks, BBQ)	130-140	+15	54-60	+8
Pork (Roasts, chops, BBQ, bacon, ham, sausage)	140-150	+15	60-66	+8
Lamb & Veal	140-150	+15	60-66	+8
Hamburger patties	150-160	+10	66-71	+5
Hot dogs	150-160	+10	66-71	+5
POULTRY				
Chicken				
Fried, soft	150-160	+15	66-71	+8
Fried, crisp	130-140	+50	54-60	+27
Roasted	150-160	+15	66-71	+8
BBQ	150-160	+15	66-71	+8
Turkey, Goose, Duck	150-160	+15	66-71	+8
SEAFOOD & SHELLFISH				
Fish, fried	130-140	+50	54-60	+27
Fish, broiled/baked	150-160	+15	66-71	+8
Shrimp, fried	130-140	+50	54-60	+27
Fish/Shrimp in Sauce/Gravy	150-160	+5	66-71	+2

PRODUCT	FAHRENHEIT		CELSIUS	
	Food Temp F°	Food Texture F°	Food Temp C°	Food Texture C°
VEGETABLES				
Vegetables, unbreaded	150-160	+5	66-71	+2
Vegetables, breaded	130-140	+60	54-60	+33
Potatoes, baked	150-160	+15	66-71	+8
STARCHES				
Spaghetti	140-150	+5	60-66	+2
Rice	140-150	+5	60-66	+2
Lasagna	150-160	+10	66-71	+5
Beans	140-150	+15	60-66	+8
Soups & Sauces	140-150	+5	60-66	+2
Cooked cereals	150-160	+10	66-71	+5
Casseroles	150-160	+5	66-71	+2
CRISP TEXTURED FOODS				
Pizza	130-140	+60	54-60	+33
Pastry Shells	130-140	+60	54-60	+33
Crisp breadings	130-140	+60	54-60	+33
Crisp, dry foods	130-140	+60	54-60	+33
French fries	100	+60	38	+33
PREPARED FOODS				
Seafood in sauce	150-160	+15	66-71	+8
Hamburgers in buns	150-160	+10	66-71	+5
Cheeseburgers in buns	150-160	+10	66-71	+5
Open sandwich w/sauce/gravy	150-160	+5	66-71	+2
Plated foods	150-160	+5	66-71	+2
Entrees	140-150	+15	60-66	+8
Corn dogs	140-150	+40	60-66	+22
PROOFING				
Dough (yeast rolls, Danish dough)	100	+10	38	+5

Notes:

1. The recommendations in this chart should be regarded as starting points. If user desires a more firm/dry textured product, increase the **Food Texture** setting; for a more soft/moist textured product, decrease the **Food Texture** setting.
2. The holding time for very crisp foods may be less than for other products.
3. Use a thermometer to assure compliance with local health codes.

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SCHOOL GUIDELINES

PRODUCT	FAHRENHEIT		CELSIUS	
	Food Temp F°	Food Texture F°	Food Temp C°	Food Texture C°
PROOFING	90-100	+5	32-38	+3
BREAKFAST				
Breakfast Pizza	145	+40	63	+22
Cinnamon Rolls	140	+20	60	+11
Eggs, Scrambled	150	+10	66	+5
Grits	150	+10	66	+5
Muffins	140	+5	63	+2
Pancakes	150	+5	66	+2
Piggiestix	150	+5	66	+2
Sausage Patties	150	+5	66	+2
Waffles	145	+10	63	+5
LUNCH				
Pizza				
Thin Crust	140	+50	60	+27
Thick Crust	145	+30	63	+16
Parbaked Thin Crust	140	+50	60	+27
Parbaked Thick Crust	145	+30	63	+16
Tony's ReadyRise	145	+30	63	+16
Sandwiches				
Ham & Cheese Melt	130	+30	54	+16
Hamburgers on Bun	150	+10	66	+5
Hot Dogs on Bun	150	+10	66	+5
Meats				
BBQ Pork, Chopped	150	+10	66	+5
Chicken, Baked	150	+20	66	+11
Fish, Baked	150	+5	66	+2
Hamburger Patties	150	+5	66	+2
Hot Dog Wieners	150	+5	66	+2
Meat Loaf	150	+5	66	+2
Pork Chops	150	+10	66	+5
Salisbury Steak	150	+5	66	+2
Turkey, Whole Roasted	150	+20	66	+11
Casseroles				
Beef-a-roni	150	+10	66	+5
Ravioli	150	+10	66	+5
Squash Casserole	150	+15	66	+8
Turkey Tetrazzini	150	+15	66	+8

PRODUCT	FAHRENHEIT		CELSIUS	
	Food Temp F°	Food Texture F°	Food Temp C°	Food Texture C°
Breaded Foods				
Chicken, Fried	130	+50	54	+27
Chicken, Fillet	130	+50	54	+27
Chicken, Fingers	130	+50	54	+27
Chicken, Nuggets	140	+40	63	+22
Corn Dogs	150	+20	66	+11
Breaded Beef Patty	140	+30	63	+16
VEGETABLES				
Broccoli	150	+5	66	+2
Baked Beans	150	+5	66	+2
Green Beans	150	+5	66	+2
Corn on Cob	150	+5	66	+2
Peas & Carrots	150	+5	66	+2
Potato, Baked	150	+20	66	+11
Mexican Beans	150	+5	66	+2
Vegetables, steamed	150	+5	66	+2
Squash	150	+5	66	+2
BREADS				
Biscuits	140	+20	63	+11
Cornbread/Muffins	150	+20	66	+11
Rolls, Yeast	140	+20	63	+11
SIDE ITEMS				
Apples, Baked	150	+10	63	+5
French Fries, Oven Style	130	+80	54	+44
Macaroni & Cheese	150	+10	66	+5
Rice	150	+5	66	+2
Tater Tots, Oven Style	130	+60	54	+33
DESSERT				
Fruit Cobbler	150	+20	66	+11
Apple Fritter	150	+40	66	+11
Notes:	<ol style="list-style-type: none"> The recommendations in this chart should be regarded as starting points. If user desires a more firm/dry textured product, increase the Food Texture setting; for a more soft/moist textured product, decrease the Food Texture setting. The holding time for very crisp foods may be less than for other products. Use a thermometer to assure compliance with local health codes. 			

Holding Guideline Reorder # 4275U250

Required Cleaning Accessories & Supplies

- Pan for draining evaporator
- Food grade germicidal detergent
- Descaling agent (ScaleKleen™)
(available through Winston Customer Service 1-800-234-5286)

WARNING: This appliance utilizes electrical voltages that have the potential to produce fatal electrical shocks; utilizes electrical heaters that can cause painful and scarring burns; and emits hot water vapors that have the potential for painful burns. To avoid, have appliance installed only by a licensed electrician and serviced only by trained servicers. Make this page available to the servicer.

WARNING: Mandate food safety practices through DAILY CLEANING PROCEDURE.

WARNING: If an electrical shock is felt during operation or cleaning, unplug appliance and have it serviced before operating or cleaning.

CAUTION: Clean evaporator daily to prevent chlorides (salts) from accumulating, causing the evaporator tank to corrode to the extent that leaks will occur. Experience has shown that leaks will occur only through failure to clean and rinse the evaporator daily. LEAKING EVAPORATORS ARE NOT COVERED UNDER WARRANTY.

DAILY CLEANING PROCEDURE:

1. **WARNING:** Before each cleaning procedure, disconnect appliance from its electrical power source and allow to cool for at least one half hour.
2. Place empty pan under drain cap, remove cap and allow evaporator to drain.
3. Remove and clean rack supports using a food-grade germicidal agent.
4. Spray food chamber and evaporator with a food grade germicidal detergent.
5. Wipe inside surfaces to remove all food deposits.
6. Inspect for scale build-up in evaporator. If present, apply descaling agent. Read ALL warnings and follow directions listed on descaling agent package.
7. Rinse all inside surfaces, including evaporator, and dry with clean towel.
CAUTION: Do not spray outside of appliance or controls with water.
8. Rinse, dry, and replace rack supports.
9. Verify O-ring is on drain pipe, replace drain cap, and refill evaporator.
10. Reconnect appliance to electrical power and make ready for use.



Diagnosis of complaints relative to the performance of the equipment reveals the following to be the sources (arranged from most to least frequent):

- Faulty use and care practices
- Electrical supply problems
- Equipment faults

Refer to Troubleshooting Chart on next page for **FAULT** isolation and remedies. If, after checking for faulty **USE and CARE** practices and electrical supply problems, the fault still exists, call a qualified servicer for diagnosis and repair of equipment faults. If equipment is 'IN WARRANTY,' call Winston's Customer Service Department to identify those authorized to perform 'IN WARRANTY' service. For detailed **ZAP** Warranty information call 1-800-234-5286.

Contact the factory at 1-800-234-5286 to identify a convenient, local servicer. In many cases, these servicers will carry parts and it will be possible to put equipment back in service with a minimum delay.

Write down complete Model and Serial Number from Identification Tag and have available when describing problem or parts needed.



TROUBLE	FAULT CODE
Power lamp fails to light	A
Flooding/leaking water	C, H, I
Food drying out	B, E, F, H
Food excessively moist	D, G
Food not hot enough	E, G, H
Food too hot	D, F
Injury or accident	J

FAULT	CORRECTION
A. Circuit breaker tripped	Adjust
Fuse blown	Replace
Power cord not plugged in	Plug in
Faulty cordset	Call servicer
Faulty power switch	Call servicer
Faulty power switch lamp	Call servicer
B. Evaporator (water) tank empty.....	See page 8
C. Drain pipe o-ring defective or missing	Replace
D. Evaporator setting too high	See page 8
E. Evaporator setting too low	See page 8
F. Air setting too high.....	See page 8
G. Air setting too low	See page 8
H. Door gasket defective	Replace
I. Drain cap defective or missing	Replace
J. Injury or accident, call manufacturer	Tel 1-800-234-5286

If cabinet is in warranty, call Winston Industries at 1-800-234-5286. Identify the following:

1. Model _____ Serial # _____
(located on name plate)
2. Your name _____
3. Company name _____
4. Company address _____
5. Company phone _____
6. Type of problem _____

If cabinet is out of warranty, call the servicer of your choice, or you can call Winston Industries for an authorized servicer nearest you.



TROUBLESHOOTING

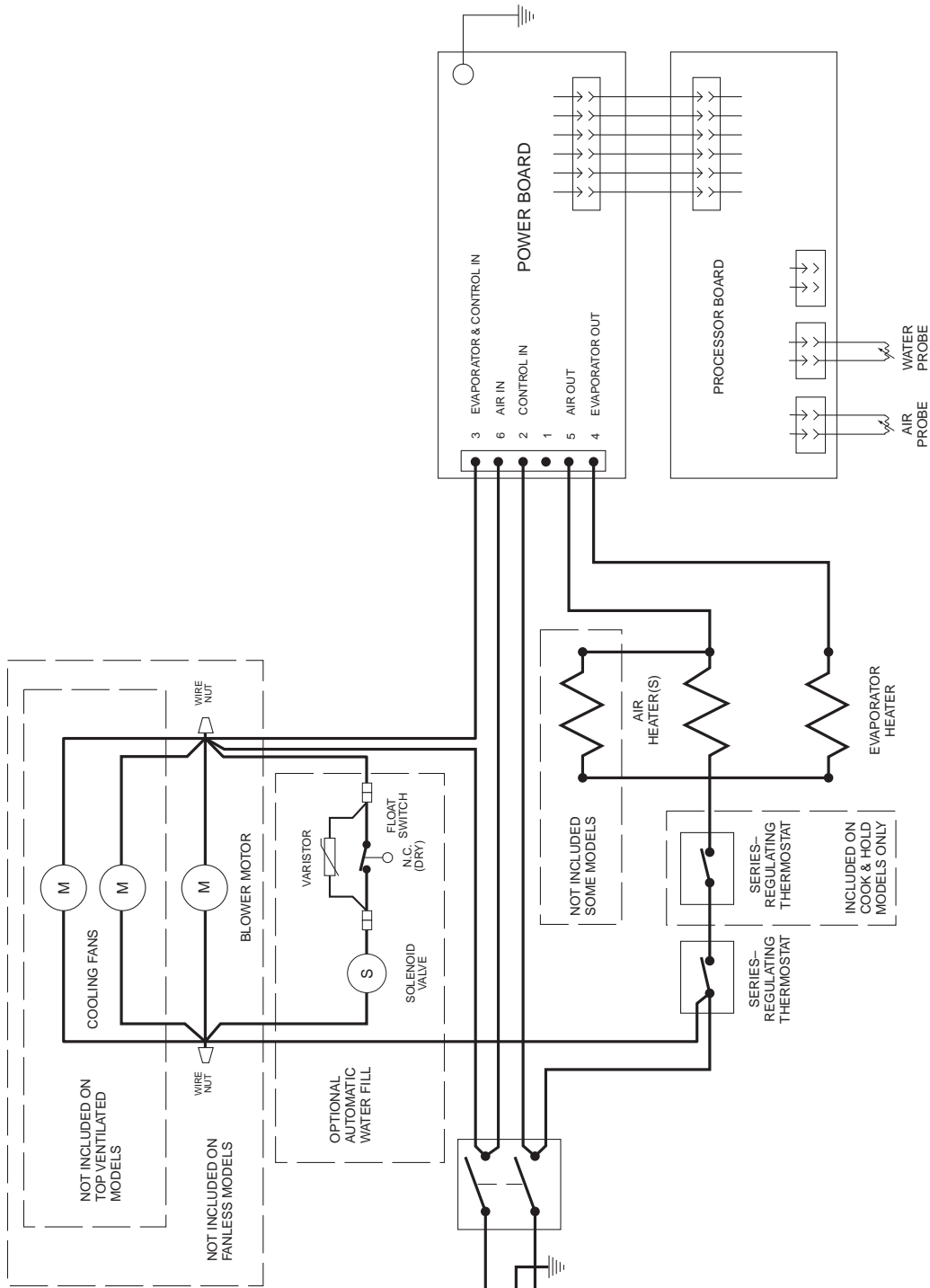
WARNING: This appliance utilizes electrical voltages that have the potential to produce fatal electrical shocks; utilizes electrical air and water heaters that can cause painful and scarring burns; and emits hot water vapors that have the potential for painful burns. To avoid, have appliance installed only by licensed electrician and serviced only by trained servicers. Make this page available to the servicer.

<u>SERVICE PARTS</u>	<u>PART NO.</u>	<u>SERVICE PARTS</u>	<u>PART NO.</u>
Power Switch (240V)	PS2304	Heater, Air	
Circuit Board Asm		HA4002 (120V)	PS2556
HC4009 - 120V	PS2283	HA4003 (120V)	PS2557
240V	PS2284	HA4003 (240V)	PS2558
All other models 120V	PS2251	HA4503 (120V)	PS2388
240V	PS2252	HC4009 (120V)	PS2401
Circulating Fan (120V)	PS2051	HC4009 (240V)	PS2131
Circulating Fan (240V)	PS2100	All Others (120V)	PS2067
Cooling Fan (120V)	PS2066	All Others (240V)	PS2099
Cooling Fan (240V)	PS2098	Heater, Water	
Latch, Door	PS1774	HA4002 & 4003 (120V)	PS2198
Hinge Kit, Door	PS2116	HA4003 (240V)	PS2389
Gasket, Door		HA4503 (120V)	PS2198
HA4002	PS2555	HC4009 (120V)	PS1434
HA4003, HA4503	PS1440	HC4009 (240V)	PS1711
HA4507	PS2554	All Others (120V)	PS2068
HA4509	PS1444	All Others (240V)	PS1711
HA4519 (Top)	PS1442	Casters	
HA4519 (Bottom)	PS1446	HC4009 2" Locking	PS2096
HC4009	PS1444	HC4009 2" Non-Locking	PS2097
HA4522 (Top)	PS2151	All Others	
HA4522 (Bottom)	PS2150	3" Locking	PS2146
Probe, Air	PS2255	3" Non-Locking	PS2147
Probe, Water		5" Locking	PS2142
HC4009	PS2256	5" Non-Locking	PS2141
All Other Models	PS2177		



CIRCUIT DIAGRAM

**Models HA4002, HA4003, HA4503,
HA4507, HA4509, HA4519,
HA4522, & HC4009**



ZAP ZERO ACCIDENTS PROGRAM



ZAP Zero Accidents Program

ZAP WARRANTY AGREEMENT

This warranty agreement applies to Commercial Equipment, Equipment Service Parts, and Safety Parts (collectively, "Products") manufactured by Winston Industries, LLC ("Winston") and its corporate predecessors and is extended to any purchaser, lessee or successor purchaser ("Purchaser").

NEW EQUIPMENT

Any part of a new Steamer appliance except gaskets, hoses, lamps, power cords, and evaporators which proves to be defective in material or workmanship within three (3) years from the date of manufacture, will be repaired or replaced (at Winston's option) free of charge.

Any part of a new appliance, other than Steamers, except gaskets, hoses, lamps, power cords, fryer baskets, glass panels, and evaporators which proves to be defective in material or workmanship within one (1) year from the date of original installation or 15 months from the date of manufacture, whichever comes first, will be repaired or replaced (at Winston's option) free of charge.

REPLACEMENT PARTS

Any appliance replacement part except gaskets, hoses, lamps, power cords, fryer baskets, glass panels, and evaporators which proves to be defective in material or workmanship within ninety (90) days from the date of original installation will be repaired or replaced free of charge.

LABOR, TRAVEL, TRANSPORTATION

The warranty for new equipment covers the repair or replacement (at Winston's option) of the defective part(s), delivery of the replacement part(s), labor charges for the removal and installation of replacement part(s) for one (1) year from the start of the warranty period. This warranty includes travel time not to exceed two hours and mileage not to exceed 50 miles (100 miles round trip).

The warranty for replacement parts covers the repair or replacement (at Winston's option) of the defective part(s) and does not include any labor charges for the removal and installation of any part(s), travel, transportation or other expenses incidental to the repair or replacement of part(s).

The warranty does not cover: gaskets, hoses, lamps, power cords, fryer baskets, glass panels, evaporators, software, corrosion of stainless steel, normal maintenance, lubrication, cleaning or descaling, programming or adjusting temperatures, calibration, tightening of fasteners or plumbing connections, appliances with removed or altered identification tags, damage resulting from delivery of the appliance, customer mishandling or abuse, or no problem found.

THE USE OF POOR QUALITY WATER WILL VOID PRODUCT WARRANTIES. See Product Use and Care Manual for water quality recommendations.

PROPER INSTALLATION IS THE RESPONSIBILITY OF THE DEALER, PURCHASER, OWNER/USER, OR INSTALLING CONTRACTOR, AND IS NOT COVERED BY THIS WARRANTY.

As a condition to the application of this warranty, Purchaser will operate, clean and maintain Products in accordance with use and care instructions, warnings, manuals and any other notices and/or instructions from Winston which may be with or on Products or sent separately; will notify Winston of resale, removal or retirement of Products; will notify Winston immediately of any accident or injury arising out of use of Products and cooperate with Winston in the investigation of any such accident or injury; will maintain registration with Winston of location and serial number of Products while in Purchaser's control and use; will require all personnel operating Products to become thoroughly familiar with use and care instructions and all other notices and/or instructions before such personnel operate Products; will thoroughly train all personnel operating Products to follow all instructions contained on or in all Safety Labels and use and care instructions; will immediately affix Safety Labels and put into use the use and care instructions; will immediately use, according to instructions, Safety Parts supplied by Winston; will install Equipment Service Parts in accordance with Winston's written instructions; will utilize only Winston manufactured replacement parts and make no changes or alterations to Products, except as approved or instructed in writing by Winston; and will when requested by Winston, cooperate with Winston in the prevention of injuries from Purchaser's use of Products.

PURCHASER'S SOLE AND EXCLUSIVE REMEDY AGAINST WINSTON SHALL BE FOR THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS AS PROVIDED HEREIN. THE TOTAL LIABILITY OF WINSTON WITH RESPECT TO ITS PRODUCTS, WHETHER UNDER WARRANTY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE OF THE PRODUCTS AND THE LABOR AND TRAVEL TO REPLACE THE PRODUCTS OR ANY PART THEREOF. WINSTON SHALL NOT BE LIABLE TO THE PURCHASER OR OTHERS FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSS OF PROFITS RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING BUT NOT LIMITED TO, DEFECTIVE WORKMANSHIP, MATERIALS OR ANY ERROR OR OMISSION OF WINSTON.

WINSTON EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND ANY IMPLIED WARRANTY OF MERCHANTABILITY.

For warranty inquiries call 1-800-234-5286 or 502-495-5400

EFFECTIVE DATE: 4/01/03
Prices subject to change without notice.
F.O.B. Louisville, KY, USA

(800) 234-5286 or (502) 495-5400 Fax (502) 495-5458
www.cvap.com • www.winstonind.com
All sales subject to Company's Terms and Conditions

Winston Products Company
2345 Carton Drive
Louisville, KY 40299



Terms & Conditions

In consideration of the mutual benefits hereby to be derived, Winston Industries, LLC (“Winston”) and any purchaser, lessee or successive purchaser (“Purchaser”), of Winston Commercial Equipment, Equipment Service Parts, and Safety Parts (collectively “Products”) agree that:

1. Terms of sale for products as provided in Winston price lists or if no such terms are contained in the Winston price lists are net 25. Prices are subject to change without notice. The lesser of one and a half percent (1-1/2%) per month (annual percentage rate 18%) or the maximum allowed by law will be charged on past due accounts. Purchaser agrees to pay all costs of collection of past due accounts, including reasonable attorney’s fees. All claims must be made within five (5) days of receipt of goods or claim will not be allowed. All goods are shipped at Purchaser’s risk. Goods shipped may not be returned without permission of Winston.
2. An order will not be effective until accepted by an authorized representative at Winston’s home office. Unless otherwise specified in writing (a) delivery will be made F.O.B. Louisville, Kentucky and risk of loss or damage shall pass to Purchaser upon delivery to the carrier, and (b) the method or agency of transportation and routing will be selected by Winston. Winston reserves the right to ship freight collect.
3. Winston shall not be liable for any delay in performance due to fire, explosion, casualty, strike or other labor difficulties, shortage of utility facility or labor, delay to transportation, breakdown or accident, compliance with other action to carry out the intent or purpose of any law or regulation, or any cause, whether similar or dissimilar, beyond Winston’s reasonable control and Winston shall have such additional time for performance as may be reasonably necessary under the circumstances and the right to apportion its production among its customers in such a manner as it may deem equitable.
4. Purchaser agrees to indemnify and hold Winston harmless from any loss, cost or expense, including cost of defense, and reasonable attorney’s fees, incurred by Winston, arising from or related to (1) Purchaser’s use or sale of Products, including, but not limited to, Purchaser’s failure to warn Purchaser’s workers and others of hazards involving the Products; Purchaser’s failure to provide copy of Terms and Conditions at time of sale of Products to others; Purchaser’s failure to instruct Purchaser’s workers and others in how to safely use the Products in compliance with the Use and Care Manual; and Purchaser’s failure to provide safe working conditions and proper safety clothing and gear with respect to the Products, and (2) non-compliance with these Terms and Conditions, or both.
5. Purchaser shall pay, in addition to the price hereunder, as a separate item, any taxes which Winston may be required to pay or collect under existing or future laws with respect to the sale, delivery, transportation, or use of any Product sold hereunder including all taxes, however designated, upon or measured by amounts paid to Winston by Purchaser hereunder, except net income tax.
6. Products may not be returned by Purchaser except by prior written agreement with Winston. Returns without prior authorization, as indicated by an RA number applied to the returned packaging, will be refused. All returned Products are subject to inspection by Winston and a 20% restocking charge (\$30 minimum), which may be reduced if replacement Product is ordered, plus any other costs necessary to restore the Products to new condition. The Products must be returned to the Winston factory freight prepaid, in new condition, and in the original packaging. Winston reserves the sole right to determine the amount of credit to be issued on any Products returned for credit. Only standard, currently manufactured Winston Products may be considered for return and credit. No returns will be accepted on modified or special order Products (built to a Purchaser’s specifications), used Products, or on Products older than 90 days from the original date of shipment.
7. Acceptance is expressly limited to the Terms and Conditions set forth herein and any additional or different terms proposed by Purchaser are rejected unless expressly assented to in writing. In the event during the course of dealing, Winston signs or otherwise accepts any documents or forms submitted by Purchaser containing any Terms or Conditions contrary to or in addition to those of Winston set forth herein, such documents and forms shall be deemed to have been used for the mere convenience of Purchaser in the conduct of its internal business affairs and not for the purpose of varying the Terms and Conditions of this order. This order including these Terms and Conditions shall constitute entirely the Terms and Conditions between the parties with respect to the transaction covered hereby and to all subsequent transactions for Products obtained from Winston, and no waiver, alteration or modification shall be binding on Winston unless in writing and signed by an authorized officer of Winston at its home office.
8. Purchaser’s sole warranty is the Zero Accident Program (ZAP) Warranty Agreement on products manufactured by Winston in effect at the time of the sale. OTHER THAN THE ZAP WARRANTY AGREEMENT, WINSTON MAKES NO WARRANTY OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, CONCERNING THE PRODUCTS. WINSTON EXPRESSLY EXCLUDES ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE TOTAL LIABILITY OF WINSTON WITH RESPECT TO ANY PRODUCT SHALL IN NO EVENT EXCEED THE PURCHASE PRICE THEREOF, AND LABOR TO REPLACE. WINSTON SHALL IN NO EVENT BE LIABLE TO PURCHASER OR OTHERS FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OR LOSS OF PROFITS RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, DEFECTIVE WORKMANSHIP, MATERIALS OR ANY ERROR OR OMISSION OF WINSTON.
9. Winston shall not be liable for claims of patent infringement against Purchaser or Purchaser’s loss of the right to use the Product.
10. ARBITRATION: Any controversy or claim arising out of or relating to this Order, or the breach thereof, shall be settled by binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association, except that any arbitration hearing shall be held in Louisville, Kentucky. Judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. Any application for review of an arbitration award shall be allowed only to the extent required by Kentucky law and shall be brought in an appropriate court in the Thirteenth Judicial Circuit or District of Kentucky, or in the United States District Court for the Western District of Kentucky.
11. GOVERNING LAW: This Order and the rights, duties and legal relations of the parties, and any arbitration are governed by and construed under Kentucky laws.
12. The products sold hereunder are produced in compliance with the Fair Labor Standards Act.

EFFECTIVE DATE: 7/01/02
 Prices subject to change without notice.
 F.O.B. Louisville, KY, USA

(800) 234-5286 or (502) 495-5400 Fax (502) 495-5458
 www.cvap.com • www.winstonind.com
 All sales subject to Company's Terms and Conditions

Winston Products Company
 2345 Carton Drive
 Louisville, KY 40299