HENNY PENNY™
Global Foodservice Solutions

Applications Manual and Cooking Guide

Henny Penny Combis
All MCS, MCG and BCS Models

WARNING

This manual should be retained in a convenient location for future reference.

Wiring diagram for this appliance is located inside the unit, behind the control panel.

WARNING

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

LIMITED WARRANTY FOR HENNY PENNY APPLIANCES

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

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

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

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

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

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

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

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

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

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

Indication of Safety Warnings

Throughout this manual you will see the following words and symbols relating to important issues of personal safety and proper operation. Their usage is described here:

The word **DANGER** indicates an imminent hazard which will result in highly serious injury, such as severe burns.

WARNING

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

CAUTION

The word **CAUTION** is used to alert you to a procedure, that if not performed properly, may damage the equipment.

The word **IMPORTANT** is used to highlight especially important information.

The word **NOTE** is used to separate additional useful subject matter for the sake of clarity.

HENNY PENNY™
Global Foodservice Solutions

Dear Customer:
Congratulations on your decision to purchase a new Henny Penny MCS, MCG, or BCS Combi. In our opinion, you now possess one in the family of the most advanced combis in the industry. As you become familiar with its operation and more confident in the results, you will see the outstanding potential for quality, variety and productivity these units have to offer.

The Henny Penny Combi is not difficult to operate, but it is a fairly sophisticated piece of equipment. We recommend a thorough study of this Applications Manual. It is filled with information, suggestions, and explanations that will help you achieve the potential of the unit. Keep the manual in a safe place, but accessible for easy reference.

Henny Penny products are known for their outstanding craftsmanship, leading edge technology and user-friendly operation. As a company, we believe in establishing a partnership with our customers that leads both parties to long-term success. In that spirit, we remain interested in any questions, comments, suggestions or ideas you may have concerning your new combi or this manual.

We hope you enjoy good food and good profits with your new Henny Penny Combi. Welcome to the world of imaginative cooking.

Henny Penny Corporation

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General Information

The Combi Advantage

The Henny Penny MCS, MCG and BCS Combis have the potential to make your entire approach to foodservice production simpler, more consistent and more productive.

Simpler because, ultimately, you will use fewer appliances as you become more adept at utilizing the Combi for different applications.

More consistent because the Henny Penny Combi precisely generates specific cooking climates for up to five different modes over a wide range of temperatures to handle just about any type of food.

More productive because it is versatile, easy to use, cooks faster with less food shrinkage then conventional appliances, and practically cleans itself.

The Combi Concept

The Henny Penny Combi uses pressure-less steam and hot-air convection, individually, in sequence, or in combination regulated by the unit's control system, to help you create the right conditions for cooking perfect foods. There are plenty of other features and functions, all designed to make this effort easier and more precise.

As you become more familiar with the way the machine operates and the cooking concepts it employs, experiment! Try different settings. Change modes and settings at any time in the cooking cycle (you can.) Observe the results, adjust your approach. In short, learn and use the capabilities of the Combi to create the kind of food *you* want to create.

The Family

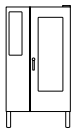
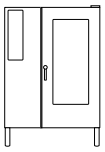
Henny Penny Combis are available in two versions, the MCS electric and MCG gas models, and the BCS electric model. All models accept mobile oven racks (optional on some sizes) and feature rugged stainless steel construction and a host of high-performance features (see next page.) The BCS is considered the basic model. The MCS/G models offer additional cooking modes as well as touch pad controls, digital displays and programmable functions. As a result, certain sections, pages, or operating instructions in this manual may apply only to MCS/G units. This distinction is clearly noted in each case.

Please note that Henny Penny also offers the (LCS/LCG) Combi, a high-end unit that employs a completely different and technologically advanced control system. The ClimaPlus Combi allows precise control of a nearly infinite combination of moist and dry heat, offers up to 99 separate custom cooking programs, and features IQT Intelligent Cooking Technology. If you would like to learn more about the ClimaPlus Combis, please contact your Henny Penny distributor.

Models and Features *at a glance*

Models and sizes available

Model numbers are designated according to pan capacity. Units are available in either electric (MCS, BCS) or gas (MCG, only.)

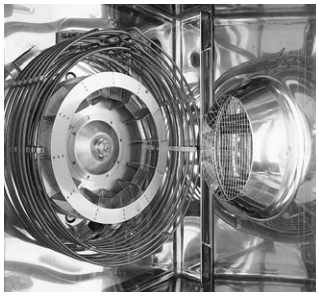
Model		Designation	Pan Capacity	Pan size inches (mm)
Base-top models		**MCS-6 MCG-6 BCS-6**	6 steam table pans (1/1 GN) or 6 half sheet pans	12 x 20 x 2½ (325 x 530 x 65) 13 x 18 (330 x 457)
		**MCS-10 MCG-10 BCS-10**	10 steam table pans (1/1 GN) or 10 half sheet pans	12 x 20 x 2½ (325 x 530 x 65) 13 x 18 (330 x 457)
		**MCS-1020 MCG-1020 BCS-1020**	10 full sheet pans with rack adapter or 20 steam table pans (1/1 GN) or 10 steam table pans (2/1 GN)	18 x 26 (457 x 660) 12 x 20 x 2½ (325 x 530 x 65) 20 x 24 x 2½ (530 x 650 x 65)
Floor models		**MCS-20 MCG-20 BCS-20**	20 steam table pans (1/1 GN) or 20 half sheet pans	12 x 20 x 2½ (325 x 530 x 65) 13 x 18 (330 x 457)
		**MCS-40 MCG-40 BCS-40**	40 steam table pans (1/1 GN) or 20 steam table pans (2/1 GN) or 40 half sheet pans or 20 full sheet pans with rack adapter	12 x 20 x 2½ (325 x 530 x 65) 20 x 24 x 2½ (530 x 650 x 65) 13 x 18 (330 x 457) 18 x 26 (457 x 660)

NOTE: Features may vary between gas and electric models. Accessories may vary according to unit size.

A reference such as “MCS models” or “MCS-6/10/1020/20/40” designates the MCS electric model in all sizes. A reference such as “MCG base-top models” or “MCG-6/10/1020” designates only MCG gas models of those sizes.

Models and Features
continued

Features



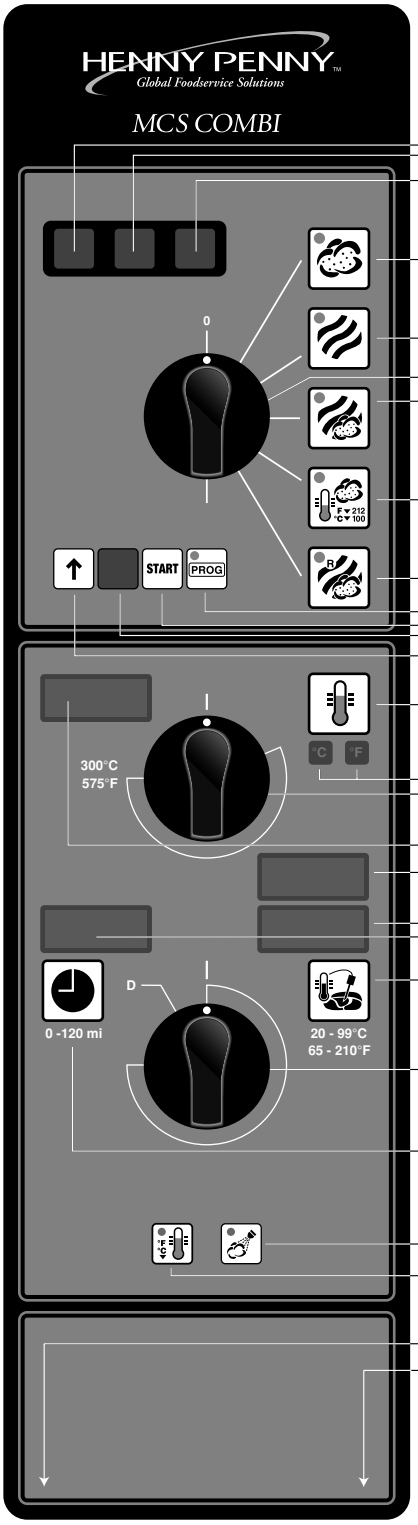
MCS/G	BCS
Cooking Modes	*Cooking Modes*
■ Moist Heat	■ Moist Heat
■ Dry Heat	■ Dry Heat
■ Combination Moist and Dry	■ Combination Moist and Dry
■ Tender Steaming	
■ Rethermalizing	
Control	*Control*
■ Touchpad and electromechanical controls for mode, time, temperature mode, time, temperature	■ Electromechanical controls for mode, time, temperature
■ LED readouts	■ Lighted indicators
■ Forced Steaming	■ Cool Down
■ Steam Injection	■ Forced Steaming
■ Cool Down	
■ Probe cooking	
■ Programmable operation with (9) three-step custom cooking program capacity	
■ Custom cleaning program	
Design and operation	*Design and operation*
■ Auto-reverse fan	■ Auto-reverse fan
■ Filterless grease extraction	■ Filterless grease extraction
■ Dual glass door	■ Dual glass door
■ Safety latch handle (Standard on all floor models, available as option on all base-top models)	■ Safety latch handle (Standard on all floor models, available as option on all base-top models)
■ HACCP interface and serial port	■ Auto flush
■ Auto flush	■ Built-in retractable hand shower
■ Built-in retractable hand shower	

Models and Features
continued

How it works

1. Moist heat is created and dispersed rapidly from the self-cleaning steam generator.
2. Dry heat up to 575°F (300°C) is produced by tubular electrical elements or gas burners.
3. Select cooking mode: Moist Heat, Dry Heat, or Combination modes. With MCS/G models you have the additional selection of Tender Steaming and Rethermalizing modes.
4. Set and select desired cabinet temperature and cooking time. With MCS/G models you may select probe cooking and set desired “done temperature.
5. Auto-reverse fan and air circulation system keep temperatures precise and heat distribution uniform throughout the cabinet, even when cooking full loads.
6. Hinged racking system or mobile oven rack accepts a wide range of pans and grids.
7. Coved corners, filterless grease extraction system, and built-in handshower minimize cleaning labor.

Control Panel Functions *at a glance*



1 Warning light - lights red when steam generator temperature exceeds 302°F (150°C)
2 NO WATER warning light - check water supply
3 ON indicator light (green)
4 MOIST HEAT mode–212°F (100°C)
- For steaming, stewing, blanching, preserving, etc.
- Mode light blinks when temperature exceeds 40°F (5°C) over set point

5 DRY HEAT mode–85°F to 575°F (30°C to 300°C)
- For roasting, baking grilling, etc

6 Mode selection switch
7 COMBINATION mode–85°F to 575°F (30°C to 300°C)
- For Combi-Steaming instead of roasting and glazing or baking
- Forced Steaming between 213°F to 266°F (101°C to 130°C)–firm vegetables or potatoes are cooked more quickly

8 TENDER STEAMING mode–85°F to 210°F (30°C to 99°C)
- For blanching, poaching, simmering, soaking, vacuum cooking

9 RETHERMALIZING mode–85°F to 575°F (30°C to 300°C)
- For reheating pre-cooked (chilled) food

10 PROGRAM function
- Create and store up to 9, three-step cooking programs

11 Program START key
12 Program NUMBER display (1 to 9 programs)
13 Program ADVANCE key display (1 to 9 stages)
14 CABINET TEMPERATURE indicator key
- Key lights up when elements heat
- Press key to display cabinet temperature

15 Temperature indicator (°F or °C)
16 TEMPERATURE selection dial
17 TEMPERATURE display
- Displays selected cooking temperature
- Displays cabinet temperature when CABINET TEMPERATURE indicator key (14) is pressed

18 PROBE COOKING displays
- Upper display indicates actual internal food temperature
- Lower display shows pre-selected "done" temperature

19 COOKING TIME display
- Shows actual cooking time remaining
- Press key to activate probe

20 PROBE COOKING key
- Select food internal "done" temperature using TIMER/PROBE COOKING dial (21)

21 TIMER/PROBE COOKING dial
- Set TIMER for 0 minutes to 120 minutes, press TIMER activation key (22)
- Set PROBE temperature from 65°F to 210°F (20°C to 99°C), press PROBE COOKING key (20)
- Select "D" for Continuous Run

22 TIMER activation key
- Press key to switch from PROBE COOKING
- Select time using the TIMER/PROBE COOKING dial (21)

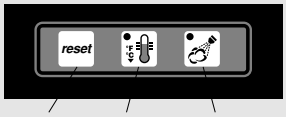
23 STEAM INJECTION
- Four-second burst of steam in DRY HEAT mode between 248°F (120°C) and 480°F (250°C)

24 COOL DOWN
- Fan continues to operate when door is open, reducing cabinet temperature rapidly

25 Unit serial number (located on the left side of cabinet in the lower right hand corner)
- Please refer to this number when requesting service

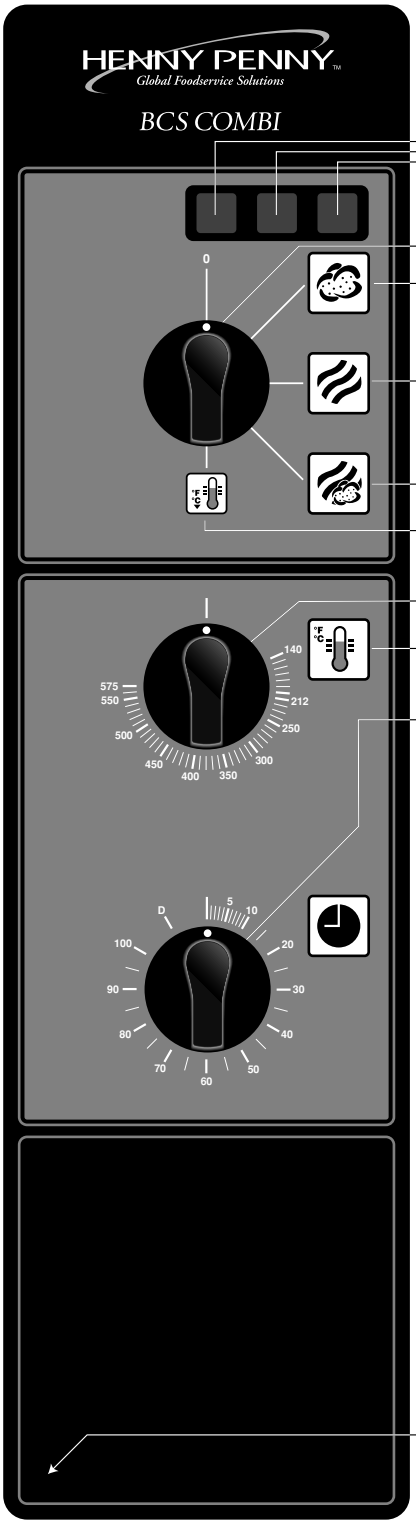
26 HACCP printer port

MCG gas models will have this key pad display



BCS MODELS
6/10/1020/20/40

Control Panel Functions *at a glance*



1 Warning light– lights red when cabinet temperature exceeds 239°F (115°C) in steam mode
2 NO WATER warning light–check water supply/steam generator
3 ON indicator light (green)

4 Mode selection switch
5 MOIST HEAT mode–212°F (100°C)
- For steaming, stewing, blanching, preserving...

6 DRY HEAT mode–140°F to 575°F (60°C to 300°C)
- For roasting, baking grilling, etc.

7 COMBINATION mode–140°F to 575°F (60°C to 300°C)
- For combi-steaming instead of roasting and glazing or baking
- Forced steaming between 213°F to 266°F (101°C to 130°C)– firm vegetables or potatoes are cooked more quickly

8 COOL DOWN function
- Fan continues to operate when door is open, reducing cabinet temperature rapidly

9 TEMPERATURE selection dial
- For convection and combination modes

10 HEAT ON indicator
- Lights during DRY HEAT mode

11 TIMER (0 to 120 minutes)
(UL -approved units: 0 to 100 minutes, CE-approved units: 0 to 120 minutes)
- Set on "D" for Continuous Run

12 Unit serial number (located on the left side of cabinet in the lower right hand corner)
- Please refer to this number when requesting service

Loading and Unloading

Your Henny Penny Combi includes either a removable hinged racking system (standard with 6 and 10-pan units) or a mobile oven rack that is integral to the equipment's operation. All pans and grids are loaded directly onto the hinged racking system, or onto the mobile oven rack which is then rolled into the cooking cabinet.

Base-top Models

Removable Hinged Racking–Standard MCS/G/BCS- 6 & 10

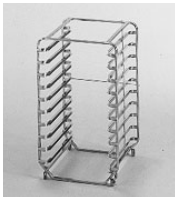
To remove, simply lift rack upward and out of mountings. Reverse the action to replace the rack. To move rack laterally on hinges, lift front of rack slightly to clear mounting and swivel rack.

Mobile Oven Racks (Standard on 1020)

Oven rack on transport cart rolls up to the front of the unit. Oven rack rolls completely into the cabinet. Standard with MCS/G/BCS-1020, available separately (rail system required) for MCS/G/BCS-6 and10.

** Additional racking systems optional.*

Mobile Oven Racks



Transport Cart
(optional)

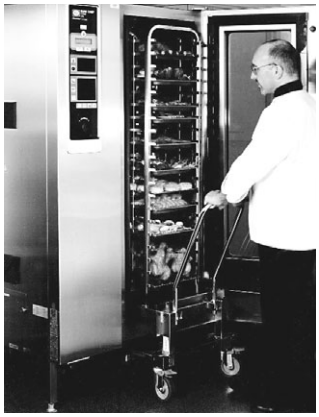
Floor Models

Mobile Oven Racks (20 and 40)

Mobile oven rack rolls directly into unit. Specially designed oven rack allows cabinet door to close easily and completely around the rack. Standard with MCS/G/BCS-20 and 40. Additional mobile oven racks or specially designed oven plate racks are available separately.

IMPORTANT!

When using the oven rack on transport cart, be sure to lock the front casters of the transport cart when it is in the loading or unloading position at the front of the cabinet. Keep the front wheels of the oven rack locked at all times (using the locking lever near the right front wheel) except when rolling it into or out of the cabinet and onto the transport cart itself. Following this procedure stabilizes the load. To keep pans in place lock both vertical hinged bars.



To Load

- Preheat unit to set temperature or above.
- Place food product on appropriate grids, pans and racks.
- If using mobile oven rack, slide full grids, pans and racks into shelves on mobile oven rack. Be sure containers are secure on both sides.

Opening door during operation

- Open door slightly until fan stops and heat dissipates. Open door fully with care.

Loading and Unloading
continued

NOTE: MCS/G and BCS models 20 & 40 have a built-in safety latch that lets steam and heat out before door fully opens. Safety latch is optional on models 6, 10 and 1020. If your ClimaPlus Combi is NOT equipped with this feature, open door slightly until fan stops and steam dissipates. Open door fully with care to unload.

Opening Door During Operation
Open door slightly to allow hot steam and/or vapors to escape. KEEP FACE AND HANDS AWAY FROM OPENING or burns could result. When steam and/or heat has dissipated open door fully with care. Escaping hot steam and/or vapors can cause serious burns. Interior surfaces, including pans, grids and oven racks, can be extremely hot. To prevent burns, allow unit to cool or use appropriate heat resistant protective mitt or pad when handling. Do not use built-in retractable hand shower when cabinet temperature is above 150°F (65°C) or burns could result.

- Load hinged racking system with food containers or roll loaded mobile oven rack directly into unit.
- Remove handle
- Shut door and begin cooking.

To unload

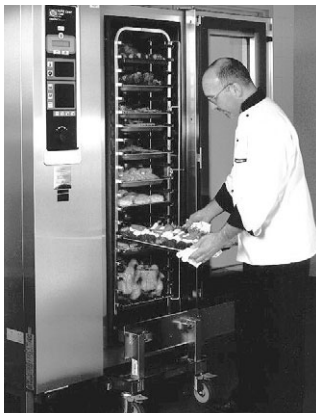
- Open door slightly until fan stops and heat and steam dissipates. Open door fully with care.
- Insert cart handle. (MOR only)
- Using oven mitts or pads, remove food containers carefully from shelves in hinged racking system.
- With floor units, roll mobile oven rack straight out of unit to appropriate location.
- With base-top models using transport cart, roll transport cart up to front of unit and lock front casters. Roll oven rack out of unit and onto transport cart. Be sure wheels on oven rack are locked to stabilize load and reduce the chances of spills.

WARNING

WARNING: Surfaces of food containers, mobile oven racks and inside cabinet surfaces may be extremely hot. Always use insulated oven mitts or pads when removing food containers or handling mobile oven racks or burns could result.

Loading and Unloading

continued



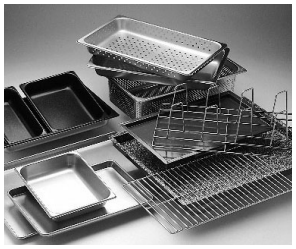
Partial Loads

Individual pans or racks of product can be easily loaded or unloaded while the unit is in operation.

- Open door slightly until fan stops and heat and steam dissipates. Open door fully with care.
- Using oven mitts or pads, load or unload individual containers.
- Shut door. Cooking process continues automatically.

Tips

- Preheat cooking cabinet prior to loading for full loads.
- Since no flavor transfer occurs during cooking, try to plan full loads based on similar cooking climates (Moist, Dry, Combination) rather than food compatibility.
- When cooking for longer periods, or on continuous run cooking, load items that will be done sooner toward the front of the oven. These can be removed individually when done.
- For the greatest efficiency, try to cook with full loads. In general, cooking times and temperatures are not affected by the quantity of product in the cooking cabinet.
- When loading roasts or large cuts of meat, place product on grids and load grids directly onto shelves near the bottom of the unit. Load an empty pan directly beneath the roast to catch drippings and roast bones.
- For base-top models, consider the purchase of Combi Base Units. Several styles are available that offer storage for convenient access to pans, grids, and racks.
- If rethermalizing plated portions is a frequent part of your production, consider the purchase of special plate racks and thermal covers.



Cooking Modes

Henny Penny Combis operate with three basic cooking modes: Moist Heat, Dry Heat and Combination. The MCS/G model also incorporates two additional modes: Tender Steaming and Rethermalizing. Almost all traditional cooking processes can be accomplished in these modes. Cooking modes can be used exclusively or in any sequence or combination to achieve desired results.

Moist Heat Mode *for steaming*

The steam generator produces hygienic steam and releases it (without pressure) into the cooking cabinet where it is circulated at high speeds by the fan. The cooking temperature in this mode is fixed at 212°F (110°C). This mode is used for steaming.

Dry Heat Mode *for baking or roasting*

Powerful heating elements heat the air inside the cabinet. The fan circulates this hot, dry air evenly throughout the interior. Temperature can be regulated precisely between 85-575°F (30-300°C)*.

Combination Mode *for maintaining a moist environment at high temperatures*
The unit's control system combines both Moist Heat and Dry Heat modes to create a humid cooking environment at temperatures even above 212°F (100°C). Selected temperatures can range from 85-575°F (30-300°C)*. The cooking environment retains all humidity generated from the unit and from the moisture released by food as it cooks.

**Lowest temperature on BCS - 140°F (60°C)*

MCS/G models, only

Tender Steaming mode *for low temperature steaming*

In this mode an automatic sensor maintains the selected temperature lower than 212°F (100°C) within a moist environment. Temperatures can be selected from 85-210°F (30-99°C).

Rethermalizing mode *for ideal results when reheating*

This special mode combines moist and dry heat to create the ideal climate for reheating cooked foods. Rethermalizing restores the look, taste and texture of fresh hot food without drying or marking. Rethermalize works best at temperatures between 85-575°F (30-300°C).

Moist Heat Mode *212°F (100°C)*

Pressureless steam generation and auto-reverse fan quickly produce a cooking environment of 100% humidity. Perfect for steaming a wide variety of foods with no flavor transfer. Also used for stewing, blanching, poaching, simmering, soaking, thawing, rethermalizing, preserving.

Advantages

- Extremely short preheating time.
- Excellent food consistency.
- Conserves nutrients, color.
- No added fats or oils.
- Cook different products at the same time with no flavor transfer.
- Can be partially unloaded for serving convenience.
- No need to boil water in pots.

Menu suggestions

- **Ingredient preparations**–tomato concasees, garnishes, mushrooms, blanched vegetables for stuffing, peeling, etc.
- **Starters, appetizers**–scrambled, poached or boiled eggs; vegetable pate, asparagus, stuffed vegetables, cannelloni.
- **Entrees**–cooked beef, ham, turkey legs, steamed fish, chicken breasts.
- **Sides**–rice, dumplings, pasta, fresh and frozen vegetables, boiled potatoes, and grains.

Tips

- Determine which foods can be cooked together for the greatest production efficiency. This is best done by considering the cooking modes and temperatures. Keep in mind that fish, meat, vegetables, fruit, etc. can be cooked at the same time because no flavor transfer occurs.
- Potatoes should always be cooked in perforated pans. This allows steam to circulate for faster, more even cooking.
- In general, two shallower pans are better than one deeper pan. This avoids bruising.
- Dumplings should be placed in shallow pans not too close together.
- Rice, dry pasta, beans, and grains are foods to which water must be added prior to cooking. Longer soaking times mean shorter cooking times.
- Tomatoes can be skinned easily when steamed for 30 to 60 seconds, then chilled in cold water.
- Stock can be collected by inserting a container in the bottom of the oven rack.

Moist Heat
continued

Operation and Settings

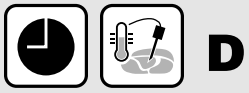

D

- Set on MOIST HEAT mode and set TIMER on "D" Continuous Run.
- Preheat until warm-up control light goes out.* Temperature will remain at 212°F (100°C).

** M model only*

- Load oven rack.

MCS/G units


D

- Set desired cooking time and press TIMER key OR set desired "done" temperature and press PROBE cooking key. OR set on Continuous Run.

BCS units


D

- Set dial to desired cooking time OR set on Continuous Run.

- Unload oven when done. Blower and heat automatically stops when door is opened.

  NOTE: MCS/G/BCS models 20 & 40 have a built-in safety latch that lets steam and heat out before door fully opens. Safety latch is optional on models 6, 10 and 1020. If your Combi is NOT equipped with this feature, open door slightly until fan stops and steam dissipates. Open door fully to unload.

DANGER

Opening Door During Operation
Open door slightly to allow hot steam and/or vapors to escape. KEEP FACE AND HANDS AWAY FROM OPENING or burns could result. When steam and/or heat has dissipated open door fully with care. Escaping hot steam and/or vapors can cause serious burns. Interior surfaces, including pans, grids and oven racks, can be extremely hot. To prevent burns, allow unit to cool or use appropriate heat resistant protective mitt or pad when handling. Do not use built-in retractable hand shower when cabinet temperature is above 150°F (65°C) or burns could result.

Dry Heat Mode *MCS/G: 85-575°F (30-300°C) BCS: 140-575°F (60-300°C)*

Powerful convection heating and auto-reverse fan create the ideal environment for fast, even broiling, roasting, baking, browning, thawing, grilling and sautéing.

Advantages

- Powerful heating capability up to 575°F (300°C), even when fully loaded.
- Fast pre-heating.
- High-speed air circulation creates even heating for high quality food production.
- Consistent cooking and even browning at all rack levels.
- No added fats or oils are needed for cooking.
- Cook different products at the same time.
- Can be partially unloaded for serving convenience.

Menu suggestions

- **Ingredient preparations**–roasted bones for stock, melting butter, thawing frozen ingredients.
- **Starters, appetizers**–meatballs, roast beef, grilled ham, sausage, chicken wings, quiches, tarts, breadsticks, bread rolls, etc.
- **Entrees**–beef and pork roasts, ribs, chicken whole or piece, turkey, frozen lasagna, pizza, pizza rolls.
- **Sides**–baked potatoes, soufflés, casseroles.
- **Desserts**–sponge cake, marble cake, puff pastries, frozen fruit puffs, pies, etc.

Tips

Cooking times

Proper cooking times will vary depending on the quality, weight, or size of the product being cooked. Generally, cooking time is not affected by the size of the load. However, avoid overloading grids or pans so air will circulate evenly around all product.

Roasting, broiling

- Preheat up to 575°F (300°C). Load and set to desired temperature.
- Ideal thickness for steaks, chops, cutlets, or loin cuts: ½-1 in. (13-25mm).
- Cook on grids with drip pans underneath. This allows even browning on all sides.
- Group similarly sized products on the same grids.

Sautéing

- Preheat enamel pan.
- Shallow pans work best.

Browning, finishing

- Preheat up to 575°F (300°C). Load and set to desired temperature.

Dry Heat
continued

Baking

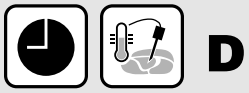
- Preheat to desired baking temperature. In general, Combi baking temperatures will be 40-50°F (5-10°C) LOWER than conventional ovens.
- When baking do NOT preheat pans.
- For bread, rolls, and muffins use only every second rack. Trays should not be deeper than 2¾ in. (70mm).
- Defrost frozen bread dough and let rise for a short time before baking.
- Lightly mist breaded products with water or vegetable oil or brush with eggwash.
- When baking whole fish, wrap tail in foil and support it from underneath with raw potatoes.

Operation and settings

- Set on DRY HEAT mode and set TIMER on "D" Continuous Run.
- Preheat until set temperature is reached or heat indicator light goes out.
- Load oven rack.

MCS/G units

- Set desired cooking TEMPERATURE: 85-575°F (30-300°C). Selected cooking temperature appears in display. Press TEMPERATURE key to display current cabinet temperature.



- Set desired cooking TIME and press TIMER key OR set desired "done" temperature and press PROBE cooking key. OR set on Continuous Run.

BCS units

- Set dial to desired cooking TEMPERATURE: 140-575°F (60-300°C).

- Set dial to desired cooking time OR set on Continuous Run.

- **NOTE:** Steam generator does not operate during Dry Heat Mode. However, humidity builds in the cabinet from the moisture escaping food as it cooks.
- Unload oven when done. Blower and heat automatically shuts off when door is opened.

  NOTE: MCS/G/BCS models 20 & 40 have a built-in safety latch that lets steam and heat out before door fully opens. Safety latch is optional on models 6, 10 and 1020. If your Combi is NOT equipped with this feature, open door slightly until fan stops and steam dissipates. Open door fully to unload.

Combination Mode *MCS/G: 85-575°F (30-300°C) BCS: 140-575°F (60-300°C)*

Fast, consistent method for cooking foods that require a combination of moist and dry heat. In Combination Mode, the cabinet may be heated to any temperature in the range shown above. The steam generator introduces moist heat into the cabinet as needed throughout the cooking cycle. Use when combi-baking, combi-roasting, combi-steaming, browning, braising, glazing, basting.

Advantages

- Fast preheating.
- Cook with steam at temperatures above 212°F (100°C).
- Less food shrinkage from dehydration.
- More servings per cooked pound.
- Automatic basting.
- Foods retain more nutrients and flavor.
- No added fats or oils are needed for cooking.
- Even heating improves cooked quality of large meat portions.
- Cook different products at the same time with no flavor transfer.
- Consistent cooking and browning at all rack levels.
- Can be partially unloaded for serving convenience.

Menu suggestions

- **Ingredients preparations**–roasted bones for stock.
- **Starters, appetizers**–quiche, pastas, bread, rolls (frozen), etc.
- **Entrees**–roasts (beef, veal, pork, lamb) stuffed peppers, whole roast chicken, turkey legs, casseroles, lasagna, etc.
- **Sides**–potatoes au gratin, baked potatoes, frozen vegetables, baked apples, etc.
- **Desserts**–yeast dough (choux pastry).

Tips

- To achieve even cooking and browning, always cook roasts on grids with plenty of space around each roast for air to circulate.
- When practical, place roasts on grids with meat grain parallel to airflow for even better results.
- Cook large, fat-encrusted roasts in MOIST HEAT mode for the first one-third of the total cooking time, then switch to COMBINATION mode with desired settings for the remainder. This technique helps seal in juices, flavors and nutrients while reducing shrinkage.
- Condensation and juices can be collected in a pan under the roasts to be used later with roasted bones for sauce stocks.
- Use chicken grid to roast whole chickens upright for even cooking, browning.

Combination

continued

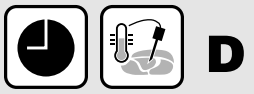
NOTE: BCS models do not have a separate mode for rethermalizing. When reheating items in BCS models, use Combination Mode with temperatures from 280-320°F (138-160°C) for 5-8 minutes, depending on items and load size.

Operation and settings

- Set on COMBINATION mode and set TIMER on "D" Continuous Run.
- Preheat until set temperature is reached or heat indicator light goes out.
- Load oven rack.

MCS/G units

- Set desired cooking TEMPERATURE: 85-575°F (30-300°C). Selected cooking temperature appears in display. Press TEMPERATURE key to display current cabinet temperature.



- Set desired cooking TIME and press TIMER key OR set desired "done" temperature and press PROBE cooking key. OR set on Continuous Run.

BCS units

- Set dial to desired cooking TEMPERATURE: 140-575°F (60-300°C).

- Set dial to desired cooking time OR set on Continuous Run.
- Unload oven when done. Blower and heat automatically shuts off when door is opened.

  NOTE: MCS/G/BCS models 20 & 40 have a built-in safety latch that lets steam and heat out before door fully opens. Safety latch is optional on models 6, 10 and 1020. If your is NOT equipped with this feature, open door slightly until fan stops and steam dissipates. Open door fully to unload.

Opening Door During Operation
Open door slightly to allow hot steam and/or vapors to escape. KEEP FACE AND HANDS AWAY FROM OPENING or burns could result. When steam and/or heat has dissipated open door fully with care. Escaping hot steam and/or vapors can cause serious burns. Interior surfaces, including pans, grids and oven racks, can be extremely hot. To prevent burns, allow unit to cool or use appropriate heat resistant protective mitt or pad when handling. Do not use built-in retractable hand shower when cabinet temperature is above 150°F (65°C) or burns could result.

Combination/ Forced Steaming

Forced Steaming *213-265°F (101-130°C)*

A cooking technique that uses Combination Mode within a certain temperature range to achieve full-humidity steaming at temperatures well above boiling. Forced Steaming is excellent for cooking dense products, such as root vegetables and frozen casseroles.

Advantages

- Creates an intensified cooking process
- Shorter cooking times
- Product retains color, nutrients
- Less shrinkage

Menu suggestions

- Potatoes, carrots, celery
- Frozen prepared foods

Tips

Approximate temperature ranges for some common Forced Steamed items:

Celery	230°F	110°C
Carrots	240°F	115°C
Potatoes	257°F	125°C
Turnips, yams	248°F	120°C
Frozen lasagna	248°F	120°C
Frozen vegetables	248°F	120°C
Rice	248°F	120°C

Combination/ Forced Steaming

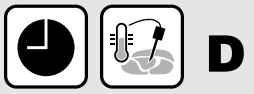
continued

Operation and settings

- Set on COMBINATION mode and set TIMER on "D" Continuous Run.
- Preheat until set temperature is reached or heat indicator light goes out.
- Load oven rack.

MCS/G units

- Set desired Forced Steaming TEMPERATURE: 213-265°F (101-130°C).



- Set desired cooking TIME and press TIMER key OR set desired "done" temperature and press PROBE cooking key. OR set on Continuous Run.

BCS units

- Set dial to desired Forced Steaming TEMPERATURE: 213-265°F (101-130°C).

- Set dial to desired cooking time OR set on Continuous Run.
- Unload oven when done. Blower and heat automatically shuts off when door is opened.

  NOTE: MCS/G/BCS models 20 & 40 have a built-in safety latch that lets steam and heat out before door fully opens. Safety latch is optional on models 6, 10 and 1020. If your Combi is NOT equipped with this feature, open door slightly until fan stops and steam dissipates. Open door fully to unload.

Opening Door During Operation
Open door slightly to allow hot steam and/or vapors to escape. KEEP FACE AND HANDS AWAY FROM OPENING or burns could result. When steam and/or heat has dissipated open door fully with care. Escaping hot steam and/or vapors can cause serious burns. Interior surfaces, including pans, grids and oven racks, can be extremely hot. To prevent burns, allow unit to cool or use appropriate heat resistant protective mitt or pad when handling. Do not use built-in retractable hand shower when cabinet temperature is above 150°F (65°C) or burns could result.

MCS/G models, only

Tender Steaming *85-210°F (30-99°C)*

A cooking mode that cooks with moist heat at temperatures below the boiling point. Use Tender Steaming Mode for scalding, poaching, thawing, proofing, simmering, blanching, soaking, vacuum cooking, and preserving.

Advantages

- Fast preheating.
- The ability to select and maintain precise low cooking temperatures.
- Gentle steaming for a variety of delicate items.
- Excellent consistency and taste for many kinds of meat and fish.
- Lower cooking temperatures mean less sticking and crumbling.
- Less shrinkage resulting in moist, attractive portions for display merchandising.
- No added fats or oils are needed for cooking.
- Excellent method for proofing breads and doughs at 95-99°F (35-37°C).
- Can be partially unloaded for serving convenience.

Menu suggestions

- **Ingredients preparations**–blanching bacon and ham, proofing, soups, sauces, stocks, fish garnishings, etc.
- **Starters, appetizers**–Poached eggs, seafood, cakes, patés, etc.
- **Entrees**–Fish (salmon, sole, orange roughy), poultry, vacuum cooking items, boneless chicken and turkey filets, beef filets, sausages, etc.
- **Sides**-Vegetable casseroles
- **Desserts**–fruit, cheese cakes, delicate moist items, etc.
- **Yeast doughs**–breads, rolls, bagels, etc.

Tips

Approximate temperature ranges for some common Tender Steamed items:

Soup garnishings	167-194°F	75-90°C
Fish, seafood	149-194°F	65-90°C
Pork, veal	161-167°F	72-75°C
Chicken/white meat	167-185°F	75-85°C
Chicken/dark meat	176-194°F	80-90°C
Poultry (other)	176°F	80°C
Beef, lamb	135-165°F	58-74°C
Desserts	149-194°F	65-90°C
Breads, doughs	95-99°F	35-37°C

Tender Steaming
continued

Cooking times

Moist Heat mode principles apply: generally, the lower the cooking temperature the longer the cooking time.

Seasoning

Season lightly. Low temperature cooking intensifies a food's natural taste, as well as the taste of seasonings. For the same reason, use less essences or reducing agents.

Texture, appearance

Tender Steaming imparts excellent characteristics to food for presentation in display merchandisers:

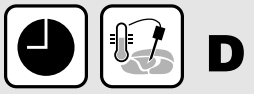
- Excellent color
- Firm structure for clean portioning
- Less shrinkage for plump, taut skins
- Fewer and smaller "bursts" even when skin is damaged

MCS/G units

Operation and settings

- Set on TENDER STEAMING mode and set TIMER on "D" Continuous Run.
- Preheat until set temperature is reached or heat indicator light goes out.
- Load oven rack.

- Set desired Tender Steaming TEMPERATURE: 85-210°F (30-99°C).



- Set desired cooking TIME and press TIMER key OR set desired "done" temperature and press PROBE cooking key. OR set on Continuous Run.
- Unload oven when done. Blower and heat automatically shuts off when door is opened.
- **NOTE:** MCS/G/BCS models 20 & 40 have a built-in safety latch that lets steam and heat out before door fully opens. Safety latch is optional on models 6, 10 and 1020. If your Combi is NOT equipped with this feature, open door slightly until fan stops and steam dissipates. Open door fully to unload.

DANGER

Opening Door During Operation
Open door slightly to allow hot steam and/or vapors to escape. KEEP FACE AND HANDS AWAY FROM OPENING or burns could result. When steam and/or heat has dissipated open door fully with care. Escaping hot steam and/or vapors can cause serious burns. Interior surfaces, including pans, grids and oven racks, can be extremely hot. To prevent burns, allow unit to cool or use appropriate heat resistant protective mitt or pad when handling. Do not use built-in retractable hand shower when cabinet temperature is above 150°F (65°C) or burns could result.

MCS/G models, only

Rethermalizing

Rethermalizing Mode utilizes an optimum combination of moist and dry heat to maintain flavor and textures when bringing chilled cooked foods back up to serving temperatures.

Advantages

- Different food products can be reheated without being covered.
- Perfect mode for re-heating ingredients, servings or meals previously cooked and chilled as part of a cook/chill production process.
- Whole meals can be plated and chilled in quantity on special racks that roll directly from the blast chiller into the Combi for rethermalizing.
- Allows more efficient use of time to prepare dishes and trays ahead of time.
- Less shrinkage.

Menu suggestions

- **Starters, appetizers**–pasta, vegetable dishes, macaroni & cheese, casseroles, spring rolls, etc.
- **Entrees**–roasts, pasta, casseroles, chilled or frozen meat and fish, chilled or frozen prepared entrees, stuffed vegetable dishes.
- **Sides**–rice and rice dishes, vegetables, noodles, new potatoes, potatoes au gratin, potato pancakes, fries, etc.
- **Desserts**–fruit pies, cheese cakes, stewed fruit, etc.

Tips

- Proper rethermalizing temperatures will vary depending on type of food.
- Rethermalizing times depend on the type of food, the beginning internal temperature and the number of plates or pans in the load.
- Use probe cooking when practical. Ideal serving temperatures are easier to achieve.
- Re-heating plated servings is more efficient, especially when preparing meals in volume.
- Use special mobile oven rack designed to hold plates for rethermalizing. Racks roll from blast chiller or walk-in directly into the ClimaPlus Combi. Fitted thermal covers are available to keep plates on rack warm for short periods or during transport.
- Make sure food is arranged evenly on plates.
- Apply sauces after rethermalizing.

NOTE: BCS models do not have a separate mode for rethermalizing. When reheating items in BCS models, use Combination Mode with temperatures from 280-320°F (138-160°C) for 5-8 minutes, depending on items and load size.

Rethermalizing
continued

■ Create a custom cooking program with Rethermalizing settings that can be used for similar recurring situations.

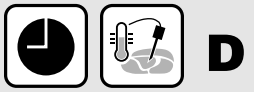
Operation and settings

■ Set on RETHERMALIZING mode and set TIMER on "D" Continuous Run.

■ Preheat until set temperature is reached or heat indicator light goes out.

■ Load oven rack.

■ Set desired Rethermalizing TEMPERATURE: Generally from 240-280°F (116-138°C).



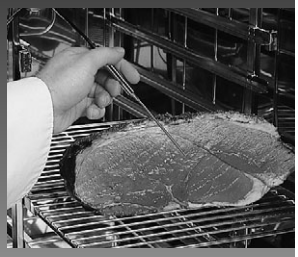
■ Set desired cooking TIME and press TIMER key OR set desired "done" temperature and press PROBE cooking key. OR set on Continuous Run.

■ Unload oven when done. Blower and heat automatically shuts off when door is opened.

NOTE: MCS/G/BCS models 20 & 40 have a built-in safety latch that lets steam and heat out before door fully opens. Safety latch is optional on models 6, 10 and 1020. If your Combi is NOT equipped with this feature, open door slightly until fan stops and steam dissipates. Open door fully to unload.

DANGER

Opening Door During Operation
Open door slightly to allow hot steam and/or vapors to escape. KEEP FACE AND HANDS AWAY FROM OPENING or burns could result. When steam and/or heat has dissipated open door fully with care. Escaping hot steam and/or vapors can cause serious burns. Interior surfaces, including pans, grids and oven racks, can be extremely hot. To prevent burns, allow unit to cool or use appropriate heat resistant protective mitt or pad when handling. Do not use built-in retractable hand shower when cabinet temperature is above 150°F (65°C) or burns could result.



MCS/G models, only

Probe Cooking *for achieving precise "done" temperatures*

The Probe Cooking function allows the operator to select the food's desired "done" temperature as well as the cooking temperature. The probe is inserted into the central part of the product to measure the actual internal temperature of the food as it cooks. The cooking cycle stops automatically when selected internal temperature is achieved.

Advantages

- Cook to proper "doneness" for precise, consistent results with different types of food.
- Prevents over cooking, less waste.
- Does not require constant observation of cooking process.
- Results in less shrinkage, more portions.
- Control panel simultaneously displays done temperature and current core temperature.
- Eliminates wasteful and unattractive intrusive testing methods such as needle, fork, or cutting.

When to use

Probe cooking can be used for practically any type of food, most often with roasts, meats, poultry, casseroles, entreés, soups, rethermalizing plated portions.

Tips

- When roasting meat for sliced cold servings, set food core temperature about 9°F (5°C) lower than recommended "done" temperature. Roast will continue to cook as it cools.
- A hot probe may sear the meat on contact, leaving a hole or scar when probe is removed. Always cool probe prior to insertion.
- Probe cooking temperatures can be changed or reset at any time during the cooking process. For example, you may wish to change cooking modes or accelerate the cooking process after a certain core temperature is reached. Simply make those changes and reset probe "done" temperature to the desire cooked setting.

Probe Cooking
continued

Operation and settings

- Set on any desired mode. Set TIMER on "D" Continuous Run.
- Load oven rack.
- Insert probe into thickest portion of the meat or other food item on center rack.

NOTE: Be sure probe is clean and cool prior to insertion.

- Set desired cooking TEMPERATURE.

- Press PROBE COOKING key and set desired probe "done" temperature.
- Selected done temperature is displayed. Timer does not operate.
- No operator control or observation is necessary.
- A signal sounds when done temperature is reached. Blower and heat shuts off automatically. (Cabinet will retain heat)
- Probe done temperature, as well as other settings, can be changed at any time.

Probe Cooking Guide to "Doneness"

Meat		Probe "Done Temp"		Appearance
Beef	Rare	130°F	55°C	Dark, blood red
	Medium rare	140F	60°C	Red meat, blood-red juice
	Medium	145°F	63°C	Light pink core
	Well done	167-189°F	75-65°C	Gray-brown throughout
Veal	Fully cooked	155-170°F	69-77°C	Red-brown to gray-white
Pork	Medium	150°F	65°C	Light pink
	Well done	167-176°F	75-80°C	Pale brown to gray-white
	Cured	150°F	65°C	Pale red-brown or nearly colorless
Lamb	Fully cooked	165°F	74°C	Gray to pale-red juice, clear juice
Mutton	Fully cooked	165°F	74°C	Pale gray meat, red juice
Poultry	Fully cooked	185°F	85°C	White meat, nearly colorless juice

CAUTION

Probe sensor may be extremely hot
When not in use, always place probe sensor in holder. Do not let probe sensor hang loose outside the cooking cabinet. Remove probe sensor from food before unloading unit.

Additional Functions: Cool Down

Cool Down is a keypad function that enables the fan to continue operating when the door is open. This dissipates heat quickly. (MCS/G only)

Advantages

- Achieve rapid reduction in cabinet temperature when switching from a high to a low cooking temperature.
- Saves time for efficient operation.
- Prevents overcooking, especially with shorter cooking times.

Operation and control

- Cool Down can be used in any cooking mode, at any temperature setting, and at any time during the cooking process.
- Unit must be in operation with door closed.
- Cool Down automatically stops after 5 minutes.

MCS/G units

- Press the Cool Down key. Green LED on key will light.
- Open door with care.
- Actual cabinet temperature appears with flashing digits in Temperature display.
- Close door to continue cooking when desired cabinet temperature is achieved.

BCS units

- Set mode switch to COOL-DOWN.
- Open door with care.
- Close door to continue cooking at a lower cabinet temperature.

DANGER

Opening Door During Operation
Open door slightly to allow hot steam and/or vapors to escape. KEEP FACE AND HANDS AWAY FROM OPENING or burns could result. When steam and/or heat has dissipated open door fully with care. Escaping hot steam and/or vapors can cause serious burns. Interior surfaces, including pans, grids and oven racks, can be extremely hot. To prevent burns, allow unit to cool or use appropriate heat resistant protective mitt or pad when handling. Do not use built-in retractable hand shower when cabinet temperature is above 150°F (65°C) or burns could result.

MCS/G models, only

Additional Functions: Steam Injection

Steam Injection is a keypad function enabled in Dry Heat mode that, when activated, sprays a four-second burst of water onto heating elements, creating an immediate and brief humidified environment in the cooking cabinet.

Advantages

- Improves rising and browning of dough.
- Adds slight glaze to pastries.
- Keeps foods, and especially skins and crusts from dehydrating.
- Additional control for fruit, meat pastries and other items with varied textures, densities and consistency.

Tips

- Use Steam Injection sparingly. If ongoing humidity is desired, use Combination Mode or Forced Steaming.
- Use early in the baking process to improve dough and pastry rising.
- Can be used in all program steps that use Dry Heat between 248°F and 482°F (120-250°C). When programmed, a four-second burst occurs every two minutes.

Operation and settings

- Steam Injection can only be activated when cooking in Dry Heat mode.
- Cooking temperature must be between 248°F and 482°F (120-250°C).

NOTE: Steam Injection will not operate until cabinet temperature is 248°F (120°C) or higher.

- To activate, press STEAM INJECTION key.
- Repeat as desired.

MCS/G models, only

Special Functions: HACCP Interface

A special capability that records, prints and/or transmits actual cooking data for conformance with HACCP procedures.

Henny Penny Combis are equipped with a serial interface to output key cooking data, core temperature progression, cabinet temperature, start and end times, etc. This data can be printed out directly in report form or downloaded to a PC environment.

Set Up

First, connect a printer or PC to the unit using a standard serial cable. The combi serial port is located on the underside of the unit near the front. Once connected, follow the instructions below to begin recording data.

Recording data

- Select any cooking mode.
- Set desired cooking TEMPERATURE.

- Press PROBE cooking key and set desired probe “done” temperature. Recording can only take place when using probe cooking. Be sure food probe is inserted.

- Simultaneously press and hold TEMPERATURE key and STEAM INJECTION key for approximately 10 seconds until a flashing dot appears in the cooking temperature display.
- Close cabinet door and begin cooking.
- The function stops at the end of the cooking cycle, or if the unit is turned off for longer than 4 seconds. Data recording can be terminated prior to completion of the cooking process by pressing both the Temperature and Steam Injection keys at the same time again.

Outputting data

Data can be output to the following devices:

- A standard printer equipped with a serial RS232 interface that can be set to the specified transmission format.
- Any PC with Windows 95 or higher operating system. Windows 95 and 98 include a terminal program in the “Hyper Terminal” folder within the Accessories program group. After launching the "Hypertrm" application program, the following settings must be made:

HACCP Interface

continued

Windows 95 and Windows 98

1. Create a new connection in Hyper Terminal and name it "HACCP."
2. In the "Phone Number" dialog box, click on Connect Using and select either COM 1, COM 2, ...OR COM n, depending on which of the PC's serial interfaces is connected to the combi steamer. Click "OK."
3. In the Properties dialog box that appears, select the following settings:

   Bits per second:9600
   Data Bits: 8
   Parity: None
   Stop bits:
   Flow control: None
   Click "OK."
4. In the Hyper Terminal main window, click File and select Properties from the pull down menu.
5. Click on the Settings tab and select VT-100 from the Emulation menu. Click "OK."
6. In the Hyper Terminal main window, click Transfer and select "Capture Text."
7. A name must be given for the text file. You must include the "txt" with your file name. Click "OK."

- For Windows NT 4.0 or higher and Windows 2000, please refer to the appropriate operating manuals or consult your organization's network technical support personnel.

Evaluating data

Data downloaded from the combi includes a header, the temperature data, and an end character. Tabs separate the individual temperatures in a data record. This makes it easy to import data into suitable spreadsheet or database software.

- A "data record" is comprised of the following three values:
  1. Core temperature of food
  2. Cabinet temperature
  3. Number of minutes elapsed since the start of recording.
- The current date and the start time (of the cooking process) should be entered (manually) via the PC.
- A graphical display of temperature progressions has proved useful.
- Always ensure that once cooking is over, a clear signal is sent to the staff operating the unit that the cooking process parameters have been adhered to (i.e. that the core temperature has been reached).
- A "non-temperature data record" can be identified by the fact that the first character is a semicolon.
- The batch number is automatically numbered from 0 upwards for each cooking cycle.
- The temperature data measured is sent at 60-second intervals.
- The termination time is output in minutes and seconds.
- The end character consists of the message "end***."

MCS/G models, only

Programming

Programming capabilities of the MCS/G Combi allow operators to create custom cooking programs that automatically operate the unit to programmed parameters.

If you are not already familiar with the MCS or MCG control panel, please review page 8 before attempting to program your unit.

Memory

- Up to 9 total custom cooking programs are available to the operator. An additional program for cleaning has been set by the manufacturer.
- Each program can contain up to 3 separate steps (sets of parameters).

Control

- Automatic—Unit begins operation when Program Start key is pressed. Unit shuts down when last program step has been completed.
- Manual Override—Program operation can be interrupted at any time by simply selecting or setting a new value. The new value affects cooking process only in the step in which the program was overridden. Overriding the program DOES NOT cancel it. When the new value or function is achieved, and/or that step of the program is completed, program operation continues with the next programmed step, or shuts down unit if program is complete.
- Program Lock—Cooking programs can be locked to prevent any unauthorized or undesired changes to the programs. If programming is locked out, only stored programs will be displayed.

  NOTE: When programming is locked you cannot manually override changes to programs.

Programming the MCS/G Combi

To create custom cooking programs:

- Unit must be off. Open door.

- Turn mode selector dial to PROG. The PROG LED will flash for five seconds, prompting a programming action. The letter "C" (Cleaning program) appears in the Program Number Display, the middle of three display keys immediately left.

  NOTE: If the PROG LED does not flash, the programming function has been locked (see "To lock/unlock programming".)

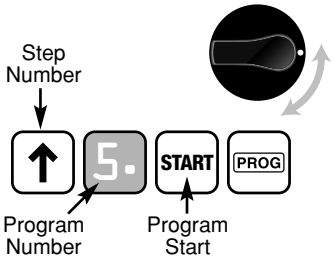
- Select the desired program number (1-9) by pressing the display key farthest left. This key acts as the Program Selection key. The middle display will show the program number followed by a decimal point. Flashing program numbers are available for programming; non-flashing numbers indicate stored programs.

  NOTE: If programming is locked, only stored program numbers will be displayed.

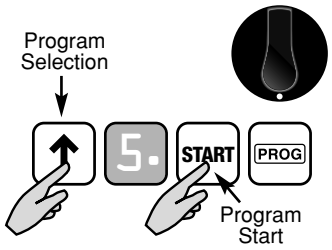
- Program number and first cooking mode must be selected while the PROG LED is flashing within 5 seconds.

Programming

continued

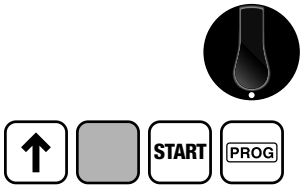


- Begin entering cooking parameters for each step of the program by selecting desired cooking mode.
- Continue current step by selecting additional parameters, such as cooking temperature, time or probe "done" temperature, or steam injection.
- To move on to the next step in the program, select a cooking mode. It can be the same mode or a different one. If you wish to use the same mode, reset that mode by quickly turning the mode dial away from and back to its original setting. The Program Step Display now shows a number "2" with no decimal. Continue entering parameters.
- When all steps have been entered in this manner, save the program by switching the mode dial to PROG.
- Check the program by pressing the Program Start key (the display key next to PROG) repeatedly. Each step will be displayed in sequence with the corresponding LEDs and values indicating the various parameters of that stage. After the last step, the program number will be displayed.



To run a saved program

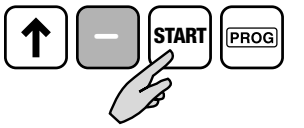
- Do not open door. Turn the mode selector dial to PROG.
- Select the desired program number by pressing the Program Selection display key.
- Press the Program Start display key. Cooking program will begin.



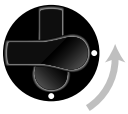
To lock/unlock programming

- Open door. Turn mode selector dial to PROG

- Press TIMER activation key. Set TIMER to 110 minutes.



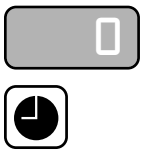
- Press Program Start display key. When locking programming, display will show a dash. When unlocking programming, display will show "P".



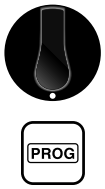
To delete a program (must be unlocked)

- Open door. Turn mode selector dial to PROG.
- Select program number to delete by pressing Program Selection display key. Then select any cooking mode.

  NOTE: both of these actions must be taken while PROG LED is flashing.



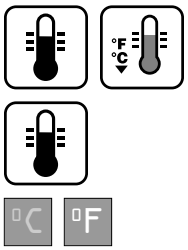
- Set TIMER to "0".



- Turn mode selector dial back to PROG. The program has now been deleted and the program number is available for a new cooking program.

To change temperature scale °F/°C

- Open door. Turn mode selector dial to any cooking mode.



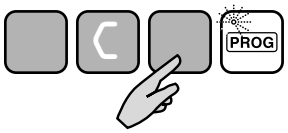
- Simultaneously press and hold cooking TEMPERATURE key and COOL DOWN keys for about 10 seconds until Temperature Scale Indicator changes to the desired format. All temperatures will automatically be displayed in the new temperature scale.

Cleaning

Your Henny Penny Combi MUST be cleaned at least once a day to ensure proper sanitation and continued trouble-free operation.

All models are equipped with a built-in retractable hand shower for rinsing. The unit uses its own built-in water supply, plus heat and steam from Moist Heat mode operation to do most of the work. MCS/G models are equipped with a preset cleaning program that requires less operator time.

For best results, use Henny Penny Oven and Grill Cleaner and follow the procedures outlined below:



To clean:

1. Allow cooking cabinet to cool down below 130°F (55°C). (Cool Down function can be used)
2. Turn unit off
3. Swivel left hinged rack inward. (If using mobile oven rack, remove rack and guide frame.)
4. Using a flat-head screwdriver, turn the two quick fastening locks one-quarter turn counterclockwise. Baffle will swing open for cleaning.

NOTE: Floor units have 1 air baffle that opens in this manner.

5. Spray all interior cabinet surfaces (even behind the pivoted air baffle).
6. Replace air baffle and racking system, load grids and stainless steel pans and spray thoroughly with Henny Penny Oven and Grill/Combi Cleaner. Reconnect power.

To initiate factory pre-set cleaning program (MCS/G models only):

7. Set mode selector dial to PROG. The letter "C" appears in the program number display.
8. Press the Program Start display key and skip steps 6-8.

NOTE: If you do not wish to use pre-set cleaning program, skip steps 7-8.

9. Let cleaner act for approximately 20 minutes.
10. Select Moist Heat mode.
11. Select TIMER and set for 15 minutes.
12. Repeat process for heavily soiled cabinet.
13. Rinse thoroughly with built-in hand shower.

NOTE: To activate the hand shower water flow, pull hose to full extension and release to rest position. Press spray gun button.

Hand cleaning accessibility

- The hinged racks can be removed for cleaning by lifting up on the racks, swiveling them inward, and lifting them off their mountings.
- If using the mobile oven rack system, roll the rack out of the unit and remove the guide frame from the bottom of the unit by lifting it upward out of its mountings.
- The air baffle, covering the left side of the interior cabinet, provides even airflow and protects operator from heating elements and fan.

NOTE: Wipe door gasket with clean cloth.

WARNING

Safety protection (gloves, goggles, etc.) is required when working with cleaning products. Please refer to cleaning product guidelines before use.

Descaling Maintenance

Limescale deposits occur naturally inside the steam generator. Time, heavy use, and hard water conditions result in a gradual build-up of these deposits, eventually affecting the performance of, and potentially damaging, your combi. Periodic, professional descaling of the steam generator must be performed on a regular basis to ensure peak performance of your Henny Penny Combi.

Auto Flush

Auto Flush is an automatic feature in all models that drains and flushes the steam generator on a regular basis in order to keep the unit operating reliably between descalings. While it extends the time between service calls, the Auto Flush feature is not meant to make descaling unnecessary.

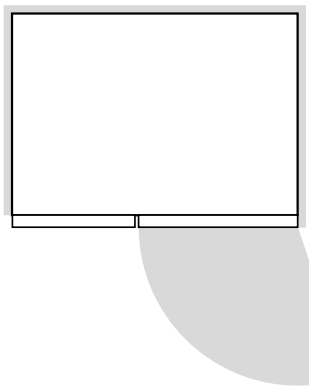
IMPORTANT

Descaling should ALWAYS be performed by a certified Henny Penny service technician, or a similarly qualified individual.

Installation

Refer to the following pages for important information regarding the installation of MCS/G and BCS Combis. It is recommended that installation be accomplished by a certified and properly trained technician.

Site, leveling



Minimum clearance sides and back:
2 in. (50 mm)

Service clearance, left side:
20 in. (500 mm)

Clearance for door opening:

Model 6 & 10:	20½ in. (521 mm)
Model 1020:	29½ in. (749 mm)
Model 20:	28¾ in. (730 mm)
Model 40:	30¾ in. (781 mm)

1) **Check for any transport damages.** Should there be any signs of transport damage immediately inform your dealer/freight forwarder.
2) **Check installation site.** Check entrance clearance.
   Minimum entrance space needed without pallet:

Model 6 & 10:	35½ in. (902 mm)
Model 1020:	49⅝ in. (1262 mm)
Model 20:	39⅞ in. (1012 mm)
Model 40:	52½ in. (1332 mm)

- Floor at installation site must be level.
- Cold water line should be in place. (page 40)
- 2 in. (50 mm) drain connection installed.
- Max. drain height for floor units: 4 in. (100mm)
- Electrical power supply/protective measures installed and sized correctly. (page 38-39)

3) Remove all cartons, packing materials, documents etc. from the interior cabinet.
4) Remove grid shelves/mobile rack from cabinet.
5) Take unit off the pallet.

- Moving unit without pallet: Models 6, 10, 1020 (fig. 1)
- Moving unit without pallet: Models 20, 40 (fig. 2)

fig. 1

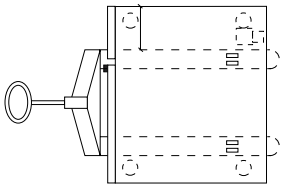
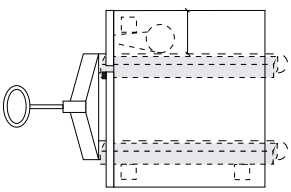


fig. 2

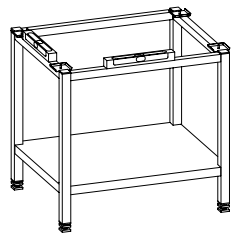


continued

Unit weights:

MCS/BCS 6	270 lbs. (123 kg)	MCG 6	335 lbs. (152 kg)
MCS/BCS 10	334 lbs. (152kg)	MCG 10	384 lbs. (174 kg)
MCS/BCS 1020	484 lbs. (220 kg)	MCG 1020	584 lbs. (265 kg)
MCS/BCS 20	686 lbs. (312 kg)	MCG 20	798 lbs. (362 kg
MCS/BCS 40	972 lbs. (442 kg)	MCG 40	888 lbs. (403 kg)

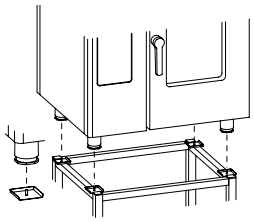
Fig. 3



6) Installation models 6, 10, 1020

- Place floor stand at the installation place and level by adjusting legs (fig. 3).
- Minimum clearance required to neighboring equipment or walls (page 36)
- Place the unit on top of the stand. The unit's legs must be centered on the locating pins of the stand (fig. 4).
- Unit must be level (fig. 5).

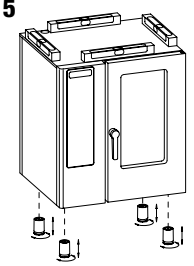
Fig. 4



7) Installation models 20, 40

- The unit must be secured against shifting on the floor by means of floor fixtures (fig. 6). If floor fixtures are glued to the floor (use polyurethane glue or similar), remove all grease from the floor first.
- Place the unit at its final location and level by adjusting legs (fig. 5).
- Minimum clearance required to neighboring equipment or walls (page 36)
- **The area of floor under the unit where Mobile Oven Racks will roll in must be level or door will not seal** (fig. 7).

Fig. 5

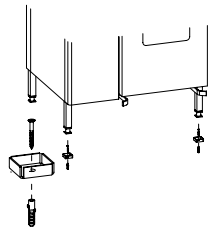


Electrical

8) Electrical connection

- Connect the unit only according to the information given on the data plate.
- Observe all regulations of your local Electrical Code.
- The appliance may only be connected by a licensed electrician.
- Each appliance requires an independent fused power supply line.
- Connection via GFI circuit breaker is advisable.
- On-site installation: provide accessible all-pole disconnection device with minimum of ⅛ in. (3 mm) contact gap (not required for 120v gas units.)
- Connect appliance to ground.
- Special voltages on request. Circuit diagram is located behind the operator panel.

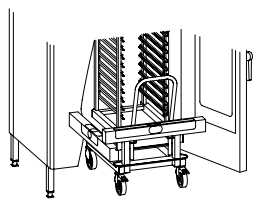
Fig. 6



Connected load for electric units:

Model	KW	Amps			
		208v 3Phase	240v 3 Phase	208v 1 Phase	240v 1 Phase
MCS/BCS-6	10	28	24	48	42
MCS/BCS-10	19	53	45.8		
MCS/BCS-1020	31.5	87.5	75.9		
MCS/BCS-20	38	105.6	91.5		
MCS/BCS-40	63	175.1	151.8		

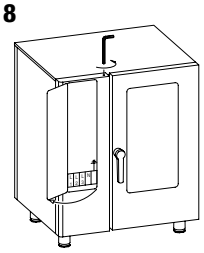
Fig. 7



Electrical requirements of gas units:

Model	Voltage	Phase	Cycle/Hz	KW
MCG-6	120	1	60	1
MCG-10	120	1	60	1
MCG-1020	208/240	1	60	1.5
MCG-20	208/240	1	60	1.6
MCG-40	208/240	1	60	3.5

fig. 8



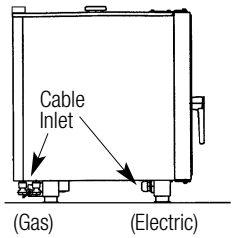
Choose conductor size according above tables and your local regulations.

IMPORTANT

Gas units are voltage specific. Supply voltage must match voltage rated on data plate.

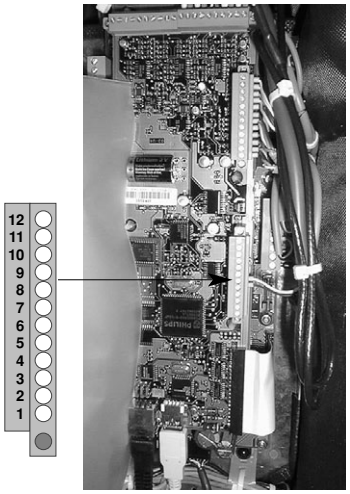
- Gas units are supplied with grounded power cord and plug.
- Electric units are NOT supplied with power cord.

fig. 9



To connect power supply for electric units, models 6, 10:

- Open the operator panel. (fig. 8)
- Insert power cord through cable inlet under left side of unit to desired length and secure the cable connection tight. (fig. 9)
- The circuit diagram is located behind the control panel.



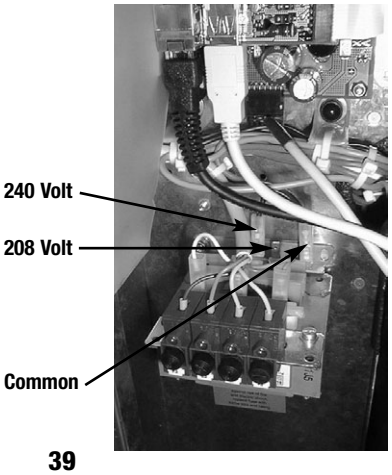
To connect power supply for electric units, models 1020, 20, 40:

- Access power connection terminals by removing left side panel.
- Insert power supply cable through cable inlet under left side of unit to desired length and secure the cable connection tight. (fig. 9)
- Connect supply wires as follows:

Gray terminals:	L1, L2, L3, phase sequence does not need to be observed
Blue terminal:	Neutral (if applicable)
Yellow/Green terminal:	Ground

IMPORTANT/MCS Only

Henny Penny Combi Ovens are shipped set up for 240 volts, but can be changed to operate on 208 volt by proceeding with the following steps:



1. Disconnect unit from power supply source.
2. Open service door (fig. 8) by loosening fastener at top of the unit over the control panel using a 5 mm Allen wrench. A rubber grommet must first be removed to access the bolt.
3. Remove jumper between pins 8 and 9 of connector shown at left. The jumper is removed for 208 volt supply, it stays in place between pins 8 and 9 for 240 volt.
4. Move transformer primary lead from the 240 volt terminal to the 208 volt terminal.
5. Secure all panels and covers.

NOTE: BCS electric units are voltage specific. Only MCS electric units are convertible.

Water supply

fig. 10

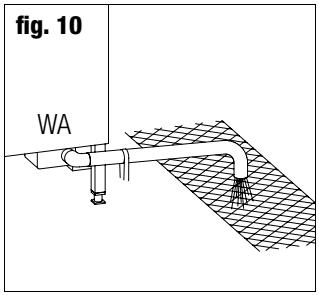


fig. 11

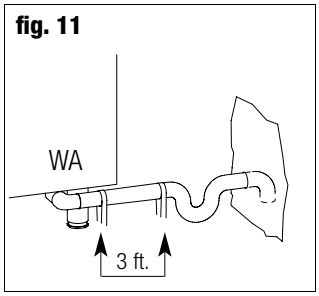


fig. 12

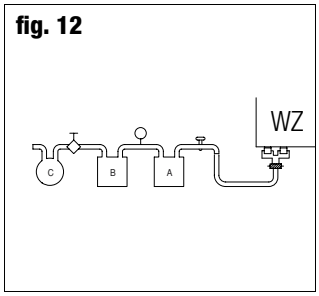
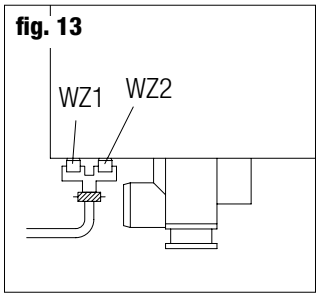


fig. 13



9) Drain Connection (WA)

- For drain connection (fig. 10) use only steam temperature resistant pipe, diameter 2 in. (50 mm) and constant slope 5%. No hose should be used.
- Direct drain connection is possible, ventilated gap is an integrated part of the appliance (fig. 11).
- Drain pipe should be supported to the wall/floor every 3 feet.
- Max. water discharge rate during Auto Flush:11 gal./min. (0.7 liter/sec.)
- Average drain water temperature: 150°F (65°C).

10) Water Connection (WZ)

- Observe all local plumbing codes.
- Flush water line before connecting the water supply to the unit.
- Connect to cold, potable water only.
- Operational water pressure: MIN: 30 psi (150kPa) MAX: 88 psi (600kPa). RECOMMENDED: 44 psi (300kPa).
- Water connection supplied by customer: min. ½ in. pressure hose with R ¾ in. tapered fitting.
- Customer fitted shut-off valve for each appliance.
- Water conductivity: 50-2000 µS, lower conductivity on request.
- Maximum chloride concentration (Cl-): below 150 ppm (150 mgr/liter) at any time.
- For conductivity above 2000 µS or higher chloride concentration use hydrogen-ion exchanger (A in fig. 13) in the water supply line.
- Water Redox-Potential must be below 300mV at any time.
- For higher Redox Potential use Active Carbon Filter (B in fig. 12). Observe maintenance period of active carbon filter.
- Use a 3 micron (0.08mm) particle filter (C in fig. 12) to prevent excessive soiling of the supply water.
- Recommended test instruments: Cl2 Tester (swimming pool accessories), conductivity tester, redox meter.

Optional Treated Water Connection

- To connect a dual water supply–treated soft water or warm water below
- 140°F (60°C)–disconnect T-water connection at the two water inlets (fig. 13). Connect treated water to water inlet marked WZ2 and standard water to inlet marked WZ1. Treated water must comply with the above-mentioned water specifications.

General

11) Technical Data

Working place specific noise level: <70dB

Average water consumption during operation:

Model 6: 3.17 gal/hr (0.2 l/min.)
Model 10: 6.7 gal/hr (0.42 l/min.)
Model 1020: 10.9 gal/hr (.069 l/min.)
Model 20: 13.2 gal/hr (0.83 l/min.)
Model 40: 15.8 gal/hr (1.0 l/min.)

Heat emission:

Model	Latent	Sensible
Model-6	.64 W (2.30 kJ)/hr	84 W (2.93 kJ)/hr
Model-10	1.05 W (8.50 kJ)/hr	1.4 W (5.00 kJ)/hr
Model-1020	1.67 W (6.00 kJ)/hr	2.4 W (8.50 kJ)/hr
Model-20	2.13 W (7.67 kJ)/hr	2.67 W (9.60 kJ)/hr
Model-40	3.7 W (13.35 kJ)/hr	4.26 W (15.34 kJ)/hr

Ventilation

Contact your local regulatory agency for ventilation requirements. If a ventilation hood is installed, observe the following:

- The standards of the local authority.
- The hood should protrude 12-20 in. (300-500 mm) over the front of the appliance.
- The integrated grease filter should be in the protruding part of the hood.

Specifications and technical descriptions in this applications manual are subject to change without prior notice.

Gas supply

12) Gas supply (for MCG units only)

The ClimaPlus gas model is available for either natural or propane gas. Check the data plate on the left corner of the unit to determine the proper gas supply requirement.

Model	Gas Line	Connection	BTU Ratings
MCG-6	¾ in.	½ in.	92,000
MCG-10	¾ in.	¾ in.	144,000
MCG-1020	1 in.	¾ in.	250,000
MCG-20	1 in.	¾ in.	276,000
MCG-40	1¼ in.	1 in.	410,000

continued

DO NOT attempt to use any type of gas other than that specified on the data plate. Incorrect gas supply could result in fire or explosion resulting in severe injuries and/or property damage.

WARNING

To avoid possible serious personal injury, the installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1-1988 or latest edition. In Canada, CAN/CGA-B 149.1 Natural Gas Installation Code CAN/CGA-B 149.2 Propane Installation Code.

- All Henny Penny Combis are equipped with two heat exchanger systems. One is responsible for steam production, the second for dry heat. Each individual heat exchanger is heated with a separate burner assembly.
- Separate gas valves for the steam burner and dry heat burner are responsible for the gas supply to the individual burners. All gas models have manual shut-off valves that can be accessed from the left without tools. To operate the valves, unscrew the two knurled screws and remove the service cover. Open or close manual valves as desired.

Gas Leak Test

- After piping and fittings have been installed, check for gas leaks. A simple checking method is to turn on the gas and brush all connections with a soap solution. The appearance of bubbles indicates escaping gas. In this event, the piping connection must be redone until no bubbles occur.

Never use a lighted match or open flame to test for gas leaks. Escaping gas could result in fire or explosion resulting in severe injuries and/or property damage.

Gas pressure

- The gas pressure should be measured when all other gas appliances in the kitchen are on high flame. The minimum and maximum incoming line flow pressures should be as follows:

  Natural: 7-10 in. water column (18-25 mb)

  Propane: 12-14 in. water column (30-35 mb)

continued

CAUTION

During pressure testing note the following:

1. The unit and its individual shut-off valves must be disconnected from the gas supply piping system during any pressure testing of that system when test pressures exceed ½ psig (3.45kPa). Turn OFF main gas shut-off valve or main gas supply line.
2. The unit must be isolated from the gas supply piping system by closing its individual manual shut-off valves during any pressure testing of the gas supply piping system at test pressure equal to or less than ½ psig (3.45kPa).
3. If incoming pressure is over 14 in. water column (35 mb) a separate regulator must be installed ahead of the manual gas shut-off valve.

WARNING

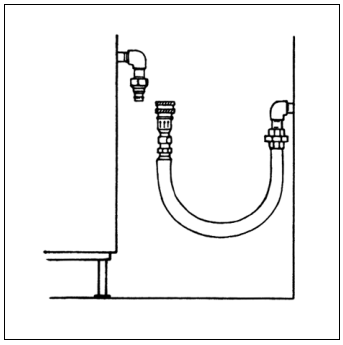
To prevent damage to the control valve regulator, the first time the gas valve knob is turned to the ON position, it is very important to turn the knob very slowly.

NOTE

After turning on the gas, the manual shut-off valve must remain open, except during pressure testing as outlined above, or when necessary during service maintenance.

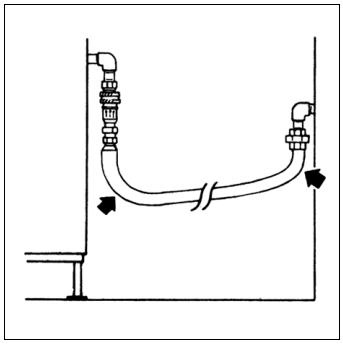
- Incoming pressure reading can be taken by installing a gas pressure gauge on the front of the unit's main gas valves test port. This should be done with all gas appliances in operation on the same gas supply line. Should the manifold pressure drop below the desired level, consult your local gas utility service.

Gas Hook-up



RIGHT

A minimum pull of appliance away from wall is acceptable in order to disconnect hook-up.



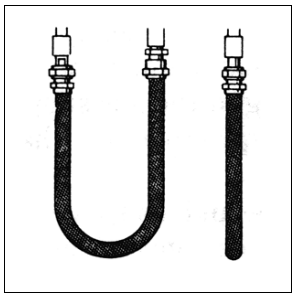
WRONG

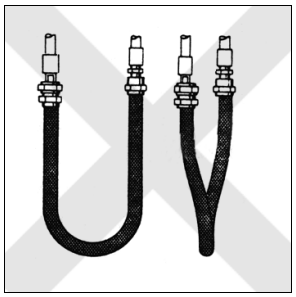
Maximum pull prior to disconnect will result in kinked ends and reduce hose and connector life.

continued

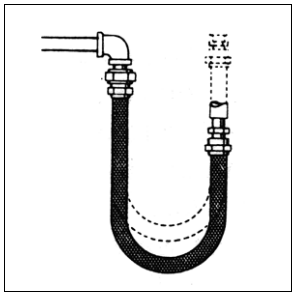
CAUTION

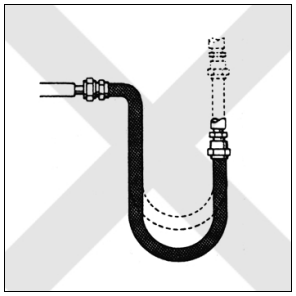
Utilize elbows when necessary to avoid sharp kinks or excessive bending. For ease of movement, install with a "lazy" loop. Gas appliance must be disconnected prior to maximum movement. (Minimum movement is permissible to disconnect gas line.



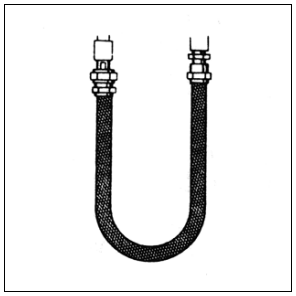


Couplings and hose should be installed in the same plane as shown at left. DO NOT OFFSET COUPLINGS. This results in twisting and undue torsion causing premature failure.

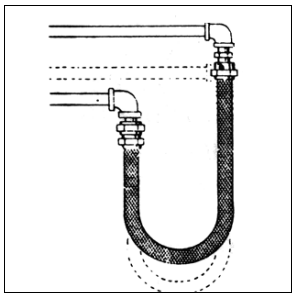


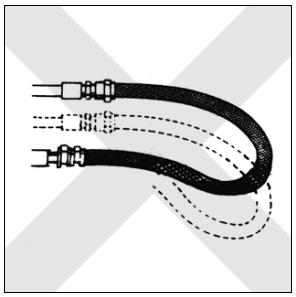


Correct way to install metal hose for vertical traverse. Note single, natural loop. Allowing a sharp bend, shown at right, strains and twists the metal hose to a point of early failure at the coupling.

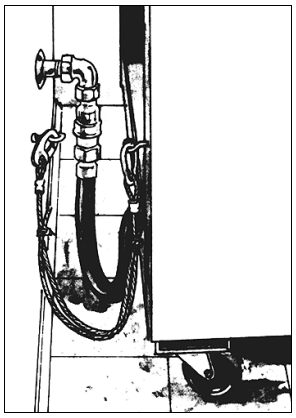


Maintain the minimum or larger bending diameter between couplings for the longest life. Couplings too close together, as shown at right, create double bends causing work fatigue failure of fittings.





In all installations where self-draining is not necessary, connect metal hose in a vertical loop. DO NOT CONNECT METAL HOSE HORIZONTALLY unless self-draining is necessary. Then use support on lower plane as show at left.



Cable Restraint

Please refer to the illustration at left when installing cable restraint on all moveable gas appliances

Eye-bolt is to be secured to the building using acceptable building practices.

CAUTION **Dry wall construction**

Secure eye-bolt to a framing stud. DO NOT attach to dry wall only. Locate eye-bolt at the same height as the gas service approximately 6 in. (150 mm) to either side of service. Cable restraint must be at least 6 in. (150 mm) shorter than flexible gas line.

Cooking Guides

The following section offers basic guidelines for preparing a wide variety of popular menu items in the Henny Penny MCS/G and BCS Combis.

Menu items are charted in a format that covers quantities, proper containers, modes, times, temperatures, and whether probe cooking and/or any available additional functions should be employed. As you gain experience with this equipment, you may wish to adjust these parameters or to add items that better suit the needs of your foodservice operation and the preferences of your customers. For your convenience, a blank chart has been included at the end of the section to assist you in recording data for your individual recipes.

Key to terms and abbreviations

Units of measure—temperature
Temperatures in the charts appear as number values without degree marks or F/C. Unless other wise indicated, temperatures measured in degrees Fahrenheit appear first; the Celsius equivalent follows immediately enclosed by parentheses.

212 (100) = 212°F (100°C)

Units of measure—weight
Weights for quantities of food in the charts often appear as number values without unit measure abbreviations. Unless otherwise indicated, weight values are always represented in pounds and kilograms. The value representing weight or range of weight measured in pounds appears first; the metric equivalent in kilograms follows immediately enclosed by parentheses.

5-7 (2.3-3.2) = 5-7 lbs. (2.3-3.2 kg)

Multiple step programs may be programmed into the MCS/G combi. If utilizing the BCS model each step must be manually entered at the completion of the previous step (keep in mind that the BCS is not equipped with a probe function). Single step methods are listed as an option to the multiple step programs and referenced for the BCS model.

Total Time
As a convenience, cooking times for items with multiple time-cook only steps have been totaled and appear as **Total Time**. This cannot be done when any step includes probe cooking or preheating.

ALT	=	Designates an alternate method that can be used in place of the steps listed.

Containers

Perf	=	Perforated
Pan	=	Stainless steel steam table pan
Sheet, Sht	=	Sheet pan
Alum	=	Aluminum
Enamel, Enam	=	“Granite” style enamel cooking pan
Grid	=	Grid rack that fits right into the shelf
Chicken grid	=	Special grid for cooking whole birds upright
Drip pan	=	Single pan set on bottom rack to catch drippings from above

Meat & Poultry

Please note suggested parameters for BCS models, only, due to differences in features

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Rotisserie Style Chicken	Chicken grid		8 birds	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
2½-3 lb. whole birds. Season.	**Per load**		**Per load**	**1**	Combi	350 (177)	13	—
Time cook–check for internal temp. 185 (85).	**6**	2	16 birds	**2**	Combi	360 (183)	13	—
	10	3	24 birds	**3**	Dry Heat	370 (188)	13	—
	1020	6	48 birds			**Total Time**	39	
	20	5	40 birds					
	40	12	96 birds	**BCS**	Combi	365 (185)	35	

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Baked Chicken, pieces	½ sheet pan		16 pieces, mixed	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Eight cut. Season.	**Per load**		**Per load**	**1**	Combi	340 (171)	10	—
Time cook–check for internal temp. 185 (85).	**6**	6	96 pieces	**2**	Combi	360 (182)	10	—
	10	10	160 pieces	**3**	Combi	380 (194)	5	—
	1020	20	320 pieces			**Total Time**	25	
	20	20	320 pieces					
	40	40	640 pieces	**BCS**	Combi	360 (183)	30-35	

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Oven Fried Chicken	½ sheet pan		16 pieces, mixed	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Eight cut. Bread and prepare to oven fried recipe. Grease pan lightly.	**Per load**		**Per load**	**1**	Combi	385 (196)	15	—
	6	6	96 pieces	**2**	Combi	415 (213)	10	—
Time cook–check for internal temp. 185 (85).	**10**	10	160 pieces			**Total Time**	25	
	1020	20	320 pieces					
	20	20	320 pieces					
	40	40	640 pieces	**BCS**	Combi	390 (199)	30	

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Turkey, whole	Grid/drip pan		1 bird	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
12-18 lb. (5.5-8 kg) bird.	**Per load**		**Per load**	**1**	Combi	280 (138)	—	165 (74)
Wash, stuff, season, baste.	**6**	2	2 birds	**2**	Combi	340 (171)	—	185 (85)
	10	3	3 birds					
	1020	6	6 birds					
	20	6	6 birds					
	40	12	12 birds	**BCS**	Combi	325 (163)	12-20 min/lb.	

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Turkey Breast, boneless	Grid/drip pan		2 per grid	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
8-10 lb. (3.6-4.5 kg) boneless breast.	**Per load**		**Per load**	**1**	Combi	280 (138)	—	145 (63)
Season.	**6**	3	6 breasts	**2**	Combi	345 (174)	—	165 (74)
With bone-in breasts, increase final core temp to 185 (85).	**10**	5	10 breasts					
	1020	10	20 breasts					
	20	10	20 breasts					
	40	20	40 breasts	**BCS**	Combi	325 (163)	10-12 min/lb.	

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Steaks, chops	Grid		10-12 steaks	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Season. Preheat grids to 575 (300). Vary time for thickness and desired doneness.	**Per load**		**Per load**	**1**	Dry Heat	Preheat 575 (300)		
	6	6	60-72	**2**	Dry Heat	485 (251)	7-10	—
	10	10	100-120					
Pork, add 3-5 min.	**1020**	20	200-240					
Serving tip: Plate grid side up.	**20**	20	200-240					
	40	40	400-480					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Roast Beef	Grid/drip pan		1 per grid	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Rib Roast (Prime Rib)	**Per load**		**Per load**	**1**	Dry Heat	280 (138)	—	130 (54)
10-18 lb. (4.5-8 kg) roast. Season.	**6**	3	30-54 (13.5-24)	**2**	Dry Heat	340 (171)	—	135 (57) rare 145 (63) medium 155 (68) well
	10	5	50-90 (22.5-40)					
	1020	10	100-180 (45-80)					
	20	10	100-180 (45-80)					
	40	20	200-360 (90-160)	**BCS**	Dry Heat	280 (138)	15-20 min/lb.	

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Beef Tenderloin	Grid/drip pan		2 per grid	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
5-8 lb. (2.3-3.6 kg) pieces. Season.	**Per load**		**Per load**	**1**	Dry Heat	280 (138)	—	130 (54)
	6	3	30-48 (14-22)	**2**	Dry Heat	340 (171)	—	135 (57) rare 145 (63) medium 155 (68) well
	10	5	50-80 (23-36)					
	1020	10	100-160 (46-72)					
	20	10	100-160 (46-72)					
	40	20	200-320 (92-144)	**BCS**	Dry Heat	280 (138)	4-6 min/lb.	

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Hamburgers	½ sheet pan		8 patties per pan	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
4 oz. frozen patties. Season.	**Per load**		**Per load**	**1**	Combi	425 (218)	8-12	—
	6	6	48 patties					
	10	10	80 patties					
	1020	20	160 patties					
	20	20	160 patties					
	40	40	320 patties					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Meatballs	¾ in. enamel		5-7 lbs. (2.3-3.2 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
1-2½ oz. each meatball.	**Per load**		**Per load**	**1**	Dry Heat	350 (177)	10	—
Mix ingredients and form according to recipe.	**6**	6	30-42 (14-19)					
	10	10	50-70 (23-32)					
	1020	20	100-140 (46-64)					
	20	20	100-140 (46-64)					
	40	40	200-280 (92-128)					

Meat & Poultry *continued*

Item/Prep notes	Container		Max yield
Corned Beef Brisket, raw	Grid/drip pan		1 piece per grid
Texture is more important than core temperature. Allow sufficient cook time for brisket to become very tender.	**Per load**		**Per load**
	6	3	3 briskets
	10	5	5 briskets
	1020	10	10 briskets
	20	10	10 briskets
	40	20	20 briskets

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Combi	280 (138)	—	165-170 (74-77)
ALT	Combi	280 (138)	18-20 min/lb.	

Item/Prep notes	Container		Max yield
Beef Stew	2½ in. pan		8-12 lbs. (3.6-5.5 kg)
Step 1: Brown meat with Dry Heat mode. Step 2: Mix all ingredients, cover and simmer to taste.	**Per load**		**Per load**
	6	6	48-60 (22-33)
	10	10	80-120 (36-55)
	1020	20	160-240 (72-110)
	20	20	160-240 (72-110)
	40	40	320-480 (144-220)

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Dry Heat	320-360 (160-182)	5	
2	Combi	280 (138)	1-1.5 hrs.	
BCS	Combi	280 (138)	1.25-1.75 hrs.	

Item/Prep notes	Container		Max yield
Meatloaf	2½ in. pan		8-10 lbs. (3.6-4.5 kg)
Mix ingredients and form according to recipe. Molds can be substituted for pans. Probe cook.	**Per load**		**Per load**
	6	3	24-30 (11-13.5)
	10	5	40-50 (18-22.5)
	1020	10	80-100 (36-45)
	20	10	80-100 (36-45)
	40	20	160-200 (72-90)

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Tender Stm	180 (82)	15	—
2	Combi	280-320 (138-160)	—	150 (66)
3	Dry Heat	335 (168)	10	—
BCS	Combi	320 (160)	12-15 min/lb. depending on size of loaf	

Pork

Item/Prep notes	Container		Max yield
Ribs (pork or beef)	Grid		2 slabs
Season or marinate.	**Per load**		**Per load**
	6	6	12 slabs
	10	10	20 slabs
	1020	20	40 slabs
	20	20	40 slabs
	40	40	80 slabs

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Tender Stm	180 (82)	12-15	—
2	Combi	280 (138)	15-20	—
3	Dry Heat	350 (177)	15	—
		Total Time	42-50	
BCS	Combi	335 (168)	20-25 min/lb.	

Item/Prep notes	Container		Max yield
Bacon	½ sheet pan		Approx.: 1 (.5)
Tray up. Approximately 1 lb. (.5 kg) per pan.	**Per load**		**Per load**
	6	6	6 (3)
	10	10	10 (5)
	1020	20	20 (10)
	20	20	20 (10)
	40	40	40 (20)

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Combi	350 (177)	8-10	—

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Sausage, links or patties	½ sheet pan		1.5 (.7) per pan	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
	Per load		**Per load**	**1**	Combi	325 (163)	8-12	—
	6	6	9 (4.2)					
	10	10	15 (7)					
	1020	20	30 (14)					
	20	20	30 (14)					
	40	40	60 (28)					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Smoked Sausage	Grid or ½ sheet		4 (1.8) per grid	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Time cook or probe cook.	**Per load**		**Per load**	**1**	Combi	325 (163)	12-15	—
	6	6	24 (11)	**ALT**	Combi	325 (163)	—	165 (74)
	10	10	40 (18)					
	1020	20	80 (39)					
	20	20	80 (39)					
	40	40	160 (78)					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Italian Sausage, Bratts	Grid or ½ sheet		4 (1.8) per grid	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
	Per load		**Per load**	**1**	Tender Stm	180 (82)	7	—
	6	6	24 (11)	**2**	Combi	280 (138)	7	—
	10	10	40 (18)	**3**	Dry Heat	350 (177)	5	—
	1020	20	80 (39)			**Total Time**	19	
	20	20	80 (39)					
	40	40	160 (78)	**BCS**	Dry Heat	335 (168)	20	

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Pork Loin	Grid/drip pan		1 per grid	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
8-12 lb. (3.6-5.5 kg) loin roasts. Season.	**Per load**		**Per load**	**1**	Moist	212 (100)	10	—
	6	3	24-36 (11-16.5)	**2**	Combi	320 (160)	—	155 (68)
	10	5	40-60 (18-27.5)	**3**	Combi	350 (177)	—	165 (74)
	1020	10	80-120 (36-55)					
	20	10	80-120 (36-55)					
	40	20	160-240 (72-110)	**BCS**	Combi	325 (160)	8-12 min/lb.	

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Pork Tenderloin	Grid or enamel		8-12 pieces	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Season.	**Per load**		**Per load**	**1**	Combi	320 (160)	—	165 (74)
	6	6	48-72	**ALT**	Combi	320 (160)	12-15 min/lb.	—
	10	10	80-120					
	1020	20	160-240					
	20	20	160-240					
	40	40	320-480					

Pork *continued*

Item/Prep notes	Container		Max yield
Pork Roast Fresh Ham, large	Grid/drip pan		2 per grid
	Per load		**Per load**
8 lbs. (3.6 kg) or more. Season.	**6**	2	4 roasts
	10	3	6 roasts
	1020	6	12 roasts
	20	6	12 roasts
	40	12	24 roasts

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Moist Heat	212 (100)	5	—
2	Combi	280 (138)	—	160 (71)
3	Dry Heat	340 (171)	5	—
BCS	Combi	320 (160)	15-18 min/lb.	

Item/Prep notes	Container		Max yield
Smoked ham	Grid/drip pan		1 per grid
12-15 lbs. (5.5-6.8 kg) hams.	**Per load**		**Per load**
	6	2	2 hams
	10	3	3 hams
	1020	6	6 hams
	20	6	6 hams
	40	12	12 hams

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Combi	250 (121)	—	165 (74)
ALT	Combi	250 (121)	18-22 min/lb.	—

Fish, Seafood

Item/Prep notes	Container		Max yield
Fish, poached	Perf pan		8 lbs. (3.6 kg)
Season.	**Per load**		**Per load**
	6	6	48 (21.6)
	10	10	80 (36)
	1020	20	160 (72)
	20	20	160 (72)
	40	40	320 (144)

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Tender Stm	180 (82)	—	140 (60)
ALT	Tender Stm	180 (82)	12-15	—
BCS	Moist Heat	212 (100)	8-12	

Item/Prep notes	Container		Max yield
Fish, baked	½ sheet pan		5 lbs. (2.3 kg)
Lightly grease pan. Season and top.	**Per load**		**Per load**
	6	6	30 (14)
	10	10	50 (23)
	1020	20	100 (46)
	20	20	100 (46)
	40	40	200 (92)

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Combi	345 (174)	8-12	—

Item/Prep notes	Container		Max yield
Fish steaks, grilled	Grid		8-12 steaks
1½ - 2½ in. (38-63 mm) steaks. Season. Preheat grid to 575 (300).	**Per load**		**Per load**
	6	3	24-36 steaks
	10	5	40-60 steaks
	1020	10	80-120 steaks
	20	10	80-120 steaks
	40	20	160-240 steaks

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Combi	Preheat 575 (300)		
2	Combi	485 (252)	6-8	—

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Breaded Fish Pieces	¾ in. enamel		2½ lbs. (1.1 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Lightly grease pan.	**Per load**		**Per load**	**1**	Combi	425 (218)	6-8	—
Spray top of product with shortening prior to cooking.	**6**	6	15 (6.6)					
	10	10	25 (11)					
	1020	20	50 (23)					
	20	20	50 (23)					
	40	40	100 (45)					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Cocktail Shrimp	Perf pan		5 lbs. (2.3 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Season. Cook in shell.	**Per load**		**Per load**	**1**	Tender Stm	180 (82)	6-10	—
Remove and blast-chill immediately.	**6**	6	30 (13.8)					
	10	10	50 (23)					
	1020	20	100 (46)					
	20	20	100 (46)					
	40	40	200 (92)	**BCS**	Moist Heat	212 (100)	5-8	

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Whole Lobster, steamed	Perf pan		3-4 lobsters	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
	Per load		**Per load**	**1**	Moist	212 (100)	10-14	—
	6	3	9-12					
	10	5	15-20					
	1020	10	30-40					
	20	10	30-40					
	40	20	60-120					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Clams, Mussels	Perf pan		3 lbs. (1.4 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Cook in shell. Ladle butter, sauce over after cooking.	**Per load**		**Per load**	**1**	Moist	212 (100)	8-10	—
	6	3	9 (4.2)					
	10	5	15 (7)					
	1020	10	30 (14)					
	20	10	30 (14)					
	40	20	60 (28)					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Scallops, broiled	Enamel		3 lbs. (1.4 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Drain and clean. Dredge in flour. Season. Lightly oil pan and preheat to 425 (218). Stir into pans when loading.	**Per load**		**Per load**	**1**	Combi	385 (196)	4-8	—
	6	3	9 (4.2)					
	10	5	15 (7)					
	1020	10	30 (14)					
	20	10	30 (14)					
	40	20	60 (28)					

Meats, Special Cuts

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Cutlets, breaded	¾ in. enamel		12-15 pieces	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Bread. Preheat pans to 575 (300).	**Per load**		**Per load**	**1**	Combi	Preheat 575 (300)		
Spray top of product with shortening prior to cooking.	**6**	6	72-90	**2**	Combi	425 (218)	6-8	—
	10	10	120-150					
	1020	20	240-300					
	20	20	240-300					
	40	40	480-600					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Medallions	¾ in. enamel		12-15 pieces	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Season or marinate. Preheat pan to 575 (300).	**Per load**		**Per load**	**1**	Combi	Preheat 575 (300)		
	6	6	72-90	**2**	Combi	485 (252)	6-8	—
	10	10	120-150					
	1020	20	240-300					
	20	20	240-300					
	40	40	480-600					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Scaloppini	¾ in. enamel		12-15	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Dredge in seasoned flour. Mist with oil. Oil pan lightly and preheat to 575 (300).	**Per load**		**Per load**	**1**	Combi	Preheat 575 (300)		
Serving tip: Plate pan side up.	**6**	6	72-90	**2**	Combi	485 (252)	5-7	—
	10	10	120-150					
	1020	20	240-300					
	20	20	240-300					
	40	40	480-600					

Potatoes

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Steamed Potatoes	2½ in. perf pan		6 lbs. (2.7 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Wash and cut. Preheat.	**Per load**		**Per load**	**1**	Combi	Preheat 280 (138)		
	6	6	36 (16)	**2**	Moist	212 (100)	40-45	—
	10	10	60 (27)					
	1020	20	120 (54)					
	20	20	120 (54)					
	40	40	240 (108)					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Baked Potatoes	½ sheet or grid		20 potatoes	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
80 ct.	**Per load**		**Per load**	**1**	Combi	Preheat 525 (270)		
Wash, oil lightly or season.	**6**	6	120 potatoes	**2**	Combi	385 (196)	45	—
	10	10	200 potatoes					
	1020	20	400 potatoes					
	20	20	400 potatoes					
	40	40	800 potatoes					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Roasted Potatoes	½ sht or enam		6 lbs. (2.7 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Cut, oil, season.	**Per load**		**Per load**	**1**	Combi	Preheat 525 (270)		
	6	6	36 (16)	**2**	Combi	385 (196)	45	—
	10	10	60 (27)					
	1020	20	120 (54)					
	20	20	120 (54)					
	40	40	240 (108)					

Breads

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Proofing	½ sheet pan		2 lbs. (.9 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Lightly grease pan.	**Per load**		**Per load**	**1**	Tender Stm	95 (35)	see notes	—
Proof until dough doubles in size.	**6**	3	6 (2.7)					
	10	5	10 (4.5)					
*Not recommended in BCS model.	**1020**	10	20 (9)					
	20	10	20 (9)					
	40	20	40 (18)					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Bread Dough	½ sheet pan		2 lbs. (.9 kg)	**Step**	**Mode**	**Temp**	**Time**	**Add'l Functions**
Proof first.	**Per load**		**Per load**	**1**	Dry Heat	350 (177)	15-20	—
Lightly grease pan.	**6**	3	6 (2.7)					
	10	5	10 (4.5)					
	1020	10	20 (9)					
	20	10	20 (9)					
	40	20	40 (18)					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Rolls	½ sheet pan		12-15 rolls	**Step**	**Mode**	**Temp**	**Time**	**Add'l Function**
4 oz. rolls.	**Per load**		**Per load**	**1**	Dry Heat	335 (168)	15-17	Steam Injection*
Proof first.	**6**	3	36-45 rolls					
Lightly grease pan. Egg wash rolls.	**10**	5	60-75 rolls					
	1020	10	120-150 rolls					
	20	10	120-150 rolls					
	40	20	240-300 rolls					

* Not available on BCS models

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Muffins	½ sheet pan		1 dozen per pan	**Step**	**Mode**	**Temp**	**Time**	**Add'l Function**
4 oz. muffins.	**Per load**		**Per load**	**1**	Combi	350 (177)	5	—
Lightly grease pan.	**6**	3	3 dozen	**2**	Dry Heat	335 (168)	12-15	—
	10	5	5 dozen			**Total Time**	17-20	
	1020	10	10 dozen					
	20	10	10 dozen					
	40	20	20 dozen	**BCS**	Dry Heat	335 (168)	17-20	

Breads *continued*

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Cinnamon Rolls	½ sheet pan		2 lbs. (.9 kg)	**Step**	**Mode**	**Temp**	**Time**	**Add'l Function**
Proof first.	**Per load**		**Per load**	**1**	Dry Heat	335 (168)	15-18	—
Lightly grease pan.	**6**	3	6 (2.7)					—
	10	5	10 (4.5)					
	1020	10	20 (9)					
	20	10	20 (9)					
	40	20	40 (18)					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Biscuits, frozen	½ sheet pan		2 dozen per pan	**Step**	**Mode**	**Temp**	**Time**	**Add'l Function**
Lightly grease pan.	**Per load**		**Per load**	**1**	Dry Heat	335 (168)	22-25	—
Serving tip: Melted butter may be brushed on biscuit tops after cooking.	**6**	3	6 dozen					
	10	5	10 dozen					
	1020	10	20 dozen					
	20	10	20 dozen					
	40	20	40 dozen					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Sheet Cake	½ sheet pan		54 2 in. squares	**Step**	**Mode**	**Temp**	**Time**	**Add'l Function**
Brownies	**Per load**		**Per load**	**1**	Dry Heat	340 (171)	30-35	—
Lightly grease pan.	**6**	6	324 pieces					
	10	10	540 pieces					
	1020	20	1080 pieces					
	20	20	1080 pieces					
	40	40	2160 pieces					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Cookies	½ sheet pan		1 dozen per pan	**Step**	**Mode**	**Temp**	**Time**	**Add'l Function**
2 oz. cookies.	**Per load**		**Per load**	**1**	Dry Heat	335 (168)	6-9	—
Lightly grease pan.	**6**	6	6 dozen					
	10	10	10 dozen					
	1020	20	20 dozen					
	20	20	20 dozen					
	40	40	40 dozen					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Strudel	Perf alum		2 per pan	**Step**	**Mode**	**Temp**	**Time**	**Add'l Function**
Brush with egg wash.	**Per load**		**Per load**	**1**	Combi	335 (168)	45-55	—
	6	3	6					
	10	5	10					
	1020	10	20					
	20	10	20					
	40	20	40					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Cobbler	2½ in. pan		12 lbs. (5.5 kg)	**Step**	**Mode**	**Temp**	**Time**	**Add'l Function**
According to recipe.	**Per load**		**Per load**	**1**	Combi	365 (185)	20	—
	6	6	72 (33)	**2**	Dry Heat	345 (174)	40	—
	10	10	120 (55)			**Total Time**	60	
	1020	20	240 (110)					
	20	20	240 (110)					
	40	40	480 (220)					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Pie, fresh	½ sheet pan		2-3 pies per pan	**Step**	**Mode**	**Temp**	**Time**	**Add'l Function**
Brush tops with egg wash.	**Per load**		**Per load**	**1**	Dry Heat	335 (168)	35-45	—
	6	3	6-9 pies					
	10	5	10-15 pies					
	1020	10	20-35 pies					
	20	10	20-35 pies					
	40	20	40-60 pies					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Bread Pudding	2½ in. pan		12 lbs. (5.5 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
According to recipe.	**Per load**		**Per load**	**1**	Combi	280-300 (138-149)	40	—
Lightly grease pans.	**6**	3	36 (16.5)	**2**	Combi	320-340 (160-171)	30	—
	10	5	60 (27.5)	**3**	Dry Heat	350 (177)	10	—
	1020	10	120 (55)			**Total Time**	80	
	20	10	120 (55)					
	40	20	240 (110)	**BCS**	Combi	320 (160)	80-90	

Miscellaneous

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Entrees, frozen	2½ in. pan		12 lbs. (5.5 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Brush with egg wash.	**Per load**		**Per load**	**1**	Combi	280-320 (138-160)	45-60	—
	6	6	72 (33)					
	10	10	120 (55)					
	1020	20	240 (110)					
	20	20	240 (110)					
	40	40	480 (220)					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Entrees, fresh	2½ in. pan		12 lbs. (5.5 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Use also for thawed entrees.	**Per load**		**Per load**	**1**	Combi	280 (138)	—	165 (74)
	6	6	72 (33)					
	10	10	120 (55)					
	1020	20	240 (110)					
	20	20	240 (110)					
	40	40	480 (220)					

Miscellaneous *continued*

Item/Prep notes	Container		Max yield
Vegetables, frozen	2½ in. perf. pan		9 lbs. (4 kg)
	Per load		**Per load**
	6	6	54 (24)
	10	10	90 (40)
	1020	20	180 (80)
	20	20	180 (80)
	40	40	360 (160)

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Moist	212 (100)	8-15	—

Item/Prep notes	Container		Max yield
Vegetables, fresh	2½ in. perf. pan		6 lbs. (2.7 kg)
Cut to desired serving size.	**Per load**		**Per load**
	6	6	36 (16)
	10	10	60 (27)
	1020	20	120 (54)
	20	20	120 (54)
	40	40	240 (108)

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Moist	212 (100)	6-10	—

Item/Prep notes	Container		Max yield
Beans, dry	2½ in. pan		6 lbs. (2.7 kg) dry
Rinse and soak beans.	**Per load**		**Per load** dry/cooked
Stir every 10 to 15 minutes during step 2.	**6**	6	36/90 (16/41)
	10	10	60/150 (27/68)
Per load yield is indicated in dry wt./cooked wt.	**1020**	20	120/300 (54/136)
	20	20	120/300 (54/136)
	40	40	240/600 (108/272)

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Combi	265 (129)	30	—
2	Combi	280 (138)	40-60	—
BCS	Combi	270 (132)	1.5-2 hrs	

Item/Prep notes	Container		Max yield
Rice	2½ in. pan		3 lbs. (1.4 kg) dry
Add liquid to rice and let stand for a minimum of 20 minutes before cooking.	**Per load**		**Per load** dry/cooked
	6	6	18/42 (8.2/19)
	10	10	30/70 (14/32)
Converted rice will cook quicker.	**1020**	20	60/140 (28/64)
Per load yield is indicated in dry wt./cooked wt.	**20**	20	60/140 (28/64)
	40	40	120/280 (56/128)

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Combi	260 (127)	20-40	—

Item/Prep notes	Container		Max yield
Pasta	4 in. pan		6 lbs. (2.7 kg) dry
Add water to pan covering pasta completely. Stir pasta **thoroughly** after Step 1. When done, remove from unit and drain immediately.	**Per load**		**Per load** dry/cooked
	6	3	18/54 (8/24)
	10	5	30/90 (13.5/40.5)
	1020	10	60/180 (27/81)
Per load yield is indicated in dry wt./cooked wt.	**20**	10	60/180 (27/81)
	40	20	120/360 (54/162)

Cooking stages and suggested parameters				
Step	**Mode**	**Temp**	**Time**	**Probe Temp**
1	Moist	212 (100)	8	—
2	Moist	212 (100)	8-15	—

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Egg Rolls, frozen	½ sheet pan		24 per pan	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
3-4 oz. egg rolls.	**Per load**		**Per load**	**1**	Combi	480 (250)	8-12	—
	6	6	144 egg rolls					
	10	10	240 egg rolls					
	1020	20	480 egg rolls					
	20	20	480 egg rolls					
	40	40	960 egg rolls					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Pizza, frozen	Perf alum		1 pie per pan	**Step**	**Mode**	**Temp**	**Time**	**Add'l Function**
Maximum diameter pizza for half sheet pan is 12 in.	**Per load**		**Per load**	**1**	Combi	350 (177)	8-10	—
Models 1020 and 40 can accommodate larger pizzas on full size sheet pans	**6**	6	6 pies					
	10	10	10 pies					
	1020	20	20 pies					
	20	20	20 pies					
	40	40	40 pies					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Eggs, hard cooked	Grid		5 dozen per grid	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Set layer pack directly on combi grids.	**Per load**		**Per load**	**1**	Moist	212 (100)	14-18	—
For loose eggs, use perf pan.	**6**	6	30 dozen					
	10	10	50 dozen					
	1020	20	100 dozen					
	20	20	100 dozen					
	40	40	200 dozen					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Egg Casserole	2½ in. pan		5-7 lbs. (2.3-3.2 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Mix ingredients according to recipe.	**Per load**		**Per load**	**1**	Combi	280 (138)	10	—
Lightly grease pan.	**6**	6	15-21 (7-9.5)	**2**	Combi	320 (160)	7-10	—
	10	10	25-35 (11.5-16)			**Total Time**	17-20	
	1020	20	50-70 (23-32)					
	20	20	50-70 (23-32)					
	40	40	100-140 (46-64)	**BCS**	Combi	300 (149)	17-20	

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Quiche	½ sheet pan		2-3 per pan	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Mix ingredients according to recipe. Place mixture in pie shells. Pie shells may require par-baking.	**Per load**		**Per load**	**1**	Combi	350 (177)	20	—
	6	6	12-18	**2**	Combi	365 (185)	25	
	10	10	20-30			**Total Time**	45	
	1020	20	40-60					
	20	20	40-60					
	40	40	80-120	**BCS**	Combi	350 (177)	45-50	

Miscellaneous *continued*

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
Stir Fry	2½ in. enam		8 lbs. (3.6 kg)	**Step**	**Mode**	**Temp**	**Time**	**Probe Temp**
Prepare ingredients according to recipe.	**Per load**		**Per load** dry /cooked	**1**	Combi	Preheat 575 (300)		
Preheat pans to 575 (300).	**6**	6	48 (21.6)	**2**	Combi	425 (218)	8-10	—
Sauce after removing food from unit.	**10**	10	80 (36)					
	1020	20	160 (72)					
	20	20	160 (72)					
	40	40	320 (144)					

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
				Step	**Mode**	**Temp**	**Time**	**Probe Temp**
	Per load		**Per load**	**1**				
	6			**2**				
	10							
	1020							
	20							
	40			**BCS**				

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
				Step	**Mode**	**Temp**	**Time**	**Probe Temp**
	Per load		**Per load**	**1**				
	6			**2**				
	10							
	1020							
	20							
	40			**BCS**				

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
				Step	**Mode**	**Temp**	**Time**	**Probe Temp**
	Per load		**Per load**	**1**				
	6			**2**				
	10							
	1020							
	20							
	40			**BCS**				

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters				
				Step	**Mode**	**Temp**	**Time**	**Probe Temp**
	Per load		**Per load**	**1**				
	6			**2**				
	10							
	1020							
	20							
	40			**BCS**				

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