

Applications Manual and Cooking Guide



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 one year 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 10 days after installation.

Replacement Parts Any appliance replacement part, except lamps and fuses, which proves to be defective in material or workmanship within 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.

This warranty 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.

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 CONSEQUENTAL 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.



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



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.



Dear Customer,

Congratulations on your decision to purchase a new Henny Penny ClimaPlus[®] Combi. In our opinion, you now possess the most advanced combi in the industry, featuring IQT–Intelligent Cooking Technology– and the unique ClimaPlus[®] Control which provides the ideal cooking climate for every type of food. As you begin to become familiar with its operation and more confident in the results, you will see the incredible potential for quality, variety and productivity this unit has to offer.

The new ClimaPlus[®] 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 the combi you have purchased, as well as this manual.

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

Henny Penny Corporation

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General Information



In this section:

Models and Features at a glance

Control Panel Functions at a glance

Basic Operation

Loading and Unloading

ClimaPlus Control

ClimaPlus Combis from Henny Penny 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 ClimaPlus for different applications.

More consistent because the ClimaPlus Combi is designed to produce the perfect cooking climate for just about any type of food. With its sophisticated electronics and program capacity, the ClimaPlus can do it every time.

More productive because its versatility and automation combine to make efficient use of both skilled and unskilled labor. Not to mention, ClimaPlus cooks faster with less food shrinkage than conventional appliances and practically cleans itself.

The ClimaPlus Combi uses pressureless steam and hot-air convection, along with the patented ClimaPlus Control, in nearly infinite combinations to create perfect foods. IQT Sensor and IQT Logic enable self-regulating cooking processes. There are plenty of other features and functions, all designed to make cooking 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 ClimaPlus 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 ClimaPlus Combi to create the kind of food *you* want to create.

GENERAL INFORMATION

Models and Features at a glance

Models and sizes available

Model numbers are designated according to pan capacity. Units are available in either electric (LCS) or gas (LCG.)

Base-top models	LCS-6 LCG-6	6 steam table pans or 6 half sheet pans	12 x 20 x 2½ (325 x 530 x 65) 13 x 18 (330 x 457)
	LCS-10 LCG-10	10 steam table pans or 10 half sheet pans	12 x 20 x 2½ (325 x 530 x 65) 13 x 18 (330 x 457)
	LCS-1020 LCG-1020	10 full sheet pans with rack adapter or 20 steam table pans or 10 steam table pans	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	LCS-20 LCG-20	20 steam table pans or 20 half sheet pans	12 x 20 x 2½ (325 x 530 x 65) 13 x 18 (330 x 457)
	LCS-40 LCG-40	40 steam table pans or 20 steam table pans or 40 half sheet pans or 20 full sheet pans	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 "LCS models" or "LCS-6/10/1020/20/40" designates the LCS electric model in all sizes. A reference such as "LCG base-top models" or "LCG-6/10/1020" designates only LCG gas models of those sizes.

Features

Cooking modes and applications

- Moist Heat
 - Steaming
 - Tender Steaming
 - Forced Steaming
- Dry Heat
- Combination Moist and Dry
 - Rethermalizing

GENERAL INFORMATION

Models and Features Cont

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- Control
- ClimaPlus Control regulates precise humidity for unlimited combinations of moist and dry heat.
- Fully digital operation
- Alphanumeric LED readouts featuring optional Asian character display
- Auto-reverse fan
- Cooking control functions:
 - Steam Injection
 - Half Speed Fan (Available on all LCS electric models and the LCG-40)
 - Pulse Fan
 - Half Energy (Available on all LCS electric models)
- IQT Sensor food probe with five point temperature measurement



Automated cooking

- 99 nine-step custom cooking program capacity
- IQT key access to preset program library, Half Energy operation, Delta-T and Profile cooking applications, HACCP interface
- IQT automated cooking applications:
 - +Delta-T
 - +Low-T
 - +Profile

Design and operation

- Auto-reverse fan
- Filterless grease extraction
- Cool down
- Dual glass door
- Safety latch handle (Standard on all floor models, available as option on all base-top models)
- HACCP interface and serial port
- Auto flush
- Built-in retractable hand shower
- CleanJet automated cleaning system
- CDS CalcDiagnosis displays level of sediment build-up in steam generator





Models and Features continued

How it works



- 1. Steam 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 either Moist Heat or Dry Heat modes, or both for Combination cooking. Set the desired humidity level with the ClimaPlus control.
- 4. Precise combinations of moist and dry heat create the ideal cooking climate for virtually any type of food. Patented ClimaPlus Control measures and regulates the humidity in all modes.
- 5. ClimaPlus regulates cooking climate by automatically removing excess humidity

to maintain desired level.

- 6. IQT Sensor and IQT Logic enable cooking applications that self-adjust to conditions of the food and the environment in the cabinet.
- 7. Auto-reverse fan and air circulation system keep temperatures precise and heat distribution uniform throughout the cabinet, even when cooking full loads.
- 8. Hinged racking system or mobile oven rack accepts a wide range of pans and grids.
- 9. Coved corners, filterless grease extraction system, built-in handshower and CleanJet automated cleaning system minimize cleaning labor.

Control Panel Functions at a glance



GENERAL INFORMATION

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Basic Operation and Settings

Turning unit on

- Press the ON/OFF button.
- "ON" appears in the display for 2 seconds followed by the current time.

Select Cooking Mode

- Press Moist Heat key for steaming (See Moist Heat Mode, page 17.)
- OR press Dry Heat key for baking or roasting without added humidity (See Dry Heat Mode, page 23.)
- OR press Moist and Dry Heat keys at the same time for Combination Mode (See Combination Mode, page 25.)

Choosing Time and Temperature Cooking



- Press TIMER key and set desired Cooking Time.
- Press TEMPERATURE key and set desired Cooking Temperature.

Dial in settings while the display is flashing. In most cases, settings can be changed in this manner at any time during the cooking process.

Choosing IQT Sensor Cooking

Press IQT Sensor key and set "Done" temperature (see Probe Cooking, page 31.)

- Set desired level of ClimaPlus Control (See ClimaPlus Control, page 14.)
- Set other desired functions.

Dial in settings while the display is flashing. In most cases, settings can be changed in this manner at any time during the cooking process.

Choosing Custom Program Cooking



IQT

- DO NOT select Cooking Mode. Deactivate if mode has already been selected.
- Press PROG/START key and use Central Dial to select desired custom cooking program by name or number. Do not select flashing numbers. In this case, they indicate empty (available) program slots.
- Press PROG/START again to activate selected program.

Checking current cooking conditions

While unit is operating, press Temperature key and hold to display:

- Current humidity in cabinet
- Current temperature in cabinet
- Elapsed cooking time
- Current probe temperature
- Program number/step if running on automatic program

GENERAL INFORMATION

Loading and Unloading

Your Henny Penny ClimaPlus 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.

Removable Hinged Racking-Standard LCS/G- 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.

Base-top Models

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 LCS/LCG-1020, available separately (rail system required) for LCS/LCG-6 and10.

Mobile Oven Racks







Transport Cart (optional)

Floor Models

Mobile Oven Racks (Standard on 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 LCS/G-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.



- Preheat unit to set temperature.
- 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: LCS & LCG 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.



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 212°F (100°C) or burns could result.

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

To unload

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







GENERAL INFORMATION





ClimaPlus[®] Control Precise automatic humidity control

Use ClimaPlus Control to set, measure and maintain desired humidity in the cooking environment. ClimaPlus is a patented technology that precisely and automatically measures and controls the amount of humidity in the cooking climate. This gives operators the flexibility and control to produce crisp crusts for roast chicken... tender consistency for roasts, ribs, and meat loaf... delicate evenness for light breads, cakes and pastries... perfect browning for au gratin dishes, casseroles, and pies.

Advantages

Control humidity to:

- Improve the quality of foods with different textures and consistencies.
- Enable precise finishing of delicate items.
- Cook a wide variety of foods at the same time, including sauces and stocks.
- Achieve proper cooking intensity for doughy pastries.

Increase humidity to:

- Promote basting.
- Retain food's natural flavors and nutrients.
- Prevent dehydration for increased portions.

Remove humidity to:

- Achieve browning.
- Increase crispness and texture.
- Maintain a consistent environment when baking or roasting "wet" foods.

Tips

A good approach to using ClimaPlus is to observe the cooking process and react with the appropriate adjustment to the humidity level. Use ClimaPlus when:

- Food perspires
- Condensation forms on pans
- Browning needs to proceed more rapidly
- ClimaPlus Control is most effective with foods that have high moisture content.
- ClimaPlus is well suited to maintain a consistent environment when cooking frozen or partially frozen meats, casseroles, entrées or side dishes.
- Be sure to use Combination Mode if you wish ClimaPlus to add humidity.

ClimaPlus Control continued

Capabilities

ClimaPlus works by constantly monitoring and controlling the level of humidity in the cooking environment. Most foods release moisture into the air as they cook, naturally building excess humidity in the cabinet. When humidity rises above the set level, ClimaPlus removes excess moisture. When humidity drops below the set level, ClimaPlus signals the steam generator to add moisture into the cabinet.

The ClimaPlus window and controls are designed to display important information about the cooking climate at a glance:

- When cooking in Combination Mode, the horizontal display lights up as a bar that is part blue and part red, with blue representing moist heat and red representing dry heat.
- The amount of blue and red showing indicates the desired combination of moist and dry heat as set by the Central Dial.
- The small green number displayed above the red/blue bar is the actual percentage of relative humidity in the cabinet.



The ClimaPlus arrow key is used to activate ClimaPlus Control. During operation, the arrows light up to indicate ClimaPlus activity. The up arrow lights up to indicate that steam is being added to the cabinet. The down arrow lights up when humidity is being removed from the cabinet.

Operation

Select Dry Heat or Combination Mode.

NOTE: Steam Generator is not active in Dry Heat mode. Therefore, ClimaPlus functionality is limited to removing humidity from the cabinet. Moisture from food may continue to build during cooking process but cannot be increased by ClimaPlus.



- Press the ClimaPlus Control arrow key.
- Use the Central Dial to set the desired humidity level.



To check the current humidity level:

Press and hold TEMPERATURE key. The current humidity level in the cooking cabinet is displayed in the ClimaPlus window.



Operating the ClimaPlus[®] Combi

In this section:

Cooking Modes

Cooking Functions

Cleaning

Installation

The following section presents in some detail a complete overview of the operation of your Henny Penny ClimaPlus Combi. You'll find the advantages, tips and step-by-step operating instructions for each feature of the LCS and LCG models, from cooking modes to IQT applications and additional keypad functions.

The programming section included in Cooking Functions will help you customize the day-to-day operation of the ClimaPlus Combi to your particular production needs. Simple instructions, accompanied by visual icons of the appropriate control panel keys, make it easy to do everything from creating custom programs to setting up the displays for the desired time, temperature and language formats.

The Cleaning section explains the advantages and operation of the CleanJet automated cleaning system and CDS CalcDiagnosis feature. The Installation section offers basic information about site requirements and the water, electrical and gas connections necessary to properly install and set up the ClimaPlus Combi for operation.

Cooking Modes

ClimaPlus Combis have two basic cooking modes: Moist Heat and Dry Heat. These two cooking modes can be used individually, in sequence, or together in a third Combination mode. Almost all traditional cooking processes can be accomplished in these modes.



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 can be regulated from 85-265°F (30-130°C) to accomplish:

- Steaming
- **Tender Steaming**
- Forced Steaming.



Dry Heat Mode

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).

Cooking environment can be manipulated extensively with additional functions and ClimaPlus Control.



Combination Mode

The unit's control system combines both Moist Heat and Dry Heat modes to create a cooking environment in which variable amounts of humidity can be introduced and controlled at temperatures from 85-575°F (30-300°C).

- Cooking environment can be manipulated extensively with additional functions and ClimaPlus Control.
- Rethermalizing is accomplished in Combination Mode at 60% humidity or less.





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

- **Ingredients preparations**-tomato concasees, garnish, 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

- Turn unit on.
- Select MOIST HEAT mode and set TIMER on Continuous Run. Only blue bars appear in ClimaPlus window indicating 100% moist heat.
- Preheat until temperature reaches 212°F (100°C), or to desired temperature.
- Load oven.
- Select TIMER key. Set desired cooking time using Central Dial OR select IQT Sensor and set desired Sensor core temperature OR select Continuous Run.
- ClimaPlus control is preset at 100% humidity and cannot be changed in Moist Heat mode.
- Unload oven when done. Unit automatically shuts off when door is opened.

NOTE: LCS & LCG 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 to unload.



Opening Door During Operation VVV 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 212°F (100°C) or burns could result.



Tender Steaming 85-210°F (30-99°C)

A gentle cooking application in Moist Heat mode that uses steam with less air turbulence at temperatures below the boiling point. Use Tender Steaming for scalding, poaching, thawing, proofing, simmering, blanching, rethermalizing, 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



CONT-RUN

Operation and settings

- Turn unit on.
- Select MOIST HEAT mode and set TIMER on Continuous Run.
- Preheat until temperature reaches 212°F (100°C) or to desired temperature.
- Load oven.
- Set desired Tender Steaming TEMPERATURE 85-210°F (30-99°C) using Central Dial.
- Select TIMER key. Set desired cooking time using Central Dial OR
- Select IQT Sensor and set desired core temperature using Central Dial OR select Continuous Run.
- Unload oven when done. Unit automatically shuts off when door is opened.

NOTE: LCS & LCG 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 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 212°F (100°C) or burns could result.



Forced Steaming 213-265°F (101-130°C)

A cooking application in Moist Heat mode using additional heat to allow 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

Forced Steaming

continued





Operation and settings

Turn unit on.

- Select MOIST HEAT mode and set TIMER on Continuous Run.
- Preheat to set temperature.
- Load oven.
- Set desired Forced Steaming TEMPERATURE 213-265°F (101-130°C) using Central Dial.



- Select TIMER. Set desired cooking time using Central Dial OR select IQT Sensor and set desired core temperature using Central Dial OR select Continuous Run.
- Unload oven when done. Unit automatically shuts off when door is opened.

NOTE: LCS & LCG 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 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 212°F (100°C) or burns could result.





Dry Heat Mode *85-575°F* (30-300°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 with no flavor transfer.
- Can be partially unloaded for serving convenience.

Menu suggestions

- **Ingredients 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, ClimaPlus Combi baking temperatures will be 70-80°F (20-25°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 2¼ in. (70mm).
- Defrost frozen bread dough and let rise for a short time before baking.
- When baking full loads of "wet" product (frozen or dough), adjust ClimaPlus to remove built-up humidity.
- 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

- Turn unit on.
- Select DRY HEAT mode and set TIMER on Continuous Run.
- Two red bars appear in ClimaPlus window.
- Preheat, set to desired cooking TEMPERATURE.
- Load oven.
- Select TIMER key. Set desired cooking time using Central Dial OR select IQT Sensor and set desired core temperature using Central Dial OR select 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. Use ClimaPlus Control to limit the level of this humidity buildup if desired.

- If desired, press arrow key and set ClimaPlus Control using Central Dial.
- Unload oven when done. Unit automatically shuts off when door is opened.

NOTE: LCS & LCG 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 to unload.



Opening Door During Operation Openation 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 212°F (100°C) or burns could result.





Combination Mode *85-575°F* (30-300°C)

Fast, consistent method for cooking foods that require a combination of moist and dry heat. Enables practically any percentage of humidity and precise control of the desired level. Use when combi-baking, combi-roasting, combisteaming, 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









Set TIMER on Continuous Run.

Operation and settings

Turn unit on.

- A bar that is mostly blue and partly red appears in ClimaPlus window, indicating that the ClimaPlus Control is set at 90% humidity.
- Preheat to desired temperature.



Load oven.

Set desired cooking TEMPERATURE using Central Dial.



Select TIMER key. Set desired cooking time using Central Dial OR set for Continuous Run. Select IQT Sensor and set desired core temperature using Central Dial.



- To change ClimaPlus Control setting, press the control arrow key and set the desired humidity level with the Central Dial.
- Unload oven when done. Unit automatically shuts off when door is opened.

NOTE: LCS & LCG 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 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 212°F (100°C) or burns could result.



Rethermalizing

Rethermalizing is a cooking application that utilizes a combination of moist and dry heat plus ClimaPlus Control 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 ClimaPlus 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.
- Generally, a ClimaPlus Control setting of 60% humidity or lower is recommended for rethermalizing.
- Rethermalizing times depend on the type of food, the beginning internal temperature and the number of plates of pans in the load. Times should be from 5 to 8 minutes.
- Use probe cooking with the IQT Sensor 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.
- Sauces should be poured over product prior to re-heating or on side after re-heating.

Rethermalizing

continued

- CONT-RUN

- Create a custom cooking program with Rethermalizing settings that can be used for similar recurring situations.
- Use ClimaPlus Control to "fine tune" Rethermalizing to achieve desired results.

Operation and settings

- Turn unit on.
- Press Moist Heat and Dry Heat keys at the same time to set on COMBINATION mode.
- Set TIMER on Continuous Run.
- Preheat to desired temperature.
- Load oven.
- Set desired Rethermalizing TEMPERATURE using Central Dial.



Select TIMER key. Set desired cooking time using Central Dial OR select Continuous Run. Select IQT Sensor and set desired probe "done" temperature using Central Dial.

- Adjust ClimaPlus Control setting to achieve desired humidity level, generally 60% humidity or below, by pressing the control arrow key. Set desired humidity level with the Central Dial
- Unload oven when done. Unit automatically shuts off when door is opened.

NOTE: LCS & LCG 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 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 212°F (100°C) or burns could result.

Cooking Functions

ClimaPlus Combis feature a host of digital controlled functions that can be employed to create the perfect cooking environment for practically any type of food. These functions also help automate the cooking process, saving labor and providing consistent results, load after load.



IQT

Probe cooking with IQT Sensor

The new IQT Sensor 5-point probe works with IQT Logic and the ClimaPlus Control to automatically produce the desired browning, texture and core food temperature every time–regardless of load size.

IQT Intelligent Cooking Functions

The IQT key accesses three IQT Logic programs that use the IQT Sensor to provide feedback for real-time control and adjustment of the cooking process. These programs are designed to completely automate the lengthy process of cooking roasts or other large cuts of meat. (To access these programs, be sure no cooking mode is active before pressing the IQT key.)

- +Profile Cooking
- +Low Temperature Cooking
- +Delta -T Cooking
- Preset program library

The IQT key is also used to access other special functions. (To select these functions, a cooking mode must be activated before pressing IQT key.)

- Half Energy (available on all LCS electric models and the LCG-40)
- Delta-T (without IQT Logic)
- HACCP interface
- Lime scale check (CalcDiagnosis System)
- Program Lock/Unlock

PROG

Programming

Use PROG/START key when inputting up to 99 nine-step custom cooking programs and when working with programs and programmable operations of the unit. Use this key to access and start selected custom program.

Additional Key Pad Functions

- Steam Injection
- Half Speed Fan (available on all LCS electric models)
- Pulse Fan
- Cool Down

ΙQT



Probe Cooking with IQT Sensor

The Probe Cooking function allows the operator to select the food's desired "done" temperature. The IQT Sensor probe is inserted into the food to measure the actual internal temperature of the food as it cooks. The IQT Logic controls the cooking time and stops the cooking cycle when the selected internal temperature is achieved.

Advantages

- Cook to proper "doneness" for precise, consistent results with different types of food.
- Prevents over cooking, less waste.
- Results in less shrinkage, more portions.
- Does not require constant observation of cooking process.
- IQT Sensor 5-point measurement eliminates false readings due to improper insertion.
- Check elapsed time and current core temperature at any time.
- 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.
- Consider using IQT +Profile automated cooking program that allows the selection of core temperature and desired surface texture and browning.

Probe Cooking with IQT Sensor continued

Operation and settings

- Turn unit on.
- Load oven rack.
- Insert probe into thickest part of meat, or into central location of other types of foods, on center oven rack.

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

Select cooking mode (probe cooking is enabled in all modes.)





Select IQT Sensor and set desired "done" temperature using Central Dial.

Display shows selected "done" temperature and current core temperature.

NOTE: TIMER function does not operate when using probe function. If TIMER is set before selecting IQT Sensor, the cook time continues to run in the background, but does not control the cooking process. To display time remaining, press and hold both IQT Sensor and TIMER keys. To return to probe temperature display, press IQT Sensor key

To check elapsed cooking time, press and hold TEMPERATURE key.
 Completion signal sounds when "done" temperature is reached. Unit shuts.

Completion signal sounds when "done" temperature is reached. Unit shuts off automatically.

IQT Sensor

- Monitors the surface temperature of the food.
- Regulates the degree of browning when using IQT +Profile
- Calculates the precise core temperature, even when improperly inserted.
- Computes and displays the exact remaining cooking time.
- Constantly updates information as conditions change.

The IQT Sensor reads temperatures at five different points:

Surface temperature

Plus four separate core temperatures

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.

Probe Cooking with IQT Sensor

continued

Probe Cooking Guide to "Doneness"

Meat		Probe "Don	e 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







IQT +Profile Cooking

IQT +*Profile Cooking allows operators to dial in both the desired core* temperatures AND the degree of browning/crispness-IQT Logic does the rest.

Capabilities

+Profile is an automated cooking control program that is essentially "self-regulating" in nature. That is, it adjusts cooking parameters in response to real-time conditions. Information on food and cabinet conditions is acquired by IQT Sensor and ClimaPlus Control. The IQT Logic intelligent software automatically and continuously analyzes this data, factors in the size of the roast or bird, and makes any adjustments in temperature and humidity necessary to ensure that the desired core temperature is reached at the same time as the ideal degree of browning.

Advantages

- Five point sensing system of IQT Sensor insures accurate core and crust temperatures, even with inaccurate probe insertion.
- Select from seven degrees of browning (1-7 lighter/darker) to produce just the type of outer skin or crust you want, automatically.
- Constant automatic monitoring and adjustments produce the perfect cooking cycle, resulting in moist flavorful meats, less shrinkage, and crisp skins without the dryness.
- Updates and display of remaining cook time allows for better production planning.
- Get precise, consistent results every time regardless of meat size or size of load.

When to use

- +Profile is most suitable for larger cuts of meat, such as a variety of pork, meat loaf, turkey breast, chuck, brisket, veal roasts, and chicken.
- For best results, cuts should be a minimum of 3 in. (7.6 cm) thick and at least 6 lbs. (2.7 kg).
- Loads should be composed of similar sized cuts.
- Cooking time should not be less than 30-40 minutes.
- Select foods best sutied for Combi mode.

IQT +PROFILE continued	Operation and settings
	Turn unit on.
	Load oven rack.
	Insert probe into thickest part of meat, or into central location of other types of foods, on center oven rack.
	NOTE: Be sure IQT Sensor is clean and cool prior to insertion.
IQT +PROFILE	DO NOT select cooking mode. Deactivate if mode has already been selected.
	Press IQT key: "+PROFILE" appears in the adjacent display.
PROG	Press PROG/START key to activate program.

Press PROG/START key to activate program.



BROWN 4" appears in the temperature display. While the figure 4 is flashing, use Central Dial to select desired level of browning from 1 to 7 (light to dark).



The IQT Sensor display shows a pre-selected core temperature of 162°F (72°C). Press the IQT Sensor key and use Central Dial to set the desired core temperature.

```
PROG
START
```

START

Press PROG/START to confirm and initiate +Profile cooking.

During operation

- Since all modes and humidity levels are enabled by the automated process, the ClimaPlus window will display a blue-red bar and Moist Heat and Dry Heat modes will be active during the entire cooking cycle.
- Cook time remaining is displayed and constantly updated during the latter stages of the cycle.
- Actual core temperature is displayed next to selected "Done" temperature.
- The control panel is not accessible during operation to prevent automatically selected settings from being accidentally altered. HACCP, Half Energy and Half Speed Fan functions can be selected during operation.
- Opening the door during operation merely interrupts the cooking process. When door is closed, all functions resume.
- To stop any IQT program altogether, it is necessary to turn off the unit.

NOTE: +Profile is a complete cooking program that automatically controls the cooking process. It cannot be used as a step in another program. However, IQT +Profile can be saved with specific settings as an individual custom program (See Programming, page 43.)





IQT +Low-T Cooking

IQT +Low-T Cooking offers operators a completely automated low temperature slow-cook solution for maximizing yield, color and consistency of large roasts.

Capabilities

+Low-T (low temperature) is a gentle cooking process designed for cooking large roasts over a long period of time. The completely automated cook cycle begins with a brief searing phase followed by a progressive lowering of the cabinet temperature until it matches the desired core temperature of the food. Over the remaining time, the actual core temperature of the slowly cooking meat continues to rise until it reaches the desired core temperature. At this point, the entire roast has reached the same temperature as its surrounding environment and can be held up to 24 hours.



Advantages

- Slow, gentle process results in uniform cooking and prevents overcooking.
- Mild cooking climate helps meat retain natural juices and flavor with minimal weight loss and shrinkage.
- Completely automated process compensates for load size and type of meat.
- Rapid temperature drop after searing prevents overcooked exteriors. Steady increase in core temperature results in uniform color and texture inside.
- Automatic cook and hold process permits unattended, overnight cooking to improve production efficiency and take advantage of lower energy rates.

NOTE: +Low-T is a complete cooking program that automatically controls the cooking process. It cannot be used as a step in another program. However, IQT +Low-T can be saved with specific settings as an individual custom program (See Programming, page 43.)
IQT +LOW-T COOKING continued	 Operation and settings Turn unit on. DO NOT load yet. DO NOT select cooking mode. Deactivate if mode has already been selected.
	 Press IQT key: ("+PROFILE" appears in the adjacent display.) Use Central Dial to select +LOW-T.
+LOW-T	
PROG START	Press PROG/START key to activate program. Pre-selected settings will appear on the TEMPERATURE and IQT Sensor displays.
	Press TEMPERATURE key and use Central Dial to enter desired searing temperature-266-392°F (130-200°C).
	Press IQT Sensor key and use Central Dial to enter desired core temperature– 110-176°F (45-80°C).
PROG	Press PROG/START to confirm and initiate +Low-T cooking.
START	Unit now begins preheating. When preheating temperature is reached, the display will flash "LOAD" and buzzer will sound.
	Load oven rack.
	Insert IQT Sensor probe.
	Close door to begin +Low-T cooking.
	During operation
	Since +Low-T cooking operates in Dry Heat mode, the ClimaPlus window will display a red bar and Dry Heat mode key will be active during the cooking cycle.
	After a period of time, the actual core temperature will appear in the display next to "done" core temperature.
	When the finishing phase begins, "RIPENING" appears in the TIMER display.
	When the core temperature reaches the desired "done" temperature, the word "HOLDING" appears in the TIMER display. This phase can be maintained for up to 24 hours.
	The control panel is not accessible during operation to prevent automatically selected settings from being accidentally altered. HACCP and Half Energy functions can be selected at the start of operation.
	Opening the door during operation merely interrupts the cooking process.

Opening the door during openation metry interrupts the cooking process.
 When door is closed, all functions resume.
 To stop the IQT +Low-T program prior to the holding phase, it is necessary to turn off the unit. During holding phase, the program can be stopped simply by pressing the lit mode key to de-activate the mode.





IQT +Delta-T Cooking (with IQT Logic)

IQT +*Delta-T* Cooking offers operators a gentle, effective and completely automated program for cooking hams and large marinated, salted or cured cuts of meat with the best flavor and yield.

Capabilities

+Delta-T uses IQT Logic to provide a gentle slow-cooking process in which the cabinet temperature rises slowly in direct proportion to the rise in the core temperature of the meat. The constant difference between the two is called the Delta-T or "difference in temperature." The operator enters both the "done" core temperature of the meat and the Delta-T number. The actual cabinet temperature rises quickly to form mild crust that seals in juices and nutrients, then rises gradually pulling the temperature of the meat up gently to the desired core temperature.



Advantages

- Creates a specific, gentle cooking process for hams and large cuts of marinated or cured meat.
- Process causes proteins to coagulate and meat fibers to swell, retaining juices and nutrients.
- Rapidly created outer crust seals in flavor and natural juices.
- When core temperature is reached unit remains in holding phase.
- Completely automated, no observation of the cooking process is necessary. Great for off-peak hours production.

NOTE: +Delta-T is a complete cooking program that uses IQT Logic to automatically control the cooking process. It cannot be used as a step in another program. However, IQT +Delta-T can be saved with specific settings as an individual custom program (See Programming, page 43.)

IQT +DELTA-T COOKING continued	 Operation and settings Turn unit on. Load oven rack. Insert IQT Sensor probe. DO NOT select cooking mode. Deactivate if mode has already been selected.
+DELTA-T	Press IQT key: ("+PROFILE" appears in the adjacent display.) Use Central Dial to select +DELTA-T.
PROG START	Press PROG/START key to activate program. Pre-selected settings will appear on the TEMPERATURE and IQT Sensor displays.
	Press TEMPERATURE key and use Central Dial to enter desired Delta temperature–68-140°F (20-60°C).
	Press IQT Sensor key and use Central Dial to enter desired core temperature–110-210°F (45-99°C).
RECE	Press PROG/START to confirm and initiate +Delta-T cooking.
START	During operation
	 Since +Delta-T cooking operates in Moist Heat mode, the ClimaPlus window will display a blue bar and the Moist Heat mode key will be active during the cooking cycle. The actual core temperature will appear in the display next to "done" core temperature.
	 The control panel is not accessible during operation except for the following functions (may depend on model.) IQT, HACCP (all LCS and LCG models) Half Energy (all LCS Electric models) Half Fan Speed (all LCS Electric models and the LCG-40 Gas)
	Opening the door during operation merely interrupts the cooking process. When door is closed, all functions resume.
	To stop the IQT +Delta-T program altogether, it is necessary to turn off the unit.
	NOTE: For a Delta-1 Cooking program without IQ1 Logic see "Special Functions: Delta-T Cooking", page 40.



Preset Program Library

Built-in programs for cooking, preheating, rethermalization and cleaning.

The IQT key can be used to access a library of preset programs based on manufacturer's research and testing. The library includes a host of cooking programs for basic items. There are also programs for efficient preheating, rethermalizing plated portions, and a cleaning program.

Operation



Turn unit on.

- Load oven rack.
- DO NOT select cooking mode. Deactivate if mode has already been selected.
- Press IQT key: Use Central Dial to select desired preset program.

NOTE: The three IQT programs are first in order of display, followed by a series of asterisks. Preset programs are next, each preceded by a single asterisk.



Press PROG/START key to activate program.



Available on all LCS electric models only

Special Function: Half Energy

A feature that efficiently reduces the unit's electrical operating requirement to about half the energy normally used.

Advantages

- Saves on energy costs when operating during hours of peak power rates.
- Helps control slow cooking process at lower temperatures.

NOTE: In most cases, cooking times will be longer when using HALF ENERGY feature.



Operation

SELECT any mode.



Select desired cooking TIME (adjusted for Half Energy), TEMPERATURE and/or probe "done" temperature.

Half Energy

continued





Special Function: Delta-T (without IQT Logic)

A special program for slow-cooking large curd or mari natedroasts for best flavor and yield.

NOTE: This function does NOT use IQT Logic. For detailed description of capabilities and advantages of Delta-T Cooking, see "IQT +Delta-T Cooking", page 37.



COOKING HACCP Spect IQT HACCP A special for conference IQT The Clinicata, successes The Clinicata, successes

Special Functions: HACCP Interface

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

The ClimaPlus Combi is equipped with a serial interface to output key cooking data, such as 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. HACCP requires CCP (Critical Control Points) reports to be archived.

Set Up

First, connect a printer or PC to your ClimaPlus Combi 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

Be sure mode and cooking parameters are selected. Recording can only take place when using probe cooking. Be sure food probe is inserted.

- Press IQT key. Use Central Dial to select HACCP.
- PROG START

НАССР

IQT

- Press PROG/START key to activate function. A flashing dot appears in the display to indicate that data is being recorded.
- 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 active mode key to deactivate.

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***."



Programming

Programming capabilities of the ClimaPlus Combi allow operators to:

- Create custom cooking programs
- Incorporate IQT functions into custom programs
- Lock/Unlock programs

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

Capabilities

Memory

- Up to 99 total cooking programs are available to the operator. Up to 9 steps (sets of parameters) are available for each cooking program.
- An additional 11 programs have been pre-set at the factory (see Preset Program Library, page 39.) These include 10 programs for common menu items as well as a cleaning program.
- ClimaPlus Combis also feature 3 IQT Logic programs (See +Profile Cooking, +Low-T Cooking, and +Delta-T Cooking, page 37.)

Control

- Automatic–Unit begins operation when PROG/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 or special function. The new value or function affects the 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.

Programming

continued





Programming the ClimaPlus Combi

To create custom cooking programs:

- Turn unit on and open door.
- Press the PROG/START key. The display shows the current program number/name.
- Select the desired program number (1-99) using Central Dial. Flashing numbers indicate available program numbers.

NOTE: Most cooking programs require preheating. To make preheating the first step in a program, follow these steps.



Select the desired Cooking Mode for preheating (this begins the first program step.) The selected program number and the current program step are displayed (e.g. 12/1, indicating program #12, step 1).

- Select desired preheating cabinet temperature.



- Press and hold TIMER key until "PREHEAT" is displayed.
- Select a Cooking Mode to save this step and activate step two.



Continue with step two by selecting additional parameters, such as cooking temperature, probe "done" temperature, additional functions, etc. For each parameter or function, press the appropriate key and use the Central Dial to dial in the desired value.



■ To move on to the next step in the program, select a cooking mode. It can be the same mode or a different one. This saves the cooking parameters of the previous step and activates the next program step (e.g. 12/2).



- When all steps have been entered in this manner, press PROG/START to save settings and store the program.
- To review the program, press PROG/START repeatedly to step through the program until the display is blank.
- Close door.

Programming

continued



Naming programs:

You may wish to name programs in order to identify them faster and more reliably. Names can contain up to eight characters.

- Press the PROG/START key. The display shows the current program number. Select the desired program number using the Central Dial.
- Press and hold the IQT key until the cursor flashes under the first digit position in the display. The Central Dial will now run through all alphanumeric characters. Select the first character of the program name and press IQT key to confirm. The cursor then flashes in the next position to the right.
- Continue selecting letters and/or numbers in this manner.
- To save the name, press and hold IQT key until the underscore disappears.

Programs are stored by name or by number. Named programs will be stored in alphabetical order and will appear first in the display, followed by the numeric display. Named programs are no longer associated with program numbers. Program numbers which have been given names no longer appear in the numeric display.

Tip:

- If you use the same name more than once, ClimaPlus will index them by number.
- Always enter letters of name before any numbers you may wish to include, e.g., Chicken 1, Chicken 2, etc.

Working with programs

To run a saved program

Turn unit on.

Central Dial.



- Press the PROG/START key again to begin the program.
- Once all cooking steps have completed, signal will sound and unit will shut down automatically.

To make changes to a saved program

Press the PROG/START key and select the desired program using the Central Dial.

Press the PROG/START key and select the desired program using the



PROG

START



PIE A

Make desired changes by selecting new mode, temperatures, time and/or any additional functions.

Press PROG/START until the step you wish to change changed is displayed.

- To save changes press and hold the TEMPERATURE and PROG/START keys simultaneously until the program number or name begins flashing. This confirms that changes have been saved.

Programming	NOTES:
continued	Any cooking parameter in any step of a program can be changed. However, once saved, no step can be added or removed.
	Factory Preset Programs (See Library of Preset Programs, page 39) CANNOT be edited. However, they can be copied and saved as a custom program, and then edited. See "Copying programs" below.
	Copying programs
	Preset programs can be copied and saved as custom programs and edited as desired. IQT Logic programs with specific values can be copied and saved as custom programs. They cannot be edited.
	To copy Preset programs:
	Press the IQT key and use the Central Dial to select the desired program to copy. Each Preset program is preceded by an asterisk.
(PROG) (START)	Press PROG/START once to activate program.
	Press and hold IQT key until flashing (available) program number appears in
	program display. You may now accept this number for use or select any other available number using the Central Dial.
	Press the IQT key. All displays go out, indicating that the Preset program has been saved into the custom program memory. The Preset program name will now appear in the program display WITHOUT the asterisk. Access, rename and edit this program as desired, following the procedures above.
	To copy an IQT Logic program:
IQT +PROFILE	Press the IQT key and use the Central Dial to select the desired IQT Logic program to copy.
	 Follow procedures (pages 33-37) to enter required settings. DO NOT Press PROG/START to confirm/activate.
IQT 20	Instead, press and hold IQT key until flashing program number appears in program display. You may now accept this number for use or select any other available number using the Central Dial.
IQT +PORKTND	Press the IQT key again. All displays go out, indicating that the IQT Logic program has been saved into the custom program memory. The IQT program name will now appear in the program display WITH the +. Access and rename this program as desired, following the procedures above.
	NOTE: IQT Logic programs, while appearing to contain many changes or steps are nevertheless integral-they are NOT themselves composed of separate programming steps that may be edited. They do not work this way. When in operation, they respond with changes to real-time conditions in the cabinet. While these programs cannot be edited, they MAY be inserted whole as an individual step in a custom program.

Changes must be saved before moving to the next step of the program.

To insert IQT Logic programs as custom program steps:

Follow the procedures for creating a new program or changing a saved program. When the desired step is displayed, follow the procedures above for copying an IQT Logic program. The program name (with the required settings entered) will appear as a step in the current program.



To delete a program

Press any cooking mode key.

Press the PROG/START key and select the desired program using the Central Dial.



12



Press and hold PROG/START for five seconds. The program number will begin to flash indicating that the program has been deleted and that the number is now available. If you are deleting a named program, the text disappears and the original program number flashes in its place.

Program Lock and Passwords

To lock or unlock the programming function of the unit, a password must be entered. The password that has been pre-programmed at the factory is: CLIMA+ This password can be changed later.



To lock or unlock programming

With unit on and door open, press any Cooking Mode key.



PROG

START

Press the IQT key and select "LOCK" or "UNLOCK" using the Central Dial.



Press and hold the PROG/START key until the TIMER display shows a line of asterisks, with the cursor flashing under the first asterisk position.



Enter password CLIMA+ by using the Central Dial to select a character and by pressing the TIMER key after each character to save it and advance the cursor. Do this carefully, as the display shows only the letter being entered. For security purposes, the other positions remain visible only as asterisks.



When the complete password is entered, press the TEMPERATURE key to toggle between PROG LOCK and UNLOCK.

PROG START Press PROG/START key to save the desired setting.

NOTE: After starting a program when programming is locked, it is not possible to change any function of the program. The selected program can only be cancelled by turning the unit off.

	To Change Programming Password
	IMPORTANT: If the pre-programmed password is changed and then forgotten, it is only possible to deactivate the program locking system with a total reset procedure. If a total reset must be performed <i>all custom programs in the system will be lost.</i>
	A password may consist of (1 to 8) letters, numbers and symbols.
	To change the password, follow the procedures for "Locking/Unlocking" above to enter the current password. If no new password has been entered, this will be the factory set password: CLIMA+
■] ■ UNLOCK	When the complete password is entered, press the TEMPERATURE key to toggle from PROG LOCK to UNLOCK.
<u>*********</u>	Turn the Central Dial. The TIMER display shows the flashing cursor and asterisks. Enter the new password in the same manner as above.
PROG START	When finished, press the PROG/START key to submit the new password. As a security measure, the TIMER display responds with a line of @ symbols, with the first symbol flashing. Re-enter the new password to confirm.
_ <i>a</i> aaaaaaaa	Be sure PROG LOCK/UNLOCK is set to desired status.
(PROG) (START)	Press the PROG/START key to save the new password and program locking status.

Time, Temperature and Language Settings

The ClimaPlus® Combi offers the operator the choice of:

Time formats:

- Military (24:00)
- Standard time (AM:PM)

Languages

- English
- Spanish
- Portuguese
- French
- German
- User choice

Temperature scales

- Fahrenheit
- Celsius

	To specify settings
	 Turn unit on. If unit is already on, switch off and turn on again. Press TEMPERATURE and TIMER keys simultaneously for about 10 seconds or until the TIMER display reads "24:00" or "AM:PM".
	Select the desired time format using the Central Dial.
AM:PM	
ENGLISH	Press the TEMPERATURE key to save the selected time format and activate the next setting, language selection. Select the desired language using the Central Dial.
■■■■■■■■■■■■■	Press the TEMPERATURE key to save language selection and move to the next step, temperature selection. Select "CELSIUS" or "FAHRENH" using the Central Dial.
PROG	Press PROG/START to save all selections and exit.
START	NOTE: If you have chosen the USER language selection, DO NOT exit with PROG/START.
	To convert text commands to User language:
∎] <i>WATER</i> <u><i>W</i></u> ATER	Press TEMPERATURE key again to begin converting text commands. The first term appears in English (default language) in the temperature display. The term is repeated in English in the program display with a flashing cursor under the first character.
	Using the Central Dial select the letters for the desired spelling of the term in the user's preferred language. Press the IQT key after each letter selection to confirm it and advance the cursor.
	When done, prove the TEMPEDATI DE loss to access the part term and
	proceed in this manner.
(PROG) (START)	Press PROG/START at any time to save all entries and exit User language text conversion.
	Setting the clock
	The unit's clock can be set to display continuous operation or real time. Automatic start-up time can also be set.
	Be sure unit is on and NO cooking mode is selected
	To display continuous operation:
	Press the TIMER key once to display "00:00 A:M."
	Press and hold TIMER briefly to display "DURATION".

	To set real time:
	Press and hold the TIMER key for about 10 seconds, skipping the start-time display. Display shows "REALTIME".
9:15 AM	Use Central Dial to set correct real time.
	Press TIMER once to store real time.
	To set automatic Start Time:
	Press TIMER key for about 5 seconds, skipping the duration display. Display shows "STRTTIME".
	Use the Central Dial to set the desired starting time.
	Press TIMER once more to store starting time.
	NOTE: Start Time is stored in memory and remains until changed. It does not have to be entered every day.

To operate unit with Start Time:

■ Follow proper procedures for entering cooking parameters, selecting the first step of a cooking program, or selecting IQT Logic programs and entering required values. DO NOT START cooking process.



- Activate Start Time by pressing and holding first the TIMER key and then the PROG/START key. Hold both keys for a few seconds until unit goes into standby mode.
- While unit is in standby mode, waiting to switch itself on, the current time and the Start Time alternate in the display.



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 set 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 and hold STEAM INJECTION key. Hold for up to four seconds per burst. Release to stop at any time.
- Repeat as desired.

1/2



Additional functions: Half Speed Fan

Half Speed Fan is a keypad function that reduces fan speed by one-half to produce less turbulence in the cooking environment.

Advantages

- Maintains a gentle cooking environment for light pastries, custards and other items with exposed fillings.
- Less turbulence when rising or finishing doughs and pastries.
- Maintains even heating and browning.

Tips

- Use Half Speed Fan when baking large braided or shaped loaves.
- Create a gentler cooking environment by combining Half Speed Fan with the Pulse Fan function (see below).
- Half Speed Fan may be used in any cooking program.

Operation and settings

- Half Speed Fan can be used in any cooking mode, temperature setting, and at any time during the cooking process.
- To activate, press the HALF SPEED FAN key. Green LED on key will light.
- Press again to return to normal fan speed.



Additional functions: Pulse Fan

Pulse Fan is a keypad control feature that, when activated, causes the fan to run intermittently–on for 10 seconds and then off–at intervals.

Advantages

- Promotes gentle, even cooking at lower temperatures.
- Conserves energy over longer cooking times.
- Enables consistent, quality results when slow-cooking.
- Perfect control feature for slow cooking large cuts of meat, such as leg of lamb, beef roast, cured ham, leg of veal, pork roast, whole turkey.

Advantages of slow cooking

- Meat tenderizes as it cooks.
- Meat retains moisture and natural juices resulting in less shrinkage and weight loss. This means more portions served per uncooked pound.
- Cook and hold overnight with no supervision necessary.

Additional Functions: Tips Pulse Fan

continued

- - When cooking large roasts, use Pulse Fan when core temperature reaches 140°F (60°C).
 - The existing heat in the cabinet and from the bulk of the roast is enough to complete the cooking process with Pulse Fan operation.
 - Pulse Fan can be programmed at any stage of the cooking process.
 - For low temperature cooking, experiment by using Pulse Fan along with Half Speed Fan and/or Half Energy features to create a gentle cooking environment.

Operation and settings

- Pulse Fan can be used in any cooking mode, temperature setting, and at any time during the cooking process.
- To activate, press the PULSE FAN key. Green LED on key will light.
- Press again to return to normal fan operation.

Additional functions: Cool Down

Cool Down is a keypad convenience function that enables the fan to continue operating when the door is open. This dissipates heat quickly.

Advantages

- Achieve rapid reduction in cabinet temperature when switching to a lower cooking temperature from preheating or from a higher 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.
- Press the Cool Down key. Green LED on key will light. "OPEN DOOR" appears in display.
- Open door with care. "COOL DOWN" appears in display.
- Actual cabinet temperature appears with flashing digits in Temperature display.

NOTE: Always cool unit down 20-30° below desired cooking temperature. Press cool down to de-activate cool down function.



OPEN DOOR

COOL DOWN





Cleaning

Your ClimaPlus[®] Combi MUST be cleaned at least once a day to ensure proper sanitation and continued trouble-free operation. Daily cleaning can be accomplished in two ways:

Conventionally using Moist Heat mode and/or pre-set cleaning program.

With the CleanJet automated cleaning feature.

Conventional Cleaning



+CLEAN

All ClimaPlus Combis are equipped with a preset cleaning program and 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.

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

- 1. Leave hinged racks or mobile oven racks and grids. Stainless steel containers may also be left in the cooking cabinet.
- 2. Allow cooking cabinet to cool down below 130°F (55°C).
- 3. Spray all interior cabinet surfaces (even behind the pivoted air baffle) as well as oven rack, grids and pans thoroughly with Henny Penny Oven and Grill Cleaner. (Goggles and gloves should be worn when using chemicals.)

To initiate factory pre-set cleaning program (about 40 minutes)

NOTE: If you do not wish to use pre-set cleaning program, skip steps 4-6.

- 4. Press IQT key
 - 5. Select "*CLEAN" using central dial.
- 6. Press PROG/START and skip steps 7-9.

PROG START

IQT

OR



7. Let cleaner act for approximately 20 minutes.



9. Select TIMER and set for 15 minutes.

8. Select Moist Heat mode.

- 10. Repeat process for heavily soiled cabinet.
- 11. 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.

CLEANING

CLEANJET



Using CleanJet®

ClimaPlus Combis are now equipped with CleanJet, a unique, patented system that cleans and rinses the cabinet interior with no labor or supervision whatsoever.

The CleanJet cleaning arm

The special CleanJet arm attaches to the inside of the cabinet and lays down a powerful "vortex" spray pattern that works in conjunction with high heat and timed cleaning stages to completely clean and rinse the combi.

Dispensing detergent and rinsing agent

- CleanJet detergent and rinsing agent are dispensed automatically in the proper amounts, depending on the cleaning cycle selected.
- On base-top models, a special drawer dispenser slides out from under the unit to be filled, then slides back under to engage and store.
- On floor models, detergent and rinsing agent containers are connected with a hose directly to the ClimaPlus.

To begin the automatic CleanJet cleaning:

- 1. Be sure unit is turned off and cabinet has cooled to 150°F (83°C) or below.
- 2. For base top units, be sure dispensing drawer has sufficient detergent and rinsing agent. For models 20 and 40, be sure detergent and rinsing agent containers are properly connected with the connecting hose to the appropriate nozzles located under the front edge of the unit to the left of the handshower.
- 3. Connect CleanJet arm to the fixture inside the cabinet on the back wall. Floor models 20 and 40 require two CleanJet arms (included.)

CAUTION DO NOT place soiled racks, pans or grids in cabinet for cleaning when using CleanJet. CleanJet arm could be damaged during operation.

4. Close door.

CAUTION DO NOT open door while cycle is in progress. CLEANJET CYCLE WILL NOT STOP IMMEDIATELY.

- 5. Turn unit on. "CLEANJET" appears in the TIMER display. "STEP 0" or "STEP 1" appears in the IQT display.
- 6. Use the Central Dial to select the desired cleaning stage based on the condition of the cabinet. CleanJet offers a total of seven cleaning programs, steps 0-6, and QUICK".

NOTE: If you do not find "Step O" or "Step 5" and "Step 6" in the display, it is because they must first be copied into the CleanJet menu by means of another method of access. This will only need to be done once. To make Step 0 or Steps 5 and 6 available in the CleanJet display, follow the procedure below:







CLEANING

	■ Unit must be on, WITHOUT CleanJet arm(s) attached, and no mode selected.
24:00	Press TEMPERATURE and TIMER keys simultaneously for about 10 seconds or until the TIMER display reads "24:00" or "AM:PM".
	Press TEMP key three times. Either "+STEP 0", "STANDARD" or "+STEP56" will appear.
	Lies Control Dial to salest desired stop
+STEP56	Se Central Dial to select desired step.
PROG	Press PROG/START. All displays go out indicating program was copied and saved to CleanJet location.
	Turn unit off and follow the procedures above beginning with step 2.
	7. Press PROG/START to begin cleaning cycle. "ACTIV" and "CLEANJET" shows in the display. Remaining cycle time shows in the TIMER display. See charts on page 57 for duration of each cleaning program.
	8. Unit shuts off automatically when cycle is complete.
	Tips
	To stop the cycle for any reason, it is necessary to switch the unit off
	 If the unit is turned off for any reason during cleaning cycle (or if power to the unit is interrupted,) cycle will be suspended. When the unit is switched back on (or when power is restored,) the cleaning cycle will NOT continue. Instead, "ABORT" is displayed. Press PROG/START to run through a short rinsing cycle to clear the cabinet of any remaining detergent and/or loose debris. Operator may now repeat entire cleaning cycle.
	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. To open the baffle for cleaning:
 - 1. Turn unit off and disconnect electrical power to unit.
 - 2. Swivel left hinged rack inward. (If using mobile oven rack, remove rack and guide frame.)
 - 3. Using a flat-head screwdriver or a coin, turn the two quick fastening locks one-quarter turn counterclockwise. Baffle will swing open for cleaning.

NOTE-floor units have 2 air baffles that open in this manner.

WARNING

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

CLEANING

Cycle time in minutes. Detergent and rinse values in ounces. Water values in gallons.

CleanJet®

continued

Tables of cycle times and water usage for CleanJet[®].

	Cycle	Level 0	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Quick
	Duration (min)	23	24	52	70	89	108	127	13
Model 6	Detergent (oz)	3	7	10	20	27	47	57	14
	Rinse Aid (oz)	17	17	17	17	17	17	17	17
	Water (gal)	8	12	23	35	48	60	72	14
Model 10	Detergent (oz)	3	7	14	24	37	54	68	20
	Rinse Aid (oz)	17	17	17	17	17	17	17	17
	Water (gal)	8	12	23	35	48	60	72	14
	Duration (min)	39	42	61	82	103	124	145	13
Model 1020	Detergent (oz)	14	24	34	44	54	71	84	41
	Rinse Aid (oz)	34	34	34	34	34	34	34	34
	Water (gal)	16	21	35	54	73	92	111	21
Model 20	Detergent (oz)	7	10	17	37	51	68	84	24
	Rinse Aid (oz)	30	30	30	30	30	30	30	30
	Water (gal)	17	22	36	55	76	95	115	22
Model 40	Detergent (oz)	20	41	51	68	84	112	135	61
	Rinse Aid (oz)	51	51	51	51	51	51	51	51
	Water (gal)	17	22	37	58	79	100	121	22

Cycle time in minutes. Detergent, rinse and water values in liters.

	Cycle	Level 0	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Quick
	Duration (min)	23	24	52	70	89	108	127	13
Model 6	Detergent	0.1	0.2	0.3	0.6	0.8	1.4	1.7	0.4
	Rinse Aid	0.5	0.5	0.5	0.5	0.5	0.5	1.5	0.5
	Water	31	44	88	134	180	226	273	52
Model 10	Detergent	0.1	0.2	0.4	0.7	1.1	1.6	2	0.6
	Rinse Aid	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Water	31	44	88	134	180	226	273	52
	Duration (min)	39	42	61	82	103	124	145	13
Model 1020	Detergent	0.4	0.7	1	1.3	1.6	2.1	2.5	1.2
	Rinse Aid	1	1	1	1	1	1	1	1
	Water	16	21	35	54	73	92	111	81
Model 20	Detergent	0.2	0.3	0.5	1.1	1.5	2	2.5	0.7
	Rinse Aid	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	Water	65	85	138	207	287	360	435	85
Model 40	Detergent	0.6	1.2	1.5	2	2.5	3.3	4	1.8
	Rinse Aid	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	Water	65	85	140	220	300	380	460	85

Guide to selecting cleaning level.

Level 0	Very small amounts of crumbs from bakery products.
Level 1	Cooking vegetables and fat-free products.
Level 2	Minimal level of grease and oils from mixed loads of vegetables and meat.
Level 3	Moderate amounts of grease and oils from roasted meats and vegetables.
Level 4	Heavier amounts of grease and oils from roasted meats and products heavy in starch, sugar and marinades.
Level 5	High amounts of grease and oils from roasted meats and vegetables.
Level 6	Excessive amounts of grease and oils from multiple loads of grilled or roasted meats and products heavy in starch, sugar and marinades.
Quick	Fast program for intermediate rinsing during heavy use. Use throughout the day to remove heavy levels of grease and deposits that cause scorching and odors.

CALCCHECK

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 the ClimaPlus Combi. Periodic, professional cleaning of the steam generator (descaling) must be performed by a certified and properly trained technician to ensure peak performance of your ClimaPlus Combi.

Auto Flush

Auto Flush is an automatic feature of ClimaPlus 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, it is not meant to make descaling unnecessary.

IMPORTANT: Descaling should ALWAYS be performed by a certified and properly trained technician.

CDS CalcDiagnosis

Henny Penny ClimaPlus Combis are equipped with a special feature called CDS CalcDiagnosis that monitors limescale build-up and warns the operator when descaling is necessary. This is a particular advantage because the CalcDiagnosis system permits the operator to schedule descaling not just regularly or randomly, but when needed.

To check the level of limescale deposits at any time:



To check the level of limescale deposits at any time:



- Press any Cooking Mode key.
- Press IQT key and use Central Dial to select "LIMSCAL".
- Press and hold PROG/START key. A horizontal line of asterisks will appear in the IQT display, indicating graphically the relative build-up of deposits in the steam generator.
- When deposits reach 80 percent of the permissible level, the "CALCCHECK" warning display flashes for two minutes. When the level reaches 90 percent, the warning remains on without flashing for two minutes.
- Service call for descaling should be scheduled within 14 days.
- When descaling has been completed the display with the horizontal line of asterisks must be reset. (Should be reset by the service technician.)





Installation

Refer to the following pages for important information regarding the installation of LCS and LCG ClimaPlus Combis. It is recommended that installation be accomplished by a certified and properly trained technician.

NOTE: When installing a ClimaPlus combi, humidity calibration must be performed. This process takes approximately 45-60 minutes. (page 62)

Site, leveling



- **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:	49% in. (1262 mm)
Model 20:	39% in. (1012 mm)
Model 40:	52½ in. (1332 mm)

- Floor at installation site must be level.
- Cold water line in place. (page 63)
- **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 60-61)
- 3) Remove all cartons, packing materials, documents etc. from the interior cabinet.
- 4) Remove grid shelves/trolley from cabinet.
- 5) Take unit off the pallet.
- Moving unit without pallet: Sizes 6, 10, 1020 (Fig. 1)
- Moving unit without pallet: Sizes 20, 40 (Fig. 2)





INSTALLATION

Unit weights:

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

continued

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 59)
 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).

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 59)
- The area of floor under the unit where Mobile Oven Racks will roll in must be level or door will not seal. (Fig. 7).

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 ½ 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.

Connected load for electric units:

	Model	V \\/	Amps								
	IVIOUEI	NVV	208v 3Phase	240v 3 Phase	208v 1 Phase	240v 1 Phase					
	LCS-6	10	28	24	48	42					
	LCS-10	19	53	45.8							
	LCS-1020	31.5	87.5	75.9							
	LCS-20	38	105.6	91.5							
	LCS-40	63	175.1	151.8							











INSTALLATION







Fig. 11



K3.1 relay

Electrical requirements of gas units:									
Model	Voltage	Phase	Cycle/Hz	KW					
LCG-6	120	1	60	1					
LCG-10	120	1	60	1					
LCG-1020	208/240	1	60	1.5					
LCG-20	208/240	1	60	1.6					
LCG-40	208/240	3	60	3.5					

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.

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

In some areas Henny Penny Electric Combis are shipped set up for 240 volts, but can be converted to 208 volt operation. If conversion is necessary the unit must be reset and calibrated.

Convert from 240 volt to 208 volt operation

- Disconnect unit from power supply source.
- 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.
- Move transformer primary lead from the 240v tap to the 208v tap (Fig. 10).
- Open left side panel and locate relay K3.1 (Fig. 11).
- Remove the jumper wire from the appropriate terminal positions. The terminals on K3.1 relay socket are numbered. Use the chart below to determine from which terminals to disconnect jumpers.

Model	Terminal Positions
LCG-6	5 and 6
LCG-10	5 and 6
LCG-1020	5 and 6
LCG-20	6 and 7
LCG-40	5 and 6

Once conversion has been completed, a "total reset" of the CPU-PCB must be done.

CAUTION

Record all end-user (custom) programs before undertaking a Total Reset.

Secure all panels and covers.

Total reset

- Turn on unit.
- Press and hold IQT Sensor key, IQT key, and PROG/START simultaneously and turn unit off.
- Release all keys. Wait at least 4 seconds and turn unit on.

NOTE: With total reset procedure all custom programs are deleted. After a total reset, 12:00 or 13:00 will be indicated on the timer display. Real time must be reset. To set clock to actual time, see page 50.

Humidity calibration

- The interior cabinet must be clean. If it is not, wipe clean.
- The interior cabinet temperature must be below 122°F (50°C) and the cabinet <u>must be dry</u>.
- Turn on unit.
- Open cabinet door.
- Select any cooking mode.
- Access diagnostic program by pressing TEMPERATURE key, IQT Sensor key, and IQT key simultaneously until the word "VERSION" appears next to the IQT key.
- Use Central Dial to select CALIBRATE.
- Close cabinet door.
- To start calibration press PROG/START and TEMPERATURE key simultaneously.
- Calibration starts automatically and lasts 45-60 minutes.
- After calibration, unit must be switched off for 5 seconds before using again.
- During calibration, several values will be shown on the display.
- Once calibration begins, do not interrupt the process.
- Do not open door until calibration is complete.

WARNING

After calibration, very hot steam–around 392°F (200°C)–remains in the cabinet. When opening the cabinet door hot steam will escape, and burns could result.

INSTALLATION

Fig. 12 WA







Water supply

9) Drain Connection (WA)

- For drain connection (Fig. 12) 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. 13).
- Drain pipe should be supported to the wall/floor.
- 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 (200kPa) MAX: 88 psi (600kPa). RECOMMENDED: 44 psi (300kPa). Water flow must be at least 3 gal/min (12 l/min).
- Water connection supplied by customer: 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. 15) in the supply water line.
- Water Redox-Potential must be below 300mV at any time.
- For higher Redox Potential use Active Carbon Filter (B in Fig. 14). Observe maintenance period of active carbon filter.
- Use a 3 micron (0.08mm) particle filter (C in Fig. 14) 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. 15). 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.

NOTE: If using external filter to treat hard water: Contact your Henny Penny distributor for average water consumption when using CleanJet. Increases in average water consumption may exceed specifications of external filters and may affect the frequency of filter maintenance. (See page 57)

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
LCS/G-6	.64 W (2.30 kJ)/hr	84 W (2.93 kJ)/hr
LCS-G-10	1.05 W (8.50 kJ)/hr	1.4 W (5.00 kJ)/hr
LCS/G-1020	1.67 W (6.00 kJ)/hr	2.4 W (8.50 kJ)/hr
LCS-G-20	2.13 W (7.67 kJ)/hr	2.67 W (9.60 kJ)/hr
LCS/G-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 LCG 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
LCG-6	¾ in.	½ in.
LCG-10	¾ in.	³¼ in.
LCG-1020	1 in.	³¼ in.
LCG-20	1 in.	¾ in.
LCG-40	1¼ in.	1 in.

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 Combi-Steamers 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 LCG 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)

CAUTION

continued

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.



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.

continued











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 ClimaPlus Combi.

Menu items are charted in a format that covers quantities, proper containers, times, temperatures, ClimaPlus Control settings, and whether probe cooking or and/or additional items 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.

 $212 (100) = 212^{\circ} F (100^{\circ} C)$

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)

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, preheating or an IQT program.

ALT	=	Designates an alternate method that can be used in place of the steps listed.
Ctrl	=	ClimaPlus is controlled by the IQT program and cannot be adjusted by the operator.
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

Item/Prep notes Container			Max yield	Cooking stages and suggested parameters						
Rotisserie Style Chicken Chicken grid		8 birds	Step	Mode	Temp	Time	Probe Temp	Clima %		
2½-3 lb. whole birds. Season. Per lo		ad	Per load	1	Combi	350 (177)	13	—	80	
Time cook–check for internal	6	2	16 birds	2	Combi	360 (183)	13	—	60	
temp. 185 (85).	10	3	24 birds	3	Dry Heat	370 (188)	13	—	30	
Or, use IQT +Profile.	1020	6	48 birds			Total Time	39			
	20	5	40 birds					-		
	40	12	96 birds	ALT	IQT +Prof	ile Browning Leve	el: 6	185 (85)	Ctrl	

Item/Prep notes	Contai	ner	Max yield	Cooking stages and suggested parameters							
Baked Chicken, pieces½ sheet pan		16 pieces, mixed	Step	Mode	Temp	Time	Probe Temp	Clima %			
Eight cut. Season.	Per load		Per load	1	Combi	340 (171)	10	—	100		
Time cook-check for internal	6	6	96 pieces	2	Combi	360 (182)	10	—	60		
temp. 185 (85).	10	10	160 pieces	3	Combi	380 (194)	5	—	30		
or, use iot +profile.	1020	20	320 pieces			Total Time	25				
	20	20	320 pieces								
	40	40	640 pieces								

Item/Prep notes	Contai	ainer Max yield		Cookii	ng stages	and suggested para			
Oven Fried Chicken	ried Chicken ½ sheet pan		16 pieces, mixed	Step	Mode	Temp	Time	Probe Temp	Clima %
Eight cut. Bread and prepare to	Per load		Per load	1	Combi	385 (196)	15	—	60
oven fried recipe. Grease pan	6	6	96 pieces	2	Combi	415 (213)	10	—	20
Time cook_check for internal	10	10	160 pieces			Total Time	25		
temp. 185 (85).	1020	20	320 pieces						
Or, use IQT +Profile.	20	20	320 pieces						
	40	40	640 pieces						

Item/Prep notes	Contai	ner	Max yield	Cooking stages and suggested parameters							
Turkey, whole Grid/drip pan		1 bird	Step	Mode	Tem	р	Time	Probe Temp	Clima %		
12-18 lb. (5.5-8 kg) bird.	Per load		Per load	1	Combi	280	(138)	_	165 (74)	80	
Wash, stuff, season, baste.	6	2	2 birds	2	Combi	340	(171)	_	185 (85)	50	
Probe cook or IQT +Profile.	10	3	3 birds								
	1020	6	6 birds								
	20	6	6 birds								
	40	12	12 birds	ALT	IQT +Prof	ile	Browning Level	: 5	185 (85)	Ctrl	

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	Clima %		
8-10 lb. (3.6-4.5 kg) boneless	Per load		Per load	1	Combi	280 (138)	_	145 (63)	80		
breast. 6	6	3	6 breasts	2	Combi	345 (174)	-	165 (74)	50		
Season. 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								

Item/Prep notes	Container		Max yield	Cookir	ng stages a	and suggested parar	neters		
Steaks, chops	Grid		10-12 steaks	Step	Mode	Temp	Time	Probe Temp	Clima %
Season. Preheat grids to	Per load		Per load	1	Dry Heat	Preheat 575 (300)			
575 (300). Vary time for thickness and desired doneness.	6	6	60-72	2	Dry Heat	485 (251)	7-10	—	20
	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	es Container			Cooking stages and suggested parameters							
Roast Beef	Grid/drip pan		1 per grid	Step	Mode	Tem	р	Time	Probe Temp	Clima %	
Rib Roast (Prime Rib)	Per load		Per load	1	Dry Heat	280	(138)	_	130 (54)	60	
10-18 lb. (4.5-8 kg) roast.	6	3	30-54 (13.5-24)	2	Dry Heat	340	(171)	_	135 (57) rare	20	
Season.	10	5	50-90 (22.5-40)						145 (63) medium		
Probe Cook of IQ1 +Low-1.	1020	10	100-180 (45-80)						155 (66) Well		
For lighter or darker crust, adjust IQT +Low-T sear	20	10	100-180 (45-80)								
temperature accordingly.	40	20	200-360 (90-160)	ALT	IQT +Low	-T	Sear: 360 (182)		135-155 (57-68)	Ctrl	

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	Clima %	
5-8 lb. (2.3-3.6 kg) pieces.	Per loa	ad	Per load	1	Dry Heat	280 (138)	_	120 (49)	60	
Season.	6	3	30-48 (14-22)	2	Dry Heat	340 (171)	-	135 (57) rare		
	10	5	50-80 (23-36)					145 (63) medium		
	1020	10	100-160 (46-72)					155 (66) Well		
	20	10	100-160 (46-72)							
	40	20	200-320 (92-144)							

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	Clima %	
4 oz. frozen patties. Season.	Per loa	ad	Per load	1	Combi	425 (218)	8-12	—	40	
For fresh patties, use 60%	6	6	48 patties							
ClimaPlus setting.	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. er	namel	5-7 lbs. (2.3-3.2 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %		
1-2½ oz. each meatball.	Per loa	ad	Per load	1	Dry Heat	350 (177)	10	_	20		
Mix ingredients and form	6	6	30-42 (14-19)								
according to recipe.	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	Cooking stages and suggested parameters						
Corned Beef Brisket, raw	Grid/drip pan		1 piece per grid	Step	Mode	Temp	Time	Probe Temp	Clima %	
Texture is more important	Per loa	ad	Per load	1	Combi	280 (138)	_	165-170 (74-77)	100	
than core temperature. Allow sufficient cook time for brisket to become very tender.	6	3	3 briskets							
	10	5	5 briskets							
, , , , , , , , , , , , , , , , , , ,	1020	10	10 briskets							
	20	10	10 briskets							
	40	20	20 briskets							

Item/Prep notes	Contai	iner	Max yield	Cooking stages and suggested parameters							
Beef Stew	2½ in. pan		8-12 lbs. (3.6-5.5 kg)	Step	Mode	Temp	Time	Add'l Functions	Clima %		
Step 1: Brown meat with	Per lo	ad	Per load	1	Dry Heat	320-360 (160-182)	5	—	30		
Dry Heat mode.	6	6	48-60 (22-33)	2	Combi	280 (138)	1-1.5 hrs.	Half Speed Fan*	70		
Step 2: Mix all ingredients,	10	10	80-120 (36-55)								
	1020	20	160-240 (72-110)					* If unavaila	ole, use Pulse Fan.		
	20	20	160-240 (72-110)								
	40	40	320-480 (144-220)								

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages a	and s	uggested parar	neters		
Meatloaf	2½ in. pan		8-10 lbs. (3.6-4.5 kg)	Step	Mode	Tem	р	Time	Probe Temp	Clima %
Mix ingredients and form	Per loa	ad	Per load	1	Moist	180	(82)	15	—	100
according to recipe.	6	3	24-30 (11-13.5)	2	Combi	280-	-320 (138-160)	—	150 (66)	40
Molds can be substituted	10	5	40-50 (18-22.5)	3	Dry Heat	335	(168)	10	_	20
Probe cook or IOT +Profile.	1020	10	80-100 (36-45)							
	20 10		80-100 (36-45)							
	40	20	160-200 (72-90)	ALT	IQT +Prof	ile Browning Level:		: 4	155 (68)	Ctrl

Pork

Item/Prep notes	Container		Max yield	Cooking stages and suggested parameters							
Ribs (pork or beef)	Grid		2 slabs	Step	Mode	Temp	Time	Probe Temp	Clima %		
Season or marinate.	Per lo	ad	Per load	1	Moist	180 (82)	12-15	—	100		
	6	6	12 slabs	2	Combi	280 (138)	15-20	—	70		
	10	10	20 slabs	3	Dry Heat	350 (177)	15	—	30		
	1020	20	40 slabs			Total Time	42-50				
	20	20	40 slabs								
	40	40	80 slabs								

Item/Prep notes	Container		Max yield	Cookir	Cooking stages and suggested parameters						
Bacon	½ shee	t pan	Approx.: 1 (.5)	Step	Mode	Temp	Time	Add'l Functions	Clima %		
Tray up. Approximately	Per loa	ad	Per load	1	Combi	400 (204)	5-7	Half Speed Fan*	40		
1 lb. (.5 kg) per pan.	6	6	6 (3)								
	10	10	10 (5)								
	1020	20	20 (10)					* If unavailal	ole, use Pulse Fan.		
	20	20	20 (10)								
	40	40	40 (20)								
Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages	and suggested para	neters				
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Sausage, links or patties	½ sheet pan		1.5 (.7) per pan	Step	Mode	Тетр	Time	Probe Temp	Clima %		
	Per load		Per load	1	Combi	325 (163)	8-12	—	30		
	6	6	9 (4.2)								
	10	10	15 (7)								
	1020	20	30 (14)								
	20	20	30 (14)								
	40	40	60 (28)								

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages a	and suggested parar	neters		
Smoked Sausage	Grid or	½ sheet	4 (1.8) per grid	Step	Mode	Temp	Time	Probe Temp	Clima %
Time cook or probe cook.	Per load		Per load	1	Combi	325 (163)	12-15	—	30
	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	Contai	ner	Max yield	Cookir	ng stages a	and suggested parar	neters		
Italian Sausage, Bratts	Grid or	½ sheet	4 (1.8) per grid	Step	Mode	Temp	Time	Probe Temp	Clima %
	Per loa	ad	Per load	1	Moist	180 (82)	7	—	100
	6	6	24 (11)	2	Combi	280 (138)	7	—	40
	10 10		40 (18)	3	Dry Heat	350 (177)	5	—	20
	1020	20	80 (39)			Total Time	19		
	20	20	80 (39)						
	40	40	160 (78)	ALT 3	Dry Heat		_	165 (74)	

Item/Prep notes	Contai	iner	Max yield	Cookii	ng stages	and suggested para	meters		
Pork Loin	Grid/dri	p pan	1 per grid	Step	Mode	Temp	Time	Probe Temp	Clima %
8-12 lb. (3.6-5.5 kg) loin roasts.	Per loa	ad	Per load	1	Moist	212 (100)	10	_	100
Season.	6	3	24-36 (11-16.5)	2	Combi	320 (160)	—	155 (68)	60
	10	5	40-60 (18-27.5)	3	Combi	350 (177)	—	165 (74)	35
	1020	10	80-120 (36-55)						
	20	10	80-120 (36-55)						
	40	20	160-240 (72-110)						

Item/Prep notes	Contai	ner	Max yield	Cookii	ng stages a	and suggested parar	neters		
Pork Tenderloin	Grid or	enamel	8-12 pieces	Step	Mode	Temp	Time	Probe Temp	Clima %
Season.	Per loa	ad	Per load	1	Combi	320 (160)	—	165 (74)	40
	6	6	48-72						
	10	10	80-120						
	1020	20	160-240						
	20	20	160-240						
	40	40	320-480						

Pork continued

Item/Prep notes	Contai	iner	Max yield	Cookii	ng stages and	d suggested parar	neters		
Pork Roast	Grid/drip pan		2 per grid	Step	Mode	Temp	Time	Probe Temp	Clima %
Fresh Ham, large	Per lo	ad	Per load	1	IQT +Profile	Browning Level:6		165 (74)	Ctrl
8 lbs. (3.6 kg) or more.	6	2	4 roasts						
Season.	10	3	6 roasts						
IQT +Profile	1020	6	12 roasts						
	20	6	12 roasts						
	40	12	24 roasts						

Item/Prep notes	Contai	iner	Max yield	Cookii	ng stages	and suggested para	meters		
Smoked ham	Grid/drip pan		1 per grid	Step	Mode	Temp	Time	Probe Temp	Clima %
12-15 lbs. (5.5-6.8 kg) hams.	Per load		Per load	1	Combi	250 (121)	_	165 (74)	40
	6	2	2 hams						
	10	3	3 hams						
	1020	6	6 hams						
	20	6	6 hams						
	40	12	12 hams						

Fish, Seafood

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages a	and suggested parar	neters		
Fish, poached	Perf pa	n	8 lbs. (3.6 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Season.	Per loa	ad	Per load	1	Moist	180 (82)	_	140 (60)	100
	6	6	48 (21.6)						
	10	10	80 (36)						
	1020	20	160 (72)						
	20	20	160 (72)						
	40	40	320 (144)						

Item/Prep notes	Contai	iner	Max yield	Cookii	ng stages	and suggested para	meters		
Fish, baked	½ shee	t pan	5 lbs. (2.3 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Lightly grease pan. Season	Per load		Per load	1	Combi	345 (174)	8-12	—	60
and top.	6	6	30 (14)						
	10	10	50 (23)						
	1020	20	100 (46)						
	20	20	100 (46)						
	40	40	200 (92)						

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages	and suggested parar	neters		
Fish steaks, grilled	Grid		8-12 steaks	Step	Mode	Temp	Time	Probe Temp	Clima %
1½ - 2½ in. (38-63 mm)	Per loa	ad	Per load	1	Combi	Preheat 575 (300)			90
steaks. Season. Preheat grid	6	3	24-36 steaks	2	Combi	485 (252)	6-8	—	40
10 575 (500).	10	5	40-60 steaks						
	1020	10	80-120 steaks						
	20	10	80-120 steaks						
	40	20	160-240 steaks						

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages	and suggested para	neters		
Breaded Fish Pieces	¾ in. ei	namel	2½ lbs. (1.1 kg)	Step	Mode	Тетр	Time	Probe Temp	Clima %
Lightly grease pan.	Per lo	ad	Per load	1	Combi	425 (218)	6-8	—	30
Spray top of product with	6	6	15 (6.6)						
shortening prior to cooking.	10	10	25 (11)						
	1020	20	50 (23)						
	20	20	50 (23)						
	40	40	100 (45)						

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages	and suggested parar	neters		
Cocktail Shrimp	Perf pa	n	5 lbs. (2.3 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Season. Cook in shell.	Per lo	ad	Per load	1	Moist	180 (82)	6-10	—	100
Remove and blast-chill	6	6	30 (13.8)						
immediately.	10	10	50 (23)						
	1020	20	100 (46)						
	20	20	100 (46)						
	40	40	200 (92)						

Item/Prep notes	Contai	iner	Max yield	Cooki	ng stages	and suggested para	meters		
Whole Lobster, steamed	Perf pan		3-4 lobsters	Step	Mode	Temp	Time	Probe Temp	Clima %
	Per load		Per load	1	Moist	212 (100)	10-14	—	100
	6	3	9-12						
	10	5	15-20						
	1020	10	30-40						
	20	10	30-40						
	40	20	60-120						

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

Item/Prep notes	Contai	iner	Max yield	Cooki	ng stages	and suggested para	neters		
Scallops, broiled	Enamel		3 lbs. (1.4 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Drain and clean. Dredge in	Per lo	ad	Per load	1	Combi	385 (196)	4-8	_	30
flour. Season. Lightly oil pan	6	3	9 (4.2)						
Stir into pans when loading.	10	5	15 (7)						
	1020	10	30 (14)						
	20	10	30 (14)						
	40	20	60 (28)						

Meats, Special Cuts

Item/Prep notes	Conta	iner	Max yield	Cooki	ng stages	and suggested para	neters		
Cutlets, breaded	34 in. e	namel	12-15 pieces	Step	Mode	Temp	Time	Probe Temp	Clima %
Bread. Preheat pans to	Per lo	ad	Per load	1	Combi	Preheat 575 (300)			90
575 (300).	6	6	72-90	2	Combi	425 (218)	6-8	—	30
Spray top of product with shortening prior to cooking	10	10	120-150						
shortening prior to cooking.	1020	20	240-300						
	20	20	240-300						
	40	40	480-600						

Item/Prep notes	Contai	ner	Max yield	Cookii	ng stages a	and suggested parar	neters		
Medallions	¾ in. er	namel	12-15 pieces	Step	Mode	Temp	Time	Probe Temp	Clima %
Season or marinate. Preheat	Per lo	ad	Per load	1	Combi	Preheat 575 (300)			90
pan to 575 (300).	6	6	72-90	2	Combi	485 (252)	6-8	—	20
	10	10	120-150						
	1020	20	240-300						
	20	20	240-300						
	40	40	480-600						

Item/Prep notes	Contai	ner	Max yield	Cookii	ng stages	and suggested parar	neters		
Scaloppini	¾ in. er	namel	12-15	Step	Mode	Temp	Time	Probe Temp	Clima %
Dredge in seasoned flour.	Per lo	ad	Per load	1	Combi	Preheat 575 (300)			90
Mist with oil. Oil pan lightly	6	6	72-90	2	Combi	485 (252)	5-7	—	30
Serving tin: Plate nan side un	10	10	120-150						
Serving up. Flate part side up.	1020	20	240-300						
	20	20	240-300						
	40	40	480-600						

Potatoes

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages	and suggested parar	neters		
Steamed Potatoes	2½ in. perf pan		6 lbs. (2.7 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Wash and cut. Preheat.	Per load		Per load	1	Combi	Preheat 280 (138)			90
	6	6	36 (16)	2	Moist	230 (110)	30-35	—	100
	10 10		60 (27)						
	1020	20	120 (54)						
	20	20	120 (54)						
	40	40	240 (108)						

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages	and suggested parar	neters		
Baked Potatoes	1/2 sheet	or grid	20 potatoes	Step	Mode	Тетр	Time	Probe Temp	Clima %
80 ct.	Per lo	ad	Per load	1	Combi	Preheat 525 (270)			90
Wash, oil lightly or season.	6	6	120 potatoes	2	Combi	385 (196)	45	—	40
	10	10	200 potatoes						
	1020	20	400 potatoes						
	20	20	400 potatoes						
	40	40	800 potatoes						

Item/Prep notes	Contai	ner	Max yield	Cookii	ng stages	and suggested parar	neters		
Roasted Potatoes	½ sht o	enam	6 lbs. (2.7 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Cut, oil, season.	Per lo	ad	Per load	1	Combi	Preheat 525 (270)			90
	6	6	36 (16)	2	Combi	425 (218)	20	—	20
	10	10	60 (27)						
	1020	20	120 (54)						
	20	20	120 (54)						
	40	40	240 (108)						

Breads

Item/Prep notes	Contai	iner	Max yield	Cooki	ng stages	and suggested pa	rameters		
Proofing	1/2 shee	et pan	2 lbs. (.9 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Lightly grease pan.	Per loa	ad	Per load	1	Moist	95 (35)	see note	—	100
Proof until dough doubles in	6	3	6 (2.7)						
size.	10	5	10 (4.5)						
	1020	10	20 (9)					Note: Proof until dou	gh doubles in size.
	20	10	20 (9)						5
	40	20	40 (18)						

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages a	and suggested par	rameters		
Bread Dough	1/2 shee	t pan	2 lbs. (.9 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Proof first.	Per loa	ad	Per load	1	Dry Heat	350 (177)	15-20	—	70
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	Contai	ner	Max yield	Cookir	ng stages a	and suggested par	rameters		
Rolls	1/2 shee	et pan	12-15 rolls	Step	Mode	Temp	Time	Add'I Function	Clima %
4 oz. rolls.	Per loa	ad	Per load	1	Dry Heat	335 (168)	15-17	Steam Injection	100
Proof first.	6	3	36-45 rolls						
Lightly grease pan. Egg wash	10	5	60-75 rolls						
rolis.	1020	10	120-150 rolls						
	20	10	120-150 rolls						
	40	20	240-300 rolls						

Item/Prep notes	Contai	iner	Max yield	Cookii	ng stages a	and suggested para	meters		
Muffins	½ shee	t pan	1 dozen per pan	Step	Mode	Temp	Time	Add'l Function	Clima %
4 oz. muffins.	Per lo	ad	Per load	1	Dry Heat	335 (168)	5	Half Speed Fan*	80
Lightly grease pan.	6	3	3 dozen	2	Dry Heat	335 (168)	12-15	—	30
	10	5	5 dozen			Total Time	17-20	* If unavaila	hle use Pulse Fan
	1020	10	10 dozen						
	20	10	10 dozen						
	40	20	20 dozen						

Breads continued

Item/Prep notes	Contai	iner	Max yield	Cookii	ng stages a	and suggested para	meters		
Cinnamon Rolls	½ shee	t pan	2 lbs. (.9 kg)	Step	Mode	Temp	Time	Add'l Function	Clima %
Proof first.	Per lo	ad	Per load	1	Dry Heat	335 (168)	5	Half Speed Fan*	80
Lightly grease pan.	6	3	6 (2.7)	2	Dry Heat	335 (168)	10-13	—	30
	10	5	10 (4.5)			Total Time	15-18	* If unavaila	ble use Pulse Fan
	1020	10	20 (9)						
	20	10	20 (9)						
	40	20	40 (18)						

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages a	and suggested paran	neters		
Biscuits, frozen	½ shee	t pan	2 dozen per pan	Step	Mode	Temp	Time	Probe Temp	Clima %
Lightly grease pan.	Per loa	ad	Per load	1	Preheat			—	
Serving tip: Melted butter	6	3	6 dozen	2	Dry Heat	335 (168)	7	—	80
may be brushed on biscuit	10	5	10 dozen	3	Dry Heat	335 (168)	15	—	20
tops after cooking.	1020	10	20 dozen			Total Time	22		
	20	10	20 dozen						
	40	20	40 dozen						

Item/Prep notes	Contai	ner	Max yield	Cookii	ng stages a	and suggested para	ameters		
Sheet Cake	½ shee	t pan	54 2 in. squares	Step	Mode	Temp	Time	Add'l Function	Clima %
Brownies	Per loa	ad	Per load	1	Dry Heat	350 (177)	15	Half Speed Fan*	10
Lightly grease pan.	6	6	324 pieces	2	Dry Heat	340 (171)	20	—	10
	10	10	540 pieces			Total Time	35	* If unavaila	ole use Pulse Fan
	1020	20	1080 pieces						
	20	20	1080 pieces						
	40	40	2160 pieces						

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages a	and suggested para	ameters		
Cookies	½ shee	t pan	1 dozen per pan	Step	Mode	Temp	Time	Add'l Function	Clima %
2 oz. cookies.	Per lo	ad	Per load	1	Dry Heat	335 (168)	3	Half Speed Fan*	20
Lightly grease pan.	6	6	6 dozen	2	Dry Heat	335 (168)	3-6	—	20
	10	10	10 dozen			Total Time	6-9	* If unavaila	hle use Pulse Fan
	1020	20	20 dozen						
	20	20	20 dozen						
	40	40	40 dozen						

Item/Prep notes	Contai	iner	Max yield	Cookii	ng stages	and suggested pa	rameters		
Strudel	Perf alu	um	2 per pan	Step	Mode	Temp	Time	Probe Temp	Clima %
Brush with egg wash.	Per lo	ad	Per load	1	Combi	335 (168)	45-55	—	60
	6	3	6						
	10	5	10						
	1020	10	20						
	20	10	20						
	40	20	40						

Item/Prep notes	Contai	iner	Max yield	Cookir	ng stages a	and suggested para	neters		
Cobbler	2½ in. pan		12 lbs. (5.5 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
According to recipe.	Per loa	ad	Per load	1	Combi	365 (185)	20	—	70
	6	6	72 (33)	2	Dry Heat	345 (174)	40	—	25
	10	10	120 (55)			Total Time	60		
	1020	20	240 (110)						
	20	20	240 (110)						
	40	40	480 (220)						

Item/Prep notes	Contai	iner	Max yield	Cookir	ng stages a	and suggested pa	rameters		
Pie, fresh	1/2 shee	et pan	2-3 pies per pan	Step	Mode	Temp	Time	Probe Temp	Clima %
Brush tops with egg wash.	Per load		Per load	1	Dry Heat	335 (168)	35-45	—	30
	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	Contai	ner	Max yield	Cookir	ng stages	and suggested par	ameters		
Bread Pudding	2½ in.	pan	12 lbs. (5.5 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
According to recipe.	Per loa	ad	Per load	1	Combi	280-300 (138-149)	40	—	80
Lightly grease pans.	6	3	36 (16.5)	2	Combi	320-340 (160-171)	30	—	50
	10	5	60 (27.5)	3	Dry Heat	350 (177)	10	—	20
	1020	10	120 (55)			Total Time	80		
	20	10	120 (55)						
	40	20	240 (110)						

Miscellaneous

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

Item/Prep notes	Conta	iner	Max yield	Cookii	ng stages	and suggested pa	rameters		
Entrees, fresh	2½ in	. pan	12 lbs. (5.5 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Use also for thawed entrees.	Per lo	ad	Per load	1	Combi	280 (138)	-	165 (74)	40
	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	Contai	ner	Max yield	Cookir	ng stages	and suggested par	ameters		
Vegetables, frozen	2½ in. perf. pan		9 lbs. (4 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
	Per loa	ad	Per load	1	Moist	212-225 (100-107)	8-15	—	100
	6	6	54 (24)						
	10	10	90 (40)						
	1020	20	180 (80)						
	20	20	180 (80)						
	40	40	360 (160)						

Item/Prep notes	Container Max yie		Max yield	Cooking stages and suggested parameters					
Vegetables, fresh	2½ in. pe	erf. pan	6 lbs. (2.7 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Cut to desired serving size.	Per loa	ad	Per load	1	Moist	212 (100)	6-10	—	100
	6	6	36 (16)						
	10	10	60 (27)						
	1020	20	120 (54)						
	20	20	120 (54)						
	40	40	240 (108)						

Item/Prep notes	Contai	Container Max yield		Cookir	ng stages	and suggested pa	rameters		
Beans, dry	2½ in.	pan	6 lbs. (2.7 kg) dry	Step	Mode	Temp	Time	Probe Temp	Clima %
Rinse and soak beans.	Per loa	ad	Per load dry/cooked	1	Moist	265 (129)	30	—	100
Stir every 10 to 15 minutes	6	6	36/90 (16/41)	2	Combi	280 (138)	40-60	—	40
during step 2.	10	10	60/150 (27/68)						
dry wt./cooked wt.	1020	20	120/300 (54/136)						
	20	20	120/300 (54/136)						
	40	40	240/600 (108/272)						

Item/Prep notes	Contai	iner	Max yield	Cookii	ng stages	and suggested pa	rameters		
Rice	2½ in.	pan	3 lbs. (1.4 kg) dry	Step	Mode	Temp	Time	Probe Temp	Clima %
Add liquid to rice and let stand	Per lo	ad	Per load dry/cooked	1	Combi	260 (127)	20-40	—	100
for a minimum of 20 minutes	6	6	18/42 (8.2/19)						
Converted rice will cook quicker	10	10	30/70 (14/32)						
Per load vield is indicated in	1020	20	60/140 (28/64)						
dry wt./cooked wt.	20	20	60/140 (28/64)						
	40	40	120/280 (56/128)						

Item/Prep notes	Contai	ner	Max yield	Cookir	ng stages	and suggested	parameters		
Pasta	4 in. p	ban	6 lbs. (2.7 kg) dry	Step	Mode	Temp	Time	Probe Temp	Clima %
Add water to pan covering	Per loa	ad	Per load dry/cooked	1	Moist	212 (100)	8	—	100
pasta completely. Stir pasta	6	3	18/54 (8/24)	2	Moist	212 (100)	8-15	—	100
done, remove from unit and	10	5	30/90 (13.5/40.5)						
drain immediately.	1020	10	60/180 (27/81)						
Per load yield is indicated in	20	10	60/180 (27/81)						
dry wt./cooked wt.	40	20	120/360 (54/162)						

Item/Prep notes	Contai	ner	Max yield	Cooking stages and suggested parameters							
Egg Rolls, frozen	1/2 sheet	t pan	24 per pan	Step	Mode	Temp	Time	Probe Temp	Clima %		
3-4 oz. egg rolls.	Per loa	ad	Per load	1	Combi	480 (250)	8-12	—	40		
	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	Contai	ainer Max yield		Cookii	ng stages a	and suggested pa	rameters		
Pizza, frozen	Perf a	lum	1 pie per pan	Step	Mode	Temp	Time	Add'l Function	Clima %
Maximum diameter pizza for	Per loa	ad	Per load	1	Combi	340 (171)	3-5	Half Speed Fan*	20
half sheet pan is 12 in.	6	6	6 pies	2	Dry Heat	365 (185)	8-10		10
Models 1020 and 40 can	10	10	10 pies						
on full size sheet pans	1020	20	20 pies					* If unavaila	ble. use Pulse Fan.
	20	20	20 pies						
	40	40	40 pies						

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

Item/Prep notes	Container Max yield (Cookir	ng stages	and suggested para	meters			
Egg Casserole	2½ in.	oan	5-7 lbs. (2.3-3.2 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Mix ingredients according to	Per loa	ad	Per load	1	Combi	280 (138)	10	—	100
recipe.	6	6	15-21 (7-9.5)	2	Combi	320 (160)	7-10	—	40
Lightly grease pan.	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)						

Item/Prep notes	Contai	ner	Max yield	Cookii	ng stages	and suggested para	ameters		
Quiche	½ shee	t pan	2-3 per pan	Step	Mode	Temp	Time	Add'l Function	Clima %
Mix ingredients according to	Per loa	ad	Per load	1	Combi	350 (177)	20	Half Speed Fan*	100
recipe. Place mixture in pie	6	6	12-18	2	Combi	365 (185)	25		40
par-baking.	10	10	20-30			Total Time	45	* If unavaila	ble. use Pulse Fan.
	1020	20	40-60					-	
	20	20	40-60						
	40	40	80-120						

Miscellaneous continued

Item/Prep notes	Contai	ontainer Max yield		Cookii	ng stages	and suggested par	rameters		
Stir Fry	2½ in. e	enam	8 lbs. (3.6 kg)	Step	Mode	Temp	Time	Probe Temp	Clima %
Prepare ingredients according	Per lo	ad	Per load dry /cooked	1	Combi	Preheat 575 (300)			90
to recipe.	6	6	48 (21.6)	2	Combi	425 (218)	8-10	_	80
Preheat pans to 575 (300).	10	10	80 (36)						
from unit	1020	20	160 (72)						
	20	20	160 (72)						
	40	40	320 (144)						

Item/Prep notes	Containe	r Max yield	Cooking stages and suggested parameters							
			Step	Mode	Temp	Time	Probe Temp	Clima %		
	Per load	Per load	1							
	6		2							
	10		3							
	1020									
	20									
	40									

Item/Prep notes	Container	Max yield	Cooking stages and suggested parameters							
			Step	Mode	Temp	Time	Probe Temp	Clima %		
	Per load	Per load	1							
	6		2							
	10		3							
	1020									
	20									
	40									

Item/Prep notes	Containe	er Max yield	Cooking stages and suggested parameters					
			Step	Mode	Temp	Time	Probe Temp	Clima %
	Per load	Per load	1					
	6		2					
	10		3					
	1020							
	20							
	40							

Item/Prep notes	Contair	ner	Max yield	Cooking stages and suggested parameters					
				Step	Mode	Тетр	Time	Probe Temp	Clima %
	Per loa	d	Per load	1					
	6			2					
	10			3					
	1020								
	20								
	40								

Item/Prep notes	Containe	r Max yield	Cooking stages and suggested parameters						
			Step	Mode	Temp	Time	Probe Temp	Clima %	
	Per load	Per load	1						
	6		2						
	10		3						
	1020								
	20								
	40								



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