Visit www.clevelandrange.com to locate a service or sales representative in your area.

CLEVELAND

Classic Steamer Pressure Steamers

Installation, Operation & Maintenance Manual

This manual is updated as new information and models are released. Visit our website for the latest manual.

MODELS:
PGM, PEM,
PSM, PDM,
PDL-2/3

For your future reference.

Model # _____

Serial # _____

Read the manual thoroughly.
Improper installation, operation or maintenance can cause property damage, injury or death.

WELBILT®

September 2019 Part # - KE004044 C

STATEMENT OF RESPONSIBILITIES / DÉCLARATION DES RESPONSABILITÉS / DECLARACIÓN DE RESPONSABILIDADES

This document is for use by experienced and trained Qualified Cleveland Range, LLC Authorized Service Representatives who are familiar with both the safety procedures, and equipment they service. Cleveland Range, LLC assumes no liability for any death, injury, equipment damage, or property damage resulting from use of, improper use of, or failure to use the information contained in this document. Cleveland Range, LLC has made every effort to provide accurate information in this document, but cannot guarantee that this document does not contain unintentional errors and omissions.

The information in this document may be subject to technical and technological changes, revisions, or updates. Cleveland Range, LLC assumes no liability or responsibility regarding errata, changes, revisions, or updates.

Qualified Cleveland Range, LLC Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, OSHA regulations, and disconnect / lock out / tag out procedures for all utilities including steam, and disconnect / lock out / tag out procedures for gas, electric, and steam powered equipment and / or appliances.

All utilities (gas, electric, water and steam) should be turned OFF to the equipment and locked out of operation according to OSHA approved practices during any servicing of Cleveland Range equipment

Qualified Cleveland Range, LLC Authorized Service Representatives are obligated to maintain up-to-date knowledge, skills, materials and equipment.

Ce document est destiné à l'usage des Représentants de Service qualifiés et autorisés de Cleveland Range, LLC qui possèdent l'expérience et la formation ainsi que la bonne connaissance des mesures de sécurité et du matériel qu'ils entretiennent.

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Les Représentants de Service qualifiés et autorisés de Cleveland Range, LLC sont tenus de se conformer aux mesures de sécurité normalisées de l'industrie, y compris, mais sans s'y limiter, les réglementations de l'OSHA, les procédures de débranchement / verrouillage / étiquetage relatives à tous les services publics, dont l'approvisionnement en vapeur, et les procédures de débranchement / verrouillage / étiquetage relatives aux équipements et/ou appareils fonctionnant au gaz, à l'électricité et à la vapeur.

Au cours de tout entretien d'un appareil Cleveland Range, tous les services publics (gaz, électricité, eau et vapeur) doivent être FERMÉS au niveau de l'appareil et le dispositif de fonctionnement doit être verrouillé suivant les pratiques approuvées de l'OSHA.

Les Représentants de Service qualifiés et autorisés de Cleveland Range, LLC sont tenus d'actualiser en permanence leurs connaissances, compétences, matériel et équipement.

Este documento está destinado para el uso de los Representantes de Servicio calificados y autorizados de Cleveland Range, LLC quienes cuentan con la experiencia y la capacitación así como el buen conocimiento de las medidas de seguridad y de los equipos que mantienen.

Cleveland Range, LLC, declina toda responsabilidad en caso de cualquier fallecimiento, lesiones, daños al equipo o daños a la propiedad resultantes de la utilización, del uso indebido o de la falta de utilización de la información provista en este documento.

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Los Representantes de Servicio calificados y autorizados de Cleveland Range, LLC tienen la obligación de seguir los procedimientos estándar de seguridad de la industria; los cuales incluyen pero no se limitan a los reglamentos de la OSHA (La Administración de la Seguridad y Salud Ocupacionales), los procedimientos de desconexión, cierre y etiquetado relativos a todos los servicios públicos incluyendo el suministro de vapor y los procedimientos de desconexión, cierre y etiquetado para los equipos y/o aparatos que funcionan a base de gas, electricidad o vapor.

Cuando se esté dando servicio o mantenimiento a un aparato de Cleveland Range, todos los servicios públicos (gas, electricidad, agua y vapor) deben estar APAGADOS para el equipo en cuestión y se debe seguir el procedimiento de cierre de operaciones de acuerdo con las prácticas aprobadas por la OSHA.

Los Representantes de Servicio calificados y autorizados de Cleveland Range, LLC tienen la obligación de actualizar constantemente sus conocimientos, destrezas, materiales y equipamiento.

FOR YOUR SAFETY / POUR VOTRE SÉCURITÉ / PARA SU SEGURIDAD

FOR YOUR SAFETY

Do not store or use gasoline or any other flammable liquids and vapours in the vicinity of this or any other appliance.

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

Do not spray aerosols in the vicinity of this appliance while it is in operation.

This appliance is not to be used by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

This appliance is not for use by children and they must be supervised not to play with it.

Retain this manual for your reference. The boiler base Tabletop is NOT a supporting surface. Death, Injury or Equipment Damage will result from mounting or placing anything on the Tabletop.

When the ON/OFF lever is turned to the OFF position, Steamer will remain HOT for some time. Avoid contact with hot surfaces and steam.

Death, Injury or Equipment Damage can result from touching any component inside this appliance when the power is connected.

POUR VOTRE SÉCURITÉ

Ne pas entreposer ou utiliser d'essence ou d'autres liquides ou vapeurs inflammables à proximité de cet appareil ou de tout autre appareil.

AVERTISSEMENT : Toute mauvaise pratique en matière d'installation, de fonctionnement, de réglage, de modification, d'entretien ou de maintenance peut causer des dommages matériels, des blessures ou la mort. Lisez la totalité des instructions d'installation et d'utilisation avant d'installer, d'utiliser ou d'entretenir cet équipement.

Ne pas pulvériser des aérosols dans le voisinage de cet appareil alors qu'il est en fonctionnement.

Cet appareil ne doit pas être utilisé par des personnes dont les capacités physiques, sensorielles ou mentales sont réduites, ou des personnes dénuées d'expérience ou de connaissance, sauf si elles ont pu bénéficier, par l'intermédiaire d'une personne responsable de leur sécurité, d'une surveillance ou d'instructions préalables concernant l'utilisation de l'appareil.

Cet appareil n'est pas destiné à être utilisé par des enfants et ils doivent être surveillés pour s'assurer qu'ils ne jouent pas avec l'appareil.

Conservez ce manuel pour votre référence.

PARA SU SEGURIDAD

No guarde ni use gasolina o cualesquiera otros líquidos o vapores inflamables en las cercanías de éste o cualquier otro aparato.

ADVERTENCIA: La indebida instalación, operación, ajuste, modificación, servicio o mantenimiento puede ocasionar daños a la propiedad, lesiones o muerte. Lea detenidamente las instrucciones de instalacion y de operación antes de instalar, poner a funcionar o dar servicio a este equipo.

No pulverice aerosoles en las proximidades de este aparato mientras está en funcionamiento.

Este aparato no debe ser utilizado por personas con capacidades físicas, sensoriales o mentales reducidas, o que no tengan la experiencia y los conocimientos adecuados, a menos que estas personas hayan recibido supervisión e instrucciones en cuanto al uso del aparato por la persona responsable de la seguridad de ellas.

Guarde este manual para su referencia.

⚠ WARNING / AVERTISSEMENT / ADVERTENCIA

Improper installation, operation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation and operating instructions thoroughly before installing, operating or servicing this equipment. / Toute mauvaise pratique en matière d'installation, de fonctionnement, de réglage, de modification, d'entretien ou de maintenance peut causer des dommages matériels, des blessures ou la mort. Lisez la totalité des instructions d'installation et d'utilisation avant d'installer, d'utiliser ou d'entretenir cet équipement. / La indebida instalación, operación, ajuste, modificación, servicio o mantenimiento puede ocasionar daños a la propiedad, lesiones o muerte. Lea detenidamente las instrucciones de instalacion y de operación antes de instalar, poner a funcionar o dar servicio a este equipo.

Do not lean on or place objects on the equipment. / Ne vous penchez pas sur oune placez pas des objets sur la lèvre. / No se apoye ni coloque objetos en el labio.

Hot product and surfaces. / Produit et surfaces chaudes. / Producto y superficies calientes.

Do not touch. / Ne pas toucher. / No la toque

Stand clear of product discharge path when discharging hot product. / Écartez-vous du chemin de décharge d'un produit chaud. / Permanezca alejado de la ruta de descarga del producto al vaciar producto caliente.

Keep hands away from moving parts and pinch points. / Gardez les mains loin des pièces mobiles et des points de pincement. / Mantenga las manos lejos de piezas movibles y puntos de presión muy localizada.

Inspect unit daily for proper operation. / Inspectez l'unité tous les jours pour son bon fonctionnement. / Inspeccione diariamente el funcionamiento correcto de la unidad.

Pressurized device. / Appareil sous pression. / Dispositivo de presión.

Keep clear of pressure relief discharge. / Restez à l'écart de la soupape de sureté. / Permanezca alejado de la descarga de presión.

Do not climb, sit or stand on equipment. / Il ne faut pas monter, s'asseoir ni se tenir debout sur l'équipement. / No subirse, ni sentarse ni pararse sobre el equipo.

Surfaces and product may be hot! Wear protective equipment. /Les surfaces et le produit peuvent être chauds! Portez un équipement de protection. / ¡Las superficies y el producto pueden estar calientes! Utilice equipo protector.

Heavy / Lourd / Pesado

Team or mechanical lift. / Équipe ou remontée mécanique. / Equipo o elevador mecánico.

Floor may become slippery from product spillage. / Déversement de produit peut causer de plancher à être glissante. / Derrame de producto puede causar piso a ser resbaladizo.

Unit must be anchored as per manual. / Unité doit être ancrée selon les directives du manuel. / Unidad debe estar fijado según el manual.

Do not fill kettle above recommended level marked on outside of kettle. / Ne remplissez pas la chaudière en excès du niveau recommandé marqué sur la chaudière. / No llene la marmita arriba del nivel recomendado marcado fuera de la marmita.

SERVICING / ENTRETIEN / SERVICIO

Have a qualified service technician maintain your equipment. / Demandez à un technicien en entretien et en réparation qualifié d'effectuer l'entretien de votre équipement. / Haga que un técnico de servicio calificado mantenga su equipo

Ensure kettle is at room temperature and pressure gauge is showing zero or less prior to removing any fittings. / Assurez-vous que la chaudière est à température ambiante et que le manomètre est à zéro ou moins avant de retirer des accessoires. / Asegúrese de que la marmita esté a temperatura ambiente y el manómetro esté mostrando cero o menos antes de retirar cualquier accesorio.

Remove electrical power prior to servicing. / Coupez l'alimentation électrique avant l'entretien. / Desconecte la energía eléctrica antes de darle servicio.

Risk of electric shock. / Risque de choc électrique. / Riesgo de choque eléctrico.

Table of Contents

Section 1
General Information

Product Information 1
- Model Numbers and Serial Numbers 1
- Product Information Plate 1
- Electrical Diagram Location 1
- Operational Safety 1

Section 2
Installation

Laws, Codes, and Regulations 2
Installation Details 2
- Gas Leak Instructions – Gas Units 2
- Installation Requirements 2

Section 3
Operation

Start-Up and Preheat 4
Cooking Operation 5
Boiler Shutdown 6
Cooking Guidelines 6
- Meat 6
- Vegetable Steaming 6
- Desserts 6
- Other Dishes 6

Vegetable Pressure Steam Cooking Chart 7

Section 4
Maintenance

General Information 8
Maintenance and Service Records 8
Preventive Maintenance 8
- Inspection Requirements 8

Daily Maintenance 10
- Boiler Blowdown 10
- Cleaning Compartments 10
- Exterior Care 10

Weekly Maintenance 10
Yearly Maintenance 11
Descaling Procedure 11
Pressure Steamer Thermostatic Trap and Compartment Door Gasket Replacement 12

Section 5
Troubleshooting

Troubleshooting Guide **13**
Troubleshooting Notes 14

Section 6
Service Record

Section 1
General Information

Product Information

This manual covers the operation of Cleveland Range Pressure Steamers, Series PGM, PEM, PSM, PDM and PDL-2/3, and the standard features and options available on these models.

- Other than the selection of options, there are presently no significant design, parts, or operating differences among appliances with these model numbers.
- Instructions for the operation of boiler bases are separate. For details on installation, refer to 260BKT.
- For further information, contact your Cleveland Range sales representative or Cleveland Range.

MODEL NUMBERS AND SERIAL NUMBERS

1. Cleveland Range, LLC assigns two product identification numbers to each appliance: a model number and a serial number.
2. Please provide this information when you contact Cleveland Range or a qualified Cleveland Range authorized service representative:

- Model Number _____
  (Write the Model Number of your appliance here.)
- Serial Number_____
  (Write the Serial Number of your appliance here.)

PRODUCT INFORMATION PLATE

The Product Information Plate is located on the inside of the cabinet door of the boiler base.

ELECTRICAL DIAGRAM LOCATION

The Electrical Diagram is located on the inside of the cabinet door of the boiler base.

Operational Safety

Minimum safety policies and procedures for operating one or more Cleveland Range appliances:

1. Do not store anything on top of the appliance.
2. KEEP THE APPLIANCE AREA FREE AND CLEAR OF COMBUSTIBLES.
3. Proper air supply for ventilation is REQUIRED for and CRITICAL to safe, efficient operation of this appliance.
4. Place non-slip draining anti-fatigue mats rated for use in wet, greasy, or dry work areas on the floor in front of the appliance and other locations as needed. Obtain the best mats for your needs from your local supplier.
5. Wear BOOTS appropriate to the work area to help protect feet, and to help prevent slips and falls.
6. Allow only qualified Cleveland Range authorized service representatives to service the appliance.
7. Use only factory authorized repair parts.

   A. Maintain written records of appliance service, maintenance, and repair.

Section 2
Installation

Laws, Codes, and Regulations

The installation of this appliance must conform with:

A. The National Fuel Gas Code, ANSI Z223.1/NFPA 54 (latest edition), or the Natural Gas and Propane Installation Code CSA B149.1, or local codes, as applicable.

B. The National Electrical Code, ANSI/NFPA 70 (latest edition), or the Canadian Electrical Code, CSA C22.2, or local codes, as applicable.

- When installed, the appliance must be electrically grounded in accordance with the above.
- NOTE: This appliance is not GFI (GFCI) compatible.

C. The Food Code (latest edition) of the Food and Drug Administration (FDA).

This equipment is to be installed to comply with the applicable federal, state, or local plumbing codes.

This equipment is used with a Boiler as defined by Section IV of the ASME Boiler and Pressure Vessel Code (latest edition). In addition to compliance with all applicable codes and regulations, compliance with all laws regarding Boilers and Pressure Vessels, including, but not limited to, operator training, and obtaining permits and licenses is required before starting the Boiler.

Instructions must be read in their entirety before starting this appliance.

Installation must comply with all local fire and health codes.

⚠Warning

Do not connect the drain connection to any drain material that cannot sustain 180°F.

Using drain material that cannot withstand 180°F can result in injury, equipment damage, and property damage.

NOTE: The use of good quality feed water as listed in the Cleveland Range Limited Warranty is the responsibility of the Owner-User. See Water Quality Recommendations as listed in the Cleveland Range Limited Warranty. THE USE OF POOR QUALITY FEED WATER WILL VOID EQUIPMENT WARRANTIES.

Installation Details

For details on installation of Classic Steamer Pressure Steamers, refer to "Classic Steamer / Kettle on boiler bases Gas, Electric, Direct Connect & Steam Coil" manual (KE004040B) .

GAS LEAK INSTRUCTIONS – GAS UNITS

Important

Post instructions to be followed if the user smells gas.

Display the instructions in a prominent location.

Obtain the instructions from the local gas supplier.

- Until leak is stopped, observe following precautions in addition to posted instructions:
- Do not light or start any appliance.
- Do not touch any electrical switch.
- Do not use any phone in the building.
- Immediately call the gas supplier from a phone away from the building. Follow the gas supplier's instructions.
- If the gas supplier cannot be reached, call the fire department.

INSTALLATION REQUIREMENTS

⚠Warning

This appliance is not GFI (GFCI) compatible.

Do not use a GFI (GFCI) circuit.

Using a GFI (GFCI) circuit can result in injury, equipment damage, and property damage.

WATER — The quality of water you put into the steam generator is important. Poor quality water will create steam generator problems.

Water used in the steam generator is no longer just plain water. Water has many natural impurities. These impurities are called Total Dissolved Solids (TDS). These TDS include calcium, iron, copper, and other minerals that will collect in the steam generator during operation. Water quality varies from area to area. If the water impurities are not filtered out or cleaned out with a regular preventive maintenance program, your steam generator could deteriorate and develop holes.

CHLORIDES are another chemical in water creating problems in all steam generators. When the generator separates the steam from the water it also carries the chloride with it. These chlorides begin to eat away the inside of the generator and follow the steam into the compartments, causing a rusting action called oxidation.

DO NOT install a water conditioner on your steamer. A softener uses salt to improve water quality. Poor softener operation can add chlorides to the steam generator.

A CARBON OR CHARCOAL FILTER must be installed on the incoming water line to the steamer if the chlorine is over 30 parts per million. These filters will remove most of the chlorine.

The **WATER QUALITY REQUIREMENTS** for your STEAMER are as follows:

Total Dissolved Solids	less than 60 parts per million
Total Alkalinity	less than 20 parts per million
Silica	less than 13 parts per million
Chloride	less than 30 parts per million
ph Factor	greater than 7.5

DRAIN LINE CONNECTION

A clean drain line connection is important. Check daily. If the drain line is not large enough, not open at the end, or does not have a gravity flow, pressure water will back up into the cooking compartments, which could cause serious injury.

An open and free flowing drain line IS REQUIRED for the proper cooking performance of a CONVECTION STEAMER. It helps create a swirling action around the products being cooked. This movement of hot steam around the product is your CONVECTION STEAM COOKING.

DO NOT INSTALL OVER A FLOOR DRAIN. If it becomes an absolute must, use an 18" stainless steel or aluminum pan. Turn it over and cut a notch in the side wall to fit over the drain line. Place the pan directly over the drain opening. DO NOT SEAL TO THE FLOOR. The steam from the drain line will collect on the under side and condense into the drain opening.

DO NOT INSTALL GAS UNITS ON FLAMMABLE FLOORS OR NEAR WALLS. A flammable floor or wall is any material such as wood, linoleum, or vinyl that is easily ignitable and burns rapidly.

Section 3
Operation

⚠ DANGER

BURN and SCALD HAZARD

Exposure to steam, condensate, and hot surfaces can cause death, burns, and scalds.

To help avoid injury:

- Do NOT breathe steam or condensate.
- Stand on the hinge side and away from the appliance and slowly open the cooking compartment door.
- Open the door slightly to allow steam, condensate, and heat to vent before looking or reaching into the cooking compartment.
- Always wear DRY heatproof gloves when reaching into the cooking compartment or handling hot items. Wet or damp gloves conduct heat and may cause burns when handling hot items.

Failure to follow these precautions can result in death, burns, and scalds.

Units with Gas Boilers only:

⚠ DANGER

DO NOT TRY TO LIGHT BURNERS WITH A FLAME.

This appliance has an electronic ignition system, which automatically lights burners, senses flame, and controls gas flow. Burners cannot be lit with a flame.

DEATH, INJURY, OR EQUIPMENT DAMAGE may result.

⚠ DANGER

DEATH, INJURY OR EQUIPMENT DAMAGE may result from an improperly adjusted gas control and ignition system. Do not alter any adjustments on the electronic control or gas valve.

If adjustment is required, contact an authorized service center. Cleveland Range is in no way responsible for the operation or safety of this equipment if the controller, valve, or igniter probe are adjusted by anyone other than a qualified Cleveland Range authorized service representative.

⚠ Caution

Press switches and keys with fingertips only.

Injury and equipment damage can result from pressing switches and keys with anything else.

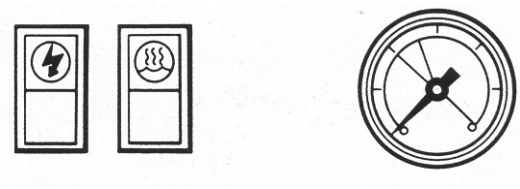
Operation of the Cleveland Range Pressure Steamer is very easy. Each operator should read and understand the following procedures to effectively start, operate, and shut down the steamer each day. The owner(s) and operator(s) of this equipment should be aware that live steam could cause serious injuries. Pay particular attention to the WARNINGS in this text. These instructions are to be retained by the owner(s) and operator(s) for future reference.

NOTE: These instructions pertain to pressure steamers equipped with a steam generator (boiler). For pressure steamers direct-connected to a remote (in-house) steam source, disregard those instructions which pertain solely to a self-contained boiler.

Start-Up and Preheat

⚠ Warning

Do not attempt to start or operate the Pressure Steamers during a power failure. Critical safety circuits are not energized, and serious injury to personnel or damage to equipment may result.



Boiler Controls

1. Start the steam supply. The steam supply is either a steam generator boiler built into the base unit or an external steam supply.

   For units without a built-in boiler, refer to the start-up procedures for the external steam supply and be sure it is running properly. As soon as the pressure gauge on the front console registers 10 psi, steamer preheating may begin. Skip the remainder of step 1, and begin step 2.

   For units with a built-in boiler, fill the boiler with water and start the steam generator as described in step a. through d. below.

a. Press the ON end of the POWER on-off rocker switch located next to the steam pressure gauge. The red indicator light in the POWER rocker switch turns on and the steam generator begins to fill with water, which takes about 5 minutes.

b. When the water level in the steam generator reaches a safe operating level, the amber light in the STEAM switch turns on. Whenever the amber light is on, the heaters, steam supply, or burners are off, and no steam is being generated. The energy source (electric, gas, etc.) cannot be activated until the boiler contains sufficient water, indicated by the amber light.

c. Press the STEAM (amber colored) momentary switch to produce steam in the boiler. This activates the energy source (electric heaters, gas burners, or steam solenoid valve) and the amber light turns off. The STEAM switch must be pressed to restart the steamer after it is shut off for any reason (including a brief power interruption). No attempt should be made to operate the equipment during a power failure.

   NOTE: For steamers with built-in gas-fired boilers: If the burners fail to ignite in four seconds, a safety circuit energizes the system. In this event toggle the POWER rocker switch to the OFF position and back to the ON position. The amber light in the STEAM momentary switch lights. Wait five minutes, and then press the STEAM momentary switch to start the burner ignition cycle once again.

d. About 15 minutes after starting the boiler in step c, the steam pressure gauge on the unit base should register 10 psi.

2. To preheat, close and latch the door securely. Turn the bar handle clockwise until the gasket just touches the compartment face.

3. Start the steam supply by pulling the steam valve handle out. The handle is located to the immediate left of the door latch. Set the time for 5 minutes. The standard mechanical timer must be turned past 10 minutes to wind the spring. Then set the timer for 5 minutes. This is not necessary with the optional automatic timer. At the start, the compartment thermostatic traps will release air and wet steam for about two minutes, then shut off. Throughout the preheating or cooking cycles, the traps will open and close periodically, venting cooler steam and condensate.

4. Seal the compartment door by turning the bar handle clockwise just until steam leakage stops. DO NOT OVERTIGHTEN.

5. At the completion of the 5-minute preheating cycle, the timer's bell will ring. If fitted with an optional automatic timer, turning the knob to OFF will stop the bell. Push the steam valve handle in slowly, all the way. This shuts off the steam supply and also depressurizes and drains the compartment, which takes about 2 minutes.

   NOTE: The automatic timer shuts off the steam automatically; the mechanical timer does not. Neither timer depressurizes and drains the compartment.

⚠Warning

Wait at least two minutes for the compartment(s) to depressurize and drain before opening the compartment door.

6. To open the compartment door, turn the bar handle counter-clockwise. Do not attempt to disengage the door arm latch. When the compartment has depressurized and drained completely, the door will open slightly and come to rest against the door arm latch.

⚠Warning

If at this point the door does not open partially by itself, it is a sign that the drain line is blocked. Do not attempt to open the door. Retighten the bar handle and then call a serviceman to open the door and unblock the drain line.

Cooking Operation

Check the cooking compartment to ensure it is warm. If it is cool, perform the steps for preheating.

Place the pan(s) of food into the cooking compartment by sliding the pan(s) into the slide rack. For optimum steam heat transfer, and therefore, a higher quality food product, use shallow, perforated, uncovered pans. If pans must be covered, use only stainless steel pan lids designed for use with the pan racks. Do not cover pans with aluminum foil or plastic wrap, as they may fall out of the pan and clog the drain. A clogged drain may cause an accumulation of hot water in the cooking compartment which could cause injury when the door is opened.

Boiler Shutdown

The red-lighted power switch must be shut off for 3 minutes a minimum of once every 8 hours to automatically drain highly mineralized water from the boiler, which reduces the formation of scale. See Daily Maintenance in the *Maintenance* section.

Cooking Guidelines

Steam cooking is an excellent way to prepare countless foods. With large or small quantities you will find steam cooking to be efficient, economical, fast and convenient. Foods can never burn — pans will never boil over — there is no heavy lifting of water pots — no scouring of containers — no waiting for boiling to start.

MEAT

Steam provides an even, intense and penetrating heat, which, because of its nature, cooks meat with minimal shrinkage. The meat is tender, moist and flavorful. Stews, pot roasts, hams and corned beef are excellent when steam cooked.

Chickens, turkeys and other poultry items are steamed without any shrinkage. The meat is tender and juicy. The birds may be steamed whole, cut in half, or in pieces. Chicken pieces may be partially steam cooked and then finished in the skillet or fryer. The result is flavor and succulence.

Steam tenderizes stewing fowl. It produces excellent meat for sandwiches and salads, both moist and savory, and easily sliced.

VEGETABLE STEAMING

Vegetables should be crisp and fresh before cooking. They should be cooked al dente. This prevents over cooking, the most prevalent mistake in pressure steam cooking. The natural characteristic flavors are present when vegetables are cooked in this manner.

Cut vegetables to the same size pieces to assure uniform results. Vegetables should be washed before cooking. Removing tough stems and skins will shorten cooking times and improve results. Vegetables may be lightly seasoned before or after steaming. In general, use perforated pans for fastest results.

Frozen vegetables, in general, should be defrosted before pressure-cooking. Three vegetables can be pressure steamed from the frozen stage: carrots, peas and whole kernel corn.

Volume cooking of potatoes and other tuberous vegetables is an excellent application. 100 pounds of potatoes per compartment can be cooked in 40 minutes. Other tuberous vegetables include: sweet potatoes, carrots, beets, onions, kohlrabi, turnips and parsnips. Winter squash and cabbage can also be cooked in volume.

DESSERTS

Many kinds of cornstarch pudding and custard desserts are prepared by steaming. Any dish cooked in the double boiler may be successfully steamed. The steamer is ideal for heating or scalding milk, because the danger of scorching or burning is absent.

Fruit desserts such as steamed "baked" apples are another suggestion. Core the apples and arrange on a shallow pan. Fill the cored space with cinnamon and sugar, then steam. If desired, the apples may be finished by browning under the broiler. Applesauce is another steam application, as are stewed pears or peaches. Dried fruits, properly marinated, turn out beautifully.

OTHER DISHES

Under this heading comes a host of dishes not otherwise classified.

Cereals, eggs, noodles, spaghetti, rice, macaroni and dumplings, with variations of each, are just a few.

Cooked, frozen convenience foods, such as beef stroganoff, pot roast and noodles, chicken fricassee and rice, stuffed cabbage rolls, need only be brought up to serving temperature and then transferred from the pack directly onto the serving plate. The time required to heat these convenience foods is 5-10 minutes for the individual portion pack and 20-35 minutes for the 5-pound multi-serving pack. The cover of the packs should be perforated with a sharp fork to let the steam escape.

The disposable aluminum foil pans should be placed on a perforated stainless steel pan for support when steaming or carrying the hot product. Cover the pan with a stainless lid if a cover is not provided. Do not use plastic wrap or aluminum foil as a cover in the pressure steamer.

Vegetable Pressure Steam Cooking Chart

The cooking time for vegetables have wide limits due to several factors. Young or new vegetables cook in less time than the older ones. Freshly picked vegetables cook faster than those long stored. Different species of the same foods cook in varying time limits. The size of the vegetable or pieces affects the speed of cooking. The type of container also influences the length of the cooking period. Shallow pans are faster than deep ones, the perforated types are faster than the solid.

Suggested Time in Minutes	
Fresh Vegetables	
Asparagus	7-8
Beans, Green	8-10
Bean, Lima	15-17
Beets	20-40
Broccoli Spears	8-10
Brussels Sprouts	10-15
Cabbage, wedges	8-10
Carrots	8-10
Cauliflower	8-10
Corn	5-8
Onions	10-12
Parsnips	12-15
Peas	5-8
Peppers, stuffed	20-30
Potatoes, white	20-40
Potatoes, sweet	25-40
Rutabaga, cubed	8-10
Spinach	3-6
Squash, summer, cut	5-7
Squash, winter, half	10-15
Turnips, cubed	12-15
Frozen Vegetables	
Beans, Green, regular	4-5
Beans, Lima	4-5
Broccoli Spears	5-6
*Brussels Sprouts	2-3
Carrots, diced	5-6
Cauliflower	3-4
Corn, cut (Kernel)	3-4
Peas	4-5
*Mixed Vegetables	5-6

* Defrosted Only

Section 4
Maintenance

General Information

Follow the maintenance instructions and schedules to help keep the appliance working properly.

Increase the frequency of maintenance as needed depending on use and water quality.

Contact your qualified Cleveland Range authorized service agency or Cleveland Range for more information about maintenance scheduling, products, and services.

Maintenance and Service Records

1. Make a file just for maintenance records.
2. Keep a written record of daily, weekly, monthly, and yearly maintenance, descaling, service, and repair. Each record must include at least:
    a. The date of the maintenance, descaling, service, or repair.
    b. A description of the service, maintenance, or repair performed.
    c. Copies of purchase order(s) and invoice(s) for repair parts and service, descaling, maintenance, and repair. Include part numbers, if applicable.
    d. The name and signature of the person performing the service, maintenance, or repair.

Preventive Maintenance

PREVENTIVE MAINTENANCE is the key to keeping your equipment in top condition. There are certain cleaning procedures that should be performed on a regular schedule.

Daily

1. Using a NON-CHLORINE DETERGENT.
    a. Wipe out the interior of the compartments.
    b. Wipe the face of the compartments.
    c. Rinse the pan slides.
    d. When the steamer is not cooking, leave the door open resting against the door latch.
    e. Wipe down the gaskets to prevent sticking.
    f. Drain line openings inside and outside the cooker.

Weekly

1. Check the door gasket for wear and reverse it when needed.
2. Pour down the back of each compartment drain a NSF/FDA approved liquid chemical descaler.

Monthly

1. Every 3 to 4 months the generator should be opened and checked for mineral buildup or chloride corrosion. Check for generator scale buildup greater than the thickness of a business card or if the scale is beginning to peel off in layers. If either one of these conditions is present, the generator needs to be chemically descaled by your CLEVELAND AUTHORIZED SERVICE AGENCY.
2. Check, clean, or replace the screen in the incoming water strainer.
3. Check and tighten all door fasteners.
4. Check all steam, water, and electrical connections. Contact your authorized Cleveland Range service agency to make the necessary repairs.

INSPECTION REQUIREMENTS

1. Inspect more frequently in areas where the water conditions do not meet our Water Quality Requirements.
2. A generator with a Reverse Osmosis (R.O.) System should be opened every six months to:
    a. Check to make sure R.O. is working properly.
    b. Change the boiler gasket for liability reasons.

Safety requires periodic Inspection and Maintenance

Any leaks around the boiler's hand hole plate must be quickly stopped. Small leaks, if unchecked cause corrosion and pitting on the boiler face, around the hand hole gasket, making it unsealable.

Application of undue stress on the parts that are used to seal the boiler's hand hole opening in an attempt to seal an unsealable opening, by sledging the handle of the wrench, by increasing the leverage of the wrench by a length of pipe or by other means, is dangerous because it may result in the breakage of parts or injury. No attempts should be made to tighten up the nut on the retaining stud beyond the recommended 15 foot pounds of torque.

When a repair affecting the safety of the boiler is necessary, call a National Board inspector for consultation and advice as to the best method of making the repair so that the completed work will get his approval. Repairs to the boiler must conform to the applicable provisions in the ASME Code or the National Board Rules for Repairs.

A boiler will last many years before it has to be retired from service. Periodic inspection will reveal the approaching retirement time. It is better to schedule a convenient replacement time than to wait for the boiler to fail.

When a boiler older than 10 years is replaced, the entire steam generator base assembly should be replaced for a number of reasons:

- Replacement parts become increasingly difficult to obtain for older controls.
- Dependable performance of the new controls can be assured for a longer time.
- The new steam generator including controls will comply with the latest industry and safety standards.

⚠Warning

No work should be done on the steam generator while it is pressurized or hot. Service of the steam generator should only be performed by a trained and experienced service technician, thoroughly familiar with servicing steam generators.

Daily Maintenance

The Cleveland Pressure Steamer must be cleaned regularly to maintain its fast, efficient cooking performance, and to ensure its continued safe, reliable operation.

BOILER BLOWDOWN

The boiler must be drained (Blowdown) after a maximum of 8 hours of use. If the boiler feedwater contains more than 60 parts per million of total dissolved solids, the boiler must have a Blowdown more often, the frequency depending upon the mineral content of the feedwater. Blowdown means the boiler must be drained under pressure.

The boiler blowdown is performed by simply shutting off the steamer's red lighted power switch while the boiler is at normal 10 psi operating pressure. When the bottom of the power rocker switch is pressed, its red light goes out, and the drain valve automatically opens, draining the boiler. Automatically timed drain water condenser will flush the drain for 3 minutes then shut off. After 3 minutes the steamer is ready to be restarted.

When steam is produced, the water in the boiler is being distilled. During this process, the minerals that come into the boiler with the water remain in the boiler as the water boils away as steam. When allowed to accumulate, the water becomes highly mineralized, which results in erratic operation, lime build-up, corrosion and premature electric heater failures. In some cases, complete boiler replacement becomes necessary, which is extremely expensive. By draining the boiler under pressure, most sediment present will be flushed down the drain.

CLEANING COMPARTMENTS

With the steamer off, open the cooking compartment doors and allow the steamer to cool before cleaning the cooking compartments and their components.

At the end of each day's operation, wash the pan slides door gaskets and compartment interiors with mild detergent and warm water, either by hand or in a dishwasher. Rinse thoroughly with clear water. Rinse water should drain freely through the compartment drain openings. If it does not, the drain must be cleaned before using the steamer.

NOTE: To prolong door gasket life, always leave compartment door ajar when not in use. Unnecessary compression of a gasket shorten its life.
Keep bar handle screws clean. Lubricate frequently but not excessively.
Door gaskets provide many months of service when care is taken to operate doors properly. When a gasket finally wears and does not maintain an effective seal, it must be replaced.

EXTERIOR CARE

Allow steamer to cool before washing. Use the same cleaners and cleaning procedures as for other kitchen surfaces of stainless steel and aluminum. Mild soapy water, with a clear water rinse, is recommended. DO NOT ALLOW WATER TO RUN INTO ELECTRICAL CONTROLS. Always turn off equipment power before using water to wash equipment. Do not hose down the steamer!

Weekly Maintenance

The steamer is equipped with a drain in the back of the cooking compartment. No compartment should be operated without the drain screen in place. This screen prevents large food particles from entering and possibly plugging the drain line. Any restriction of the drain line may cause a slight buildup of back pressure in the compartment, resulting in steam leaks around the door gasket. It also may adversely affect the convection action of the steam in the compartment, which is critical to optimum performance. Pouring USDA approved drain cleaner through the compartment drains once a week will help to ensure an open drain. An auger or "snake" may be safely used to clear obstructions in the compartment drains. Do not use a power auger, as damage to the plastic drain system will result.

Yearly Inspection

Being the owner of a steamer carries with It the responsibility for keeping it in as safe a condition as when it was shipped from the factory. Safe steamer operation dictates that every pressure steamer must have the following safety inspection at least 12 months.

1. **Steam Valve Linkages:**
   Have only a qualified technician examine the steam valve linkages which are attached to the inlet and exhaust valves operating handles on the left side of the steamer. This pivoted linkage which is attached to both the steam inlet valve and the steam exhaust valve, must prevent the door's latch from disengaging from its catch when the steamer compartment is pressurized. It is important that the linkage operates as described so that the steamer door cannot be opened when the compartment is pressurized. It is also important that when the steam valve is closed, the exhaust valve should open. The proper operation of the steam inlet valve and the steam exhaust valve should be confirmed and observed while the steam is on.

2. **Pressure Gauge:** Check each pressure gauge. Gauge pointer must return to zero when the steam generator is shut down. Look for signs of water, rust, corrosion, or scale, inside the pressure gauge. A faulty pressure gauge should be replaced immediately.

3. **Door Gaskets:** Inspect and replace compartment door gaskets if they are torn or hardened. The use of a hardened gasket produces undue stress in the parts which comprise the door enclosure and may result in breakage and injury.

4. **Compartment Thermostatic Trap:**
   Have only a qualified service technician observe compartment thermostatic traps for proper operation. A good compartment trap, at start-up of a cooking cycle, is normally open and releases air and wet steam briskly for a few minutes, then holds steam within compartment. if brisk venting doesn't begin immediately at start-up, or if brisk venting continues without Stopping, and the compartment trap is over a year old, It should be cleaned, or a new one installed.

5. **Compartment Steam Exhaust Valves and Drain Valves:** Make sure that the compartment steam exhaust valves, and the drain lines attached to them, are free of food build-up internally and are venting freely to the atmosphere. If drain lines from other steam-consuming equipment have been connected to the drain line from the steamer, the other drain lines should be disconnected. Never operate a compartment without the drain screen cover in place.

Descaling Procedure

Descaling is the most important maintenance you can perform on a steam cooker, and is required by the Cleveland Range warranty.
Cleveland Range has developed the Descaling Pump System for owners of the Classic Series Convection Steamers, Pressure Steamers and SteamPro/Convection Pro series steam cookers.

- If you have trained and skilled in-house maintenance personnel, you may wish to discuss purchasing Descaling pump system P/N 107142 for use with Dissolve Descaler soultion P/N 106174 with your sales representative or service agency.
- Cleveland Range recommends that your service agency descales your boiler
- For details on Descaling procedure using descaling pump system, refer to KE004041 (Descaling Procedure for Convection Steamers).

⚠Warning

No work should be done on the steam generator while it is pressurized or hot. Service of the steam generator should only be performed by a trained and experienced service technician, thoroughly familiar with servicing steam generators.

PRESSURE STEAMERS: THERMOSTATIC TRAP AND COMPARTMENT DOOR GASKET REPLACEMENT

The thermostatic trap and door gasket on your steamer stop the escape of steam from the compartment during operation. Steam leakage from either source will cause loss of pressure which will result in longer cooking time, wasted steam and excessive condensation.

COMPARTMENT THERMOSTATIC TRAP

Thermostatic trap replacement shall only be performed by a trained and experienced service technician. A normal thermostatic trap at start up releases air and wet steam briskly for the first few minutes, then holds steam within the compartment. During cooking, the trap will also release accumulated condensate and a small amount of air.

If brisk venting doesn't begin immediately at startup or if brisk venting continues for much longer than two minutes and the compartment trap is over a year old, it should be cleaned or removed and a new one installed.

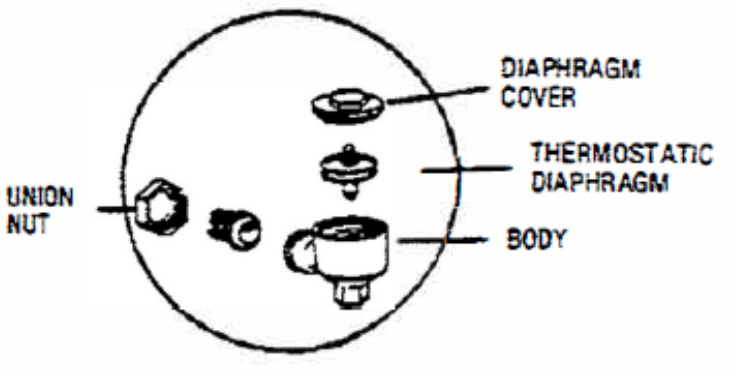
A compartment trap less than a year old may act sluggishly only because it is contaminated by grease and other film.

To remove a thermostatic trap, unscrew the union nut as shown on the sketch.

To clean the trap, unscrew the threaded diaphragm from the body and wash the entire assembly. A more thorough cleaning can be accomplished by removing and disassembling the trap and washing the entire assembly in a mechanical dishwasher.

With proper tools, the threaded diaphragm cover can be unscrewed from the body and the thermostatic diaphragm can be unscrewed from the diaphragm cover. If the trap does not work property after thorough cleaning, install a new one.

If the steamer is used heavily for cooking foods containing large amounts of fat or starch, periodic cleaning is recommended as a routine procedure.



COMPARTMENT DOOR GASKET REPLACEMENT

Replace the gaskets on compartment doors once a year or sooner if they are torn or hardened. Door gaskets can be replaced easily without special tools or cement and the steamer may be used immediately afterwards. Remove the old gasket and clean the channel first, adjusting the slack evenly between the corners. Then work from the corners to the center. Ridges hold the gasket firmly. The gasket is designed to be oversize so once it is compressed in to the door's channel, it remains firmly in place.

⚠Warning

No work should be done on the steam generator while it is pressurized or hot. Service of the steam generator should only be performed by a trained and experienced service technician, thoroughly familiar with servicing steam generators.

Section 5
Troubleshooting

The Troubleshooting Guide is a list of symptoms of problems that may occur during routine operation.

- "Problem" (left column) lists common operating problems.
- "Possible Cause" (center column) lists causes of problems in the order they should be checked.
- "Remedy / Reference" (right column) lists fixes for problems from easiest to hardest.
- "Notes" in "Remedy / Reference" column are at end of the Troubleshooting Guide.

ATTEMPTING TO REPAIR OR CORRECT PROBLEMS REQUIRING A QUALIFIED CLEVELAND RANGE AUTHORIZED SERVICE REPRESENTATIVE VOIDS THE WARRANTY

Troubleshooting Guide

Problem	Possible Cause	Remedy/Reference
Switch light does not turn on when POWER switch is pressed.	Power turned off at main disconnects.	Turn on power at main disconnect switch.
POWER switch light on and steam generator does not fill.	Water supply to steamer shut off.	Open water supply valves.
	Water line strainer is clogged.	Clean water supply strainer.
	Water sensors shorted by scale, deposits.	Descale steam generator with USDA approved descaler.
	Inoperative controls or solenoid.	See note #1.
Steam generator does not make any steam.	No water in steam generator.	See steam generator does not fill (above).
	Gas models only Gas supply valve closed. *Electric models only* Heating elements covered with scale.	Turn off steam generator and open gas supply valve. Refer to Service Manual. Descale steam generator with USDA approved descaler.
	Electric models only Heating elements damaged.	See note #1.
	Water sensors covered by scale deposits.	Descale steam generator with USDA approved descaler.
	Inoperative controls.	See note #1.
Abnormal amount of steam coming from drain.	Hot water instead of cold water connected to condenser fitting.	Make proper connections. Refer to Installation Manual.
	Water supply to condenser turned off.	Open water supply valve.
	Condenser water line strainer is clogged.	Clean out condenser water supply line. See note #1.
	Water supply line to the condenser blocked, broken, or leaking.	Repair or replace solenoid. See note #1.
	Inoperative condenser solenoid.	Replace solenoid. See note #1.
	Inoperative controls.	Turn off electricity at main disconnect switch. See note #1.
Steam and/or water draining around compartment door	Drain clogged or covered.	Clean drain with USDA approved drain cleaner.
	Door gasket or door parts worn.	See note #1.
	Steamer not level.	See note #2.
	Hot water to condenser.	See note #2.
Reduced steam flow into cooking compartment.	Steam generator scale buildup.	Descale steam generator with approved descaler.
	Steam nozzle scale buildup.	See note #1.
	Steam solenoids scale buildup	See note #1.
	Electric models only Voltage too low for unit.	See note #4.
	Electric models only Faulty heating element or controls.	See note #1.
Steam flow does not stop when timer stops.	Operating in manual mode.	Switch to timed mode for timer to be effective.
	Stuck open steam valve.	See note #1.
	Inoperative controls inside cabinet.	Turn off electricity at main disconnect switch. See note #1.

Problem	Possible Cause	Remedy/Reference
Water leaking from bottom of cabinet.	Broken or loose plumbing inside steamer cabinet.	Turn off electricity at main disconnect switch and close water supply valve(s). See note #1.
Water leaking from water pipes or drain lines.	Plumbing needs repair.	See note #3.
Food takes too long to cook. (Cook in perforated pans when possible.)	Not enough steam movement in compartment. Hot water connected to condenser line.	Make proper connections. Refer to Installation Manual.
	Pans too close to the bottom of cabinet.	Put pans in racks near top of cabinet.
	Steam generator scale buildup.	Descale steam generator with USDA approved descaler.
	Compartment overloaded with too much food.	Put less food in pan. Use fewer pans.
	Voltage too low for unit.	See note #4.
	Suggested cooking times are usually listed for cooking at sea level.	Extend cooking times for altitudes above 2500 feet.
Compartment bottom dirty with food drippings.	Juices and /or food leaking from pans	Put a solid pan under perforated pans to catch drippings, or put less food in pan.

TROUBLESHOOTING NOTES

1. If problem is inside the steamer, call an authorized service representative. Cleveland Range will not pay for non-warranty repair centers. For more information on products and services, contact your nearest Authorized Service Representative.
2. Proper installation of the Pressure Steamer is the responsibility of the owner or installer. Refer to Cleveland.
3. A licensed electrician should do repair to external wiring.
4. Repairs to external wiring should be done by a licensed electrician.

Section 6
Service Record

Photocopy this page as needed. Use it in the Service Record file.

SERVICE RECORD

ALLOW ONLY QUALIFIED CLEVELAND RANGE SERVICE REPRESENTATIVES TO SERVICE THIS APPLIANCE.

USE ONLY CLEVELAND RANGE FACTORY AUTHORIZED REPAIR PARTS.

When properly maintained, these records may assist in Warranty claims.

MODEL NUMBER	
SERIAL NUMBER	
INSTALLATION DATE	
STARTUP DATE	
SERVICE AGENCY &	
PHONE NUMBER	

DATE	DESCRIPTION OF WORK	PART NUMBERS	SIGNATURE OF SERVICE REP.

REMEMBER TO KEEP COPIES OF SERVICE INVOICES AND PURCHASE ORDERS.

DATE	DESCRIPTION OF WORK	PART NUMBERS	SIGNATURE OF SERVICE REP.

Every new piece of Welbilt Foodservice equipment comes with KitchenCare® and you choose the level of service that meets your operational needs from one restaurant to multiple locations

StarCare – Warranty & lifetime service, certified OEM parts, global parts inventory, performance audited
ExtraCare — CareCode, 24/7 Support, online/mobile product information
LifeCare – Install & equipment orientation, planned maintenance, KitchenConnect™, MenuConnect®
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