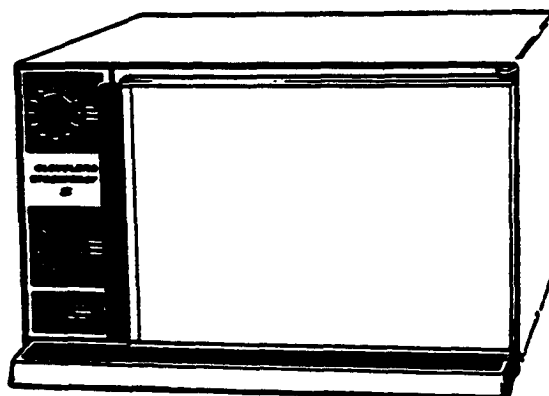


Cleveland Range

Steamcraft II COUNTER TYPE CONVECTION STEAMER

SERVICE MANUAL

Model CET5



Printed 02/90

Cleveland Range, Inc.

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Cleveland WARRANTY AND LIMITED EXTENDED WARRANTY COVERAGE

LIMITED WARRANTY

Cleveland Range products are warranted to the original purchaser to be free from defects in material and workmanship under normal use and service for the standard warranty period.

Cleveland Range agrees to repair or replace, at its option, f.o.b. factory, any part which proves to be defective due to defects in material or workmanship during the warranty period, providing the equipment has been unaltered, and has been PROPERLY INSTALLED, MAINTAINED, AND OPERATED IN ACCORDANCE WITH THE CLEVELAND RANGE OWNER'S MANUAL.

CLEVELAND RANGE agrees to pay any FACTORY AUTHORIZED EQUIPMENT SERVICE AGENCY (within the continental United States, Hawaii, and Canada) for reasonable labor required to repair or replace, at our option, f.o.b. factory, any part which proves to be defective due to defects in material or workmanship, during the labor warranty period, this warranty includes travel time not to exceed two hours and mileage not to exceed 50 miles (100 miles round-trip), but **does** not include post start-up, tightening loose fittings, minor adjustments, maintenance, cleaning or descaling.

The standard labor warranty allows factory payment of reasonable labor required to repair or replace such defective parts. Cleveland Range will not reimburse the expense of labor required for the repair or replacement of parts after the standard warranty period, unless an Extended Labor Warranty Contract has been purchased to cover the equipment for the balance of the warranty period from the date of equipment installation, startup, or demonstration.

PROPER INSTALLATION IS THE RESPONSIBILITY OF THE DEALER, THE OWNER-USER, OR INSTALLING CONTRACTOR, AND IS NOT COVERED BY THIS WARRANTY. Many local codes exist, and it is the responsibility of the owner and installer to comply with these codes. Cleveland Range equipment is built to comply with applicable standards for manufacturers, including UL A.G.A., NSF, ASME/NB, Bd., CSA, CGA, ETL, and others.

BOILER (Steam Generator) MAINTENANCE IS THE RESPONSIBILITY OF THE OWNER-USER, AND IS NOT COVERED BY THIS WARRANTY. The use of good quality feed water is the responsibility of the Owner-User (*see Water Quality Requirements below*). THE USE OF POOR QUALITY FEED WATER WILL VOID EQUIPMENT WARRANTIES. Boiler maintenance supplies, including boiler hand gaskets, are not warranted beyond the first 90 days after the date the ~~equipment~~ is placed into service if no preventive maintenance records are available showing descaling every 90-120 days.

WATER QUALITY REQUIREMENTS

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

The foregoing shall constitute the sole and *exclusive* remedy of original purchaser and the full liability of Cleveland Range for any breach of warranty. THE FOREGOING IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL OR IMPLIED. INCLUDING ANY WARRANTY OF PERFORMANCE, MERCHANTABILITY, OR FITNESS FOR PURPOSE, AND SUPERSEDES AND EXCLUDES ANY ORAL WARRANTIES OR REPRESENTATIONS, OR WRITTEN WARRANTIES OR REPRESENTATIONS, NOT EXPRESSLY DESIGNATED IN WRITING AS A "WARRANTY" OR "GUARANTEE" OF CLEVELAND RANGE MADE OR IMPLIED IN ANY MANUAL, LITERATURE, ADVERTISING BROCHURE OR OTHER MATERIALS.

Cleveland Range's liability on any claim of any kind, including negligence, with respect to the goods or services covered hereunder, shall in no case exceed the price of the **goods** or services, or part thereof, which gives rise to the claim. IN NO EVENT SHALL CLEVELAND RANGE BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES IN THE NATURE OF PENALTIES.

LIMITED EXTENDED WARRANTY COVERAGE

The purchase of a Limited Extended Warranty Contract extends the standard warranty coverage to the purchased period of time (one to four years) from the date of installation, start-up, or demonstration, whichever is sooner.

Revised 8/22/91

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INTRODUCTION

To get the full advantage of steam cooking, your Cleveland/ALCO equipment must be properly installed. A steamer which is improperly installed, improperly used, improperly maintained, or improperly repaired will create a dangerous condition and may cause injury to personnel.

Your Cleveland/ALCO equipment will require minimum servicing provided it is operated according to instructions and given the care recommended.

Make **sure** that responsible personnel understand how your steam cooking equipment should be operated and cared for. Proper use and maintenance pay handsome dividends in long life and satisfactory performance.

Safe steam cooking equipment operation dictates that every owner of steam cooking equipment should follow these rules for operational safety:

- 1) Begin a comprehensive, continuous program of internal and external steam cooking equipment inspection.
- 2) Never allow untrained personnel to operate or experiment with a steamer.
- 3) At the end of each day's operation —
 - Remove any spilled food, then wash the racks and compartment interiors thoroughly with mild detergent in warm **water**.
 - Rinse thoroughly with clean warm water.
 - Let rinse water drain through compartment drain opening. If water does not drain freely, drain lines must be cleaned out before cooking again. Clogged or slow drains are dangerous because hot water may spill out when compartment doors are opened after a cooking cycle.
 - When cleaning the steamer's exterior, never apply water to controls on the console. Use a damp cloth for cleaning.
- 4) Always leave the compartment door ajar when the compartment is not in use.
- 5) Shut the unit down at the end of each day's operation **as** follows —
 - On boiler-equipped steamers, blow down the boiler. For specific information, refer to "Steam Generators • Maintenance Procedures."
 - On direct-connected steamers, cut off the main steam supply with a valve ahead of the steamer's pressure reducing valve.
 - On SteamCraft II models, (one compartment counter-top model) depress the power switch to the "off" position.
- 6) Read and follow The Cleveland/ALCO instructions on steamer and steam generator maintenance and servicing in the **Owners** Manual before making any adjustments or replacement **of** pans, or decision to buy parts, or before calling for **service**.
- 7) Use only replacement parts which are factory authorized as equivalent to the parts being replaced, to preserve the certification of Underwriters Laboratories, American Gas Association, Canadian Standards Association or Canadian Gas Association (as applicable).
- 8) Never allow unqualified personnel to tamper with the steamer or steam generator controls, or to replace worn-out parts
- 9) For gas-fired steam generators (boilers): Post in a prominent location instructions to be followed in the event the user smells gas. This information shall be obtained by consulting the local gas supplier.

FOR YOUR SAFETY

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

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Manufacturer reserves right of design improvement or modification, **as** warranted.

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For additional safety information on the steam generator (boiler), refer to Installation Instructions, Operating Instructions, and Servicing Instructions.

For additional information on steamer safety, refer to the steamer operating procedure page.

Instructions for **the** occasional servicing that will be needed are given on the following pages.

Servicing beyond these instructions should not be attempted without specialized skills and experience. Such attempts may void the warranty on the equipment.

Cleveland/ALCO) maintains a list of regional parts distributors and reputable service agency for servicing your equipment. For the names of those in your area, call or write to Cleveland/ALCO.

Parts

The parts breakdown in this manual consists of a series of illustrations with a parts listing for each illustration. Each page is titled by the major assemblies or components which are illustrated thereon.

Alternate parts, older designs, and parts used exclusively in specific models (when more than one model is covered on the page) are, when necessary for clarity, depicted within circles on the illustration page.

How To Use The Parts* Drawing

From the illustration, determine the reference number of the part desired. Then refer to the parts listing and locate in the left-hand column the ~~reference~~ number obtained from the illustration. There you will find the *part number* and description of the part.

Component parts of an assembly or sub-assembly are clearly identified in the description column. Such components are listed directly below the assembly and **are** indented from the assembly description. If the assembly is ordered, the shipment will include all parts which are indented below the assembly description.

Directions For Ordering Parts

To ensure prompt and accurate handling, the following data should be furnished in addition to the *part number* and the description:

Serial Number Model Number Electrical
Specifications (where applicable)

CLEVELAND RANGE, INC., 1333 EAST 179th ST., CLEVELAND, OHIO 44110
Manufacturer **reserves** right of design improvement **or** modification, **as** warranted.

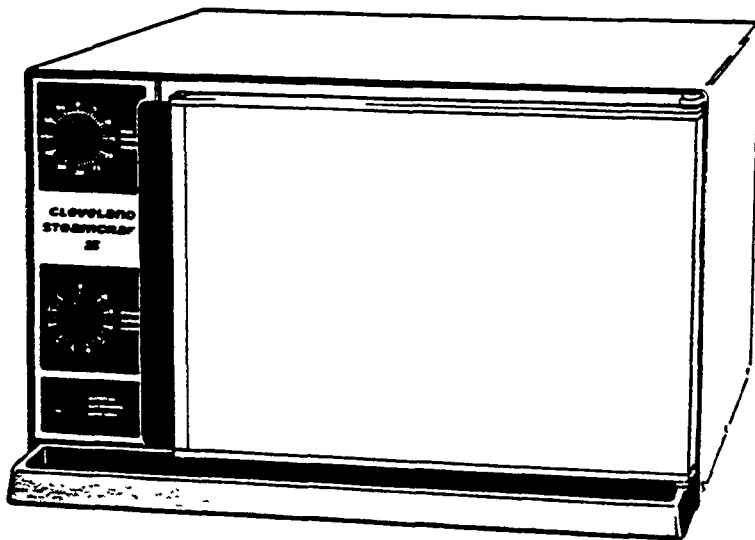
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Cleveland Steamcraft

II TM

INSTALLATION INSTRUCTIONS



WARNING

Installation of this unit must be done by qualified plumbing and electrical installation personnel working to all applicable local and national codes. Improper installation of this product could cause injury or damage.

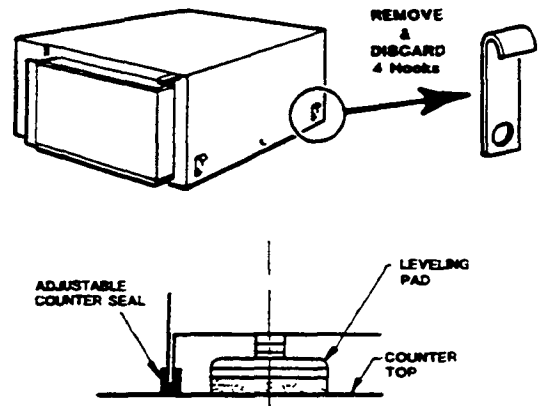
ASSEMBLY

Counter leveling pads with a steamer counter seal (or optional feet) are in a bag within the carton. Locate this bag before discarding the shipping carton.

NOTE: The use of leveling pads and steamer counter seat (gasket) on surfaces other than stainless steel is not recommended.

STEPS FOR ASSEMBLY

- 1) Carefully cut the shipping carton open for easy removal of the steamer. There are four clips mounted to the front two and rear two outer sheeting mounting screws. These clips were used to lower the steamer into the carton. They must be removed and discarded prior to installation. Reinstall the four screws and tighten them securely, as these screws also secure the outer sheet metal cover to the steamer.
- 2) Install the four leveling pads (or optional four legs) into the threaded holes on the bottom of the steamer.
- 3) (Omit this next step if optional 4' legs are supplied.) Install the adjustable counter seal on the bottom edge of the body. Begin by pressing on one end of the sealing strip at the middle of the bottom-front edge. Continue applying the seal in a clockwise direction.



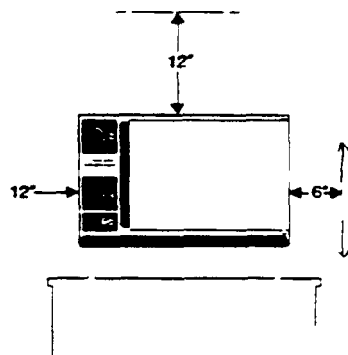
NOTE: The purpose of the counter seal is to provide a sealing strip between the cooker and the surface on which it is placed. Some surfaces will require the use of additional sealant.

- 4) Remove the plastic drip trough from the inside of the cooking compartment and install it by sliding it onto the mounting brackets on the bottom-front of the steamer. Remove the fuse holder caps and fuses from the inside of the cooking compartment and install them into the fuse holders on the back of the steamer.

POSITIONING

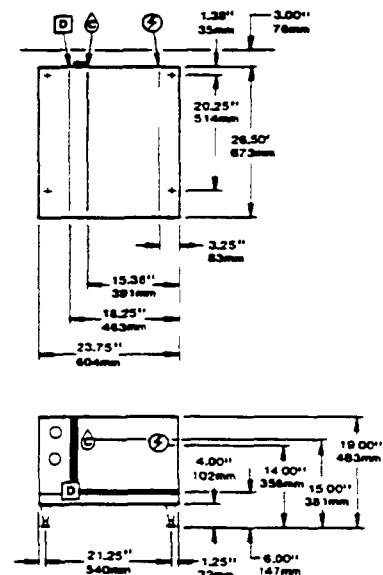
The cooker should be placed in position and leveled left to right and front to rear. The required clearances are:

Right Side: 6" — 152mm Rear: 3' — 76mm
Left Side: 12" — 305mm Vertical: 12' —



CAUTION

Do not install any other equipment on top of the Steamcraft II.



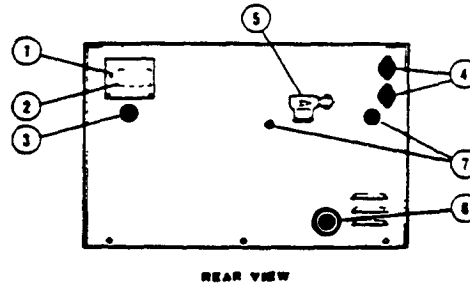
SERVICE CONNECTIONS

Cleveland Range Company equipment is designed and built to comply with applicable standards for manufacturers. Included among those certification agencies which have approved the safety of the equipment design and construction are: UL, A.G.A., NSF, ASME, CSA, CGA, and others.

Cleveland Range Company equipment is designed and certified for safe operation only when permanently installed in accordance with local and/or national codes. Many local codes exist, and it is the responsibility of the owner and installer to comply with the

In no event shall Cleveland Range Company assume any liability for consequential damage or injury resulting from installations which are not in strict compliance with our installation instructions. Specifically, the Cleveland Range Company will not assume any liability for damage or injury resulting from improper installation of equipment, including, but not limited to, temporary or mobile installations

Ref. No.	Qty.	Description
1	1	Ground lug for ground w connection
2	1	terminal block for feed wire connection
3	1	Feedwire knockout hole—
4	2	Fuse holders with 2 amp type KTKR-2 fuses (Part No 06344)
5	1	
6	1	Drawn plumbing
7	2	Venting outlets—No connections or restrictions should be made



ELECTRICAL

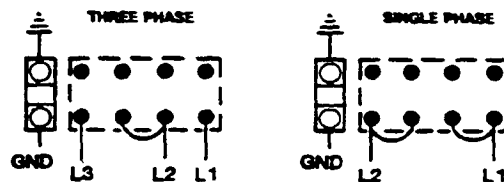
Install in accordance with local codes and/or the National Electric Code ANSI/NFPA No 70-1984 (USA) or the Canadian Electrical Code CSA Standard C22.1 (Canada). A separate fused disconnect switch must be supplied and installed. The steamer must be electrically grounded by the installer.

The electric supply must match the power requirements specified on the steamer's rating label. The copper wiring must be adequate to carry the required current at the rated voltage.

Locate the terminal block cover and "knock-out" plug at the upper left corner of the steamer's back panel. Remove the two screws securing the terminal block cover and remove the cover. Remove the "knock-out" plug. Feed permanent copper wiring through the "knock-out," and fasten to the terminal block, in accordance with the wiring diagram affixed to the steamer's back panel. Be sure to connect the ground wire to the separate ground terminal connector (ground lug). Replace the terminal block cover and secure it with the two screws.

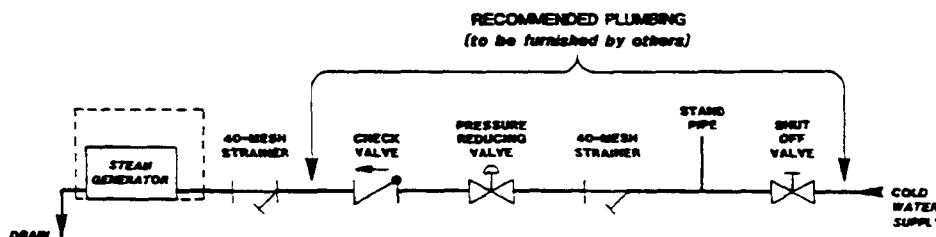
The steamer is— wired for 3-phase delta operation at the factory. For single phase operation, the installer must change the two jumpers on the terminal block to that shown in the accompanying diagram (and on the steamer's wiring diagram label.)

VOLTS	1 PHASE			3 PHASE			60 HZ-3 Wire—
	Watts	AMPS	AWG	WATT	AMPS	AWG	
206	5000	24	10	5000	14	14	SUPPLY USE COPPER WIRE ONLY SUITABLE 75 Degrees C
220	4202	19	10	4202	11	14	
240	5000	21	10	5000	12	14	
410	-	-	-	5000	6	14	



WATER

A 1/4" * IPS COLD water line is required. **DO NOT USE HOT WATER.** Minimum water pressure is 35 psi (2.4 kg/cm²), the maximum water pressure is 60 psi (4.1 kg/cm²), measuring flow pressure, not static pressure. Connect the cold water line to the input side of the line strainer, located on the outside of the steamer's back panel, toward the top-center of the panel. Refer to the service connection drawing for precise location.



RECOMMENDED PLUMBING (furnished by the installer):

Shut-off Valve' The water supply can be shut off at this valve in the event that the steamer, or a plumbing component, requires service

RECOMMENDED PLUMBING (continued):

Stand Pipe: A vertical pipe holding a column of water, topped with a column of air. The air pocket provides a "shock absorber" effect, to reduce or eliminate the possibility of "water hammering" in the plumbing.

Strainer Removes particles from the water supply which could result in damage to plumbing components.

Pressure Reducing Valve: Required if the incoming water pressure exceeds 60 psi.

Check Valve: Eliminates the possibility of steam generafor water backing up into the water supply plumbing. (This check valve may be required by local plumbing codes.)

WATER QUALITY REQUIREMENTS

If the purity of the incoming water is good, the generafor, the heating element and the valves should give years of trouble free. efficient service with a minimum of servicing.

The recommended minimum water quality standards, whether untreated or pretreated, based upon 4 hours of operation before the steamer is shut off and allowed to drain, are as follows:

• TOTAL DISSOLVED	less than 60 parts per million	• SILICA	less than 13 parts per million
• TOTAL ALKALINITY	less than 20 parts per million	• pH FACFOR	greater than 7.5

Consult a local water treatment specialist for an on-the-premises water analysis and for recommendations concerning steam generafor **feed** water treatment (if required), in order to remove or reduce harmful concentrations of minerals. The use of a poor quality (highly mineralized) water will mean that more frequent servicing of water sensitive components will be necessary. The fact that a water supply is potable is not proof enough that it will not be detrimental to the water sensitive components. The steamer should be shut off for 3 minutes every 4 hours, in order to minimize scale build-up.

D DRAIN

A 1" N.P.T. fitting is provided. The drain termination must be free venting. Up to two elbows and a maximum of six feet of I* I-P.S. pipe may be attached to the termination. However, the piping must have a gravity flow and vent freely to the air. Each steamer requires its own 1" I.R.S. drain extension. Do not interconnect any other drains to this steamer's drain extension.

CAUTION

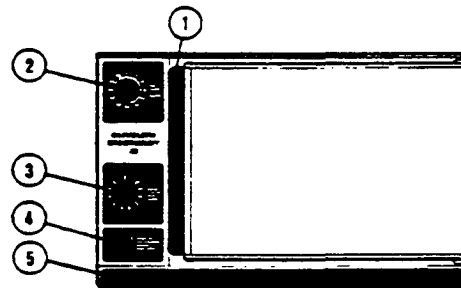
If these instructions are nor complied with, there will be steam and water leakage past the compartment door.

INSTALLATION CHECK

Installer must check out the steamer per the following procedure.

NOTE: *The outer shell must be installed in place before proceeding.*

Ref. No.	Part No.	Description
1	SB110	Door handle
2	43905	Timer
3	40728	Steam— control
4	19993	On/Off power switch
5	20602	Plastic dnp trough



FRONT VIEW

CHECK OUT STEPS

- 1) Empty the cooking chamber of all literature and leave the door open.
- 2) Make sure the cold water supply line to the generafor is open.
- 3) Turn on the electrical service to the cooker at the fusible disconnect box.
- 4) Push the "water on" switch button to the right. The switch is illuminated when it is in the "ON" position.
- 5) Set the steam control at number ten. Steam should be visible inside the cooking chamber after five minutes of operation.
- 6) Let the steamer continue to operate for five additional minutes with the steam control set at ten. Steam flow should be visible for this entire period of operation.
- 7) Set the steam control to number five. Steam will continue to flow but in a lesser amount.
- 8) To check the timer and buzzer, turn the timer past 10 minutes to wind it. Then reset the timer at three minutes. At the end of the three minutes, the buzzer will sound for three seconds and then stop.
- 9) To completely shut down the steamer, push the "water on" switch button to the left (the light should go out), and turn the steam control knob to zero. The steam generafor water will automatically drain out. At this time, the generafor flush cycle will be energized. This system automatically flushes the generafor and drain line to assist in removal of lime deposits. After 3 minutes, the flush cycle should end and the steamer should shut off completely.

If the cooker has functioned as described, it is ready for use.

Installer: Please complete and mail the *Insialler's Checklist*.

OPERATION

Operation of the Cleveland Steamcraft II is very easy. Each operator should be familiar with the following procedures to effectively start operate, and shut down the steamer each day.

Start-up and Preheat

- 1 Push the "water on" switch to the right. The switch is illuminated when it is in the "on" position.
- 2 Turn the steam control knob to the number 10 setting. To monitor the start-up, leave the cooking compartment door open. Steam should begin to appear inside the cooking compartment after approximately 5 minutes. Close the door and allow the steam flow to continue for 5 more minutes to preheat the compartment. To close the door, swing it shut with a quick snapping motion.
- 3 The Steam Cooker is now ready for use. Either proceed with cooking, or turn the steam control knob to "stand-by" at the number 1 setting.

WARNING:DO NOT PUT YOUR FACE OR HAND(S) INTO THE COOKING COMPARTMENT WHEN THE STEAMER IS IN OPERATION. STEAM CAN CAUSE SERIOUS BURNS AND BODILY HARM.

Cooking Operation:

1. Check the cooking compartment to ensure it is warm. If it is cool perform the steps for preheating.
2. Place the pan(s) of food into the cooking compartment by sliding the pan(s) into the two slide racks, and secure the door. Optimum steam heat transfer, and therefore a higher quality food product, is achieved when shallow, perforated, uncovered pans are used.
- 3 Activate the steam flow by setting the steam control knob at number 10. The steam supply is variable from 10% at the number 1 setting, to 100% at the number 10 setting, to supply the precise volume of steam required for cooking. defrosting, or preheating of fresh or frozen food. For cooking fresh or frozen food, set the steam control knob at number 10. To conserve energy when cooking only one pan of fresh food. settings lower than number 10 may be successfully used, but the timer setting may have to be increased.
4. Turn the timer knob past 10 minutes to wind the timer spring, then set the timer at the cooking time required. A buzzer will sound for 3 seconds at the end of the selected time, then it will stop buzzing automatically.
5. Remove the food from the cooking compartment promptly or it will continue cooking. *Steam flow is not shut off by the timer.* Steam flow is only shut off when the steam control knob is set at zero.
6. After the cooking cycle is complete, set the steam control knob to "stand-by" at the number 1 setting to keep the compartment warm, in preparation for the next cooking cycle.
- 7 The door may be opened any time during the cooking cycle to inspect season, add, or remove food. but keep hands out of the cooking compartment to prevent burns. Frequent opening of the door may result in longer cooking times.

Short-Term Holding:

Some foods, after they have been prepared, can be returned to the cooking compartment to be kept hot for short periods of time (up to 45 minutes) with minimum product change, by turning the steam control knob to the number 1 setting.

Shutdown:

The Steamcraft II **must** be shut off for three minutes every four hours to automatically drain highly mineralized water from the steam generator. This is accomplished by pushing the lighted "water on" switch to the left. Turning the steam control knob to zero does **not** shut-off the steamer, and therefore does **not** drain the steam generator.

CARE AND CLEANING

Your Steamcraft II must be cleaned regularly to maintain its fast efficient cooking performance and to minimize down time.

1. The steam generator must be drained every four hours, as well as at the end of the day to remove harmful highly mineralized water. When steam is produced, the water in the generator is being distilled. During this process, the dissolved minerals that come into the generator with the water remain in the generator as the water boils away as steam. When allowed to accumulate, the water becomes highly mineralized, which will result in erratic operation, slower cooking times, accelerated corrosion of the heater element, and ultimately, heater element failure. When the steamer is shut off, an automatic 3 minute water purge cycle will flush the scale out of the steam generator. Remember, turning the steam control knob to zero only shuts off the steam supply. The steamer is shut off, and the generator is automatically drained and cleaned, only when the lighted "water on" switch is pushed to the left.

- With the steamer off, open the cooking compartment door and allow the steamer to cool before cleaning the cooking compartment and its components.
- 2. The steamer is equipped with a drain screen in the back of the cooking compartment. The steamer should never be operated without the screen in place. This screen prevents large food particles from entering and possibly restricting the drain line. Any restriction of the drain line may cause a slight build-up 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 necessary for optimum performance. Pouring USDA approved drain cleaner through the compartment drain once a week will help to ensure an open drain.
- 3. At the end of each day's operation, remove any spilled food from the steamer, then wash the pan slide racks, drain screen, door gasket, and compartment interior with mild detergent and warm water. Rinse thoroughly with clear water. Rinse water should drain freely through the compartment drain opening. If it does not the drain must be cleaned before using the steamer.
- 4. The pan slide racks are easily removed from the cooking compartment for thorough cleaning, and they are stainless steel, so they can be washed safely in a mechanical dishwasher.
- 5. Always leave the compartment door ajar when not in use, to extend gasket life and to prevent the gasket from adhering to the steamer. Unnecessary compression of the gasket shortens its life.
- 6. 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.
- 7. Once every three months, shut off the cold water supply to the steamer, and clean the water line strainer.

MAINTENANCE

Your Steamcraft II is equipped with an automatic 3 minute water purge system which will flush the highly mineralized water out of the steam generator when the steamer is shut off. If the steamer's feedwater supply is of average hardness and mineral content (less than 200 parts per million of total dissolved solids), and the steamer is shut off for three minutes every 4 hours, this purge system should provide a maintenance free steam generator. However, if your water contains more than 200 parts per million of total dissolved solids, additional maintenance may be required. In this case, your steamer should be shut off every 2 or 3 hours, depending upon the mineral content of the water. In addition, it may be necessary to periodically have a service technician remove the steam generator's side panel and clean the scale accumulations on the inside.

The Cleveland Range Company supports a worldwide network of Maintenance and Repair Centers, which are regional distributors of parts and service. Contact your nearest Maintenance and Repair Center for the name of an authorized service agency in your area, or for replacement parts, or information regarding the proper maintenance and repair of your equipment. In order to preserve the various agency safety certifications (UL, A.G.A., CSA, CGA, NSF, ASME/Ntl. Bd, etc.), only factory-supplied replacement parts should be used. The use of other than factory-supplied replacement parts will void the warranty.

INSTALLATION CHECK

Proper operation of the Cleveland Steamcraft II is dependent upon proper installation. After the steamer has been installed, a few quick checks could save unnecessary service calls.

1. The Steamcraft II requires a cold water connection at the rear of the steamer for proper efficient operation. **DO NOT USE HOT WATER.** The cold water feed line should maintain 35 to 60 psi flow pressure, and not experience a pressure drop when other appliances are used. Pressure in excess of 60 psi must be reduced (with a pressure reducing valve) to 35 to 60 psi.
 2. The steamer must be level.
 3. The supply voltage must agree with the voltage indicated on the rating label on the back of the steamer, and the voltage shown on the packing slip. The steamer must **be** protected with a separate fused disconnect and be properly grounded, in accordance with the national electric code.
 4. The termination of the drain extension **must** vent freely to the air (not plumbed solidly into the floor drain). It must have a gravity flow, be 1" diameter minimum (IPS) and not exceed 6' in length, with no more than two elbows, before draining. Each steamer requires its own 1" IPS drain extension. Do not interconnect any other drains to this steamer's drain extension.
- CAUTION: IF THESE INSTRUCTIONS ARE NOT COMPLIED WITH, THERE WILL BE STEAM AND WATER LEAKAGE PAST THE COMPARTMENT DOOR GASKET.**

CLEVELAND STEAMCRAFT II® STEAM COOKER TIMER SETTINGS

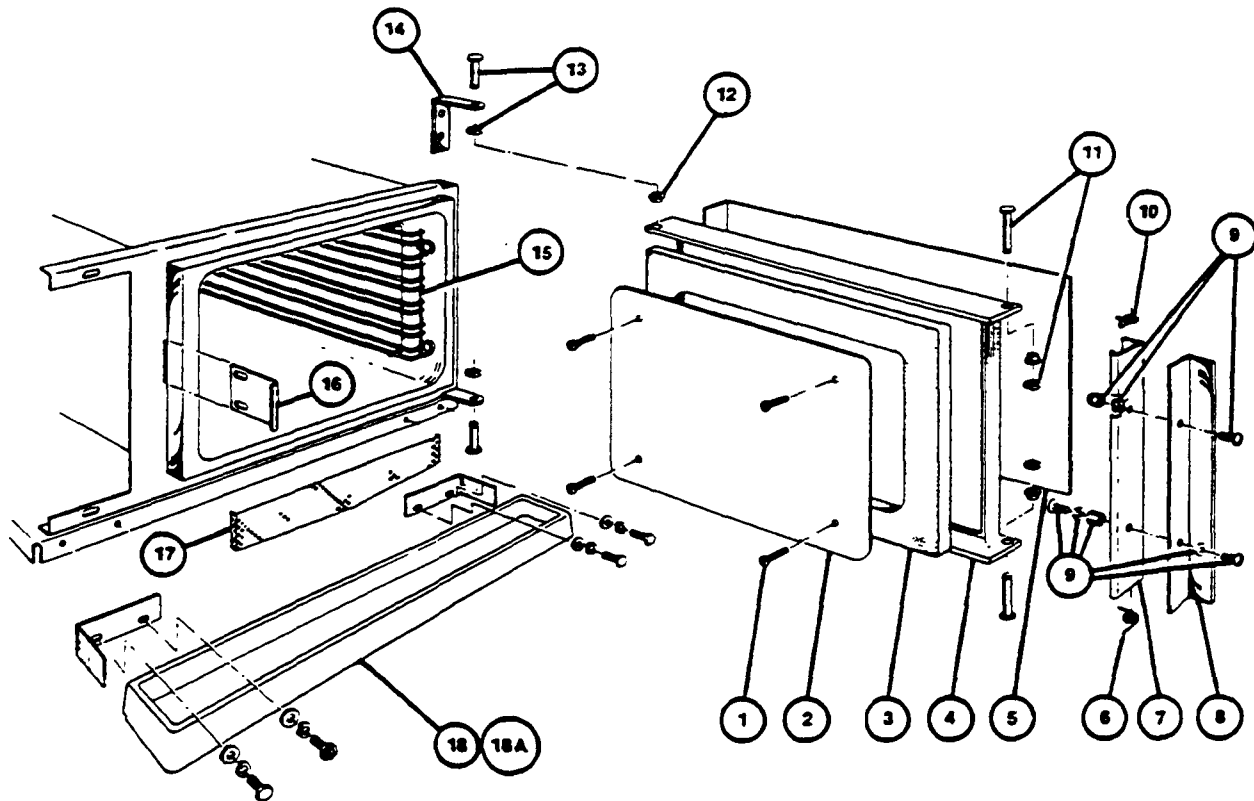
Refer to Owner's Manual for operation and pre-heat instructions. Timer settings are approximate due to the difference in food quality, age, shape, and the degree of "doneness" desired. It is not necessary to add water. Perforated pans are recommended; *must be cooked in solid pan; *use catch pan for juices.

	<u>WEIGHT OR COUNT/ PAN</u>	<u>NUMBER OF PAGES</u>	<u>PERFORATED UNLESS OTHER - WISE STATED</u>	<u>TIMER SETTING (MINUTES)</u>
Frozen				
Vegetables:				
Asparagus Spears, Medium	5#	1	12x20x2-1/2	6
		2-3		16-18
Beans, Green or Wax, 2" Cut	5#	1	12x20x2-1/3	6
		2-3		16-18
Broccoli Spears	4#	1	12x20x2-1/2	8
		2-3		16-18
Broccoli Florets	5#	1	12x20x2-1/2	6
		2-3		12-15
Brussels Sprouts	5#	1	12x20x2-1/2	6
		2-3		12-15
Carrots, Baby Whole	4#	1	12x20x2-1/2	8
		2-3		15-17
Carrots, Sliced or Crinkle	4#	1	12x20x2-1/2	7-8
		2-3		15-16
Cauliflower, Florets	4#	1	12x20x2-1/2	6
		2-3		15-16
Corn, Yellow Whole Kernel	5#	1 2-3	12x20x2-1/2	5
Corn-On-Cob: Cobettes	20 ears	1	12x20x2-1/2	8
		2-3		16-18
Lima Beans, Baby	5#	1	12x20x2-1/2	5
		2-3		12
Lima Beans, Regular	5#	1	12x20x2-1/2	8
		2-3		14
Corn, Lima Beans, Green Beans, Carrots Variety Vegetables:	50	1 2-3	12x20x2-1/2	6-8 17-18
Italian mix, etc.	4#	1	12x20x2-1/2	4
		2-3		16-17
Stew Vegetables	5#	1	12x20x2-1/2	6
		2-3		12-14
Peas, Green	5#	1	12x20x2-1/2	6
		2-3		15-17
Potatoes, White	10#	1	12x20x2-1/2	18-20
		2-3		30-35
Potatoes, Sweet	5#	1	12x20x2-1/2	15-18
		2-3		30-33
Spinach, Chopped, Leaf (Partially Defrosted)	6#	1	12x20x2-1/2	17
		2-3		24-26
Spinach (Completely Defrosted)	6#	1	12x20x2-1/2	5
		2-3		10-12
Succotash	6#	1	12x20x2-1/2	12-13
Fresh				
Vegetables:				
Zucchini, Sliced	5#	2	12x20x1	6
Artichokes	25	1	12x20x1	22
Asparagus. Spears, Medium	5#	1	12x20x2-1/2	5
Beans, Green, 2" Cut	5#	1	12x20x2-1/2	6
Beans, Wax, 2" Cut	5#	1	12x20x2-1/2	6
Broccoli Spears	5#	1	12x20x2-1/2	6
		2-3		14-16
Brussels Sprouts	5#	2	12x20x2-1/2	8
Cabbage. Cut 1/8	5#	1	12x20x2-1/2	6-8
Carrots, Sliced	9#	1	12x20x2-1/2	11
Cauliflower. Florets	6#	1	12x20x2-1/2	7-8
Celery, Cut 1"	5#	1	12x20x2-1/2	7
Diagonal	18#	2		13
Corn-On-Cob	18 ears	1	12x20x1	10-12
Potatoes. White		2-3		16-18
(Russet)	10-13#	3	12x20x2-1/2	55
Potatoes, Idaho	10-13#	3	12x20x2-1/2	50
Potatoes. Sweet	10#	1	12x20x2-1/2	40
		2-3		45

Fresh Vegetables (cont'd)

		WEIGHT OR COUNT/PAN	NUMBER OF PANS	PERFORATED PAN UNLESS OTHERWISE STATED	TIMER SETTING (MINUTES)
	Spinach, Cut & Cleaned	2#	1	12x20x2-1/2	3
			2-3		5-6
	Squash, Acom, Cut into Halves	10 halves	1	12x20x2-1/2	25
	Zucchini, Sliced	5#	1	12x20x1	8
			2-3		12-15
CANNED VEGETABLES:	Drained	1-#10 can	1	12x20x2-1/2*	6
	Beans, Baked or Refried:	1-#10 can	1	12x20x2-1/2*	9
	Uncovered	2-#10cans	1	12x10x4 *	22
		1-#10 can	2	12x20x2-1/2*	10-12
		2-#110 cans	2	12x10x4 *	25-27
		2-#10cans	1	12x20x2-1/2*	10-12
		4-#10 cans	1	12x20x4 *	40-55
FRUIT:	Blanch for Peeling:				
	Grapefruit, whole	10-12	1	12x20x1	3
	Oranges, Lemons, Limes	2-3 dz.	1	12x20x1	3
	Pineapple for cutting	3-4 whole	1	12x20x1	4
	Prunes, dried	4#	1	12x20x2-1/2*	12-15
EGGS:	Soft Cooked, in Shell	4 dz.	1	12x20x1	4
	Coddled, in Shell	4 dz.	1	12x20x1	6
	Hard Cooked, in Shell	4 dz.	1	12x20x1	14
	Scrambled	5 lb.-5 dz.	1	12x20x2-1/2*	10
FROZEN CASSEROLES:	Examples: Beef Stew, Lasagna	5#	1	12x20x2-1/2*	30-35
	Cabbage Rolls,		2	12x20x2-1/2*	35-45
	Stuffed Peppers,	10#	1	12x20x2-1/2*	35-40
	Tamales, Enchiladas		2-3	12x20x2-1/2*	50-60
MEAT:	Beef, Ground Chuck	10#	1	12x20x2-1/2*	33
	Beef Cubes, as purchased	10#	1	12x20x2-1/2*	40-45
	Meat Loaf, 4 Loaves, 4 lb. ea.	16#	1	12x20x2-1/2*	40-42
	Hotdogs/Weiners,	10#	1	12x20x1	3
	Spareribs 3 & down	10#	4	12x20x1*	40
POULTRY:** (WITH BONE)	Chicken, pieces	15#	1	12x20x2-1/2**	20
	Frozen Turkey Breast (2)	6-7# each	1	12x20x1**	90
	Whole Turkey, Thawed	12-16#	1	12x20x2-1/2**	90
	Turkey, Frozen	1#	1	12x20x1 **	2 hrs.
FISH:**	Shrimp, 10 ct/lb.	4#	1	12x20x1**	5
	King Crab Legs, Frozen	6#	1	12x20x1**	4-6
	Fresh Scallops	3#	1	12x20x1**	4
	Fresh Scrod, 5 oz. Portions	4#	1	12x20x1**	8
	Lobster, Live, 1#	4 count	1	12x20x1**	10-12
	Lobster Tail, 8 oz. Frozen,				
	Thawed, Butterfly	20 count	1	12x20x1**	10
	Clams, Cherrystone	3 dz.	1	12x20x1**	3
	Salmon Steak, 8 oz. Fresh or Frozen	10#	1	12x20x1**	6
DEHYDRATED FOODS:	Oumplings, spoon on top of pre-heated Beef Stew, etc.		1	12x20x2-1/2	10-12
	Pasta: (Use nested pans, add water to cover, stir at least once during steaming.)				
	Noodles. 1/2" wide	2#	1	12x20x2-1/2	12-15
	Macaroni-Elbow	4#	1	12x20x2-1/2	12-15
	Spaghetti-Vermicelli and Spaghetti-Regular	2#	1	12x20x2-1/2	12-15
	Potatoes (Use nested pan, add water to cover)	2#	1	12x20x2-1/2	18-20
	Rice, Long Grain, add 4 cups water per lb.	2#	1	12x20x2-1/2*	22
		3#	1	12x20x2-1/2*	28

STEAMCRAFT II MECHANICAL COMPONENTS

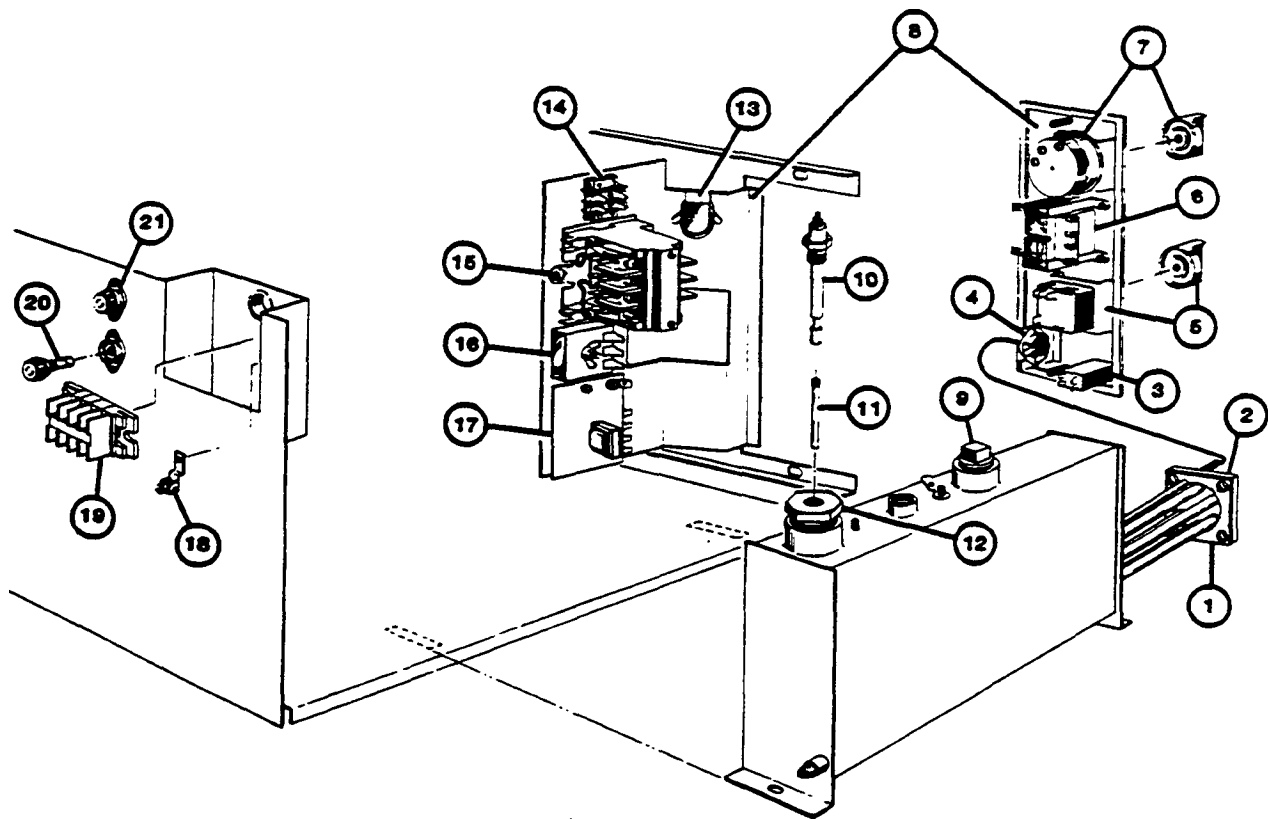


REFERENCE NUMBER	PART NUMBER	DESCRIPTION
1	19177	Sealing Screw (4 required)
2	66651	Gasket Retainer Plate
3	07138	Gasket, Door
4	04172	Door Casting
5	44039	Door Cover
6	19578	Lower Door Spring
7	44037	Latch
8	58110	Handle
9	44040	Handle Mounting Hardware
10	19577	Upper Door Spring
11	40589	Latch Pin & Retainer (2 required)
12	02624	Bushing
13	40588	Hinge Pin & Retainer (2 required)
14	58198	Hinge
15	41423	Slide Assembly
16	62201	Strike
17	41101	Drain Screen (used on units built before July 31,1982)
	41102	Drain Screen (used on units built after Aug. 1,1982)
18	20602	Drip Trough — Plastic
18A	20601	Drip Trough — Aluminum (Not Shown — Used only on units built before Aug. 20,1979)

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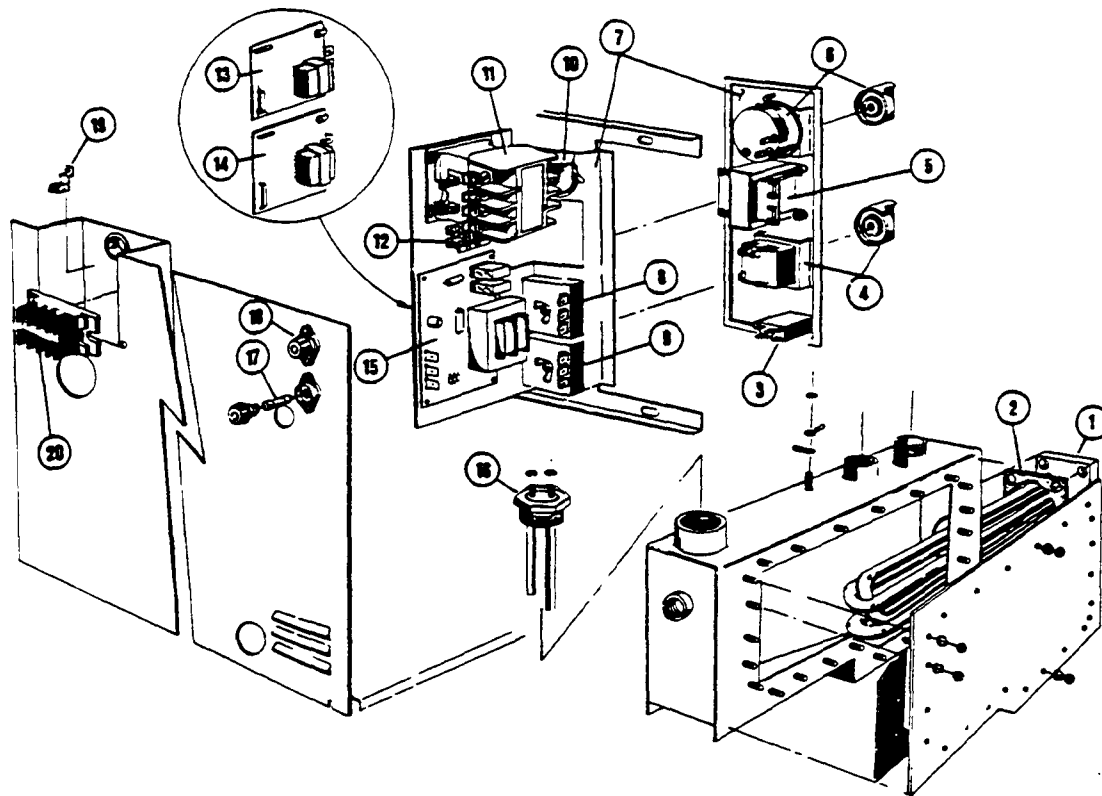
STEAMCRAFT II ELECTRICAL COMPONENTS
DATE OF MANUFACTURE: JAN. 31, 1979 THRU JULY 31, 1982



REFERENCE NUMBER	PART NUMBER	DESCRIPTION
1	07142	Heater Gasket
2	08226	208-220V Heater. Immersion 5KW
	08225	240V Heater. Immersion 5KW
3	19981	"Water On" Switch (on-off power switch)
4	19980	Heater Protection Switch
5	40728	Steam Control With Knob
6	20533	Transformer. 75 VA
7	43905	Timer With Knob
8	43956	Panel Assembly
9	16609	1" Brass Plug
10	40462	Probe, Single
11	62459	Probe Extension
12	02626	Adaptor Bushing
13	41350	Buzzer
14	43908	Terminal Block
15	03518	Contactor. 4 Pole. 30 Amp
16	20477	Timer. Solid State
17	23195	Water Level Control
18	12330	Ground Lug
19	43909	Terminal Block — Main Power
20	06340	Fuse
21	06341	Fuse Holder
	14908	Label (not shown)

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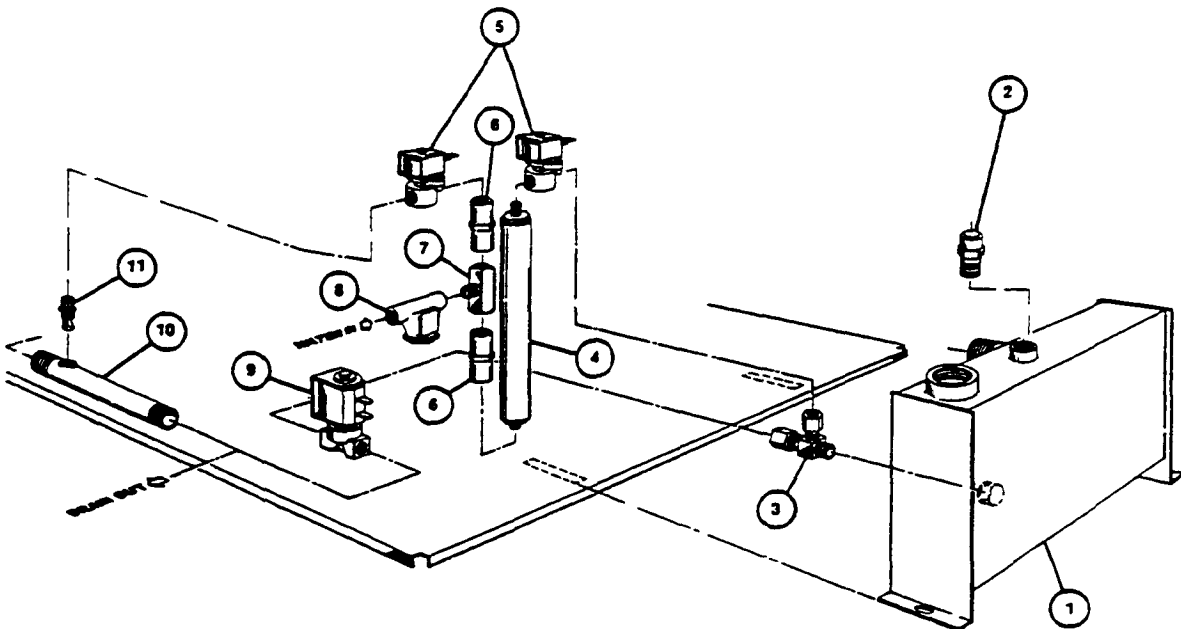
**STEAMCRAFT II ELECTRICAL COMPONENTS DATE OF
MANUFACTURE: AUG. 1, 1982 THRU PRESENT**



REFERENCE NUMBER	PART NUMBER	DESCRIPTION
1	08228	208V Heater. Immersion. 5KW
	08229	220-240V Heater. Immersion. 5KW
	08231	480V Heater. Immersion. 5KW
2	07128	Heater Gasket. 3" Square
3	19993	On-Off Power Switch
4	40728	Steam Control With Knob
5	20533	Transformer, 75VA
6	43905	Timer With Knob
7	43956	Panel Assembly (after 9/13/83)
	44049	Panel Assembly (from 8/1/82 through 9/12/83)
	14908	Label, Control Panel (not shown)
8	20477	Timer, Solid State. 3 Second (Buzzer)
9	20478	Timer, Solid State. 3 Minute (Water Flush)
10	41350	Buzzer
11	03518	Contactor, 4 Pole. 30 AMP
12	43908	Terminal Block
13	23195	Water Level Control Board (from 8/1/82 through 9/12/83)
14	03515	Low Water Cut-Off S/S Board (from 8/1/82 through 9/12/83)
15	23198	Water Control Board (after 9/13/83)
16	16673	Probe. Dual
17	06344	Fuse, 2 AMP. Type KTKR-2
18	06343	Fuse Holder
19	12330	Ground Lug
20	43909	Terminal Block -Main Power

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**STEAMCRAFT II PIPING COMPONENTS STYLE A — DATE OF MANUFACTURE: JAN.
31, 1979 thru DEC. 10, 1980**



REFERENCE NUMBER	PART NUMBER	DESCRIPTION
1	43657	Generator with Insulation
2	22216	Safety Valve — 1 PSI
3	06188	Tee Tube Fitting
4	03350	Water Conditioner
5	22218	Valve. Water Solenoid
6	15463	Flow Regulator — 1/4 GPM
7	20245	Tee Male Branch
8	19880	Strainer
9	22217	Valve. Drain Solenoid
10	16478	Drain Pipe
11	14497	Condenser Nozzle

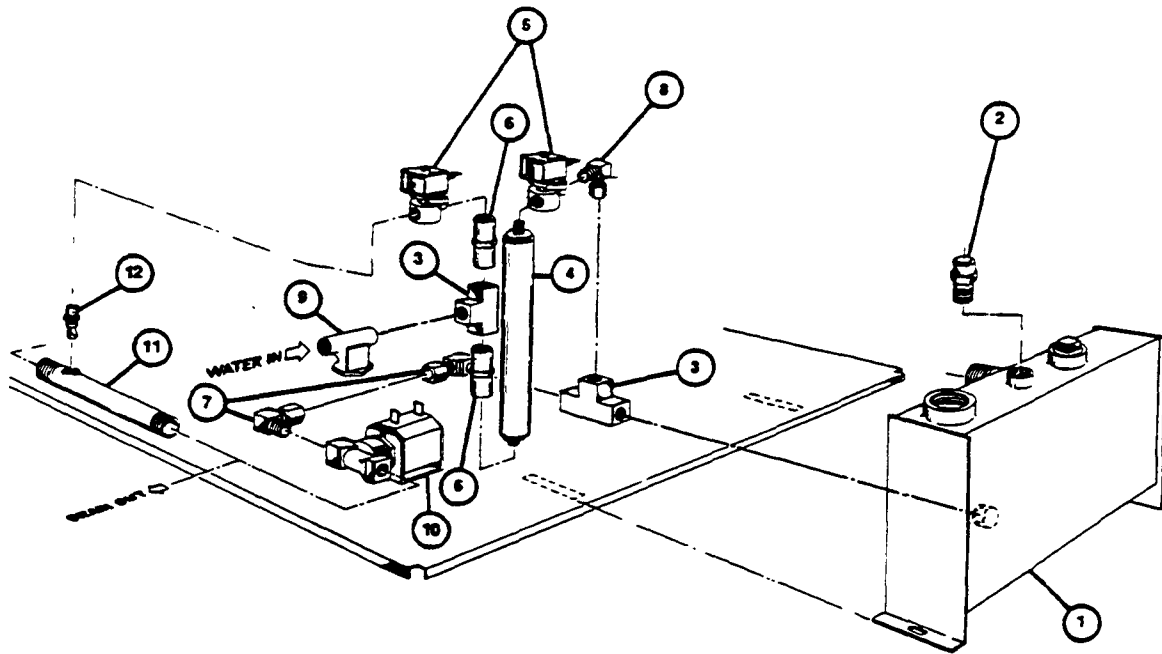
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STEAMCRAFT II PIPING COMPONENTS

Data Sheet 261 EK

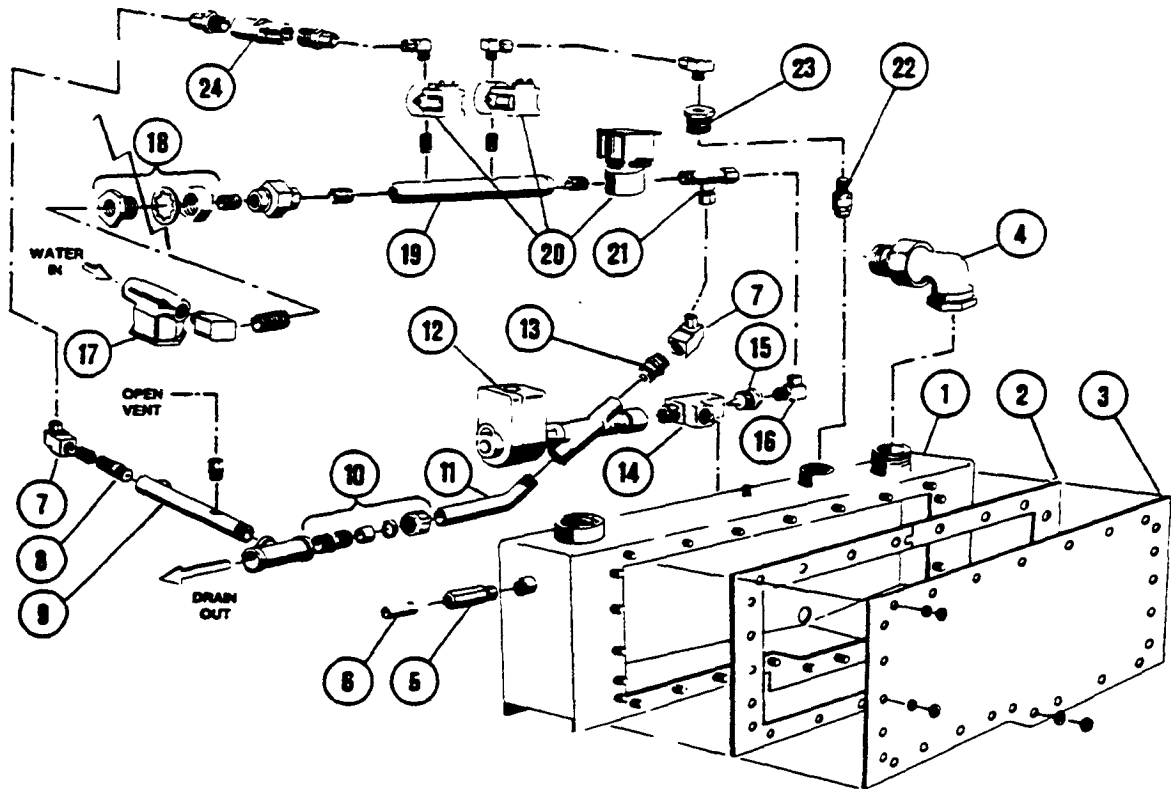
STYLE B — DATE OF MANUFACTURE: DEC. 11, 1980 thru JULY 31, 1982



REFERENCE NUMBER	PART NUMBER	DESCRIPTION
1	43657	Generator with Insulation
2	22216	Safety Valve — 1 PSI
3	20199	1/4" Tee
4	03350	Water Conditioner
5	22218	Valve. Water Solenoid
6	15463	Flow Regulator — 1/4 GPM
7	06196	3/8Tee x 1/4 MPT. 90° Compression Fitting
8	06214	1/4Tee x 1/2 MPT. 90degree Compression Pitting
9	19880	Strainer
10	22217	Valve. Drain Solenoid
11	16478	Drain Pipe
12	14497	Condenser Nozzle

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STEAMCRAFT II PIPING COMPONENTS
STYLE C—DATE OF MANUFACTURE: AUG. 1, 1982 THRU PRESENT

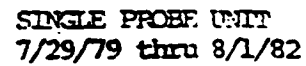


REFERENCE NUMBER	PART NUMBER	DESCRIPTION
1	43658	Generator. With Insulation and Cover .
2	07143	Generator Cover Gasket
3	66586	Generator Cover
4	05263	Ell. Radiator Union
5	22222	Safety Valve
6	14480	Nipple. 3/8" x 1 Threaded One End
7	06227	1/4" Tube x 1 FPT. 90° Compression Pitting
8	14553	Nozzle. Spray Compartment Drain
9	16482	Drain Manifold. Compartment
10	03395	Flexible Drain Pipe Connector
11	16481	Drain Pipe, Generator
12	22221	Valve, Drain, Special Solenoid
13	14551	Nozzle, Jet. Generator Drain
14	20247	1/2- Mate Run Tee
15	14554	Nozzle, Jet. Generator Drain
16	06192	1/4" Tube x 1/8" MPT, 90° Compression Fitting
17	19870	1/4" Line Strainer
18	03641	Bulkhead Coupling
19	16480	Water Line Manifold
20	22218	Valve. Water Solenoid
21	06188	1/4" Tube Fitting, Male Run Tee
22	14552	Nozzle, Spray, Generator Drain
23	02549	Condenser Bushing
24	15463	Flow Regulator. 1/4 GPM (from 8/1/82 through 11/30/83)

NOTE: FOR SAFETY PURPOSES, DRAM SCREEN COVER MUST BE IN PLACE WHEN OPERATING EQUIPMENT.

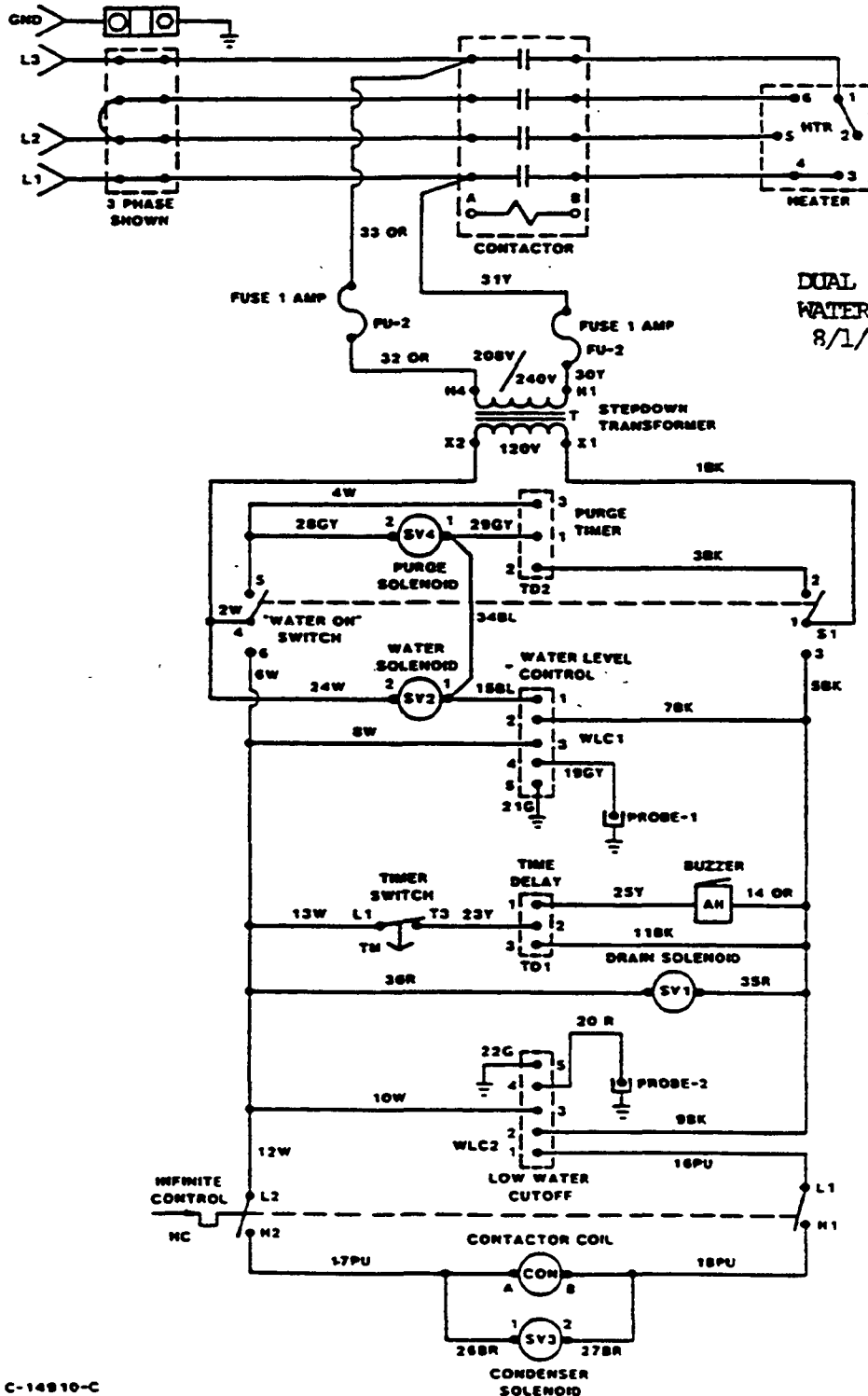
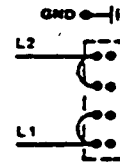
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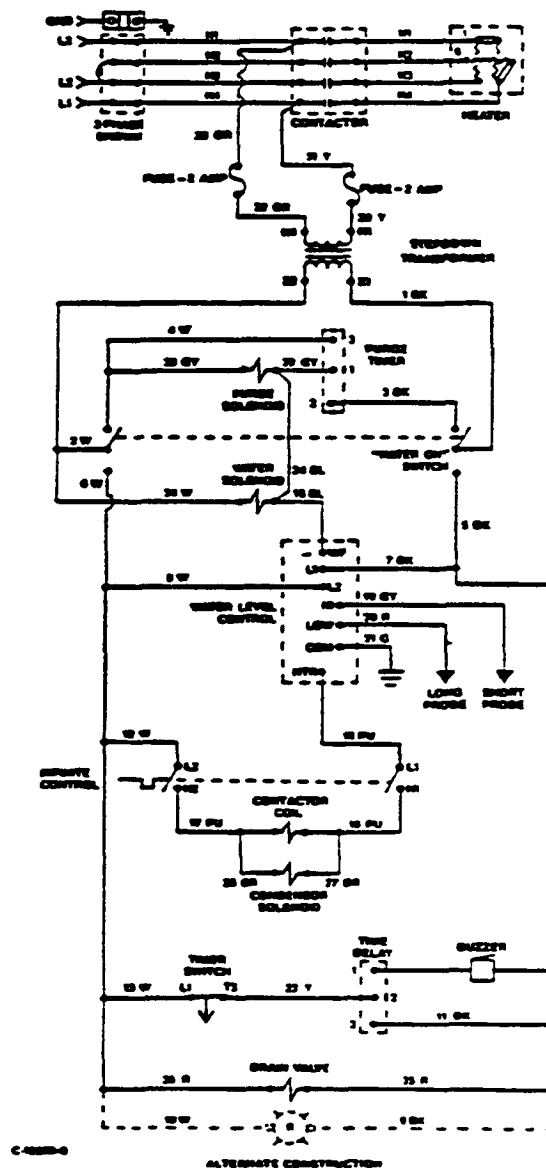
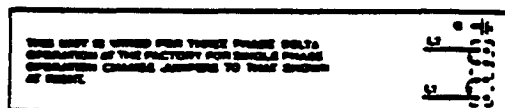
DO NOT ATTEMPT ANY MAINTENANCE UNLESS THE ELECTRIC SUPPLY HAS BEEN COMPLETELY DISCONNECTED. IF A DISCONNECT SWITCH HAS NOT BEEN PROVIDED, REMOVE ALL FUSES FROM THE CIRCUIT AND LOCK THE FUSE PANEL SO THAT THE FUSES CANNOT BE ACCIDENTALLY REPLACED.

THIS UNIT IS WIRED FOR THREE PHASE OPERATION AT THE FACTORY. FOR SINGLE PHASE OPERATION CHANGE JUMPERS TO THAT SHOWN AT RIGHT.



STEAMCRAFT II 208V & 220/240V (ONLY) WIRING DIAGRAM

WARNING:
DO NOT ATTEMPT ANY MAINTENANCE UNLESS THE ELECTRIC SUPPLY HAS BEEN COMPLETELY DISCONNECTED. IF A DISCONNECT SWITCH HAS NOT BEEN PROVIDED, REMOVE ALL FUSES FROM THE CIRCUIT AND LOCK THE FUSE PANEL SO THAT THE FUSES CAN NOT BE ACCIDENTALLY REPLACED.



CLEVELAND RANGE DESCALING KIT
INSTRUCTIONS FOR CHEMICALLY DESCALING A
STEAMCRAFT II EQUIPPED WITH A DUAL PROBE

For a thorough understanding of proper procedures and precautions, read these instructions completely before proceeding.

IMPORTANT

Before using this acid descaling product, read the safety precautions and first aid' instructions found on the container label.

Steamcraft II steamers produced after August 1, 1982 are equipped with removable side panels on the outside wall of the steam generator for ease of cleaning in addition to chemically descaling. Peel off the tape securing the generator side wall insulation, then swing the insulation upward to access the generator removable side panel. Remove the lockwashers and nuts securing the removable panel, then remove the panel and gasket. Using a scoop, or a tablespoon, or by hand, remove scale build-up from the generator. Install a new gasket, then replace the side panel, securing it with the lockwashers and nuts to 30 inch-pounds torque. **DO NOT OVER-TORQUE THE NUTS**, as the studs will break off. There is never any pressure in the generator, and therefore, the nuts do not require heavy torquing to create a water-tight seal.

PREPARATION:

The plastic jar of descaling compound contains 10 pounds of sulfamic acid as a base chemical, plus a specially formulated blend of a corrosion inhibitor, wetting agent, and color-change pH indicator to improve cleaning effectiveness in removing hard water scales and other deposits. This product is water soluble and its solution performs most efficiently when maintained at temperatures of 150 - 160°F (65 - 71°C). Also included is an 8 ounce poly-bag of soda ash (sodium carbonate) neutralizer.

Effective descaling and neutralizing of the Steamcraft II steam generator is generally accomplished by using 1 pound of descaling powder (1/10 of the plastic Jar's contents) and 1 ounce of neutralizer (1/8 of the poly-bag's contents).

WARNING: Steam and hot water may cause serious injury and bodily harm when it is accidentally or carelessly released. Improper handling of acid could cause serious, permanent injury. Therefore, service of the steam generator should only be performed by trained and experienced personnel, thoroughly familiar with servicing generators.

Mix approximately 1 ounce (1/8 of the poly-bag's contents) of soda ash neutralizer in 1 cup of water. Bicarbonate of Soda or baking soda are suitable alternative neutralizers. Keep this solution nearby to be used to neutralize acid that may be accidentally spilled.

Turn off electrical power to the steamer at the main fused disconnect power switch. Remove the six screws (3 left & 3 right) along the lower left and right edges of the once piece outer sheeting. Lift the outer sheeting straight up and off the steamer.

GENERATOR DESCALING

Locate the generator probe (top rear of generator). Remove the low water probe wire (red) and water level probe wire (grey) from the probe terminals. Isolate probe wires to prevent inadvertent grounding until required for reconnection. Remove the probe from the top of the generator.

Inspect the generator and probe to determine the severity of mineral scale build-up. If build-up is considerable, side panel removal may be required. Using a fine grid emory paper remove any scale build-up on the probe extensions before reinstallation.

Pour the premeasured one pound of descaler into the generator via the probe coupling. Install the probe in generator and reconnect only the red probe wire.

Energize the electric power supply to unit and push power "ON" switch. The generator is now filling with water. Open the compartment door and watch the steam port for water flow. When water starts to enter compartment, reconnect grey generator probe wire. Water should stop flowing.

Turn the heat control switch to "10", setting. Once again view the compartment steam port for water flow, approximately 3 minutes. Turn the heat control switch to "0" when steam or water starts to gurgle from port.

Let the solution stand for several hours. The descaling process can range in time from a few hours, to overnight, depending upon the severity of the scale.

When the descaling process is complete, push the steamer's power switch to the "OFF" position to drain the generator of descaling solution.

GENERATOR FLUSH

Remove the two probe wires from the probe and isolate them. Remove probe from generator and examine the generator for any scale residue. Connect the grey probe wire to the "ground" connection on the top of the generator. Push the power on switch to the "ON" position. Pour the neutralizer solution into the generator probe coupling. Replace the generator probe and tighten securely, make sure that the probe terminals are parallel with the rear wall of the unit. Remove grey wire from ground terminal isolate wire until required.

Generator is now filling with water and neutralizing solution. Observe the compartment steam port for water flow, approximately 45 seconds, and reconnect the grey wire to probe terminal. Allow solution to stand in generator for 5 minutes. Push the power switch to the off position to drain the generator.

Disconnect the grey wire from the probe and isolate it once more. Energize the power on switch and observe the compartment for water flow. De-energize the power switch when water appears in the compartment and allow unit to complete the purge cycle. Turn off main electrical supply to unit.

Reconnect red and grey probe wires to the proper terminals with their lockwashers and nuts. Re-energize the main fused power connection.

STEAMER TESTING

Test the steamer for proper operation. Push the power switch to the "**ON**" position. The red light will illuminate when the steamer is on. Turn the steam control knob to number "10". Leave the cooking compartment door open. Steam should begin to appear inside the cooking compartment after approximately 5 minutes. Inspect plumbing for leaks.

If the steamer is operational, push the power switch to the "OFF" position, then turn the steam control knob to zero.

Finally, reinstall the outer sheeting, securing it with the six screws.

TROUBLESHOOTING CHART

COMPLAINTS	POSSIBLE CAUSES
1. NO OPERATION (POWER LIGHT OUT)	1. No power being supplied to terminal block. 2. Blown control circuit fuse in holder at rear of steamer. 3. Broken or burned off wire connection between terminal block and contactor. 4. Open stepdown transformer. 5. Faulty power switch.
3. PRODUCING NO STEAM (CONTACTOR DOES ENERGIZE)	1. Open circuit in heating element. 2. Broken or burned wire connections between element and contactor. 3. Contacts not making good contact in contactor.
4. PRODUCING NO STEAM BUT POWER LIGHT IS ON (CONTACTOR DOES NOT ENERGIZE)	1. Steam control not turned on. 2. Faulty steam control switch. 3. Not enough water in generator. (See : Generator Will Not Fill) 4. Faulty solid state liquid level control. 5. Open contactor coil. 6. Contactor physically stuck open. 7. Drain valve stuck open, not allowing generator to fill and activate low water cutoff probe.

TROUBLESHOOTING CHART

COMPLAINT 5. GENERATOR WILL NOT FILL WITH WATER WHEN POWER SWITCH IS ON

POSSIBLE CAUSES

- I. If power light is off :
 - A. Power switch
 - B. Power supply
 - C. Control fuse

- II. If power light is on and no voltage is measured across the fill solenoid coil :
 - A. If no voltage is measured across LI & L2 on the level control board :
 - 1. Broken wire connection from power switch to level board.
 - B. If 120 volts is measured across LI & L2 on the level control board and no voltage is measured from L2 to WF on the level board :
 - 1. Faulty level control board.
 - 2. Check for grounded probe.
 - C. If 120 volts is measured across LI & L2 on the level control board and 120 volts is measured from L2 to WF on the level board.
 - 1. Broken wire connection from WF to water fill solenoid or from solenoid coil to transformer.

- III. If power light is on and 120 volts is measured across the fill solenoid coil.
 - A. Water supply off.
 - B. Fill solenoid clogged with scale.
 - C. Fill solenoid mechanically stuck.
 - D. Fill solenoid coil open.

TROUBLESHOOTING CHART

COMPLAINT

6. GENERATOR OVERFILLS & TEE POWER SWITCH IS ON
(WATER RUNS OVER INTO THE COOKING COMPARTMENT FROM STEAM DISCHARGE)

POSSIBLE CAUSES

- i. If no voltage is measured across either the purge solenoid coil or the fill solenoid coil.
 - A. Foreign material or scale could be physically keeping the plunger from seating, thus allowing water to continually enter the generator through one of the solenoids.

- ii. If 120 volts is measured across the purge solenoid coil.
 - A. Purge timer contacts are stuck closed.

- III. If 120 volts is measured across the fill solenoid coil.
 - A. Faulty liquid level control board.
 - B. Faulty probe.
 - C. Broken or poor ground connection to common terminal on levelcontrol board.
 - D. Broken or poor probe wire connection from level board to the probe.
 - E. Scale buildup on probe.
 - F. Heavy scale buildup in generator.

TROUBLESHOOTING CHART

COMPLAINTS

POSSIBLE CAUSES

7. WATER OVERFLOWS INTO
COOKING CHAMBER THROUGH
DRAIN AND/OR STEAM
DISCHARGE

1. Drain not open to atmosphere.
2. Drain line not minimum 1 inch size.
3. Drain manifold or fittings clogged with buildup or spilled food buildup.

Note : This condition is caused when the condenser water or purge water cannot exit through the drain quickly enough.

8. LOW STEAM OUTPUT

1. Element partially burned out.
Note : Resistance for each of 3 paths of element should be approximately :
31 ohms at 208 volts
36 ohms at 240 volts
48 ohms at 480 volts

2. Steam control switch set too low.
3. Excessive scale buildup on element reducing heat transfer to generator water.
4. Supply voltage not correct or too low.

9. EXCESSIVE ELEMENT FAILURE

1. Element tubes not split open or overheated.
 - a. Improper supply voltage.
 - b. High voltage spikes from power
 2. Element tubes split open or bright red from overheating.
- * THIS CONDITION CAN ONLY BE CAUSED WHEN THE ELEMENT IS ENERGIZED WITHOUT BEING IMMersed IN WATER.
- a. Check condition of probe - make sure electrodes show no resistance to ground. (Probe body should be constructed of white teflon including threads). If probe has brass fitting or shows any deformity, replace it.

TROUBLESHOOTING CHART

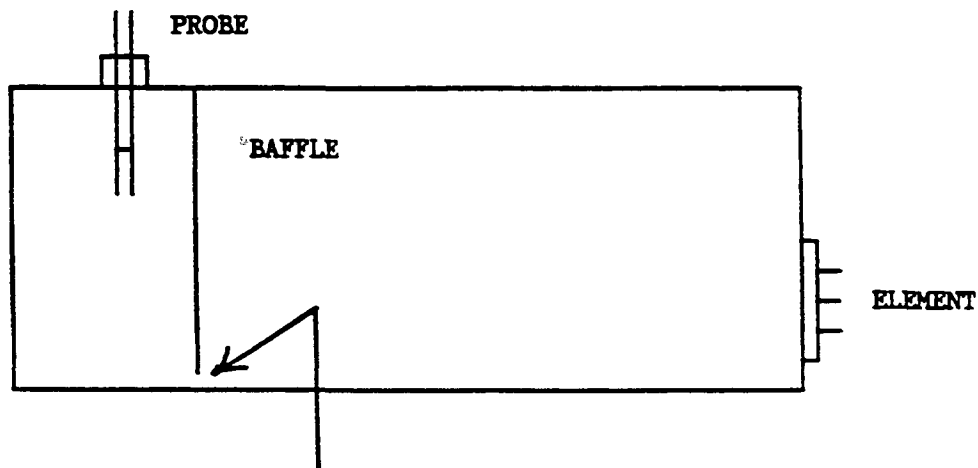
COMPLAINTS

POSSIBLE CAUSES

9. EXCESSIVE ELEMENT FAILURE
(Continued)

- b. Excessive buildup of scale on element and in generator.
- c. Faulty level control board.
- d. Shorted wiring to ground from probe connections.
- e. Probe chamber scaled shut. (See drawing below)

GENERATOR



If this area becomes blocked from scale buildup, false water levels can be sensed by the electrodes. The generator must be delimed and cleaned. This is a fairly frequent cause of element failure.

TROUBLESHOOTING CHART

COMPLAINTS

10. CONTACTOR NOISY WHEN
ENERGIZED

POSSIBLE CAUSES

1. If the contactor is buzzing loudly, the armature in the contactor is not properly seated. This is usually due to warped Bakelite parts, or broken parts. Replace the contactor.

2. If the contactor is chattering loudly when it is energized or de-energized, one of the controls that energizes the contactor coil has poor contact. This is usually caused by the steam control switch.

11. CONTROL CIRCUIT FUSES
ON BACK OF STEAMER
CONTINUALLY BLOW

These fuses control only the control circuit components.

1. Shorted wiring in control circuit.
2. Contactor coil breaking down.

Coil resistance should be between 100 and 125 ohms (Gould Contactor).

3. Solenoid coil breaking down.

Water solenoid resistance should be between 575 and 640 ohms.

Drain solenoid resistance should be between 45 and 55 ohms.

If you find any of these components measuring resistances out of the ranges specified above, that component coil is breaking down and must be replaced.

TROUBLESHOOTING CHART

COMPLAINTS	POSSIBLE CAUSES
12. POWER SUPPLY CIRCUIT BREAKER OR FUSES CONTINUALLY BLOW	<ol style="list-style-type: none">1. Undersized breaker or fuses. (See installation section for ratings.)2. Wrong voltage supply to steamer. (A 208 volt steamer supplied with 230 volts will draw approximately 33% excess amperage over the rated nameplate amps).3. Shorted wiring or connections at terminal block or contactor.4. Faulty heating element.5. Carbon buildup across contactor contacts or heating element terminals. <p>AS A RULE OF THUMB, IF A CIRCUIT BREAKER TRIPS IMMEDIATELY, THERE IS A SHORT CIRCUIT. IF IT STAYS ON A WHILE AND THEN TRIPS IT IS OVERLOADED OR THE BREAKER OR FUSE IS WEAK.</p>
13. EXCESSIVE PROBLEM WITH BURNED OFF WIRE CONNECTIONS	<ol style="list-style-type: none">1. Factory wire connections are made very carefully. During the life of any machine, wire connections can burn off due to loose connections, or faulty controls.

WHEN A CONNECTION BURNS OFF, BOTH THE WIRE AND THE TERMINAL CONNECTORS SHOULD BE REPLACED. NEW TERMINALS ON BURNED WIRE WILL JUST BURN OFF AGAIN.

TROUBLESHOOTING CHART

COMPLAINTS	POSSIBLE CAUSES
14. WATER CONTINUALLY RUNS OUT OF THE DRAIN LINE	<ol style="list-style-type: none">1. Power switch is off for over 5 minutes.<ol style="list-style-type: none">a. Fill solenoid leaking through its seat.b. Purge solenoid leaking through its seat.c. Condenser solenoid leaking through its seat.d. Purge timer contacts stuck closed.2. Power switch is on & heat switch is off.<ol style="list-style-type: none">a. Condenser solenoid is leaking through its seat.b. Drain solenoid is leaking through its seat.3. Power switch is on & steam switch is on.<ol style="list-style-type: none">a. Normal operation - condenser water is fed into drain line to condense steam, so only condensate exits the drain line.
15. STEAM LEAKS OUT OF COOKING COMPARTMENT DOOR	<ol style="list-style-type: none">1. The Steamcraft II is a pressureless free venting steamer. Steam coming out the door almost always indicates a restricted or partially restricted drain line. A condenser solenoid that is not operating can also cause this problem. The cold water in the drain, condensing the steam* causes a natural vacuum which helps draw the steam down the drain.2. A broken or badly swollen door gasket.3. Food buildup on gasket keeping the gasket from sealing properly.

TROUBLESHOOTING CHART

COMPLAINTS

POSSIBLE CAUSES

16. TIMER WILL NOT TIME OUT

1. Faulty timer - replace.

17. TIMER TIMES OUT BUT BUZZER
WILL NOT SOUND

1. No voltage to buzzer.

a. Timer contacts.

b. Solid State Delay Timer.

2. 120 volts to buzzer.

a. Inoperative buzzer - replace.

18. BUZZER WILL NOT SHUT OFF

1. Faulty solid state buzzer timer.