



Service Manual

Pressure Steamers

MODELS: PEM-24/36/48-2/3J
PEM-160/200/250/300-2/3J
PDL/PDM/PDP-2/3J
PSM-2/3J

LIMITED WARRANTY

CLEVELAND RANGE products are warranted to the original purchaser to be free from defects in materials and workmanship under normal use and service for the standard warranty period of one year from date of installation or 18 months from date of shipment, whichever comes first.

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, and Hawaii) 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 payments of reasonable labor required to repair or replace such defective parts. Cleveland Range will not reimburse the expense of labor required to repair or replacement of parts after the standard warranty period, unless and Extended Labor Warranty Contract has been purchased to cover the equipment for the balance of the warranty period from the date of equipment installation, start-up, 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 manufactures, including UL, A.G.A., NSF, ASME/Ntl. 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 Recommendations 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. Preventive maintenance records must be available showing descaling per the applicable Cleveland Operators Manual for Boiler Proration Program considerations.

WATER QUALITY RECOMMENDATIONS

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 two years) from the date of installation, start-up, or demonstration, whichever is sooner.

An additional two years Parts and Labor Warranty can be purchased with each piece of Cleveland equipment for an additional 2% of the List Price per year. The 2% of list price charge will be the net invoice amount for each year of extended warranty purchased.

- Extended warranty must be purchased at the same time the equipment is purchased.

- a. Extended Warranty has the same exclusions as stated in our standard warranty.

Installation Instructions For Steam Generators, Steamers, Steamer/Kettles: Gas — Electric — Steam Coil

Installation Instructions For All Models

- 1) These instructions must be retained by the owner/user for future reference. For installation only in noncombustible locations. Gas units are only to be installed in areas that have provisions for adequate air supply.
- 2) Position: For proper operation and drainage, steam generator must be level. It must be set near a floor drain. Attach 1½" piping to all drain connections to carry exhaust steam away from the cabinet. Ends of drain lines must vent to atmosphere to avoid back pressure. Allow a MINIMUM of 6" clearance to the rear and sides of the equipment. The surrounding area must be free and clear of combustibles.
- 3) Install in accordance with local codes and/or the National Electric Code ANSI/NFPA No. 70-1984. Installation in Canada shall be in accordance with the Canadian Electric Code CSA Standard C22-1. A unit that is connected to electricity must be grounded. A wiring diagram is provided inside the relay box.
- 4) Connect supply lines for 140° — 160° hot water, and cold water, to the unit. Water pressure must be maintained between 35 and 60 psi. Locations and pressure data are shown on the connection drawing. Long hot water lines should be at least ½" IPS. Flush water supply lines thoroughly before connecting. Use water which is low in total solids content and low in gas content, to prevent internal scaling, pitting and corrosion of the steam generator and carry-over of minerals into the steam. Water which is fit to drink can still contain highly detrimental impurities. Refer to Water Quality Requirements page.
- 5) Turn on water supply to steam generator. Water valve is inside of base.
- 6) Connect fuel supply.

FOR YOUR SAFETY

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

For Steam Coil Steam Generators —

- Connect steam supply: Location is shown on the connection drawing. Incoming steam pressure must be regulated between 35 and 45 psi (30 — 45 psi for pressure steamers). Install a strainer ahead of the regulating valve. Flush line thoroughly before connecting.
- Connect the outlet end of the steam coil to an inverted bucket trap. Fill trap with water before installing.
- Connect electricity if unit is equipped with electrical controls. Permanent 115V connection is required. Junction box location is shown on the connection drawing. Unit must be electrically grounded by the installer.

For Gas Fired Generators —

- 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.
- Connect gas: Location and pressure data are shown on the connection drawing. Installation shall be in accordance with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 — 1984. Installation in Canada shall be in accordance with Installation Codes for Gas Burning Appliances and Equipment B149.1 and B149.2. Use a gas pipe joint compound which is resistant to LP gas. Test all pipe joints for leaks with soap and water solution. Allow 12 inch clearance on right side of all Gas Fired Steam Generator models for servicing gas burners and for proper operation. This 12" clearance also provides adequate air openings into the combustion chamber. Never obstruct the flow of combustion and ventilation air. The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of ½ psig (3.45 kPa). The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressure equal to or less than ½ psig (3.45 kPa).
- Connect electricity if unit is equipped with electrical controls. Permanent 115V connection is required. Junction box location is shown on the connection drawing. Unit must be electrically grounded by the installer.
- Lighting and Shutdown Instructions: Flip electrical switch on. Open water valve. Open gas valve. Slightly depress and turn control knob to "off" for 5 minutes before lighting gas. Turn control knob to "pilot", depress it completely and light pilot burner. Continue to hold knob in for about 60 seconds, then release. Pilot burner is lighted through hole in panel at bottom of steam generator. Never leave panel off, as this will damage controls. Turn control knob to "on". Depress electrical "reset" switch for main burner ignition. Burners will not light without water in the steam generator. For main burner off, with pilot on, turn control knob to "pilot". For main and pilot burner off, slightly depress and turn control knob to "off". Flip electrical switch off.

For Electrical Steam Generators —

- Connect electric power: Location is shown on the connection drawing. Provide connection as required by your unit. Electric supply must match power requirements specified on data plate attached to base. Wiring must be adequate to carry required current at rated voltage. A separate fused disconnect must be supplied and installed. Unit must be electrically grounded by the installer.

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- 7) Turn on electricity at control circuit switch on steamer console. A red light glows when electricity is on. If water level is correct, steam generator will operate by pressing the "reset" button. Heaters will not work without water in the steam generator. This manual reset button must be pressed to start up the generator initially, and to restart the steam generator after every shut off, or power interruption. No attempt should be made to operate the equipment during a power failure.
- 8) Check to make sure that the water in the sight gauge glass automatically stays at about 2/3 full when the unit is started up.
- 9) When installation is complete and free of leaks, refer to **Operating Procedures** sheet.

Instructions For Steam Generator Care

Protect your steam generator, prolong its life and preserve its performance by giving it the required daily attention, on a regular schedule. Follow servicing instructions for your steam generator which are printed on Data Sheet 260-LC in your Owner's Manual, and also on an adhesive label attached to the unit. To obtain an additional data sheet or label carrying servicing instructions, write to the Cleveland Range Company.

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. When maintenance or repairs are required, contact a local food service equipment service agency, or call the factory, or a factory representative, for the name and address of one in your area.

Steam Generator (Boiler) Safety

Rigid regulations govern the design and construction of a boiler. However, the responsibility for the safe and efficient operation of a boiler shifts to the owner/user after the boiler leaves the factory.

A sound boiler, if improperly installed, or if improperly maintained, or if improperly repaired, will create a dangerous situation and may cause injury to personnel.

Most states, provinces and some cities have a boiler safety law. Many underwriters require that their clients' boilers comply with these boiler safety laws. These safety laws call for action by the boiler manufacturer and action by the boiler owner/user.

As a manufacturer, The Cleveland Range Company delivers steam generators built to the ASME Boiler Code, Section IV, which have been inspected by a National Board Inspector. Also, each Cleveland Range Company boiler is built to comply with the boiler safety law of the state to which it is sent.

Safe and Efficient Boiler Operation Depends on Proper Installation

Install the boiler in compliance with following regulations, where they apply:

- The National Fuel Gas Code, ANSI Z223.1-1984
- Installation Codes for Gas Burning Appliances and Equipment B149.1 and B149.2
- The Cleveland Range Company Installation Instructions
- The National Electrical Code ANSI/NFPA No. 70-1984
- The local and municipal building code (plumbing and electrical)
- The state and city boiler laws
- The recommendations of the owner/user's underwriters

The water for the boiler should be analyzed by a reputable boiler water specialist, to see if the quality will permit safe and efficient boiler operation. Water treatment is becoming increasingly necessary because the quality of water sources is deteriorating, although treatment will not be required in every case. A boiler will not operate properly for very long if the water causes boiler corrosion or scale. Even water which is safe to drink may be detrimental to a boiler. Refer to Water Quality Requirements page for details.

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.

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PRESSURE STEAMER OPERATING INSTRUCTIONS

NOTE: These instructions pertain to steamers equipped with self-contained steam generators (boilers). For steamers direct-connected to a remote (in-house) steam source, disregard those instructions which are directly and solely related to the self-contained steam generator. These instructions are to be retained by the owner/user for future reference.

- 1A. Open the cabinet base door and close the drain valve if it is open.
- B. Make sure the hot and cold water supply valves are open.
- C. For steamers equipped with a gas-fired steam generator (boiler) follow the lighting instructions noted on the instruction label displayed on the unit before continuing to instruction in item 2.
2. Flip the toggle switch on front of the cabinet console to "ON". The red console light should then glow and the boiler will automatically begin filling with water (if it is not already full).
3. After approximately five minutes (after water appears in the sight gauge), depress the "START" reset button on the console. This will energize the electric heater elements or ignite the gas burners. This cannot be accomplished until the boiler is full of water.
4. In approximately 15 minutes you will notice the console's steam pressure gauge register 5 pounds. (10 pounds if the boiler is also supplying steam to a kettle. The upper pressure gauge will register 5 pounds.) You can now preheat the cooking compartments.
5. Compartments should be preheated before use and should be kept hot between loads. If a kettle and steamer are to be used at the same time, always heat the kettle unit first. When kettle contents begin to simmer, preheat the steamer compartments. When pressure on the boiler gauge returns to 10 pounds, cooking may begin in the steamer.
6. Close and latch door securely. Turn bar handle clockwise until the door gasket just touches the compartment face.
7. Start steam supply by pulling steam valve handle out. If fitted with automatic timer, set timer for 5 minutes. At the start, compartment thermostatic traps should release air and wet steam for about two minutes, then shut off.
8. Seal compartment door by turning bar handle clockwise just until steam leakage stops. **DO NOT OVERTIGHTEN.**
9. At the completion of the 5 minute preheating cycle, push steam valve slowly in, to avoid boilovers. This shuts off the steam supply and also depressurizes and drains the compartment. If fitted with an automatic timer, the steam shuts off automatically and a bell rings when the timer reaches zero. Setting the timer to "Off" stops the bell.
10. To open compartment door, turn bar handle counter-clockwise and delatch.
11. Cooking can now begin by following the above operating steps #6 through #10, but setting the timer for the required cooking time. At the end of a cooking cycle 40 minutes long or longer, or when defrosting frozen foods, wait at least two minutes for the compartment(s) to depressurize and drain before opening the compartment door.

CAUTION: After each cooking cycle, ensure that all water is draining, and not accumulating in the compartment. Should a drain become obstructed, it must be cleared before attempting to cook in that compartment.

12. At the end of each day's operation, flip the console toggle switch to the "Blowdown" position, open the door in the cabinet base and open the boiler drain valve, (red handle). This "Blowdown" drains the boiler and helps to keep it clean. When the boiler is empty, flip the console toggle switch to the "OFF" position and close the boiler drain valve.
13. It is recommended that the boiler be refilled with water after the "Blowdown" is performed. This can be accomplished by flipping the toggle switch to the "ON" position for a period of five minutes and then returning the switch to the "OFF" position.

TO PROLONG LIFE AND MINIMIZE SERVICE REQUIREMENTS

1. Blow down the steam generator daily.
2. A periodic boiler inspection must be performed by a qualified serviceman to prolong its life and to minimize service calls.
3. At the end of each day's operation, wash the pan slides, drain screen covers, door gaskets, and compartment interiors with mild detergent and warm water. Thoroughly rinse with clean water. Rinse water should drain freely through the compartment drain openings. If it does not, the drain must be cleaned before using the steamer.
4. Once a week, flush each compartment drain with a food service equipment drain cleaner and a deliming solution.
5. Once every three months, shut off the water supply (hot and cold), and clean the water line strainers.
6. Compartment thermostatic traps can be disassembled and cleaned, by hand or in a mechanical dishwasher. This procedure is recommended if the traps act sluggishly, as they may if contaminated by grease or other film. If cleaning fails to restore the trap's proper functioning, replace the trap. For more detailed thermostatic trap servicing instructions, refer to Data Sheet 260-LH.

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

7. Shelves, drain screens, and pan slides are stainless steel, and can be washed safely in a mechanical dishwasher.
8. 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.
9. Compartment Door Care:
 - a. When doors are closed for preheating or cooking, turn bar handle just enough to stop steam leakage. Overtightening shortens gasket life.
 - b. When doors are open or unlatched, do not turn bar handle.
 - c. Always leave compartment doors ajar when not in use, to extend gasket life and to prevent gaskets from adhering to the steamer. Unnecessary compression of a gasket shortens its life.
 - d. Keep bar handle screws clean. Lubricate frequently but not excessively.
 - e. 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. 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, being careful not to damage the channel. The new gasket can then be pressed into place. Insert the gasket in the corners of 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 oversized, so once it is compressed into the door's channel, it remains firmly in place.

PRESSURE STEAMER SAFETY

FOR YOUR SAFETY

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

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 every 12 months.

1. Steam Valve Linkages

Have a qualified serviceman 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 once a year, or sooner 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**
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. Refer to data sheet 260-LH for details.
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.
6. Refer to separate data sheets for steam generator operation, maintenance, and safety procedures.

WARNING

Service of steam cooking equipment should only be performed by a trained and experienced service technician, thoroughly familiar with servicing steam equipment. No work should be performed on the steamer while it is pressurized or hot. Be sure all energy sources are shut off before the start of any work. When maintenance or repairs are required, contact a local food service equipment service agency, or call the factory, or a factory representative, for the name and address of one in your area.

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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.

To keep your steamer operating at peak efficiency, thermostatic traps and compartment door gaskets require periodic replacement. Frequency of replacement varies from one piece of equipment to another depending on the amount of usage, and frequency and quality of maintenance.

COMPARTMENT THERMOSTATIC TRAP

A normal thermostatic trap at startup 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.

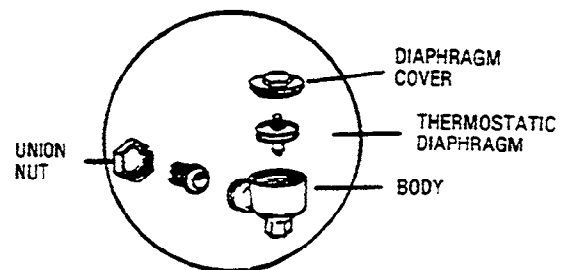
A compartment trap less than a year old may act sluggishly only because it is contaminated by grease and other film.

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

To clean the trap, unscrew the threaded diaphragm cover 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 properly 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, being careful not to damage the channel. The new gasket can then be pressed into place.

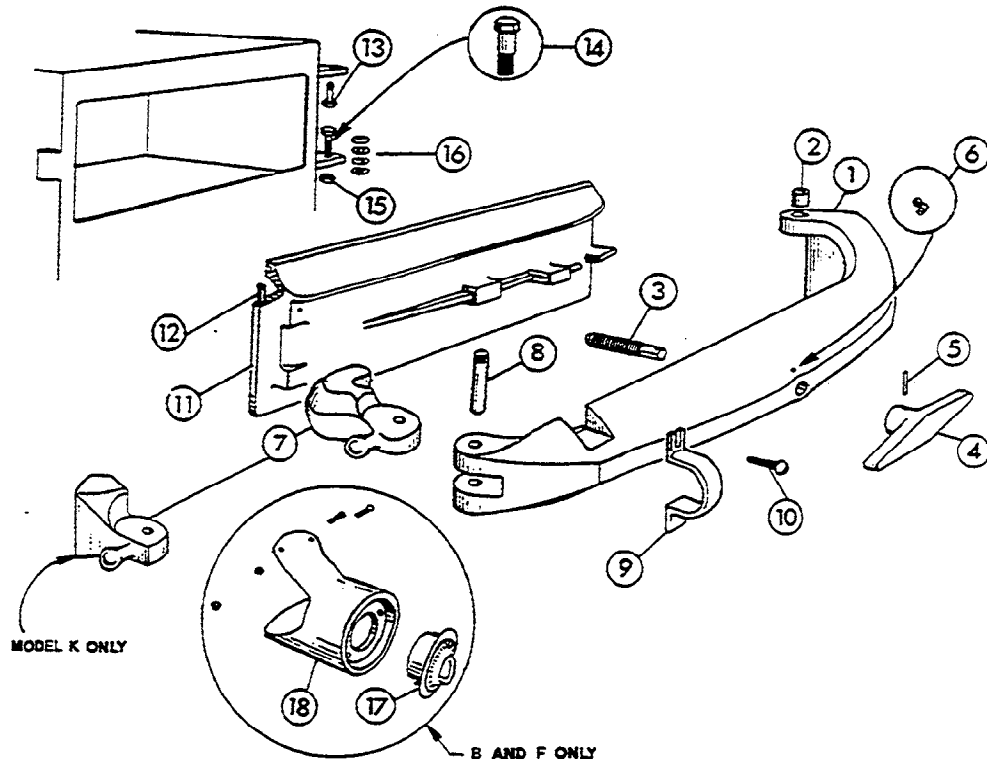
Insert the gasket in the corners of the channel first, adjusting the slack evenly between the corners. Then work from the corners to the center. Ridges hold the gasket firmly. The gasket is designed to be oversize, so once it is compressed into the door's channel, it remains firmly in place.

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MODELS B, C, F, K PRESSURE STEAMERS DOOR AND DOOR ARM ASSEMBLY

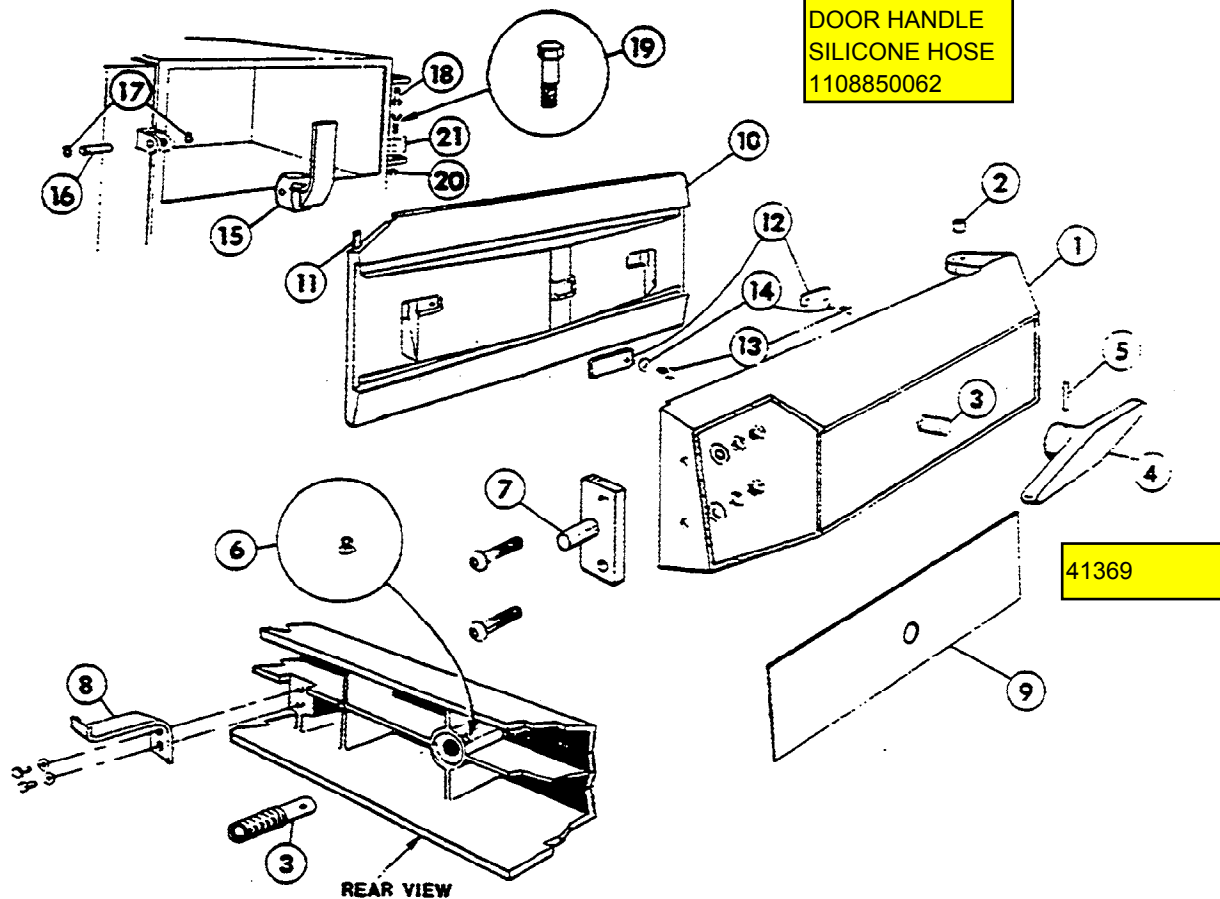


REFERENCE NUMBER	PART NUMBER	DESCRIPTION
1	25303	Door Arm With Bushings — Model B & C, Polished
	25304	Door Arm With Bushings — Model F & K, Polished
2	02568	Door Arm Hinge Bushing (2 Required)
3	41370	Standard Door Arm Screw With Ball (1" x 8 thread)
	41371	Oversize Door Arm Screw With Ball 1½" x 8 thread)
4	081001	Screw Handle Bar, Polished
5	16305	Pin
6	15250	Oil Cup
7	122011	Door Arm Latch — Model B, C, & F Chrome Plated
	122021	Door Arm Latch — Model K Chrome Plated
8	101018	Door Arm Latch Pin — Model B, C, F, & K Brass
	163101	Door Arm Latch Pin — Model B, C, F, & K Chrome Plated
9	081031	Door Retainer — Model B, C, F, & K Chrome Plated
10	19291	Screw
11	041631	Door, Model B Polished
	04164	Door, Model C Polished
	04165	Door, Model F & K Polished
12	07132	Door Gasket — Rubber, Model B
	07134	Door Gasket — Rubber, Model C, F, K
13	023001	Door Arm Hinge Post Bolt (Upper) — Concentric Type —
14	023061	Door Arm Hinge Post Bolt (Lower) — Eccentric Type —
15	14643	Nut, For Lower Hinge Post Bolt
16	23181	Shim Washer
17	40547	60 Minute Bell Timer Assembly
18	08601	Timer Housing — Model B & C Polished (Not Available)
	08606	Timer Housing — Model F Polished (Not Available)

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

MODEL J DOOR AND DOOR ARM ASSEMBLY



REFERENCE NUMBER	PART NUMBER	DESCRIPTION
1	253022 Door Arm Painted	
2	02568	Door Arm Hinge Bushing (2 Required)
3	41370	Standard Door Arm Screw With Ball (1" x 8 thread)
	41371	Oversize Door Arm Screw With Ball (1 1/32" x 8 thread)
4	081001	Screw Handle Bar, Polished
5	16305	Pin
6	15250	Oil Cup
7	41360	Striker Plate and Pin.
8	43723	Door Hanger w/Screws and Washers (2 Required)
9	53035	Door Arm Insert, Stainless
10	04162	Polished Aluminum Door, 041623 Door Painted
11	07136	Door Gasket — Rubber
12	68140	Retainer, Yoke Hanger (2 Required)
13	19228	Screw
14	23182	Washer
15	122001	Door Arm Latch, Chrome Plated
16	163141	Door Arm Latch Pin, Chrome Plated
17	18306	Retainer Clip, (2 Required)
18	023001	Door Arm Hinge Post Bolt (Upper) — Concentric Type —
19	023061	Door Arm Hinge Post Bolt (Lower) — Eccentric Type —
20	14643	Nut, For Lower Hinge Post Bolt
21	23181	Shim Washers

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MECHANICAL COMPARTMENT CONTROLS MODEL J PRESSURE STEAMERS—JAN. 1982 THRU PRESENT

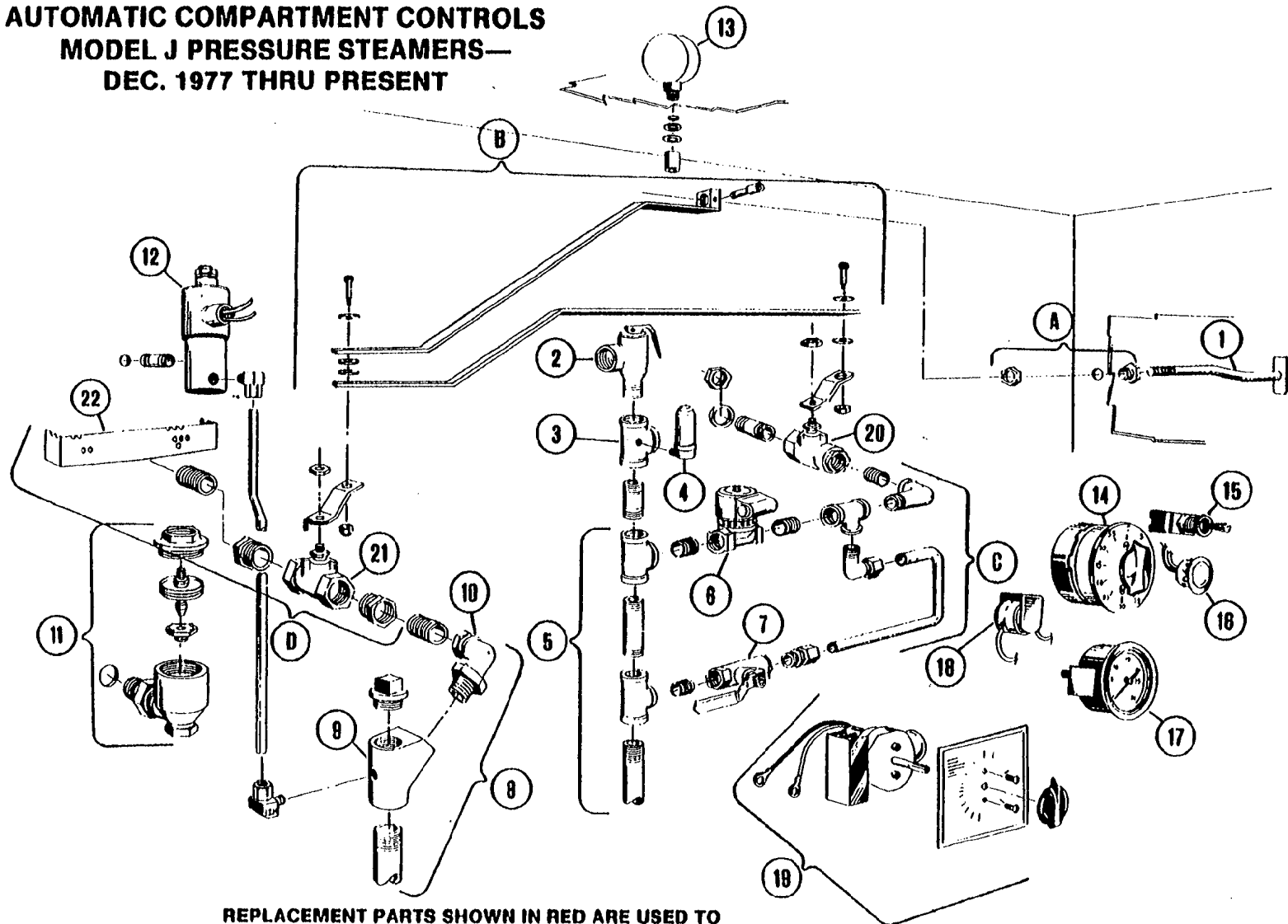
REFERENCE NUMBER	PART NUMBER	DESCRIPTION
1	40850	Pull Rod Handle
2	22130	Valve, Safety, 8 PSI
3	70411	Tea, Special 3/4"
4	22140	Air Vent
5	42278	Inlet Manifold Ass'y.—2-Compt.—Mech. "J", Less Valves
	42277	Inlet Manifold Ass'y.—3-Compt.—Mech. "J", Less Valves
6	07173	Gauge, Pressure, Rear Mount, 0-30 PSI
7	42288	Exhaust Manifold Ass'y.—2-Compt., Model "J", Less Valves
	42289	Exhaust Manifold Ass'y.—3-Compt., Model "J", Less Valves
	02146	"Y" Bend
9	05263	Ell, 3/4" Radiator Union
10	20551	Thermostatic Trap—Plain End
11	05252	Ell, 1/2" Street
12	22212	Valve, 1/2" Ball, Inlet Steam
13	22213	Valve, 1" Butterfly, Exhaust Steam
14	41100	Drain Cover Screen
A	43765	Bushing Ass'y.
B	40679	Linkage Ass'y., Model "J"
C	42697	Conversion Kit, Inlet Valve—"J" Mech., Includes: 1/2" Inlet Steam Valve, 1/2" Street Elbow, 1/2" x 6" Nipple, 1/2" x 2 1/4" Special Nipple, (2) Locknuts, (2) Sealing Washers
D	40710	Conversion Kit, Exhaust Valve, Includes: 1" Exhaust Steam Valve, (2) 1" x 3/4" Bushings, 3/4" Close Nipple, Drain Cover Screen.

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

**AUTOMATIC COMPARTMENT CONTROLS
MODEL J PRESSURE STEAMERS—
DEC. 1977 THRU PRESENT**

LTHO IN USA 1082

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



**REPLACEMENT PARTS SHOWN IN RED ARE USED TO
CONVERT OLDER STEAMERS, BUILT BEFORE DEC. 1977,
WHICH CONTAINED GATE VALVES. (GROUPS A, B, C, D.)**

**AUTOMATIC COMPARTMENT CONTROLS
MODEL J PRESSURE STEAMERS—DEC. 1977 THRU PRESENT**

REFERENCE NUMBER	PART NUMBER	DESCRIPTION
1	40850	Pull Rod Handle
2	22130	Valve, Safety, 8 PSI
3	70411	Tee, Special ¾"
4	22140	Air Vent
5	42286	Inlet Manifold Ass'y.—2-Compt.—Auto "J", Less Valves
	42297	Inlet Manifold Ass'y.—3-Compt.—Auto "J", Less Valves
6	22115	Valve, ½" Steam Inlet Solenoid
7	03278	Valve, Steam By-Pass
8	42288	Exhaust Manifold Ass'y.—2-Compt., Model "J", Less Valves
	42289	Exhaust Manifold Ass'y.—3-Compt., Model "J", Less Valves
9	43764	"Y" Bend—with ¼" Tapped Hole
10	05263	Elb, ¾" Radiator Union
11	20551	Thermostatic Trap—Plain End
12	22199	¼" Solenoid Valve, Auto Exhaust, 115 Volt, For Use With 40518 Timer
	22185	¼" Solenoid Valve, Auto Exhaust, 115 Volt, For Use With 40540 Timer
13	07172	Gauge, Pressure, Bottom Mount, 0-30 PSI
14	40518	Timer, 60 Min. Mechanical (Mfg. #70000)
15	19977	Switch—SPST
16	12161	Light, Signal
17	07173	Gauge, Pressure, Rear Mount, 0-30 PSI
18	41350	Buzzer
19	40540	Timer, 105 Min. (Mfg. 601)
20	22212	Valve, ½" Ball, Inlet Steam
21	22213	Valve, 1" Butterfly, Exhaust Steam
22	41100	Drain Cover Screen
A	43765	Bushing Ass'y.,
B	40879	Linkage Ass'y., Model "J"
C	40712	Conversion Kit, Inlet Valve—"J" Auto, Includes: ½" Inlet Steam Valve, ½" Street Elbow, ¾" Tube Fing., ¾" — 90° Tube Fing., (2) ½" Close Nipples, ½" x 2¼" Special Nipple, ½" x ½" x ¾" Tee, ¾" x 12" Tube, (2) Locknuts, (2) Sealing Washers
D	40710	Conversion Kit, Exhaust Valve, Includes: 1" Exhaust Steam Valve, (2) 1" x ¾" Bushings, ¾" Close Nipple, Drain Cover Screen.

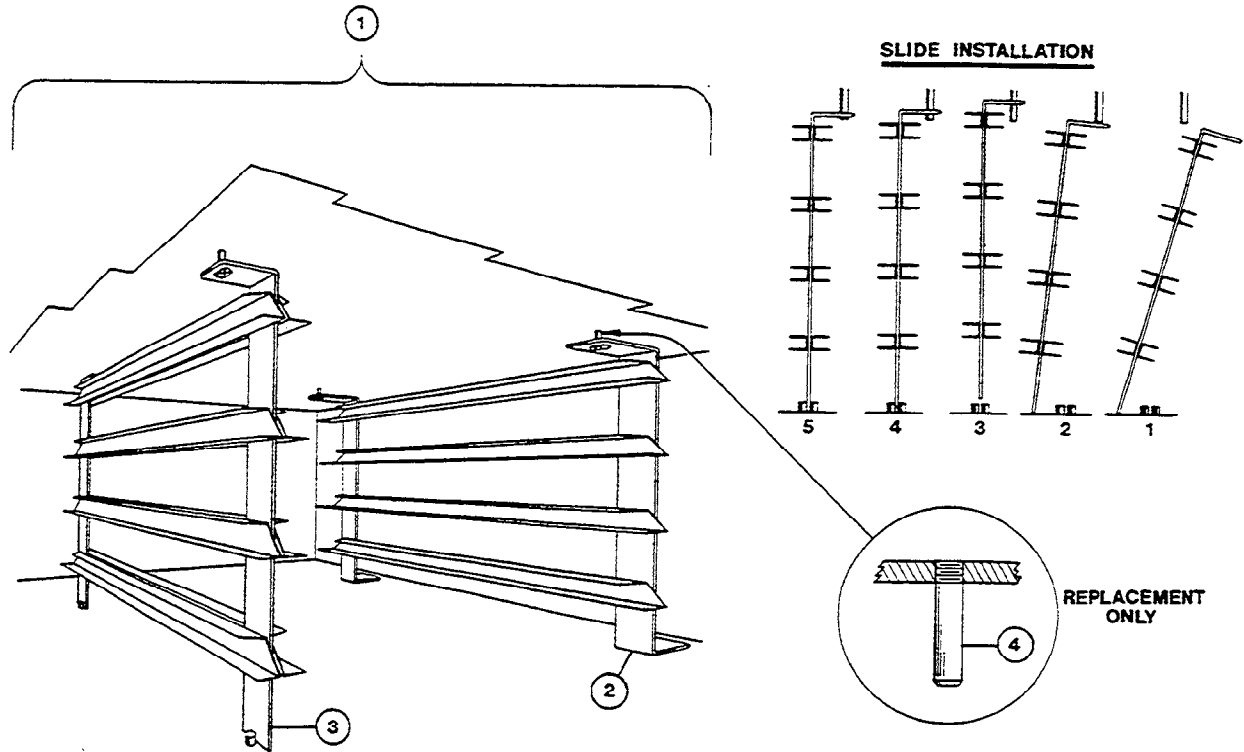
NOTE: FOR SAFETY PURPOSES, DRAIN SCREEN COVER MUST BE IN PLACE WHEN OPERATING EQUIPMENT

LTHO IN U.S.A. 1082

CLEVELAND RANGE CO., 1333 EAST 179th ST., CLEVELAND, OHIO 44110
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Data Sheet 251-5A (R2)

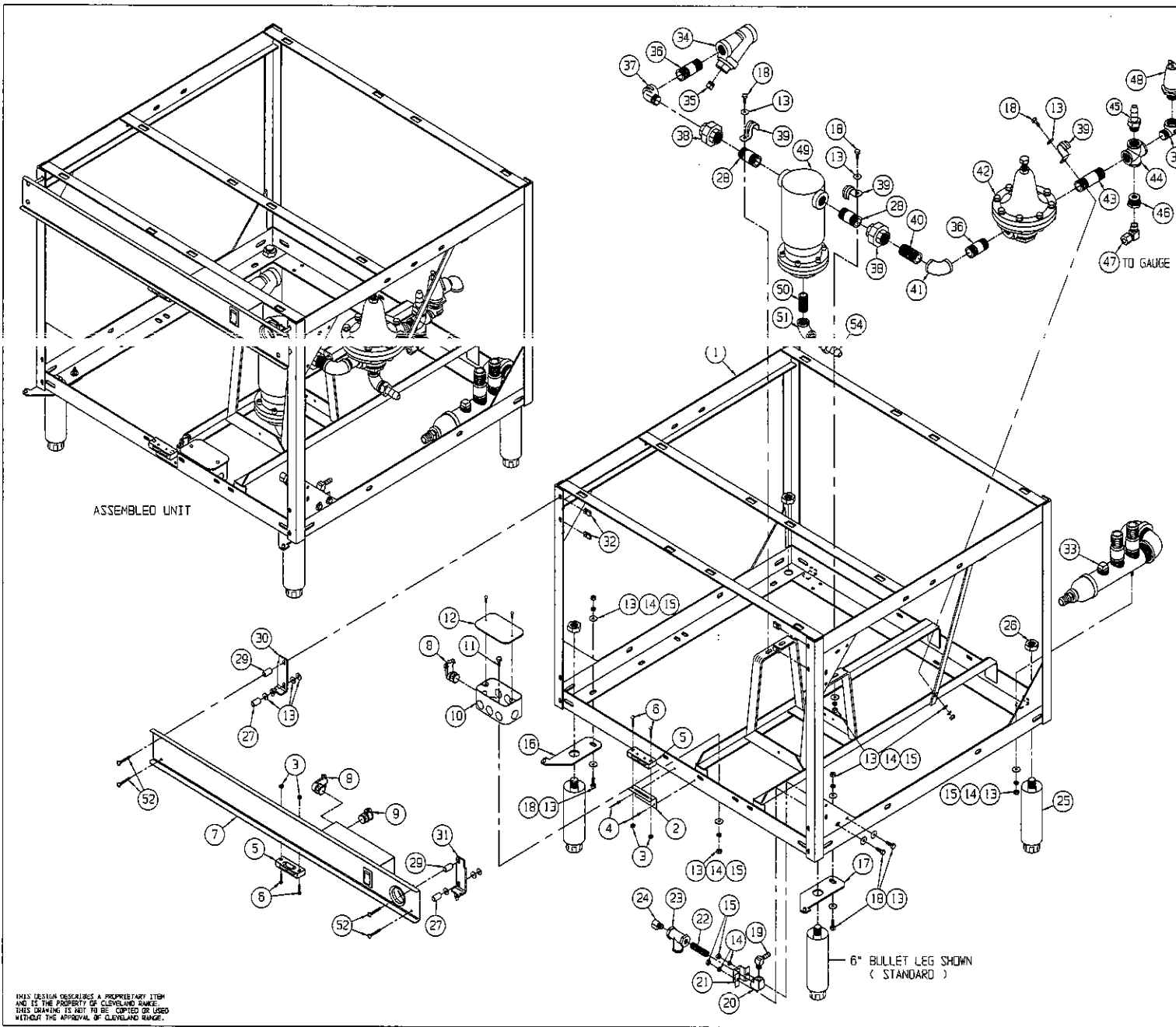
MODELS J AND K PRESSURE STEAMER SLIDE SETS



REFERENCE NUMBER	PART NUMBER	DESCRIPTION
1	41440	Pan Support Slide Set, Model J Complete
	41442	Pan Support Slide Set, Model K Complete
2	41430	Right or Left Side Slide Rack, 2 Per Compt Req'd, Model J
	41432	Right or Left Side Slide Rack, 2 Per Compt Req'd, Model K
3	41435	Center Slide Rack Model J, 1 Req'd Per Compt
	41437	Center Slide Rack Model K, 1 Req'd Per Compt
4	19909	Replacement Top Studs (Screw-In) J or K (Set of 6)

CLEVELAND RANGE, INC., 1333 EAST 179th ST., CLEVELAND, OHIO 44110

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LET.	REVISIONS	DATE	BY
54	1	05241	FITTING, HOSE, 3/4 H X 1/2 NPT
53	1	05250	ELBOW, STREET, 3/4 X 90°, BLK
52	4	106598	SCREW, TEE HD, PHILPS, 10-24 X 1-1/2
51	1	05249	ELBOW, 1/2", BLACK, 90°
50	1	14323	NIPPLE, 1/2" X CLOSE, BLACK
49	1	19020	TRAP, SEPARATOR COMBINATION
48	1	22131	VALVE, SAFETY 3/4, 15# PSI
46	1	02563	BRUSHING, HEX 3/4 X 1/4 BRASS
45	1	05240	FITTING, HOSE 3/4 H X 3/4 NPT
44	1	03732	CROSS, 4-WAY, 3/4 BRASS
43	1	14348	NIPPLE, 3/4 X 3, BRASS
42	1	22122	VALVE, 3/4 PRESSURE REDUCING
41	1	05260	ELBOW, 3/4 X 90°, BRASS
40	1	14342	NIPPLE, 3/4 X CLOSE, BRASS
39	3	03197	CLAMP, RIGID, 3/4" HOLE
38	2	21304	UNION, 3/4 REG BRASS
37	2	05231	ELBOW, STREET 3/4 X 90° BRASS
36	2	14431	NIPPLE, 3/4 X 2, BRASS
35	1	16601	PLUG, 3/8", BLACK
34	1	19872	STRAINER, "Y" PIPE FITTING 3/4 NPT
33	1	42752	GRAIN ASSY.
32	4	106599	NUT, SLIP ON, 10-24, TIMBERMAN
31	1	412192	HINGE, UPPER RIGHT HINGE
30	1	412182	HINGE, UPPER LEFT HINGE
29	2	19555	SPACER, 1/4 ID X 13/16" LG
28	2	14346	NIPPLE, 3/4 X 2-1/2, BRASS
27	2	19552	SPACER, 1/4 ID X 11/16" LG
26	4	14568	NUT, HEX JAN 3/4-10
25	4	06156	LEG, BULLET 6"
24	1	05235	ELBOW, STREET 1/4 X 90°
23	1	19870	STRAINER, "Y" 1/4" 27 LB.
22	1	14304	NIPPLE, 1/4 X CLOSE, BRASS
21	1	100064	CLAMP, MOUNTING 1/4" TEE, S/S
20	1	05236	ELBOW, 1/4 X 90° BRASS
19	1	105786	FITTING, HOSE BARB, 1/4H X 1/4 NPT, 90°
18	7	19288	SCREW, HEX HEAD, 1/4-20 X 3/4
17	1	1020663	HINGE, LOWER RIGHT HINGE
16	1	1020662	HINGE, LOWER LEFT HINGE
15	9	14818	NUT, HEX 1/4-20 S/S
14	9	23105	WASHER, LOCK 1/4 KATLINK STYLE
13	17	23116	WASHER, PLAT 1/4 X 5/8 X .005
12	1	02369	HAND-BOX COVER
11	1	19218	SCREW, HEX HEAD 1/4-20 X 3/8
10	1	02351	HAND-BOX, ELECTRIC BOX
9	1	105243	CONNECTOR, GREENFIELD, 3/8 START.
8	2	105245	CONNECTOR, GREENFIELD, 3/8 X 90°
7	1	1045071	CONSOLE ASSY, 900 MM, 1 SW, CONTROL
6	4	19205	SCREW, HD HEAD 5-32 X 1 ZINC PLTD.
5	2	03100	CATCH, MAGNETIC
4	2	18359	RIVET 1/2" DIA, BLUSH BREAK S/S
3	4	14574	NUT, HEX 5-32 ZINC PLATED
2	1	532741	BRACKET, MAGNET CATCH, A.C.S.
1	-	411241	BASE WELDMENT, A.C.S., O.C.
1	-	41124	BASE WELDMENT, S/S, O.C.
ITEM	QTY	PART NO.	DESCRIPTION
TOLERANCES (UNLESS OTHERWISE SPECIFIED)			
DECIMAL			
FRAMES	SCALE	1/4"=1'	DRAWN BY
N/A	1/4"=1'	EAG	APPROVED BY
TITLES	CONNECTOR, GREENFIELD, 3/8 X 90°		
N/A	CONSOLE ASSY, 900 MM, 1 SW, CONTROL		
DATE	11-04-04	DRAWING NO.	0 - 0K0029
CK		SHEET 2 OF 2	REV.

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6" BULLET LEG SHOWN (STANDARD)

