OWNER'S MANUAL INDEX

This manual is intended for use with
GARLAND 280 and 380 Series Gas Fired Restaurant Ranges; Also Model G-30

THIS PRODUCT HAS BEEN CERTIFIED AS COMMERCIAL COOKING EQUIPMENT AND MUST BE INSTALLED AND OPERATED BY PROFESSIONAL PERSONNEL AS SPECIFIED.

P/N 1009096(Rev)-1 8-81 Price $2.50

GAS RESTAURANT RANGES

INSTALLER'S MANUAL INDEX

GAS SPECIFICATIONS				
	NATURAL		PROPANE	
	ORIFICE	INPUT *	ORIFICE	INPUT **
OPEN BURNER (Each) 280/380	#47A	14,000 BTU/HR.	#57F	14,000 BTU/HR.
HOT TOP BURNER (Each)	#47A	18,000 BTU/HR.	#55F	18,000 BTU/HR.
HOT TOP BURNER PILOT (Each)	.018	----------	.010	----------
GRIDDLE BURNER (Each) MODEL NUMBERS ENDING WITH (TH) OR (SG) ONLY	#48F	18,000 BTU/HR.	#55F	18,000 BTU/HR.
GRIDDLE BURNER PILOT (Each)	.018	----------	.010	----------
BROILER/GRIDDLE BURNER (Each)	#47A	14,500 BTU/HR.	#57F	14,500 BTU/HR.
OPEN BURNER (Each) G-30	#47A	12,500 BTU/HR.	#59F	12,500 BTU/HR.
OVEN BURNER (Each)	#35F	35,000 BTU/HR.	#52F	35,000 BTU/HR.
OVEN BURNER PILOT (Each)	.018	----------	.010	----------
PRESSURE REGULATOR 3/4 x 3/4	Class I - P/N 1019005 Outlet Pressure - 4.5" WC		Class II - P/N 1019004 Outlet Pressure - 10.0" WC	

* @ 4.5" W.C. Pressure measured at manifold tap

** @ 10.0" W.C. Pressure measured at manifold tap

NOTE: UNIT MUST BE INSTALLED WITH NO LESS THAN 6" CLEARANCE FROM COMBUSTIBLE CONSTRUCTION AT REAR AND BOTH SIDES.

The importance of the proper installation of commercial gas cooking equipment cannot be overstressed. Proper performance of the equipment is dependent, in great part, on the compliance of the installation with the manufacturer's specifications. In addition, compliance with the National Fuel Gas Code ANSI Z 223.1 - 1974/NFPA No. 54 - 1974 and/or local code is required to assure safe and efficient operation.

GAS RESTAURANT RANGES

SECTION I ABOUT YOUR RANGE

A. This range as ordered by you can provide for a variety of functions in your limited service operation.

1. The oven(s) will provide for general purpose baking and roasting.

2. The top sections have been tailored to provide any or all of the following functions as per your order.

a. Open burners provide for fast preparation of both individual and bulk orders and may be used for saute operations.

b. The hot top sections provide for stock pot preparation of soups and gravies which may require a longer preparation time.

c. The griddle whether valve or thermostatically controlled provides for frying of hamburgers, steaks, eggs and various other products.

d. The raised griddle/broiler permits limited broiling, browning of the tops of casseroles and toasting and cheese melting operations in addition to the grilling as noted above.

3. It will be most beneficial to you to read this Owner's Manual completely. An Installer's Manual has been included to assist your installer in providing for a proper and safe installation.

SECTION II START-UP INSTRUCTIONS

A. Once the equipment has been properly installed and tested by qualified professional personnel it is ready to be started up as follows:

1. Set all gas valves to "OFF" and thermostats to the "OFF" or lowest setting possible.

2. Turn the gas supply shut-off valve to the "ON" position.

3. Light all constant burning pilots in the top section.

a. Raise the top grate for access to the open burner pilot.

b. The pilot burner for the hot top or standard griddle burner is located at each right front "H" burner corner. This pilot burner is lighted by passing a lighted taper through the access hole in the valve panel and radiation box.

c. The "tee" pilot and single pilot of the raised broiler griddle is reached from the broiler opening.

4. Light the oven pilot as follows:

a. Remove the oven bottom.

b. Press in and hold the reset button (the red button extending through the louvre of the panel beneath the oven door) while lighting the oven pilot burner. Continue to depress the reset button for 45 seconds.

c. Release the button.

d. If the pilot does not stay lit repeat this procedure after waiting 5 minutes.

e. Replace the oven bottom after the oven pilot is lighted.

SECTION III OPERATING INSTRUCTIONS

A. Open Burner Section

1. Set cooking vessel on ring grate and turn gas valve full "ON".

Set burner flame to achieve desired result. DO NOT waste gas by setting flame higher than required.

B. Hot Top Section

1. A factory applied protective film should be removed from the hot top by washing with a hot mild detergent or soap solution. Rinse and dry the top.

2. Turn the gas valve full on to ignite the burner, then turn the valve back to the desires setting.

Heat up time is minimum so that it will not be necessary to keep the burner on after completing a cooking cycle.

3. DO NOT use the hot top as a griddle.

C. Griddle Section

1. To insure long life and service from a griddle, it is imperative that it be carefully "broken in" or seasoned in the following manner:

SECTION I FIELD ASSEMBLY

A. Leg Installation

All units are shipped with N.S.F. approved legs. These legs must be installed to provide a minimum clearance of 6" between the floor and bottom of the unit in order to meet National Sanitation Foundation requirements.

1. When using the legs described above, raise front of range and block; install leveling legs by inserting them into the conical leg retainers. Repeat at rear of range and adjust all legs to level the range. The bottom of the foot is hexagonal in shape so a wrench may be used to adjust the height of the leg to level oven.

2. If the legs are not required and the unit is to be sealed on a covered base proceed as follows:

a. Raise unit and block. DO NOT LAY UNIT ON ITS BACK.

b. Detach conical leg retainer by removing three sheet metal screws holding flange of each retainer to the underside of the range bottom.

c. Mount on covered base using approved methods for such installation.

B. Instructions for Mounting Hi-Shelf

Fasteners and attendant parts are assembled to the hi-shelf. All details shown on figure 1 below.

1. Remove Hi-shelf back panel (Detail #1).

2. Remove four (4) mounting bolts (Detail #2) and two (2) hi-shelf end bracket stabilizers (Detail #3).

3. Place hi-shelf in position on back of range. Make sure hi-shelf front panel (Detail #4) is located in front of hi-shelf front panel stabilizer (Detail #5).

4. Replace two (2) hi-shelf end bracket stabilizers in their original position (Detail #3).

5. Securely fasten hi-shelf to range using four (4) mounting bolts as follows:

a. Place mounting bolts through hi-shelf end bracket stabilizer (Detail #3), hi shelf end bracket (Detail #6) and burner box side (Detail #7).

b. Add flat washer, lockwasher and hexagon nut and tighten securely, making sure that hi-shelf is aligned with sides of the range.

6. Replace hi-shelf back panel (Detail #1) and refasten.

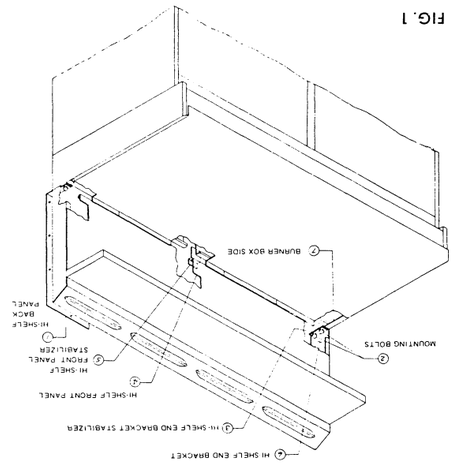


FIG. 1

C. Instructions for Mounting Model IR 36-380 or IR 36-280, IR 60-380 or IR 60-280 on 36" or 60" range.

Refer to instruction manual provided with each unit described above.

D. Gas Connections

This range is provided with a pressure regulator installed at the inlet of the manifold. This regulator is preset for the type of gas specified on the order. Check to verify that both the gas supplied and the gas specification of the range agree in type of gas and required pressure.

1. A readily accessible gas valve of an approved type should be installed in the supply line upstream of the pressure regulator.

2. A pipe joint compound resistant to liquified petroleum gases should be used on all pipe joints.

3. The supply piping must be sized to provide the volume of gas required at its specified pressure when all adjoining units on the same supply line are in operation.

a. Remove all factory applied protective material by washing with hot, mild detergent or soap solution. Rinse and dry thoroughly.

b. Apply a thin coat of olive oil or other high grade salt free cooking oil to the griddle surface. Wipe away excess.

c. Light all griddle burners. Some discoloration will occure when heat is applied to steel.

d. Set all griddle burner controls to a low setting and allow to heat slowly for 30 minutes, then wipe away oil.

e. Apply a second coat of oil wiping away excess. Increase control setting slightly every fifteen minutes until desired temperature is reached.

IMPORTANT: DO NOT ATTAIN HIGH (ON VALVE CONTROL) OR 450° (ON THERMOSTAT CONTROL) DURING BREAK-IN PERIOD.

2. The griddle will not require reseasoning if it is used properly. If the griddle is overheated and product sticks to the surface it may be necessary to reseason as above.

3. Do not use the griddle for heating stock pots.

D. Oven Section

1. Certain models have a separate oven shut off valve. On these set the thermostat dial to 500°F and turn oven valve on. Once the burner is lighted set the thermostat dial to the desired temperature.

2. On other models the oven gas shut off valve is an integral part of the thermostat. Turn the dial to the highest setting for ignition of the oven burner and then immediately back to the desired temperature setting.

3. Preheat the oven for 30 minutes.

4. Baking or Roasting may be done on the oven deck or oven rack.

a. It is recommended that heavy loads be baked or roasted at the oven deck level.

b. In choosing pans be sure that pan size will allow space between back, sides and oven door to allow proper heat circulation.

c. Personal preferences of different chefs and food service operators dictate temperature and time requirements for various oven cooking operations. For this reason, no cooking times or temperatures are suggested here. If in doubt, consult a good cook book on volume food service.

NOTE: Do not expect the side by side ovens in the same model to operate exactly the same. A slight difference in operational time and temperature setting is normal and may be attributed to variation in gas rate, manufacturing tolerances, etc.

SECTION IV HOW TO KEEP YOUR EQUIPMENT CLEAN

A. Open Top Sections

1. Top grates and top ring grates should be wiped daily of all soil by washing with a hot, mild detergent or soap solution. A wire brush may be used on hard to remove soil.

2. Dry thoroughly.

3. Drip pans provided on the open top sections should be emptied and washed daily.

4. Remove top grates and ring grates from unit weekly and thoroughly clean drip pans, drip pan area and flue-ways.

B. Hot Top Section

1. Hot tops should be wiped daily while still warm. Use a burlap sack or other grease absorbing material to remove grease or other spill-overs before they burn into the top. Remove burned on materials such as carbonized grease or burnt spill-overs with a wire brush or spatula.

2. When top is cool wash with a hot, mild detergent or soap solution daily.

3. Dry thoroughly.

4. Wipe with a slightly oiled cloth.

5. Remove hot top sections weekly and clean soil from flue-ways and top supporting section.

C. Griddle Sections

1. Griddle surfaces should be wiped daily while still warm, using a burlap sack or other grease absorbing material to remove grease and food particles before they burn into the griddle surface. Use a spatula to remove burned on carbon or hardened grease.

SECTION II - TESTING AND ADJUSTMENTS

All fittings and pipe connections must be tested for leaks. Use approved gas leak detectors, soap solution or equivilant, checking over and around the fittings and pipe connections. DO NOT USE A FLAME. Accessibility to all gas lines and fittings requires that valve panel(s) lower front panel(s), oven rack(s) and bottom(s) be removed. It may be necessary to remove or at least raise and securely prop griddles, hot tops and top grates. All parts removed (including fasteners) should be stored safely for re-use.

A. Testing

1. Be sure that all valves and thermostats are in the "off" position.
2. Turn on the main gas supply valve.
3. Light all top section pilots.
4. Leak test all valves and fittings as described in the procedure above. Correct any leaks as required and recheck.
5. Light oven pilot (see Owner's Manual Section II, Part A, Item 4).
6. If the range is provided with an oven shut-off valve separate from the thermostat, turn this valve on and set the thermostat at 500°F. If the range oven thermostat has an "off" position on the dial the thermostat is equipped with an internal, integral oven shut-off valve. Set this thermostat dial to 500°F. In both cases gas will now flow to the oven burner.
7. Leak test all valves, fittings, etc. as above. Correct any leaks and retest.
8. Shut off all range valves and set thermostat dials to "off" or low position.

B. Adjustments

Oven burner orifices are fixed for both Natural and L.P. gas applications. Top section burner orifices are fixed when supplied for L.P. gas application; but are adjustable when supplied for Natural gas operation. Adjustments, if required, are made as follows.

1. Pilot adjustments - all pilot adjustment valves are mounted on the range gas manifold.

a. If required the open burner pilot should be adjusted so that the tip of the pilot flame reaches the middle of the flash tube opening. This flame may show a slight yellow tip.

b. The pilot burner for the griddle or hot top burner should provide for rapid ignition of the burner but should not impinge on any part of the burner. When properly adjusted it should neither lift off the burner nor should it show a yellow tip.

c. The pilots of the raised broiler/griddle section should be adjusted, if required, to provide for rapid ignition of the burners but may not impinge on any surface. They may show a slight yellow tip but must not produce soot.

d. The oven pilot burner should provide for rapid ignition of the oven burner while enveloping the first 3/8" to 1/2" of the thermocouple tip causing it to glow dull red. The pilot flame should not have a yellow tip.

2. Burner Gas/Air Adjustments

The burners should provide sharp, stable, blue flames when any valve is opened fully or when any thermostat is calling for maximum rate.

a. Top section burner valves provided for Natural gas operation are adjustable to compensate for variations in the heating value of the gas.

The gas rate (refer to Index Page) should be established using an accurate Flow Rater or by setting the stable, sharp, inner cone of the flame to the size noted below.

The adjustable orifice hood is turned clockwise to increase gas flow and counter clockwise to decrease gas flow.

1. Open (Star) Burners - 1/2" stable, sharp inner cones.

2. Hot Top Burners, Griddle Burners, Broiler/Griddle Burners - 5/16" stable, sharp inner cones.

NOTE: The rates shown in the chart on the Index Page are maximum rates and must not be exceeded.

b. The oven burner fittings (all gas applications) and the top burner valves (L.P. gas) have fixed orifices. The rates to these burners cannot be changed without changing the orifice sizes.

NOTE: The rates shown in the chart on the Index Page are maximum rates and must not be exceeded.

2. Wash griddle surface with a hot, mild detergent or soap solution daily after polishing.

3. Rinse with clean water to remove all soap residue. Dry thoroughly.

4. Apply a light coat of salt-free cooking oil to the griddle surface.

5. Raise griddle periodically and clean flue-ways.

6. Remove, empty and wash grease container daily or more often if necessary.

   Keep griddle drain tube to grease container clear at all times on those models without side grease drains.

7. If cleaning removed seasoning from the griddle surface proceed as described in SECTION III-OPERATING INSTRUCTIONS, ITEM C, Griddle Section.

D. Oven Section

1. Continuous clean interior surfaces.

   a. The oven interior shall be triple finished with ground coat porcelain enamel, a special catalytic porcelain enamel and hardened stippling to provide continuous cleaning action whenever the oven is in use.

   b. When the oven is first used operate it for al least two hours, empty, at high heat before using it for food preparation. Continue this break-in period for the first week or two.

   c. Each day after baking and roasting operations have ceased, empty the oven and turn the temperature control to its highest setting. This will accelerate the cleaning action. This cleaning operation should be done for 45 to 60 minutes.

   d. If the oven has become heavily soiled, operate the empty oven at its highest setting for one or two hours (Depending on the amount of soil).

      Ordinary household ammonia is proven to be effective in removing baked on soil and aids in keeping the microscopic pores of the coating open and free to perform the cleaning action. NOTE: THE OVEN SURFACES SHOULD BE AT ROOM TEMPERATURE BEFORE APPLYING THE AMMONIA.

   e. Excess spillage should be removed before it is permitted to bake on.

   f. Roasting or baking pans should not be placed directly on oven bottom. It is suggested that the oven rack be placed on the oven bottom to protect the surface as pans are slid in or out of the oven.

2. Standard aluminized steel interior surfaces. The oven side linings, back linings and top linings are formed of heavy guage steel with aluminum fused into its surfaces to provide for the reflectance of heat back to the food being prepared and to virtually eliminate the possibility of rust formation.

   a. Use a concentrated detergent on a plastic pad to remove burned on soil. DO NOT use steel wool, oven cleaner or abrasive powders. These will remove the aluminum.

      Rinse with warm water on a soft cloth. Be sure to remove all traces of detergent. Any discoloration which may remain after the soil build-up has been removed will not affect the performance of the oven.

3. Porcelain Enamael.

   a. Wipe cool oven bottom and interior of oven door daily with a damp cloth.

   b. Stubborn burned on stains may be removed with a commercial oven cleaner. Use only as directed and avoid getting the cleaner on the oven thermostat bulb or capillary.

4. Optional stainless steel interior surfaces.

   a. To remove normal dirt, grease or product residue from stainless steel operated at low temperatures use ordinary soap and water, applied with a sponge or cloth. Rinse completely and dry thoroughly with a clean cloth.

   b. To remove grease and food spatter, or condensed vapors that have baked on, apply cleanser to a damp cloth or sponge and rub in the direction of the polish lines. Soil and burned on deposits which do not respond to the above procedure can be removed usually by scrubbing with stainless steel wool or stainless steel scouring pads.

      DO NOT USE ORDINARY STEEL WOOL as any particles left on the surface will rust.

      NEVER use a wire brush, scraper, file or other steel tools which may mar the surface. Marred or scratched surfaces trap dirt and are difficult to clean.

E. Exterior Surfaces

1. Baked enamel surfaces.

   a. Clean with a mild soap and warm water solution on a sponge or soft cloth.

   c. Variations in field conditions, rough handling of the equipment in transit may indicate the need for adjustment of primary air to the burners. Check operation and adjust as below to provide a sharp blue flame at full rate (valve open fully or thermostat calling for maximum gas flow).

      1. If the burner flames are soft and unstable or show yellow tipping increase the amount of air by opening the air shutter.

      2. If the burner flames are sharp but lift off the burner ports reduce the amount of primary air by closing the air shutter.

   d. Retighten the air shutter screws to prevent movement of the air shutter.

3. Ceramic Placement:

Eight (8) ceramics are supplied with each unit that feature a raised griddle and broiler section.

These ceramics are to be placed in the burner section of the broiler before the griddle is put in operation.

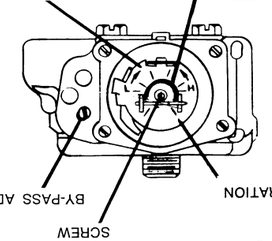
NOTE: HANDLE THE CERAMICS WITH GREAT CARE; FRAGILE.

Each burner has two (2) lips which will serve as a rest for a pair of ceramics. Two (2) ceramics are positioned "POINTS DOWN" between each burner.

Lastly, place a pair to the right of the right burner and a pair to the left of the left burner using side lining ledges as the outside support.

Griddle Control

MODEL UN



The Robertshaw UN throttle-type griddle control requires a by-pass adjustment. To adjust, proceed as follows:

1. Be sure pilot flames are lit and adjusted.
2. Turn dial to 200°F (93°C) mark, and allow griddle to heat for approximately five (5) minutes.
3. Turn dial to 'Lo' position, then carefully remove dial, making sure setting is not disturbed.
4. With a screw driver, turn the by-pass adjustment screw and adjust to the "LOWEST POSSIBLE STABLE FLAME COVERING THE ENTIRE BURNER". Turn screw clockwise to decrease or counter-clockwise to increase size of by-pass flame.

To check calibration, proceed as follows:

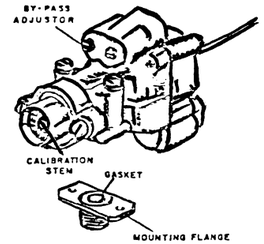
1. Use a Robertshaw test instrument with special disc type thermocouple or reliable "Surface" type thermometer. (Note: A drop or oil on face of disc will provide better contact.)
2. Turn all griddle temperature control dials to 350°F (177°C). In order to allow temperature to stabilize, the controls must be allowed to cycle twice before taking a test reading.
3. Check temperature reading when control cuts down to by-pass by placing sensor firmly on griddle surfaces, directly above sensing bulb of control. Reading of test instrument should be between 335°F (168°C) and 365°F (185°C).

   If dial setting does not agree with test instrument reading within the above limits, recalibrate as follows:

4. Remove dial making sure setting is not disturbed.
5. Each division mark on calibration plate equals 15°F (5°). Turn calibration screw clockwise to reduce temperature or counter-clockwise to increase temperature.
6. Example --- Dial setting 350°F (177°C), test instrument reading 380°F (193°C). Turn calibration screw clockwise two divisions.
7. Repeat steps 1 through 3 to make sure correct adjustment has been made.

OVEN HEAT CONTROL

MODEL
BJ·WA
COMMERCIAL



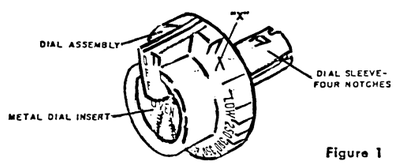


Figure 1

TO ADJUST BY-PASS (MINIMUM BURNER) FLAME

When the appliance reaches the temperature at which the dial is set, the control cuts down the flow of gas to the amount required to keep the appliance at that temperature. Always, however, the control must by-pass enough gas to keep the entire burner lighted. To maintain this minimum flame, the by-pass must be set carefully and accurately, as follows-(See Figure 1):

1. Light the burner, then turn dial "FULL ON."
2. After 5 minutes, turn dial clockwise to point slightly beyond first mark on dial (shown by "X").
3. Remove dial and bezel.
4. With a screw driver, turn by-pass adjustor-counter-clockwise to increase the flame clockwise to decrease it, until there is a minimum flame over the entire burner.
5. Replace bezel.

TO RECALIBRATE OVEN CONTROL.

This oven control is a precision instrument. It is carefully calibrated at the factory--that is, it is so adjusted that dial settings match actual oven temperatures. Field recalibration is seldom necessary, and should not be resorted to unless considerable experience with cooking results definitely proves that the control is not maintaining the temperatures to which the dial is set.

Recalibration should not be undertaken, however, until the by-pass oven flame has been adjusted.

To check oven temperatures when recalibrating, use a test instrument or a reliable mercury thermometer. Place the thermocouple of test instrument or the thermometer in the middle of the oven.

If the dial has a removable metal insert, proceed as follows:

1. Remove dial and push out metal insert. (see figure 1)
2. Replace dial, turn to 400 mark, and light oven burner.
3. After burner has been on about 15 minutes check oven temperature. Oven door should be open for as short a time as possible. Use a flashlight, if necessary, to see the thermometer reading clearly.
4. Continue to check temperature, at 5-minute intervals, until two seccessive readings are within 5 degrees of each other.

The control should be recalibrated if your reading is not within 10 degrees of the dial setting (400 degrees). If recalibration is required, the additional steps to be taken are these:

5. Hold dial firmly, insert screw river through center of dial, and push calibration stem (See Figure 1) inward. (Do not turn this stem)
6. While holding calibration stem in firmly with screw driver, turn dial until it is set at the actual oven temperature as shown by your instrument or thermometer. Release pressure on calibration stem. Replace dial insert.
7. Set dial at 450 mark. Check oven temperature again, as instructed in (3) and (4). If the oven temperature is not within 20 degrees of the dial setting (450 degrees), it means that the sensing element is inoperative and the control should be replaced.

IODINE AND IRON - An iodine and iron mixture will discolor stainless surfaces if allowed to remain in contact with them for long periods. If you use any such mixture, wipe it off immediately after it comes in contact with the surface.

FOODS - Certain foods - most commonly mustard, mayonnaise, lemon juice, vinegar, salt and dressings containing these items - attack and corrode stainless. Do not store them in stainless containers.

STEEL WOOL - If you must use steel wool to clean stainless, do so sparingly. Tiny particles of this abrasive tend to lodge in the surface and rust. Many people have a tendency to leave a piece of steel wool on a stainless surface. If you have done so, you know it causes a rusty appearance. For difficult cleaning jobs, such as removing burnt-on foods, stainless sponges and pads are recommended. When cleaning a highly polished surface with a metal pad, be careful not to scratch the finish.

ABRASIVES - Gritty, hard abrasives will mar a stainless finish. They are not recommended.

SHARP INSTRUMENTS - Most sharp instruments such as knives and choppers have a hard carbon steel edge, and will leave a mark on stainless surfaces. So don't leave them lying around on stainless surfaces. Rather, put them away as soon as you finish using them.

As with every cleaning and maintenance function, there is a set of rules to aid you in stainless maintenance. Some are general rules, applying to all stainless surfaces; other apply only to specific equipment items. We offer them to you here.

DAILY CLEANING - Most stainless surfaces can be effectively cleaned with a damp cloth. For more difficult applications, use one of the following: 1) ammonia in water; 2) detergent in water; 3) special solvents such as alcohol, baking soda, vinegar or turpentine. Follow these with a thorough washing with detergent and hot water rinse, and dry with a soft clean cloth.

POLISHING - For a high polish, apply a mildly abrasive cleaner and rub in the direction of the polish lines to prevent scratches and preserve the original finish. Be careful not to rub in dirt that is on the metal surface.

FINGERPRINTS - You can eliminate fingerprints on most stainless surfaces simply by using a damp cloth. For highly polished surfaces apply a commercial glass cleaner or automobile wax. After you remove the excess cleaner with a soft cloth, a thin protective film remains. If some fingerprints appear later, use a cloth with some of the cleaner on it to wipe them away.

b. Rinse well and dry thoroughly with a soft cloth.

2. Stainless steel surfaces

a. Stainless steel surfaces will usually respond to cleaning as shown above. Stubborn stains or heat tint may require the use of a stainless steel pad. Rub gently with the direction of the grain.

F. Stainless Steel Care

C. Russell Nickel, FCSI, editor of The Consultant, has written the following material, which will provide invaluable information to owners of stainless steel equipment. The information provided goes beyond that required for the care of our equipment; however, GARLAND feels that the total information is invaluable to the end user. The article has not been edited; it is presented, here, in its entirety.

"This metal is more than just a pretty face on your equipment. It works hard, so treat it well and it will reciprocate with many years of service.

Have you ever wondered why more and more kitchen equipment is being made of stainless steel?

Part of the answer is that stainless is easy to clean and maintain. However, stainless steel does not mean non-staining. Rather, it means that it will stain less. How much less depends upon how well you maintain it.

Your stainless equipment has been designed to give you years of service. And, with proper care, it will do so. However, too many people make the mistake of believing stainless is destruction-proof. If you insist on banging it from pillar to post, it will very quickly begin to show its wear.

Happily, most operators treat it with more respect than that. More commonly, they abuse stainless by continually exposing it to a variety of materials that slowly almost imperceptibly, eat it away, drastically reducing its life. Certain materials will do that in many ways. Some will corrode stainless, others will cause it to rust and discolor.

To complicate matters, these materials act on stainless in different ways. Some are best not used at all, while others may be used sparingly. To help you untangle this maze, we offer this list of materials which can harm stainless when and if used incorrectly. We hope it will serve to guide you in their proper use.

BLEACHES - Strong bleaches tend to corrode stainless if used for long periods of time. A strong bleach should not be used for more than 30 minutes at a time. This is especially applicable to sinks and utensils which usually receive a heavy dosage of bleach.

FOOD STAINS - Food stains should be removed before they harden. Wash the stained area with hot water.

HARDENED STAINS - Once a stain hardens it becomes more of a problem. To remove it use hot sudsy water for a few minutes, then rub with a cloth, soft brush or stainless steel pad. One word of warning on a highly polished surface a metal cleaner is likely to mar the surface and should not be used. After brushing, rinse with hot water and dry with a soft cloth.

DISCOLORATIONS CAUSED BY FOOD STAINS OR BURNS - Usually these can be removed with a mildly abrasive cleaner.

BURNT-ON GREASE - To soften an especially heavy layer of burnt-on grease, cover it with ammonia-soaked cloth for 10 to 15 minutes. Then wash, rinse and dry.

HARD WATER MINERAL DEPOSITS - Evaporation of hard water on stainless can leave a mineral deposit. To remove it, swab or cover the area with a water solution containing vinegar (about 25%) or phosporic acid (10%). Follow this with cleansing powder, then wash and rinse.

These rules will aid you in cleaning almost any type of stainless surface. However, certain pieces require some additional care. Foremost among these is coffee-making equipment. Because of the oily nature of rancid coffee it is necessary to clean your maker immediately after using it. Should you overlook this, an oil deposit may form inside.

If it does, you can eliminate it by filling the unit with boiling water, adding a few teaspoons of baking soda and allowing it to stand for 15 minutes. Then empty the coffee maker and wash as usual. Rinse, then dry with a damp cloth. If the oil is extremely heavy, a mild cleaner or ammonia may also be needed.

Many of the above-mentioned functions may be properly and easily handled with the use of special spray-on cleaning and polishing agents., now available for care of stainless steel. There are several products on the market available through dealers. If you're not sure which one to use, why not rely upon recommendations of your fabricator, or manufacturer of any equipment using stainless steel in its products. Like many washing machine manufacturers who place a box of laundry detergent in the shipping carton, many foodservice equipment manufacturers have their favorite stainless cleansing/polishing agent to recommend for your use.

Stainless steel is a hard, rust resisting metal that adds beauty and lustre to countless products. It is a major investment in the many areas in which it is used in your kitchen. As such, it deserves care. With the proper treatment it will remain clean and bright for years."

Heavy Duty Oven Control

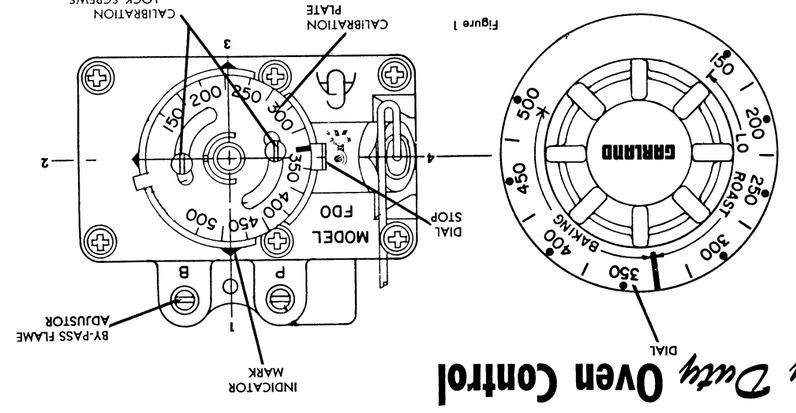


Figure 1

INSTRUCTIONS FOR MODEL FDO HEAVY DUTY CONTROL

This model FDO is a precision made instrument, carefully set at the factory to accurately control oven temperatures from 500 degrees down to 150 degrees F. All adjustments are accessible from front of appliance after removing dial. To remove dial, grasp knob portion and pull straight out.

BY-PASS (MINIMUM BURNER FLAME) (Refer to figure 1). This adjustment must be made at the time the appliance is installed. To adjust this flame: (Be sure oven burner pilot flame is ignited).

1. With oven cold, turn dial counterclockwise slowly from "LOW STOP," until by-pass seat just snaps on.
2. Remove dial.
3. With a screwdriver, turn "bypass flame adjustor" screw counterclockwise to increase the by-pass flame or clockwise to decrease the entire burner to a minimum stable flame.
4. Replace dial. CAUTION: While making this adjustment, if the oven should become heated while the dial is set at a low range (below 350), the by-pass flame will shut off completely. If this occurs, turn dial counter-clockwise slowly until by-pass gas snaps on. Then check by-pass adjustment as stated above.

RECALIBRATION

Field recalibration is seldom necessary, and should not be resorted to unless experience with cooking results, definitely proves that the control is not maintaining the temperature to which recalibrating use a Robertshaw Test Instrument or a reliable mercury oven thermometer..

1. Place the thermocouple of test instrument of thermometer in the middle of the oven, or medium to be tested.
2. Light the main burner. Observe which indicator mark aligns with the low stop position of the dial. Use this indicator mark for all dial settings.
3. Turn dial so 400 lines up with the "low stop" indicator mark.
4. Allow the oven, or appliance, to heat until flame cuts down to by-pass. After sufficient time, check temperature. If the temperature does not read within 15 degrees of the dial setting recalibrate as follows:
5. Pull dial straight off without turning.
6. Hold calibration plate and loosen the two calibration lock screws until the plate can be moved independtly of the control.
7. Turn calibration plate so that the instrument or thermometer reading is in line with the indicator mark. Hold plate and tighten screws firmly.
8. Replace dial.
9. NOTE - If the above adjustment is prevented by the two loosened calibration lock screws being in contact with the ends of the screw clearance slots in the calibration plate, remove the screws and after turning the calibration plate to the proper location, reassemble screws in the other tapped holes designed for them.