

TOWN OF GREENWICH
PURCHASING DEPARTMENT
101 Field Point Road
Greenwich, CT 06830
203 622-7881

NO.: 7110

ISSUE DATE: 11/24/14

DEADLINE DATE: 12/23/14

DEADLINE TIME: 3:00 PM

REQUEST FOR BID
 REQUEST FOR PROPOSAL

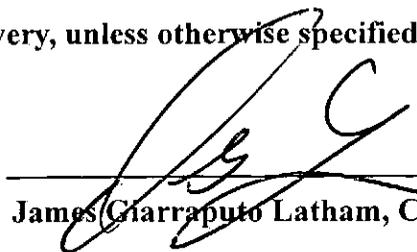
ITEM/CATEGORY CHAMBERS RANGE SURPLUS SALE

LOCATION GREENWICH, CT

PREQUALIFICATION
 STANDARDS/SPECIFICATIONS (ATTACHED)
 INSURANCE REQUIRED (SEE ATTACHED)

PLEASE NOTE:

1. Sealed Bids/Proposals are due at the Town of Greenwich Purchasing Department on date noted. NO bids/proposals will be accepted after the date and time specified above. Whether the bid/ proposal is sent by mail or commercial express service, the bidder/proposer shall be responsible for actual delivery of the bid/proposal to the PURCHASING DEPARTMENT before the deadline time. Bids/proposals received after the deadline time will not be considered. PLEASE CLEARLY INDICATE BID/PROPOSAL NUMBER ON LOWER LEFT-HAND CORNER OF ENVELOPE.
2. BIDS/PROPOSALS ARE NOT ACCEPTED BY FAX OR E-MAIL.
3. COMPANY NAME AND ADDRESS MUST CONFORM ON ALL DOCUMENTS INCLUDING INSURANCE DOCUMENTS. A POST OFFICE BOX ADDRESS IS NOT ACCEPTABLE.
4. Bid/Proposal number must appear on all bids and related correspondence.
5. The Town of Greenwich is exempt from Federal and State Taxes.
6. The Town will consider an alternate bid only if bidders have been permitted to provide an alternate bid. An alternate bid must be clearly identified as such in order to be considered by the Town.
7. Stated prices are to be FOB destination inside delivery, unless otherwise specified herein.
8. Terms and Conditions indicated on reverse.


James Giarraputo Latham, CPPB, Senior Buyer

An Affirmative Action/Equal Opportunity Employer, M/F/H

Terms and Conditions

Bidders shall familiarize themselves with all provisions of the specifications and shall not at any time after submitting bid, dispute any of the specifications or assert that there was any misunderstanding in regard to the furnishing and delivering of the items called for in the proposal.

The Town of Greenwich reserves the right to issue addenda as needed on bids/proposals.

The Town of Greenwich reserves the right to reject any and all bids not deemed to be in the best interest of the Town of Greenwich, or to accept that bid which appears to be in the best interest of the Town of Greenwich. The Town of Greenwich reserves the right to waive any informalities in or reject any or all bids, or any part of any bid.

References to a particular trade name or manufacturer's catalog or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of the Town of Greenwich. They should not be construed as, nor are they intended to exclude proposals on other types of materials, equipment and supplies. However, the bidder, if awarded a contract will be required to furnish the particular item referred to in the specification or description unless a departure or substitution is clearly noted and described in the proposal.

Respondents shall provide one proposal and bidders one bid price for each specified required line item with no more than one total lump sum bid, unless allowed to do otherwise by the solicitation. Respondents shall provide no more than one bid reply unless allowed by the solicitation. Bidders shall not include in their prices any Federal or State taxes from which the Town of Greenwich is exempt.

The successful bidder/s shall indemnify the Town of Greenwich against all losses, claims, actions and judgments brought or recovered against the contractor or the Town of Greenwich.

No proposal shall be received from, or contract awarded to, any person, firm or corporation who is in default or in debt to the Town of Greenwich for non-performance of any contract, or who is a defaulter as surety or otherwise from any obligation to the Town of Greenwich.

Bids must be signed in ink by the vendor. No bids shall be made in pencil. Any bids showing any erasures or alterations must be initialed by the bidder in ink. Failure to sign and give all information requested in the proposal may result in the bid being rejected.

Quantities as listed on the bid sheets are estimated for bidding purposes only. Award of contract shall be for the quantities actually ordered as needed during the contract period. However, the Town of Greenwich reserves the right to increase or decrease the quantities by 10%.

Unit prices quoted shall be net exclusive of all taxes, and must include all transportation, delivery and unloading costs; fully prepaid F.O.B. destination in place inside delivery. Debris, if any, removed.

The Town of Greenwich reserves the right to make awards on an item by item, total or lump sum basis. Where an award is made on an item by item basis, the unit price prevails. The Town reserves the right to make award in best interest of its own operation. All awards are contingent upon certification by the Town Comptroller that funds are available in appropriate accounts.

It is understood that prices shall hold firm and prevail for the actual quantities required or ordered as needed during the life of the contract whether more or less than estimated quantities. Unit prices shall not be subject to any increase during the life of the contract.

All deliveries are to be made within the time period specified in the bid proposal upon receipt of written purchase order or authorized verbal requests except as may be otherwise arranged by Supplier and Purchaser. Receipt of contract is not authority to ship. Emergency deliveries are to be made within twenty-four (24) hours from receipt of a telephone request from the Director of Purchasing and Supply. All deliveries are to be made on business weekdays between the hours of 9:00 A.M. and 4:00 P.M. except as may be otherwise arranged by the Supplier and Purchaser.

In the event deliveries are not made as specified to a Town delivery point, the Director of Purchasing and Supply shall reserve the right to purchase any such bid item on the open market and to charge any increase in price paid over the current contract price to the account of the vendor.

All bids will be awarded or rejected within sixty (60) days of bid opening date or for the stated period of validity, if different. Therefore, bidder agrees that prices will remain firm for acceptance for that period.

The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. The contractor, however, will take affirmative action to insure that minority group members are employed and are not discriminated against during employment. Such actions shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection of training, including apprenticeship.

The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex or national origin. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract of understanding, a notice advising the labor union or worker's representative of the contractors' commitments under this specification and under rules, regulations and orders promulgated by the State.

"Affirmative Action" means procedures which establish hiring and employment goals, timetables, and practices to be implemented, with good faith efforts, for minority group members.

"Minority Group Members" as identified in EEO-4 reports shall mean Black, Hispanic, Asian or Pacific Islanders, American Indian, and Alaskan Natives.

The contractor or subcontractor offers and agrees to assign to the public purchasing body all right, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act, 15 U.S.C. Section 15, or under Chapter 624 of the General Statutes of Connecticut, arising out of the purchase of services, property or intangibles of any kind pursuant to a public purchase contract or subcontract. This assignment shall be made and become effective at the time the public purchasing body awards or accepts such contract, without further acknowledgment by the parties.

TOWN OF GREENWICH

REQUEST FOR BID #7110 DEADLINE: 12/23/14 AT 3:00 PM

CHAMBERS RANGE SURPLUS SALE

Background

The Purchasing Department of the Town of Greenwich on behalf of the Town's Parks and Recreation Department is seeking bids for the sale of one (1) used Chambers Model #61-C gas range; circa 1950's; color is white, on a "As Is, Where Is" basis.

A copy of the manufacturer's service manual is attached to this RFB as **Exhibit B** for general information.

The Town makes no guarantee as to the condition or functionality of this equipment.

Interested bidders may inspect the equipment at its current location, 91 Ritch Avenue West, Greenwich, CT 06830 at a mutually convenient time prior to the bidding deadline.

Bidders must contact the Senior Buyer, James G. Latham at jlatham@greenwichct.org before: **December 9, 2014 at 11:00AM** to schedule an appointment to view the stove prior to bidding.

The successful bidder shall remove the equipment from the abovementioned location at their own risk within seven days of the award. Failure to do so may jeopardize the award.

Payment for the equipment will be in the form of a certified check or a bank check in the full amount of the selling price **and shall be due within seven days after notification of award by the Town.**

The Town reserves the right to reject any and all bids not deemed to be in the best interest of the Town, or to accept that bid which appears to be in the best interest of the Town. The Town reserves the right to waive any and all formalities or reject any or all bids or any part of any bid. The Town reserves the right to issue a new Request for Bid at any point in the process before the completion of the sale.

This sale shall be completed within seven days of the award when the Town is in possession of the bidder's payment, and after the Town of Greenwich Bill of Sale has been signed by the Town and by the bidder. A copy of the Bill of Sale form is attached as **Exhibit A** for general information.

Bidders shall respond to this Request for Bid by completing and returning the Reply Sheet of this Request for Bid to the Purchasing Department before the deadline of **December 23, 2014 at 3:00 PM.**

The minimum acceptable bid for the range is \$200.

Issuing Authority

Mr. James Giarraputo Latham, CPPB, Senior Buyer has been designated to be responsible for the conduct of this procurement. Any questions or requests for clarification related to this procurement must be submitted in writing to Mr. Latham to the address below.

The deadline for questions is **December 16, 2014 at 11:00 AM.**

Mr. James G. Latham, CPPB Senior Buyer
Town of Greenwich Purchasing Department
101 Field Point Road
Greenwich, CT 06830
Fax: (203) 622-7776 / Email: jlatham@greenwichct.org

Issuance of Addenda

The Town of Greenwich reserves the right to amend this solicitation by addenda. Addenda will be posted to the Town's website (www.greenwichct.org/bids) up to 48 hours in advance of the bid/proposal's due date and time. **It is the bidder's responsibility to check the Town's website for addenda.** If in the Town's opinion revisions are of such a magnitude, the deadline for this solicitation may be extended in an addendum. In addition, addenda can change specifications, reply sheets, and times and dates for prebid meetings as well as due dates/deadlines for questions and bids/proposals. **No notification of addenda issuance will be made other than on the Town's website.**

TOWN OF GREENWICH

REQUEST FOR BID #7110 DEADLINE: 12/23/14 AT 3:00 PM

CHAMBERS RANGE SURPLUS SALE

REPLY SHEET (Page 1 of 1)

The bidder shall indicate below the total bid for the Chambers Range Model 61-C:

\$ _____ (minimum acceptable bid is \$200)

BIDDER'S NAME: _____

ADDRESS _____

TELEPHONE NO. _____ **FAX NO.** _____

E-MAIL ADDRESS _____

AUTHORIZED SIGNATURE _____

PRINT NAME _____

TITLE _____

TAXPAYER IDENTIFICATION NO. _____

BILL OF SALE

THE TOWN OF GREENWICH, CONNECTICUT, HEREBY SELLS TO

the Chambers Range Model 61-C specified in RFB #7110 in the TOTAL AMOUNT of

\$ _____

THIS EQUIPMENT / MERCHANDISE IS BEING SOLD "AS IS", "WHERE IS". THE TOWN OF GREENWICH DOES NOT GUARANTEE THAT THIS EQUIPMENT OR APPARATUS WILL BE IN SAFE OPERATING CONDITION.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, THAT HAVE BEEN MADE OR ARE BEING MADE BY THE TOWN OF GREENWICH WITH REGARD TO THIS EQUIPMENT AND APPARATUS. THE BUYER OF THIS EQUIPMENT AND APPARATUS WAIVES ANY CLAIM OF LIABILITY AGAINST THE TOWN OF GREENWICH FOR DAMAGES OR INJURIES CAUSED OR OCCASIONED BY THIS EQUIPMENT / MERCHANDISE.

THE BUYER AGREES TO INDEMNIFY; DEFEND AND HOLD HARMLESS THE TOWN OF GREENWICH, ITS AGENTS, SERVANTS AND EMPLOYEES, AGAINST ALL LOSSES, CLAIMS, ACTIONS AND JUDGMENTS BROUGHT AGAINST THE BUYER OR THE TOWN OF GREENWICH, ITS AGENTS, SERVANTS AND EMPLOYEES, CONCERNING THIS SALES TRANSACTION OR THE EQUIPMENT AND APPARATUS WHICH HAS BEEN PURCHASED FROM THE TOWN OF GREENWICH BY THIS BILL OF SALE AND CONTRACT.

BY THIS BILL OF SALE THE BUYER AGREES FOR HIMSELF AND HIS AGENTS, SERVANTS AND EMPLOYEES, AND HIS AND THEIR SUCCESSORS, VENDEES AND ASSIGNS, THAT HE AND THEY WILL NOT USE THE VEHICLE AND APPARATUS PURCHASED BY THIS BILL OF SALE TO PARTICIPATE IN ANY GOVERNMENTAL FUNCTIONS OF THE TOWN OF GREENWICH, WHETHER EMERGENCY OR OTHERWISE.

BUYER'S SIGNATURE _____ Date: _____

TOWN OF GREENWICH
PURCHASING AGENT _____ Date: _____

REVISED SERVICE MANUAL EXHIBIT B

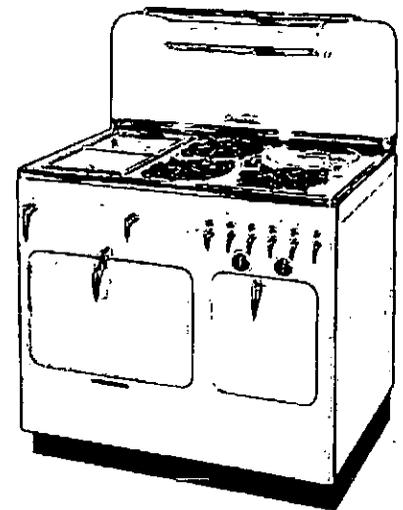
for

Chambers®

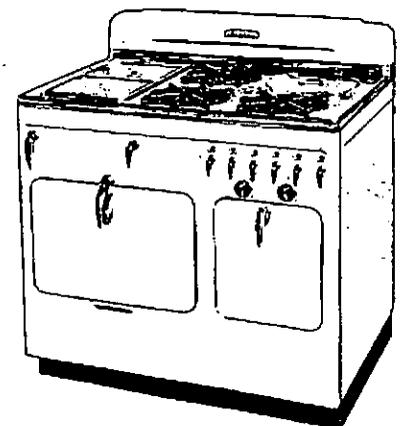
“C”

Model Ranges

Basic models No. 90-C, 61-C, and 41-C



Chambers Model C, Style 90



Chambers Model C, Style 61

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www.chamberstoves.net

January 5, 2008

Dear Chambers® Enthusiast,

Thank you for purchasing this special, ***C-series Service Manual, REVISED EDITION!*** It is my hope that it will assist you in your quest to keep your CHAMBERS range in top operating condition for many, many years to come.

The Chambers Corporation published two versions of the Service Manual for their C-series ranges, one in 1949, and another in the middle 1950's. The earlier version was an adaptation of the B-series Service Manual, which had undergone many changes and updates since the introduction of that series in 1939. Consequently, the C-series Service Manual inherited several of the built-in irregularities of the B-series manuals. In addition, the last version of the C-series manual appears to have been more of a quick attempt to put together a "new" Service Manual for the C-series, rather than be a full-fledged, truly *new* one.

As I began my journey into the world of **CHAMBERS** ranges, I discovered that the service manuals being offered by various sources at the time were, typically, nothing but copies of the originals - not one was updated to include information that modern owners of these vintage appliances needed to know. I also discovered that many of the copies being sold were not copies of good *originals*, but were, in fact, poor ***copies of copies*** of originals, sometimes as far out as five generations! Most of the photographs were fuzzy, and the wording on the illustrations was often difficult to read. When coupled with the erratic arrangement of the text in the Chambers-published manuals, the ones available to CHAMBERS lovers of today - until now - were poor, at the very least. Not only that, but the prices people were being asked to pay for nothing more than mediocre copies of flawed originals upset me, especially when I saw that one company was charging \$40.00 for what appeared to me to be nothing short of a re-typed and poorly copied version of the two earlier, Chambers-published manuals!

Therefore, as I did when with the website, I came to the conclusion that *someone* had to do *something* about the dearth of good information on CHAMBERS ranges out there. I decided that a really good, updated service manual for the C-series CHAMBERS ranges needed to be produced. So, I appointed myself as a committee of one to do just that and got to work. Well, it didn't take me long to realize that I had assigned to myself a project that was a lot bigger than I anticipated. After redesigning the entire layout (it just HAD to be rearranged into something that made finding what you want to know easier), scanning all of the original photographs and illustrations (and doing massive amounts of clean-up of them), and re-typsetting the entire original texts (the best of both editions was preserved so owners of a C-series range from any production era could use the Manual), I found there was still more to be done. Editor's notes and a whole new section on mixer pins were created, and grammatical corrections in the original text (without altering the integrity of it) were made. Then, all of these changes and additions were inserted into the text of the this, the ***C-series Service Manual, Revised Edition.***

What you hold in your hands is the culmination of approximately 525 man-hours of work. I wish to thank publicly Sam the Stoveman from Uncertain, Texas and Brian Batchely of Ventura, California - both trained experts and specialists in CHAMBERS repair - for their assistance in correcting the drafts of this Manual. Without their help, it wouldn't have been possible to finish it. Even though it has been hard work to produce, it is with great joy in my heart knowing that this ***C-series Service Manual, Revised Edition*** will be of great help to owners of CHAMBERS ranges everywhere, so that they can keep their babies cooking strong for years to come.

Some of the exclusive features found in this ***C-series Service Manual, Revised Edition*** include:

- Completely re-typset text
- New scans of original pictures and illustrations
- Completely new text blocks on most illustrations
- Additional notes and comments for the modern user
- A totally new layout - now you don't have to hunt for everything you need to know about a particular topic

As with all things human, I am sure there are mistakes herein. As of this date, a thorough revision has been made, removing as many typographical errors as I could find. However, if you discover on that I've missed, do be so kind as to let me know, and I will make appropriate corrections immediately.

Happy cooking with the gas turned *off!*

Todd W. White
Sapulpa, Oklahoma
www.chamberstoves.net

INSTALLATION & ADJUSTMENT

"C" series Chambers® Gas Ranges

Steps for Installing Range

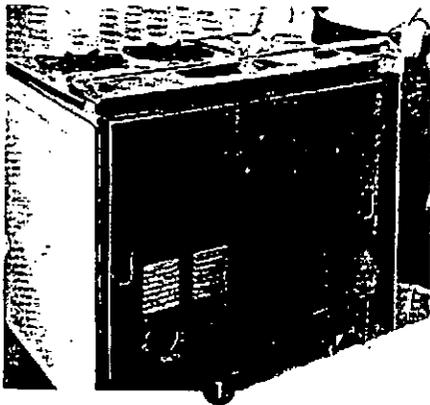
- As originally published by the Chambers Corporation -

REMOVE CRATE: Pull out all accessible nails around crate bottom and lift off entire crate. Break metal bands holding base assembly and top packing. Leg bolts, nuts, washers, and base brackets are packet in Thermowell, or in the Service Cabinet of non-Thermowell models.

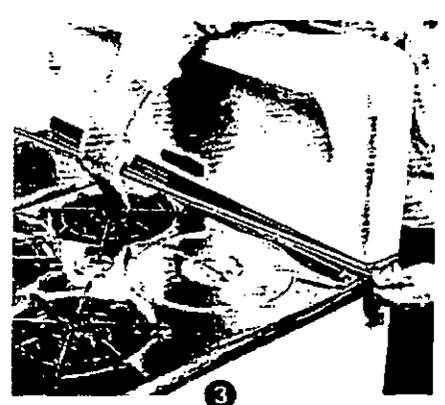
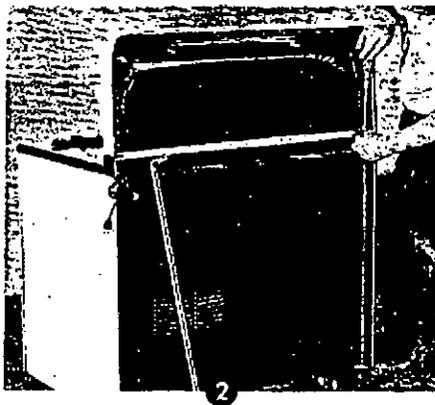
PUT ON LEG BOLTS: Tilt range on an appliance dolly and remove four bolts holding crate bottom to range. Place lock nuts on leg bolts and thread into tapped holes next to square holes from which crate bolts were removed. *Make sure lock nuts are tightened against corner gussets.* The range can now be placed on its legs.

MOUNT BACK PANEL

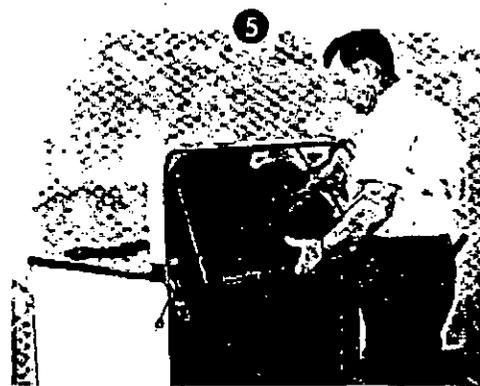
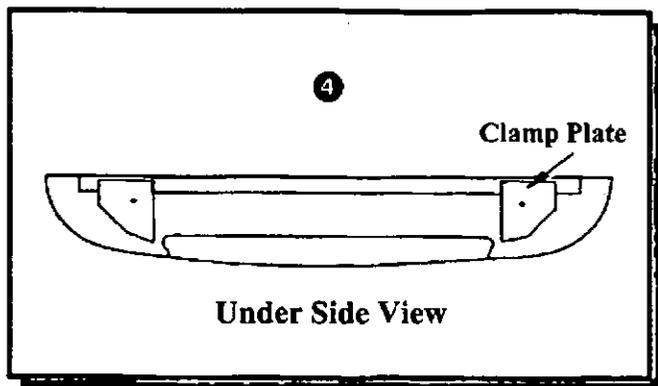
Super Deluxe (High) Back with Lamp



Special Deluxe (Low) Back - no Lamp



1. Remove molding from range before mounting Back Panel.
2. Insert one screw only in each corner, leaving nuts loose enough to slip molding in between range top and bottom edge of panel (see Fig. 2).
3. Insert molding in one end as shown in Fig. 3. Slip flange of molding in between the Panel and the range top and snap the molding in place on the opposite end - around the corner bolt. Now insert four bolts in the four remaining holes. Fibre shims provided are to be used between the range top and molding to tilt the Back to proper alignment if necessary. As bolts are tightened, push molding in to get a good snug fit against the Back Panel.
4. On Super Deluxe (High) Back Models: Remove nuts and clamp plates on under side of tray. Set tray on back, over opening, so that the flanges on tray are outside of the flanges on Back. Mount clamp plates on the threaded studs and run nuts up snug. Clamp plates must be positioned as illustrated (see Fig. 4).
5. Remove three bolts across top of the Body Back. Place Insulated Back in position shown in Fig. 5 with the top of the flue vent forward of the Back panel cross bar. Then, slip the Insulated Back up into place snapping the 45° bottom flange over the main Body Back to make a snug fit. Reinstall the three bolts.
6. Hook up to gas and plug the light cord into outlet.



Low-Back On
61-C Mounts
Exactly Like
The High-Back
On The 90-C

INSTALL BACK PANEL

The Back (high or low) comes in a separate carton along with the Insulated Back, chrome tray and a paper envelope marked "Shims For Aligning Backs" (see preceding instructions and pictures).

ATTACH BASE BRACKETS

With sheet metal screws, attach the non-interchangeable Base Brackets in the holes provided in the lower part of the rear of the frame of the range. The small folded edge of the bracket must protrude forward to receive the clip attached to the base end panel.

MAKE GAS CONNECTIONS

The gas connection should be made with 5/8" copper or aluminum tubing with proper fittings. The line from the meter should be rigid pipe, protruding through the floor a short distance from the base board, and should be provided with a shut-off valve. Under no circumstances should tubing go through the floor.

Ranges are to be mounted *flush to the wall*, and care should be taken to see that the rigid pipe is located to the rear of the range between the two end panels. Remove the enamel tray in the Service Cabinet of the range, giving access to the Manifold. Hook tubing to rigid pipe back of the range, and make bends in tubing for correct alignment through round hole behind the range. Move the range all the way back against the wall and hook the tubing to the Manifold. Check all joints for leaks with soap suds or pressure gauge. [NOTE: Today, it is recommended that a flexible gas line that has been designed for use with gas stoves, and is fully A.G.A. approved, be used, rather than the solid tubing specified originally. In addition, it is recommended that a flex line with an I.D. that comes as close as possible to matching the I.D. of the Manifold (input pipe) be used. Also, it is wise to use Teflon® tape or pipe dope, where applicable, to prevent leaks, and, while this should eliminate leaks, they must still be checked for. - Ed.]

LEVEL RANGE

First, loosen the lock nuts on the adjustable leg bolts; then use a wrench on the square shoulders of the leg bolts to turn them to desired height. Check the sides of cooking top with a level that is at least 9" long. Make the Top Burner Grates as level as possible in both directions. After range is level, tighten lock nuts against range frame, making sure the leg bolts do not move in the process.

LEVEL OVEN RACK RUNNERS

There is an approximately 1/2" adjustment on the Oven Rack Runners for leveling the racks. Place a level on the oven rack and force the runners up or down as desired. After oven rack is level, place a shim, such as nut or washer, under the bottom end of rack runner and force the runner down tight.

MAKE SURE RANGE IS FLUSH TO THE WALL

C Models are made to be pushed back until the entire back end panel edges are touching the wall. In some cases, it may be necessary to notch out the base board to accomplish this.

ASSEMBLE AND PUT ON BASE

There are three black base panels - one front and two ends. Necessary bolts and base brackets are found with leg bolts. Assemble base ends to front. Place speed nuts on base front clips and bolt base front panel with black bolts and washers. Place assembled base under range, forcing clips over leg bolts, while at same time making sure that the base ends panels slip onto brackets.

MIXER PINS

EDITOR'S NOTES: All Chambers "C" model ranges came with two different Mixer Pins - one type for the top burners, and a different (larger) type for the Oven, Broiler, and Thermowell burners. The type of Mixer Pins, Points, and Orifice Caps installed at the factory was dictated by what kind of gas the range was originally built to operate on. There are three types of Mixer Pins (some call these " housings ") used in Chambers C-series ranges, and each has a different shaped outlet for the gas: **No Point** (snub-nosed), **Pointed** (pointed with *no* hole in middle), and **Universal** (pointed WITH a hole in the middle).

You Must Determine Which Type Of Mixer Pins, Points, And Orifice Caps Your Range Has On It Now.

It is presumed that all of the valves in your range have been set for the same type of gas. You will need to determine what type of gas your range is set up for. To do so, you must access each burner in the range by removing any items that may prevent you from reaching the burners and the Mixer Pins (i.e., Grates, Drip Rings, the Service Cabinet Shelf, etc.).

Once you have gained access to the burners, remove the particular burner you are examining. Look at the Orifice Cap, which was inserted into the "tail" of the burner. Make note of how far down onto the shoulder of the Mixer Pin it is setting. Using a wrench, *carefully* unscrew the Orifice Cap from the Mixer Pin. Note the type of Point used on the Mixer Pin (**No Point**, **Pointed**, or **Universal**). Using the illustrations on Page 4, check to see what size opening is drilled into the Orifice Cap. These things will help you determine what type of gas the range is set up for. Write this information down and re-assemble your range.

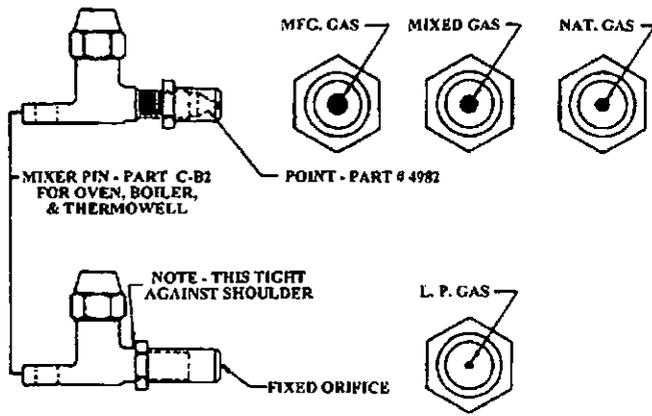
After having determined the type of gas your range is set up for, you are now ready to calibrate the burners, or make the necessary changes needed to use a different type of gas than that which your Chambers Range is currently equipped to use.

FOR RANGES WITH SOLID MIXER PIN POINTS:

Oven, Broiler, and Thermowell - On Page 4 are two pictures of the same Mixer Pin used on the Oven, Broiler, and Thermowell burners of C-series Chambers ranges that are not outfitted with Universal Mixer Pins (see Figure 6, Page 4). The type of Orifice Cap and Point installed on these Mixer Pins depends upon which type of gas is used. Each range was shipped from the factory set up for a specific type of gas. If it was set up for anything other than L. P. Gas, the Mixer Pins would have been outfitted with a **sharp** Point (part #4982-this is a solid pin with **no** hole in the middle), and an Orifice Cap corresponding to the type of gas it was intended for.

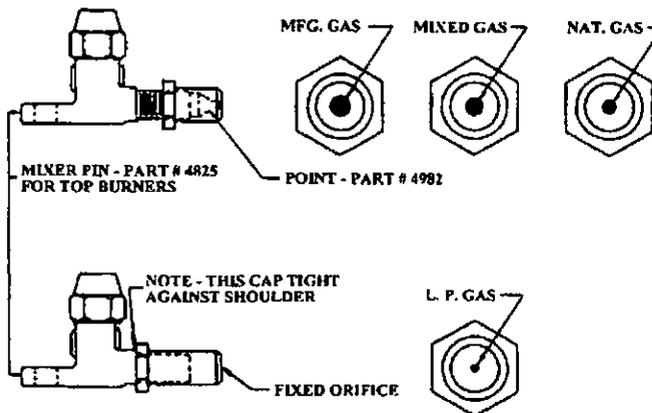
The three images to the right of the top valve show the tops of three different Orifice Caps that can be used with Point #4982. Note the different sized holes in each cap - these were specifically made for use with the gas and burners listed, and should not be used for any other type of gas or on any other burners but these.

The lower picture of the same Mixer Pin shows how it would have been assembled at the factory if it were ordered for use with L. P. Gas. Note the absence of a Point and the fixed Orifice Cap, which is screwed down tightly against the shoulder of the Mixer Pin.



**- FIGURE 6 -
OVEN, BROILER, & THERMOWELL MIXER PIN
WITH A SOLID POINT**

Top Burners - Below are two pictures of the same Mixer Pin used on the Top Burners of C-series ranges that are *not* outfitted with Universal Mixer Pins (see Fig. 7). The type of Orifice Cap installed on these Mixer Pins depends upon which type of gas is used. Each range was shipped from the factory set up for a specific type of gas. If it was set up for anything other than L. P. Gas, the Mixer Pins would have been outfitted with a *sharp* Point (part #4982 - this is a solid pin with *no* hole in the middle), and an Orifice Cap corresponding to the type of gas it was intended for.



**- FIGURE 7 -
TOP BURNER MIXER PIN WITH A SOLID POINT**

The three images to the right of the top valve show the tops of three different Orifice Caps that can be used with Point #4982. Note the different sized holes in each cap - these were specifically made for use with the gas and burners listed, and should not be used for any other type of gas or on any other burners but these.

The lower picture of the same Mixer Pin shows how it would have been assembled at the factory if it were ordered to be used with L. P. Gas. Note the absence of a Point and the fixed Orifice Cap, which is screwed down tightly against the shoulder of the Mixer Pin.

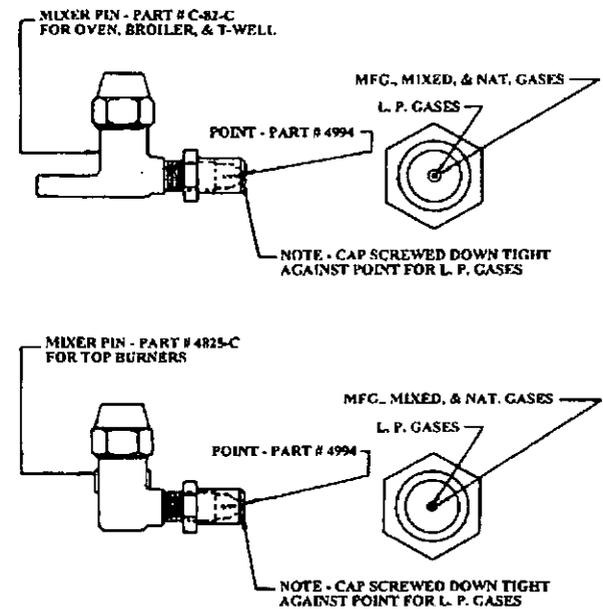
FOR RANGES WITH UNIVERSAL MIXER PIN POINTS:

[Note: Later production models of the Chambers C-series ranges were equipped with what is called a *Universal Mixer Pin*.

This type of mixer pin eliminated the need for different types of mixer pins, pin points, and orifice caps. Rather than changing out the Orifice Caps, all that has to be done to convert from one type of gas to another is to adjust the Orifice Cap on the Universal Mixer Pin to the appropriate size opening, and that's it! The secret is the Pin Point - it has a hole drilled through the middle, whereas previous pin types had no hole in the point, or no point at all. Adjustments are easy and quick to make. - Ed]

Below are pictures of the two different-sized Mixer Pins used on Chambers C-series ranges that have *Universal Mixer Pins* (see Fig. 8, below). The Universal Mixer Pins have a Point with a hole in the middle that is designed to allow the burners on the C-series range to be used any type of gas - all that is necessary to change from one gas type to another is to adjust the Orifice Cap to obtain the proper size opening.

NOTE: Mixer Pin Points may be removed or replaced in the Mixer Pin, but it is very difficult and should not be attempted by anyone other than qualified service personnel with the proper tools.



**- FIGURE 8 -
UNIVERSAL MIXER PIN
(NOTE HOLE DRILLED IN CENTER OF PIN POINT)**

GAS CONVERSION

I. CONVERSION WITH SOLID MIXER PIN POINT

When changing from Liquefied Petroleum Gas to any other gas and the solid Mixer Pin Point is used, it is necessary to change all Orifice Caps according to the chart for solid Mixer Pin Points found on Page 20. When converting from all other types of gas to Liquefied Petroleum Gas and the solid Mixer Pin Point is used, it is also necessary to change all Orifice Caps (see Page 20), making sure the long Cap is tight against shoulder and a good thread sealer is used. Remove the solid Mixer Pin Point.

2. CONVERSION WITH UNIVERSAL MIXER PIN POINT

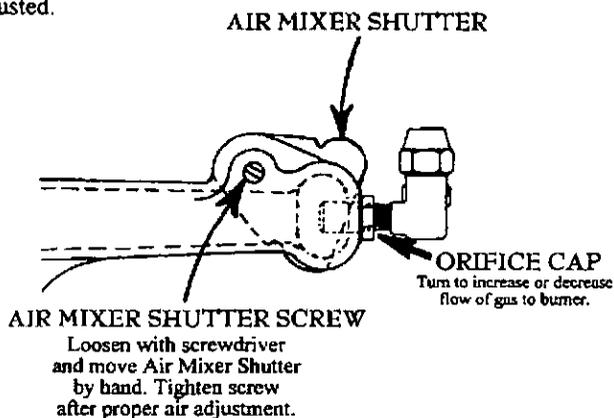
The Universal Mixer Pin is equipped with a Point drilled out for L.P. or Bottled Gas on all ranges. If the range was originally built for Bottled gas, the Orifice Cap will be tight against the Mixer Pin Point. If the range was built for any other gases, the Orifice Cap will be adjusted to supply the height flame desired according to the instructions given in the preceding section of this Manual.

ADJUST BURNERS IN THE FOLLOWING ORDER

GENERAL INSTRUCTIONS ON ADJUSTING BURNERS

There are three parts to every gas burner that are used in the adjustment of the air/gas mixture necessary to give proper performance of said burner. They are: (1) *The Air Mixer Shutter*; (2) *The Air Mixer Shutter Screw*; and (3) *The Orifice Cap*.

Ed. Note: The *Air Mixer Shutter*, which is held in position by its screw, adjusts the air/gas *mixture* going into the burner. The *Orifice Cap* adjusts the *amount* of gas flowing into the burner. Both are to be adjusted, as indicated herein, until a proper flame size and color is achieved. Refer to the illustration below, which shows a Top Burner, Mixer Pin, and Orifice Cap as a general guide to the understanding of how gas burners are constructed and adjusted.



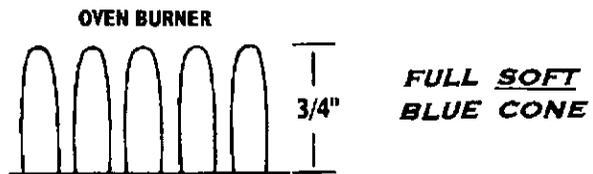
OVEN BURNER (Part No. S-139-C)

The Oven Burner flame should be an approximately 3/4" soft cone, when on maximum, with a By-Pass flame height of not more than 1/8". Liquefied Petroleum Gas has a fixed orifice cap and requires an air adjustment only. Correct input is 21,000 B.T.U. per hour for all gases.

To Adjust Oven Burner:

Set thermostat dial at 400°; light oven burner and turn gas on full. Remove the bottom of the Service Cabinet and adjust the flame by moving the Air Mixer Shutter and Orifice Cap until there is a 3/4" soft blue cone on each port (see illustration in next column).

[NOTE: The Shutter is a flat, bell-shaped metal plate that is fastened to the bottom of the "tail" of the burner. The orifice cap is the part that inserts into the burner "tail" when the burner is in place. - Ed.]

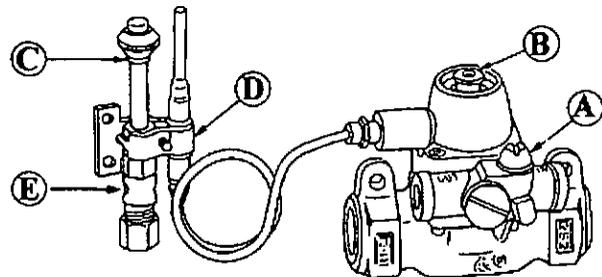


OVEN SAFETY PILOT (for units with a factory-installed oven safety pilot)

This assembly provides 100% shutoff (main and pilot gas) and main gas flow for safe lighting. The pilot valve, along with the main valve, is controlled by an electromagnet, and both close simultaneously in the event of pilot outage.

To Light And Adjust The Automatic Oven Pilot (refer to illustration below):

- 1) Turn off main burner gas supply valve.
- 2) Remove pilot adjusting cap (A) and turn pilot key to the full open position.
- 3) Push the red button (B) in firmly and light pilot burner (C). While holding red button (B), turn the pilot key so that the flame completely envelopes the end 3/8-inch of the thermocouple (D). The pilot air shutter (E) should be positioned to produce a soft blue flame.
- 4) Allow pilot to burn one minute, then release red button (B). Pilot should continue to burn. If it does not, press red button (B) and relight the pilot, holding for a longer period before releasing.
- 5) Valve will now hold open permitting the free flow of gas to the main burner.



ROBERTSHAW Gas Lighter, Model TS-11, Type C

(Extra or optional equipment on later-production C-model ranges)

CAUTION: When retightening the thermocouple nut, a small wrench (approx. 3 or 4 inches) should be used. Run nut down as far as possible with the fingers. Set lockwasher by making an additional 1/4 to 1/2 turn of the wrench.

NOTE: Poor contact between the thermocouple lead and the electromagnet assembly may cause the valve to be inoperative, even when the pilot light is in proper adjustment and position. If so, the contact points should be cleaned and tightened. This is done by disconnecting the thermocouple (D) and carefully cleaning the part that makes contact with the electromagnetic assembly.

OVEN BYPASS *(for units without a factory-installed oven safety pilot)*

Turn the thermostat to 70° (two vertical marks on dial). Move hand adjustment pin located on right bottom side of the Robertshaw thermostat until the minimum *soft bead flame* is NOT MORE THAN 1/8" HIGH! The by-pass flame should continue to burn when oven door is opened and closed normally with the baffle plate in place (see illustration below).



THERMOSTAT ADJUSTMENT AND CALIBRATION

Place a reliable thermometer in center of Oven, light burner, turn the gas on full, and set dial at 400°. Take a first reading at the end of twenty minutes and one additional reading at twenty-five minutes. If the readings are the same, the oven temperature is constant and should correspond with the dial setting. If the temperature reading is more than 20° from the dial setting, pull off the dial, loosen the two small calibrations screws and recalibrate as follows:

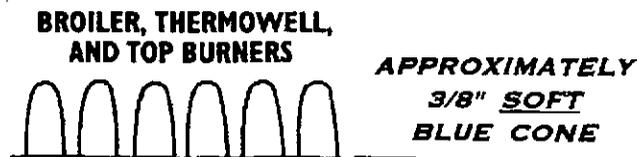
- For units with *Robertshaw Model 2200S* thermostats: Move front sub-dial plate to correspond with temperature in oven. Do *not* move back dial plate and shaft (fastened together). Tighten screws and replace dial.
- For units with *Wilcolator Model 5400* thermostats (used on ranges with serials #2-11016 through #2-18488): Both front and back sub-dial plates must move when recalibrating. Shaft must *not* move. Hold screwdriver or metal wedge in shaft slot, and set dial to correspond with temperature in oven. Tighten screws and replace dial.

BROILER BURNER *(Part No. S-114-C)*

Correct flame height on the Broiler Burner is between 1/4" and 3/8" *soft blue cone* on all gases. Liquefied Petroleum Gas requires no gas adjustment, having a fixed orifice. Correct input is 15,000 B.T.U. per hour for all gases.

To Adjust Broiler Burner:

Remove the rear Top Burner Grate and Drip Ring. Light Broiler Burner and turn gas on full. Adjust the flame by moving the mixer shutter and orifice cap (accessible by removing rear top burner grate and drip ring) until a 1/4" to 3/8" *soft blue cone* is obtained (see illustration below). Make sure bolt holding mixer shutter is tight.



Lay griddle-grease-drip-pan in place in back of Broiler Box. Griddle and Sizzling Platter should be moved up and down to check for mechanical smoothness (see Page 8 for adjustment information).

THERMOWELL AND TOP BURNER PILOTS

The pilot adjusting screws are accessible through the Service Cabinet. Adjust both pilots to about 1/2" height. These have no air adjustment, and, therefore, burn with a slightly yellow tip.

TOP BURNERS *(Part No. S-120-C)*

The three Top Burners should have a *soft blue flame* of approximately 3/8" in height for all gases. Liquefied Petroleum Gas requires no gas adjustment, having a fixed orifice. Correct input is 7,500 B.T.U. per hour for L.P. Gas, and 9,000 B.T.U. per hour for all other gases.

To Adjust Top Burner:

Remove Grate and Drip Ring. Loosen bolt going through the Burner in order to make it possible to move the flat plate (shutter) on the bottom until the proper flame is obtained. Light the burner, turn the gas to full, and adjust flame by moving the mixer shutter and orifice cap until a 3/8" *soft blue cone* is obtained (see illustration above). Make sure the bolt holding the mixer shutter is tight after final adjustment. Attach the flash tubes to the pilot baffles, and fit them snugly into the flash ports on each Top Burner.

THERMOWELL BURNER *(Part No. S-130-C)*

The Thermowell Burner should have a *soft blue flame* of approximately 3/8" in height for all gases. Liquefied Petroleum Gas requires no gas adjustment, having a fixed orifice. Correct input is 7,500 B.T.U. per hour for L.P. Gas, and 9,000 B.T.U. per hour for all other gases.

To Adjust Thermowell Burner:

Open Service Cabinet Door. Light the Thermowell Burner and turn the gas on full. Adjust the flame by moving the mixer shutter and orifice cap (accessible by removing the rear top burner grate and drip ring) until a 1/4" to 3/8" *soft blue cone* is obtained (see illustration below). Make sure the bolt holding mixer shutter is tight.

BROILER, THERMOWELL, AND TOP BURNERS

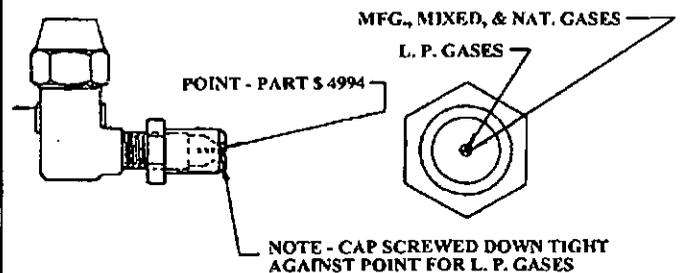


APPROXIMATELY
3/8" SOFT
BLUE CONE

LOWER FLAMES ON LP GAS

Burner flames on bottled and tank gases are lower than those illustrated above. On L. P. gas, orifice caps should be screwed down tight onto the universal mixer pin with gas admitted only through the mixer pin points (see illustration below).

UNIVERSAL MIXER PIN



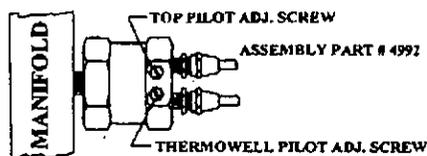
CHECK FOR LEAKS

Turn on each burner separately and check all joints and hook-up tubing for leaks. This can be done with soap suds or a pressure gauge.

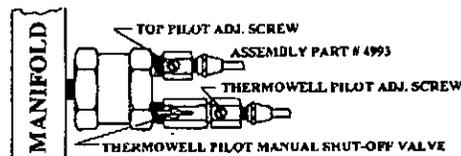
PILOT FILTER

[EDITOR'S NOTE: Chambers C-series ranges came with filter for the gas that supplies the Top Burner and Thermowell pilot lights. These filters came equipped with flame level adjustments, and prevent unwanted debris from clogging up the small tubes feeding the pilot lights.

Sometimes, the filter can allow a piece of unwanted material to be passed into one of the tubes, or can become clogged internally itself, resulting in a dead pilot light. If this happens, determine whether the obstruction is in the line or the filter by turning off the main gas feed to the range, disconnecting the tubing connected to the filter that feeds the inoperative pilot light, and gently blowing compressed air through the tubing. In most cases, this will clear the problem.]



**PILOT FILTER ASSEMBLY
FOR ALL GASES EXCEPT L. P. GASES**



**PILOT FILTER ASSEMBLY
FOR L. P. GAS ONLY**

HOW TO RE-CHECK TROUBLESOME THERMOSTATS

If Thermostat Does not Respond To Calibration (see Thermostat Adjustment and Calibration, Page 6), Then Look For The Following Possible Problems:

1. DIRT OR FOREIGN MATTER UNDER VALVE SEAT

Remove thermostat from range according to instructions on Page 16. The thermostat is made in two sections and is held together with four bolts (see Page 15). After removing these bolts, the valve and seat can be cleaned and the thermostat reassembled. Be sure the tube from the gas valve is on the inlet and the tube leading to the Oven burner is on the outlet side of the openings, which are plainly marked.

2. BY-PASS AND SAFETY PILOT NOT ADJUSTED PROPERLY

If the by-pass is too high, the thermostat will not maintain a low enough temperature to bake properly. If it is too low, the burner will go out. Correct flame height is approximately 1/8", or a flame that stays on the burner when the Oven door is opened and closed. Oven safety pilot (on units so equipped) height is approximately 1/2".

3. CAPILLARY TUBE AND BULB DAMAGED

To determine whether or not the thermostat has lost its charge; light the Oven and turn the dial back to 70° or until it hits the stop. The flame should change from the maximum of 3/4" high to a minimum of 1/8" high. Turn the dial up to 400° for 4 or 5 minutes, and then turn the dial back to the stop again. If the charge is lost, the flame on the burner will not drop down until the dial reaches the stop. If the flame drops down somewhere between 400° and the stop, then the charge is not lost; therefore, calibration should be run with an accurate oven thermometer.

4. UNIT OUT OF CALIBRATION

If the Oven temperatures are incorrect, calibrate according to the instructions, "Thermostat Adjustment and Calibration", found on Page 6.

TO REMOVE PORCELAIN PANELS -

1. MAIN FRONT PANEL

The porcelain front panel is held in place by seven bolts - three at the top, three at the bottom, and one located between the timer and thermostat. One is reached through the hole in the front of the broiler box on the left side; one through the left front top burner opening in the center of the range; and one through the right front top burner hole. The one through the timer and thermostat may be reached through the Service Cabinet door. The three on the bottom are found; one underneath the Service Cabinet bottom and two under the baffle plate in the oven. Remove thumb keys by lifting up and pulling out. Remove griddle lift, broiler adjustment, and gas valve handles by loosening the 1/4" allen set screws. Remove keeper by inserting a 1/4" pin or screwdriver into hole on underneath side and back it off (counterclockwise) the threaded stud. Remove front by holding onto each side and

carefully pulling out.

2. END PANELS

The two end panels are interchangeable and can be removed by loosening (but not removing) the two 3/8" nuts located on the bottom side of the panel; pull the panel out at the bottom until the top edge drops away from the on the Duracrome top. Shift the carriage bolts into the extra slots provided bottom edge of the panel, if panel is to be shifted to the other side of the range.

3. OUTSIDE OVEN DOOR PANEL

Remove the inside oven door lining by taking out the four bolts and asbestos washers from the four corners of the lining, along with the entire amount of rock wool insulation. The oven door handle block is removed by taking out three bolts, being careful not to lose the small sleeves which fit between the door block and the cast iron door frame. Remove the four nuts at the corners of the cast door frame; drop panel down,

being careful not to chip the bottom side of the door next to the main front panel. **PLEASE NOTE:** When replacing the oven door panel, the wool must be evenly and carefully distributed inside in order to maintain the proper retention of heat.

4. SERVICE CABINET DOOR PANEL

First, release the two springs which are attached to the Hinge leaf. Then, remove the five bolts and asbestos washers from the inside of the cabinet door lining.

5. BODY BACK

The Body Back is held in place by eight bolts; three on each side of the range in the vertical angles, and two long bolts in the center of the Oven.

TO SERVICE MECHANICAL PARTS -

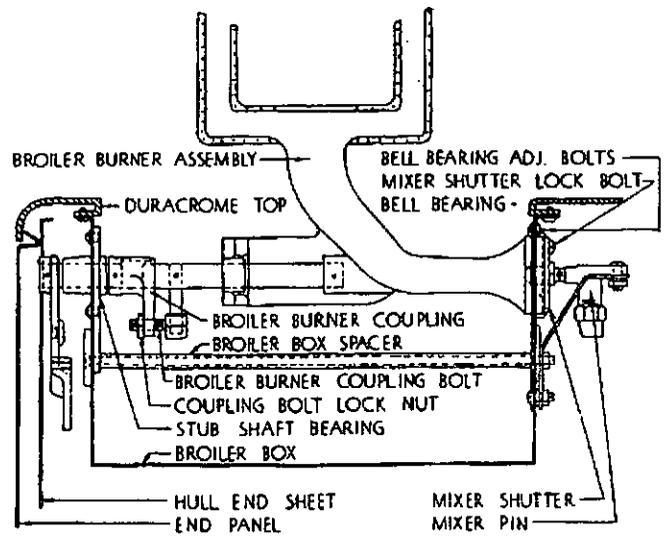
I. BROILER AND GRIDDLE:

A. BROILER BURNER ADJUSTMENT

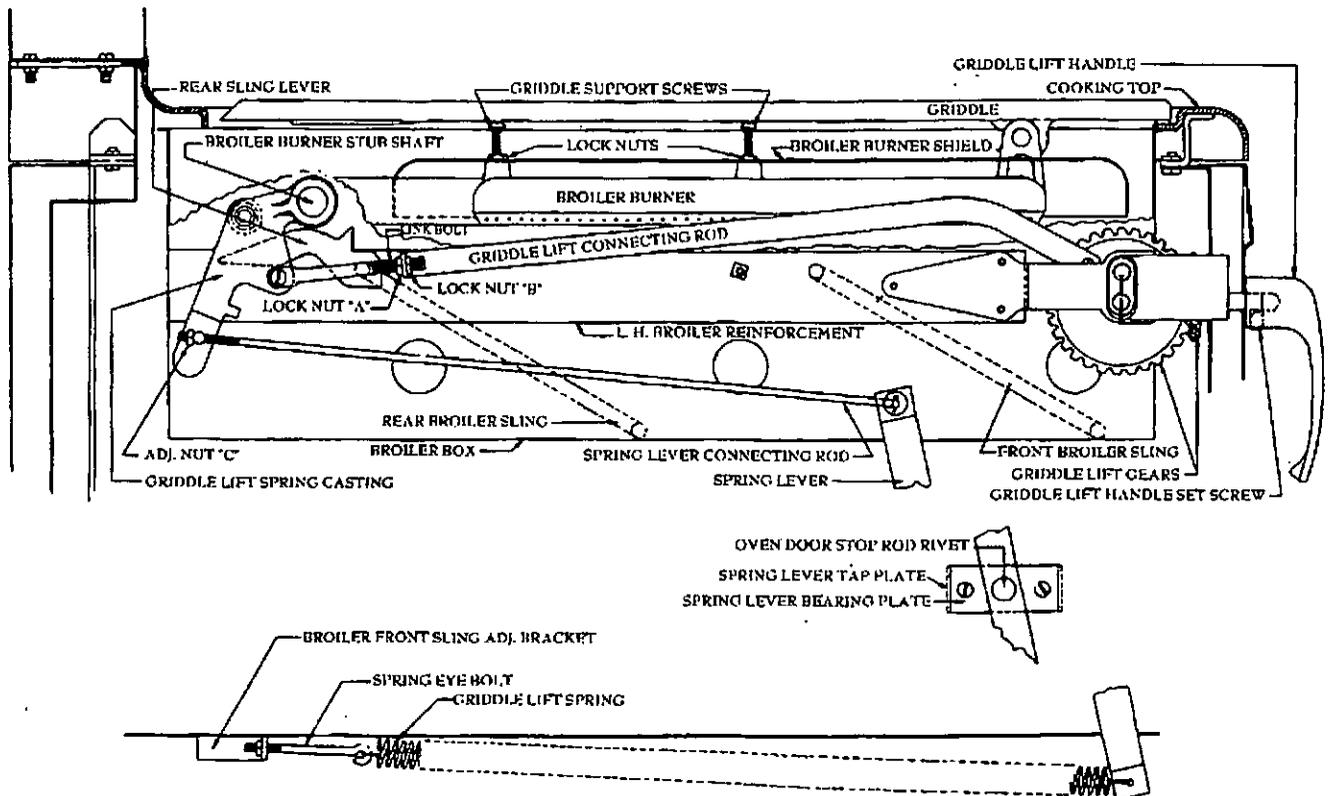
1. If the broiler burner is crooked, loosen the two Bell Bearing Adjustment Bolts; force the front of the Burner in the desired direction and distance, and then tighten the bolts (see Fig.9, right).
2. To move the entire Broiler Burner, loosen the Coupling Bolt Lock Nut and pull Broiler Burner up out of the Broiler Burner Coupling Bolt; thread bolt in or out as desired, then replace Burner and tighten Nut (see Fig.9, right).

B. BROILER BURNER REMOVAL

To remove the Broiler Burner, first remove the Griddle by pulling it straight forward. Place the right hand on the front of the burner; and the left hand on the rear directly over the pin that points down. Pulling up and out with the left hand will free the burner.



- FIGURE 9 -
CUT-AWAY VIEW OF BROILER BOX
(AS SEEN FROM FRONT)



- Figure 10 -
LEFT SIDE VIEW OF BROILER & GRIDDLE ASSEMBLY

C. BROILER BOX REMOVAL

The Broiler Box can be removed from the Duracrome top (while the top is inverted) by removing the six bolts and crab washers holding it in place.

D. BROILER BOX REINFORCEMENT ASSEMBLY, LEFT HAND SIDE (Part No. S-160-C)

This reinforcement controls the movement of the Griddle and Burner, through the use of a front and side gear (see Fig. 11, below).

TO CHANGE REINFORCEMENT:

- 1) Remove left end panel (as described elsewhere in this Manual).
- 2) Remove front panel (as described elsewhere in this Manual).
- 3) Release broiler spring.
- 4) Remove 1/4" hex nut and split washer, and free connecting bar.
- 5) Drive 2/0 x 1" taper pin out of rear sling lever (remove lever).
- 6) Pull left side of both slings through inside of broiler box (use a screwdriver).
- 7) Remove the three bolts and their asbestos washers.
- 8) Remove broiler box tie rod.
- 9) Pull assembly straight forward (if necessary, move frame out to allow room on front corners).
- 10) Replace with new assembly (make sure connecting bar adjustment is properly made).

E. BROILER BOX REINFORCEMENT ASSEMBLY, RIGHT HAND SIDE (Part No. S-122-C)

This mechanism controls the position of the front and rear Broiler Springs, which govern the Broiler Pan location (see Fig. 12, below).

TO REMOVE:

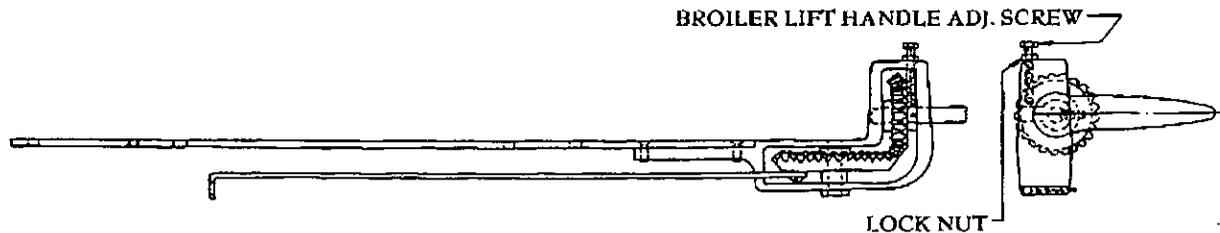
Knock out Taper Pins "E" and "F"; remove both front and rear Sling Lift Levers, three bolts with heads accessible from inside the Broiler Box. Remove Broiler Burner Mixer Pin bracket and front top burner bracket.

WHEN REMOVING BROILER SLING (Part No. S-124-C):

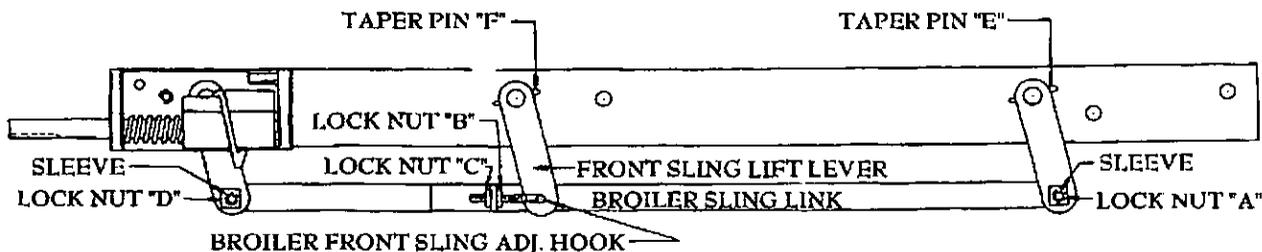
Save the two 1/4" diameter sleeves on each end of the Broiler Sling Link; use in reassembling; they prevent Lock Nuts "A" and "D" from binding on the link when tight.

TO LEVEL BROILER PAN (Part No. 4736):

The Broiler Sling Link connects the front and rear slings. If the Broiler Pan is not level or parallel with the Duracrome Top when Pan is in its highest position, the Broiler Front Sling Adjustment Hook can be adjusted by moving Lock Nuts "B" and "C", threaded on the Adjusting Hook, which synchronizes the front and rear slings. The rear Broiler Sling furnishes the power to raise and lower the Broiler Pan, which should slope slightly forward when in the broiling position (see illustrations on Page 8).



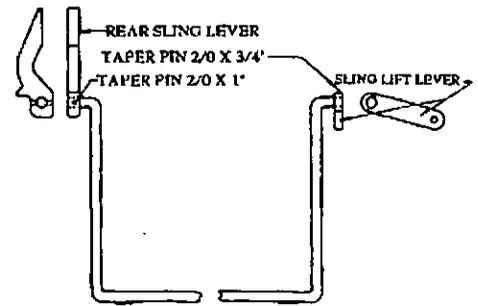
- Figure 11 -
LEFT HAND BROILER BOX REINFORCEMENT ASSEMBLY
(Part No. S-160-C)



- Figure 12 -
RIGHT HAND BROILER BOX REINFORCEMENT ASSEMBLY
(Part No. S-122-C)

F. REAR BROILER SLING ASSEMBLY (Part No. S-110-C)

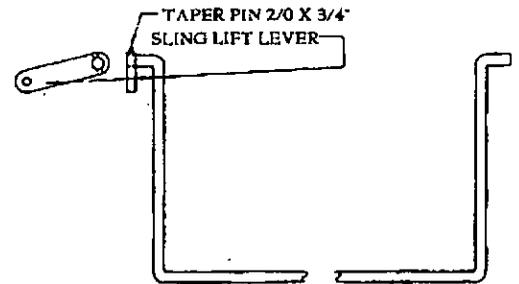
This part is replaceable only as a completely assembled unit. The Rear Sling Lever and Sling Lift Lever, on the left and right ends respectively, are fastened with taper pins, which must be removed before removing or placing box. Care should be taken to place Rear Sling Lever and Sling Lift Lever in the same position as removed (see illustration, right).



REAR BROILER SLING ASSEMBLY
(Part No. S-110-C)

G. FRONT BROILER SLING ASSEMBLY (Part No. S-109-C)

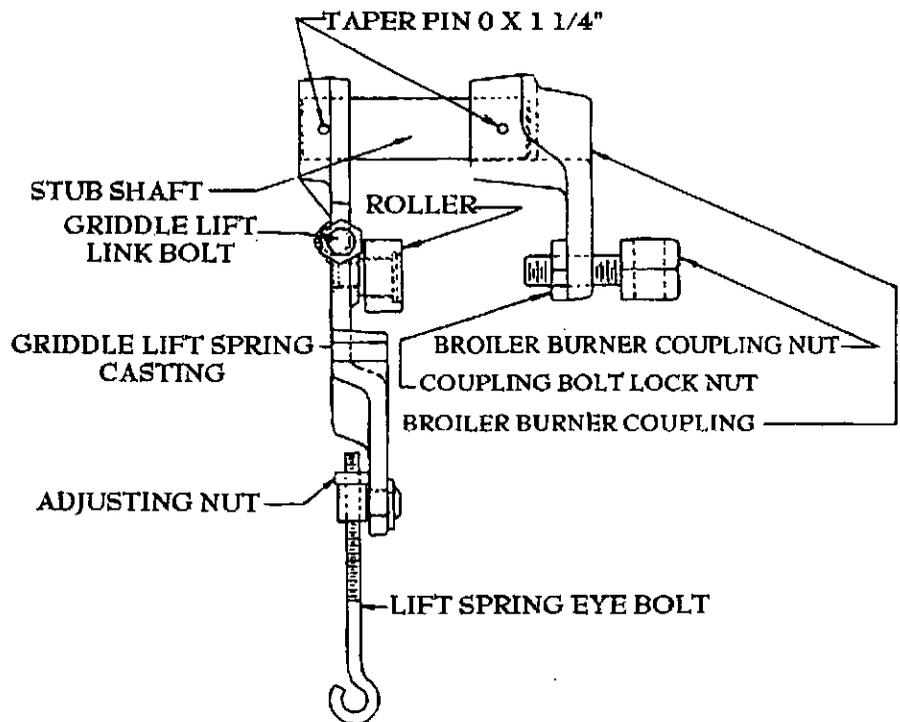
This part is replaceable only as a completely assembled unit. The Sling Lift Lever is fastened onto the end of the Sling with a taper pin, which must be removed when removing assembly from range. When placing a new assembly in the box, care should be taken to place Sling Lift Lever on Sling in the same position as removed (see illustration, right).



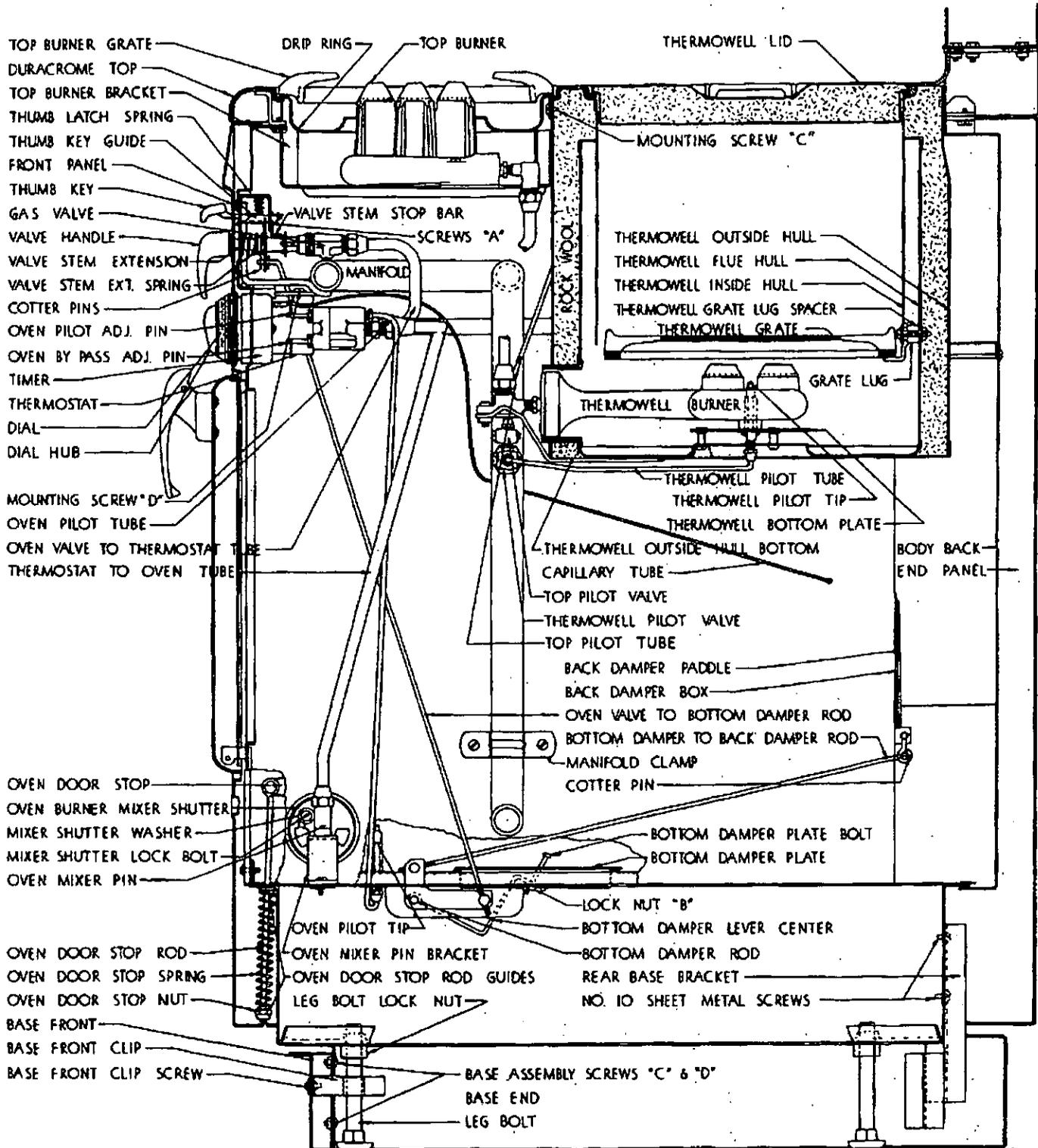
FRONT BROILER SLING ASSEMBLY
(Part No. S-109-C)

H. BROILER BURNER STUB SHAFT ASSEMBLY (Part No. S-167-C)

This assembly is replaceable only as a complete unit. It's function is to hold and locate the Broiler Burner (see illustration, right).



CUT-AWAY VIEW OF C-SERIES RANGE SHOWING THERMOWELL, OVEN VALVE, MANIFOLD, TOP BURNER, PILOT LIGHTS, ETC.



I. GRIDDLE

If the Griddle is not straight or level, it can be removed and straightened by striking it diagonally across the edge of a table or bench. It may also be straightened by inverting and striking it on the underneath side with a rubber or metal hammer (*NOTE: A wooden block should be used if a metal hammer is used*). After the Griddle is placed on the range, make sure the two contact supports are touching the Duracrome top in front and the four adjustable bolts support it in the center and rear. See Chambers *Idle Hour Cookbook* and Cleaning Instruction in back of this Manual for "Care of Griddle".

J. GRIDDLE COUNTER-BALANCE

Griddle Lift Spring (Part No. 3460) is designed to balance the weight of the Griddle, Burner, and Shield. By adjusting (Nut "C"), the tension on the Griddle Lift Spring can be increased or decreased to the desired amount.

K. GRIDDLE LIFT HANDLE ADJUSTMENT

Remove the left end panel. Adjustment of the Griddle Lift Handle can be made by loosening the lock nuts on the bolt attached to the broiler burner shaft assembly, and adjusting the link so that the Griddle Lift Handle hangs vertically when the Griddle is in the down position (see Fig. 10, Page 8).

To remove Griddle Lift Handle, raise Griddle up so that the Handle is in the lock position; loosen the Hollow Head Allen Set Screw (1/4"-20 x 3/8") with Allen Wrench; remove Handle.

L. GRIDDLE MECHANISM

To inspect, remove left end panel, per instructions. The Griddle Lift Handle must have the Allen Set Screw tight so that the Handle will turn the gears, which in turn will raise the Griddle. Lock Nut "A" and "B", shown in Figure 12, Page 9, can be adjusted so that the Griddle will raise and lower properly. If the gears do not mesh properly, change Left Hand Broiler Box Reinforcement Assembly (Part No. S-160-C) per instructions.

M. GRIDDLE SUPPORTS

The Griddle is supported on six points. Two at the front (on Duracrome Top), and four round head bolts (Griddle Support Screws) 10-24 x 1 1/8" with lock nuts and washers. Make sure Griddle is straight before adjusting screws (see Section I-1, above). The Griddle Support Screws should then be adjusted so that the Griddle is parallel with the Duracrome Top.

2. DAMPER PLATES

Both Bottom and Back Damper Plates are controlled by the Oven Valve Handle. The Bottom Damper Plate can be adjusted by removing the outside Cotter Pin (by the Oven Valve Handle) and increasing or decreasing the length of the Oven-Gas-Valve-to-Bottom-Damper-Rod.

To change the tension on the Back Damper Paddle, remove the Cotter Pin on the back of the Bottom-Damper-to-Back-Damper Rod; increase or decrease the length of this Rod

until the desired tension is obtained.

3. DURACROME TOP

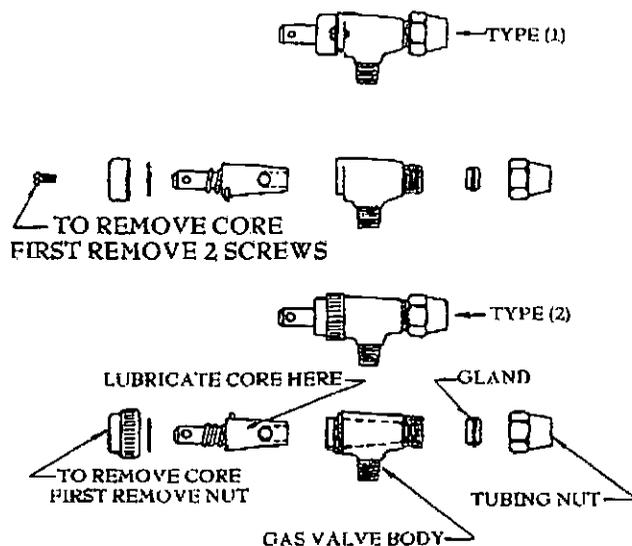
Remove the Back of the range (high or low), the Body Back, and both end panels; separate the tubing from the mixer pin on the broiler, the three top burners, Thermowell, and the top pilots.

Remove the griddle lift and broiler adjustment handles. There are five hexagon bolts which hold the Duracrome top; three across the top and one in each rear corner. The left front bolt is accessible through the front of the broiler box; the center bolt through the left front top burner opening; the right front bolt through the right front burner opening; and one slotted head bolt on each of the rear corners. Pull the to straight back until the griddle shaft clears the frame and remove. When removing the broiler box or Thermowell assembly, the top should be inverted and placed onto a smooth padded surface.

4. GAS VALVES:

A. GAS VALVES (Part No. SA-5-C)

Figure 13 (below) shows both types of Gas Valves used on "C" Model ranges. If a Valve is "leaking" or turns hard and needs lubricating, turn off gas to range, remove Valve Stem Stop Bar (see Cutaway View on Page 11); Pull Handle and Valve Stem Extension out until the Valve Stem is free. Next, remove Nut or the two screws as shown in see Cutaway View on Page 11, Type 1 and 2 (whichever type is used). Pull core out and lubricate as indicated on the illustration below ("Lubricate Core Here"). [*Ed. Note: Refer to Fig. 14, Page 13 for a more detailed illustration on how to disassemble the gas valve.*]

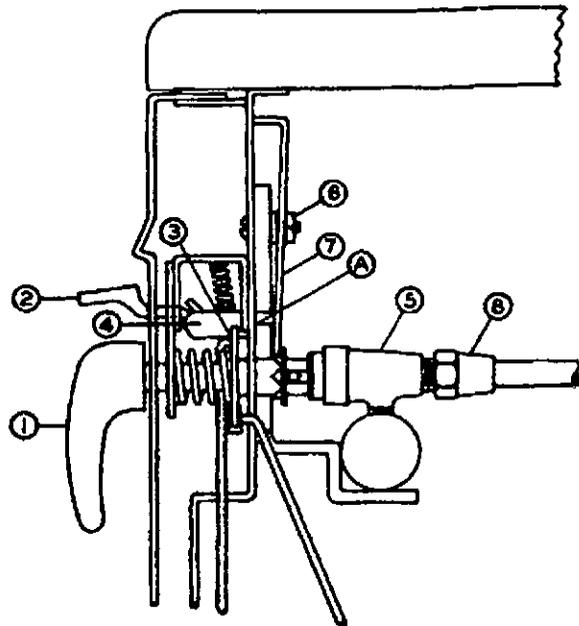


- Figure 13 -
GAS VALVE
(Part No. SA-5-C)

LUBRICATION OF CHAMBERS VALVES:

Loosen lock nut (6) and slide valve extension stop bar (7) as high as possible; tighten lock nut (6). This allows enough clearance to free the valve when the valve handle (1) is pulled forward as far as possible. The tubing nut (8) must be removed to permit freedom in turning gas valve (5). Valve can now be turned counterclockwise and the core removed for lubrication.

Occasionally, friction between disk (3) and lock (4) may be responsible for a binding valve. This condition can be corrected as follows: Hold thumb key (2) depressed while applying grease through point (A) to the underside of lock (4). Turn the valve until the lock (4) is clear of slot (3) and release the thumb key (2). The lock (4) now rides on the outer surface of disc (3), and by rotating the valve back and forth, the grease is applied to the disc (3).



- Figure 14 -

B. GAS VALVE LUBRICANT

Use only Chambers Valve Lubricant, available from your local Distributor or the manufacturer.

NEVER-USE-OIL-AS-A-VALVE-LUBRICANT!

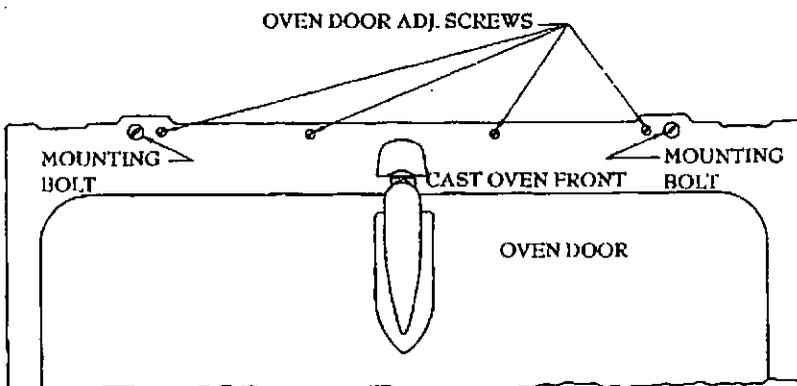
[NOTE: Chambers Valve Lubricant is no longer available. However, a comparable substitute can be purchased from any well-established appliance parts supply company. If you cannot find a source for it, check the sources found for Parts and Service page at www.chamberstoves.net - Ed.]

5. OVEN:

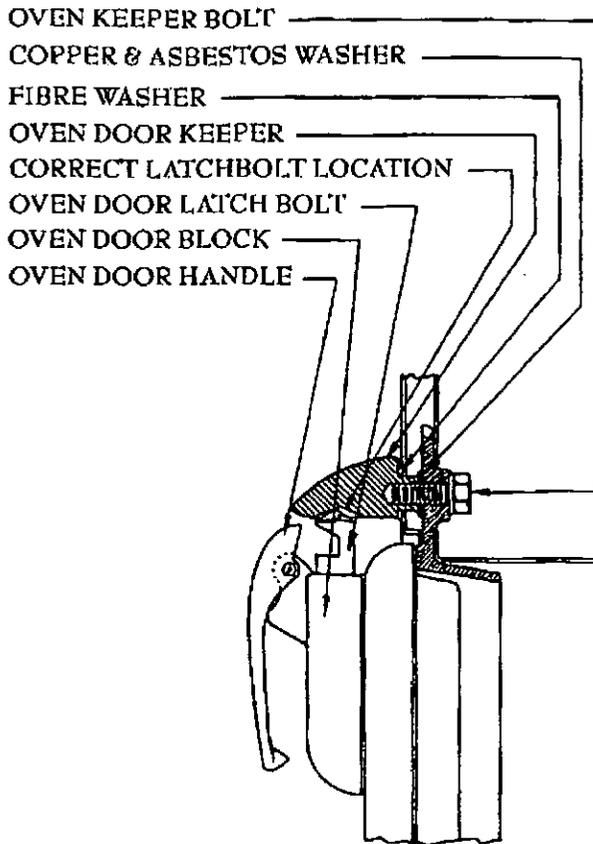
A. OVEN DOOR ADJUSTMENT

Figure 15, left, shows the four Oven Door Adjusting Screws, which can be adjusted in and out to make the Door fit properly. By moving either Mounting Bolt and adjusting the four Adjusting Screws, the Oven Door can be fitted (in most cases), without filing. It is necessary to remove the porcelain front before this adjustment is made (see Page 7).

Figure 15, left, shows the correct location of the Oven Door Latch Bolt on the Oven Door Keeper. To apply more pressure, remove Keeper (by placing a 5/16" steel pin in hole and unthreading), dress off Keeper so it can be go in closer to front. Place washer on Oven Keeper Bolt if Keeper is to be moved out. In this manner, a good Oven Door Seal can be obtained.



- Figure 15 -
OVEN DOOR ADJUSTMENT



- Figure 16 -
OVEN DOOR LATCH ASSEMBLY

B. OVEN DOOR REMOVAL AND/OR REPLACEMENT

Remove the porcelain front (see Page 7), along with the Oven Door Stop Nut which will allow the Door Springs to be removed. The Cast Oven Front is bolted on the outside of the range frame with four bolts; two at the top and two at the bottom. When these four bolts are removed, pull out and up on the casting until the Door Stop Rods are free. This may be changed without removing the door from the front.

To replace the Oven Door and Front Assembly, remove the Oven Door, followed by the two exposed flat head bolts on each side of the door which hold the door stops to the casting. Compress the split ends of the two rivets holding the door to the hinge lugs and remove. Cast Iron Oven Doors are not interchangeable. If replacement is desired, both *Cast Front and Door* must be replaced together.

C. OVEN DOOR SPRINGS

To remove or change Oven Door Springs, it is necessary to remove the porcelain front (as described herein) so that the Oven Door Stop Springs are accessible, and one nut on each door stop rod, which will free the Spring. This Spring serves only as a counterbalance to the Door, and has no connection with stopping the Door in the open position or applying tension to it when it is closed. Make sure

there is an Oven-Door-Stop-Rod-Guide at the top and bottom when replacing the Spring.

D. OVEN RACK RUNNERS

Each runner is held in place by only one bolt through the back flange. The front flange slips in behind the cast iron front. The head of the bolt holding the left runner in place is accessible after the left end panel is removed. The bolt holding the right runner is accessible from inside the Service Cabinet compartment.

6. PILOT LIGHTS:

A. AUTOMATIC OVEN PILOT

EDITOR'S NOTE: Some C-series ranges came with a factory-installed Automatic Oven Pilot and Safety Valve System. Refer to Page 5 for information on the set-up and adjustment of this Pilot.

B. BROILER/GRIDDLE

[Some C-series ranges came with a factory-installed flash tube to light the Broiler/Griddle Burner. There was no standing pilot for this burner installed by Chambers at their factory. - Ed]

C. THERMOWELL PILOT LIGHT

All C-series ranges came with a factory installed Thermowell Pilot Light. The gas line feeding this Pilot comes from the Filter, and its flame height is adjusted using the screw indicated (see Page 6).

Sometimes, the Thermowell Pilot Light Tip (Part No. 4002) becomes dirty or clogged and must be cleaned. To remove Tip, loosen and remove 5/32" Tubing Nut (3/8" O.D.). Hold Tip (3/4" O.D.) In Well and remove 5/16" Nut on bottom side of Well.

D. TOP PILOT LIGHT

All C-series ranges came with a factory installed Top Pilot Light for lighting the Top Burners. The gas line feeding this Pilot comes from the Filter, and its flame height is adjusted using the screw indicated (see Page 6).

Should it be necessary to remove this Pilot, do so by disconnecting the aluminum tubing on the lower end of the Pilot by loosening the 3/8" nut. Unthread the Pilot which is a 3/8" hexagon. To remove the entire Top Pilot Assembly, remove the slot head bolt which holds the bracket to the Duracrome Top, located just left of the Top Pilot hole on the cooktop.

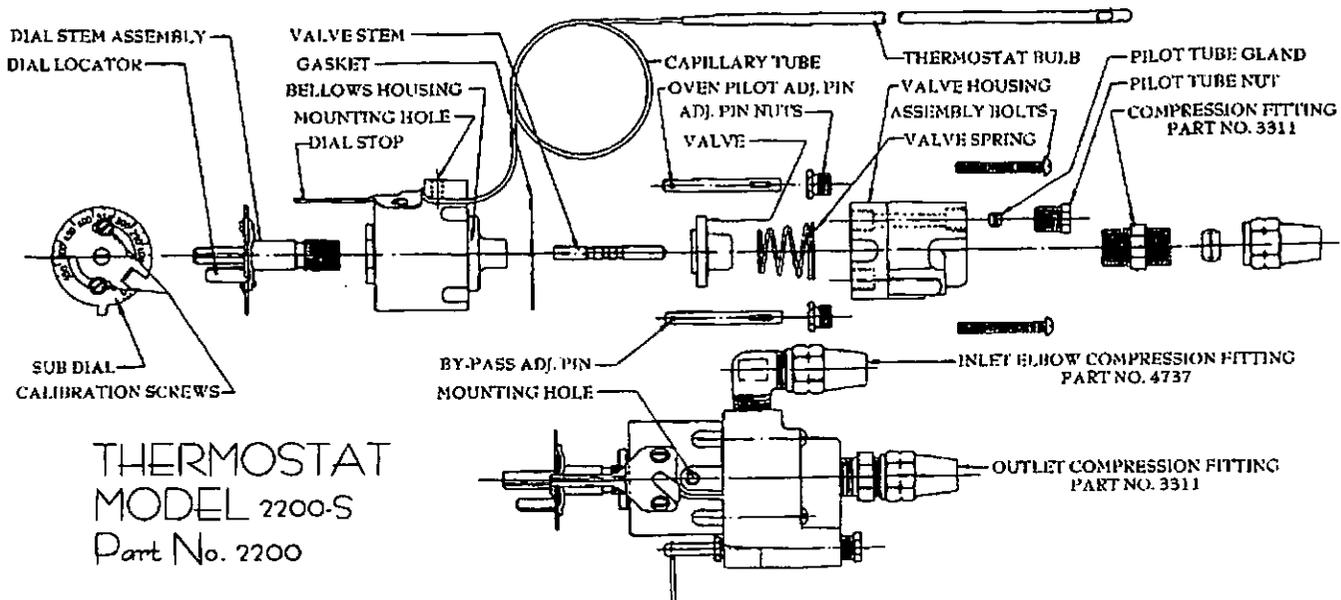
7. THERMOSTAT (refer to Figure 17, Page 15):

A. COMPONENT PARTS OF MODEL 2200-S

THERMOSTAT (Part No. 2200) [NOTE: This thermostat was used on both 61-C and 90-C model ranges; and when ordered separately, it did not carry any fittings or dial - Ed].

I) ADJUSTING PIN NUTS

Thread into the Housing and apply pressure to the



**- Figure 17 -
THERMOSTAT: EXPLODED VIEW**

lead washer to prevent gas leakage. Pins should be tight against the Housing before the nuts are tightened.

2) ASSEMBLY BOLTS

There are four of these Bolts which hold the Valve Housing and Bellows Housing together.

3) BELLOWS HOUSING

Holds the bellows, capillary tube, dial stop, and has a Mounting Hole located on the top side.

4) BY-PASS ADJUSTING PINS

The Pin on the bottom (as you face the thermostat) is the By-Pass adjustment, and should be made when the Thermostat Dial is rotated counterclockwise as far as possible. The movement of the By-Pass Pin controls the flow of gas which by-passes the main valve.

[NOTE: The By-Pass Flame Height is adjusted according to the instructions found on Page 6. In C-series ranges NOT equipped with an Automatic Oven Pilot, the By-Pass Flame remains on after the oven has reached the temperature set on the Thermostat Dial and the Thermostat has shut off the main gas valve. The By-Pass Flame acts as a pilot light to prevent the Oven Burner from going completely out, which would release unburned gas into the Oven compartment. It is VERY important to make sure the By-Pass Flame height is correct and that the Oven Door is NOT slammed shut when the Oven in operation, as it can blow out the By-Pass Flame. - Ed]

5) GASKET

Located between the Bellows Housing and Valve

Housing; makes a gas tight fit.

**6) INLET ELBOW COMPRESSION FITTING
(Part No. 4737)**

This brass fitting threads into the left side of the Thermostat (marked inlet) and receives the tubing from the gas valve.

7) OUTLET COMPRESSION FITTING

This brass bushing threads into the back side of the Thermostat (marked outlet) and receives the tubing leading to the Oven Burner.

8) PILOT TUBE NUT

Threads into the Valve Housing and holds the Oven Pilot tubing.

9) SAFETY PILOT ADJUSTMENT PIN

This Pin is located on the top (as you face the Thermostat) above the By-Pass pin, and controls the flow of gas to the Oven Pilot (if so equipped).

10) SUB DIAL AND CALIBRATION SCREWS

The Sub Dial bolts to the Dial Stem Assembly with two 4-36 bolts and must be moved *without* moving the Split Stem when calibrating the Thermostat (see Page 6 for calibrating instructions).

II) THERMOSTAT BULB AND CAPILLARY TUBE

The Thermostat Bulb locates in the back of the Oven directly in the baking zone and is charged with a fluid which expands and contracts according to the temperature applied to it.

The Capillary Tube connects the Thermostat Bulb with the Bellows and should be handled **VERY** carefully.

12) THERMOSTAT DIAL AND HUB (not pictured)

The two parts are held together by two small 4-36 nuts; and fits over the Split Dial Stem. *Care* should be taken to make sure the Dial Locator engages in the Dial Hub Slot.

13) VALVE

This Valve controls the flow of gas through the Thermostat and moves according to pressure applied by the Bellows. It may require cleaning with a soft cloth occasionally.

14) VALVE STEM

Connects Bellows with the Valve so the flow of gas is controlled according to the Oven temperature. Care should be taken not to remove the lubricant from the Stem, as it will not be gas tight; also place rounded end in valve.

B. THERMOSTAT REMOVAL

To remove Thermostat, loosen the two 3/8" tubing nuts, the 5/32" pilot tubing nut, and bend tubing to allow removal from Thermostat (*NOTE: This is a friction fit*). Remove slot head bolt located under right front top burner which holds Thermostat to bracket. Drop Thermostat down into the storage compartment and *carefully* pull the Capillary Tube and Bulb out of the oven. *NOTE: Extreme care should be exercised when removing or handling the tube and bulb!*

C. THERMOSTAT REPLACEMENT (Part No. 2200)

Remove Thermostat Bulb (accessible through Service Cabinet); pull off Dial, disconnect the 3/8" tube that goes to Manifold and Oven Burner, remove Mounting Screw "D" (see Page 11) with screwdriver from top of Thermostat; drop back and down into compartment.

If Thermostat does not function properly after it has been cleaned and an attempt has been made to calibrate it, we suggest replacement. When ordering parts, always forward both Model and Serial number to your local distributor.

[Editor's Note: Replacement Thermostats are no longer available. DO NOT throw your old Thermostat away - while it cannot be replaced, it CAN be repaired! Contact me at the Chambers Stove Lovers Website (www.chamberstoves.net), and I will put you in contact with a certified rebuilder for your Thermostat.]

8. SERVICE CABINET:

A. DOOR ADJUSTMENT

If the Service Cabinet Door does not fit properly, loosen the four corner bolts which hold the inner lining to the panel. Fit the Door in the opening so that it is straight and has the correct margins; tighten the four bolts securely.

B. DOOR SPRINGS

These Springs are not shown in the Cutaway View on Page 11. However, it is necessary to remove the porcelain Service Cabinet Door Front in order to change them.

9. THERMOWELL:

A. BURNER (Part No. S-130-C)

The Thermowell Burner must be placed in the Well with the locating tips in the Burner Rest. Correct lighting depends on it being in this location.

B. LID

NEVER IMMERSE THERMOWELL LID IN WATER! When it needs cleaning, wipe Lid with a damp or soapy cloth, also scour if necessary. ***Avoid cleaning porcelain Lid and Well lining while hot.***

C. REMOVAL OF THERMOWELL

The Thermowell unit can be removed with the Duracrome top on or off of the range. There are three bolts; one in front and two on either side in the back. It is necessary to remove the Insulated Back and Body Back when the Well is removed while on the range.

To remove Thermowell from an already assembled range; remove the (high or low) Insulated Back, the Body Back, the gas tubes to the Thermowell and the Thermowell Pilot Light. There are three mounting bolts which support the weight of the Well. One bolt mounting screw, "C", is accessible when the rear top grate and drip ring are removed. The third bolt is found in the back, a little to the left of center, and will require a long screwdriver to remove. When replacing Well, care should be taken to see to it that the inside Hull fits snug against the Duracrome Top.

10. THUMB LATCH SPRING

To replace a Thumb Latch Spring, remove Top Grate, Drip Ring, and Burner nearest the latch you wish to work on. Place a small piece of metal through the top hole to guide the spring into proper location, place one end of Spring over metal and force bottom end over extrusion which holds its location.

11. TIMER REMOVAL AND/OR REPLACEMENT:

To remove and Replace Timer (Part No. 4718 and 4888), GENTLY pull the Dial straight off of the Timer shaft (this is a press fit and should be snug). Remove the two flat head Bolts visible after the Dial is off, and pull Timer from the rear, and out through the Service Cabinet. When replacing, make sure the asbestos washer is installed between the Timer and the Front Panel.

NOTE: In setting timer, always turn dial at least 1/2 turn, before setting for desired time. This will fully wind the spring that operates the bell for a long continuous ring.

EDITOR'S NOTE: Most of the Timers end up getting broken because people tend to wind them too roughly. The Timer Dial is pressed onto the Timer shaft, which is grooved to accept the Dial. As the Timer ages, the lubricants inside dry out, making it harder to wind the timer. Instead of having it serviced by a clocksmith, people turn the dial with greater force, and, eventually, strip out either the Dial (typically) or the shaft (occasionally), effectively ruining the Timer. A competent clocksmith can sometimes repair these. If not, a replacement mechanism can be installed.]

SPECIAL NOTES ABOUT THE CAUSE AND CORRECTION OF CONDENSATION

There is an extreme temperature change in the Oven when the Burner is first lighted. As a result, drops of moisture will condense on the inside of the Oven and Door linings. Occasionally, moisture will be present on the two sides of the Oven Door, especially on the lower corners. This moisture may even run down and drop on the floor beneath the door.

There are several things that can be done to minimize this condition:

1. Leave the Oven Door ajar for three or four minutes after lighting the Oven. This will have a tendency to warm up the door and front.
2. Be sure that the height of the Oven Burner Flame does not exceed 3/4".
3. Be sure that the "Idle Hour" Cookbook is followed for correct quantities of liquid to be used when cooking in the Oven.
4. Check the fit of the Oven Door, and, if necessary, adjust the four set screws in the cast Oven Front so that the door is properly fitted.
5. Always leave the Oven Door ajar when the Oven is not in use.

HOW TO CLEAN YOUR CHAMBERS RANGE -

I. WASH AFTER EACH USE:

A. PORCELAIN PARTS

Soiled parts should be washed with mild soap suds, just as you do your cooking utensils. If necessary, scour with any of the popular non-abrasive scouring powders or liquids. Oven cleaner spray works well for stubborn stains, as long as it is not left on the finish for very long. Follow manufacturer's instructions carefully. Dawn Direct Foam is also excellent. **NEVER** clean porcelain parts while they are still hot!

B. CHROME PARTS

Chrome parts, such as the handles and Duracrome Top, should be washed with mild soap suds, just as you do your cooking utensils. If necessary, scour with any of the popular non-abrasive scouring powders or liquids. If polishing is needed, use a professional chrome polish designed for the purpose, such as Mother's® Metal Polish, and a soft rag. High-speed buffing of the chrome pieces by anyone other than a professional that has been trained to do so is NOT recommended. **DO NOT USE ANYTHING TO CLEAN THE CHROME PIECES THAT MIGHT SCRATCH THEM!**

C. ALUMINUM PARTS

Editor's Notes: Aluminum parts, such as the Griddle, Sizzling Platter, and Thermowell Lid, should be cleaned with Cameo Cleaner, or equivalent, using scrub pads, if needed. Wear protective gloves, making sure you rinse with HOT water and dry the parts thoroughly and immediately. NOTE: Be sure NOT to immerse Thermowell Lid in water or subject the underside where the Lid is crimped onto the bottom lining to water. The underside of the Lid may be cleaned with oven cleaner, **HOWEVER, UNDER NO CIRCUMSTANCES SHOULD OVEN CLEANERS BE USED ON ANY OF THE ALUMINUM PARTS!**

2. COOK TOP - DURACROME OR PORCELAIN ENAMEL

The cooking top can usually be kept immaculate by using simple soap and water, and a soft cleaning cloth or sponge. For occasional resistant spots, a paste or liquid cleanser should suffice. NEVER use steel wool or ANY abrasive material on the chromium top or Thermowell Lid.

NOTE: Lactic acid in milk, fruit juices, and even minerals in drinking water will spot porcelain if not removed promptly. Wipe off boil-overs at once.

NOTE: Don't subject porcelain to sudden temperature changes - it is glass fused on metal, and will crack if you do. Instead, use a hot, damp cloth to wipe off spots on hot porcelain.

3. CARE OF ANTIQUE COPPER PANELS

To clean, simply wipe copper panels with a soft cloth, using warm water and any standard detergent, such as Dreft, Tide, Cheer, Vel, Fab, Trend, Surf, Joy, etc. Remove stains and boil-overs promptly. **WARNING: DO NOT USE COPPER POLISH, STEEL WOOL, OR SCOURING PADS ON COPPER PANELS!**

4. ALWAYS WIPE OFF GRIDDLE

Little splatterings from the stove-top cooking are not conspicuous until the Griddle gets hot; then they burn and turn black. Always wipe off Griddle before lighting Broiler Burner. Griddle covers are available as an accessory through your Chambers Range Dealer.

5. IF FOODS STICK TO THE GRIDDLE, THE FLAME IS PROBABLY TOO HIGH

[Editor's Note: A common problem with those new to using the Griddle on their Chambers range is to turn it too high, then burn everything they try to cook on it. Griddle cooking is fun and easy, but you have to follow the instructions Chambers gave for their use, as follows.]

Test Griddle temperature for "the dancing drop of water", as explained on Page 67 of the "Idle Hour" Cookbook, *Third Edition* (available at www.chamberstoves.net). The Griddle is not considered "greaseless", though only a little fat is required for foods containing liberal amounts of shortening. If pancake batter is enriched with melted shortening, then the Griddle can be greased very lightly.

6. YOUR GRIDDLE IS A COOKING UTENSIL

Clean Griddle and control the cooking temperature as you would for any separate skillet or griddle. It can be removed

and scoured in the sink.

7. SOAK GRIDDLE WHILE IT COOLS

Before the Griddle cools completely after use, shake scouring powder on it and pour on a cup or two of water. Soak up water with paper towels or a cloth when ready to remove Griddle from range to wash with the pots and pans.

8. "COOK OFF" BADLY BURNED SPOTS ON GRIDDLE

Light a small flame under Griddle; shake on scouring powder, and pour on water. Cook gently. Then, sink a 4-tined fork into a steel wool soap pad, such as SOS or Brillo (so you won't burn yourself or scratch the griddle, either), and carefully push the pad over the hot Griddle. "Hot scouring" is much more effective than "cold". This should never be needed if the preceding preventative measures are used.

9. NEVER IMMERSE "THERMOWELL" LID IN WATER

Wipe off, or scour porcelain lining, but NOT in a dishpan of water. [Editor's Note: Oven cleaner spray works well for cleaning the bottom of the Thermowell Lid. HOWEVER - care must be taken NOT to get ANY of it on the metal top! Spraying a paper towel and applying it directly to the porcelain part of the lid is recommended. **HOWEVER, UNDER NO CIRCUMSTANCES SHOULD OVEN CLEANERS BE USED ON ANY OF THE ALUMINUM PARTS SUCH AS THE SIZZLING PLATTER!**]

10. TO CLEAN OUT BOTTOM OF "THERMOWELL"

Lift out grate and burner. Smother out the Thermowell Pilot Light with your damp dish cloth; the amount of gas that escapes during a short cleaning process is not harmful.

Place a paper in the Service Cabinet underneath the Thermowell Burner opening. Scrape dry dirt and waste through this opening, and onto the paper, with a pancake turner or spatula. The paper is easy to remove and discard. Wipe off bottom and sides with a damp, soapy cloth, scouring, if necessary [Oven cleaner spray may also be used if you wipe it up thoroughly with paper towels. - Ed], then wipe dry. Remove grate and drip ring from right front Top Burner, use this opening to reach through as you replace the Thermowell Burner over its Orifice Cap. Relight Thermowell Pilot, replace Thermowell grate. Place right front Top Burner, drip ring, and grate back in their respective positions.

11. TO CLEAN OVEN

Wipe off (and scour if necessary) walls, door, racks, runners on which racks rest, and cast door frames. Baffle plate can be removed for cleaning. Oven heat turns color of racks and door frames to a bronze tone; this will not scrub off; it is inherent in the metal. Cast iron oven door frames can be wiped off with oily cloth to help eliminate the rusty look and hasten the curing of the casting to an even brown, similar to the curing of a cast iron skillet.

12. INDIVIDUAL CUP DRIP RINGS

The Drip Rings around the Top Burners can be removed easily to be washed with the dishes. [NOTE: Spray oven cleaner works well on these. Do NOT use ANY abrasives of ANY kind on them, and do NOT try to clean them while

they are hot! - Ed.]

13. TO CLEAN TOP BURNERS

Wipe off with a damp, soapy cloth. If you cook on retained heat, and take full advantage of your Chambers Range, these top burners will go for weeks with very little cleaning necessary.

If burner tip holes are stopped up, open with a heavy pin, an ice pick, or a similar instrument [Use a toothpick or something that won't damage the porcelain or, Heaven forbid, break one of the holes out. - Ed] to open up holes. Lift burners out and shake to dislodge offending particles. Be sure to replace burners and put Pilot (flash) Tubes firmly back in place.

[Editor's Note: When cleaning burners after a long period of neglect, it is highly possible that a thorough cleaning will be necessary. It is NOT recommended that high pressure (water or air) be used to clean a dirty burner. Instead, follow the directions above. If the burner is really greasy, take it outside, place it in a large glass or stainless steel bowl, then SLOWLY pour a commercial-grade professional oven cleaner (liquid type) over it, making sure the burner fills up inside with it, too. You may also use Dawn Direct Foam, which is less caustic. If you use the oven cleaner, USE CHEMICAL RESISTANT RUBBER GLOVES - NO BARE HANDS! Allow to soak for at least an 15 minutes. GENTLY rinse according to cleaner label directions, then put in Chambers Oven, set to 300°, and dry out for at least one hour. Allow to air cool. Shake to remove any additional particles and return burner to its proper location.]

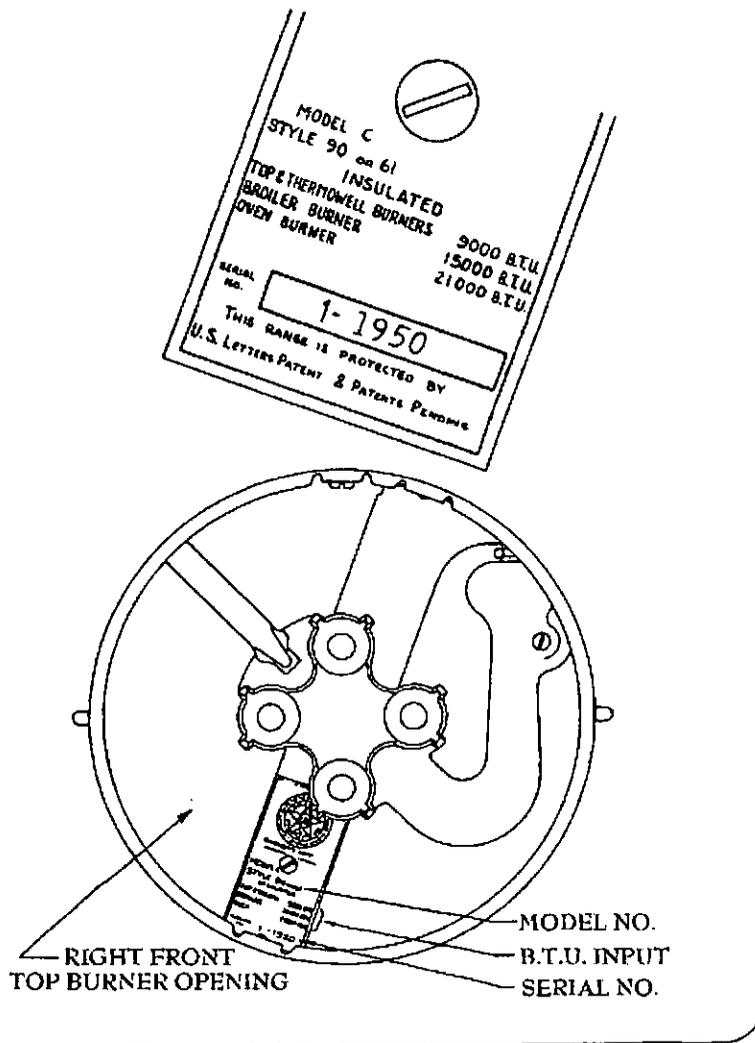
14. CLEAN INSIDE OF BROILER BOX

Scour if necessary as you would porcelain cooking utensils. Sizzling Platter can be washed with the dishes, but sometimes it is easier to clean if you will put it back in place, pour water into it, and reheat it under the Broiler Burner. Always have the little grease cup in place at back of Broiler Box

[Editor's Notes: Broiler Box responds well to spray-type oven cleaners, such as EasyOff. Use as directed. The Sizzling Platter can be cleaned with Cameo Cleaner, or equivalent, using scrub pads, if needed. Wear protective gloves, making sure you rinse with HOT water and dry the parts thoroughly immediately. **UNDER NO CIRCUMSTANCES SHOULD OVEN CLEANERS BE USED ON ANY OF THE ALUMINUM PARTS SUCH AS THE SIZZLING PLATTER!**]

15. REMOVE BASE FOR CLEANING

To remove Base, pull straight forward. To replace, push Base under range so that the clips touch the leg bolts; use both hands and place thumbs on front of Base with fingers around on Base end panels; force end panels in until they touch clips in rear. Now, force complete Base under range until clips snap over leg bolts.



**- Figure 18 -
LOCATION OF NAME PLATE**

MANUFACTURER'S NAME PLATE

The Name Plate on all "C" Models may be seen by removing the right front grate, drip ring, and top burner. The tag carries the style or mode number, serial number, as well as the BTU input per hour for all burners (see Figure 18, above).

SERVICE POLICY

Porcelain enamel is essentially glass and is, therefore, breakable like any piece of glassware. Before ranges leave the Manufacturer, they are thoroughly inspected and in good condition when turned over to the transportation company.

The Factory cannot assume responsibility for damaged enamel. Therefore, it is important that dealers (for self protection) file claim with the delivering carrier for any porcelain damage that may chow upon delivery. By following this procedure, full recovery for the value of parts involved may be obtained from the transportation company.

Credit cannot be allowed for chipped porcelain, therefore, please

do not return such parts to the Manufacturer, as they will not be accepted.

The crating and packaging of Chambers Ranges conforms to the rigid requirements of the National Safe Transit Committee.

25 YEAR GUARANTY

Chambers guarantees to replace all burners, cast iron baffle plate and valve handles in this range, should such parts wear out during normal use and operation within 25 years after date of installation.

The external finish of these parts, while of the finest quality, is subject to normal wear, and, hence, excluded from the terms of the Guaranty.

Chambers Corporation
Shelbyville, Indiana

“C” MODEL ORIFICE SIZES

SOLID MIXER PIN POINT

	GAS	BTU VALUE	PRESSURE	POINT DRILL SIZE	CAP DRILL SIZE	BTU INPUT PER HOUR
OVEN	MFD.	570	5"		#20	21,000
OVEN	MIXED	800	7"		#20	21,000
OVEN	NATURAL	1,050	7"		#46	21,000
OVEN	PROPANE	2,500	11"		#55	21,000
OVEN	BUTANE	3,300	11"		#55	21,000
BROILER	MFD.	570	5"		#39	15,000
BROILER	MIXED	800	7"		#39	15,000
BROILER	NATURAL	1,050	7"		#46	15,000
BROILER	PROPANE	2,500	11"		#56	15,000
BROILER	BUTANE	3,300	11"		#56	15,000
TOP	MFD.	570	5"		#46	9,000
TOP	MIXED	800	7"		#46	9,000
TOP	NATURAL	1,050	7"		#54	9,000
TOP	PROPANE	2,500	11"		#68	7,500
TOP	BUTANE	3,300	11"		#68	7,500
WELL	MFD.	570	5"		#46	9,000
WELL	MIXED	800	7"		#46	9,000
WELL	NATURAL	1,050	7"		#54	9,000
WELL	PROPANE	2,500	11"		#68	7,500
WELL	BUTANE	3,300	11"		#68	7,500

“C” MODEL ORIFICE SIZES

UNIVERSAL MIXER PIN POINT

	GAS	BTU VALUE	PRESSURE	POINT DRILL SIZE	CAP DRILL SIZE	BTU INPUT PER HOUR
OVEN	MFD.	570	5"	#55	#20	21,000
OVEN	MIXED	800	7"	#55	#20	21,000
OVEN	NATURAL	1,050	7"	#55	#20	21,000
OVEN	PROPANE	2,500	11"	#55	#20	21,000
OVEN	BUTANE	3,300	11"	#55	#20	21,000
BROILER	MFD.	570	5"	#56	#39	15,000
BROILER	MIXED	800	7"	#56	#39	15,000
BROILER	NATURAL	1,050	7"	#56	#39	15,000
BROILER	PROPANE	2,500	11"	#56	#39	15,000
BROILER	BUTANE	3,300	11"	#56	#39	15,000
TOP	MFD.	570	5"	#68	#46	9,000
TOP	MIXED	800	7"	#68	#46	9,000
TOP	NATURAL	1,050	7"	#68	#46	9,000
TOP	PROPANE	2,500	11"	#68	#46	7,500
TOP	BUTANE	3,300	11"	#68	#46	7,500
WELL	MFD.	570	5"	#68	#46	9,000
WELL	MIXED	800	7"	#68	#46	9,000
WELL	NATURAL	1,050	7"	#68	#46	9,000
WELL	PROPANE	2,500	11"	#68	#46	7,500
WELL	BUTANE	3,300	11"	#68	#46	7,500

COMPLETE PARTS LIST FOR

Chambers "C"-series Gas Ranges

WORKING TOP, GAS EQUIPMENT, TIMER, & HARDWARE:

Part No.	Description:
C-15	Oven Door Keeper
C-36	Thumb Latch Spring
C-1153	Speed Nut (U Type)
S-113-C	Thumb Latch Assembly
S-120-C	Top Burner Assembly
S-154-C	Manifold Assembly
S-154-FWC	Manifold Assembly
S-177-C	Griddle Lift Handle Assembly
S-178-C	Broiler Pan Lift Holder Assembly
S-182-C	Timer Dial Assembly
S-183-C	Thermostat Dial Assembly
SA-5-C	Gas Valve Assembly
SA-7-C	Valve Stem Extension & Stop Disk Assembly
SA-40-C	Pilot Valve & Filter Sub Assembly
3310	Pilot Petcock
3823	1/8" Nipple (4 1/4" long)
3933	B-handle Valve
3951	Thumb Key (Flat)
4001	Top Pilot Cone
4002	Top Pilot Tip
4026	Flash Tube
4127	Top Pilot Ring & Tube Assembly
4188-C	Valve Stem Spring
4204	Manifold Bracket
4233	1/8" Standard Pipe Plug
4250	Knurled Point Allen Head Set Screw
4256	Fibre Washer (3/8" I.D.)
4264	1/8" Pipe Tee
4267	1/8" Close Nipple
4304	1/8" Standard Street Ell
4679	Pilot Filter
4716	Orifice Cap (L.P.)
4718	Timer (Square Shaft) (To serial #1-4301)
4740	Duracrome Cooking Top (To serial # 2-9108)
4764	Drip Ring (To serial # 2-9108)
4767	Top Burner Bracket
4771	Top Burner Cover Plate
4775	Top Burner Mixer Shutter
4785	Valve Stem Lock Bar
4799	Top Pilot Shield
4802	Gas Cock Handle
4819	Top Pilot Bracket
4821	Top Pilot Bracket Clip

Part No.	Description:
4825	Mixer Pin
4825-C	Mixer Pin (Universal)
4855	Timer Dial
4856	Timer & Thermostat Dial Hub (Square or Split Shaft)
4859	Orifice Cap (Butane Air)
4863	Thermostat Dial
4888	Timer (Split Shaft) From serial # 1-4302; All 1-U and 2 prefix serial numbers.
4893	3/4" Pipe to 5/8" Tube (Ell Connection)
4902	5/8" Aluminum Tube With Flare Nuts
4904	Right Front Burner Tube
4905	Left Front Burner Tube
4907	Back Burner Tube
4910	Oven Pilot Tube
4913	Top Pilot Tube
4924	Top Grate (To serial # 2-9108)
4928	Timer Gasket
4932	3/4" Pipe Strap
4971	Thermostat & Cock Dial Hubs (Split Shaft)
4981	Orifice Cap (Regular)
4982	Mixer Pin Point
4983	Fibre Washer (5/8" I.D. x 7/8" O.D.)
4987	3/8" Tube Gland
4988	3/8" Tube Nut
4989	5/8" to 3/4" Fitting
4992	Filter Assembly (Regular)
4993	Filter Assembly (L.P.)
4994	Mixer Pin Point (L.P.)
	* Duracrome Top Mounting Bolts (Hex 10-24 x 1/2 ")
5278	Thumb Latch Key
5296	Cooking Top (From serial # 2-9109)
5385	Top Grate - Finger (From serial # 2-9109)
5386	Top Grate - Small Pan (From serial # 2-9109)
5459	Top Grate - Small Pan (From serial # 2-9109)

OVEN:

Part No.	Description:
C-13-C	Cabinet Door Block
C-82	Mixer Pin
C-82-C	Mixer Pin (Universal)
C-420	Oven Window
C-516-C	Air Mixer Shutter
C-1150	Speed Nut

OVEN (continued):

Part No.	Description:
C-2330	Thermostat Bulb Clip
C-2832	Insulation Clip
D-674	Cabinet Door Hinge Pin
D-2529-C	Oven Burner Bell Tube
S-103-C	Oven Inside Hull Assembly
S-105-C	Oven Back Damper Box Assembly
S-106-C	Bottom Damper Rod Assembly
S-139-C	Oven Burner Assembly
S-145-C	Oven Door and Front Assembly
S-148-C	Oven Door Block Assembly
S-176-CL	Oven Door Stop Assembly (Left)
S-176-CR	Oven Door Stop Assembly (Right)
111	Cabinet Door Bumper
2200S	Thermostat - Robertshaw*
3311	Thermostat Tube Connector (3/8" Straight)
3325	Oven Runner Washer
3329	Mixer Shutter Washer
3336	Oven Mica
3891	Door Handle Screw Assembly
4002	Oven Pilot Tip
4007-C	Oven Inside Hull Bottom
4018	Oven Door Handle
4062-C	Oven-Valve-To-Bottom-Damper-Rod
4075	Oven Burner Rest
4076	Bottom Damper Plate
4102	Oven Mixer Pin Bracket
4106-C	Bottom-Damper-To-Back-Damper-Rod
4110-C	Oven Burner
4124	Oven Burner Flash Tube Bracket
4125	Oven Burner Flash Tube Clamp
4126	Oven Burner Flash Tube
4129	Oven Heat Shield Clip
4144	Oven Door Block Sleeve (1/4" x 5/32")
4683	Oven Door Hinge Pin
4713	Oven Door Block Gasket
4716	Orifice Cap (L.P.)
4732	Baffle Plate
4733	Oven Runner
4737	Thermostat Tube Connector (3/8" Elbow)
4744	Oven Outside Top
4748	Cabinet Door Hinge Leaf
4750-C	Oven Door Heat Shield
4754	Oven Door Stop Spring
4786	Oven Door Stop Rod Guide
4787	Cabinet Door Springs
4791	Cabinet Door Spring Clip
4795	Side Insulation (Asbestos) (R & L)
4856	Thermostat & Clock Dial Hubs (Square Shaft)
4859	Orifice Cap (Butane-Propane Air)
4906	Thermostat Tube
4909	Oven Burner Tube
4910	Oven Pilot Tube
4972	Asbestos Wicking (7/8")
4981	Orifice Cap (Regular)
4982	Mixer Pin Point

* Used on all console C-models *except* serials from 2-11016 - 2-18489.

** Used on console C-models, serials 2-11016 to and including 2-18488.

OVEN (continued):

Part No.	Description:
4986	Oven Door Keeper Bolt
4990	Oven Pilot Tube Gland (5/32")
4991	Thermostat Pilot Tube Nut
4994	Mixer Pin Point (L.P.)
C-82	Mixer Pin
C-82-C	Mixer Pin (Universal)

THERMOWELL:

Part No.	Description:
S-125-C	Thermowell Lid
S-130-C	Thermowell Burner Assembly
S-143-C	Thermowell Outside Hull Bottom Assembly
S-170-C	Thermowell Inside Hull Assembly
S-171-C	Thermowell Flue Hull Assembly
S-175-C	Thermowell Assembly (Complete)
3329	Mixer Shutter Washer
4002	Thermowell Pilot Tip
4716	Orifice Cap (L.P.)
4755	Thermowell Outside Hull
4758	Thermowell Grate
4768	Thermowell Burner Rest
4783	Thermowell Grate Lug
4790	Thermowell Grate Lug Spacer
4820	Thermowell Front Tube
4835	Thermowell Mica
4859	Orifice Cap (Butane & Propane Air)
4903	Thermowell Burner Tube
4911	Thermowell Pilot Tubing
4981	Orifice Cap (Regular)
4982	Mixer Pin Point
4994	Mixer Pin Point (Universal)
5063	Oven Rack
5400	Thermostat - Wilcolator**
5462	Bellows Assembly for Wilcolator thermostat (5400)
8094	Distat Assembly for Robertshaw thermostat (2200S)

IN-A-TOP BROILER AND GRIDDLE:

Part No.	Description:
C-82	Mixer Pin
C-82-C	Mixer Pin (Universal)
C-516-C	Air Mixer Shutter
C467-C	Broiler Front Sling Adjusting Hook
S-102-C	Broiler Box Assembly
S-109-C	Broiler Pan Sling Assembly (Front)
S-110-C	Broiler Pan Sling Assembly (Rear)
S-114-C	Broiler Burner Assembly
S-122-C	RH Broiler Box Reinforcement Assembly
S-124-C	Broiler Sling Link Assembly
S-160-C	LH Broiler Box Reinforcement Assembly
S-167-C	Broiler Stub Shaft Assembly
SA-6-C	Broiler Sling Lift Cam & Shaft Assembly
3329	Mixer Shutter Washer
3992-C	Broiler Lift Spring Eye Bolt

IN-A-TOP BROILER AND GRIDDLE (continued):

Part No.	Description:
4144	Sling Link Sleeve (1/4" x 5/32")
4203	Broiler Cam Shaft Spring
4514	Grease Cup
4716	Orifice Cap (L.P.)
4736	Broiler Pan
4738	Griddle, Cast Aluminum
4756	Broiler Burner Heat Shield
4772	Broiler Burner Shaft Bearing
4773	Broiler Burner Bell Bearing
4778	Broiler Box Spacer
4780	Broiler Box Tie Rod
4792	Broiler Box
4827	Broiler Coupling Bolt & Nut
4844	Broiler Burner Mixer Pin Bracket
4859	Orifice Cap (Butane & Propane Air)
4908	Broiler Burner Tubing
4981	Orifice Cap (Regular)
4982	Mixer Pin Point
4994	Mixer Pin Point (L.P.)
5001	Griddle Lift Spring
5015	Griddle, Stamped Aluminum

ENAMELED PANELS AND RELATED PARTS:

Part No.	Description:
C-52	Oven Door Panel (White or Color)
C-72	Panel Bolt Holder
D-633-C	Cabinet Door Liner (Stipple)
D-651	Cabinet Door Panel (White or Color)
SA-41-C	Assortment Base Panel Bolts
4056-C	Cabinet Bottom (Stipple)
4069-C	Base Panel
4077-L	Base Bracket (Left)
4077-R	Base Bracket (Right)
4142	Oven Door Liner (Stipple)
4182	Base Panel (End)
4759	End Panel (White or Color)
4808	Front Panel (White or Color)
4813	Super-DeLuxe Back Panel (White or Color)
4838	Special-DeLuxe Back Panel (White or Color)
4838-C	Special-DeLuxe Back Panel (White or Color)
48338-FC	Special-DeLuxe Back Panel (White or Color)
4933	End Panel Reinforcement
	Back Panel Mounting Bolts (Hex 10-24 x 1/2")

BACKS, ELECTRICAL EQUIPMENT, NAME PLATES, ETC.:

Part No.	Description:
C-1037	Push On Speed Nuts (1/8" Stud)
C-1153	Speed Nut (U Type)
C-8022	Lamp Box Speed Nut (6/32)
SA-30-C	Low Insulated Back Body
SA-31-C	High Insulated Back
1135	Flue Collar
4185	Lamp Cord
4268	Fibre Grommet
4287	Leg Bolt

BACKS, ELECTRICAL EQUIPMENT, NAME PLATES, ETC. (continued):

Part No.	Description:
4816	Top Tray
4816-FC	Top Tray for Flue Collar
4836	T-Molding
4839	Lamp Housing
4840	Lamp Bezel
4841	Lamp Glass
4845	"Chambers" Name Plate
4894	Body Back
4919	Flue Collar Hole Plate
4925	Top Tray Clamp Plate
4929	Back Panel Leveling Shims
4967	Lamp Switch Washer
4973	Lamp Bulb
4974	Lamp Switch
4975	Lamp Holder & Cap
4976	Ideal Connector
4977	Lamp Cord
4978	Heyco Strained Relief Bushing
4980	Lamp Switch Knurled Nut
5342	"Chambers" Scroll Name Plate

TOOLS RECOMMENDED BY CHAMBERS FOR INSTALLATION AND SERVICE OF ALL CHAMBERS RANGES

<i>Name Of Tool:</i>	<i>Size:</i>	<i>Used For:</i>
Wrench (open end)	5/16" x 3/8"	Pilot tube nuts, cooking top, end panels, etc.
Wrench (open end)	7/16" x 1/2"	All 1/4" nuts, griddle adjustment bolts, leg bolts, etc.
Wrench (open end)	9/16" x 5/8"	Orifice caps, burner tubing, etc.
Wrench (open end)	3/4" x 13/16"	Crate nuts, leg bolt lock nuts.
Wrench (pipe)	6"	General use.
Wrench (pipe)	14" or 16"	Hook-up pipe, etc.
Wrench (Allen)	1/8" (for 1/4"-20 Allen set screw)	All handle set screws, available through factory.
Wrench (box)	3/8" opening	All 3/16" nuts, panels, etc., available through factory.
Screw Driver	3/16" width - 10" handle	Thermostat, pilots, burners, etc.
Screw Driver	5/16" or 3/8" width - 10" handle	General use.
Hammer (small ball-peen)	1/2 or 3/4 lb.	General use.
Drift or punch	4/32"	Removing tapered pins, etc.
Level (metal)	9" (no shorter)	Leveling range, oven, etc.
Thermometer	Mercury (any reliable make)	Calibrating Oven.
File (flat bastard)	16"	Dressing oven doors.
File (flat mill)	8"	General use.
File (round or rat tail)	8"	General use.
Graphite	(1 oz. can)	Lubricate gas valves, etc.
Oil can	(small)	Broiler, other, general.
Pliers	(medium size)	General use.
Drills	(from #20 to #70) (or just orifice sizes)	Check orifice sizes
Electric Drill	(1/4" chuck)	General use (optional).