southbend

A MIDDLEBY COMPANY

IMPORTANT

FOR FUTURE REFERENCE

Please complete this information and retain this manual for the life of the equipment.

MODEL# _____

SERIAL # _____

DATE PURCHASED _____

OWNER'S MANUAL

INSTALLATION
USER'S GUIDE
SERVICE PARTS

HEAVY DUTY RESTAURANT RANGES

MODELS: With Standard Oven Bases
300,301,302,303,304
320,321,322,323

With Convection Oven Bases
CO-300. CO-301. CO-302. CO-303. CO-304
CO-320, CO-321, CO-322, CO-323

(Thermostatic Griddle Models Have Prefix "T")

(Includes All Models With Suffixes B, C, D or F)

These instructions should be read thoroughly before attempting installation. Installation and Start Up should be performed by a qualified service technician. The Manufacturer, Southbend (Head Office: 1100 Old Honeycutt Rd., Fuquay-Varina, North Carolina 27526), informs you that unless the installation instructions for the above described Southbend product are followed and performed by a qualified service technician, (a person experienced in and knowledgeable concerning the installation of commercial gas and/or electrical cooking equipment) then the terms and conditions of the Manufacturer's Limited Warranty will be rendered void and no warranty of any kind shall apply. If the equipment has been changed, altered, modified or repaired by other than a qualified service technician during or after the 12-month limited warranty period, then the manufacturer shall not be liable for any incidental or consequential damages to any person or to any property which may result from the use of the equipment thereafter. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion thereto may not apply to you.

In the event you have any questions concerning the installation, use, care, or service of the product, write Customer Service Department, Southbend, 1100 Old Honeycutt Rd., Fuquay-Varina, North Carolina 27526.

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

Congratulations! You have just purchased one of the finest pieces of heavy-duty, commercial cooking equipment on the market today.

You will find that your new equipment, like all Southbend equipment, has been designed and manufactured to some of the toughest standards in the industry — those of Southbend. Each piece of Southbend equipment has been carefully engineered and designs have been verified through laboratory tests and field installations in some of the more strenuous commercial cooking applications. With proper care and field maintenance, you will experience years of reliable, trouble-free operation from your Southbend equipment. To get the best results, it's important that you read this manual carefully.

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CAUTION: ***POST IN PROMINENT LOCATION INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION SHALL BE OBTAINED FROM LOCAL GAS SUPPLIER.***

RETAIN THIS MANUAL FOR FUTURE REFERENCE.

INTENDED FOR COMMERCIAL USE ONLY. NOT FOR HOUSEHOLD USE.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

KEEP AREA AROUND APPLIANCES FREE AND CLEAR FROM COMBUSTIBLES.

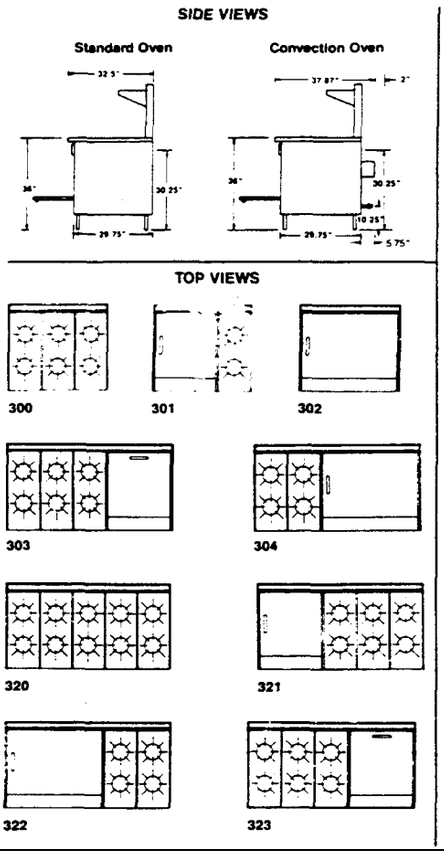
IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN EQUIPMENT AT THE MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

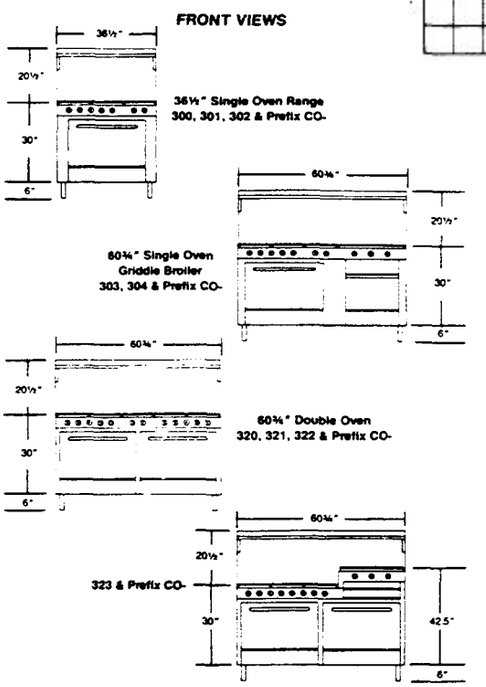
southbend

A MIDDLEBY COMPANY

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(800) 348-2558

HEAVY DUTY
RESTAURANT RANGE
INSTALLATION
SPECIFICATIONS





SECTION	BURNER	MANIFOLD PRESSURE		RATE PER BURNER BTUs/HR.	NUMBER PER UNIT									ORIFICE SIZE		PART NUMBER	
		NAT.	PROP.		300	301	302	303	304	320	321	322	323	NATURAL DMS	PROPANE DMS	NATURAL	PROPANE
Stnd. Oven		4" W.C.	10" W.C.	32.000										#36		1008736	
Stnd. Oven			10" W.C.	30.000											#52		1008752
Conv. Oven Nat./L.P.		4" W.C.	10" W.C.	25.000	1	1	1	1	1	2	2	2	2	#42	#53	1008742	1008753
Open Top		4" W.C.	10" W.C.	20,000	6	2	0	6	4	10	6	4	6	#45	#54	1008745	1008754
Comb. Griddle Broiler	Rt. & Lt.	4" W.C.	10" W.C.	15.000	0	0	0	0	0	0	0	0	2	#49	#57	1008749	1008757
	Rt. & Lt.	4" W.C.	10" W.C.	12,000	0	0	0	2	2	0	0	0	0	#51	#57	1008751	1008757
	Center	4" W.C.	10" W.C.	9.500	0	0	0	1	1	0	0	0	1	#53	#65	1008753	1008765
Griddle	Main	4" W.C.	10" W.C.	16,000	0	3	4	0	0	0	3	4	0	#48	#56	1008748	1008756
	Left	4" W.C.	10- W.C.	10.000	0	0	0	0	1	0	0	0	0	#53	#65	1008753	1008765
Hot Top		4" W.C.	10" W.C,	12.000	Opt	Opt	N/A	Opt	Opt	Opt	Opt	Opt	Opt	#51	#57	1008751	1008757

W.C. = Water Column **Standard or Convection Oven*

INSTALLATION

WARNING: THESE PROCEDURES MUST BE FOLLOWED BY QUALIFIED PERSONNEL OR WARRANTY WILL BE VOIDED.

GENERAL:

The installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1-Latest Edition. In addition, units with the Convection Oven Base must be electrically grounded and comply with local codes, or in the absence of local codes, with the National Electrical Code ANSI/NFPA 70-1987. Canadian installation must comply with CAN/CGA-B 149.1 Natural Gas Installation Code, Code CAN/CGA-B 149.2 Propane Installation Code. Canadian Electrical Code Parts I, or Local Codes and CSA C22.1.

These models are design certified for operation on Natural or Propane gases. The appliance should be connected ONLY to the type of gas for which it is equipped. All Southbend equipment is adjusted at the factory, however, burner air shutters and pilot heights should be checked at installation and adjusted if necessary. Check type of gas on serial plate in the compartment below the oven on the right side (on double oven units - left oven). For orifice sizes and pressure regulator settings refer to the chart under "SPECIFICATIONS."

An adequate gas supply is imperative. Undersized or low pressure lines will restrict the volume of gas required for satisfactory performance. A pressure regulator, which is provided with each unit, is set to maintain a 4" W.C. manifold pressure for natural gas and 10" W.C. manifold pressure for propane gas. However, to maintain these conditions the pressure on the supply line, when all units are operating simultaneously, should not drop below 7" W.C. for natural gas or 11" W.C. for propane gas.

All pipe joints should be tested for leaks with a soap and water solution before operating the unit. The test pressure should not exceed 14" W.C. A 1/8" pressure tap is located on the gas manifold.

CAUTION: *THIS APPLIANCE AND ITS INDIVIDUAL SHUTOFF VALVE MUST BE DISCONNECTED FROM THE GAS SUPPLY PIPING SYSTEM DURING ANY PRESSURE TESTING OF THAT SYSTEM AT TEST PRESSURES IN EXCESS OF 1/2 PSIG (3.45 kPa).*

THIS APPLIANCE MUST BE ISOLATED FROM THE GAS SUPPLY PIPING SYSTEM BY CLOSING ITS INDIVIDUAL MANUAL SHUTOFF VALVE DURING ANY PRESSURE TESTING OF THE GAS SUPPLY PIPING SYSTEM AT TEST PRESSURES EQUAL TO OR LESS THAN 112 PSIG (3.45 kPa).

EXHAUST FANS AND CANOPIES:

Be sure to inspect and clean ventilation system according to the ventilation equipment manufacturers instructions. Canopies are set over ranges, ovens, etc., for ventilation purposes. It is recommended that a canopy extend 6" past appliance and be located 6'6" from the floor. Filters should be installed at an angle of 45 degrees or more with the horizontal. The prevents dripping grease and facilitates collecting the run-off grease in a drip pan, usually installed with a filter. A strong exhaust fan tends to create a vacuum in the room and may interfere with burner performance or may extinguish pilot flames. Fresh air openings approximately equal to the fan area will relieve such vacuum. In case of unsatisfactory performance on any appliance, check with the exhaust fan in the "OFF" position.

WALL EXHAUST FAN: Should be installed at least 2 feet above the vent opening at the top of the shelf or backsplash.

NOTE: Due to the variety of problems encountered by outside weather conditions, venting by canopies or wall fans are preferred over any type of direct venting.

WARNING: ALL UNITS MUST BE INSTALLED IN SUCH A MANNER THAT THE FLOW OF COMBUSTION AND VENTILATION AIR ARE NOT OBSTRUCTED. PROVISIONS FOR AN ADEQUATE AIR SUPPLY MUST ALSO BE PROVIDED. DO NOT OBSTRUCT THE FRONT OF THE UNIT AT THE TOP BY THE CONTROL PANEL, OR THE BOTTOM JUST BELOW THE OVEN COMPARTMENT, AS COMBUSTION AIR ENTERS THROUGH THESE AREAS.

NOTICE: THERE MUST BE ADEQUATE CLEARANCE BETWEEN UNITS AND COMBUSTIBLE CONSTRUCTION. CLEARANCE MUST ALSO BE PROVIDED FOR SERVICING AND FOR OPERATION.

WARNING: ON UNITS WITH THE CONVECTION-TYPE OVEN, A MINIMUM CLEARANCE OF TWO INCHES MUST BE ALLOWED BEHIND THE MOTOR AND ANY REAR NON-COMBUSTIBLE ENCLOSURE. CARE MUST BE TAKEN TO PROVIDE ADEQUATE AIR CIRCULATION TO PREVENT THE MOTOR FROM OVERHEATING. NO ADDITIONAL CLEARANCE FROM THE SIDES AND BACK IS REQUIRED FOR SERVICE AS THE UNITS ARE SERVICEABLE FROM THE FRONT.

MINIMUM CLEARANCES FROM COMBUSTIBLE CONSTRUCTION:

I. Standard Oven Base Units

6 INCHES FROM SIDES 6 INCHES FROM BACK 6 INCHES FROM FLOOR

II. Convection-Type Oven Base Units

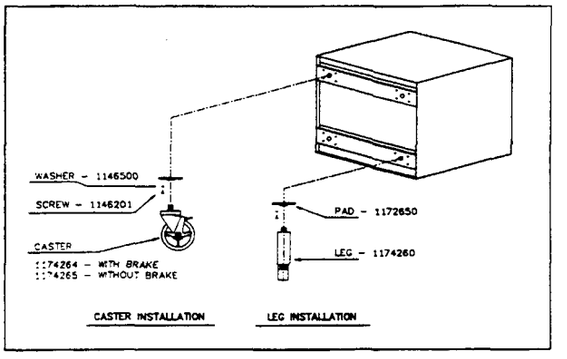
A. Single oven base range units - 8 inches from the sides, 8 inches from the rear and 6 inches from the floor.

B. Double oven base range units - 6 inches from the sides, 8 inches from the rear and 6 inches from the floor.

RANGES WITH SOLID TOPS, such as Griddles or Hot Tops, must always have venting for their flue products at the rear of their burner compartments provided by the hollow area inside a shelf 21" high or a backsplash 17" high. Lack of sufficient venting for the burners in these compartments will cause poor burner and pilot operating characteristics, resulting in inefficient performance. Such conditions also cause high ambient temperatures at the manifold area and create valve and thermostat problems.

LEGS OR OPTIONAL CASTERS:

1. A set of legs or casters are packed in the unit. A threaded receptacle is fastened to the base frame at each comer. Each leg or caster has a similar mating thread. Install casters with locking brake to the front of unit.
2. Raise unit sufficiently to allow legs or casters to be screwed into the receptacles. For safety, "shore up" and support the unit with an adequate blocking arrangement strong enough to support the load.
3. Lower unit gently. Never drop or allow the unit to fall.
4. The legs or casters can be adjusted to overcome an uneven floor.
5. After the unit has been leveled, tighten the lock nuts. (Lock nuts supplied with casters only.)
6. Casters are provided with a Zerk fitting for proper lubrication when required.



WARNING:

FOR AN APPLIANCE EQUIPPED WITH CASTERS, THE INSTALLATION SHALL BE MADE WITH A CONNECTOR THAT COMPLIES WITH THE STANDARD FOR CONNECTORS FOR MOVABLE GAS APPLIANCES. ANSI Z21.69.1987, CAN1 6.10-88 AND A QUICK-DISCONNECT DEVICE THAT COMPLIES WITH THE STANDARD FOR QUICK-DISCONNECT DEVICES FOR USE WITH GAS FUEL, ANSI Z21.41.1978, AND ADDENDA, Z21.41a.1981, Z21.41b.1983 AND CAN1 6.9 M79. ADEQUATE MEANS MUST BE PROVIDED TO LIMIT THE MOVEMENT OF THE APPLIANCE WITHOUT DEPENDING ON THE CONNECTOR AND THE QUICK-DISCONNECT DEVICE OR ITS ASSOCIATED PIPING TO LIMIT THE APPLIANCE MOVEMENT.

WARNING:

IF DISCONNECTION OF THIS RESTRAINT IS NECESSARY TO MOVE THE APPLIANCE FOR CLEANING, ETC., RECONNECT IT WHEN THE APPLIANCE IS MOVED TO ITS ORIGINALLY INSTALLED POSITION.

INSTALLATION

INSTALLATION

GAS CONNECTION:

Each unit is a complete unit with a 3/4" NPT manifold supply connection at the rear.

Use pipe joint compound which is suitable for use with LP gas on all threaded connections. Test pipe connections thoroughly for gas leaks. USE SOAPY WATER ONLY FOR TESTING ON ALL GASES. NEVER USE AN OPEN FLAME TO CHECK FOR GAS LEAKS. ALL CONNECTIONS MUST BE CHECKED FOR LEAKS, AFTER THE UNIT IS PLACED IN OPERATION.

To avoid pressure variations which effect pilot operation, the gas system on this range requires a pressure regulator. It is packed in the oven and must be installed on the 3/4" inlet of the manifold. NOTE: DIRECTION OF ARROW ON REGULATOR MUST CORRESPOND TO DIRECTION OF GAS FLOW WHEN INSTALLED.

For NATURAL gas the regulator is set to deliver a 4" W.C. pressure to the manifold. For PROPANE gas it is set to deliver 10" W.C. The controls are marked accordingly and the proper one must be used with its respective type of gas supply.

If applicable, the vent line from the gas appliance pressure regulator shall be installed to the outdoors in accordance with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z233.1-Latest Edition. Canadian installation must comply with CAN/CGA-B 149.1 Natural Gas Installation Code, Code CAN/CGA-B 149.2 Propane Installation Code.

For safety and convenience when service is required, a 3/4" manual shutoff (provided by the installer), and where applicable a ground joint union (provided by installer), should also be installed at the gas inlet.

ELECTRICAL CONNECTIONS (Convection-Type Ovens):

A. 115V - 60 HZ - SINGLE PHASE

Ovens with this electrical rating are factory supplied with a three-wire cord and a three-prong plug which fits any standard three-prong grounded receptacle.

WARNING:

THE THREE-PRONG (GROUNDING) PLUG IS SUPPLIED FOR YOUR PROTECTION AGAINST SHOCK HAZARD AND MUST BE ELECTRICALLY GROUNDED IN ACCORDANCE WITH LOCAL CODES, OR IN THE ABSENCE OF LOCAL CODES, WITH THE NATIONAL ELECTRICAL CODE ANSI/NFPA 70 - LATEST EDITION. CANADIAN INSTALLATION MUST COMPLY WITH CANADIAN ELECTRICAL CODE PARTS I, OR LOCAL CODES AND CSA C22.1. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THIS PLUG.

Single oven base units require one 15 amp. supply.

Double oven base units require one 20 amp. supply.

B. 208/236V - 60 HZ - SINGLE OR THREE PHASE

Ovens with this electrical rating are factory equipped with a 2-pole terminal block located behind a cover plate (single oven range units) and the blower box side cover (double oven base range units) located at the rear of the unit (see Fig. 4 & 5, Section 4, Pages 5 & 6). To connect the supply wires, remove the appropriate cover plate. Route the supply wires and the grounding wire through the strain relief fitting to the terminal block. Insert the supply wires, one each, into the two poles of the terminal block and tighten the screws. Insert the ground wire into the grounding lug and tighten the screw. Reattach the cover plate.

Three phase units are wired as above, using only two supply wires. The third wire is not used and must be properly terminated.

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4-92

SHELF AND SPLASHER INSTALLATION

1. Refer to the proper unit diagram.
2. Place the splasher on the range as shown on the diagram.
3. Tilt the splasher forward to allow the bottom flange to locate under the rear plate rest.
4. Secure ends of splasher with four (4) 1/4-20 x 3/4 hex head bolts, flat washers and lockwashers (two (2) each end).
5. Secure the splasher to the rear plate rest with # 10 x 1/2 sheet metal screws.

   Four (4) on Models 300, 301 and 302. Five (5) on Models 303, 304, 320, 321, 322 and 323.

6. **323 Only:** Secure splasher to the broiler-griddle area (just above the broiler-griddle fluing cutout in the splasher) with three (3) # 10-24 x 1/2 machine screws, lockwashers and square nuts.
7. **303 and 304 Only:** Secure the splasher heat shield with *# 10 x* 1/2 sheet metal screws.

   Three (3) on Model 303. Four (4) on Model 304.

8. Install and secure the oven flue extensions with flue seal as shown in Fig. 1 with two (2) *# 10 x* 1/2 sheet metal screws.
9. **323 Only:** Place the broiler-griddle flue box over the flue extension. Tilt the flue box out to allow the bottom flange to slide through the fluing cut-out and rest on the front face of the splasher. The top of the flue box will be secured with the same screws (three (3) #10-24 x 1/2 machine screws) that secure the shelf to the splasher.
10. Place the shelf in position on the front of the splasher and secure with # 10-24 x 1/2 machine screws, lockwashers and square nuts.

    Nine (9) on Models 300, 301 and 302. Eleven (11) on Models 303, 304, 320, 321, 322 and 323.

    NOTE: On the Model 323, secure the top of the broiler-griddle flue box with the same screws (three (3) # 10-24 x 1/2 machine screws of the eleven) that secure the shelf to the splasher.

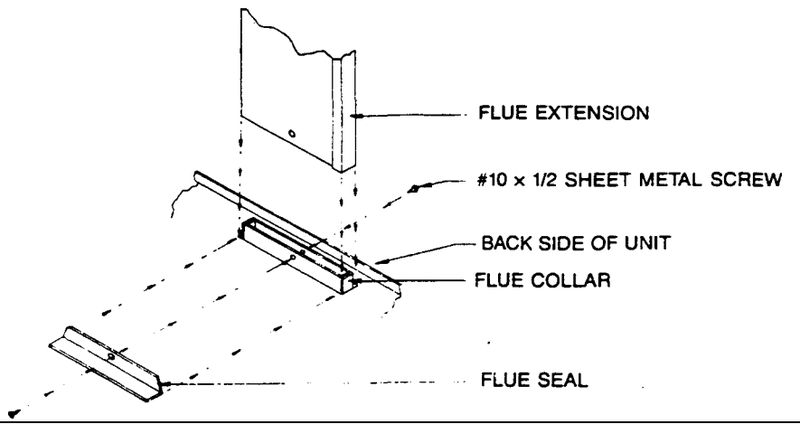
    On Models 303, 304, 320, 321, 322 and 323, secure the "Z" spacer to the splasher with center screw *(#* 10-24 x 1/2 machine screw) that secures the shelf to the splasher.

11. Secure the wall shield to the ends of the splasher (double flange to the top) with eight (8) *# 10 x* 1/2 sheet metal screws.

    On Models 303, 304, 320, 321, 322 and 323, also secure the splasher, at the center, to the "Z" spacer and the rear plate rest with two (2) *# 10* x 1/2 sheet metal screws.

Figure 1

FLUE EXTENSION WITH FLUE SEAL



INSTALLATION

Figure 2 MODELS: 300, 301,302

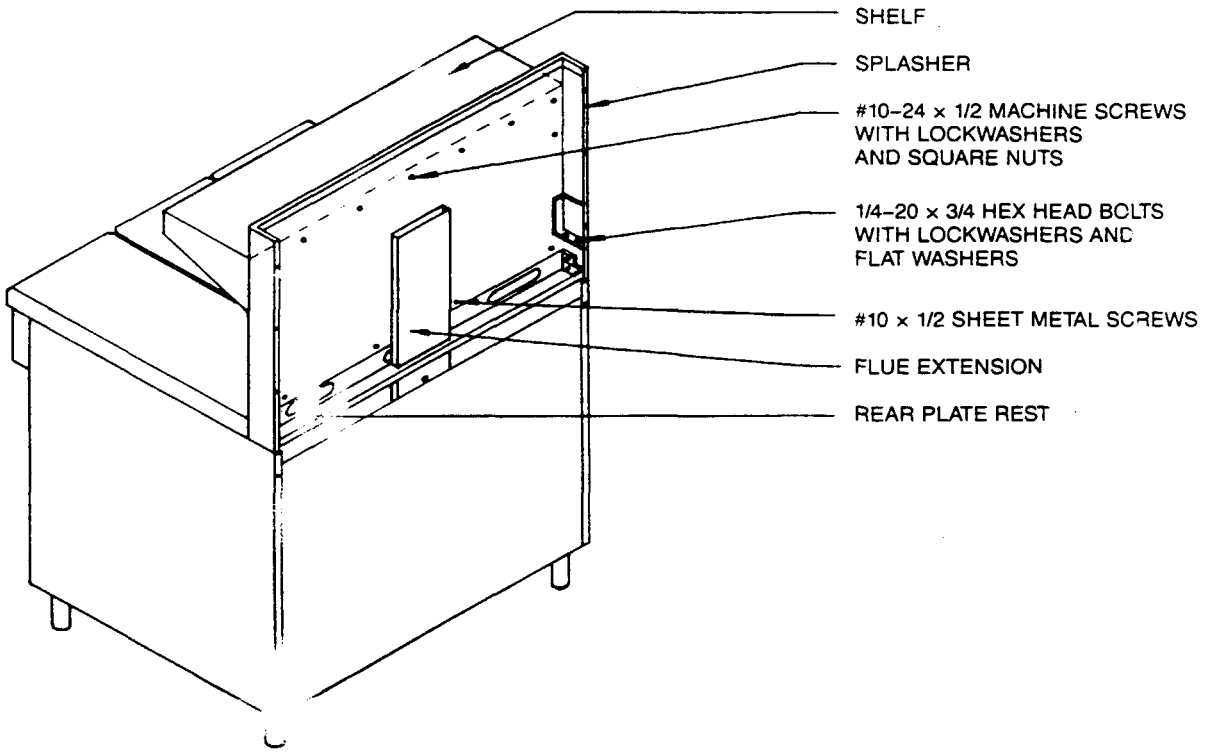


Figure 3 MODELS: 303, 304

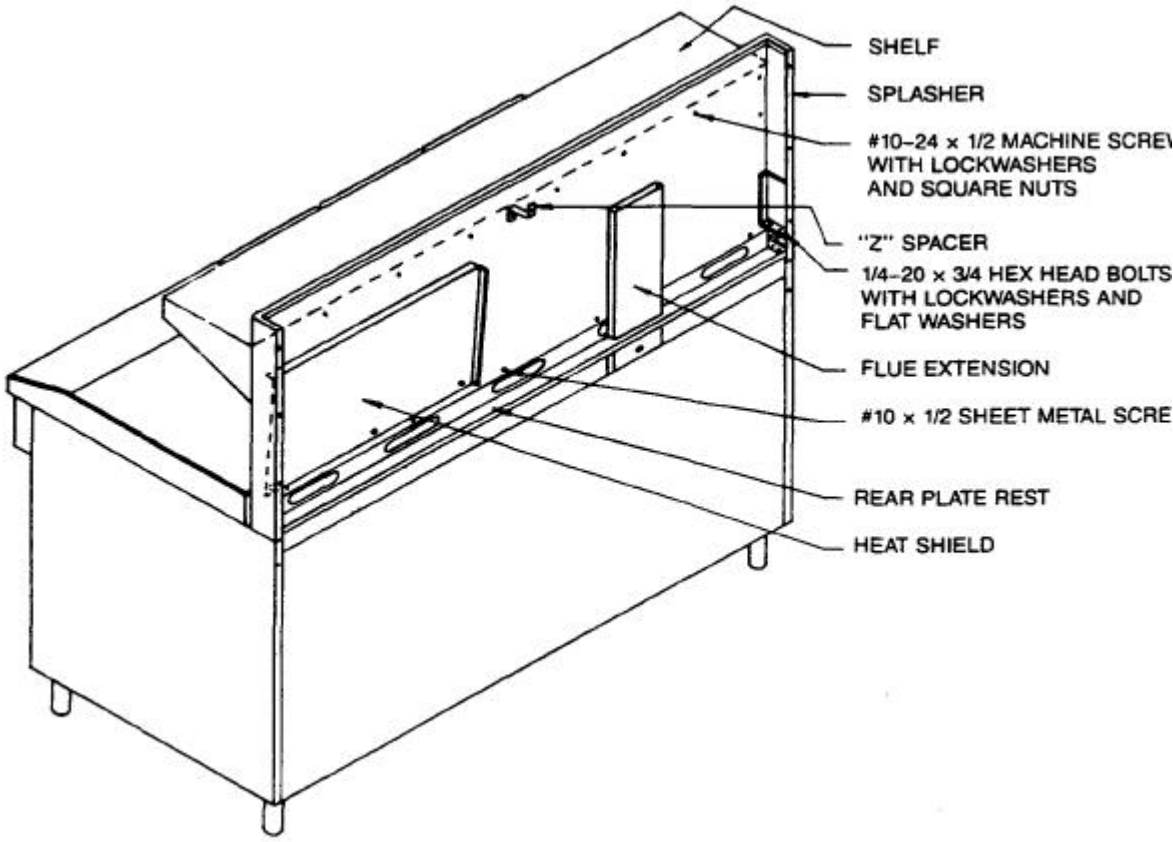


Figure 4

MODEL 323

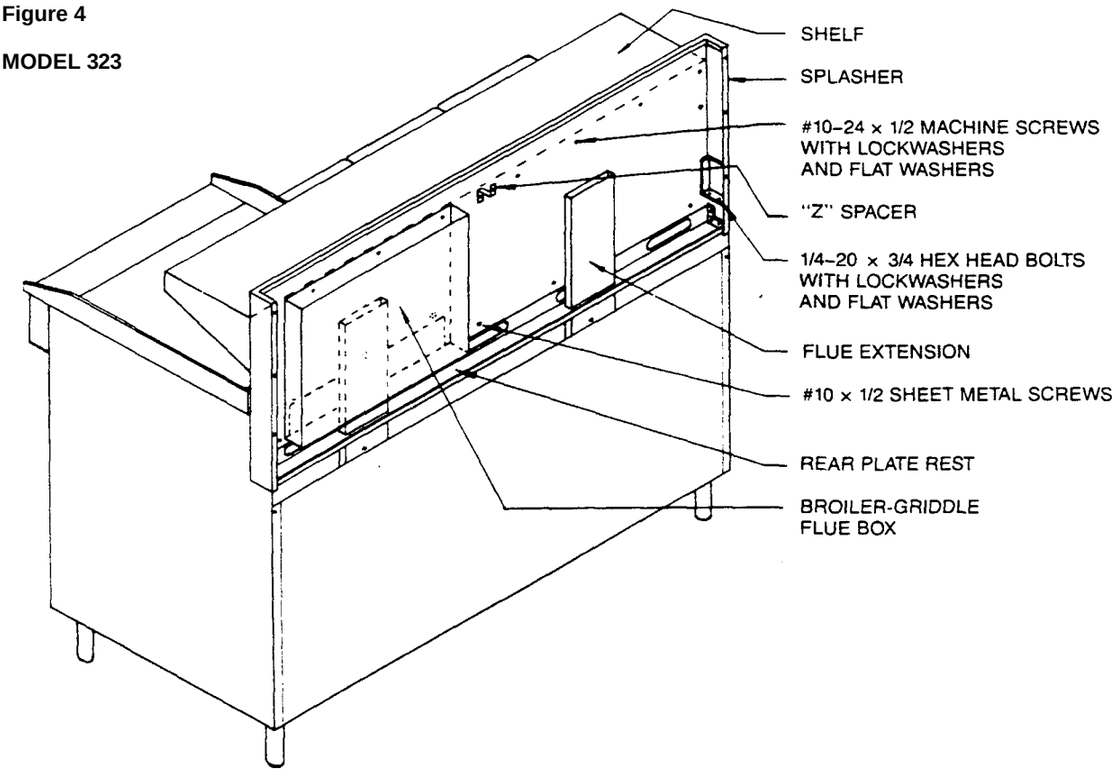
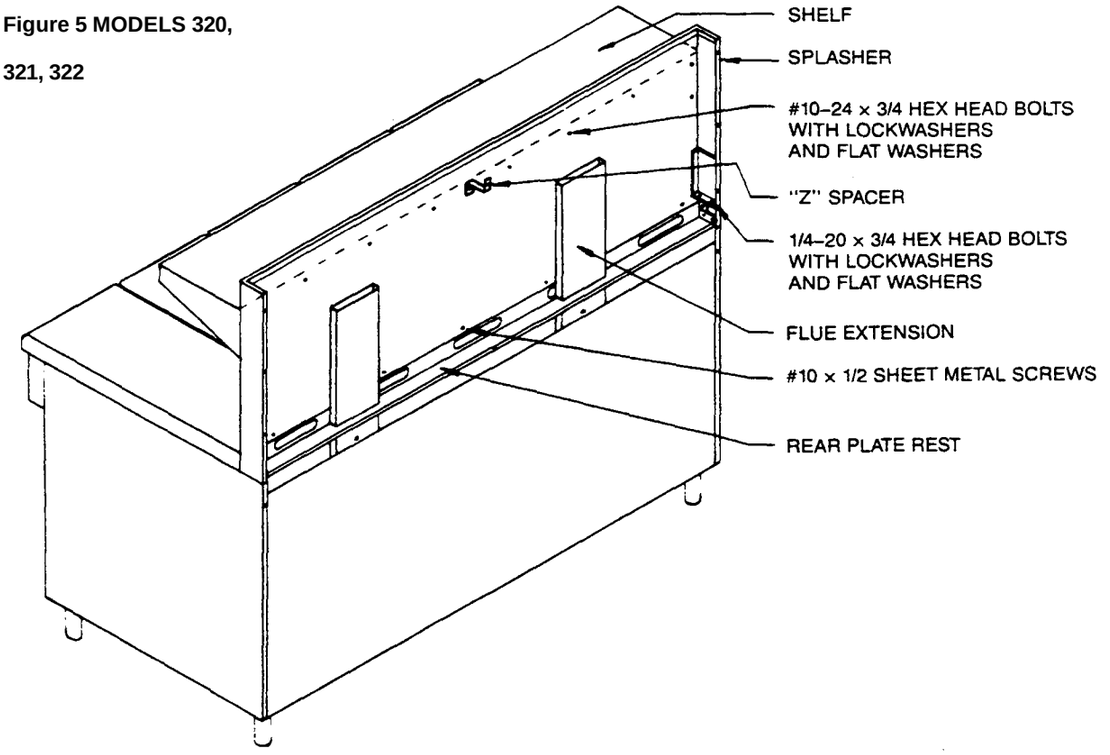


Figure 5 MODELS 320,

321, 322



HEAVY DUTY
RESTAURANT RANGES
USER'S GUIDE

LIMITED WARRANTY

Southbend warrants that the equipment, as supplied by the factory to the original purchasers, is tree from defects in materials and workmanship. Should any part thereof become defective as a result of normal use within the period and limits defined below, then at the option of Southbend such parts will be repaired or replaced by Southbend or its Authorized Service Agency. This warranty is subject to the following conditions:

If upon inspection by Southbend or its Authorized Service Agency it is determined that this equipment has not been used in an appropriate manner, has been modified, has not been properly maintained, or has been subject to misuse or misapplication, neglect, abuse, accident, damage during transit or delivery, fire, flood, riot or Act of God, then this warranty shall be void.

Specifically excluded under this warranty are claims relating to installation; examples are improper utility connections and improper utilities supply. Claims relating to normal care and maintenance are also excluded; examples are calibration of controls, and adjustments to pilots and burners.

Equipment failure caused by inadequate water quality is not covered under warranty. WATER QUALITY must not exceed the following limits: Total Dissolved Solids (TDS) - 60 PPM (Parts Per Million). Hardness - 2 Grains or 35 PPM, PH Factor - 7.0 to 7.5. Water pressure 30 PSI minimum, 60 PSI maximum. Boiler maintenance is the responsibility of the owner and is not covered by warranty.

This equipment is intended for commercial use only. Warranty is void if equipment is installed in other than commercial application.

Repairs under this warranty are to be performed only by a Southbend Authorized Service Agency. Southbend can not be responsible for charges incurred from other than Authorized Southbend Agencies.

THIS WARRANTY MUST BE SHOWN TO AN AUTHORIZED SERVICE AGENCY WHEN REQUESTING IN-WARRANTY SERVICE WORK. THE AUTHORIZED SERVICE AGENCY MAY AT HIS OPTION REQUIRE PROOF OF PURCHASE.

This warranty does not cover services performed at overtime or premium labor rates nor does Southbend assume any liability for extended delays in replacing or repairing any items in the equipment beyond the control of Southbend. "Southbend shall not be liable for consequential or special damages of any nature that may arise in connection with such product or part." Should service be required at times which normally involve overtime or premium labor rates, the owner shall be charged for the difference between normal service rates and such premium rates.

In all circumstances, a maximum of one hundred miles in travel and two and one half hours (2.5) travel time shall be allowable. In all cases the closest Southbend Authorized Agency must be used.

The actual warranty time periods and exceptions are as follows:

This warranty only covers product shipped into the 48 contiguous United States and Hawaii, one year labor, one year parts effective from the date of original purchase. There will be no tabor coverage for equipment located on any island not connected by roadway to the mainland.

Exceptions to standard warranty, effective within above limitations:

Glass Windows, Door Gaskets, Rubber Seals, Light Bulbs, Ceramic Bricks,
Sight Glasses, Cathodic Descalers or Anodes ..... 90 days material and labor

Stainless Steel Fry Pot ..... 4 years extended material warranty on fry pot only — no labor

Stainless Steel Open Top Burners ..... 4 years extended material warranty on burners only — no labor

Pressure Steam Boiler Shell ..... Prorated 4 years extended warranty on boiler shell only — no labor

Boiler shells which have not been properly maintained will not be covered by warranty.

In all cases parts covered by a five year warranty will be shipped FOB the factory after the first year. Our warranty on all replacement parts which are replaced in the field by our Authorized Service Agencies will be limited to three months on labor, six months on materials (parts) effective from the date of installation. See LIMITED WARRANTY - REPLACEMENT PARTS for conditions and limitations.

If the equipment has been changed, altered, modified or repaired by other than a qualified service technician during or after the one year limited warranty period, then the manufacturer shall not be liable for any damages to any person or to any property which may result from the use of the equipment thereafter.

"THE FOREGOING WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS, AND CONSTITUTES THE ENTIRE LIABILITY OF SOUTHBEND. IN NO EVENT DOES THE LIMITED WARRANTY EXTEND BEYOND THE DURATION OF ONE YEAR FROM THE EFFECTIVE DATE OF SAID WARRANTY."

WARNING:

FOR AN APPLIANCE EQUIPPED WITH CASTERS, THE INSTALLATION SHALL BE MADE WITH A CONNECTOR THAT COMPLIES WITH THE STANDARD FOR CONNECTORS FOR MOVABLE GAS APPLIANCES, ANSI Z21.69-1987, CAN1 6.10-88 AND A QUICK-DISCONNECT DEVICE THAT COMPLIES WITH THE STANDARD FOR QUICK-DISCONNECT DEVICES FOR USE WITH GAS FUEL, ANSI Z21.41-1978, AND ADDENDA, Z21.41a.1981, Z21.41b.1983 and CAN1 6.9 M79. ADEQUATE MEANS MUST BE PROVIDED TO LIMIT THE MOVEMENT OF THE APPLIANCE WITHOUT DEPENDING ON THE CONNECTOR AND THE QUICK-DISCONNECT DEVICE OR ITS ASSOCIATED PIPING TO LIMIT THE APPLIANCE MOVEMENT.

WARNING:

IF DISCONNECTION OF THIS RESTRAINT IS NECESSARY TO MOVE THE APPLIANCE FOR CLEANING, ETC., RECONNECT IT WHEN THE APPLIANCE IS MOVED TO ITS ORIGINALLY INSTALLED POSITION.

Before turning main gas supply on, make sure all control valves are in the "OFF" position.

All units are adjusted at the factory, however, burner air shutters and pilot heights should be checked at installation and adjusted if necessary. On new installations start with the top burner of the unit(s) furthest from the gas input to the manifold. This will purge the system of air. Turn main gas supply "ON."

OPEN TOP BURNER:

1. Remove pot support grates and enameled top plates.
2. Check lighter flash tubes to see they are properly positioned on burner charge port.
3. Light pilots.
4. Replace enameled plates and pot support grates.
5. Turn valve completely on. Burner flame should be steady blue and impinge on underside on pot placed on support grate.

TOP BURNER SECTIONS

OPTIONAL SOLID TOP PLATES - (Models - All 300 Series):

1. Raise or remove Hot Top plate. Every two burners has one pilot located at the front and in-between burners. Pilots are supplied and adjusted by a valve, below a filter on the manifold.
2. Pilot flame should be steady blue, large enough to effect ignition.
3. Turn burner valve completely on. The sharp blue flame should be approximately 1/4" to 3/8" high.
4. Replace Hot Top plate.

FRY TOP GRIDDLES - (Models - 301, 302, 321, 322):

1. Raise griddle at front so it is approximately 8" high and block with two (2) two-by-fours.
2. Ignite pilot tube located under all burners with port at each side of burners. Pilots are supplied and adjusted by a common valve located below the filter on the manifold.
3. Burners should have 1/2" to 5/8" steady blue flame. Adjust if necessary.
4. Lower griddle into position and observe burner operating characteristics through holes in valve panel.

CARE OF GRIDDLES:

New griddles should be carefully tempered and cared for in order to avoid possible damage. To break in a new griddle, first wipe it clean. Next, light all the griddle burners and turn them low for one hour. Then gradually bring griddle to frying temperatures. Next, spread three or four ounces of beef suet, or as a substitute baking soda, to season it. Never allow water on a hot griddle and never wash it with soap and water.



THERMOSTAT GRIDDLES - (Models - T.301, T-302, T-321, T-322)

1. Raise griddle at front so it is approximately 8" high and block with two (2) two-by-fours.
2. The sensing bulbs must be fully inserted into their tubular holders, which are welded to the underside of the griddle.
3. One pilot tube is located under all burners with ports at each side of burners. Pilots are supplied and adjusted by a common valve on the manifold. Ignite pilots.
4. Set thermostat dials to maximum, one at a time.
5. Burners should have 1/2" to 5/8" steady blue flame. Adjust if necessary.
6. Lower griddle carefully into position taking extreme care that capillary tubes are coiled under manifold in valve panel compartment. NEVER leave any part of the capillary tube in the burner compartment.
7. Observe burner flame through holes in valve panel, turn thermostat dial at maximum for ten minutes, then turn dial to "LOW" and adjust bypass on thermostat so there is a 1/8" minimum and 1/4" maximum flame at each port. (See Fig. 2, Section 3, Page 6).

BROILER GRIDDLES - (Models - 303,304, 323)

1. Remove griddle from unit.
2. Position ceramics on burners with projections pointing downward.
3. Light pilot tube ports (2 at each burner). Adjust pilot flame to be large enough to effect ignition.
4. Place griddle in position on range.
5. Turn valves completely on.
6. Burner should have 1/2" to 5/8" steady blue flame. Adjust if necessary.
7. These valves are HI-LO type. HI flame is obtained by turning valve knob 90° to its horizontal position. LO or SIMMER is obtained by continuing the rotation beyond its horizontal position. To adjust LO setting: remove knob, adjust set screw inside hollow stem. The flame should be 1/8" to 1/4" on all ports.

CAUTION: ***TOP SECTION PILOTS WHEN OUT, DO NOT INTERRUPT THE FLOW OF***

GAS ***TO THE BURNERS. CONSEQUENTLY, IT IS THE RESPONSIBILITY OF THE OPERATOR TO CHECK THE IGNITION OF THE BURNERS, IMMEDIATELY AFTER BURNER VALVE HAS BEEN TURNED TO "ON." SHOULD IGNITION FAIL AFTER 10 SECONDS, TURN OFF BURNERS, WAIT 5 MINUTES AND THEN TRY AGAIN.***

RESTAURANT SERIES RANGES WITH AN "F" SUFFIX

("F" Suffix Denotes Type of Oven Control System)

WARNING:

IN THE EVENT OF MAIN BURNER IGNITION FAILURE, A 5 MINUTE PURGE PERIOD MUST BE OBSERVED PRIOR TO RE-ESTABLISHING THE IGNITION SOURCE. IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN EQUIPMENT AT THE MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

LIGHTING RANGE TOP PILOTS:

1. Turn all valves to the *"off"* position.
2. Remove Top Plates to expose pilots.
3. Light Pilots - turn adjusting screw until a 1/2" pilot flame height is obtained.

LIGHTING OVEN:

1. Turn thermostat to "off" position.
2. Depress push button, light pilot (through hole in oven bottom or remove oven bottom). Hold button in for 30 seconds. Release button. Should pilot fail to hold flame, wait 5 minutes and repeat.
3. Remove base panel. Remove pilot adjustment cap (on safety above push button). Adjust pilot key to provide properly sized flame. Replace pilot adjustment cap.
4. Turn thermostat to desired temperature.

OPERATION

SHUTDOWN ENTIRE RANGE:

Standby:

1. Turn all manual gas valve "off."
2. Turn thermostat to its lowest position.

Complete:

1. Turn all manual gas valves and pilots "off."
2. Turn thermostat to its lowest position.
3. Turn main supply gas valve "off."

STANDARD-TYPE OVEN - (Models 300, 301, 302, 303, 304, 320. 321, 322, 323)

A. LIGHTING:

1. Turn oven thermostat to "OFF" position.
2. Open door, raise hold-down clips at front of right and left sides, remove oven bottom and fire plate to expose pilot and burner.
3. Light constant pilot (i.e. pilot without capillary tube holder).
4. Replace fire plate and oven bottom and lower hold-down clips.
5. Turn thermostat to desired temperature.

NOTE: Lighting instructions are also printed on inside of oven door.

CAUTION: *IF YOU SMELL GAS DURING THE LIGHTING PROCEDURE, IMMEDIATELY SHUT OFF THE GAS SUPPLY UNTIL THE LEAK HAS BEEN CORRECTED.*

B. SHUT DOWN PROCEDURE:

To completely shut down the oven, turn thermostat to "OFF" position and extinguish pilot.

C. RELIGHTING:

1. Shut off all gas.
2. Wait 5 minutes.
3. Repeat lighting instructions in section "A" above.

STANDARD-TYPE OVENS (For Models With 'C' & 'B' Suffix Only):

The OVEN CONTROL system consists of an oven thermostat, a safety control and a pilot unit. The oven thermostat is a combination modulating (by-pass type) thermostat for temperature settings above 325° F and a cycling (on-off) thermostat for temperature settings from 140° F up to 325° F.

The safety control is a precision instrument carefully engineered and calibrated at the factory to control gas flow to the Oven Burner. No adjustments are required.

The pilot unit has two separate pilots, a small Constant Pilot and a large Heater Pilot. The Constant Pilot, which should be burning at all times, ignites the Heater Pilot when the thermostat is turned on and then the Oven Burner.



The thermostat is operated by the rotation of a single Control Knob for both the modulating and the low temperature ranges. To operate, push Control Knob in and turn counterclockwise to desired temperature setting. To shut gas off, turn Control Knob clockwise to "OFF" where it automatically will lock itself in the "OFF" position. If recalibration is ever necessary, it can be done easily by following the instructions under that heading. However, cleaning the thermostat valve and regreasing the gas valve should be done by a qualified serviceman if this work is required.

STANDARD-TYPE OVEN (Models With "D" Suffix Only):

The OVEN CONTROL system consists of an oven thermostat, a safety control and a pilot unit. The thermostat controls the oven temperature by cycling the oven over the entire temperature range of 140° F to 500° F. This system has no bypass.

The safety control is a precision instrument carefully engineered and calibrated at the factory to control gas flow to the oven burner. No adjustments are required.

The pilot unit has two separate pilots, a small Constant Pilot and a large Heater Pilot. The Constant Pilot, which should be burning at all times, ignites the Heater Pilot when the thermostat is turned on. The Heater Pilot heats the capillary bulb allowing the safety valve to open and feed gas to the burner.

CONVECTION-TYPE OVEN - (Models - CO-300, CO-301, CO-302, CO-303, CO-304, CO-320, CO-321, CO-322, CO-323

WARNING:

FOR AN APPLIANCE EQUIPPED WITH A CONVECTION TYPE OVEN, NO ATTEMPT SHOULD BE MADE TO OPERATE OVEN DURING A POWER FAILURE.

A. CONTROL PANEL EXPLANATION (SEE FIG. 1 & 2, SECTION 4, PAGE 4)

1. **POWER SWITCH:** In the "ON" position, power is made available to the thermostat, the pilot line solenoid and the pilot spark igniter.

2. **FAN SWITCH:** The fan switch controls the blower operation; it must be "ON" during baking or cooking periods. In the "BAKE" position, the fan runs continuously, except when the door is open. This position is for baking or cooking. In the "COOL" position, the fan runs continuously, even when the door is open. This position is for cooling the oven at the end of a work period.

3. **THERMOSTAT AND COOKING LIGHT:** The thermostat, by allowing power to the main gas solenoid, controls the oven temperature. Setting the thermostat at a temperature greater than the oven temperature, energizes the cooking light and the oven burner. Once the oven temperature is equal to or greater than the thermostat setting, both the cooking light and the oven burner will shut off.

4. **TIMER:** The timer is a mechanical, wind-up type. It is only a "time" reminder that has no control over the oven.

5. **FUSES:** The motor and control circuitry are protected with two 15 AMP fuses in 208/236V convection ovens. There are no fuses on 115 Volt units.

6. **ADDITIONAL UNIT CONTROLS (Double Oven Base Range Units Only):** For long life of the control box controls, a cooling blower has been incorporated into the design of the double oven base range units. This cooling blower, which is located in the control compartment, is activated when the temperature inside of the control compartment reaches 150° F at its sensing point. It will run continuously until the temperature drops below 135° F. The cooling blower operates independent of the power switch of either oven, therefore, eliminating any control-damaging residual heat rise after the unit has been completely shut down.

For further protection of the control box controls if the cooling blower should happen to fail, the oven burners and the oven circulating blower motors will shut down when the temperature inside the box housing the controls reaches 225° F at its sensing point. Refer to "TROUBLESHOOTING" in Section 3, Page 10.

B. GAS CONTROL INSTRUCTIONS

All Heavy Duty Restaurant Ranges with convection-type oven are equipped, as standard, with electronic ignition for lighting the standing pilot. The standing pilot, therefore, does not require lighting by a match.

1. LIGHTING

NOTE: Before attempting lighting of the standing pilot make sure the oven gas supply line shutoff valve is in the open position.

The manual gas valve is located behind the chrome steel valve panel and is accessible thru the center slot. The manual gas valve location is shown by an attached label. See Fig. 4, Section 4, Page 5 for the location and the manner of accessibility of the manual valves on the EO-26.

NOTE: The following lighting instructions are also printed on a plate located on the front panel below the oven door.

To light the standing pilot, press the power switch to the "ON" position. Gas will immediately begin to flow to the pilot and simultaneously, the electronic ignition will begin sparking at the pilot (an audible clicking noise should be evident). When the pilot is ignited, the sparking and clicking noise should stop (this may be several minutes, particularly in new installations where the gas lines may have a considerable amount of air). Within 30 to 60 seconds after the pilot is ignited, the flame switch bulb will be heated sufficiently to allow the main gas solenoid to open and the oven burner to light when the thermostat is turned on.

It should be noted that the standing pilot and the electronic ignition do not cycle with the thermostat. The standing pilot is automatically established and monitored each time the power switch is on. If the pilot is ever extinguished by a momentary external interruption, the spark igniter will automatically relight it without disturbing the cooking cycle.

WARNING:

IN THE EVENT OF MAIN BURNER IGNITION FAILURE, A 5 MINUTE PURGE PERIOD MUST BE OBSERVED PRIOR TO RE-ESTABISHING THE IGNITION SOURCE. IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN EQUIPMENT AT THE MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

2. STANDBY SHUTDOWN: Place the power switch in the "OFF" position.

3. COMPLETE SHUTDOWN: Place the power switch in the "OFF" position and place the oven gas supply line shutoff valve in the closed position.

4. RELIGHTING: Place the oven gas supply line shutoff valve in the open position and place the power switch in the "ON" position.



C. SPARK IGNITER FAILURE

In the event the spark igniter fails, the unit may still be operated by carefully following these instructions:

1. Turn thermostat to the "OFF" position.
2. Turn power switch to the "OFF" position.
3. WAIT A MINIMUM OF 5 MINUTES BEFORE PROCEEDING.
4. Turn power switch to the "ON" position.
5. Immediately light pilot with a long match.
6. After 30 to 60 seconds, the flame switch will allow the main oven burner gas to flow when the thermostat is turned on.

The pilot will now stay ignited as long as the power switch remains "ON." If the power switch is turned "OFF," repeat the above instructions.

IT IS INTENDED THAT THE OVEN BE OPERATED IN THE ABOVE MANNER ONLY IN EMERGENCY SITUATIONS AND ONLY WHILE IT IS ATTENDED. DO NOT LEAVE THE PILOT LIT OVERNIGHT; SHUT OFF THE POWER SWITCH. A QUALIFIED SERVICEMAN MUST BE CALLED PROMPTLY.

D. NORMAL OPERATION

During normal daily operation, it is imperative that the oven fluing hole (2 inch dia.), located at the front of the oven interior top, not be blocked off by any utensil used in the oven.



COOKING HINTS

COOKING TIPS (CONVECTION-TYPE OVEN ONLY):

A. **FROZEN ENTREE PRODUCTS:** Punch holes in lid before heating. Tent lid if product has a tendency to stick, i.e., lasagne or macaroni and cheese. Use manufacturer's convection oven directions for time and temperature or reduce conventional oven temperature 50 degrees for a 6-1/2 size pan load. Some products may cook in 10 to 15 minutes less time than recommended for convection ovens if prepared from frozen in a 6 pan load.

B. **FRUIT PIES:** Use temperature and time from manufacturer's directions for convection ovens for a 12 pie load placed on 3 bun pans.

C. **ROLLS - YEAST:** Use temperature and time recommended by manufacturer for convection ovens for a 3 pan load.

D. **POTATOES - PRE-BLANCHED, FROZEN:** Spread on ungreased bun pans, 3 pans per load. Bake at 400 degrees F, stirring once, for 15 to 18 minutes.

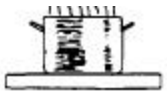
E. **FISH PORTIONS - BREADED, PRE-COOKED:** Use manufacturer's recommended temperature and time for convection oven for a 3 pan load.

F. **POTATOES - BAKING, 8 OZ. SIZE:** Wash and wrap in potato foil. Place 30 potatoes on 18 x 24 bun pan — 3 pans per load. Bake in 400 degree F oven for 1 hour.

G. **TOP ROUND OF BEEF, NO. 168:** Set oven at 250 degrees F. Place trimmed roast on pan. For 14 - 16 pounds: 140 degrees rare - 14 minutes/pound; 150 degrees medium - 16 minutes/pound; 160 degrees well done - 17-1/2 minutes/pound.

SUGGESTIONS (CONVECTION-TYPE OVEN ONLY):

If cakes are dark on the sides and not done in the center	lower oven temperature.
If cake edges are too brown	reduce number of pans or lower oven temperature.
If cakes have light outer color	raise temperature.
If cake settles slightly in the center	bake longer or raise oven temperature slightly. Do not open doors too often for long periods.
If pies have uneven color	reduce number of pies per rack.
If meats are browned and not done in center	lower oven temperature and roast longer.
If meats are well done and not browned	raise temperature. Limit amount of moisture.
If cake ripples	overloading pans or batter is too thin.
If there is excessive meat shrinkage	lower oven temperature.
If cakes are too coarse	lower oven temperature



GUIDE TO BAKING TIMES AND TEMPERATURES (CONVECTION-TYPE OVEN ONLY):

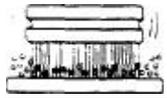
As a guide, set oven temperatures 25 to 50 degrees lower than called for in recipes using non-convection ovens, i.e., range or conventional ovens.

Time and temperatures will vary depending upon load, mix, size or portion and other factors. Use this chart to develop your own cooking techniques.

PRODUCT	TIMING/ MIN.	TEMP. SETTING	NO. OF RACKS USED	COUNT PER PAN/RACK
Hamburger buns, 3 oz. - 4"	18	375°	3	24
Yeast rolls - 1 oz.	10	400°	3	48
Fruit pies, 46 oz. frozen	50	375°	3	4
Egg custard pies, 44 oz. frozen	60	325°	3	4
Dutch apple pies, 46 oz., frozen	50	350°	3	4
Baked potatoes, 8 oz.	60	400°	3	30 (wrapped)
Pre-blanched potatoes, frozen	16	400°	3	5 lb.
Fish portions, pre-cooked, breaded, 3 oz.	16	400°	3	32
Macaroni & cheese, 6 lb. -40° temp.	45	400°	3	2-6 lbs.
Lasagne w/meat sauce, 6 lb. - 40° temp.	60	350°	3	2-6 lbs.
Lasagne w/meat sauce, 6 lb. - frozen	75	350°	3	2-6 lbs.
Salisbury steak w/gravy, 6 lb. - 40° temp.	45	400°	3	2-6 lbs.
Top round of beef No. 168				
14 lb. - rare	140° internal 14 min./lb.	250°	1	1-2
14 lb. - medium	150° internal 16 min./lb.	250°	1	1-2
14 lb. - well done	160° internal 17-1/2 min./lb.	250°	1	1-2

WARNING:

THE USE OF ALUMINUM FOIL CAN CAUSE HEAT DISTRIBUTION PROBLEMS IN OVENS. EXTREME CARE MUST BE USED WHEN PLACING ALUMINUM FOIL IN THE OVEN TO ENSURE THAT IT DOES NOT BLOCK OR CHANGE THE AIR FLOW. THE USE OF ALUMINUM FOIL MAY VOID THE PRODUCT WARRANTY IF ITS USE IS ASCERTAINED TO BE A PROBLEM.



MAINTENANCE

WARNING:

ADJUSTMENTS AND SERVICE WORK MAY BE PERFORMED ONLY BY A QUALIFIED TECHNICIAN WHO IS EXPERIENCED IN, AND KNOWLEDGEABLE WITH, THE OPERATION OF COMMERCIAL GAS COOKING EQUIPMENT. HOWEVER, TO ASSURE YOUR CONFIDENCE, CONTACT YOUR AUTHORIZED SERVICE AGENCY FOR RELIABLE SERVICE, DEPENDABLE ADVICE OR OTHER ASSISTANCES, AND FOR GENUINE FACTORY PARTS.

Southbend equipment is sturdily constructed of the best quality materials and is designed to provide durable service when treated with ordinary care. To expect the best performance, your equipment must be maintained in good condition and cleaned daily. Naturally, the periods for this care and cleaning depend on the amount and degree of usage.

USER'S GUIDE

MAINTENANCE-ALL UNITS-EXTERIOR AND TOP SECTIONS:

1. Keep exposed, cleanable areas of unit clean at all times.

   Daily:
   A. Remove, empty, and clean grease drawers and dirt trays.
   B. Clean griddle drain chutes.

   Monthly:
   A. Clean around burner air mixers and orifices if lint has accumulated.
   B. Visually assure proper pilot operation.

   Vent System: At least twice a year the unit venting system should be examined and cleaned.

Following daily and periodic maintenance procedures will enhance long life for your equipment Climatic conditions— salt air— may require more thorough and frequent cleaning or the life of the equipment could be adversely affected.

STAINLESS STEEL:

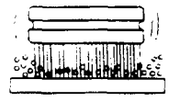
1. To remove normal dirt, grease, and product residue from stainless steel that operates at LOW temperature, use ordinary soap and water (with or without detergent) applied with a sponge or cloth. Dry thoroughly with a clean cloth.

2. To remove grease and food splatter, or condensed vapors, that have BAKED on the equipment, apply cleanser to a damp cloth or sponge and rub cleanser on the metal in the direction of the polishing lines on the metal. Rubbing cleanser, as gently as possible, in the direction of the polished lines will not mar the finish of the stainless steel. NEVER RUB WITH A CIRCULAR MOTION. Soil and burnt deposits which do not respond to the above procedure can usually be removed by rubbing the surface with SCOTCH-BRITE scouring pads or STAINLESS scouring pads. DO NOT USE ORDINARY STEEL WOOL, as any particles left on the surface will rust and further spoil the appearance of the finish. NEVER USE A WIRE BRUSH, STEEL SCOURING PADS (EXCEPT STAINLESS), SCRAPER, FILE OR OTHER STEEL TOOLS. Surfaces which are marred collect dirt more rapidly and become more difficult to clean. Marring also increases the possibility of corrosive attack. Refinishing may then be required.

3. To remove heat tint: Darkened areas sometimes appear on stainless steel surfaces where the area has been subjected to excessive heat. These darkened areas are caused by thickening of the protective surface of the stainless steel and are not harmful. Heat tint can normally be removed by the foregoing, but tint which does not respond to this procedure calls for a vigorous scouring in the direction of the polish lines, using SCOTCH-BRITE scouring pads or a STAINLESS scouring pad in combination with a powdered cleanser. Heat tint action may be lessened by not applying, or by reducing heat to equipment during slack periods.

BLACK BAKED ENAMEL:

1. Allow unit to cool somewhat after use and wash exterior with a hot, mild detergent or soap solution; particularly clean off all grease deposits. Dry thoroughly with a dry cloth.



BURNERS: General

Little attention is needed, but if spillage should occur, it may be necessary to clean around pilot areas, air mixer and under burners. Use a wire brush if necessary.

Periodically, burners (particularly open top type) should be removed and cleaned. Allow interior to drain. Dry thoroughly before replacing.

HOT TOPS:

Allow range to cool. If water is used on tops while still hot, they may crack. Avoid this practice. Remove tops from range and clean surfaces with hot water and detergent. A wire brush may be used on the underside of the Hot Top plate. It is recommended not to clean tops while still on range, even if cooled, as excessive water will drip into the burner box and deteriorate the metal.

Do not waste gas and abuse equipment by leaving all burners "Full On," if not required. During idling periods, adjust burner valves to keep top warm. Re-adjust burner valves as required for periods of heavy loads.

CARE OF GRIDDLES:

New griddles should be carefully tempered and cared for in order to avoid possible damage. To break in a new griddle, first wipe it clean. Next, light all the griddle burners and turn them low for one hour. Then, gradually bring griddle to frying temperature. Next, spread three or four ounces of beef suet, or as a substitute, baking soda, to season it. Never allow water on a hot griddle and never wash it with soap and water.

Use a Norton Alundum Griddle Brick to clean the griddle. Always remember to heat griddle slowly because quick heat may cause costly damage. Griddle plates cannot be guaranteed against damage due to carelessness. Never place utensils on griddle. Do not overheat griddle above 550° F, as this will cause warpage or breakage.

Do not use any type of steel wool. Small particles may be left on the surface and get into food products. Do not clean spatula by hitting the edge on the griddle plate. Such action will only cut and pit the griddle plate, leaving it rough and hard to clean.

Do not waste gas or abuse equipment by leaving valves at "Full On" position or thermostat at a high temperature if not required. During idle periods, set valves at "Low" position or thermostats to low temperature settings to keep griddle warm. Reset valves or thermostats, as required, for periods of heavy load. Turn valves or thermostats to "OFF" at end of daily operation.

OPEN TOP PLATE:

A. Remove enameled top plate and spiders, clean with a solution of hot water and strong soap or detergent.

B. The area around the charge port, where the flash tube is attached to the burner, must be free from any spillage or residue, or other obstructions.

   The flash tubes must be clean and properly aligned with the pilot housing to insure good top burner ignition. Pilot should be 1/2" to 5/8" blue flame. Avoid carbon producing tip or unstable blowing or lifting of flame.

OVEN INTERIOR (STANDARD-TYPE OVEN ONLY):

Allow oven to cool. Remove porcelain enameled oven bottom. Clean by rubbing with strong detergent and Brillo pad or similar scrubber. "Spill-overs" should be cleaned from the bottom as soon as possible to prevent carbonizing and a "burnt-on" condition. For stubborn accumulations, commercial oven cleaners are recommended.

The porcelain oven door lining can be cleaned in a similar manner.

The side, rear and top lining should be wiped only with a cloth dampened with a mild detergent and water. Avoid using excessive amounts of water, as this may drip into burner compartment and deteriorate the metal in that area. Do not use strong commercial cleaners or abrasive pads on the side, rear or top linings, as they may damage the finish or leave gray residue.



MAINTENANCE

OVEN INTERIOR (CONVECTION-TYPE OVEN ONLY):

WARNING

FOR YOUR SAFETY, DISCONNECT THE POWER SUPPLY TO THE APPLIANCE BEFORE CLEANING.

Oven bottom and oven door lining are finished with a porcelain enamel coating which encourages frequent cleaning. "Spill-overs" should be cleaned from the bottom or the door lining as soon as possible to prevent carbonizing and a "burnt-on" condition. Usually, a soap or detergent solution is strong enough. For stubborn accumulations, commercial oven cleaners are recommended.

The side, rear and top linings have an aluminized coating and should be cleaned with a sponge or cloth and a mild detergent. Do not use a strong commercial cleaner or abrasive pad, as they may damage the finish.

The rack slides are readily removable for ease in cleaning. To remove, raise them and they will become disengaged from their hanger studs. After cleaning reverse procedure to reinstall.

Foreign matter may collect on the blades of the blower wheel and reduce the circulation. When this becomes apparent, remove the rear lining which is secured by thumb screws near each corner. Then, use a stiff brush on each blade and finally, wash with soap and water. After cleaning reverse procedure to reinstall.

WHEN CLEANING THE BLOWER WHEEL, BE SURE TO HAVE THE POWER SWITCH IN THE "OFF" POSITION.

CONTROL PANEL (CONVECTION-TYPE OVEN ONLY):

The textured control panel should be cleaned with warm water and mild soap. Never use cleaning solvents with a hydrocarbon base.

MOTOR:

Lubrication information can be found on permanent label located on motor.

WARNING:

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SERVICE

WARNING:

ADJUSTMENTS AND SERVICE WORK MAY BE PERFORMED ONLY BY A QUALIFIED TECHNICIAN WHO IS EXPERIENCED IN, AND KNOWLEDGEABLE WITH, THE OPERATION OF COMMERCIAL COOKING EQUIPMENT. HOWEVER, TO ASSURE YOUR CONFIDENCE, CONTACT YOUR AUTHORIZED SERVICE AGENCY FOR RELIABLE SERVICE, DEPENDABLE ADVICE OR OTHER ASSISTANCES, AND FOR GENUINE FACTORY PARTS.

In case of problems in operation at initial installation, check type of gas and manifold pressure and compare with information listed on the serial plate.

FOR RESTAURANT RANGES WITH AN "F" SUFFIX
("F" Suffix Denotes Type of Oven Control System)

OVEN BURNER PILOT:

The pilot flame is adjustable at the pilot valve located at the manifold or at the pilot adjustment key located on the safety valve adjacent to the red push button. To access the pilot key, remove the base panel, remove the pilot key cap and turn the adjusting set screw. Replace pilot key cap.

THERMOSTAT BYPASS:

The thermostat is equipped with a bypass function. To adjust bypass flame, follow these steps:

1. Be sure pilot is burning and properly adjusted.
2. Turn bypass adjusting screw (located on thermostat, visible when knob and bezel are removed) counterclockwise to full open.
3. Turn thermostat dial to 500° F to ignite burner.
4. After 5 minutes, turn dial to a position halfway between the 2 lines which are between "off" and "low."
5. Remove the knob and turn the bypass adjusting screw clockwise until the flame on the oven burner is 1/8" minimum to 1/4" maximum and stable at each port on the burner.

THERMOSTAT CALIBRATION:

The thermostat should be recalibrated if the temperature at the center of the oven is not within 10° F of the dial setting (at 350° F). If this condition exists, follow these steps:

1. Do not attempt calibration until bypass flame is in proper adjustment.
2. Remove the thermostat knob and with a screwdriver, pop out the knob's silver center insert, re-attach the knob to the thermostat.
3. Hold the dial firmly and insert a screwdriver through the center of the dial. Push the calibration screw inward (DO NOT TURN THIS SCREW).
4. While holding the calibration screw in and firm, turn the knob until the dial setting matches the actual oven temperature. Replace the knob insert.
5. Re-check calibration.

TOP PILOTS: NON-AERATED (YELLOW-TIPPED FLAME) TYPE

These are located under fry-tops, hot-tops, broiler-griddles and on the flash tube system of open top grate burners.

Outage is often caused by an unstable flame due to over-adjustment to the point where the flame is leaving its port, or "blowing off."

Often, in an effort to improve ignition, the pilots are increased too much and result in this unstable condition.

These pilots are adjusted by inserting the blade of a screwdriver into the slot on the small valve, located on the manifold. The maximum flame size is approximately 3/4" with a slight yellow tip. The first indication of over-adjustment is evident when the yellow tip begins to stream into black streaks and generate carbon. Continued over-adjustment leads to the unstable lifting and blowing condition.

ALL TOP BURNERS:

All burners, being the Bunsen type, have a primary air adjustment by means of an air shutter on the mixer face.

Loosen screw and rotate mixer cap until a clear, stable blue flame is obtained. The flame should not be yellow tipped nor should it blow off the burner ports.

All orifice sizes and burner rates are properly set at the factory and should not be altered.

Over-rated burners cause poor burner and pilot performance, resulting in less heat, and wasted gas.

Over-gased burners DO NOT heat the hot-top or griddle as efficiently as those that are properly adjusted. Such conditions also create "hot spots" on griddles. Floating and unstable burner and pilot flames will result when solid tops are lowered into position because the rear openings of the burner compartment are not adequate to vent the enormous flue products generated by over-gased burners. The "unbumed" gas will ignite at the rear and burn in this section and even up inside the back-guard or shelf venting system, causing structural members in this area to deteriorate. Also, some of these hot flue products will vent forward into the manifold compartment resulting in problems with valves and thermostats due to overheating. AGAIN, over-rated burners waste energy and cause service problems.

SERVICE

PRESSURE REGULATOR:

The pressure regulator is factory set at 4" W.C. for natural gas and 10" W.C. for propane gas. To check the manifold pressure:

1. Turn all thermostats and burner valves to "OFF" position.
2. Turn main gas valve to entire unit off.
3. Remove valve panels and locate 1/8" plug in manifold.
4. Remove plug and install a fitting appropriate to connect a manometer.
5. Turn on main gas to unit and light pilots.
6. Turn all burners and ovens to full "ON" position and read manometer.
7. If manometer does not read 4" W.C. for natural gas, or 10" W.C. for propane gas, adjust regulator (if gas pressure is O.K. go to Step 10).
8. Remove cap from top of regulator.
9. With a screwdriver rotate regulator adjustment screw "clockwise" to increase, or "counter-clockwise" to decrease, pressure until manometer shows correct reading.
10. Repeat steps 1 and 2.
11. Remove manometer fitting and replace plug in manifold.
12. Repeat step 5.
13. Replace valve panels.

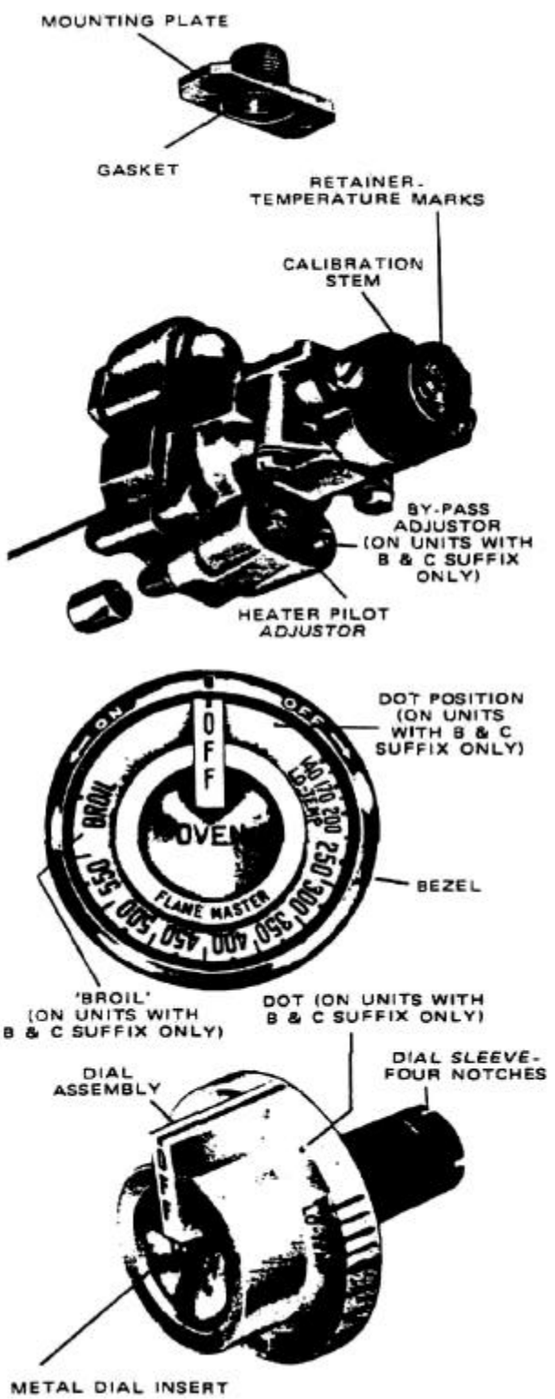


Figure 1

STANDARD-TYPE OVEN ONLY

Because gas conditions vary in different localities, two basic pilot adjustments for the OVEN system can be made to insure proper operation when the range is installed.

PILOT UNIT

The two basic adjustments for the PILOT UNIT are the Constant Pilot and the Heater Pilot. The gas flow to the Constant Pilot is controlled by the Pilot Valve which is on the Manifold. The Heater Pilot gas is controlled by the Heater Pilot Adjusting Screw on the thermostat.

To Adjust These Pilots:
CONSTANT PILOT

1. Open Pilot Valve by turning screw counter-clockwise; light Constant Pilot with match.

NOTE: The air must be bled from the line and Manifold in order to light the Constant Pilot.

2. Adjust Pilot Valve for maximum flame without yellow tipping.

HEATER PILOT

1. Turn Control Knob to the "DOT" position located between the "OFF" and 140° F markings on the Control Knob dial. This permits gas to flow through the Heater Pilot Tube to the Heater Pilot where gas is ignited by the Constant Pilot.

2. Remove Control Knob and Bezel.

3. Using screwdriver, adjust slotted Heater Pilot Adjusting Screw until pilot flame just envelops Temperature Responsive Element. Turning counterclockwise increases the flame, turning clockwise reduces it.

To Adjust Bypass Flame:
(Units With 'B' & 'C' Suffix Only)

1. Be sure constant burning pilot is ignited.

2. Turn bypass adjuster (Fig. 1) counterclockwise to full open.

3. Turn dial to 500° F.

4. After 5 minutes, turn dial to the "DOT" position between "OFF" and 140° F, and adjust flame with bypass adjuster so that it will be 1/8" minimum — 1/4" maximum steady flame at each port on the burner.

SERVICE

ADJUSTMENTS

OVEN THERMOSTAT (STANDARD-TYPE OVEN ONLY)

To Recalibrate

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

For units with 'B' and 'C' suffix, recalibration should not be undertaken until bypass oven flame has been adjusted. For units with 'D' suffix, no bypass exists.

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

The dial has a removable metal insert, proceed as follows:

1. Remove dial and push out metal insert. (Fig. 1, Section 3, Page 3)

2. Replace dial, set at 140° F and light oven burner.

   NOTE: The oven burner will "snap" ON and OFF between the dial settings of 140° F and 325° F and no bypass flame will be on the burner.

3. After burner has been on approximately 15 minutes, wait and watch for the oven burner to "snap" ON and then check oven temperature. Oven door should be open for as short a time as possible. Use a flashlight, if necessary, to see the thermometer reading clearly.

The control should be recalibrated if your reading is not within an average of 10° of the dial setting (140°). If recalibration is required, the additional steps to be taken are these:

4. Hold dial firmly, insert screwdriver through center of dial, and push calibration stem (See Fig. 1) inward. **(DO NOT TURN THIS STEM.)**

5. While holding calibration stem firmly, turn dial with screwdriver until it is set at the actual oven temperature as measured by your test instrument or thermometer. Release pressure on calibration stem. Replace dial insert.

6. To check your calibration setting, open door and allow oven to cool. Repeat steps 2 and 3. Recalibrate if necessary following steps 4, 5 and 6.

   NOTE: If oven temperature continually "creeps" higher than the dial setting, this is an indication of an inoperative sensing element or foreign matter on the valve disc or valve seat.

SERVICE

NOTE — Alternate Calibration Temperature Check

Calibration may be checked at 350° F (instead of 140° F). If this temperature is desired, remove dial and push out metal insert (See Fig. 1, Section 3, Page 3).

A. Replace dial, set a 350° mark and light oven burner.

B. After burner has been on about 15 minutes, check oven temperature.

The control should be recalibrated if your reading is not within 10° of the dial setting (350°). If recalibration is required, proceed as directed in steps 4 and 5; then recheck oven temperature at 400° F.

CONVECTION-TYPE OVEN ONLY:

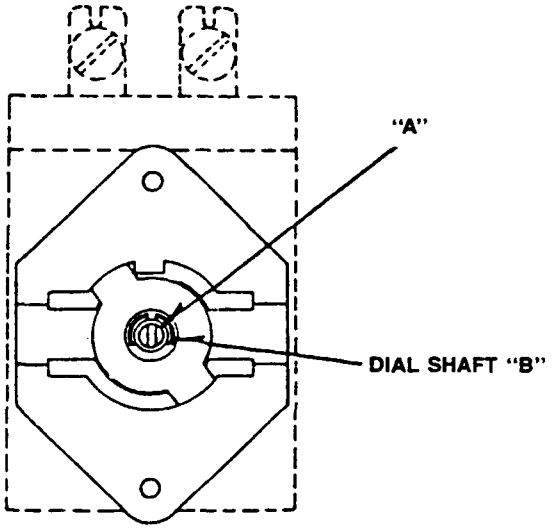
A. **THERMOSTAT ADJUSTMENT:** The calibration of the thermostat should not be changed until sufficient experience with cooking results have definitely proved that the thermostat is not maintaining proper oven temperatures. Before any recalibration is attempted, the oven temperature should be checked by the following procedure:

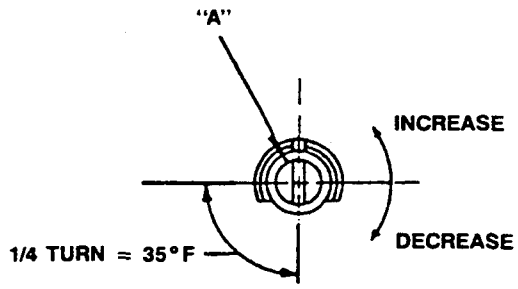
1. The oven must be empty of all trays or pans.
2. Place a pyrometer couple or a reliable mercury oven-type thermometer at the center of the middle rack.
3. Turn on the blower.
4. Set the dial at 375° F.
5. The red "Cooking Light" will go out when the thermostat turns off the burners.
6. Allow three such cycles for the temperature to stabilize.
7. Read the pyrometer or thermostat immediately after the light goes out for the third time and again immediately after it comes on the next time.
8. If the average of these readings and the dial setting vary by more than 15°, recalibrate by following the instructions outlined below:

TO RECALIBRATE:

NOTE: Recalibration should be attempted only by a competent serviceman.

1. Remove knob from dial shaft "B."
2. Turn screw "A" clockwise to decrease and counterclockwise to increase temperature.
3. 1/4 turn changes the temperature 35° F.
4. Replace knob on dial shaft.
5. After the calibration is made, set the dial at 375° F and recheck the oven temperature using the method outlined by Items 1 thru 7 of the oven temperature checking procedure.





B. OVEN STANDING PILOT ADJUSTMENT: The standing oven pilot flame can be adjusted by turning the adjusting screw on the pilot line valve with a screwdriver. The pilot line valve is located behind the front panel below the oven door (See Fig. 3, Section 4, Page 5). Remove the front panel to gain accessibility. The pilot flame is properly adjusted when it is just large enough to maintain a glowing red color of the flame switch capillary bulb.

C. OVEN BURNER FLAME ADJUSTMENT: The oven burner orifice is of the fixed type, sized for the respective gas supply. The burner flame characteristics are controlled by varying the primary air mixer cap. There should be a clear blue flame with a distinct inner cone at each port. Excessive primary air can result in "blowing" or the flames leaving the ports. Lack of primary air causes soft or yellow tipped flame.

ADJUSTMENTS

GRIDDLE CONTROL:

TO RECALIBRATE -

It is recommended that only a qualified serviceman perform this adjustment because calibration should not be changed unless cooking results definitely prove the control is not maintaining the proper surface temperature.

DO NOT RECALIBRATE UNTIL THE FOLLOWING HAS BEEN CHECKED:

1. BYPASS FLAME for proper adjustment (See "Thermostat Griddles" in Operation section).
2. Check that the control bulb is fully inserted in the bulb tube.

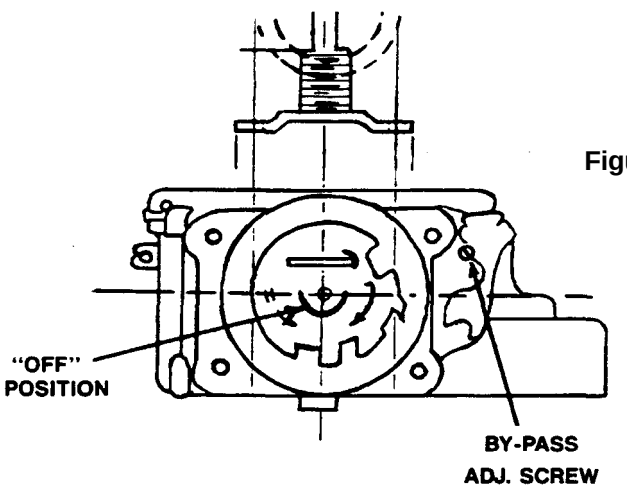


Figure 2

TO CHECK CALIBRATION, PROCEED AS FOLLOWS:

USE A TEST INSTRUMENT with special "disc type" thermocouple or reliable "surface type" thermometer:

1. Check surface temperature of griddle by placing disc firmly in contact with griddle above sensing element (bulb) of control. (NOTE — A drop of oil on face of disc will provide better contact).
2. Turn dial counterclockwise to 350° mark.
3. Heat griddle until control cuts down to BYPASS and check reading of Test Instrument. Reading of Test Instrument should be between 335° F and 365° F.
4. If dial setting does not agree (within limits above) with Test Instrument reading, recalibrate as follows:

   a. Remove dial.

   b. Each division on calibration plate equals 25° F. With screwdriver, turn calibration screw clockwise (toward LO) to reduce temperature, or counterclockwise (toward HI) to increase temperature.

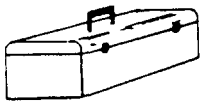
      Example: Dial setting 350° mark. Test Instrument reading 380° F. Turn calibration screw clockwise (toward LO) two divisions.

   c. Replace dial, turning dial to "OFF" position.

5. Repeat steps 1 through 3 to make sure correct adjustment has been made.

GRIDDLE THERMOSTAT BYPASS ADJUSTMENT:

1. With pilots lit and properly adjusted, rotate thermostat dial counterclockwise to the 200° F setting to ignite the burners.
2. Adjust air mixers for proper burner flame characteristics.
3. Heat thermostat capillary bulb by placing bulb in the oven with the oven burner on.
4. When griddle burners go out, rotate bypass adjustment screw counterclockwise until burners ignite.
5. Adjust bypass flame by rotating adjustment screw clockwise until the flame length is approximately 1/8" to 1/4" long, is stable, and not fluttering,
6. Turn off thermostat and remove capillary bulb from oven.



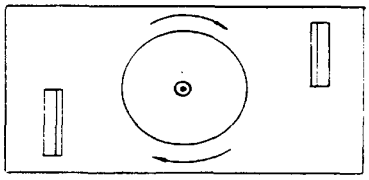
CONVECTION-TYPE OVEN ONLY:

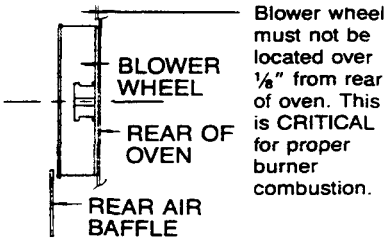
WARNING:

BEFORE ATTEMPTING TO SERVICE OR REPLACE ANY ELECTRICAL COMPONENT, MAKE SURE POWER SOURCE HAS BEEN DISCONNECTED.

CAUTION: *WHEN CHANGING MOTOR OR SERVICING UNIT, ALWAYS VERIFY THAT BLOWER WHEEL ROTATION IS AS ILLUSTRATION SHOWS. (CLOCK-WISE WHEN LOOKING INTO OVEN CAVITY.*

BLOWER WHEEL ROTATION





A. **MOTOR:** The motor is serviceable from the front of the unit through the oven cavity. Remove the back lining. Disconnect the motor mount plate by removing the eight hex nuts that secure it to the oven interior back. Pull the mount plate, with motor attached, into the oven.

B. **CONTROL PANEL ASSEMBLY COMPONENTS (Single Oven Base Range Units. (See Fig. 1, Section 4, Page 4):** The control panel assembly components are easily serviceable by removing two screws (one at the top and one at the bottom) of the control panel and then sliding out the control panel assembly.

C. **THERMOSTAT (Single Oven Base Range Units):** After sliding out the control box assembly, the thermostat can be completely removed by removing the capillary bulb brackets from inside of the oven, and then sliding the capillary bulb out of the oven cavity into the unit control area.

D. **CONTROL BOX ASSEMBLY COMPONENTS (Double Oven Base Range Units (See Fig. 2, Section 4, Page 4):** The control box assembly components are easily serviceable by removing two screws (one at the top and one at the bottom) of the control panel and then sliding out the control box. However, before attempting to slide out the control box, follow the instructions on the "CAUTION" label attached to the unit lower front panel. The "CAUTION" label reads as follows:

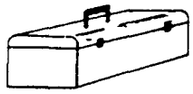
CAUTION: *BEFORE SLIDING OUT CONTROL BOX FOR SERVICING, REMOVE BASE PANELS BELOW OVEN DOOR AND REMOVE THE WIRE TIE FROM THE SPARK IGNITER ELECTRODE WIRE (BLACK WIRE).*

TO RETURN CONTROL BOX TO ORIGINAL POSITION, PUSH IN SLOWLY WHILE LIGHTLY PULLING THE SPARK IGNITER WIRE (BLACK WIRE) INTO THE OVEN BURNER CONTROL AREA (BELOW OVEN DOOR). RE-ATTACH A WIRE TIE IN A SIMILAR FASHION AS BEFORE IT WAS REMOVED. REPLACE BASE PANELS.

After sliding out the control box, the controls are accessible by removing the control box cover.

E. **THERMOSTATS (Double Oven Base Range Units):** To totally remove the thermostats after the control box has been slid out as described in "D", further steps must be taken:

1. Remove the control box wiring strain relief stop located on the top of the control box.
2. Slide out the control box far enough to disconnect the wiring harness plugs.
3. Remove the thermostat capillary tie down brackets located in the control box.
4. Remove the upper air duct
5. Remove the capillary bulb brackets from inside of the ovens.
6. Slide the capillary bulbs out of the oven cavity into the control box area between the two ovens for complete removal.



SERVICE

F. **COOLING BLOWER:** To service the cooling blower from the front of the unit follow the same steps as for removal of the oven thermostats. After the oven thermostats have been removed, the control box assembly, complete with the cooling blower, can be removed totally from the unit. To service the cooling blower from the rear of the unit, first, remove the tubing side blower box cover. Second, remove the cooling blower box by removing four screws (two at the top and two at the bottom) that secure it to the unit.

G. **208/236V 75VA TRANSFORMER (Double Oven Range Base Unit Only):** The transformer is located in the cooling blower box at the rear of the unit (See Fig. 2 & 5, Section 4, Pages 4 & 6) and is serviceable only from the rear of the unit. To gain accessibility, remove either side cover of the blower box.

H. **FUSES:** When replacing the fuses, the fuse should be inserted into the fuse holder cap FIRST and then into the fuse holder by gripping the plastic top of the cap only. These steps should be done with caution by a qualified serviceman, as the danger from severe electrical shock exists if the unit is not disconnected from the power supply.

NOTE: When performing service work, the appropriate wiring diagram for your oven can be found at the rear of this manual and also on the unit. The diagram on the single oven base range units is located on the rear of the lower front panel. It can be accessed by removing the lower front panel.

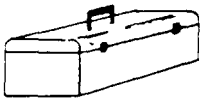
The diagram on the double oven base range units is located on the inside of the control box cover. It can be accessed by following the instructions for sliding out the control box assembly ("SERVICE" Paragraph D).

CAUTION: *PROPER AND EFFICIENT OPERATION OF OVEN IS DEPENDENT ON CORRECT INSTALLATION AND FUNCTION OF COMPONENTS. ALWAYS VERIFY THAT COMPONENTS ARE IN PLACE AND FUNCTIONING AS INTENDED.*

TROUBLE SHOOTING:

SERVICE

Problem	Look for —
All burners and pilots in unit will not turn on	— Main gas supply to unit is "OFF."
All burners produce excessive carbon deposits	— Incorrect gas type supplied to unit. — Incorrect supply pressure.
Only *some* burners in a unit produce excessive carbon deposits	— Incorrect orifices. — Primary air not adjusted properly.
Only some pilots produce excessive carbon deposits	— Pilot gas not adjusted properly. — Incorrect pilot orifice.
Top burner (not oven) will not come on	— Manual valve for top burner in "OFF" position. — Pilot out.
Top section pilot will not stay ignited	— Pilot gas not adjusted properly. — Clogged orifice. — Draft condition. — Improper ventilation system. — Air in gas line.



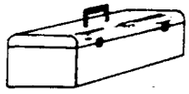
TROUBLE SHOOTING:

STANDARD-TYPE OVEN ONLY:

Problem	Look for —
Oven will not come on	— Oven pilot is out.
Oven pilot will not stay ignited	— Pilot gas not adjusted properly. — Bad thermocouple. (Applies to units with D suffix only) — Bad thermocouple connections at safety valve. (Applies to units with D suffix only) — Bad safety. — Clogged orifice. — Draft condition. — Improper ventilation system. — Air in gas line.

RESTAURANT RANGE STANDARD OVEN:

Oven will not come on	— Constant pilot is out. — Heater pilot will not come on. — Bad thermostat. — Clogged burner orifice. — Bad safety.
Constant pilot will not stay lit	— Clogged filter or pilot line. — Clogged orifice. — Draft condition. — Improper ventilation system. — Air in gas line.
Heater pilot will not come on	— Clogged orifice. — Clogged pilot line. — Bad thermostat.

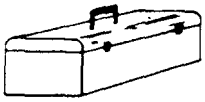


SERVICE

TROUBLE SHOOTING:

CONVECTION-TYPE OVEN ONLY:

Problem	Check or Replace —
Unit does not come on when "Power Switch" is in the "ON" position.	A. Is power cord plugged in? B. Unit fuses. C. Main supply fuses. D. Unit power switch.
Motor will not run with fan switch in any position.	A. Fan switch. B. Motor.
Motor will not run in "BAKE" position but runs in "COOL" position.	A. Door switch actuator. B. Door switch.
No spark at pilot.	A. Spark igniter. B. Wire to spark electrode broken or disconnected.
Spark present but standing pilot will not light.	A. Gas supply to unit shut off. B. Unit gas line shutoff in closed position. C. Pilot line valve in closed position. D. Pilot line solenoid.
Pilot ignites but burners will not light when thermostat calls for heat. Cook light on.	A. Main gas solenoid. B. Flame switch bulb in correct position. C. Flame switch.
Unit will function properly for a period of time and then shut down (oven circulating blower and oven burners). Oven will begin to function properly again after it has cooled down.	A. Motor overheating. *B. Check cooling blower. *C. Check 150 degree direct sensing thermostat. *D. Check 225 degree direct sensing thermostat. **Double oven base units only.*
Pilot ignites but burners and cook light will not come on when thermostat calls for heat.	A. Thermostat.

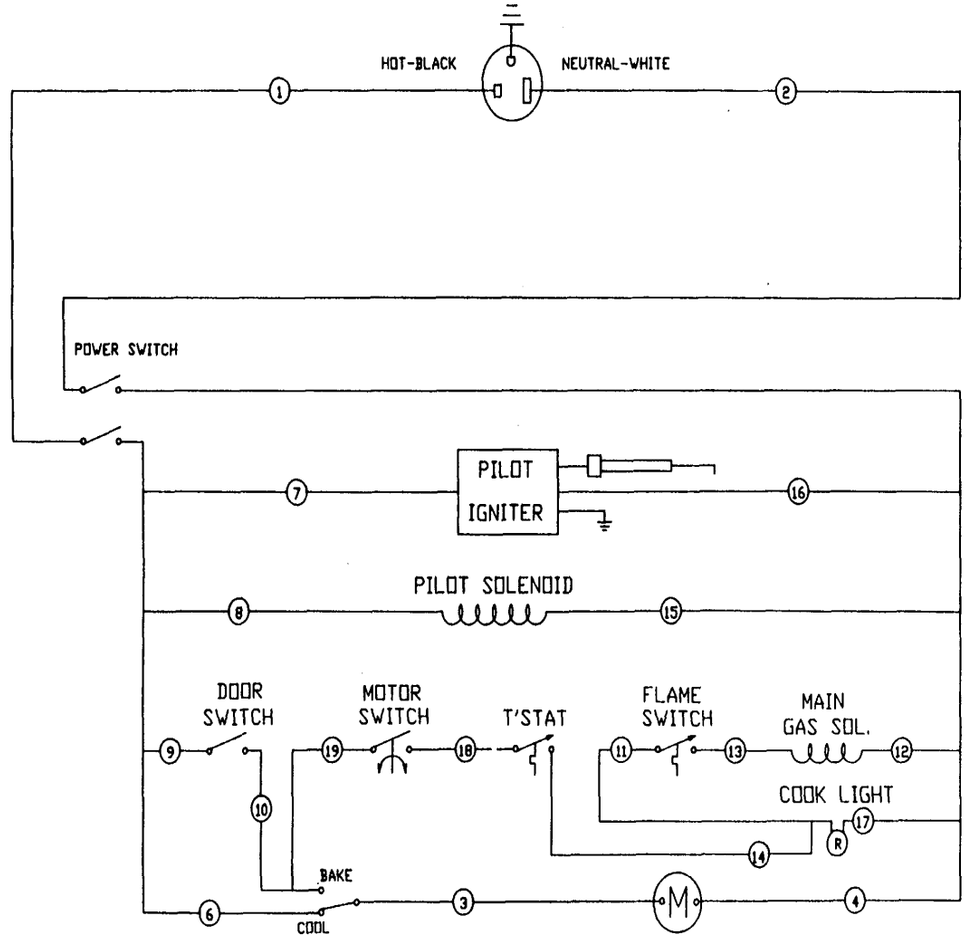


TROUBLE SHOOTING:

OVEN SECTION:

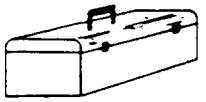
Problem	Look for —
Oven will not come on	— Oven pilot is out.
Oven pilot will not stay lit	— Pilot gas not adjusted properly. — Bad safety thermocouple. — Bad safety. — Clogged pilot orifice. — Draft condition. — Air in gas line.
Oven temperature not controllable	— Improper oven burner bypass flame adjustment. — Thermostat out of calibration.
Oven burner produces excessive carbon deposits	— Incorrect type of gas supplied. — Incorrect orifice size. — Incorrect supply pressure. — Primary air not adjusted properly.
Oven pilot produces excessive carbin deposits	— Pilot gas not properly adjusted. — Incorrect pilot orifice.

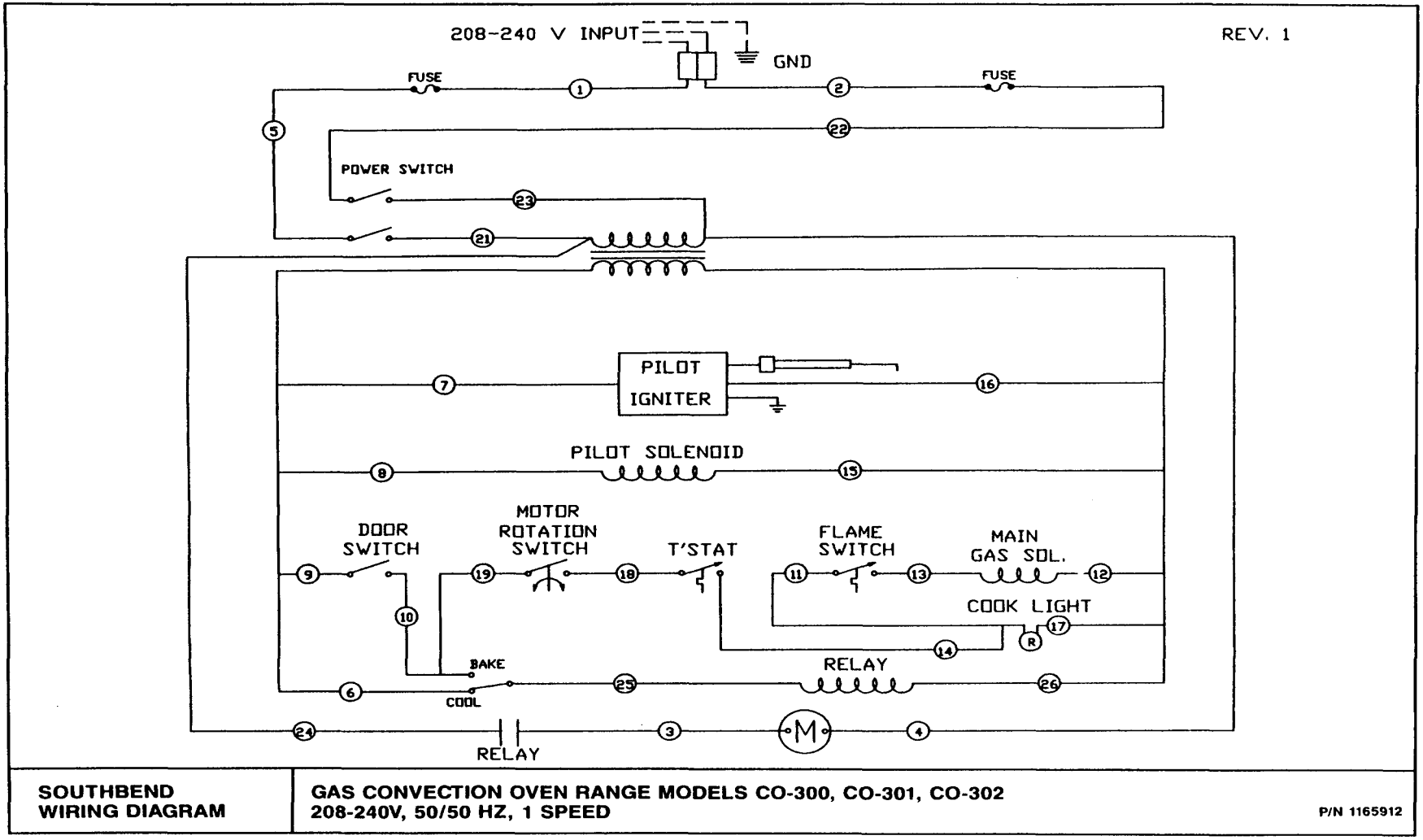
REV. 1



SOUTHBEND WIRING DIAGRAM	**GAS CONVECTION OVEN RANGE MODELS CO-300, CO-301, CO-302** **120V, 50/60 HZ, 1 SPEED** **P/N 1165911**

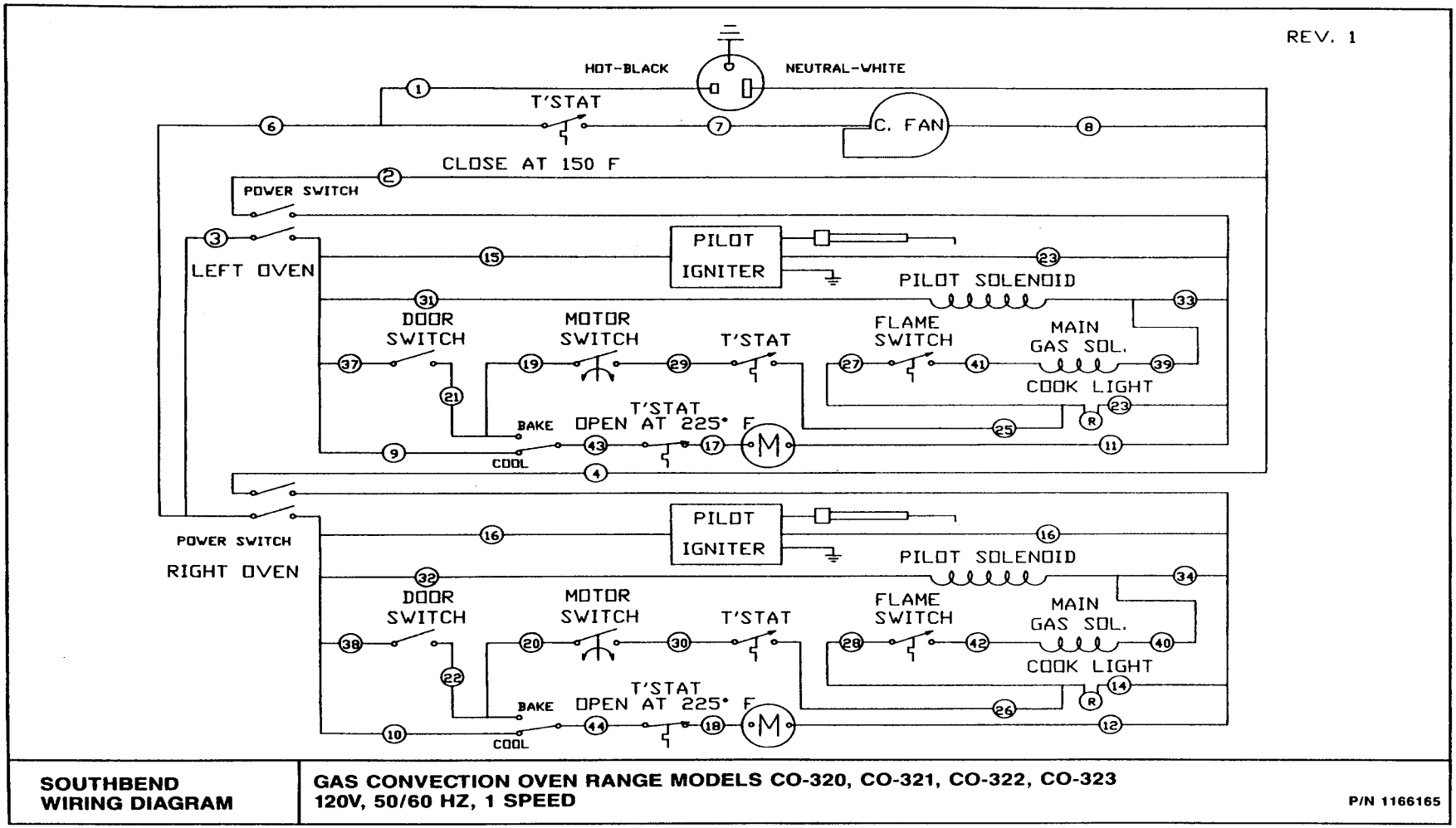
Litho in USA





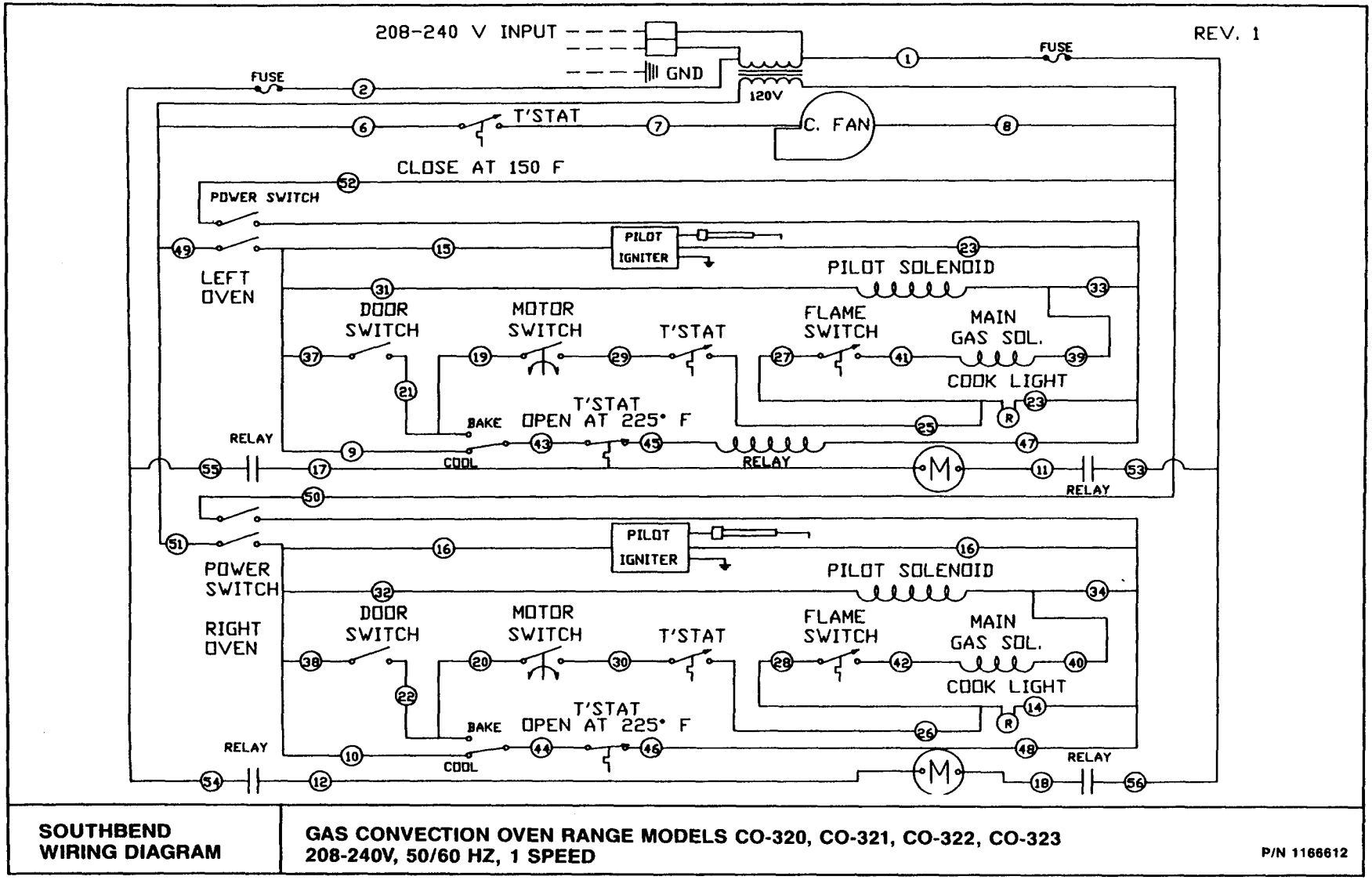
SOUTHBEND WIRING DIAGRAM	**GAS CONVECTION OVEN RANGE MODELS CO-300, CO-301, CO-302** **208-240V, 50/50 HZ, 1 SPEED**

P/N 1165912



SOUTHBEND WIRING DIAGRAM	GAS CONVECTION OVEN RANGE MODELS CO-320, CO-321, CO-322, CO-323 120V, 50/60 HZ, 1 SPEED	P/N 1166165

Litho in U.S.A.



SOUTHBEND WIRING DIAGRAM	**GAS CONVECTION OVEN RANGE MODELS CO-320, CO-321, CO-322, CO-323** **208-240V, 50/60 HZ, 1 SPEED**

P/N 1166612

HEAVY DUTY RESTAURANT RANGES

PARTS PARTS

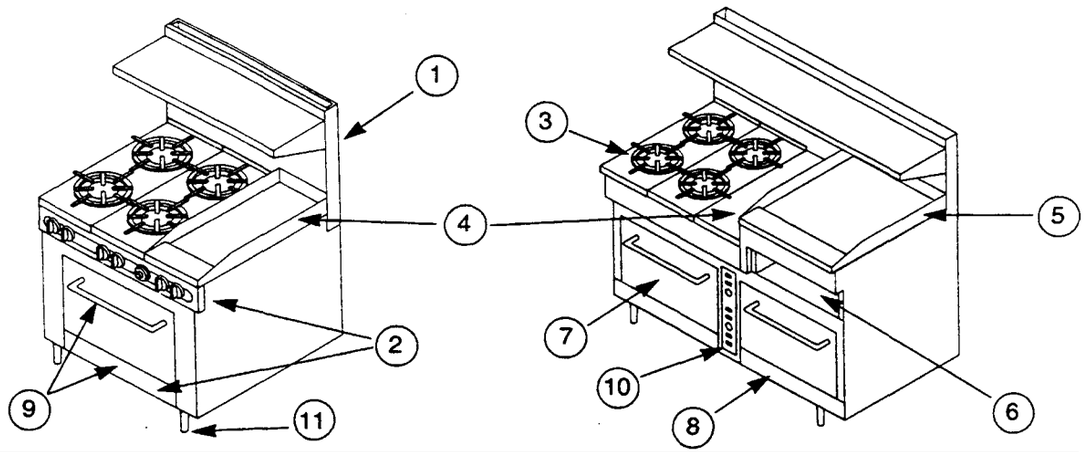
WARNING:

INSTALLATION OF OTHER THAN GENUINE SOUTHBEND PARTS WILL VOID THE WARRANTY ON THIS EQUIPMENT.

The serial plate is located in the compartment below the oven on the right side. When ordering pans. please supply the Model Number. Serial Number, Part Number, Description, plus Finish, Type of Gas and Electrical Characteristics, as applicable.

For parts not listed, consult a Southbend Authorized Pans Distributor or Southbend Authorized Service Agency. If necessary, please consult Southbend Pans Department for assistance.
300 Series, "T" Prefix Unit has thermostatically controlled griddle.
"B" 1978 — Unit has tubular steel oven burners instead of cast iron.
"C" 1981 — On Models 323, 303, 304. only. Indicates griddle broiler burners have tabs welded on sides.
"D" Sept. 1982 — A change in thermostats, from a Robertshaw (with a by-pass) to a Robertshaw (without a by-pass) BJFMAT. Oven burner is longer (23") compared to (20-1/4") for B & C units. Robertshaw safely has replaced Harper Wyman.

NOTE: C & D units cannot interchange pans. Oven pilot bracket is pan of the burner. Oven pilot was Harper Wyman, But is now Robertshaw #41 U.
First Serial Number — CO Base Range without Control Fuse 88J22722 — Mfg. Oct. 19, 1988.

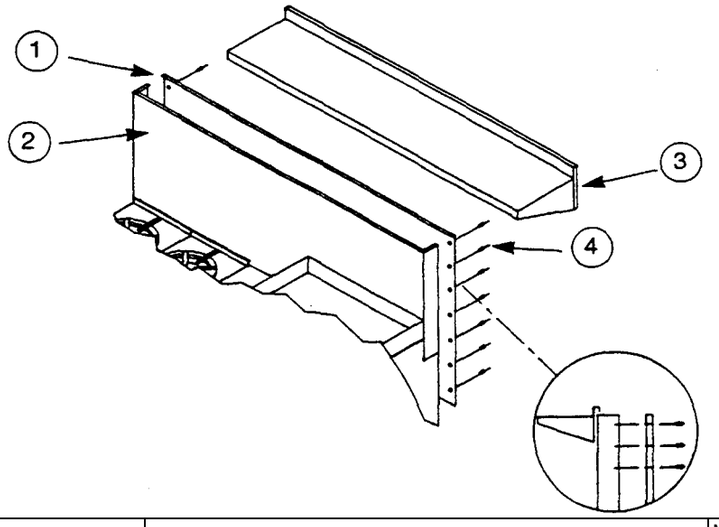


ITEM	PAGE NO.	RESTAURANT RANGE PARTS SECTION INDEX
1	Page 2	Shelfs and Splashers
2	Page 3	Valve Panel and Base Panels
3	Page 4, 5	Open Top Burner Section
4	Page 6, 7	Optional Hot Top or 12" Wide Griddle
5	Page 8, 9	Griddle Section (thermostats optional)
6	Page 10,11	Griddle Broiler Combination
7	Page 12, 13	Convection Oven Interior Oven Parts
8	Page 14,15	Convection Oven Burner Compartment
9	Page 16,17	Standard Oven Cooking & Burner Compartment
10	Page 18,19	Double Convection Oven Control Panel
*	Page 20, 21	Single Convection Oven Control Panel
*	Page 22	Conversion Kit
11	Page 23	Legs & Casters

* Not Shown

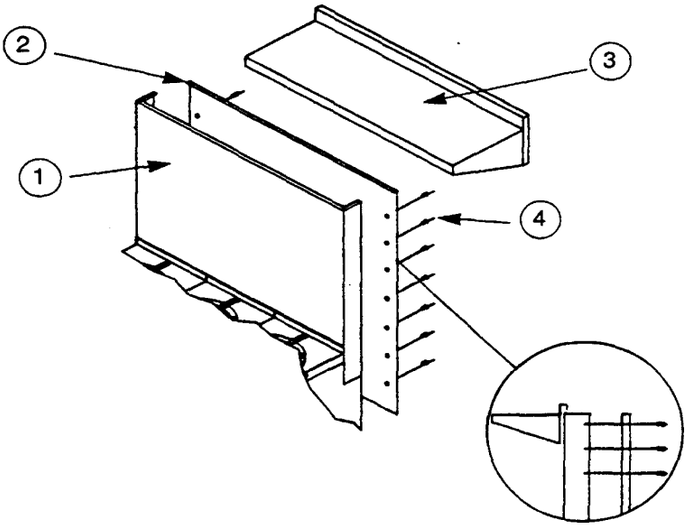
PARTS

PARTS



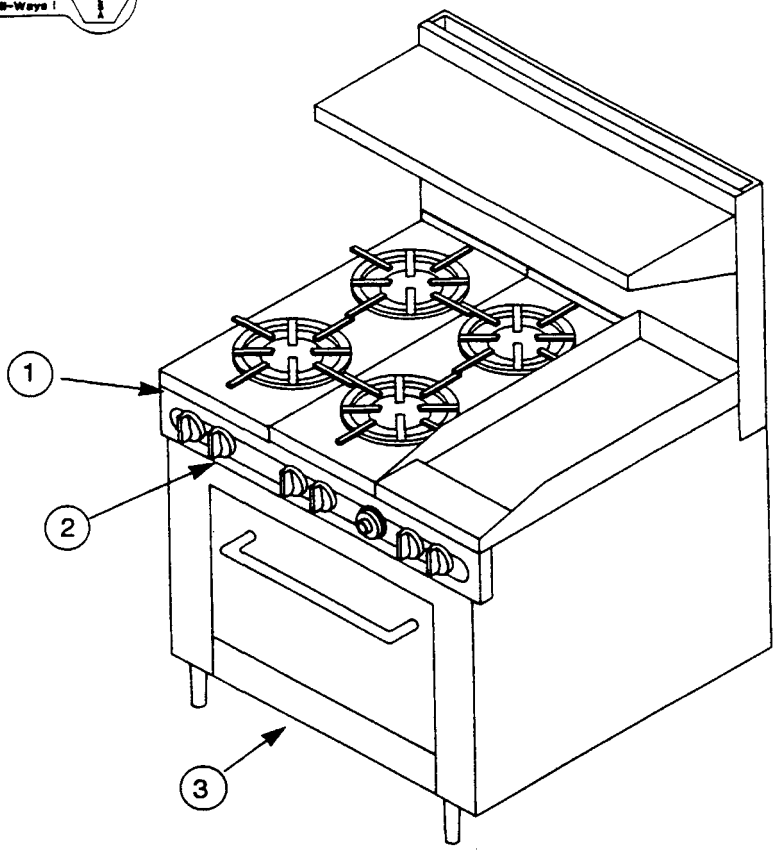
ITEM	PART NO.	SHELF & SPLASHER 60-3/4" WIDE RANGE	Models 303. 304. 320, 321, 322, 323
1	1104214	Wall Shield	
2	1000896	Splasher Weld asm SS 303-322	
3	1167984	Shelf & Back Weld asm	
4	1146304	Screw #10 x 1/2 Phil Truss Head	
*	1000894	Splasher Weld asm SS	

* Used on 323 & C0323 Only



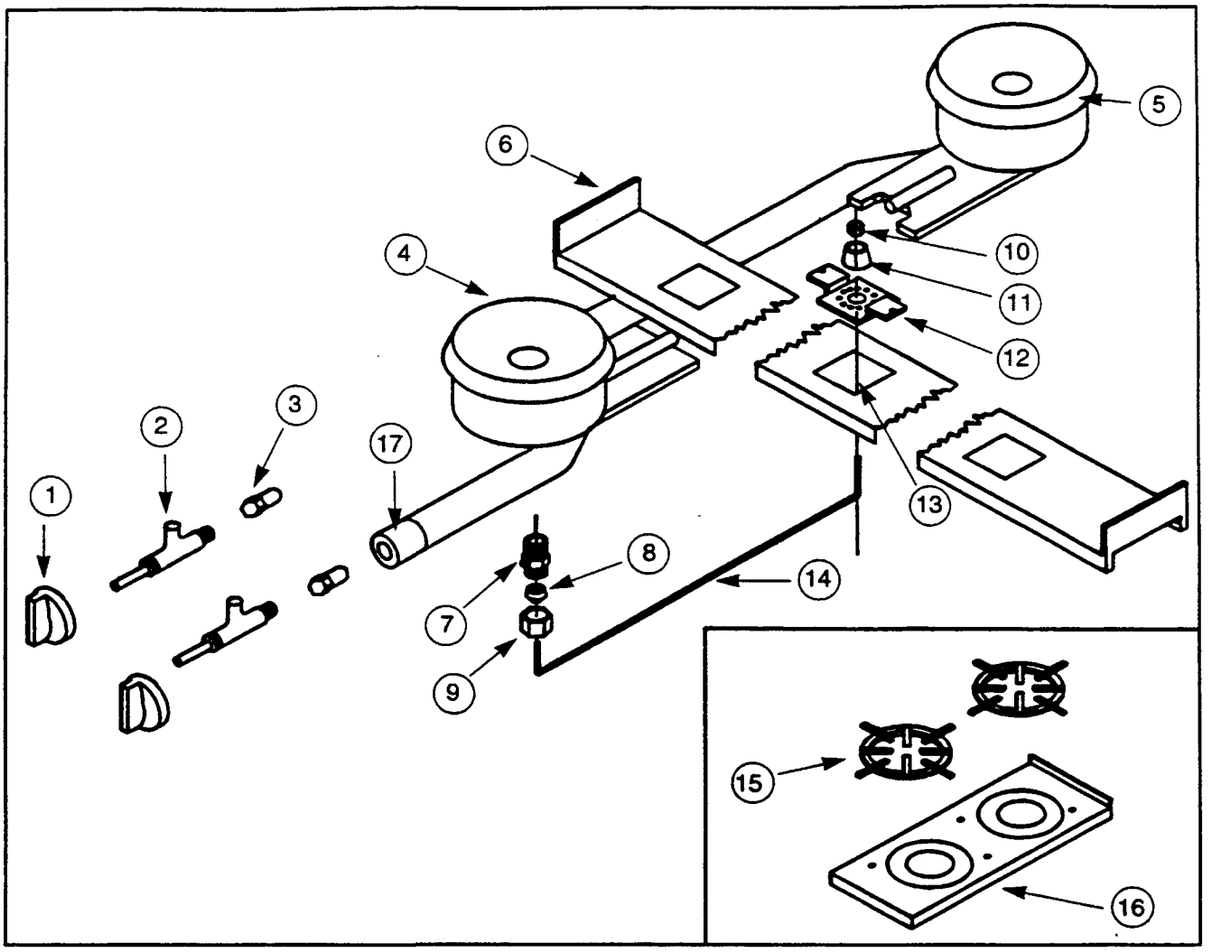
ITEM	PART NO.	SHELF & SPLASHER 36-1/2" WIDE RANGE	Models 300 301.302
1	1000898	Splasher Weld asm SS 300-302	
2	1104216	Wall Shield	
3	1167982	Shelf & Back Weld asm	
4	1146304	Screw #10 x 1/2 Phil. Truss Head	

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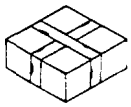


| RESTAURANT RANGE VALVE PANELS AND BASE PANELS | | |

PARTS

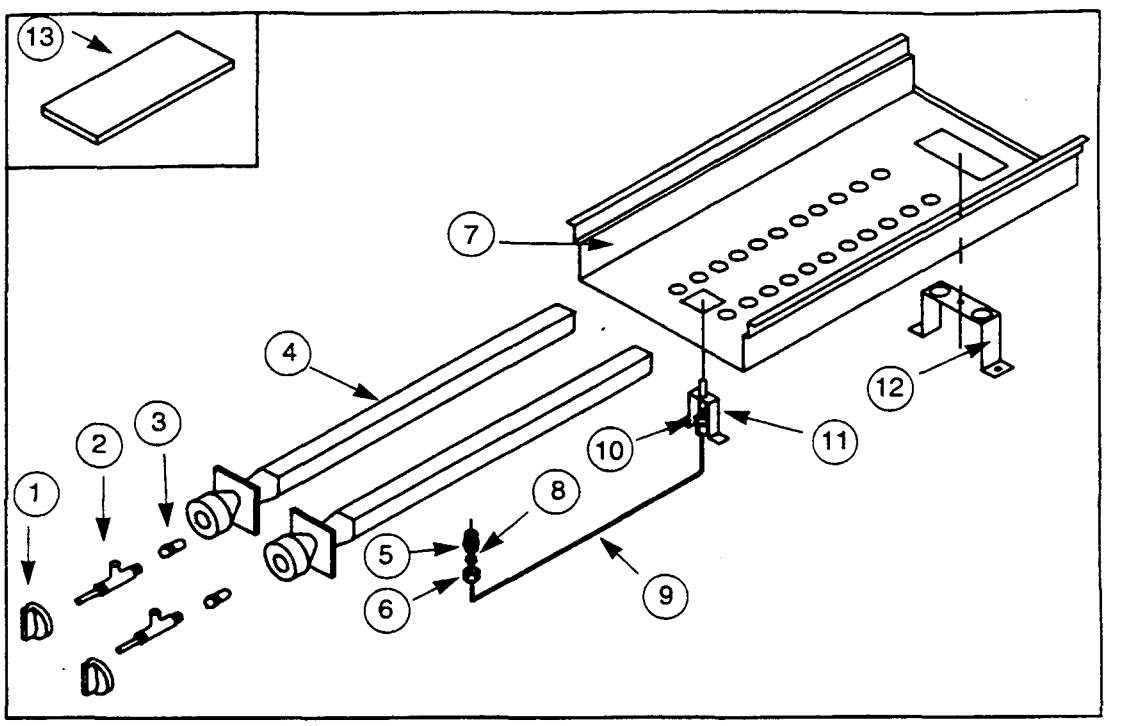


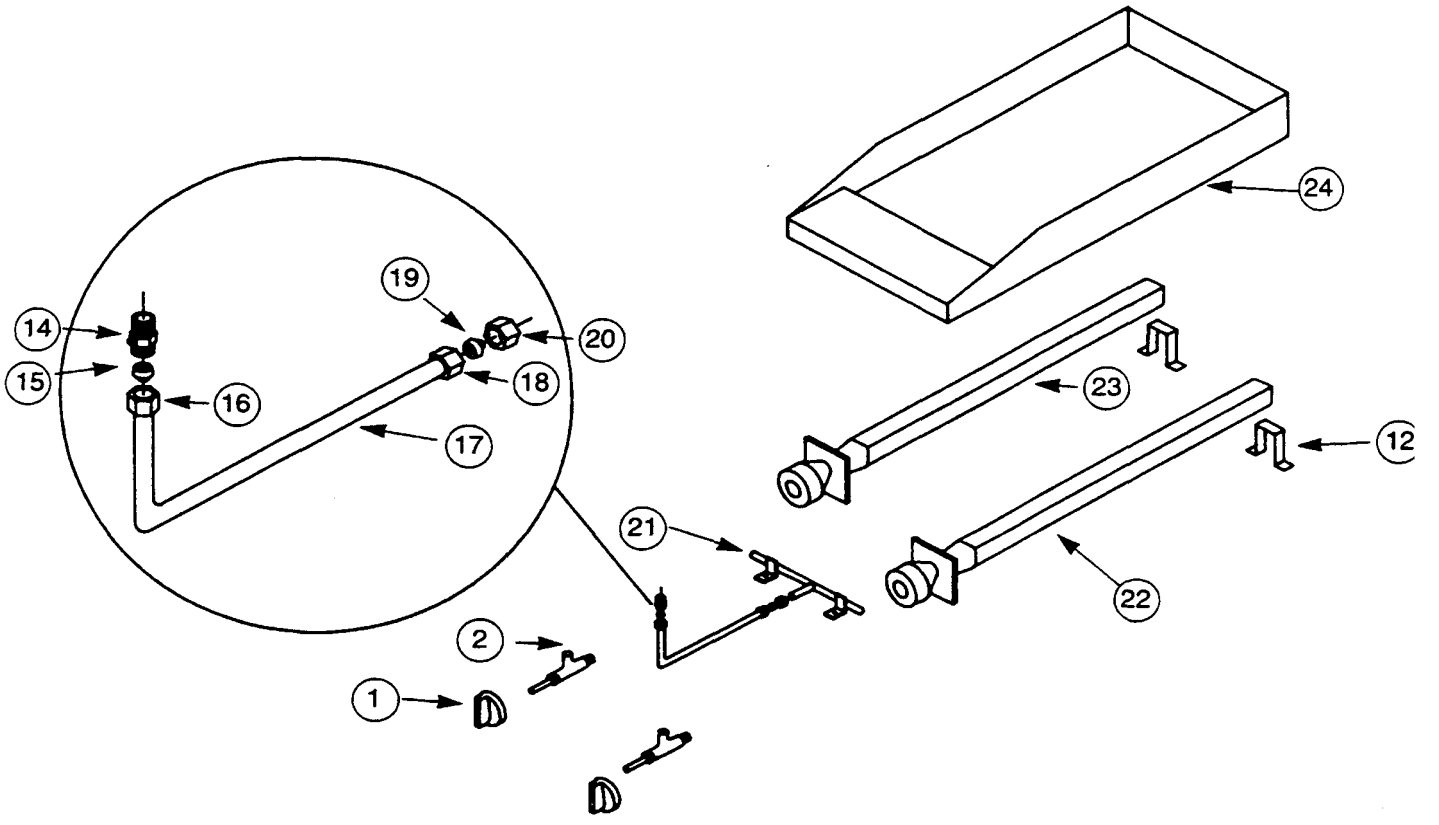
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| RESTAURANT RANGE OPEN TOP BURNER | | |

PARTS





PARTS



HOT TOP SECTION "OPTIONAL" (each Hot Top replaces 2 Open Burners) See Figure

KEY #	PART NUMBER	DESCRIPTION	PARTS USAGE BY MODEL NUMBER									
			300	301	302	303	304	320	321	322	323	326
			B D F	B D F	B D F	B D F	B D F	B D F	B D F	B D F	B D F	B D F
1	1073496	Valve Knob	2 PER SECTION									
2	1164404	On-Off Valve	2 PER SECTION									
3	1008942	Hood Orifice NAT	2 PER SECTION									
	1078955	Hood Orifice LP	2 PER SECTION									
4	1022994	Hot Top Burner	2 PER SECTION									
5	1099002	Filter & Valve	1 PER SECTION									
6	1099100	1/8 cc Nut	1 PER SECTION									
7	1170417	Aeration Box	1 PER SECTION									
8	1099101	1/8 Reduction Ferrule	1 PER SECTION									
9	3346	Pilot Tube	1 PER SECTION									
10	1160410	Pilot asm	1 PER SECTION									
11	3435	Pilot Brkt	1 PER SECTION									
12	3448	Burner Support	1 PER SECTION									
13	1112299	Top Plate asm	1 PER SECTION									

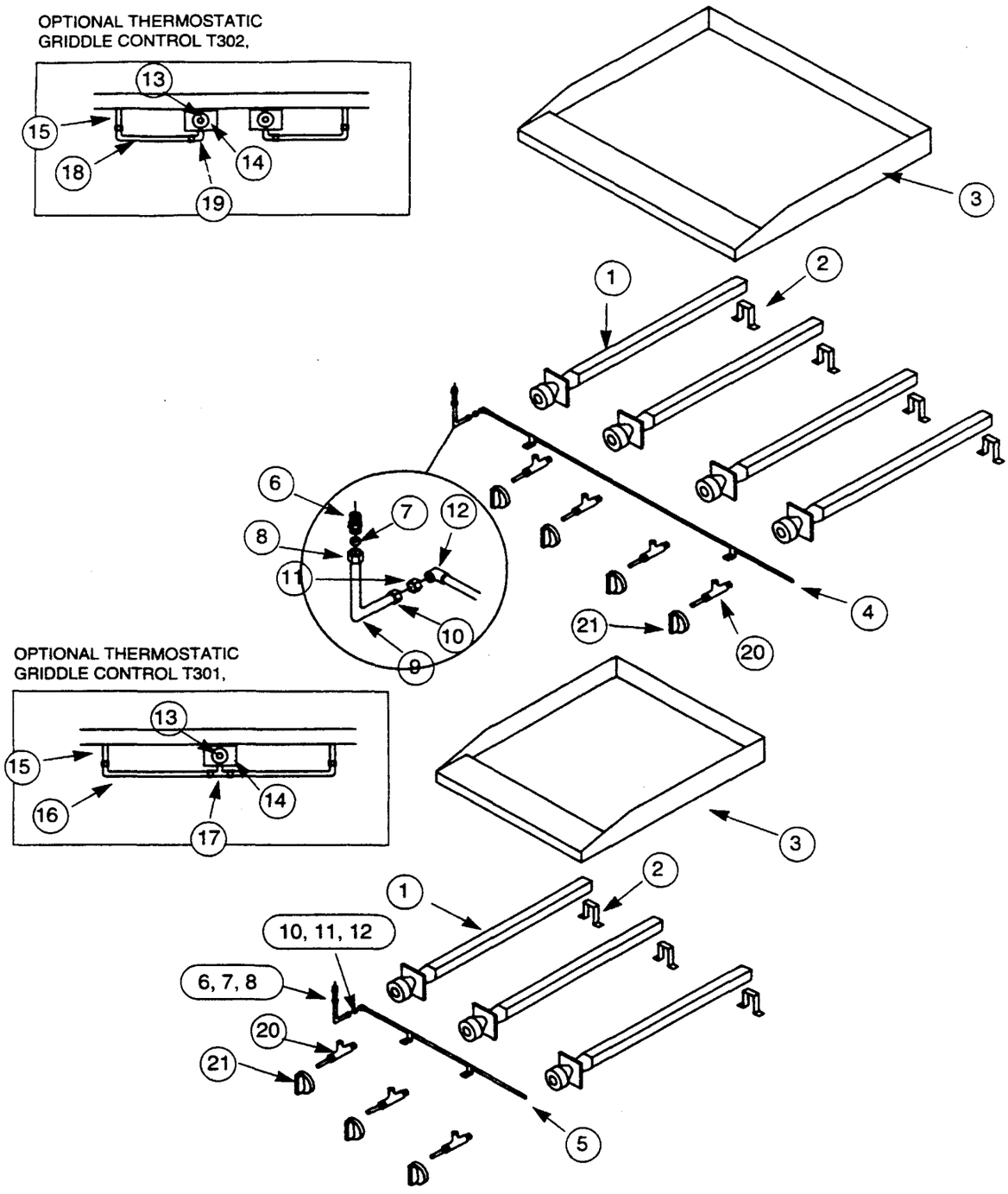
12" WIDE GRIDDLE SECTION "OPTIONAL" (each Griddle Replaces 2 Open Burners) See Figure

KEY #	PART NUMBER	DESCRIPTION	PARTS USAGE BY MODEL NUMBER									
			300	301	302	303	304	320	321	322	323	326
			B D F	B D F	B D F	B D F	B D F	B D F	B D F	B D F	B D F	B D F
14	1099002	Pilot Adj. Valve	1 PER SECTION									
15	1099112	Ferrule 1/4 inch	1 PER SECTION									
16	1099111	1/4 cc Nut	1 PER SECTION									
17	1162236	Pilot Tube	1 PER SECTION									
18	1099111	1/4 cc Nut	1 PER SECTION									
19	1099112	Ferrule 1/4 inch	1 PER SECTION									
20	P3875	Straight Fitting	1 PER SECTION									
21	1162808	Griddle Pilot Tube	1 PER SECTION									
22	1171902	Bar Burner Rt.	1 PER SECTION									
23	1042980	Bar Burner Lt.	1 PER SECTION									
24	1162667	Griddle asm 12 inch	1 PER SECTION									
•	1160960	Grease Drawer asm	1 PER SECTION									
-	1008748	Orifice NAT Gas	2 PER SECTION									
*	1008756	Orifice LP Gas	2 PER SECTION									

* Not Shown on drawing NOTE: Model numbers with a "C" suffix will use same parts as the "D" suffix models.

PARTS

PARTS



PARTS

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RESTAURANT RANGE STANDARD & THERMOSTATIC GRIDDLE (Indicated by T-Prefix)																																
			PARTS USAGE BY MODEL NUMBER																													
KEY #	PART NUMBER	DESCRIPTION	300			301			302			303			304			320			321			322			323			326		
			B	D	F	B	D	F	B	D	F	B	D	F	B	D	F	B	D	F	B	D	F	B	D	F	B	D	F	B	D	F
1	1042980	Griddle Bar Burner				3	3	3	4	4	4										3	3	3	4	4	4						
2	1134810	Burner Support				3	3	3	4	4	4										3	3	3	4	4	4						
3	1174708	Griddle asm (1009197)							1	1	1													1	1	1						
	1009198	Griddle asm				1	1	1													1	1	1									
4	1162980	Griddle Pilot							1	1	1													1	1	1						
5	1162828	Griddle Pilot				1	1	1													1	1	1									
6	1099002	Pilot Adj. Valve				1	1	1	1	1	1										1	1	1	1	1	1						
7	1099112	1/4 Ferrule				1	1	1	1	1	1										1	1	1	1	1	1						
8	1099111	1/4 cc Nut				1	1	1	1	1	1										1	1	1	1	1	1						
9	1162236	Pilot Tube				1	1	1	1	1	1										1	1	1	1	1	1						
10	1099111	1/4 cc Nut				1	1	1	1	1	1										1	1	1	1	1	1						
11	P3875	1/8 x 1/4 Straight Fitting				1	1	1	1	1	1										1	1	1	1	1	1						
12	1146906	90° Elbow				1	1	1	1	1	1										1	1	1	1	1	1						
+13	1020401	Thermostat Knob				1	1	1	2	2	2										1	1	1	2	2	2						
+14	1020400	Thermostat Only				1	1	1	2	2	2										1	1	1	2	2	2						
+15	1127702	Orifice Tee NAT				2	2	2	2	2	2										2	2	2	2	2	2						
+	1127703	Orifice Tee LP				2	2	2	2	2	2										2	2	2	2	2	2						
+16	1115400	Gas Supply Tube				2	2	2										1			2	2	2									
+17	P9265	Brass Tee				1	1	1													1	1	1									
+18	1115401	Gas Supply Tube							2	2	2													2	2	2						
+19	P4119	Brass Elbow							2	2	2													2	2	2						
20	1164404	Valve Body Only				3	3	3	4	4	4										3	3	3	4	4	4						
21	1073496	Griddle Knob				3	3	3	4	4	4										3	3	3	4	4	4						
*	1008748	Griddle Orifice NAT						3			4												3			4						
*	1008756	Griddle Orifice LP						3			4												3			4						
*	1160960	Grease Drawer (1160917)				1	1	1	1	1	1	(25L x 3-1/2W x 3-3/4H)									1	1	1	1	1	1						

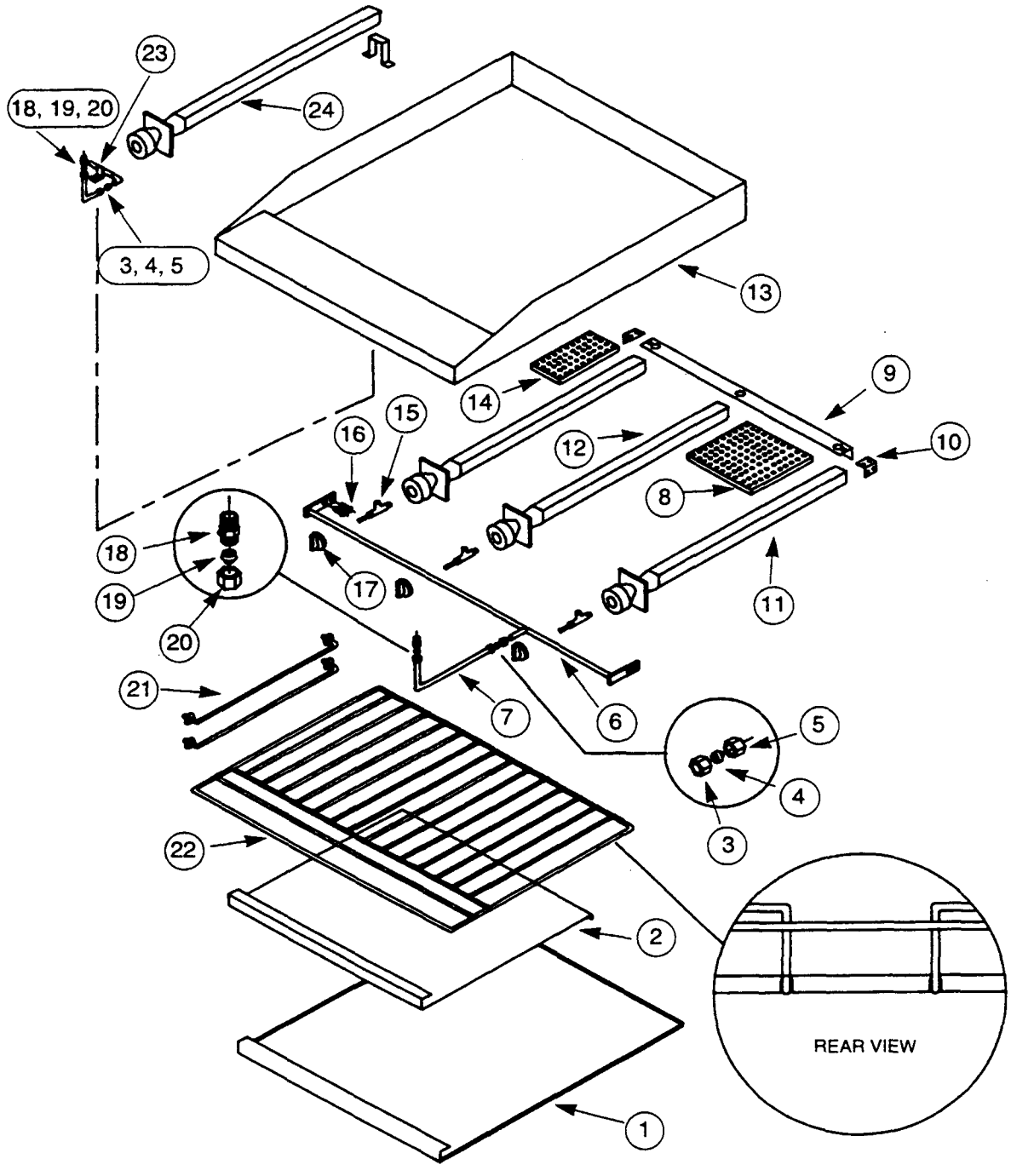
+ These parts are optional and used on Ranges with Thermostatically controlled griddles only, as indicated by T Prefix.

* Part not shown on drawings.

NOTE: Model numbers with a "C" suffix will use same parts as the "D" suffix models.

PARTS

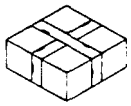
NOTE: ADDITIONAL BURNER & PILOT
FOR 304 ONLY



PARTS

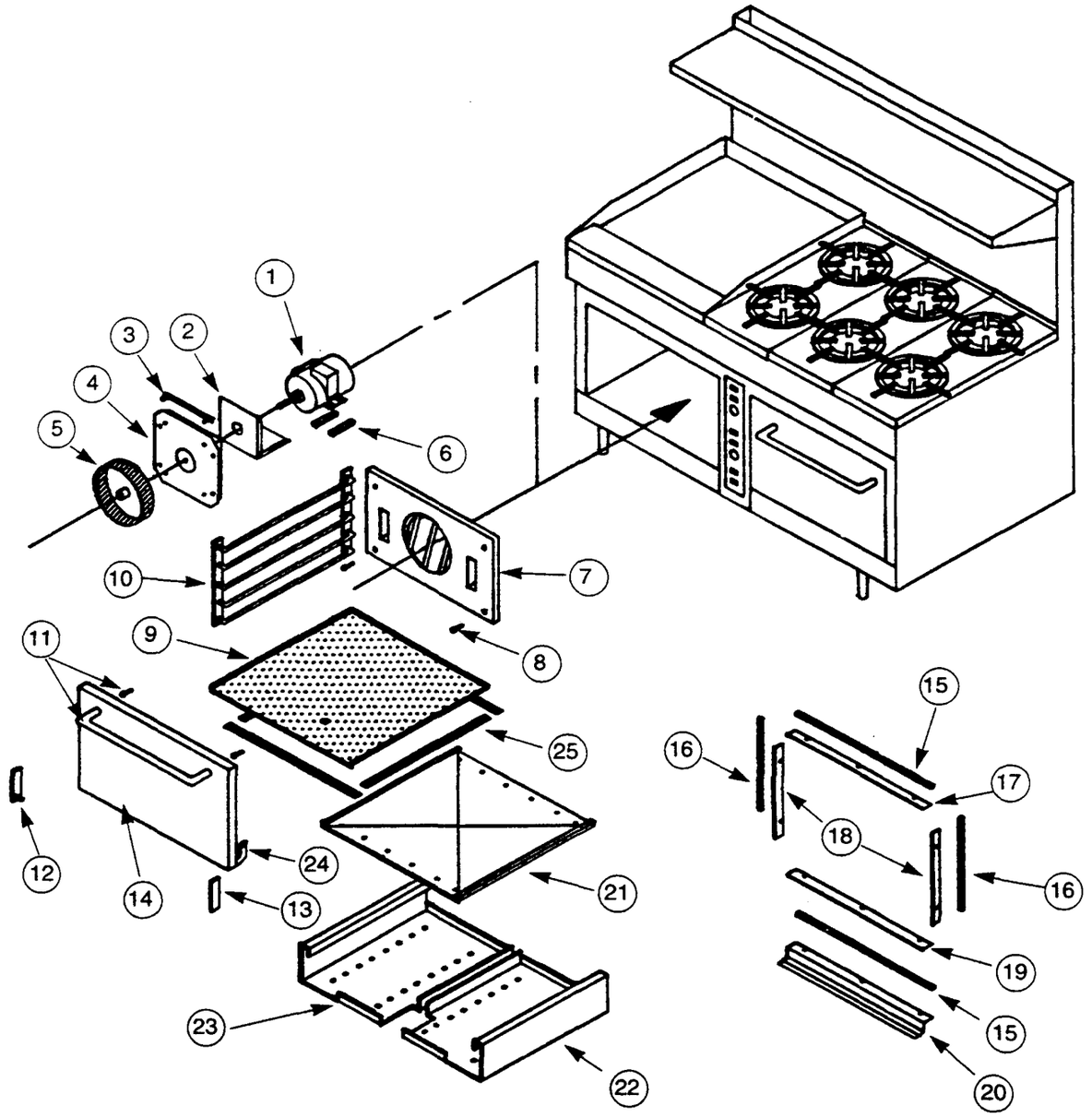
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GRIDDLE SECTION

| KEY # | PART NUMBER | DESCRIPTION | PARTS USAGE BY MODEL NUMBER | | |


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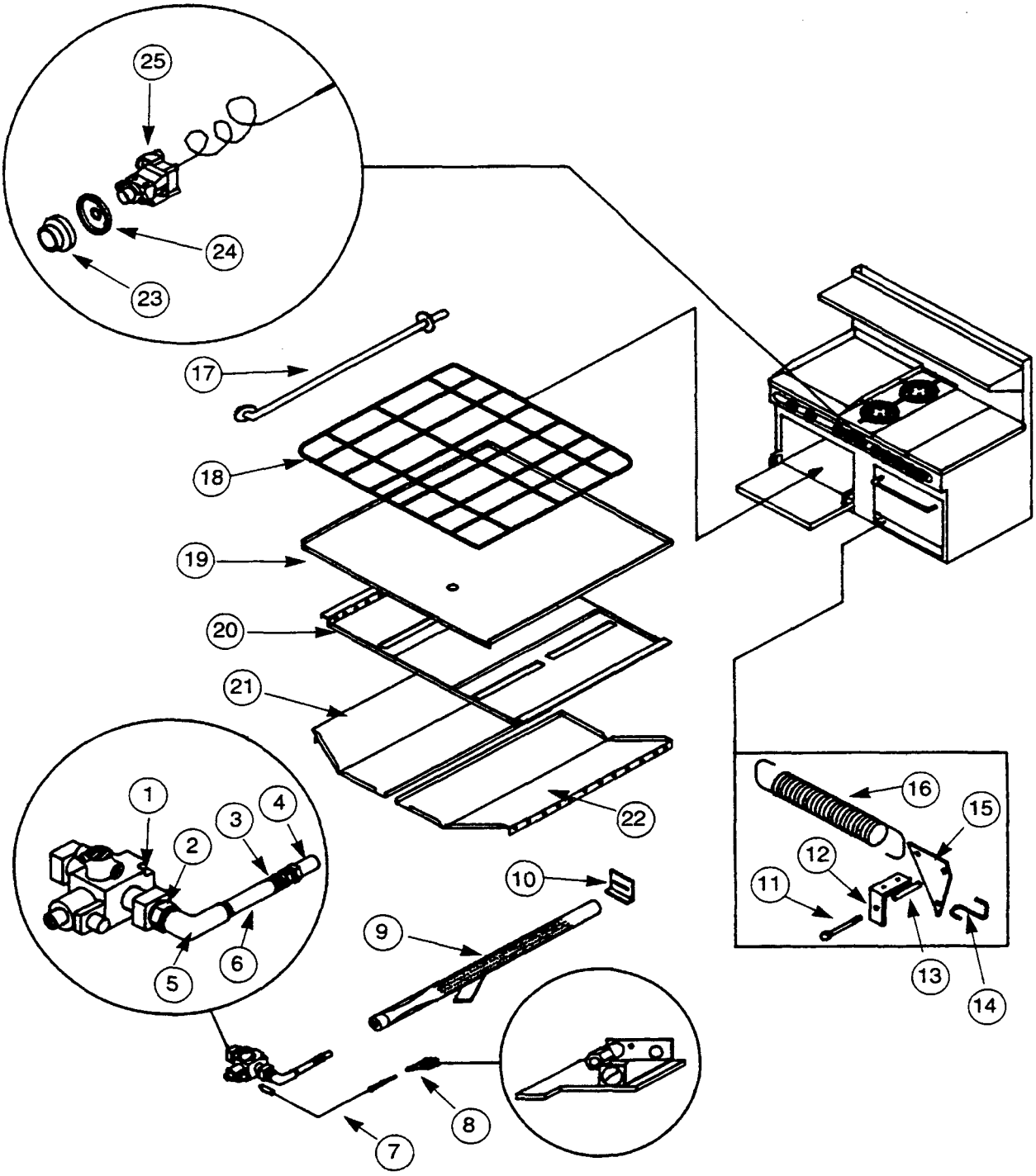
RESTAURANT RANGE CONVECTION OVEN INTERIOR PARTS

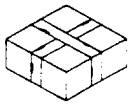
KEY#	PART NO.	DESCRIPTION
1	4440300	Motor Kit (115-208-240V) 1/4 HP (1165771, 1165898, 1166085, 1170126)
2	1161799	Motor Mount Bracket
3	1165957	Motor Mount Bolt asm
4	1165959	Motor Mount Pocket asm
5	1165521	Blower Wheel
6	1166993	Motor Spacer
7	1173466	Rear Air Baffle (1165953)
8	1160289	Thumb Screw 1/4 - 20 x 3/4
9	1168169	Enameled Oven Bottom (after July 85)
	1165692	Oven Bottom (prior to July 85)
10	1165732	Rack Guide
*	1165652	Oven Rack (18 x 25-13/16)
11	4440000	Oven Door Handle Kit (Includes Screw 1/4 x 20 x 2)
12	1168189	Left Hand Door Hinge Pin asm (after 7-11 -85) 1168187
	1165909	Left Hand Door Hinge Pin asm (before 7-11-85)
13	1168190	Right Hand Door Hinge Pin asm (after 7-11 -85) 1168188
	1165910	Right Hand Hinge Pin asm (before 7-11-85)j15
+14	1168208	Oven Door (stainless steel) 1165904
15	1165956	Oven Door Seal (top and bottom) 1165907
16	1165955	Oven Door Seal (sides)
17	1165763	Top Seal Retainer
18	1165764	Side Seal Retainer
19	1166106	Bottom Seal Retainer
20	1666107	Bottom Splash Guard
21	1166100	Oven Fire Plate
22	1166099	Right Burner Box Shield
23	1166098	Left Burner Box Shield
*	1165702	Spring Plunger (door latch)
•	1165906	Spring Plunger Catch (door latch)
*	1160205	Pressure regulator (NAT) (1160164)
*	1160206	Pressure Regulator (LP) (1160173)
24	1168188	Door Stake Right
*	1168187	Door Stake Left (not shown)
*	1165111	Wire Screen For Air Baffle
25	1118302	Oven Bottom Gasket Sea! (sells per ft.)
*	1170038	Tape 1" Double Face (Hold bottom gasket seal in place)

• Not shown on drawing.

+ Note: Black doors are no longer available - stainless steel is now supplied

PARTS

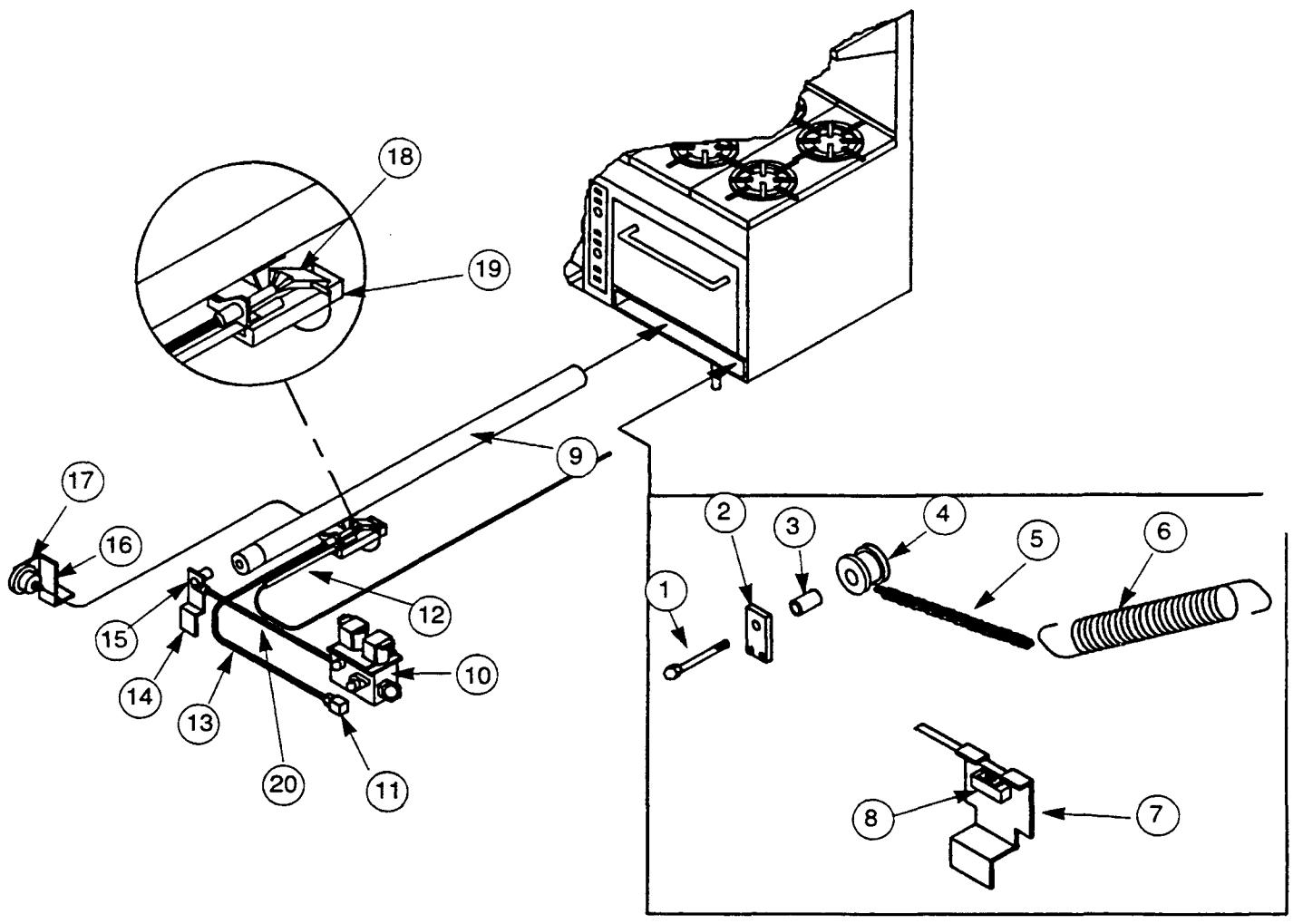




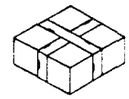
RESTAURANT RANGE STANDARD OVEN PARTS

| KEY # | PART NUMBER | DESCRIPTION | PARTS USAGE BY MODEL NUMBER | | |

PARTS



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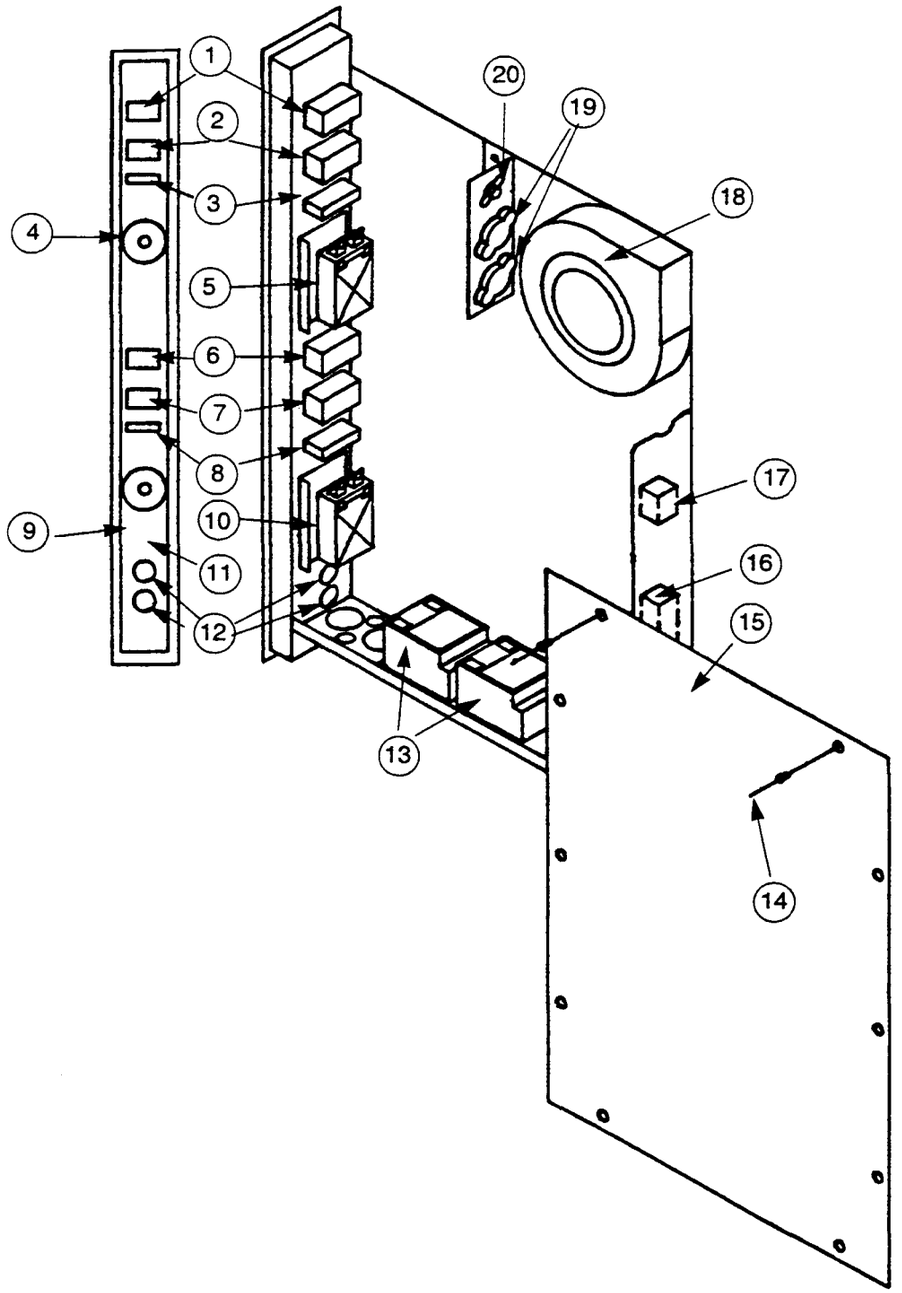


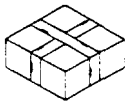
CONVECTION OVEN BASE RESTAURANT RANGE BURNER COMPARTMENT

KEY #	PART NO.	DESCRIPTION
1	1165781	Bolt 3/8 x 16 x 4 (for door sprocket)
2	1165796	Sprocket asm Brkt
3	1165783	Door Sprocket Bushing
4	1166129	Door Chain Pully
5	1165905	Oven Door Chain asm
6	1165756	Oven Door Spring
7	1168300	Door Switch asm (used on single oven & right side of double ovens)
•	1165942	Door Switch asm (used on left oven of double oven)
8	1142000	Door Switch
9	1165733	Oven Burner
•	1166135	Left Oven Pilot Tube
10	1165510	Dual Solenoid Valve
11	1165512	Pilot Valve
12	1164807	Spark Electrode
13	1166136	Pilot Tube (right oven)
14	1166761	Orifice Bracket
15	1148306	Fitting, Orifice Body, For Hood
*	1008742	Oven Burner Orifice (NAT #42)
*	1008753	Oven Burner Orifice (LP #53)
16	1165708	Flame Switch Mounting Bracket
+17	1168262	Flame Switch (1164805)
+18	1168263	Oven Pilot (1165734)
19	1165767	Pilot Shield
20	1166139	Orifice Tube Right and Left

* Not shown on drawing.

+ If replacing either flame switch or oven pilot on Restaurant Range built before Dec. 1985 use 4440299 Pilot and Flame Switch Kit to convert to current style Pilot & Flame Switch. Old & New Parts will not interchange.


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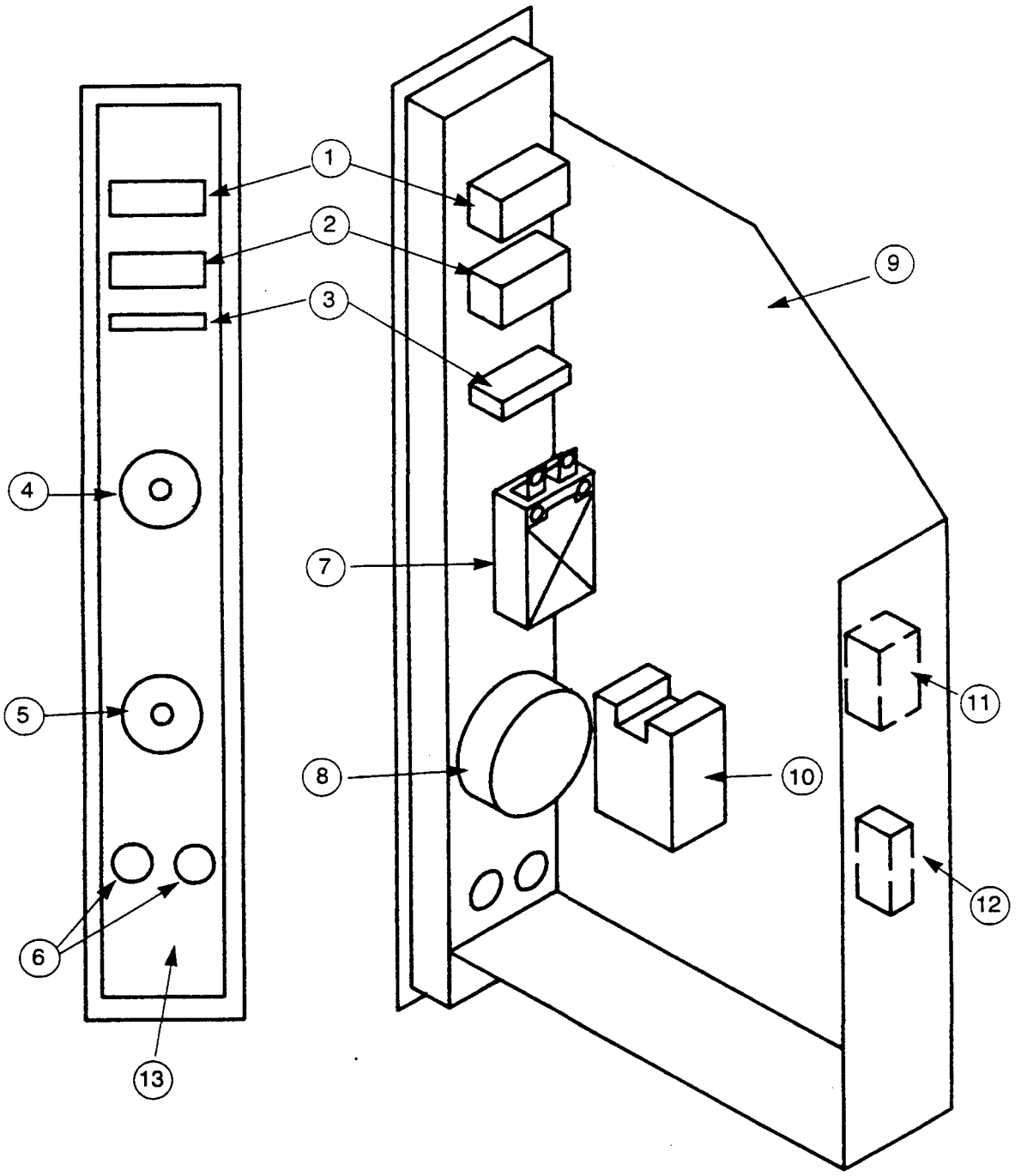
DOUBLE CONVECTION OVEN BASE RESTAURANT RANGE CONTROL PANEL

KEY#	PART NO.	DESCRIPTION
1	1164503	Power Switch (Left Oven)
2	1164504	Fan Switch (Left Oven)
3	1161450	Neon Bulb, Red Lens, 125V
4	1166079	Thermostat Dial (Left Oven)
5	1173542	Thermostat (Left Oven)
6	1164503	Power Switch (Right Oven)
7	1164504	Fan Switch (Right Oven)
8	1161450	Neon Bulb, Red Lens, 125V
9	1166079	Thermostat Dial (Right Oven)
10	1173542	Thermostat (Right Oven)
11	1166119	Polypanel (maroon)
12	1160894	Plug 7/8
13	1164809	Spark Igniter 120V & 208-240V
14	1146399	10 x 1/2 Truss Head Screw
15	1172621	Control Box Cover
16	1165698	6 Pin Connector
17	1165700	4 Pin Connector
18	1166061	Blower Fan
19	1166159	Thermostat Direct Sensing 225° (Large)
20	1166158	Thermostat Direct Sensing 150° (Small)
*	1012510	Fuse 300V 15 amp for 200V and 230 V Only
*	1171891	Transformer 100V (For 208 220V units only)
*	1167003	Relay for 220V units only

* Not shown on drawing.

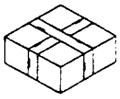
NOTE: If voltage on control panel is anything other than 120 Volt, Item 12 will be a 1012596 Fuse Holder instead of Plug.

PARTS



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RESTAURANT RANGES
PARTS PARTS

SINGLE CONVECTION OVEN BASE RESTAURANT RANGE CONTROL PANEL

KEY#	PART NO.	DESCRIPTION
1	1164503	Power Switch
2	1164504	Fan Switch
3	1161450	Neon Bulb, Red, 125V
4	1165701	Thermostat Dial (single ovens & EO-26)
5	1173444	60 Minute Timer Knob (1109860)
6	1160894	7/8 Plug
7	1173542	Thermostat (1161452)
8	1109850	60 Minute Timer
9	1165969	Control Panel Weld asm
10	1164809	Spark Igniter
11	1165698	6 Pin Connector
12	1165700	4 Pin Connector
13	1165751	Poly Panel
*	1012510	Fuse 300V 15 amp. for 208 & 236V only
*	1161449	Power Relay 208 240 Volt units only
*	1171891	Transformer, 100VA (1165181) 208, 240 Volts only

* Not shown on drawing.

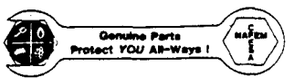
NOTE: If voltage on control panel is anything other than 120 Volt, Item 6 will be a 1012596 Fuse Holder.

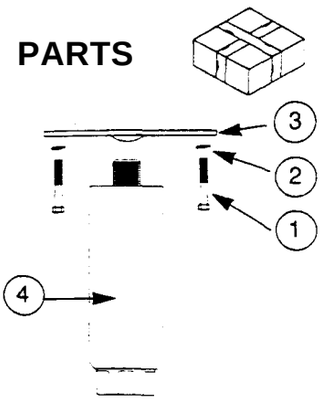
GAS CONVERSION 300 SERIES RESTAURANT RANGE

PART NO.	FOR MODEL	TO CONVERT TO
FOR 25,000 BTU OVENS PRIOR TO JUNE 1987		
4440050	C0300, 300D	Natural Gas
4440051	C0300, 300D	Propane Gas
4440058	C0301, 301D	Natural Gas
4440059	C0301, 301D	Propane Gas
4440062	C0302, 302D	Natural Gas
4440063	C0302, 302D	Propane Gas
4440064	C0303, 303D	Natural Gas
4440065	C0303, 303D	Propane Gas
4440078	C0320, 320D	Natural Gas
4440079	C0320, 320D	Propane Gas
4440090	C0321, 321D	Natural Gas
4440091	C0321, 321D	Propane Gas
4440098	C0322, 322D	Natural Gas
4440099	C0322, 322D	Propane Gas
4440150	C0323, 323D	Natural Gas
4440151	C0323, 323D	Propane Gas
4440210	EO-26, 326D	Natural Gas
4440211	EO-26, 326D	Propane Gas
FOR UNITS WITH SS TOP BURNERS AFTER JUNE 1987		
1171531	300	Natural Gas
1171532	300	Propane Gas
1171533	301	Natural Gas
1171534	301	Propane Gas
1171535	302	Natural Gas
1171536	302	Propane Gas
1171537	303	Natural Gas
1171538	303	Propane Gas
1171539	304	Natural Gas
1171540	304	Propane Gas
1171541	320	Natural Gas
1171542	320	Propane Gas
1171543	321	Natural Gas
1171544	321	Propane Gas
1171545	322	Natural Gas
1171546	322	Propane Gas
1171547	323	Natural Gas
1171548	323	Propane Gas

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HEAVY DUTY RESTAURANT RANGES
PARTS





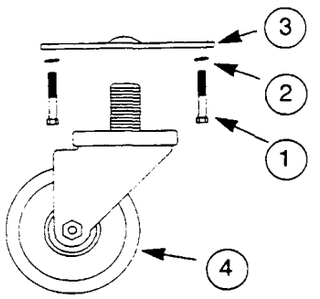
LEG FOR RESTAURANT RANGES AFTER AUGUST 1989

KEY#	PART NO.	DESCRIPTION
1	1146201	1/4x20x3/4 Hex Head
2	1146500	1/4 Lock Washer
3	1172650	Leg Pad (3/4 x 10 hole)
4	1174259	S.S. Leg (3/4 stud)
*	1174260	Leg Package (set of 4)
*	1174262	Earth Quake Legs SS (set of 4)

' 1174260 Leg Package consist of 4 legs. Screws, leg pad, & lock washers are not included in leg package.
" Not shown - these are optional. The leg pad and hardware will stay the same.
NOTE:1. These legs fit ranges that have 4 bolt holes in each comer on bottom of range.
2. Some units manufactured in 1989 used this same type leg except it was tapered and had a 1/2 " stud. These are no longer available, and can only be replaced with # 1174260 Kit consisting of new pads, legs and hardware.

CASTER FOR REST RANGES AFTER AUGUST 1989

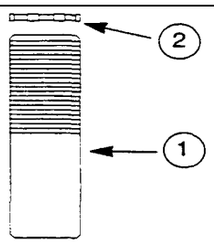
KEY#	PART NO.	DESCRIPTION
1	1146201	1/4 x 20 x 3/4 Hex Head
2	1146500	1/4 Lock Washer
3	1172650	Leg Pad (3/4x10 hole)
4	1174263	5" Swivel Caster Less Brake
4	1174264	5" Swivel Caster with Brake
	1174265	Caster Package



NOTE:These casters fit ranges that have 4 bolt holes in each comer on bottom of range.
* 1174265 Caster package consist of 2 1174264 and 2 1174263. Bolts, lockwashers, and leg pads not included in caster package.

LEG FOR RESTAURANT RANGES PRIOR TO AUGUST 1989

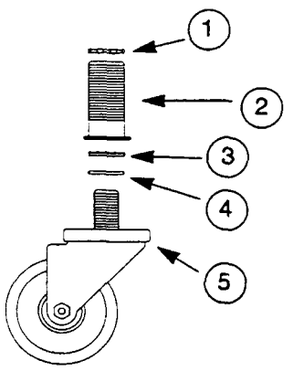
KEY#	PART NO.	DESCRIPTION
1	1034101	Leg Plated
2	1101000	Lock Nut 1-1/4"
*	1171504	Leg Package (includes 4 each of items 1 & 2)



NOTE: These legs fit ranges that have 1-1/4" threaded hole in each comer on bottom of range.

CASTERS FOR RESTAURANT RANGES PRIOR TO AUGUST 1989

KEY#	PART NO.	DESCRIPTION
1	1101000	Lock Nut 1-1/4"
2	1167269	Caster Leg Weld Assembly
3	1167720	3/4 Flat Washer
4	1167721	3/4 Star Washer
5	1167545	4" Swivel Caster Less Brake
5	1167546	4" Swivel Caster with Brake
*	1167549	Caster Leg assembly without Brake (includes items 1 thru 5)
*	1167550	Caster Leg assembly with Brake (includes items 1 thru 5)



* To purchase a full set you need qty. of 2 1167549 and qty. of 2 1167550.

PARTS

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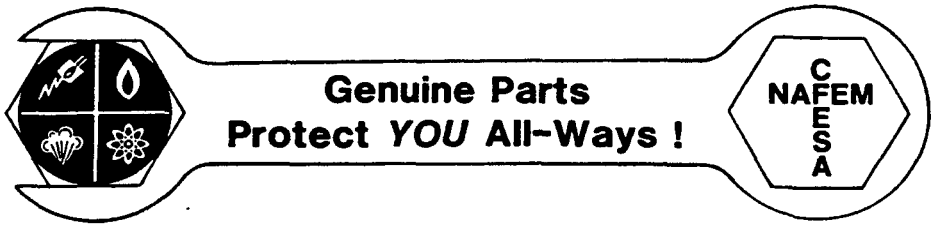
Convection Ovens
Cook & Hold Convection Ovens
Bake & Roast Ovens
Pizza Ovens

Ranges
Fryers
Special & Custom Equipment
Convection Steamers

Steam Kettles
Tilting Braising Pans
Cooker/Mixer Kettles
Floor Model Broilers

Under Fired Broilers
Salamander Broilers
Cheese Meters
Counter Top Broilers & Griddles

HEAVY DUTY
RESTAURANT RANGES



A product with the Southbend name incorporates the best in durability and low maintenance. We all recognize however, that replacement parts and occasional professional service may be necessary to extend the useful life of this unit. When service is needed, contact a Southbend Authorized Service Agency, or your dealer. To avoid confusion, always refer to the model number, serial number, and type of your unit.







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PART NUMBER 1161615/3 Litho in U S.A 3-93

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SERVICE B-U-L-L-E-T-I-N

BULLETIN # 9507

TO: Southbend Parts & Service Distributors

FROM: Roscoe Hester Service Administrator

DATE: June 29,1995

SUBJECT: **Restaurant Range Oven Thermostats**

Please insert this bulletin into the Heavy Duty Restaurant Range Owners manual in the Restaurant Range RR section of your master Southbend manual.

Due to phone calls from distributors concerning which thermostats are used on which suffixes in the oven section of the restaurant ranges, please follow these guidelines:

- Suffixes B, C, and D, regardless of model number use, A81-00054 - thermostat replacement kit, 36 cap tube A81-00055 - thermostat replacement kit, 60 cap tube.
- Suffix F, regardless of model number, use B94-00001-01 - thermostat, 36 cap tube B94-00001-02 - thermostat, 60 cap tube.

List prices are in the price list dated April 1995.

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Parts Service Hotline (800) 54 RANGE (800-547-2643)

southbend SERVICE B-U-L-L-E-T-I-N

TO: Southbend Parts & Service Distributors

FROM: Thomas S. Enyeart- CFSP Director Product Service

DATE: February 9, 1994 **BULLETIN #9442**

SUBJECT: **Thermostat Change- 300 Series Griddles**

Models T301, T302, T321, T322

Please insert this Bulletin with the #1161615 Heavy Duty Range owners manual in the RR- Restaurant Range section of your master Southbend Manual.

Effective July, 1993 Serial #93G 72926 and thereafter

Due to a change by our supplier a redesign incorporating a different thermostat was necessary.

This bulletin is to clarify and document this change.

DISCONTINUED PARTS:

1020400 Thermostat
1020401 Thermostat Knob
1127702 Orifice holder- Natural Gas
1127703 Orifice holder- Propane Gas
P9265 Tee fitting

These parts will all be available for replacements in the foreseeable future.

NEW PARTS:

1174709 Thermostat
1174762 Thermostat Knob
1174710 Orifice Support

NOTE : #1174709 is Mandatory Distributor Stock
#1174762 is Mandatory Distributor Stock
#1174709 is Mandatory Warranty Return

List Prices- effective 1-15-94
1174709-$130.20; 1174762-$8.60; 1174710-$4.20

TE/dy

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southbend SERVICE B-U-L-L-E-T-I-N

TO: Southbend Parts & Service Distributors

FROM: Thomas S. Enyeart- CFSP
Director Product Service

DATE: February 9, 1994 **BULLETIN #9440**

SUBJECT: **Motor Change- Convection Oven Base 300 Series Ranges Models CO 300, C0301, COT301, C0302, COT302, C0303, C0304, C0320, C0321, COT321, C0322, COT322, C0323**

Please insert this Bulletin with the #1161615 Heavy Duty Restaurant Range owners manual in the HD- Restaurant Ranges section of your Master Southbend manual.

Effective Date August, 1993 Serial #93F and thereafter

DISCONTINUED PART:

4440300 Motor Kit 115/208-240/60/1 -2 -2 speed (1175151)

No longer available.
Use 4440367 or 44440368 depending on voltage

NEW PARTS:

4440367 Motor Replacement Kit 120/60/1 (1174718. 4440300)

4440368 Motor Replacement Kit 208-240/60/1-3 (1174719. 4440300)

NOTE: The 4440367 is Mandatory Distributor Stock Both 4440367 & 4440368 are Mandatory Warranty Return. The discontinued motor was universal for 115 or 208/236- New ones are 115 V or 208-236. This bulletin is to clarify and document this change-These same motors are used on sectional Convection Oven Base Ranges, see Bulletin #9441.

Prices are in the January 15, 1994 Parts Price List.

TE/dy

southbend SERVICE B-U-L-L-E-T-I-N

TO: Southbend Parts & Service Distributors

FROM: Thomas S. Enyeart- CFSP Director Product Service

DATE: February 9, 1994 **BULLETIN #9438**

SUBJECT: **Change To One Piece Oven Door Deal- Convection Oven Base 300 Series Ranges**

Models C0300, C0301, COT301, C0302, COT302, C0303, C0304, C0320, C0321, COT321, C0322, COT322, C0323

Please insert this Bulletin with the #1161615 Heavy Duty Restaurant Range owners manual in the HD- Restaurant Ranges section of your Master Southbend manual.

The Oven Door Seal has been changed to one piece in lieu of 4 separate pieces- This gives a better air seal and lowers the replacement cost.

DISCONTINUED PART:

1165956 Oven Door Seal- Top & Bottom (1165907)

1165955 Oven Door Seal- Sides (1165908)

2 each were required for a set-

These parts are no longer available.

NEW PART:

1176296 Oven Door Seal

NOTE: The 1176296 is Mandatory Distributor Stock

The new one piece seal is 7.333 ft. long

This same part is also used on Sectional Ranges- See Bulletin 9439.

This change reduces the list price for complete set- $32.70.

List Price- effective January 15, 1994

#1176296-$44.10

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Parts Service Hotline (800) 54 RANGE (800-547-2643)

southbend SERVICE B-U-L-L-E-T-I-N

TO: Southbend Parts & Service Distributors

FROM: Thomas S. Enyeart-CFSP Director Product Service

DATE: February 7, 1994 **BULLETIN # 9435**

SUBJECT: **Oven Rack- Rack Requires Guides Change- Clarification- Models 300, 301, 302, 303, 304, 320, 321, 322, 323, & all same with prefix T**

Effective Date: phased in late 1992 & early 1993

Please insert this bulletin with the #1161615- Heavy Duty Restaurant Range owners manual in the RR- Restaurant Range section of your master Southbend Manual.

This bulletin is to clarify and document oven rack guide and oven rack usage.

A major product improvement was made to all standard Restaurant Range ovens adding porcelain enamel oven interior sides, top. and rear to the already porcelain bottom and door lining. At the same time the oven rack channels were changed from a U type steel channel to a plated round rod guide. The rack was also changed to a- standard plated and b- a non-tilt feature was added.

The following will clarify the where used questions

DISCONTINUED PARTS:

1108000 Right Rack Support- steel channel- painted black
1108001 Left Rack Support- steel channel- painted black
1108096 Right Rack Support- steel channel- enameled
1108097 Left Rack Support- steel channel- enameled
1000315 Oven Rack- raw steal
1000315-CP Oven Rack- plated (was an option)
All of these parts are still available

NEW PARTS

1173547 Rack Guide- plated- Left or Right

1173545-CP Oven Rack

Please note:

If the oven interior is aluminized steel or painted steel and has U type steel rack channels it takes the old style components (a few were also made with porcelain enameled interiors- that had the U channels).

If the oven interior is porcelain enamel and the rack guides are plated round rods it takes new style components.

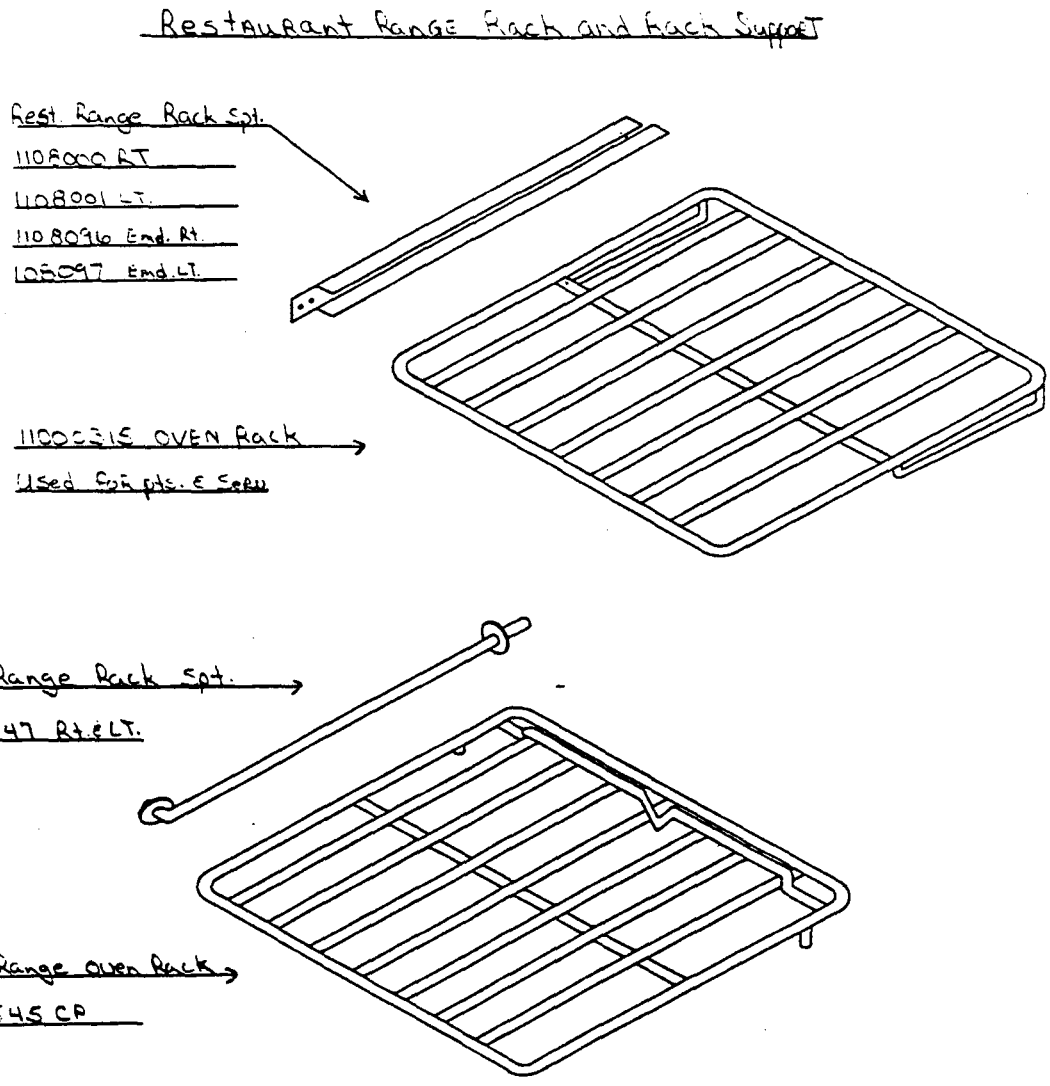
This change does not affect any units with a CO prefix

List Prices- effective 1 -15-94

1173545-CP $74.00- Note: this is a corrected List Price

1173547-$12.10

TE/dy



southbend SERVICE B-U-L-L-E-T-I-N

TO: Southbend Parts & Service Distributors

FROM: Thomas S. Enyeart- CFSP Director Product Service

DATE: February 5, 1994 **BULLETIN #9413**

SUBJECT: **Valve Change- 300 Series Open Top and Griddle Broiler-Propane Gas.**

Models 300, 301, 302, 303, 304, 310, 320, 321, 322, 323 & all with Prefix CO, T, and suffix HT.

Please insert this Bulletin with the 1161615 Heavy Duty Restaurant Range owners manual in the RR- Restaurant Range section of your master Southbend Manual.

Effective July, 1993 Serial #93G 72846 and thereafter

Open Top and Griddle Broiler Valves have been changed When changing from the old style to the new style for the first time a new knob is required. The Kit is available for the first time change only After the original change or on new style units the valve only can be changed.

DISCONTINUED PART:

1126802 Valve

1164404 Valve

#1126802 is obsolete and no longer available

#1164404 will be available until existing stock is depleted, approximately 2 years. Then it will be obsolete and no longer available.

NEW PARTS:

1176001 Valve -Hi Low- Propane Gas

When replacing #1126802 or 1164404 for the first time only use:

4440397 Valve- Replacement Kit-Propane Gas

This kit consists of: (all parts also available individually)

1176001 Valve- Propane Gas

1073495 Valve Knob

NOTE: The new valve can only be used for Propane Gas

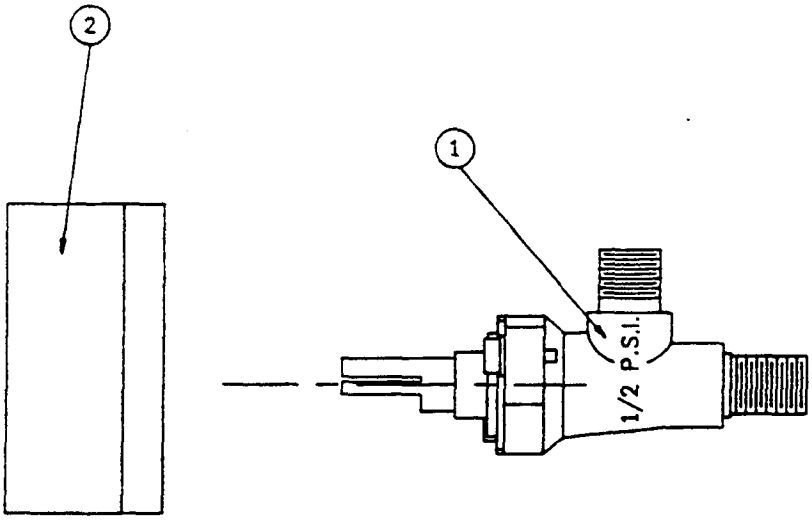
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Parts Service Hotline (800) 54 RANGE (800-547-2643)

For Natural Gas see bulletin #9412, Part numbers 1176000 & 4440395.
The old valves used a #1073496 Knob which is still available.
The 1176001 Valve has the Southbend Logo & 01 stamped on the flat side of the stem.

List Prices- effective 1 -15-94

1176001- $11.90; 4440397 - $19.60. Other parts are in the current price list.

ITEM	PART NO.	DESCRIPTION	QTY.
2	1073495	KNOB	1
1	1176001	HI-LOW VALVE (PROPANE)	1
•	4440397	BURNER VALVE REPLACEMENT KIT	•



ACAD SIZE A DWG–
DO NOT HAND ALTER

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)

X.XXX	±	0.015	FRACTIONS	±	1/8"
X.XX	±	0.030	DEGREES	±	1"
X.X	±	0.060			

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DRAWN BY DBC	CHK	APP
DATE 2/2/94	SCALE FULL	
MAT'L N/A	GAGE N/A	
BURNER VALVE REPLACEMENT KIT (PROP)	PART NO. 4440397	

REV	SYM	REVISION	DATE	BY	ECN
		DRAWING RELEASED	2/2/94	DBC	94-30

southbend SERVICE B-U-L-L-E-T-I-N

TO: Southbend Parts & Service Distributors

FROM: Thomas S. Enyeart- CFSP
Director Product Service

DATE: February 5, 1994 **BULLETIN #9412**

SUBJECT: **Valve Change- 300 Series Open Top and Griddle Broiler-Natural Gas.**

Models 300, 301, 302, 303, 304. 310, 320, 321, 322, 323 & all with Prefix CO, T, and suffix HT.

Please insert this Bulletin with the 1161615 Heavy Duty Restaurant Range owners manual in the RR- Restaurant Range section of your master Southbend Manual.

Effective July, 1993 Serial #93G 72846 and thereafter

Open Top and Griddle Broiler Valves have been changed When changing from the old style to the new style for the first time a new knob is required. The Kit is available for the first time change only. After the original change or on new style units the valve only can be changed.

DISCONTINUED PART:

1126802 Valve
1164404 Valve
#1126802 is obsolete and no longer available
#1164404 will be available until existing stock is depleted, approximately 2 years. Then it will be obsolete and no longer available.

NEW PARTS:

1176000 Valve -Hi Low- Natural Gas
When replacing #1126802 or 1164404 for the first time only use:
4440398 Valve- Replacement Kit-Natural Gas
This kit consists of: (all parts also available individually)
1176000 Hi Low Valve- Natural Gas
1073495 Valve Knob

NOTE: The 1176000 Valve is Mandatory Distributor Stock
The 4440398 Valve Kit is recommended Distributor Stock.

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Parts Service Hotline (800) 54 RANGE (800-547-2643)

The new valve can only be used for Natural Gas.
For Propane Gas see bulletin #9413, Part numbers 1176001 & 4440397.

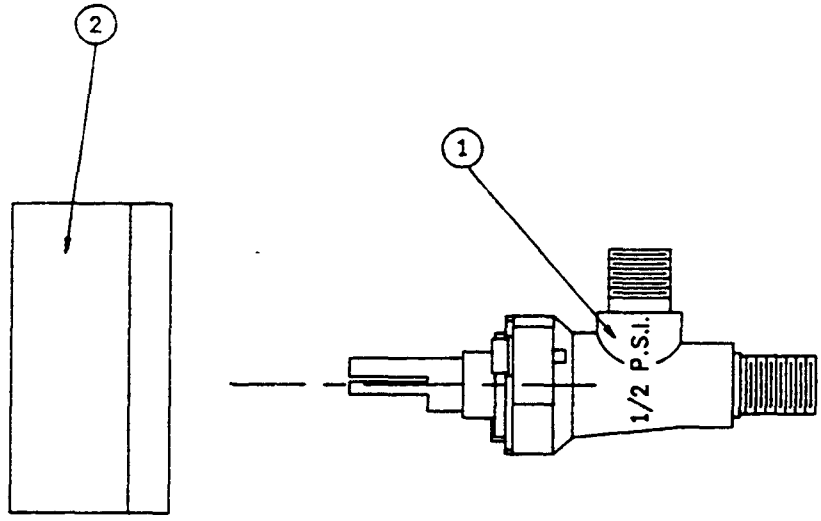
The old valve used a #1073496 Knob which is still available.

The 1176000 Valve has the Southbend Logo & 02 stamped on the flat side of the stem.

List Prices- effective 1 -15-94

1176000- $11.90; 4440398- $19.60. Other parts are in the current price list.

ITEM	PART NO.	DESCRIPTION	QTY.
2	1073495	KNOB	1
1	1176000	HI–LOW VALVE (NAT)	1
*	4440398	BURNER VALVE REPLACEMENT KIT	*



ACAD SIZE A DWG–
DO NOT HAND ALTER

TOLERANCES
(UNLESS OTHERWISE SPECIFIED)

X.XXX	±	0.015	FRACTIONS	±	1/8"
X.XX	±	0.030	DEGREES	±	1"
X.X	±	0.060			

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DRAWN BY DBC	CHK	APP
DATE 2/2/94	SCALE FULL	
MAT'L N/A	GAGE N/A	
BURNER VALVE REPLACEMENT KIT (NAT)	PART NO. 4440398	

REV	SYM	REVISION	DATE	BY	ECN
		DRAWING RELEASED	2/2/94	DBC	94–30

SOUTHBEND SERVICE BULLETIN

Date: July 19,1988

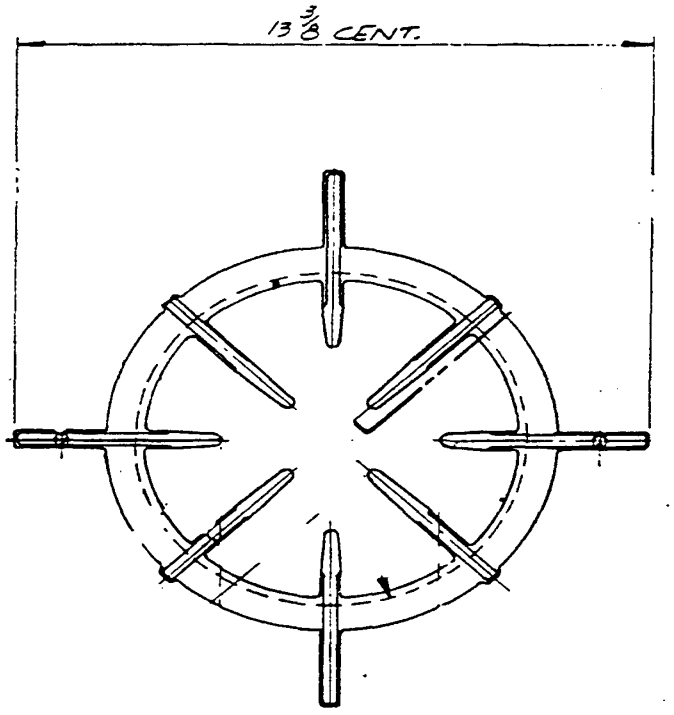
To: Southbend Authorized Service Agencies And Parts Distributors

Subject: 300 Series Restaurant Ranges - New Style Top Spider Grid

Please insert in the RR- Restaurant Range Section of your Master Southbend Manual.

Effective July 1,1988 all Restaurant Ranges produced after this date will incorporate a heavier spider grate (This grate has been supplied previously on special request). This new grid is completely interchangeable with the old grid, but looks totally different.

Part # 1160162 Top Spider Grid- being supplied on units produced after July 1 1988

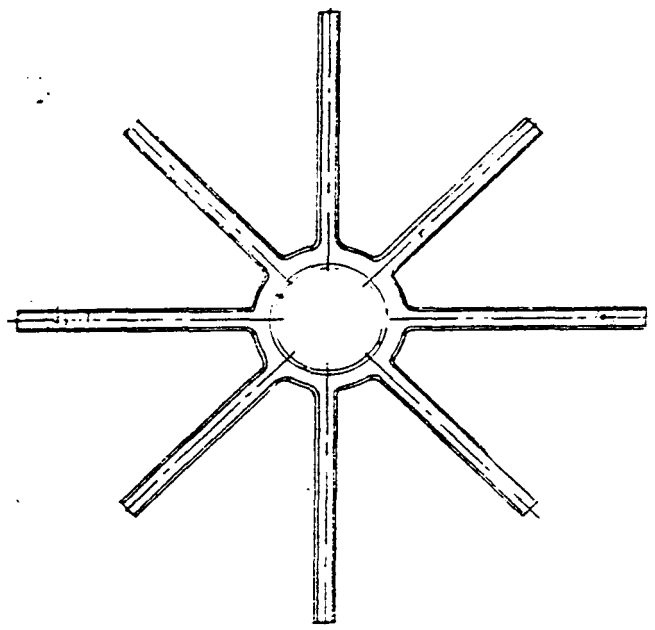


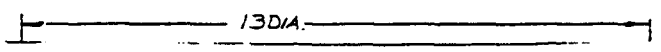
Note: This grid is supplied painted black finish.

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SOUTHBEND SERVICE BULLETIN

Pan # 4126900 Top Spider Grid - supplied on units produced prior to June 30.1988.





Note: This grid is supplied with a porcelain enamel finish this grid will be available as a replacement part.

T. S. Enyeart

TSE/kj

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(800) 348-2558

Date: March 31, 1987

Subject E.C.O. 87-61

From: Patton Philotoff RGP

To: T. Enyeart, G. Folley, G. Koczan, K. Lubawy, S. Meador, M. Snider

The following kits are being established to convert cafe ranges with the old (MSC safety, BJFMAT thermostat) to our new system. (TS-11 safety with BJWA thermostat):

PART NUMBER	DESCRIPTION
Group I: For use on bottom oven of 326 only.	
A81-00037	Gas System Replacement Kit (Blk Nat)
A81-00038	Gas System Replacement Kit (SS Nat)
A81-00039	Gas System Replacement Kit (Blk Prop)
A81-00040	Gas System Replacement Kit (SS Prop)
Group II: For use on all 300 series ovens. Double ovens require (2) kits.	
A81-00050	Gas System Replacement Kit (Blk Nat)
A81-00051	Gas System Replacement Kit (SS Nat)
A81-00052	Gas System Replacement Kit (Blk Prop)
A81-00053	Gas System Replacement Kit (SS Prop)

NOTE: A 326 double oven requires one kit from each of the above groups.

Southbend SERVICE BULLETIN

DATE: MARCH 23, 1987

TO: ALL SOUTHBEND AUTHORIZED SERVICE AGENCIES AND PARTS DISTRIBUTORS

SUBJECT: OVEN CONTROL SYSTEM REDESIGN ON 300 SERIES RESTAURANT RANGES WITH STANDARD OVEN

Effective immediately, 300 series ranges with the suffix "F" will utilize a new oven control system. This will be similar to our heavy duty equipment using a bypass thermostat. This will greatly enhance the quality of our 300 series ranges. Please add the attached parts list, and service manual supplement to your Master Parts and Service Manual, inserting in Section RR - Restaurant Ranges.

Patton G. Philotoff
Regional Service Manager

cc: Sales Directors
Sales Representatives
Internal Distribution

1100 Old Honeycutt Rd.
Fuquay-Varina, NC 27526
(919) 552-9161
FAX (919) 552-9798

INSTRUCTION MANUAL SUPPLEMENT FOR RESTAURANT SERIES RANGES WITH AN "F" SUFFIX ("F" SUFFIX DENOTES TYPE OF OVEN CONTROL SYSTEM)

LIGHTING INSTRUCTIONS (RANGE TOP PILOTS):

1. Turn all valves to the *"off"* position.
2. Remove Top Plates to expose pilots.
3. Light Pilots - turn adjusting screw until a 1/2" Pilot flame height is obtained.

LIGHTING INSTRUCTIONS (OVEN):

1. Turn thermostat to *"off"* position.
2. Depress push button, light pilot (through hole in oven bottom or remove oven bottom). Hold button in for 30 seconds. Release button. Should pilot fail to hold flame, wait 5 minutes and repeat.
3. Remove Base Panel. Remove Pilot adjustment cap (on safety above push button). Adjust pilot key to provide properly sized flame. Replace pilot adjustment cap.
4. Turn thermostat to desired temperature.

SHUTDOWN INSTRUCTIONS (ENTIRE RANGE):

Standby

1. Turn all manual gas valves "off.
2. Turn thermostat to its lowest position.

Complete

1. Turn all manual gas valves and pilots "off.
2. Turn thermostat to its lowest position.
3. Turn main supply gas valve •off.

CAUTION: IN THE EVENT OF MAIN BURNER IGNITION FAILURE, A FIVE MINUTE PURGE PERIOD MUST BE OBSERVED PRIOR TO RE-ESTABLISHING THE THE IGNITION SOURCE. IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN EQUIPMENT AT THE MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

ADJUSTMENTS

Oven Burner Pilot - The pilot flame is adjustable at the pilot valve located at the manifold or at the pilot adjustment key located on the safety valve adjacent to the red push button. To access the pilot key, remove the base panel, remove the pilot key cap and turn the adjusting set screw. Replace pilot key cap.

The pilot flame should be stable, non-yellowing, and just large enough to cause the thermocouple tip to glow a dull red, and large enough to result in effective burner ignition.

THERMOSTAT BY-PASS

The thermostat is equipped with a by-pass function. To adjust by-pass flame, follow these steps:

1. **Be sure pilot is burning and properly adjusted.**
2. **Turn by-pass adjusting screw (located on thermostat, visible when knob and bezel are removed) counter-clockwise to full open.**
3. **Turn thermostat dial to 500 degrees fahrenheit to ignite burner.**
4. **After 5 minutes, turn dial to a position halfway between the 2 lines which are between "off" and "low".**
5. **Remove the knob and turn the by-pass adjusting screw clockwise until the flame on the oven burner is 1/8" minimum to 1/4" maximum and stable at each port on the burner.**

THERMOSTAT CALIBRATION

The thermostat should be recalibrated if the temperature at the center of the oven is not within 10 degrees fahrenheit of the dial setting (at 350 degrees fahrenheit). If this condition exists, follow these steps:

1. **Do not attempt calibration until the by-pass flaw? is in proper adjustment.**
2. **Remove the thermostat knob and with a screwdriver, pop-out the knob silver center insert, re-attach the knob to the thermostat.**
3. **Hold the dial firmly and insert a screwdriver through the center of the dial. Push the calibration screw inward (DO NOT TURN THIS SCREW).**
4. **While holding the calibration screw in and firm, turn the knob until the dial setting watches the actual oven temperature. Replace the knob insert.**
5. **Re-check calibration.**

SERVICE

TROUBLESHOOTING (Oven Section)

Problem:	Look For:
Oven will not come on	Oven Pilot is out
Oven pilot will not stay lit.	Pilot gas not adjusted properly Bad safety thermocouple Bad safety Clogged pilot orifice Draft condition Air in gas line
Oven temperature not controllable	Improper oven burner by-pass flame adjustment Thermostat out of calibration
Oven burner produces excessive carbon deposits	Incorrect type of gas supplied Incorrect orifice size Incorrect supply pressure Primary air not adjusted properly
Oven pilot produces excessive carbon deposits	Pilot gas not properly adjusted Incorrect pilot orifice

PARTS (OVEN SECTION - "F" SUFFIX)

Burner	116-4125
Pilot (Nat.)	116-3869
Pilot (Propane)	116-3870
Safety	116-4037
Thermocouple	116-3868
Thermostat (36" Capillary)	B94-00002-01
Thermostat (60" Capillary)	B94-00002-02
Knob	A32-00012
Bezal	101-3004
Thermostat (36" Capillary) complete w/knobs, bezel and fittings	B94-00001-01
Thermosta-te (60" Capillary) complete w/knob, bezel and fittings	B94-00001-02

PARTS LIST FOR "F" SERIES CAFE RANGE

ITEM	DESCRIPTION	PART NO.	QUAN.
0	Oven Safety Asm Coup (Nat) fig. 1	1167371	1
0	Oven Safety Asm Coup (LP) fig. 1	1167372	1
1	Safety Valve	1164037	1
2	Thermocouple	1163868	1
3	Mounting Bracket	1163899	1
4	10-24" x 1 1/4" Round Head M.S.	1146221	2
5	10-24" Square Nut	1146410	2
6	3/16" Lock Washer	1146501	2
7	Hex Head Reducer	1147114	1
8	Brass Street Elbow	1161048	1
9	Orifice Extension	A58-00006	1
10	Orifice Fitting	1057200	1
11	Orifice Hood (Nat)	1008736	1
11	Orifice Hood (LP)	1008752	1
12	Bracket Spacer	1163898	2
13	1/4" Male Coupling Nut	1099114	1
14	1/4" Ball Sleeve	1099112	1
15	1/2" Male to 3/8" CC	1081200	1
16	1/4" to 3/16" Compression Nut	1165418	1
17	1/4" to 3/16" Ball Sleeve	1165330	1

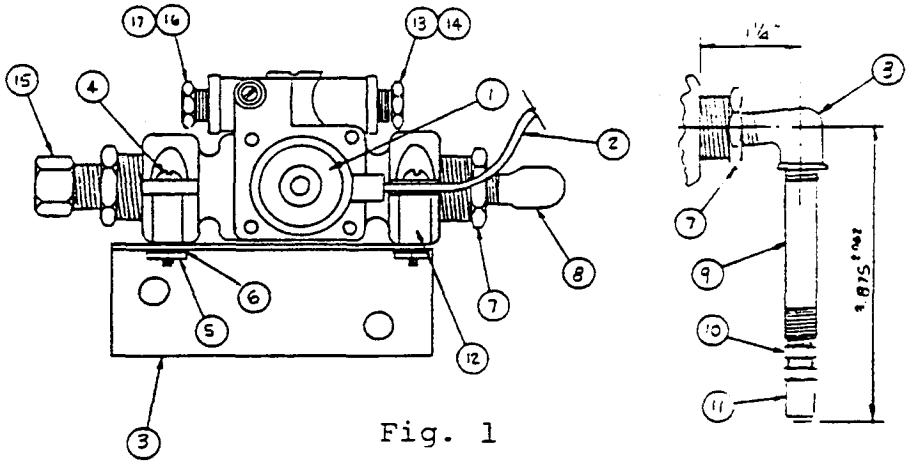


Fig. 1

"F" SERIES PARTS LIST CONTINUED

ITEM	DESCRIPTION	PART NO.	QUAN.
1	Thermostat 36" Capillary fig. 2	B94-00001-01	1
1	Thermostat 60" Capillary fig. 2	B94-00001-02	1
2	Knob	A32-00012	1
3	Bezel	1013004	1
4	7/16" to 3/8" Male Comp. Nut	A58-00004	1
5	7/16" to 3/8" Ball Sleeve	A58-00005	1
6A	Flange Nipple	11609441	1
6B	Bolt W/Washer	11609441	2

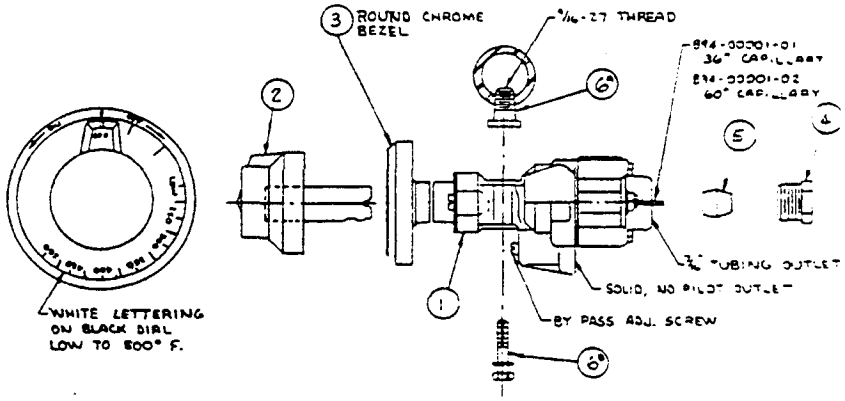


Fig. 2

Burner	1164125	1
Pilot (Nat)	1163869	1
Pilot (LP)	1163870	1
Pilot Tubing	C1700021	1

southbend

SERVICE BULLETIN

DATE: APRIL 6, 1987

To: ALL SOUTHBEND AUTHORIZED SERVICE AGENCIES AND PARTS DISTRIBUTORS

SUBJECT: REPLACEMENT THERMOSTATS FOR 300 SERIES RESTAURANT RANGES UNITS PRODUCED PRIOR TO APRIL 1987 WITH NO SUFFIX AND SUFFIX B, C, OR D.

Non-bypass type thermostats have been discontinued. They are being replaced with by-pass type. Please correct your Master Southbend Parts Price List and Service Manual as follows:

DISCONTINUED - DELETE	REPLACEMENT	
500 Series B & C Suffix & No Suffix 1160940		
	A81-00054	T'stat Replacement Kit
1013098 Thermostat 326 bottom	A81-00055	T'stat Replacement Kit 326 bottom
300 Series D Suffix 1164234 Thermostat		
	A81-00054	T'stat Replacement Kit
1164285 Thermostat 326 bottom	A81-00055	T'stat Replacement Kit 326 bottom

Installation and adjustment instructions are attached.

Patton G. Philotoff

Regional Service Manager

cc : Sales Directors
Sales Representatives
Internal Distribution

1100 Old Honeycutt Rd.
Fuquay-Varina, NC 27526
(919) 552-9161
FAX (919) 552-9798

ADJUSTMENT INSTRUCTIONS FOR THERMOSTAT REPLACEMENT KITS USED ON RESTAURANT SERIES RANGES WITH NO-SUFFIX, B, C OR D SUFFIX

Kit #A81-00054 Thermostat Replacement Kit
(Used on all except Bottom Oven *of* 326)

Kit #A81-00055 Thermostat Replacement Kit
(Used on Bottom Oven *of* 326)

NOTE: When installing on D Suffix Units, also *refer to* the Service Bulletin dated March 3, 1987, as to proper Safety Capillary Line routing, Pilot to Burner location and Capillary Bulb Cooling Hole.

ADJUSTMENTS

PILOT UNIT

Two basic adjustments for the Pilot Unit are the CONSTANT PILOT and the HEATER PILOT. The gas flow to the Constant Pilot is controlled by the Pilot Valve located on the Manifold. The Heater Pilot gas is controlled by the Heater Pilot adjustment screw on the Thermostat.

CONSTANT PILOT

1. Open Pilot Valve (located at the Manifold) by turning the screw counter clockwise.
2. Light Constant Pilot.
3. Adjust Pilot Valve for maximum flame without yellow tipping. (Approximate 5/16" High Flame.)

HEATER PILOT

1. Turn Control Knob to any temperature setting above 325 degrees. (Above 325 degrees setting allows the Heater Pilot gas to flow and stay on regardless of the oven temperature.)
2. Remove the Control Knob and Bezel.
3. Turn the Heater Pilot adjusting screw until the pilot flame just envelops the Safety Capillary Bulb. (See Figure 1 for the adjusting screw location.)

TO ADJUST BY-PASS FLAME

1. Be sure Constant and Heater Pilots are adjusted properly. Also, be sure the Fire Plate and Oven Bottom are in position.

2. Turn by-pass adjusting screw counter clockwise to full open (see Figure *1 for* adjusting screw location).

3. Turn thermostat knob to 500 degrees. The Heater Pilot will ignite and when the Safety Capillary Bulb heats sufficiently, the burner will cone on.

4. Allow the oven temperature to increase to at least 400 degrees. Monitor this temperature using a thermocouple temperature test instrument or a reliable thermometer placed in the center of the oven.

5. Remove the Base Panel below the oven door in order to observe the burner flame during adjustments.

6. When the oven temperature has equaled or exceeded 400 degrees, turn the thermostat dial to 350 degrees. This will cause the thermostat to cycle into its by-pass mode.

7. Turn the by-pass adjusting screw clockwise until the flame on the oven burner is 1/8" minimum to 1/4" maximum and stable at each port.

THERMOSTAT CALIBRATION

The thermostat should be recalibrated if the temperature at the center of the oven is not within 10 degrees Fahrenheit of the dial setting (at 350 degrees Fahrenheit). If this condition exists, follow these steps:

1. Do no attempt calibration until the by-pass flame is in proper adjustment.

2. Remove the thermostat, knob and with a screwdriver, pop-out the knob silver center insert, re-attach the knob to the thermostat.

3. Hold the dial firmly and insert a screwdriver through the center of the dial. Push the calibration screw inward (DO NOT TURN THIS SCREW), (See Figure 1 for location of Calibration Screw.)

4. While holding the calibration screw in and firm, turn the knob until the dial setting matches the actual oven temperature.

5. Re-check calibration. NOTE: If the oven temp. was higher than the dial setting prior to calibration, during the calibration re-check

turn the dial to a setting approximately 25 degrees higher. This will speed-up the calibration re-check by not having to allow *for* the oven to cool down.

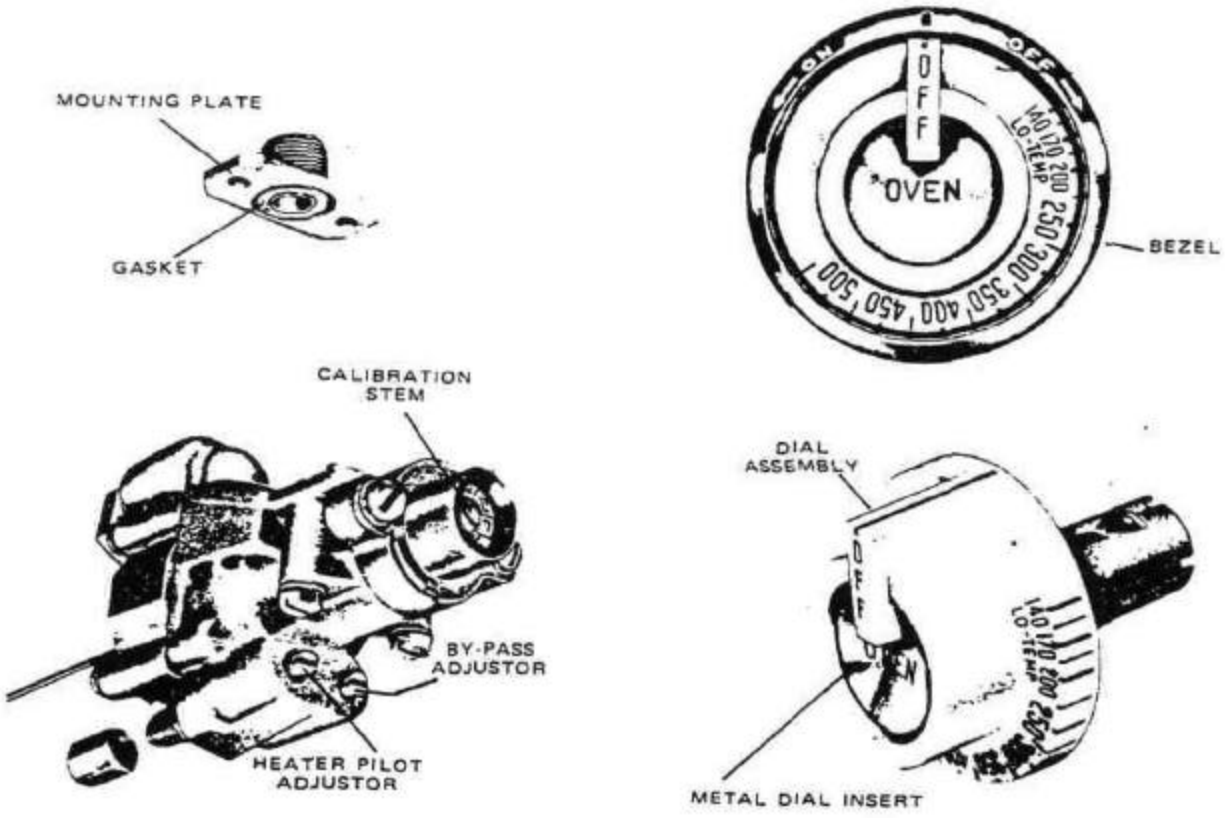


Figure 1

southbend SERVICE BULLETIN

ALL SOUTHBEND AUTHORIZED PARTS DISTRIBUTORS
AND SERVICE AGENCIES CAFE THERMOSTATS REFERENCE SERVICE BULLETIN
040683 ISSUED IN 1983

AUGUST 7, 1986

Please insert in the RR - Restaurant Range section of your master Southbend Service Manual.

On page 2 of Service Bulletin 040683 the following statement was made:

NOTE: If the BJFMAT thermostat must be replaced and an exact replacement, P/N 116-4284, is not available, the BJFMA, P/N 101-3098, may be used. However, its slotted bypass key must be screwed tight, so as to allow NO bypass gas to the burner.

This was an error. UNDER NO CIRCUMSTANCES should any thermostat other than the one which the unit is AGA certified with be used as a replacement, unless authorized by the Southbend Service Department.

300 Series Restaurant Ranges - D Model - require BJFMAT - P/N 116-4284.

300 Series Restaurant Ranges - B or C Models - require BJFMA P/N 101-3098 (326 only) or 116-0940 (all others).

Without the bypass set there is a possibility of carboning, flash back, gas leaks, or other problems of this type.

Patton G. Philotoff
Regional Service Manager

cc: Sales Directors
Sales Representatives
Internal Distribution

1100 Old Honeycutt Rd.
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southbend SERVICE BULLETIN

ALL SOUTHBEND AUTHORIZED SERVICE AGENCIES AND PARTS DISTRIBUTORS
ALL RESTAURANT (300 SERIES) AND SECTIONAL FRONT MANIFOLD RANGES WITH CONVECTION OVEN BASES

JULY 9, 1986

We are sending 2 copies. Please insert one into the SR -Sectional Range Section of your master Southbend Service Manual and one into the RR - Restaurant Range Section.

We have had sporadic cases of delayed ignition on some ovens on the above units.

To eliminate this potential problem we are making immediate changes in production which consist of:

1) Adding additional ports to the pilot area of the burner. This part #1165733 will continue to carry the same number.

2) Changing from #1164805 Flame Switch to a new Flame Switch #1168262. (Note: the old part #1164805 will still be used on XE and XSE Convection Ovens).

3) Changing from #1165734 Pilot to a new pilot -#1168263.

On units currently in the field the new Flame Switch is not compatible with the old Pilot and the new Pilot is not compatible with the old Flame Switch. Consequently, for units produced prior to December 1985 please order Service Kit #4440229 which includes both the Flame Switch and the Pilot.

NEW PARTS:

#4440229	Flame Switch and Pilot Kit -for units produced prior to December 1985.
#1168262	Flame Switch only - for units produced after December 1985.
#1168263	Standing Pilot only - for units produced after December 1985.

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