First Choice Group

SPARE PARTS DIAGRAM FOR

SOUTHBEND

Performance · Versatility · Value

Restaurant Oven Ranges
436A-CE, 436D-CE, 460AA-CE, 460AD-CE, and 460DD-CE





First Choice Group
Blakeney Way, Kingswood Lakeside
Cannock, Staffs, WS11 8LD
TEL: 01543 577778 FAX: 01543504141
Email: enquires@firstchoice-cs.co.uk
Web: www.firstchoice-cs.co.uk

SOUTHBEND

Performance · Versatility · Value

Owner's Manual

IMPORTANT FOR FUTURE REFERENCE
Please complete this information and retain this manual for the life of the equipment:

Model #: _____

Serial #: _____

Date Purchased: _____

Model 400-CE

Restaurant Ranges

Models 436A-CE, 436D-CE, 460AA-CE, 460AD-CE, and 460DD-CE



Model 436A-CE



Model 460AA-CE

⚠ WARNING

This appliance shall be installed in conformity with the current regulations and used only in a well ventilated location. Consult the instructions before installing and using the appliance.

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

1100 Old Honeycutt Road, Fuquay-Varina, NC 27526 USA • www.southbendnc.com

SAFETY PRECAUTIONS

Before installing and operating this equipment, be sure everyone involved in its operation is fully trained and aware of precautions. Accidents and problems can be caused by failure to follow fundamental rules and precautions.

The following symbols, found throughout this manual, alert you to potentially dangerous conditions to the operator, service personnel, or to the equipment.

⚠ **DANGER**	This symbol warns of immediate hazards that will result in severe injury or death.
⚠ **WARNING**	This symbol refers to a potential hazard or unsafe practice that could result in injury or death.
⚠ **CAUTION**	This symbol refers to a potential hazard or unsafe practice that could result in injury, product damage, or property damage.
NOTICE	This symbol refers to information that needs special attention or must be fully understood, even though not dangerous.

⚠ WARNING
FIRE HAZARD
FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of cooking appliances.

Keep area around cooking appliances free and clear of combustibles.

Purchaser of equipment must post in a prominent location detailed instructions to be followed in the event the operator smells gas. Obtain the instructions from the local gas supplier.

⚠ WARNING
BURN HAZARD

Contact with hot surfaces will cause severe burns. Always use caution when operating cooking appliances.

⚠ WARNING
EXPLOSION AND ASPHYXIATION HAZARD

In the event a gas odor is detected, shut down equipment at the main gas shut-off valve and immediately call the emergency phone number of your gas supplier.

Improper ventilation can result in headaches, drowsiness, nausea, and could result in death. Do not obstruct the flow of combustion and ventilation air to and from cooking appliances.

⚠ WARNING
ELECTRIC SHOCK HAZARD

For appliances that use electric power, disconnect the power to the appliance before cleaning. Do not remove panels that require tools to remove.

NOTICE

This appliance is intended for commercial use, and is only for professional use. It shall be used by trained, qualified people.

Warranty will be void if service work is performed by other than a qualified technician, or if other than genuine Southbend replacement parts are installed.

Give this Owner's Manual and important papers to the proper authority to retain for future reference.

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INTRODUCTION

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

You will find that your new equipment, like all Southbend equipment, has been designed and manufactured to meet the toughest standards in the industry. Each piece of Southbend equipment is carefully engineered and designs are verified through laboratory tests and field installations. With proper care and field maintenance, you will experience years of reliable, trouble-free operation. For best results, read this manual carefully.

RETAIN THIS MANUAL FOR FUTURE REFERENCE.

This manual is for Southbend Restaurant Ranges models 436A-CE, 436D-CE, 460AA-CE, 460AD-CE, and 460DD-CE. This manual is divided into six sections:

Introduction 3
Specifications.....4
Operation 8
Cleaning & Maintenance.....11
Installation.....13
Service 19

The serial plate is located on the right side of the range (see Figure 1 below).

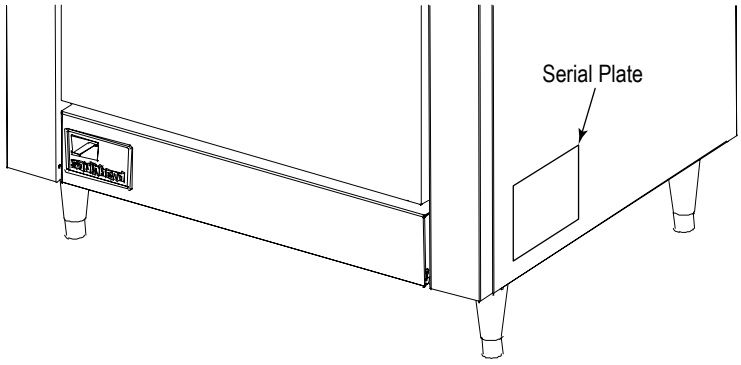
Read these instructions carefully before attempting installation. Installation and initial startup should be performed by a qualified installer. Unless the installation instructions for this product are followed by a qualified service technician (a person experienced in and knowledgeable with the installation of commercial gas and/or electric cooking equipment) then the terms and conditions on the Manufacturer's Limited Warranty will be rendered void and no warranty of any kind shall apply.

In the event you have questions concerning the installation, use, care, or service of the product, write to:

Southbend
1100 Old Honeycutt Road
Fuquay-Varina, North Carolina 27526 USA

Figure 1

Location of Serial Plate



SPECIFICATIONS

NOTICE

ENFORCEMENT: THE REQULATIONS WILL BE ENFORCED:

THIS APPLIANCE MUST BE INSTALLED IN ACCORDANCE WITH THE REGULATIONS IN FORCE WITHIN THE COUNTRY OF DESTINATION. THIS APPLIANCE IS FOR PROFESSIONAL USE AND MUST ONLY BE USED BY TRAINED PERSONNEL.

THE INSTALLATION MUST CONFORM WITH THE NATIONAL BRITISH STANDARDS, THE GAS APPLIANCES (SAFETY) REGULATIONS 1992 (S. I. 1992/1629, AND THE GAS APPLIANCES DIRECTIVE (DIRECTIVE 90/396/EEC).

1. The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 3.5 kPa.
2. The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 3.5 kPa.

Southbend reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, additions, or replacements for previously purchased equipment.

This appliance is intended for commercial use, and is only for professional use. It shall be used by trained, qualified people.

CLEARANCES

⚠ WARNING
MINIMUM CLEARANCES FROM COMBUSTIBLE CONSTRUCTION

There must be adequate clearance between ranges and combustible construction. Clearance must also be provided for servicing and for operation.

Minimum Clearances:

	Standard Oven	Convection Oven	Double Oven Base
Sides	254 mm	254 mm	254 mm
Back	254 mm	254 mm	254 mm
Floor	0 mm	0 mm	0 mm

Ranges are suitable for installation on combustible floors.

Adequate clearance must be provided in the aisle and at the side and rear to allow the door to open sufficiently to permit the removal of the racks and for serviceability.

On ranges with a convection-type oven, a minimum of 51 mm clearance must be allowed behind the motor and the 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 ranges are serviceable from the front.

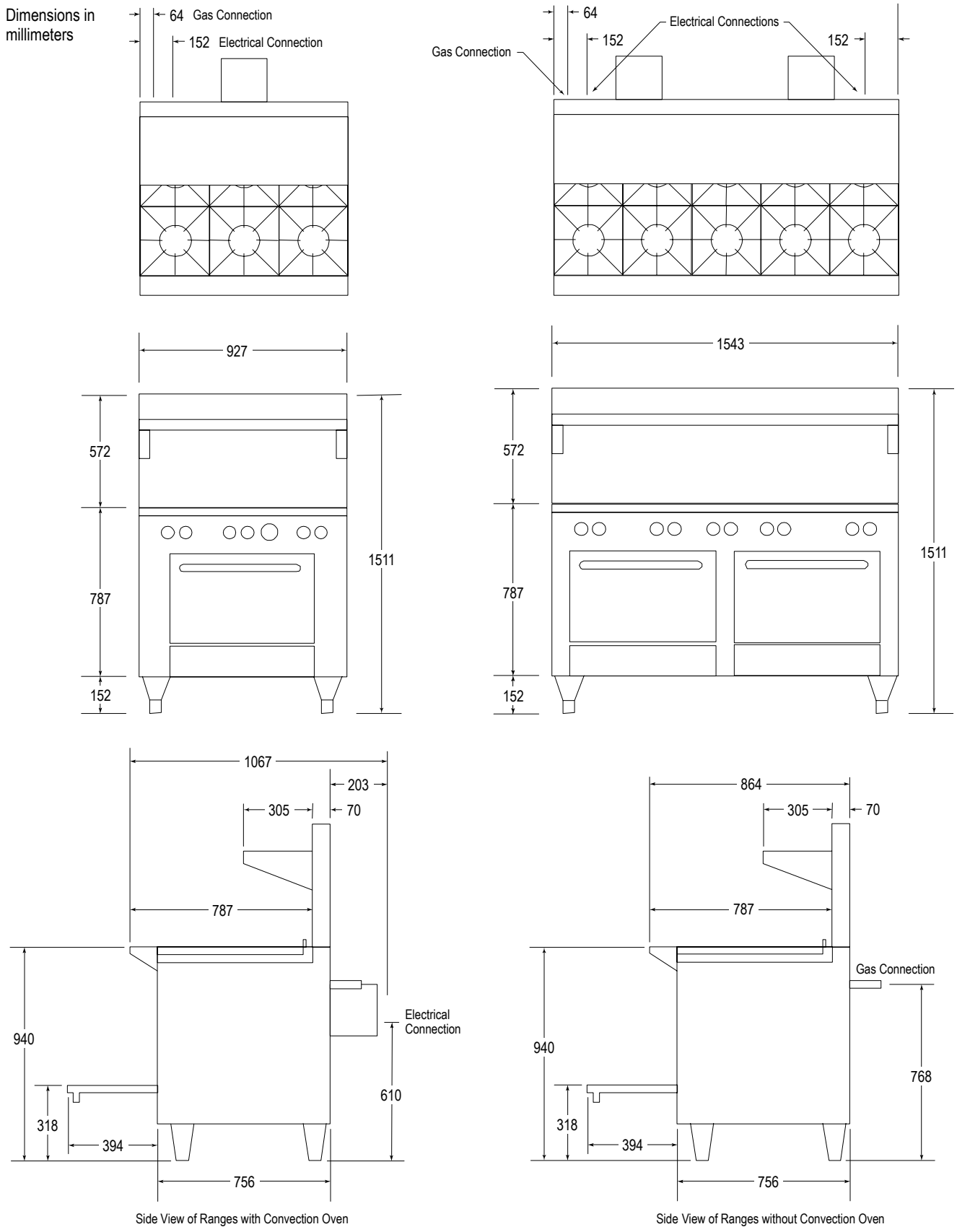
DIMENSIONS

The exterior dimensions of the restaurant range are shown in Figure 2 on the next page.

The interior dimensions of a standard oven are 660 mm wide, 673 mm deep, and 355 mm high.
The interior dimensions of a convection oven are 662 mm wide, 609 mm deep, and 362 mm high.

Figure 2

Dimensions



VENTILATION

⚠ WARNING

Improper ventilation can result in personal injury or death. Ventilation which fails to properly remove flue products can cause headaches, drowsiness, nausea, or could result in death.

All ranges must be installed in such a manner that the flow of combustion and ventilation air are not obstructed. Provisions for adequate air supply must be provided. Do not obstruct the front of the range at the top by the control panel, or the bottom just below the oven compartment, as combustion air enters through these areas.

NOTICE

Proper ventilation is the owner's responsibility. Any problem due to improper ventilation will not be covered by the warranty.

All ranges 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 be provided. Do not obstruct the front or rear of the range, as combustion air enters through this area. Be sure to inspect and clean the ventilation system according to the ventilation equipment manufacturer's instructions.

Canopies are set over ranges, ovens, etc., for ventilation purposes. It is recommended that a canopy extend 152 mm past the appliance and the bottom edge be located 200 cm from the floor. Filters should be installed at an angle of 45° or more from the horizontal. This position prevents dripping grease and facilitates collecting the run-off grease in a drip pan, unusually 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 a vacuum.

The exhaust fan should be installed at least 51 mm above the vent opening at the top of the range.

If the range is connected directly to an outside flue, a CE design-certified down draft diverter must be installed at the flue outlet of the oven and connected to the flue.

In case of unsatisfactory performance on any appliance, check the appliance with the exhaust fan in the OFF position. Do this only long enough to check equipment performance. Then turn hood back on and let it run to remove any exhaust that may have accumulated during the test.

GAS SUPPLY

A 3/4" female NPT gas connection is located on the rear of the range (see Figure 2).

The serial plate is located on the right side of the range (See Figure 1). The serial plate indicates the type of gas the range is equipped to burn. All Southbend equipment is adjusted at the factory. Check type of gas on serial plate.

Model Number	Number of Burners and Gas Requirement per Burner		Total Gas Requirement*
	Open Top Burners	Oven Burner(s)	
436A-CE	6 @ 32,000 BTU/hour (9.4 kilowatts)	1 @ 45,000 BTU/hour (13.2 kilowatts)	237,000 BTU/hour (69.5 kilowatts)
436D-CE	6 @ 32,000 BTU/hour (9.4 kilowatts)	1 @ 32,000 BTU/hour (9.4 kilowatts)	224,000 BTU/hour (65.7 kilowatts)
460AA-CE	10 @ 32,000 BTU/hour (9.4 kilowatts)	2 @ 45,000 BTU/hour (13.2 kilowatts)	410,000 BTU/hour (120.1 kilowatts)
460AD-CE	10 @ 32,000 BTU/hour (9.4 kilowatts)	1 @ 45,000 BTU/hour (13.2 kilowatts) and 1 @ 32,000 BTU/hour (9.4 kilowatts)	397,000 BTU/hour (116.3 kilowatts)
460DD-CE	10 @ 32,000 BTU/hour (9.4 kilowatts)	2 @ 32,000 BTU/hour (9.4 kilowatts)	384,000 BTU/hour (112.5 kilowatts)

* Rated gas-requirement values are for natural gas.

These models are design-certified for operation on natural or propane gases. For natural gas, the regulator is set to 0.99 kPa (4" W.C.). For propane gas, it is set to 2.48 kPa (10" W.C.).

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 applicable national codes.

This appliance should be connected ONLY to the type of gas for which it is equipped.

An adequate gas supply is imperative. Undersized or low pressure lines will restrict the volume of gas required for satisfactory performance. Fluctuations of more than 25% on natural gas or 10% on propane gas will create problems

and affect burner operating characteristics. A 1/8" pressure tap is located on the manifold to measure the manifold pressure.

An adequate gas supply line to the range should be no smaller than the inside diameter of the pipe from the range to which it is connected.

Purge the supply line to clean out dust, dirt, or other foreign matter before connecting the line to the range.

All pipe joints and connections must be tested thoroughly for gas leaks. Use only soapy water for testing on all gases. NEVER use an open flame to check for gas leaks. All connections must be checked for leaks after the range has been put into operation. Test pressure should not exceed 3.47 kPa (14" W.C.).

ELECTRICAL REQUIREMENTS

Ranges with a convection oven require connection to a supply of electricity. The appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the applicable national codes. An electrical diagram is located on the rear of the range, near the motor.

Convection-oven models are rated for 208/230 volts, 50/60Hz, 1-phase power, and have one or two junction boxes (one for each oven) on the rear of the range (each with a terminal block). The maximum power requirement per oven is 2.1 amperes at 208 volts or 2.5 amperes at 230 volts.

OPERATION

⚠ DANGER
EXPLOSION AND ASPHYXIATION HAZARD

In the event a gas odor is detected, shut down equipment at the main gas shut-off valve and immediately call the emergency phone number of your gas supplier.

Improper ventilation can result in headaches, drowsiness, nausea, and could result in death. Do not obstruct the flow of combustion and ventilation air to and from cooking appliances.

⚠ CAUTION

To eliminate gas build up which could result in an explosion, in the event of main burner ignition failure a five minute purge period must be observed prior to re-establishing ignition source.

The controls for the burners and oven(s) are located on the control panel on the front of the range.

To operate a top burner, turn the corresponding control knob to the desired flame level.

To operate an oven, turn the oven thermostat to the desired temperature. On convection ovens, the blower is controlled by an ON-OFF switch.

If the pilots need to be lit, follow the steps listed below.

LIGHTING AFTER GAS HAS BEEN SHUT OFF

When turning the main gas supply on after the gas supply has been shut off, do the following:

1. Make sure all of the control valves are in the OFF position.
2. Turn on the gas supply.
3. Light the pilots as described below.
4. Light the oven first and then wait six minutes before lighting top burners to purge all air from the range.

LIGHTING THE BURNER PILOTS

Each open-top burner is controlled by a knob on the front control panel and has its own pilot.

To light the burner pilots, do the following:

1. Turn all the burner control knobs to the OFF position.
2. Check to make sure the pilots are in the correct position.
3. Turn one of the burner control knobs to the pilot position, push the knob inward, and hold it in place.
4. While continuing to hold the knob in, light the corresponding pilot and allow the pilot to burn for 30 to 45 seconds. Release the knob. The pilot should remain lit.
5. Repeat steps 3 and 4 for the other pilots.

LIGHTING THE OVEN PILOT

Each oven is controlled by a knob on the front control panel.

To light the pilot of an oven, do the following:

1. Turn oven thermostat to OFF position.
2. For convection ovens, turn the fan switch to the OFF position.
3. Open door, remove oven bottom and fire plate to expose pilot and burner.
4. Open kick panel and depress red button on oven safety valve.
5. Light constant pilot (the pilot without a capillary tube holder).
6. Replace fire plate and oven bottom.

SHUTDOWN OF ENTIRE RANGE

To completely shut down the range for an extended period (or prior to disconnecting the gas supply), do the following:

1. Turn all burner control knobs to OFF.
2. Turn the oven thermostat knob(s) to the lowest temperature.
3. Turn-off the gas supply to the oven.

TROUBLESHOOTING BY OPERATOR

The following table lists the possible causes and solutions of problems that may occur during operation.

Problem	Possible Causes and Solutions
A top burner will not light.	– Check and light the burner's pilot. – Check gas supply to range.
Oven will not heat up.	– Check and light the oven pilot. – Check gas supply to range.
Blower of convection oven is not running.	– Check that the oven's blower control switch is in ON position. – Check electricity supply to range.
Pilot(s) will not remain lit.	– Check gas supply to range.

If other appliances connected to the same source of gas or electricity are not operating correctly, the problem is likely not within the range.

If the problem only occurs for the range, and if the above solutions to do not solve the problem, call for repair service.

TROUBLESHOOTING CONVECTION-OVEN COOKING PROBLEMS

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

⚠ 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.

COOKING TIPS FOR CONVECTION OVENS

As a guide, set oven temperatures 15°C to 30°C lower than called for in recipes using conventional ovens.

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

Product	Timing (minutes)	Temperature Setting	Number of Racks Used	Count per Pan/Rack
Hamburger buns, 0.1 kg. - 102 mm	18	190 °C	3	24
Yeast rolls - 0.03 kg.	10	205 °C	3	48
Fruit pies, 1.3 kg. frozen	50	190 °C	3	4
Egg custard pies, 1.3 kg. frozen	60	160 °C	3	4
Dutch apple pies, 1.3 kg. frozen	50	175 °C	3	4
Baked potatoes, 0.25 kg.	60	205 °C	3	30 (wrapped)
Pre-blanched potatoes, frozen	16	205 °C	3	2.3 kg.
Fish portions, pre-cooked, breaded, 0.1 kg.	16	205 °C	3	32
Macaroni & cheese, 3 kg. - 5°C temp.	45	205 °C	3	1-3 kg.
Lasagna w/meat sauce, 3 kg. - 5°C temp.	60	175 °C	3	1-3 kg.
Lasagna w/meat sauce, 3 kg. - frozen	75	175 °C	3	1-3 kg.
Salisbury steak w/gravy, 3 kg. - 5°C temp.	45	205 °C	3	1-3 kg.
Top round of beef No. 168, 6-7 kg.				
rare (60°C internal)	31 min./kg.	120 °C	1	1 - 2
medium (65°C internal)	35 min./kg.	120 °C	1	1 - 2
well-done (70°C internal)	39 min./kg.	120 °C	1	1 - 2

FROZEN ENTREE PRODUCTS: Punch holes in lid before heating. Tent lid if product has a tendency to stick (like lasagna or macaroni-and-cheese). Use food manufacturer's convection oven directions for time and temperature or reduce conventional oven temperature 30°C 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.

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

ROLLS – YEAST: Use temperature and time recommended by food manufacturer for convection ovens for a 3 pan load.

POTATOES – PRE-BLANCHED, FROZEN: Spread on ungreased bun pans, 3 pans per load. Bake at 205°C, stirring once, for 15 to 18 minutes.

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

POTATOES – BAKING, 0.25 kg. SIZE: Wash and wrap in potato foil. Place 30 potatoes on bun pan — 3 pans per load. Bake in 205°C oven for 1 hour.

CLEANING & MAINTENANCE

⚠ WARNING

Shut off the range and allow time for it to cool before cleaning or performing maintenance.

Southbend appliances are sturdily constructed of the best materials and are 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.

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

Keep exposed, cleanable areas clean at all times.

DAILY CLEANING

1. Turn all controls to OFF and allow time for the range to cool.
2. Remove, empty, and clean drip trays.
3. Wipe clean all cooking surfaces.

CLEANING OVEN INTERIOR

⚠ WARNING

FOR YOUR SAFETY, BEFORE CLEANING A CONVECTION OVEN DISCONNECT THE POWER SUPPLY.
WHEN CLEANING THE BLOWER WHEEL, BE SURE THAT THE POWER SWITCH IN THE “OFF” POSITION.

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.

PERIODIC CLEANING AND MAINTENANCE

At least monthly, clean around burner air mixers and orifices if lint has accumulated and visually check proper pilot operation.

At least twice a year, examine and clean the range hood and venting system.

If range-top spillage should occur, it may be necessary to clean around pilot areas, air mixer, and under burners. Use a wire brush if necessary.

If any burners become clogged, remove and clean them. Allow interior to drain. Dry thoroughly before replacing.

BLACK BAKED-ENAMEL SURFACES

Wash exterior black baked-enamel surfaces with a hot, mild detergent or soap solution to clean off all grease deposits. Dry thoroughly with a dry cloth.

STAINLESS-STEEL SURFACES

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

To remove BAKED-ON grease and food splatter, or condensed vapors; 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.

“Heat tint” is darkened areas that 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 powered cleanser. Heat tint may be lessened by reducing heat to equipment during slack periods.

INSTALLATION

NOTICE

These installation procedures must be followed by qualified personnel or warranty will be void.

ENFORCEMENT: THE REQULATIONS WILL BE ENFORCED:

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THE INSTALLATION MUST CONFORM WITH THE NATIONAL BRITISH STANDARDS, THE GAS APPLIANCES (SAFETY) REGULATIONS 1992 (S. I. 1992/1629, AND THE GAS APPLIANCES DIRECTIVE (DIRECTIVE 90/396/EEC).

1. The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 3.5 kPa.
2. The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 3.5 kPa.

Southbend reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, additions, or replacements for previously purchased equipment.

This appliance is intended for commercial use, and is only for professional use. It shall be used by trained, qualified people.

NOTICE

EXHAUST FANS AND CANOPIES: It is recommended that the range be installed under a ventilation hood. Consult local codes for proper installation of hoods. Proper ventilation is the owner's responsibility. Any problem due to improper ventilation will not be covered by warranty.

STEP 1: UNPACKING

IMMEDIATELY INSPECT FOR SHIPPING DAMAGE

All containers should be examined for damage before and during unloading. The freight carrier has assumed responsibility for its safe transit and delivery. If damaged equipment is received, either apparent or concealed, a claim must be made with the delivering carrier.

Apparent damage or loss must be noted on the freight bill at the time of delivery. The freight bill must then be signed by the carrier representative (Driver). If the bill is not signed, the carrier may refuse the claim. The carrier can supply the necessary forms.

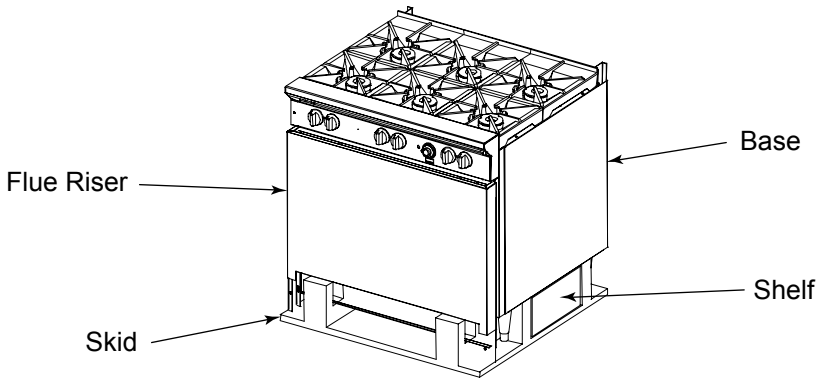
A request for inspection must be made to the carrier within 15 days if there is concealed damage or loss that is not apparent until after the equipment is uncrated. The carrier should arrange an inspection. Be certain to hold all contents plus all packing material.

Do the following:

1. Cut the banding straps and remove the corrugated cardboard surrounding the range. If legs were shipped in the same container, set them aside for installation in later steps of this procedure. Do not remove any tags or labels attached to the range until the range is installed and working properly.
2. Lift the flue riser off the front of the skid (see Figure 3) and set it aside for installation later in this procedure.
3. Pull the shelf assembly out from under the base and set it aside for installation later in this procedure.
4. Unbolt the shipping hold-down brackets from the skid, then remove the brackets from the range.
5. If the range is to be installed on legs, go to Step 2a.
   If the range is to be installed on casters, go to Step 2b.

Figure 3

Unpacking



STEP 2A: ATTACH LEGS

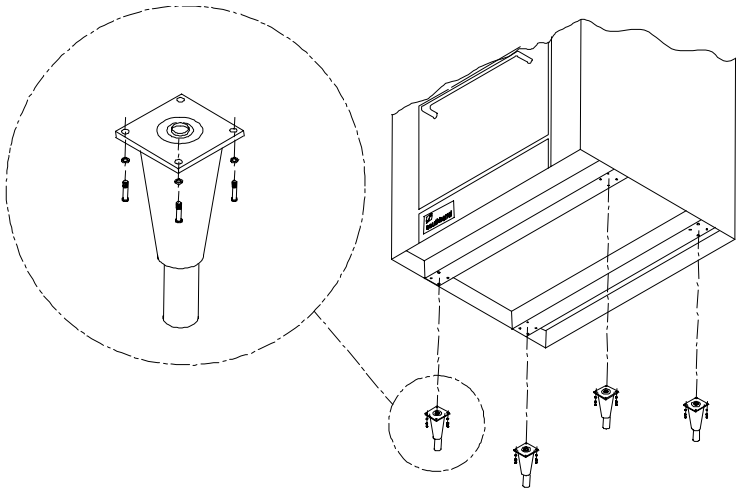
A set of four legs is packed with ranges ordered with legs. (For ranges ordered with casters, go to Step 2b.)

A threaded leg pad is fastened to the base frame at each corner. Each leg has a corresponding mating thread. The legs can be adjusted to overcome a slightly uneven floor.

1. Raise range sufficiently to allow leg pads and legs to be attached. For safety, “shore up” and support the range with an adequate blocking arrangement strong enough to support the load.
2. Attach the four leg pads to the bottom of the range using the lock washers and machine screws. The mounting holes are pre-drilled and threaded.
3. Screw the legs into the holes in the centers of the leg pads.
4. Lower range gently onto a level surface. Never drop or allow the range to fall.
5. Use a level to make sure that the range surface is level. The legs can be screwed in or out to lower or raise each corner of the range.
6. Go on to Installation Step 3.

Figure 4

Installation of Legs



STEP 2B: ATTACH CASTERS AND RESTRAINT

NOTICE

For an appliance equipped with casters, (1) the installation shall be made with a connector and a quick-disconnect device that complies with the applicable local or national codes, (2) 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, and (3) the restraining means should be attached to a frame member on the back of the range.

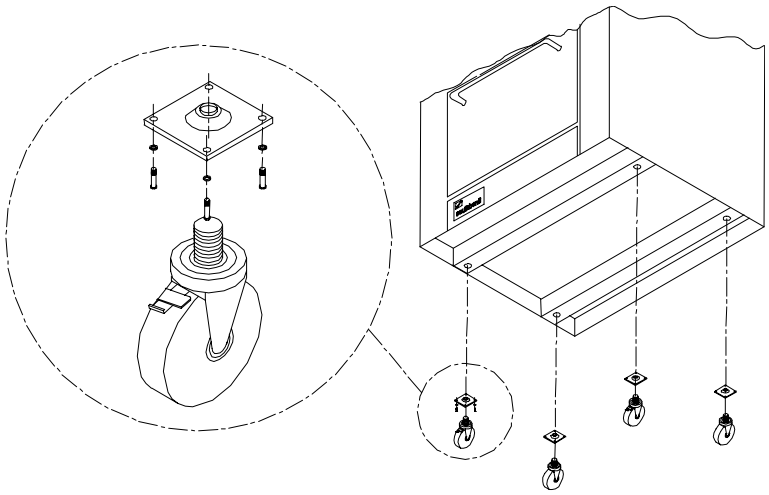
A set of four casters is packed with ranges ordered with casters (instead of legs).

A threaded leg pad is fastened to the base frame at each corner. Each caster has a corresponding mating thread. The casters can be adjusted to overcome a slightly uneven floor. Casters are provided with a Zerk fitting for proper lubrication when required.

1. Raise range sufficiently to allow leg pads and casters to be attached. For safety, “shore up” and support the range with an adequate blocking arrangement strong enough to support the load.
2. Attach the four leg pads to the bottom of the range using the lock washers and machine screws. The mounting holes are pre-drilled and threaded.
3. Screw the casters into the holes in the centers of the leg pads. Install the casters that have a locking brake under the front of the range.
4. Lower range gently onto a level surface. Never drop or allow the range to fall.
5. Use a level to make sure that the range surface is level. The casters can be screwed in or out to lower or raise each corner of the range. After the range has been leveled, tighten the lock nuts.

Figure 5

Installation of Casters

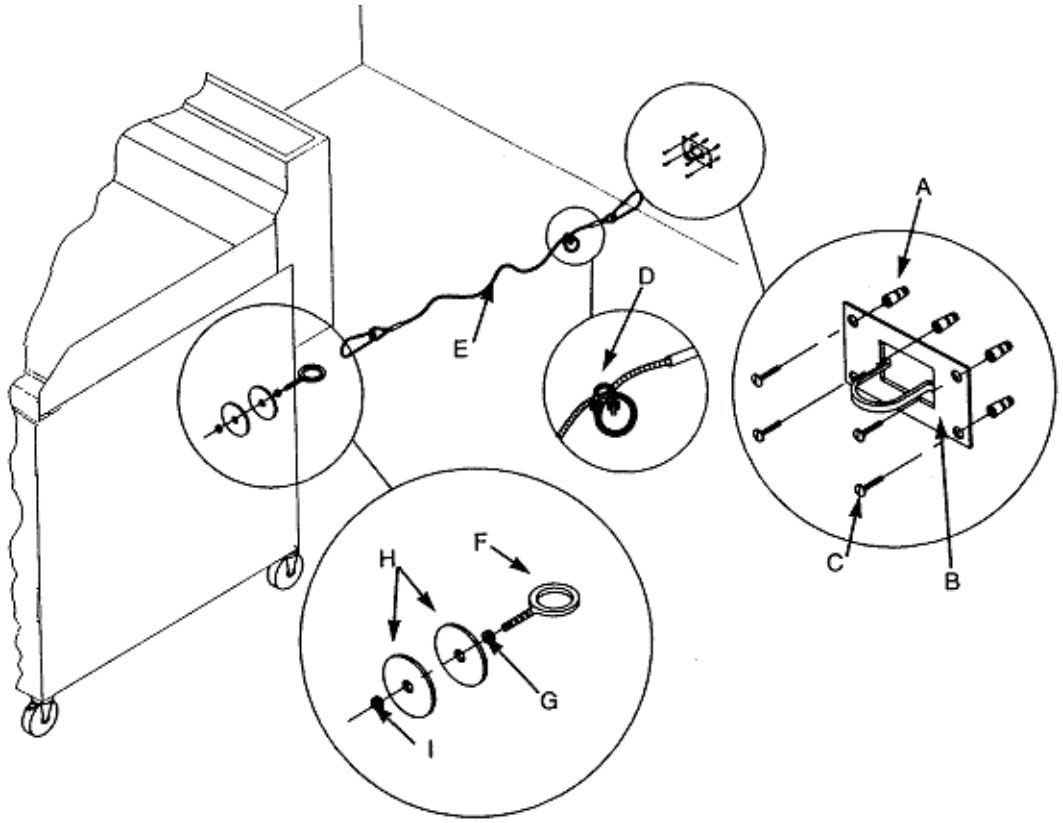


6. Secure the restraining-device bracket (item “B” in the following illustration) to a wall stud located as close as possible to the appliance connector inlet and outlet connections. Use four #12 screws (items “C”) and plastic anchors (items “A”) if necessary.
7. Install eye-bolt (item “F”) to a frame member on the rear of the equipment. After checking carefully behind the frame member for adequate clearance, drill a 7 mm hole through the frame member.
8. Thread hex nut (item “G”) and slide the washer (item “H”) onto the eye-bolt. Insert the eye-bolt through the 7 mm drilled hole and secure with a washer (item “H”) and nylon lock nut (item “I”).
9. Using the spring-loaded snap hooks, attach the restraining device to the bracket and the eye-bolt.

10. Using the cable clamp (item “D”), adjust the restraining device extended length to prevent over-bending or kinking of the appliance connector.

Figure 6

Installation of Restraint



Be sure all controls are turned off prior to disconnecting. After reconnecting, be sure all controls are turned off and all pilots are lit.

NOTICE

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.

The restraining means should be attached to a frame member on the back of the range.

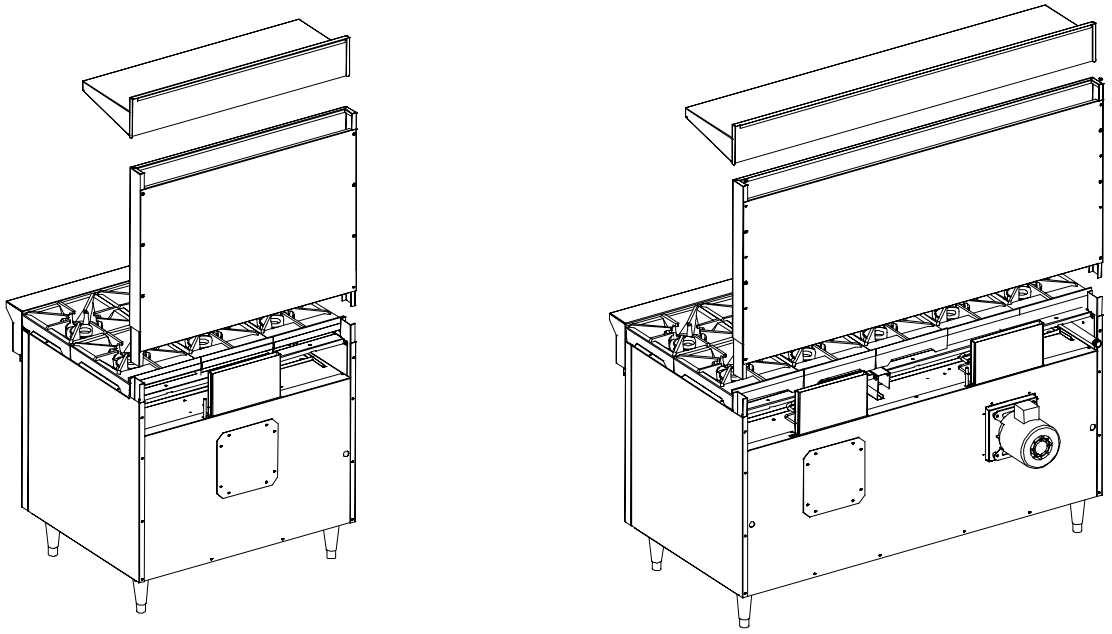
STEP 3: ATTACH FLUE RISER AND SHELF ASSEMBLY

Place the flue riser assembly on the range as shown on the appropriate diagram below.

1. Slide the flue riser assembly over the bayonets until it bottoms out, as shown below.
2. Secure ends of flue riser assembly with two (2) 1/4-20 x 3/4 hex head bolts, flat washers and lockwashers
3. Attach the shelf assembly to the flue riser assembly.

Figure 7

Installation of Flue Riser and Shelf Assembly



Single-Oven Models

Dual-Oven Models

STEP 4: ELECTRICAL CONNECTION (FOR CONVECTION-OVEN MODELS ONLY)

Wiring diagrams are located on the rear of the range. Be sure that the input voltage and phase match the requirements shown on the serial plate (see Figure 1 on page 3).

Ranges are factory-equipped either with a power cord or with one or two two-pole terminal blocks (one for each oven), located behind cover plate(s) located on the rear of the range. 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. Re-attach the cover plate.

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

All ranges are shipped wired as specified by factory order. Conversion between single-phase and three-phase can be accomplished by referring to phase loading and line amperes chart on wiring diagram for wire size and ampere requirements.

STEP 5: GAS CONNECTION

If this equipment is being installed at over 2,000 feet altitude and that information was not specified when ordered, contact the appropriate authorized Southbend Service Representative or the Southbend Service Department. Failure to install with proper orifice sizing will result in poor performance and may void the warranty.

The serial plate is located on the interior side of the kick panel below the oven. It indicates the type of gas the range is equipped to burn. All Southbend equipment is adjusted at the factory. Check type of gas on serial plate.

These models are design-certified for operation on natural or propane gases. For natural gas, the regulator is set to deliver gas at 0.99 kPa (4" W.C.) pressure to the manifold. For propane gas, it is set to 2.48 kPa (10" W.C.).

This appliance should be connected ONLY to the type of gas for which it is equipped.

An adequate gas supply is imperative. Undersized or low pressure lines will restrict the volume of gas required for satisfactory performance. Fluctuations of more than 25% on natural gas or 10% on propane gas will create problems and affect burner operating characteristics. A 1/8" pressure tap is located on the manifold to measure the manifold pressure.

The gas supply line to the range should be no smaller than the inside diameter of the pipes to which it is connected.

Purge the supply line to clean out dust, dirt, or other foreign matter before connecting the line to the range.

⚠ CAUTION

ALL PIPE JOINTS AND CONNECTIONS MUST BE TESTED THOROUGHLY FOR GAS LEAKS. USE ONLY SOAPY WATER FOR TESTING ON ALL GASES. NEVER USE AN OPEN FLAME TO CHECK FOR GAS LEAKS. ALL CONNECTIONS MUST BE CHECKED FOR LEAKS AFTER THE RANGE HAS BEEN PUT INTO OPERATION. TEST PRESSURE SHOULD NOT EXCEED 3.47 kPa (14" W.C.).

STEP 6: CHECK THE INSTALLATION

Check the installation of the range, as follows:

1. Check that all screws and bolts are tightened.
2. Check that the electrical and gas connections have been made correctly.
3. With the range in the position that it will be operated, check that the range is level. If not, adjust the legs or casters.
4. Check that the appropriate minimum clearances are satisfied (see page 4).
5. Check that the oven door(s) open and close properly.
6. Check that there is sufficient clearance in front of the range to open the oven door.
7. Wipe clean all surfaces.

STEP 7: CHECK OPERATION

Check the operation of the range, as follows:

1. Turn on the gas supply and, for convection-oven models, the electric power supply.
2. Light the burner pilots and oven pilot(s), starting with the top burner farthest from the gas input in order to purge the system of air. Check for proper pilot-flame height and adjust pilots, if necessary.
3. Turn on the oven and all burners at the same time. Check for correct burner operation and adjust the air shutters, if necessary.
4. On convection-oven models, turn on the blower(s) and check for proper operation.
5. Turn off the burners and oven.

STEP 8: SHUT-DOWN AND WIPE-CLEAN RANGE

Complete the installation by leaving the range ready for customer use:

1. Allow the range to cool.
2. Wipe clean all surfaces.
3. Unless the range is to be placed in service immediately, turn off the gas supply and (for convection-oven models, the electricity supply.
4. Make sure that a copy of this manual will be available to the people who will operate and maintain the range.

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. TO ASSURE YOUR CONFIDENCE, CONTACT YOUR AUTHORIZED SERVICE AGENCY FOR RELIABLE SERVICE, DEPENDABLE ADVICE OR OTHER ASSISTANCE, AND FOR GENUINE FACTORY PARTS.

NOTICE

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

The serial plate are located on the interior side of the kick panel below the oven door (see Figure 1 on page 3).

Replacement parts (including parts not listed in this manual) may be ordered either through a Southbend Authorized Parts Distributor or a Southbend Authorized Service Agency.

When ordering parts, please supply the Model Number, Serial Number, Part Number, and Part Description.

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.

This section contains troubleshooting flowcharts, procedures, and electric schematics to assist a qualified service technician in the servicing of a Southbend Model 400-CE Restaurant Range.

TROUBLESHOOTING FLOWCHARTS, PROCEDURES, AND WIRING DIAGRAMS

Find the symptom below that corresponds to the malfunction, then turn to the corresponding page. Follow the flowchart on that page until the problem is solved.

Troubleshooting Flowchart, Procedure, or Wiring Diagram	Page
Troubleshooting Open-Top Burners	20
Troubleshooting Base Oven	21
Troubleshooting Convection-Oven Blower	22
Adjustment of Gas Pressure Regulator	24
Adjustment of Open-Top Pilots	25
Adjustment of Open-Top Burners	25
Adjustment of Oven Standing Pilot	25
Adjustment of Oven Burner	25
Adjustment of Oven Bypass Flame Level	25
Calibration of Oven Thermostat	26
Conversion from One Type of Gas to Another	26
Wiring Diagram for 208-230 Volt Models	28

TROUBLESHOOTING OPEN-TOP BURNERS

Each open-top burner should have a steady blue flame on each port of the burner. Propane burners may have a small amount of yellow tipping, and may make a slight popping noise when turned off.

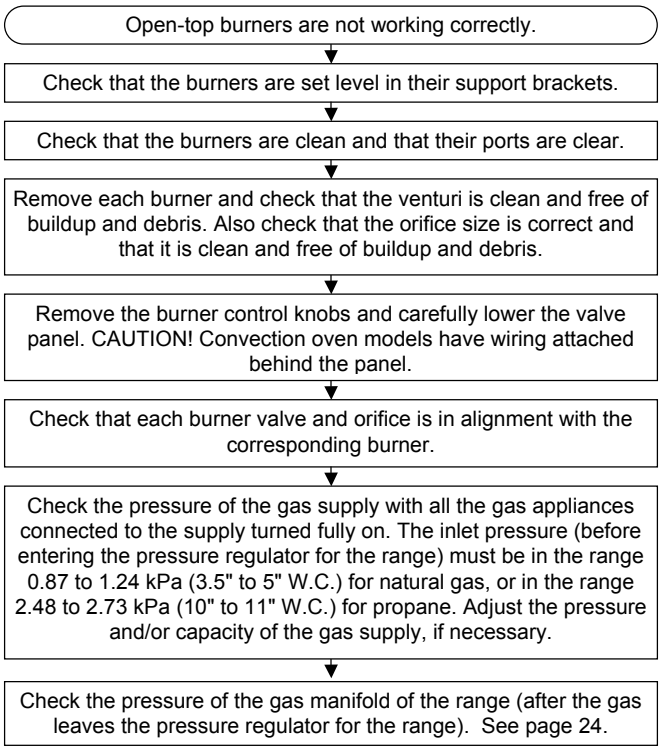
If the flame is rising up off of the ports, adjust the burner shutter so it is more closed. If the flame is long and yellow adjust the burner shutter so it is more open.

Consult the following table and the flowchart on this page.

Problem	Look for -
No burners or pilots in the range will turn on.	– Main gas supply to range is OFF.
All burners produce excessive carbon deposits.	– Incorrect gas type supplied to range. – Incorrect supply pressure.
Only some burners in a range 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 will not come on, but oven will come on.	– Control valve for top burner is in OFF position. – Pilot out.
Open-top burner pilot will not stay ignited.	– Pilot gas not adjusted properly. – Clogged orifice. – Draft condition. – Improper ventilation system. – Air in gas line. – Thermocouple bad.

Figure 8

Troubleshooting Open-Top Burners



TROUBLESHOOTING BASE OVEN

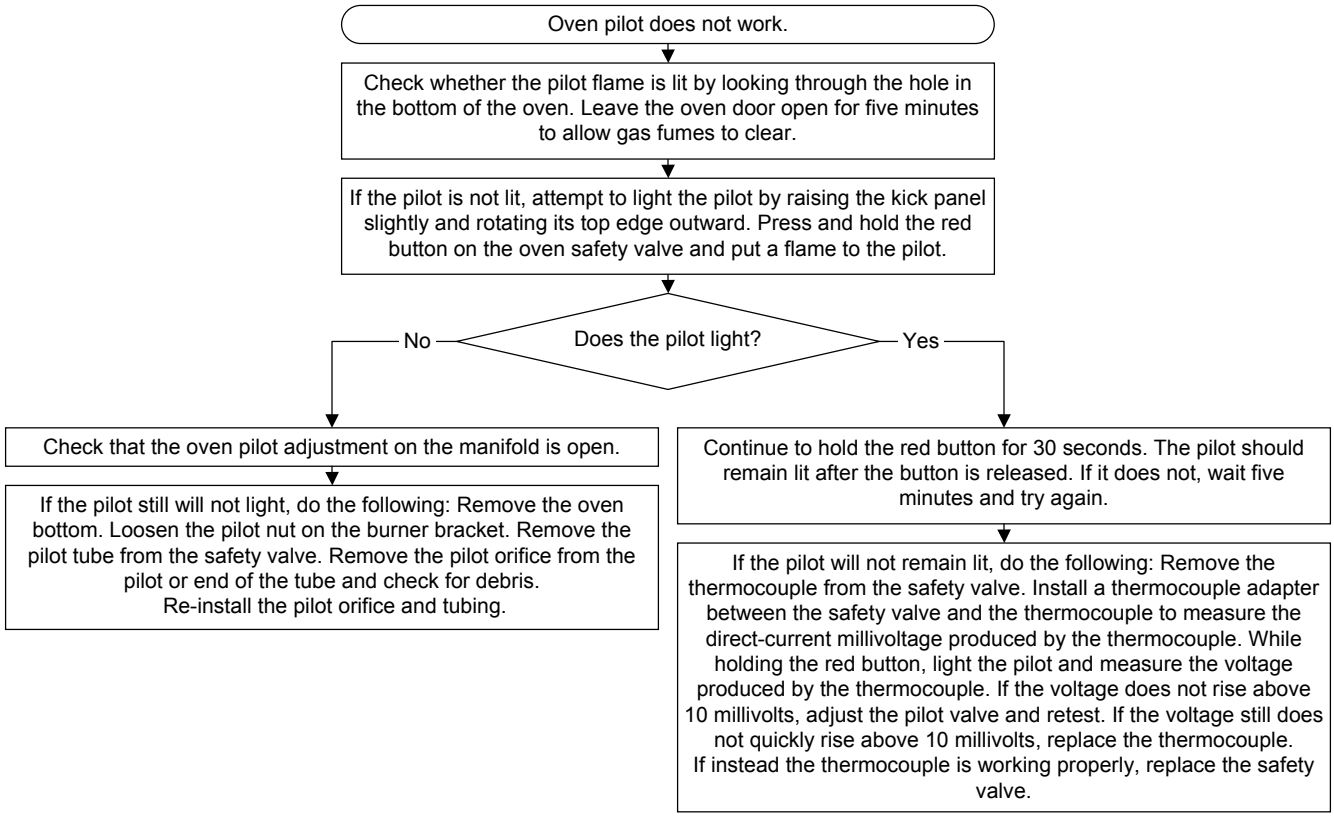
> **⚠ CAUTION**
>
> Proper and efficient operation of oven is dependent on correct installation and function of components. Always verify that components are in place and functioning as intended.

Consult the following table and the flowchart that begins on the following page.

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. – Bad thermocouple connections at safety valve. – Bad safety. – Clogged orifice. – Draft condition. – Improper ventilation system. – Air in gas line.

Figure 9

Troubleshooting Oven Pilot



TROUBLESHOOTING CONVECTION-OVEN BLOWER

⚠ WARNING

Before attempting to service or replace any electrical component, make sure power source has been disconnected.

⚠ CAUTION

When changing motor or servicing range, always verify that blower wheel rotation is clockwise when looking into the oven cavity.

The motor is serviceable from the front of the range 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.

Motor lubrication information can be found on permanent label located on motor.

If the blower does not run at all, consult the flowchart that begins on the next page. If the blower runs intermittently, consult the flowchart on this page.

The appropriate wiring diagram for the oven can be found on the rear of the oven (as well as at the end of this section of this manual).

Figure 10

Convection-Oven Blower Runs Intermittently

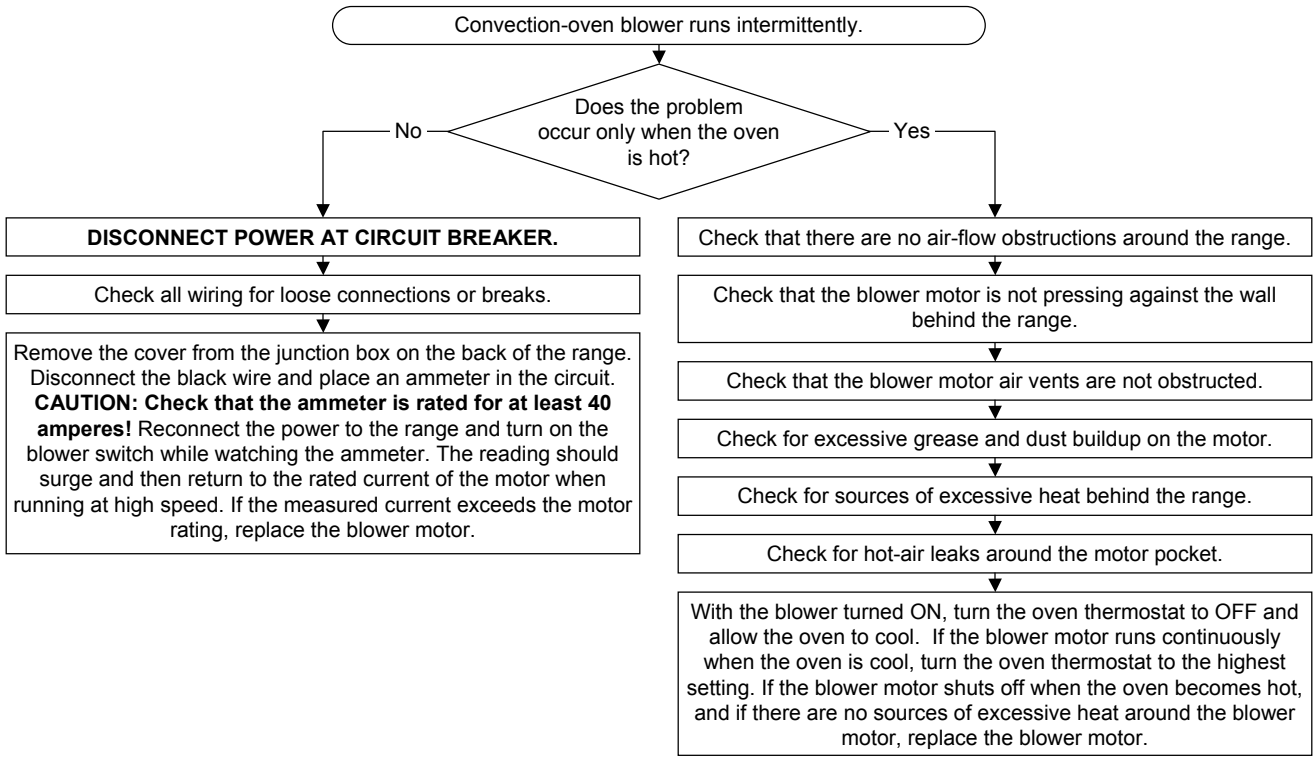


Figure 11

Convection-Oven Blower Does Not Run

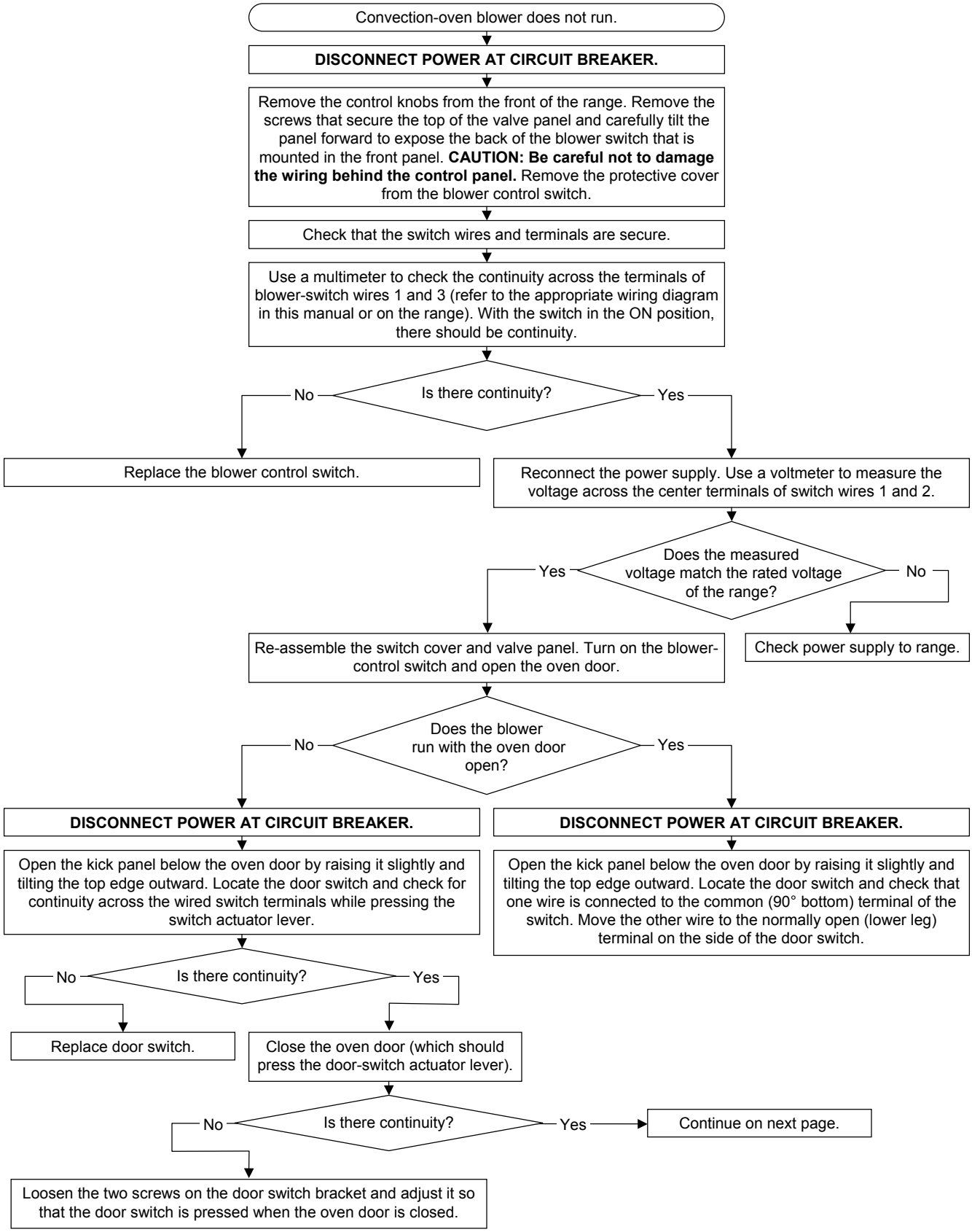
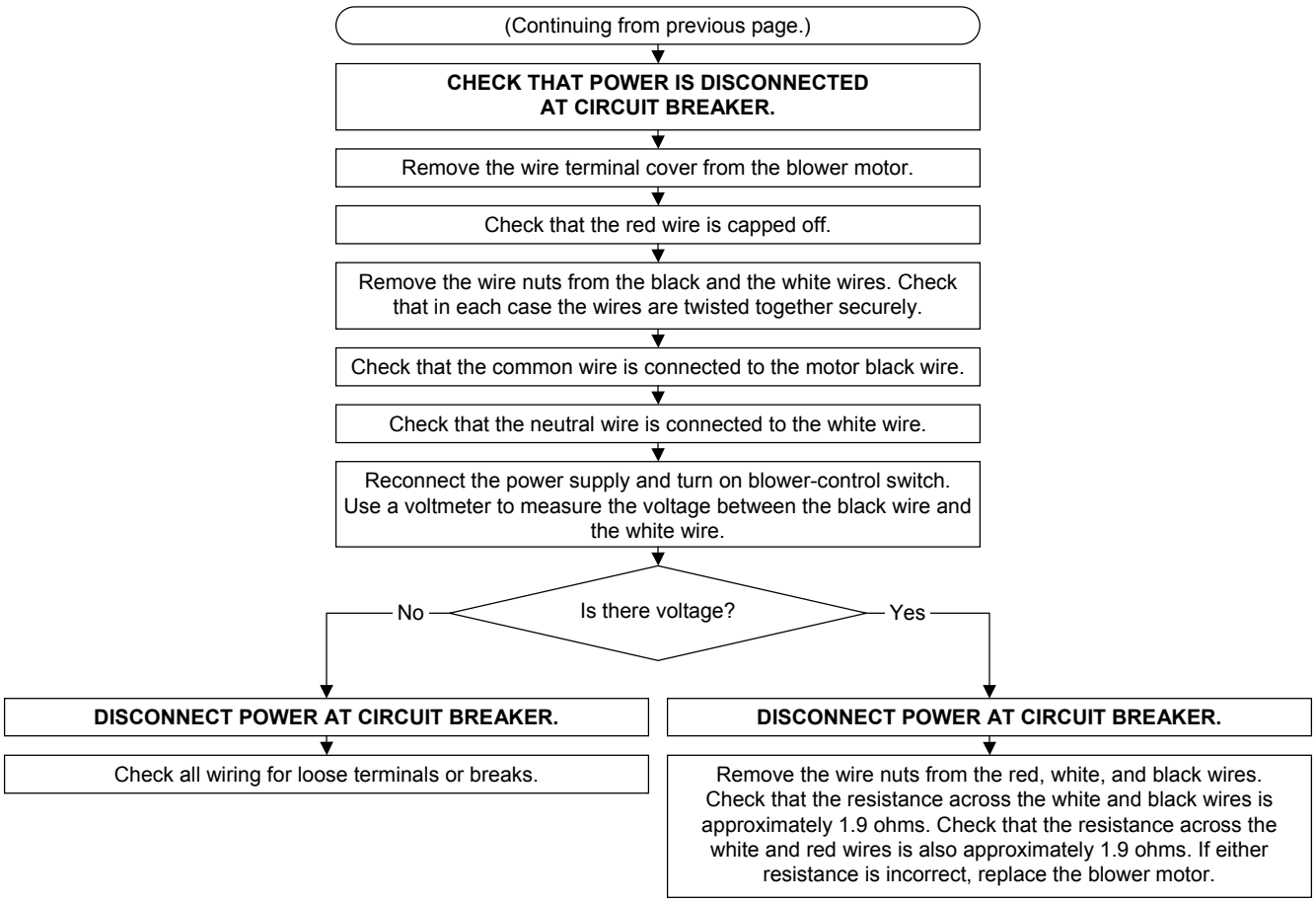


Figure 12

Convection-Oven Blower Does Not Run, Continued



ADJUSTMENT OF GAS PRESSURE REGULATOR

The pressure regulator is factory set at 0.99 kPa (4" W.C.) for natural gas and 2.48 kPa (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 range off.
3. Remove valve panels and locate the small plug in the manifold.
4. Remove plug and install a fitting appropriate to connect a manometer.
5. Turn on main gas to range and light pilots.
6. Turn all burners and ovens to full ON position and read manometer.
7. If manometer does not read 0.99 kPa (4" W.C.) for natural gas, or 2.48 kPa (10" W.C.) for propane gas, adjust regulator (if gas pressure is correct go to Step 10).
8. Remove cap from top of regulator.
9. With a screwdriver rotate regulator adjustment screw clockwise to increase, or counterclockwise to decrease, pressure until manometer shows correct reading.
10. Repeat steps 1 and 2.
11. Remove manometer fitting and replace plug in manifold.
12. Turn on main gas to range and light pilots.
13. Replace valve panels.

ADJUSTMENT OF OPEN-TOP PILOTS

The open-top pilots are the non-aerated (yellow-tipped flame) type. One is located beside each open-top burner.

Pilot 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.

The 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 19 mm 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.

ADJUSTMENT OF OPEN-TOP BURNERS

All open-top burners are primarily adjusted by means of an air shutter on the mixer face.

To adjust a burner, loosen the screw that holds the air shutter in position and rotate the 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 rate 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.

ADJUSTMENT OF OVEN STANDING PILOT

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 kick panel below the oven door. Remove the kick panel to gain access. The pilot flame is properly adjusted when it is just large enough to maintain a glowing red color of the flame switch capillary bulb.

ADJUSTMENT OF OVEN BURNER

The oven burner orifice is of the fixed type, sized for the specified 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.

ADJUSTMENT OF OVEN BYPASS FLAME LEVEL

When the oven reaches the temperature at which the dial is set, the oven thermostat reduces the flow of gas to the amount required to keep the oven at that temperature. However, the thermostat must always supply enough gas to keep the entire burner lighted. To maintain this minimum flame, the bypass must be set carefully and accurately using the following procedure (see illustration on page 27):

1. Open the kick panel below the door of the oven by lifting it slightly and pulling the top edge away from the oven. The oven burner should now be visible.
2. Turn the oven thermostat to its highest setting and check that the oven burner ignites.
3. After 5 minutes, turn the oven thermostat down to point between the two lines on the thermostat dial between OFF and the lowest temperature setting (this is the bypass setting).
4. Check to see if the flame is about 6 mm (1/4 inch) high along the entire length of the burner. If it is, the bypass flame level does not need adjustment. If it is not, continue with this procedure.
5. Remove the control knobs, thermostat dial and bezel, and the valve panel.
6. Using a screwdriver, turn the bypass adjustor on the stem of the thermostat (see illustration on page 27) counterclockwise to increase the flame or clockwise to decrease the flame until the flame is approximately 6 mm (1/4 inch) high along the entire length of the burner. (If no flame is present at all, place a flame at the burner shutter to check for gas flow.) If the proper flame level cannot be established, replace the thermostat.
7. Replace the valve panel, control knobs, and thermostat bezel and dial. Turn all control knobs to the OFF position.

CALIBRATION OF OVEN THERMOSTAT

The oven thermostat control is carefully calibrated at the factory so that its dial settings closely match actual oven temperatures. Field recalibration is seldom necessary, and should not be resorted to unless considerable experience with unexpected cooking results definitely proves that the control is not maintaining the temperatures to which the dial is set.

Do not recalibrate the oven thermostat until after the oven bypass flame has been adjusted (see previous procedure).

When checking the oven temperature, use a test instrument or a reliable mercury thermometer positioned in the center of the oven. The oven bottom must be in place. For convection ovens, the blower baffle must be in place.

Proceed as follows:

1. Place the thermometer or the thermocouple of the test instrument on an oven rack in the center of the oven.
2. Remove the thermostat knob and push out its metal insert (see illustration on page 27).
3. Replace the thermostat knob and turn it to the 200°C (400°F) mark. Check that the oven burner comes on.
4. After oven burner has been on about 15 minutes, check the oven temperature. Open the oven door for as short a time as possible. Use a flashlight, if necessary, to see the thermometer or test instrument clearly.
5. Continue to check the temperature at five-minute intervals until two successive readings are within 3°C (5°F) of each other. If successive readings continue to vary too much, first check the bypass-flame level. If the temperature still will not stabilize, replace the oven thermostat.
6. If the stable, measured oven temperature is in the range 194°C to 226°C (390°F to 410°F) it is not necessary to change the thermostat calibration. If it is outside of the temperature range, continue with this procedure.
7. Look into the thermostat knob to see the calibration screw in the stem (see illustration on page 27). Arrows near the screw indicate which way to turn the screw to make the oven temperature higher or lower. If necessary, scrape the paint seal off the screw. While holding the thermostat knob firmly to prevent the stem from turning, insert a screwdriver through center of the knob, push the calibration screw inward, and turn the screw in the appropriate direction that will increase or decrease the oven temperature to make the measured temperature agree with the dial setting. Turn the screw only in small increments until the stable, measured oven temperature is in the range 194°C to 226°C (390°F to 410°F).
8. Turn the thermostat knob to the 230°C (450°F) mark. Allow the oven to heat until two successive readings made five minutes apart are within 3°C (5°F) of each other. If the stable, measured oven temperature is now in the range 224°C to 236°C (440°F to 460°F) it is not necessary to further adjust change the thermostat calibration. If the oven temperature cannot be set correctly, replace the thermostat.
9. Replace the knob insert that was removed in Step 2.

CONVERSION FROM ONE TYPE OF GAS TO ANOTHER

Each range is shipped adjusted and equipped for a specific type of gas (either natural gas or propane). To convert a range from one type of gas to another, do the following:

1. Refer to service procedures to access all burner orifices.
2. Refer to instructions included with conversion kit.
3. Follow all steps as indicated in the conversion kit.
4. Check for leaks and proper manifold pressure (the procedure is on page 24).
5. Re-light all pilots and check for proper operation.

Note: A kit for conversion to a different type of gas may be purchased from Southbend.

Figure 13

Oven Thermostat Calibration and Bypass Flame Adjustment

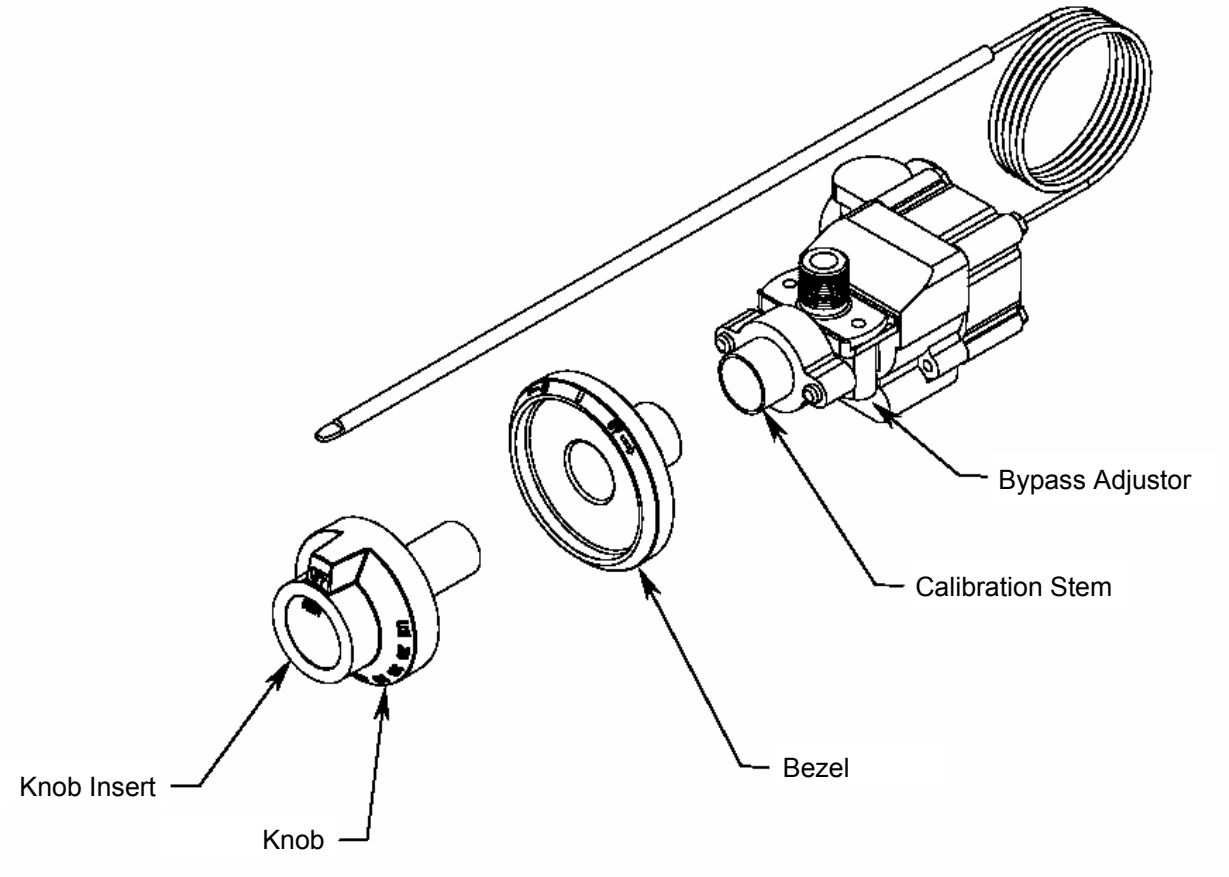
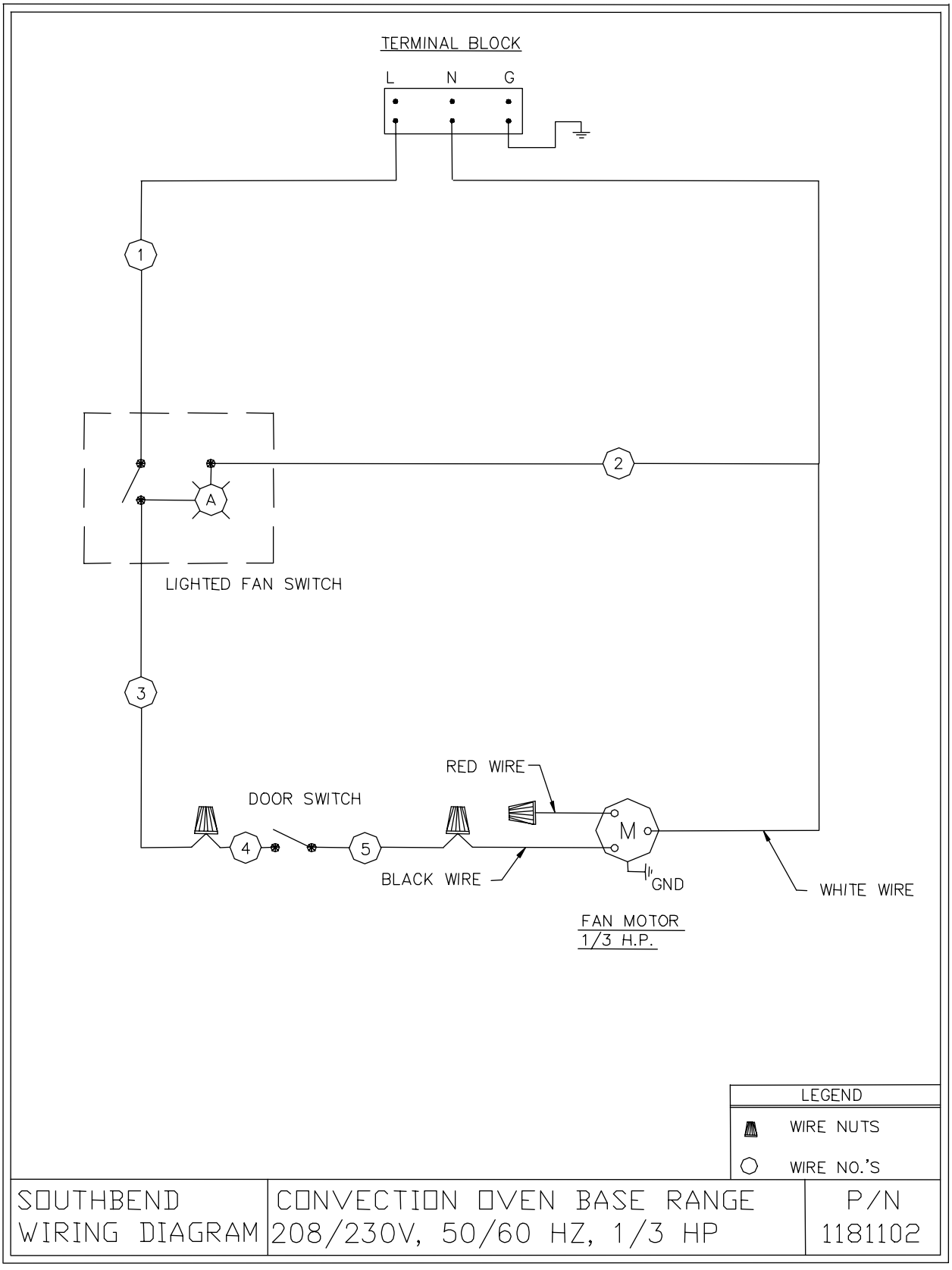


Figure 14

Wiring Diagram for 208-230 Volt Models



PARTS

NOTICE

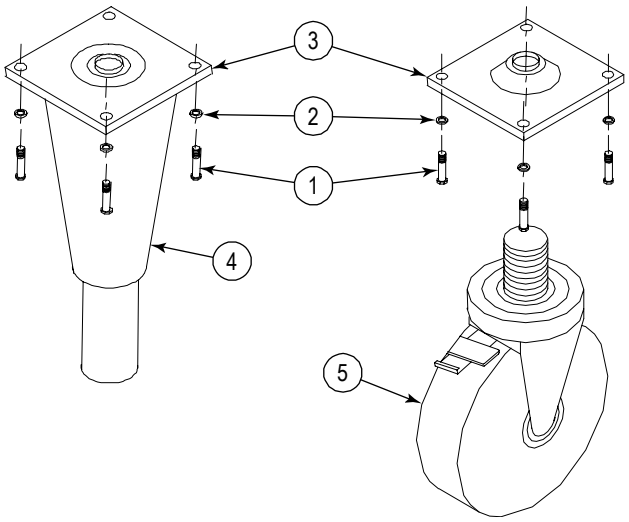
INSTALLATION OF OTHER THAN GENUINE SOUTHBEND PARTS WILL VOID THE WARRANTY ON THIS EQUIPMENT.

The following parts diagrams list and show serviceable parts. For parts not listed, contact a Southbend Authorized Parts Distributor or a Southbend Authorized Service Agency.

Parts Diagram	Page
Leg and Caster Parts	29
External Parts	30
Open-Top Burner Parts	31
Convection-Oven Parts	32
Standard Oven Parts	34

Figure 15

Leg and Caster Parts

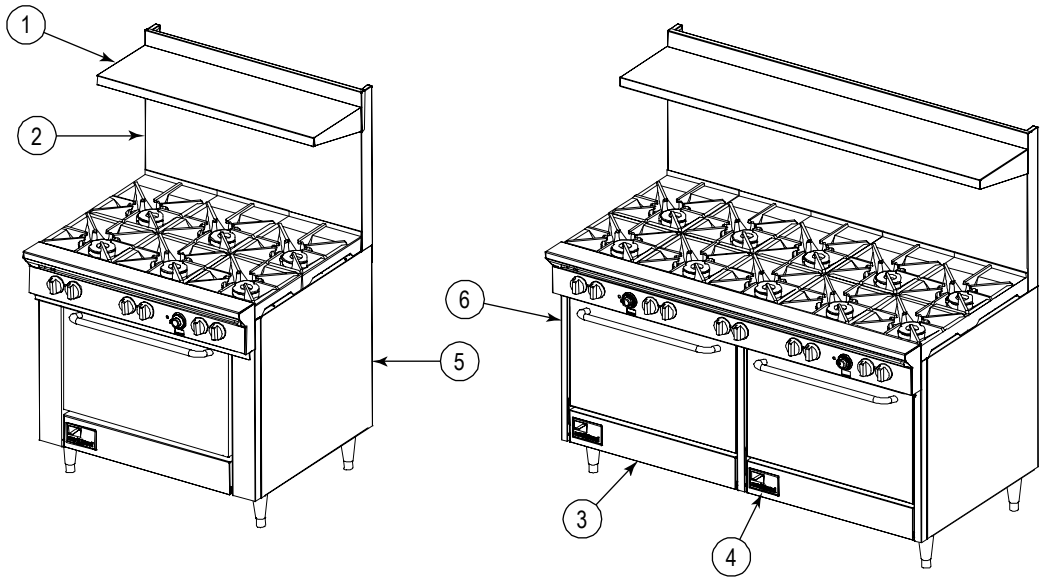


Key	Part Number	Qty	Description
1	1146201	16	1/4 X 20 X 3/4 HEX HEAD
2	1146500	16	1/4 LOCK WASHER
3	1172650	4	LEG PAD (3/4 X 10 HOLE)
4	1178205	1	LEG PACKAGE (set of 4 legs, not including bolts, leg pads, or lock washers)
*	1174262	1	EARTHQUAKE LEGS SS (SET OF 4)
5	1174265	1	CASTER PACKAGE (two casters with brake and two without brake; does not include bolts, lock washers, or leg pads)

* Not shown on drawing.

Figure 16

External Parts

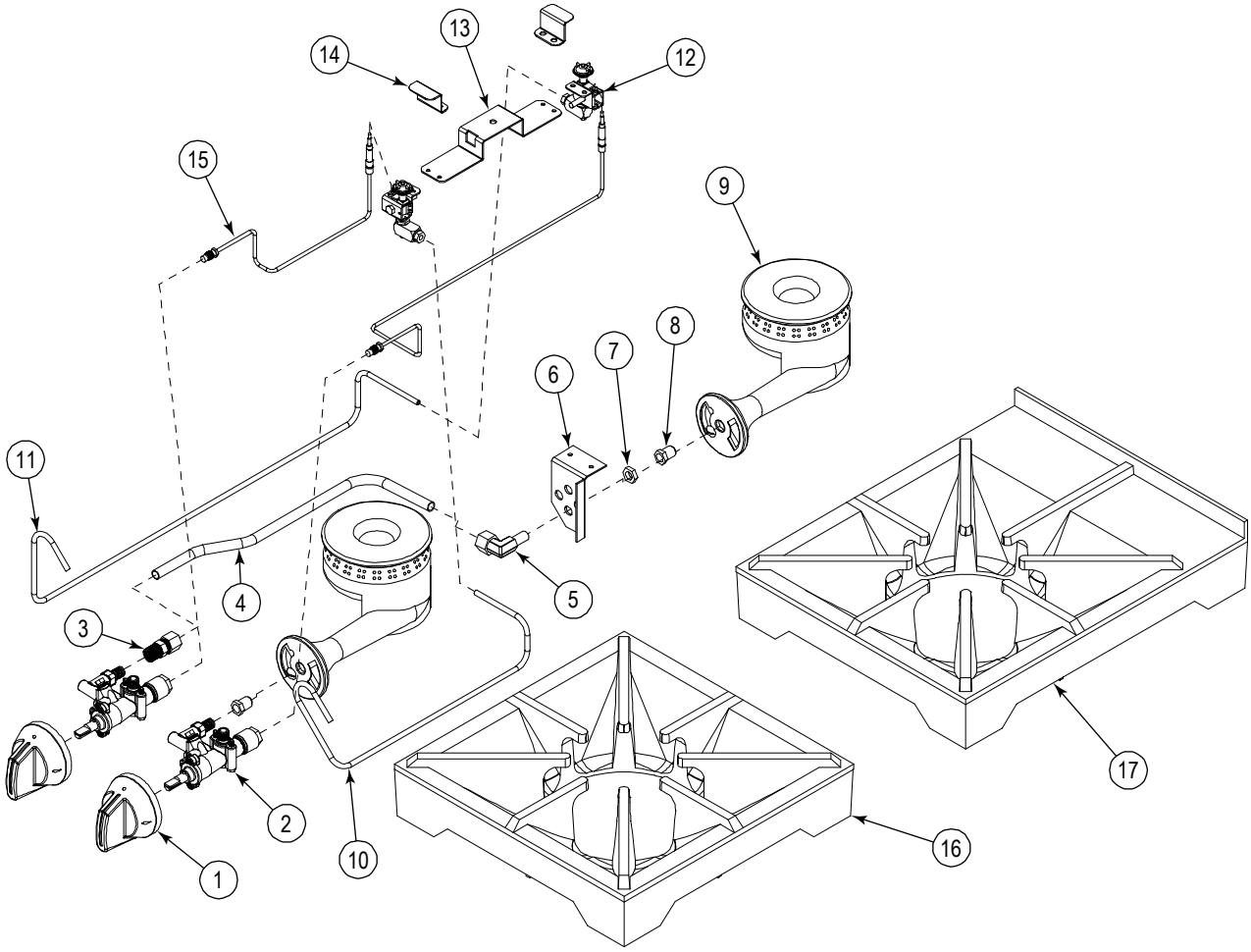


Key	Part Number	Quantity* 436	Quantity* 460	Description
1	1180842	1	-	SHELF WELD ASSEMBLY, 36"
	1180845	-	1	SHELF WELD ASSEMBLY, 60"
2	1180766	1	-	FLUE RISER ASSEMBLY, 22.5" X 36"
	1181150	1	-	FLUE RISER ASSEMBLY, 10" X 36"
	1180768	-	1	FLUE RISER ASSEMBLY, 22.5" X 60"
	1181152	-	1	FLUE RISER ASSEMBLY, 10" X 60"
3	1180783	1	2	KICK PANEL
4	1172716	1	2	LOGO PLATE
5	1180743	1	1	SIDE PANEL, RIGHT
6	1180744	1	1	SIDE PANEL, LEFT
**	1180759	1	2	DRIP PAN 36"

* Quantity used depends on model number (436 or 460).
** Not shown on drawing.

Figure 17

Open-Top Burner Parts



Key	Part Number	Quantity*		Description
		436	460	
1	1184689	6	10	KNOB
2	1182482	6	10	VALVE, CE OPEN TOP BURNER
3	P6016	3	5	FITTING, BRASS, STRT, 68C-6-4
4	1182487	3	5	TUBE, CE REAR BURNER
5	1148306	3	5	FITTING, ORIFICE BODY
6	1182287	3	5	BRACKET, REAR TUBE SUPPORT
7	1148301	3	5	NUT, BRASS JAM
8	1008737	6	10	HOOD, ORIFICE #37 (NATURAL GAS)
	1008754	6	10	HOOD, ORIFICE #54 (LP GAS)
9	1177111	6	10	BURNER ASSEMBLY
10	1182489	3	5	TUBE, CE FRONT PILOT
11	1182490	3	5	TUBE, CE REAR PILOT
12	1182485	6	10	PILOT, CE
13	1182488	3	5	BRACKET, CE PILOT SUPPORT
14	1182494	3	5	SHIELD, CE PILOT
15	1182486	6	10	THERMOCOUPLE, CE
16	1180781	3	5	FRONT GRATE
17	1180405	3	5	REAR GRATE

* Quantity used depends on model number (436 or 460).

Convection Oven Parts

See drawing on following page.

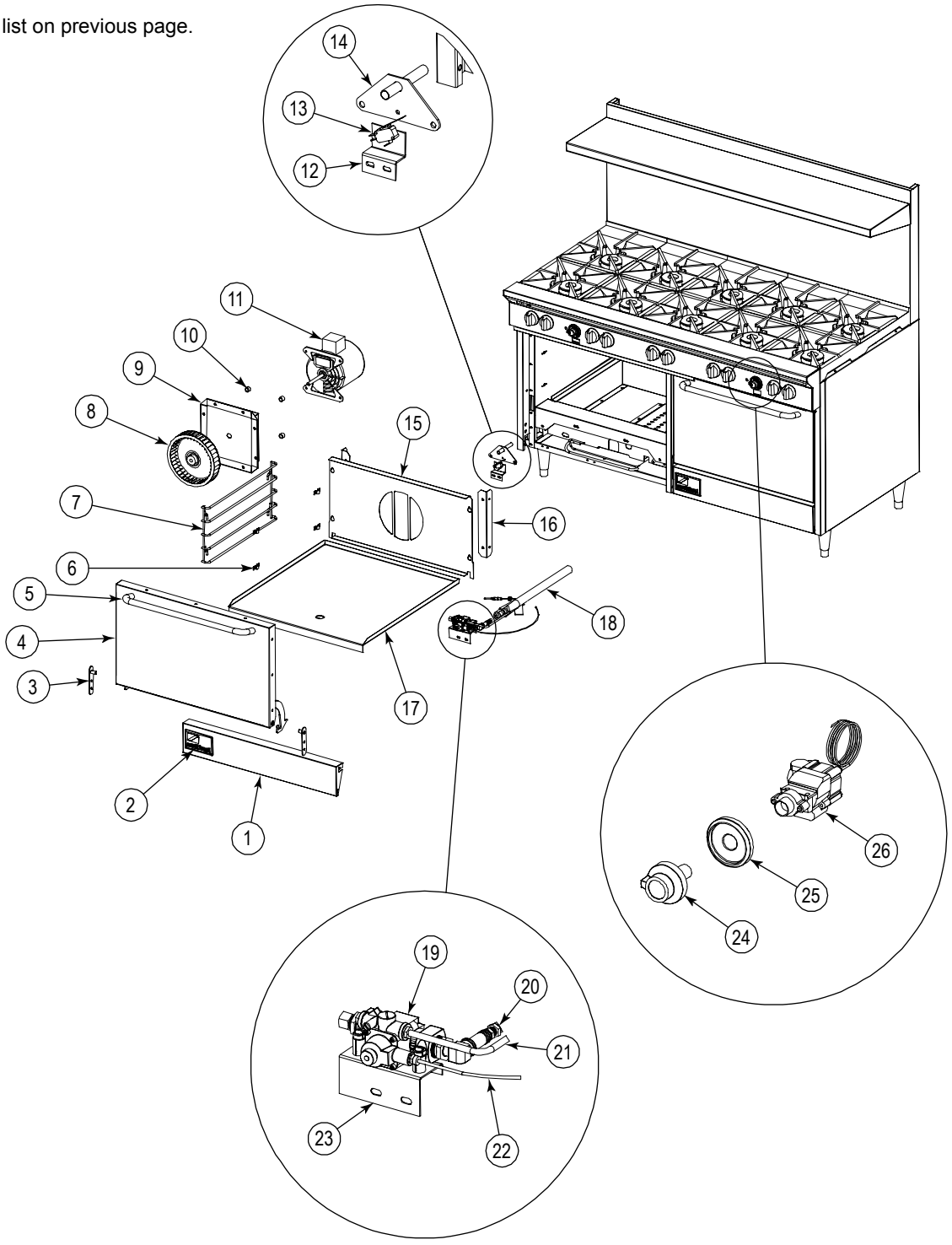
Key	Part Number	Qty*	Description
1	1180783	1	PANEL, KICK
2	1181376	1	LOGO PLATE
3	1180861	2	DOOR HINGE
4	1024196	1	DOOR ASSEMBLY (FULL OVEN)
5	1179950	1	DOOR HANDLE (FULL OVEN)
**	P1089	1	SPRING, DOOR (FULL OVEN)
6	6660	4	CLIP, RACK SUPPORT
7	1180528	2	RACK GUIDE
8	1177581	1	BLOWER WHEEL ASSEMBLY
9	1180821	1	POCKET WELD ASSEMBLY
10	1179710	4	SPACER, BLOWER
11	1179688	1	MOTOR, 1/3 HP, 208/240 VOLT
	1177452	1	MOTOR, 1/3 HP, 115VOLT
12	1181117	1	BRACKET, DOOR SWITCH
13	1177567	1	SWITCH, DOOR
14	1180859	1	QUADRANT ASSEMBLY
15	1180834	1	OVEN BAFFLE CO.
16	1180841	2	BRACKET, OVEN BAFFLE
17	1180776	1	OVEN BOTTOM (FULL OVEN)
18	1164278	1	SA BURNER (NATURAL GAS)
	1164279	1	SA BURNER (LP GAS)
19	1164037	1	OVEN SAFETY VALVE
20	1008736	1	HOOD ORIFICE #36 (NATURAL GAS)
	1008752	1	HOOD ORIFICE #52 (LP GAS)
21	1180873	1	PILOT TUBE
22	1163868	1	THERMOCOUPLE
23	1180830	1	BRACKET, OVEN SAFETY
24	1186683	1	KNOB, CE OVEN THERMOSTAT DIAL
25	1182497	1	BEZEL, CE OVEN THERMOSTAT KNOB
26	1186680	1	THERMOSTAT

* Quantity per oven.
** Not shown on drawing.

Figure 18

Convection Oven Parts

See parts list on previous page.



Standard Oven Parts

See drawing on following page.

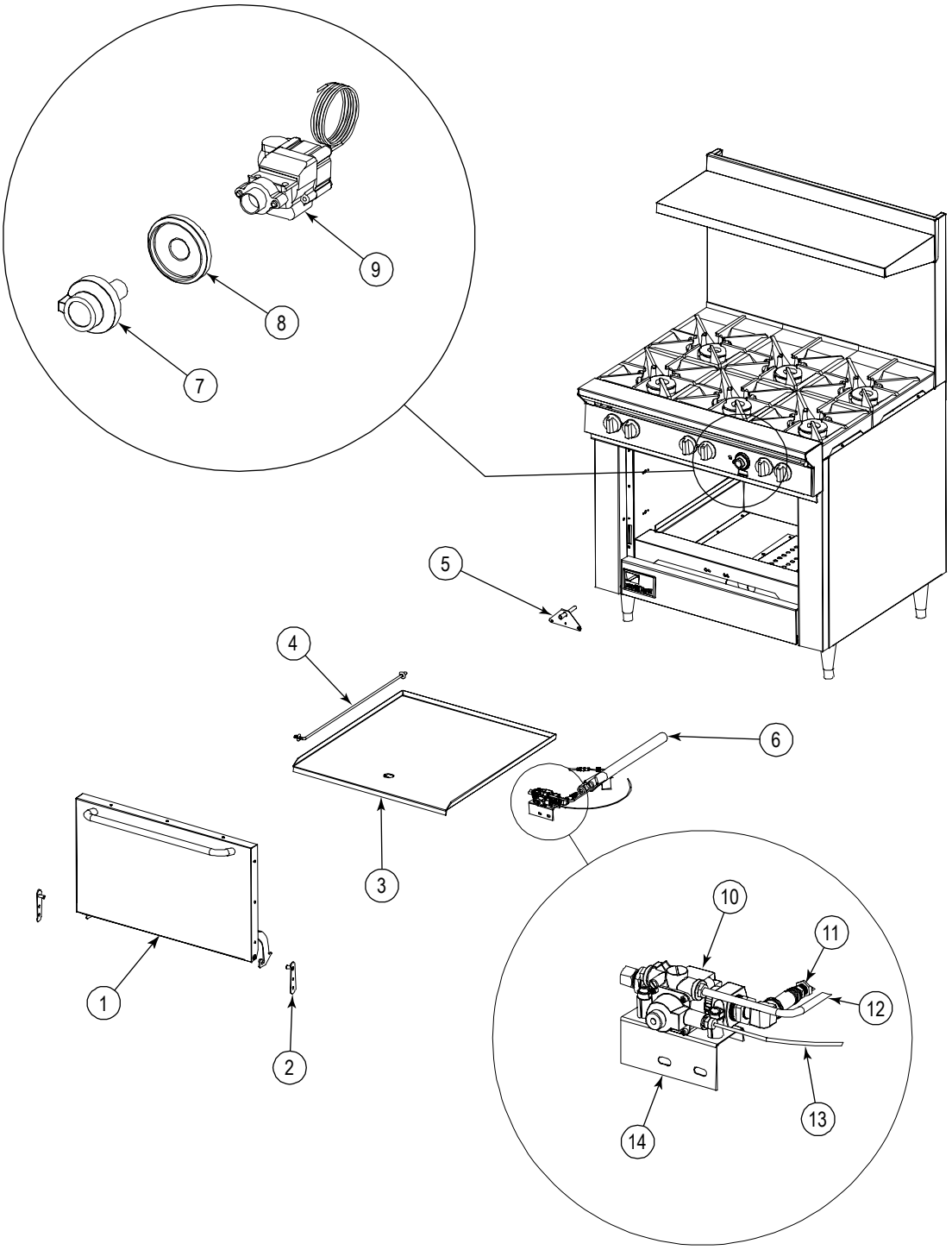
Key	Part Number	Qty	Description
1	1024196	1	DOOR ASSEMBLY (FULL OVEN)
2	1180861	2	DOOR HINGE
*	P1089	1	SPRING, DOOR (FULL OVEN)
3	1180776	1	OVEN BOTTOM (FULL OVEN)
4	1173547	1	ROD, OVEN
5	1180859	1	QUADRANT ASSEMBLY
6	1164278	1	SA BURNER (NATURAL GAS)
	1164279	1	SA BURNER (LP GAS)
7	1186683	1	KNOB, CE OVEN THERMOSTAT DIAL
8	1182497	1	BEZEL, CE OVEN THERMOSTAT KNOB
9	1186680	1	THERMOSTAT
*	1182493	1	SHIELD, CE THERMOSTAT
10	1164037	1	OVEN SAFETY VALVE
11	1008736	1	HOOD ORIFICE #36 (NATURAL GAS)
	1008752	1	HOOD ORIFICE #52 (LP GAS)
12	1180873	1	PILOT TUBE
13	1163868	1	THERMOCOUPLE
14	1180830	1	BRACKET, OVEN SAFETY

* Not shown on drawing.

Figure 19

Standard Oven Parts

See parts list on previous page.



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Model 400-CE RESTAURANT RANGES

CFESA
Commercial Food Equipment Service Association

Genuine Parts Protect *YOU* All-Ways !
C NAFEM E S A

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 appliance. 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 appliance.

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CE

Southbend
1100 Old Honeycutt Road, Fuquay-Varina, NC 27526
www.southbendnc.com