



**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

## **SALAMANDAR RADIANT BROILERS**

**MODELS: S-36, S-36A, S-60, S-60A, 3230, 3230A  
S-36W, S-36AW, 3230W, 3230AW**

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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**RETAIN THIS MANUAL FOR FUTURE REFERENCE.**

**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.**

**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.**



*A MIDDLEBY COMPANY*

1100 Old Honeycutt Road  
Fuquay, NC 27526  
(919) 552-9161  
FAX (919) 552-9798  
(800) 348-2558

# SALAMANDER RADIANT BROILER USER'S GUIDE

## LIMITED WARRANTY

Southbend warrants that the equipment, as supplied by the factory to the original purchasers, is free 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 (25) 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 labor 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."

# SALAMANDER RADIANT BROILER SERVICE

## ADJUSTMENTS



### 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.

### WARNING:

DISCONNECT POWER FROM APPLIANCE EQUIPPED WITH CONVECTION-TYPE OVEN HAVING A RADIANT BROILER MOUNTED TO APPLIANCE BEFORE CLEANING OR SERVICING, IF APPLICABLE.

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, located on interior bottom, at center towards front under grease pan.

### PILOTS:

1. Locate pilot valve on bottom of unit near the front edge. It is inside the unit and can be seen through a small hole.
2. Turn slotted screw on valve until pilot achieves ignition of both burners. If pilots are turned to high, soot will begin to form on ceramics above pilot flames. Pilot flames should be approximately 3/4" in length.

### BURNERS:

1. To adjust burner air shutters, first observe burner flames:
  - A. If flames are lifting off the burner ports, air shutter must be closed.
  - B. If flames have large yellow tips or are sooting ceramic tiles, air shutter must be opened.
2. Turn off burners and allow to cool.
3. Remove ceramic tiles around burner requiring adjustment.
4. Remove burner.
5. Loosen air shutter screw and adjust air shutter as per Step 1 above.
6. Tighten screw.
7. Re-install burner.
8. Replace ceramic tiles.
9. Light burner and observe flame.
10. Repeat this procedure, as necessary, to obtain a stable blue flame with a slight yellow tip.



# ADJUSTMENTS

## PRESSURE REGULATOR:

1. Turn off main gas to unit.
2. Remove broiler bottom (6 sheet metal screws).
3. Remove pilot line valve from manifold.
4. Install a fitting appropriate to connect a manometer.
5. Be sure both valves are in the "OFF" position and turn on main gas.
6. Ignite rear burner by hand and then front burner.
7. With burners full on, read manometer. It should read 4" W.C. for natural gas and 10" W.C. for propane gas. (If pressure is satisfactory, go to Step 10.)
8. Remove cap from top of regulator.
9. With a screwdriver, rotate adjustment screw "clockwise" to increase, or "counterclockwise" to decrease, pressure until manometer shows correct reading.
10. Turn burner valves to "OFF" position.
11. Turn main gas off.
12. Remove manometer fitting.
13. Replace pilot valve in manifold.
14. Put bottom on.
15. Turn on main gas.
16. Light pilot.
17. Verify proper burner ignition.

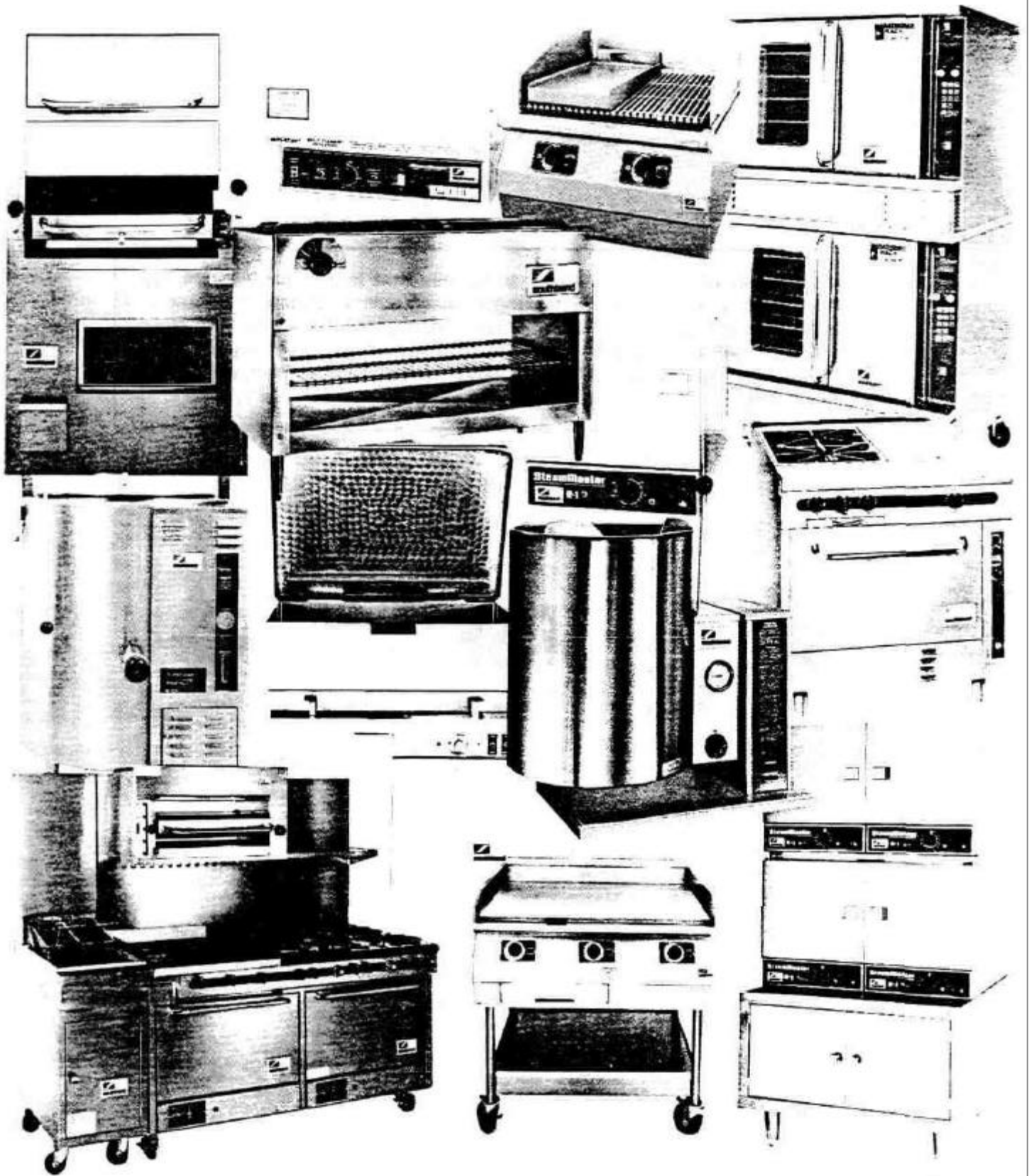
## TROUBLE SHOOTING:

Problem	Look for —
Unit will not turn on	main gas supply "OFF." — pilot out.
Burners produce excessive carbon deposits	— incorrect gas type. — incorrect supply pressure. — primary air not adjusted properly. — incorrect orifices.
Pilot produces excessive carbon deposits	— pilot gas not adjusted properly. — incorrect gas type. — incorrect supply pressure.
Pilot will not stay ignited	— pilot gas not adjusted properly. — clogged orifice. — draft condition. — improper ventilation system. — air in gas line.



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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 Melters  
Counter Top Broilers & Griddles

# SALAMANDER RADIANT BROILERS



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.



**southbend**

A MIDDLEBY COMPANY



PART NUMBER 1164373

1100 Old Honeycutt Road  
Fuquay-Varina, NC 27526  
(919)552-9161  
FAX (919) 552-9798  
(800) 348-2558

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## SERVICE BULLETIN

ALL SOUTHBEND AUTHORIZED SERVICE AGENCIES AND  
PARTS DISTRIBUTORS  
ORIFICE ALIGNMENT ON INFRA-RED BROILERS

AUGUST 5, 1986

MODELS: 170, 171, 270, 171-40

Please insert in the BR - Broiler and Cheese Melter Section of your master Southbend Service Manual.

In the past it was concluded that it was not required to use an orifice elbow "nut" in the installation of the orifices on Infra-Red Broilers. This conclusion was made in error. Without the nut in place there is not enough thread surface on the elbow to maintain good orifice alignment.

Symptoms are poor combustion or blue haze on the burner, it would not be possible to properly adjust the unit with the air and/or low setting adjustments on valve.

To correct this situation order and install:  
Orifice Elbow Nut - Part Number 58-00002 - List Price \$.50

For assembly, see Fig. 1.

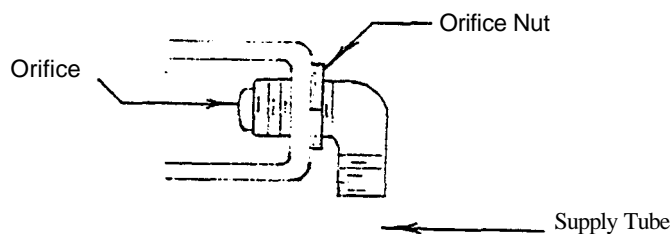
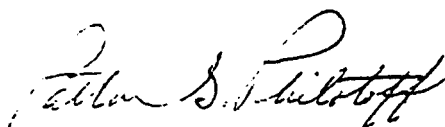


Figure 1



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



# S E R V I C E

# southbend

# B•U•L•L•E•T•I•N

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**TO:** Southbend Parts & Service Distributors

**FROM:** Thomas S. Enyeart- CFSP  
Director Product Service

**DATE:** February 5, 1994 **BULLETIN #9422**

**SUBJECT: Valve Change- Radiant Salamander Broilers- Propane Gas.  
Models S-36, S-60, 3230**

Please insert this Bulletin with the #1164373 Salamander Radiant Broiler owners manual in the BR- Broiler & Cheese Melters section of your master Southbend Manual.

Effective March, 1994 Serial #94C and thereafter

Radiant Salamander Broiler Valves are being changed. Changing from the old style to the new style for the first time requires a fitting. 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:**

1164209 Valve-On-Off

This part will be available until existing stock is depleted- approximately 1 year. Then it will be obsolete and no longer available.

**NEW PARTS:**

[1176007](#) Valve -Hi Low- Propane Gas

When replacing 1164209 for the first time use:

[4440409](#) Valve Replacement Kit- Propane Gas

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

[1176007](#) Valve-Hi Low- Propane Gas

[1174948](#) 1/8 NPT x 3/8 CC Fitting

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

For Natural Gas See Bulletin 9421- Part #[1176006](#) & [4440410](#).

Both Valves use #[1073495](#) Valve Knob.

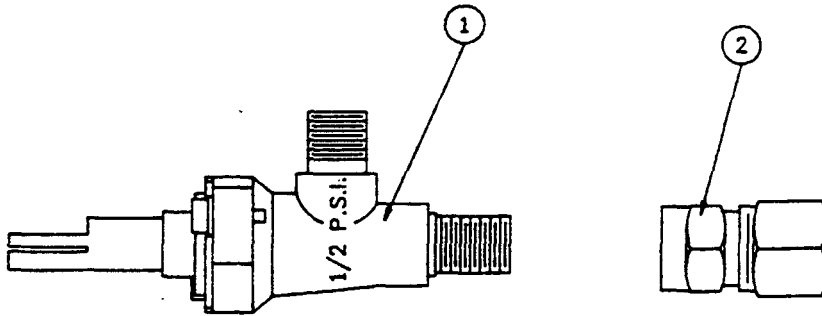
The 1176007 Valve has the Southbend logo & 07 stamped on the flat side of the stem.

List Prices- effective 1-15-94

1176007- \$11.90; 4440409- \$16.10; 1174948- \$4.20. Other parts are in the current price list.

TE/dy

2	1174948	1/8 NPT F X 3/8CC FITTING	1
1	1176007	HI-LOW VALVE (PROP)	1
*	4440409	BURNER VALVE REPLACEMENT KIT	*
ITEM	PART NO.	DESCRIPTION	Qty.



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		



DRAWN BY DBC	CHK	APP
DATE 2/2/94	SCALE FULL	
MATL N/A	GAGE N/A	
BURNER VALVE REPLACEMENT KIT (PROP)	PART NO. 4440409	

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

# S E R V I C E

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**TO:** Southbend Parts & Service Distributors

**FROM:** Thomas S. Enyeart- CFSP  
Director Product Service

**DATE:** February 5, 1994 **BULLETIN #9421**

**SUBJECT: Valve Change- Radiant Salamander Broilers- Propane Gas.  
Models S-36, S-60, 3230**

Please insert this Bulletin with the #1164373 Salamander Radiant Broiler owners manual in the BR- Broiler & Cheese Melters section of your master Southbend Manual.

Effective March, 1994 Serial #94C and thereafter

Radiant Salamander Broiler Valves are being changed. Changing from the old style to the new style for the first time requires a fitting. 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:**

1164209 Valve-On-Off

This part will be available until existing stock is depleted- approximately 1 year. Then it will be obsolete and no longer available.

**NEW PARTS:**

[1176007](#) Valve -Hi Low- Propane Gas

When replacing 1164209 for the first time use:

[4440409](#) Valve Replacement Kit- Propane Gas

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

[1176007](#) Valve-Hi Low- Propane Gas

[1174948](#) 1/8 NPT x 3/8 CC Fitting

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

For Natural Gas See Bulletin 9421- Part #[1176006](#) & [4440410](#).

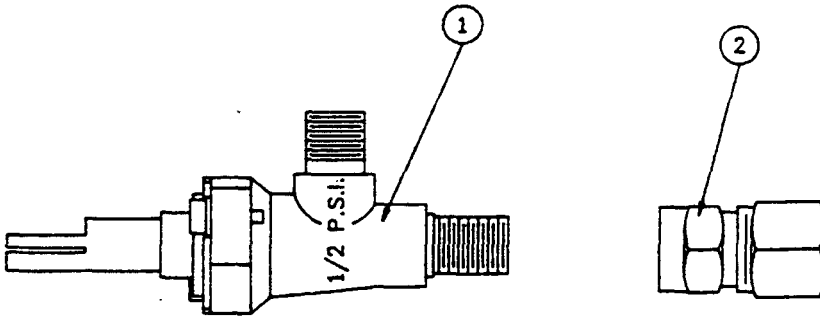
Both Valves use #[1073495](#) Valve Knob.

Both Valves use #1073495 Valve Knob.  
 The 1176006 Valve has the Southbend logo & 06 stamped on the flat side of the stem.


List Prices- effective 1-15-94  
 1176006- \$11.90; 4440410- \$16.10; 1174948- \$4.20. Other parts are in the current price list.

TE/dy

2	1174948	1/8 NPT F X 3/8CC FITTING	1
1	1176006	HI-LOW VALVE (NAT)	1
*	4440410	BURNER VALVE REPLACEMENT KIT	*
ITEM	PART NO.	DESCRIPTION	Qty.



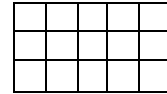
ACAD SIZE A DWG-  
DO NOT HAND ALTER

TOLERANCES (UNLESS OTHERWISE SPECIFIED)			
X.XXX	±	0.015	FRACTIONS ± 1/8"
X.XX	±	0.030	DEGREES ± 1°
X.X	±	0.060	
			
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. 4440410	

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

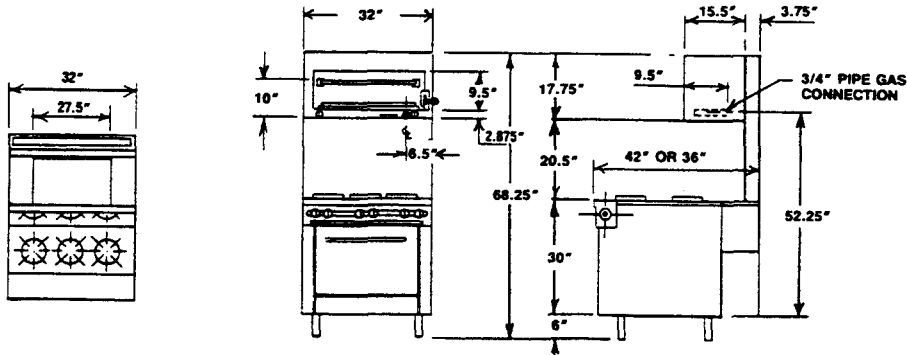
# SALAMANDER RADIANT BROILER INSTALLATION

## SPECIFICATIONS



**NOTE:** If this equipment is being installed over 2,000 feet altitude and was not so specified on order, contact Southbend Service Department. Failure to install with proper orifice sizing may void the warranty.

3230A



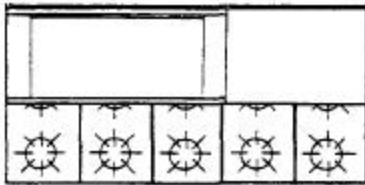
TOP VIEW

FRONT VIEW

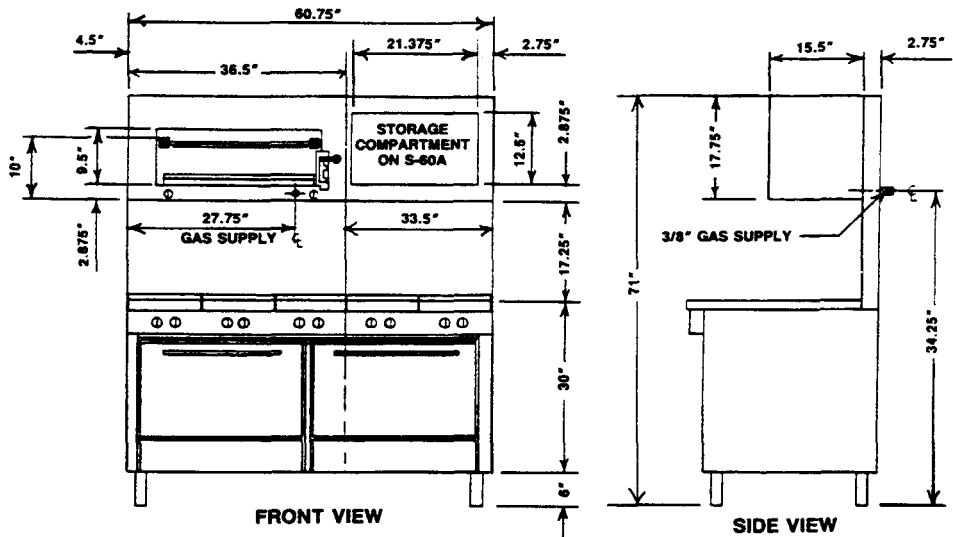
SIDE VIEW

S-36A - S-60A

MODELS  
S-36A for 36 1/2" Range  
S-60A for 60 3/4" Range



TOP VIEW



FRONT VIEW

SIDE VIEW

MODEL	GRID SIZE	
	Width	Depth
3230A	23"	15"
S-36A (36 1/2" Range) S-60A (60 3/4" Range)	23"	15"

Not For Scale  
For Dimensional Purposes Only

MODEL	GAS TYPE	MANIFOLD PRESSURE (IN W.C.)	BURNERS			PILOTS		
			RATE BTUs/Hr.	NO.	ORIFICE SIZE	RATE BTUs/Hr.	NO.	ORIFICE SIZE
3230A 3230AW	Natural	4"	20,000	2	#1004744 #44	Approx. 800	1	Adj.
S-36A S-36AW S-60A	Propane	10"	20,000	2	#1008754 #54	Approx. 800	1	Adj.



## 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. Canadian installation must comply with CAN/CGA-B149.1 Natural Gas Installation Code, Code CAN/CGA-B149.2 Propane Installation Code. Canadian Electrical Code Parts I, or Local Codes and CSA C22.1

These models are 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 located on interior bottom, at center towards front under grease pan.

For orifice sizes and pressure regulator settings refer to chart under "specifications."

An adequate gas supply is imperative. Undersized or low pressure lines restrict the volume of gas necessary 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 a 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.

**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).*

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 Z223.1-Latest Edition. Canadian installation must comply with CAN/CGA-B149.1 Natural Gas Installation Code, Code CAN/CGA-B149.2 Propane Installation Code.

**EXHAUST FANS AND CANOPIES:** 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° or more with the horizontal. This 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 two 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 is preferred over any type of direct venting.

### INSTALLATION:

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

**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 AS COMBUSTION AIR ENTERS THROUGH THIS AREA.**



**PLEASE NOTE CLEARANCES BELOW:**

Minimum clearances from COMBUSTIBLE CONSTRUCTION are:

TYPE	SIDES	REAR
ALL MODELS	6 IN.	6 IN.
WALL MOUNTED UNITS	6 IN.	0 IN.

The Minimum clearances from NON-COMBUSTIBLE CONSTRUCTION are:

TYPE	SIDES	REAR
ALL MODELS	0 IN.	0 IN.
WALL MOUNTED UNITS	0 IN.	0 IN.

**NOTE:** No additional clearance from the sides and rear is required for service, as the units are serviceable from the front.

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

**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-LATEST EDITION, 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-LATEST EDITION 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.**

**NOTE:** Adequate restraining means must be attached to rear of appliance when installed. Installation must conform to local codes as applicable.

**ASSEMBLY INSTRUCTIONS FOR MODEL 3230A SALAMANDER:**

The Model 3230A can be mounted to a Sectional Series Range or be mounted to a wall (3230AW).

**A. 3230A Mounted to a Sectional Range.**

The 3230A is completely assembled at the factory to the flue riser of the specified sectional range as ordered. The flue riser may or may not be mounted to the sectional range. If it is not proceed as follows:

1. Front panel "A" is fastened with six (6) sheet metal screws. Remove the screws and the panel will come loose. (See Fig. 1.)
2. Remove the nuts and lockwashers from collar plate studs "C" on unit.
3. Lower the flue riser with the 3230A mounted on it onto the unit such that studs "C" enter the holes in the shelf bracket. Be certain to adequately support the broiler. Secure shelf bracket "B" with the nuts and lockwashers which were removed previously.
4. The flue riser extension "D" is packed with the unit. Slide extension over the flue "E" protruding through the center opening of the collar plate T."

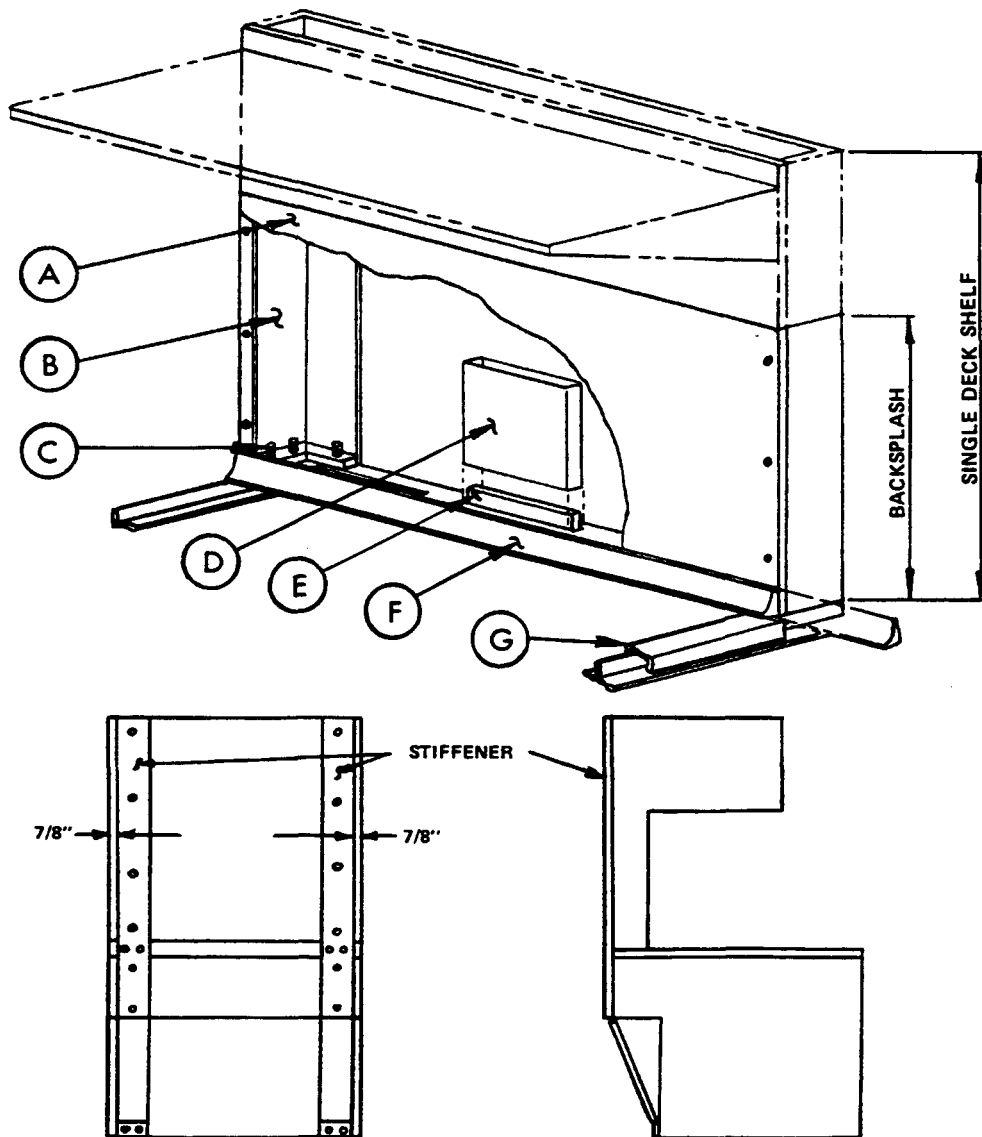


# INSTALLATION

5. Replace panel "A."
6. Locate rear stiffeners (2 per unit). Part No. 1162339 for 42" deep units, and Part No. 1162340 for 36" deep units. The stiffeners have 10 pre-punched holes each.
7. Hold stiffeners against the rear of the unit with their outside edge approximately 7/8" from the right and the left edges of the unit. Mark the stiffener hole locations on back of unit.
8. Drill out the holes at the rear of the unit with a 7/32" dia. drill bit.
9. Mount each stiffener with ten (10) 1/4-20 self tapping sheet metal screws (Part No. 1146313).
10. Supporting mechanism can now be removed from broiler.

## MOUNTING SHELF OR BACKSPLASH INSTALLATION INSTRUCTIONS

FIGURE 1







## B. 3230AW Mounted to Wall

- Each 3230AW will be mounted to the wall with one of the following kits:

EACH BLACK KIT INCLUDES- (Kit. No 4440035)

Qty.	Part No.	Description	Item No.
1	1073106	Right Mounting Bracket	(1)
1	1073105	Left Mounting Bracket	(1)
1	1073104	Wall Plate	(2) Fig. 2
1	1073107	False Back	(3)
2	1073100	Bottom Support	(4)
6		Self Tapping Screws — ¼ -20	
11	1146341	Machine Screws — 10-24	
11	1146410	Square Nuts — 10-24	
11	1146501	Lock Washer — 3/16	
8	1146300	Sheet Metal Screws - #10 x ½	
1	1163558	Bottom Cover	(1) Fig. 3
2	1163560	Bottom Bracket	(2)
1	1173329	Air Wash Baffle	(6)
1	1173337	Air Wash Stiffener	(7)

EACH STAINLESS STEEL KIT INCLUDES: (Kit No. 4440036)

Qty.	Part No.	Description	Item No.
1	1073103	Wall Plate	(2)
1	1073108	False Back	(3) Fig. 2
1	1073102	Right Bottom Support	(4)
1	1073101	Left Bottom Support	(4)
		SAME MOUNTING BRACKETS AS ABOVE	
		SAME SCREWS AS ABOVE	
1	1166917	Flue Diverter	(5)
1	1173329	Air Wash Baffle	(6)
1	1173337	Air Wash Stiffener	(7)

### FASTENER CODE

S-1 ¼ -20 Self-Tapping Screw

S #10 Sheet Metal Screw

N-B 10-24 Nut, Lock Washer, Machine Screw

(Drill 3/16" hole for N-B - 5/32" hole for S - 7/32" hole for S-1)

- Attach right and left mounting brackets (1) to unit with three ¼ -20 self-tapping screws (S-1) each (see Fig. 2). The six holes for the mounting brackets must be drilled in the unit. Use a 7/32" dia. drill bit.
- Attach wall plate (2) to false back (3) with five 10-24 machine screws, lockwashers and nuts (N-B). Attach wall plate (2) so that top row of holes is above top of false back (3). The five holes in the false back (3) which the wall plate (2) attach to must be drilled. Use a 3/16" dia. drill bit.
- Attach false back (3) to right and left mounting brackets (1) with six #10 sheet metal screws (S). The holes must be drilled in the mounting brackets. Use a 5/32" dia. drill bit.
- Lay unit carefully on the false back. Take off bottom of unit by removing the six sheet metal screws which secure it. Set the bottom aside; it will not be used again.
- Attach two bottom supports (4), and false back (3), to unit with three 10-24 screws, lock-washers and nut (N-B) each. The six holes must be drilled in the bottom of the unit (4 holes) and false back (2 holes). Use a 3/16" dia. drill bit.
- Attach entire unit and assembly to wall with appropriate screws (furnished by installer). Use the five holes at top of wall plate (2) and the three holes each on the bottom supports (4).



# INSTALLATION

8. Attach the two bottom brackets (2) (see Fig. 3) to the bottom of the unit, at the rear, with two of the existing five nuts.
9. Hold bottom (1) in place and secure with four sheet metal screws (S), one in each bracket and two in front edge. 5/32" dia. holes must be drilled in each of the two brackets (2).

## MODELS S-36A AND S-60A SALAMANDERS

The S-60A Salamander is completely factory assembled. It is mounted on a Cafe Series unit (Models 303, 320, 321, 322 or 323 only) as ordered. It can not be mounted to the wall.

The S-36A Salamander is also completely factory assembled-. It is mounted on a Cafe Series unit (Models 300, 301, 302 or 304) as ordered. It can be mounted on the wall as follows:

### A. S-36AW Mounted to Wall

1. The S-36AW will be mounted to the wall with one of the following kits:

EACH BLACK KIT INCLUDES: (Kit No. [4440037](#))

Qty.	Part No.	Description	Item No.
1	<a href="#">1073106</a>	Right Mounting Bracket	(1)
1	<a href="#">1073105</a>	Left Mounting Bracket	(1)
1	1163346	Wall Plate	(2) Fig. 2
1	1163348	False Back	(3)
2	1073100	Bottom Support	(4)
6		Self Tapping Screws— ¼ -20	
11	1146341	Machine Screws—10-24	
11	<a href="#">1146410</a>	Square Nuts—10-24	
11	<a href="#">1146501</a>	Lock Washer— 3/16	
8	<a href="#">1146300</a>	Sheet Metal Screws— #10 x ½	
1	<a href="#">1163559</a>	Bottom Cover	(1) Fig. 3
2	<a href="#">1163560</a>	Bottom Bracket	(2)
1	<a href="#">1173338</a>	Air Wash Baffle	(6)
1	<a href="#">1173337</a>	Air Wash Stiffener	(7)

EACH STAINLESS STEEL KIT INCLUDES: (Kit No. [4440038](#))

Qty.	Part No.	Description	Item No.
1	<a href="#">1163347</a>	Wall Plate	(2)
1	<a href="#">1163349</a>	False Back	(3)
1	<a href="#">1073102</a>	Right Bottom Support	(4) Fig. 2
1	<a href="#">1073101</a>	Left Bottom Support	(4)
		SAME MOUNTING BRACKETS AS ABOVE	
		SAME SCREWS AS ABOVE	
1	1166918	Flue Diverter	(5)
1	<a href="#">1173338</a>	Air Wash Baffle	(6)
1	<a href="#">1173337</a>	Air Wash Stiffener	(7)

### FASTENER CODE

S-1 ¼ -20 Self-Tapping Screw  
 S #10 Sheet Metal Screw  
 N-B 10-24 Nut, Lock Washer, Machine Screw

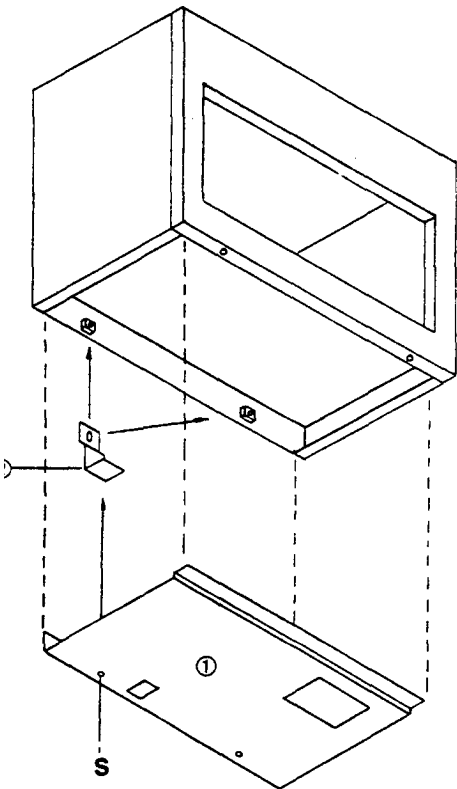
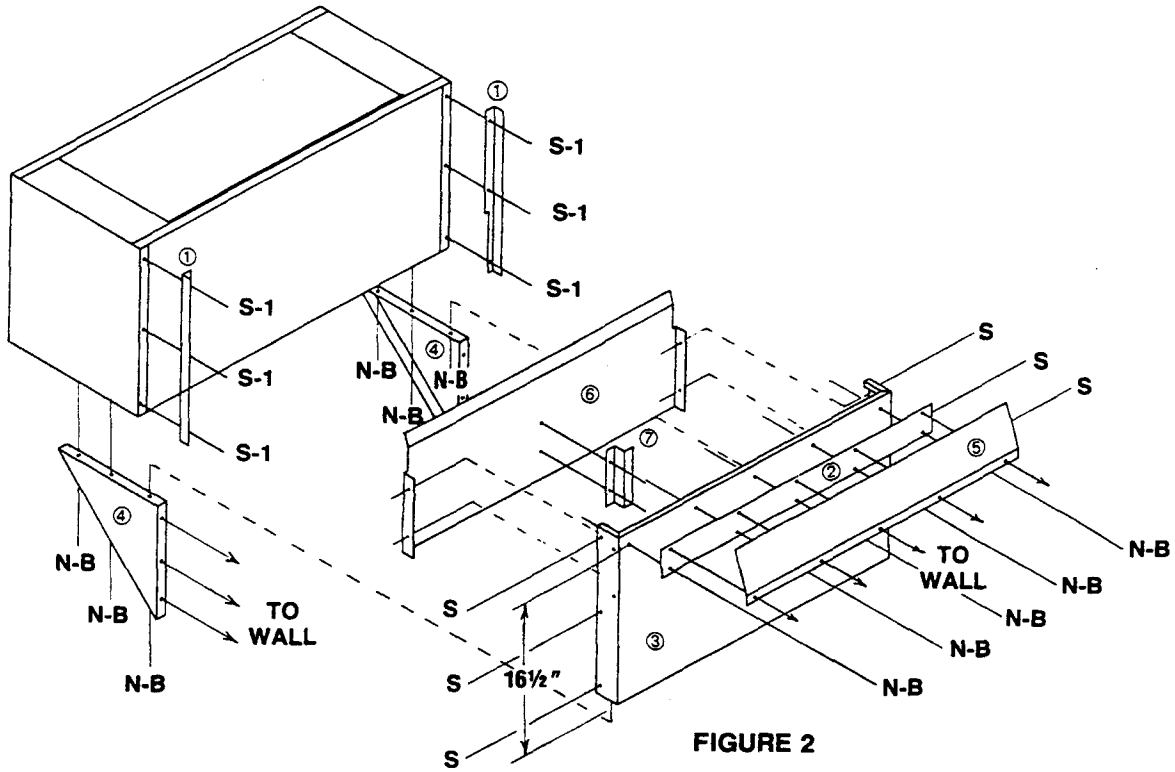
(Drill 3/16" hole for N-B — 5/32" hole for S — 7/32" hole for S-1)

2. The S-36AW mounting is identical to the 3230AW wall mounting. Follow instructions 2 through 9 under "**B. 3230AW Mounted to Wall.**"

# INSTALLATION



## S-36AW AND 3230AW SALAMANDER WALL KIT



ADDITIONAL WALL MOUNT KIT PARTS FOR  
"A" MODEL SALAMANDERS

FIGURE 3



# INSTALLATION

## GAS CONNECTION:

On most units the 3/4" NPT pipe nipple with union will be factory installed. If it is on your unit, omit Steps 1 to 4 below.

1. Locate the sheet metal cover plate on the bottom right of the unit. Remove the four screws which hold it in place. A 3/8" NPT pipe with half of a union will now be exposed.
2. Packed separately in the unit is a pipe nipple with the mating half of the union attached. Locate this pipe.
3. Insert the nipple, with half of the union attached, through the hole at the right rear of the unit. On units mounted on sectional flue risers, the nipple must also be inserted through the hole in the riser. Tighten the two halves of the union together to make a gas tight seal.
4. Replace the bottom cover plate with the four screws.
5. Locate the pressure regulator and reducing bushing packed in the unit. Connect the gas supply line to the inlet of the pressure regulator (see arrow on body of regulator). Connect the outlet of the pressure regulator to the inlet of the unit as required by the particular installation.
6. 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 Z223.1-1988. Canadian installation must comply with CAN/CGA-B 149.1 Natural Gas Installation Code. Code CAN/CGA-B 149.2 Propane Installation Code.

NOTE: Pipe joint compound must be suitable for use with LP gas.

### WARNING:

**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.**

## BROILER CERAMICS:

The broiler ceramic tiles are packed in the unit and must be installed before operating. To install:

1. Remove rack and drip pan.
2. Locate the ceramic tiles (12), bar burners (2) and the sheet metal channels (2) packed in the unit and unwrap.
3. Install the rear burner. There is an orifice in the unit on each side of the burner area. The orifice for the rear burner is at the left side. Insert the center opening of the air mixer cap over this orifice and put the burner lug at the opposite end of the burner into the hole in the support bracket on the right side of the unit.
4. Install the front burner in a similar manner. The orifice is on the right side however.
5. Place the sheet metal channels as covers over the burners. (See Figure 4).
6. Install the ceramic tiles between the burners, behind the rear burner and in front of the front burner (4 tiles each). The cones on the ceramic tiles must be pointing downward. The tiles are supported by the flanges of the sheet metal channels and the flanges inside the unit at the front and rear.

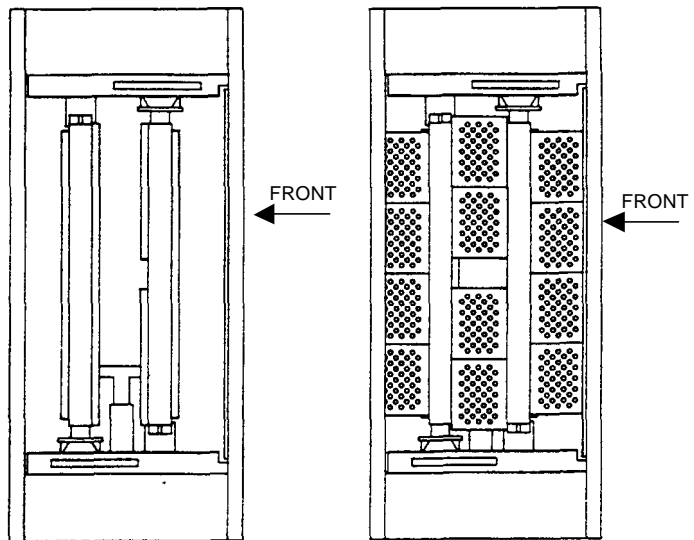


FIGURE 4



## OPERATION

Before turning main gas supply on, make sure all control valves are in the "OFF" position - turn on main gas supply. On new installations start with the burners of the unit(s) furthest from the gas input to the manifold. This will purge the system of air. Turn gas supply "ON."

1. Light constant pilot located on left side between the burners.
2. Adjust the pilot to a flame approximately 3/4" in height, if necessary.
3. Always check the pilot to make sure it is lit before turning on main burners.

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

**CAUTION: FOR SAFETY REASONS, THE BROILER BURNERS SHOULD BE VISUALLY OBSERVED FOR PROPER IGNITION EACH TIME THE UNIT IS PLACED IN OPERATION. THIS SAFETY CONSIDERATION SHOULD BE OBSERVED FOR ALL OVER-FIRED BROILERS. SHOULD IGNITION FAIL AFTER 5 SECONDS, TURN BROILER VALVE OFF AND WAIT 5 MINUTES BEFORE TRYING AGAIN.**

4. Turn on main burners by turning knob counterclockwise. Turning knob to its furthest counterclockwise position is "LOW." Turn knob clockwise to increase burner flame, until "HP is reached (1st click). Turning knob to its furthest clockwise position is "OFF."

The effective broiler area of this unit is marked by (2) 1/8" diameter rods located 3" in from each side of the rack.



**WARNING:**  
**ALL ADJUSTING AND SERVICE SHOULD BE PERFORMED BY A PERSON KNOWLEDGEABLE IN MAKING SUCH ADJUSTMENTS. IF IN DOUBT — CALL YOUR AUTHORIZED SERVICE AGENCY.**

**WARNING:**  
**DISCONNECT POWER FROM APPLIANCE EQUIPPED WITH CONVECTION-TYPE OVEN HAVING A RADIANT BROILER MOUNTED TO APPLIANCE BEFORE CLEANING OR SERVICING, IF APPLICABLE.**

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.

**MAINTENANCE:**

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

**Daily:**

- A. Remove and clean rack.
- B. Remove and clean drip pan.
- C. Remove, empty and clean grease pan.
- D. Wash exposed cleanable areas.

**Monthly:**

- A. Clean around burner air mixer, orifices and pilots if grease or lint has accumulated.
- B. Visually assure carry-over ports on burners are unobstructed.
- C. Assure proper ignition of burners from pilot.

**Vent System:**

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

**STAINLESS STEEL:** To remove normal dirt, grease, or product residue from stainless steel, use ordinary soap and water (with or without detergent) applied with a sponge or cloth. Dry thoroughly with a clean cloth. Never use vinegar or any corrosive cleaner.

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 procedures 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 corrosion attack. Refinishing may then be required.

**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 powered cleanser. Heat tint action may be lessened by not applying, or by reducing, heat to equipment during slack periods.



## MAINTENANCE

### **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.

### **TO CLEAN RACK:**

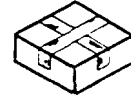
To prevent excess smoking, the racks, rack pan and the other members must be kept clean of food remnants. Use wire brush or similar scraping utensil. **DO NOT USE STEEL WOOL** or similar scrub pad which will leave small metal particles that can get into food.

1. Rotate rack stops up out of the path of the rack.
2. Slide rack forward and out of broiler. Clean rack thoroughly with a non-toxic solvent.
3. Clean all parts of rack channels and the raising and lowering mechanism with a non-toxic solvent.
4. Replace rack and rotate rack stops back into position.

# SALAMANDER RADIANT BROILER

## PARTS

PARTS



**WARNING - WARRANTY WILL BE VOID IF**

- A. SERVICE WORK IS PERFORMED BY OTHER THAN A QUALIFIED TECHNICIAN.**
- B. OTHER THAN GENUINE SOUTHBEND REPLACEMENT PARTS ARE INSTALLED.**

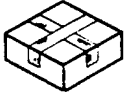
### REPLACEMENT PARTS LIST

The serial plate is located on the interior bottom, at center towards front under grease pan. When ordering parts from the Southbend Parts Distributor, please supply them with the Model Number, Serial Number, Part Number, Description, plus Finish and/or Type of Gas if applicable.

For parts not listed consult a Southbend Authorized Parts Distributor or Southbend Authorized Service Agency. If necessary, please consult Southbend Parts Department for assistance.

Part No.	Description	3230	S-36	S-60	3230A	S-36A	S-60A
1164209	Valve	2	2	2	2	2	2
1073495	Valve Knob Assembly (Off-On)	2	2	2			
1163309	Burner — before 2-19-81	2	2	2	2	2	2
1166890	Bar Burner Assembly — after 2-19-81	2	2	2	2	2	2
1167527	Air Shutter Assembly				2	2	2
766	Rack Frame Assembly	1	1	1			
P750	Rack	1	1	1			
1166888	Rack & Handle Assembly				1	1	1
718	Rack Pan	1	1	1			
1166281	Rack Only				1	1	1
717	Grease Pan	1	1	1	1	1	1
15962	Mechanism Handle Knob	1	1	1	1	1	1
P4771	Ceramic	12	12	12	12	12	12
P1089	Spring	2	2	2			
1161263	Pencil Pilot Assembly (Natural)	1	1	1	1	1	1
1161262	Pencil Pilot Assembly (Propane)	1	1	1	1	1	1
1004744	Burner Orifice (Natural)	2	2	2	2	2	2
1004754	Burner Orifice (Propane)	2	2	2	2	2	2
1160205	Pressure Regulator (Natural) (1160164)	1	1	1	1	1	1
1160206	Pressure Regulator (Propane) (1160173)	1	1	1	1	1	1





## PARTS

Part No.	Description	3230	S-36	S-60	3230A	S-36A	SS-60A
1073495	Valve Handle Assembly (Hi-Lo)	2	2	2	2	2	2
1166894	Air Shutter Weld Assembly				2	2	2
1166889	Bar Burner Assembly Complete				2	2	2
1166281	Rack				1	1	1
1166887	Handle for Rack				1	1	1
1166886	Rack Pan				1	1	1
1166757	Mechanism Handle Assembly				1	1	1
1166747	Carriage Assembly Complete				1	1	1
1166748	Carriage Weld Assembly Only				1	1	1
4440006	Roller Bearing Kit (P9130 & P9136)				2	2	2
1166756	Rack Stop				2	2	2
727	Burner Rest	1	1	1	1	1	1
11653	Brick Rest	2	2	2			
1163176	Ceramic Support - Front & Back				2	2	2
1166901	Pilot Shield				1	1	1
1166739	Handle Pocket Cover Assembly				1	1	1
1166755	Upper Parallel Arm				1	1	1
1166743	Lower Parallel Arm				1	1	1
1171715	Mechanism Handle Assembly (901) (1163263,1061496,1161497)	1	1	1	1	1	1
1163263	Mechanism Handle Assembly				1	1	1
1061900	Tension Spring for Handle	1	1	1	1	1	1
1147600	Hex Head Spring Bolt-Handle	1	1	1	1	1	1
1106816	Index Plate	1	1	1	1	1	1
1123700	Parallel Arm Bracket	4	4	4			
1166734	Parallel Arm Mounting Bracket				2	2	2
1166738	Spring Bracket				1	1	1
1165756	Spring				1	1	1
1126498	Left Upright Assembly	1			1		
1126499	Right Upright Assembly	1			1		
1031199	Manifold and Bracket Assembly	1	1	1	1	1	1
1173167	Rear Brick Rest				1	1	1
1173322	Front Brick Rest				1	1	1