



**Installation**

**Operation**

**Maintenance**

**Troubleshooting**

**Model: LRB**

Radiant Char Broiler

**THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE. READ, UNDERSTAND AND FOLLOW THE INSTRUCTIONS AND WARNINGS CONTAINED IN THIS MANUAL.**

**FOR YOUR SAFETY**  
**DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.**  
**POST IN A PROMINENT LOCATION**  
**INSTRUCTIONS TO BE FOLLOWED IN THE EVENT USER SMELLS GAS. THIS INFORMATION SHALL BE OBTAINED BY CONSULTING YOUR LOCAL GAS SUPPLIER. AS A MINIMUM, TURN OFF THE GAS AND CALL YOUR GAS COMPANY AND YOUR AUTHORIZED SERVICE AGENT. EVACUATE ALL PERSONNEL FROM THE AREA.**

**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.**

<b>Model #:</b>	<b>Purchased From:</b>
<b>Serial #:</b>	<b>Location:</b>
<b>Date Purchased:</b>	<b>Date Installed:</b>
<b>Purchase Order #:</b>	<b>For Service, Call:</b>

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**CAUTION:** UNIT IS EXTREMELY HEAVY. FOR SAFE HANDLING, INSTALLER SHOULD OBTAIN HELP AS NEEDED, OR EMPLOY APPROPRIATE MATERIALS HANDLING EQUIPMENT (SUCH AS A FORKLIFT, DOLLY, OR PALLET JACK) TO REMOVE THE UNIT FROM THE SKID AND MOVE IT TO THE PLACE OF INSTALLATION.



**WARNING:** INSTALLATION OF THE UNIT MUST BE DONE BY PERSONNEL QUALIFIED TO WORK WITH PLUMBING. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT. UNIT MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.



**CAUTION:** SHIPPING STRAPS ARE UNDER TENSION AND CAN SNAP BACK WHEN CUT.



**NOTICE:** The data plate is located on the right side of the unit. The Char broiler gas specifications are on the data plate. This information should be carefully read and understood before proceeding with the installation.



**WARNING:** BEFORE LIGHTING, USE A SOAP AND WATER SOLUTION TO TEST ALL JOINTS FOR GAS LEAKS.



**NOTICE:** The installation of any components such as a vent hood, grease extractors, fire extinguisher systems, must conform to their applicable National, State and locally recognized installation standards.



**CAUTION:** ALWAYS KEEP THE AREA NEAR THE APPLIANCE FREE FROM COMBUSTIBLE MATERIALS.



**CAUTION:** KEEP FLOOR IN FRONT OF EQUIPMENT CLEAN AND DRY. IF SPILLS OCCUR, CLEAN IMMEDIATELY, TO AVOID THE DANGER OF SLIPS OR FALLS.



**CAUTION:** MOST CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES AND CLOTHING. PRECAUTIONS SHOULD BE TAKEN TO WEAR RUBBER GLOVES, GOGGLES OR FACE SHIELD AND PROTECTIVE CLOTHING. CAREFULLY READ THE WARNING AND FOLLOW THE DIRECTIONS ON THE LABEL OF THE CLEANER TO BE USED.



**CAUTION:** DO NOT USE YOUR HAND TO CHECK CHAR BROILER TEMPERATURE.



**NOTICE:** Service on this, or any other, LANG appliance must be performed by qualified personnel only. Consult your authorized service station directory or call the factory at 1-800-224-LANG (5264), or WWW.LANGWORLD.COM For the service station nearest you.



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**CAUTION:** BE SURE ALL OPERATORS READ, UNDERSTAND AND FOLLOW THE OPERATING INSTRUCTIONS, CAUTIONS AND SAFETY INSTRUCTIONS CONTAINED IN THIS MANUAL.



# INSTALLATION

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## 2.1 General

All Lang Char broilers are shipped with a gas pressure regulator packed with the unit. All units are adjusted, tested, and inspected at the factory prior to shipment.

A manual gas shut-off valve must be installed in the gas supply (service) line ahead of the char broiler and gas pressure regulator for safety and ease of future service.

The gas pressure regulator supplied must be installed on the appliance prior to connecting the equipment to the gas line. Failure to install a regulator will void the equipment warranty and result in a potentially hazardous condition.

The appliance and its individual shut off 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 PSI.

The appliance must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 PSI.

## 2.2 Installation

**RATING PLATE** - Information on this plate includes the model and serial numbers. When communicating with factory about a unit or requesting special parts or information, this data is essential for proper identification. Other information on this plate is the BTU/hr input of the burners, operating gas pressure in inches WC, and whether the unit is orificed for natural or propane gas.

## INSTALLATION CONT'D

**LEVELING** - A carpenter's spirit level should be placed on the cooking surface and the unit leveled both front-to-back and side-to-side. If it is not level, burner combustion may be erratic, and the unit will not function efficiently. The LRB series unit broiler cooking surface is inclined for improved performance. The spirit level should be placed on the upper edge of the chassis for this leveling procedure.

**AIR SUPPLY & VENTILATION** - The area in front of, around, and above the appliance must be kept clear to avoid any obstruction of the flow of combustion and ventilation air. Adequate clearance must be maintained at all times in front and at the sides of the appliances for servicing and proper operation. Your unit is supplied from the factory with adjustable legs, these legs must not be removed for any reason.

Means must be provided for any commercial, heavy-duty cooking appliance to exhaust combustion waste products to the outside of the building. Usual practice is to place the unit under an exhaust hood. Filters and drip troughs should be part of any industrial hood, but consult local codes before constructing and installing a hood. Strong exhaust fans in the hood or in the overall air conditioning system can produce a slight vacuum in the room and/or cause air drafts, either of which can interfere with pilot or burner performance and can also be hard to diagnose. Air movement should be checked during installation; if pilot or burner outage problems persist, make-up air openings or baffles may have to be provided in the room.

**GAS CONNECTION** – NOTE: The gas supply (service) line must be the same size or greater than the inlet line of the appliance. The Lang char broiler uses a 3/4" NPT inlet. Sealant on all pipe joints must be resistive to LP gas.

**MANUAL SHUT-OFF VALVE** - This installer-supplied valve must be installed in the gas service line ahead of the appliance and regulator in the gas stream and in a position where it can be reached quickly in the event of an emergency.

**PRESSURE REGULATOR** - All commercial cooking equipment must have a pressure regulator on the incoming service line for safe and efficient operation, since service pressure may fluctuate with local demand. The installer normally supplies the manual shut-off valve, but the pressure regulator is packed inside the char broiler.

The regulators supplied for Lang units have 3/4" inlet/outlet openings and are adjusted at the factory for 5" WC (natural gas) or 10" WC (propane) depending on the customer's ordering instructions. Care must be taken to ensure that the regulator is not installed in the path of flue gases, or in other high heat areas.

Prior to connecting the regulator, check the incoming line pressure, as these regulators can only withstand a maximum pressure of 1/2-PSI (14" WC). If the line pressure is beyond this limit, a step-down regulator will be required. The arrow forged into the bottom of the regulator body shows the gas flow direction; it should point downstream to the appliance. The red air vent cap on the top regulator is part of the regulator and should not be removed.

Any adjustments to regulators must be made only by qualified service personnel with the proper test equipment.

**RIGID CONNECTIONS** - Double-check any installer-supplied gas pipes visually and/or blow them out with compressed air to clear any dirt particles, threading chips, or other foreign matter before installing a service line. Those particles will clog orifices when gas pressure is applied.

All connections must be sealed with a joint compound suitable for LP gas, and all connections must be tested with a soapy water solution before lighting any pilots.

## INSTALLATION CONT'D

**FLEXIBLE COUPLINGS, CONNECTORS AND CASTERS** - If the unit is to be installed with flexible couplings and/or quick-disconnect fittings, the installer must use a heavy-duty, AGA design-certified commercial flexible connector of at least 3/4" NPT (with suitable strain reliefs). The flexible connector must comply with the standard for Connectors for Movable Gas Appliances, ANSI Z21.69 and addendum Z21.69a (or latest edition) and a quick-disconnect device that complies with the standard for quick-disconnect devices for use with Gas Fuel, ANSI Z21.41 and addendum Z21.41b (or latest edition). If disconnection of the restraint is necessary, make sure to reconnect restraint after the appliance has been returned to its originally installed position.

**Domestic gas or water connectors are not suitable and must never be used.**

Restraining device may be attached to the back frame/panel of the unit.

All connections must be sealed with a joint compound suitable for LP gas and all connections must be tested with a soapy water solution before lighting pilots.

## INITIAL START-UP

**CAUTION:** ALWAYS KEEP THE AREA NEAR THE APPLIANCE FREE FROM COMBUSTIBLE MATERIALS.

**CAUTION:** KEEP FLOOR IN FRONT OF EQUIPMENT CLEAN AND DRY. IF SPILLS OCCUR, CLEAN IMMEDIATELY, TO AVOID THE DANGER OF SLIPS OR FALLS.



### INITIAL PILOT LIGHTING

All Lang char broilers are adjusted and tested before leaving the factory, effectively matching them to sea level conditions. Adjustments and calibrations to assure proper operation may be necessary on installation to meet local conditions, low gas characteristics, to correct possible problems caused by rough handling or vibration during shipment, and are to be performed only by qualified service personnel. These adjustments are the responsibility of the customer and/or dealer and are not covered by our warranty.

Check all gas connections for leaks with a soapy water solution before lighting any pilots. **DO NOT USE AN OPEN FLAME TO CHECK FOR LEAKS.** Putting an open flame beside a new gas connection is extremely dangerous.

Before lighting any pilots, make sure that burner valves and thermostats are turned "off".

Broiler pilots can be accessed through the openings in the front cover panel in the case of counter or floor mounted units. Pilot flame adjustments for all units can be accomplished through the use of the adjusting screw(s) found at the front of the unit.

### FINAL PREPARATION

**TOP SECTION** - New units are wiped clean with solvents at the factory to remove any visible signs of dirt, oil, or grease remaining from the thin film of nontoxic rust protectant. Food preparation surfaces should be washed thoroughly with hot, soapy water before being used.

The top grates should be removed and washed before use. With these removed, it will be possible to remove any plastic tie cords holding the burners in place.

## MAINTENANCE & CLEANING

**CAUTION:** MOST CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES AND CLOTHING. PRECAUTIONS SHOULD BE TAKEN TO WEAR RUBBER GLOVES, GOGGLES OR FACE SHIELD AND PROTECTIVE CLOTHING. CAREFULLY READ THE WARNING AND FOLLOW THE DIRECTIONS ON THE LABEL OF THE CLEANER TO BE USED.



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**CLEANING AND MAINTENANCE** - Any piece of equipment works better and lasts longer when maintained properly. Cooking equipment is no exception. Your char broiler must be kept clean during the working day and thoroughly cleaned at the end of the day.

### **DAILY CLEANING:**

Remove large pieces of food residue and carefully scrape spillovers from the drip tray below the cooking surface.

Wash all exterior and interior surfaces with a hot soapy water solution. DO NOT use harsh abrasives on any portion of the stainless or painted surfaces.

Cast iron grates should be scraped with a wire brush frequently, and periodically soaked in a hot water solution to remove grease from the pores of the cast iron. NEVER expose the grate(s) to extreme heat for the purpose of burning off excess grease. This practice will shorten the useful life of the grates.

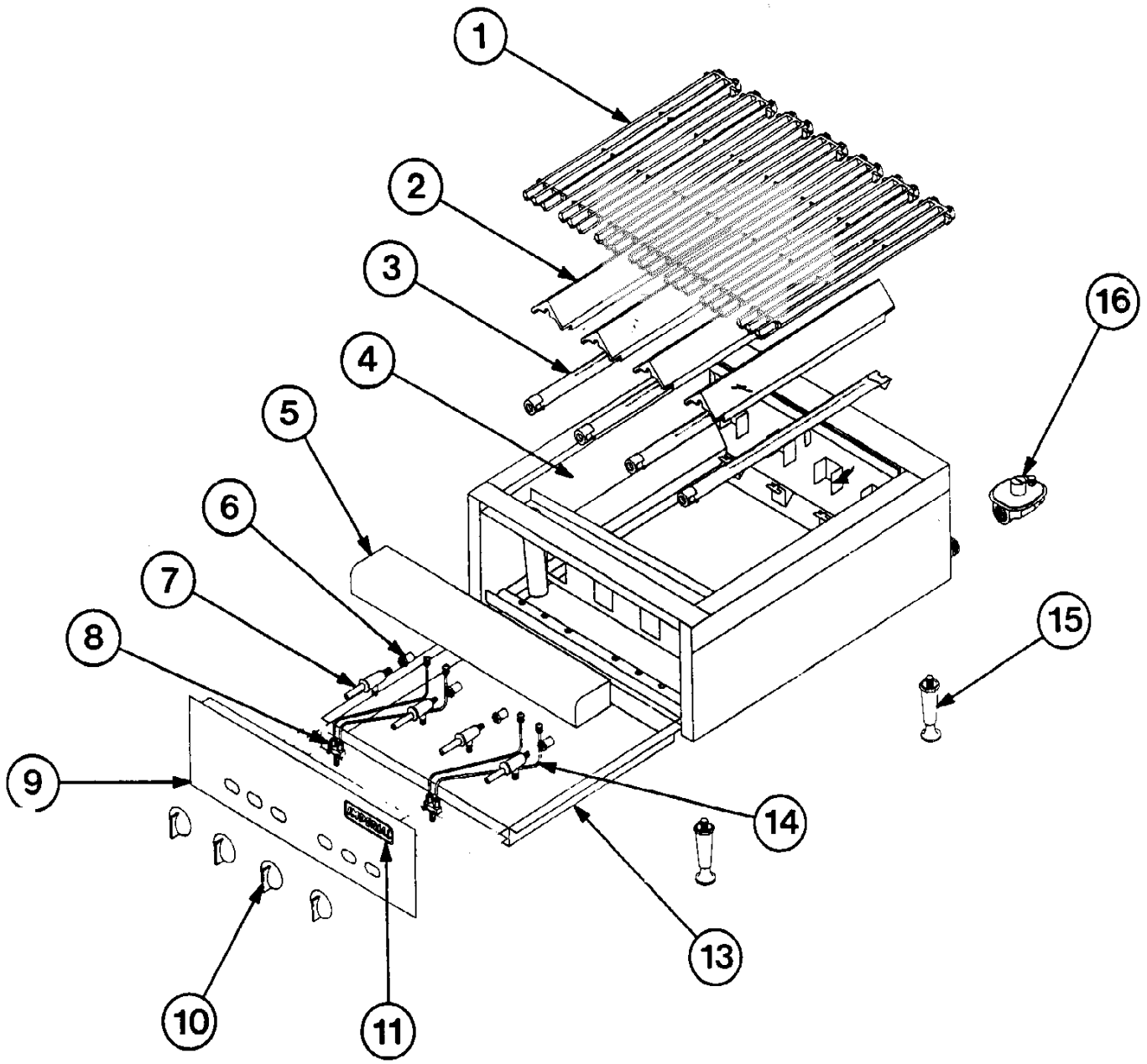
### **PERIODIC CLEANING:**

Check the ventilation system periodically to see that nothing has fallen down into the exhaust vents.

A qualified service company should check your char broiler for safe and efficient operation at least yearly.

**STAINLESS STEEL:** - All stainless steel body parts should be wiped regularly with hot soapy water during the day and with a liquid cleaner designed for this material at the end of each day. DO NOT USE steel wool, abrasive cloths, cleansers or powders to clean stainless surfaces. If it is necessary to scrape stainless steel to remove encrusted materials, soak in hot water to loosen the material, then use a wood or nylon scraper. DO NOT USE a metal knife, spatula, or any other metal tool to scrape stainless steel! Scratches are almost impossible to remove.

# PARTS LIST



## PARTS LIST CONT'D

Item #	Description	Part #
1	3" x 21" Top Grate (Cast Iron), 3 Bars per Grate	91300-01
	3" x 21" Top Grate (Optional for Fish), 4 Bars per Grate	91300-02
2	Burner Radiant (Cast Iron)	91300-03
	Burner w/air Shutter (Stainless Steel)	91300-04
3	Air Shutter Only	91300-05
4	24" Liner	91300-06
	30" Liner	91300-07
	36" Liner	91300-08
	48" Liner	91300-09
	60" Liner	91300-10
	72" Liner	91300-11
5	24" Landing Ledge (Stainless Steel)	91300-12
	30" Landing Ledge (Stainless Steel)	91300-13
	36" Landing Ledge (Stainless Steel)	91300-14
	48" Landing Ledge (Stainless Steel)	91300-15
	60" Landing Ledge (Stainless Steel)	91300-16
	72" Landing Ledge (Stainless Steel)	91300-17
6	Burner Orifice (Brass), Natural Gas	91300-18
	Burner Orifice (Brass), Propane Gas	91300-19
7	Burner Gas Valve (Brass)	91300-20
8	Adjustable double Pilot Valve (Brass)	91300-21
9	24" Valve Cover (Stainless Steel)	91300-22
	30" Valve Cover (Stainless Steel)	91300-23
	36" Valve Cover (Stainless Steel)	91300-24
	48" Valve Cover (Stainless Steel)	91300-25
	60" Valve Cover (Stainless Steel)	91300-26
	72" Valve Cover (Stainless Steel)	91300-27
10	Burner Knob	91300-41
11	Lang Logo	60301-43
13	24" Crumb Tray	91300-28
	30" Crumb Tray	91300-29
	36" Crumb Tray	91300-30
	48" Crumb Tray	91300-31
	60" Crumb Tray	91300-32
	72" Crumb Tray	91300-33
14	Pilot Burner Assembly	91300-34
	Pilot Burner Assembly – Stainless Steel (Optional)	91300-35
	3/16" Ferrule	91300-36
	3/16" Compression Nut	91300-37
15	4" Adjustable Leg	91300-38
	Gas Pressure Regulator 3/4" (Natural Gas)	91300-39
	Gas Pressure Regulator 3/4" (Propane Gas)	91300-40

***Lang Manufacturing Limited Warranty  
to Commercial Purchasers\*  
(Domestic U.S., Hawaii, &  
Canadian Sales only.)***

Lang Manufacturing Equipment (“Lang Equipment”) has been skillfully manufactured, carefully inspected and packaged to meet rigid standards of excellence. Lang warrants its Equipment to be free from defects in material and workmanship for (12) twelve consecutive months, with the following conditions and subject to the following limitations.

**I.** This parts and labor warranty is limited to Lang Equipment sold to the original commercial purchaser/users (but not original equipment manufacturers), at its original place of installation, in the continental United States, Hawaii and Canada.

Quartz elements are warranted for ninety(90) days from the date of installation.

**II.** Damage during shipment is to be reported to the carrier, is not covered under this warranty, and is the sole responsibility of purchaser/user.

**III.** Lang, or an authorized service representative, will repair or replace, at Lang’s sole election, and Lang Equipment, including but not limited to, safety valves, gas and electric components, found to be defective during the warranty period. As to warranty service in the territory described above, Lang will absorb labor and portal to portal transportation costs (time & mileage) for the first (12) twelve months from the date of installation or eighteen (18) months from date of shipment from Lang Manufacturing, which ever comes first.

**IV.** This warranty does not cover routine general maintenance, periodic adjustments, as specified in operating instructions or manuals, and consumable parts such as quartz elements, or labor costs incurred for removal of adjacent equipment or objects to gain access to Lang Equipment. This warranty does not cover defects caused by improper installation, abuse, careless operation, or improper maintenance of equipment.

**V.** THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EACH OF WHICH IS HEREBY EXPRESSLY DISCLAIMED. THE REMEDIES DESCRIBED ABOVE ARE EXCLUSIVE AND IN NO EVENT SHALL LANG BE LIABLE FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OR DELAY IN PERFORMANCE OF THIS WARRANTY.

**VI.** Lang Equipment is for commercial use only. If sold as a component of another(OEM) manufacturer’s equipment, or if used as a consumer product, such Equipment is sold AS IS and without any warranty.