

OWNERS MANUAL  
INSTALLATION, OPERATION, & MAINTENANCE INSTRUCTIONS



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**IABR**

**ICB CHICKEN BROILER SERIES**

**ISB-36 SALAMANDER BROILER**

**IRB RADIANT CHAR BROILER SERIES**

**ICMA CHEESEMELTER  
SERIES**

**IMGA MANUALLY CONTROLLED GRIDDLE SERIES**

**ITG THERMOSTATICALLY CONTROLLED GRIDDLE  
SERIES**

**ITG GRIDDLE/OPEN BURNER COMBINATION SERIES**

**IMGA GRIDDLE/OPEN BURNER COMBINATION SERIES**

**ISPA STOCK POT RANGE SERIES AND ISP-J-W SERIES**

**IHPA HOT PLATE SERIES**

**ITY GRIDDLE**

All Imperial Mfg. Co. equipment is manufactured for use with the type of gas specified on the rating plate and for installation in accordance with ANSI Z223.1/NFPA 54 (latest edition) of the National Fuel Gas Code, the National Gas Installation Code, CSA/B149.1 or the Propane Installation code, CSA/B149.1, as applicable. Copies may be obtained from the American Gas Association, 1515 Wilson Blvd, Arlington, VA 22209.

**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.

**FOR YOUR SAFETY**

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

Instructions to be followed in case the user smells gas are to be posted in a prominent location in the kitchen area. This information shall be obtained by contacting the local gas company or gas supplier.

**PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE**

**IMPORTANT**

Safe and satisfactory operation of your equipment depends to a great extent on its proper installation. Installation must conform to local codes, or in the absence of local codes, with the National Fuel Gas Code ANSI Z223.1/NFPA 54, the National Gas Installation Code, CSA/B149.1 or the Propane Installation code, CSA/B149.1, as applicable.

Imperial cooking appliances are restaurant grade. Units covered by this manual include counter mounted hot plates, griddle, stock pot ranges, Salamander broilers and unit broilers. All Imperial appliances are shipped with a gas pressure regulator packed with the unit. All units are adjusted, tested, and inspected at the factory prior to shipment. After uncrating, immediately check the equipment for visible signs of shipping damage. If such damage has occurred, do not refuse shipment, but, contact the shipper and file the appropriate freight claims.

**GENERAL**

- (1) Installation of this equipment should be made by a licensed plumber.
- (2) A manual gas shut-off valve must be installed in the gas supply (service) line ahead of the appliance and gas pressure regulator in the gas stream for safety and ease of future service.
- (3) 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.
- (4) 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 ½ PSI.
- (5) 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 ½ PSI.
- (6) Please contact the factory, the factory representative, or a local service company to perform maintenance and repairs.

**SHIPPING DAMAGE CLAIM PROCEDURE**

The equipment is inspected & crated carefully by skilled personnel before leaving factory. The transportation company assumes full responsibility for safe delivery upon acceptance of this equipment. If shipment arrives damaged:

1. Visible loss or damage: Note on freight bill or express delivery and have signed by person making delivery.
2. File claim for damages immediately: Regardless of extent of damages.
3. Concealed loss or damage: If damage is noticed after unpacking, notify transportation company immediately and file “Concealed Damage” claim with them. This should be done within fifteen (15) days from date delivery is made to you. Retain container for inspection.

**RATING PLATE**

Information on this plate includes the model and serial numbers. When communicating with the 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.

**IMPERIAL COOKING APPLIANCES MUST BE CONNECTED  
ONLY TO THE TYPE OF GAS IDENTIFIED ON THE RATING PLATE**

**CLEARANCES**

The appliance area must be kept free and clear of all combustibles. This unit is design-certified for the following installations only.

MODEL	COMBUSTIBLE		NONCOMBUSTIBLE	
	BACK	SIDES	BACK	SIDES
IRB & ICB SERIES	N/A	N/A	0	0
ISB & ICMA SERIES	4	4	0	0
ISPA & ISP-J-W SERIES	17	15	0	0
IMGA, ITG & IHPA SERIES	7	8	0	0

EB, IRB,ICB & GD SERIES ARE FOR INSTALLATION IN NON-COMBUSTIBLE LOCATION ONLY.

## **LEVELING**

A carpenter's level should be placed on the cooking surface and the unit leveled both front-to-back and side-to-side. If it not level, burner combustion may be erratic, and the unit will not function efficiently. The IRB 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.

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 construction and installing a hood.

Strong exhaust fans in this 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 opening 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. Imperial counter equipment use 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 manual shut-off valve is normal supplied by the installer, however, a pressure regulator is packed inside each Imperial range.

### **Failure to install a pressure regulator will void the equipment warranty**

The regulators supplied for Imperial ranges, 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.

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 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 intake 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.

### **FELXIBLE 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 (or latest edition) CSA 6.16 (or latest edition) and a quick-disconnect device that complies with the standard for quick-disconnect devices for use with Gas Fuel should comply with ANSI Z21.41 (or latest edition) CSA 6.9 (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.

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

If the unit is to be installed with casters, a flexible connector must be used and the same ANSI standards apply. Locking front casters are provided to limit the movement of the appliance without depending on the connector or associated piping. A suitable strain relief must be installed with the flexible connector.

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 PILOT LIGHTING**

**CAUTION**  
**When lighting pilots and checking for leaks, do not**  
**Stand with your face close to the combustion chamber.**

All Imperial Mfg. appliances 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".

#### **A. TOP BURNERS**

All top section burners are equipped with constant-burning pilots. These are to be manually lighted immediately after the gas is turned on and the system checked for leaks. Top burner pilots are provided for each burner and can be rechecked for proper adjustment down through the top grate. Adjustments can be made with a screwdriver to the pilot valve accessible through the valve cover.

#### **B. GRIDDLES**

Griddle pilots can be ignited through the front of the valve panel using a long match. The pilot flame adjustment valve can be accessed through the front valve panel and adjusted using a flat tipped screwdriver.

#### **C. UNIT BROILERS**

Broiler pilots can be accessed through the openings in the front cover panel. Pilot flame adjustment valves can be accessed through the front valve panel and adjusted using a flat tipped screwdriver.

## **D. CHEESEMELTER AND SALAMANDER BROILERS**

Pilots are accessed in the op rear of the cooking area. In 24 and 36 series units the pilot adjustments are found through a small hole at the bottom right inside panel about half way back. All larger Cheesemelter units pilot adjustment valves are located behind the front cover near the control knobs. All pilot valves are adjusted using a flat tipped screwdriver.

## **FINAL PREPARATION**

### **A. 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 or nontoxic rust protestant. Food preparation surface 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.

### **B. GRIDDLE**

New griddles should be seasoned following this sequence:

- (1) Clean the griddle surface thoroughly with hot, soapy water to remove the protective oil coating wiped on at the factory.
- (2) Rinse with a mixture of ¼ cup vinegar to one quart water.
- (3) Spread unsalted solid shortening or liquid frying compound evenly over the entire griddle surface.
- (4) Turn all griddle burners to “medium” or thermostats to 350 degrees and wait until the shortening begins to smoke, then turn the burners “off”.
- (5) Rub the now-melted shortening into the griddle surface with burlap, moving in the direction of the surface’s polish marks and covering the entire surface.
- (6) Let the griddle cool, then repeat steps 3,4, & 5.
- (7) When the griddle is cool after the second seasoning, wipe it once again with a thin film of shortening or cooking oil.

## **CLEANING AND MAINTENANCE**

Any piece of equipment works better and lasts longer when maintained properly. Cooking equipment is no exception. Your Imperial range and oven must be kept clean during the working day and thoroughly cleaned at the end of the day.

### **DAILY:**

#### **OPEN BURNERS:**

1. Lift all the open grates.
2. Lift off the burner heads and venturies by raising the head slightly, sliding to the rear of the range and lifting upwards.
3. Wash all of the above in hot, soapy water.
4. Reinstallation of the top burners is the reverse of removal.

#### **GRIDDLES:**

1. Scrape with a nylon griddle scrapper to remove cooked on spills. Use a fine grained stone only when absolutely necessary.
2. Wipe away any griddle stone dust and food particles with burlap.
3. Wash with hot, soapy water, then rinse with vinegar and water.
4. Rinse again with clear water.
5. Re-oil with shortening or liquid frying compound.
6. **DO NOT FLOOD A HOT GRIDDLE WITH COLD WATER!** This promotes griddle warping and can cause the griddle to crack if continued over a long period of time.

### **UNIT BROILERS AND SALAMANDER BROILERS:**

1. Remove large pieces of food residue and carefully scrape spillovers from the drip tray below the cooking surface.
2. 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.
3. 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.
4. Infra-red burners, available on ICMA Cheesemelters and ISB-36 Salamanders, are self cleaning. The use of any solvents or wire brushes may damage tiles.
5. The EBA series, GD series, and ICB series Char-rock broilers use lava rock. This pumice rock is highly porous and is relatively self cleaning. The lava rocks should be turned over about every week depending upon the amount of cooking and type of food prepared. High heat will effectively clean and burn off grease. A loosely placed lower layer of rock will serve as an effective base. About one-half layer of rock should be strategically added to compensate for "hot spots". Over-filling the char-broiler will obstruct proper air flow creating poor combustion, an uneven heating pattern, and will ultimately shorten the useful life of cast iron bottom grates and burners. As the lava rock disintegrates over time, rock smaller than a golf ball should be removed and replenished with new, larger rock.

### **PERIODIC CLEANING:**

Check the ventilation system periodically to see that nothing has fallen down into the stub back, high riser or high shelf exhaust vents. Your Imperial range should be checked for safe and efficient operation at least yearly by a qualified service company.

### **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 surface. 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.