

OWNERS MANUAL INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS



Commercial Cooking Equipment

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ICRA SERIES • CHINESE RANGES

All Imperial Mfg. Co. equipment is manufactured for use with the type of gas specified on the rating plate for installation in accordance with ANSI Z-223.1 (latest edition) of the National Fuel Gas Code. 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 Code, ANSI Z-233.1 (latest edition).

Imperial cooking appliances are restaurant grade.

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. If the total BTU input rating exceeds 600,000 the range will have two gas inlets. A gas inlet pipe will be located in the rear at each end of the range. The gas pressure regulators provided must be installed for safe, proper operation.
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 shutoff 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.

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.

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:

For installation on non-combustible floors.

Clearances from combustible and non-combustible constructions are as follow:

	Combustible	Non-Combustible
Back	12"	0
Sides	6"	0

CAUTION

DO NOT PUSH against the end of the valve handle in an attempt to adjust the ranges position. Although this part is attached to the control valve, an accident could occur if the range should move suddenly while being pushed into position by hand.

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 constructing 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 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. Imperial Chinese Ranges use 1" t 1 1/2" NPT(Sch40) 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.

WARNING:
THE EQUIPMENT IS TO BE INSTALLED TO COMPLY WITH THE BASIC PLUMBING CODE OF THE BULDING OFFICIALS AND CODE ADMINISTRATORS INTERNATIONAL INC. (BOCA) AND THE FOOD SERVICE SANITATION MANUAL OF THE FOOD AND DRUG ADMINISTRATION (FDA).

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 normally supplied by the installer; a pressure regulator is packed inside each Imperial Range unit.

Failure to install a pressure regulator will void the equipment warranty.
The regulators supplied for Imperial Ranges, are as follows:

000,000 – 360,000 BTU uses 1” pipe manifold with R500 regulator.
360,000 – 600,000 BTU uses 1 ¼” pipe manifold with R600 regulator.
600,000 – 720,000 BTU uses 1 ¼” pipe manifold with (2) R500 regulators.
720,000 – 1,200,000 BTU uses 1 ½” pipe manifold with (2) R600 regulators.

The regulators supplied for Imperial Ranges 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 ½ PSA (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.

NOTE: Gas regulator inlet/outlet size may be smaller than gas line inlet size for stove. However, installer may use a reduction fitting. Appropriate gas regulator(s) are selected based on total BTU rating and other specification, not inlet/outlet size.

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.

FLEXIBLE COUPLINGS, AND CONNECTORS

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 ¾” 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 the Gas Fuel ANSI Z21.41 and addendum Z21.41a (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.

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

WATER CONNECTIONS

A backflow prevention device must be placed in the water supply line if required by local codes. This device is not provided by Imperial Manufacturing.

A perforated water pipe line is factory installed underneath the stainless steel shelf, located across the entire front of the range. The range top should be adjusted to achieve about a 1” pitch. This pitch will result in a flow from the front of the range (which is 1” higher) to the rear garbage trough. The water supply is designed to provide a constant flow of water over the range top to allow for cooling of the range as well as enabling the range top to be kept clean. (See attached diagram for typical water connections schematic.)

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. Co. 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 are turned "off".

The pilot should be lighted immediately after the gas is turned on and the system is checked for leaks. The pilot can be reached with a long match through the WOK opening in the top of the range.

Pilot adjustment is achieved by using the small brass pilot adjustment screw located through the front panel. Make sure any accumulated gas has dispersed. Since propane gas is heavier than air, check near the floor area for the odor of propane gas before attempting to light any pilot burners.

TO CHECK FOR LEAKS

1. check pilot tubing and burner piping for leaks where they leave the manifold and shut-off valves with soapy solution.
2. Light the pilot as described above.
3. Check the burner visually for blue flame. There should be no yellow tips or soot. If yellow tipping occurs, call an authorized service person to adjust the burner air shutter.

FINAL PREPARATION

1. New units are wiped clean with solvents at the factory to remove any visible signs of dirt, oil, or grease remaining from thin film of nontoxic rust protectant. Food preparation surfaces should be washed thoroughly with hot, soapy water before being used.
2. Rinse with a mixture of ¼ cup vinegar to one-quart water.

CLEANING AND MAINTENANCE

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

CAUTION

NEVER USE AMMONIA IN AN AREA THAT IS WARMER THAN ROOM TEMPERATURE AND ALWAYS HAVE DIRECT VENTILATION!

DAILY

1. Wash with hot, soapy water, then rinse with vinegar and water.
2. Rinse again with clear water.
3. For stubborn, harden grease spots, an appropriate cleaning solution designed for enamel surfaces should be used for black top ranges. For stainless steel top, see instructions below.

A qualified service company should check your Imperial range 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** on 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.