

MASTERRANGE

THE WORLD'S FINEST CHINESE COOKING EQUIPMENT OWNER'S MANUAL MBR SERIES MONGOLIAN BARBECUE RANGES

MBR-36 with 36" Cook Top

MBR-42 with 42" Cook Top

SECTION 1: INSTALLATION INSTRUCTIONS



SECTION I: INSTALLATION INSTRUCTIONS
SECTION II: OPERATION INSTRUCTIONS

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 AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

NOTE

OBTAIN EMERGENCY PROCEDURES FROM YOUR LOCAL GAS SUPPLIER IF YOU SMELL GAS NEAR THIS EQUIPMENT. THIS EMERGENCY INFORMATION MUST BE PROMINENTLY DISPLAYED.

KEEP THIS BOOKLET AND ROBERTSHAW BROCHURE
HANDY FOR FUTURE REFERENCE

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(718)388-5650 fax (718)388-5860
townfood.com

INSTALLATION INSTRUCTIONS for MBR-36 and MBR-42 MONGOLIAN BARBECUE RANGES only.

Your new MasteRRange equipment has been carefully engineered and constructed with the best possible workmanship and materials to provide many years of satisfactory service. Proper installation is vital if appearance and performance is to be achieved.

PLANNING AND SITE PREPARATION

FOLLOW THESE INSTRUCTIONS CAREFULLY! PLANNING THE INSTALLATION OF YOUR MONGOLIAN BARBECUE RANGE IS IMPORTANT.

1. MBR installations are generally in the center of a cooking area with clear access on all sides. Suggested clearance around the entire unit is at least three feet.
2. Materials such as wood, compressed paper and plant fibers that will ignite and burn, must not be exposed near range. Local safety codes should be complied with in respect to fire hazard avoidance.
3. The entire unit must be kept clear to avoid restriction of the air supply for combustion.
4. The unit must be installed in an area or room with sufficient fresh air supply to ensure proper combustion. Given enough fresh air this unit produces exhaust gases within ANSI limits.
5. The gas supply line must be of adequate size to ensure maximum efficiency of the unit. A supply pipe with a minimum of 1-1/4" diameter and a minimum operating gas pressure of 6" WC for natural gas or 10" WC for propane gas should be used.
6. Use of the supplied regulator is mandatory. The regulator must be installed in a location where it remains cool and is accessible for pressure adjustment (ANSI Z83.11-1996 sect. 1.15.5). **Never install the regulator underneath or in the center of the unit.**
7. Equipment should be under hood with adequate ventilation.

UNCRATING AND PLACING THE UNIT

Three or more people will be needed for this step.

1. Position crate next to the location that the unit will occupy. Uncrate the range. Place it in position. Note position of gas feed line.
2. Carefully locate the range into desired position to avoid damage to adjustable legs. Be sure to locate your unit with the clearances away from combustible construction as indicated on the rating plate of the unit. Turn all three gas valve lever handles to "OFF" position. Check that three valves face in the position desired by customer.



3/8" Female Gas Valve
(Item No. 226102F)

Safety, pilot out only
(Item No. 249011)

NOTE: Clearances from noncombustible construction are the same as combustible clearances. This appliance is suitable for installation only on noncombustible floors.

3. Place cook surface on top of unit. Be careful! This special cast iron top is more 1" thick and is extremely heavy. Use a fork lift truck and three men to lift the top into position. **Make sure "ribs" on the bottom of the cook top do not sit on the support pipes.**
4. Level the unit using the "bullets" at the end of each leg.

GAS INSTALLATION:

1. The installation must conform with the National Fuel Gas Code, ANSI Z223.1, Natural Gas Installation Code, CAN/CGA-B149.1 or the Propane Installation Code, CAN/CGA-B149.2, as applicable, including:
 - a. The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi (3.45 kPa).
 - b. The appliance must be isolated from the gas supply piping system by closing its individual manual valve during any pressure testing of the gas supply piping system at test pressures equal or less than 1/2 psig (3.45 kPa).
2. The installation must also conform with all local regulations governing gas appliance installations.
3. If your unit is supplied with casters, the installation shall be made with a gas connector that complies with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69 or Connectors for Moveable Gas Appliances, CAN/CGA-6.16, and a Quick Disconnect device that complies with the Standard for Quick-Disconnect Devices for Use with Gas Fuel ANSI Z21.41, or Quick Disconnect Devices for Use with Gas Fuel, CAN1-6.9, and adequate means must be provided to limit the movement of the appliance without depending on connector and the quick-disconnect device or its associated piping to limit the appliance movement.
4. If your unit is provided with casters on legs, the legs with locking casters must be installed opposite the gas supply line. An approved restraining device must be secured to unit near gas supply.

5. Connect the gas line and check for leaks. Note: air will be trapped in the gas supply lines. This trapped air will bleed out by holding red button for a few minutes during initial lighting.
6. With the main valve on and the three burner valves off, check for leaks using soapy water or an electronic leak detector. DO NOT USE OPEN FLAME FOR TESTING.

Burner Valves in off position; rotate counter clockwise to turn on



Burner Valve in in on position; rotate clockwise to turn off

INITIAL LIGHTING AND SHUT DOWN INSTRUCTIONS

Always follow lighting and shutdown instructions below when operating your unit. A five minute complete shut-off period is required before lighting or relighting it.

1. With burner valves off, light a match and place in a lighter rod, or use a LP torch. Position the flame at one pilot burner in the combustion chamber. Hold the red safety button in on the burner for which you have lit the match or torch. It may take up to 10 minutes to bleed air trapped in the gas line before the pilot will light.



figure (a)



figure (b)



figure (c)

2. After the pilot lights, remove the match or torch and continue to hold the red safety button for one minute. After releasing the button the pilot should stay lit. If it does not stay lit, repeat step 1, but hold button for approximately 90 seconds.



Note: Please see attached Robertshaw safety pilot control brochure for additional guidelines.

Red safety button

- The remaining two pilots should light with only a two or three minute bleed time.



- Turn all three burner valves counterclockwise to “on” position. Observe that each burner has ignited with a clear, blue flame about 2” long. You may need to fan or blow on the burner to get all the tips to light. The burners are designed to fully light when the cast iron flat top is in position on the unit.
- With burners lit, use a suitable gas leak detector and check for leaks in the entire gas train.
- To shut down, turn burner valves **clockwise** to off position.

TROUBLE SHOOTING

Poor Performance

Most MBR performance problems can be traced to incorrect gas supply pressure. If your unit is not getting hot quickly, it is necessary to determine if your unit has sufficient gas pressure to operate normally.

MBR is supplied with a gas test tap on the gas manifold to check for proper pressure. It is sealed with a 1/8” NPT plug. A suitable manometer may be attached to this test tap by a qualified gas service mechanic to verify operating gas pressure. The unit should then be restarted following the initial lighting instructions on page 4 of this manual. With all three burners operating, the manometer should indicate 6” WC for natural gas or 10”WC for propane gas. If the measured pressure differs from the above requirements, the problem causing low pressure results must be corrected. If pressure is too high, a pressure regulator in addition to the standard pressure regulator may be required (especially with Propane gas). If the pressure is too low contact your installer and/or supply company. Undersized gas supply lines are often a cause of insufficient operating pressure.

Pilot Failure

If one of the safety pilot fails (assuming the unit has worked for a while) suspect a faulty thermocouple as the source of the problem. Replacement thermocouples and pilots may be purchased from Town Food Service Eq. Co., Inc. or a commercial gas supply parts company.

Item No. 252238	Heavy Duty 36” Thermocouple
Item No. 252239	“L” Pilot with Bracket for Natural gas
Item No. 252239-1	“L” Pilot with Bracket for Propane gas

Note: The thermocouple is a consumable part. It’s life expectancy varies depending on use.

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MBR-36 with 36" Cook Top

MBR-42 with 42" Cook Top

SECTION 2: OPERATION INSTRUCTIONS



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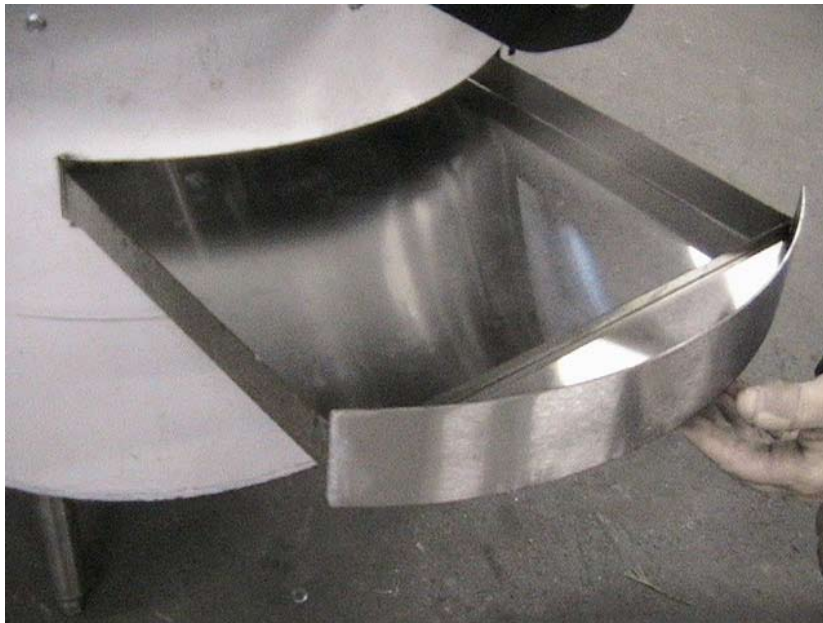


IMPORTANT OPERATION SAFEGUARDS

PLEASE DO NOT THROW AWAY THESE INSTRUCTIONS.

This manual must remain with the unit for future reference.

1. Materials such as wood, compressed paper, and plant fibers that will ignite and burn must not **be exposed near this unit**. Local safety codes should be complied with in respect to fire avoidance.
2. The area around the unit must be kept clear to avoid restriction of air supply for combustion or ventilation for exhaust.
3. If your unit is supplied with casters, there should be a restraint on the appliance to limit its movement. If disconnection of the restraint becomes necessary, you must be sure to reconnect the restraint after the appliance is returned to its originally installed position.
4. Provision must be made to assure adequate supply of fresh air to this unit. This unit cannot operate safely without sufficient air supply.
5. MBR should be used under a properly designed ventilation hood, which should be clean and in operation when the MBR is in use.
6. This unit should be operated only with drip tray in place.



LIGHTING AND SHUT DOWN INSTRUCTIONS

Always follow lighting and shutdown instructions below when operating your unit. A five minute complete shut-off period is required before lighting or relighting.

Burner Valves
in off position;
rotate counter
clockwise to
turn on



Burner Valve in
in on position;
rotate clockwise
to turn off

1. With burner valves off, light a match and place it in the lighter rod, or use a torch. Position the flame at one pilot burner in the combustion chamber. Hold the red safety button in on the burner for which you have lit the match. It may take up to 10 minutes to bleed air trapped in the gas line before the pilot will light.



figure (a)



figure (b)



figure (c)

2. After the pilot lights, continue to hold the red safety button for one minute. After releasing the button the pilot should stay lit. If it does not stay lit, repeat the above steps in 1.



Note: Please see attached Robertshaw safety pilot control brochure for additional guidelines.

Red safety button

3. The remaining two pilots should light with only a two or three minute bleed time.



4. Turn all three burner valves counterclockwise to "on" position. Observe that each burner has ignited with a clear, blue flame about 2" long.
5. With burners lit, use a suitable gas leak detector and check for leaks up to the mixer.
6. To shut down, turn burner valves **clockwise** to off position.

IMPORTANT OPERATION SAFEGUARDS

PLEASE DO NOT THROW AWAY THESE INSTRUCTIONS.

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OPERATIONAL OVERVIEW

The Town Mongolian Barbecue is a simple range best used by a skilled chef but is built to withstand the errors of the inexperienced. Cast iron top is 1" thick and heavy. We encourage training to prevent abuse to the equipment and unhappy guests. This unit should be used like any griddle top appliance, sudden heating or cooling of the top can cause it to warp and crack. If you have questions regarding use of the unit, feel free to call our technical support at (718)388-5650 (M-F, 9-5pm) or email us at customerservice@townfood.com.

The MBR series Mongolian Barbecues are high performance three section griddle-style units. Three burners with individual valves and safety controls are centered for easy access during operation. Up to three chefs can work at this unit as they sauté vegetables, fish, meat and poultry as guests watch. Mongolian Barbecues are similar to a tepanyaki griddle in use.

SEASONING

The first time you use the unit the top must be seasoned. This must be done while the ventilation system is in operation. Wash the top with soapy water to remove all grease and oil from the manufacturing process. Rinse the top immediately and dry it off; it is cast iron and will rust if not dry. Using the procedure described earlier, fire up the unit and get the top hot. Turn down the heat and wipe the surface with a towel coated with cooking oil. With repeated heating and wiping, the top will attain a nonstick finish. Do not use soap again to clean the top but use a stainless steel sponge with enthusiasm to keep the top free from carbon buildups.

COOKING

Cooking on this unit is like cooking on a high-speed griddle. The intense heat generated by the burners is designed to achieve the searing quality of wok-style cooking. Similar techniques including stir-fry, applications of sauces and seasonings are generally used. As in tepanyaki style cooking, the chef understands the differences of the food being cooked and will adjust his method to the individual dish.

COOKING TOOLS

MBR Swords are stainless steel do look like swords. Their air insulated handles prevent operators from burning their hands when grabbing a sword whose blade has been on the cook top for a while. Swords are 24" long and allow the operator to operate on a larger area of the cooktop and more easily control and serve meals due to the long blade length. MBR swords add showmanship cooking as chefs perform like Ninja warriors wielding these weapon-looking devices while cooking.

NOTE: Do not leave MBR Swords on cook top for more than 15 minutes

MBR Veggie Sticks act to isolate a portion of the cook top during the cooking of a meal. This can be required by diners with allergies to some foods. For those customers, the top is scrubbed and the Veggie Sticks provide a surface barrier to prevent ingredients and sauces from other meals to mix into this meal. Veggie Sticks are hollow stainless steel square tubing with heat proof handles. See next page for photo.

Veggie Sticks and MBR Swords are available from Town through your dealer.

Chefs may also use spatulas or long square wooden sticks as implements on the surface. Like a wok or cast iron fry pan, the top must be reseasoned with each use. Food should not be allowed to remain on the top as this will cause the top to pit or otherwise deteriorate.



Item No. MBRS-2
MBR Sword

Item No. MBR-VS2
MBR Veggie Stick



CAUTION: DO NOT WARP THE TOP!

DO NOT OVERHEAT THE TOP! The MBR has manual valves and is not thermostatically controlled. Continual overheating of the top will cause it to warp. Do not allow the burners to operate at full on after the top has reached satisfactory temperature.

MAINTENANCE

1. If your MBR requires service, contact your authorized gas service company to perform necessary repairs or contact Town Food Service (800)221-5032 (M-F, 9-5pm EST) for a service provider recommendation. For all warranty service calls, Town must be notified first.

MAINTENANCE, con't.

2. Burners should be checked and cleaned annually by a **qualified gas service company**. Valves should be greased annually.
3. Be careful not to get the controls and valves wet. It will cause them to fail
4. If your unit is supplied with casters, there should be a restraint on the appliance to limit its movement. If disconnection of the restraint becomes necessary, you must be sure to reconnect the restraint after the appliance is returned to its originally installed position.

CLEANING

Your MBR should be cleaned each evening after use. Wash the stainless steel scrap gutter and body with a brush and solution of mild grease dissolver with water. Rinse with water. Remove and clean the drip tray; dry and replace into the unit. The safety controls and valves below the unit should be kept dry during the washing process.

Do not use soaps on the cast iron cooking surface. Scrub the surface with a stainless steel sponge and water, then heat the unit and re-season with cooking oil. The surface must remain oil-coated to prevent rust and maintain the nonstick nature of the top.

CAST IRON MONGOLIAN COOK TOP CARE AND MAINTENANCE

These are suggested standard operating procedures to prepare your top for use and maintain it thereafter. The cast iron top of a Mongolian range should be viewed as a large cast iron skillet. It must be washed and seasoned when new. The seasoning must be maintained to keep the black shiny surface that acts as a non-stick surface.

INITIAL SEASONING

When new, wash the top very thoroughly with warm soapy water. The top is coated with rust inhibiting protective oil at time of manufacture. All traces of manufacturing oil must be removed prior to seasoning. Follow these steps for initial seasoning:

1. Remove all traces of manufacturing oil using warm soapy water and brushes, cloths, and/or mildly abrasive scrubbers such as stainless sponges.
2. After all traces of manufacturing oil have been removed, dry the top using clean wipes.
3. After the Mongolian pilots are lit, turn the gas valves to full ON position. Refer to the diagram earlier in Operating Instructions.
4. The top will slowly begin to become hot. When a drop of water boils on the surface of the top, wipe the top with a thin coat of oil¹. Immediately wipe the top with a dry cloth to remove any excess oil. Avoid oil build ups.
5. Wait an additional five to ten minutes to allow the top to continue to heat. The top will have started to become darker. Apply another coat of oil and wipe dry as above.
6. Continue to apply oil and wipe dry in approximately five minute cycles. The top should gradually darken and become black. When a black shiny surface has been achieved, the top is seasoned and ready for use. Reduce heat or turn valves to OFF if finished.

DAILY USE

We recommend the top be kept clean at all times. Visible food residue should be scraped off using a long handled griddle scraper. Apply cooking oil after scraping food residue and wipe with oil to make an even coating. Sauces containing sugar will caramelize and stick to the top requiring more work to scrape it clean. Try to apply sauces to the meal after it is plated or at within the final 30 seconds of the cooking cycle. If saucing on the grill, try to use oil based sauces without sugar.

1. Scrape the grill as soon as food residue is visible.
2. Oil the grill after scraping or before the next meal is cooked.
3. Try to use water from a squeeze bottle on the meal as it cooks so the food is steamed and fried at the same time.
4. Allow the grill to cool at the end of the day, then scrape the top clean and apply a light coat of oil.

ANNUAL TOP MAINTENANCE

If the top has visible excessive burned on food, it may become necessary to season the top almost as new. Heat the top and clean with abrasives as described above. Then polish the top using griddle screens and bricks. Then give successive seasonings as outlined above to regain the shiny black surface.

We recommend peanut or grape seed oil. While many have severe allergies to peanuts, the reaction seems to be to the protein, and not the oil of the peanut. This is the case of our corporate chef. However, if you are concerned about allergic reaction to peanut oil, do not use it.

SPARE PARTS

MBR is a heavy duty range requiring little service. Make sure the burners are producing a clean, blue flame. The cast iron burners will last the lifetime of the unit. Parts that may be subject to replacement are:

Item No. 252239
"L" Pilot w/ Bracket for
Natural Gas

Item No. 252239-1
"L" Pilot w/ Bracket for
Propane Gas



Item No. 252238
Heavy Duty 36"
Thermocouple

Item No. 226102F
3/8" Female Burner Valve



Item No. 249011
Safety Control



226911N
226911P
226912
226914

Natural Gas 18 Tip Vertical Shield Burner
Propane Gas 18 Tip Vertical Shield Burner
Natural Gas Replacement Tip
Propane Gas Replacement Tip

TROUBLE SHOOTING

Pilot burner will not stay lit. This could be caused by one (or more) of three problems:

1. Loose connection at thermocouple to the safety control.
2. Worn out thermocouple.
3. Worn out safety control.

To remedy the problem, first check to see if the thermocouple is snug in the safety control.



1. Check all safeties.
2. Using a 3/8" wrench, insure the thermocouple is snug in the body of the safety control. A good rule is 1/4 after finger tight. DO NOT OVERTIGHTEN as it will damage the control.
3. Light the pilot burner. If the pilot burner stays lit, then the problem was a loose connection at the thermocouple.

The thermocouple is snug but the pilot burner will not stay lit.

Thermocouples require replacement as often as three months due to the extremely high temperatures in the combustion chamber of the MBR. To change a thermocouple, wait for the unit to cool. Then:



1. Using a 3/8" wrench, remove the thermocouple from the control.
2. Using a 7/16" wrench, remove and replace the thermocouple from the pilot burner bracket. When installing the new thermocouple be sure to thread the adjusting nut up to the top of its travel.
3. After the thermocouple is installed at the pilot burner, thread the brass fitting into the safety body. It should be snug, but not too tight. A good rule is 1/4 after finger tight. DO NOT OVERTIGHTEN as it will damage the control. Light pilot.

The thermocouple was replaced, is snug but the pilot burner will still not stay lit. If all else fails, change the head on the safety control. This procedure should be performed only by a qualified gas service mechanic. Gas to the unit must be shut off before attempting this procedure.



1. Using a 3/8" wrench, remove the brass thermocouple fitting from the safety control.



2. Using a 7/16" wrench, remove the brass fitting from the pilot gas line.



3. Remove the screws from the safety head.



4. Remove the safety head.



5. Remove brass adaptor safety head and install on the new head.



7. Remove and replace the spring/magnet assembly.



8. New spring/magnet assembly installed.



9. Install the new safety head with the new gasket provided.



10. Mount the safety head and replace the screws.

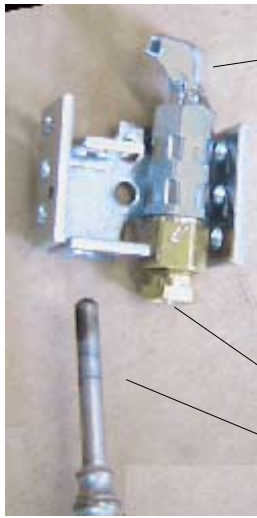


11. Carefully thread the brass fitting from the pilot gas line into the body and tighten using a 1/4" wrench.



12. Thread the thermocouple fitting into the body by hand. When you can no longer tighten by hand, use a 3/8" wrench to make snug. A good rule is 1/8 after finger tight. **DO NOT OVERTIGHTEN** as it will damage the control. Turn on gas, check for leaks, and relight pilot.

How to install a new thermocouple



"L" pilot

1. Check for correct type of gas.

Be sure the orifice is tight before installing the thermocouple.

orifice

thermocouple



top stop

2. Hand tighten nut so thermocouple is snug to top stop.

Do not tighten with a wrench.

flush to top

threaded collar



3. After the thermocouple is installed, insert the pilot tubing as far up into the pilot as possible.

1/4" compression fitting (loxit)

pilot tubing



4. Tighten compression fitting until top crimp snaps off; then tighten a 1/8 turn.

1/4" compression fitting (loxit)



5. If everything has been installed correctly, your pilot flame should look like this.