

Installation and Service Instructions



EmberGlo



Gas Open Hearth Broilers Models: 25, 25 Kabob, 25W Kabob, 31, 31 Kabob, 31N, & 41 Broilers

See Service Bulletin - 8476-00 - for quick start up instructions.

Warranty - See page 8 for warranty.

This warranty does not apply to damages resulting from accident, misuse, abuse or alteration.

No equipment may be returned without written authorization from EmberGlo (or Midco). Returned goods must be shipped prepaid to the factory.

Warranty card must be filled in and returned to EmberGlo (or Midco) to validate warranty.

CAUTION: EmberGlo Open Hearth Broilers are for installation on non-combustible locations only. This manual contains sufficient information for installation of the EmberGlo Broiler in normal locations.

In the United States, installation must conform with local codes, or in absence of local codes, with **National Fuel Gas Code, ANSI Z223.1 /NFPA 54**. In Canada, installation must be in accordance with **Natural Gas and Propane Gas Installation code CSA B149.1 or .2** as applicable.

PURCHASER: Retain these instructions for future use. Post, in a prominent location near the broiler, instructions for turning off gas valves in case gas odor is detected and any other instructions as advised by your local gas supplier.

AVOID ERROR IN PARTS SELECTION. When ordering use complete EMBERGLO Part Number and Description. Furnish Model Number, Bill of Material Number and Serial Number (if available) from the specification plate found on the product. **IMPORTANT:** Availability of parts as well as specifications are subject to change without notice. Please consult factory for item availability.



EmberGlo

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CAUTION: To avoid grease filter fire hazard, commercial kitchen exhaust hoods should be positioned at a minimum of 3½ feet above the broiler cooking surface, as specified by Commercial Grease Removal, Building Officials & Code Administrators International Inc. and the National Mechanical Code, 1990 Seventh Edition (or latest edition), Article 5, Section M504.0, Table M504.3.2.

CAUTION: Cooking equipment should be used in an environment protected by an automatic fire suppression system. Consult the National Fire Protection Association NFPA Code 96 or the latest edition of Standards for Installation of Equipment for Removal of Smoke and Grease-Laden Vapors From Commercial Cooking Equipment.

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 liquids and vapors in the vicinity of this or any other appliance.

IF YOU SMELL GAS:

1. DO NOT TOUCH ELECTRIC SWITCHES
2. EXTINGUISH ANY OPEN FLAME
3. IMMEDIATELY CALL YOUR GAS COMPANY

SAFETY INFORMATION TERMS: The following terms are used to identify hazards, safety precaution of special notations and have standard meanings throughout this manual. They are printed in all capital letters using a bold type face as shown below, and preceded by the exclamation mark symbol. When you see the safety alert symbol and one of the safety information terms as shown below, be aware of the hazard potential.



DANGER: Identifies the most serious hazards which will result in severe personal injury or death.

WARNING: Signifies a hazard that could result in personal injury or death.

CAUTION: Identifies unsafe practices which would result in minor personal injury or product and property damage.

Natural Gas - Counter Top Models

25C	Open Front	5010102
25C Kabob	Open Front	5010400
25WC Kabob	Open Front	5010504
31C	Closed Front	5020100
31C	Open Front	5020102
31C	Mid Closed Front	5020103
31C Kabob	Mid Closed Front	5020400
31NC	Open Front	5020504
41C	Closed Front	5030100
41C	Open Front	5030102

Natural Gas - Floor Models

25F	Open Front	5010201
25F Kabob	Open Front	5010401
25WF Kabob	Open Front	5010604
31F	Closed Front	5020200
31F	Open Front	5020201
31F	Mid Closed Front	5020202
31F Kabob	Mid Closed Front	5020401
31NF	Open Front	5020604
41F	Closed Front	5030200
41F	Open Front	5030201

Propane Gas - Counter Top Models

25C	Open Front	5110102
25C Kabob	Open Front	5110400
25WC Kabob	Open Front	5110504
25WC	Open Front	5110505
31C	Mid Closed Front	5120102
31C	Closed Front	5120103
31C	Open Front	5120104
31C Kabob	Mid Closed Front	5120400
31NC	Open Front	5120504
41C	Closed Front	5130101
41C	Mid Closed Front	5130102
41C	Open Front	5130103

Propane Gas - Floor Models

25F	Open Front	5110201
25F Kabob	Open Front	5110401
25WF Kabob	Open Front	5110604
31F	Open Front	5120202
31F	Mid Closed Front	5120209
31F Kabob	Mid Closed Front	5120401
31NF	Open Front	5120604
41F	Closed Front	5130201
41F	Open Front	5130202



As an ISO 9001:2008 certified company, we proudly design, manufacture and assemble our products in Chicago, Illinois, USA.

Quality Designed for Proven Performance



822
8448 24
Printed in USA

Gas Broiler - Installation

Gas Pressure Requirements

GAS PRESSURE REQUIRED	
Natural Gas	Propane Gas
800 to 1,100 BTU/cu. ft	2,500 BTU/cu. ft.
5.0" to 14" W.C.	11.0" to 14.0" W.C.

Table 1 - Gas Pressure Requirements

Installation

Clearance Instructions:

1. For use in non-combustible locations only - For use only on non-combustible counter tops, where minimum clearance from sides and back is 6" (153 mm).
2. The appliance area must be free and clear of all combustible items.
3. The unit must be leveled before placing it in operation. Level the unit on an uneven surface to prevent rocking, adjustable feet have been provided. (Floor models only).
4. When using gas broiler, keep the appliance area free from obstructions that could block the flow of fresh air for the ventilation and Flaretrol systems.

If a floor model broiler is equipped with adjustable legs use an open-ended wrench on the bottom hex of each leg to adjust the height and to level the broiler.

When a floor model broiler is supplied on casters and is connected to the supply piping by means of a connector for movable appliances, the operator must be aware of the restraints on the appliance and if disconnection of the restraints is necessary to reconnect this restraint after the appliance has been returned to its originally installed position.

For an appliance equipped with casters the following criteria must be met:

1. The installation shall be made with a connector that complies with the Standard or Connectors for **Movable Gas Appliances, ANSI Z21.69 - CSA 6.16**, and a quick-disconnect device that complies with the **Standard for Quick-Disconnect Devices for Use With Gas Fuel, ANSI Z21.41 - CSA 6.9**.
2. 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
3. The location(s) where the restraining means may be attached to the appliance shall be specified.
The broiler is shipped with knobs unattached. To install knobs, align shaft flats with knob flats and press on (no set screws are used). When pressing, reach under broiler and support valve shafts. Do not hammer knobs as valve damage could occur.

Electrical: The wiring diagram is located inside the electrical box cover plate.

The Flaretrol system is rated at 120 Volts, 60 Hz. with a current draw of 1.5 Amps maximum. Installation wiring and grounding of the broiler must conform to local codes or, in the absence of local codes in the **United States to National Electric Code, ANSI/NFPA 70** or latest edition; in Canada, to **Canadian Electrical Code, CSA Standard C22.2**.

 **WARNING:** Electrical grounding instructions - This appliance, is equipped with a three-prong (grounding) plug for your protection against shock hazard, should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from the plug.

Gas Line Connection: The gas pressure regulator is factory installed. **TAMPERING OR REMOVING THE REGULATOR WILL VOID ALL WARRANTIES**

Supply line size should be sufficient to provide full input at the broiler. For Model 25 & 25 Kabob, use 1/2" pipe for runs up to 100 ft. For Models 25W, 31, 31 Kabob, 31N and 41, use 1/2" pipe for runs up to 50 ft. and 3/4" pipe for runs of 50 ft. or more. For all broilers using PROPANE gas, 1/2" pipe will be sufficient for runs up to 100 ft.

Use pipe joint compound resistant to Liquefied Petroleum Gases. Check the broiler piping and valves for gas leaks by applying a weak liquid soap solution to unions and joints with the gas supply on. Leakage will be indicated by the appearance of soap bubbles. Locate and correct all gas leaks before proceeding.

IMPORTANT:

Placement of the Support Bricks is identical for either Briquette or Barbriq set-up.

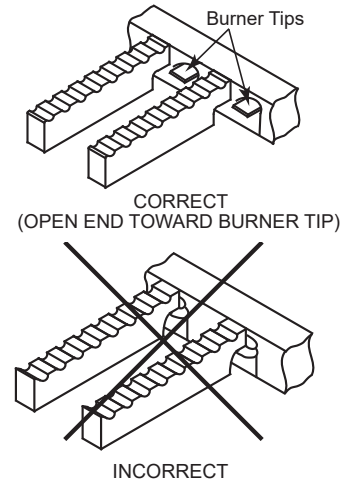


Figure 1
Support Brick Placement

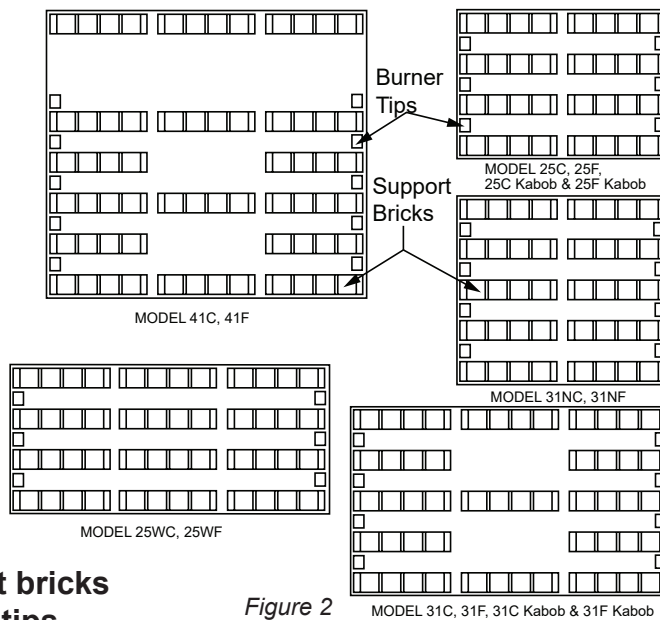


Figure 2
Support Brick Arrangements

NEVER place the support bricks directly in front of the tips.

Set grate support bricks in firebox. Be sure cut-out end of brick is placed midway between each burner tip - NEVER directly in front of the tips.

CAUTION: When the Char Broiler is HOT!! never attempt to change location or remove grates during cooking. Flare-Up can occur at anytime. Turn off the char broiler and wait until it cools.

Briquette Setup (on support bricks)

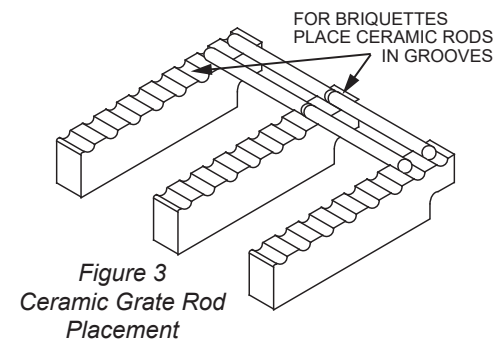


Figure 3
Ceramic Grate Rod Placement

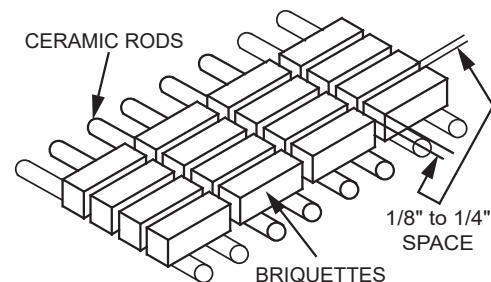


Figure 4
Briquette Placement

Set ceramic briquette on grate rods. Be sure to allow 1/8" to 1/4" space between each briquette. Briquette should only cover grate rod area of hearth. Briquette arranged in columns (as shown) or staggered briquette arrangements are acceptable.

Barbriq Setup (on support bricks)

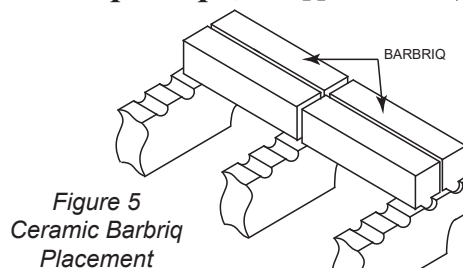


Figure 5
Ceramic Barbriq Placement

Place ceramic Barbriqs in grooves. The featured design aligns automatically between each Barbriq. Barbriqs should only cover grate support brick area of hearth. Barbriqs are arranged in columns (as shown) end to end.

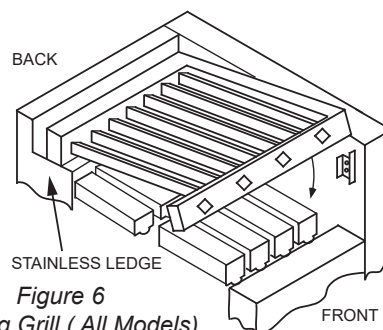


Figure 6
Cooking Grill (All Models)

Install cooking grill by resting it on stainless ledge at rear and then lowering it onto metal bracket at front.

Broiler Hearth Setup

General Support Bricks Setup

Barbriq and Briquette Setup

Grill Setup

Gas Broiler - Installation

Installation Continued



WARNING: DO NOT USE OPEN FLAME.

During any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.45 ka), the Broiler must be isolated from the gas supply piping system by closing its individual Main Manual Shut-Off Valve.

During any pressure testing of the gas supply piping system at test pressures in excess of 1/2 psi (3.45 ka), the Broiler and its individual Main Manual Shut-Off Valve must be disconnected from that system.



WARNING: EXPLOSION HAZARD. DO NOT USE OXYGEN FOR PRESSURE TESTING. AN EXPLOSION COULD OCCUR DURING INITIAL START-UP

Manifold pressure taps are supplied for testing operating pressures and setting gas input. On Model 25 & 25 Kabob, the tap is located in the main manifold piping directly behind the Manual Burner Valve. On Models 31, 31 Kabob and 41, it is located in the pilot line behind the Manual Pilot Valve.

Each burner tip has been individually orificed for the correct gas input for NATURAL or PROPANE gas.

BROILER MODEL	25C/25F & 25 Kabob	25WC/25WF Kabob	31C/31F & 31 Kabob	31NC/31NF Kabob	41C/41F
Number of burner tips	6	6	8	8	10
Capacity/Tip (BTU/Hr)	6,600	(2) 6,600 (4) 8,500	8,500	7,550	8,500
Max. BTU/Hr Input	39,600	47,200	68,000	60,400	85,000
NAT Gas Orifice Size	#56	(2) #56 (4) #54	#54	#55	#54
Manifold Pressure	4" W.C.	4" W.C.	4" W.C.	4" W.C.	4" W.C.
PROP Gas Orifice Size	#68	(2) #68 (4) #65	#65	#65	#65
Manifold Pressure	10" W.C.	10" W.C.	10" W.C.	10" W.C.	10" W.C.

Table 2 - BTU Capacity, Orifice Size and Manifold Pressure

USE OF PROPANE FOR GAS BROILERS

Model	BTU/Hr	LB of Propane Used/Hour	Cylinder Size	Hours of Use Full On (approx.)
25* & 25 Kabob *	39,600	1.84 lb	20#	10.8 Hr
			40#	21.7 Hr
			100#	54.3 Hr
25W **	47,200	2.19 lb	20#	9.1 Hr
			40#	18.2 Hr
			100#	45.6 Hr
31*** & 31 Kabob ***	68,000	3.16 lb	40#	12.6 Hr
			100#	31.6 Hr
31N ****	60,400	2.80 lb	40#	14.2 Hr
			100#	35.7 Hr
41*****	85,000	3.94 lb	100#	25.3 Hr

Minimum size Cylinder: * Model 25 & 25 Kabob - 20# / ** Model 25W - 20#
 *** Model 31 & 31 Kabob - 40# / **** Model 31N - 40#
 ***** Model 41 - 100#

Table 3 - Propane per Hour Usage

Ventilation: A suitable power or gravity ventilating system **must be used in conjunction with the EmberGlo Open Hearth Broiler.**

Power Types: Either of the two types of power ventilators - the overhead hood type or under shelf exhaust type - may be used. The latter offers simplicity of installation and minimum cleaning expense. Both require flame-proof filters for grease removal. Connect the ventilator to a duct of suitable size. The exhaust blower must be capable of removing a minimum of 325 CFM of air per square ft. of broiler

surface; specifically: a fan capacity of ...

- 775 CFM for the Model 25 & 25 Kabob
- 1100 CFM for the Model 25W
- 1400 CFM for the Model 31 & 31 Kabob
- 1000 CFM for the Model 31N
- 2,000 CFM for the Model 41 is required

Gravity Types: Since no power exhaust is used, the gravity ventilating system is adequate only in certain conditions. It is only practical in single story buildings not surrounded by higher structures. A large straight duct, equal to a minimum of half the grill area, must be carried upward from a hood over the broiler to a height of four feet above the highest point of the roof. It should be equipped with a rotary outlet. The hood must extend at least 12 inches beyond each side of the grill. Since no filters are used, periodic inspection and cleaning of the hood and duct work is especially important.

FOR PROPER OPERATION, ALL VENTILATING SYSTEMS REQUIRE AN ADEQUATE SUPPLY OF FRESH AIR INTO THE ROOM.

SEE IMPORTANT NOTE REGARDING EXHAUST HOODS on the front page of this manual.

Instructions for turning on the Broiler:

The two pilots are located under the front panel on the right and left hand sides.

1. Make sure that the Main Manual Shut-Off Valve is in the ON position and the Manual Burner Valve(s) are in the OFF position.
2. Turn Manual Pilot Valve ON and use a match or long lighter to ignite the pilots.
3. Once the pilot(s) is lit turn on the manual burner valves.
4. If the flame fails to light or goes out, turn off the manual burner valves and the pilot valves. Wait for 5 minutes. Repeat from step 2.

If necessary, a few briquettes or Barbriqs (bricks) may be removed from the hearth for easy access to the pilot; they should be replaced before operating the broiler.

If the pilot flame is too short or too long, remove the Manual Pilot Valve handle and adjust the slotted screw in the valve stem for a suitable flame.

Preheating: The Models 25, 25 Kabob broilers have a single Manual Burner Valve which controls all six main burners. Models 31, 31 Kabob, 31N and 41 have two Manual Burner Valves, one for each side of the broiler. Preheat the broiler with the Manual Burner Valves wide open for a short period, until a dull red glow is visible on the lower surface of the Barbriq. After preheating, reduce valve settings to the lowest flame required to maintain the glow on each side of the broiler hearth - not necessarily in the center. DO NOT broil with the Manual Burner Valves wide open, or with excessively bright Barbriqs on the hearth. Maximum valve setting is used only for preheating.

How to Broil on an EmberGlo Broiler:

IMPORTANT: Turn on full high for about 20 to 30 minutes to preheat the bricks to a glowing orange. After preheating turn the broiler down about 1/3 and begin broiling. Seal the meat quickly to keep the juices in by searing over the glowing bricks on the center of the grill. **NOTE:** Do not turn the gas control down further when not busy using the broiler. Turning the gas down will drop the temperature of the bricks and it will take 10 to 15 minutes to bring the broiler back up to proper broiling temperature. At the end of the work day leave the broiler on full high for about 15 to 20 minutes to burn off the drippings that accumulated on the bricks during the work day.

All models of the gas broilers were designed to have distinct cooking zones. The middle third, where the tips of the flame meet under the bricks, is the hottest and best used to initially sear meats and vegetables. The outer thirds, left and right, are slightly lower in temperatures and best used to finish the food.

Flaretrol: Turn the Flaretrol switch ON when an excessive grease flare develops. When there is no flare, turn it OFF. Continuous operation of the Flaretrol will not damage the motor, but it will needlessly lower the temperature at the grill.

If excessive flare develops which cannot be adequately controlled by the Flaretrol, move meat to another area of the grill. Do not overload the grill; leave sufficient space between the pieces of meat to allow the meat to be shifted and smoke to exit. If cooking during a power failure, the Flaretrol function is lost; therefore take special care to avoid excessive grease flare-up.

During heavy periods of broiling, reduce the valve settings to compensate for increased heat from grease flare.

To Shut Off the Broiler: Turn the Manual Burner Valve(s) to the OFF position. Turn the Manual Pilot Valve to the OFF position.

Gas Broiler - Maintenance & Broiling Techniques

Maintenance

IMPORTANT: Disconnect power supply prior to cleaning or servicing.

Depending on the amount of use, periodic cleaning is necessary. Turn the Main Knobs on high for 30 minutes. Turn the broiler off and wait for a **complete** cool down. Brush or vacuum the hearth. Be sure that the pilot areas are clean and clear of ash and burned matches. Because of the incinerator action of the hearth, grease does not normally accumulate under the grate; however, periodically the Barbriqs or ceramic rods should be removed and the hearth cleaned, either by brushing or vacuuming. Wipe grease splatter from the top and adjacent surfaces. Monthly vacuuming is recommended. However, the frequency of vacuuming is dependent on usage.

⚠ WARNING: Use of marinades: It is recommended to use marinades sparingly. Do not pour liquids directly over foods when on the grate -- a fire may result!

Heavy use of marinades will shorten the life of the ceramic hearth and will result in replacement of the ceramics more often.

The Flaretrol motor features permanently lubricated ball bearings and requires no routine oiling.

Keep the area around the broiler free of combustible materials. Since the combustion and Flaretrol air is taken from the front of the unit, do not obstruct the free flow of air to the front.

Season the grate with cooking oil prior to daily use. Daily oil treatment of grate with oil is recommended for best cooking results.

To clean the grate - turn main valve on "HIGH" for 15 to 20 minutes to burn off all grease and food particles after each day of cooking.

⚠ CAUTION: On the counter models, do not store cooking utensils, mitts, towels or anything combustible between broiler and counter top. Restricting air flow, particularly on counter models, can cause over-heating and premature motor failure.

⚠ CAUTION: On floor models, do not store combustible materials such as paper, fabric, cooking oils, or any other flammable liquids in floor models' stainless steel storage shelf.

Do not obstruct the fresh air supply into the room or the ventilating system. For maintenance and service, refer to your local gas service or utility company.

If removal of the front plate of the broiler is needed follow these directions:

1. Slip the valve knobs from their stems (no set screws are used).
2. Remove the side screws holding the front plate.
3. Pulling from both sides at the bottom, snap out lower section and lift off.

Broiling Techniques

Open hearth broiling on the EmberGlo has great advantages over other methods of cooking meats, fish, and poultry. It is fast and gives a seared surface to the food, improving both appearance and taste. It uses no grease except that which is in the food itself.

The temperature at the grill surface, as in all cooking processes, is most important. It is possible to create various zones of temperature ranging from 350°F to 750°F by adjusting the Main Knobs on the EmberGlo Broiler. The higher temperatures impart the seared dark brown surface that some customers prefer, and speed cooking time. The lower temperatures are for thick cuts of meat which must be well done without excessive surface charring. Excessive grill temperatures should be avoided. The temperature at the grill surface is the determining factor in cooking-the hotter the grill, the shorter the cooking time, and vice versa.

Start broiling by placing food products on the center of the cooking grill (hottest area) and finish in the cooler zone (sides). Following are some helpful hints for getting the most from your EmberGlo Broiler.

1. Thick pieces of meat, whole fish and half chickens should be broiled over lower heat to prevent undue charring of the surface while the center is being cooked. This should be done over a cooler zone on the grill.
2. In broiling large quantities of strip steaks simultaneously, excess fat should be trimmed off. If thick steaks are being broiled, sear at high fire and finish in a cooler zone, particularly if medium or well done steak is desired.
3. Fillets Mignon and other lightly fatted meats may be brushed with butter or garlic butter before broiling or when first placed over the fire. This gives a more even browning to the meat, and prevents excessive surface charring.
4. Meat or fish should not be salted before broiling in order to prevent the rapid loss of natural juices. However, poultry should be salted before placing on the grill to prevent too charred a surface.
5. Raw pork must, of course, be cooked throughout. This means slow broiling at lower temperatures. Ribs, chops, and other cuts are delicious when so broiled. Due to the time involved, it is often advisable to partly cook the ribs and double chops on the EmberGlo Broiler and then finish-broiling on a standard top broiler.
6. Fish requires basting two or three times during the broiling period. Butter, margarine or salad

Gas Broiler Broiling Techniques, Cooking Guide & Model Numbers

(cooking) oil may be used. Some chefs prefer a basting sauce or lemon juice and spices mixed with oil. Others recommend supplying the customer with special sauces at the table. The purpose of basting with oils is to speed browning of the quickly broiled, moist flesh.

7. Lobster is often prepared by the open hearth method. Basting is required but the use of lobster racks makes this simple. Many establishments feel this is the best possible method of broiling lobster.
8. Veal is seldom broiled because the lack of fat tends to make the meat dry and "chewy." Connective tissue in veal usually requires a longer cooking time than is desired with broiling.

Broiling Techniques Continued

This table gives the approximate times for broiling various cuts and thicknesses of different meats on the EmberGlo Broiler.

Cooking Guide

Cooking time is given for raw meats.

	Thickness	Rare	Medium	Well
		Cooking Time in Minutes		
BEEF				
Filet Mignon, Porterhouse	1"	6	8	10
T-Bone, Club, Rib	1½"	9	10	13
Sirloin	2"	16	18	21
Strip Sirloin	¾"	4	6	8
Hamburger, Ground Chuck, or Round	½"	2	4	8
LAMB*				
Center cut loin, rib	1"	--	10	15
Sirloin chops, double rib	1½"	--	15	21
English chops	2"	--	20	25
Shoulder chops and leg steaks	1"	--	10	15
Lamb riblets or Mutton chops	1"	--	12	18
PORK*				
Spare ribs	--	--	--	30-40
Single chops	½"	--	--	15
Double chops	1½"	--	--	25
	Thickness	Well		
		Cooking Time in Minutes		
FISH				
Fillets (times are for one side of fillet only do not turn)	¼"	5		
	½"	6		
	1"	8		
Fish steaks	½"	3		
	1"	5		
	1½"	8		
Whole fish, dressed	3"	5		
Split (times are for one side of split only - do not turn)	1½"	6		
	2"	9		
POULTRY				
Broiling chickens	¾ lb.	9		
(Ready-to-broil weight for half chickens)	1 lb.	11		
	1½ lbs.	14		

* These times can be shortened by partial pre-or post- cooking.

Warranty

Midco® International Inc Limited Warranty Policy Exclusions Terms, Customer Requirements and Instructions

All claims should be filed through Warranty Central. Call factory for information (773 604 8700)

Only Authorized Service Providers are authorized to provide Limited Warranty service on all EmberGlo®, a Division of Midco® International Inc., food equipment as described under and Midco® International Limited Warranty Policy. A list of providers can be found on our web site: www.emberglo.com

Provisions: In lieu of an implied warranty, all repairs and replacement parts furnished under our Limited Warranty shall be f.o.b. point of distribution, but the owner must pay the necessary freight, delivery and labor costs involved when required. Any Federal, State or Local taxes are also extra. This Limited Warranty is effective for a period of one year from date of installation. EmberGlo® Char Broilers and EmberGlo® Electric Food Preparation Equipment manufactured by Midco International, sold under the EmberGlo® trademark, are guaranteed to be free from defect in material and workmanship under normal use and service for a period of 1 (one) year after the date of original installation. Midco's obligation under this Limited Warranty Policy shall be limited to repairing or replacing, at our option, any part of said equipment which Midco examination shall disclose to its satisfaction to be thus defective.

Exclusions: This Limited Warranty Policy does not apply to damages resulting from accident, misuse, abuse or alteration, nor does it apply to limed steam generators, nor does it apply to any consequential damages. Most geographical areas require the use of distilled or demineralized water. Tap water is permissible only with ES Series Steamers. Nor does it apply to Barbriq's®, briquettes, or rods used in gas broilers. Midco's obligation will be the replacement of the product or parts removed.

Terms: Under the terms of this Limited Warranty Policy, models considered portable (devices with cords and plug caps such as EmberGlo Steamers) must be taken or returned to the nearest service provider, transportation prepaid, returned transportation collect. Non-portable units with permanent wiring will be serviced on the customer's premises. Under these terms, Midco agrees, within the terms of this Limited Warranty period, to make all repairs at no charge by the authorized service provider. Labor and mileage charges submitted by any other provider not authorized will be the responsibility of the customer.

Customer Requirements: All charges related to repairs made one (1) year after the date of original installation, during the Limited Warranty period will be the responsibility of the customer. The product registration information is located on the product I.D. plate.

If a part is defective due to workmanship or materials and is removed from the product within the applicable warranty period and returned to Midco in accordance with the following procedure described, Midco will, at its option, either repair or replace the part.

Call the factory for instructions on returned goods.

No equipment may be returned without written authorization from EmberGlo / MIDCO. Returned goods must be shipped prepaid to the factory.

⚠ WARNING: Improper installation and use of this product could result in personal or property injury.

**TO VALIDATE WARRANTY:
FILL OUT THE FORM ON THE NEXT PAGE
AND RETURN TO EMBERGLO**

Mail: EmberGlo
4140 W Victoria Street
Chicago, IL 60646
Fax: 773 604 4070
Email: sales@emberglo.com

Keep for your records

Gas Broiler ☐ Electric Broiler ☐ Steamer ☐

Model Number

Purchased from - Name:

Serial Number

Address

Installation Date

City, State, Zip

Warranty Form- Fill Out and Return

Warranty

Midco® International Inc Limited Warranty Policy
Exclusions Terms, Customer Requirements and Instructions

All claims should be filed through Warranty Central. Call factory for information (866 705 0514)
Fill out form and fax to 866 580 8700 or copy and mail to: *EmberGlo Div of Midco International Inc*
4140 West Victoria Street
Chicago, Illinois 60646

Date of Purchase _____

End User Name _____

Company Name _____

Street & Apt. No. _____

City, State, Zip _____

E-mail Address _____

Web Address _____

Telephone _____

Fax _____

Steamer ☐ Gas Broiler ☐ Electric Broiler ☐

Model Number _____

Serial Number _____

Installation Date _____

Purchased from - Name: _____

Address _____

City, State, Zip _____

FOLD LINE

PLACE
STAMP
HERE

EmberGlo *Div of Midco International Inc.*

Attn: Warranty Department

4140 West Victoria Street

Chicago, Illinois 60646

FOLD LINE



EmberGlo A Division of Midco International - 4140 West Victoria Street - Chicago, Illinois 60646
toll free: 866 705 0515 - tel: 773.604.8700 - fax: 866.580.8700 - web: www.emberglo.com - e-mail: sales@emberglo.com

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Broiler Features

Stainless steel construction
Natural or Propane Gas
Floor or Counter Models
No Messy Grease Pan
All Ceramic Broiling Hearth
1600 ° Hearth
Self Cleaning Hearth
Zero Recovery time
Opened, Closed or Mid Front
Flame Control with **FLARETROL®** System

Helpful Hints for the best performance on your EmberGlo Char-Broiler:

- 1) The temperature at the grill surface, as in all cooking processes, is most important to the quality of food it produces. By adjusting the knobs on our char broilers, it is possible to create various zones of temperature ranging from 450 to 900 degrees. Higher temperatures allow for rapid cooking times and marked surfaces that some customers prefer, while low temperatures are for thick cuts of meat that must cook longer without surface excessive charring. Extreme grill temperatures should be avoided.
- 2) Keeping your grates clean after every cook is important. Old food isn't seasoning - it's crud. A clean grate is less likely to be sticky and will last longer.
- 3) Use the **FLARETROL®** system on your Emberglo Broiler to control flame flare up. Fat on meat will create flames and flare-ups. Trim the side fat on steaks and excess fat from roasts and chickens.
- 4) Thick pieces of meat, whole fish, and half chickens should be broiled over lower heat to prevent undue surface charring while the center is being cooked. Use a cooler zone on the grill.
- 5) Use an instant read thermometer to ensure the internal temperature for ground meat is at least 160°F, 180°F for whole chicken, 170°F for bone-in parts and 160°F for boneless parts.
- 6) Lay a piece of aluminum foil on top of the fish grilling basket after placing on the cooking grates. This holds heat and captures any moisture, which also helps cook the fish.

EmberGlo® Char Broilers

Great Outdoor Flavors - Indoors!

Open hearth broiling on EmberGlo Gas Char Broilers has the advantage over other methods of cooking meats, fish, and poultry. First of all, it is fast. Second; it gives a great tasting char broiled sear to the surface of the food. Third; it looks great. And fourth; the taste is outstanding!

It gets better. There are even more reasons to choose an EmberGlo Gas Char Broiler. Save time with no messy grease to cleanup - due to the high temperatures everything left behind is incinerated, only a light vacuuming is required.



Accessories for Gas Char-Broilers

Increase your efficiency with accessories made just for your broiler. Our Fish Grill is great for broiling fish but it is also handy for broiling smaller cuts of meats and veggies. Make cleanup fast with our stainless steel brushes.



EmberGlo®

★MADE in the USA★

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EmberGlo®

Gas Char Broiler Cooking Guide

Great Chef's Secrets to Char Broiling...



EmberGlo®

www.emberglo.com

Quality Designed for Proven Performance



... Gas Char-Broiling Grilling Times ...

* Times will vary based upon load size and preference of finished product

Beef	Thickness	Rare	Med	Well
Beef	1"	6	8	10
T-Bone, Club, Rib	1-1/2"	9	10	13
Sirloin	2"	16	18	21
Strip Sirloin	3/4"	4	6	8
Hamburger, Ground Chuck, or Round	1/2"	2	4	8
Shish Kabobs	1"	--	--	15
Skirt Steak	1"	--	--	10

Fish

Fillet (One side without turning)	1/4"		5
	1/2"		6
	1"		8
Fish Steaks	1/2"		3
	1"		5
	1-1/2"		8
Fish, whole & dressed	3"		5
Split (One side without turning)	1-1/2"		6
	2"		9

Lamb*

Center Cut Loin, Rib	1"	--	10	15
Sirloin Chops, double Rib	1-1/2"	--	15	21
English Chops	2"	--	20	25
Shoulder Chops	1"	--	10	15
Leg Steaks	1"	--	10	15
Lamb Riblets	1"	--	12	18
Mutton Chops	1"	--	12	18

*These times can be shortened by partial, pre, or post cooking

Poultry

Broiling Chickens (ready to broil weight for 1/2 chickens)	3/4lb		9
Chicken parts	--		15 to 20
Wild Game	1 to 1-1/2"		10

Shellfish

Shrimp	(Large 12-15/lb)		7
Shrimp Kabobs	(Large 12-15/lb)		10



EmberGlo® Gas Char-Broiling Grilling Guide

Selecting, Preparing and Grilling Tips

Start broiling by placing food products on the center of the grill (hottest area) and finish on the outside (cooler areas).

- After searing a steak, chop, large piece of fish or even a burger remove the seared meat to a warm section of the grill and allow it to finish.
- Select a thick cut of meat for grilling and lightly season the dried surfaces with a pinch of quality salt, like kosher style or sea salt, about 1 hour prior to grilling. The salt will draw proteins and natural sugars to the surface with will become the tasty 'crust' we all like in a well prepared grilled steak.
- When grilling larger steak cuts of beef, pork, chicken and lamb try to allow them to come to room temperature prior to grilling. Check the internal temperature before cooking so you know what you have to do to bring it up to the desired level of 'done' while only searing the surface and not over cooking.
- Fillet Mignon and other lightly fattened meats may be brushed with butter or oil before broiling when first placed on the grill, preventing surface charring.
- Small cuts of beef, pork and lamb on the grill can be grilled right from the cooler or fridge, seared on the surface sides and then pulled to finish off of direct heat. That way they don't overcook and dry out.
- Raw pork must be cooked throughout. Slow broil at lower temperatures.
- Dark meat of poultry needs more time to cook than white meat.
- Remove skin on chicken after cooking.
- Poultry should be salted to prevent charred surfaces.
- Fish should not be salted before broiling in order to prevent the rapid loss of natural juices. Fish requires basting two or three times during the broiling period. Butter, margarine, and salad oils may be used.
- Brush salmon skin with some teriyaki sauce and flip it a couple of times to make it all crispy. When fish is fresh the crispy skin is like potato chips.

... Gas Char-Broiling Grilling Times ...

* Times will vary based upon load size and preference of finished product

Pork	Thickness	Rare	Med	Well
Spare Ribs	--	--	--	30-40
Single Chops	1/2"	--	--	15
Double Chops	1-1/2"	--	--	25
Pork Steaks	1"	--	--	12
Pork Tenderloin	1/2"	--	--	10

Vegetables

New Red Potatoes	(par boiled)		5
Zucchini sliced	1/2"		3
Corn in husk, silk removed			5 to 6
Eggplant sliced	1/2"		6 to 8

- Lay a piece of aluminum foil on top of the fish grill after placing on the cooking grates. This holds heat and captures any moisture, which also helps cook the fish.
- When cooking fish fillets like salmon, grouper, tuna, halibut, etc. trim the thin part of the belly from the thicker section of the fish and cook them separately to prevent overcooking the thin belly section while potentially under cooking the thicker part of the fillet.
- Consider cutting the whole fish into smaller pieces to make it easier to grill and manage on the grill.
- The best oils to use when grilling meat with direct high heat are high-temperature (smoke-point) oils like peanut, canola, safflower and cottonseed. These oils will better withstand the high heat required for searing while butter, olive oil and other unprocessed or cold processed oils will burn and turn bitter.
- Wet meat steams and dry meat browns. Remember to dry off steaks, chops and other meat prior to placing it on the grates.
- Lean cuts require quick searing and are generally marinated prior to cooking while cuts with more internal fat will grill nicely with nothing more than a little bit of salt and pepper and a quick spritz of high temp oil to keep them from sticking.
- Veal is seldom broiled due to the lack of fat which makes the meat dry and rubbery. Connective tissue in veal usually requires a longer cooking time than is desired when broiling.

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