

# FIREMAGIC®

## AURORA

### BUILT-IN OUTDOOR GAS GRILLS

A430i, A540i, A660i, & A790i

## INSTALLATION AND OWNER'S MANUAL

**INSTALLER:** Leave these instructions with consumer.  
**CONSUMER:** Retain for future reference.



A790i model shown

**IMPORTANT:** READ THESE INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION OR USE.

## WARNINGS AND SAFETY CODES

### ⚠ DANGER:

#### IF YOU SMELL GAS:

1. Shut off the gas to the appliance.
2. Extinguish any open flame.
3. Open lid.
4. If odor continues, keep away from the appliance and **immediately** call your gas supplier or the fire department.

**CODE AND SUPPLY REQUIREMENTS:** This grill must be installed in accordance with local codes and ordinances, or, in the absence of local codes, with the latest *National Fuel Gas Code (ANSI Z223.1/NFPA 54)*, or *Natural Gas and Propane Storage and Handling Installation Code (CSA-B149.1)*.

This appliance and its dedicated manual shutoff valve must be disconnected from the gas-supply piping system when testing the system at pressures in excess of ½ psig (3.5 kPa).

This appliance must be isolated from the gas-supply piping system by closing its dedicated manual shutoff valve during any pressure testing of the gas-supply system at pressures up to and including ½ psig (3.5 kPa).

**Proper operation of your grill requires prompt and periodic maintenance. See the SERVICING AND CLEANING section for details.**

### ⚠ WARNING:

1. Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
2. An LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

### ⚠ WARNING:

Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. For proper installation, refer to the installation instructions. For assistance or additional information, consult a qualified professional service technician, service agency, or the gas supplier.

All electrical outlets in the vicinity of the grill must be properly grounded in accordance with local codes, or, in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70*, or the *Canadian Electrical Code, CSA C22.1*, whichever is applicable.

Keep all electrical-supply cords and fuel-supply hoses away from any heated surface.



Certified to: **ANSI Z21.58**  
**CSA 1.6**

Cooking Grid U.S. Patent  
# D857,453

# - INSTALLATION INSTRUCTIONS ET MANUEL DU PROPRIÉTAIRE -

## GRIL EXTÉRIEUR DE GAZ DU BUILT-IN

**IMPORTANT:** LISEZ CES INSTRUCTIONS SOIGNEUSEMENT AVANT DE COMMENCER L'INSTALLATION OU L'UTILISATION

### SÛRETÉ ET CODES D'AVERTISSEMENT

#### **DANGER:**

##### **SI VOUS SENTEZ LE GAZ :**

1. Coupez le gaz à l'appareil.
2. Éteignez-vous n'importe quelle flamme nue.
3. Ouvrez le couvercle.
4. Si l'odeur continue, gardez loin de l'appareil et appelez immédiatement votre département de fournisseur ou de feu de gaz.

#### **AVERTISSEMENT:**

1. Ne stockez pas ou n'employez pas l'essence ou d'autres vapeurs et liquides inflammables à proximité de ceci ou d'aucun autre appareil.
2. Un cylindre de propane non relié pour l'usage ne sera pas stocké à proximité de ceci ou d'aucun autre appareil.

#### **CONDITIONS DE CODE ET D'APPROVISIONNEMENT:**

Ce gril doit être installé selon des codes et des ordonnances locaux, ou, en l'absence des codes locaux, avec l'un ou l'autre le plus défunt *Code national de gaz de carburant* (norme ANSI Z223.1/NFPA 54), et *Stockage de gaz naturel et de propane et manipulation du code d'installation* (CSA-B149.1).

Cet appareil et ses différents robinets d'isolement doivent être démontés du gaz-fournissent le système sifflant en examinant le système aux pressions au-dessus du ½ psig (kPa 3.5).

Cet appareil doit être isolé dans gaz-fournissent le système sifflant par fermeture que ses différents robinets d'isolement manuels pendant tous les essais sous pression du gaz-fournissent le système aux pressions jusques et y compris le ½ psig (kPa 3.5).

- Ce gril est pour utilisation à l'extérieur seulement. Si l'appareil est entreposé à l'intérieur, enlever les bouteilles et les laisser à l'extérieur.
- Ne pas ranger le gril immédiatement après l'avoir utilisé. le laisser refroidir avant de le déplacer ou de la ranger. Le non respect de cette mesure de sécurité pourrait entraîner un incendie causant des dommages à la propriété, des blessures ou la mort.
- Ne pas utiliser cet appareil sous une surface combustible.
- Ne pas utiliser cet appareil sous un auvent. Le non respect de cette mesure de sécurité pourrait entraîner un incendie ou des blessures.
- Dégagement minimal entre les parois latérales et l'arrière de l'appareil et la construction combustible (45.7 cm à partir des parois latérales et 45.7cm à partir de l'arrière).
- Le régulateur de pression de gaz prévu avec cet appareil de cuisson à gaz pour l'extérieur doit être utilisé. Ce régulateur est réglé pour une pression de sortie de 5 pouces de colonne de l'eau pour le gaz naturel, et 10 pouces pour le propane.
- LE RÉGULATEUR INCLUS D'APPAREILS EST ÉVALUÉ POUR LE MAXIMUM DE 1/2 (LIVRES PAR POUCE CARRÉ). SI VOTRE OFFRE DE GAZ EST 1/2 PLUS GRAND QUE (LIVRES PAR POUCE CARRÉ), UN RÉGULATEUR ADDITIONNEL DOIT ÊTRE INSTALLÉ AVANT LE GRIL. VOIR LA SECTION DE CONDITIONS

#### **AVERTISSEMENT:**

L'installation inexacte, l'ajustement, le changement, le service, ou l'entretien peuvent causer des dommages ou des dégâts matériels. Réferez-vous à ce manuel. Pour de l'aide ou des renseignements supplémentaires, consulter un technicien professionnel qualifié de service, une agence de service ou le fournisseur de gaz.

Toutes les sorties électriques à proximité du gril doivent être correctement fondues selon des codes locaux, ou en l'absence de local code, avec le code électrique national, ANSI/NFPA 70, ou le code électrique canadien, CSA C22.1, celui qui est applicable.

Maintenez tout électrique-fournissent des cordes et carburant-fournissent des tuyaux partis de n'importe quelle surface de chauffage.

#### **D'OFFRE DE GAZ POUR LA PRESSION APPROPRIÉE D'OFFRE DE GAZ.**

- Ne couvrez jamais la surface entière de cuisine ou de gril de gauffreuses ou de casseroles. La surchauffe se produira et les brûleurs ne seront pas très performants quand la chaleur de combustion est emprisonnée au-dessous de la surface à cuire.
- Ne pulvérisiez jamais l'eau sur une unité chaude de gaz, comme ceci peut endommager des composants de porcelaine ou de fer de fonte.
- Une fuite de GPL peut causer un incendie ou une explosion si enflammée entraînant des blessures corporelles graves ou la mort.
- Communiquez avec le fournisseur de GPL pour les réparations ou pour disposer de qules bouteille ou du GPL non utilisé.

**Certifié à la norme: ANSI Z21.58 / CSA 1.6**

**INSTALLATEUR :** Laissez ces instructions avec le consommateur.  
**CONSOMMATEUR :** Maintenez pour la future référence.

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## INSTALLATION, OPERATION, AND SAFETY INFORMATION

1. The outdoor appliance and surrounding area **MUST** remain clear of flammable substances such as gasoline, yard debris, wood, etc. Maintain a minimum horizontal clearance of 18" (in all directions) from combustible materials/items.
2. Do not block the 1" front air inlet along the bottom of the control panel. See the COMBUSTION AIR AND COOLING AIRFLOW section under INSTALLATION REQUIREMENTS for details.
3. **This unit must be installed so that the required vent openings and surrounding area of the unit enclosure remain clear and free at all times. See the GRILL ENCLOSURE/VENTILATION REQUIREMENTS section for details.**
4. **When using propane gas: the propane cylinder, regulator, and rubber hose must be in a location not subject to temperatures above 125° F (51° C).**
5. The back burner cover or IR burner cover (if equipped) must be removed before using the burner.
6. The flames on each burner burn evenly along the entire burner with a steady flame (mostly blue). If burner flames are not normal, check and clean the orifice and burner/venturi tubes for insects and insect nests. A clogged tube can lead to a fire beneath the unit. A proper flame pattern will ensure safe operation and optimal performance. Adjust the air shutter as needed (see AIR SHUTTER ADJUSTMENT section).
7. The in-line gas valve or gas cylinder valve must always be shut OFF when the unit is not in use.
8. The drip collector holes must be clear and unobstructed. Excessive grease deposits can result in a grease fire.
9. Whenever reconnecting any wires, apply a small amount of dielectric grease to the male connector, then make the connection. This will ensure conductivity and prevent moisture from affecting the contact.
10. Wear gloves and use extreme caution whenever installing and handling this product and its accessories as certain components have sharp edges that can cause personal injury.

**CAUTION: FOR YOUR SAFETY, you must provide openings in the grill enclosure for replacement air and ventilation (in case of possible leakage from gas connections or propane cylinders). Failure to do so may result in a fire or explosion causing property damage, bodily injury, or death. See the GRILL ENCLOSURE / VENTILATION REQUIREMENTS section for details.**

### IMPORTANT

IN THE EVENT OF A GREASE FIRE, IMMEDIATELY SHUT OFF THE MAIN GAS VALVE TO THE UNIT. KEEP THE LID OPEN AND ALLOW THE FIRE TO EXTINGUISH ITSELF. KEEP AT A SAFE DISTANCE. A THOROUGH INSPECTION BY A QUALIFIED PROFESSIONAL SERVICE TECHNICIAN SHOULD BE CONDUCTED BEFORE FUTURE USE OF YOUR UNIT. THE SERVICE TECHNICIAN WILL CHECK THE SYSTEM FOR GAS LEAKS AND WILL CHECK ALL ELECTRICAL WIRING FOR DAMAGE. ALL GAS LEAKS AND WIRING MUST BE REPAIRED PRIOR TO FUTURE USE.

**WARNING: NEVER cover more than 75% of the cooking or grill surface with griddles or pans. Overheating will occur, and burners will not perform properly when combustion heat is trapped below the cooking surface.**

The unit serial number tag can be found affixed to the grill body behind the control panel (on an aluminum tag) and on the underside of the drip tray handle (on a thermal label). It is recommended that the drip tray first be removed and cleaned / emptied of its contents, then turned over to view.  
The unit rating label is located inside of the control panel.

### ELECTRICAL CONNECTIONS

**A 120VAC (15 AMP minimum) GFCI GROUNDED 3-wire receptacle (not included) is required** within the vicinity of the unit to provide power to it. The GFCI receptacle must be a WEATHER-PROOF IN-USE COVERED RECEPTACLE.

- **Observe the National Electric Code and all local codes.**
- **Verify proper polarity of the receptacle.**
- **If an extension cord is used, ensure it is a 3-wire GROUNDED cord that is rated for the power of the equipment, and is approved for outdoor use with a W-A marking. DO NOT use 2-prong adapters.**
- **DO NOT TAMPER WITH THE EXTENSION CORD OR THE UNIT POWER-SUPPLY CORD.**

**Important: ONLY REPLACE THE INTERIOR OVEN LIGHTS WITH 12V / 10 WATT HALOGEN BULB(S).**

**WHEN OPERATING THIS GAS APPLIANCE, ALL INSTRUCTIONS AND WARNINGS MUST BE OBSERVED. FAILURE TO DO SO MAY RESULT IN A FIRE OR EXPLOSION CAUSING PROPERTY DAMAGE, BODILY INJURY, OR DEATH.**

### **WARNING**

This gas appliance, its enclosure, and the propane cylinder enclosure, if any, **MUST** be plumbed and vented in accordance with local building and safety codes and should be approved by local code enforcement officials. This appliance **MUST** be installed and operated according to the information below.

**FAILURE TO PROPERLY VENT THE GRILL ENCLOSURE MAY RESULT IN A FIRE OR EXPLOSION CAUSING PROPERTY DAMAGE, BODILY INJURY, OR DEATH.**

A leaking gas connection or valve unintentionally left open will create a hazard.

### **WHEN USING PROPANE GAS**

- **Propane gas** (also known as **L.P. gas**) is heavier than air and will accumulate or pool in an inadequately vented enclosure or recessed area.
- If a pool of **propane gas** is ignited, an explosion will occur. Adequate venting at the floor level, or the lowest point where gas could accumulate, will eliminate this danger.  
Refer to the **GRILL ENCLOSURE / VENTILATION REQUIREMENTS** section.  
Observe all local codes.
- DO NOT store a spare propane-gas cylinder under or near the **grill** enclosure.

### **WHEN USING NATURAL GAS**

- **Natural gas** is lighter than air and will accumulate at the top of an inadequately vented enclosure.
- If an accumulation of **natural gas** is ignited, an explosion will occur. Adequate venting at the top of the enclosure, or the highest point where gas could accumulate, will eliminate this danger.  
Refer to the **GRILL ENCLOSURE / VENTILATION REQUIREMENTS** section.  
Observe all local codes.

### **INSTALLATION SAFETY GUIDELINES**

**THIS UNIT MUST BE INSTALLED SO THAT THE REQUIRED VENT OPENINGS AND SURROUNDING AREA OF THE GRILL ENCLOSURE REMAIN CLEAR AND FREE AT ALL TIMES. See the GRILL ENCLOSURE / VENTILATION REQUIREMENTS section for details.**

**CAUTION: FOR YOUR SAFETY, you must provide openings in the grill enclosure for replacement air and ventilation (in case of possible leakage from gas connections or propane cylinders). Failure to do so may result in a fire or explosion causing property damage, bodily injury, or death.**  
See the **GRILL ENCLOSURE / VENTILATION REQUIREMENTS** section for details.

**The gas cylinder, regulator, and rubber hose must be in a location not subject to temperatures above 125° F (51° C).**

**IF A PROPANE CYLINDER IS INSTALLED INSIDE OF THE GRILL ENCLOSURE, THE GUIDELINES FOUND IN THE **GRILL ENCLOSURE / VENTILATION REQUIREMENTS** SECTION MUST BE FOLLOWED.**

### **OPERATING THE UNIT SAFELY AND CORRECTLY**

Every time you use the unit, **make sure that:**

1. The area around the grill enclosure is clear and free from combustible materials, gasoline and flammable vapors/liquids.
2. There is no blockage of the airflow through the vent openings located on the grill enclosure.
3. The hose is inspected (if applicable). See **SAFE USE & MAINTENANCE OF PROPANE-GAS CYLINDERS** section.

**DO NOT** store any combustible materials, gasoline, and any other flammable vapors/liquids in the vicinity of the unit. Provide adequate clearance for servicing and operation.



# — UTILISATION SÛRE ET ENTRETIEN DES CYLINDRES DE GAZ DE PROPANE —

## IMPORTANT POUR VOTRE SÛRETÉ

### LISEZ ET SUIVEZ TOUS LES AVERTISSEMENTS ÉQUIPÉS DE VOTRE CYLINDRE DE GAZ DE PROPANE.

En actionnant cet appareil avec un cylindre de gaz de propane ON DOIT observer ces instructions et avertissements.

**LE MANQUE DE FAIRE AINSI PEUT AVOIR COMME CONSÉQUENCE UNE INCENDIE OU UNE EXPLOSION SÉRIEUSE.**

### CYLINDRE ET CONDITIONS ET CARACTÉRISTIQUES DE CONNECTEUR

- Les bouteilles, les vannes et les tuyaux de propane doivent être entretenus et inspectés avant chaque utilisation. Ils doivent être remplacés en cas de dommages visibles. Si le tuyau est coupé ou présente des signes d'abrasion ou d'usure, il doit être remplacé avant utilisation (**voir e.**).
- Cette unité, lorsqu'elle est utilisée avec une bouteille, doit être connectée à une bouteille standard de gaz propane de 5 gallons (20 lb) équipée d'un dispositif anti-débordement répertorié. L'appareil est obligatoire sur toutes les bouteilles vendues depuis le 1er octobre 1998 afin d'empêcher tout remplissage excessif.
- Les dimensions du cylindre doivent être d'environ 12" (30,5 cm) de diamètre et 18" (45,7 cm) de hauteur. Les bouteilles doivent être construites et marquées conformément aux spécifications du ministère des Transports (DOT) pour les bouteilles à gaz LP ou à la norme relative aux bouteilles, sphères et tubes pour le transport des marchandises dangereuses et à la Commission, CAN / CSA-B339, selon le cas.
- Le cylindre doit inclure un collier pour protéger la valve de cylindre et le circuit d'alimentation de cylindre doit être assuré le retrait de vapeur.
- Le régulateur de pression et l'ensemble de tuyau utilisé doivent assortir les spécifications pour le type I par ANSI Z 21.58/CGA 1.6 (**voir la figue. 6-1**).
- La valve de cylindre de gaz de propane doit être équipée d'un dispositif d'accouplement de raccordement de cylindre, décrit comme type I dans la norme définie dans le e. de paragraphe ci-dessus. Ce dispositif est généralement décrit comme coupleur de fil de point culminant.
- Si votre cylindre de gaz de propane vient avec une prise de la poussière, placez le bouchon anti-poussière sur la sortie de valve de cylindre toutes les fois que le cylindre n'est pas en service.

### OPÉRATION DE COUPLEUR

**Pour relier le regulator/hose à l'ajustage de précision de valve de cylindre de gaz de propane:** Serrez l'écrou de main sur le régulateur au-dessus de l'ajustage de précision de fil de point culminant sur la valve de cylindre. Tournez l'écrou de

main dans le sens des aiguilles d'une montre pour engager les fils et pour serrer jusqu'à ce que douillettement. L'utilisation des pinces ou de la clé ne devrait pas être nécessaire. Seulement le propane marqué par cylindres doit être employé.

**Pour débrancher:** Tournez l'écrou de main dans le sens contraire des aiguilles d'une montre jusqu'à isolé (fig. 6-1).

**Important:** Avant d'employer le unité, et ensuite chaque fois que le cylindre est enlevé et rattaché, examinez tous les raccordements pour déceler les fuites. Arrêtez les valves de unité et ouvrez la valve principale de cylindre, puis vérifiez les raccordements avec de l'eau savonneux. Réparez toutes les fuites avant d'allumer le unité.

**ATTENTION:** Tournez toujours la valve principale de cylindre de propane au loin après chaque utilisation, et avant de déplacer le unité et le cylindre, ou débrancher l'accouplement. Cette valve doit rester fermée et le cylindre a débranché alors que l'appareil n'est pas en service, quoique l'écoulement de gaz soit arrêté par un dispositif de sûreté quand le coupleur est débranché.

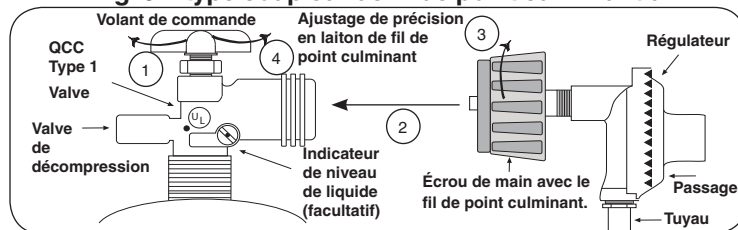
**Inspectez soigneusement** l'ensemble de tuyau chaque fois avant que le gaz soit allumé. Un tuyau fissuré ou effiloché doit être immédiatement remplacé.

Si l'appareil est stocké à l'intérieur, le cylindre doit être disconnected et a enlevé. Des cylindres Disconnected doivent être stockés dehors, hors de la portée des enfants, avec les prises de valve filetées étroitement installées, et ne doivent pas être stockés dans un bâtiment, le garage, ou n'importe quel autre secteur inclus.

### POUR VOTRE SÛRETÉ

- Ne stockez pas un cylindre de gaz disponible de propane dessous ou ne vous approchez pas de cet appareil.
- Ne remplissez jamais cylindre au delà de 80 pour cent de plein.
- SI L'INFORMATION DANS "A" ET "B" N'EST PAS SUIVIE EXACTEMENT, UN FEU CAUSANT LA MORT OU DES DOMMAGES SÉRIEUX PEUT SE PRODUIRE.

**Fig. 6-1 type coupleur de fil de point culminant d'I**



**Pour les besoins de ventilation et d'enceinte au propane,  
Voir la section GRILL ENCLOSURE / VENTILATION REQUIREMENTS.**

# SAFE USE & MAINTENANCE OF PROPANE GAS CYLINDERS

## IMPORTANT FOR YOUR SAFETY

### READ AND FOLLOW ALL WARNINGS PROVIDED WITH THE PROPANE-GAS CYLINDER.

When operating this appliance with a propane-gas cylinder, these instructions and warnings **MUST** be observed.

**FAILURE TO DO SO MAY RESULT IN A SERIOUS FIRE OR EXPLOSION.**

## CYLINDER/CONNECTOR REQUIREMENTS

- a. Propane-gas cylinders, valves, and hoses must be maintained in good condition and inspected before each use of appliance. They must be replaced if there is any visible damage. If hose is cut or shows excessive abrasion or wear, it must be replaced before using appliance (see e.).
- b. This unit, when used with a cylinder, should be connected to a standard 5-gallon (20 lb.) propane-gas cylinder equipped with a listed overfilling prevention device. The device has been required on all cylinders sold since October 1, 1998, to prevent overfilling.
- c. Cylinder dimensions should be approximately 12" (30.5 cm) in diameter and 18" (45.7 cm) high. Cylinders must be constructed and marked in accordance with the U.S. Department of Transportation (D.O.T.) *Specifications for LP-Gas Cylinders*, or the *Standard for Cylinders, Spheres, and Tubes for Transportation of Dangerous Goods and Commission*, CAN/CSA-B339, as applicable.
- d. The cylinder used must include a collar to protect the cylinder valve, and the cylinder supply system must be arranged for vapor withdrawal.
- e. The pressure regulator and hose assembly used must match the specification for Type I by *ANSI Z 21.58/CGA 1.6* (see Fig. 7-1).
- f. The propane-gas cylinder valve must be equipped with a cylinder connection device, described as Type I in the standard defined in paragraph e. above. This device is commonly described as an Acme thread coupler.
- g. If the propane-gas cylinder comes with a dust plug, place the dust cap on the cylinder valve outlet whenever the cylinder is not in use.

## COUPLER OPERATION

**To connect the regulator/hose assembly to the propane-gas cylinder valve fitting:** Press the hand nut on the regulator over the Acme thread fitting on the cylinder valve. Turn the hand nut clockwise to engage the threads and tighten until snug.

The use of pliers or a wrench should not be necessary. Only cylinders marked "propane" may be used.

**To disconnect:** Turn the hand nut counterclockwise until detached (Fig. 7-1).

**Important:** Before using the unit, and after each time the cylinder is removed and reattached, check the hose for wear (see a.) and check all connections for leaks. Turn off the unit valves and open the main cylinder valve, then check connections with soapy water. Repair any leaks before lighting the unit.

**CAUTION:** Always turn the propane cylinder main valve off after each use, and before moving the unit and cylinder or disconnecting the coupling. This valve must remain closed and the cylinder disconnected while the appliance is not in use, even though the gas flow is stopped by a safety feature when the coupler is disconnected.

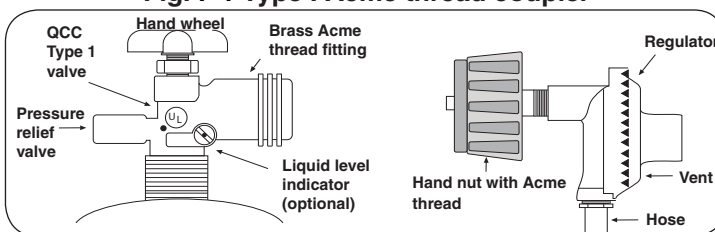
**Carefully** inspect the hose assembly each time before the gas is turned on. A cracked or frayed hose must be replaced immediately.

If the appliance is stored indoors, the cylinder must be disconnected and removed. Disconnected cylinders must be stored outdoors, out of the reach of children, with threaded valve plugs tightly installed, and must not be stored in a building, garage, or any other enclosed area.

## FOR YOUR SAFETY

- a. DO NOT store a spare propane-gas cylinder under or near this appliance.
- b. NEVER fill the cylinder beyond 80-percent full.
- c. IF THE INFORMATION IN a. AND b. IS NOT FOLLOWED EXACTLY, A FIRE CAUSING DEATH OR SERIOUS INJURY MAY OCCUR.

**Fig. 7-1 Type I Acme thread coupler**



**For propane ventilation and enclosure requirements,  
see the GRILL ENCLOSURE / VENTILATION REQUIREMENTS section.**

## GRILL ENCLOSURE / VENTILATION REQUIREMENTS

Fire Magic GFRC islands are available. They meet all enclosure and ventilation requirements. For requirements regarding custom-built enclosures, see below.

### VENTILATION (ALL ENCLOSURES)

**For All Piping Systems and All Gas Types:**

**(Natural Gas, Household Propane, L.P. Cylinder)**

**FOR YOUR SAFETY, you must provide the openings listed below for replacement air and ventilation of the grill enclosure (in case of possible leakage from gas connections or L.P. cylinders). Failure to do so may result in a fire or explosion causing property damage, bodily injury, or death.**

**One side of the enclosure shall be left completely open to the outside; OR 4 (minimum) ventilation openings MUST be created (reference Fig. 8-1 and Fig. 8-2):**

- **Each opening must have a minimum of 10 sq. in. of free area. The openings must be equally sized. (Total of 40 sq. in. free area.)**
- Two openings must be in the side walls of the enclosure, at the top level, and spaced at a minimum of 90 degrees. The openings must begin 1" or less below the countertop level and end no more than 5" below the countertop level.
- Two openings must be in the side walls of the enclosure, at the floor level, and spaced at a minimum of 90 degrees. The openings must begin 1" or less above the floor level and end no more than 5" above the floor level.

- **The openings must remain unobstructed:**

The clearance between the openings and any items outside of the enclosure is a minimum of 6". The clearance between the openings and any items within the enclosure is a minimum of 2". See Fig. 8-2.

**When an L.P. cylinder is used in the enclosure, additional requirements exist, see the following section.**

It is acceptable to use RHP venting panels (PN 5510-01). Contact your dealer.

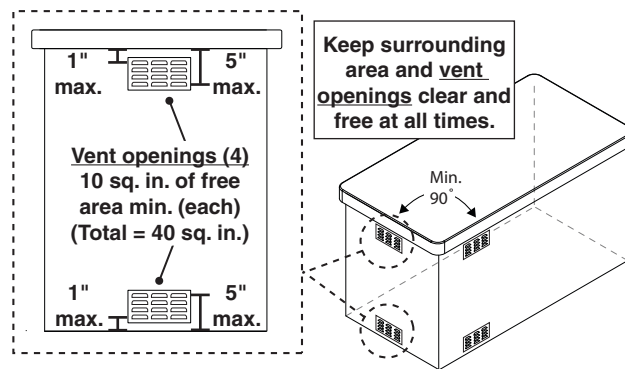
**KEEP THE REQUIRED VENT OPENINGS AND SURROUNDING AREA OF THE ENCLOSURE CLEAR AND FREE AT ALL TIMES.**

**WARNING:** Ventilation openings in side walls shall not communicate directly with other enclosures of the outdoor cooking gas appliance.

**When installing this unit in a combustible enclosure, an RHP insulating liner must be used. Reference Table 1 for liner model #.**

#### Ventilation Requirements:

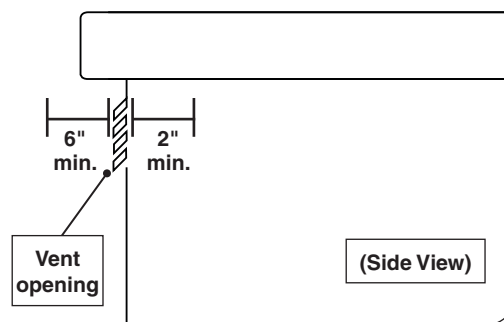
- Minimum 4 openings  
(2 per side wall - spaced at min. 90 degrees)
- Top openings: within 5" of countertop (see below)
- Bottom openings: within 5" of floor (see below)
- Each vent opening: min. 10 sq. in. of free area  
(Total = 40 sq. in. free area)



**Note: Vent openings example shown. Your design may vary.**

**Fig. 8-1** Ventilation detail

- **6" min. clearance between all vent openings and any items outside of enclosure**
- **2" min. clearance between all vent openings and any items within enclosure**



**Fig. 8-2** Vent openings clearance



## WHEN A PROPANE (L.P.) CYLINDER IS USED IN THE ENCLOSURE

When a propane (L.P.) cylinder is installed inside of the enclosure, the additional guidelines below **MUST** be followed. FAILURE TO DO SO MAY CAUSE DAMAGE TO YOUR UNIT AND/OR PERSONAL INJURY. Refer to Fig. 9-1 and 9-2.

- Only a C.S.A. listed stainless steel connector can be connected to the unit.
- The regulator/hose assembly coming from the cylinder can only be connected to the above mentioned flex connector. **DO NOT connect the regulator/hose assembly directly to the unit.** An adapter will be required.
- A non-combustible heatshield must be installed to protect the regulator/hose assembly and cylinder valve.
- The cylinder must rest at least 2" above the ground.
- An additional vent opening is recommended in the access door near the cylinder and at the gas connection level (minimum 10 sq. in. of free area).

RHP offers an "access door with tank tray and louvers" which includes a heatshield that rests directly above the L.P. cylinder, a tray, and louvers to meet the cylinder install requirements. The door is shown in Fig. 9-3. Contact your dealer for ordering information.

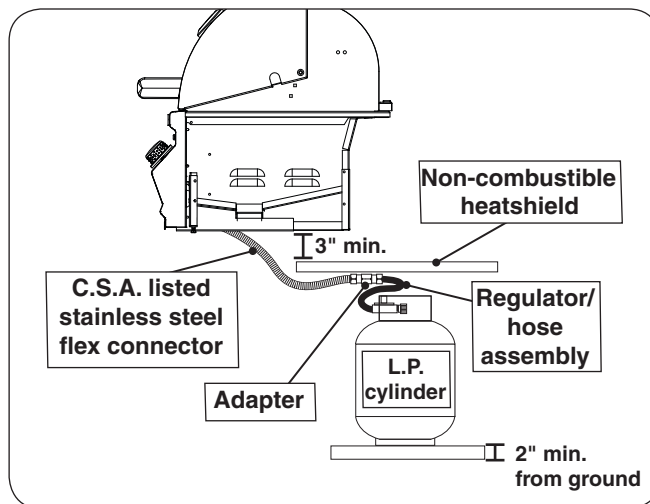


Fig. 9-1 L.P. cylinder orientation

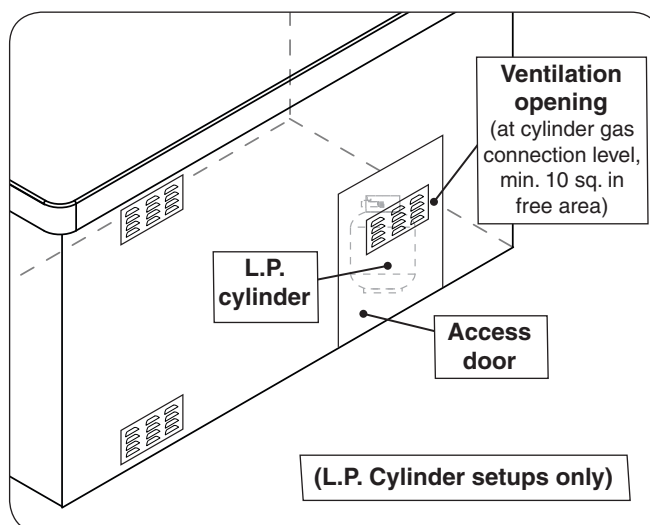


Fig. 9-2 Additional ventilation opening for L.P. cylinder

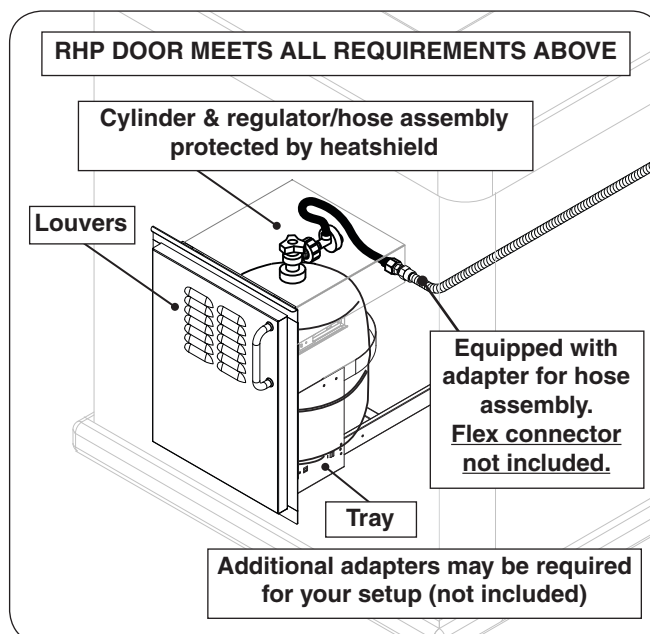


Fig. 9-3 Optional door w/ tank tray & louvers

## INSTALLATION REQUIREMENTS

Installation must be performed by a qualified professional service technician.

This unit is designed for outdoor use only. **DO NOT** use this unit inside a building, garage, or enclosed area. **DO NOT** use this unit in or on a recreational vehicle or boat.

### OVERHEAD CONSTRUCTION AND EXHAUST HOOD REQUIREMENTS

A minimum 5 foot clearance is required between the countertop and the overhead construction.

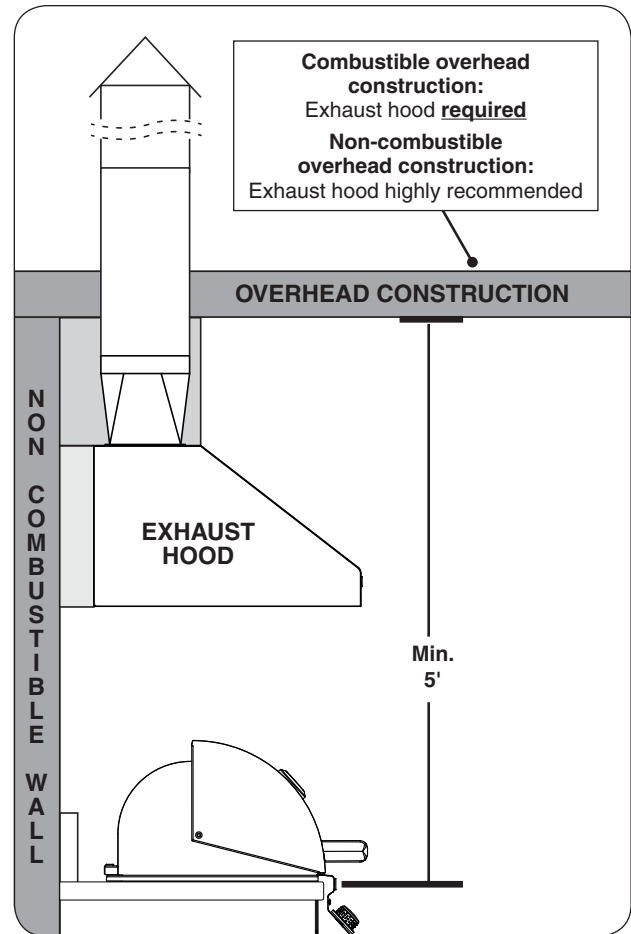
When installed under combustible overhead construction, the area above the cooking surface of the unit **must** be covered with an exhaust hood. The exhaust hood provides the protection for the combustible overhead construction. See exhaust hood information below and Fig. 10-1.

**Important:** **DO NOT** use this appliance under **unprotected** combustible overhead construction.

When installed under overhead non-combustible construction, an exhaust hood is highly recommended; see exhaust hood information below and Fig. 10-1.

#### Exhaust Hood

When using an exhaust hood, the area above the cooking surface of the grill must be covered with a hood larger than the cooking area of the grill, and with a minimum of 1200 CFM (cubic feet per minute) rated exhaust fan for proper outdoor application.



**Fig. 10-1** Overhead requirements

## REAR WALL CLEARANCES

For the minimum clearances between the unit and rear walls, your setup must fall within one (or more) of the following:

### A. Clearance between unit and strictly non-combustible rear wall

(i.e. brick wall, see Fig. 11-1)

- The unit must have a minimum clearance of 4" from the non-combustible rear wall.  
(To allow for proper ventilation and prevent dangerous overheating.)

### B. Clearance between unit and a protected combustible rear wall

(i.e. a non-combustible wall in front of a combustible wall to serve as a barrier. This can be accomplished by brick, or a metal stud finished with non-combustible substrate, see Fig. 11-2)

- The unit must have a minimum clearance of 14" from the protected combustible rear wall.  
(The 4" non-combustible material plus an additional 10" clearance between the unit and protected rear wall.)

### C. Clearance between unit and combustible rear wall

- The unit must have a minimum clearance of 18" from the combustible rear wall (see Fig. 11-3).

## BACKSPLASH CLEARANCE (if applicable)

If a non-combustible backsplash exists, it must have a minimum of a 4" clearance from the rear of the unit (to allow for proper ventilation and prevent dangerous overheating). See Fig. 11-4.

**Important:** This 4" backsplash clearance must first be met prior to any non-combustible walls beginning behind it.

## SIDE WALL / CORNER WALL CLEARANCES (if applicable)

The unit must have a minimum clearance of 24" from any side walls (to account for variables in airflow that could affect performance). See Fig. 11-5.

Clearances continued on following page

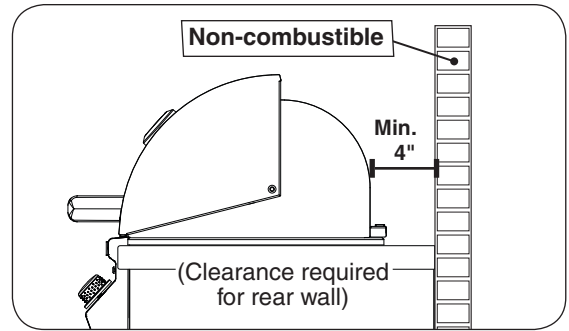


Fig. 11-1 Clearance 'A' Diagram

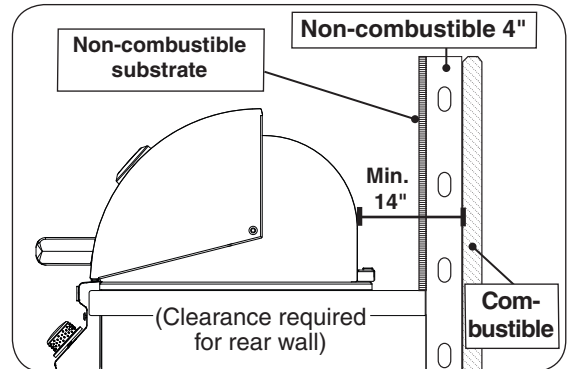


Fig. 11-2 Clearance 'B' Diagram

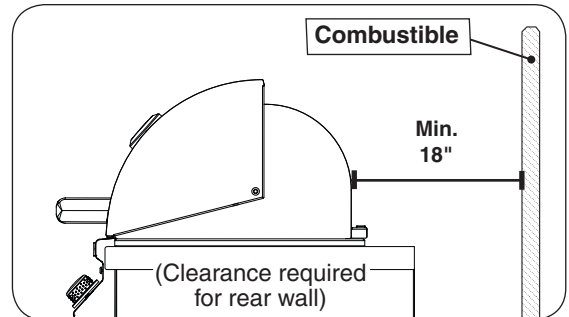


Fig. 11-3 Clearance 'C' Diagram

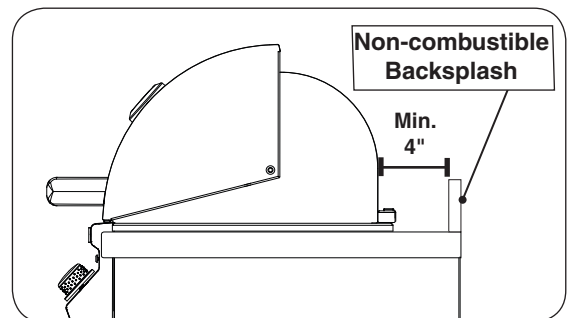


Fig. 11-4 Backsplash clearance

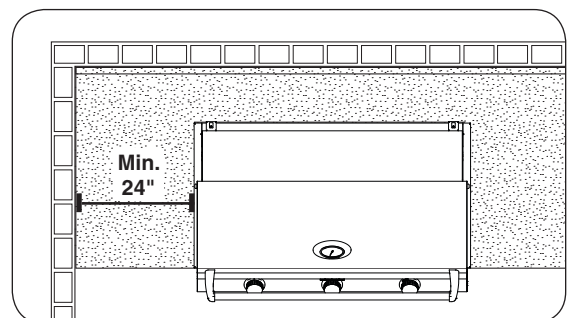


Fig. 11-5 Side/corner wall clearance

## CONTROL PANEL CLEARANCES

- The control panel **MUST** have a minimum side clearance of 6" from any obstructions/side walls. See Fig. 12-1.

(To allow for access to light switch and control panel removal.)

- The control panel **MUST** remain removable for servicing (see CONTROL PANEL REMOVAL section). Any adjacent countertops must not obstruct the panel from being removed.

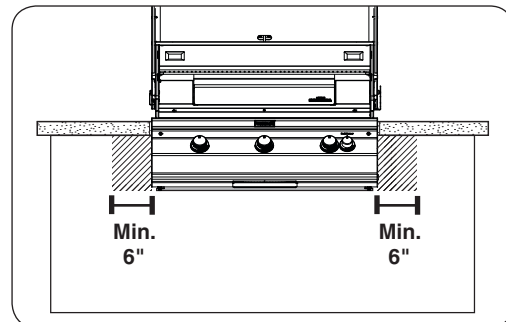


Fig. 12-1 Control panel clearances

## COMBUSTION AIR AND COOLING AIRFLOW

Proper airflow (front-to-back, Fig. 12-2) **MUST** be maintained for the unit to perform as it was designed. If airflow is blocked, overheating and poor combustion will result. Do not block the 1" front air inlet along the bottom of the control panel.

**CAUTION:** Wind blowing into or across the rear oven lid vent (Fig. 12-4) can cause poor performance and/or dangerous overheating. Install the grill so that the prevailing wind blows toward the front of the grill (Fig. 12-3). **A wind deflector is available for purchase to assist in proper airflow during windy conditions.** See Table 1 for model numbers. Follow the instructions included with the wind deflector for installation.

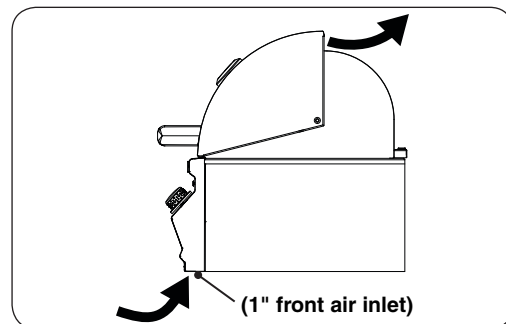


Fig. 12-2 Airflow diagram

## GAS-SUPPLY PLUMBING REQUIREMENTS

For natural gas or a household propane system, rigid  $\frac{1}{2}$ " or  $\frac{3}{4}$ " black steel pipe or local code-approved pipe is required to conduct the gas supply to the unit. Contact your local gas supplier. Connect this pipe to the required C.S.A.-approved stainless-steel flex connector (attached). An NPT adapter has been provided for  $\frac{1}{2}$ " pipe. **DO NOT use a rubber hose within the unit enclosure.** Apply only joint compounds that are resistant to all gasses on all NPT pipe fittings except flare fittings. Make sure to tighten all fittings securely.

**Note:** If  $\frac{1}{2}$ " pipe is used with **natural gas**, it should be no longer than 20'.

**Important:** **A shut-off valve (not included) in the gas line is required.** It provides for safety when the unit is not in use and for convenient maintenance and repair. It must be installed within 6 feet of the unit. If it is located within the enclosure, it must be easily accessible. Use a pipe joint compound resistant to all gasses on all male fittings except flare fittings.

## GAS SUPPLY AND MANIFOLD PRESSURES:

For **natural gas** - normal 7" water column (w.c.), minimum 5", maximum 10  $\frac{1}{2}$ ". For **propane gas** - normal 11" w.c., minimum 10", maximum 13".

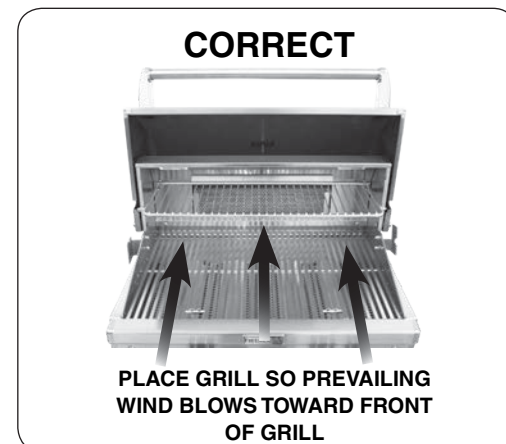


Fig. 12-3 Airflow direction - CORRECT

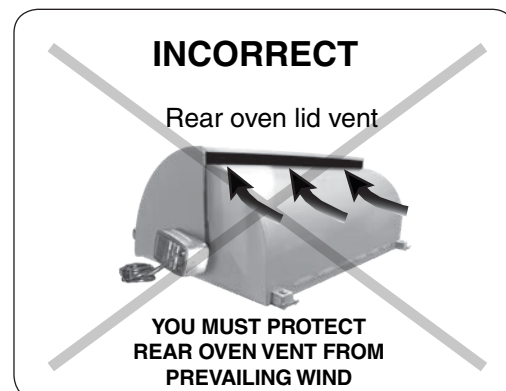


Fig. 12-4 Airflow direction - INCORRECT

## ELECTRICAL SAFETY

- To protect against electric shock, do not immerse cord or plugs in water or other liquid.
- Unplug from the outlet when not in use and before cleaning. Allow to cool before putting on or taking off parts.
- Do not operate any outdoor cooking gas appliance with a damaged cord, plug, or after the appliance malfunctions or has been damaged in any manner. Contact the manufacturer for repair.
- Do not let the cord hang over the edge of a table or touch hot surfaces.
- Do not use an outdoor cooking gas appliance for purposes other than intended.
- When connecting, first connect plug to the outdoor cooking gas appliance then plug appliance into the outlet.
- **Use only a properly wired and inspected 120VAC (15 AMP minimum) Ground Fault Circuit Interrupter (GFCI) GROUNDED 3-wire receptacle with this outdoor cooking gas appliance.**
- The GFCI receptacle must be a WEATHER-PROOF IN-USE COVERED RECEPTACLE.
- Never remove the grounding plug or use with an adapter of 2 prongs.
- Use only extension cords with a 3 prong grounding plug, rated for the power of the equipment, and approved for outdoor use with a W-A marking.
- **The provisions of the National Electric Code as well as any local codes must be observed when installing the product.**



## MODEL SPECIFICATIONS

	A430i	A540i	A660i	A790i
Main burner quantity	2	3	3	3
N/P orifice drill size	#42 / #54	#44 / #55	#42 / #54	#38 / #53
Backburner▲				
N/P orifice drill size	#52 / #59	#48 / #56	#48 / #56	#45 / #55
Infrared searing burner▲				
N/P orifice drill size	#49 / #56	#49 / #56	#45 / #55	#45 / #55
Aurora insulating liner model # (not included)*	23130-52	23150-52	3176-52	3186-52
Wind deflector model # (not included)	23729-19	23733-19	23732-20	23745-20
Burner maintenance kit model # (not included)	MK-1			
Grill complete maintenance kit model # (not included)	MCK-1			
Input electrical requirements	120VAC / 15 AMP minimum / 60 Hz / GFCI outlet			
Electrical output	12 VAC / 36 Watts 12 VDC / 36 Watts			
Interior oven lights rating	12V / 10 watt halogen bulb			
▲ If equipped				
* <b>Note:</b> If installing this grill in a combustible enclosure, the correct insulating liner must be used. Consult liner instructions for counter cutout dimensions and installation.				

**Table 1 - Product Specifications**

Model	Height		Width		Depth
	(Top to bottom)		(Left to right)		(Front to back)
	Bottom of hanger to top (with oven)		Maximum width (C)	Control panel width (D)	Maximum depth (E)
	Open (A)	Closed (B)			
A430i	21 1/4"	13 3/4"	27"	26"	26"
A540i	21 1/4"	13 3/4"	33 1/2"	32 1/2"	26"
A660i	24 1/2"	15 1/2"	33"	32 1/2"	30 1/2"
A790i	24 1/2"	15 1/2"	38 3/4"	38 1/4"	30 1/2"

**Table 2 - Grill Dimensions**

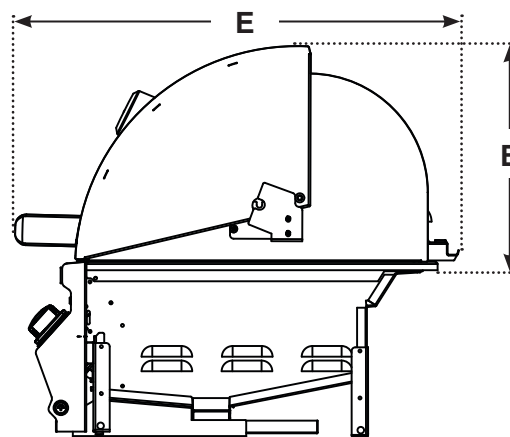
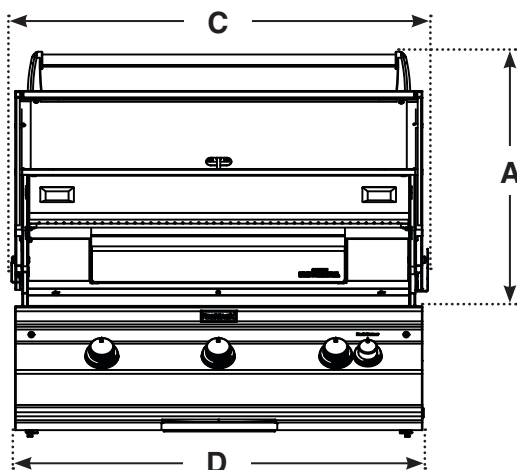


Fig. 14-3

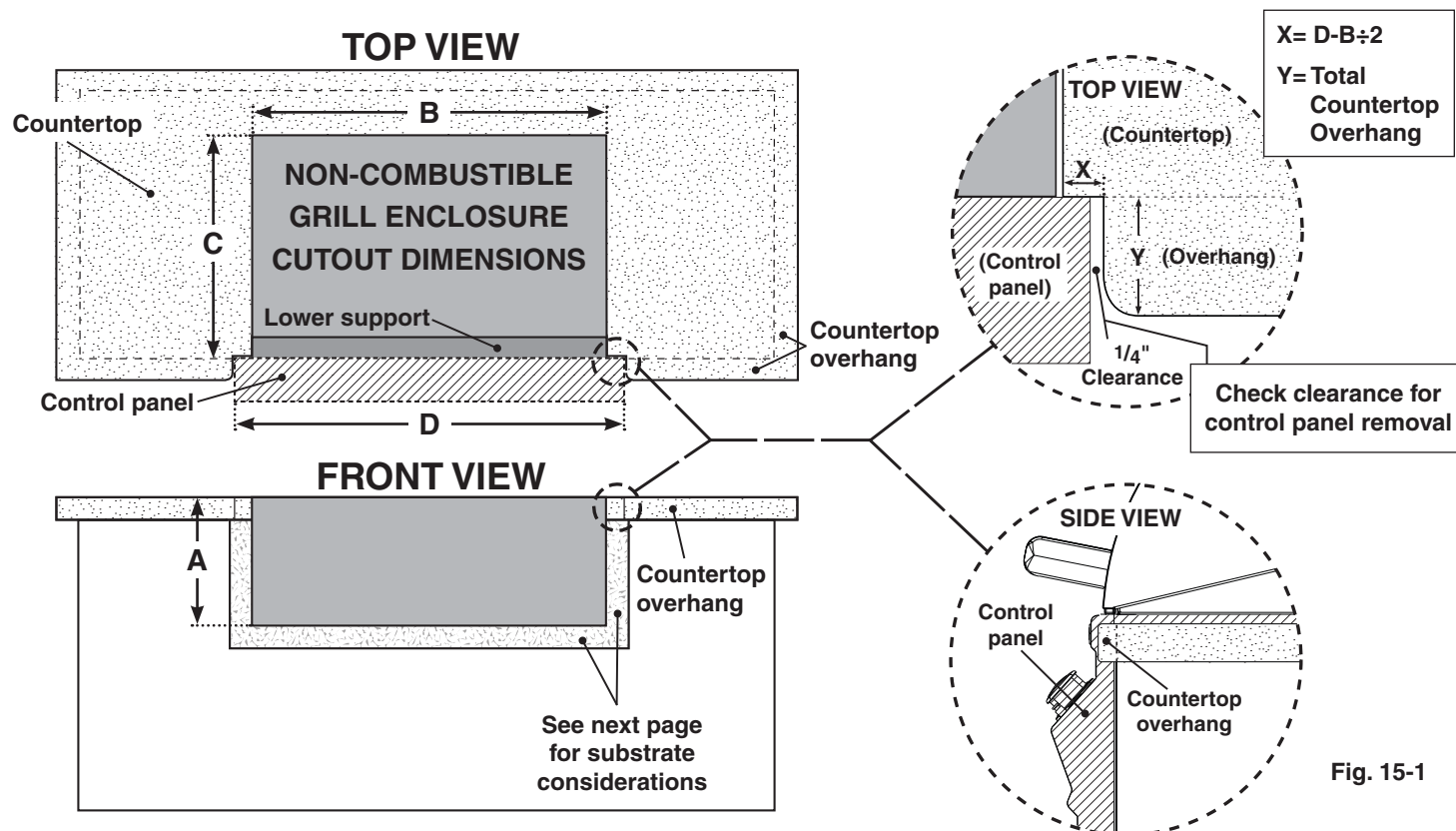
	A430i	A540i	A660i	A790i
<b>A</b> Countertop to unit bottom <b>cutout*</b>	11 1/2"	11 1/2"	11 1/2"	11 1/2"
<b>B</b> Side to side non-combustible <b>cutout*</b>	25 1/2"	32"	31 1/4"	37"
<b>C</b> Front to back non-combustible <b>cutout*†</b>	19 1/2"	19 1/2"	23 1/2"	23 1/2"
<b>D</b> Control panel width non-combustible <b>cutout‡</b>	26 1/2"	33"	33"	38 3/4"

\* **Note:** If installing this grill in a combustible enclosure, the correct insulating liner must be used. Consult liner instructions for counter cutout dimensions and installation.

† Includes any substrate at front wall of enclosure (in the area the rear of the control panel is to sit flush against). See SUBSTRATE section on next page.

‡ Only applicable for non-combustible enclosures that have countertops with an overhang (see illustration and section below).

**Table 3 - Cutout Dimensions**



**Fig. 15-1**

## COUNTERTOP OVERHANG

The control panel is designed to sit flush against the grill enclosure front wall. If the **non-combustible enclosure** countertop extends beyond the front wall, creating a countertop overhang, it must be cut flush with the front wall for the width of the control panel or a gap will be created exposing the forward portions of the left and right side grill fire walls. See illustrations above.

## ENCLOSURE VENTILATION

**FOR YOUR SAFETY**, you must provide openings in the grill enclosure for replacement air and ventilation (in case of possible leakage from gas connections or propane cylinders). Failure to do so may result in a fire or explosion causing property damage, bodily injury, or death. See the GRILL ENCLOSURE / VENTILATION REQUIREMENTS section for details.

## SUBSTRATE

When adding any substrate to the grill enclosure front wall (including tiles, stone, etc.), consider the following:

### Substrate Behind Control Panel

Substrate + countertop "front to back" cutout must equate to **Dim. C** (see previous page) when the substrate sits flush behind the control panel.

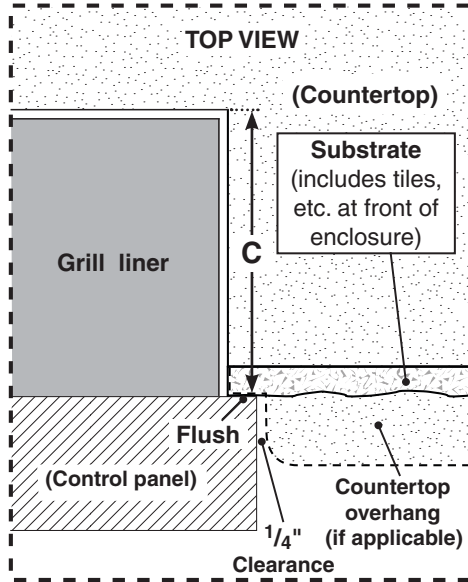


Fig. 16-1

### Substrate Alongside Control Panel

Any additional substrate alongside the control panel does not need to be considered in **Dim. C** (see previous page), however a 1/4" clearance on each side (same as overhang) and below is required.

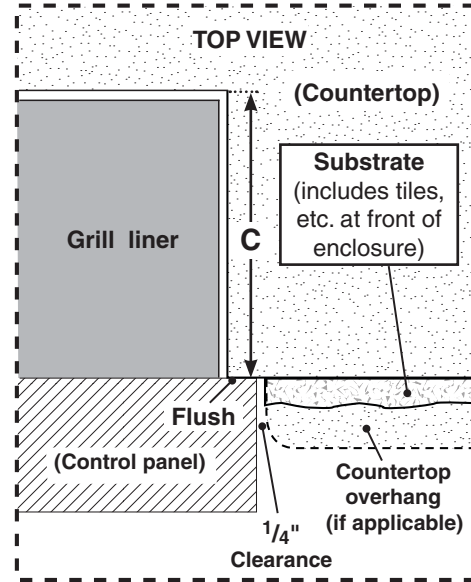
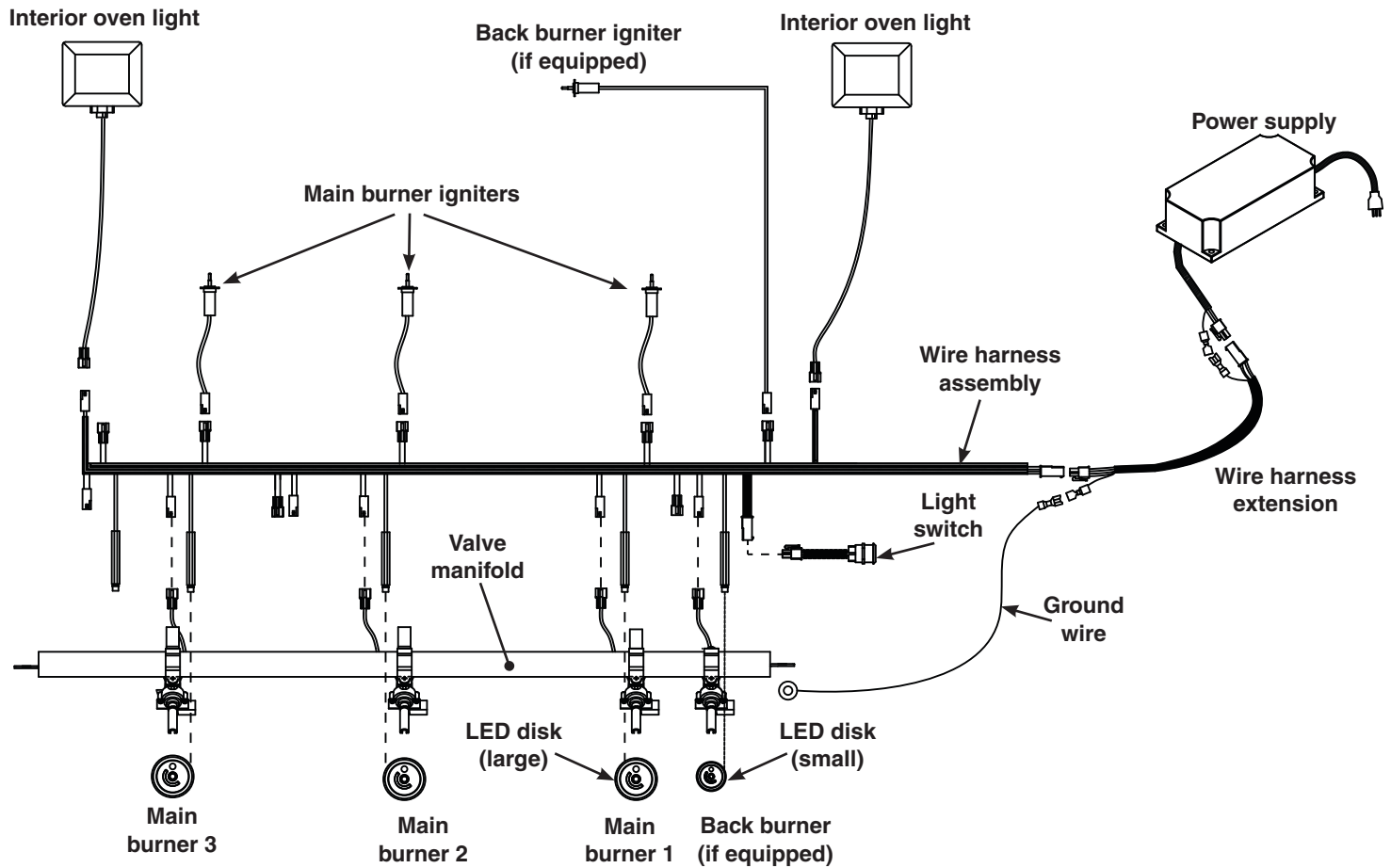


Fig. 16-2

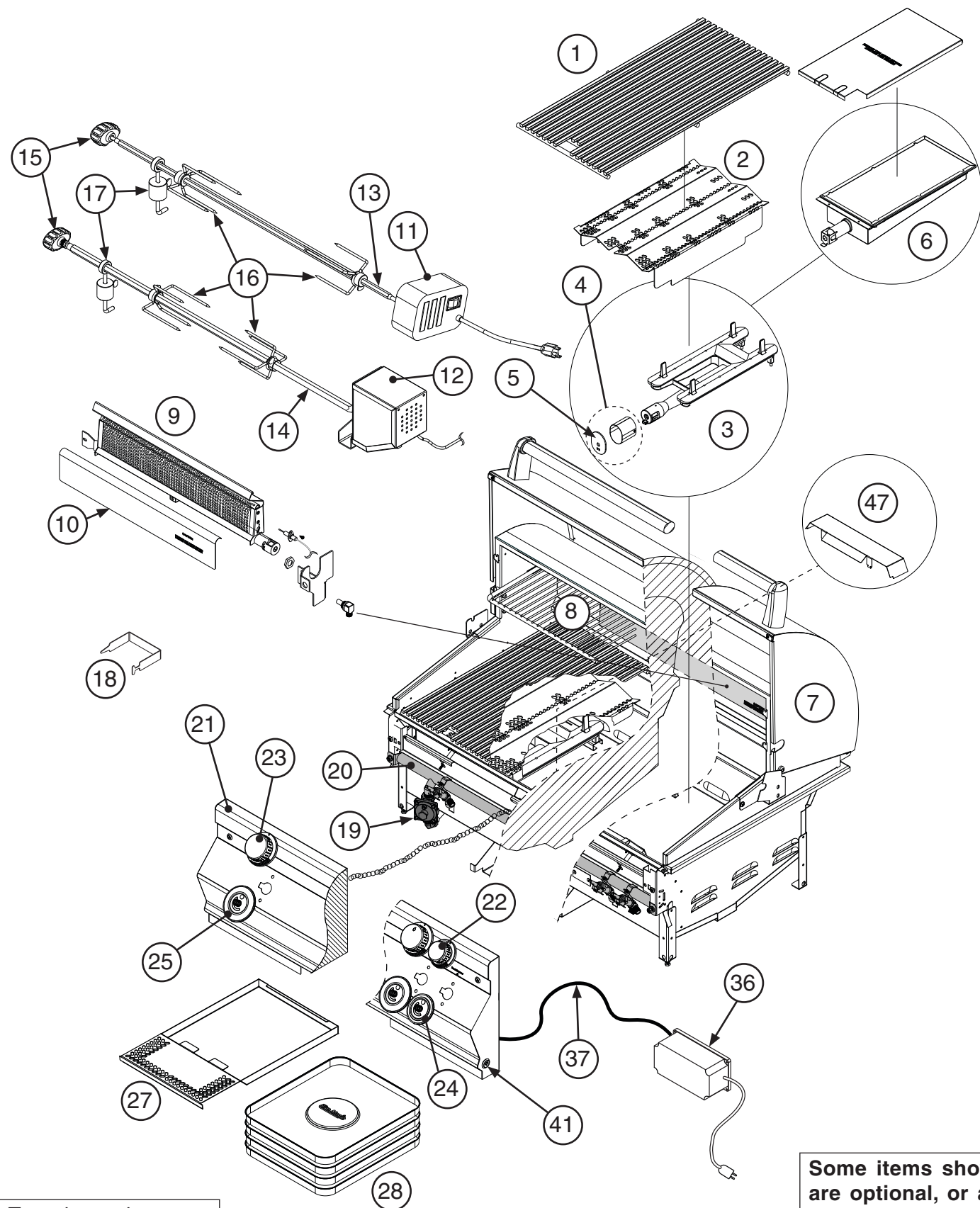
## BUILT-IN GRILL WIRING DIAGRAM\*



\* A790i model shown. Model wire diagrams may vary.

**Note:** In addition, a wire diagram specific to your unit can be found affixed to the inside of the control panel.

## AURORA GRILL REPLACEMENT PARTS LIST



To order replacement parts, contact your local Fire Magic® dealer.

**Some items shown are optional, or are not available for certain models. Your model may vary, refer to parts list table.**



# AURORA GRILL REPLACEMENT PARTS LIST (Cont.)

Item	Description	A430i		A540i		A660i		A790i	
		Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.
1.	Stainless cooking grid (set of 2 or 3)	3542-DS-2	1	23543-DS-3	1	3544-DS-3	1	3539-DS-3	1
2.	Flavor grid (set of 2 or 3)	3063-S-2	1	3064-S-3	1	3070-S-3	1	3071-S-3	1
3.	Main burner	3042-50	2	3042-50	3	3041-50	3	3041-50	3
4.	Flame arrester kit	24177-05	2	24177-05	3	24177-05	3	24177-05	3
5.	Silicone gasket	24177-06	2	24177-06	3	24177-06	3	24177-06	3
6.	Infrared burner *	3065	1	3065	1	3056	1	3056	1
7.	Oven lid w/ oven thermometer	23729-60	1	23733-60	1	23738-60	1	23745-60	1
or	Oven lid w/ window †	N/A		N/A		24170-56	1	24180-56	1
8.	Warming rack	3672S-B	1	3673S-B	1	3673S-B	1	3675S-B	1
9.	Backburner*	24130-11H	1	24170-11H	1	24170-11H	1	24180-11H	1
10.	Backburner cover*	24148-010	1	24739-010	1	24739-010	1	24745-010	1
11.	Rotisserie motor*	3600-02	1	3600-02	1	3600-02	1	3600-02	1
12.	Heavy-duty motor*†	N/A		N/A	1	3600-05	1	3600-05	1
13.	Rotisserie rod*	3603-30	1	3606-30	1	3606-30	1	N/A	
14.	Heavy duty rod*†	N/A		N/A	1	3606-40	1	3609-40	1
15.	Rotisserie knob*	24187-16	1	24187-16	1	24187-16	1	24187-16	1
16.	Meat holder (pair)*	3613	1	3613	1	3613	1	3613	1
17.	Counterbalance*	3620E	1	3620E	1	3620E	1	3620E	1
18.	Grid lifter	3519	1	3519	1	3519	1	3519	1
19.	Convertible regulator	PR-4	1	PR-4	1	PR-4	1	PR-4	1
20.	Valve manifold w/ backburner	24130-22	1	24170-22	1	24170-22	1	24180-22	1
or	valve manifold w/o backburner	24130-28	1	24170-28	1	24170-28	1	24180-28	
21.	Control panel w/ backburner	24130-49	1	24170-49	1	24170-49	1	24180-49	1
or	Control panel w/o backburner	24130-50	1	24170-50	1	24170-50	1	24180-50	1
22.	Small knob*	24182-42	1	24182-42	1	24182-42	1	24182-42	1
23.	Large knob	24182-41	2	24182-41	3	24182-41	3	24182-41	3
24.	LED disk (small)*	24182-64	1	24182-64	1	24182-64	1	24182-64	1
25.	LED disk (large)	24182-63	2	24182-63	3	24182-63	3	24182-63	3
26.	Oven lid thermometer w/ bezel ‡	23307	1	23307	1	23307	1	23307	1
or	Grill top thermometer (window models) ‡	3573	1	3573	1	3573	1	3573	1
27.	Drip tray	3084	1	3084	1	3084	1	3084	1
or	Drip tray w/ match holder	3085	1	3085	1	3085	1	3085	1
28.	Drip tray liner (set of 4)	3557	1	3557	1	3557	1	3557	1
29.	Wire harness assembly‡	24177-29	1	24177-29	1	24177-29	1	24177-29	1
30.	Backburner electrode*‡	4199-52	1	4199-52	1	4199-52	1	4199-52	1
31.	Main burner electrode‡	3199-72	2	3199-72	3	3199-72	3	3199-72	3
32.	Natural gas orifice(s)‡	3001-42-2	1	3001-44-3	1	3001-42-3	1	3001-38-3	1
33.	Natural backburner gas orifice(s)‡	3001-52-1	1	3001-48-1	1	3001-48-1	1	3001-45-1	1
34.	Propane gas orifice(s)‡	3001-54-2	1	3001-55-3	1	3001-54-3	1	3001-53-3	1
35.	Propane backburner gas orifice(s)‡	3001-59-1	1	3001-56-1	1	3001-56-1	1	3001-55-1	1
36.	Power supply w/ connector	24177-12	1	24177-12	1	24177-12	1	24177-12	1
37.	Wire harness extension	24182-53	1	24182-53	1	24182-53	1	24182-53	1
38.	12V / 10 watt halogen light bulb ‡	24187-15	2	24187-15	2	24187-15	2	24187-15	2
39.	Light lens ‡	24187-26	2	24187-26	2	24187-26	2	24187-26	2
40.	Lamp assembly ‡	24187-28	2	24187-28	2	24187-28	2	24187-28	2
41.	Light switch	24182-48	1	24182-48	1	24182-48	1	24182-48	1
42.	Magic View window (only) *‡	N/A		N/A		24187-45	1	24187-45	1
43.	Lighting tube (left) ‡	24187-29	1	24187-29	1	24187-65L	1	24187-65L	1
44.	Lighting tube (center) ‡	N/A		N/A		24187-65C	1	24187-65C	1
45.	Lighting tube (right) ‡	24187-35	1	24187-35	2	24187-65R	1	24187-65R	1
46.	Backburner flex connector *‡	3030-01	1	3030-01	1	3030-08	1	3030-08	1
47.	Air baffle	24194-40	1	24194-40	1	24194-41	1	24194-41	1

\* If equipped    † Not available on A430i or A540i models    ‡ Not shown

## INSTALLATION

It is not required to remove the control panel or knobs to install this unit.

**DO NOT** lift the unit from the control panel when installing.

### COUNTER PREPARATION

Consult Table 3 for non-combustible enclosure cutout dimensions. An RHP insulating liner must be used if any supporting construction is combustible. Consult the instructions that come with the liner for dimensions and additional installation information before beginning the installation.

This outdoor built-in grill must be supported by the stainless-steel hanger extending from the upper portion of the grill. The hanger rests on the left, right, and back of the countertop and on the two front support adjustment screws located below the control panel on the left and right sides (see adjustment screw on following page).

The control panel is designed to sit flush against the enclosure front wall (see Fig. 20-1). If the non-combustible enclosure countertop extends beyond the front wall, creating a countertop overhang (see Fig. 20-2), it must be cut flush with the front wall for the width of the control panel or a gap will be created exposing the forward portions of the left and right side grill fire walls. Reference the MODEL SPECIFICATIONS section.

### CONNECT THE GAS SUPPLY

#### For propane cylinders:

For connecting a propane unit to a portable propane tank, read the safety warnings and follow the instructions in the section SAFE USE AND MAINTENANCE OF PROPANE GAS CYLINDERS.

**Note:** When a propane cylinder is installed inside of the enclosure, the guidelines found in the GRILL ENCLOSURE / VENTILATION REQUIREMENTS section **MUST** be followed.

#### For household propane or natural gas units:

**CAUTION:** Use only C.S.A. listed stainless-steel flex connectors within the enclosure.

#### WARNING

**A rubber or plastic connector will rupture or leak, resulting in an explosion or serious injury if used inside the appliance enclosure.**

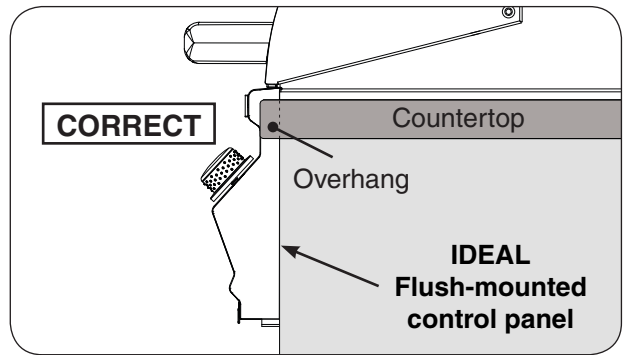
1. Run the attached flex connector routed under the left side of the grill to the gas supply stub.
2. **Turn OFF the gas supply at the source.**
3. A shut-off valve is required within 6 feet of the unit.

#### ***If shut-off valve is installed in-line:***

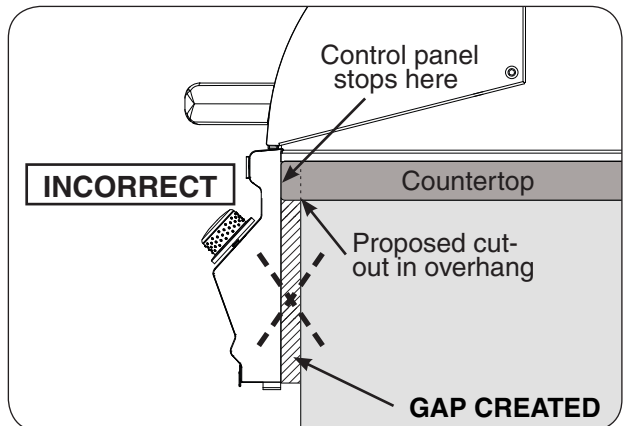
- Install the supplied flare-to-NPT adapter to the gas supply (NPT) using a pipe joint compound resistant to all gasses (see Fig. 20-3, A). Tighten securely.
- Connect the flex connector to the adapter (see Fig. 20-3, A). Tighten securely.

#### ***If shut-off valve is connected to end of gas supply stub:***

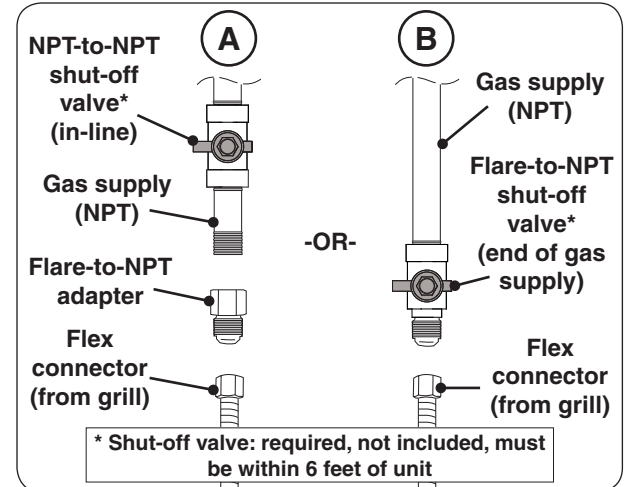
- Connect the flex connector to the shut-off valve (flare) (see Fig. 20-3, B). Tighten securely.



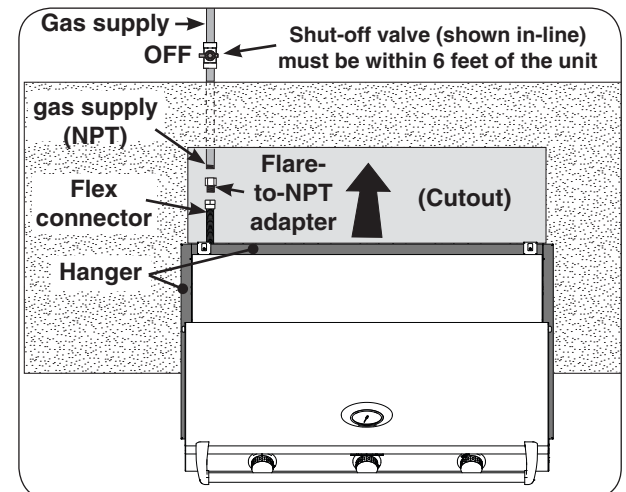
**Fig. 20-1** Countertop overhang - correct cutout



**Fig. 20-2** Countertop overhang - incorrect cutout



**Fig. 20-3** Connecting to a gas line



**Fig. 20-4** Household LP & Nat. gas diagram

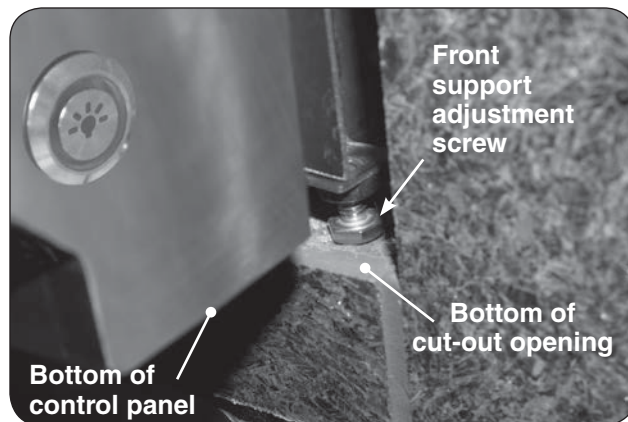
4. Turn all burner control knobs to the **OFF** position. Turn the gas supply on. Then carefully check *all* gas connections for leaks with a brush and half-soap/half-water solution before lighting. **NEVER USE A MATCH OR OPEN FLAME TO TEST FOR LEAKS.**
5. Close the shut-off valve, then slide the grill into place. Do not to pinch, kink, or damage the gas connector line.
6. Rotate the front support adjustment screws to the left to raise and to the right to lower the respective side of the appliance grill. Use a 7/16" open-end wrench as needed. See Fig. 21-1.

**Important:** The screws **MUST** be used to provide support to the hangers.

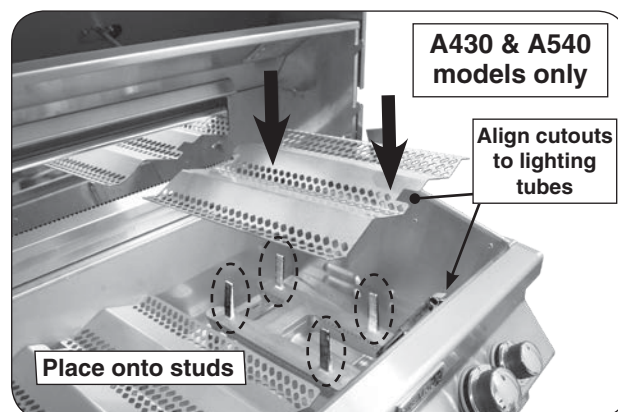
## INSTALL THE FLAVOR GRIDS

**A430 and A540 models:** Place the flavor grids directly onto the studs on the burners. Align the cutouts to the lighting tubes. See Fig. 21-2. **The slightly larger grids are designed to be placed over the outside burners, and the slightly smaller grid over the inner burner.** The flavor grids allow heat from the burners to be evenly distributed throughout the cooking area.

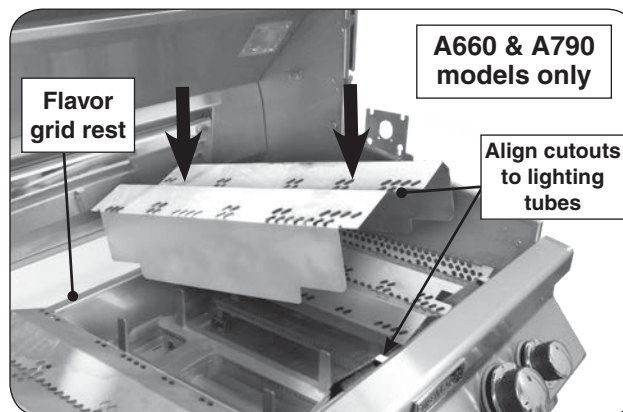
**A660 and A790 models:** Place the flavor grids onto the front and rear flavor grid rests. Align the cutouts to the lighting tubes. See Fig. 21-3. **The short grids are designed to rest over the outer burners and the tall grid(s) over the inside burner(s).** The flavor grids allow heat from the burners to be evenly distributed throughout the cooking area.



**Fig. 21-1** Front support adjustment screws



**Fig. 21-2** Install flavor grids



**Fig. 21-3** Install flavor grids

## INSTALL THE COOKING GRIDS

**Note:** Wear heat-resistant gloves if necessary.

**Note:** Do not leave the lifter on any hot surfaces.

1. With the prongs facing downward, insert the notched-end of the lifter between two grid rods, then rotate, as shown in Fig. 22-1, A & B.

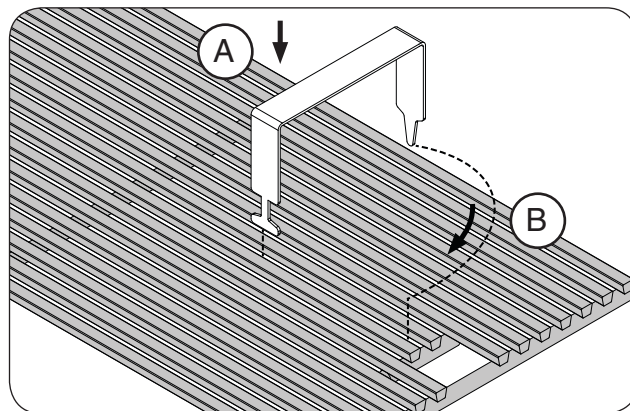
**Note:** To balance, insert the notched-end of the lifter in the middle front half of the cooking grid.

2. Insert the rear pointed-end of the lifter between the same two rods (Fig. 22-1, B) and carefully lift the cooking grid and place onto the front and rear grid rests of the grill (see Fig. 22-2). Repeat for all other cooking grids.

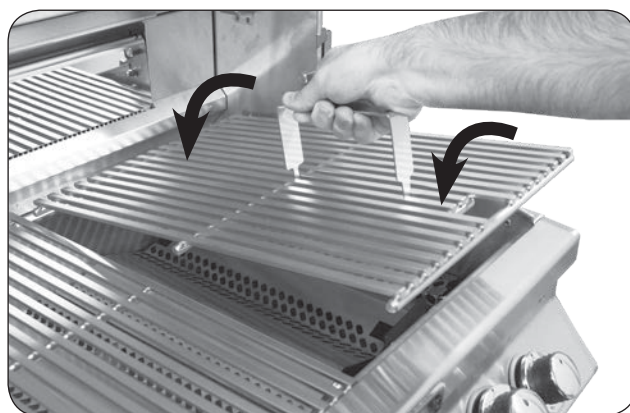
## INSTALL THE DRIP TRAY

Your grill includes a pack of four drip tray liners. Place a liner into the drip tray as shown in Fig. 22-3, and fully insert the drip tray into the bottom front of the control panel.

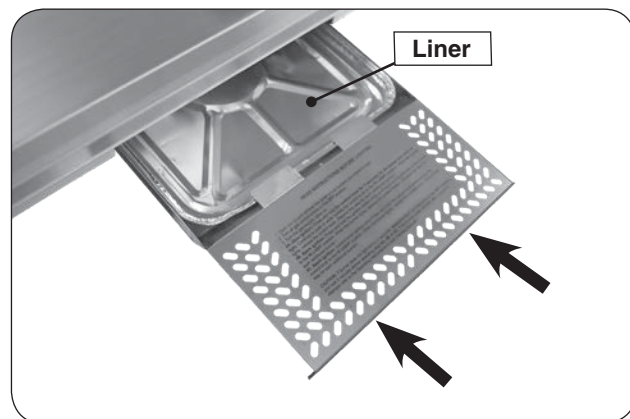
**Note:** The liner must fit under the rear lip and two front tabs found on the drip tray.



**Fig. 22-1** Install cooking grids



**Fig. 22-2** Install cooking grids



**Fig. 22-3** Install drip tray

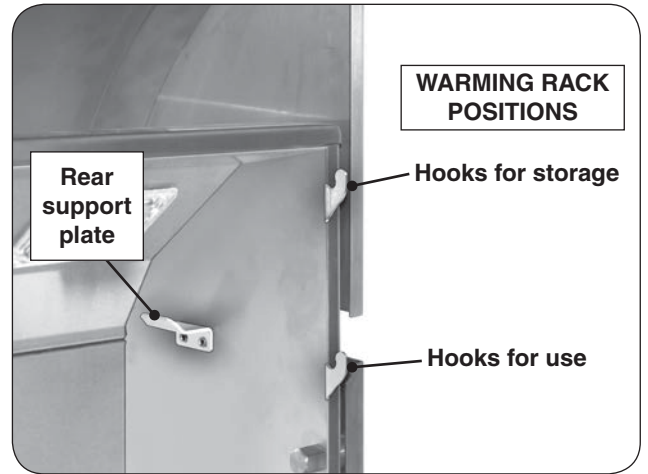


## INSTALL THE WARMING RACK

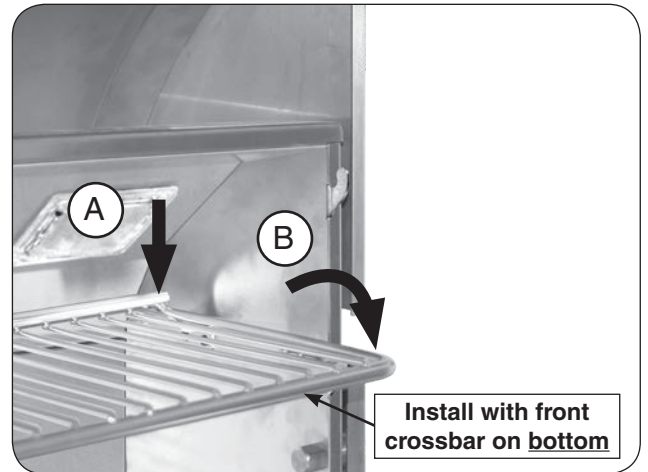
**Note:** Wear heat-resistant gloves if necessary.

1. Locate the warming rack hooks and rear supports found on the upper portion of the grill oven (see Fig. 23-1).
2. With the warming rack oriented as shown, carefully rest the rear of the rack onto the rear support plates (Fig. 23-2, A), then rest the warming rack arms onto the two lower hooks for use (Fig. 23-2, B). Use the top hooks for storage (see Fig. 23-1 and Fig. 23-3).

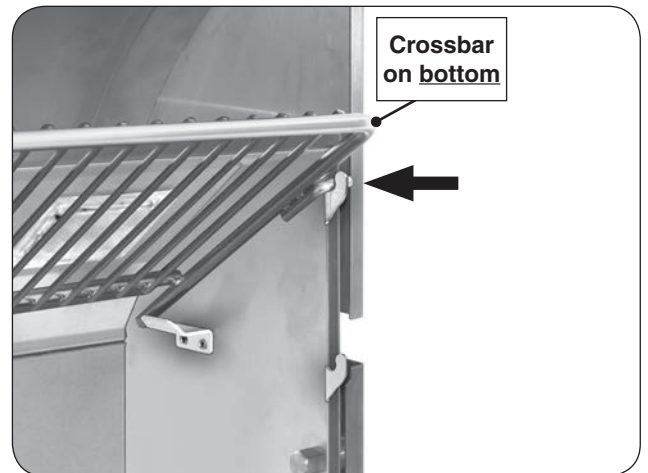
Placing the warming rack in storage position or removing the warming rack before using the rotisserie will leave more clearance for the meat being cooked (if applicable).



**Fig. 23-1** Warming rack hooks



**Fig. 23-2** Place warming rack for use



**Fig. 23-3** Place warming rack in storage position



## POWER SUPPLY

The electrical connections from the power supply box to the unit come pre-connected.

If side cookers are to be installed and will be powered using the same grill power supply, instead refer to the **POWER SUPPLY / WIRE HARNESS CONNECTIONS** section of the owner's manual included with the side cooker for power supply installation.

**CAUTION:** IMPROPERLY CONNECTED WIRES WILL CAUSE DAMAGE TO THE UNIT AND MAY RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

### To install the power supply box:

1. Route the wire harness extension below the control panel and directly downward. This will prevent overheating. **DO NOT** route the wire extension below the grill. See Fig. 24-1, A.

**Note:** For enclosures with a solid area beneath the grill, a cutout must be made near the wire extension to allow for the above requirement. If an insulating liner is installed, route the wire down through the nearest hole possible.

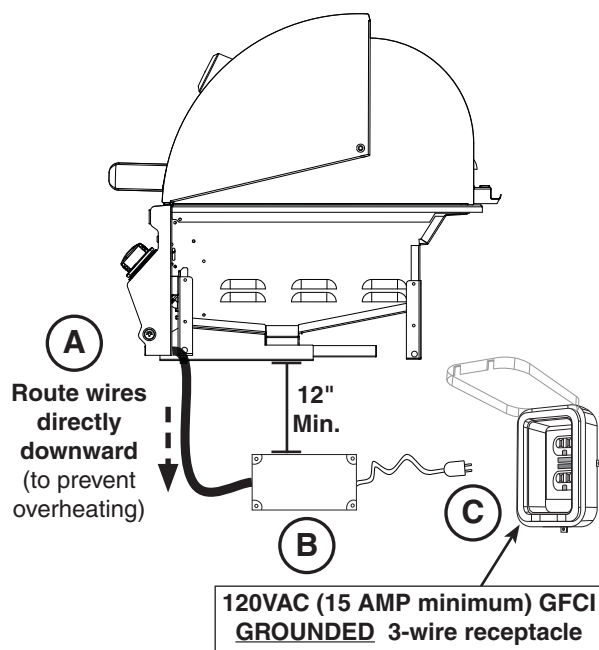
2. Mount the power supply box to the inside of the enclosure using appropriate hardware for your enclosure. It **MUST** be located at least 12 inches below the bottom of the unit. See Fig. 24-1, B.

**WARNING:** **DO NOT** block the vent holes found on the box.

3. Connect the cord coming from the power supply to a **120VAC (15 AMP minimum) GFCI GROUNDED 3-wire receptacle** (see Fig. 24-1, C). The GFCI receptacle must be a WEATHER-PROOF IN-USE COVERED RECEPTACLE.

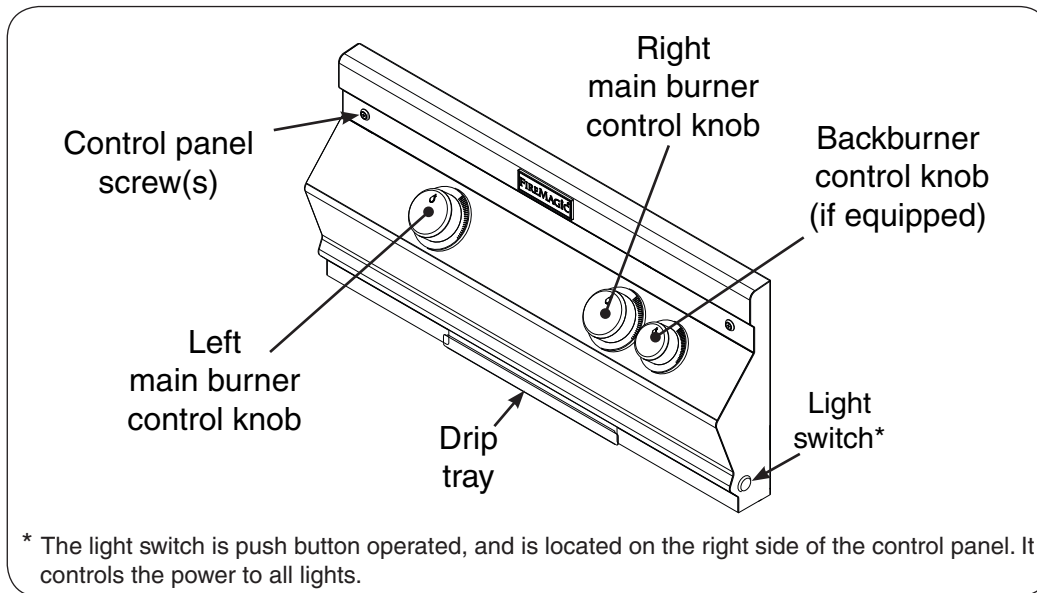
**WARNING:** **Electrical Grounding Instructions** - This appliance is equipped with a three-pronged (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

1. Locate power supply box
2. Route wire harness extension downward
3. Mount power supply box
4. Connect cord to power source

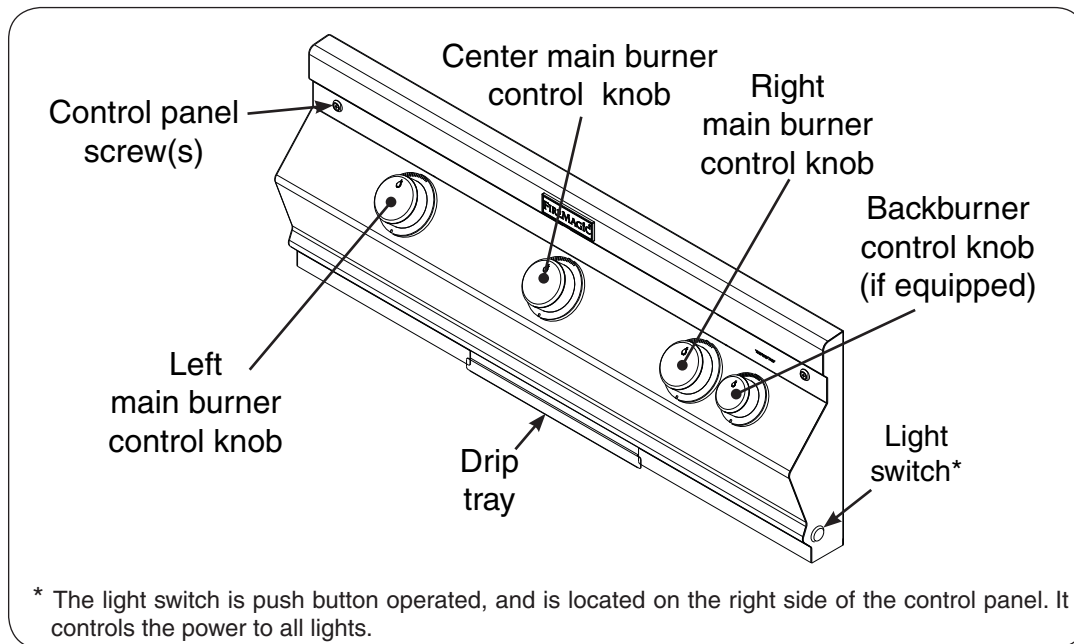


**Fig. 24-1** Electrical installation

## IDENTIFICATION OF GRILL CONTROLS



**Fig. 25-1** A430i controls



**Fig. 25-2** A540i, A660i, and A790i controls

## BEFORE INITIAL USE

Ensure that:

- the unit has been properly installed and leak tested by a qualified professional service technician and as instructed in this manual.
- you have read and understand all of the information in this manual.

## BEFORE EACH USE

Ensure that:

- you smell around the appliance area for gas. If you smell gas (and all control knobs are in the **OFF** position), immediately shut off the gas supply and contact a qualified professional service technician or the gas supplier for inspection.
- the required vent openings and surrounding area of the enclosure are clear at all times.
- the cooking area and drip tray are clean, and the drip tray is properly installed.
- you inspect all piping and hoses for damage, cuts, wear, and tear. Replace any damaged components prior to use.

## OPERATION

- **The unit becomes HOT during use. NEVER touch any part of the cooking area or surrounding hot surfaces with bare hands. Use long-handled insulated BBQ tools and wear an insulated glove / oven mitt.**
- **Always keep your face and body as far from the unit as possible during use. Avoid wearing loose-fitting clothing as they could ignite.**
- **NEVER leave the unit unattended during use.**
- **NEVER cover more than 75% of the cooking or grill surface with griddles or pans to prevent overheating.**
- **After each use, turn the control knob(s) to the OFF position and turn off the gas supply to the unit.**

After reading and understanding all bullets above, follow these steps to light and use your grill:

1. Light the grill per the LIGHTING INSTRUCTIONS section.
2. Turn the control knobs to the HI-LIGHT position, close the hood, and allow the grill to preheat for 15 minutes or until desired cooking temperature is reached.
3. Place the food on the grill and cook as desired. Monitor the flames and the temperature, and adjust the heat setting if necessary.
4. See the sections below and the following pages for all other information regarding use.

## WIND CONSIDERATIONS

Proper airflow (front-to-back, Fig. 26-1) **MUST** be maintained for the unit to perform as it was designed. See the INSTALLATION REQUIREMENTS section for details.

When using the unit in windy conditions, the wind can disrupt the airflow and cause overheating. To prevent overheating during windy conditions, do not leave the hood closed with the burners on high for more than 15 minutes.

## WARMING RACK

The warming rack can be placed in two positions: the lower hooks are for use and the upper hooks are for storage. Refer to the INSTALLATION section for information on warming rack positioning.

## AFTER EACH USE

1. Operate on high with hood closed for 10-15 minutes to burn off all grease.
  2. Turn off the grill and brush the cooking grids to remove all residue.
- CAUTION:** Use long-handled insulated BBQ tools and wear an insulated glove / oven mitt.
3. When the grill is cool, check and clean the drip tray. Then cover the grill.
- Note:** For additional cleaning information, refer to the SERVICING AND CLEANING section.

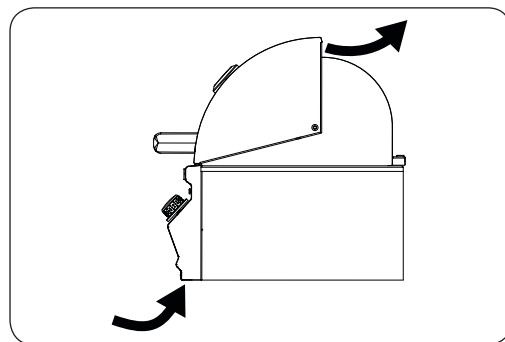


Fig. 26-1 Airflow diagram

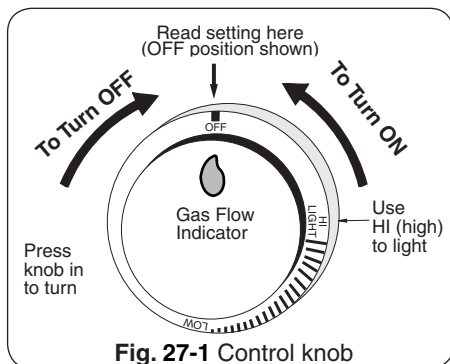
# LIGHTING (IGNITION) INSTRUCTIONS

Read all instructions before lighting, and follow these instructions each time you light the unit.

## ELECTRONIC LIGHTING

**Note:** This unit must be connected to 120VAC power for electronic lighting.

1. Open lid(s) or remove cover(s) from burner(s) to be lit.
2. Turn all gas control knob(s) to their **OFF** position(s).
3. Turn on the gas at its source.



**Note:** DO NOT turn on more than one valve at a time for either electronic or manual lighting.

4. Depress the desired control knob **for 5 seconds**. Ensure the igniter is glowing (inside of lighting tube), then, while pressing turn the knob counterclockwise to the **HI LIGHT** position. Once the burner lights, release the knob.

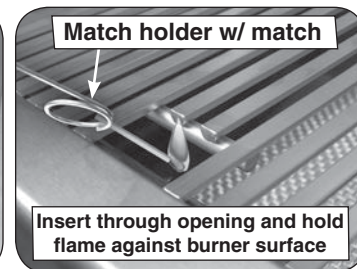
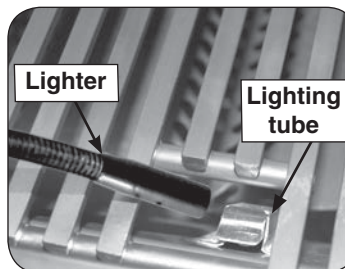
**CAUTION:** If a burner does not light within five (5) *seconds* of turning on the control knob, depress the knob and turn it to the **OFF** position. **WAIT FIVE (5) MINUTES** before repeating step 4. If you smell gas, follow the instructions on the cover of this manual. If the burners still do not light after several attempts, refer to the instructions for manual lighting.

5. Repeat step 4 for each additional burner to be lit.

## MANUAL LIGHTING

**CAUTION:** Always wait five (5) minutes for gas to clear after any unsuccessful lighting attempt.

1. Follow steps 1 through 3 (left).
2. Insert either a burning long-barrel butane lighter or a burning long-stem match through the cooking grid opening to the top of the lighting tube (Fig. 27-2). For backburners or infrared burners, hold the flame against the surface of the backburner/infrared burner. Grills equipped with an infrared burner include a wire extension match holder (attached to drip tray) to assist with manual lighting (Fig. 27-3).
3. Hold the match / lighter flame at the top of the lighting tube **for 5 seconds**, or, against the backburner/infrared burner. Then depress the appropriate control knob and while pressing turn it counterclockwise to the **HI LIGHT** position. Remove the lighter or match when the burner lights, and release the control knob.
4. If the burner does not light within five (5) seconds of turning the control knob, **immediately depress the knob and turn the valve to OFF**. **WAIT FIVE (5) MINUTES** before repeating steps 2 through 4 of the MANUAL LIGHTING instructions.



## SHUTTING OFF THE UNIT

To shut off the unit, depress each valve control knob and while pressing turn it clockwise to the **OFF** position.

Always close the valve from the gas supply after each use of the unit.

## WHEN USING A PORTABLE PROPANE TANK

Propane tanks are equipped with a safety shutdown device that may cause low or no gas pressure/flame at the burners if operating and lighting instructions are not followed exactly (See important note in the TROUBLESHOOTING section for more details.)

**For your convenience and safety; when the control knob is turned to the on position, the gas flow indicator will change from blue to red. (Red indicates gas flow.) See Fig. 27-1.**

# ALLUMAGE DES INSTRUCTIONS (D'ALLUMAGE)

Lisez toutes les instructions avant l'allumage, et suivez ces instructions chaque fois vous lumière le unité.

## ÉCLAIRAGE ÉLECTRONIQUE

**Note:** Le unité doit être relié à la puissance 120VAC pour l'éclairage électronique.

1. Ouvrez les couvercles ou enlevez les couvertures des brûleurs pour être Lit.
2. Tournez tous les boutons de commande de gaz à leurs positions de repos.
3. Allumez le gaz à sa source.

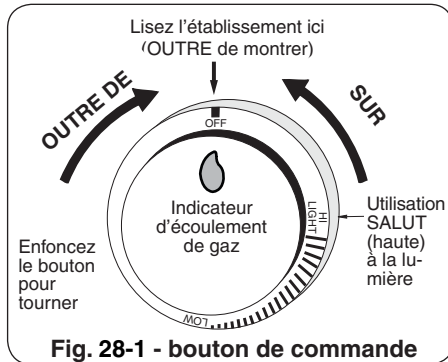


Fig. 28-1 - bouton de commande

4. Appuyez sur le bouton de commande souhaité **pendant 5 secondes**. Assurez-vous que l'allumeur brille (à l'intérieur du tube d'éclairage), puis tout en appuyant, tournez le bouton dans le sens inverse des aiguilles d'une montre jusqu'à la position **HI LIGHT**. Une fois le brûleur allumé, relâchez le bouton.

**ATTENTION :** Si un brûleur ne s'allume pas dans cinq (5) secondes d'allumer le bouton de commande, enfoncez le bouton et tournez-le à la position de repos. **ATTENDEZ CINQ (5) MINUTES** avant de répéter l'étape 4. Si vous sentez le gaz, suivez les instructions sur la couverture de ce manuel. Si les brûleurs ne s'allument toujours pas après que plusieurs tentatives, se rapportent aux instructions pour l'éclairage manuel.

5. Répétez l'étape 4 pour que chaque brûleur additionnel soit Lit.

**Note:** N'ouvrez pas plus d'une valve à la fois pour l'éclairage électronique ou manuel.

## ÉCLAIRAGE MANUEL

**ATTENTION:** Attendez toujours cinq (5) minutes le gaz pour se dégager après que n'importe quelle tentative non réussie d'éclairage.

1. Suivez les étapes 1 à 3 (à gauche).
2. Passez un allumeur brûlant de butane de long-baril ou une allumette brûlante de long-tige dans la grille à cuire s'ouvrant au dessus du tube d'éclairage. (Fig. 28-2). Pour les brûleurs de dos ou les brûleurs infrarouges, maintenez la flamme contre la surface du brûleur de brûleurs arrière / infrarouge.

Les grils équipés d'un brûleur infrarouge comprennent un porte-allumette à rallonge métallique (fixé au plateau d'égouttage) pour faciliter l'éclairage manuel. (Fig. 28-3).

3. Tenez la flamme allumette / briquet en haut du tube d'éclairage **pendant 5 secondes** ou contre le brûleur arrière / infrarouge. Puis appuyer sur le bouton de contrôle approprié et en appuyant tourner dans le sens antihoraire à la position **HI LIGHT**. Retirez le briquet ou des allumettes quand le brûleur s'allume, puis relâchez le bouton de commande.
4. Si le brûleur ne se allume pas dans les cinq (5) secondes de tourner le bouton de commande, enfoncez immédiatement le bouton et tournez la valve à **AU LOIN**. **ATTENDEZ CINQ (5) MINUTES** avant de répéter les étapes 2 à 4 des instructions manuelles d'éclairage.

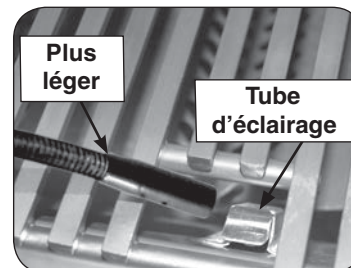


Fig. 28-2 Éclairage manuel via un tube d'éclairage

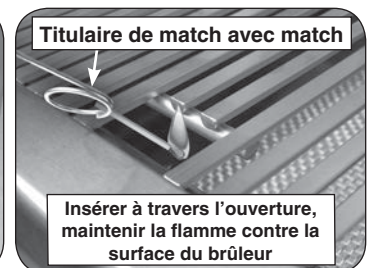


Fig. 28-3 Eclairage manuel via porte allumette

## ARRÊT DU UNITÉ

Pour couper le unité, diminuez chaque bouton de commande de valve et tout en pressant tour il dans le sens des aiguilles d'une montre à la position de repos.

Fermez toujours la valve de la fourniture de gaz après chaque utilisation du unité.

## EN EMPLOYANT UN RÉSERVOIR DE PROPANE PORTATIF

Des réservoirs de propane sont équipés d'un dispositif d'arrêt de sûreté qui peut ne pas causer le bas ou aucunes pression de gaz/flamme aux brûleurs si le fonctionnement et l'allumage des instructions ne sont pas suivis exactement (voir la note importante dans la section de dépannage pour plus de détails.)

**Pour votre convenance et sûreté ; quand le bouton de commande est tourné a la position de fonctionnement, l'indicateur d'écoulement de gaz changera de bleu en le rouge. (Le rouge indique l'écoulement de gaz.) Voir la Fig. 28-1.**

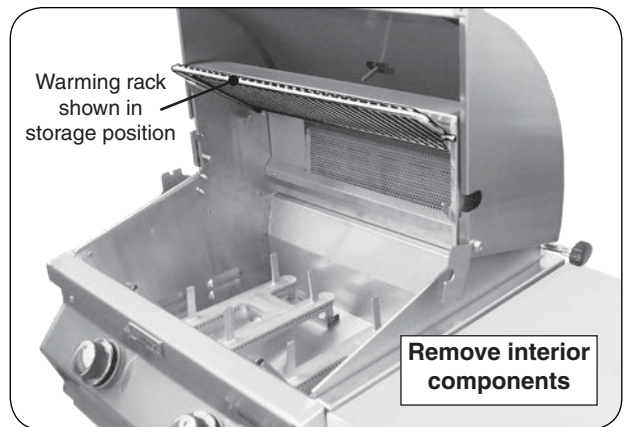


## ROTISSERIE INSTRUCTIONS

**CAUTION:** WHEN USING THE BACKBURNER; KEEP THE OVEN LID CLOSED TO PREVENT HEAT LOSS, PROVIDE PROPER CONVECTION, AND PROVIDE PROPER VENTING. THIS WILL ENSURE EVEN COOKING TEMPERATURES.

**DO NOT KEEP YOUR OVEN LID OPEN DURING ROTISSING, AS THIS MAY CAUSE PERSONAL INJURY, OR IN SOME CASES, IN WINDY CONDITIONS, DAMAGE TO THE GRILL.**

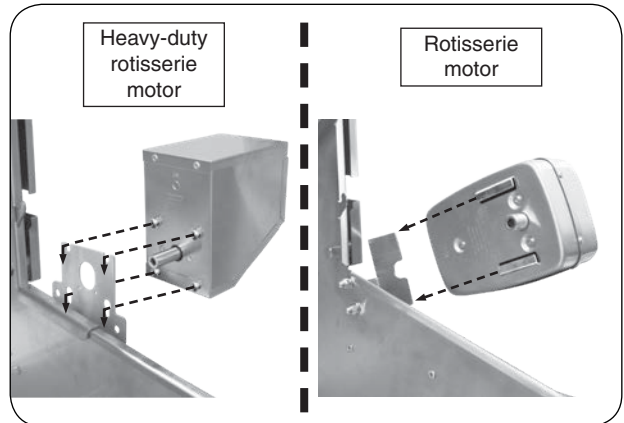
**DO NOT USE THE ROTISSERIE MOTOR IN THE RAIN. DO NOT LEAVE THE MOTOR ON THE GRILL WHEN NOT IN USE.**



**Fig. 29-1** Prepare grill for rotissing

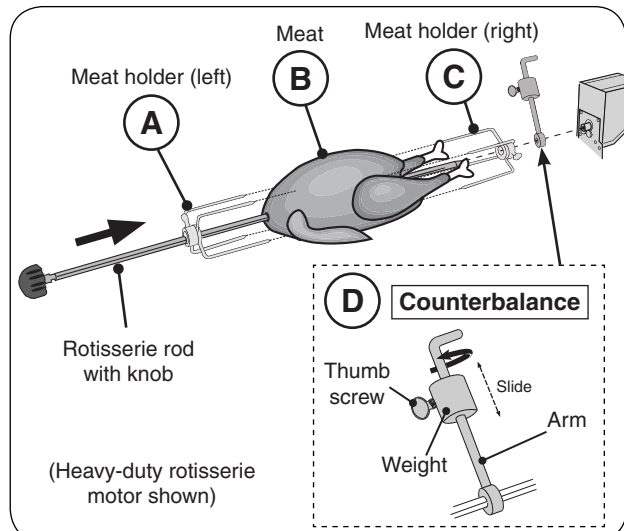
**Note:** Remove the flavor grids only if large meats require the clearance. The warming rack may also be removed if needed.

2. Slide the rotisserie motor fully onto the motor bracket located on the right side of the grill (see Fig. 29-2) and connect it to a power source (do not turn on).
3. Remove the rotisserie rod from the grill rear bracket and attach knob if necessary. Clean the rod if needed.
4. Slide the left meat holder onto the rod and tighten (see Fig. 29-3, A).
5. Then slide meat onto the rod, followed by the right meat holder (see Fig. 29-3, B and C).
6. Slide the meat into the left holder, then the right holder into meat. Tighten the right meat holder. Be sure the meat is centered and balanced as well as possible, and the holders have a good grip on the meat.



**Fig. 29-2** Install rotisserie motor

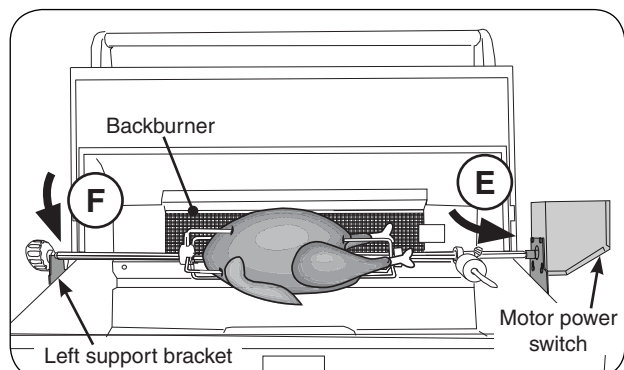
7. Hold both ends of the rod so it settles freely (do not grip tightly). Allow the rod to rotate until the heavy side of the meat rests downward.
8. The counterbalance may then be attached to even weight distribution. Slide the counterbalance onto the rod next to the right meat holder (see Fig. 29-3, D). Loosen the arm and point it upward opposite the heavy side of the meat. Tighten the arm.
9. Slide the counterbalance weight up or down the arm until the rod rotates most evenly then tighten thumb screw (see Fig. 29-3, D).
10. Insert the pointed-end of the rod into the motor drive socket (see Fig. 29-4, E). Then rest rod groove (next to the knob) into the left support bracket (see Fig. 29-4, F).
11. To keep meat drippings off the burners and to simplify cleanup, place Fire Magic drip tray liners under the meat, if desired.



**Fig. 29-3** Assemble rotisserie rod for cooking

12. Press the motor power switch to start.
13. Light the backburner per the lighting instructions in this manual (or on drip tray handle) and close the oven lid.

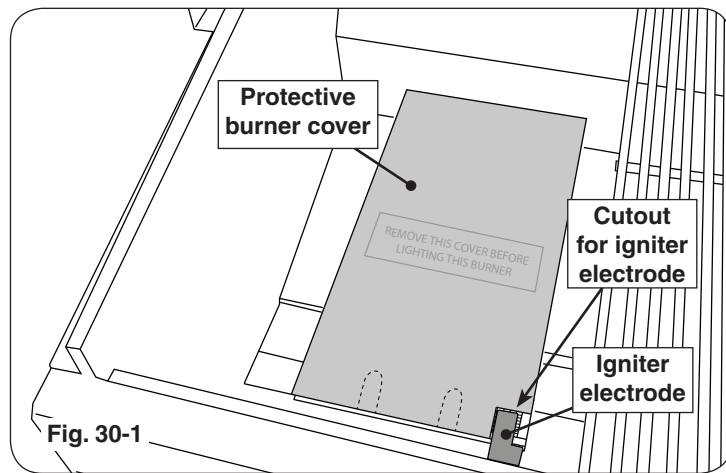
**Important:** Turn the backburner to low or off when stopping the rotisserie to prevent overcooking.



**Fig. 29-4** Attach Rotisserie rod to motor

## OPTIONAL INFRARED BURNER OPERATION

The infrared searing burner (optional) cooks with a powerful radiant heat.



Light the infrared burner following the LIGHTING INSTRUCTIONS in this manual or printed on the drip tray. Follow these guidelines when operating the Infrared burner:

- **DO NOT place food on the cooking grid until the infrared burner glows orange (Fig. 30-3).** Drippings are heated and evaporate instead of sticking to and impairing burner function.
  - **For cleaning purposes; always leave your burner on (after cooking) for an additional 5 minutes, to allow for a burnoff period. This is important to keep your burner clean and operating properly.** As the burner is self cleaning (at full temperature); avoid the use of cleaners or abrasives.
  - When not in use, **always** cover the infrared burner with the stainless-steel cover. This protects the burner from drippings (from other cooking), water, airborne particles, and foreign objects (Fig. 30-2).
- Important:** Clean burners allow the gas to circulate and burn over the entire heating surface for powerful and even cooking.
- Do not strike or scrape the ceramic portion of the burner as it may chip, crack, or break (Fig. 30-2).

**Important:** When grilling with the infrared burner, always place a cooking grid above it. The cooking grid must be removed for rotisserie cooking.

**CAUTION:** Never attempt to operate the infrared burner with the protective cover in place.

### WARNING

Only handle the infrared burner cover when the unit is cold or with a well-insulated long-handled tool or heat resistant gloves.

#### SIDE VIEW (with cover on)

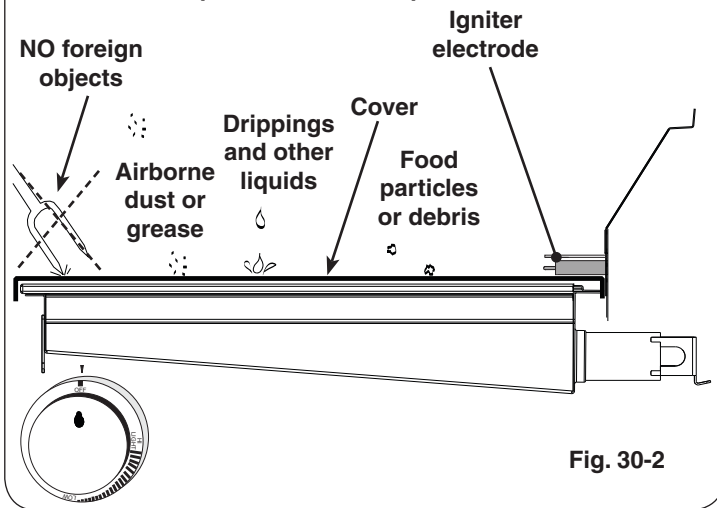


Fig. 30-2

Burner ceramic must be protected with cover when burner is not in use.

#### SIDE VIEW (burner on HI LIGHT and glowing orange)

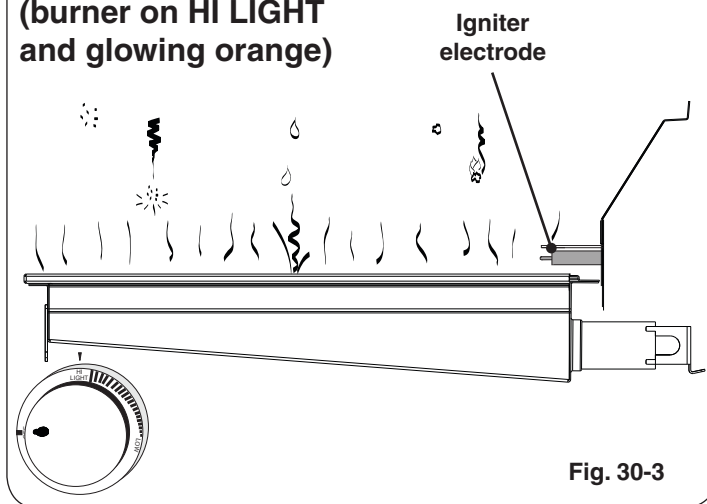


Fig. 30-3

Drips and particles evaporate before hitting infrared burner when cooking at the maximum setting.

**Note:** Flavor grids are not to be used with infrared burners.

To ensure proper operation, all infrared burners (back and main) must be operated on the HI setting for a minimum of 10 minutes. Thereafter, the flame may be lowered as desired.

**CAUTION:** Always monitor the infrared burner flame when operated on low, as it may blow out in high-wind conditions.

## SERVICING AND CLEANING

**Your grill requires regular cleaning and maintenance.** Refer to these instructions for details. Performing these procedures will ensure proper operation, appearance, and safety.

### WARNINGS

- Prior to servicing or cleaning make sure the unit is completely cool, the control knobs are turned to the OFF position, the gas supply is shut off, the light switch is off, and the power supply is disconnected (as applicable and unless otherwise stated).
- Wear appropriate gloves and safety glasses during any servicing or cleaning.
- DO NOT spray any cleaner or liquids on the grill when hot.
- The grill **MUST** be cleaned regularly to prevent grease build-up and other food deposits. A clean and well maintained grill prevents the risk of grease build-up and grease fires.
- Verify proper operation after servicing or deep cleaning.
- See INSTALLATION, OPERATION, AND SAFETY INFORMATION section for additional related information.

### CLEANING YOUR GRILL

#### Before Each Use

1. **Inspect and clean the exterior surfaces of the unit:** With a cool grill, clean any dust, grease, splatter, or spills as needed with a damp clean cloth.

#### After Each Use

1. **Perform a burn-off and clean the cooking grids:** Operate the grill on high with the hood closed for 15 minutes to burn-off food and grease and allow for an easier cooking grid clean. Then turn OFF the grill and use a grill brush to clean the cooking grids of all residue. Use long-handled insulated BBQ tools and wear an insulated glove / oven mitt.
2. **Check and clean your drip tray:** When the grill is cool, carefully remove the drip tray and dispose of contents appropriately. If tray is equipped with a liner, dispose of the liner. Clean tray in a soapy water solution if needed. For tough deposits, a copper pad can be used. Rinse and dry completely. Replace a new liner and insert the tray back into the grill. Order more drip tray liners through your local dealer.
3. **Cover your grill:** Once the grill is dry and cool, cover your grill with a Fire Magic protective cover (not included).

#### Twice A Year (or as needed) - Deep Clean

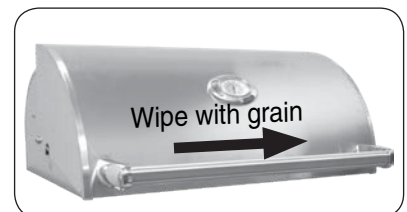
1. **Interior of grill:** In addition to cleaning the cooking grids and drip tray, a deep clean of the interior of the grill, burners, and all components **MUST** be performed twice year (or as needed depending on use). Refer to the CARE, CLEANING, & MAINTENANCE GUIDE manual provided with your grill, or simply scan the QR code on the right.



**Important:** The burner ports and carry-over ports/slots **MUST** be kept clean to ensure proper ignition and operation. The guide provides all details on cleaning.

2. **Exterior of grill:** With a cool grill, use a grill cleaner (or a soapy water solution) and a clean cloth to remove grease and dirt from the outside of the grill. For tough deposits, a copper pad can be used. Always wipe with the grain. Rinse and dry completely. Then follow up with a stainless steel cleaner and a clean cloth. To clean the magic view window (if equipped), use a quality brand glass cleaner. **DO NOT** use other cleaners or chemicals.

If this routine cleaning is not performed, the stainless steel may become dull and develop surface rust (due to use and atmospheric conditions). If left uncleaned, significant damage and pitting may occur.



**Fig. 31-1** Wipe with grain

**Important:** **DO NOT** use steel wool, any other metal tools, or any other cleaners/chemicals to clean the exterior other than recommended above. Such items promote rust.

**Note:** Due to the nature of stainless steel, temperatures produced by the grilling process will cause discoloration. This can be reduced by routine cleaning.

## SERVICING AND CLEANING (cont.)

### For Environments High In Salt, Chloride, Or Other Corrosive Chemicals

When this grill is installed in a corrosive environment such as near the ocean (salt air), poolside (chlorine and/or pool chemicals) or any other location with exposure to high salt/chloride content or corrosive chemicals/solutions, it will be more susceptible to corrosion and **MUST** be maintained/cleaned **more frequently**.

- **DO NOT** store any corrosive chemicals (chlorine, hydrochloric acid, fertilizer, etc.) near your stainless steel grill.
- **DO NOT** allow any corrosive materials (masonry dust, debris, etc.) to settle on your stainless steel grill.
- These environments, chemicals, and materials may cause the 304 stainless steel to develop surface rust and consequently pitting. Under these conditions the grill exterior **MUST** be cleaned at least monthly. Inspect your grill often and clean accordingly.

### Protecting Your Grill

An optional Fire Magic protective cover will protect your grill when not in use. Install the cover on a cool and dry grill. **DO NOT** cover a damp grill. During high humidity or after rainy conditions, remove the cover to dry trapped moisture if present. (If the cover is installed over a damp grill it can cause surface rust.)

Ensure that the **INSIDE** of the cover is **DRY** before putting it back on the grill.



## SERVICING AND CLEANING (Cont.)

### REPLACING HALOGEN BULBS

Your grill is engineered with the conveniences of electrical power for illuminating and igniting the grill.

To replace any interior oven light, follow the instructions below.

**Important:** ONLY REPLACE WITH 12V / 10 WATT HALOGEN BULB(S).

#### **WARNING**

To protect from potentially sharp sheet metal and glass, wear gloves and safety glasses during this procedure.

1. Turn all burner control knobs to the **OFF** position and shut off the gas supply to the grill at the source (tank valve for propane units or gas line shut-off valve for natural gas units.)
2. Disconnect supply of external electrical power to the grill.

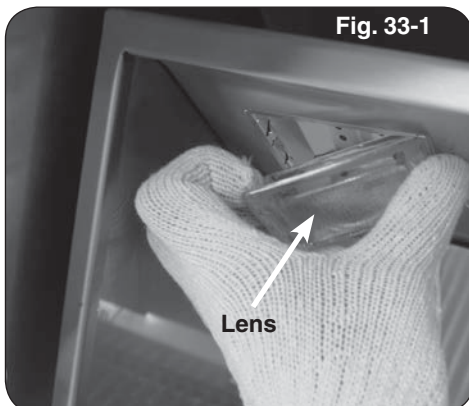
**CAUTION:** Wait for the grill, oven, lens, light bulb, and fixture to cool before proceeding to the next step.

3. Open the oven lid.

**Important:** Place one hand directly below the glass lens and prepare to catch it when it is detached.

4. Carefully insert a standard flat head screwdriver or thin plastic spatula between the glass lens and the stainless steel on which the light is mounted and gently pry the glass lens out in such a way that the stainless steel is not scratched (twisting the screwdriver handle, for instance). Catch the lens and set it safely aside.

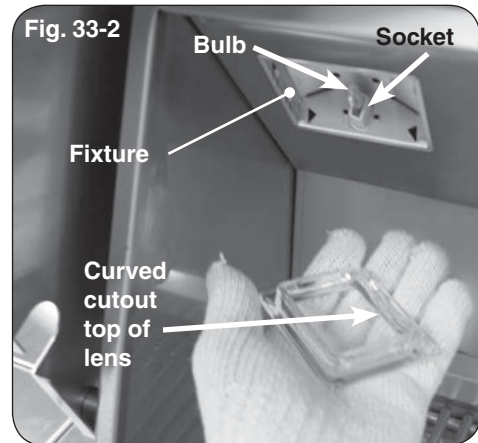
**Note:** You may wish to take this opportunity to clean the lens with a standard household window cleaner and then dry it completely.



5. Wearing a pair of gloves, reach into the fixture, gently grab the bulb, and pull it straight out of the fixture so that the two pins at the base of the bulb come all the way out.

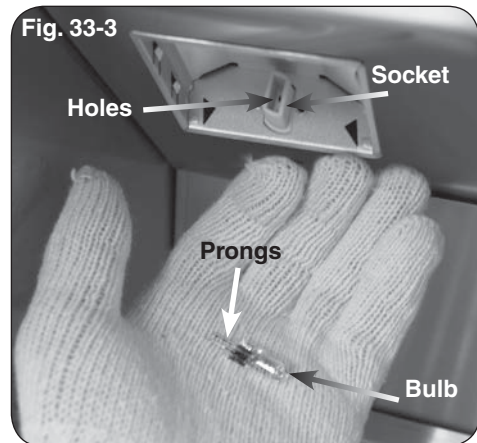
**Important:** Bulb is halogen. DO NOT TOUCH with bare hands. Oils from hands drastically reduce bulb life.

**Note:** It may be helpful to rock the bulb gently backward and forward while pulling it out.



6. Inspect the old bulb for broken glass or filament.

**Note:** It may be beneficial to test a suspect bulb in one of the other light fixtures known to be working and turn the power back on to be certain the bulb is actually not working.

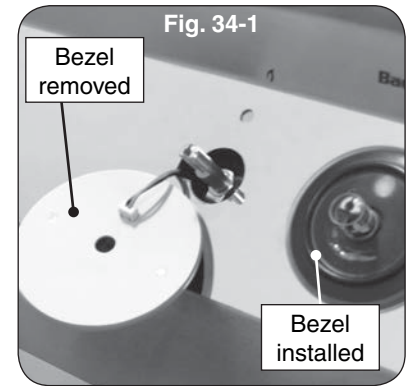


7. Insert the new **12V / 10 watt** halogen bulb into the socket so that both pins slide all the way into the two holes in the bottom of the socket.
8. Place the lens back into the fixture opening with the curved cutout on the bottom and snap it back into place.



**CONTROL PANEL REMOVAL**

1. Turn the control knob(s) to the OFF position and turn off the gas supply to the unit.
2. Turn off the light switch and disconnect the power supply from the power source.
3. Pull the control knob(s) from the stems and set aside.
4. Slowly lift the lighted bezels to clear the valve stems, and let rest as shown in Fig. 34-1.
5. Remove the drip tray.
6. Using a Phillips screwdriver, unscrew and remove the control panel fastener screws and washers (located on the left and right front face of the control panel). Retain the screws for later re-installation.
7. Carefully open the control panel by lifting and pulling the control panel from the frame, allowing it to rest on the internal chain(s).



**Important:** When opening, take caution to not damage any wiring.

8. If wire disconnections are required, reference the wire diagram in the MODEL SPECIFICATIONS section in this instruction manual or the wire diagram label affixed to the inside of the control panel.

**Note:** Secure any disconnected wires (coming from the inside of the unit) to prevent them from falling in.

**Note:** Whenever reconnecting any wires, apply a small amount of dielectric grease to the male connector, then make the connection. This will ensure conductivity and prevent moisture from affecting the contact.

**Important:** During reinstallation; prior to opening the gas shut-off valve, be sure the control knob(s) are in the OFF position.

## SYSTEM RESET

If the unit is connected to the power supply but the ignition system and grill components are not functioning, a system reset may be required.

1. Ensure the knobs are in the OFF position, the gas supply is turned off, and the light switch is off.
2. Disconnect the power supply cord from line power.
3. Wait 10 minutes then reconnect to line power.
4. With the light switch and gas remaining OFF, test the ignition (inspect hot glow from each igniter), then test the lights.

**Note:** Before testing, reset the GFCI receptacle if needed.

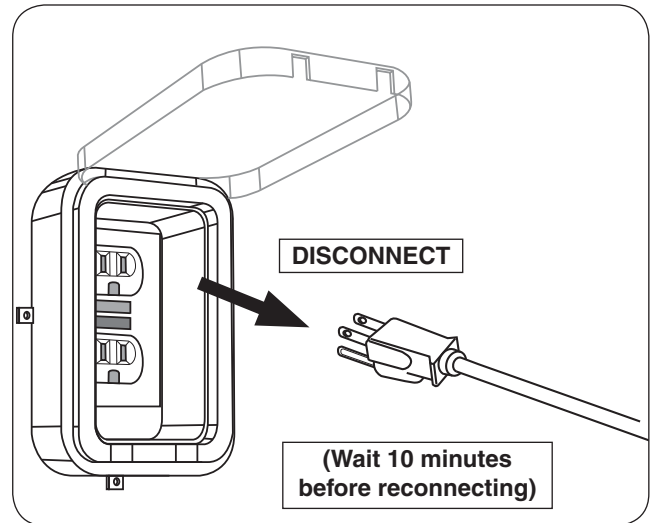
**Note:** If the unit powers up but some or all components are not responding, reference the TROUBLESHOOTING section.

## BURNER(S) REMOVAL

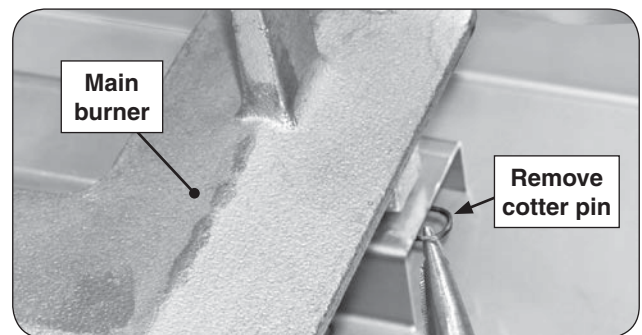
1. Remove the cooking grid and flavor grid from above the burner that is to be removed and set them aside.
2. Locate and remove the cotter pin from the left or right rear burner anchoring peg by pulling it straight out of the cotter pin hole using fingers or needle-nose pliers. See Fig. 35-2.
3. Carefully lift the burner from the burner support and out from the hole in the forward fire wall. See Fig. 35-3.
4. To replace the burner, slide the open cylindrical end of the burner around the orifice, enveloping it and centering on it. Then lower the back end anchor pegs into the burner support anchor peg holes.

**Note:** It is critical to the continued safe functioning of the burners that the orifices are centered and completely inside the burner gas inlets.

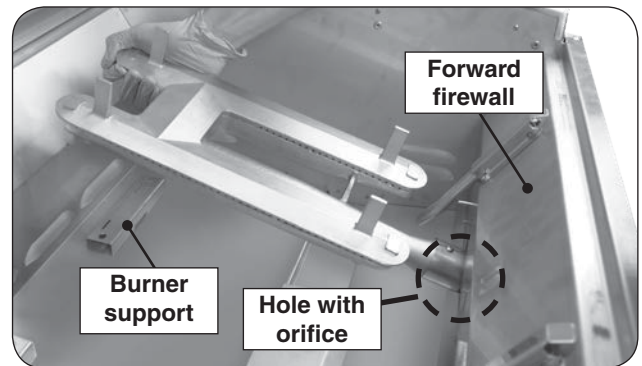
5. Re-install the cotter pin into the rear burner anchor peg using fingers or needle-nose pliers.
6. Replace the flavor grid and cooking grid.
7. Repeat these steps for the other burner(s), if needed.



**Fig. 35-1** Disconnect from line power



**Fig. 35-2** Main burner removal



**Fig. 35-3** Remove burners

## CONVERT GAS TYPE / CHECK BURNER ORIFICES

**CAUTION:** Make sure the grill is at a safe temperature and isolated from gas and electrical supplies before beginning.

For your safety, exercise caution, and make sure you have adequate hand protection, such as gloves, when handling metal parts.

### Apply Conversion Label

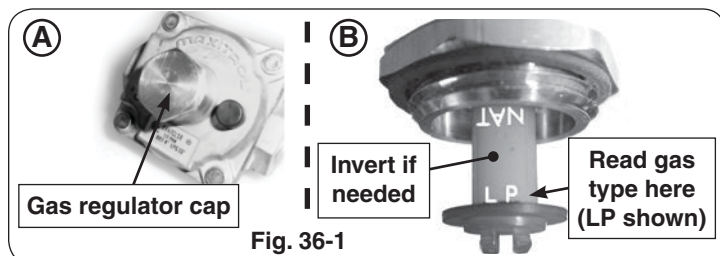
This grill comes from the factory configured for one type of gas as marked on the label behind the control panel.

**When the grill is converted, the label for the new gas (included at original shipping) MUST be filled out and applied next to the existing label mentioned above.**

### Convert Regulator

The gas regulator, located behind the control panel, must be set for the type of gas used to fuel the grill. To check the regulator setting, remove the cap in the center of the regulator (Fig. 36-1, A). Holding the cap vertical (see Fig. 36-1, B), the letters at the bottom of the plastic stalk indicate the gas type for which the regulator is currently configured.

If the text on the bottom of the regulator stalk does not match the gas type connected to the grill, remove the stalk from the cap, invert, and replace into center of cap. Replace cap on the regulator, screwing down until snug.



### Convert Gas Orifices

When converting the grill to a different gas type, each burner's orifice must be replaced with the corresponding orifice for the new gas.

See Table 1 to determine the proper orifice sizes for each burner.

**See the following sections for details on orifice conversion.**

**Important:** It is critical to the operation of each burner that its orifice be fully inserted into the center of its orifice opening.

### WARNING

**HAZARDOUS OVERHEATING WILL OCCUR IF A NATURAL-GAS ORIFICE IS USED WITH PROPANE GAS.**

## Connect To New Gas Supply

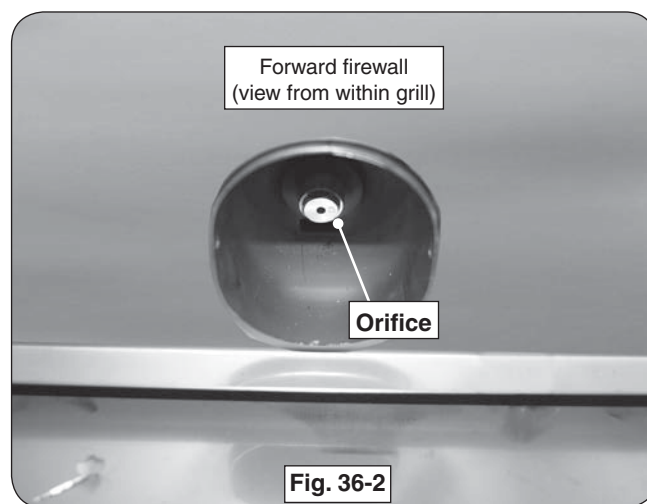
Plumb the unit as appropriate for the new gas supply. (Additional components may be needed for your specific setup.) **Be sure to leak test at all connections.**

### Convert/Check Main Burner Orifices

1. Remove the cooking grids and flavor grids and set them aside.
2. Remove the burners (see the BURNER REMOVAL section for step-by-step instructions).
3. Use a  $\frac{3}{8}$ " hex nut driver to remove the exposed orifices (Fig. 36-3). Check orifices. If needed, replace them with the correct orifices for the new gas.
4. Replace the burners (see the BURNER REMOVAL section).

**Note:** It is critical to the continued safe functioning of the burners that the orifices are centered and completely inside the burner gas inlets.

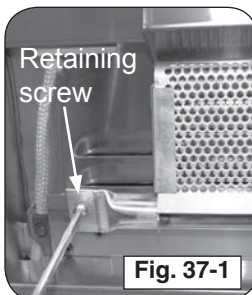
5. Replace the flavor grids and the cooking grids.



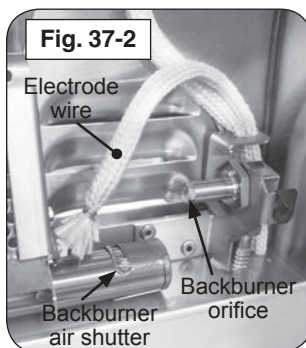
### Convert/check Backburner Orifice (if equipped)

1. Remove the warming rack if installed and set it aside.
2. Remove the backburner cover.
3. Unscrew all backburner access plate screws using a Phillips-head screwdriver and set them aside.

4. Remove the access plate by pulling the bottom toward the front of the grill and rotating it upward and outward until the two top tabs attached to back wall of the oven can be removed from the slots in the top of the plate.
5. Remove the backburner assembly retaining screw on the lower left of the backburner using a Phillips-head screwdriver and set it aside.
6. Pull out the wire from the igniter electrode (Fig. 37-2), then carefully remove the backburner by slightly sliding it to the left.



**CAUTION:** Be careful not to damage the wires connected to the backburner assembly.



7. Use a  $\frac{3}{8}$ " hex nut driver to remove the exposed orifice. Check orifice. If needed, replace it with the correct orifice for the new gas.
8. Replace the backburner assembly and reinsert the retaining screw. Center the backburner assembly so that the backburner plate will fit over it. Tighten the retaining screw using a Phillips-head screwdriver.
9. Replace the access plate by first inserting the tabs above into the slots in the top of the plate and then rotating the bottom downward and inward.
10. Replace all the access plate screws using a Phillips-head screwdriver.

### Convert/Check Infrared Burner Orifice (if equipped)

1. Remove the cooking grid from above the burner.
2. Unscrew both lighting tube hex head screws with a  $\frac{3}{8}$ " hex nut driver.
3. Remove the infrared burner by lifting the back of the burner up so that both tabs are freed from their slots, then lift the burner toward the back of the fire box and upward. Set the burner aside.
4. Use a  $\frac{3}{8}$ " hex nut driver to remove the exposed orifice. Check orifice. If needed, replace it with the correct orifice for the new gas.
5. Replace the infrared burner by first sliding it over the orifice, then lowering the two tabs under the back of the burner into the slots in the back burner rest.
6. Reattach the lighting tube and replace the grid so that the cutout section is in front.

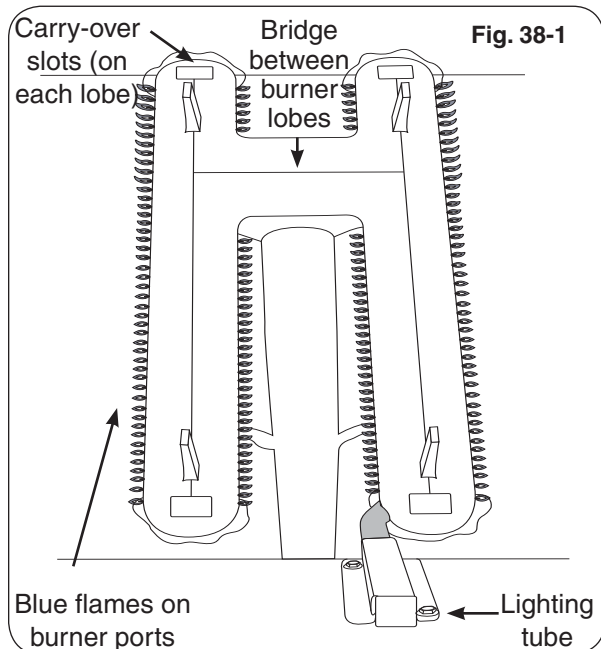
## AIR SHUTTER ADJUSTMENT

**Important:** Air shutters are preset at the factory based on the gas the unit is built to burn. However, altitude or other local conditions may require air shutter adjustment for proper combustion.

### Main Burner(s)

Flames from a properly adjusted main burner with no wind or breeze present will appear fairly steady, consistent, and mostly blue. If the tip of a flame were to turn orange, it should only do so briefly and then become blue again. The flames will appear to burn while touching the burner ports (see Figure 38-1).

If the flames have orange in them and appear to undulate slowly from side to side, or if some of them appear to lift off the burner instead of touching it, then adjust the air shutter, as instructed in this section.

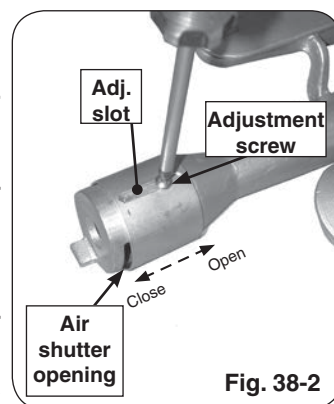


**CAUTION:** Turn all burner control knobs to the **OFF** position and turn off the gas supply at the source before removing or adjusting a burner.

### **WARNING**

Wait for the burner to be cool or use heavily insulated heat-resistant gloves when handling the burner.

1. Remove the cooking grid and flavor grid that rests over the burner that is to be adjusted.
2. Remove the burner (see the BURNER REMOVAL section).
3. Adjust the air shutter opening by loosening the adjustment screw with a screwdriver, then sliding the air shutter backward or forward to open or close the air shutter opening (see Fig. 38-2).



Shutter Setting	Flame Condition
Open too far	Flames shorten and lift off the burner
Ideal setting	Blue flames just touching burner
Closed too far	“Lazy” flames with orange in them

Too large an air shutter opening will allow too much air into the burner, which will cause the flames first to shorten and then to appear to lift up off the ports. For the bottom of the flames to move closer to the ports, close the air shutter more.

If the air shutter opening is too small or closed, the flames will present consistently orange tips and become “lazy,” slowly undulating back and forth.

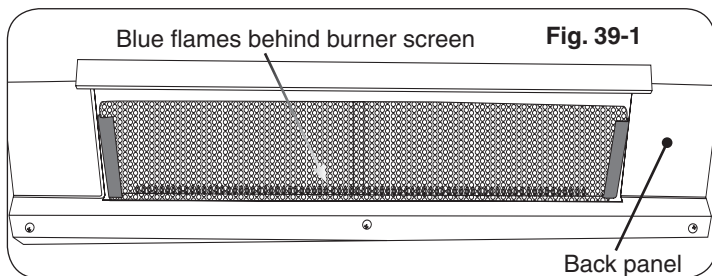
For propane gas, ideal settings tend to be just slightly open. For natural gas, which generally requires less primary air than propane, the main burner air shutter may be nearly closed.

4. Once the air shutter has been adjusted, replace the burner (see BURNER REMOVAL section).
5. Follow the lighting instructions in this manual to light the burner.
6. Repeat steps 1-4 until the flames appear to touch the burner ports, burning fairly steadily and mostly blue (see Fig. 38-1).
7. Repeat this procedure for the other main burner(s), if needed.



## Backburner (if equipped)

The air shutter is set at the factory. However, altitude or other local conditions may require air shutter adjustment for proper combustion.



Flames from a properly adjusted backburner will appear as a horizontal line of even blue flames along the bottom of and behind the backburner grating. The grating itself will glow red after it heats up.

**Note:** It is normal for the backburner to smoke when it is first used. Burning the backburner on **HI LIGHT** for approximately 15 minutes will eliminate the smoking.

If, instead of being blue and even, the backburner flames appear to have orange in them and waver slowly left and right, or if the flames appear to lift off the burner, adjust the backburner air shutter by following the steps below.

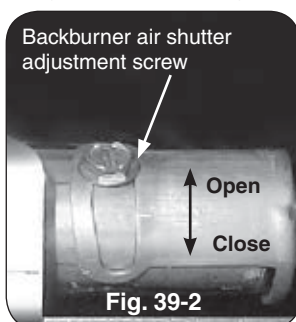
The backburner air shutter adjustment is located behind the right side of the access panel in the back of the oven, above the cooking grid.

**Note:** It is only necessary to remove the backburner back panel, not the backburner, when adjusting the backburner air shutter.

1. Follow the safety precautions and steps for backburner back panel removal (steps 1-4) in the CHANGING THE BACKBURNER ORIFICE section.

**CAUTION:** The backburner air shutter can be safely adjusted with the backburner lit if it is adjusted using a long-handled screwdriver or well-insulated fire and heat-resistant gloves.

2. Adjust the air-shutter opening by loosening the adjustment screw with a screwdriver, then sliding the air shutter backward or forward to open or close the air shutter opening (see Fig 39-2). Watch the backburner flames while adjusting the air shutter.



Too large an air shutter opening will allow too much air into the burner, which will cause the flames first to shorten and then to appear to lift up off the ports. For the bottom of the flames to move closer to the ports, close the air shutter more.

If the air shutter opening is too small or closed, the flames will present consistently orange tips and become "lazy," slowly wavering left and right.

3. Continue adjustment until the flames appear to touch the burner ports, burning fairly steadily, consistently, and mostly blue (see Fig. 39-1), then retighten the backburner air shutter adjustment screw.
4. Replace the burner access plate (step 8 in the CHANGING THE BACKBURNER ORIFICE section).

Please use this page to record any information about your unit that you may want to have at hand.

## TROUBLESHOOTING

If you have trouble with the unit, please use this list to identify the problem. By trying one or more of the solutions to the possible cause, you should be able to solve the problem. If this list does not cover your present problem, or if you have other technical difficulties with the unit, please contact your local dealer.

PROBLEM	POSSIBLE CAUSE	CORRECTION
<b>Ignition system failure</b>	<ol style="list-style-type: none"> <li>1. Power supply failure</li> <li>2. Improper air shutter adjustment</li> <li>3. Ignition wire disconnected</li> <li>4. Low gas pressure</li> <li>5. Front carry-over port</li> <li>6. Igniter switch malfunction on valve</li> <li>7. Igniter malfunction</li> </ol>	<ol style="list-style-type: none"> <li>1a. System reset: Disconnect (wait 10 minutes minimum) and reconnect power to unit. With lights <u>OFF</u>, test ignition.</li> <li>1b. Replace power supply.</li> <li>2. Adjust air shutters.</li> <li>3. Reconnect wires into wire harness.</li> <li>4. Have the gas co. check supply pressure.</li> <li>5. Clean burner ports.</li> <li>6. Contact dealer for replacement.</li> <li>7. Contact dealer for replacement.</li> </ol>
<b>Insufficient heat / low flame</b>	<ol style="list-style-type: none"> <li>1. Burner ports clogged</li> <li>2. Improper air-shutter adjustment</li> <li>3. Using propane orifice for natural gas</li> <li>4. Low gas pressure/flame (propane)</li> <li>5. Low gas pressure/flame (natural)</li> <li>6. L.P. regulator hose cracked due to age</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean burner ports. Burner maintenance kit available, see Table 1.</li> <li>2. Adjust air shutters.</li> <li>3. Check/change orifices.</li> <li>4. Shut off all valves, including propane tank, and follow lighting instructions exactly. (See important note* below.)</li> <li>5. Have a qualified professional service technician check for proper gas supply, setup, and pressure.</li> <li>6. Replace L.P. regulator hose.</li> </ol>
<b>Uneven heating</b>	<ol style="list-style-type: none"> <li>1. Burner ports partially blocked by debris</li> <li>2. Small spiders or insects in burner</li> <li>3. Improper air shutter adjustment</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove burners and clean out ports.</li> <li>2. Inspect burners and orifices for spider webs or other debris that may block flow.</li> <li>3. Adjust air shutter.</li> </ol>
<b>Rotisserie noisy</b>	<ol style="list-style-type: none"> <li>1. Rotisserie out of balance</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust rotisserie counterbalance.</li> </ol>
<b>Burner goes out on LOW</b>	<ol style="list-style-type: none"> <li>1. Valve "Low" setting needs adjustment</li> </ol>	<ol style="list-style-type: none"> <li>1. Light burner on HIGH, immediately turn to LOW setting. Remove knob from valve and using a small flat screwdriver, slowly turn the adjustment screw in the stem, a little at a time (30° to 45°), in either direction, until the flame is approximately 1/4" in height from burner ports.</li> </ol>
<b>Interior oven lights and knob lights not operating</b>	<ol style="list-style-type: none"> <li>1. Light switch not functioning</li> <li>2. Interior or knob lights burned out</li> <li>3. Power supply failure</li> </ol>	<ol style="list-style-type: none"> <li>1. Re-connect external power to grill or contact dealer for replacement.</li> <li>2. Contact dealer for replacement.</li> <li>3. See 1a of <b>Ignition system failure</b> section above and/or replace power supply.</li> </ol>
<b>No power to grill</b>	<ol style="list-style-type: none"> <li>1. Input power source failure</li> <li>2. Power supply failure</li> </ol>	<ol style="list-style-type: none"> <li>1. Check GFCI / circuit breaker.</li> <li>2. See 1a of <b>Ignition system failure</b> section above and/or replace power supply.</li> </ol>

**Note:** \*Propane tanks are equipped with a safety shutdown device that may cause low or no gas/flame at the burners if operating and lighting instructions are not followed exactly. **If you suspect the propane tank safety shutoff is in effect:** 1) Shut off all grill valves. 2) Shut off tank valve. 3) Open and close a main burner valve. 4) Open tank valve. 5) Follow the LIGHTING INSTRUCTIONS. Lighting instructions are located in the owner's manual and printed on the unit's metal drip tray. If the problem persists, continue troubleshooting, or contact your local dealer or distributor for assistance.

# WARRANTY

## PETERSON FIRE MAGIC GRILLS AND ACCESSORIES

### LIMITED WARRANTY

Robert H. Peterson Co. ("RHP") warrants your Fire Magic® grill to be free from defects in material and workmanship.

Fire Magic® cast stainless-steel burners, Choice stainless steel tubular burners, stainless-steel cooking grids, and stainless-steel housings are warranted for as long as you own your Fire Magic® grill -- **LIFETIME**. (Except as noted below.)

Fire Magic® valves, inner liners, manifold assemblies, porcelain housings (including ovens and barbecue faces), and backburner assemblies (except ignition parts) are warranted for **FIFTEEN (15) YEARS**.

Fire Magic® built-in and portable griddles (except ignition parts) are warranted for **TEN (10) YEARS**.

Fire Magic® Electric Grills, including stainless steel grid, and housings are warranted for **TEN (10) YEARS**.

Fire Magic® Infra-red burners, flavor grids, Charcoal stainless steel grills, and Smokers are warranted for **FIVE (5) YEARS**; except for the charcoal pan, charcoal grid, wood pellet screen, thermometer, and ash tray; which are warranted for **ONE (1) YEAR**.

Fire Magic® sideburners, exterior Glass Fiber Reinforced Concrete (GFRC) grill island systems, and all other Fire Magic® grill components (except ignition and electronic parts) are warranted for **THREE (3) YEARS**.

Fire Magic® grill and griddle ignition systems (excluding batteries), electronic components (including lights and thermometers), and grill accessories are warranted for **ONE (1) YEAR**.

#### A COPY OF YOUR SALES SLIP FOR PROOF OF PURCHASE IS REQUIRED

This warranty applies to the original purchaser for products which are installed in the United States or Canada and which are operated and maintained as intended for single family residential usage (If the grill is installed in a multi-user setting, a separate Multi-User Limited Warranty applies and is available from R.H. Peterson Co.). This warranty is valid only with proof of purchase, shall commence on the date of purchase, and shall terminate (both as to original and any replacement products) on the anniversary date of the original purchase of the product stated on the above schedules.

This warranty covers defects in material and workmanship. This warranty **does not** cover parts which become defective as a result of negligence, misuse, use not in compliance with the Owner's Manual/Installation Instructions, accidental damage, improper handling, improper storage, improper installation, **lack of required routine maintenance** (as specified in the Owner's Manual/Installation Instructions), electrical damage, local gas impurities or failure to protect against combustibles. Product must be installed (and gas must be connected) as specified in the Owner's Manual/Installation Instructions by a **qualified professional installer**. Modifications to products which are not specifically authorized will void this warranty. Accessories, parts, valves, remotes, etc. when used must be Peterson products or this warranty is void. Warranted items will be repaired or replaced at Peterson's sole discretion. This warranty **does not** apply to rust, corrosion, oxidation, or discoloration unless the affected part becomes inoperable.

This warranty **does not** cover labor or labor related charges, except as provided by separate specific written programs from the Peterson Co. All repair work must be performed by a qualified professional service person and requires prior approval of Peterson.

Peterson may require the defective product or part to be returned to the factory to determine the cause of failure. Peterson will pay freight charges if the product or part is determined to be defective. This warranty does not cover breakage in shipment from our (Independent) distributor to its customer if the damage is determined to have occurred during that shipment.

This warranty specifically excludes liability for **indirect, incidental**, or consequential damages. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you. This warranty gives you specified legal rights, and you may have other rights that vary from state to state or province.

For additional information regarding this warranty, or to place a warranty claim, contact the R. H. Peterson dealer where the product was purchased.

When contacting your Peterson dealer or the R. H. Peterson Co., please provide the following information:

- Your name, address, telephone number, e-mail
- Sales receipt showing where purchased and date purchased
- Model number, serial number of product, date code
- Relevant information: installer, additions, repairs, when defect was first noted

**TO REGISTER YOUR PRODUCT ONLINE GO TO: [WWW.RHPETERSON.COM](http://WWW.RHPETERSON.COM),  
AND CLICK ON PRODUCT REGISTRATION. THANK YOU FOR YOUR PURCHASE.**

Quality Check			Date: _____	
Burner Orifices	Nat.	L.P.	Leak Test: _____	Model#: _____
Main:	_____	_____	Burn Test: _____	Serial#: _____
Back:	_____	_____	Gas Type: <u>Nat. / L.P.</u>	Air Shutter: _____
Side/Power:	_____	_____		Inspector: _____
Infrared:	_____	_____		
Other:	_____	_____		