

# CT Gas Cooktop Service Manual

General Information	
Controls & Operation	
Installation Information	
Component Access & Removal	
Troubleshooting Guide	
Technical Data	
Wiring Diagrams	30

### INTRODUCTION

This Wolf Gas Cooktop-3 Series Technical Service Manual, Part #809095, has been compiled to provide the most recent technical service information about the Wolf Gas Cooktops starting with serial number 17000000. This information will enable the service technician to troubleshoot and diagnose malfunctions, perform necessary repairs and return a Wolf Gas Cooktop-3 Series to proper operational condition.

The service technician should read the complete instructions contained in this Service Manual before initiating any repairs on a Wolf Appliance.

\* Some information in Section 2, Theory of Operation, has been provided by the American Gas Association and reprinted with their approval.

### IMPORTANT SAFETY INFORMATION

Below are the Product Safety Labels used in this manual. The "Signal Words" used are **WARNING** and **CAUTION**.

Please note that these safety labels are placed in areas where awareness of personal safety and product safety should be taken and lists the precautions to be taken when the signal word is observed.

### **A** WARNING

INDICATES THAT HAZARDOUS OR UNSAFE PRACTICES COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.

### **A** CAUTION

Indicates that hazardous or unsafe practices could result in minor personal injury or product and/or property damage.

In addition, please pay attention to the signal word "NOTE", which highlights especially important information within each section.

### **TECHNICAL ASSISTANCE**

If you should have any questions regarding a Wolf appliance and/or this manual, please contact:

Wolf Appliance Company, Inc. ATTN: Service Department P.O. Box 44988 Madison, WI 53744-4988

Customer Service Phone #: (800) 332 - 9513

Technical Assistance Phone #: (800) 919 - 8324

Parts / Warranty Claims Phone #: (800) 332 - 9513

Customer Service E-Mail Address customerservice@wolfappliance.com

Customer Service & Technical Assistance Facsimile #: (608) 441 - 5887

> Parts / Warranty Claims Facsimile #: (608) 441 - 5886

Office Hours: 7:00 AM to 7:00 PM Central Standard Time Monday through Friday

This manual is designed to be used by Authorized Service Personnel only. Wolf Appliance Company, Inc. assumes no responsibility for any repairs made to Wolf appliances by anyone other than Authorized Service Technicians.

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### WARRANTY INFORMATION

This page contains a summary of the 2 & 5 Year Warranty that is supplied with every Wolf product, followed by details and notes about the warranties.

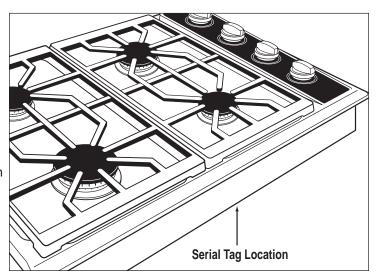
### TWO & FIVE YEAR Warranty Summary

- Two year TOTAL PRODUCT warranty, parts and labor.
- Limited Parts Only Warranty for the 3rd through 5th year on the following parts only:

Gas Burners (excluding appearance)

### **Warranty Details:**

The warranty applies only to products installed for products installed in the United States or Canada.



normal residential use. The warranty applies only to Figure 1-1 The serial tag is located on the bottom of the cooktop.

### **Warranty Notes:**

- All warranties begin at the time of the initial installation.
- "ICB" warranties vary by Country and Distributor. Contact selling Distributor for warranty coverage.
- · All Warranty and Service information collected by Wolf Appliance, Inc., is arranged and stored under the unit serial number and/or the customer's name. Please note that Wolf Appliance, Inc., requests that you have the model and serial number available whenever contacting the factory or parts distributor.
- See Figure 1-1 for serial tag location.
- See Figure 1-2 for serial tag layout.

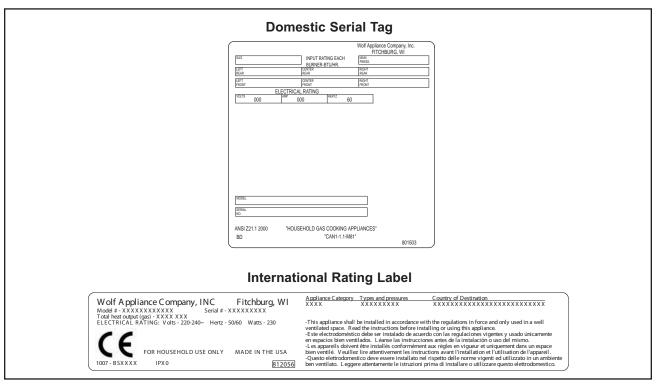
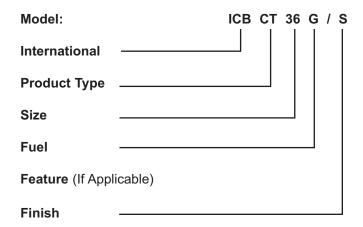


Figure 1-2 Typical Serial Tag Layout

### **MODEL NUMBER KEY**

Refer to this key for an example of the model numbers.



### Product Type

CT Cooktop

IM Integrated Gas

Multi-Function Cooktop

IG Integrated Grill Cooktop

IS Integrated Steamer Cooktop

IF Integrated Fryer Cooktop

### Size (If Required)

**15** 15 - inch wide unit

30 - inch wide unit

36 - inch wide unit

### Fuel (If Applicable)

**E** Electric

**G** Natural Gas

LP Propane Gas

### <u>Finish</u>

- S Classic Stainless Steel
- P Platinum Stainless Steel (Not Available for IM, IG, IS, IF and CT15G)
- B Carbon Stainless Steel (Not available for Gas models. Not available for IM, IG, IS, IF and CT15G)

NOTE: Model number listed on serial number tag will note series of unit with a dash followed by a numeric value.

### MODEL CONFIGURATIONS

### 15" Gas



### **Model Numbers**

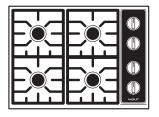
CT15G/S ICBCT15G/S CT15G/S- LP ICBCT15G/S- LP

### **Descriptions**

Cooktop 15" Gas Stainless Steel Natural Gas Cooktop 15" Gas Stainless Steel Natural Gas Cooktop 15" Gas Stainless Steel Propane Cooktop 15" Gas Stainless Steel Propane

- · Two burner
- One burner at 12,000 BTU 700 BTU'S delivered at simmer
- One burner at 9,200 BTU 300 BTU's delivered at simmer

### 30" Gas



### **Model Numbers**

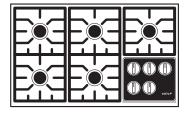
CT30G/S ICBCT30G/S CT30G/S- LP ICBCT30G/S- LP CT30G/P CT30G/P- LP

### **Descriptions**

Cooktop 30" Gas Stainless Steel Natural Gas Cooktop 30" Gas Stainless Steel Natural Gas Cooktop 30" Gas Stainless Steel Propane Cooktop 30" Gas Stainless Steel Propane Cooktop 30" Gas Platinum Stainless Steel Natural Gas Cooktop 30" Gas Platinum Stainless Steel Propane

- · Four burner
- One burners at 15,000 BTU 688 BTU'S delivered at simmer
- One burners at 12,000 BTU 700 BTU'S delivered at simmer
- Two burners at 9,200 BTU 300 BTU's delivered at simmer

### 36" Gas



### **Model Numbers**

CT36G/S ICBCT36G/S CT36G/S- LP ICBCT36G/S- LP CT36G/P CT36G/P- LP

- Five burner
- One burners at 15,000 BTU 688 BTU'S delivered at simmer
- One burners at 12,000 BTU 700 BTU'S delivered at simmer
- Three burners at 9,200 BTU 300 BTU's delivered at simmer

### **Descriptions**

Cooktop 36" Gas Stainless Steel Natural Gas Cooktop 36" Gas Stainless Steel Natural Gas Cooktop 36" Gas Stainless Steel Propane Cooktop 36" Gas Stainless Steel Propane Cooktop 36" Gas Platinum Stainless Steel Natural Gas Cooktop 36" Gas Platinum Stainless Steel Propane

# **MOLF** GAS COOKTOP-3 SERIES

### **MODEL CONFIGURATIONS**

### FEATURES for 15" Gas Cooktop-2 Series

- · Simmer on all burners
- · Dual stacked sealed burners
- · Single spark ignition with auto reignition for all burners
- 12,000 BTU/hr and 9,200 BTU/hr burners
- · Low profile, continuous, porcelain-coated cast iron grates
- · Back lit illuminated control panel.
- Electric ratings: 110-120V/ 15 amp circuit
- · Available in Natural or LP gas
- · Two and Five year warranty

### FEATURES for 30" & 36" Gas Cooktop-2 Series

- · Simmer on all burners
- · Dual stacked sealed burners
- · Single spark ignition with auto reignition for all burners
- 15,000 BTU/hr, 12,000 BTU/hr and 9,200 BTU/hr burners
- · Low profile, continuous, porcelain-coated cast iron grates
- · Back lit illuminated control panel.
- Electric ratings: 110-120V/ 15 amp circuit
- · Available in Natural or LP gas
- · Two and Five year warranty

### **ICB MODEL Features**

- · Available in natural (I2H, I2E and I2E+) and LP (I3P) gas
- · Stainless steel top construction
- · Dual-stacked, sealed burners with automatic reignition on all settings
- · Individual spark ignition system
- · Illuminated control panel with two-tiered control knobs
- · True Simmer setting on all burners
- · Low-profile, cast iron continuous burner grates with matte porcelain finish
- · Seamless drawn burner pan
- · CE certified as a Class 3 appliance
- · CE certified for the following appliance category and adjusted to the gas type and pressure:

13P - G31 at 37 mbar

I2E - G20 at 20 mbar

I2E+ - G20/25 at 20/25 mbar

12H - G20 at 20 mbar

### NOTE: International Units utillize Icons instead of text for the Control Graphics. See Figure 1-3

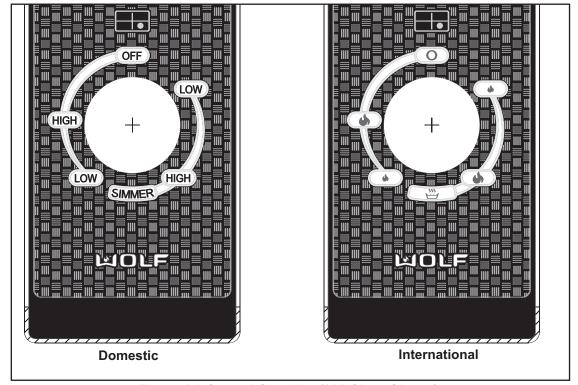


Figure 1-3 Control Graphics (30" Glass Shown)

### **OPERATION INFORMATION**

A service technician should understand how a gas appliance operates before attempting to service the appliance. This section provides descriptions of the different types of fuel gases and explains gas heating values. A definition of specific gravity of gas is given along with its characteristics and effects. Gas combustion principles are explained and gas burner components are described and illustrated. The end of this section contains illustrations which demonstrate basic cooking appliance theory of operation.

### Types of Fuel Gas:

Gases used to supply heat energy are called fuel gases. Common fuel gases are not simply one kind of hydrocarbon, they are mixtures of hydrocarbon gases. They contain other gases as well, such as free hydrogen, carbon dioxide and nitrogen. As an example, natural gas might contain 85% methane, 12% ethane and 3% of other gases. The presence of each of these gases in the fuel gas has some effect on the nature of the gas.

Some common fuel gasses are methane [C $H_4$ ], ethane [C $H_4$ ], Propane [C $H_4$ ] and butane [C $H_4$ ]. Propane and butane are nearly odorless. Natural gas that is processed to remove condensables and moisture, has little or no odor and no color. Odorants are added to natural gas before distribution to aid in leak detection. A common odorant used is a colorless liquid containing sulfur compounds.

### **Heating Value of Gas:**

Heat energy produced when burning a fuel gas is commonly expressed in British Thermal Units (BTU). One BTU of heat will raise the temperature of one pound of water one degree Fahrenheit.

The more carbon and hydrogen atoms in each molecule of a fuel gas, the higher its heating value. Natural gas which is high in methane has a heating value of about 950 to 1150 BTU per cubic foot. The variance is due to the various other substances found in natural gases. The more ethane, propane or butane in the gas raises the heating value. Propane, or LP gas, has a heating value of about 2500-2800 BTU per cubic foot, and butane about 3200 BTU per cubic foot.

### **Specific Gravity of Gas:**

The specific gravity of a gas is the weight of one cubic foot, or the gas compared to one cubic foot of dry air. When stating the specific gravity of a gas, a pressure and temperature must be clearly stated. In the gas industry, the standard conditions of pressure and temperature are 30.0 inches of mercury and 60° F. A pressure of 30.0 inches of mercury will sustain a column of mercury 30 inches high in a tube with a vacuum on top of the column. Since air is used as the reference, its specific gravity is always 1.0. This value of 1.0 has no direct physical meaning with regard to air, such as its density. It is only a relative number or ratio used to express specific gravity of other gases.

The specific gravity of a gas will determine if the gas will rise or fall when released into the air. Natural gas will rise since its specific gravity is less than 1.0 at 0.4 to 0.8. Propane has a specific gravity of 1.5 and butane 2.0. These gases will fall when released into the air. They sometimes collect in low spots into pools which become a hazard if open flames are present.

In addition, specific gravity has two other characteristics. It has an important effect on the flow of gases through orifices, and hence the rating of the burners. Gas flow through an orifice is dependent upon the orifice size and the gas pressure upstream of the orifice. More of a lighter gas will flow through a given orifice size than a heavier gas at the same gas pressure. This effect is taken into account in tables and calculators used to select orifice sizes for burners.

Specific gravity also affects gas flow in pipes. A given driving pressure at a pipe inlet will move more lighter gas than heavier gas through that pipe.

# **MOLF** GAS COOKTOP-3 SERIES

### PRINCIPLES OF GAS COMBUSTION:

Combustion - When oxygen acts with a substance to produce large amounts of heat rapidly.

**Requirements for Combustion** - There are three required elements for combustion to occur; Fuel (Gas), Oxygen (Air) and Heat (Ignition Temperature, which for gas is between 1100°F/593°C and 1200°F/649°C). All must be present. Removing any one of the three and combustion will cease.

**Chemistry of Combustion** - Combustion of gas is a chemical reaction between fuel gas and oxygen. The basic elements of common fuel gasses are hydrogen [H] and carbon [C]. When hydrogen burns, water vapor [H<sub>2</sub>O] is produced. Complete burning of carbon in fuel gases form carbon dioxide [CO<sub>2</sub>] and water vapor [H<sub>2</sub>O].

**Controlled Combustion** - Controlled combustion takes place when gas and air are supplied at proper rates to assure complete combustion of the gas in a steady flame. When a gas appliance is operating properly, burning starts at the burner ports. Gas flow is controlled by gas orifice size and gas pressure upstream of the orifice. Air is mixed with the gas before it passes through the burner ports. This added air is called "Primary Air". The remaining air required for complete combustion is supplied to the burner at the point of combustion and is called "Secondary Air".

Adjustments of the gas-to-air ratio and the secondary air supply is the key to obtaining stable blue flames at a burner. Proper amounts of primary and secondary air are required for quiet and efficient burner operation and for complete combustion of the gas. Air Shutters or other devices provide control of primary air. Inlet opening and flue outlets control Secondary Air flow.

**Total air** - In an ideal situation, primary and secondary air is all that is needed (for the oxygen required) to burn the gas, but some additional air is required to assure complete burning of the gas. The total air, "primary", "secondary" and "excess" are expressed as percentages of the amount needed. About ten cubic feet of air is required to completely burn one cubic foot of gas. For this reason an appliance should not be operated in an air tight home.

**Limits of Flammability** - Not all air-to-gas mixtures will burn. Mixtures with 0% - 4% natural gas in air are too lean to burn. Mixtures of 4% - 14% natural gas in air can burn with a controlled flame. Flammability limits come into play when primary air adjustments are made on burners. If too much primary air is used, the mixture may become too lean and fall below flammability limits, thus preventing combustion.

**Incomplete Combustion** (Causes and Effects) - To obtain complete combustion, sufficient amounts of air must be supplied to the process. This air must have a reasonably normal oxygen content. Complete burning of gas produces harmless carbon dioxide gas and water vapor. If the air supply is insufficient, incomplete combustion occurs resulting in the formation of toxic by-products, such as carbon monoxide [CO] or aldehydes.

Carbon monoxide is colorless and odorless. Inhaling carbon monoxide in sufficient quantities could cause death by reducing oxygen levels in the blood.

Aldehydes, which are equally dangerous, have a sharp and penetrating odor which is easily detected by smell at very low concentrations. The odor caused by aldehydes should not be confused with odorants added to natural gas. The absence of aldehydes does not assure that carbon monoxide is not present. However, if the odor of aldehydes is present, then carbon monoxide is virtually always present.

**Gas Burner Operation** - A gas burner is a device to burn gas under control in order to produce useful heat. Primary air is brought into the burner from outside of the appliance at atmospheric pressure. The gas jet streaming from the orifice draws primary air with it into the burner.

The gas/air mixture, combined with a spark at the burner port(s) and the secondary air creates a controlled burn.

### **Burner Components:**

**Burner Cap** - Provides the upper portion of the ports required to create a combustible mix and proper flame quality of the burner and the decorative top for the burner with a black porcelain coating.

**Burner -** Contains the burner ports where the gas/air mixture ignites. The burner ports are distributed in a useful pattern to optimize heat transfer. The flames should be spread so they can be easily reached by secondary air and provide a stable blue flame. The burner also incorporates the Inner Distribution Ring, which Routes the gas from the simmer orifice to the simmer port holes, and the Outer Distribution Ring, which routes the gas from the main burner orifice to the main burner port holes.

Venturi - Helps maintain proper and constant primary air injection.

**Electrode -** The Electrode supplies the spark to ignite the burner. The electrode senses the flame, once the burner is ignited and will stop sparking. If no flame is sensed, and the valve is opened, the electrode will start sparking to re-ignite the flame. This is part of the auto-reignition system.

**Orifice Holder** - This component is mounted to the burner mounting bracket and to the burner box. The Simmer and Main orifice is threaded into the orifice holder and routes the gas to the appropriate ports of the burner. It is the main support for the burner components.

**Simmer Orifice and Main Orifice** - An opening or hole which regulates or limits the amount of gas flowing to a burner. Gas flow rate (volume) depends on the size of the orifice (hole) and the gas pressure at the inlet of the orifice.

NOTE: ICB units also use a gas shut off valve that must be energized before gas will flow to the burners.

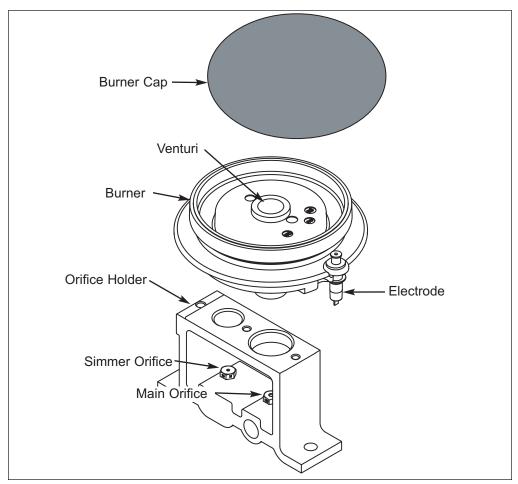


Figure 2-1. Burner Components

# **WOLF** GAS COOKTOP-3 SERIES

### OPERATION OF THE 15", 30" and 36" WOLF GAS COOKTOP

### **Surface Burners**

A spark electrode ignites each surface burner. This control eliminates the need for continuous open flame pilots. For added safety and convenience, each burner is designed with an electronic re-ignition system. This feature enables any burner to automatically re-light in the event it is accidentally extinguished.

This cooktop has a unique dual stacked burner design that combines all the burner parts in one configuration. A 15K burner providing 15,000 Btu/hr rating on HIGH, Large burners providing a 12,000 Btu/hr rating on HIGH and a small burner providing 9,200 Btu/hr rating on HIGH. All burners have simmer settings.

### ICB Surface Burner ratings:

- 4.9 kW (356 g/h) burners with .29 kW (14.5 g/h) delivered at simmer
- 3.8 kW (276 g/h) burners with .2 kW (14.5 g/h) delivered at simmer
- 3.0 kW (218 g/h) burner with .1 kW (7.3 g/h) delivered at simmer

A distinguishing feature of Wolf's low Btu/hr control is its constant, low heat output *without continuous ignitions*. Flame diameter remains full size, only the heat output is lowered. This is the ultimate control for simmering food.

After removing burner parts for any reason, it is extremely important that the burners are re-assembled correctly. The burner cap must be seated flatly. *Slide burner cap over burner until you feel it drop into position.* 

This patent pending dual stacked burner configuration makes it possible to enjoy cooking at full flame as well as maintaining control while simmering at the lowest flame setting.

### **Grate Placement**

Low profile cast iron grates are designed for a close fit. This enables pans to move easily from one burner to another without having to lift the pan or have it tip over between the grates. Each grate sets securely on dimples on each corner of the cooktop pan. Continuous grates are interchangeable with the exception of the single grate.

### **Control Knobs**

Each knob is positioned to correspond to the burner regulated. For the 36-inch cooktop, the knob on the lower left side regulates the lower left burner. Conversely, the knob on the upper right side regulates the upper right burner.

Each knob on the 30-inch cooktop control panel has a diagram above it. The diagram shows which knob to regulate.

It is normal for the knobs to be slightly elevated above the control panel surface. This space is an air inlet necessary for good combustion of gas. Each knob rests on a valve stem with a rubber grommet at the base. This design prevents liquid spills from dripping into the controls below the burners.

### **Burner Lighting**

Each burner has full flame and full simmer capabilities. Knobs are designed as a two- tiered, "push-to-turn" knob. One tier is used for HIGH through LOW flame settings. The second tier controls SIMMER settings.

Push down and turn the corresponding control knob counter clockwise to the HIGH setting. You will hear "clicking" and see the burner ignite. Once the burner is lit, continue turning the knob counter clockwise to any one of the settings, HIGH through LOW.

To select a simmer setting, turn the knob to the LOW setting. You will feel a stop-detente in the knob rotation. Push down on the knob, continuing to turn it counter clockwise. This moves it to the second tier. Now, select any variation within the SIMMER flame settings, HIGH through LOW.

### **Illuminated Control Panel**

This unique feature of the cooktop is an instant visual indicator that one or more burners are in use. It is also a safety signal reminder that a flame is on and active.

### **CLEANING and MAINTENANCE**

Part Identification	Material	Care Recommendation
Burner Spill Tray Exterior Finish	Stainless steel Although resistant to most stains, it is not totally impervious to damage. Salt and some cooking liquids may pit and stain surface. Always remove these spills immediately. Avoid using abrasive cleaners; they will permanently scratch the surface.	General care: Use a clean cloth or sponge, wipe with warm water and mild detergent. Rinse and dry immediately. Apply protective polish, always in the same direction.  Spray degreaser: Removes fingerprints and greasy spatters. Spray on a cloth and wipe surface. Buff dry immediately to avoid streaking.  Protective polish: Apply to surface to maintain luster and protect from some food stains  Hard water stains: Use white vinegar and water.
Burner Cap	Porcelain enamel (matte finish) Never wipe a warm or hot porcelain surface with a damp sponge; it may cause chipping or crazing (tiny hair-like cracks)	Cool first. Wash in warm water with liquid detergent or mild abrasive cleaners.  Foods high in acid or sugar content, such as milk, tomatoes, sauerkraut, fruit juices and pie filling, may pit or craze the surface. Remove as soon as possible. Do not cook the spill on again.
Burner Grates	Porcelain-coated cast iron	Remove from cooktop and place on a flat surface near the sink.  Non-abrasive cleaners: Hot water and liquid detergent, paste of baking soda and water, plastic pad or sponge.  Mild abrasive and abrasive cleaners: Use sparingly.
Control Knobs	Chrome-plated	To remove the knobs, slip the edge of a dishtowel under the knob; pull the edge together. Using the towel for leverage, lift up; the knob pulls off of the valve stem.  General care: Wipe each knob with a damp cloth and mild soap and water; rinse and dry. Never soak or use abrasive cleaners; they will scratch the finish and remove the markings.
Control Panel	Tempered glass	Spray cleaners: Removes fingerprints and greasy food soils. Spray first on a cloth before wiping panel.
Spark Igniters	Ceramic	Keep dry Never spray water or cleaner directly on the igniter. When cleaning around the surface burner, be careful that the cloth does not catch on the igniter and damage it.

### INSTALLATION INFORMATION

This section of the manual covers some of the installation issues that a service technician may need to know when servicing a Wolf Gas Cooktop. If additional installation information is needed after reviewing this section of the manual, please refer to the Installation Guide or contact the Wolf Appliance Customer Service Department.

### **Electrical Requirements:**

- 110-120 volts AC, 60 Hertz, 15 amp fused electrical supply.
- "ICB ONLY" 220-240 VAC, 50/60 Hz, 15 amp fused electrical supply.
- A timed-delay fuse or circuit breaker is recommended.
- · Separate circuit serving only this appliance.
- Installation site must be equipped with a properly grounded 3-prong receptacle.

This appliance when installed must be properly grounded. This appliance is equipped with a 3-prong (grounding) plug. The power cord must be plugged into a mating 3-prong ground-type receptacle. (See Figure 3-1). If a mating receptacle is not available, it is the obligation of the customer to have a properly grounded, 3-prong receptacle installed by a qualified electrician.

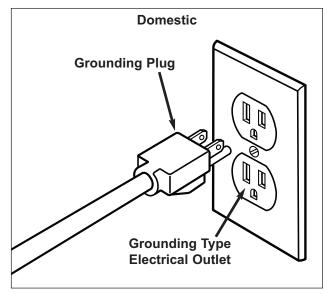
If the electric receptacle or the power cord are not properly grounded and polarized, a shock hazard could exist and the appliance may experience ignition problems.

### **A WARNING**

- A SHOCK HAZARD COULD EXIST IF THE ELECTRIC RECEPTACLE OR THE POWER CORD ARE NOT PROPERLY GROUNDED AND POLARIZED.
- TO AVOID SHOCK HAZARD, NEVER REMOVE THE GROUNDING PRONG FROM THE PLUG OF THE POWER SUPPLY CORD.

### **A** CAUTION

The appliance may experience ignition problems if not properly grounded and polarized.



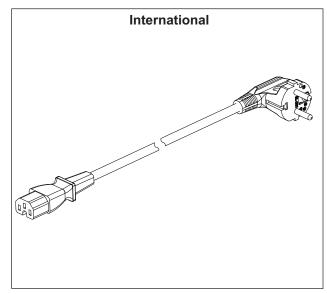


Fig. 3-1. Power Supply Cord

# **MOLF** GAS COOKTOP-3 SERIES

### Gas Requirements:

**NOTE:** All Wolf gas appliances are manufactured to work with natural gas or LP gas (Liquid Propane gas).

### **Natural Gas Manifold Pressure**

Standard natural gas orifices on the appliance are set for 5" WC (Water Column Pressure).

### **Liquid Propane Manifold Pressure**

The standard propane gas orifices on the appliance are set for 10" WC (Water Column Pressure).

### Gas Supply Line Size

1/2 inch

### **Gas Supply Pressure for Domestic Units**

- Maximum line pressure for natural gas and LP is 14" WC; 1/2 psi (3.5 kPa).
- Minimum line pressure for natural gas is 7" WC.
- Minimum line pressure for LP gas is 11" WC.

# ICB units are CE certified for the following gas type and pressure:

- I3P G31 at 37 mbar
- I2E G20 at 20 mbar
- I2E+ G20/25 at 20/25 mbar
- I2H G20 at 20 mbar

### Gas Pressure Regulator (Domestic Models Only)

To control and maintain a uniform gas pressure in the gas manifold, Wolf gas appliances must be connected to the gas supply line through a pressure regulator. The burner orifices are sized for the pressure delivered by the regulator. Never attempt to operate a Wolf gas appliance without the use of the proper pressure regulator.

\* NOTE: ICB units do not utilize a gas regulator.

### **A** CAUTION

The maximum gas supply pressure to the regulator should never exceed 14" WC (Water Column Pressure); 1/2 psi (3.5kPa)

### Gas Shut-off Valve

The supply line must be equipped with an approved shut-off valve. This valve should be located in accordance to all national, local codes and ordinances. (See Figure 3-2).

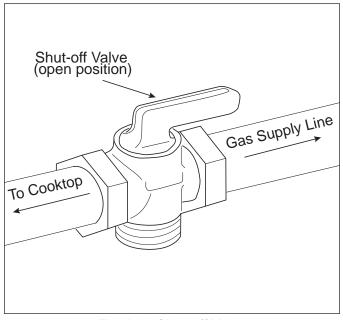


Fig. 3-2. Shut-off Valve

### Leak Testing

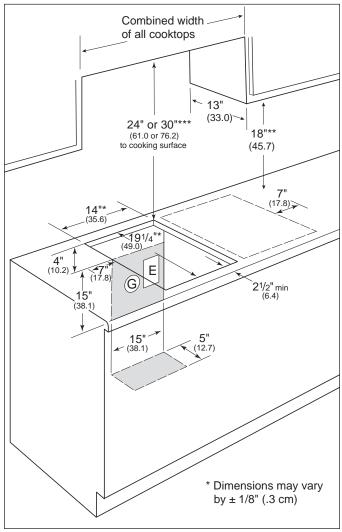
### **A WARNING**

NEVER USE OPEN FLAMES TO CHECK FOR GAS LEAKS. ONLY USE A LEAK TESTING SOLUTION OF SOAPY WATER OR AN ELECTRONIC LEAK DETECTOR. DO NOT USE LIQUID NEAR VALVE STEMS.

### 15" AND 30" GAS COOKTOP INSTALLATION DIMENSIONS

### Area Requirements:

**Note:** Countertop opening dimensions that are shown must be used. Given dimensions provide required clearances.





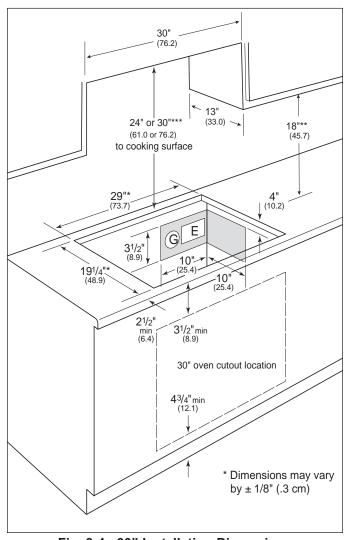


Fig. 3-4. 30" Installation Dimensions

- \*\* 18" (45.7cm) minimum clearance upper cabinet to countertop within 7" (17.8cm) minimum side clearance to combustible surface above countertop.
- \*\*\* 24" (61cm) minimum clearance between top of cooking surface and bottom of wood or metal cabinet which is protected by not less than 1/4" (.6cm) flame retardant millboard covered with not less than No. 28 MSG sheet steel, .015" (.04cm) stainless steel, or .024" (.06cm) aluminum or .02" (.05cm) copper.
- \*\*\* 30" (76.2) minimum clearance between top of cooking surface and bottom of an unprotected wood or metal cabinet.

Note: Do not seal cooktop to countertop.

### **36" GAS COOKTOP INSTALLATION DIMENSIONS**

### Area Requirements:

**Note:** Countertop opening dimensions that are shown must be used. Given dimensions provide required clearances.

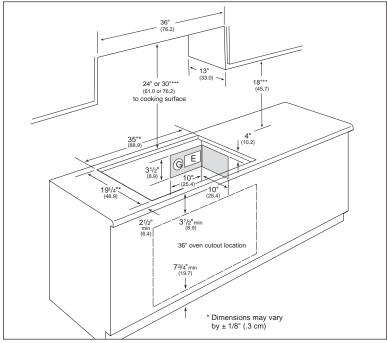


Fig. 3-5. 36" Installation Dimensions

- \*\* 18" (45.7cm) minimum clearance upper cabinet to countertop within 7" (17.8cm) minimum side clearance to combustible surface above countertop.
- \*\*\* 24" (61cm) minimum clearance between top of cooking surface and bottom of wood or metal cabinet which is protected by not less than 1/4" (.6cm) flame retardant millboard covered with not less than No. 28 MSG sheet steel, .015" (.04cm) stainless steel, or .024" (.06cm) aluminum or .02" (.05cm) copper.
- \*\*\* 30" (76.2) minimum clearance between top of cooking surface and bottom of an unprotected wood or metal cabinet.

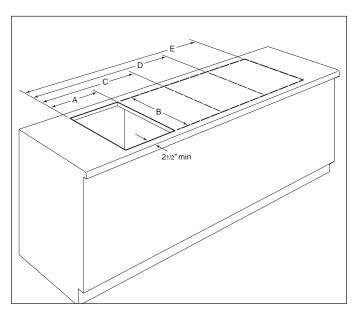
Note: Do not seal cooktop to countertop.

### **Installation of Multiple Units**

Integrated units can be installed together or with 30" or 36" cooktops. Where multiple units are installed side-by-side, the cut out dimensions are added together. Then add an additional space of 1-1/4" to each unit, to get the total cutout width. (See Figure 3-7).

### **Cut-out Dimensions**

- A Width of single module
- B Depth of module
- C Combined width of two modules plus 1-1/4"
- **D** Combined width of three modules plus 2-1/2"
- E Combined width of four modules plus 3-3/4"



### INSTALLATION PROCEDURE

- Insert cooktop into countertop opening and center cooktop. Check that front edge of cooktop is parallel to front edge of countertop. Check that all required clearances are met.
- Use a pencil to outline rear of cooktop on countertop. Then remove cooktop from countertop.
- Apply foam strip around bottom of burner box flush with edge. (See Figure 3-8).
- Reinsert cooktop into countertop opening. Check that cooktop is parallel to front edge of countertop. Lift entire cooktop to make adjustments, aligning with pencil line.
- Attach brackets to burner box. Insert clamping screws into brackets. Use a screw driver to tighten clamping screws against underside of countertop. (See Figure 3-8).

Note: Do not overtighten screws.

- Install pressure regulator with arrow on regulator pointing up towards unit and in a position where you can reach the access cap. (See Figure 3-9).
- \* NOTE: ICB units do not utilize a gas regulator.
- Assemble flexible metal connector from gas supply pipe to pressure regulator. (See Figure 3-10).
- Use a pipe-joint compound made for natural and LP gas. If a flexible connector is used, be certain the tubing is not kinked.

Note: All connections must be wrench tightened. Do not make connections to regulator too tight. Making connections too tight could crack pressure regulator. Do not allow regulator to turn on pipe when tightening fittings.

- Open shut-off valve in supply line. Wait a few minutes for gas to move through line.
- Leak testing of appliance shall be conducted accordingly using a soapy water solution or an electronic leak detector.
- \* NOTE: ICB units requrie an electrical gas shut off valve that must be energized before gas will flow to burners.

### **A** WARNING

NEVER USE OPEN FLAMES TO CHECK FOR GAS LEAKS. ONLY USE A LEAK TESTING SOLUTION OF SOAPY WATER OR AN ELECTRONIC LEAK DETECTOR. DO NOT USE LIQUID NEAR VALVE STEMS.

### **A** CAUTION

The maximum gas supply pressure to the regulator should never exceed 14" WC (Water Column Pressure); 1/2 psi (3.5kPa)

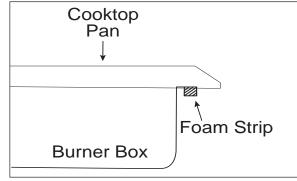


Fig. 3-8. Foam Strip

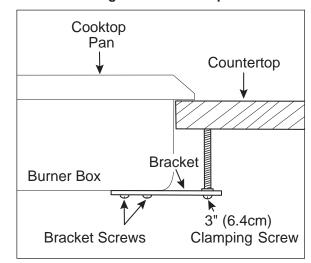


Fig. 3-9. Holding Clamp

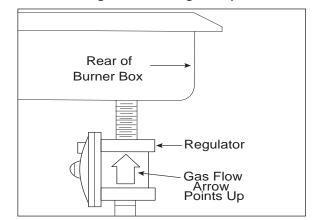


Fig. 3-10. Regulator Flow Arrow

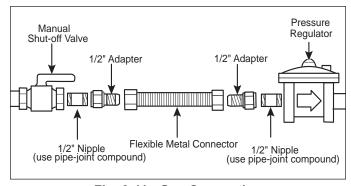


Fig. 3-11. Gas Connection

### FILLER STRIP INSTALLATION PROCEDURE

These instructions contain procedural information to install the Integrated Filler Strip Kit into countertop installations.

- 1. Locate center of Filler Strip Bracket (2) at required distance from cooktop cutout edge.
- 2. Position Filler Strip Bracket (2) so that top surface is flush with counter top. You may need a straight edge to assist in locating bracket at correct height.
- 3. Mark center of elongated slots of Filler Strip Bracket (2) on front and rear of cooktop cutout.
- 4. Using a 3/32" drill bit, drill a 3/4" deep pilot hole for the #6/32 (3) mounting screws.
- 5. Secure Filler Strip Bracket (2) to counter top.

### **▲** WARNING

PLEASE CONSULT WITH THE COUNTERTOP MANUFACTURER/INSTALLER FOR THE PROPER METHOD OF INSTALLING SCREWS INTO THE INSIDE EDGE OF THE COUNTER TOP. DAMAGE MAY OCCUR IF THE PROPER METHODS ARE <u>NOT</u> USED.

- 6. Install all cooktops into corresponding openings.
- 7. Position Filler Strip (1) into Filler Strip Bracket (2) and install three #10-24 nuts (4), but do not tighten.
- 8. Align and adjust cooktops and filler strips in countertop opening and then tighten cooktop hold down clamps and filler strip nuts.

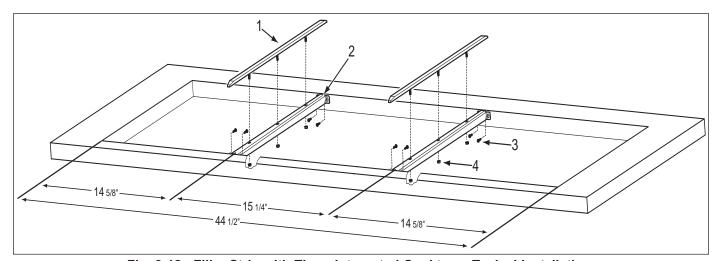


Fig. 3-12. Filler Strip with Three Integrated Cooktops, Typical Installation.

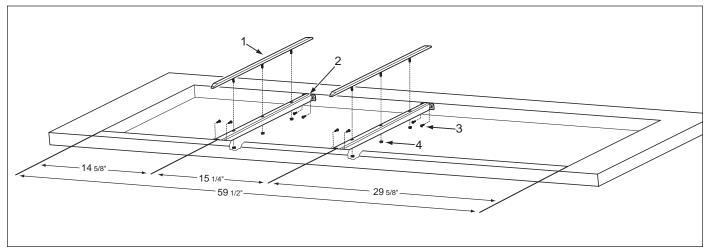


Fig. 3-13. Filler Strip with Two Integrated Cooktops and a 30" Gas or Electric Cooktop, Typical Installation

### SUPPORT KIT FOR DOWNDRAFT INSTALLATION PROCEDURE

These instructions contain procedural information to install the Integrated Cooktop Support Kit for downdraft ventilation installations.

NOTE: This kit does not include the Filler Strip Kit Assembly. Please order Kit Model number: 803386.

- 1. Locate and center Rear Bracket Support (1) in downdraft cutout as shown.
- 2. Position Rear Bracket Support (1) so that top surface is flush with counter top. You may need a straight edge to assist in locating the bracket at the correct height.
- 3. Mark center of elongated slots of Rear Bracket Support (1) at both ends on countertop.
- 4. Mark center of elongated slots of Filler Strip Bracket (not included) on front of cooktop cutout.
- 5. Using a 3/32" drill bit, drill a 3/4" deep pilot hole for the #6/32 mounting screws (3).

### **A** WARNING

PLEASE CONSULT WITH THE COUNTERTOP MANUFACTURER/INSTALLER FOR THE PROPER METHOD OF INSTALLING SCREWS INTO THE INSIDE EDGE OF THE COUNTER TOP. DAMAGE MAY OCCUR IF THE PROPER METHODS ARE NOT USED.

- 6. Install Downdraft into countertop opening, but do not secure in place at this time.
- 7. Secure Rear Bracket Support (1) and Filler Strip Bracket (not included) to countertop using items (2 & 3).
- 8. Install Integrated cooktops into corresponding openings.
- 9. Position Filler Strip (not included) into Filler Strip Bracket (not included) and install three #10-24 nuts, but do not tighten.
- Align and adjust cooktops, downdraft and filler strip in counter top opening and then tighten cooktop hold down clamps, filler strip nuts and secure downdraft per installation instructions.

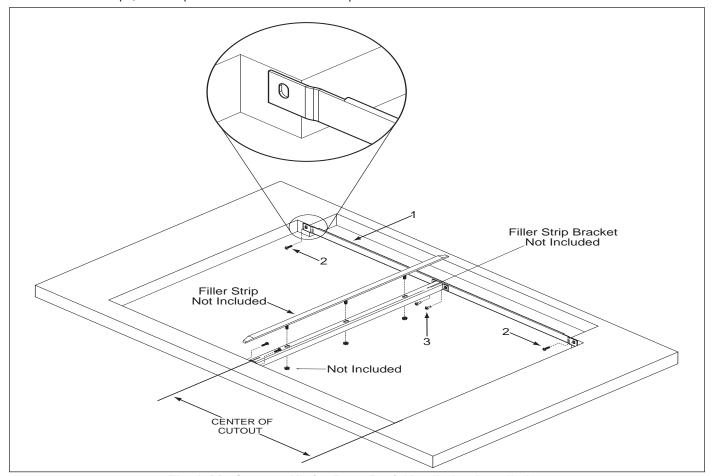


Fig. 3-14. Support Kit for DownDraft Ventilation Installation

### COMPONENT ACCESS AND REMOVAL

This section explains how to access and remove components from a Wolf Gas Cooktop. Depending on which component you are going to access or remove in the following sections, you may have to remove other components first. Refer to appropriate section in this manual that explains how to access and remove those various components. When reassembling, just reverse steps that were used to access and remove the components.

**NOTE:** Access to the manifold, valves, connections and wiring can be gained through access covers on the burner box. Although space is limited, it will help in some diagnosis and repairs.

**NOTE:** Before attempting to access or remove any components from a Wolf Appliance, take note of the following warnings.

### **A** WARNING

TO AVOID SERIOUS BURNS AND/OR EXPLOSIONS, KEEP COMBUSTIBLES AWAY FROM APPLIANCE WHENEVER A FLAME IS PRESENT. SURFACES AND COMPONENTS GET HOT DURING THE USE OF THE APPLIANCE.

TO AVOID ELECTRICAL SHOCK, POWER TO UNIT MUST BE DISCONNECTED WHENEVER ACCESSING AND/OR REMOVING COMPONENTS POWERED BY ELECTRICITY OR COMPONENTS NEAR OTHER ELECTRICAL COMPONENTS.

TO AVOID POSSIBLE GAS LEAKS AND/OR EXPLOSIONS, GAS TO UNIT MUST BE SWITCHED OFF AT SUP-PLY SOURCE WHENEVER ACCESSING AND/OR REMOVING COMPONENTS.

### **A WARNING**

TO ENSURE PROPER BURNER OPERATION, THE O-RINGS MUST BE REPLACED ANY TIME THE UNITS IS DISASSEMBLED FOR ANY REASON.

### **A WARNING**

WHEN REASSEMBLING GAS SUPPLY LINE TO REGULATOR, ONLY PIPE THREAD COMPOUND SHOULD BE USED. <u>DO NOT</u> USE TEFLON TAPE TO SEAL GAS PIPE CONNECTIONS.

### **A WARNING**

WHEN REASSEMBLING REGULATOR TO MANIFOLD, ONLY PIPE THREAD COMPOUND SHOULD BE USED. <u>DO NOT</u> USE TEFLON TAPE TO SEAL GAS CONNECTIONS.

Burner Cap

### **Surface Burner Components**

### **Preliminary Steps**

- •Disconnect power cord from electrical supply source.
- •Turn off gas supply source to cooktop.

### **Burner Grate and Burner Assembly**

The burner grate locates on raised dimples formed on the burner pan. The burner assemblies have screws that pass through the assemblies, then thread into the orifice holder located under the burner pan. Burner caps are then placed over the burner assembly.

To remove the burner assembly, (See Figure 4-1)

- 1. Remove burner grate from unit.
- 2. Remove burner caps from burner assembly.
- 3. Extract the two screws securing burner assembly to orifice holder.
- 4. Lift assembly off burner pan and remove wire lead from spark ignitor.
- 5. To remove spark ignitor from burner, extract screw from underside of burner assembly and separate.

# Screws Burner Assembly Screw Wire Lead Figure 4-1. Burner Removal

### **Burner Pan Removal**

The burner pan is removed by first removing the burner assemblies (See Figure 4-1). Next, pull the control knobs off of the unit (See Figure 4-2). Then, lift the burner pan off of the burner box. The grommets are removed by simply pulling them out of the control panel.

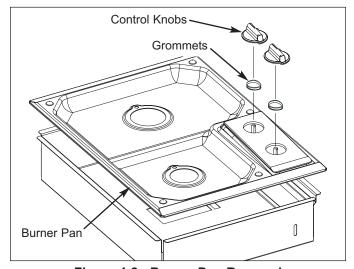


Figure 4-2. Burner Pan Removal

### **Orifice Removal**

The main and simmer orifice are threaded into the orifice holder and may be extracted without removing the orifice holder from its installation position.

To remove the orifice,

- 1. Remove burner grate and pan.
- 2. Use a 9/32" wrench or socket with extension, to extract orifice from orifice holder. (See Figure 4-3)

### **Orifice Holder**

Each orifice holder assembly consists of an orifice holder, the main and simmer orifice, hat bracket and the mounting hardware. Screws secure the orifice holder to the hat bracket.

To remove the orifice holder,

- 1. Remove burner grate and pan.
- 2. With a 3/8" and a 7/16" open end wrenches, remove the gas supply lines from orifice holder. (See Figure 4-4)
- 3. Extract the screws securing the orifice holder to the hat bracket. Lift orifice holder from the hat bracket.

### **A WARNING**

WHEN REASSEMBLING ORIFICE TO ORIFICE HOLDER, ONLY PIPE THREAD COMPOUND SHOULD BE USED. <u>DO NOT</u> USE TEFLON TAPE TO SEAL GAS CONNECTIONS.

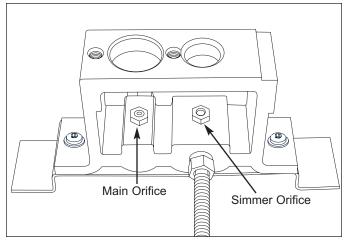


Figure 4-3. Orifice Removal

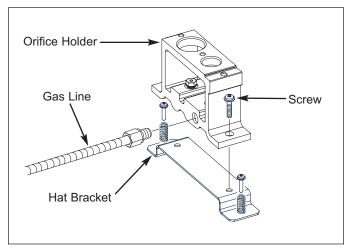


Figure 4-4. Orifice Holder Removal

### **Electrical System Components**

Ring Light, Valve Switch, Spark Module, Spark Module Mounting Plate, Power Cord with Grip

### **Preliminary Steps**

- •Unplug the power cord from electrical supply source
- •Turn off gas supply source to cooktop.
- Remove grates
- •Remove burner heads with caps
- •Remove control knobs
- •Remove cooktop pan

### **Ring Light Removal**

The ring light is located under the control panel glass, and is mounted to each burner valve switch. When the control knob is turned on, the entire ring light will illuminate the wording highlighted in the red portion of the control panel glass.

To remove the ring light you will need to follow the preliminary steps listed at the beginning of this section first, then, (See Figure 4-5)

- 1. Extract the Phillips head screw that secures the ring light and foam switch cover to the valve switch.
- Lift the ring light off of the valve switch and disconnect the electrical wires attached to the ring light and remove.

### Valve Switch

The valve switch is located below the ring light. When the control knob is turned, the shaft of the burner valve makes contact with the valve switch and closes the electrical circuit to the spark module (which provides the high voltage spark needed to ignite the burner).

To remove the valve switch you must first follow the preliminary steps listed at the beginning of this section, then, (See Figure 4-6)

- Extract the screw which secures the ring light and foam switch cover to the gas valve and remove screw and foam cover.
- 2. Lift the ring light off from the valve switch. The valve switch locates on a pin formed on the gas valve
- 3. Disconnect the electrical leads from the valve switch and remove valve switch from unit.

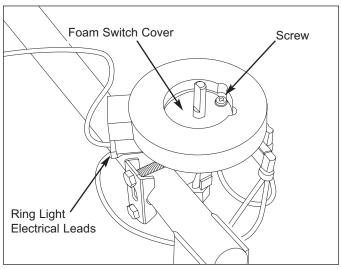


Figure 4-5. Ring Light Removal

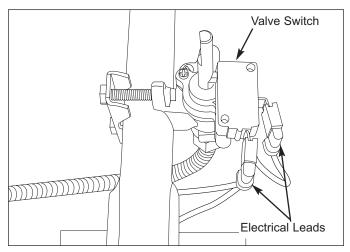


Figure 4-6. Gas Valve Switch

### **A WARNING**

DISCONNECT ELECTRICAL SUPPLY BEFORE ATTEMPTING THE FOLLOWING REPAIRS.

### Spark Module (Domestic Only)

The spark modules are mounted on a plate that is located in the center of the burner box. Wire leads connect the spark modules and gas valves switches. A single wire lead then runs to the spark ignitor mounted to the burner. The spark module mounting plate is secured from the underside of the burner box with bolts.

To access the spark modules, you must first follow the preliminary steps listed at the beginning of this section, then (See Figure 4-7).

- 1. Disconnect electrical leads from spark modules.
- 2. Extract screws securing spark modules to module plate and remove spark modules from unit.
- 3. To remove the spark module mounting plate, the underside of the burner box will need to be accessed. Extract screws securing mounting plate to unit frame. The mounting plate will hinge away from the burner box until lip of plate can be removed from the slot in the burner box.

### Igniter Control Removal (ICB Only)

To remove Igniter Control, follow the preliminary steps listed at the beginning of this section first, then (See Figure 4-8).

- Disconnect the wire harness from the Igniter Control.
- 2. Extract the screw that fastens the mounting plate to the outer pan.
- 3. Slide Control and Mounting plate off the pem locating stud and from the outer pan assembly.

### Power Cord with Grip Removal (Domestic Only)

To remove the power cord, follow the preliminary steps listed at the beginning of this section first, then (See Figure 4-9).

- 1. Disconnect the power cord plug connector at the harness.
- 2. Extract the nut that secures the ground terminal of the power cord to the burner box.
- 3. Squeeze the tabs of the grip connector (grip connector secures the power cord to the burner box) and pull the power cord down through the opening and out of the burner box.

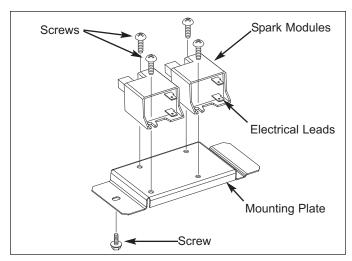


Figure 4-7. Spark Module Removal

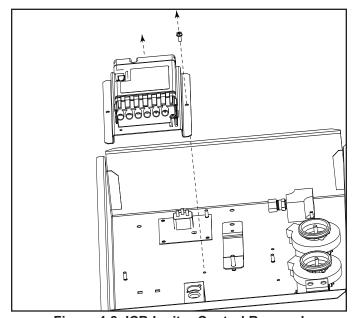


Figure 4-8. ICB Igniter Control Removal

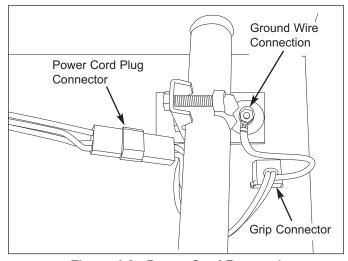


Figure 4-9. Power Cord Removal

### **Manifold System Components**

### **A WARNING**

TO AVOID HAZARDOUS EXPLOSION OR GAS LEAKS, GAS TO THE UNIT MUST BE TURNED OFF AT THE GAS SUPPLY SOURCE WHENEVER ACCESSING AND/OR REMOVING COMPONENTS.

# Gas Valve, Gas Valve Orifice, Gas Tubing, Manifold and Regulator Removal

**NOTE:** The following components will need to be removed in order to gain access to the components of the manifold. Refer to the appropriate component access removal section for proper removal instructions of these components.

### **Preliminary Steps**

- Unplug power cord from electrical supply source.
- Turn off gas supply source to cooktop.
- · Remove covers and grates.
- Remove burner heads with caps.
- Remove control knobs.
- · Remove burner pans.
- Remove electrical connections from spark modules

### Gas Valve

The gas valve is mounted to the side of the manifold and is secured in place by a bracket with two screws that pass through the bracket and fasten into the gas valve body. The gas valve has a rubber gasket that makes a seal with the manifold.

To remove the gas valve, follow the preliminary steps listed on the previous page first, then (See Figure 4-10)

- 1. Disconnect electrical leads from valve.
- 2. Disconnect the flexible gas tubes from gas valve.
- Extract bolts from bracket on the side of the manifold tube.
- 4. Remove the valve from the manifold tube.

### Gas Valve Orifice

Each gas valve has two bypass screw orifices installed on the left side of the valve body. To remove these orifices, first follow the preliminary steps listed at the top of this page. Then, using a small flat bladed screwdriver, turn the bypass screw orifice counterclockwise to remove, and lift the orifice out of the valve. (See Figure 4-10).

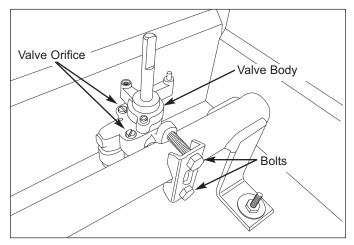


Figure 4-10. Gas Valve Removal

### **A** WARNING

WHEN REASSEMBLING MANIFOLD COMPONENTS, ONLY PIPE THREAD COMPOUND SHOULD BE USED. <u>DO NOT</u> USE TEFLON TAPE TO SEAL GAS CONNECTIONS.

### **Gas Flex Tubing**

The gas flex tubing transports gas from the manifold to the orifice holder assemblies. To remove tubing, first follow the preliminary steps listed on the previous page. Using open end wrenches, disconnect the flexible gas tubing from the gas valve on the manifold and from the orifice holder assembly.

### Manifold and Regulator Removal (Domestic Only)

The manifold is a formed tube that connects to the gas regulator from the underside of the burner box, and has ports in which the gas valves are mounted. The regulator is attached to the threaded end of the manifold pipe that protrudes out of the bottom of the burner box. To remove the manifold and/or the gas regulator, follow the preliminary steps listed on the previous page, then (See Figure 4-11)

- 1. Remove gas valves from manifold.
- 2. Extract nuts from threaded studs that secure manifold to burner box.

**NOTE:** To gain better access to the regulator you may have to pull the entire cooktop from its installation

 To remove the regulator, turn off the gas supply source. Unplug the power cord from its electrical supply source. Then, remove gas connections coming into the regulator from the supply source. Now, unthread the regulator from the end of the manifold pipe. (See Figure 4-12).

**NOTE:** ICB units do not have a regulator installed.

### **A WARNING**

WHEN REASSEMBLING MANIFOLD COMPONENTS, ONLY PIPE THREAD COMPOUND SHOULD BE USED. <u>DO NOT</u> USE TEFLON TAPE TO SEAL GAS CONNECTIONS.

### Shut off Valve Removal (ICB Only)

To remove Shut Off Valve, follow the preliminary steps listed at the beginning of this section first, then (See Figure 4-13).

- 1. Disconnect the wire harness from the Safety Valve.
- 2. Disconnect the gas lines.
- 3. Extract the screw that fastens the Shut off Mounting Bracket to the outer pan.
- 4. Slide off the pem locating stud and from the outer pan assembly.

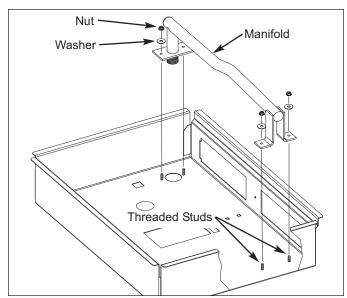


Figure 4-11. Manifold Removal

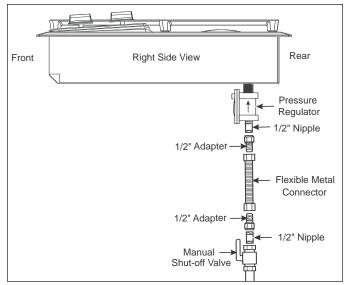


Figure 4-12. Regulator Removal

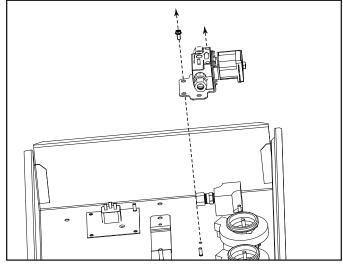


Figure 4-13. ICB Shutoff Valve Removal

### TROUBLESHOOTING GUIDE

This section of the manual contains the Troubleshooting Guide which will help the Service Technician troubleshoot a Wolf Gas Cooktop.

### How to Use the Troubleshooting Guide

The troubleshooting guide table of contents shows how the troubleshooting guide is laid out. The troubleshooting guide is organized into component areas with the most common problems listed first.

On the table of contents below, identify the description of the problem that the unit is experiencing. To the left of the problem description is a letter. Locate that letter in the left column of the Troubleshooting Guide. The center column of the troubleshooting guide will identify the possible causes for the problem. The information to the right of the possible causes will explain what tests to perform in order to determine if what you are checking is the cause, and/or what action to take to correct the problem.

### **Troubleshooting Guide Table of Contents**

	pag	ge#
Pro	blems Associated with the Surface Burners	
Α.	Constant Sparking	<b>5-3</b>
B.	Intermittent Spark	<b>5-3</b>
C.	Poor ignition	<i>5-3</i>
D.	No ignition	5-4
E.	Popping noise	5-4
F.	Flame appearance	5-4
	1. Tall flame	
	2. Yellow flame	
	3. Pulsing flames	
G.	ICB Unique Issues	5-4

PROBLEM		POSSIBLE CAUSE	TEST / ACTION	
A.	CONSTANT SPARKING AT SURFACE BURNER(S)	Reverse Polarity at outlet or unit	May have to call an electrician. Check internal connections, may have to wire correctly	
		Ground wire disconnected at outlet or inside unit	May have to call an electrician. Check internal connections, may have to wire correctly	
		Spark module(s) wired incorrectly or defective	Rewire spark module(s) or replace *	
		Electrode not positioned properly	Reposition electrode. Electrode should be seated down to cooktop pan.	
		Burner cap not positioned on burner correctly or missing.	Correct position and/or place onto burner and advise owner	
		Defective micro switch at burner valve	Replace micro switch	
		Cut or splice in electrode wire	Replace electrode wire	
В.	INTERMITTENT SPARKING AT SURFACE BURNER(S)	Dirty electrode	Clean with wire brush	
	AI SURFACE BURNER(S)	Cracked or damaged electrode	Replace electrode	
		Cut or splice in electrode wire	Replace electrode wire	
		Bad wire connection at spark module(s)	Repair wire connection	
		Defective spark module(s)	Replace spark module(s) *	
C.	POOR IGNITION AT SUR- FACE BURNER(S)	Burner cap not properly seated on burner	Correct position and/or place onto burner and advise owner	
		Electrode not positioned properly	Reposition electrode. Electrode should be seated down to cooktop pan.	
		Partially plugged ports in burner head	Clear/clean as necessary	
		Debris on inner distribution ring	Clean/remove debris	
		Inner distribution ring has burr or crack	Replace inner distribution ring	
	Improper Gas orifice		Check orifice stamp number	
		Gas pressure	Check gas pressure with a manometer	
		Improper gas type	Check for gas type and advise owner if improper. May have to convert unit to LP/Natural gas	

<sup>\*</sup> Spark Modules are used on Domestic models only. See ICB Unique for ICB ignition Issues.

PROBLEM		POSSIBLE CAUSE	TEST / ACTION
		Defective micro-switch at burner valve	Replace micro switch
D.	NO IGNITION AT SURFACE BURNER(S)	Defective/dirty electrode	Replace/clean electrode
	· ,	Defective or loose wiring	Replace/repair wiring
		Defective spark module(s)	Replace spark module(s) *
		No Power	Check outlet and circuit breaker
		No gas to unit	Check gas pressure with a manometer
		Burner cap not seated properly	Reposition burner cap and advise owner
E.	POPPING NOISE AT SURFACE BURNER DURING SIMMER MODE	O-rings damaged or not seated properly	Replace/reposition o-ring
		Burr on bottom of burner head	Replace burner head
		Burner damaged or dirty with food debris	Replace/clean burner
		burner cap or burner cracked or warped	Replace burner cap or burner
F.	FLAME APPEARANCE ON	Burner head not positioned properly	Make sure burner head is locked in properly
	SURFACE BURNER(S) 1. Tall flame 2. Yellow flame 3. Pulsing flames	Burners not getting enough primary or secondary air	Make sure air vents at front of burner box are not blocked
		Port holes in burner not to specification or damaged/dirty	Replace/clean burner
		Incorrect gas orifices	Check stamp number on orifices
		Gas pressure	Check gas pressure using a manometer

<sup>\*</sup> Spark Modules are used on Domestic models only. See ICB Unique for ICB ignition Issues.

### **Unique ICB Issues**

PROBLEM		POSSIBLE CAUSE	TEST / ACTION	
T. No Ignition on any of the burners.		No gas supply.	Check that Gas is supplied to the unit.	
		Electricity turned off.	Check for supply power at "Line" & "Gnd" of Igniter Control.	
		Defective Valve Switch wiring.	Check for power at "SW" input terminal of Igniter Control for Burner turned on.	
		Defective Igniter Control.	Verify 10 Vdc present at gas valve output of Ingiter Control when knob cycled off to on.	
		Defective Gas Shut off Valve.	Change Gas Shut off Solenoid if voltage at Igniter Control output but no Gas at Burner.	
U.	Poor Ignition at burners.	Defective Ignition Control	Change Ignition Control	
		*See (Poor Ignition "C" above)		

GAS PRESSURE		
	Natural Gas and Liquid Propane Maximum	14" WC
Gas Supply Line Pressure	Natural Gas Minimum	7" WC
	Liquid Propane Minimum	11" WC
Natural Gas Manifold Pressure, with Standard Orifice		
Liquid Propane Manifold Pressure, with Standard Orifice		

Orifice Quick Reference Chart (Domestic Units)					
		Orifice Size			
Part Description	Part Number		Part#	Size	Marking
Burner Valve, 15K, Nat	808022	Simmer Main	804128 809495	.62 mm .67 mm	62 67
Burner Valve, 15K, LP	808023	Simmer Main	809493 809493	.43 mm .43 mm	43 43
Burner Valve, 12K, Nat	808020	Simmer Main	809494 801327	.50 mm .57 mm	50 57
Burner Valve, 12K, LP	808021	Simmer Main	801322 809492	.33 mm .38 mm	33 38
Burner Valve, 9.2K, Nat	808018	Simmer Main	809493 800054	.43 mm .54 mm	43 54
Burner Valve, 9.2K, LP	808019	Simmer Main	801322 800893	.33 mm .34 mm	33 34
Orifice Holder, 15K, Nat	809781	Simmer Main	809485 809484	.79 mm 1.80 mm	79 180
Orifice Holder, 15K, LP	809752	Simmer Main	809479 809743	.47 mm 1.17 mm	47 117
Orifice Holder, 12K, Nat	808002	Simmer Main	809482 809483	.65 mm 1.59 mm	65 159
Orifice Holder, 12K, LP	808003	Simmer Main	809479 809478	.47 mm 1.05 mm	47 105
Orifice Holder, 9.2K, Nat	808000	Simmer Main	809482 809481	.65 mm 1.40 mm	65 140
Orifice Holder, 9.2K, LP	808001	Simmer Main	809477 809476	.41 mm .93 mm	41 93

ICB Orifice Quick Reference Chart				
		Main Orifice Size	Simmer Orifice Size	
	Burner / Gas Supply	In (mm)	In (mm)	
	ICB 9.2K NAT	0.053 (1.35)	0.026 (.66)	
det	ICB 9.2K LP	0.037 (.93)	0.016 (.41)	
Hole	ICB 12.0K NAT	0.061 (1.55)	0.026 (.66)	
Orifice Holder	ICB 12.0K LP	0.038 (.965)	0.019 (.48)	
Oriti	ICB 15.0K NAT	0.071 (1.8)	0.031 (.79)	
	ICB 15.0K LP	0.047 (1.19)	0.019 (.48)	
	ICB 9.2K NAT	0.021 (.54)	0.0197 (.5)	
355	ICB 9.2K LP	0.0134 (.34)	0.013 (.33)	
CALOS	ICB 12.0K NAT	0.022 (.57)	0.0197 (.5)	
Valve Bypages	ICB 12.0K LP	0.015 (.38)	0.013 (.33)	
12/2	ICB 15.0K NAT	0.026 (.67)	0.024 (.62)	
	ICB 15.0K LP	0.017 (.43)	0.017 (.43)	

Units Installed Over 8,000 Feet may require a High Altitude Conversion Kit.

