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# INSTALLATION INSTRUCTIONS 30" (76.2 CM) AND 36" (91.4 CM) CTSG GAS BUILT-IN COOKTOP

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# **COOKTOP SAFETY**

### Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.



This is the safety alert symbol.

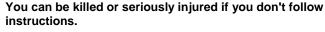
This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word "DANGER" or "WARNING."

These words mean:



You can be killed or seriously injured if you don't <u>immediately</u> follow instructions.



All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

## **IMPORTANT:**

**Installer:** Leave installation instructions with the homeowner. **Homeowner:** Keep installation instructions for future reference.

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WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS:
  - Do not try to light any appliance.
  - Do not touch any electrical switch.
  - Do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.



**WARNING:** Gas leaks cannot always be detected by smell.

For more information, contact your gas supplier.

If a gas leak is detected, follow the "What to do if you smell gas" instructions.



In the State of Massachusetts, the following installation instructions apply:

- Installations and repairs must be performed by a qualified or licensed contractor, plumber, or gasfitter qualified or licensed by the State of Massachusetts.
- If using a ball valve, it shall be a T-handle type.
- A flexible gas connector, when used, must not exceed 3 feet.



**IMPORTANT:** Do not install a ventilation system that blows air downward toward this gas cooking appliance. This type of ventilation system may cause ignition and combustion problems with this gas cooking appliance resulting in personal injury or unintended operation.

## INSTALLATION REQUIREMENTS

#### **Tools and Parts**

Gather the required tools and parts before starting installation.

#### Tools needed

- Tape measure
- Flat-blade screwdriver
- <sup>15</sup>/<sub>16</sub>" combination wrench
- Pipe wrench
- Channel lock pliers
- Marker or pencil
- Pipe-joint compound resistant to LP gas
- Noncorrosive leak-detection solution

#### **Parts Supplied**

- Gas pressure regulator
- Burner grates
- Burner caps and Burner Heads
- Clamp brackets (2)
- 2 1/2" (6.4 cm) clamping screws (2)
- Foam tape seal

Check local codes and consult gas supplier. Check existing gas supply and electrical supply. See "Electrical Requirements" and "Gas Supply Requirements" sections.

### **Location Requirements**

**IMPORTANT:** Observe all governing codes and ordinances. Do not obstruct flow of combustion and ventilation air.

- It is the installer's responsibility to comply with installation clearances specified on the model/serial rating plate. The model/serial rating plate is located on the underside of the cooktop burner box.
- To eliminate the risk of burns or fire by reaching over heated surface units, cabinet storage space located above the surface units should be avoided. If cabinet storage is to be provided, the risk can be reduced by installing a range hood that projects horizontally a minimum of 5" (12.7 cm) beyond the bottom of the cabinets.
- The cooktop should be installed in a location away from strong draft areas, such as windows, doors and strong heating vents or fans.
- Cabinet opening dimensions that are shown must be used.
   Given dimensions are minimum clearances.
- Grounded and properly polarized electrical supply is required. See "Electrical Requirements" section.

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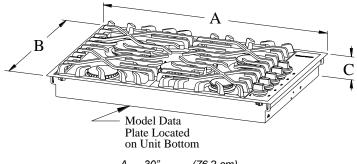
- Proper gas supply connection must be available. See "Gas Supply Requirements" section.
- The gas and electric supply should be located as shown in "Gas and Electric Connection Locations section so that they are accessible without requiring removal of the cooktop.

**IMPORTANT:** To avoid damage to your cabinets or countertop, check with your builder or cabinet supplier to make sure that the materials used will not discolor, delaminate or sustain other damage.

In Canada, the installation of this cooktop must conform with the current standards CAN/CSA-A240-latest edition, or with local codes.

#### **Product Dimensions**

#### 30" (76.2 cm) Model



A. 30" (76.2 cm) B. 20 1/8" (51.1 cm) C. 3 1/16 (7.8 cm)

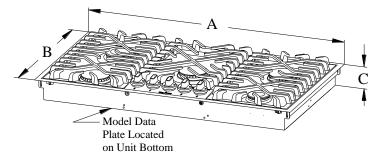
LR - Burner Single

RR - Burner Single

Center – Burner Dual LF – Burner Dual

RF - Burner Single

#### 36" (91.4 cm) Model



A. 36" (91.4 cm) B.  $20^{1}/8"$  (51.1 cm) C.  $3^{1}/16$  (7.8 cm)

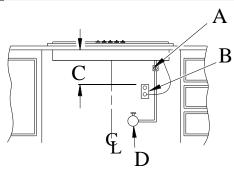
LR - Burner Single

RR - Burner Dual

Center – Burner Dual LF – Burner Dual

RF – Burner Single

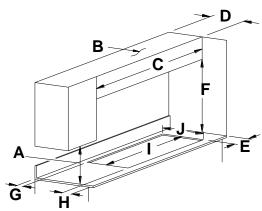
#### **Gas and Electric Connection Locations**



- A. Gas pressure regulator (supplied) arrow pointed toward cooktop
- B. 3 prong grounding type outlet with correct polarity
- C. 18" (45.7 cm) minimum
- D. Gas shutoff valve

#### **Installation Clearances**

**IMPORTANT:** If installing a range hood or microwave hood combination above the range, follow the range hood or microwave hood combination installation instructions for dimensional clearances above the cooktop surface.



- A. 18" (45.7 cm) minimum clearance upper cabinet to countertop
- B. Cabinet
- C. 30" (76.2 cm) on 30" (76.2 cm) models 36" (91.4 cm) on 36" (91.4 cm) models
- D. 13" (33 cm) maximum recommended upper cabinet depth
  - E. 6" (15.2 cm) minimum side wall clearance
- F. 30" (76.2 cm) minimum clearance between top of cooktop platform and bottom of uncovered wood or metal cabinet (24" [61 cm] minimum clearance if bottom of wood or metal cabinet is covered by not less than <sup>1</sup>/<sub>4</sub>" [0.6 cm] flame retardant millboard covered with not less than No. 28 MSG sheet steel, 0.015" [0.04 cm] stainless steel, or 0.024" [0.06 cm] aluminum or 0.020" [0.05 cm] copper)
- G.  $2^{\frac{5}{1}}$  (5.9 cm) minimum distance to rear combustible surface
- H. 3 3/16" (8.1 cm) minimum distance to front countertop edge
- Cutout width 29 3/8" (74.6 cm) on 30" models; 35 5/8" (89.9 cm) on 36" models
- I. Cutout depth  $19^{1}/_{2}$ " (49.5 cm)

**NOTE:** After making the countertop cutout, some installations may require notching down the base cabinet side walls to clear the burner box. To avoid this modification, use a base cabinet with sidewalls wider than the cutout.

If cabinet has a drawer, a 4" (10.2 cm) depth clearance from the countertop to the top of the drawer (or other obstruction) in base cabinet is required. The drawer depth may need to be shortened to avoid interfering with the regulator.

# **WARNING**



Electrical Shock Hazard Plug into a grounded 3 prong outlet. Do not remove ground prong. Do not use an adapter.

Do not use an extension cord.

Failure to follow these instructions can result in death, fire, or electrical shock.

**IMPORTANT:** The cooktop must be electrically grounded in accordance with local codes and ordinances, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70 or Canadian Electrical Code, CSA C22.1.

This cooktop is equipped with an electronic ignition system that will not operate if plugged into an outlet that is not properly polarized or grounded.

This cooktop is equipped with an electronic ignition system that will not operate properly if plugged into a ground fault interrupt circuit.

If codes permit and a separate ground wire is used, it is recommended that a qualified electrical installer determine that the ground path is adequate.

A copy of the above code standards can be obtained from:

National Fire Protection Association

One Batterymarch Park

Quincy, MA 02269

CSA International

8501 East Pleasant Valley Road

Cleveland, OH 44131-5575

- A 120-volt, 60 Hz., AC only, 15-amp fused, electrical circuit is required. A time-delay fuse or circuit breaker is also recommended. It is recommended that a separate circuit serving only this range be provided.
- Electronic ignition systems operate within wide voltage limits, but proper grounding and polarity are necessary. Check that the outlet provides 120-volt power and is correctly grounded and has correct polarity.
- The wiring diagram are provided with this cooktop. See "Wiring Diagrams" section.

# **WARNING**



Explosion Hazard
Use a new CSA International approved gas supply line.

Install a shut-off valve.

Securely tighten all gas connections.

If connected to LP, have a qualified person make sure gas pressure does not exceed 14" (36 cm) water column.

Examples of a qualified person include:

Licensed heating personnel, authorized gas company personnel, and authorized service personnel.

Failure to do so can result in death, explosion, or fire.

Observe all governing codes and ordinances.

**IMPORTANT:** This installation must conform with all local codes and ordinances. In the absence of local codes, installation must conform with American National Standard, National Fuel Gas Code ANSI Z223.1 - latest edition or CAN/CGA B149 – latest edition.

**IMPORTANT:** Leak testing of the range must be conducted according to the manufacturer's instructions.

#### Type of Gas

## Natural Gas:

This cooktop is listed by Underwriters Laboratories (UL/cUL) for use with Natural gas or, after proper factory conversion, for use with LP gas.

This cooktop is factory-set for use with Natural gas. The model/serial rating plate located on the underside of the burner box has information on the types of gas that can be used. If the types of gas listed do not include the type of gas available, check with the local gas supplier.

#### LP Gas conversion:

This cooktop is factory-set for use with LP gas. The model/serial rating plate located on the underside of the burner box has information on the types of gas that can be used. If the types of gas listed do not include the type of gas available, check with the local gas supplier.

## **Gas Supply Line**

Provide a gas supply line of <sup>3</sup>/<sub>4</sub>" (1.9 cm) rigid pipe to the cooktop location. A smaller size pipe on longer runs may result in insufficient gas supply. Pipe-joint compounds that resist the action of LP gas must be used. Do not use TEFLON<sub>®↑</sub> tape. With LP gas, piping or tubing size can be <sup>1</sup>/<sub>2</sub>" minimum. Usually, LP gas suppliers determine the size and materials used in the system.

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#### Flexible metal appliance connector:

• If local codes permit, use a <sup>5</sup>/<sub>8</sub>" flexible stainless steel tubing gas connector, designed by CSA to connect the cooktop to the rigid gas supply line.



- A <sup>1</sup>/<sub>2</sub>" (1.3 cm) male pipe thread is needed for connection to the female pipe threads of the inlet to the appliance pressure regulator.
- Do not kink or damage the flexible metal tubing when moving the cooktop.

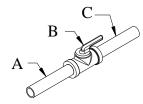
#### Rigid pipe connection:

The rigid pipe connection requires a combination of pipe fittings to obtain an in-line connection to the cooktop. The rigid pipe must be level with the cooktop connection. All strains must be removed from the supply and fuel lines so cooktop will be level and in line.



• Must include a shutoff valve:

The supply line must be equipped with a manual shutoff valve. This valve should be located in the same room but external to the cooktop opening, such as an adjacent cabinet. It should be in a location that allows ease of opening and closing. Do not block access to shutoff valve. The valve is for turning on or shutting off gas to the cooktop.



- A. Gas supply line
- B. Shutoff valve "open" position
- C. To cooktop

†®TEFLON is a registered trademark of E.I. Du Pont De Nemours and Company.

#### Gas Pressure Regulator

The gas pressure regulator supplied with this cooktop must be used. The inlet pressure to the regulator should be as follows for proper operation:

#### **Natural Gas:**

Minimum pressure: 6" (15.2 cm) WCP Maximum pressure: 14" (35.5 cm) WCP

#### LP Gas:

Minimum pressure: 11" (27.9 cm) WCP Maximum pressure: 14" (35.5 cm) WCP

Contact local gas supplier if you are not sure about the inlet

oressure.

#### **Burner Input Requirements**

Input ratings shown on the model/serial rating plate are for elevations up to 2,000 ft (609.6 m).

For elevations above 2,000 ft (609.6 m), ratings are reduced at a rate of 4% for each 1,000 ft (304.8 m) above sea level (not applicable for Canada).

# **Gas Supply Pressure Testing**

# Line pressure testing above <sup>1</sup>/<sub>2</sub> psi gauge (14" WCP)

The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of  $^{1}/_{2}$  psi (3.5 kPa).

# Line pressure testing at 1/2 psi gauge (14" WCP) or lower

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than  $^{1}I_{2}$  psi (3.5 kPa).

# INSTALLATION INSTRUCTIONS

# **Prepare Cooktop for Installation**



**Excessive Weight Hazard** 

Use two or more people to move and install cooktop. Failure to do so can result in back or other injury.

Write down the model and serial numbers before installing the cooktop. Both numbers are located on the center underside of the burner box.

Unpack the parts supplied with your cooktop. The parts shipped with the cooktop depend on the model ordered. See "Tools and Parts" section for a complete list of parts supplied with the cooktop.

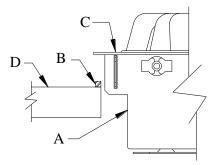
Decide on the final location for the cooktop. Locate existing wiring to avoid drilling into or severing wiring during installation.

The pressure regulator and flexible stainless steel gas supply line connector can be assembled to the cooktop now or after the cooktop is installed in the cutout. See "Make Gas Connection" section.

Remove foam strip from hardware package. Remove backing from foam strip. Apply foam strip adhesive-side down around edge of the countertop opening.

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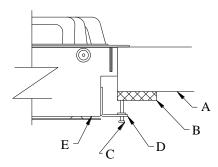
**NOTE:** The foam strip helps keep the underside of the cooktop frame free from debris and helps the cooktop sit flat on uneven counters.



- A. Burner box
- B. Foam Tape Seal Placed at edge of countetop opening.
- C. Stainless steel Top
- D. Countertop

# **Install Cooktop**

- Remove the 2 screws located in each side of the cooktop burner hox
- 2. Attach the 2 hold-down brackets to the burner box.
- Install the cooktop into the countertop cutout by tilting one end of the cooktop into the cutout, then lowering the other end into the cutout.
- **4.** Assemble hold-down screws to hold-down bracket. See the following illustration.



- A. Countertop
- B. Wood block
- C. Hold-down screw
- D. Hold-down bracket
- E. Burner box
- Center the cooktop in the opening and, using a wood block between the screw and the countertop, moderately tighten the screws to secure cooktop.

**IMPORTANT:** Do not tighten screws directly against the countertop.

### **Make Gas Connection**

# **WARNING**



#### **Explosion Hazard**

Use a new CSA International approved gas supply line. Install a shut-off valve.

Securely tighten all gas connections.

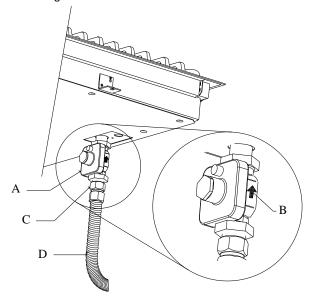
If connected to LP, have a qualified person make sure gas pressure does not exceed 14" (36 cm) water column.

Examples of a qualified person include: licensed heating personnel, authorized gas company personnel, and authorized service personnel.

Failure to do so can result in death, explosion, or fire.

### To Assemble Pressure Regulator:

- 1. Using 2 or more people, stand the cooktop on its side or back.
- 2. Connect the flexible stainless steel connector to the pressure regulator using a <sup>1</sup>/<sub>2</sub>" male pipe thread adapter. A combination of pipe fittings must be used to connect the cooktop to the existing gas line. Shown following is a typical connection. Your connection may be different, according to the supply line type, size and location.
- Install the pressure regulator with the arrow pointing up toward the bottom of the burner box and in a position where you can reach the regulator.



- A. Gas pressure regulator
- B. Up arrow Regulator must be installed with arrow pointing up at cooktop bottom.
- C. Adapter Must have 1/2" male pipe thread
- D. UL listed or CSA approved flexible stainless steel gas supply line

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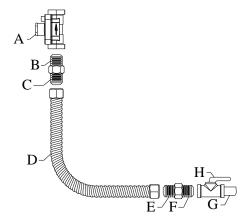
**IMPORTANT:** All connections must be wrench-tightened. Do not make connections to the gas regulator too tight. Making the connections too tight may crack the regulator and cause a gas leak. Do not allow the regulator to turn on the pipe when tightening fittings.

Use only pipe-joint compound made for use with Natural and LP gas.

Do not use TEFLON®1 tape. You will need to determine the fittings required depending on your installation.

#### **Typical flexible connection**

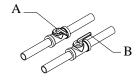
- Apply pipe-joint compound made for use with LP gas to the larger thread ends of the flexible connector adapters (see B and F in the following illustration).
- 2. Attach 1 adapter to the gas pressure regulator and the other adapter to the gas shutoff valve. Tighten both adapters.
- 3. Use a <sup>15</sup>/<sub>16</sub>" combination wrench and channel lock pliers to attach the flexible connector to the adapters. Check that connector is not kinked.



- A. Gas pressure regulator
- B. Use pipe-joint compound
- C. Adapter Must have <sup>1</sup>/<sub>2</sub>" male pipe thread
- D. <sup>5</sup>/<sub>8</sub>" min. flexible connector
- E. Adapter Must have 1/2" male pipe thread
- F. Use pipe-joint compound.
- G. 1/2" or 3/4" gas pipe
- H.Manual gas shutoff valve

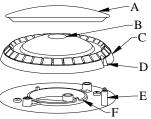
# **Complete Connection**

1. Open the manual shutoff valve in the gas supply line. The valve is open when the handle is parallel to the gas pipe.

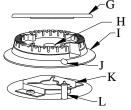


A. Closed valve

- B. Open valve
- Test all connections by brushing on an approved noncorrosive leak-detection solution. If bubbles appear, a leak is indicated. Correct any leak found.
- 3. Remove surface burner caps and burner heads and grates from parts package. Place burner cap and burner head. Burner caps and burner heads should be level when properly positioned. If burner caps and burner heads are not properly positioned, surface burners may not light and continuous sparking may occur. Place burner grates over burners and caps.



- A. Burner cap (Domed)\*
- B. Gas Tube Opening
- C. Burner Head\*
- D. Electrode Notch
- E. Electrode
- F. Burner Base



- G. Burner Cap (Flat)
- H. Gas Tube Opening
- I. Burner Head
- J. Electrode Hole
- K. Burner Bracket
- L. Electrode

# Dual Burner Single Burner \*Same for all Dual Burners See Product Dimension Section for Burner Locations

**Caution**: Improper positioning of burner can damage cooktop and cause injury to persons.

Correct positioning results in even flame distribution and appearance.

DO NOT INSTALL Dual Burner Heads on Single Burner Base Or Single Burner on Dual Base.

# **Complete Installation**

# **Electronic Ignition System**

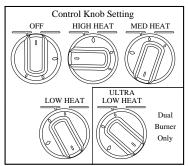
#### **Check Operation of Surface Burners**

- Push down and turn the surface burner control knobs to the "HI" position.
  - The surface burner flame should light within 4 seconds. The first time a surface burner is used it may take longer than 4 seconds to light because of air in the gas line.
- Check the flame on "HI" for a blue color. It should be clean
  and soft in character. No yellow tip, blowing or lifting of flame
  should occur. NOTE: LP Gas can result in a small yellow
  tip on Flame. This is normal. Occasional orange flashes are
  normal and reflect different elements in the air or gas.
- 3. Repeat at "LO" position.
- 4. Repeat at Ultra-Low Position.
- After verifying the proper burner operation, turn the control knobs to "OFF."
- 6. Check that operating lights are working.

#### If burners do not light properly:

- Turn surface burner control knob to the "OFF" position.
- Check that the power supply cord is plugged in and the circuit breaker has not tripped or the fuse blown.
- Check that the gas shutoff valves are set to the "open" position.
- Check that burner heads and caps are properly positioned on burner bases.

Recheck operation of surface burners. If a burner does not light at this point, contact your dealer or customer service 1-877-387-6721 for assistance.



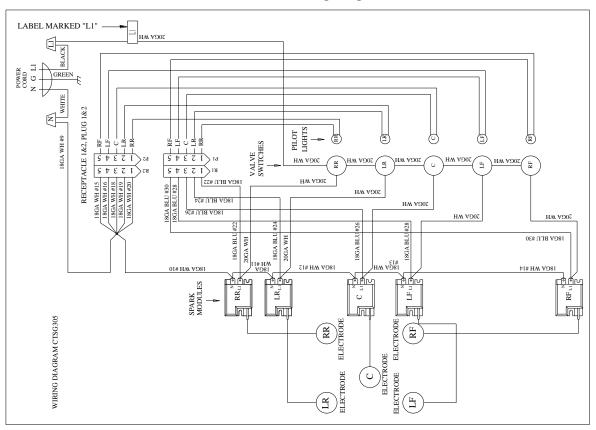
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# **WIRING DIAGRAMS**

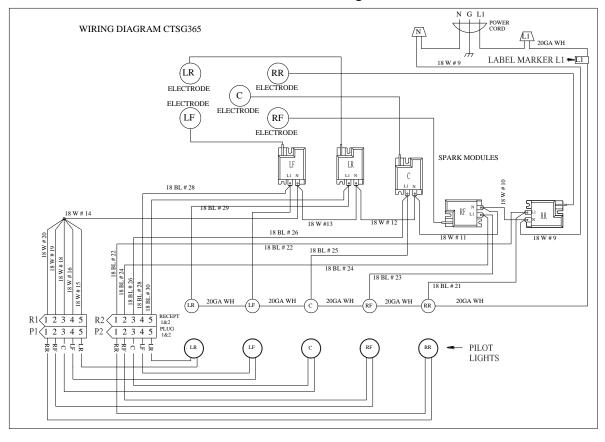
**CAUTION:** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

The power cord on this appliance is equipped with a 3 prong grounding plug that mates with standard 3 prong grounding-type plug. Verify proper operation after servicing.

## **CTSG305DS Wiring Diagram**



## CTSG365DS Wire Diagram



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