

# **Patio I™ & Sterling I™**

## **OWNER'S MANUAL**

### **Thermal Engineering Corporation**

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**NOTE:**

**Prior to installation and using your grill, please read this handbook carefully.**

**Keep your handbook available at all times while using your grill. Retain this book for future reference.**

**Your TEC Infra-Red Gas Grill has been tested and design certified by the American Gas Association under ANSI Z21.58-(Latest Edition) Standards for outdoor gas appliances.**

**Input Rating: 16,500 BTU/HR, each Burner.**

**NOTE TO INSTALLER:**

**After installation of unit, please leave instructions with the consumer for future reference.**

TEC® Patio I™ and Sterling™  
U.S. Patent #4,321,857  
Des. #266,050

**FOR YOUR SAFETY**

**If you smell gas:**

- 1. Shut off gas to the appliance.**
- 2. Extinguish any open flame.**
- 3. Open lid.**
- 4. If odor continues, immediately call your gas supplier.**

**FOR YOUR SAFETY**

**Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.**

**CAUTION**

**Never attempt conversions or modifications on your grill without first obtaining written instructions from Thermal Engineering Corporation.**

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WARRANTY REGISTRATION CARD

## **OUR WARRANTY - Your Assurance of Quality**

Below are the provisions of your TEC Infra-Red Gas Grill Warranty. Be sure to familiarize yourself with it and then register your purchase using the warranty registration card.

### **LIMITED THREE-YEAR WARRANTY**

THERMAL ENGINEERING CORPORATION WARRANTS THIS APPLIANCE TO THE ORIGINAL PURCHASER TO BE FREE OF FACTORY DEFECTS IN MATERIAL AND WORKMANSHIP, WHEN SUBJECTED TO NORMAL DOMESTIC USE AND SERVICE, FOR A PERIOD OF THREE (3) YEARS FROM THE DATE OF ORIGINAL PURCHASE.

NO CHARGE FOR REPAIR OR REPLACEMENT WILL BE MADE AT THE FACTORY FOR PARTS RETURNED, FREIGHT PREPAID, THROUGH THE DEALER OR OUR AUTHORIZED REPRESENTATIVE AND CLAIMED WITHIN THE WARRANTY PERIOD AND TO ACTUALLY BE DEFECTIVE.

REPAIR OR REPLACEMENT MADE UNDER THE TERMS OF THIS LIMITED WARRANTY WILL BE SHIPPED PREPAID, AND PURCHASER'S SHIPPING COST WILL BE REIMBURSED IF THE PRODUCT IS DEFECTIVE. IF THE ITEM IS NO LONGER UNDER WARRANTY, THE COST OF REPAIRS AND TRANSPORTATION TO AND FROM THE MANUFACTURER MUST BE PAID BY THE CUSTOMER.

THIS WARRANTY SHALL NOT APPLY, NOR CAN WE ASSUME ANY RESPONSIBILITY FOR DAMAGE THAT MIGHT RESULT FROM FAILURE TO FOLLOW MANUFACTURER'S INSTRUCTIONS OR LOCAL CODES, WHERE THE APPLIANCE HAS BEEN TAMPERED WITH OR ALTERED IN ANY WAY OR HAS BEEN SUBJECTED TO MISUSE, NEGLIGENCE OR ACCIDENT.

NO OTHER WARRANTY, ANY IMPLIED WARRANTY OR MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE IS EXCLUDED. THERE ARE NO OTHER OBLIGATIONS, OR LIABILITIES ON OUR PART. WE **DO NOT** AUTHORIZE ANY PERSON, COMPANY OR REPRESENTATIVE TO ASSUME FOR US ANY OTHER OBLIGATIONS OR LIABILITY IN CONNECTION WITH THE SALE OF THIS APPLIANCE.

### **SPECIAL NOTICE:**

THE FINISH ON THE OUTSIDE HOUSINGS IS THE HIGHEST QUALITY MATERIAL AVAILABLE, BUT BECAUSE OF VARIATIONS IN ATMOSPHERIC CONDITIONS, CARE, CLEANING AND ACTUAL USE, NO WARRANTY ON TINTED OR BLACK PAINT CAN BE MADE.

THIS COMPANY COMPLIES WITH ALL PROVISIONS OF THE MAGNUSON-MOSS WARRANTY FEDERAL TRADE COMMISSION ACT, 15 USC 2301.

## **OUTDOOR COOKING - THE TEC INFRA-RED WAY!**

Outdoor cooking the clean, efficient and controllable TEC Infra-red way is the fastest, easiest and best tasting way to cook outdoors. The TEC Infra-red Grill Owner's Handbook was prepared to assist you in getting the utmost enjoyment from your appliance. Your TEC grill will provide you and your family with years of enjoyable outdoor cooking. So relax, read it from cover to cover and get to know this remarkable appliance.

### **SAFETY FIRST - OUTDOOR USE ONLY**

Every reasonable safety precaution has been taken into consideration concerning safety in the design of the TEC Grill.

Knowing how to safely operate your grill is your best safety precaution. Therefore, take time and carefully read all instructions and safety tips. Share this information with other members of your household, so that they too may learn to operate your TEC grill safely.

### **Care and Handling of LP Gas Cylinders**

Liquefied Petroleum gas in cylinders is stored under high pressure and must be handled properly. Your LP gas dealer can explain the necessary safety practices and inform you of the local codes for LP gas cylinder use, storage and transportation regulations.

This list of procedures must be observed:

1. The proper LP gas cylinder to be used with the TEC grill is constructed and marked in accordance with the specifications of the U.S. Department of Transportation (D.O.T.) for LP gas cylinders.
2. The grill cabinet accepts a 20 lb. LP gas cylinder ONLY, which is approximately 12 inches in diameter and 18-1/2 inches overall height. The clamping strap is designed to accommodate ONLY this size. The cylinder used with this appliance must have an integral protective collar to protect the cylinder service valve.
3. Keep ventilation opening(s) of the LP gas cylinder enclosure free and clear from debris.
4. The cylinder valve and supply system must be arranged for vapor withdrawal (NOT LIQUID WITHDRAWAL).
5. Air in LP gas cylinders must be removed prior to the initial filling with LP gas. If the cylinder is not properly purged with LP gas vapor, air in the cylinder will dilute the LP gas vapor. Your LP gas dealer should be equipped to perform this service.

6. LP gas cylinders should not be filled over 80% of total capacity allowing 20% for expansion should temperature increase. If the cylinder is overfilled, the relief valve will open automatically, relieving the pressure to a safe level, at which time it will close.
7. Always keep LP gas cylinders upright, and never store them upside down or on their side.
8. Never store LP gas cylinders indoors, in car trunks or in similar places. Always store them in well-ventilated spaces. Storage of the appliance indoors is permissible only if the cylinder is disconnected and removed from the appliance. When the LP gas cylinder is not disconnected, your grill must be stored in a well-ventilated space.
9. LP gas cylinders must be stored outdoors in a well-ventilated area out of the reach of children. Disconnected cylinders must have threaded valve plugs tightly installed and must not be stored in a building garage or any other enclosed area.
10. Never subject LP gas cylinders to excessive heat, (Temperatures above 120° F).
11. Always follow instructions for connecting and disconnecting LP gas cylinders - and always perform a soapy-solution leak test on all connections each time a cylinder is connected.
12. The gas supply must be turned off at the LP gas cylinder when the appliance is not in use.

#### **CAUTION**

Should the cylinder ever be damaged or welds break, where gas may possibly leak, replace the cylinder. Do not attempt to fill, repair or use a cylinder that may leak LP gas with your grill.

#### **CAUTION**

It is our recommendation that a fire extinguisher for Class A, B, C, & D fires be readily available at all times.

For your safety, an excess flow valve is incorporated in the fitting leading from the regulator to the cylinder. This fitting should never be changed, except with an equivalent part.

#### **Gas Leak Test**

1. Always perform a soapy-solution leak test on all connections each time a cylinder is connected, or connecting to a new gas supply. (SEE: Section 3. Gas Supply - gas leak test for detailed instructions.)

2. Never use a match or flame to test for leaks; use soapy-water or similar solution.
3. Be absolutely sure there are no leaks.

### **Hazardous Locations and Conditions - LP and Natural Gases**

1. Do not use your grill closer than 24 inches to any combustible surface (wood, wall or fence) nor under any overhead combustible material (wood, canvas, plastic, etc.)
2. This grill shall only be used outdoors in a well-ventilated space and shall not be used in a building, garage, or any other enclosed area.
3. Keep all flammable substances away from the grill. This would include most aerosols and aerosol containers, gasoline and similar liquids, paper and paper products, containers of grease, paint or oil, etc.
4. Never store flammable materials or objects such as those described above in the grill cabinet.
5. Never leave your grill unattended while in use.
6. Close supervision of children will protect them from the hot grill in use and while still hot from use.
7. Never use water in an attempt to control flare-up. Steam produced by the water can cause serious burns.
8. If necessary, adjust the grill for wind direction.
9. Avoid flammable clothing fabrics and loose, flowing clothing such as long-sleeves, neckties, scarves, etc.
10. Control hairstyles while using your grill. Keep long hair away from heat and flames.
11. You should plan to observe your grill closely throughout the brief time it will take to cook the meal. Regulate heat, turn and reposition portions as necessary, and use your grill to control your cooking.
12. Do not obstruct the flow of combustion and ventilation air. The LP gas cylinder must be arranged for vapor withdrawal.



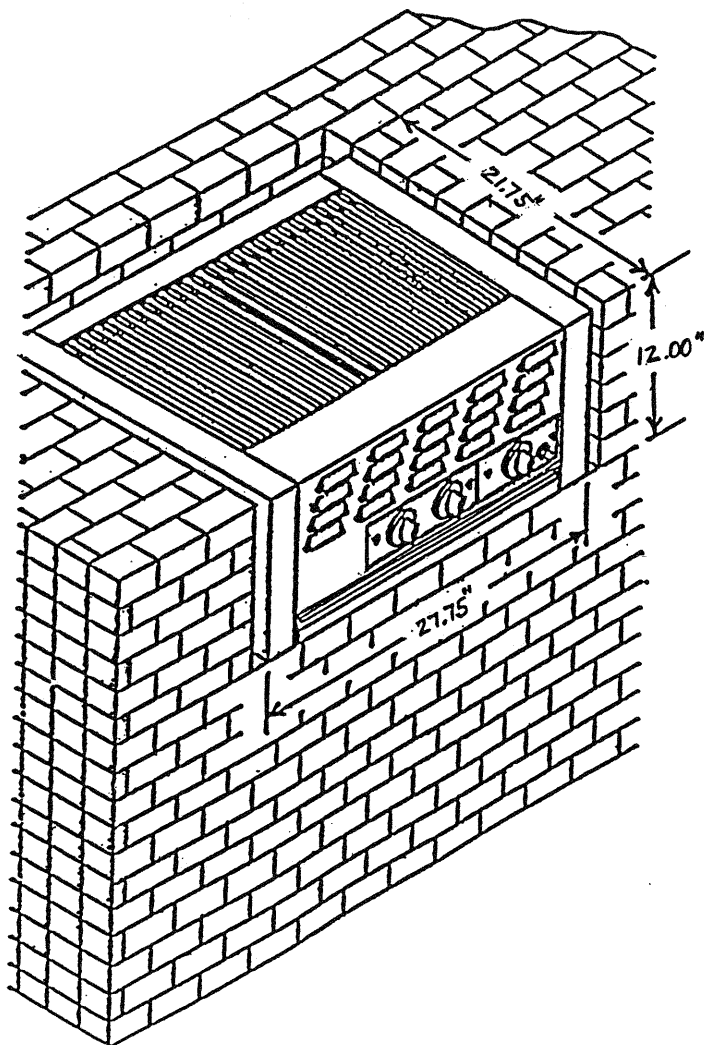
## ASSEMBLY AND INSTALLATION

As you already know, your TEC Grill is largely preassembled. There is no burner to assemble, or "lava rock" placement to worry about.

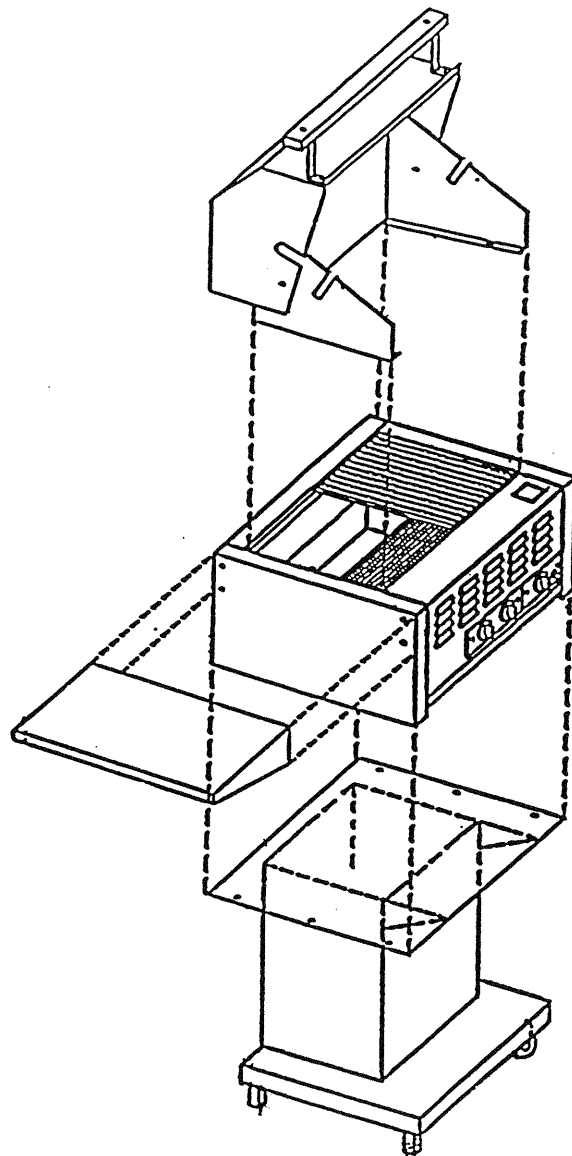
After unpacking your grill, simply follow the accompanying installation instructions and you will be prepared to begin capturing that great outdoor grilling flavor.

### **Sterling Built-In Installation**

The TEC Sterling should only be installed in noncombustible type material such as: brickwork, stonework, free-standing masonry patio wall or other suitable construction. Dimensions of the grill, allowing tolerances of  $\pm 0.12$  inches, are shown below. See page 20 for information regarding the optional insulated sleeve insert for built-in installation.



BUILT-IN

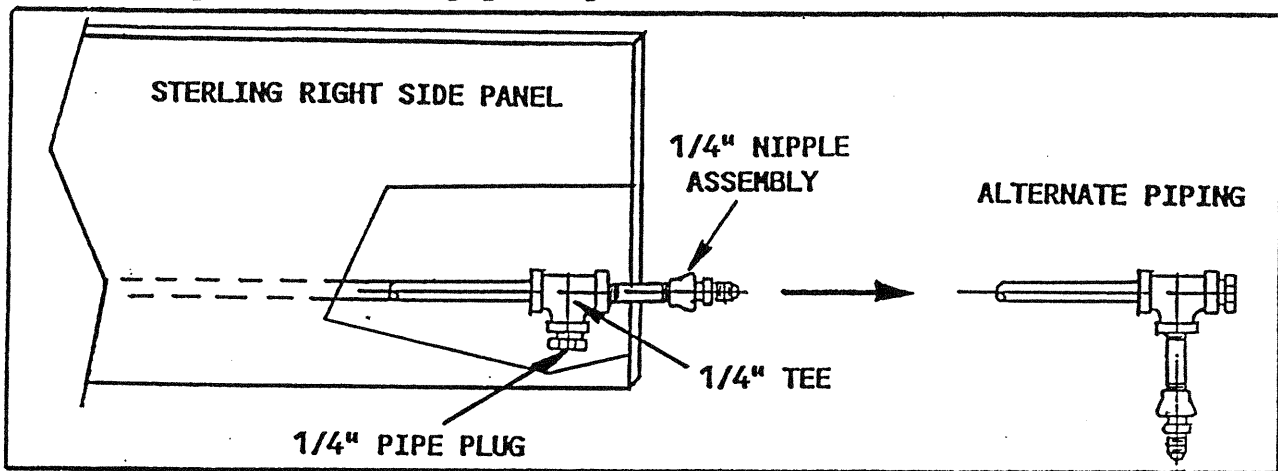


PEDESTAL/HOOD/SIDE SHELF

## Sterling Pedestal Installation

1. Position grill body on top of the pedestal.
2. After hood and heat shield are removed, attach grill body to pedestal using (8) 10-32 round head bolts and (8) 10-32 kep nuts.

**NOTE:** The gas piping on your Sterling grill is typically set up to run out the rear of the right side panel, as shown below. It is possible to run the gas out of the bottom of the right side panel simply by switching the positions of the 1/4" pipe plug and 1/4" nipple assembly. If you choose this alternate connection, it is our recommendation that a qualified gas appliance service person make the necessary changes. **ALWAYS** perform a gas leak test on new connections prior to using your grill.

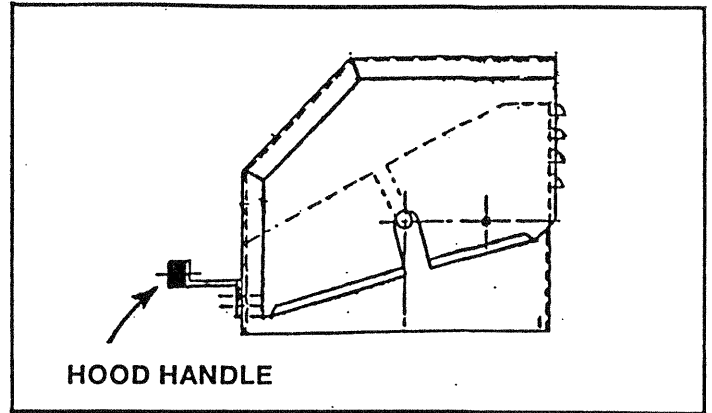
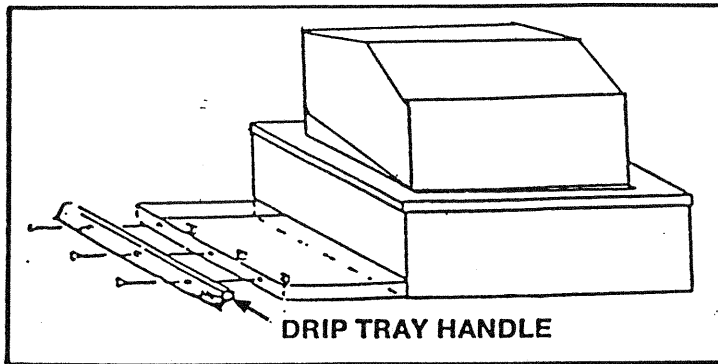


## Hood Handle Assembly

1. Remove the hood handle from the cabinet. Remove and dispose of packaging materials.
2. Insert four (4) 10-32 screws through handle bracket and into hood and secure with 10-32 kep nuts so that the nuts are on the inside of the hood when closed. Secure tightly. Attach handle to brackets using two (2) 8-32 screws and kep nuts.
3. For proper positioning, hood handle should extend straight out from hood.

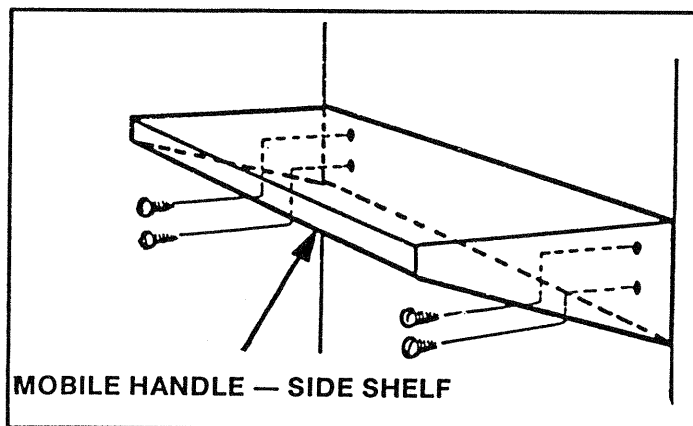
## Drip Tray Handle Assembly

1. Remove the tray handle and screws from the cabinet. Remove and dispose of packaging materials.
2. Insert three (3) 8-32 screws into tray and secure with 8-32 kep nuts so the nuts are on the inside of the tray. Secure tightly.



### Mobile Handle-Side Shelf Assembly

1. Remove the stainless steel shelf from the cabinet. Remove and dispose of packaging materials.
2. Attach shelf to the left side of the grill housing with (4) 1/4" x 3/4" hex head bolts, (4) 1/4" flat washers and (4) 1/4" lock washers.
3. Secure tightly with a small crescent wrench or a 7/16" wrench.
4. The side shelf is also designed as the mobile handle, allowing for ease of mobility.



### Cooking Grid and Bake Rack Installation

1. Remove the cooking grids and bake rack from the cabinet. Remove and dispose of packaging materials.
2. Place the cooking grids and bake rack into position. The channel cooking grids should be installed with the holes placed toward the rear of the primary cooking area.
3. When cooking "fatty" meats be sure cooking grids are placed with U channels facing up to catch excessive grease drippings.

## GAS SUPPLY

The LP gas cylinder when purchased may contain some air. This air can be withdrawn PRIOR TO FILLING with LP gas by merely opening the service valve located on the top of the cylinder.

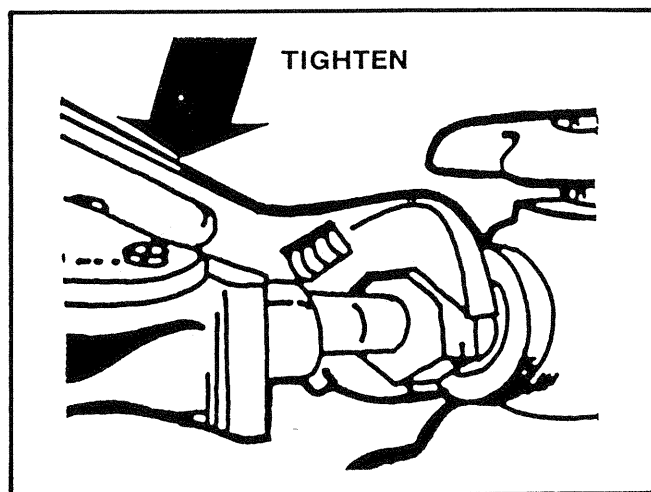
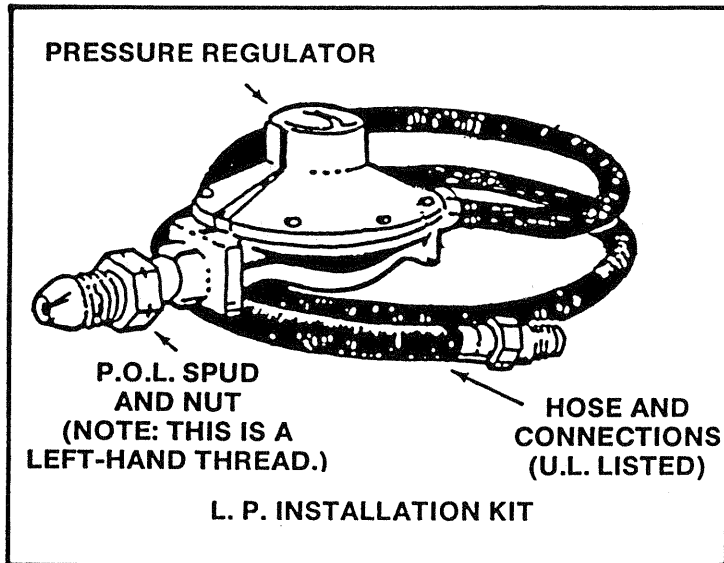
Equipment and precautions necessary for filling cylinders with LP gas are the responsibility of the gas dealers.

### CAUTION

The hose/regulator and P.O.L. fitting supplied by the manufacturer must be used with the LP gas cylinder.

The LP gas hose must be inspected before each use of the grill. If there is excessive abrasion, wear or if the hose is worn out, it must be replaced prior to the grill being put into operation. Only a TEC specified hose can be used as a replacement.

### **How to Install LP Gas Cylinder**



1. Check the threads in the service valve opening of the LP gas cylinder for dirt or other foreign material prior to attaching the pressure regulator. Insert the regulator POL nut into the service valve located on top of the cylinder. \*LP Gas = Liquefied Propane Gas
2. The threads are engaged by turning the POL nut to the left - counterclockwise (this is a left hand thread). Finally, the POL nut must be tightened with a wrench. A 10" crescent wrench will serve this purpose very well. The POL fitting supplied is of the excess flow type and prevents against excessive gas flow (from a gas hose rupture). Do not use pipe thread sealer on this connection. This POL fitting must not be replaced with any other fitting except a No. 511 (female POL) fitting with excess flow protection.

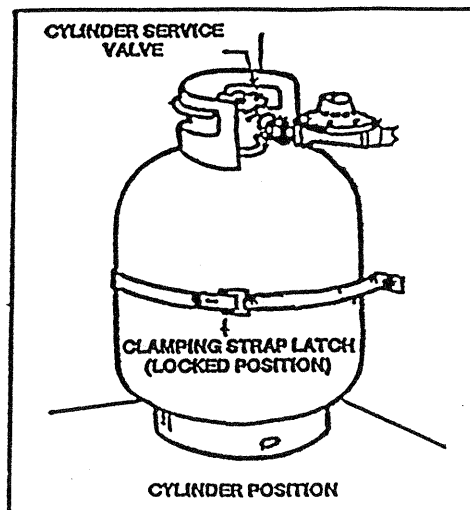
Flexible hose connectors shall comply with Underwriter Laboratories Safety Standard for Pigtails and Flexible Hose Connectors for LP Gas, UL #596-1980 or other nationally recognized standards.

Any cylinder used with this unit must be provided with a shutoff valve terminating in a LP-gas supply cylinder valve outlet specified, as applicable, for Connection No. 510 in the standard for Compressed Gas Cylinder Valve outlet and inlet connections, ANSI/CGA-V-1.

## Gas Leak Test

You are now ready to test for gas leaks. Never use a match or flame to test for gas leaks.

1. Make certain the burner/pilot control dials located on the front of the Sterling or on the right side of the Patio I are in the "OFF" position.
2. Open the cylinder service valve. Apply a heavy soapy water or similar solution to all connections you have made and all factory connections. Note if any bubbles appear.
3. If bubbles appear, close valves and further tighten connections. Some connections may require the use of two wrenches or one wrench and pliers. Be absolutely sure there are no leaks.
4. Place the cylinder inside the pedestal and position in the clamping strap so that the cylinder service valve is easily reached for opening and closing. The flexible hose leading from the pressure regulator is turned in the front as illustrated, making sure it hangs well below the top of the cabinet.
5. Secure clamping strap latch to the locked position.
6. Always perform these simple instructions after each refill and installation.

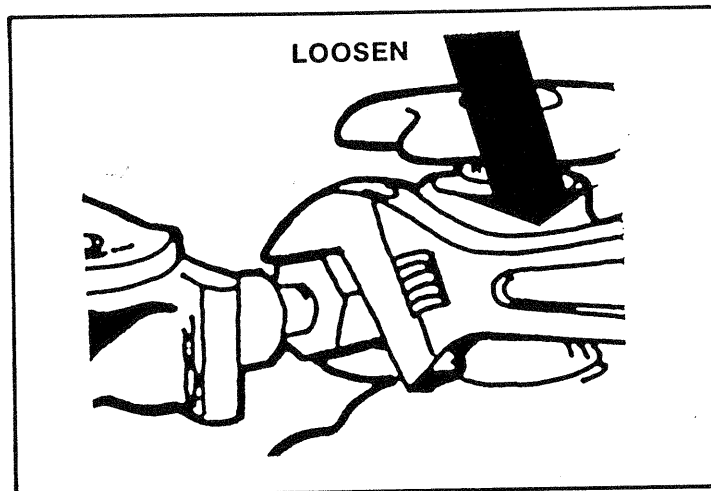


## **CAUTION**

The gas supply must be turned off at the LP gas cylinder service valve when this appliance is not in use.

## **How to Remove LP Gas Cylinder**

1. Make certain the cylinder service valve is closed. This need only be hand tight.
2. Release clamping strap latch and remove cylinder from the cabinet. Place cylinder upright on floor in front of cabinet. Loosen the POL nut located between the regulator and the cylinder service valve by turning the wrench to the right - clockwise. Remember this is a left hand thread and to turn counterclockwise will only tighten the POL nut.
3. Proceed with the steps for installing an LP gas cylinder. Always perform a gas leak test after each refill and installation.



## **Gas Pressure Regulator - For LP Gas**

The gas pressure regulator supplied with the grill must be used with the LP gas cylinder. The cylinder regulator supplied has been factory set to deliver an outlet pressure of 11.0 inches of water column. Do not exceed 11.0 inches of water column.

If the gas pressure regulator is replaced, it can be adjusted to deliver the above pressure by connecting a water manometer downstream of the regulator. Consult your dealer, representative, or gas supplier for help in re-setting the gas pressure.

## **HOW TO INSTALL FOR NATURAL GAS**

When ordered for use with natural gas, your TEC grill is adjusted at the factory and ready to operate on natural gas. When used with natural gas, the installation must meet local codes. Your local gas company or other authorized agency must pipe the gas line to the appropriate location you have selected. A shut-off valve at the grill is required. An approved gas valve must be used.

For use with Natural Gas, 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 PSIG (3.5 K Pa).

In addition, 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 1/2 PSIG (3.5 K Pa).

### **CAUTION**

**Remember, when locating your grill for use with Natural or LP gas, it must not be closer than 24 inches to any combustible surface nor under any overhead combustible material.**

Because the TEC Infra-Red Grills are shipped from the factory ready to operate on natural gas, it is only necessary to pipe the gas supply into the regulator attached to the manifold.

A gas valve should be installed prior to the regulator so that the gas can be turned off when the grill is not in use.

### **CAUTION**

**Gas piping to the area where your grill is to be located must be in accordance with local codes. In the absence of local codes, use the National Fuel Gas Code, ANSI Z223.1 - latest edition.**

## **Gas Leak Test**

After installation is complete and prior to firing your grill, also perform a leak test.

1. Make certain the burner/pilot control dials located on the front of the Sterling or on the right side of the Patio I are in the "OFF" position.
2. Open the valve at the source of the gas supply to the grill. Apply soapy water or a similar solution to all connections you have made and all factory connections inside the unit. Note if any bubbles appear.
3. If bubbles appear, turn off valves and further tighten connections.

**CAUTION**

The gas supply must be turned off at the grill when this appliance is not in use.

**Gas Pressure Regulators for Natural Gas**

With the use of Natural Gas, the gas pressure supply should be between 7.0 and 14.0 inches of water column. The gas pressure supply must not exceed 14.0 inches of water column.

The appliance regulator supplied by the manufacturer has been factory preset to deliver 4.0 inches of water column pressure to the infra-red burners. Do not exceed 4.0 inches of water column.

**FIRING THE INFRA-RED BURNERS**

The TEC Sterling and Patio I grills have two burners incorporated into one housing. Therefore, each half has its own separate control valve. This feature allows fuel savings and provides you with greater cooking versatility. For example, you can operate one-half of the burner if a small cooking area is required, such as for a few steaks or a few hamburgers.

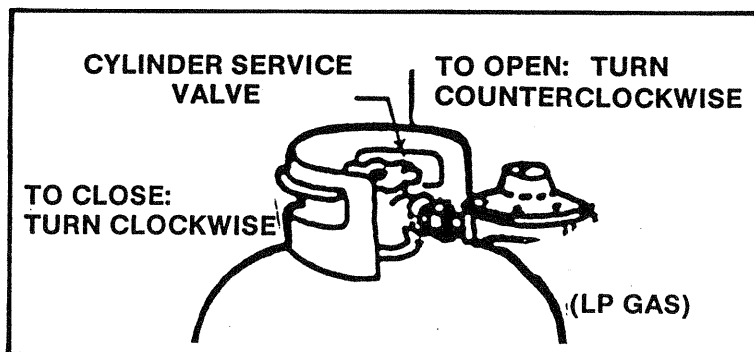
**CAUTION**

Never place food over a burner that is not in operation. The drippings will not be incinerated and therefore blockage of the small ports may result.

**Lighting and Operating Instructions**

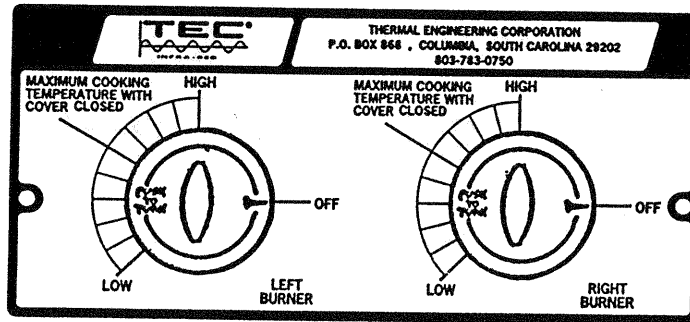
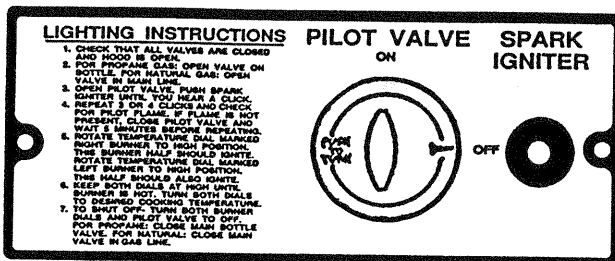
1. Check all valves to be sure they are closed and control dials are in the "OFF" position.
2. **FOR LP GAS:** Open the service valve located on top of the LP Gas Cylinder.

**FOR NATURAL GAS:** Open all valves located on the gas line going into the grill and prior to the regulator.

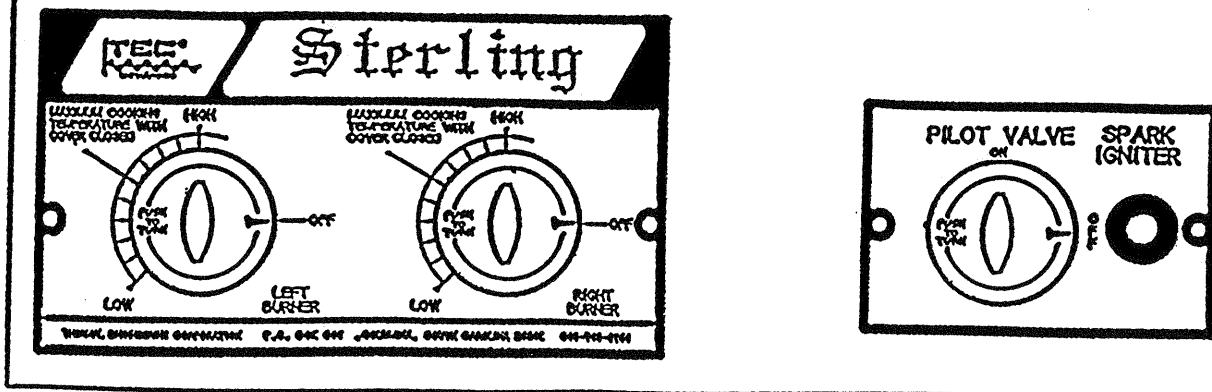




## PATIO I BURNER CONTROLS



## STERLING BURNER CONTROLS



3. Open pilot valve, push spark igniter until you hear a click.
4. Repeat 3 or 4 clicks and check for pilot flame. If flame is not present, close pilot valve and wait 5 minutes before repeating.
5. Rotate temperature dial marked right burner to high position. this burner half should ignite. Rotate temperature dial marked left burner to high position. This half should also ignite.
6. A. FOR USE WITHOUT ROLL-BACK HOOD:

When a burner is first ignited, always allow the burner to remain on the "high fire" position for 5 minutes. Then turn the control dial of the burner(s) in use to the desired setting. (See: TEC Infra-Red Searing Method).

6. B. FOR USE WITH ROLL-BACK HOOD:

When a burner is first ignited, always allow burner to remain on the "maximum cooking temperature with cover closed" position for 5 minutes. Then turn the control dial of the burner(s) in use to the desired setting. (See: TEC Infra-Red Searing Method).

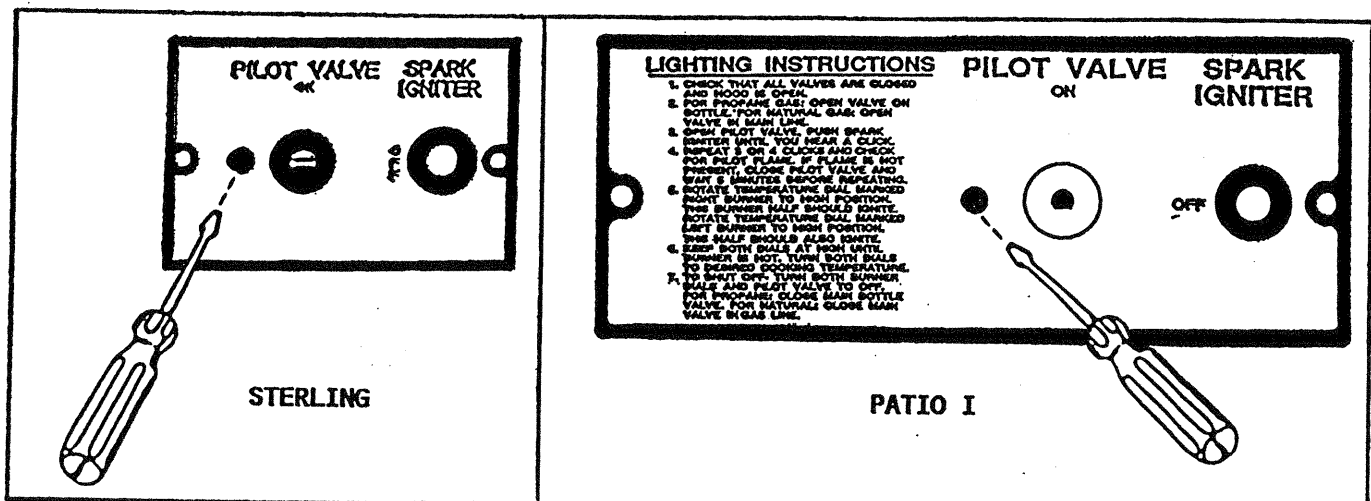
7. The temperature of each burner can be controlled by turning the controls dials to a setting of "low", approximately 1000°F (only a slight glow) to "high", approximately 1650°F (red hot).

**NOTE:** After sufficient warm-up period, the high heat position of the burners should be at a point where the majority of the burner surface displays a uniform, bright orange color.

### How to Adjust Pilot

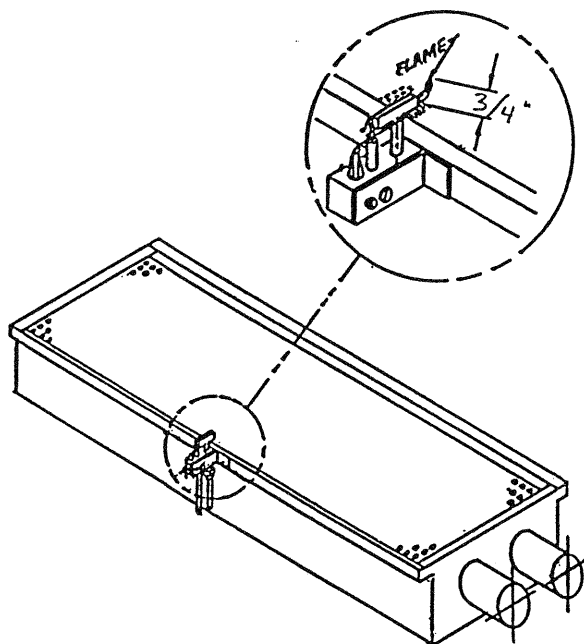
The pilot flame height is preset at the factory. If it should be necessary to re-adjust this setting due to locally prevailing atmospheric and weather conditions, follow these simple instructions:

1. Light the pilot as described in previous lighting instructions.
2. Remove pilot valve control knob.
3. Insert small screw driver into pilot valve access hole.
4. Turn clockwise to reduce flame height and counterclockwise to increase flame height. The flame should be approximately 3/4" in length.
5. Replace pilot valve control knob.

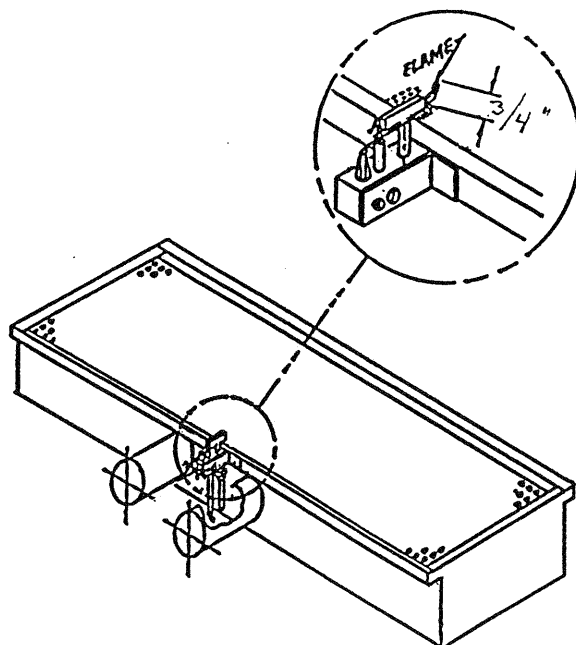


### HOW TO ADJUST PILOT

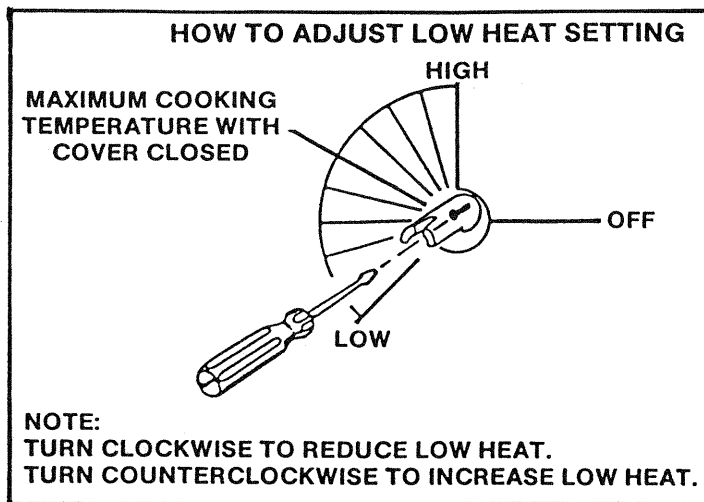
**PATIO I BURNER/PILOT CONFIGURATION**



**STERLING BURNER/PILOT CONFIGURATION**



**PROPER PILOT FLAME HEIGHT AND LOCATION**



## How To Adjust Low Heating Setting

The low heat dial position is preset at the factory. If it should be necessary to readjust this setting due to locally prevailing atmospheric and weather conditions which affect burner operation, follow these simple instructions:

1. Follow lighting procedures and operate grill for approximately 5 minutes until the burners are hot.
2. Turn the control dials to the "low" position and wait until the temperature drops and stabilizes.
3. Pull off the control dials from the valve stems.
4. Insert small screwdriver into valve stem to engage recessed set screw. Turn clockwise to reduce low heat or turn counterclockwise to increase low heat intensity. This adjustment affects the flame at the low dial setting only.

### **CAUTION**

The low heat position of the burners should be at a point where incandescence or a red color has almost disappeared. The combustion flame must be stable and should not waiver back and forth on the burner surface. Never adjust the burner so low that it may go out during use.

## How to Shut Off Burners

1. Turn control dials to "OFF" position.
  2. **FOR LP GAS:** Close the cylinder service valve.
- FOR NATURAL GAS:** Close the main valve on the gas supply source coming into the cabinet.

## **Troubleshooting**

### **PILOT BECOMES YELLOW**

If pilot flame burns yellow, it may be due to dirt or lint that has covered the lower portion of the pilot burner. This can be removed with a soft brush or by vacuuming.

### **PILOT GOES OUT OR FLAME SIZE DECREASES SUDDENLY**

If pilot goes out or flame size decreases suddenly, there is probably some kind of obstruction. Inspect the pilot for corrosion, wear or blockage. Relight pilot, if possible, and if problem persists then contact your local service agent or factory representative.

### **BURNER WILL NOT IGNITE**

1. If the burner does not light on the first attempt, immediately turn the control dials to "OFF".
2. Make certain all gas valves are open.
3. Then after you determine why the burner did not ignite, follow lighting procedure.
4. If burner fails to ignite on the second attempt, immediately turn the control dials to "OFF".
5. Gas supply may be exhausted.
6. If necessary, consult representative.

### **BURNER MAKES MOTORBOATING SOUND**

1. If during cooking the burner "flashes" and begins to make a "fluttering sound", immediately turn the control dials to "OFF".
2. Remove any foods from the area directly above the burners (grease will drop onto the burner surface and will not be incinerated).
3. Allow the burner to cool for 5 minutes.
4. Follow lighting procedure.
5. If the problem recurs, immediately turn control valves to "OFF".
6. Consult representative.

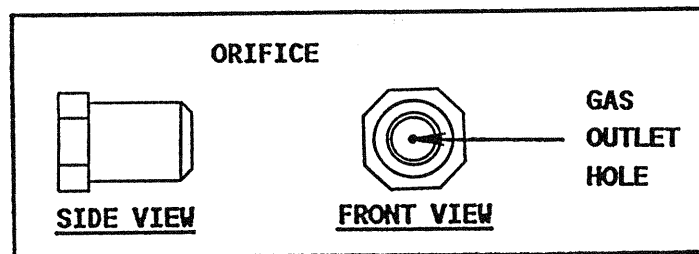
**NOTE:** Fluttering usually occurs because of an opening in or around the ceramic due to cracks, breakage or loss of proper gasket seal. This must be replaced or repaired.

### BURNER WILL NOT STAY LIT ON LOW SETTING

1. If the burner goes out while the grill is in use, immediately turn control dials to "OFF".
2. If necessary, reposition grill away from strong wind.
3. Follow lighting procedure.
4. If necessary, adjust the low heat valve setting. Turn the valve set screw counterclockwise to increase low heat intensity and clockwise to decrease. (See: How to adjust low heat setting).
5. If necessary, consult representative.

### BURNER DOES NOT APPEAR "RED HOT" ON HIGH SETTING

1. If soon after ignition the burner does not appear "Red Hot" on the high fire setting, air may be in the system. Allow burner to burn for a minimum of 10 minutes.
2. If after 10 minutes the burner still does not reach high fire, the outlet pressure from the regulator should be checked. A gas service representative will be able to do this.
3. After the pressure has been checked and determined to be correct, and if the problem still exists, the gas orifices should be checked.
  - A. Remove cooking grids and bake rack.
  - B. Remove the hood and heat shield by lifting upward.
4. The orifices can now be removed with 1/2" wrench. They should be inspected to make certain that the small hole in the orifice is clear. If it appears to be clogged, it can be cleared by using a needle or pin. (Do not use a drill bit)



5. With proper pressure and clean orifices the burner should reach high fire. If the problem exists with only one burner, the control valve could be faulty.

**NOTE:** It is highly unlikely that a problem with both control valves would exist at the same time. If necessary, consult representative.

## **DARK SPOTS ON BURNER CERAMIC**

1. During cooking, dark spots may appear on the ceramic surface. This is because grease has accumulated on the ceramic. Simply allow source to burn off.
2. If dark spots remain during the five (5) minute burn off time, turn burners off and allow to cool sufficiently.
3. Burned particles have accumulated on the surface of the ceramic. Remove burner screen. Vacuum burner surface to remove blockage.
4. Reposition burner screen.
5. Follow lighting procedure.
6. If necessary, consult representative.

## **INFRA-RED COOKING - READY OR NOT!**

Now that you're ready to begin cooking, you can enjoy cooking outdoors without all the mess and without increased electric bills to pay. In minutes your family can enjoy steaks, hamburgers, poultry, pork chops, roasts, or some good old fashioned mouthwatering bar-becued spare ribs. However, only personal use of your TEC outdoor cooking appliance will demonstrate all of its flexibility and capabilities. We hope you find these tips helpful as you develop your own techniques....

### **Before You Begin - Some Helpful Hints**

1. Remove grease tray and line with heavy-duty aluminum foil. This will prove beneficial when cleaning the grease tray.
2. Line the metal surface extending from the cooking grid down toward the burner with heavy-duty aluminum foil. During cleaning, it is only necessary to remove and dispose of the aluminum foil.
3. Use the proper tools - long handled tongs, spatula, knife, fork, mitts or heavy hot pad, a platter or tray for cooked foods, etc.
4. Meat temperature. Large cuts of meat, roasts, or fowls should be allowed to come to room temperature before cooking. Smaller meat cuts such as hamburgers, wieners, or small steaks may be cooked directly from the freezer.
5. Start slowly - infra-red grilling is unlike other outdoor cooking you have done and it may take some time to become accustomed to it. Using your TEC grill is easy and requires very little clean up afterwards. So take your time, enjoy it and make each cooking experience a successful one.

## How to Handle Flare-Ups

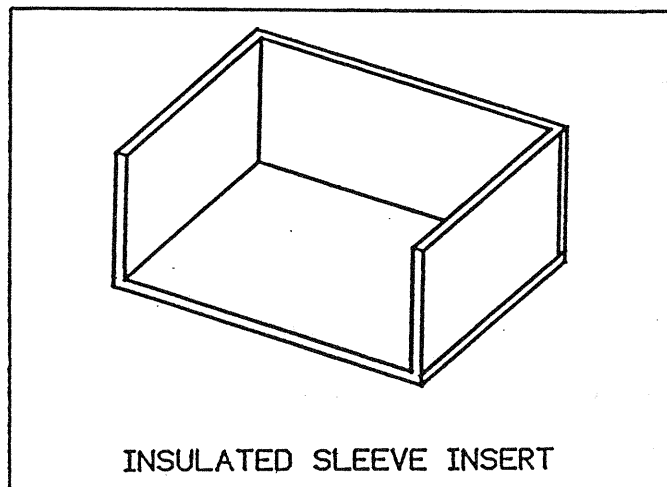
As with all outdoor grilling, flare-ups can be expected. Anytime fatty foods are cooked and the juices come in contact with a heated surface, flare-ups will result. However, flare-ups vaporize the natural juices, helping to provide that char-cooked flavor.

### TO HELP CONTROL FLARE-UPS

1. Trim excess fat off meat portions.
2. Always preheat your grill for 5 minutes on the high control dial setting before each use.
3. When cooking, reduce heat and reposition meat portions as often as necessary.
4. If necessary, completely remove meat from the cooking surface and turn burner control dial to the high fire position long enough to burn off the source of the flare-up.
5. Never douse a flare-up with water.
6. Keep your grill, grease tray, etc. as clean as possible.
7. Place the meat portions on the back cooking surface until the source of the flare-up is incinerated.

## Sterling Insulated Sleeve Insert

For the built-in Sterling applications, a stainless steel, insulated sleeve insert is available, providing for a neater installation. Since the insert is insulated, it acts as a thermal barrier to surfaces adjacent to the Sterling grill. Once installed, the sleeve allows the grill to slide in or out, without affecting the overall installation.





6. Preheat your grill for 5 minutes by allowing the burner control dial to remain on the high fire position. Now your grill will be fully heated when you're ready to begin cooking. This will also reduce the amount of sticking. Once the cooking grid temperature stabilizes, sticking will become minimized.
7. When turning or moving meats we recommend the use of long handled tongs or spatula, instead of a fork. Forks pierce meat, causing the portion to lose the natural juices - and therefore taste and flavor.

## **TEC Infra-Red Searing Method**

The high infra-red energy output of your TEC grill has many advantages. For example, the meat is evenly cooked, resulting in the same degree of doneness exists throughout the cooked portion of meat. Also, another major advantage (in using this type of high intensity burner) is the grease and food particles that may drop onto the surface of the burner completely incinerate and therefore impart flavor into the food being grilled.

Searing develops aroma and flavor on the outside surface of the meat being cooked. The importance of the infra-red searing method is two-fold; first, the searing period is very short and secondly, a low constant temperature can be maintained throughout the cooking period following searing.

1. Follow lighting procedure.
2. After the 5 minute heat time has expired, and with the controls on the "high fire setting", place the cuts of meat on the cooking grid surface for a period of 2 to 3 minutes.
3. Turn the cuts of meat immediately and repeat.
4. Adjust the control dial to the low fire or medium fire position and continue cooking until the desired degree of doneness. Turning the portions as often as necessary.

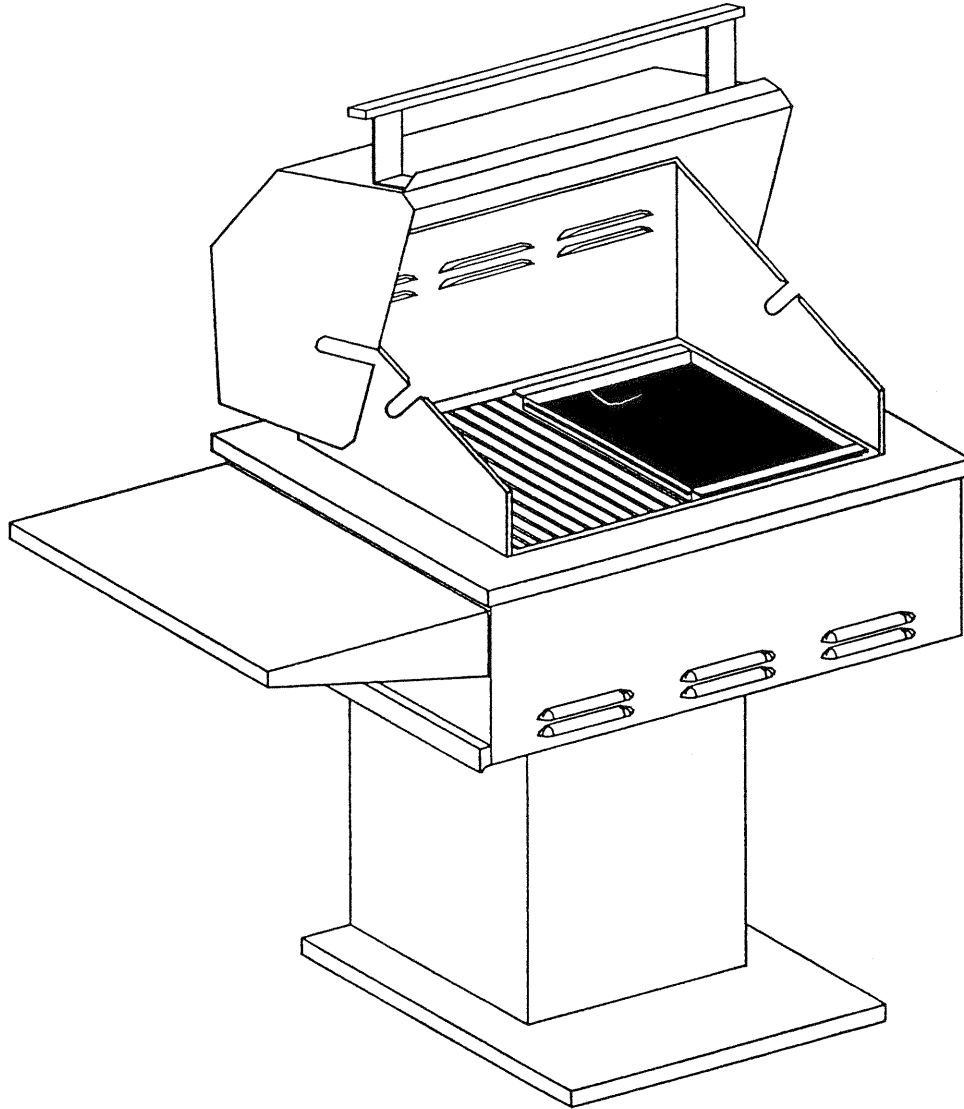
During the searing period, a certain degree of flare up can be expected. Flare-ups and the smokiness they generate, can help char-cook your food the way you like it. The "Char-cooked" flavor is a result of meat juices and seasonings dripping onto the burner surface and then being vaporized back toward the meat.

### **CAUTION**

When cooking with the cover closed, the dial position marked "Maximum Cooking Temperature with Cover Closed" is the maximum temperature setting to be used with cover closed. The dial should never be turned beyond this position towards "High" with the cover closed because the temperature will be too hot for grilling.

## FRYING GRIDDLE

The TEC Patio I Frying Griddle is sold as an accessory and adds another dimension in cooking versatility. This accessory will enable you to cook those foods outside that have traditionally been breakfast foods. Now you can cook bacon, eggs, sausage, french toast, and even pancakes outside.



### **WHEN USING THE TEC FRYING GRIDDLE FOLLOW THESE INSTRUCTIONS; ALWAYS USE OVEN MITTS**

1. Remove right cooking grid.
2. Place frying griddle over the burner.
3. Follow lighting instructions.
4. Adjust burner dials to a setting of medium to low.
5. After cooking turn burner dial to OFF.
6. Allow frying griddle to cool sufficiently before removing. USE OVEN MITTS.

## **Cooking Times**

Please keep in mind that cooking times can vary significantly in accordance with personal preference, portion size and variety of environmental factors. Cooking times are estimates, and therefore, may vary. As you become accustomed to cooking with your TEC grill, you will develop your own cooking times. However, we hope you find the cooking times listed below helpful.

### **VEGETABLES**

When cooking vegetables the control dial setting should be at or below the medium setting, and the cover should be closed.

### **SEASONED CABBAGE**

Cut cabbage into watermelon shaped slices. Place each slice on a sheet of heavy aluminum foil. Add salt, pepper, butter or margarine and seasoning salt. Completely wrap each slice with the aluminum foil. Place the wrapped slices on the back cooking grid surface. Bake approximately 45 minutes, turning only once.

### **CORN-ON-THE-COB**

Place each ear of corn on a sheet of heavy aluminum foil. Add salt, pepper, butter, or margarine. Completely wrap the corn with the aluminum foil. Place the wrapped ears of corn on the back cooking grid surface. Bake about 45 minutes, turning occasionally.

### **BAKED POTATOES**

Place each potato on a sheet of heavy aluminum foil. Add salt, pepper, butter, or margarine. Completely wrap each potato with the aluminum foil. Place the wrapped potatoes on the back cooking grid surface. Bake about 45 minutes, turning only once.

### **WHOLE BAKED ONIONS**

Place the peeled onions on a heavy sheet of aluminum foil. Add salt, pepper, butter, or margarine. Completely wrap the whole onions with the aluminum foil. Place the wrapped onions on the back cooking grid. Bake approximately 30 minutes, turning occasionally.

<u>ITEM</u>	<u>CONTROL SETTING</u>	<u>TOTAL COOKING TIME</u>
Steak 1" Thick	High fire 2 min. each side	4 min.-Rare
	High fire 2 min. each side Balance medium fire	6 min.-Medium
	High fire 2 min. each side Balance medium fire	8 min.-Well Done
Hamburger 1/2" Thick	High fire 2 min. each side	4 min.-Rare
	High fire 2 1/2 min. each side	5 min.-Medium
	High fire 3 min. each side	6 min.-Well Done
Chicken-Whole (cooked on rotisserie; hood open)	High fire 10 min. Balance medium fire	1 hour, 20 min.
Chicken Parts	High fire 2 min. each side Balance medium low to low fire	15-25 min.
Ribeye Roast (cooked on rotisserie; hood open)	High fire 10 min. Balance medium fire	15 min./pound-Rare 20 min./pound-Medium 25 min./pound-Well Done
Pork Roast (cooked on rotisserie; hood open)	High fire 10 min. Balance medium fire	Always cook well done 25 min./pound

## **MAINTENANCE AND CLEAN UP**

Good maintenance and clean up will lengthen the life of your grill and provide you many years of outdoor enjoyment. Periodic cleaning of your grill will help you avoid accumulations of flammable grease, fats, and other debris.

Because of the high intensity of the infra-red burner, drippings and food particles that fall onto the burner surface during grilling will be incinerated. However, some debris and residue will remain. To remove this residue after each meal, leave the control settings on the "high fire" position for five (5) minutes.

### **CAUTION**

**Always allow grill to cool sufficiently before cleaning grill components.**

### **Cleaning the Burner**

The most important consideration in maintaining the cleanliness of the grill is to be certain that the burner is operated on the "HIGH FIRE" setting for a period of at least 5 minutes after cooking each meal.

From time to time ash will accumulate on the surface of the burner. Ash is that part of the combustible material left after incineration. This ash, if allowed to accumulate for a long period of time, can contribute to blockage of the small ports of the ceramic surface.

To prevent this blockage, remove the cooking grids and the burner screen. Vacuum off the burner surface with a conventional canister type vacuum cleaner every four to six months. **The ceramic surface of the burner is fragile and must be handled carefully.**

### **Cooking Grids, Bake Rack or Spit Rod**

The procedure of setting the control dials on "high fire" position for 5 minutes after cooking each meal will help "clean" the cooking grids. However, all of the components can be removed and cleaned with a soft bristle wire brush and sudsy-solution, cleaning pads, and/or soaked in oven-cleaning solutions.

### **Cleaning the Stainless Steel Components**

The majority of the components that make-up your TEC Sterling grill are made of stainless steel. These items include the hood, mobile side shelf, grease tray, just to name a few. The side shelf and grill top on the TEC Patio I grill also fall into this category. Since they are made out of stainless steel, they can be cleaned with any type of abrasive powder or cleaning pads.



STERLING PARTS LIST

ITEM NO.	PART DESCRIPTION	TEC PART NO.	NO. REQ'D.
1	Sterling Grill	SSG40	1
2	Lighting Instruction Label	HW0723	1
3	Burner Control Plate	HW0720	1
4	Pilot Control Plate	HW0721	1
5	A.G.A. Plate	HW0713	1
6	Caution Plate	HW0701	1
7	Heat Shield Assy.	FM0264	1
8	Drip Tray	FM0226	1
9	Burner Assy.	FM0283	1
10	Cooking Grid Assembly	FM0082	2
11	Burner Screen, Notched	FM012702	1
12	Manifold Assy., complete	FM0288	1
13	Pilot Assy.	HW0218	1
14	Burner Control Valve, L777	HW0221	2
15	Pilot Control Valve, L777A	HW0222	1
16	Needle Valve	HW0220	1
17	LP Regulator with Hose	HW0206	1
18	LP Orifice #56	HW020209	2
19	Nat Regulator	HW0205	1
20	Nat Orifice #47	HW020208	2
21	Control Knob	HW0802	3
22	Spark Igniter Assy.	HW0219	1
23	Rain Cover Assy.	FM0291	1
24	Hood Assy., complete S/S	FM0293	1
25	Hood Body Assy., S/S	FM0294	1
26	Hood Top Assy.	FM0295	1
27	Sterling Logo	HW0724	1
28	Hood Handle Bracket	FM0115	2
29	Hood Handle	HW1302	1
30	Warming Rack	HW1601	1
31	Side Shelf	FM0279	1
32	Pedestal Caster/Leg Plate	FM0390	1
33	Bullet Foot	HW0102	2
34	Caster	HW1402	2
35	Pedestal Post, S/S	FM0365	1
36	Rubber Grommet	HW0801	1
37	Rotisserie Kit	FM0136	1
38	Rotisserie Rod	HW1702	1
39	Rotisserie Motor	HW1701	1
40	Rotisserie Bracket	FM0135	1
41	Rotisserie Handle	HW1704	1
42	Rotisserie Meat Fork	HW1703	2
43	Woodchip Smoker Assy.	FM0134	1
44	Deep Fat Fryer Assy.	FM0131	1
45	Large Frying Griddle	FM0132	1
46	Small Frying Griddle	FM0133	1
47	Sterling Vinyl Grill Cover	HW190102	1
48	Sterling Insulated Sleeve	FM0407	1

**PATIO I PARTS LIST**

ITEM NO.	PART DESCRIPTION	TEC PART NO.	NO. REQ'D.
1	Patio I Post Grill	PPP40	1
2	Caster	HW1402	2
3	Bullet foot	HW0102	2
4	Side Shelf	FM0090	1
5	Burner Control Plate	HW0708	1
6	Pilot Control Plate	HW0726	1
7	AGA Approval Plate	FM0713	1
8	Caution Plate	FM0707	1
9	Burner Assembly	FM0091	1
10	Burner Screen, notched	FM012702	1
11	Cooking Grid Assembly	FM0082	2
12	Manifold Assembly, complete	FM0385	1
13	Pilot Assembly	HW0218	1
14	Burner Control Valve, L777	HW0221	2
15	Pilot Control Valve, L777A	HW0222	1
16	Needle Valve	HW0220	1
17	LP Regulator w/hose	HW0206	1
18	LP Orifice, #56	HW020209	2
19	Nat Regulator	HW0205	1
20	Nat Orifice #47	HW020208	2
21	Control Knob	HW0802	3
22	Spark Igniter Assembly	HW0219	1
23	Heat Shield Assembly	FM0085	1
24	Rubber Grommet	HW1801	1
25	Hood Assembly, complete	FM0111	1
26	Hood Body Assembly	FM0151	1
27	Hood Top Assembly	FM0152	1
28	Hood Handle Bracket	FM0115	2
29	Hood Handle	HW1302	1
30	Drip Tray Handle	HW1301	1
31	Drip Tray	FM0089	1
32	Grill Top	FM0117	1
33	TEC Nameplate	HW0702	1
34	Patio I Logo	HW0711	1
35	Warming Rack	HW1601	1
36	Patio I Vinyl Grill Cover	HW190101	1
37	Rotisserie Kit	FM0136	1
38	Rotisserie Rod	HW1702	1
39	Rotisserie Motor	HW1701	1
40	Rotisserie Bracket	FM0135	1
41	Rotisserie Handle	HW1704	1
42	Rotisserie Meat Fork	HW1703	2
43	Woodchip Smoker Assy.	FM0134	2
44	Deep Fat Fryer Assy.	FM0131	1
45	Large Frying Griddle	FM0132	1
46	Small Frying Griddle	FM0133	1



## COOKING NOTES