

# Hickory Rotisserie

Model: N/5.7 G



**Voltage:** 120V single phase, Amps: 3, Hz: 60

**Cooking burners:** 2 Pressurized burners

BTU's / Cooking Burner: 36,000 Natural  
20,000 Propane

**Show Burner:** 20,000 Natural or Propane

**Orifice Size**

#32

#48

(3)#51 / #56

**Manifold Pressure:** 5.5 in W.C. Natural  
11 in W.C. Propane

**Minimum Installation Clearance:**

3 Inches sides and back. 15 inches rear with glass door in back

Lamps should be replaced with 120V, 40W rated bulbs or equivalent

Specifications and manual subject to change without notice

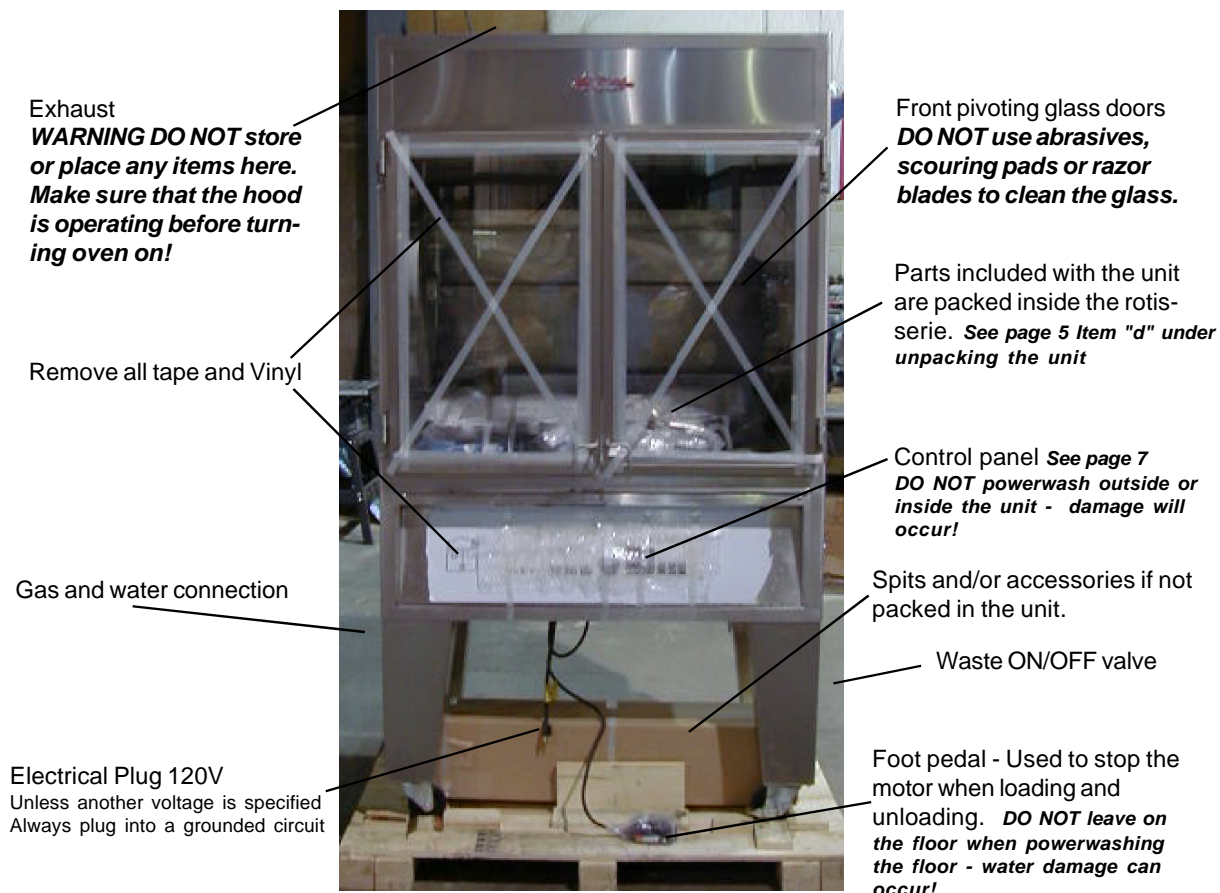
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## **Installation Tips**

- a. When installing these units, it is important to comply with the most recently established rules and regulations as deemed pertinent by the local and national electrical, gas, ventilation, sanitation, and fire codes. These units are classified by Underwriters Laboratories, Inc. as Gas-Fired Food Service Equipment in accordance with American National Standards Institute ANSI Z83.11b-1991, Gas Food Service Equipment - Ranges and Unit Boilers.
- b. These gas units may not be directly connected to a gas flue or exhaust. However, the units may only be operated in conjunction with a canopy type exhaust hood.
- c. The room where the units are being installed must be ventilated in accordance to the valid codes and regulations.
- d. The units are to be installed securely and horizontally. The units may be installed on combustible floors.
- e. The minimum clearance to the rear or side walls must be 3 inches. It is also important to insure that the bottom of the units is kept clear so that proper ventilation or air exchange can occur.
- f. Normally, the units will be sent to the operator already set up for the particular type of gas available at their location. However, unless otherwise specified, the units will be set up for natural gas use. Before installing and using the units for the first time, it is important to make sure that the gas type and pressure indicated on the data plate matches the type of gas available in the location. Should this not be the case, it is imperative to change or convert the units to the needed gas type.
- g. The units must be fitted with the manual shut-off gas cock (valve) supplied with the machine. This manual valve is needed to shut off the gas to the machine during maintenance work, repairs, pressure testing and if the unit needs to be disconnected for any reason. **DO NOT REMOVE otherwise warranty will be voided.**
- h. A gas regulator is also supplied with the machine. This component is needed so that the appropriate gas pressure can be set and insure an optimum operation of the unit. **DO NOT REMOVE otherwise warranty will be voided.**
- i. When installing this unit with a gas quick disconnect, a tethering device must be used.
- j. Depending on local codes or if deemed necessary, a gas filter may also be required.
- k. Do connect the unit to a 1" gas line. Connecting the unit to a lesser line can reduce the units effectiveness or cause improper operation.

- l. After connecting the unit, make sure that the line has been bled and that a static pressure reading of at least 7" water column pressure is obtained.
- m. The unit is equipped with a water connection to facilitate filling of the drip pan with water. Connect the 1/2 inch water valve to a flexible connection to facilitate movement of the unit for cleaning.
- n. Drain - the unit is equipped with an 1 1/2" drain. If connecting to the drain, make sure the drain it is connected to a fat trap. Adhere to all local plumbing codes.
- o. When the waste valve is not connected, we recommend the use of a bucket. At the end of the day, place the bucket at the waste valve. Open the water inlet slightly and fill the drain until the fat and grease has floated into the drain. Shut the water and bring the bucket to the cooler and let the fat rise and skim off the fat and place into the fat rendering tank. The remaining water can be discarded into the sink.
- 



## Overview of the unit before set up

**Unpacking the unit:**

- a. After the unit is un-crated, roll the unit and all accessories into place.
- b. Remove all vinyl paper on the stainless steel
- c. Remove all tape from glass surfaces and metal surfaces
- d. Carefully remove and inspect parts that are inside the unit. Ensure that all materials sent with the crate are inspected:

**Items that are sent with the unit are:**

**(extra parts vary from customer to customer)**

Cooking Spits (7) Spits and skewers, Angle spits or thermowave spits.

Over Flow Tubes (2)

Removable rear cleaning panel (1)

Wire Rack (1)

Ceramic Logs (4)

Ball Knobs (2)

Log Carrier (1) Installed on the rear burner

Thumbscrew Key (1) If sent with spits and skewers

**Setting Up The Rotisserie**

- a. Clean, rinse and sanitize the spits. If baskets and accessories are ordered, clean and sanitize as well.

- b. Place the ball knobs on the doors.

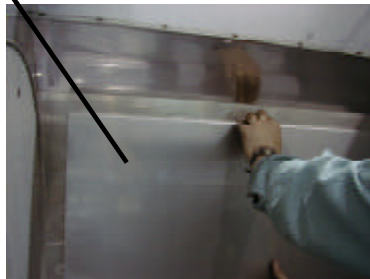
Tighten firmly.



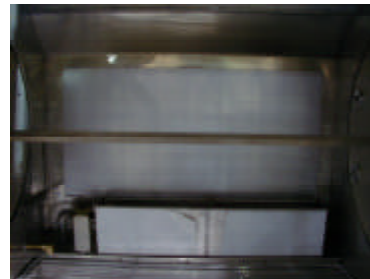
- c. Place the removable rear panel on the rear of the unit.



1.



2.



3.

- d. Place the ceramic logs on the rear ceramic log holder. Note the placement of the left ceramic log - it must be located over the ignitor box to prevent fat from clogging the burner holes.



- e. Insert the drain overflow tubes and reinsert the wire rack.



- f. Remove the drain handle and install the handle onto the valve and tighten.

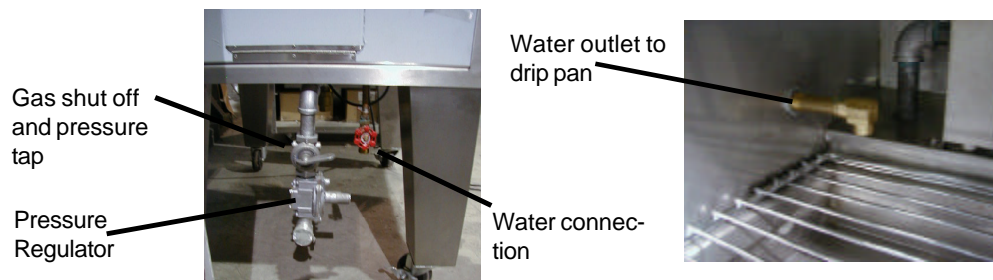


Valve in open position



Valve in closed position

- g. The rotisserie is now ready to be plumbed by a licensed gas fitter.





Water connection and drip pan water inlet valve.



Gas inlet, pressure regulator & main shutoff valve



Drain valve "open position"

### **Thermostat:**

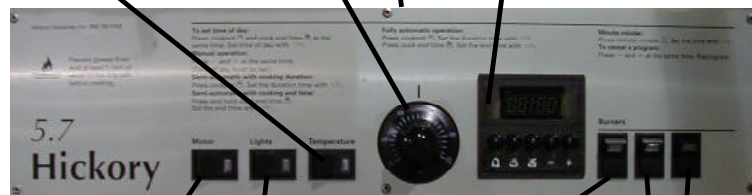
Cycles heat ON and OFF during cooking.  
Product that has marinades, citrus, rubs etc.. may burn which can be remedied by turning the thermostat at a lower temperature.

### **Temperature Switch:**

Turns heat ON / OFF Indicator is illuminated when the thermostat calls for heat.

### **Timer:**

Displays the time of day.  
Allows the unit to cook and can be used to shut the heat OFF at the end of a cook.



**Motor Switch:**  
Turns motor ON / OFF

**Light Switch:**  
Turns lights ON / OFF

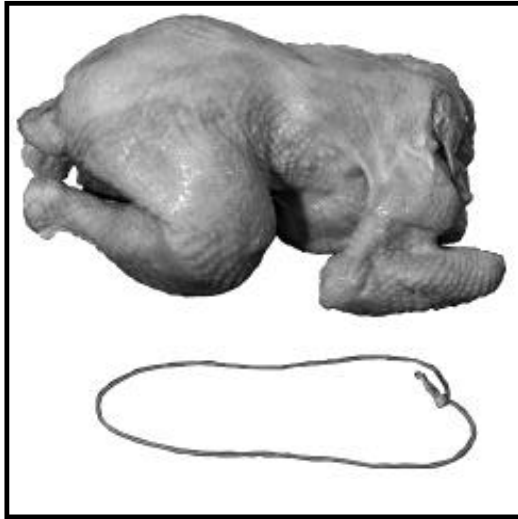
**Rear Show Burner Switch:**  
Turns rear burner ON / OFF  
**MOTOR SWITCH MUST BE ON**

**Top Burner Switches:**  
Turns cooking burners ON / OFF  
**We recommend one burner ON with 1 to 3 spits of product and both burners ON with 4 or more spits of product.**

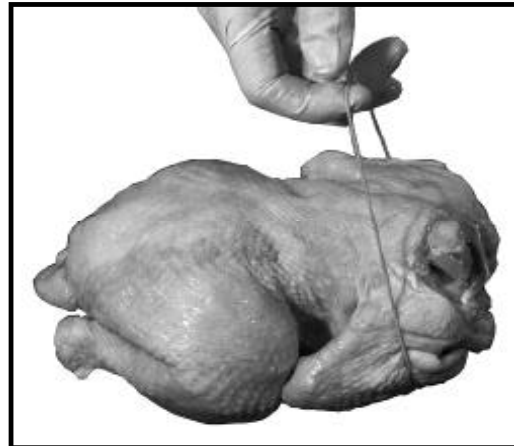
## **Control Panel Overview**

**Spitting Chickens**

The most important part in getting started with a rotisserie is knowing how to properly spit the product. This is quite easy, but it must be learned! As an operator, you will become an expert in spitting chickens within half an hour! There are two types of commonly used spits: the angle spit and the regular spit. The following pages describe and show how spitting is done with both these types of spits.

**A. Using Angle Spits****Figure 1. Chickens Ties**

When using a “V” or angle spit, it is very important to tie or truss the product being cooked. This prevents the product from moving around the spit and also prevents damage by preventing the legs and wings from flopping. In this section, we will show how to properly truss a chicken. It is important to use a tie to fit the size of the product. In this case, we are tying a  $2\frac{3}{4}$  lb. chicken with a 6” tie.

**Figure 2. Trussing Wings**

With the back of the chicken facing up, take the tie and wrap it around the breast, making sure to tuck the wings against the breast. Pull on the tie as pictured. You will also need to hold the chicken with your other hand.

**Figure 3. Trussing Across Back**

While pulling on the tie, cross the strings so that you make an “X” across the back of the chicken. With the “loop” in your hand, you will now need to tie the legs of the chicken.





**Figure 4. Trussing Legs**

While pulling on the tie, loop the strings over the legs of the chicken.



**Figure 5. Trussed Legs**

Make sure that both legs are securely held by the tie.



**Figure 6. Trussed wings**

Make sure that both wings are securely held by the tie against the breast of the chicken.



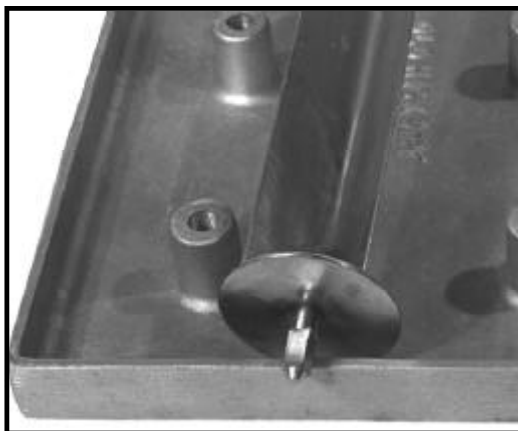
**Figure 7. Pop-up Thermometer**

The only way to tell if a chicken is done is take the internal temperature. Since it can be difficult to probe the chickens while they are in the rotisserie, we recommend the use of pop-up thermometer. These inexpensive items should be place in the thickest part of the chicken, which is the breast. The thermostat will “pop-out” when the internal temperature reaches 185° F.



**Figure 8. Chicken Ready to Spit**

With the chicken trussed and the pop-up thermometer in place, the chicken is ready to be spitted with an angle spit.



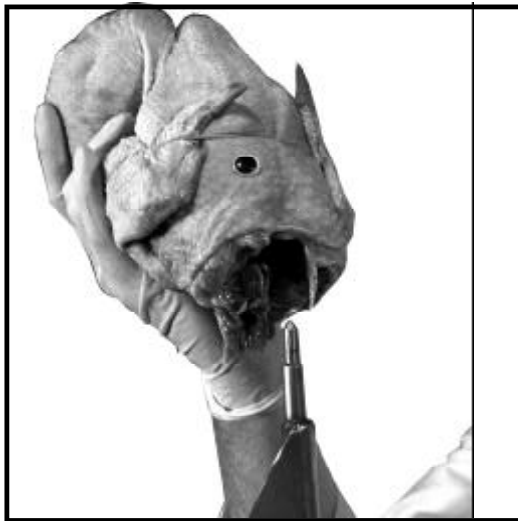
**Figure 9. Spitting Accessories**

In order to make the use of the angle spits fast and easy, we offer an accessory called a Spit Holder (Hickory Part 195). This aluminum plate offers six holes where the base (square-end) of the angle spit can be inserted.



**Figure 10. Using the Angle Spit**

Insert the bottom (square-end) of the spit into one of the holes in the Spit Holder.



**Figure 11. Spitting a Chicken**

Spit the chicken through the cavity. The chicken should be inserted through the “head” (or at least where the head used to be) first.



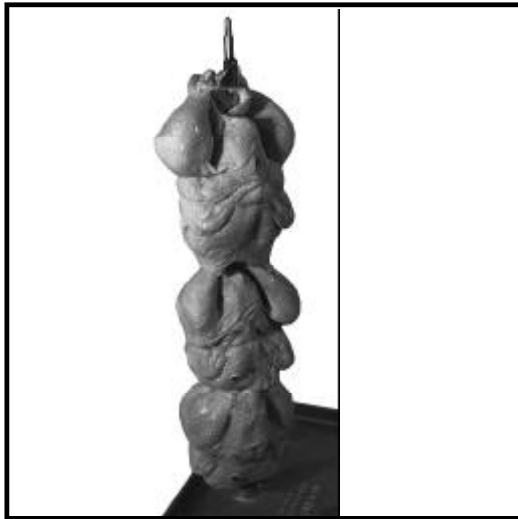
**Figure 12. Chicken Position on Spit**

When spitting the chicken, make sure that the breast is sitting on the flat, exterior side of the spit. Notice on the picture how the breast is not directly on the rounded corner of the spit, but above one of the flat parts of the “V”. It is also important to note that the legs (and the tie) must sit on the same flat side of the spit. This picture shows exactly how the chicken should look when spitted.



**Figure 13. Incorrectly Spitted Chicken**

This picture shows a chicken with the legs improperly placed. Note how the chicken seems to hang to one side. When spitted this way, the chickens will tend to “bounce” up and down causing the chicken to breakup.



**Figure 14. Complete Spit**

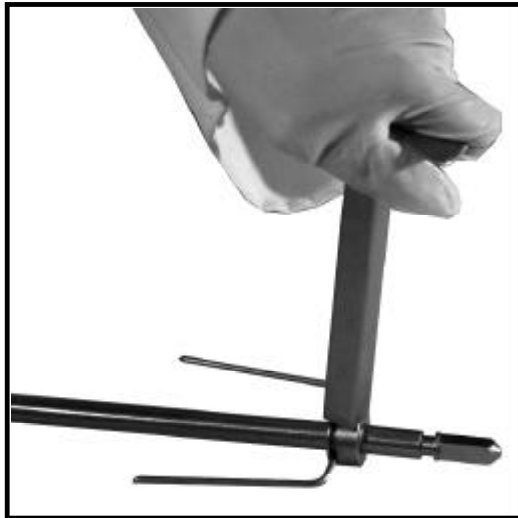
After inserting the first chicken, push it all the way to the bottom of the spit and add the next chicken. Depending on the size of the birds and on the rotisserie model, each spit will accommodate three to four  $2\frac{3}{4}$  lb. chickens. Once completed, the spit is ready to be placed in the rotisserie.

**B. Using Regular Spits**



**Figure 15. Inserting Single Bottom Skewer**

Attach a *single skewer* with a *thumb screw* at least 1/2" from the square end of the spit. The skewer must be on the round section of the spit.



**Figure 16. Fastening Bottom Skewer**

Use the "T" shaped tool supplied with the unit to tighten the thumb screw. This will prevent the bottom skewer from sliding off the screw.



**Figure 17. Using the Spit Holder**

Even though the chickens can be spitted on a work table, the use of the Spit Holder (Hickory Part 195) will make the spitting process much easier.



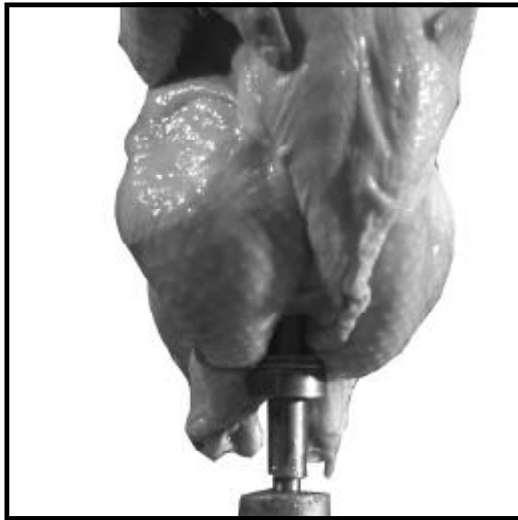
**Figure 18. Inserting Chicken**

Take the chicken, with the drumsticks in the direction of the attached *skewer*, and slide the *spit* through the cavity of the chicken.



**Figure 19. Tucking the Legs**

The legs must be tucked between the skewer prongs and the center spit. Note that the bottom of the drumstick is what is being locked in place.



**Figure 20. Pressing Chicken Towards Skewer**

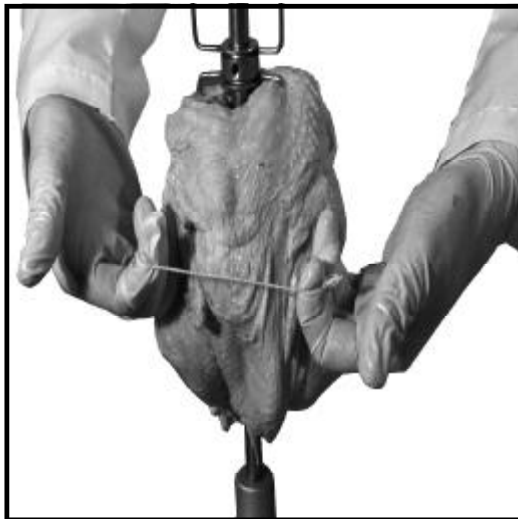
When viewed from the breast side of the chicken, the bottom of the drumstick is being pushed back while the meaty part of the leg is “puffed up” for better presentation. Note that the skewer is not going straight through the drumstick!





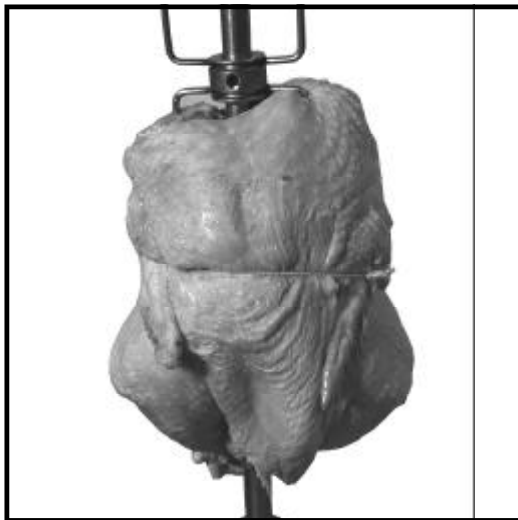
**Figure 21. Locking Wings**

The wings must be locked or tucked in place. **When using the models N/5.5 and N/10.10, the locking method (pictured here) is only recommended with birds up to 2 3/4 lbs!** With larger birds, the wings must be tucked under the breast, with elastic ties or “wing tuckers”. If the wings are locked on large birds, the wings on the adjacent spits will rub or catch, preventing the spits from rotating freely. This will cause the wings to break off or the gear mechanism to jam.



**Figure 22. Tucking Wings**

With larger birds, the wings must be tucked under the breast, with elastic ties or “wing tuckers”.



**Figure 23. Tucked Wings**

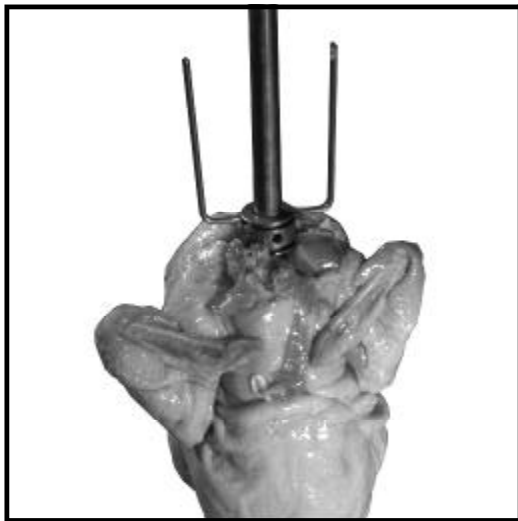
Notice how the wings are tucked against the breast. By “tucking” instead of “locking” the wings, the working or rotating diameter of the chicken has been reduced.



**Figure 24. Inserting Double Skewers**

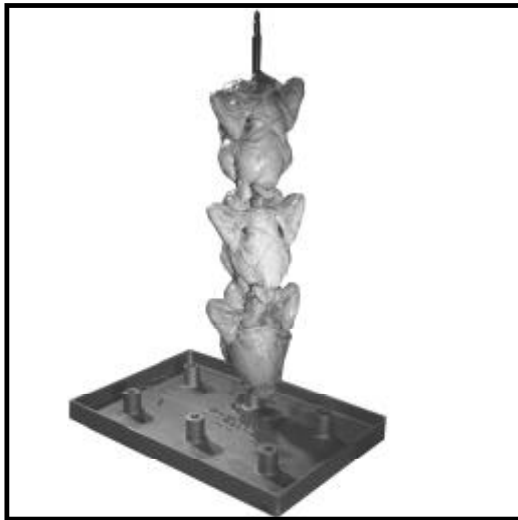
With the first chicken in place, insert a *double skewer* down the length of the *spit* into the shoulders of the first chicken. **No *thumb screw* is required for the *double skewers*!**

**WARNING!** When driving the double skewer into the chicken, do not exert pressure from the end of the prongs! These are sharp and will pierce a finger or hand if not careful. Only apply pressure at the bottom of the "U" shaped half of the skewer!



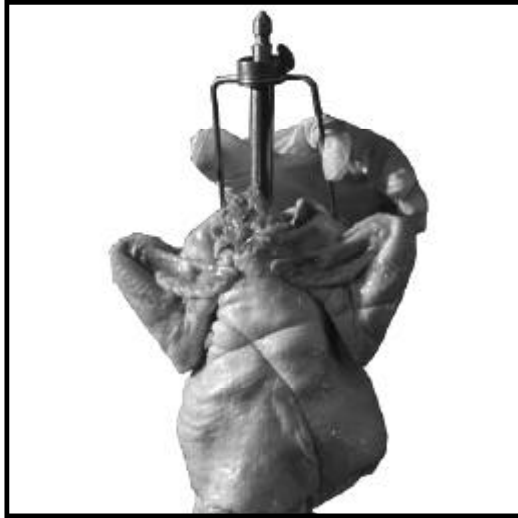
**Figure 25. Double Skewer in Place**

With the double skewer in place, insert the next chicken down the length of the *spit* and position the chicken as previously described.



**Figure 26. Loaded Spit**

When the loading of the chickens is complete, the end of the spit must be locked in place with another single skewer.



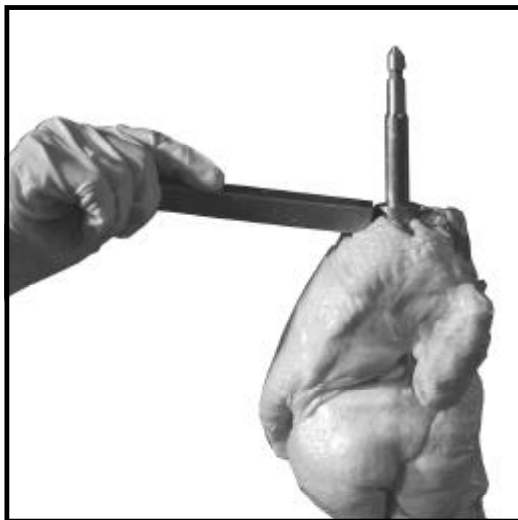
**Figure 13. Completing the Load**

Slide a *single skewer with a thumb screw* into place from the top,



**Figure 14. Tightening Final Skewer**

Compress the chickens by exerting pressure on this last skewer, and tighten the thumb screw securely.



**Figure 15. Securing the Load**

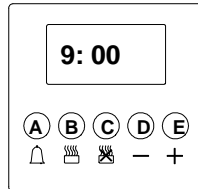
Tighten the *thumb screws* with Hickory's *thumbscrew tightening tool*. This will prevent the chickens from coming loose.

## Cooking Preparations

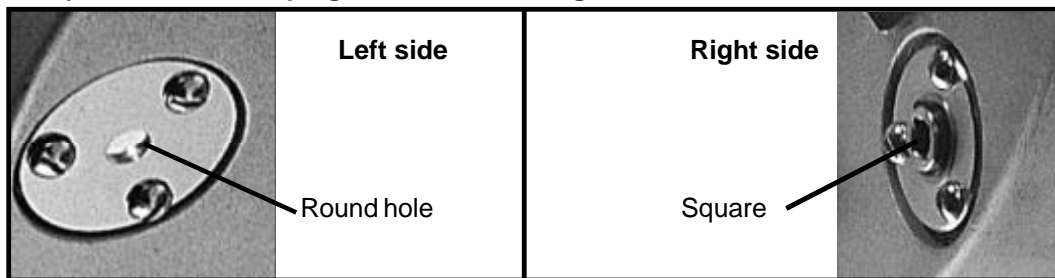
### Morning Preparation:

1. Cover the center shaft with aluminum foil.
2. Shut the drain valve and add water into drip pan (approximately one inch of water should be sufficient. If the unit will be in operation all day, you will need to add more water accordingly.).
3. **Be sure to spray the non-cooking components of the oven with Kote™. (Spray the interior walls; drums and the rear wall with USDA and FDA approved KOTE™.**
4. Turn on the motor and rear burner switch to preheat the unit. Using the rear show burner, will prelate the unit to approximately 275 degrees F.

### Cooking Preparations:



1. Be sure that the rotisserie has been preheated for approximately 20 minutes.
2. Using the foot pedal to stop the rotation of the drums, open the glass doors and place the spitted product in the rotisserie. **The pointy end of the spit goes to the left and the square end of the spit goes towards the right.**



3. **REMINDER – When cooking 1 – 4 spits, use only one of the upper burners this will save energy and prevent the product from burning. When using 5 or more spits, use both upper burners for a quicker cooking time. Using only one burner with a full load of product will result in extended cooking times.**
4. Close the glass doors.
5. Be sure that the timer is set to cook. By pressing both the cook pot („B“) and cook pot off („C“) buttons simultaneously you will place the unit into the manual-cooking mode. The cook pot symbol on the timer will illuminate.
6. Turn your temperature switch on and verify the thermostat setting. Turn on the appropriate top burner switches – see item 3. Verify that the top burner(s) ignite and stay lit. **If one of the upper burners shut off, turn the temperature switch off, wait 5 seconds and then on again. This action will result in resetting the safety feature and will restart the ignition process. This procedure may need to be repeated several times especially after periods when the unit has been sitting idle for an hour or more.**
7. With the upper burners lit, press the bell/chime button („A“) and then press the + button („E“) to set the desired cooking time in hours and minutes.

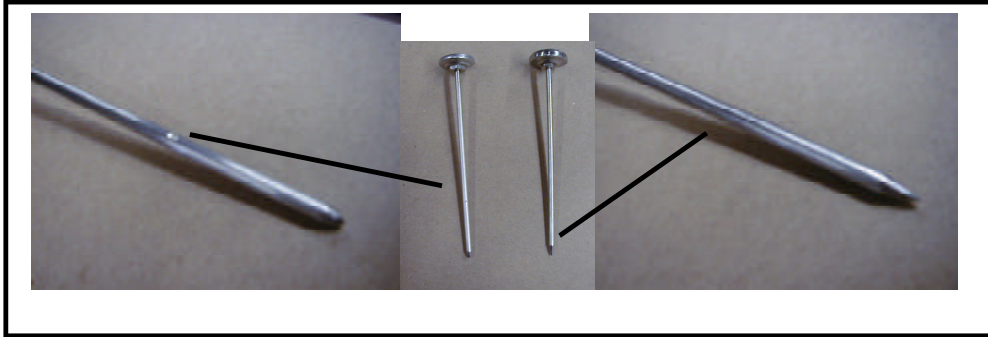
8. After the programmed time has elapsed, the timer will beep, but the cooking process will continue. Always check the product's internal temperature and ensure that they are at least 180°F. If the product needs additional time to cook, you can do so by pressing the cook pot symbol („B“) and then pressing the + button (E“).
9. If product is fully cooked, shut off the temperature switch, remove the product from the oven and package accordingly. Take care not to allow the product temperatures to fall below critical temperatures.
10. To start a new load, follow step #1 through #7. **REMINDER: If possible, wipe the glass down with approved glass cleaner between cooking loads. This will facilitate end of day cleaning.**

**Cleaning:**

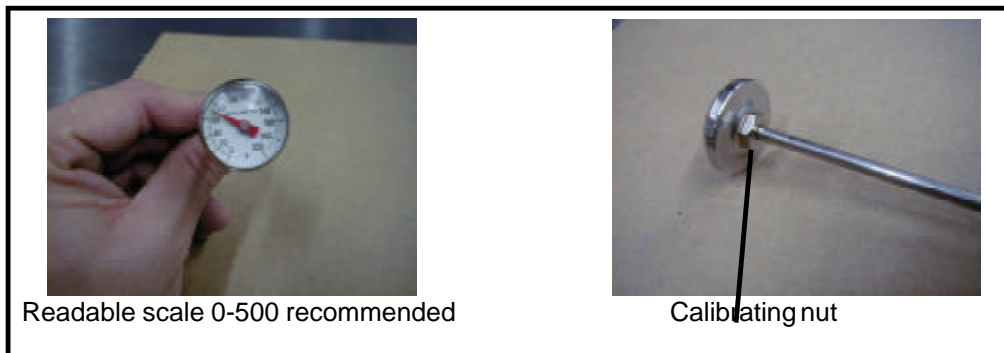
1. Shut off all burners and lights.
2. Let the oven cool down.
3. Remove the aluminum foil from the center shaft.
4. Place a bucket under the drain valve and drain the contents of the drip pan. Close the valve and refill the drip pan with hot soapy water.
5. Wipe the oven surfaces with a rag using the soapy solution; the Kote coating and the fat that has adhered to the Kote will remove very easily. If the unit was not sprayed with Kote, appropriate degreasers / cleaner will be required.
6. When finished cleaning the oven, drain the soapy solution from the drip pan and wipe the drip pan clean.
7. Wipe the glass with a glass cleaning solution. **DO NOT USE RAZOR BLADES, SCOURING PADS OR ANYTHING ABRASIVE TO CLEAN THE GLASS.** You can use an oven cleaner for stubborn spots.
8. Place the spits and skewers in a hot soapy solution. Soak for 15 - 20 minutes – this will loosen the baked on residue. Brush the baskets clean with a scrubbing brush. Follow guidelines for rinsing and sanitizing.
9. You can fill the drip pan with water in advance for tomorrow's cooking cycle.
10. **Recommendation** – It would be a good time to place foil on the center shaft and to spray the oven down with KOTE<sub>™</sub> for tomorrow's cooking cycle.

### **Thermometer Guidelines**

When checking product temperature, ensure that you have a calibrated thermometer. A good thermometer should be 1/8" thick and about 6 inches long. The thermometer should not have a dimple. If it does, this is where the thermometer actually measures temperature. This dimple must be placed in the thigh area.



The thermometer should have an easily readable scale. It also should be calibrated using manufacturers recommendation.



Readable scale 0-500 recommended

Calibrating nut

When checking for product temperature, insert your thermometer into the meatiest part of the product. When testing chickens, the thermometer should be inserted into the leg and thigh area and it should read 180 to 185 degrees F.





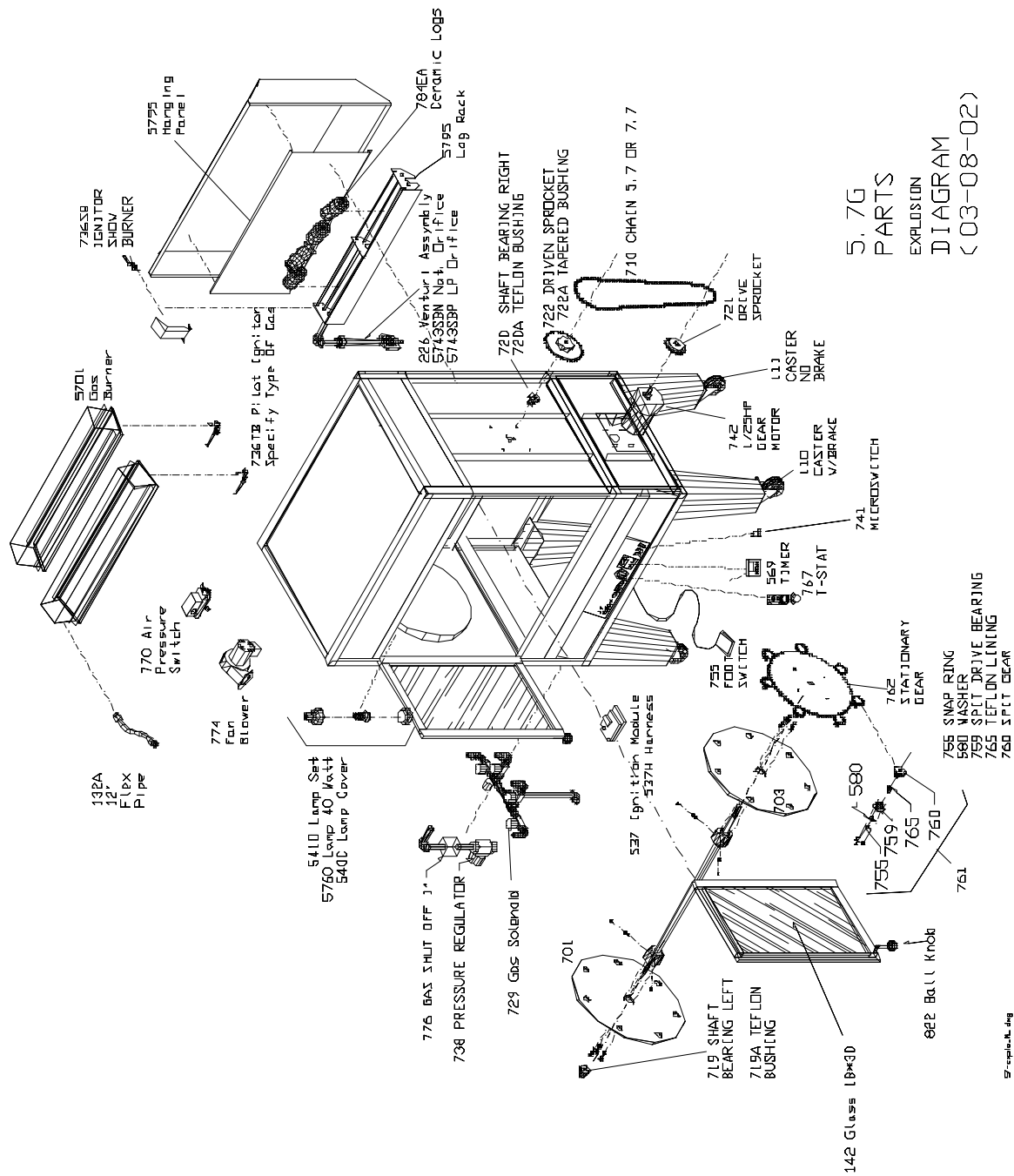
**Temperature Chart**

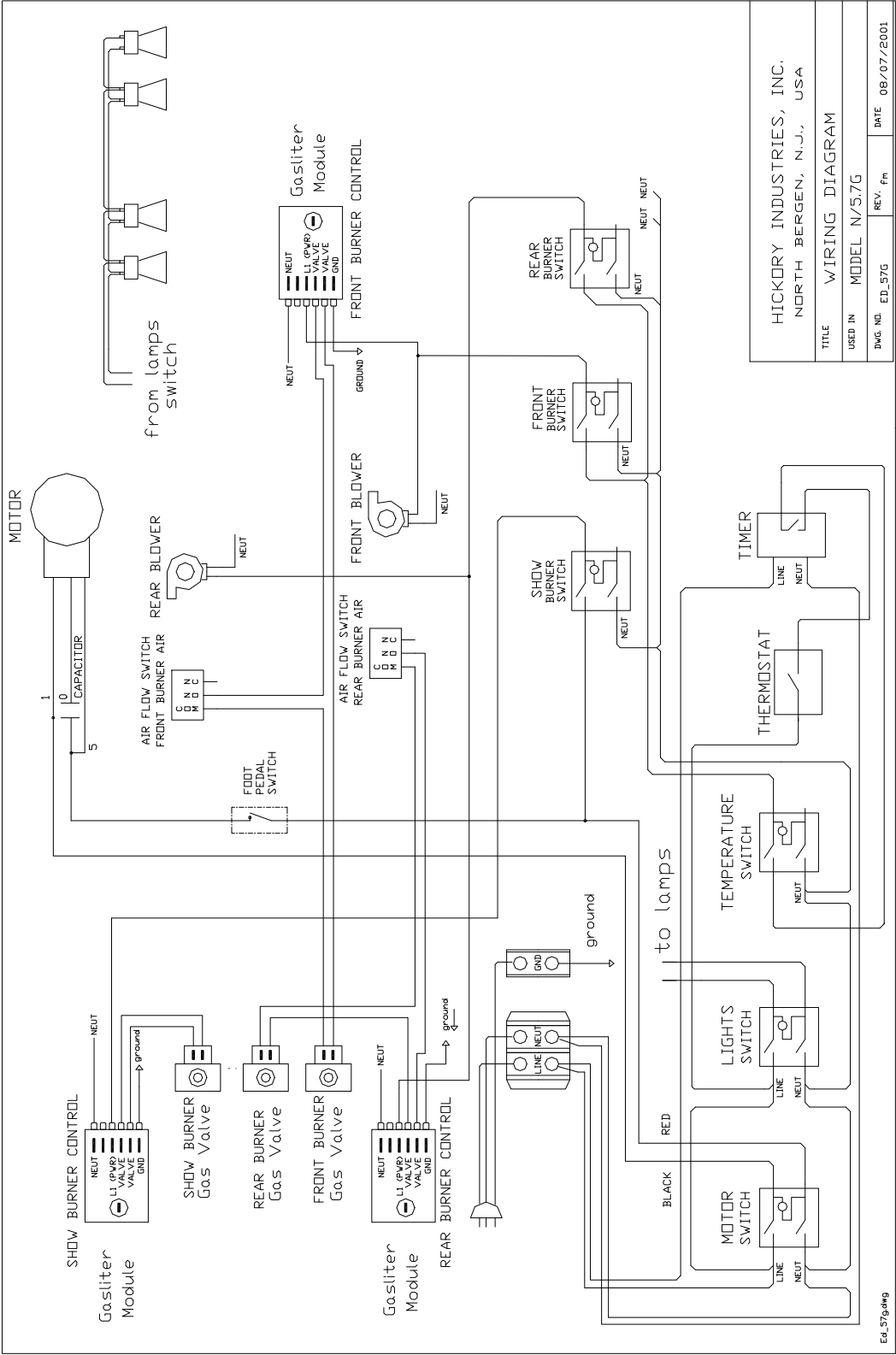
<b>Product</b>	<b>Internal Temperature</b>
<b>Poultry</b>	185F
<b>Beef</b>	135-140F Rare 150F Medium 160F Well
<b>Lamb</b>	140F Rare 150F Medium 160F Well
<b>Pork</b>	160F Medium 170F Well

**Do's and Don'ts**

<b>Do's</b>	<b>Don'ts</b>
<p>Do read the manual before operating this unit.</p> <p>Do clean the rotisserie every day.</p> <p>Do wipe the the glass between loading and unloading product with a glass cleaner to minimize grease adhesion to the glass.</p> <p>Do let the oven cool down before cleaning.</p> <p>Do shut the lamps off when cooling the oven down.</p> <p>Do stop the motor operation useing the foot pedal when loading and unloading.</p>	<p>Do Not use a powerwasher to clean the unit</p> <p>Do Not use abrasives or razors on the glass</p> <p>Do Not spray anything into the gas burners</p> <p>Do Not spray anything towards the ignitors</p> <p>Do Not spray anything towards the lamps when they are hot - glass breakage will occur.</p> <p>Do Not spray water on the controls.</p> <p>Do Not leave the oven on all night.</p>

### 1.18 Exploded diagram





**WARRANTY**

**HICKORY INDUSTRIES, INC., WILL WARRANTY ALL ROTISSERIES FOR ONE YEAR FROM THE DATE OF ORIGINAL INVOICE. WARRANTY INCLUDES ALL PARTS EXCEPT BULBS AND GLASS. WARRANTY CONDITION IS THAT ALL WARRANTY DOCUMENTS MUST BE SIGNED AND MUST BE RETURNED TO HICKORY BY THE USER AFTER RECEIPT OF THE ROTISSERIE. HICKORY RESERVES THE RIGHT TO REVIEW ALL WARRANTY CLAIMS SENT BY ITS AUTHORIZED REPRESENTATIVE. IF NEGLIGENCE OR ABUSE IS FOUND, THE CLAIM WILL BE DISALLOWED.**

**FOR SERVICE, CONTACT YOUR DISTRIBUTOR OR CALL 1-800-732-9153**