

# Hickory Rotisserie

Models: N/7.5E  
N/14.5E (Shown)



<b>Voltage:</b>	208V, 3 phase, 5 Wire	
<b>Amperage Draw:</b>	Line 1 , Line 2 , Line 3 , Nueltral .	
	N/7.5E	N/14.5E
<b>Elements:</b>	6	12
<b>Watts Per Element:</b>	2000	2000
<b>Total Cooking Wattage:</b>	12,000	24,000
<b>Lighting:</b>	(2)25W	(4)W
Lamps should be replaced with 120V, 25W, 300°C rated bulbs or equivalent only.		
<b>Minimum Installation Clearance:</b>	3 Inches sides, 6 inches rear.	
<small>Specifications and manual subject to change without notice</small>		

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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, ventilation, sanitation, and fire codes. The Model 14.5E was tested for safety by Intertek Testing Services ETL Semko.
- b. Electric units normally do not require venting. The room where the units are being installed must be ventilated in accordance to the valid codes and regulations.
- c. The units are to be installed securely and horizontally. The units may be installed on combustible floors.
- d. The minimum clearance to the side walls must be 3 inches and 6" to the rear wall. It is also important to insure that the bottom of the units is kept clear so that proper ventilation or air exchange can occur.
- e. When installing the unit, ensure that a qualified electrician performs the electrical connection. The unit requires 208V three phase power with a neutral and a ground.
- f. After the unit is installed, ensure that the operator and or installer reads the operating manual for proper operation.
- g. After installation, when the unit is turned on, it may smoke slightly. This is due to cleaning oils sprayed on the unit prior to shipping. This is normal.

**Unpacking the unit:**

- a. After the unit is un-crated, roll the unit and all accessories into place.
- b. Remove all vinyl paper from the stainless steel surfaces
- 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.

Removable rear cleaning panel (2)

Ball Knobs (4)

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.





Timer (Upper)

Thermostat (Upper)

Fuse .5A (Protects Lights and motors)

Switches

**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.

**TIMER NEEDS TO ON FOR THE UNIT TO COOK**

**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.

**Light Switch:**

Turns lights ON / OFF

**Control Panel Overview**

**Motor Switch:**

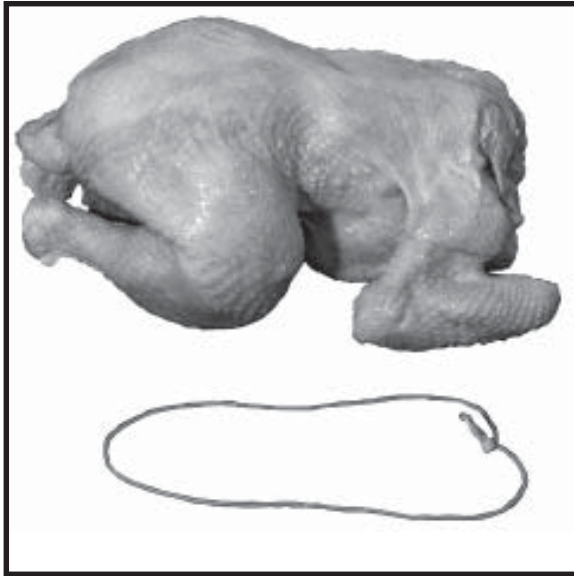
Turns motor ON / OFF



**Spitting Chickens**

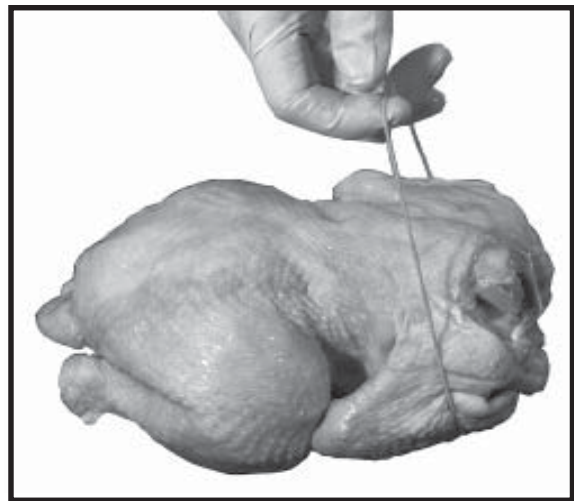
The most important part in getting started with a rotisserie is knowing how to properly spit the product. This is quite easy, but it must be learned! As an operator, you will become an expert in spitting chickens within half an hour! There are two types of commonly used spits: the angle spit and the 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 the size of the product. In this case, we are tying a 2<sup>3</sup>/<sub>4</sub> 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.



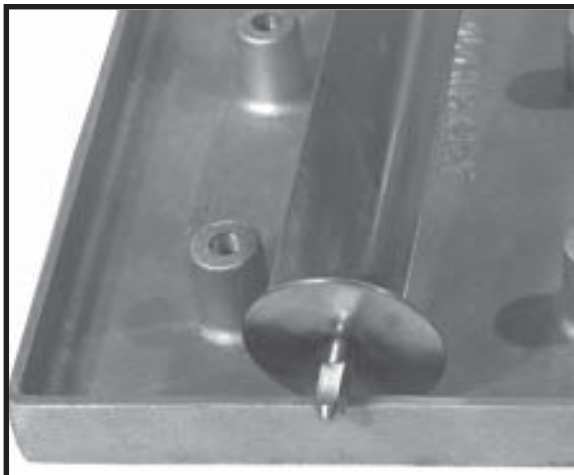
**Figure 7. Pop-up Thermometer**

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**

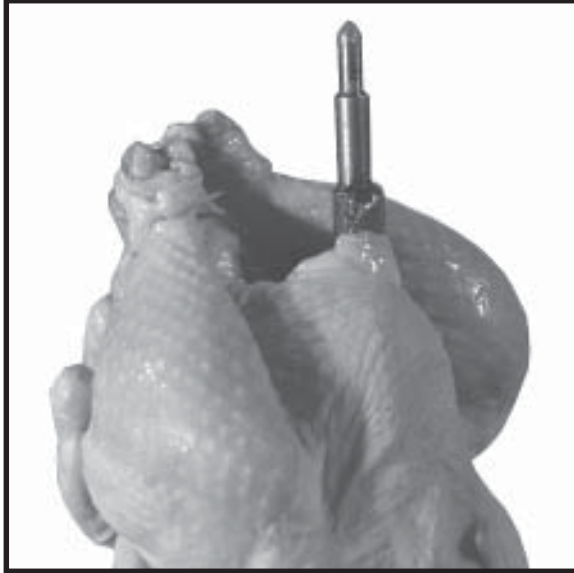


Spit the chicken through the cavity. The chicken should be inserted through the "head" (or at least where the head used to be) first.

**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.

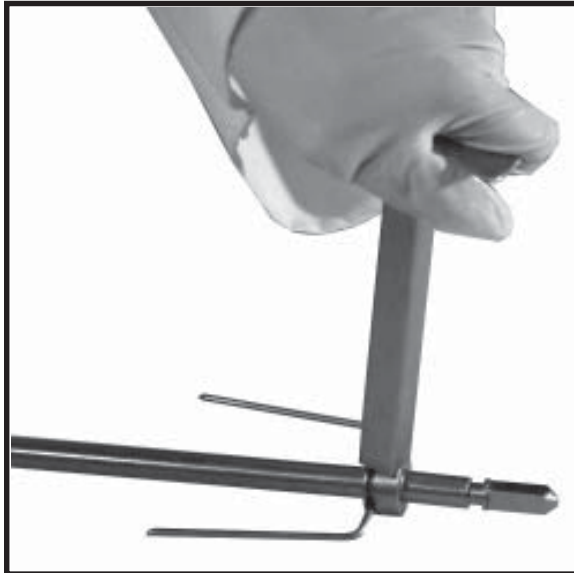


Figure 16. Fastening Bottom Skewer

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.

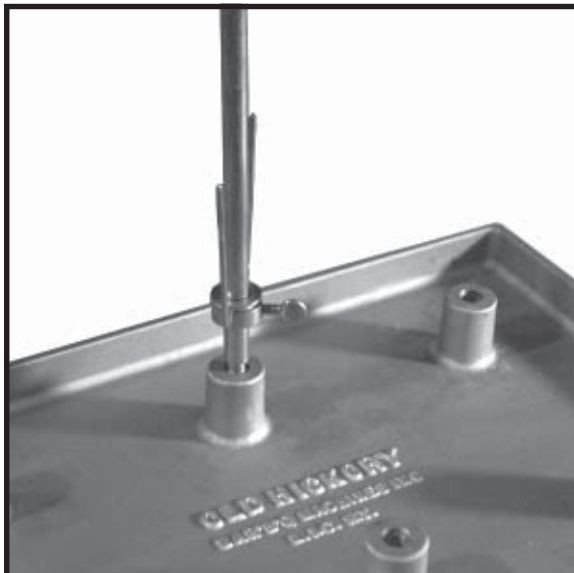
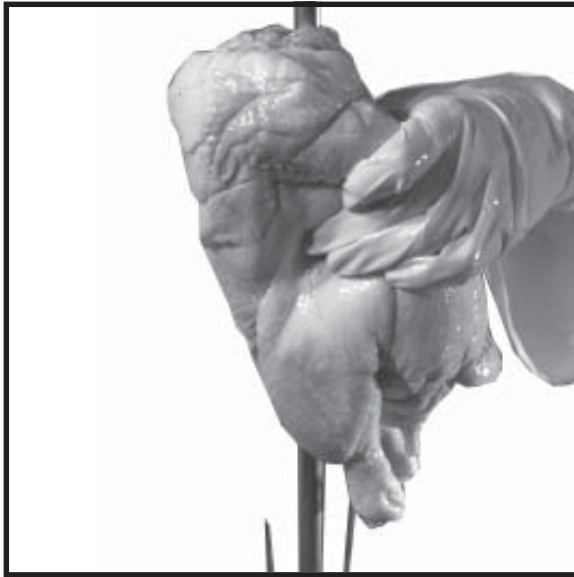


Figure 17. Using the Spit Holder

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**

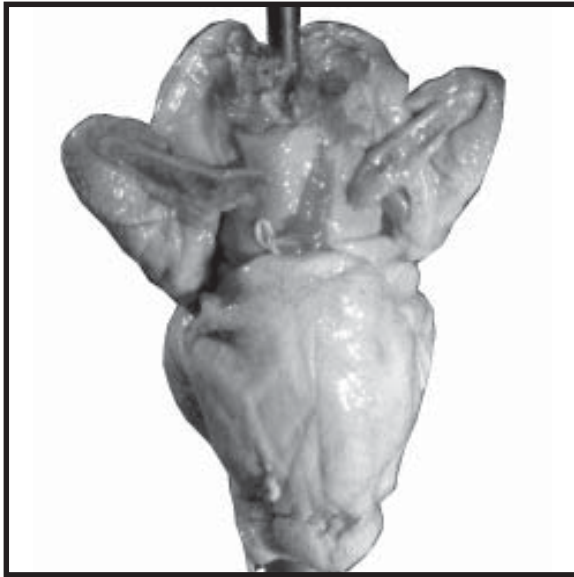


The legs must be tucked between the skewer prongs and the center spit. Note that the bottom of the drumstick is what is being locked in place.

**Figure 20. Pressing Chicken Towards Skewer**

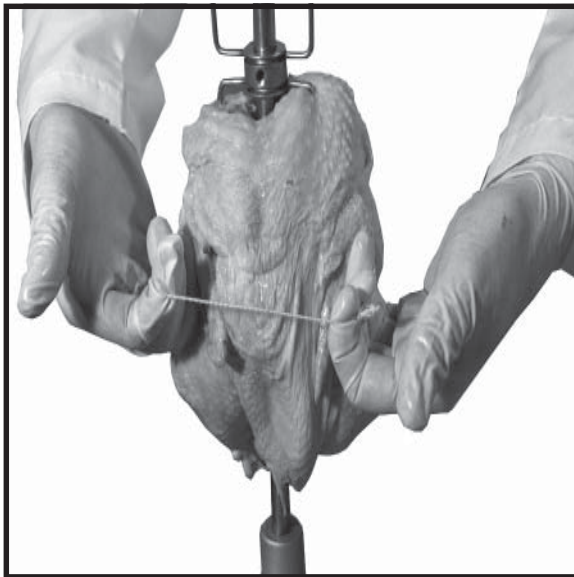


When viewed from the breast side of the chicken, the bottom of the drumstick is being pushed back while the meaty part of the leg is “puffed up” for better presentation. Note that the skewer is not going straight through the drumstick!



**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<sup>3</sup>/<sub>4</sub> 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.

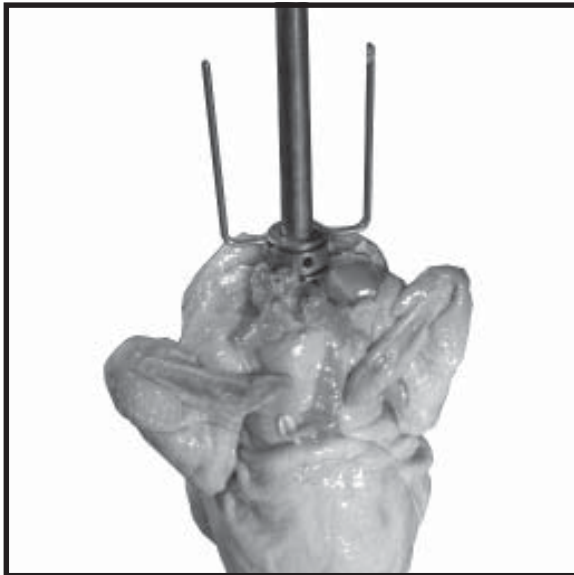
**Figure 24. Inserting Double Skewers**



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!**

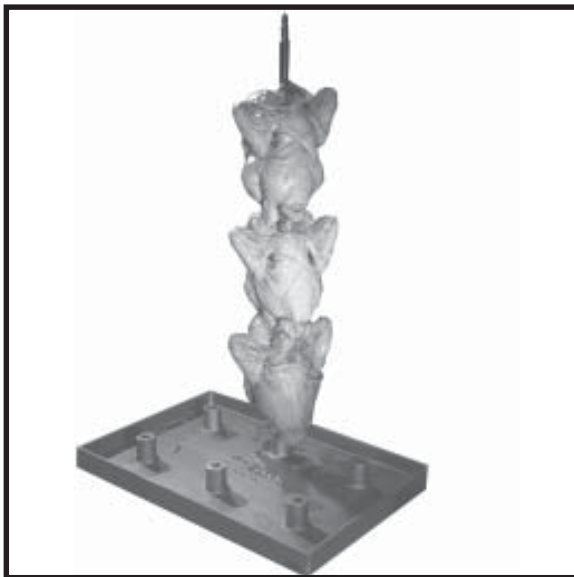
**WARNING!** When driving the double skewer into the chicken, do not exert pressure from the end of the prongs! These are sharp and will pierce a finger or hand if not careful. Only apply pressure at the bottom of the "U" shaped half of the skewer!

**Figure 25. Double Skewer in Place**



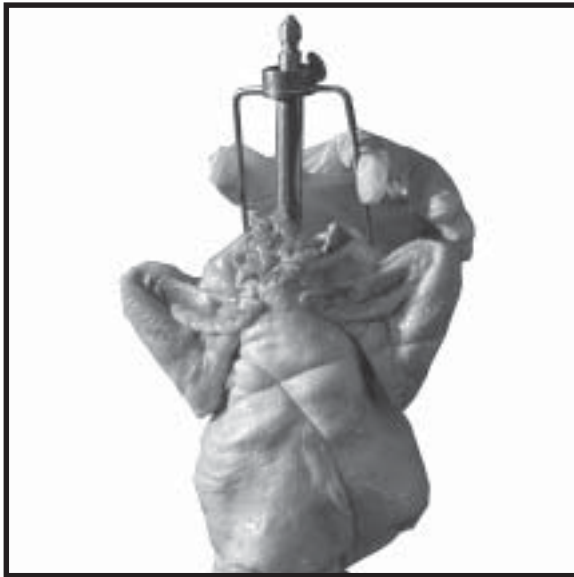
With the double skewer in place, insert the next chicken down the length of the *spit* and position the chicken as previously described.

**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**



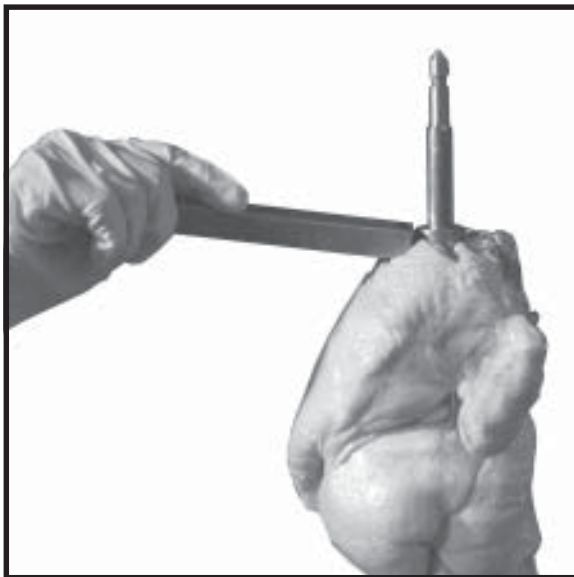
Slide a *single skewer with a thumb screw* into place from the top,

**Figure 14. Tightening Final Skewer**



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

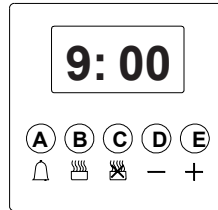
**Figure 15. Securing the Load**



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

## Hickory Timer Tips

### Timer



### Setting / Resetting the Time of Day

In the event of a power failure the timer display will be flashing. To reset the Time of Day, press both buttons "B" & "C" simultaneously and while holding these buttons depressed; toggle the plus and minus buttons "D" & "E" to set the time of day.

### Entering Manual Mode

To insure that the timer does not interrupt the cooking cycle(s), you must make sure that the cook pot symbol is always illuminated on the timer. No other icons should be illuminate i.e. a steady or flashing "A". To enter this manual mode; press both buttons "B" & "C" simultaneously. This will clear any accidental programming stored in the timer and place the timer into the manual cooking mode.

### Bell/Time Function

To use the timer as a count down timer; press and release the bell button "A". Immediately press the plus (+) button "E" and set the cook time desired. (i.e. 1hr 30 minutes). After the time has elapsed, the timer will beep. You can add additional time by repeating the above-mentioned process. You can also decrease the cooking time by pressing the minus (-) button "D" instead of the plus button "E".

### Louder Beep/Buzzer

Occasionally, if the wrong button is depressed it will quiet the beep/buzzer. The audible tone may change to a much lower tone. To get the loudest tone available; press both the plus (+) and minus (-) buttons "D" & "E" simultaneously. Continue to press and release both buttons until you have reached the desired tone. The unit is programmed with one loud and two low tones.

### Silencing the Beep/Buzzer

Press the bell button "A".

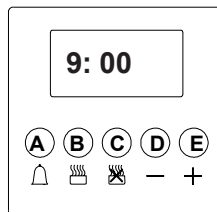


## Cooking Preparations

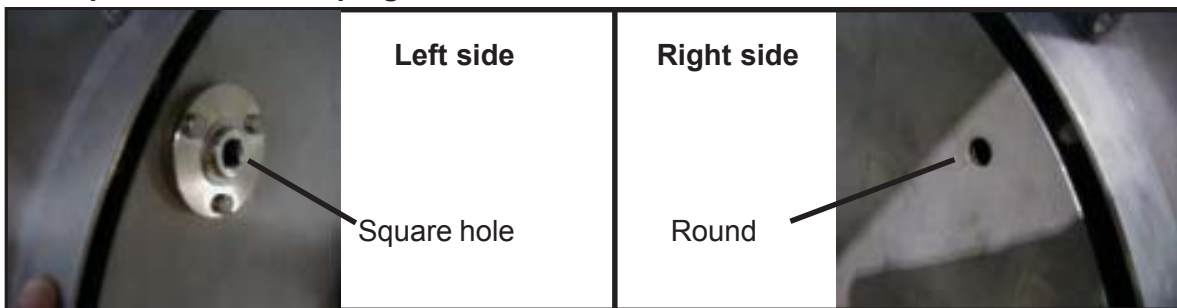
### Morning Preparation:

1. Cover the center shaft with aluminum foil.
2. Add water into upper and lower drip pans (approximately one inch of water should be sufficient. If the unit will be in operation all day, you may 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. Preheat the oven to desired temperature.

### Cooking Preparations:



1. Be sure that the rotisserie has been preheated.
2. Using the motor switch, 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 right and the square end of the spit goes towards the left.**



3. Advance the drum until the unit is loaded.
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. If the timer is set properly, the temperature switch will be illuminated. This indicator will only glow when the unit calls for heat.
7. 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 switches.
2. Allow oven cool down. Please note - if the lights are not shut off, the lamp guards may break when spraying the oven with cool water.
3. Remove the aluminum foil from the center shaft.
4. Pull the upper drip pan and drain drain the contents of the drip pan by removing the drip pan plug. Repeat with the lowerdrip pan. **DO NOT** drain grease into the sink. We recommend that the drippings are placed in a bucket, cooled down and then skimmed off and placed in fat rendering tanks.
5. Pour some warm water into the drip pan and 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. Take care not to spray aggressive cleaners on the elements and lamp guards.
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.** To minimize grease from baking on the glass, during the day should wipe the glass before loading product in the unit.
8. Place the spits and skewers and/or baskets in a hot soapy solution. Soak for 15 - 20 minutes – this will loosen the baked on residue. If you have basket spits, brush the baskets clean with a scrubbing brush. Follow guidelines for rinsing and sanitizing.
9. **Recommendation** – Place aluminum foil on the the center shaft, spray the oven down with KOTE™ and fill the drip pan with water in preperation for tomorrow's cooking cycle. Kote can be ordered thru Kay Chemicals @ 800-333-4300

**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.



Dimple Thermometer

Dimpleless Thermometer

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

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

<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 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 cleaning agents on the elements</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>

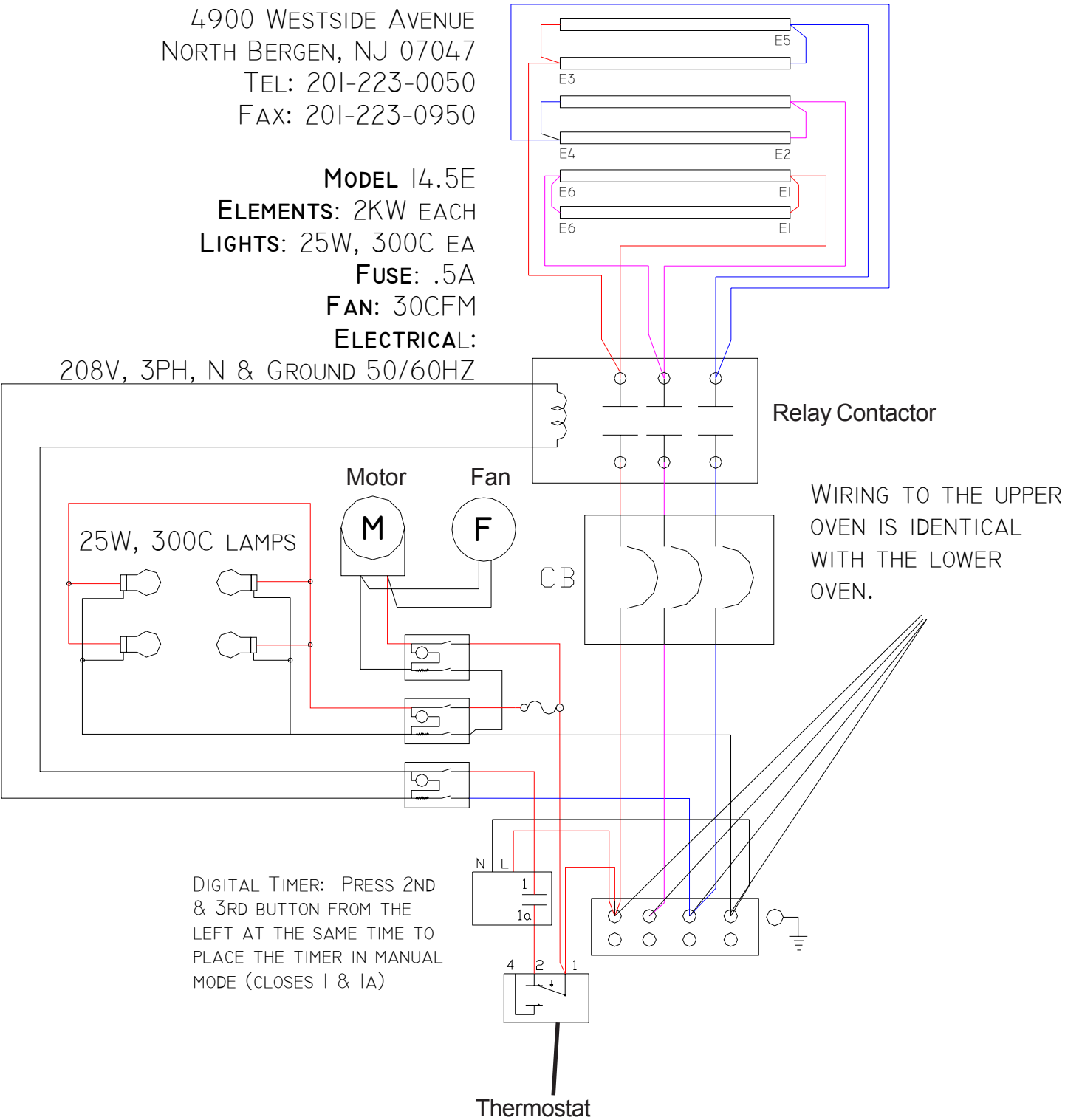
1.18 Exploded diagram

**HICKORY INDUSTRIES, INC.**

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**MODEL 14.5E**  
**ELEMENTS: 2KW EACH**  
**LIGHTS: 25W, 300C EA**  
**FUSE: .5A**  
**FAN: 30CFM**  
**ELECTRICAL:**

208V, 3PH, N & GROUND 50/60HZ



Note: This diagram shows one compartment only. Wiring to the upper or lower compartment are identical.

**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**