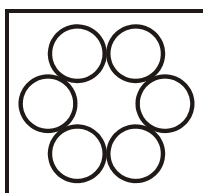


# **FIRENZE & EXCALIBUR**

## **Installation and Operation Manual**



**HARDT**



**Hardt Equipment Manufacturing  
2025 52nd Avenue, Lachine, (Montreal), Quebec  
H8T 3C3  
Canada**

**TECHNICAL SUPPORT**

**Tel: (800) 387-6847  
(514) 631-7271**

**Fax: (514) 631-7273**

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# INTRODUCTION

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## ABOUT THIS MANUAL

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This manual must be retained for future reference. This manual contains information necessary for the installation and operation of the HARDT Inferno 3000 rotisserie. To help the reader in the utilization of this manual certain information has been highlighted using the following conventions.

**WARNING!**

**SPECIFIES INFORMATION THAT REFERS TO ACTIONS WHICH MAY HAVE CONSEQUENCES POTENTIALLY DANGEROUS TO THE OPERATOR AND/OR THE ROTISSERIE.**

**IMPORTANT**

**SPECIFIES INFORMATION NECESSARY FOR THE PROPER INSTALLATION AND FUNCTIONING OF THE ROTISSERIE.**

**NOTE**

*Specifies additional important information*

### POST IN A PROMINENT LOCATION:

*IN THE EVENT THE USER SMELLS GAS:  
SHUT OFF THE MAIN GAS VALVE TO THE BUILDING.  
DO NOT TOUCH ANY ELECTRICAL APPLIANCE.  
DO NOT TOUCH ANY ELECTRICAL SWITCH.  
DO NOT USE ANY TELEPHONE IN YOUR BUILDING.  
EXTINGUISH ANY OPEN FLAME.  
IMMEDIATELY CALL YOUR GAS SUPPLIER FROM A NEIGHBOR'S PHONE.  
FOLLOW THE GAS SUPPLIER'S INSTRUCTIONS.  
IF YOU CANNOT REACH YOUR GAS SUPPLIER CALL THE FIRE DEPARTMENT.*

**WARNING!**

**FOR YOUR SAFETY**

**DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPOURS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE. KEEP THE AREA AROUND THE APPLIANCE FREE FROM ANY COMBUSTIBLE MATERIAL.**

**WARNING!**

**IMPROPER INSTALLATION, ADJUSTMENT ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.**

**IMPORTANT**

**NEVER OBSTRUCT THE FLOW OF COMBUSTION OR VENTILATION AIR.**

## CUSTOMER SERVICE PROGRAM

---

We at HARDT Equipment have developed a Customer Service Program (CSP) to ensure fast response time and efficient flow of information. Our authorized service companies are required to attend training sessions to ensure they are up-to-date on the latest information.

Here are some of the proactive steps in our CSP:

- Our authorized service companies provide service in the 50 states and Canada. All our service companies stock parts.
- We are committed to a 4-hour service response time for units that are in a "down" situation.
- We are available 24 hours per day, 7 days per week, including holidays.

### What to do if a service issue occurs:

- The FIRST call should be to HARDT Customer Service at 800-387-6847 (24 hours per day, 7 days per week, including holidays).
- Customer Service will work with you to diagnose the problem. Should a technician be required, HARDT will dispatch one and give them the specific information required to solve the problem. This will allow the call to be handled in more effective manner.


**NOTE**


*Please remember that during the WARRANTY period, all service calls MUST be directed to HARDT for approval before contacting the service company.*


## WARRANTY CONDITIONS


---

HARDT EQUIPMENT MANUFACTURING WARRANTS ITS PRODUCTS TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USE AND SERVICE FOR A PERIOD OF TWO YEARS FROM DATE OF ORIGINAL INSTALLATION or 8 weeks after the rotisserie is shipped, whichever comes first. This warranty is applicable to the initial end user and is not transferable.

 **NOTE** *Warranty is conditional on proper installation as per the instructions in the 'INSTALLATION INFORMATION' section of this guide. Should the rotisserie be improperly installed and service be required as a result, all charges will be invoiced to the individual who requested the service. HARDT reserves the right to void the warranty if unauthorized service is performed or if the equipment has not been paid for in full.*

 **NOTE** *Warranty is conditional on proper maintenance and cleaning as per the 'MAINTENANCE' section of this manual. Improper or insufficient maintenance or cleaning will cause premature deterioration of components and the replacement of these will not be covered under warranty. Please read the 'MAINTENANCE' section carefully.*

 **NOTE** *Work performed under warranty must be performed by service representatives authorized by HARDT.*

 **NOTE** *Warranty includes labour, material, travel expenses and material freight charges. Labour is limited to straight-time. Overtime charges cover only time and one half in emergencies when the rotisserie is completely non-operational. Travel expenses are limited to 100 miles and 2 hours travel, per call.*

### WARRANTY DOES NOT INCLUDE:

- Problems arising from improper use or installation, including high or low voltage, high or low gas pressure, improper venting and/or poor maintenance (such as improper drying, cleaning and adjusting of the igniter).
- The replacement of the glass. (All rotisseries are fully heat tested prior to shipment. Glass breakage is a result of sharp, abrupt contact. Please exercise caution during operation.)
- Light bulbs.
- Lost revenue or expenses incurred due to equipment failure.
- Calls made directly to our service companies (without an authorization number from Hardt).

### SPARE PARTS WARRANTY

- HARDT grants an operation warranty of 3 months on original HARDT spare parts. In cases of failure within this period, HARDT will supply a replacement part.

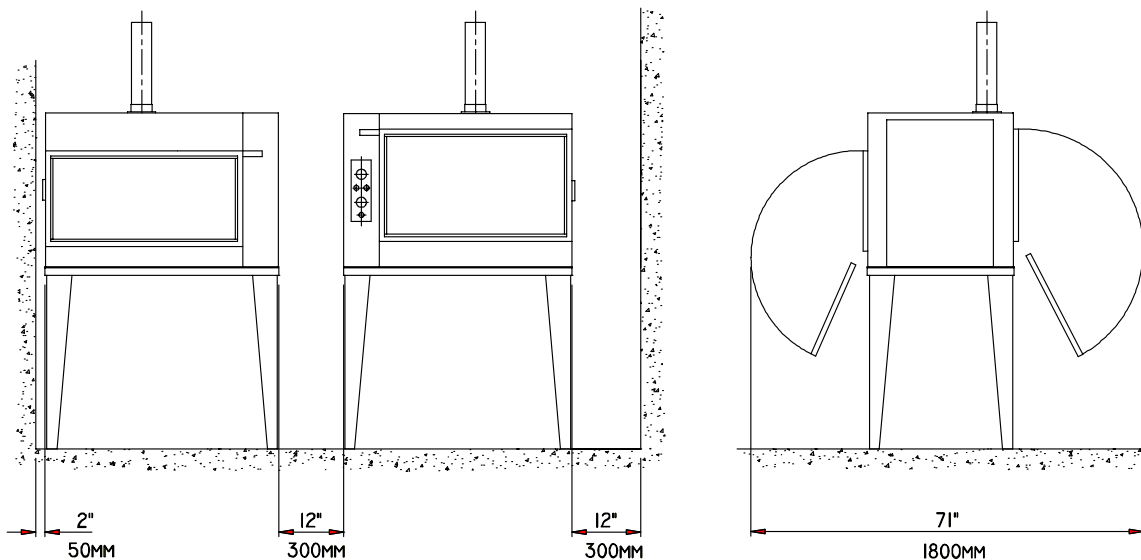
# INSTALLATION

## UNIT LOCATION



### IMPORTANT

DO NOT LOCATE THE ROTISSERIE IN AN AREA WHERE THE RIGHT (CONTROL) SIDE IS NEXT TO FRYERS, BROILERS OR ANY OTHER APPLIANCE THAT EMITS GREASE, SMOKE, HUMIDITY, ETC. AS THE VENTURI FOR THE BURNER IS BEHIND THE CONTROL PANEL, SHOULD PRECAUTIONS NOT BE TAKEN THESE PARTICLES WILL ENTER THE BURNER AND CAUSE IT TO MALFUNCTION.



The rotisserie should be positioned on a level surface with a minimum clearance of 2 inches to its left side. A clearance of 12 inches is required on the right hand (control panel) side to allow adequate access to the service compartment.

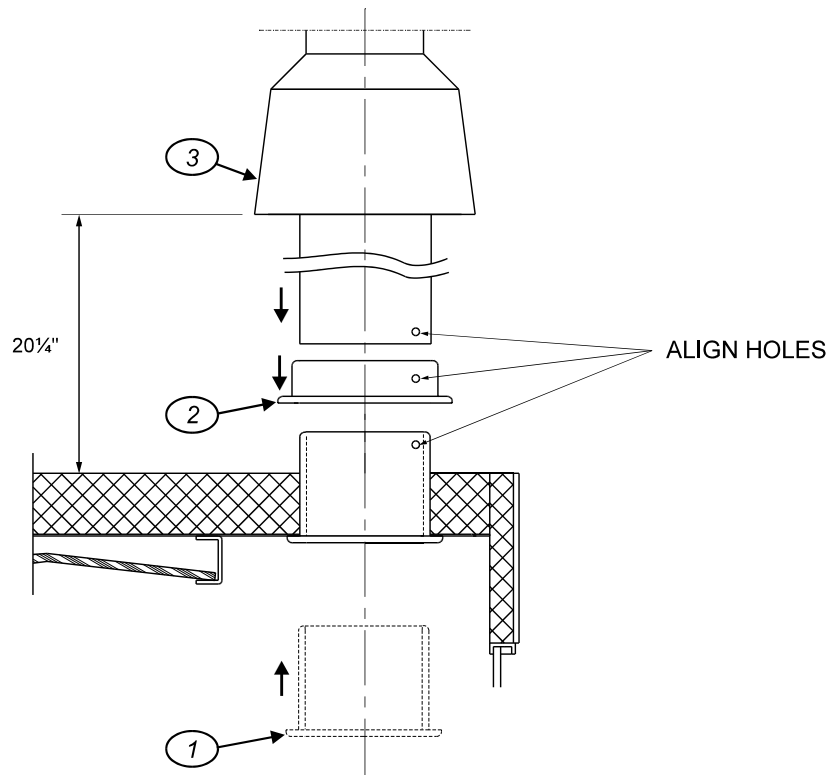
### MINIMUM CLEARANCE TO ADJACENT COMBUSTIBLE AND NONCOMBUSTIBLE CONSTRUCTION:

REAR:	10" *
LEFT SIDE:	2"
RIGHT SIDE	2" (Allow 12" for access to the control motor compartment)



**NOTE** \* If a pass thru door is used additional clearance is required to allow for the opening of the door.

## INSTALLATION OF VENT (IMPERATIVE FOR PROPER OPERATION)



**NOTE** *NOT to be connected to a type "B" flue vent!*

Insert sleeve (part #1) into the vent opening inside the rotisserie, and have an assistant hold it in place during the installation.

Place collar (part #2) over the vent pipe (part #3) and insert the vent pipe into the sleeve in the vent opening at the top of the rotisserie. Position the vent pipe and collar on the sleeve until the holes are aligned.

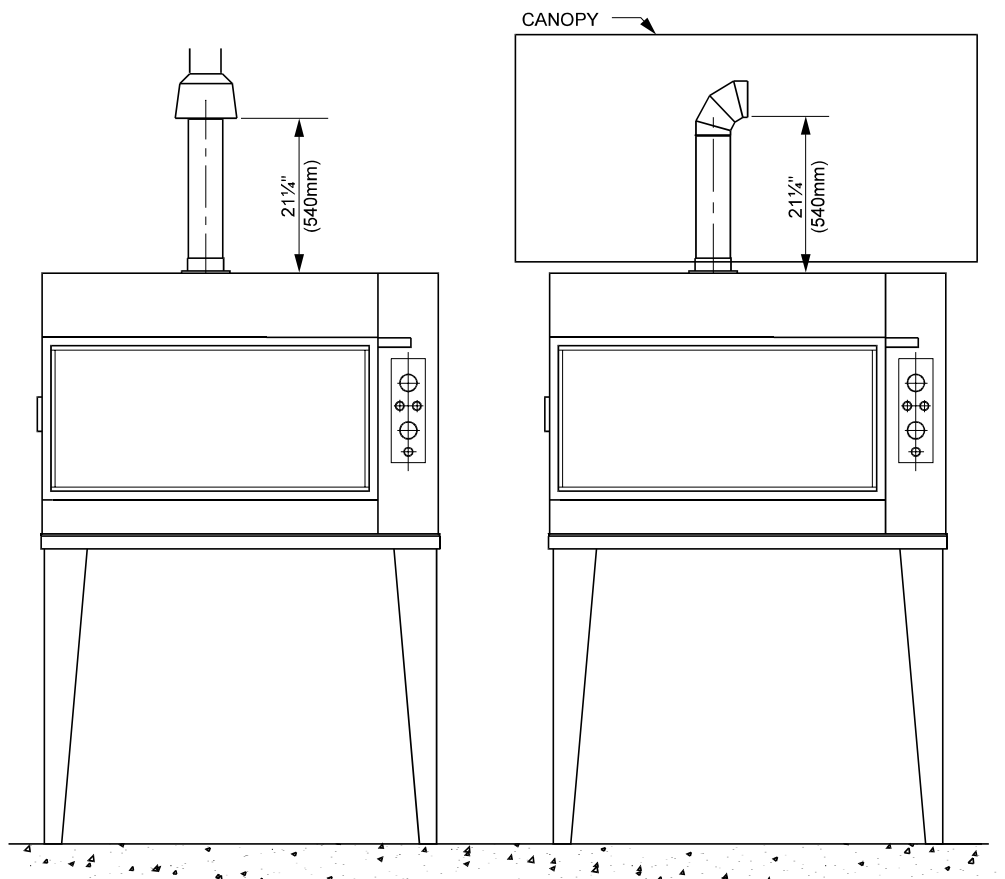
Install the supplied screws into the holes of the collar, and tighten the screws securely.



**IMPORTANT**

**THE ROTISSERIE MUST VENT FREELY. DO NOT INSTALL THE VENT NEAR SUCTION FANS AS THIS WILL ADVERSELY AFFECT THE OPERATION OF THE ROTISSERIE.**

## VENTING DIAGRAMS



When venting under a collector hood or canopy (according to local ordinances), a flue extension of at least 21.25" (540 mm) above the top of the rotisserie is necessary for proper operation.

When venting directly outside (as approved by local authorities), the furnished draft hood shall be installed above the 21.25" (540 mm) high flue extension.

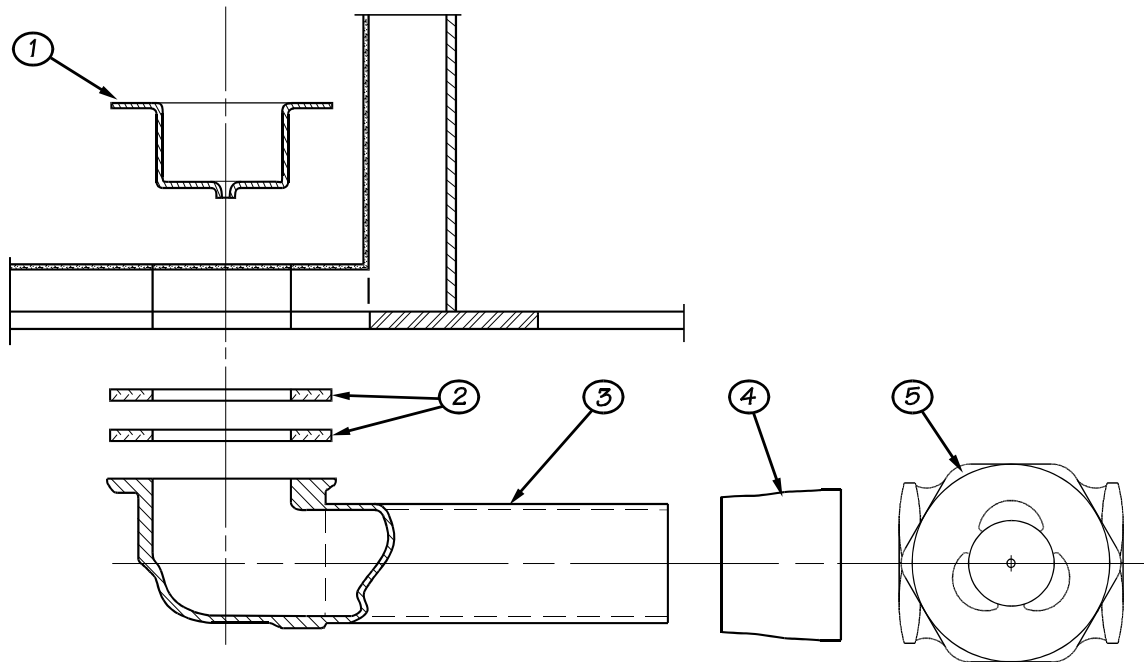


### IMPORTANT

**THE ROTISSERIE MUST VENT FREELY. DO NOT INSTALL THE VENT NEAR SUCTION FANS AS THIS WILL ADVERSELY AFFECT THE OPERATION OF THE ROTISSERIE.**



## INSTALLATION OF DRAIN

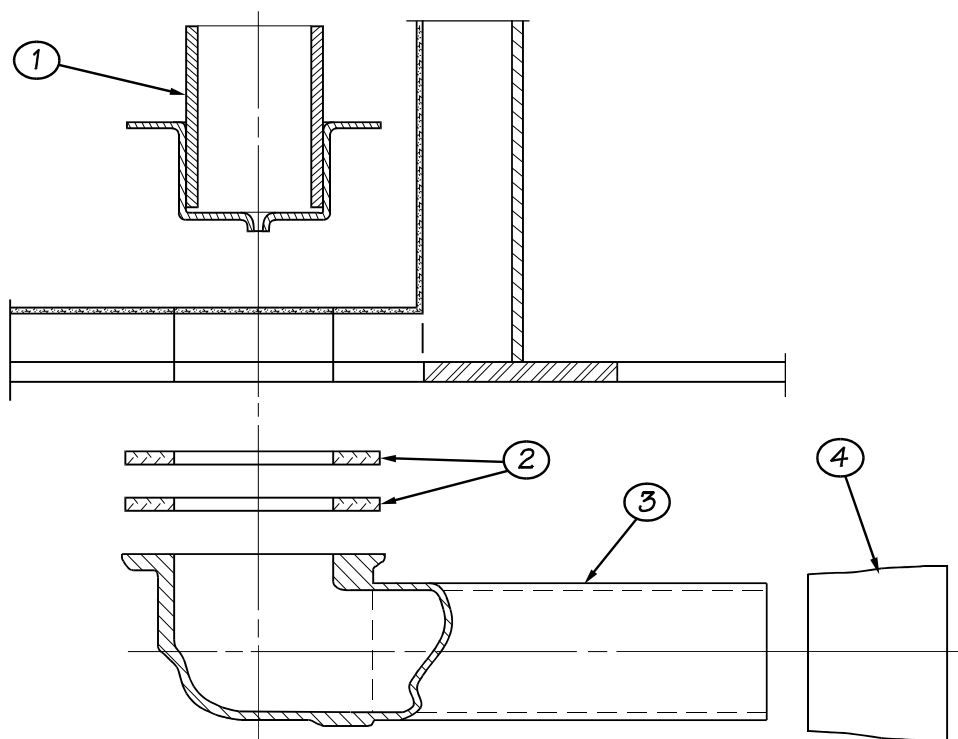


1. Weld the coupling (part #4) (not supplied) to the drain elbow (part #3).
2. Weld the valve (part #5) to the elbow and coupling assembly.
3. Inside the rotisserie, insert the strainer (part #1) into the first hole located at the front right hand side of the oven bottom.
4. Place the two rubber washers (part #2) onto the drain elbow.
5. Place the drain elbow assembly beneath the rotisserie and line up the holes of the rotisserie pan with the holes of the drain elbow.
6. Insert the drain elbow over the threaded portion of the strainer making certain the threads are properly engaged and tighten securely by turning the strainer.



**NOTE** Please consult the authority having jurisdiction to determine what regulations are in force regarding the disposal of grease.

## INSTALLATION OF OVERFLOW



1. Inside the rotisserie, insert the overflow strainer (part #1) in the second hole (closer to the center) located at the front right hand side of the rotisserie bottom.
2. Underneath the rotisserie, hold the overflow elbow (part #3) with the flat portion of the elbow facing upward.
3. Place two rubber washers (part #2) on the elbow.
4. Underneath the rotisserie, position the threaded portion of the elbow over the overflow strainer making sure the threads are properly engaged.
5. Tighten securely by turning the overflow strainer while holding the elbow.



**NOTE** Please consult the authority having jurisdiction to determine what regulations are in force regarding the disposal of grease.

## INSTALLATION OF ELECTRICAL SUPPLY

---

The rotisserie runs on 115v 60cs. There is a contact block in the motor compartment labeled B W G (Black, White, Ground).

IN THE U.S.A. The appliance must be electrically grounded in accordance with local codes, or in absence of local codes, with the National Electrical Code, ANSI / NFPA 70-1990.

IN CANADA Electrical installation and grounding shall be in accordance with the current CSA C22.1 Canadian Electrical Code PART 1 and/or local codes

## INSTALLATION OF GAS SUPPLY

---

IN THE U.S.A. Installation must conform to local codes, or in the absence of local codes, with the NATIONAL FUEL GAS CODE, ANSI Z223.1.1988.

IN CANADA Installation must be in accordance with current CAN/CGA B149.1 &.2 natural and propane installation codes and/or local codes.

For NATURAL GAS, a pressure of 6" W.C. is required.

For PROPANE GAS, a pressure of 11" W.C. is required.

The unit is supplied with a 1/2" nipple. The installer shall supply the necessary piping.



**NOTE** *All gas installations must be performed by a licensed professional. Check local ordinances for applicable regulations.*

## INSTALLATION OF WATER SUPPLY

---

For a direct connection to a permanent water supply, a valve (not supplied) should be installed between the 1/2" coupling on the rotisserie and the water source.

For a manual supply of water, either by hose or by bucket, the 1/2" coupling must be plugged.

In either case it is recommended to use hot water as it reduces warm-up time and facilitates cleaning.



**NOTE** *Should local ordinances require a backflow prevention device, this device must meet the applicable requirements of the basic plumbing code of the Building Officials Code Administration International Inc. (BOCA)*

## OPERATION

---

Instructions for "Start Up" and "Shut Down" are on the instruction plate attached to the front of each rotisserie.



**NOTE** *Should the rotisserie not light on the first try, open the door and allow a five minute period before relighting.*



**WARNING!**

**CROSS CONTAMINATION IS VERY DANGEROUS.**

**DO NOT LOAD FRESH PRODUCT INTO THE ROTISSERIE UNTIL THE COOKING CYCLE IS COMPLETE AND ALL THE COOKED PRODUCT HAS BEEN REMOVED FROM THE ROTISSERIE.**

## PRIOR TO STARTING THE ROTISSERIE

---

It is recommended to wrap the center shaft in aluminum foil. This will facilitate cleanup of the rotisserie after daily use.

1. Close the drain valve and fill the drip pan, preferably with hot water. The water in the rotisserie will serve to diffuse the drippings and facilitate cleanup as well as provide moisture during the cooking process.
2. Make sure the gas shut-off valve, located in the motor compartment, is in the fully open position.
3. Check that the circuit breaker, on the bottom of the unit behind the front right leg, is in the "ON" position.

## PREHEATING

---

1. Set the thermostat to the desired temperature.
2. Set the timer to the appropriate time setting (30 minutes for preheating; for cooking, set time according to the recipe).
3. With the rotisserie door closed, pull the main switch (Red Button) to the "ON" position.

The yellow lamp will light, indicating that the gas solenoid valve has opened and the burner has ignited.

Allow the rotisserie to become preheated to the desired temperature. Sufficient preheating minimizes and excessive temperature drop while the rotisserie is being loaded and prolongation of the cooking time of the first load.

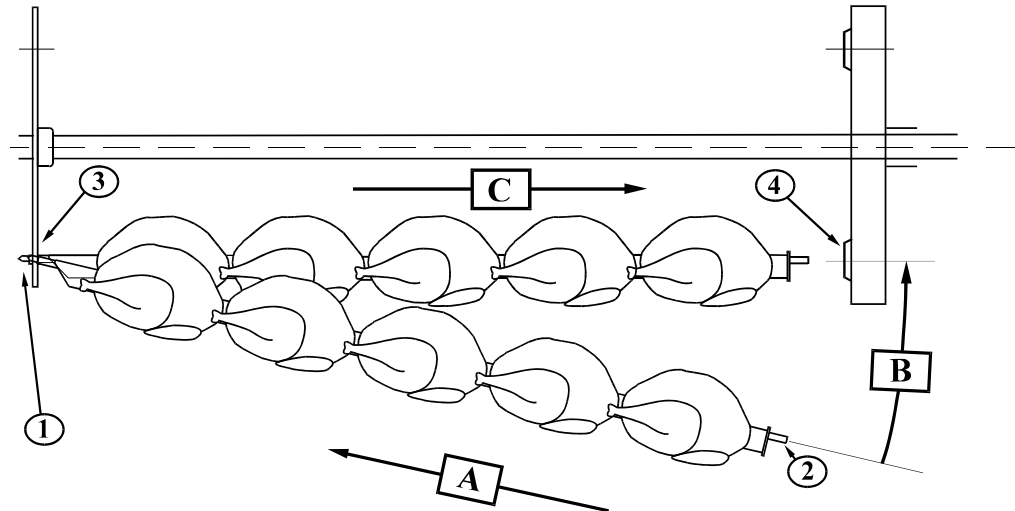
While the rotisserie is being preheated, the meat is loaded onto the skewers. For more information concerning your type of meat see the "COOKING RECOMMENDATIONS" section.

## INSERTION OF SKEWERS

When the rotisserie has reached its operating temperature the skewers can be loaded into the rotisserie.

Opening the door will cause the burner to shut off. The drive drum will also stop rotating to allow the insertion of the skewers.

The Manual Switch (Green button, located at the top of the control panel) actuates the drive mechanism without actuating the burner. For loading push the Manual Switch until the desired socket on the drive drum is easily accessible at the front of the rotisserie.



The above sketch illustrates the insertion of the loaded skewers into the drive sockets.

- A) The pointed end (1) of the skewer is inserted into the hole (3) in the support drum at the left side of the rotisserie.
- B) The hexagonal end (2) is then raised and inserted into the hexagonal drive socket (4) in the right hand drive drum.
- C) The hexagonal end (2) must be slid into the socket as far to the right as possible to make certain that the shoulder on the pointed end is inside the face of the support drum. This prevents the skewer from slipping out of the drive drum socket.

When the skewers are loaded, the door is closed and the yellow lamp signals that the cooking cycle has begun. The yellow lamp will turn on and off throughout the cooking cycle to indicate when the burner is on. This is a normal condition.

To prevent unnecessary losses of heat which will increase cooking time, the door should not be opened until the end of the cooking cycle. The end of the cooking cycle is indicated by the illumination of the red light.

To remove the skewers, open the door to stop the drum rotation. Use the Manual Switch (Green button) to activate the drive motor alone thus bringing the desired skewer to the front and center of the door opening where it is readily accessible. Reverse the insertion process by raising the pointed end slightly so that the shoulder is level with the hole in the support drum and push the skewer to the left until the hexagonal end is free from the drive socket. Then remove the skewer.

When all the skewers have been removed and the rotisserie is not required for a period of time, it is suggested that the rotisserie be shut off. This is done by pushing IN the main switch (RED BUTTON) to the "OFF" position.

**IMPORTANT**

**WE RECOMMEND LEAVING THE DOOR OPEN WHEN THE ROTISSERIE IS NOT IN USE. IF THE DOOR REMAINS CLOSED, AS THE ROTISSERIE COOLS, HUMIDITY WILL CONDENSATE AROUND THE IGNITER CAUSING THE ROTISSERIE TO GO INTO 'SAFETY LOCKOUT'.**

If not all the skewers are being removed it is recommended to keep the door closed to allow the drum rotation to continue. This will prevent the meat closest to the burner from being burned. If the rotisserie is to be used again within a few hours, the door should be kept closed to minimize cooling, thereby shortening the warming period. If the rotisserie will not be used it should be cleaned as described in the "CLEANING" section.

**NOTE**

*In the event of a prolonged power failure, the rotisserie must be shut off by pushing in the main ON/OFF switch (RED BUTTON).*

## CLEANING

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### THROUGHOUT THE DAY:

---

It is highly recommended to clean the rotisserie at the end of each cooking cycle. This is quickly accomplished by draining the greasy water, filling the rotisserie with fresh water, and wiping down the inside using a long brush. This procedure saves much time when it comes to the final daily cleaning as it prevents the grease from baking onto the metal. It is also recommended to wipe the inside of the glass with a wet cloth. This procedure keeps the glass clean without scratching it.

### AT THE END OF THE DAY:

---

When the rotisserie is shut off at the end of the day the door should be left open to allow it to cool down slightly. Remove the aluminum foil used to wrap the center shaft, and spray an approved oven cleaner on the interior of the still warm rotisserie. Allow it to work and then rinse clean.

**IMPORTANT**

**NEVER SHOULD CHEMICALS OR LIQUIDS OF ANY KIND (INCLUDING WATER) BE SPRAYED IN THE DIRECTION OF THE BURNER OR IGNITER (INSIDE, UPPER FRONT). SHOULD ANY LIQUIDS COME IN CONTACT WITH THE BURNER WHILE IT IS STILL HOT, THE CERAMICS IN THE BURNER MIGHT CRACK AND THE BURNER WILL HAVE TO BE REPLACED.** If chemicals come in contact with the igniter, the igniter will corrode, the rotisserie will malfunction, and the igniter will have to be replaced. To avoid damage, when wetting the drive wheel or applying cleaning product, first do the bottom half of the drive wheel, then rotate the drive halfway by pushing the green button, and now do the other half.

**IMPORTANT**

**FOR TROUBLE FREE OPERATION IT IS VITAL, AFTER THE DAY'S COOKING, TO SPRAY THE AREA IN AND AROUND THE HEXAGONAL DRUM SOCKETS WITH A APPROVED OVEN CLEANER. AFTER THE GREASE MELTS, WIPE ANY BUILD-UP FROM AROUND AND INSIDE THE CAVITIES.** In doing this simple operation you will eliminate the blockage of the hexagonal opening due to the accumulation of dry hard carbon.

The glass should be cleaned daily as the build-up of burnt carbon is very difficult to remove from tempered glass. Avoid using scouring pads or cleaners with grit as tempered glass is easily scratched.

**WARNING!**

**WHEN CLEANING ROTISSERIES EQUIPPED WITH A SMOKER, EXERCISE CAUTION AS WATER WILL DAMAGE THESE COMPONENTS IF THEY ARE HOT.**

**WARNING!**

**WHEN CLEANING WITHIN THE MOTOR COMPARTMENT ALWAYS DISCONNECT THE ELECTRICAL SUPPLY.**

**NOTE**

*Warranty does not cover damage caused by the above misuse.*

**NOTE**

*After cleaning, always leave the door open to allow the humidity to escape as the humidity will condensate around the igniter causing starting problems the next morning.*

## MAINTENANCE

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Your HARDT Rotisserie was built using only the highest quality products. All bushings as well as the complete drive train do not require any greasing or oiling. The most important maintenance is the daily cleaning as described in the "CLEANING" section.

### MAINTENANCE EVERY SIX MONTHS:

---

**WARNING!****DISCONNECT POWER BEFORE SERVICING!**

Once every six months it is recommended to verify that the daily cleaning is keeping the drive free of carbon buildup. To verify that the drive is being cleaned properly, do the following:

1. Remove the service panel cover.
2. Remove the chain from the motor / reducer sprocket by loosening the motor tension bolt.
3. Turn the large chain sprocket by hand. If it is impossible to turn by hand, an excessive accumulation of carbon has taken place due to insufficient cleaning. HARDT rotisseries are equipped with socket hub assemblies that can be disassembled and cleaned. If this situation arises, please call us and we will assist you.

It is also necessary to verify that the vent opening and associated vent pipe are not obstructed and are in good condition. Verify that the vent is in accordance with this manual.

**NOTE**

*Maintenance other than that described in this manual should be performed by your HARDT authorized service representative. This should not be necessary if the cleaning procedures are correctly followed.*

For any technical assistance, or if you require information additional to that described above, please contact a HARDT Customer Service Representative at the above Customer Service 1-800 number, available 24 hours per day, 7 days per week.

We can also be reached at 514-631-7271, Monday to Friday - 7:30 AM to 5:00 PM EST.



## TROUBLESHOOTING

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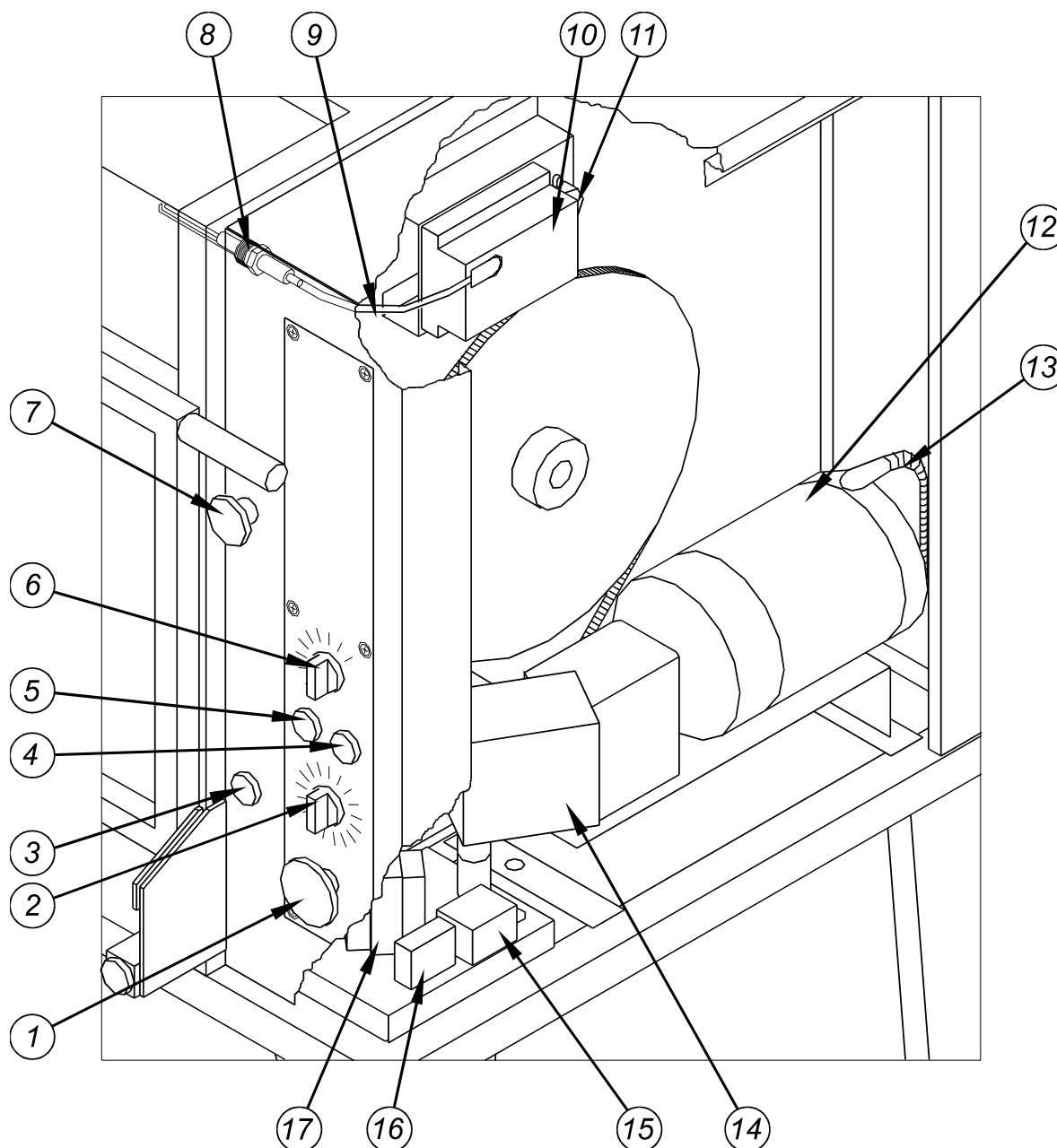
### **WARNING! DISCONNECT POWER BEFORE SERVICING!**

- PROBLEM** Rotisserie does not operate when main switch (RED BUTTON) is pulled.
- SOLUTION**
- A) Make certain that the circuit breaker is in the "ON" position. The circuit breaker is located on the bottom of the rotisserie behind the front right leg.
  - B) Check electrical power supply going to the rotisserie.
  - C) If both A and B are OK, call our service department.
- PROBLEM** Main switch (RED BUTTON) is pulled, drive drum rotates but yellow light goes off after 11 seconds and the alarm buzzer sounds. Rotisserie has gone into SAFETY LOCKOUT.
- SOLUTION**
- A) Switch the rotisserie OFF for 5 minutes. Check that both the gas valve on the rotisserie and the main gas supply valve are open. To check the main gas supply valve, try another gas-powered appliance connected to the same line. Pull Main Switch (RED BUTTON) TO TURN THE ROTISSERIE ON.
  - B) If the rotisserie again goes into safety lockout, turn the rotisserie "OFF" by pushing in the Main Switch (RED BUTTON). Next, open the door of the rotisserie. If the door has been closed all night, humidity may have condensed around the igniter. Get a pad of steel wool and gently rub the igniter. Once any residue has been removed, spray the igniter with WD-40. This procedure will clean and de-humidify the ignition. Turn the rotisserie "ON" by pulling the Main Switch.
  - C) If the rotisserie still does not operate call our service department.
- PROBLEM** The rotisserie is turned "ON", burner ignites but yellow lamp does not light (look through window to check burner, DO NOT open door)
- SOLUTION**
- A) Turn circuit breaker "OFF". Unscrew the lens from front of machine and check the light bulb.
  - B) If the light bulb is good, place it back in its socket, replace the lens, turn the circuit breaker back "ON" and try again. If the lamp fails to light call our service department.
- PROBLEM** No red light at end of cooking cycle.
- SOLUTION** Follow same procedure as in Problem #3.

For any technical assistance, or if you require information additional to that described above, please contact a HARDT Customer Service Representative at the above Customer Service 1-800 number, available 24 hours per day, 7 days per week.

We can also be reached at 514-631-7271, Monday to Friday - 7:30 AM to 5:00 PM EST.

## LOCATION OF CONTROLS AND COMPONENTS



- |   |                                 |    |                               |
|---|---------------------------------|----|-------------------------------|
| 1 | MAIN SWITCH                     | 10 | IGNITION CONTROL BOX          |
| 2 | TIMER                           | 11 | BUZZER, "SAFETY LOCK"         |
| 3 | DOOR SAFETY SWITCH              | 12 | MOTOR/REDUCER ASSEMBLY        |
| 4 | RED PILOT LIGHT, "END OF CYCLE" | 13 | FLEXIBLE CONDUIT              |
| 5 | YELLOW PILOT LIGHT, "BURNER ON" | 14 | GAS VALVE                     |
| 6 | THERMOSTAT                      | 15 | TERMINAL BLOCK, 3 STRIP       |
| 7 | MANUAL DRIVE SWITCH             | 16 | CIRCUIT BREAKER, 8A, 10A TRIP |
| 8 | IGNITER - SENSOR                | 17 | TRANSFORMER, 120V/24V         |
| 9 | HIGH TENSION CABLE              |    |                               |

# WIRING DIAGRAM

