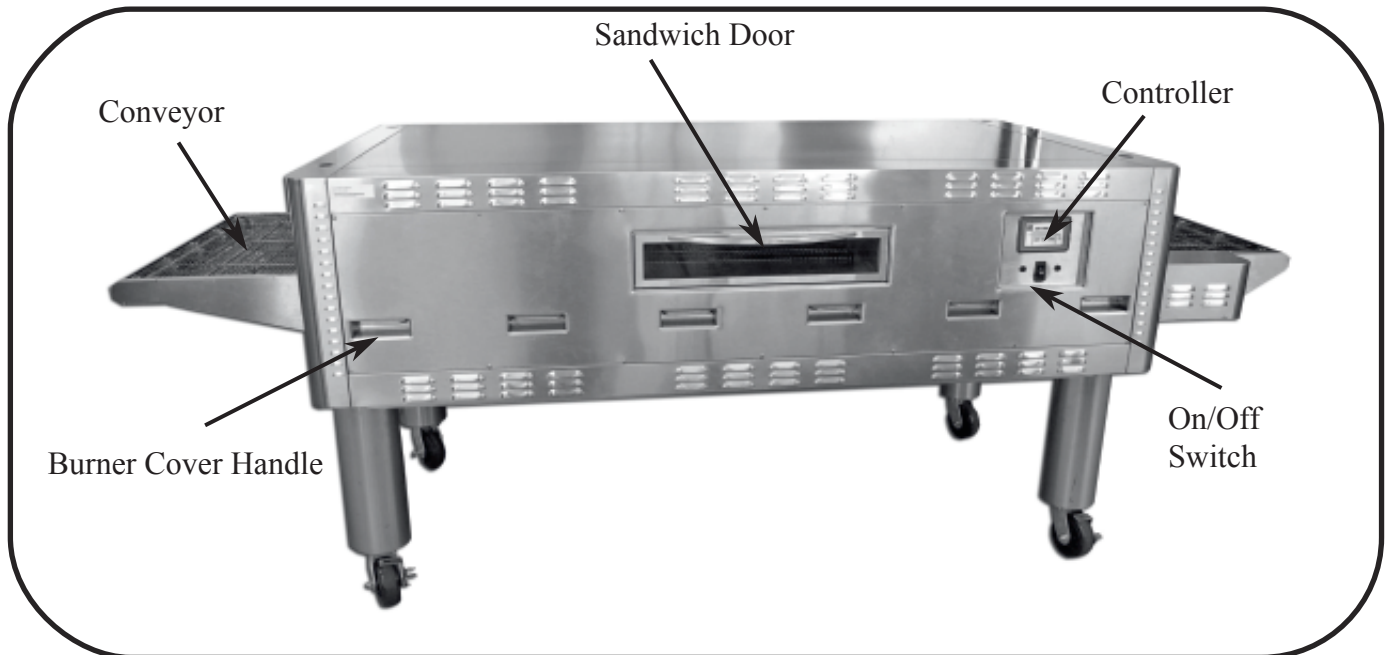


# OPERATION MANUAL

QII DECK® CONVEYOR OVEN  
MODEL - 80



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### Additional Resources

Appendix 1: Installation Manual A1 Pages 1-8

355 E Kehoe Blvd · Carol Stream, IL 60188 USA

800-880-OVEN

[www.qiideck.com](http://www.qiideck.com)

## Safety Information

**FOR YOUR SAFETY DO NOT STORE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.**

Instructions to be followed in the event that the user smells gas must be posted in prominent location. This information may be obtained by consulting your local gas supplier.

The information contained in this manual is important for the proper installation, use and maintenance of this oven. Adherence to prescribed procedures and instructions will result in satisfactory baking results and long trouble - free service. Please read this manual carefully and retain it for future reference.

## Gas Requirements, Inlet

Natural Gas 8.0" - 12.0" WC (3.5 to manifold)  
Propane Gas 11.0" - 14.0 WC (6.5 to manifold)  
**NOTE: Measure ALL gas appliances ON and OFF to ensure you have a constant gas pressure**

## Electrical Specifications

Model	Volts	Watts	Hz	Phase	Amps
80"	208-240	230/1/50	60	Single	50
80"x2	208-240	230/1/50	60	Single	2x50
80"x3	208-240	230/1/50	60	Single	3x50

## Installation

### INSTALLATION OVERVIEW

- READ THIS MANUAL THOROUGHLY
- CAREFULLY INSPECT THE CRATE UPON DELIVERY FOR DAMAGE
- INSTALL OVEN(S) ON THE SUPPORT STAND
- INSTALL OVEN ONLY ON NON-COMBUSTIBLE FLOORS
- USE LICENSED PROFESSIONALS FOR ALL UTILITY CONNECTIONS
- **ALL UTILITY CONNECTIONS MUST COMPLY WITH LOCAL BUILDING CODES**
- ALLOW ROOM FOR GAS SHUT OFF AND ACCESS TO PLUGS AND RECEPTACLES
- CHECK FOR GAS LEAKS
- INSTALL A STRAIN RELIEF TO GUARD AGAINST TRANSMISSION OF STRAIN TO THE GAS AND ELECTRIC CONNECTIONS
- TEST EXHAUST HOOD PRIOR TO USING THE OVEN(S) TO DETERMINE THE AMOUNT OF COMBUSTION PRODUCTS REMOVED

### CUSTOMER RESPONSIBILITY

#### INSTALLATIONS MUST CONFORM TO BUILDING AND MECHANICAL CODES

IT IS THE CUSTOMER'S RESPONSIBILITY TO:

ENSURE ALL GAS AND ELECTRIC IS INSTALLED ON SITE IN ACCORDANCE TO ALL CODES

ENSURE ALL GAS AND ELECTRIC IS INSTALLED TO THE OVEN SPECIFICATION

UNLOAD, UNCRATE, MOVE AND ASSEMBLE THE OVEN(S)

PLACE OVEN(S) IN THE DESIRED LOCATION

ENSURE ALL UTILITY CONNECTIONS ARE PROPERLY INSTALLED, PLACED, AND SIZED

ENSURE ALL UTILITY CONNECTIONS ARE COMPLETED BY A QUALIFIED INSTALLER



## Important

QII Deck reserves the right to continuously improve this product and change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

## Installation (continued)

**THE INSTALLATION INSTRUCTIONS CONTAINED HEREIN ARE FOR THE USE OF QUALIFIED INSTALLATION AND SERVICE PERSONNEL ONLY. INSTALLATION OR SERVICE BY OTHER THAN QUALIFIED PERSONNEL MAY RESULT IN DAMAGE TO THE OVEN AND/OR TO THE OPERATOR.**

Qualified installation personnel are individuals, a firm, a corporation, or a company which either person or through a representative are engaged in, and responsible for:

The Installation or replacement of gas piping or the connection installation, repair or servicing of equipment. Who are experienced with such work, familiar with all precautions required, and have complied with all requirements of state and local authorities having jurisdiction. Reference: National Fuel Gas Code, NFPA 54-1980 and ANSI Z23.1-1980 section 1.4.

The installation of electrical wiring is required from the electric meter, main control box, or service outlet to the electric appliance. Qualified installation personnel must be experienced in such work, be familiar with all precautions required, and have **complied with all requirements of state or local authorities** having jurisdiction. Reference National Electric Code, NFPA70-1981.

**All QII Deck products are shipped in containers to prevent damage. When tendered to the carrier, each unit was carefully inspected and packed.**

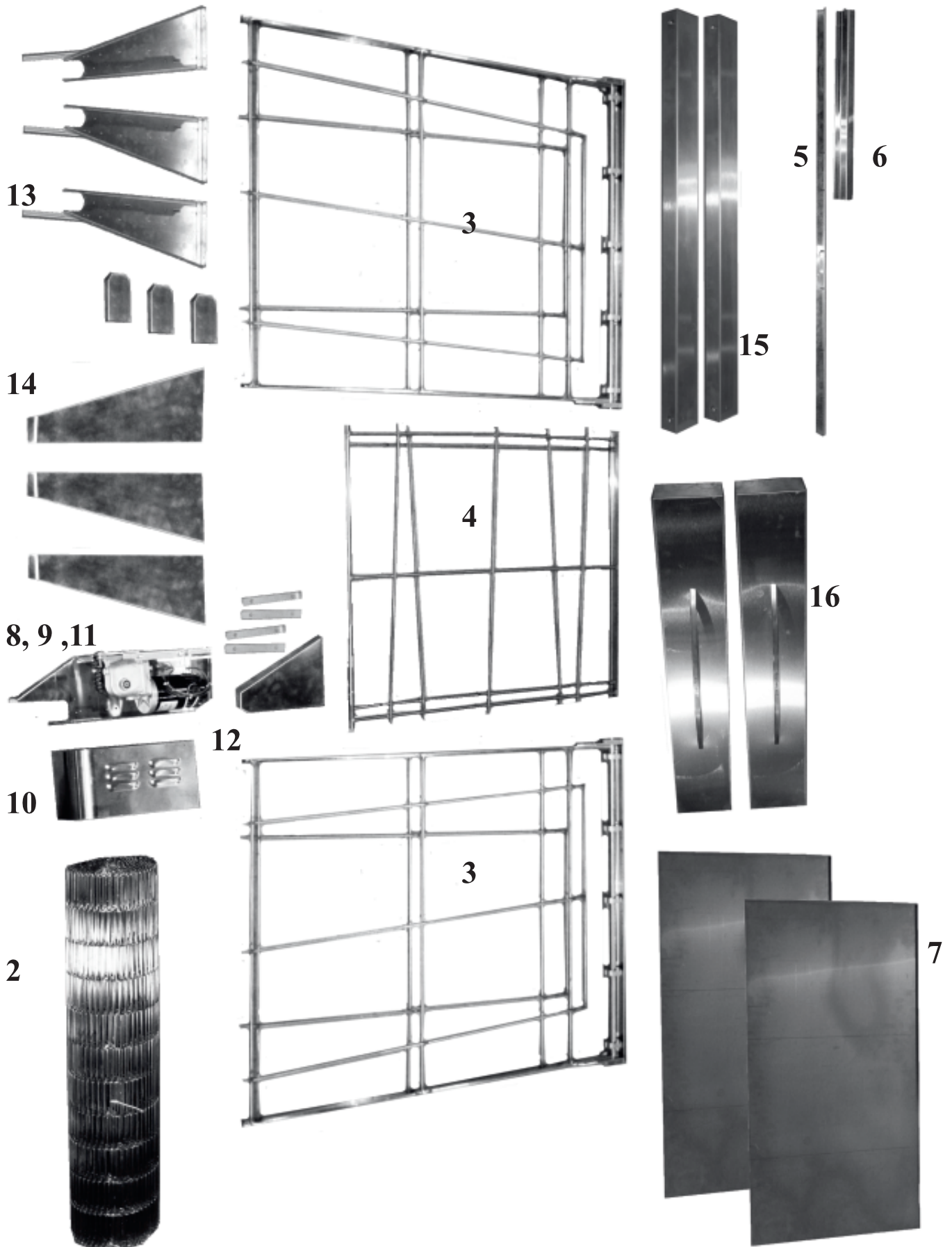
Upon delivery of your new oven:

Inspect the shipping container for any external damage. Any evidence of damage should be noted upon the delivery receipt which must be signed by the driver. If any external damages are noted, unpack immediately and check for internal damage. Most carriers will accept claims for concealed damage if notified within three business days of delivery if the shipping container is retained for inspection.

QII Deck cannot assume responsibility for damages occurred during transportation. All shipments are FOB Carol Stream, IL. We are, however, prepared to assist you in filing a claim if necessary. Check the list below to be sure all the items were received.

<b>Oven Body</b>	<b>1</b>	<b>(Not Shown on Packing List)</b>
<b>Conveyor Belt, Rolled</b>	<b>2</b>	
<b>Conveyor Rack Assembly</b>		
• Left and Right	<b>3</b>	
• Middle	<b>4</b>	
<b>Product Stop</b>		
• End Stop	<b>5</b>	
• Rear Stop	<b>6</b>	
<b>Crumb Pans (2)</b>	<b>7</b>	
<b>Motor Assembly</b>		
• Motor	<b>8</b>	
• Mounting Fixture	<b>9</b>	
• Motor Cover	<b>10</b>	
• Motor Bracket	<b>11</b>	
• Motor Bracket Cover	<b>12</b>	
<b>Brackets (3)</b>	<b>13</b>	
<b>Bracket Covers (3)</b>	<b>14</b>	
<b>Top End Plugs (Baffles)</b>	<b>15</b>	
<b>Bottom End Plugs</b>	<b>16</b>	
Tall Stand*		
Small Stand*		* Accessory

**Packing List Diagram**



## Installation Continued

**The well planned and proper placement of the oven will result in long term operator convenience and satisfactory performance. It is therefore urges that all adequate thought to be given to the location of the oven prior to its delivery and installation.**

Place the oven in an area this is free of drafts and is accessible for proper operation and servicing. A minimum of twenty (20) inches from the oven body sides and eleven (11) inches from the body oven back must be maintained from any combustible construction. In addition, a minimum of thirty-eight (38) inches from oven body's left side and twenty-eight (28) inches from oven body back must be available for operation and servicing.

It is also essential that provisions for an adequate air supply to the oven be maintained and that natural flow for combustion and ventilation air not to be obstructed in any way if proper operation is to be assured. **DO NOT** use fans around the oven! The oven tunnel is not pressurized, therefore any drafts directed to the tunnel will disrupt the heat pattern in the oven, creating inconsistent cooking. The necessity of a properly designed and installed ventilation system cannot be overemphasized. Local and National codes must be followed when installing a ventilation system. Codes supersede any recommendations in this manual.

Such a system will allow the oven to function properly while removing unwanted vapors and products of combustion from the operating area. Failure to properly vent the oven can be hazardous to the health of the operator. It will also result in operational problems, unsatisfactory baking, and possible damage to the equipment. Damages sustained as direct result from improper ventilation will not be covered by the Manufacturer Warranty.

This appliance must be vented with a properly designed mechanically driven exhaust hood. The hood should be sized to completely cover the equipment, plus an overhang of at least six (6) inches in all sides not adjacent to the wall. The distance of the floor from the lower edge of the hood should not exceed seven (7) feet. The capacity of the hood should be sized appropriately and provision should be made for adequate make-up air. It should be noted that QII Deck ovens do not use blowers and therefore the tunnel is not pressurized, the spillage of hot air into the kitchen is substantially reduced and subsequently so is the need for powerful exhaust. Refer to your local ventilation codes to establish the right proportion between exhaust and make-up air.

**Return air from a mechanically driven system must not blow air at the opening of the oven.**

Unless specified otherwise, conveyor travel is factory set for left to right operation when facing the front of the oven. If a change of direction is required, the polarity of the drive motor must be reversed. In addition, the conveyor belt must be installed from the right side of the oven vs. left side.

When threading the conveyor belt, note that the belt has loops at both ends. These loops must ride backward on the top of the conveyor support to avoid any catching. Also note that the belt has a top and bottom. The bottom is always smooth. Refer to Figure 1.

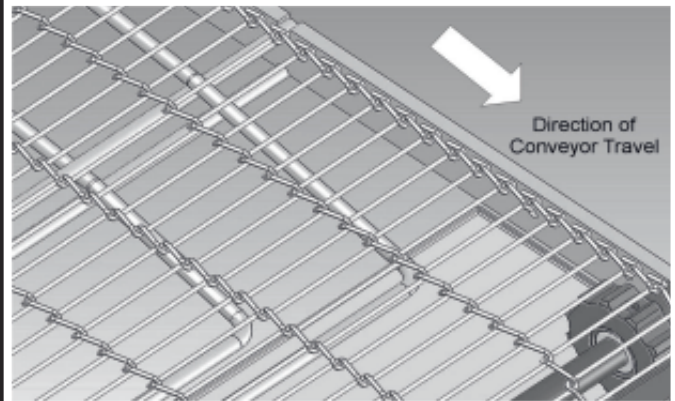


Figure 1

Thread the wire belt starting from the left side of the oven, lower lever first. After pushing belt through, on the lower level (leave about one foot hanging out on right side), take remainder of belt looping it around left shaft, and push through upper lever.

The two ends of the belt should be approximately 6-9 inches past the right shaft on the upper level of belt support. Install inner and outer mask links. Refer to Figure 2.

*Additional master links can be made out of a full belt link in case the original master links are lost or misplaced.*

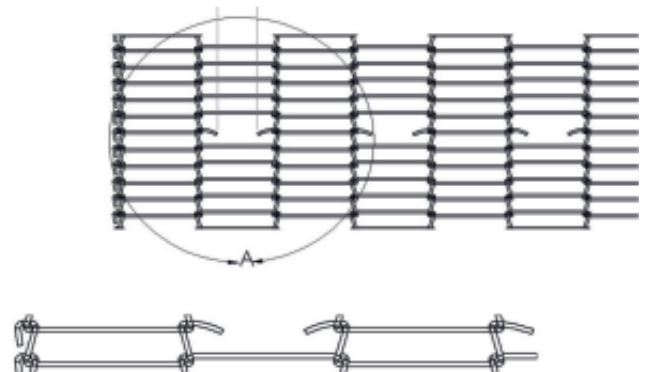


Figure 2

**Gas Piping**

**Gas Ratings  
QII Deck 80 -240,000 BTU/HR**

In order to achieve the degree of performance for which the oven was designed, a well planned and properly sized gas supply system is essential. Necessary gas pressure before the oven's regulator must be a minimum of 8" W.C. for natural gas and 11" W.C. for LP gas. The installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Codes, NFPA 54-1980 and ANSI Z23. 1-1980.

Your plumbing contractor should consult the National Fuel Gas Code for proper sizing and installation of gas piping. The total BTU/HR requirements of the equipment served and the length of piping from the meter to the appliances are major considerations in the proper design of the gas supply system. Piping of less than 3/4" diameter is not recommended for natural gas installation.

The oven is mounted on casters so flexible connectors should be of a braided stainless steel commercial duty type - minimum of 3/4" diameter.

A restraint must be placed on the unit to limit the movement of the oven so that no strain is placed on the flexible connector. **DO NOT use the gas piping or electrical conduit for the attachment of the permanent end of the restraint!** The opposite end of the restraint should be fastened to the appliance in such a way as to not damage the appliance or gas connector when the restraint is taut. It is recommended the restraint line be attached to the base frame of the appliance,

Prior to connecting the oven, gas line should be thoroughly purged of all metal filings, shavings, pipe dope, and other debris.

After connection, the oven should be checked for correct gas pressure. The correct gas pressure is 3.5" WC for natural gas and 10.5" WC for LP after the pressure regulator, when all oven main burners are on and all other kitchen burners/gas appliance are in operation.

**Gas Requirements, Orifice Sizes**

	Burner Orifice	Manifold Pressure
Natural Gas	0.120	3.5" WC
Propane Gas	0.078	6.5" WC

**BEFORE INSTALLING OVENS, CHECK TOTAL STORE GAS PRESSURE BY TURNING ON ALL OTHER GAS APPLIANCES. GAS PRESSURE MUST MEET OVEN MINIMUM REQUIREMENTS WITH ALL OTHER APPLIANCES OPERATIONAL.**

**MAXIMUM CAPACITY OF IRON PIPE IN CUBIC FEET OF NATURAL GAS PER HOUR  
(Pressure drop of 0.5" W.C.)**

Length of pipe per ft.	Nominal Size, Inches.				
	3/4"	1"	1 1/4"	1 1/2"	2"
10	360	680	1400	2100	3950
20	250	465	950	1460	2750
30	200	375	770	1180	2200
40	170	320	660	990	1900
50	151	285	580	900	1680
60	138	260	530	810	1520
70	125	240	490	750	1400
80	118	220	460	690	1300
90	110	205	430	650	1220
100	103	195	400	620	1150

**MAXIMUM CAPACITY OF SEMI-RIGID TUBING IN THOUSAND BTU PER HOUR OF UNDILUTED LP GAS  
(At 11" W.C. Inlet Pressure)**

Length of tubing per ft.	Outside Diameter, Inches.			
	1/2"	5/8"	3/4"	7/8"
10	92	199	329	501
20	62	131	216	346
30	50	107	181	277
40	41	90	145	233
50	37	79	131	198
60	35	72	121	187
70	31	67	112	164
80	29	62	104	155
90	27	59	95	146
100	26	55	90	138

## Electric Connections

Before making any electrical connections to these units, check that the power supply is adequate for the voltage, amperage and phase requirements stated on the rating name plate mounted in the back of the oven above the gas and electrical connections. All ovens, when installed must be electrically grounded in accordance with local codes. In absence of local codes, abide by the National electric code.

All standard QII Deck models are equipped for operation on 208-240 VAC, 1 phase, 50-60hz., 2 wire plus ground circuits. Wiring from the power source to these units should conform to electrical codes. A fuse disconnect switch or a main circuit breaker (customer supplied) must be installed in the electric supply line for each oven.

CAUTION!



Do not use conduit or other piping for ground connections. QII Deck cannot assume responsibility for loss or damage suffered as a result of improperly installed units. The oven should be grounded at the connection box.

## Oven Operations

Turn "On/Off" switch to on. (Figure 3)

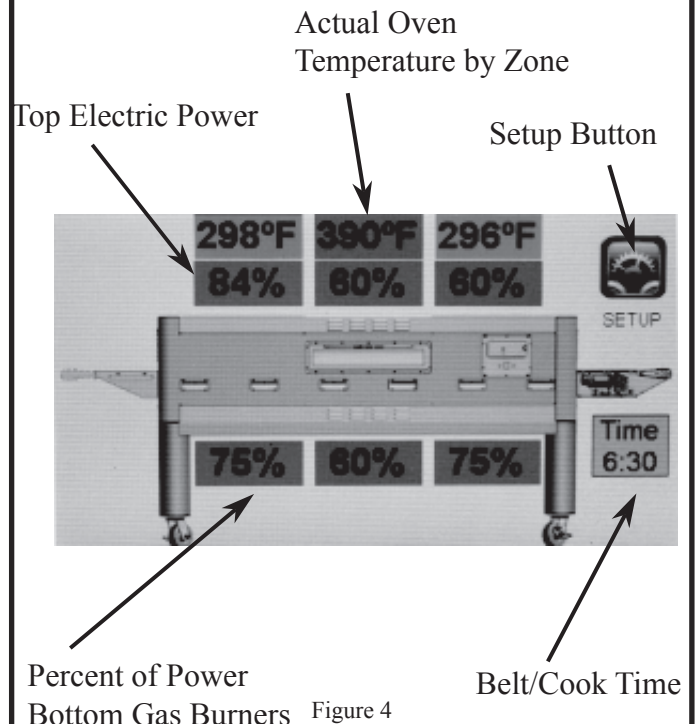


Figure 3

The following will occur:

- Note: At the initial start-up, the air has to be purged from the gas line, therefore a few trials may be necessary to light the oven.
- The oven, using spark ignition, will ignite each of the zones gas burner assemblies concurrently.
- The oven will also start cycling the top, radiant calrod heaters on and off.
- After the flame sensor is satisfied, the main valve opens and the temperature controller will start cycling on/off the gas valve

The Controller Main Screen (Figure 4)



## Infrared Cooking Primer

Infrared energy, though it is as old as the Sun itself, is not as easily understood as other cooking technologies presently available. Infrared is an invisible wavelength of energy that falls between visible light and microwaves. Infrared energy excites the molecules that make up your food which then increases heat.

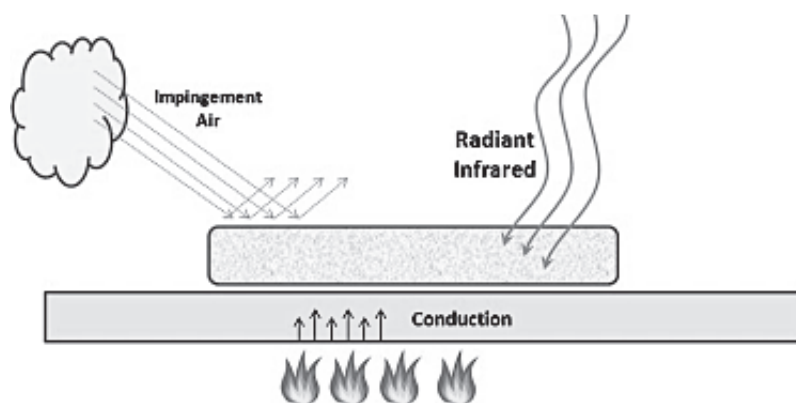
Much like microwaves, infrared does not have a specific temperature at which it cooks. With the QII Deck, you will establish set temperatures (temps you do not want your oven to fall below). And because of the intense energy of infrared, you can set these temperatures sometimes 100 degrees lower than you cook now. E.g., if you are currently cooking at 550 degrees, try starting the average oven set temperatures at 450 degrees.

Once again, like a microwave oven in your home, the QII Deck cooks with power percentages. 90% power mean the oven is cooking 90% of the time and off for 10%. This ON/OFF cycle pulses infrared into your pizzas and products so you achieve a thorough bake. There are several frequencies of infrared, so pulsing ensures many frequencies of heating energy are baking your pizza at the same time. With your microwave at home you might use HI for your power setting and find you only heat the outside of your dish. We've all had dishes that come out scalding on the outside and cold in the middle. If you use DEFROST or other POWER setting, your dish heats more evenly and thoroughly. The QII Deck, with Power Percentage settings prevents uneven cooking and inferior baking.

Burning embers and smoldering coals in wood fire ovens are also producing variable frequency infrared. The different colors of the coals are results of the ups and downs of the POWER of the embers. The QII Deck will provide you a superior bake because of this patented cooking technology.

Heat can be transferred and used to cook pizzas mostly in one of three ways:

- By conduction through solid materials, such as through from the bottom flame of a deck oven through a brick or cooking tile. Heat transfer takes longer the thicker your material you use for conduction.
- Through convection by warming air and moving the warmed air to a cooler area. Impingement is an extreme form of this as high velocity hot air is forced over your raw and cool pizza.
- Through radiant heat transfer. Unlike the other two methods radiant heat requires no conductor material or convector air. That's because infrared energy, like light, passes directly from the gas infrared burner cover into your pizza.



The QII Deck primarily uses radiant/infrared heat and conduction. The Infrared energy is produced by the red/orange glowing screens at the bottom of the oven and from electric radiant energy on the top. Pizza discs or pans also act as the conductor material to bake your crusts consistently every time. The QII Deck automates some of the oldest, time tested baking methods in the world.

Finally, a deck bake in a conveyor!

## Oven Operations (continued)

### Temperature Set Point Screen (Figure 5)

Each of the three zones in the QII Deck 80" can be changed to achieve a customized cook setting for your pizzas. You can press the up or down ovens to control the desired temperatures.

**NOTE: These are set temperature minimums. The oven will cook higher than the minimum ambient set temperatures because of the infrared energy.**

At any time you can lock in your setting an return to the main screen (Figure 4) by pushing the Set button. You can also cancel, go back, or advance to the next screen from here.

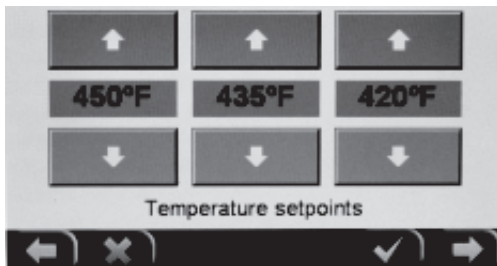


Figure 5

Go Back      Cancel      Set      Next Screen

### Available Gas Burner Power/ Max Gas (Figure 7)

Each zone of the QII Deck is customizable for its recovery and power. The higher percentage of power you assign each zone, the faster you will achieve greater heat and longer each burner will be on. This is important for the entry of the oven where the most energy is absorbed by your raw, cool products entering the chamber.

Your QII Deck can cook the most customized pizzas because you can assign each zone the appropriate to temperature and power to bake your pizza correctly. Too much heat too fast does bake a strong crust or it just sears the outside of your pizza.

Customize your burner power to achieve a baking process that develops your pizza's dough thoroughly without burning your crusts - and without leaving the middle of the pizza cold and raw.

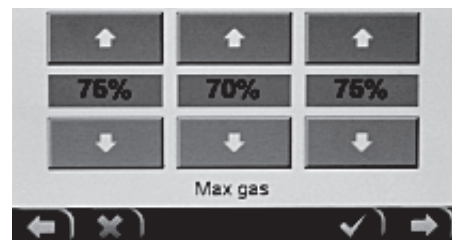


Figure 7

### Period/Cycle Screen (Figure 6)

The number of times your product is exposed to the infrared energy is controlled by how often the oven cycles on and off. A set period of 20 seconds (or 3 times per minute) is generally appropriate for any cook time between 6:30 and 9 minutes.

If you cook faster, you may need to increase the cycles to less than 20 seconds. The reverse is true if you have a very long cooking time.

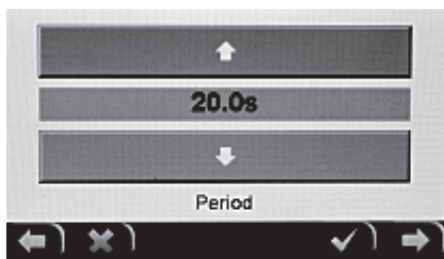


Figure 6

### Top Electric Power Screen (Figure 8)

Each zone of the QII Deck is customizable for the top, electric finishing heat. You can set your top heat for each zone from 0% to 95% to deliver the correct color to the top of your pizza.

If you are getting just a touch too much or too little color, a simple 5% reduction at your exit zone may be all you need to deliver the perfect pizza.

**NOTE:** The radiant heating may take 10-15 minutes to reach your set percentage. Allow time to heat up and cool down if you make an adjustment.

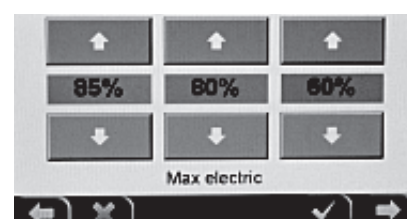


Figure 8

**Oven Operations (continued)**

**Cook Time and Gear Ratio Screen (Figure 9)**

The cook time for your pizzas is controlled on this screen. Increase the cook time to slow your conveyor belt.

Adjust the gear ratio if, over time, your oven's cook time does not match the screen. This could be caused by the heat loosening the links. The ratio button allows you to correct any variance in belt time to controller time quickly.

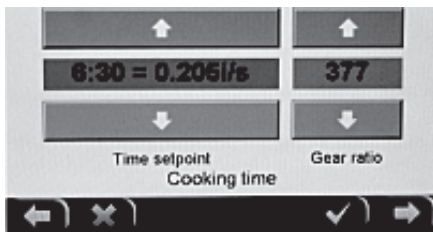


Figure 6

**Oven Control Terminology**

The control screen allows you to adjust the following:

- Zoned temperature set points (in °F)
- Top radiant heat percentage (in percentage)
- Gas percentage output (in percentage)
- Period/Cycle Time (in seconds)

**Zoned Temperature Set Points**

Each zone consists of two bottom burners. The controller allows you to set the minimum temperature point for each zone to customize your bake. The set temperature ensures your oven maintains the set ambient temperature. This set temperature does not account for the invisible infrared energy. A 450 degree set temperature may actually cook at 550 degree. Temperatures falling close to or below the set point is what drives the oven to increase heat and maintain temperature.

**Top Radiant Heat**

The top radiant, electric heat is what assists your oven in finishing your pizza. It is important to first set the proper time and temperature to cook your pizza thoroughly and with the best crust quality. After you have the appropriate bake, you can then find the appropriate top heat to deliver the best cheese and top crust color. You can customize each zone from 0% to 95%. Recommend start points are 30%, 25%, 20% - from entry to exit.

**Gas Percentage Output (Max Gas)**

The percentage of gas output is the percentage of the time the burner is "firing" out of the cycle time. For a 20s period/cycle time, an 85% max gas means the gas is firing 17s of the 20s. The higher the percent, the more gas is used over the period and results in faster recovery and faster heat building in your oven. We recommend starting your Max Gas at 70%, 60%, 50% from entry to exit. Test to see if the oven accommodates all demands. Most of the heat used to cook your pizza is used right when the pizza enters the oven so set the recovery higher there. If you require a faster recovery, increase the Max Gas %. A steady and stable recovery is more desirable to a fast and sudden increase in heat. Starting low and increasing the heat is best.

**Period /Cycle Time**

The cycle time is the total time of on and off. On + Off = Period. A 20s period time = 3 period per minute. The QII Deck, burning at 100% can technically reach temperatures well over 1000°F, so it pulses - it turns on and off. The pulsing infrared introduces different frequencies of infrared into your pizza as the colors change and cooks more like wood adn coal. Starting the cycle/period time at 20s to start is appropriate for a regualr round pizza. For times >10 minutes use a 25s period. For times <5:30 use a 18s period as a start point.

**Oven Shut Down**

Turn the switch to the OFF position.

All QII Deck ovens are shipped with a fan control snap disc thermostat that will start the cooling fan(s) when the temperature in the control box reaches 120°F, regardless if the oven is in operation or not. The cooling fan will shut off by itself when the temperature in the control box falls below 110°F.

You will most likely not be able to hear these fans even if they are running.



**WARNING!**

**In the event of a power failure, the oven should be turned OFF AND NO attempt to use the oven should be made until power is restored.**

**If the oven is to be turned off for an extended period of time, the gas supply to the oven should be turned off.**

## Converting from Your Oven to the QII Deck

There are many ovens on the market from decks to impingers - the QII Deck is an oven with no peers.

When converting your kitchen from one style of oven to the QII Deck, here are recommended starting points for cooking your pizza on the QII Deck.

### Deck Oven Conversion

The QII Deck will cook your pizzas at the same time if not faster when you have a 100% recovered oven that has not been opened for 15 minutes. The fastest you can cook your pizzas now with the hottest oven is the time you can expect with your QII Deck - busy or slow times of the day. For a traditional round, set your temperatures at 470, 450, 440 (entry to exit). This is a good start point.

### Impingement Conversion

The QII Deck boasts a superior bake - not an oven that simply is all about speed. We have often matched or beat impinger oven times, but that is not the overall goal - a superior crust and thorough bake is the goal.

Initially set your time the same as your conveyor oven with the settings above for the deck oven. A cheese pizza and a couple ingredients will cook much like an impinger. The QII Deck just has a better bake.

Because the QII Deck does not use any impingement, a heavy topping pizza may take longer to develop as there is no air forced into your ingredients which blows water and oil away from your toppings. Give your heavier topping pizzas more time to develop the crust and bake the ingredients - the improvement in quality will be evident.

## QII Deck Suggested Start Points

Direction: Entry to Exit e.g. 470 at entry zone

	Temps	Max Gas %	Electric %
Deck	470/450/440	70%/50%/40%	55%/50%/45%
Conveyor	470/450/440	70%/50%/40%	60%/50%/50%

The QII Deck is customizable in many different ways. It is necessary to start with an average base point and **adjust only one variable at a time during testing.**

DO NOT change both temperature and time simultaneously.

IF YOUR FIRST TEST BURNS, TURN SET ALL TEMPS 20 DEGREES LOWER AND TURN OFF OVEN FOR 10 MINS. IT IS EASIER TO LOCK IN YOUR OVEN BY STARTING "LOW."

## Achieving the Perfect Bake

### Test Baking with your QII Deck

The recommended start points are recommendations based on thousands of tests. They are not perfect for every pizza - for every style.

For each test done, the use of the Product Testing Form (located at the back of this manual) will be a helpful tool. The testing form will help keep track of the results for each test and will give a prospective view of the accomplishment after each adjustment.

QII Deck has infinite number of adjustments and has been designed to accommodate any kind of pizza it may encounter. It is important to limit the number of changes for each test so it can be understood which change had the desired effect. The effect of the change cannot be recognized immediately. The full impact of a change can be seen only after the pizza is cooked through the entire cycle after each change was made.

### What are we looking for when judging the results of a test?

1. A well cooked dough:
  - It has risen up to the wet line that separates the sauce from the dough
  - It is strong, holding the toppings and does not collapse when help up
  - It separates when cut
  - It has a crunchy layer on the bottom
2. Good color - top and bottom
3. Good internal temperature:
  - >190°F for a cheese or cheese and pepperoni pizza
  - >180°F for a sausage pizza plus other ingredients
  - >165°F for a pizza with multiple vegetable toppings

Achieving the proper bake - the well cooked dough is the first goal of the testing. Improvements to the color of the cheese and crust can be made with slight adjustments to temperature after the best bake has been established.

## Example Bake

Bake time 6:30 using the Deck Suggestion at Left

Test#1 The pizza came out with perfect color - top and bottom. The pizza is soft and falls apart when cut and held up. the dough line is too gummy.  
*Suggestion:* Increase the cook time by 20-30s.

Test #2 Pizza comes with too much top color. The crust is a little darker but is still perfect - like a deck. The dough is much stronger and holds up very well.  
*Suggestion:* Decrease the top heat at the end by 10%.

**Test #3 The pizza comes out perfectly.**

## Baking Test Cases

**BAKE = TIME**

**COLOR = TEMPERATURE**

1. Pizza #1 has good color but the crust and ingredients are not cooked. The top heat is sufficient but Pizza #1 is being cooked too quickly. Slow down your belt. After you achieving the proper bake, decrease the top heat because. Time is the most important determinant for the proper bake.
2. Pizza #2 baked very well inside, but the color on bottom is too light. The time is set well, but Pizza #2 may need more temperature to get more color. Increase the bottom temperatures to get more browning. If the browning does not occur even though your pizza is crisp and has good structure, you may not have enough sugars in your dough. Some pizzas cook better on baking discs as opposed to screens or direct to belt. The QII Deck cooks much like a deck because the high heat from the bottom is conducted through your cooking surface to the crust. An anodized disc best resembles a deck surface vs. a screen or no surface at all (direct to belt). A disc may assist with more color. If you do not need more color, a screen may work the best.
3. Pizza #3 is baked thoroughly, but I do not have the right color on top. If the color is almost there, first increase your bake time from 10 to 15 seconds to see if that is the solution. If your pizza is almost white, increase your top heat % to improve the final crust and cheese color.
4. Pizza #4 is cooked well and crust is perfect, but the cheese is burnt. Do not speed up your oven to lighten the color on your pizza as this will affect your bake. Your top heat is too high. Decrease top heat % to reduce the color on your pizza.
5. Pizza #5 is cooked on a screen and the crust is too light. We recommend cooking with robust baking discs to mimic the deck bake the closest. The more metal surface you have on the bottom of your pizza, the more conduction you have. We recommend some perforation of your disc as it allows for moisture (steam) to escape instead of moistening your crust. The baking discs also last much longer than a traditional screen.
6. Pizzas #6 cook perfectly. However, when I put a lot of pizzas through back to back they lose color. If the max gas % for the first zone of the oven is not high enough, the oven is not maintaining heat. Your recovery (Max Gas) may not be set high. Set the Max Gas higher up to 70% for the first zone - higher if necessary to 95%. You should also set your oven to cook like you will "most of the time." If you are usually running a lot of pizzas, decrease the bake time slightly to give the pizzas more heat longer and bake. Keep your oven set to "usual settings." You can also increase the top heat.
7. Pizza #7 does not get a lot of top color. The pizzas are cooking on sheets and are put in flush with each other with no gaps. Top color for your pizzas are a result of both the top electric heat and also because of the bottom burners' heat and infrared bouncing off the top of the oven. If you leave 2" between your discs or pans, you will allow this energy to pass through from the bottom and cook the top of your pizzas.
8. Pizza #8 always has a dark bottom - perfect bake but dark. I use non-stick spray on my discs. Spray oil on the disc surface "fries" the bottom of the crust and will darken it. Seasoned baking discs, especially anodized, do not require baking spray each time. Not using baking spray or even using flour to form your dough shell will lighten the color of your crust.

## Open Gas Flame Considerations

The QII Deck is the only conveyor that cooks with an open, exposed flame that burns upwards of 1800°F. Oils and fats used in your products can drip and come in contact with the QII Deck burners.

Small and quick fires within the cavity is normal if cheese is melting off your pizzas. Cooking directly on the belt or cooking with large amounts of combustible liquid that will more than likely hit the flame will increase the number of quick flare ups. Cutter pans and not cooking directly on the belt will lessen the number of flare ups.

## Cleaning and Maintenance

### **CAUTION!**



The oven must be turned off and cool before removing any pans, plugs or covers.

The recommended cleaning schedule shown below should be followed for proper performance and operation.

Proper Maintenance Extends Equipment Life

### **DAILY:**

Cleaning should include the wire conveyor belt and the crumb pans (Figure 8). The belt can easily be cleaned by using a wire brush, allowing any foreign material to drop into the crumb pans. The crumb pans can then be emptied and cleaned accordingly.

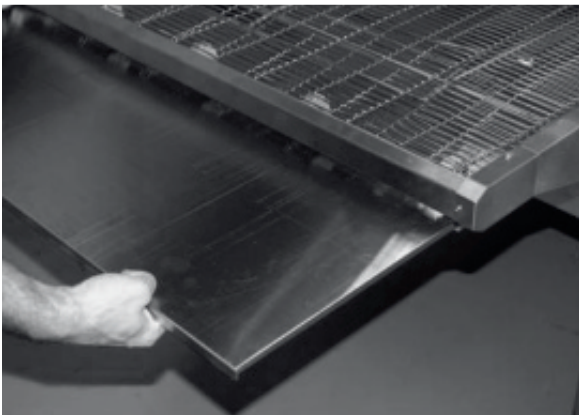


Figure 8

Remove the burner covers (Figure 10). Clean the removable burner covers (Figure 9) with a stiff nylon brush. DO NOT use a wire brush on the metal burner cover.



Figure 9

### **WEEKLY:**

Each week wipe down and clean the louver of the front and side oven panels (Figure 10).

Remove the bottom oven end plugs to access the interlocking burner pans on each end of the oven.

The QII Deck does not blow your products around inside. Weekly maintenance should be easy and take less than 10-15 minutes.



Figure 10

Louvers

Burner Cover Handles



Figure 11



Figure 12

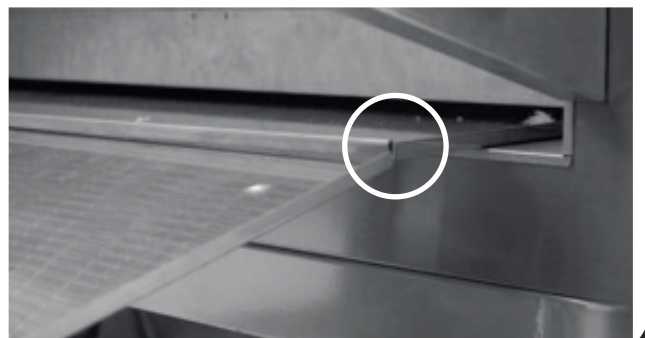


Figure 13

**Cleaning and Maintenance (continued)**

**WEEKLY (continued):**

Clean the burner pans and replace. **Ensure you interlock the pans for easy access each time you conduct your weekly cleaning.** (Figure 13 -14)

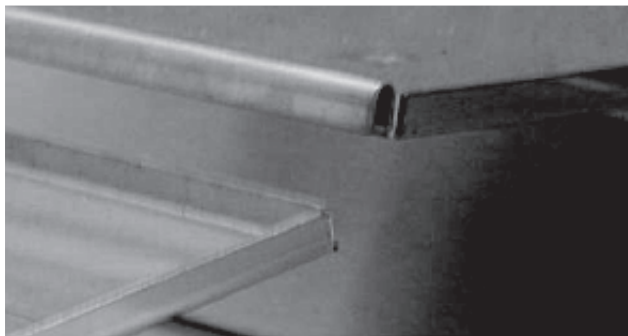


Figure 14

Clean the sandwich window of grease and debris (Figure 15).



Figure 15

**QUARTERLY AND SEMI ANNUALLY:**

The oven interior, exterior and moving parts need to be cleaned at a minimum semi annually. If debris is visible from the ends of the oven or visible from the sandwich window, cleaning is required earlier.

Keeping you burner covers and burners free from debris will extend their lives and increase the efficiency of your oven. Because the QII Deck burns at over 1000 degrees at the burner, the only particles remaining will be pure carbon. The carbon can be brushed free from the oven and vacuumed away.

Compressed air can also be used to blow the carbon off your burners onto you under burner pans for easier cleaning.

When taking the oven apart, the conveyor belt must be rolled up. If the belt is not rolled properly, the belt may be rethreaded upside-down. Please see the belt assembly instructions (Page 4).

When removing parts from the interior of the oven, special attention should be given to avoid hitting the spark igniters and thermocouples.

**ANNUALLY:**

A factory authorized service person should;

- Open and clean the inside of the control panel.
- Check and tighten the electrical connections.
- Check DC gear motor brushes for wear and rotate

**CAUTION!**

**DO NOT SPRAY CLEANING CHEMICALS INTO  
THE OVEN CAVITY.**

**USE APPROPRIATE STAINLESS STEEL  
CLEANER FOR THE OUTSIDE OF THE OVEN**

## Troubleshooting

SYMPTOM	POSSIBLE CAUSE	SUGGESTED REMEDY
Bottom gas burners will not fire	Spark will not turn on	Turn off switch, wait 5 seconds and turn on again. If the spark is on for 15-20 seconds and the oven does not fire, check gas supply.
	Combustion Blower Fan is not running	Check spark ignitor connection and 24v supply to the ignition control
Oven shuts off after several hours of running	Internal temperature has reached 600 degrees or high limit switch out of adjustment	Readjust temperature setpoint. Open the front cover to inspect cooling fan operation
	Carbon build up around thermocouples	Clean off carbon around thermocouples
Top of pizza suddenly comes out different - too light. The bottom looks the same.	Top heater malfunction	Check heater circuit. Replace defective switch if tripped
		Verify that electricity is reaching the heating elements with Amp meter when controller is calling for heat. Call 800-880-OVEN
Conveyor belt will not move	Control circuit fuse for the motor blown	replace the fuse on the control panel
	circuit break on the front panel is turned off	reset the circuit breaker
	defective drive motor	Call 800-880-OVEN
	motor is turning but the sprocket is loose on the shaft	Tighten the sprocket

**Call 800-880-OVEN before calling for servicing**

**TEST BAKE WORKSHEET**

PRODUCT TESTING DATE LOCATION OF TEST INDIVIDUALS PRESENT
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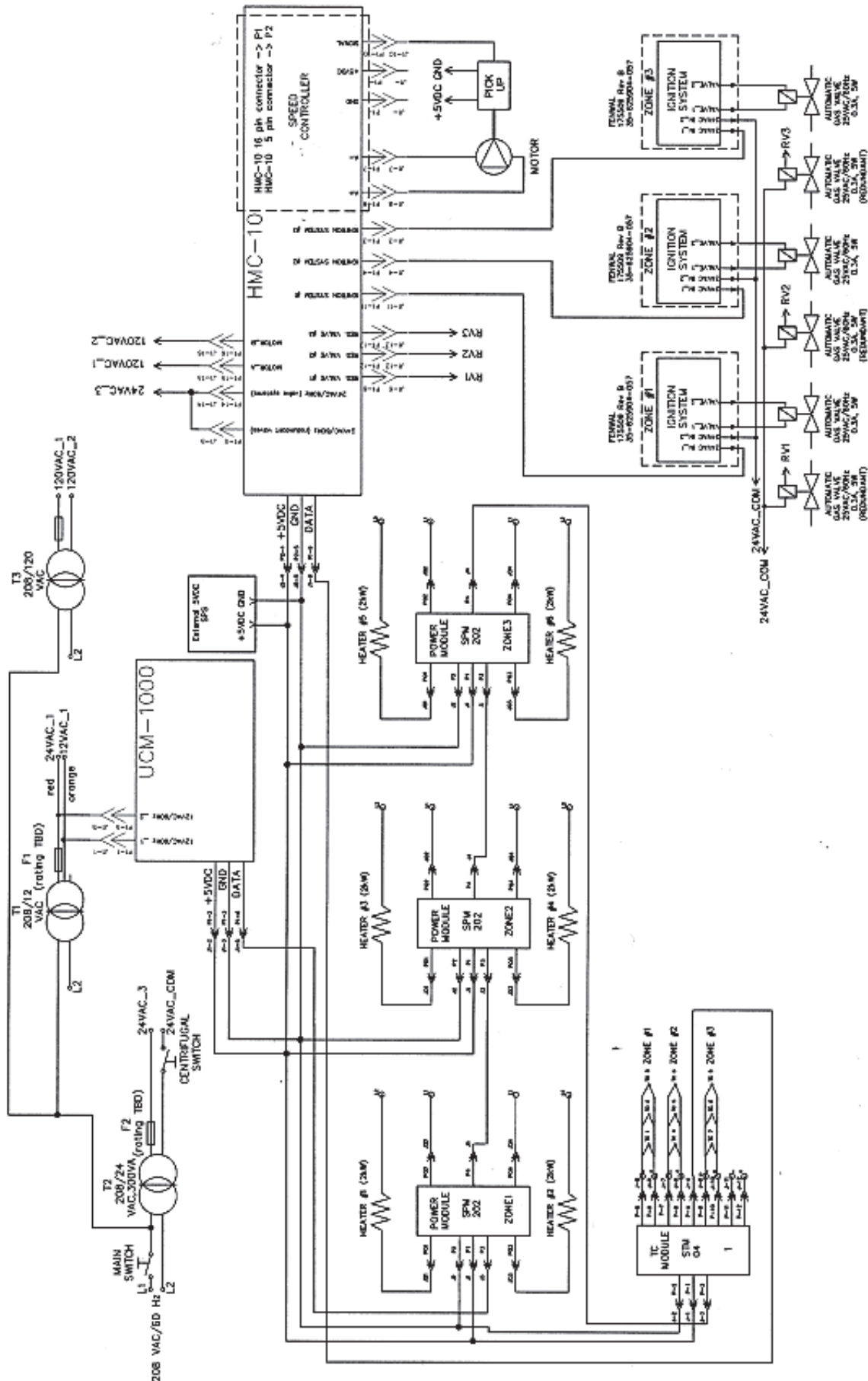
PRODUCT DESCRIPTION AND TEST #				
COOK/BELT TIME				MAX GAS %      Zone 1    Zone 2    Zone 3
ELEC TOP HEAT %	Zone 1	Zone 2	Zone 3	NOTES ABOUT BAKE. WHAT CHANGE WILL YOU MAKE?
TEMP SET POINTS	Zone 1	Zone 2	Zone 3	

PRODUCT DESCRIPTION AND TEST #				
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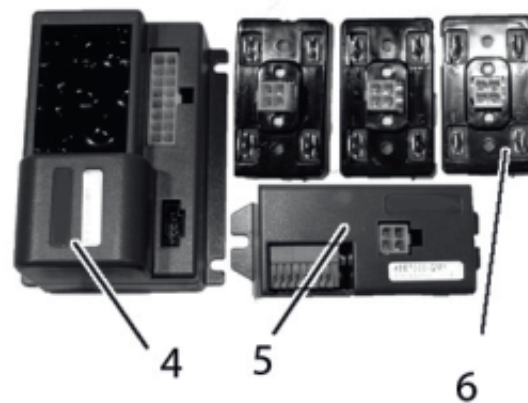
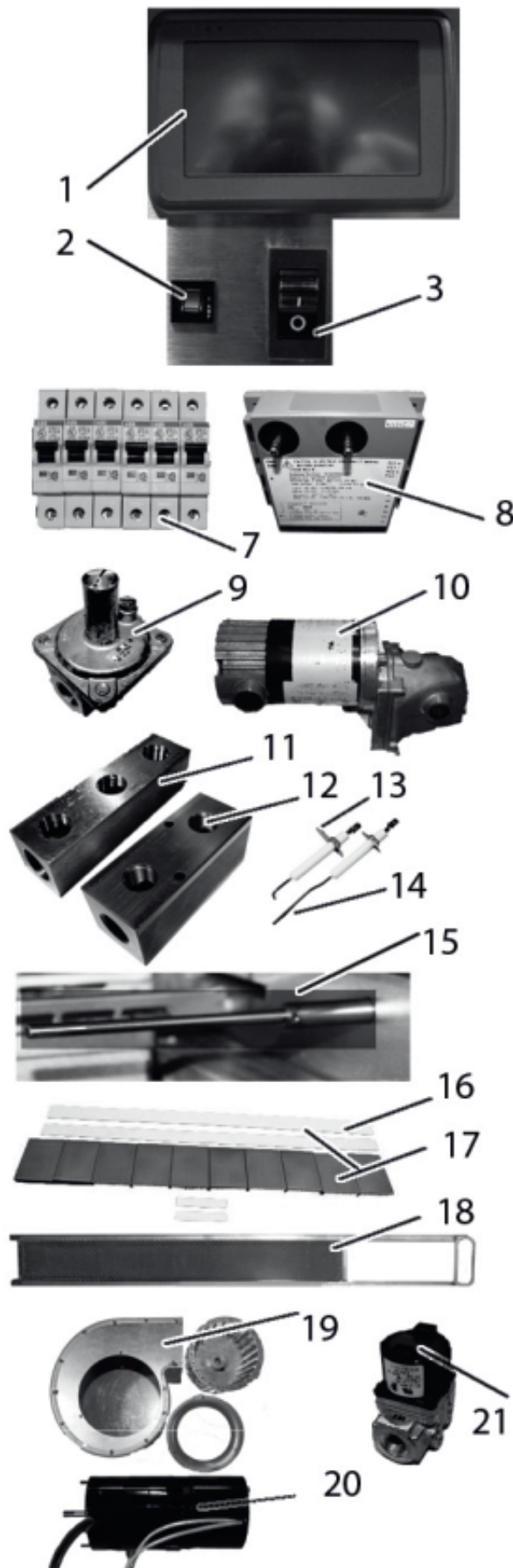
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## Wiring Diagram



**Parts Diagram**



	Description	Part Number
1	Controller	699-200A
2	Circuit Breaker	699-236
3	Main Power Switch	699-235
4	Temperature Controller	
5	Thermocouple Module	
6	Heater Relay	
7	Circuit Breaker - Heater	699-230C
8	Ignition Module	699-202
9	Gas Regulator	699-215A
10	Conveyor Motor	699-204A
11	3/4 " Manifold	699-226
12	1/2" Manifold	699-227
13	Spark Ignitor Electrode	699-203A
14	Flamerod Electrode	699-203B
15	Thermocouple 1/8" dia	RE1086
16	Gasket kit	RI003
17	Burner Rebuild Kit	
18	Reverberation Screen Assembly	
19	Combustion Fan Assembly	
20	Blower Motor	RE1027
21	Solenoid	699-201

QII DECK  
LIMITED WARRANTY

This product is warranted to be free from defects in material and/or workmanship for a period of 1 year from date of original installation, not to exceed 18 months from the date of manufacture.

Any component which proves to be faulty in material and/or workmanship during the period of this Limited Warranty will be replaced or repaired (at the option of QII Deck) without cost to the customer for parts and labor.

This warranty is subject to the following exceptions/conditions:

- Use of any non-genuine QII Deck parts voids this warranty.
- All labor to be performed during regular work hours. Overtime premium (the incremental amount) will be charged to the customer.
- Damage caused by carelessness, neglect and/or abuse (e.g., dropping, tampering or altering parts, equipment damaged in shipment, by fire, flood or an act of God) is not covered under this warranty.
- All problems due to operation at voltages other than that specified on equipment nameplates are not covered by this warranty. Conversion to correct voltage is the customer's responsibility.
- All problems due to improperly installed gas are not covered by this warranty. Proper gas installation is the customer's responsibility.
- Any faulty parts repaired or replaced must be returned to QII Deck upon request. If the part is found to be damaged due to improper installation or by abuse/neglect the operator will be charged for the part.

This equipment must be serviced by QII Deck Authorized Service Agency or a QII Deck Service Technician during the warranty period.

This shall be customer's exclusive remedy. Any claims not made within the warranty period are deemed waived by customer. Before returning any product or part hereunder, customer must contact QII Deck for a Return Goods Authorization number and to arrange for transportation. QII Deck will not pay any transportation costs incurred without its prior approval.

In no event will QII Deck be liable, whether in tort, contract or otherwise, for any bodily injury, death or property damage resulting from or in any way arising out of any goods or services provided by QII Deck or their sale, use or manufacture. **IN NO EVENT SHALL QII DECK BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES, OR EXPENSES.**

No change in any provision in this Limited Warranty may be made without the prior written agreement of an authorized officer of QII Deck.

**THIS IS QII DECK'S ONLY WARRANTY. QII DECK MAKES NO OTHER WARRANTY OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR ANY PARTICULAR PURPOSE ARE HEREBY DISCLAIMED AND EXCLUDED BY QII DECK.**

**ADDITIONAL TEST BAKE WORKSHEETS - MAKE COPIES IF NECESSARY**

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