Preferred Service

Service Manual

This manual is to be used by qualified appliance technicians only. Viking does not assume any responsibility for property damage or personal injury for improper service procedures done by an unqualified person.

Electric Touch Control Ovens

This Base Manual covers general and specific information including, but not limited to the following models:

DEDO127T

DEDO130T

DEDO527T

DEDO530T

DESO127T

DESO130T

DESO527T

DESO530T

VEDO127T

VEDO130T

VEDO527T

VEDO530T

VESO127T

VESO130T

VESO527T

VESO530T

SMC-0004
July 2008

SAVE THESE INSTRUCTIONS

REVIEW ALL SERVICE INFORMATION IN THE APPROPRIATE SERVICE MANUAL AND TECHNICAL SHEETS BEFORE BEGINNING REPAIRS.

Pride and workmanship go into every product to provide our customers with quality appliances. It is possible, however, that during the lifetime of a product service maybe require. Products should be serviced only by a qualified authorized service technician who is familiar with the safety procedures required to perform the repair and is equipped with the proper tools, parts, testing instruments, and the appropriate service manual.

Safety Information

We have provided many important safety messages throughout this manual and on the product. Always read and obey all safety statements. To properly identify a safety statements look for the following safety alert symbol.

This symbol alerts personnel to hazards that can many different types of altering messages. All safety messages will be preceded by a safety alert symbol and the word "DANGER", "WARNING" or "CAUTION".

DANGER

Immediate hazards which WILL result in severe personal injury or death.

WARNING

Hazards or unsafe practices which COULD result in severe personal injury or death.

CAUTION

Hazards or unsafe practices which COULD result in minor personal injury, product or property damage.

All safety messages will identify the hazard, tell you how to reduce the chance of injury, and inform you what can happen if the instructions are not followed.

WARNING

To avoid risk of serious injury or death, repairs should not be attempted by unauthorized personnel.

CAUTION

VIKING will not be responsible for any injury or property damage from improper service procedures. If performing service on your own product, you must assume responsibility for any personal injury or property damage which may result.

To locate an authorized service agent, call:

Viking Customer Service
Phone No. 1-888-845-4641

Address your written correspondence to:

Viking Preferred Service
1803 HWY 82 West
Greenwood, MS 38930

Professional Series Built-In Electric Ovens Warranty

One Year Full Warranty

Built-in electric ovens and all of their component parts and accessories, except as detailed below*, are warranted to be free from defective materials or workmanship in normal household use for a period of twelve (12) months from the date of original retail purchase. Viking Range Corporation, warrantor, agrees to repair or replace, at its option, any part which fails or is found to be defective during the warranty period.

*Glass (including light bulbs), painted and decorative items are warranted to be free from defective materials or workmanship for a period of ninety (90) days from the date of original retail purchase. ANY DEFECTS MUST BE REPORTED TO THE SELLING DEALER WITHIN NINETY (90) DAYS FROM DATE OF ORIGINAL RETAIL PURCHASE.

Viking Range Corporation uses the most up-to-date processes and best materials available to produce all color finishes. However, slight color variation may be noticed because of the inherent differences in painted parts and porcelain parts as well as differences in kitchen lighting, product locations, and other factors.

Five Year Limited Warranty

Any bake element, broil element, or convection cook element which fails due to defective materials or workmanship in normal household use during the second through the fifth year from the date of original retail purchase will be repaired or replaced, free of charge for the part itself, with the owner paying all other costs, including labor.

Ten Year Limited Warranty

Any porcelain oven or porcelain inner door panel which rusts through due to defective materials or workmanship in normal household use during the second through the tenth year from the date of original retail purchase will be repaired or replaced, free of charge for the part itself, with the owner paying all other costs, including labor.

This warranty extends to the original purchaser of the product warranted hereunder and to each transferee owner of the product during the term of the warranty.

This warranty shall apply to products purchased and located in the United States and Canada. Products must be purchased in the country where service is requested. Warranty labor shall be performed by an authorized Viking Range Corporation service agency or representative. Warranty shall not apply to damage resulting from abuse, accident, natural disaster, lose of electrical power to the product for any reason, alteration, outdoor use, improper installation, improper operation, or repair or service of the product by anyone other than an authorized Viking Range Corporation service agency or representative. This warranty does not apply to commercial usage. Warrantor is not responsible for consequential or incidental damage whether arising out of breach of contract, or otherwise. Some jurisdictions do not allow the exclusion or limitation of incidental of consequential damages, so the above limitation or exclusion may not apply to you.

Owner shall be responsible for proper installation, providing normal care and maintenance, providing proof of purchase upon request, and making the appliance reasonably accessible for service. If the product or one of its component parts contain a defect or malfunction during warranty period, after a reasonable number of attempts by the warrantor to remedy the defects or malfunction, the owner is entitled to either a refund or replacement of the product or its component part or parts. Warrantor's liability on any claim of any kind, with respect to the goods or services covered hereunder, shall in no case exceed the price of the goods or service or part thereof which gives rise to the claim.

WARRANTY SERVICE: Under the terms of this warranty, service must be performed by a factory authorized Viking Range Corporation service agent or representative. Service will be provided during normal business hours, and labor performed at overtime or premium rates shall not be covered by this warranty. To obtain warranty service, contact the dealer from whom the product was purchased, an authorized Viking Range Corporation service agent, or Viking Range Corporation. Provide model and serial number and date of original purchase. For the name of your nearest authorized Viking Range Corporation service agency, call the dealer from whom the product was purchased or Viking Range Corporation. IMPORTANT: Retain proof of original purchase to establish warranty period.

The return of the Owner Registration Card is not a condition of warranty coverage. You should, however, return the Owner Registration Card so the Viking Range Corporation can contact you should any question of safety arise which could affect you.

Any implied warranties of merchantability and fitness applicable to the above described bake element, broil element, convection cook element, porcelain oven, or porcelain inner door panel are limited in duration to the period of coverage of the applicable express written limited warranties set forth above. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives specific legal rights, and you may also have other rights which may vary from jurisdiction to jurisdiction.

VIKING RANGE CORPORATION
111 Front Street, Greenwood, Mississippi (MS) 38930 USA 662-455-1200

Specifications are subject to change without notice.
For more product information, call 1-888-VIKING1 (845-4641), or visit our web site at http://www.vikingrange.com

WARRANTY SERVICE

Under the terms of this warranty, service must be performed by a factory authorized Viking Range Corporation service agent or representative. Service will be provided during normal business hours, and labor performed at overtime or premium rates shall not be covered by this warranty. To obtain warranty service, contact the dealer from whom the serial number and date were originally purchased. For the name of your nearest authorized Viking Range Corporation service agency, call the dealer from whom the product was purchased or Viking Range Corporation. IMPORTANT: Retain proof of original purchase to establish warranty period

The return of the Owner Registration Card is not a condition of warranty coverage. You should, however, return the Owner Registration Card so that Viking Range Corporation can contact you should any question of safety arise which could affect you. Any implied warranties of merchantability and fitness applicable to the above described nylon racks, motor/pump assembly, water distribution system, stainless steel tank, or stainless steel inner door liner are limited in duration to the period of coverage of the applicable express written limited warranties set forth above. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which may vary from jurisdiction to jurisdiction.

VIKING RANGE CORPORATION
111 Front Street • Greenwood, Mississippi 38930 USA
(662) 455-1200
www.vikingrange.com
Specification subject to change without notice

Table of Contents

Specifications

Professional Touch	Select				Premiere			
	27" Wide		30" Wide		27" Wide		30" Wide	
Model Number	VESO127T	VEDO127T	VESO130T	VEDO130T	VESO527T	VEDO527T	VESO530T	VEDO530T
Clock	Digital				Digital			
Bake Element	10-Pass Concealed Element				10-Pass Concealed Element			
Broiler	10-Pass Tubular				Electric Infrared Glass Enclosed			
Convection System	2-Speed	2-Speed (upper only)	2-Speed	2-Speed (upper only)	2-Speed	2-Speed (both ovens)	2-Speed	2-Speed (both ovens)
Oven Light	One	One	One	One	Three	Three	Three	Three
Meat Probe	No	No	No	No	Yes	Yes	Yes	Yes
Electrical Requirements	4-Wire w/ground, 30 Amp. Connection	4-Wire w/ground, 50 Amp. Connection	4-Wire w/ground, 30 Amp. Connection	4-Wire w/ground, 50 Amp. Connection	4-Wire w/ground, 30 Amp. Connection	4-Wire w/ground, 50 Amp. Connection	4-Wire w/ground, 30 Amp. Connection	4-Wire w/ground, 50 Amp. Connection
Max Amp. Usage	24	40	24	40	24	40	24	40
Bake Rating	3000 Watts				3000 Watts			
Broil Rating	4000 Watts				3500 Watts			
TruConvec Rating	3000 Watts				3000 Watts			

Designer Touch	Select				Premiere			
	27" Wide		30" Wide		27" Wide		30" Wide	
Model Number	DESO127T	DEDO127T	DESO130T	DEDO130T	DESO527T	DEDO527T	DESO530T	DEDO530T
Clock	Digital				Digital			
Bake Element	10-Pass Concealed Element				10-Pass Concealed Element			
Broiler	10-Pass Tubular				Electric Infrared Glass Enclosed			
Convection System	2-Speed	2-Speed (upper only)	2-Speed	2-Speed (upper only)	2-Speed	2-Speed (both ovens)	2-Speed	2-Speed (both ovens)
Oven Light	One	One	One	One	Three	Three	Three	Three
Meat Probe	No	No	No	No	Yes	Yes	Yes	Yes
Electrical Requirements	4-Wire w/ground, 30 Amp. Connection	4-Wire w/ground, 50 Amp. Connection	4-Wire w/ground, 30 Amp. Connection	4-Wire w/ground, 50 Amp. Connection	4-Wire w/ground, 30 Amp. Connection	4-Wire w/ground, 50 Amp. Connection	4-Wire w/ground, 30 Amp. Connection	4-Wire w/ground, 50 Amp. Connection
Max Amp. Usage	24	40	24	40	24	40	24	40
Bake Rating	3000 Watts				3000 Watts			
Broil Rating	4000 Watts				3500 Watts			
TruConvec Rating	3000 Watts				3000 Watts			

Heating element information

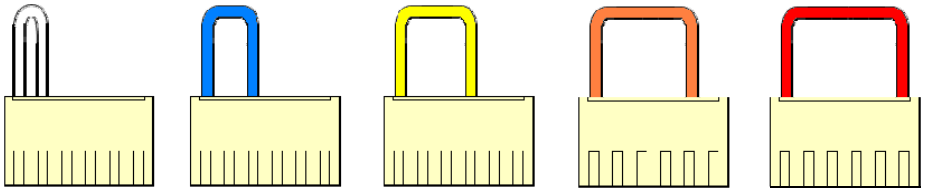
	Inner Bake	Outer Bake	Inner Broil	Outer Broil	Convection
Volts	240	240	240	240	240
Amps	6.25	6.25	10.60	6.00	12.50
Watts	1,500	1,500	2,550	1,450	3,000
Ohms	38.00	38.00	22.50	40.00	19.50

Control board headers

The T series wall ovens all use the same main control board. Each board is programmed to the specific model by the use of a control board model select connector (Header). Each connector has a color coded wire Molex plug which connects to the P9 connector of the main control board.

Fig A shows the different Molex header plugs along with the models that each goes with. Models **DEDO530T, VEDO530T** and **VESO530T** DO NOT have a header plug. If you change the main control board you must make sure that the header is removed from the old board and placed on the new one. Failure to do so will cause improper operation of the oven. Fig B shows the location of the control header.

FIG A



PE070763 White	PE070794 Blue	PE070795 Yellow	PE070796 Orange	PE070887 Red

Models	*Models*	*Models*	*Models*	*Models*
DEDO 527T	DESO 530T	DEDO 130T	DEDO 127T	DESO 130T
VEDO 527T	DESO 527T	VEDO 130T	VEDO 127T	DESO 127T
	VESO 527T		VESO 130T	VESO 127T

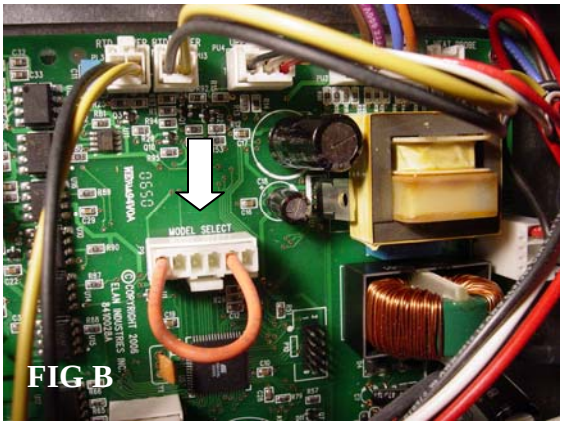


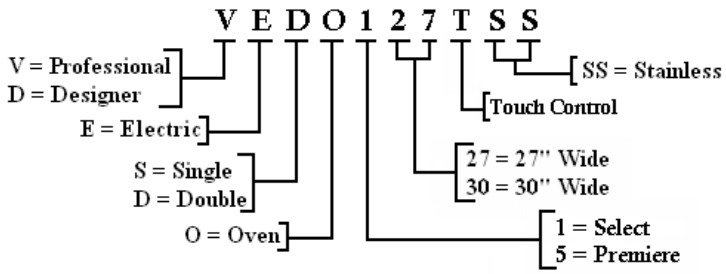
FIG B

The board shown here is configured for a model DEDO – VEDO 127T.

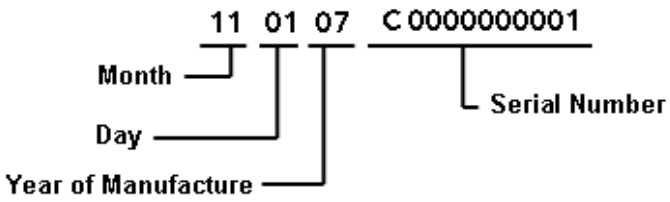
Model - Serial number matrix

The model number and serial number are located on the data plate. The data plate is located on the top left side of the oven cavity under the control panel.

Model Numbers



Serial numbers



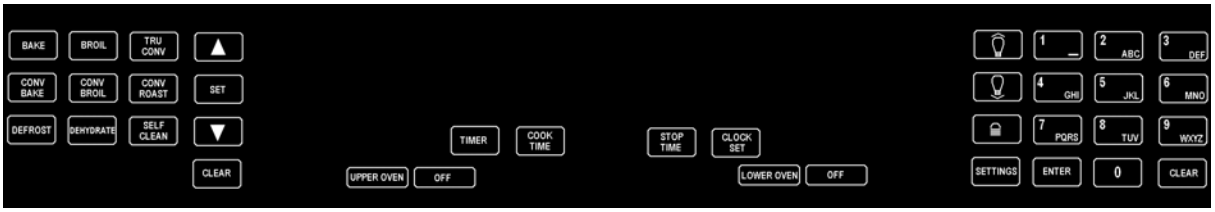
The model and serial number tag is located on the underside of the control panel. FIG A shows the location.

Control Panel

Below is the control panel in its OFF state. In order to operate the oven you need to select either upper or lower (Double oven models). In order to operate the oven, touch either the upper or lower oven touch pad.

The Viking Built-In Touch Control wall oven is available in two versions. The Select and Premiere ovens are identical with the exception of optional functions on the Premiere model. Below are both the Select and the Premiere double oven models.

Select model (*Double oven shown)*



The Select model has Bake, Broil, True Convection, Convection Bake, Convection Broil, Convection Roast, Defrost, Dehydrate and Self Clean.

Premiere model *(Double oven shown)*

The Premiere model has all the features as the Select model with the addition of an Auto Roast and Proof cycles, Meat probe capabilities and a RECIPES function built in. Also, the Premiere model has 3 oven lights in each cavity and both the upper and lower ovens (Double cell models) have the Convection Feature

Clock Displays

When the control panel is activated on both the Premiere and Select models, there is a slight variation in the panel readout. FIG A is the Premiere version and FIG B is the Select version.

FIG A

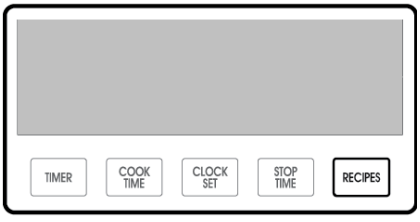
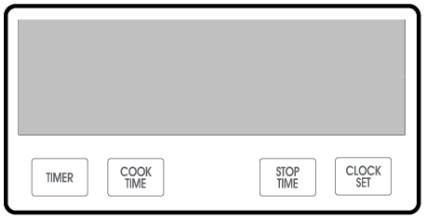


FIG B



Sabbath Mode

Both versions of the Touch control wall oven include a Sabbath mode function. When set to the Sabbath mode, the oven light stays off while the heating elements and the convection fan (in selected convection modes) will stay on whenever the door is opened.

To program:

1. Press "SETTINGS". Settings menu will appear in the display
2. Press the down arrow until "SABBATH: NO" appears in the display
3. Press "ENTER" or "SET" and "NO" will flash in the display.
4. Use the arrow keys to choose "YES" or "NO."
5. Press "ENTER" or "SET" again to accept your selection
6. To exit the Settings menu, press "SETTINGS" or "CLEAR".

In order to disable the Sabbath function, following the procedures outlined above and select "SABBATH: NO". This will disengage the Sabbath feature.

Lock and Unlock

Both versions of the Touch Control wall oven include a panel lock-out function. This way the oven cannot be activated accidentally or by others not authorized to use the oven.

To ***activate*** panel lock:

1. Activate the control panel by either selecting the Upper or Lower oven pads
2. Press and hold the lock Key pad (🔒) and the display will display "HOLD FOR LOCK".
3. Hold this pad for 3 seconds until the display reads "PANEL IS LOCKED"
4. You will hear 3 short beeps. The control panel will now be locked.

To ***deactivate*** panel lock:

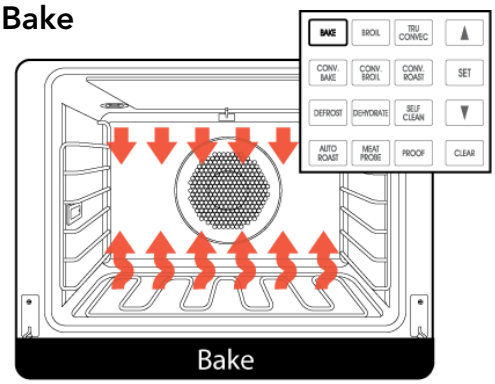
1. Press and hold either the UPPER or LOWER oven pads for 3 seconds.
2. You will hear 2 short beeps and the display will read "PANEL IS UNLOCKED"

Oven Settings and Functions

The Select and Premiere models both have the followings cook cycles:

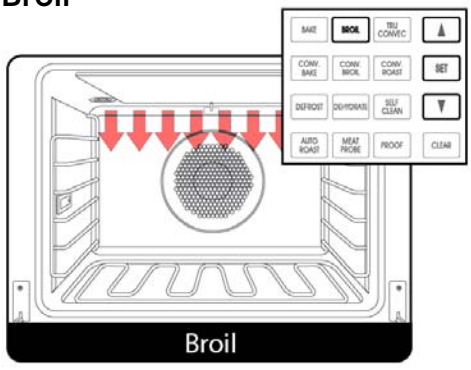
Bake, Broil, TruConvec™, Convection Bake, Convection Broil, Convection Roast, Defrost, Dehydrate and Self Clean. The Premiere model Also features an Auto Roast and a Proof Cycle, along with a Meat Probe feature on both the single and double premiere models.

Bake



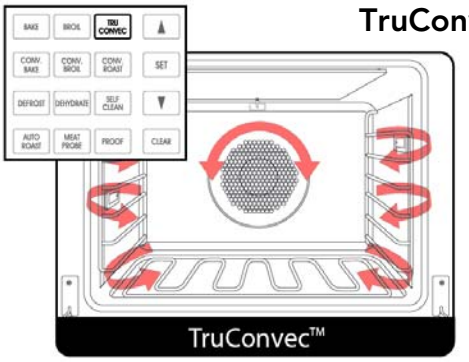
The Bake cycle utilizes both the inner and outer concealed elements in the floor and the inner and outer broil elements during the bake cycle. The main control board will operate the individual relays on the relay board to control both the preheat cycle as well as the cook cycles. Please refer to the operating matrix on page 30.

Broil



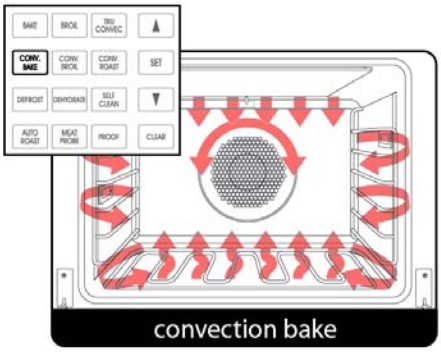
The Broil cycle utilizes both the inner and outer broil elements in the oven cavity during the broil cycle. The main control board will operate the individual relays on the relay board to control both the preheat cycle as well as the cook cycles. Please refer to the operating matrix on page 31.

TruConvec™



The TruConvect ™ cycle utilizes the outer bake element, as well the inner broil and outer broil elements to assist the convection element during the preheat cycle up to 250˚ F. Once this temperature has been achieved, the oven will operate the rear convection element only to provide True Convection. The convection fan will run at LOW speed and changes direction throughout the cycle. The main control board will operate the individual relays on the relay board to control both the preheat cycle as well as the cook cycles. Please refer to the operating matrix on page 31.

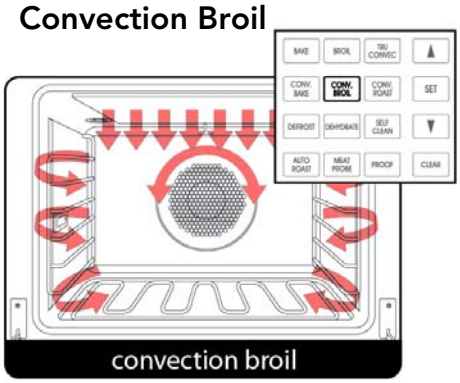
Convection Bake



The Convection Bake cycle utilizes the outer bake element, the inner broil and outer broil elements and the convection element during the preheat cycle up to the selected temperature. Once the desired temperature has been achieved, the oven will operate both the inner and outer bake elements and the rear convection element during the cook cycle. The convection fan will run at LOW speed and changes direction throughout the cycle. The main control board will operate the individual relays on the relay board to control both the preheat cycle as well as the cook cycles. Please refer to the operating matrix on page 32.

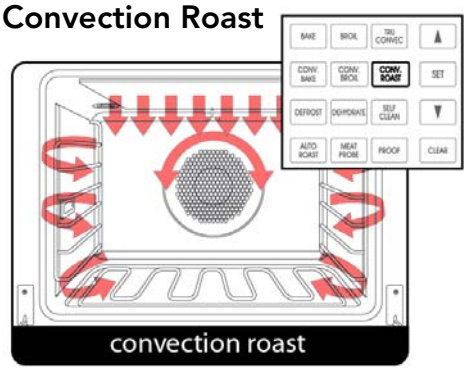
Oven Settings and Functions (Cont)

Convection Broil



The Convection Broil cycle gives you three possible broil settings: LOW, MED and HIGH broil. The LOW broil utilizes the inner broil element only up to 350˚ F. The MED broil utilizes both the inner and outer elements up to 450˚ F and the HIGH broil uses the same two elements but heats up to 550˚ Fahrenheit. The convection fan will run at HIGH speed and changes direction throughout the cycle. The main control board will operate the individual relays on the relay board to control both the preheat cycle as well as the cook cycles. Please refer to the operating matrix on page 32.

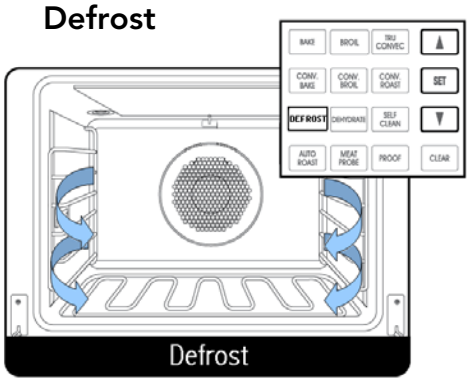
Convection Roast



The Convection Roast cycle utilizes the inner broil and outer broil elements and the convection element during the preheat cycle up to the selected temperature. Once the desired temperature has been achieved, the oven will operate on the rear convection element 95% of the cook cycle and the inner and outer broil element will operate 5% of the time.

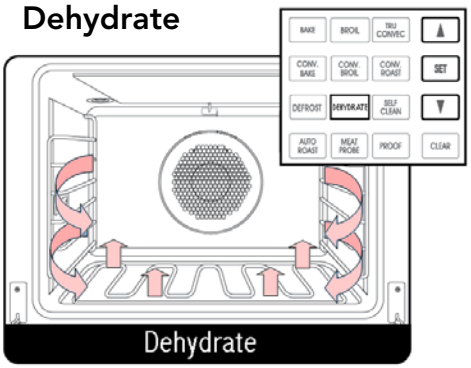
The convection fan will run at HIGH speed and changes direction throughout the cycle. The main control board will operate the individual relays on the relay board to control both the preheat cycle as well as the cook cycles. Please refer to the operating matrix on page 33.

Defrost



The defrost cycle does not utilize any of the heating elements. It simple circulates the ambient air inside the cook cavity. The convection fan will run at LOW speed and changes direction throughout the cycle. The main control board will operate the convection fan relays on the relay board throughout the cycle. Please refer to the operating matrix on page 33.

Dehydrate



The Dehydrate cycle utilizes the Inner bake element only. It simple circulates the heated air inside the cook cavity to a maximum temperature of 90˚ Fahrenheit. The convection fan will run at HIGH speed and changes direction throughout the cycle. The main control board will operate the convection fan relays and inner bake element on the relay board throughout the cycle. Please refer to the operating matrix on page 33.

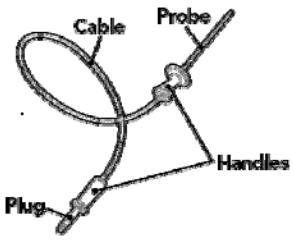
Oven Settings and Functions (Cont)

The following functions are available on the ***Premiere*** models only

Meat Probe

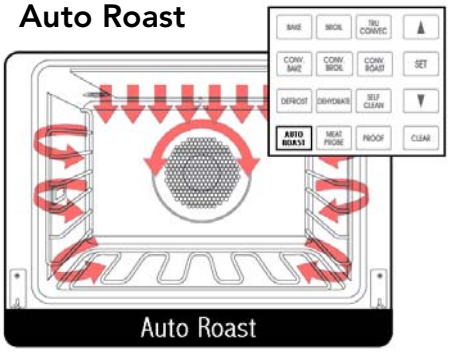
The meat probe is designed to turn off the oven when the food product reaches its optimal temperature. The meat probe works with the following settings: Bake, Convection Bake, Convection Roast, TruConvec™ and Convection broil. In the Premiere double ovens it is available in the top oven only!

Insert the probe into the socket on the left side wall. Depress the MEAT PROBE button on the left control panel.



The display will show "Set Probe" and flashing a preset temperature. If the preset temperature is not adjusted within 10 seconds, the unit will begin heating. The adjustable temperature range is between 120˚ F and 190˚ F. Use the keypad to select a desired temperature then select "SET". The unit will begin to heat and the display will show "LO" until the internal temperature of the food reaches 100˚ F. When the temperature is within 10˚ of set temperature, two long beeps will sound. When the setpoint temperature has been reached, three long beeps will sound.

Auto Roast

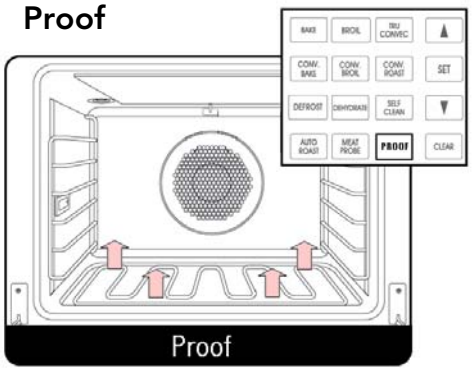


The Auto Roast cycle is similar to the Convection Roast cycle in all functions with the exception of a SEARING cycle added to the program. The Auto Roast cycle utilizes the inner broil and outer broil elements and the convection element during the preheat cycle up to the selected temperature.

Once the desired temperature has been achieved, the oven will operate on the rear convection element 95% during the cook cycle and a 5% cycle of the inner and outer broil element. During the SEARING cycle, the inner and outer broil elements are the only elements in operation and are on for 45 seconds of each 60 second cycle.

The convection fan will run at HIGH speed and changes direction throughout the cycle. The main control board will operate the individual relays on the relay board to control both the preheat cycle as well as the cook cycles. Please refer to the operating matrix on page 34.

Proof



The Proof cycle is similar to the Dehydrate cycle with the exception that the convection fan is not operated during the Proof cycle. The Proof cycle utilizes the Inner bake element only. The radiant heat rises from the floor of the oven cavity circulates the heated air inside the cook cavity to a maximum temperature of 90˚ Fahrenheit.

The main control board will operate the individual relays on the relay board to control both the preheat cycle as well as the cook cycles. Please refer to the operating matrix on page 33.

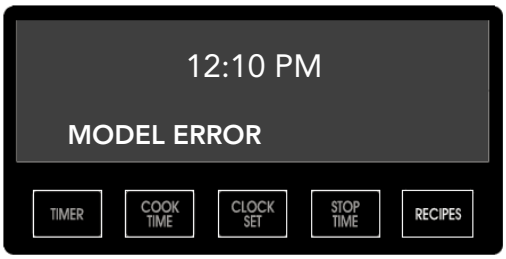
Recipe Function

The Premiere model also has the ability to program and store up to 100 of your recipes. Recipes names are entered on the numeric keypad on the right side of the keyboard. Please refer to the Use and Care manual for further information on this function.

Error Screens

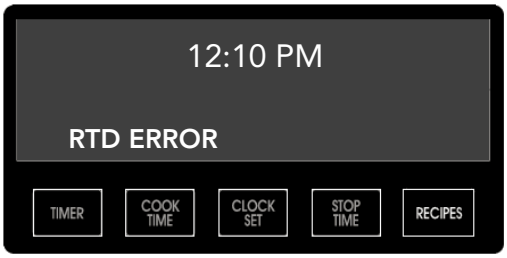
The T Series oven will display any errors detected by the microprocessor. There are 8 built in error codes. When activated, the oven will NOT function.

1. MODEL ERROR



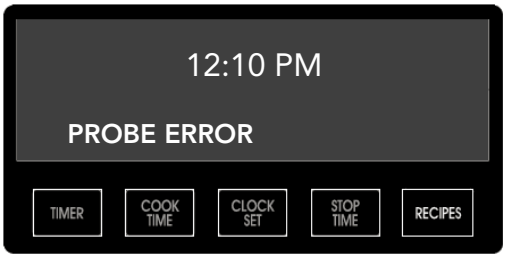
An incorrect model number has been installed.

2. RTD ERROR



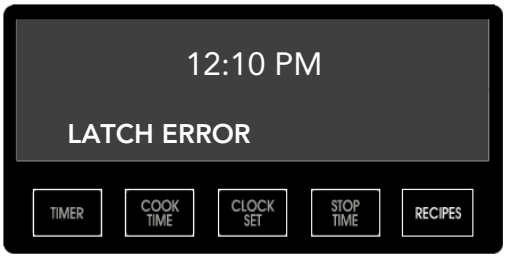
An RTD is open or shorted.

3. PROBE ERROR



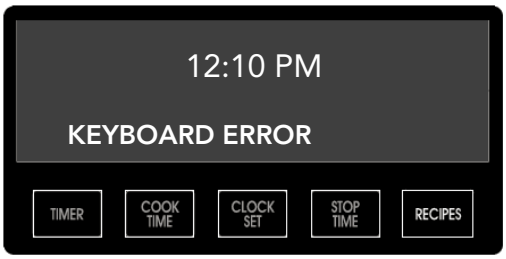
The meat probe is open or shorted.

4. LATCH ERROR



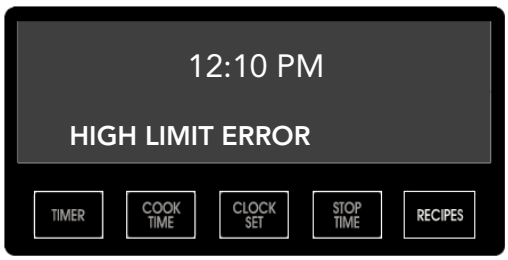
The control is unable to lock or unlock the door latch.

5. KEYBOARD ERROR



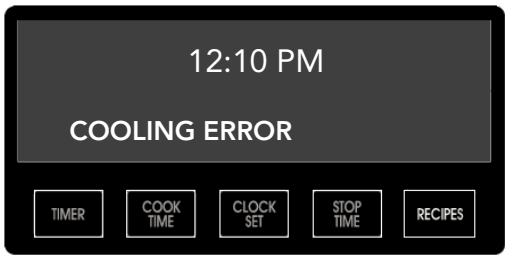
No connection exists between the keyboard and the control.

6. HIGH LIMIT ERROR



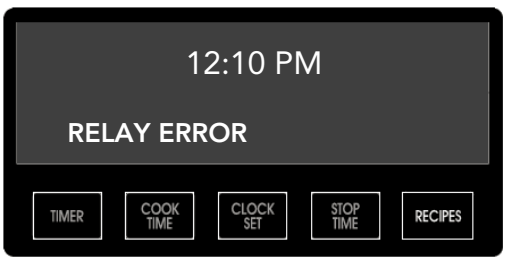
High Limit switch has tripped.

7. COOLING ERROR



The cooling fan RPM is below minimum speed

8. RELAY ERROR



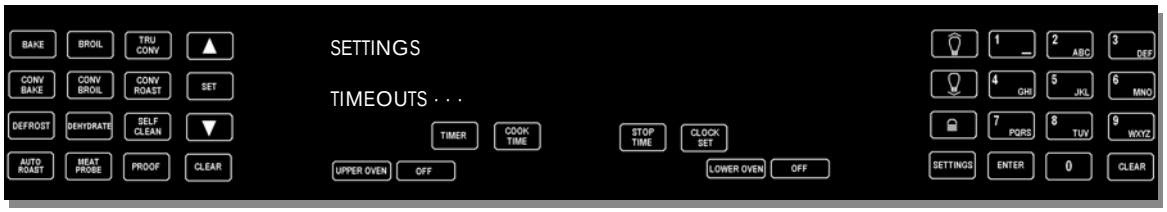
No relay board connection

Accessing the diagnostic program

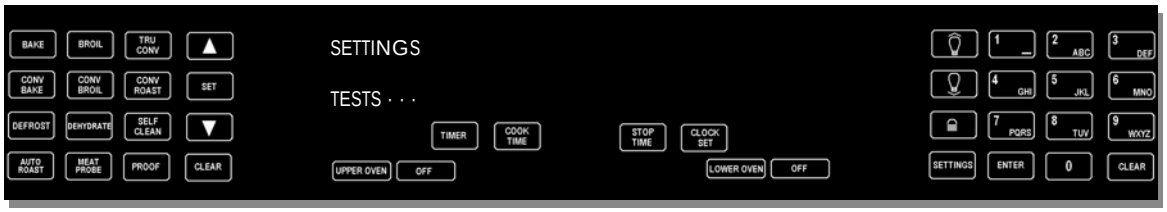
1. Activate the main control panel by selecting either the Upper or Lower oven touch pad. Below is the screen you will see when the Upper oven is selected.

2. Depress the "SETTINGS button on the control panel. You will see he word "SETTINGS" in the upper left corner of the screen and the Brightness parameter

3. Using the DOWN arrow (▼), scroll down until you see "TIMEOUTS… in the display.



4. Touch the Down arrow (▼) for 5 seconds (you will here 3 tones) until the display changes from "Timeouts…" to "TESTS…"



5. Now, depress the "ENTER" key. The word TESTS will begin to flash. While flashing, enter in the following code: 8 – 4 – 5 – 4 – 6 – 4 (V-I-K-I-N-G). When you have successfully entered in the code, the display will change and read "RUN ALL TESTS". You are now in the diagnostic mode.

Running the diagnostic programs

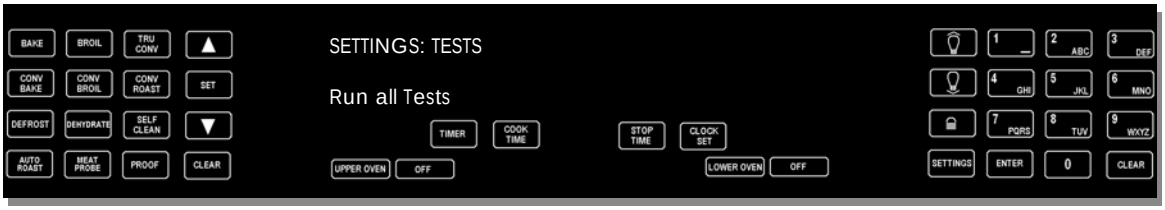
When you have entered the diagnostic mode, you will be able to run the following **nine** main test programs:

1. Run all tests
2. Product Information
3. Individual display tests
4. Individual upper oven tests
5. Individual lower oven tests
6. Individual keyboard tests
7. Run all upper oven tests
8. Run all lower oven tests
9. Run all keyboard test

1. Run all test

This test will allow you to check the entire oven, including all the components, display elements and keyboard test. Hit "SET" button to run this test. Please turn to page **20** for the test procedure.

Use the Down arrow to access the next test (*Product Information*)



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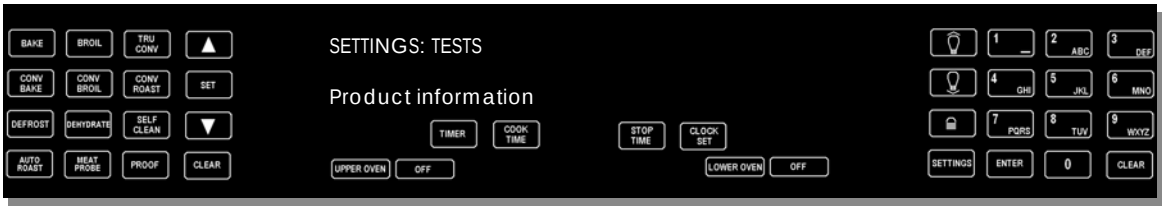
2. Product Information

This test will allow you to view the information page, which contains the software version and microprocessor serial number. Hit the "SET" button to view this information. Please turn to page **22 f**or the test procedure.

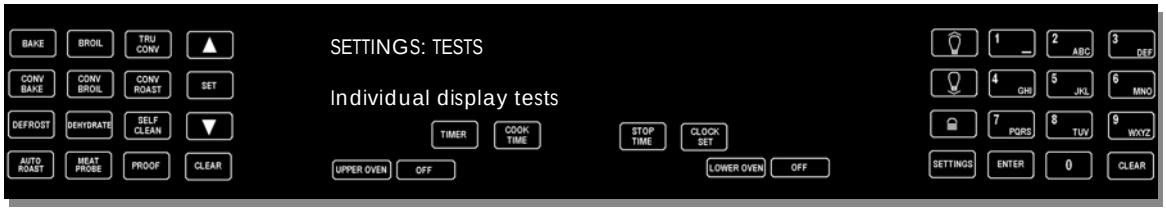
Use the Down arrow to access the next test (*Individual display test*) or the UP arrow to access the previous test (*Run all tests)*.



3. Individual display tests

This test will allow you to check the display LED. Hit the "SET" button to test the display. Please turn to page **23** for the test procedure.

Use the Down arrow to access the next test (*Individual upper oven test*) or the UP arrow to access the previous test (*Product Information)*.



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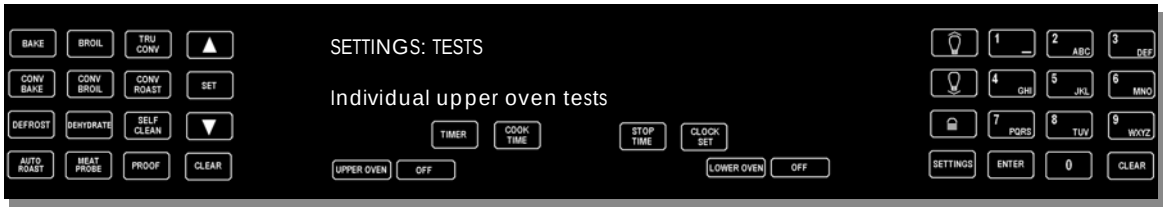
4. Individual upper oven tests

This test will allow you to access and test all the upper oven components, including all the elements, cooling fan and speeds (Select models), convection fan, speeds (Select models) and direction, RTD, Meat probe (Select models), door switch, oven lights, door lock and door lock position switches. Hit the "SET" button to test these individual components. Please turn to page **24** for the test procedure.

Use the Down arrow to access the next test (*Individual lower oven test*) or the UP arrow to access the previous test (*Individual display)*.



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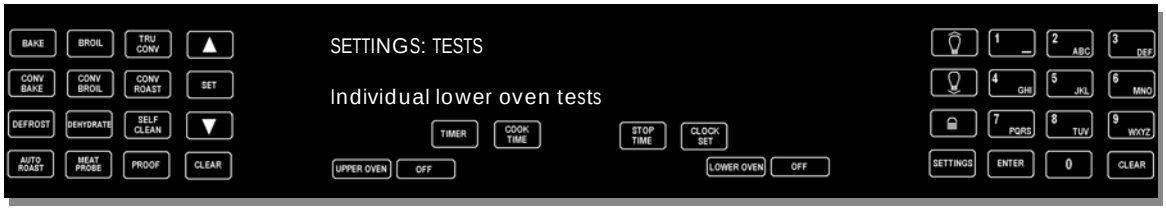
5. Individual lower oven tests

This test will allow you to access and test all the lower oven components, including all the elements, cooling fan and speeds (Select models), convection fan, speeds and direction (Select models), RTD, Meat probe (Select models), door switch, oven lights, door lock and door lock position switches. Hit the "SET" button to test these individual components. Please turn to page **25** for the test procedure.

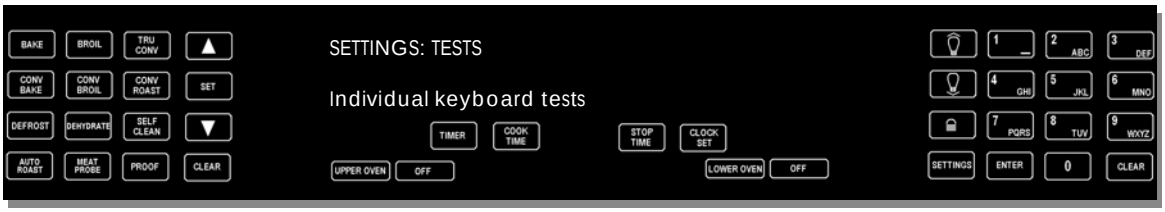
Use the Down arrow to access the next test (*Individual keyboard tests*) or the UP arrow to access the previous test (*Individual upper oven tests)*.



6. Individual keyboard tests

This test will allow you to check a specific touch sensor pad on the control panel. There are 40 pads in total, depending on your model. Hit the "SET" button to begin this test. Please turn to page **26** for the test procedure.

Use the Down arrow to access the next test (*Run all upper oven tests*) or the UP arrow to access the previous test (*Individual lower oven tests)*.



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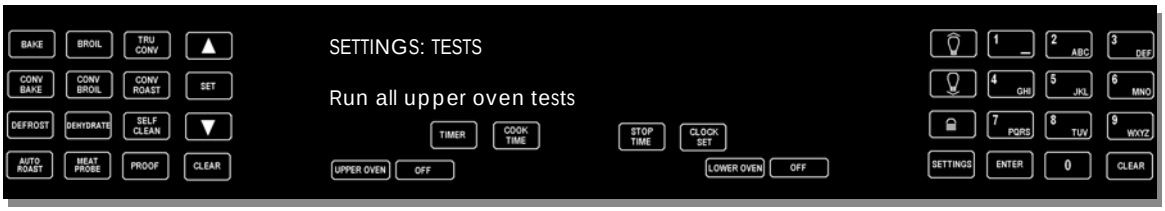
7. Run all upper oven tests

This test will check all the upper oven components in succession. Hit the "SET" button to begin this test. Please turn to page **27** for the test procedure.

Use the Down arrow to access the next test (*Run all lower oven tests*) or the UP arrow to access the previous test (*Individual keyboard tests)*.



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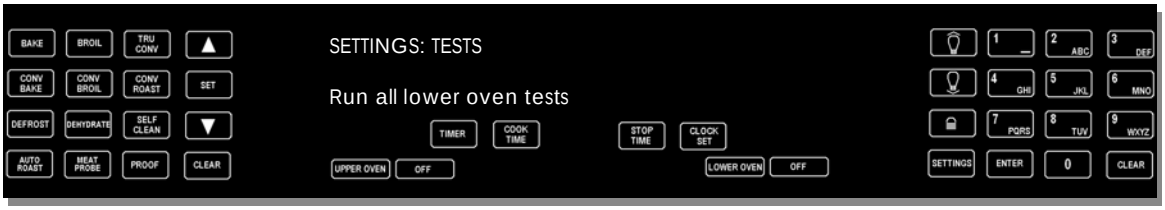
8. Run all lower oven tests

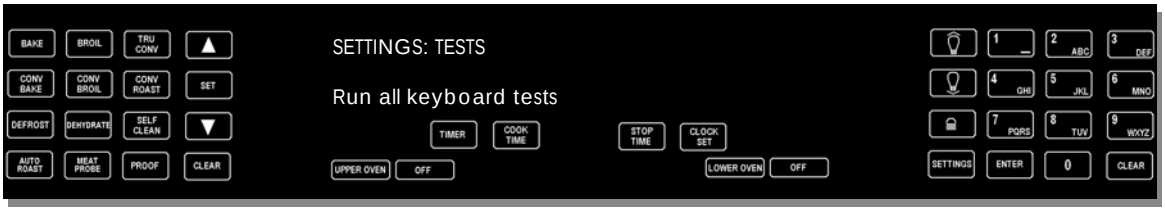
This test will check all the lower oven components in succession. Hit the "SET" button to begin this test. Please turn to page **28** for the test procedure.

Use the Down arrow to access the next test (*Run all keyboard tests*) or the UP arrow to access the previous test *(Run all upper oven tests)*.



9. Run all keyboard tests

This test will allow check the entire touch sensor pad on the control panel. There are 40 pads in total. Hit the "SET" button to begin this test. Please turn to page **29** for the test procedure.



Use the UP arrow to access the previous test (*Run all lower oven tests*).

TEST CATEGORIES

1. Run all tests

When you have selected this test, the first screen you will see will be the one below.

This test will cycle the entire upper and lower (Double oven model) elements, fans, lights, door interlock switches and door lock motors. It will also test all the individual touch pads on the control panel. To begin the test, select either the SET or ENTER key. Once the test has begun, use the *ENTER* key, *UP arrow (▲)* or *Down arrow* (▼) key to cycle through the tests. To end the test, select the CLEAR key.

STEP	TEST	RESULT	TO CHANGE TEST
1	Product information	Display will show model, serial and version number of the software	ENTER, ▲ or ▼
2	Display all dots and segments	All digits in the display will light up	ENTER, ▲ or ▼
3	Clear screen	All digits in the display will extinguish	ENTER, ▲ or ▼
4	Upper Inner bake element	Run inner bake element	ENTER, ▲ or ▼
5	Upper Outer bake element	Run outer bake element	ENTER, ▲ or ▼
6	Upper Inner broil element	Run inner broil element	ENTER, ▲ or ▼
7	Upper Outer broil element	Run outer broil element	ENTER, ▲ or ▼
8	Upper Convection element	Run convection element	ENTER, ▲ or ▼
9	Upper Oven Temperature	Display upper oven temp	ENTER, ▲ or ▼
10	Upper Meat probe	* Display meat probe temp	ENTER, ▲ or ▼
11	Upper Cooling Fan - High Speed	Run cooling fan at HIGH speed	ENTER, ▲ or ▼
12	Upper Cooling Fan - Low Speed	Run cooling fan at Low speed	ENTER, ▲ or ▼
13	Upper Convection Fan - High speed	Run convection fan at HIGH speed	ENTER, ▲ or ▼
14	Upper Convection Fan - Low speed	Run convection fan at LOW speed	ENTER, ▲ or ▼
15	Upper Conv Fan - Low Speed reverse	Run cooling fan at Low speed reverse	ENTER, ▲ or ▼
16	Upper Conv Fan - High Speed reverse	Run cooling fan at HIGH speed reverse	ENTER, ▲ or ▼
17	Upper Door Switch	Check door interlock	ENTER, ▲ or ▼
18	Upper Oven lights	Check upper cavity lights	ENTER, ▲ or ▼
19	Upper Door Lock	Door lock motor is advanced	Door must lock to advance
20	Upper Door Unlock	Engage door lock to UNLOCK door	Door must unlock to advance

* *On Premiere models only!*

Continued on page 21

Run all tests *(Continued)*

LOWER OVEN			
21	Lower Inner bake element	Run inner bake element	ENTER, ▲ or ▼
22	Lower Outer bake element	Run outer bake element	ENTER, ▲ or ▼
23	Lower Inner broil element	Run inner broil element	ENTER, ▲ or ▼
24	Lower Outer broil element	Run outer broil element	ENTER, ▲ or ▼
25	Lower Convection element	Run convection element	ENTER, ▲ or ▼
26	Lower Oven Temperature	Display upper oven temp	ENTER, ▲ or ▼
27	Lower Meat probe	* Display meat probe temp	ENTER, ▲ or ▼
28	Lower Cooling Fan - High Speed	Run cooling fan at HIGH speed	ENTER, ▲ or ▼
29	Lower Cooling Fan - Low Speed	Run cooling fan at Low speed	ENTER, ▲ or ▼
30	Lower Convection Fan - High speed	* Run convection fan at HIGH speed	ENTER, ▲ or ▼
31	Lower Convection Fan - Low speed	* Run convection fan at LOW speed	ENTER, ▲ or ▼
32	Lower Conv Fan - Low Speed reverse	* Run convection fan at Low speed reverse	ENTER, ▲ or ▼
33	Lower Conv Fan - High Speed reverse	* Run convection fan at HIGH speed reverse	ENTER, ▲ or ▼
34	Lower Door Switch	Check door interlock	ENTER, ▲ or ▼
35	Lower Oven lights	Check upper cavity lights	ENTER, ▲ or ▼
36	Lower Door Lock	Door lock motor is advanced	Door must lock to advance
37	Lower Door Unlock	Engage door lock to UNLOCK door	Door must unlock to advance
		KEYBOARD TEST	NOTES
38	Press the BAKE key	Pressing the Bake key will advance to next test	All models
39	Press the BROIL key	Pressing the Broil key will advance to next test	All models
40	Press the TRU CONVEC key	Pressing the Tru Convec key will advance to next test	All models
41	Press the UP key	Pressing the ▲ key will advance to the next test	All models
42	Press the CONV BAKE key	Pressing the Conv Bake key will advance to next test	All models
43	Press the CONV BROIL key	Pressing the Conv Broil key will advance to next test	All models
44	Press the CONV ROAST key	Pressing the Conv Roast key will advance to next test	All models
45	Press the SET key	Pressing the SET key will advance to next test	All models
46	Press the DEFROST key	Pressing the Defrost key will advance to next test	All models
47	Press the DEHRDRATE key	Pressing the Dehydrate key will advance to next test	All models
48	Press the SELF CLEAN key	Pressing the Self Clean key will advance to next test	All models
49	Press the DOWN key	Pressing the ▼ key will advance to the next test	All models
50	Press the AUTO ROAST key	Pressing the Auto Roast key will advance to next test	PREMIERE MODELS
51	Pree the MEAT PROBE key	Pressing the Meat Probe key will advance to next test	PREMIERE MODELS
52	Pree the PROOF key	Pressing the Proof key will advance to next test	PREMIERE MODELS
53	Press the CLEAR key	Pressing the Clear key will advance to next test	All models
54	Press the TIMER key	Pressing the Timer key will advance to next test	All models
55	Press the COOK TIME key	Pressing the Cook Time key will advance to next test	All models
56	Press the CLOCK key	Pressing the Clock key will advance to next test	PREMIERE MODELS
57	Press the STOP TIME key	Pressing the Stop Time key will advance to next test	All models
58	Press the RECIPES key	Pressing the Recipes key will advance to next test	PREMIERE MODELS
59	Press the CLOCK key	Pressing the Clock key will advance to next test	SELECT MODELS

* *On Premiere models only!*

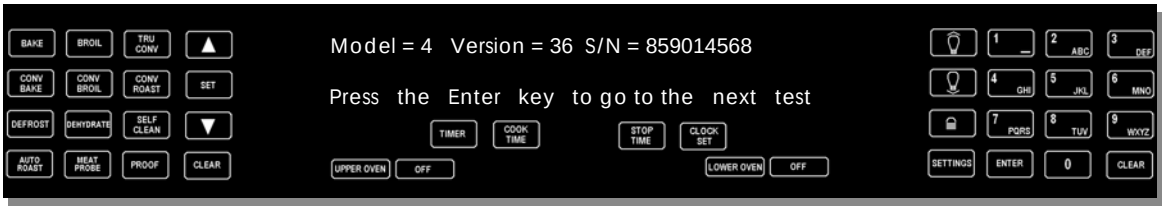
Continued on page 22

Run all tests *(Continued)*

		KEYBOARD - CONTINUED	
60	Press the UPPER OVEN key	Pressing the Upper Oven key will advance to next test	DOUBLE OVEN MODEL
61	Press the OFF key	Pressing the Off key will advance to next test	DOUBLE OVEN MODEL
62	Press the OVEN ON key	Pressing the Oven On key will advance to next test	SINGLE OVEN MODEL
63	Press the OVEN OFF key	Pressing the Oven Off key will advance to next test	SINGLE OVEN MODEL
64	Press the LOWER OVEN key	Pressing the Lower Oven key will advance to next test	DOUBLE OVEN MODEL
65	Press the OFF key	Pressing the Off key will advance to next test	DOUBLE OVEN MODEL
66	Press the UPPER LIGHTS key	Pressing the key will advance to next test	DOUBLE OVEN MODEL
67	Press the LIGHTS key	Pressing the key will advance to next test	SINGLE OVEN MODEL
68	Press the 1 key	Press the 1 key will advance to next test	All models
69	Press the 2 key	Press the 2 key will advance to next test	All models
70	Press the 3 key	Press the 3 key will advance to next test	All models
71	Press the LOWER LIGHTS key	Pressing the key will advance to next test	DOUBLE OVEN MODEL
72	Press the 4 key	Press the 4 key will advance to next test	All models
73	Press the 5 key	Press the 5 key will advance to next test	All models
74	Press the 6 key	Press the 6 key will advance to next test	All models
75	Press the LOCK	Pressing the key will advance to next test	All models
76	Press the 7 key	Press the 7 key will advance to next test	All models
77	Press the 8 key	Press the 8 key will advance to next test	All models
78	Press the 9 key	Press the 9 key will advance to next test	All models
79	Press the SETTINGS key	Press the Settings key will advance to next test	All models
80	Press the ENTER key	Press the Enter key will advance to next test	All models
81	Press the 0 key	Press the 0 key will advance to next test	All models
82	Press the CLEAR key	Press the Clear key will advance to END	All models

2. Product Information

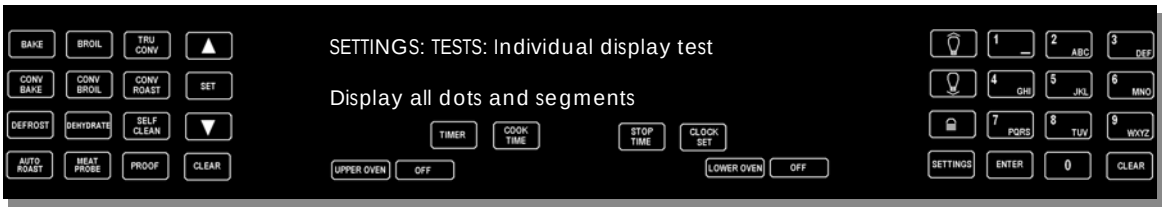
When you have selected this test, the first screen you will see will be the one below.



In this screen you will see the model, version and serial number of the microprocessor.
To exit this test, select the *ENTER*, *CLEAR* or *Down arrow* (▼) key.

3. Individual display tests

When you have selected this test, the first screen you will see will be the one below.



To exit this test, select the *ENTER*, *CLEAR* or *Down arrow* (▼) key.

Below is a table consisting of all the individual components that can be tested in this program. To scroll through each test, use the down (▼) or up (▲) key, and then select TEST to run the component test.

STEP	To test:	TEST	RESULT	To exit:
1	SET	Display all dots and segments	All digits in the display will light up	ENTER. CLEAR or ▼
2	SET	Clear screen	All digits in the display will extinguish	ENTER. CLEAR or ▼

4. Individual upper oven test

When you have selected this test, the first screen you will see will be the one below.

To exit this test, select the *ENTER*, *CLEAR* or *Down arrow* (▼) key.

This test allows the individual to scroll to a specific component and then select it for testing Below is a table consisting of all the individual components that can be tested in this program. To scroll through each test, use the down (▼) or up (▲) key, and then select SET or ENTER to run the selected component test.

STEP	To test:	TEST	RESULT	TO EXIT TEST
1	SET	Inner bake element	Run inner bake element	ENTER. CLEAR or ▼
2	SET	Outer bake element	Run outer bake element	ENTER. CLEAR or ▼
3	SET	Inner broil element	Run inner broil element	ENTER. CLEAR or ▼
4	SET	Outer broil element	Run outer broil element	ENTER. CLEAR or ▼
5	SET	Convection element	Run convection element	ENTER. CLEAR or ▼
6	SET	Oven Temperature	Didplay upper oven temp	ENTER. CLEAR or ▼
7	SET	Meat probe	Display meat probe temp (Select models)	ENTER. CLEAR or ▼
8	SET	Cooling Fan - High Speed	Run cooling fan at HIGH speed	ENTER. CLEAR or ▼
9	SET	Cooling Fan - Low Speed	Run cooling fan at Low speed	ENTER. CLEAR or ▼
10	SET	Convection Fan - High speed	Run convection fan at HIGH speed	ENTER. CLEAR or ▼
11	SET	Convection Fan - Low speed	Run convection fan at LOW speed	ENTER. CLEAR or ▼
12	SET	Conv Fan - Low Speed reverse	Run cooling fan at Low speed reverse	ENTER. CLEAR or ▼
13	SET	Conv Fan - High Speed reverse	Run cooling fan at HIGH speed reverse	ENTER. CLEAR or ▼
14	SET	Door Switch	Check door interlock	ENTER. CLEAR or ▼
15	SET	Oven lights	Check upper cavity lights	ENTER. CLEAR or ▼
16	SET	Door Lock	Engage door lock to LOCK door	ENTER. CLEAR or ▼
17	SET	Door lock state	Position of door lock switch	ENTER. CLEAR or ▼
18	SET	Door Unlock	Engage door lock to UNLOCK door	ENTER. CLEAR or ▼
19	SET	Door lock state	Position of door lock switch	ENTER. CLEAR or ▼

5. Individual lower oven test

When you have selected this test, the first screen you will see will be the one below.

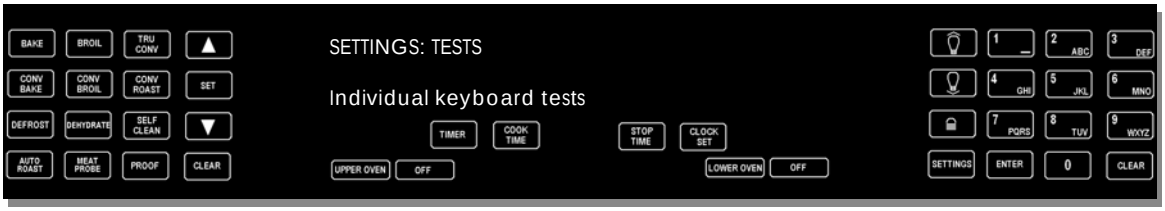
To exit this test, select the *ENTER*, *CLEAR* or *Down arrow* (▼) key.

This test allows the individual to scroll to a specific component and then select it for testing Below is a table consisting of all the individual components that can be tested in this program. To scroll through each test, use the down (▼) or up (▲) key, and then select SET or ENTER to run the selected component test.

STEP	To test:	TEST	RESULT	To exit:
1	SET	Inner bake element	Run inner bake element	ENTER. CLEAR or ▼
2	SET	Outer bake element	Run outer bake element	ENTER. CLEAR or ▼
3	SET	Inner broil element	Run inner broil element	ENTER. CLEAR or ▼
4	SET	Outer broil element	Run outer broil element	ENTER. CLEAR or ▼
5	SET	Convection element	Run convection element	ENTER. CLEAR or ▼
6	SET	Oven Temperature	Didplay upper oven temp	ENTER. CLEAR or ▼
7	SET	Meat probe	* Display meat probe temp	ENTER. CLEAR or ▼
8	SET	Cooling Fan - High Speed	Run cooling fan at HIGH speed	ENTER. CLEAR or ▼
9	SET	Cooling Fan - Low Speed	Run cooling fan at Low speed	ENTER. CLEAR or ▼
10	SET	Convection Fan - High speed	* Run convection fan at HIGH speed	ENTER. CLEAR or ▼
11	SET	Convection Fan - Low speed	* Run convection fan at LOW speed	ENTER. CLEAR or ▼
12	SET	Conv Fan - Low Speed reverse	* Run convection fan at Low speed reverse	ENTER. CLEAR or ▼
13	SET	Conv Fan - High Speed reverse	* Run convection fan at HIGH speed reverse	ENTER. CLEAR or ▼
14	SET	Door Switch	Check door interlock	ENTER. CLEAR or ▼
15	SET	Oven lights	Check upper cavity lights	ENTER. CLEAR or ▼
16	SET	Door Lock	Engage door lock to LOCK door	ENTER. CLEAR or ▼
17	SET	Door lock state	Position of door lock switch	ENTER. CLEAR or ▼
18	SET	Door Unlock	Engage door lock to UNLOCK door	ENTER. CLEAR or ▼
19	SET	Door lock state	Position of door lock switch	ENTER. CLEAR or ▼
		* Not available on Select double oven models		

6. Individual keyboard tests

When you have selected this test, the first screen you will see will be the one below.



To exit this test, select the *ENTER*, *CLEAR* or *Down arrow* (▼) key.

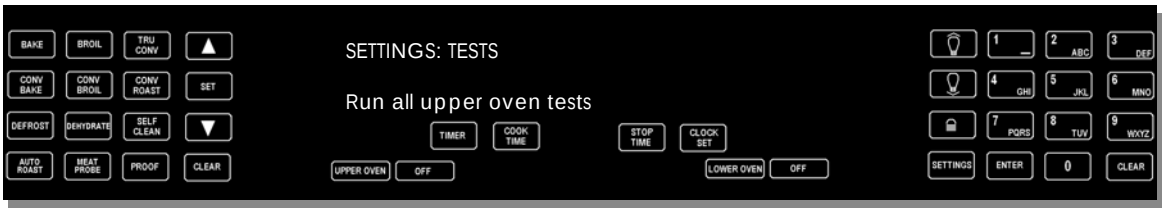
This test allows you to scroll to a specific key that you wish to test. Unlike the RUN ALL TEST program, you do not have to cycle through all the upper oven and lower oven (Double oven models) components to access the keyboard test.

To access an individual key
:

1. Touch the SET or ENTER key
2. You will see "THE BAKE KEY' in the display.
3. Using the use the down (▼) or up (▲) key, scroll to the individual keypad that you wish to test. For example, if you wish to test the DEFROST key, cycle through all the keys until THE DEFROST KEY is in the display.
4. Now, touch the SET or ENTER key.
5. the display will now read: PRESS THE DEFROST KEY
6. When you depress the Defrost keypad you should hear a confirmation tone and the display will extinguish. This indicates that that particular keypad is working properly. If there is no response to the touch, then a defective touch board is indicated.

7. Run all upper oven tests

When you have selected this test, the first screen you will see will be the one below.



This test is similar to RUN ALL TEST with the exception that only the Upper oven components are tested. This test will cycle the entire Upper (Double oven models) and single oven model elements, fans, lights, door interlock switches and door lock motors in succession.

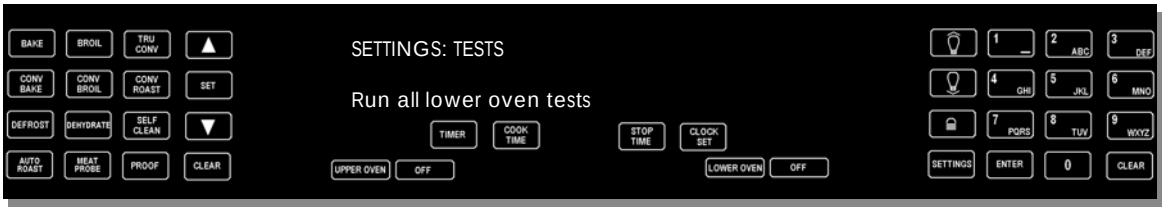
To begin the test, select either the SET or ENTER key. Once the test has begun, use the *ENTER* key, *UP arrow (▲)* or *Down arrow* (▼) key to cycle through the tests. To end the test, select the CLEAR key.

STEP	TEST	RESULT	TO CHANGE TEST
1	Upper Inner bake element	Run inner bake element	ENTER, ▲ or ▼
2	Upper Outer bake element	Run outer bake element	ENTER, ▲ or ▼
3	Upper Inner broil element	Run inner broil element	ENTER, ▲ or ▼
4	Upper Outer broil element	Run outer broil element	ENTER, ▲ or ▼
5	Upper Convection element	Run convection element	ENTER, ▲ or ▼
6	Upper Oven Temperature	Display upper oven temp	ENTER, ▲ or ▼
7	Upper Meat probe	* Display meat probe temp	ENTER, ▲ or ▼
8	Upper Cooling Fan - High Speed	Run cooling fan at HIGH speed	ENTER, ▲ or ▼
9	Upper Cooling Fan - Low Speed	Run cooling fan at Low speed	ENTER, ▲ or ▼
10	Upper Convection Fan - High speed	Run convection fan at HIGH speed	ENTER, ▲ or ▼
11	Upper Convection Fan - Low speed	Run convection fan at LOW speed	ENTER, ▲ or ▼
12	Upper Conv Fan - Low Speed reverse	Run cooling fan at Low speed reverse	ENTER, ▲ or ▼
13	Upper Conv Fan - High Speed reverse	Run cooling fan at HIGH speed reverse	ENTER, ▲ or ▼
14	Upper Door Switch	Check door interlock	ENTER, ▲ or ▼
15	Upper Oven lights	Check upper cavity lights	ENTER, ▲ or ▼
16	Upper Door Lock	Door lock motor is advanced	Door must lock to advance
17	Upper Door Unlock	Engage door lock to UNLOCK door	Door must unlock to advance

* *On Premiere models only!*

8. Run all lower oven tests

When you have selected this test, the first screen you will see will be the one below.



This test is similar to RUN ALL TEST with the exception that only the Lower oven components are tested. This test will cycle the entire Lower oven (Double oven models) elements, fans, lights, door interlock switches and door lock motors in succession

.

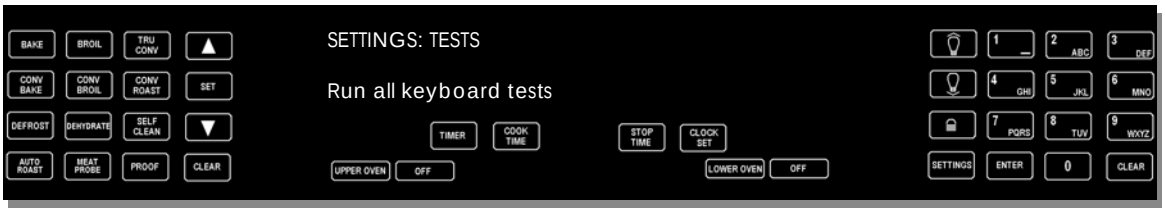
To begin the test, select either the SET or ENTER key. Once the test has begun, use the *ENTER* key, *UP arrow (▲)* or *Down arrow* (▼) key to cycle through the tests. To end the test, select the CLEAR key.

STEP	TEST	RESULT	TO CHANGE TEST
1	Lower Inner bake element	Run inner bake element	ENTER, ▲ or ▼
2	Lower Outer bake element	Run outer bake element	ENTER, ▲ or ▼
3	Lower Inner broil element	Run inner broil element	ENTER, ▲ or ▼
4	Lower Outer broil element	Run outer broil element	ENTER, ▲ or ▼
5	Lower Convection element	Run convection element	ENTER, ▲ or ▼
6	Lower Oven Temperature	Display upper oven temp	ENTER, ▲ or ▼
7	Lower Meat probe	* Display meat probe temp	ENTER, ▲ or ▼
8	Lower Cooling Fan - High Speed	Run cooling fan at HIGH speed	ENTER, ▲ or ▼
9	Lower Cooling Fan - Low Speed	Run cooling fan at Low speed	ENTER, ▲ or ▼
10	Lower Convection Fan - High speed	* Run convection fan at HIGH speed	ENTER, ▲ or ▼
11	Lower Convection Fan - Low speed	* Run convection fan at LOW speed	ENTER, ▲ or ▼
12	Lower Conv Fan - Low Speed reverse	* Run convection fan at Low speed reverse	ENTER, ▲ or ▼
13	Lower Conv Fan - High Speed reverse	* Run convection fan at HIGH speed reverse	ENTER, ▲ or ▼
14	Lower Door Switch	Check door interlock	ENTER, ▲ or ▼
15	Lower Oven lights	Check upper cavity lights	ENTER, ▲ or ▼
16	Lower Door Lock	Door lock motor is advanced	Door must lock to advance
17	Lower Door Unlock	Engage door lock to UNLOCK door	Door must unlock to advance

** On Premiere models only!*

9. Run all keyboard tests

When you have selected this test, the first screen you will see will be the one below.



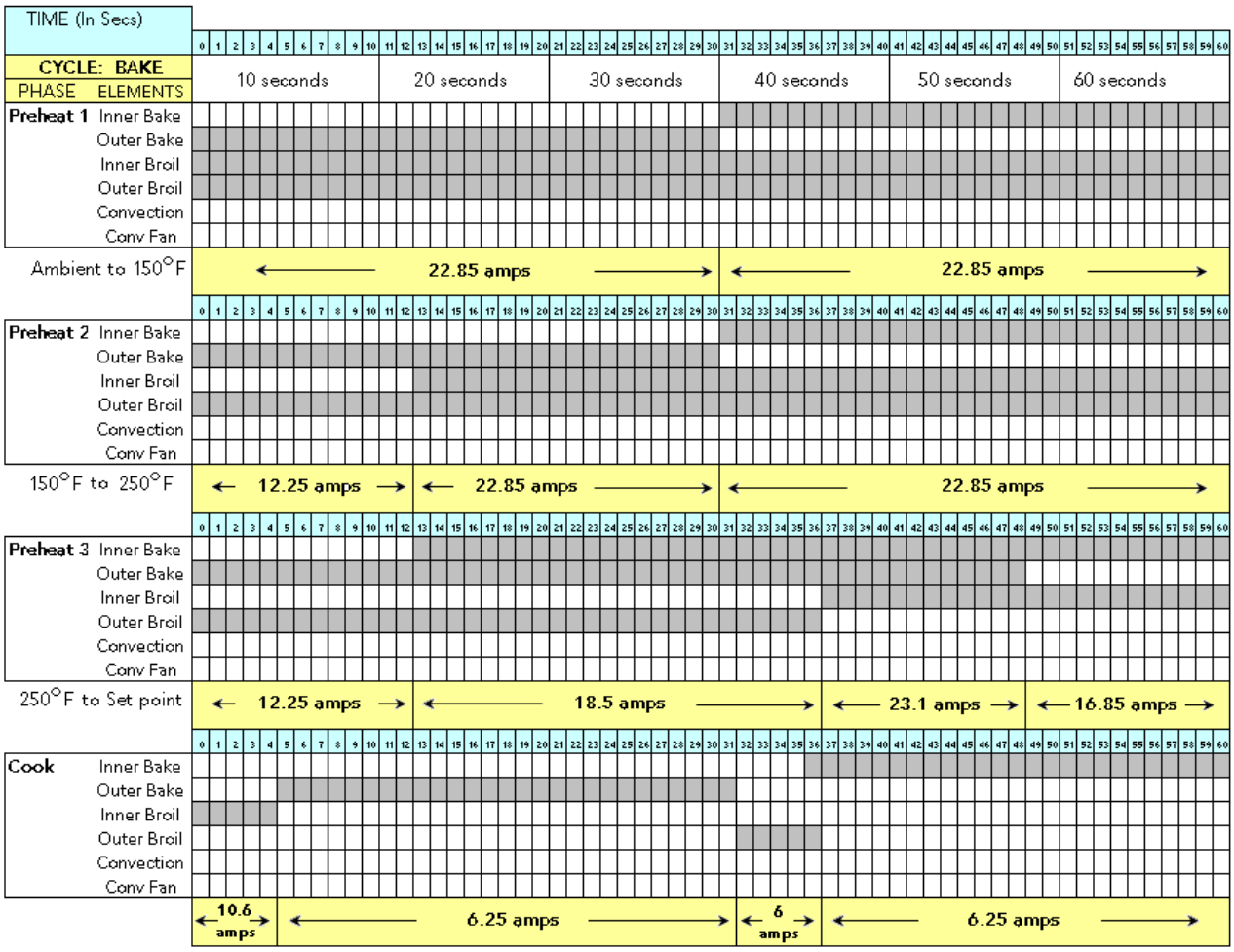
This test is similar to RUN ALL TEST with the exception that only the keyboard pads are tested.
This test will cycle through all the touch key pads on the control panel in succession, starting with the BAKE key. As you press the designated key, a successful input will be followed by a tone and the display will prompt the user as to the next keypad to depress. To begin the test, select either the SET or ENTER key.

STEP	TEST	RESULT	NOTES
1	Press the BAKE key	Pressing the Bake key will advance to next test	All models
2	Press the BROIL key	Pressing the Broil key will advance to next test	All models
3	Press the TRU CONVEC key	Pressing the Tru Convec key will advance to next test	All models
4	Press the UP key	Pressing the ▲ key will advance to the next test	All models
5	Press the CONV BAKE key	Pressing the Conv Bake key will advance to next test	All models
6	Press the CONV BROIL key	Pressing the Conv Broil key will advance to next test	All models
7	Press the CONV ROAST key	Pressing the Conv Roast key will advance to next test	All models
8	Press the SET key	Pressing the SET key will advance to next test	All models
9	Press the DEFROST key	Pressing the Defrost key will advance to next test	All models
10	Press the DEHRDRATE key	Pressing the Dehydrate key will advance to next test	All models
11	Press the SELF CLEAN key	Pressing the Self Clean key will advance to next test	All models
12	Press the DOWN key	Pressing the ▼ key will advance to the next test	All models
13	Press the AUTO ROAST key	Pressing the Auto Roast key will advance to next test	PREMIERE MODELS
14	Pree the MEAT PROBE key	Pressing the Meat Probe key will advance to next test	PREMIERE MODELS
15	Pree the PROOF key	Pressing the Proof key will advance to next test	PREMIERE MODELS
16	Press the CLEAR key	Pressing the Clear key will advance to next test	All models
17	Press the TIMER key	Pressing the Timer key will advance to next test	All models
18	Press the COOK TIME key	Pressing the Cook Time key will advance to next test	All models
19	Press the CLOCK key	Pressing the Clock key will advance to next test	PREMIERE MODELS
20	Press the STOP TIME key	Pressing the Stop Time key will advance to next test	All models
21	Press the RECIPES key	Pressing the Recipes key will advance to next test	PREMIERE MODELS
22	Press the CLOCK key	Pressing the Clock key will advance to next test	SELECT MODELS
23	Press the UPPER OVEN key	Pressing the Upper Oven key will advance to next test	DOUBLE OVEN MODEL
24	Press the OFF key	Pressing the Off key will advance to next test	DOUBLE OVEN MODEL
25	Press the OVEN ON key	Pressing the Oven On key will advance to next test	SINGLE OVEN MODEL
26	Press the OVEN OFF key	Pressing the Oven Off key will advance to next test	SINGLE OVEN MODEL
27	Press the LOWER OVEN key	Pressing the Lower Oven key will advance to next test	DOUBLE OVEN MODEL
28	Press the OFF key	Pressing the Off key will advance to next test	DOUBLE OVEN MODEL
29	Press the UPPER LIGHTS key	Pressing the key will advance to next test	DOUBLE OVEN MODEL
30	Press the LIGHTS key	Pressing the key will advance to next test	SINGLE OVEN MODEL
31	Press the 1 key	Press the 1 key will advance to next test	All models
32	Press the 2 key	Press the 2 key will advance to next test	All models
33	Press the 3 key	Press the 3 key will advance to next test	All models
34	Press the LOWER LIGHTS key	Pressing the key will advance to next test	DOUBLE OVEN MODEL
35	Press the 4 key	Press the 4 key will advance to next test	All models
36	Press the 5 key	Press the 5 key will advance to next test	All models
37	Press the 6 key	Press the 6 key will advance to next test	All models
38	Press the LOCK	Pressing the key will advance to next test	All models
39	Press the 7 key	Press the 7 key will advance to next test	All models
40	Press the 8 key	Press the 8 key will advance to next test	All models
41	Press the 9 key	Press the 9 key will advance to next test	All models
42	Press the SETTINGS key	Press the Settings key will advance to next test	All models
43	Press the ENTER key	Press the Enter key will advance to next test	All models
44	Press the 0 key	Press the 0 key will advance to next test	All models
45	Press the CLEAR key	Press the Clear key will advance to next test	All models

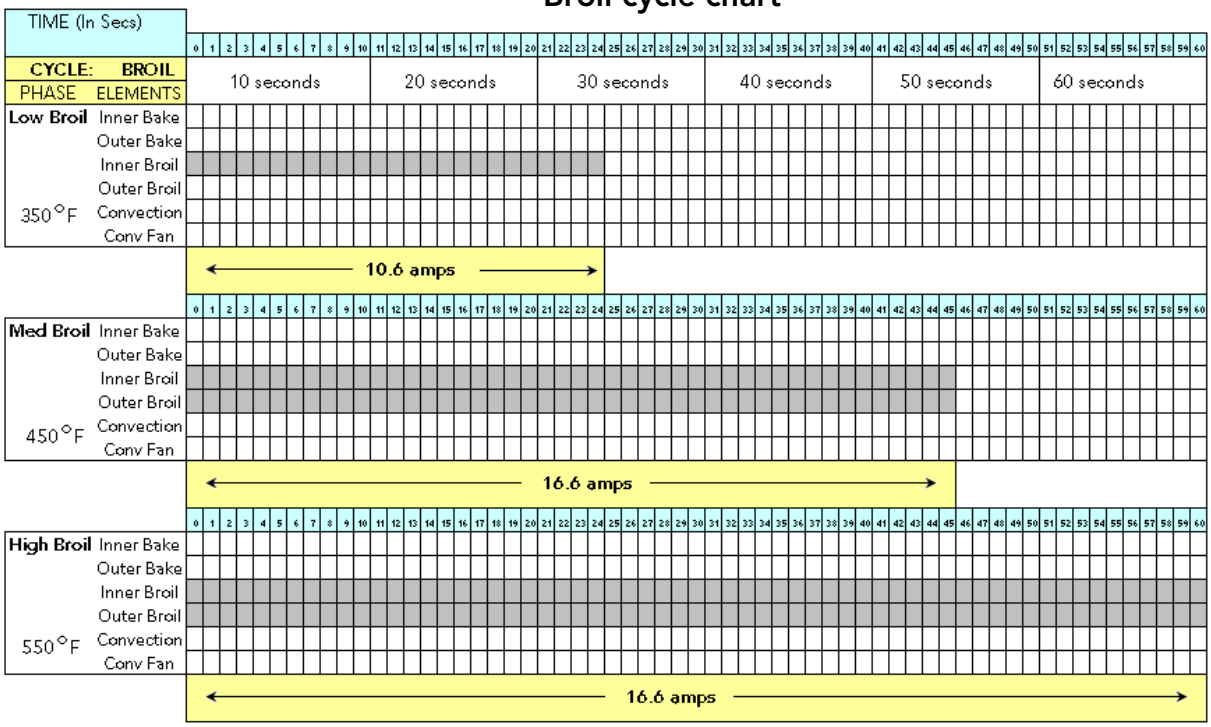
Cycle Charts

The following are the cycle charts for all cooking modes and the self clean cycle. Each chart includes the cycling of each element in 1 sec intervals, individual elements duration and in which phase it is operable. Each preheat phase will repeat itself until the maximum temperature shown for each preheat phase is achieved.

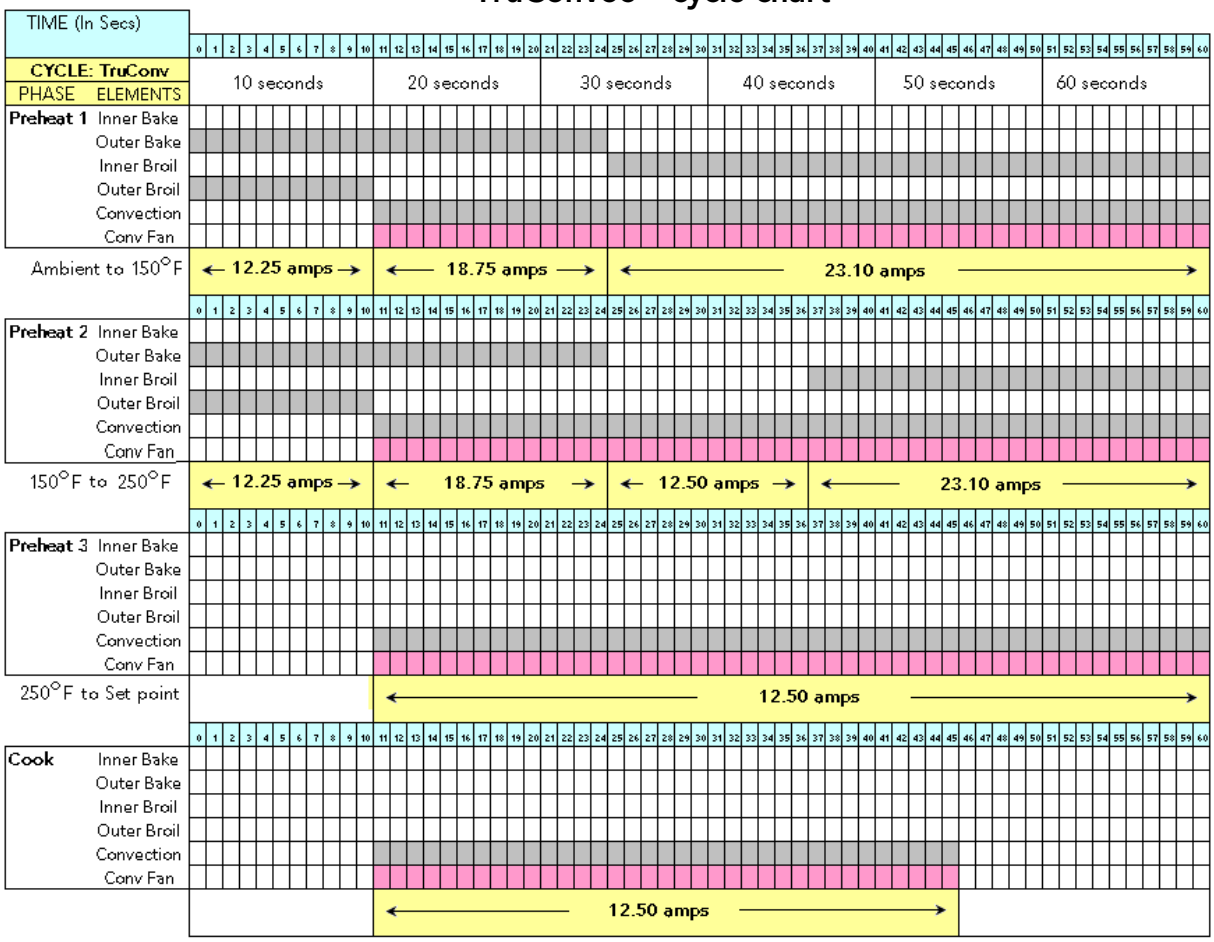
Bake cycle chart



Broil cycle chart

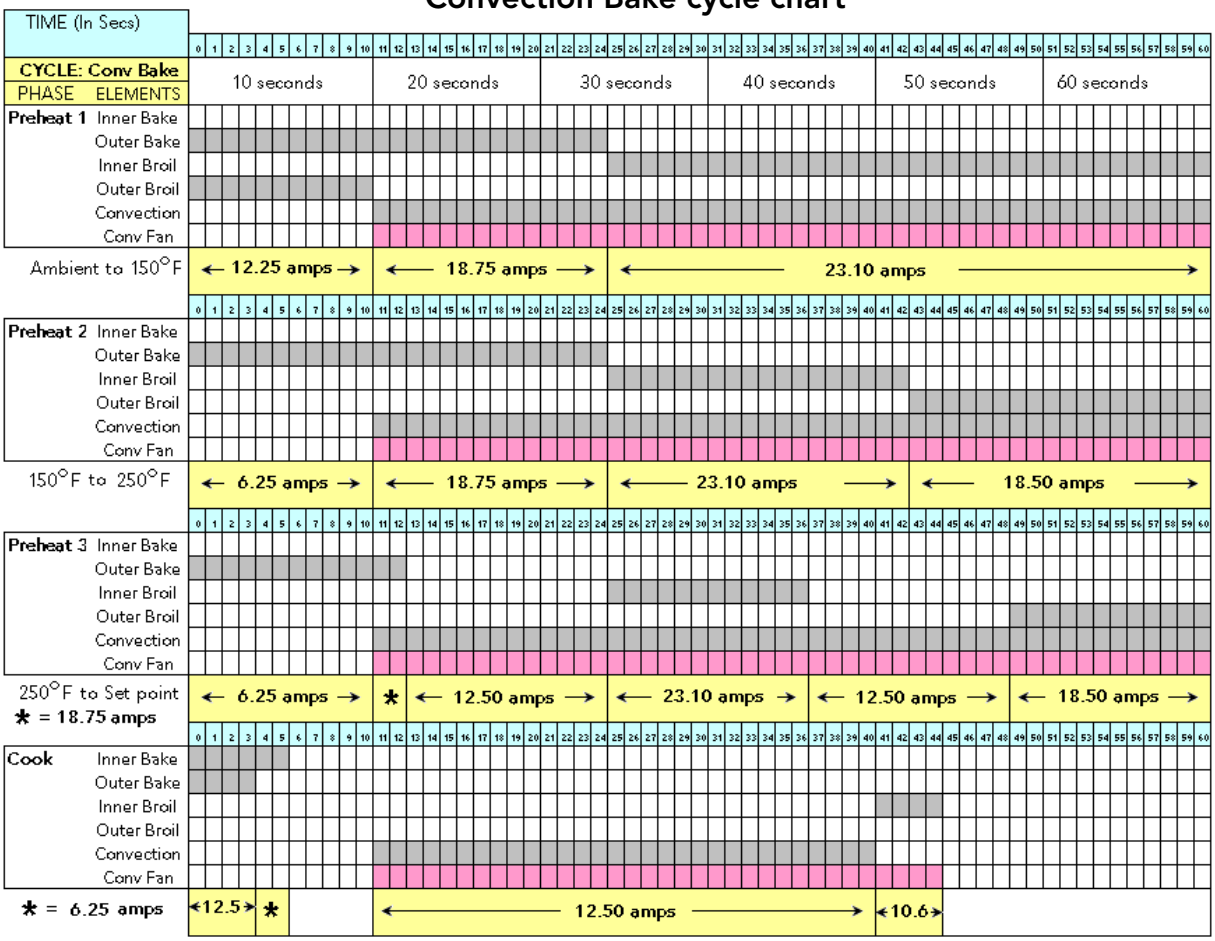


TruConvec™ cycle chart



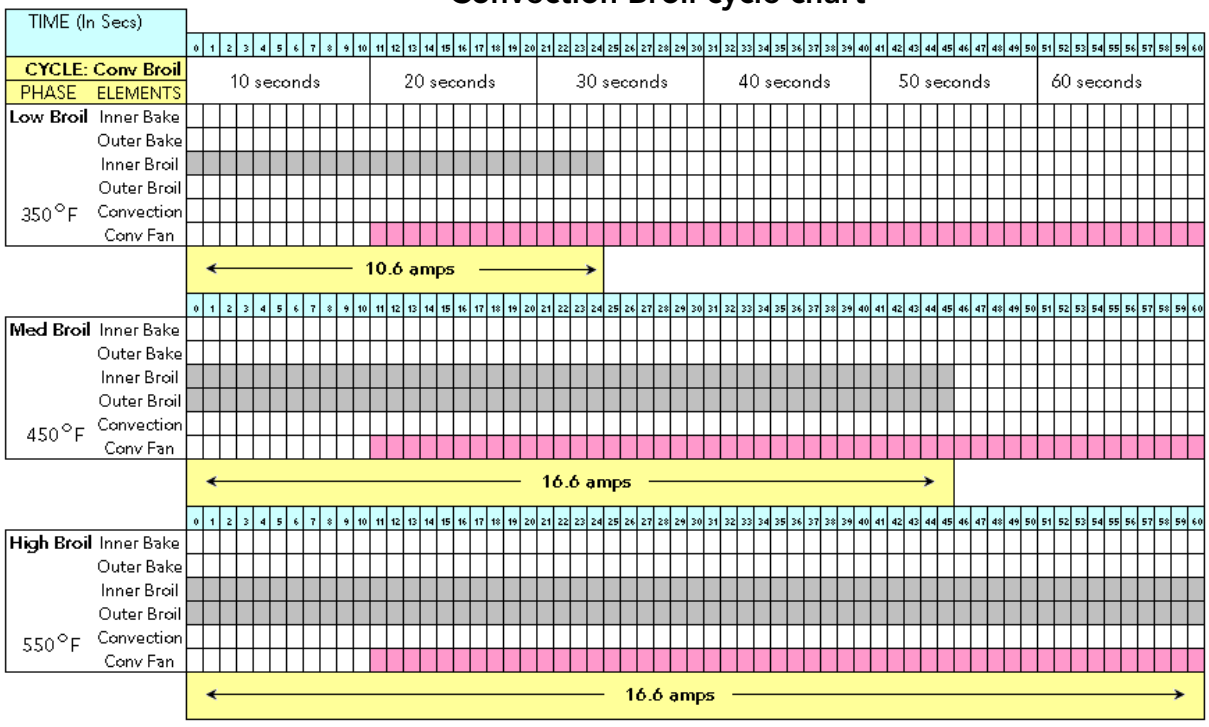
*NOTE: Convection fan is running at **LOW** speed*

Convection Bake cycle chart



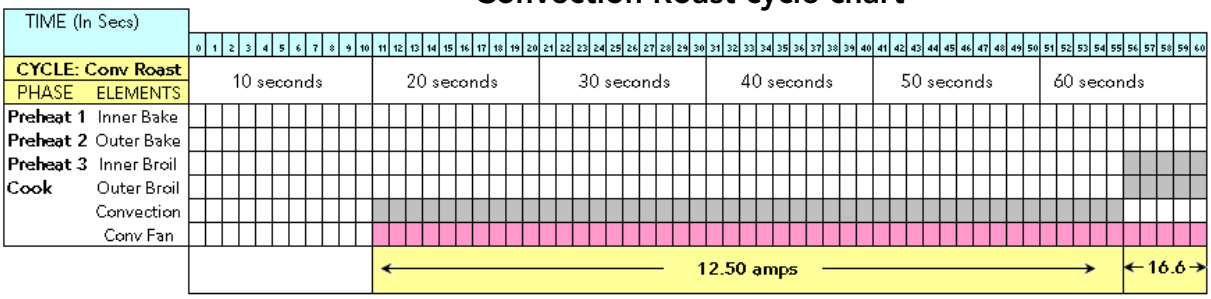
*NOTE: Convection fan is running at **LOW** speed*

Convection Broil cycle chart



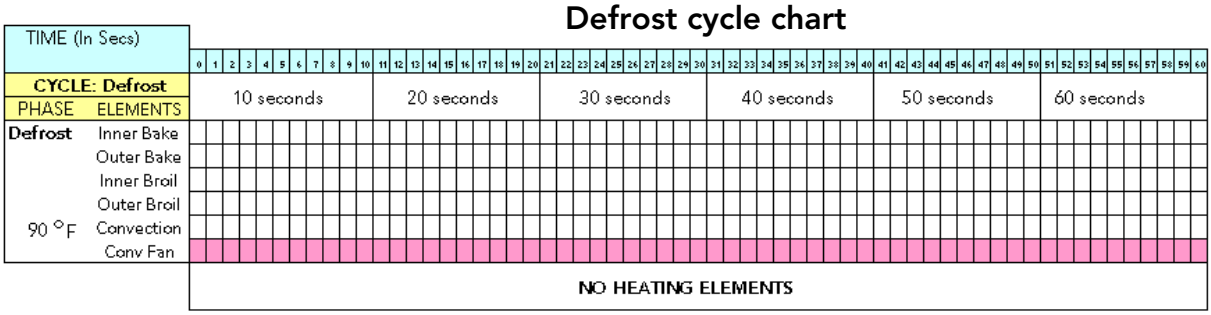
*NOTE: Convection fan is running at **HIGH** speed*

Convection Roast cycle chart



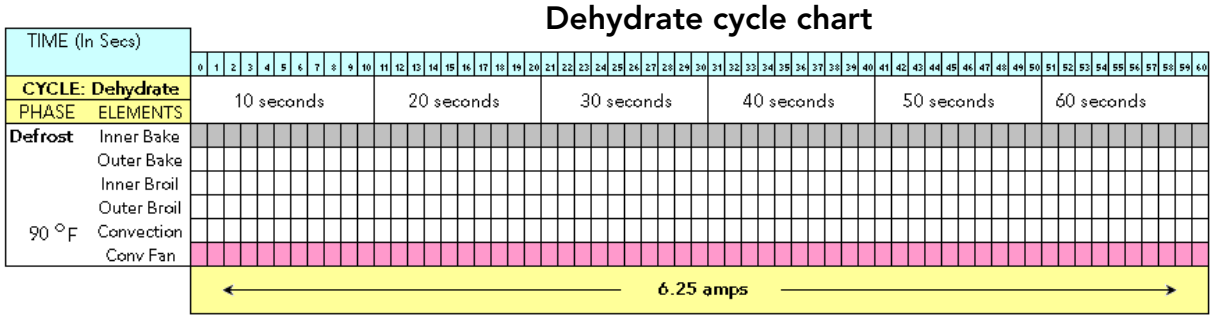
*NOTE: Convection fan is running at **HIGH** speed*

Defrost cycle chart



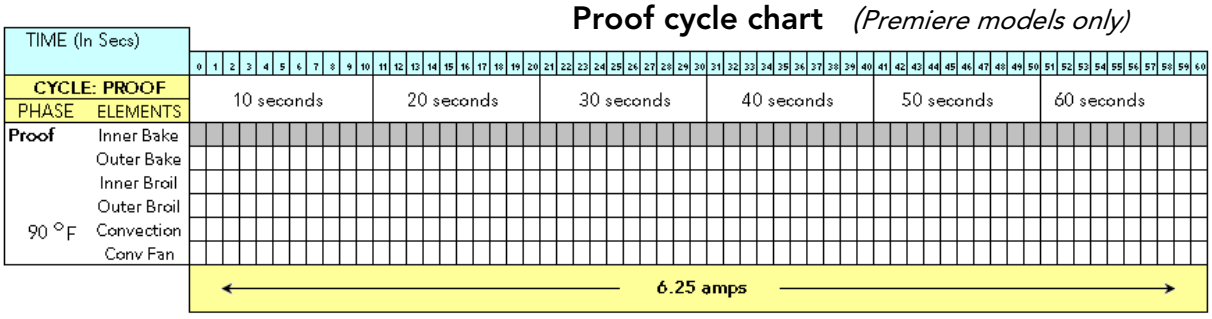
*NOTE: Convection fan is running at **LOW** speed*

Dehydrate cycle chart

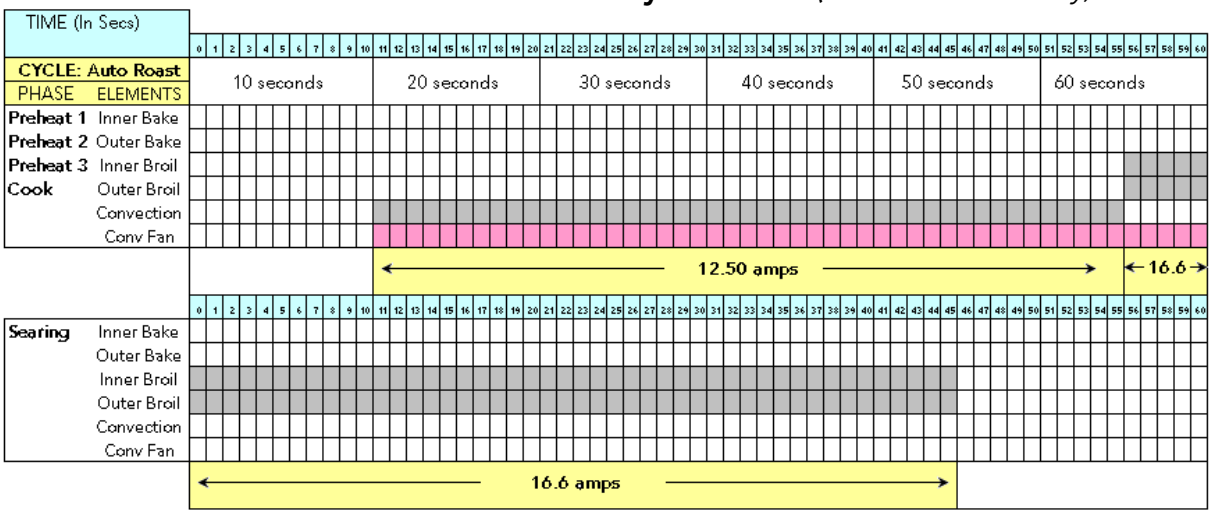


*NOTE: Convection fan is running at **LOW** speed*

Proof cycle chart *(Premiere models only)*

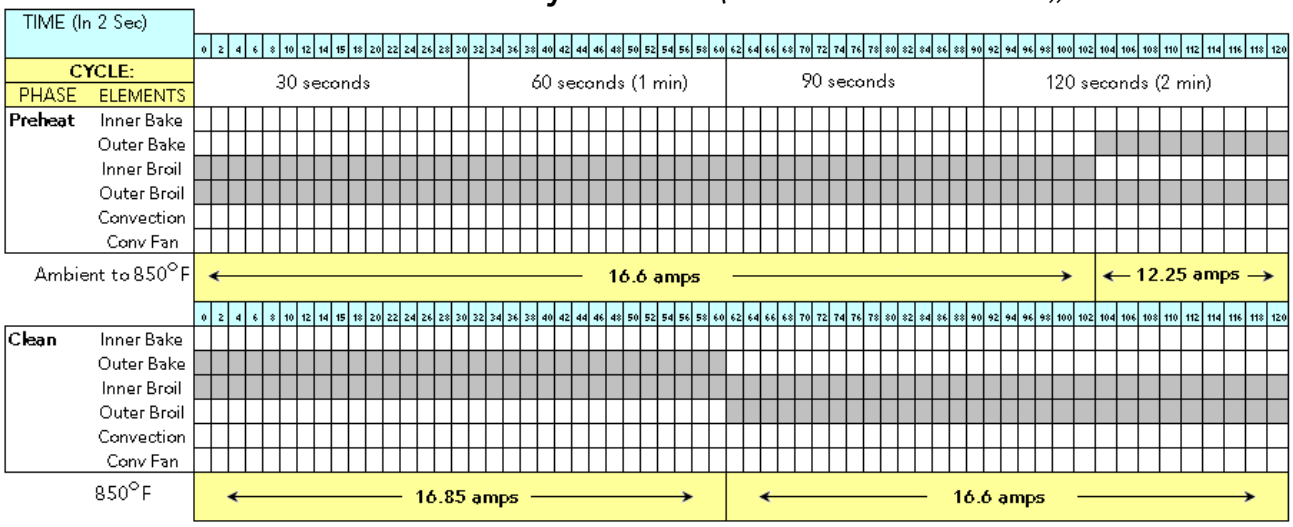


Auto Roast cycle chart *(Premiere models only)*



*NOTE: Convection fan is running at **HIGH** speed*

Self Clean cycle chart *(Shown in **2** min increments))*



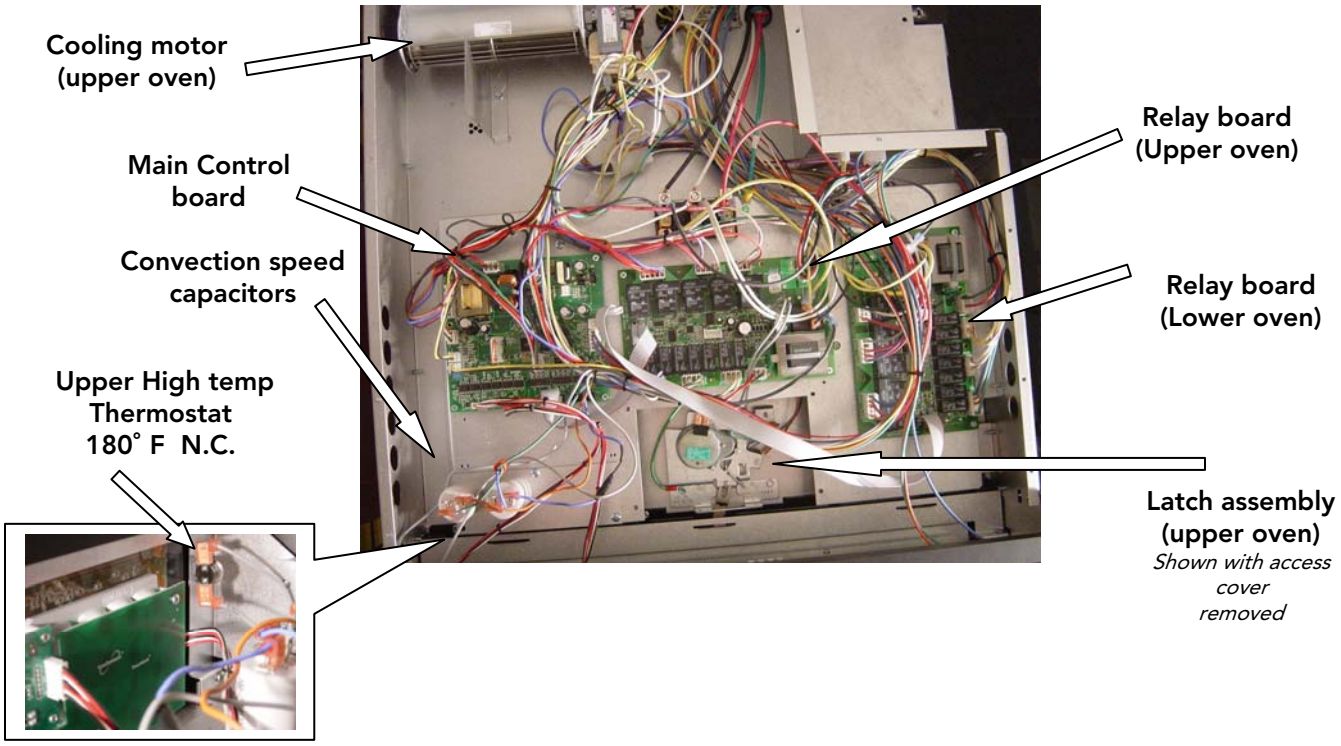
Service Situation Chart

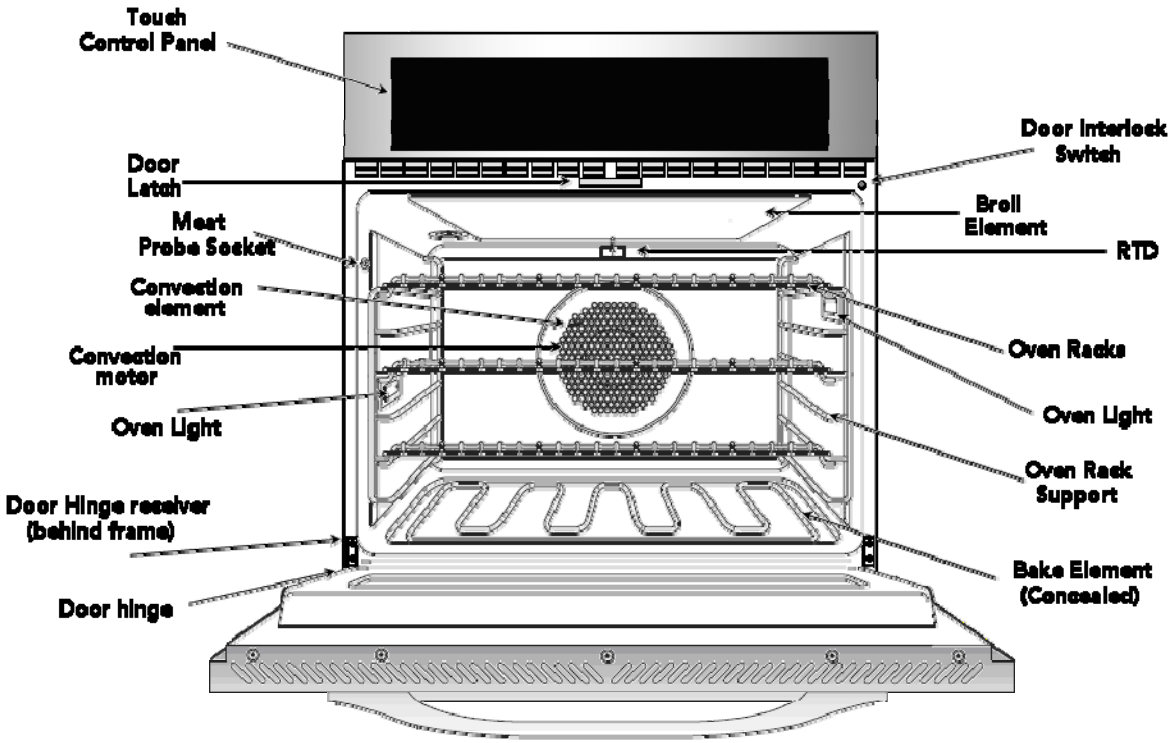
The chart shown below is a basic overview of the

TASK	Single Unit	Double Unit	Front Serviceable	Partial Removal Required	Full Removal Required
Door Assembly	X	X	X		
Inner Door Glass	X	X	X		
Outer Door Glass	X	X	X		
Door Hinge	X	X	X		
Door Handle	X	X	X		
Door Gasket	X	X	X		
Oven Racks	X	X	X		
Oven Rack Supports	X	X	X		
Oven RTD Temperature Sensor	X	X	X		
Broil Elements	X	X	X		
Bake Elements	X	X	X		
Convection Bake Elements	X	X	X		
Convection Motor Assembly	X	X	X		
Oven Light Bulbs	X	X	X		
Oven Display Board	X	X		X	
Oven Touch Panel	X	X		X	
Oven Relay Boards	X	X		X	
Oven Main Control Board	X	X		X	
Oven Door Interlock Switches	X	X		X	
Convection Speed Capacitors	X	X		X	
Door Latch Assembly (Upper)	X	X		X	
Door Latch Assembly (Lower)		X	X		
Blower Motor (Upper)	X	X			X
Blower Motor (Lower)		X			X
High Temp Cutout (Upper)	X	X		X	
High Temp Cutout (Lower)		X	X		
Door Hinge Receiver	X	X			X
Meat Probe Socket	X	X			X

Parts location overview– Upper plenum

NOTE: The oven shown here is model DEDO 127T which is a double oven, upper convection only! The Single version will have only I relay board.

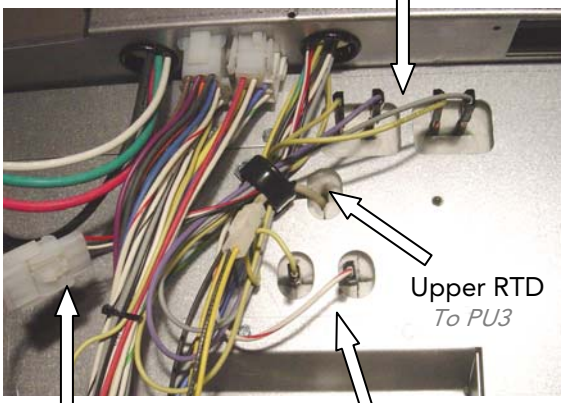




Parts location overview – Oven Rear

NOTE: The oven shown here is model DEDO 127T. This model has the convection feature only in the upper oven. The Premiere models will have it in both cavities.

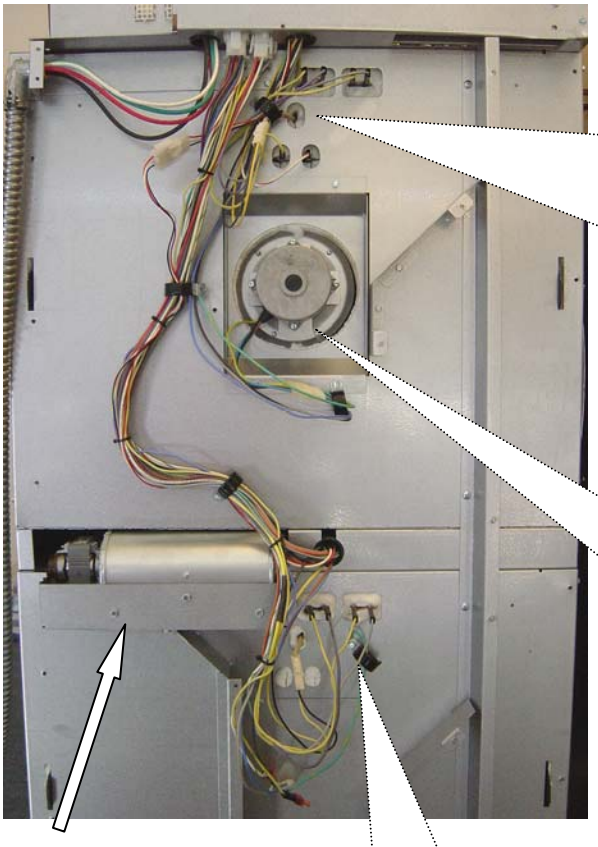
Upper Broil elements
L2 - Yellow wire - to line break relay.
L1 – Gray wire –Outer broil – to P6.
L1 – Violet wire – Inner broil – to P6.



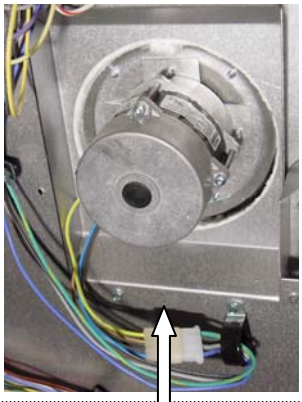
Upper RTD
To PU3

Wires to lower Hall sensor
To PL4

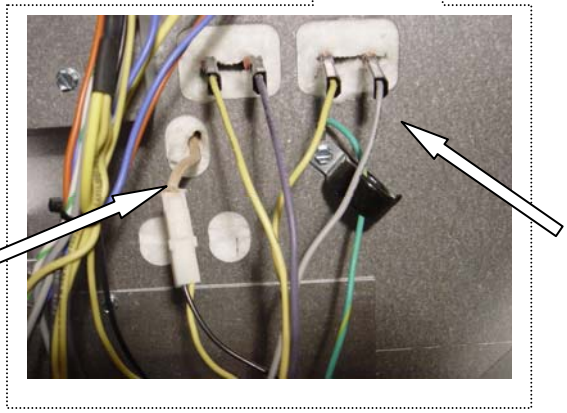
Upper Convection element
L2 - Yellow wire - to line break relay.
L1 -White w/ red tracer wire – to P7.



Lower Cooling motor 120 volt
L1 – White w/black tracer wire - to P5.
N – White wire – to main terminal block.



Convection fan motor 2 direction – 240 volt
L2 - Black wire - to main terminal block.
L1 –Gray wire –CCW direction – to P3.
L1 – Blue wire – CW direction – to P3.



Lower RTD
To PU3.

Lower Broil elements
L2 - Yellow wire - to line break relay.
L1 –Gray wire –Outer broil – to P6.
L1 – Violet wire – Inner broil – to P6.

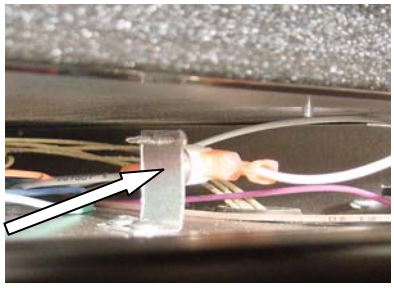
Parts location overview – Center plenum *(Double oven)*

Fig A shows the oven with the upper door removed. In order to gain access to the component in the center plenum, remove the 2 screws shown indicated below and remove the vent trim

FIG A

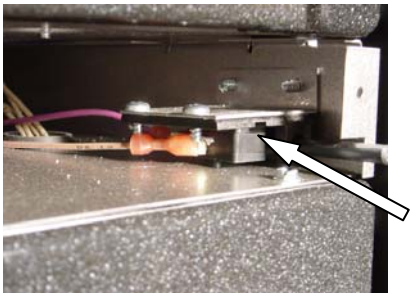
With the vent trim removed, you now have access to the lower latch motor, Temperature limiter and lower door interlock switch. FIG B shows the High limiter and FIG C shows the lower interlock switch

FIG B



Lower Limiter
Gray wires (2)
To P10 – Lower relay board.

FIG C



Door interlock switch
Violet wire - To PL2
Brown wire – To PL2
Main control board.

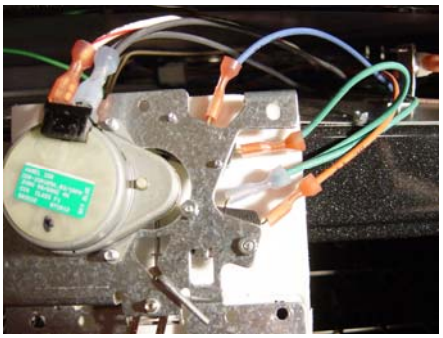
Fig D shows the lower latch motor assembly. In order to remove, remove the 2 ¼ hex screws
And gently pull the latch assembly out, along with the white insulation pad. FIG E shows the latch assembly pulled out from the plenum area along with the wiring information.

FIG D

Lower door latch assembly

Motor-240 volt: *White w/Red tracer - L1 – to P2 on lower relay board.*
Black wire - L2 – main terminal block.
Switch 1 (Front) *Orange wire – To PL2 - Main control board.*
Green wire – To SW2 and PL2- Main control board.
Switch 2 (Rear) *Blue wire – To PL2 - Main control board.*
Green wire – To SW1 and Main control board.

FIG E



Door Removal

In order to remove the ovens doors, you will first need to locate the hinge locking pins that were supplied with the packaging material. FIG A sows the removal of the hinge locking brackets. Using a Philips head screwdriver, remove the left and right brackets and place to the side. FIG B shows the placement of the locking pins. THE PINS MUST BE IN PLACE in order to remove the door without damaging the oven door or frame.

FIG A

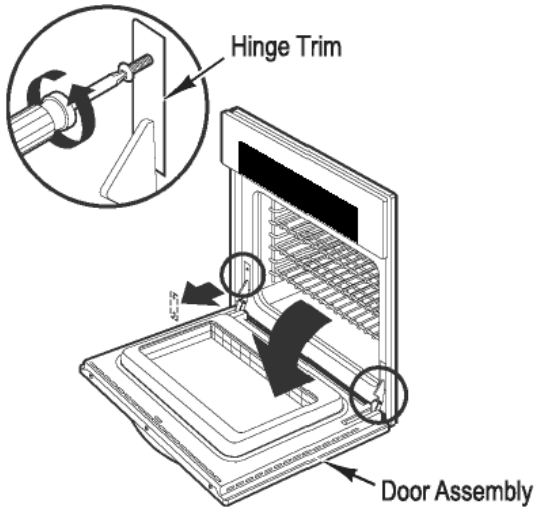
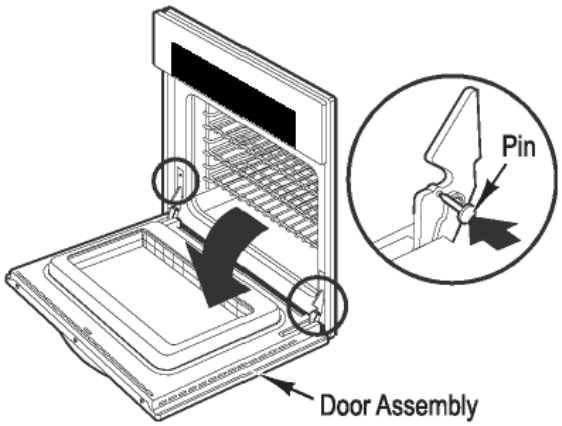
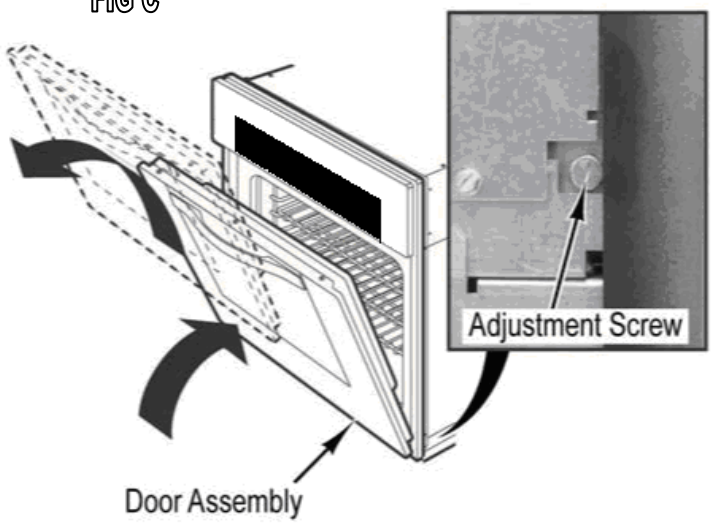


FIG B



With the pins in place, grasp the door from both sides and gently close the door until resistance is felt. DO NOT apply too much pressure or damage will occur. As FIG C shows, lift the door up and then towards you. The door will come off with the left and right locking pins holding the door hinges in place. Please the door on a protective surface

FIG C



In order to reinstall the door, grasp firmly from each side and align the door hinges into the receivers on both sides of the oven frame. Allow the hinges to gently drop into place. Open the door to the full 90˚ position and remove the door pins. Make sure to return them to a safe place should the door need to be removed in the future.

Component testing

Component	VOLTS	OHMS	AMPS	Test Location
Convection Element (Upper -Single)	240 VAC	20.8 Ohms	11.5 amps	K17 yellow -Line break relay – P7 white w/red tracer
Outer Broil Element (Upper -Single)	240 VAC	40.0 Ohms	6.0 amps	K17 yellow -Line break relay – P6 Gray wire
Inner Broil Element (Upper - Single)	240 VAC	22.6 Ohms	10.6 amps	K17 yellow -Line break relay – P6 Violet wire
Outer Bake Element (Upper - Single)	240 VAC	38.4 Ohms	6.25 amps	K17 yellow -Line break relay – P9 Blue wire
Inner Bake Element (Upper)	240 VAC	38.4 Ohms	6.25	K17 yellow -Line break relay – P9 Orange wire
RTD (Upper)	5 VDC	1100 Ohms @ 75°F	N/A	Black / Yellow wire - PU 3 - Main Control Board
Convection Motor (Upper - Single)	240 VAC	100 Ohms x 2	.8 amps	Black L2- Main terminal block - P3 Blue - P4 Gray, L2
Blower Motor(Upper)	120 VAC	19.0 Ohms	.6 amps	White Neutral -Main terminal block - White w/ Black tracer - P5
Door Latch Motor (Upper)	240 VAC	12.86K Ohms		Black L2- Main terminal block - White wire - P22
SW1 - Door Lock Switch (Upper)	5 VDC	Open with door unlocked	N/A	Green wire (common) - Orange to PU 2 - Main Control Board
SW2 - Door Lock Switch (Upper)	0 VDC	Closed with door unlocked	N/A	Green wire (common) - Blue to PU 2 - Main Control Board
High Limit Thermostat (Upper)		Normally Closed @ 180˚ F	N/A	Gray Wires (X2) - P10 on Upper Relay board
Door Interlock switch	5 VDC	N.O. - Closed when door closed	N/A	Brown wire - Violet wire - PU 2 - Main Control Board
Cavity Light(s)	120 VAC	60 Ohms	.2 amps	White Neutral -Main terminal block - Yellow wire P2
	DOULBE OVEN MODELS			
* Convection Element (Lower)	240 VAC	20.8 Ohms	11.5 amps	K17 yellow -Line break relay – P7 white w/Green tracer
Outer Broil Element (Lower)	240 VAC	40.0 Ohms	6.0 amps	K17 yellow -Line break relay – P6 Gray wire
Inner Broil Element (Lower)	240 VAC	22.6 Ohms	10.6 amps	K17 yellow -Line break relay – P6 Violet wire
Outer Bake Element (Lower)	240 VAC	38.4 Ohms	6.25 amps	K17 yellow -Line break relay – P9 Blue wire
Inner Bake Element (Lower)	240 VAC	38.4 Ohms	6.25	K17 yellow -Line break relay – P9 Orange wire
RTD (Lower)	5 VDC	1100 Ohms @ 75°F	N/A	Black / Yellow wire - PL 3 - Main Control Board
* Convection Motor (Lower)	240 VAC	100 Ohms x 2	.8 amps	Black L2- Main terminal block - P3 Blue - P4 Gray, L2
Blower Motor(Upper / Lower)	120 VAC	19.0 Ohms	.6 amps	White Neutral -Main terminal block - White w/ Black tracer - P5
Door Latch Motor (Lower)	240 VAC	12.86K Ohms		Black L2- Main terminal block - White w/Red tracer - P22
SW1 - Door Lock Switch (Lower)	5 VDC	Open with door unlocked	N/A	Green wire (common) - Orange to PL 2 - Main Control Board
SW2 - Door Lock Switch (Lower)	0 VDC	Closed with door unlocked	N/A	Green wire (common) - Blue to PL 2 - Main Control Board
High Limit Thermostat (Lower)		Normally Closed @ 180˚ F	N/A	Gray Wires (X2) - P10 on Upper Relay board
Door Interlock switch (Lower)	5 VDC	N.O. - Closed when door closed	N/A	Brown wire - Violet wire - PL 2 - Main Control Board
Cavity Light(s)	120 VAC	60 Ohms	.2 amps	White Neutral -Main terminal block - Yellow wire P2

** On Premiere models only!*

The chart shown here is a Temp-to Resistance Chart for the RTD.

The oven sensor is also known as a P.T.C (**P**ositive **T**emperature **C**ontrol) device which means that as the temperature rises, the resistance increases.

RTD (Resistive Thermal Device)	
Temperature (°F)	**Resistance (approximate)**
50	1038
75	1090
100	1143
200	1350
300	1553
350	1654
400	1754
450	1852
500	1950
550	2047
600	2153
650	2238
700	2332
750	2425
800	2518
850	2609
900	2700

Troubleshooting Guide

Below and on the following page are some general guides should a problem be detected. Please refer to the test procedures in this manual to determine the defective component.

Problem	Probable Cause	Correction
No oven operations No Display or Lights	House breaker tripped Defective oven wiring (shorted, open, or burned).	Reset breaker Repair or replace defective wiring.
No elements working. Display lights and fans working normally	Line Break Relay not closing Defective Relay board Door interlock switch defective	Replace relay board Replace relay board Replace door interlock switch See page 59
No Bake Slow Heating	Open Inner or Outer Bake element Open Inner or Outer Broil element Defective relay board Defective Main control board Defective oven wiring (shorted, open or burned).	Replace bake element Replace broil element Replace relay board Replace Main control Board Repair or replace defective wiring. *See Page 58-59*
No Broil No Convection Broil Slow Heating	Open Inner or Outer Broil element Defective relay board Defective Main control board Defective oven wiring (shorted, open or burned).	Replace broil element Replace relay board Replace Main control Board Repair or replace defective wiring. *See Page 59-60*
No TruConvect™ No Convection Bake Slow Heating	Open Outer Bake element. Open Inner or Outer Broil element Open Convection element Defective relay board Defective Main control board Defective oven wiring (shorted, open or burned).	Replace Bake element. Replace Broil element Replace Convection element Replace relay board Replace Main control Board Repair or replace defective Wiring. *See Page 58-59-60*
No Convection Roast No Auto Roast *(Premiere)* Slow Heating	Defective Convection element Open Inner or Outer Broil element Defective relay board Defective Main control board Defective oven wiring (shorted, open or burned).	Replace Convection element Replace broil element Replace relay board Replace Main control Board Repair or replace defective wiring. *See Page 59-60*
No Dehydrate No Poof *(Premiere)*	Open Inner Bake element Defective relay board Defective Main control board Defective oven wiring (shorted, open or burned).	Replace bake element Replace relay board Replace Main control Board Repair or replace defective wiring. *See Page 58*

Troubleshooting Guide (*Continued*)

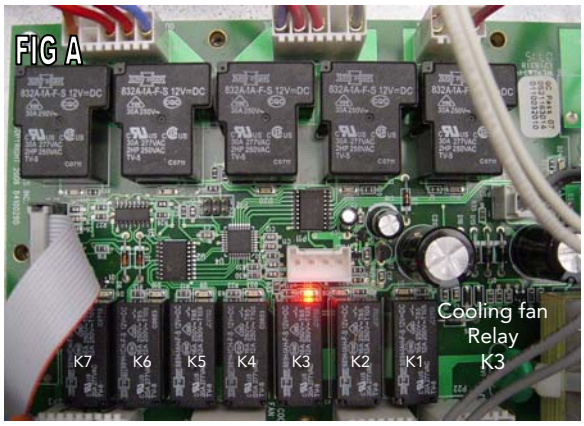
Problem	Probable Cause	Correction
No Convection Fan	Defective Fan Motor Defective relay board Defective Main Control Board Defective oven wiring (shorted, open, or burned).	Replace fan motor Replace Relay Board Replace Main Control Board Repair or replace defective wiring. *See Page 51-54*
Convection Fan turns slow - motor humming in all cook modes.	Defective Fan Motor Defective High Speed Capacitor Defective Relay Board Defective oven wiring (shorted, open, or burned).	Replace fan motor Replace High Speed Capacitor Replace Relay Board Repair or replace defective wiring. *See Page 51-54*
Convection Fan turns slow - motor humming on Convection Bake, TruConvec™, Defrost and Dehydrate only.	Defective Low Speed Capacitor	Replace Low speed Capacitor *See Page 51-54*
Error Code: MODEL ERROR	An incorrect model number has been installed	Verify that proper header is installed. *See Page 7*
Error Code: RTD ERROR	Open or defective RTD	Test the RTD from the connection on the Main Control board. **PU3** is for the Upper oven RTD and **PL3** is the lower oven RTD. Resistance should be *1,050* ohms at ambient. *See Page 46*
Error Code: PROBE ERROR	The meat probe is shorted or defective. The wiring to the probe is either shorted or broken.	Check the probe between the tip of the probe and the ring. Resistance should read _____. Check the wiring between the PU1 (Upper) and PL1 (lower) wiring. *See Page 50*
Error Code: LATCH ERROR	The control is not able to lock or unlock the door	Check the SW1 and SW2 switches at the Main Control Board Connection PU2 (Upper) and PL2 (lower). Check the Motor connection between P2 on relay board and the main L2 (Black) terminal block. *See Page 47-48*
Error Code: KEYBOARD ERROR	No Connection exists between The keyboard and the control board	Check the connections between the P3 Connection on the main control board and the Keyboard. *See Page 55*

Error Code: COOLING ERROR	The Cooling motor is Defective The Hall Sensor is unplugged or defective. The Main Control Board is defective.	Check between the P5 Connections on the upper and lower relay board and the Main Neutral connection for 120 volts. Check for proper voltage to Hall Sensor from main Control Board. *See Page 44-45*
Error Code: RELAY ERROR	No Relay Board Connection	Check for connection between the Main Control board PU5 (Upper) and PL5 (Lower) and the P4 connector on the relay board. *See Page 57*
Error Code: HIGH LIMIT	High limit protector has tripped	Check the P10 connector on the upper and lower relay board. If open, check the High Limiter. The upper limiter is behind the touch board (left Side) and the lower one is behind the center plenum access panel. *See Page 49-50*
No lights	Defective bulb. Defective or broken wiring. Defective relay board	Check for 120 volts to the lights from the P2 connector on the relay board and the neutral terminal block. *See Page 49*
No Heat or Convection fan. Cavity lights stay on	Defective door interlock switch	Check the between the Brown and Violet wires in the PU2 (Upper) and PL2 (Lower) connection on the Main Control Board. *See Page 61*

Cooling Fan

The cooling fan(s) on the "T" series wall oven are operated on 120 Volts. When the oven is turned on for any cook cycle, the Cooling fan relay (K3) on the upper and lower relay will activate. **FIG A** shows the LED in front of the Fan relay activated. This will tell you that voltage is being sent to the relay coil. **Fig B** shows the power wires coming off the relay board. As you can see there are 2 white w/black tracer wires connected to P5 on the board. L1 Power is sent to the Cooling fan motor. **NOTE:** *Though the board is capable of producing two speeds, Viking only utilizes one speed.*

Note: *When conducting the diagnostic program you can energize the Fan speed relay (K4) however you will still get only High speed.*



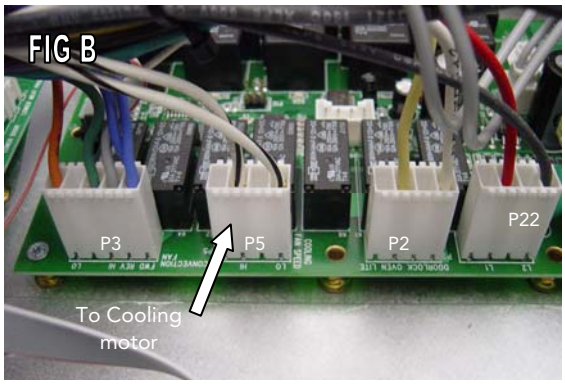
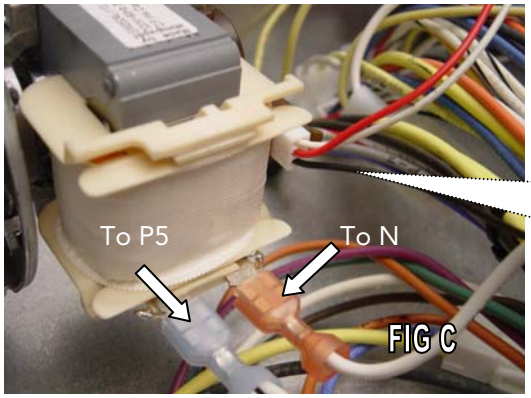
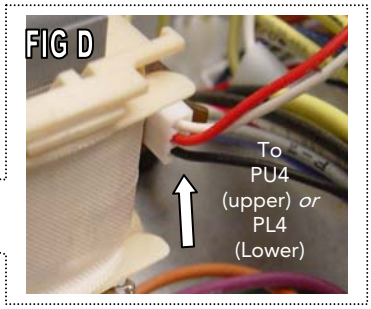


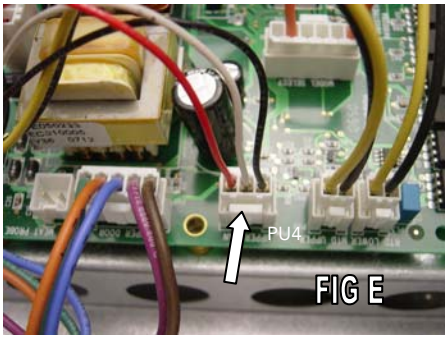
FIG C Below is a close-up of the actual fan motor connection. The white wire on the motor goes to the N terminal on the main terminal block. The double white w/black tracer goes to P5 on the relay board. Another connection on the cooling motor is the Hall sensor (See **FIG D**).





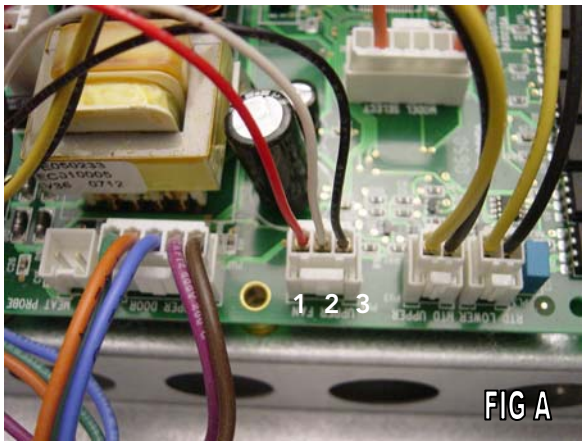
The Hall Effect sensor is designed to sense when there is little or no rotation in the cooling fan. The 3-wire Molex plug is connected to fan motor as shown above. **FIG E** shows the connection on the Main Control board. On the Single oven and upper Double, the connection is at PU4 on the board. On the lower double oven it is connected to PL4.

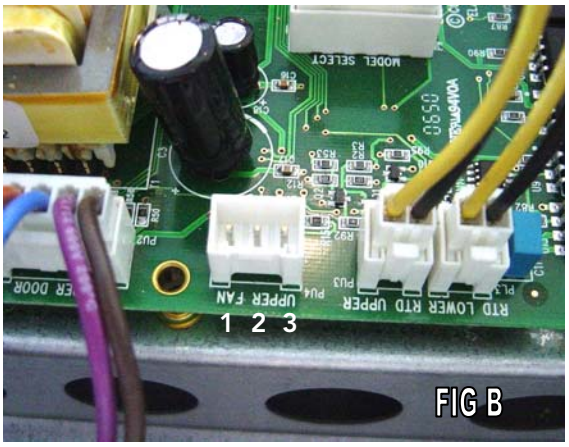
Page 44 will cover how to test the hall sensor.



Hall Effect Sensor

As shown on the previous page, the cooling motor incorporates a device called a Hall Effect Senor. The sensor is connected to the main Control board. In Fig A below you see the three wire connector to the hall sensor, which consists of a Red (1), White (2) and Black (3) wires. There is also a separate connection for the lower Hall Effect sensor on all Double oven models. PU4 is for the upper and PL4 is for the Lower.





If you receive a COOLING FAN ERROR alert, the first thing to do is to access the diagnostics and see if the cooling fan is operating. If the fan is not turning, then check to see if there is power going to the motor (As shown on page 44). If the fan is running, locate the 3 wire Molex plug on the Main Control Board. With the oven Switched OFF, Unplug the connector from the board as shown in FIG B and set your Volt meter to DC Voltage.

You should read +5 Volts between the Pin (1) wire and Pin (2) wire. You will also read +5 Volts between the Pin (1) wire and Pin (3) wire. You should read 0 volts between Pin (2) and Pin (3). If the voltages are not correct, replace the Main Control Board.

If the voltages are correct, reconnect the 3-Wire Molex Plug. Place your Meter leads into Pin (1) RED and Pin (2) white. Activate the oven or the Diagnostic Program so that the fan is energized. With the fan turning, you should be reading 2.5 Volts DC. If yes, then connect your meter between Pin (2) White and Pin (3) Black. Again you should read 2.5 volts DC. If you do not read 2.5 volts but a full 5 volts DC, then the Hall Sensor is defective and the fan motor (with S\sensor) will need to be replaced.

Another test that can be made is with the oven shut off and the Molex plug connected, place your Meter leads into Pin (1) Red and Pin (2) White. Set your Meter to DC Volts. You will read either 0 or 5 volts, depending on where the motor is positioned. If you manually spin the motor you will see the meter jump between 0-5 volts. The same is true if you were to place your meter leads in Pin (2) White and Pin (3) Black. As you manually spin the fan you will see 0 or 5 volts. Therefore, in any position, one side will read 0 volts while the other will read 5 volts.

RTD Sensor

The oven utilizes an RTD (**R**esistance **T**emperature **D**etectors) to measure the temperature in the oven cavities. As the temperatures rises and falls, the resistance in the RTD changes. These changes are interpreted by the Main Control Board, thus controlling the heating elements. As the temperature rises, the resistance increases. Page 40 shows the ratio of temperature to resistance.

If you receive the RTD ERROR code you will need to test the sensor and its connections**. FIG A** shows the RTD connection(s) on the main control Board. The example shown is a double oven. Please note that both the upper and lower oven wire colors (Yellow and Black), as well as the Molex connection are identical. Make sure that if you disconnect the RTD'S on a double oven that you connect them properly. If you reverse the connections you will not be sensing the proper cavity temperatures which can cause runaway temperatures. FIG B shows the area where the RTD wires enter the oven cavity.
As you can see, the two wires (Yellow-Black) from the Main Control Board run through the rear plenum and connect with a Molex disconnect plug.

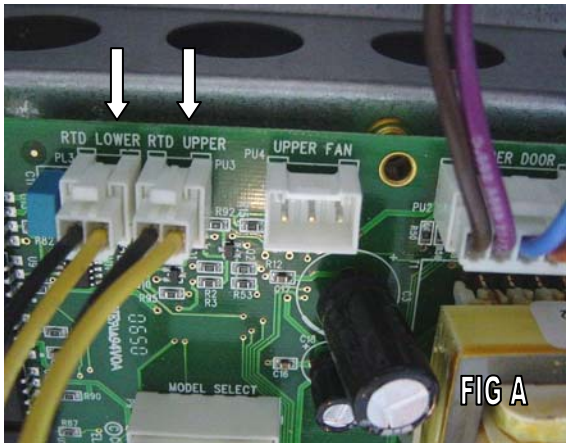


FIG A

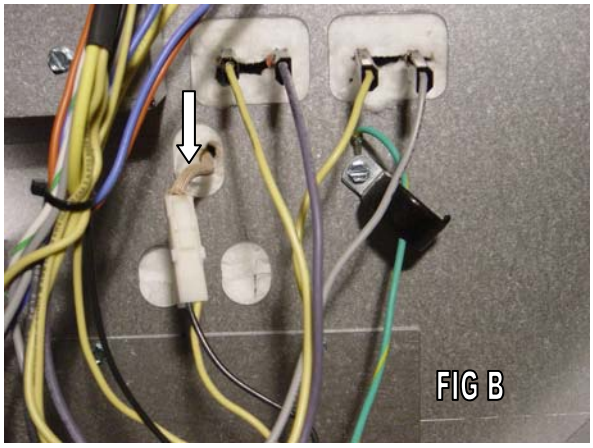


FIG B

FIG C shows the RTD sensor secured in place. It is located at the upper rear wall of the oven cavity. Remove the two Phillips screw and gently pull the senor forward. The sensor has a Molex connector that is connected in the rear plenum. **FIG D** shows the RTD removed and the Molex connection.


FIG C

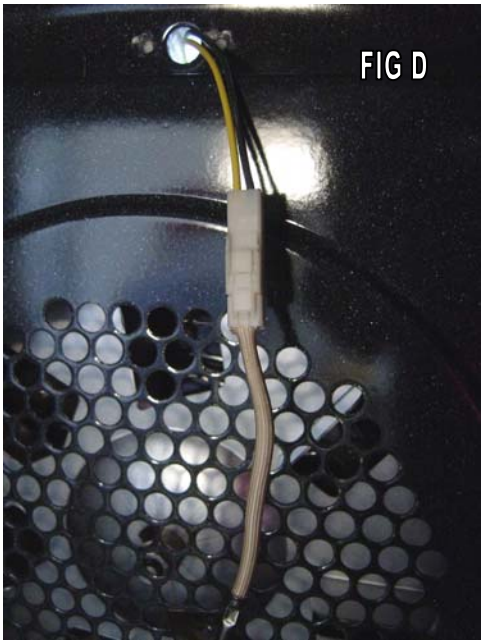
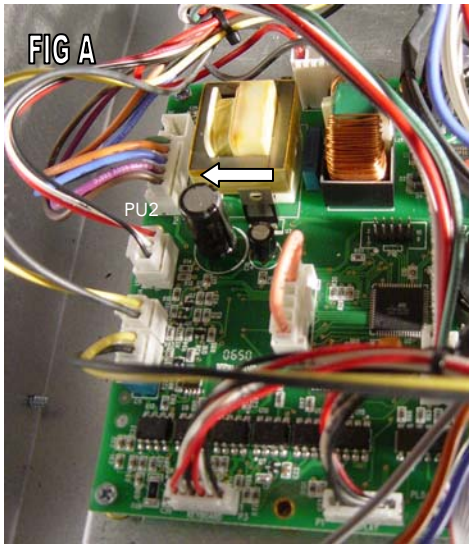


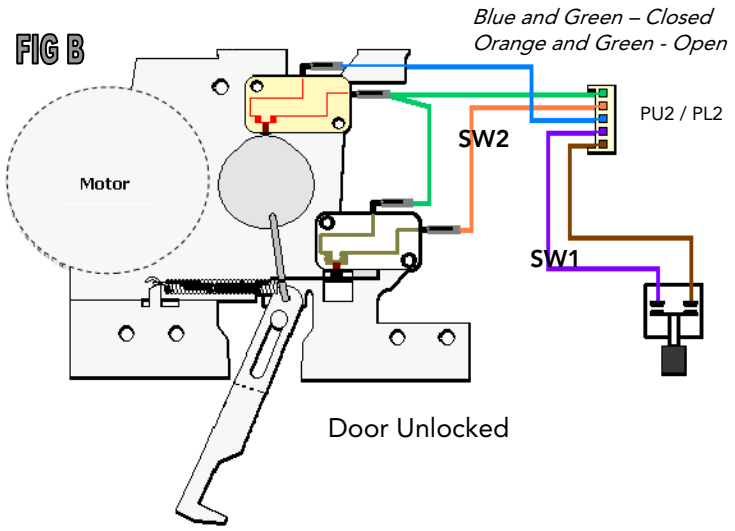
FIG D

You can test the RTD by unplugging the Molex plug from the Main Control Board. Set your Volt- Ohm Meter to Read Ohms. You should read approximately 1050 ohms. If you read 0 or extremely high resistance, replace the RTD. If the readings are within range, check each wire to ground. If resistance is present, then the RTD is grounded and you will need to check the physical wires for a grounded connection.

Door Latch motor assembly

In order to test the upper and lower latch assembly, you will need to pull the oven from the wall. Remove the top access panel. On the left top section of the oven is the Main control board. FIG A shows the wiring connection PU2 for the Door Lock motor assembly (Upper cavity on the double ovens). The connection also contains the two wires (Brown and Violet) that go to the Door Interlock switch. PL 2 is for the Lower latch assembly.





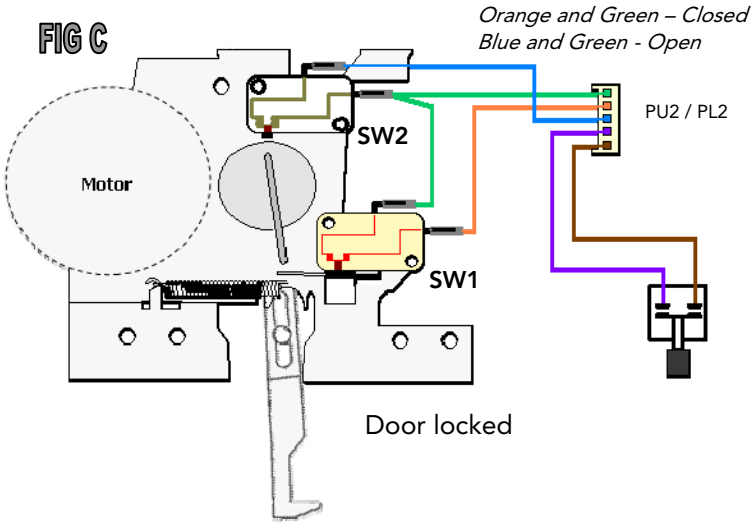
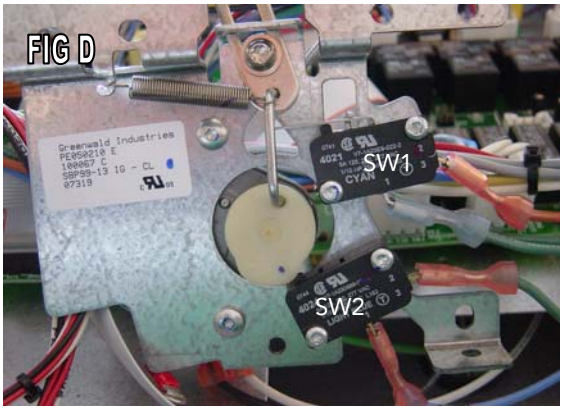


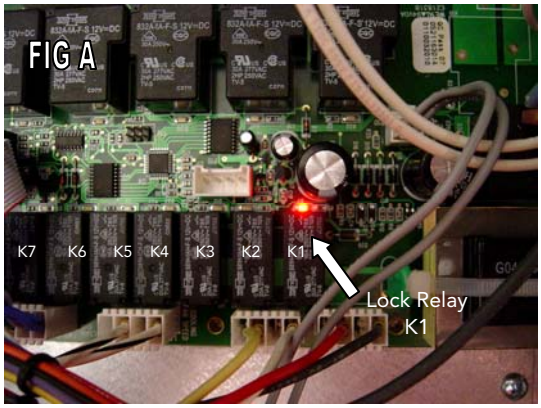
Fig B shows the latch in the OPEN position. Both the SW1 and SW2 switches are N.O. With the door in the *unlocked* position, the contacts in SW 1 are open. The contacts in SW2 are closed by the position of the door cam. **FIG C** shows the latch in the CLOSED (locked) position. The contacts in SW1 are closed and SW2 are open.

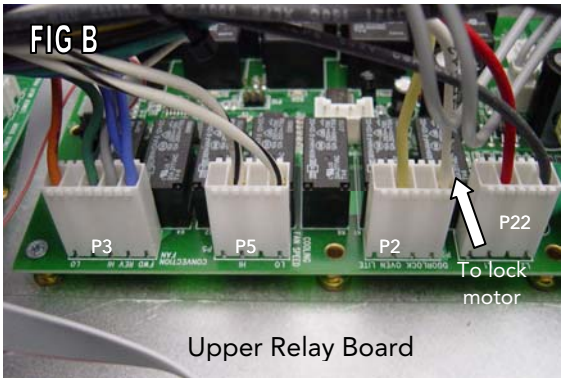
To check the switches, locate the 5-wire Molex plug from PU 2 (upper) or PL 2 (lower). With the door unlocked, check for continuity between the Green and Blue wire. If no continuity is present, remove the 4 Philips head screws securing the access cover to the upper plenum base. Remove the two ¼ hex screws to remove the latch and test. **FIG D** shows the underside of the upper latch.



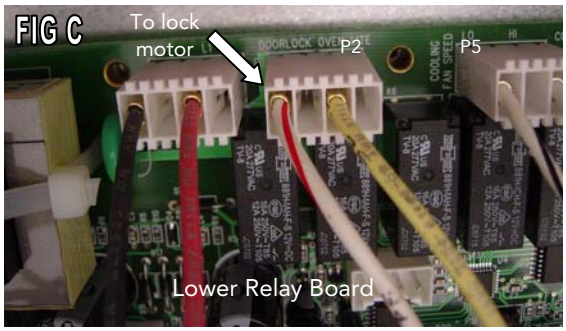
Door Latch motor assembly *(Continued)*

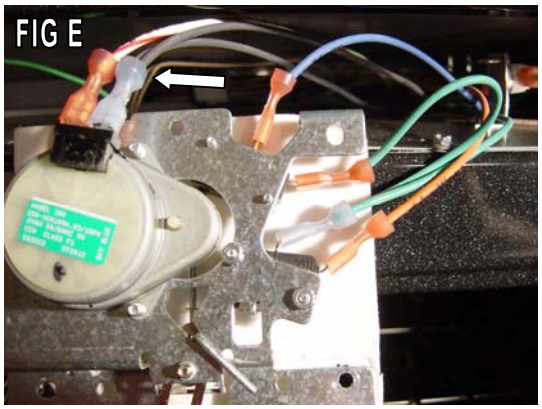
When the oven is set to Self Clean, the relay board will energize the lock relay (K1) on the board. **FIG A** shows the lock relay energized. As the lock motor turns, the SW2 switch is opened and the SW1 switch closes. When the Main Control board senses the switch closure, it sends a signal to the relay board and power is removed from the relay. You can also check the motor manually by accessing the diagnostic program and scroll to the Door Lock test. The relay sends L1 power through the White wire (P2) on the upper relay board to the lock motor as shown in **FIG B**. L2 (Black) from the main terminal block is wired directly to the lock motor. The lock motor is operated on 240 volts AC.





The lower relay board has a White w/Red tracer as shown in **FIG C**. L1 (Black) from the Main terminal block is wired directly to the Lock motor. The lock motor is operated on 240 volts. **FIG D** shows the lower latch motor with the center air vent trim removed. The lower latch is held in with 2 ¼ inch hex screws. **FIG E** shows the latch pulled out. You can see the motor wires L2 (Black) and L1 (White w/Red tracer) connected to the motor. The lock motor is operated on 240 volts.





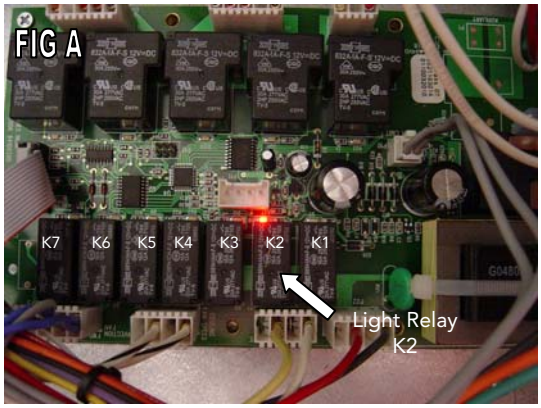
⚠ CAUTION

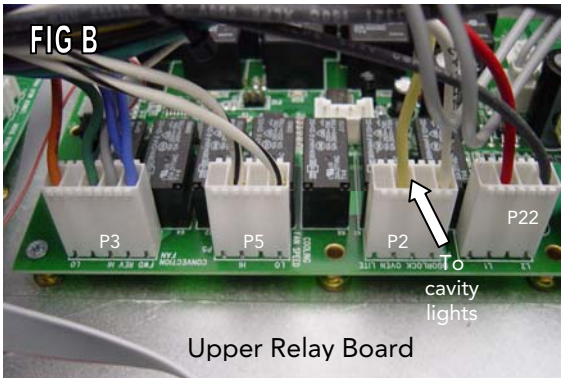
Hazards or unsafe practices which COULD result in minor personal injury, product or property damage. Be sure to disconnect the power from the oven whenever testing the ovens high voltage circuits

Cavity lights

The oven utilizes 120 volt Halogen bulbs to illuminate the oven cavity. The Select Models have one ceiling mounted light fixture while the premiere models have a ceiling mounted fixture, as well as one on each side of the oven cavity. The lights are switched on by depressing the touch pad on the control Panel. When the door is opened during a cook cycle, the lights are also switched on (*Except when the oven is set to the Sabbath Mode*). Refer to page 10 with regards to enabling and disabling the Sabbath Mode.

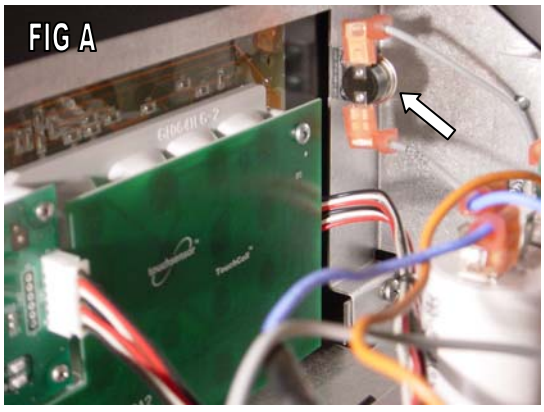
When the Main Control Board sends a signal to the relay board(s), the light relay is activated. **FIG A** shows the Light relay energized. The relay sends L1 power through the Yellow wire (P2) on the relay board(s) shown in **FIG B** to the light fixtures in the oven cavities. The Neutral side for the lights in connected to the Neutral terminal on the main terminal Block. When the Door is opened, the Main Control Board will send a signal to the relay board for the Light relay to activate.

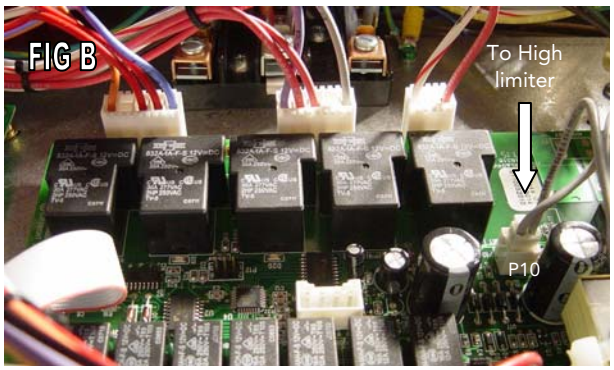




High Limiter

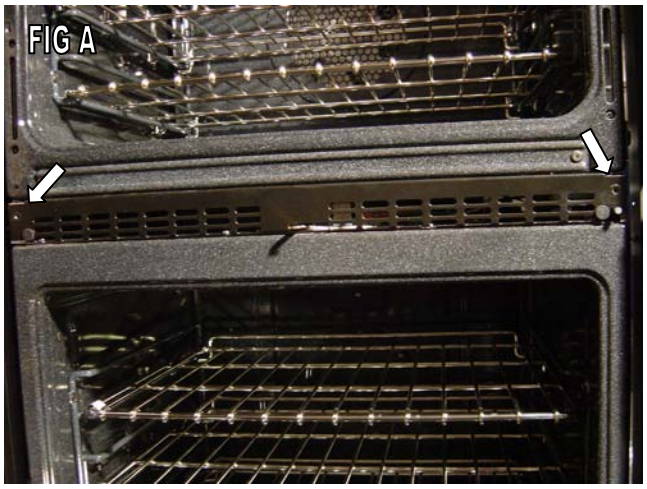
The oven is protected by a High Temperature Limiter. If you receive the HIGH LIMIT ERROR code, the limiter has probably tripped or is disconnected. On the Single and Double oven top Cavity, the limiter is located directly behind the control panel on the left hand side. **FIG A** shows the location of the upper limiter. It is normally closed and will open at 180° F. The 2 gray wires are connected to the relay board at connection P10 as shown in **FIG B**.

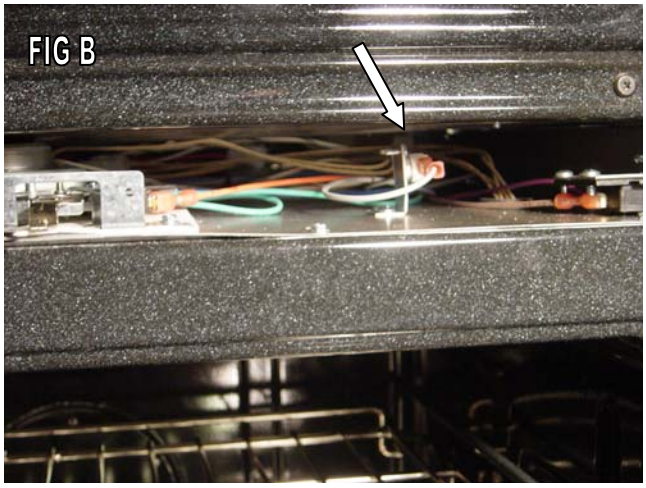




Continued on page 50

High Limiter *(continued)*
On the Double oven models, the high temperature limiter is located between the upper and lower oven cavities in the center plenum. To access, remove the two Phillips head screws that hold the vent trim in place. **FIG A** shows the location of the screws. FIG B shows the lower oven limiter. It is normally closed and will open at 275° F. The 2 gray wires are connected to the lower oven relay board at connection P10.





To test the lower oven limiter, access the lower relay board and unplug the P10 connector. Using a Volt / Ohm meter, apply your meter leads to the two gray wires. If you read an open limiter, replace the component.

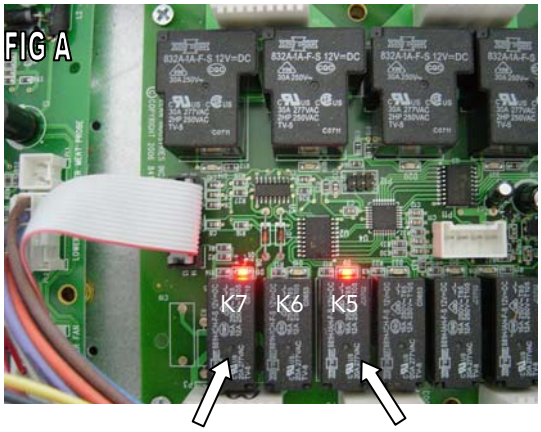
Meat Probe

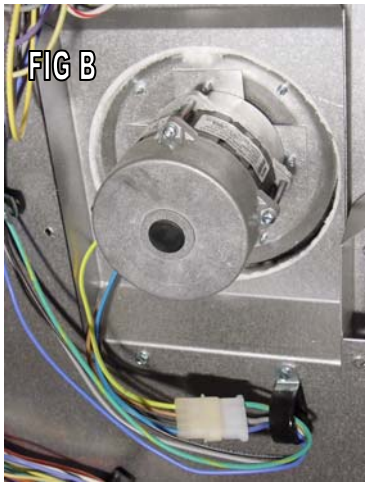
Place Holder
Meat Probe
Information

Convection Fan Motor

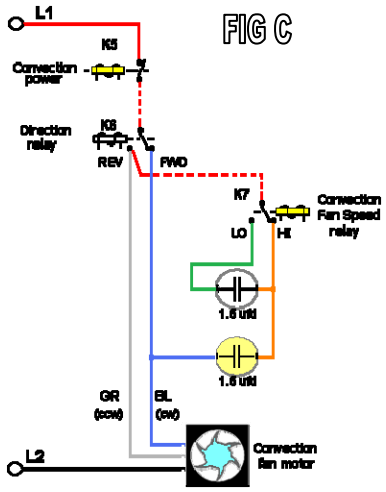
High speed operation

The oven utilizes a two-speed, reversible 240 Volt convection fan motor in all single cell ovens and the lower oven cell in the Premiere series. The fan motor runs at HIGH speed on Convection Broil, Convection Roast and Auto Roast (Premiere models). The fan runs at LOW speed on TruConvec™, Convection Bake, Defrost and Dehydrate. When the convection fan motor is required, the Main Control Board will send a signal to the respective relay board. The relay board has three relays that control the convection fan. The Convection power relay (K5) and speed relay (K7) are show activated in **FIG A**. The fan will run at HIGH speed in a *counterclockwise* rotation. **FIG B** shows only the Convection fan motor from the rear of the oven with the rear oven panel removed. The motor is replaced from inside the oven cavity and it is not necessary to pull the oven from the wall to replace. The motor is connected by the use of a 4 wire Molex plug.





When a convection program is selected or testing in the diagnostic program, power is sent to the power relay coil (K5) and the relay energizes. **FIG C** shows the current flow for HIGH speed. L1 Power flows through the N.O. contact in the K5 relay (energized) to the common terminal on the K6. The N.C. contact on K6 is wired directly to the convection motor (Blue wire). It also has a jumper wire (Blue) to the HIGH speed capacitor. The power enters the capacitor. On the other terminal there is a wire (Orange) that connects both capacitors. The common orange wire is connected to the N.O. contact of the speed relay (K7). In this mode, K7 is energized so power by-passes the LO speed capacitor and enters the relay.

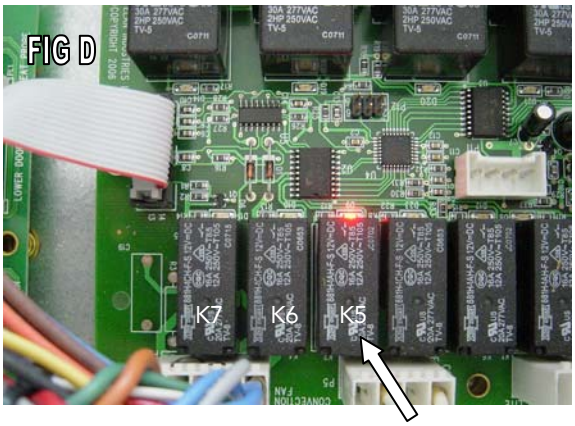


The common terminal of K7 is internally wired on the board to the N.O. contact of K6. K6 has a gray wire that runs down to the convection fan motor as well. The K6 controls the fans direction.

If the HIGH speed operation is not functioning properly, run the Diagnostic program and check to see if LOW speed functions normally. If it does, then the K7 relay is possibly defective. If it still hums and does not turn, then the High speed capacitor is possibly defective. Also, try running the motor in both Low and High speed reverse to see if the problem still exists. If the capacitors and relays test ok, then replace the convection motor.

Convection Fan Motor (*Continued*)

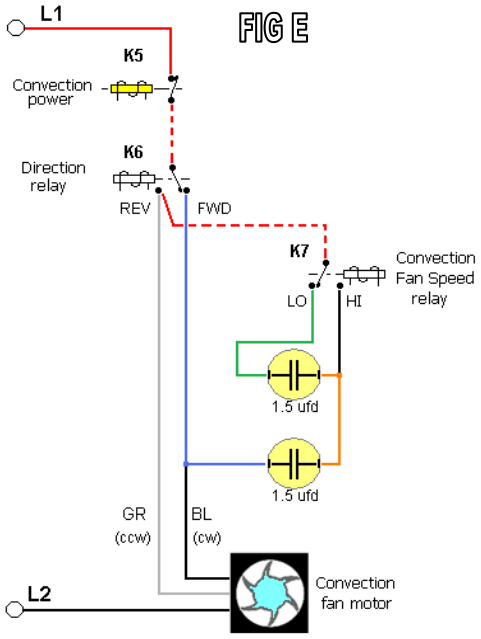
Low speed operation



Convection Power Relay

FIG D shows the Convection Power relay (K5) activated. In the wiring configuration shown here, the fan will run at LOW speed and in a counterclockwise rotation. If the fan motor is humming and barely turning, the problem could be in the LOW speed 1.5 ufd capacitor, a broken wire or a defective relay.

FIG E shows the current flow for LOW speed. L1 Power flows through the N.O. contact in the K5 relay (energized) to the common terminal on the K6. The N.C. contact on K6 is wired directly to the convection motor (Blue wire). The power enters the HIGH speed capacitor. On the other terminal there is a wire (orange) that connects both capacitors. In the LOW speed fan position, K7 is not energized. Therefore, the power flows into the LOW speed capacitor on the Orange wire. The other end of the green wire is connected to the N.O. contact of the Speed relay (K7). We now have two capacitors in a SERIES circuit. Both capacitors have a rating of 1.5 ufd giving a total of 3.0 ufd for LOW speed operation.



The common terminal of K7 is internally wired on the board to the N.O. contact of K6. K6 has a gray wire that runs down to the convection fan motor as well. The K6 controls the fans direction. If the LOW speed operation is not functioning properly, run the Diagnostic program and check to see if HIGH speed functions normally. If it does, then the Low speed capacitor is possibly defective. If the capacitor checks ok, then the K7 relay may be defective.

Also, try running the motor in both Low and High speed reverse to see if the problem still exists. If the capacitors and relays test ok, then replace the convection motor.

⚠ CAUTION

The convection circuit utilizes capacitors in its operation which can store a charge for long periods of time. Be sure to discharge the capacitors before servicing the convection components.

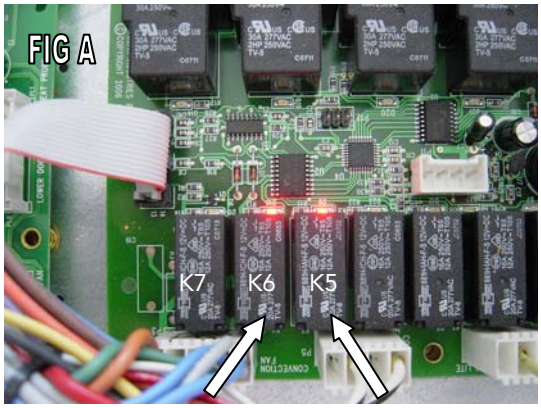
Convection fan motor operation continued on page 53.

Convection Fan Motor (*Continued)*

Low speed reverse operation

As describe on page 51, the convection fan motor is a reversible fan motor. During normal operation, the motor will run in one direction for a period of time based on the cook cycle. Then, the K5 relay will disengage for 10 seconds, allowing the fan motor to slow down and stop. The K6 relay will activate and reverse the direction, and then the K5 Power relay will engage, staring the motor turning in the opposite direction. This procedure continues throughout the cook cycle.

FIG A shows the Convection Power relay (K5) and the Convection directional relay (K6) activated. In the wiring configuration shown here, the fan will run at LOW speed and in a clockwise rotation.

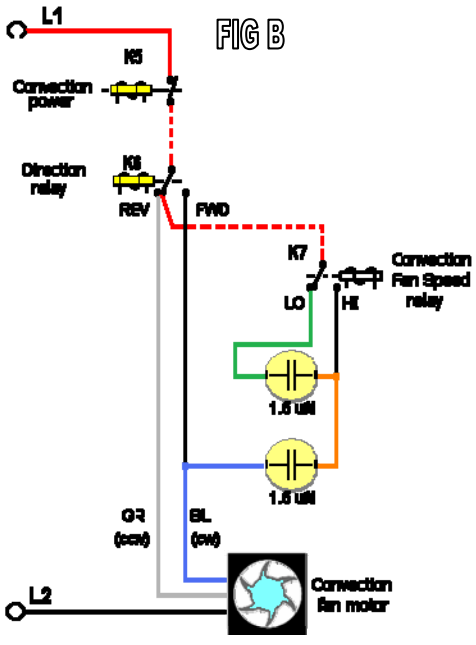


Convection Directional Relay

Convection Power Relay

FIG B shows the current flow for LOW speed reverse. L1 Power flows through the N.O. contact in the K5 relay (energized) to the common terminal on the K6. The N.O. contact on K6 is wired directly to the convection motor (Gray wire). In reverse operation, the K6 relay is energized. The N.O. contact of the K6 is internally connected to the Common terminal of the K7.

L1 power flows through K6 to the K7 relay. The K7 is not energized in LOW speed so the power flows Into the LOW speed capacitor (Green wire). It then exits the LOW speed capacitor and then into the HIGH speed Capacitor (orange wire).The power then enters the HIGH speed capacitor. We now have two capacitors in a SERIES circuit. Both capacitors have a rating of 1.5 ufd giving a total of 3.0 ufd for LOW speed reverse operation.



⚠ CAUTION

The convection circuit utilizes capacitors in its operation which can store a charge for long periods of time. Be sure to discharge the capacitors before servicing the convection components.

Convection fan motor operation continued on page 54

Convection Fan Motor (*Continued)*

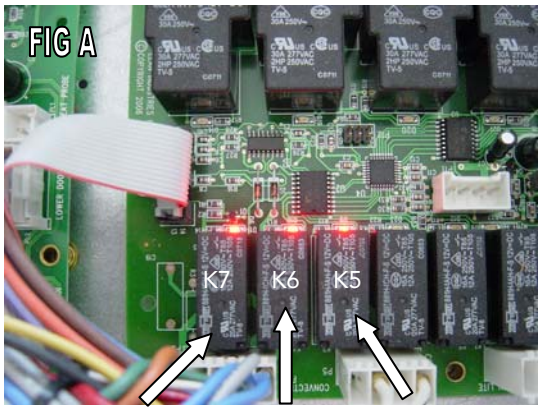
High speed reverse operation

FIG A shows the Convection Power relay (K5) the Convection directional relay (K6) and Speed relay (K7) activated. In the wiring configuration shown here, the fan will run at HIGH speed and in a clockwise rotation.

FIG B shows the current flow for HIGH speed reverse. L1 Power flows through the N.O. contact in the K5 relay (energized) to the common terminal on the K6. The N.O. contact on K6 is wired directly to the convection motor (Gray wire). In reverse operation, the K6 relay is energized. The N.O. contact of the K6 is internally connected to the Common terminal of the K7.

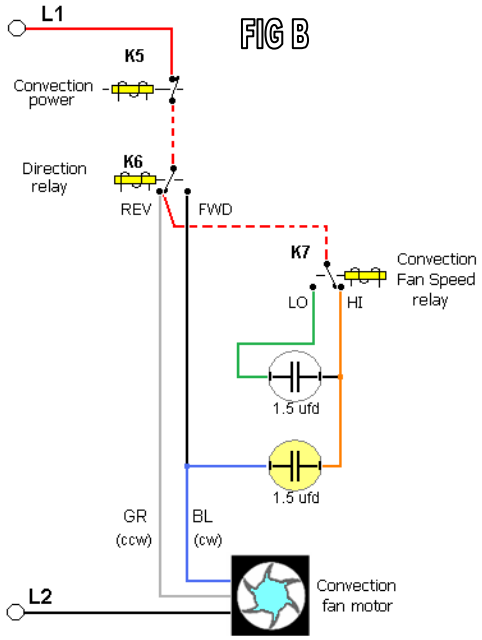
L1 power flows through K6 to the K7 relay. The K7 is energized in HIGH speed so the power flows through the N.O contact of the K7 relay. By-passing the LOW speed Capacitor, the power flows into the HIGH speed Capacitor (orange wire).The power then enters the HIGH speed capacitor for HIGH speed reverse operation.

FIG A



Convection Speed Relay | Convection Directional Relay | Convection Power Relay

FIG B



⚠ CAUTION

The convection circuit utilizes capacitors in its operation which can store a charge for long periods of time. Be sure to discharge the capacitors before servicing the convection components.

Main Control Board

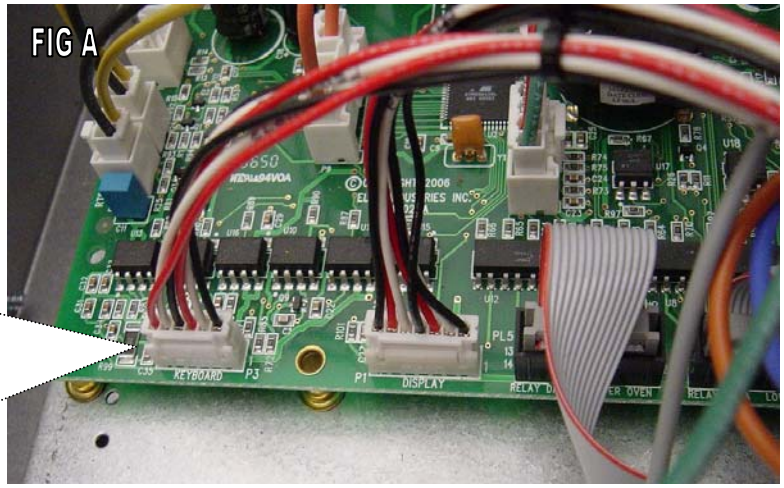
The operation of the oven is achieved by input from the control panel to the Main Control board. The main control board wills active the required relay on the relay board. The main control board senses the inputs from the RTD's, Hall sensors, door interlock switch, door lock position switch SW1 and SW2 and the Meat probe. The main control board is connected to the display board and the keyboard by the use of wire connections In a Molex disconnect plug. The Keyboard connection is a 6-wire connector while the display cable is a 7-wire connection.

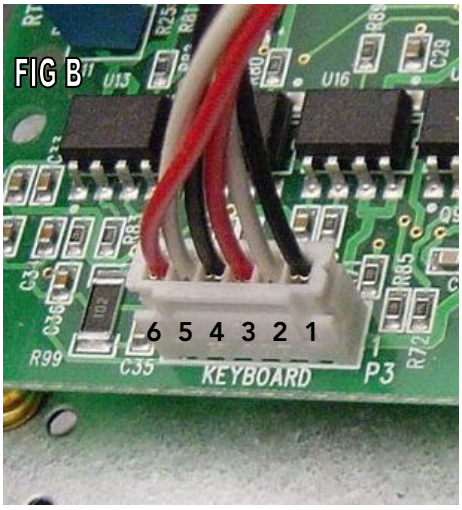
KEYBOARD

If you receive the KEYBOARD ERROR code or have an inoperative - erratic keyboard, first try to run the Individual Keyboard Test on Page 17 of this manual. If you are unable to run the test, check for the control voltages from the output of the Main Control Board. **FIG A** shows the location of the Keyboard connection on the Main Control Board. **FIG B** shows the Molex connection P3 close-up.

VOLTAGES

Pin (1) and Pin (2) +5 VDC
Pin (6) and Pin (5) +10 VDC





If the voltages are correct, unplug the Molex plug from both the main control board and the Keyboard and Ohm out the 6 wires in the cable. If the cables checks ok then replace the Keyboard assembly.

If the voltages are incorrect replace the Main Control Board.

Pin identifier

Pin 1 = Output – VCC, +5 Vdc supplied to the keyboard logic
Pin 2 = Output – Ground reference to the keyboard
Pin 3 = I ² C – Reset line
Pin 4 = I ² C – SCL (serial clock)
Pin 5 = I ² C – SDA (serial data)
Pin 6 = Output – V-Display (+10 Vdc supplied to the Keyboard backlight)

Main Control Board *(Continued)*

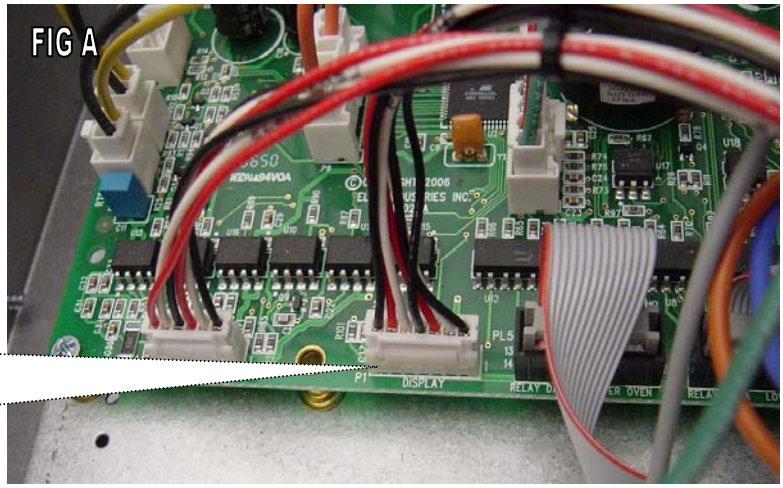
DISPLAY

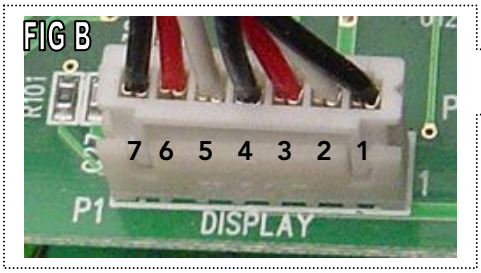
If you have an inoperative or erratic display, first try to run the Individual Display Test on Page 23 of this manual. If you are unable to run the test, check for the control voltages from the output of the Main Control Board. **FIG A** shows the location of the Display connection on the Main Control Board. **FIG B** shows the Molex connection P1 close-up.

VOLTAGES

Pin (1) and Pin (4) +5 VDC
Pin (1) and Pin (5) +5 VDC
Pin (1) and Pin (7) +5 VDC
Pin (2) and Pin (4) +5 VDC
Pin (2) and Pin (5) +5 VDC
Pin (2) and Pin (7) +5 VDC

Pin (4) and Pin (5) are Ground to display





If the voltages are correct, unplug the Molex plug from both the main control board and the display and Ohm out the 7 wires in the cable. If the cables checks ok then replace the display assembly.

If the voltages are incorrect replace the Main Control Board.

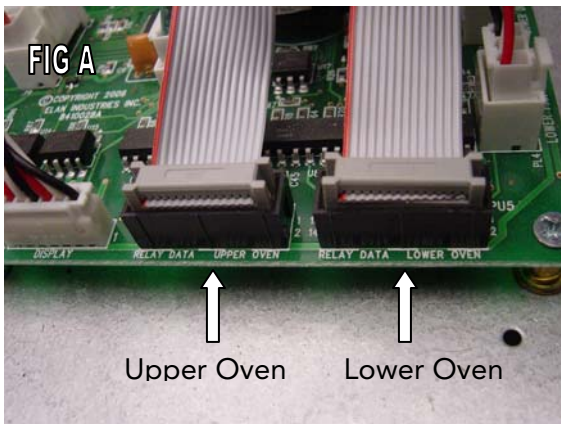
Pin identifier

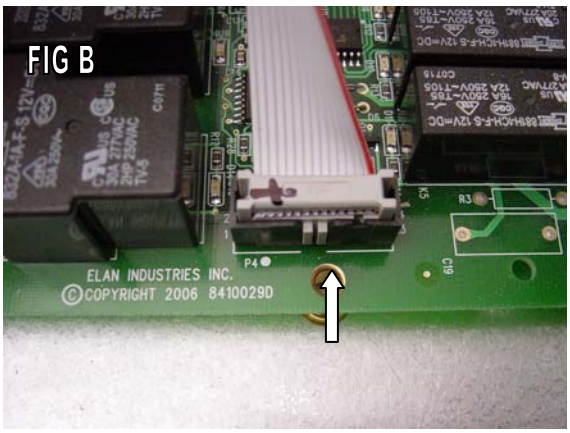
Pin 1 = Output – VCC power supplied to the display
Pin 2 = Output – VCC power supplied to the display
Pin 3 = N/C – Not used
Pin 4 = Output – Ground supplied to the display
Pin 5 = Output – Ground supplied to the display
Pin 6 = Output – Transmit data to the display
Pin 7 = Input – Receive data from the display

Relay Board – Main Control connections

Connection between Main Control Board

As described on the previous pages, the main logic resides in the Main Control board. When the oven receives an input from the end user, the Main control board will send a signal to the relay board for the appropriate action. The relay board is connected to the main control board via a 14-pin connector. **FIG A** shows the connection on the Main Control Board for the relay cable. **FIG B** shows the connection on P4 of the relay board from the Main Control board. If you receive the RELAY ERROR code during a cook cycle, check to make sure that the connection between the two boards is secure.





Pin identifier

Pin 1 = Input – Serial Data from Main Control Board
Pin 3 = Input – Data clock from Main Control Board
Pin 5 = Input – Start Enable from Main Control Board
Pin 7 = N/C – Not used
Pin 9 = Output – Serial data return from Main Control Board
Pin 11 = Input – Safety AC wiggler input from Main Control Board
Pin 13 = Input – Redundant Door lock Motor Driver signal from main Control Board

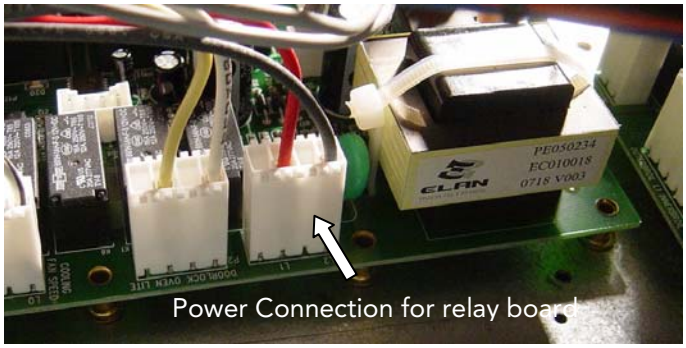
Pin 2-14 are tied to Ground

NOTE:
If the Main Control Board is replaced, make sure that you reconnect the proper connection cable from the proper relay board(s). If you reverse the connections on the double oven and start a cook cycle in one cavity, the other relay board will activate and the opposite oven will begin to heat. The cooling fan for the selected oven however will not operate. A COOLING FAN error will be displayed within 10 seconds. If you receive this error after changing a main Control Board, check to make sure of the proper connections.

Relay Board Operation

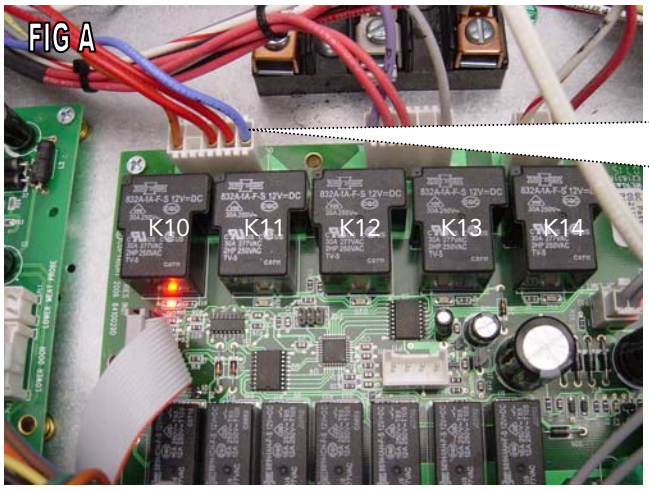
The previous page covered the connections between the Main Control Board and the Relay board. When a cook cycle is selected, the Relay for the required element and the Line break relay will energize. If you suspect a faulty or defective element or relay board, run the built-in diagnostics to test each individual element. All five elements (Four on some select models) can be checked individually in the test mode.

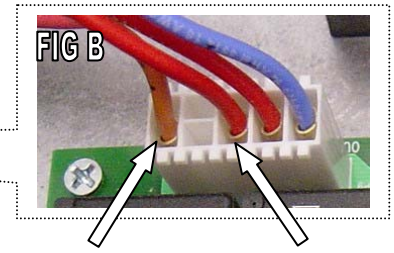
The relay board operates on a supply voltage of 240 volts. **FIG A** shows the main power connections to the relay board. If there is a problem with the relay board not operating, check for the proper voltage to the board before proceeding.



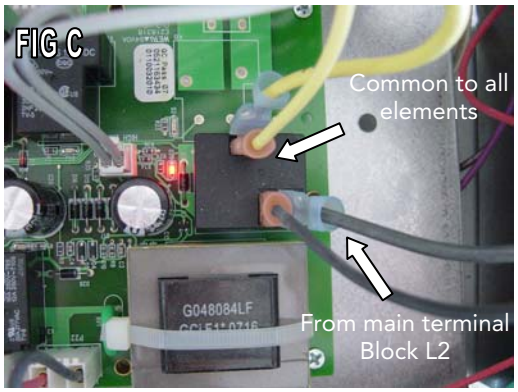
BAKE *(Inner)*

When the Main Control Board calls for the Inner Bake element, K10 is energized. **FIG A** shows the K10 relay activated. **FIG B** shows a close-up of the P9 connector. L1 (Red) comes into the P9 connection on the relay board. With the relay closed, L2 is sent to the inner Bake element. The Inner Bake element draws 6.25 amps.



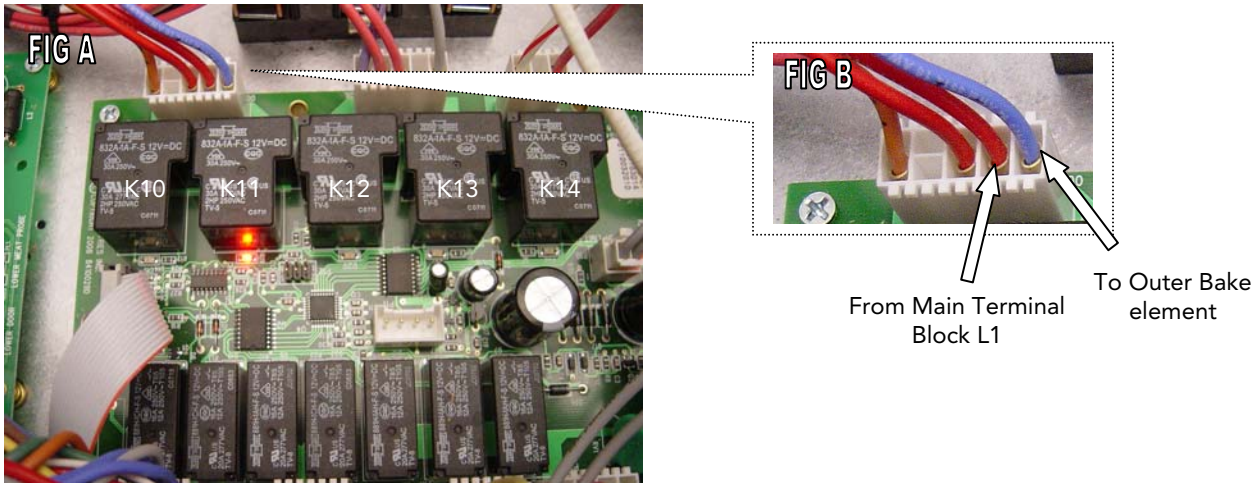


All the elements are supplied L2 (Black) through the Line break relay. FIG C shows the Line break relay activated. The yellow wire is the common L2 power to all the elements. The Black wire is from the Main Terminal block (L2). Place your amprobe on either the black or yellow wire to test the draw of the element



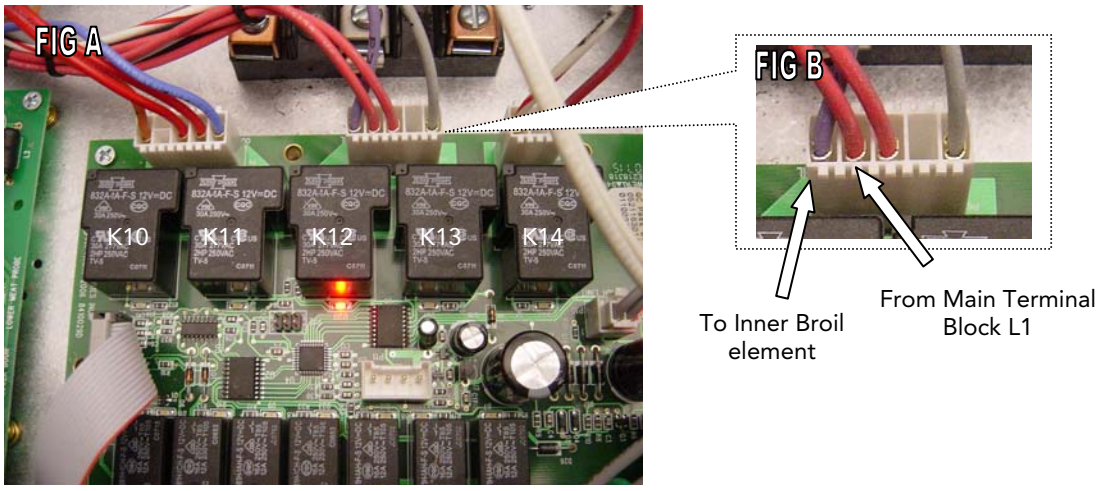
BAKE *(Outer)*

When the Main Control Board calls for the Outer Bake element, K11 is energized. **FIG A** shows the K11 relay activated. **FIG B** shows a close-up of the P9 connector. L1 (Red) comes into the P9 connection on the relay board. With the relay closed, L2 is sent to the Outer Bake element. The Outer Bake element draws 6.25 amps. As with the Inner Bake, the K17 line break relay must also close to provide L2 to the Outer bake element.



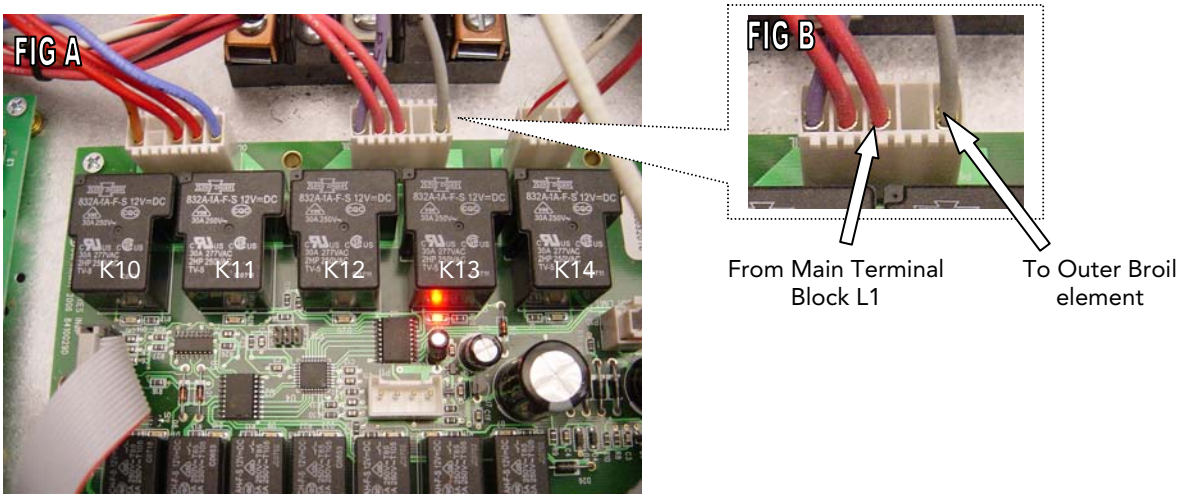
BROIL *(Inner)*

When the Main Control Board calls for the Inner Broil element, K12 is energized. **FIG A** shows the K12 relay activated. **FIG B** shows a close-up of the P6 connector. L1 (Red) comes into the P6 connection on the relay board. With the relay closed, L2 is sent to the Inner Broil element. The Inner Broil element draws 10.6 amps. As with the Outer Bake, the K17 line break relay must also close to provide L2 to the Inner Broil element.



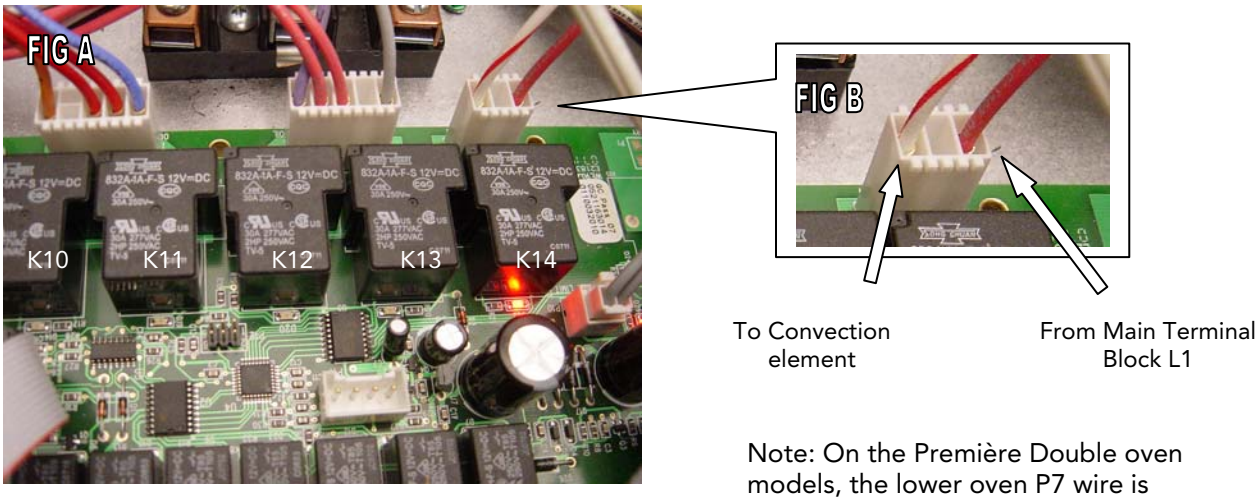
BROIL *(Outer)*

When the Main Control Board calls for the Outer Broil element, K13 is energized. **FIG A** shows the K13 relay activated. **FIG B** shows a close-up of the P6 connector. L1 (Red) comes into the P6 connection on the relay board. With the relay closed, L2 is sent to the Outer Broil element. The Outer Broil element draws 6 amps. As with the Inner Broil, the K17 line break relay must also close to provide L2 to the Outer Broil element.



CONVECTION

When the Main Control Board calls for the Convection element, K14 is energized. **FIG A** shows the K14 relay activated. **FIG B** shows a close-up of the P7 connector. L1 (Red) comes into the P7 connection on the relay board. With the relay closed, L2 is sent to the Convection element. The Convection element draws 11.5 amps. As with the Outer Broil, the K17 line break relay must also close to provide L2 to the Convection element.



Note: On the Première Double oven models, the lower oven P7 wire is white w/ green tracer

Door Interlock

The door interlock switch is connected to the main Control board in the same Molex Plug as is the SW1 and SW2 wires from the door interlock switch. **FIG A** and FIG B shows the Violet and Brown wires connected to the PU2 connection. On the double ovens, the lower interlock switch wires are connected to the PL2 connection.

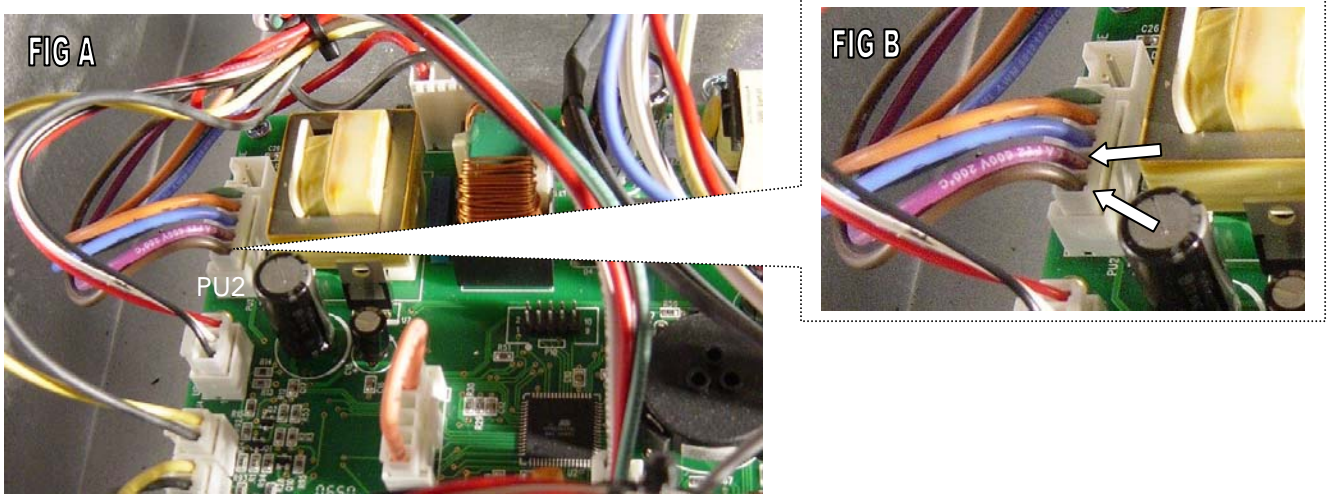
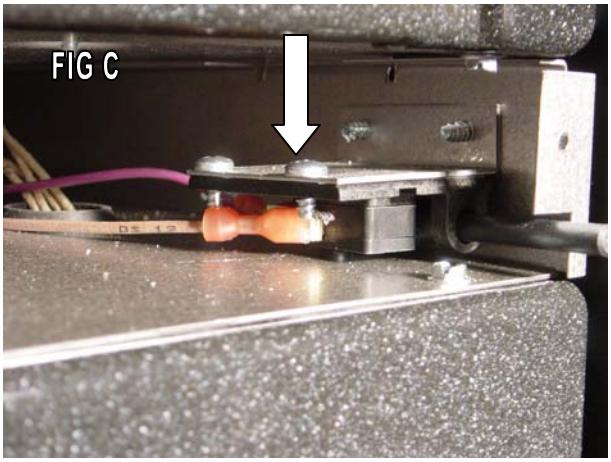
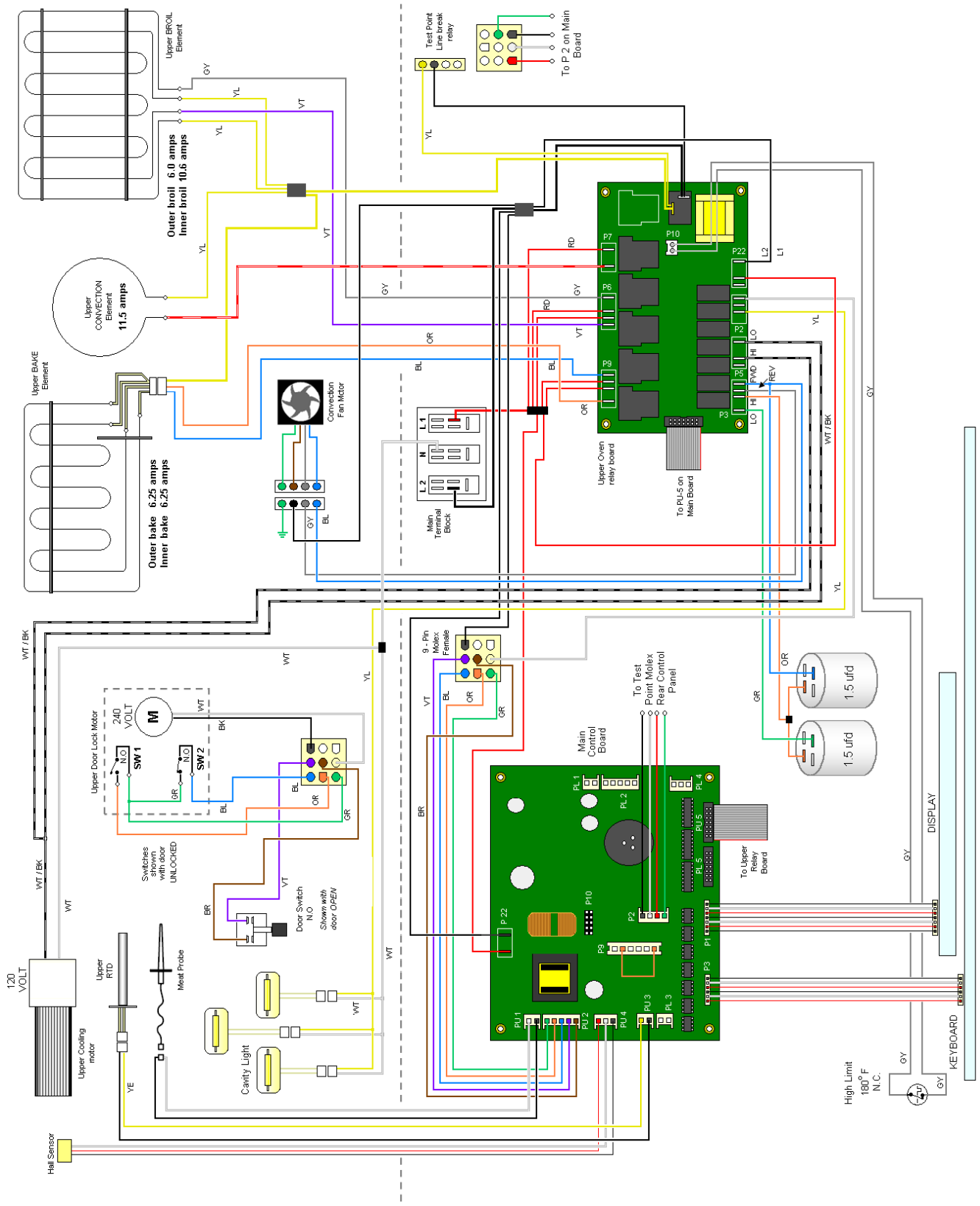


FIG C shows the lower oven door interlock switch. To test the switch, access the main Control board and unplug the Molex Plug from the Pu2 (upper) or PL2 (lower). Using an Ohm meter, open the door and check the circuit. You should read an open switch. Close the door and you should read 0 Ohms.

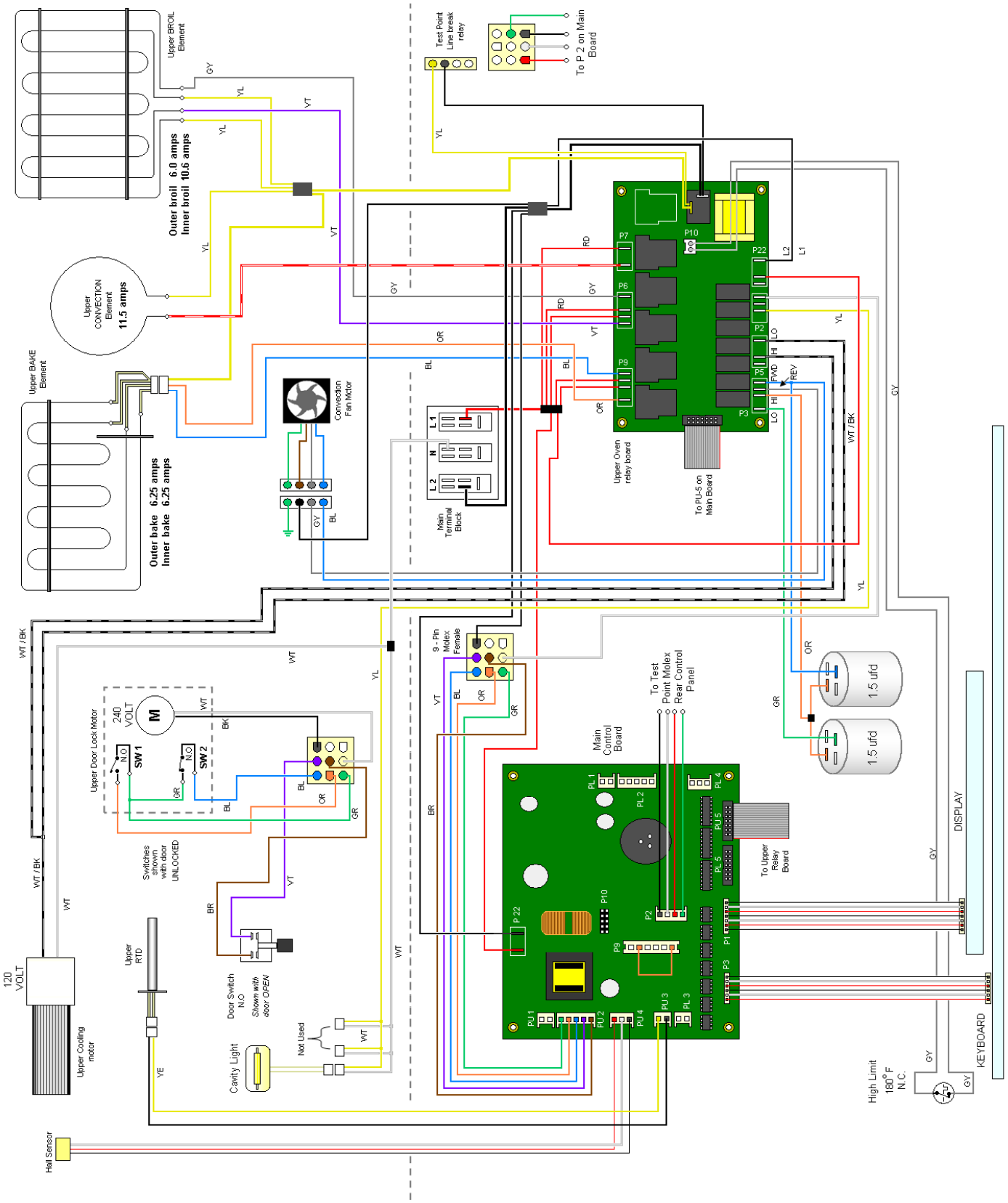


NOTE:

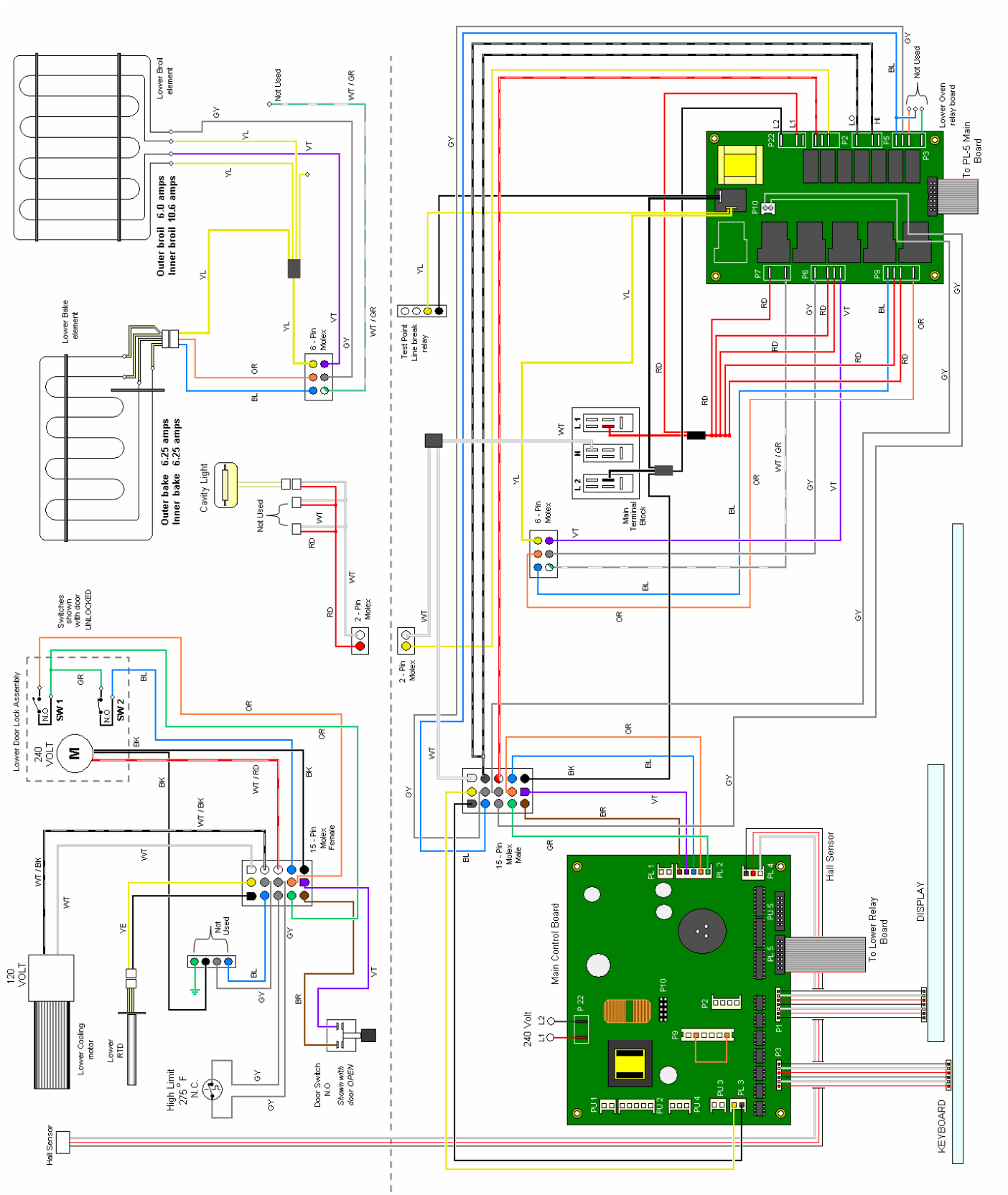
When set to the Sabbath Mode, the lights will not operate when the door is open nor will the heating elements or convection fan motor be interrupted.



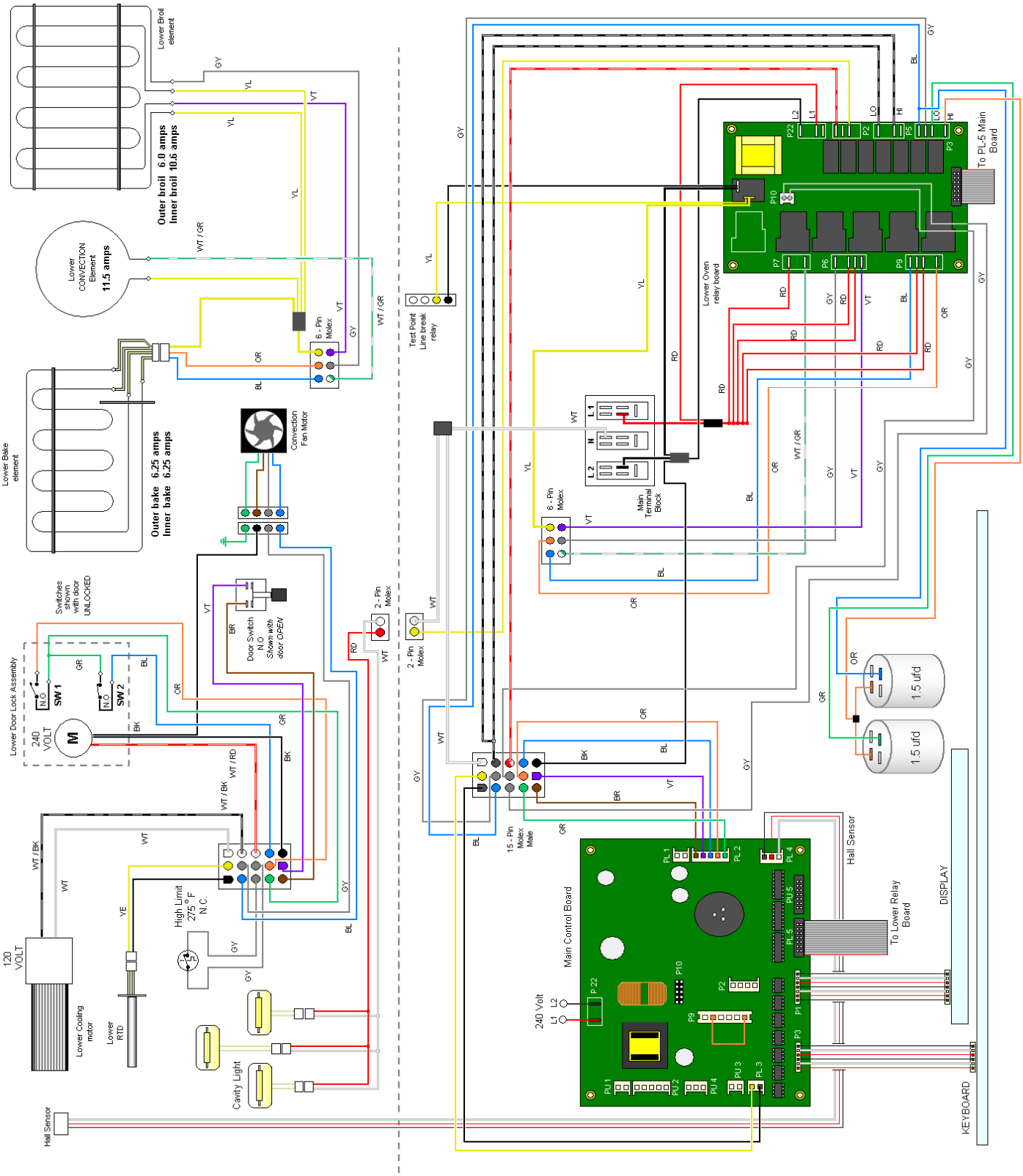
Wiring Diagram – Premiere Model - Single oven / Double Upper section



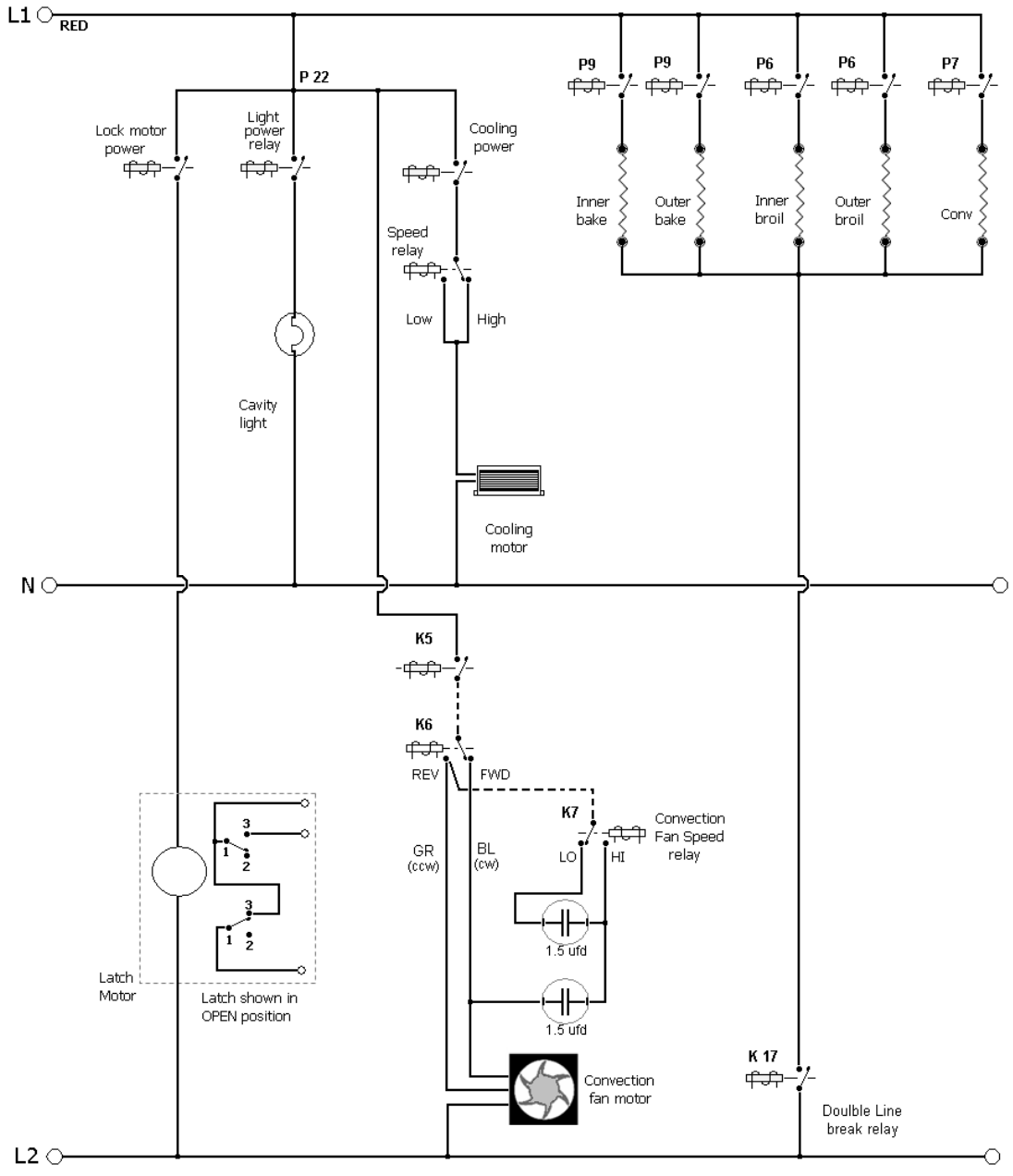
Wiring Diagram – Select Model - Single oven / Double Upper section



Wiring Diagram – Select Model - lower oven section

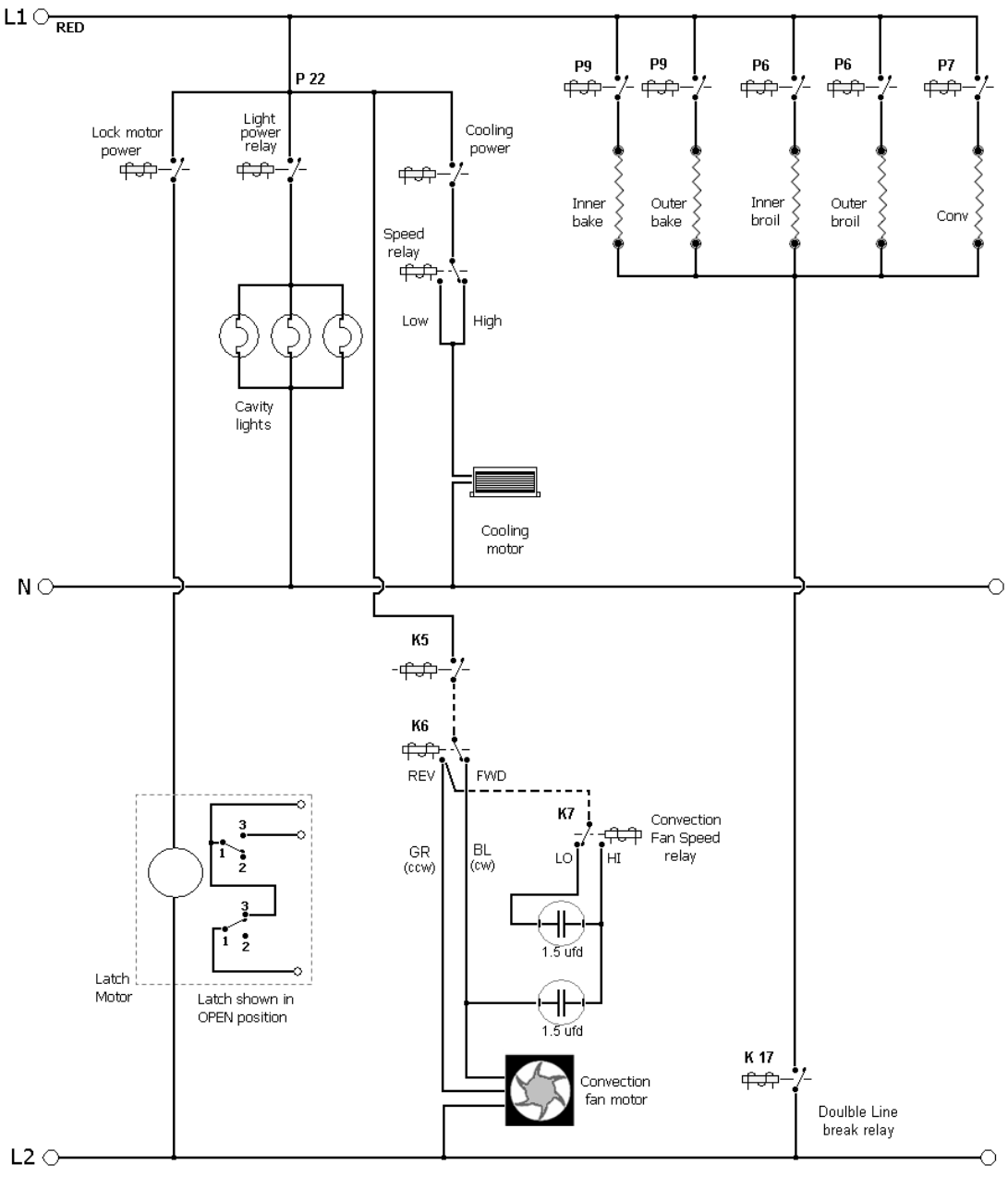


Wiring Diagram – Premiere Model - lower oven section



Schematic – Select single oven models:

DESO 127T
DESO 130T
VESO 127T
VESO 130T



Schematic – Premiere single oven models

DESO 527T
DESO 530T
VESO 527T
VESO 530T