GE Consumer & Industrial

Technical Service Guide

June 2008

27-in. Built-In Wall Ovens

> JKS10 JKP30 JKP35 JKP55 JKP70 JKP70 JKP70 PK916 PK956 ZEK938 ZEK958



31-9163



GE Appliances General Electric Company Louisville, Kentucky 40225



IMPORTANT SAFETY NOTICE

The information in this service guide is intended for use by individuals possessing adequate backgrounds of electrical, electronic, and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

WARNING

To avoid personal injury, disconnect power before servicing this product. If electrical power is required for diagnosis or test purposes, disconnect the power immediately after performing the necessary checks.

RECONNECT ALL GROUNDING DEVICES

If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

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Introduction

The new 27-in. wall ovens have superior style and performance. These ovens feature electronic controls that utilize the precision of modern digital technology. Additional features include:

- Convection Bake (Multi-Rack) Provides ideal convection baking for multiple racks of food, ensuring superb results
- Convection Roast Provides even cooking and consistent results, roasting meats up to 25% faster than a conventional oven
- Glass Touch Oven Controls Feature a smooth glass design that is both easy-to-operate and easy-to-clean
- Self-Clean Oven Conveniently cleans oven cavity without the need for scrubbing



Nomenclature

Model Number



Designates features-the higher the number, the more features.

Single Wall Oven



The nomenclature plate is located on the front left behind the oven door in both the single and double configurations.

The mini-manual is located in the control compartment. It is taped to the left side wall.

Serial Number

The first two characters of the serial number identify the month and year of manufacture. Example: AR123456S = January, 2008

	1.1	5
A - JAN	2008 - R	
D - FEB	2007 - M	
F - MAR	2006 - L	The letter designating
G - APR	2005 - H	the year repeats every
H - MAY	2004 - G	12 years.
L - JUN	2003 - F	
M - JUL	2002 - D	Example:
R - AUG	2001 - A	' Т 107/
S - SEP	2000 - Z	T - 1974 T - 1986
T - OCT	1999 - V	T - 1900 T - 1998
V - NOV	1998 - T	. 1990
Z - DEC	1997 - S	

Control Features

Models ZEK938 and ZEK958



Features 1 BAKE. Press to select the bake function.

- **2 BROIL HIGH/LOW.** Press to select the broil function.
- **3 CONV BAKE/MULTI.** Press to select baking with convection on multiple racks.
- 4 **CONV BAKE**/1 **RACK.** Press to select baking with convection on one rack.
- **5 CONV ROAST.** Press to select roasting with convection.
- 6 WARM/PROOF. Press once for warming or twice for proofing. See the How to Set the Oven for Warming section and the How to Set the Oven for Proofing section.
- **7 START.** Must be pressed to start any cooking or cleaning function.
- 8 **DISPLAY.** Shows the operations you have selected, the time of day and the cooking or cleaning status.

If "F – and a number or letter" flash in the display and the oven control signals, this indicates function error code. Press the CLEAR/OFF pad. Allow oven to cool for one hour. Put the oven back into operation. If function error code repeats, disconnect power to the oven and call for service.

- **9 COOK TIME.** Use for Timed Bake, Timed Convection Bake and Timed Convection Roast operations.
- **10 DELAY START.** Use along with the **COOK TIME** or **SELF CLEAN STD/LOW** pads to set the oven to start and stop automatically at a time you select.
- **11 SELF CLEAN STD/LOW.** Press to select the self-cleaning function. See the Using the Self-Cleaning Oven section.
- **12 PROBE.** Press when using the probe to cook food.
- **13 OVEN LIGHT ON/OFF.** Press to turn the oven lights on or off.
- 14 CLEAR/OFF. Press to cancel any oven operation except the clock and timer.
- **15 TIMER ON/OFF.** Press to select the timer function. The timer does not control oven operations. The timer can time up to 9 hours and 59 minutes.
- 16 NUMBER PADS. Use to set any function requiring numbers—for example, the time of day on the clock, the timer, the oven temperature, the internal food temperature, the starting and length of cooking time for Timed Bake and the starting and length of cleaning time for Self-Clean.
- 17 CLOCK. Press to enter the time of day.
- **Tones** The control has a series of tones that will sound at different times. These tones may sound while you set the control for an oven function or at the end of the oven function. They will also alert you when an incorrect time or temperature has been entered or if there is a problem with the oven.

When you press a touch pad, you will hear a beep. This beep will let you know you have placed enough pressure on the pad to activate it. When you set an oven temperature, the oven automatically starts to heat. When the temperature inside the oven reaches your set temperature, a tone will sound to let you know to place the food in the oven.

An attention tone will sound if you set an invalid function or try to set an additional function. The tone can be quickly identified by watching the display messages.



Double oven control shown.

Oven Control, Clock and Timer Features and Settings

Bake Pad

Broil Hi/Lo Pad

Press to select the bake function.



Press to select the broil function. *Convection Bake Pad*

Press to select baking with the convection function.

Convection Roast Pad

Press to select roasting with the convection function.

Start Pad

Must be pressed to start any cooking or cleaning function.



Display

Shows the time of day, oven temperature, whether the oven is in the bake, broil or self-cleaning mode and the times set for the timer or automatic oven operations.

If "F– and a number or letter" flash in the display and the oven control signals, this indicates a function error code. Press the Clear/Off pad. Allow the oven to cool for one hour. Put the oven back into operation. If the function error code repeats, disconnect the power to the oven and call for service.

If your oven was set for a timed oven operation and a power outage occurred, the clock and all programmed functions must be reset.

The time of day will flash in the display when there has been a power outage.



Self Clean Std/Low Pad Press to select self-cleaning function. See the Using the self-cleaning oven section.



Oven Light On/Off Pad Press to turn the oven light on or off.



Delay Start Pad

Use along with **Cooking Time** or **Self Clean Std/Low** pads to set the oven to start and stop automatically at a time you set.



Cooking Time Pad

Press and then press the number pads to set the amount of time you want your food to cook. The oven will shut off automatically when the cooking time has run out, unless the Cook and Hold feature was set.



Clear/Off Pad

Press to cancel **ALL** oven operations except the clock and timer.



Clock Pad

Press before setting the clock.

Number Pads

Use to set any function requiring numbers such as the time of day on the clock, the timer, the oven temperature, the internal food temperature, the start time and length of operation for timed baking and self-cleaning.



Kitchen Timer On/Off Pad Press to select the timer feature.





Probe Pad





Press to select a warm environment useful for rising yeast-leavened products.

Press when using the probe to cook food.

Throughout this manual, features and appearance may vary from your model.



Double oven control shown.

Oven Control, Clock and Timer Features and Settings

Bake Pad

Press to select the bake function.

Broil Hi/Lo Pad Press to select the broil function.

Convection Bake Pad

Press to select baking with the convection function.

Convection Roast Pad

Press to select roasting with the convection function.

Start Pad

Must be pressed to start any cooking or cleaning function.

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Display Shows the time of day, oven temperature, whether the oven is in the bake, broil or

self-cleaning mode and the times set for the timer or automatic oven operations.

If "F- and a number or letter" flash in the display and the oven control signals, this indicates a function error code. Press the Clear/Off pad. Allow the oven to cool for one hour. Put the oven back into operation. If the function error code repeats, disconnect the power to the oven and call for service.

If your oven was set for a timed oven operation and a power outage occurred, the clock and all programmed functions must be reset.

The time of day will flash in the display when there has been a power outage.

Self Clean Pad

Press to select self-cleaning function. See the *Using the self-cleaning oven* section.



Oven Light On/Off Pad Press to turn the oven light on or off.



Delay Start Pad

Use along with *Cooking Time* or *Self Clean* pads to set the oven to start and stop automatically at a time you set.



Cooking Time Pad

Press and then press the number pads to set the amount of time you want your food to cook. The oven will shut off automatically when the cooking time has run out, unless the Cook and Hold feature was set.



Clear/Off Pad

Press to cancel **ALL** oven operations except the clock and timer.



13

Clock Pad

Press before setting the clock.



Use to set any function requiring numbers such as the time of day on the clock, the timer, the oven temperature, the internal food temperature, the start time and length of operation for timed baking and self-cleaning.



Kitchen Timer On/Off Pad

Press to select the timer feature.



Throughout this manual, features and appearance may vary from your model.



Double oven control shown

Oven Control, Clock and Timer Features and Settings

Bake Pad

- Press this pad to select the bake function. *Broil Hi/Lo Pad*
- Press this pad to select the broil function.

Self Clean Pad

Press this pad to select the self-cleaning function. See the *Using the self-cleaning oven* section.

Start Pad

Must be pressed to start any cooking or cleaning function.

Display

Shows the time of day, oven temperature, whether the oven is in the bake, broil or selfcleaning mode and the times set for the timer or automatic oven operations.

If "F—and a number or letter" flash in the display and the oven control signals, this indicates a function error code. Press the Clear/Off pad. Allow the

oven to cool for one hour. Put the oven back into operation. If the function error code repeats, disconnect the power to the oven and call for service.

If your oven was set for a timed oven operation and a power outage occurred, the clock and all programmed functions must be reset.

The time of day will flash in the display when there has been a power outage.

Oven Light On/Off Pad Press this pad to turn the oven light on or off.

Delay Start Pad



Use along with **Cooking Time** or **Self Clean** pads to set the oven to start and stop automatically at a time you set.

- Cooking Time Pad
- Press this pad and then press the **Hour** and **Min +** and – pads to set the amount of time you want your food to cook. The oven will shut off automatically when the cooking time has run out unless the Cook and Hold feature was set.



Clear/Off Pad

Press this pad to cancel **ALL** oven operations except the clock and timer.

Temp + and – Pads Press these pads to set the cooking temperature you want to use.



- Press this pad before setting the clock.
- Hour and Min + and Pads
 - Press these pads to set times up to 9 hours and 59 minutes—for example, the time of day on the clock, the timer, the starting and length of cooking time for timed bake and the starting and length of cleaning time for self-clean.
 - *Kitchen Timer On/Off Pad* Press this pad to select the timer feature.

Lower Oven Control Settings on models with a knob

OVEN Knob

Turn this knob to the temperature setting you want.



The Oven Cycle light glows until the oven reaches your selected temperature, then goes off and on with the oven element(s) during cooking.

Lower Oven Control



Display

Shows the time of day, oven temperature, whether the oven is in the bake, broil or self-cleaning mode and the times set for the timer or automatic oven operations.

NOTE: The time on the lower oven display is shown in hours and minutes (1:30 is one hour, 30 minutes). On the microwave oven, time is shown in minutes and seconds (1:30 is one minute, 30 seconds).

If "F- and a number or letter" flash in the display and the oven control signals, this indicates a function error code. Press the Clear/Off pad. Allow the oven to cool for one hour. Put the oven back into operation. If the function error code repeats, disconnect the power to the oven and call for service.

If your oven was set for a timed oven operation and a power outage occurred, the clock and all programmed functions must be reset.

The time of day (may be incorrect) will flash in the display when the there has been a power outage.



Broil Hi/Lo Pad

Press to select the broil function.



Bake Pad

Press to select the bake function.



Self Clean Pad

Press to select the self-cleaning function. See the *Using the self-cleaning lower oven* section.



Oven Light Pad

Press to turn the oven light on or off.



Number Pads

Use to set any function requiring numbers such as the time of day on the clock, the timer, the oven temperature, the start time and length of operation for timed baking and self-cleaning.





Clear/Off Pad

Press to cancel **ALL** oven operations except the clock and timer.



Start Pad

Must be pressed to start any cooking or cleaning function.



Kitchen Timer On/Off Pad

Press to select the timer feature.



Delay Start Pad

Use along with *Cooking Time* or *Self Clean* pads to set the oven to start and stop automatically at a time you set.



Cooking Time Pad

Press and then press the number pads to set the amount of time you want your food to cook. The oven will shut off automatically when the cooking time has run out, unless the Cook and Hold feature was set.



Clock Pad

Press before setting the clock.





How to Set the Oven for Baking or Roasting

- Press the **Bake** pad. 1
- On models with number pads, press 2 them in order to set the desired temperature.

On models with *Temp +* and – pads, press them to increase or decrease the set desired temperature.

- Press the **Start** pad. 3
- Check food for doneness at minimum 4 time on recipe. Cook longer if necessary.
- Press the Clear/Off pad when cooking is 5 complete.

NOTE: On some models, the lower oven is controlled with a knob. To set the oven for baking, turn the knob to the desired setting or temperature. Turn the knob to OFF when baking is complete.



Close the door. Always broil with the door closed.

If your oven is connected to 208 volts, rare steaks may be broiled by preheating the broiler and positioning the oven rack one position higher.

How to Set the Oven for Broiling

Close the door. Always broil with the door closed.



Place the meat or fish on a broiler grid in a broiler pan.



The size, weight, thickness, starting temperature and your preference of doneness will affect broiling times. This guide is based on meats at refrigerator temperature.

- Press the **Broil Hi/Lo** pad once for 3 HI Broil. To change to *LO Broil*, press the Broil Hi/Lo pad again.
- Press the Start pad. 4
- When broiling is finished, press the 5 Clear/Off pad.

NOTE: On some models, the lower oven is controlled with a knob. To set the oven for broiling, turn the knob to BROIL. Turn the knob to OFF when broiling is complete.



Make sure the clock is set to the

correct time of day.

To Set the Clock

The clock must be set to the correct time of day for the automatic oven timing functions to work properly. The time of day cannot be changed during a timed baking or self-cleaning cycle.

- Press the Clock pad.
- On models with number pads, press 2 them in order to set the correct time of day.

On models with *Hour* and *Min* + and – pads, press them to set the correct time of day.

Press the **Start** pad. 3



The timer is a minute timer only The timer does not control oven operations. The maximum setting on the timer is 9 hours and 59 minutes.

To Set the Timer

Press the Kitchen Timer On/Off pad. 1

On models with number pads, press them until the amount of time you want shows in the display. For example, to set 2 hours and 45 minutes, press 2, 4 and 5 in that order.

On models with *Hour* and *Min* + and - pads, press them until the amount of time you want shows in the display. The maximum time you can enter in minutes is 59. Cooking times more than 59 minutes should be changed to hours and minutes. For example, enter 90 minutes as 1 hour, 30 minutes.

If you make a mistake, press Kitchen Timer On/Off and begin again.

Press the **Start** pad. .3

After pressing the Start pad, SET disappears; this tells you the time is counting down, although the display does not change until one minute has passed. Seconds will not be shown in the display until the last minute is counting down.

When the timer reaches *:00*, the 4 control will beep 3 times followed by one beep every 6 seconds until the Kitchen Timer On/Off pad is pressed.

The 6-second tone can be canceled by following the steps in the Special features of your oven control section under Tones at the End of a Timed Cycle.

To Reset the Timer

If the display is still showing the time remaining, you may change it by pressing the Kitchen Timer On/Off pad, then press the number pads (on some models) or the *Hour* and *Min +* or – pads (on some models) until the time you want appears in the display.

If the remaining time is not in the display (clock, delay start or cooking time are in the display), recall the remaining time by pressing the Kitchen Timer On/Off pad and then pressing the number pads (on some models) or the *Hour* and *Min* + or – pads (on some models) to enter the new time you want.

To Cancel the Timer

Press Kitchen Timer On/Off pad twice.



2

Using the probe.

For many foods, especially roasts and poultry, internal food temperature is the best test for doneness. The temperature probe takes the guesswork out of roasting by cooking foods to the exact doneness you want.



The temperature probe has a skewer-like probe at one end and a plug at the other end that goes into the outlet in the oven.

NOTE: Double oven models have a probe in the upper oven only.

Use of probes other than the one provided with this product may result in damage to the probe.

Use the handles of the probe and plug when inserting and removing them from the meat and outlet.

- To avoid damaging your probe, do not use tongs to pull on the cable when removing it.
- To avoid breaking the probe, make sure food is completely defrosted before inserting.

After preparing the meat and placing it on a trivet or on a broiler pan grid, follow these directions for proper probe placement.

- Lay the probe on the outside of the meat along the top or side and mark with your finger where the edge of the meat comes to on the probe. The point should rest in the center of the thickest meaty part of the roast.
- Insert the probe completely into the 2 meat, up to the handle. It should not touch bone, fat or gristle.

Cable Pluo Probe Handles

- To prevent possible burns, do not unplug the probe from the outlet until the oven has cooled
- Never leave your probe inside the oven during a self-cleaning cycle.
- Do not store the probe in the oven.

For roasts with no bone, insert the probe into the meatiest part of the roast. For bone-in ham or lamb, insert the probe into the center of the lowest large muscle or joint.

Insert the probe into the center of dishes such as meat loaf or casseroles. When cooking fish, insert the probe from just above the gill into the meatiest area, parallel to the backbone.

Insert the probe into the meatiest part of the inner thigh from below and parallel to the leg of a whole turkey.



How to Set the Oven For Roasting When Using the Probe

- Insert the probe into the meat. 1
- Plug the probe into the outlet in the 2 oven. Make sure it's pushed all the way in. Close the oven door.
- Press the **Probe** pad. 3
- Press the number pads to set the 4 desired internal food or meat temperature. The maximum internal temperature for the food that you can set is 200°F.
- Press the **Bake** pad. 5
- Press the number pads to set the 6 desired oven temperature.
- Press the Start pad.

The display will flash if the probe is inserted into the outlet and you have not set a probe temperature and pressed the Start pad.

When the oven starts to heat, the word **LO** will be in the display.

After the internal temperature of the meat reaches 100°F, the changing internal temperature will be shown in the display.

When the internal temperature of 8 the meat reaches the number you have set, the probe and the oven turn off and the oven control signals. To stop the signal, press the Clear/Off pad. Use hot pads to remove the probe from the food. Do not use tongs to pull on itthey might damage it.

To change the oven temperature during the Roast cycle, press the **Bake** pad and then the number pads to set the new temperature.

- If the probe is removed from the food before the final temperature is reached, a tone will sound and the display will flash until the probe is removed from the oven.
- You can use the timer even though you cannot use timed oven operations.



For best results when roasting large turkeys and roasts, we recommend using the probe included in the convection oven.



How to Set the Oven for Convection Roasting when Using the Probe

The display will flash **PROBE** and the oven control will signal if the probe is inserted into the outlet, and you have not set a probe temperature and pressed the **Start** pad.

- Place the rack in the lowest position (A). Insert the probe into the meat.
- Plug the probe into the outlet in the oven. Make sure it is pushed all the way in. Close the oven door.

3 Press the **Convection Roast** pad.

Press the number pads to set the desired oven temperature.

- $\boxed{5}$ Press the **Probe** pad.
- B Press the number pads to set the desired internal meat temperature.
- Press the **Start** pad.

When the oven starts to heat, the word *LO* will be in the display.

After the internal temperature of the meat reaches 100°F, the changing internal temperature will be shown in the display.

When the internal temperature of the meat reaches the number you have set, the probe and the oven turn off and the oven control signals. To stop the signal, press the *Clear/Off* pad. Use hot pads to remove the probe from the food. Do not use tongs to pull on it—they might damage it.

CAUTION: To prevent possible burns, do not unplug the probe from the oven outlet until the oven has cooled. Do not store the probe in the oven.

NOTE:

- If the probe is removed from the food before the final temperature is reached, a tone will sound and the display will flash until the probe is removed from the oven.
- You will hear a fan while cooking with this feature. The fan will stop when the door is opened, but the heat will not turn off.
- You can use the timer even though you cannot use timed oven operations.
- On double oven models, you will not be able to use the probe in the upper oven during timed oven operations. This is because, with the probe, you are cooking by temperature rather than time.



Convection Bake

NOTE: The convection fan will cycle on and off while cooking to best distribute hot air in the oven.

The convection oven fan shuts off when the oven door is opened. DO NOT leave the door open for long periods of time while using convection cooking or you may shorten the life of the convection heating element.

In a convection oven, a fan circulates hot air over, under and around the food.

This circulating hot air is evenly distributed throughout the oven cavity. As a result, foods are evenly cooked and browned—often in less time with convection heat.

- Ideal for evenly browned baked foods cooked on multiple racks.
- Good for large quantities of baked foods.
- Good results with cookies, biscuits, muffins, brownies, cupcakes, cream puffs, sweet rolls, angel food cake and bread.

The convection fan circulates the heated air evenly over and around the food.



Multi-rack position

Multi-Rack Convection Baking

When convection baking with only 1 rack, follow the rack positions recommended in the Using the oven section.

Because heated air is circulated evenly throughout the oven, foods can be baked with excellent results using multiple racks.

Multi-rack baking may increase cook times slightly for some foods but the overall result is time saved. Cookies, muffins, biscuits and other quickbreads give very good results with multi-rack baking. *For 30" Ovens:* When baking on 3 racks, place one rack in the second (B) position, one in the fourth (D) position and one in the sixth (F) position.

For two-rack baking, place one rack in the second (B) rack position. Place the other rack in the fourth (D) rack position.

For 27" Ovens: When baking on 3 racks, place one rack in the first (A) position, one in the third (C) (offset) position and one in the fourth (D) position.

For two-rack baking, place one rack in the first (A) rack position. Place the other rack in the third (C) rack position.

C	ONVECTION BAKE	OR	CONVECTION	ON T
1	2 7	3 8	4	5
		Start		
		<u>Clear</u> Off		

How to Set the Oven for Convection Baking or Roasting

- Press the **Convection Bake** pad or the **Convection Roast** pad.
- Press the number pads to set the desired oven temperature.
- **3** Press the **Start** pad.

To change the oven temperature, press the **Convection Bake** or **Convection Roast** pad and then the number pads to set the new temperature. When the oven starts to heat, the changing temperature, starting at 100°F, will be displayed. When the oven reaches the temperature you set, 3 beeps will sound.

- Press the **Clear/Off** pad when finished.
- You will hear a fan while cooking with convection. The fan will stop when the door is opened, but the heat will not turn off.
- You may hear the oven clicking during baking. This is normal.

Using the timed features for convection cooking.

On double oven models, you can use timed baking or roasting in one oven while using self-clean in the other; you can also use timed baking or roasting in both ovens at the same time.

You will hear a fan while cooking with these features. The fan will stop when the door is opened, but the heat will not turn off.

NOTE: Foods that spoil easily—such as milk, eggs, fish, stuffings, poultry and pork—should not be allowed to sit for more than 1 hour before or after cooking. Room temperature promotes the growth of harmful bacteria. Be sure that the oven light is off because heat from the bulb will speed harmful bacteria growth.



How to Set an Immediate Start and Automatic Stop

The oven will turn on immediately and cook for a selected length of time. At the end of the cooking time, the oven will turn off automatically.

Make sure the clock shows the correct time of day.

- Press the **Convection Bake** or **Convection Roast** pad.
- Press the number pads to set the desired oven temperature.
- **3** Press the **Cooking Time** pad.

NOTE: If your recipe requires preheating, you may need to add additional time to the length of the cooking time.

Press the number pads to set the desired length of cooking time. The minimum cooking time you can set is 1 minute. The oven temperature that you set and the cooking time that you entered will be in the display.

Press the **Start** pad.

The display will show the changing temperature (starting at 100°F) and the cooking time. The display starts changing once the temperature reaches 100°F.

NOTE: On double oven models, when using both ovens at the same time, the times showing in the display will be for the last oven set. To display the time set for the first oven set, press the **Cooking Time** pad for that oven.

The oven will continue to cook for the programmed amount of time, then shut off automatically, unless the Cook and Hold feature was set. See the *Special features of your oven control* section.

C Press the *Clear/Off* pad to clear the display if necessary. Remove the food from the oven. Remember, even though the oven shuts off automatically, food left in the oven will continue cooking after the oven turns off.

How to Set a Delayed Start and Automatic Stop

You can set the oven control to delay-start the oven, cook for a specific length of time and then turn off automatically.

Make sure the clock shows the correct time of day.

- Press the **Convection Bake** or **Convection Roast** pad.
- Press the number pads to set the desired oven temperature.
- **3** Press the **Cooking Time** pad.

NOTE: If your recipe requires preheating, you may need to add additional time to the length of the cooking time.

- Press the number pads to set the desired cooking time.
- **5** Press the **Delay Start** pad.
- *b* Press the number pads to set the time of day you want the oven to turn on and start cooking.

If you would like to check the times you have set, press the **Delay Start** pad to check the start time you have set, or press the **Cooking Time** pad to check the length of cooking time you have set.

7 Press the **Start** pad.

NOTE: An attention tone will sound if you are using timed baking or roasting and do not press the **Start** pad after entering the baking or roasting temperature.

When the oven turns on at the time of day you have set, the display will show the changing temperature (starting at 100°F) and the cooking time. The display starts changing once the temperature reaches 100°F.

NOTE: On double oven models, when using both ovens at the same time, the times showing in the display will be for the last oven set. To display the time set for the first oven set, press the **Delay Start** or **Cooking Time** pad for that oven.

The oven will continue to cook for the programmed amount of time, then shut off automatically, unless the Cook and Hold feature was set. See the *Special features of your oven control* section.

Press the *Clear/Off* pad to clear the display if necessary. Remove the food from the oven. Remember, even though the oven shuts off automatically, food left in the oven will continue cooking after the oven turns off.



Adjust the oven thermostat—Do it yourself!

You may find that your new oven cooks differently than the one it replaced. Use your new oven for a few weeks to become more familiar with it. If you still think your new oven is too hot or too cold, you can adjust the thermostat yourself.

Do not use thermometers, such as those found in grocery stores, to check the temperature setting of your oven. These thermometers may vary 20–40 degrees.

NOTE: This adjustment will only affect baking and roasting temperatures; it does not affect broiling, convection or self-cleaning temperatures. The adjustment will be retained in memory after a power failure.



To Adjust the Oven Thermostat (on some models)

- Press the **Bake** and **Broil Hi/Lo** pads (on double oven models, use the **upper** oven controls) at the same time for 3 seconds until the display shows **SF**. Then proceed with steps 2 through 4, using the pads for the upper or lower oven.
- Press the **Bake** pad. A two-digit number shows in the display.

On models with number pads, press **Bake** again to alternate between increasing and decreasing the oven temperature. *3* The oven temperature can be adjusted up to (+) 35°F hotter or (-) 35°F cooler. On models with number pads, press them the same way you read them. For example, to change the oven temperature 15°F, press 1 and 5.

On models with *Temp +* and – pads, press them to increase or decrease the temperature in 1 degree increments.

When you have made the adjustment, press the **Start** pad to go back to the time of day display. Use your oven as you would normally.



Turn the disk counterclockwise to increase the oven temperature.



Turn the disk clockwise to decrease the oven temperature.

To Adjust the Oven Thermostat (on some models)

Pull the **OVEN** knob off the shaft, look at the back of the knob and note the current setting before making any adjustment. The knob is factory set with the top screw directly under the pointer.



Loosen both screws on back of the knob.

3 Hold both parts of the knob as shown in the illustration of the back of the **OVEN** knob and turn so the lower screw moves in the desired direction.

You will hear and feel the notches as you turn the knob. Each notch changes temperature about 10° Fahrenheit.

4 Tighten the screws.



Return the **OVEN** knob to the oven.

Re-check oven performance before making any additional adjustments.

The oven door must be closed and all controls must be set correctly for the cycle to work properly.



Wipe up heavy soil on the oven bottom. (appearance may vary)

Before a Clean Cycle

We recommend venting your kitchen with an open window or using a ventilation fan or hood during the first self-clean cycle.

Remove any broiler pan, broiler grid, all cookware and any aluminum foil from the oven.

The oven racks can be self-cleaned, but they will darken, lose their luster and become hard to slide.

Do not use abrasives or oven cleaners. Clean the top, sides and outside of the oven door with soap and water.

Make sure the oven light bulb cover (on some models) is in place and the oven light is off.

IMPORTANT: The health of some birds is extremely sensitive to the fumes given off during the self-cleaning cycle of any oven. Move birds to another well ventilated room.

- On models with press pad controls for both ovens, you can set a clean cycle in both ovens at the same time. The last oven set will automatically delay its start until the end of the first oven's clean cycle.
- On models with press pad controls for both ovens, you can use timed baking in one oven and self-clean the other at the same time.
- On models with a knob, the lower oven does not have the self-clean feature.

CAUTION: Never place cooking utensils or any other items on the oven floor. There is a heating element beneath the oven floor. Placing items on the oven floor may cause the oven to overheat, resulting in damage to the oven and risk of damage or fire to cabinets.

(epending on model)

How to Set the Oven for Cleaning

Press the **Self Clean** pad once for a 4-hour*clean time or twice for a 3-hour clean time.

> A 3-hour self-clean time is recommended for use when cleaning small, contained spills. A self-clean time of 4 hours or longer is recommended for a dirtier oven.

If a time other than 4 hours or 3 hours is needed, use the number pads (on some models) or the *Hour* and *Min* + or − pads (on some models) and enter the desired clean time.

You can change the clean time to any time between 3 hours and 5 hours, depending on how dirty your oven is.

[.3] Press the **Start** pad.

The door locks automatically. The display will show the clean time remaining. It will not be possible to open the oven door until the temperature drops below the lock temperature and the **LOCKED** light goes off. When the *LOCKED* light goes off, you will be able to open the door.

- The word *LOCK* will flash and the oven control will signal if you set the clean cycle and forget to close the oven door.
- To stop a clean cycle, press the *Clear/Off* pad. When the *LOCKED* light goes off indicating the oven has cooled below the locking temperature, you will be able to open the door.

^{* 5} hours on some models

Your new press pad control has additional features that you may choose to use. The following are the features and how you may activate them.

The special feature modes can only be activated while the display is showing the time of day. They remain in the control's memory until the steps are repeated.

When the display shows your choice, press the **Start** pad. The special features will remain in memory after a power failure, except for the Sabbath feature, which will have to be reset.



12-Hour Shut-Off

With this feature, should you forget and leave the oven on, the control will automatically turn off the oven after 12 hours during baking functions or after 3 hours during a broil function.

If you wish to turn *OFF* this feature, follow the steps below.

Press the **Bake** and **Broil Hi/Lo** pads (on double oven models, use the **upper** oven controls) at the same time for 3 seconds until the display shows **SF**.

Press the **Delay Start** pad until **no shdn** (no shut-off) appears in the display.

*P*ress the *Start* pad to lock in the *no shdn* (no shut-off) feature and leave the control set in this special features mode.

NOTE:

- On models with press pad controls for both ovens, this activates this special feature for both ovens.
- On models with oven knob(s), this feature is not available for the lower oven.



Fahrenheit or Celsius Temperature Selection

Your oven control is set to use the Fahrenheit temperature selections but you may change this to use the Celsius selections.

- Press the **Bake** and **Broil Hi/Lo** pads (on double oven models, use the **upper** oven controls) at the same time for 3 seconds until the display shows **SF**.
- Press the **Broil Hi/Lo** and **Cooking Time** pads at the same time. The display will show **F** (Fahrenheit).
- 3 Press the **Broil Hi/Lo** and **Cooking Time** pads again at the same time. The display will show **C** (Celsius).
- **4** Press the **Start** pad.

NOTE:

On models with press pad controls for both ovens, the new setting will be displayed for both ovens.

On models with oven knob(s), this feature is not available for the lower oven.



Tones at the End of a Timed Cycle

At the end of a timed cycle, 3 short beeps will sound followed by one beep every 6 seconds until the **Clear/Off** pad is pressed. This continuous 6-second beep may be canceled.

To cancel the 6-second beep:

- Press the **Bake** and **Broil Hi/Lo** pads (on double oven models, use the **upper** oven controls) at the same time for 3 seconds until the display shows **SF**.
- Press the *Kitchen Timer On/Off* pad. The display shows *CON BEEP* (continuous beep). Press the *Kitchen Timer On/Off* pad again. The display shows *BEEP*. (This cancels the one beep every 6 seconds.)

3 Press the *Start* pad.

NOTE:

- On models with press pad controls for both ovens, this cancels the end of cycle tone for both ovens.
- On models with oven knob(s), this feature is not available for the lower oven.



Tone Volume (on some models)

This feature allows you to adjust the tone volumes to a more acceptable volume. There are three possible volume levels.

- Press the *Bake* and *Broil Hi/Lo* pads (on double oven models, use the *upper* oven controls) at the same time for 3 seconds, until the display shows *SF*.
- Press the **Oven Light On/Off** pad. The display will show **2 BEEP**. This is the middle volume level.

Press the **Oven Light On/Off** pad again. The display will show **3 BEEP**. This is the loudest volume level.

Press the **Oven Light On/Off** pad again. The display will show **1 BEEP**. This is the quietest volume level. For each time the level is changed, a tone will sound to provide an indication of the volume level.

- Choose the desired sound level (1 BEEP, 2 BEEP, 3 BEEP).
- Press the **Start** pad to activate the desired level shown.

NOTE:

- On double oven models, this activates this special feature for both ovens.
- On models with oven knob(s), this feature is not available for the lower oven.

Bake + Broil _{Hi/Lo} Clock Start

12-Hour, 24-Hour or Clock Black-Out

Your control is set to use a 12-hour clock.

If you would prefer to have a 24-hour military time clock or black out the clock display, follow the steps below.

- Press the **Bake** and **Broil Hi/Lo** pads (on double oven models, use the **upper** oven controls) at the same time for 3 seconds, until the display shows **SF**.
- Press the *Clock* pad once. The display will show *12 hr*. If this is the choice you want, press the *Start* pad.

Press the *Clock* pad again to change to the 24-hour military time clock. The display will show *24 hr*. If this is the choice you want, press the *Start* pad.

Press the *Clock* pad again to black out the clock display. The display will show *OFF*. If this is the choice you want, press the *Start* pad.

NOTE: If the clock is in the black-out mode, you will not be able to use the Delay Start function.



Cook and Hold

Your new control has a cook and hold feature that keeps cooked foods warm for up to 3 hours after Timed Baking or Roasting is finished.

NOTE: This feature can only be programmed to work with Timed Baking or Roasting. (See the Using the timed baking and roasting features section.) After Timed Baking or Roasting has automatically stopped, the programmed Cook and Hold will automatically start.

To activate this feature for use after Timed Baking or Roasting, follow the steps below.

Press the **Bake** and **Broil Hi/Lo** pads (on double oven models, use the **upper** oven controls) at the same time for 3 seconds until the display shows *SF*. Then proceed with steps 2 through 3, using the pads for the upper or lower oven.

Press the *Cooking Time* pad. The display will show *HId OFF.*

Press the *Cooking Time* pad again to activate the feature. The display will show *HId ON.*

Press the *Start* pad to activate the cook and hold feature and leave the control set in this special features mode.

NOTE: On models with oven knob(s), this feature is not available for the lower oven.



Bake

Broil

Convectio

Bake

Start

Changing the Speed of the + or - Pads (on some models)

As you use the + or – pads when setting a time or temperature, you may notice the display changes slowly. This special feature allows you to change the speed. To set the speed you prefer, follow the steps below.

- Press the **Bake** and **Broil Hi/Lo** pads (on double oven models, use the **upper** oven controls) at the same time for 3 seconds, until the display shows **SF**.
- Press any + pad. The display will show you a set speed between 1 and 5.

Auto Recipe[™] Conversion (on some models)

When using convection bake, the Auto Recipe™ Conversion feature will automatically convert entered regular baking temperatures to convection baking temperatures.

Once the feature is activated, the display will show the actual converted (reduced) temperature. For example, if you enter a regular recipe temperature of 350°F and press the **Start** pad, the display will show **CON** and the converted temperature of 325°F.

NOTE: This feature does not convert convection bake cooking times, only regular baking temperatures.

To activate the feature:

features mode.

3

Press the **Bake** and **Broil Hi/Lo** pads (on double oven models, use the **upper** oven controls) at the same time for 3 seconds, until the display shows **SF**.

Press any + pad to increase the

Press any – pad to decrease the

Press **Start** to activate the setting and

leave the control set in this special

speed down to the number 1.

speed up to the number 5.

- Press the Convection Bake pad. The display will show CON OFF. Press the Convection Bake pad again. The display will show CON ON.
- **3** Press the **Start** pad.

To deactivate the feature, repeat steps 1–3 above but press the **Start** pad when **CON OFF** is in the display.





(depending on model)

Control Lockout

Your control will allow you to lock out the press pads so they cannot be activated when pressed.

NOTE: On double ovens with press pad controls for both ovens, this activates this feature for both ovens.

To lock/unlock the controls:

Press the *Hour* and *Min* – pads or the *9* and *0* pads (depending on model) at the same time for 3 seconds until the display shows *LOC ON*.

To unlock the control, press the Hour and Min – pads or the 9 and 0 pads (depending on model) at the same time for 3 seconds until the display shows LOC OFF. When this feature is on and the press pads are pressed, the control will beep and the display will show *LOC ON*.

- The control lockout mode affects all press pads. No press pads will work when this feature is activated.
- On models with oven knob(s), this feature is not available for the lower oven.
- This adjustment will be retained in memory after a power failure.



Using the Sabbath Feature.

(Designed for use on the Jewish Sabbath and Holidays.) (on some models)

The Sabbath feature can be used for baking/roasting only. It cannot be used for convection, broiling, self-cleaning or Delay Start cooking.

NOTE: The oven light comes on automatically (on some models) when the door is opened and goes off when the door is closed. The bulb may be removed. See the Oven Light Replacement section. On models with a light switch on the control panel, the oven light may be turned on and left on.



Press and hold **both** the **Bake** and **Broil NOTE:** If a power outage occurred while the oven was in Sabbath, the oven will automatically turn off and stay off even when the power returns. The oven control or **no shdn** appears in the display. **12 shdn** must be reset. indicates that the oven will automatically

Hi/Lo pads, at the same time, until the

Tap the **Delay Start** pad until **12 shdn**

display shows SF.

3

4

DELAY

START

START

How to Set the Oven for Warming

Warm keeps cooked foods warm for up to 3 hours after the cooking function is finished, or it can be activated independently to keep already cooked foods warm.

This feature is not designed to reheat cold food.

To use this feature independently, press the **WARM/PROOF** pad once and then the **START** pad.

To activate this feature for use after Timed Baking or Roasting, press the **WARM/PROOF** pad once while programming the oven and before pressing **START**.

To Crisp Stale Items

- Place food in low-sided dishes or pans.
- For best results, place the food items in a single layer; do not stack.
- Leave them uncovered.
- Check crispness after 20–30 minutes. Add time as needed.

IMPORTANT NOTES:

- Food should be kept hot in its cooking container or transferred to a heat-safe serving dish.
- For moist foods, cover them with an oven-safe lid or aluminum foil.
- Fried or crisp foods do not need to be covered but can become too dry if warmed for too long.
- Repeated opening of the door allows the hot air to escape and the food to cool.
- Allow extra time for the temperature inside the oven to stabilize after adding items.
- With large loads it may be necessary to cover some of the cooked food items.
- Remove serving spoons, etc., before placing containers in the oven.
- Do not use plastic containers, lids or plastic wrap.

CAUTION: Plastic containers, lids or plastic wrap will melt if placed in the oven. Melted plastic may not be removable and is not covered under your warranty.



How to Set the Oven for Proofing

The proofing feature maintains a warm environment useful for rising yeast-leavened products.

1 Place the covered dough in a dish in the oven on rack B or C.

NOTE: For best results, cover the dough with a cloth or with greased plastic wrap (the plastic may need to be anchored underneath the container so the oven fan will not blow it off).

2 Press the WARM/PROOF pad twice and then the START pad.

The display will read "PrF" (proof).

The oven interior light turns on and remains on during proofing.

The proofing feature automatically provides the desired temperature for proofing and therefore does not have a temperature adjustment.

- **3** Set the **TIMER ON/OFF** for a maximum of 1 hour. Depending upon the recipe, bread may complete proofing in less than 1 hour. Check bread as needed for progress.
- 4 After 1 hour of proofing, press the **CLEAR/OFF** pad. If proofing is not complete, leave the bread in the closed oven until it reaches the desired height.
- To avoid lowering the oven temperature and lengthening proofing time, do not open the oven door unnecessarily.
- Check bread products early to avoid over-proofing.

NOTES:

- Do not use the proofing mode for warming food or keeping food hot. The proofing oven temperature is not hot enough to hold foods at safe temperatures. Use the WARM feature to keep food warm.
- Proofing feature on upper oven only.
- Proofing will not operate when oven is above 125°F. "HOT" will show in the display.



Sales Mode

The oven control can be operated in SALES MODE. When the unit is connected to 120 VAC from L1–N, the control will function normally. The 240 VAC relays will not function.

Operational Notes

Certain modes, when selected, will automatically enter into a preheat. The PREHEAT light will turn on and 100°F will appear in the display. (The temperature display will start to change once the oven temperature reaches 100°F.)

For convection ovens, the convection fan will run during the Single-Rack preheat cycle and remain on until the oven has reached the set temperature. The bake element is on for 20 seconds, then the broil element is on for 70 seconds until preheat is completed. After preheat, the bake element or the broil element is cycled to maintain temperature. Multi-Rack preheat cycle uses only the bake element with the convection fan.

For non-convection ovens, the bake element is on for 60 seconds, then the broil element is on for 30 seconds until preheat is completed. After preheat, the bake element or the broil element is cycled to maintain temperature.

The control will beep when the oven is preheated this may take approximately 10 minutes. The PREHEAT light will turn off and the display will show the set temperature.

Mode	Preheat
Proof	No
Bake	Yes
Convection Bake - 1 Rack	Yes
Convection Bake - Multi	Yes
Convection Roast*	Yes
Convection Broil	No
Broil High	No
Broil Low	No
Clean	No
Probe Usage	No

Preheat Chart

*Preheat for Convection Roast uses only the broil element with the convection fan. The convection will NOT reverse directions during Convection Roast preheat.

- The oven and the oven interior lights will turn on immediately and stay on until the oven is turned off.
- The convection fan will cycle on and off while cooking to best distribute hot air in the oven. The convection fan shuts off when the oven door is opened.
- A cooling fan will turn on to cool internal parts. This is normal, and the fan may continue to run even after the oven is turned off.
- Broil will not work if the temperature probe is plugged in.
- When using the probe, you can use the timer, but you cannot use timed oven operations.
- On the double wall oven, the oven control will automatically set the oven that has the probe plugged into it.
- In Convection Bake, the bake element and the fan operate whenever the oven is heating.
- Convection Broil will not work if the temperature probe is plugged in. Never leave the probe inside the oven during a broil cycle.
- On the double wall oven, you can use timed baking in both ovens at the same time.
- The Clean cycle can be set for a minimum of 3 hours and a maximum of 5 hours. The default setting is 5 hours. The 5-hour set time consists of 4 hours and 20 minutes of cleaning and 40 minutes of cool down. The door will unlock at an approximate temperature of 450°F.
- On the double wall oven, you can set a clean cycle in both ovens at the same time. The last oven set will automatically delay its start until the first oven's clean cycle cools to 400°F. On the double wall oven, you can bake or broil in one oven and self-clean in the other at the same time.
- Self-Clean will not work if the temperature probe is plugged in or if the Sabbath feature is set.
- Proofing will not operate when oven is above 125°F. The display will show "too hot". Allow the oven time to cool. During Proof, the oven light is on continuously. The convection fan will operate 60 seconds in one direction, 60 seconds in the other direction, then off for 600 seconds.

Component Locator Views

Double Wall Oven (Profile shown)



Control Compartment

Top of Oven (Double Oven Shown)



Door Lock Assembly and Thermal Switches (Double Oven Shown)





Oven Component Access Chart

WARNING:

- The single and double wall ovens are heavy and require two people to remove them from the installation. Care should be taken when removing and installing.
- Sharp edges may be exposed when servicing. Use caution to avoid injury. Wear Kevlar gloves or equivalent protection.

	Doub	Doub	4	`	Front Oven	: Servi Comp	ceable oonents	
	cingle	in the loger	crower	noc		Com Ovei	ponents n Remov	Requiring al
Auxiliary Control Board		•	•					
Bake Element		•	•	•		•]	
Broil Element		•	•	•	•]	
Convection Bake Element		•			•]	
Convection Fan Blade		•			•		1	
Convection Fan Capacitor		•			•		1	
Convection Fan Motor		•				•	1	
Control Panel Assembly		•	n/a	•	•]	
Cooling Fan		•			•]	
Cooling Fan			•	•		•]	
Door Assembly		•	•		•			
Door Hinge Receiver		•	•	•		•		
Electronic Oven Control		•	•	•	•			
FAD (2 each oven)		•	•		•]	
Lock Assembly		•]	
Meat Probe Outlet		•	•	•				
Oven Light Assembly		•	•	•	•]	
Oven Temperature Sensor		•	•	•		•		
Thermal Line Break (TCO)		•	•	•			1	
Thermal Switches		•	•					
Vent Tube/Smoke Eliminator	•	•	•	•	•			

Door Assembly

The oven door can be separated into 2 assemblies. The outer assembly consists of the outer panel and a replaceable door handle. The inner assembly is made up of the inner panel, door gasket, 3 glass panels, air channel, insulation retainer, and replaceable door hinge assemblies.

Caution: The door is very heavy. Use the correct lifting procedure. Do not lift the door by the handle.

To remove the door:

 Open the door fully. Pull the hinge locks down toward the door frame to the unlocked position. (This may require a flat-bladed screwdriver to start the hinge locks moving).



- 2. Firmly grasp both sides of the door at the top.
- 3. Close the door to the door removal position, then lift it up and out.



To replace the door:

1. With the door at the same angle as the removal position, seat the indentation of the hinge arm into the bottom edge of the hinge slot. The notch in the hinge arm must be fully seated into the bottom of the slot.



- 2. Open the door fully. If the door will not fully open, the indentation is not seated correctly in the bottom edge of the slot.
- 3. Push the hinge locks up against the front frame of the oven cavity to the locked position.



4. Close the oven door and check for proper alignment.

To remove the outer door assembly:

- 1. Remove the door.
- 2. Place the inner door assembly, gasket side up, on a protective surface.
- 3. Remove the three T-15 Torx screws from the bottom of the outer door assembly.



4. Remove the four T-15 Torx screws (2 on each side) from the outer door assembly.



Note: The inner door assembly is heavier than the outer door assembly.

- 5. Separate the inner door assembly from the outer door assembly.
- 6. Remove the four ¼-in. hex-head screws and spacers that hold the door handle to the outer door assembly.

Door Shown with Inner Door Assembly Removed



Caution: Care must be taken if reinstalling the door handle. Over-tightening the screws can damage the handle. Hand-tighten the screws and make sure the handle fits snugly to the door panel. (Do not use an electric driver.)

To replace the inner door assembly:

1. Remove the outer door assembly. (See *Door Assembly*.)

2. Remove the four T-15 Torx screws (2 on each side) that attach each door hinge to the inner door. Carefully turn the door over and remove both door hinges.



3. Remove the four ¼-in. hex-head screws that attach the glass and side brackets (glass closet to the outer door glass) to the inner door.



4. Remove the two ¼-in. hex-head screws that hold the heat deflector to the heat barrier.



5. Remove the six ¼-in. hex-head screws that hold the heat barrier to the inner door. Remove the barrier.



6. Remove the insulation and the inner glass assembly from the inner door.



Assembly Notes

When assembling, make sure the hinges are parallel to each other and perpendicular to the door liner. If not, the hinge may bind on the receiving channel of the door. If the new hinge is not in the cocked and locked position after installing, place the bottom of the door against a firm, protected surface and push the hinge arm down to the cocked position. Pull the hinge lock back against the door liner surface to lock the hinge in this position.

Air enters the door assembly through large slots in the bottom and flows upward between the inner and outer assemblies, exhausting through slots in the top of the door. DO NOT INSULATE THIS AIR CHANNEL. Arrows on the side of the inner glass assembly indicate the direction in which the inner oven door glass is installed. The arrows should be pointing toward the oven cavity.



Door Gasket

The gasket forms a complete seal around the front edge of the oven liner and the inner door panel. The door gasket is attached to the inner door panel by spring clips. When removing the gasket, pull the ends of the gasket out of the slots at the bottom of the door. Place a finger under the gasket beside each clip and pull straight up.



When installing the door gasket, it is helpful to fold the gasket in half and locate the center clip. Insert the clip at the top of the door and work your way around the door.

Make sure the gasket is cross-tucked in the bottom slots of the inner door panel. Use a small screwdriver to tuck the loose ends of the gasket into the slots. The overlap is required to ensure a proper door seal.



Oven Removal

The replacement of certain components require oven removal. (See *Oven Component Access Chart*.)

WARNING: The oven is heavy and requires two people to remove it from the installation.

To remove the oven:

- 1. Remove oven doors and racks. (See *Door Assembly*).
- 2. Remove the 2 Phillips-head screws that attach the metal bottom trim to the bottom edge of the cabinet. Remove the trim.



3. Remove the 4 Phillips-head screws (2 on each side) from the side trim that hold the oven in place.

Double Wall Oven



4. Pull the oven slightly forward to access some components (See *Oven Component Access Chart*) or, if removing it completely, utilize a table or platform in front of the oven and pull the oven completely out.

Note: When reinserting the oven into cabinet opening, ensure that the conduit is properly positioned behind the oven. (See the *Installation Instructions* manual.)

Side Access Panels

To remove side access panels on each side:

- Remove the ¼-in. hex-head screws that hold each side trim in place. The single wall oven has 4 hex-head screws. The double wall oven has 7 hex-head screws.
- 2. On double wall ovens, remove seven ¼-in. hexhead screws that hold the oven divider to the side of the oven.



Double Wall Oven (right side)

(Continued next page)

3. Remove the $\frac{1}{4}$ -in. hex-head screws that hold the side access panel to the oven. The double wall oven has 17 hex-head screws on the top side panel and 14 hex-head screws on the bottom side panel. The single wall oven has 11 hex-head screws.

Single Wall Oven (left side)



Rear Access Panels

To remove rear access panels:

- 1. Remove three ¹/₄-in. hex-head screws and rear bake element terminal covers from oven.
- 2. Remove the ¹/₄-in. hex-head screws that hold each rear panel in place. The single wall oven has 2 panels and 8 hex-head screws. The double wall oven has 3 panels and 11 hex-head screws.



Oven Separation (JKP90 Only)

Oven separation is only necessary on the JKP90 Micromod Wall Oven.

To separate the oven from the microwave:

- 1. Open the oven door.
- 2. Remove three $\frac{1}{4}$ -in. hex-head screws and the black metal trim from the bottom of the microwave trim.
- 3. Open the microwave door.
- 4. Remove two T-15 Torx screws and the microwave trim from the oven.
- 6. Remove the oven from the installation (See **Oven** Removal.)



- 7. Remove two ¹/₄-in. hex-head screws from the microwave support rails.
- 8. Lift up slightly on the bottom of the microwave and pull it forward about 4 inches.
- 9. Disconnect 2 harness connectors from the bottom of the microwave.



10. Remove the microwave by sliding it out.

- 5. Close the microwave door.

Oven Temperature Sensor

The oven temperature sensor can be tested from the EOC. (See *Control Board Testing*.) The resistance of the temperature is:

- 1100 Ω at room temperature
- 1654 Ω at 350°F
- 2650 Ω at 865°F (Clean temperature)

The oven temperature sensor has a resistance change rate of 2 Ω per °F.

To remove the oven temperature sensor:

- 1. Disconnect the power and remove the oven racks.
- 2. Remove the ¼-in. hex-head screw that attaches the sensor to the broiler element bracket.



- 3. 4. Remove the oven from its installation and remove the rear access panels. (See Oven *Removal.*)
- 4. From the back side, disconnect the sensor wiring harness.



5. From the oven side, carefully pull the sensor and sensor wiring harness from the oven liner.

Note: When reinstalling the sensor, use a small flatbladed screwdriver to push and guide the sensor wire harness into the oven liner.



Broil Element

Note: The resistance of this component can be tested from the EOC. (See *Control Board Testing*.)

The broil element will not work if the temperature probe is plugged in.

The element is rated at 3400 watts, has an approximate resistance value of 17 Ω , and draws approximately 14.5 amps.

The broil element is located on the back wall of the oven and can be removed from inside the oven cavity.

To remove the broil element:

- 1. Remove the oven racks.
- 2. Remove the ¼-in. hex-head screw that attaches the sensor to the broiler element bracket. (See *Oven Temperature Sensor*.)
- 3. Carefully pull out the sensor approximately 2-in. from the broiler element bracket.
- 4. Remove the five ¼-in. hex-head screws that hold the broiler element to the oven cavity.



- 5. Carefully pull and lower the broiler element towards the front of the oven until the element terminals are accessible.
- 6. Disconnect the wires from the broiler element.



Vent Tube/Smoke Eliminator

The oven vent tube/smoke eliminator is located in the top left front corner of the oven cavity above the broiler element shield. Air vented from the oven cavity will pass through the catalyst.

To remove the vent tube/smoke eliminator:

- 1. Place an oven rack in the top position and remove any remaining oven racks.
- 2. Remove the three ¼-in. hex-head screws that attach the broiler element to the top of the oven cavity, then carefully lower the broiler element to the oven rack.



 Remove the two ¼-in. hex-head screws that hold the vent tube to the top of the oven cavity. Do not remove the remaining hex-head screws.



4. Remove the vent tube from the oven cavity.



Convection Fan Blade

The convection fan blade is located on the back wall of the oven cavity and is removed separately from the convection fan motor.

To remove the convection fan blade:

- 1. Remove the oven racks.
- 2. Remove the four ¼-in. hex-head screws that hold the convection cover to the back wall of the oven cavity.



3. The fan blade is attached to the motor shaft with a left-hand thread ½-in. hex nut. Turn the nut clockwise to remove.



Convection Bake Element

Note: The resistance of this component can be tested from the EOC. (See *Control Board Testing*.)

The element is rated at 2500 watts, has an approximate resistance value of 22 Ω , and draws approximately 10.6 amps.

The convection bake element is located on the back wall of the oven and can be removed from inside the oven cavity.

To remove the convection bake element:

- 1. Remove the oven racks.
- 2. Remove the four ¼-in. hex-head screws that hold the convection cover to the back wall of the oven cavity.
- 3. Remove the four ¼-in. hex-head screws that hold the convection bake element to the back wall of the oven cavity.



4. Carefully pull the convection bake element towards the front of the oven until the element terminals are accessible.



5. Disconnect the wires from the convection bake element.

Control Compartment Access

Note: It may be necessary to partially remove the oven from the installation to avoid damage to the customer's woodwork. (See *Oven Removal*.)

To access the control compartment on single or double ovens:

- 1. Open the oven door.
- 2. Remove the three ¼-in. hex-head screws that attach the bottom of the control panel to the vent trim.



3. Place a cardboard protector on top of oven door and close the door.

Note: The control panel has keyhole slots at the top and is held very tightly to the side trims.

- 4. Carefully push the control panel up, then pull out at the bottom.
- 5. Rest the control panel on the protected door.



Note: When installing, make sure the bottom edge of the control panel sits on top of the metal air divider and vent trim.

To access the control compartment on JKP90:

- 1. Remove the microwave trim (See Oven Removal.)
- 2. Open the microwave door.
- 3. Remove two T-20 torx screws from control panel assembly.



Note: There are three tabs on the right side of the control panel assembly. Push the control panel to the left to free it from the housing.

4. Pull the control panel assembly down to the access position.



Control Panel Assembly

The control panel assembly consists of the control panel frame, the electronic oven control, and the key panel.

Note: The GE, Profile, and Monogram series control panels are slightly different. Verify the model number of the unit before making any repairs or tests.

To remove the control panel assembly on JKP90:

- 1. Gain access to the control compartment. (See *Control Compartment Access*.)
- 2. Mark and disconnect the wires from the control panel assembly.
- 3. Remove the Phillips-head screw and the ground wire from the control panel assembly.



4. Slide the control panel assembly mounting bracket off the screws.

To disassemble the JKP90 control panel:

- 1. Lift the side tabs and remove the ribbon cable from the electronic oven control.
- 2. Remove 4 Phillips-head screws and the electronic oven control from the control panel assembly.



(Continued next page)

To remove the control panel assembly on single or double ovens:

- 1. Gain access to the control compartment. (See *Control Compartment Access.*)
- 2. Mark and disconnect the wires from the control panel assembly.
- 3. Remove the Phillips-head screw and the ground wire from the control panel assembly.



PK916 Series Control Panel Shown

To disassemble the GE series control panel:

- 1. Disconnect and remove the ribbon connector from the electronic oven control and the key panel.
- 2. Remove four ¼-in. hex-head screws that hold the electronic oven control to the control panel frame.
- 3. Remove 2 Phillips-head screws from the the control panel frame.
- 4. Press in the tabs and remove the key panel from the control panel frame.
- 5. Pull the membrane panel from the key panel.

To disassemble the Profile or Monogram series control panel:

- 1. Disconnect and remove the ribbon cable from the electronic oven control and the key panel.
- 2. Remove four ¼-in. hex-head screws that hold the electronic oven control to the control panel frame.



Auxiliary Control Board

The auxiliary control board is only available on double ovens equipped with convection units.

To remove the auxiliary control board:

- 1. Gain access to the control compartment. (See *Control Compartment Access.*)
- 2. Mark and disconnect all connectors from the auxiliary board.
- 3. Compress the tab on top of each plastic standoff and then lift the board.



Lock Assembly

The motorized door lock assembly is located above the oven. The assembly consists of a lock motor cam and switch assembly, lock hook, mounting plate, cooling fan switch, spring, plunger, and oven door switch.

The lock motor is energized when the control is set for cleaning and a clean time is selected. The relay contact listed in the chart below will close and complete the circuit that supplies the voltage to the lock motor.

Madala	Relay			
Models	Upper Oven	Lower Oven		
JKP30 JKP35	К1	n/a		
JKP55	K501	K500		
JKP70 PK916 ZEK938	RY660	n/a		
JKP75 PK956 ZEK958	K7	K8		
JKP90	n/a	?		

Door Locking/Unlocking Strip Circuit



The lock motor has an approximate resistance value of 1.9K $\Omega.$

Note:

- To enable proper operation of the door lock, ensure that the door jamb switch is in C "common" to NO "normally open" position (door closed). This enables power to be delivered when the door lock closes.
- Display of control will flash **"LOCKED"** if the door switch is in the C "common" to NC "normally closed" position (door open).
- The word **"LOCKED"** will flash on and off in the display while the lock motor is in motion. When the door is locked, the word **"LOCKED"** remains

The cam on the motor performs two functions:

- 1. Positions the lock hook in the door to prevent opening during the cleaning operation.
- 2. Operates the lock switches, which tell the control if the door is unlocked or locked and ready for the cleaning operation.
- 3. Note: When the door is either being locked or unlocked, both the lock and unlock switches will be in the open position. The locked and unlocked diagrams are representative of a single or upper oven but apply to a lower oven as well.



Door Lock - Locked Position

Strip Circuit



Door Lock - Unlocked Position



Strip Circuit



To remove the lock assembly on single and upper double ovens:

- 1. Gain access to the control compartment. (See *Access Control Compartment*.)
- 2. Mark and disconnect the cooling fan connector.
- 3. Mark and disconnect the light housing connector.
- 4. On double ovens, mark and disconnect all connectors on the auxiliary control board, if equipped.



- 5. Hold the control panel and open the oven door.
- 6. Place the control panel on the protected oven door as shown.



- 7. Lift the metal air divider.
- 8. Mark and disconnect the connectors from the lock assembly.
- 9. Remove 2 Phillips-head screws and the lock assembly from the oven.



Caution: It is possible to reconnect the switch wiring incorrectly to the lock assembly. When reconnecting the wiring, make sure it is properly connected to the lock assembly before turning the power back on.

To remove the lock assembly on lower double ovens and JKP90:

- 1. On JKP90, remove the microwave trim from the microwave. (See *Oven Removal*.)
- 2. Open the lower oven door.
- 3. Remove 2 Phillips-head screws from the door lock assembly.
- 4. Remove 4 Phillips-head screws and the door lock assembly cover plate from the oven.



5. Mark and disconnect the connectors from the lock assembly.



Caution: It is possible to reconnect the switch wiring incorrectly to the lock assembly. When reconnecting the wiring, make sure it is properly connected to the lock assembly before turning the power back on.

Thermal Switches

The thermal switches are located on the floor of the component compartment in front of the fan motor. The lower temperature thermal switch is wired in series with the unlock motor switch. This limit switch opens at 194°F and closes when the temperature cools below 158°F. This switch is active only in non self-clean operations (unlock switch closed, lock switch open).

The higher temperature thermal switch is wired in series with the common of the lock/unlock switch. This limit switch opens at 216°F and closes when the temperature cools below 177°F. This switch is active only in self-clean operations (lock switch closed, unlock switch open).

If the thermal switch opens in any mode of operation, the control will go to -F9- failure code. When this condition exists, check the fan operation (look for obstructions), and inspect the oven installation (make sure grille areas are not blocked), oven insulation and lock circuit.

To remove the thermal switches:

- 1. Access the thermal switch area by accessing the door lock assembly. (See *Lock Assembly*.)
- 2. Mark and disconnect the terminals from the thermal switch.
- 3. Remove two ¼-in. hex-head screws and the thermal switch from the oven.



Bake Element

Note: The resistance of this component can be tested from the EOC. (See *Control Board Testing*.)

The element is rated at 2650 watts, has an approximate resistance value of 27 Ω , and draws approximately 9.9 amps.

The bake element is located under the oven floor. Bake element terminals are located behind the rear access panels on both the single and double wall ovens.

To remove a bake element:

- 1. Remove the oven from the installation, then remove the left side access panel for the appropriate bake element. (See *Oven Removal*.)
- 2. Carefully lift the insulation from the outside of the oven to access the screws that hold the bake element cover in place.
- 3. Remove the ¼-in. hex-head screw that holds the ground wire to the bake element cover.
- 4. Remove two ¼-in. hex-head screws and the bake element cover from the oven.



5. Remove three ¼-in. hex-head screws and the rear bake element terminal cover from the oven.



- 6. Disconnect the wires from the bake element.
- 7. Carefully move the insulation to access and remove the ¼-in. hex-head screw that holds the bake element to the oven.



8. Grasp and pull the element out from the left side of the oven by moving the element to the front of the oven and angling the terminal ends out first.



Note: Upon reassembly, ensure that the displaced insulation around the oven and its components is returned to its original position.

Cooling Fan

A cooling fan is located above each oven. On upper and single ovens, the cooling fan is in the rear wall on the left side of the control compartment. On lower ovens, the cooling fan is located in the center of the double wall oven. On double ovens, both fans operate together.

The fans will begin to operate when the oven is in any cooking mode. The fans may continue to operate even after the oven is turned off.

The fan motor in the single and upper oven is a twospeed motor and has an approximate resistance value of:

Red to white = 28.8 Ω

Black to white = 20.9 Ω

Red to black = 8.0 Ω

The fan motor in the lower oven is a single-speed motor and has an approximate resistance value of 48 $\Omega.$

The single and upper oven cooling fans can be removed from the front of the oven. The lower oven cooling fan requires the oven to be removed.

To remove the cooling fan in the single and upper oven:

- 1. Access the control compartment. (See **Control Compartment Access**.)
- 2. Disconnect the cooling fan wire harness.
- 3. Remove the four ¼-in. hex-head screws (2 on each side) that hold the cooling fan to the control compartment.



4. Carefully remove the cooling fan from the control compartment.

To remove the cooling fan in the lower oven:

- 1. Remove the oven from the installation and remove the rear access panels. (See *Oven Removal*.)
- 2. Disconnect the cooling fan wire harness.
- 3. Remove the four ¼-in. hex-head screws that hold the cooling fan to the oven.



To remove the cooling fan in JKP90:

The fan motor in the JKP90 is a two-speed motor and has an approximate resistance value of:

Red to white = 28.8 Ω

Black to white = 20.9 Ω

Red to black = 8.0 Ω

- 1. Separate the microwave from the oven (See *Oven Removal.*)
- 2. Remove six ¼-in. hex-head screws and the rear cover from the oven.



3. Remove four ¼-in. hex-head screws and the duct cover from the oven.



4. Remove seven ¼-in. hex-head screws and the cooling fan cover from the oven.

Cooling Fan Cover

- 5. Disconnect the cooling fan wire harness.
- 6. Remove three ¼-in. hex-head screws and the cooling fan from the oven.



Door Hinge Receivers

To remove the door hinge receivers:

- 1. Remove the side access panels. (See *Oven Removal.*)
- 2. Carefully lift the insulation from the outside of the oven.
- 3. Remove the four T-15 screws (2 on each side) that hold each hinge receiver to the oven frame.



Note: Upon reassembly, ensure displaced that the insulation around the oven and its components is returned to its original position.

Thermal Line Break Thermal Cutout (TCO)

A self-resetting, disc-type thermal cutout switch is attached to the rear of the oven. The switch will open the L2 leg of the power to the heating elements in the event of an over-temperature condition. The switch on the upper oven will open when the panel it is attached to reaches approximately 302°F and will close as the panel cools to approximately 272°F. The switch on the single and lower ovens will open when the panel it is attached to reaches approximately 284°F and close as the panel cools to approximately 254°F. There is no indication to the customer when the switch opens or closes.

To replace the TCO:

- 1. Remove the rear covers. (See Oven Removal.)
- 2. Disconnect and remove two ¼-in. hex-head screws and the TCO from the oven.



Convection Fan Motor

Note: The resistance of this component can be tested from the EOC. (See *Control Board Testing*.)

The convection fan motor is located on the back wall of the oven cavity. The fan motor utilizes a capacitor that can be accessed from the control compartment. (See *Component Locator Views*.)

The convection fan operates during the following modes:

- Convection Bake
- Convection Broil
- Convection Roast
- Proof
- Preheat
- Clean

The convection fan will turn on (after a short delay). The fan may cycle on and off, and change direction in any of these modes, to best distribute hot air in the oven. The convection fan shuts off when the door is opened.



Convection Airflow

The convection fan motor has approximate resistance values between the following wires:

- Red and Blue: 168 Ω
- Red and Gray: 75 Ω
- Blue and Gray: 93 Ω

To remove the convection fan motor assembly:

- 1. Remove the convection fan blade. (See *Convection Fan Blade*.)
- 2. Remove the oven from the installation and remove the rear covers. (See **Oven Removal**.)

- 3. Disconnect the convection fan motor wire harness.
- 4. Remove the three ¼-in. hex-head screws that hold the convection fan motor to the back of the oven.



Meat Probe and Outlet

If equipped, the meat probe outlet is located on the top of the oven cavity, near the front. The meat probe outlet is connected to the electronic oven control. The meat probe has a resistance value of 30K-50K Ω at room temperature.

To remove the meat probe outlet:

- 1. Open oven door.
- 2. Remove the two ¼-in. hex-head screws that hold the meat probe outlet to the top of the oven cavity.
- 3. Pull the probe outlet wiring through the wiring entry hole and disconnect the connector.



Note: Upon reassembly, ensure that the displaced insulation around the oven and its components is returned to its original position.

Oven Light Assembly

The GE and Profile series ovens have one light assembly in each oven cavity. The Monogram series oven has two light assemblies in each cavity. The halogen light assembly is located on the top of the oven. The oven door switch monitors the position of the oven door and provides this information to the EOC. The lights come on when the door is opened or when the oven is in a cooking cycle. The oven lights do not come on during self-cleaning or if the sabbath feature is set.

Each light assembly consists of a removable light cover, a light bulb socket, and a halogen light bulb.

To remove an oven light assembly on single or upper ovens:

- 1. Gain access to the control compartment. (See *Control Compartment Access.*)
- 2. Disconnect the wire harness from J9 on the EOC.



- 3. Open the oven door and place the control panel on a protected top oven rack.
- 4. Disconnect the oven light wire harness located near the back inside wall of the control compartment.
- 5. Remove the two ¼-in. hex-head screws that attach the light housing to the oven liner.



6. Pull the oven light housing from the oven liner.



To remove an oven light assembly on lower ovens and JKP90:

- 1. On JKP90, remove the microwave trim from the microwave. (See *Oven Separation*.)
- 2. Open the lower oven door.
- 3. Remove 4 Phillips-head screws and the door lock assembly cover plate from the oven.



- 4. Disconnect the oven light wire harness.
- 5. Remove the two ¼-in. hex-head screws that attach the light housing to the oven liner.
- 6. Pull the oven light housing from the oven liner.

Electronic Oven Control

Overview

The Electronic Oven Control (EOC) system consists of the control, key panel, oven sensor, and door lock assembly.

Caution: Components are electrically HOT on the control when voltage is connected to the range.

Note: Voltage must be present across terminals L1 and N for the control to operate.

Note: Temperature/Mode Selection is necessary for the operation of the relay contacts.

- Bake, broil, and convection units cannot be on at the same time.
- Bake, broil, and convection units operate sequentially during preheat. the broil unit is on approximately 25% of the bake time during the balance of the bake operation. There is approximately 1 minute of off time between bake and broil unit operation after the preheat.
- In the clean cycle, the broil unit is only on during first the 30 minutes or until the oven reaches 750°F. During the balance of the clean operation, the oven will cycle between the bake and broil units, with 1 second of off time while calling for heat.

Oven Circuits





Oven equipped with convection unit

Oven without convection unit

Electronic Oven Control for Single Wall Oven



- RY650 Door Lock Motor Switch
- RY540 Double Line Break
- RY630 Cooling Fan
- RY620 Oven Light
- RY655 Convection Fan
- RY500 Broil Element
- RY501 Bake Element
- RY502 Convection Element

- CN2 Meat Probe, Door Switch Relay, Thermal Switch, Oven Sensor
- L1 L1 Power to EOC
- CCW Convection Fan
- CW Convection Fan
- N Neutral to EOC
- FOD Cooling Fan
- OL Oven Light



- J1 Ribbon Cable to Key Panel
- J3 Upper Door Lock Motor Switch, Temperature Sensor, and Meat Probe
- J4 Lower Door Lock Motor Switch, Temperature Sensor, and Meat Probe
- J5 L1 Power to Transformer
- J6 Door Switch, Lights, Lock Motor, and Cooling Fans
- J9 Connects to Auxiliary Control Board
- J12 Lock Motor and L1 Power
- T1 Transformer

- K1 Upper Broil Relay
- K2 Upper Bake Relay
- K4 Lower Broil Relay
- K5 Lower Bake Relay
- K7 Upper Lock Motor Relay
- K8 Lower Lock Motor Relay
- K11 Lower Door Switch Relay
- K12 Upper Door Switch Relay
- K14 Cooling Fan Relay
- K16 L2 Power to Upper TCO
- K17 L2 Power to Lower TCO

Auxiliary Control Board for Double Wall Oven



- J10 Connects to Electronic Oven Control
- J11 Convection Fans
- K3 Upper Convection Element Relay
- K10 Upper Convection Fan Relay
- K13 Reversing Upper Convection Fan Relay

Control Voltage

WARNING: Components are electrically HOT on the control when voltage is connected to the range. To prevent electrical shock, use extreme caution when diagnosing the oven with the outer covers removed and the power on.

Note:

- Voltage must be present across terminals L1 to N for the control to operate.
- Temperature/Mode Selection is necessary for the operation of the relay contacts.

Models JKS10, JKP30, & JKP35

*If the oven light is not working, make the following checks:

• Check the oven light bulb to verify it works.

• the light comes on when the door is opened. Check for 120 VAC from J4 7 and J4 5 terminals to L1. If 120 VAC is not present, press the oven door switch in and release it several times, leaving the oven door open. Recheck for 120 VAC from J4 7 and J4 5 terminals to L1 with the oven door open. If 120 VAC is not present, replace the oven door switch.

TERMINALS	VOLTAGE
L1 to N	120 VAC all the time
DLB to Bake DLB to Broil	120 Volts when oven is not calling for heat (DBL relay contacts closed).
*L1 to J4 pin 7	120 VAC when light is off
AUX1 to N	120 VAC locking or unlocking

• Close the oven door. Check for 120 VAC from J4 7 and J4 5 terminals to L1. If 120 VAC is present but the light does not turn on, the light bulb is bad or there is a loose connection in the wire harness. If 0 VAC, press **Oven Light** key on the key panel and retry. If still 0 VAC, check the key panel. If the key panel is OK, replace the control. (If you hear a relay click when the **Oven Light** key on the control panel is pressed, the key panel is working.)

Model JKP55

*If the oven light is not working, make the following checks:

• Check the oven light bulb.

• The light is to come on when door is opened. Voltage across the light socket terminals should read 120 VAC. If 0 volts, check the jamb switch and the wiring.

• The light is to come on when the control light pad is pressed. K502 or K503 should click. Voltage from L1 to J6-3 (upper) or L1 to J6-1 (lower) should read 120 VAC. If 0 volts, check the oven light keypad using the ohmmeter test. If the keypad is good, replace the control.

TERMINALS	VOLTAGE
L1 to N	120 VAC all the time
N to COM, COM 0,C	120 VAC all the time
L1-1 & 2-Bake 1 & 2 L1-1 & 2-Broil 1 & 2	120 Volts when oven is not calling for heat (DBL relay contacts open).
L1-1&2-L21&2	240 VAC all the time
L1 to CON J6 term 1 & 3	120 Volts when light is on.
L1 to MDL 1 & 2	120 Volts locking or unlocking
L1 to CON J6 term 6	120 Volts when cooling fan is not running. 0 VAC when cooling fan is running.

Model JKP70, PK916, & ZEK938

*If the oven light is not working, make the following checks:

• Check the oven light bulb to verify it works.

• The light comes on when the door is opened. Check for 120VAC from OL terminal to L1. If 120 VAC is not present, press the oven door switch in and out several times, leaving the oven door open. Recheck for 120 VAC from OL terminal to L1 with the oven door open. If 120 VAC is not present, replace the oven door switch.

• Close the oven door. Check for 120 VAC from OL terminal to L1. If 120 VAC is present but the light does not turn on, the light bulb is bad or there is a loose connection in the wire harness. If 0 VAC, press **Oven Light** key on key panel and retry. If still 0 VAC, check

TERMINALS	VOLTAGE
L1-N	120 VAC all the time
COM to N	120 VAC all the time
L1-L2	240 VAC all the time
L1-BA, L1-BR, L1-CV	120 VAC oven on, not calling for heat. DBL relay K9 closed.
*OL-L1	120 Volts when light is on.
COM to MDL	120 Volts not locking or unlocking, door closed.
**L1-CF	120 Volts when oven door is closed fan off

the key panel. If the key panel is OK, replace the control. (If you hear a relay click when the **Oven Light** key on the control panel is pressed, the key panel is working.)

**If the convection fan not running, make the following checks:

• Check the voltage from terminal CW and CCW to N on the control—it should always read 120 VAC in **Conv. Bake** or **Convection Roast** modes.

• If the voltage OK, check the convection fan motor. It should read approx. 15–20 Ω at room temperature. Check to make sure the fan shaft is not rubbing on the liner.

- Check the door switch.
- Check the capacitor.

Model JKP90

*If the oven light is not working, make the following checks:

• Check the oven light bulb to verify it works.

• The light comes on when the door is opened. Check for 120 VAC from CN104-1 terminal to L1. If 120 VAC is not present, press the oven door switch in and out several times, leaving the oven door open. Recheck for 120 VAC from CN104-1 terminal to L1 with the oven door open. If 120 VAC is not present, replace the oven door switch.

TERMINALS	VOLTAGE
L1 to N	120 VAC all the time
CN104-3 to N	120 VAC when door locking/ unlocking.
CN104-4 to N	120 VAC when in Bake, Broil, Clean, or Cool Down
*Lamp-L1	120 VAC when light is on

• Close the oven door. Check for 120 VAC from CN104-1 terminal to L1. If 120 VAC is present but the light does not turn on, the light bulb is bad or there is a loose connection in the wire harness. If 0 VAC, press **Oven Light** key on the key panel and retry. If still 0 VAC, check the key panel. If the key panel is OK, replace the control. (If you hear a relay click when the **Oven Light** key on the control panel is pressed, the key panel is working.)

Model JKP75, PK956, & ZEK958

*If the oven light is not working, make the following checks:

• Check the oven light bulb.

• The light is to come on when the door is opened check the voltage across the light socket. Terminals should read 120 VAC. If 0 volts, check the jamb switch and the wiring.

• The light is to come on when the control light pad is pressed. K11 or K12 should click. Check the voltage from N to J6-3 (upper) or N to J6-1 (lower). It should read 120 VAC. If 0 Volts, check the oven light keypad using the ohmmeter test. If the keypad is good, replace the control.

**If the convection fan is not running, make the following checks:

• Check the voltage from terminal J11 3 to N on the

TERMINALS	VOLTAGE
L1-N	120 VAC all the time
N to COM, COM 0,C	120 VAC all the time
L1-1 & 2-Bake 1 & 2 L1-1 & 2-Broil 1 & 2 L1-1 & 2-CONV 1 & 2	240 VAC when oven is not calling for heat (BAKE, CONV, and BROIL relay contacts open)
*L1 to Con J6 term 1 & 3	120 VAC when light is on.
L1 to MDL 1 & 2	120 VAC locking or unlocking.
**L1 to Con J6 term 5 & 6 (See Conv. Fan Assy,)	120 VAC when oven door is closed and Conv. Bake, Conv Roast not operating.

control—it should always read 120 VAC in **Convection Bake** or **Convection Roast** modes. The voltage should also read 120 VAC when the convection fan is running CCW from terminal J11 1 to N (upper) and J11 5 to N (lower–when specified) and when the convection fan is running CW from terminal J11 2 to N (upper) and J11 4 to N (lower–when specified).

• If the voltage is OK, check the convection fan motor. It should read approximately $15-20\Omega$ at room temp. Check to make sure the fan shaft is not rubbing on the liner.

- Check the door switch.
- Check the capacitor.

Key Panel Test

Models JKS10, JKP30, & JKP35

Note: The key panel and the electronic control are a single component.

Press each pad on the key panel followed by the *Clear/Off* pad. If the key panel is functioning properly, the following should occur:

• **Bake, Broil, Timer, Clock,** and **Cook Time** pads – Audible tone plus display showing mode of operation selected.

- Clear/Off Audible tone and display shows the time of day.
- Temp, Hour, Min pads No audible tone. Can only be used after another function has been selected.

Model JKP55

Note: The key panel and the electronic control are separate components and must be tested individually.

Press each pad on the key panel followed by the *Clear/Off* pad. If the key panel is functioning properly, the following should occur:

• **Bake, Broil, Clean, Timer, Clock, and Cook Time** Pads – Audible tone plus display showing the mode of operation selected.

- Clear/Off Audible tone and display shows the time of day.
- Oven Light The oven light turns on. An audible tone and a relay click should be heard.
- Hour, Minute, Temp Pads Can only be used after another function has been selected.

Model JKP70, JKP75, PK916, PK956, ZEK938, & ZEK958

Note: The key panel and the electronic control are separate components and must be tested individually.

Press each pad on the key panel followed by the *Clear/Off* pad. If the key panel is functioning properly, the following should occur:

• Bake, Broil, Convection Bake, Convection Roast, Clean, Warm, Proof, Timer, Clock, and Cook Time pads – Audible tone plus display showing the mode of operation selected.

- *Clear/Off* Audible tone and display shows the time of day.
- *Probe* Audible tone is heard if the probe is plugged in. The display will show *Probe*.
- Oven Light The oven light turns on. An audible tone and a relay click are heard.
- Number pads Can only be used after another function has been selected.

Check the control panel for delamination to make sure that the touch board is not separating from the glass. Next, check to make sure that the resistance is infinitely high between ALL pins. Any impedance implies a faulty keyboard.

Model JKP90

Note: The key panel and the electronic control are separate components and must be tested individually.

Press each pad on the key panel followed by the *Clear/Off* pad. If the key panel is functioning properly, the following should occur:

• **Bake, Broil, Timer, Clock,** and **Cook Time** pads – Audible tone plus display shows the mode of operation selected.

- Clear/Off Audible tone and display shows the time of day.
- Number pads No audible tone. Can only be used after another function has been selected.

Oven Sensor and Door Switch Test

Note: See Lock Assembly for an explanation of the door switch function.

- 1. Remove power from the oven.
- 2. Make resistance measurements from the side of the sensor and the lock switch connector with exposed terminals.
- 3. The resistance measurements are made on the logic board at the connector listed on the chart below.
- 4. If an abnormal reading is observed, wiggle the leads at the disconnect block. If there is any variation, replace the component.

Resistance Measurement Chart							
Madala	Circuit	Connector	Terminals		Ohmo		
Models	Circuit	Connector	Upper	Lower	Onns		
JKS10	Oven Sensor	CN2	4 to 6	n/a	1080 Ω @ Rm. Temp.		
JKP30	Oven Sensor	CN2	4 to 6	n/a	1080 Ω @ Rm. Temp.		
JKP35	Door Unlatched	CN2	1 to 3 2 to 3	n/a	0Ω open		
	Door Latched	CN2	2 to 3 1 to 2	n/a	0Ω open		
JKP55 JKP75	Oven Sensor	J3 (upper) J4 (lower)	6 to 8	1 to 2	1080 Ω @ Rm. Temp.		
PK956 ZEK958	Door Unlatched	J3 (upper)	3 to 5 4 to 5		0Ω open		
		J4 (lower)		4 to 6 4 to 5	0Ω open		
	Door Latched	J3 (upper)	4 to 5 3 to 5		0Ω open		
		J4 (lower)		4 to 5 4 to 6	0Ω open		
JKP70	Oven Sensor	CN2	6 to 8	n/a	1080 Ω @ Rm. Temp.		
PK916 ZEK938	Door Unlatched	CN2	3 to 5 4 to 5	n/a	0Ω open		
	Door Latched	CN2	4 to 5 3 to 5	n/a	0Ω open		
JKP90	Oven Sensor	J1	4 to 6	n/a	1080 Ω @ Rm. Temp.		
	Door Unlatched	CN2	1 to 3 2 to 3	n/a	0Ω open		
	Door Latched	CN2	2 to 3 1 to 3	n/a	0Ω open		

Error Codes

The electronic oven control has error (F) codes that can be utilized by the service technician in order to quickly identify failed or improper operation of certain oven components. The oven may stop operating but not give an F code on the display immediately. F codes are stored in nonvolatile EEPROM memory until the same fault occurs twice consecutively. After that, the F code will be displayed. All F codes, except for F9, are suppressed. F9 is the only error code that can be displayed for the consumer. A fault must exist continuously for several minutes before an F code is stored (F2 and F8 are 1 minute or less).

On the JKS10, JKP30, JKP35, & JKP55, the F codes can be recalled by pressing the *Timer, Clock,* and *Min Down* buttons simultaneously. While F codes are displayed, pressing *Min Up* and *Hr Down* simultaneously will clear them.

On the JKP70, JKP75, PK916, PK956, ZEK938 & ZEK958, the F codes can be recalled by pressing the *Timer*, *Clock*, and *9* buttons simultaneously. While F codes are displayed, pressing *6* and *8* simultaneously will clear them.

ERROR CODE	MEANING	CAUSE / CORRECTION						
FO	Shorted OFF key	Determine if problem is with Key Panel or Control by disconnecting ribbon cable and measuring flat cable pins 3 to 4 on JKS10, JKP30, & JKP35; cable pins 7 to 12 on JKP55. Should be to probe side with conductor. Should be 125–175 ohms while pressing OFF key. For JKP70, JKP75, PK916, PK956, ZEK938, & ZEK958, perform glass touch board key panel test, making sure to test EVERY pin combination for possible shorts. If there are no shorts, the problem is probably with the Control.						
F2	Oven temperature inside oven cavity as measured by sensor over 650°F unlatched or 915°F latched.	Welded relay contacts on the relay board. Cooling fan stalled or blocked. Airflow to rear of unit. High resistance in oven sensor leads and/or connectors (especially at sensor in rear).						
F3	Open oven sensor (over 2900 Ω)	Disconnect power. Disconnect sensor harness from control. Measure sensor resistance (white leads) to be 1080 ohms at room temperature with 2 ohms per degree change. Look for damaged harness terminals if not a bad sensor.						
F4	Shorted oven sensor (under 950 Ω)	Disconnect power. Disconnect sensor harness from control. Measure sensor resistance (white leads) to be 1080 ohms at room temperature with 2 ohms per degree change. Separate sensor from harness to determine fault.						
F5	Sensor circuit supervisor failure	Replace Control.						
F7	Shorted matrix or START key	For JKS10, JKP30, JKP35, & JKP55, determine if problem is with Key Panel or Control by disconnecting flat cable and measuring cable pins using pinout chart. Allow up to 1000 ohms when pressing a key. For JKP70, JKP75, PK916, PK956, ZEK938, & ZEK958, determine if problem is with Key Panel or Control by disconnecting ribbon cable and power up control. If no F code, problem is with key circuit.						
F8	EEPROM data shift failure	If repeated, replace Control.						
F9	Cooling fan stalls or other cause of open thermal switches in yellow or blue leads	Suspect stalled cooling fan or airflow to control area						

Control Board Testing

The resistance of various components can be checked from the electronic oven control by the service technician to quickly identify failed or improper operation of certain oven components.

Note: Colored dots on relays match color of wire.

Hidden Bake Element

To test the hidden bake element, the resistance should read approximately 27 Ω between the orange wire at **DLB** and the yellow wire at **BAKE**. (See photo.)



Convection Element

To test the convection element, the resistance should read approximately 22 Ω between the orange wire at **DLB** and the blue wire at **CONV**. (See photo.)



Broil Element

To test the broil element, the resistance should read approximately 17Ω between the orange wire at **DLB** and the purple wire at **BROIL**. (See photo.)



Line Voltage Testing

To test the line voltage at the board, the black wire is L1, The white wire is neutral, and the red wire is L2. The voltage should be approximately 120 VAC between L1 and N and approximately 240 VAC between L1 and L2. *(See photo.)*



Convection Fan Motor

To test the convection fan motor, the resistance should read approximately 168Ω between the red wire at **CW** and the blue wire at **CCW**. (See photo.)



Sensor

To test the sensor, the resistance should read approximately 1100Ω at room temperature between the 2 white wires at pin 6 and pin 8 on **CN2**. (See photo.)



Schematics and Wiring Diagrams

WARNING: Disconnect electrical power before servicing.

Caution: Label all wires prior to disconnection. Wiring errors can cause improper and dangerous operation. Verify operation after servicing.









Models JKP70, PK916, & ZEK938



* SWITCH CONTROLS FAN SPEEL C-NO IS LO SPEED USED DURING COOKING FUNCTIONS. C-NC IS HI SPEED USED DURING SELF CLEAN.



	ERC																
RELAY CONTACTS MADE	BROIL UPPER KI	BAKE UPPER K2	BROIL LOWER K4	BAKE LOWER K5	DLB UPPER KI6	DLB LOWER KI7	LWR LOCK MOTOR K7	UPR LOCK MOTOR K8	LOWER LIGHT KI2	UPPER LIGHT KII	COOLING FAN KI4	CONV UPPER K3	CONV LOWER K6	CONV FAN UPPER KIO	CONV FAN UPR DIRECTION KI5	CONV FAN LOWER KIO	CONV FAN LWR DIRECTION KI3
BAKE	* *	* *	* *	* *	*	*			*	*	* * * *			ΧХ		ΧХ	
BROIL	* *		* *		*	*			*	*	* * * *						
CLEAN	* * *	* * *	* * *	* * *	*	*	Х	Х			* * * *						
CONV BAKE (I RACK) +	* *	* *	* *	* *	*	*			*	*	* * * *			*		*	* *
CONV BAKE (MULTI RACK) +					*	*			*	*	* * * *	* *	* *	*	* *	*	* *
CONV ROAST	* *		* *		*	*			*	*	* * * *			*		*	
PROOF +									*	*				*		*	
WARM / SERVE WARM	* *	* *	* *	* *	*	*			*	*	* * * *						

NON CYCLING CONTACTS
 CYCLING CONTACTS
 CYCLING CONTACTS
 THE CLEAN CYCLE, BROIL ELEMENT REMAINS ON UNTIL 750°F IS REACHED OR THE FIRST 30 MINUTES. THEN, THE BAKE AND BROIL ELEMENTS CYCLE
 SEPARTELY WHILE CALLING FOR HEAT, FOR THE REMAINDER OF THE CYCLE.
 FOR THE REMAINDER OF THE CYCLE.
 FOR THE REMAINDER OF THE CYCLING FAN ON WHEN ANY COOKING MODE IS INTIATED, AND TURN THE COOLING FAN OFF WHEN THE OVEN TEMPERATURE IS BELOW SPECIFIED LIMIT.

X - CONTACTS MADE AT BEGINNING AND END OF CLEAN CYCLE ONLY.
 OPTIONAL COOKING MODE, NOT PRESENT ON ALL MODELS.
 XX - BAKE/TIME BAKE-BAKE AND BROIL ELEMENTS CYCLE DURING PREHEAT WITH ONE ELEMENT ON AT A TIME. THE CONVECTION FAN ALSO OPERATES WHILE PREHEATING AND WILL TURN OFF ONCE THE SET TEMPERATURE IS REACHED. ONCE BAKE PREHEAT TEMPERATURE IS REACHED, THE BAKE AND BROIL ELEMENTS CYCLE FOR THE BALANCE OF THE BAKE OPERATION WITH ONE ELEMENT ON AT A TIME

DOOR	DO SWI	OR TCH	FAN* SWITCH				
POSITION	C⊲—⊳NO	C⊲—⊳NC	C-NO	C-NC			
OPEN	Х		Х				
CLOSED		Х	Х				
LOCKED		X		Х			

X-CLOSED

• SWITCH CONTROLS FAN SPEED C-NO IS LO SPEED USED DURING COOKING FUNCTIONS. C-NC IS HI SPEED USED DURING SELF CLEAN.



X-CLOSED

* SWITCH CONTROLS FAN SPEED C-NO IS LO SPEED USED DURING COOKING FUNCTIONS. C-NC IS HI SPEED USED DURING SELF CLEAN.

Warranty

GE Built-In Microwave Cooking Center Warranty.



All warranty service provided by our Factory Service Centers, or an authorized Customer Care® technician. To schedule service, on-line, 24 hours a day, visit us at ge.com, or call 800.GE.CARES (800.432.2737). Please have serial number and model number available when calling for service.

For The Period Of: GE Will Replace:

One Year From the date of the original purchase **Any part** of the microwave cooking center which fails due to a defect in materials or workmanship. During this *limited one-year warranty*, GE will also provide, *free of charge*, all labor and in-home service to replace the defective part.

What GE Will Not Cover:

- Service trips to your home to teach you how to use the product.
- Improper installation, delivery or maintenance.
- Failure of the product if it is abused, misused, or used for other than the intended purpose or used commercially.
- Replacement of house fuses or resetting of circuit breakers.

- Damage to the product caused by accident, fire, floods or acts of God.
- Incidental or consequential damage caused by possible defects with this appliance.
- Damage caused after delivery.
- Product not accessible to provide required service.

EXCLUSION OF IMPLIED WARRANTIES—Your sole and exclusive remedy is product repair as provided in this Limited Warranty. Any implied warranties, including the implied warranties of merchantability or fitness for a particular purpose, are limited to one year or the shortest period allowed by law.

This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within the USA. If the product is located in an area where service by a GE Authorized Servicer is not available, you may be responsible for a trip charge or you may be required to bring the product to an Authorized GE Service location for service. In Alaska, the warranty excludes the cost of shipping or service calls to your home.

Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To know what your legal rights are, consult your local or state consumer affairs office or your state's Attorney General.

Warrantor: General Electric Company. Louisville, KY 40225