Electrolux

2006 Sears Technical Training Manual

Sears Repair Tips
Electronic Fault Codes
Induction Cooking

And Introducing…

Refrigeration & Cooking

Sears

Electrolux Home Products

2006 Technical Training Manual
Developed for Sears Canada

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2001-2006

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DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 46-332**
Education Leader **FEBRUARY 2005**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 46

FRIGIDAIRE/KENMORE

C970

TOP MOUNT REFRIGERATORS

DEFROST HEATER CONNECTION

CLAUDE BABINEAU – DEPARTMENT 731A
CHRIS BURNELL-DEPARTMENT 731A

Top Mount Refrigerator Defrost Heater Connection

Models: Top Mount Refrigerators with a defrost heater connection.

Problem: Evaporator is not defrosting.

Cause: The connector on the defrost heater is not going together all the way.

Solution: Electrolux has made a change to the defrost heater thermostat connection. The connector was redesigned to stop water from entering the metal housing and pushing the epoxy end out of the old thermostat.

The new thermostat is sealed in heat shrink plastic (see Figure 1), and the connectors were changed so that water cannot enter and push the connector apart (see Figure 2). The new connector pushes together very hard - and from time to time, both in production and in field service, the connectors are not being pushed all the way together. This will allow water to enter, build up, and freeze inside the connector, thus preventing the defrost heater from working properly.

When testing the limit switch or defrost heater, check for any ice build-up in the thermostat connection (see Figure 3). Hold the connector in your hand to warm it – then shake any water or ice out. When pushing the connector back together, you should feel 2 snaps and none of the steel end should be exposed. **Note:** The connector should go together in a snug, tight fashion.

Figure 1

Figure 2

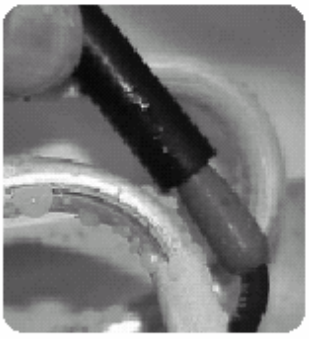


Figure 3

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 46-349**
Education Leader **JUNE 2005**

JOB CODE: 85140E
CALL CODE 10 for site
41 for shop
.

DIVISION 46

FRIGIDAIRE C970

Control Box Leaking Water on Front Filter Refrigerators

Models: All refrigerators utilizing a front filter.

Problem: Water leaking from control box onto the top shelf of the food compartment on front filter models.

Cause: Damaged "O" ring or plastic shavings in the filter base by the "O" ring.

Solution: The "O" ring in the back of the filter base at the location the water lines connect to the base are not sealing on the line. (See Figure 1) This can be caused by a damaged "O" ring or material from manufacturing like plastic shavings are in the housing by the "O" ring.

To repair, first drop the control box to gain access to the water lines and the back of the filter base. Using a standard screwdriver, place it between the insert and the white housing. (See Figure 2) Twist the screwdriver to remove the insert. With the insert removed use a paper clip that is straightened and a small hook bent in the end to reach in and pull the "O" ring out (See Figure 3) With the "O" ring removed, wipe out the housing and install a new "O" ring part number 240526901, available from service parts.

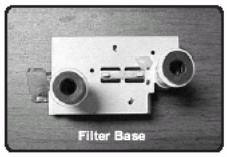


Figure 1

Figure 2

Figure 3

Now, reinstall the insert in the base and push the water lines back into the base with the brown line on the right and the white on the left. Be sure to push the line all the way in until it stops against the end of the housing. Run some water at the freezer door and check for leaks. If no leaks are found, reinstall the control box.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 46-350**
Education Leader **June 2005**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 46

FRIGIDAIRE

C970

REFRIGERATOR

KICK PLATE

PROBLEM: The bottom grill will not stay on top freezer model refrigerators with a serial number starting with BA.

CAUSE: There are vent holes in the bottom front of the cabinet to allow air to escape during the foaming process. If extra foam is inserted into the cabinet it can work its way out the vent holes. The vent holes line up with the bottom grill clip and do not allow it to snap in behind the front bottom section of the cabinet.

SOLUTION: To correct the problem it will be necessary to cut out the bulging foam with a utility knife see figure 1.

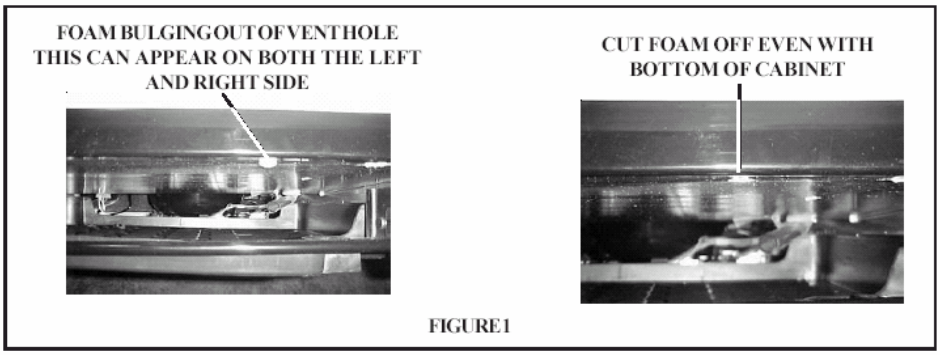


FIGURE 1

Install the bottom grill, if you still have a problem with the grill popping off at the top the bottom of the cabinet is also pushed down form the foam. In this case it will be necessary to push a screw driver between the front panel and the bottom of the cabinet see figure 2. Once the screwdriver is in place twist it, this will push up the bottom of the cabinet allowing for additional area for the bottom grill retainer to catch on the front panel see figure 3.

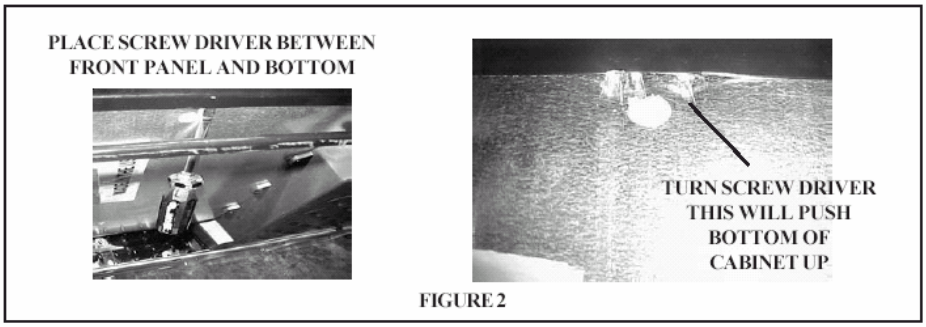


FIGURE 2

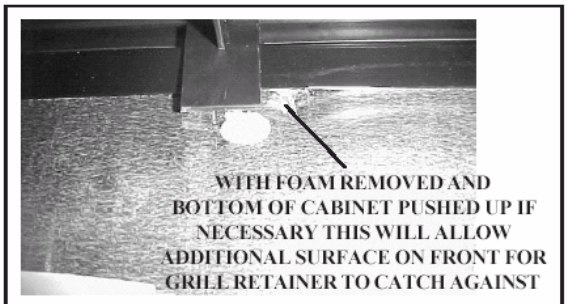


FIGURE 3

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 46-363**
Education Leader **DECEMBER 2005**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 46

FRIGIDIARE C970

REFRIGERATOR- TOP MOUNT

CRISPER DRAWER FALLING OFF

LINER SUPPORT

Problem: The crisper cover falls off the support molded into the liner of current top freezer refrigerator.

Cause: Refrigerator liner is too wide.

Solution: Order and install two cover extensions (p/n 240553701), one for each side of the crisper cover. To install, remove the crisper cover and slide the extension into the steel support running through the front of the cover (See Figure 1). Push the extension in with the open end toward the front until it rests against the cover (See Figure 2). The extensions may be filed off if they are too wide and cover will not fit in product.

Side in steel bar with open end facing front of cover.

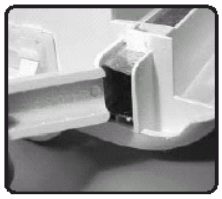


Figure 1

End of extension may be filed if too wide.

Figure 2

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 46-366**
Education Leader **February 2006**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 46

SOURCE C970

FRIGIDAIRE / KENMORE SIDE-BY-SIDE

Poor Water Flow with Rear-Mount Water Filters

Models: Side-by-side refrigerators with rear-mount water filter systems.

Problem: Water filter becoming blocked in a very short period of time causing slow water flow to the ice maker and out the dispenser.

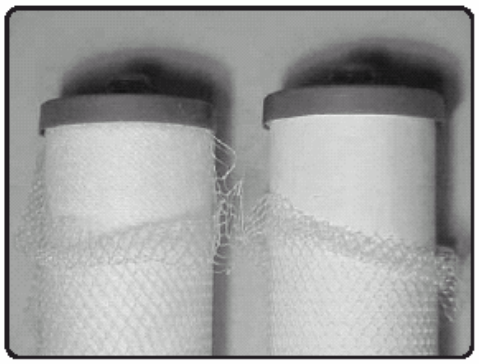
Cause: Nano-fiber used to wrap the filter elements was produced too fine, causing it to catch very fine particles and clogging the water filter.

Solution: The Nano-fiber was not properly cured before using. This caused premature deterioration under certain water conditions (i.e. - dirty water) which caused the filters to plug. The fine Nano-fiber wrap was added to remove very fine particles from the water. Under certain water conditions, the fine particles were caught but caused the wrap to become clogged very fast, resulting in poor water flow through the water system.

The rear filter stopped using the Nano-fiber wrap in February 2005 and went back to the old coarse wrap (see Figure 1). They stopped producing front filters with this wrap as of July 19, 2005—on a temporary basis until new testing by the National Sanatory Foundation (NSF) confirmed whether the front filter will meet all the standards without the wrap (See Figure 2). If it does, the coarse wrap will not be added to the front filter. If the filter cannot meet all the standards, then the wrap will be added back into production before the end of 2005.

:

Figure 1



New Old

You can see a clear difference in the type of wrap on these two rear filters. The new filter has a coarse wrap while the old one contains a finer wrap.

Figure 2

New Old

On the front filters, the wrap was removed.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 46-367**
Education Leader **February 2006**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 46

SOURCE C970

KENMORE & FRIGIDAIRE SIDE-BY-SIDE REFRIGERATORS

No water coming out of the dispenser on Kenmore & Frigidaire side-by-side refrigerators

Models:

Side-by-side refrigerators with serial numbers between 4A52400000 and 4A55299999

Condition:

Some SxS refrigerators within this serial range had the conduit within the freezer door (in which the water line slides through) move too close to the inner door liner during the foaming process. This could cause the water line to freeze within the door

Correction:

This issue was corrected in production with serial numbers beginning 4A60100000. To correct the problem in the field the freezer door will need to be replaced.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 46-369**
Education Leader **April, 2006**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 46

SOURCE C970

"POPPING" OR "GURGLING" SOUND IN KENMORE AND FRIGIDAIRE REFRIGERATORS

CONDITION:

Noise described by the customer as a "Popping or Gurgling Sound." This noise comes from the evaporator 30 to 40 seconds after the compressor starts and will last about 60 to 90 seconds. The sound is called evaporator feed noise and is normal as explained in the customer's Owners Manual.

CAUSE:

Evaporator feed noise comes after the compressor has been off long enough for the pressure in the system to completely equalize. Then when the compressor starts, only vapor is going up the capillary tube. After the compressor has run for 30 to 45 seconds, there is enough head pressure to drive liquid up the capillary tube, but there is still some vapor mixed with the liquid. This vapor-liquid mix is causing the sound which will only last for a very short time. Once the head pressure is high enough to compress all the vapor to liquid, the noise will stop.

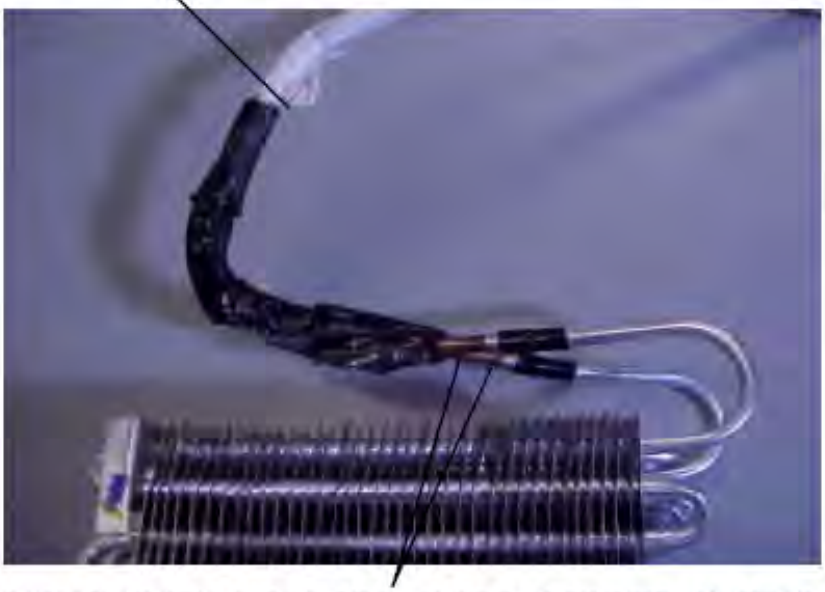
SOLUTION #1

It should be explained to the customer that evaporator feed noise is normal in modern refrigerators which use less liquid refrigerant then would have been used pre-2001. The noise level will vary based on factors such as ambient temperature, floor surface material etc. This noise in no way affects the performance of the refrigerator.

SOLUTION #2

*If customer is adamant that the noise is excessive, the noise can be muffled by wrapping the heat exchanger with a damper pad. Order a quantity of 2 of PN **46C9705303307583**. Wrap the pad around the heat exchanger starting at the vinyl cover (Figure 1). Pull the cap tube and suction line together until you get to the evaporator (Figure 2). Continue wrapping the cap tube and the suction line separately until you reach the point where the copper and the aluminum meet (Figure 1).*

START AT END OF THE COVER ON HEAT EXCHANGER



WRAP UNTIL YOU GET ON TO COPPER SLEEVE
EXTENDING FROM THE ALUMINUM EVAPORATOR

FIGURE 1

WRAP CAP TUBE AND SUCTION LINE TOGETHER AS FAR AS YOU CAN

THEN WRAP THE LINES SEPARATLY UNTIL
YOU REACH THE COPPER SLEEVE

FIGURE 2

SOLUTION #3

***As a very last & final option**, to completely eliminate evaporator noise nitrogen can be added to the system. This should **ONLY** be done to avoid a product return if the customer is completely unsatisfied with ANY noise from the evaporator.*

To add Nitrogen to the system:

1. Place a line tap on the process tube of the compressor.
2. Connect a single hose between the regulator on the nitrogen tank and the line tap valve, with a shut off valve on the end of the hose connected to the line tap valve. Or connect an enviro-guard hose with the shut off end at the line tap valve.
3. Open the valve on the Nitrogen tank.
4. Using the attached chart, set the pressure regulator on the nitrogen tank to the correct pressure.
5. Close the valve on the Nitrogen tank.
6. Open the valve on the end of the hose by the line tap valve or seat the enviro-guard on the line tap valve and allow the Nitrogen to enter the system.
7. Using a pinch off tool, pinch off the process tube between the line tap valve and the compressor.
8. Remove the line tap valve, and weld the hole in the process tube shut. The addition of the Nitrogen raises the back pressure without adding refrigerant causing frost to form back on the suction line.

Hose Length	Pressure (PSI)
1'	153
2'	77
3'	51
4'	38
5'	31
6'	26
7'	22
8'	19
9'	17
10'	15

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 46 371**
Education Leader **June 2006**

JOB CODE: 11180E

CALL CODE "As Required"

MERCHANDISE CODE:

DIVISION 46

SOURCE C970

SxS REFRIGERATORS

Ice Maker Fails to shut off on all Kenmore/Frigidaire models with a Rear-Mounted Ice Maker

Problem: *Rear mount ice maker will not shut off when bucket is full, causing ice to fall out the sides or back of the bucket.*

Cause: *The bail arm extension is folding back under the ice maker when the arm comes down on an ice cube leaning to the back of the bucket.*

Solution: *The addition of a spring on the ice maker bail arm will prevent the extension from folding back under the arm when it drops down after the harvest cycle. This spring clips behind the bail arm extension and runs in front of the centre step down on the main arm and pulls the extension forward. The part number for the new bail arm kit is* **46C9705304452073**.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 46 373**
Education Leader **June 2006**

JOB CODE: 73315E

CALL CODE: As required

MERCHANDISE CODE:

DIVISION 46

SOURCE C970

Clicking Sound When Opening or Closing the Doors on a Side-by-Side Refrigerators

MODELS:

All Kenmore and Frigidaire Side-by-Side Refrigerators that have a serial number beginning with "4A"

CONDITION:

Clicking sound when opening and/or closing the doors.

CORRECTION:

The opening in the doorstop is too large which may allow the upper cam to move back and forth when the door is opened and closed. (See Figure 1)

The moving of the cam in the doorstop is causing the clicking sound. (See Figure 2) To correct the problem, replace the upper cam and doorstop. Order the parts by the correct model number as they come in different colours.

Kenmore

PRO

Side by Side Refrigerator Counter Depth & Standard Depth

COMPRESSOR ELECTRICAL COMPONENTS AND CIRCUITS FOR VARIABLE CAPACITY COMPRESSOR FOR COUNTER DEPTH UNIT

The new series of very high efficiency compressor is equipped with a new electrical power input electronic control to replace the standard start package.

THE POWER INPUT ELECTRONIC CONTROL (INVERTER)

The solid state power input electronic control contains:

1. Low voltage power supply.
2. EMI Filter and Voltage Suppressor Circuit.
3. AC-DC Converter
4. Three-phase Inverter Bridge
5. Serial communication.
6. Microcontroller or DSP Controller Protection.
7. Voltage Sensor

INVERTER COMPRESSOR

Figure C

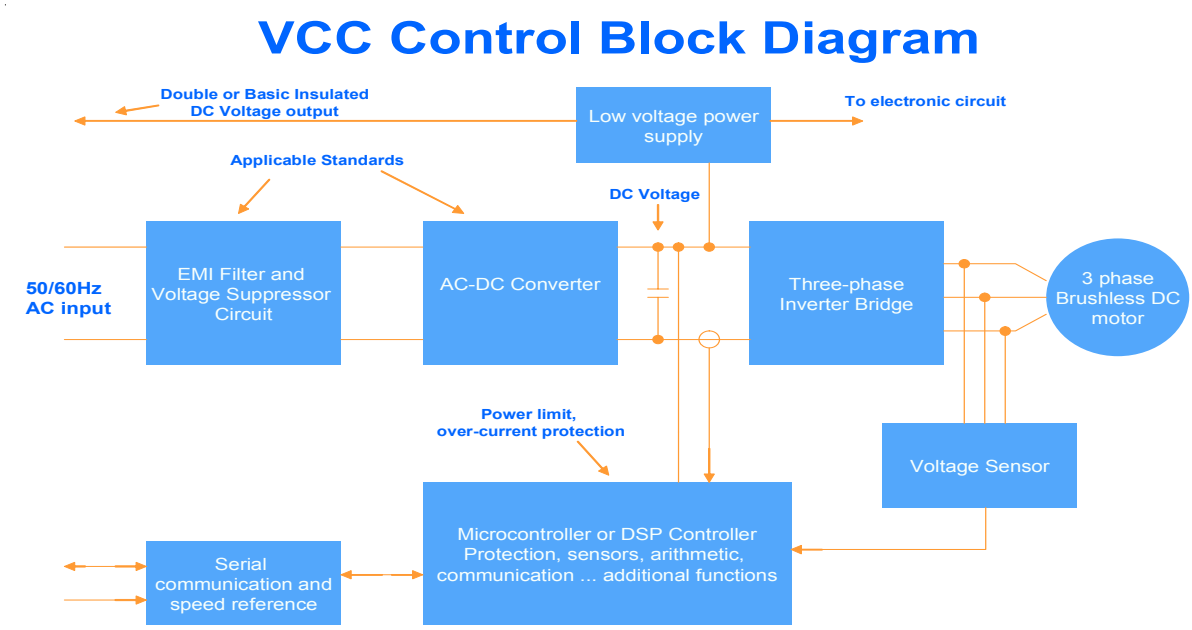
The Inverter replaces the Solid State Relay, the Overload Protector and the Run Capacitor. The Inverter has 115 Volt AC current to it all the time the refrigerator is connected to line voltage. It picks up 115 Volts directly from the service cord. It receives a 2 to 5 volt DC signal from the main control board located under the refrigerator in the left front opening behind the bottom grill.

To Check/Replace the Inverter

1. Use your Multimeter or a good volt meter set on 300 volt AC to test the voltage going into the inverter from the product service cord. Do not disconnect the molex connector. Slide the probes from your meter along side the wires until you connect with the terminal itself. You should read 115 Volt AC + or - 10%. If less check service cord and supply voltage.

2. Set your meter to DC on a scale as close to 10 Volt as available. Do not disconnect the molex connector. Slide the probes from your meter along side the wires until you connect with the terminal itself. You should read between 2 and 5 Volt DC. If voltage is outside the 2 to 5 Volt DC range replace the main control board

Figure C



3. If the voltage checks good, remove the inverter from the compressor by removing one screw at the bottom of the inverter that goes through the bracket welded to the compressor. Pull the inverter away from compressor.

REMOVE SCREW

Figure C

Use a small flat-bladed screwdriver to remove the plug from the compressor terminals. Using an ohmmeter, check the resistance between the compressor terminals (See testing compressor). If the compressor checks good, replace the Inverter.

COMPRESSOR

The compressor has a 3 phase, 4 pole Brushless DC motor.

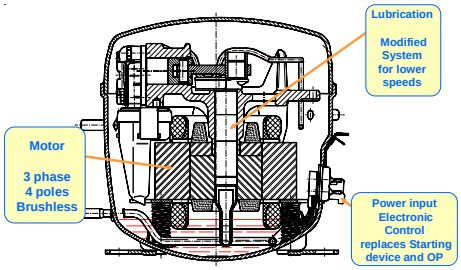
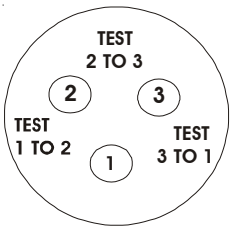
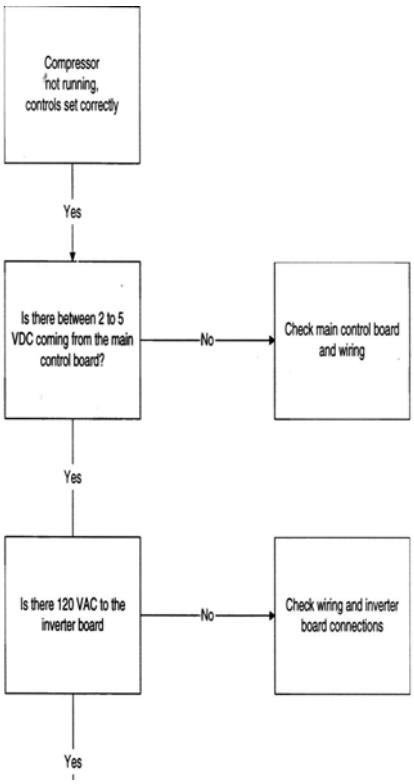
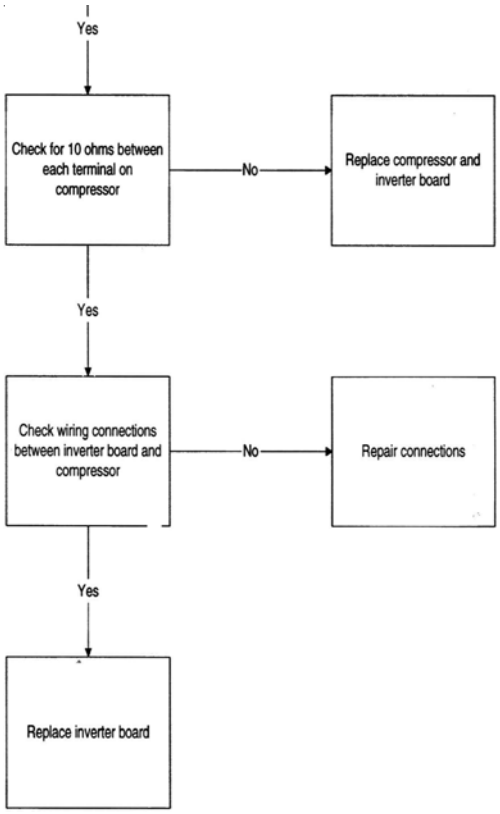


Figure C

To test the compressor using your Ohmmeter, check the resistance between the terminals as shown in the drawing below. It should read 10 ohm, +/- 10 %.







Service Diagnostics Mode For Model 253.44333600

With a series of key presses, a service technician will be able to view data, via the display and exercise loads to help troubleshoot the product. Following is a list of capabilities.

View

Firmware Version (What version of software)
Minimum, maximum and average Freezer temperatures, last 24 hours.
Minimum, maximum and average Fresh Food temperatures, last 24 hours.
Indicate an open or shorted sensor condition.
Indicates if defrost occurred in the last 72 hours?
Number of defrosts, last 72 hours.
Duration of last defrost.
Number of compressor cycles, last 24 hours
% Compressor Run Time, last 72 hours.
Average Compressor Speed (Variable Speed Compressor).

Test

Manually test sensors.
Run evaporator fan at high and low speeds
Operate damper to full open, full close and mid positions.
Turn defrost heater on.
Turn compressor on.

To enter the test mode press and hold the Freezer Temperature UP (Warmer) key while pressing the Freezer Temperature DOWN (Colder) key 3 times within 5 seconds.

The freezer display will show "1". The fresh food display will be blank. Each press of the freezer temperature UP (Warmer) or the freezer temperature DOWN (Colder) key will step you through the service menu tests,"1" through "8". Each press of the fresh food temperature UP (Warmer) or fresh food temperature DOWN (Colder) key will step you through variables of each test.

Note: If you are in test 1 and press the freezer UP key you will go to test 8. If at the start of test 1, you press the food compartment UP key it will beep.

Deactivation

Press and hold Freezer Temperature "UP" key for 5 seconds the control will beep and service mode is deactivated.
Mode automatically deactivates after 5 minutes of no key entry.

Service Test Menu

Test 1 Firmware Version
Variable 1. Display main (Power) board software version.
Variable 2. Display user interface (Control Board) software version.

Test 2 Evaporator Fan Test
Variable 1. Motor runs at high speed continuously until variable is exited. Display will show H for high speed fan will run @ 2700 RPM @ 12 VDC
Variable 2. Motor runs at Low speed continuously until variable is exited. Display will show L for low speed fan will run @ 2000 RPM @ 8 VDC.

Test 3 Freezer temperature, last 24 hours. (Defrost temperature omited)
Variable 1. Display Minimum Temperature (Coldest Temperature)
Variable 2. Display Maximum Temperature (Warmest Temperature)
Variable 3. Display Average Temperature

Note: On products with two position read out in the freezer and food compartment, the one or two digit temperature will appear in the food display to give you the test temperature.

On products with a one position read out in the freezer and food compartment, the first number of the temperature will be constant for 1 second, the second number of the temperature (if needed) will flash twice in one second. It will alternate back and forth to give you the test temperature.

Test Number **Temperature**

Variable 4. Freezer sensor circuit condition;
Flash "1" Freezer sensor OK
Flash "2" Freezer sensor open
Flash "3" Freezer sensor shorted
Variable 5. Disables buffer to allow technician to place his finger on the freezer sensor and observe an immediate temperature rise.

Note: The upper control limit is 3 degrees over set temperature.

Test 4 Fresh Food temperature, Last 24 hours
Variable 1. Display Minimum Temperature (Coldest)
Variable 2. Display Maximin Temperature (Warmest)
Variable 3. Display Average Temperature

Note: On products with two position read out in the freezer and food compartment the one or two digit temperature will appear in the food display to give you the test temperature.

Test Number Temperature

On products with one position read out in the freezer and food compartment the first number of the temperature will be constant for 1 second, the second number of the temperature will flash twice in one second. It will alternate back and forth to give you the test temperature.

Test Number Temperature

Variable 4. Fresh Food sensor circuit condition will be displayed in Fresh Food Window;
Flash "1" Fresh Food sensor OK
Flash "2" Fresh Food sensor open
Flash "3" Fresh Food sensor shorted
Variable 5. Disables buffer to allow technician to place his finger on the Fresh Food sensor and observe an immediate rise in temperature.

Note: The upper control limit is 2 degrees over set temperature.

Test 5 Damper Motor is a 12 volt DC Stepper motor
Variable 1. Damper to full open
Variable 2. Damper to mid position
Variable 3. Damper to full closed

The display will show the following symbols to indicate the door position

0 FULL OPEN
▽ MIDDLE
— CLOSED

NOTE: Stepper motors require alternating polarities of DC current to operate. This is accomplished with a circuit on the main board. Applying straight 12 V DC to the damper motor will not make the motor run and it could damage the motor windings. Only test the damper motor through the refrigerator control system.

Test 6 Defrost
Variable 1. Number of defrosts, last 72 hours
Variable 2. Duration of last defrost heater on time in minutes.
Variable 3. Will turn on defrost heater.
If current flow to heater is sensed the letter 'D' will be displayed. If no current flow is sensed the letter 'D' will flash. This will continue until servicer advances to another test or 5 minutes have passed with out a key entry. NOTE: If the defrost limit switch opens during the time the heater is on the D will change to a flashing D indicating there is no current flow.

Test 7 Compressor and condenser fan on
Variable 1. Compressor run time percentage in last 72 hours
Variable 2. Number of compressor cycles last 24 hours
Variable 3. Average compressor speed (Variable speed compressor only) Speed displayed as a number between 16 and 45. Actual speed is times 100

Note: This test will display a '0' on models with standard speed compressor.
Variable 4. Run compressor and condenser fan motor. The display will Flash the letter 'C'when the compressor and condenser fan are running.

NOTE: Diagram C on page 16 will show key commands for service.

Test 8 Default Settings / Clear Service Data
Variable 1. Display "1" Indicates default settings have been changed and/or there is service data in memory
Variable 2. Display "0" Indicates Factory Defaults (resets temperature settings to 0 and 37 F and service data memory cleared).
To reset temperatures to factory default and clear the service memory, and enable the servicer to restart system recording new data press and hold the fresh food UP (WARMER) key while pressing the fresh food DOWN (COLDER) key 3 times within 30 seconds.

Manual Defrost

Activation -
Press and hold Freezer Temperature UP (WARMER) Key while pressing the fresh food temperature DOWN (COLDER) key 5 times within 6 seconds.

Deactivation
Press and hold Freezer Temperature UP (WARMER) Key while pressing the fresh food temperature DOWN (COLDER) key 5 times within 6 seconds.

Function
Initates a defrost cycle.

All other functions are disabled including alarm(s) enabling

ShowRoomMode
See page C13

Changing between Fahrenheit to Centigrade on the display
See page C13

NOTES

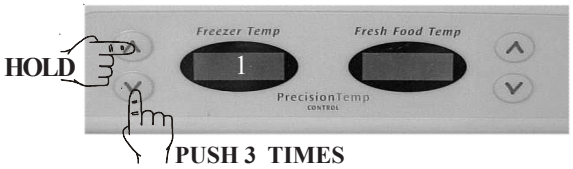
Service Diagnostics Mode For The 253.55333600

With a series of key presses, a service technician can view data, via the display and exercise loads to help trouble-shoot the product. Following are a list of capabilities.

View
Firmware Version (What version of software)
Indicate an open or shorted sensor condition.

Test
Manually test sensors.
Run evaporator fan motor
Operate damper to full open, full close
Turn defrost heater on.
Turn compressor on.

To enter the test mode press and hold the Freezer Temperature UP (Warmer) key while pressing the Freezer Temperature DOWN (Colder) key 3 times within 5 seconds.



The freezer display will show "1". The fresh food display will be blank. Each press of the freezer temperature up (Warmer) or the freezer temperature DOWN (Colder) key will step you through the service menu tests,"1" through "8". Each press of the fresh food temperature UP (Warmer) or fresh food temperature DOWN (Colder) key will step you through variables of each test.

Note: If you are in test 1 and press the freezer up key you will go to test 8. At the start of test 1, if you press the food compartment UP key it will beep at you.

Deactivation
Press and hold Freezer Temperature "UP" key for 5 seconds. The control will beep and service mode is deactivated.
Mode automatically deactivates after 5 minutes of no key entry.

Service Test Menu

Test 1 Firmware Version
Variable 1. Display software version.

Test 2 Evaporator Fan Test
Variable 1. Motor runs at high speed continuously on 115 V AC

Test 3
Variable 1. Freezer sensor circuit condition;
Flash "1" Freezer sensor OK
Flash "2" Freezer sensor open
Flash "3" Freezer sensor shorted
Variable 2. Disables buffer to allow technician to place his finger on the freezer sensor and observe an immediate temperature rise.

Test 4
Variable 1. Fresh Food sensor circuit condition will be displayed in Fresh Food Window;
Flash "1" Fresh Food sensor OK
Flash "2" Fresh Food sensor open
Flash "3" Fresh Food sensor shorted
Variable 2. Disables buffer to allow technician to place his finger on the Fresh Food sensor and observe an immediate rise in temperature.
Note: The upper control limit is 2 degrees over set temperature.

Test 5 Damper Motor is a 115 V AC
Variable 1. Damper to full open
Variable 2. Damper to full closed

The display will show the following symbols to indicate the door position
0 FULL OPEN
— CLOSED

Test 6 Defrost
Variable 1. Will turn on defrost heater.
If current flow to heater is sensed the letter 'D' will be displayed. If no current flow is sensed the letter 'D' will flash.

Test 7 Compressor and condenser fan on
Variable 1. Run compressor and condenser fan motor. The display will show the letter 'C'when the compressor and condenser fan are running.

Test 8 Default Settings
Variable 1. Display "1" Indicates default should show -88

Manual Defrost

Activation
Press and hold Freezer Temperature UP (WARMER) key while pressing the fresh food temperature DOWN (COLDER) key 5 times within 6 seconds.
Deactivation
Press and hold Freezer Temperature UP (WARMER) key while pressing the fresh food temperature DOWN (COLDER) key 5 times within 6 seconds.

Function
Initates a defrost cycle.

All other functions are disabled including alarm(s) enabling

Show Room Mode

See page 13

Changing between Fahrenheit to Centigrade on the display

See page 13

NOTES

CONTROL REMOVAL AND INSTALLATION

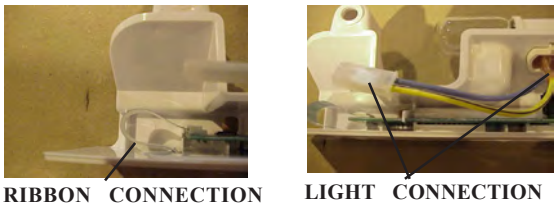
⚠ CAUTION Before servicing any part of the control system the product must be unplugged, the fuse pulled or circuit baker turned off the prevent damage to the the product the control system or personal injury to the servicer.

To service the control board open the food door and remove the cover over the water lines that go to the water filter.

Then remove the screws on the back of the control box. There are two directly behind the control, one at the back of the filter housing and one on the right side of the filter housing. This will allow the control box to drop down.

With the control box dropped down you will see one wiring harness coming out of the top of the food liner and plugging into the control board. Unplug the control board and light wire, then remove the control box.

With the control box removed, release two tabs and the control board can be lifted out of the control housing.Lift up part way and unplug the ribbon connector on the right side of the board,then completely remove the board.



Note: When handling and or replacing a control board it is important the a technician have a wrist ground strap on and connected to the cabinet or another grounding position to prevent static electricity from damaging the board.

Push the new control board down into place using caution not to damage the board on the retainer. With the board snapped all the way down in place reinstall the control box in the top of the food compartment in reverse order from the removal instructions.

To service the power board (main power supply), open the food and freezer door. Remove the kick plate from the bottom of the cabinet. Looking through the opening at the bottom of the cabinet, on the left side you can see the plastic box containing the power board.

One screw in the middle of the front of the box holds the control box. Remove the screw and slide the control box forward. The back of the control box sits on a rail. Now the control box can be pulled out from the front of the refrigerator.

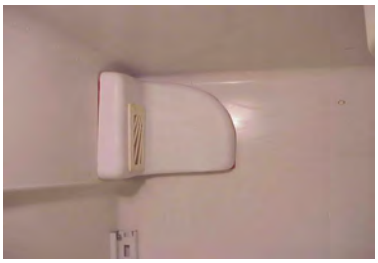
This will give you access to the wiring connectors so you can disconnect the power board and pull the control box out from the front of the refrigerator.

The new power board will cone installed in the plastic box, this willprevent shipping damage and help with the installation.

Start the control box into the opening and reconnect the wiring using caution to make sure the wires are all the way plugged in. Now you can push the control box back in place and reinstall the screw. There is a 3 amp fuse mounted on the control board that is used to protect the board from voltage surges.

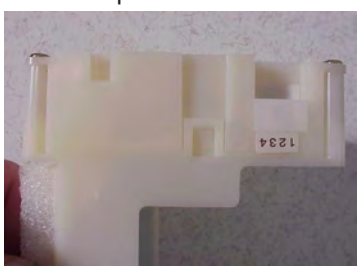
To replace the fuse, remove the control board and lift the fuse out of the retainer.

To replace the damper remove the cover by placing a small screwdriver in the slotted opening in the bottom, then push up on the retaining tab. This will allow you to swing the bottom of the control box out and lift off the top of the retainer.

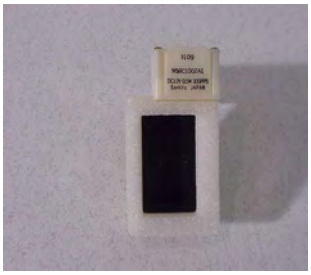


With the cover removed, you can reach down the right side of the damper control from the top and feel a release tab. Push out on the tab and tip the damper out from the top.

With the damper tipped out release the tab in the center of the electrical connector and unplug the wire harness from the damper.



Now the damper can be removed from the product.



NOTE: Stepper motors require alternating polarities of DC current to operate. This is accomplished with a circuit on the main board. Applying straight 12 V DC to the damper motor will not make the motor run and it could damage the motor windings. Only test the damper motor through the refrigerator control system.

To reinstall the damper, make sure the damper door is closed all the way. Then follow the removal instructions in reverse order. Ue caution to make sure you get the wiring connector pushed all the way in. Make sure the seal on the damper connect with the liner and the cover seal so there are no air leaks when the damper door is closed.

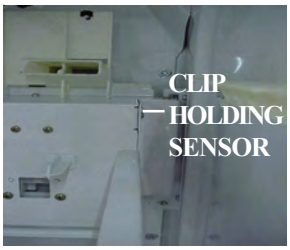
To test, set the control system into service test mode 2 (evaporator fan motor test) and allow the fan to run on high speed. Pass a feather or small ribbon around all sides of the damper cover and look for movement indicating an air leak. If a air leak is present, you will need to remove and recheck the seals and reinstall the damper.

The food compartment temperature sensor is located next to the right hand shelf support bracket in about the middle of the back wall.

The cover over the temperature sensor can be removed by pulling stright out. This allow excess to the sensor snapped into the bracket on the back wall. Pull the sensor out of the bracket and unpluge it from the connector coming out of the back of the liner.

Snap the new sensor into the bracket, plug it into the connector, then push the bracket straight back into the holes in the liner.

The freezer compartment temperature sensor is located inside the housing that supports the ice bucket. The auger motor and solenoid are mounted into the back compartment of the housing.

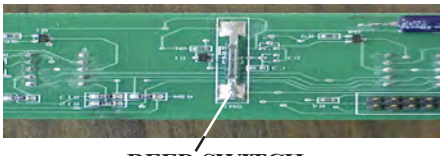


To replace the senser, remove the ice bucket, then remove the two screws at the bottom of the housing that hold the housing assembly to the the rails attached to the liner. With the screws removed lift the housing up about 1/2 inch and pull forward. Holding the housing assembly in one hand, reach over the assembley and unplug the wiring harness from the connector coming out of the back of the liner. Turn the assembly around. The sensor is in the top corner, next to the cube ice seloniod.

Remove the sensor from under the clip, disconnect from the connector plug and replace. Reassemble in reverse order.

Food Compartment Light Switch

The food compartment light switch is a magnetic reed switch located on the control board at the top of the food compartment.



If the reed switch fails the control board must be replaced; follow control board replacement instructions.

The magnet that operates the Reed Switch is located at the top of the food door inner panel.

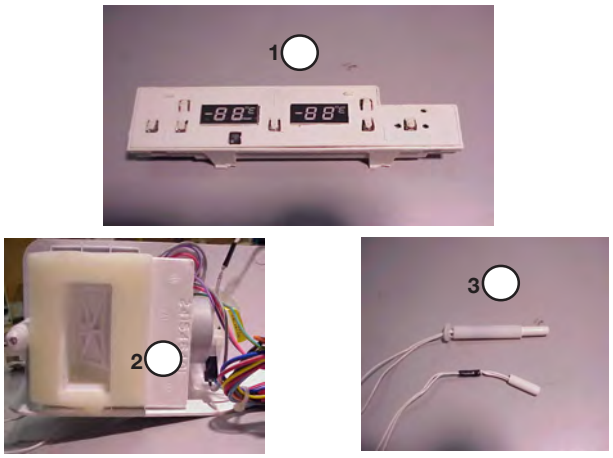
The magnet can be replaced by removing the screw located at the bottom of the bracket. Then lift the magnet and cover off the door panel. On some models it will be necessary to remove the top bin to get to the magnet. The bin will lift off in the same manner as the door bins, lift straight up and out.

Electronic control for standard depth side by side refrigerator 253.55333600

The electronic controls for the standard depth and counter depth models are different, even though they look the same when you first open the food door and see the control system. The standard depth control system does not use a lower control board located behind the toe grill under the freezer compartment. The electronic control system is located in the upper control box, and replaces the ADC 11 as well as the 2 mechanical controls with one electronic control mounted in the same location that the two mechanical controls were mounted. The product uses a standard 115 VAC evaporator fan motor and the same damper used in the electrical mechanical control system.

To service the new Genesis control system follow the instructions below:

The ***ELECTRONIC*** control is located inside the housing mounted in the food compartment, along with the light and damper assembly. See Figure 1.



1. Genesis Electronic control
2. Food Compartment Damper Control
3. Food & Freezer Compartment Thermistor

Figure 1

To remove the *Control Housing Assembly*, remove the three screws at the front of the control box, and the two screws located in the rear of the control box. After removing the cover over the water line on front filter models, remove the screw from the back of the control box. (See Figure 2.)

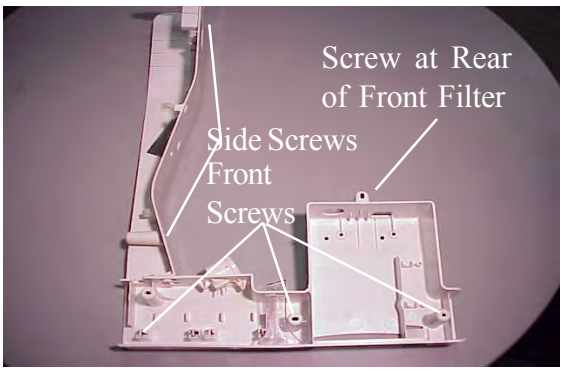


Figure 2

Separate the two housings at the left back of the front housing by sliding the rear housing to the right until the buttons line up with the larger hole in the slots. (See Figure 3.)

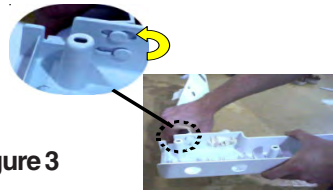


Figure 3

Electronic Control

The control is mounted on the left (as shown in Figure 4) It controls the cycling of the compressor, condenser fan motor, damper motor, evaporator fan motor, as well as the defrost cycle. The door alarms are also part of this control. (See Figure 4.) The freezer and food compartment thermistors plug into the back of the control at the top. The main electrical connector is plugged in at the bottom left corner of the control. To remove the control from the housing, disconnect the two thermistors from the top of the control and disconnect the wiring harness from the lower connector. Push the front of the control box forward to clear the display windows and slide the control straight up and out of the housing. Reinstall in reverse order.

Thermistor Freezer Control with Plastic Tube

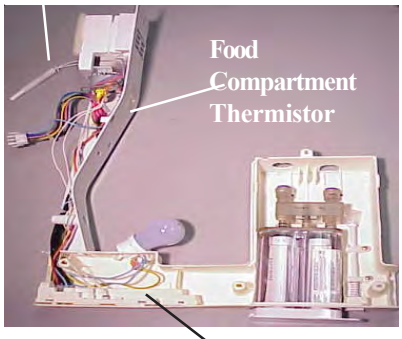


Figure 4

Lighting Control

This lighting control allows the lights to ramp up to full intensity whenever a door is opened and ramp down when the door is closed. The operation and service procedures are as follows:

ELECTRICAL GROUNDING
All refrigerators are equipped with a power supply cord incorporating a three-prong grounding plug and a ground wire which is attached to the refrigerator cabinet for protection against shock hazard. Each electrical component is either cabinet mounted or connected through a ground wire to the cabinet to complete the ground. Certain components, such as defrost timers, may be double insulated and do not require a ground wire. Ensure the electrical wall receptacle is of the three prong type and is properly grounded in accordance with the National Electrical Code and/or local codes.

CONTROL FUNCTIONS
Increases the light level of a refrigerator from off to final brightness level over a 1.5 second period.

USER INTERFACE
The software automatically adjusts the interior light without user intervention.

OPERATION
The electronic control will, upon application of line voltage determine which door (freezer or fresh food) has been opened. The control will start at minimum illumination and over a 1.5 second period, icrease illumination untill the light has reached full intensity. The control will allow individual operation of both the freezer and the fresh food compartment lights. It will do this by increasing the voltage to the lights to make them brighter during the 1.5 second period when a door or doors are opened. (See Figure 1)

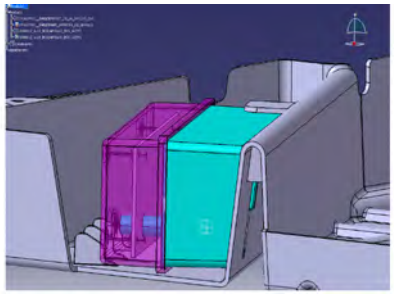
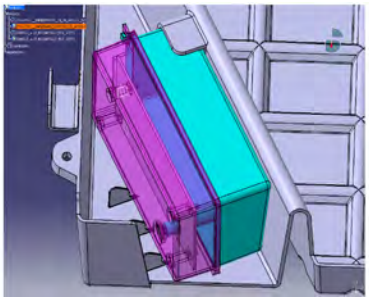


FIGURE 1

SERVICE AND DIAGNOSTICS
The lighting control mounted in the left front corner of the defrost water pan. This requires a different defrost water pan than what we have used in products produced since 2001. (See Figure 2)



DRAIN PAN TO ACCEPT APOLLO CONTROL
FIGURE 2

The control can fail in one of two different ways: first, the lighting comes on at full intensity as soon as a dooris opened, just like a product that is not equipped with this lighting system would operate. You will not see any change in the intensity of the lights. The second failure mode, none of the lights will come on. The lighting control will connect into the product wiring harness through a disconnect plug in the section of the harness that operates the products interior lights. There is a short jumper harness that connects into the molex plug and the lighting control. This jumper is part of the machine compartment wiring harness. The jumper harness has two molex connectors located by the main molex connector for the cabinet located between the compressor and the side of the cabinet in front of the filter drier. The two molex connectors plug into two connectors coming out of the cabinet that are part of the main wiring harness. You can bypass the lighting control by disconnecting the two molex connectors from the jumper harness to the cabinet harness. Then you can plug the two ends of the light harness that are part of the machine compartment harness together and the lights will work at full intensity and not through the Apollo control. This is a temporary repair to get the customers lights working if the lighting control is not operating the lights until you can get a new control installed.Replace the control from the front of the product by first removing the front lower grill. Next, insert a screwdriver under the control box against the drain pan and pry up. This will release the front tab and allow the control to be pulled forward out of the mounting opening in the drain pan. Disconnect the molex connector on the end of the control. One screw at the front holds the halves of the control box together. Remove the screw. Now you can separate the two halves of the box. The control board is heat staked to the front half of the box. When you order the lighting control it will come already attached to the front half of the control box. Reinstall in reverse order.

ICE AND WATER DISPENSER ASSEMBLY

FEATURE LEVELS

The ice and water dispenser has two actuators: one for water and a second for ice. (See Figure 1)

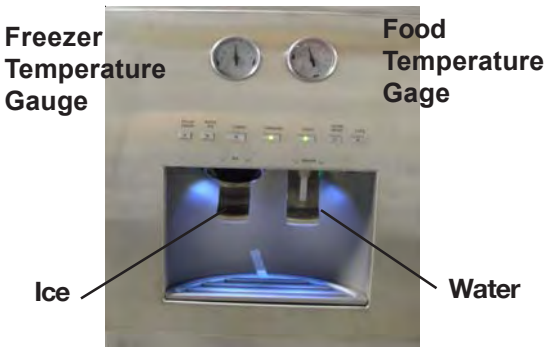


Figure 1

The feature layout used on the PRO ice and water side by sides will be a Seven Selector Dispenser.

Seven Selection Dispenser: (See Figure 2)

1. Polar Freeze Press to drop freezer temp to -6 F for a period of 16 hours.
2. Rapid Ice Press to increase ice production for a period of 12 hours
3. Cubed Press to get cubed ice.
4. Crushed Press to get crushed ice.
5. Light Press to turn on light in dispenser.
6. Filter Reset Press and Hold five seconds to reset light. (light tell you when to replace the water filter.)
7. Lock Press to disable dispenser. (Child Lock)

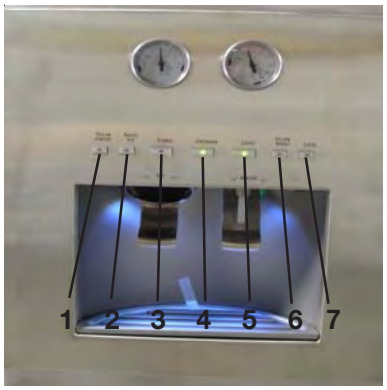


Figure 2

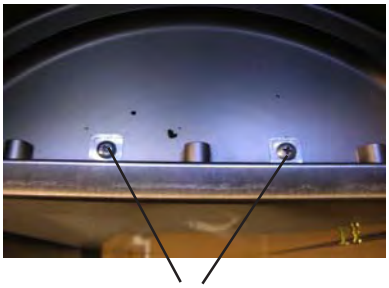
GAINING ACCESS

Two gain access to the control area, you first need to pull the drip tray out. (See Figure 7)

Drip Tray - lift up and pull straight out to remove

Figure 3

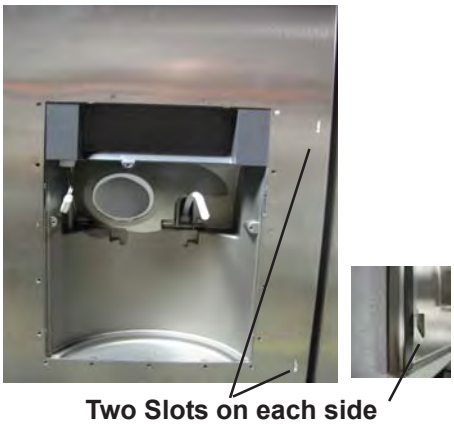
With the drip tray removed, remove the 2 screws at the bottom of the front panel just behind the sump opening.. (See Figure 4)



Remove Two Screws

Figure 4

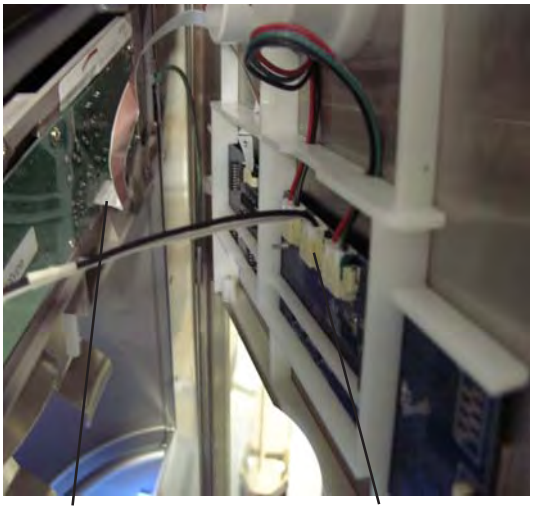
Lift up on the front panel. There are 4 tabs (2 on each side of the front panel) that slide into slots on the door panel. (See Figure 5)



Two Slots on each side of the dispenser are for tabs on front face plate to lock into.

Figure 5

Swing panel out to side, being careful not to pull the ribbon connector for the control board. Carefully unplug the wire harness from the molex connector between the two gauge connections on the board by pulling straight up. Carefully unplug the ribbon connector from the power board on the dispenser in the door (see Figure 6). Now disconnect the green ground wire from the face plate. This will allow you to remove the face plate to service the gauges, user interface board, and button assembly.



Ribbon Connector

Gauge Wire Harness Connector

Figure 6

GAUGE OPERATION

The gauges are mounted on the front face plate and plugged into the interface board. There is a wiring harness coming out of the freezer door that also plugs into the board between the connection points where the gauges are connected to the board. (See Figure 6) This harness for the gauges follows the dispenser harness up through a conduit in the freezer door to a connector at the top of the cabinet under the hinge cover.

On model 253.44333600, the harness runs to the lower control board under the freezer. It operates off the thermistor circuit that operates the temperature display on the user interface board in the top of the food compartment.

On model 253.55333600, the harness runs to the electronic control in the top of the food compartment. It operates off the thermistor circuit that operates the temperature display control.

If the facade (the dispenser control board) itself functions, the gauges should function, If the gauges (on power up) are not at 0 and 37 respectively, check the following.

- Initial state of gauge is unknown
- Shown at the left is a possible position of the gauges without power
- The position of the needles should be outside of the range of the gauge (but not necessary

Figure 7

If both gauges are not in the correct position, check the gauge plugs on the facade board to see that they are pushed in all the way. If the connection is good, the problem could be the gauge itself but most likely it will be the facade board. If only one guage is not working first check the plug. If it is OK replace the gauge.

- Upon applying power, the gauges will go to default set-points (0 and 37)
- The gauges will stay in this state until updates are received from the controller

Figure 8

If the gauges do not move/update with in 30 seconds, the problem is most likely the facade board, but it could also be the lower control board or a bad connection on the control board.

- Once the gauges receive a temperature update ***at least one*** of the gauges will move to a hot-side temperature.

Figure 9

Remove the hinge cover and check the small wire connector to see that the wires are in the connector all the way and the two ends of the connector are pushed together all the way. Next remove the lower control board and disconnect

***** FAILED OPERATION *****

- Gauges have not changed position.
- This is a failure. Potential points of failure:
  - Connection to controller
  - Door Connection
  - Façade Connection

Figure 10

are pushed into the connector all the way. Then do the same procedure to the control board on the dispenser.

If the gauges were working but then stopped check the lower control board connections as well as the dispenser power board connections. Also check the connections on the user interface board on the back side of the dispenser cover (See Figure 6).

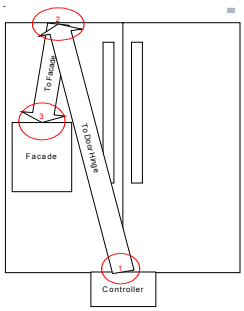
*** FAILED OPERATION ***

- Gauges drop out
- This is a failure. Potential points of failure:
  - Power Board Under Product
  - Power Board for Dispenser
  - Power Flex Cable

Figure 11

A ribbon connector runs between the interface board and the dispenser power board. Remove the ribbon connector and clean the end with a pencil eraser then carefully reinstall the ribbon connector into the board to insure that you have a good connection between the ribbon and the board.

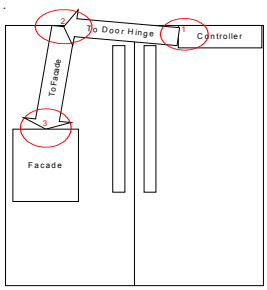
On model 25344333600 you have 3 connection points to check: on the dispenser, at the top of the freezer door, and at the lower control board.



- There are three connection points
  - Controller underneath unit
    - 2 Connection Points
  - At the door hinge (eyebrow)
    - 2 Connection Points
  - At the façade
    - 2 Connection Points

Figure 12

On model 253.55333600 your 3 connections are at the dispenser, the top of the freezer door, and at the control board located in the top of the food compartment.



- There are three connection points
  - Control Box
    - 2 Connection Points
  - At the door hinge (eyebrow)
    - 2 Connection Points
  - At the façade
    - 2 Connection Points

Figure 13

To replace the gauges or the button assembly, place the front face (facade) on a clean soft surface, face down. Remove the screws from the two gauges, and the two screws from the lip of the face plate.

Figure 14

This allows you to remove the retainer. To replace the gauges just unplug the gauge from the board and push out though the front face plate. The board can be removed by pulling it off the 6 rubber retainers on the button assembly.

Figure 15

The button assembly is held in place by two sided tape. You must pull it off and clean off any remaining residue before you install the new button assembly. To install the board on the button assembly, first connect the two ribbon connectors and then install the assembly in the face plate. When installing the assembly use cautionto make sure the gauge connectors are pointing up.

To remove the dispenser assembly, remove the 3 screws on the front of the dispenser that go into the housing in the door (See Figure 16). Then pull the dispenser out of the housing. Now disconnect the electrical connection on the left side of the dispenser power board.

Remove Screws

Figure 16

Remove the water line from the dispenser housing by pulling straight out. (See Figure 17)

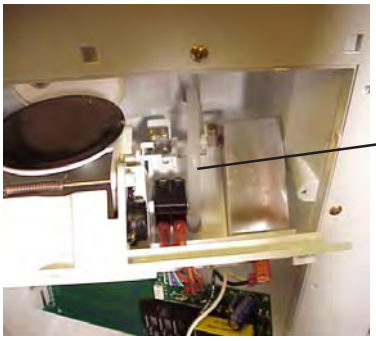


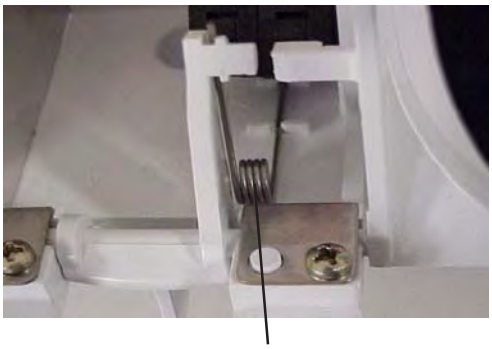
Figure 17

With the water line removed, the upper part of the dispenser is free of the freezer door panel. The main housing is part of the door panel, and is not removable. (See Figure 18)

Main housing for dispenser is part of the outer door panel.

Figure 18

The ice door and actuator switches, as well as the return springs, can be serviced with the control module removed. (See Figure 19)



Return Spring

Figure 19

The door closer is mounted on the side of the housing (see Figure 20). It is connected to the door arm with a gear wheel to slow the closing of the door (see Figure 21). This allows enough time for the ice to clear the chute. The door will take approximately 20 seconds to close after the glass is removed from the actuator.

Ice Door Closer

Figure 20

Gear driver used to connect door closer to arm on door.

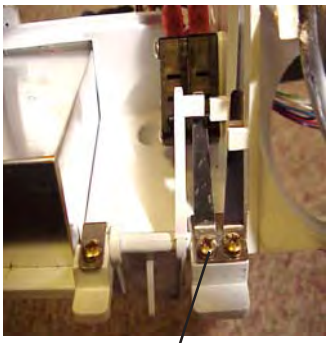
Figure 21

The closer can be replaced by removing 3 screws and lifting closer from the housing. The door is held in place with a shaft at the top. The spring that holds the door closed and sealed against the housing is over the shaft and can be replaced by using a small punch to remove the shaft (see Figure22).

Use a small punch to remove shaft.

Figure 22

Tension is held against both the water and ice actuators by a stainless steel, two bladed spring mounted behind the actuator switches. The spring is held in placeby 2 screws (see Figure 23).



TENSION SPRING FOR ACTUATORS

FIGURE 23

The actuators are held in place by stainless clamps at each end of the actuators and a two bladed spring in the middle (see Figure 24). The actuators can be removed by removing the 4 screws and lifting the paddle / ice chute out of the housing.

Spring and clamps used to hold actuators in place.

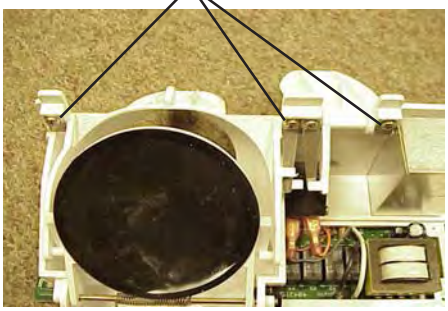


Figure 24

Dispenser Heater.

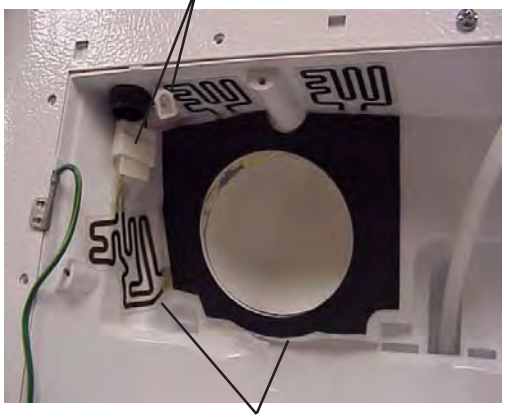
The original heater for the ice chute and housing is foamed in place. It is connected to the door wiring (see Figure 26) harness by a plug coming out of the inner door panel with 2 black wires connected to it. (See Figure 26) If the heater fails, it will be necessary to install an external heater on the housing chute opening in place of the internal heater. The replacement heater will connects to the same plug as the original heater (see Figure 27).

Check across the two black wires to test the internal chute heater.

Plug for chute heater

Figure 26

Connect wire adaptor to heater and plug into door harness



Attach service heater in this location

Figure 27

The connector on the left side of the board is for the door wiring harness to plug into. (See Figure 28) This wiring harness connects with the main harness through the top connector at the top of the freezer door. The board will send power to other parts that operate through the board.

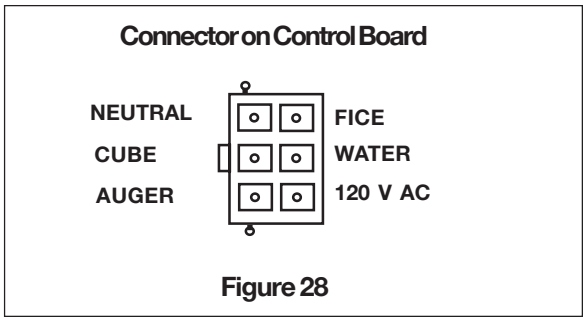


Figure 28

The relays mounted on the board are numbered (See Figure 29).
K1 - Controls the light in the dispenser.
K2 - Controls the water to the door
K3 - Controls the solenoid for cube ice
K4 - Controls the auger motor

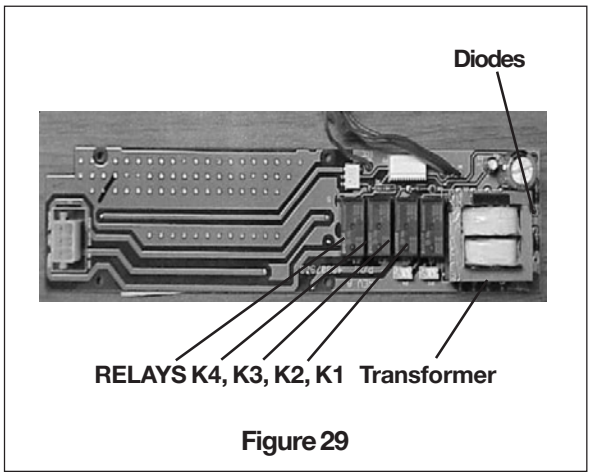


Figure 29

The power supply to the board is 120 VAC. The transformer is mounted on the board and is used to reduce the operating voltage (see Figure 29) .There are 4 diodes mounted on the board that convert AC current to DC current. The operating voltage for the control board is 8 to 13 V DC.

To replace the power board

With the face plate removed, remove 4 screws: 2 at the top and 2 at the bottom of the board. Pull the board forward and disconnect the door harness from the left side of the board. Now disconnect the 4 wires from the board to the switches on the dispenser and unplug the two connectors going to the lighted paddles. Reassemble in reverse order.

To replace the control board

The control board is mounted on the front face and can be serviced by removing the front face from the freezer door. Remove the two screws going from the front face into the bottom of the retainer. Remove the 4 screws from the gauges then lift the retainer off the face plate. The board has two ribbon connectors on each end disconnect these ribbon connectors and you remove the board by lifting it off the 6 rubber tabs holding the board to the back of the touch pad assembly (see figure 30.

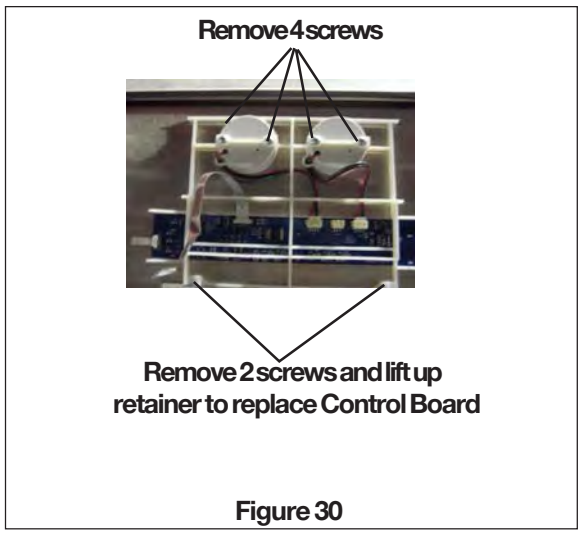


Figure 30

Current is carried between the power board and the control board by a ribbon connector (see Figure 31). You can check the cable with an Ohm meter one run at a time if you suppect a bad cable.

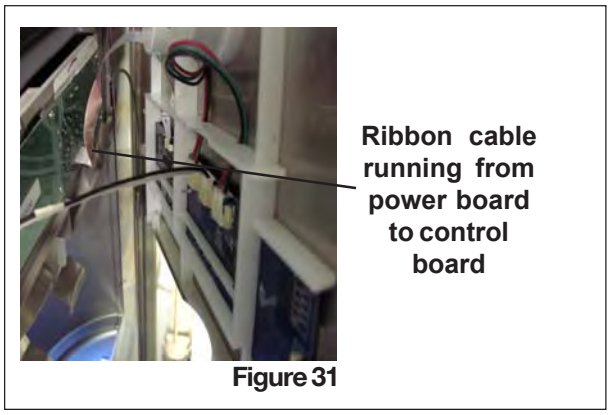
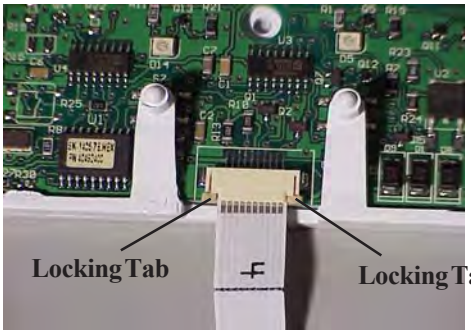


Figure 31

The ribbon cable is a replaceable part separate from the power and the control boards. To test and/or replace the ribbon, unplug the product and remove the front face plate. Unplug the ribbon from the power board (see figure 31). by pulling straight out. Remove the control board from the front face plate and pull straight down on the lock tab holding the ribbon into the control board (see Figure 32). Now, unplug the ribbon from the control board. The ribbon can be tested with a multimeter using the Ohm setting. Test for continuity on each pass of the ribbon. When installing a ribbon into the power or the control boards make sure the end of the cable is installed so the contact point on the cable is against the contact points on the board. Also clean the end of the ribbon with a pencil eraser to get a good clean surface for the connection.



Ribbon not installed all the way

FIGURE 32

How to test the electronic dispenser.

Labeling was added to the face of the power board to aide the servicer in testing the control and power board (see Figure 33).

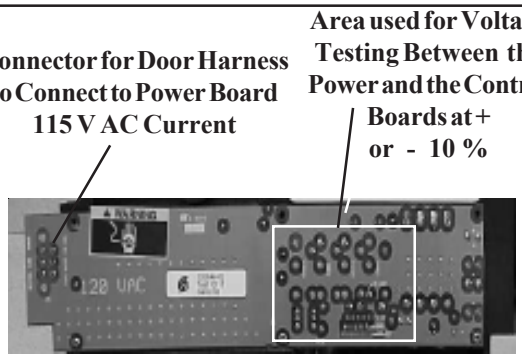


FIGURE 33

To test the input voltage from the door harness to the dispenser and the output voltage to the auger motor, solenoid, water valve and extra ice feature (if equipped) use the connector on the left side of the power board shown in figure 34. To Test;

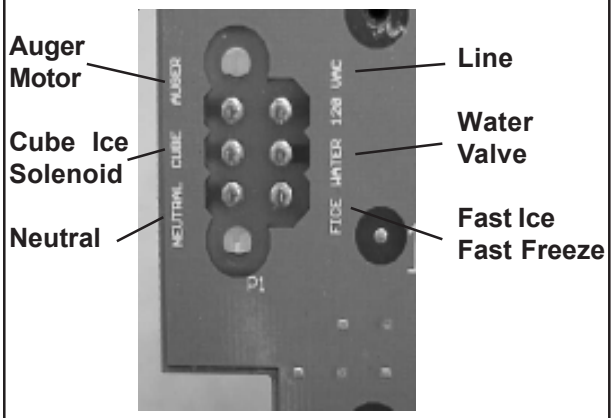


Figure 34

1. Check voltage between 120 VAC and NEUTRAL for input voltage to dispenser. Should read line voltage.
2. Check between NEUTRAL and CUBE to check power to operate cube ice solenoid. Should show O voltage until ice actuator is pushed in, then should show line voltage.
3. Check between NEUTRAL and AUGER to check power to operate auger motor. Should show O voltage until the ice actuator is pushed in, then should show line voltage.
4. Check between NEUTRAL and WATER to check power to operate single coil primary water valve and the Yellow coil of the secondary water valve. Should show O voltage until the water actuator is pushed in, then should show line voltage.
5. Check between NEUTRAL and FICE
Should show O voltage until the Extra Ice button is pushed, then should show 115 VAC + or - 10 % single that is being sent to the control board to lower the cycling temperature of the freezer.

To test the voltage from the power board located in the dispenser to the control board located in the front face plate use the low voltage section of the power board as shown in figure 35. To test;
1. Check voltage between GND and V - IN for input voltage from power board to control board.
Should read 12 VDC + or - 10% voltage.
2. Check voltage between two terminals shown in figure 34 under LIGHT for testing power from control board to the power board. You .should read 0 voltage until the light switch button is pressed or a actuator is pushed in, then you should read 5 VDC + or - 10%.
3. Check voltage between two terminals shown in figure 34 under WATER for testing power from the control board the relay that operates the water valves.
Should read 0 voltage until water actuator is pushed in, then you should read 5 VDC + or - 10%.
4. Check voltage between the two terminals shown in figure 34 under CUBE for testing power from the control board to relay that operates cube ice solenoid. You should read 0 voltage until ice actuator is pushed in, then you should read 5 VDC + or - 10%.
Note: Dispenser control board must be set for CUBE to operate the cube ice solenoid,

5. Check voltage between two terminals shown in figure 34 under Auger for testing power from the control board to relay that operates the auger motor. Should read 0 voltage until the ice actuator is pushed in, then you should read 5 VDC + or - 10%.

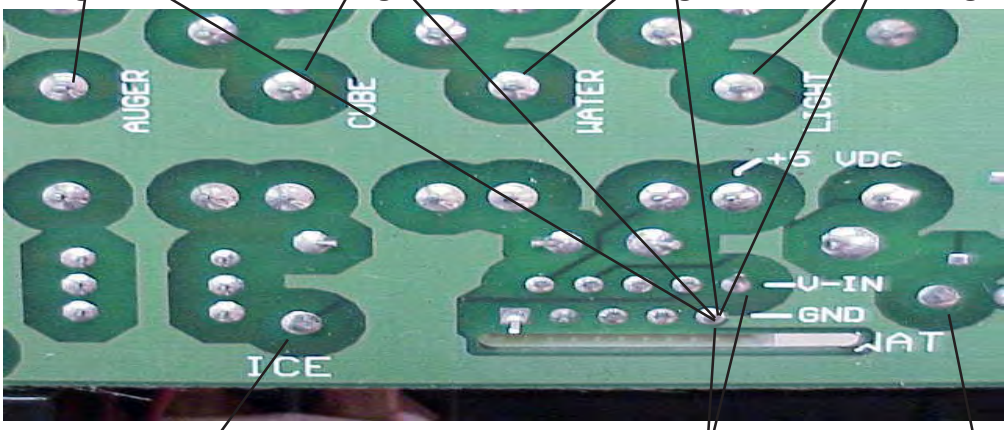
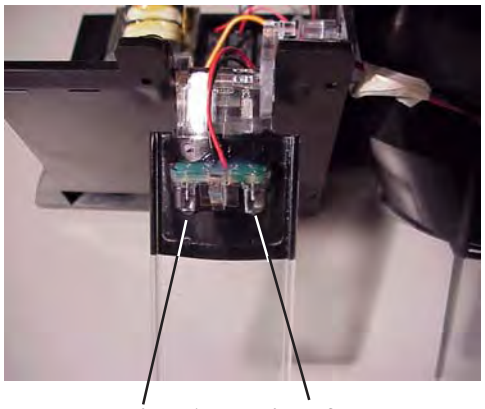


FIGURE 35

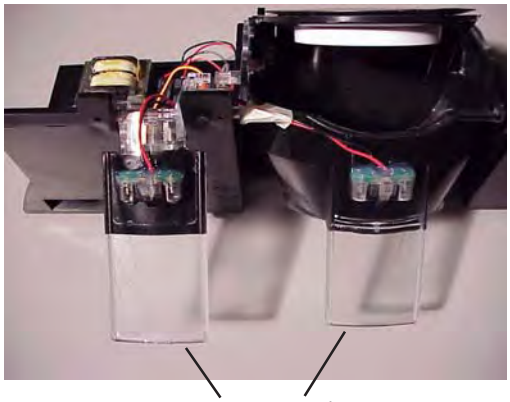
There are lighted paddles in dispenser on all counter deprh models (See Figure 36)



Light 1 and Light 2

FIGURE 36

The lights operate off the dispenser power board (see Figure 39). If the lights (There are two lights on each paddle) fail, the paddle will need to be replaced. The paddles mount in the dispenser in the same manner as the non-lighted paddle we have used for the last 3 years. the only difference is there are two small wires coming off the paddle with a plug on the end. This plug will connect to pins on the power board (see Figures 37 and 38). This allows the servicer to replace the paddle with lights attached.



Both Paddles are Lighter

FIGURE 37

Paddle Connection on Baord

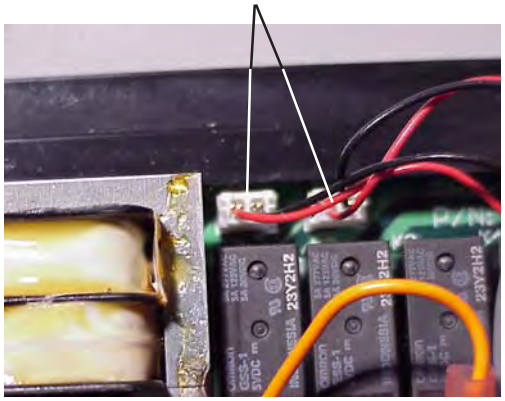


FIGURE 38

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-395**
Education Leader **JUNE 2005**

JOB CODE: 32140J
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41 for shop
.

DIVISION 22

FRIGIDAIRE

C970

DISHWASHERS

Cleaning Issues with Upper Rack on Select Models

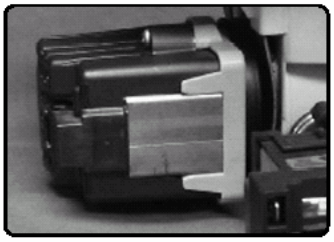
Models: FDB2410LD, FDBB1940D, GLD2250RD, GLD2450RD, and PLD2850RD produced between serial numbers TH451XXXXX through TH513XXXXX.

Problem: In only the above model dishwashers produced within this serial number range, there could be one of two different styles of wash motor. If the consumer is experiencing a cleaning problem in only the upper rack, follow the checks listed below before proceeding further.

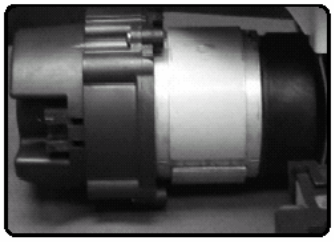
1. Check incoming water temperature to ensure it is a minimum of 120°F coming into the dishwasher.
2. Check water hardness to ensure the proper amount of detergent is being used.
3. Check loading to ensure the center arm turns freely.
4. Manually change the spray to the center arm to check operation. If the preceding checks are favorable, the wash motor may need to be replaced.

Cause: Only the above models in the listed serial number range, that have passed the preceding checks could have a 154536101 wash motor. The 154536101 motor may not pause long enough to allow the check ball in the sump to change its position and spray from the center arm.

Solution: The pictures below are to distinguish between the two different styles of wash motors.



Askoll wash motor 154523501



Johnson wash motor 154536101

Only on the above listed models in the serial number range from TH451 through TH515, changing the wash motor to a part number 154523501 (see picture above) will solve this cleaning problem in the upper rack.

DEPT. 731A

REPAIR TIP

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DIVISION 22

FRIGIDAIRE C970

Dishwasher not starting with START / CANCEL pad

Models: GLD3450RD, PLD3460RD, and GSB6400ND; before serial number TH51281824.

Problem: Dishwasher not starting with START/CANCEL pad.

Cause: The ribbon for the front keypad / display has been damaged by the control cover.

Solution: The technician needs to check the key pads for proper operation before replacing the electronic control. Kits are listed below.

The proper diagnostic procedure is as follows:

1. Select the Normal Wash cycle pad found on the top key pad.
2. The cycle time of 95 minutes will show in the front display along with the light staying on in the top key pad. This means the control has accepted the wash cycle.
3. Press the START/ CANCEL pad. If the lights go out after 15 seconds and the dishwasher does not start then a DELAY START cycle needs to be attempted.
4. To set a Delayed Start cycle; on the top keypad, select a Normal Wash cycle and then press the Delay Start pad once. This will set a one-hour delay. When this cycle is set, a 1H will appear in the front display.
5. The 1H in the front display will change to 60 minutes in less then 30 seconds, this tells you the control has accepted the Delay Start cycle, and will start Normal wash cycle in 60 minutes.
6. This tells you the control is functioning as it should and the problem lies with the front key pad. Replacing the front key pad will repair the product.
7. The replacement front display will come with display, cover, and instructions. Be sure to replace all parts supplied in the kit to complete repair.

Part numbers for the Keypad Display Kit are as follows:

154554301	White
154554302	Black
154554303	Bisque
154554401	Pro series model

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
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Education Leader **OCTOBER 2005**

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DIVISION 22
FRIGIDAIRE C970
DISHWASHERS

PROBLEM CODES ON ELECTRONIC DISHWASHERS

Models: All electronic model dishwashers.

Problem: Service technician and/or consumer is unable to identify the problem codes displayed on the dishwasher control panel.

Cause: Codes displayed on an electronic model dishwasher are not necessarily a failure of the dishwasher, but are merely to inform the user of an existing condition.

Solution: Here is a list of the codes used on your dishwasher and what each code means.

1H to 24H..... The number of hours the cycle is delayed in starting. 1H = (**1**one **H**our) The last hour will count down in minutes.

CL..... Close the dishwasher door. The status indicator lights will also flash to indicate current cycle status. CL = (**C**lose & **L**ock)

HO..... This indicates that the control is pausing for a water heat delay. HO = (**H**eat **O**ption)

LO..... This appears in the window when the rinse aid dispenser is low and needs to be refilled. (**LO** = low)

PF ..... This appears in the window when the dishwasher is installed or the power has been interrupted. This can be cleared by touching the START/CANCEL pad. This can also indicate a power failure in the product as well.

ER..... This appears in the display window and indicates one of the function pads has shorted. The key pad assembly will need to be replaced.

The most misunderstood code is the "HO" or heat delay. The "HO" (heat delay) will appear whenever the high temp wash, and or high temp / sanitize rinse options are selected by the user; however, the electronic control can automatically display the "HO" code if water in the tub is not hot enough for proper cleaning in select cycles. This can result in an "HO" code with the user not being sure why. **"HO" is not a failure code, it is an information code only**.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-424**
Education Leader **February 2006**

JOB CODE:
CALL CODE 10 for site
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MERCHANDISE CODE:

DIVISION 22

SOURCE C970

FRIGIDAIRE DISHWASHER

Dishwasher Stops After Power Supply Interruption

Models: GLD3450RD, GLD3451RD, GSB6400ND, PLD3460RD, PLD3465RE, FDB2810LD.

Problem: Display showing a code of "EE".

Cause: There has been a momentary interruption in the power supply to the dishwasher. This causes the control to stop all of its operations and functions.

Solution: Shut off the power to the dishwasher for 5 seconds, then turn it back on. This will clear the control and a "PF" code should appear in the display. To check the control, select one of the wash cycles then press the start pad, the cycle should start normally. If the "EE" code reappears, technicians are advised to replace the control. Very rarely will the control need replacing.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22- 425**
Education Leader **February 2006**

JOB CODE:
CALL CODE 10 for site
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MERCHANDISE CODE:

DIVISION 22

SOURCE C970

FRIGIDAIRE DISHWASHER

Water Leaking from Dishwasher Heater Mounting Nuts

Models: All Frigidaire dishwashers.

Problem: Water is leaking from the mounting nuts for the dishwasher heater.

Cause: The mounting nuts under the tub for the heater may be loose, or in some cases, may be cracked.

Solution: If you find the mounting nuts loose or broken, both should be replaced. When replacing these nuts, tighten them to the tub by hand, then add one-half turn with a wrench. Using this method will avoid overstressing the new nuts.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-426**
Education Leader **February 2006**

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MERCHANDISE CODE:

DIVISION 22

SOURCE C970

FRIGIDAIRE DISHWASHER

Problems with Lower Spray Arm Melting, Not Cleaning

Models: All Mechanical Timer Precision Wash model dishwashers with a serial number starting with TH508 through TH528.

Problem: Customer reports lower spray arm melted and not cleaning.

Cause: The timer may not be sending power to the wash motor after the second fill in the Light Wash cycle.

Solution: To test this, set the timer to Light Wash and allow it to advance through the cycle without assistance. Do not manually advance the timer. After the second fill, the timer will continue to advance. If the wash motor will does not start, check for voltage going from the timer to the motor. If a 120V current is not present, replace the timer.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager
Education Leader

R.T 22-450
MAY 2006.

JOB CODE:

CALL CODE

MERCHANDISE CODE:

DIVISION 22

FRIGIDAIRE

C970

DISHWASHER

Detergent Getting Stuck in Dispenser or Large Dinner Plates Not Fitting in Lower Rack

MODELS:

GLD3450RD *GLD3451RD* *PLD3460RD* *PLD3465RE*

CONDITION:

1) Not all of the detergent is being washed out of the dispenser, or the consumer is using detergent tabs and they are getting stuck in the dispenser.
2) Tall plates in the lower rack are hitting the centre spray arm even with the upper rack in the highest position.

CORRECTION:

The roller assemblies on the lower rack have been redesigned, lowering the rack by ½ inch. This allows for increased clearance for the dispenser door to open fully, and also will enable the rack to accommodate larger plates. The roller assemblies are available as a service kit with instructions. Please order part number 154573401

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 26-228**
Education Leader **JULY 14, 2005**

JOB CODE: 11421J
CALL CODE 10 for site
41 for shop

DIVISION 26

C970

FRIGIDAIRE AND KENMORE BRANDS

WASHERS

MODELS:
All 3.5 Cu. Ft. I.E.C. Capacity Front Load Washers

COMPLAINT:
Excessive vibration and movement of washer.

CAUSE:
Natural Frequency of the washer and the variables inherent with each installation site along with incomplete/improper leveling contribute to excessive vibration.

CORRECTION:
For complaints of excessive vibration lasting THROUGHOUT THE FULL spin cycle, install **Dual Stage Shock Kit 134564200**, add lock nuts to the legs and properly level the washer as noted below.

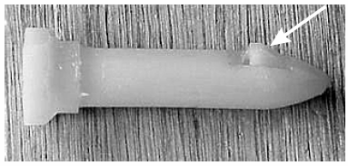
This kit includes the following parts:
(2) Dual Stage Shock Absorbers
(1) Shock Mounting Pin (Spare)
(4) Locking Nuts
(1) Installation Instructions

Shock Absorber Installation:

1. Disconnect the washer from electrical supply.

2. Remove the front access panel.

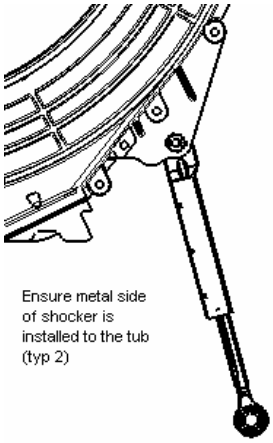
3. Remove the shock absorber mounting pins by either of the following methods:
   a) depress the locking tab with a small screwdriver and pull the pin out with a pair of



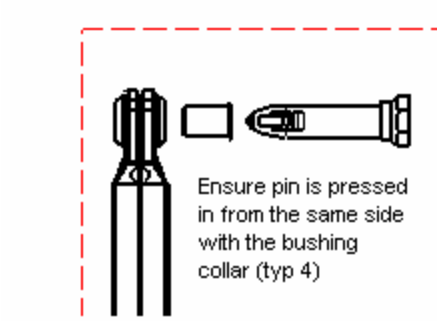
   b) push a deepwell ½" (or 13 mm) socket onto the tapered end of the pin to depress the
   out with a pair of pliers.

4. Remove and discard both round shock absorbers.

5. Install the new dual stage shock absorber with the metal side of the shock toward the tub



6. Install the shock absorber mounting pins as pictured below. Make sure each pin is fully inserted and the locking pin is extended to keep the shock in place. (A spare pin is included in the kit in case a locking feature is damaged upon removal.)



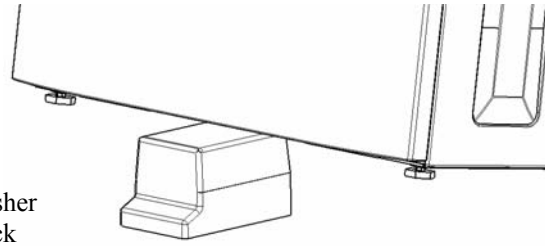
7. Reconnect the washer to the power supply and run through the drain spin cycle to ensure proper operation.

8. Reinstall the front access panel.

Excessive noise and vibration can be prevented by properly leveling the washer and tightening the leveling leg lock nuts provided with this kit.

Lock Nut Installation and Leveling Procedure

1. For non-pedestal installations, tip front of washer up about 4 inches and place a block of wood (2" x 4") or foam shipping block under the base to support the washer. If the washer cannot be tipped fro removal of the leveling legs, remove the front service panel, install the nuts on top of the leveling legs and proceed to step 5.

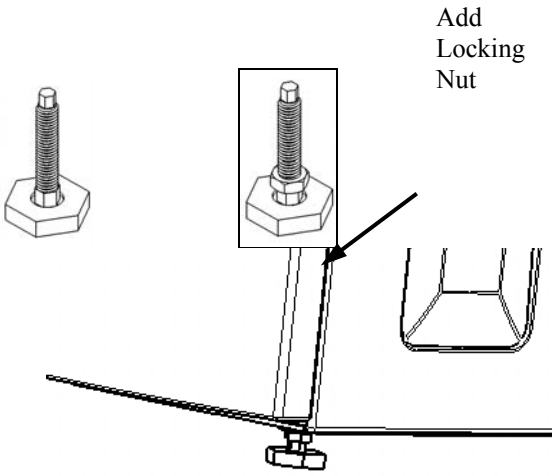


Prop Washer
with Block

NOTE: <u>If washer is on a pedestal, DO NOT</u> install lock nuts on the <u>washer's</u> legs.

2. Inspect the legs to make sure they are not bent and the rubber pads are not damaged. Replace damaged legs.

3. Remove the leveling legs and thread a locking nut (provided in the kit) all the way to the bottom of each leg. Reinstall legs all the way into the base.



Re-Install Leveling Legs with Locking Nut

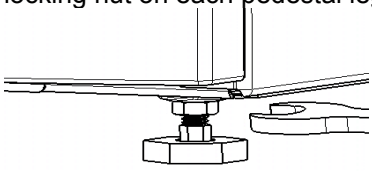
4. Remove the block and carefully lower the washer. Repeat this procedure to add nuts to the rear legs.

5. Move the washer into final operating location. Assure that all 4 legs are minimally extended and are **SOLID** on the floor. The shorter the extension, the more stable the washer will be.

6. Place a carpenter's level on top of the washer. Adjust the leveling legs so the washer is level and **SOLID** front to back, side to side, and corner to corner. Press down on alternate corners & opposite sides and feel for the slightest movement. Adjust the appropriate leg so the washer is **SOLID** on the floor on ALL four legs.

7. Run the washer in spin with a couple large wet towels. Stop the washer if excessive vibration is noticed. Fine tune the legs set up: adjust a leg with only fraction of a turn. Run washer again in spin and adjust legs to find the optimum set up.

8. Once the washer is level and solid in its final position, tighten each leveling leg locking nut against the washer base (or leveling leg bushing, if applicable) with a wrench to prevent legs from turning during operation. If on a pedestal, make sure the leveling leg locking nut on each pedestal leg is tightened against the pedestal base.



9. The lock nuts will raise the height of the washer ¼". If installed side-by-side, adjust the dryer legs so the dryer is the same height as the washer. If the washer is installed under counter, first measure the clearance at the top to be sure there is at least ¼" additional space available.
   NOTE: If space is not available, remove the front service panel and install the nuts on top of the leveling legs. Tighten the nuts against the leveling leg bushings.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 26-346**
Education Leader **OCTOBER 2005**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 26

C970

FRIGIDAIRE/KENMORE

ELECTRONIC DRYERS

DRYING /HEATING ELEMENTS

FRIGIDAIRE MODELS:

FEFB9200ES	FGFB9200ES	GLEQ2152ES	GSEQ7200DS	LEQ1442ES
FEQ1442ES	FGQ1442ES	GLEQ942CS	GSGQ7200DS	LEQ2152ES
FEQ2152ES	FGQBB30DS	GLGQ2152ES		LGQ1442ES
FEQBB30DS		GLGQ942CS		LGQ2152ES

KENMORE MODELS:

970-C85072 **970-C85092** **970-C85192**
970-C85172 **970-C95092**

CONDITION:
Dryer runs, but no heat.

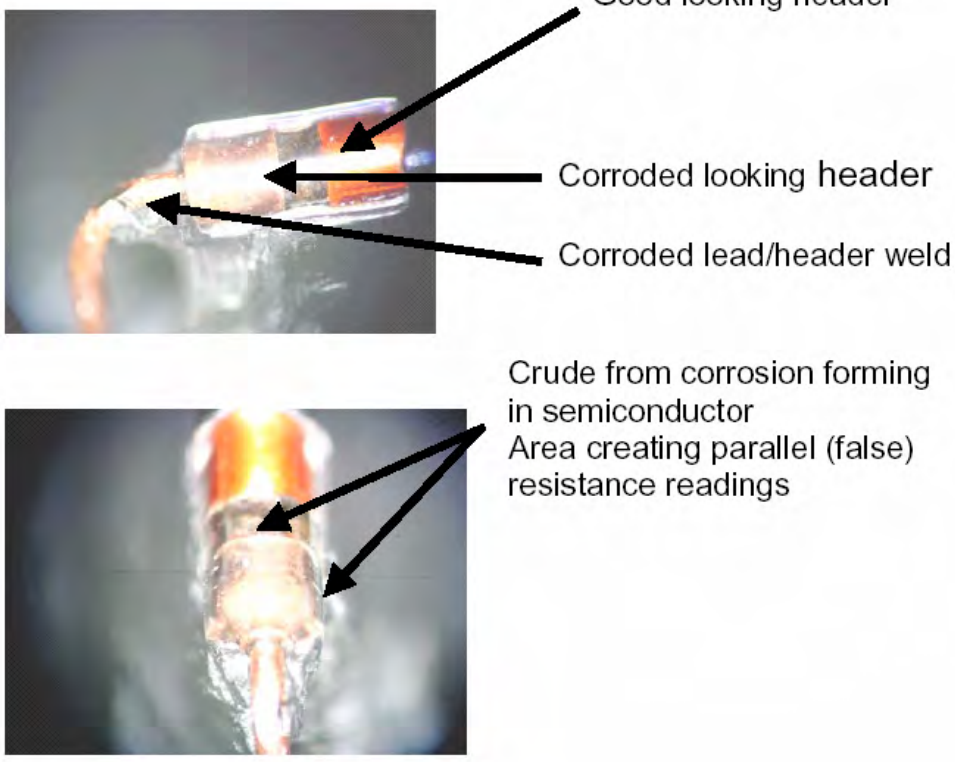
1. Drive motor runs but dryer will not heat. Heating element, gas burner, motor heat switch, high limit (safety) thermostat, control board and wiring all check satisfactory.
2. Long dry times. Vent system is clean and airflow is good.
3. Dryer shuts off before clothes load is dry. Vent system is clean and airflow is good.

CORRECTION:
The ***control thermistor*** located on the blower housing is the most suspect component. Corrosion of this thermistor creates false resistance readings causing the dryer not to heat properly.

Control Thermistor Replacement:

1. Unplug dryer from electrical outlet and remove harness connections from thermistor.

2. Measure the resistance of the control thermistor (the thermistor can remain on the blower housing for measurement). NOTE: **If the reading is less than 45K ohms or greater than 55K ohms @ 77°F, it is faulty.**



3. Replace with a new encapsulated thermistor PN **134587700**.
   Note: an electronic control should only be replaced after proving the thermistor meets specification between 45K and 55K ohms.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 26-350**
Education Leader **February 2006**

JOB CODE: 73100G
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 26

SOURCE C970

WATER COLLECTING IN THE BELLOWS (BOOT) OF FRIGIDAIRE & KENMORE FRONT LOAD WASHERS

MODELS:

FTF2140ES GLTF2940E 970-C45072 970-C45092 970-C45172 970-C45192

CONDITION:

When the door is opened at the end of the cycle, a small amount of water is noticed in the convolutions of the boot at the six o'clock position.

CORRECTION:

Water standing in the bottom of the washer boot after washing is normal. Even though the likelihood of a biofilm formation is reduced by the vent system in the new washers, customers may still have a perceived concern. A new style boot without convolutions is now available for such concerns. Order bellows kit part number, ***26C970134515300****.*

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager
Education Leader

R.T 26-351
MAY 2006.

JOB CODE:

CALL CODE

MERCHANDISE CODE:

DIVISION 26

FRIGIDAIRE/KENMORE

Cracking Console on 3.5 cu ft Front Load Washers

MODELS:

970-C45072	970-C45092	970-C45172	970-C45192
FTF2140ES	GLTF2940E		

CONDITION:

Tight fit of top panel lip under console can potentially cause hairline cracking. This cracking can be affected by the amount of unit vibration during use, so please ensure the unit is level and on an acceptable surface.

CORRECTION:

Replace the console AND top panel which has been re-tooled as of September 2005. There is now an increased opening between the two components.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 26-352**
Education Leader **MARCH 2006**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 26

C970

KENMORE/FRIGIDAIRE FRONT LOAD WASHER VIBRATING ON PEDESTAL

MODELS:
FTF2140ES GLTF2940E 970-C45072 970-C45092 970-C45172 970-C45192

CONDITION:
When the washer is installed correctly (solid floors etc) on the pedestal, the washer still shakes/vibrates more then normal while in the spin cycle.

CORRECTION:
Install "Pedestal Stiffener Kit", PN 26C970134682000. If the front load washer installed on the pedestal has a serial number between XC50100000 and XC53600000, also install the "Dual Stage Shock" which is identified in RT 26-228. This will eliminate the need to return for the same vibration issue.

NOTE: Newly manufactured pedestals will already have the galvanized sheet included so when booking the call please ask customer if their pedestal has the piece or not.

Order parts from Div 26 C970.

CLAUDE BABINEAU – DEPARTMENT 731A
CHRIS BURNELL-DEPARTMENT 731A

Electronic Codes - Washer

- **“PAU”** indicates washer has been paused (possibly to add a clothing item)
- **“DR”** indicates door is open and must be closed to start the cycle
- **“SAN”** indicates washer is in the “Deep Clean Sanitize” cycle
- **“CD”** indicates washer is in a “cool down” Washer will remain locked until water temperature is at a safe level to touch
- **“LOC”** indicates the washer control has been locked out (safety feature). To unlock control hold “Options” and “Select” buttons simultaneously for 10 seconds
- **“ERR”** indicates there was an attempt to change cycle after it had already begun. Current cycle must be cancelled first
- **“E__”** indicates a potential problem. Unplug for one minute and re-start. If problem persists call for service

Electronic Codes - Dryer

- **“PAU”** indicates dryer has been paused (possibly to add a clothing item)
- **“AD”** indicates dryer is in the “Auto Dry” Cycle. Estimated time remaining will only show for the first 5 minutes
- **“LOC”** indicates the dryer control has been locked out (safety feature). To unlock control hold “Options” and “Select” buttons simultaneously for 10 seconds
- **“ERR”** indicates there was an attempt to change cycle after it had already begun. Current cycle must be cancelled first
- **“E__”** indicates a potential problem. Unplug for one minute and re-start. If problem persists call for service

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-383 (REV.)**
Education Leader **FEBRUARY 2006 (REVISED)**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22
C970
ANTI-CONDENSATION KITS FOR KENMORE & FRIGIDAIRE 30" SINGLE AND DOUBLE WALL OVENS

MODELS:

30" simgle CPEB30S8AC
30" simgle CPEB30S8CC
30" double CPEB30T8AC
30" double CPEB30T8CC
27" single CGEB27S7AB
27" single CGEB27S7AS
27" single CGEB27S7CB
27" single CGEB27S7CS

CONDITION:
Customers baking and broiling extremely moist or frozen foods without using pre-heat, causing water to drip out of the vent tube and onto the floor.

CORRECTION:
Two anti-condensation kits are available which will help reduce the amount of water dripping to the floor. Note that this is vent is what promotes airflow in the unit, and moisture in the form of steam is normal.

PARTS:

	30" Single Wall Oven	***30" Double Wall Oven***
White Vent	*2C9709030339011*	*22C9709030349011*
Black Vent	*2C9709030339010*	*22C9709030349010*
Bisque Vent	*2C9709030339014*	

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-394**
Education Leader **JUNE 2005**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

C970

FRIGIDAIRE/KENMORE

EXCESSIVE MOISTURE FORMING ON THE INNER DOOR GLASS
Fridgidaire Flush Mount Single & Double Wall Ovens

FRIGIDAIRE MODELS
CFEB30S5DS
CFEB30S5DB
CFEB30S5DC
CGEB30S9DS
CGEB30S9DB
CPEB30S9DC
CPEB30T9DC

KENMORE MODELS
C970-41592
C970-41599
C970-41593
C970-41802
C970-41809
C970-41803

CONDITION:
Moisture or steam escaping from door vent causes excessive moisture to form on the inner door glass.

CORRECTION:
Re-position the bottom trim center screw into its original place in the inner baffle and block the six inner baffle holes with stick on aluminum tape (Part # 316102202).

Note: The tape is 4.5" x 5". Tear the tape into about a 1" square. A perfect cut is not necessary as this will not be seen by the customer.

To access the inner baffle: Remove the door from the unit and unscrew the door handle (Figure 1).

Figure 1

Turn the oven door upside down and remove the five screws from the lower trim in order to remove the outer glass (figure 2).

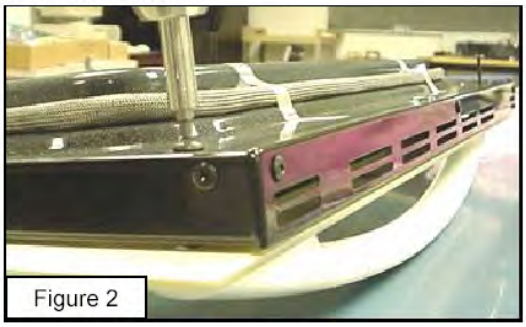


Figure 2

3) Push in the inner baffle in order to align the center screw into its proper place (screw out, figure 3) and (screw in hole, figure 4)

Center screw not into inner baffle hole…

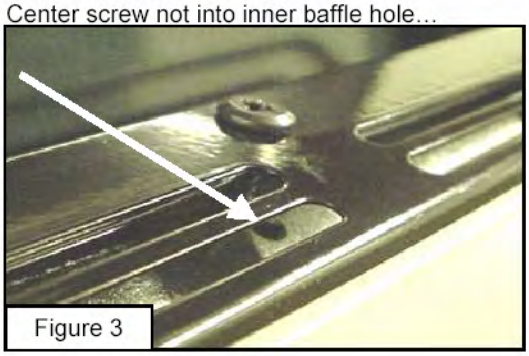


Figure 3

Screw holding inner baffle in its proper place…

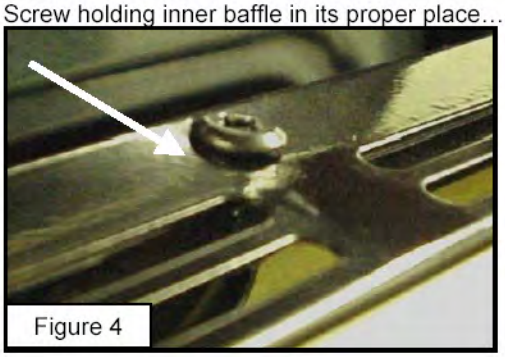


Figure 4

4) Cover the six holes of the inner baffle as shown in figure 5 with aluminum tape.

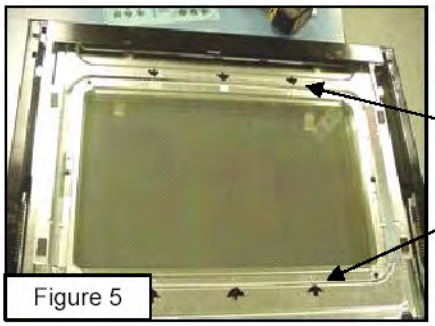


Figure 5

Place aluminum tape over the 6 screw holes along the top and bottom of inner door panel.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-406**
Education Leader **OCTOBER 2005**

JOB CODE: 74350G
CALL CODE 10 for site
41 for shop

DIVISION 22

FRIGIDAIRE C970

27” WALL OVEN

EXCESSIVE MOSTURE FORMING ON THE INNER DOOR GLASS

Service Kit #903036-9010 and 903036-9011
(27” Single Wall Oven / 27” Four encastré simple)
Anti-condensation Vent Tube Assembly Installation Instructions

Those kits contain:	**9030369010 (black)**	**9030369011 (White)**
1 (one) Vent Tube Assy (Figure B)	318219301	318219301
1 (one) Adapter Assy (Figure C)	318219100	318219100
2 (two) Drill Screw	73201-1800	73201-1800
1 (one) Ass. Cover Vent * Deflector	318222600	318222601
1 (one) Instruction Sheet	318200046 Rev A	318200046RevA

Installation instructions:

1. ***CAUTION:*** Disconnect electrical supply cord from wall receptacle before servicing this wall oven.
2. Remove the oven superior shield.
3. Remove the existing vent tube.
4. Replace existing adapter assy by the one supply with this kit (Figure C).
5. Install the vent tube assy (Figure B) on the adapter taking care to insert the new cover vent (Figure D) and deflector in the superior molding where the old one was and fix it using the 2-drill screws supply with this kit. (see Figure A)
6. Put back the oven superior shield.
7. Reconnect the unit.

Figure A

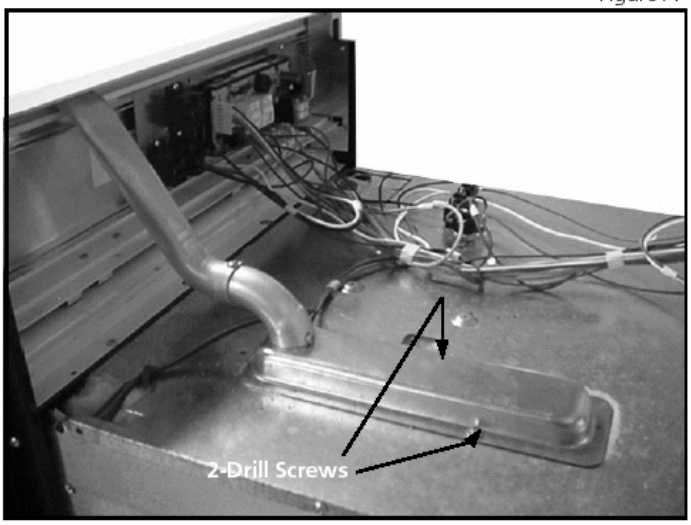


Figure B

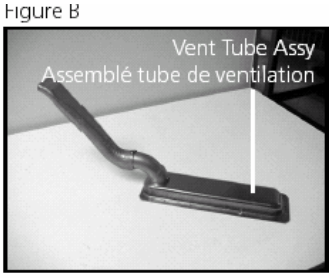
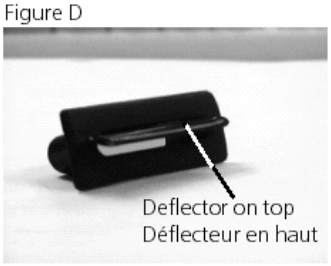


Figure C

Figure D



Instructions pour l'installation d'un assemblé tube de ventilation permettant d'éliminer la condensation

Ces nécessaires contiennent:	***903036-9010*** (noir)	***903036-9011*** (blanc)
1 (one) Ass. tube de ventilation (Figure B)	318219301	318219301
1 (one) Ass. adaptateur (Figure C)	318219100	318219100
2 (two) Vis auto taraudeuses	73201-1800	73201-1800
1 (one) Ass. Couvercle ventilation & déflecteur	318222600	318222601
1 (one) Feuille d'instruction	318200046 Rev. A	318200046 Rev. A

Instructions d'installation:

1. ***ATTENTION:*** Débranchez l'appareil avant de faire cette modification.
2. Enlevez le couvercle supérieur.
3. Enlevez le tube de ventilation existant.
4. Remplacez l'assemblé adaptateur existant par celui fourni dans ce kit de service (Figure C).
5. Installez l'assemblé tube de ventilation (Figure B) fourni dans ce kit sur l'adaptateur en prenant soin de bien insérer le nouveau couvercle (Figure D) et déflecteur dans la moulure supérieure (comme l'ancienne était installée) et fixez les 2 vis auto taraudeuses (Figure A).
6. Replacez le couvercle supérieur.
7. Rebranchez l'appareil.

P/N 318200046 (0204) Rev. A

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager
Education Leader

R.T 22-418
JANUARY 2006

JOB CODE: 73262F
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

FRIGIDAIRE

C970

CONDENSATION BETWEEN OVEN DOOR GLASS IN SINGLE AND DOUBLE WALL OVENS/SLIDE IN RANGES

DIVISION 22: SINGLE AND DOUBLE WALL OVENS, FREE STANDING AND SLIDE-IN RANGES SOURCE C970 (EHP /FRIGIDAIRE)

Kenmore models

C970-415922	C970-415931	C970-415932	C970-415991	C970-415992
C970-418021	C970-418031	C970-418032	C970-418091	C970-505321
C970-515121	C970-535221	C970-535241	C970-555221	C970-555231
C970-555421	C970-556121	C970-605121	C970-615121	C970-635321
C970-635331	C970-635371	C970-645221	C970-645231	C970-648221
C970-648241	C970-648281	C970-648291	C970-655421	C970-656121
C970-688021	C970-688331			
C970-440621	C970-440631	C970-440691	C970-440721	C970-440831
C970-440881	C970-440891	C970-441032	C970-441081	C970-441091

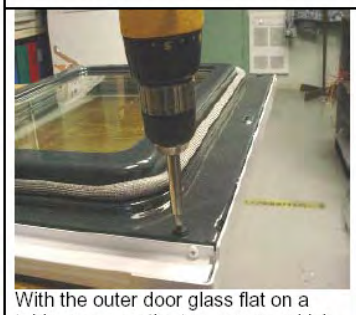
Frigidaire models

BFEF374EB	BFEF374ES	CPEB27S9DC	CFEB30S5DB	CFEB30S5DS
CGEB30S9DB	CGEB30S9DC	CGEB30S9DS	CPEB30T9DC	CFEF358EB
CFEF358EC	CFEF358ES	CFEF372EB	CFEF372EC	CFEF372EQ
CFEF372ES	PFEF373ES	PFEF374EC	PFEF374ES	PGLEF365EC
PGLEF365ES	PGLEF384ES	PGLEF385EB	PGLEF385EC	PGLEF385ES
PGLEF388ES				
CFES365EB	CFES365EC	CFES365EQ	CFES365ES	CGLES385EB
CGLES385ES	CFES355EB	CFES355EQ	CFES355ES	CGLES389EB
CGLES389EQ	CGLES389ES	CPGS389EC	CPLES389EC	CPCS389EC

Door hinge in the unlock position

Door hinge in the lock position

Remove the door from the unit



With the outer door glass flat on a table, unscrew the two screws which hold's the oven door handle

Unscrew the five screw from the lower oven door glass trim

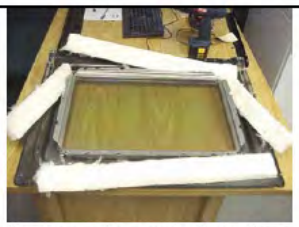
Remove the outer door glass

Unscrew the three screws from both the left and right hand side door trim

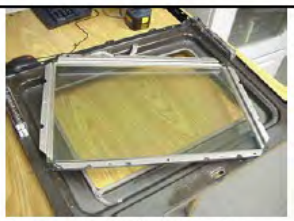
Unscrew the 3 screws from the upper trim

Unscrew the two screws located on the left and right side of the glass

Remove the inner baffle from the inner door liner



Remove the insulation from the inner door liner



Remove the 2 inner glasses and frame from the inner door liner

Tare the protective paper off of the adhesive tape from the door gasket…

…do not peel off the protective paper from the gasket; it may peel the adhesive portion off of the gasket completely off.

Install the gasket starting at the top corner, as flush as possible to the glass frame NOTE: Gasket must be installed as shown 1/8" max from the glass frame

View of the installed gasket.

Views of the proper way to install the screw handle spacers. (models with decorative outer glass only, not with Stainless Steel models)

CONDITION:

Condensation (moisture) may form between the inner door glass when using the oven.

CORRECTION:

Install the gasket kit number 9030829010 between the inner door liner and the inner glass. Follow the guidelines and pictures below which will lead you through.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-449**
Education Leader **JUNE 2006.**

JOB CODE:

CALL CODE

MERCHANDISE CODE:

DIVISION 22

FRIGIDAIRE/KENMORE

C970

Moisture dripping in and out of the vent tube assembly on KENMORE and EHP/Frigidaire flush mount single & double wall ovens.

Kenmore wall oven models

C970-415922	C970-415931	C970-415932	C970-415991	C970-415992
C970-418021	C970-418031	C970-418032	C970-418091	

Frigidaire wall oven models

CPEB27S9DC	CFEB30S5DB	CFEB30S5DS	CGEB30S9DB	CGEB30S9DC
CGEB30S9DS	CPEB30T9DC			

CONDITION:
Condensation (moisture) potentially dripping in and out of the vent tube assembly. All serial numbers affected.

CORRECTION:
Install the "inner and outer scoop kit" #9030879010 on both ends of the vent tube assembly which will prevent this condensation from dripping in and/or out of the vent tube assembly.

NOTE:
The outer part of the kit cannot be installed on the lower portion of a double wall oven.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-384**
Education Leader **April 2005**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

C970

CONDENSATION, MOISTURE DRIPPING FROM OVEN VENT TUBE

KENMORE BY FRIGIDAIRE/ KENMORE FREE-STANDING ELECTRIC SMOOTH-TOP RANGES

. **Serial Numbers Affected: VF426xxxxx through VF511xxxxx**

COMPLAINT:
Condensation dripping from oven vent collects on smooth-top glass at left rear surface element.

CAUSE:
Upper oven vent tube captured below backguard panel causing condensation to condense on cool backguard panel.

CORRECTION:
Upper oven vent tube was redesigned and extended to increase the air flow pass the

cool surface of the backguard panel.

Original vent tube 316208302 is replaced with 316208304.

PARTS: Order upper vent tube part 316208304 from Div. 22, Source C970.

To replace upper vent tube: From rear of range remove the upper and lower wire shield back panels. The oven vent tube is located on the right behind a rectangular vent heat shield. Remove the center and right screw attached to the vent heat shield. Lift the left side of the vent heat shield out of the tabbed slot. Slide the old vent tube off the lower tube coming from the oven cavity. Install the new tube in reverse. Reinstall vent heat shield and three screws; reinstall upper and lower wire shield and all screws.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-407**
Education Leader **October 2005**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

KENMORE BRAND

C970

RANGES

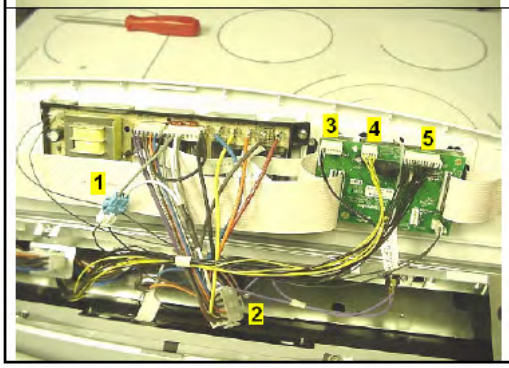
MODELS: **Kenmore models**

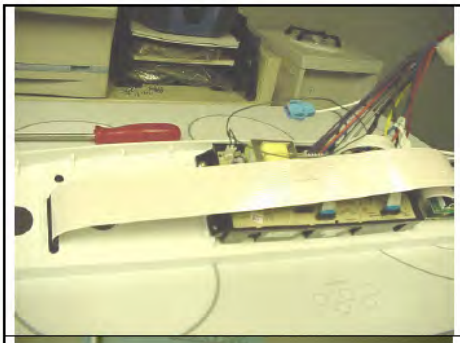
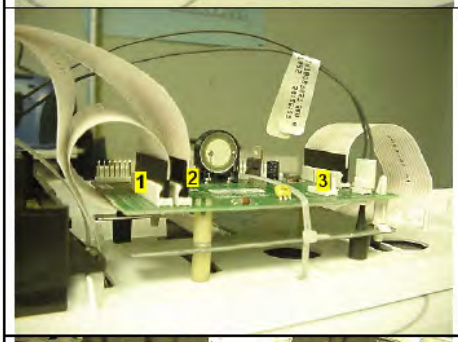
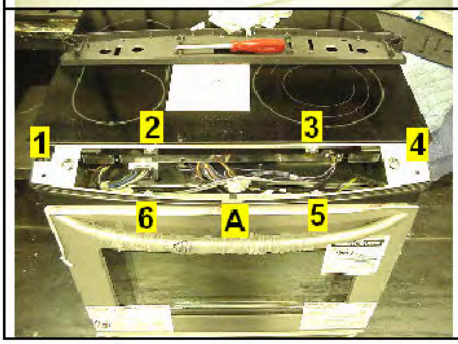
C970-44083 Starting at serial # NF53314621	C970-44088 Starting at serial # NF52708662	C970-44089 Starting at serial # NF53016818

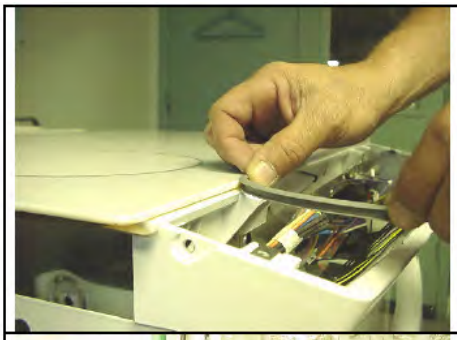
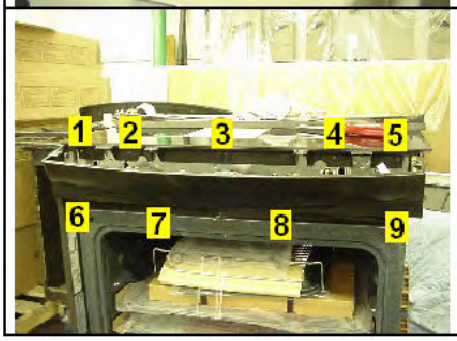
CONDITION: If one of the below components needs to be replaced on the above model…
Electronic Oven Control, ESEC surface switches, glass touch control panel, front console…

CORRECTION: …Here are the illustrated step by step instructions in order to replace one or more of these components.

	**Disconnect power to the unit** **Remove the left and right hand side screws.**

	**Flip the console toward you starting from the top…**
	**…and lower the console in order to clear the under anchorage point of the under side of the control panel.**
	**Remove the 5 quick connections as shown and remove the control panel.**

	**On some models, you will have to remove 3 flex connectors in order to remove the EOC**
	**In order to replace the PC board, remove the 3 flex connectors.**
	**Remove the six screws which holds the inner part of the control panel in place.** **Remove the "A" clip which holds the inner metal panel I place**

	**Remove the "U" shape gasket from the glass cooktop as shown.**
	**Remove the 9 screws which holds the plastic console in place.**

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-408**
Education Leader **NOVEMBER 2005**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

C970

FREESTANDING RANGES

LOCKING

MODELS: All new Kenmore and Frigidaire freestanding ranges with serial numbers between **NF527xxxxx** and **NF537xxxxx** may be affected

Kenmore models

C970-502321	C970-535221	C970-555231	C970-615121	C970-642241	C970-648291
C970-505321	C970-535241	C970-555421	C970-632321	C970-645221	C970-652421
C970-512121	C970-538221	C970-556121	C970-635321	C970-645231	C970-655421
C970-515121	C970-552221	C970-603121	C970-635331	C970-648221	C970-656121
C970-532221	C970-552421	C970-605121	C970-635371	C970-648241	C970-688021
C970-532241	C970-555221	C970-612121	C970-642221	C970-648281	C970-688331

Frigidaire Models

BFEF374ES1	CFEF358EC1	CFEF372EC1	PFEF373ES1	PGLEF365EC1	PGLEF385EC1
BFEF374ES1	CFEF358ES1	CFEF372EQ1	PFEF374EC1	PGLEF375ES1	PGLEF385ES1
CFEF358EB1	CFEF372EB1	CFEF372ES1	PFEF374ES1	PGLEF385EB1	PGLEF386ES1
					PGLEF388ES1

CONDITION:

The front of these freestanding ranges may lock by themselves and stay locked all the time.

CORRECTION:

Replace the existing wheel brake bracket with a modified one included in the kit

The part number for this kit is : 9030739010

Order from Div 22 C970.

Removing the drawer glide will improve the access of the wheel bracket.

1. Disconnect the power from the range.
2. Remove the drawer.
3. Unscrew the black lever screw from the actual bracket.
4. Unfold the rivet stop notch in order to remove the rivet
5. Remove the defective wheel brake bracket and replace it with the one included in this kit.
6. Install the rivet back in its original place (make sure the rivet is inserted through the bracket).
8. Install the lever on the new one.
9. Refold the rivet stop notch to fix the rivet in place.
10. Reconnect power to the range.

		
Remove the drawer glide	Unlock and remove the rivet	Remove the braking bracket

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-414**
Education Leader **JANUARY 2005**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

C970

F1 CODE DURING SELF CLEAN MODEL

KENMORE /FRIGIDAIRE RANGES

Kenmore models

C970-440221	C970-440222	C970-440231	C970-440232	C970-440233
C970-440234	C970-440271	C970-440273	C970-440291	C970-440293
C970-440321	C970-440322	C970-440431	C970-440432	C970-440433
C970-440434	C970-440435	C970-440436	C970-440481	C970-440482
C970-440491	C970-440492	C970-440531	C970-440532	C970-440533
C970-440534		C970-440581	C970-440591	

Frigidaire models

CPCS389DDC	CGCS378DS	CGCS378DB	CPES389DC	CGES388DS
CFES367DS	CFES367DB	CFES367DQ	CFES367DC	CGES388DB
CFES355DS	CFES355DB	CFCS372DS	CFCS372DB	CFCS372DC
CCFGS379DS	CCFGS379DB	CCFGS379DQ	CCFGS379DC	

Serial number starting with NF331xxxxx and ending at NF509xxxxxx

3 = year 2003 and 31 = week # 31(August, 2003) 5 = 2005 and 09 = week # 9

CONDITION: An “F1” fault code may appear in self-clean mode

CORRECTION: Replace original safety thermostat with new one. The new safety thermostat part number is: 318005203

Note: Refer to following pages for instruction on how to access the safety thermostat in order to replace it.	After powering off the unit, remove the 4 knobs. Photo # 024 (same as the How to get through service bulletin in Oct 2004)

	
	**Remove the 4 plastic rings holding the control panel in place.** **Photo # 025** (same as the How to get through service bulletin in Oct 2004)
	**Remove the 6 screws holding the inner part of the control panel.** **Photo # 028** (same as the How to get through service bulletin in Oct 2004)
	**Replace the safety thermostat and reassemble the control panel.** **Photo # 686** (new photo)

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-416**
Education Leader **DECEMBER 2005**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

FRIGIDAIRE/KENMORE

RANGE

UNABLE TO PROGRAM THE "TIME BAKE FEATURE" ON KENMORE & FRIGIDAIRE RANGES

CONDITION: When programming a delayed Time Bake in the AM time frame to start in the PM time frame, the EOC control will not turn the oven on. *This only affects the time bake feature.*

CORRECTION: You will need to replace the EOC and its overlay with one which has a corrected Delayed Time Bake feature. You will find the proper EOC and overlay replacement part number in the list below. EOC and Overlays have to be ordered separately depending on the color of the appliance.

NOTE: If the consumer does not have an issue with the "Time Bake Feature"
DO NOT replace with a reprogrammed EOC
This part will not be stocked in central warehouse and should be ordered as a non-stock only.

The following models all have the same reprogrammed EOC part number, **318184422**

Overlays: **318214505** White, **318214506** Black, **318214507** Bisque

C970-440221	C970-440233	C970-440291	C970-445623	C970-495021
C970-440222	C970-440234	C970-440293	C970-445624	C970-495521
C970-440231	C970-440271	C970-445621	C970-445625	C970-505221
C970-440232	C970-440273	C970-445622	C970-445626	C970-515021
C970-555121	C970-555331	C970-555821	C970-595014	C970-595084
C970-555131	C970-555332	C970-595011	C970-595081	C970-615021
C970-555141	C970-555341	C970-595012	C970-595082	C970-615022
C970-555321	C970-555521	C970-595013	C970-595083	C970-615081
C970-615083	C970-635121	C970-635231	C970-635272	C970-645024
C970-624081	C970-635141	C970-635232	C970-645021	C970-646021
C970-624083	C970-635221	C970-635233	C970-645022	C970-646022
C970-624181	C970-635222	C970-635271	C970-645023	C970-646121
C970-64623	C970-654021	C970-654121	C970-655521	C970-655821
C970-64624	C970-654023	C970-654122	C970-655522	C970-655822

The following models all have the same reprogrammed EOC part number, **318184422**
Overlays: **318214505** White, **318214506** Black and **318214507** Bisque

CFES355AS1	CFEF355DS3	CFES367DS4	CFEF357CB3	CFEF357EQ2
CFES355AS2	CFES367DB1	CFES372AS1	CFEF357CC1	CFEF357ES1
CFES355AS3	CFES367DB3	CFES372AS2	CFEF357CQ1	CFEF357ES2
CFES355AS4	CFES367DB4	CFES372AS3	CFEF357CQ2	CFEF372CB1
CFES355AS5	CFES367DC1	CFES372AS4	CFEF357CQ3	CFEF372CB2
CFES355AS6	CFES367DC2	CFES372AS5	CFEF357CS1	CFEF372CC1
CFES355BB1	CFES367DC3	CFES372BC1	CFEF357CS2	CFEF372CQ1
CFES355BB2	CFES367DC4	CFES372BC2	CFEF357CS3	CFEF372CQ2
CFES355BB3	CFES367DC5	CFES372CS1	CFEF357CS4	CFEF372CQ3
CFEF355DB1	CFES367DQ1	CFEF257CS1	CFEF357EB1	CFEF372CS1
CFEF355DB2	CFES367DQ3	CFEF257CS2	CFEF357EB1	CFEF372CS2
CFEF355DB3	CFES367DQ4	CFEF272DS1	CFEF357EC1	CFEF372CS3
CFEF355DS1	CFES367DS1	CFEF357CB1	CFEF357EC2	CFEF372DC1
CFEF355DS2	CFES367DS3	CFEF357CB2	CFEF357EQ1	CFEF372DC2

The following models all have the same reprogrammed EOC part number, **318184425**
Overlays: **318214505** White, **318214506** Black and **318214507** Bisque

CFCS372DB1	CFCS372DC1	CFCS372DS1
CFCS372DB2	CFCS372DC2	CFCS372DS2

The following models all have the same reprogrammed EOC part number, **318184427**
Overlays: **318214505** White, **318214506** Black and **318214507** Bisque

CGCS378DB1	CGCS378DB2	CGCS378DS1	CGCS378DS2

NOTE: If the consumer does not have an issue with the "Time Bake Feature"
DO NOT replace with a reprogrammed EOC
This part will not be stocked in central warehouse and should be ordered as a non-stock only.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-417**
Education Leader **JANUARY 2006**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

FRIGIDAIRE C970

SLIDE IN GAS RANGES

OVEN DOOR

Frigidaire Models:

CFGS365EB1	CFGS365ES1	CFGS379DB1
CFGS379DQ1	CFGS379DS1	CFGS379DC2

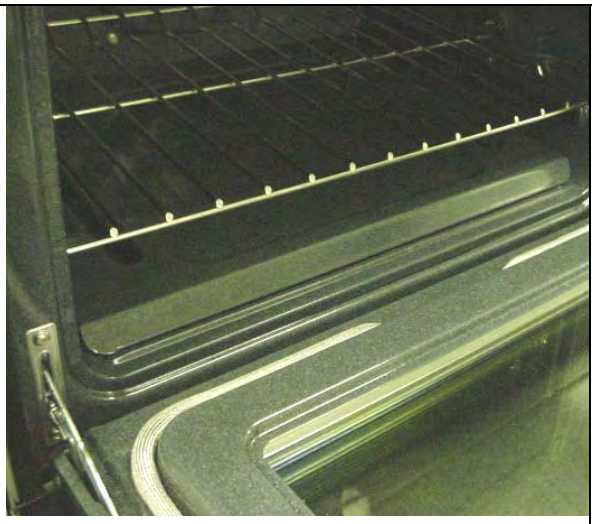
Condition: It is possible that after completing the installation of the Slide-in Gas ranges that the oven door will not close all the way in. You will be able to push and close the oven door all the way in but the oven door will pop open by itself.

Correction: Install the Hidden Bake Cover back into its original place as shown in the below pictures.

Oven door cracked open

Properly closed oven door

Hidden Bake Cover out of positional the way up to the front of the oven liner



Hidden Bake Cover in its proper position behind the elevated section of the bottom of the oven liner

	
Align the two inserts into the 2 slots in the back of the Hidden Bake Cover	**Rear view of the slotted Hidden Bake Cover**

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-419**
Education Leader **JANUARY 2006**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

OVEN DOOR NOT FULLY CLOSING – OVEN LIGHT NOT TURNING OFF
KENMORE & FRIGIDAIRE 30" FREE-STANDING RANGE

MODELS:

See list below. Serial Number Range: VF426xxxxx through VF507xxxxx.

COMPLAINT:

The oven door may not close far enough to depress the oven light switch to turn-off the oven light.

NOTE: The door seal on a new range will compress over the life of the unit. This may cause the door on a new range to appear to be slightly open. ***This is normal for a new range.***

CORRECTION:

Verify that the door is not closing by doing a paper pull test. If the door does not close properly, the hinge receptacle mounted to front frame may be bent. To

perform a “Paper Pull Test” using a piece of paper 3” inches wide the length of a sheet of paper, lay strip across door seal, close door, there should be a slight drag when pulling strip out, repeat every 4” inches across top and down the side one third the way. Using the lists below; match the model number to the Hinge Kit.

Note: Each kit contains 2 hinges

HINGE KIT 5304445976

CFEF364DSA	CGLGF388DSB	CGLGF382DSA	CGLGF388DBB	CGLGF388DSA
CFGF366DBA	CPLGF390DCA	CGLGF382DSB	CGLGF388DQA	CFGF366DSA
CFGF366DBB	CPLGF390DCB	CGLGF388DBA	CGLGF388DQB	CFGF366DSB
CFGF366DCA	CFGF366DCB	CFGF366DCC	970-334630	970-334631
970-335580	970-336830	970-336831	970-336840	970-336880
970-339420	970-339430	970-339431		

HINGE KIT 5304445977

970-334680

HINGE KIT 5304445529

970-686020
970-698280

HINGE KIT 5304445530

970-686130	970-686131	970-698230	970-698231

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager
Education Leader

R.T 22-423
February 2006

JOB CODE: 34210E
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

SOURCE C970

F20 FAULT CODE WITH GLASS TOUCH PANELS ONLY KENMORE SLIDE-IN

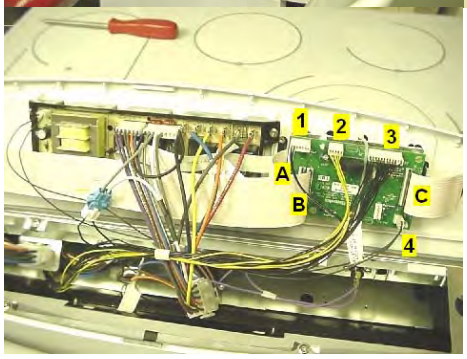
Kenmore models: C970-440832, C970-440881, C970-440891 with serial number prior to NF604xxxxx (6 meaning year 2006 and 04 meaning the 4th week of January 2006…)

CONDITION: The Electronic Oven Control can display an F20 fault code upon using the oven or top surface burners.

CORRECTION: Replace the UIB board. The part number of the UIB board is Div 22 C970 316442030

Follow these three easy steps in order to replace the UIB board…

Before working on the Slide-in range, disconnect power to the unit



1.Remove the left and right hand side screws

2.Flip the console toward you starting from the top…

3. Remove the 4 quick connections as well as the 3 flex connectors

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-427**
Education Leader **February 2006**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

SOURCE C970

FRIGIDAIRE COOKTOPS

Received a Substitute Glass Cooktop Surface Element

Models: Glass cooktop surface elements where a substitute element is received for the repair.

Problem: When replacing a glass cooktop element, there is a possibility that the element ordered and the one received have different part numbers and are configured differently due to a substitution.

Cause: Having a substitute part number, there is a possibility the element will have a different terminal configuration on the limiter. These differing terminals may cause the element to fail to power up if wired incorrectly.

Solution: There are three configurations in use here. The important thing to remember, as you will see in the diagram below, is that the hot surface light circuitry on each of these limiters has an open circuit and that the power feeding the element has a closed circuit. Be sure to correctly identify the configuration on the part you have received.

Hot surface light circuitry

Figure 1. The vertical position of terminals "1b" and "2b" are one on top of the other terminal

Figure 1

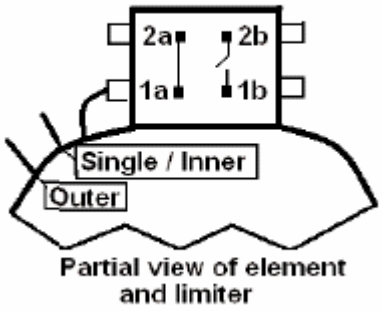


Figure 2. The vertical position of terminals "S" and "H" are one terminal on top of the other

Figure 2

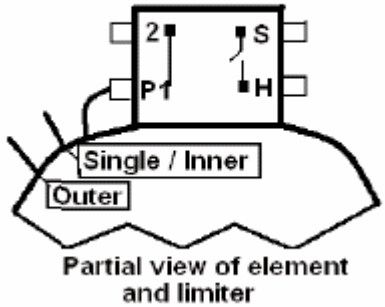
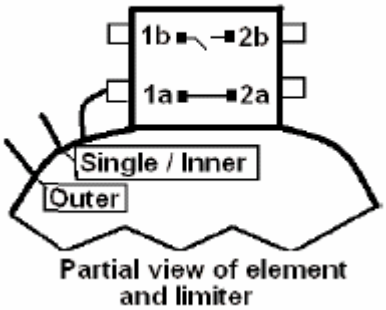


Figure 3. The horizontal position of terminals "1b" and "2b" are one terminal across from the other terminal

Figure 3



NOTE: The hot surface light wires can be connected to either of these terminals.

Power supply circuitry

Single element: one power line can be connected to terminal "2a" as in figure 1 and 3, or to terminal "2" as shown in figure 2.

The other power supply line is connected directly to the element (Single position) as shown in Figures 1, 2, and 3.

Dual (expandable) element: one power supply line comes in terminal "2a" as shown in Figures 1 and 3 or to terminal "2" as shown in Figure 2

The "Inner" power line comes to the closest terminal (Inner) to the limiter as shown in Figures 1, 2 and 3

The "Outer" power line comes to the terminal the farthest away (Outer) from the limiter as shown in Figures 1, 2 and 3

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-431**
Education Leader **MARCH 2006**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

KENMORE

C970

TIGHT HALF-RACK IN KEMMORE GAS & ELECTRIC RANGES

MODELS:

970-33942 970-33943 970-69828 970-69823

CONDITION:

Porcelain half-rack is not sliding in and out easily, causing it to rub against the oven liner. The potential for this was caused if the rack width fell out of tolerance to the high side.

CORRECTION:

The porcelain half rack has been re-tooled so that the "flat" portion is no longer present. Please re-order part 22C970316425601

ORIGINAL RACK

RE-TOOLED RACK

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-432**
Education Leader **MARCH 2006**

JOB CODE:
CALL CODE 10 for site
41 for shop
MERCHANDISE CODE:

DIVISION 22

C970

KENMORE

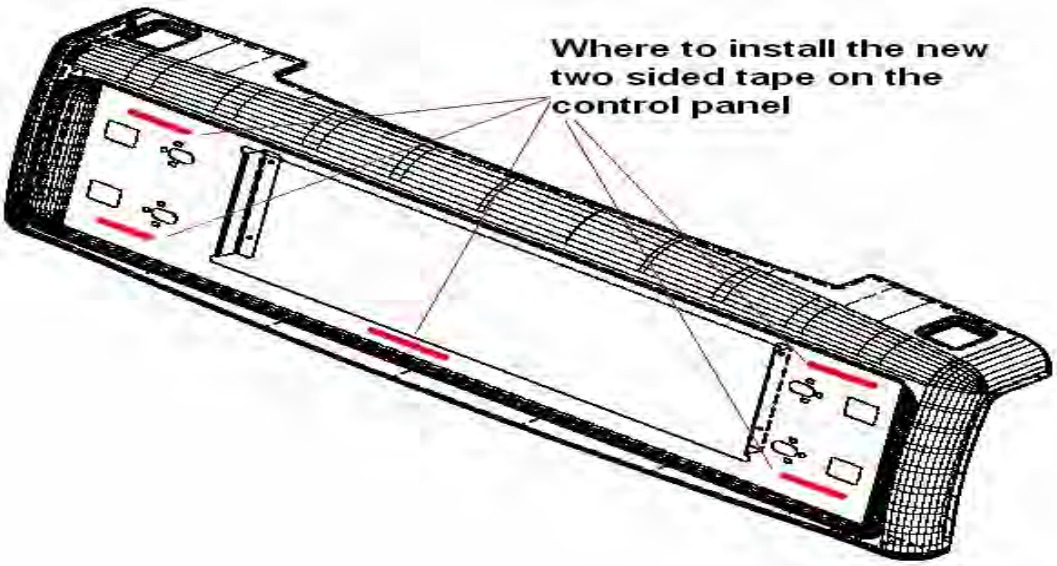
30” Free-standing Range Glass Control Panel falling Out of Place

Below models, all serial numbers affected

C970-688021	C970-688022	C970-688031	C970-688032	C970-688033
C970-688041	C970-688042	C970-688081	C970-688082	C970-688091
C970-688092				

CONDITION: Glass Control Panel falling out of its original position.

CORRECTION: Remove the old adhesive tape and clean the surface with a fresh razor blade and alcohol. Install the new two sided adhesive tape as shown in the below pictorial.
Part number of the new two sided tape is: 22C970732183120 (Order a quantity of 5)
Make sure to put pressure on the glass panel for a minimum of 15 seconds so the tape can reach full adhesion.


Where to install the new
two sided tape on the
control panel

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager
Education Leader

RT22-451□
JUNE 2006

JOB CODE: 34220G
CALL CODE
MERCHANDISE CODE:

DIVISION 22

FRIGIDAIRE

SOURCE C970

Beeping Sound in Control Panel Area on 30" Free-Standing Ranges with Mini Oven

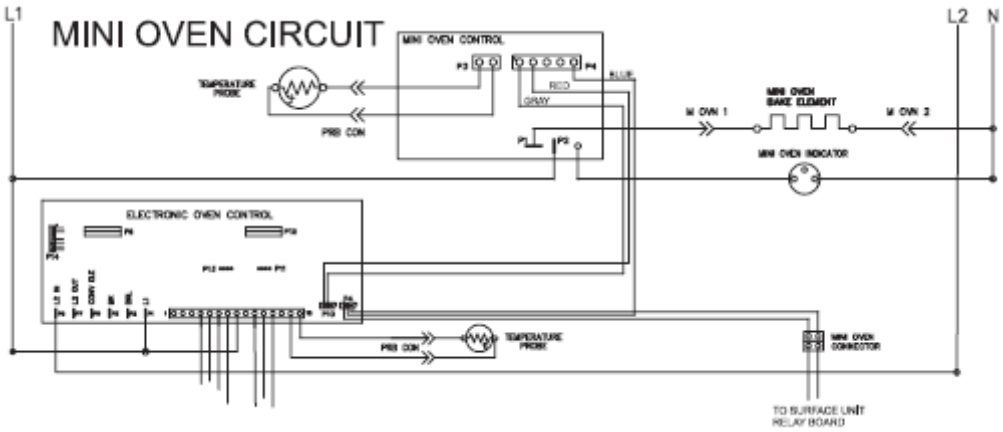
Models: *CPLEFM99EC CPLEFM97DB CPLEFM97DS*

Problem: *Beeping sound coming from the control panel area with no fault code displayed in the EOC. The consumer can set the oven lock out feature and the beeping will stop.*

Cause: *Possible open or shorted mini oven sensor/probe circuit or mini oven control.*

Solution: *The mini oven control will beep constantly when it detects a fault condition in the temperature sensor/probe circuit. This may be caused by a runaway heat condition, open or shorted temperature sensor/probe, or faulty sensor/probe connection/harness.*

The technician should test the temperature/sensor probe circuit by disconnecting the P3 connector at the mini oven control board and then measure the resistance between the two purple wires. The resistance of the mini oven temperature sensor/probe should read the same as that of the main temperature sensor/probe. If the sensor/probe circuit and harness are good, then replace the mini oven control board.



CLAUDE BABINEAU – DEPARTMENT 731A
CHRIS BURNELL-DEPARTMENT 731A

Order parts from Div 22 C970

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-453**
Education Leader **JULY 2006.**

JOB CODE: 93240C

CALL CODE

MERCHANDISE CODE:

DIVISION 22

C970

Kenmore and Frigidaire Gas Ranges with Convection or Speed Bake Feature

Problem: *Convection fan does not operate when the oven is first turned on using the SpeedBake or Convection Bake/Roast feature on gas ranges only.*

Cause: *The EOC is programmed for a delayed start fan operation which allows for circulation within the oven cavity and vent flue in order to meet requirements for gas combustion.*

Solution: *Instruct Customer on proper operation:*

SpeedBake – The convection fan has a six minute delay start operation

Convection – The convection fan will not turn on until one of two conditions met

1. *A six minute delay*
2. *The programmed set temperature is met (between 325F and 550F)*

CLAUDE BABINEAU – DEPARTMENT 731A
CHRIS BURNELL-DEPARTMENT 731A

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-454**
Education Leader **JULY 2006.**

JOB CODE:
78342K
FRONT FRAME

CALL CODE
AS REQUIRED

DIVISION 22

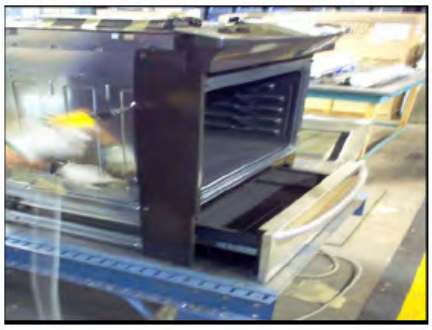
C970

Oven Door and Drawer Door do not line up on Kenmore and Frigidaire Slide-in Ranges with serial number range between NF532XXXXX and NF612XXXXX

Problem: *Oven door and drawer are offset*

Cause: *Tolerance allowed in manufacturing could cause the oven and drawer frames to become misaligned during transportation or installation.*

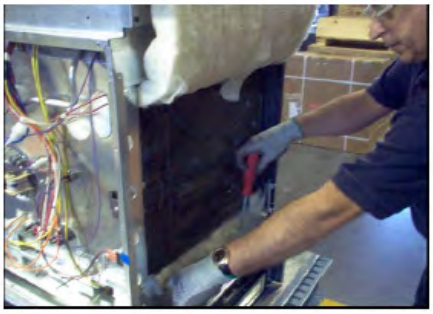
Solution: *Two screws were added in production to prevent this from occurring; however you could need to realign the frames for units already in the field. Please follow the steps below to realign the frames:*



1) Remove the oven door and take off the side trims by removing the two screws.

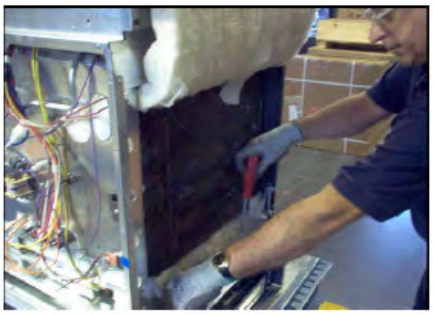
2) While wearing gloves remove the two side panels.

3) Push the insulation up to free the screws.

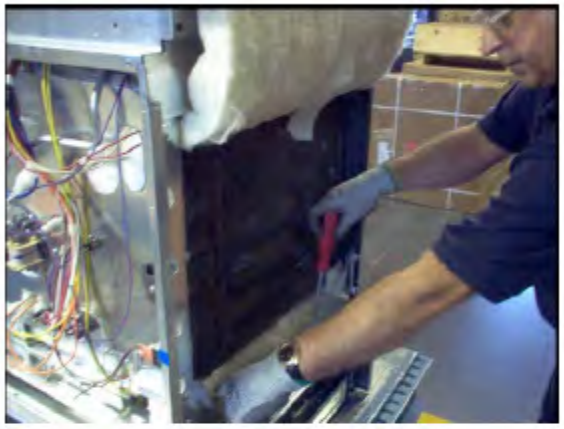


4) Remove the two screws on each side of the oven.

5) Place and align the front frame with the drawer front frame.



6) Replace the two **front** screws (one on each side). Ensure the frames are still aligned.



7) Replace the two **rear** screws (one on each side). Replace the insulation, side panels, side trims, and the oven door.

DEPT. 731A

REPAIR TIP

Service Branch Manager
Assistant Service Branch Manager
Call Centre Manager **R.T 22-456**
Education Leader **AUGUST 2006.**

JOB CODE: 36820K
LIMIT SENSOR SWITCH (OVEN)

CALL CODE AS REQUIRED

DIVISION 22

FRIGIDAIRE/KENMORE

C970

FAULT CODE "30"

Kenmore models

C970-440831	C970-440832	C970-440833	C970-440834	C970-440835
C970-440881	C970-440882	C970-440883	C970-440884	C970-440891
C970-440892	C970-440893	C970-440931	C970-440981	C970-440991

Frigidaire models

CGLES389EB1	CGLES389EB2	CGLES389EB3	CGLES389EB4	CGLES389EB5
CGLES389ES1	CGLES389ES2	CGLES389ES3	CGLES389ES4	CGLES389ES5
CPLES399EC1	CPLES399EC2	CPLES399EC3	CPLES399EC4	CGLES389FB1
CGLES389FC1				

CLAUDE BABINEAU – DEPARTMENT 731A
CHRIS BURNELL-DEPARTMENT 731A

Serial number starting with NF531xxxxx and ending at NF631xxxxxx

5 = year 2005 and 31 = week # 31(August, 2005) 6 = 2006 and 31 = week #27

CONDITION: An "F30" fault code may appear on the Electronic Oven Control's display upon using either the top surface element or the oven.

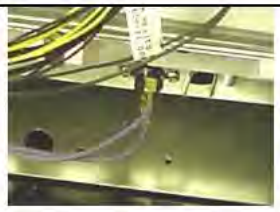
CORRECTION: Verify the oven sensor circuitry, if it's open, verify the safety thermostat located on the front portion of the unit (behind the right hand side surface switches) If it's open, replace the original safety thermostat with new one.
The new safety thermostat part number is: 318005213

Note: Refer to page 2 for instruction on how to access the safety thermostat.

View of the manual (turning) surface switches
Before working on the unit, disconnect the power to the unit.

			
Remove the surface switch knobs.	**Remove the 4 plastic rings holding the control panel in place.**	**Remove the 6 screws holding the inner part of the control panel.**	**Replace the safety thermostat located behind the right hand side surface switches.**

View of the glass touch panel
Before working on the unit, disconnect the power to the unit.

			
On models with electronic surface switches, remove the left and right hand side screws.	**Flip the console toward you, starting from the top.**	**Lower the console in order to clear the under anchorage point of the control panel.**	**Replace the safety thermostat located behind the right hand side surface switches.**

TROUBLESHOOTING FRIGIDAIRE RANGES OR OVENS WITH ELECTRONIC OVEN CONTROLS (EOC)

When an oven with an electronic control fails, it usually signals the failure with an “F” code. These “F” codes are considered by many people to be an indicator as to positively which part in the circuit has failed (“F1” a defective control, “F3” a defective oven probe, and so on). To the embarrassment of many servicemen who have believed this, they have installed the indicated part only to find it did not correct the problem.

To troubleshoot an oven with an electronic oven control that is not operating:

1. Make sure electrical power is being supply to the control.
2. Disconnect power for 30 seconds. If fault returns when power is reconnected continue with the following steps.
3. Go to the back of the control and disconnect the multi-pin plug.
4. Check the wiring diagram to determine which two pins in the plug (not on the EOC) are connected to the oven sensor.
5. With an Ohmmeter check the resistance between the two pins in the plug that are connected to the sensor. At room temperature:

STEP 1: If the meter reads below 900 Ohms or above 1200 Ohms, remove the sensor from the oven and check it for resistance. If the resistance of the sensor is the same as reading at the plug, the sensor is defective. If the resistance of the sensor reads between 900 & 1200, the wiring between the control and the sensor is defective.

STEP 2: If the meter reads between 900 Ohms & 1200 Ohms check the resistance between one of the pins going to the sensor and chassis. If the meter reads infinity go to step 3. If the meter shows continuity, remove the sensor and check from one of its pins to the case of the sensor. If the meter reads continuity, the sensor is defective. If the meter reads infinity, the wiring between the control and the sensor is shorted to chassis of the range.

STEP 3: From the wiring diagram, determine which 3 wires if automatic lock or which 2 wires if manual lock, in the plug is from the door lock switch or switches. From the diagram determine which of the switches are open or closed when the door in the unlocked position. With an Ohmmeter check to see if the switch that is shown open is open and the switch that is shown closed is closed by checking the proper pins in the plug.

6. If the above checks test good and the relay on the board for the selected function is not closing replace the control.

IMPORTANT: If the oven problem is intermittent you must do the above test when the oven is malfunctioning.

RTD SCALE	
TEMPERATURE °F	RESISTANCE Ω
32 ± 1.9	1000 ± 4.0
75 ± 2.5	1091 ± 5.3
250 ± 4.4	1453 ± 8.9
350 ± 5.4	1654 ± 10.8
450 ± 6.9	1852 ± 13.5
550 ± 8.2	2047 ± 15.8
650 ± 13.6	2237 ± 18.5
900 ± 13.6	2697 ± 24.4

DISPLAYED FAULT CONDITIONS

IMPORTANT NOTE: Not all EOC's will display every fault code listed. Some of the F-codes are found only on older products. For example: F3 on current models can be an open or shorted probe and they will not display an F4, but on some older models F3 indicates an open probe and F4 indicates a shorted probe.

F1
Control Failure

Shorted keypad. Internal checksum may have corrupted control relay shorted or bad probe. Check probe and probe wiring and replace if bad. Power off for 30 seconds. If fault returns replace control

F2
Oven temperature above specifications:

The oven temp has risen above 665 degrees F and the oven door is not locked or : the oven temp has risen above 965 degrees F with the door locked.
TEST: Door latch switch or switches; oven sensor (RTD); Electronic oven control (EOC)

F3
The RTD is open/shorted

Check for open wiring connections between EOC and RTD. Check resistance of RTD using resistance table. If resistance test is correct and wiring is good to board replace EOC.

F4
Shorted oven sensor (RTD)

Check for shorted wiring between EOC and RTD. Check resistance of RTD using resistance table. **If resistance test is correct and wiring is good replace EOC.**

F5
The watchdog circuit is active when it should be disabled.

The microprocessor checked for operation of EOC relay after selection of Bake, Broil, or Clean operation and relay failed test. Check for shorted keypad or pushbuttons binding in glass and stuck. If not replace EOC.

F6
No 60 Hz base

Time base is required for time controlled cycling. Replace EOC.

F7
Lock motor relay watchdog circuit active when it should be disabled.

The microprocessor checked for operation of the EOC lock relay after selection, and the relay failed the test. Replace EOC

F8/F9

Lock motor switches improperly positioned. The microprocessor has found the lock motor switches to be out of sequence or shorted. Test switches and if found to be good and in proper sequence then replace EOC.

On freestanding gas and electric ranges manufactured beginning with the serial number date code **VF426** many of the EOC's will have expanded three digit fault codes. These codes may also appear in new replacement EOC's for ranges built prior to this date. Below is a list of possible fault codes that might appear in the EOC display window. The original two digit fault codes appear in the shaded boxes followed by the replacement three digit codes.

EOC Failure / Fault Codes

For each Fault code there is a listing of the likely failure condition or cause, as well as suggested corrective actions to be taken. Not all fault codes will appear in every model but the fault codes are universal and have the same meaning regardless of the model that is being serviced

Note: Fault codes are not a foolproof system. Never assume that a part has failed based on a displayed fault code. An example would be if the EOC is displaying F30 (open sensor), the failure could be caused by a loose connection or faulty wire harness between the EOC and sensor or the sensor could simply be unplugged.

FAULT CODE	LIKELY FAILURE CONDITION/CAUSE	SUGGESTED CORRECTIVE ACTION
F1 — F10	Runaway Temperature.	1. (F10 only) Check RTD Sensor Probe & replace if necessary. If oven is overheating, disconnect power. If oven continues to overheat when the power is reapplied, replace EOC. Severe overheating may require the entire oven to be replaced should damage be extensive. 2. (F11, 12 & 13) Disconnect power, wait 30 seconds and reapply power. If fault returns upon power-up, replace EOC. 3. (F14 only) Re-seat the P12 ribbon connector tail. If fault returns replace EOC (first action); Touch Panel (second action)
F11	Shorted Keypad.	
F12	Bad Micro Identification.	
F13	Bad EEPROM Identification/Checksum error.	
F14	Display tail missing/not connected	
F20	Communication failure between EOC and ESEC system.	1. Test harness/connections P4 (EOC) & P11 (Surface element control board). 2. If harness checks O.K. failure can be caused by faulty UIB, surface element control board, or EOC.
F26	Communication failure with mini oven control.	Check harness and connectors from the EOC to mini oven control board. Check for 15vdc to mini oven control (red & gray wires). If harness and voltage are good replace mini oven control. If fault returns replace EOC.
F3 — F30	Open probe connection.	1. (F30 or F31) Check resistance at room temperature & compare to RTD Sensor resistance chart. If resistance does not match the RTD chart replace RTD Sensor Probe. Check Sensor wiring harness between EOC & Sensor Probe connector. 2. (F30 or F31) Check resistance at room temperature, if less than 500 ohms, replace RTD Sensor Probe. Check for shorted Sensor Probe harness between EOC & Probe connector.
F31	Shorted Probe connection	
F40	Cooktop Lockout error.	1. (F40 or F41) Check the wiring. 2. (F40 or F41) Replace the Cooktop Lockout Control Board. 3. (F40 or F41) Replace EOC.
F41		
F9 — F90	Maximum oven door unlock time exceeded.	1. (F90, 91, 92, 93 & 94) Check the wiring between EOC & Lock Motor Micro Switch. 2. (F90, 91, 92, 93 & 94) Replace the Motor Door Latch assembly if necessary. 3. (F90, 91, 92, 93 & 94) Check for binding of the Latch Cam, Lock Motor Rod & Lock Motor Cam. 4. (F90, 91, 92, 93 & 94) Check to see if Lock Motor Coil is open. If open, replace Lock Motor Assembly. 5. (F90, 91, 92, 93 & 94) Lock Motor continuously runs - if Micro Switch is open, replace Lock Motor Assembly. 6. (F92, 93 & 94) Check oven door Light Switch - if open, replace Switch. 7. If all situations above do not solve problem, replace EOC.
F91	Maximum oven door unlock attempts exceeded.	
F92	Maximum oven door open time exceeded.	
F93	Maximum oven door lock time exceeded.	
F94	Maximum oven door lock attempts exceeded.	

Introduction To Induction Cooking

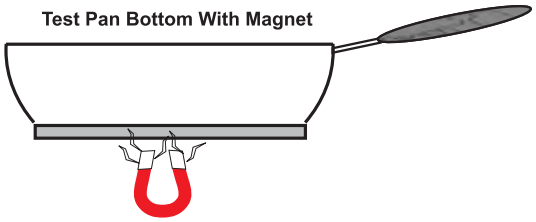
How Induction Cooking Works

Induction cooking uses high frequency magnetic energy to heat the cooking utensil when it is placed over the induction coil. The induction fields have no affect on non magnetic surfaces such as paper, plastic, or non ferrous metals like aluminum, copper etc.

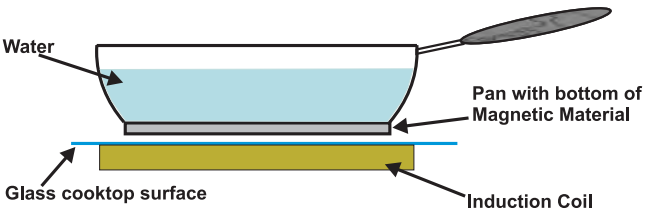
An induction cooking system requires two key components to operate.

The first component is the induction coil or element. This coil generates the magnetic induction field needed for induction cooking.

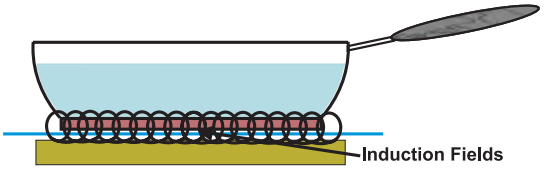
The second key component is the cooking utensil or pan with a bottom constructed of material that will attract a magnet.
If a magnet will not stick to the bottom of the pan it can not be used for induction cooking.



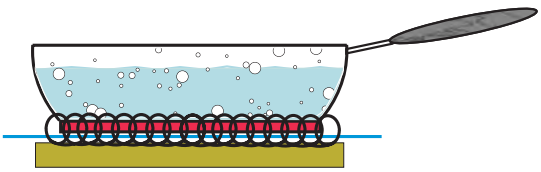
When the proper type of pan is placed over the induction coil and the coil is energized it generates a field of magnetic waves that cause the bottom of the pan to heat.



Induction cooking is highly efficient since the energy created by the induction fields is not wasted by heating the glass and surrounding area of the cooktop surface.



Due to this increased efficiency the contents of the pan are heated more quickly than with gas burners or traditional radiant electric and coil elements. Since the induction fields heat only into the cooking utensil the surrounding surface remains cooler than with traditional cooktops.



SELECTING PROPER COOKWARE

Determining Pan Size

When selecting a pan to use for induction cooking it is important to know the correct size of the pan in order to determine the proper cooking zone to be used. The size of the magnetic portion of the pan bottom has a direct effect on the cooking performance and efficiency of the cooking zone. Pan design and construction vary widely as can be seen by the examples given below.

The following illustrations show some of the variations found in the construction of pan bottoms.

Fig. A
The overall diameter of this pan is 9 inches if measured at the top portion. The flat magnetic portion of the bottom (shaded in gray) is only 7 inches in diameter. This pan would be considered to be a 7 inch pan and should be used on a cooking zone appropriate for this size.

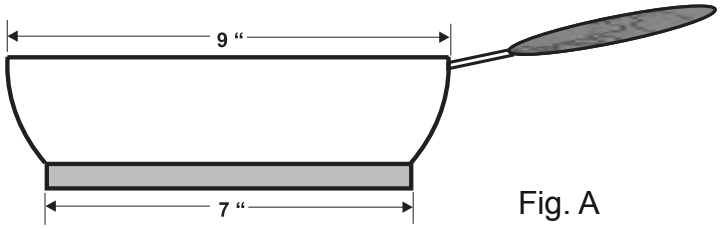


Fig. A

Fig. B
The bottom of this pan is a non magnetic alloy with an encapsulated inner core of magnetic material. The inner magnetic core is 1 inch smaller than the outer dimension of the flat pan bottom. This pan will have different cooking characteristics than the pan in Fig. A. The effective cooking diameter of this pan is 6 inches.

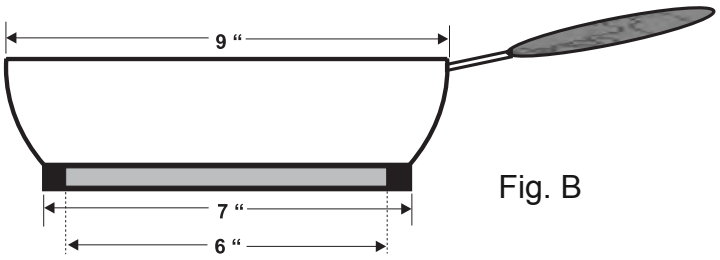


Fig. B

Fig. C.
This pan has a bottom of non magnetic alloy with a different shaped encapsulated inner magnetic core. The illustration shows that the core is thinner near the outer perimeter of the pan bottom and increases in thickness as it nears the center of the pan. This type of pan will have different cooking characteristics than a pan with a uniform core thickness.

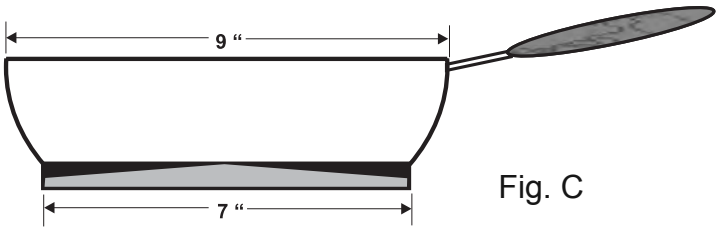


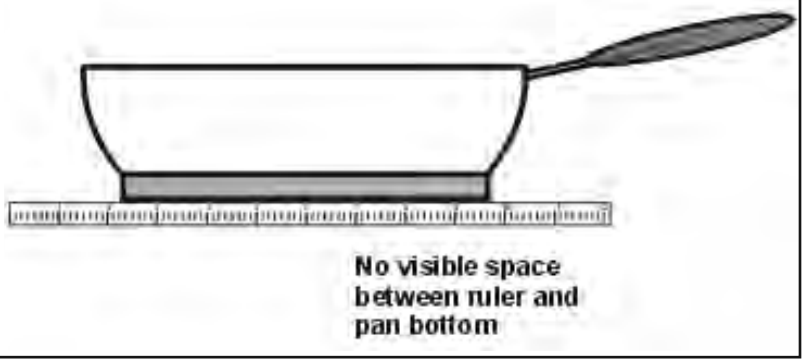
Fig. C

Inspecting Pan Bottom

For best results with an induction cooktop the pan bottom should be as flat as possible with no deep grooves or ridges on the bottom surface. Pans that are not flat or that have grooves or ridges on the bottom will not be as efficient as smooth, flat bottomed pans.

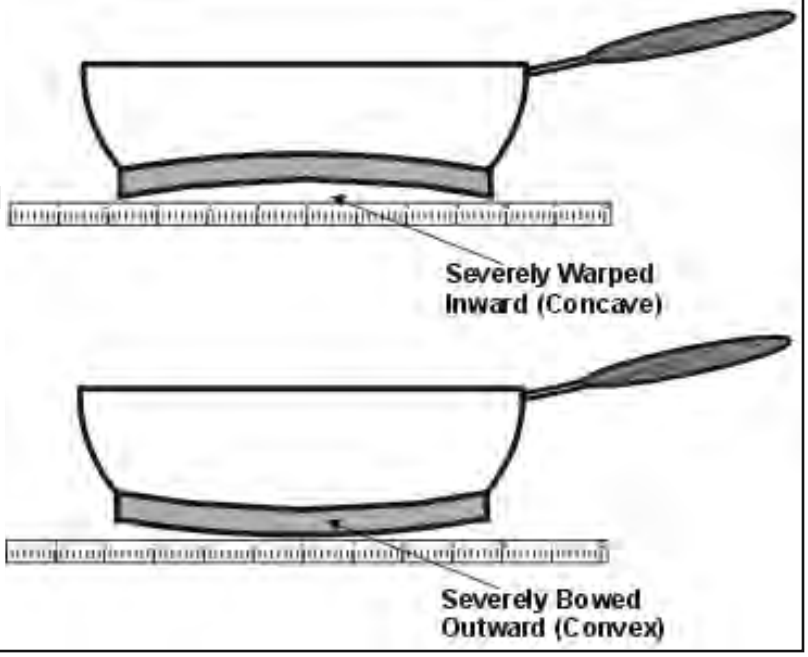
To see if the pan is flat place a ruler or similar straight edge against the bottom of the pan.

A pan that is perfectly flat will have no visible space between the ruler and the bottom of the pan.



If the cookware is severely warped or bowed it may not function on the induction cooktop.

Cookware in this condition may not activate the pot detection feature of the cooking zone.



Basic Operation

There are four basic modes of operation that the control can be in:

- Standby – Line voltage is applied. No cooking zones are activated. No displays are illuminated with the exceptions of “hot zone” indication, or timer count down in progress.
- Ready – The cook top main power is turned on and awaiting a function key press.
- In Use – At least one of the cooking zones is in use.
- Locked – All displays are off with the exception of the “Locked” LED. No functions are available until the unlock sequence is done.

Cook-top POWER On/Off

To turn ON the cook top, the unit must be in the Standby mode. Press the POWER button for 3 seconds. The Power On LED above the POWER button will illuminate. A short beep will sound and the control will be in the Ready mode. The cook top will be ready to accept another key press to activate a zone or the timer. If no keys are pressed within 10 seconds, the control will automatically revert back to the Standby mode.

To turn OFF the cook top, if the unit is in Ready or In Use mode, press the POWER button for 3 seconds. The control will de-activate all cooking zones, and turn off all displays and a short beep will sound.

Activating a Cooking Zone

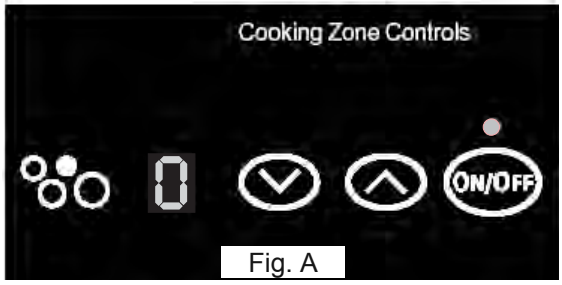


Fig. A

If the control is in the Ready mode or the In Use mode, a cooking zone may be activated. Each cooking zone control sections has a digit display, a DOWN key, an UP key, and an ON/OFF key. To turn ON a zone, press the Zone ON/OFF key for the desired zone. The digit display for that zone will show “0” (Fig A) . If the Timer was counting down, the timer will continue to operate and display the time remaining. Press either the Zone UP key or the Zone DOWN key to activate zone.

If the UP key is pressed and released, a “P” will be displayed in the digit display to indicate “Power Boost” (Fig B).

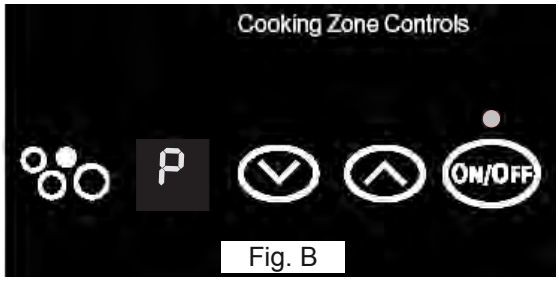


Fig. B

If the DOWN key is pressed and released, then the “1” digit will be displayed (Fig C). If no other keys are pressed in that cooking zone, after 5 seconds, the control will activate the zone to the indicated power level.

If a different power level is desired, pressing the UP or DOWN keys are used to select an intermediate power level. Pressing and releasing the UP or DOWN keys will increment, or decrement the power level by one step with each key press. A beep will sound with each key press. When the desired power level is displayed, and no further keys are pressed in that cooking zone for 5 seconds, the zone will start heating.

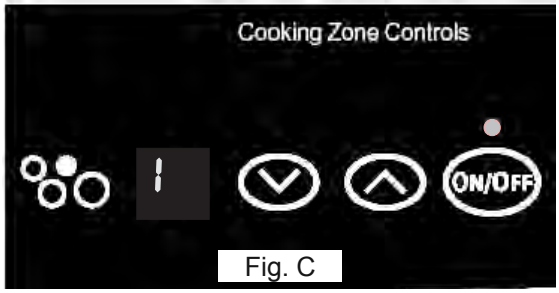


Fig. C

Basic Operation

If the Zone ON/OFF key is pressed, but no UP or DOWN keys are pressed for a period of 5 seconds, then the control will revert back to Ready or Active mode without activating the zone. If the control was in the Ready mode, the zone digit display will be lit with a solid “0”. If the control was in the In Use mode, the zone digit display will turn off.

If the UP or DOWN buttons are pressed and held for a period of 2 seconds, the control will automatically increment or decrement (slew) the displayed power level digit at a rate of 2 Hz. When the highest power level is reached, and the UP key is pressed, the control will stop changing the digit display. Likewise, if the lowest power level is reached, and the DOWN key is pressed, the control will stop changing the digit display. The control should not beep while slewing the power level.

When a cooking zone activates, the respective zone-active LED will illuminate (above the zone power button).

For additional information on proper operation, care and maintenance of the cooktop refer to the owners guide.

Cooking Power Levels

The cooking power levels are indicated in the table below.

Displayed Power Level	L*	0	1	2	2.	3	3.	4	4.	5	5.	6	6.	7	8	9	P**
Power % (By Time)	2.5	0	3	5.5	8	10.5	13	15.5	18	21	25	31	38	45	64	100	123-133
Notes	* Accessed via the Keep Warm Button ** Power Boost Mode																

Touch Control Information

The Touch Control works on the basis of the infrared principle, i.e. a signal is transmitted with a transmitter which is then reflected by the finger and received by the touch control board.
If the touch control is not properly touching the under side of the glass, the signal strength is much weaker and the buttons may not respond. Always ensure that the touch boards are properly positioned and mounted.

Proper Use Of Touch Controls

The recommended way to use the touch pads on the cooktop is shown in Fig. 16A. Be sure that your finger is placed in the center of the touch pad as shown. If the finger is not placed on the center of a pad, the cooktop may not respond to the selection made. Lightly contact the pad with the flat part of your entire fingertip. Do not just use the narrow end of your fingertip.

Fig. 16A

Component Access and Service Procedures

⚠ WARNING DISCONNECT OR TURN OFF ALL ELECTRICAL POWER AND GAS SUPPLY BEFORE SERVICING APPLIANCE

To gain access to the various component parts of the cooktop assembly it must be uninstalled from the cabinet and counter top. Depending on the location of the power supply junction box it may also be necessary to disconnect the cooktop power flex cable from the junction box.

Remove the screws securing the cooktop to the mounting brackets and lift the cooktop assembly out of the cut out in the counter. Place the cooktop assembly on a stable protected work surface. Use wooden blocks or other suitable material as spacers to support the cooktop assembly from below and avoid pressure on the power cable strain relief.

Removing Cooktop Glass

Begin disassembly by removing the five screws indicated by the arrows in the photo (Fig 17A) and romove the vent deflector at the front edge of the cooktop.
Remove the remaining screws that secure the cooktop glass and frame to the burner box (Fig 17B). Carefully lift the cooktop glass and frame away from the assembly.

NOTE: It is not necessary to remove the screws that secure the plastic spacers.

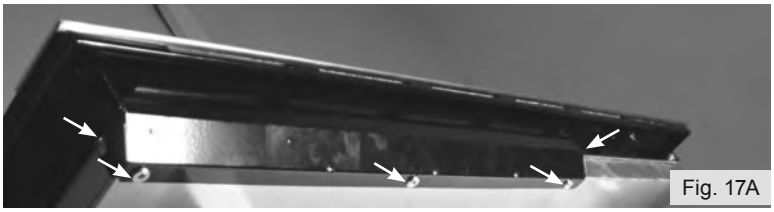


Fig. 17A

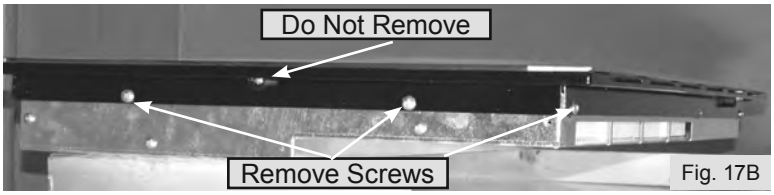


Fig. 17B

With the glass top and frame removed the induction coils, touch controls, and insulation panel are accessible for service. (Fig.17C)

Use care when handling the induction coils and insulation panel to prevent damage.

! CAUTION !
When handling or servicing electronic parts follow proper procedures to avoid component damage due to static discharge

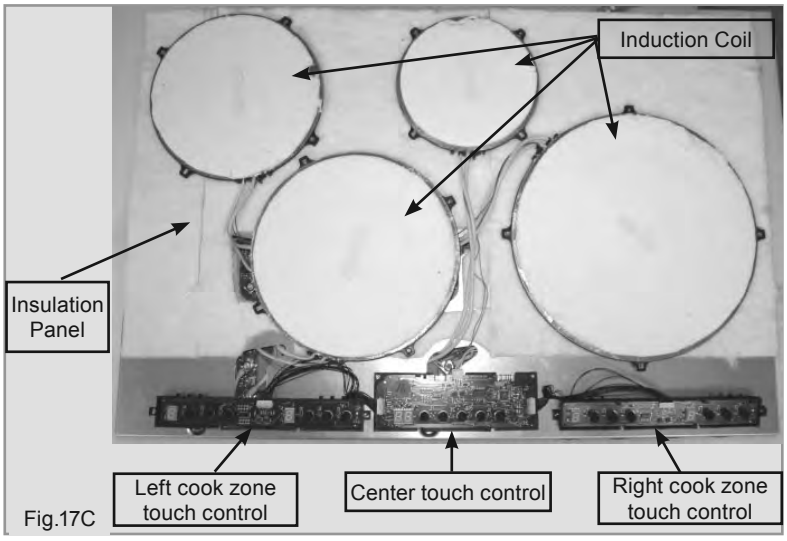


Fig.17C

Component Access and Service Procedures

Removing Touch Control Boards

Unplug the center wire harness connector on the main touch control board (Fig. 18A). There are two identical edge connections on the board. Either one can be used.

With the center harness disconnected the main touch control board, left and right cook zone touch control boards can be lifted off their locator pins and removed from the cooktop assembly.

The Left and Right cooking zone touch control boards are identical. The three touch control boards and wires are replaced as separate components.

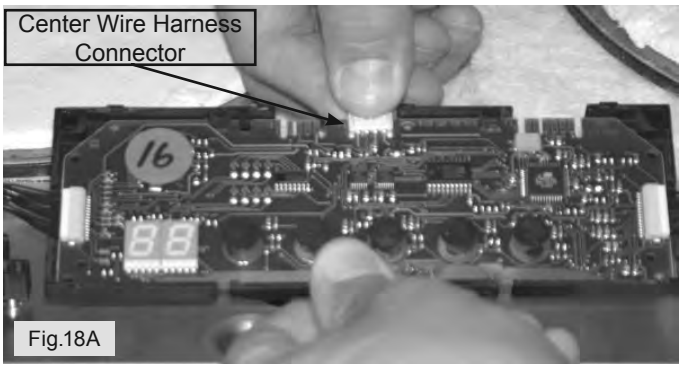
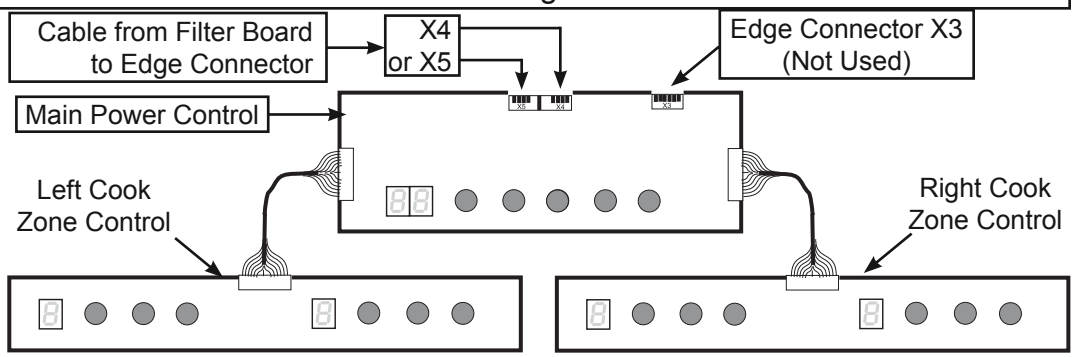


Fig.18A

Touch Control Board Wiring

The chart below illustrates the wiring connections between the Cook Zone controls and the Main Power Control. Note that on the main power control connectors X4 & X5 are identical. Either of these can be used to connect the cable from the filter board. Edge connector X3 is not used.



Removing Induction Coils

Using a # 25 torx screwdriver loosen the screw terminals on the power board and remove the wires to the induction coil. (Fig. 18B)

The terminals are forked and can be removed without completely removing the screw.

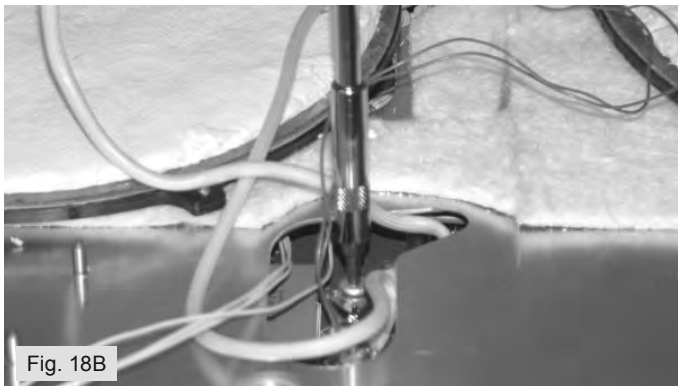


Fig. 18B

With the induction coil wires removed from the screw terminals the induction coil temperature sensor (RTD) connector can be accessed and unplugged from the induction power board. (Fig. 18C)

The RTD connector plug is released by pressing inward on the tab. (Fig. 18D)


Fig.18C

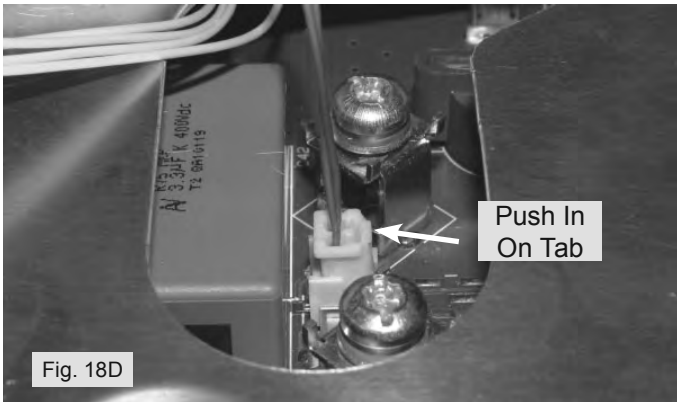


Fig. 18D

Fig. 19A shows a complete induction coil assembly. To test the coil circuit use an ohm meter to check for continuity between the two forked terminal connectors. The coil should have less than 1 ohm of resistance.

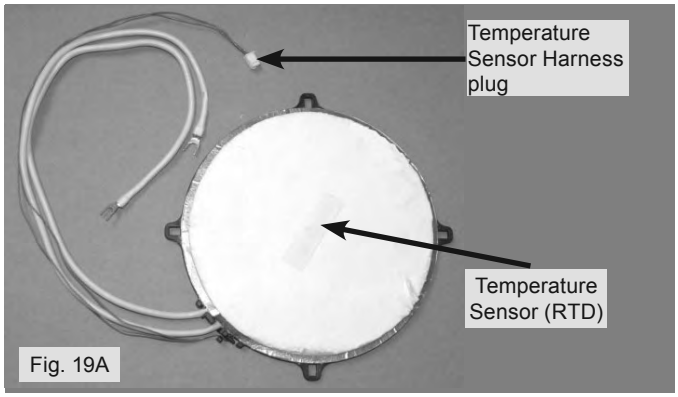
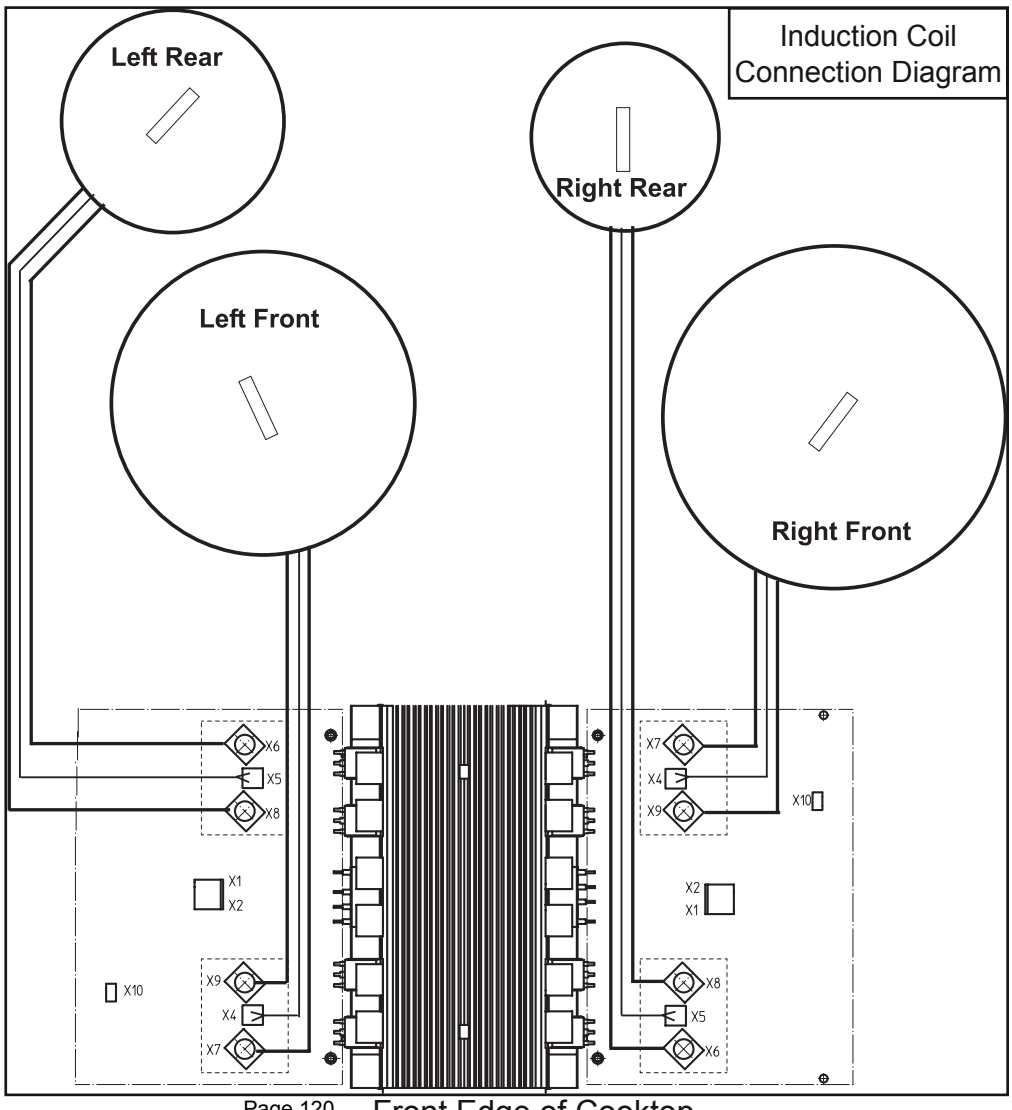


Fig. 19A

Each induction coil assembly has a temperature sensor (RTD) as part of the assembly. The RTD should measure approximately 1000 ohms of resistance at room temperature. The RTD monitors the surface temperature of the cooking zone and relays this information to the controls. If the surface temperature is above 65°C (149°F) the hot surface indicator “H” will be displayed in the cook zone control display when the cook zone is not in use. If the control detects surface temperatures above 240°C (464°F) it will turn the cook zone off. This is intended to prevent damage to the cooktop and cooking utensils in the event of an empty pan left on the cooktop or if a pan should boil dry. Whenever this shutdown occurs the cook zone control may display “-” or have no display. After the surface cools down sufficiently the cook zone control can be reactivated in the normal manner.

It should be noted that the individual wires from each induction coil have no polarity and can be connected to either of the screw posts on the power board for that specific cook zone.

Also notice the difference in the wiring configuration of the left side and right side induction coils. On the left side the rear coil connects to the rear set of terminals on the power board but on the right side the rear coil connects to the *front* set of terminals. If the coils are not connected to the proper terminal set the cook zones for that side will not operate and the control will display the flashing “F” when the zone is turned on.



Component Access and Service Procedures

Removing The Coil Carrier

The photo in Fig. 20A shows the cooktop coil carrier after the controls, induction coils and insulation pad have been removed. To separate the coil carrier from the filter board and power board housing remove the ten screws indicated by the arrows in the photo.

When reinstalling these screws use care not to overtighten and strip the receptacle in the power board housing.

Fig. 20A

Main Power Components

With the coil carrier panel removed the induction power components and surrounding insulation can be accessed. Remove the three pieces of insulation surrounding the power component housing (Fig. 20B).

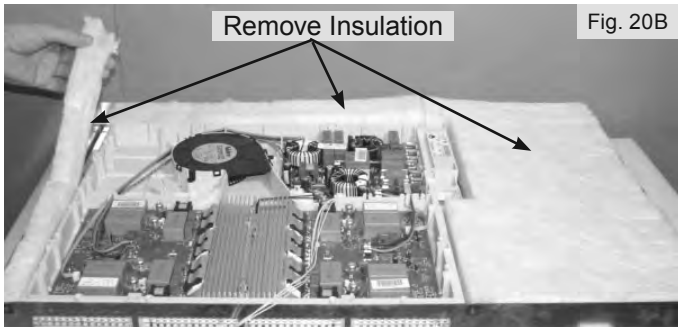
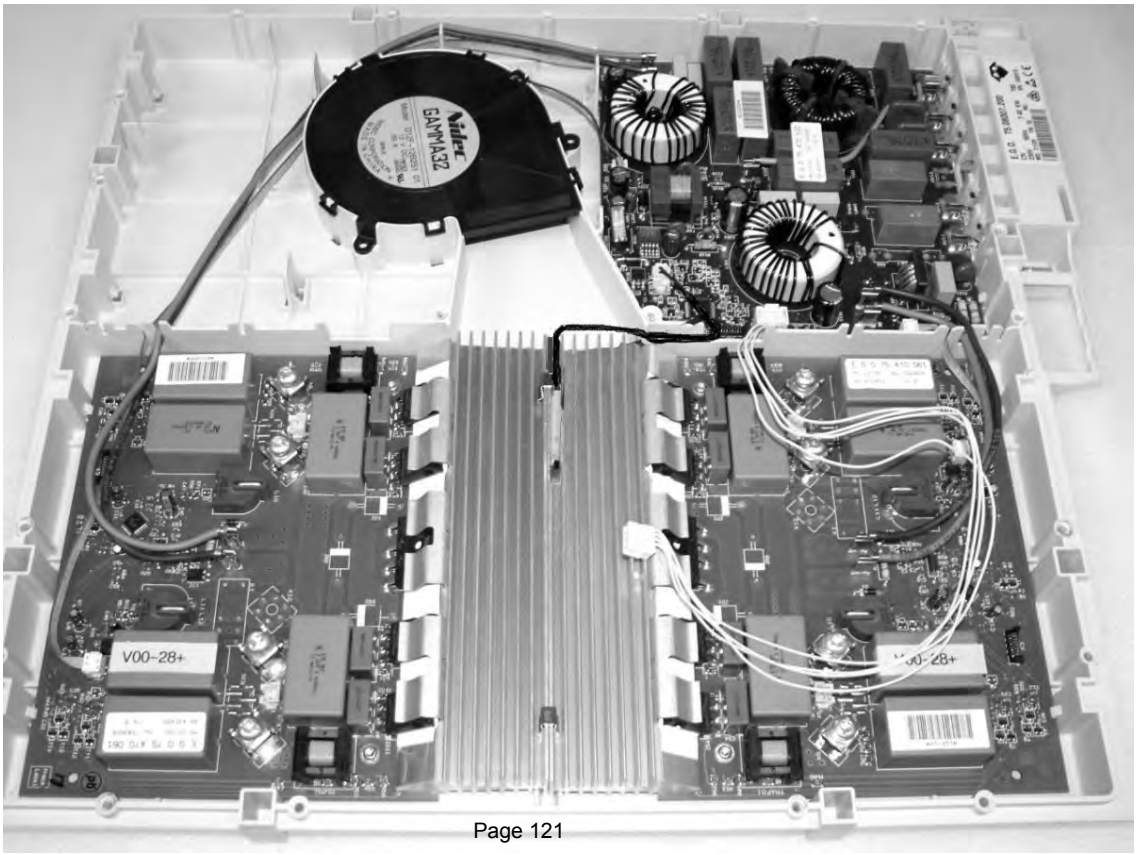


Fig. 20B

From this point either of the induction power generator boards can be removed or replaced as well as the filter board, cooling fan, heat sink thermal cutout and connecting wires and cables. The photo below shows the Filter Board, Power Boards and Fan as well as the routing of the various connecting cables and wires as they appear when mounted in the housing.

NOTE: The illustration below may differ from later production components found in the field.



Component Access and Service Procedures

Induction Generator Power Board

To remove and replace the power generator boards begin by removing the heat sink thermal cut out. Next remove the two metal clips that clamp the heat sinks together. Gently pry the clip off with a small screwdriver. (Fig. 21A)


Fig. 21A

To unplug the flat cable connector on the filter board and the power generator board (Fig. 21B) use the special cable removal tool.

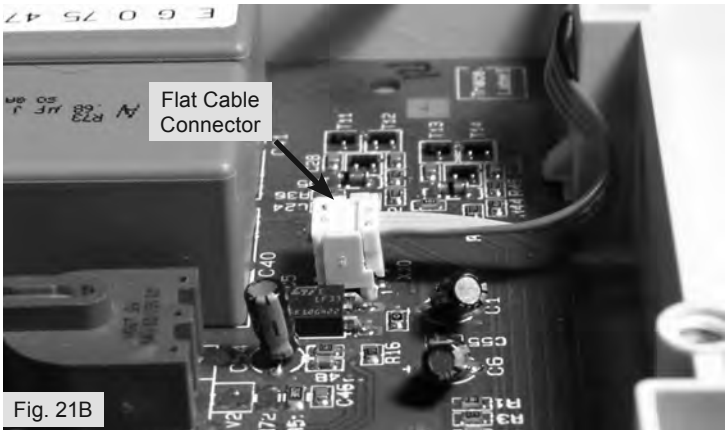


Fig. 21B

The tool is packaged with each power board and filter board as well as with the replacement cable.

Grip the connector with the tool as shown in the photo and pull up to release the connector (Fig 21C).

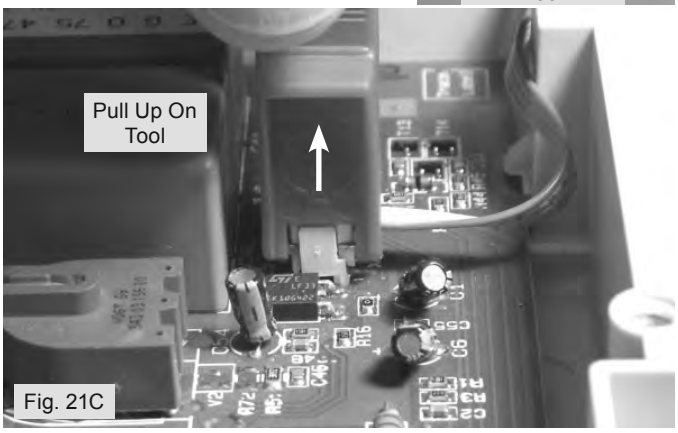


Fig. 21C

Unplug the Blue and Black wires from the power generator board terminals X1 & X2. When reconnecting these wires terminal polarity is not important. Remove the two torx screws that mount the board to the outer case. (Fig. 21D).
Lift out the induction power generator board. (Fig. 21E)

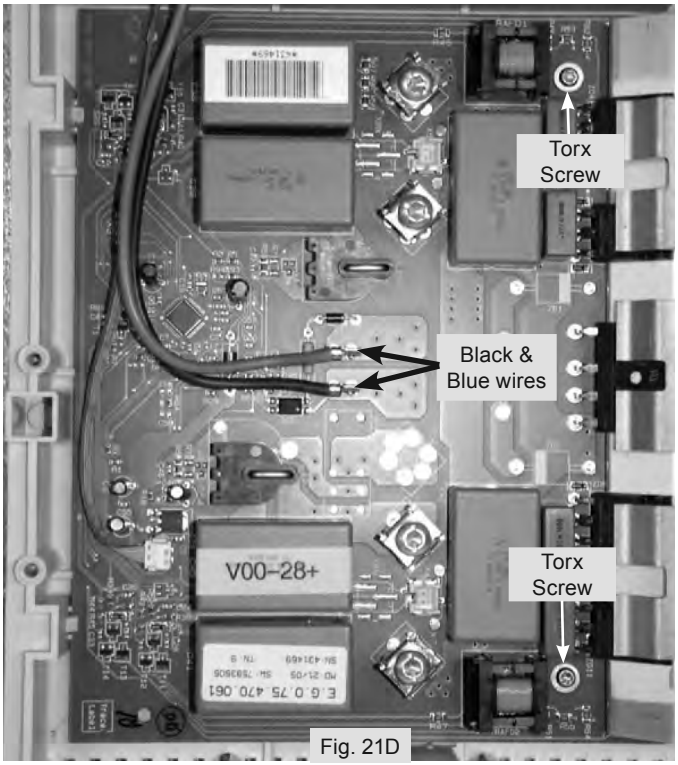


Fig. 21D


Fig. 21E

Component Access and Service Procedures

Filter Board

To remove and replace the filter board it is necessary to disconnect the power cable wires and copper jumpers at the terminal block on the underside of the board. If the cooktop is disassembled the main power component housing can be lifted up to access these wires (Fig 22A). When reinstalling the power component housing make sure that the air intake slits in the housing are located over the cutout in the panel below. Make sure that the cut out in the insulation board is aligned with the cutout in the bottom panel. Ensure that the copper jumbers are connected to terminals 1-2 & 4-5 when reinstalling the filter board.

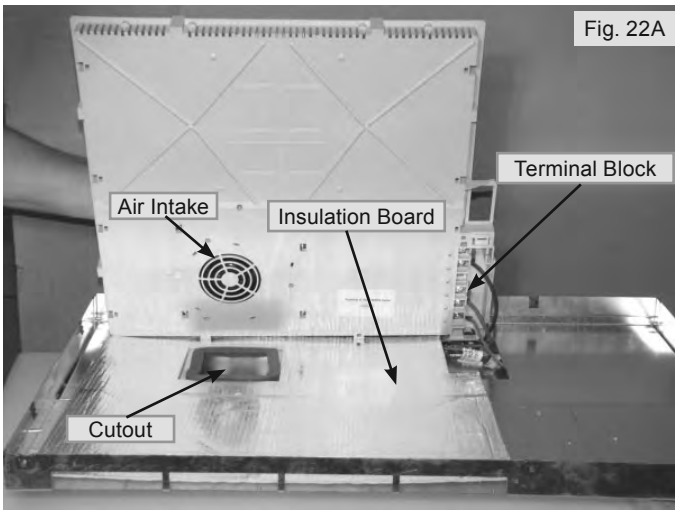


Fig. 22A

Once the power cable wires are disconnected from the filter board, unplug the wires and cables from the filter board to each of the induction generator power boards, heat sink thermal cut out, and the cooling fan. Remember to use the cable removal tool described on page 21 to remove the flat ribbon cable connector.
Release the locking tabs on the edge of the board near the cooling fan. (Fig. 25B) The filter board can now be removed from the housing.
When reconnecting the wires and cables make sure that the cables go to the correct induction power board. The polarity of the blue and black wires is not important.

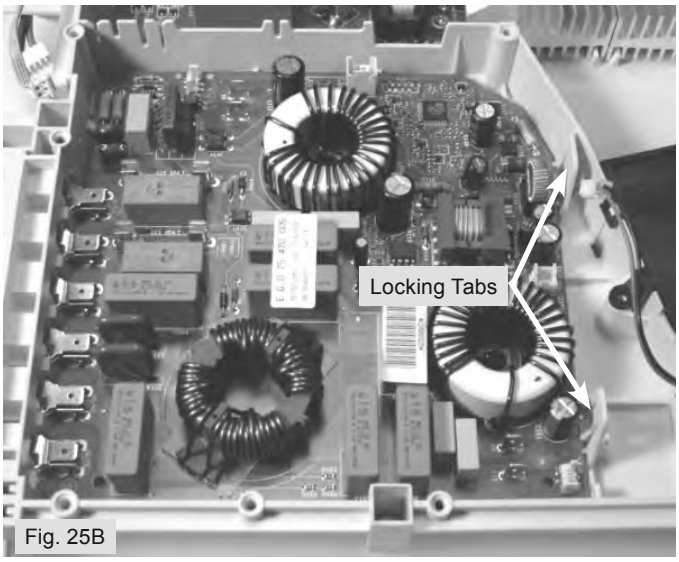


Fig. 25B

Troubleshooting And Diagnosis

Whenever a failure or error code is encountered the power supply to the unit should be checked before beginning disassembly. Verify proper voltage and orientation of the power supply wiring connections.Turn off the power supply for thirty seconds and reset it to see if this will clear the error or failure before attempting to replace any parts.

Refer to the installation instructions to ensure that the unit is properly installed. Verify that the unit is being operated in accordance with the instructions found in the owners manual.

Error Codes

The electronic components in the induction cooktop have built in error codes to assist in the accurate diagnosis and repair of the unit in the event of failure. The chart on page 23 provides a list of the error code numbers as well as the likely cause and suggested corrective action.

When an error code is displayed the letter “E” will be displayed in the cook zone touch control boards and the error code number will be displayed in the center touch control timer window. See the example at right.

Error Code Display

Induction Cooktop Error Codes

Error	Possible Cause or Condition	Suggested Corrective Action
2	LF zone control defective ⌄ key sensor	Test cables and connections. If they are good replace left side touch control board.
3	LF zone control defective ⌃ key sensor	
4	LF zone control ON/OFF key sensor defective	
6	LR zone control defective ⌄ key sensor	
7	LR zone control defective ⌃ key sensor	
8	LR zone control ON/OFF key sensor defective	
10	RR zone control defective ⌄ key sensor	Test cables and connections. If they are good replace right side touch control board.
11	RR zone control defective ⌃ key sensor	
12	RR zone control ON/OFF key sensor defective	
14	RF zone control defective ⌄ key sensor	
15	RF zone control defective ⌃ key sensor	
16	RF zone control ON/OFF key sensor defective	
21	Timer ⌄ key sensor defective	Test cables and connections. If they are good replace center side touch control board.
22	Timer ⌃ key sensor defective	
23	WARM Keep warm key sensor defective	
24	🔒 Lock key sensor defective	
25	POWER Main power key sensor defective	
30	Improper power supply (high voltage) or jumper connections	Check power supply wiring and voltage. Check jumper locations.
31	Power Level Failure	Check wire harness (Blue & Black) from filter board to power board. Replace power board Replace Filter board
32	Low voltage output from 12V supply on filter board	Replace filter board
33	Improper voltage output from filter board.	Replace filter board
34	Communication failure between filter board and power boards	1. Check harness and connections. 2. Replace power board. 3. Replace filter board.
35	Improper power supply (low voltage) or jumper connections	Check power supply wiring and voltage. Check jumper locations.
36	Communication error between main touch control and filter board.	1. Check cable and connections 2. Replace main touch control 3. Replace filter board
39	Touch control board software configuration does not match the filter board. This code would only be seen after a new touch board has been installed.	Turn off power to unit for 10 seconds. If error returns replace the touch control board.
40	Communication failure between main touch control and filter board.	1. Check cable and connections 2. Replace main touch control 3. Replace filter board
51	Element temperature sensor break (LF)	Check RTD connection to power board. Test element RTD for approximately 1000 Ω at room temp. Replace element if defective. Replace filter board if RTD is good.
52	Element temperature sensor break (LR)	
53	Element temperature sensor break (RR)	
54	Element temperature sensor break (RF)	

NOTE: If multiple changing error codes are displayed check for disconnected wires or cables .

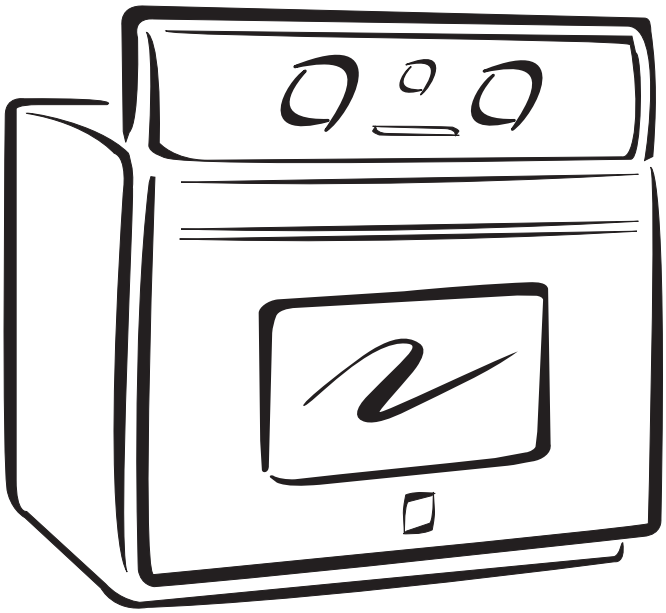
Additional failure conditions that may be encountered are described below.

Symptom or Failure	Control Display	Possible Cause or Condition	Suggested Corrective Action
Pan does not heat up.	Normal operation	Pan too small for proper pan detection and only works with low power.	Use larger pan or this pan on a smaller cooking zone. Refer to owners guide for proper pan selection.
	Flashing “F” and pan does not heat.	Pan not detected.	Check whether the pots or pans are suitable for induction. Refer to owners guide for proper pan selection.
		Induction Coil not correctly connected or Induction Coil open.	Check the coil wire terminal connections. Ensure that they are properly connected and tightened. Test continuity of coil (should be less than 1Ω) .
		Distance between coil and glass ceramic too large.	Check whether the coil is properly positioned and touching the glass cooktop surface.
Individual buttons cannot be used or cannot always be used.	None	Touch Control defect.	1. Follow instructions for proper use of touch controls on page 16 2. Check wires and connectors. 3.Replace Touch Control.
Cooking power too low or shuts down prematurely.	None	Auto Shut Off Activated	Cooktop will automatically shut off after 18 hours of continuous use. Restart cooktop in normal manner.
	None	Fluids spilled or object lying on control panel keypads.	Clean up spills or remove objects. Restart cooktop in normal manner.
	None or “ – “ Seen in Cook Zone display	Cookzone surface temperature above 240°C (464°F). May be caused by boil dry or empty pan on cook zone.	Remove Pan and allow cook zone to cool.
	Normal operation	Ventilation Slots Obstructed.	Clear vent openings
		Unsuitable pots (bottom bent)	Follow owners guide for proper pan selection
		Distance between coil and glass ceramic too large.	Check whether the glass ceramic was pushed down when being screwed in position and the coil has been correctly positioned.
		Fan does not start.	1. Check the fan for foreign objects, remove these where appropriate. 2. If necessary, replace fan. 3 Replace power generator board. 4 Replace Filter Board.
No Operation / Dead	No Display . No indicators light when power is applied.	Heat sink thermal cut out open* or unplugged. *If thermal cut out is open check for proper operation of cooling fan and possible vent obstructions.	1. Verify proper incoming power supply. 2. Check connection of heat sink thermal cutout. 3. Test cut out for < 1 Ω resistance. Replace if open.
“H” in display when cooking zone is cold and switched off.	“H“	Temperature sensor defect.	1.Test Coil RTD for approx. 1KΩ at room temperature. Replace coil if resistance is incorrect. 2. Replace power generator board.

Kenmore™

PRO

KENMORE PRO WALL OVENS & FREE STANDING RANGE



Control Button Features

READ THE INSTRUCTIONS CAREFULLY BEFORE USING THE OVEN. For satisfactory use of your oven, become familiar with the various features and functions of the oven as described below. **Detailed instructions for each feature and function follow later in this Use & Care Guide.**

SELECTOR CONTROL KNOB- Use to select the Bread Proof, Warm & Hold, Bake, Convection Bake, Convection Roast, Broil or Clean Feature.

CLEAN— Used to select the Self-Cleaning cycle.

BROIL— Used to select the broil function.

CONVECTION ROAST— Used to select the convection roasting mode.

CONVECTION BAKE— Used to select the Convection Bake feature.

BREAD PROOF— Used to set the Bread Proof feature.

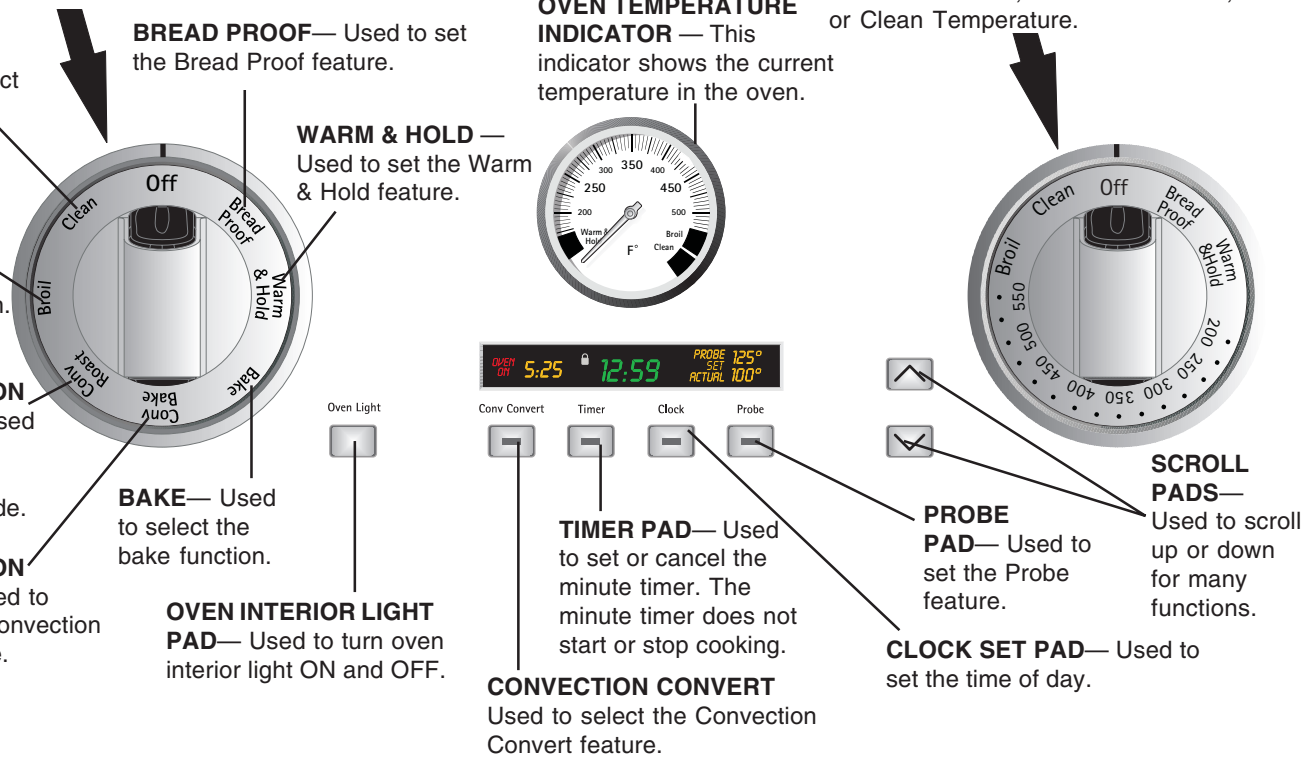
WARM & HOLD — Used to set the Warm & Hold feature.

BAKE— Used to select the bake function.

OVEN INTERIOR LIGHT PAD— Used to turn oven interior light ON and OFF.

OVEN TEMPERATURE INDICATOR — This indicator shows the current temperature in the oven.

OVEN TEMPERATURE CONTROL KNOB— Use to select the Bread Proof, Warm & Hold, or the required Bake, Convection Bake, Convection Roast, Broil or Clean Temperature.



CONVECTION CONVERT Used to select the Convection Convert feature.

TIMER PAD— Used to set or cancel the minute timer. The minute timer does not start or stop cooking.

PROBE PAD— Used to set the Probe feature.

CLOCK SET PAD— Used to set the time of day.

SCROLL PADS— Used to scroll up or down for many functions.

Setting the Clock

The Clock button is used to set the clock. Until the clock is set, all the other oven functions will not be available. The clock may be set for 12 or 24 hour time of day operation. The clock has been preset at the factory for the 12 hour operation. When the range is first plugged in, or when the power supply to the appliance has been interrupted, the display will flash with **"PF"**.

When **PF** flashes in the display, press the Clock button. No other button will stop the time from flashing.

To set the clock

1. Press the Clock button**.** The control will beep once and the time of day will appear in the display.
2. To set the clock to the current time of day, press the ^ or v button to increase or decrease the time of day in 1 minute increments, or keep the ^ or v button pressed to increase or decrease the time of day in 10 minute increments.
3. Release the button when the desired time is reached. Wait 5 seconds and the change will be accepted.

Changing between 12 or 24 hour time of day display

1. Press and hold the Clock button for 6 seconds. The display will show either "**12**" (for 12 hour clock) or "**24**" (for 24 hour clock).
2. Press the ^ or v button to switch between the 12 and 24 hour time of day display.
3. Wait 6 seconds to accept the change.

Setting the Clock (cont'd)

Setting Continuous Bake or 12 Hour Energy Saving

The oven control has a factory preset built-in 12 Hour Energy Saving feature that will shut off the oven if the oven control is left on for more than 11 hours and 59 minutes. The oven can be programmed to override this feature for Continuous Baking.

To set the control for Continuous Bake or 12 Hour Energy Saving features

1. Press and hold the Timer button for 6 seconds. The display will show either "**12h**" (for 12 hour maximum cooking time) or "**--h**" (for continuous cooking).
2. Press the ^ or v button to switch between the 12 hour and 24 hours continuous cooking mode.
3. Wait 6 seconds to accept the change.

Setting the Timer

The Timer serves as an extra timer in the kitchen that will beep when the set time has run out. It can be set in1 minute increments up to 11:59 (11 hours, 59 minutes). It does not start or stop cooking. The Kitchen Timer feature can be used during any of the other oven control functions, except the self-clean function.

To set the Kitchen Timer

1. Press the Timer button. The control will beep, the display will show "**-- --**" and the timer indicator light located on the button will start flashing.
2. To set the timer, press the ^ or v button to increase or decrease the time in 1 minute increments, or keep the ^ or v button pressed to increase or decrease the time in 10 minute increments.
3. When the set time has run out,"**End**" will show in the display. The control will sound with 3 beeps every 5 seconds until the Timer button is pressed.

To cancel the Kitchen Timer before the set time has run out

Press the Timer button. The display will return to the time of day.

Setting Oven Lockout Feature

The Oven Lockout feature automatically locks the oven door and prevents the Oven from being turned on. It does not disable the clock, Kitchen Timer or the interior oven lights.

To activate the Oven Lockout feature

1. Press and hold the Oven Light for 3 seconds.
2. Allow 20 seconds for the door to lock. The lock icon will flash while the door is locking and stay on once the door is locked.

To deactivate the Oven Lockout feature:

1. Press and hold the Oven Light for 3 seconds.
2. The lock icon will flash while the door is unlocking. Allow 20 seconds for the door to unlock. After 20 seconds the lock icon will disappear in the display.

Setting Oven Controls

Setting Bake

The oven can be set to bake at any temperature from 170° F to 550° F (The sample shown is for 350°F).

Note that the convection fan will operate while the oven pre-heats.

To set the Bake Temperature to 350°F

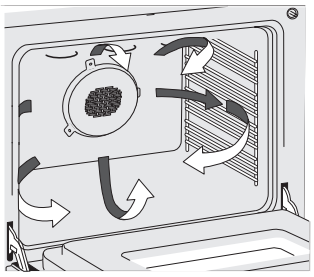
Figure 1

Figure 2

1. Arrange interior oven racks, place food in oven and close oven door.
2. Turn the selector control knob to Bake (Figure 1).
3. Turn the temperature control knob to 350 (Figure 2).
   The temperature will appear briefly in the oven control display. The display will beep indicating that the temperature is set. Then the temperature will disappear from the display.
4. When baking is completed, turn the temperature and the selector control knobs to Off position.
   NOTE: The temperature knob can be used to modify the baking temperature while the oven is in bake mode, but the function knob **cannot** be changed to another function without turning it to Off first. An **ERR** code will appear in the display if another function is selected without turning to Off.
   NOTE: The control will beep three times if the mode and temperature **do not** match. The control will beep only once if the mode and temperature **do** match. Ex:Bread Proof with temperature at 500° F (not possible, 3 beeps).

Setting Oven Controls

Setting Convection Bake



Air circulation during Convection Bake

Figure 1

Use the Convection Bake feature when fast cooking is desired. The oven can be programmed for Convection baking at any temperature between 170°F and 550°F. Convection baking uses a fan to circulate the oven's heat evenly and continuously within the oven (See Figure 1). This improved heat distribution allows for fast, even cooking and browning results at a lower temperature than conventional bake. It also gives better baking results when using 2 or 3 racks at the same time. Breads and pastries brown more evenly. Convection bake cooks most foods faster and more evenly than conventional bake.

General Convection Bake Instructions

1. Adjust the cook time for desired doneness as needed. Time reductions will vary depending on the amount and type of food to be cooked. Cookies and biscuits should be baked on pans with no sides or very low sides to allow heated air to circulate around the food. Food baked on pans with a dark finish will cook faster.
2. Preheating is not necessary when cooking casseroles with Convection Bake.
3. When using Convection Bake with a single rack, place oven rack in position 8. If cooking on multiple racks, place the oven racks in positions 3 and 12 (see page 7).

To set the oven to Convection Bake at 350°F

1. Arrange interior oven racks, place food in oven and close oven door.
2. Turn the selector control knob to Conv Bake (Figure 2). The convection fan will start.
3. Turn the temperature control knob to 350 (Figure 3). The temperature will appear briefly in the oven control display. The display will beep indicating that the temperature is set. Then the temperature will disappear from the display.
4. When baking is completed, turn the temperature and the selector control knobs to 0ff position.

Benefits of Convection Bake:
—Some foods cook up to 30% faster, saving time and energy.
—Multiple rack baking.
—No special pans or bakeware needed.

Setting Convection Roast

This method of cooking enables you to obtain the best results when roasting. The oven can be programmed to convection roast at any temperature from 170°F to 550°F. Remember to use tested recipes with times adjusted for convection roasting when using the convection mode. Times may be reduced by as much as 30% when using the convection feature.

Figure 2

Figure 3

To Set the oven to Convection Roast at 350°F

1. Arrange interior oven racks, place food in oven and close oven door.
2. Turn the selector control knob to Conv Roast (Figure 4). The convection fan will start.
3. Turn the temperature control knob to 350 (Figure 5). The temperature will appear briefly in the oven control display. The display will beep indicating that the temperature is set. Then the temperature will disappear from the display.
4. When baking is completed, turn the temperature and the selector control knobs to 0ff position.

Figure 4

Figure 5

Setting Convection Convert

The appliance is equipped with a feature which will allow you to change from a normal baking recipe temperature to a convection baking temperature without making any manual temperature adjustment; the controller will do it automatically.

The Conv Convert pad controls the convection convert feature.

To change from a normal bake recipe to a convection bake recipe

When the convection bake mode is on, press Conv Convert. This function will lower the oven temperature by 25°F less than the control setting. When convection baking is completed turn the temperature and the selector control knobs to 0ff position.

Note: The oven temperature indicator will show a temperature 25°F lower than temperature control knob setting.

Setting Oven Controls

Using the Temperature Probe Feature

For many foods, especially roasts and poultry, testing the internal temperature is the best method to insure properly cooked food. The Temperature Probe gets the exact temperature you desire without having to guess.

IMPORTANT:

1. Use only the probe supplied with your appliance; any other may result in damage to the probe or the appliance.
2. Handle the Temperature Probe carefully when inserting and removing it from the food and outlet.
3. Do not use tongs to pull the cable when inserting or removing the Probe. It could damage the Probe.
4. Defrost your food completely before inserting the Probe to avoid breaking it.
5. Never leave or store the Temperature Probe inside the oven when not in use.
6. To prevent the possibility of burns, carefully unplug the Temperature Probe using hot pads.

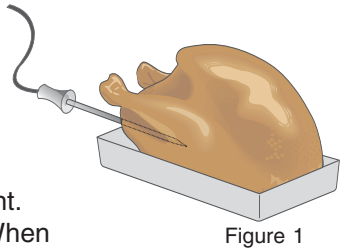


Figure 1

Proper Temperature Probe Placement:

1. Always insert the probe so that the tip rests in the center of the thickest part of the meat. Do not allow probe to touch bone, fat, gristle or pan.
2. For bone-in ham or lamb, insert the Probe into the center of the lowest large muscle or joint. For dishes such as meat loaf or casseroles, insert the Probe into the center of the food. When cooking fish, insert the Probe from just above the gill into the meatiest area, parallel to the backbone.
3. For whole poultry (chicken, turkey, etc.), insert the probe into the thickest part of the inner thigh from below and parallel to the leg (see figure 1).

Setting the Oven When using the Temperature Probe:

1. Preheat the oven to the desired temperature.
2. Insert the Temperature Probe into the food (see Proper Temperature Probe Placement above).
3. After the oven has reached the desired temperature, place the food into the oven.
4. The oven will be hot, so wear an oven mitt and plug the Temperature Probe into its outlet in the oven. (The outlet is located on the left front side of the oven cavity ceiling). Make sure it is pushed all the way into the outlet. Close the oven door.
5. The oven control will detect if the probe is correctly plugged in and will illuminate PROBE in the display. The display will start showing the actual meat temperature shortly after the probe is inserted.
6. A target temperature must be set to trigger the buzzer when the food is done cooking. Press the Probe button to enter the temperature. Adjust temperature to the desired setting using the ^ or v buttons. The temperature setting will be accepted 5-8 seconds after it is entered.
7. At any time during the cooking, the Probe button can be pressed to change the display between “ACTUAL” and “PROBE”. The “ACTUAL” setting will give you the current temperature of the food. The “PROBE” setting will give you the food target temperature and it can be changed at any time during the cooking (see above for explanations).

IMPORTANT: The probe can be damaged by very high temperature. To protect the probe against this damage, the oven control will not allow you to start a self-clean or set a temperature higher than 450°F while the probe is connected.

Setting the Bread Proof Feature

To enable the Bread Proof function, both controls need to be turned to the Bread Proof option, as illustrated below.

Preparing Bread Dough In The Oven

The oven has a Bread Proof feature that can be used to help prepare bread dough. The recommended length of time to keep bread dough in the oven is about 45-60 minutes. Be sure however to follow the recipe’s recommended times. The prepared bread dough should be placed in a large bowl since the dough will nearly double in volume. Arrange the oven rack in the lowest position. Place the bowl on the rack in the oven and follow the Bread Proof Control setting instructions as illustrated.

Setting Oven Controls

Setting the Warm & Hold™ Feature

The **Warm & Hold** feature will maintain an oven temperature of 170°F, and will keep oven baked foods warm for serving for 3 hours after cooking has finished. The Warm & Hold feature may be used without any other cooking operations or can be used after cooking has finished.

To set Warm & Hold

1. Arrange interior oven racks and place food in oven.
2. Turn both the selector and the temperature control knobs to Warm Hold position.
3. To turn the Warm & Hold OFF at any time, turn the temperature and the selector control knobs to Off position.

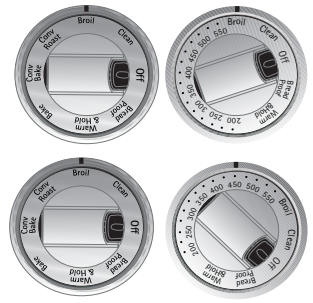
Setting Broil

When broiling, heat radiates downward from the oven broiler for even coverage. The Broil feature is preset to start broiling at 550°F; however, the Broil feature temperature may be set between 400°F and 550°F. This appliance includes a Searing Grill for searing meats (Figure 3). The broil pan and broil pan insert used together allow dripping grease to drain and be kept away from the high heat of the oven broiler. **DO NOT** use the broil pan without the insert (See Figure 1). **DO NOT cover the broil pan insert with foil.** The exposed grease could catch fire.

⚠ WARNING Should an oven fire occur, leave the oven door closed and turn off the oven. If the fire continues, throw baking soda on the fire or use a fire extinguisher. **DO NOT** put water or flour on the fire. Flour may be explosive and water can cause a grease fire to spread and cause personal injury.

To set the oven to broil

1. Place the broiler pan insert on the broiler pan (Figure 1). Then place the food on the broiler pan insert. **DO NOT** use the broiler pan without the insert. **DO NOT** cover the broiler insert with foil. The exposed grease could ignite.
2. Arrange the interior oven rack and place the broiler pan on the rack. Be sure to center the broiler pan directly under the broiler element. **Make sure the oven door is in the broil stop position (See Figure 2).**
3. Turn both the selector and the temperature control knobs to the Broil position.
4. If a lower broil temperature is desired (minimum allowed broil temperature is 400°F), turn the temperature control knob to the temperature desired.
5. Broil on one side until food is browned; turn and cook on the second side. Season and serve. **Note:** Always pull the rack out to the stop position before turning or removing food.
7. To cancel broiling or if finished broiling, turn the selector and the temperature control knobs to Off position.



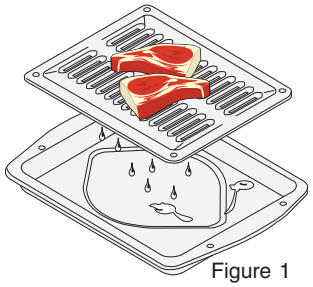
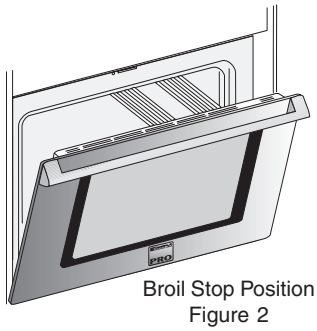


Figure 1

Broiling Times and Searing Grill

Use the following table for approximate broiling times. Increase or decrease broiling times, or move the broiling pan to a different rack position to suit for doneness. If the food you are broiling is not listed in the table, follow the instructions provided in your cookbook and watch the item closely. Use the Searing Grill for meats and steaks if desired. Place Searing Grill on top of Broiler Pan and Insert before placing the meat. Be sure to pre-heat the Searing Grill using Broil for 10 minutes. Cook times should be reduced 1-2 minutes per side when cooking with the Searing Grill for meats and steaks (See Figure 3).

NOTE: When in broiling mode, the high speed cooling fan will be in operation and may continue for some minutes after broiling is finished.



Broil Stop Position
Figure 2

Electric Range Broiling Table Recommendations

Food Item	Rack Position	Temp Setting	Cook Time *1st side*	Cook Time *2nd side*	Doneness
Steak 1" thick	12	550° F	6:00	4:00	Rare
	12	550° F	7:00	5:00	Medium
Pork Chops 3/4" thick	12	550° F	8:00	6:00	Well
Chicken - Bone In	11	450° F	20:00	10:00	Well
Chicken - Boneless	12	450° F	8:00	6:00	Well
Fish	12	500° F	13:00	n/a	Well
Shrimp	11	550° F	5:00	n/a	Well
Hamburger 1" thick	12	550° F	9:00	7:00	Medium
	11	550° F	10:00	8:00	Well

Searing Grill

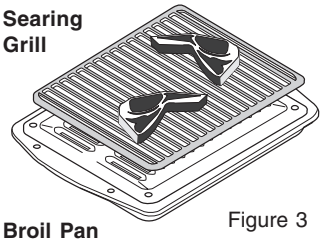


Figure 3

Broil Pan & insert

Self-Cleaning

Self-Clean Cycle Time Length

If you are planning to use the oven directly after a self-clean cycle remember to allow time for the oven to cool down and the oven door to unlock. This normally takes about 1½ hour. So a self-clean cycle (3 hours) will actually take about 4½ hours to complete. The time remaining for the self-clean cycle will be displayed in the oven control display.

⚠ CAUTION To avoid possible burns use care when opening the oven door after the Self-Cleaning cycle. Stand to the side of the oven when opening the door to allow hot air or steam to escape.

To set the controls for a Self-Cleaning cycle

1. Be sure the oven door is closed.
2. Turn both the selector and the temperature control knobs to Clean position.
3. As soon as the control is set, the motor driven oven door lock will begin to close automatically. While the door is locking, the icon will flash and then will remain visible for the entire self-clean cycle.

Note: Allow about 20 seconds for the oven door lock to close.

⚠ CAUTION **DO NOT** force the oven door open. This can damage the automatic door locking system. Use caution and avoid possible burns when opening the door after the Self-Cleaning cycle has completed. The oven may still be VERY HOT.

When the Self-Clean Cycle is Completed

1. Turn the selector and the temperature control knobs back to Off position.
2. Once the oven has cooled down for approximately 1½ HOUR, the oven door can then be opened. While the door is unlocking, the icon will flash and then will disappear from the oven control display.

Stopping or Interrupting a Self-Cleaning Cycle

If it becomes necessary to stop or interrupt a self-cleaning cycle due to excessive smoke or fire in the oven:

1. Turn the selector and the temperature control knobs to Off position.
2. The oven door can only be opened after the oven has cooled down for approximately 1½ HOUR.

Adjusting Oven Temperature

The temperature in the oven has been pre-set at the factory. When first using the oven, be sure to follow recipe times and temperatures. If you think the oven is cooking too hot or too cool for the temperature you select, you can adjust the actual oven temperature to be more or less than what is displayed. Before adjusting, test a recipe by using a temperature setting that is higher or lower than the recommended temperature. The baking results should help you to decide how much of an adjustment is needed.

To adjust the oven temperature

1. Press and hold the Conv Convert button until “00” appears in the oven control display.
2. To increase the temperature use the button to enter the desired change; and to decrease the temperature use the button (a minus sign will appear in the display indicating the temperature is decreased).
3. Wait 5 seconds for the change to be accepted by the oven control.

Note: The oven temperature adjustments made with this feature will not change the Self-Clean or Broil temperature. Once the temperature has been changed, the temperature indicator will still display the value set from the temperature knob but the actual temperature in the oven will be higher or lower.

SERVICE DATA SHEET

Electric Wall Oven with ES575A Electronic Oven Control

NOTICE

This service data sheet is intended for use by persons having electrical and mechanical training and a level of knowledge of these subjects generally considered acceptable in the appliance repair trade. **The manufacturer cannot be responsible, nor assume any liability, for injury or damage of any kind arising from the use of this data sheet.**

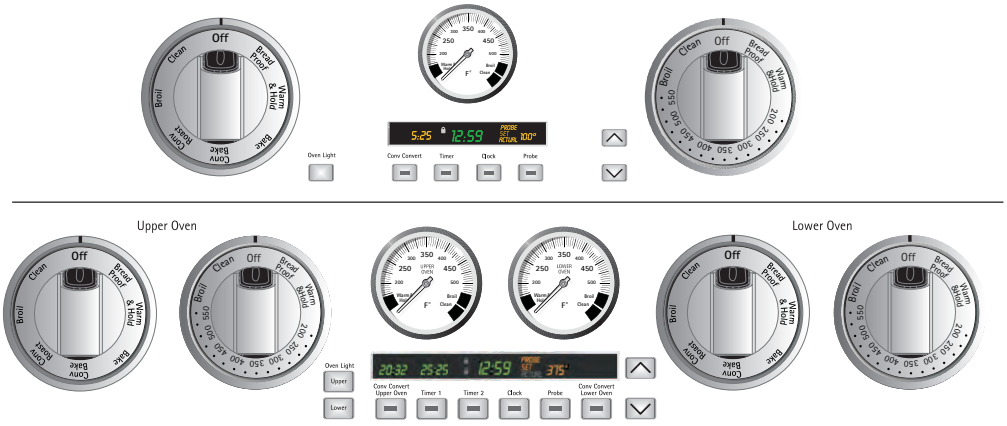
SAFE SERVICING PRACTICES

To avoid the possibility of personal injury and/or property damage, it is important that safe servicing practices be observed. The following are examples, but without limitation, of such practices.

1. Do not attempt a product repair if you have any doubts as to your ability to complete it in a safe and satisfactory manner.
2. Before servicing or moving an appliance, remove power cord from electric outlet, trip circuit breaker to OFF, or remove fuse and turn off gas supply.
3. Never interfere with the proper installation of any safety device.
4. USE ONLY REPLACEMENT PARTS CATALOGED FOR THIS APPLIANCE. SUBSTITUTIONS MAY DEFEAT COMPLIANCE WITH SAFETY STANDARDS SET FOR HOME APPLIANCES.
5. GROUNDING: The standard color coding for safety ground wires is GREEN OR GREEN WITH YELLOW STRIPES. Ground leads are not to be used as current carrying conductors. IT IS EXTREMELY IMPORTANT THAT THE SERVICE TECHNICIAN REESTABLISH ALL SAFETY GROUNDS PRIOR TO COMPLETION OF SERVICE. FAILURE TO DO SO WILL CREATE A POTENTIAL HAZARD.
6. Prior to returning the product to service, ensure that:
   - All electric connections are correct and secure.
   - All electrical leads are properly dressed and secured away from sharp edges, high-temperature components, and moving parts.
   - All non-insulated electrical terminals, connectors, heaters, etc. are adequately spaced away from all metal parts and panels.
   - All safety grounds (both internal and external) are correctly and securely reassembled.
   - All panels are properly and securely reassembled.

ELECTRONIC OVEN CONTROL

1. This self-cleaning controller offers Bake, Broil, Convection Bake and Convection Roasting modes, Bread Proof, Keep Warm and Cleaning functions.
2. Convection operates with an element and a fan dedicated to convection.
3. This controller includes a display board, a relay board, a controller board, a variable convection board and a power supply board(for double wall oven only).

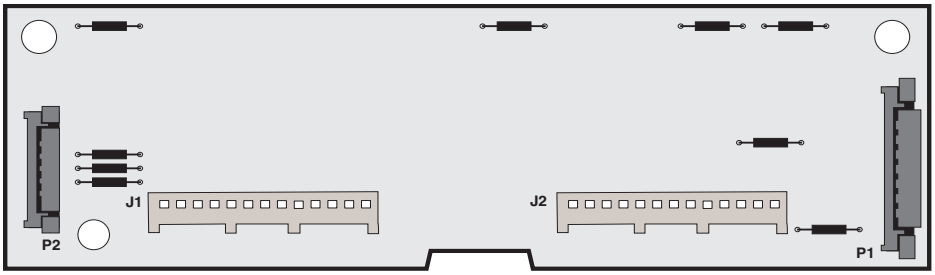


NOTE: The controllers are not field repairable. Only temperature settings can be changed. See oven calibration.

Printed in the United States

ELECTRONIC DISPLAY BOARD

Electronic oven control display board

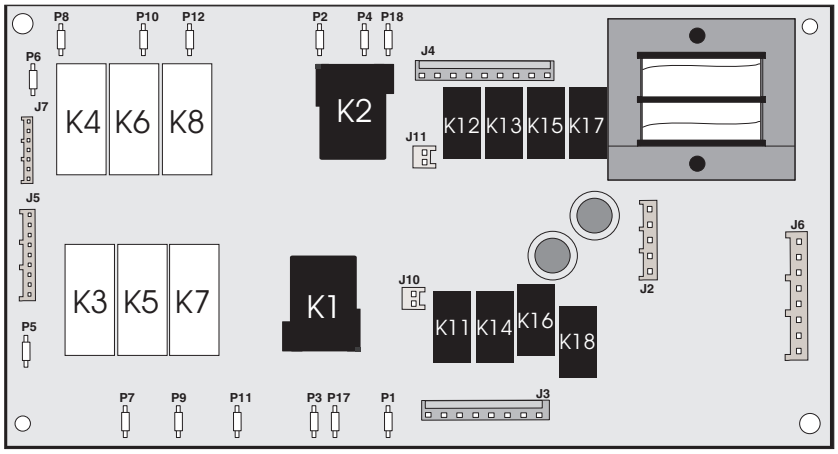


This display board serves for the Kenmore Pro Freestanding Range, Single Wall Oven and Double Wall Oven.

J1- Display connection, from analog control board.
J2- Display connection, from analog control board.
P1- Keypad connection (keys)
P2- Keypad connection (LEDs)

ELECTRONIC DOUBLE WALL OVEN CONTROL

Electronic oven control relay board for double wall oven



This relay board serves to energize the upper and lower oven heating elements, convection and door lock motors, cooling fan and oven lamp.

Relay Board Legend:

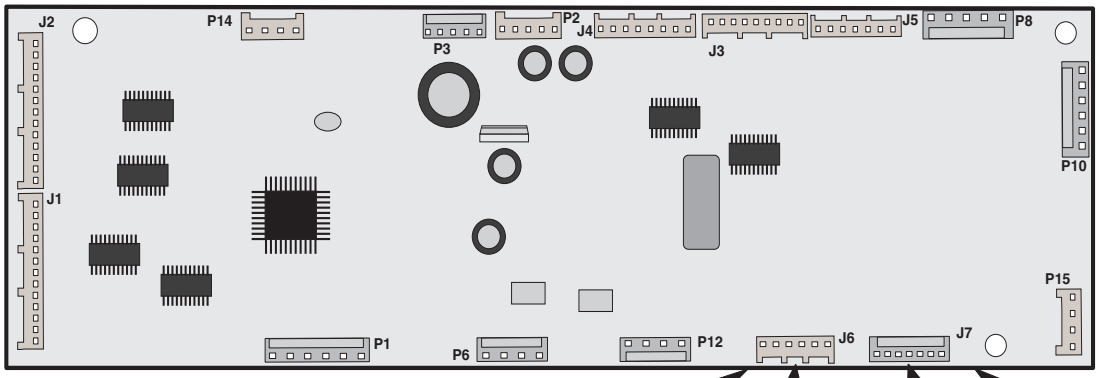
K1. Double Line Break - Upper Oven
K2. Double Line Break - Lower Oven
K3. Broil Relay - Upper Oven
K4. Broil Relay - Lower Oven
K5. Bake Relay - Upper Oven
K6. Bake Relay - Lower Oven
K7. Convection Element Relay - Upper Oven
K8. Convection Element Relay - Lower Oven
K11. Motor Door Latch - Upper Oven
K12. Motor Door Latch Relay - Lower Oven
K13. Oven Light Relay - Lower Oven
K14. Oven Light Relay - Upper Oven
K15. Cooling Fan Relay Low Speed - Lower Oven
K16. Cooling Fan Relay Low Speed - Upper Oven
K17. Cooling Fan Relay High Speed - Lower Oven
K18. Cooling Fan Relay High Speed - Upper Oven

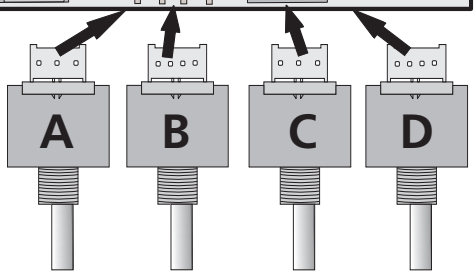
P1 - L2 Out, Upper Oven
P2 - L2 Out, Lower Oven
P3 - L2 In, Upper Oven
P4 - Not Used
P5 - L1, Upper Oven
P6 - L1, Lower Oven
P7 - Broil, Upper Oven
P8 - Broil, Lower Oven
P9 - Bake, Upper Oven
P10 - Bake, Lower Oven
P11 - Convection Element, Upper Oven
P12 - Convection Element, Lower Oven
P17 - Not Used
P18 - L2 In, Lower Oven

J2 - DC Power Output To Analog Control Board
J3 - AC Power Output(conv. fan, motor door latch, light, cooling fan) For Upper Oven
J4 - AC Power Output(conv. fan, motor door latch, light, cooling fan) For Lower Oven and Power Input(L1, Neutral)
J5 - Relay Control Inputs (bake and broil elements, light, conv fan, motor door latch, DLB) For Upper Oven
J6 - Relay Control Inputs (cooling fan, conv element) For Both Ovens
J7 - Relay Control Inputs (bake and broil elements, light, conv fan, motor door latch, DLB) For Lower Oven
J10 - Convection Fan Control Output - Upper Oven
J11 - Convection Fan Control Output - Lower Oven

ELECTRONIC DOUBLE WALL OVEN CONTROL

Electronic Oven Analog Control Board



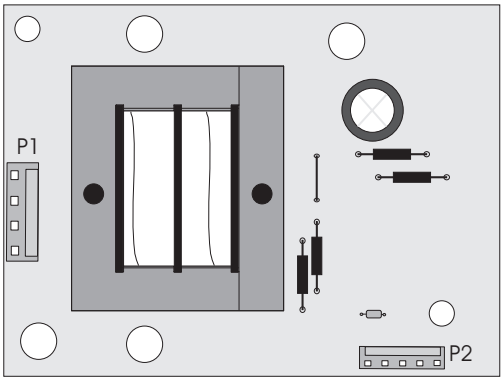


A - Temperature Selector for Lower Oven
B - Function Selector for Lower Oven
C - Temperature Selector for Upper Oven
D - Function Selector for Upper Oven

J1 - Display Connection To Display Board
J2 - Display Connection To Display Board
J3 - Relay Control Outputs (convection, broil and bake elements, motor door latch, conv fan, DLB) For Upper Oven
J4 - Relay Control Outputs (cooling fan) For Both Ovens
J5 - Relay Control Outputs (convection, broil and bake elements, motor door latch, conv fan, DLB) For Upper Oven
J6 - Potentiometers Connection - Lower Oven
J7 - Potentiometers Connection - Upper Oven

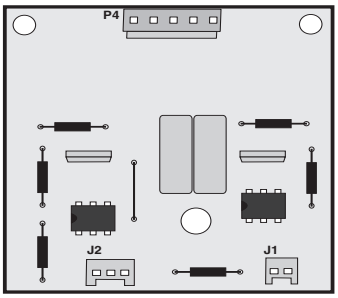
P1 - Micro Programming (not used)
P2 - Power Supply Input From Relay Board
P3 - Power Supply Input From Power Supply Board
P6 - Temperature Sensor Inputs (both ovens)
P8 - Door Switch and MDL Swith Input for Upper Oven
P10 - Door Switch and MDL Swith Input for Lower Oven
P12 - Meat Probe Input (upper oven only)
P14 - Temperature Gauge Control For Lower Oven
P15 - Temperature Gauge Control For Upper Oven

Electronic Power Supply Board



P1 - Line Supply Input (120V)
P2 - Low Voltage Supply Output

Electronic oven variable convection board for double wall oven.

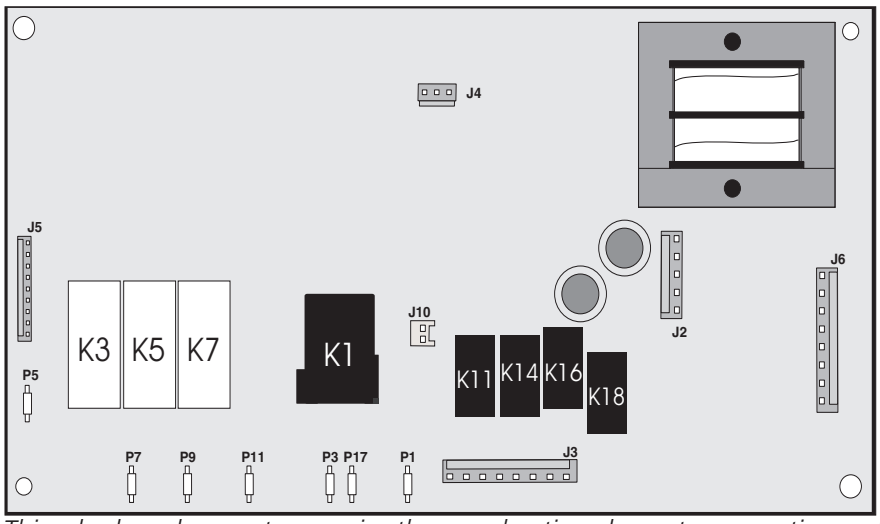


This board control the power output of the convection fan.

J1 - Convection Fan Control Input - Upper Oven
J2 - Convection Fan Control Input - Lower Oven
P4 - Output To Convection Fan - Both Oven

ELECTRONIC OVEN CONTROL : FREESTANDING RANGE / SINGLE WALL OVEN

Electronic oven control relay board.



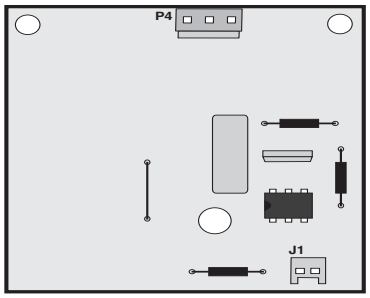
Relay Board Legend:
K1. Double Line Break
K3. Broil Relay
K5. Bake Relay
K7. Convection Element Relay
K11. Motor Door Latch
K14. Oven Light Relay
K16. Cooling Fan Relay Low Speed
K18. Cooling Fan Relay High Speed

P1 - L2 Out
P3 - L2 In
P5 - L1
P7 - Broil Element
P9 - Bake Element
P11 - Convection Element
P17 - Not Used

This relay board serves to energize the oven heating elements, convection and door lock motors, cooling fan and oven lamp.

J2 - DC Power Output to Analog Control Board
J3 - AC Power Output (conv fan, motor door latch, light, cooling fan)
J4 - Power Input (L1, Neutral)
J5 - Relay Control Inputs (bake and broil elements, light, conv fan, motor door latch, DLB)
J6 - Relay Control Inputs (cooling fan, conv element)
J10 - Convection Fan Control Output

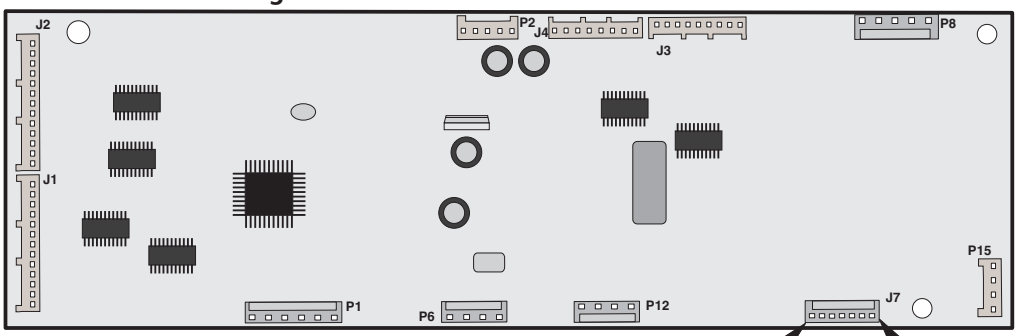
Electronic oven variable convection board.



This board control the power output of the convection fan.

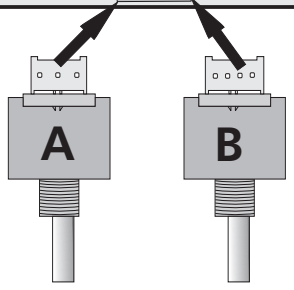
J1 - Convection Fan Control Input
P4 - Output To Convection Fan

Electronic oven analog control board



P1 - Micro Programming (not used)
P2 - Power Supply Input From Relay Board
P6 - Temperature Sensor Inputs
P8 - Door Switch and MDL Swith Input
P12 - Meat Probe Input
P15 - Temperature Gauge Control

J1 - Display Connection To Display Board
J2 - Display Connection To Display Board
J3 - Relay Control Outputs (convection, broil and bake elements, motor door latch, conv fan, DLB)
J4 - Relay Control Outputs (cooling fan)
J7 - Potentiometers Connection



A - Temperature Selector
B - Function Selector

CONVECTION MODE

The convection oven uses the addition of a fan and an element to heat and to move the air already in the oven. Moving the heated air helps to destratify the heat and cause uniform heat distribution. Cooking times can be reduced by as much as 30%. The air is drawn in through a fan shroud and the element located on the rear wall of the oven. It is then discharged around the outer edges of this shroud. The air circulates around the food and then enters the shroud again. As with conventional electric ranges, there is still an oven vent which discharges through the rear of the cooktop.

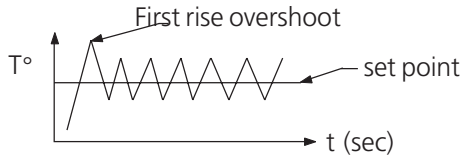
To set the control in convection mode, follow these steps:
1. Turn the selector knob to **CONV. BAKE or CONV. ROAST.**
2. Turn the temperature knob to the desired position.

The oven will automatically start and the fan will begin to run. To cancel the convection baking/roasting function, turn both knobs to OFF position.

NOTE: The fan runs continuously while in the convection mode. The fan will stop if the door is opened while convection baking/roasting. The convection element will stop operating if the door is opened.

FIRST RISE

It is normal to see a temperature overshoot in the first rise of all modes when you monitor the temperature.



OVEN CALIBRATION

Set the electronic oven control for normal baking at 350°F. Obtain an average oven temperature after a minimum of 5 cycles.

The oven calibration can be modified using the oven control display. Please refer to the Owner's Guide manual.

Note: Changing calibration affects all the cooking modes but not the clean and the broil modes.

OVEN ELEMENTS OPERATION

Baking mode

First rise (preheat): Bake element is on 25 seconds per minute. Broil element is on 15 seconds per minute. Convection element is on 20 seconds per minute. The convection fan is on all the time but it stops once the set temperature has been reached.

Normal baking: The EOC will cycle through the bake element and broil element to maintain the set temperature.

Broiling mode

Broil element is on for 60 seconds per minute.

Convection Bake modes

First rise (preheat): Bake element is on 20 seconds per minute. Broil element is on 20 seconds per minute. Convection element is on 20 seconds per minute and convection fan is on all the time.

Convection baking: 3 elements (bake, broil, convection) will cycle and the fan is used all the time.

Convection Roast modes

First rise (preheat): Bake element is on 30 seconds per minute. Broil element is on 15 seconds per minute. Convection element is on 15 seconds per minute and convection fan is on all the time.

Convection roast: 3 elements (bake, broil, convection) will cycle and the fan is used all the time.

Clean mode modes

Single and Double Wall Ovens :

First rise: Bake element is on 8 seconds per 30 seconds. Broil element is on 18 seconds per 30 seconds.

Clean: EOC will cycle between Bake and Broil elements to maintain the clean temperature.

Free-Standing Range :

First rise: Bake element is on 30 seconds per minute. Broil element is on 30 seconds per minute.

Clean: EOC will cycle between Bake and Broil elements to maintain the clean temperature.

NOTE: Self-cleaning cycle cannot be started if the other oven is in operation, and you cannot operate the second oven if the other oven in on a self-cleaning cycle.

ELECTRONIC OVEN CONTROL (FAULT CODES)

ELECTRONIC OVEN CONTROL (EOC) FAULT CODE DESCRIPTIONS

Note: Generally speaking "F1X" implies a control failure, "F3X" an oven probe problem, and "F9X" a latch motor problem.

Failure Code/Condition/Cause	Suggested Corrective Action
F10 Control has sensed a potential runaway oven condition. Control may have shorted relay, RTD sensor probe may have a gone bad.	- Check RTD sensor probe and replace if necessary. If oven is overheating, disconnect power. If oven continues to overheat when power is reapplied, replace relay board and/or analog control board. Severe overheating may require the entire oven to be replaced, should damage be extensive.
F11 Shorted Key: a key has been detected as pressed (for more than the debounce period) will be considered a shorted key alarm and will terminate all oven activity.	- Press any key to clear the error. - If fault returns, replace the keyboard. - If the problem persist, replace the analog control board. - If the problem persist, replace the display board.
F13 Control's internal checksum may have become corrupted.	- Press any key to clear the error. - Disconnect power, wait 30 seconds and reapply power. If fault returns upon power-up, replace analog control board.
F15 Controller self check failed.	- Replace the analog control board.
F16 Potentiometer failure.	- Check wiring from analog board to the potentiometer. - Replace the potentiometer.
F30 Open RTD sensor probe/ wiring problem. Note: EOC may initially display an "F10", thinking a runaway condition exists. **F31** Shorted RTD sensor probe / wiring problem. Note: **F30** or **F31** is displayed when oven is in active mode or an attempt to enter an active mode is made.	- Check wiring in probe circuit for possible open condition. - Check RTD resistance at room temperature (compare to probe resistance chart). If resistance does not match the chart, replace the RTD sensor probe. - Let the oven cool down and restart the function. - If the problem persist, replace the analog control board.
F90 Door motor mechanism failure.	- Press any key to clear the error. - If it does not eliminate the problem, turn off power for 30 seconds, then turn on power. - Check wiring of Lock Motor, Lock Switch and Door Switch circuits. - Unplug the lock motor from the board and apply power (L1) directly to the Lock Motor. If the motor does not rotate, replace Lock Motor Assembly. - Check Lock Switch for proper operation (do they open and close, check with ohmmeter). The Lock Motor may be powered as in above step to open and close Lock Switch. If the Lock Switch is defective, replace Motor Lock Assembly. - If all above steps fail to correct situation, replace the analog control board and/or the relay board in the event of a motor that does not rotate. - If all the above steps fail to correct the situation, replace the analog control board in the even of a motor that rotates endlessly.

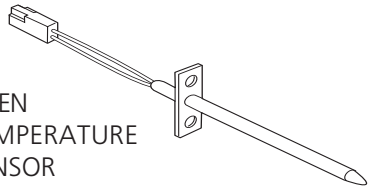
WALL OVEN & FS RANGE SERVICE DATA SHEET

RTD SCALE

Temp. °F	Temp. °C	Resistance (ohms)
32 ± 1.9	0.0 ± 1.1	1000 ± 4.0
75 ± 2.5	23.9 ± 1.4	1091 ± 5.3
250 ± 4.4	121.1 ± 2.4	1453 ± 8.9
350 ± 5.4	176.7 ± 3.0	1654 ± 10.8
450 ± 6.9	232.2 ± 3.8	1852 ± 13.5
550 ± 8.2	287.8 ± 4.6	2047 ± 15.8
650 ± 9.6	343.3 ± 5.3	2237 ± 18.5
900 ± 13.6	482.2 ± 7.6	2697 ± 24.4

ELECTRICAL RATING

Kw Rating 240/208 V	See nameplate	Bake Element Wattage	On Wall Ovens: 2200W/1653W On Freestanding Range: 2500W/1879W
Broil Element Wattage	4000W/3004W	Convection Element Wattage	2500W/1879W



OVEN TEMPERATURE SENSOR

FREESTANDING RANGE / SINGLE WALL OVEN / UPPER OVEN ON DOUBLE WALL OVEN CIRCUIT ANALYSIS MATRIX

	On Relay Board					On Variable Speed Convection Board	On Analog Control Board		On Relay Board		
	ELEMENTS			Door Motor	Light	Convection Fan	Lock Motor Switch	Door Switch	DLB	Cooling Fan Low	Cooling Fan High
	Bake P9	Broil P7	Conv. P13	J3-5	J3-6	P4-1 & P4-3	P8-1 & P8-5	P8-3 / P8-5	L2 out P1	speed J3-7	speed J3-8
Bake	X	X	X*			X*			X	X	
Keep Warm	X								X	X	
Broil		X				X			X		X
Conv. Bake	X	X	X			X			X	X	
Conv. Roast	X	X	X						X	X	
Clean	X	X							X	X	X
Locking				X			NO				
Locked							NC				
Unlocking				X			NC				
Unlocked							NO				
Light					X						
Door Open					X						
Door Closed								X			
Bread Proof	X								X	X	

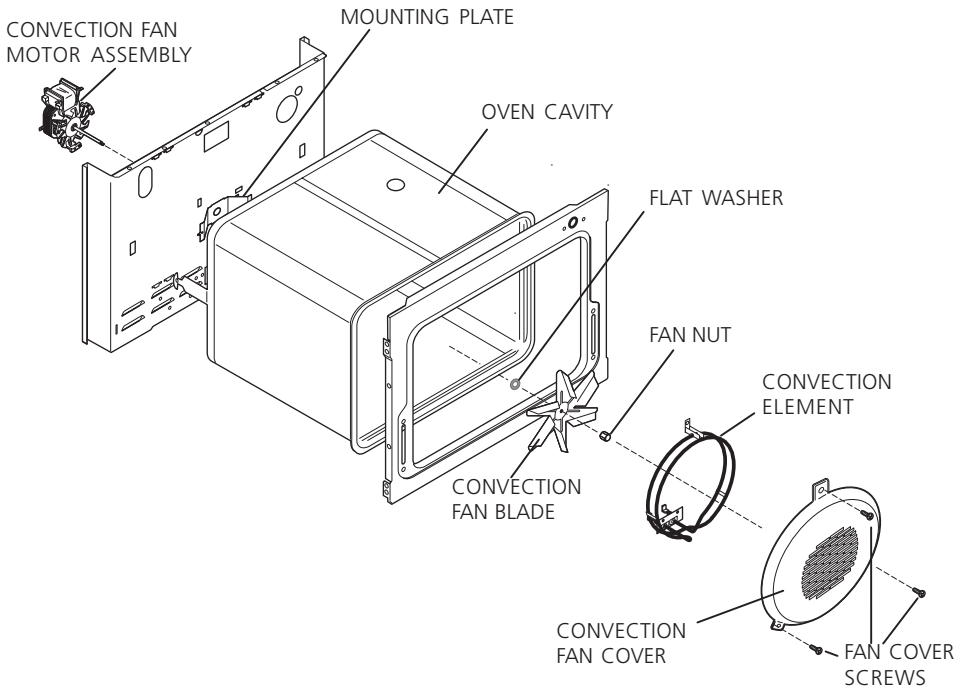
LOWER OVEN ON DOUBLE WALL OVEN CIRCUIT ANALYSIS MATRIX

	On Relay Board					On Variable Speed Convection Board	On Analog Control Board		On Relay Board		
	ELEMENTS			Door Motor	Light	Convection Fan	Lock Motor Switch	Door Switch	DLB	Cooling Fan Low	Cooling Fan High speed
	Bake P10	Broil P8	Conv. P16	J4-6	J4-7	P4-5 & P4-3	P10-1 & P10-6	P10-3 / P10-6	L2 out P2	speed J4-8	J4-9
Bake	X	X	X*			X*			X	X	
Keep Warm	X								X	X	
Broil		X				X			X	X	
Conv. Bake	X	X	X			X			X	X	
Conv. Roast	X	X	X						X	X	
Clean	X	X							X	X	X
Locking							NO				
Locked				X			NC				
Unlocking							NC				
Unlocked				X			NO				
Light											
Door Open					X						
Door Closed					X			X			
Bread Proof	X								X	X	

Relay will operate in this condition only

* Convection element and fan are used for the first rise of temperature.

EXPLODED VIEW OF CONVECTION SYSTEM



FAN BLADE

The fan blade is mounted in the rear of the unit and has a "D" shaped mounting hole. Only minimum clearance exists between the oven back, fan blade, and fan shroud. Be careful not to bend blade when removing or installing.

Access to the fan blade is gained by removing the fan shroud, held in place by three screws, from the inside of the oven.

The fan blade is held in place with a hex nut that has **left handed** threads. When removing this nut, gently hold the fan blade, and turn the nut clockwise. If one of the blades becomes deformed, it may be bent back into shape using a flat surface as a reference.

A flat washer is located on the motor shaft between the snap ring on the shaft and the fan blade.

NOTE: If the fan blade is bent and motor vibrations increase, the noise made by the fan will be greater.

MOUNTING PLATE OVEN

The fan motor on the rear of the unit is mounted to the main back (with three screws). There is a mounting plate held in place between the main back (with 2 screws) and the rear oven wall (with 2 screws). Should it be necessary to replace the oven cavity, you must remove the 2 screws located inside the unit at the rear of the oven cavity.

COOLING FAN MOTOR

The 120 volt fan motor is located on the outside of the rear of the oven. The cooling fan has 2 speed options, which are driven by the oven controller. The high speed mode is used on self-clean when the temperature gets over 575F. The high speed is also used anytime the broil function is used. The cooling fan may remain at high speed after the broil function is cancelled to allow better cooling of the oven. On double wall ovens, the blower in both ovens will start when using one of the ovens in self-clean mode.

CONVECTION FAN MOTOR

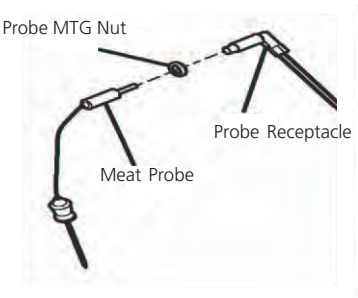
The 120 volt fan motor is located on the outside of the rear of the oven.

The fan motor runs continuously while in the convection mode unless the door is opened. If the fan does not operate, check the following:

- Display illuminated on the electronic control.
- Connections between the relay board (J10 upper/single oven, J11 lower oven) and the variable speed convection board (J1 upper/single oven, J2 lower oven).
- Connection between the variable speed convection board (P4) and the fan.
- Verify voltage between P4-1 and P4-3 (upper/single oven) or P4-3 and P4-5 (lower oven) on the variable speed convection board. It should give the following :
    - 120V when the fan is OFF (when the other terminal of the conv. motor is connected to L1)
    - Between 0V and 25V when the fan is ON.
- 120 Volts available at fan motor.
- Fan motor coil resistance 15.0 ohms ± 10%.
- Voltage input to fan relay coil during convection bake with door closed.
- Door/light switch.

MEAT PROBE RESISTANCE

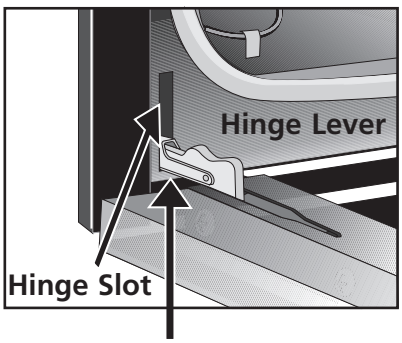
Meat Probe Temperature VS Resistance Table		
Temp. Celsius	Temp. Fahreinheit	Probe Resistance
25°C	77°F	49.478 Kohm +/- 7%
50°C	122°F	17.737 Kohm +/- 4.9%
80°C	176°F	6.107 Kohm +/- 3.3%
100°C	212°F	3.264 Kohm +/- 4.6%



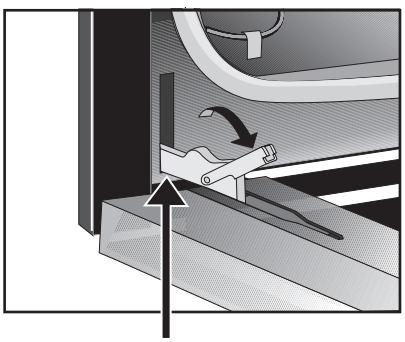
OVEN DOOR REMOVAL AND REPLACEMENT

To Remove and Replace Oven Door

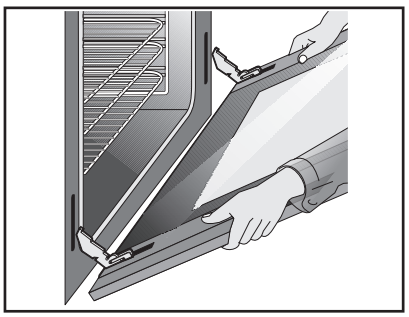
1. Open the door to the fully opened position.
2. Pull up the lock located on each hinge support toward front of range. You may have to apply a little upward pressure on the lock to pull it up.
3. Grasp the door by the sides, pull the bottom of the door up and toward you to disengage the hinge supports. Keep pulling the bottom of the door toward you while rotating the top of the door toward the appliance to completely disengage the hinge levers.
4. Proceed in reverse to re-install the door. Make sure the hinge supports are fully engaged before unlocking the door



Lock in normal position



Lock engaged for door removal



Door removed from the oven

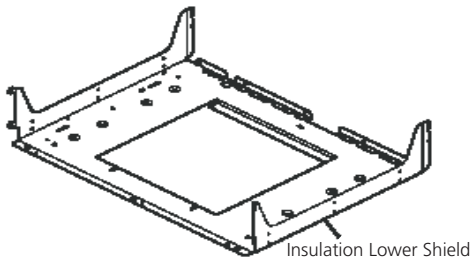
TRUE HIDDEN BAKE ELEMENT REMOVAL - SINGLE AND DOUBLE WALL OVENS

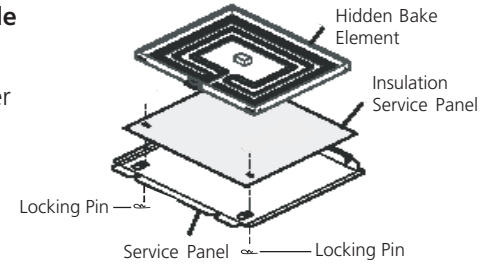
Follow the steps below in order to replace the through hidden bake element on a single wall oven and the lower through hidden bake element of a double wall oven.

1. Remove the lower decorative trim (2 screws).
2. Using a pair of long nose pliers, remove the two cutter pins which are holding the through hidden bake element service panel in place (under the oven liner).
3. Disconnect the two bake element wires.
4. Slide the through hidden bake service panel and element out of its operational emplacement.

The steps below are to follow in order to replace a double wall oven's upper through hidden bake element only.

5. Remove the center trim. You may use a flat screwdriver in order to pull the center trim out.
6. Remove the door lock assembly.
7. Follow the same steps as for the single wall oven (2-4 above).

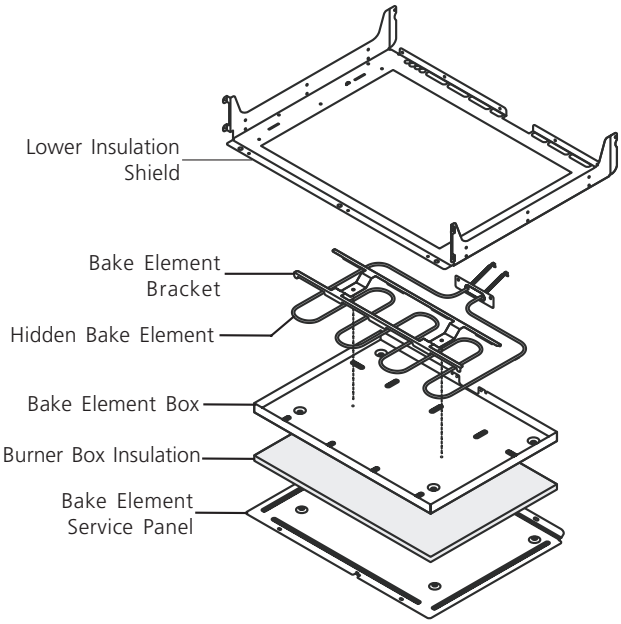




TRUE HIDDEN BAKE ELEMENT REMOVAL - FREESTANDING RANGE

The steps below are to follow in order to replace through hidden bake element.

1. Disconnect power to the circuit breaker or fuse box.
2. Remove the lower trim.
3. Remove the 2 screws which are holding the service panel in place.
4. Place the service panel on the warmer drawer element.
5. Disconnect the bake element and take out the service panel.
6. Remove the 2 screws and the bracket which hold the bake element.
7. Replace the bake element.
8. Fasten the bracket with the 2 screws.
9. Connect the bake element.
10. Insert the service panel into the opening under the cavity. Make sure that the rear side of the service panel enters the opening and the bake element wires are inserted properly back in place.
11. Raise the service panel and fasten it with the 2 screws.
12. Put back the lower trim.



POTENTIOMETER CALIBRATION

A calibration procedure is required in the control to calibrate the analog inputs (potentiometers or knobs) and analog temperature gauge.

This calibration procedure needs to be performed when any of these situations occur:
- The analog controller board is replaced
- A temperature selector potentiometer is replaced
- A temperature gauge is replaced.

If this procedure is not executed after changing one of the above parts the oven gauge and the oven will not operate properly.

1. Turn off power to the appliance.
2. Place all knobs to the OFF, or 12:00 position.
3. Turn power on to the applicance. The characters "PF" should be flashing on the display digits.
4. Enter factory test mode within the first 30 seconds after power-up by simultaneously pressing and holding the Probe key and the Timer (Timer 2 in Double Wall Oben Application) keys.
5. Once the control enters factory test mode, all the display LED segments and key point LED's will illuminate for approximatively 5 seconds, then turn off.
6. Rotate the upper oven temperature selector knob to the 200F position exactly, or as close as visuably possible. Align the tick marks between of the panel and the knob 200F position.
7. Enter the upper oven 200F calibration mode by pressing and holding the Upper Convection Convert (Convection Convert for single cavity application) key for 3 seconds.
8. Once the mode is entered, the control will respond with a single acceptance beep, and the upper oven analog gauge will be commanded to the approximate 200F position.
9. Using the slew UP and/or DOWN keys, activate the keys accordingly until the analog gauge or the needle of the gauge is exactly lined up with the 200F tick mark.
10. Exit the 200F calibration mode by pressing any key, other than a slew (Up or Down) key.
11. Rotate the upper oven temperature selector knob to the 500F position exactly, or as close as visuably possible. Align the tick marks between of the panel and the knob 500F position.
12. Enter the upper oven 500F calibration mode by pressing and holding the Upper Light key (Light for single cavity application) key for 3 seconds.
13. Once the mode is entered, the control will respond with a single acceptance beep, and the upper oven analog gauge will be commanded to the approximate 500 F position.
14. Using the slew UP and/or DOWN keys, activate the keys accordingly until the analog gauge or the needle of the gauge is exactly lined up with the 500F tick mark.
15. Exit the 500F calibration mode by pressing any key, other than a slew key. The control will respond by commanding the gauge to the same position as the amplitude control knob. The control will store the 500F calibration information.
16. Calibration for the cavity can be verified by rotating the amplitude control knob between 170 and 550 F, the gauge should follow approximately the position of the knob (the position of the gauge will be delayed slightly from the position of the knob). If the control is not calibrated, the analog gauge will not operate properly with normal cooking and clean operations.
17. If a double oven application, repeat steps 6 through 16 for the lower oven, by using the lower oven temperature selector knob and entering the calibration 200F mode by pressing and holding the lower oven Convection Convert key for 3 seconds. Enter the 500F calibration mode by pressing and holding the lower oven Light key.
18. Once done with the procedure, exit the calibration mode by turning power off on the appliance.

DOOR LOCK MECHANISM

The appliance is equipped with an electronic oven control and has an auto locking door latch feature. When the self clean cycle is programmed, the door is locked by a motor operated latch system. The interior of oven doesn't need to heat up to 500°F/260°C before the door locks. However, until the temperature inside oven reaches 500°F/260°C, the self-clean program can be canceled and door will unlock immediately. After oven reaches temperatures over 500°F/260°C, the door will not unlock until temperature drops below 500°F/260°C.

If a problem appears and the door stays locked it is possible for the **servicer** to unlock the door without removing the appliance from its place. Follow the steps below:

1. Trip the circuit breaker to **OFF** position.
2. Remove the 2 screws, which are fixing the oven door latch, located between the control panel and the oven door.
3. When the screws are removed it is possible to unlock the latch with a flat screwdriver, or one of the tools supplied with the wall oven which are used to take off the oven from the cabinet. Insert the tool tip through the slot on top of the oven door. During this step it's important to take care to not damage the appliance.
4. As soon as the latch is in the unlock position, you can open the door.
5. Replace the motor latch:

   Upper Oven:
   1. To have access to the door latch assembly, remove the 3 screws under the control panel which are fixing it.
   2. Remove the electronic plate located on the access plate.
   3. Remove the access plate located on the upper air channel by removing the screw.
   4. Replace the motor latch with a new one and reassemble in opposite order and manner of removal.

   Lower Oven:
   1. Pull out the appliance approximately 4" from the cabinet.
   2. Remove the 4 screws which are fixing the center trim and remove the center trim by pulling it from both extremities.
   3. Replace the motor latch by a new one and reassemble in opposite order and manner of removal.