FOR SERVICE TECHNICIAN'S USE ONLY

Tech Sheet **Do not discard**

⚠ DANGER



Electrical Shock Hazard

Only authorized technicians should perform diagnostic voltage measurements.

After performing voltage measurements, disconnect power before servicing.

Failure to follow these instructions can result in death or electrical shock.

⚠ WARNING



Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Voltage Measurement Safety Information

When performing live voltage measurements, you must do the following:

- **Verify the controls are in the off position so that the appliance does not start when energized.**
- **Allow enough space to perform the voltage measurements without obstructions.**
- **Keep other people a safe distance away from the appliance to prevent potential injury.**
- **Always use the proper testing equipment.**
- **After voltage measurements, always disconnect power before servicing.**

IMPORTANT: Electrostatic Discharge (ESD) Sensitive Electronics

ESD problems are present everywhere. ESD may damage or weaken the electronic control assembly. The new control assembly may appear to work well after repair is finished, but failure may occur at a later date due to ESD stress.

- Use an antistatic wrist strap. Connect wrist strap to green ground connection point or unpainted metal in the appliance

  -OR-

  Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.
- Before removing the part from its package, touch the antistatic bag to a green ground connection point or unpainted metal in the appliance.
- Avoid touching electronic parts or terminal contacts; handle electronic control assembly by edges only.
- When repackaging failed electronic control assembly in antistatic bag, observe above instructions.

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Diagnostics

Unplug range or disconnect power before performing the following checks:

- A potential cause of a control not functioning is corrosion on connections. Observe connections and check for continuity with an ohmmeter.
- All tests/checks should be made with a VOM or DVM having a sensitivity of 20,000Ω per volt DC or greater.

To Enter Diagnostics Mode:

Before proceeding with any corrective action, perform the following steps to enter the Diagnostics Mode.

1. To enter the Diagnostics Mode, press three different keys in sequence three times in a row within 8 seconds (example 1,2,3 1,2,3 1,2,3).
2. If control does not enter Diagnostics Mode, repeat Step 1.

General Procedure: Diagnostic Tests

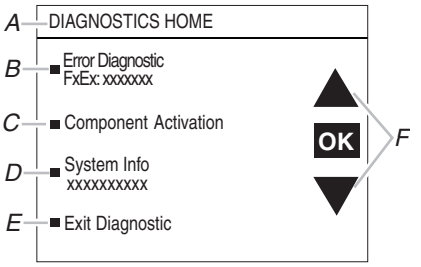
1. Plug in range or connect power.
2. Enter Diagnostics Home Menu.
3. Press the Up/Down navigation arrows to highlight the Component Activation feature. Press OK.
4. Press the Up/Down navigation arrows to highlight the Bake element. Press OK.
5. Check the information referring to the component.
6. Press the Up/Down navigation arrows to highlight the Back function, and select it by pressing OK to recall the previous menu.
7. Repeat steps 4 - 6 for the other components.
8. From the Diagnostics Home Menu, press the Up/Down navigation arrows to highlight the Error Diagnostic feature. Press OK.
9. Select Error History by pressing the Up/Down navigation arrows and then OK. Use the Up/Down navigation arrows to check all the recorded errors.
10. Press the Up/Down navigation arrows to highlight the Back function. Press OK to recall the previous menu.
11. Select the System Information feature by pressing the Up/Down navigation arrows and then OK.
12. System Information allows modification to the model number.
13. Press the Up/Down navigation arrows to highlight the Back function, and select it by pressing OK to return to the Diagnostic Home Menu.

Programming Model Number After User Interface Replacement

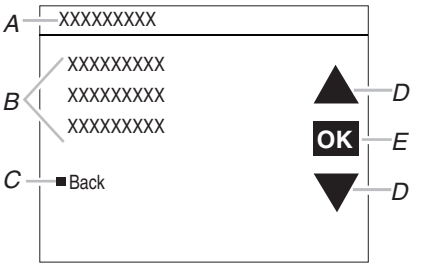
1. Unplug range or disconnect power.
2. Replace User Interface.
3. Replace all parts and panels before operating.
4. Plug in range or reconnect power.
5. The System Information Menu will automatically appear with a list of models numbers.
6. Identify unit model number from the model/serial tag and select it from the menu list.
7. Use the up and down navigation arrows to navigate to the correct model number and press OK once highlighted.
8. Disconnect power for 30 seconds and then reconnect power
9. New model number is saved.

- Check all connections before replacing components, looking for broken or loose wires, failed terminals, or wires not pressed into connectors far enough. Damaged harness must be entirely replaced. Do not rework a harness.
- Resistance checks must be made with power cord unplugged from outlet, and with wiring harness or connectors disconnected.

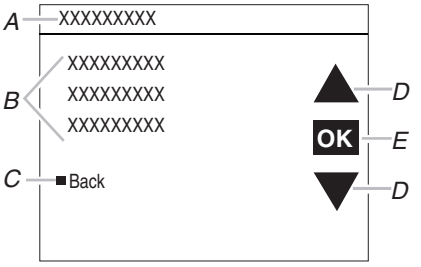
Diagnostics Menu



A. Screen title
B. Error diagnostic
C. Component activation
D. System information
E. Exit diagnostic
F. Up/down navigation arrows



A. Screen title
B. Troubleshooting tips, Error history, List of components, List of information with some editable values
C. Back
D. Up/down navigation arrows
E. OK



A. Screen title
B. Checks, List, Component information, Off/On for the selected component, Edit values screen
C. Back
D. Up/down navigation arrows
E. OK

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To Verify New Model Number:

1. Enter Diagnostics Menu.
2. Navigate to the System Information Menu and press OK.
3. Model numbers will appear in the menu list.
4. Exit Diagnostics Menu by pressing the BACK button to the main menu and then selecting Exit Diagnostics and pressing OK.

To Change Model Number Previously Saved:

1. Enter Diagnostics Mode.
2. Navigate to the System Information Menu and press OK.
3. Model numbers will appear in the menu list.
4. Highlight model number and press OK.
5. Exit Diagnostics Mode by pressing the BACK button to the Main Menu and then selecting Exit Diagnostics and pressing OK.
6. Disconnect power for 30 seconds and then reconnect power
7. New model number is saved.

NOTE: Upon replacement of electronic oven control, immediately return old electronic oven control using the mailing label supplied with each new control.

Failure/Error Display Codes

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	LIKELY FAILURE CONDITION
F0 Default	**E0**	No error(s) found
SUGGESTED CORRECTIVE ACTION PROCEDURE		
(Good) No corrective action required		
F1 Internal	**E0**	Check oven user interface
MESSAGE: The Product is experiencing a problem and can no longer be used.		
SUGGESTED CORRECTIVE ACTION PROCEDURE		

PROCEDURE: To enter the Diagnostics Mode, press three different keys in sequence three times in a row within 8 seconds. When in Diagnostic Mode, press ERROR DIAGNOSTIC to verify the error codes.

1. Check for proper voltage input at the user interface board connections J900-11 to J900-1 by completing the following steps.
2. Unplug range or disconnect power.
3. Connect voltage measurement equipment.
4. Plug in range or reconnect power and confirm voltage reading is +14 VDC. If it is, unplug range or disconnect power and go to Step 7. If it is not, go to Step 5.
5. Unplug range or disconnect power.
6. Replace oven user interface board.
7. Replace all parts and panels before operating.
8. Plug in range or reconnect power.
9. Program model number. See the "Programming Model Number After User Interface Replacement" section.
10. Verify operation is normal. Re-enter the Diagnostics Mode and complete checks.

F1 Internal	**E1**	Oven appliance manager
MESSAGE: The Product is experiencing a problem and can no longer be used.		
SUGGESTED CORRECTIVE ACTION PROCEDURE		

PROCEDURE: To enter the Diagnostics Mode, press three different keys in sequence three times in a row within 8 seconds. When in Diagnostic Mode, press ERROR DIAGNOSTIC to verify the error codes.

1. Check for proper voltage input at P6-1 to P6-2 on the oven appliance manager by completing the following steps.
2. Unplug range or disconnect power.
3. Connect voltage measurement equipment.
4. Plug in range or reconnect power and confirm voltage reading is +14 VDC. If it is, unplug range or disconnect power and go to Step 7. If it is not, go to Step 5.
5. Unplug range or disconnect power.
6. Replace oven user interface board.
7. Replace all parts and panels before operating.
8. Plug in range or reconnect power.
9. Program model number. See the "Programming Model Number After User Interface Replacement" section.
10. Verify operation is normal. Re-enter the Diagnostics Mode and complete checks and verify model number.

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FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	LIKELY FAILURE CONDITION
F2 Keypad	**E0**	Keypad disconnected
	E1	Stuck key/Shorted key
	E3	Keypad hardware failure

MESSAGE: The Product is experiencing a problem and can no longer be used.

SUGGESTED CORRECTIVE ACTION PROCEDURE

PROCEDURE: To enter the Diagnostics Mode, press three different keys in sequence three times in a row within 8 seconds. When in Diagnostic Mode, press ERROR DIAGNOSTIC to verify the error codes.

1. Check for proper voltage input at the user interface board connections J900-11 to J900-1 by completing the following steps.
2. Unplug range or disconnect power.
3. Connect voltage measurement equipment.
4. Plug in range or reconnect power and confirm voltage reading is +14 VDC. If it is, unplug range or disconnect power and go to Step 7. If it is not, go to Step 5.
5. Unplug range or disconnect power.
6. Check that the User Interface connection is firmly connected.
7. Replace all parts and panels before operating.
8. Plug in range or reconnect power.
9. Observe for longer than 1 minute.
10. If error remains, go to Step 11.
11. Unplug range or disconnect power.
12. Replace oven user interface communication harness.
13. Replace all parts and panels before operating.
14. Plug in range or reconnect power.
15. Observe for longer than 1 minute.
16. If error remains, go to Step 17.
17. Unplug range or disconnect power.
18. Replace oven user interface.
19. Replace all parts and panels before operating.
20. Plug in range or reconnect power. Wait for 1 minute.
21. Program model number. See the "Programming Model Number After User Interface Replacement" section.
22. Verify operation is normal. Re-enter the Diagnostics Mode and complete checks.

F3 Sensors	**E0**	Oven sensor open or shorted
	E1	Not applicable for single oven model
	E3	Meat probe shorted

MESSAGE FOR E0 AND E1: The Product is experiencing a problem and can no longer be used.

MESSAGE FOR E3: The probe feature is experiencing a problem and can no longer be used. Other features will work normally.

SUGGESTED CORRECTIVE ACTION PROCEDURE

PROCEDURE: To enter the Diagnostics Mode, press three different keys in sequence three times in a row within 8 seconds. When in Diagnostic Mode, press ERROR DIAGNOSTIC to verify the error codes.

1. Verify temperature reading of sensor in Diagnostic Mode.
2. From the diagnostic main menu, press STATUS SCREEN and then OVEN SENSORS. If dashes appear in "T. Sensor reading" or if "T. Sensor status" displays "Out of Range," proceed to Step 3.
3. Unplug range or disconnect power.
4. Remove back panels and ensure the indicated temperature sensor is plugged in properly and fully inserted. See "Component Locations" section.

   If it is not, plug it into the connector and go to Step 11.

   If it is plugged in, go to Step 5.
5. Check connector P2 on the oven appliance manager board. Make sure it is plugged in and fully seated.

   If it is not, make the proper connection and go to Step 6.

   If it is already properly connected, go to Step 11.
6. Visually inspect the wires between P2 on the oven appliance manager board and the indicated temperature sensor. Make sure the wires are not cut or pinched. If the wires appear to be intact, unplug the P2 connector on the oven appliance manager board. Go to Step 7.

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FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	LIKELY FAILURE CONDITION

7. Measure indicated temperature sensor resistance value (measure between appropriate P2 connector pins). For the following sensors, the resistance value should read:

Oven Sensor - Between 931 and 2869Ω (Approximately 1080Ω at room temperature)

Meat Probe Sensor - Between 3,400 and 39,500Ω (refer to the "Component Testing Chart") (Insert meat probe into meat probe jack located inside the oven cavity prior to reading resistance.)

If the indicated temperature sensor does not meet these requirements, go to Step 8.

If the temperature sensor does meet the requirements, go to Step 11.

8. Replace failed temperature sensor. Go to Step 10.

If the requirements are not met, replace sensor harness. Go to Step 10.

For MEAT PROBE sensor:

If the requirements are not met, replace sensor harness. Go to Step 10.

If the requirements are still not met, replace the meat probe jack. Go to Step 10.

If the meat probe sensor is still not meeting the requirements, go to Step 9.

9. Replace the oven appliance manager board. Ensure all connectors are properly placed and firmly connected.

10. Ensure all wiring connections are made.

11. Replace all parts and panels before operating.

12. Plug in range or reconnect power.

13. Observe for longer than 1 minute.

14. Enter the Diagnostics Mode and read value for right oven sensor and meat probe.

F3 Sensors	**E2**	Warming drawer sensor shorted

Oven is not equipped with this feature. If error occurs, enter the Diagnostics Mode by pressing three different keys in sequence three times in a row within 8 seconds. When in Diagnostic Mode, press ERROR DIAGNOSTIC to verify the error codes.

Reprogram the correct model number into the User Interface. See "To Change Model Number Previously Saved" section.

F5	**EO**	Door and latch switch do not agree
	E1	Door latch not operating

MESSAGE: The Self-Clean feature is experiencing a problem and can no longer be used. Other features will work normally.

SUGGESTED CORRECTIVE ACTION PROCEDURE

PROCEDURE: To enter the Diagnostics mode, press three different keys in sequence three times in a row within 8 seconds. When in Diagnostic Mode, press ERROR DIAGNOSTIC to verify the error codes.

To Verify Door Switch:

1. While in Diagnostics mode, press STATUS SCREEN, then DOOR&LATCH on the oven display. Open the oven door. The "Door Switch" status on the display should toggle between "OPEN" and "CLOSED" as the door opens and closes.

If the status on the display did not toggle, go to Step 2.

If the status did toggle, the door switch is operating correctly. Go to Step 12.

2. Check for proper voltage input at P1-5 to P1-7, on the oven appliance manager, when latch motor should be running (within 20 seconds of pressing Self Clean key) by completing the following steps.

3. Unplug range or disconnect power.

4. Connect voltage measurement equipment.

5. Plug in range or reconnect power and confirm voltage reading is 120V. If it is, unplug range or disconnect power and go to Step 10. If it is not, go to Step 6.

6. Unplug range or disconnect power.

7. Replace door switch. If door switch is integral to the door/latch motor assembly, replace the entire door/latch motor assembly. Go to Step 8.

8. Check integrity of all harness wires and connections between the oven appliance manager board and the door/latch assembly. Ensure no shorted wires to chassis.

If the wiring is pinched or damaged, replace the door switch harness. Go to Step 10.

If the wiring is good, go to Step 9.

9. Replace the oven appliance manager board. Go to Step 10.

10. Replace all parts and panels before operating.

11. Plug in range or reconnect power.

12. Enter into Diagnostics Mode and complete checks. Check for door and latch in status screen.

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FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	LIKELY FAILURE CONDITION

To Verify Door Latch Switch/Motor Assembly:

1. While in Diagnostics Mode, on the appropriate oven display, press COMPONENT ACTIVATION, LATCH MOTOR, and TURN ON within the first 120 seconds of powering up to cycle the latch motor to the locked position. "CLOSED" should be displayed in the "Latch Switch" row when locked. Press TURN OFF to cycle the latch motor to the unlocked position. The "Latch Switch" row should toggle to "OPEN" when door is unlocked.

   If the display did not toggle, go to Step 2.

   If motor runs continuously, wait until motor reaches the unlocked position, open the door, press the BACK key. Go to Step 2.

   If motor did not run, unplug range and disconnect power. Go to Step 10.

   If the display did toggle, door latch switch is operating correctly. Go to Step 15.
2. Check for proper voltage input at P1-5 to P1-4 (latch switch) and Neutral to P8-5 (latch motor), on the oven appliance manager, when latch motor should be running (within 20 seconds of pressing Self Clean key) by completing the following steps.
3. Unplug range or disconnect power.
4. Connect voltage measurement equipment.
5. Plug in range or reconnect power and confirm voltage reading is 120V for both measures. If it is, unplug range or disconnect power and go to Step 13. If it is not, go to Step 6.
6. Unplug range or disconnect power.
7. Check continuity of the latch motor and electrical connections between the oven appliance manager P8-5 and motor.
8. If continuity is present, replace appliance manager. Go to Step 13.
9. If continuity is not present, go to Step 10.
10. Replace door latch motor assembly. Go to Step 11.
11. Check integrity of all harness wires and connections between the oven appliance manager and the door latch switch. Ensure no wires are pinched or damaged.

    If the wiring is damaged, replace the door latch switch harness. Go to Step 13.

    If the wiring is good, go to Step 12.
12. Check integrity of latch mechanism, ensuring alignment of latch assembly and door slot. Correct any mechanical malfunction. Go to Step 13.
13. Replace all parts and panels before operating.
14. Plug in range or reconnect power.
15. Enter into Diagnostics Mode and complete checks. Check for latch motor component activation.

FOR SERVICE TECHNICIAN'S USE ONLY

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	LIKELY FAILURE CONDITION
F6	EO	Lost communication
	E6	Lost communication UI and AM1

MESSAGE: The Product is experiencing a problem and can no longer be used.

SUGGESTED CORRECTIVE ACTION PROCEDURE

PROCEDURE: To enter the Diagnostics Mode, press three different keys in sequence three times in a row within 8 seconds. When in Diagnostic Mode, press ERROR DIAGNOSTIC to verify the error codes.

While in the Diagnostic Mode, press Component Activation. Ensure AM software, USIF software and EEPROM versions appear on the display. If AM software version does not appear, USIF and AM may not be communicating.

The display will show the AM software version for the appliance manager.

If the display is not displaying the AM Software, go to "Display Is Not Displaying the Oven AM Software Version."

If the display is displaying an error, go to "Display Is Displaying an Error."

Display Is Not Displaying the Oven AM Software Version:

1. Check for proper voltage input at P6-1 to P6-2 at the appliance manager board and at the user interface board connections J900-11 to J900-1 by completing the following steps.
2. Unplug range or disconnect power.
3. Connect voltage measurement equipment.
4. Plug in range or reconnect power and confirm voltage reading is +14 VDC for both measures. If it is, unplug range or disconnect power and go to Step 13. If it is not, go to Step 5.
5. Unplug range or disconnect power.
6. Check the harness and probe jack for a short to ground. Plug in meat probe and check between P2-5 and P2-6 on the appliance manager for short to ground. If grounded, replace probe jack and harness. If not, go to Step 7.
7. Unplug meat probe, replace all parts and panels before operating and plug in range or reconnect power. If error goes away, the meat probe sensing line is grounded. If error remains, go to Step 8.
8. Unplug range or disconnect power.
9. Access the appliance manager and make sure the P6 connector and the J2 connector on the control power supply are fully inserted.

   If not, plug in connectors and go to Step 13.

   If fully plugged in, go to Step 10.
10. Visually inspect all of the wires between P6 on the appliance manager and J4 on the user interface. Make sure the wires are not cut or pinched. If the wires appear to be intact, perform a continuity check between P6-1 of the appliance manager and J4-12 of the user interface board. Do the same for P6-2 (AM) to J4-11(UI), P6-4 (AM) to J4-6 (UI), and P6-5 (AM) to J4-7 (UI). All of the checks should result in a reading of less than 5Ω.

    If any of these checks fail, go to Step 12.

    If these checks pass, reconnect J4, then go to Step 11.
11. Replace the appliance manager. Ensure all wiring connections are made. Go to Step 13.
12. Replace the wiring harness. Ensure all wiring connections are made.
13. Replace all parts and panels before operating.
14. Plug in range or reconnect power.
15. Observe for longer than 1 minute.
16. If the error does not appear, initiate a Bake cycle. Let the cycle run at least 1 minute.

    If no error occurs, cancel the cycle. The problem has been repaired.

    If the error occurs again, restart the troubleshooting procedure at Step 1 (except in Step 11 replace the user interface board and program the model number if the appliance manager has already been replaced). See the "Programming Model Number After User Interface Replacement" section.

Display Is Displaying an Error:

1. Unplug range or disconnect power.
2. Open the control panel and make sure the J4 connector on the UI is fully inserted.

   If it is not, plug the connectors in and go to Step 4.

   If it is plugged in, go to Step 3.
3. Replace the oven user interface. Ensure all connectors are properly inserted. Go to Step 4.
4. Replace all parts and panels before operating.
5. Plug in range or reconnect power.
6. Program the model number. See "Programming Model Number After User Interface Replacement" section.
7. Observe for longer than 1 minute to determine whether error has been repaired.

FOR SERVICE TECHNICIAN'S USE ONLY

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	LIKELY FAILURE CONDITION
F6	E1	Cook oven over temperature
	E2	Clean oven over temperature

MESSAGE: The Product is experiencing a problem and can no longer be used.

SUGGESTED CORRECTIVE ACTION PROCEDURE

PROCEDURE: To enter the Diagnostics Mode, press three different keys in sequence three times in a row within 8 seconds. When in Diagnostic Mode, press ERROR DIAGNOSTIC to verify the error codes.

1. If range is off, turn range on and inspect all of the burners: convect, bake and broil. Visually inspect all burners to ensure they are operating.
2. While in Diagnostics Mode, cycle the bake burner. Press COMPONENT ACTIVATION, BAKE, TURN ON/TURN OFF. Ensure bake relay energizes by inspecting the bake burner.
   - If bake relay does not turn on and off, go to Step 7.
   - If the burner does not cycle with the relay (T3-3 on appliance manager), go to Step 5.
   - If the burner does cycle on and off, go to Step 3.
3. While in Diagnostics Mode, cycle the broil burner. Press COMPONENT ACTIVATION, BROIL, TURN ON/TURN OFF. Ensure broil relay energizes by inspecting the broil burner.
   - If broil relay does not turn on and off, go to Step 7.
   - If the burner does not cycle with the relay (T3-1 on appliance manager), go to Step 5.
   - If the burner does cycle on and off, go to Step 4.
4. While in Diagnostic Mode, cycle the convect burner. Press COMPONENT ACTIVATION, CONVECT, TURN ON/TURN OFF.
   - If convect relay does not turn on and off, go to Step 7.
   - If the element does not cycle with the relay (T3-2 on appliance manager), go to Step 5.
5. Unplug range or disconnect power.
6. Check integrity of all harness wires and connections between the appliance manager and the burners. Ensure all wiring and connections between the oven appliance manager and burners, and the oven appliance manager and user interface are intact and properly seated and that no wires are shorted or damaged.
   - If the wiring is good, go to Step 7.
   - If the wiring connections are damaged, unplug range or disconnect power. Go to Step 12.
7. Unplug range or disconnect power.
8. Replace the oven appliance manager.
9. Replace all parts and panels before operating.
10. Plug in range or reconnect power and check if error is still present. If so, go to Step 11. If not, go to Step 13.
11. Replace user interface board. Go to Step 13.
12. Replace the harness.
13. Replace all parts and panels before operating.
14. Plug in range or reconnect power.
15. Reprogram model number. See the "Programming Model Number After User Interface Replacement" section. Re-enter Diagnostics Mode and complete checks.

FOR SERVICE TECHNICIAN'S USE ONLY

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	LIKELY FAILURE CONDITION
F6	**E4**	User interface/appliance manager mismatch

MESSAGE: The Product is experiencing a problem and can no longer be used.

SUGGESTED CORRECTIVE ACTION PROCEDURE

PROCEDURE: To enter the Diagnostics Mode, press three different keys in sequence three times in a row within 8 seconds. When in Diagnostic Mode, press ERROR DIAGNOSTIC to verify the error codes.

1. Press COMPONENT ACTIVATION.
2. Press BAKE, TURN ON/TURN OFF to cycle the bake burner. Ensure bake relay energizes by inspecting the bake burner.
3. Press the Up/Down navigation arrows to highlight "Back" and select it by pressing OK.
4. Press BROIL, TURN ON/TURN OFF to cycle the broil burner. Ensure broil burner energizes by inspecting the broil burner.
5. Press the Up/Down navigation arrows to highlight "Back" and select it by pressing OK.
6. Press LATCH MOTOR, TURN ON to drive door latch to lock door. Press TURN OFF again to reset the door latch to normal state.
7. Press the Up/Down navigation arrows to highlight "Back" and select it by pressing OK.
8. Press COOLING FAN, TURN ON/HIGHSPEED/TURN OFF to cycle cooling fan though low/high speed.
9. If all functions are working, the Appliance Manager and User Interface are working properly. Go to Step 22. If all functions do not work properly, go to Step 10.
10. Exit Diagnostics by pressing Exit Diagnostics.
11. Press BAKE and ensure that the Bake relay energizes and the control enters the Bake Preheat. Wait up to 1 minute to ensure error has been resolved. If error returns, proceed to Step 12.
12. Unplug range or disconnect power.
13. Remove cover for access to oven appliance manager.
14. Replace the oven appliance manager. Ensure all connections are properly seated. Go to Step 15.
15. Replace all parts and panels before operating.
16. Plug in range or reconnect power.
17. Press BAKE and ensure that Bake relay energizes and the control enters into Bake/Preheat. Wait up to 1 minute to ensure error has been resolved. If error returns, go to Step 18.
18. Unplug range or disconnect power.
19. Replace the user interface. Ensure all connections are properly seated. Go to Step 20.
20. Replace all parts and panels before operating.
21. Plug in range or reconnect power.
22. Program model number. See the "Programming Model Number After User Interface Replacement" section.
23. Press BAKE and ensure the Bake relay energizes and the control enters into Bake/Preheat. Wait up to 1 minute to ensure error has been resolved.

F6	**E5**	Cavity size is incorrect

MESSAGE: The Oven is experiencing a problem and can no longer be used.

SUGGESTED CORRECTIVE ACTION PROCEDURE

PROCEDURE: To enter the Diagnostics Mode, press three different keys in sequence three times in a row within 8 seconds. When in Diagnostic Mode, press ERROR DIAGNOSTIC to verify the error codes.

1. Press SYSTEM INFO, MODEL #. Screen should identify model number for unit being programmed. If this is incorrectly shown, press MODEL #, select the correct model number then press BACK or HOME.
   If error is corrected, the problem has been repaired. Go to Step 7.
   If error returns, go to Step 2.
2. Unplug range or disconnect power.
3. Replace User Interface ensuring all connections are properly seated and go to Step 4.
4. Replace all parts and panels before operating.
5. Plug in range or reconnect power.
6. Program model number. See the "Programming Model Number After User Interface Replacement" section.
7. Control may power up in model ID select mode. Set model ID as outlined in Step 1 and press START.
8. Wait for at least 1 minute to ensure error has been corrected.

FOR SERVICE TECHNICIAN'S USE ONLY

FAILURE (Leftmost 2 Clock Digits)	ERROR (Rightmost 2 Clock Digits)	LIKELY FAILURE CONDITION
F8	E0	Low fan speed underspeed
	E1	Low fan speed overspeed
	E2	High fan speed underspeed
	E3	High fan speed overspeed

MESSAGE: The product is experiencing a problem and can no longer be used.

SUGGESTED CORRECTIVE ACTION PROCEDURE

PROCEDURE: To enter the Diagnostics Mode, press three different keys in sequence three times in a row within 8 seconds. When in Diagnostic Mode, press ERROR DIAGNOSTIC to verify the error codes.

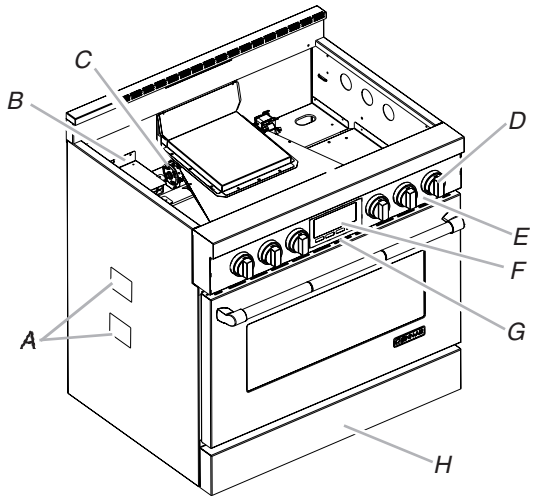
1. Unplug range or disconnect power.
2. Wait for at least 30 seconds.
3. Plug in range or reconnect power.
4. Enter Diagnostics and navigate to the Component Activation list.
5. Turn on the Cooling Fan Low Speed.
6. Navigate to the "More Information" screen.
7. Navigate to the "Information" screen (Screen 5).
   Information shown (Screen 5):
   - Plat1A Upper
   - Plat2 Upper
   - Cavity Upper
   - Meat Probe Upper
   - Plat1B Upper
   - Target Upper
   - **Fan RPM Right: READ FAN SPEED.** High Speed 1000 - 3300, Low Speed 400 - 3000.
8. Check for proper voltage input at P9-2 and neutral for high speed fan, P8-4 and neutral for low speed fan when cooling fan should be running by completing following steps.
9. Unplug range or disconnect power.
10. Connect voltage measurement equipment.
11. Plug in range or reconnect power. Measure voltage and confirm voltage reading is 120V. If it is not, unplug range or disconnect power and go to Step 15. If it is, go to Step 12.
12. Check for proper voltage input at P3-4 and P3-5 and confirm voltage reading is 5VDC. If it is not, unplug range or disconnect power and go to Step 15. If it is, go to Step 13.
13. Unplug range or disconnect power.
14. Replace cooling fan. Go to Step 17.
15. Check integrity of all harness wires and connections between the oven appliance manager and the cooling fan. Ensure no shorted wires to chassis.
    If the wiring is pinched or damaged, replace the cooling fan harness. Go to Step 17.
    If the wiring is good, go to Step 16.
16. Replace oven appliance manager. Go to Step 17.
17. Replace all parts and panels before operating.
18. Plug in range or reconnect power.
19. Enter into diagnostics mode and verify that fan speed is running within range. (High speed: 1000-3300, Low speed: 400-3000)

Once Fan Speed is completed, navigate back to the activation list and activate the Cooling Fan High Speed and return to "More Information" screen for fan speed.

Range Components

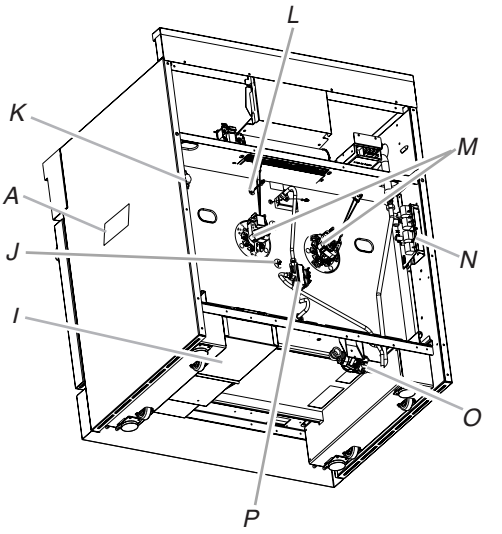
Component Locations

Front of unit



A. Halogen lights
B. Spark module: cooktop
C. Blower
D. Gas valve microswitch
E. Control power supply (SMPS, located behind removable panel)
F. User interface
G. Door latch
H. Tech sheet (located behind removable panel)

Rear of unit

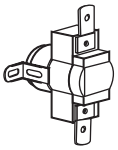


I. Oven appliance manager board
J. Convection element
K. Oven shutdown thermal cutoff (non-resettable)
L. Oven temperature sensor
M. Convection fan
N. Spark module: oven
O. Gas pressure regulator
P. Double gas valve

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Oven Shutdown Thermal Cutoff (non-resettable)

The oven shutdown thermal cutoff (non-resettable) is located at the back of the oven. It will shut down the burners if the temperature at the back of the oven exceeds component limits.



Verify that the oven shutdown thermal cutoff (non-resettable) is OK.

To replace this thermal cutoff (non-resettable):

1. Refer to the following chart for the correct Part Number.

Part Number	Opening Temp.	Marking (with Black Letters)
4449751	338ºF ± 11.7ºF (170ºC ± 6.5C)	Red label

2. Unplug range or disconnect power.
3. Replace the oven thermal cutoff (non-resettable).
4. Replace all parts and panels before operating.
5. Plug in range or reconnect power.

Serviceability

Oven Components	Front/Rear/Bottom Serviceable
User interface display	Front
Appliance manager	Bottom
Control power supply (SMPS)	Front
Keypad	Front
Halogen lights	Front
Door switch	Front
Latch switch	Front
Latch motor	Front
Oven temperature sensor	Front
Meat probe sensor	Probe - front Jack - rear
Blower motor	Rear
Thermal cutoff (non-resettable)	Rear
Oven convection fan motor	Rear
Oven convection ring element	Front

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Relay Logic

Modes	Oven Size	Bake	Broil	Conv element	Conv Fan	Oven Light	Blower
Bake Pre B	All	O	O	O	O	X	L
Bake Pre A	30" (76.2 cm)	O	O	O	O	X	L
	36" (91.4 cm)	O	X	O	O	X	
Bake SS	All	X	X	X	X	X	L
Convect Bake Pre B	All	O	O	O	O	X	L
Convect Bake Pre A	All	O	O	O	O	©	L
Convect Bake SS	All	X	X	X	X	©	L
Broil Pre B	All	X	O	X	X	©	L
Broil Pre A	All	X	O	X	X	©	L
Broil SS	All	X	X	X	X	©	L
Keep Warm	All	O	O	O	X	©	L
Proof Pre A	All	O	O	X	X	©	L
Proof Pre B	All	O	O	X	X	©	L
Proof SS	All	X	X	X	X	©	X
Rapid Proof	30" (76.2 cm)	O	O	O	X	©	L
	36" (91.4 cm)	O	O	O	X	©	L
Convect Roast, Convect Pastry and Convect Frozen Pizza	All	O	O	O	O	©	L
Convect Slow Roast Pre B	All	O	O	O	O	©	L
Convect Slow Roast Pre A	All	O	O	O	O	©	L
Convect Slow Roast SS	All	X	X	X	X	©	L
Self Clean	All	O	O	X	X	©	H
Sabbath Pre B	All	O	X	X	X	©	L
Sabbath Pre A	All	X	X	X	X	©	L

LEGEND				
On	**Off**	**On or Off**	**On - Low Speed**	**On - High Speed**
O	X	©	L	H

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Component Testing Chart

Range Components	Top/ Bottom/ Front/Rear/ Side Serviceable	Check points	Results - Resistance	Results - Voltage	Component Location
Appliance manager	Bottom	P6-1 (BU) to P6-2 (Y)		+14 VDC	I
User interface board	Front	J900-1 to J900-11		+14 VDC	F
Control power supply (SMPS)	Front	J1-3 (BK) to J1-4 (W)		+120 VAC	E
	Front	J2-1 (BU) to J2-4 (Y)		+14 VDC	E
	Front	J2-2 (BU) to J2-5 (Y)		+14 VDC	F
HMI Keyboard	Front	J4-12 (BU) to J4-11(Y)		+14 VDC	F
Griddle infinite switch (for griddle model only)	Front	P1-1(R) to P1-3 (W) on infinite switch	Griddle On = Closed Circuit Griddle Off = Open Circuit	120 VAC	
Lights	Side	P8-6 (BK) to Neutral (W)		120V Lights on	A
Latch switch	Front	P1-4 (T) to P1-5 (BR)	Door Unlocked = Open Circuit (1MΩ) Door Locked = Closed Circuit (0.01Ω)	Door Unlocked = 120V Door Locked = 0.01V	G
Door switch	Front	P1-7 (OR/ BK) to P1-5 (BR)	Door Open = Open Circuit (1MΩ) Door Closed = Closed Circuit (0.01Ω)	Door Open = 120V Door Closed = 0.01V	G
Latch motor	Front	P8-5 (Y) to Neutral (W)	Approximately 2450Ω at 70°F (21°C)	120V Motor running	G
Oven temperature sensor	Rear	P2-1 (V) to P2-2 (V)	1080Ω at 21°C (70°F)		L
Meat probe sensor	Probe - front Jack - top	P2-5 (W) to P2-6 (OR)	34kΩ ~ 39.5kΩ at 90°F (32.2°C) 3.97kΩ ~ 4.55kΩ at 200°F (93.3°C)		
Hall effect sensor	Rear	P3-4(BU) P3-5(GY)		5V	C
Blower motor low speed	Rear	P8-4 (R) to Neutral (W)	24 ± 5%	120V Motor running	C

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Range Components	Top/ Bottom/ Front/Rear/ Side Serviceable	Check points	Results - Resistance	Results - Voltage	Component Location
Blower motor high speed	Rear	P9-2 (BK) to Neutral (W)	13 ± 5%	120V Motor running	C
Thermal cutoff 306°F (170°C) (convection ring)	Rear	T3-2 (Y) to T2-2 (R)	Closed = Closed Circuit (0.01Ω)	Closed = Closed Circuit (0.01V)	J
Convect fan motor	Rear	P8-3 (OR) to Neutral (W)	0.24 Amp	120V Motor running	M
Oven convection element	Rear	T3-2 (Y) to T4-4 (BK)	19Ω to 38Ω	120V Relay On	J
Spark module (DSI)	Rear	J1-10 to Neutral (W)		120V	K
Broil (DSI)	Top	T3-1 (R/W) to T4-4 (BK) J3 to bake electrode	Minimum flame sense: 1 micro amp	120V	K
Bake (DSI)	Bottom	T3-3 (BU/W) to T4-3 (BK) J4 to bake electrode	Minimum flame sense: 1 micro amp	120V	K
Griddle element (for griddle model only)	Top	P1-1 (R) to P1-3 (W) on infinite switch	10.5Ω ± 5%	120V	
Griddle indicator light (for griddle model only)	Front	P2-6 (BU) to P1-3 (W) on infinite switch		125V Lights on	

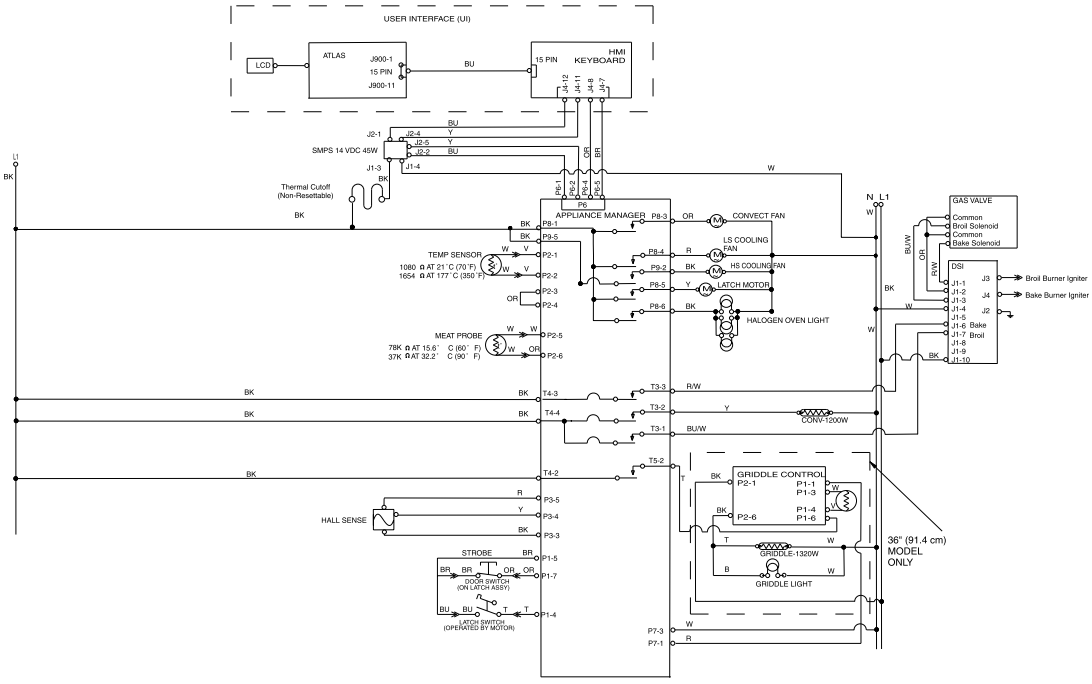
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Wiring Diagram

NOTES:

- End of line tester is for manufacturing purposes only.
- Dots indicate connections or splices.
- Circuit shown in STANDBY/OFF mode with oven door closed.
- All voltages in the wiring diagrams are designated as 120 VAC.

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



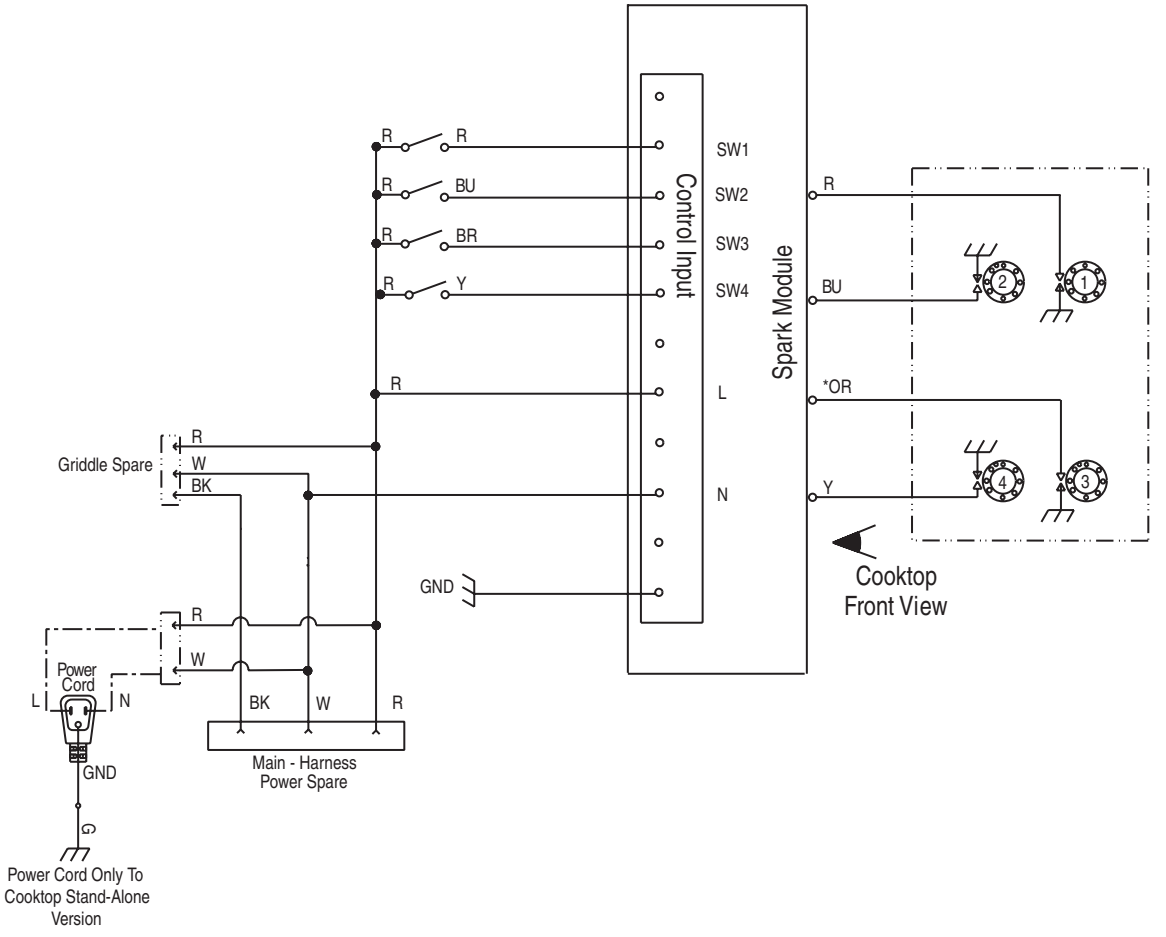
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Ground (Chassis)	Plug With Female Connector	Receptacle With Male Connector	Light	AC Drive Motor	Thermostat	Thermo-actuator	Heating Element	Enclosed Thermistor	Operated By Door	Thermal Cutoff (Non-Resettable)	Thermal Cutoff (manually Resettable)

Strip Circuits

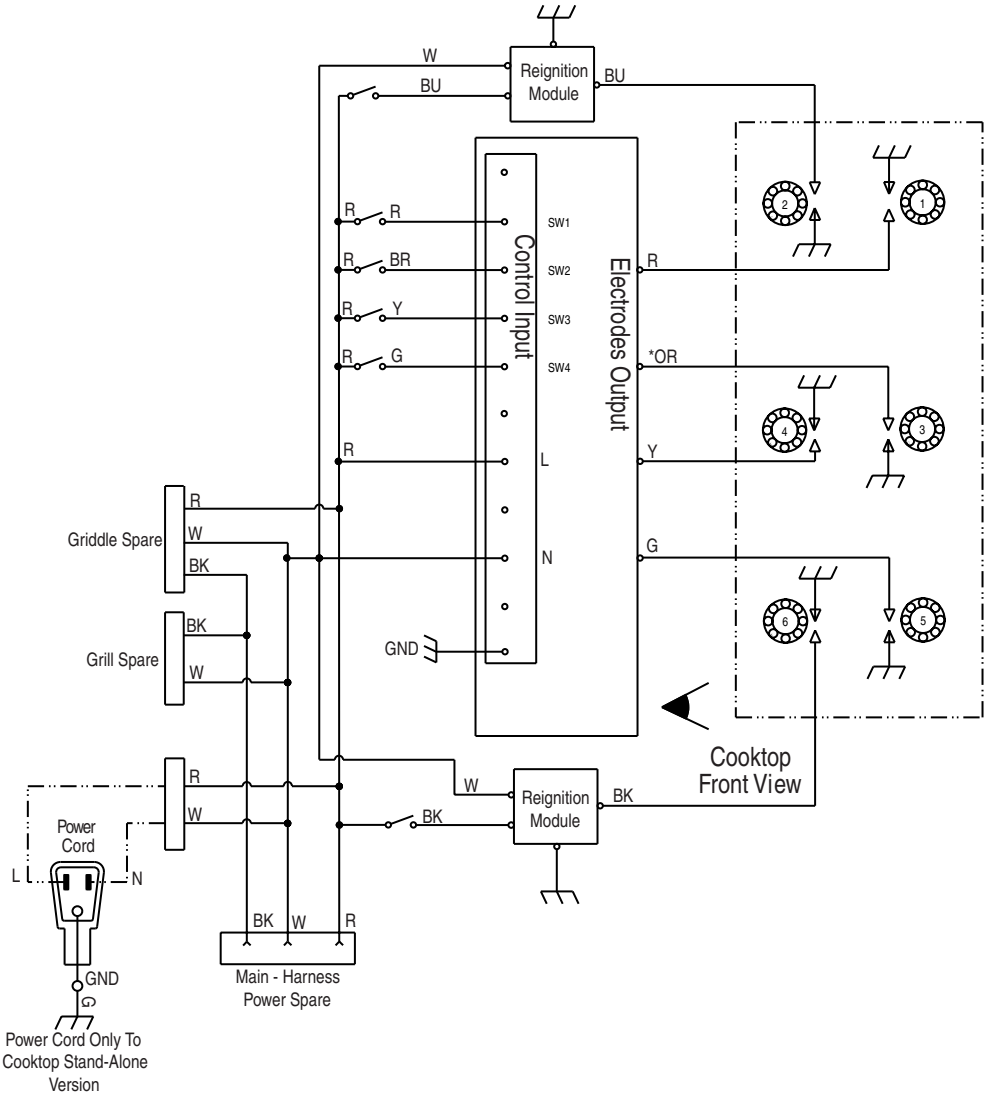
The following individual circuits are for use in diagnoses, and are shown in the ON position. Do not continue with the diagnosis of the appliance if a fuse is blown, a circuit breaker is tripped, or if there is less than a 120 +10%/-15% volt power supply at the wall outlet.

4 Burner Cooktop Schematic



*Blue connector for 30" (76.2 cm) models
Brown connector for 36" (91.4 cm) models

6 Burner Cooktop Schematic



*Blue connector for 30" (76.2 cm) 6 burner models

Notes

Notes

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Software copyrighted. This product is covered by one or more of the following patents U.S. Patent Nos.

4,852,544	5,321,229	5,491,314	5,808,278	5,924,857	6,035,848	6,201,222	6,394,081	6,663,009	6,734,403
4,974,804	5,349,162	5,571,433	5,810,576	5,928,543	6,043,461	6,232,584	6,403,929	6,666,676	6,784,404
5,008,516	5,378,874	5,571,434	5,813,320	5,961,311	6,079,756	6,263,782	6,437,294	6,693,262	6,841,761
5,064,998	5,382,552	5,620,623	5,841,112	5,967,634	6,087,944	6,349,717	6,509,551	6,698,417	6,870,138
5,138,137	5,422,460	5,694,916	5,856,654	5,983,888	6,097,000	6,363,971	6,545,251	6,698,923	6,904,969
5,142,125	5,424,512	5,749,388	5,881,710	6,008,478	6,111,231	6,375,150	6,570,136	6,700,101	6,930,287
5,175,413	5,438,180	5,756,970	5,910,265	6,017,211	6,163,017	6,392,204	6,614,006	6,722,356	6,935,330
5,185,047	5,441,036	5,767,488	5,918,589						

Other Patents Pending.

W10403308A

NOTE: This sheet contains important Technical Service Data.

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DO NOT REMOVE OR DESTROY

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