

# **KitchenAid**

TECHNICAL EDUCATION

## **FAILURE CODES AND WIRING DIAGRAMS**

for

## **WHIRLPOOL AND KITCHENAID SLIDE-IN & FREESTANDING GAS & ELECTRIC RANGES**



**JOB AID 4317368**

## **FORWARD**

This KitchenAid Job Aid, "Failure Codes And Wiring Diagrams For Whirlpool and KitchenAid Slide-In & Freestanding Gas & Electric Ranges," (Part No. 4317368), provides the technician with information on diagnosing and troubleshooting slide-in and freestanding gas & electric ranges. It is to be used as a training Job Aid. For specific information on the model being serviced, refer to the "Use and Care Guide," or "Tech Sheet" provided with the unit.

The Wiring Diagrams used in this Job Aid are typical and should be used for training purposes only. Always use the Wiring Diagram supplied with the product when servicing the unit.

## **GOALS AND OBJECTIVES**

The goal of this Job Aid is to provide detailed information that will enable the service technician to properly diagnose malfunctions and repair Whirlpool and KitchenAid ranges.

The objectives of this Job Aid are to:

- Successfully troubleshoot and diagnose malfunctions.
- Offer Electronic Oven Control information.

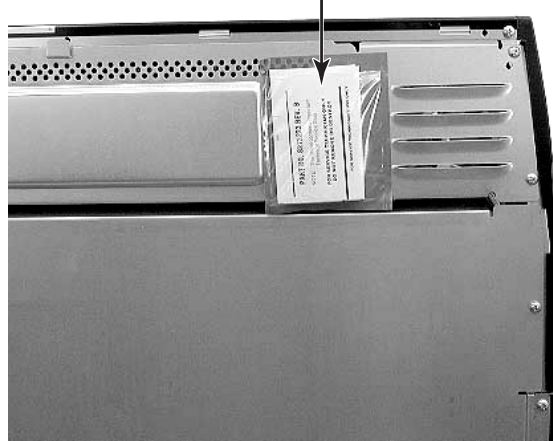
WHIRLPOOL CORPORATION assumes no responsibility for any repairs made on our products by anyone other than Authorized Service Technicians.

# MODEL/SERIAL NUMBER LABEL AND TECH SHEET LOCATIONS Tulsa-Built Units

**Model/Serial Number  
Label Location**  
(Behind Storage Drawer)

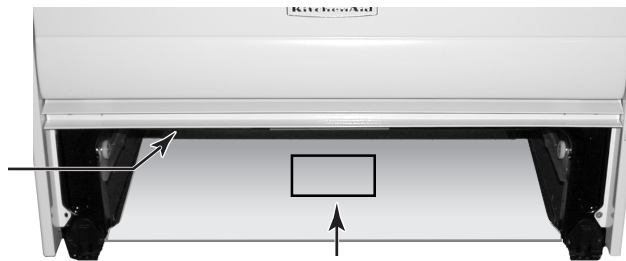


**Tech Sheet Location**  
(On Rear Panel)



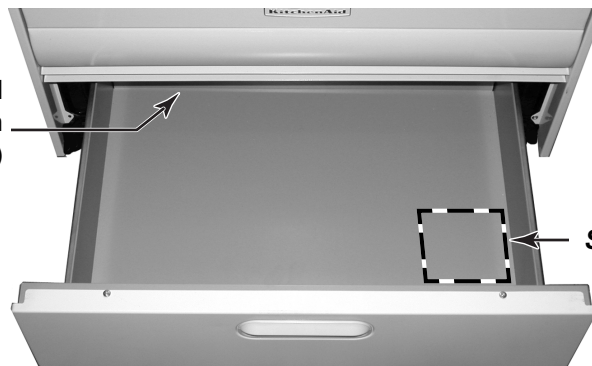
## Oxford-Built Units

**Model/Serial  
Number Location**  
(On Chassis Frame)



**Tech Sheet Location**  
*Warming Drawer Models Only*  
(On Chassis Under Drawer)

**Model/Serial  
Number Location**  
(On Chassis Frame)



**Tech Sheet Location**  
*Storage Drawer Models Only*  
(On Underside Of Drawer)

# REFERENCE CHART

| Model #                 | Tech Sheet # | Power Board | Display Board | KeyPad  | Component Check Page | Clock Diagnostics Pg | Failure Code Page |
|-------------------------|--------------|-------------|---------------|---------|----------------------|----------------------|-------------------|
| KERI201P BL, BS, WH     | 9756993      |             | 9756547       | 9756531 | 8-10                 | 70                   | 4                 |
| KERI203P BL, BS, WH     | 9756997      |             | 9756548       | 9756534 | 11-13                | 70                   | 4                 |
| KERA205P BL, BT, SS, WH | 9758315      | 9759563     | 9759566       | 9756535 | 14-17                | 64-65                | 4                 |
| KESI901P WH, BL, BS     | 9757663      | 9759561     | 9759564       | 9756591 | 18-21                | 64-65                | 5                 |
| KERA807P BL, BB, WW, SS | 9757662      | 9759561     | 9759565       | 9756595 | 22-26                | 64-65                | 5                 |
| KESA907P BL, BB, SS, WW | 9757662      | 9759561     | 9759565       | 9756595 | 22-26                | 64-65                | 5                 |
| KGRA806P BL, BT, SS, WH | 9757665      | 9759562     | 9760201       | 9756559 | 27-30                | 64-65                | 5                 |
| KGSA906P BL, BT, SS, WH | 9757665      | 9759562     | 9760201       | 9756559 | 27-30                | 64-65                | 5                 |
| KGRI801P BL, BS, WH     | 9757666      | 9759562     | 9760201       | 9756555 | 31-34                | 64-65                | 5                 |
| KGSI901P BL,BS, WH      | 9757666      | 9759562     | 9760201       | 9756555 | 31-34                | 64-65                | 5                 |
| KERV908P MT, SS         | 9757661      | 9759561     | 9759565       | 9756595 | 22-25                | 64-65                | 5                 |
| KESV808P MT, SS         | 9757661      | 9759561     | 9759565       | 9756595 | 22-25                | 64-65                | 5                 |
| GW395LEP B,Q,S,T,       | 9757668      |             | 9760013       | 9756667 | 48-50                | 71                   | 5                 |
| GY396LXP B, Q, S, T     | 9759904      |             | 9757476       | 9756667 | 48-51                | 71                   | 5                 |
| GY398LXP B, S, T        | 9759903      |             | 9757475       | 9756691 | 52-54                | 71                   | 5                 |
| RF196LXM B, Q, T        | 9757347      |             | 6610398       |         | 55-57                | 72                   | 4                 |
| RF364PXP B, Q, T, W     | 9757347      |             | 6610398       |         | 55-57                | 72                   | 4                 |
| RF365PXM Q, T, W        | 4454079      |             | 6610397       |         | 55-58                | 72                   | 4                 |
| RF366LXP B, Q, S, T     | 9756207      |             | 6610398       |         | 55-59                | 72                   | 4                 |
| RF368LXP B, Q, S, T     | 9756207      |             | 6610398       |         | 55-59                | 72                   | 4                 |
| RF369LXP B, Q, T        | 4454079      |             | 6610398       |         | 55-58                | 72                   | 4                 |
| RF378LXP B, Q, S, T     | 9759917      |             | 6610398       |         | 55-60                | 72                   | 4                 |
| RF380LXP B, Q, S, T     | 9759917      |             | 6610398       |         | 55-60                | 72                   | 4                 |
| GR448LXP B, Q, S, T     | 9759784      | 9757499     | 9757271       | 9758453 | 35-37                | 71                   | 4                 |
| GR478LXP B, Q, S, T     | 9759783      | 9759563     | 9759558       | 9758457 | 38-41                | 66-67                | 4                 |
| SF196LEP B, Q, T        | 9755996      |             | 6610394       |         | 55-61                | 72                   | 4                 |
| SF368LEP B, Q, S, T, W  | 9755996      |             | 6610394       |         | 55-61                | 72                   | 4                 |
| SF369LEP B, Q, T        | 9755996      |             | 6610394       |         | 55-61                | 72                   | 4                 |
| SF378LEP B, Q, S, T     | 9755996      |             | 6610394       |         | 55-61                | 72                   | 4                 |
| SF380LEP B, Q, S, T     | 9755996      |             | 6610394       |         | 55-61                | 72                   | 4                 |
| GS440LEM B, Q, T        | 8272223      |             | 8523284       |         | 42-44                | 73                   | 4                 |
| GS445LEM S              | 8272223      |             | 8523284       |         | 42-44                | 73                   | 4                 |
| GS470LEM B, Q, T        | 8522648      | 9756863     | 6610333       | 4453608 | 45-47                | 68-69                | 4                 |
| GS475LEM S              | 8522648      | 9756863     | 6610333       | 4453608 | 45-47                | 68-69                | 4                 |

# CONSOLE COLORS

| Black     | Black on Stainless | Meteorite | Stainless | Biscuit on Biscuit | White     | White on White |
|-----------|--------------------|-----------|-----------|--------------------|-----------|----------------|
| 4453608   |                    |           |           |                    | 4453601   |                |
| 6610394   |                    |           |           | 6610396            | 6610395   |                |
| 6610398   |                    |           |           | 6610399            |           | 6610397        |
| 6610439   |                    |           |           | 6610440            | 6610438   |                |
| 6610441   |                    |           |           | 6610443            | 6610442   |                |
| 8523284   |                    |           |           | 8523281            | 8523283   |                |
| 9756531   |                    |           |           | 9756529            | 9756530   |                |
| 9756534   |                    |           |           | 9756533            | 9756532   |                |
| 9756535   |                    |           | 9756537   | 9756536            | 9756538   |                |
| 9756563   |                    |           | 9756565   | 9756564            | 9756566   |                |
| 9756555BL | 9756555BL          |           |           |                    | 9756555WH | 9756555WH      |
| 9756556BL |                    |           |           |                    | 9756556WH |                |
| 9756559BL | 9756559BS          |           | 9756559ES |                    | 9756559WH | 9756559WH      |
| 9756560BL |                    |           | 9756560ES | 9756560BT          | 9756560WH |                |
| 9756591BL | 9756591BL          |           |           |                    | 9756591WH | 9756591WH      |
| 9756592BL |                    |           |           |                    | 9756592WH |                |
| 9756595BL |                    | 9756595CM | 9756595ES | 9756595BT          | 9756595WH |                |
| 9756667BL | 9756667BS          |           | 9756667ES | 9756667BT          |           | 9756667WH      |
| 9756691BL |                    |           | 9756691ES | 9756691BT          |           | 9756691WH      |
| 9758453   |                    |           | 9758453   | 9758452            |           | 9758451        |
| 9758457   |                    |           | 9758457   | 9758456            |           | 9758455        |

**KitchenAid**

BL = Black  
 BS = Black on Stainless  
 BT = Biscuit on Biscuit  
 MT = Meteorite  
 SS = Stainless Steel  
 WH = White

**Whirlpool**

B = Black  
 Q = White on White  
 S = Stainless Steel  
 T = Biscuit on Biscuit  
 W = White

# ERROR / FAILURE CODES (TULSA & CELAYA)

| 4 DIGIT DISPLAY                  | 3 DIGIT DISPLAY      | KNOB CONTROL   | FAULT DESCRIPTION  | SUGGESTED CORRECTIVE ACTION PROCEDURE  |
|----------------------------------|----------------------|--|--|--|
| F0 E0<br>F1 E0                   | E0<br>F1             | Control will flash the HEATING LED.                            | EEPROM communication error.  | <ol style="list-style-type: none"> <li>1. Disconnect power from oven for longer than 30 seconds.</li> <li>2. Re-apply power and observe for longer than 1 minute.</li> <li>3. If failure remains, disconnect power, replace control, then go back to step 2.</li> </ol>  |
| F1 E1                            | F1                   | Control will flash the HEATING LED.                            | EEPROM checksum error.   |  |
| F1 E2                            | N/A                  | N/A  | UL A/D error.  |  |
| F1 E4                            | N/A                  | N/A  | Model ID error.  |  |
| F1 E6                            | N/A                  | N/A  | Latch signal mismatch error.   |  |
| F2 E0<br>F2 E1                   | F1<br>F1             | N/A<br>N/A   | Shorted keypad.  | <ol style="list-style-type: none"> <li>1. Disconnect power from oven for longer than 30 seconds.</li> <li>2. Re-apply power and observe for longer than 5 minutes.</li> <li>3. If failure remains, disconnect power, replace control, then go back to step 2.</li> <li>4. Unplug and replug membrane connector.</li> </ol>   |
| F3 E0<br>F3 E1<br>F3 E2<br>F3 E3 | F3<br>F3<br>F3<br>F3 | Control will flash the OVEN ON and HEATING LEDs continually.   | Top oven sensor open.<br>Top oven sensor shorted.<br>BAKE range over temp.<br>CLEAN range over temp. | <ol style="list-style-type: none"> <li>1. a) Measure sensor value between 1000 <math>\Omega</math> @ 32°F and 2697 <math>\Omega</math> @ 900°F. If measurement does not match real temperature, replace sensor and refer to steps 3-5.<br/>                             b) Measure from sensor connector to sensor casing for possible short.</li> <li>2. Trace wires and connectors to sensor, from control, then from sensor back to control. If all connections made and no wire damage, refer to step 3.</li> <li>3. Disconnect power longer than 30 seconds.</li> <li>4. Re-apply power and observe for longer than 1 minute.</li> <li>5. If failure remains, disconnect power, replace control, then go back to step 4.</li> </ol>   |
| F3 E4                            | N/A                  |  | Bottom oven sensor open.   |  |
| F3 E5                            | N/A                  |  | Bottom oven sensor shorted.  |  |
| F3                               | E6                   | Warming drawer sensor open                                     | Door and latch switches do not agree (i.e. door open latch closed).                                  |  |
|                                  | E7                   | Warming drawer sensor shorted                                  |  |  |
| F5 E0<br>F5 E1                   | F5<br>F5<br>F5       | Control will flash the DOOR LOCKED / CLEANING LED.             | Latch or latch switch failure.<br>Door lock error during Clean.                                      | <ol style="list-style-type: none"> <li>1. If door latched:                             <ol style="list-style-type: none"> <li>a) Disconnect power from unit.</li> <li>b) Check wires and connectors from control to door switch, then from door switch to control. If no damage to wires and all connectors okay, proceed to step c.</li> <li>c) Replace door switch.</li> <li>d) Re-apply power to unit and verify operations.</li> </ol> </li> <li>2. If door not latched:                             <ol style="list-style-type: none"> <li>a) Disconnect power from unit.</li> <li>b) Check wires and connectors from control to latch switch, then from latch switch to control. If no damage to wires and all connectors okay, proceed to step c.</li> <li>c) Repeat steps a) and b) for door switch.</li> </ol> </li> <li>3. Measure door switch (door open = switch open small low voltage terminals).</li> <li>4. Measure latch switch (unlatch = switch open. NOTE: Oven light contacts are closed).</li> <li>5. If corrections are made in any step, reconnect control to verify correction.</li> <li>6. Check door alignment.</li> <li>7. If failure remains, replace control.</li> </ol> |
| PF                               | N/A                  | N/A  | Power failure (not a failure mode).  |  |
| N/A                              | N/A                  | Control will flash the OVEN ON LED.                            | The oven knob is not in the OFF position when the unit is powered up.                                |  |
| N/A                              | N/A                  | Control will flash the DOOR LOCKED / CLEANING and HEATING LED. | Centertap voltage failure.   |  |
|                                  |                      |  |  |  |

# ERROR / FAILURE CODES (OXFORD)

Before proceeding with any corrective action, perform the following steps to enter the Diagnostic mode.

1. To recall last failure code, if not displayed, press the Cancel key to place the range in an idle state.
2. Press the Cancel and Start keys in the following order: CANCEL, CANCEL, START.
3. Verify the error code displayed on the control by observing for longer than 1 minute. If the error returns, use the applicable procedure listed below for the actual error code that is displayed.

| FAILURE<br>(Leftmost<br>2 Clock<br>Digits)  | ERROR<br>(Rightmost<br>2 Clock<br>Digits)                                  | MESSAGE/DESCRIPTION  |
|---|--|--|
| SUGGESTED CORRECTIVE ACTION PROCEDURE   |  |  |
| <b>F0</b><br>Default  | <b>E0</b>  | No failure   |
| <b>F1</b><br>Internal   | <b>E0</b><br><b>E1</b><br><b>E2</b><br><b>E3</b><br><b>E4</b><br><b>E9</b> | INTERNAL ERROR<br>INTERNAL ERROR<br>INTERNAL ERROR<br>INTERNAL ERROR<br>INTERNAL ERROR<br>INTERNAL ERROR |
| <p><b>PROCEDURE:</b> Before proceeding, perform steps 1 through 3 above chart to enter the Diagnostic mode.</p> <p>A. Unplug range or disconnect power.<br/>B. Replace the display board.<br/>C. Plug in range or reconnect power.</p>  |  |  |
| <b>F1</b><br>Internal   | <b>E5</b><br><b>E6</b><br><b>E7</b><br><b>E8</b>                           | INTERNAL ERROR<br>INTERNAL ERROR<br>INTERNAL ERROR<br>INTERNAL ERROR                                     |
| <p><b>PROCEDURE:</b> Before proceeding, perform steps 1 through 3 above chart to enter the Diagnostic mode.</p> <p>A. Unplug range or disconnect power.<br/>B. Replace the power board.<br/>C. Plug in range or reconnect power.</p>  |  |  |
| FAILURE<br>(Leftmost<br>2 Clock<br>Digits)  | ERROR<br>(Rightmost<br>2 Clock<br>Digits)                                  | MESSAGE/DESCRIPTION  |
| SUGGESTED CORRECTIVE ACTION PROCEDURE   |  |  |
| <b>F2</b><br>Keypad   | <b>E0</b><br><b>E1</b>   | STUCK KEY (shorted key)<br>KEYPAD DISCONNECT or KEYPAD DISCONNECTED                                      |
| <p><b>PROCEDURE:</b> Before proceeding, perform steps 1 through 3 above chart to enter the Diagnostic mode.</p> <p>A. Unplug range or disconnect power.<br/>B. Check that the keypad is firmly connected.<br/>C. Plug in range or reconnect power and observe for longer than 1 minute.<br/>D. If error remains then go to step E.<br/>E. Unplug range or disconnect power.<br/>F. Replace keypad.<br/>G. Plug in range or reconnect power and observe for longer than 1 minute.<br/>H. If error remains then go to step I.<br/>I. Unplug range or disconnect power.<br/>J. Replace display board.<br/>K. Plug in range or reconnect power.</p> |  |  |

| FAILURE<br>(Leftmost<br>2 Clock<br>Digits)  | ERROR<br>(Rightmost<br>2 Clock<br>Digits)  | MESSAGE/DESCRIPTION  |                  |   |                   |   |                    |   |                   |  |
|---|--|--|------------------|---|-------------------|---|--------------------|---|-------------------|--|
|   |  | SUGGESTED CORRECTIVE ACTION PROCEDURE                                  |                  |   |                   |   |                    |   |                   |  |
| <b>F3<br/>Sensors</b>   | <b>E0</b>  | MAIN SENSOR OPEN (top oven sensor opened)                              |                  |   |                   |   |                    |   |                   |  |
|   | <b>E1</b>  | MAIN SENSOR SHORT or MAIN SENSOR SHORTED (top oven sensor shorted)     |                  |   |                   |   |                    |   |                   |  |
|   | <b>E2</b>  | MEAT PROBE SHORTED   |                  |   |                   |   |                    |   |                   |  |
|   | <b>E4</b>  | BOTTOM SENSOR OPEN (bottom oven sensor open)                           |                  |   |                   |   |                    |   |                   |  |
|   | <b>E5</b>  | LOWER SENSOR SHORT or BOTTOM SENSOR SHORT (bottom oven sensor shorted) |                  |   |                   |   |                    |   |                   |  |
|   | <b>E6</b>  | WD SENSOR OPEN (warming drawer sensor open)                            |                  |   |                   |   |                    |   |                   |  |
|   | <b>E7</b>  | WD SENSOR SHORTED (warming drawer sensor shorted)                      |                  |   |                   |   |                    |   |                   |  |
| <p><b>PROCEDURE:</b> Before proceeding, perform steps 1 through 3 above chart on page 5 to enter the Diagnostic mode.</p> <p>A. Unplug range or disconnect power.</p> <p>B. Open the back panels and make sure the indicated temperature sensor is plugged in.<br/>If it is not, plug it in to the connector and go to step I.<br/>If it is plugged in, go to step C.</p> <p>C. Check connector P3 on the power board. Make sure it is plugged in and fully seated.<br/>If it is not, make the proper connection and go to step I.<br/>If it is already properly connected, go to step D.</p> <p>D. Visually inspect the wires between P3 on the power board and the indicated temperature sensor. Make sure the wires are not cut or pinched. If the wires appear to be intact, unplug the P3 connector on the power board. Go to step E.</p> <p>E. Measure indicated temperature sensor resistance value (measure between appropriate P3 connector pins). For the following sensors, the resistance value should read:</p> <table border="0"> <tr> <td>Main Oven Sensor</td> <td>Between 931 and 2869 Ω.<br/>(Approx. 1080 Ω at room temp).</td> </tr> <tr> <td>Lower Oven Sensor</td> <td>Between 931 and 2869 Ω.<br/>(Approx. 1080 Ω at room temp).</td> </tr> <tr> <td>Warm Drawer Sensor</td> <td>Between 1,500 and 319,000 Ω.<br/>(Approx. 119,420 Ω at room temp).</td> </tr> <tr> <td>Meat Probe Sensor</td> <td>Between 1,300 and 103,000 Ω.<br/>(Approx. 59,000 Ω at room temp).<br/>(Insert meat probe into meat probe jack located inside the oven cavity prior to reading resistance.)</td> </tr> </table> <p>Measure any P3 connector pin to chassis. Resistance value should read "open". If it does not, replace sensor harness. Repeat step E.<br/>If the indicated temperature sensor does not meet these requirements, go to step F.<br/>If the temperature sensor does meet the requirements, go to step I.</p> <p>F. For MAIN, LOWER and WARM drawer sensors:<br/>Replace appropriate temperature sensor. Repeat step E.<br/>If the requirements are not met, replace sensor harness. Repeat step E.<br/>If the requirements are still not met, go to step G.</p> <p>For MEAT PROBE sensor:<br/>Replace meat probe sensor. Repeat step E.<br/>If the requirements are not met, replace sensor harness. Repeat step E.<br/>If the requirements are still not met, replace the meat probe jack. Repeat step E.<br/>If the meat probe sensor is still not meeting the requirements, go to step G.</p> <p>G. Replace the power board. Ensure all connectors are properly seated.</p> <p>H. Ensure all wiring connections are made. Replace the back panels.</p> <p>I. Plug in range or reconnect power. Observe for longer than 1 minute.</p> <p>J. Initiate a bake cycle. Let the cycle run at least 1 minute.<br/>If no error returns, cancel the cycle. The problem has been repaired.<br/>If the error occurs again, restart the troubleshooting procedure at step A.</p> |  |  | Main Oven Sensor | Between 931 and 2869 Ω.<br>(Approx. 1080 Ω at room temp). | Lower Oven Sensor | Between 931 and 2869 Ω.<br>(Approx. 1080 Ω at room temp). | Warm Drawer Sensor | Between 1,500 and 319,000 Ω.<br>(Approx. 119,420 Ω at room temp). | Meat Probe Sensor | Between 1,300 and 103,000 Ω.<br>(Approx. 59,000 Ω at room temp).<br>(Insert meat probe into meat probe jack located inside the oven cavity prior to reading resistance.) |
| Main Oven Sensor  | Between 931 and 2869 Ω.<br>(Approx. 1080 Ω at room temp).  |  |                  |   |                   |   |                    |   |                   |  |
| Lower Oven Sensor   | Between 931 and 2869 Ω.<br>(Approx. 1080 Ω at room temp).  |  |                  |   |                   |   |                    |   |                   |  |
| Warm Drawer Sensor  | Between 1,500 and 319,000 Ω.<br>(Approx. 119,420 Ω at room temp).  |  |                  |   |                   |   |                    |   |                   |  |
| Meat Probe Sensor   | Between 1,300 and 103,000 Ω.<br>(Approx. 59,000 Ω at room temp).<br>(Insert meat probe into meat probe jack located inside the oven cavity prior to reading resistance.) |  |                  |   |                   |   |                    |   |                   |  |

| FAILURE<br>(Leftmost<br>2 Clock<br>Digits)   | ERROR<br>(Rightmost<br>2 Clock<br>Digits) | MESSAGE/DESCRIPTION                            |
|--|---|--|
|  |   | SUGGESTED CORRECTIVE ACTION PROCEDURE          |
| <b>F4</b>  | <b>E2</b>                                 | OVER TEMP COOK                                 |
|  | <b>E3</b>                                 | OVER TEMP CLEAN                                |
|  | <b>E7</b>                                 | OVER TEMP CAVITY 2 (temperature runaway error) |
| <p><b>PROCEDURE:</b> Before proceeding, perform steps 1 through 3 above chart on page 5 to enter the Diagnostic mode.</p> <p>A. Press the BAKE key to cycle the bake relay on and off.<br/>If the bake relay does not turn on and off, go to step F.<br/>If the element or gas valve does not cycle with the relay, go to step D.<br/>If the element or gas valve did cycle on and off, go to step B.</p> <p>B. Press the BROIL key to cycle the broil relay on and off.<br/>If the broil relay does not turn on and off, go to step F.<br/>If the element or gas valve does not cycle with the relay, go to step D.<br/>If the element or gas valve did cycle on and off, go to step C.</p> <p>C. Press the CONVECT BAKE key to cycle the convect bake relay on and off.<br/>If the convect bake relay does not turn on and off, go to step F.<br/>If the element does not cycle with the relay, go to step D.<br/>If the element did cycle on and off, go to step D.</p> <p>D. Unplug range or disconnect power.</p> <p>E. Check integrity of all harness wires and connections between the power board and the electric elements. Ensure no shorted wires to cabinet.</p> <p><b>GAS MODELS:</b><br/>Ensure all wiring and connections between the control and spark module, spark module and bake / broil gas valve are good. If the wiring is good, go to step K.</p> <p><b>ELECTRIC MODELS:</b><br/>Ensure all wiring and connections between the power board and elements, and the power board and the display board are good.<br/>If the wiring connections are not intact, go to step J.<br/>If the wiring is good, go to step I.</p> <p>F. Unplug range or disconnect power.</p> <p>G. Replace the power board. Go to step P.</p> <p>H. Unplug range or disconnect power.<br/>I. Replace the display. Go to step P.<br/>J. Replace the harness. Go to step P.</p> <p>K. Replace spark module.</p> <p>L. Plug in range or reconnect power.</p> <p>M. Enter the Diagnostic mode described in steps 1-3 above chart on page 5. Press the BAKE key or the BROIL key to turn the bake or broil gas valve on and off.<br/>If the bake or broil valves will not turn off, go to step N.<br/>If the bake or broil valves will not turn off after being replaced, go to step H.<br/>If the bake or broil valves do turn off, go to step P.</p> <p>N. Unplug range or disconnect power.</p> <p>O. Replace the bake / broil gas valve. Go to step L.</p> <p>P. Plug in range or reconnect power.</p> |   |  |

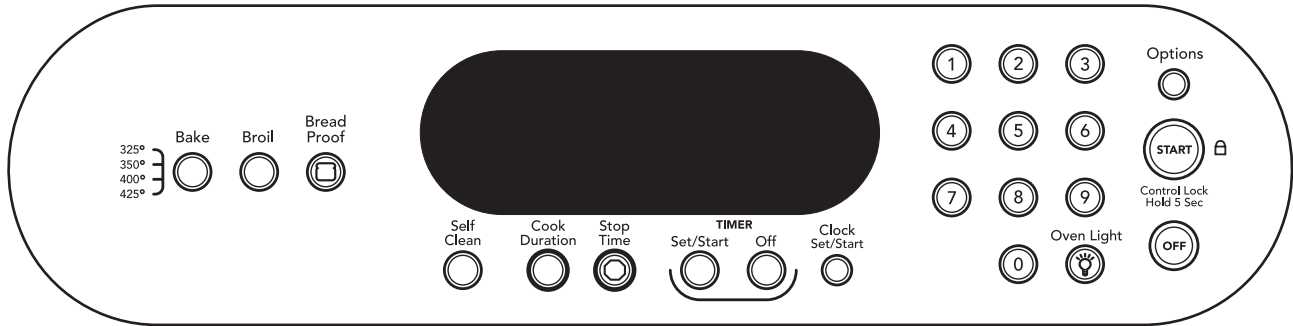


| FAILURE<br>(Leftmost<br>2 Clock<br>Digits)  | ERROR<br>(Rightmost<br>2 Clock<br>Digits) | MESSAGE/DESCRIPTION  |
|---|---|--|
| SUGGESTED CORRECTIVE ACTION PROCEDURE   |   |  |
| F5<br>Inputs  | E0  | DOOR LATCH MSMATCH or DOOR LATCH MISMATCH<br>(Door and latch switches do not agree.) |
|   | E1  | NO OPERATING LATCH or LATCH NOT OPERATING  |
|   | E2  | DOOR SWITCH FAULT  |
|   | E4  | LATCH SWITCH FAULT   |
|   | E7  | UNLOCK DOOR ERROR or CAN NOT UNLOCK DOOR   |
| <p><b>PROCEDURE:</b> Before proceeding, perform steps 1 through 3 above chart on page 5 to enter the Diagnostic mode.</p> <p>TO VERIFY DOOR SWITCH:</p> <p>A. While in Diagnostics, open the oven door. "1" should appear in the second clock digit from the left. Close the oven door. The clock digit should toggle to "0".<br/>If the digit did not toggle, go to step B.<br/>If the digit did not toggle after replacing the door switch, go to step D.<br/>If the digit did not toggle after replacing the door switch harness, go to step F.<br/>If the digit did toggle, door switch is operating correctly.</p> <p>B. Unplug range or disconnect power.</p> <p>C. Replace door switch. (If door switch is integral to the door latch motor assembly, replace the entire door latch motor assembly). Go to step H.</p> <p>D. Unplug range or disconnect power.</p> <p>E. Check integrity of all harness wires and connections between the power board and the door switch. Ensure no shorted wires to cabinet.<br/>If the wiring is bad, replace the door switch harness. Go to step H.<br/>If the wiring is good, go to step H.</p> <p>F. Unplug range or disconnect power.</p> <p>G. Replace power board. Go to step H.</p> <p>H. Plug in range or reconnect power.</p> <p>I. Enter the Diagnostic mode described in steps 1-3 above chart on page 5. Repeat step A.</p> <p>TO VERIFY DOOR LATCH SWITCH / MOTOR ASSEMBLY:</p> <p>A. While in Diagnostic mode, press the CLEAN key to cycle the latch motor to the locked position. 1 should appear in the first clock digit from the left when locked. Press the CLEAN key to cycle the latch motor to the unlocked position. The clock digit should toggle to "0".<br/>If the digit did not toggle, go to step B.<br/>If motor runs continuously, wait until motor reaches the unlocked position, open the door. Press the CANCEL key, go to step B.<br/>If motor did not run, go to step H.<br/>If the digit did not toggle after replacing the door latch motor assembly, go to step D.<br/>If the digit did not toggle after replacing the door latch switch harness, go to step F.<br/>If the digit did toggle, door latch switch is operating correctly.</p> <p>B. Unplug range or disconnect power.</p> <p>C. Replace door latch motor assembly. Go to step K.</p> <p>D. Unplug range or disconnect power.</p> <p>E. Check integrity of all harness wires and connections between the power board and the door latch switch. Ensure no shorted wires to cabinet.<br/>If the wiring is bad, replace the door latch switch harness. Go to step K.<br/>If the wiring is good, go to step K.</p> <p>F. Unplug range or disconnect power.</p> <p>G. Replace power board. Go to step K.</p> <p>H. Unplug range or disconnect power.</p> <p>I. Check integrity of latch mechanism from cam / eccentric through actuating rod, to latch pawl and door slot. Ensure that pawl aligns with the door slot. Correct any mechanical malfunction.</p> <p>J. Check continuity of the latch motor and of electrical connections between power board P4 and motor. If continuity is present, replace power board. Go to step K.</p> <p>K. Plug in range or reconnect power.</p> <p>L. Enter the Diagnostic mode described in steps 1-3 above chart on page 5. Repeat step A.</p> |   |  |

| FAILURE<br>(Leftmost<br>2 Clock<br>Digits)  | ERROR<br>(Rightmost<br>2 Clock<br>Digits) | MESSAGE/DESCRIPTION |
|---|---|---------------------|
| SUGGESTED CORRECTIVE ACTION PROCEDURE   |   |                     |
| F6<br>Systems   | E4  | LOST COMMUNICATION  |
| <p><b>PROCEDURE:</b> Before proceeding, perform steps 1 through 3 above chart on page 5 to enter the Diagnostic mode.</p> <p>A. Unplug range or disconnect power.</p> <p>B. Open the back panels and make sure the P2 connector is fully plugged in on the power board and on the display board.<br/>If it is not, plug it in to the connector and go to step F.<br/>If it is plugged in, go to step C.</p> <p>C. Visually inspect all the four wires between P2 on the power board and P2 on the display board. Make sure the wires are not cut or pinched. If the wires appear to be intact, perform a continuity check between pin 4 of the power board and pin 4 of the display board. Do the same for pins 1, 2, &amp; 5. Both of these checks should result in a reading of less than 5.<br/>If either of these checks fail, go to step E.<br/>If these checks pass, reconnect P2, then go to step D.</p> <p>D. Replace the power board. Ensure all connectors are properly seated and then go to step F.</p> <p>E. Replace the wiring harness (signal) and go to step F.</p> <p>F. Ensure all wiring connections are made. Replace the back panels.</p> <p>G. Plug in range or reconnect power. Observe for longer than 1 minute.</p> <p>H. If error does not appear, initiate a bake cycle. Let the cycle run at least 1 minute.<br/>If no error occurs, cancel the cycle. The problem has been repaired.<br/>If the error occurs again, restart the troubleshooting procedure at step A (except in step D replace the display board if power board has already been replaced).</p> |   |                     |
| F6<br>Systems   | E5  | CANCEL KEY ERROR    |
| <p><b>PROCEDURE:</b> If step 2 above chart on page 5 has not been performed, perform steps 2 and 3 to verify error. If error persists, replace the display board.</p>   |   |                     |

# KITCHENAID & WHIRLPOOL ELECTRONIC CONTROL SYSTEMS (BY INDIVIDUAL MODEL)

## KITCHENAID (TULSA-BUILT) FREESTANDING MODEL KERI201P

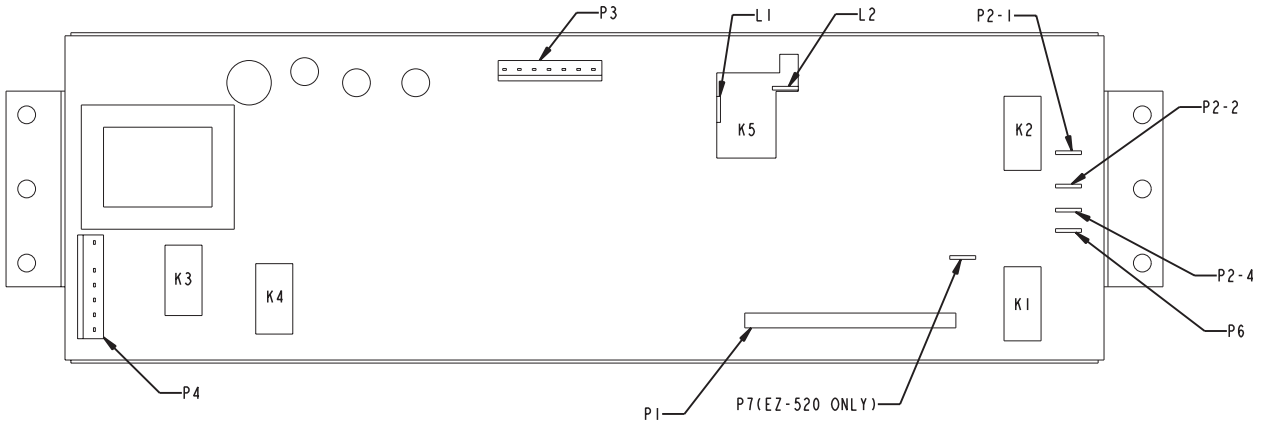


MODEL: KERI201P

### Keypad Layout

|                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |   |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|---|
| BROIL           |   | ■ |   | ■ |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |   |
| BAKE            | ■ |   |   |   | ■ |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |   |
| BREAD PROOF     |   | ■ |   |   | ■ |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |   |
| KEY #2          |   |   |   |   |   |   |   |   | ■ | ■  | ■  |    |    |    |    |    |    |    |    |    |   |
| TIMER SET/START |   |   |   |   | ■ | ■ | ■ |   |   |    |    |    |    |    |    |    |    |    |    |    |   |
| CLOCK SET/START | ■ |   |   |   |   |   |   |   |   |    |    |    |    | ■  | ■  |    |    |    |    |    |   |
| SELF CLEAN      |   | ■ |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    | ■  | ■ |
| TIMER OFF       |   |   | ■ |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    | ■  | ■ |
| OPTIONS         |   |   |   | ■ |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    | ■  | ■ |
| KEY #9          |   |   |   |   | ■ |   |   |   |   |    |    |    |    |    |    |    |    |    |    | ■  | ■ |
| STOP TIME       | ■ |   |   |   |   |   |   | ■ |   |    |    |    |    |    |    |    |    |    |    |    |   |
| COOK DURATION   |   | ■ |   |   |   | ■ |   |   |   |    |    |    |    |    |    |    |    |    |    |    |   |
| KEY #8          |   |   |   |   |   |   |   |   |   | ■  | ■  | ■  |    |    |    |    |    |    |    |    |   |
| KEY #0          |   |   |   |   |   |   |   |   |   |    | ■  | ■  | ■  |    |    |    |    |    |    |    |   |
| OVEN LIGHT      |   |   |   |   | ■ |   |   |   |   |    |    | ■  | ■  |    |    |    |    |    |    |    |   |
| KEY #6          |   |   |   |   |   |   |   |   |   |    |    | ■  | ■  |    |    |    |    |    |    | ■  | ■ |
| KEY #5          |   |   |   |   |   |   |   | ■ |   |    | ■  | ■  | ■  |    |    |    |    |    |    |    |   |
| KEY #3          |   |   |   |   |   |   |   |   |   |    |    |    | ■  | ■  | ■  |    |    |    |    |    |   |
| KEY #7          |   |   |   | ■ |   |   |   | ■ |   |    |    |    |    |    |    |    |    |    |    |    |   |
| KEY #4          |   |   |   |   | ■ | ■ |   | ■ |   |    |    |    |    |    |    |    |    |    |    |    |   |
| KEY #1          |   |   |   |   |   |   | ■ | ■ | ■ |    |    |    |    |    |    |    |    |    |    |    |   |
| START           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    | ■  | ■ |
| OFF/CANCEL      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    | ■  | ■ |

# Display Board



## Display Board Connector Pinouts

| PIN   | P2 FUNCTION                 |
|-------|-----------------------------|
| P2-1  | BROIL RELAY OUTPUT          |
| SPACE |                             |
| P2-2  | AC LINE IN (120 VAC, 60 HZ) |
| P2-4  | BAKE RELAY OUTPUT           |

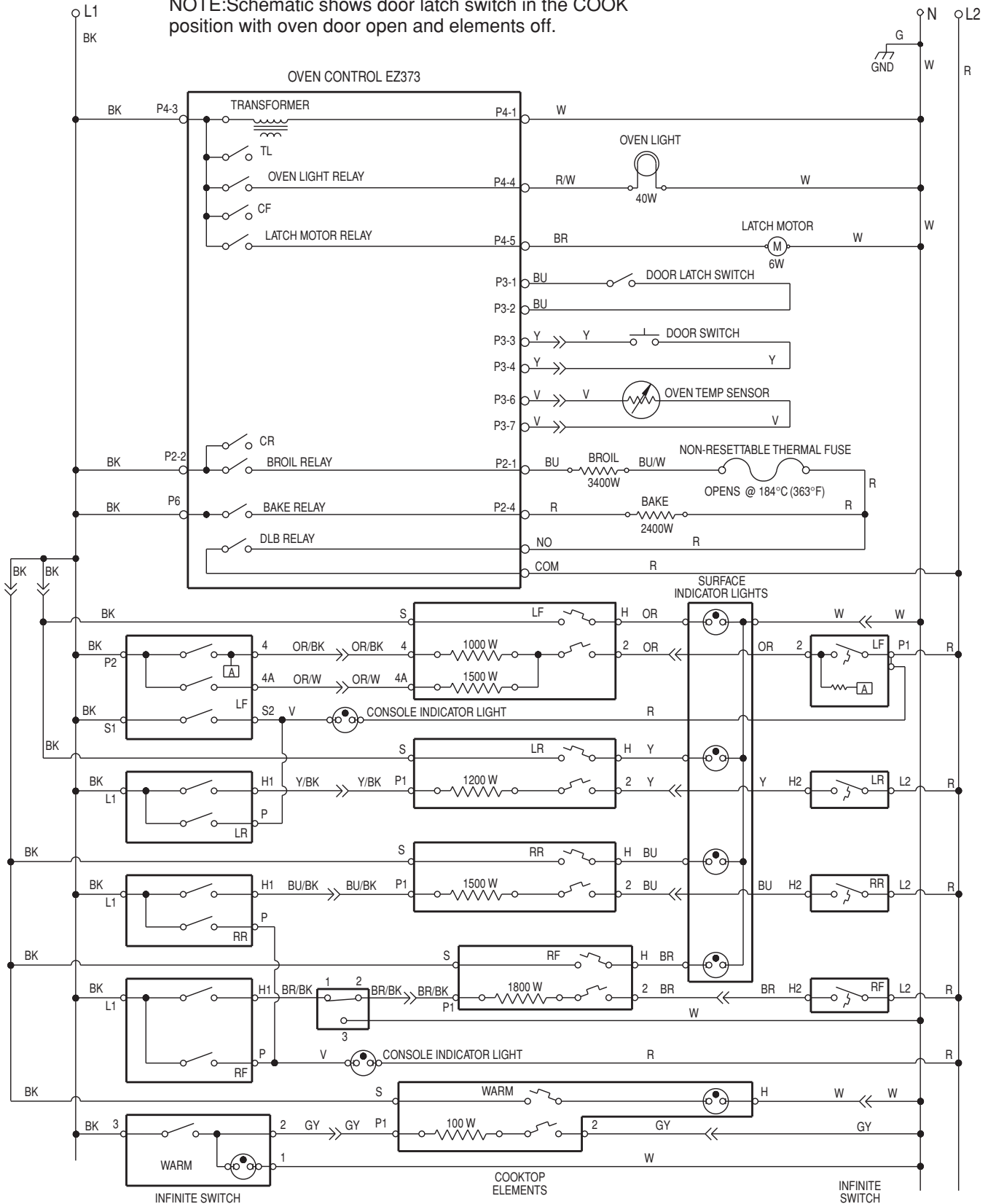
0.250" FASTONS

| PIN  | P3 FUNCTION       |
|------|-------------------|
| P3-1 | LOCK SENSE INPUT  |
| P3-2 | LOCK SENSE COMMON |
| P3-3 | DOOR SENSE COMMON |
| P3-4 | DOOR SENSE INPUT  |
| P3-5 | NO CONNECTION     |
| P3-6 | TEMP PROBE LOW-   |
| P3-7 | TEMP PROBE HIG+   |

| PIN  | P4 FUNCTION                      |
|------|----------------------------------|
| P4-1 | AC NEUTRAL                       |
| P4-2 | NO CONNECTION                    |
| P4-3 | AC LINE (120 VAC, 60 HZ)         |
| P4-4 | OVEN LIGHT RELAY OUT (120 VAC)   |
| P4-5 | LOCK RELAY OUT (120 VAC, PULSED) |
| P4-6 | CONVECT FAN                      |
| P4-7 | TOP LIGHT                        |

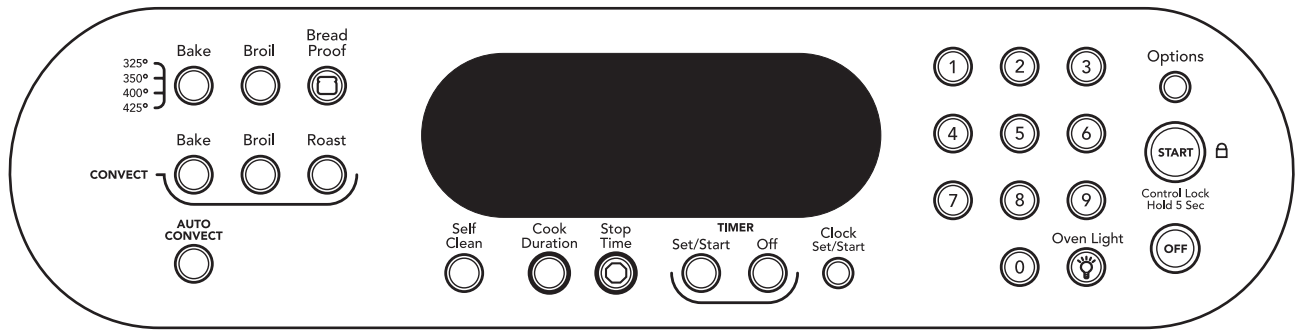
# Wiring Diagram

NOTE: Schematic shows door latch switch in the COOK position with oven door open and elements off.



PART NO. 9756993

# KITCHENAID (TULSA-BUILT) FREESTANDING MODEL KERI203P

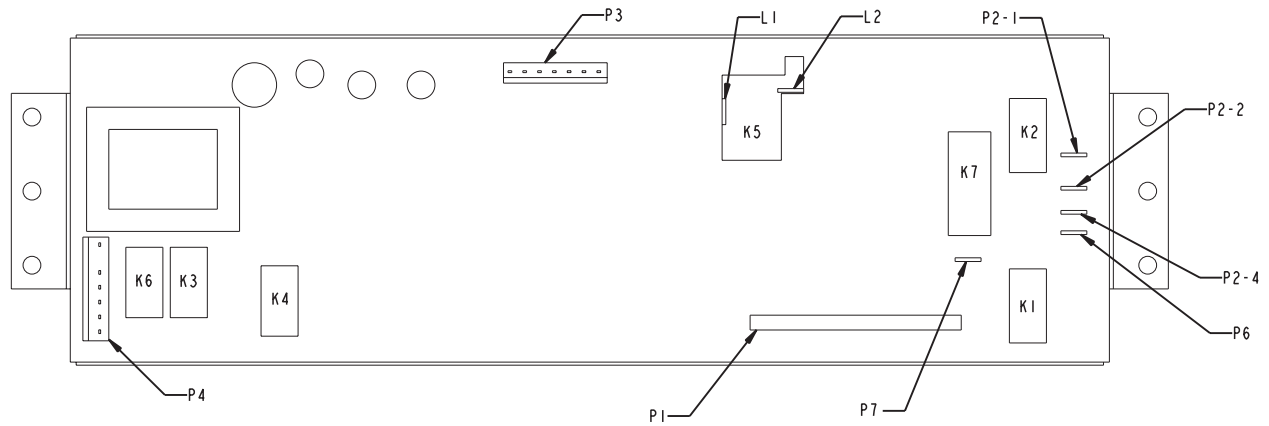


MODEL: KERI203P

## Keypad Layout

|                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| BROIL           | ■ | ■ |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| BAKE            | ■ |   | ■ |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| BREAD PROOF     |   | ■ | ■ |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| AUTO CONVECT    | ■ |   |   | ■ |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| CONVECT BROIL   |   | ■ |   | ■ |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| CONVECT BAKE    | ■ |   |   |   | ■ |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| CONVECT ROAST   |   | ■ |   |   | ■ |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| KEY #2          |   |   |   |   |   |   |   |   | ■ | ■  | ■  |    |    |    |    |    |    |    |    |    |
| TIMER SET/START |   |   |   | ■ | ■ | ■ |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| CLOCK SET/START | ■ |   |   |   |   |   |   |   |   |    |    |    |    | ■  | ■  |    |    |    |    |    |
| SELF CLEAN      |   | ■ |   |   |   |   |   |   |   |    |    |    |    | ■  | ■  |    |    |    |    |    |
| TIMER/OFF       |   |   | ■ |   |   |   |   |   |   |    |    |    |    | ■  | ■  |    |    |    |    |    |
| OPTIONS         |   |   |   | ■ |   |   |   |   |   |    |    |    |    | ■  | ■  |    |    |    |    |    |
| KEY #9          |   |   |   |   | ■ |   |   |   |   |    |    |    |    | ■  | ■  |    |    |    |    |    |
| STOP TIME       | ■ |   |   |   |   |   | ■ | ■ |   |    |    |    |    |    |    |    |    |    |    |    |
| COOK DURATION   |   | ■ |   |   |   | ■ |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| KEY #8          |   |   |   |   |   |   |   |   |   | ■  | ■  | ■  |    |    |    |    |    |    |    |    |
| KEY #0          |   |   |   |   |   |   |   |   |   | ■  | ■  | ■  | ■  |    |    |    |    |    |    |    |
| OVEN LIGHT      |   |   |   |   | ■ |   |   |   |   | ■  | ■  | ■  |    |    |    |    |    |    |    |    |
| KEY #6          |   |   |   |   |   |   |   |   |   | ■  | ■  | ■  |    | ■  |    |    |    |    |    |    |
| KEY #5          |   |   |   |   |   |   |   | ■ |   | ■  | ■  |    |    |    |    |    |    |    |    |    |
| KEY #3          |   |   |   |   |   |   |   |   |   |    | ■  | ■  | ■  |    |    |    |    |    |    |    |
| KEY #7          |   |   |   |   | ■ |   |   | ■ |   |    |    |    |    |    |    |    |    |    |    |    |
| KEY #4          |   |   |   |   |   | ■ |   | ■ |   |    |    |    |    |    |    |    |    |    |    |    |
| KEY #1          |   |   |   |   |   |   | ■ | ■ |   |    |    |    |    |    |    |    |    |    |    |    |
| START           |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    | ■  | ■  |    |
| OFF/CANCEL      |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    | ■  | ■  |

# Display Board



## Display Board Connector Pinouts

| PIN   | P2 FUNCTION                 |
|-------|-----------------------------|
| P2-1  | BROIL RELAY OUTPUT          |
| SPACE |                             |
| P2-2  | AC LINE IN (120 VAC, 60 HZ) |
| P2-4  | BAKE RELAY OUTPUT           |

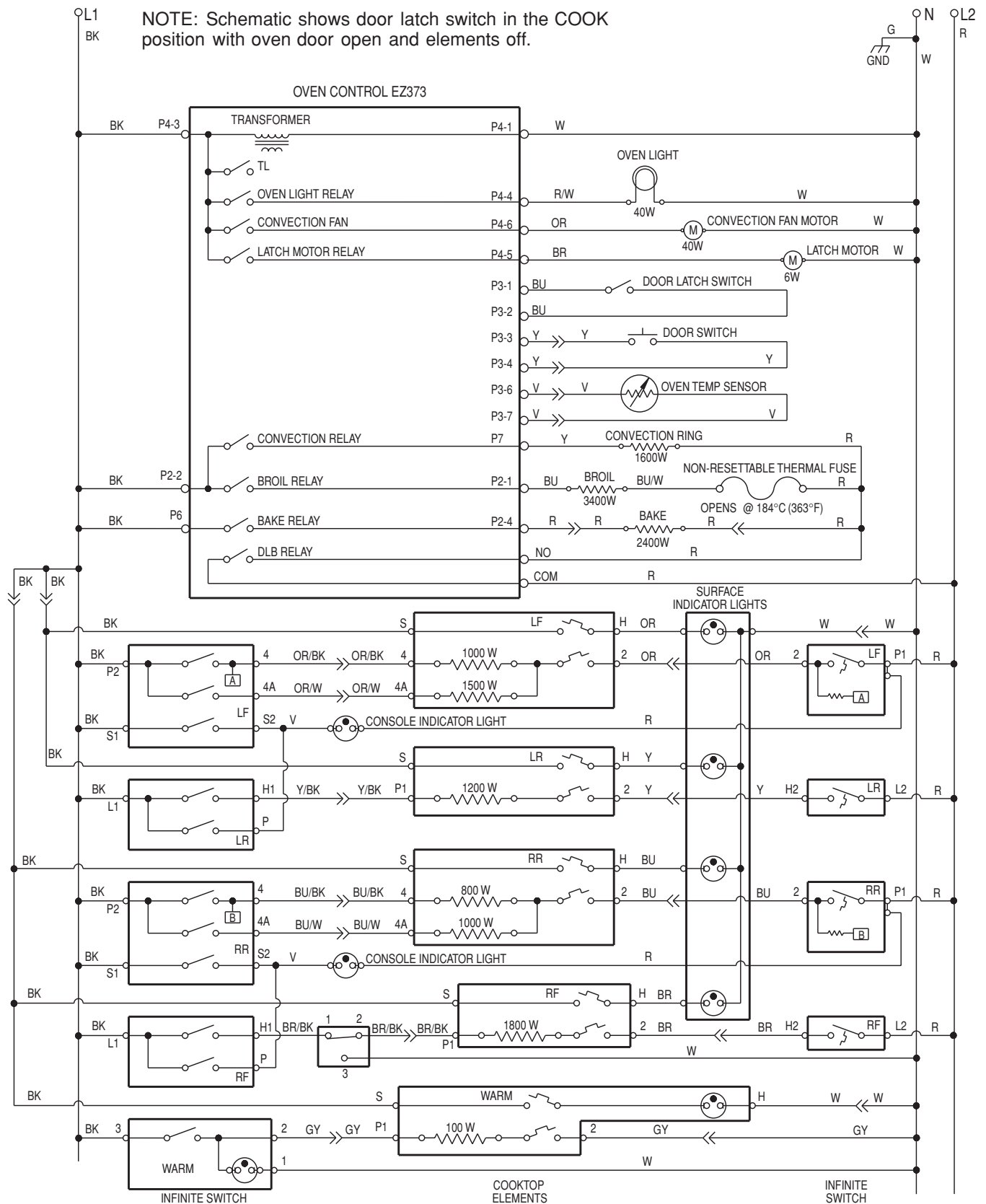
| PIN  | P3 FUNCTION       |
|------|-------------------|
| P3-1 | LOCK SENSE INPUT  |
| P3-2 | LOCK SENSE COMMON |
| P3-3 | DOOR SENSE COMMON |
| P3-4 | DOOR SENSE INPUT  |
| P3-5 | NO CONNECTION     |
| P3-6 | TEMP PROBE LOW-   |
| P3-7 | TEMP PROBE HIG+   |

| PIN  | P4 FUNCTION                      |
|------|----------------------------------|
| P4-1 | AC NEUTRAL                       |
| P4-2 | NO CONNECTION                    |
| P4-3 | AC LINE (120 VAC, 60 HZ)         |
| P4-4 | OVEN LIGHT RELAY OUT (120 VAC)   |
| P4-5 | LOCK RELAY OUT (120 VAC, PULSED) |
| P4-6 | CONVECT FAN                      |
| P4-7 | TOP LIGHT                        |

P6 FUNCTION: LINE FOR BAKE  
 P7 FUNCTION: CONVECTION  
 P1 FUNCTION: KEYBOARD INTERFACE

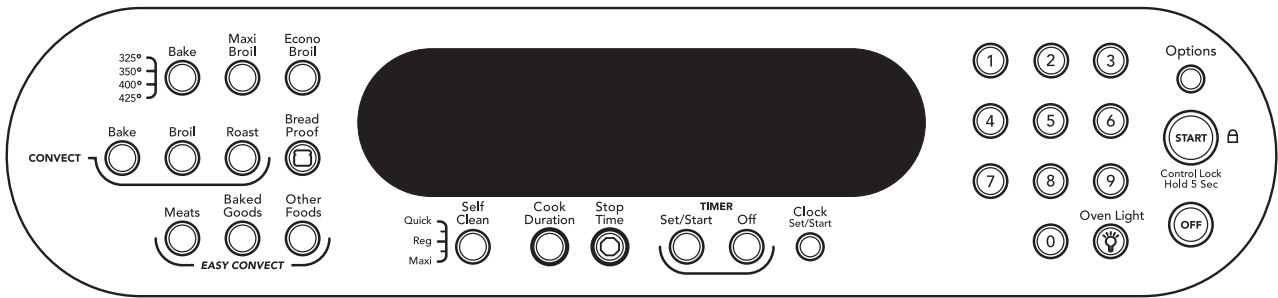
# Wiring Diagram

NOTE: Schematic shows door latch switch in the COOK position with oven door open and elements off.



PART NO. 9756997

# KITCHENAID (TULSA-BUILT) FREESTANDING MODEL KERA205P



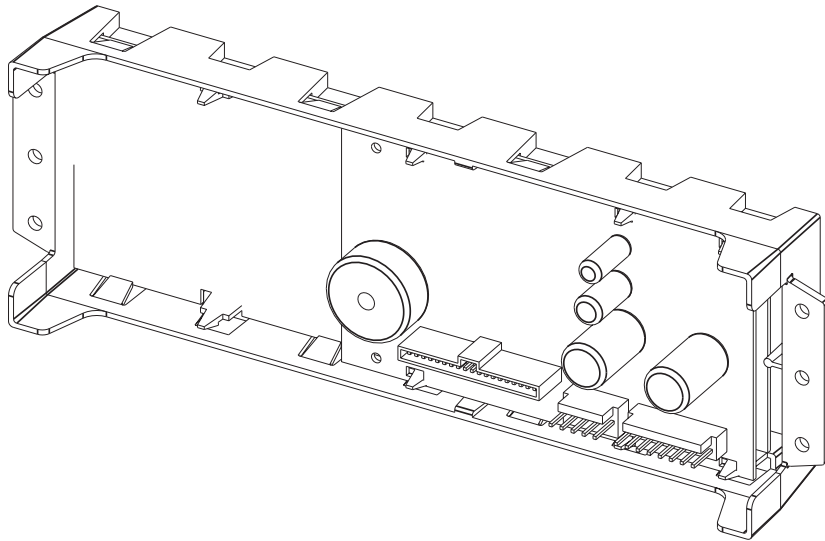
MODEL: KERA205P

## Keypad Layout

| KEYPAD LAYOUT  |               |               |           |           |            |          |      |
|----------------|---------------|---------------|-----------|-----------|------------|----------|------|
| Model KERA205P |               |               |           |           |            |          |      |
|                | 16            | 15            | 14        | 13        | 12         | 11       | 10   |
|                | FUNCTION      | FUNCTION      | FUNCTION  | FUNCTION  | FUNCTION   | FUNCTION |      |
| 8              |               | BAKE          | CLEAN     | COOK TIME | 3          | OPT      | OPEN |
| 7              | CONVECT BAKE  | CONVECT BROIL | STOP TIME | TIMER     | 6          | START    | OPEN |
| 6              |               | MEATS         | TIMER OFF | CLOCK     | 9          |          | 205  |
| 5              | MAXI BROIL    | ECONO BROIL   | 1         | 2         | OVEN LIGHT |          | OPEN |
| 4              | CONVECT ROAST | BREAD PROOF   | 4         | 5         |            |          | OPEN |
| 3              | BAKED GOODS   | OTHER FOODS   | 7         | 8         |            |          | OPEN |
| 2              |               |               |           | 0         |            |          | OPEN |



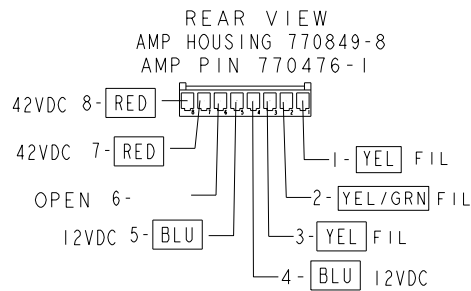
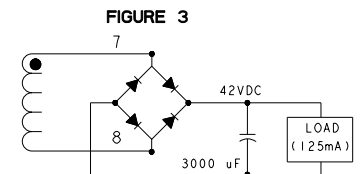
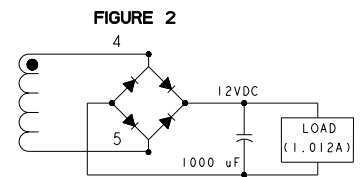
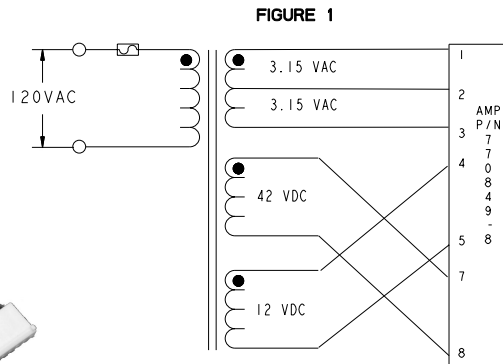
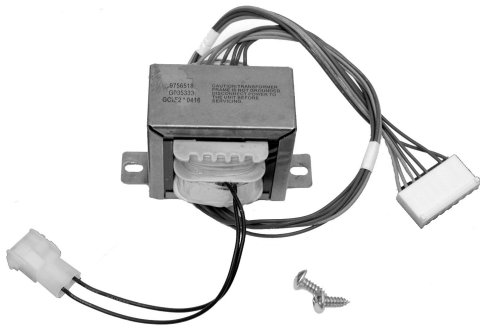
# Display Board & Connector Pinouts



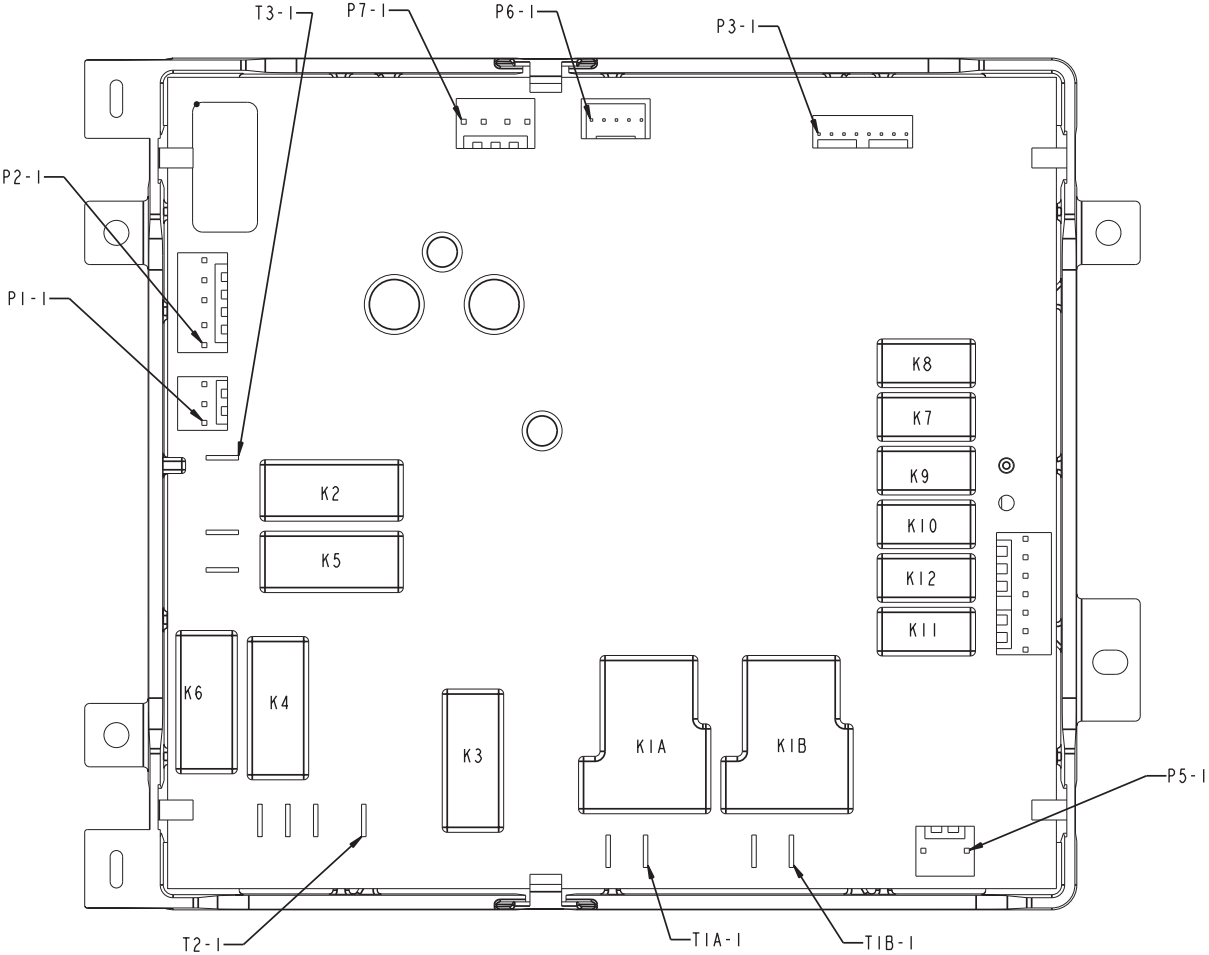
|   |            |
|---|------------|
| CONN HDR-ST LOCK W/PEG<br>8 PIN 7A.156 AMP 644615-8 |            |
| PI-1  | FILAMENT   |
| PI-2  | CENTER TAP |
| PI-3  | FILAMENT   |
| PI-4  | 12 VDC     |
| PI-5  | 12 VDC     |
| PI-6  | OPEN       |
| PI-7  | 42 VDC     |
| PI-8  | 42 VDC     |

|   |        |
|---|--------|
| CONN HDR-ST LOCK W/PEG<br>5 PIN 7A.156 AMP 644615-5 |        |
| P2-1  | 12 VDC |
| P2-2  | 12 VDC |
| P2-3  | OPEN   |
| P2-4  | DATA   |
| P2-5  | DGND   |

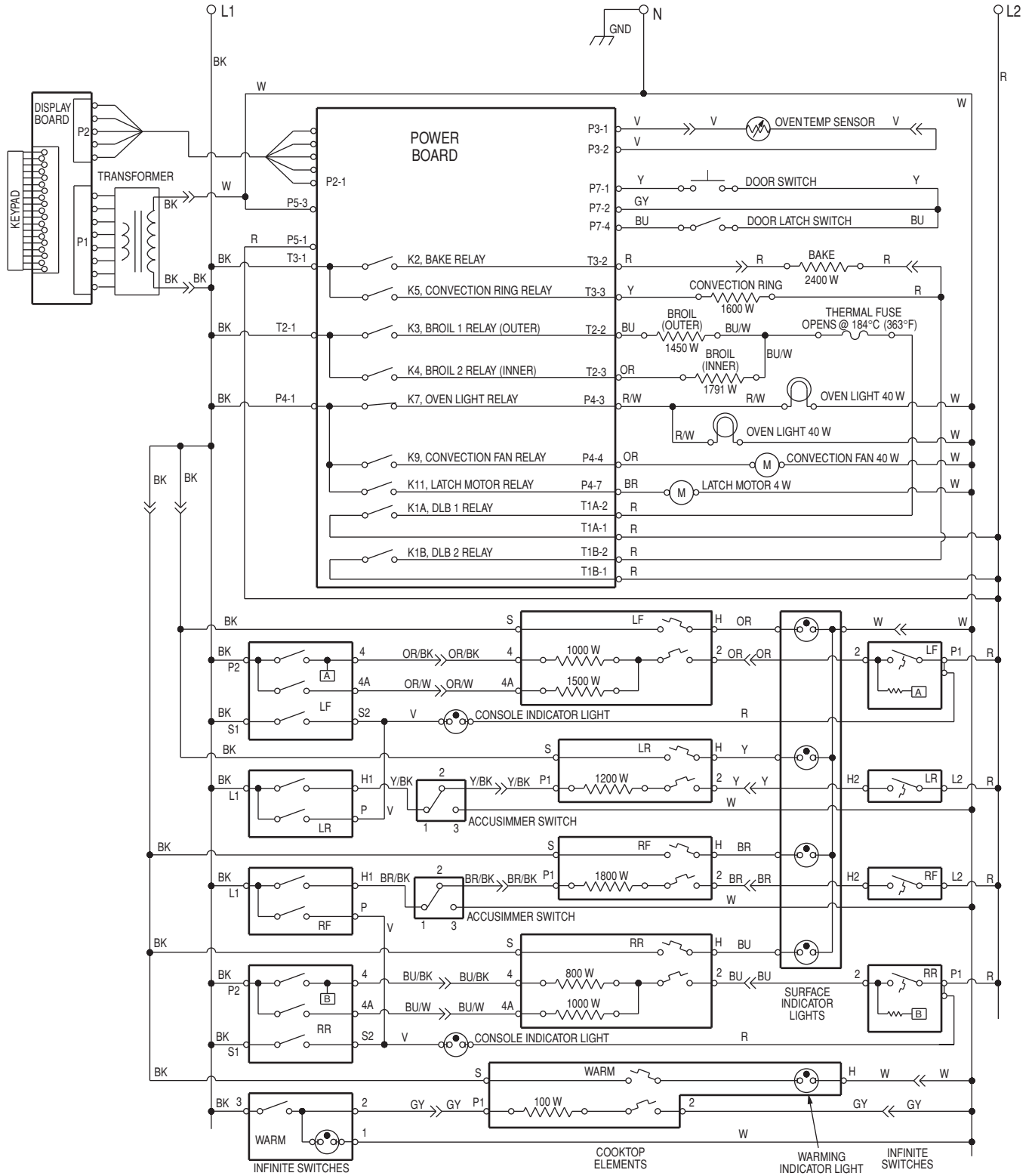
# Low Voltage Transformer



# Power Board



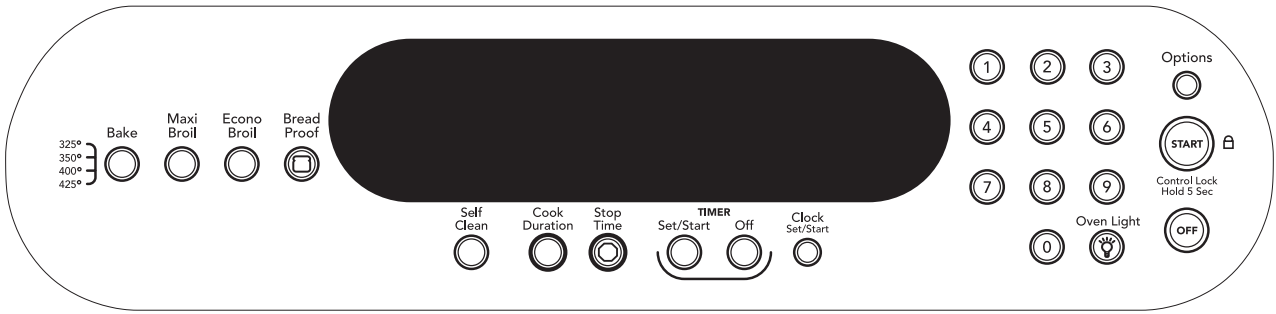
# Wiring Diagram



NOTE: Schematic shows door latch switch in the COOK position with oven door open and elements off.

PART NO. 9758315 REV. A

# KITCHENAID (OXFORD-BUILT) SLIDE-IN MODEL KESI901P

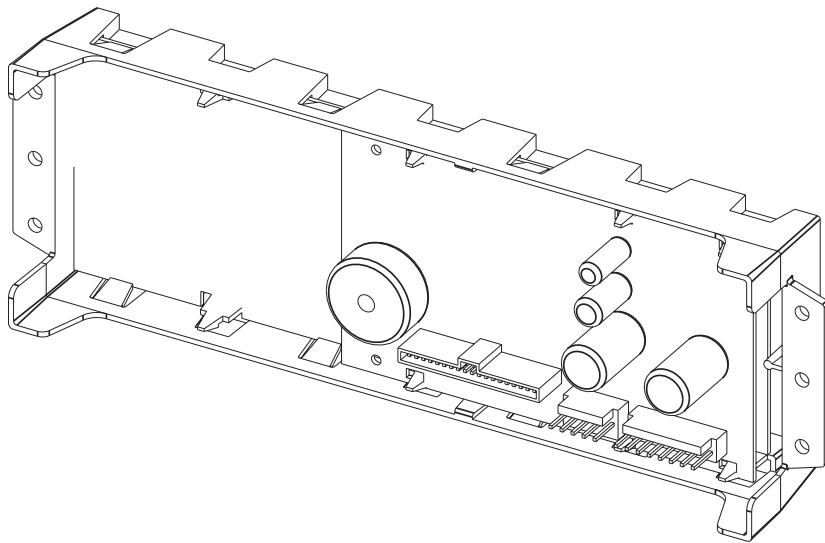


MODEL: KESI901P

## Keypad Layout

| MODEL KESI901P |             |             |           |           |            |       |      |
|----------------|-------------|-------------|-----------|-----------|------------|-------|------|
|                | 16          | 15          | 14        | 13        | 12         | 11    | 10   |
| 8              |             |             | CLEAN     | COOK TIME | 3          | OPT   | OPEN |
| 7              | BAKE        | MAXI BROIL  | STOP TIME | TIMER     | 6          | START | OPEN |
| 6              |             |             | TIMER OFF | CLOCK     | 9          |       | OPEN |
| 5              | ECONO BROIL |             | 1         | 2         | OVEN LIGHT |       | OPEN |
| 4              |             | BREAD PROOF | 4         | 5         |            |       | OPEN |
| 3              |             |             | 7         | 8         |            |       | OPEN |
| 2              |             |             |           | 0         |            |       | OPEN |

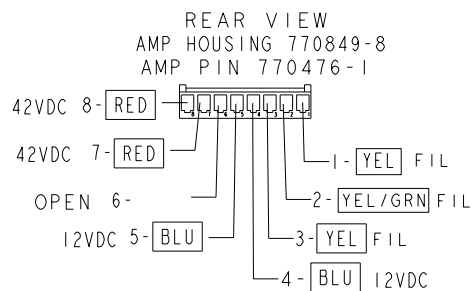
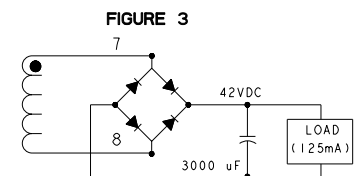
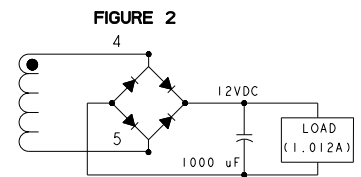
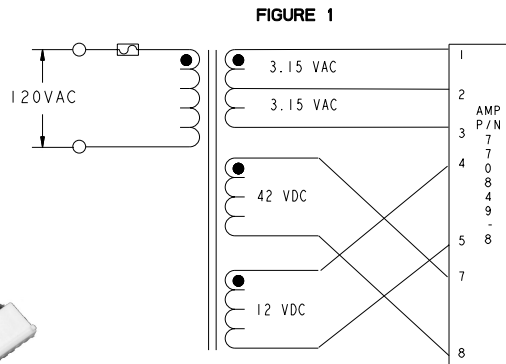
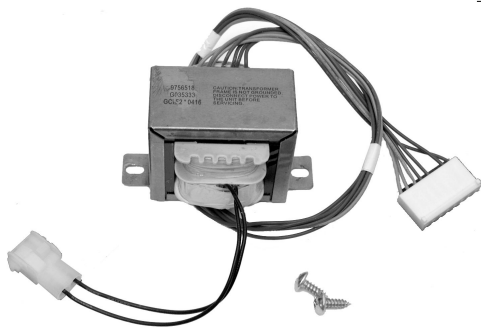
# Display Board & Connector Pinouts



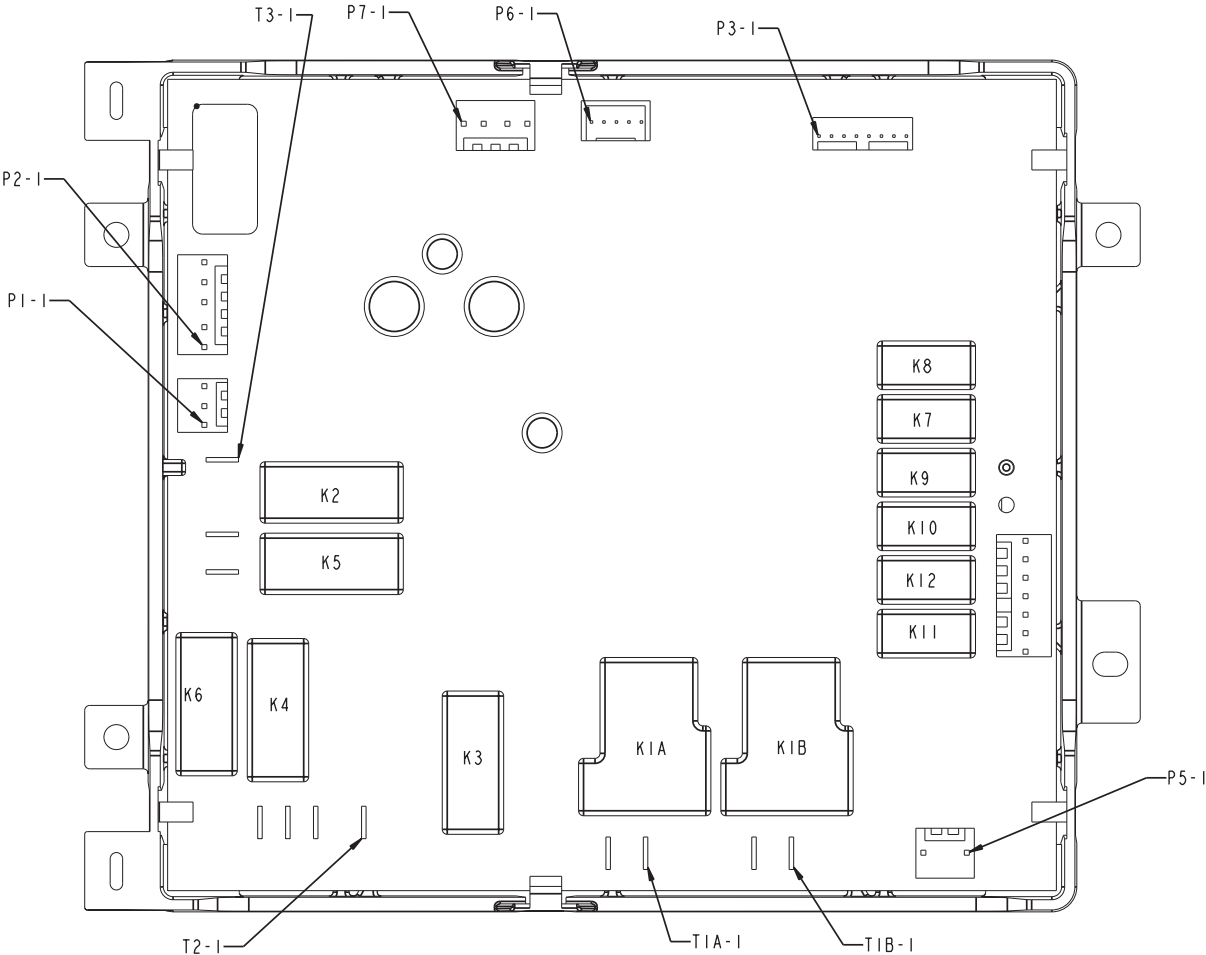
| CONN HDR-ST LOCK W/PEG<br>8 PIN 7A.156 AMP 644615-8 |            |
|---|------------|
| PI-1  | FILAMENT   |
| PI-2  | CENTER TAP |
| PI-3  | FILAMENT   |
| PI-4  | 12 VDC     |
| PI-5  | 12 VDC     |
| PI-6  | OPEN       |
| PI-7  | 42 VDC     |
| PI-8  | 42 VDC     |

| CONN HDR-ST LOCK W/PEG<br>5 PIN 7A.156 AMP 644615-5 |        |
|---|--------|
| P2-1  | 12 VDC |
| P2-2  | 12 VDC |
| P2-3  | OPEN   |
| P2-4  | DATA   |
| P2-5  | DGND   |

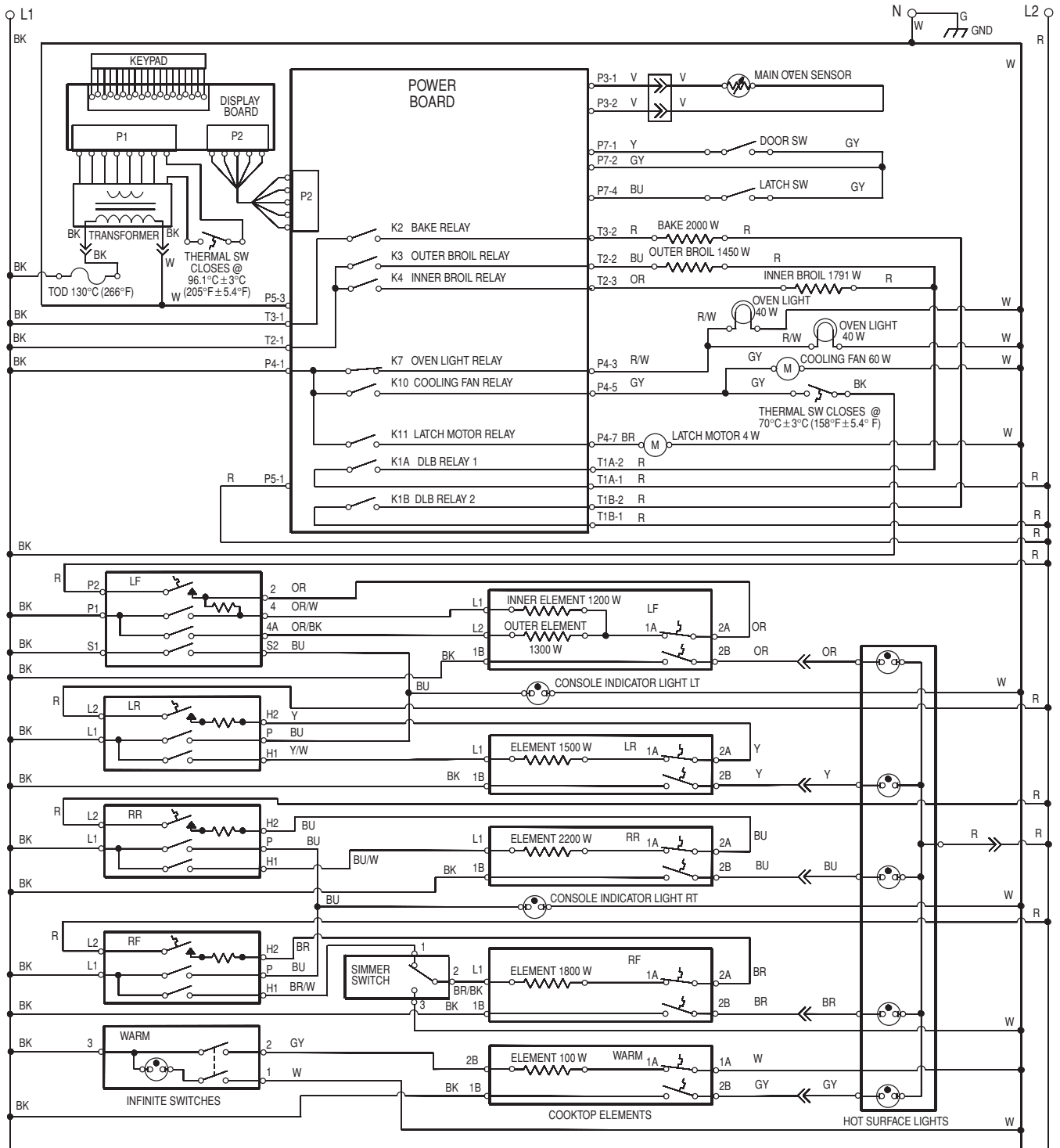
# Low Voltage Transformer



# Power Board



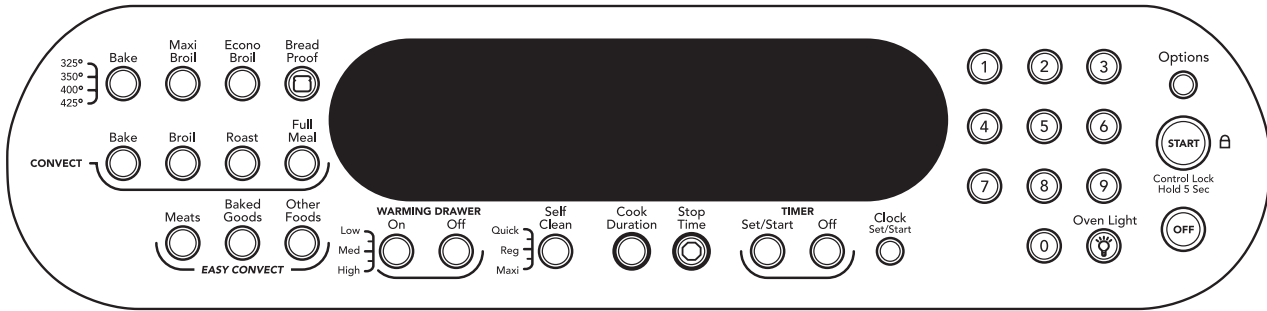
# Wiring Diagram



NOTE: Schematic shows door latch switch in the COOK position with oven door open and elements off.

PART NO. 9757663

# KITCHENAID (OXFORD-BUILT) FREESTANDING MODELS KERA807P & KERV908P, AND SLIDE-IN MODELS KESA907P & KESV808P



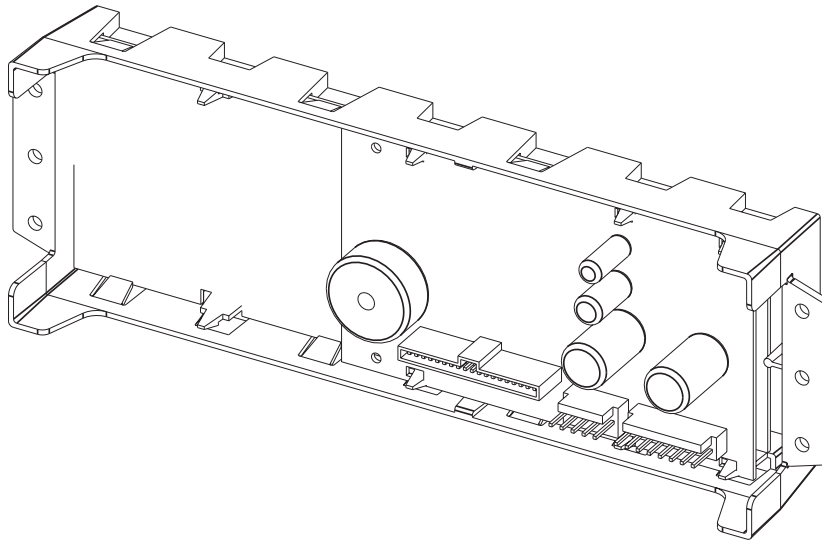
MODELS: KERA807P, KERV908P, KESA907P, & KESV808P

## Keypad Layout

| MODELS KERA807P, KERV908P, KESA907P & KESV808P |               |               |           |           |            |       |      |
|--|---------------|---------------|-----------|-----------|------------|-------|------|
|  | 16            | 15            | 14        | 13        | 12         | 11    | 10   |
| 8  | BAKE          | MAXI BROIL    | CLEAN     | COOK TIME | 3          | OPT   | OPEN |
| 7  | CONVECT BAKE  | CONVECT BROIL | STOP TIME | TIMER     | 6          | START | OPEN |
| 6  |               | MEATS         | TIMER OFF | CLOCK     | 9          |       | OPEN |
| 5  | ECONO BROIL   | BREAD PROOF   | 1         | 2         | OVEN LIGHT |       | OPEN |
| 4  | CONVECT ROAST | FULL MEAL     | 4         | 5         |            |       | OPEN |
| 3  | BAKED GOODS   | OTHER FOODS   | 7         | 8         |            |       | OPEN |
| 2  | WARM DRAWER   | WARM OFF      | TOP LIGHT | 0         |            |       | OPEN |



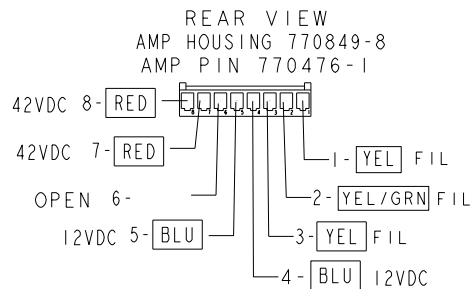
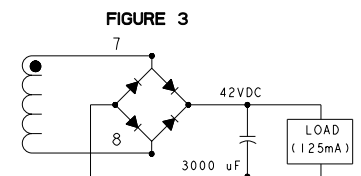
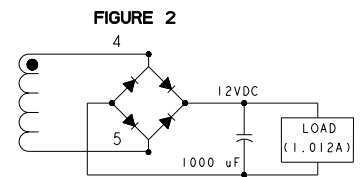
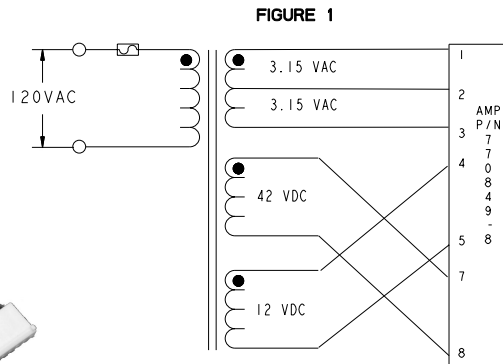
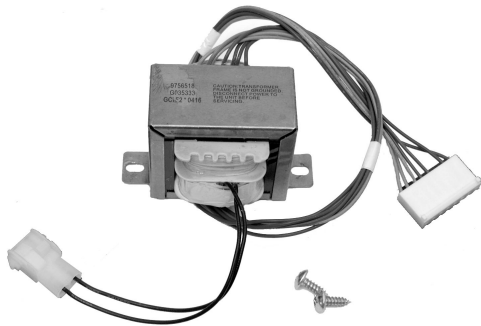
# Display Board & Connector Pinouts



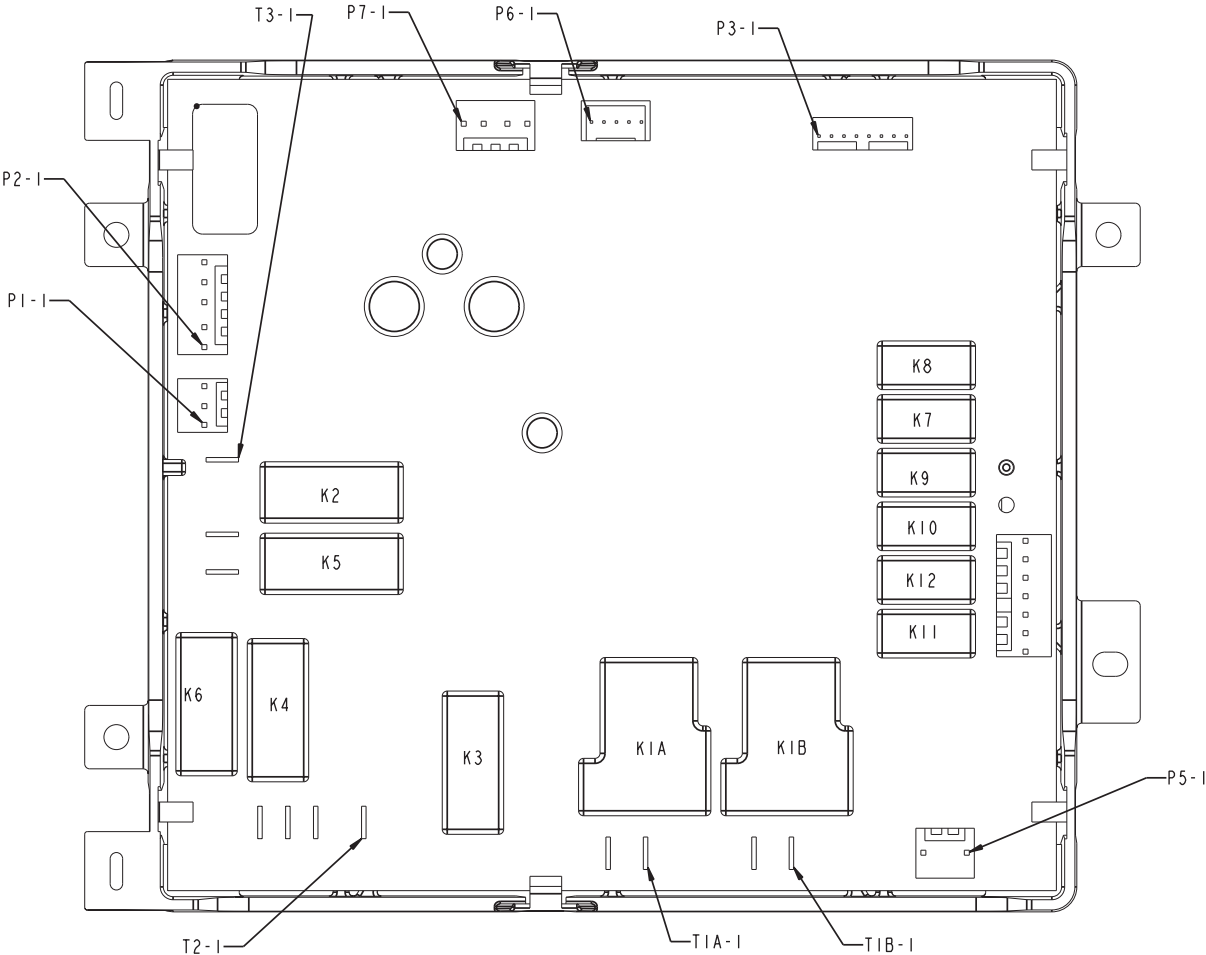
| CONN HDR-ST LOCK W/PEG<br>8 PIN 7A.156 AMP 644615-8 |            |
|---|------------|
| PI-1  | FILAMENT   |
| PI-2  | CENTER TAP |
| PI-3  | FILAMENT   |
| PI-4  | 12 VDC     |
| PI-5  | 12 VDC     |
| PI-6  | OPEN       |
| PI-7  | 42 VDC     |
| PI-8  | 42 VDC     |

| CONN HDR-ST LOCK W/PEG<br>5 PIN 7A.156 AMP 644615-5 |        |
|---|--------|
| P2-1  | 12 VDC |
| P2-2  | 12 VDC |
| P2-3  | OPEN   |
| P2-4  | DATA   |
| P2-5  | DGND   |

# Low Voltage Transformer

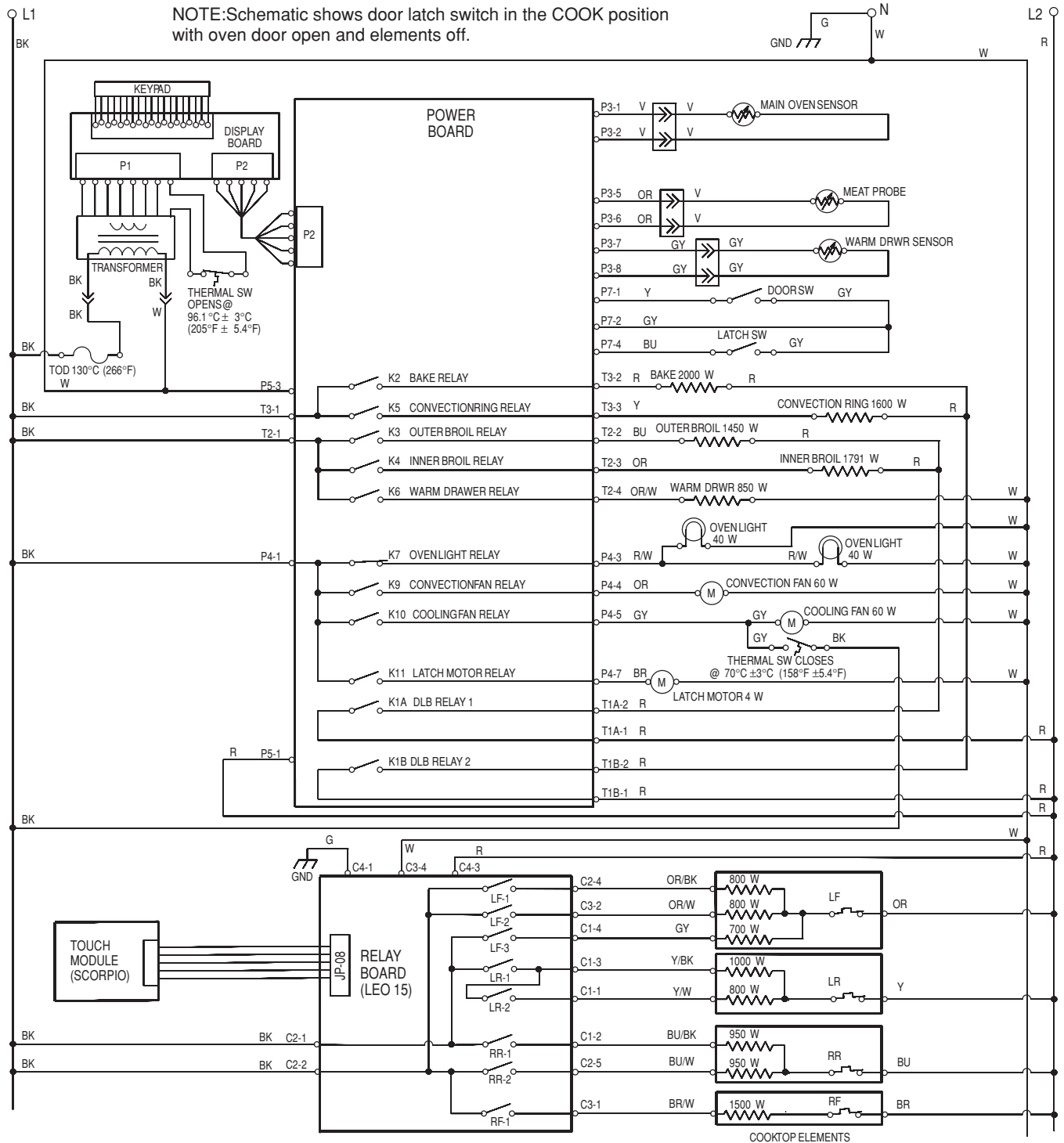


# Power Board



# Wiring Diagram

## Models KESV808P & KERV908P

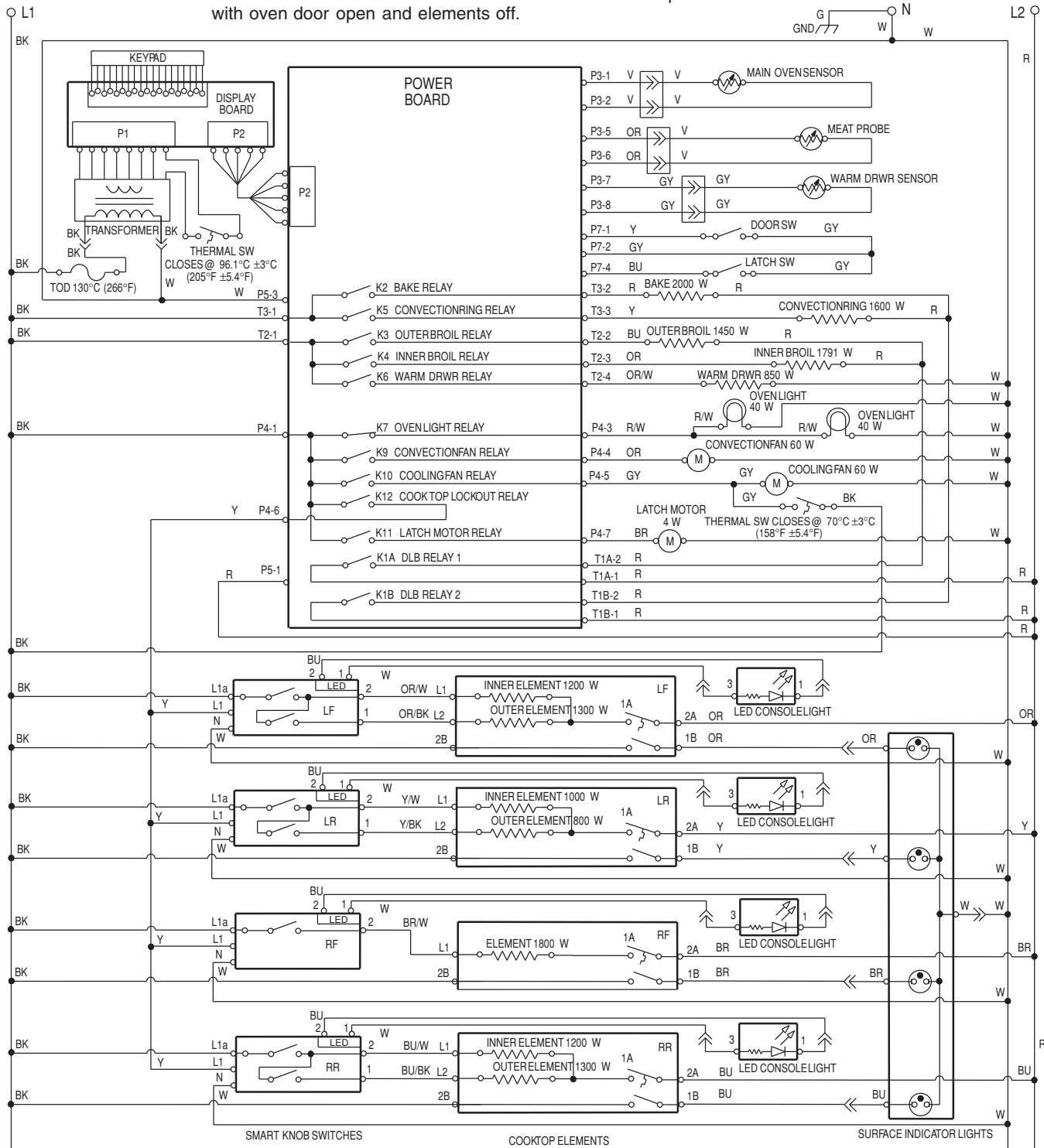


Part No. 9757661

# Wiring Diagram

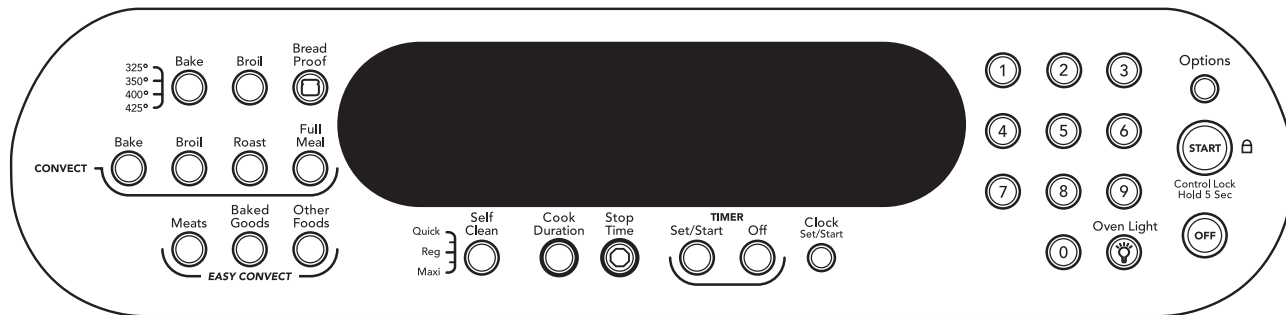
## Models KERA807P & KESA907P

**NOTE:** Schematic shows door latch switch in the COOK position with oven door open and elements off.



Part No. 9757662

# KITCHENAID (OXFORD-BUILT) FREESTANDING MODEL KGRA806P & SLIDE-IN MODEL KGSA906P

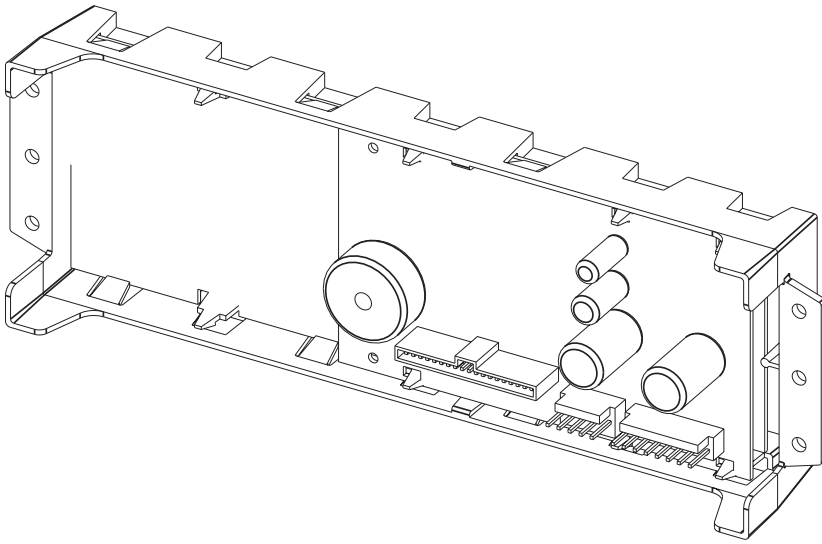


MODELS: KGRA806P & KGSA906P

## Keypad Layout

| MODELS KGRA806P & KGSA906P |               |               |           |           |            |         |      |
|----------------------------|---------------|---------------|-----------|-----------|------------|---------|------|
|                            | 16            | 15            | 14        | 13        | 12         | 11      | 10   |
| 8                          |               | BAKE          | CLEAN     | COOK TIME | 3          | OPTIONS | OPEN |
| 7                          | CONVECT BAKE  | CONVECT BROIL | STOP TIME | TIMER     | 6          | START   | OPEN |
| 6                          |               | MEATS         | TIMER OFF | CLOCK     | 9          |         | OPEN |
| 5                          | MAXI BROIL    | BREAD PROOF   | 1         | 2         | OVEN LIGHT |         | OPEN |
| 4                          | CONVECT ROAST | FULL MEAL     | 4         | 5         |            |         | OPEN |
| 3                          | BAKED GOODS   | OTHER FOODS   | 7         | 8         |            |         | OPEN |
| 2                          |               |               |           | 0         |            |         | OPEN |

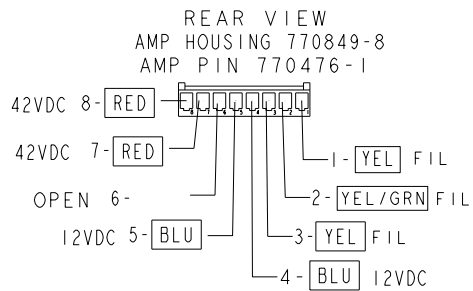
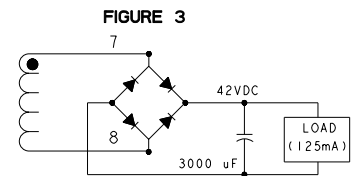
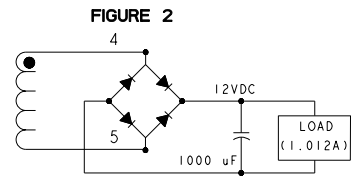
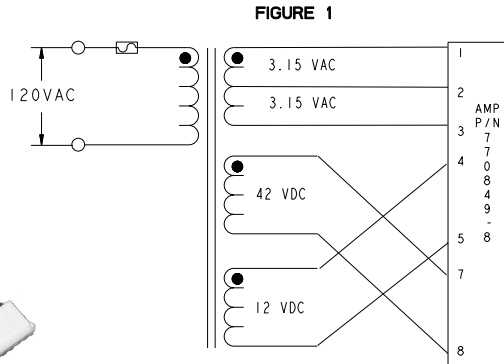
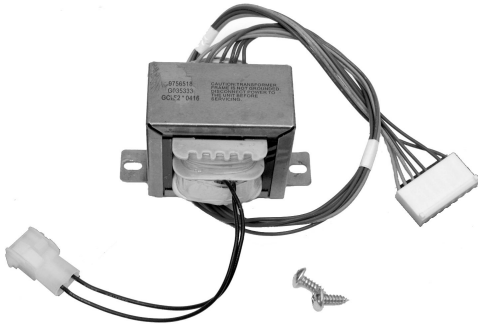
# Display Board & Connector Pinouts



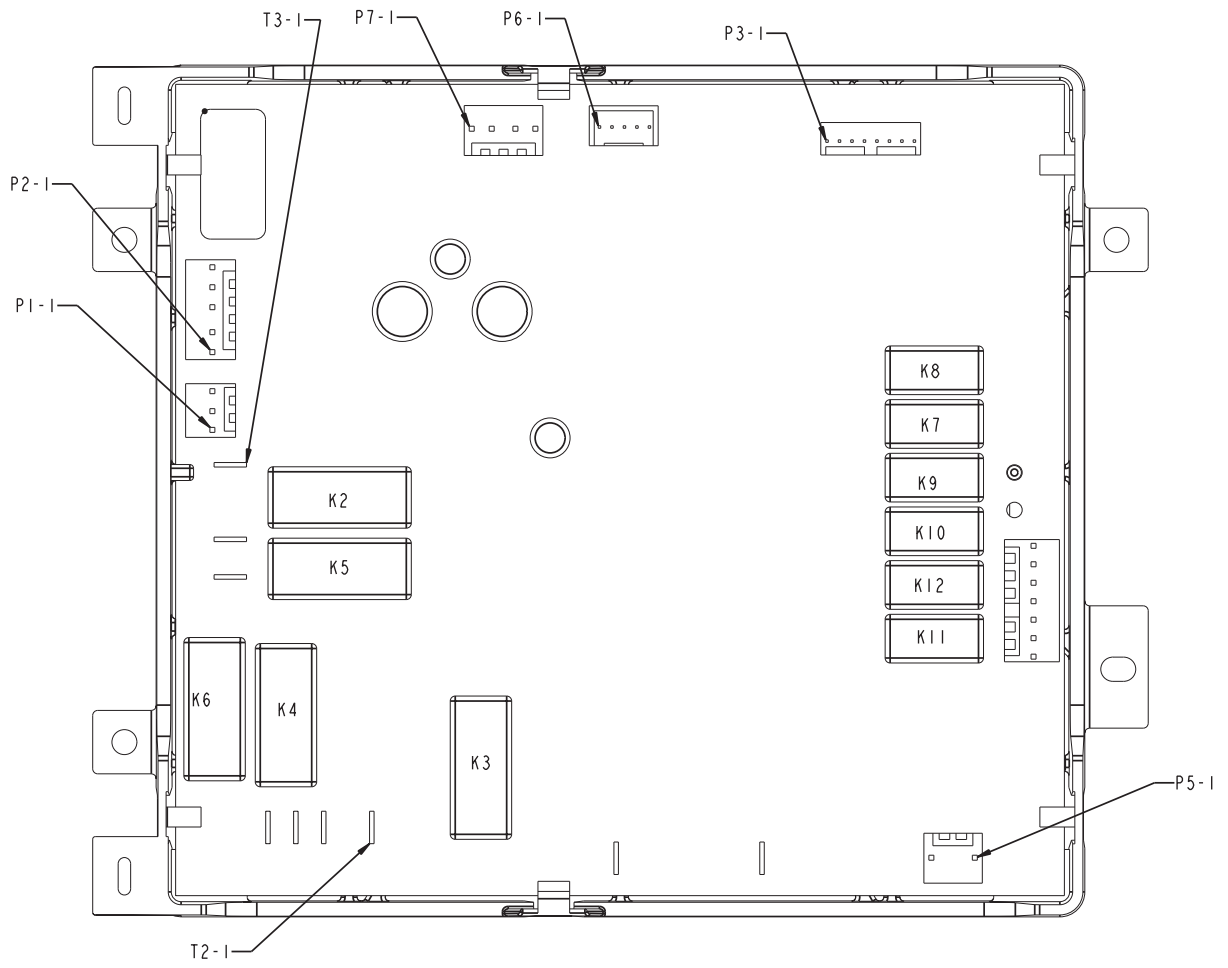
| CONN HDR-ST LOCK W/PEG<br>8 PIN 7A.156 AMP 644615-8 |            |
|---|------------|
| PI-1  | FILAMENT   |
| PI-2  | CENTER TAP |
| PI-3  | FILAMENT   |
| PI-4  | 12 VDC     |
| PI-5  | 12 VDC     |
| PI-6  | OPEN       |
| PI-7  | 42 VDC     |
| PI-8  | 42 VDC     |

| CONN HDR-ST LOCK W/PEG<br>5 PIN 7A.156 AMP 644615-5 |        |
|---|--------|
| P2-1  | 12 VDC |
| P2-2  | 12 VDC |
| P2-3  | OPEN   |
| P2-4  | DATA   |
| P2-5  | DGND   |

# Low Voltage Transformer

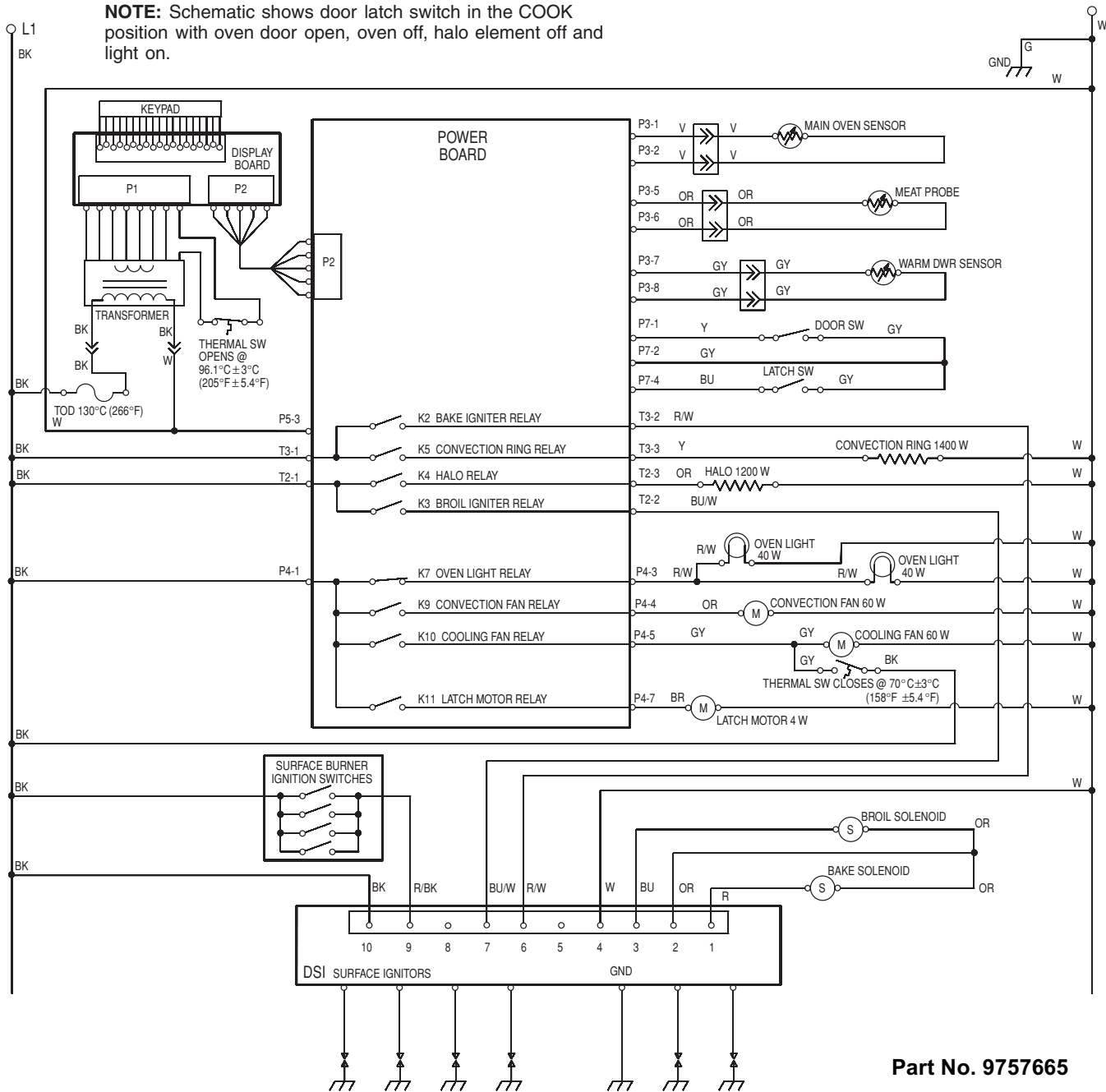


# Power Board



# Wiring Diagram

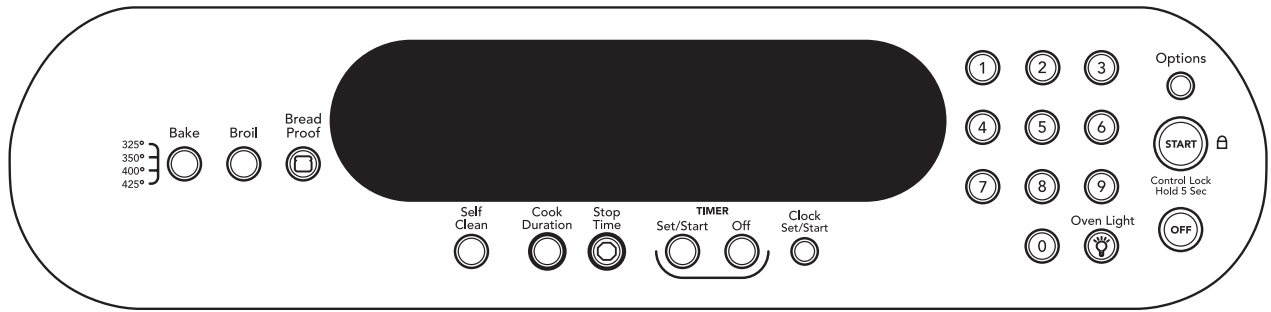
**NOTE:** Schematic shows door latch switch in the COOK position with oven door open, oven off, halo element off and light on.



**Part No. 9757665**



# KITCHENAID (OXFORD-BUILT) FREESTANDING MODEL KGRI801P & SLIDE-IN MODEL KGS1901P

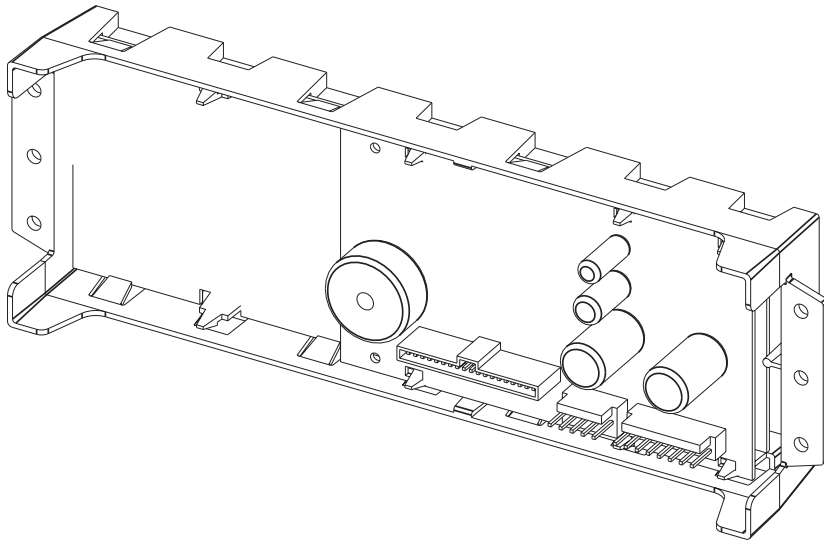


MODELS: KGRI801P & KGS1901P

## Keypad Layout

| MODELS KGRI801P & KGS1901P |            |             |           |           |            |       |      |
|----------------------------|------------|-------------|-----------|-----------|------------|-------|------|
|                            | 16         | 15          | 14        | 13        | 12         | 11    | 10   |
| 8                          |            | BAKE        | CLEAN     | COOK TIME | 3          | OPT   | OPEN |
| 7                          |            |             | STOP TIME | TIMER     | 6          | START | OPEN |
| 6                          |            |             | TIMER OFF | CLOCK     | 9          |       | OPEN |
| 5                          |            |             | 1         | 2         | OVEN LIGHT |       | OPEN |
| 4                          | MAXI BROIL | BREAD PROOF | 4         | 5         |            |       | OPEN |
| 3                          |            |             | 7         | 8         |            |       | OPEN |
| 2                          |            |             |           | 0         |            |       | OPEN |

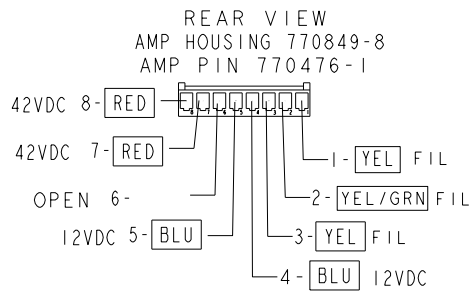
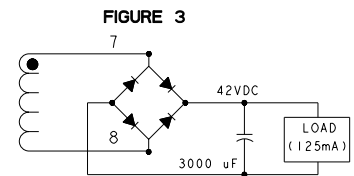
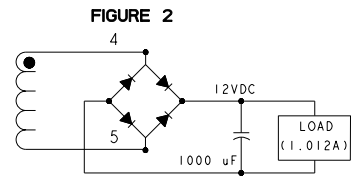
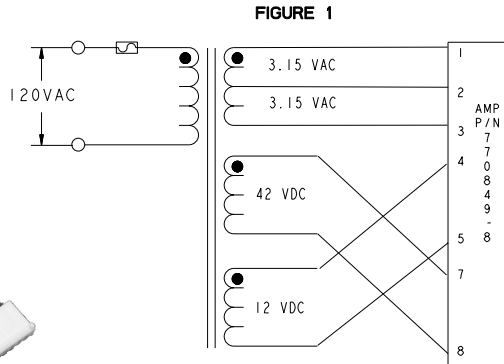
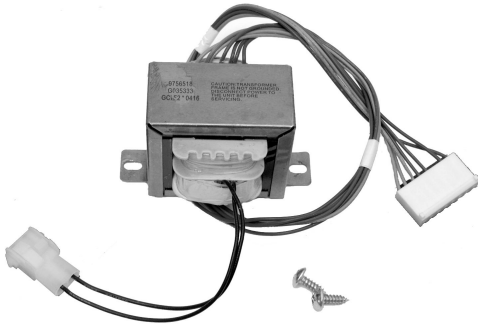
# Display Board & Connector Pinouts



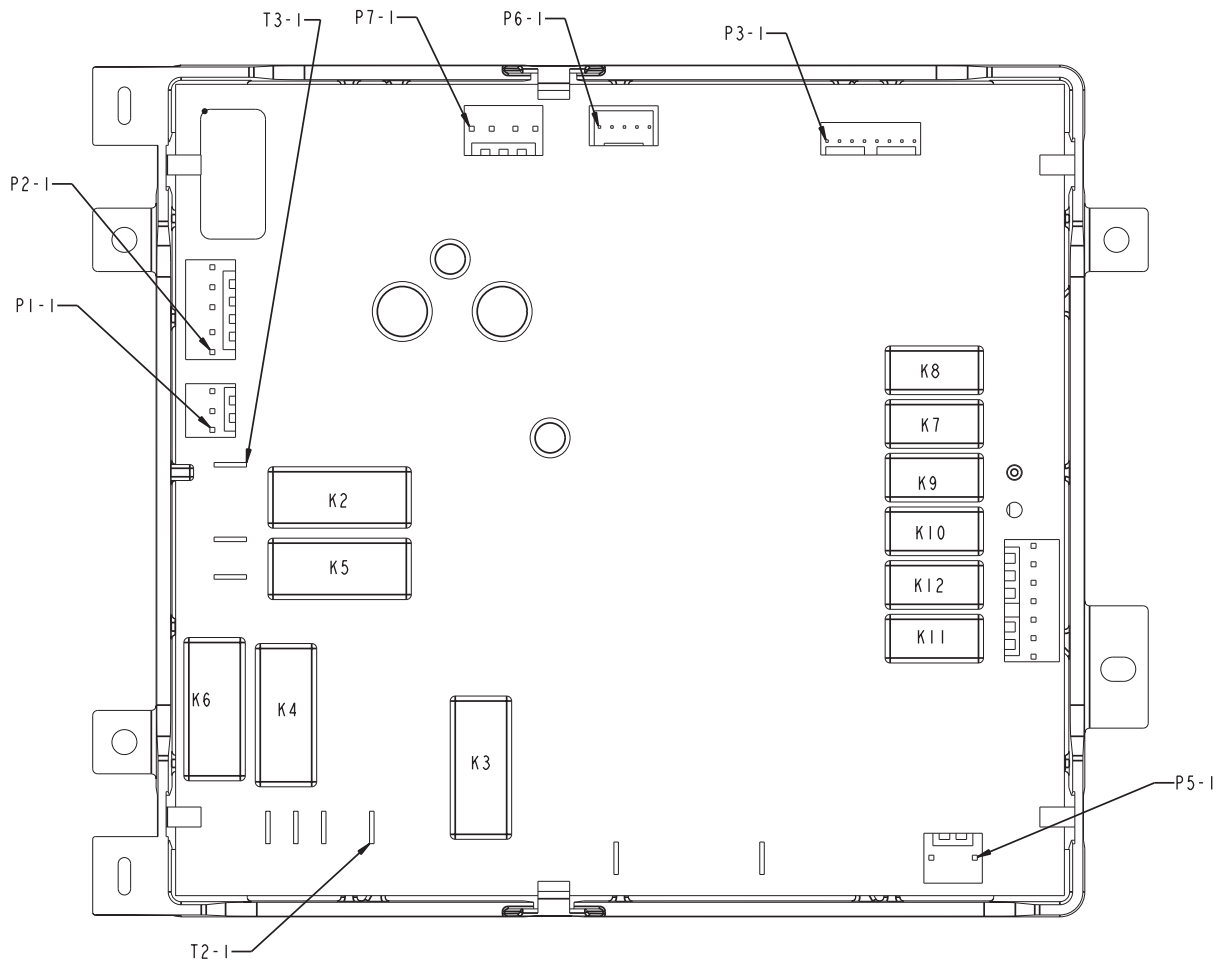
| CONN HDR-ST LOCK W/PEG<br>8 PIN 7A.156 AMP 644615-8 |            |
|---|------------|
| PI-1  | FILAMENT   |
| PI-2  | CENTER TAP |
| PI-3  | FILAMENT   |
| PI-4  | 12 VDC     |
| PI-5  | 12 VDC     |
| PI-6  | OPEN       |
| PI-7  | 42 VDC     |
| PI-8  | 42 VDC     |

| CONN HDR-ST LOCK W/PEG<br>5 PIN 7A.156 AMP 644615-5 |        |
|---|--------|
| P2-1  | 12 VDC |
| P2-2  | 12 VDC |
| P2-3  | OPEN   |
| P2-4  | DATA   |
| P2-5  | DGND   |

# Low Voltage Transformer

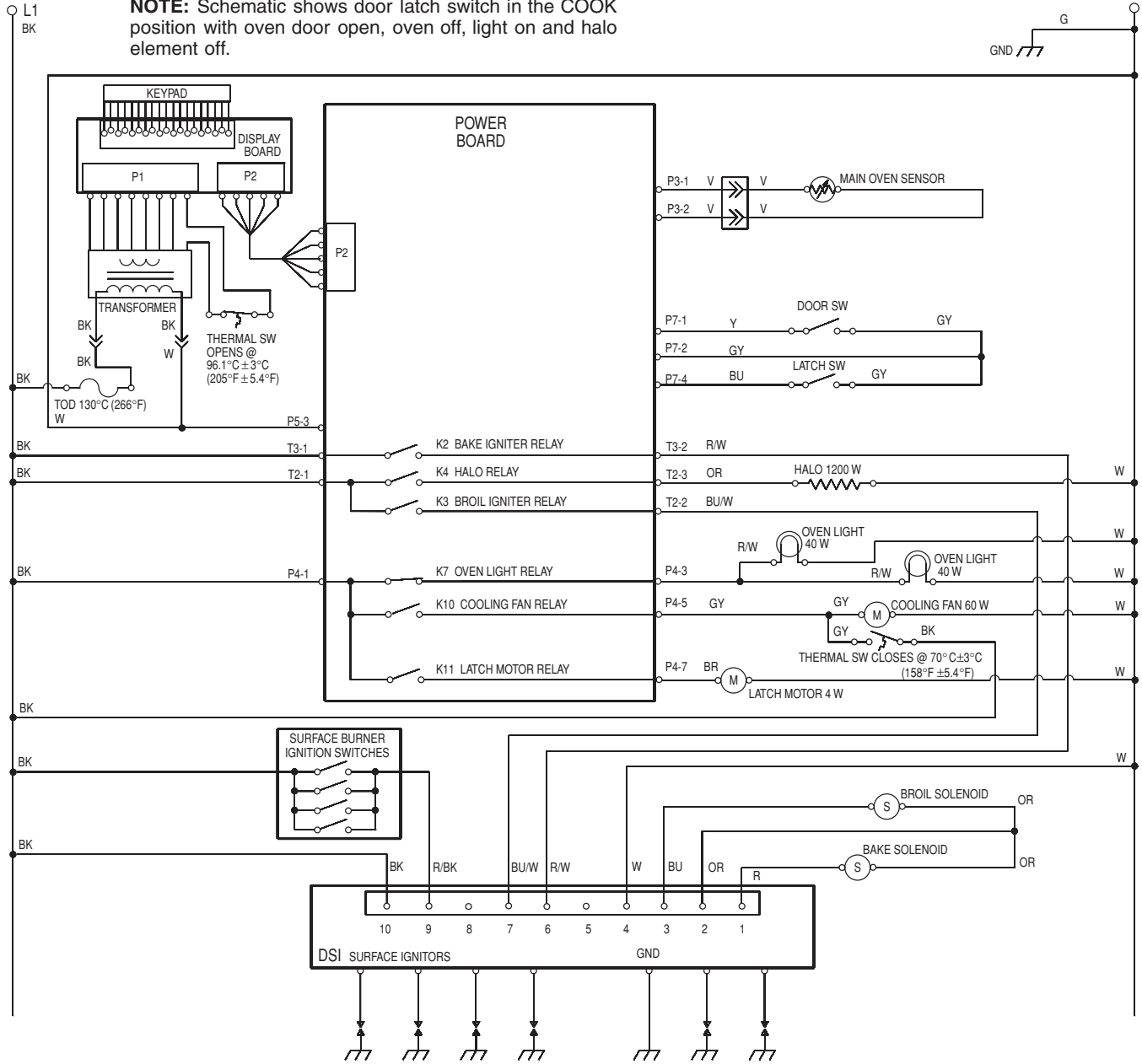


# Power Board



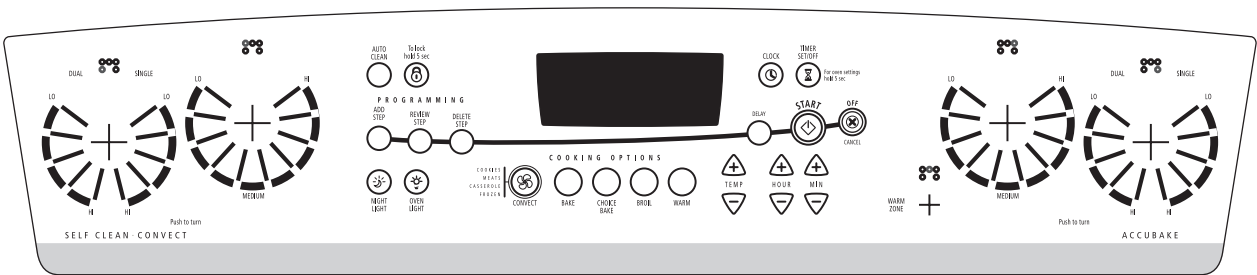
# Wiring Diagram

**NOTE:** Schematic shows door latch switch in the COOK position with oven door open, oven off, light on and halo element off.



**Part No. 9757666**

# WHIRLPOOL (TULSA-BUILT) FREESTANDING MODEL GR448LXP

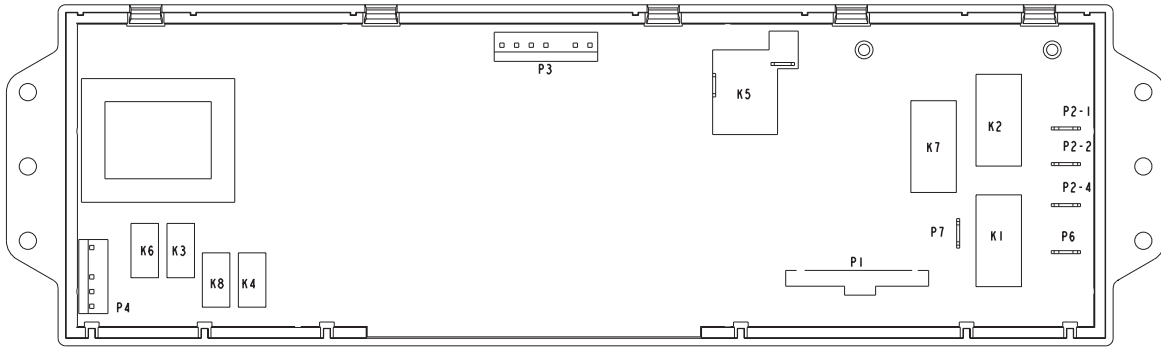


MODEL: GR448LXP

## Keypad Layout

|               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| BAKE          | ■ | ■ |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| BROIL         |   | ■ |   | ■ |   |   |   |   |   |    |    | X  |    |    |    |    |    |    |    |    |
| CLEAN         |   | ■ |   |   | ■ |   |   |   | X |    |    |    |    |    |    |    |    |    |    |    |
| TEMP UP       | ■ |   |   |   | ■ |   |   |   | X |    |    |    |    |    |    |    |    |    |    |    |
| TEMP DOWN     | ■ |   |   |   |   | ■ |   |   |   |    |    |    |    | X  |    |    |    |    |    |    |
| COOK TIME     | ■ |   |   |   |   |   |   | ■ |   |    |    |    |    | X  |    |    |    |    |    |    |
| STOP TIME     | ■ |   | ■ |   |   |   |   |   |   | X  |    |    |    |    |    |    |    |    |    |    |
| TIMER SET/OFF |   |   |   |   |   | ■ | ■ | ■ |   |    |    | X  |    |    | X  |    |    |    |    |    |
| CLOCK         |   |   |   | ■ |   |   | ■ |   |   |    | X  | X  |    |    |    |    |    |    |    |    |
| OVEN LIGHT    |   |   |   | ■ |   |   |   | ■ |   |    |    | X  | X  |    |    |    |    |    |    |    |
| HOUR UP       |   |   |   |   | ■ |   |   | ■ | X |    |    |    |    | X  |    |    |    |    |    |    |
| MINUTE UP     |   |   | ■ |   | ■ |   |   |   | X | X  |    |    |    |    |    |    |    |    |    |    |
| HOUR DOWN     |   |   | ■ |   |   |   |   | ■ | X |    |    |    | X  |    |    |    |    |    |    |    |
| MINUTE DOWN   |   |   | ■ |   |   |   |   | ■ | X | X  |    |    |    |    |    |    |    |    |    |    |
| NIGHT LIGHT   |   |   |   |   |   | ■ |   | ■ |   |    |    |    | X  | X  |    |    |    |    |    |    |
| WARM          |   | ■ |   |   |   | ■ |   |   |   |    |    |    |    | X  |    |    |    |    |    |    |
| LOCK          |   |   | ■ |   |   | ■ |   |   |   |    |    |    |    | X  |    |    |    |    |    |    |
| START         |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    | ■  |    | ■  |
| OFF/CANCEL    |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    | ■  |    | ■  |

# Display Board & Connector Pinouts



BAKE AND BROIL CONNECTOR P2

| PIN   | FUNCTION      |
|-------|---------------|
| P2-1  | BROIL         |
| SPACE | SPACE         |
| P2-2  | L1            |
| P2-3  | NO CONNECTION |
| P2-4  | BAKE          |

| PIN  | FUNCTION              |
|------|-----------------------|
| P3-1 | DOOR LATCH RECEIVE    |
| P3-2 | DOOR LATCH SEND       |
| P3-3 | DOOR POSITION SEND    |
| P3-4 | DOOR POSITION RECEIVE |
| P3-5 | NO CONNECTION         |
| P3-6 | OVEN SENSOR SEND      |
| P3-7 | OVEN SENSOR RECEIVE   |

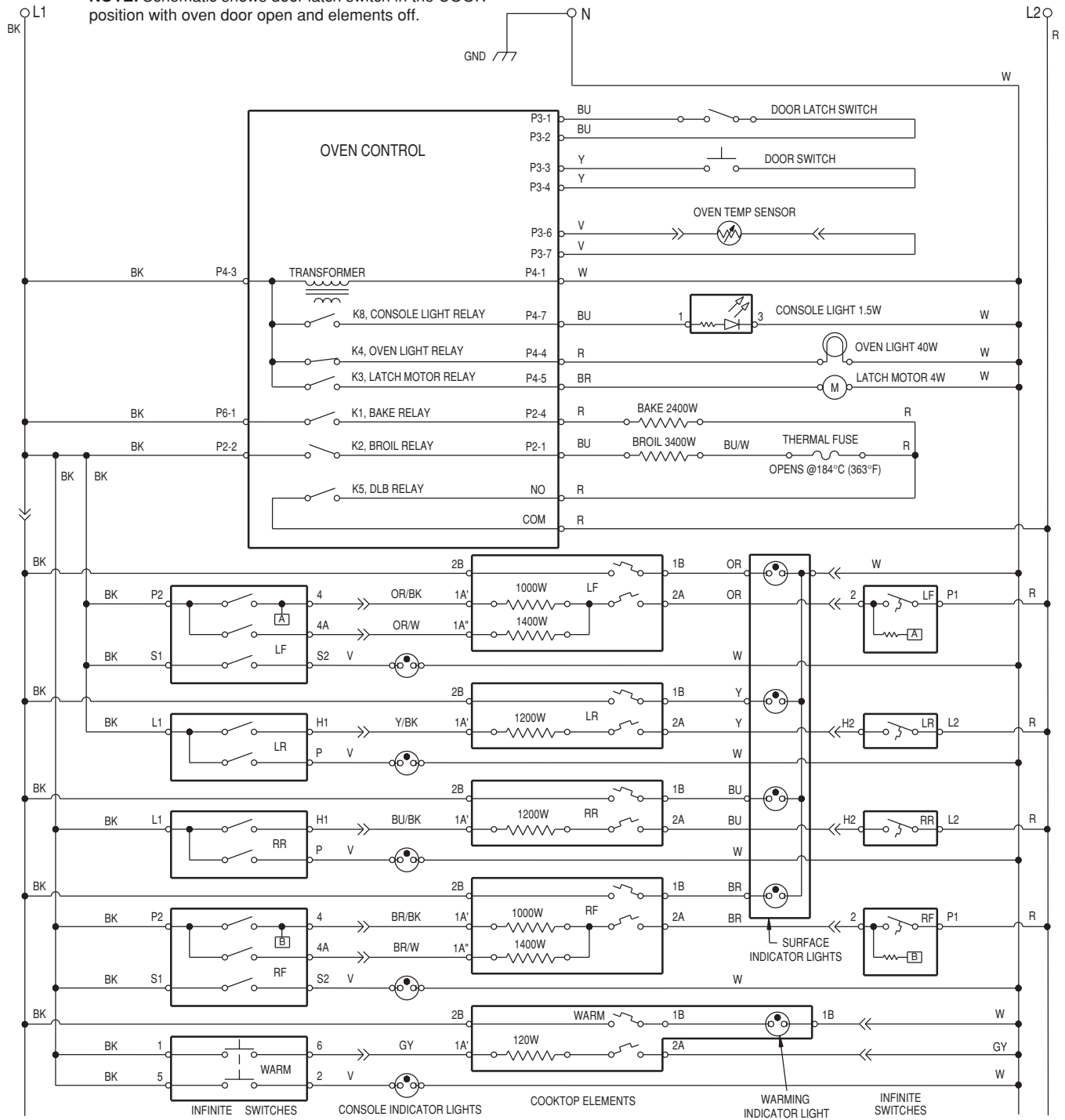
| PIN  | FUNCTION            |
|------|---------------------|
| P4-1 | NEUTRAL             |
| P4-2 | NO PIN              |
| P4-3 | L1                  |
| P4-4 | OVEN LIGHT          |
| P4-5 | DOOR LATCH SOLENOID |
| P4-6 | CONVECTION          |
| P4-7 | TOP LIGHT           |

BAKE AND BROIL CONNECTOR P6

| PIN | FUNCTION |
|-----|----------|
| P6  | L1       |

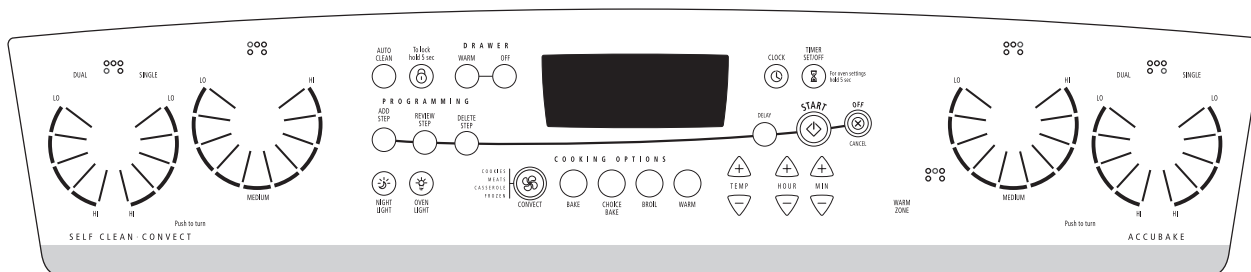
# Wiring Diagram

**NOTE:** Schematic shows door latch switch in the COOK position with oven door open and elements off.



**Part No. 9759784**

# WHIRLPOOL (TULSA-BUILT) FREESTANDING MODEL GR478LXP



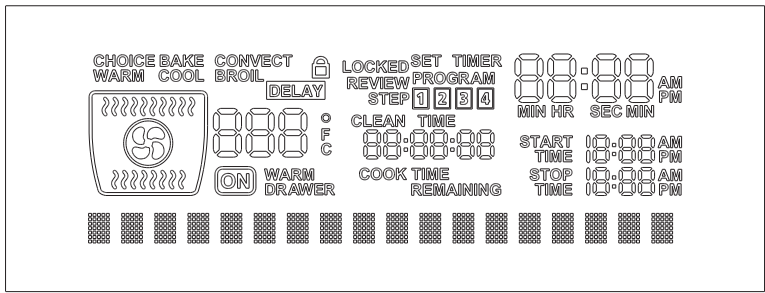
MODEL: GR478LXP

## Keypad Layout

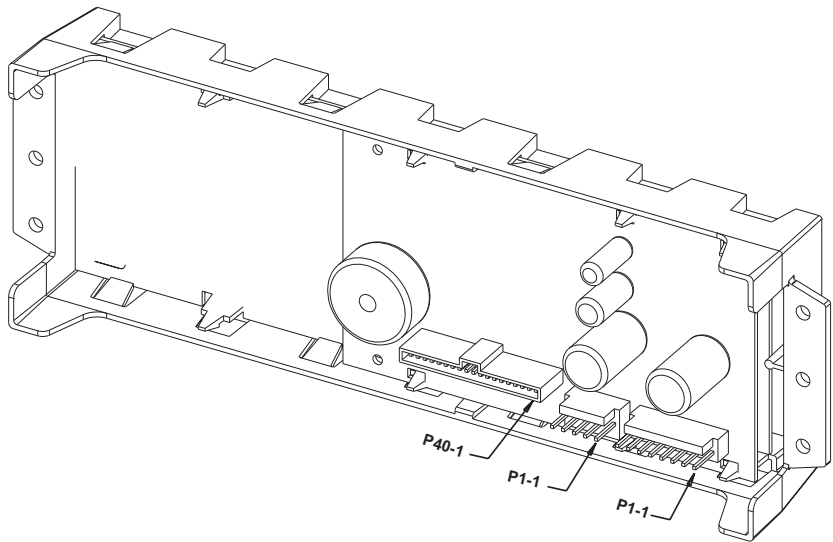
| MODEL GR478LXP |    |             |             |             |         |               |             |            |
|----------------|----|-------------|-------------|-------------|---------|---------------|-------------|------------|
|                | 10 | 11          | 12          | 13          | 14      | 15            | 16          | 18         |
| 2              |    | AUTO CLEAN  | ADD STEP    | NIGHT LIGHT | LOCK    | REVIEW STEP   | OVEN LIGHT  |            |
| 3              |    | DRAWER WARM | DELETE STEP | DRAWER OFF  | CONVECT | BAKE          | CHOICE BAKE |            |
| 4              |    | BROIL       | WARM        | TEMP +      | TEMP -  | HOUR +        | HOUR -      |            |
| 5              |    | MIN +       | MIN -       | DELAY       | CLOCK   | TIMER SET/OFF | START       |            |
| 6              |    |             |             |             |         |               |             |            |
| 7              |    |             |             |             |         |               |             |            |
| 8              |    |             |             |             |         |               |             |            |
| 19             |    |             |             |             |         |               |             | OFF CANCEL |



# Display Board & Connector Pinouts

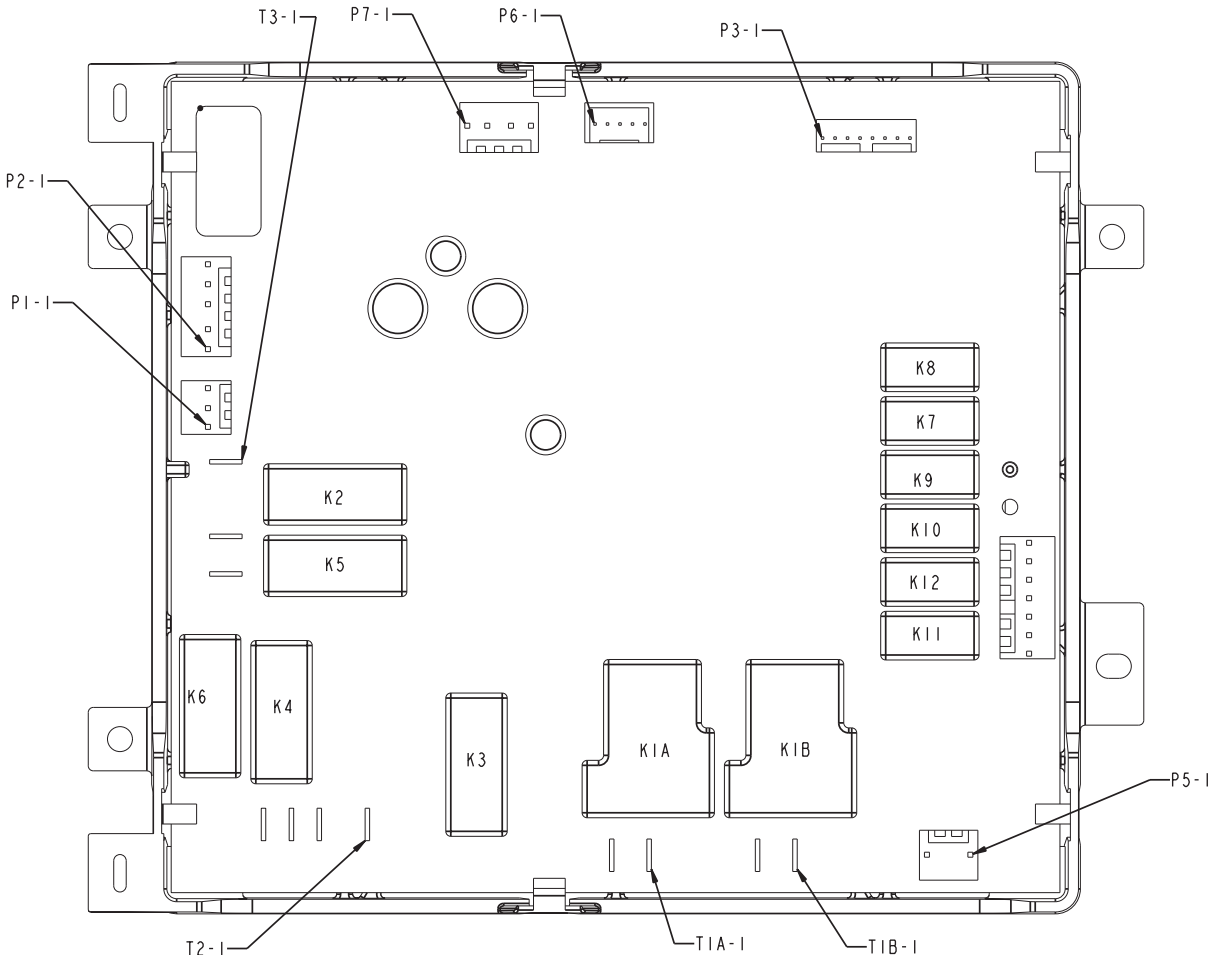


| P1 PINOUTS |            |
|------------|------------|
| P1-1       | FILAMENT   |
| P1-2       | CENTER TAP |
| P1-3       | FILAMENT   |
| P1-4       | 12 VDC     |
| P1-5       | 12 VDC     |
| P1-6       | OPEN       |
| P1-7       | 42 VDC     |
| P1-8       | 42 VDC     |

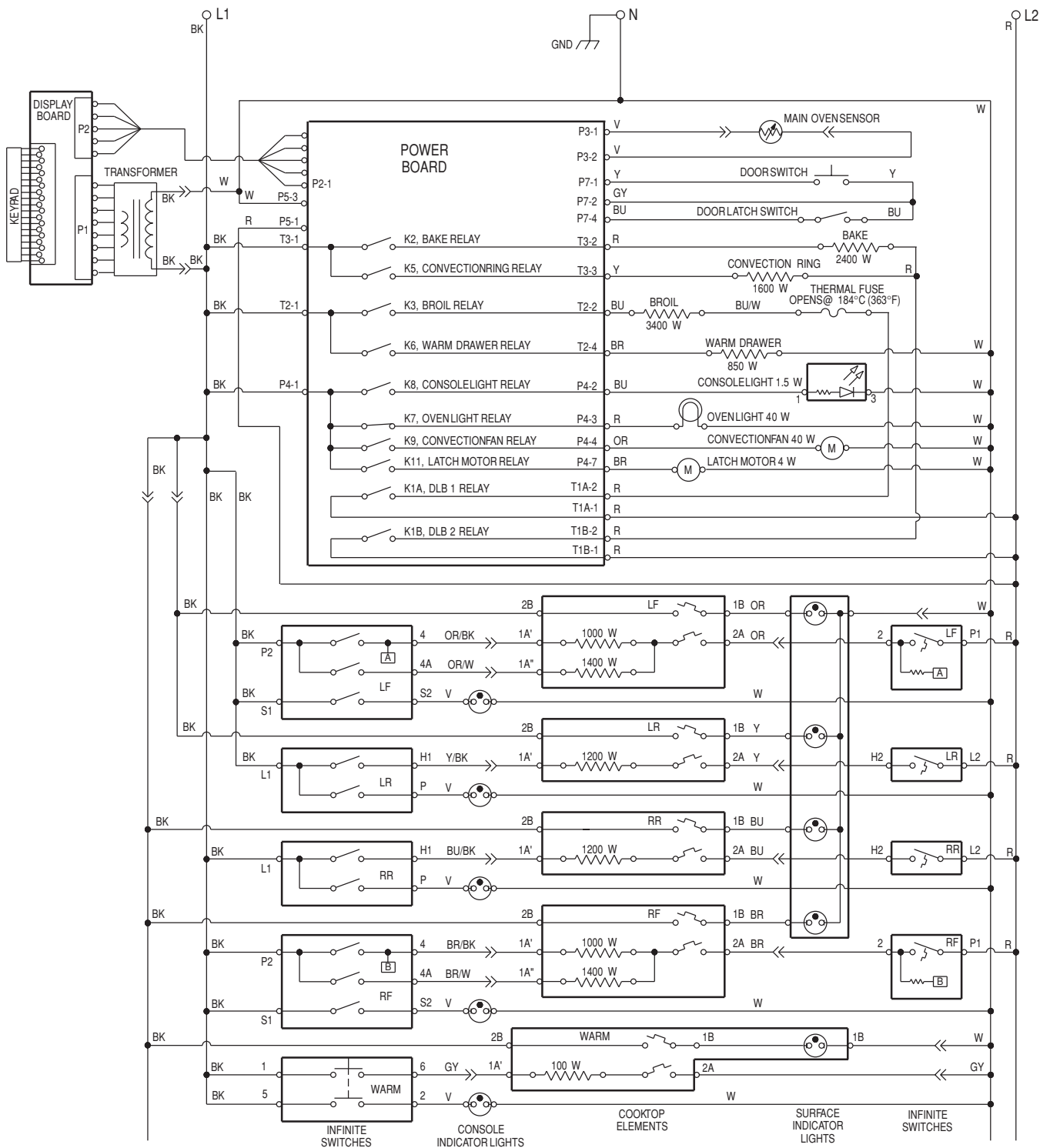


| P2 PINOUTS |        |
|------------|--------|
| P2-1       | 12 VDC |
| P2-2       | 12 VDC |
| P2-3       | OPEN   |
| P2-4       | DATA   |
| P2-5       | DGND   |

# Power Board



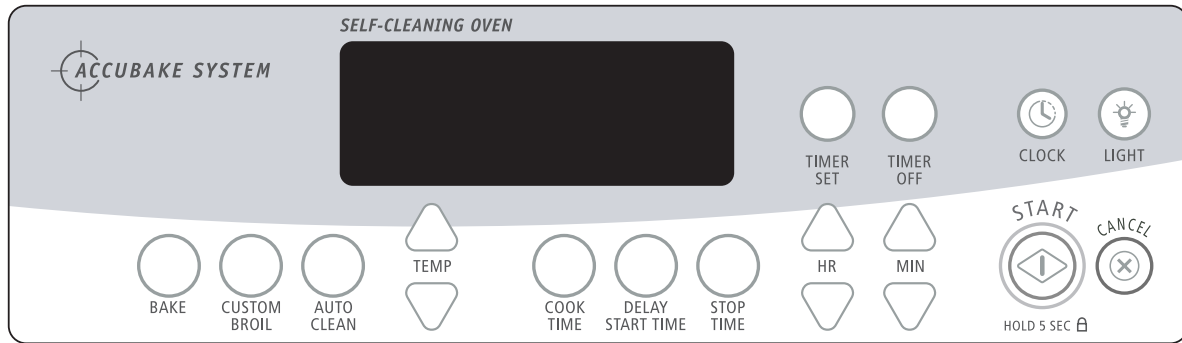
# Wiring Diagram



**NOTE:** Schematic shows door latch switch in the COOK position with oven door open and elements off.

**Part No. 9759783**

# WHIRLPOOL (TULSA-BUILT) SLIDE-IN MODELS GS440LEM & GS445LEM

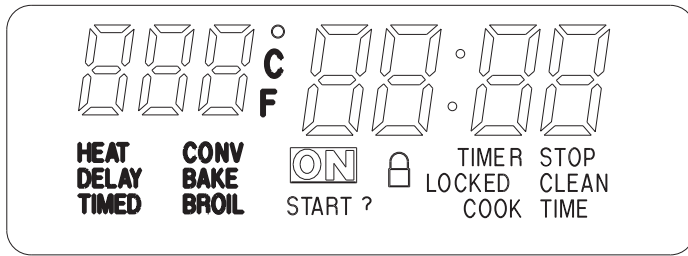


MODEL: GS440LEM & GS445LEM

## Keypad Layout

| MODELS GS440LEM & GS445LEM |            |             |                |              |            |   |
|----------------------------|------------|-------------|----------------|--------------|------------|---|
| PINS                       | 6          | 5           | 4              | 3            | 2          | 1 |
| 7                          | CLOCK      | TIMER SET   | UNDO           | START TIME   |            |   |
| 8                          | AUTO CLEAN | TIMER OFF   | 1ST/NEXT STEP  | BAKE         |            |   |
| 9                          | MINUTE UP  | HOUR UP     | REVIEW STEPS   | CUSTOM BROIL |            |   |
| 10                         | START      | HOUR DOWN   | CHOICE BAKE    | WARM         |            |   |
| 11                         |            | MINUTE DOWN | WARMING DRAWER | DRAWER OFF   |            |   |
| 12                         | OVEN LIGHT | STOP TIME   | TEMP UP        | TEMP DOWN    |            |   |
| 13                         |            |             |                |              | OFF CANCEL |   |
| 14                         |            |             |                |              |            |   |

# Display Board & Connector Pinouts



BAKE AND BROIL CONNECTOR P2

| PIN   | FUNCTION      |
|-------|---------------|
| P2-1  | BROIL         |
| SPACE | SPACE         |
| P2-2  | LI            |
| P2-3  | NO CONNECTION |
| P2-4  | BAKE          |

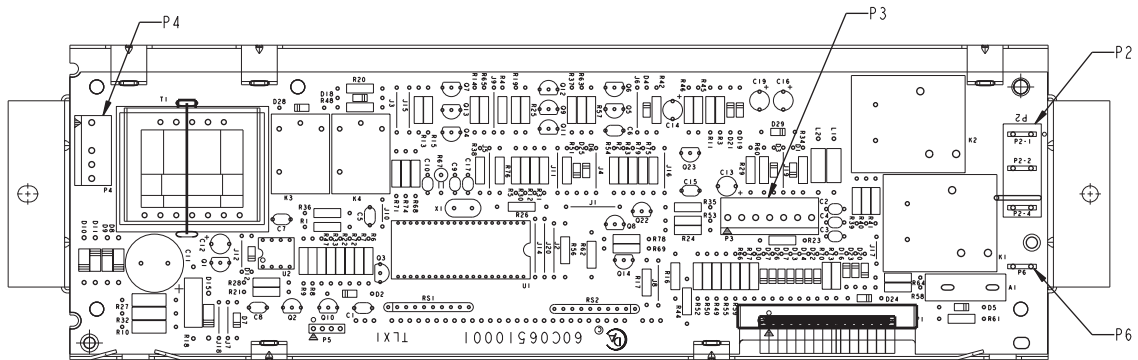
| PIN  | FUNCTION              |
|------|-----------------------|
| P3-1 | DOOR LATCH RECEIVE    |
| P3-2 | DOOR LATCH SEND       |
| P3-3 | DOOR POSITION SEND    |
| P3-4 | DOOR POSITION RECEIVE |
| P3-5 | EARTH GROUND          |
| P3-6 | OVEN SENSOR SEND      |
| P3-7 | OVEN SENSOR RECEIVE   |

| PIN  | FUNCTION            |
|------|---------------------|
| P4-1 | NEUTRAL             |
| P4-2 | NO PIN              |
| P4-3 | LI                  |
| P4-4 | OVEN LIGHT          |
| P4-5 | DOOR LATCH SOLENOID |

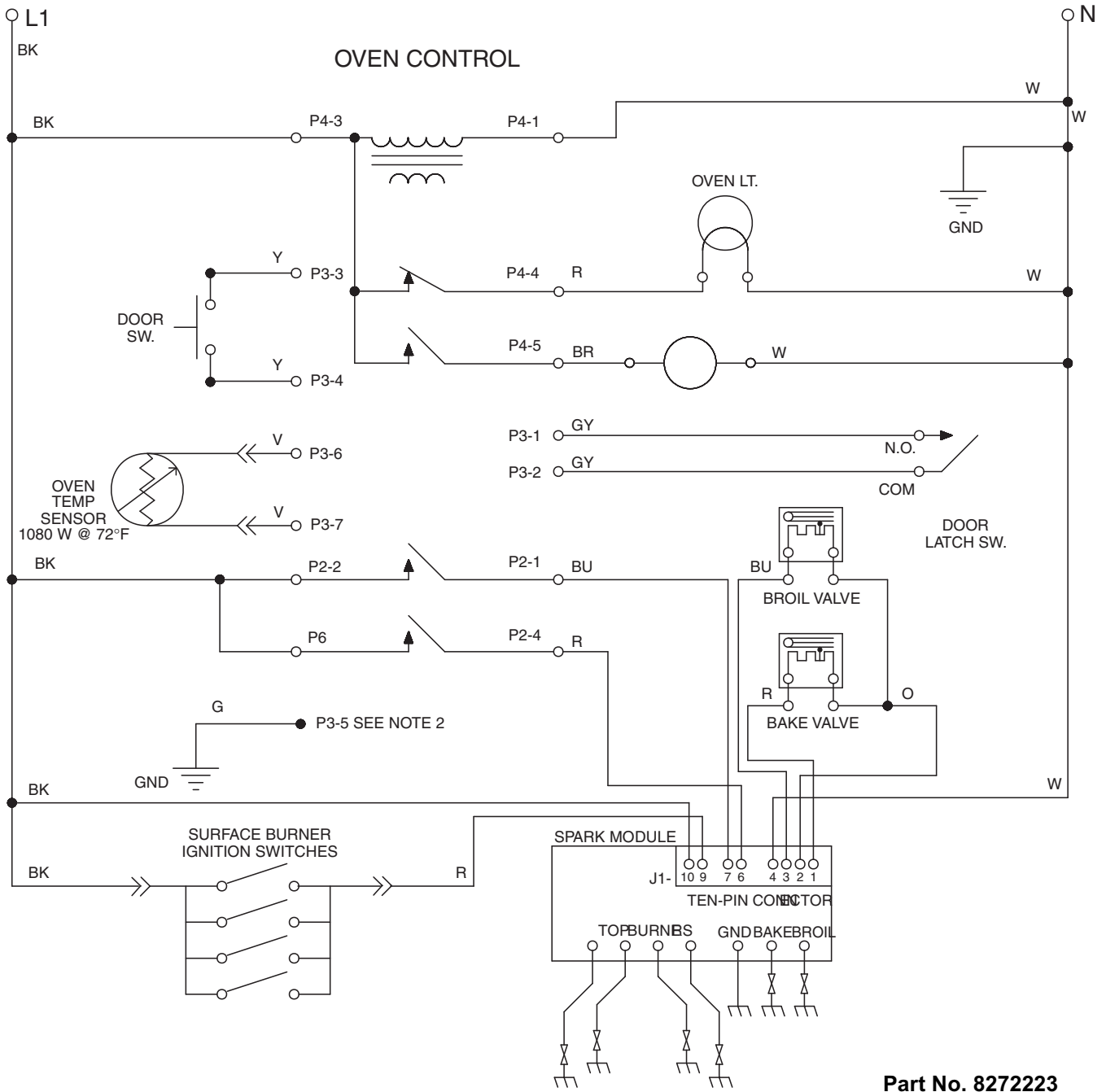
BAKE AND BROIL CONNECTOR P6

| PIN | FUNCTION |
|-----|----------|
| P6  | LI       |

# Power Board

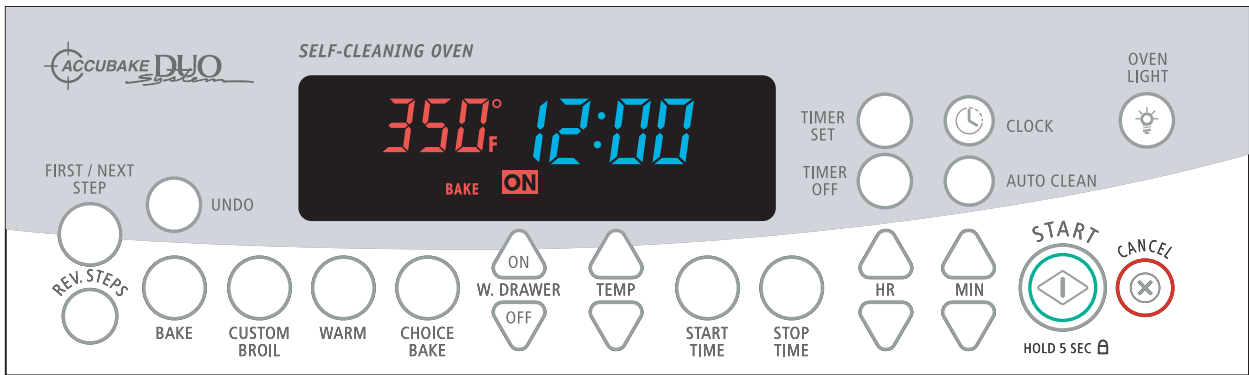


# Wiring Diagram



Part No. 8272223

# WHIRLPOOL (TULSA-BUILT) SLIDE-IN MODELS GS470LEM & GS475LEM

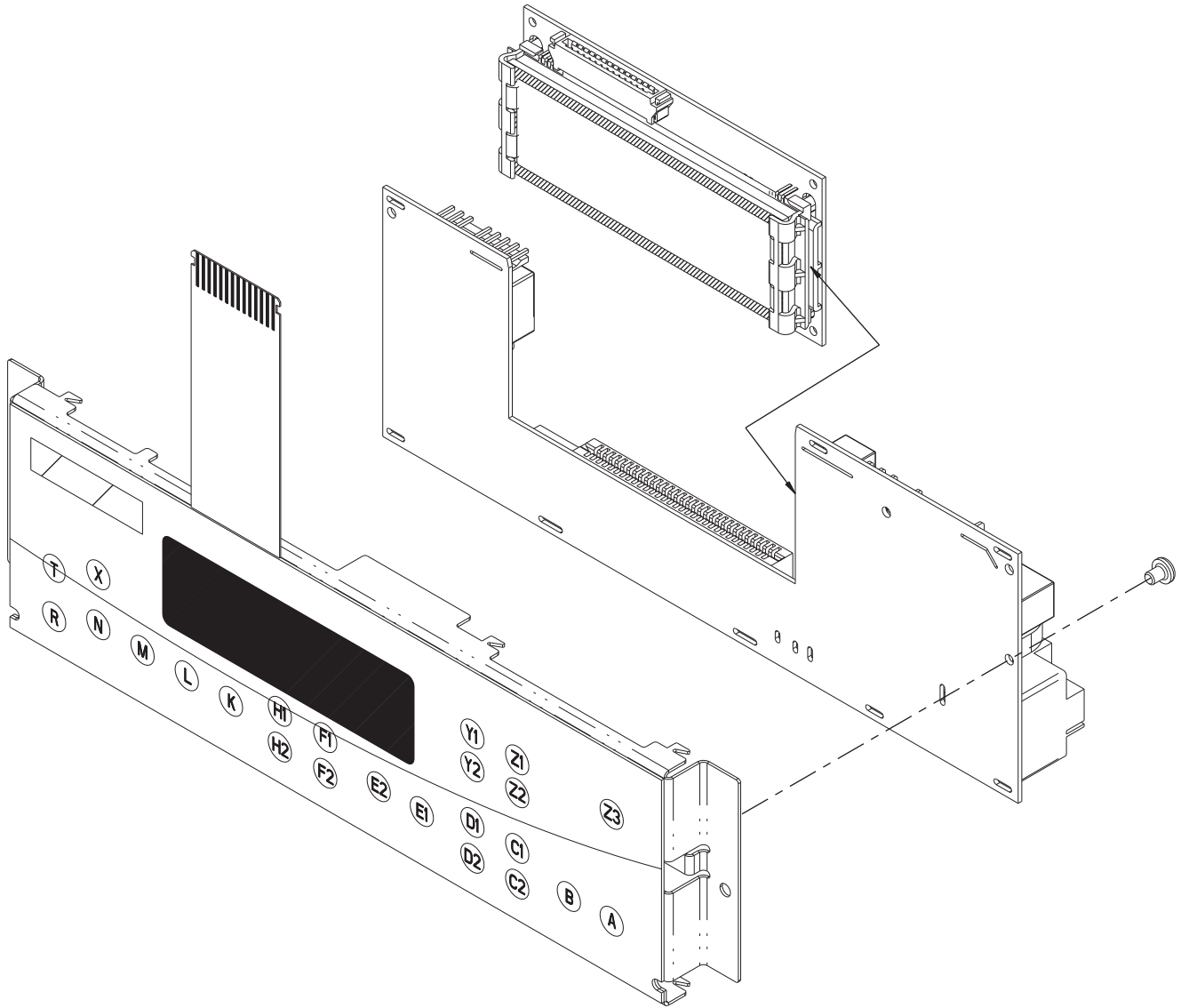


MODELS: GS470LEM & GS475LEM

## Keypad Layout

| MODELS GS470LEM & GS475LEM |            |             |                |              |            |   |
|----------------------------|------------|-------------|----------------|--------------|------------|---|
| PINS                       | 6          | 5           | 4              | 3            | 2          | 1 |
| 7                          | CLOCK      | TIMER SET   | UNDO           | START TIME   |            |   |
| 8                          | AUTO CLEAN | TIMER OFF   | 1ST/NEXT STEP  | BAKE         |            |   |
| 9                          | MINUTE UP  | HOUR UP     | REVIEW STEPS   | CUSTOM BROIL |            |   |
| 10                         | START      | HOUR DOWN   | CHOICE BAKE    | WARM         |            |   |
| 11                         |            | MINUTE DOWN | WARMING DRAWER | DRAWER OFF   |            |   |
| 12                         | OVEN LIGHT | STOP TIME   | TEMP UP        | TEMP DOWN    |            |   |
| 13                         |            |             |                |              | OFF CANCEL |   |
| 14                         |            |             |                |              |            |   |

# Display Board & Connector Pinouts



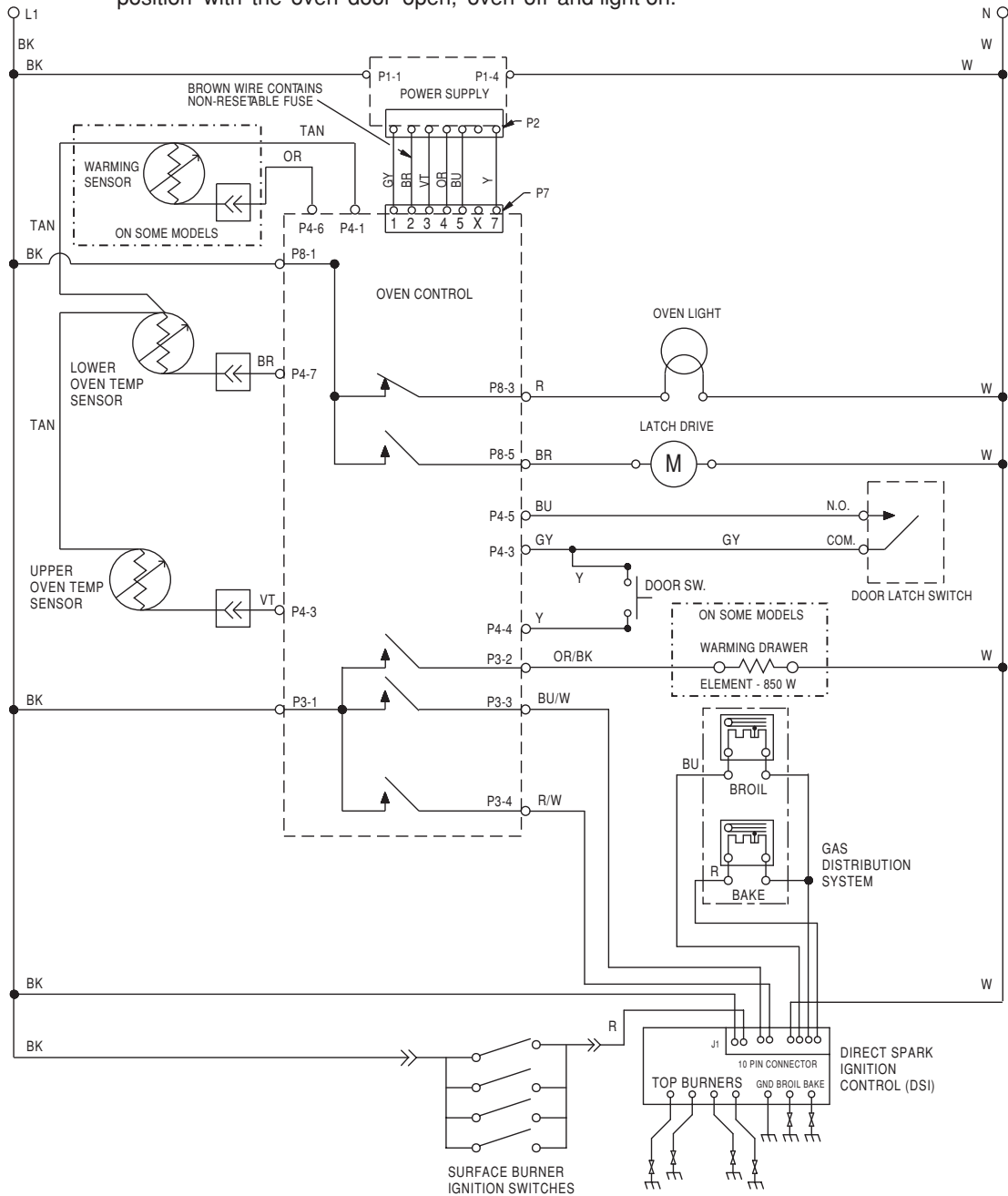
Appliance Manager Connectors

| Relay                               | Test between Pins |      |
|-------------------------------------|-------------------|------|
| Bake relay output                   | P3-4              | P3-1 |
| Broil relay output                  | P3-3              | P3-1 |
| Warm drawer/compressor relay output | P3-2              | P3-1 |
| Convection relay output             | P1-2              | P1-1 |
| Convection fan relay output         | P8-4              | P8-1 |
| Cook top lockout / simmer output    | P8-9              | P8-1 |
| Top light output                    | P8-2              | P8-1 |
| Cavity light output                 | P8-3              | P8-1 |
| Latch switch input                  | P4-5              | P4-1 |
| Door switch input                   | P4-4              | P4-1 |
| Switch strobe output                | P4-3              | P4-1 |
| Lower sensor                        | P4-8              | P4-1 |
| Upper sensor                        | P4-7              | P4-1 |
| Warming drawer sensor               | P4-6              | P4-1 |



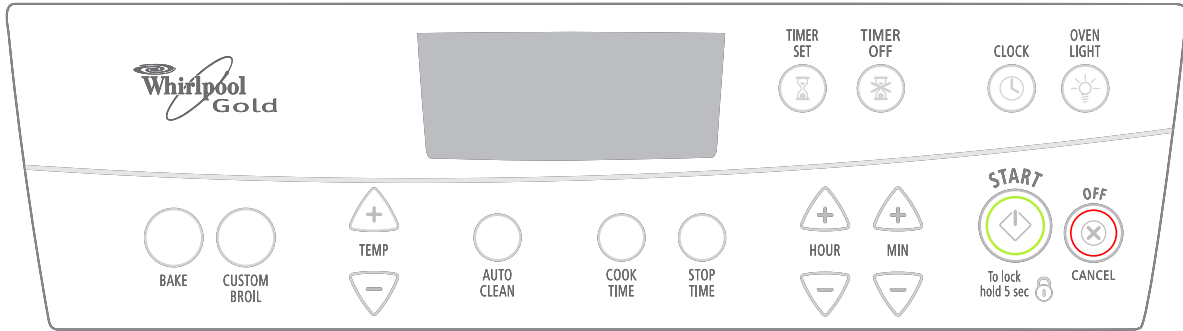
# Wiring Diagram

**NOTE:** Schematic shows door latch switch in the cook position with the oven door open, oven off and light on.



**Part No. 8522648**

# WHIRLPOOL (OXFORD-BUILT) SLIDE-IN MODELS GW395LEP & GY396LXP

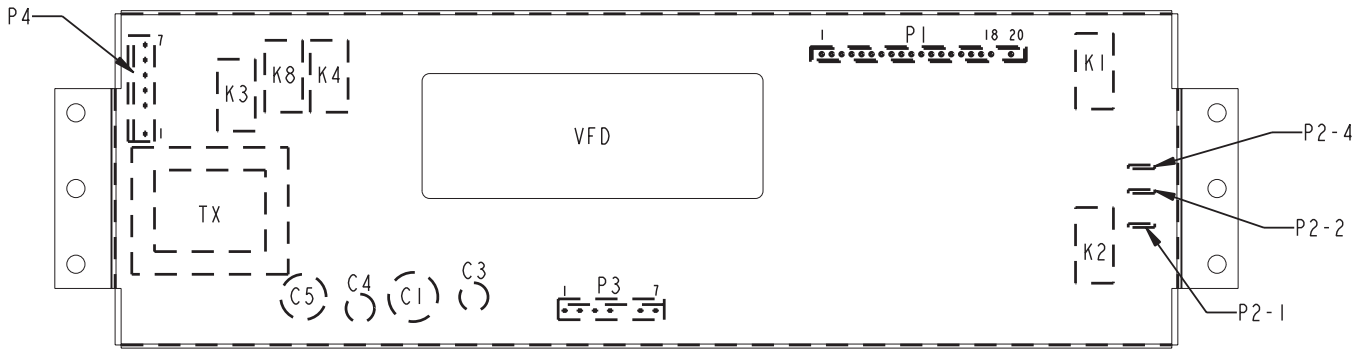


MODELS: GW395LEP & GY396LXP

## Keypad Layout

|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| BAKE        | ■ | ■ |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| BROIL       |   | ■ |   | ■ |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| CLEAN       |   | ■ |   |   | ■ |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| TEMP UP     | ■ |   |   |   | ■ |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| TEMP DOWN   | ■ |   |   |   |   |   |   |   |   |    |    |    |    |    | ■  |    |    |    |    |    |
| COOK TIME   | ■ |   |   |   |   |   |   |   |   |    |    |    | ■  |    |    |    |    |    |    |    |
| STOP TIME   | ■ |   |   |   |   |   |   |   |   | ■  |    |    |    |    |    |    |    |    |    |    |
| TIMER SET   |   |   |   |   |   | ■ | ■ | ■ |   |    |    |    |    |    |    |    |    |    |    |    |
| TIMER OFF   |   |   |   |   |   |   | ■ | ■ | ■ |    |    |    |    |    |    |    |    |    |    |    |
| CLOCK       |   |   |   |   |   |   |   |   |   |    | ■  | ■  | ■  |    |    |    |    |    |    |    |
| OVEN LIGHT  |   |   |   |   |   |   |   |   |   |    |    | ■  | ■  | ■  |    |    |    |    |    |    |
| HOUR UP     |   |   |   |   |   |   | ■ | ■ | ■ |    |    |    |    |    |    |    |    |    |    |    |
| MINUTE UP   |   |   |   |   |   |   |   | ■ | ■ | ■  |    |    |    |    |    |    |    |    |    |    |
| HOUR DOWN   |   |   |   |   |   |   | ■ |   | ■ | ■  |    |    |    |    |    |    |    |    |    |    |
| MINUTE DOWN |   |   |   |   |   |   |   |   | ■ | ■  | ■  |    |    |    |    |    |    |    |    |    |
| START       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    | ■  |    |    |
| OFF/CANCEL  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    | ■  | ■  |    |

# Display Board & Connector Pinouts



BAKE AND BROIL CONNECTOR P2

| PIN   | P2 FUNCTION                      |
|-------|----------------------------------|
| P2-1  | BROIL RELAY OUTPUT               |
| SPACE |                                  |
| P2-2  | AC LINE IN (120 VAC, 60 HZ) (L1) |
| P2-3  | NO CONNECTION                    |
| P2-4  | BAKE RELAY OUTPUT                |

| PIN  | P3 FUNCTION         |
|------|---------------------|
| P3-1 | DOOR LATCH RECEIVE  |
| P3-2 | DOOR LATCH SEND     |
| P3-3 | DOOR SWITCH SEND    |
| P3-4 | DOOR SWITCH RECEIVE |
| P3-5 | NO CONNECTION       |
| P3-6 | OVEN SENSOR SEND    |
| P3-7 | OVEN SENSOR RECEIVE |

| PIN  | P4 FUNCTION                                |
|------|--|
| P4-1 | AC NEUTRAL (N)                             |
| P4-2 | NO CONNECTION                              |
| P4-3 | AC LINE (120 VAC, 60 HZ) (L1)              |
| P4-4 | OVEN LIGHT RELAY OUT (120 VAC)             |
| P4-5 | DOOR MOTORIZED LATCH RELAY OUT (120VAC)    |
| P4-6 | CONVECT FAN (ELEC ONLY) RELAY OUT (120VAC) |
| P4-7 | COOLING FAN (ELEC & GAS) RELAYOUT (120VAC) |

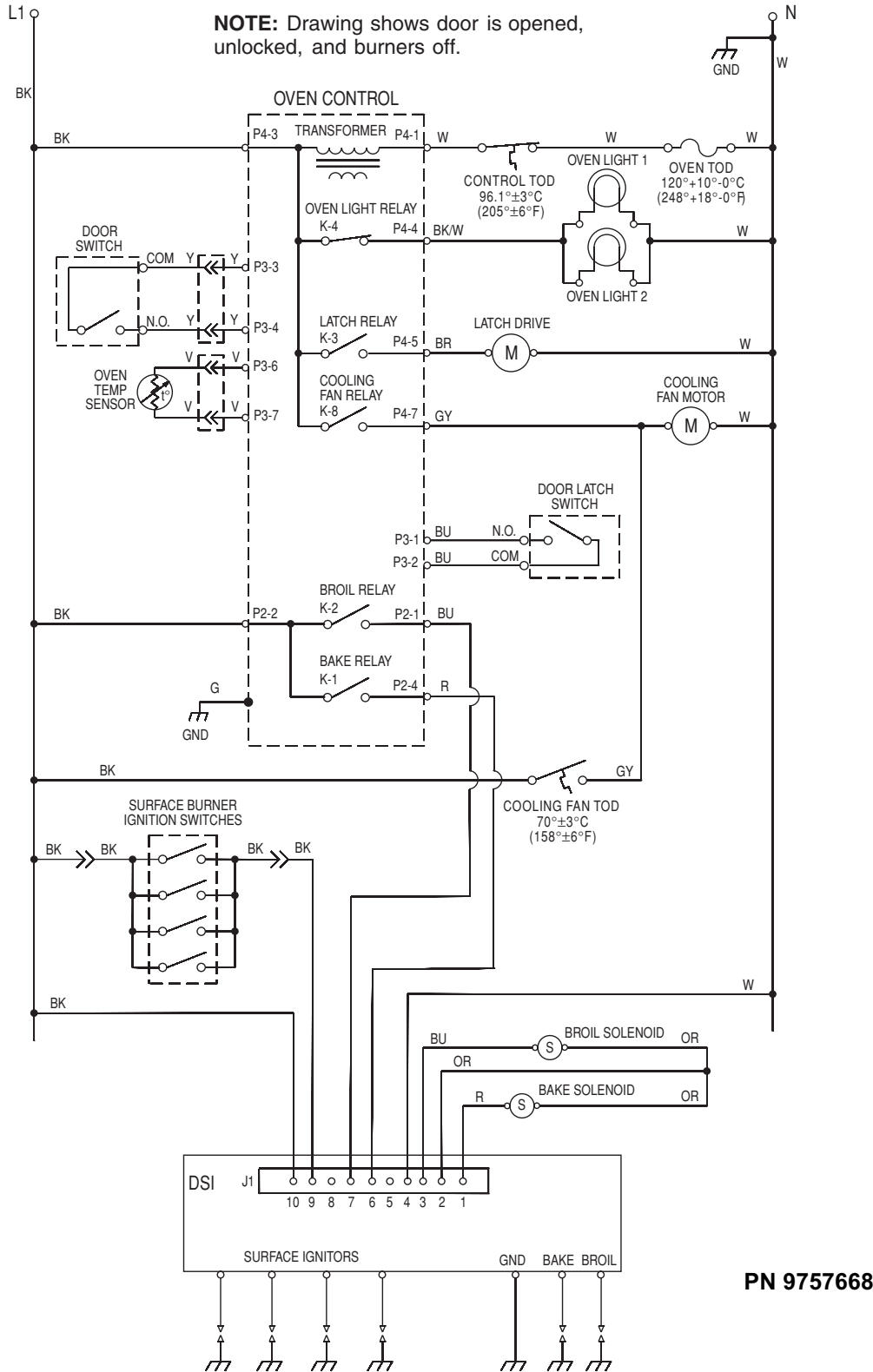
BAKE CONNECTOR P6

| PIN | P6 FUNCTION |
|-----|-------------|
| P6  | L1          |

P6 FUNCTION: LINE FOR BAKE (ELECTRIC ONLY)  
 P7 FUNCTION: CONVECTION  
 P1 FUNCTION: KEYBOARD INTERFACE

# Wiring Diagram

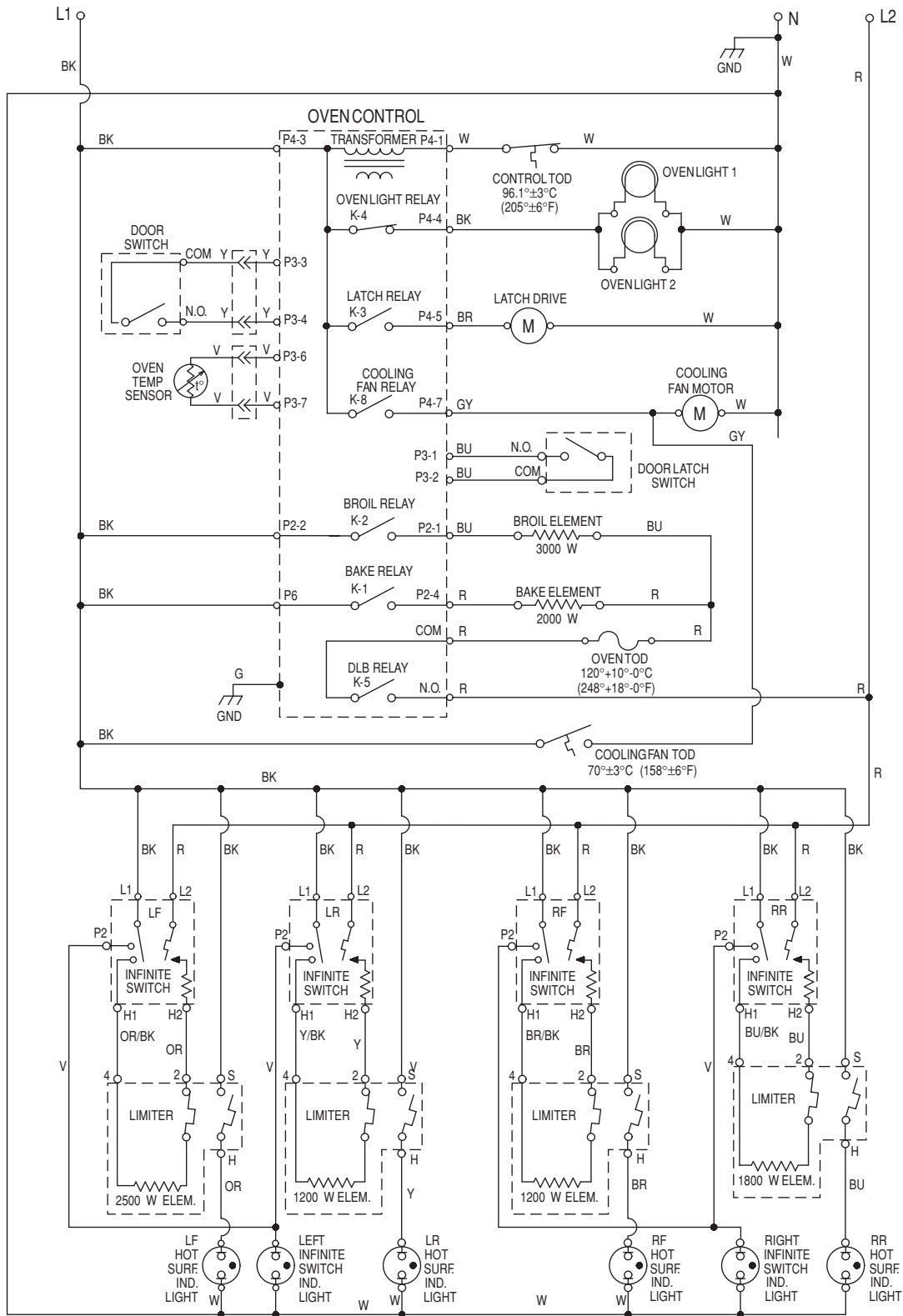
## Model GW395LEP



PN 9757668

# Wiring Diagram

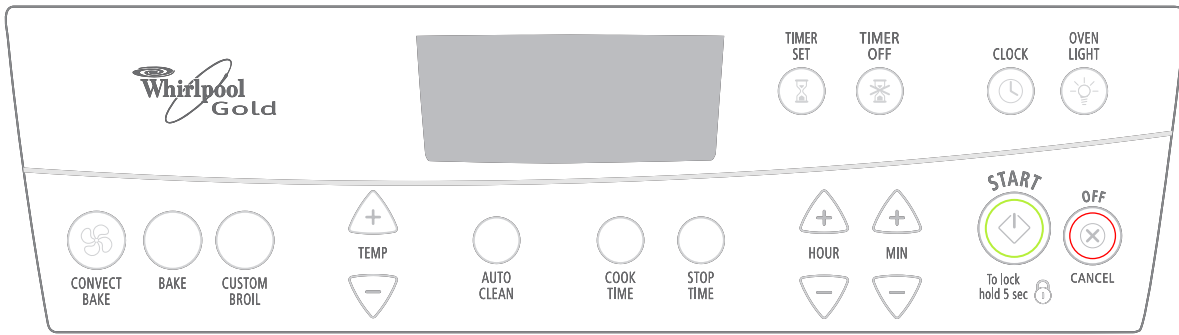
## Model GY396LXP



**NOTE:** Schematic shows door is opened, unlocked, and elements off.

Part No. 9759904

# WHIRLPOOL (OXFORD-BUILT) SLIDE-IN MODEL GY398LXP

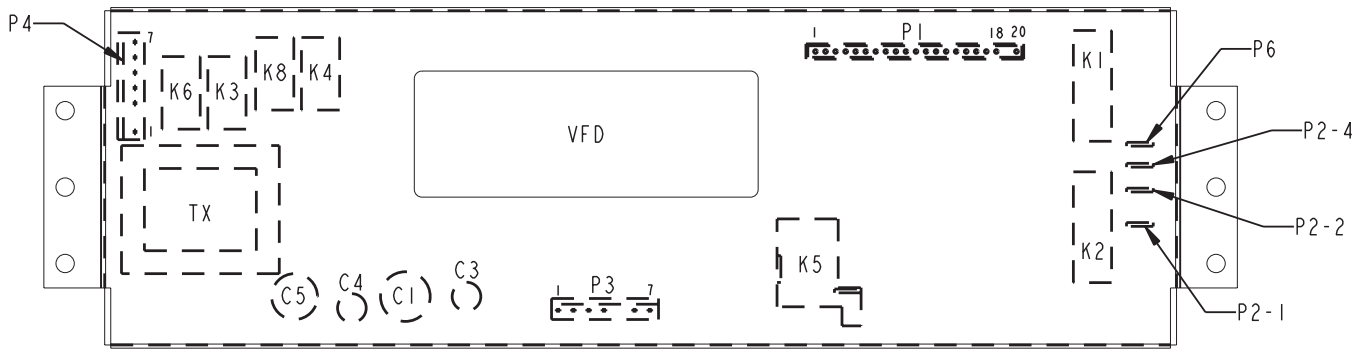


MODEL: GY398LXP

## Keypad Layout

|             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| CONVEC BAKE |   |   |   |   | ■ | ■ |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| BAKE        | ■ | ■ |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| BROIL       |   | ■ |   | ■ |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| CLEAN       |   | ■ |   |   | ■ |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| TEMP UP     | ■ |   |   |   | ■ |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |
| TEMP DOWN   | ■ |   |   |   |   |   |   |   |   |    |    |    |    |    | ■  |    |    |    |    |    |
| COOK TIME   | ■ |   |   |   |   |   |   |   |   |    |    |    |    | ■  |    |    |    |    |    |    |
| STOP TIME   | ■ |   |   |   |   |   |   |   |   |    | ■  |    |    |    |    |    |    |    |    |    |
| TIMER SET   |   |   |   |   |   | ■ | ■ |   |   |    |    |    |    |    |    |    |    |    |    |    |
| TIMER OFF   |   |   |   |   |   |   | ■ | ■ |   |    |    |    |    |    |    |    |    |    |    |    |
| CLOCK       |   |   |   |   |   |   |   |   |   |    |    | ■  | ■  |    |    |    |    |    |    |    |
| OVEN LIGHT  |   |   |   |   |   |   |   |   |   |    |    | ■  | ■  | ■  |    |    |    |    |    |    |
| HOUR UP     |   |   |   |   |   |   |   | ■ | ■ |    |    |    |    |    |    |    |    |    |    |    |
| MINUTE UP   |   |   |   |   |   |   |   |   | ■ | ■  |    |    |    |    |    |    |    |    |    |    |
| HOUR DOWN   |   |   |   |   |   |   |   | ■ |   | ■  |    |    |    |    |    |    |    |    |    |    |
| MINUTE DOWN |   |   |   |   |   |   |   |   |   | ■  | ■  |    |    |    |    |    |    |    |    |    |
| START       |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    | ■  |    |    |
| OFF/CANCEL  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    | ■  |    |

# Display Board & Connector Pinouts



BAKE AND BROIL CONNECTOR P2

| PIN   | P2 FUNCTION                      |
|-------|----------------------------------|
| P2-1  | BROIL RELAY OUTPUT               |
| SPACE |                                  |
| P2-2  | AC LINE IN (120 VAC, 60 HZ) (L1) |
| P2-3  | NO CONNECTION                    |
| P2-4  | BAKE RELAY OUTPUT                |

| PIN  | P3 FUNCTION         |
|------|---------------------|
| P3-1 | DOOR LATCH RECEIVE  |
| P3-2 | DOOR LATCH SEND     |
| P3-3 | DOOR SWITCH SEND    |
| P3-4 | DOOR SWITCH RECEIVE |
| P3-5 | NO CONNECTION       |
| P3-6 | OVEN SENSOR SEND    |
| P3-7 | OVEN SENSOR RECEIVE |

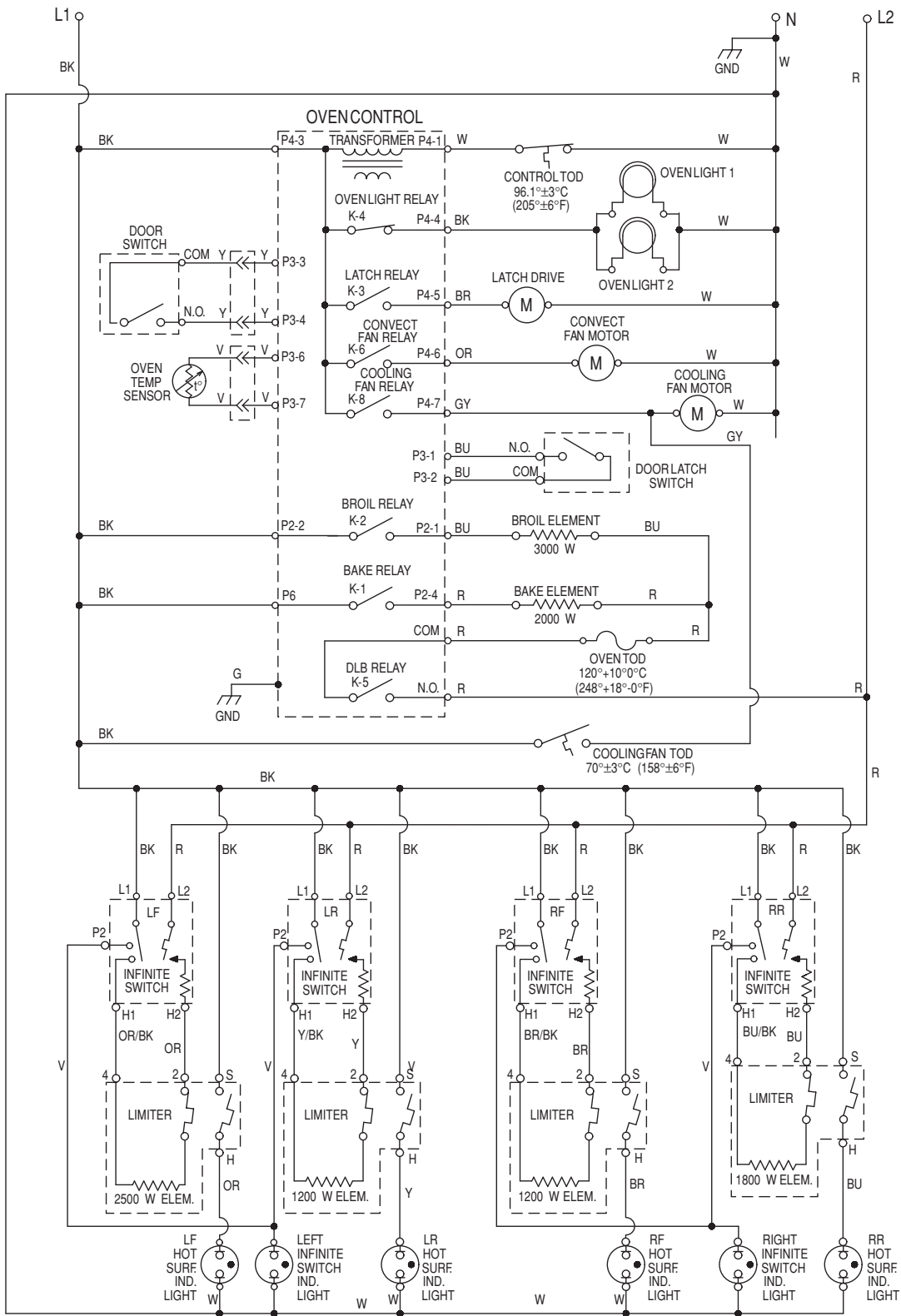
| PIN  | P4 FUNCTION                                |
|------|--|
| P4-1 | AC NEUTRAL (N)                             |
| P4-2 | NO CONNECTION                              |
| P4-3 | AC LINE (120 VAC, 60 HZ) (L1)              |
| P4-4 | OVEN LIGHT RELAY OUT (120 VAC)             |
| P4-5 | DOOR MOTORIZED LATCH RELAY OUT (120VAC)    |
| P4-6 | CONVECT FAN (ELEC ONLY) RELAY OUT (120VAC) |
| P4-7 | COOLING FAN (ELEC & GAS) RELAYOUT (120VAC) |

BAKE CONNECTOR P6

| PIN | P6 FUNCTION |
|-----|-------------|
| P6  | L1          |

P6 FUNCTION: LINE FOR BAKE (ELECTRIC ONLY)  
 P7 FUNCTION: CONVECTION  
 P1 FUNCTION: KEYBOARD INTERFACE

# Wiring Diagram

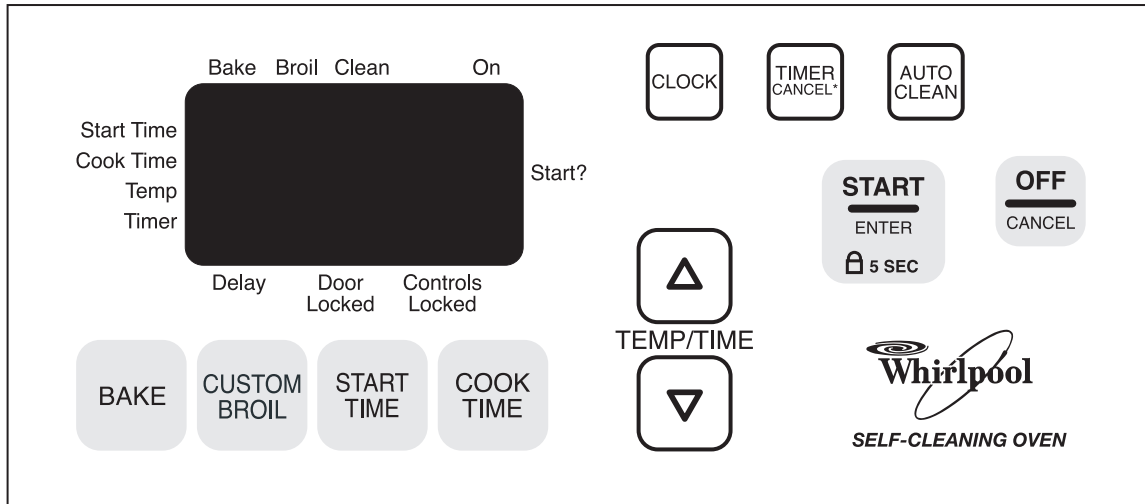


**NOTE:** Schematic shows door is opened, unlocked, and elements off.

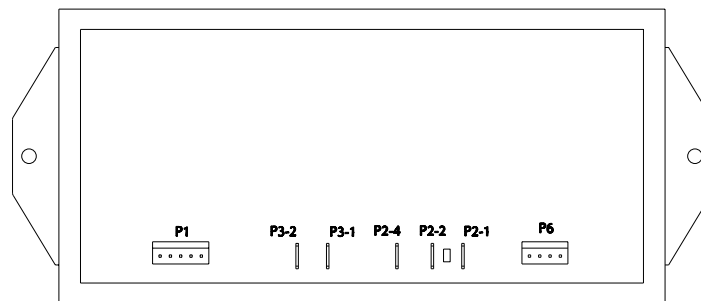
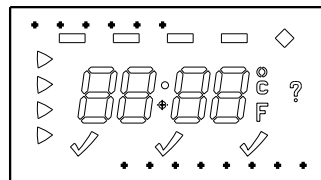
**PN 9759903**



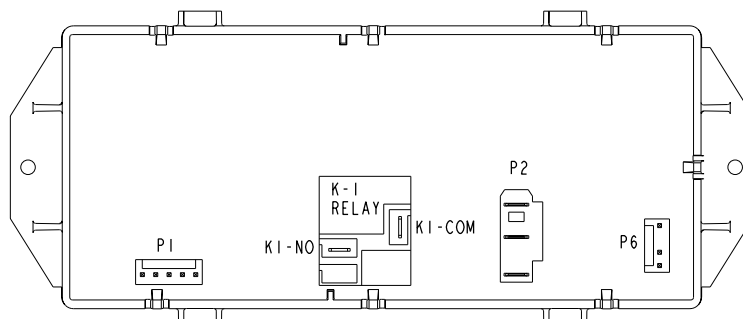
**WHIRLPOOL (TULSA-BUILT) FREESTANDING  
 MODELS RF196LXM, RF315PXP, RF364PXP, RF365PXM, RF366LXP,  
 RF368LXP, RF369LXP, RF378LXP, RF380LXP, SF196LEP, SF368LEP,  
 SF369LEP, SF378LEP & SF380LEP**



**Display And Display Board**



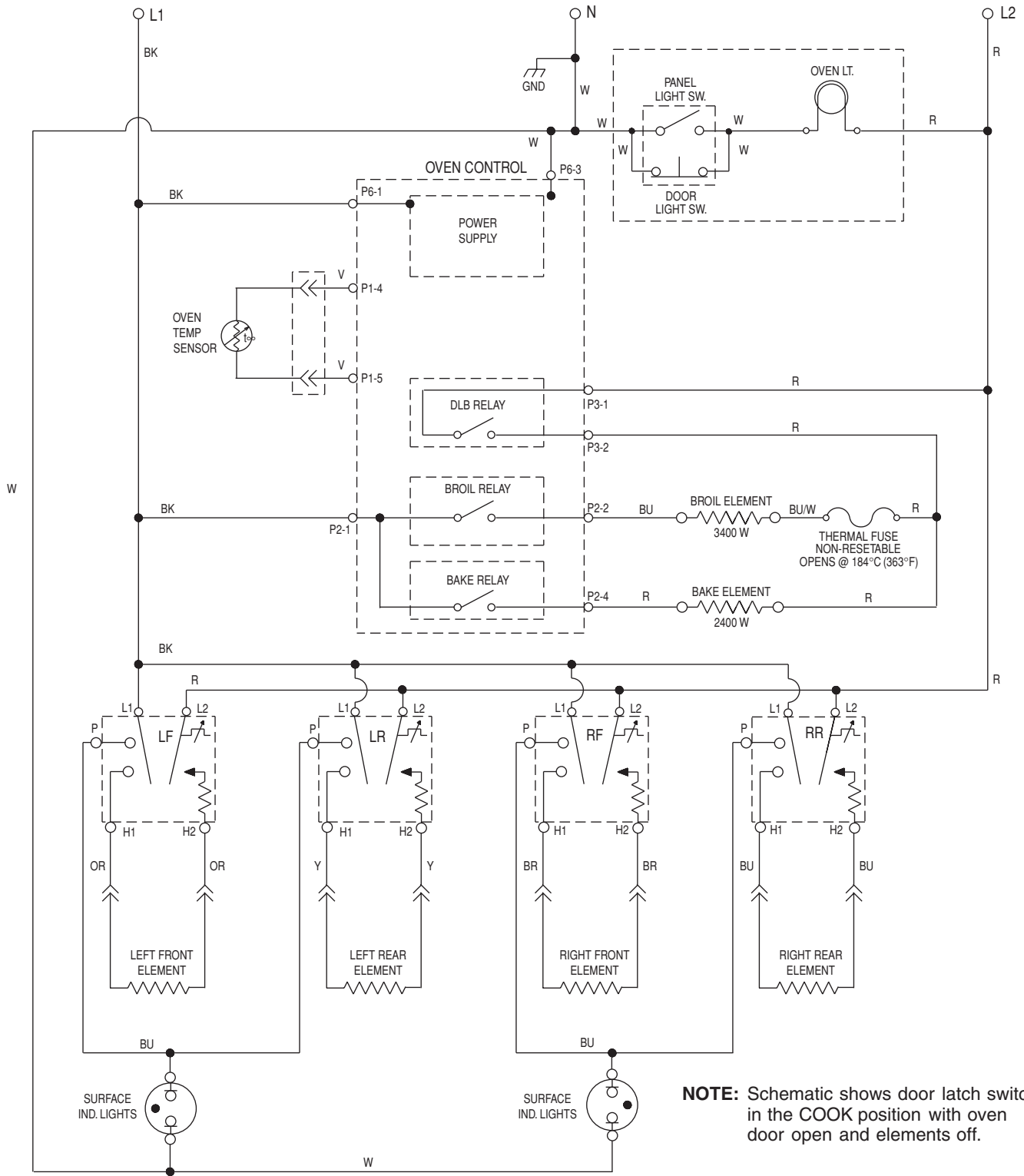
**DETAIL OF INVENSYS MODEL**



**DETAIL OF DAC (EMERSON) MODEL**

# Wiring Diagram

## Model RF315PXP



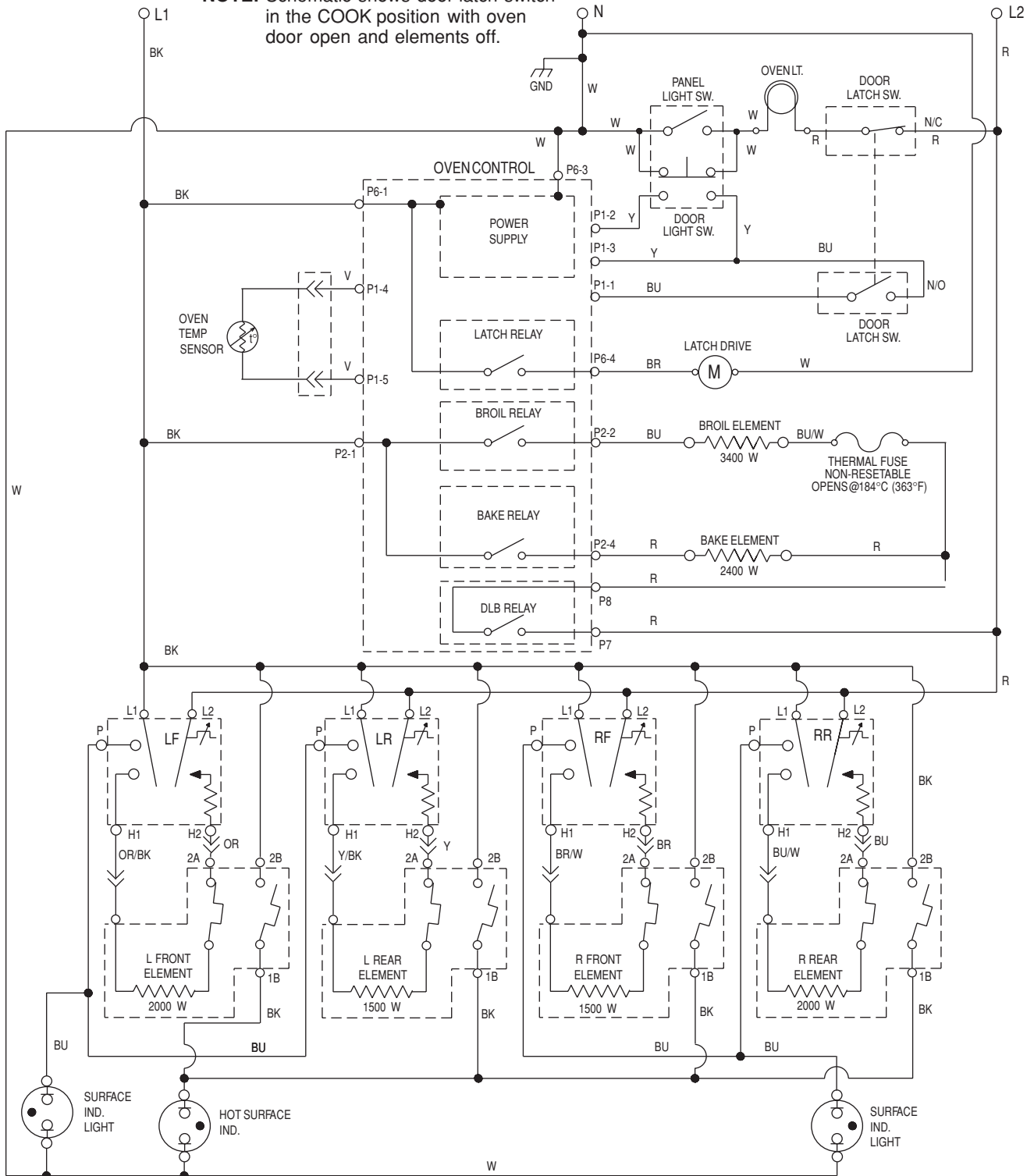
**NOTE:** Schematic shows door latch switch in the COOK position with oven door open and elements off.

PN 4454078

# Wiring Diagram

## Models RF196LXM & RF364PXP

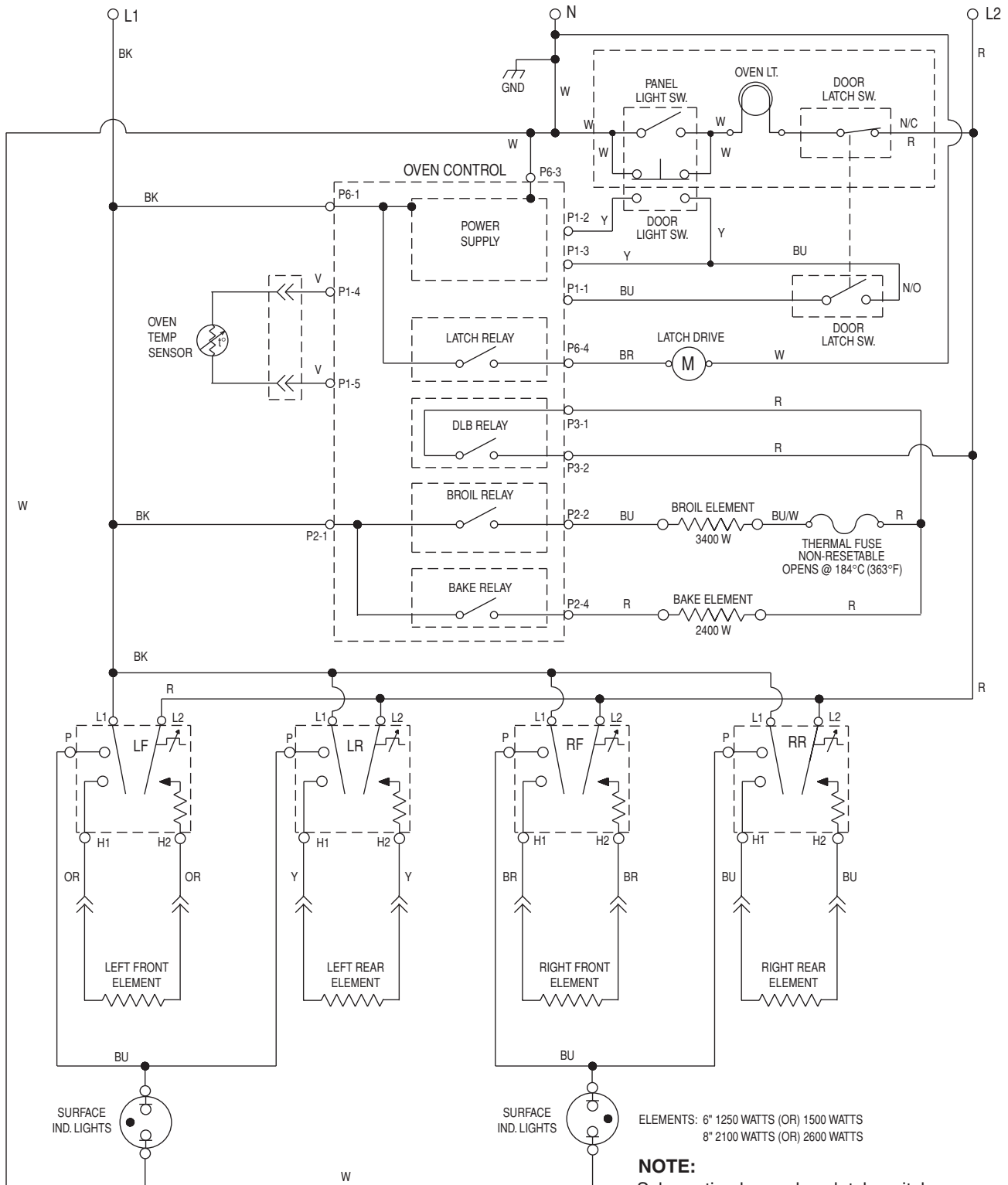
**NOTE:** Schematic shows door latch switch in the COOK position with oven door open and elements off.



PN 9757347

# Wiring Diagram

## Models RF365PXM & RF369LXP

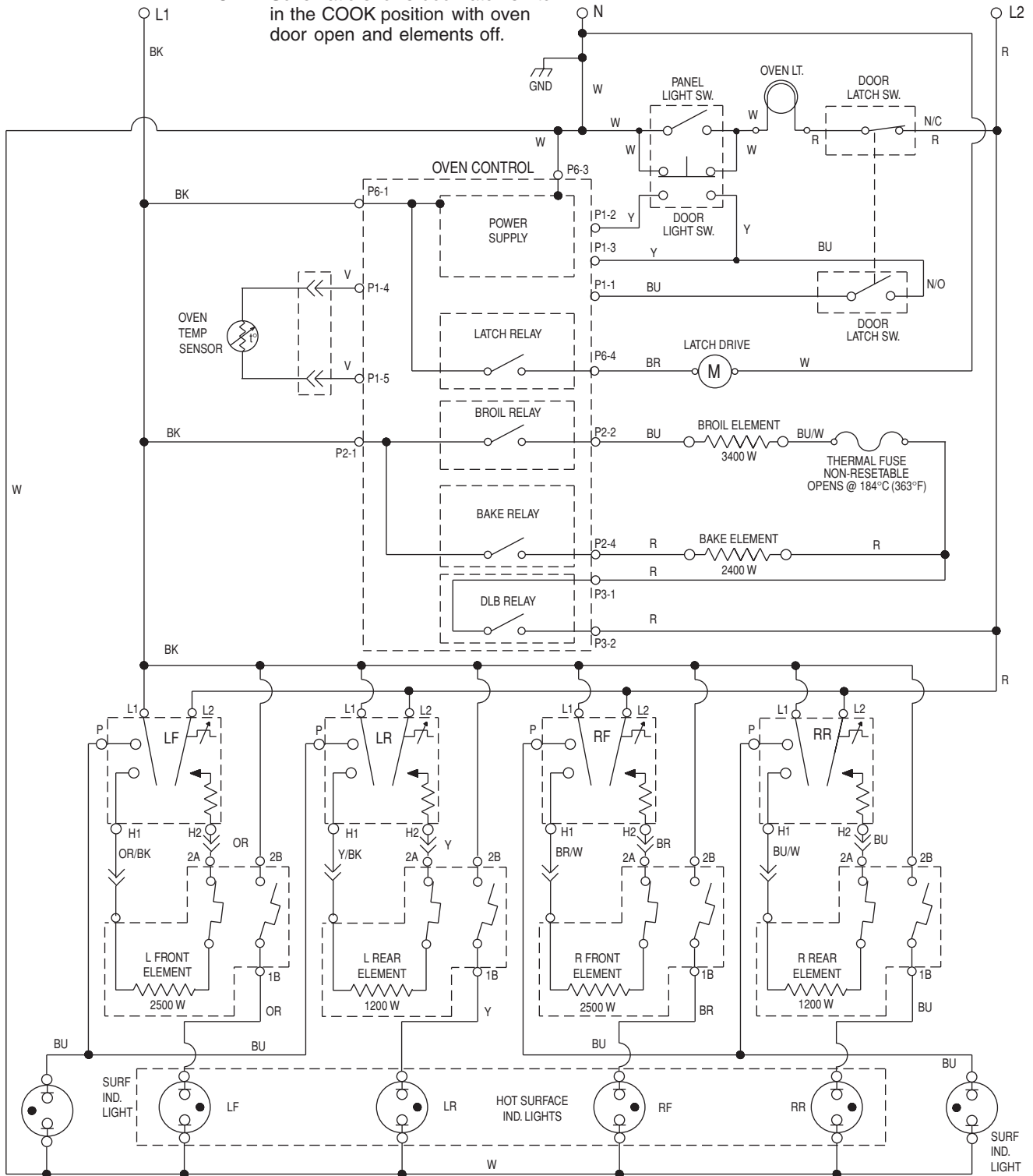


PN 4454079

# Wiring Diagram

## Models RF366LXP & RF368LXP

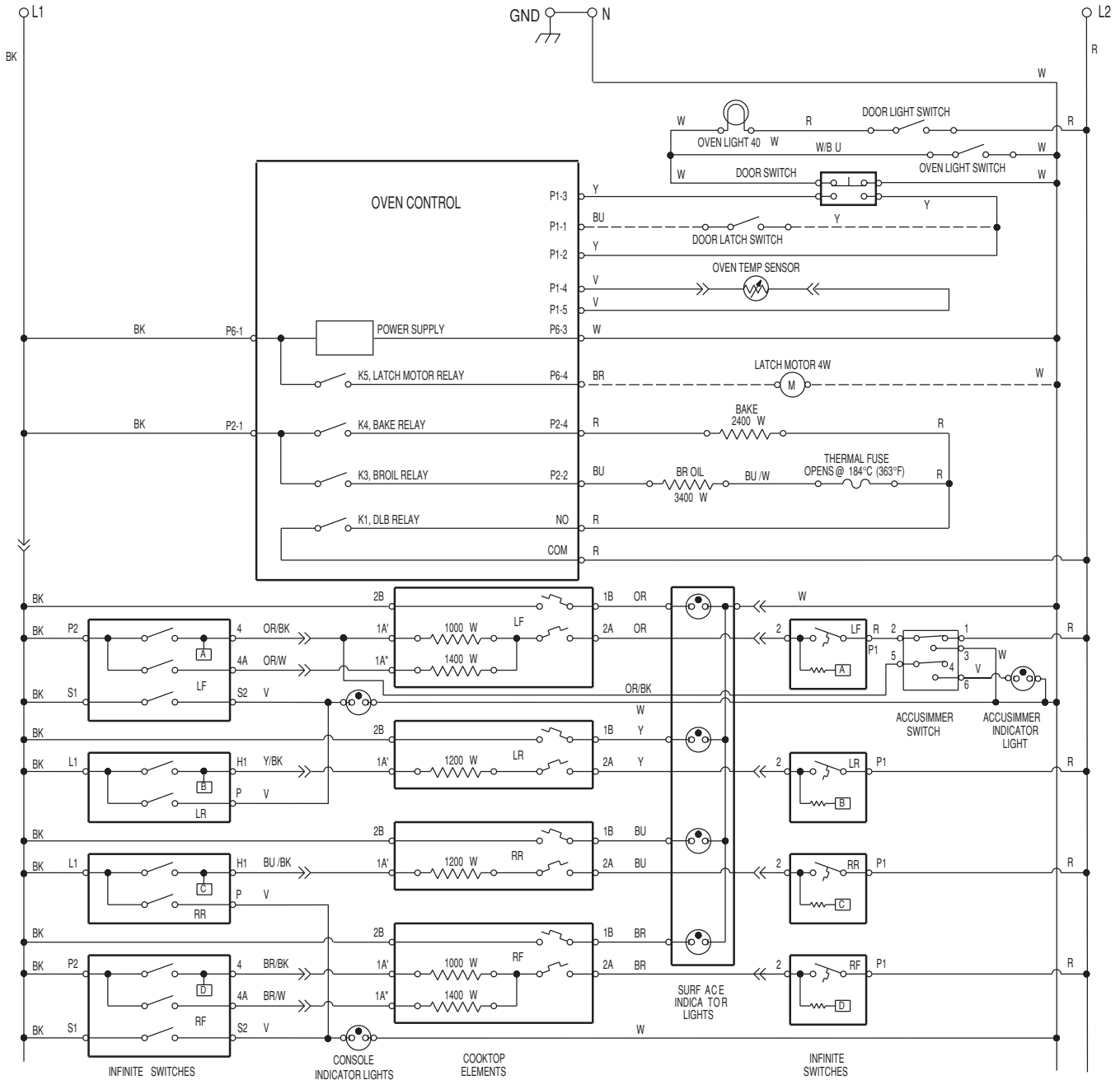
**NOTE:** Schematic shows door latch switch in the COOK position with oven door open and elements off.



PN 9756207

# Wiring Diagram

## Models RF378LXP & RF380LXP



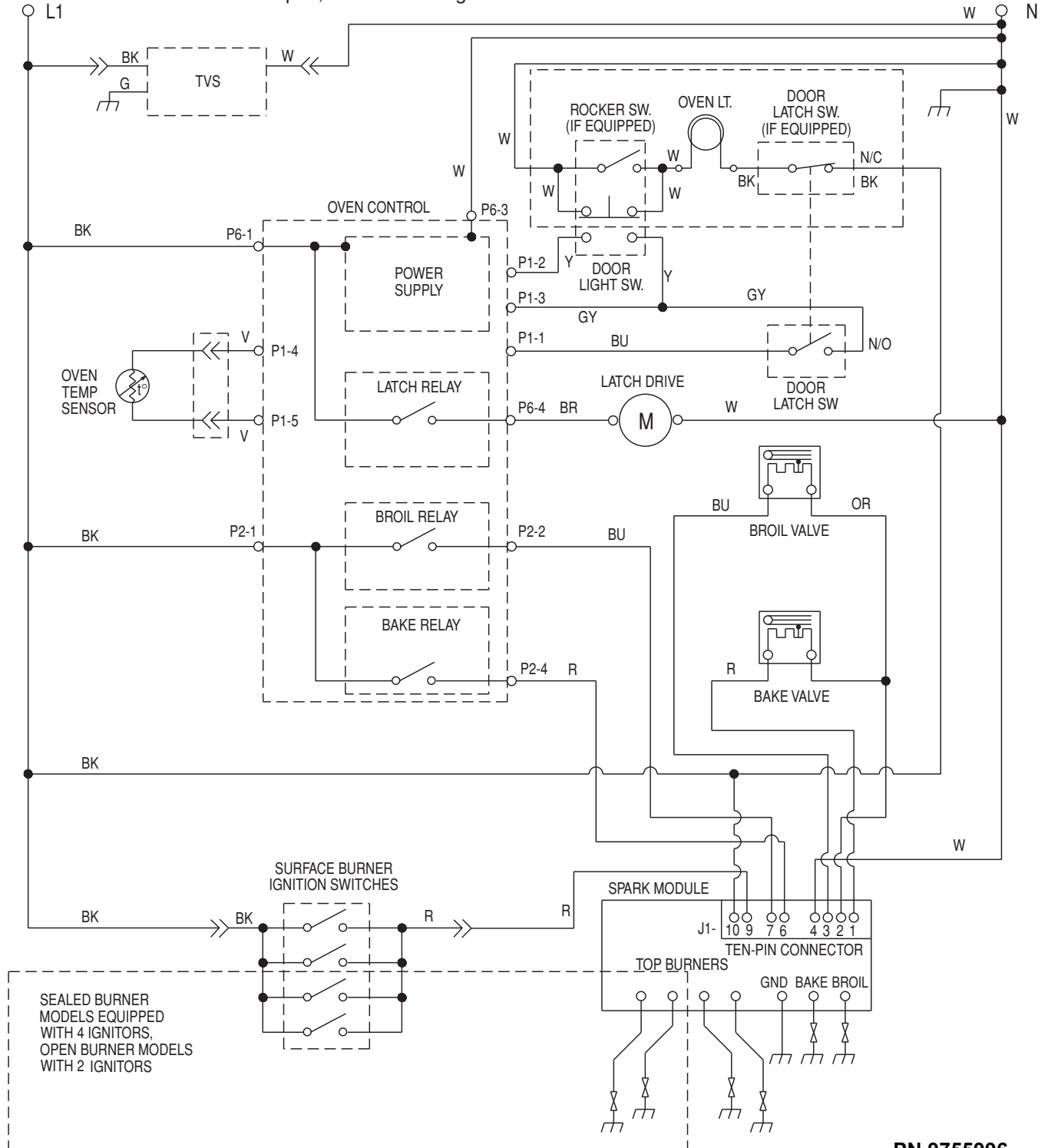
**NOTE:** Schematic shows door latch switch in the COOK position with oven door open and elements off.

**PN 9759917**

# Wiring Diagram

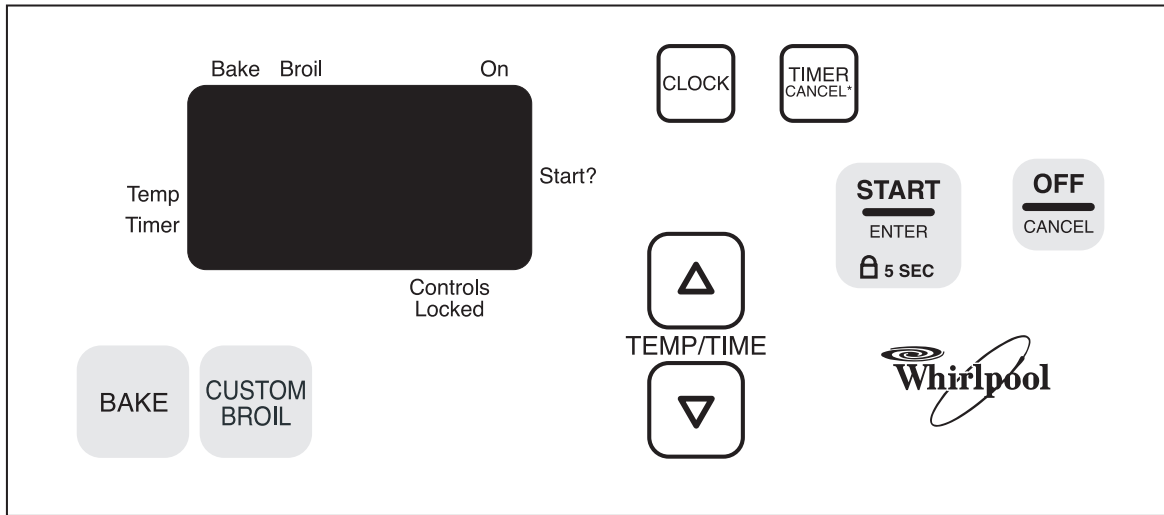
## Models SF196LEP, SF368LEP, SF369LEP, SF378LEP & SF380LEP

**NOTE:** Schematic shows door latch switch in the COOK position with oven door open, oven off and light on.



PN 9755996

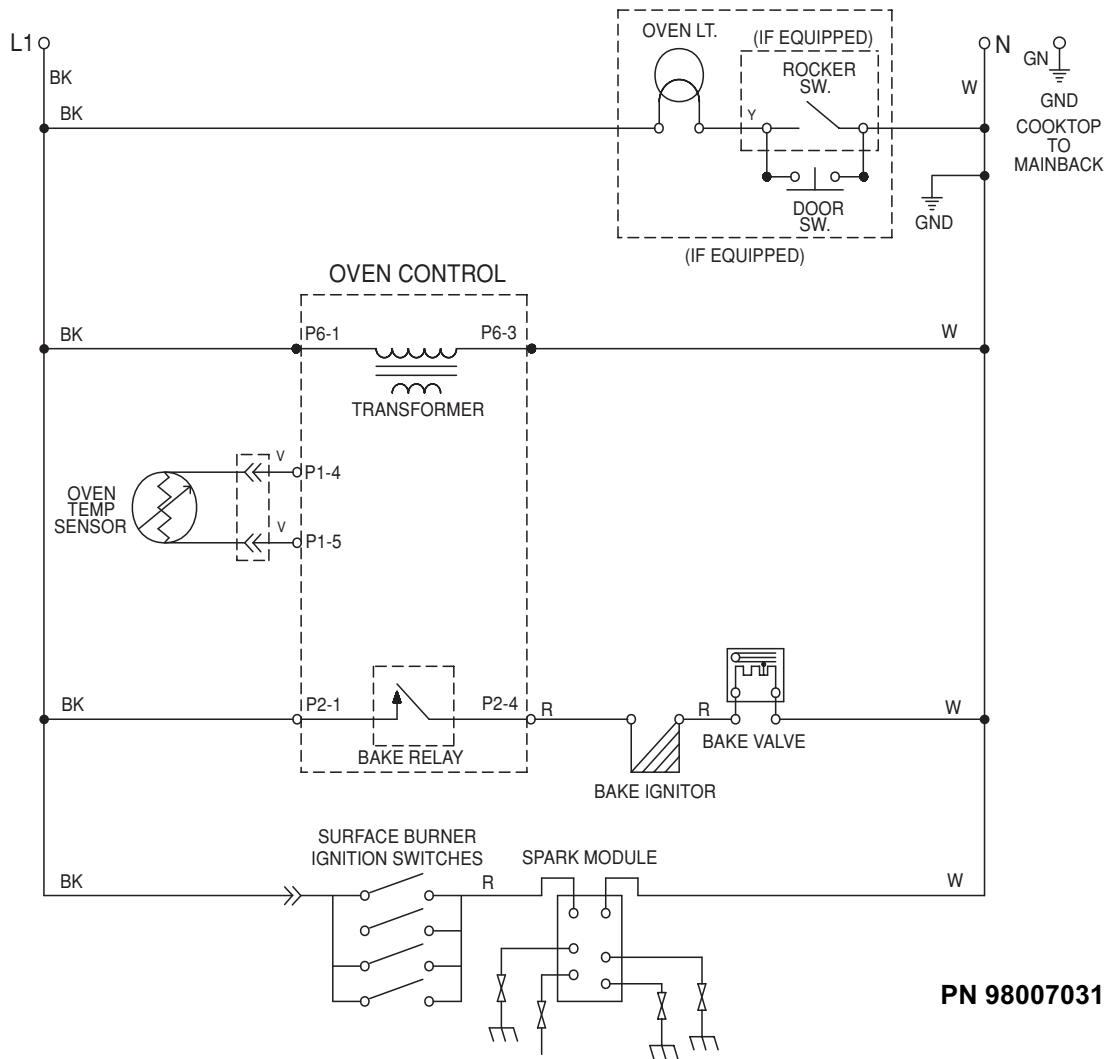
# WHIRLPOOL (CELAYA-BUILT) FREESTANDING MODEL SF315PEP



MODEL: SF315PEP

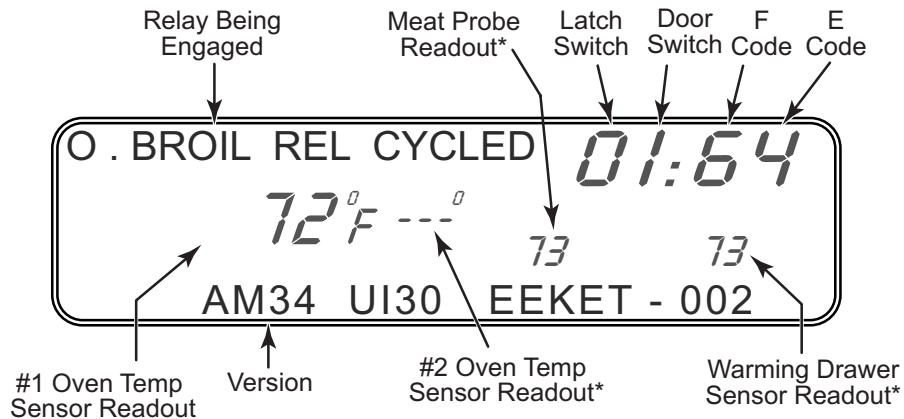


# Wiring Diagram



# KITCHENAID GOC CLOCK MANUAL DIAGNOSTICS

## KITCHENAID DIAGNOSTICS DISPLAY



\* If available (3 dashes will be shown if not available)

## ENTERING MANUAL DIAGNOSTICS

Within 120 seconds of power up, press the following keys to enable the relay capabilities listed below, and enter the manual diagnostics mode:

- Cancel** key.
- Cancel** key.
- Start** key.

## ENGAGING THE RELAYS

Pressing the following keys will toggle the state of the associated relays. **NOTE:** For the latch relay, the self-clean button will turn on the latch relay, and changing the state of the latch switch will turn off the relay.

| Key Press       | Relay                  | Text Line Display  |
|-----------------|------------------------|--------------------|
| Bake Key        | Bake Relay             | BAKE RELAY CYCLED  |
| Maxi Broil Key  | Outer Broil Relay      | O.BROIL REL CYCLED |
| Econo Broil Key | Inner Broil Relay      | I.BROIL REL CYCLED |
| Convect Bake    | Conv Relay and Fan     | CONV REL CYCLED    |
| Warm Drawer On  | Warm Drawer Relay      | WD RELAY CYCLED    |
| Top Light       | Oven Light Relay       | O LIGHT REL CYCLED |
| Oven Light      | Top Light Relay        | T LIGHT REL CYCLED |
| Clean Key       | Cycle Motor            | ROTATING MOTOR     |
|                 | After Latch Sw Toggles | MOTOR ROTATED      |

## DOUBLE LINE BREAK (DLB), FANS, AND OPEN DOOR

During diagnostics, all fans and elements may operate with the door open. **NOTE:** The latch motor will not cycle with the door open.

On electric models, the double line break (DLB) will engage when entering the diagnostics mode, and will disengage when exiting the diagnostics mode.

## ERROR CODE

Pressing the **3** key once will cycle to the next error code. An error code is displayed in the two right clock digits.

| <b>ERROR CODE LIST ORDER</b> |               |                  |
|------------------------------|---------------|------------------|
| 1                            | ERROR CODE #1 | MOST RECENT CODE |
| 2                            | ERROR CODE #2 | ERROR CODE #2    |
| 3                            | ERROR CODE #3 | ERROR CODE #3    |
| 4                            | ERROR CODE #4 | ERROR CODE #4    |
| 5                            | ERROR CODE #5 | ERROR CODE #5    |

## ERROR CODE DETECTION IN DIAGNOSTICS

If an error code is detected in diagnostics, the code will be placed in the two right clock digits, and the system will remain in the diagnostics mode.

## SENSORS

**#1 Oven Temp Probe** is displayed in the main temperature area.

**#2 Oven Temp Probe** is displayed in the probe temperature area.

**Meat Probe** is displayed in the start time area.

**Warming Drawer** is displayed in the stop time area.

If a sensor is out of range, three dashes (- - -) will be displayed in the appropriate temperature field.

## SWITCHES

**Door Switch** is displayed in the 2<sup>nd</sup> hrs clock field (0 = Open, 1 = Closed).

**Latch Switch** is displayed in the left-most clock field (0= Open, 1 = Closed).

## VERSIONS

AM ## UI## EE###-### in the lower text line shows the AM (Appliance Manager) micro code revision, next the UI (User Interface) micro revision, and last the EEPROM brand fuel and revision.

## TIME OUT

The diagnostics mode will time out after 5 minutes from the last user action.

## EXITING DIAGNOSTICS

To exit manual diagnostics press the **Cancel** Key, or remove power.

## OPTIONS SELECTION PAD

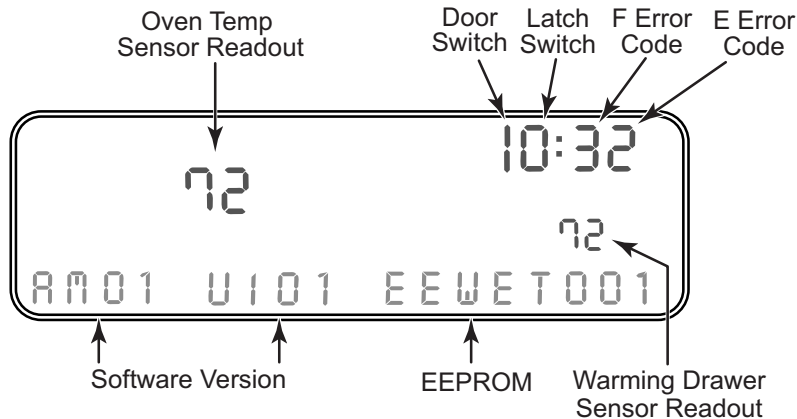
The Options selection pad allows you to access 10 hidden functions within the electronic oven control. The hidden functions let you change the oven temperature between Fahrenheit and Celsius, turn the audible signals and visual prompts on and off, and adjust the oven calibration. The Sabbath mode is also set using the Options selection pad.

*To use the Options:* Press the OPTIONS pad. The display will scroll through the options from 1 to 0. Press the OPTIONS selection pad and the number pad to easily access the desired hidden function. For example, pressing 1 on the numeric pad will toggle the temperature readings between Fahrenheit and Celsius.

| OPTIONS | HIDDEN FUNCTION       |
|---------|-----------------------|
| 1       | Fahrenheit or Celsius |
| 2       | Sound On/Off          |
| 3       | Sound High/Low        |
| 4       | End Beep On/Off       |
| 5       | Oven Temp Calibration |
| 6       | Sabbath Mode          |

# WHIRLPOOL GOC CLOCK MANUAL DIAGNOSTICS

## WHIRLPOOL DIAGNOSTICS DISPLAY



## ENTERING MANUAL DIAGNOSTICS

Within 120 seconds of power up, press the following keys to enable the relay capabilities listed below, and enter the manual diagnostics mode:

- a) **Cancel** key.
- b) **Cancel** key.
- c) **Start** key.

## ENGAGING THE RELAYS

Pressing the following keys will toggle the state of the associated relays. **NOTE:** For the latch relay, the self-clean button will turn on the latch relay, and changing the state of the latch switch will turn off the relay.

| <b>Key Press</b> | <b>Relay</b>           | <b>Upper Text Line Display</b> |
|------------------|------------------------|--------------------------------|
| Bake Key         | Bake Relay             | BAKE RELAY CYCLED              |
| Broil Key        | Broil Relay            | BROIL REL CYCLED               |
| Convect Bake     | Convect Relay & Fan    | CONV REL CYCLED                |
| Warm Drawer On   | Warm Drawer Relay      | WD RELAY CYCLED                |
| Top Light        | Oven Light Relay       | O LIGHT REL CYCLED             |
| Oven Light       | Top Light Relay        | T LIGHT REL CYCLED             |
| Clean Key        | Cycle Motor            | ROTATING MOTOR                 |
|                  | After Latch Sw Toggles | MOTOR ROTATED                  |

## DOUBLE LINE BREAK (DLB), FANS, AND OPEN DOOR

During diagnostics, all fans and elements may operate with the door open. **NOTE:** The latch motor will not cycle with the door open.

On electric models, the double line break (DLB) will engage when entering the diagnostics mode, and will disengage when exiting the diagnostics mode.

## ERROR CODE

Pressing the “Up” Hour key once will cycle to the next error code. An error code is displayed in the two right clock digits.

| <b>ERROR CODE LIST ORDER</b> |               |                  |
|------------------------------|---------------|------------------|
| 1                            | ERROR CODE #1 | MOST RECENT CODE |
| 2                            | ERROR CODE #2 | ERROR CODE #2    |
| 3                            | ERROR CODE #3 | ERROR CODE #3    |
| 4                            | ERROR CODE #4 | ERROR CODE #4    |
| 5                            | ERROR CODE #5 | ERROR CODE #5    |

## SENSORS

**Oven Temp Probe** is displayed in the main temperature area.

**Warming Drawer** is displayed in the stop time area.

If a sensor is out of range, three dashes (- - -) will be displayed in the appropriate temperature field.

## SWITCHES

**Door Switch** is displayed in the 2<sup>nd</sup> hrs clock field (0 = Open, 1 = Closed).

**Latch Switch** is displayed in the left-most clock field (0= Open, 1 = Closed).

## VERSIONS

AMUIEE in the lower text line shows the AM (Appliance Manager) micro code revision, next the UI (User Interface) micro revision, and last the EEPROM brand fuel and revision.

## TIME OUT

The diagnostics mode will time out after 5 minutes from the last user action.

## EXITING DIAGNOSTICS

To exit manual diagnostics press the **Cancel** Key, remove power, or wait for a 5 minute timeout.

# DIAGNOSTIC TEST PROCEDURES

## WHIRLPOOL EZ625

To enter the test:

Disconnect power to the unit for at least 15 seconds, and then reconnect it.

Press the following control keypads within one minute after power up:

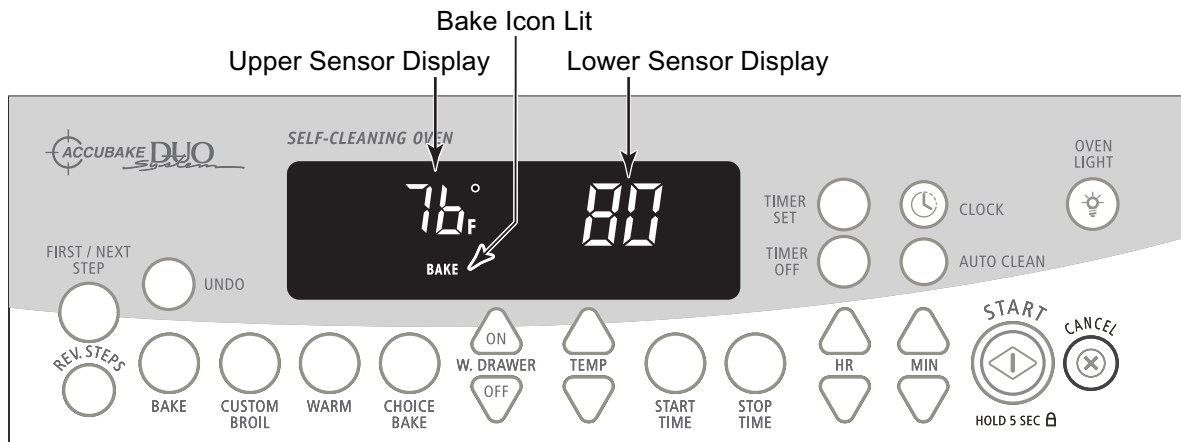
CANCEL  
CANCEL  
START

The clock will run through a series of numbers. When it stops, you will be able to progress through the test process by pressing the START keypad.

### Test 1: Bake Relay Output

The Bake relay is enabled (ignitor sparking will start in the oven—a 40 second delay after power up).

- The upper sensor temperature is displayed on the left (orange display)
- The lower sensor temperature is displayed on the right (blue display)
- The BAKE icon is lit

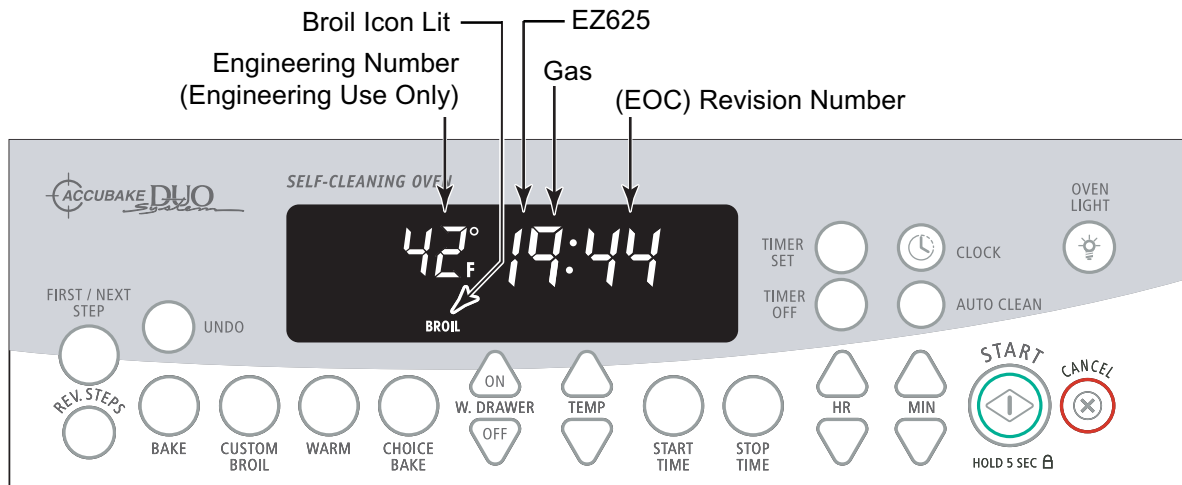


Press the START keypad to progress through the test.

## Test 2: Broil Relay Output

The Broil relay is enabled (ignitor sparking will start in the oven—a 40 second delay after power up).

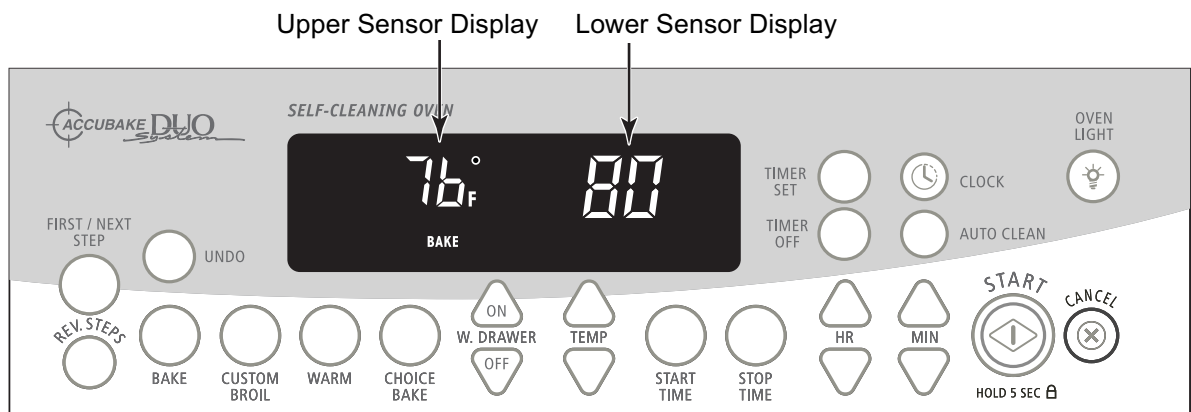
- The BROIL icon is lit
- 2 digit number (for Engineering use) is displayed on the left
- Model and fuel configuration codes displayed in first 2 digits of 4 digit display
  - 1 = EZ625 models
  - 9 (or g) = Gas
  - E = Electric
- Electronic Oven Control (EOC) revision number displayed in last 2 digits of 4 digit display



Press the START keypad to progress through the test.

## Test 3: Sensor Display

- The upper sensor temperature is displayed on the left (orange display)
- The lower sensor temperature is displayed on the right (blue display)



Pressing the START keypad will return to Test 1.

To exit the test, press the CANCEL keypad. The test will remain active for 20 minutes before automatic timeout.

# KITCHENAID EZ373 & 520

Test Mode: Available for the first 60 seconds after power up.

Enter the Test Mode by pressing:

- CANCEL
- CANCEL
- START

Any system or control failures will be displayed within 2 seconds.



NORMAL DISPLAY



ERROR DISPLAY

Exit the Test Mode by pressing the OFF/CANCEL key.

To recall the last error code, press the OFF/CANCEL key for 5 seconds.

Pressing the numerical keys will show the following displays:

|   |  |   |  |
|---|--|---|--|
| 1 |  | 6 |  |
| 2 |  | 7 |  |
| 3 |  | 8 |  |
| 4 |  | 9 |  |
| 5 |  | 0 |  |



## WHIRLPOOL EZ354, 357, 358, & 410

Test Mode: Available for the first 60 seconds after power up.

Enter the Test Mode by pressing:

CANCEL  
CANCEL  
START

Any system or control failures will be displayed within 2 seconds.



NORMAL DISPLAY



ERROR DISPLAY

Exit the Test Mode by pressing the OFF/CANCEL key.

To recall the last error code, press the OFF/CANCEL key for 5 seconds.

Pressing the indicated keys will show the following displays:

|                 |  |            |                        |
|-----------------|--|------------|------------------------|
| Convection Bake |  | Auto Clean |                        |
|                 |  |            | WILL CYCLE LATCH MOTOR |
| Bake            |  | Min +      |                        |
| Custom Broil    |  | Clock      |                        |
|                 |  |            | WILL CHECK BUZZER      |
| Temp +          |  | OFF/CANCEL |                        |
| Temp -          |  |            | EXIT TEST MODE         |

## Hidden Functions

Holding the appropriate key for 5 seconds will activate the hidden function:

|             |   |
|-------------|---|
| BAKE        | Temperature Calibration Offset            |
| BROIL       | Temperature Scale Selection (°F / °C)     |
| OFF/CANCEL  | Recalls The Last Failure Code             |
| START/ENTER | Software Revision Number                  |
| TIMER SET   | Disables/Enables Timer Reminder Signals   |
| COOK TIME   | Disables/Enables Cycle End Signals        |
| STOP TIME   | Disables/Enables Valid Date Entry Signals |

## WHIRLPOOL EZ175 & 176

Self-Diagnostic Test Mode: Available for the first 60 seconds after power up.

1. Enter the Self-Diagnostic Test Mode by simultaneously pressing:  
BAKE and CLOCK
2. The display will show “*tEst*”.
3. Pressing the DOWN (▼) arrow will display the following information in order shown. Pressing the UP (▲) arrow will display this information in reverse order.

|                                      |            |
|--------------------------------------|------------|
| Temperature Resistance of the Sensor | (i.e. 77°) |
| Current User Offset Value (in EPROM) | (i.e. +20) |
| Software Revision                    | (S####)    |
| Checksum                             | (#####)    |
| Last Failure Code                    | (F#/E#)    |
4. Pressing the Power keys BAKE, BROIL, & AUTOCLEAN will toggle their respective outputs and indicators.
5. The Door Latch Relay is toggled by pressing the AUTOCLEAN key. The door latch motor will complete one revolution.
6. Pressing the CLOCK key will perform an “all segment / indicators on” function to verify that all segments on the display, and the LED indicators, are working properly.
7. Pressing the START key checks the BEEPER, giving a constant “beep” tone when depressed.
8. Pressing the CANCEL key will take the control out of the “test” mode, and into an “idle” state.

**NOTE:** The Self-Diagnostic Mode will only allow access for 10 minutes before it times out and returns to an idle state.

### Hidden Functions

Pressing and holding the BROIL key for 5 seconds will toggle the display from Fahrenheit (°F) to Celsius (°C).

## WHIRLPOOL EZ300

Self-Diagnostic Test Mode: Available for the first 60 seconds after power up.

1. Enter the Self-Diagnostic Test Mode by sequentially pressing:

TEMP DOWN

TIMER OFF

This test will produce a blank display, then any system or control failures will be detected within 2 seconds.

2. Pressing the CANCEL key will take the control out of the “test” mode, and into an “idle” state.

**NOTE:** The Self-Diagnostic Mode will only allow access for 10 minutes before it times out and returns to an idle state.

## Hidden Functions

Holding the appropriate key for 5 seconds will activate the hidden function:

|             |   |
|-------------|---|
| BAKE        | Temperature Calibration Offset            |
| BROIL       | Temperature Scale Selection (°F / °C)     |
| OFF/CANCEL  | Recalls The Last Failure Code             |
| START/ENTER | Software Revision Number                  |
| TIMER SET   | Disables/Enables Timer Reminder Signals   |
| COOK TIME   | Disables/Enables Cycle End Signals        |
| STOP TIME   | Disables/Enables Valid Date Entry Signals |

— NOTES —

— NOTES —

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# **PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION SOURCES**

***IN THE UNITED STATES:***

**FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION CALL:**

FOR WHIRLPOOL PRODUCTS: 1-800-253-1301  
FOR KITCHENAID PRODUCTS: 1-800-422-1230  
FOR ROPER PRODUCTS: 1-800-447-6737

**FOR TECHNICAL ASSISTANCE WHILE AT THE CUSTOMER'S HOME CALL:**

THE TECHNICAL ASSISTANCE LINE: 1-800-253-2870

**HAVE YOUR STORE NUMBER READY TO IDENTIFY YOU AS AN  
AUTHORIZED SERVICER**

**FOR LITERATURE ORDERS:**

PHONE: 1-800-851-4605

**FOR TECHNICAL INFORMATION AND SERVICE POINTERS:**

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

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***IN CANADA:***

**FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION CALL:**

1-800-461-5681

**FOR TECHNICAL ASSISTANCE WHILE AT THE CUSTOMER'S HOME CALL:**

THE TECHNICAL ASSISTANCE LINE: 1-800-488-4791

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AUTHORIZED SERVICER**

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