



TECHNICAL INFORMATION Master Chef (30") Ovens

Includes: H394B, H395B, H395BP, H396B, H396BP,
H397B2, H397BP2, H398B2 & H398BP2

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1.0 Construction and Design

1.1 Summary of Model Numbers

Model Number	Oven Type	Self Clean Mode	Master Chef Menu System
H394B	Single	-	-
H395B	Single	-	Yes
H395BP	Single	Yes	Yes
H396B	Single	-	Yes
H396BP	Single	Yes	Yes
H397B2	Double	-	Yes
H397BP2	Double	Yes	Yes
H398B2	Double	-	Yes
H398BP2	Double	Yes	Yes

Table 1-1: Summary of Model Numbers

Technical Information

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1.2 Appliance Overview

1.2.1 Appliance Overview - Single Ovens (Typical)

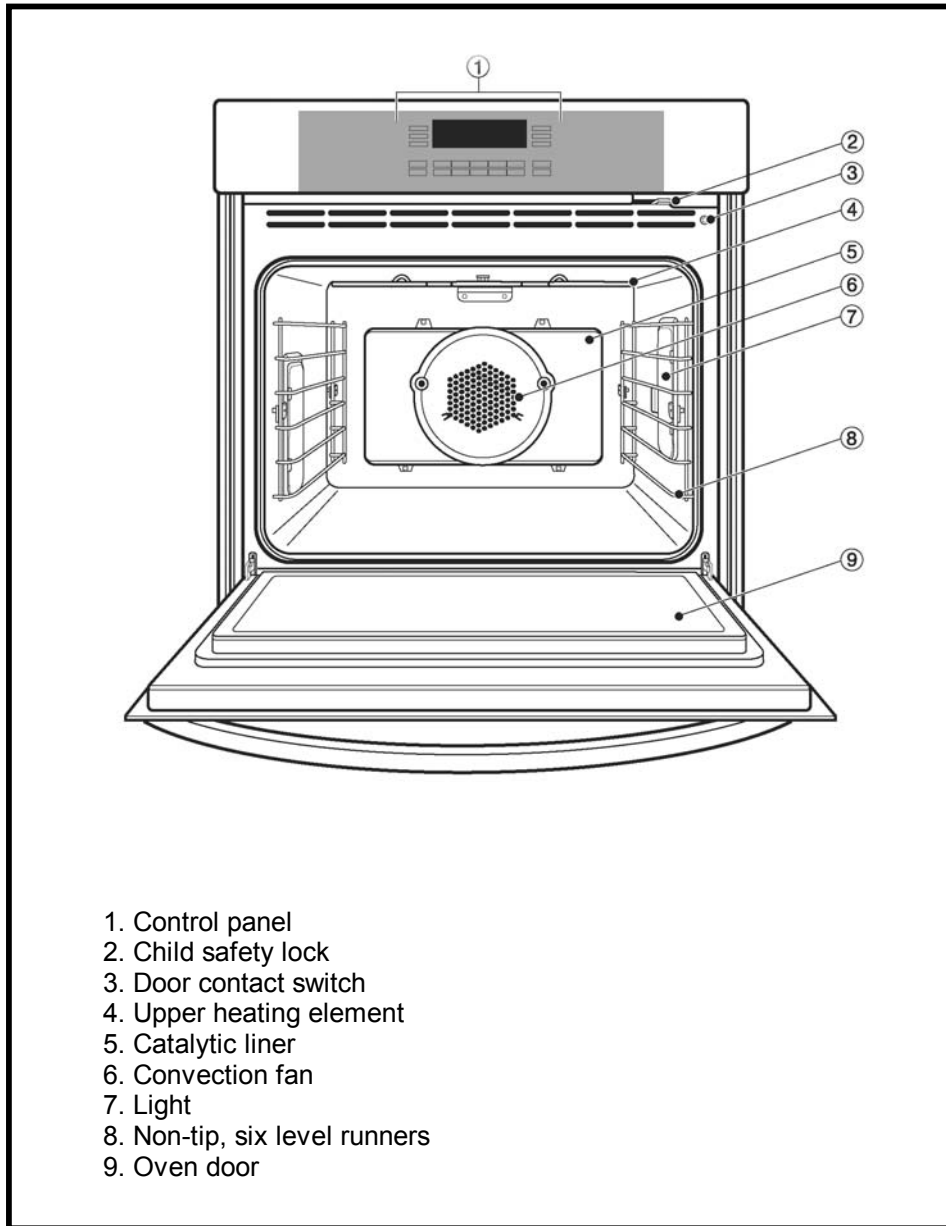
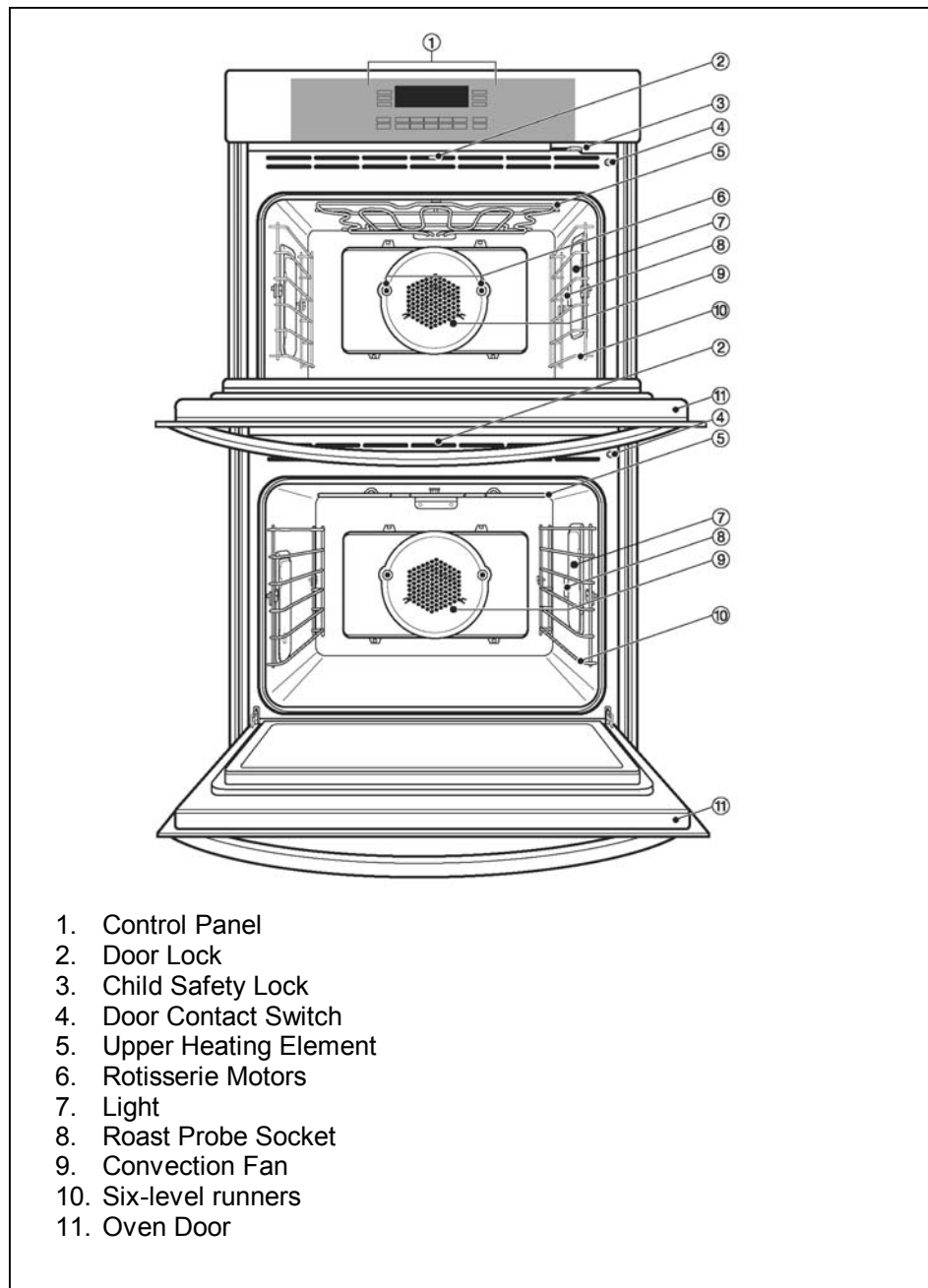


Figure 1-1: Overview of Single Oven

Technical Information

1.1.2 Appliance Overview – Double Oven (Typical)

**Figure 1-2:** Overview of Double Oven

1.3 Overview of User Controls

1.3.1 Single Oven Controls

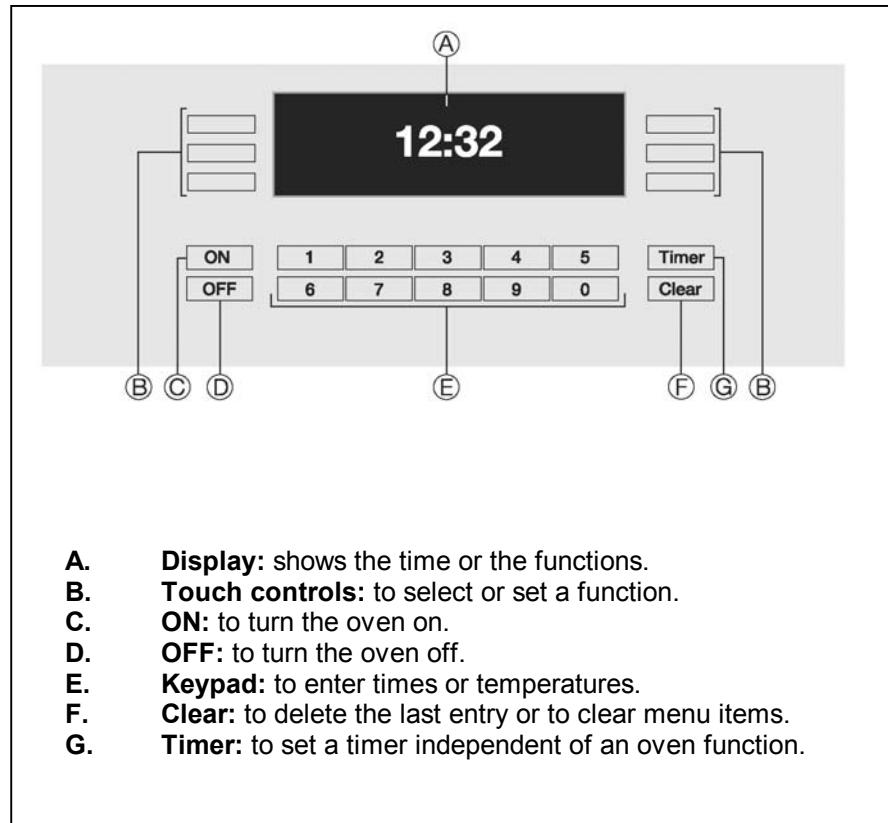


Figure 1-3: Overview of Single Oven Controls

Technical Information

1.3.2 Double Oven Controls

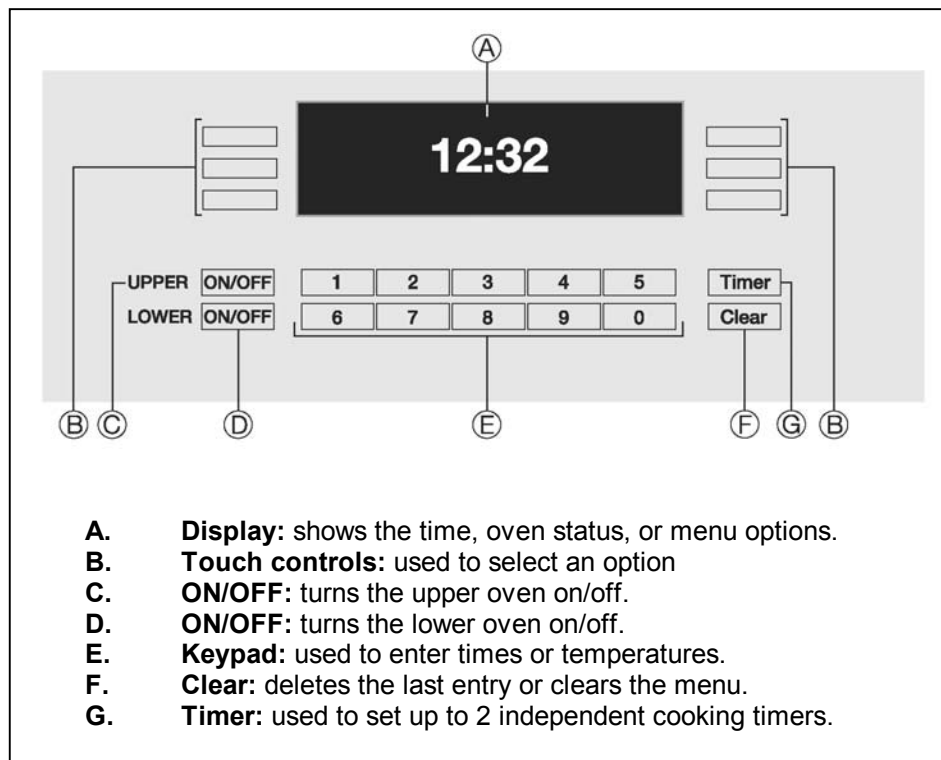


Figure 1-4: Overview of Double Oven Controls

1.4 Dimensions

1.4.1 Dimensions – Single Oven

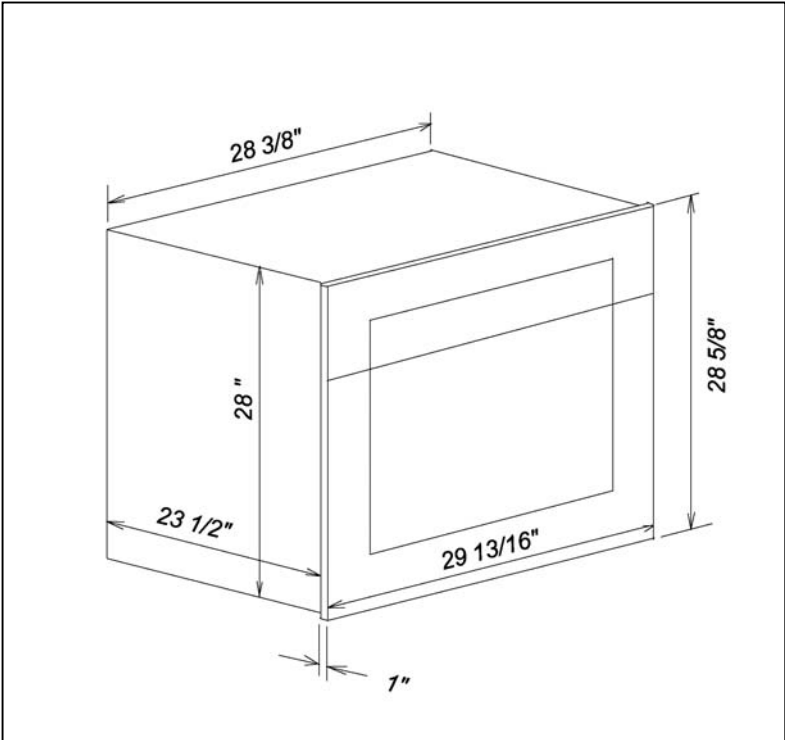


Figure 1-5: Dimensions – Single Oven

Technical Information

1.4.2 Dimensions – Double Oven

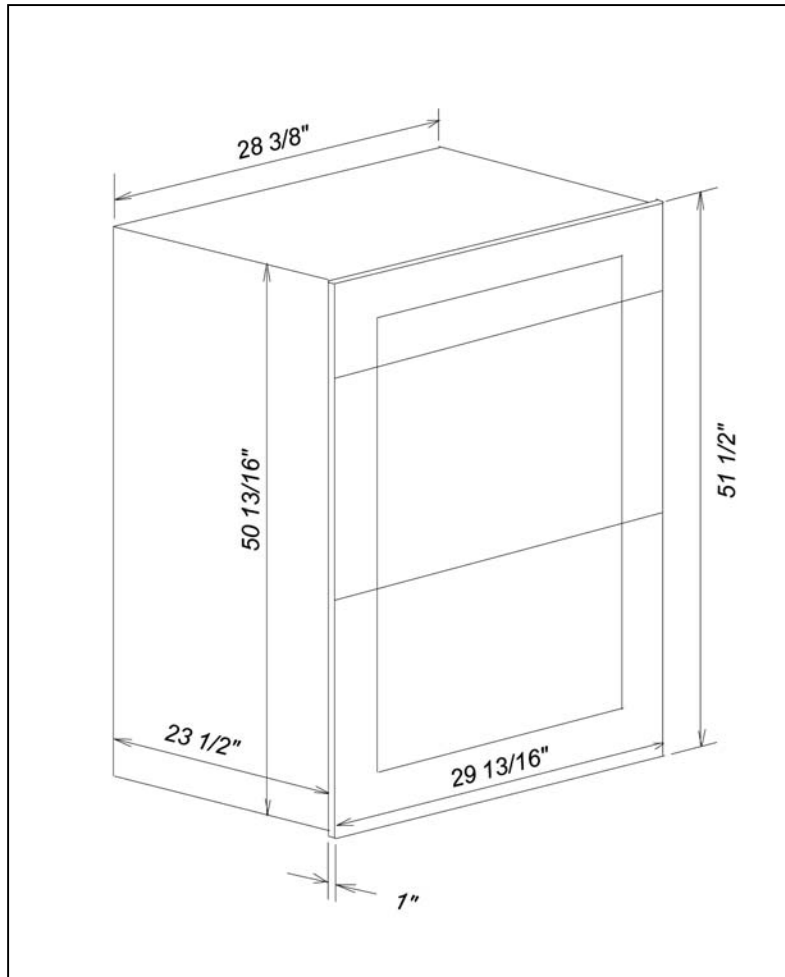


Figure 1-6: Dimensions – Double Oven

1.5 Components Overview

1.5.1 Component Overview – Single Oven, w/o Master Chef Menu

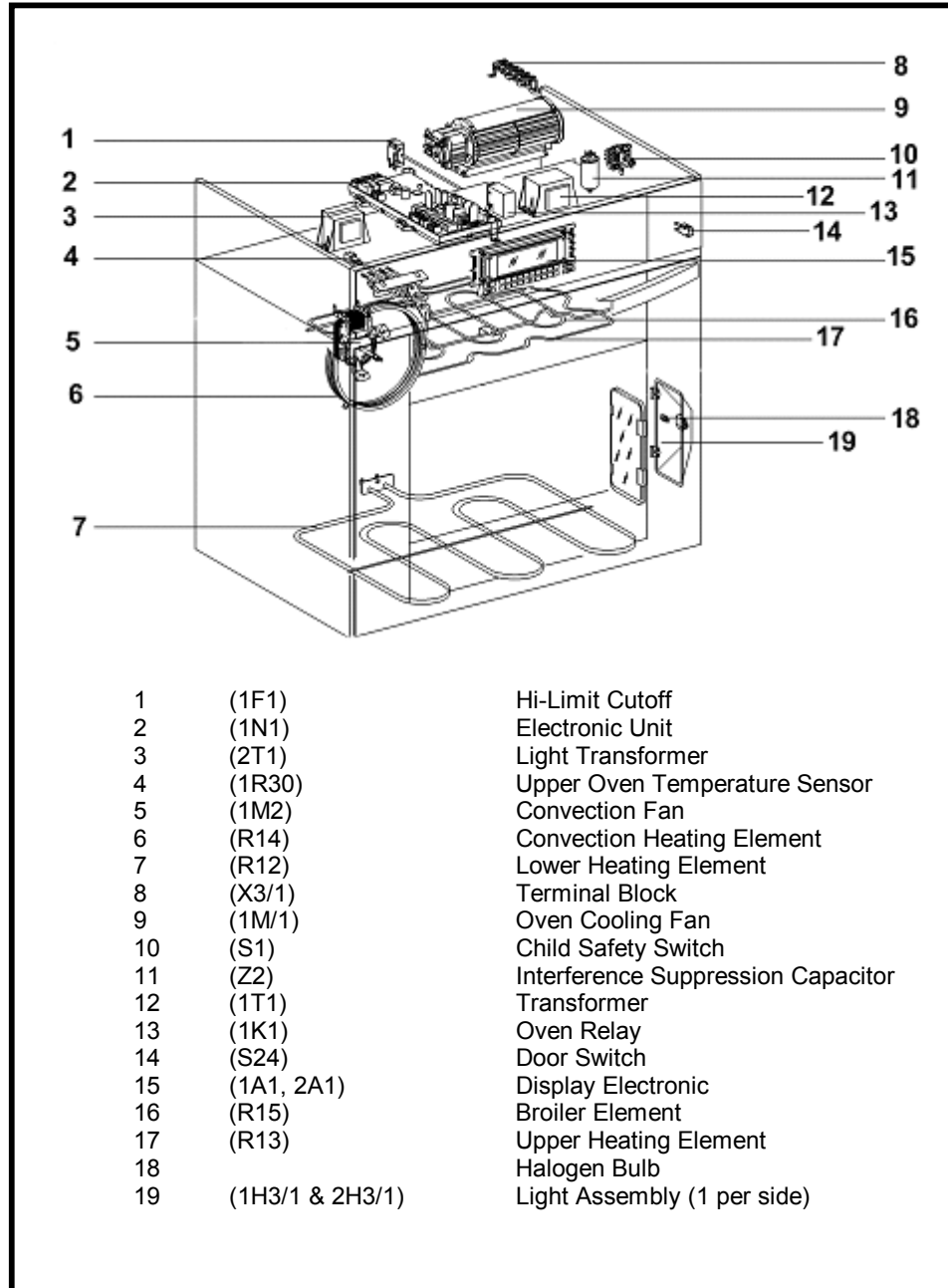


Figure 1-7: Component Overview – Single Oven without Master Chef Menu

Technical Information

1.5.2 Component Overview – Single Oven, with Master Chef Menu

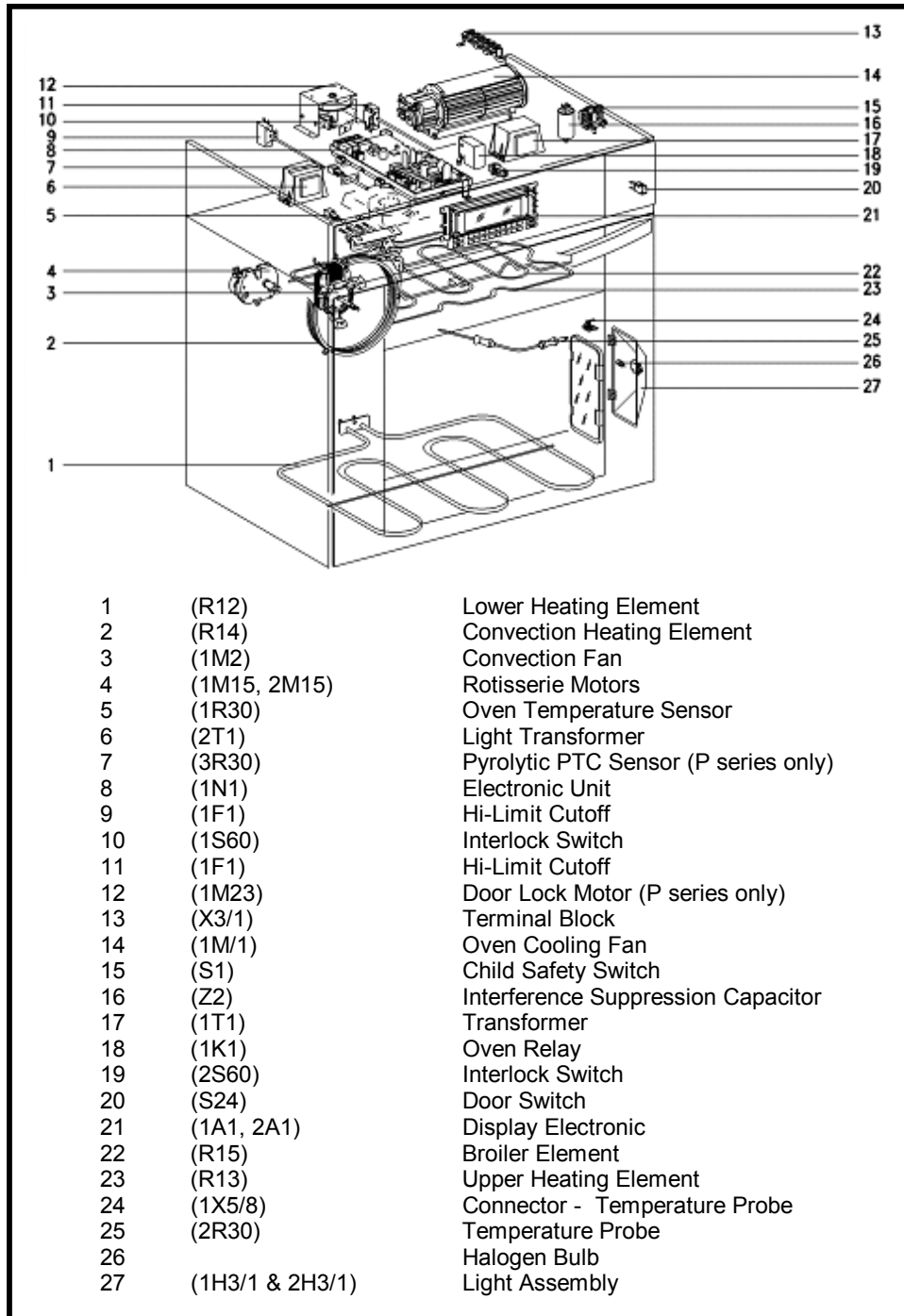


Figure 1-8: Component Overview – Single Oven with Master Chef Menu (Self Clean (P) Model Shown).

1.5.3 Component Overview – Double Oven, without Self Clean

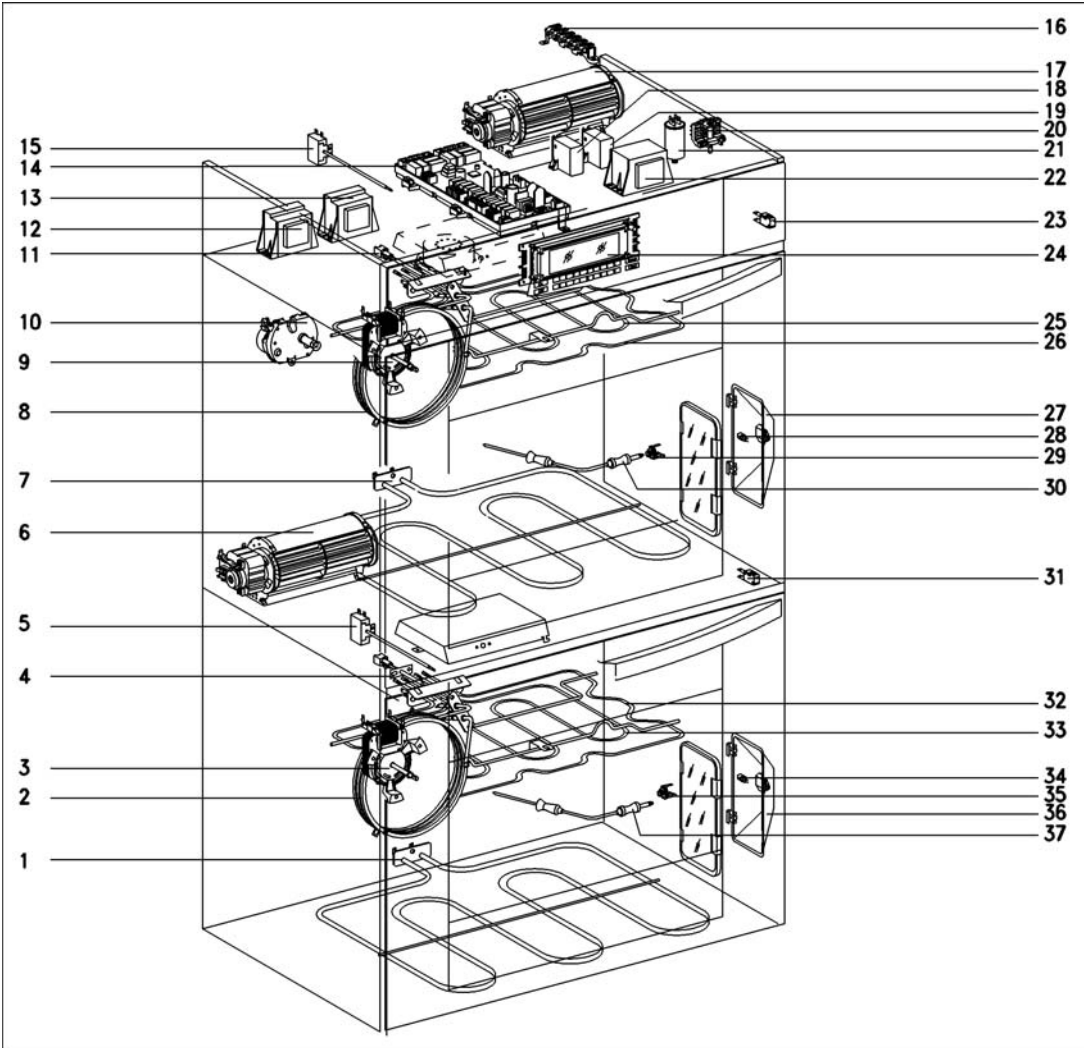


Figure 1-9: Component Overview – Double Oven, without Self Clean

Technical Information

Component Overview – Double Oven, without Self Clean

1	(2R12)	Lower Oven - Lower Heating Element
2	(2R14)	Lower Oven - Convection Heating Element
3	(2M2/2)	Lower Oven - Convection Fan
4	(4R30)	Lower Oven - Cavity Temperature Sensor
5	(3F1)	Lower Oven - Hi-Limit Cutoff
6	(2M2/1)	Lower Oven - Cooling Fan
7	(1R12)	Upper Oven - Lower Heating Element
8	(1R14)	Upper Oven - Convection Heating Element
9	(1M2/2)	Upper Oven - Convection Fan
10	(1M15, 2M15)	Rotisserie Motors
11	(1R30)	Upper Oven - Cavity Temperature Sensor
12	(2T1)	Upper Oven - Light Transformer
13	(3T1)	Lower Oven - Light Transformer
14	(1N1)	Main Electronic Unit
15	(1F1)	Upper Oven - Hi-Limit Cutoff
16	(X3/1)	Terminal Block
17	(1M2/1)	Upper Oven - Cooling Fan
18	(1K1)	Upper Oven - Relay
19	(2K1)	Lower Oven - Relay
20	(S1)	Child Safety Switch
21	(Z2)	Interference Suppression Capacitor
22	(1T1)	Transformer
23	(1S24)	Upper Oven - Door Switch
24	(1A1, 2A1)	Display Electronic
25	(1R15)	Upper Oven - Broiler Heating Element
26	(1R13)	Upper Oven - Upper Heating Element
27	(1H3/1, 2H3/1)	Upper Oven - Light Assembly
28		Upper Oven - Halogen Bulb
29	(1X5/8)	Upper Oven - Roast Probe Connection
30	(2R30)	Upper Oven - Roast Probe
31	(2S24)	Lower Oven - Door Switch
32	(2R13)	Lower Oven - Upper Heating Element
33	(2R15)	Lower Oven - Broiler Heating Element
34		Lower Oven - Halogen Bulb
35	(2X5/8)	Lower Oven - Roast Probe Connection
36	(3H3/1, 4H3/1)	Lower Oven - Light Assembly
37	(5R30)	Lower Oven - Roast Probe

1.5.4 Component Overview – Double Oven, with Self Clean

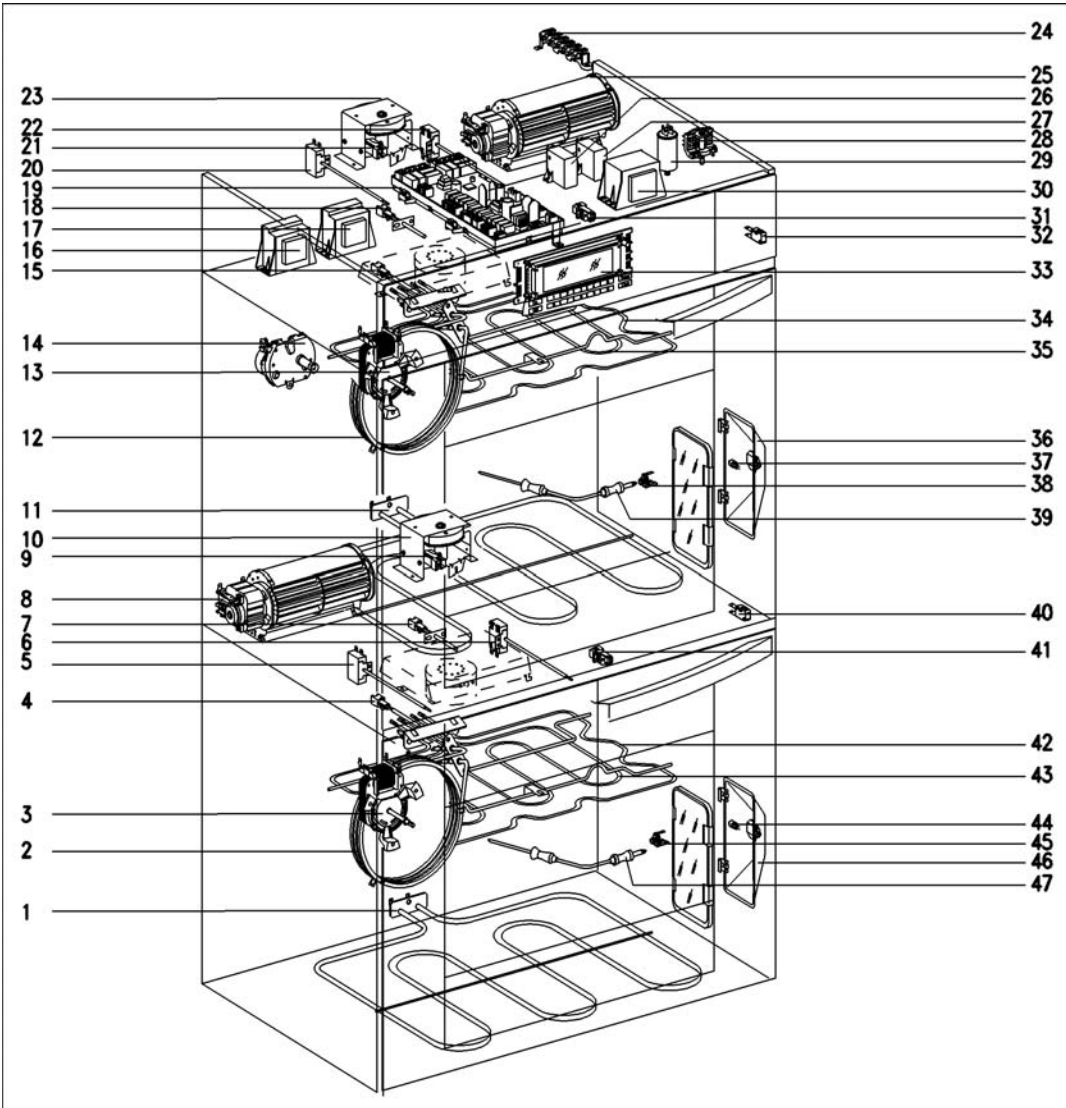


Figure 1-10: Component Overview – Double Oven, with Self Clean

Technical Information

Component Overview – Double Oven, with Self Clean

1	(2R12)	Lower Oven Lower Heating Element
2	(2R14)	Lower Oven Convection Heating Element
3	(2M2/2)	Lower Oven Convection Fan
4	(4R30)	Lower Oven Cavity Temperature Sensor
5	(3F1)	Lower Oven Hi-Limit Cutoff
6	(4F1)	Lower Oven Hi-Limit Cutoff (Self Clean)
7	(6R30)	Lower Oven Catalyst Temperature Sensor
8	(2M2/1)	Lower Oven Cooling Fan
9	(3S60)	Lower Oven Interlock Switch
10	(2M23)	Lower Oven Door Lock Motor
11	(1R12)	Upper Oven Lower Heating Element
12	(1R14)	Upper Oven Convection Heating Element
13	(1M2/2)	Upper Oven Convection Fan
14	(1M15, 2M15)	Upper Oven Rotisserie Motors (2)
15	(1R30)	Upper Oven Cavity Temperature
16	(2T1)	Upper Oven Light Transformer
17	(3T1)	Lower Oven Light Transformer
18	(3R30)	Upper Oven Catalyst Temperature Sensor
19	(1N1)	Main Electronic
20	(1F1)	Upper Oven Hi-Limit Cutoff
21	(1S60)	Upper Oven Interlock Switch
22	(2F1)	Upper Oven Hi-Limit Cutoff (Self Clean)
23	(1M23)	Upper Oven Door Lock Motor
24	(X3/1)	Main Terminal Block
25	(1M2/1)	Upper Oven Cooling Fan
26	(1K1)	Upper Oven Relay
27	(2K1)	Lower Oven Relay
28	(S1)	Main Child Safety Switch
29	(Z2)	Main Interference Capacitor
30	(1T1)	Transformer
31	(2S60)	Upper Oven Interlock Switch
32	(1S24)	Upper Oven Door Switch
33	(1A1, 2A1)	Display Electronics
34	(1R13)	Upper Oven Upper Heating Element
35	(1R15)	Upper Oven Broiler Heating Element
36	(1H3/1, 2H3/1)	Upper Oven Light Assembly
37		Upper Oven Halogen Bulb
38	(1X5/8)	Connector Upper Oven Temperature Sensor Probe
39	(2R30)	Upper Oven Temperature Sensor Probe
40	(2S24)	Lower Oven Door Switch
41	(4S60)	Lower Oven Interlock Switch
42	(2R13)	Lower Oven Upper Heating Element
43	(2R15)	Lower Oven Broiler Heating Element
44		Lower Oven Halogen Bulb
45	(2X5/8)	Connector Lower Oven Temperature Sensor Probe
46	(3H3/1, 4H3/1)	Lower Oven Light Assembly
47	(5R30)	Lower Oven Temperature Sensor Probe

2.0 Installation

This section only covers partial installation information.

For complete installation procedures refer to the Miele Installation Instructions Manual, or model specific Operating Manual.

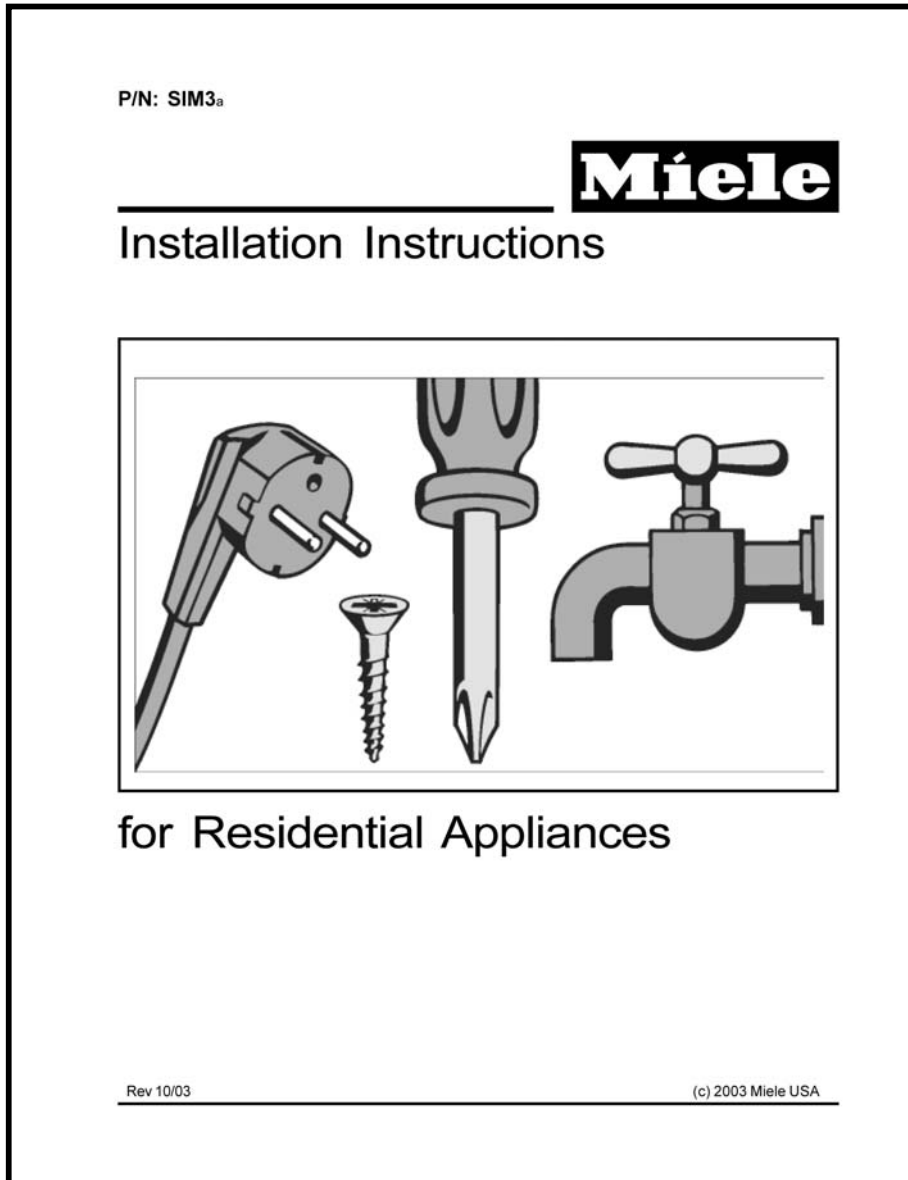
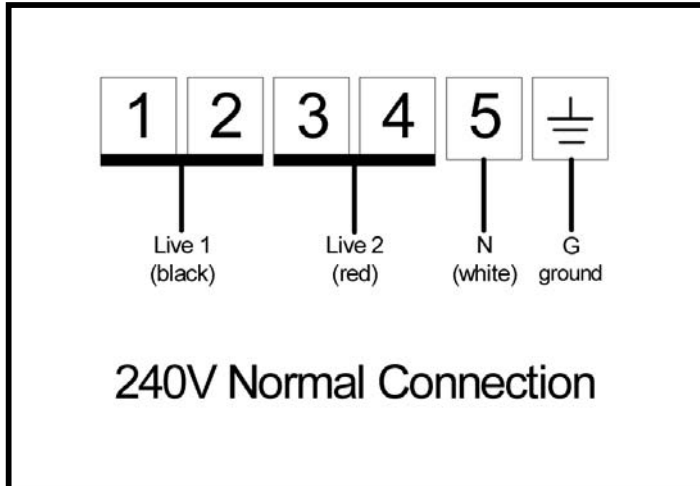
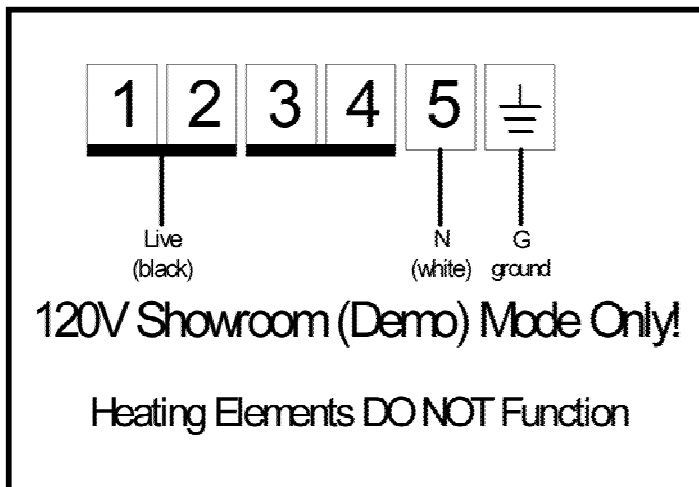


Figure 2-1: Miele Installation Instructions Manual

Technical Information

2.1 Electrical Connection**2.1.1 Electrical Connection – Operational****Figure 2-2:** Electrical Connection – Operation**2.1.2 Electrical Connection – Demo / Showrooms**

For demonstration purposes the oven can be connected to 120 VAC. With this connection the appliance appears to operate, however heating is not activated. This allows features such as Master Chef to be demonstrated to customers.


**Figure 2-3:** Electrical Connection – Demo / Showroom

2.2 Installation Guide


A single page Installation Guide is included with each oven.

Installation Guide


To install this unit, you will need the following items:




Skid plates
(provided)



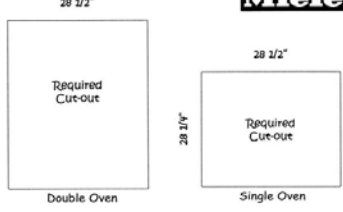
Fixing screws
(provided)



T-20 screwdriver

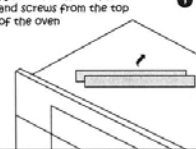
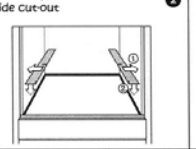

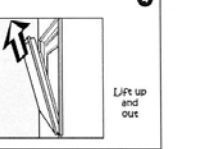

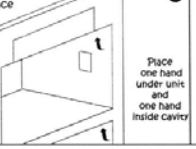
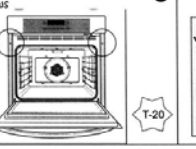
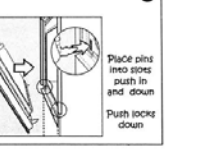


Two People



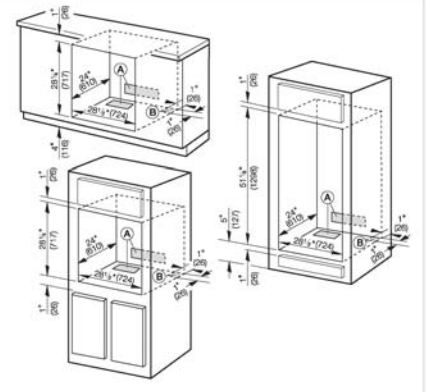
28 1/2" Required Cut-out
35 1/8" Double Oven

28 1/2" Required Cut-out
28 3/4" Single Oven

<p>Remove metal skid plates and screws from the top of the oven</p>  <p style="text-align: right;">1</p>	<p>Place skid plates inside cut-out</p>  <p style="text-align: right;">2</p>	<p>Prepare door(s) for removal</p>  <p style="text-align: right;">3</p>	<p>Remove door(s)</p>  <p style="text-align: right;">4</p> <p style="font-size: small;">Lift up and out</p>
<p>Make electrical connection in conjunction with local building codes</p>  <p style="text-align: right;">5</p>	<p>Lift unit into place</p>  <p style="text-align: right;">6</p> <p style="font-size: small;">Place one hand under unit and one hand inside cavity</p>	<p>Affix unit with screws</p>  <p style="text-align: right;">7</p>	<p>Replace door(s)</p>  <p style="text-align: right;">8</p> <p style="font-size: small;">Place pins into slots push in and down Push lock down</p>

Do not carry the appliance by the oven door handle!

Ne portez pas l'appareil par la poignée de porte du four!



(A) Vent (min. 24"² / 150 cm²) cut-out possible at rear or platform of cabinet
(B) Cut-out for power cord (min. 1"² / 3 cm²)

DEAR INSTALLER

When installing this appliance please do not throw away any part and/or Installation/Operating booklets, these will be needed in the future.

Please put any separate skids, metal plates, the plastic bag with screws and other parts, plinths, and/or any other parts, inside the appliance after the installation is completed, if they were not used.

Any questions call
MIELE USA 1-800-999-1360
MIELE Canada 1-800-565-6435

AVIS A L'INSTALLATEUR

Lors de l'installation de cet appareil électroménager, veuillez conserver toutes les pièces et manuels d'instruction, ils pourront vous être utiles ultérieurement.

Veuillez mettre toutes les pièces inutilisées (plaque, accessoires, sac à vis et autres pièces) à l'intérieur de l'appareil après son installation.

Pour toutes questions veuillez vous adresser à
MIELE USA 1-800-999-1360
MIELE Canada 1-800-565-6435

Figure 2-4: Installation Guide (included with each oven)

Technical Information

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3.0 Commission and Operation

3.1 General Operation

To select a program:

1. Touch the "ON" ("ON/OFF" on double ovens) control.
2. Select the desired function (example: BAKE)
3. Select the desired specific operation from the sub-menu (example: CONVECTION BAKE)
4. Select the temperature (example: 425°)

3.2 Turning off the oven

To turn off the oven, touch the "OFF" ("ON/OFF" on double ovens) control. The oven will turn off and the time of day will appear in the display.

3.3 Power Failures

In the event the oven loses power during operation a "Power Failure" message is displayed as shown in 3-1.

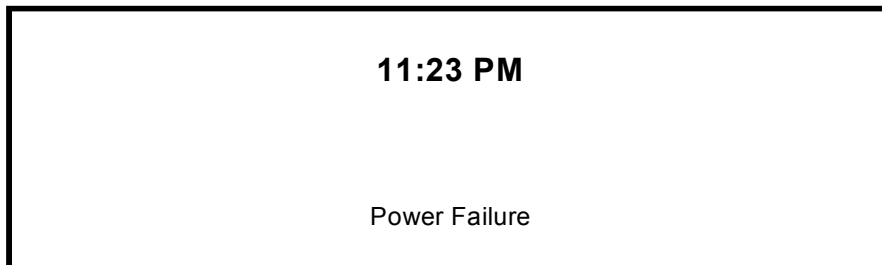


Figure 3-1: "Power Failure" message displayed

This message is displayed to advise that the incoming power was disrupted (power failure, etc.). It does not require any type of technical service.

The "Power Failure" message can be cleared by performing the following:

1. Turn the oven on by touching the ON/OFF ("ON/OFF" on double ovens) control.
2. Turn the oven off by touching the ON/OFF ("ON/OFF" on double ovens) control.

The message is cleared.

Technical Information

3.4 Special Features**3.4.1 Self Clean Function (P / Self Clean Models Only)**

When the Self Clean function is selected, the oven is heated to very high temperatures to burn off any residue inside the oven cavity.

The duration of the Self Clean function is not a timed function and is based on the amount of soiling inside the oven cavity. Total time will vary depending on the condition of the oven interior.

Once the Self Clean Program completes and the oven cools, wipe the interior clean with a damp cloth to remove any remaining residue.

3.4.2 Door Lock (P / Self Clean Models Only)

The door lock is operated via a motorized control. During the Self Clean function the door automatically locks after one (1) minute. The door remains locked until the Self Clean process has completed and the oven temperature has dropped below 392° F (200° C).

If the Self Clean function is accidentally started, shut off the oven and wait for the oven temperature to drop and for the door lock to release. This may take several minutes.

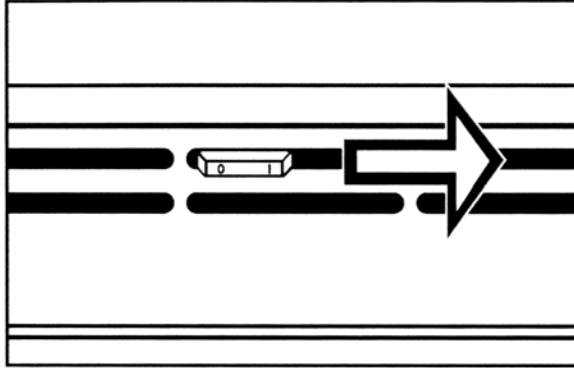
The door lock can be activated while in the Service Mode. See section 6, Fault Diagnosis.

3.4.3 Master Chef (all Models except H394)

The "Master Chef" menu feature is designed to ease operation and improve cooking results. This feature uses a list of selectable preset functions for commonly cooked foods. Users can select the type of food from a menu and simply reply to a few basic inputs (i.e. weight, etc.) The oven performs the necessary functions automatically to ensure a perfectly cooked meal.

3.4.4 Child Safety Lock (All Models)

The child safety lock is used to prevent children from operating the oven or to conserve standby power when the oven will not be used for an extended period of time.



To activate the child safety lock:

1. Slide the lock to position "0".
2. The oven cannot be operated & the clock will not be displayed.

To deactivate the child safety lock:

1. Slide the lock to position "1".
2. The oven can then be operated & the clock will be displayed.

Warning

Using the Child Safety Switch does NOT disconnect all sources of power within the oven. To safely disconnect power during service shut off the main supply via the circuit breaker.

Note

For further detailed appliance operation, refer to the Operating Manual for that model.

Technical Information

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4.0 Description of Function

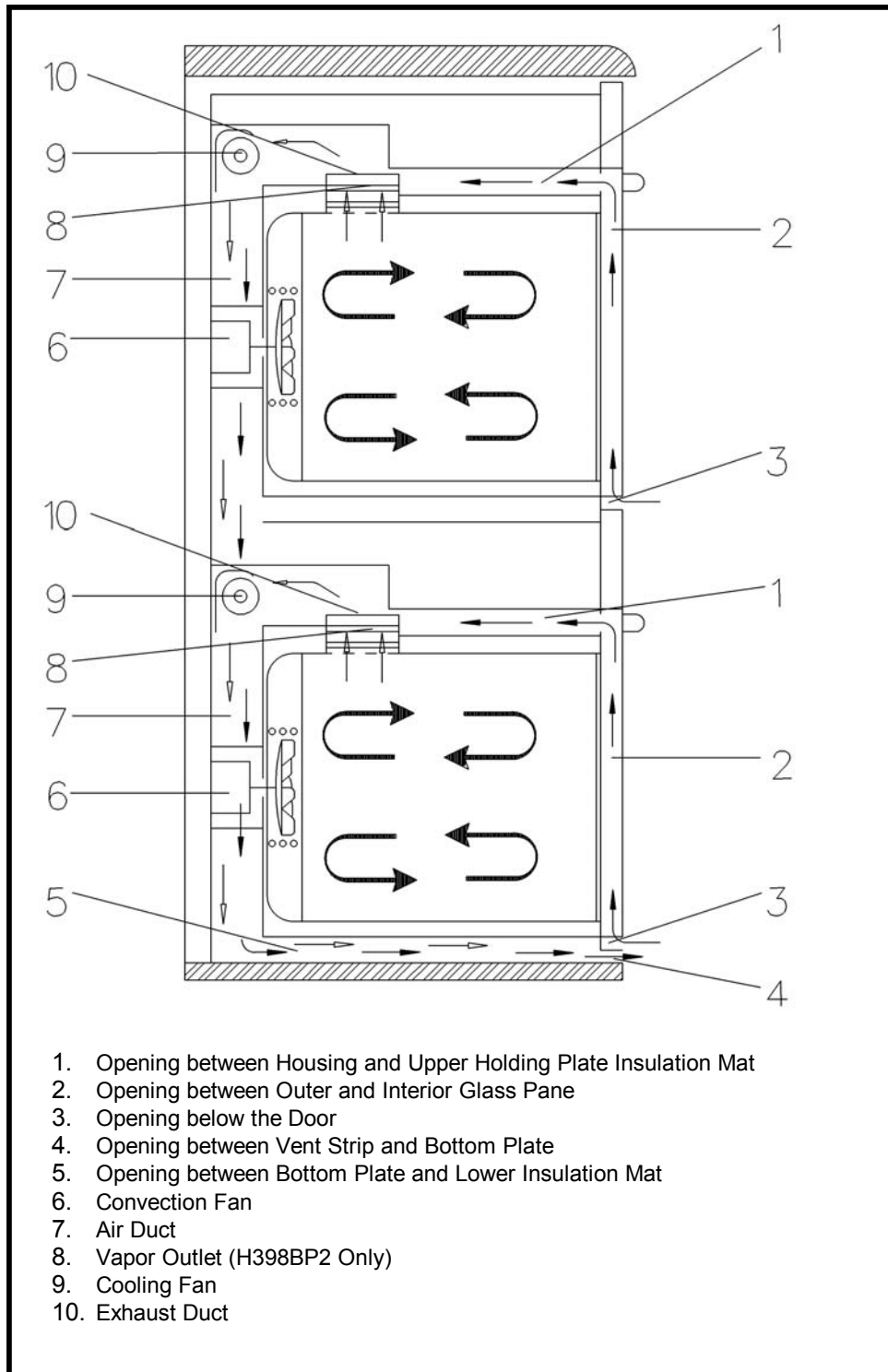


Figure 4-1: Airflow Paths (Double Oven Shown)

Technical Information

4.1 Cooling Fan – Specifications

Power Requirement	120V / 60 Hz
Wattage – Normal Speed	23 W
Wattage – High Speed (Self Cleaning)	65W

Table 4-1: Cooling Fan Specifications

4.2 Cooling Air Intake

The Cooling Fan (Figure 4-1, Item 9) takes in the air through the opening below the Door. The air flows between the Outer and Interior Glass Panes and into the area between the Housing and Upper Holding Plate Insulation Mat.

4.3 Vapor Intake

The Cooling Fan takes in the vapor through the Vapor Outlet (Figure 4-1, Item 8) and the Exhaust Duct (Figure 4-1, Item 10).

4.4 Cooling Air Path

The Cooling Fan moves the air and vapor into the air vents (Figure 4-1, Item 7) and through the opening between the Bottom Plate and the Lower Insulation Mat (Figure 4-1, Item 5).

4.5 Cooling Air Exit

The cooling air exits via the opening between the vent strip and bottom plate (Figure 4-1, Item 4).

4.6 Door Contact Switch (1S24 & 2S24)

The Door switch monitors the opening and closing of the door.

If the door is opened during cooking, the Convection Fan and Heating Elements for the respective oven are turned off.

4.7 Heating Elements

Each oven cavity is equipped with 4 heating elements:

Heater	Voltage	Wattage
R12 – Lower Element	240V	1851W
R13 – Upper Element	240V	1960W
R14 – Convection	240V	2722W
R15 – Broil Element	240V	2178W

Table 4-2: Heating Element Specifications

4.7.1 Heating Element - Activation

Elements are activated based on the program mode selected.

Program Mode	Bottom	Top	Convection	Broil	Rapid Heat
Bake	X				X
Convection Bake			X		X
Top / Bottom Heat	X	X		X	X
Browning		X		X	
Intensive	X		X		X
Auto Roast			X		X
Convection Roast			X		X
Top / Bottom Roast	X	X		X	X
Broil				X	
Maxi Broil		X		X	
Rotisserie		X		X	
Convection Broil				X	
Dehydration			X		
Proof			X		
Defrost			X		
Self Clean	X	X	X	X	
Sabbath Baking					

Table 4-3: Heater Element Operation

Technical Information

4.8 Automatic / Safety Shutdown

Each program has a maximum operation time. When the maximum operation time is reached, the oven turns itself off.

Program	Time-Out (in hours)
Bake	12
Convection Bake	12
Top / Bottom Heat	12
Browning	12
Intensive	6
Auto Roast	12
Convection Roast	12
Top / Bottom Roast	12
Broil	6
Maxi Broil	6
Rotisserie	6
Convection Broil	6
Dehydration	24
Proof	24
Defrost	24
Self Clean	N/A
Sabbath Baking	72

Table 4-4: Automatic Safety Shutdown durations

4.9 Cavity Temperature Sensor (1R30 & 4R30)

The Oven Cavity Temperature Sensor is located in the guide tube of the Upper Heating Elements (Figure 4-2, Item 1). The Sensor sends a signal back to the Main Electronic. The oven cavity temperature is calculated and displayed via the Display Electronic.

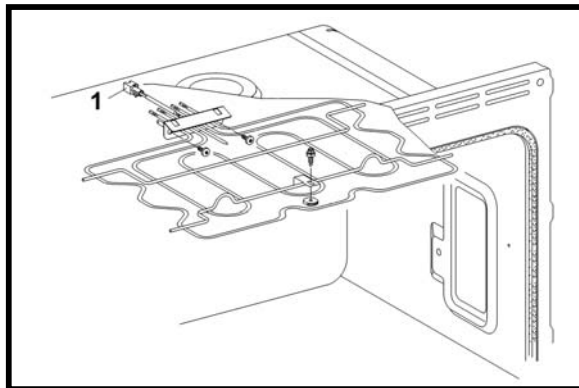


Figure 4-2: Upper Heater Element Cavity Temperature Sensor

4.10 **Roast Probe (2R30 & 5R30) (All Models Except H394)**

The Roast Probe can be used to monitor the core temperature of meat and poultry. The long pointed end of the probe is inserted into the thickest portion of the meat. The short end of the probe is inserted into the roast probe socket located on the right side of the oven cavity. For optimum cooking results ensure the probe does not contact any bones within the meat or poultry.

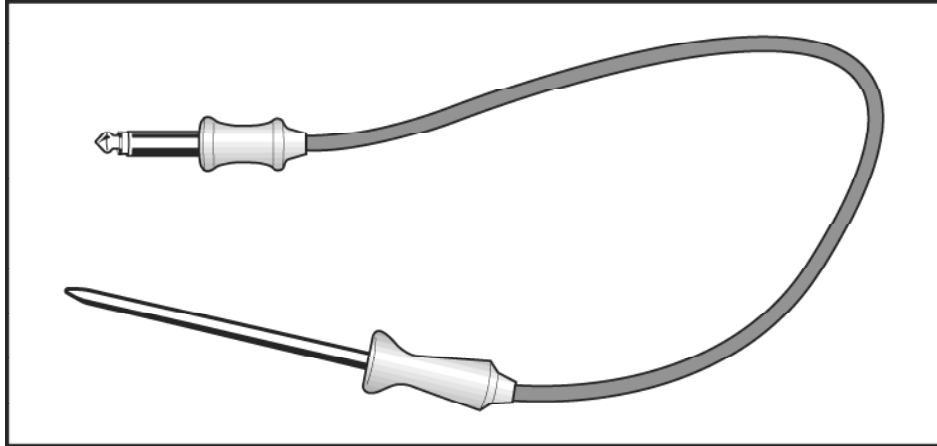


Figure 4-3: Roast Probe

4.11 **Self Clean Temperature Sensor (3R30 & 6R30) (P / Self Clean Models Only)**

The Self Clean Temperature Sensor is located in the Vapor Outlet (above the Catalyst) and monitors the oven temperature during the Self Clean Mode. Refer to Figure 4-4.

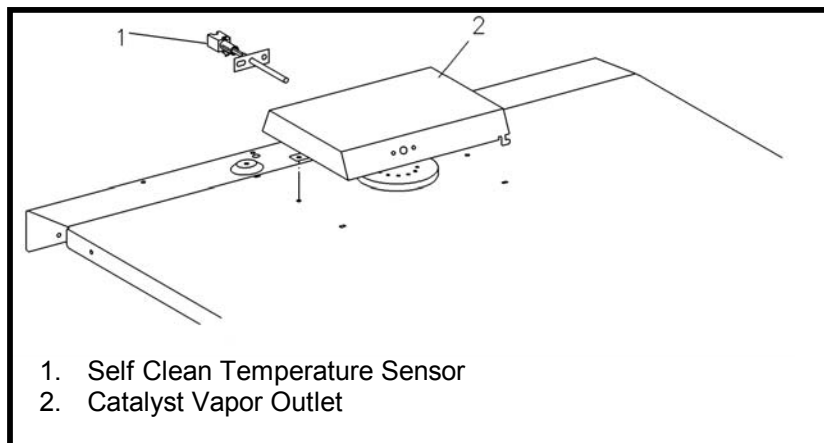


Figure 4-4: Self Clean Temperature Sensor and Catalyst Vapor Outlet

Technical Information

4.12 Thermal Cut-Outs (1F1 & 3F1)

Each separate oven cavity is equipped with a High Temperature Thermal Cut-Out. The cut out is designed to interrupt the power in should the temperature exceed 680°F (360°C) during operation modes.

4.12.1 Thermal Cut-Outs (2F1 & 4F1) (P / Self Clean Models Only)

Each separate oven cavity is equipped with a High Temperature Thermal Cut-Out designed to interrupt the power should the temperature exceeds 968°F (520°C) during the Self Clean mode.

4.13 Convection Fan (1M2/1 & 2M2/1)

The Convection Fan is mounted to the rear wall of the oven. It pressurizes a large volume of air in the small cavity located in the rear wall of the oven to produce true convection.

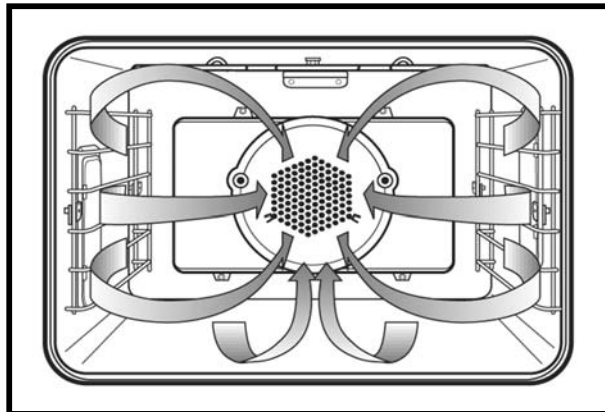


Figure 4-5: Convection Airflow

4.14 Rotisserie Motors (1M15 & 2M15)

Two 120 VAC Rotisserie Motor are mounted to the rear wall of the oven. These motors provide drive for the Rotisserie Shafts.

4.15 Oven Cavity Lights

There are two Oven Cavity Lights in each oven. Two Transformers mounted in the top of the oven power the lights.

Lamp Voltage	12V
Lamp Output	10W

4.16 Automatic Door Lock (Self Clean Models Only)

When the Self-Cleaning program begins, the Door Lock Motor activates and locks the door. The door cannot be opened until the temperature drops below 398°F (200°C).

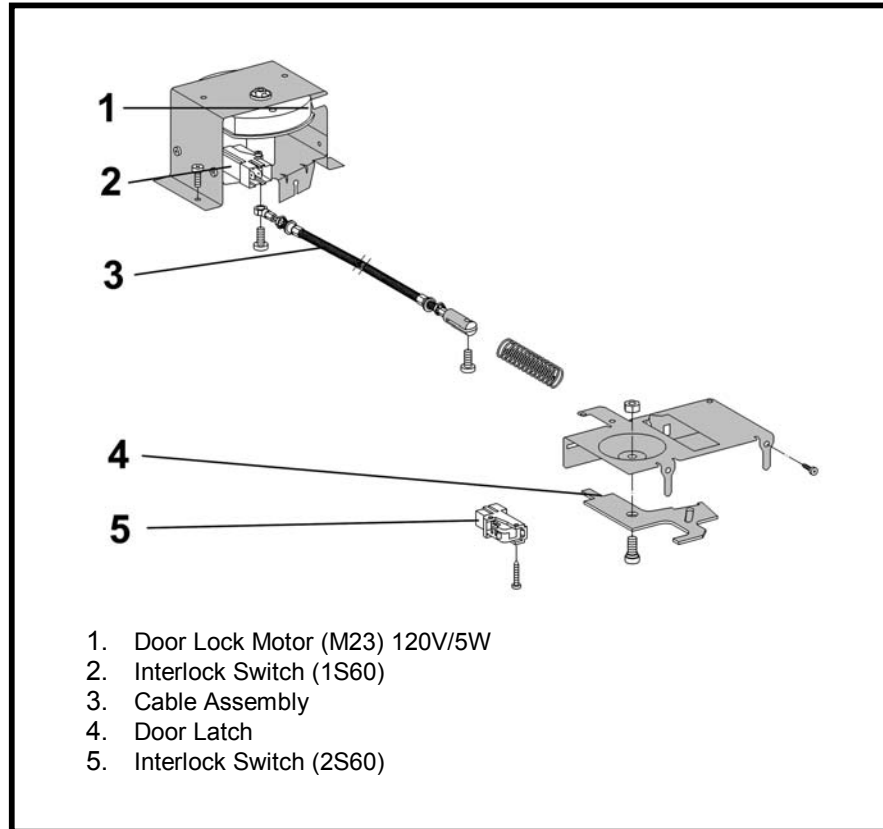


Figure 4-6: Door Locking Components (Self Clean Models Only)

Technical Information

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5.0 Service and Maintenance

5.1 Cleaning & Care Information

5.1.1 PerfectClean

PerfectClean® is a smooth, nonstick surface that cleans up easily with a sponge. The following items are coated with the exclusive Miele "PerfectClean®" finish:

- Oven Walls
- Roasting Pans
- Anti-Splash Tray
- Oven Runners

Do not clean PerfectClean items in a dishwasher. Some detergents contain compounds that could damage the finish.

To properly clean the surfaces, use a sponge and a solution of hot water and liquid dish soap for cleaning. Do not use abrasive cleaners, ceramic cleaners, metal scourers, or oven cleaners.

After cleaning, rinse thoroughly with water. The water should run off the surface easily. Any residue will hinder this effect. Stubborn baked on grease may need to be soaked first to loosen deposits.

Clean up all spills as soon as possible to prevent stains. Spilled fruit juices can permanently discolor surfaces; however the discoloration does not hinder the efficiency of the finish.

5.1.2 Manually Cleaning the Oven Cavity

Danger

Allow the oven to cool before cleaning.

- To make cleaning easier
- Remove the oven door
 - Remove the runners
 - Lower the upper heating element
-
- Clean the oven surfaces with a solution of hot water and liquid dish soap and a sponge.
 - Do not use abrasive cleaning agents, hard brushes, metal scouring pads, steel wool, knives or other abrasive materials.
 - Do not use oven sprays on any part of this oven.
 - Dry surfaces before reassembly.

Technical Information

5.2 Front Door – Removal**Important**

DO NOT hold the door by the handle. When handling the door it should be gripped firmly on the sides (glass and frame).

1. Open the door fully.
2. Flip up the locking clamps on each door hinge.
3. Slowly shut the door until the protruding clamps stop the movement. Pull the door upward to remove.

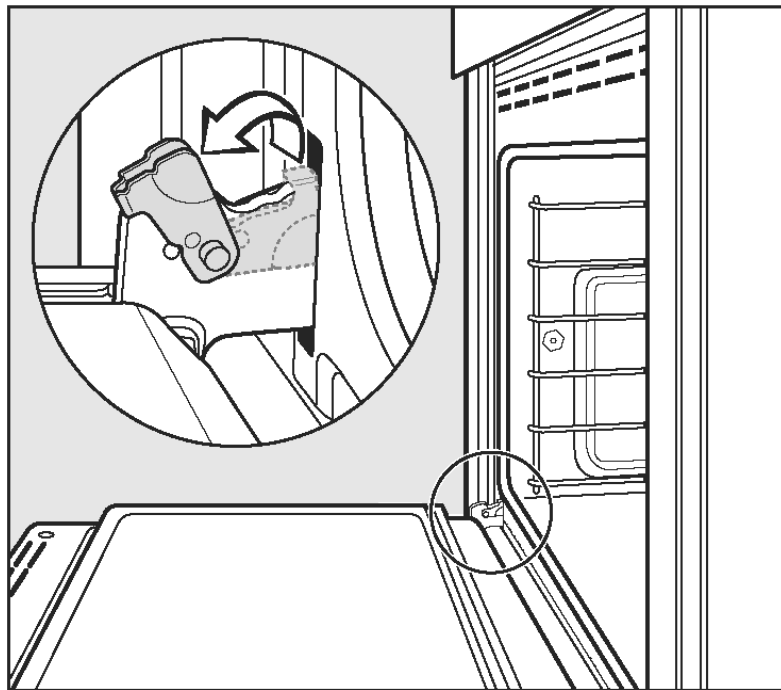


Figure 5-1: Door Hinge – Locking Tabs

5.3 Runners – Removal

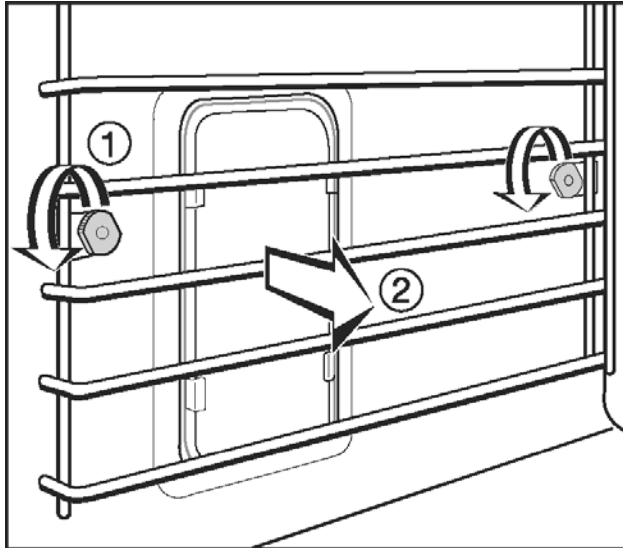


Figure 5-2: Removing The Runners From The Oven Cavity.

1. Turn the two thumbscrews, (Figure 5-2) counterclockwise and remove.
2. Pull the runners away from the oven wall to remove. (Figure 5-2)

5.4 Halogen Light Bulb - Replacement

1. Remove the runners.
2. Spread a dishtowel on the oven floor to protect the enamel, in case the light cover falls.
3. Insert the supplied lid opener between the light cover and the metal frame of the light along the edge closest to the oven door.

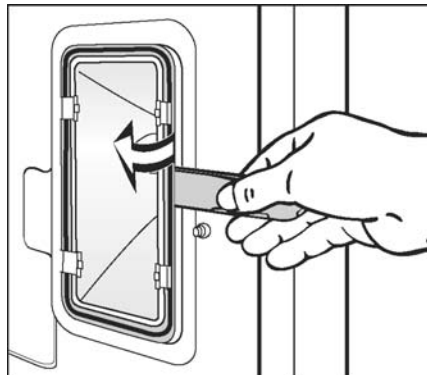


Figure 5-3: Prying The Light Cover Off

Technical Information

5.4 Halogen Light Bulb – Replacement (Continued)

4. Carefully pry the light cover out of the metal frame (Figure 5-3).
5. Slide the light cover out.

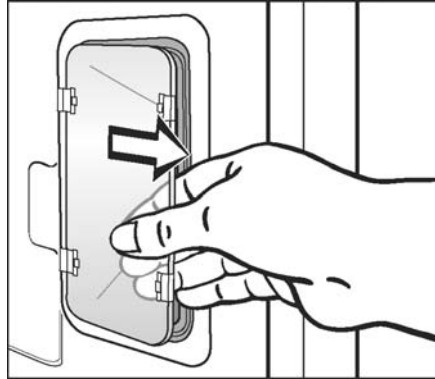


Figure 5-4: Sliding light cover from the clamps

Note

Do not bend the metal clamps. Bending the clamps could damage the clamps and reflector.

6. Replace the halogen bulb.

Note

- Only use a 12 V, 10 W, 572°F (300°C) heat resistant, Osram, type w818 bulb.
- Do not touch the new light bulb with your fingers; touching the bulb will reduce its life.

7. Put the light cover back in place with the notch to the rear of the metal clamps.
8. Press the light cover in to the metal frame.
9. Re-Install the runners.

5.5 Removing the Appliance for Service

1. Turn off power to the oven via the circuit breaker.
2. Remove Front Door(s) from the oven (Section 5.2)
3. Remove the Installation Screws.
4. Carefully slide the oven out from the cabinets.
5. Lift the oven to remove from the cabinets.
6. Disconnect the electrical connection.

Caution

Use adequate manpower to remove the oven. Ovens can weigh more than expected.

Note

Ensure the entire bottom of the oven is evenly supported; or the bottom of the oven can be damaged

5.6 Control Panel - Removal

1. Refer to Figure 5-5.
2. Remove the Front Doors from the oven. (Section 5.2)
3. Remove the Installation Screws.
4. Carefully move the oven outward about 3 inches.
5. Remove the five screws from the underside of the control panel (Item 2).
6. Hold the Control Panel in place and remove the three screws from the top of the oven (Item 1).
7. Carefully pull away the control panel from the oven, as the connected wiring is short in length.

5.7 Safety Cover – Removal

1. Refer to Figure 5-5.
2. Remove the Control Panel (Section 5.2).
3. Move the oven outward to allow access to the Safety Cover Retaining Screws (Item 3).
4. Remove the four screws (Item 3).
5. Pull the Safety Cover away from the oven.

Technical Information

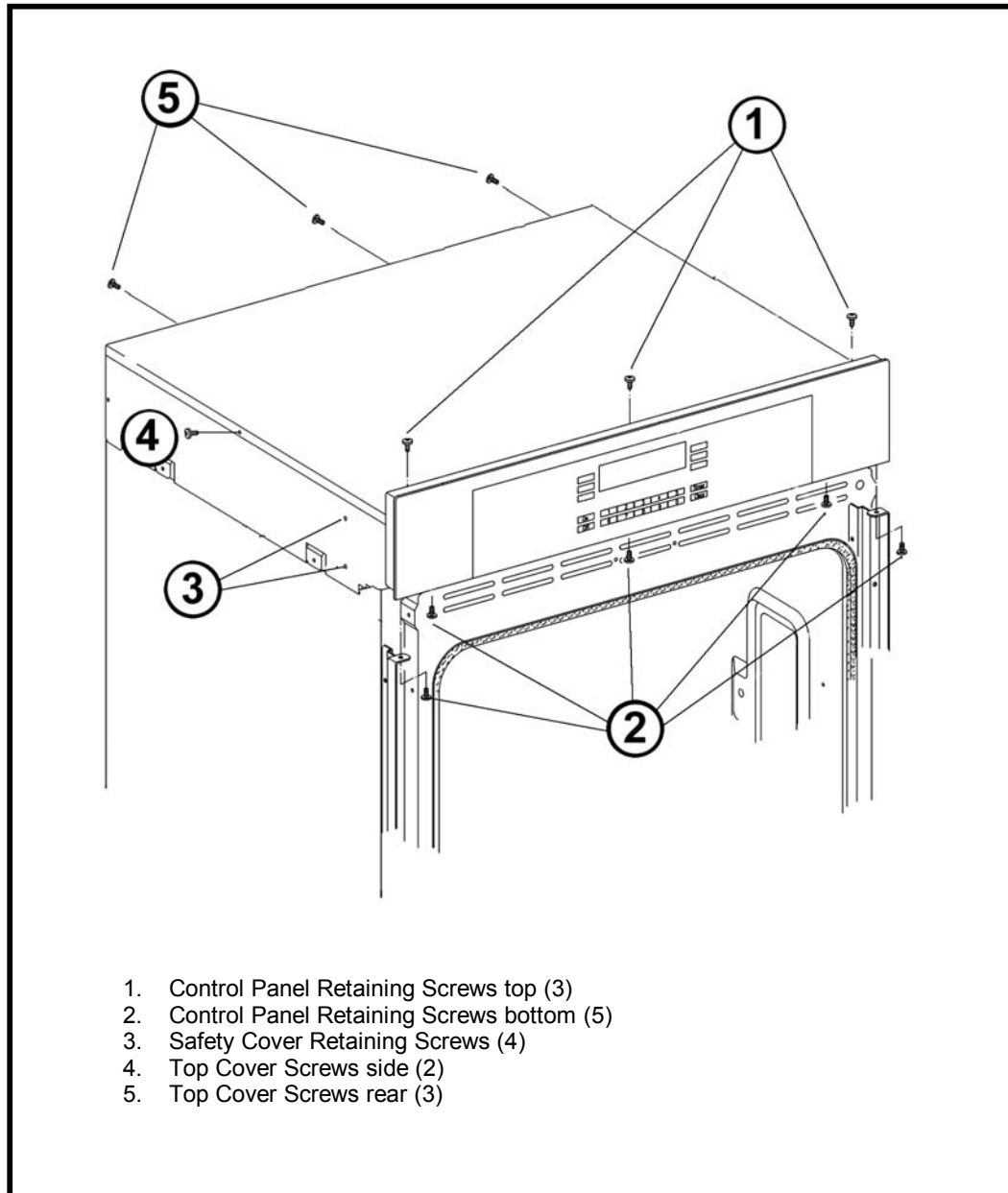


Figure 5-5: Control Panel, Safety Panel and Top Cover Retaining Screws

5.8 Top Cover - Removal

1. Remove the Front Doors (Section 5.2)
2. Remove the oven (Section 5.5)
3. Remove the Control Panel (Section 5.6)
4. Remove the Safety Cover (Section 5.7)
5. Refer to Figure 5-5, Remove the Top Cover Side Retaining Screws (Item 4) and the Top Cover Rear Retaining Screws (Item 5)
6. Lift the cover from the oven.

5.9 Upper Back Panel (Double Ovens) - Removal

1. Remove the Front Doors (Section 5.2)
2. Remove the oven (Section 5.5)
3. Remove the Control Panel (Section 5.6)
4. Remove the Safety Cover (Section 5.7)
5. Remove the Top Cover (Section 5.8)
6. Remove the twelve Rear Retaining Screws.
7. Remove the two Side Retaining Screws.
8. Slide the panel down while pulling it from the oven.

5.10 Lower (or Single Oven) Back Panel - Removal

1. Remove the Front Doors (Section 5.2)
2. Remove the oven (Section 5.5)
3. Remove the eighteen Rear Retaining Screws.
4. Remove the two Side Retaining Screws.
5. Slide the panel upward while pulling it from the oven.

5.11 Upper (Double Oven) Side Covers - Removal

1. Remove the Front Doors (Section 5.2)
2. Remove the oven (Section 5.5)
3. Remove the Control Panel (Section 5.6)
4. Remove the Safety Cover (Section 5.7)
5. Remove the Top Cover (Section 5.8)
6. Remove the Upper Back Panel (Section 5.9)
7. Remove the Side Cover Retaining Screws.
8. Lift the panel from the oven.

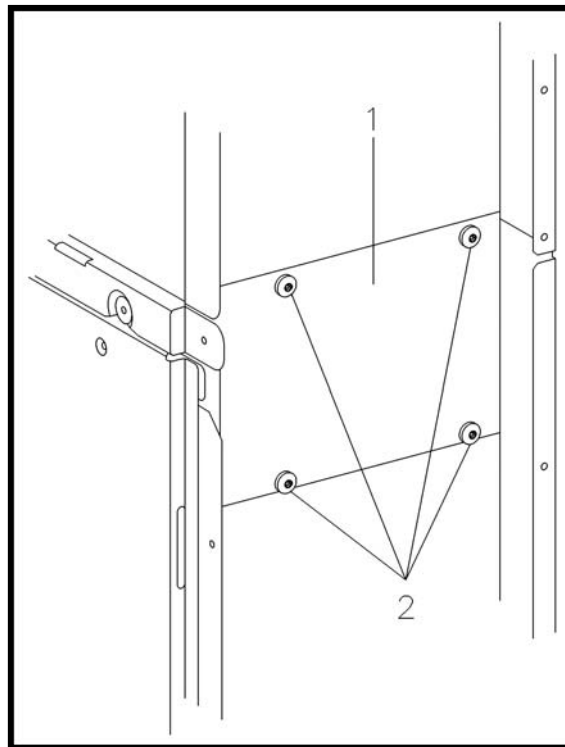
Technical Information

5.12 Lower (or Single Oven) Side Covers - Removal

1. Remove the Front Doors (Section 5.2).
2. Remove the oven (Section 5.5).
3. Remove the Lower Back Panel (Section 5.10).
4. Remove the Side Cover Retaining Screws.
5. Lift the panel from the oven.

5.13 Air Shield Panel (Double Ovens) - Removal

1. Remove the Front Doors (Section 5.2).
2. Remove the oven for service (Section 5.5).
3. Remove the Upper Back Panel (Section 5.9)
4. Remove the Lower Back Panel (Section 5.10).
5. Refer to Figure 5-6. Remove the Retaining Screws (Item 2)
6. Remove the Air Shield Panel (Item 1)

**Figure 5-6:** Air Shield Panel

5.14 Upper (or Single Oven) Cooling Fan - Removal

1. Remove the Front Doors (Section 5.2).
2. Remove the oven (Section 5.5).
3. Remove the Upper Back Panel (Section 5.9)
4. Refer to Figure 5-7. Unplug the electrical connections to the Cooling Fan (Item 1).
5. Remove the Vent Strip Fastening Screws (Items 2 & 3).
6. Remove Vent Strip(s) – as necessary.
7. Remove the Cooling Fan Fastening Screws.
8. Remove the Cooling Fan.

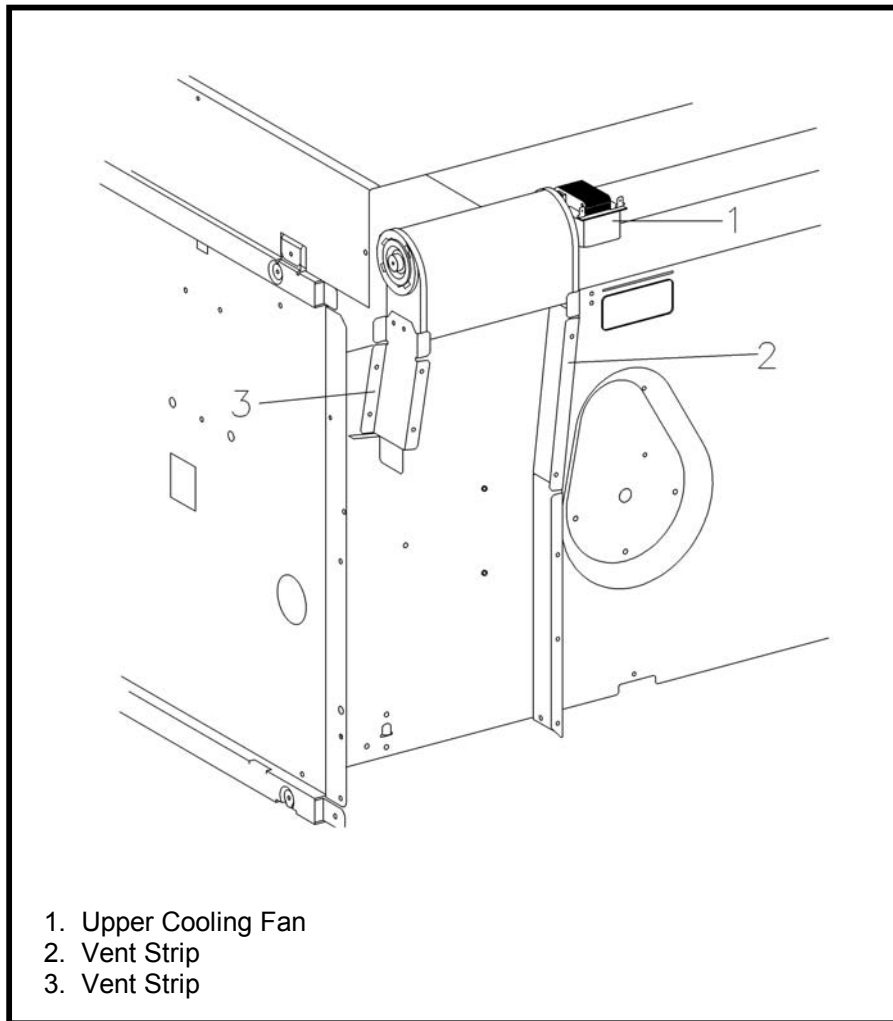
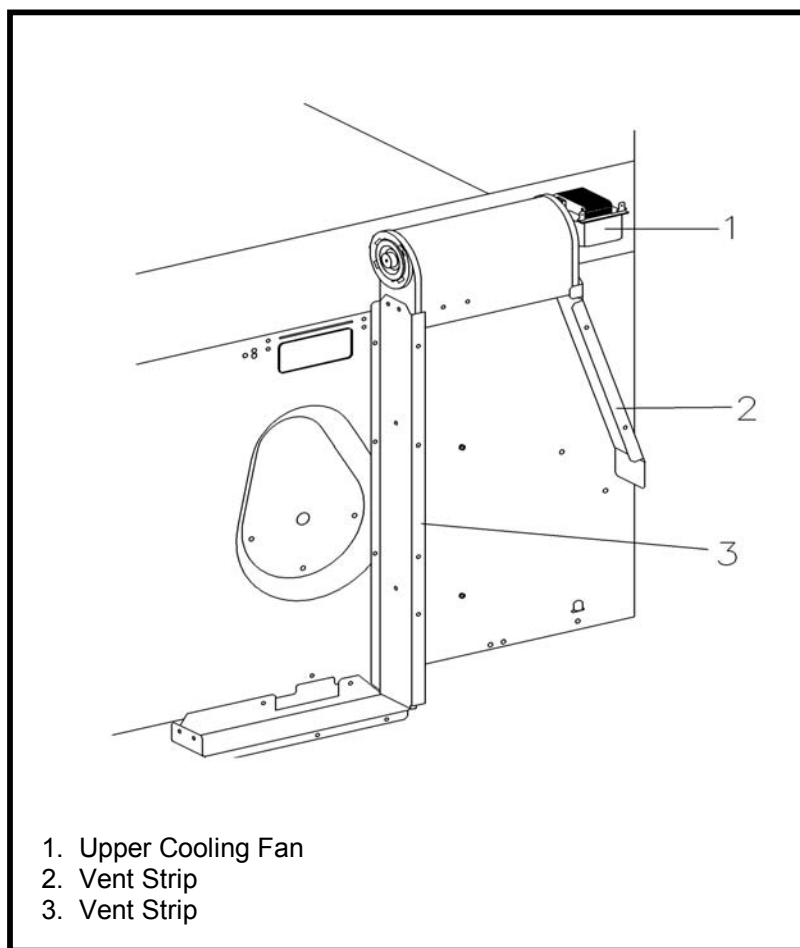


Figure 5-7: Upper (or Single Oven) Cooling Fan - Removal

Technical Information

5.15 Lower Oven Cooling Fan (Double Oven) - Removal

1. Remove the Front Doors (Section 5.2).
2. Remove the oven (Section 5.5).
3. Remove the Lower Back Panel (Section 5.10)
4. Refer to Figure 5-8. Unplug the electrical connections to the Cooling Fan (Item1).
5. Remove the Vent Strip Fastening Screws (Items 2 & 3).
6. Remove Vent Strip(s) – as necessary.
7. Remove the Cooling Fan Fastening Screws.
8. Remove the Cooling Fan.

**Figure 5-8:** Lower Oven Cooling Fan - Removal

5.16 Door Latch - Manual Release (P / Self Clean Models)

Important

Ensure the oven temperature is below 392°F (200°C), and attempt to unlock the door using the Service Mode (refer to Section 6 Fault Diagnosis) before performing this procedure.

Refer to Figure 5-9

1. Bend the end of a stiff wire into a 4 hook – as shown.
2. Carefully insert wire between door and control panel.

Caution

Ensure the wire does not contact the coated surfaced, or irreversible damages to the surface can result.

3. Pull the door latch by moving the wire horizontally to the right.

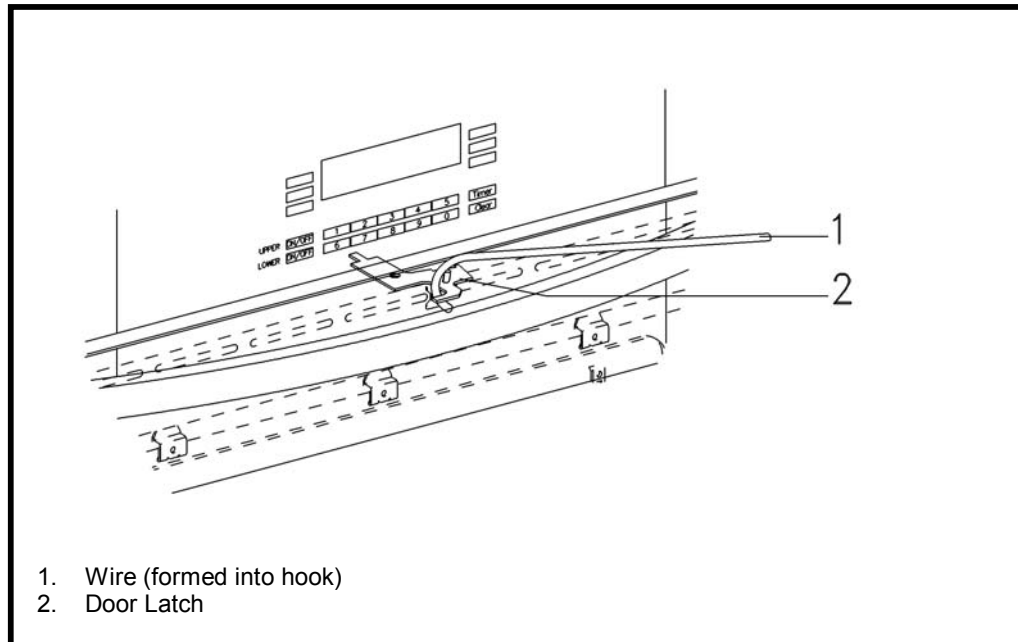


Figure 5-9: Manual Release Of The Door Latch (Self Clean Models Only)

Technical Information

5.17 Upper Door Latch Drive Motor and Door Lock Switch (1M23 & 1S60) (Double Ovens with Self Clean) - Removal

1. Remove the Front Doors (Section 5.2).
2. Remove the oven (Section 5.5).
3. Remove the Upper Back Panel (Section 5.9)
4. Refer to Figure 5-10. Unplug the electrical connections to the Door Lock Motor (Item 3).
5. Remove the Door Latch Drive Screws (Item 2).
6. Refer to Figure 5-11. Loosen the Cable Nut (Item1).
7. Remove the Cable from the mounting bracket.

Note

When the Cable tension is released, the Oven Door Locks.

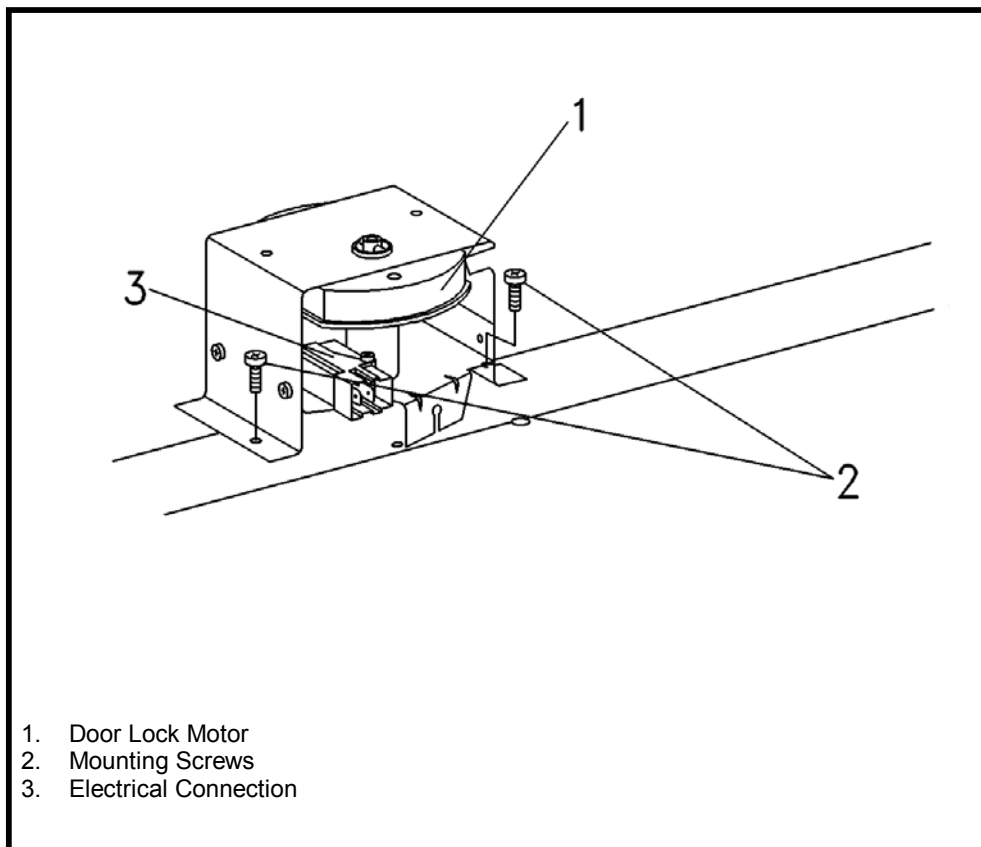


Figure 5-10: Door Latch Drive Motor Assembly

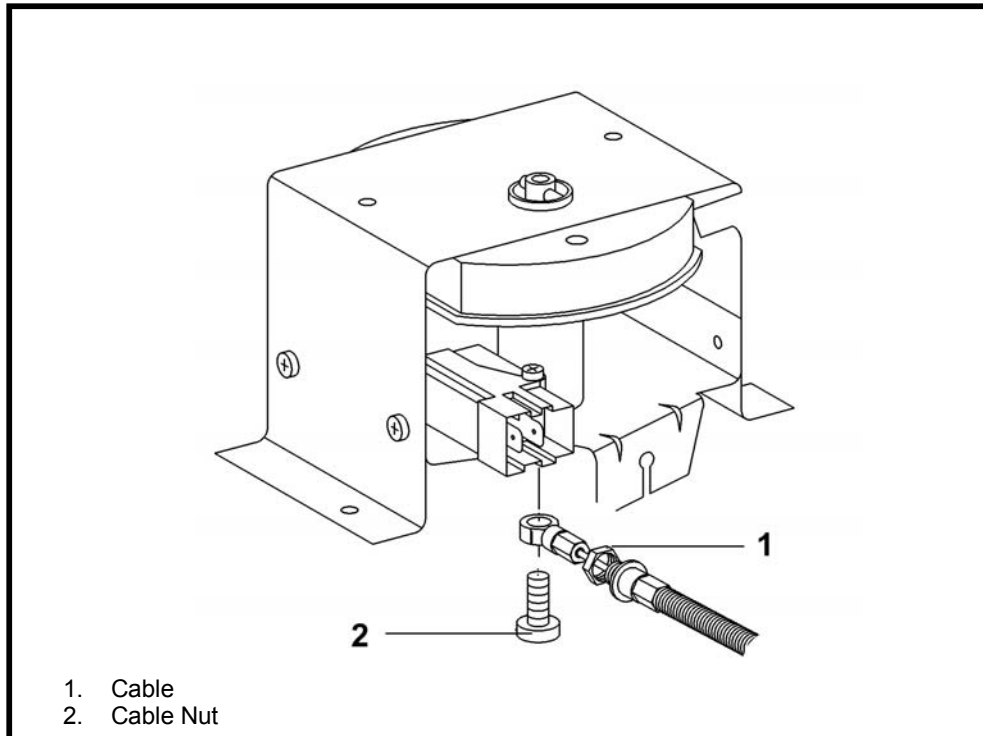


Figure 5-11: Door Latch and Cable

5.18 Lower Door Latch Drive Motor and Door Lock Switch (2M23 & 3S60) (Double Ovens with Self Clean) - Removal

1. Remove the Front Doors (Section 5.2).
2. Remove the oven (Section 5.5).
3. Remove the Upper Back Panel (Section 5.9)
4. Remove the Lower Back Panel (Section 5.10)
5. Refer to Figure 5-10. Unplug the electrical connections to the Door Lock Drive Motor (Item 3).
6. Remove the Door Latch Drive Fastening Screws (Item 2).
7. Refer to Figure 5-11. Loosen the Cable Nut (Item 1).
8. Remove the Cable from the mounting bracket.

Note

When the Cable tension is released, the Oven Door Locks.

Technical Information

5.19 Upper (or Single Oven) Door Latch, Door Lock Switch and Door Close Switch (2S60 & 1S24) (Self Clean Models) – Access

1. Remove the Front Doors (Section 5.2)
2. Remove the oven (Section 5.5)
3. Remove the Control Panel (Section 5.6)
4. Remove the Top Cover (Section 5.8)
5. Refer to Figure 5-12. Remove the four Screws (Item 1) that secure the Upper Housing Assembly to the Cavity Assembly.

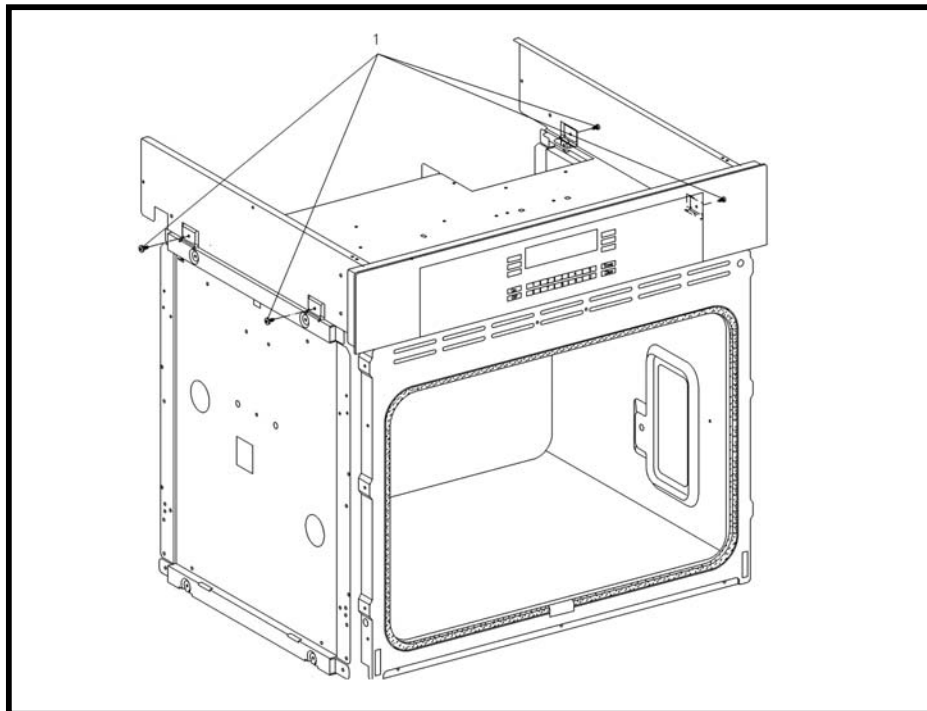


Figure 5-12: Upper (or Single Oven) Housing Retaining Screws

Note

Use caution when lifting the front of Upper Housing, as the wiring is still connected.

Safety Tip

A second person is required to lift the housing or safely secure the housing into a position during Latch, Door Lock Switch and / or Door Close Switch service / replacement.

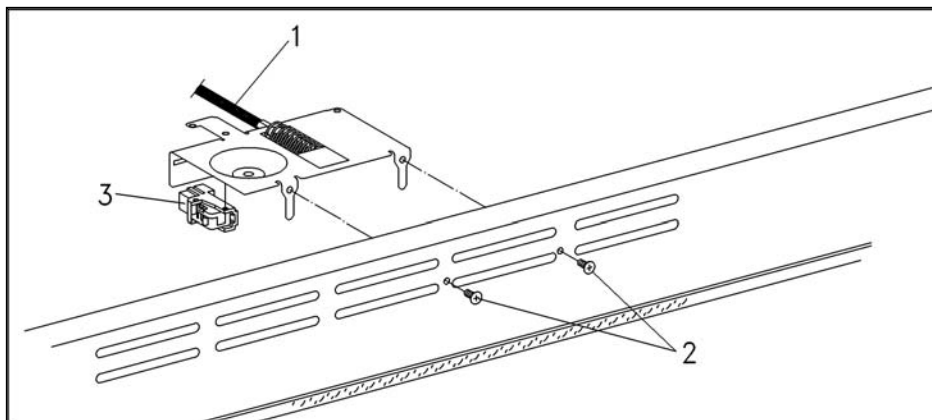


Figure 5-13 Door Latch Assembly

6. Refer to Figure 5-13. Remove the two screws that secure the Latch Assembly to the Cavity Assembly.
7. Slightly lift the Upper Housing near the front to access the Latch Assembly, as shown in Figure 5-14.

Service Tip - Upper & Lower Door Close Switch Removal

To simplify access to the Door Switch Retaining Tabs, the Right Side Panel can be removed permitting direct access to the underside of the locking tabs.

Technical Information

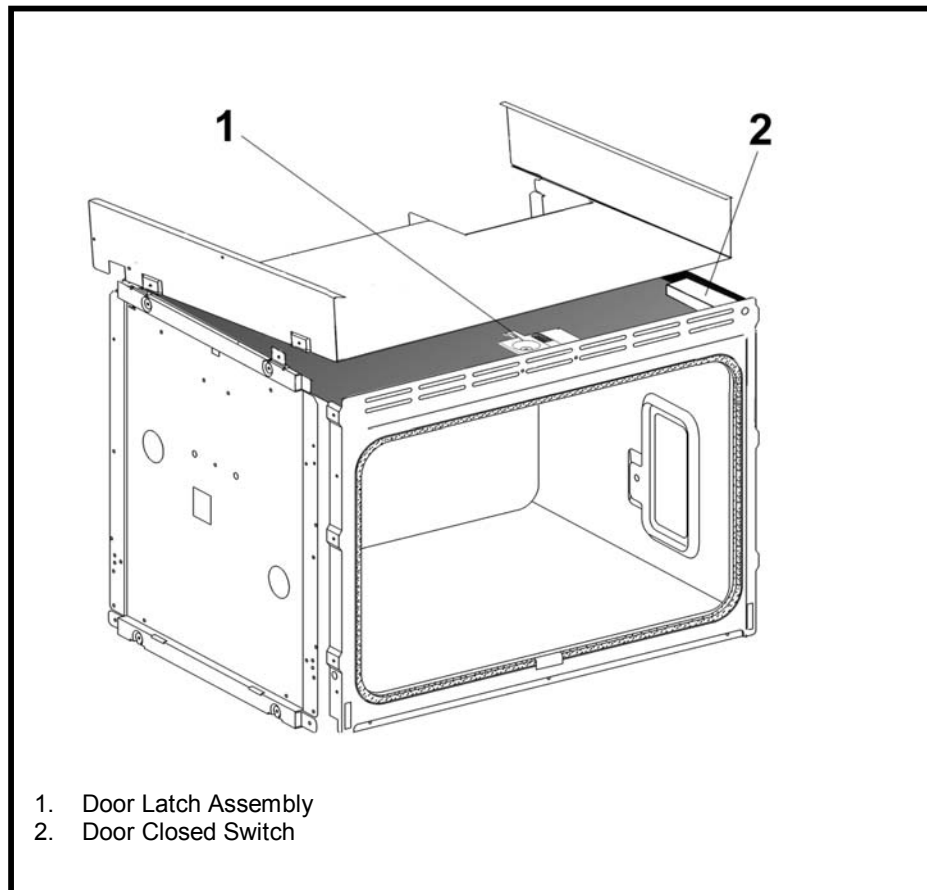


Figure 5-14: Lifting the front of the Upper Housing to access the Door Lock / Latch Assembly and Door Closed Switch

5.20 Lower Door Latch, Door Lock Switch and Door Close Switch (4S60 & 2S24) (Double Oven P/Self Clean Models) - Access

1. Remove the Front Doors (Section 5.2).
2. Remove the oven (Section 5.5).
3. Remove the Upper Back Panel (Section 5.9)
4. Remove the Lower Back Panel (Section 5.10).
5. Remove the Air Shield Panel (Section 5.13)
6. Refer to Figure 5-13. Remove the two screws that secure the Latch Assembly to the Cavity Assembly.
7. From the rear of the oven, reach into the Air Shield Opening to access the Door Lock Switch and Door Closed Switch.

5.21 Oven Cavity Back Panel - Removal

1. Remove the Front Door(s) (Section 5.2)
2. Refer to Figure 5-15. Remove the four screws from the panel (Item 1).
3. Pull the back panel forward to remove from the oven (Item 2).

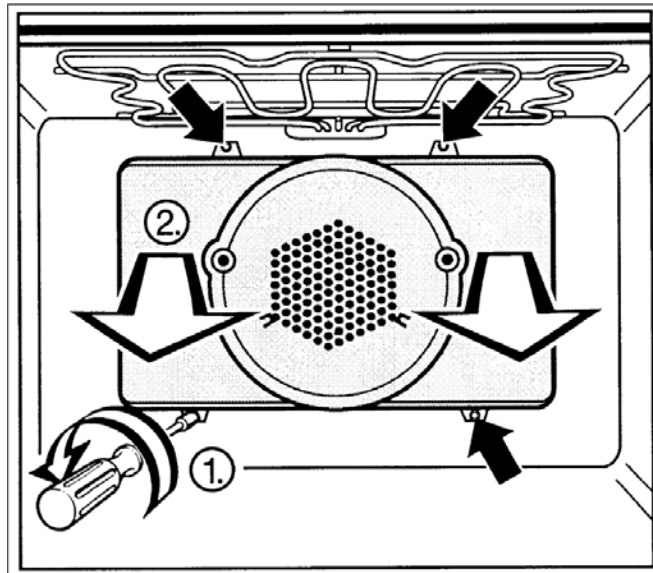


Figure 5-15: Removing the Oven Cavity Back Panel

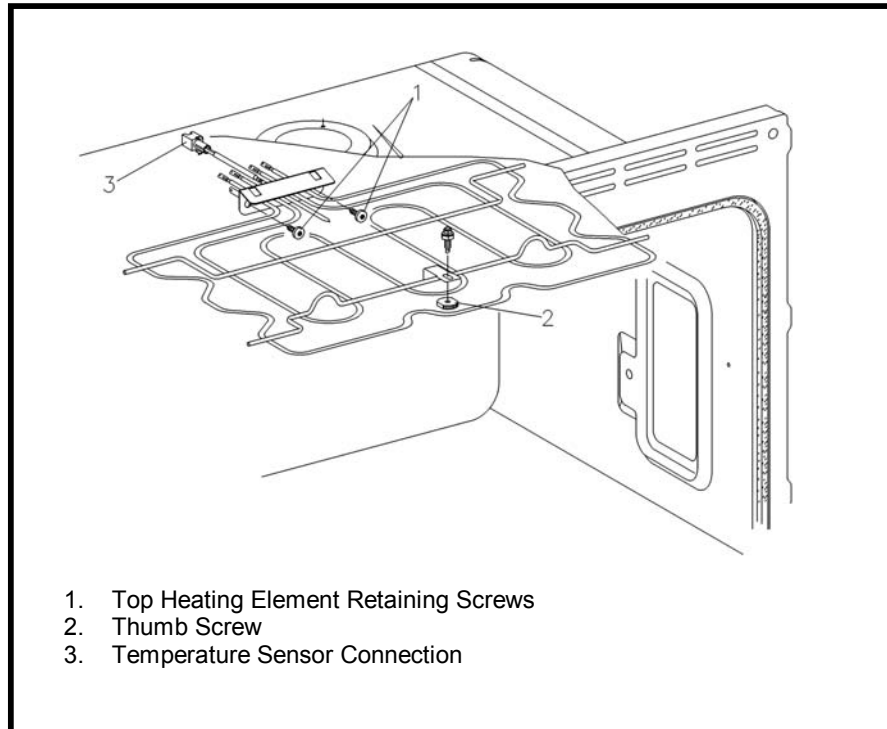
Note

When removing the back panel use care not to make contact with the oven interior surfaces. Protect the interior of the oven as necessary.

Technical Information

**5.22 Top Heater/Broiler Heating Element
(1R13/1R15, 2R13/2R15) - Removal**

1. Refer to Figure 5-16.
2. Remove the Heater Element Retaining Screws (Item 1).
3. Remove the Thumb Screw (Item 2).

**Figure 5-16:** Top Heating Element

4. Gently lift the mounting flange upward and move it toward the front of the oven.
5. Disconnect the Temperature Sensor Connection (Item 3).
6. Remove the Temperature Sensor.
7. Disconnect the Heater Element connections.
8. Remove the Heater Element.

5.23 Convection Heating Element - Removal (1R14, 2R14)

1. Refer to Figure 5-17.
2. Remove the Front Doors (Section 5.2).
3. Remove the oven (Section 5.5).
4. Remove the Oven Cavity Back Panel (Section 5.21)
5. Remove the Back Panel (Section 5.9 and / or 5.10)
6. Note the position of the electrical connections to the element.
7. Unplug the electrical connections from the element.
8. Access the oven cavity and Remove the Heating Element Retaining Screws (Item 1).
9. Remove the Heating Element.

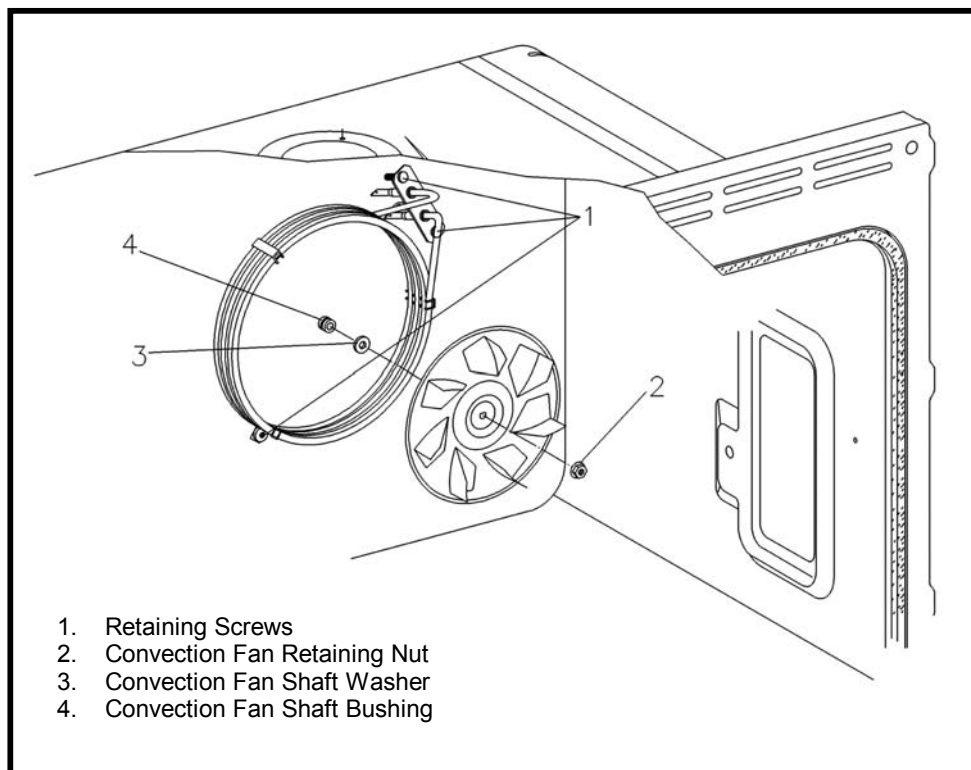


Figure 5-17: Convection Fan and Heating Element Hardware

Technical Information

5.24 Convection Fan – Removal (1M2/2, 2M2/2)

1. Refer to Figure 5-17.
2. Remove the Front Doors (Section 5.2).
3. Remove the oven (Section 5.5).
4. Remove the Back Panel (Section 5.9 and / or 5.10)
5. Remove the Oven Cavity Back Panel (Section 5.21)
6. Loosen the Fan Blade Nut (Item 2).

Note

The Fan Blade Nut is reverse thread.

7. Remove Fan Blade, Washer (Item 3) and Bushing (Item 4).
8. Refer to Figure 5-18. Remove the three Retaining Screws.
9. Unplug the electrical connection. Remove the component.

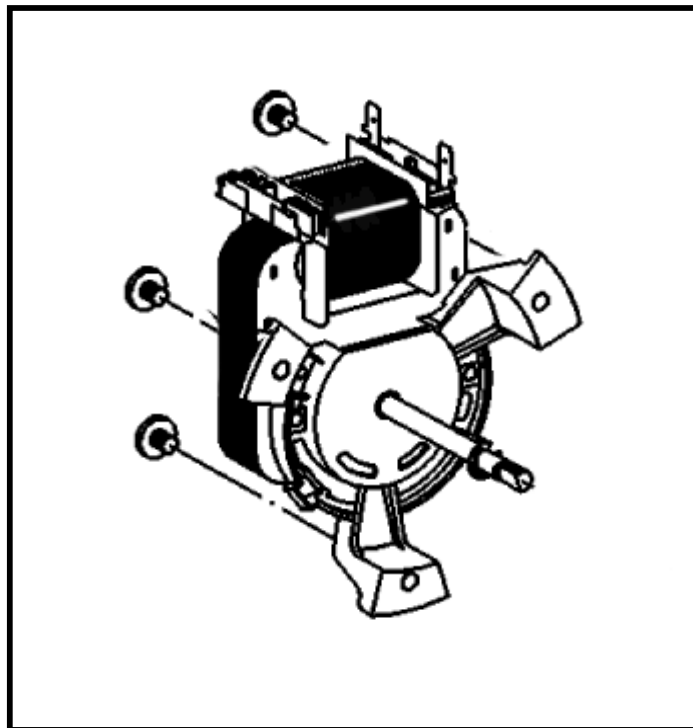


Figure 5-18: Convection Fan Motor and Retaining Screws

5.25 Operational Temperature Sensor (1R30 & 4R30) – Removal

Refer to: Top Heater/Broiler Heating Element – Removal (Section 5.22)

5.26 Self Clean Temperature Sensor (3R30 & 6R30) – Removal (P/Self Clean Models)

1. Remove the Front Doors (Section 5.2).
2. Remove the oven (Section 5.5).
3. Remove the Back Panel(s) – as necessary (Section 5.9 and /or 5.10)
4. Disconnect the electrical connection.
5. Refer to Figure 5-19. Move the retaining spring to the side and remove the Sensor (Item 1) from the Catalyst Vapor Outlet .

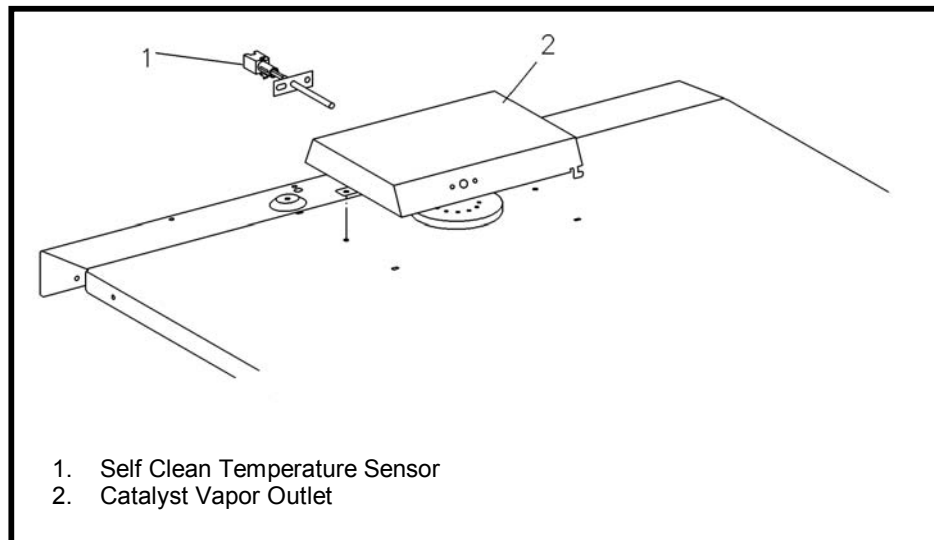


Figure 5-19: Self Clean Temperature Sensor Removal

Technical Information

**5.27 Self Clean Temperature Sensor (3R30 & 6R30)
Resistance Value Test**

Temperature °F	Temperature °C	Resistance (Ohms)
32	0	1000 Ω
68	20	1078 Ω
77	25	1097 Ω
86	30	1117 Ω
122	50	1194 Ω
212	100	1385 Ω
302	150	1573 Ω
392	200	1758 Ω
482	250	1941 Ω
572	300	2120 Ω

Table 5-1: Self Clean Temperature Sensor resistance values at various temperatures.

5.28 Rotisserie Motors – Removal (1M15, 2M15)

1. Remove the Front Doors (Section 5.2).
2. Remove the oven (Section 5.5).
3. Remove the Back Panel (Section 5.9 and / or 5.10)
4. Refer to Figure 5-20. Remove the Retaining Screws.
5. Unplug the electrical connections to the Motor(s).
6. Remove the component.

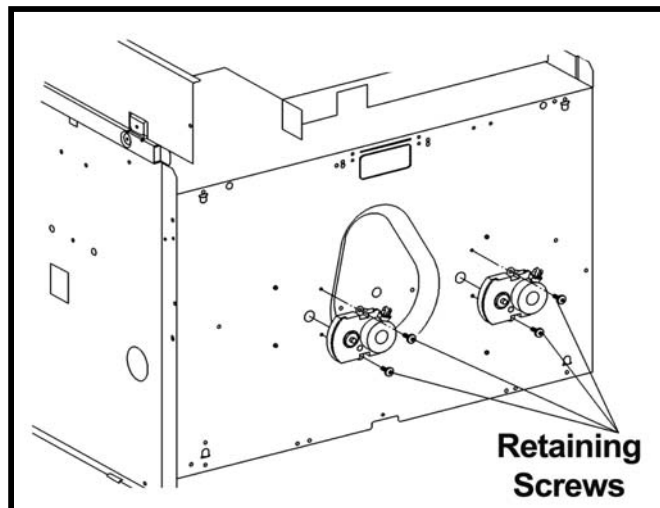


Figure 5-20: Rotisserie Motor and Retaining Screws

5.29 Catalyst Insert (P/Self Clean Models) - Removal

1. Remove the Front Doors (Section 5.2).
2. Refer to Figure 5-21
3. Loosen the Upper Heating Element Knurled Nut (Item 1)
4. Carefully pull the Upper Heating Element downwards.
5. Loosen the Retaining Screws on the Catalyst Retaining Plate (Item 2).

Note

Protect the floor of the oven when removing the Catalyst Retaining Plate. The Catalyst Insert may fall from the cavity opening. Be prepared to remove the insert.

6. Remove the Catalyst Retaining Plate to access the Catalyst Insert.
7. Remove the Catalyst Insert from the opening.

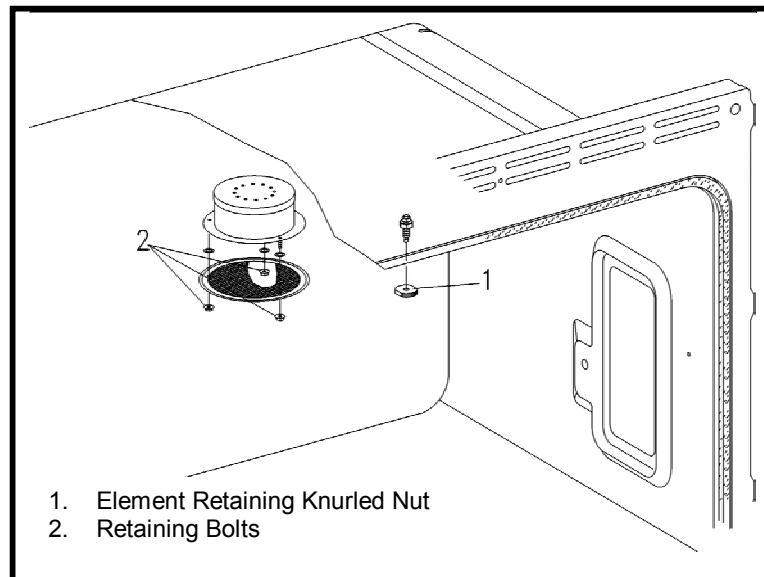
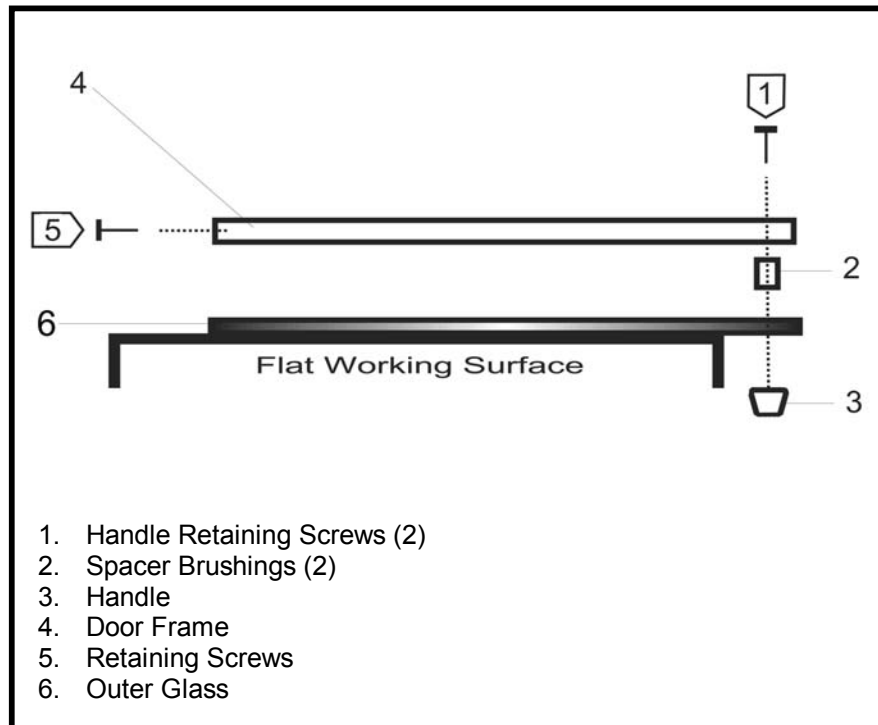


Figure 5-21: Catalyst Insert - Removal

Technical Information

5.30 Front Door, Outer Glass Pane - Removal**Figure 5-22:** Front Door, Outer Glass Pane Removal

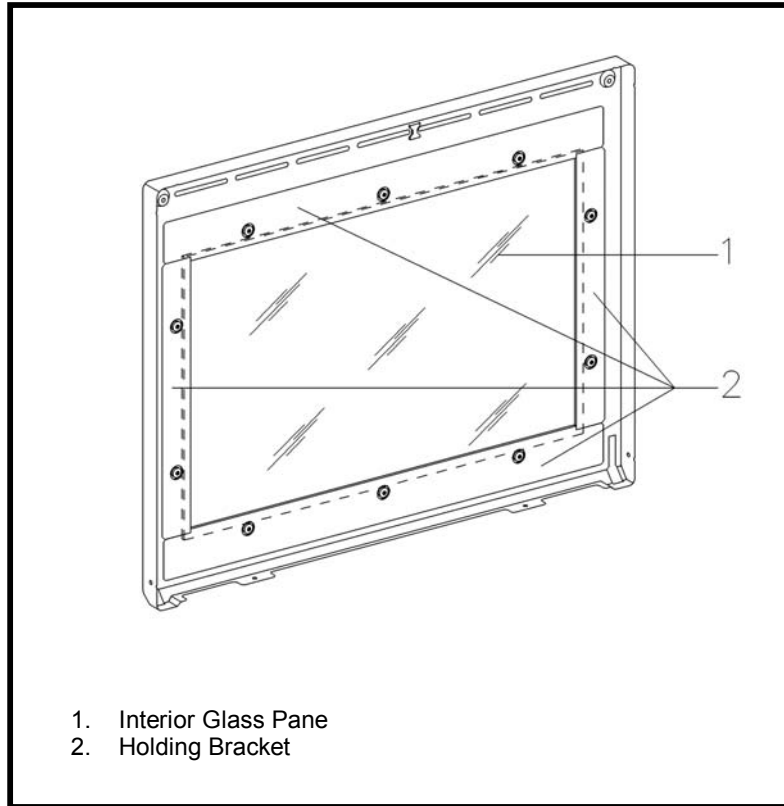
1. Remove the Front Door. (Section 5.2)
2. Refer to Figure 22. Position the Front Door Glass Area (outer glass facing down) on a flat work surface.
3. Remove the Handle Retaining Screws (Item 1).
4. Remove Handle (Item 3).
5. Remove the Outer Glass Pane Retaining Screws (Item 5).
6. Remove Outer Glass Pane (Item 6)

Note

When installing the outer glass pane, position the glass pane correctly over the spacer brushings (Figure 5-22 Item 2).

5.31 Front Door, Middle Glass Pane – Removal

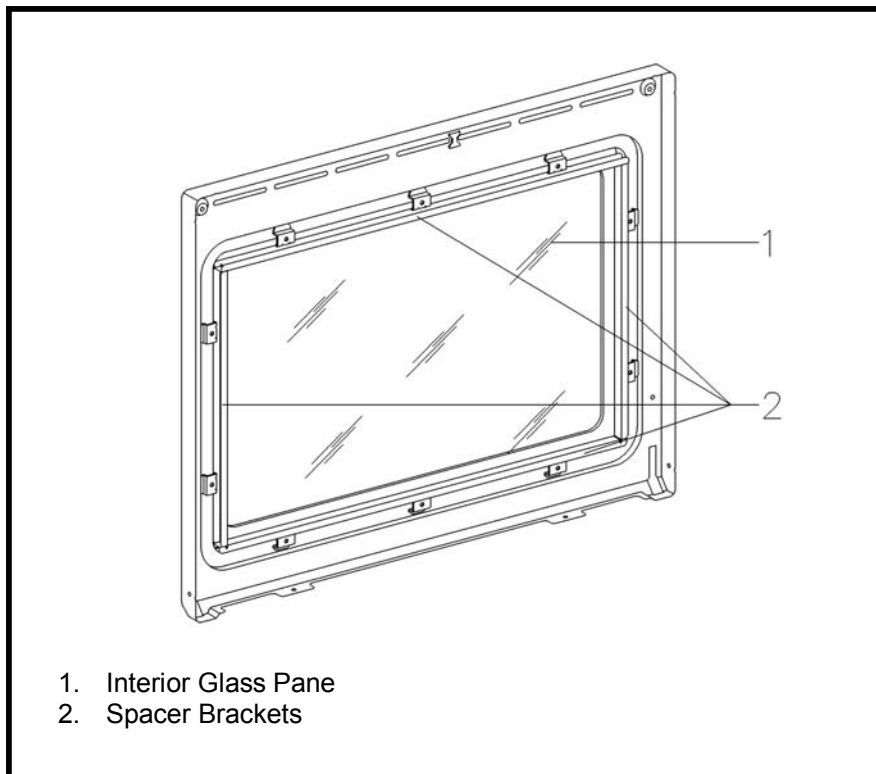
1. Remove the Front Door (Section 5.2)
2. Remove the Front Door Outer Glass Pane (Section 5.30)
3. Refer to Figure 5-23.
4. Remove the Retaining Bracket Screws (Item 2).
5. Remove Retaining Bracket.
6. Remove Middle Glass Pane from the Door Frame (Item 1).

**Figure 5-23:** Front Door Middle Glass Panel - Removal

Technical Information

5.32 Oven Door, Interior Glass Pane - Removal

1. Remove the Front Door (Section 5.2).
2. Remove the Front Door Outer Glass Pane (Section 5.30).
3. Remove the Front Door Middle Glass Pane (Section 5.31).
4. Remove the Spacer Brackets (Item 2).
5. Remove Interior Glass Pane (Item 1).

**Figure 5-24:** Oven Door, Interior Glass Pane - Removal**Note**

To avoid cooking vapors from entering the door assembly – ensure the seal remains seated when installing the Interior Glass Pane into the Door Frame Assembly.

5.33 Door Hinge(s) - Removal

1. Remove the Front Door (Section 5.2).
2. Remove the Front Door Outer Glass Pane (Section 5.30).
3. Remove Hinge Fastening Screws (Figure 5-25 Item 1)
4. Remove the Hinge from the Door Frame.
5. Repeat for opposite side.

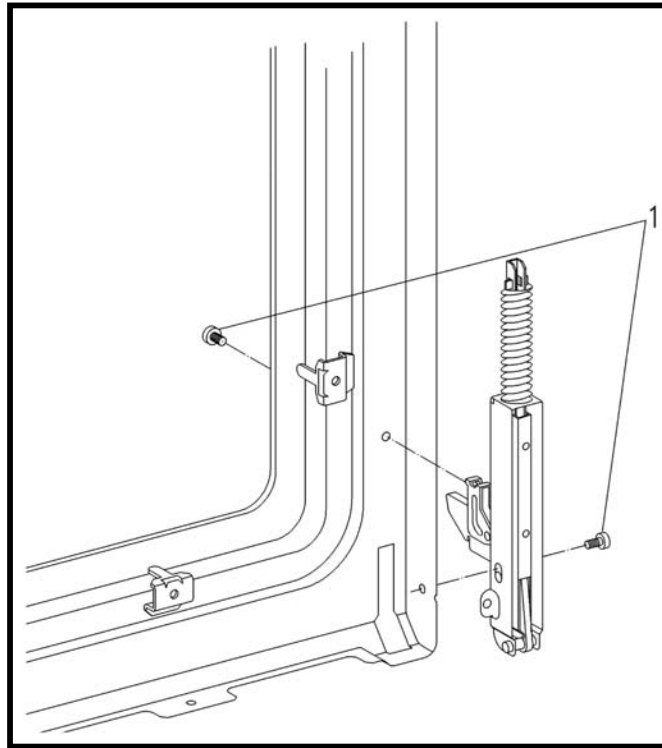


Figure 5-25: Door Hinge Removal

Technical Information

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6.0 Fault Diagnosis

6.1 Service Mode

Initial requirements

- Turn off the oven.
- Close the door(s).

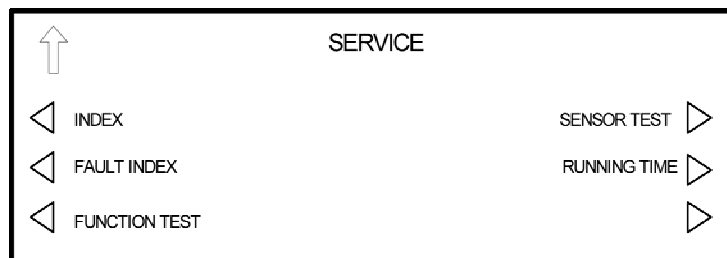
Note

On double ovens the service mode access for the Top Oven and the Bottom Oven is separate – use the appropriate ON/OFF touch control.

1. Press and Hold the **CLEAR** touch control.
2. Press the **ON (ON/OFF for double ovens)** touch control
3. Release the **ON (ON/OFF for double ovens)** touch control and press the **CLEAR** touch control 3 times, holding the third time for 5 seconds

Successful access of the Service Mode is indicated in the display.

The following appears in the display.

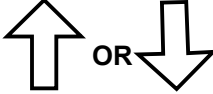


Navigating through the service programs

Refer to the Service Mode Navigation Charts (Tables 6-1 & 6-2). Press the touch control next to the displayed text to make a selection.

Use the **CLEAR** touch control to back up to the previous menu or cancel a function.

Service Mode Navigation – Part 1 of 2

	Indicates which oven (upper/lower) s presently in the Service Mode
<p>INDEX</p>	Displays the version of the main and display electronics
<p>FAULT INDEX</p>	Retrieve and clear stored fault codes

To Retrieve the Stored Fault(s)

Select “**FAULT INDEX**” from the main menu, the display shows:


FAULT INDEX

◀ FAULT 01

◀ CLEAR FAULTS

1. Press the touch control along side “**FAULT 01**”.

The fault information is displayed (example shown).

◀  PT1000 PTC SENSOR

◀ CLEAR FAULTS

To Clear the Stored Fault Codes

1. Press the touch control along side “**CLEAR FAULTS**”
2. Shut the oven of using the **ON/OFF** touch control.

For descriptive information on Fault Codes refer to the Fault Code Summary in section 6.3.

Table 6-1: Service Mode Navigation Chart (Part 1 of 2)

Service Mode Navigation – Part 2 of 2

FUNCTION TEST		Cycles on and off, specific components for testing purposes
ALL OFF		COOLING FAN
HEATING ELEMENTS		ROTISSERIE MOTORS
CONVECTION FAN		MORE
BACK		BUZZER
INTERIOR LIGHT		DISPLAY
DOOR LOCK		
SENSOR TEST	Checks the status and values of various switches and sensors	
NONE		TEMPERATURE INTERIOR
DOOR SWITCH		TEMPERATURE CATALYST
ROAST PROBE		BUTTON CHECK

Table 6-2: Service Mode Navigation Chart (Part 1 of 2)**Exiting the Service Mode**Press the **ON/OFF** touch control

Technical Information

6.2 Programming Mode

Initial requirements

- Turn off the oven.
- Close the door(s).

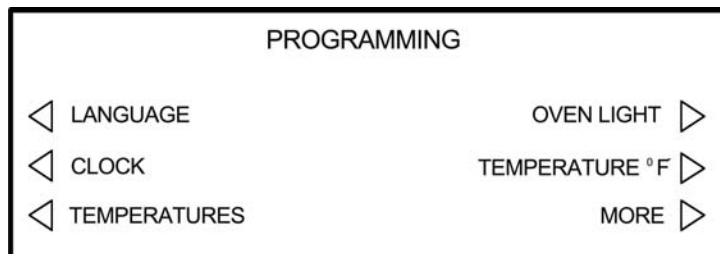
Accessing

Service Mode access for the Top Oven and the Bottom Oven is separate – use the appropriate **ON/OFF** touch control.

1. Press and Hold the **CLEAR** touch control.
2. Press the **ON (ON/OFF for double ovens)** touch control
3. Release the **ON (ON/OFF for double ovens)** touch control button and press the **CLEAR** touch control 5 times, holding the fifth time for 5 seconds.

Successful access of the Programming Mode is indicated in the display.

The following appears in the display.



Navigation

- Refer to the Programming Mode Navigation Chart (Table 6-3).
- Press the touch control next to the displayed text to make a selection.
- Use the **CLEAR** touch control to back up to the previous menu or cancel a function.

Programming Mode Navigation

LANGUAGE	English	
	German	
	Spanish	
	French	
	Portuguese	
CLOCK DISPLAY	Size of Clock Display	
	12 or 24 Hour Format	
	Clock Display On/Off	
	Programming Time	
TEMPERATURE Change Preset Temperatures	Bake	
	Browning	
	Sabbath Baking	
	Maxi Broil	
	Sabbath Surround	
	Convection	
	Intensive	
	Surround Roast	
	Rotisserie	
	Surround Bake	
	Auto Roast	
	Broil	
	Defrost	
OVEN LIGHT	OFF – shuts off after 1 minute	
	ON – on during cooking operation	
TEMPERATURE °F	Displays in Celsius	
	Displays in Fahrenheit	
TONE OPTIONS	Length of tone	
	Volume of tone	
	Type of tone (beeping, faster etc...)	
DISPLAY OPTIONS	Change Brightness	
	Change Contrast	
VERSION (MODEL NUMBER)	H-01	H394B
	H-02	H396B
	H-03	H396BP
	H-04	H398B2
	H-05	H398BP2

Table 6-3: Programming Mode Navigation

Technical Information**Programming an Optional Setting**

Once you choose the desired setting to reprogram, the display changes and shows the available option(s) available.

1. Press the appropriate touch control for the desired option setting,
2. Press the touch control next to "OK" to store the value.

Exiting the Program Mode

Presses the **ON/OFF** touch control.

6.3 Fault Code Summary

F 05	Oven Temperature Sensor - Short Circuit
F 06	Oven Temperature Sensor - Open Circuit
F 07	Catalyst Temperature Sensor - Short Circuit
F 09	Catalyst Temperature Sensor - Open Circuit
F 23	Pre-Heat Self Clean Fault (460 ⁰ was not reached in the allotted time)
F 32	Door Lock not locking during Self Clean mode. (Fault is stored after 20 seconds if the door lock position switch has not changed state)
F 33	Door Lock not unlocking after Self Clean mode. (Fault is stored after 20 seconds if the door lock position switch has not changed state)
F 43	Programming Fault - model number not programmed correctly
F 44	Programming fault - model number not programmed correctly
F 54	Roast Probe - short circuit
F 55	The oven did not automatically turn off after a specified time of operation (dependant on the oven function being used) Check Safety cut-outs
F 60	The temperature of the electronic is too high . Check for possible air flow restriction.

Table 6-4: Summary of Fault Codes

Technical Information

6.4 Electronic Boards – Layout

6.4.1 Main Electronic

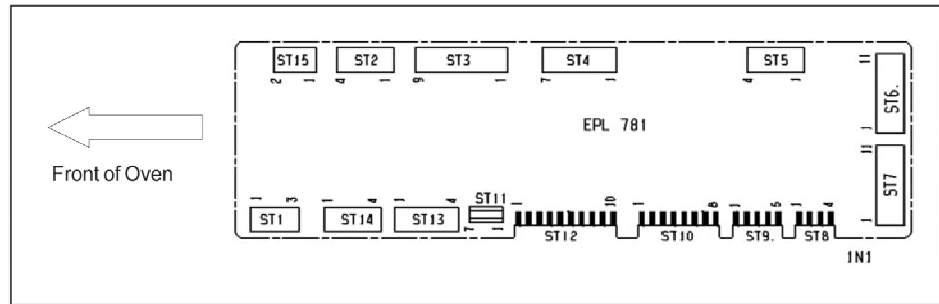


Figure 6-1: Main Electronic Layout

6.4.2 Display Electronics

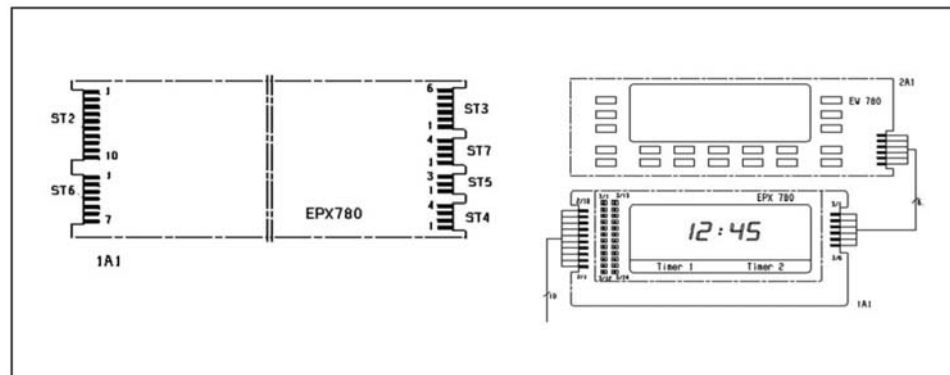


Figure 6-2: Display Electronics Layout

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