



Walker, Michigan, U.S.A. 49534-7564

USER'S OPERATING AND INSTRUCTION MANUAL

MODEL 691 & 691-S

CONVECTION & CONVECTION WITH STEAM OVENS



**691 & 691S ELECTRIC CONVECTION OVENS
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691 & 691S ELECTRIC CONVECTION OVENS

SAFETY INSTRUCTIONS

WARNING

VARIOUS SAFETY DEVICES AND METHODS OF GUARDING HAVE BEEN PROVIDED ON THIS OVEN. IT IS ESSENTIAL HOWEVER THAT THE OVEN OPERATORS AND MAINTENANCE PERSONNEL OBSERVE THE FOLLOWING SAFETY PRECAUTIONS. IMPROPER INSTALLATION, MAINTENANCE, OR OPERATION COULD CAUSE SERIOUS INJURY OR DEATH.

1. Read this manual before attempting to operate your oven. Never allow an untrained person to operate or service this machine.
2. This oven must only be installed by qualified personnel. It also must be installed to the specifications of local plumbing and electrical codes. See the installation section of this manual for additional requirements.
3. Connect the oven to a properly grounded electrical supply that matches the requirements shown on the electrical specification plate and follow specifications of local electrical codes.
4. Disconnect and lock-out the oven from the power supply before cleaning or servicing.
5. Check and secure all guards before starting the oven.
6. Observe all caution and warning labels affixed to the oven.
7. Use only proper replacement parts.
8. Wear proper personal protective safety equipment.
9. Keep Hands away from the moving parts of this oven while it is in operation.
10. In addition to these general safety instructions, also follow the more specific safety instructions given for the different areas of the oven in the operating instructions.

WARNING

DO NOT USE FOR OTHER THAN ORIGINALLY INTENDED PURPOSE.



691 & 691S ELECTRIC CONVECTION OVENS DESCRIPTION/SPECIFICATIONS

Description

The Oven is a stainless steel, electric, forced air, (convection), oven with optional steam injection capabilities. This oven offers consistent baking at all rack levels due to the careful positioning of the heating and air circulation systems.

In addition to the above, this oven also offers many other features. It is well insulated with a high quality asbestos free insulation. It is compact, attractive, quiet, and is easily maintained. Should electrical servicing ever be required the electrical components are readily accessible by removing the side or back panels.

The lighted, tempered glass door with its high temperature seal allows a full view of the trays in the oven during baking.

The oven computer allows you to bake two items at once which makes the oven more productive. It also has one of the fastest temperature recoveries on the market allowing the oven to be turned off during non-peak hours, thus saving energy.

The oven has many protective features such as not allowing heating of the elements when the door is open. Other features are re-settable thermal overloads on the motors, and a high-limit thermostat.

The computer allows easy selection of baking programs. The programs combine precise control of the pre-heat temperature, baking temperature, time, and pre-alarm functions. Some models offer steam, and damper control. These functions offer precise baking control by even inexperienced individuals.

Physical Specifications

Electrical Options Available:

- 3 phase, 60 hz, 480VAC, 14 Amps.
- 3 phase, 60 hz, 240VAC, 27 Amps.
- 3 phase, 60 hz, 208VAC, 24 Amps.
- 3 phase, 50 hz, 375VAC, 11 Amps

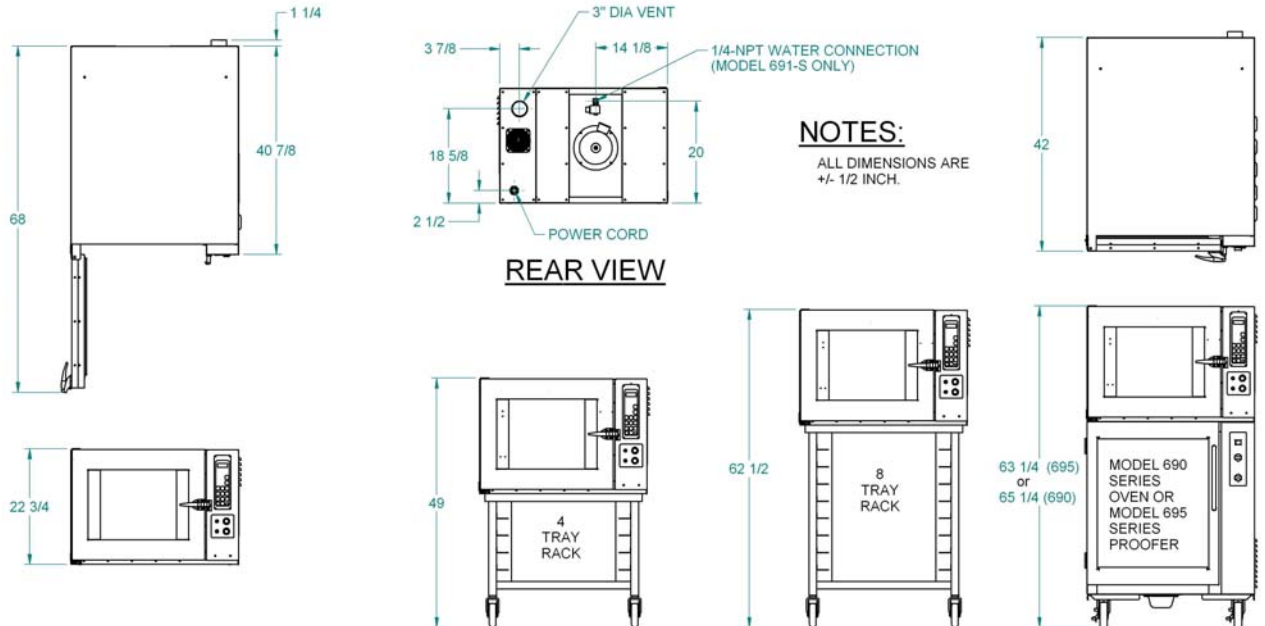
Product Capacities:

The Standard oven will hold (4) 18" X 26" pastry baking trays these trays will be approximately 3-5/16 inches apart when in the oven.



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Space Requirements:



- Single: 42" Deep x 33" Wide x 22-3/4" high.
- Single with short stand and casters: 49" high.
- Single with tall stand and casters: 62-1/2" high
- Stacked 691 oven & 695 Proofer with casters: 63-1/4" high
- Stacked 690 & 691 ovens with casters: 65-1/4" high

Clearance:

Left side = 2".

Right side = 12" in a fixed location, (to have access to electrical components), or 2" when mounted on another unit which has casters.

Back side = 4" to allow for venting and optional water connections.

Net Weight: Approximately 350 pounds.

Shipping Weight: Approximately 400 pounds.



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INSTALLATION / SETUP

Inspection

Before excepting delivery inspect the carton and machine for damage. Note any damage found on the shipping documents. Remember shipping damage **is not** covered by your warranty, and is the responsibility of the carrier. Also report the damage to the dealer from which the oven was purchased for further direction and assistant in filing a claim with the carrier.

Location Selection

Select a location where the oven will be used. The oven must be set on a flat level surface. It should have a grounded power supply of the same rating as shown on the nameplate located on the rear of the oven and this power supply must be capable of carrying the load that the oven will put on it (See "Electrical Connection" below). All ovens must be properly vented (See "Venting" below). Model 691-S ovens must also be placed near a water supply, (See "Water Connection" below for further information).

Ovens mounted on other units with casters should be placed so that they have a minimum of two inches on each side and a minimum of four inches in the rear of the oven to provide for proper venting, water, and electrical connections.

Ovens without casters should be placed so that there is a minimum of two inches on all sides, except for the side with the electrical panel, (right side), which should have a minimum of twelve inches. The rear of an oven without casters should be a minimum of four inches away from adjacent surfaces to allow room for the electrical, water and venting connections.

Sealing Oven to Mounting Surface

CAUTION

MAKE SURE THAT THE MOUNTING SURFACE IS ABLE TO SUPPORT THE WEIGHT OF THE OVEN WHICH IS APPROXIMATELY 350 POUNDS PLUS AN ADEQUATE SAFETY FACTOR BEFORE PLACING IT ON THE SURFACE.

The oven **must be** sealed to the mounting surface to comply with local sanitation codes. For the purpose of sealing the unit a tube of NSF/FDA approved silicone sealant has been provided with your unit. Apply, to the surface that the oven will rest on, a continuous bead of sealant approximately 1/2 inch in from each of the four sides of the oven. After the oven has been placed over this bead apply a second generous continuous bead at the joint where the oven contacts the mounting surface thus totally sealing the bottom of the oven to that surface.



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Oven Setup

Ovens may be mounted to a fixed surface, attached to an “Oliver” oven rack with casters or stacked on either a Oliver Model 690 Oven or and Oliver Model 695 Proofer. For associated mounting heights for the above options see page 2-2.

CAUTION

USE CARE WHENEVER MOVING OVENS MOUNTED ON RACKS AS THEY ARE TOP HEAVY AND PRESENT A TIPPING HAZARD.

Ovens attached to “Oliver” oven racks must be securely fixed to the rack with bolts. Stacked units should be setup as shown on page 2-2 being sure that the alignment pins on the top of the lower unit are securely positioned into the holes in the base of the upper oven.

After the Oven has been mounted to a surface, attached to a rack, or stacked, remove the shipping bracket, which secures the door. To remove the shipping bracket, remove the two screws from the top of the door with a screwdriver and open the door. Replace these screws and tighten securely. To remove the shipping bracket from the front of the oven liner, remove the two hex head screws with a wrench. The bracket and screws may be discarded. Replace the removed hex head screws with the two screws provided in a bag taped to the floor of the oven chamber and tighten securely.

Electrical Connection

WARNING

THE OVEN MUST BE CONNECTED TO A PROPERLY GROUNDED ELECTRICAL SOURCE OF THE SAME RATING AS THE MACHINE. FAILURE COULD RESULT IN AN ELECTRICAL SHOCK WHICH MAY CAUSE INJURY OR DEATH.

WARNING

ALL WIRING AND ELECTRICAL REPAIRS SHOULD BE DONE BY A QUALIFIED ELECTRICIAN. FAILURE TO DO SO MAY CAUSE SERIOUS INJURY OR DEATH.

CAUTION

SPECIAL HEAVY DUTY ELECTRICAL SERVICES AND WALL DISCONNECTS MUST BE PROVIDED FOR SAFE OPERATION OF THE OVEN.



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The following service requirements are recommended, dependent on the voltage of the unit you have purchased. Your oven's requirements can be found on the nameplate attached to its rear surface.

Electrical Connection (continued)

For voltages other than those shown below please contact the factory. Check the voltage at the disconnect before proceeding to the next step.

480 Volts = 20 Amp service
375 Volts = 20 Amp service
240 Volts = 30 Amp service
208 Volts = 30 Amp service

The oven is shipped from the factory with a power cord, which does not include a plug. The power cord should be wired to a disconnect enclosure which is accessible from the oven work area, leave at least two feet of slack so that access can be gained to the ovens back and right side. A plug may be used between the disconnect enclosure and the oven instead of hard wiring as described above. This makes sliding the oven out for service more convenient. Whatever method is used the oven should be wired in a manner which would conform to the U.S. "National Electric Code".

CAUTION

FANS MUST ROTATE IN THE CLOCKWISE DIRECTION FOR PROPER AIRFLOW. IMPROPER DIRECTION MAY CAUSE UNEVEN BAKES AND LONGER BAKING TIMES.

Check fan rotation for clockwise direction. After the oven has been "Set Up" and connected to the electrical service do the following to check the rotation of the fans. Use the following sequence to start the oven to check fan rotation direction:

- Turn the main power switch on, (green button). The oven should start after a delay of 15-30 seconds. Once started the fan rotation can be checked.
- Once complete, turn the main power switch off, (red button).

If the rotation is incorrect remove and interchange any two of the three incoming power leads (red, white and black), at the plug or disconnect enclosure and retest.



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Water Connection (Model 691-S ovens only)

All water connections must comply with the basic plumbing code of the Building Officials and Code Service Sanitation Manual of the Food and Drug Administration (FDA)

CAUTION

WATER PRESSURES GREATER THEN RECOMMENDED CAN CAUSE EXCESS WATER TO ENTER THE OVEN CAUSING WATER TO LEAK AT THE DOOR AND ALSO CAUSE THE TEMPERATURE TO DROP SEVERELY AFFECTING THE BAKE. USE A PRESSURE REGULATOR TO REGULATE THE PRESSURE.

The oven must be connected to a water supply to enable the oven to produce steam for baking. As shipped from the factory the oven will have a solenoid valve at the back, upper center of the oven, (See page 2-2). This valve has an internal 1/4" NPT thread for connection. Water pressure should be a maximum of 60 to 70 PSI and the water must be clean. **Use a pressure regulator and a water strainer/filter to meet these guidelines.** Before making the water connection flush all lines and install the regulator and filter. Remember solenoid failure and related problems caused by dirt may not be covered by your warranty.

NOTE

HARD WATER LEAVES MINERAL DEPOSITS ON GLASS AND OTHER SURFACES WHICH DETRACT FROM OVEN APPEARANCE.

The solenoid valve can be checked after "Set Up" and the "Electrical and Water Connections" has been completed. Use the following sequence to start the oven to check solenoid operation.

- Turn the main power switch on, (green button).
- Press the steam button, (located on the computer touch panel), briefly and release, water should spray from the spray nozzle. Adjust the spray nozzle if required so that it sprays directly into the fan.
- Once complete, turn the main power switch off, (red button).



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Venting

On the rear side of the oven near the top is a 3" diameter exhaust vent protruding approximately 3/4" from the oven. Vent the exhaust (hot air and steam) to the outside by connecting to this vent.

WARNING

HOT STEAM CAN CAUSE SEVERE BURNS AND DAMAGE TO THE SENSITIVE ELECTRONICS. VENT STEAM TO OUTSIDE TO AVOID INJURIES AND DAMAGE.

Test Cycle

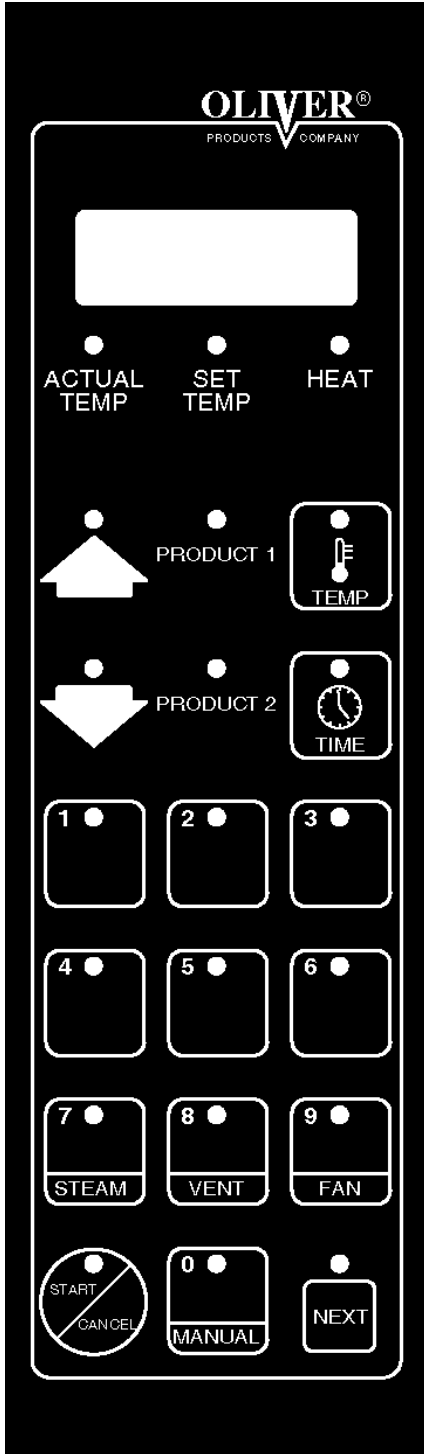
After completing the Set Up, Electrical, Water connections, (when required) and Venting, you may wish to run the oven through a test cycle to verify that everything is ready. Use the following sequence to test the oven.

- Turn the main power switch on, (green button). After a few seconds the fans should start and "Idle" should appear in the computer display.
- Press the "Temp" button once this should activate the "Actual Temp Light" located below the computer display. The temperature then displayed should be rising until it achieves the "Idle" temperature of 250 degrees F.
- To increase or decrease the temperature press the "Temp" button a second time. This will activate the "Set Temp" light located below the display. By pushing either the up or down arrow the temperature can be increased or decreased.
- Set the Temperature to 350-400 degrees.
- Once the oven reaches the set temperature the heating elements should cycle on and off.
- If you have purchased a Model 691-S oven, (with steam), you can press the steam button, (#7 button), holding briefly, (a second or two) and then releasing. Water should spray from the spray nozzle directly into the fan which will spread the water onto the heating elements causing steam. Under normal conditions SOME STEAM MAY ESCAPE THROUGH THE FRONT DOOR GASKET.
- Once satisfied that the oven is working properly the oven should be cooled down. If the "Set Temp" light is not on press the "Temp" button until it is. Once this is done press the "Fan" button, (#8), this will place the oven into cool down mode. The door should be left open to speed this process. Once the oven has cooled down sufficiently, proceed to the next step.
- Once complete, turn the main power switch off, (red button).



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OPERATING INSTRUCTIONS



Beginning Operation

First turn the oven on by pressing the green “Start” button below the keyboard and display. The computer will then check the oven and itself for any faults. Then the display will show the current mode which is idle



Idle the preset initial temperature is 250 °F.


The Keyboard and Displays


- Press the temp. key  to toggle the display between Time, Actual Temp., Set Temp, and Idle.


The display LED’s will light for actual and set temperature.


- The Heat LED will light when the heating elements are on.

- Use the up and down keys   to add and subtract time in whole minute increments.

-  The time key is used when a bake is running. Press this key to display the time remaining. During 2 product baking pressing this key will briefly display the product with the most time remaining.

-  The temp key will change the display between set point, set temp, and time remaining.

-  The Start/Cancel key is pressed to start and cancel various operations.

-  The next key is used in programming.

- Other detailed key descriptions are explained in the next sections.



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Idle Mode


From Idle mode you can:

- Run an automatic program.
- Run a manual program.
- Adjust the temperature.
- add steam (Model 691-S only).
- open and close the vent (Model 691-S only).
- change the fan setting.

Running an Automatic Program

1. From Idle mode  enter the program number (01 - 40) using the keypad
2. Wait 3 seconds or press the start key to begin preheat stage.
3. Wait for oven to reach set temperature. The display will show lo or hi and the menu number. When the set point is reached the buzzer will sound and the display will show ready .
4. Put product into the oven.
5. Close door, bake begins.
6. Pre-Alarm #1  will sound if programmed, press  to cancel the alarm. For more details see the Pre-Alarm section.
7. Alarm will sound when bake is finished and display will show , and the program number .

Open the door to end the program, this will hold the current bake temperature, add time if required by pressing the up button. **OR**

Press cancel  to end the bake and return the holding temperature to 250 °F.





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Running two Automatic Programs at the Same Time

If two programs are compatible they may be run at the same time. They must both be single stage menus with identical temperatures. While the program is running (Product 1 LED will be lit) enter the second program number (01-40) and hit start. Now both product LED's will be lit, the one with the shortest time will have a flashing LED and the time remaining will be displayed. To briefly display the time of the other product press the Time

key .




Pre-Alarm

The pre-alarm will go off during the bake as programmed. The alarm will sound and the display will show  (the 1 is for product-1, product-2 pre-alarm displays ) press cancel or open the door to clear the alarm.



For advanced users: *While the pre-alarm is displayed it is possible to add time to it. Do this by pressing the up key. Press the up key once for each minute. Then wait three seconds or press the start key. Example: by adding 2 minutes to the pre-alarm, another pre-alarm will sound in two minutes. It is then possible to add time again and again.*

If the alarm is cleared by opening the door it is still possible to add time. However if the door is then shut and the up key isn't pressed within three seconds, the pre-alarm will be cleared and it will not be possible to add time.

Running a manual program

From idle mode  press the manual key  then press start .

Now enter the desired temperature by using the numeric keypad or the arrow keys to scroll.

Press the next key  to advance. Display will show  which prompts you to enter the time.

Using the numeric keypad enter the time in minutes and seconds.

Example: Run a manual program at 350 °F for 10 minutes

Display Shows

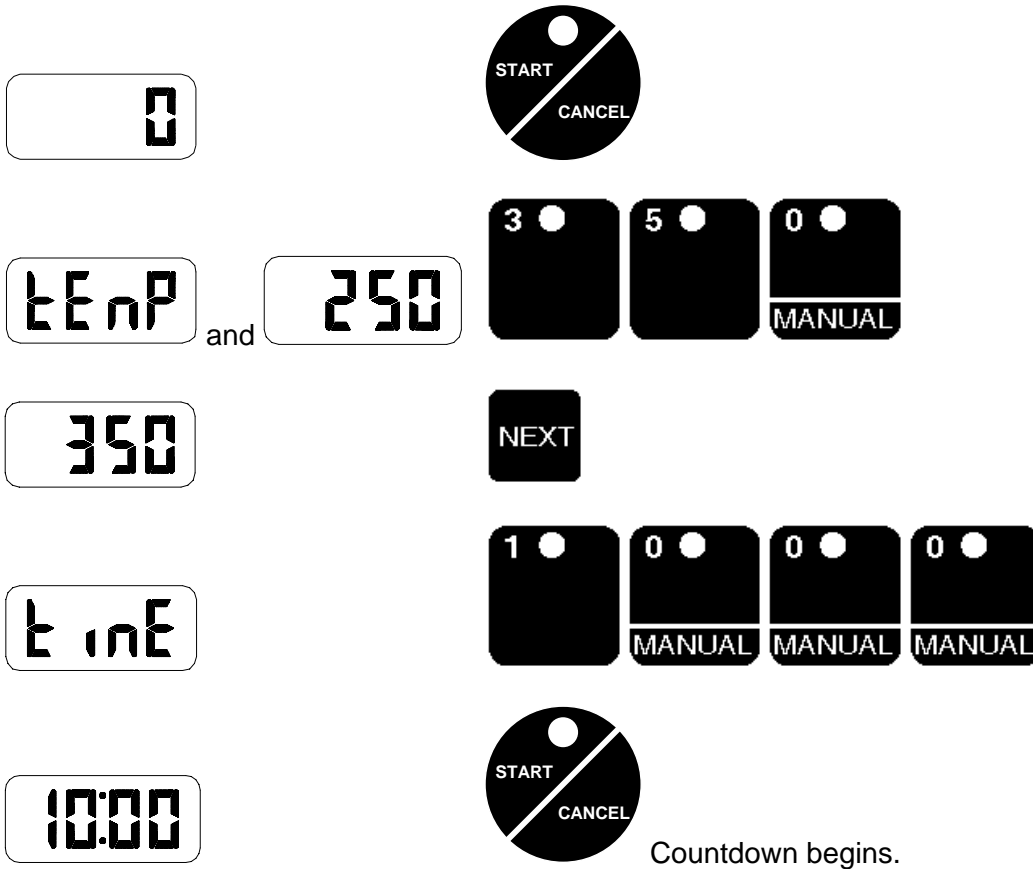


Press Button(s)...





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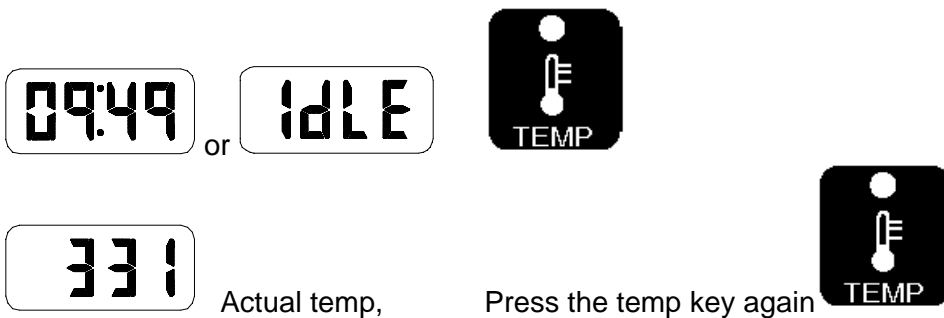


Adjusting the Temperature

The temperature can be changed while in manual or idle mode. Here is an example of how to change the temperature from 350 to 380.

Display Shows

Press Button(s)...





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Set temp.

Use  and  to scroll to 380.




Press  to go back to 'Time or Idle'.

Adding Steam (Model 691-S Ovens only)

It is possible to inject steam at any time the door is closed by pressing and holding the 7/steam button .

Opening and Closing the Vent

(Model 691-S Ovens and Model 691 Ovens with optional powered vent only)




It is possible to toggle the vent open and closed by pressing the 8/vent key . This will not work when a program is running. Use this feature to vent some of the steam out of the oven before opening the door. However, some hot steam will always remain.





CAUTION

SUPER HEATED STEAM IS INVISIBLE AND IS POSSIBLY PRESENT IN THE OVEN. THIS STEAM MAY BURN SKIN. STAND AS FAR AS POSSIBLE AWAY FROM OVEN WHEN OPENING THE DOOR. THEN PROCEED WITH CAUTION.

Changing the Fan Setting

The fan cannot be changed when a program is running.

In manual mode the fans can be set to high  or low  by pressing the 9/fan key .

In Idle mode the fans can be set to high , low , or cool down  using the 9/fan key .












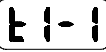


Cool down allows the oven chamber to quickly cool down by keeping the blowers running while the door is open.

The low fan setting is helpful for high sugar product.



691 & 691S ELECTRIC CONVECTION OVENS PROGRAMMING

The following are instructions for editing and creating a menu program.

1. Enter the Program Mode by pressing the up and down keys   simultaneously for 5 seconds.
2. Display shows  for MENU.
3. Key in the menu number you want to program (01-40), or use the up and down keys to scroll.
Programs 01-20 can hold two stages.
Programs 21-40 hold one stage
4. Press the 'next' key  to edit/program the first parameter of the menu.
5. Display will show  for **Pre-Heat**. Use the up and down keys or the keypad to enter the preheat temperature. Press the next key  to advance.
6. Display will show  for **Temperature Compensation**. Use the up and down keys   to adjust temperature Compensation to on or off. Press the next key  to advance.
7. Display will show  for **steam**. Use the up and down keys to adjust the steam time between 0-30, C2, C3, and C4. C2 produces two cycles of 15 second steam. C3 produces three cycles etc. Press 'next' key to advance. (*)
8. Display will show  for **stage 1 time**. Use up and down keys or keypad to enter the time in minutes and seconds. Press 'next' key to advance.
Example: Enter 1200 for twelve minutes and zero seconds.
9. Display will show  for **stage 1 Temperature**. Use up and down keys or keypad to enter the Temperature between 250°F and 500°F. Press the 'next' key to advance.
10. Display will show  for **stage 1 fan**. Use up and down keys to scroll between Hi and Lo fans. Press 'next' key to advance.



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11. Display will show **t 1-2** for **stage 2 time**. Stage 2 only works for menus 01-20 (For menus 21-40 skip to the Pre-alarm). Use up and down keys or keypad to enter the time in whole minutes. Entering 0 will eliminate stage 2 and skip you past the rest of the stage 2 parameters. Press 'next' key to advance.
12. Display will show **tE-2** for **stage 2 Temperature**. Use up and down keys or keypad to enter the Temperature. Press the 'next' key to advance.
13. Display will show **FAn** for **stage 2 fan**. Use up and down keys to scroll between Hi and Lo fans. Press 'next' key to advance. Best results are achieved with the fans on HI.
14. Display will show **PrE** for **Pre-Alarm**. Use the up and down keys to select the Pre-Alarm in whole minutes (0 to 30). Example: A pre alarm value of 1 will sound an alarm 1 minute before the time expires. Press 'next' key to advance.
15. Display will show **UEnt** for **Vent**. Use the up and down keys to scroll closed, open or 1-14 minutes. Venting example: A vent time of one minute will make the vent open one minute before the end of the menu program. Press 'next' key to complete program and return to the menu prompt. (*)
16. Enter the next menu number to be programmed or press cancel to leave programming mode.

(*) Your oven may or may not have these features even though the computer prompts for an entry.



691 & 691S ELECTRIC CONVECTION OVENS TROUBLESHOOTING

WARNING

TROUBLE SHOOTING OF ELECTRICAL EQUIPMENT SHOULD BE PERFORMED BY QUALIFIED PERSONNEL ONLY. ELECTRICAL POTENTIAL IS GREAT ENOUGH TO CAUSE INJURY OR DEATH.

Error Code Display

The error code is visible in the display. The list below outlines the standard error codes associated with this unit. They are designed to isolate specific problem areas and aid in troubleshooting your control.

Problem	Probable Cause	Solution
Er01- (ROM) Checksum error	Internal ROM is defective	Turn Off and then Restart.
Er02- (RAM) Checksum error	Internal RAM is defective	Turn Off and then Restart.
Er05- Eprom Error	<ul style="list-style-type: none">•Power loss while storing data.•Eprom has been changed.	Turn Off and then Restart. or Replace Eprom
Er06- Probe underflow error	<ul style="list-style-type: none">•Incorrect probe type.•Measuring temperature outside the probe range.	Check probe.
Er07- or Er11 Probe overflow error	Open Probe	Check for an open Probe
Er10- Stack overflow error	Microprocessor error	Turn Off and then Restart.
Er12- Probe error	Probe is out of range	Check Probe for short. Should be greater than 90 ohms
Er14- Probe error	Calibrated for two probes	Re-calibrate control for single probe
Er15- Zone 1 loop error	<ul style="list-style-type: none">•Faulty heater•Shorted probe•Bad heater contactor	<ul style="list-style-type: none">•Check heater elements•Check probe•Check switching device



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SOLVING OTHER PROBLEMS

CAUTION

**BEFORE WORKING ON A OVEN WHICH HAS BEEN RECENTLY USED
ALLOW SUFFICIENT TIME FOR IT TO COOL TO PREVENT BURNS.**

No Power.

- The machine is not plugged in.
- There is no power available at the outlet/disconnect
- A fuse has blown.
- The transformer has failed. (Control panel only)

No Heat or Oven Heats Slowly

A cooled dry empty oven can be heated from room temperature to 300 °F in four to six minutes. If the oven is not meeting this specification, check the following.

- Check the fuses
- Check the two contactors.
- Check heater bank continuity.
- The fault/high limit lamp is on, see the trouble shooting suggestions for this area below.

The Fault/High Limit Lamp Is On

- Motor has overheated. (The blower motor is equipped with an internal thermal switch). Turn the oven off and try to restart after the motor has cooled.
Possible causes:
 - 1.) The motor bearing or winding has failed.
 - 2.) Something is binding the motor or blower fan.
 - 3.) The rear of the oven lacks sufficient clearance to allow proper air circulation.
- Oven temperature is too high. (Your oven comes with a high temperature limit switch set at approx. 575 °F. This switch will reset when the oven has cooled.)
- A power interruption has occurred



691 & 691S ELECTRIC CONVECTION OVENS

SOLVING OTHER PROBLEMS (Continued)

No Steam (Model 691-S Only)

- The water line to the oven may not have been turned on or someone has turned it off.
- Your water line filter may be plugged or need servicing.
- The water solenoid valve may be dirty and stuck shut.
- The water solenoid valve may have failed.
- The water pressure may be too low, the oven requires between 60-70 psi.
- The water spray nozzle inside the oven chamber which sprays water into the blower fan may be plugged, remove the nozzle and clean.
- The nozzle, which sprays water into the blower fan, is not spraying the water directly into the fan as it should.

The Steam Will Not Stop /or Continuous Steam (Model 691-S Only)

It is normal for water to drip from the spray nozzle for several seconds after steaming, however if it continues to drip or run, check the following.

- The water solenoid valve may be dirty and stuck open.
- The water solenoid valve may have failed.

The Door Will Not Close

- Slamming the door too hard can cause it to bounce off of the seals, not allowing the door time enough to latch properly.
- Sometimes after replacement of the door seal the strike may need to be re-shimmed to generate the proper seal. Remember only a single shim should be used, order shim kit number 690-0148K when replacing the seal.
- Check for a worn or broken latch or strike.
- The Latch mounted to the door may be too far away from the strike. It may be adjusted left to right.



691 & 691S ELECTRIC CONVECTION OVENS

SOLVING OTHER PROBLEMS (Continued)

Steam Is Leaking From the Door (Model 691-S Only)

It is normal for some steam to escape from the door during the steaming operation, however, if excessive amounts escape you should check the following.

- The door seal may be damaged.
- The door may not be latching properly.

The Blower Fan Will Not Run

- The oven liner may be rubbing on the fan preventing its rotation.
- A motor fuse may need to be replaced.
- The door switch may not be working.
- The fault/high limit lamp is on, see the trouble shooting suggestions for this area above.
- The high limit switch has failed.
- The blower fan motor may have failed.

The Oven Is Overheating

This may be a normal condition experienced when the oven is empty. Normally the oven's program will attempt to correct temperature based on a full oven's requirements.

- A heat contactor may have failed.
- There is an error in your program, if it is a new program check that the temperature was entered correctly.
- The oven may be out of calibration. See the Advanced setup Mode on page 6-6 to find out how to re-calibrate the oven.



691 & 691S ELECTRIC CONVECTION OVENS

SOLVING OTHER PROBLEMS (Continued)

The Blower Fan Runs Continuously

Other than when the oven is in “Cool Down” mode the blower fan should not run when the door is open. Things which may make this happen are:

- A failure of the door switch.
- A blower fan motor contactor failure.


The Oven is Baking Unevenly


- The blower fan is turning in the wrong direction.
- The oven may be out of calibration. See the Advanced setup Mode on page 6-6 to find out how to re-calibrate the oven.
- The vent damper may be stuck open, (on those models so equipped).
- The blower fan may not be turning. See page 6-4 possible causes for this
- You may have low voltage at the power source.

Advanced Functions

Checking the software version and temperatures.

Press       

Advance through the parameters by using the  key. The parameters are as follows.



Customer number should be 48.



Software Revision should be 5 or higher.



Zone 1 temperature shows the temperature reading of the probe without offset.



Zone 2 temperature not used on this model of oven.

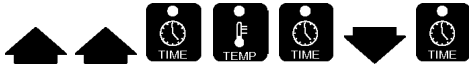



691 & 691S ELECTRIC CONVECTION OVENS

Advanced Setup Mode (Re-calibration)

Control Replacement

Should replacement of the control become necessary the following parameter must be changed for the new control to operate correctly on the Model 691 series of ovens. The control as shipped from the factory will be set to run on two probes. To change the control to operate on a single probe enter the following key sequence.




Advance through all parameters by using the  key. Do not change any of the parameters except the one listed below.

PrOb

Default is 2, change this to 1.

Temperature Offset Adjustment

Should you find a difference between the “Set” temperature and the “Actual” oven temperature a correction can be made by doing the following. Enter the Re-calibration mode as was done above. Advance through all parameters by using the  key. Do not change any of the parameters except the one listed below.

CAL

Adjust with the up and down keys to increase or decrease the temperature offset of the probe the required amount.



691 & 691S ELECTRIC CONVECTION OVENS MAINTENANCE

WARNING

NEVER ATTEMPT TO CLEAN OR SERVICE THIS OVEN UNTIL IT HAS BEEN DISCONNECTED FROM THE POWER SUPPLY AND IS COOL TO THE TOUCH.

NOTE

REMEMBER A CLEAN OVEN WILL LAST LONGER AND WORK BETTER.

Cleaning

The outside of the oven should be cleaned daily by wiping it with a clean damp cloth or by using any suitable stainless steel cleaner. A solution made up of a mild detergent with water will normally be sufficient for routine cleaning of the interior of the oven. When finished dry the surfaces with a clean cloth.

The glass door should be cleaned daily using normal glass cleaners.

For more difficult cleaning jobs such as where there are burned on or greasy deposits, or heat tint, you should use an abrasive pad. Remember for best results always keep the stainless steel shiny.

To simplify major cleanings the inner liner may be removed by first removing the nozzle assembly in the back of the oven with a small pipe wrench, and then by removing the six slotted head screws which secure the liner. Four of these screws are in the front of the oven while two additional screws are on the rear panel above and below the fan opening.

Clean the rear fan cover frequently to insure air circulation through the electrical compartment. This will lessen the possibility of heat related electrical problems.

The heating elements themselves normally do not require cleaning.

Lubrication

Occasionally put a few drops of oil on the pivot points of the door. No other items require lubrication.

CAUTION

NEVER LUBRICATE THE MOTORS



691 & 691S ELECTRIC CONVECTION OVENS

Removal and Replacement Guide

Removing the Inner Liner:

- First remove the nozzle assembly in the back of the oven.
- Remove the six slotted head screws which secure the liner. Four of these screws are in the front of the oven while two additional screws are on the rear panel above and below the fan opening.
- The liner can now be removed from the oven.

Replacing the Fan or Fan Motor:

WARNING

NEVER ATTEMPT TO CLEAN OR SERVICE THIS OVEN UNTIL IT HAS BEEN DISCONNECTED FROM THE POWER SUPPLY AND IS COOL TO THE TOUCH.

- First remove the inner liner as described above.
- Next, use a wrench to remove the hex head bolt in the end of the motor shaft which secures the fan.
- Loosen the two set screws in the hub of the fan.
- Always use a puller to remove the fan from the motor shaft to protect the bearings in the motor.
- Disconnect wires from motor, wiring connections are in the wiring box on the motor.
- Take off the four nuts which secure the motor and remove the motor.
- Re-install the fans and/or motors by reversing the disassembly procedures.

Changing a Bank of Heating Elements.

- Remove the inner liner as described above.
- Remove the fan as described above.
- Remove the electrical rear side panel by removing the 6 slotted head screws which secure the cover.
- Remove the wires from the ends of the bank of heating elements. Make sure they are marked so that they can be returned to the new bank of elements easily.

Continued



691 & 691S ELECTRIC CONVECTION OVENS

Changing a Bank of Heating Elements (Continued).

- Remove the four hex head screws which secure the bank to the housing and remove the bank of elements.
- The interior surface, where the bank of elements were previously attached, should be cleaned completely of any remaining sealant.
- A new bank of elements must be sealed to the housing using a NSF/FDA approved silicone sealant.
- Finish installing the new elements by reversing the above disassembly procedures.

Replacing the Exterior Door Gasket

- Remove the 14 screws which secure the gasket retainers.
- Remove the gasket.
- The sheet metal surface of the door where the gasket was attached and the retainers should be cleaned completely of any remaining sealant.
- Replace the gasket retainers but leave the screws loose.
- Start replacing the gasket on the hinge side of the door beginning about 1-1/2" above the spot where the two retainers meet. Slide the gasket between the retainer and the door surface making sure it is seated completely especially in the corners.
- Tighten the gasket retainer screws as you go.
- Completely seal the inside and outside edges of the gasket using a NSF/FDA approved silicone sealant. (Run a bead underneath the outside edge of the gasket as well as along the edge)
- Allow sealant to dry before closing the door or operating the oven, (approximately four to five hours).

Replacing the Interior Door Gasket

- Remove the 12 screws securing the inside door panel (It has the exterior gasket fastened to it).
- Lay the panel down and remove the gasket from the glass and metal frame.

Continued



691 & 691S ELECTRIC CONVECTION OVENS

Replacing the Interior Door Gasket (Continued)

- Replace gasket using a NSF/FDA approved sealant between the metal and gasket and gasket end to end.
- Set down door frame, rounded gasket side up and run a bead of NSF/FDA approved sealant around top edge of entire gasket.
- Place glass on top of gasket. This will seal the gasket to the glass.
- Allow sealant to dry, (approximately four to five hours).
- Replace door panel, clamp the front and back door panels together before tightening the screws.

Changing an Electrical Component

WARNING

NEVER ATTEMPT TO SERVICE THIS OVEN UNTIL IT HAS BEEN DISCONNECTED FROM THE POWER SUPPLY. ALL ELECTRICAL WORK MUST BE DONE BY A QUALIFIED ELECTRICIAN.

- Remove the front side panel which is located on the control side.
- After identifying the component which needs to be replaced remove its wires after marking them for ease of replacement.
- Remove the component.
- Re-install the new component by reversing the above removal procedures.



691 & 691S ELECTRIC CONVECTION OVENS

RECOMMENDED SPARE PARTS (All Ovens)

<u>PART NUMBER</u>	<u>PART DESCRIPTION</u>	<u>NO. REQ'D</u>
5725-9614	Fuse-FRN-R-2 (208/240/375/480V)	1
5725-9620	Fuse-FRN 4 (208/240V)	5
5725-9439	Fuse-FNQ-R-2 (375/480V)	5
5725-9634	Fuse-FRN 30 (208/240V)	3
5725-9066	Fuse-KTKR-15 (375/480V)	3
5760-3194	Transformer (240/480V)	1
5760-3195	Transformer (208/375V)	1
5749-8021	Relay-Power 3-Pole, 25A	2
5708-7806	Pushbutton-Green (On)	1
5708-7805	Pushbutton-Red (Off)	1
5757-8819	Switch-Magnetic Proximity Door	1
5737-2015	Lamp-Fluorescent	1
5702-2002	Ballast-Electronic	1
5911-9030	Latch-Body	1
0690-0149	Strike-Door	1
6542-0004	Glass-Door	1
6904-6062	Gasket-Door Interior and Exterior	12 ft
5757-8083	Switch-Limit (Optional Damper)	2
6310-0003	Motor-Gear 1/110 HP (Optional Damper)	1
0690-0004	Motor-Blower (208/240/480V)	1
0690-0004-2	Motor-Blower (375V only)	1
0690-0045	Wheel-Blower	1
5712-0655	Sensor-RTD 100 Ohm	1

For Service Parts Call Oliver Products @ 800-253-3893

(continued)



691 & 691S ELECTRIC CONVECTION OVENS

RECOMMENDED SPARE PARTS (Continued)

<u>PART NUMBER</u>	<u>PART DESCRIPTION</u>	<u>NO. REQ'D</u>
5712-0029	Coupling-RTD Sensor	1
5704-5011	Cable-Computer/Interface 9 Pin Mate-n-Lock	1
5704-5012	Cable-Computer/Interface 12 Pin Mate-n-Lock	1
5712-3261	Interface-Watlow Compatible	1
5712-3267	Computer-Oliver/Watlow	1
5730-2655	Heater-10KW	1
5757-9710	Switch-Thermal Surface Mount (Hi Limit)	1
6310-5027	Fan-Axial 3000 RPM (Cooling Fan)	1

ADDITIONAL RECOMMENDED SPARE PARTS (Ovens with Steam Only)

<u>PART NUMBER</u>	<u>PART DESCRIPTION</u>	<u>NO. REQ'D</u>
5748-6718	Valve-Solenoid 2-Way	1

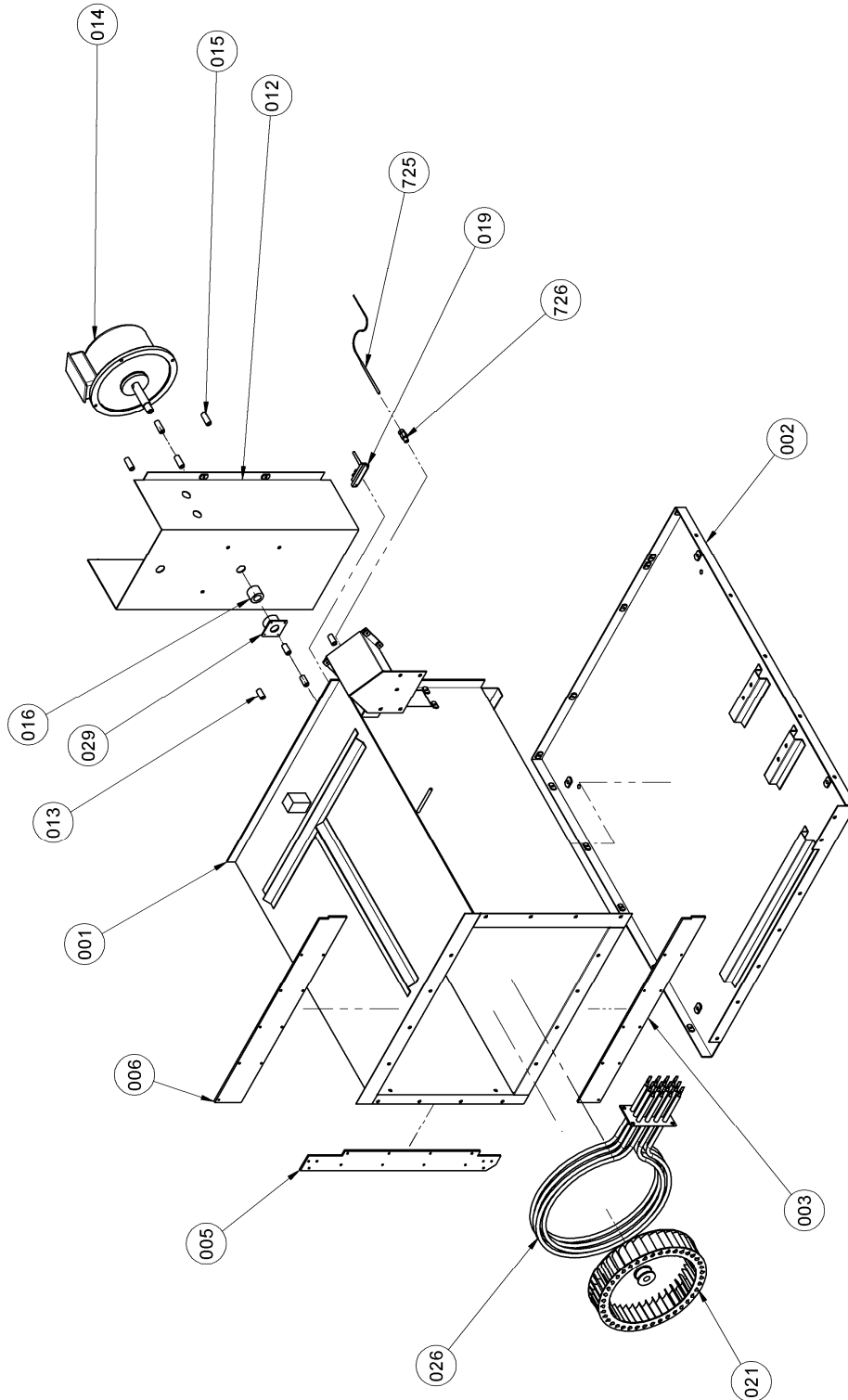
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Rev. 10-22-2003



691 & 691S ELECTRIC CONVECTION OVENS

HOUSING/CHAMBER ASSEMBLY



For Service Parts Call Oliver Products @ 800-253-3893
Rev. 3/8/05



691 & 691S ELECTRIC CONVECTION OVENS
HOUSING/CHAMBER PARTS LIST

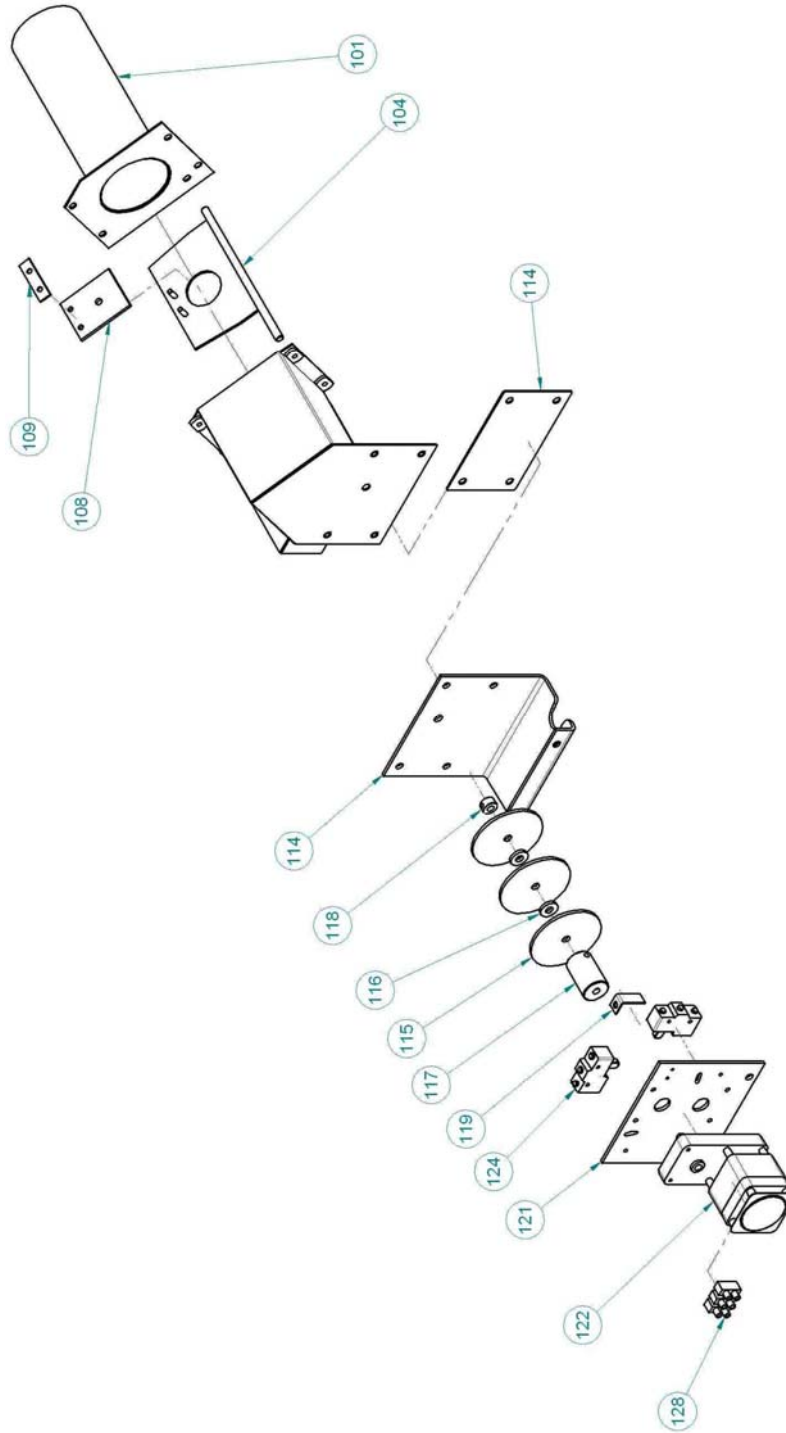
ITEM NO	PART DESCRIPTION	PART NUMBER
001	Housing-Main	0691-0001-1
001	Housing-Main (With Steam)	0691-0001-101
002	Base	0691-0002
003	Plate-Lower Splice	0690-0064
005	Plate-Side Splice	0691-0003
006	Plate-Upper Splice	0690-0063
012	Plate-Motor Mounting	0691-0006
012	Plate-Motor Mounting (With Steam)	0691-0006-001
013	Spacer-Short Motor	0690-0059
014	Motor-Blower 208/230/460/3	0690-0004
014	Motor-Blower 375/3	0690-0004-2
015	Spacer-Long Motor	0690-0058
016	Packing-PTFE Motor Shaft	5108-8602
019	Switch-Hi Limit	5757-9710
021	Wheel Blower	0690-0045
026	Heater-10KW	5730-2655
029	Housing-Adjustable Packing	0690-0158
725	Probe-RTD 100 Ohm	5712-0655
726	Fitting-Compression	5712-0029

For Service Parts Call Oliver Products @ 800-253-3893
Rev. 3/8/05



691 & 691S ELECTRIC CONVECTION OVENS

DAMPER ASSEMBLY



For Service Parts Call Oliver Products @ 800-253-3893



691 & 691S ELECTRIC CONVECTION OVENS
DAMPER ASSEMBLY PARTS LIST

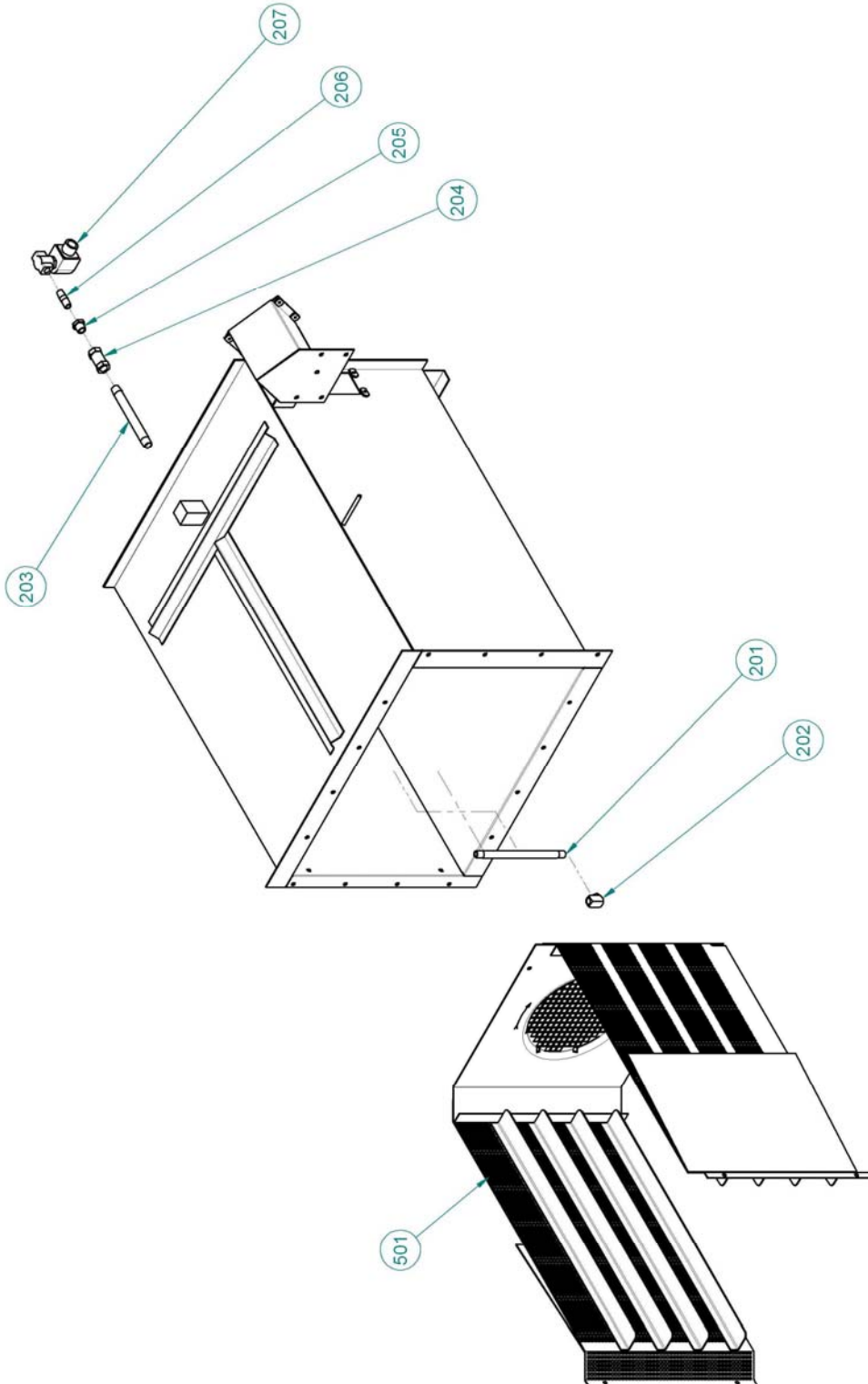
ITEM NO	PART DESCRIPTION	PART NUMBER
101	Chimney	0690-0051
101	Chimney (Ovens Without Dampers)	0690-0051-002
104	Plate-Damper	0690-0055-1
108	Flap-Pressure Relief	0690-0102
109	Bracket-Flap	0690-0101
114	Bracket-Damper Motor	0690-0050
114	Plate-Cover (Ovens Without Dampers)	0691-0007
115	Disk-Heat Sink	0690-0047
116	Spacer-Heat Sink	0690-0048
117	Coupling-5/16B	5604-6951
118	Collar-Set 5/16B	5806-7053
119	Lever-Limit Switch	0690-0046
121	Plate-Motor	0690-0049
122	Motor-Gear	6310-0003
124	Switch-Limit	5757-8083
128	Block-Terminal	5770-7169

For Service Parts Call Oliver Products @ 800-253-3893



691 & 691S ELECTRIC CONVECTION OVENS

WATER SYSTEM



For Service Parts Call Oliver Products @ 800-253-3893



691 & 691S ELECTRIC CONVECTION OVENS

WATER SYSTEM PARTS LIST

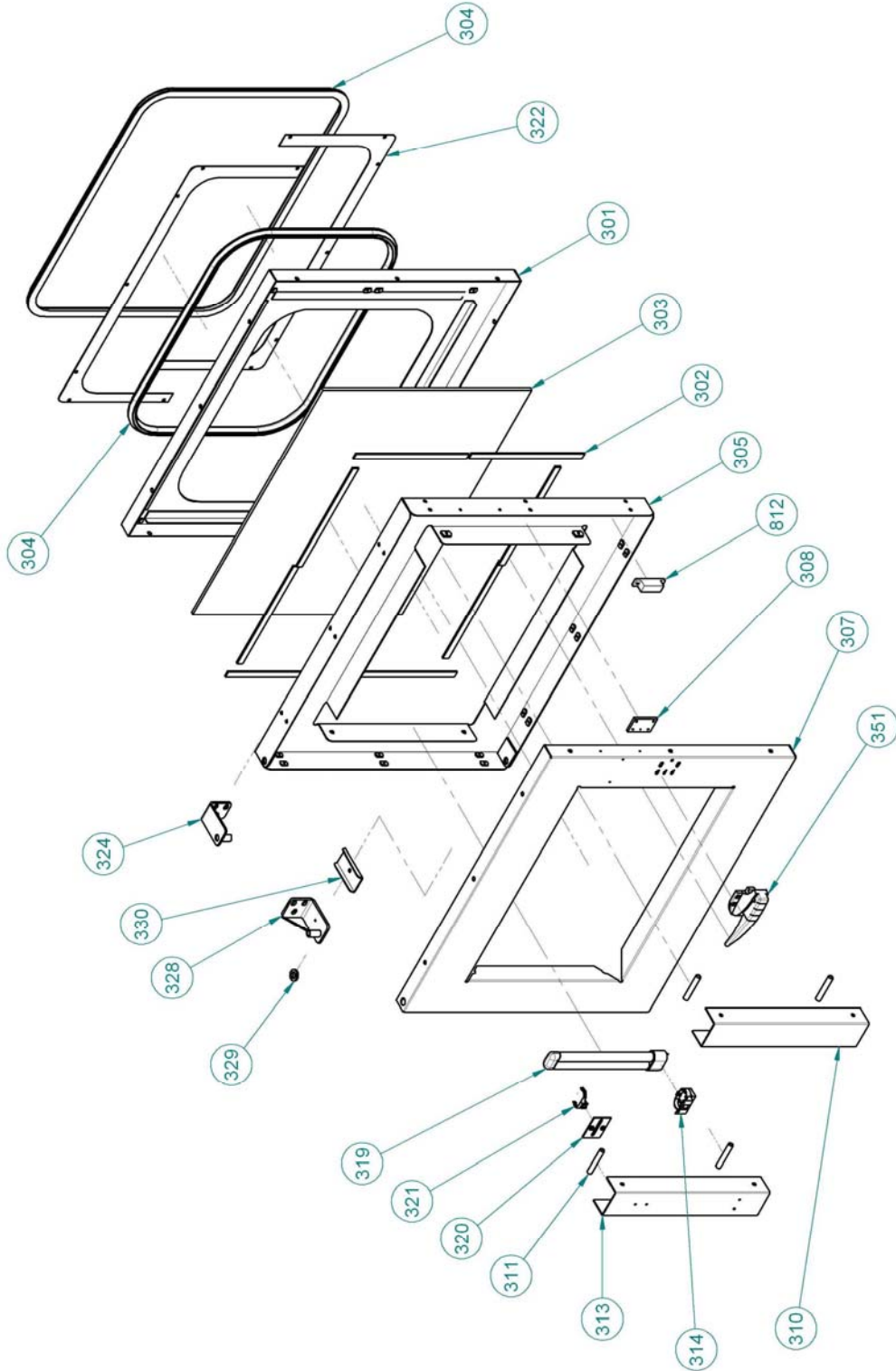
<u>ITEM NO</u>	<u>PART DESCRIPTION</u>	<u>PART NUMBER</u>
201	Stainless Steel Nipple ¼ NPT x 8"	5115-8252
202	Spray Nozzle	5132-2041
203	Stainless Steel Nipple 3/8 NPT x 6"	5115-8253
204	Water Flow Control Valve	5148-7407
205	Stainless Steel Reducer Bushing	5115-8300
206	Stainless Steel Nipple ¼ NPT x 1-1/2	5115-8250
207	2-Way Solenoid Valve	5148-6718
501	4 Shelf Liner	0691-0020

For Service Parts Call Oliver Products @ 800-253-3893
Rev. 8/9/04



691 & 691S ELECTRIC CONVECTION OVENS

DOOR ASSEMBLY



For Service Parts Call Oliver Products @ 800-253-3893



691 & 691S ELECTRIC CONVECTION OVENS

DOOR ASSEMBLY PARTS LIST

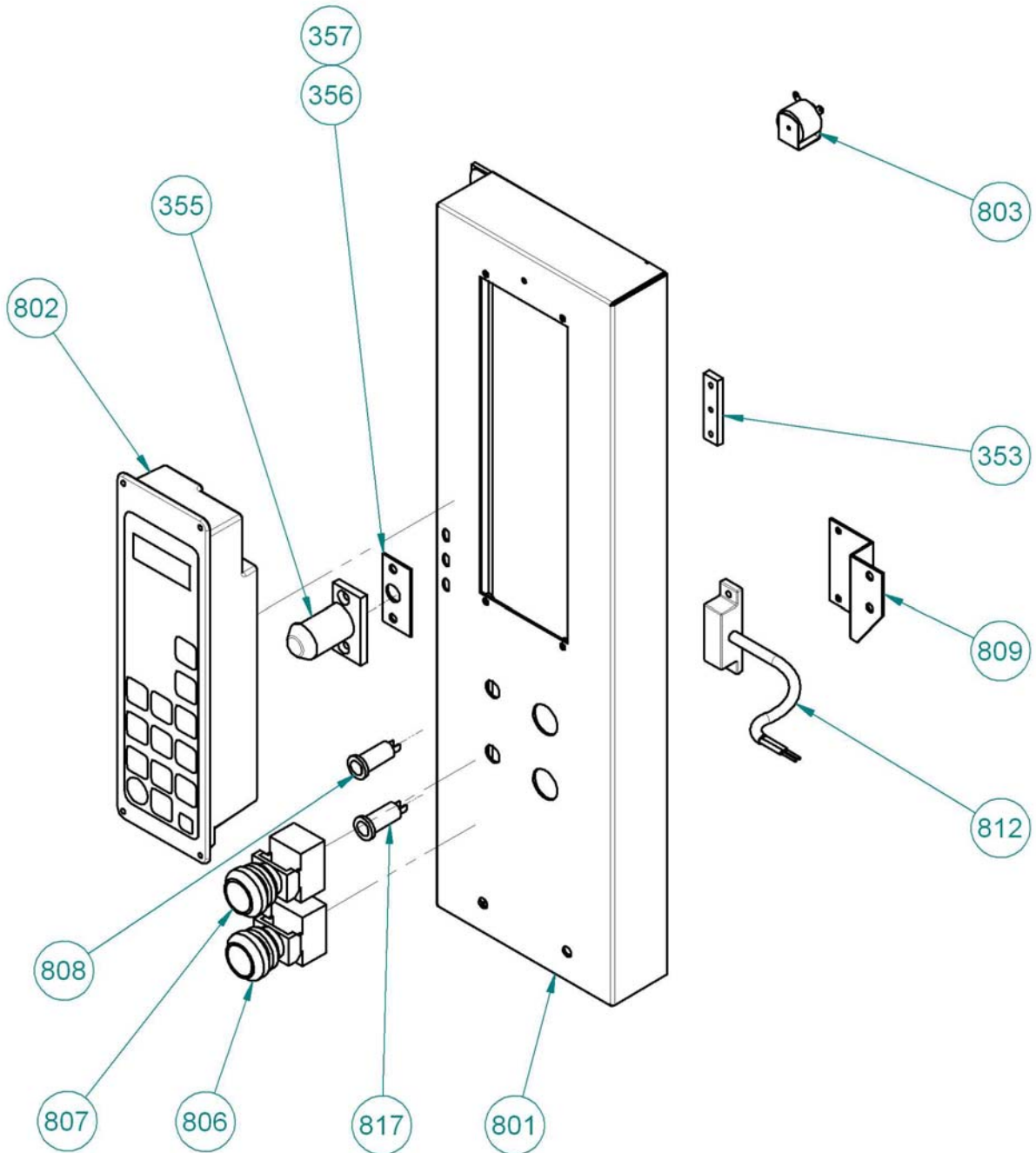
<u>ITEM NO</u>	<u>PART DESCRIPTION</u>	<u>PART NUMBER</u>
301	Back Outer Door	0691-0008
302	Silicon Rubber Shim	0690-0099
303	Oven Door Glass	6542-0004
304	Oven Door Gasket (12 feet)	6904-6062
305	Inside Door	0691-0009
307	Front Outside Door	0691-0010
308	Latch Nutbar	0690-0110-2
310	Empty Housing	0691-0011
311	Spacer Tube	0690-0024
313	Light Housing	0691-0012
314	Lamp Socket	5737-2910
319	Fluorescent Lamp (18 Watt)	5737-2015
320	Lamp Retainer Clip	0690-0129
321	Horizontal Lamp Clip	5737-2911
322	Gasket Frame	0691-0013
324	Top Door Bracket	0690-0027
328	Bottom Door Bracket	0690-0028-1
329	Door Spacer	0690-0030
330	Wire Cover	0690-0031
351	Latch	5911-9030
812	Magnetic Proximity Switch	5757-8819

For Service Parts Call Oliver Products @ 800-253-38933



691 & 691S ELECTRIC CONVECTION OVENS

FRONT CONTROL PANEL ASSEMBLY



For Service Parts Call Oliver Products @ 800-253-3893



691 & 691S ELECTRIC CONVECTION OVENS

FRONT CONTROL PANEL ASSEMBLY PARTS LIST

<u>ITEM NO</u>	<u>PART DESCRIPTION</u>	<u>PART NUMBER</u>
353	Strike Nutbar	0690-0115-1
355	Latch Strike	0690-0149
356	Strike Shim (.030)	0690-0148
357	Strike Shim (.060)	0690-0148-001
801	Control Panel	0691-0029
802	40 Menu Computer	5712-3267
803	Buzzer	5700-6051
806	Red Pushbutton	5708-7805
807	Green Pushbutton	5708-7806
808	Red Pilot Light	5709-0009
809	Proximity Switch Bracket	0690-0042
812	Magnetic Proximity Switch	5757-8819
817	Green Pilot Light	5709-0011

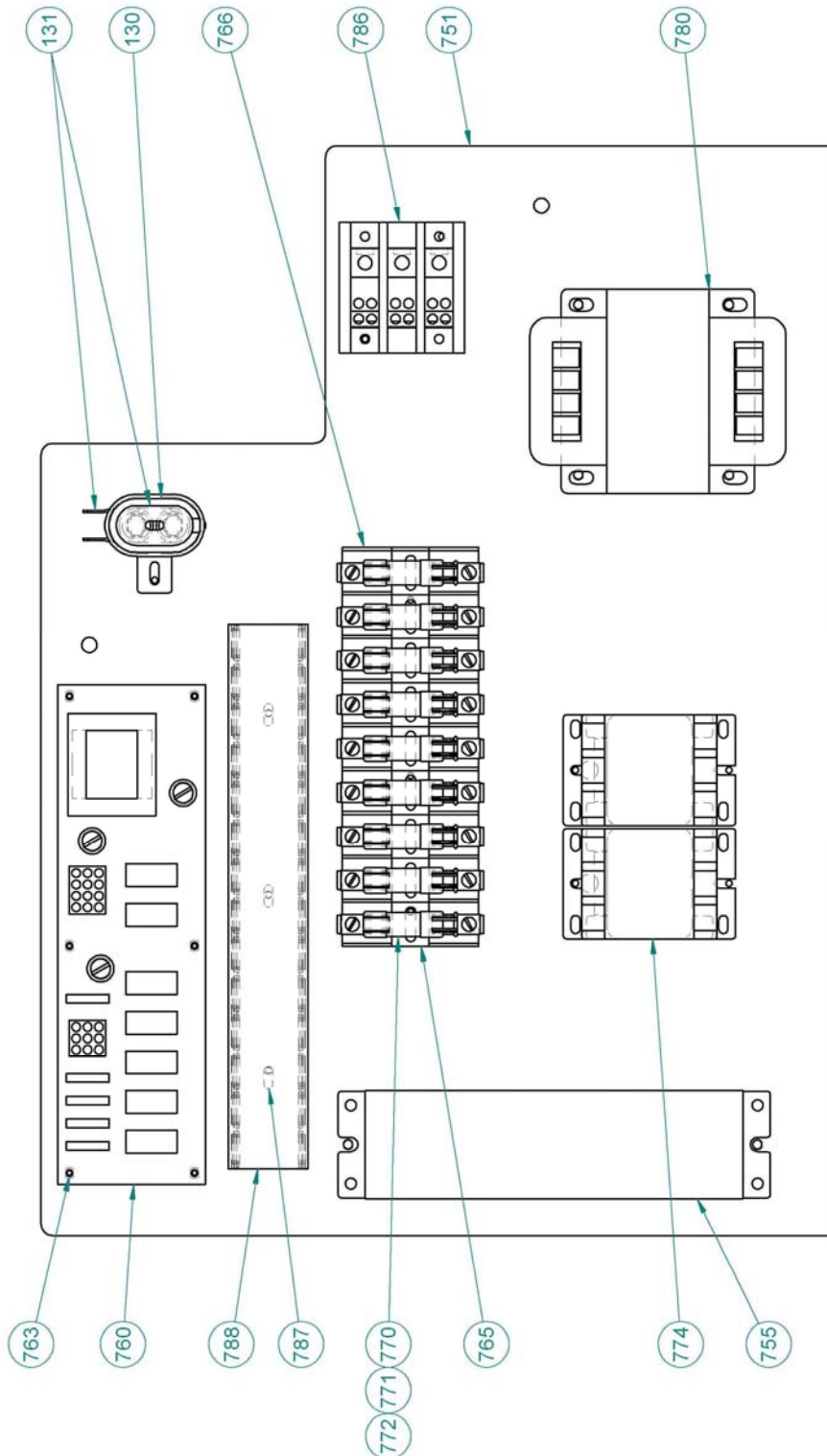
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Rev. 4/20/11



691 & 691S ELECTRIC CONVECTION OVENS

ELECTRICAL SUB PANEL ASSEMBLY



For Service Parts Call Oliver Products @ 800-253-3893



691 & 691S ELECTRIC CONVECTION OVENS

ELECTRICAL SUB PANEL ASSEMBLY PARTS LIST

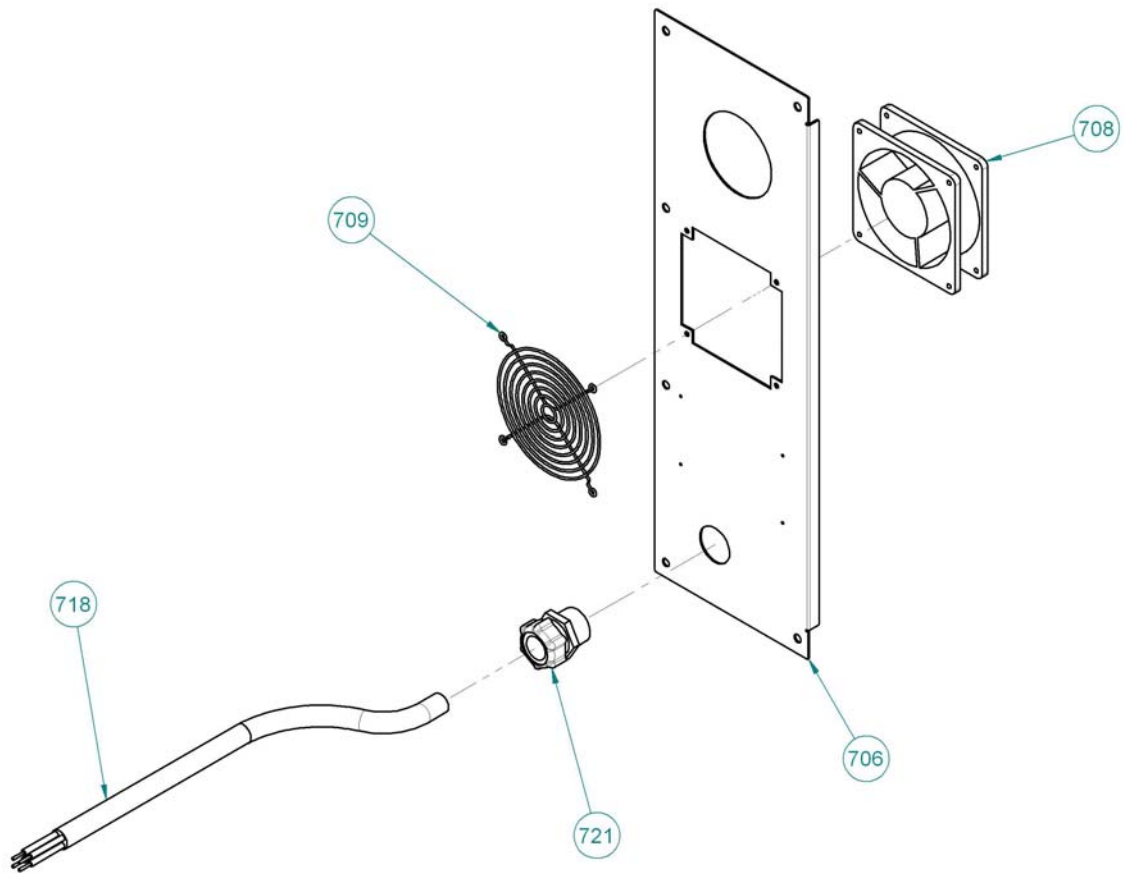
<u>ITEM NO</u>	<u>PART DESCRIPTION</u>	<u>PART NUMBER</u>
130	Capacitor	5704-6199
131	Capacitor Mounting Kit & Boot	5704-6530
751	Sub Panel	0691-0022
755	Ballast-Electronic	5702-2002
760	Computer Interface	5712-3261
763	Nylon Spacer	5767-5705
765	Add-On Fuse Block	5726-1080
766	Add-On Fuse Block End Plate	5726-1089
770	2 Amp Fuse (FRN-R-2)	5725-9614
771	4 Amp Fuse (FRN-R-4) (208/240V Ovens)	5725-9620
771	2 Amp Fuse (FNQ-R-2) (375/480V Ovens)	5725-9439
772	30 Amp Fuse (FRN-R-30) (208/240V Ovens)	5725-9634
772	15 Amp Fuse (KTKR-15) (375/480V Ovens)	5725-9066
774	Contactor	5749-8021
780	Transformer (208/375V Ovens)	5760-3195
780	Transformer (240/480V Ovens)	5760-3194
786	Terminal Block	5770-7463
787	Wire Duct (12")	5771-6256
788	Wire Duct Cover (12")	5771-6255

For Service Parts Call Oliver Products @ 800-253-38933



691 & 691S ELECTRIC CONVECTION OVENS

REAR COVER ASSEMBLY



For Service Parts Call Oliver Products @ 800-253-3893



691 & 691S ELECTRIC CONVECTION OVENS

REAR COVER ASSEMBLY PARTS LIST

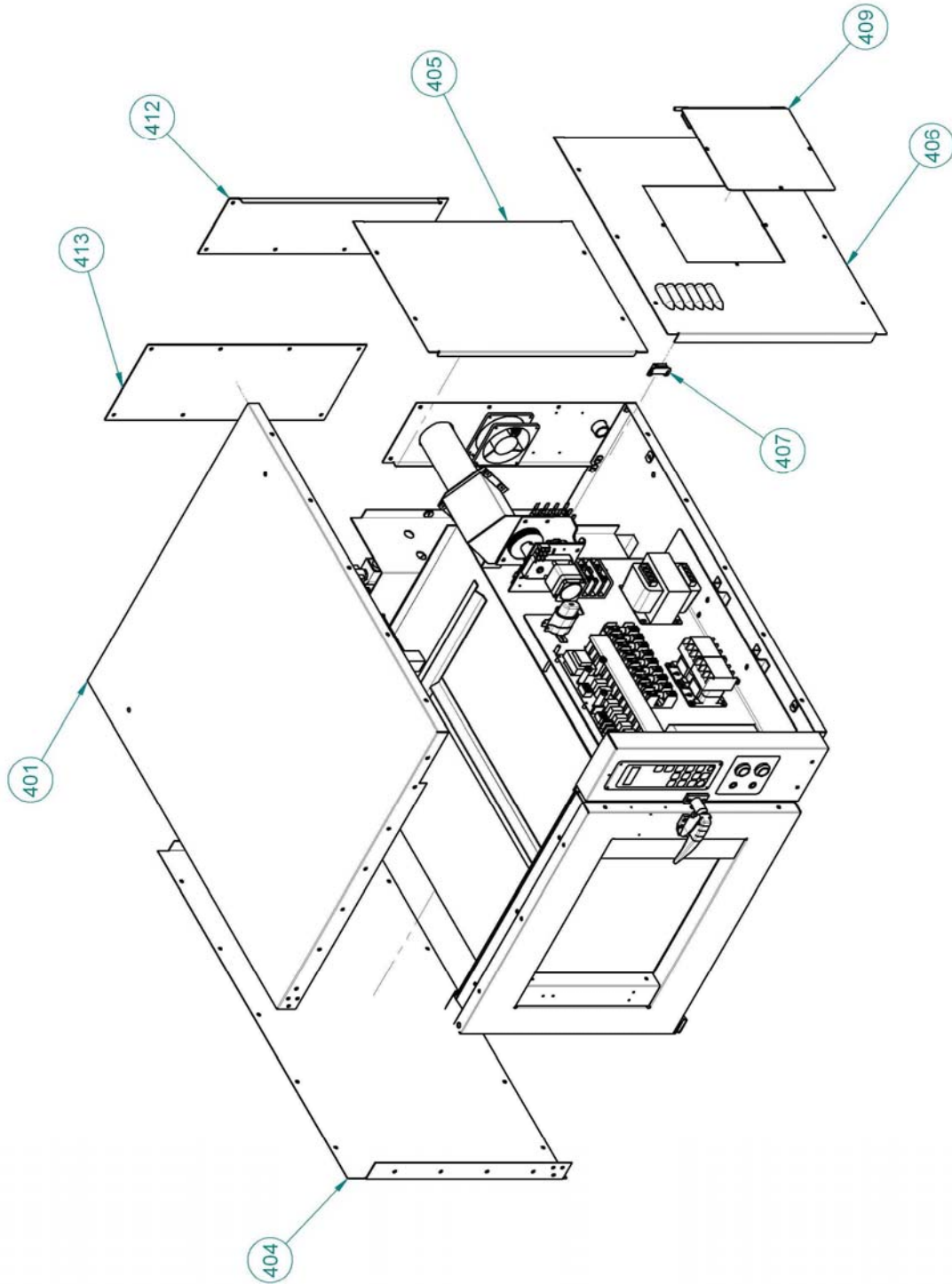
<u>ITEM NO</u>	<u>PART DESCRIPTION</u>	<u>PART NUMBER</u>
706	Rear Electrical Cover (208/240V Ovens)	0691-0021
706	Rear Electrical Cover (375/480V Ovens)	0691-0021-001
708	Axial Fan	6310-5027
709	Fan Grill	6310-5026
718	Power Cord (208/240V Ovens) 10 Ft.	5765-8342
718	Power Cord (375/480V Ovens) 10 Ft.	5765-8323
721	Strain Relief (208/240V Ovens)	5770-4823
721	Strain Relief (375/480V Ovens)	5770-4820

For Service Parts Call Oliver Products @ 800-253-38933



691 & 691S ELECTRIC CONVECTION OVENS

COVER ASSEMBLY



For Service Parts Call Oliver Products @ 800-253-3893



691 & 691S ELECTRIC CONVECTION OVENS
COVER ASSEMBLY PARTS LIST

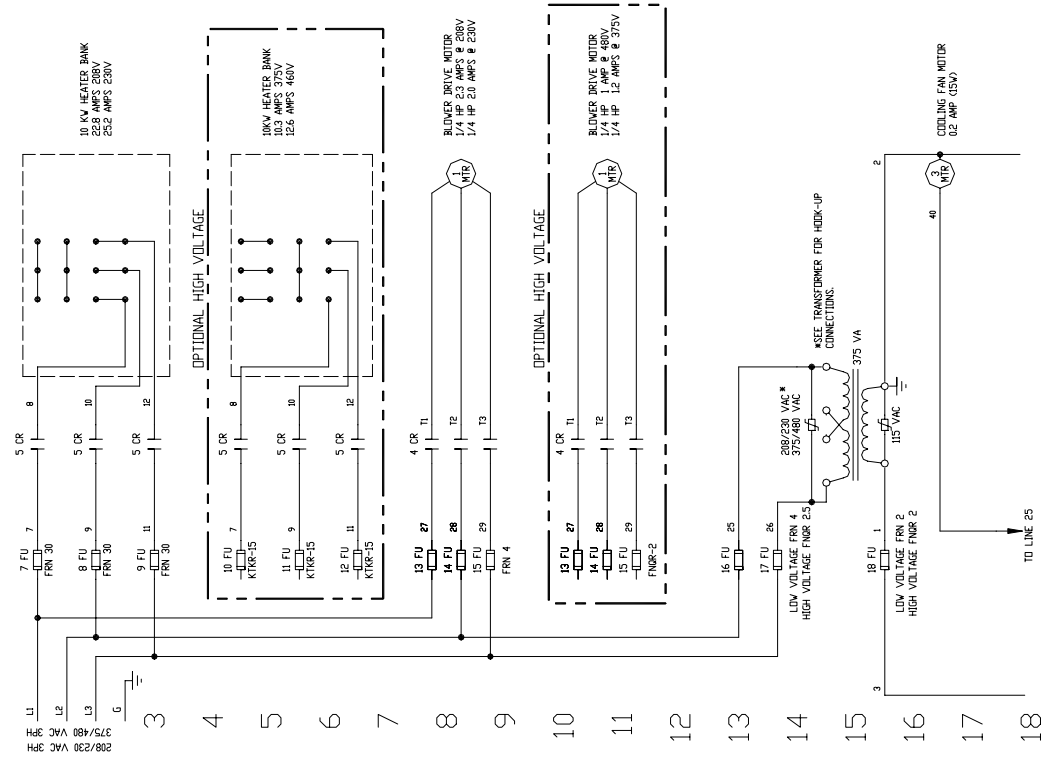
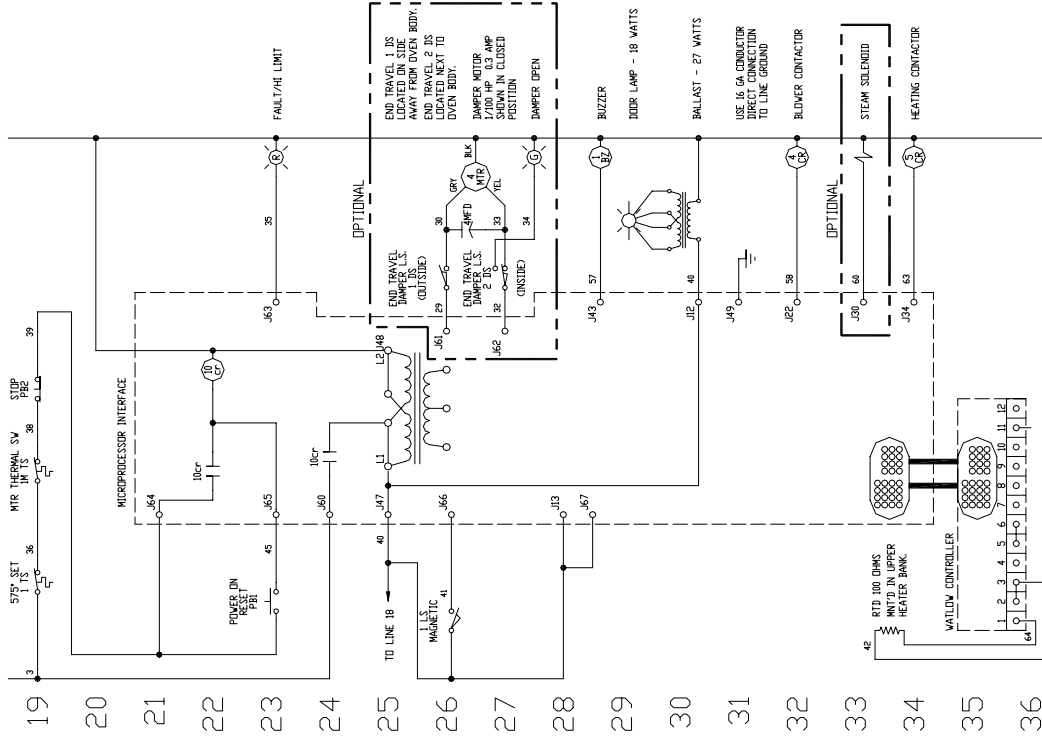
ITEM NO	PART DESCRIPTION	PART NUMBER
401	Top Cover	0691-0014
404	Hinge Side Cover	0691-0015
405	Electrical Side Rear Cover	0691-0016
406	Electrical Side Front Cover	0691-0017
407	Magnetic Catch with Strike	5805-2503
409	Fuse Door	0690-0141
412	Center Rear Cover	0691-0018
413	Right Rear Cover	0691-0019

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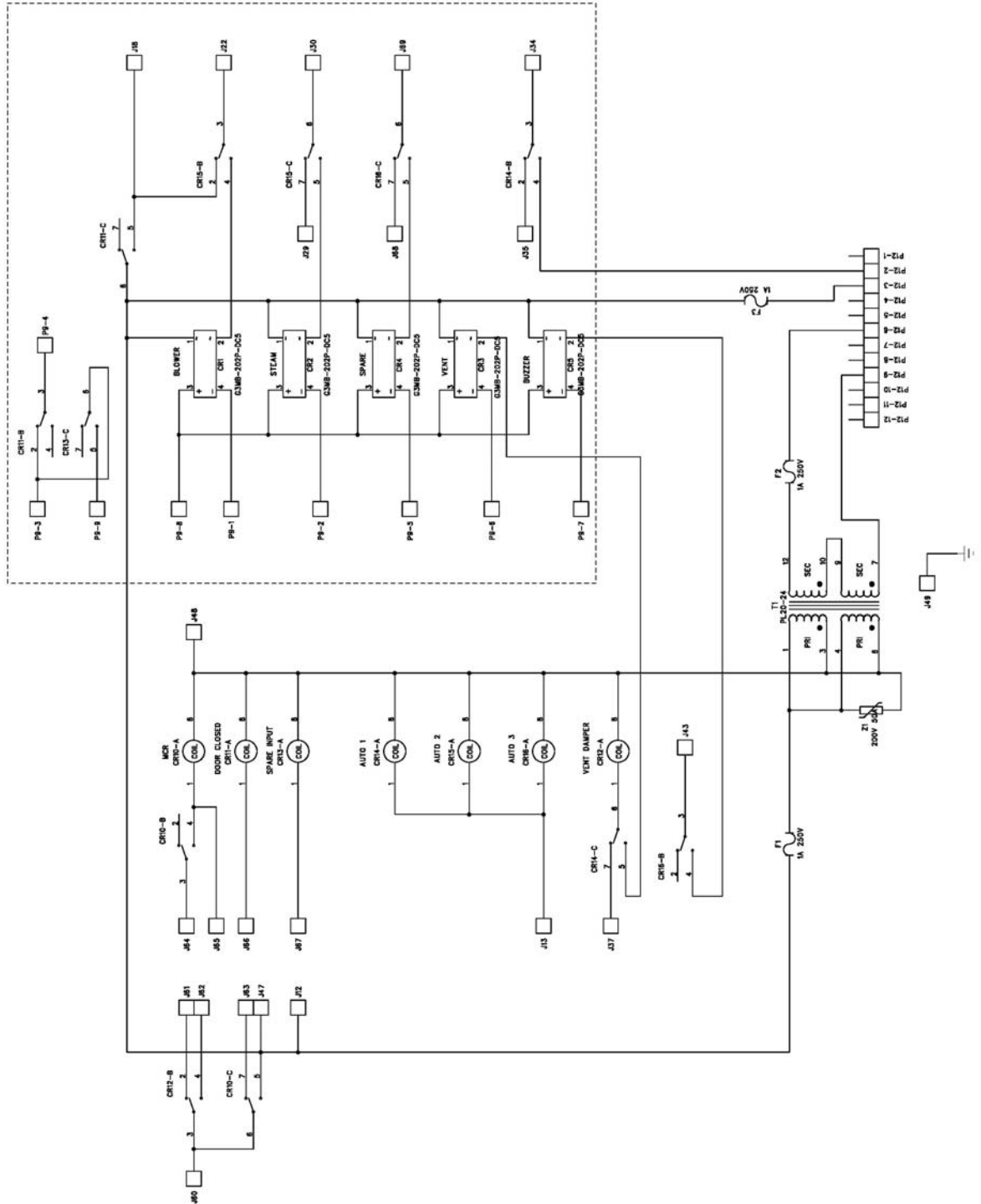
691 & 691S ELECTRIC CONVECTION OVENS

208/240/375/480V WIRING DIAGRAM #0691D12000





691 & 691S ELECTRIC CONVECTION OVENS INTERFACE BOARD SCHEMATICS



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Oliver Packaging & Equipment Company
3236 WISON DR NW WALKER MI. 49534

(800) 253-3893
www.oliverquality.com

WARRANTY

PARTS

Oliver Packaging & Equipment Company warrants that if any part of the equipment (other than a part not manufactured by Oliver Packaging & Equipment) proves to be defective (as defined below) within one year after shipment, and if Buyer returns the defective part to Oliver Packaging & Equipment within one year, Freight Prepaid to Oliver Packaging & Equipment plant in Grand Rapids, MI, then Oliver Packaging & Equipment , shall, at Oliver Packaging & Equipment option, either repair or replace the defective part, at Oliver Packaging & Equipment expense.

LABOR

Oliver further warrants that equipment properly installed in accordance with our special instructions, which proves to be defective in material or workmanship under normal use within one (1) year from installation or one (1) year and three (3) months from actual shipment date, whichever date comes first, will be repaired by Oliver Packaging & Equipment or an Oliver Packaging & Equipment Authorized Service Dealer, in accordance with Oliver Packaging & Equipment published Service Schedule.

For purposes of this warranty, a defective part or defective equipment is a part or equipment which is found by Oliver Packaging & Equipment to have been defective in materials workmanship, if the defect materially impairs the value of the equipment to Buyer. Oliver Packaging & Equipment has no obligation as to parts or components not manufactured by Oliver Packaging & Equipment, but Oliver Packaging & Equipment assigns to Buyer any warranties made to Oliver Packaging & Equipment by the manufacturer thereof.

This warranty **does not** apply to:

1. Damage caused by shipping or accident.
2. Damage resulting from improper installation or alteration.
3. Equipment misused, abused, altered, not maintained on a regular basis, operated carelessly, or used in abnormal conditions.
4. Equipment used in conjunction with products of other manufacturers unless such use is approved by Oliver Packaging & Equipment Company in writing.
5. Periodic maintenance of equipment, including but not limited to lubrication, replacement of wear items, and other adjustments required due to installation, set up, or normal wear.
6. Losses or damage resulting from malfunction.

The foregoing warranty is in lieu of all other warranties expressed or implied AND OLIVER PACKAGING & EQUIPMENT COMPANY MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE REGARDING THE EQUIPMENT COVERED BY THIS WARRANTY. Oliver Packaging & Equipment Company neither assumes nor authorizes any person to assume for it any other obligations or liability in connection with said equipment. OLIVER PACKAGING & EQUIPMENT COMPANY SHALL NOT BE LIABLE FOR LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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Oliver Packaging & Equipment Company
3236 WISON DR NW WALKER MI. 49534

(800) 253-3893
www.oliverquality.com

WARRANTY PROCEDURE

1. If a problem should occur, either the dealer or the end user must contact the Parts and Service Department and explain the problem.
2. The Parts and Service Manager will determine if the warranty will apply to this particular problem.
3. If the Parts and Service Manager approves, a Work Authorization Number will be generated, and the appropriate service agency will perform the service.
4. The service dealer will then complete an invoice and send it to the Parts and Service Department at Oliver Packaging & Equipment Company.
5. The Parts and Service Manager of Oliver Packaging and Equipment Company will review the invoice and returned parts, if applicable, and approve for payment.

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RETURNED PARTS POLICY

This policy applies to all parts returned to the factory whether for warranted credit, replacement, repair or re-stocking.

Oliver Packaging and Equipment Company requires that the customer obtain a Return Material Authorization (RMA) number before returning any part. This number should appear on the shipping label and inside the shipping carton as well. All parts are to be returned prepaid. Following this procedure will insure prompt handling of all returned parts.

To obtain an RMA number contact the Repair Parts Department toll free at (800) 253-3893.

Parts returned for re-stocking are subject to a **RE-STOCKING CHARGE**.

Thank you for your cooperation,

Repair Parts Manager
Oliver Packaging and Equipment Company