

# **VULCAN**

## *INSTALLATION & OPERATION MANUAL*

### *VFB12 ELECTRIC FLASHBAKE® OVEN*

VFB12      ML-114905      (*Without Power Cord*)  
VFB12      ML-114908      (*With Power Cord*)



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# Installation, Operation and Care of VULCAN MODEL VFB12 *FLASHBAKE*® OVEN

## KEEP THIS MANUAL FOR FUTURE REFERENCE

### GENERAL

Your Vulcan *FlashBake* oven is a versatile oven that employs a revolutionary high quality, high-speed cooking technology. The baking process is so fast that food retains its natural juices. Bread products brown and become crisp while vegetables retain their color and texture.

*FlashBake* ovens use visible and infrared light energy to cook by radiative heat transfer. The infrared energy browns the surface of the food, while the visible light energy penetrates and heats it internally. Using the proper combination of visible and infrared light energy, the *FlashBake* oven provides efficient, high-speed baking and high quality food.

The *VFB12 FlashBake* oven may be ordered with a 6-foot (1829 mm) power cord for receptacle installation, or for direct line electrical connection, single phase or 3-phase.

These ovens **MUST NOT** be stacked one on top of another.

### INSTALLATION

Before installing, verify that the electrical service agrees with the specifications on the rating plate located on the rear of the oven. If the supply and specifications do not agree, do not proceed with the installation. Contact your dealer or Vulcan Company immediately.

#### UNPACKING

Immediately after unpacking, check for possible shipping damage. If the oven is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Check to make sure you have the following items:

1. Oven (1)
2. 16" (406.5 mm) stainless steel grill (1)
3. Upper lamp shield (1)
4. Owners Manual (1)
5. Cooking guide (1)
6. Lamp shield scraper (1)
7. Menu cards (3)

#### LOCATION

When deciding oven placement, be sure to consider clearance and available air for oven cooling. If the inlet air is obstructed or heated, the oven will not operate properly.

Install the oven on a level counter top.

There must be a 3" (76 mm) clearance on each side of the oven. The area behind the oven around the blower must be kept clear of obstructions and allow for free air circulation.

If your oven is equipped with the power cord and plug, ensure that the cord can be plugged into the appropriate outlet.

## INSTALLATION CODES AND STANDARDS

The VFB12 *FlashBake* oven must be installed in accordance with:

### In the United States of America:

1. State and local codes.
2. National Electrical Code, ANSI/NFPA-70 (latest edition). Copies may be obtained from The National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

### In Canada:

1. Local codes.
2. Canadian Electrical Code, Part 2, CSA Standard C22.1 (latest edition). Copies may be obtained from The Canadian Standard Association, 178 Rexdale Blvd., Rexdale, Ontario, Canada M9W 1R3.

## ASSEMBLY

Install the upper lamp shield into the oven cavity. Be sure the shield is pushed all the way back and is lying flat in the channels. Refer to REMOVING AND INSTALLING THE TOP LAMP SHIELD in this manual.

Place the grill on the rollers.

## EXHAUST DUCT INSTALLATION

A length of flexible exhaust duct may be attached to the oven to vent hot air out of the cooking area. Attach the duct to the blower assembly (Fig. 1).

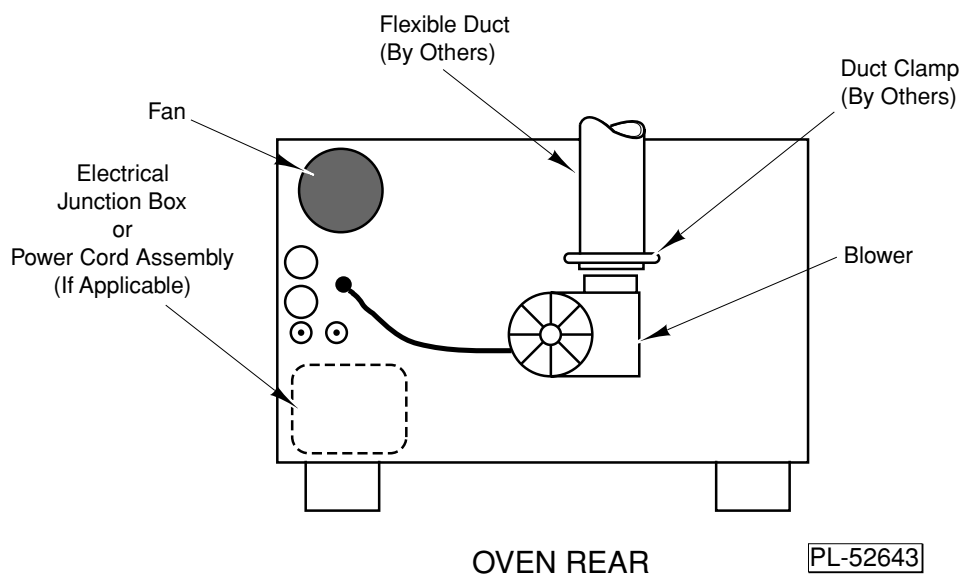


Fig. 1

The other end of the duct can be vented into an existing hood, or to the outside in a manner consistent with local building codes.

The exhaust duct must not be less than 4" (101.5 mm) in diameter, and a recommended maximum length of 4 to 6 feet (1219-1829 mm) , depending on operating conditions. The duct should be made of metal suitable for high temperature use. **Be sure there are no bends in the duct that will restrict air flow.** Depending on the length of the duct required, it may be necessary to have a supplementary exhaust system to ensure adequate air flow.

The exhaust system must support 135 cfm.

## **ELECTRICAL CONNECTIONS**

**WARNING:** ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER LOCAL ELECTRICAL CODES.

**WARNING:** DISCONNECT ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH TO INDICATE YOU ARE WORKING ON THE CIRCUIT.

**WARNING:** APPLIANCES EQUIPPED WITH A FLEXIBLE ELECTRIC SUPPLY CORD ARE PROVIDED WITH A FOUR-PRONG GROUNDING PLUG. IT IS IMPERATIVE THAT THIS PLUG BE CONNECTED INTO A PROPERLY GROUNDED FOUR-PRONG RECEPTACLE. IF THE RECEPTACLE IS NOT THE PROPER GROUNDING TYPE, CONTACT AN ELECTRICIAN. DO NOT REMOVE THE GROUNDING PRONG FROM THIS PLUG.

Measure the incoming power supply with a volt ohmmeter. The supply **MUST** measure 197 volts with no load as a minimum.

### **For Cord-Connected Ovens**

Plug the oven into a dedicated circuit outlet of the appropriate NEMA style and rating.

### **For Hard-Wired Ovens**

Have a qualified electrician wire the oven into a properly rated dedicated circuit, connecting to the pigtails in the junction box on the rear of the oven. Use the appropriate conduit, wire and connectors.

### **For a Single-Phase 240 Volt Oven**

Both "hot legs" must read 120 volts to ground. The "stinger" leg must not be attached to a single-phase oven.

### **For a 3-Phase 240 Volt Oven Only (Does not apply to 208 Volt Oven)**

When connecting a 3-phase 240 volt oven, the "stinger" leg of the supply circuit **MUST** be connected as follows:

For a hard-wired oven, connect the stinger to the blue pigtail. The blue wire is marked with a label indicating the stinger connection.

For a cord-connected oven, the stinger must be wired to the receptacle at the pin location opposite the ground lug (Fig. 2).

The "stinger" leg of a 240 volt, 3-phase system can be easily identified using a voltmeter. The line-to-ground voltage of the stinger will read approximately 210 volts. The line-to-ground voltage of the other two legs will read approximately 120 volts.

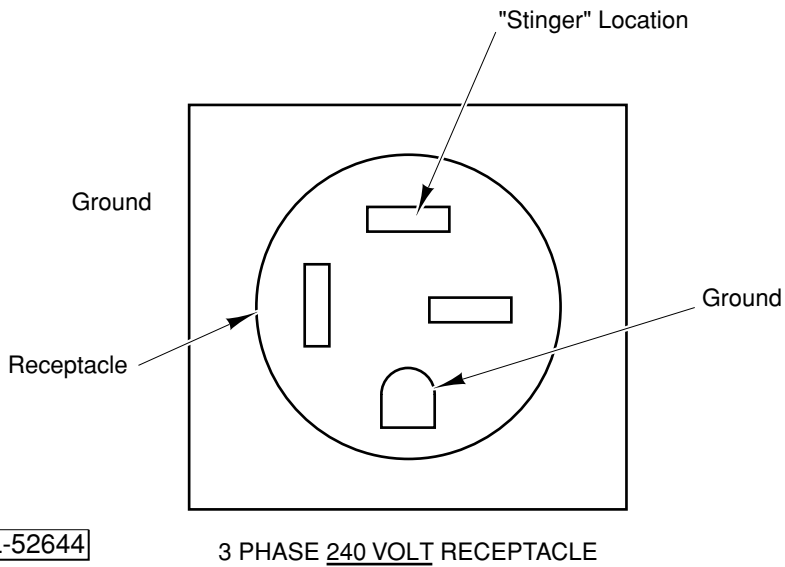


Fig. 2

**ELECTRICAL DATA**

Model	Voltage	Phase	Cycles	Max. Power	Max. Current	Typical Power	Typical Current	Breaker Size	NEMA Receptacle
VFB12	208/240	1	60	11.9 kW	56 A	9 kW	43 A	60 A	14-60R
VFB12	208/240	3	60	11.9 kW	35 A	9 kW	27 A	40 A*	15-50

\*50A if cord connected.

**START-UP TESTING**

After the oven is connected to the supply circuit, perform the following tests to ensure that the oven is operating properly.

**Lamp Test**

Turn the oven on by pressing the ON/OFF button. After a few seconds, the display will settle on Recipe 1. At this point, hold down the **1** button and push the **8** button at the same time. The display will appear as follows:

Would You Like To  
Check The Lamps

1 = Yes      2 = No

Press the **1** button to begin the lamp test. The door will lock and the lamps will each turn on briefly. After each lamp is turned on successfully, the display will report Lamp OK. If all lamps pass, the oven will automatically return to the normal operating mode.

If a lamp does not operate properly, the test will stop and the display will show the number of the lamp that failed.

Lamp 2  
Lamp Error  
----->> Press Any Key <<-----

Press any key to continue the test. At the end of the test, the display will show “Lamp Check Finished.” If a lamp was reported as an error, re-run the test and verify visually that the lamp did or did not light.

If either of the two light sensors failed to operate during the test, you will see the following message at the end of the test:

Lamp Check Finished  
No Bottom Sensor

If either a lamp or a sensor are reported as a problem, call your local Vulcan Service Office.

### Voltage Test

After performing the lamp test, the display will return to Recipe 1. On a new oven, the display will say Empty Recipe.

Recipe 1                      0:00  
EMPTY RECIPE

Press the green START button. The door will lock, the blower will start, and a few seconds later the cycle will end and the door will unlock. Now hold down the **1** button and push the **7** button at the same time. The display will report the system voltage, single or three-phase, and the phasing if three-phase. (The phasing will show as “CCW” or “CW.” Either phasing is acceptable. This information is used for troubleshooting only.) The display will be similar to one of these:

208 Volts  
Single Phase  
Automatic

240 Volts  
Three Phase  
Phasing CCW  
Automatic

The voltage reported on this screen must match the nominal system voltage supplied to the oven: either 208 Volts or 240 Volts. Call your local Vulcan Service Office if it does not match.

# OPERATION

**WARNING:** THE OVEN AND ITS PARTS ARE HOT. USE CARE WHEN OPERATING, CLEANING, OR SERVICING THE OVEN.

## PRECAUTIONS

- Never attempt to open the oven door while a cook cycle is in progress. Never attempt to operate the oven with the door open.
- Do not operate the oven without the grill, or with missing or damaged lamp shields.
- Never operate the oven without food inside.
- Before removing a pan from the oven, prepare a place to put the hot pan. Do not place the hot pan on wood, plastic, Formica, or other burnable surfaces.
- When removing pans from the oven, use a pan grabber and hot pads designed to withstand high temperatures.

## UTENSILS TO USE

We recommend using FlashWare (9" and 12" Pyroceram), Metal, Aluminum and Silverstone pans.

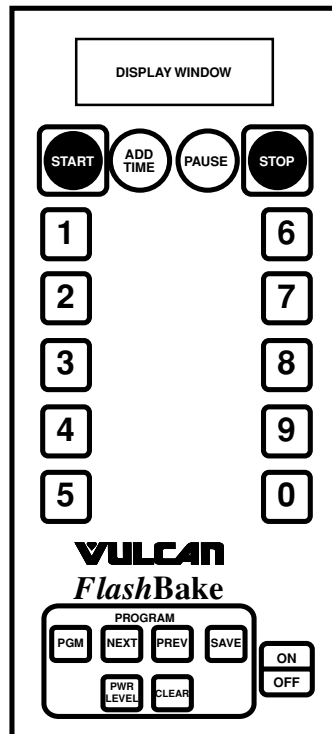
### Approved

FlashWare (Pyroceram)  
Steel  
Aluminum  
Silverstone coated aluminum  
Grill

### Never Use

Paper  
Plastic  
Pyrex  
Ceramics  
Glass  
Stoneware  
Roasting bags  
Boil-in bag pouches

## CONTROLS (Fig. 3)



PL-52641

Fig. 3



- DISPLAY — The display screen, located at the top of the control panel provides a constant indication of the oven status. It is also used for programming the oven and for the display of information and diagnostic messages.
- START — Press this button to begin cooking with the programmed recipe that is currently displayed. After this button is pressed, the door will lock, the blower will start, and the oven will start cooking.
- ADD TIME — Press this button after the cook cycle has completed if additional cooking is desired. An additional 20 seconds of cooking is done using the power settings from the final step of the last recipe used.
- PAUSE — Press this button while the oven is cooking to pause the current cook cycle and unlock the door. Press the START button to resume cooking at the point the recipe was interrupted.
- STOP — Press this button while the oven is cooking or paused to stop the cook cycle.
- 1 Through 0 — Each of these buttons can have a recipe assigned to it. Press one of these buttons to display that recipe.  
  
In programming mode, these buttons are also used to enter numerical values.
- PGM — Press this button to enter the programming mode and create or change a custom recipe.
- NEXT — Press this button while programming to go to the next recipe setting display screen.
- PREV — Press this button while programming to return to the previous recipe setting display screen.
- SAVE — Press this button while programming to save any changes to the program, exit programming mode and return to normal oven operation. After this button has been pressed, a message is displayed asking if you want to save the new recipe. You will be prompted to press **1** if Yes, **2** if No.
- PWR LEVEL — This button can be pressed while programming to step through and choose from the ten available power level settings.
- CLEAR — Press this button to clear any recipe setting value while programming.
- ON/OFF — Press this button to turn on the oven control system. Press it again to turn the oven off.

## PROGRAMMING THE VFB12 *FLASHBAKE* OVEN

The main buttons used for programming recipes are found on the bottom of the control panel. These buttons are outlined with a white box which is designated with a label PROGRAM. Each button is described above and will be discussed in this section as needed.

### To Create or Edit a Recipe

To begin programming a recipe, press the **PGM** button. The oven then displays a prompt to select a recipe number to be programmed. Press one of the 10 recipe buttons to select a recipe number.

--- PROGRAM ---  
Select A Number To  
Store Your Recipe

Next, a screen for selecting a cook method is displayed.

Select A Cook Method  1 = Standard 2 = Two-Step
--

There are two methods of cooking with the *FlashBake* oven. They are called **STANDARD** and **TWO-STEP**. See pages 11 and 13 for a description of each method.

Press the number corresponding to the cook method desired. The screens following will be specific to that cook method.

### To Save a Recipe or Exit Programming Mode

At any time during the programming of a recipe, the **SAVE** button can be pressed to quit the programming operation. After the **SAVE** button is pressed, the display will ask if you want to save this new recipe:

Do You Want To Save This New Recipe 1  1 = Yes      2 = No
---

If **1** is pressed, the display states that the recipe is stored in permanent memory. If **2** is pressed, changes made to the recipe are not stored, and the original unchanged settings remain.

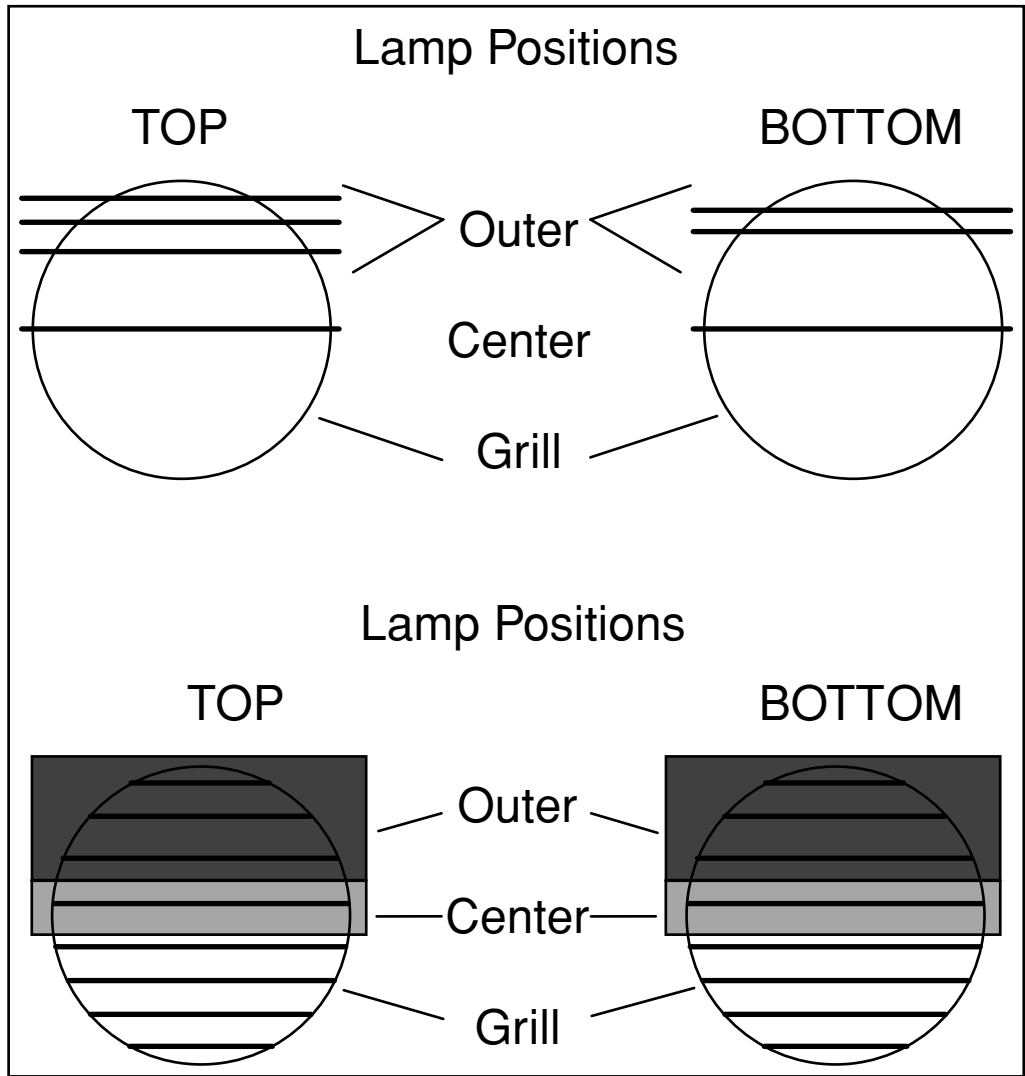
### RECIPE OPTIONS AND LIMITS

ENTRY	MINIMUM	MAXIMUM
Recipe	0	9
Cook Time min:sec	0:00	9:99
Full Power min:sec	0:00	9:99 less Cook Time
Top	0	10
Bottom	0	10
Top Center	0	10
Top Outer	0	10
Bottom Center	0	10
Bottom Outer	0	10

### LAMP CENTER AND OUTER POWER LEVELS (Fig. 4)

The lamps are positioned so that the center lamps are above and below the center of the grill. The outer lamps are located above and below the rear of the grill. There is only one top center lamp and one bottom center lamp. The top outer has three lamps and the bottom outer has two lamps.

Changing the top outer and bottom outer power levels will have a greater effect on cooking times and browning than changing the center power levels. This is because outer intensities contain 70% of the cooking energy, while the center intensities only contain 30% of the cooking energy.



PL-52645

Fig. 4

### CREATING A "STANDARD" COOK METHOD RECIPE

The STANDARD cook mode allows the operator to control the amount of light going into the top of the food product separately from that going into the bottom. Here the operator merely enters the COOK TIME and the TOP and BOTTOM lamp power.

Enter the Program mode by pressing the **PGM** button. Press the **1** button to select Recipe Number 1 programming. Press the **1** button again to select **Standard** recipe type from the **Select A Cook Method** screen.

## Cook Time

The cook time is the total amount of time the product will be cooked for this recipe. The time is entered in minutes and seconds using the **1** through **0** buttons. As the **1** through **0** buttons are pressed, the number enters in the right column and is shifted to the left as subsequent numbers are entered.

Recipe 1 Enter Cook Time = 1:30 Then Press NEXT
--

To get the 1 minute and 30 second value shown above, press the **1** button followed by the **3** button and then the **0** button.

After entering the cook time, press the **NEXT** button to proceed to the next recipe setting.

## Lamp Power

To enter a top power of 8, as shown below, press the **8** button or press the **PWR LEVEL** button repeatedly until 8 appears.

Recipe 1 Enter Power 0-10 For Top Lamps = 8 Then Press NEXT
--

Press the **NEXT** button to go to the BOTTOM LAMP POWER screen.

Recipe 1 Enter Power 0-10 For Bottom Lamps = 5 Then Press NEXT
---

To enter a bottom power of 5 as shown, press the **5** button or the **PWR LEVEL** button.

Press the **NEXT** button to proceed to the next screen.

Do You Want To Save This New Recipe 1  1 = Yes      2 = No
---

Press the **1** button to store the new settings in memory. Press the **2** button to exit the program mode without saving any changes.

## Standard Recipe Display

This screen is displayed after the recipe is saved, indicating the new settings as programmed.

Recipe 1	0:00
Top 8	
Bottom 3	
Time	1:30

The clock on the top line at the right of the screen is the countdown timer for the cook cycle. It indicates the time remaining in the cook cycle.

## CREATING A TWO-STEP COOK METHOD RECIPE

The TWO-STEP cook mode uses two steps to cook the food. The first step uses the oven's maximum power (Power Level 10 top and bottom lamps) to "blast" the food for a period of time called FULL PWR TIME. This speeds up cooking for many products including pizza and frozen foods. The second step is simply an expanded STANDARD cook mode where you are given the ability to adjust both the top and bottom power in Center and Outer zones.

The maximum allowable cook time does not change for this mode; therefore, the FULL PWR TIME plus the COOK TIME must not exceed the maximum COOK TIME limit of 9 minutes and 99 seconds.

Press the **PGM** button to enter the program mode. Press the **2** button to select recipe number 2. Then press the **2** button to select the Two-Step cook method.

Select A Cook Method
1 = Standard
2 = Two-Step

## Full Power Time

This setting tells the oven how long to run at maximum power in minutes and seconds. Enter the value, using the **1** through **0** buttons.

Recipe 1	Step 2
Enter Time For	
Step 1 - Full Pwr = 1:20	
Then Press NEXT	

To enter 1 minute and 20 seconds as shown here, press the **1**, then press the buttons **2** and **0**.

Press the **NEXT** button to proceed to the next screen.

## Step 2 Time

Recipe 1      Step 2  
Enter Time For  
Step 2 = 2:05  
Then Press NEXT

Use the **0** through **9** buttons to enter the standard cook portion of the time. Press **2, 0, 5** to enter the 2 minutes and 5 seconds shown.

Press the **NEXT** button to proceed to the next screen.

## Zone Power

Recipe 1      Step 2  
Enter Power 0-10 For  
Top Center = 8  
Then Press NEXT

Press the **8** button to enter power level 8 as shown.  
Press the **NEXT** button to proceed to the next screen.

Recipe 1      Step 2  
Enter Power 0-10 For  
Top Outer = 10  
Then Press NEXT

Press the **1** and **0** buttons to enter power level 10 as shown.  
Press the **NEXT** button to proceed to the next screen.

Recipe 1      Step 2  
Enter Power 0-10 For  
Bottom Center = 3  
Then Press NEXT

Press the **3** button to enter power level 3 as shown.  
Press the **NEXT** button to proceed to the next screen.

Recipe 1      Step 2  
Enter Power 0-10 For  
Bottom Outer = 2  
Then Press NEXT

Press the **2** button to enter power level 2 as shown.  
Press the **NEXT** button to proceed to the next screen.

Do You Want To Save This New Recipe 2	
1 = Yes	2 = No

Press the 1 button to store the new settings in memory.

**Two-Step Recipe Display**

This screen displays the saved programmed information for a Two-Step recipe.

Recipe 2		0:00
Top Ctr	8	Outer 10
Btm Ctr	3	Outer 2
Time	1:20 + 2:05 = 3:25	

The clock on the top line at the right of the screen is the countdown timer for the cook cycle. It indicates the time remaining in the overall cook cycle.

If zero was entered for the Step One time, the display will appear as follows:

Recipe 2		0:00
Top Ctr	8	Outer 10
Btm Ctr	3	Outer 2
Time	2:05 = 2:05	

**OPERATING THE VFB12 OVEN**

When the oven is first turned on, the display screen will briefly display a short welcome message, followed by a message indicating the software version and the cook count, similar to screen (a) below. The first code indicates the version of software currently running in the oven. The first number of the cook count indicates how many cook cycles have been put on the oven. The second number is a code for factory use only.

Following this message, information similar to that shown in screens (b) or (c) below is displayed, depending on what type of program has been entered into Recipe 1. If a recipe has never been programmed, a screen like (d) is displayed.

Version: 71J.005
Single Phase
Cook Count
3472 57083

(a)

Recipe 1		0:00
Top Ctr	5	Outer 3
Btm Ctr	1	Outer 4
Time	1:30 + 2:45 = 4:15	

(c)

Recipe 1		0:00
Top	8	
Bottom	3	
Time	1:30	

(b)

Recipe 1		0:00
EMPTY RECIPE		

(d)

Once a recipe is programmed, it can be used again and again by selecting it and pressing the **START** button.

### Starting a Recipe

All cooking must be done with the grill in place. To begin a cook cycle, place the pan with the product on the grill and close the door (pizza may be placed directly on the grill). Then select the recipe, using the **1** through **0** button that corresponds to the recipe created for that product, then press the **START** button. The door will lock, the high power will engage, the grill will rotate, and the blower will start. The display will begin counting down the total cook time.

Recipe 1	1:30
Top 8	
Bottom 5	
Time	1:30

During normal operation, you may see the lamps turn on or off occasionally. This is part of the normal operation of the oven.

When the time counts down to 10 seconds remaining, the oven will beep, letting you know the cook cycle has almost completed.

### Stopping or Pausing a Recipe

To stop a cook cycle, press the **STOP** button. The door will unlock and the product can be removed. Use caution as the product and the oven will be extremely hot.

To pause a cook cycle, press the **PAUSE** button. The door will unlock and the product can be examined. If more cooking is desired, close the door and press **START** and cooking will continue from the point at which it was paused. If no more cooking is needed, press the **STOP** button and the cooking cycle will be ended.

Recipe 1	0:47
Top 8	
Bottom 5	
----->> PAUSED <<-----	

After a cook cycle ends, the oven will beep every few seconds until the door is opened or a button is pressed. This is to remind the operator that the food is still in the oven.

### Extending the Cook Time

To extend the cook time, press the **ADD TIME** button after the cook cycle has completed. The oven will cook for an additional 20 seconds at the last recipe's ending intensities. You can stop the extended cook cycle at any time by pressing the **STOP** or **PAUSE** buttons.

An asterisk (\*) appears next to the recipe number in the display indicating that it is cooking in an extended mode. The **TIME** value is set to 20 seconds and it begins counting down as usual.

Recipe * 1	0:20
Top 8	
Bottom 5	
Time	1:30

If this mode is used with a **TWO-STEP** cooking method recipe, the intensity settings used are automatically taken from the second step.



## COOK CYCLE COUNTER

The *FlashBake* oven is equipped with a cook cycle counter. This counter keeps a continuous log of the number of cook cycles performed by the oven.

A cycle is counted when a recipe that lasts for more than approximately 30 seconds is completed.

The cook cycle counter is displayed after the **ON/OFF** button is pressed to turn the oven ON. After the welcome message, the display will show the number of cook cycles and the version of software for a moment before the normal recipe screen is displayed (see screen (a) on page 15).

## COOKING HINTS

Experiment. Try various combinations of time and power levels until each of your recipes results in a perfectly cooked product. Some rules of thumb:

- Generally, try to cook as quickly as possible. Cooking for longer periods of time at lower intensities may reduce the quality of the food.
- Consistent preparation and storage of foods to be cooked in the oven will result in consistent cooking results. If oven settings are developed for a pizza using refrigerated and portioned ingredients, then this is how the pizza should be prepared every time or the results will vary.
- Cooking times should *decrease* if foods are room temperature instead of refrigerated, foods are more dry and porous, foods are flat or thin, uniform size pieces are cooked, or black cooking pans are used.
- Cooking times should *increase* when foods are thick and/or dense, foods are frozen, the number of food items in a portion is increased, and foods have high moisture content.
- Keep the lamp shields and interior cavity clean. Baked-on grease and food particles will reduce the efficiency of the oven and affect the cooking process. See the CLEANING section of this manual.
- If the product attains the desired appearance but the center temperatures are low, try using the TWO-STEP cook mode. This recipe type allows the initial temperature to rise very quickly and then maintain that temperature for the duration of the cook cycle. This will facilitate the deep heating.
- After the initial high burst of heat, the oven goes to the second step, normally a lower intensity. This allows the rest of the product to catch up without burning.
- For best results when experimenting with a new product or recipe, try to start each test cook cycle from a cool oven.

## HIGH THROUGH-PUT VOLUME CONSISTENCY

When cooking a product one right after the other in a high volume operation, you may notice that it begins to get either darker or lighter than the one cooked before it. This is due to heat build-up in the oven from the repetitive cooking. The oven automatically corrects for this heat build-up, but you may need to adjust the amount of correction for a particular product. If you notice inconsistency in high volume cooking, do the following.

Enter the program mode by pressing the **PGM** button. Press the number button of the recipe you want to adjust. Select the cook method currently being used by this recipe. Be sure to select the same cook method already being used. At this point, press the **PREV** button. The following screen will appear:

Does Your Product Require Adjustment For High-Volume 1 = Yes      2 = No
---

To make the adjustment, press the **1** button. Pressing the **2** button will take you to the normal programming screen for the cook time. Pressing the **1** button will take you to the following screen:

Recipe 1  
 1 = lighter . . . 5 = darker  
 Enter (1-5) = 3  
 Then Press NEXT

The factory setting for this adjustment is 3. If your product was getting darker with each successive cook, try changing the setting to 2 or 1. If your product was getting lighter, try changing the setting to 4 or 5.

As a guideline, the following foods **MAY** cook more consistently using the following settings. The actual best setting will depend on your specific food product.

Setting	Food Type
1	Single 6" (152 mm) parbake pizza
2	Chicken Tenders Sub Sandwiches 8" (203 mm) and 12" (305 mm) parbake pizza
3	12" (305 mm) and 16" (406.5 mm) raw dough pizza Three 6" (152 mm) raw dough pizzas French Fries
4	Steak
5	Chicken Breasts Fish

Remember, this setting only affects the finished consistency of a product being cooked multiple times in a row using this recipe number. It will not affect the basic recipe for a single cook cycle from a cool oven.

After entering the new setting, you can press **NEXT** to step through the rest of the program settings, or press the **SAVE** button to store the changes and exit the program mode.

## **BLOWER**

The oven blower turns off automatically after approximately 4 minutes of non use, adding to the oven's energy efficiency.

## **CLEANING**

**WARNING:** DISCONNECT ELECTRICAL SUPPLY BEFORE CLEANING THE OVEN.

The interior cleanliness of the *FlashBake* oven is essential to ensure maximum efficiency of your oven. Keeping the oven clean and free of food debris will minimize the possibility of smoke and odors from food stuck on the lamp shields and interior walls.

The interior of the oven cavity is lined with highly reflective materials that allow the oven to cook with exceptional speed. These materials **MAY NOT**, under any circumstances, be cleaned with abrasive materials or chemicals that are not recommended for aluminum. If the non-recommended type chemicals are used, they can etch and scratch the cavity, causing a loss in efficiency and result in the need for repairs.

## Approved Cleaning Materials and Procedures

### Cleaners

- Mild dish soap - Use any mild food service type dish soap for the interior cleaning. Be sure that the soap is non-caustic.
- Citrus 2000 Multi-Purpose Ready To Use
- Pro Formula 409 - Use for interior walls.
- Windex Powerized Formula - Use for cleaning the door window interior and exterior.
- Norcross Bar-Be-Que and Grill Cleaner - Use this to clean the stainless steel grill. **Be sure the grill is only cleaned when it is out of the oven.**
- FDA food quality sanitizer for cooking surfaces.

### Cleaning Tools

- Terry towel cloth - Food service quality.
- Non-abrasive pad - Institutional quality-certified non-abrasive. (Example: White 3-M).
- Small wire brush - Used to clean the rollers on the grill assembly only.
- *FlashBake* lamp shield scraper.

Always rinse cleaned surfaces to ensure all the soap and chemicals have been removed, then wipe dry with a soft clean cloth.

It is recommended that you clean the oven after each shift. If your operation is extremely busy, it may be necessary to wipe out the oven during a shift until you are able to perform the detailed cleaning.

1. Allow oven to cool before starting the cleaning process.
2. Lift the door to the UP position.
3. Remove the grill and set aside. Clean the stainless steel grill with a non-caustic grill cleaner, using a small wire brush. The grill **MUST** be cleaned only when it is out of the oven.
4. To start the interior cleaning, use a cloth dampened with one of the recommended cleaners. Be sure that the soap is non-caustic. Wipe the food debris out of the oven, working from the back forward. **Do not pour cleaning liquids into the oven. Always use a cloth dampened with the cleaning fluids.**
5. Using a *FlashBake* lamp shield scraper, scrape the lower lamp shield to loosen all residual food. Repeat step 4 by wiping the cavity out, working from the back forward.
6. Remove the upper lamp shield and clean as recommended in REMOVING AND INSTALLING THE TOP LAMP SHIELD on page 20.
7. Dampen a clean cloth with one of the recommended cleaners and wipe out the interior wall surfaces to remove any grease or spatters. Work from the back of the oven forward. Repeat this step several times if necessary.
8. Next, use a small wire brush to clean the drive rollers. Make sure you remove any build-up so the rollers spin freely. After brushing, clean the rollers with a mild soap and water solution. Rinse thoroughly and dry with a soft clean cloth. Test the rollers by spinning them. The drive roller on the right side in the center of the oven cavity will not spin by hand.
9. Clean the interior surface of the front door with a terry cloth towel and recommended cleaner. Wipe the exterior edges of the door and frame, paying close attention to the gasket.

10. Clean the inside of the oven door window with a cloth dampened with window cleaner. If necessary, use a nylon scouring pad to remove baked on grease. Wipe the window clean with a cloth or paper towel dampened with window cleaner. **CAUTION: Do not use abrasives on the reflective inside door surface.**
11. With a clean cloth dampened with a food quality sanitizer, wipe the entire interior cavity of the oven, working from the back forward.
12. Clean the exterior of the oven with a soft cloth dampened **sparsingly** with a commercial stainless steel cleaner. The outside of the oven door window may be cleaned with a cloth dampened with window cleaner.
13. **NEVER** touch the cooking lamps. Skin oils on the lamps will lead to premature lamp failure. If contact does occur, gently wipe the lamps with a clean, lint-free cloth dampened with rubbing alcohol.

## REMOVING AND INSTALLING THE TOP LAMP SHIELD

Turn the oven off before removing the lamp shield.

The lamp shields **MUST** be kept clean to ensure maximum efficiency of the oven. If the lamp shields are dirty, foods may not cook as quickly or as thoroughly as specified in the programmed recipes. The lamp shields should be cleaned anytime food or grease begins to build up on the shield surface. Keeping the shields clean will prevent residue from baking on the shields and burning.

The upper lamp shield is easily removed with the door open. Lift the front edge of the lamp shield over the retaining feature (Fig. 5) and pull it toward you.

To reinstall the lamp shield, place it on its rails and **gently** push it into the oven until it stops. Be sure the lamp shield is properly seated behind the retaining feature.

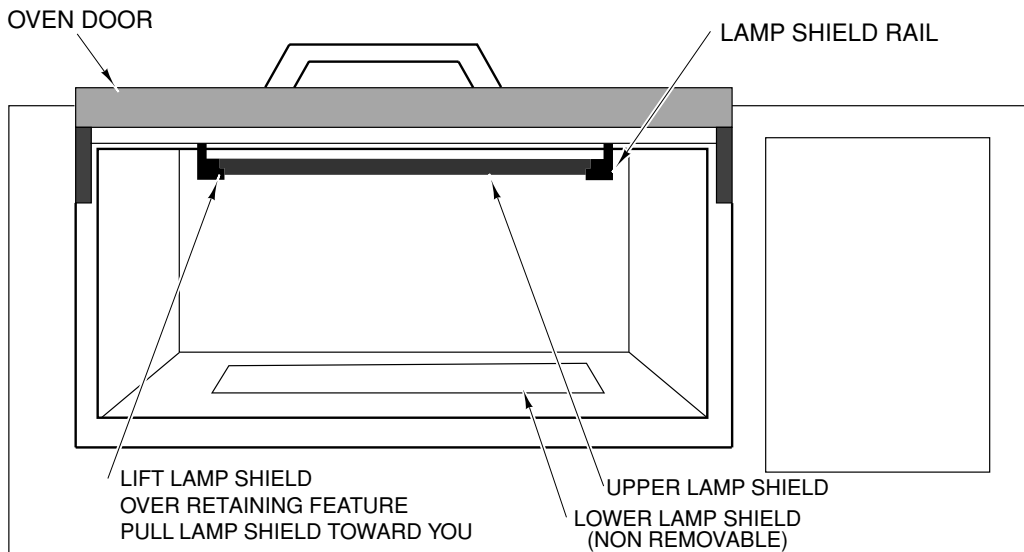


Fig. 5

It is recommended that you keep spare lamp shields so that dirty ones can be replaced quickly. Dirty shields can then be cleaned during off-peak times.

**The lamp shield is made of a special transparent material with specific properties. Replace shield only with official *FlashBake* oven replacements.**

# MAINTENANCE

**WARNING:** THE OVEN AND ITS PARTS ARE HOT. USE CARE WHEN OPERATING, CLEANING AND SERVICING THE OVEN.

**WARNING:** DISCONNECT THE ELECTRICAL SUPPLY BEFORE PERFORMING ANY MAINTENANCE ON THE OVEN.

Do not remove the oven covers or attempt to open the control cabinet. Doing so will void the warranty. There are no user servicable parts inside.

## INSPECTING THE OVEN

At least once each day, when the oven is cool, visually inspect the inside of the oven. Make sure both lamp shields are in place, clean, and unbroken. Make sure there are no obvious signs of damaged, worn, or broken parts.

## FUSES

There are two replaceable fuses located on the back of the oven (Fig. 6). Replace these fuses only with Class CC 3 Amp Fuses.

## CIRCUIT PROTECTORS

There are two resettable circuit protectors located on the back of the oven (Fig. 6). A tripped protector is indicated by the reset button sticking out. To reset the protector, press the button.

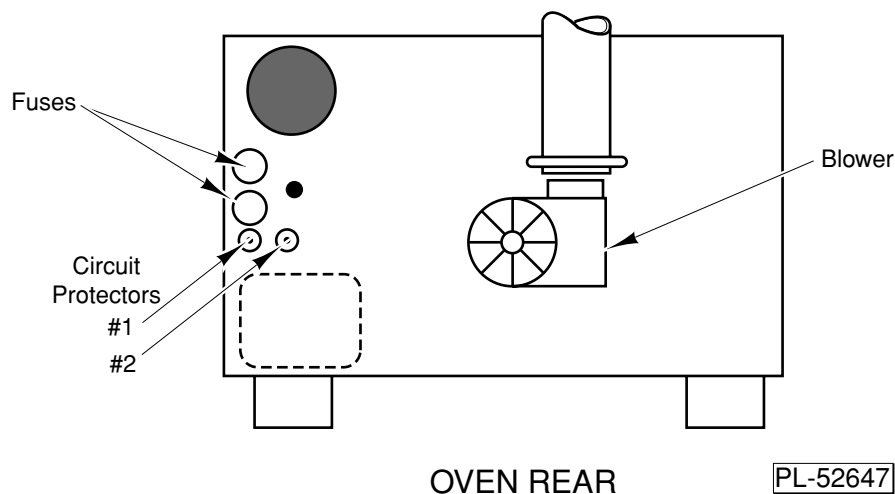


Fig. 6

## LAMP REPLACEMENT

All lamps MUST be replaced by your local Vulcan service representative.

# TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES
No power to the oven.	<ol style="list-style-type: none"> <li>1. Oven power cord is not plugged into the wall outlet.</li> <li>2. Main branch circuit breaker is blown.</li> </ol>
No power to the oven controls or display.	<ol style="list-style-type: none"> <li>1. Tripped circuit protector. Reset by pushing the button.</li> <li>2. Blown fuse(s). Replace with Class CC 3 Amp fuses only.</li> </ol>
Blower not operating.	<ol style="list-style-type: none"> <li>1. Obstruction in the blower air flow path. Initiate a cook cycle and check for foreign objects in the blower air flow path.</li> <li>2. Blown fuse(s). Replace with Class CC 3 Amp fuses only.</li> </ol>
Oven not cooking.	<ol style="list-style-type: none"> <li>1. Check the recipe settings. Make sure the settings are valid. Be sure time and power level settings are not zero.</li> </ol>
Display screen does not light up.	<ol style="list-style-type: none"> <li>1. Circuit Protector #1 located at rear of oven (see Fig. 6) has blown. Press reset button.</li> </ol>
Grill does not rotate.	<ol style="list-style-type: none"> <li>1. Circuit Protector #2 (see Fig. 6) has blown. Press reset button.</li> </ol>
Door does not lock.	<ol style="list-style-type: none"> <li>1. Circuit Protector #2 (see Fig. 6) has blown. Press reset button.</li> </ol>
No "High Power".	<ol style="list-style-type: none"> <li>1. Circuit Protector #2 (see Fig. 6) has blown. Press reset button.</li> </ol>

Under certain conditions, the oven will emit a short trill tone alarm when the operator presses a button. This indicates that something is preventing the oven from operating properly. Check the display screen for the following messages:

MESSAGE	ACTION
HIGH POWER IS NOT ON --> Press ANY key <--	<ol style="list-style-type: none"> <li>1. Press any button to clear the message.</li> <li>2. Restart the cook cycle.</li> </ol>
[16] DOOR IS OPEN	<p>Door detected open after cook cycle started.</p> <ol style="list-style-type: none"> <li>1. Check for obstructions that may be keeping the door from closing properly.</li> <li>2. Restart the cook cycle.</li> </ol>
DOOR IS NOT CLOSED	<p>Door detected open at start of cook cycle.</p> <ol style="list-style-type: none"> <li>1. Check for obstructions that may be keeping the door from closing properly.</li> <li>2. Restart the cook cycle.</li> </ol>
[18] OVEN OVERHEATED ALLOW TO COOL	<ol style="list-style-type: none"> <li>1. Press any button to clear the message.</li> <li>2. Make sure the blower is on.</li> <li>3. Check vent/duct for obstructions.</li> <li>4. Close door, wait for the oven to cool.</li> <li>5. Restart the cook cycle.</li> </ol>
[15] LAMPS ARE ON *! H.V. IS TURNED OFF	<p>An irregular lamp condition was detected.</p> <ol style="list-style-type: none"> <li>1. Turn the oven off.</li> <li>2. Turn the oven on.</li> <li>3. Restart the cook cycle.</li> </ol>
OVEN TOO HOT NOW ITEM MAY OVERCOOK --> Press ANY KEY <--	<p>Cannot do enough compensation.</p> <ol style="list-style-type: none"> <li>1. Check that the recipe is valid.</li> <li>2. Allow the oven to cool, then try again.</li> <li>3. Restart the cook cycle.</li> </ol>
STEP 1 + STEP 2 TIME EXCEEDS MAX (10:39) --> Press ANY Key <--	<p>Total cook time exceeds the maximum in a Two-Step recipe.</p> <ol style="list-style-type: none"> <li>1. Press any button to clear the message.</li> <li>2. Press the <b>CLEAR</b> button to remove the entry.</li> <li>3. Adjust either the Step 1 time or the Step 2 time so that the total does not exceed 10:39.</li> </ol>
[19] UPPER LAMP SHIELD OUT OF PLACE	<ol style="list-style-type: none"> <li>1. Check that the upper lamp shield is properly installed.</li> <li>2. Restart the cook cycle.</li> </ol>

If these actions do not reset the oven and allow the cooking cycle to begin, contact your local Vulcan Service Office.