

VULCAN

*INSTALLATION &
OPERATION MANUAL*

*VC3 SERIES
ELECTRIC CONVECTION OVENS*

*MODEL
VC3ED ML-137013*



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Installation, Operation and Care of VC3 SERIES ELECTRIC CONVECTION OVENS

KEEP THESE INSTRUCTIONS FOR FUTURE USE

Your Vulcan Electric Convection Oven is produced with quality workmanship and material. Proper installation, usage and maintenance of your oven will result in many years of satisfactory performance. The manufacturer suggests that you thoroughly read this entire manual and carefully follow all of the instructions provided.

GENERAL

The VC3 Series Electric Convection Ovens feature a 500°F thermostat, timer, porcelain interior and a two-speed, 1/2 HP blower motor as standard equipment. Ovens equipped with standard voltages are 208 or 240 V, 60 Hz, single- or three-phase. Ovens equipped for 480 V, 60 Hz, single- or three-phase electrical specifications are optional.

The VC3 Oven is a single cavity oven furnished with five racks. Independently opening doors are standard. Oven light with on-off switch is standard.

An open stand with lower storage rack is available as an option.

Stacked ovens are furnished with either Stacking Kit 426983G1 (8" LEGS) or Stacking Kit 426984G1 (CASTER) for mounting one oven on top of the other.

Additional racks are available as accessories.

FEATURES & OPTIONS

Model	Oven Interior Depth	Oven Exterior Depth	Thermostat	Timer	Roast & Hold	5 Hr. Timer	Stack Kit with Legs *	Stack Kit with Casters *	Legs with Feet	Legs with Casters	Stand with Rack & Feet	Stand with Rack & Casters
VC3ED	26 1/2" (67.3 cm)	41 1/2" (105.4 cm)	Solid State	1 Hr. Dial	NA	NA	Opt	Opt	Std.	Opt	Opt	Opt

* With Two Stacked Ovens Only.

INSTALLATION

UNPACKING

Immediately after unpacking the oven, 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.

Prior to installation, verify that the electrical service agrees with the specifications on the oven data plate, located on the inside of the top front cover.

Do not use the doors or their handles to lift the oven.

LOCATION

⚠ WARNING The installation must allow adequate clearance for servicing and operation. For solid state and digitally controlled models there must be 18” (45cm) of clearance on the right side of the oven from any open flame. For all other clearances see table below.

Clearances (inches)		
	Combustible	Non-Combustible
Rear	2	2
Rt Side	4	4
Left Side	1	1

INSTALLATION CODES AND STANDARDS

In the United States, install the oven in accordance with: 1) State and local codes; 2) National Electrical Code, NFPA-70 (latest edition) and 3) NFPA Standard #96, *Vapor Removal from Cooking Equipment* (latest edition), available from National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

INSTALLING BASIC OVEN

The basic oven must be installed on legs or mounted on a modular stand. Installations on concrete bases or other supports restricting air circulation underneath the oven is not advisable and may void the warranty. If using the modular stand, set the oven on the stand after unpacking.

ASSEMBLING THE LEGS TO THE SINGLE OVEN

The legs must be installed on the bottom of the oven. Gently position the oven on its left side, taking care not to cause scratches or damage.

Attach each of the four leg assemblies to the bottom of the oven with the 24 bolts and lockwashers (six bolts and lockwashers per leg). Carefully raise the oven to its normal position.

LEVELING

Adjust the legs to ensure that the oven racks are level in the final installed position.

CASTERS

If the oven is to be installed on casters, assemble the casters to the legs provided. Then attach the caster-leg units to the oven at each corner using the 24 bolts and lockwashers. Place the locking casters on the front legs and nonlocking casters on the rear legs. Units on casters should be tethered to the building using the strain relief bracket shown in Figure 2.

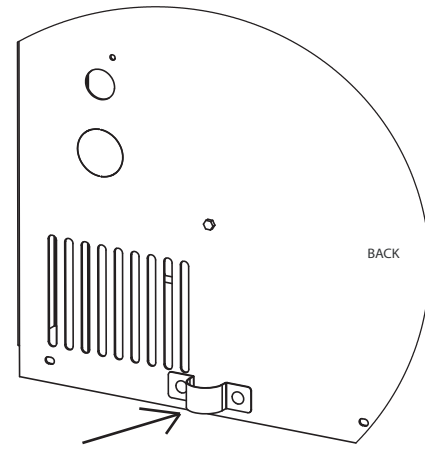


Fig. 2

ASSEMBLING THE STAND TO THE OVEN

Attach each of the four leg assemblies to the bottom of the oven with the 24 bolts and lockwashers (six per leg). Carefully raise the oven to the normal position.

Attach the undershelf to the legs with eight bolts and lockwashers (two per leg).

Install the rack guides into the shelf at the desired locations (for pan or flat rack), then attach the rack supports to the top end of the rack guides. Attach rack supports to the leg assembly by removing one middle bolt and reattaching the back through the end holes in the rack support (Fig. 2).

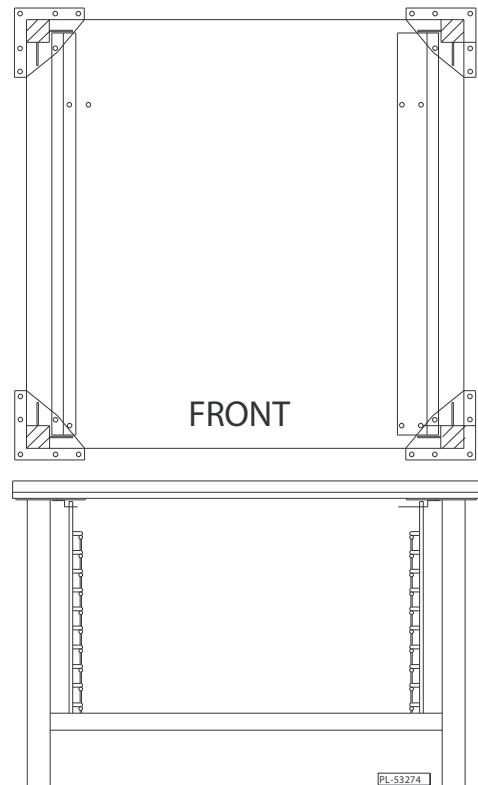


Fig. 3

ELECTRICAL CONNECTIONS

⚠ WARNING Electrical and grounding connections must comply with the applicable portions of the National Electrical Code ANSI/NFPA70 (latest edition) and/or other local electrical codes.

⚠ WARNING Disconnect electrical power supply and place a tag at the disconnect switch to indicate that you are working on the circuit.

Remove the wiring compartment cover on the front of the oven. Remove the appropriate knockout on the bottom of the oven and attach the power supply conduit to the bottom of the oven.

Comply with the appropriate wiring diagram (located inside the right side panel) when making connections to the electrical supply lines. Use flexible conduit only.

Replace the wiring compartment cover and right side panel. Turn on the power supply.

ELECTRICAL DATA

	TOTAL KW	208-240 V			480 V			NOMINAL AMPERES PER LINE WIRE									PHASE		
		3-PHASE LOADING			3-PHASE LOADING			208 V			240 V			480 V			208 V	240 V	480 V
		KW PER PHASE			KW PER PHASE														
		L1-L2	L2-L3	L1-L3	L1-L2	L2-L3	L1-L3	L1	L2	L3	L1	L2	L3	L1	L2	L3			
Single Oven	12.5	4	4	4.5	4	4	4.5	35	33	35	33	29	33	14.4	15.3	15.3	60	52	26
Stacked Oven	25	8	8	9	8	8	9	70	66	70	66	58	66	28.8	30.6	30.6	120	104	52

ASSEMBLING STACKED OVENS

Unpack the ovens and the stack kit. Position the oven to be used as the bottom oven on its left side for access to the oven bottom, taking care not to scratch or damage it.

Attach the four leg assemblies with the 24 bolts and lockwashers (six per leg).

Place the lower oven (with legs) on the floor and remove two $\frac{7}{16}$ " (11 mm) diameter knockouts on each side of the top cover.

Install two locating studs to the bottom of the top oven per stacking kit instructions.

Move the oven with legs to the installed position. Place the upper oven on top of the lower oven using the locating studs.

Remove the optional rear panel, if provided, from the TOP oven. Install the Stacking Flue (Fig. 3) with the four screws provided. Replace the top oven rear panel, if provided.

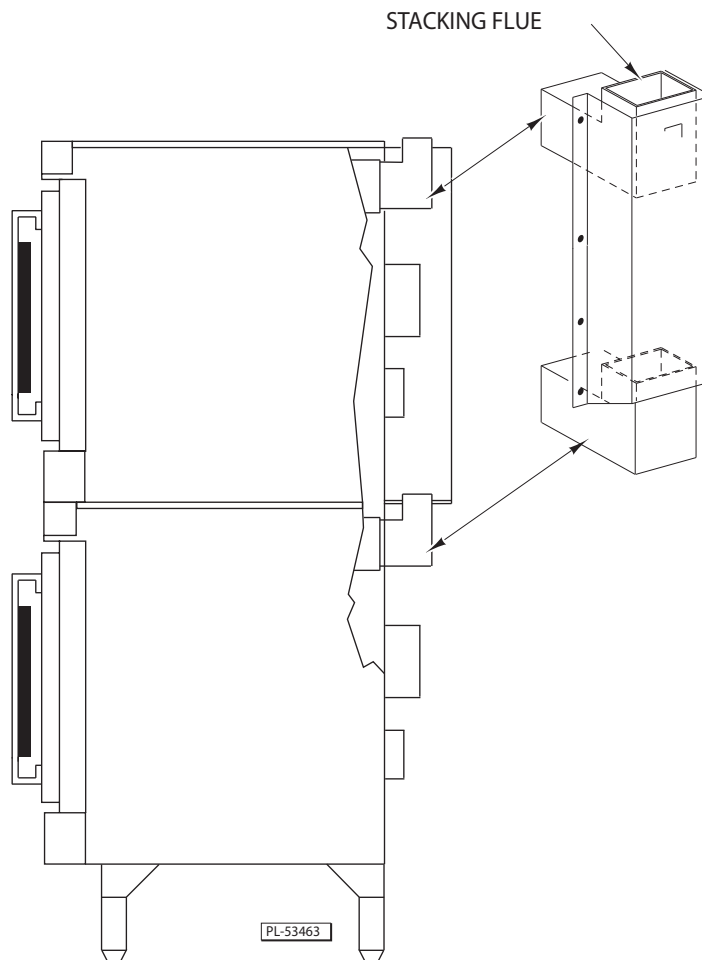


Fig. 4

ELECTRICAL CONNECTIONS (Stacked Ovens)

⚠ 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 that you are working on the circuit.

Make sure that the electrical power supply agrees with the specifications on the oven data plate, the wiring diagram on the oven and Electrical Data, page 5.

1. Wires to connect both ovens are provided with each oven (X, Y, Z). Carefully route these from top oven through the bushing (supplied with the stacking kit) through the electrical access knockout holes common to both ovens. Wires are at least 12 AWG with a 150 degree C rating.
2. Connect wires X, Y and Z from the upper oven to the lower oven per the wiring diagram. Attach the power supply conduit to the bottom of the lower oven. Connect the power supply leads to the line side of the terminal block on the bottom oven.
3. Finally, inspect and check all wiring and terminal connections for tightness or pinch points (cover on oven frame).
4. Refer to reference drawing 426986 supplied with the stacking kit for electrical connection instructions.
5. Refer to instructions supplied with the stacking kit for marking the combined electrical load information to the electrical data plate of the bottom oven.

OPERATION

⚠ WARNING The oven and its parts are hot. Use care when operating, cleaning or performing any maintenance.

CONTROLS



- | | |
|----------------------|--|
| MOISTURE VENT DAMPER | - The vent is always open for VC3E to exhaust excess moisture. |
| MASTER SWITCH | - ON - Turns oven control circuits on.
- OFF - Turns oven control circuits off.
- OVEN COOL - Allows the fan motor to run with the doors ajar to speed oven cooling. |
| ON LIGHT | - Lit when MASTER SWITCH is turned to ON. |
| HEAT LIGHT | - Comes on and goes off when the heating elements cycle on and off. |
| TEMPERATURE | - Controls oven temperature. |
| TIMER | - Use to set the cooking time. Alarm sounds continuously when time has elapsed to 0. Turn the timer OFF to silence the alarm. The timer does not turn the oven off. Keep timer set to OFF when the oven is not in use. |
| FAN SPEED | - Adjust air velocity in the oven cavity.
HI - Normal operating speed.
LOW - Use this setting when cooking a delicate product like meringue, which could blow around in the oven. |
| LIGHTS | - ON - Turns the interior lights on.
- OFF - Turns the interior lights off. |

BEFORE FIRST USE

Before using the oven for the first time, it must be burned off to release any odors that might result from heating the new surfaces in the chamber.

1. Using a clean damp cloth, wipe the inside of the oven, including the racks.
2. Close the oven doors, turn the MASTER SWITCH to ON, turn the Thermostat to 300°F (149 °C) and allow the oven to cycle for 6 to 8 hours before turning the MASTER SWITCH to OFF.

Preheating

1. Turn MASTER SWITCH to ON. Amber ON light will come on, indicating that power to oven is on.
2. Set Thermostat as desired. Refer to COOKING GUIDELINES for suggested temperatures and times for various products.
3. Prepare product and place in suitable pans. When white HEAT light goes off, oven has reached desired preheat temperature.

Cooking

1. Open doors and load the product into the oven. Place pans in the center of the racks. Close doors.
2. Set the Timer. After the preset time lapses, turn Timer to OFF position to stop alarm.
3. When product is done, open doors and carefully remove cooked product from the oven. Care should be taken when wiping up any spills, as oven is still hot.

End of Day

1. Turn Thermostat to OFF.
2. Turn MASTER SWITCH to OVEN COOL. Leave doors open while the fan is on to cool the oven.
3. When oven has cooled sufficiently, turn MASTER SWITCH to OFF and clean the oven.

STANDARD COOKING TIME CHART

Product	Amount	Temp.	Time
Frozen Croissant Dough	1.75 oz	350°F (177 °C)	25 Min
Cinnamon Croissant	1.75 oz	350°F (177 °C)	35 Min.
Small Bread Loaves	1 Tray	350°F (177 °C)	30 Min.
Large Bread Loaves	1.5 lbs.	350°F (177 °C)	60 Min.
Sheet Cake	(1) 18x26" Tray	300°F (149 °C)	25 Min.
Scone Mix	1 Tray	350°F (177 °C)	30 Min.
Muffin Mix	1 Tray	350°F (177 °C)	30 Min.
Kaiser Rolls	1 Tray	350°F (177 °C)	16 Min.
Italian Bread	1 Tray	350°F (177 °C)	40 Min.
Danish Rounds*	1 Tray	350°F (177 °C)	30 Min.
Cream Cake*	1 Tray	350°F (177 °C)	60 Min.
Cookies	1 Tray	325°F (163 °C)	16 Min.

*The maximum internal cooking temperature should be 190°F (88 °C).

POWER OUTAGE

In case of a power outage, the oven will automatically shut down. When power is restored to the lines, the oven will resume its normal operation. However, if the oven is to be left unattended during a power outage, push the MASTER SWITCH to the OFF position. When power is restored to the lines, push MASTER SWITCH to the ON position, wait for the oven to preheat, then resume normal cooking operations.

CLEANING

⚠ WARNING Disconnect electrical supply and place a tag at the disconnect switch to indicate that you are working on the oven before cleaning.

- Clean outside of the oven daily by wiping with a clean, damp cloth.
- Clean porcelain oven interior daily with soap or detergent and water. Rinse thoroughly and wipe dry with a soft, clean cloth.

⚠ WARNING Wait for oven doors to cool before washing. Splashing or submerging hot doors in water can cause the glass to shatter.

The doors (when cool) may be removed by opening 90 degrees and lifting up. Clean in a dishwasher or by hand. Allow to drip dry before replacing.

Stainless Steel Surfaces Hand Cleaning Instructions:

- Soap or detergent and water usually handle routine cleaning. Rinse thoroughly and dry with a soft, clean cloth.
- For burned-on foods and grease which resist simple soap and water cleaning, an abrasive cleanser (scouring powder) mixed into paste may be used. Apply with stainless steel wool or sponge, always rubbing with the grain.

MAINTENANCE

⚠ WARNING The oven and its parts are hot. Use care when operating, cleaning or performing any maintenance.

⚠ WARNING Disconnect electrical supply and place a tag at the disconnect switch to indicate that you are working on the oven before maintenance.

The fan motor comes with sealed bearings and requires no lubrication.

Annually check the vent, when cool, to be sure it is free of obstructions.

REPLACING LAMPS

1. Allow oven to cool.
2. Remove all racks by pulling forward, lifting up and out.
3. Remove the right rack guide by swinging to 45 degree angle and pulling out.
4. Pry the glass cover off by sliding a flat tool under the bottom lip of the cover.
5. Replace the bulb. Gloves should be worn while handling bulbs.
6. Reassemble glass cover and racks by reversing the disassembly procedure.

SERVICE AND PARTS INFORMATION

To obtain service and parts information concerning your VC3 Series Oven, contact the Vulcan-Hart Service Depot in your area (refer to listing supplied with this oven) or Vulcan-Hart Company Service Department at the address or phone number shown on the front cover of this manual.