

VULCAN

INSTALLATION & OPERATION MANUAL

V SERIES HEAVY DUTY SECTIONAL GAS RANGE WITH STANDARD OVEN OR SNORKEL® CONVECTION OVEN

MODELS

V36 Standard Oven W/ Standing Pilot	ML-44905Z
V36 Standard Oven W/ Spark Ignition	ML-44906Z
V36 Convection Oven	ML-44907Z



IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.

IMPORTANT

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION OR MODIFICATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

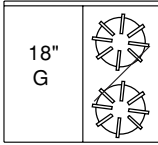
IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

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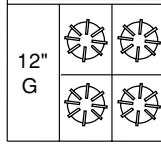
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CONFIGURATIONS OF MODEL "V" SERIES HEAVY DUTY RANGES WITH STANDARD AND CONVECTION OVENS AND MODULAR RANGES.

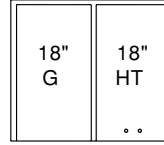
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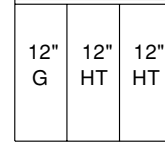
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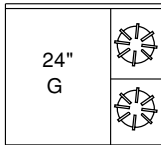
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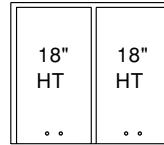
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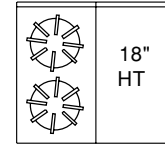
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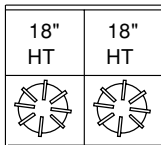
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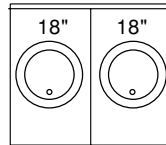
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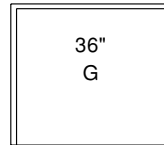
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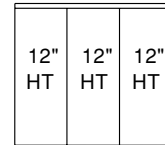
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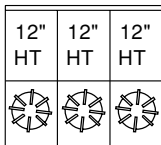
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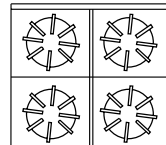
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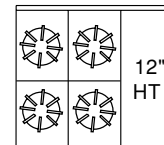
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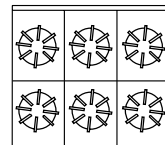
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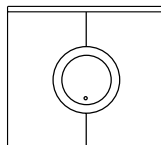
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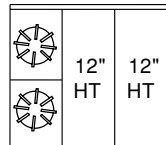
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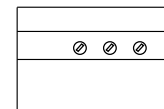
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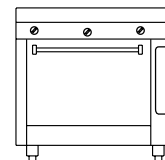
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"V" SERIES
MODULAR RANGE



"V" SERIES
FULL BODY
36" WIDE

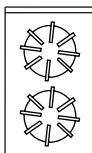


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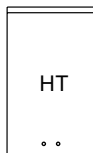
CONFIGURATIONS OF MODEL "V" SERIES 12" & 18" HEAVY DUTY EXPANDO & MODULAR RANGES

MODEL "V" SERIES EXPANDO RANGES WITH CABINETS

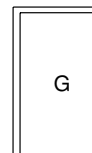
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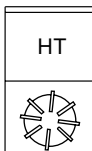
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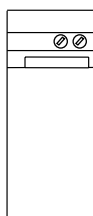
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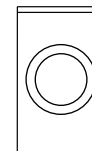
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"V" SERIES 18" WIDE
FULL BODY WITH
CABINET

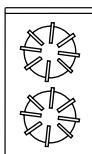


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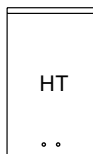


MODEL "V" SERIES MODULAR EXPANDO RANGES

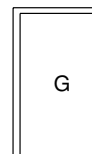
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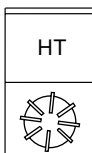
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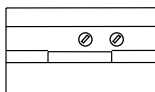
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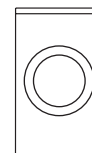
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18" WIDE
MODULAR RANGE



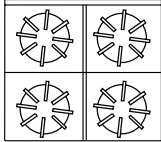
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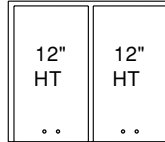
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CONFIGURATIONS OF MODEL "V" SERIES 24" HEAVY DUTY EXPANDO AND MODULAR RANGES

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V424M



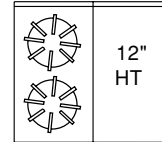
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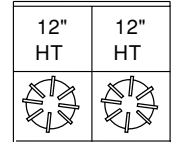
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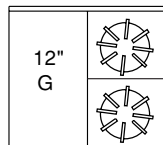
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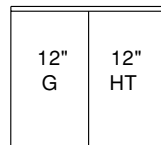
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V1G224M



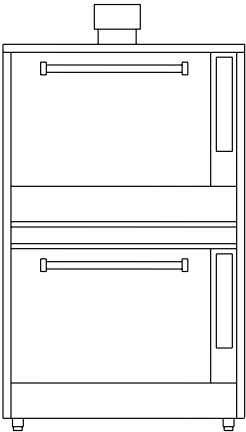
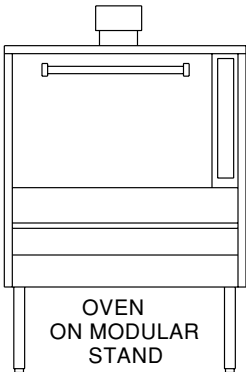
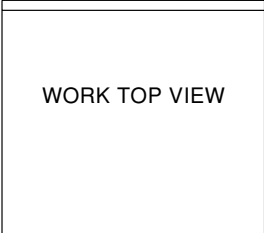
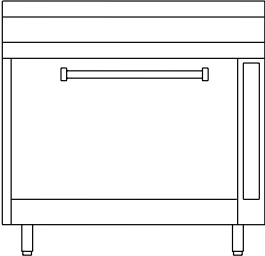
V1G1H4S
V1G1H4M



PL-53600

CONFIGURATIONS OF "V" SERIES HEAVY DUTY OVENS

VO36
SINGLE
OVEN



VO236
DOUBLE
STACKED
OVEN

PL-53601

Installation, Operation and Care Of MODEL V SERIES HEAVY DUTY SECTIONAL GAS RANGES WITH STANDARD OVEN OR SNORKEL® CONVECTION OVEN

PLEASE KEEP THIS MANUAL FOR FUTURE REFERENCE

GENERAL

Vulcan ranges and ovens are produced with quality workmanship and material. Proper installation, usage and maintenance of your range 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.

INSTALLATION

UNPACKING

This range was inspected before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of the shipment. Immediately after unpacking, check for possible shipping damage. If the range is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Carefully unpack range(s) and place in the approximate installation position, whether as a battery or single stand-alone range.

Remove parts (packed in a cardboard box) from oven cavity, or cabinet body, or on top of modular range(s).

Remove wire or nut from rear of each burner before installing the range.

Before installing, check the electrical service (Convection Oven Models only) and type of gas supply (natural or propane) to make sure they agree with the specifications on the rating plate located on the inside of the burner box lower panel. The rating plate will show the voltage, phase, cycle, full load ampere, BTU, as well as the type of gas. If the supply and equipment requirements do not agree, do not proceed with the installation. Contact your dealer or Vulcan-Hart Company immediately.

LOCATION

CAUTION: The equipment area must be kept free and clear of combustible substances.

The minimum installation clearances from combustible and noncombustible construction for ranges using inputs of 30,000 Btu/Hr per open top burner are:

	Combustible	Noncombustible
Sides	20" (51 cm)	0"
Rear	2" (5 cm)	0"

The minimum installation clearances from combustible and noncombustible construction for ranges using inputs of 20,000 Btu/Hr per open top burner are:

	Combustible	Noncombustible
Sides	6" (15 cm)	0"
Rear	2" (5 cm)	0"

The ranges are suitable for installation on combustible floors when 6" (15 cm) adjustable legs are used. When legs are removed, use only on noncombustible floors, curb, or platform, with front appliance projecting 3" (8 cm) beyond curb or platform.

Ranges with Snorkle ovens should be installed on 6" (15 cm) legs or casters, allowing 6" (15 cm) clearance from the rear of the range. If ranges with Snorkle ovens are installed directly on curbs, without legs, or in back-to-back installations, provisions **must** be made for adequate air circulation, and these provisions **must** be approved by Vulcan-Hart Company Service Department. Contact Vulcan-Hart Company at the address or phone number shown on the front cover of this manual.

All modular ranges are to be installed only on non-combustible floors.

The installation location must allow adequate clearances for servicing and proper operation. A minimum front clearance of 35" (88 cm) is required.

The range(s) must be installed so that the flow of combustion and ventilation air will not be obstructed. Adequate clearance for air openings into the combustion chamber(s) must be provided. Make sure there is an adequate supply of air in the room to allow for combustion of the gas at the burners.

INSTALLATION CODES AND STANDARDS

Your Vulcan range(s) must be installed in accordance with:

In the United States:

1. State and local codes.
2. National Fuel Gas Code, ANSI/Z223.1 (latest edition), available from American Gas Association, Inc., 1515 Wilson Blvd., Arlington, VA 22209.
3. National Electrical Code ANSI/NFPA-70 (latest edition). Copies available from The National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

In Canada:

1. Local codes.
2. CAN/CGA-B149.1 Natural Gas Installation Code (latest edition).
3. CAN/CGA-B149.2 Propane Installation Code (latest edition), available from The Canadian Gas Association, 178 Rexdale Blvd., Etobicoke, Ontario, Canada M9W 1R3.
4. Canadian Electrical Code, CSA C22.2 No. 3 (latest edition). Copies may be obtained from The Canadian Standard Association, 178 Rexdale Blvd., Etobicoke, Ontario, Canada M9W 1R3.

RANGES MOUNTED ON CASTERS

When ranges are mounted on casters, you must use a connector (available from Vulcan-Hart) that complies with the Standard for Connectors of Movable Gas Appliances, ANSI-Z21.69 (latest edition), and a quick-disconnect device that complies with the Standard for Quick-Disconnect Devices Complying With Gas Fuel, ANSI-Z21.41 (latest edition) or CAN 1-6.9 (latest edition).

Provide a gas line strain relief to limit movement of the range(s) without depending on the connector and/or any quick-disconnect device or its associated piping to limit movement of the range(s). Attach the strain relief to the rear of the range (Fig. 1).

Should it be necessary to disconnect the strain relief, turn off the gas supply before disconnection. Reconnect the strain relief before turning the gas supply on and returning the range(s) to their installation position.

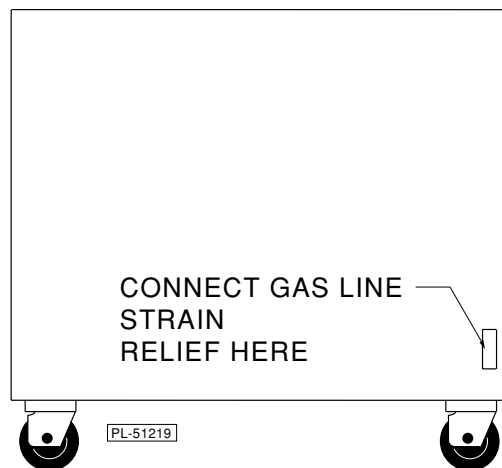


Fig. 1

LEVELING

Curb Installation

Ranges must overhang curb 3" (8 cm) in front. To level each range, remove oven bottom. Adjust four corner leveling bolts as required to level the appliance on all sides.

Snorkel Oven

Remove lower front kick plate. Remove two screws holding electric gas valve and move valve off to the side. Pull oven burner out of compartment through opening. Adjust four corner bolts to level range. Replace burner valve and kick plate.

Floor Installation on Legs

The 6" (15 cm) adjustable legs must be tightened securely. Level each range by turning the foot portion of the adjustable legs.

Lining up Range Battery

In batteries of ranges, it is recommended that the center range be installed and leveled first. Level each range, one at a time, to line up high shelf and roll front with adjacent range. Bolt the high shelves and roll fronts together.

CONNECTION OF MANIFOLDS IN BATTERY

Two or more ranges can be coupled together at the manifold by removing the front control panel to make necessary connections. Be sure to cap open ends. To connect:

1. Adjust manifold by loosening U-bolts. In a large battery of eight or more ranges, gas should be fed from both ends of the battery. "T" gas connections can be installed whenever necessary for increased gas supply. For further details, consult your gas company. The top roll front may also be removed for your convenience.
2. Bolt risers together at top rear.
3. If risers have high shelves, bolt the high shelf brackets together. Replace the high shelves.
4. Use clamp to pull ranges together at the rear. (There is a slotted hole in the top frame side at the rear that can be used to bolt ranges together if necessary. Run a $\frac{5}{16}$ " diameter drill through the slotted hole, drilling from inside out on each range.) Use $\frac{1}{4}$ "-2 x 2" bolt that is provided.
5. Replace all top sections. Make manifold union connections at the front. Do not allow manifold pipe to turn.
6. Bolt the roll front ends together at the front. (Make sure roll fronts match.) Use $\frac{1}{4}$ "-20 x 1" bolts provided.
7. Tighten the front roll front bolts after the roll front ends have been properly bolted together.
8. Before replacing manifold panels, check all gas connections for leaks. (See GAS CONNECTIONS in this manual.)

If appliance has rear gas connection, carefully check for open gas lines.

The gas pressure regulator must have proper outlet pressure capacity for this battery application.

INSTALLING OVERLAPPING GRIDDLE TOP

1. Bolt ranges together and level per instructions in this manual.
2. Remove chrome bull noses from ranges receiving overlapping griddle tops. Bull noses are held by bolts on the bottom side.
3. **MANUAL CONTROLS ONLY** — Set griddle tops in place and level with bolts located under the griddle top in both rear corners. Should you desire griddle plate to slope forward, adjust accordingly. Make sure hole in front gutter fits into cast iron drain in range. Reinstall bull noses.
4. **THERMOSTAT CONTROL ONLY** — Set griddle top in place and support front with 4" to 6" (10 cm to 15 cm) blocks. Insert thermostat probe into smaller of two angles on bottom of griddle top (bend probe slightly while inserting to hold in place). Slide insulation sleeving around probe lead up to angle on griddle top. Coil excess lead near thermostat, leaving as little as possible in burner area. Make sure that thermostat probe lead is not over burner or pilot flame. Remove supporting blocks and lower griddle top in place.

Level griddle top with bolts located under both rear corners. Should you desire griddle plate to slope forward, adjust accordingly. Make sure hole in front gutter fits into cast iron drain in range. Reinstall bull noses.

Leveling bolts are provided under each griddle plate at the rear, should you desire griddle plate to slope forward. Top frame sealing channels are supplied to seal off any space between two or more ranges.

GAS CONNECTIONS

CAUTION: All gas supply connections and any pipe joint compound used must be resistant to the action of propane gases.

This appliance must be connected with a gas supply line as large or larger ID (net inside diameter) than the gas pipe inlet provided on the rear of the appliance. Connect gas supply to the range(s). Make sure the pipes are clean and free of obstructions, dirt, and piping compound.

Codes require that a gas shutoff valve be installed in the gas line ahead of the range(s).

Ranges manufactured for use with propane gas are equipped with fixed orifices.

A gas pressure regulator must be furnished by the installer or plumber at the time of installation. The regulator must be listed by a nationally recognized testing agency. These appliances are rated at the following pressure: Natural Gas - 5" W.C. (Water Column) (1.25 kPa); Propane Gas - 10" W.C. (2.49 kPa).

WARNING: PRIOR TO LIGHTING, CHECK ALL JOINTS IN THE GAS SUPPLY LINE FOR LEAKS. USE SOAP AND WATER SOLUTION. DO NOT USE AN OPEN FLAME.

After piping has been checked for leaks, all piping receiving gas should be fully purged to remove air.

TESTING THE GAS SUPPLY SYSTEM

When test pressures exceed $\frac{1}{2}$ psig (3.45 kPa), the range and its individual shutoff valve must be disconnected from the gas supply piping system.

When test pressures are $\frac{1}{2}$ psig (3.45 kPa) or less, the range must be isolated from the gas supply system by closing its individual manual shutoff valve.

FLUE CONNECTIONS

DO NOT obstruct the flow of flue gases from the flue duct located on the rear of the range. It is recommended that the flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

A minimum of 18" (45 cm) must be maintained between the ventilation system and the cooking surface.

Information on the construction and installation of ventilating hoods may be obtained from the standard for "Vapor Removal from Cooking Equipment," NFPA No. 96 (latest edition), available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

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 THREE-PRONG GROUNDING PLUG. IT IS IMPERATIVE THAT THIS PLUG BE CONNECTED INTO A PROPERLY GROUNDED THREE-PRONG RECEPTACLE. IF THE RECEPTACLE IS NOT THE PROPER GROUNDING TYPE, CONTACT AN ELECTRICIAN. DO NOT REMOVE THE GROUNDING PRONG FROM THIS PLUG.

Do not connect the range to electrical supply until after gas connections have been made.

LIGHTING AND SHUTTING DOWN PILOTS

Open Top, Griddle Top, Hot Top, Broiler and Cheesemelter Pilots

1. Turn the main burner valve to the ON position.
2. Turn all burner valves and pilot adjustment valves to the OFF position. Wait 5 minutes.
3. Turn pilot adjusting valve screw counterclockwise, then light the pilot adjacent to each burner. Adjust each pilot screw until the pilot flame is $\frac{1}{4}$ " (0.6 cm) high.
4. If pilot fails to light, repeat steps 1-3 above.
5. For a complete shutdown, turn all burner valves to the OFF position. Turn all pilot valve screws clockwise until the pilot flames go out. Turn gas shut-off valve OFF.

Standard Oven With Standing Pilot (Fig. 2)

1. Turn Thermostat and Shut-off Valve to the OFF position.
2. Wait 5 minutes.
3. Remove lower panel.
4. Depress Red Button on safety valve and light pilot through observation hole.
5. Hold down Red Button for at least 30 seconds.
6. When button is released, pilot should remain lit. Pilot flame may be adjusted with screw on pilot adjustment valve on pilot supply tubing located behind the control panel. There should be only a slight amount of yellow in the properly adjusted pilot flame.
7. Replace lower panel.
8. Turn Shut-off Valve to the ON position and turn the Thermostat to the desired temperature.
9. If pilot flame becomes extinguished, repeat the above procedure.
10. For a complete shutdown, turn the Thermostat, Shut-off Valve, and gas shut-off valve to the OFF position.

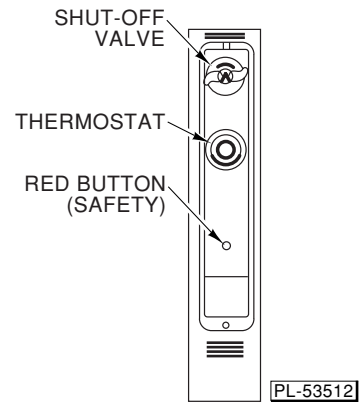


Fig. 2

Standard Oven with Electric Ignition (Fig. 3)

1. Turn Thermostat and Shut-off Valve to OFF position. Wait 5 minutes.
2. Turn Shut-off Valve to ON position.
3. Turn Thermostat to desired setting.
4. Oven burner lights automatically.
5. For a complete shutdown, turn the Thermostat, Shut-off Valve, and gas shut-off valve to the OFF position.

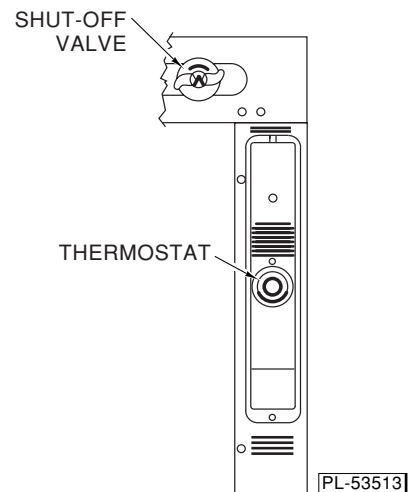


Fig. 3

Snorkle Convection Oven with Standing Pilot (Fig. 4)

1. Turn Thermostat and Shut-off Valve to OFF position. Wait 5 minutes.
2. Turn Shut-off Valve to ON position.
3. Remove the lower front panel. Flip up the window that covers the pilot lighting hole and light the pilot with a lit taper. Flip window back in place and replace lower front panel.
4. Turn Thermostat to desired setting.
5. Turn Fan Switch to ON position.
6. Oven burner lights automatically.
7. For a complete shutdown, turn Thermostat, Shut-off Valve, Fan Switch, and gas shut-off valve to the OFF position.

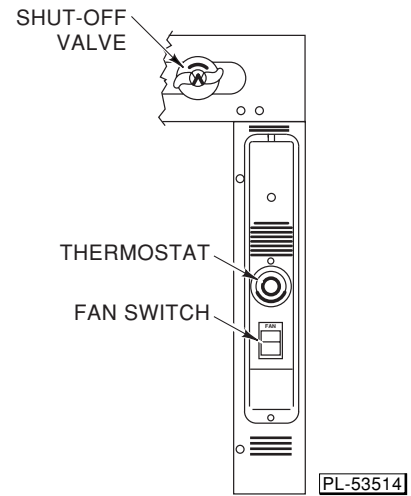


Fig. 4

Snorkle Convection Oven with Electric Ignition (Fig. 5)

1. Turn Thermostat and Shut-off Valve to the OFF position. Wait 5 minutes.
2. Turn Shut-off Valve to ON position.
3. Turn Fan Switch to ON.
4. Turn Thermostat to desired setting.
5. Oven burner lights automatically.
6. For a complete shutdown, turn Thermostat, Fan Switch, Shut-off Valve, and gas shut-off valve to the OFF position.

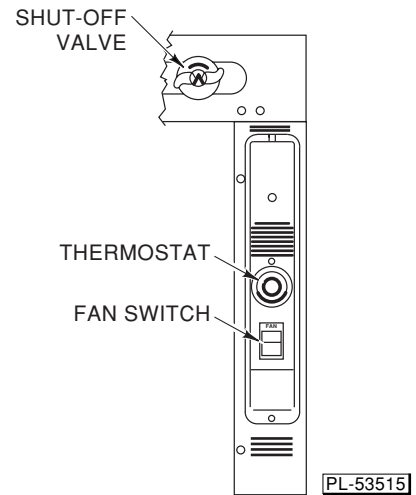


Fig. 5

OPERATION

WARNING: THE RANGE AND ITS PARTS ARE HOT. BE CAREFUL WHEN OPERATING, CLEANING OR SERVICING THE RANGE.

BEFORE FIRST USE

Griddle Tops: Before using your Vulcan griddle, the protective coating that was applied at the factory **must be completely removed** with a commercial degreaser. After a thorough cleaning, apply a high temperature, salt-free frying oil and you are ready to use your Vulcan griddle.

The griddle requires no "breaking-in" or "seasoning."

CONTROLS

Range Top Valve	Allows gas to flow to the range section. To open valve, turn knob counterclockwise. To close valve, turn knob clockwise.
Oven Shut-off Valve	Allows gas to flow to the oven burner. To open valve, turn knob counterclockwise. To close valve, turn knob clockwise. (See Fig's. 2, 3, 4, and 5.)
Red Button (Standard Oven Only)	Allows gas to flow to the oven pilot. To operate, push button in and follow pilot lighting instructions (See Fig. 2).
Thermostat	Regulates the oven temperature. The thermostat temperature range is from 150°F to 500°F (65°C to 260°C). Turn thermostat counterclockwise to increase temperature and clockwise to decrease temperature. (See Fig's. 2, 3, 4, and 5.)
Fan Switch	Turns fan on and off. (See Fig's. 4 and 5.)

OPERATING SUGGESTIONS

Standard Oven: If you have a standard oven, use your normal recipe times and temperatures.

Snorkel® Convection Oven: The Vulcan Snorkle® Oven does everything a regular oven can do, but with less energy consumption. The oven pre-heats faster, and baking time, temperature settings, and shrinkage are reduced.

In general, reduce temperature 25°F (10°C) from conventional recipes.

- Bakery Products: Reduce temperature 25°F. Reduce time by 25% to 33%.
- Casserole Cookery: Reduce temperature about 25°F, and time by 25% to 50%.
- Meat Roasting: Reduce temperature to 275-300°F (135-149°C). Use meat thermometer. Cooking time may be reduced up to 50%.

Use fan for preheating and baking.

Place open-face pies with thin filling mixture in preheated oven 2 to 3 minutes before turning on fan switch.

Check product at half the time of the regular recipe.

Level pans bake more evenly; warped pans will give uneven baking results.

A GUIDE FOR COOKING TIME & TEMPERATURES

The following lists are suggested cooking times and temperatures for convection and standard ovens. These guidelines, which will vary depending on product temperature, size, shape, etc., are suggestions only and should be adjusted to suit your operation.

(CONVECTION OVEN ONLY)

	Suggested Time	Suggested Temperature °F (°C)	Your Time	Your Temp. °F (°C)
MEAT, POULTRY, FISH				
Roasting	10-15 min./lb (.45 kg)	250-300 (121-149)	_____	_____
Braising	20-25 min./lb (.45 kg)	300 (149)	_____	_____
Cafeteria Beef Rounds (45 lb./20 kg)	9 hours	225 (107)	_____	_____
Steaks (1 1/2" [4 cm] thick)	10-14 min.	450 (232)	_____	_____
Meat Loaf (4 1/4" x 9" / 11 x 23 cm)	45-60 min.	300 (149)	_____	_____
Hamburger Patties	4-8 min.	400 (204)	_____	_____
Bacon	6-10 min.	400 (204)	_____	_____
Sausage Links	8-12 min.	400 (204)	_____	_____
Turkey (24 lb. / 11 kg)	2 1/2-3 hours	300 (149)	_____	_____
Oven Browned Chicken Parts	40-45 min.	350 (177)	_____	_____
Fish Fillets (4 oz. [.1 kg] frozen)	20-25 min.	475 (246)	_____	_____
Fish Sticks (1 oz. [28 gr.] frozen)	10 min.	400 (204)	_____	_____
BAKED PRODUCTS				
Sheet Cakes (18" x 26"/46 x 66 cm)	20 min.	325 (163)	_____	_____
Bar Cookies	15-20 min.	325 (163)	_____	_____
Drop Cookies	8-12 min.	350 (177)	_____	_____
Pie Crust	8-10 min.	400 (204)	_____	_____
Fruit Pies	30 min.	375 (190)	_____	_____
Custard-type Pies	30-45 min.	300-325 (149-163)	_____	_____
Meringue, topping for pies	8-10 min.	325 (163)	_____	_____
Fruit Cobbler	30-45 min.	350 (177)	_____	_____
Cornbread	20 min.	350 (177)	_____	_____
Biscuits	8-10 min.	375-400 (190-204)	_____	_____
Muffins	12-15 min.	300 (149)	_____	_____
Yeast Rolls	10-15 min.	300-325 (149-163)	_____	_____
Danish Rolls	10 min.	350 (177)	_____	_____
Sweet Rolls	10-15 min.	300 (149)	_____	_____
Hamburger Buns	20 min.	325 (163)	_____	_____
Yeast Bread	20-30 min.	325 (163)	_____	_____
MISCELLANEOUS PRODUCTS				
Baked Potatoes (200, 6-8 oz. [.2kg])	45-60 min.	450 (232)	_____	_____
Toasted Cheese Sandwiches	8-10 min.	350 (177)	_____	_____
Toasty Dog Sandwiches	12 min.	350 (177)	_____	_____
Casseroles (12 x 20 x 2" / [39 x 51 x 5 cm] pan)	20 min.	350 (177)	_____	_____
Casseroles (12 x 20 x 4" / [30 x 51 x 10 cm] pan)	30 min.	275 (135)	_____	_____
Rice, covered (3 lb. [1.4kg] per 12x20x2" / [30 x 51 x 5 cm] pan)	30 min.	325 (163)	_____	_____
FROZEN FOOD PRODUCTS				
Fruit Pies	30 min.	400 (204)	_____	_____
Pot Pies, individual	20-30 min.	400 (204)	_____	_____
Casseroles, covered (12 x 20 x 2" / [30 x 51 x 5 cm] pan)	45 min.	400 (204)	_____	_____
Casseroles, refrigerator thawed (12 x 20 x 2" / [30 x 51 x 5 cm] pan)	30 min.	450 (232)	_____	_____
Dinners, individual, covered	10-15 min.	350 (177)	_____	_____
Vegetables, covered (5 lb. [2kg] per 12 x 20 x 2" / [30 x 51 x 5 cm] pan)	20-30 min.	400 (204)	_____	_____

A GUIDE FOR COOKING TIME AND TEMPERATURES

Baking Times at Preheated Oven Temperatures

PRODUCT	TEMPERATURE Standard Oven		TEMPERATURE Convection Oven		TIME Roasting Period
	°F	(°C)	°F	(°C)	Total Minutes
MEAT					
Braised Meats	350	(177)	325	(163)	20-22
Meat in Casserole	330	(166)	300	(149)	20-22
Meat Pie with Crust (meat previously cooked)	450	(232)	425	(218)	30-35
	Oven Temp.		Oven Temp.	Internal Temp.	Min. per lb. beef
Rare	300	(149)	275	(135)	140 (60)
Medium	300	(149)	275	(135)	160 (71)
Well Done	300	(149)	275	(135)	170 (77)
Pork					
Fresh (always well done)	350	(177)	325	(163)	185 (85)
Smoked	300	(149)	275	(135)	170 (77)
Lamb and Mutton					
Medium	300	(149)	275	(135)	175 (79)
Well Done	300	(149)	275	(135)	180 (82)
Veal					
	325	(163)	300	(149)	170 (77)
Poultry					
Chicken	325-350	(163-177)	300-325	(149-163)	22-30 (covered)
Duck, Goose	325-350	(163-177)	300-325	(149-163)	20-25 (covered)
Turkey	325-350	(163-177)	300-325	(149-163)	15-25 (covered)
Fish					
Small or Fillets	350-375	(177-190)	325-350	(163-177)	15-25 (covered)
Large	350	(177)	325	(163)	20-25
Lobster, Stuffed	350	(177)	325	(163)	15-20
VEGETABLES					
Beans with Pork	250-350	(121-177)	225-325	(107-163)	30-35
Eggplant, Stuffed	325	(163)	300	(149)	6-8 hours
Mushrooms	400-450	(204-232)	375-425	(190-218)	60
Onions, Whole (Stuffed)	400-450	(204-232)	375-425	(190-218)	15
Onions, Sliced	400-450	(204-232)	375-425	(190-218)	60
Peppers, Stuffed	350-375	(177-190)	325-350	(163-177)	30
Potatoes, White, in Skins, Large	425	(218)	400	(204)	30
Small to Medium	425	(218)	400	(204)	30-45
Scalloped	350-400	(177-204)	325-375	(163-190)	60-90
Sweet Potatoes, in Skins	350	(177)	325	(163)	30-40
Squash	325	(163)	300	(149)	30-40
BREADS					
Baking Powder Biscuits	450	(232)	400	(204)	12-15
Cornbread	425	(218)	400	(204)	20-30
Muffins	400-425	(204-218)	375-400	(190-204)	20-25
Nut and Fruit Breads	350-375	(177-190)	325-350	(163-177)	60-75
Yeast Bread - Loaf	375-400	(190-204)	350-375	(177-190)	45-60
Yeast Coffee Cake	350-375	(177-190)	325-350	(163-177)	25-30
Yeast Rolls - Plain	400-425	(204-218)	375-400	(190-204)	15-25
Yeast Rolls - Sweet	375	(190)	350	(177)	20-25
COOKIES					
Drop	325-400	(163-204)	300-375	(149-190)	8-15
Rolled	375	(190)	350	(177)	8-10
Bar	350-400	(177-204)	325-375	(163-190)	20-40
Refrigerator	400	(204)	375	(190)	8-10
CAKES					
Angel and Sponge Shortening Type	350-375	(177-190)	325-350	(163-177)	30-45
Cup Cakes	350-375	(177-190)	325-350	(163-177)	15-25
Layer Cakes	350-375	(177-190)	325-350	(163-177)	20-35
Loaf Cakes	350	(177)	325	(163)	45-60
PIES					
Pastry Shell	450	(232)	425	(218)	10-12
Double Crust - Berry or Fruit	425	(218)	400	(204)	30-45
Frozen - Berry or Fruit (50 oz./1.4kg)	400	(204)	375	(190)	60-75
Custard or Pumpkin	400-425	(204-218)	375-400	(190-204)	30-45

CLEANING

WARNING: DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING.

Open Top Burners

Daily

Remove grates and clean under and around open burners.

Weekly

1. Clean each burner thoroughly. Clean stainless steel or chromed surfaces with a damp cloth and polish with a soft dry cloth. A detergent may be used for cleaning. To remove discolorations, use a non-abrasive cleaner, always rubbing with the grain of the metal.
2. Clean bottom drip pan. To remove drip pan, reach under and lift rear of pan about 1" (2.5 cm), slide pan to the rear about 1/2" (1.3 cm), and drop front end of pan free. Slide pan forward between the front legs. To replace pan, reverse this procedure.
3. Burner air shutter openings must be kept clean.
4. Main burner ports and throats must be thoroughly cleaned. Venturi must be free from grease and lint. To clean burners, boil them in a strong solution of lye water for 15-20 minutes, then brush with a wire brush. **DO NOT** insert pick in burner port hole.
5. Open burner pilot flash tubes and burner ignition port must be clear for burners to ignite properly from the pilot.

Griddle Top

Empty grease daily. Clean griddle top regularly.

KEEP GRIDDLE PLATE SURFACE CLEAN. To produce evenly cooked, browned products, keep griddle free of carbonized grease. Carbonized grease on the surface hinders the transfer of heat from the griddle surface to food. This results in spotty browning and loss of cooking efficiency, and carbonized grease tends to stick to the griddled foods, giving them a highly unsatisfactory and unappetizing appearance.

To keep the griddle clean, follow these simple instructions:

After Each Use

Clean griddle with a wire brush or flexible spatula.

Daily

1. Thoroughly clean backsplash, sides and front. Remove grease drawer, empty it and wash it out in the same manner as any ordinary cooking utensil.
2. Clean griddle surface thoroughly. Use a griddle stone, wire brush or stainless steel wool on the surface. Rub with the grain of the metal while the griddle is still warm. A detergent may be used on the plate surface to help clean it, but you must ensure the detergent is thoroughly removed.
3. Clean stainless surfaces with a damp cloth and polish with a soft dry cloth. To remove discolorations, use a non-abrasive cleaner.

Exterior

Daily

Clean exterior finish with a mild solution of soap or grease-dissolving cleaner.

Range Tops

Daily

1. Wipe top while still warm with a soft cloth.
2. Clean drip pan under burners.

Weekly

Boil open top grates and burners in a solution of washing soda and water.

Range Ovens

Daily

Clean oven and door daily.

Do not use scouring powder on finishes. Scouring powder is extremely difficult to remove completely. It can build up accumulations that will damage the oven or remove corrosion resistant finishes.

STAINLESS STEEL

Here are a few simple cleaning procedures that have been found effective for keeping stainless steel equipment clean, sparkling and bright.

General Cleaning

Use ordinary soap or detergent and water for routine cleaning of stainless steel. To prevent water spots and streaks, rinse thoroughly with warm water and wipe dry with a soft clean cloth. The addition of a rinsing agent will also help prevent spotting.

Fingerprints

Fingerprints are sometimes a problem on highly polished surfaces of stainless steel. They can be minimized by applying a cleaner that will leave a thin oily or waxy film.

To use these cleaners, simply wipe on and remove excess with a soft dry cloth. After using, subsequent fingerprints will usually disappear when wiped lightly with a soft cloth or with a cloth containing a little of the cleaner. If the surface is especially dirty to start, wash first with soap or detergent and water.

Burned-On Foods and Grease

Soaking with hot soapy water will help greatly to remove burned-on foods and grease.

Heat Tint

Straw-colored or slightly darkened areas may appear on stainless steel in and around ovens and ranges where temperatures reach 500°F (260°C) or more. This "heat tint" is caused by a slight oxidation of the stainless steel and is not harmful.

To control or minimize this condition, never use more heat than is absolutely necessary.

Commercial heat tint remover products may be used.

Precautions

When scraping off heavy deposits of grease or oil from stainless steel equipment, never use ordinary steel scrapers. Particles of ordinary steel may become embedded in, or lodge on, the surface of the stainless steel. These will rust, causing unsightly stains and possible contamination of food. Where it is necessary to scrape, use stainless steel, wood, plastic or rubber tools.

MAINTENANCE

WARNING: DISCONNECT ELECTRICAL POWER SUPPLY BEFORE PERFORMING ANY MAINTENANCE OPERATIONS.

PILOT LIGHTS

Pilot lights are to be adjusted at the proper flame height.

LUBRICATION

All moving parts must be checked for wear and lubricated. Contact your local Vulcan authorized servicer.

All valves and controls should be lubricated by your local Vulcan authorized servicer, using a high-temperature grease.

Motors in Vulcan convection ovens are permanently lubricated and require no additional maintenance.

FLUE

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

SERVICE FREQUENCY

Frequency of service maintenance will be largely dependent on customer usage. Recommended service frequency is as follows:

- | | |
|---|----------------------|
| 1. 10-12 hours operation per day, 7 days a week | Every 30-60 days |
| 2. 4-6 hours a day, 5 days a week | Every 120 days |
| 3. Limited daily usage | Every 180 days |
| 4. All equipment | At least once a year |

SERVICE AND PARTS INFORMATION

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

TROUBLESHOOTING

OVEN

PROBLEM	PROBABLE CAUSES
Too Much Bottom Heat. Uneven Bake Side Burning	Insufficient heat input. Overactive flue. Too low temperature. Improper operation. Improper bypass setting. Fluctuating gas pressure.
Too Much Top Heat	Too high temperature. Faulty ventilation. Excessive heat input. Thermostat needs calibration.
Uneven Bake - Side to Side	Range not level side to side. Oven burner, bottom or baffles improperly installed.
Pulling to Edge of Pan	Warped pans. Oven not level.
Uneven Bake - Front to Rear	Overactive flue. Range not level front to back. Door not closing properly.
Dried Out Products	Too low temperature. Too long baking time. Thermostat calibration.
Pilot Outage	Gas supply not sufficient. Pilot flame too low. Restriction in pilot orifice. Problem with check valve. CONVECTION OVEN MODELS ONLY: Cavity leaking. Gasket problems. Snorkel tube blocked. Blower running backwards.
Excessive Meat Shrinkage	Roasting temperature too high.

TOP BURNER OPERATION

PROBLEM	PROBABLE CAUSES
Improper Burner Combustion Excessive Valve Handle Temperatures Sticking Top Burner Valves	Improper ventilation. Poor door fit. Oven door left open.
Poor Ignition	Insufficient gas input. Poor air-to-gas adjustment. Restriction in pilot orifice. Restriction in main burner ignition port. Restriction in control valve. Restriction in gas orifice.