

Gas Conversion Procedures

VCS3008, VCS4008, VCS5008 Series Models

CAUTION: ANY GAS CONVERSIONS MUST ONLY BE PERFORMED BY QUALIFIED PERSONNEL

These instructions cover all 2008 models for conversion to either gas. Ensure the valves and orifices you are installing match the specifications in Table 1 for the gas you are converting to.

Adjust the air shutters of the burners according to Table 2.

IMPORTANT: DISCONNECT GAS SUPPLY BEFORE CONVERTING ANY GRILL

1. Open grill lid, remove the cooking grates and sear plates from the grill.
2. Open side burner lid, detach valve control knob from the valve stem.
3. Remove two (2) screws mounting side burner valve to side burner base (support valve/hose assembly from damage or causing damage to any part of the grill).
4. Detach valve bracket from side burner valve by removing two (2) screws.
5. From under the side burner, disconnect igniter wire from the side burner electrode.
6. Detach left shelf assembly from the grill (models with rotisserie burner require detaching rotisserie motor bracket).
7. Detach right shelf assembly from the grill.
8. Detach all knobs from console.
9. Remove all screws (2 screws/valve) connecting bezels and valves to the console (do not detach bezels from harness).
10. Remove all screws connecting console to the grill. The console can now be tilted upwards and detached from grill to access the valve assembly (take care not to damage the harness).
11. Detach hose clamp located at right door hinge (for 4008 series detach hose bracket located at right side door brace).
12. For models with rotisserie burners, loosen the compression nut of the rotisserie burner supply tube (to the top valve), and disconnect the tube by pulling it straight out from the valve.
13. Carefully disengage valve/manifold assembly from main burners and remove valve/manifold assembly with attached gas line/side burner valve from the grill (side burner valve needs to be moved through right side panel provided opening).
14. Engage the new valve/manifold assembly to main burners and feed the supplied hose with side burner valve through the right side panel provided opening. For models with the rotisserie burners, reattach the rotisserie burner feed tube to the top valve.
15. Install previously removed hose clamp on gas line and secure gas line to the grill cabinet by reattaching hose clamp to original location (for 4008 series reattach hose bracket located at right side door brace).
16. Reattach the console (with harness and all bezels) to the grill. Make sure the harness is not pinched in any place and the valve assembly is properly engaged into main burners. Loosely attach all valves to the console using the bottom screws first, and then loosely attach all bezels to the valves with top screws. Reinstall all mounting screws to secure console to grill. Now tighten all screws previously attached to all valves.
17. Ensure the burner venturi ends fit over the ends (gas tips) of the main valves.
18. For models with rotisserie burner, replace orifice cap for the rotisserie burner as follows:
Remove all upper panel mounting screws. Remove upper back panel. Remove "hair pin" connecting orifice with rotisserie burner venturi. Disengage orifice from rotisserie burner venturi. Remove and replace orifice cap, reinstall orifice to rotisserie burner venturi. Reinstall "hair pin" connecting orifice with rotisserie burner venturi. Reinstall rear panel and secure it with screws.
19. Reattach all knobs. Place the long stem knobs in the center raised portion of the console.
20. Reattach left shelf assembly to the grill (for models with rotisserie burner, reattach rotisserie motor bracket).
21. Reattach right shelf assembly to the grill.
22. Attach new side burner valve to valve bracket with two (2) screws.
23. From under the side burner assembly, position and align valve/bracket assembly to side burner venturi and reattach valve/ bracket assembly to side burner base, ensuring the gas tip of the valve extends into the burner venturi. Reattach valve control knob to the valve stem.
24. From under the side burner, reconnect igniter wire to side burner electrode.
25. When converting to LP, it is necessary to remove the cover plate in the bottom panel (by removing four (4) screws) to allow the LP cylinder to be positioned properly. Apply Caution Label to the right door-below label lighting instructions. Attach the cylinder retainer bracket to the inside of the back panel (by snapping-in retainer bracket into provided "lance and form")

openings. (If Pull out Tank Kit is purchased (part # 50004650), install it according to the assembly procedure supplied within the kit). Follow Assembly Procedures for LP tank installation.

26. When converting to NG (NATURAL GAS PRES-SURE® 7 IN. WC), it is necessary to install provided bushing into back panel opening and run natural gas hose through it. Cover for cylinder opening with hardware is provided if customer requires covering this opening. (For some models removal of Pull out Tank assembly is necessary to cover cylinder opening).

27. Replace the cooking grates and sear plates to the grill.

28. **Apply new gas type sticker at the left- bottom corner, beside rating decal at the rear of the grill. Do not apply over any existing label.**

29. **Leak Check:** Attach the new hose or regulator to the appropriate gas supply. Confirm all burner control knobs are OFF. Open the gas (cylinder) supply valve. Apply a 50/50 mix of liquid soap with a brush or spray bottle to all connection points. Never use a match or flame. Look for any bubbles to appear, as these indicate a gas leak. Turn off the gas immediately, and tighten the connection, if a leak appears. Repeat this step until no leaks appear, before lighting the grill.

30. Finally, fire test all burners with the new gas. Small adjustments to the air shutters may be required for proper lighting, and flame characteristics

Table 1							
Valve/Orifice Type	Grill Model	Natural			Propane		
		Part #	Color	ID#	Part#	Color	ID#
Main Manifold/Valve 37,500 BTU	VCS3008 Series	50004136	Gold Cap	#53 (0.0595)	50004134	Black Cap	#60 (0.040)
Main Manifold/Valve 50,000 BTU	VCS4008 Series	50004140	Gold Cap	#53 (0.0595)	50004139	Black Cap	#60 (0.040)
Main Manifold/Valve 62,500 BTU	VCS5008 Series	50004142	Gold Cap	#53 (0.0595)	50004141	Black Cap	#60 (0.040)
Side Burner 15,000 BTU	All VCS Models	50001045	Gold Cap	#52 (0.0635)	50001046	Black Cap	#57 (0.0430)
Rotisserie Orifice 15,000 BTU	VCS4008 Series	50000408	Red Stripe	#51 (0.0670)	50000457	n/a	1.15 mm (0.0453)
Rotisserie Orifice 20,000 BTU	VCS5008 Series	50004917	Red Stripe	#46 (0.0810)	50000714	n/a	1.30 mm (0.0512)

Table 2	
Air Shutter Opening Chart - Conversion Kit	
Burner	Air Shutter Opening
Main Burner	3/16" (4.75 mm)
Rotisserie Burner	25/64" (10 mm)
Side Burner	9/16" (14 mm)

Refer to User's Manual (CFM #50004581) for additional safety instructions after conversion. Always keep this instruction with the User's Manual for future reference.

Kit Specification Chart

Kit #	Model	Input BTU's	Specification
50004689 LP to NG	VCS5008 Series	Main Burner 62,500	1 x Valve/Manifold Assembly NG (Part #50004142)
			1 x Connector Hose (Part #50000920)
			1 x Natural Gas Hose 12' Long (Part #50002384)
			1 x Valve Side Burner NG (Part #50001045)
			1 x Orifice Cap #46-Rotisserie (Part #50004917)
		Accessories 35,000	1 x Cover Plate (Part #50004260)
			4 x Screw (Part #50004268)
			1 x Snap Bushing (Part #50002490)
			1 x Instruction Conversion Kit (Part #50004918)
			2 x Label Conversion Kit to NG (Part #50004983)
50004690 NG to LP	VCS5008 Series	Main Burner 62,500	1 x User Manual VCS Series (Part #50004581)
			1 x Valve/Manifold Assembly LP (Part #50004141)
			1 x Hose Regulator (Part #50003815)
			1 x Valve Side Burner LP (Part #50001046)
			1 x Orifice Cap # 1.30 mm-Rotisserie (Part #50000714)
		Accessories 35,000	1 x Cylinder Retainer (Part #50002888)
			1 x Instruction Conversion Kit (Part #50004918)
			2 x Label Caution - LP Cylinder (Part #50000159)
			1 x Label Conversion Kit to LP (Part #50004984)
			1 x User Manual VCS Series (Part #50004581)
50004691	VCS4008	Main Burner 50,000	1 x Valve/Manifold Assembly (Part #50004140)
			1 x Connector Hose (Part #50000920)
			1 x Natural Gas Hose 12' Long (Part #50002384)
			1 x Bracket Support Hose (Part # 50004276)
			1 x Valve Side Burner NG (Part #50001045)
		Accessories 30,000	1 x Orifice Cap # 51-Rotisserie (Part #50000408)
			1 x Cover Plate (Part #50004260)
			4 x Screw (Part #50004268)
			1 x Snap Bushing (Part #50002490)
			1 x Instruction Conversion Kit (Part #50004918)
50004692 NG to LP	VCS4008 Series	Main Burner 50,000	1 x Label Conversion Kit to NG (Part #50004983)
			1 x User Manual VCS Series (Part #50004581)
			1 x Valve/Manifold Assembly (Part #50004139)
			1 x Hose Regulator (Part #50003815)
			1 x Valve Side Burner LP (Part #50001046)
		Accessories 30,000	1 x Orifice Cap # 1.15 mm - Rotisserie (Part #50000457)
			1 x Cylinder Retainer (Part #50002888)
			1 x Instruction Conversion Kit (Part #50004918)
			1 x Label Caution - LP Cylinder (Part #50000159)
			1 x Label Conversion Kit to LP (Part #50004984)
50004692 NG to LP	VCS4008 Series	Main Burner 50,000	1 x User Manual VCS Series (Part #50004581)
			1 x Valve/Manifold Assembly (Part #50004139)
			1 x Hose Regulator (Part #50003815)
			1 x Valve Side Burner LP (Part #50001046)
			1 x Orifice Cap # 1.15 mm - Rotisserie (Part #50000457)
		Accessories 30,000	1 x Cylinder Retainer (Part #50002888)
			1 x Instruction Conversion Kit (Part #50004918)
			1 x Label Caution - LP Cylinder (Part #50000159)
			1 x Label Conversion Kit to LP (Part #50004984)
			1 x User Manual VCS Series (Part #50004581)

Kit Specification Chart

Kit #	Model	Input BTU's	Specification
50004693 LP to NG	VCS3008 Series	Main Burner 37,500	1 x Valve/Manifold Assembly (Part #50004136)
			1 x Connector Hose (Part #50000920)
			1 x Natural Gas Hose 12' Long (Part #50002384)
			1 x Valve Side Burner NG (Part #50001045)
			1 x Cover Plate (Part #50004260)
			4 x Screw (Part #50004268)
		Accessories 15,000	1 x Snap Bushing (Part #50002490)
			1 x Instruction Conversion Kit (Part #50004918)
			1 x Label Conversion Kit to NG (Part #50004983)
			1 x User Manual VCS Series (Part #50004581)
			1 x Valve/Manifold Assembly LP (Part #50004134)
50004694 NG to LP	VCS3008 Series	Main Burner 37,500	1 x Hose Regulator (Part #50003815)
			1 x Valve Side Burner LP (Part #50001046)
			1 x Cylinder Retainer (Part #50002888)
			1 x Instruction Conversion Kit (Part #50004918)
		Accessories 15,000	1 x Label Caution - LP Cylinder (Part #50000159)
			1 x Label Conversion Kit to LP (Part #50004984)
			1 x User Manual VCS Series (Part #50004581)



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