



Series 2
Gas-Fired Water Boilers

Manual Addendum — Venting

This Addendum needs to be used in conjunction with the GV90+ Series 2 Boiler Manual P/N 550-142-903_1016.

ATTENTION to installers and homeowners of GV90+ boilers.

KEEP THIS ADDENDUM WITH BOILER MANUAL

Polypropylene Vent Systems Approval



This addendum must only be used by a qualified heating installer/service technician. Read all instructions, including the GV90+ Series 2 boiler manual and all other information shipped with the boiler, before installing. Perform steps in the order given. Failure to comply could result in severe personal injury, death or substantial property damage.



Venting & air piping — general

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⚠ DANGER

GV90+ Boilers must be vented and supplied with combustion and ventilation air using piping and methods described in this manual.

Every boiler must have its own vent. DO NOT common vent with any other appliance. See page 16.

Inspect finished vent and air piping thoroughly to ensure all are airtight and comply with the instructions provided and with all requirements of applicable codes.

Failure to provide a properly-installed vent and air system will cause severe personal injury or death.

⚠ WARNING

Venting/combustion air piping - Installations must provide provisions for combustion and ventilation air in accordance with the section "Air for Combustion and Ventilation," of the National Fuel Gas Code - ANSI Z223.1/NFPA54 – latest edition, or Sections 8.2, 8.3, or 8.4 of Natural Gas and Propane Installation Code - CAN/CSA B149.1, or applicable provisions of the local building codes.

⚠ WARNING

Use only the materials listed in this manual for vent and air pipe and fittings. Failure to comply could result in severe personal injury, death or substantial property damage.

⚠ WARNING

If used, a masonry chimney can **ONLY** be used as a PIPE CHASE for vent and air pipes — The vent and air piping must be installed as instructed in this manual and all joints must be sealed. The chimney must be used only for GV90+ boilers. **NO OTHER** appliance or fireplace can be connected to the chimney.

The chimney must be straight, with no offsets, and the vent and air piping materials must comply with this instruction manual.

The chimney must be fitted with a sealed access opening, through which the interior of the chimney can be inspected.

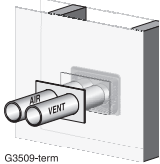
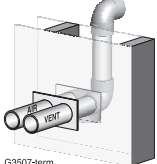
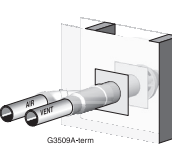
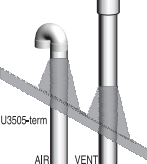
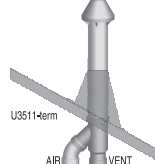
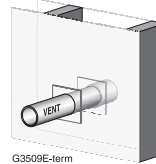
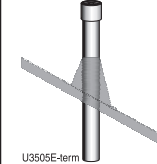
The chimney and liner must be inspected at least once annually to verify condition.

Failure to comply could result in severe personal injury, death or substantial property damage.

Venting & air — general *(cont.)*

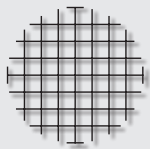
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Figure 39 GV90+ Vent and air piping materials — OPTIONS and PIPING LIMITS

Maximum vent and air pipe lengths (Minimum length for all applications is 2 feet) <i>(All applications include allowance for the termination fittings)</i>							
GV90+ Model	DIRECT VENT (combustion air piped to boiler from outside)					DIRECT EXHAUST (combustion air from inside)	
	SIDEWALL termination			VERTICAL termination		SIDEWALL termination	VERTICAL termination
	Weil-McLain vent/air cap	3" Separate pipes	3" Concentric [Note 1]	3" Separate pipes	3" Concentric [Note 1]	3" Coupling or W-M Cap	3" Coupling
							
	See page 37	See page 39	See page 41	See page 43	See page 45	See page 51	See page 53
	Max. Length (feet)	Max. Length (feet)	Max. Length (feet)	Max. Length (feet)	Max. Length (feet)	Max. Length (feet)	Max. Length (feet)
-3	100	100	100	100	100	100	100
-4	100	100	100	100	100	100	100
-5	100	100	100	100	100	100	100
-6	100	100	100	100	100	100	100
Equivalent feet for elbows — deduct from maximum equivalent length of piping (does not apply to termination fittings) PVC • 7 feet per for each 3-inch 90° long-radius or 45° elbow • 16 feet for each 3-inch short-radius elbow Centrotherm 3" = 6' 4" = 20' Duravent 3" = 17' 4" = 22'							
Note 1:	Use only PVC or Polypropylene pipe DO NOT use CPVC or ABS with concentric termination kits. IPEX 3" PVC concentric vent kits can be used with standard PVC pipe, fittings and cement (ANSI/ASTM D1785) except where ULC S636 compliance is required. For ULC S636 compliance, all pipe, fittings and cement must be IPEX System 636. When using IPEX kits, use only IPEX product code 196006 for 3" venting. Contact Weil-McLain for ordering information and availability of Weil-McLain venting kits.						
	Polypropylene - Separate pipe and concentric termination by respective manufacturers.						

Venting & air piping— options

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Figure 40 Vent and air piping materials — Use only the materials listed below, ensuring that all materials meet local codes

Item	Material	Standards for installations in:	
		United States	Canada
Plastic piping materials			
Vent or air pipe & fittings	PVC schedule 40	ANSI/ASTM D1785	Plastic vent pipe must be certified to ULC S636 when required. (Note 2) Air pipe can be any of those listed at left if acceptable for local codes.
	PVC-DWV (Note 1)	ANSI/ASTM D2665	
	CPVC schedule 40 (Note 1)	ANSI/ASTM F441	
	ABS-DWV schedule 40 (Note 1)	ANSI/ASTM D2661	
PVC & ABS pipe cement & primer	PVC	ANSI/ASTM D2564 & F656	
	CPVC (Note 1)	ANSI/ASTM F493	
	ABS (Note 1)	ANSI/ASTM D2235	
Polypropylene vent pipe, fittings, terminations and cement	Simpson-Duravent — Obtain all materials from M&G Simpson-Duravent (3" Appliance adapter part #3PPS-03PVC-M-3PPF) Centrotherm Eco Systems InnoFlue® Single-wall — Obtain all materials from Centrotherm (3" Appliance adapter part #ISAAL0303)	See manufacturer's literature for detailed information MUST USE LOCKING COLLAR ON EVERY JOINT	ULC S636
AL29-4C piping materials			
Vent pipe AL29-4C stainless steel	Heat Fab, Inc. — Saf-T-Vent® Z-Flex, Inc. — Z-Vent II Dura-Vent — FasNSeal™ Metal-Fab, Inc. — CORR/GUARD	Certified for Category IV and direct vent appliance venting	—
Weil-McLain bird screens (purchase separately)			
Weil-McLain bird screens	3" vent screen: W-M part number 383-500-105		
Note 1: DO NOT use DWV, CPVC or ABS when using concentric vent termination. Use ONLY PVC schedule 40.			
Note 2: IPEX PVC concentric terminations utilize PVC pipe/fittings certified to ULC S636. Where ULC S636 compliance is required, use only IPEX System 636 pipe, fittings and cement.			
<div><div>⚠</div><div>AL29-4C vent piping — Install a PVC-to-stainless adapter supplied by the vent pipe manufacturer at the boiler vent connection and at the termination (when using Weil-McLain plate or concentric PVC termination). DO NOT mix piping from different vent pipe manufacturers unless using adapters specifically designed for the purpose by the manufacturer.</div></div>			
<div><div>⚠</div><div>Plastic piping — Do not attempt to connect different types of plastic piping together.</div></div>			
<div><div>⚠</div><div>DO NOT use cellular core pipe.</div></div>			
<div><div></div><div><div><div>⚠</div><div>ALL vent and air pipes require a BIRD SCREEN at each termination. Most kits do not include the bird screens. Purchase bird screens separately from Weil-McLain or vent kit supplier if not included.</div></div></div></div>			