

Combination Gas Controls

VR8245; VR8345 Low Voltage Universal Electronic Ignition Combination Gas Control



Universal electronic ignition combination gas control for use with direct spark ignition, hot surface ignition or intermittent pilot ignition in 24 Vac, gas-fired appliances, with capacities from 20 to 200 cfh (VR8245M) or 30 to 415 cfh (VR8345M).

- Control includes manual valve, two automatic operators, pressure regulator, pilot adjustment, pilot plug and ignition adapter.
- Replaces virtually any IP, HSI, or DSI gas control.
- For use with natural or manufactured gas or LP gas.
- Includes converter kit to adapt from natural to LP gas.
- Compact size.
- All adjustments and wiring connections accessible from top of control.
- Four-inch swing radius allows easy rotation into position inside the tightest furnace vestibules.
- Clearly marked, keyed terminal block allows quick attachment of wires and IP/DSI/HSI jumper.
- Internal inlet screen blocks contaminants in gas line from entering valve.

Body Pattern: Straight-through

Capacity:

1/2 x 1/2 inlet x outlet: 240,000 BTU/hr 1 in. PD;
30,000 BTU/hr minimum; 340,000 BTU/hr maximum
3/4 x 3/4 inlet x outlet: 300,000 BTU/hr 1 in. PD;
30,000 BTU/hr minimum; 415,000 BTU/hr maximum

Ignition Type: Direct Ignition; Intermittent Pilot

Pressure Ratings: 1/2 psi (3.5 kPa)

Pressure Tapping: 1/8 in. NPT with plug

Ambient Temperature Range: -40 F to +175 F (-40 C to +79 C)

Electrical Ratings: 24 Vac

Frequency: 50 Hz; 60 Hz

Electrical Connections: 1/4 in. quick-connect male terminals

Mounting: 0 to 90 degrees in any direction from the upright position of the gas control knob, including vertically.

Approvals

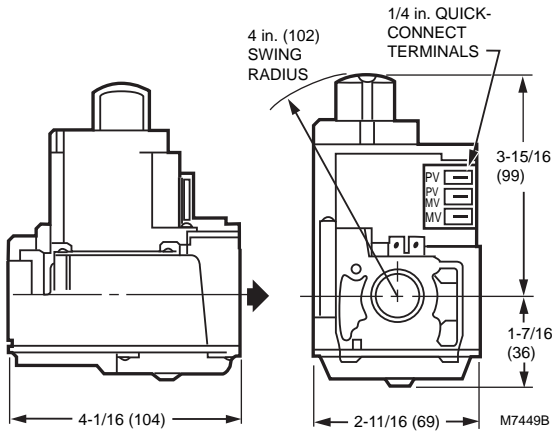
CSA International: 112395

Underwriters Laboratories, Inc: Component Recognized
MCCZ2.MH5323

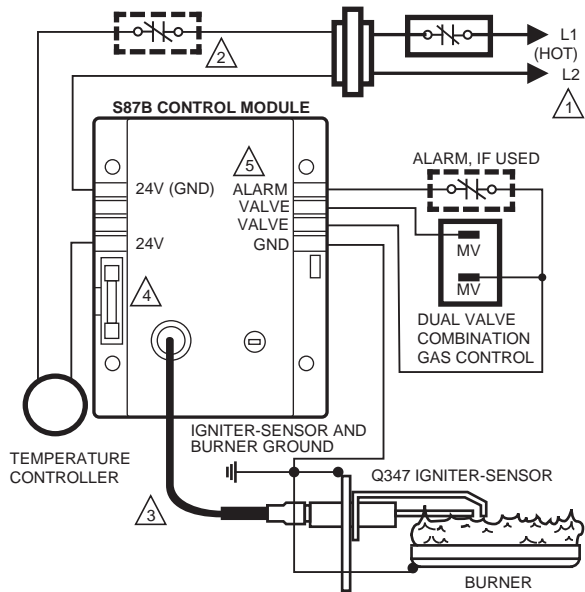
	Product Number	Type	Type of Gas	Opening Characteristics (standard, step)	Inlet/Outlet Size (in.)	Pressure Regulator Setting		Includes
						(psi)	(kPa)	
U	VR8245M2530/U	Single Stage	Natural or LP	Standard	1/2 in. x 1/2 in.	3.5 in. wc	0.9 kPa	Natural to LP Conversion Kit; One 1/2 x 3/8 in. reducer bushing
U	VR8345K4809/U	Single Stage	Natural or LP	Slow Opening	3/4 in. x 3/4 in.	3.5 in. wc	0.87 kPa	Natural to LP Conversion Kit; Two 3/4 x 1/2 in. reducer bushings
U	VR8345M4302/U	Single Stage	Natural	Standard	3/4 in. x 3/4 in.	3.5 in. wc	0.87 kPa	Natural to LP Conversion Kit; Two 3/4 x 1/2 in. reducer bushings
U	VR8345Q4563/U	Two Stage	Natural	Standard	3/4 in. x 3/4 in.	1.7 in. wc low; 3.5 in. wc high	0.48 kPa low; 0.87 kPa high	Natural to LP Conversion Kit; Two 3/4 x 1/2 in. reducer bushings
U Universal Service Part								

Combination Gas Controls

Dimensions in inches (millimeters)



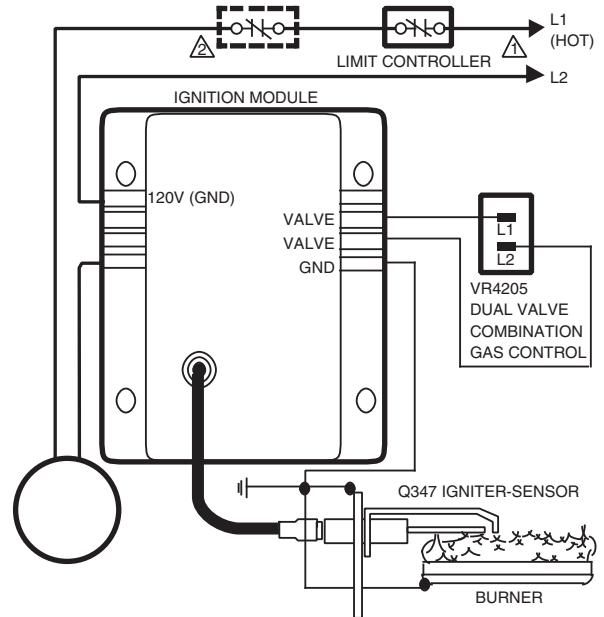
Wiring Connections in S87 Direct Ignition System for 24 volt control.



- ⚠️ 1 POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
- ⚠️ 2 ALTERNATE LIMIT CONTROLLER LOCATION.
- ⚠️ 3 MAXIMUM IGNITER-SENSOR CABLE LENGTH: 3 ft. (0.9 m) OR LESS.
- ⚠️ 4 3A REPLACEABLE FUSE.
- ⚠️ 5 ALARM TERMINAL PROVIDED ON SOME MODELS.

M9043A

Wiring Connections in S87 Direct Ignition System for 120 volt control.



- ⚠️ 1 POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
- ⚠️ 2 ALTERNATE LIMIT CONTROLLER LOCATION.

M3090A

Gas Valve Selection Guide

Gas Valve Selection Guide

Trade Replacements (Double-Check Specifications Before Replacement)		Specifications				Accessories (Includes)					
Universal Service Part	Direct Service Part Replacement	Opening Characteristics (standard, step,)	Inlet / Outlet Size (in.)	Pressure Regulator Setting (in. wc)	Temperature Range	Q340 Thermocouple	3/4 in. x 1/2 in. Reducer Bushing	Natural to LP Conversion Kit	3/4 in. Straight Flange	1/2 in. x 3/8 in. Reducer Bushing	Remote Rod Adapter Knob
VR8300A4516/U	VR8300A4508	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	Two	One	None	None	None
	VR8300A3500	Standard	1/2 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	One	One	None	None	None
	VR8300A4516	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	One	Two	One	None	None	None
VR8200A2744/U	VR8200A2124	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	One	None	One	One	One	None
	VR8200A2132	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	One	One	None
	VR8200A2744	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	One + One Elbow	One	None
VR8345M4302/U	VR8304M3509	Standard	1/2 x 3/4	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	One	One	None	None	None
	VR8304M4507	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	Two	One	None	None	None
	VR8305M3506	Standard	1/2 x 3/4	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	One	One	One	None	None
	VR8345M4302	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	Two	One	None	None	None
VR8245M2530/U	VR8204A2076	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	One	One	None
	VR8204M1091	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	None	One	One	One	None
	VR8205A2024	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	One	One	None
	VR8245M2530	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	None	One	None	One	None
VR8345K4809/U	VR8205H1003	Slow	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	None	None	None	None
	VR8304H4503	Slow	3/4 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	None	None	None
	VR8345K4809	Slow	3/4 x 3/4	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	Two	One	None	None	None
VR8345Q4563/U	VR8205Q2555	2-Stage	1/2 x 1/2	1.7 in. wc Low Fire; 3.5 in. wc High Fire	-40 to 175 F (-40 to 79 C)	None	None	One	None	One	None
	VR8304Q4511	2-Stage	3/4 x 3/4	1.7 in. wc Low Fire; 3.5 in. wc High Fire	-40 to 175 F (-40 to 79 C)	None	Two	One	None	None	None
	VR8305Q4500	2-Stage	3/4 x 3/4	1.7 in. wc Low Fire; 3.5 in. wc High Fire	-40 to 175 F (-40 to 79 C)	None	One	One	None	None	None
	VR8345Q4563	2-Stage	3/4 x 3/4	1.7 in. wc Low Fire; 3.5 in. wc High Fire	-40 to 175 F (-40 to 79 C)	None	Two	One	None	None	None
VS820M1309/U	VS820A1054	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	32 to 175 F (0 to 79 C)	None	Two	None	None	One	None
	VS820A1336	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	32 to 175 F (0 to 79 C)	None	Two	None	None	One	None
	VS820M1309	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	-40 to 175 F (-40 to 79 C)	None	Two	One	None	One	Yes
VR8300M4406/U	VR8300A4508	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	Two	One	None	None	None
	VR8300A3500	Standard	1/2 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	One	One	None	None	None
	VR8300A4516	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	One	Two	One	None	None	None
	VR8200A2124	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	One	None	One	One	One	None
	VR8200A2132	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	One	One	None
	VR8200A2744	Standard	1/2 x 1/2	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	None	None	One	One + One Elbow	One	None
	VR8300M4406	Standard	3/4 x 3/4	3.5 in. wc (0.87 kPa)	0 to 175 F (-18 to 79 C)	One	Two	One	None	None	None

All piloted valves have a 1/4 in. compression fitting.

All the OR valves come set for natural gas, but can be converted to LP gas.

The VS820A1054 is for natural gas. The VS820A1336 is for LP gas.

All the VR valves have inlet and outlet pressure taps. The VS820 valves have just an outlet pressure tap