

V400 Line Voltage; V800 Low Voltage Standing Pilot Gas Controls



Used on gas fired standing pilot appliances with 30 mV thermocouple. These gas controls include a manual gas valve, safety shutoff, single millivoltage automatic operator, pressure regulator, pilot gas filter and flow adjustment, pressure tapping, and thermocouple connector.

- Include pilot flow adjustment screw.
- Easy to install, adjust and service; all adjustments and connections are accessible from top of control.
- Add separate energy cutoff (ECO) where codes call for dual safety shutoff.
- Complete safety shutoff on pilot flame failure.
- LITE-RITE (OFF-PILOT-ON) lighting sequence.

Ignition Type: Standing Pilot

Application: Single Stage

Type of Fuel: Natural (LP if conversion kit included)

Body Pattern: Straight-through

Pilot Gas Outlet: Compression fitting for 1/4 in. OD tubing

Pressure Tapping: Outlet pressure tap: 1/8 in. NPT with plug

Capacity (kBtuh):

1/2 x 1/2 inlet x outlet – 225,000 BTU/hr 1 in. PD; 23,000 BTU/hr minimum; 225,000 BTU/hr maximum

1/2 x 3/4 inlet x outlet – 250,000 BTU/hr 1 in. PD; 23,000 BTU/hr minimum; 290,000 BTU/hr maximum

3/4 x 3/4 inlet x outlet – 335,000 BTU/hr 1 in. PD; 34,000 BTU/hr minimum; 425,000 BTU/hr maximum

Pressure Ratings (psi): 1/2 psi

Pressure Ratings (kPa): 3.5 kPa

Frequency: 60 Hz

Operating Temperature Range: 32°F to 175°F (0°C to 79°C)

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

Approvals, Underwriters Laboratories Inc.: UL Component Recognized MCC22.MH5323

Approvals, CSA: CSA International: 112395

Accessories:

390427A/U – One 3/4 x 1/2 in. reducer bushing

390427B/U – One 1/2 inch x 3/8 inch reducer bushing

390427E/U – Two 3/4 x 1/2 in. reducer bushings

390795/U – Remote Gas Cock Knob

391936/U – Single Stage LP to Natural Gas Conversion Kit. 3" to 5" adjustment range. Includes regulator spring, o-ring, screw and cap

391937/U – Single Stage Natural to LP Gas Conversion Kit. 8" to 12" adjustment range. Includes regulator spring, o-ring, screw and cap

392451-1/U – ECO adapter with 1/4" x 0.032" quick-connect terminals for the V800 or the VS820 family.

Material Number	Voltage	Opening Characteristics	Inlet/Outlet Size (in.)	Pressure Regulator Setpoint (in. wc)	Pressure Regulator Setpoint (kPa)	Electrical Connections	Includes	Comments
V400A1095/U	120 Vac	Standard	3/4 in. NPT x 3/4 in. NPT with 1/2 in. NPT side outlets	3.5 in. WC	0.87 kPa	39" Leadwires with Conduit Cover	One 1/2 x 3/8 in. reducer bushing Two 3/4 x 1/2 in. reducer bushings	–
V800A1070/U	24 Vac	Standard	1/2 in. NPT x 3/4 in. NPT with 1/2 in. NPT side outlets	3.5 in. WC	0.87 kPa	Combination screw and 1/4 in. male quick connects.	One 1/2 x 3/8 in. reducer bushing One 3/4 x 1/2 in. reducer bushing Natural to LP Conversion Kit Q340 Thermocouple	–
V800A1088/U	24 Vac	Standard	3/4 in. NPT x 3/4 in. NPT with 1/2 in. NPT side outlets	3.5 in. WC	0.87 kPa	Combination screw and 1/4 in. male quick connects.	One 1/2 x 3/8 in. reducer bushing Two 3/4 x 1/2 in. reducer bushings Natural to LP Conversion Kit Q340 Thermocouple	–
V800A1161/U	24 Vac	Standard	1/2 in. x 1/2 in.	3.5 in. WC	0.87 kPa	Combination screw and 1/4 in. male quick connects.	–	Available in Canada only
V800A1179/U	24 Vac	Standard	3/4 in. x 3/4 in.	3.5 in. WC	0.87 kPa	Combination screw and 1/4 in. male quick connects.	–	Available in Canada only
V800A1476/U	24 Vac	Standard	1/2 in. x 3/4 in.	3.5 in. WC	0.87 kPa	Combination screw and 1/4 in. male quick connects.	One 3/4 x 1/2 in. reducer bushing Natural to LP Conversion Kit	–
V800A1591/U	24 Vac	Standard	3/4 in. x 3/4 in.	3.5 in. WC	0.87 kPa	Combination screw and 1/4 in. male quick connects.	Two 3/4 x 1/2 in. reducer bushings Natural to LP Conversion Kit	–
V800C1052/U	24 Vac	Step	3/4 in. NPT x 3/4 in. NPT with 1/2 in. NPT side outlets	Step Setting: 0.9 in. WC non-adjustable; Full Rate: 3.5 in. wc	Step Setting: 0.22 kPa; Full Rate: 0.87 kPa	Combination screw and 1/4 in. male quick connects.	One 1/2 x 3/8 in. reducer bushing Two 3/4 x 1/2 in. reducer bushings	–

VS820 Millivoltage Standing Pilot Gas Controls



Ignition Type: Standing Pilot

Application: Self-powered automatic control. Use with 750 mV pilot generator.

Pilot Gas Outlet: Compression fitting for 1/4 in. OD tubing.

Pressure Tapping: Outlet pressure tap: 1/8 in. NPT with plug

Body Pattern: Straight-through

Capacity (kBtuh):

1/2 x 1/2 inlet x outlet – 225,000 BTU/hr 1 in. PD; 23,000 BTU/hr minimum; 225,000 BTU/hr maximum

1/2 x 3/4 inlet x outlet – 250,000 BTU/hr 1 in. PD; 23,000 BTU/hr minimum; 290,000 BTU/hr maximum

3/4 x 3/4 inlet x outlet – 335,000 BTU/hr 1 in. PD; 34,000 BTU/hr minimum; 425,000 BTU/hr maximum

Pressure Ratings (psi): 1/2 psi

Pressure Ratings (kPa): 3.5 kPa

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

Voltage: 750 mV

Electrical Connections: Combination screw and 1/4 in. male quick connects.

These gas controls are used on gas fired, standing pilot appliances with 750 mV self-powered control systems. They include a manual gas valve, safety shutoff, single millivoltage automatic operator and pressure regulator.

- Include pilot flow adjustment screw.
- Easy to install, adjust and service; all adjustments and connections are accessible from top of control.
- Add separate energy cutoff (ECO) where codes call for dual safety shutoff.
- Complete safety shutoff on pilot flame failure.
- LITE-RITE (OFF-PILOT-ON) lighting sequence.

Operating Temperature Range: VS820M models only -40°F to 175°F; All others 32°F to 175°F (VS820M models only -40°C to +79°C; All others 0°C to 79°C)

Approvals, Underwriters Laboratories Inc.: UL Component Recognized MCCZ2.MH5323

Approvals, CSA: CSA International: 112395

Accessories:

390427A/U – One 3/4 x 1/2 in. reducer bushing

390427B/U – One 1/2 inch x 3/8 inch reducer bushing

390427E/U – Two 3/4 x 1/2 in. reducer bushings

390795/U – Remote Gas Cock Knob

391936/U – Single Stage LP to Natural Gas Conversion Kit. 3" to 5" adjustment range. Includes regulator spring, o-ring, screw and cap

391937/U – Single Stage Natural to LP Gas Conversion Kit. 8" to 12" adjustment range. Includes regulator spring, o-ring, screw and cap

392451-1/U – ECO adapter with 1/4" x 0.032" quick-connect terminals for the V800 or the VS820 family.

	Material Number	Type of Fuel	Opening Characteristics	Inlet/Outlet Size (in.)	Pressure Regulator Setpoint (in. wc)	Pressure Regulator Setpoint (kPa)	Includes
	VS820A1047/U	Natural	Standard	1/2 in. NPT x 3/4 in. NPT with 1/2 in. NPT side outlets	3.5 in. WC	0.87 kPa	One 1/2 x 3/8 in. reducer bushing One 3/4 x 1/2 in. reducer bushing
	VS820A1054/U	Natural	Standard	3/4 in. NPT x 3/4 in. NPT with 1/2 in. NPT side outlets	3.5 in. WC	0.87 kPa	One 1/2 x 3/8 in. reducer bushing Two 3/4 x 1/2 in. reducer bushings
	VS820A1088/U	Natural (LP with included conversion kit)	Standard	3/4 in. NPT x 3/4 in. NPT with 1/2 in. NPT side outlets	3.5 in. WC	0.87 kPa	One 1/2 x 3/8 in. reducer bushing Two 3/4 x 1/2 in. reducer bushings Natural to LP Conversion Kit Remote rod adapter
	VS820A1187/U	Natural	Standard	1/2 in. NPT x 1/2 in. NPT	3.5 in. WC	0.87 kPa	–
	VS820A1336/U	LP	Standard	3/4 in. NPT x 3/4 in. NPT with 1/2 in. NPT side outlets	10.0 in. WC	2.49 kPa	One 1/2 x 3/8 in. reducer bushing One 3/4 x 1/2 in. reducer bushing
	VS820C1100/U	Natural	Step	3/4 in. NPT x 3/4 in. NPT with 1/2 in. NPT side outlets	Step: 0.9 in. WC non-adjustable; Full rate: 3.5 in. WC	Step: 0.22 kPa; Full rate: 0.87 kPa	One 1/2 x 3/8 in. reducer bushing One 3/4 x 1/2 in. reducer bushing
	VS820C1332/U	LP	Step	3/4 in. NPT x 3/4 in. NPT	Step: 2.2 in. WC non-adjustable; Full rate: 11.0 in. WC	Step: 0.56 kPa; Full rate: 2.73 kPa	–
U	VS820M1309/U	Natural (LP with included conversion kit)	Standard	3/4 in. NPT x 3/4 in. NPT with 1/2 in. NPT side outlets	3.5 in. WC	0.87 kPa	One 1/2 x 3/8 in. reducer bushing Two 3/4 x 1/2 in. reducer bushings Natural to LP Conversion Kit Remote rod adapter

U Universal Service Part

Gas Valves Parts and Accessories

Parts and Accessories for Combination Gas Controls

Material Number	Description	Used With	
Compression Fittings			
386449/U	Compression fitting for 1/4 inch OD pilot tubing, 0.65 inch total overall length	V800, VS820, VR8100, VR8200, VR8300, VR8104, VR8204, VR8304; V400, VR4200, VR4300, VR4204, VR4304; Honeywell Pilot Burners for Standing Pilot and Intermittent Pilot Applications; SV9501; SV9502; SV9541, SV9601; SV9602; SV9641	
386449-1/U	Compression fitting for 1/4 inch OD pilot tubing, 0.78 inch total overall length	V800, VS820, VR8100, VR8200, VR8300, VR8104, VR8204, VR8304; V400, VR4200, VR4300, VR4204, VR4304; Honeywell Pilot Burners for Standing Pilot and Intermittent Pilot Applications; SV9501; SV9502; SV9541, SV9601; SV9602; SV9641	
386449-4/U	Compression fitting for 1/4 inch OD pilot tubing, 1.15 inch total overall length	V800, VS820, VR8100, VR8200, VR8300, VR8104, VR8204, VR8304; V400, VR4200, VR4300, VR4204, VR4304; Honeywell Pilot Burners for Standing Pilot and Intermittent Pilot Applications; SV9501; SV9502; SV9541, SV9601; SV9602; SV9641	
392449/U	Compression fitting for 1/8 inch OD pilot tubing, 0.65 inch total overall length	V800, VS820, VR8100, VR8200, VR8300, VR8104, VR8204, VR8304; V400, VR4200, VR4300, VR4204, VR4304; Honeywell Pilot Burners for Standing Pilot and Intermittent Pilot Applications; SV9501; SV9502; SV9541, SV9601; SV9602; SV9641	
392449-1/U	Compression fitting for 1/8 inch OD pilot tubing, 0.78 inch total overall length	V800, VS820, VR8100, VR8200, VR8300, VR8104, VR8204, VR8304; V400, VR4200, VR4300, VR4204, VR4304; Honeywell Pilot Burners for Standing Pilot and Intermittent Pilot Applications; SV9501; SV9502; SV9541, SV9601; SV9602; SV9641	
392449-4/U	Compression fitting for 1/8 inch OD pilot tubing, 1.15 inch total overall length	V800, VS820, VR8100, VR8200, VR8300, VR8104, VR8204, VR8304; V400, VR4200, VR4300, VR4204, VR4304; Honeywell Pilot Burners for Standing Pilot and Intermittent Pilot Applications; SV9501; SV9502; SV9541, SV9601; SV9602; SV9641	
Conversion Kit			
391936/U	Single Stage LP to Natural Gas Conversion Kit. 3" to 5" adjustment range. Includes regulator spring, o-ring, adjustment screw and cap screw	V400, V800, VS821, VS820; Standard and Slow opening valves. Not for use with Step valves.	
391937/U	Single Stage Natural to LP Gas Conversion Kit. 8" to 12" adjustment range. Includes regulator spring, o-ring, adjustment screw and cap screw	V400, V800, VS821, VS820; Standard and Slow opening valves. Not for use with Step valves.	
393691/U	Single Stage Natural to LP Gas Conversion Kit. 8" to 12" adjustment range. Includes regulator spring, o-ring, adjustment screw and cap screw	VR8200, VR8300, VR8104, VR8204, VR8304, VR8205 (not VR8205S), VR8305; VR4200, VR4300, VR4204, VR4304, VR4205, VR4305; Standard and Slow opening valves. SV9501; SV9502; SV9541; SV9601; SV9602; SV9641 Smart valves. Not for use with Step valves.	
394588/U	Single Stage LP to Natural Gas Conversion Kit. 3" to 5" adjustment range. Includes regulator spring, o-ring, adjustment screw and cap screw	VR8200, VR8300, VR8104, VR8204, VR8304, VR8205 (not VR8205S), VR8305, VR4200, VR4300, VR4204, VR4304, VR4205, VR4305; Standard and Slow opening valves. SV9501; SV9502; SV9541; SV9601; SV9602; SV9641 Smart valves. Not for use with Step valves.	
395253-1/U	Single Stage LP to Natural Gas Conversion Kit. 5" to 7" WC adjustment. Includes regulator spring, o-ring, adjustment screw and cap screw	VR8200, VR8300, VR8104, VR8204, VR8304, VR8205 (not VR8205S), VR8305; VR4200, VR4300, VR4204, VR4304, VR4205, VR4305; Standard and Slow opening valves. SV9501; SV9502; SV9541; SV9601; SV9602; SV9641 Smart valves. Not for use with Step valves.	
396021/U	Two Stage Natural to LP Gas Conversion Kit. 8" to 11" adjustment range. Includes regulator spring, o-ring, and adjustment screw. Reuse existing cap screw.	VR820xQ, VR830xQ, VR820xN, VR830xN; SV9xxxQ	
396025/U	Two Stage LP to Natural Gas Conversion Kit. 3" to 5" adjustment range. Includes regulator spring, o-ring, and adjustment screw. Reuse existing cap screw.	VR820xQ, VR830xQ, VR820xN, VR830xN; SV9xxxQ	
396221/U	Single Stage Natural to LP Gas Conversion Kit. 8" to 12" adjustment range. Includes regulator spring, o-ring, and adjustment screw. Reuse existing cap screw.	VR8205S,T; VR8215S,T; VR82/VR8300A,M,H,K; VR82/VR8304A,M,H,K; VR82/VR8305A,M,H,K; VR42/VR4300A,M,H,K; VR42/VR4304A,M,H,K; VR42/VR4305A,M,H,K Standard and Slow opening valves. Not for use with Step valves.	
396222/U	Single Stage LP to Natural Gas Conversion Kit. 3" to 5" adjustment range. Includes regulator spring, o-ring, and adjustment screw. Reuse existing cap screw.	VR8205S,T; VR8215S,T; VR82/VR8300A,M,H,K; VR82/VR8304A,M,H,K; VR82/VR8305A,M,H,K; VR42/VR4300A,M,H,K; VR42/VR4304A,M,H,K; VR42/VR4305A,M,H,K Standard and Slow opening valves. Not for use with Step valves.	