

ROBERTSHAW

Gas Ignition Controls



Ignition Control Units



Robertshaw ignition control units used in the Uni-Line 712 Series kits are C.S.A. design certified to applicable A.N.S.I. standards. CSA approved.

- Spark rate: 3 to 4 sparks per second
- Pilot valve: 1 amp at .5 PF
- Main valve: 1 amp at .5 PF
- Combined load: 1.5 at .4 PF
- Flame sense current: .7 mA DC @ 25°C / 24 VAC
- Maximum total current load: 1.5 amp
- Flame failure re-ignition time: .8 seconds maximum
- Thermostat anticipator setting: .7 amp
- Ambient rating: -40°F to 175°F (-40°C to 80°C)
- Relative humidity: 95%

Mfg Part No	Factory Model	Description
780-715	SP715U Nonlockout	Nonlockout Models. Flame rectification system. Use with gas valves 7000 BDER, 7100 DER and 7200IPER. Replaces SP715 and SP715A.
780-735	SP735A Lockout	Lockout model. Flame rectification system. Use with gas valves 7000 BDER and 7100 DER. Has 60 second lockout timing. NOTE: SP735A is a newer and smaller version of the SP735.
780-746	SP745	Universal lockout model with 45 sec prepurge. Replaces 780-736 (SP735P). Has three 60 sec valve trials interrupted by a five min purg cycle before 100% lockout.

Automatic Pilot Relight Kits



The Robertshaw 785 Series Automatic Pilot Relight Kits are designed for use on rooftop heating equipment, water heaters, boilers, space heaters, unit heaters, dryers, and other commercial, industrial, and residential appliances where the problem of pilot outage may occur. It should only be applied to those systems which already incorporate the necessary pilot-safety control system.

- Electrical ratings 785-001: 24/117 VAC, .1 AMP
- Electrical ratings 785-002: 9 VDC
- High voltage output: 15 KV minimum
- Ambient temperature: -40°F to 185°F
- Spark gap: 1/8" maximum

Cross-Reference:

- Camstat: PR-24-00, PR-24-36W, PR-120-00, PR-120-36W, SIG-24-00
- Carrier / BDP: 534-1, 990-195, LH33WZ059, LH33WZ502, LH33WZ510, P771-1015, P771-1016
- ITT-GENERAL: AM10A303A
- LENNOX: 75F2601
- MARS: 41001, 41002, 41003
- White-Rogers: 5059-21, 5059-22, 5059-23, 5059-24, 5059-25, 5059-28, 5059-29, 5059-32, 5059-33, 5059-34, 5059-36, 5059-37, 5059-39, 5059-40, 5059-41, 5059-101, 5059-122, 5059-134, 5059A-21, 5059A-22, 5059A-500, 5059A-501, 5059A-600

Mfg Part No	Description
785-001	24/120 V includes ignitor assembly and mounting bracket
785-002	9VDC - includes ignitor and reset button assembly. Battery not included.

780 Series Hot Surface Ignition Module



The 780 Series Hot Surface Ignition Modules are designed for use on gas fired heating systems. The system acts on a demand for heat by a switch or thermostat to supply power to the ignition control. On non pre-purge models, the ignitor will be energized immediately and remain on for either of two optional selected ignitor heat-up times approximately 17 or 34 seconds. For models with the prepurge option, there is a time delay equal to the heat-up time selected before the ignitor is energized. At the end of the ignitor heat-up time the gas valve is opened supplying gas to the main burner. After several seconds, the ignitor is turned off and the sensor is energized. As long as flame is sensed, the system continues to operate. When the thermostat is satisfied, the gas control will be closed to shut off the main burner. The 780 Series provides lockout and complete gas shut off if ignition is not proven after the trial for ignition sequences has been completed. To reset the system the thermostat or system switch must be opened for at least 10 seconds.

- Electrical Rating: supply voltage: 120, 208/240 or 277VAC
- 50/60 Hz
- Control input voltage: 24VAC
- Maximum ignitor current: 5 amps resistive
- Maximum valve current: 1.5 amps @ 24VAC
- Ambient temperature: -40 to 176°F
- Operating humidity: 95% @ 104°F
- Thermostat anticipator current: .1A + load

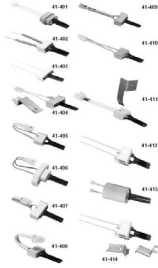
Mfg Part No	Factory Model	Replaces OEM Part No	Pre-Purge/Ignitor warm-up timer	Model Supply Voltage (VAC)
780-783	HS780-34PL-308A	62-22578-01	34 SEC.	120
780-785	HS780-34NL-306A	62-22578-02	34 SEC.	120

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Albany, NY	518-489-0010	Rochester, NY	585-482-3876	Allentown, PA	610-437-9818	Scranton, PA	570-346-1565
Binghamton, NY	607-724-2451	Syracuse, NY	315-475-3131	Altoona, PA	814-941-7617	Stroudsburg, PA	570-424-5724
Buffalo, NY	716-853-1291	Utica, NY	315-732-4077	Erie, PA	814-459-4559	Wilkes-Barre, PA	570-824-8779
Middletown, NY	845-733-5666			Harrisburg, PA	717-558-0828	Williamsport, PA	570-323-4606

Gas Ignition Controls

41-400 Series Hot Surface Furnace Ignitors



Robertshaw's 41-400 Series Norton Hot Surface Ignitors deliver dependable ignition in heating systems of every description. From furnaces and boilers to rooftop heaters, infrared burners, unit heaters, water heaters and many other types of HVAC equipment. The 41-400 Series Hot Surface Ignitors are made of high-purity recrystallized silicon carbide (Crystar™) which combines physical and thermal strength with stable electrical properties. The 41-400 Series are designed to reach ignition temperature(s) within 17 seconds. They have 18-gauge nickel chrome lead wires embedded and metalized in place for maximum holding strength and electrical conductivity. The lead wires are also enclosed with a special high-temperature fiberglass insulation providing total electrical protection.

NOTE: All 41-400 series ignitors are 120 VAC models. Some hot surface modules are rated for 208/240 volts input, however they step the voltage to ignitor down to 120 VAC.

Mfg Part No	Factory Model	Lead Wire Length	Comments
41-401	271A	41/2"	Includes a gasket
41-402	271W	19"	
41-403	271M	5 1/2"	
41-404	271M	4 1/2"	Includes special mounting adaptors
41-405	271D	5 1/2"	
41-406	271Y	10 1/2"	Includes a gasket
41-407	271	4 1/2"	
41-408	271N	4 1/2"	
41-409	271	4 1/2"	
41-410	271N	4-1/2"	
41-411	271N	4-1/2"	Includes special mounting adaptors
41-412	271NM	5-1/4"	
41-413	201C	1-3/8"	
41-414	217NM	5-1/4"	Includes special mounting adaptors
41-418	271NM	5-1/4"	Includes bracket

Differential Pressure Switches

2374 Series Adjustable Air Sensing Switches



The new 2374 Series Adjustable Air Sensing Switches are designed to replace a wide variety of air-sensing switches found in residential and light commercial applications including - furnaces, electronic air cleaners and humidifiers. Two models are currently available with an adjustable range of .2" W.C. to 1.0" W.C. or 1.0" W.C. to 4.0" W.C. Both models are provided with an SPDT switch that can be actuated by positive or negative pressure, or by pressure differential. Highly accurate, these switches are practically insensitive to temperature change with an operating temperature range of -40°F to 190°F (-40° to 88°C). They are U.L. and C.S.A. approved for aftermarket applications. Each switch is provided with mounting hardware and an adjustment tool for easy installation and calibration.

- Electrical rating: 5 amp non-inductive 120-277 VAC, 5 amp non-inductive 28 VDC, 1 amp pilot duty 120 VA
- Control set point: field adjustable (see order chart)
- Maximum pressure: .5 PSI
- Ambient temperature: -40°F to 190°F (-40° to 88°C)
- Operating (mounting position): diaphragm vertical
- Switch: SPDT
- Electrical connections: 1/4" spade
- Air sample line connectors: will accept 1/8", 1/4" or 3/8" tubing
- Agency Approvals: UL File No. MH6213, CSA

Mfg Part No	Setpoint Range	Switch
2374-495	.25 TO 1.0" W.C.	SPDT
2374-498	1.0 TO 4.0" W.C.	SPDT

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