

ROBERTSHAW CONTROLS

700 Series Combination Gas Valves



Robertshaw®

These valves feature a manual valve (gas cock), an automatic pilot safety valve, inlet/outlet screens, pilot outlet, pilot gas filter and pilot adjustment key. Regulated and no regulated models are available (see ordering chart). Models that have a safety magnet have a "notched or slotted" magnet for applications requiring the use of an ECO (Energy Cut-Off) switch. The automatic pilot safety valve is separate from the gas cock and provides gas shutoff in case of pilot outage.

NEE #	Inlet / Outlet	Voltage	Capacity	Fuel setting	Note
700402	1/2" / 3/4" w/ reducer bushing	24 VAC	240,000 BTU	Nat Gas w/ LP kit	w/ side taps
700-504	1/2" / 3/4" w/ reducer bushing	Millivolt	240,000 BTU	Nat Gas 3.5" wc	w/ side taps

VALVES CAN BE MOUNTED IN ANY POSITION EXCEPT UPSIDE DOWN.

710 Series Low Profile Gas Valves

The 710 low capacity gas heating valves are designed for recreational vehicles and other applications with limited space. All models include a manual valve (gas cock), automatic pilot safety valve, pilot outlet, pilot gas filter and pilot adjusting key. The control can be mounted in any position except upside down and all models have 3-position outlets.

NEE #	Inlet / Outlet	Voltage	BTU / Hr	Fuel setting	Application	Note
710-203	1/2" / 1/2" w/ (2) 3/8" reducer bushing	Snap-action Hydraulic	70,000 NG / 112,000 LP	Non regulated / required separately	For RV use	
710-205		Millivolt (2 lead therm. pile)		Nat. Gas 3.5" WC	Wall furnace replaces TV-27	
710-501				Non regulated / required separately		
710-502		Millivolt Has no safety magnet		Nat. Gas 3.5" WC		
710-503	1/2" / 3/8"	Millivolt (2 lead therm. pile)		Hi-Lo adj. 1.7" - 3.5" WC NG	Fireplace Log Control	Quick drop-out magnet
710-511						

720 Series Dual Valve Gas Controls

The 720 Series Dual Valve Gas Controls are designed for a wide variety of heating applications and can be used to replace most constant pilot valves, including dual valve (six function) models. The 720 Series constant pilot gas valve is a six function valve incorporating a manual valve, safety shutoff magnet, dual automatic valves (hence the term "dual valves"), main gas regulator, and pilot adjustment. Models are available with and without a pressure regulator. Uni-Kits® are factory-set at 3.5" W.C. for natural gas, but can be converted to L.P. by installing the regulator conversion kit included. The 720 Series feature an integral manual selector used to select from the 4 gas flow positions – off, on, pilot and "set". The "set" position provides pilot only gas flow during magnet energizing and lock up. Built-in stops serve to prevent accidental setting to the off position. The wiring connections, manual selector and adjustments are easily accessible on top of the valve. With a 3-9/16" swing radius, the 720 series lends itself well to replacing many OEM valves. Controls are multiposition and can be mounted in any position (except upside down). To prevent unsafe attempts at repair, special screws are used and replacement parts are NOT available.

NEE #	Inlet / Outlet	Voltage	Capacity btu/hr	Fuel setting	Application	Note		
720-402	1/2" / 3/4" w/ reducer bushing	24 VAC	150,000	3.5" wc Nat Gas, w/ LP Kit				
720-406	1/2" / 3/4" w/ reducer bushings (2)							
720-472	1/2" / 1/2" w/ 3/8" reducer bushing			3.5" wc NG or 11" wc LP convertible			Mobile homes	Step opening feature
720474				3.5" wc Nat Gas, w/ LP Kit				
720C400								

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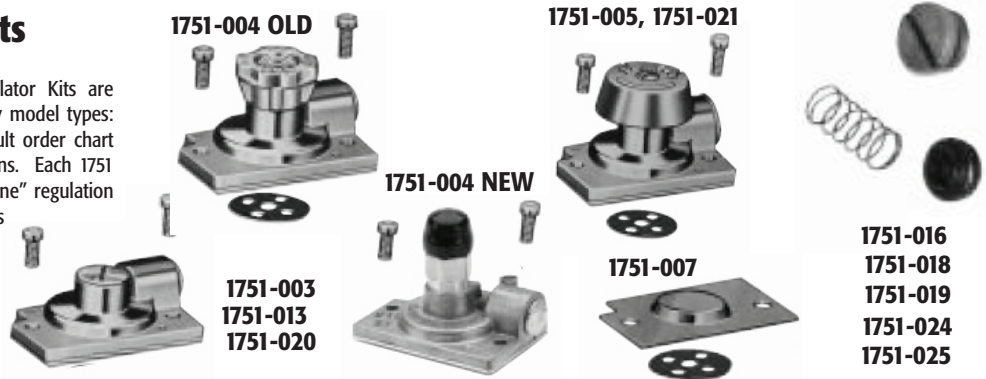
720 Series Pilot Ignition Gas Valves

The 720 Series Valves (7200 IPER) are designed for intermittent pilot ignition applications. The 720 IPER Series Valve incorporates a manual valve, pilot valve, dual automatic valves (2), and a main gas pressure regulator. Uni-Kits are factory-set at the 3.5" W.C. for natural gas, but can be converted to L.P. by installing the regulator conversion kit included. The 720 Series Valves are designed for many residential applications such as central heating units, space heaters, wall heaters, boilers, and mobile home furnaces. The 720 series valve has a compact swing radius of only 3-9/16" to enable it to fit a wide range of OEM replacement applications. It also has all the wiring connections, manual selector, and adjustments readily available on top of the control. To prevent unsafe attempts at repair, special screws are used and replacement parts are NOT available.

NEE #	Inlet / Outlet	Voltage	Capacity BTU / Hr	Fuel setting	Application
720-078	1/2" / 3/4"	24 VAC	150,000	3.5" wc Nat Gas, w/ LP Kit	Universal, Intermittent Pilot, Direct Spark & Hot Surface Ignition

Pressure Regulator Kits

The 1751 Series Add-on Pressure Regulator Kits are available for use on the following factory model types: 7000, 7010, 7100, 7200 and 7222. Consult order chart below for specific application specifications. Each 1751 pressure regulator kit provides "straight-line" regulation and includes all the necessary parts including instructions to convert a specific factory model gas valve.



NEE #	Regulator Type	700 Series * (Model 7000)	710 Series (Model 7100)	700 Series (Model 7100)	720	700 Series (Model 7100) Step-Opening Only	720 Series (Model 7200) Step-Opening Only	722 Series (Model 2000)	Adj. WC Pressure Low	Adj. WC Pressure High	Suitable for NG	Suitable for LP Gas
1751-003	3.5" WC NG	•*	•						3"	7"	•	
1751-004	3/5" WC NG & 11" WC LP Gas	•*	•								•	•
1751-005	Hi-Low (Adj Output)	•*	•						1.7"	3.5"	•	
1751-007	Regulator Cover Plate	•*	•								•	•
1751-013	11" WC LP Gas	•*	•						8"	12"		•
1751-016	11" WC LP Gas			•	•				8"	12"		•
1751-018	3.5" WC NG			•	•				3"	7"	•	
1751-019	11" WC LP Gas					•	•		8"	12"		•
1751-020	10" LP Gas	•*	•						8"	12"		•
1751-021	Hi-Low Adj Output LP Gas	•*	•						2.7"	11"		•
1751-024	3.5" WC NG							•	3"	6"	•	
1751-025	11" LP Gas							•	8"	12"		•

Replacement Flame Sensor

Has high temperature Kanthol sensor rod that will withstand 1800°F. Has 30° of Teflon insulated lead wire with a 482°F rating and a 1/4" quick connect terminal. Sensor rod is 4" long, can be cut and bent to match original unit. Excellent replacement to White-Rodgers part number 760-401.

NEE #	Description
10-760	Flame sensor, 4" Long, 1/4" connector

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Aluminum Pilot Tubing

NEE #	Length	Size
11-193	50'	1/4"
11-293	5'	1/4"
11-195	50'	3/8"
11-197	50'	1/2"



Thermopiles

The 1950 Thermopiles (pilot generators) are designed for use on self-powered gas control systems. They can be used to replace all Robertshaw and similar competitive devices. Models are available for two lead or coaxial type connection. All models include mounting nuts and instructions. 1950-001 includes PG9 pilot adapter.



NEE #	Connection
1950-001	Two Lead
1950-532	Two Lead

Breakaway Ferrules for Pilot Tube

NEE #	Description	Size
81-2N	Breakaway Ferrule	1/8"
81-3N	Breakaway Ferrule	3/16"
81-4N	Breakaway Ferrule	1/4"
60-2	Compression fitting sleeve	1/8"
60-3	Compression fitting sleeve	3/16"
60-4	Compression fitting sleeve	1/4"
61-2	Compression fitting nut	1/8"
61-3	Compression fitting nut	3/16"
61-4	Compression fitting nut	1/4"



Thermocouple 2000 Series

Easy Installation with the snap-fit adapter. For furnace or gas hot water heater.

NEE #	Factory Model	Length
1980-818	1980-018	18"
1980-824	1980-024	24"
1980-830	1980-030	30"
1980-836	1980-036	36"
1980-848	1980-048	48"



Hot Water Controls

NEE #	Description	Inlet Size	Outlet Size	Pressure Regulator Setting	Shank Length
110-C309	R-100RP	1/2" Pipe	1/2" Inv. Flare	3.5" w.c. natural gas	1 1/2"
110-C319	R-100RP-LP	1/2" Pipe	1/2" Inv. Flare	10" w.c. natural gas	1 1/2"



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HVAC EQUIPMENT

Pressure Controls

NEE #	Description
101483	Ranco Single Low Pressure Control, 36" tube with Flare Nut, Range 10-100 PSIG, Differential 10-40 PSIG, Switch Action Opens Low, Reset Operation Auto, Single Pole, Single Throw.
102054	Ranco Single High Pressure Control, 36" tube with Flare Nut, Range 100-400 PSIG, Differential 40-150 PSIG, Switch Action Opens Low, Reset Operation Auto, Single Pole, Single Throw.
121549	Ranco Dual Pressure Control, Low Pressure Range 10-100 PSIG, High Pressure Range 150-450 PSIG, High Pressure Differential 70 PSIG Fixed, Low Differential Pressure 10-40 PSIG, Reset High Auto, Reset Low Auto, Pressure Connection 36 Inches Capillary.



101483, 102054

121549

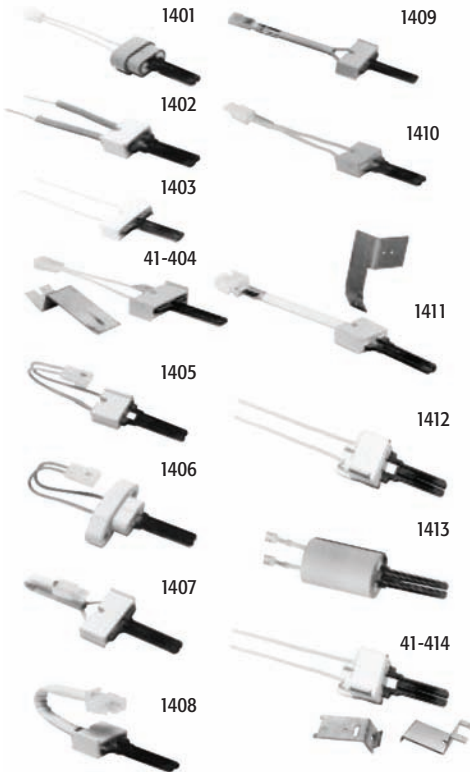
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Hot Surface Heating Igniters

Robertshaw's 1400 Series Norton Hot Surface Igniters 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 1400 Series Hot Surface Igniters are made of high-purity recrystallized silicon carbide (Crystar™) which combines physical and thermal strength with stable electrical properties. The 1400 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 1400 series igniters 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.



NEE #	Factory #	Lead wire Length
1401	271A	4.5"
1402	271W	19"
1403	271	5.5"
41-404	271	4.5"
1405	271D	5.5"
1406	271Y	10.5"
1407	271	4.5"
1408	271N	4.5"
1409	271	4.5"
1410	271N	4.5"
1411	271N	4.5"
1412	271NM	5.25"
1413	271C	1.35"
41-414	271NM	5.25"

Timers / Time Clocks

Paragon's 4000 Series is the 24-hour time control to serve applications requiring 90 minute minimum on or off time with a maximum of seven ON/OFF events per day.

NEE #	Description	Amp	Depth	Height	Hertz	Length	Switch	Voltage
4001-00-RT	Metal Indoor Digital Time Clock.	40 A	2 1/4"	8 1/2"	60 Hz	4 1/8"	SPST	120V AC
4002-71	Metal Indoor Digital Time Clock.	40 A	2 1/4"	8 1/2"	60 Hz	4 1/8"	SPST	208V - 277V AC
4004-71-RT	Metal Indoor Digital Time Clock.	40 A	2 1/4"	8 1/2"	60 Hz	4 1/8"	DPST	208V - 277V AC
632-20	Defrost Time Clock. With fan delay cycle after defrost is terminated. Time initiated and time terminated.	10 A					SPST	120V - 240V AC
8041-20	Commercial Refrigeration Defrost Controller; for Electric Heat Defrosting							208V - 240V AC
8045-00	Defrost Time Clock. 1 normally open, 1 normally closed contact. Time initiated and time terminated.	40 A						120V - 240V AC
8045-20	Defrost Time Clock. 1 normally open, 1 normally closed contact. Time initiated and time terminated.	40 A						120V - 240V AC
8145	Commercial Refrigeration Defrost Controller Series							
8145-00	Defrost Time Clock. 1 open and 1 closed contact. Time initiated. Remote temperature or pressure terminated.	40 A					SPST	120V - 240V AC
8145-20	Defrost Time Clock. 1 open and 1 closed contact. Time initiated. Remote temperature or pressure terminated.	40 A					SPST	120V - 240V AC
8245-20	Commercial Refrigeration Defrost Controller							240V
8247-20	Commercial Refrigeration Defrost Controller							208-240V



4000 Series