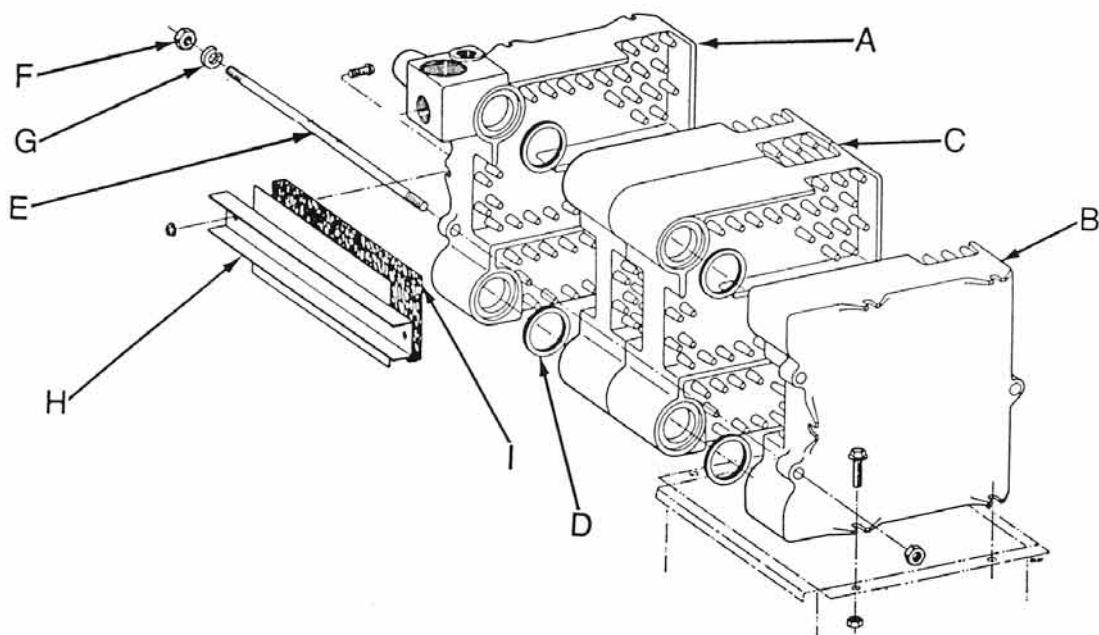
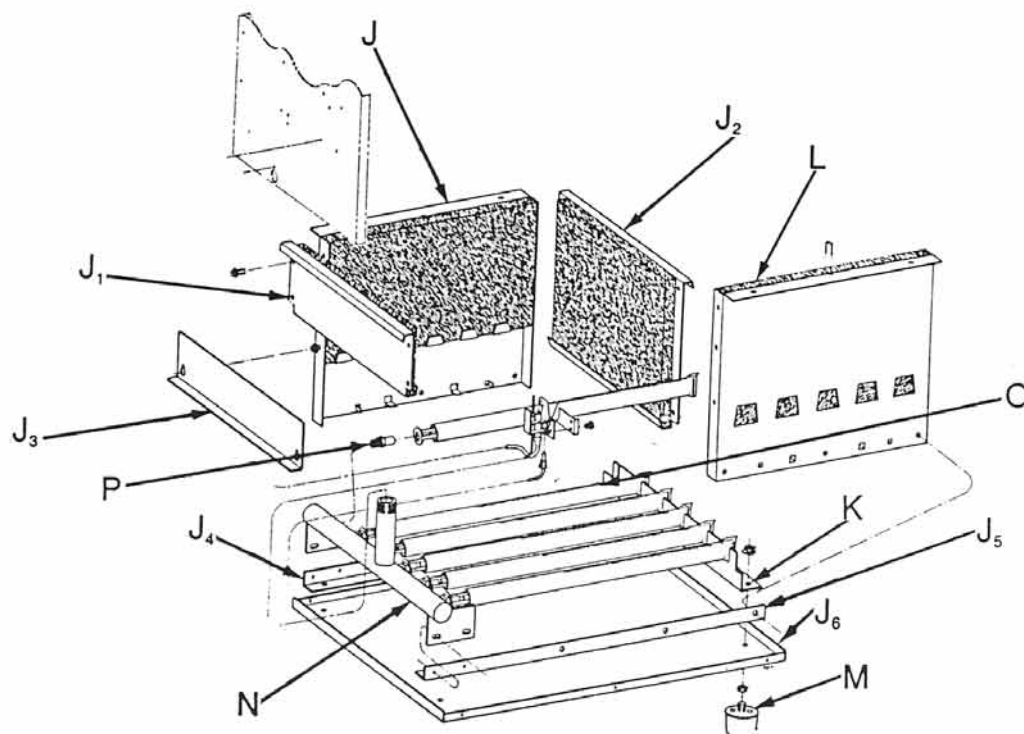


HE, VHE Section and Base Assembly

SECTION ASSEMBLY
HE II BOILERSBASE ASSEMBLY
HE II BOILERS

HE, VHE Section and Base Assembly

Fig. No.	Part No.	Description	Series No.
A	312-900-000	Left Hand End Section – cast #2914	1,2,3
B	312-900-006	Right Hand End Section – cast #2918	1,2,3
C	312-900-003	Intermediate Section – cast #2915	1,2,3
	322-910-107	Section Assembly Complete: HE/VHE-3 (includes well)	1-3
	322-910-108	Section Assembly Complete: HE/VHE-4	1-3
	322-910-109	Section Assembly Complete: HE/VHE-5	1-3
	322-910-110	Section Assembly Complete: HE/VHE-6	1-3
D	592-800-011	2" Square Cut Seal (2 per Joint)	1,2,3
E	560-234-500	7/16" Tie Rod w/o nut (3 per Boiler): HE/VHE-3 (9")	1-3
	560-234-501	7/16" Tie Rod w/o nut (3 per Boiler): HE/VHE-4 (12")	1-3
	560-234-502	7/16" Tie Rod w/o nut (3 per Boiler): HE/VHE-5 (15")	1-3
	560-234-503	7/16" Tie Rod w/o nut (3 per Boiler): HE/VHE-6 (18")	1-3
F	561-928-235	7/16" – 14 Nut (2 per Tie Rod)	1,2,3
G	562-248-684	7/16" Washer (1 per Tie Rod)	1,2,3
H			1-3
			1-3
			1-3
			1-3
I		Cerablanket Insulation for Cleanout Plate, HE/VHE-3 Through 6 (NOTE: Cerablanket Superseded by Use of Silicone Sealant to Seal Cleanout Plate)	1,2,3
J	591-638-850	Silicone Sealant for Cleanout Plate (RTV 700 or equivalent) 10.3 oz. Cartridge	1,2,3
J		Base Side Panel (2 per boiler)	1,2,3
J ₁			1,2,3
			1,2,3
			1,2,3
			1,2,3
J ₂			1,2,3
			1,2,3
			1,2,3
			1,2,3
J ₃	450-030-644	Base Access Panel, (Hot Surface Ignition Only) HE/VHE-3	3
	450-030-645	Base Access Panel, (Hot Surface Ignition Only) HE/VHE-4	3
	450-030-646	Base Access Panel, (Hot Surface Ignition Only) HE/VHE-5	3
	450-030-647	Base Access Panel, (Hot Surface Ignition Only) HE/VHE-6	3
	450-030-655	Igniter Bracket, Boilers with 201 Igniter Hot Surface Only	1,2
	450-030-643	Igniter Bracket, Boilers with 201N Igniter Hot Surface Only	3
	450-030-642	Igniter Shield, Boilers with Hot Surface Ignition Systems Only	3
J ₄			1,2,3
J ₅			1,2,3
J ₆			1,2,3
			1,2,3
			1,2,3
			1,2,3
	382-930-109	Control Well, ½" N.P.T.	1,2,3

Many parts for these boilers are no longer available. Call for availability.

HE, VHE Section and Base Assembly

K			1,2,3
			1,2,3
			1,2,3
			1,2,3
L	591-222-070	Burner Insulation Set: HE/VHE-3	1,2,3
	591-222-071	Burner Insulation Set: HE/VHE-4	1,2,3
	591-222-072	Burner Insulation Set: HE/VHE-5	1,2,3
	591-222-073	Burner Insulation Set: HE/VHE-6	1,2,3
M	590-424-252	Leg Assembly	1,2,3
N			1,2,3
			1,2,3
			1,2,3
			1,2,3
	560-528-992	Main Burner Orifice (Natural Gas) 2.0 mm Drill Size	1,2,3
	560-529-052	Main Burner Orifice (Propane Gas) 1.25 mm Drill Size	1,2,3
O	512-200-035	512-200-035 replaces 512-200-075 Burner is stainless steel, but cannot be used on the HE/HVE boiler. Burner carry-over problems may occur. The aluminized steel burners must be used on these boilers.	1,2,3
O	512-200-045	Burner, Tubular Steel with Pilot Bracket, for Boilers with Cycle Pilot Systems Only	1,2,3
			3
			3
			3
			3
			3
			3
			3
			3
			1,2
			1,2
			1,2
			1,2
			1,2
			1,2
			1,2
			1,2
	510-312-312	Replacement Blower Motor Kit (Includes Motor & Blower Wheel) HE Boiler Only	1,2,3
	510-312-317	Replacement Blower Motor Kit (Includes Motor & Blower Wheel) VHE Boiler Only	1,2,3
			1,2,3
			1,2,3
	699-999-022	VHE Retrofit Starter Termination Kit, includes VHE Starter Tee (Saf-T Vent) Termination Coupling (Saf-T Vent), Sealant, Instructions	1,2,3
	699-999-036	VHE Retrofit Starter Termination Kit, includes VHE Starter Tee (Z-Vent) Termination Coupling (Z-Vent), Sealant, Instructions	1,2,3
	591-632-612	Waterglass (4 oz. Bottle)	1,2,3
	591-602-914	Boiler Cement, (1/2" Gal.)	1,2,3
	591-638-851	Silicone Sealant (RTV 700 or Equivalent)	1,2,3

NOTE: Number of burners for Hot Surface ignition boilers HE/VHE-3 - 4 main burners, HE/VHE-4 - 6 main burners, HE/VHE-5 - 8 main burners, HE/VHE-6 - 10 main burners, For cycle pilot boiler subtract 1 main burner and add 1 burner with pilot bracket to each above.

HE, VHE Hot Surface Ignition Honeywell

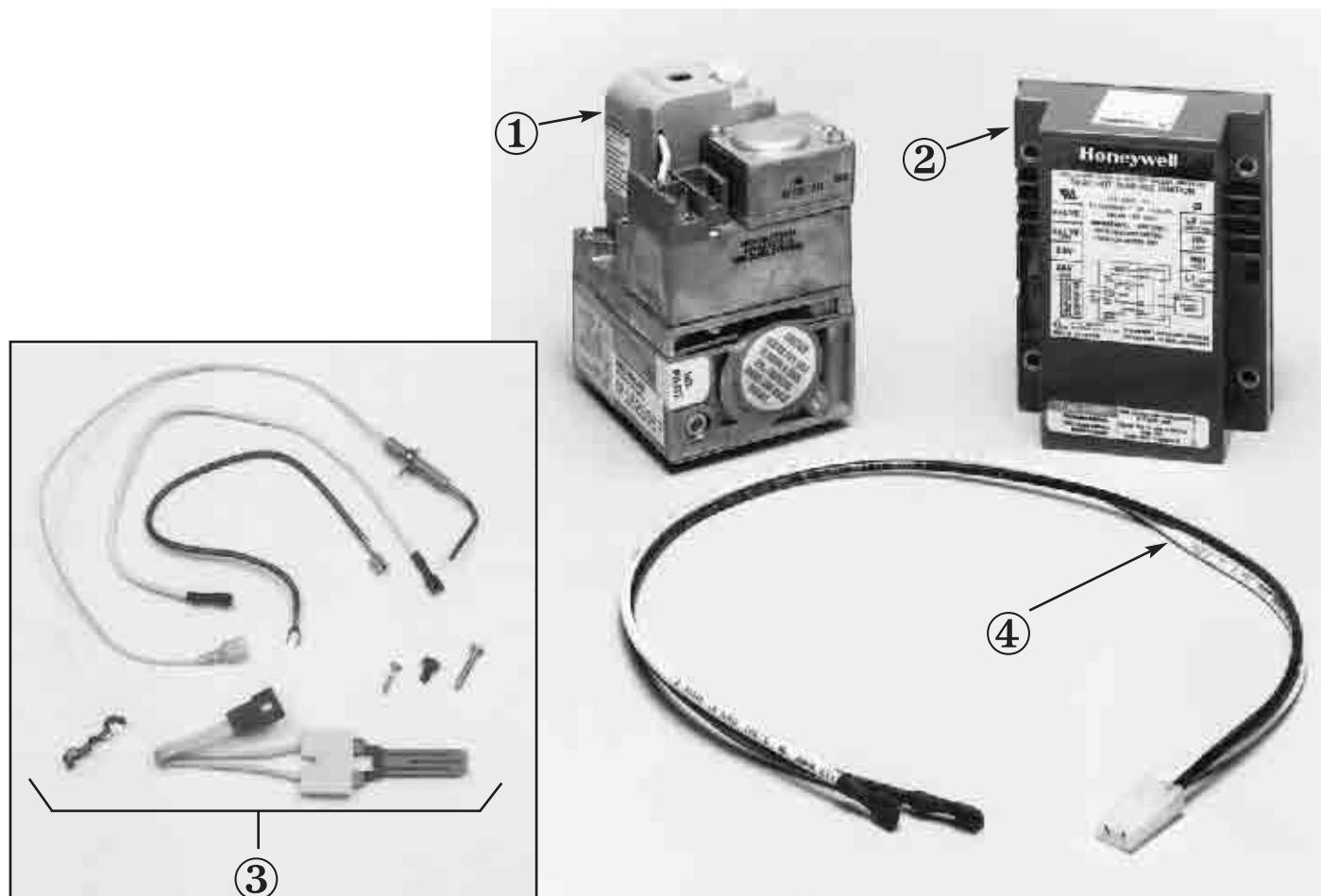


Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Boiler Size
	510-811-477	Complete Conversion kit from Honeywell Hot Surface Ignition System to White-Rodgers Hot Surface Ignition System including 50E47-170, wiring, igniter, hardware and instructions (for Natural and Propane gas)	Weil-McLain		ALL
	382-200-451	Conversion Kit from Honeywell HSI to Gold Control HSI	Weil-McLain		ALL
COMBINATION GAS CONTROL VALVE FOR NATURAL GAS					
1N	510-811-655	*Combination Gas Control Valve Kit, Step Opening, 1.2" W.C. Low Fire to 3.5" W.C. High Fire, ½" X ½" N.P.T., 24 Volt, Natural Gas	White-Rodgers	36C74-215	ALL
COMBINATION GAS CONTROL VALVE FOR PROPANE GAS					
1P	510-811-656	*Combination Gas Control Valve Kit, Step Opening, 3.0" W.C. Low fire to 10.0" W.C. High Fire, ½" X ½" N.P.T., 24 Volt, Propane Gas	White-Rodgers	36C74-227	ALL

* Combination Gas control Valve Includes Manual Gas Cock Knob, Redundant Gas Valve, and Main Pressure Regulator.

NOTE: Honeywell system no longer available.

HE, VHE Hot Surface Ignition White-Rodgers

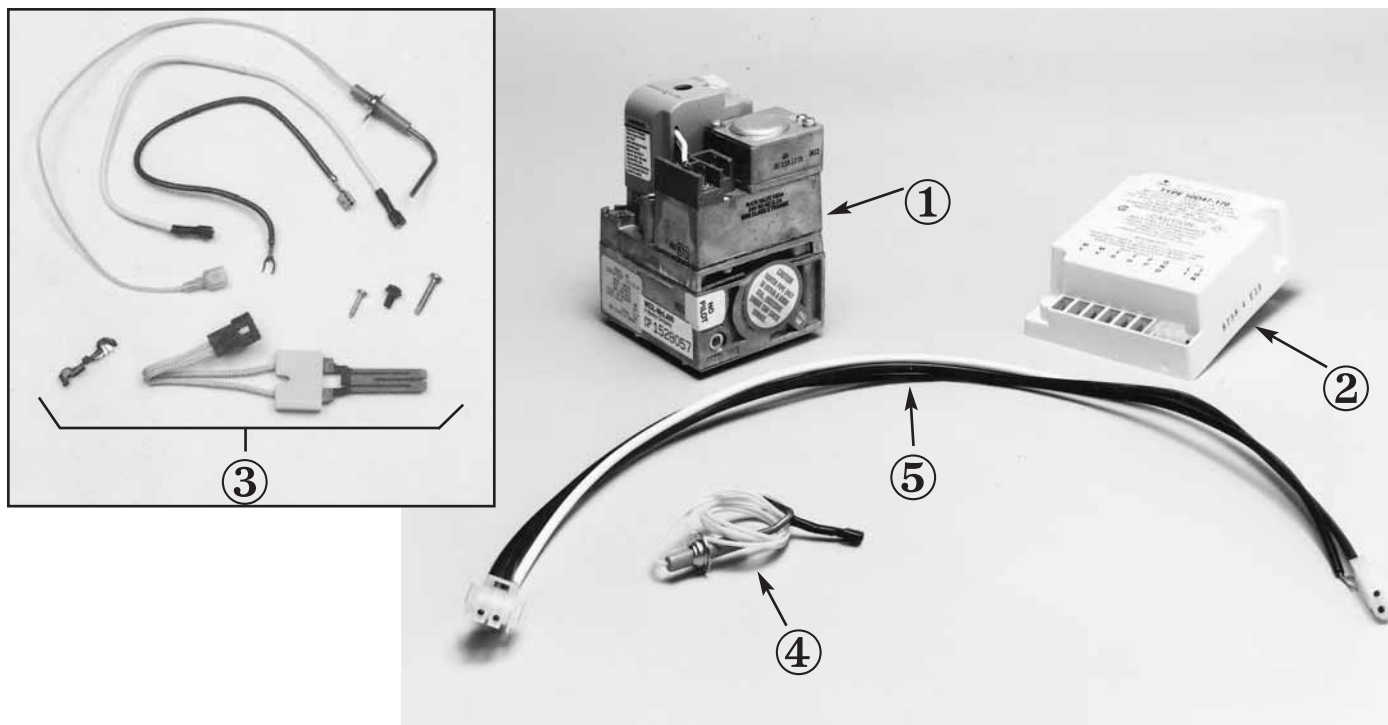


Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Boiler Size
	382-200-451	Conversion Kit from White-Rodgers HSI to Gold Control HSI	Weil-McLain		ALL
COMBINATION GAS CONTROL VALVE FOR NATURAL GAS					
1N	510-811-655	*Combination Gas Control Valve Kit, Step Opening, 1.2" W.C. Low fire to 3.5" W.C. High Fire, ½" X ½" N.P.T., 24 Volt, Natural Gas	Weil-McLain	36C74-215	ALL
COMBINATION GAS CONTROL VALVE FOR PROPANE GAS					
1P	510-811-656	*Combination Gas Control Valve Kit, Step Opening, 3.0" W.C. Low fire to 10.0" W.C. High Fire, ½" X ½" N.P.T., 24 Volt, Propane Gas	Weil-McLain	36C74-227	ALL
GAS CONTROL COMPONENTS FOR NATURAL GAS AND PROPANE GAS					
2	510-811-502	Combination Ignition-Sensing Control Module, 24 Volt, 45 Sec. Igniter Heat-Up. 7 Sec. Timed Trial for Main Flame, Non-Recycle with 100% Lock-up after Three Ignition Trials, enhanced Module	White-Rodgers	50E47-871	ALL
3	382-930-216	Silicone Carbide Igniter Conversion Kit – Norton 201 to 201N	Norton	201	ALL
3	511-330-182	Sapco Flame Sensor used with Fenwal or Honeywell hot surface ignition Controls. Comes with kit # 382-930-216			
3	511-330-184	Silicon Carbide Igniter with Lead Wires and Connector – Norton 201N	Norton	201N	ALL
4	511-330-192	Main Flame Sensor	White-Rodgers	760-802	ALL
5	591-391-808	Wiring Harness – Connects Ignition/Sensing Control Module to Igniter for White-Rodgers Control	White-Rodgers	F115-0100	ALL
CONVERSION KITS: NATURAL TO PROPANE, PROPANE TO NATURAL					
	510-811-480	Conversion Kit for Hot Surface Ignition systems, Natural Gas to Propane Gas	Weil-McLain		ALL
	510-811-485	Conversion Kit for Hot Surface Ignition Systems, Propane Gas to Natural Gas	Weil-McLain		ALL

* Combination Gas Control Valve includes Manual Gas Cock Knob, Redundant Gas Valve, and Main Pressure Regulator

HE, VHE Hot Surface Ignition Fenwall

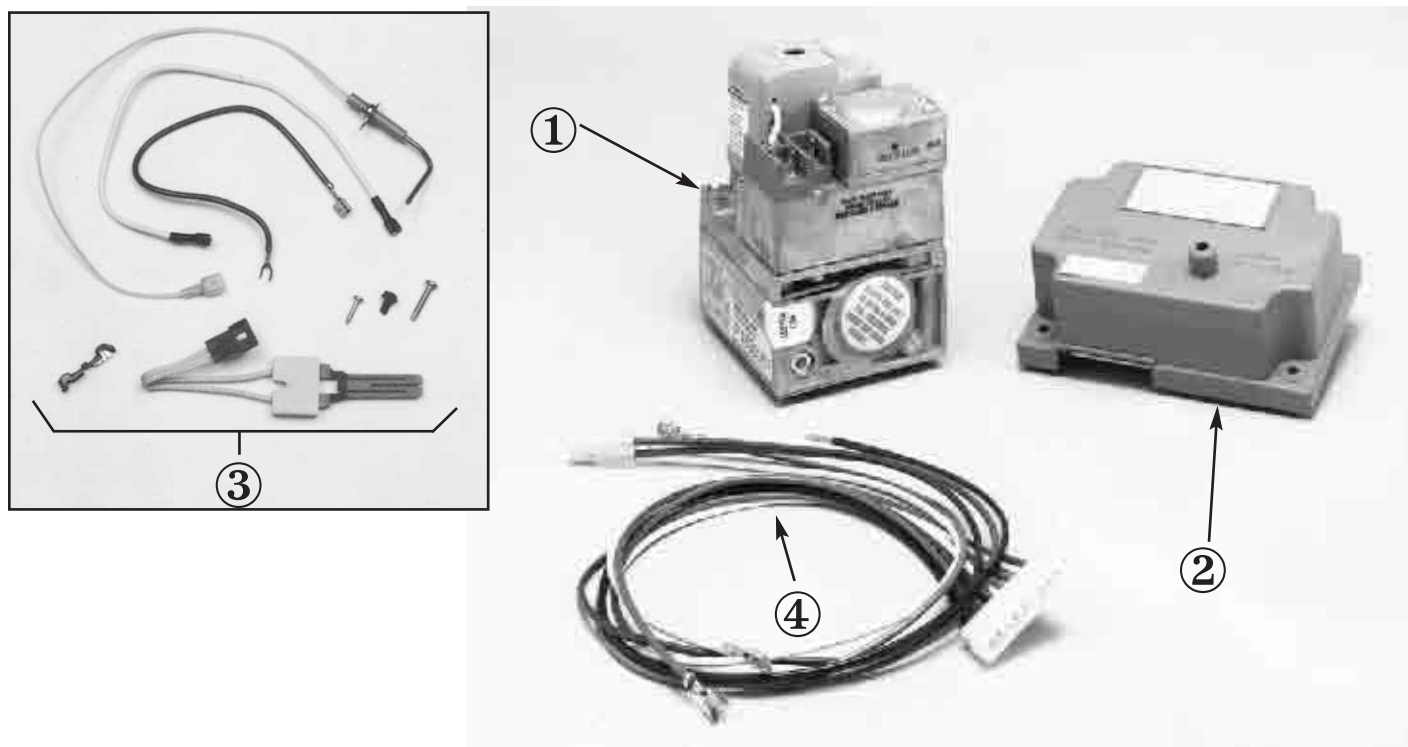


Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Boiler Size
	510-811-477	Complete Conversion kit from Fenwall Hot Surface Ignition System to White-Rodgers HSI System including 50E47-170, wiring, igniter, hardware and instructions (for Natural and Propane gas)	Weil-McLain		ALL
	382-200-451	Conversion Kit from Fenwall HSI to Gold Control HSI	Weil-McLain		ALL
COMBINATION GAS CONTROL VALVE FOR NATURAL GAS					
1N	510-811-655	*Combination Gas Control Valve Kit, Step Opening, 1.2" W.C. Low Fire to 3.5" W.C. High Fire, ½" X ½" N.P.T., 24 Volt, Natural Gas	White-Rodgers	36C74-215	ALL
COMBINATION GAS CONTROL VALVE FOR PROPANE GAS					
1P	510-811-656	*Combination Gas Control Valve Kit, Step Opening, 3.0" W.C. Low fire to 10.0" W.C. High Fire, ½" X ½" N.P.T., 24 Volt, Propane Gas	White-Rodgers	36C74-227	ALL

* Combination Gas control Valve Includes Manual Gas Cock Knob, Redundant Gas Valve, and Main Pressure Regulator.

NOTE: Fenwall system no longer available.

HE Blower Assembly

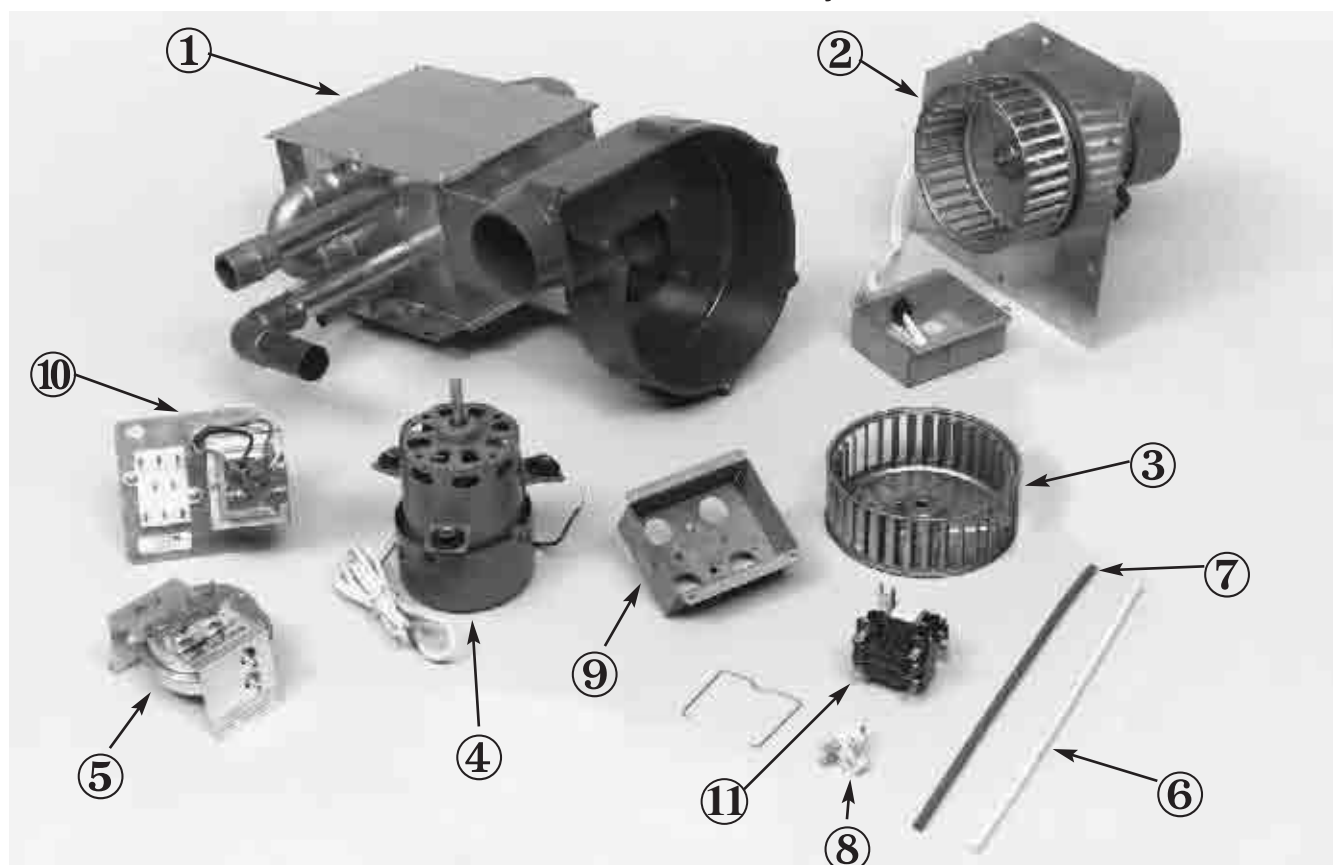


Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Boiler Size
1					3
1					4
1					5
1					6
	382-930-211	Blower Housing Replacement Kit (Includes: Blower Housing, Rivets and Instructions)	Weil-McLain		ALL
2	510-312-312	Blower Assembly (Housing, motor, wheel)	Weil-McLain	(see note)	ALL
3	510-312-280	Blower Wheel Galvanized Steel, 5.5/8" Diameter X2" X 5/16", HE and HELL only	Revcor Inc.	Q575-206-S	ALL
5	511-624-510	Pressure Differential Switch, SPDT Switch Action, .95" W.C. Setting, Sea Level to 4,000 ft. Elevation	Tridelta	FS-4080-132	3, 4, 5
5	511-624-511	Pressure Differential Switch, SPDT Switch Action, .85" W.C. Setting, Sea Level to 4,000 ft. Elevation	Tridelta	FS-4080-133	6
6	590-317-630	Pressure Differential Switch Tubing, 1/8 I.D. x 12", White	Weil-McLain		ALL
7	590-317-631	Pressure Differential Switch Tubing, 1/8" I.D. x12" Long, Red	Weil-McLain		ALL
8	512-050-230	Thermal Fuse, 228° C	Elmwood Sensors	RD226-001	ALL
9	591-804-604	Electrical Junction Box, 4" x 4" x 1" (no longer available) (purchase locally)	Weil-McLain		ALL
10 ■	510-312-166	Combination Transformer-Relay Receptacle, 120/24 Volt, 40VA	White-Rodgers	S84A-85 or S99-9001	ALL
10 ■	510-312-166	Combination Transformer-Relay Receptacle, 120/24 Volt, 40VA	Honeywell	R8285K1004	ALL
10 ■	510-312-166	Combination Transformer-Relay Receptacle, 120/24 Volt, 40VA	Products Unlimited	5701E07C5F 223	ALL
11 ■	510-350-223	Plug-in Relay, DPST, 24 Volt Holding Coil	Products Unlimited	9001-241 Q223	ALL
11 ■	510-350-223	Plug-in Relay, DPST, 24 Volt Holding Coil	Honeywell	R8222U1006	ALL
11 ■	510-350-223	Plug-in Relay, DPST, 24 Volt Holding Coil	White-Rodgers	91-112006-11000	ALL

■ Alternate Components

* Flue Collector and Blower Housing Assembly includes Flue Collector, Transition with Flue Gas Close-Off, and Blower Housing. Sold as an assembly.

Note: Original draft inducer Fasco motor was Fasco # 7121-5750. Currently using Fasco # 7162-1335.

VHE Blower Assembly

Part No.	Description	Mfr.	Mfr.'s Part No.	Boiler Size
				3
				4
				5
				6
510-312-279	Blower Wheel Stainless Steel, 5 5/8" Diameter X 2" x 5/16" Note! VHE Only	United Technologies		ALL
510-312-317	Blower Motor & Wheel Replacement Kit	Weil-McLain		ALL
				ALL
511-624-514	Pressure Differential Switch, SPDT Switch Action, 1.2" W.C. Setting, Sea Level to 4,000 ft. Elevation, with Mounting Brackets	Tridelta	FS-4125-136	ALL
590-317-630	Pressure Differential Switch Tubing, 1/8 I.D. x 12", White	Weil-McLain	80-0727-0	ALL
590-317-631	Pressure Differential Switch Tubing, 1/8" I.D. x 12" Long, Red	Weil-McLain	80-0694-2	ALL
				ALL
590-317-633	Drain Hose, 5/8" I.D. X 14 1/2" long, connects vent elbow to drain trap	Weil-McLain		ALL
512-050-230	Thermal Fuse, 228° C	Elmwood Sensors	RD226-001	ALL
				ALL
510-312-166	Combination Transformer-Relay Receptacle, 120/24 Volt, 40VA	White-Rodgers	S84A-85 or 599-9001	ALL
510-312-166	Combination Transformer-Relay Receptacle, 120/24 Volt, 40VA	Honeywell	R8285K1004	ALL
510-312-166	Combination Transformer-Relay Receptacle, 120/24 Volt, 40VA	Products Unlimited	5701E07C5F223	ALL
510-350-223	Plug-in Relay, DPST, 24 Volt Holding Coil	Products Unlimited	9001-241 Q223	ALL
510-350-223	Plug-in Relay, DPST, 24 Volt Holding Coil	White-Rodgers	91-322000-11000	ALL
510-350-223	Plug-in Relay, DPST, 24 Volt Holding Coil	Honeywell	R8222U1006	ALL
510-350-223	Plug-in Relay, DPST, 24 Volt Holding Coil	White-Rodgers	91-112006-11000	ALL
699-999-022	Saf-T Vent Starter/ Termination Kit, includes Saf-T Vent starter tee, termination coupling with screen, high temperature silicone and instructions.			
699-999-036	Z-Vent Starter/ Termination Kit, includes Z-Vent starter tee, termination coupling with screen, high temperature silicone and instructions.			

Note: Many parts for this boiler no longer available. Call for availability.

* Flue Collector and Blower Housing Assembly includes Flue Collector, Transition with Flue Gas Close-Off, and Blower Housing
Sold as an Assembly

HE, VHE Water Trim



HE, VHE Water Trim

Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Boiler Size
1■	510-312-010	High Limit Temperature control, SPST, Automatic Recycle, 140-220°F. Range, 10°F. fixed subtractive Differential, ½" N.P.T. Brass control Well with extended shank	White-Rogers	11B83-8E1	ALL
1■	510-312-010	High Limit Temperature control, SPST, Automatic Recycle, 140-220°F. Range, 10°F. fixed subtractive Differential, ½" N.P.T. Brass control Well with extended shank	Honeywell	L4080B-1303	ALL
2■	511-546-924	ASME Pressure Relief Valve, set to relieve at 30 PSIG, ¾" N.P.T. Female Inlet, Brass, Side Outlet	Conbraco	10-408-05	ALL
2■	511-546-924	ASME Pressure Relief Valve, set to relieve at 30 PSIG, ¾" N.P.T. Female Inlet, Brass, Side Outlet	Watts	335	ALL
3■	510-218-099	Combination Pressure-Temperature Gauge, 2 ½" Dial, 0-60 PSIG, 60-260°F., Short Shank, Back Connection, ¼" N.P.T.	ENFM	4104-2½-¼	ALL
3■	510-218-099	Combination Pressure-Temperature Gauge, 2 ½" Dial, 0-60 PSIG, 60-260°F., Short Shank, Back Connection, ¼" N.P.T.	Ametek	PTA1088	ALL
4	511-210-423	Drain Valve, ¾" N.P.T., 1 ½" shank, Brass	Conbraco	31-606-01	ALL
5■	511-405-113	Circulator, 1/25 H.P., 120/60/1 Motor, 1750 RPM, .75amps	Taco	W007F	ALL
5■	511-405-115	Circulator, 1/12 H.P., 120/60/1 Motor, 1750 RPM	ITT Fluid Transfer	106588	ALL
6	590-317-543	Circulator Gasket, for Taco 007 and Un110 Circulators (two required per unit)	Taco	194-1548	ALL
6	590-317-535	Circulator Gasket, for B&G LR-20 Circulators (two required per unit)	Weil-McLain		ALL
6	590-317-542	Circulator Gasket, for B&G 100 Series Circulators (two required per unit)	ITT Fluid Triangle	PO3200	ALL
7	381-354-525	1" Universal Circulator Hardware Kit (Includes screws, nuts, (1) flange, (1) gasket)	Weil-McLain		ALL
7	381-354-526	1½" Universal Circulator Hardware Kit (Includes screws, nuts, (1) flange, (1) gasket)	Weil-McLain		ALL
7	563-910-012	Circulator Counter-Flange, 1 ¼" N.P.T., for B&G Circulators	Bell and Gossett	P03250	ALL
7	563-910-013	Circulator Counter Flange, 1 ¼" N.P.T., for Taco Circulators	Taco		ALL

ADDITIONAL WATER TRIM COMPONENTS FOR P-HE AND P-VHE, SERIES 3

Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Boiler Size
8■	510-148-567	Automatic Air Vent, Float Type, 1/8" N.P.T.	Taco	400-3	ALL
	561-013-849	Reducing Coupling, ½" x 1/8" N.P.T., for Taco Air Vent	Weil-McLain		ALL
9	510-632-088	Fill-Trol Diaphragm Expansion Tank (tank only), with "O" Ring	Am-Trol	109	ALL
9	510-632-089	Fill-Trol Diaphragm Expansion Tank (tank only), with "O" Ring	Am-Trol	110	ALL
10■	511-210-433	Fill Valve Angle Style, with Built-in Strainer, Pressure Reducer, Check Valve, and Manual Shut-Off	Conbraco	Mx3907	ALL

■ Alternate components

HE, VHE Natural Gas Controls Cycle Pilot System

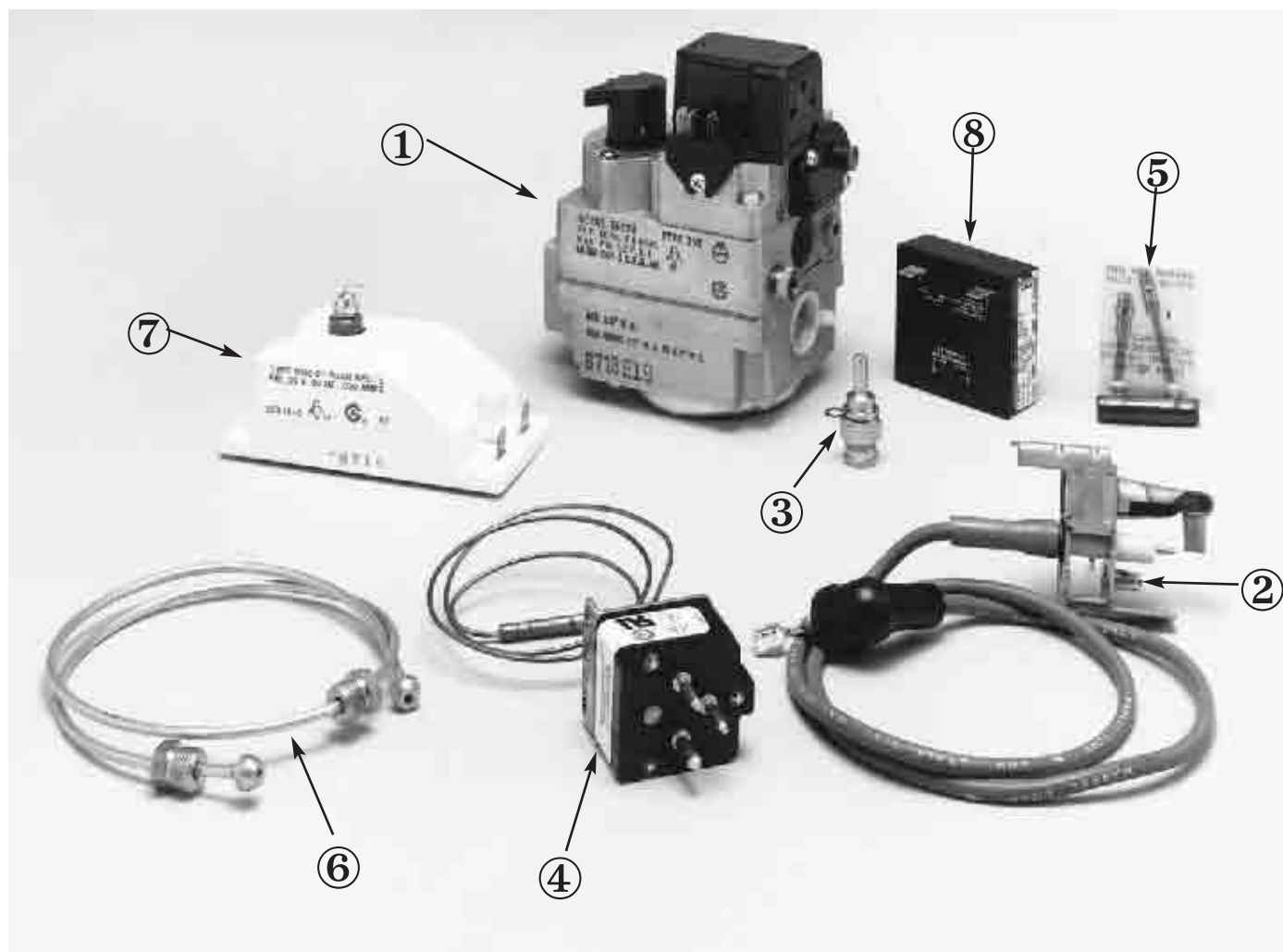


Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Boiler Size
1	obsolete	*Combination Gas Control Valve, 1/2" X 1/2" N.P.T., 24 Volt	White-Rodgers	36C84-258	ALL
2	511-330-116	Combination Safety Pilot Burner with Ignition Electrode And Ignition Lead Cable, 30"	Beckett Gas	E50A9	ALL
3	560-528-959	Natural Gas Pilot Orifice, .020 Diameter, With Clip	Beckett Gas	31407	ALL
4	obsolete	Plug-In Mercury Flame Sensor, SPDT, 30" Cap.	White Rodgers	3098-134-S1	ALL
5	obsolete	Resistor panel, Fits Between Flame Sensor And Combination Gas Control Valve	White-Rodgers	F67-0918	ALL
6	560-742-860	Pilot tubing, 1/8" O.D. Aluminum X 22 3/4" Long, with Compression Fittings	White-Rodgers	F80-1208	ALL
7	obsolete	Pilot Relite Control Module, 24 Volt, Automatic Recycle (Non-Loc-Out)	White-Rodgers	5059-21	ALL
8	obsolete	Pre-Purge Delay Timer, 30 Sec. Delay, 24 Volt, 1 Amp Rating	SSAC	TS12130	ALL
	510-811-500	Conversion Kit from White-Rodgers Cycle Pilot to White-Rodgers Hot Surface Ignition system (for Natural gas).	Weil-McLain		ALL
	382-200-449	Complete Conversion Kit from Cycle Pilot to Gold Control Module Hot Surface Ignition System (Module, Wiring, Gas Valve, Igniter, Hardware, and Instructions) (for Natural gas)	Weil-McLain		ALL

- Combination Gas Control Valve includes Manual Gas Cock Knob, Redundant Gas Valves, Main Pressure Regulator, Pilot Take-Off, with Pilot Filter and Pilot Adjustment

Cycle Pilot parts are obsolete thru Weil-McLain. Existing inventory will be sold. Parts may be available through vendor.

HE, VHE Propane Gas Controls Cycle Pilot System

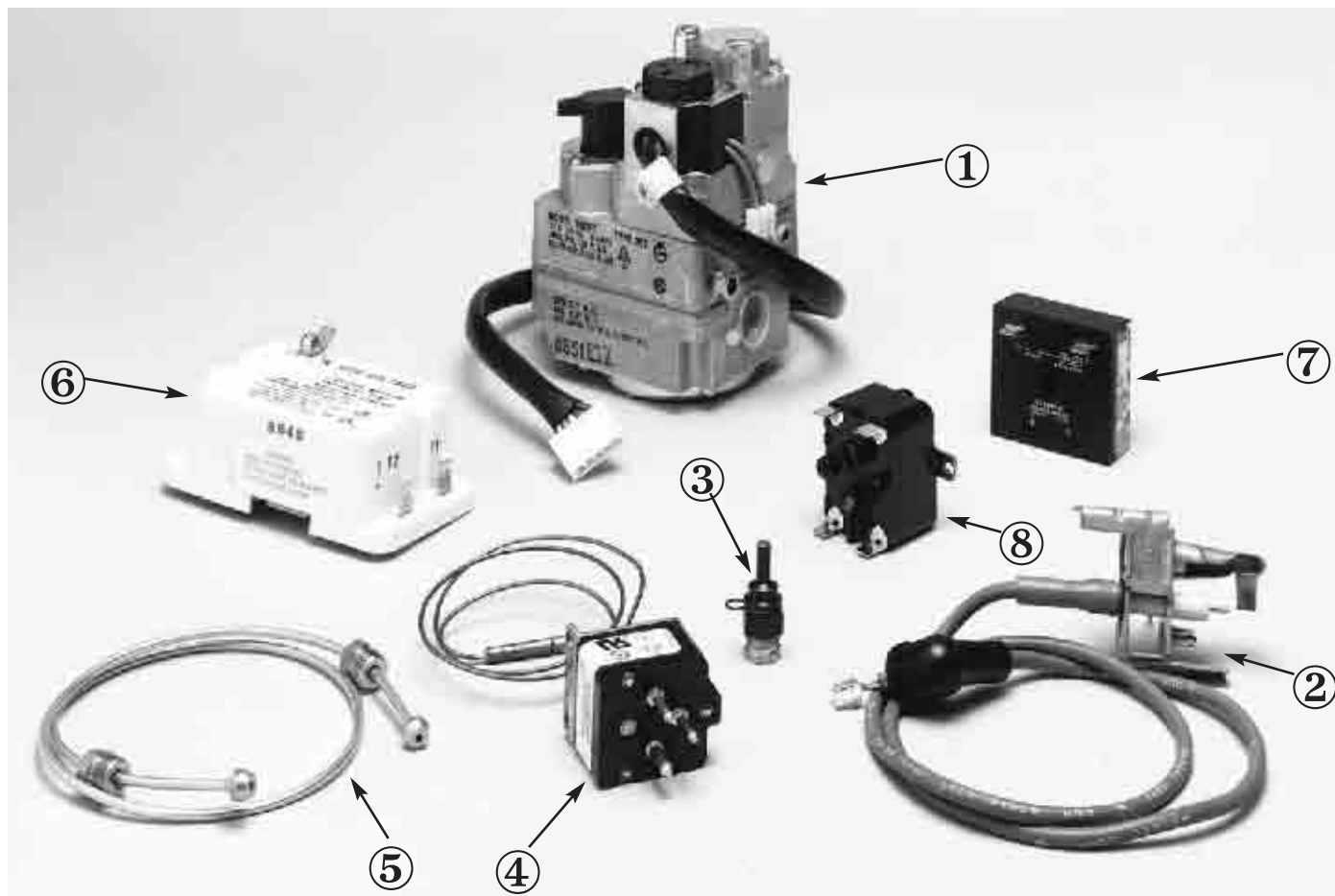


Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Boiler Size
1	511-044-289	*Combination Gas control Valve, ½" X ½" N.P.T., 24 Volt, with Wiring Harness and Connector (Connects Gas Valve to Pilot Relite Control Module)	White-Rodgers	36C87-207	ALL
2	511-330-116	Combination Safety Pilot Burner with Ignition Electrode And Ignition Lead Cable, 30"	Beckett Gas	E50A9	ALL
3	560-528-948	Propane Gas Pilot Orifice, .010 Diameter, With Clip	Beckett Gas	31404	ALL
4	511-724-278	Plug-In Mercury Flame Sensor, SPDT, 30" Cap.	White-Rodgers	3098-134-S1	ALL
5	560-742-860	Pilot tubing, 1/8" O.D. Aluminum X 22 ¾" Long, with Compression Fittings	White-Rodgers	F80-1208	ALL
6	511-330-118	Pilot Relite Control Module, 24 Volt, Lock-Up Type, Locks Out After 120 Sec. Trial for Ignition, with Receptacle (Wiring harness on gas valve plugs into receptacle)	White-Rodgers	50A22-201	ALL
7	510-350-369	Pre-Purge Delay Timer, 30 Sec. Delay, 24 Volt, 1 Amp Rating	SSAC	TS12130	ALL
8	510-350-219	Switching Relay, SPST, 24 Volt Holding Coil	White-Rodgers	184-20102-102AC	ALL
	510-811-501	Conversion Kit from White-Rodgers Cycle Pilot to White-Rodgers Hot Surface Ignition System (for LP gas).	Weil-McLain		ALL
	382-200-450	Complete Conversion Kit from Cycle Pilot to Gold Control Module Hot Surface Ignition System (Module, Wiring, Gas Valve, Igniter, Hardware, and Instructions) (for LP gas)	Weil-McLain		ALL

* Combination Gas Control Valve includes Manual Gas Cock Knob, Redundant Gas Valve, Main Pressure Regulator, Pilot Take-Off, with Pilot Filter and Pilot Adjustment

Cycle Pilot parts are obsolete thru Weil-McLain. Existing inventory will be sold. Parts may be available through vendor.