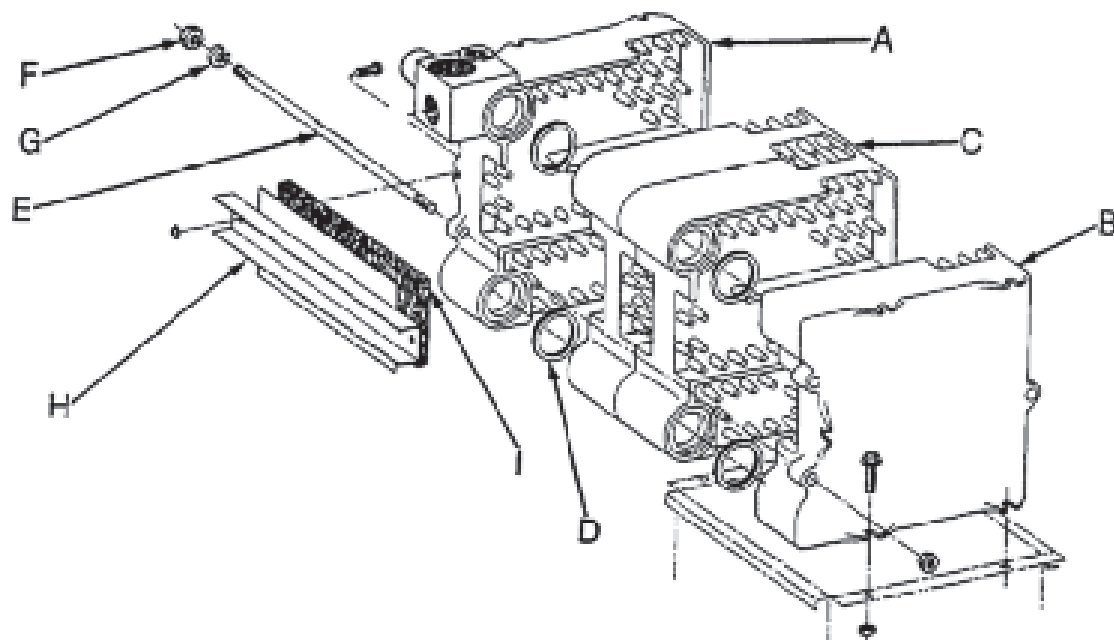
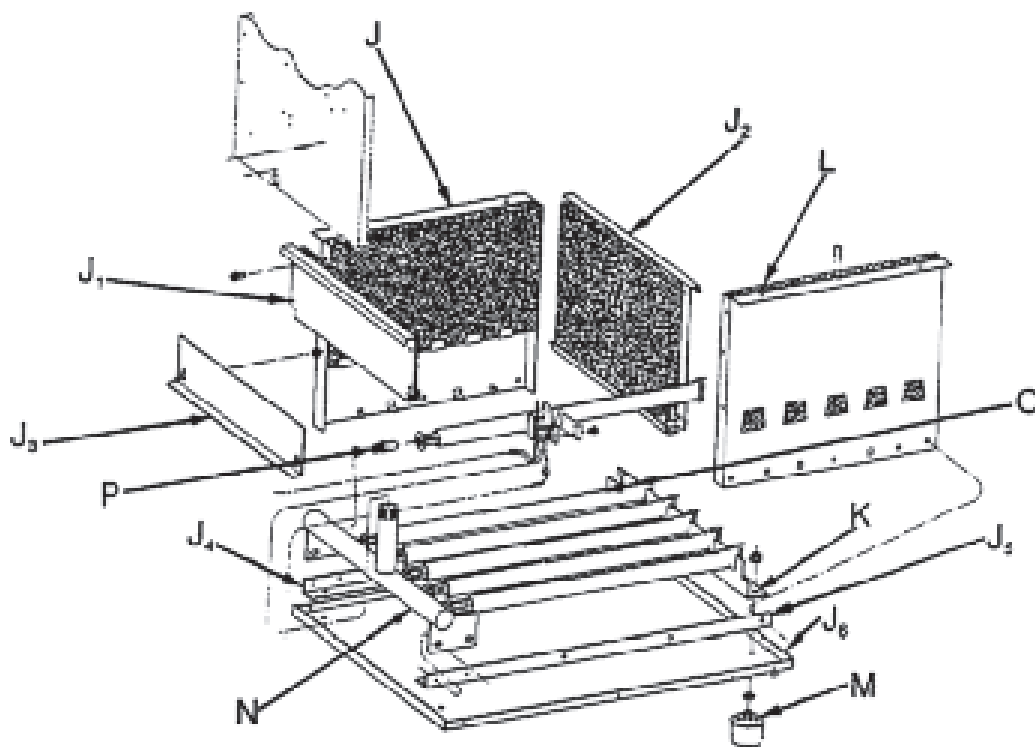


HE, HEII and VHE Section and Base Assembly

SECTION ASSEMBLY
HE/VHE BOILERSBASE ASSEMBLY
HE/VHE BOILERS

HE, HEII and VHE Section and Base Assembly

Parts not listed below are obsolete and no longer available. Parts listed below may become obsolete.
Call Customer Service for part availability.

Fig. No.	Part No.	Description	Series No.
D	592-800-011	2" Square Cut Seal (2 per joint)	1-3
E	560-234-500	7/16" Tie Rod without Nut: (9") (3 per boiler)	1-3
	560-234-501	7/16" Tie Rod without Nut: (12") (3 per boiler)	1-3
	560-234-502	7/16" Tie Rod without Nut: (15") (3 per boiler)	1-3
	560-234-503	7/16" Tie Rod without Nut: (18") (3 per boiler)	1-3
G	562-248-684	7/16" Washer (1 per Tie Rod)	1-3
	591-638-850	Silicone Sealant for Cleanout Plate-RTV 700 or equivalent: (10.3 oz.) Base Side Panel (2 per Boiler)	1-3
J3	450-030-644	Base Access Panel: (HSI Only)- HE/VHE/HEII-3	3
	450-030-645	Base Access Panel: (HSI Only)- HE/VHE/HEII-4	3
	450-030-646	Base Access Panel: (HSI Only)- HE/VHE/HEII-5	3
	450-030-647	Base Access Panel: (HSI Only)- HE/VHE/HEII-6	3
J4	450-030-475	Base Pan Angle-left hand	1-3
J5	450-030-474	Base Pan Angle-right hand	1-3
M	590-424-252	Leg Assembly (Includes: Leg, Nuts and Washer)	1-3
	560-528-992	Main Burner Orifice: (Natural Gas): 2.0mm-7/16" Hex-1/8" NPT	1-3
	560-529-052	Main Burner Orifice: (Propane Gas): 1.25mm-7/16" Hex-1/8" NPT	1-3
O	512-200-035	Burner, Aluminized: (1.00" OD x15.00" Long)	1-3
	512-200-045	Burner, Aluminum with Pilot Bracket - (HE/VHE Cycle Pilot System Only)	1-3
	591-632-612	Waterglass (4 oz Bottle)	1-3
	591-602-914	Boiler Cement (1 Can)=(1/2 Gallon)	1-3
	591-638-851	Silicone Sealant (RTV 700 or Equivalent) (3 oz)	1-3

Note: Number of burners for HE/VHE/HEII Boilers:

HE/VHE/HEII-3-(4 main burners),

HE/VHE/HEII-4-(6 main burners),

HE/VHE/HEII-5-(8 main burners),

HE/VHE/HEII-6-(10 main burners).

For Cycle Pilot HE/VHE Boilers subtract one main burner, and add one pilot burner to each above.

Boiler Cement Quantities Required:

HEII-3-(1 Can),

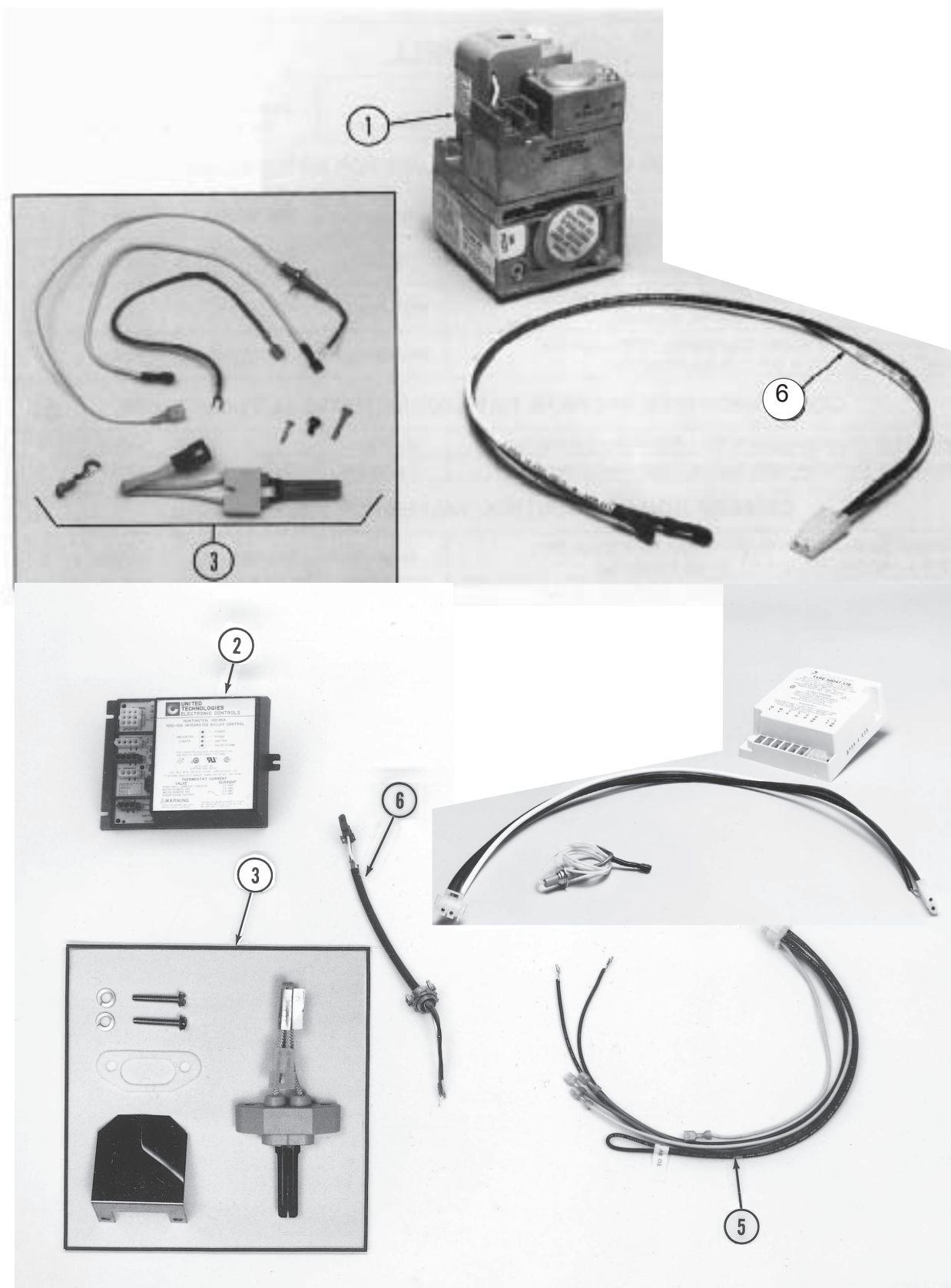
HEII-4-(2 Cans),

HEII-5-(3 Cans),

HEII-6-(4 Cans),

1 Can Equals ½ Gallon (Used For Base Front and Back Cross Ties on HEII)

HE, HEII and VHE Hot Surface Ignition



HE, HEII and VHE Hot Surface Ignition

Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Model
Combination Gas Valve Control For Natural Gas					
1	510-811-655	Combination Gas Control Valve Kit (step opening, 0.9" W.C. low fire to 3.5" W.C. high fire, 1/2" x 1/2" N.P.T. 24 Volt, Natural Gas)	White Rodgers	36C74-913	ALL
Combination Gas Valve Control For Propane Gas					
1	510-811-656	Combination Gas Control Valve Kit (step opening, 3.0" W.C. low fire to 10.0" W.C. high fire, 1/2" x 1/2" N.P.T. 24 Volt, Propane Gas)	White Rodgers	36C74-227	ALL
Gas Control Components For Natural Gas And Propane Gas					
2	510-811-502	Combination Ignition-Sensing Control Module, 24 Volt, (lock-out after 3 ignition trials)	White Rodgers	50E47-871	HE/ VHE
2	382-200-448	Intergrated Boiler Control Module, 24 Volt, (lock-out after 3 ignition trials)	United Technologies	1013-200	HE II
3	382-930-216	Norton 201 to 201N Conversion Kit - Used only with Honeywell & Fenwall Controls - (Igniter, Bracket, Sense Rod)	Caddo Connections Inc.		HE/ VHE
	511-330-182	Sapco Fame Sensor - Comes with Kit # 382-930-216	Sapco		HE/ VHE
	511-330-184	Norton 201N (Igniter only) - with Lead Wires and Connector used with White Rodgers	Caddo Connections Inc.		HE/ VHE
4	511-330-148	Igniter Replacement Kit - (Includes Igniter and Shield used with United Technologies) - HE II Only	Norton	MB478687	HE II
5	511-330-192	Main Fame Sensor, used with White Rodgers Control # 50E47-871	White Rodgers	760-802-HSI	HE/ VHE
	450-030-655	Igniter Bracket, Boilers with - 201N Igniter (HSI) only	Weil-McLain		HE/ VHE
	450-030-653	Igniter Bracket, Boilers with - 271N Igniter	Weil-McLain		HE II
	450-030-642	Igniter Shield, Boilers with HSI Only	Weil-McLain		ALL
6	591-391-819	Wiring Harness - Module to Igniter - Gold Control Module Only	Weil-McLain		HE II
7	591-391-786	Wiring Harness - Module to Controls Gold Control Module Only	Caddo Connections Inc.		HE II
8	591-391-808	Wiring Harness - Module to Igniter - White Rodgers Module Only	Caddo Connections Inc.		HE/ VHE
9	591-391-788	Wiring Harness - Gold Control Module to Junction Box	Caddo Connections Inc.		HE II
	591-391-784	Wiring Harness - Gold Control Module to Inducer (4-Pin Molex Plug)	Caddo Connections Inc.		

HE, HEII and VHE Hot Surface Ignition

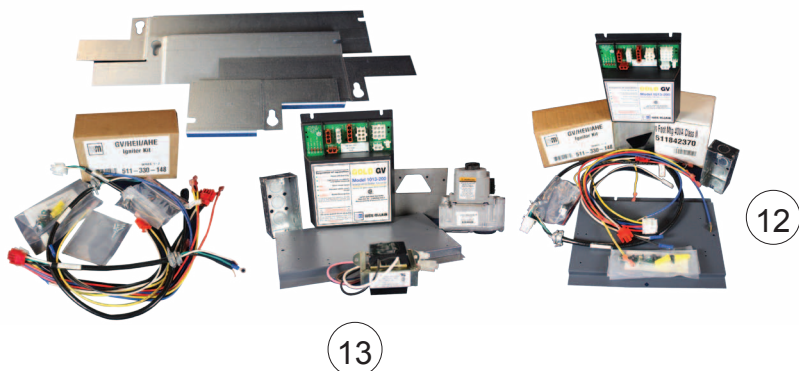


Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Model
Conversion Kits: Natural to Propane, Propane to Natural					
	510-811-480	Conversion Kit – Natural Gas to Propane Gas (HSI only) - (Includes: Gas Valve, Orifices and instructions)	Weil-McLain		ALL
	510-811-485	Conversion Kit – Propane Gas to Natural Gas (HSI only) - (Includes: Gas Valve, Orifices and instructions)	Weil-McLain		ALL
Conversion Kits: Control Systems					
12	382-200-451	Conversion Kit – From Honeywell, Fenwall, White Rodgers HSI to Gold Control SI - (Includes: Module, Wiring, Transformer, Igniter, hardware and instructions)	Weil-McLain		HE/ VHE
13	382-200-449	Complete Conversion Kit From Cycle Pilot System to Gold Control HSI (Natural Gas) - (Includes: Module, Gas Valve, Wiring, hardware and instructions)	Weil-McLain		HE/ VHE
	382-200-450	Complete Conversion Kit From Cycle Pilot System to Gold Control HSI (Propane Gas) - (Includes: Module, Gas Valve, Wiring, hardware and instructions)	Weil-McLain		HE/ VHE
	382-200-448	Conversion Kit From Honeywell S9301A or Gold Control 1013 -100 to Gold Control 1013-200 - (Includes: Module, Wiring and instructions)	Weil-McLain		HE II

HE, HEII and VHE Blower Assembly

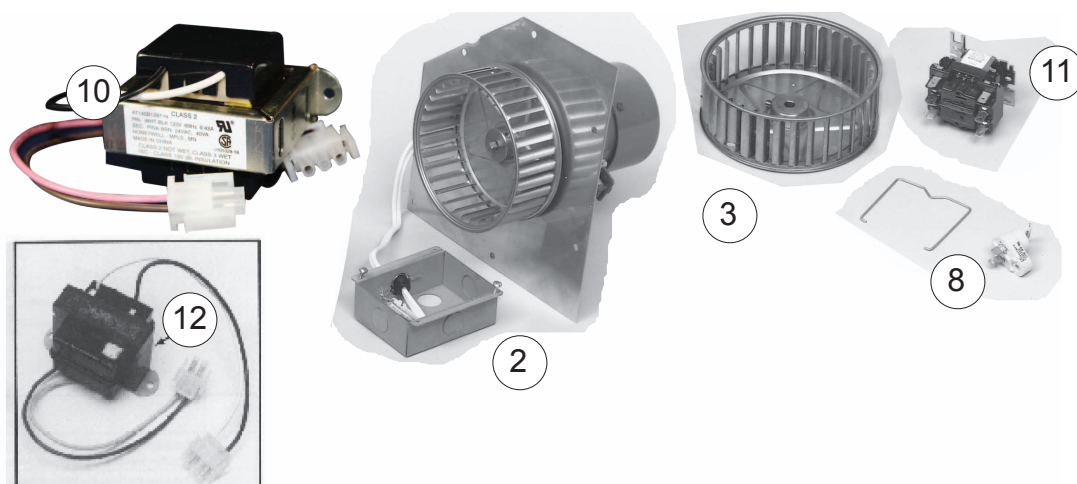


Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Boiler Model
2	510-312-312	Blower Assembly (Includes: Mounting Plate, Hardware, Motor and Wheel) - All Boilers	Weil-McLain	(See Note)	HE/HE-II
3	510-312-322	Blower Wheel (galvanized Steel, 5.75" diameter, 5/16" shaft)	Revcor Inc.	B575-212S	HE/HE II
	510-312-317	Blower Assembly (Includes: Mounting Plate, Hardware, Motor and Wheel) - All Boilers	Weil-McLain	(See Note)	VHE
	510-312-279	Blower Wheel (stainless steel, 5.72" diameter, 5/16 shaft)	Sheridan Manufacturing of Ohio	S57-20CCW	VHE
	699-999-022	Starter/Termination Kit (Includes: Starter Tee, Termination Coupling, Sealant and instructions) (Saf-T- Vent Only).	Weil-McLain		HE/VHE
	699-999-036	Starter/Termination Kit (Includes: Starter Tee, Termination Coupling, Sealant and instructions) (Z- Vent Only).	Weil-McLain		HE/VHE
	699-999-024	Starter/Termination Kit (Includes: Starter Tee, Termination Coupling, Sealant and instructions) (Saf-T- Vent Only).	Weil-McLain		HE II
	699-999-034	Starter/Termination Kit (Includes: Starter Tee, Termination Coupling, Sealant and instructions) (Z- Vent Only).	Weil-McLain		HE II
Electrical Components					
10	510-312-166	Combination Transformer-Relay Receptacle, 120/24 Volt, 40 VA	White Rodgers	S84A-85	HE/VHE
			Honeywell	R8285K-1004	HE/VHE
			Products Unlimited	57-01E07C5F23	HE/VHE
11	510-350-223	Plug In Relay, DPST, 24 Volt Holding Coil	Honeywell	R822U1006	HE/VHE
	510-312-167	Complete Transformer and Relay	Honeywell	R8285D1000	HE/VHE
10	511-842-370	24 Volt Step Down Transformer, 40 VA	Honeywell	AT140B1297	HE II
	512-050-230	Fuse Thermal Roll-Out, 228°C	Elmwood Sensor	RD226-001	ALL

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

HE, HEII and VHE Water Trim

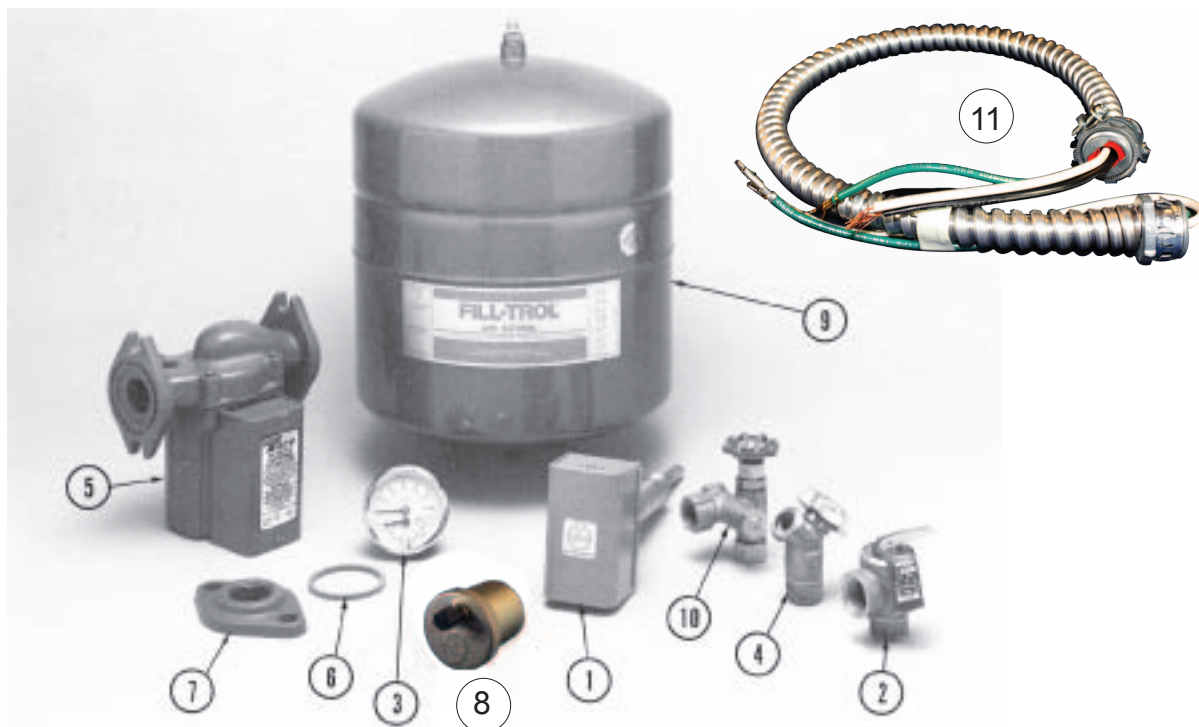


Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.
1	510-312-015	High Limit Temperature Control (SPST, automatic recycle, 100-240°F range, 5-30° range adjustable differential, compatible with existing well)	Honeywell	L4006A-1678
	592-300-030	Brass Control Well, 7" shank, 1/2" N.P.T.		
2	511-546-924	ASME Pressure Relief Valve, 3/4" N.P.T., female inlet, side outlet, brass, set to relieve at 30 PSIG	Watts	335
2	511-546-920	ASME Pressure Relief Valve, 3/4" N.P.T., male inlet, side outlet, brass, set to relieve at 30 PSIG	Watts	M330
3	510-218-099	Combination Pressure/Temperature Gauge, 3.12" dial, 0-170 PSIG, 60-320°F short shank, 1/4" N.P.T. back connection	Amekai	OS234-JDTW-002
4	511-210-423	Drain Valve, 3/4" N.P.T., 1 1/2" shank	Weil-McLain	
5	511-405-113	Circulator, 1/25 HP, 115/60/1 motor, 3250 RPM, .70 Amps	Taco	W007F
5	511-405-115	Circulator, 1/12 HP, 115/60/1 motor, 1725 RPM, 1.75 Amps	Bell & Gossett	100
6	590-317-543	Circulator Gasket, for Taco 007 and Un 110 Circulators – (2- required per unit)	Taco	194-1548
6	590-317-535	Circulator Gasket, for B&G LR-20 Circulators – (2- required per unit)	Grand Haven Gasket Co.	
6	590-317-542	Circulator Gasket, for B&G 100 Series Circulators – (2- required per unit)	ITT Industries	
11	382-930-117	Wire Harness Kit for Taco 007&110, B&G - LR-20 & 100 – (Includes: 4-Pin Wire Harness, Connector and Nuts), Used Only with 1013-10 and 1013-100 Modules	Caddo Connection	

HE, HEII and VHE Water Trim

Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.
7	381-354-525	1" Universal Circulator Hardware Kit (Includes: Screws, Nuts, (1) Flange and (1) Gasket)	Weil-McLain	
7	381-354-526	1 1/4" Universal Circulator Hardware Kit (Includes: Screws, Nuts, (1) Flange and (1) Gasket)	Weil-McLain	
ADDITIONAL WATER TRIM COMPONENTS				
8	510-148-567	Automatic Air Vent, float type, 1/8" N.P.T.	Taco	400-3
	561-013-849	Reducing Coupling, 1/2" X 1/8" N.P.T. for Taco Air Vent	Weil-McLain	
9	510-632-088	Fill-Trol Diaphragm Expansion Tank with O-Ring – (tank only)	Am-Trol	109
9	510-632-089	Fill-Trol Diaphragm Expansion Tank with O-Ring – (tank only)	Am-Trol	110
10	511-210-434	Fill Valve Angle Style-90 with Built-in Strainer, Pressure Reducer, Check Valve requires user provided shut-off valve	Conbraco	65-006-95

HE, HEII and VHE Pressure Switches



Fig. No.	Part No.	Description	Mfr.	Mfr.'s Part No.	Model
5	511-624-541	Pressure Differential Switch, SPDT, 1.05" setting, 0 – 4000' ft elevation	Honeywell	IS20298-5449	HE-Series 1&2-(ALL)
	511-624-545	Pressure Differential Switch, SPDT, 0.95" setting, 4000 – 8000' ft elevation	Honeywell	IS20298-5512	HE-Series 2-(ALL)
	511-624-544	Pressure Differential Switch, SPDT, 0.85" setting, 8000 – 12000' ft elevation	Honeywell	IS20298-5511	HE-Series 2-(ALL)
	511-624-510	Pressure Differential Switch, SPDT, 1.00" setting, 0 – 4000' ft elevation	Honeywell	IS20298-5452	HE-Series 3, HE-II – Sizes (3,4,5)
	511-624-511	Pressure Differential Switch, SPDT, 0.90" setting, 4000 – 8000' ft elevation	Honeywell	IS20298-5453	HE-Series 3, HE-II – Sizes (3,4,5)
	511-624-512	Pressure Differential Switch, SPDT, 0.80" setting, 8000 – 12000' ft elevation	Honeywell	IS20298-5513	HE-Series 3, HE-II – Sizes (3,4,5)
	511-624-511	Pressure Differential Switch, SPDT, 0.90" setting, 0 - 4000' ft elevation	Honeywell	IS20298-5453	HE-Series 3, HE-II – Size (6)
	511-624-512	Pressure Differential Switch, SPDT, 0.80" setting, 4000 - 8000' ft elevation	Honeywell	IS20298-5513	HE-Series 3, HE-II – Size (6)
	511-624-513	Pressure Differential Switch, SPDT, 0.70" setting, 8000 – 12000' ft elevation	Honeywell	IS20298-5514	HE-Series 3, HE-II – Size (6)
	511-624-549	Pressure Differential Switch, SPDT, 1.47" setting, 0 - 4000' ft elevation	Honeywell	IS20298-5515	VHE-Series 1 (ALL)
	511-624-548	Pressure Differential Switch, SPDT, 1.15" setting, 0 - 4000' ft elevation	Honeywell	IS20298-5450	VHE-Series 2 (ALL)
	511-624-541	Pressure Differential Switch, SPDT, 1.05" setting, 4000 - 8000' ft elevation	Honeywell	IS20298-5449	VHE-Series 2 (ALL)
	511-624-545	Pressure Differential Switch, SPDT, 0.95" setting, 8000 - 12000' ft elevation	Honeywell	IS20298-5512	VHE-Series 2 (ALL)
	511-624-514	Pressure Differential Switch, SPDT, 1.26" setting, 0 - 4000' ft elevation	Honeywell	IS20298-5451	VHE-Series 3 (ALL)
	511-624-548	Pressure Differential Switch, SPDT, 1.15" setting, 4000 - 8000' ft elevation	Honeywell	IS20298-5450	VHE-Series 3 (ALL)
	511-624-541	Pressure Differential Switch, SPDT, 1.05" setting, 8000 - 12000' ft elevation	Honeywell	IS20298-5449	VHE-Series 3 (ALL)
6	590-317-630	Pressure Differential Switch Tubing, 1/8" I.D. X 12" long, white	Manufacturers Rubber Supply		HE/VHE/HE-II
7	590-317-631	Pressure Differential Switch Tubing, 1/8" I.D. X 12" long, red	Manufacturers Rubber Supply		HE/VHE/HE-II