



Aqua-Hot®

HYDRONIC HEATING SYSTEM

450-DE



AHE-450-DE2

PARTS MANUAL

Table of Contents

Section 1: Heater Overview

General	Page 5
Top	Page 6
Front.....	Page 7-10
Rear	Page 11-12

Section 2: Diesel-Burner

Overview	Page 13-15
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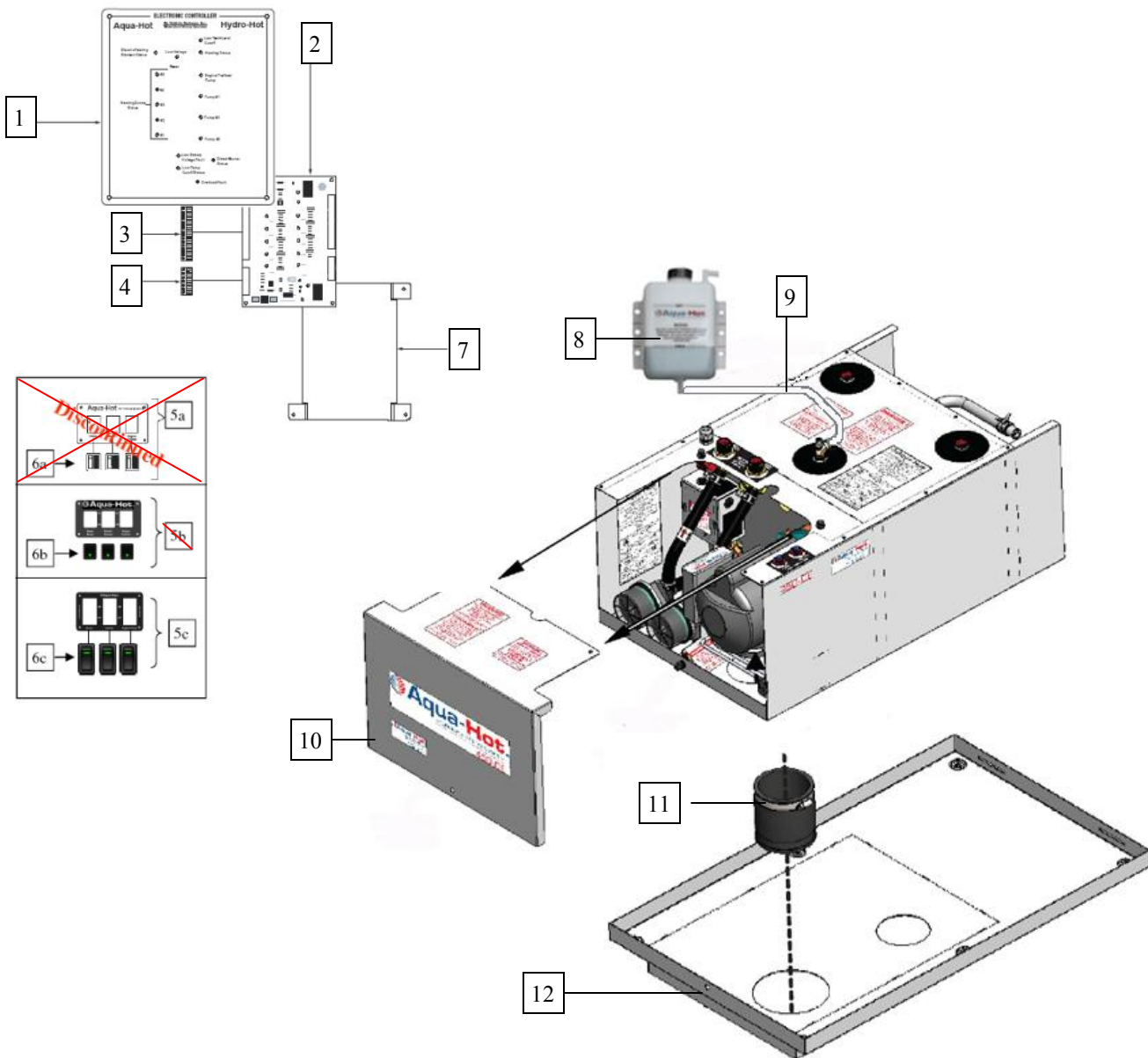
Section 3: Misc. Parts

Misc. Parts	Page 16
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Section 4: Tools

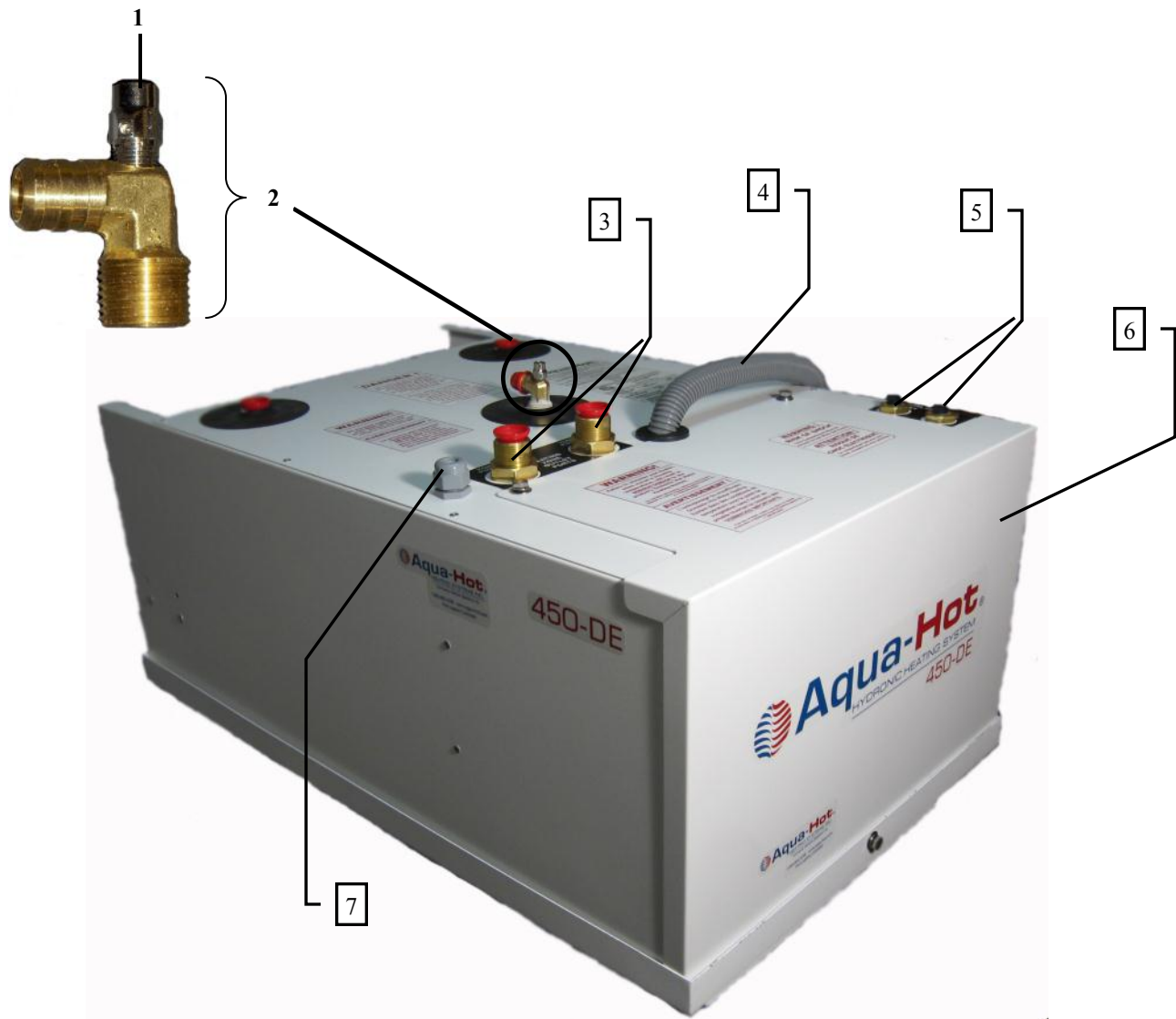
Tools	Page 17
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SECTION 1: HEATER OVERVIEW (GENERAL)



Key	Part Number	Date of Use	Description
1	SME-200-501		Faceplate, Electronic Controller, Assembly
2	ELE-PC4-010-AA		Controller, Electronic, 12 VDC
3	ELX-312-491		Plug, Electronic Controller, 20-Position
4	ELX-312-499		Plug, Electronic Controller, 8-Position
5a	ELE-000-507	06/2008 - 10/2009	Panel, Switch, Assembly, 12 VDC - Discontinued
5b	ELE-000-507	06/2008 - 10/2009	Panel, Switch, Assembly, 12 VDC - Discontinued
5c	ELE-000-509	09/2011 - Current	Panel, Switch, Assembly, 12 VDC
6a	ELX-283-284	06/2008 - 10/2009	Switch, Rocker, w/LED - Discontinued
6b	ELX-283-284	06/2008 - 10/2009	Switch, Rocker, w/LED
6c	ELX-283-283	09/2011 - Current	Switch, Rocker, w/LED
7	SME-EN4-008		Back, Electronic Controller, Enclosure
8	PLE-070-401		Tank, 3 QT, Expansion assembly
9	PLE-210-191		Tube, Over Flow Clear 5/8 in. x 8 ft
10	SME-450-030		Cover, Access Main
11	PLX-450-860		Sleeve, Air Intake, 3 in DIA X 4 in Long Rubber
12	SME-450-070		Tray, Mounting Assembly

SECTION 1: HEATER OVERVIEW - TOP



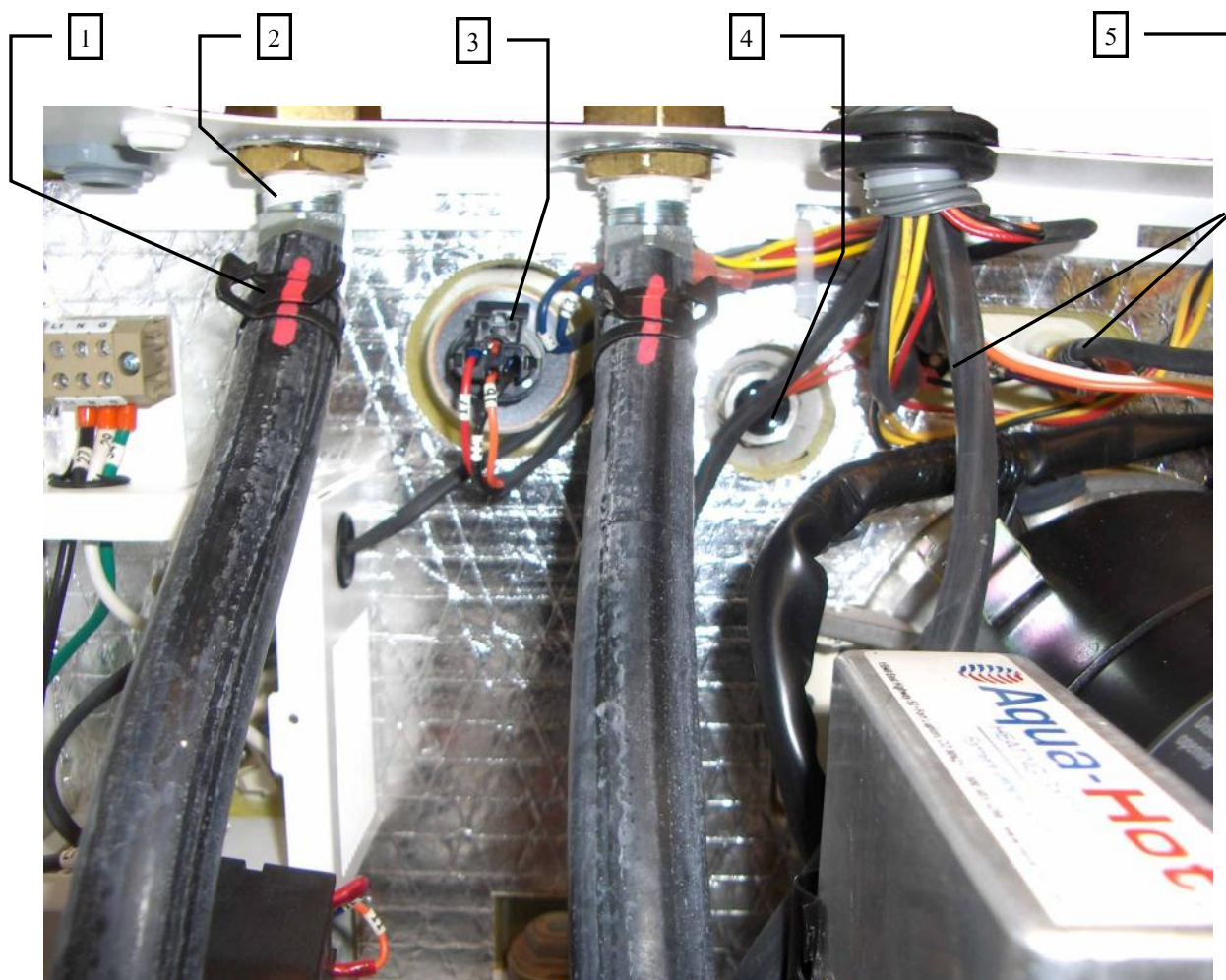
Key	Part Number	Description
1	PLX-007-065	Valve, Air Comb, Coin/Key
2	PLE-007-000	Valve, Air Assembly Comb, Coin/Key
3	PLE-105-810	Fitting, Bulkhead Mod 1/2 x 1/2 (F)
4	ELE-100-455	Harness, Wiring 12 ft. Assembly
5	PLX-105-800	Fitting, Bulkhead, 1/4 x 1/4 in (F) NPT Brass
6	SME-450-030	Cover, Access Main
7	HDX-000-623	Clamp, Romex 1/2" Plastic

SECTION 1: HEATER OVERVIEW - FRONT



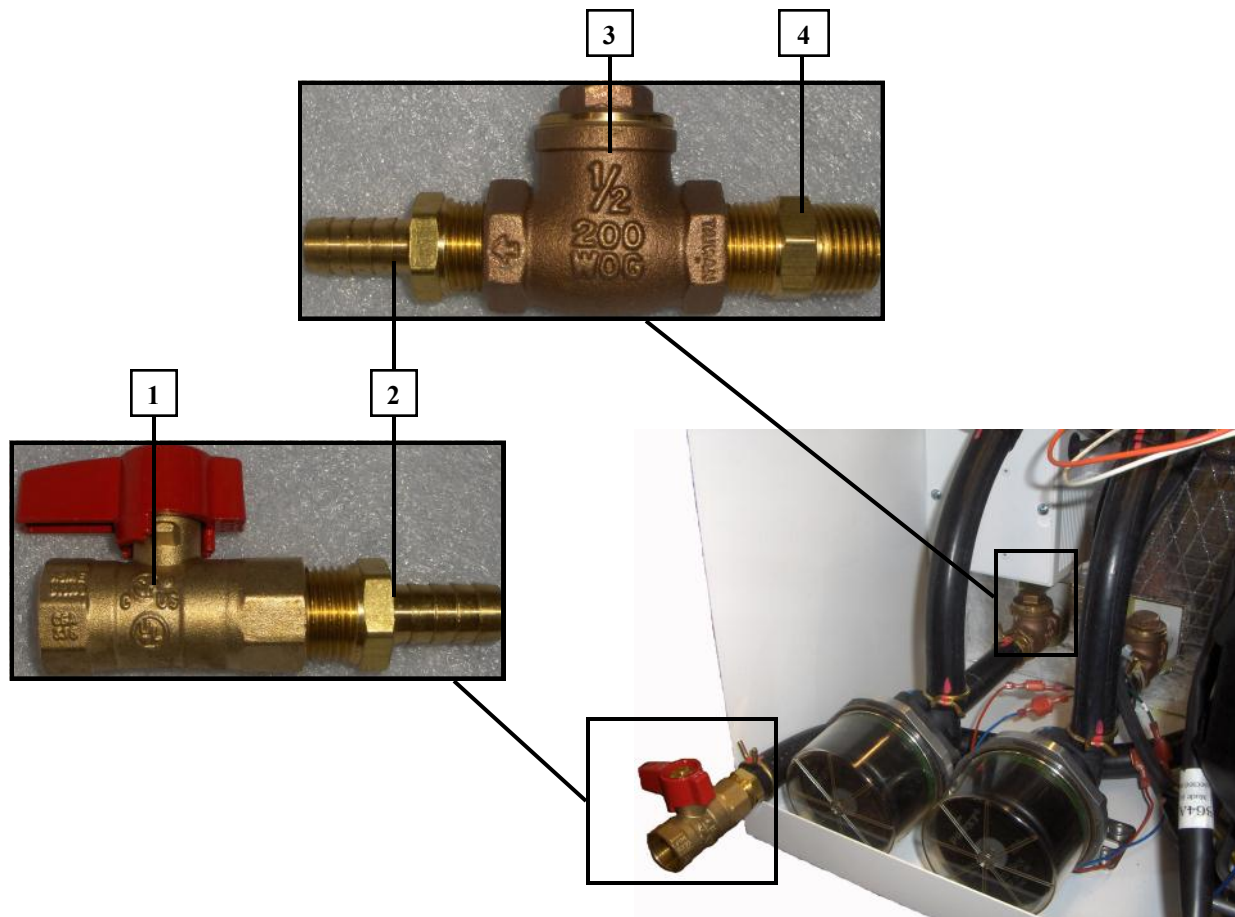
Key	Part Number	Description
1	PLE-105-810	Fitting, Bulkhead Mod 1/2 x 1/2 (F)
2	HDX-000-623	Clamp, Romex 1/2" Plastic
3	ELE-000-905	Block, Terminal 3 Position 22-8 AWG
4	PLE-100-821	Pump, Zone Circulation
5	PLE-100-830-FRU	Pump, Assembly, Stir, w/Connectors
6	ELX-000-050	Switch, Interlock
7	FLE-421-851	Tube, Supply Fuel Line Assembly
8	FLE-421-852-FRU	Kit, Fuel Line Replacement 400/450
9	FLX-421-000	Fitting, Inverted Flare Connector 1/4 Tube x 1/4 (M) NPT

SECTION 1: HEATER OVERVIEW - FRONT(SENSORS)



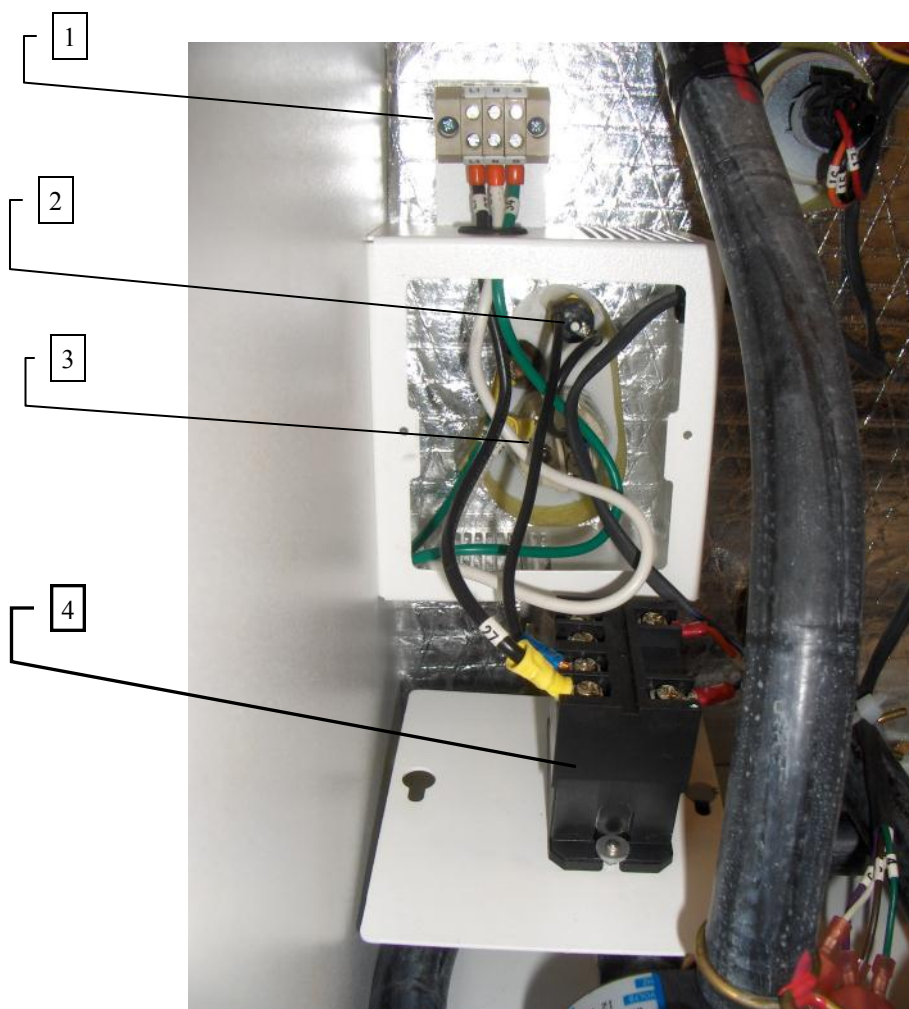
Key	Part Number	Description
1	PLX-CTB-230	Clamp, Hose Constant Tension 7/8 in
2	PLX-114-080	Fitting, Elbow 45° Barb, 1/2 x 1/2 in (M)NPT Steel
3	ELX-800-003	Switch, Fluid Level Capacitance
4	ELE-014-005	Thermostat, Control 185°F 1/2 in (M) NPT w/Spade Connectors
5	ELE-HLT-425	Thermostat, High Limit 215°F w/Spade Connectors

SECTION 1: HEATER OVERVIEW - FRONT



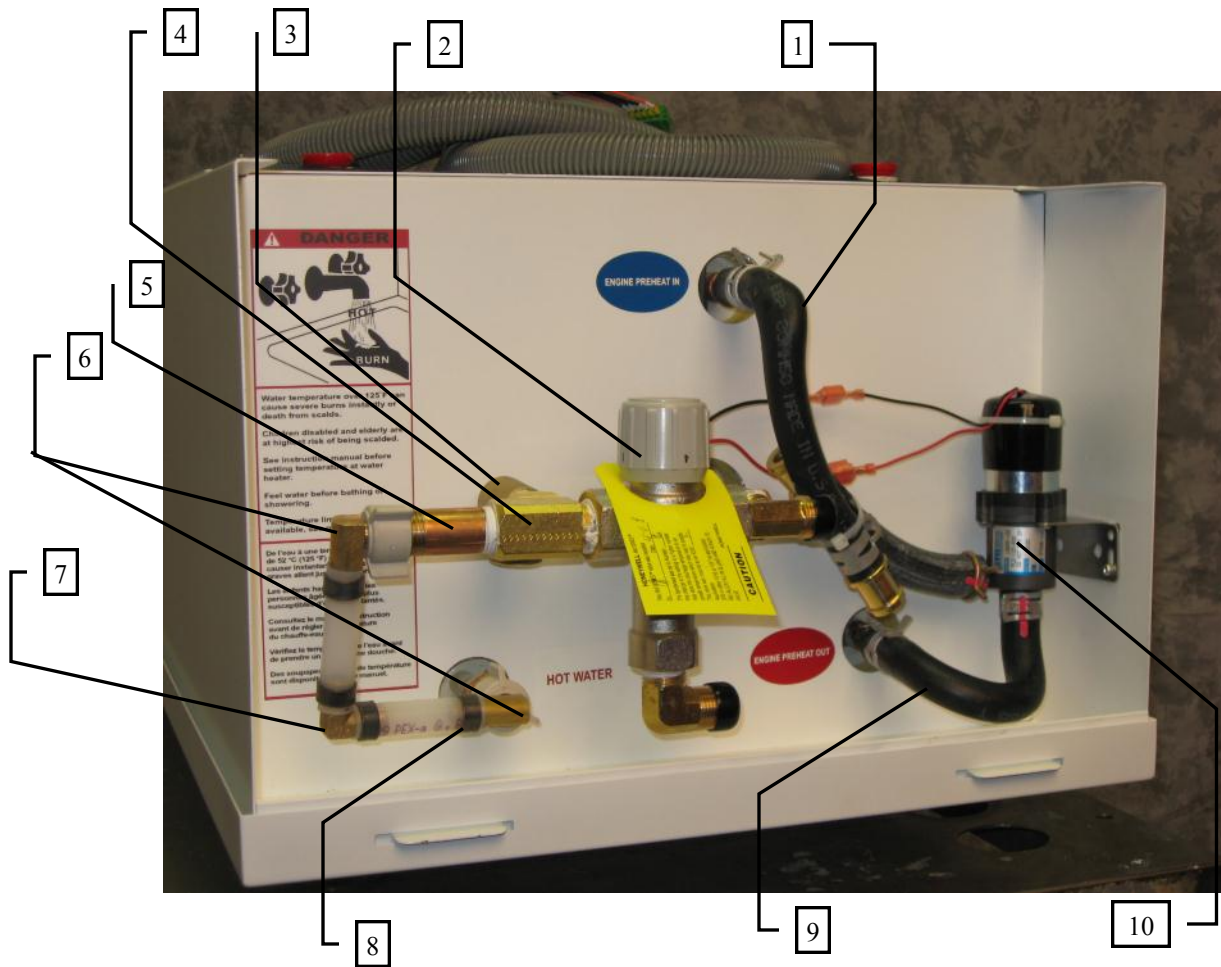
Key	Part Number	Description
1	PLX-BV1-200	Valve, Ball 1/2(F) NPT
2	PLX-699-330	Fitting, Brass, Barb 1/2 X 1/2 (M)NPT
3	PLX-2A1-300	Valve, Brass Check, 1/2 X 1/2 (F)NPT
4	PLX-122-000	Fitting, Brass, Close Nipple 1/2 (M)NPT w/Hex

SECTION 1: HEATER OVERVIEW - FRONT(A.C.)



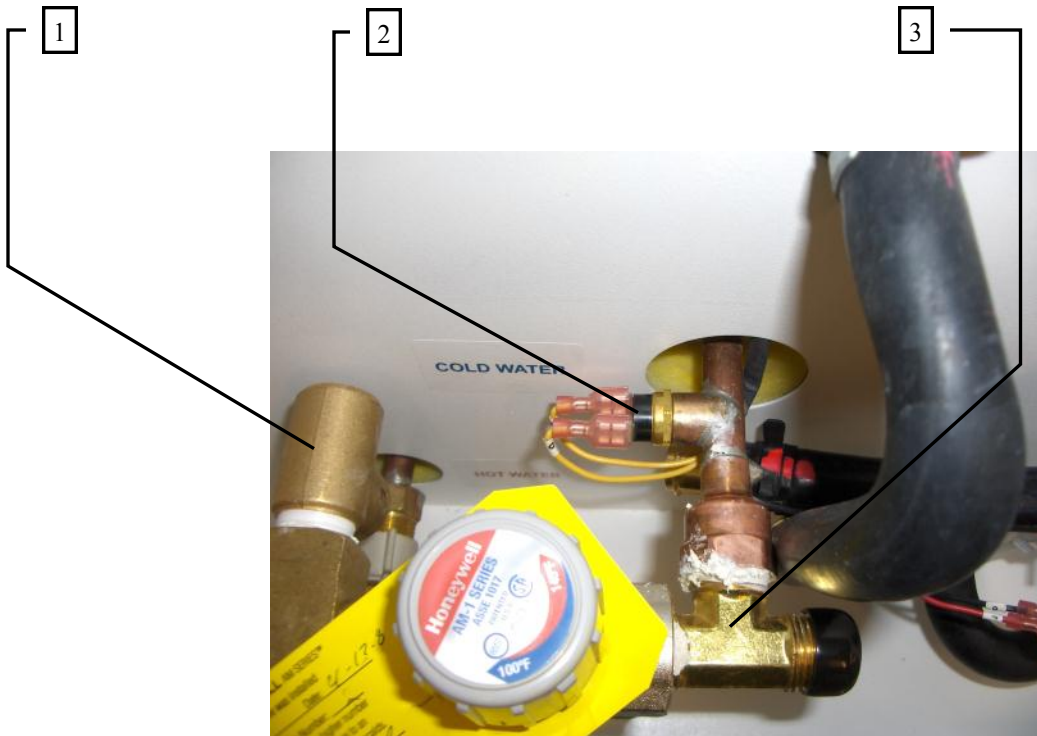
Key	Part Number	Description
1	ELE-000-905	Block, Terminal 3 Position 22-8 AWG
2	ELE-000-616-FRU	Thermostat, High Limit VAC 215°F
3	ELX-2E7-540	Element, Electric Heating, 120 VAC/1650 Watt
4	ELX-630-001	Relay, 30A 277 VAC 12VDC Coil

SECTION 1: HEATER OVERVIEW - REAR



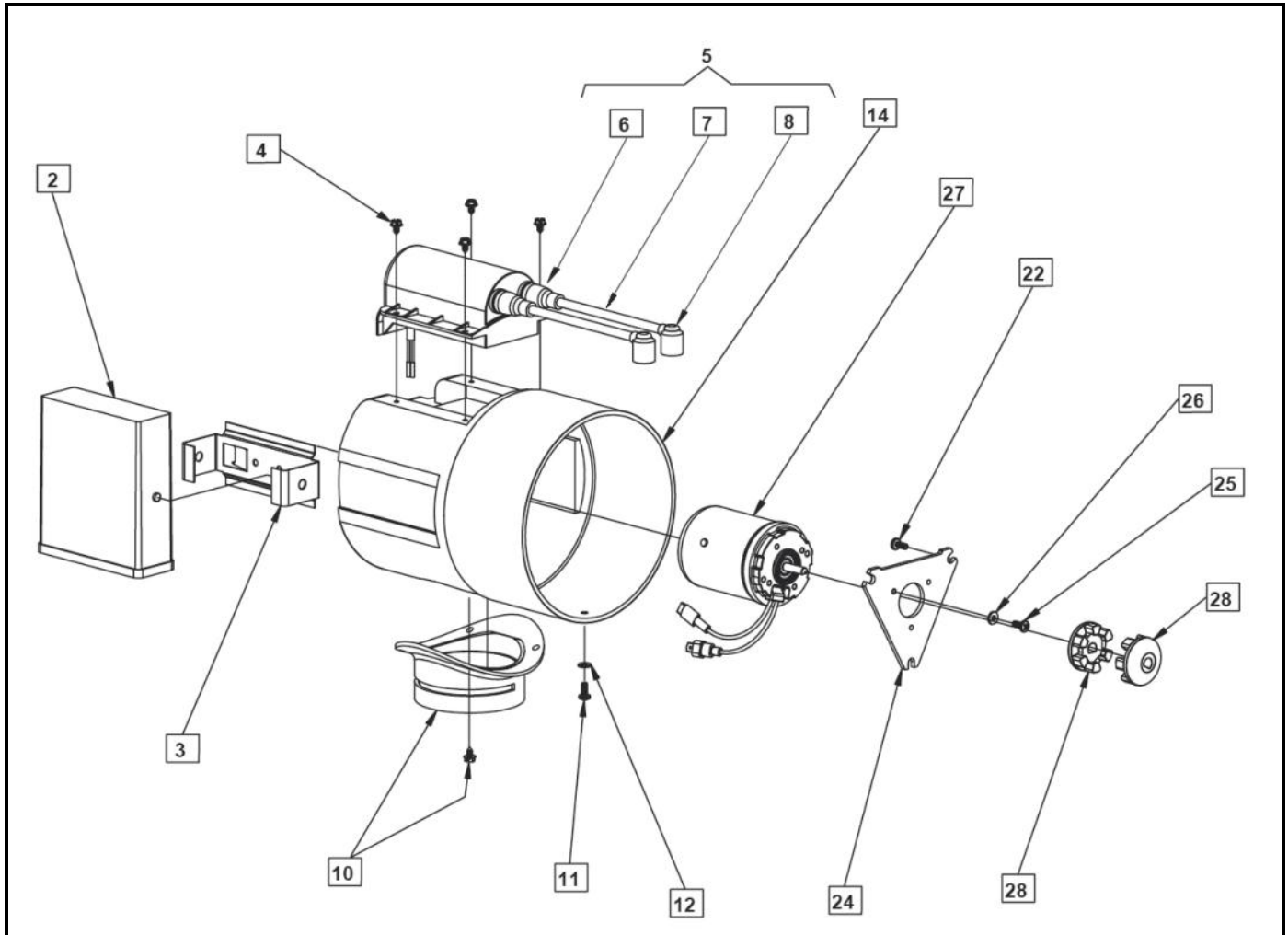
Key	Part Number	Description
1	PLE-285-050	Hose, heater Asm hook-Up Engine Preheat
2	PLX-09P-100	Valve, Tempering 145°F
3	PLX-111-125	Valve, Pressure Relief 125 PSI
4	PLX-0X1-07D	Fitting, Tee 1/2 NPT (M) (F) Brass
5	PLX-113-250	Fitting, Nipple 1/2 in NPT x 2-1/2 in Brass
6	PLX-000-755	Fitting, Elbow, Swivel 1/2 in Barb x 1/2 in FPT
7	PLX-000-750	Fitting, Elbow 1/2 in Barb Brass
8	PLX-000-745	Ring, Crimp 1/2 in
9	PLX-GAT-700	Hose, Formed Engine Preheat
10	PLE-100-831-FRU	Pump, Engine Preheat Assembly

SECTION 1: HEATER OVERVIEW - REAR



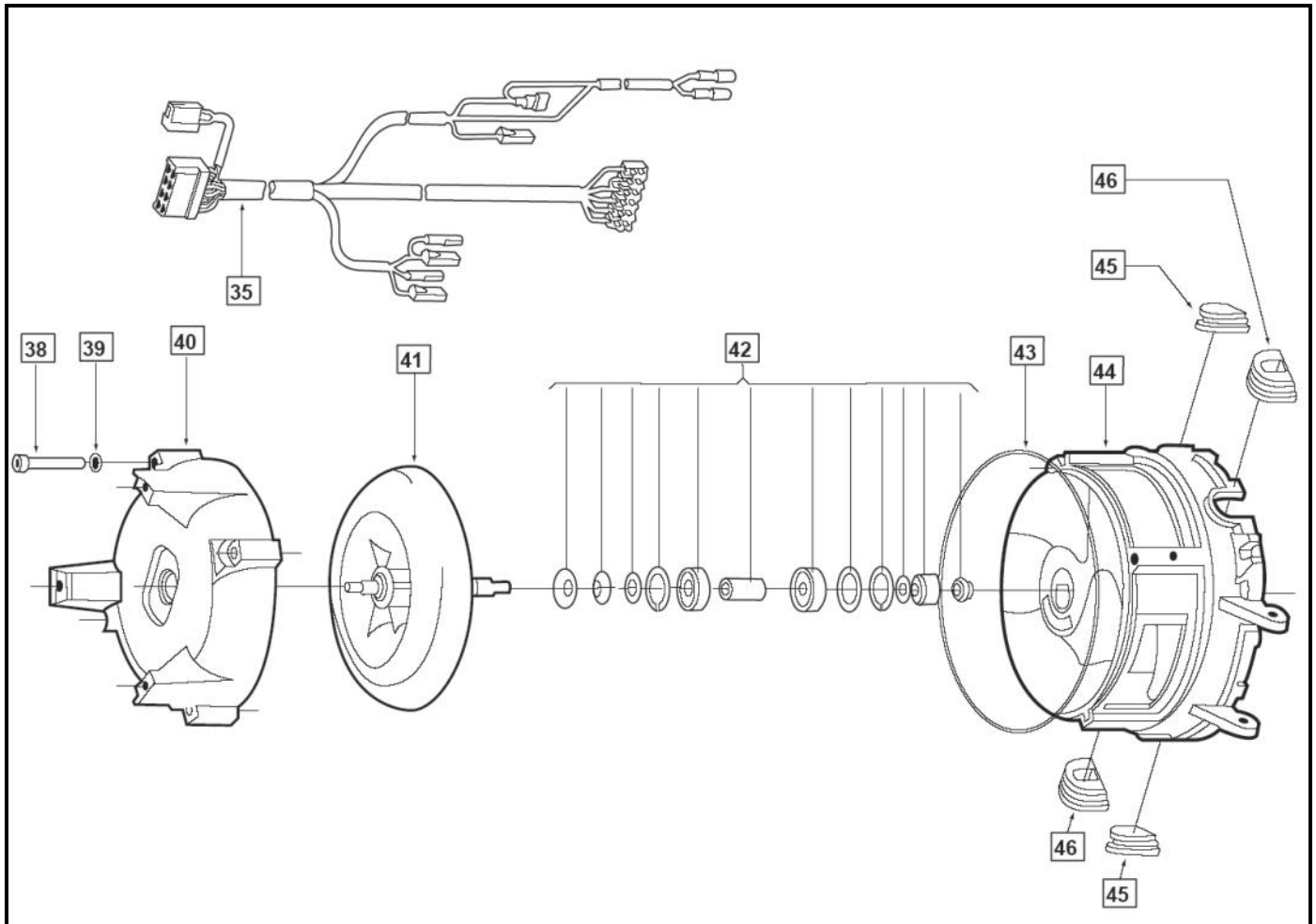
Key	Part Number	Description
1	PLX-111-125	Valve, Pressure Relief 125 PSI
2	ELE-LTC-608	Thermostat, Low Temp Cut-Off w/Spade Connectors
3	PLX-M10-1DA	Fitting, Tee Forged, 1/2 Male NPT

SECTION 2: DIESEL BURNER



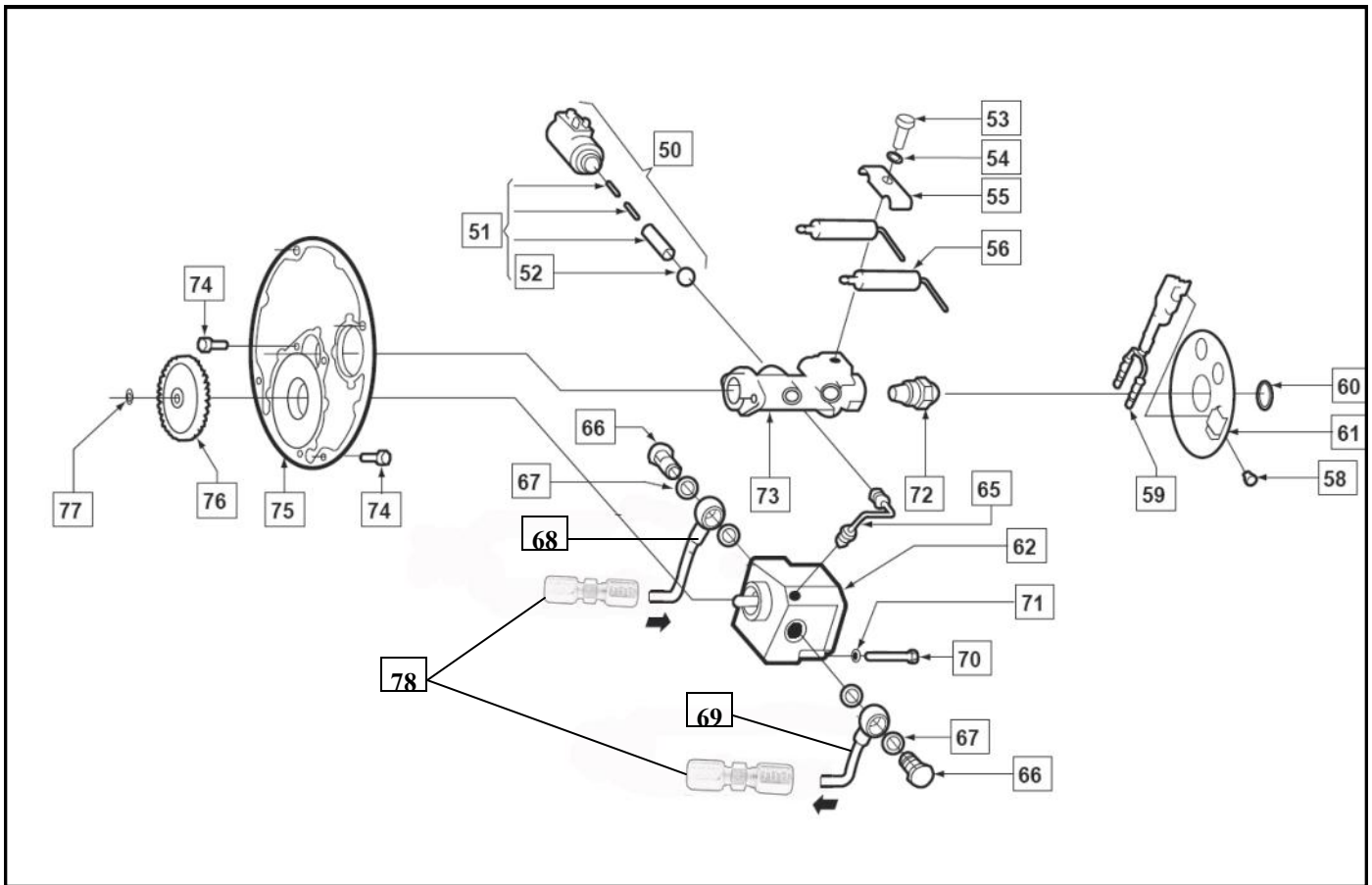
Key	Part Number	Description
2	WPX-287-962	Controller, Diesel Burner, 12 VDC
3	WPX-362-107	Bracket, Controller Mounting
4	WPX-470-562	Screw, Coil Mounting
5	WPX-101-838	Coil, Ignition, 12 VDC
6	WPX-404-918	Boot, Ignition Wire
7	WPX-178-624	Wire, Ignition
8	WPX-176-494	Boot, Ignition Wire, Elbow
10	WPX-350-427	Shutter, Combustion Air Intake
11	WPX-432-377	Screw, Protection Housing, Motor Plate
12	WPX-152-269	Washer, Star, Protection Housing
14	WPX-436-216	Cap, Protection, Motor
22	WPX-147-834	Screw, Flange, Blower Housing
24	WPX-425-05A	Plate, Motor Mounting
25	WPX-432-377	Screw, Protection Housing, Motor Plate
26	WPX-152-269	Washer, Star, Motor Plate
27	WPX-425-060	Motor, Combustion Air/Fuel Pump, 12 VDC
28	WPX-350-516	Clutch, Half, 6mm

SECTION 2: DIESEL BURNER



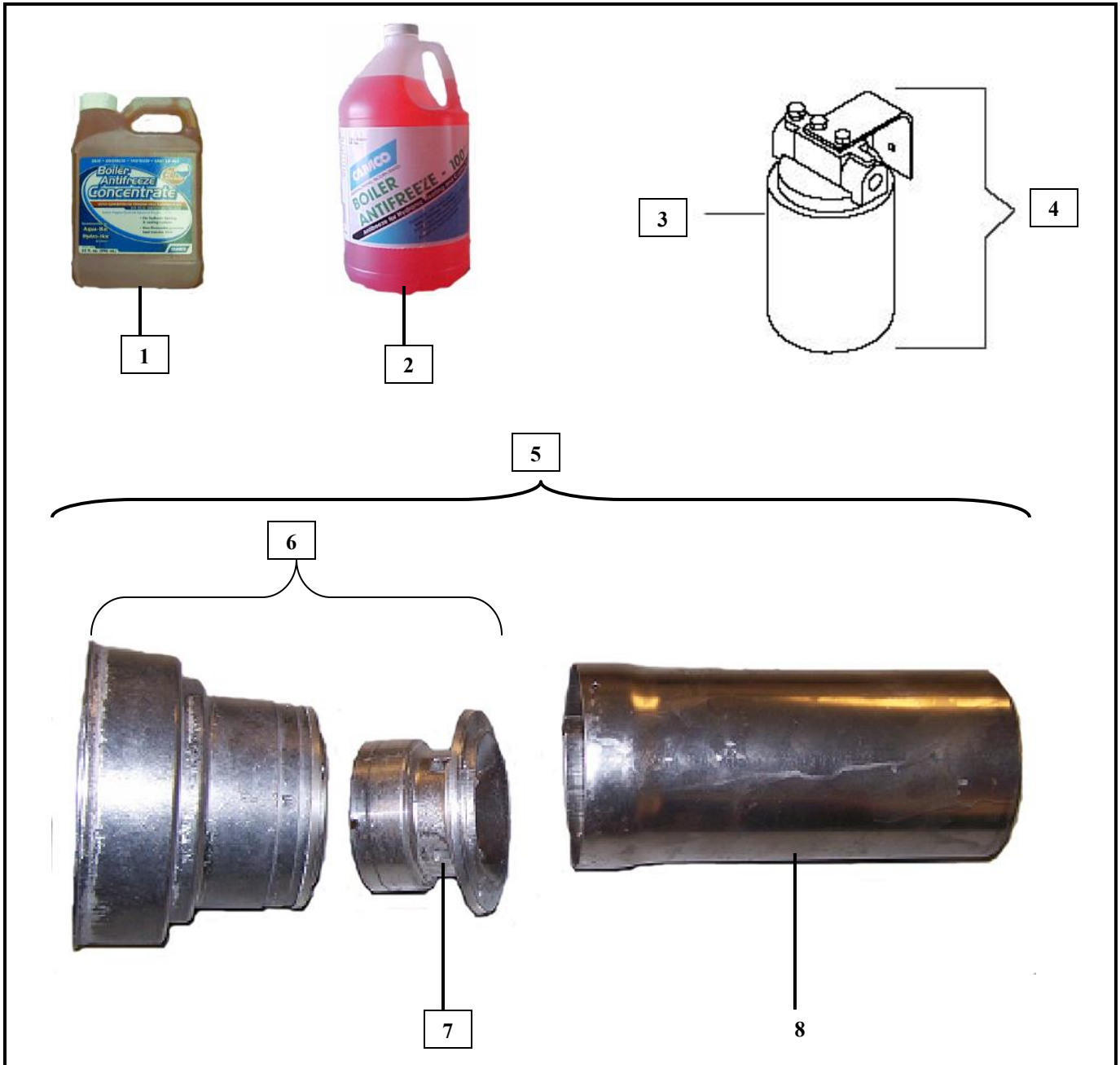
Key	Part Number	Description
35	WPX-434-795	Harness, C-Plug
38	WPX-148-210	Screw, Blower Casting
39	WPX-152-552	Washer, Lock, Blower Casting
40	WPX-301-841	Housing, Blower
41	WPX-373-001	Blower, Wheel, w/Shaft
42	WPX-378-313	Bearing Kit
43	WPX-412-244	O-Ring, Blower Casting
44	WPX-225-67A	Casting, Blower
45	WPX-298-964	Grommet, Blower Casting, Left
46	WPX-299-995	Grommet, Blower Casting, Right

SECTION 2: DIESEL BURNER



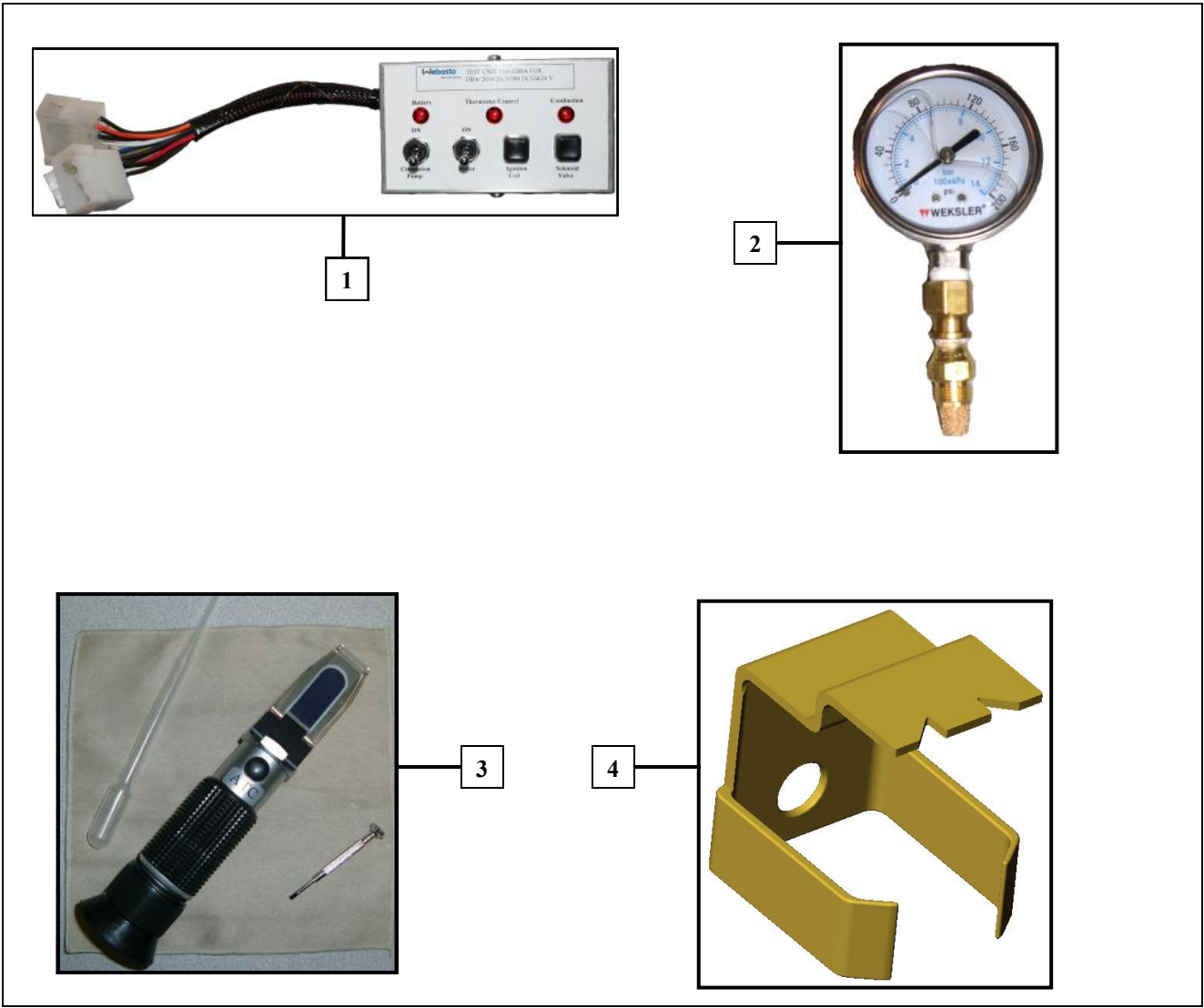
Key	Part Number	Description
50	WPX-322-083	Valve, Fuel Solenoid, 12 VDC
51	WPX-386-650	Valve, Fuel Solenoid, Kit
52	WPX-260-487	O-Ring, Fuel Solenoid Valve
53	WPX-267-279	Bolt, Electrode
54	WPX-152-560	Washer, Lock, Electrode
55	WPX-278-971	Clamp, Electrode
56	WPX-274-313	Electrode, Ignition
58	WPX-147-699	Screw, Flame Sensor
59	WPX-638-78A	Sensor, Flame
60	WPX-453-048	Clip, Retaining, Photo Disc
61	WPX-887-71A	Disc, Photo
62	WPX-503-03A	Pump, Fuel, Kit
65	WPX-665-49A	Tube, Fuel, High Pressure
66	WPX-150-754	Bolt, Banjo
67	WPX-151-157	Gasket, Ring, Copper
68	WPX-661-002	Pipe, Fuel, Banjo, Supply, DBW 2010 (w/Straight Tube)
69	WPX-661-001	Pipe, Fuel, Banjo, Return, DBW 2010 (w/Straight Tube)
70	WPX-277-282	Screw, Mounting, Fuel Pump
71	WPX-152-544	Washer, Lock, Fuel Pump
72	WPX-886-41A	Nozzle, Fuel, 0.35 GPH
73	WPX-412-198	Manifold, Fuel Nozzle, Brass
74	WPX-277-150	Screw, Plate, Nozzle Stand
75	WPX-102-861	Plate, Manifold
76	WPX-371-289	Gear, Fuel Pump, Nylon
77	WPX-152-390	Snap, Ring, Gear
78	FLX-421-010	Fitting, Hex Union 1/4 in Tube

SECTION 3: MISC. PARTS



Key	Part Number	Description
1	MSX-300-275	Antifreeze, Boiler, P.G., 1 qt, Concentrate,(Camco)
2	MSX-300-270	Antifreeze, Boiler, P.G., 1 Gallon (Camco)
3	FLE-120-100	Filter, Cannister, Replacement, Garber
4	FLX-120-000	Filter, Fuel, Garber
5	WPX-265-53A	Combustion Chamber, DBW 2010
6	WPX-303-051	Swirler, Combustion Chamber Air Assembly Cast Aluminum
7	WPX-302-651	Air Swirler, DBW 2010
8	WPX-303-050	Tube, Combustion Chamber, DBW 2010

SECTION 4: TOOLS



Key	Part Number	Description
1	WPX-440-280	Tester, Controller
2	WPE-600-190	Gauge, Fuel Pressure
3	MSX-907-162	Tester, Refractometer, Battery/Coolant
4	WPX-310-646	Gauge, Adjustment, Electrode



AHE-450-DE2

PARTS MANUAL



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