



**By Vehicle Systems, Inc.**

*Motor Coach Heating Specialists*

## **Parts Manual**

**MODEL NUMBERS**

**HHE-200-08E**

**HHE-500-08M**

**(SN: 03653 TO ...)**

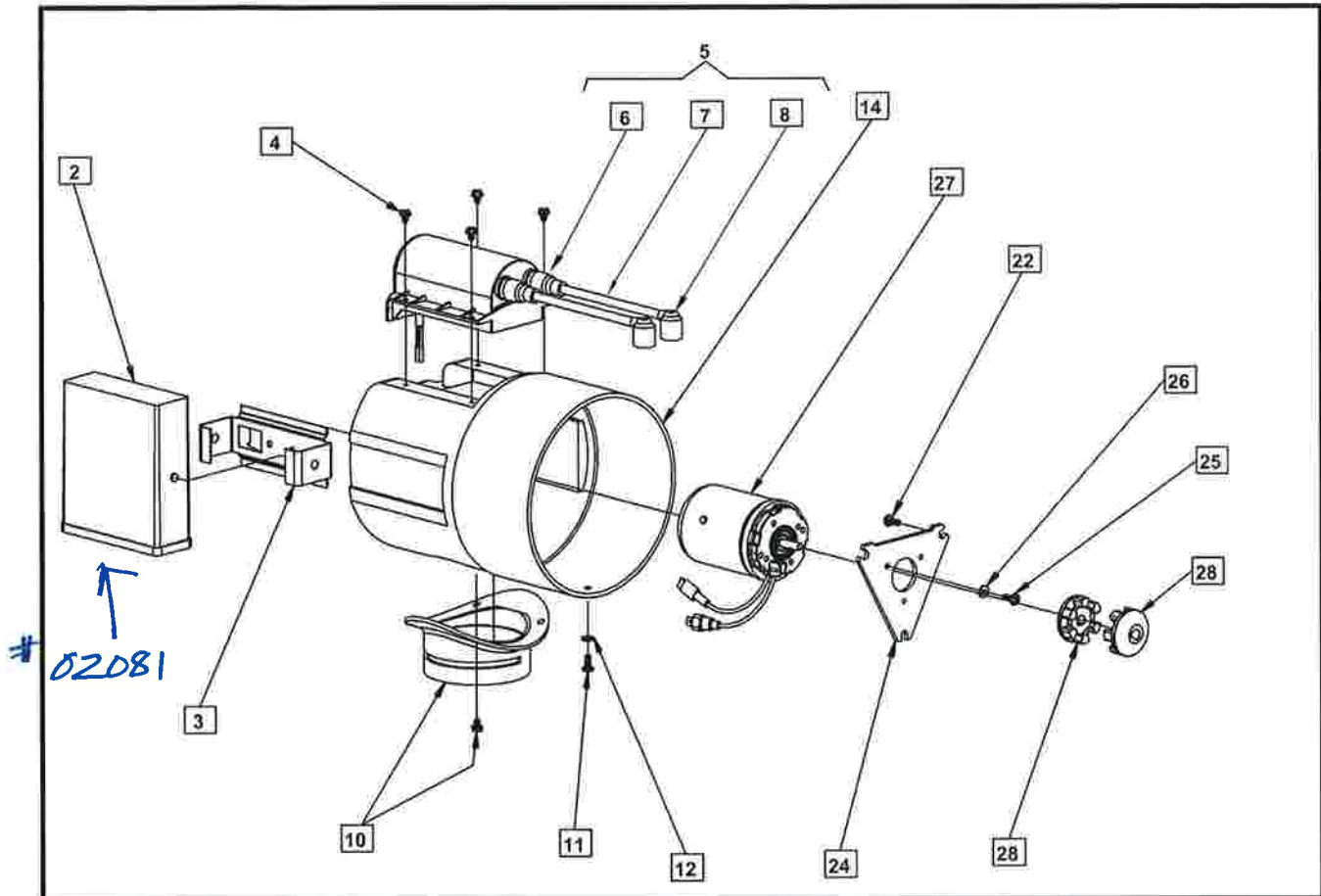
# HYDRO-HOT PARTS MANUAL

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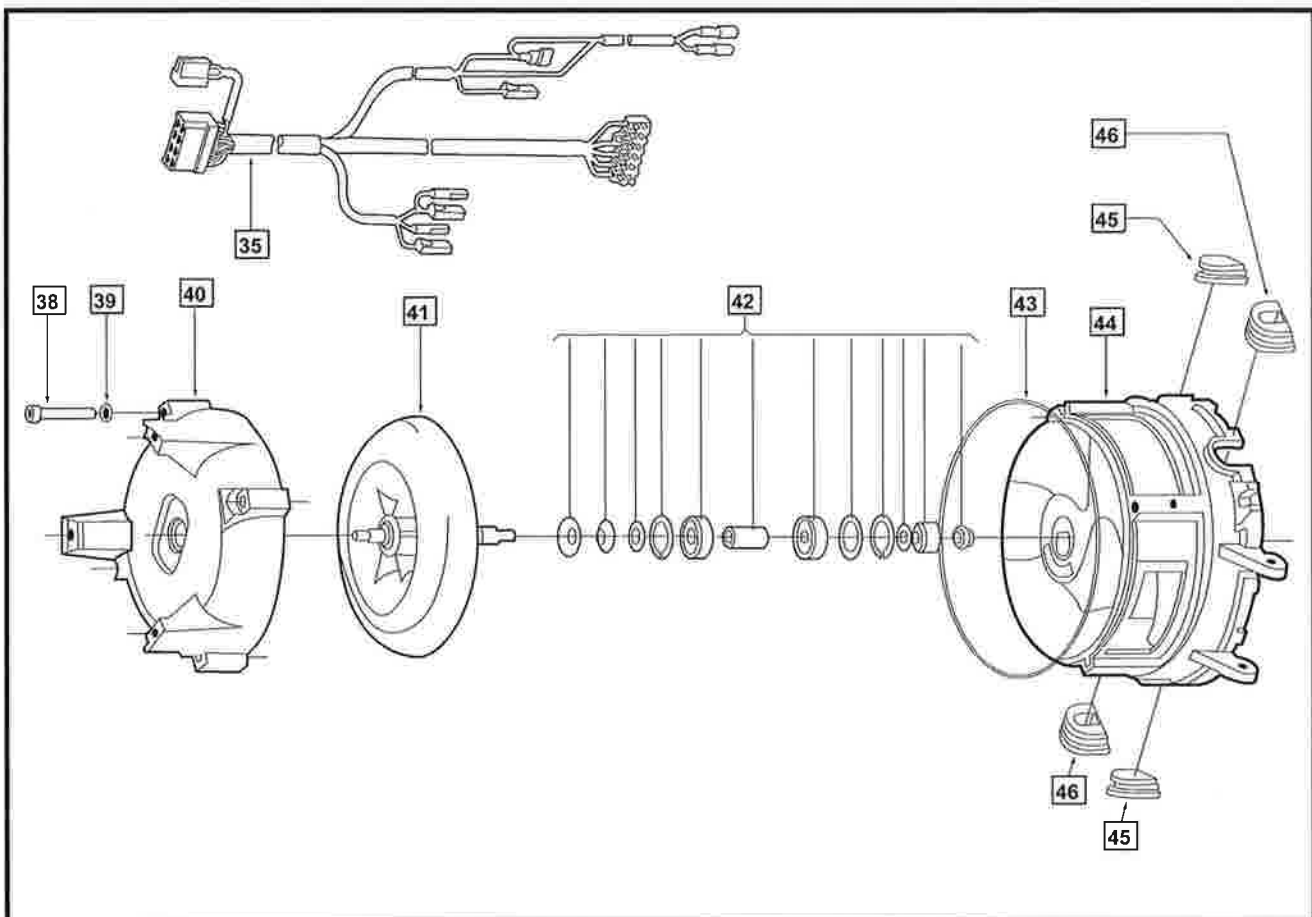
## ■ Diesel Burner Parts



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
12	WPX-152-269	Washer, Star, Protection Housing
14	WPX-436-216	Housing, Protection, Motor
22	WPX-147-834	Screw, Flange, Blower Housing
24	WPX-425-05A	Plate, Motor Mounting
25	WPX-432-377	Screw, 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	Coupling, Half, 6mm

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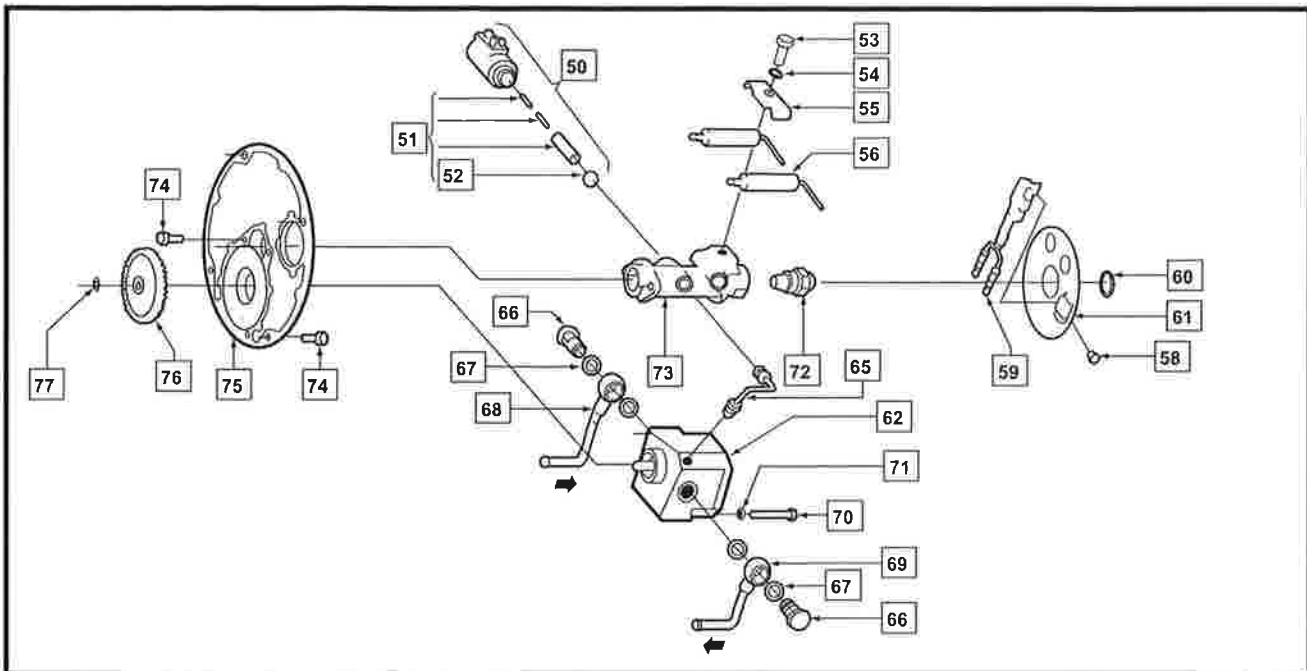
## ■ Diesel Burner Parts, continued



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

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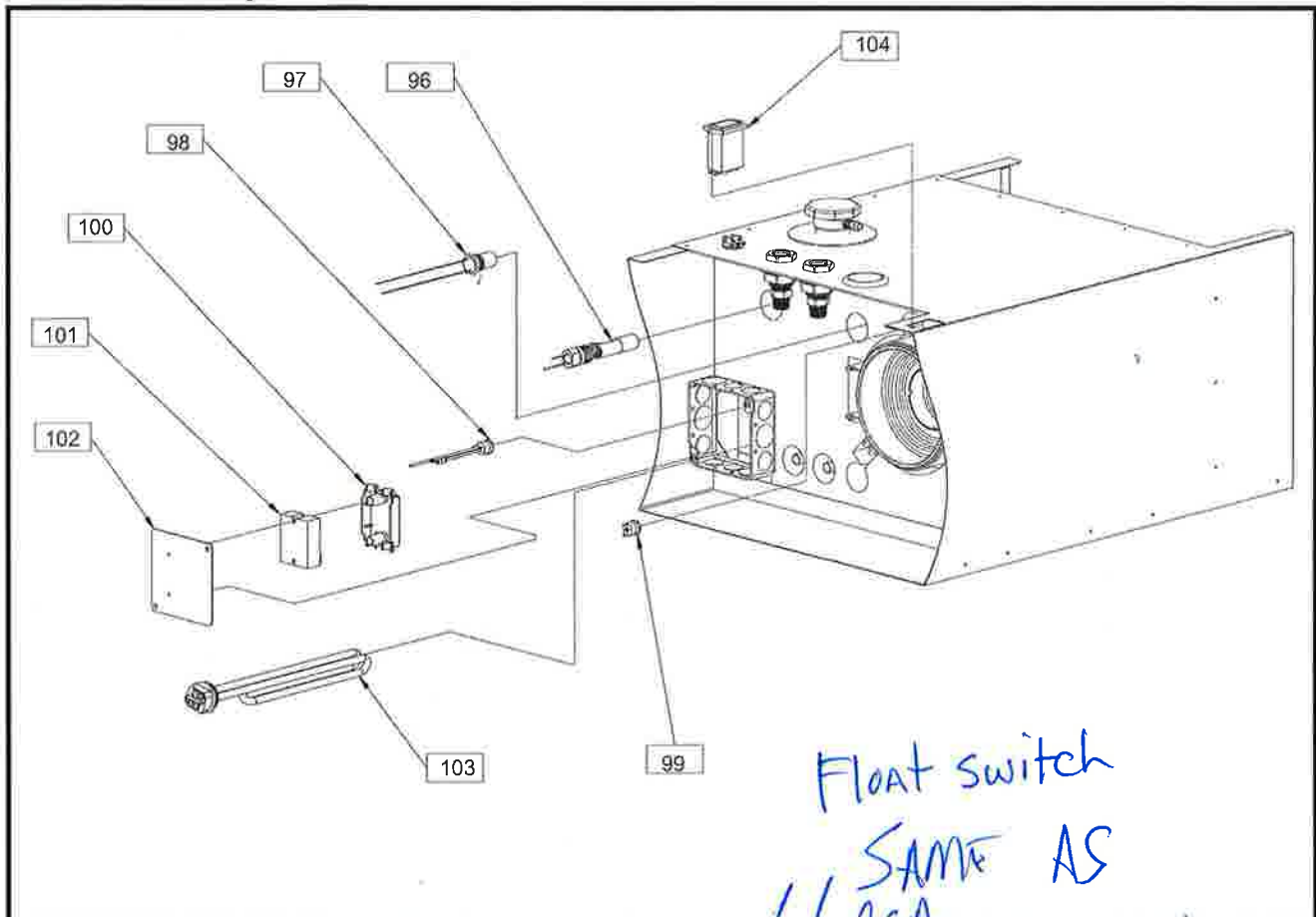
## ■ Diesel Burner Parts, continued



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-502-05A	Pump, Fuel, Kit
65	WPX-665-49A	Tube, Fuel, w/Fittings (High Pressure)
66	WPX-150-754	Bolt, Banjo
67	WPX-151-157	Gasket, Copper
45	WPX-298-964	Grommet, Blower Housing, Left (shown in Diesel Burner Parts)
46	WPX-299-995	Grommet, Blower Housing, Right (shown in Diesel Burner Parts)
68	WPX-111-372	Tube, Fuel, Banjo, Supply
69	WPX-345-288	Tube, Fuel, Banjo, Return
70	WPX-277-282	Screw, Fuel Pump
71	WPX-152-544	Washer, Lock, Fuel Pump
72	WPX-886-41A	Nozzle, Fuel, 0.35 GPH
73	WPX-412-198	Manifold, Nozzle, Brass
74	WPX-277-150	Screw, Manifold
75	WPX-102-861	Plate, Manifold
76	WPX-371-289	Gear, Fuel Pump, Nylon
77	WPX-152-390	Snap Ring, Gear

# HYDRO-HOT PARTS MANUAL

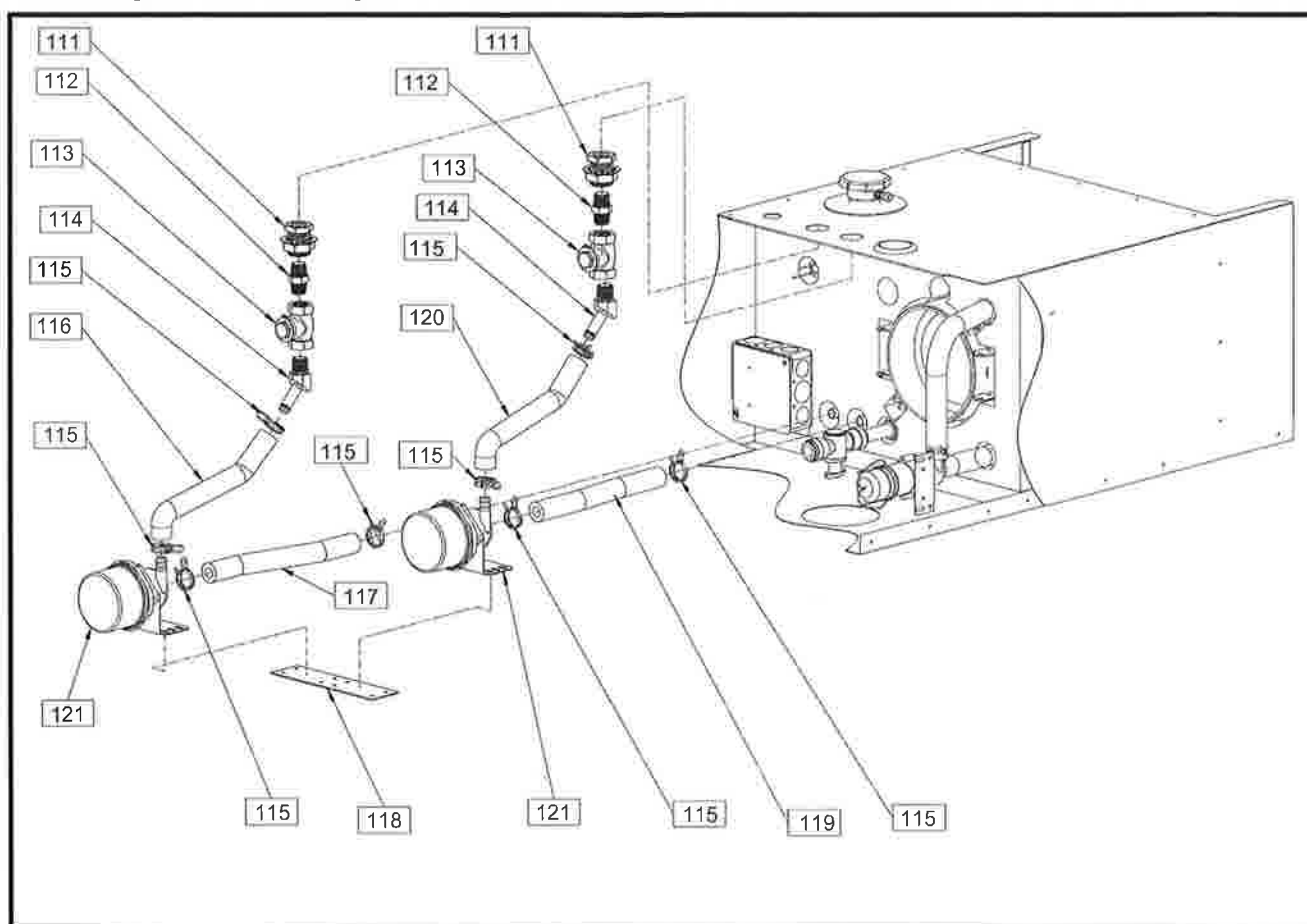
## ■ Electrical Components, Internal



96	ELE-800-001	Switch, Float
97	ELE-800-100	Thermostat, Control
98	ELE-ASY-200	Thermostat, High-Limit, 120VAC
99	ELE-HLT-222	Thermostat, High Limit, 12VDC
100	HDX-175-000	Cover, Relay, Plastic
101	ELX-630-000	Relay, Solid State
102	SME-C12-014	Cover, Access, Junction Box
103	ELX-2E7-540	Element, Heating, 120 VAC, 1650 Watts
104	ELX-002-100	Meter, Hour, Quartz

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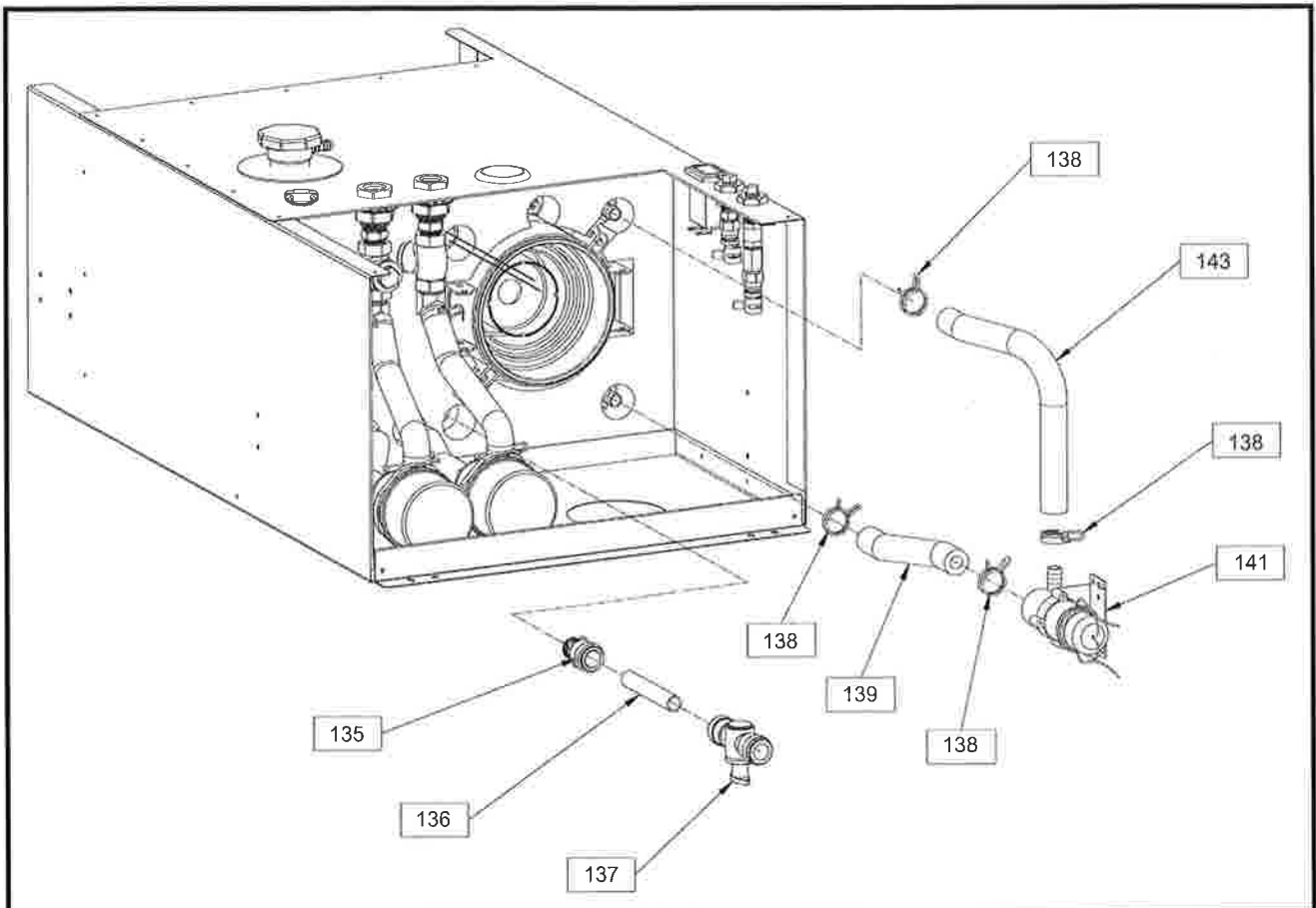
## ■ Heating Zone Plumbing



Key	Part No.	Description	Serial No.
111	PLX-105-810	Fitting, Bulkhead, 3/4 in (M)NPST x 1/2 in (F) NPT, Brass	
112	PLX-122-000	Fitting, Nipple, 1/2 in (M)NPT, Brass	
113	PLX-2A1-300	Valve, Check, 1/2 in (F)NPT, Brass	
114	PLX-114-080	Elbow, 45 degree, 1/2 in (M)NPT x 1/2 in Hose Barb	
115	PLX-DW1-140	Clamp, Hose	-04335
	PLX-DW1-130	Clamp, Hose	04336-
116	PLE-TUB-105	Hose, Heater, 1/2 in x 9 in	-04335
	PLE-286-202	Hose, Heater, 1/2 in x 9 in	04336-
117	PLE-TUB-104	Hose, Heater, 1/2 in x 8.5 in	-04335
	PLE-285-301	Hose, Heater, 1/2 in x 8.75 in	04336-
118	PLE-GAS-012	Insulator, Mounting, Pumps	
119	PLE-TUB-102	Hose, Heater, 1/2 in x 8.5 in	-04335
	PLE-285-301	Hose, Heater, 1/2 in x 8.75 in	04336-
120	PLE-TUB-103	Hose, Heater, 1/2 in x 8.75 in	-04335
	PLE-285-201	Hose, Heater, 1/2 in x 6.75 in	04336-
121	PLE-100-820	Pump, Circulation, Kit, 12VDC	

# HYDRO-HOT PARTS MANUAL

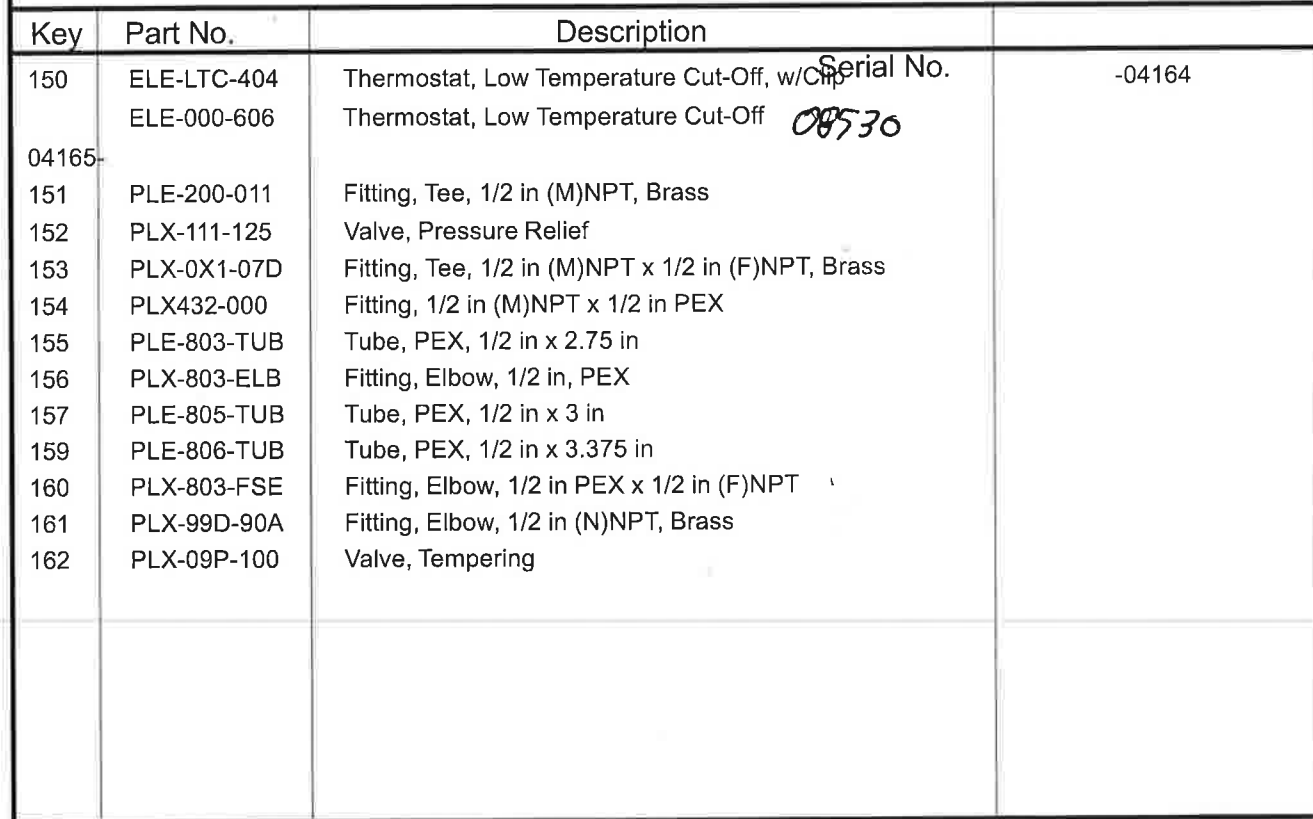
## ■ Stir Pump Plumbing



Key	Part No.	Description	Serial No.
135	PLX-432-000	Fitting, 1/2 in PEX x 1/2 in (F)NPT	
136	PLE-805-TUB	Tube, Pex, 1/2 in x 3 in	
137	PLX-688-000	Valve, Shut-Off, PEX	
138	PLX-DW1-140	Clamp, Hose	-04335
	PLX-DW1-130	Clamp, Hose	04336-
139	PLE-TUB-101	Hose, Heater, 1/2 in x 5.75 in	-04335
	PLX-285-101	Hose, Heater, 1/2 in x 5.75 in	04336-
141	PLE-100-830	Pump, Circulation, Stir, 12VDC	
143	PLE-TUB-100	Hose, Heater, 1/2 in x 10.75 in	-04335
	PLE-285-501	Hose, Heater, 1/2 in x 10.75 in	04336-

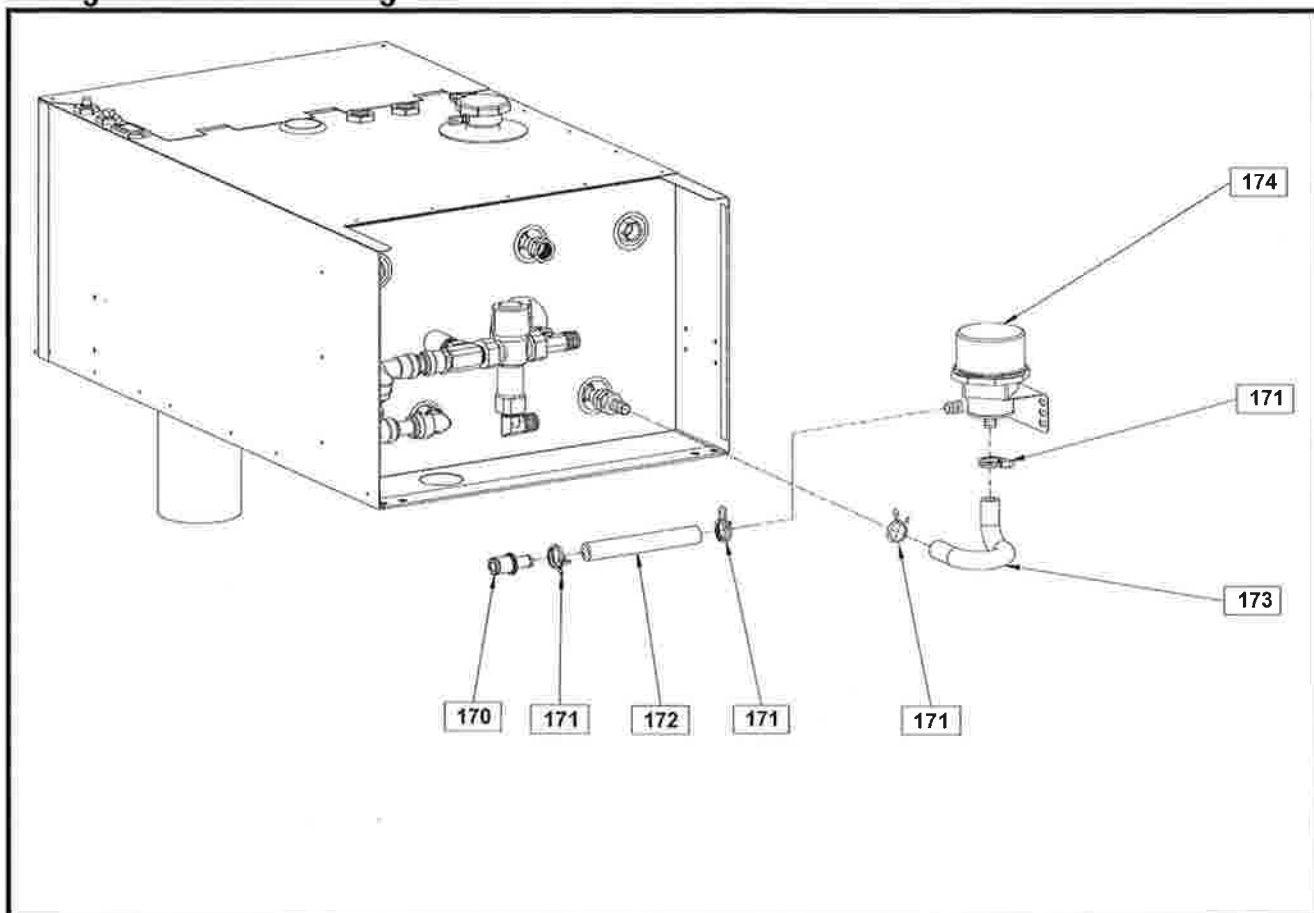


## ■ Domestic Water Plumbing



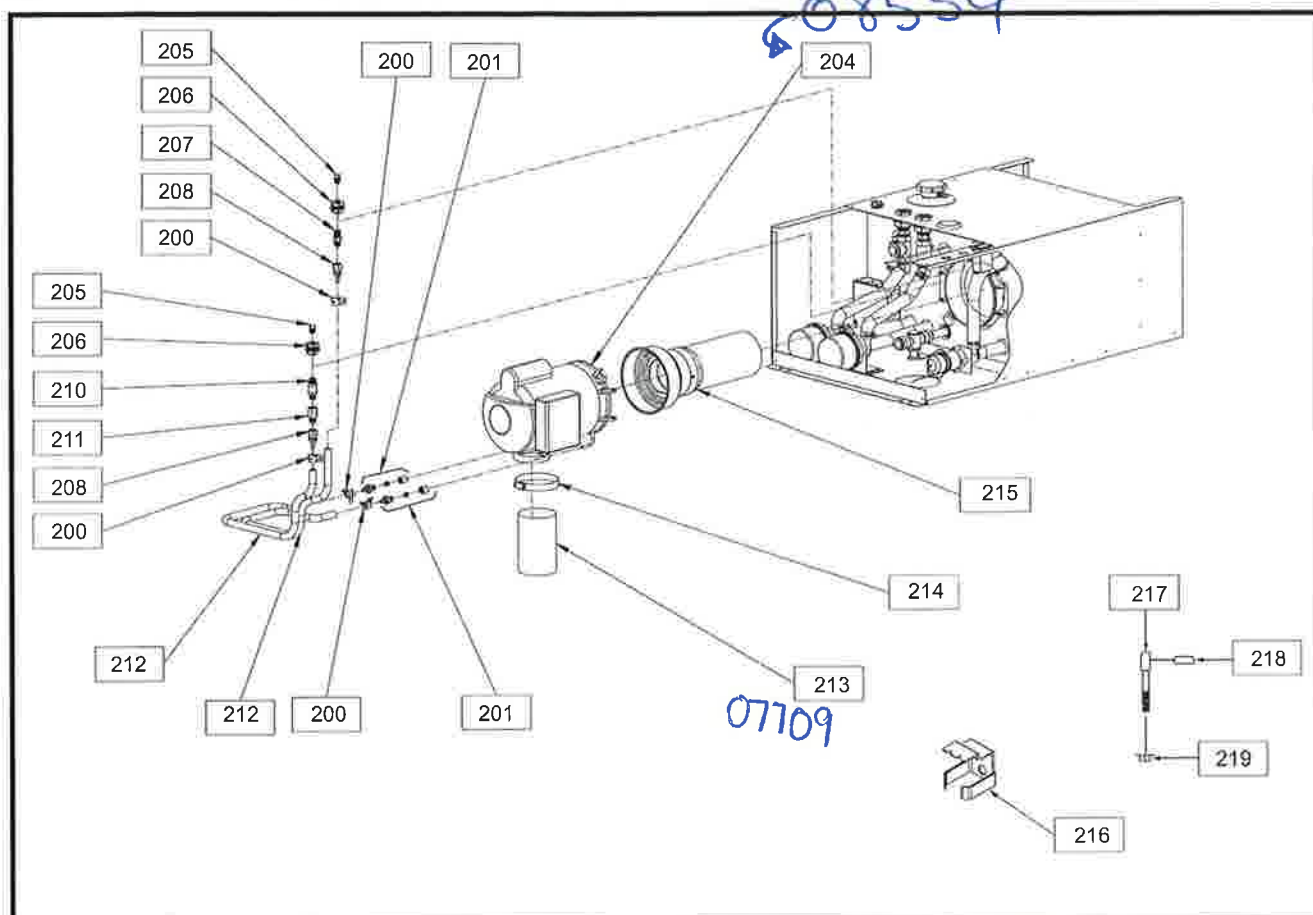
# HYDRO-HOT PARTS MANUAL

## ■ Engine Preheat Plumbing

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# HYDRO-HOT PARTS MANUAL

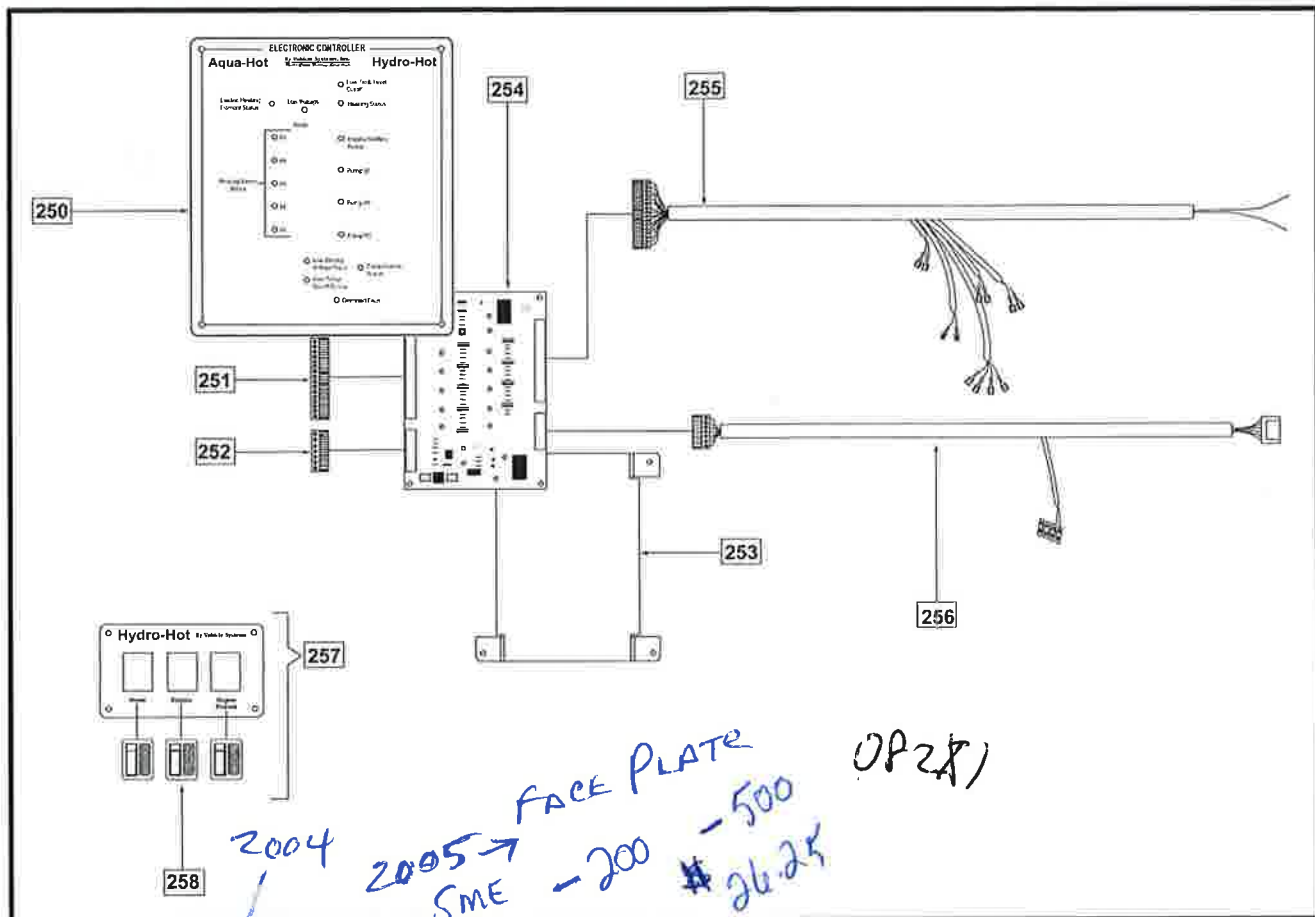
## ■ Diesel Burner and Fuel Lines



Key	Part No.	Description	Serial No.
200	PLX-CTB-17T	Clamp, Hose, Fuel Line	
201	FLE-FUL-100	Fitting, Fuel Line, Hose Barb x Compression	
204	WPE-905-834	Burner, Diesel, 12VDC	
205	PLX-TP3-PLG	Fitting, 1/4 in Plug, Plastic (for product shipping only)	
206	PLX-105-800	Fitting, Bulkhead, 3/4 in (M)NPST x 1/4 in (F)NPT, Brass	
207	FLX-038-204	Fitting, #6 (M)JIC x 1/4 in (M)NPT, Steel	
208	FLX-380-406	Fitting, #6 (F)JIC x 5/16 in Hose Barb, w/ Swivel, Brass	
210	FLX-751-CVL	Valve, Check, Fuel, 1/4 in (M)NPT, Brass	
211	FLX-184-604	Fitting, #6 (M)JIC x 1/2 in (F)NPT, Steel	
212	FLX-421-000	Line, Fuel	
213	PLE-RVS-850	Sleeve, Rubber	
214	HDX-620-210	Clamp, Hose	
215	WPX-265-53A	Chamber, Combustion	
216	WPX-310-646	Gauge, Adjustment, Electrode	
217	WPX-461-555	Bolt, Eye	
218	WPX-420-565	Pin, Eye Bolt	
219	WPX-363-618	Nut, Eye Bolt	

# HYDRO-HOT PARTS MANUAL

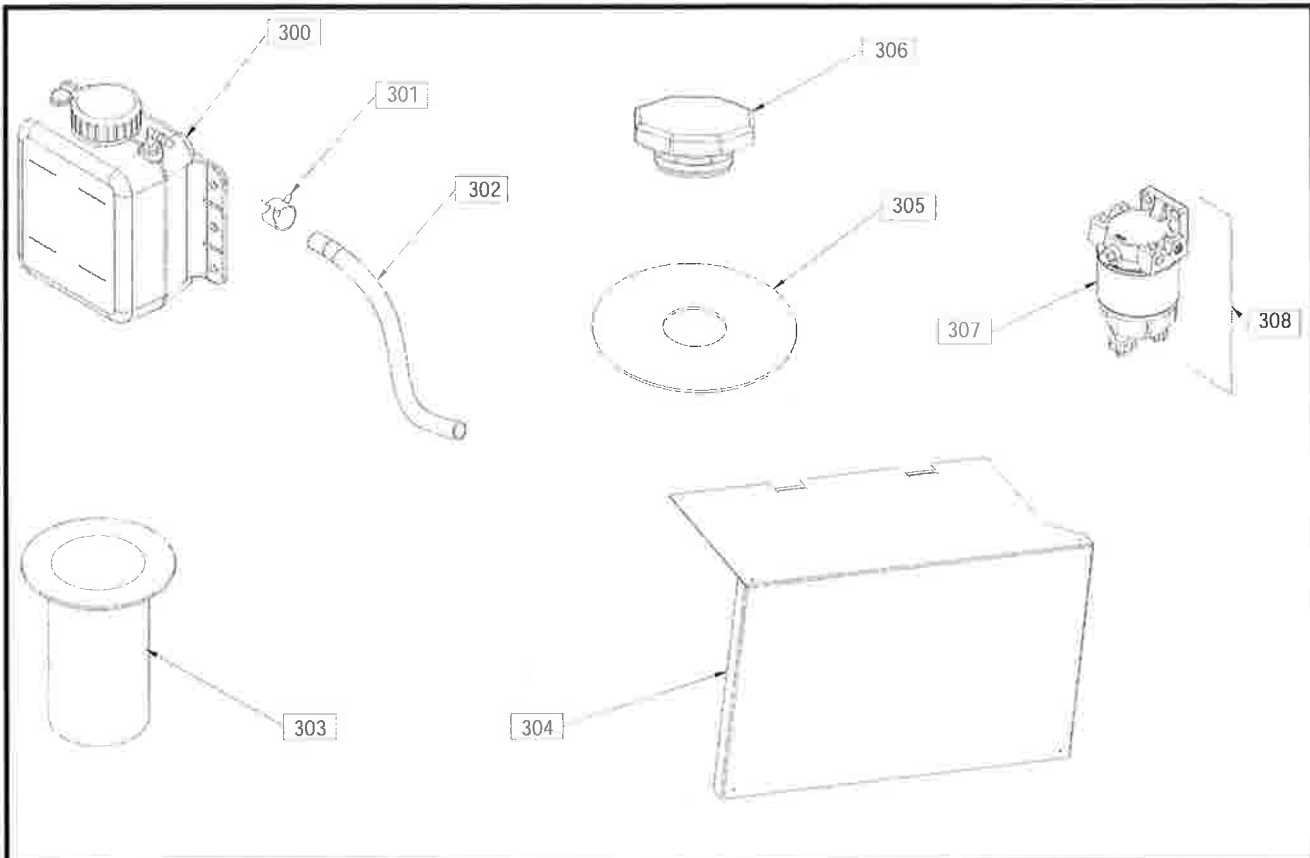
## Electronic Controller and Switch Panel



Key	Part No.	Description	Serial No.
250	SME-FA4-009	Faceplate, Electronic Controller, Enclosure	
251	ELX-312-490	Plug, Electronic Controller, 20-Position	
252	ELX-312-498	Plug, Electronic Controller, 8-Position	
253	SME-EN4-008	Back, Electronic Controller, Enclosure	
254	ELE-PC4-008	Controller, Electronic, w/Time Delay, 12 VDC	
255	ELE-JP3-452	Harness, Control	
256	ELE-JP4-221	Harness, B-Plug	
257	ELE-ASM-506	Panel, Switch, Assembly, 12VDC	
258	ELX-283-284	Switch, Rocker, w/LED	

# HYDRO-HOT PARTS MANUAL

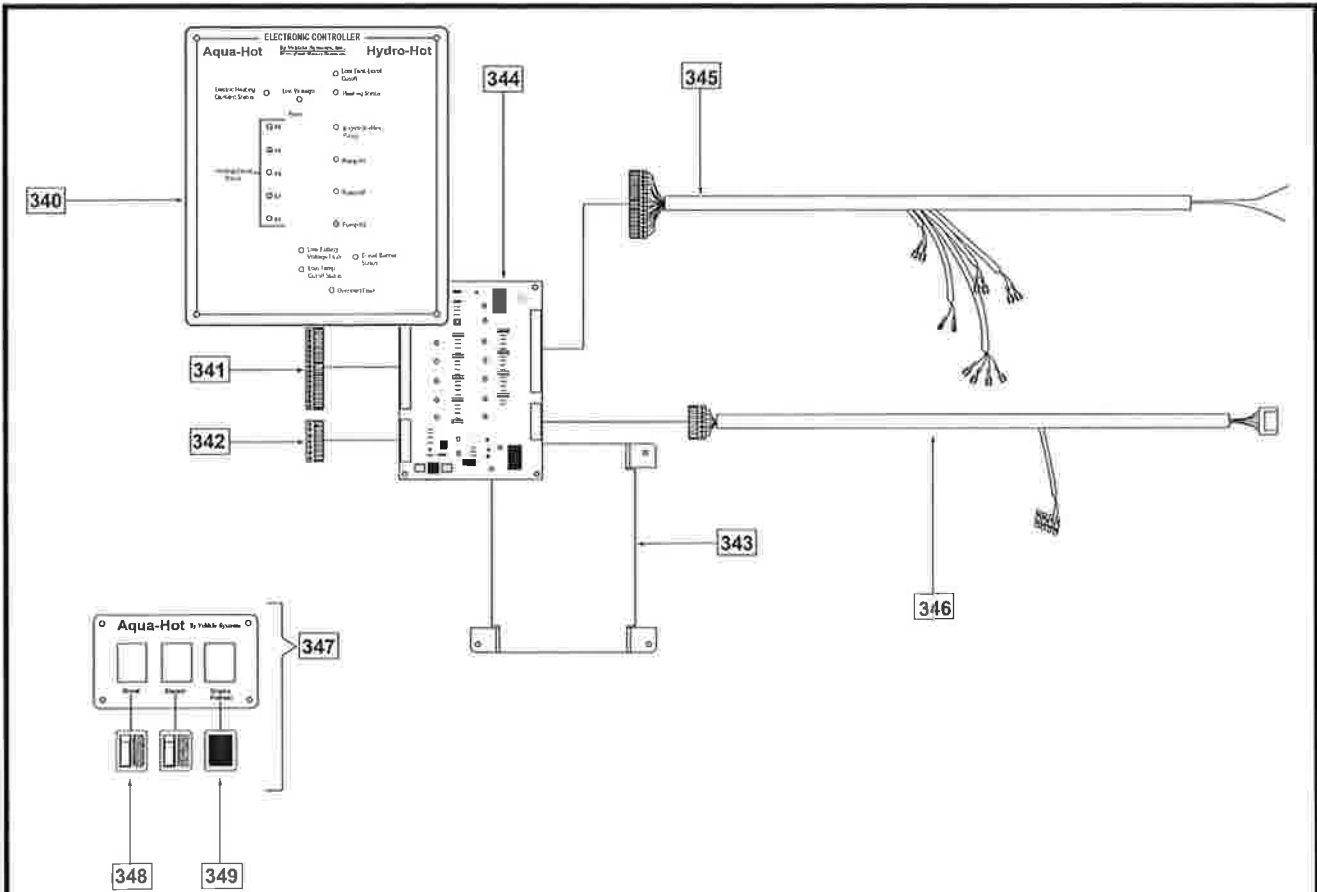
## Miscellaneous Parts



Key	Part No.	Description	Serial No.
300	PLE-621-800	Tank, Expansion, 3 qt	
301	PLX-UM5-007	Clamp, Hose	
302	PLX-210-092	Tube, Overflow, 5/16 in x 6 ft	
303	PLE-400-000	Boot, Rubber, w/Flange	
304	SME-C23-500	Cover, Access	
305	PLE-GAS-FLL	Gasket, Rubber, Filler Neck	
306	PLX-102-228	Cap, Radiator, 7 lb	
307	FLX-R12-TRA	Filter, Fuel	
308	FLX-120-VS1	Filter, Fuel, Kit	
	LDE-103-500	Label, Wire Diagram (not shown)	
	LDE-DCL-220	Label, Hydro-Hot (not shown)	
	LDE-102-CAU	Label, Caution, Yellow (not shown)	
	LDE-150-000	Label, Caution, Winterization (not shown)	
	LDE-200-000	Label, Warning, Propylene Glycol (not shown)	
	LDE-200-500	Label, Warning, Radiator Cap (not shown)	
	LDX-102-RAR	Label, Arrow, Red (not shown)	
	LDX-102-STK	Label, VSI, 1 in x 4 in (not shown)	
	LDX-162-8WR	Label, Hot Water (not shown)	
	LDX-162-BRD	Label, Out (not shown)	
	LDX-162-MWB	Label, Cold Water (not shown)	
	LTE-VHS-224	Manual, Owners, HHE-200-08E (not shown)	

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■ Electronic Controller and Switch Panel



Key	Part No.	Description	Serial No.
340	SME-FA4-009	Faceplate, Electronic Controller, Enclosure	
341	ELX-312-490	Plug, Electronic Controller, 20-Position	
342	ELX-312-498	Plug, Electronic Controller, 8-Position	
343	SME-EN4-008	Back, Electronic Controller, Enclosure	
344	ELE-PC4-008	Controller, Electronic, w/Time Delay, 12 VDC	
345	ELE-JP3-452	Harness, Control	
346	ELE-JP4-221	Harness, B-Plug	
347	ELE-ASM-506	Panel, Switch, Assembly, 12VDC	
348	ELX-283-284	Switch, Rocker, w/LED	
349	ELX-283-285	Blank Insert, Switch	

# **HHE-500-08M**

**Hydro- Hot w/Motoraide**

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Back, Electronic Controller, Enclosure	12
Back, Electronic Controller, Enclosure	10
Bearing, Blower, Kit	2
Blank Insert, Switch	12
Blower, Wheel, w/Shaft	2
Bolt, Banjo	3
Bolt, Electrode	3
Bolt, Eye	9
Boot, Ignition Wire	1
Boot, Ignition Wire, ELbow	1
Boot, Rubber, w/Flange	11
Bracket, Controller Mounting	1
Burner, Diesel, 12VDC	9
Cap, Radiator, 7 lb	11
Chamber, Combustion	9
Clamp, Electrode	3
Clamp, Hose	5
Clamp, Hose	5
Clamp, Hose	6
Clamp, Hose	6
Clamp, Hose	11
Clamp, Hose	8
Clamp, Hose	9
Clamp, Hose, Fuel Line	9
Clip, Retaining, Photo Disc	3
Coil, Ignition, 12 VDC	1
Controller, Diesel Burner, 12 VDC	1
Controller, Electronic, w/Time Delay, 12 VDC	12
Controller, Electronic, w/Time Delay, 12 VDC	10
Coupling, Half, 6mm	1
Cover, Access	11
Cover, Access, Junction Box	4
Cover, Relay, Plastic	4
Disc, Photo	3
Elbow, 45 degree, 1/2 in (M)NPT x 1/2 in Hose Barb	5
Electrode, Ignition	3
Element, Heating, 120 VAC, 1650 Watts	4
Faceplate, Electronic Controller, Enclosure	12
Faceplate, Electronic Controller, Enclosure	10
Filter, Fuel	11
Filter, Fuel, Kit	11
Fitting, #6 (F)JIC x 5/16 in Hose Barb, w/ Swivel, Brass	9
Fitting, #6 (M)JIC x 1/2 in (F)NPT, Steel	9
Fitting, #6 (M)JIC x 1/4 in (M)NPT, Steel	9
Fitting, 1/2 in (M)NPT x 1/2 in PEX	7
Fitting, 1/2 in PEX x 1/2 in (F)NPT	6
Fitting, 1/4 in Plug, Plastic (shipping only)	9
Fitting, 3/4 in x 1/2 in, Reducer, Brass	8
Fitting, Bulkhead, 3/4 in (M)NPST x 1/2 in (F) NPT, Brass	5
Fitting, Bulkhead, 3/4 in (M)NPST x 1/4 in (F)NPT, Brass	9
Fitting, Elbow, 1/2 in (N)NPT, Brass	7
Fitting, Elbow, 1/2 in PEX x 1/2 (F)NPT	7
Fitting, Elbow, 1/2 in, PEX	7



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Fitting, Fuel Line, Hose Barb x Compression	9
Fitting, Nipple, 1/2 in (M) NPT, Brass	5
Fitting, Tee, 1/2 in (M) NPT x 1/2 in (F) NPT, Brass	7
Fitting, Tee, 1/2 in (M) NPT, Brass	7
Gasket, Copper	3
Gasket, Rubber, Filler Neck	11
Gauge, Adjustment, Electrode (not shown)	9
Gear, Fuel Pump, Nylon	3
Grommet, Blower Housing, Right	2
Grommet, Blower Housing, Left	2
Grommet, Blower Housing, Left (shown in Diesel Burner Parts)	3
Grommet, Blower Housing, Right (shown in Diesel Burner Parts)	3
Harness, B-Plug	12
Harness, B-Plug	10
Harness, Control	12
Harness, Control	10
Harness, C-Plug	2
Hose, Heater, 1/2 in x 10.75 in	6
Hose, Heater, 1/2 in x 10.75 in	6
Hose, Heater, 1/2 in x 5.75 in	6
Hose, Heater, 1/2 in x 5.75 in	6
Hose, Heater, 1/2 in x 5.75 in	8
Hose, Heater, 1/2 in x 6.75 in	5
Hose, Heater, 1/2 in x 8.5 in	5
Hose, Heater, 1/2 in x 8.5 in	5
Hose, Heater, 1/2 in x 8.75 in	5
Hose, Heater, 1/2 in x 8.75 in	5
Hose, Heater, 1/2 in x 9 in	5
Hose, Heater, 1/2 in x 9 in	5
Hose, Heater, Molded	8
Housing, Blower, Half	2
Housing, Blower, Main	2
Housing, Protection, Motor	1
Insulator, Mounting, Pumps	5
Label, Arrow, Red (not shown)	11
Label, Caution, Winterization (not shown)	11
Label, Caution, Yellow (not shown)	11
Label, Cold Water (not shown)	11
Label, Hot Water (not shown)	11
Label, Hydro-Hot (not shown)	11
Label, Out (not shown)	11
Label, VSI, 1 in x 4 in (not shown)	11
Label, Warning, Propylene Glycol (not shown)	11
Label, Warning, Radiator Cap (not shown)	11
Label, Wire Diagram (not shown)	11
Line, Fuel	9
Manifold, Nozzle, Brass	3
Manual, Owners, HHE-200-08E (not shown)	11
Meter, Hour, Quartz	4
Motor, Combustion Air/Fuel Pump, 12 VDC	1
Nozzle, Fuel, 0.35 GPH	3

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## ■ Alphabetical Parts List

	<u>Description</u>	<u>Page No.</u>
Nut, Eye Bolt		9
O-Ring, Blower Housing		2
O-Ring, Fuel Solenoid Valve		3
Panel, Switch, Assembly, 12VDC		12
Panel, Switch, Assembly, 12VDC		10
Pin, Eye Bolt		9
Plate, Manifold		3
Plate, Motor Mounting		1
Plug, Electronic Controller, 20-Position		12
Plug, Electronic Controller, 20-Position		10
Plug, Electronic Controller, 8-Position		12
Plug, Electronic Controller, 8-Position		10
Pump, Circulation, Kit, 12VDC		5
Pump, Circulation, Kit, 12VDC		8
Pump, Circulation, Stir, 12VDC		6
Pump, Fuel, Kit		3
Relay, Solid State		4
Screw, Blower Housing		2
Screw, Coil Mounting		1
Screw, Flame Sensor		3
Screw, Flange, Blower Housing		1
Screw, Fuel Pump		3
Screw, Manifold		3
Screw, Motor Plate		1
Screw, Protection Housing		1
Sensor, Flame		3
Shutter, Combustion Air Intake		1
Sleeve, Rubber		9
Snap Ring, Gear		3
Switch, Float		4
Switch, Rocker, w/LED		12
Switch, Rocker, w/LED		10
Tank, Expansion, 3 qt		11
Thermostat, Control		4
Thermostat, High Limit, 12VDC		4
Thermostat, High-Limit, 120VAC		4
Thermostat, Low Temperature Cut-Off		7
Thermostat, Low Temperature Cut-Off, w/Clip		7
Tube, Fuel, Banjo, Return		3
Tube, Fuel, Banjo, Supply		3
Tube, Fuel, w/Fittings (High Pressure)		3
Tube, Overflow 5/16 in x 6 ft		11
Tube, PEX, 1/2 in x 2.75 in		7
Tube, Pex, 1/2 in x 3 in		6
Tube, PEX, 1/2 in x 3 in		7
Tube, PEX, 1/2 in x 3.375 in		7
Valve, Check, 1/2 in (F)NPT, Brass		5
Valve, Check, Fuel, 1/4 in (M)NPT, Brass		9
Valve, Fuel Solenoid, 12 VDC		3
Valve, Fuel Solenoid, Kit		3
Valve, Pressure Relief		7

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<u>Description</u>	
<u>Page No.</u>	
Valve, Shut-Off, PEX	6
Valve, Tempering	7
Washer, Lock, Blower Housing	2
Washer, Lock, Electrode	3
Washer, Lock, Fuel Pump	3
Washer, Star, Motor Plate	1
Washer, Star, Protection Housing	1
Wire, Ignition	1

# HYDRO-HOT PARTS MANUAL

# Vehicle Systems

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I N C O R P O R A T E D

*Motor Coach Heating Specialist*

*Manufacturer and Distributor*

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