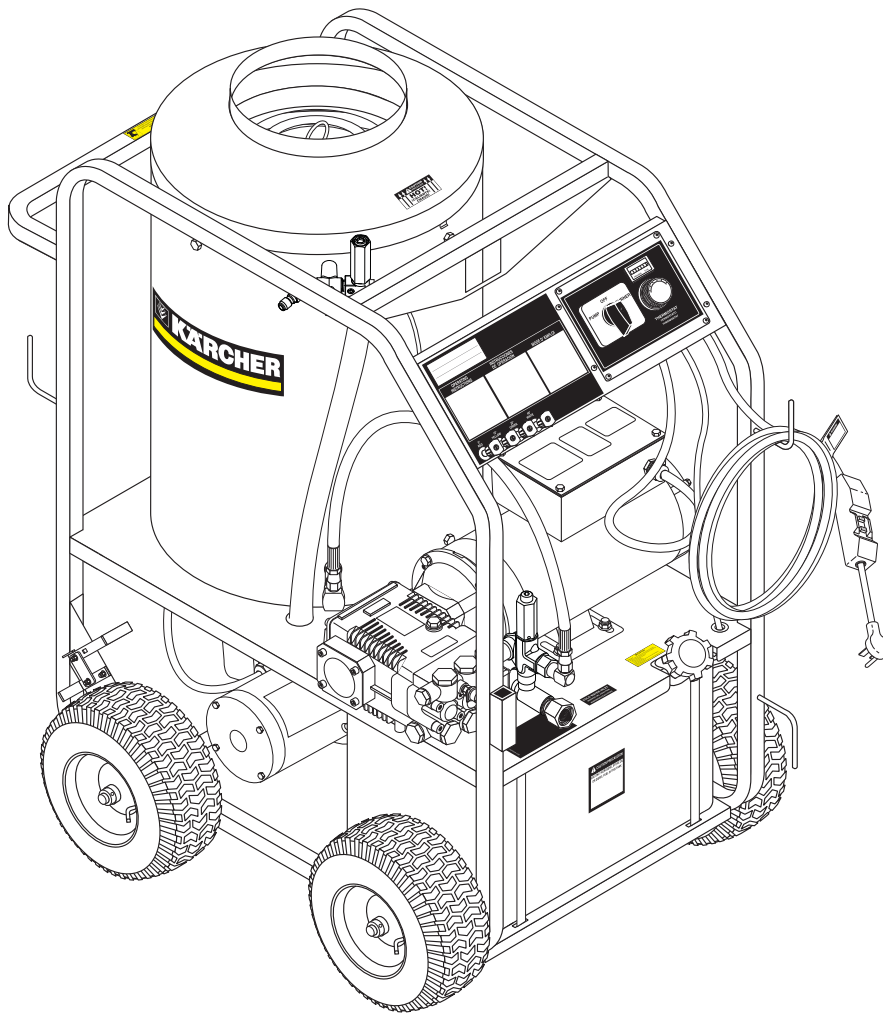
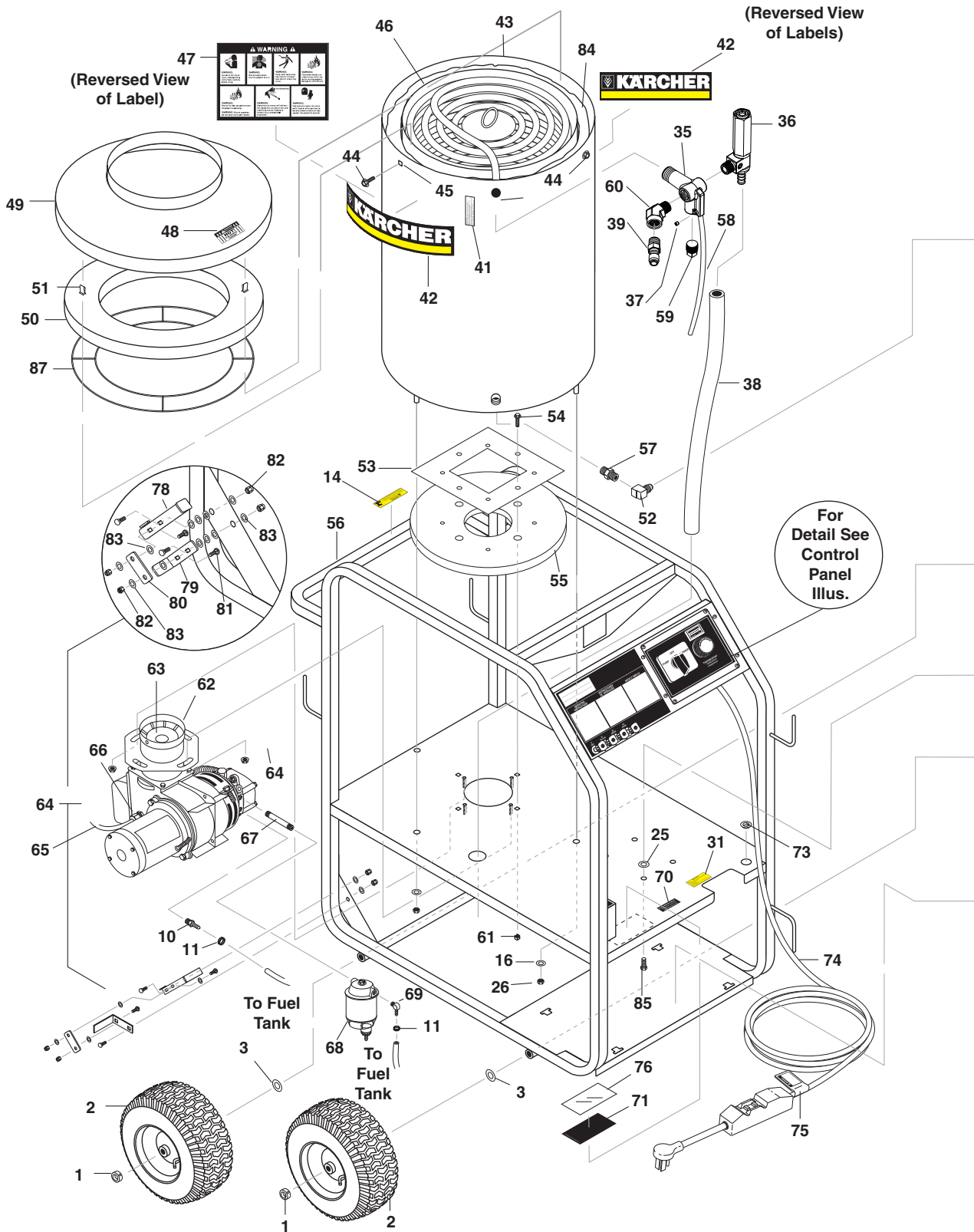


OPERATOR'S MANUAL



<u>MODEL</u>	<u>ORDER #</u>
HDS 2.0/10 Ed Cage	1.575-511.0
HDS 1.9/15 Ed Cage	1.575-512.0
HDS 3.5/20 Ea Cage	1.575-513.0

EXPLODED VIEW - LEFT



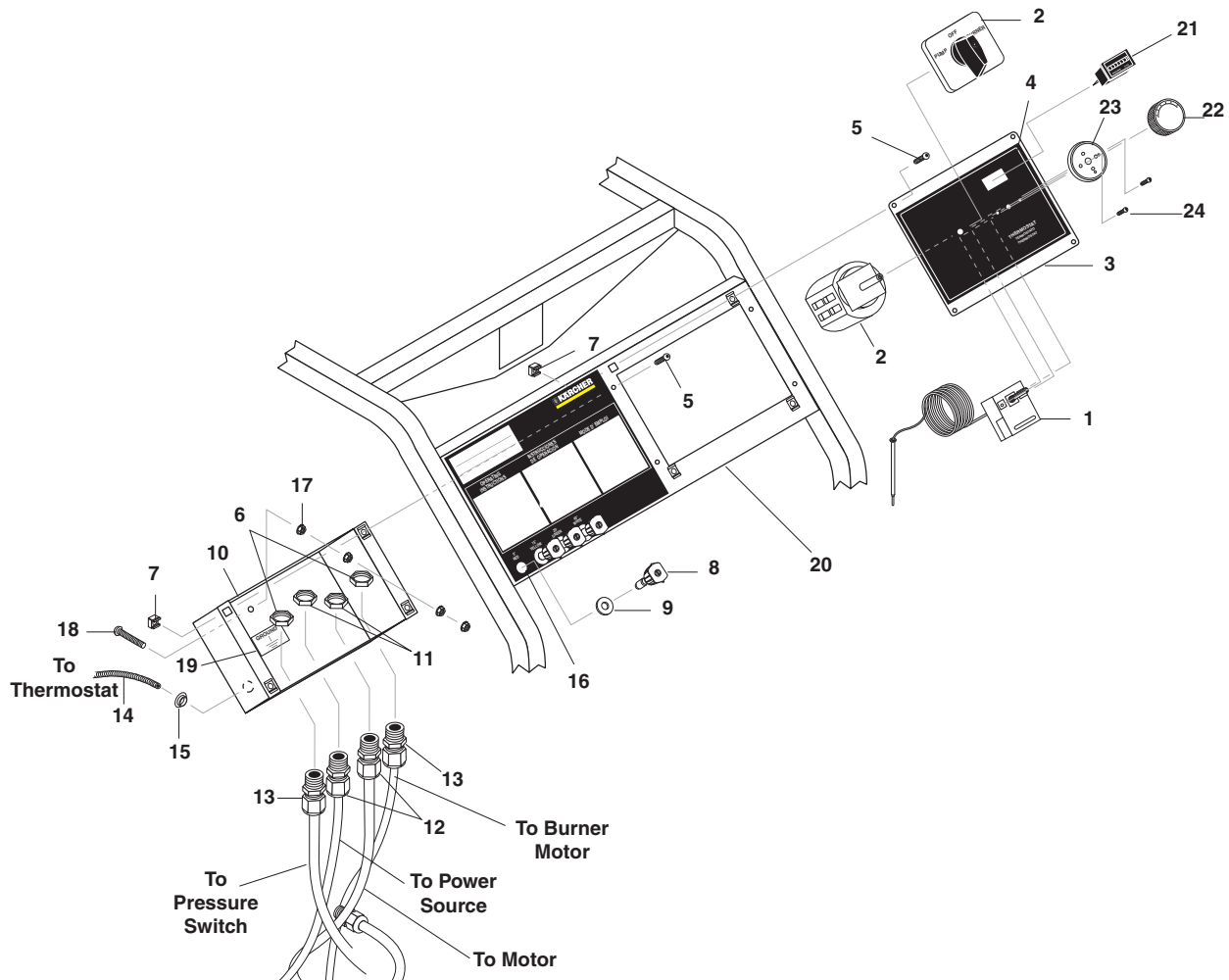
EXPLODED VIEWS PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	9.802-782.0	Collar, 5/8" Bore Shaft	4	30	9.175-018.0	UU1 3500PSI, UNIVERSAL UNLOADER	1
2	9.802-271.0	Wheel & Tire Assy, 6" Steel Rim w/Tube	4	31	9.800-049.0	Label, Manufacturer's Cleaning Solution	1
3	9.802-810.0	Washer, 5/8", Flat, SAE	4	33	8.918-425.0	Hose, 3/8" x 29", 2 Wire, Pressure Loop	1
4	8.908-396.0	Axle, Front	2	34	9.800-002.0	Label, Use Only Kerosene	1
5	9.802-081.0	Tank, Fuel 6 Gallon Blank	1	35	9.149-003.0	Manifould Coil Outlet Dicharge	1
6	9.802-089.0	Cap, Fuel Tank, Plastic H60-AV	1	36	9.802-433.0	Valve Safety, Relief	1
7	9.802-053.0	Bushing, Rubber, Nitrile	2	37	9.196-012.0	Plug 10-24UNF x 1/4	1
8	9.802-141.0	Hose Barb, 1/4" Barb x 3/8" Barb, Double	1	38	8.711-785.0	Hose, 3/8" Push-On	2.5 ft.
9	9.802-177.0	Valve, 1/4" Shut-Off	1	39	9.802-171.0	Nipple, 3/8" x 3/8" NPT ST Male	1
10	9.802-138.0	Hose Barb, 1/4" Barb x 1/4" ML Pipe	1	41	9.800-021.0	Label, Hot Water Outlet	1
11	6.390-126.0	Clamp, Hose, UNI .46 - .54	4	42	9.800-110.0	Label, Kärcher Logo	2
12	9.802-254.0	Hose, 1/4" Push-On, Fuel Line	11"	43	8.919-733.0	Coil, Wrap, Outer, Weldement	1
13	9.802-254.0	Hose, 1/4" Push-On, Fuel Line	7"	44	9.802-753.0	Screw, 1/4" x 3/4" HH NC, Whiz Loc	8
14	9.800-018.0	Label, Tipover Hazard	1	45	9.802-793.0	Nut, Cage, 1/4" x 16 Gauge	4
15	9.802-146.0	Swivel, 1/2" MP x 3/4" GHF w/Strainer	1	46	9.803-095.0	Coil, Assembly	1
16	9.198-014.0	Washer 21/64 X 1"	4	47	9.800-041.0	Label, Warning, Text	1
17	9.802-039.0	Elbow, 1/2 JIC 3/8, 90°	1	48	9.800-006.0	Label, Hot/Caliete w/Arrows Warning	1
18	9.804-025.0	Pump Protector, 1/4", 145°	1	49	9.803-029.0	Tank Head Assy, 16" DIA x 8" Stack	1
20	9.802-720.0	Bolt, 3/8" x 1", NC HH	4	50	9.802-904.0	Insulation, Tank Head, 16" OD x 8" ID	1
21	9.802-807.0	Washer, 3/8" SAE, Flat	4	51	9.802-825.0	Clip, Retaining U-Type	4
22	9.803-815.0	Pump, Kärcher KE2020S (511.0, 512.0)	1	52	9.802-042.0	Elbow, 1/2" JIC x 3/8" Fem, 90°	1
	9.803-818.0	Pump, Kärcher KE3525F (513.0)	1	53	9.803-030.0	Retainer, Burner Insulation	1
23	9.802-458.0	Switch, Pressure, N/O, 1/4" NPT SS	1	54	9.802-768.0	Screw, 3/8" x 1-1/4" Whiz Loc	4
24	9.804-516.0	Motor, 1.5 HP 115V 1725 RPM (511.0)	1	55	9.802-900.0	Insulation, Tank Bottom, 1" Blanket	1
	9.804-517.0	Motor, 2HP 1PH 115V 1725 RPM (512.0)	1	56	9.803-120.0	Assembly, Frame, Black	1
	9.802-341.0	Motor, 5HP 1PH 230V 3450 RPM (513.0)	1	57	8.705-974.0	Nipple, 3/8" x 3/8" Hex	1
25	9.802-804.0	Washer, 5/16" Flat, SAE	8	58	8.750-094.0	Thermostat, 150C/302F	1
26	9.802-776.0	Nut, 5/16" ESNA, NC	8	59	8.706-241.0	Plug, 3/8, SQ head	1
27	9.802-427.0	Cord, Service, SOWA, 12/3 (511.0, 512.0)	2.75 ft.	60	9.802-041.0	Elbow, 3/8", Steel, Street, 45°	1
	9.802-436.0	Cord, Service, SEO, 10/3 (513.0)	3.66 ft.	61	9.802-792.0	Nut, Cage, 3/8" x 12 Gauge	4
28	9.802-514.0	Strain Relief, Small (511.0, 512.0)	1	62	9.802-555.0	Burner, AFG, 120V, F4 Cone (511.0, 512.0)	1
	9.802-518.0	Strain Relief, STRT LQ TITE (513.0)	1		9.804-518.0	Burner, Beckett, 230V AFG (513.0)	1
29	9.802-525.0	Locknut, 1/2" (511.0, 512.0)	1				
	9.802-526.0	Locknut, 3/4" 8465 (513.0)	1				

EXPLODED VIEWS PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
63	9.802-583.0	Nozzle, Oil, HOL 1.00 A, 90° (511.0, 512.0)	1
	8.717-272.0	Nozzle, Burner, 1.75 B 90° (513.0)	1
64	9.802-781.0	Nut, 3/8" Flange, Whiz Loc, NC	4
65	9.802-424.0	Cord, Service, SEO, 16/4, Coleman	64"
66	9.802-519.0	Strain Relief, 1/2" Metal, Two Screw	1
67	9.803-264.0	Nipple, 1/4" x 3", Black Pipe	1
68	8.725-306.0	Filter, Parker Fuel/Oil/H2O (10 Micron), Generic	1
69	8.706-958.0	Hose Barb, 1/4" Barb x 1/4" Pipe, 90°	1
70	9.800-020.0	Label, Cold Water Inlet	1
71	9.800-014.0	Label, Intended for Outdoor Use	1
72	9.800-032.0	Label, Motor Overload Reset, Lexan	1
73	9.802-103.0	Bushing, Snap	1
74	9.802-432.0	GFCI, 120V 15A, w/36' 12-3 Cord (511.0)	1
	9.802-431.0	GFCI, 120V 20A, w/36' 12-3 Cord (512.0)	1
	9.802-430.0	GFCI, 240V 1PH 30A, w/36' 10-3 Cord (513.0)	1
75	9.800-015.0	Label, Warning, Service Cord	1
76	9.800-034.0	Label, Clear Lexan, 2-1/4" x 4-1/2"	1
77	9.803-092.0	Fuel Strap Long	2
78	9.803-111.0	Lever, Brake	1
79	9.802-996.0	Bracket, Brake Pad	1
80	9.802-997.0	Linkage, Brake	1
81	9.802-705.0	Bolt, Carriage	4
82	9.802-773.0	Nut, 1/4" ESNA	4
83	9.802-802.0	Washer, 1/4"	12
84	9.802-908.0	Insulation, Blanket, 18" x 52", Fiberglass	1
85	9.802-709.0	Bolt, 5/16" x 3/4" NC	4
86	9.802-047.0	Adapter, 1/2" x 1/2" Pipe	1
87	9.803-108.0	Retainer Ring, Insulation	1
88	9.803-093.0	Fuel Strap Short	2
89	9.802-767.0	Screw, 3/8 X 3/4 HH NC, Whiz	2
90	9.802-781.0	Nut, 3/8, Flange Whiz Loc, NC	2

CONTROL PANEL EXPLODED VIEW

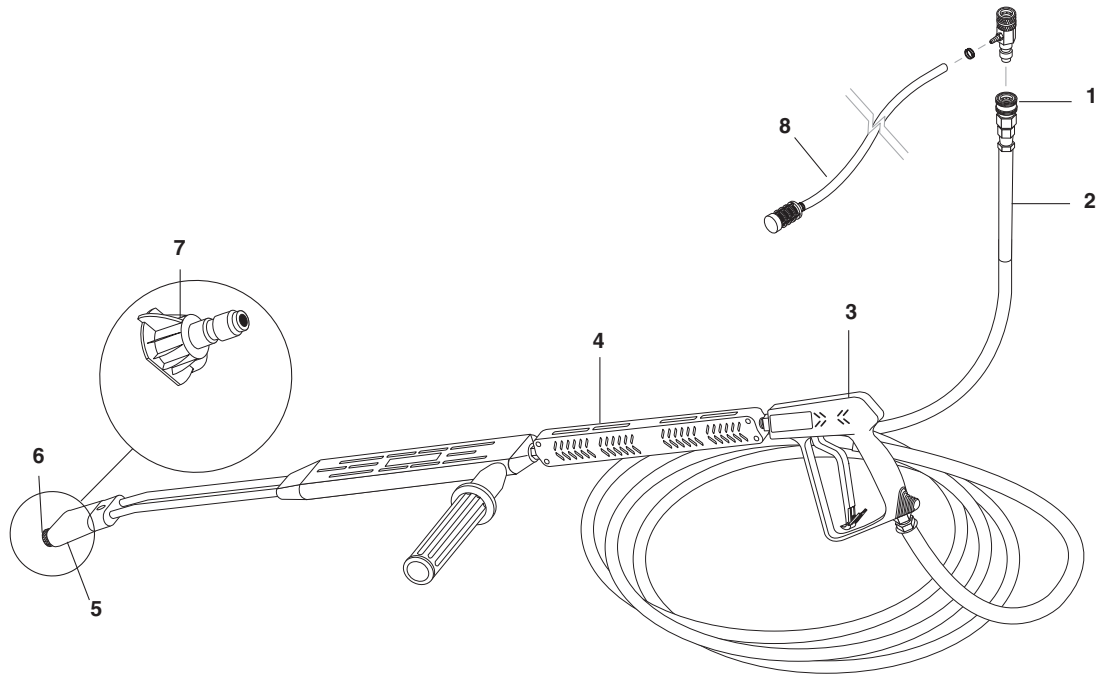


CONTROL PANEL EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	8.750-094.0	Thermostat, 150C/302F	1	13	9.802-514.0	Strain Relief, STRT LQ TITE	2
2	9.802-449.0	Switch, 3 PS, 115V-230V, 1PH	1	14	9.802-447.0	Conduit, Corr, Tubing, 1/4"	2 ft.
3	9.804-519.0	Cover, Electric Box, Black	1	15	9.802-103.0	Bushing, Snap, 5/8"	1
4	9.804-520.0	Label, Electric Box	1	16	9.804-526.0	Label, Control Panel, Kärcher	1
5	9.802-7590	Screw, 10/32" x 1/2" BHSOC Blk	8	17	9.802-695.0	Nut, 10/32" Keps	4
6	9.802-525.0	Locknut, 1/2"	2	18	9.802-762.0	Screw, 10/32" x 1-1/4"	1
7	9.802-791.0	Nut, Cage, 10/32" x 16 Gauge	8	19	9.800-040.0	Label, Ground	1
8	See Page 17	Nozzle	4	20	9.804-524.0	Panel, Control, Black	1
9	9.802-064.0	Grommet, Rubber, Nozzle Holder	4		9.802-754.0	▲ Screw, 1/4" x 1/2" HH, NC, Whiz Loc	4
10	9.804-521.0	Box, Electric, black	1		9.802-775.0	▲ Nut, 1/4" Flange	4
11	9.802-525.0	Locknut, 1/2" (511.0, 512.0)	2	21	9.802-283.0	Hour Meter	1
	9.802-524.0	Locknut, 1/2" Conduit (513.0)	2	22	8.750-096.0	Knob Thermostat	1
12	9.802-514.0	Strain Relief, STRT, LQ TITE Small (511.0, 512.0)	2	23	8.712-190.0	Bezel, Plastic Thermostat	1
	9.804-522.0	Strain Relief, 12/4 Alum. (513.0)	2	24	8.718-779.0	Screw, 4mm x 6mm	4

▲ Not Shown

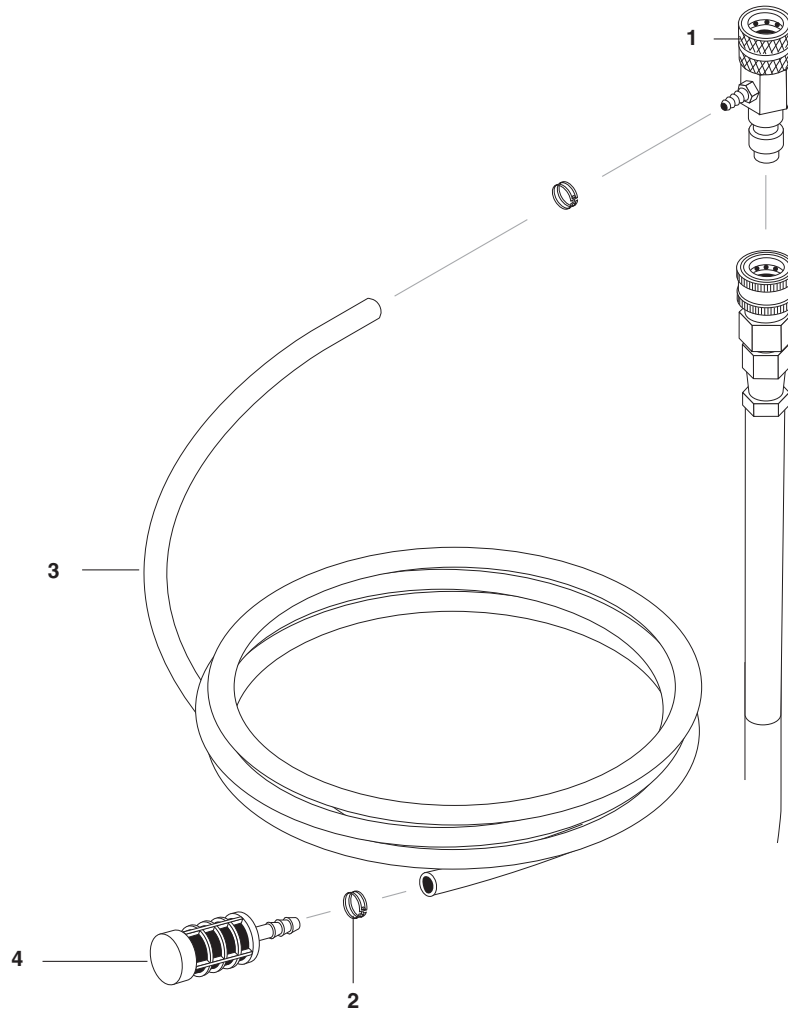
HOSE AND SPRAY GUN EXPLODED VIEW



HOSE AND SPRAY GUN PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	
1	9.802-166.0	Coupler, 3/8" Female	1	
	9.802-100.0	▲ Quick Coupler O-Ring LG	1	
2	8.739-314.0	Hose, 3/8" x 50' 1 Wire Tuff-Flex	1	
3	9.802-229.0	Spray Gun, Shutoff, AP 1000	1	
	8.710-384.0	Gun, St-1500, 5000 PSI, 10.4 Gpm	1	
4	9.802-222.0	Wand, VP Zinc 1/4" w/Coupler, w/Soap Nozzle	1	
	9.803-267.0	▲ AL Wand Repair Kit, Stainless Seat	1	
5	9.802-286.0	Brass Soap Nozzle Only, 1/8" 1		
6	9.802-165.0	Coupler, 1/4" Male	1	
	9.802-096.0	Quick Coupler O-Ring Sm	1	
ITEM	PART NO.	DESCRIPTION	QTY	
7	9.802-287.0	Nozzle SAQMEG 0003, Red (512.0)	1	
	9.802-288.0	Nozzle, SAQMEG 1503, Yellow (512.0)	1	
	9.802-289.0	Nozzle SAQMEG 2503, Green (512.0)	1	
	9.802-290.0	Nozzle, SAQMEG 4003, White (512.0)	1	
	8.712-337.0	Nozzle, SAQMEG 0003.5, Red (511.0)	1	
	8.712-338.0	Nozzle, SAQMEG 1503.5, Yellow (511.0)	1	
	8.712-339.0	Nozzle, SAQMEG 2503.5, Green (511.0)	1	
	8.712-340.0	Nozzle, SAQMEG 4003.5, White (511.0)	1	
	9.802-299.0	Nozzle, SAQMEG 0005, Red (513.0)	1	
	9.802-300.0	Nozzle, SAQMEG 1505 Yellow (513.0)	1	
	9.802-301.0	Nozzle, SAQMEG 2505, Green (513.0)	1	
	9.802-302.0	Nozzle, SAQMEG 4005, White (513.0)	1	
	8	9.802-224.0	Detergent Injector Assy, 2-3 GPM, 0.70" (511.0, 512.0)	1
		9.802-225.0	Detergent Injector Assy, 3-5 GPM, 0.83 (513.0)	1

DOWNSTREAM INJECTOR EXPLODED VIEW



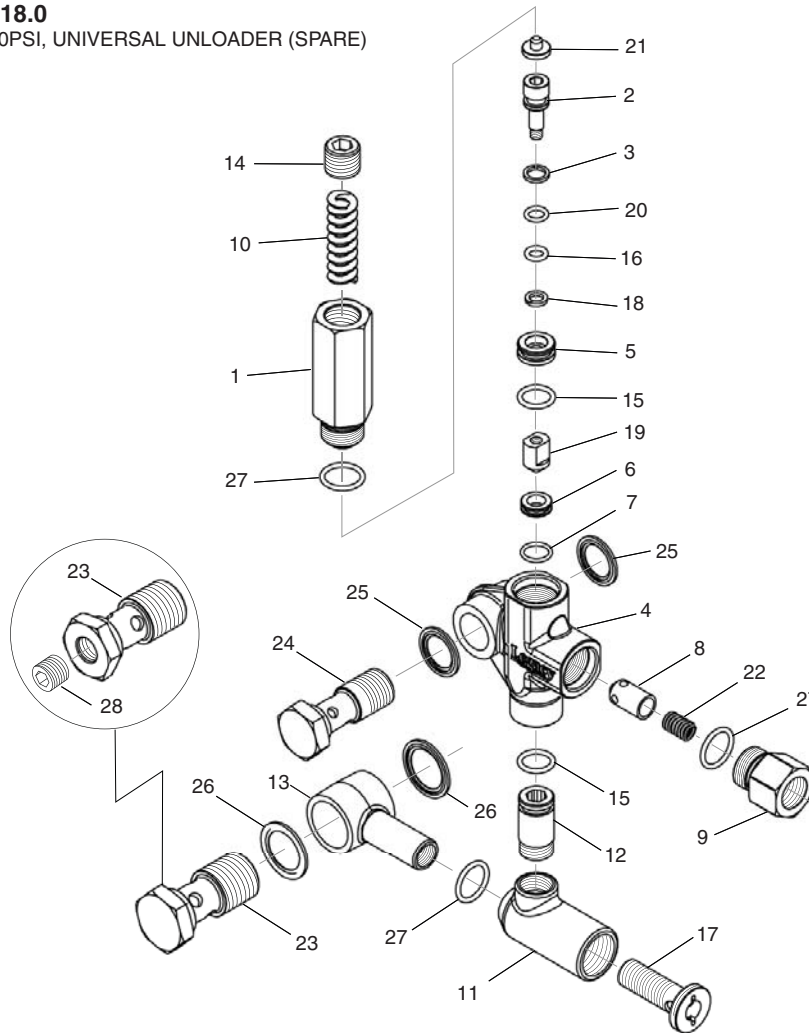
DOWNSTREAM INJECTOR PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	9.802-215.0	Injector, Detergent, Non-Adjust #2 (511.0, 512.0)	1
	9.802-216.0	Injector, Detergent, Non-Adjust #3 (513.0)	1
2	6.390-126.0	Clamp, Hose, UNI .46 - .54	2
3	9.802-251.0	Tube, 1/4" x 1/2", Clear Vinyl	6 ft.
4	9.802-160.0	Strainer, 1/4" Hose Barb	1

UU1 UNLOADER EXPLODED VIEW

9.175-018.0

UU1 3500PSI, UNIVERSAL UNLOADER (SPARE)

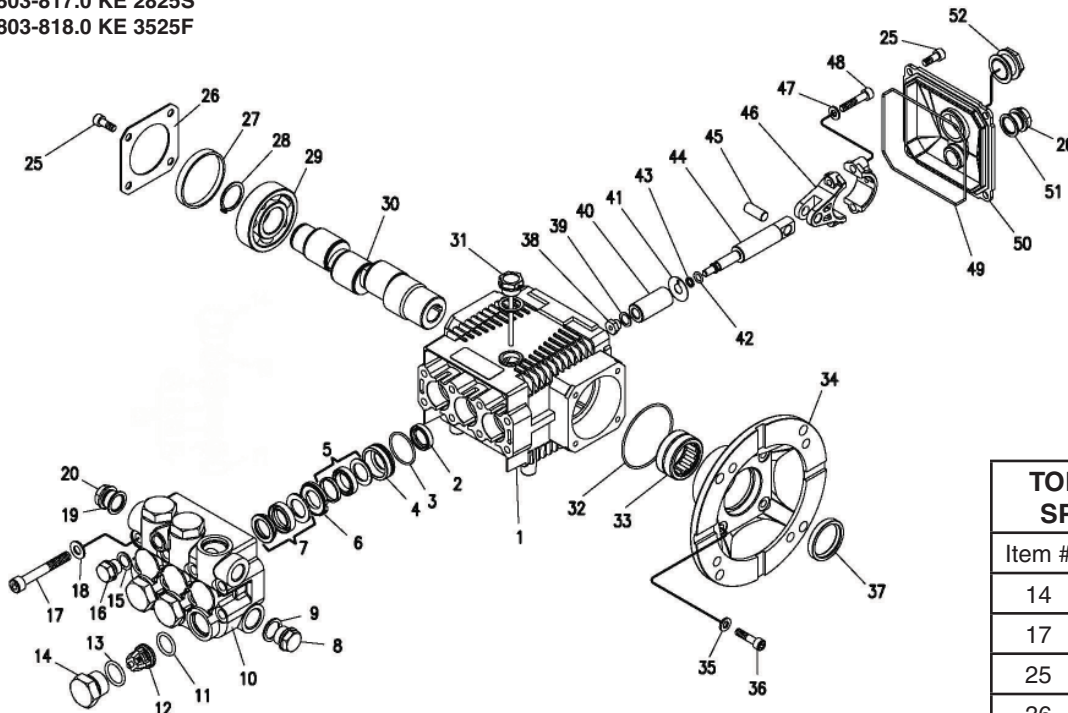


UU1 UNLOADER EXPLODED VIEW PARTS LIST

ITEM	PART #	DESCRIPTION	KIT	QTY	ITEM	PART #	DESCRIPTION	KIT	QTY
1	8.749-792.0	Piston housing		1	17	9.149-006.0	Sliding connector guide		1
2		Piston	C	1	18		O-ring backup 6X 1.45X 1.68	A	1
3		Piston O-ring back up	A	1	19		Conical seal	C	1
4	8.749-796.0	Main block		1	20		O-ring 6.75 X 1.78 BN80	A	1
5	9.152-372.0	Piston ring		1	21		Spring seat	C	1
6		Ball seat	C	1	22		Plunger spring	B	1
7		O-ring 10.5 ID X 1.5 CS	A,C	1	23	8.917-699.0	Banjo bolt 1/2" short		1
8		Plunger	B	1		8.917-700.0	Banjo bolt 1/2"-1/4"NPT short		1
9	9.152-016.0	Plunger housing		1		8.917-698.0	Banjo bolt 3/8" short		1
10		Bypass spring	C	1	24	8.917-698.0	Banjo bolt 3/8" short		1
11	9.149-001.0	Low pressure port		1	25	9.802-893.0	Seal washer 3/8"		2
12	9.152-017.0	Sliding connector, 30mm		1	26	9.803-921.0	Seal washer 1/2"		2
	8.762-005.0	Sliding connector, 40mm, long		1		9.802-893.0	Seal washer 3/8"		2
13	9.149-002.0	Sliding connector H 1/2"		1	27		O-RING 15 ID x 2CS	A,B	3
	9.149-005.0	Sliding connector H 3/8"		1	28	8.706-865.0	Plug, 1/4" countersunk		1
14	9.196-011.0	Plug 5/8 -18 UNF		1	Kit A	9.104-038.0	O-ring Repair Kit		
15		O-ring 12 ID x 2 CS	A	2	Kit B	9.104-039.0	Outlet Kit		
16		O-ring 6 ID X 2 CS	A	1	Kit C	9.104-040.0	Stem Repair Kit		

KE.1 SERIES PUMP EXPLODED VIEW

9.803-814.0 KE 2020F
 9.803-815.0 KE 2020S
 9.803-816.0 KE 2825F
 9.803-817.0 KE 2825S
 9.803-818.0 KE 3525F



TORQUE SPECS	
Item #	Ft.-lbs
14	65
17	18
25	7.6
36	8
38	7

KE.1 SERIES PUMP PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	9.803-938.0	Crankcase	1	16	9.803-951.0	Brass Plug G1/4	1
2*	9.804-586.0	Plunger Oil Seal	3	17	9.803-952.0	Manifold Stud Bolt	8
3*	See Kit Below	O-Ring Ø 1.78 x 28.30	3	18	9.802-884.0	Washer	8
4*	See Kit Below	Pressure Ring 15mm	3	19	9.803-198.0	Copper Washer 3/8	1
	See Kit Below	Pressure Ring 18mm	3	20	9.802-925.0	Brass Plug G3/8	2
5*	See Kit Below	U-Seal, dia 15mm	6	25	9.802-939.0	Screw	12
	See Kit Below	U-Seal, dia 18mm	6	26	9.803-953.0	Bearing Cover	2
6*	See Kit Below	Intermediate Ring 15mm	6	27	9.803-954.0	Bearing Seal	1
	See Kit Below	Intermediate Ring 18mm	6	28	9.802-914.0	Snap Ring	1
7*	See Kit Below	U-Seal, 15mm	3	29	9.803-955.0	Ball Bearing	2
	See Kit Below	U-Seal, 18mm	3	30	9.804-576.0	Crankshaft (2020F)	1
8	9.802-926.0	Brass Plug G1/2	1		9.804-577.0	Crankshaft (2020S)	1
9	9.803-199.0	Copper Washer 1/2"	1		9.804-578.0	Crankshaft (2825F)	1
10	9.803-946.0	Manifold Housing	1		9.804-579.0	Crankshaft (2825S)	1
11	9.803-947.0	O-Ring Ø1.78 x 15.54	6		9.804-580.0	Crankshaft (3525F)	1
12*	See Kit Below	Valve Assembly	6	31	9.803-957.0	Oil Dipstick	1
13*	9.803-948.0	O-Ring Ø2.62 x 18.77	6	32	9.804-581.0	O-Ring Ø3.53 x 55.56	1
14	9.803-949.0	Valve Plug	6	33	9.804-582.0	Needle Bearing	1
15	9.803-950.0	Copper Washer 1/4	1	34	9.804-583.0	Motor Flange 56C	1
				35	9.803-210.0	Washer	4

KE.1 SERIES PUMP PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
36	9.804-584.0	Flange Screw	4
37	9.804-585.0	Crankshaft Seal	1
38*	See Kit Below	Plunger Nut	3
39*	See Kit Below	Copper Spacer	3
40*	See Kit Below	Plunger 15mm (2020F, 2825F, 3525F)	3
	See Kit Below	Plunger 18mm (2020S, 2825S)	3
41*	See Kit Below	Copper Spacer	3
42*	See Kit Below	O-Ring Ø1.78 x 5.28	3
43*	See Kit Below	Teflon Ring	3
44	9.803-964.0	Plunger Rod	3
45	9.803-965.0	Connecting Rod Pin	3
46	9.803-966.0	Connecting Rod	3
47	9.803-218.0	Spring Washer	6
48	8.933-020.0	Connecting Rod Screw	6
49	9.803-969.0	O-Ring Ø2.62 x 107.62	1
50	9.803-968.0	Crankcase Cover	1
51	9.803-197.0	Gasket	1
52	9.803-202.0	Sight Glass	1

REPAIR KIT INFORMATION

REPAIR KIT NUMBER	8.725-354.0	8.725-350.0	8.725-355.0	8.725-357.0	9.803-934.0	9.803-935.0	9.803-936.0	9.803-937.0
KIT DESCRIPTION	Plunger Seal 15mm 2020F.1 2825F.1 3525F.1	Plunger Seal 18mm 2020S.1 2825S.1	Complete Seal Packing 15mm 2020F.1 2825F.1 3525F.1	Complete Seal Packing 18 mm 2020S.1 2825S.1	Plunger 15mm 2020F.1 2825F.1 3525F.1	Plunger 18mm 2020S.1 2825S.1	Complete Valve	Plunger Oil Seals
ITEM NUMBERS INCLUDED	3, 5, 7	3, 5, 7	3, 4, 5, 6, 7	3, 4, 5, 6, 7	38, 39, 40, 41, 42, 43	38, 39, 40, 41, 42, 43	11, 12, 13	2