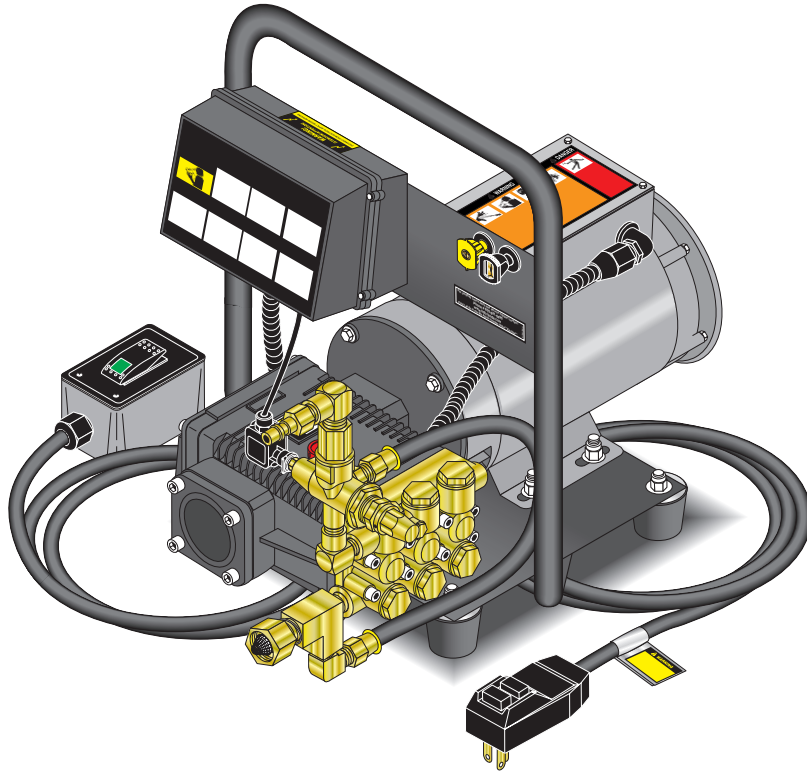


SERVICE MANUAL



ZE2-11026D	1.106-023.0
ZE2-14024D (HOME DEPOT)	1.106-024.0
ZEF2-14024D	1.107-090.0
ET-201409Dx2	1.107-089.0
HE-201406D	1.106-066.0
HE-201006D	1.106-065.0
HE-201407D+	1.106-067.0
HD 1.8/14Ed	1.575-401.0
HD 2.0/10Ed	1.575-400.0
HD 2.0/14Ed+	1.107-088.0
ET-301109D	1.106-107.0

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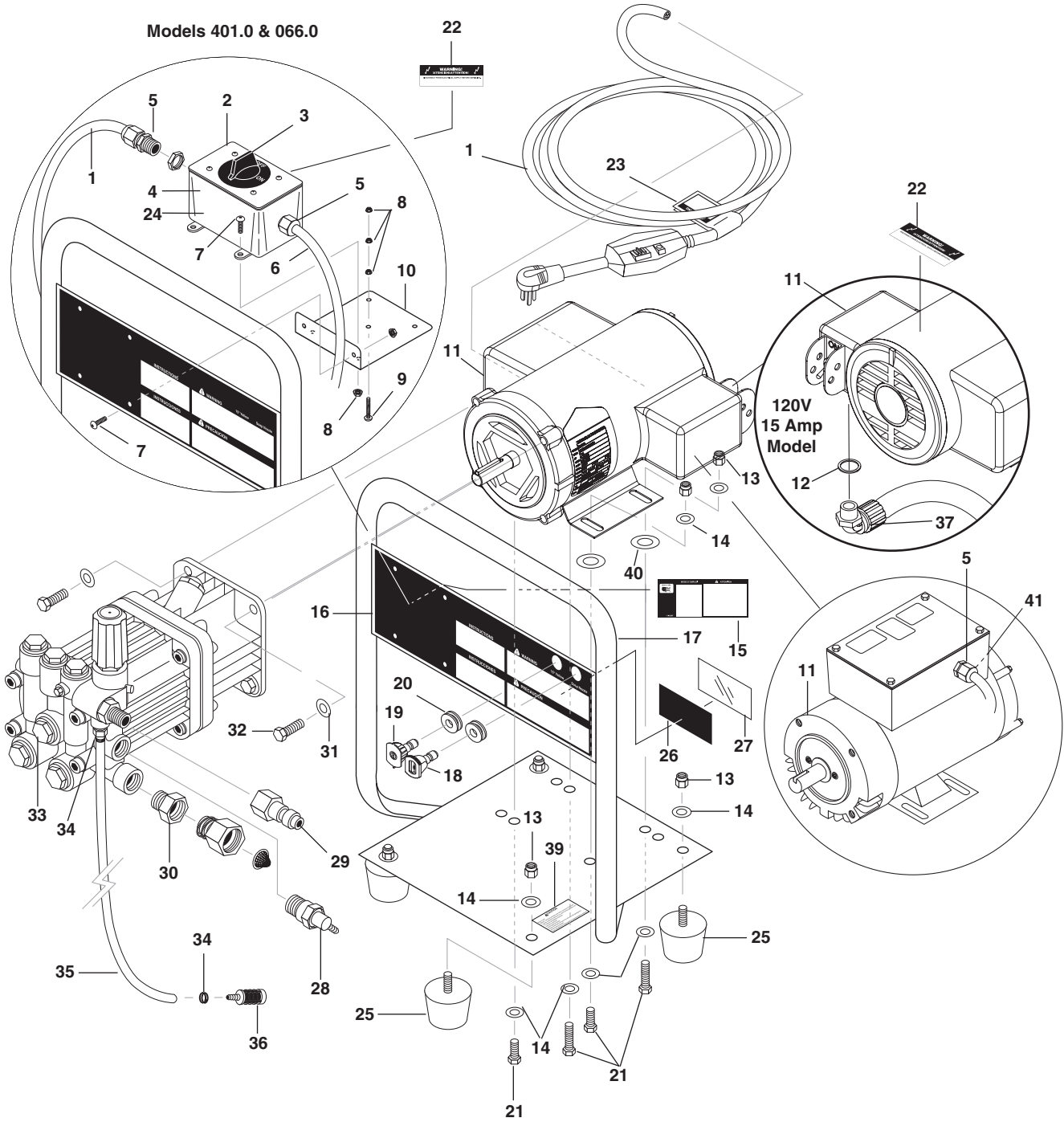
Model Number _____

Serial Number _____

Date of Purchase _____

The model and serial numbers will be found on a decal attached to the pressure washer. You should record both serial number and date of purchase and keep in a safe place for future reference.

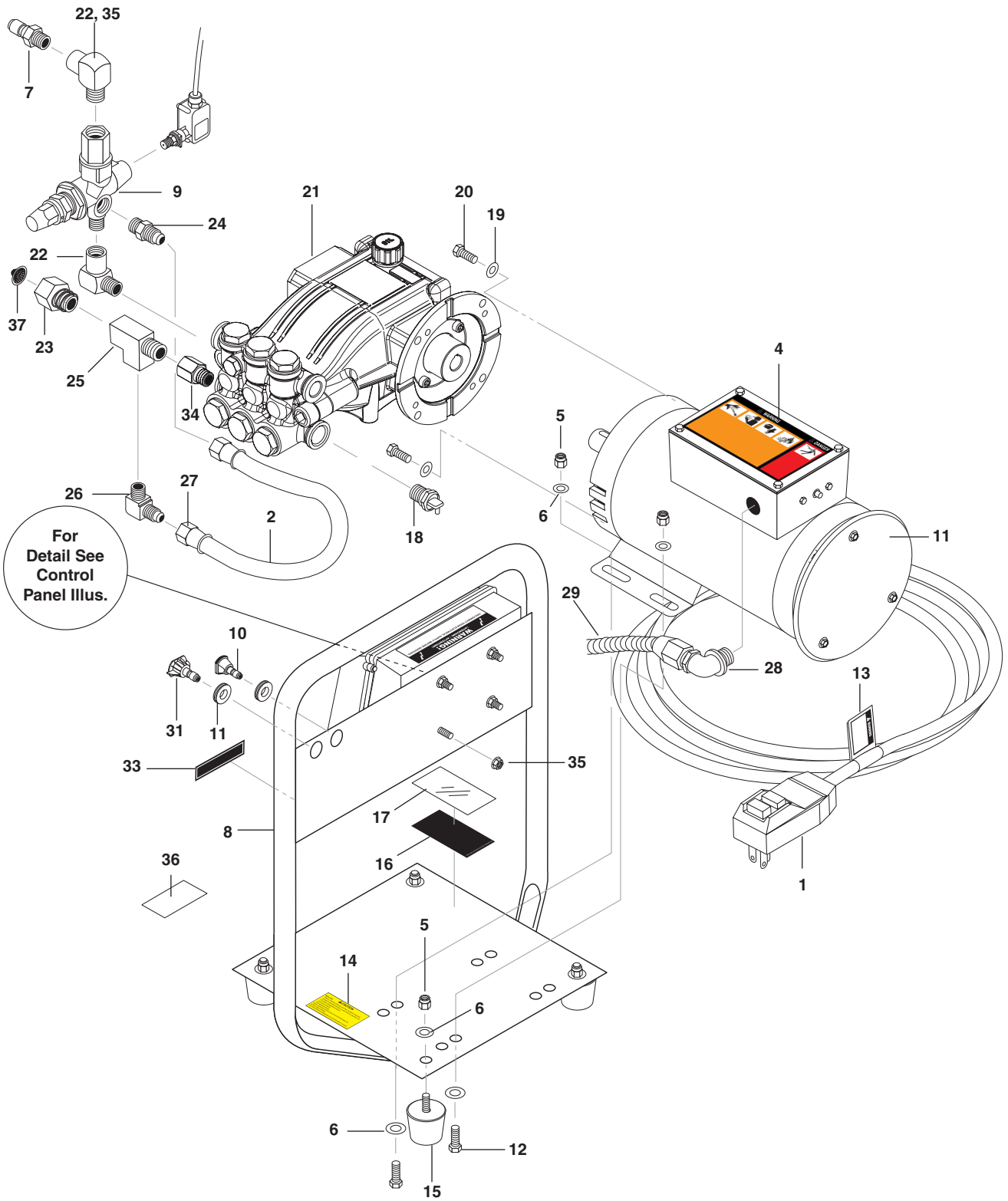
EXPLODED VIEW — STANDARD MODELS



EXPLODED VIEW PARTS LIST — STANDARD MODELS

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	9.802-432.0	GFCI, 120V 15 Amp w/36' 12-3 Cord (023.0, 400.0, 065.0)	1	26	8.930-123.0	Label, For Indoor Use	1
	9.802-431.0	GFCI, 120V 20 Amp w/36' 12-3 Cord (401.0, 066.0)	1	27	9.800-034.0	Label, Clear Lexan, 2-1/4" x 4-1/2"	1
2	9.802-478.0	Lid, Plastic Carlon (401.0, 066.0)	1	28	9.802-181.0	Pump Protector, 3/8" PTP	1
3	9.802-450.0	Switch, 2 Position 120V-600V (401.0, 066.0)	1	29	9.802-170.0	Coupler, 3/8" x 3/8" NPT ST Female	1
4	9.802-477.0	Box, Plastic Carlon (401.0, 066.0)	1	30	9.802-148.0	Adapter, 1/2" x 1/2" Pipe	1
5	9.802-518.0	Strain Relief, Strt, LQ Tite, Large (401.0, 066.0)	3	31	9.802-807.0	Washer, 3/8" Flat SAE	4
6	9.802-427.0	Cord, Service, SOWA, 12/3 (401.0, 066.0)	2 ft	32	9.802-720.0	Bolt, 3/8" x 1", NC	4
7	9.802-759.0	Screw, 10/32" x 1/2" BHSOC (401.0, 066.0)	6	33	9.802-357.0	Pump, Comet AXD2020E	1
8	9.802-695.0	Nut, 10/32" Keps (401.0, 066.0)	9	34	6.390-126.0	Clamp, Hose UNI .46 - .54	2
9	9.802-699.0	Screw, 10-32" x 3/4" RH, SL, Black (401.0, 066.0)	1	35	9.802-251.0	Hose, 1/4" x 1/2" Clear Vinyl	6 ft.
10	9.803-128.0	Bracket, Switch Box (401.0, 066.0)	1	36	9.802-160.0	Strainer, 1/4" Barb	1
11	8.754-711.0	Motor, 1.5hp 1ph, 115v 3480 Rpm, ODP	1	37	8.754-105.0	Connector, 1/2 Npt 90 Dgr	1
	8.754-710.0	Motor, 2 HP, 1 PH, 115/230V 3470 RPM ODP	1	38	9.800-095.0	▲ Tag, Pump Plug/Vented Cap	1
12	8.754-116.0	Metal Clad Sealing O-ring , 1/2 1(023.0, 400.0, 065.0)	1	39	9.800-049.0	Label, Manufacturers Cleaning Solution	1
13	9.802-776.0	Nut, 5/16" ESNA, NC	4	40	8.719-047.0	Washer, Nylon .281 ID x .25 THK	4
14	9.802-804.0	Washer, 5/16" Flat SAE	8	41	9.803-834.0	▲ Washer, Reducing 3/4" x 1/2"	1
15	9.800-037.0	Label, French Warning	1			▲ Not Shown	
16	9.800-059.0	Label, Instructions, Kärcher	1				
	8.750-883.0	Label, Instructions, Shark	1				
	8.900-827.0	Label, Instructions, Landa	1				
	8.900-893.0	Label, Instructions, Hotsy	1				
17	9.802-873.0	Handle Assy, Black	1				
18	(See Page 9 For Nozzles Information)						
19	(See Page 9 For Nozzles Information)						
20	9.802-064.0	Grommet, Rubber, Nozzle Holder	2				
21	9.803-277.0	Screw 5/16" x 1/2" Whiz Loc Flange	4				
	9.803-551.0	Screw, 5/16" x 3/4" Whiz Loc Flange	4				
22	9.800-016.0	Label, Disconnect Power	1				
23	8.932-969.0	Label, Warning, Service Cord	1				
24	9.800-040.0	▲ Label, Ground	1				
25	9.802-063.0	Mount, Vibration, 5/16"-18 x 9/16" Stud, 30 Duro	4				

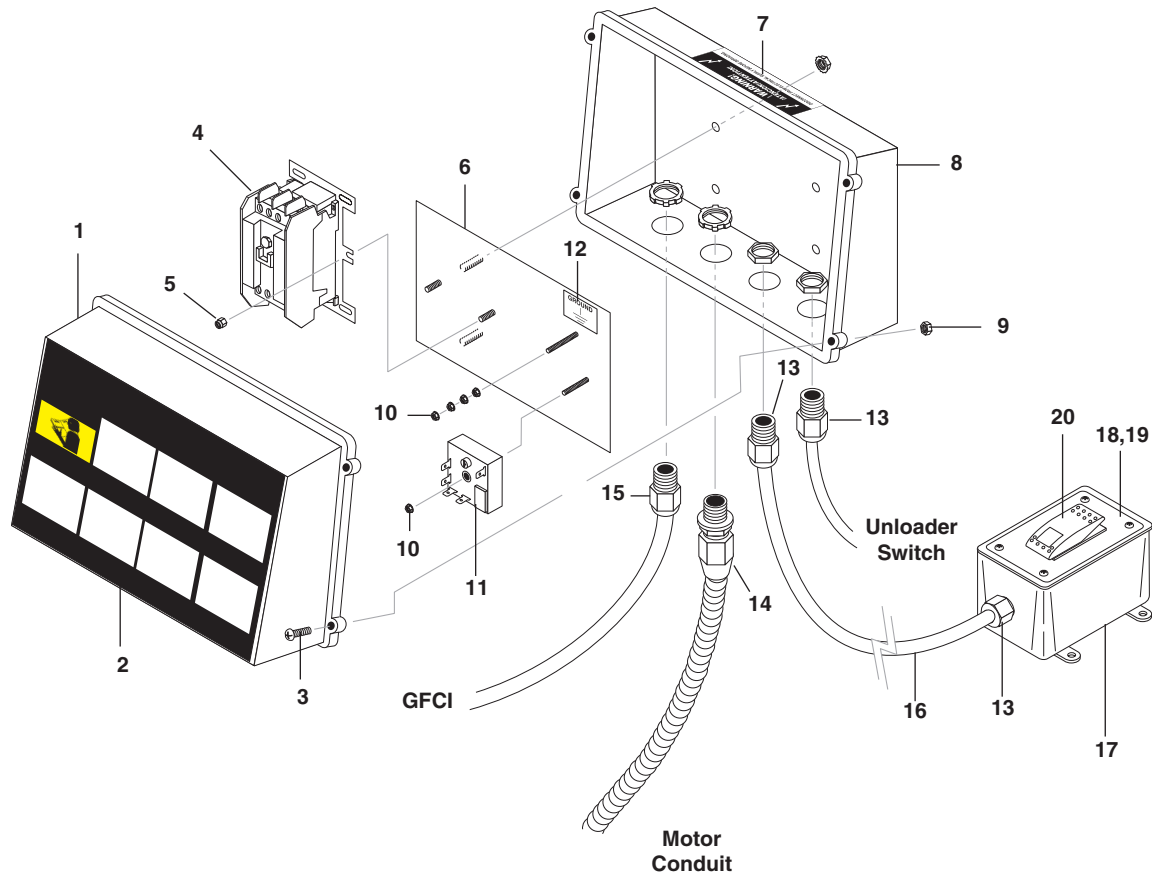
EXPLODED VIEW — ZEF, x2, +, MODELS & HOME DEPOT



PARTS LIST — ZEF, X2, PLUS MODELS & HOME DEPOT

ITEM	PART #	DESCRIPTION	QTY	ITEM	PART #	DESCRIPTION	QTY
1	9.802-431.0	GFCI, 120V 20 Amp	1	30	8.715-975.0	▲ Wire, MTW 12 AWG, White	38"
2	9.802-259.0	Hose, 1/2" Push-On	15"		8.715-980.0	▲ Wire, MTW 12 AWG, Green	38"
3	8.754-709.0	Motor, 2 HP 1Ph, 115V, 1750 Rpm, 56C ODP	1		9.803-539.0	▲ Wire, MTW 12 AWG, Black	38"
4	8.900-305.0	Label, Warning	1	31	(See Page 12 For Nozzles Information)		
5	9.802-776.0	Nut, 5/16" ESNA, NC	8	32	8.900-306.0	▲ Label, HH Elec Op/Warning Combo	1
6	8.718-980.0	Washer, 5/16" Flat SAE (780452)	12	33	8.754-784.0	Apron Sticker Landa	1
7	8.707-152.0	Nipple, 3/8", Male, Ssteel	1	34	8.756-874.0	Adapter steel 1/2 NPTF(F) x 1/2 BSPP(M)	1
8	9.802-873.0	Handle Assy, Black	1	35	8.757-340.0	Elbow 3/8", Street 90 Deg, Steel, W/SLNT	1
9	9.802-362.0	Unloader, PA 8@3650, VB8 W/Switch (N/C)	1	36	8.757-064.0	Label, Cleaning Fee May Apply	1
10	See Page 9	For Nozzles Information		37	9.804-016.0	Filter Screen Washer, Garden Hose/30Mesh	1
11	9.802-064.0	Grommet, Rubber, Nozzle Holder	2			▲ Not Shown	
12	9.803-277.0	Screw, 5/16" x 1/2" Whiz Loc Flange	4				
	9.803-551.0	Screw, 5/16" x 3/4" Whiz Loc Flange	4				
13	8.932-969.0	Label, Warning, Service Cord	1				
14	9.800-049.0	Label, Manufacturers Cleaning Solution	1				
15	9.802-063.0	Mount, Vibration, 5/16"-18 x 9/16" Stud, 30 Duro	4				
16	8.930-123.0	Label, For Indoor Use	1				
17	9.800-034.0	Label, Clear Lexan, 2-1/4" x 4-1/2"	1				
18	9.803-670.0	Pump Protector, 1/2" 190°	1				
19	9.802-807.0	Washer, 3/8" Flat SAE	4				
20	9.802-720.0	Bolt, 3/8" x 1", NC	4				
21	8.929-260.0	Pump LANDA LFP2030S, 2.1 @3000, 1725 RPM	1				
	8.929-254.0	Pump KARCHER KFP2030S, 2.1 @3000 1725RPM	1				
22	9.802-030.0	Elbow, 3/8" Street	1				
23	8.757-203.0	Swivel, 1/2" M-NPTF x 3/4" GHF	1				
24	8.758-007.0	Adapter brass 1/2 JIC (M) x 3/8 NPTF (M)	1				
25	9.802-122.0	Tee, 1/2" Street	1				
26	8.757-391.0	Elbow brass 1/2 SAE (M) x 1/2 NPTF (M)	1				
27	9.802-151.0	Swivel, 1/2" JIC	2				
28	9.802-517.0	Connector, 1/2" 90°	1				
29	9.802-448.0	Conduit, 1/2" Water Tight	30"				

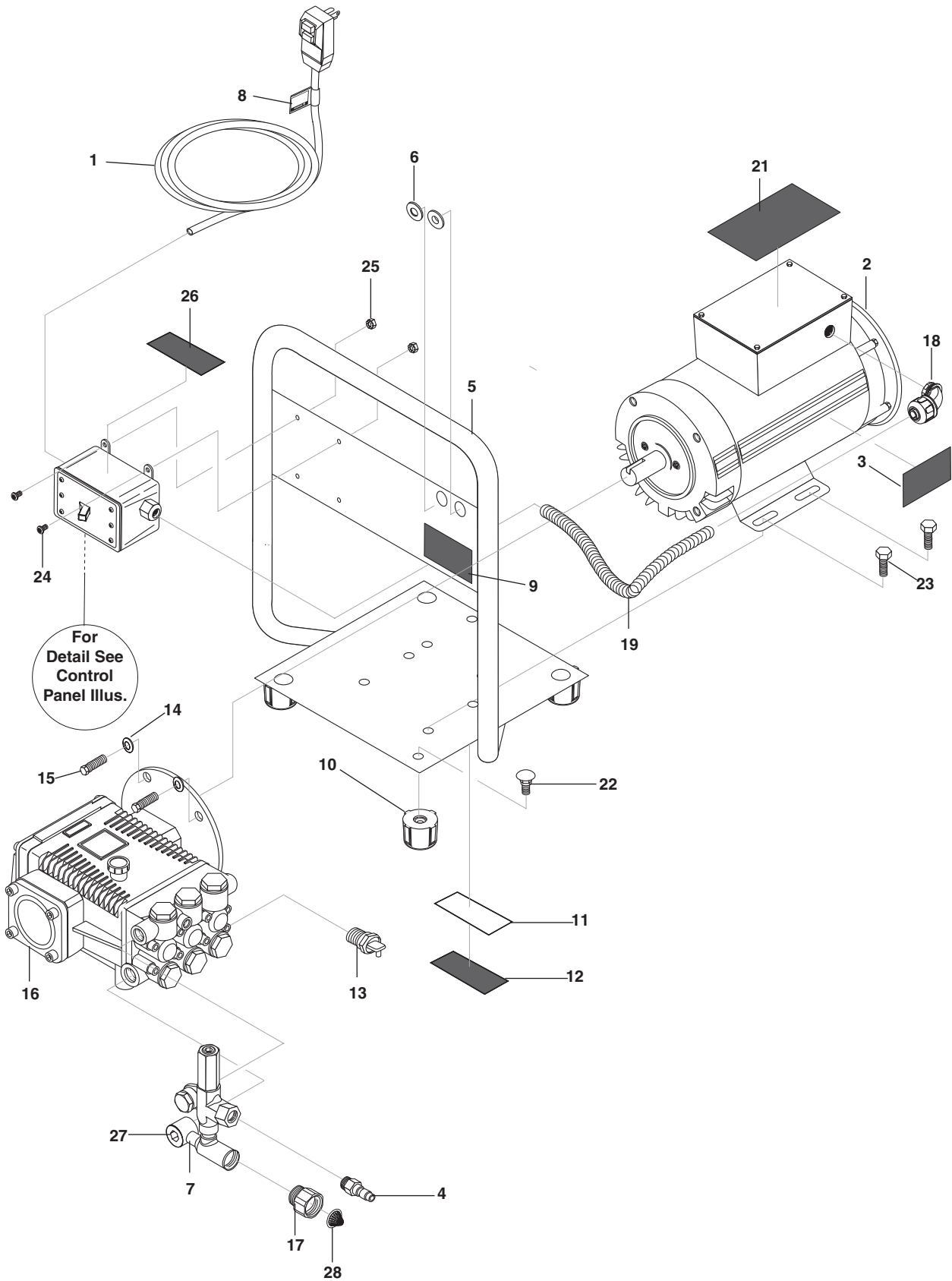
CONTROL PANEL — ZEF, x2, +, MODELS & HOME DEPOT



PARTS LIST — ZEF, X2, PLUS MODELS & HOME DEPOT

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	9.802-481.0	Box Front, Plastic, No Holes	1	12	9.800-040.0	Label, Ground	1
2	8.900-304.0	Label, Operation, Landa	1	13	9.802-514.0	Strain Relief 1/2"	3
	9.800-447.0	Label, Operation, Hotsy	1	14	8.716-547.0	Connector, 1/2" Straight, Black	1
	9.800-450.0	Label, Operation, Kärcher	1	15	8.752-969.0	Strain Relief, Lt, Str, 1/2 NPT 0.39-0.75ID	1
	8.756-892.0	Label, Operation, Shark	1	16	9.802-423.0	Cord, 16/3	10ft.
3	9.803-249.0	Screw, M4 x 10	4	17	9.802-477.0	Box, Plastic, Carlon	1
4	9.802-543.0	Contactor, DP	1	18	8.900-840.0	Label, Remote Switch,	1
5	9.802-773.0	Nut, 1/4 ESNA	2	19	8.912-227.0	Plate, Remote Switch	1
6	8.911-910.0	Standoff, Elec. Box, ZE	1	20	9.802-451.0	Switch, Rocker w/Green Light	1
7	9.800-016.0	Label, Disconnect Power	1				
8	9.802-480.0	Box, Back, Plastic	1				
9	9.803-250.0	Nut, M4	4				
10	9.802-695.0	Nut, 10/32" Keps	11				
11	9.802-472.0	Timer, Solid State 120V	1				

EXPLODED VIEW —ET-301109D

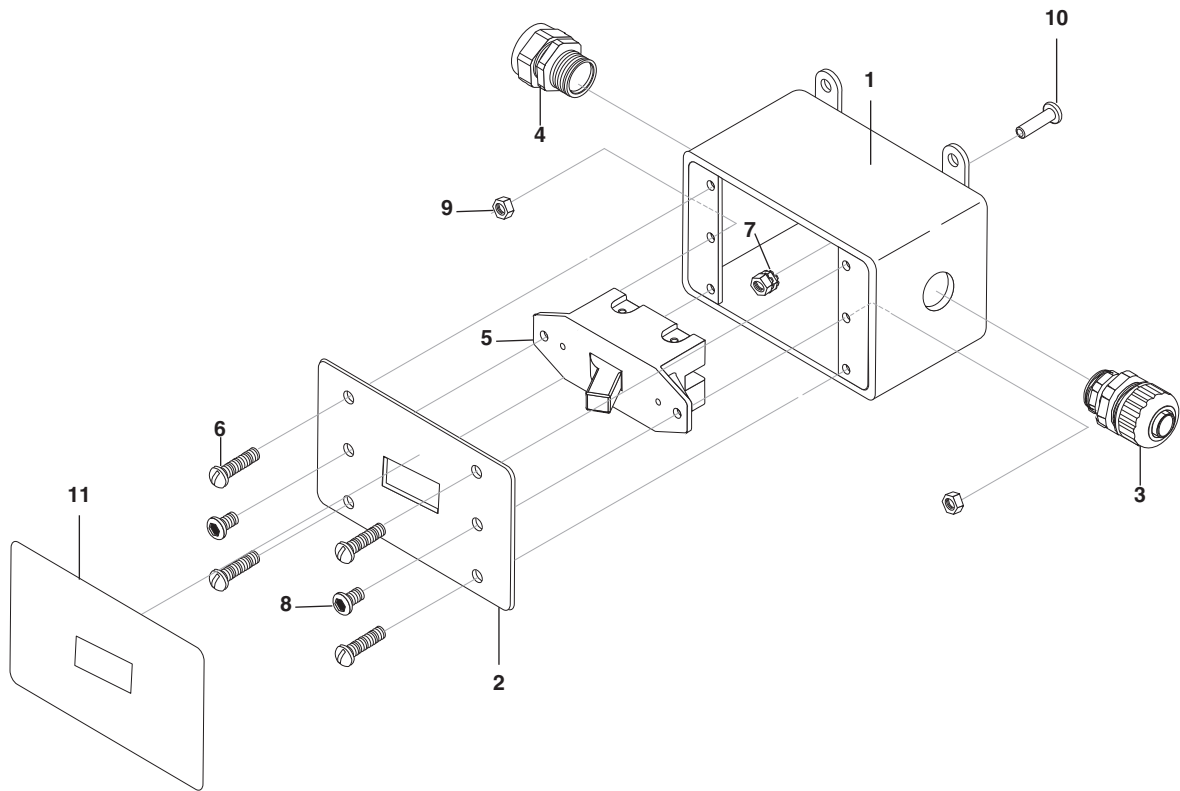


PARTS LIST — ET-301109D

ITEM	PART #	DESCRIPTION	QTY
1	9.802-431.0	GFCI, 120V 20 Amp	1
2	8.754-709.0	Motor, 2 HP 1Ph, 115V, 1750 Rpm, 56C ODP	1
3	8.900-305.0	Label, Warning	1
4	9.802-170.0	Coupler, 3/8" Plug, Female, Steel/Zinc	1
5	9.802-873.0	Handle Assy, Black	1
6	9.802-064.0	Grommet, Rubber, Nozzle Holder	2
7	8.754-696.0	Unloader, VBT Banjo 1/2M 3/8M, 3000PSI (Spare)	1
8	8.932-969.0	Label, Warning, Service Cord	1
9	9.800-049.0	Label, Manufacturers Cleaning Solution	1
10	9.183-405.0	Rubber Dampener 5/16"-18 Female 2001	4
11	8.930-123.0	Label, For Indoor Use	1
12	9.800-034.0	Label, Clear Lexan,	1
13	8.707-254.0	Pump Protector 3/8" 145 DEG	1
14	9.198-004.0	3/8 USS F/W Zinc	4
15	9.802-720.0	Bolt, 3/8" x 1", NC	4
16	8.929-274.0	Pump HOTSYS HFP2830S, 2.8 @3000, 1725 RPM	1
17	8.757-203.0	Swivel, 1/2" M-NPTF x 3/4" GHF	1
18	9.802-517.0	Connector, 1/2" 90°	1
19	9.802-448.0	Conduit, 1/2" Water Tight	15"
20	8.715-975.0	▲ Wire, MTW 12 AWG, White	30"
	8.715-980.0	▲ Wire, MTW 12 AWG, Green	30"
	9.803-539.0	▲ Wire, MTW 12 AWG, Black	30"
	8.716-376.0	▲ Terminal Ring Tonge, 10RC-10	4
21	9.800-447.0	Label, HH Elec Op/Warning Combo Hots	1
22	9.196-308.0	5/16-18 X 1/2 Carriage Bolt A307 Blk	4
23	9.803-277.0	Screw 5/16" x 1/2" Whiz Loc Flange	4
24	9.802-759.0	Screw, 10/32" x 1/2" Bhsoc BLK	4
25	9.802-695.0	Nut, 10/32" Kepts	4
26	9.800-016.0	Label, Disconnect Power Supply	1
27	8.757-192.0	Plug, 1/4" Nptf Countersunk Brass 1	1
28	9.804-016.0	Filter Screen Washer, Garden Hose/30Mesh	1

▲ Not Shown

CONTROL PANEL — ET-301109D

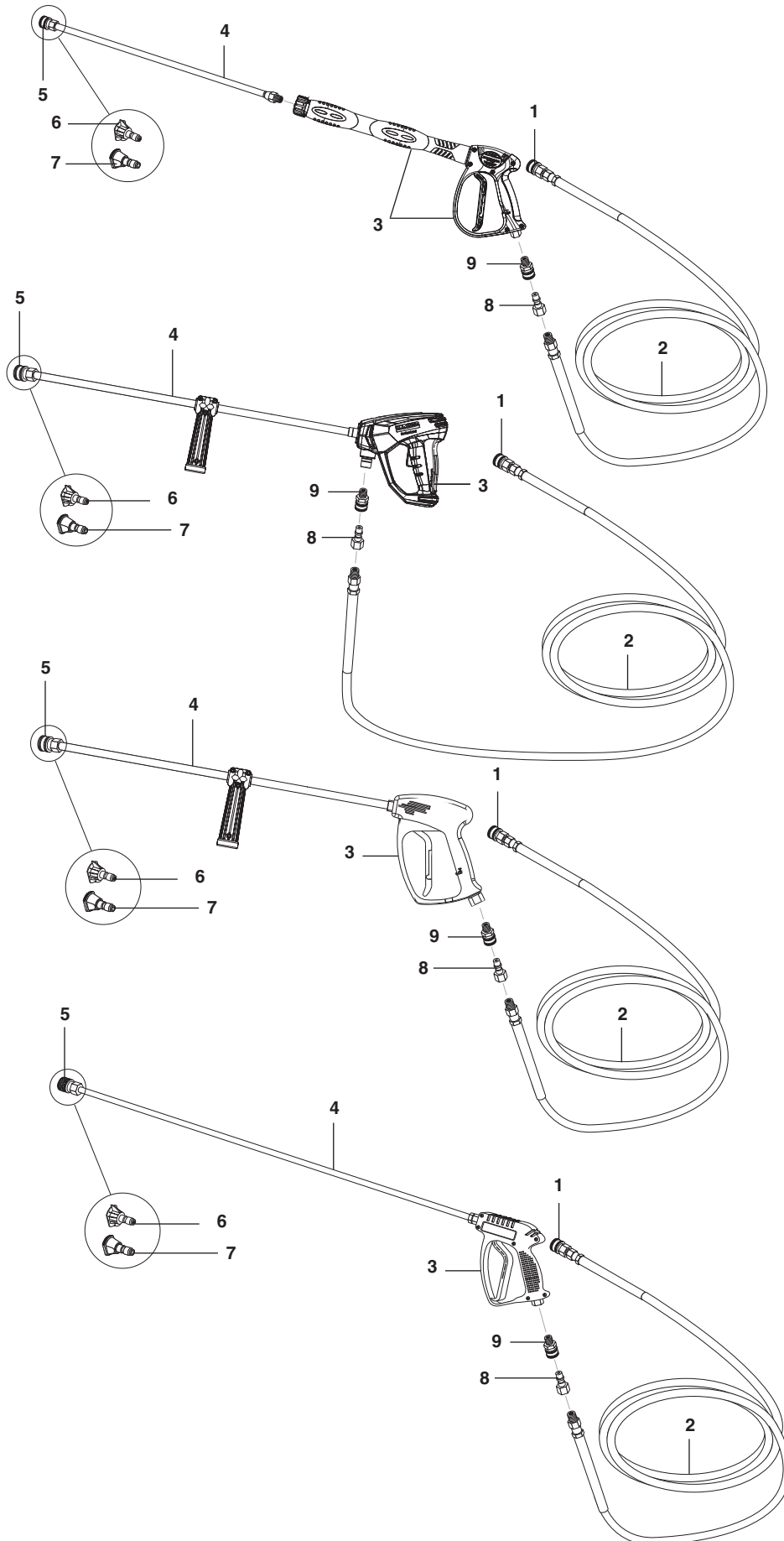


PARTS LIST — ZEF, X2, PLUS MODELS & HOME DEPOT

ITEM	PART NO.	DESCRIPTION	QTY
1	9.802-477.0 P.	Box, Plastic, Carlon E9801 w/o Lid	1
2	8.912-227.0	Plate, Switch Remote	1
3	8.716-547.0	Connector, 1/2 L/T Black	1
4	9.802-518.0	Strain Relief, Lt, Str, 3/4 Npt .49-.71D	1
5	8.716-053.0	Swicht, Toggle, 40A/230V	1
6	8.718-733.0	Screw, 6/32" X 5/8", Rnd HB MCH"	4
7	9.802-695.0	Nut, 10-32 UNF Keps	2
8	9.802-750.0	Screw 8-32 X 1/2 M Tpg Ph Pnh, Black	2
9	9.627-085.0	Nut, 8-32 Hex Nylock Ss	2
10	9.802-699.0	Screw, Pan Head, Slotted	1
11	8.900-840.0	Label, Remote Swich Home Depot	1
12	9.800-040.0	▲ Label, Ground Symbol	1

▲ Not Shown

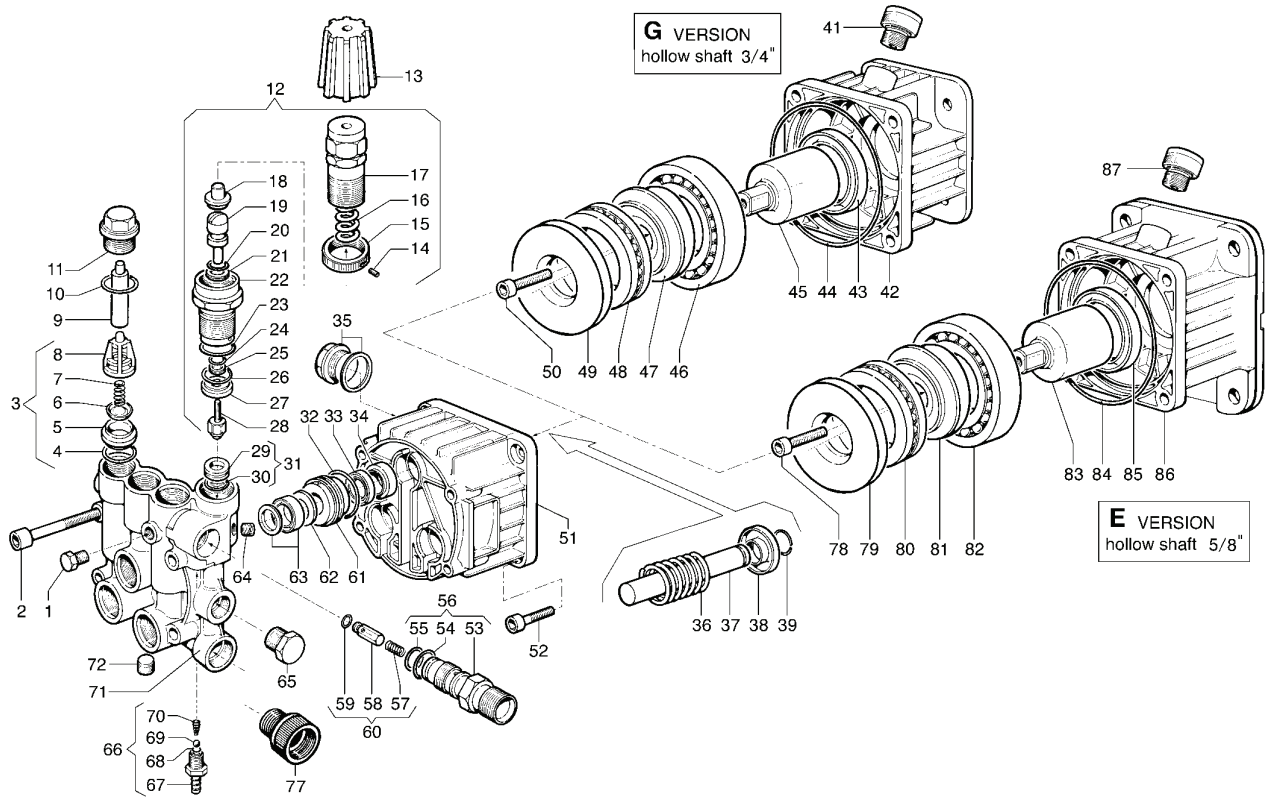
HOSE & SPRAY GUN ASSEMBLY



HOSE & SPRAY GUN ASSEMBLY PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	9.802-166.0	Coupler, 3/8" Female	1	6	8.712-346.0	Nozzle, SAQCMEG 1504, Yellow (024.0)	1
	9.802-100.0	▲ Quick Coupler O-Ring	1		8.712-333.0	Nozzle, SAQCMEG 1503, Yellow (401.0, 066.0, 090.0, 088.0, 067.0, 089.0)	1
2	8.925-137.0	Hose, 3/8" X 25' 1W 4000PSI SW/SO/CPL	1	9.804-624.0	Nozzle, SAQCMEG 150375 Yellow (400.0, 065.0, 023.0)	1	
	8.925-129.0	Hose, 3/8" X 50' 1W 4000PSI SW X SO (-107.0)	1		8.712-363.0	Nozzle, SAQCMEG (107.0) 2506, Green	1
	8.925-138.0	HOSE, 3/8"X25' 1W 4000PSI SW/SO/CPL/NPL (-024.0)	1				
3	8.754-769.0	MV925 Gun 4500 PSI, 3/8" NPT INLET (024.0,089.0,066.0,065.0,067.0)	1	7	8.712-398.0	Nozzle Compl, QCEM-6540 Brass (Chem) (All Model except 107.0)	1
	8.751-235.0	Hotsy H1050, (107.0) 5000 PSI 10.4 GPM (107.0)	1		8	9.802-170.0	Nipple, 3/8" NPT Female
	4.775-054.0	EASY!Force Advanced KNA (401.0,088.0)	1	9	9.802-169.0	Coupler, 3/8 Male	1
	8.751-234.0	GUN, LANDA, L1050, 5000 PSI, 10.4 GPM (023.0, 090.0)	1	10	8.758-198.0	Coupler 3/8" Socket, Male, Brass w/slnt	1
4	9.112-533.0	Lance-AL Quick Connect-Male 3000 PSI	1			▲ Not Shown	
	8.783-039.0	Wand 30" Zinc Plated, (107.0,023.0,090.0,401.0, 400.0,088.0) Handle & Coupler	1				
5	9.802-164.0	Coupler, 1/4" Female	1				
	9.802-096.0	▲ Quick Coupler O-Ring	1				

AXD PUMP EXPLODED VIEW



AXD PUMP EXPLODED VIEW PARTS LIST

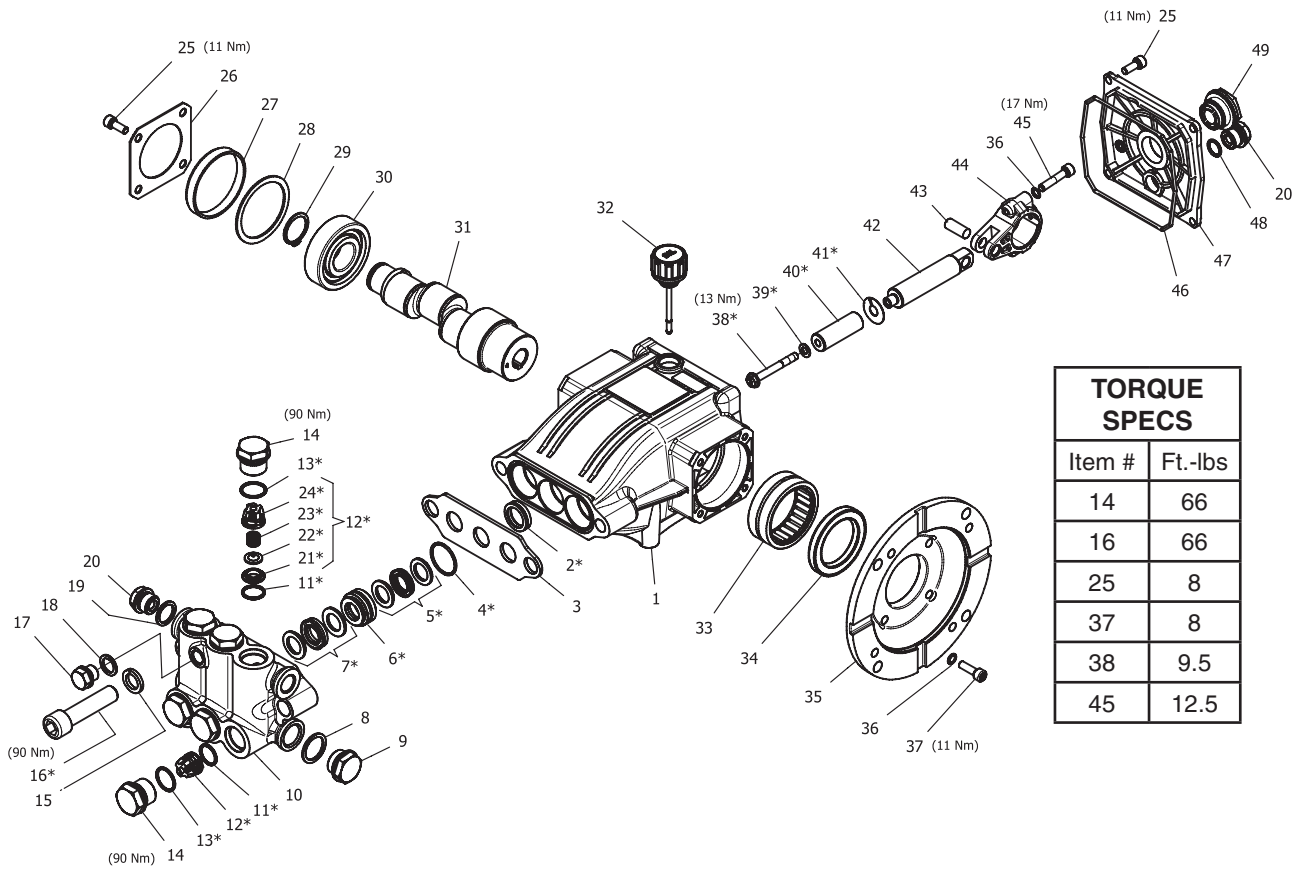
ITEM	PART #	DESCRIPTION	KIT	QTY	ITEM	PART #	DESCRIPTION	KIT	QTY
1		Cap, 1/8"		1	23		O-Ring	E-F	1
2		Screw M8x55		4	24		O-Ring	E-F	1
3	8.721-936.0	Valve Kit		6	25		Ring	E-F	1
4	8.721-920.0	O-Ring, 1.78 x 12.42 A-D		6	26		O-Ring	E-F	1
5		Valve Seat	A	6	27		Ring	E-F	1
6		SUC/DEL Valve	A	6	28	8.721-956.0	Housing with Ball	E-F	1
7		Spring	A	6	29		Seat	E-F	1
8		Valve Cage	A	6	30		O-Ring	E-F	1
9		Spacer		2	31	8.721-957.0	Valve Seat		1
10		O-Ring, 1.78 x 17.77 A-D		6	32		O-Ring, 1.78 x 25.12 B-D		3
11		Plug		6	33	8.721-939.0	Piston Seal Ø14	B	3
12	8.721-935.0	Reg Val Kit for AX 180 Bar		1	34	8.721-899.0	Sealing Ring	D	3
13	9.841-646.0	Knob		1	35	8.721-965.0	Oil Level Plug		1
14	8.718-555.0	Stop, Adjustable Nut, M4x4	E	1	36		Spring		3
15	8.718-546.0	Nut	E	1	37	8.915-527.0	Piston	C	3
16	8.721-940.0	Spring,	E	1	38	8.721-892.0	Ring	C	3
17	8.721-906.0	Adjustable Knob	E	1	39	8.721-891.0	Ring Ø14	C	3
18		Seat	E	1	51		Pump Crankcase		1
19		Piston Rod	E-F	1	52		Screw M8x20		4
20		O-Ring	E-F	1	53		Injector Body M22 x 1.5	E	1
21		Ring	E-F	1		8.718-554.0	Injector Body, 3/8 NPT	E	1
22		Housing	E	1	54	8.721-920.0	O-Ring 1.78 x 12.42 D-E-F		1
					55		O-Ring, 1.78 x 15.6	E-F	1

AXD PUMP EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION	KIT	QTY
56	8.721-974.0	Injector Body Kit M22x 1.5		1
		Injector Body Kit 3/8 NPT		1
57		Spring	E	1
58		Check Valve	E	1
59		O-Ring	E-F	1
60	8.721-948.0	Check Valve Kit		1
61	8.739-570.0	Ring		3
62	8.739-571.0	Ring	B	3
63	8.739-574.0	Piston Seal 150 Bar (2520G, 3020G, 3522G)	B	3
		Piston Seal 180 Bar (3025G)	B	3
64		Plug 1/8 x 8		1
65		Plug 3/8 Gas OT58		1
66	8.718-551.0	Injector Kit		1
67		Hose Barb Fitting		1
68		O-Ring		1
69	8.739-577.0	Ball		1
70	8.739-575.0	Spring		1
71	8.718-553.0	Pump Valve Chamber		1
72		Plug 1/8 x 8		1
77		Garden Hose Tail		1

Kit A	8.721-997.0	Complete Valve Kit
Kit B	8.721-988.0	Piston Seal Kit, 150 Bar
	8.721-989.0	Piston Seal Kit, 180 Bar
Kit C	8.721-949.0	Piston Kit
Kit D	8.721-990.0	Seal Kit
Kit E	8.722-000.0	Overhaul Kit, M22 x 1.5
	8.722-001.0	Overhaul Kit, 3/8" NPT
Kit F	8.722-002.0	Maintenance Kit

LFP SERIES PUMP EXPLODED VIEW



LFP SERIES PUMP PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	8.754-841.0	Crankcase	1
2*	See Kits Below	Plunger Oil Seal	1
3	8.758-216.0	Spacer	1
4*	See Kits Below	"O" Ring Ø1.78X26.7	3
5*	See Kits Below	U Seal	3
6*	See Kits Below	Pressure Ring	3
7*	See Kits Below	U-Seal	3
8	9.803-199.0	Washer, Copper G1/2	1
9	9.802-926.0	Plug, Brass G1/2	1
10	8.754-852.0	Manifold (16mm Models)	1
11*	8.717-233.0	"O" Ring Ø1.78x15.6	6
12*	See Kits Below	Valve Assembly	6
13*	9.803-948.0	"O" Ring Ø1.78x18.77	6
14	9.803-949.0	Valve Plug	6
15	8.754-850.0	Washer, Lock	2
16*	8.929-349.0	Bolt Manifold 16MM	2
17	8.754-851.0	Plug, Brass G1/4 (16mm)	1
18	8.754-845.0	Washer, Copper G1/4 (16 mm Models)	1
19	9.803-198.0	Washer, Copper G3/8	1

LFP SERIES PUMP PARTS LIST

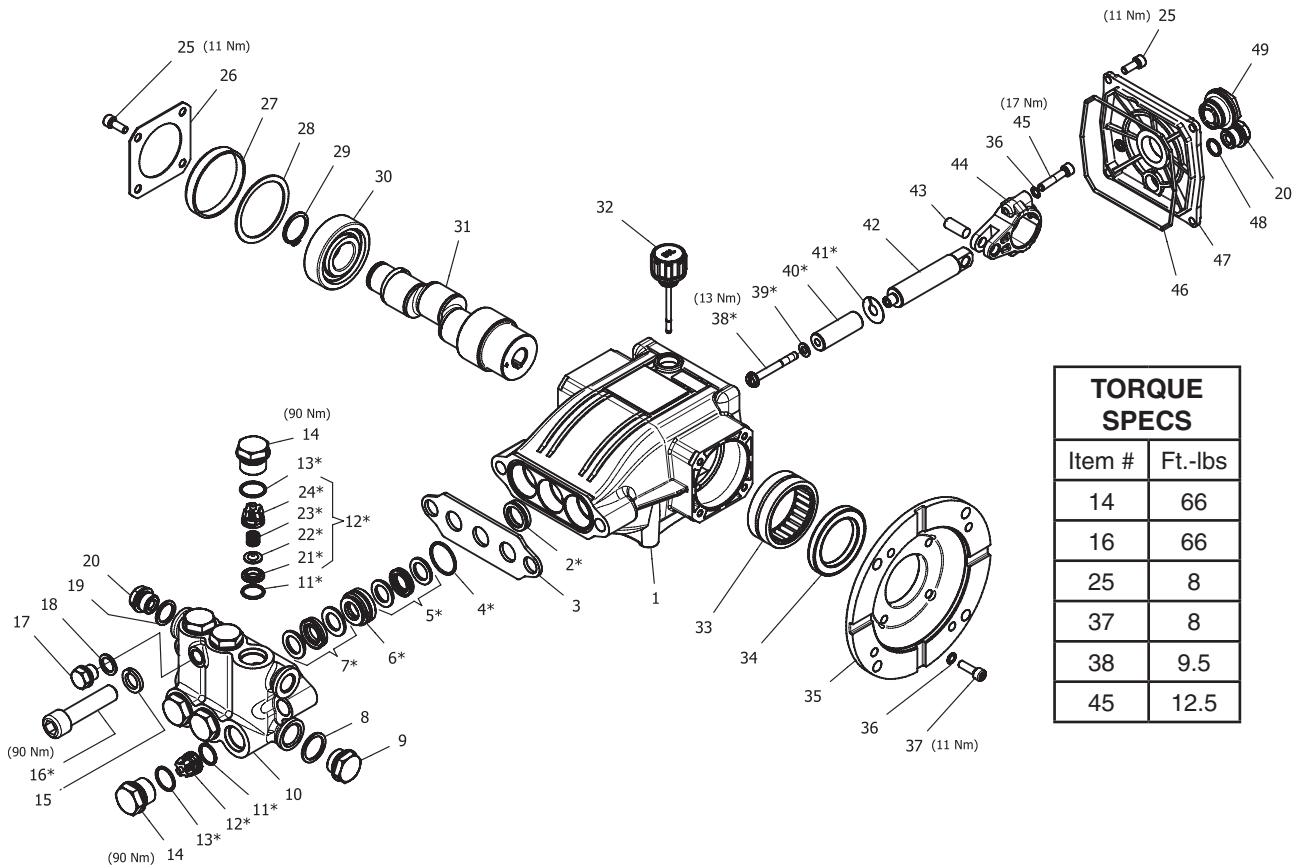
ITEM	PART NO.	DESCRIPTION	QTY
20	8.707-262.0	Plug, Brass G3/8	2
21*	See Kits Below	Valve Seat	6
22*	See Kits Below	Valve Plate	6
23*	See Kits Below	Valve Spring	6
24*	See Kits Below	Valve Cage	6
25	9.802-939.0	Screw, Hex M6M 16mm	8
26	8.717-137.0	Bearing Cover	2
27	9.803-954.0	Bearing Seal	1
28	8.754-843.0	Seal Spacer, Crankshaft	1
29	9.802-914.0	Snap Ring, 25 mm	1
30	9.803-955.0	Bearing, Ball	1
31	8.754-836.0	Shaft, 5/8" Hollow	1
32	8.754-219.0	Oil Dipstick	1
33	8.754-840.0	Bearing Needle	1
34	8.754-826.0	Seal, Crankshaft	1
35	8.754-844.0	Flange, Motor	1
36	9.803-218.0	Washer 6mm	10
37	8.752-824.0	Screw, M6 x 20	4
38*	8.754-855.0	Bolt, Plunger	3
39*	8.754-092.0	Washer, Copper	3
40*	8.754-848.0	Plunger, 16mm	3
41*	9.803-962.0	Spacer, Copper	3
42	8.759-032.0	Plunger Rod	3
43	9.803-965.0	Connecting Rod Pin	3
44	9.803-966.0	Connecting Rod	3
45	8.933-020.0	Screw, Connecting Rod	6
46	8.754-847.0	O-ring Ø2.62 X 111.62	1
47	8.754-842.0	Cover, Crankcase	1
48	9.803-906.0	O-ring Ø1.78 X 14	1
49	9.803-202.0	Sight Glass, G3/4	1

* Available in kit (See below)

REPAIR KIT NUMBER	8.759-015.0	8.929-348.0	8.754-858.0	8.754-859.0	9.803-937.0
KIT DESCRIPTION	Plunger Seals 16 mm**	Seal Packing 16 mm**	Plunger 16 mm**	Complete Valve	Plunger Oil Seals
ITEM NUMBERS INCLUDED	4, 5, 7, 16	4, 5, 6, 7, 16	38, 39, 40, 41	11, 12, 13	2
NO. OF CYLINDERS KIT WILL SERVICE	3	1	1	6	3

HFP SERIES PUMP EXPLODED VIEW

8.929-266.0 HFP2030S



HFP SERIES PUMP PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	8.754-841.0	Crankcase	1
2*	See Kits Below	Plunger Oil Seal	1
3	8.758-216.0	Spacer	1
4*	See Kits Below	"O" Ring Ø1.78X26.7	3
5*	See Kits Below	U Seal	3
6*	See Kits Below	Pressure Ring	3
7*	See Kits Below	U-Seal	3
8	9.803-199.0	Washer, Copper G1/2	1
9	9.802-926.0	Plug, Brass G1/2	1
10	8.754-852.0	Manifold (16mm Models)	1
11*	8.717-233.0	"O" Ring Ø1.78x15.6	6
12*	See Kits Below	Valve Assembly	6
13*	9.803-948.0	"O" Ring Ø1.78x18.77	6
14	9.803-949.0	Valve Plug	6
15	8.754-850.0	Washer, Lock	2
16*	8.929-349.0	Bolt Manifold 16MM	2
17	8.754-851.0	Plug, Brass G1/4 (16mm)	1
18	8.754-845.0	Washer, Copper G1/4 (16 mm Models)	1
19	9.803-198.0	Washer, Copper G3/8	1

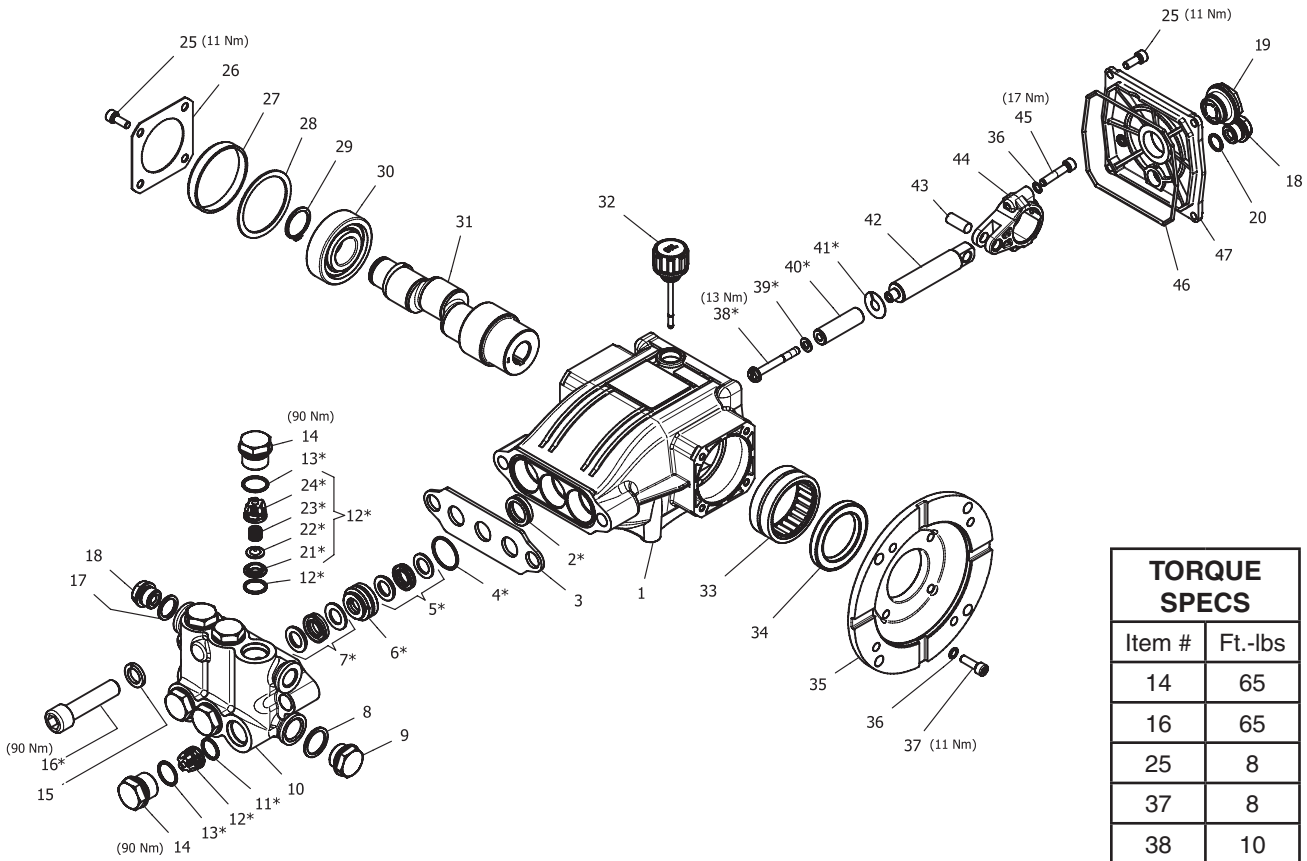
HFP SERIES PUMP PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
20	8.707-262.0	Plug, Brass G3/8	2
21*	See Kits Below	Valve Seat	6
22*	See Kits Below	Valve Plate	6
23*	See Kits Below	Valve Spring	6
24*	See Kits Below	Valve Cage	6
25	9.802-939.0	Screw, Hex M6M 16mm	8
26	8.717-137.0	Bearing Cover	2
27	9.803-954.0	Bearing Seal	1
28	8.754-843.0	Seal Spacer, Crankshaft	1
29	9.802-914.0	Snap Ring, 25 mm	1
30	9.803-955.0	Bearing, Ball	1
31	8.754-836.0	Shaft, 5/8" Hollow	1
32	8.754-219.0	Oil Dipstick	1
33	8.754-840.0	Bearing Needle	1
34	8.754-826.0	Seal, Crankshaft	1
35	8.754-844.0	Flange, Motor	1
36	9.803-218.0	Washer 6mm	10
37	8.752-824.0	Screw, M6 x 20	4
38*	8.754-855.0	Bolt, Plunger	3
39*	8.754-092.0	Washer, Copper	3
40*	8.754-848.0	Plunger, 16mm	3
41*	9.803-962.0	Spacer, Copper	3
42	8.759-032.0	Plunger Rod	3
43	9.803-965.0	Connecting Rod Pin	3
44	9.803-966.0	Connecting Rod	3
45	8.933-020.0	Screw, Connecting Rod	6
46	8.754-847.0	O-ring Ø2.62 X 111.62	1
47	8.754-842.0	Cover, Crankcase	1
48	9.803-906.0	O-ring Ø1.78 X 14	1
49	9.803-202.0	Sight Glass, G3/4	1

* Available in kit (See below)

REPAIR KIT NUMBER	8.759-015.0	8.929-348.0	8.754-858.0	8.754-859.0	9.803-937.0
KIT DESCRIPTION	Plunger Seals 16 mm**	Seal Packing 16 mm**	Plunger 16 mm**	Complete Valve	Plunger Oil Seals
ITEM NUMBERS INCLUDED	4, 5, 7, 16	4, 5, 6, 7, 16	38, 39, 40, 41	11, 12, 13	2
NO. OF CYLINDERS KIT WILL SERVICE	3	1	1	6	3

HFP2830S SERIES PUMP EXPLODED VIEW



TORQUE SPECS	
Item #	Ft.-lbs
14	65
16	65
25	8
37	8
38	10
45	13

HFP2830S SERIES PUMP PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	8.754-841.0	Crankcase	1	20	9.803-906.0	O-ring Ø1.78 X 14	1
2*	9.850-005.0	Plunger Oil Seal	3	21*	See Kits Below	Valve Seat	6
3	9.853-555.0	Spacer	1	22*	See Kits Below	Valve Plate	6
4*	9.850-780.0	O-ring Ø1.78 X 26.7	3	23*	See Kits Below	Valve Spring	6
5*	See Kits Below	"U" Seal kit	3	24*	See Kits Below	Valve Cage	6
6*	See Kits Below	Pressure Ring Kit	3	25	9.802-939.0	Screw, M6 X 16	8
7*	See Kits Below	"U" Seal kit	3	26	8.717-137.0	Bearing Cover	1
8	9.803-199.0	Washer, Copper G1/2	1	27	9.803-954.0	Bearing Seal	1
9	8.929-348.0	Plug, Brass G1/2	1	28	8.754-843.0	Seal Spacer, Crankshaft	1
10	8.759-027.0	Manifold 14mm	1	29	9.802-914.0	Snap Ring, 25 mm	1
	8.759-028.0	Manifold 16mm	1	30	9.803-955.0	Bearing, Ball	1
11*	8.717-233.0	O-ring Ø1.78 X 15.6	6	31	8.754-835.0	Shaft, 5/8" Hollow 2030F 1	
12*	See Kits Below	Valve Assembly	6		8.754-836.0	Shaft, 5/8" Hollow 2030S 1	
13*	9.803-948.0	O-ring Ø1.78 X 18.77	6		8.754-837.0	Shaft, 5/8" Hollow 2830F 1	
14	9.803-949.0	Valve Plug	6		8.754-838.0	Shaft, 5/8" Hollow 2830S 1	
15	8.754-850.0	Washer, Lock	2		8.754-839.0	Shaft, 5/8" Hollow 3530F 1	
16*	8.929-349.0	Bolt, Manifoild M14X60	2	32	8.754-219.0	Oil Dipstick	1
17	9.803-198.0	Washer, Copper G3/8	1	33	8.754-840.0	Bearing Needle	1
18	8.707-262.0	Plug, Brass G3/8	2	34	8.754-826.0	Seal, Crankshaft	1
19	9.803-202.0	Sight Glass, G3/4	1	35	8.754-844.0	Flange, Motor	1
				36	9.803-210.0	Washer	10

HFP2830S SERIES PUMP EXPLODED VIEW

ITEM	PART NO.	DESCRIPTION	QTY
37	8.752-824.0	Screw, 6 mm	4
38*	8.754-855.0	Bolt, Plunger	3
39*	8.754-092.0	Spacer, Copper	3
40*	8.754-848.0	Plunger, 16mm (2030S, 2830S)	3
	8.754-849.0	Plunger, 14mm (2030F, 2830F, 3530F)	3
41*	9.803-962.0	Spacer, Copper	3
42	8.759-032.0	Plunger Rod	3
43	9.803-965.0	Connecting Rod Pin	3
44	9.803-966.0	Connecting Rod	3
45	8.933-020.0	Screw, Connecting Rod	6
46	8.754-847.0	O-ring Ø2.62 X 111.62	1
47	8.754-842.0	Cover, Crankcase	1

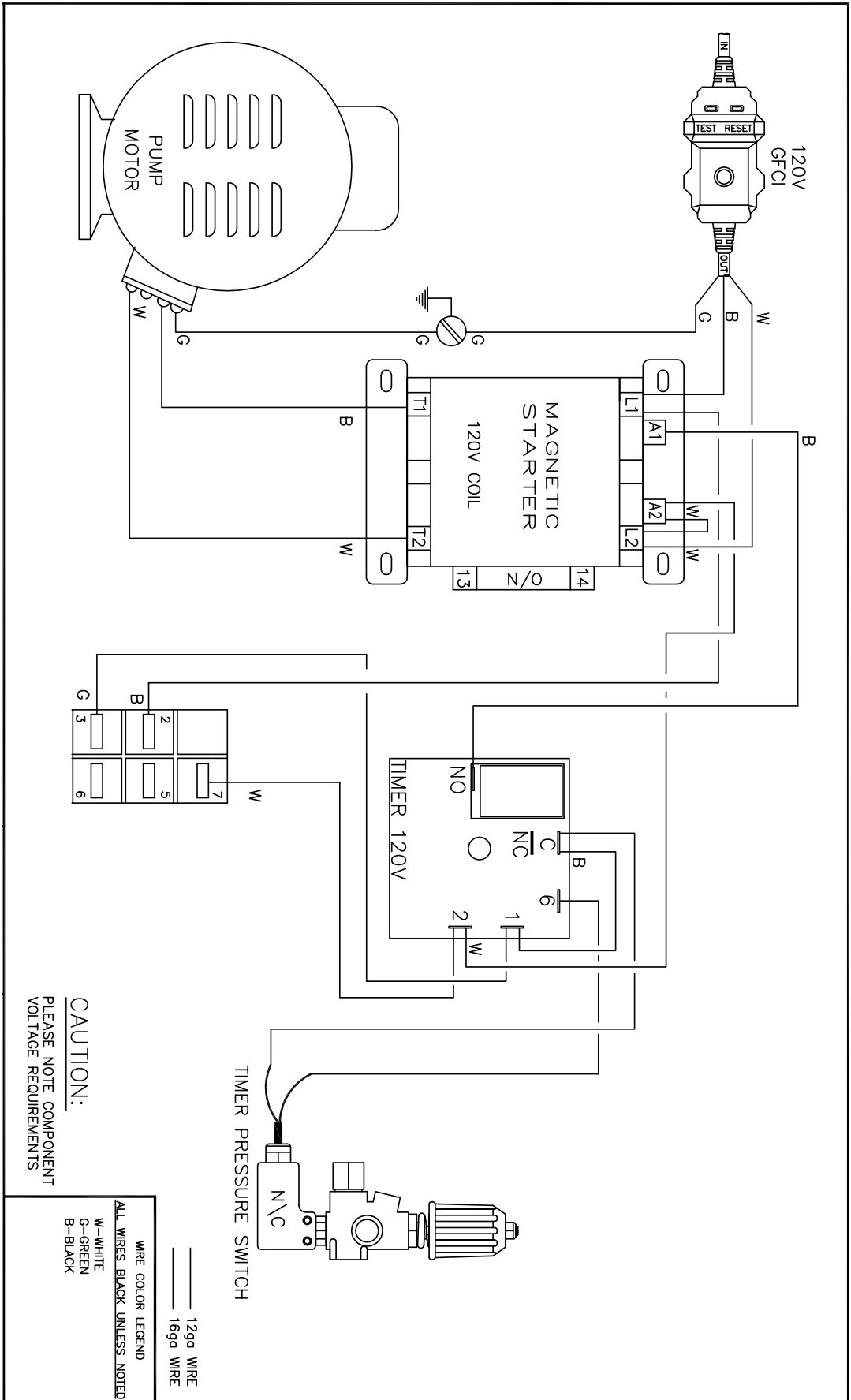
* Available in kit (See below)

KIT NUMBERS	8.759-031.0	8.759-015.0	8.758-218.0	8.929-348.0	8.754-862.0	8.754-858.0	8.754-859.0	9.803-937.0
KIT DESCRIPTION	Plunger Seals 14 mm	Plunger Seals 16 mm	Seal Packing 14 mm	Seal Packing 16 mm	Plunger 14 mm	Plunger 16 mm	Complete Valve	Plunger Oil Seals
ITEM NUMBERS INCLUDED	4, 5, 7, 16	4, 5, 7, 16	4, 5, 6, 7, 16	4, 5, 6, 7, 16	38, 39, 40, 41	38, 39, 40, 41	11, 12, 13	2
NUMBER OF CYLINDERS KIT WILL SERVICE	3	3	3	3	1	1	6	3

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
PUMP RUNNING NORMALLY BUT PRESSURE LOW ON INSTALLATION	Pump sucking air	Check water supply and possibility of air seepage.
	Check valves sticking	Check and clean or replace if necessary.
	Unloader valve seat faulty	Check and replace if necessary.
	Nozzle incorrectly sized	Check and replace if necessary.
	Worn piston packing	Check and replace if necessary.
FLUCTUATING PRESSURE	Valves worn	Check and replace if necessary.
	Blockage in valve	Check and replace if necessary.
	Pump sucking air	Check water supply connections.
	Worn piston packing	Check and replace if necessary.
	Insufficient water	Check filter and hose for breakage/clogging
PRESSURE LOW AFTER PERIOD OF NORMAL USE	Nozzle worn	Check and replace if necessary.
	Suction or delivery valves worn	Check and replace if necessary.
	Suction or delivery lines blocked	Check and clean if necessary.
	Unloader valve seat worn	Check and replace if necessary.
	Worn piston package	Check and replace if necessary.
	Water temperature excessive	Reduce to below 140° F.
PUMP NOISY	Air in suction line	Check water supply and connections on suction line.
	Broken or weak suction or delivery valve spring.	Check and replace if necessary.
	Foreign matter in valves	Check and clean if necessary.
	Worn bearings	Check and replace if necessary.
	Water temperature excessive	Reduce to below 160° F.
PRESENCE OF WATER IN PUMP OIL	Oil seal worn	Check and replace if necessary.
	High humidity in air	Check and replace if necessary.
	Piston packing worn	Check and replace if necessary.
WATER DRIPPING FROM UNDER PUMP	Piston packing worn	Check and replace if necessary.
	O-ring plunger retainer worn	Check and replace if necessary.
WATER DRIPPING FROM PUMP PROTECTOR	Water supply pressure too high (over 90 psi)	Lower water supply pressure using regulator.
	Spray gun is in the off position for over 1-2 minutes	Turn machine off if not in use for over 1-2 minutes.
OIL DRIPPING	Oil seal worn	Check and replace if necessary.
EXCESSIVE VIBRATION IN HIGH PRESSURE HOSE	Irregular functioning of the pump valves	Check and replace if necessary.
MOTOR DOES NOT START WHEN SWITCHED ON	Plug not well connected or lack of power supply	Check plug, cable and switch.
WHEN SWITCHING ON THE MACHINE, MOTOR HUMS BUT DOES NOT RUN	Main voltage is insufficient, lower than the minimum required.	Check to make sure main power supply is adequate.
	The pump is stuck or frozen	Check by turning the motor manually.
MOTOR STOPS	Tripped thermal overload due to overheating	Check that main voltage corresponds to specifications for the machine. Wait a few minutes before turning on the machine again by resetting the GFCI on the cord.

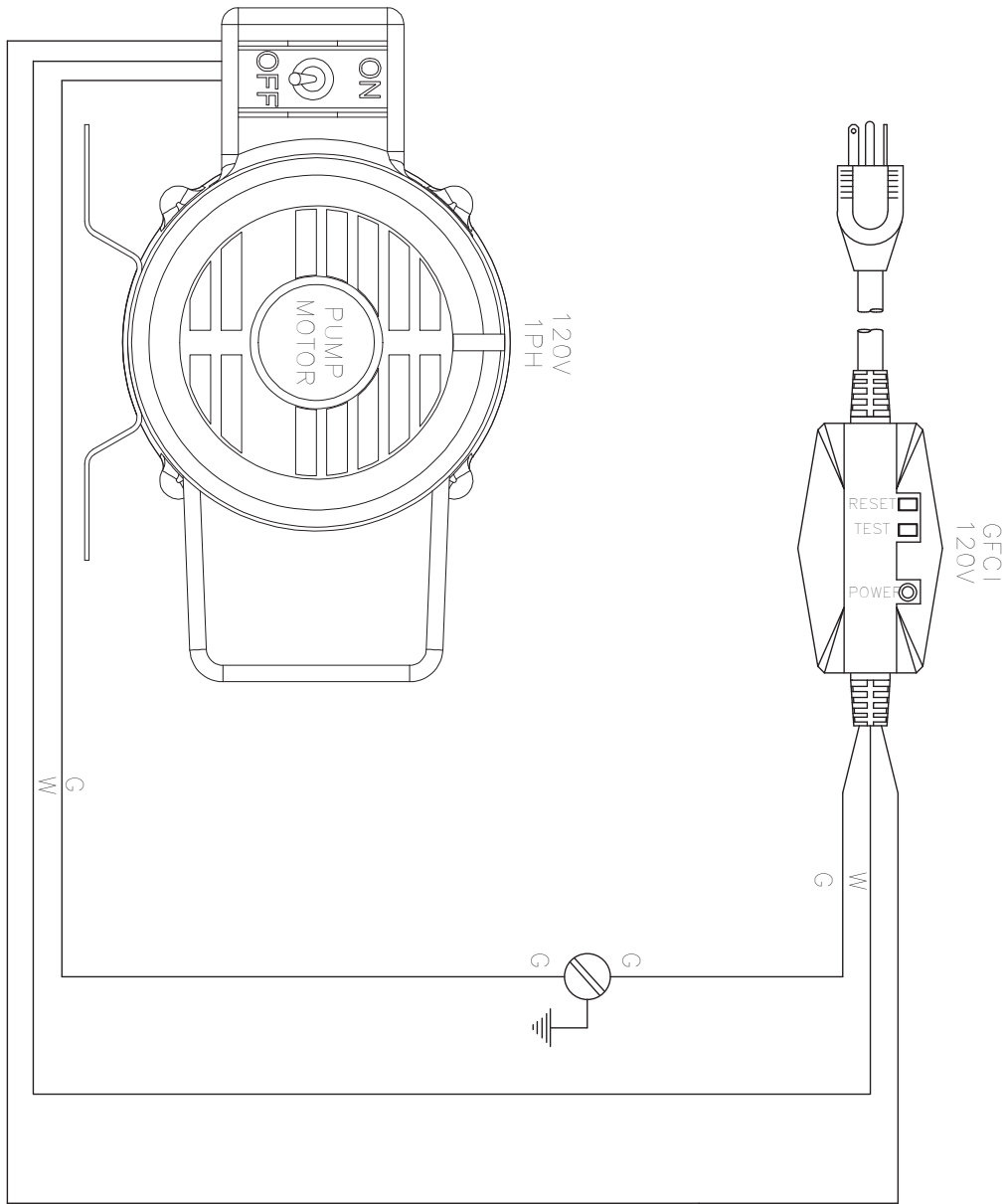
ELECTRIC DIAGRAM



CAUTION:
PLEASE NOTE COMPONENT
VOLTAGE REQUIREMENTS

WIRE COLOR LEGEND	
—	12ga WIRE
—	16ga WIRE
W	WHITE
G	GREEN
B	BLACK

ET-301109D ELECTRIC DIAGRAM



ALL WIRES BLAC
G-GREEN
W-WHITE

