

# **H.E.R.O.**

Industries

## ***Pressure Washers***

# **PW4040-AC**

4000 PSI Maximum Spraying Pressure  
4 GPM (Gallons Per Minute)



### **WARNING**

**DO NOT ATTEMPT TO OPERATE THIS MACHINE UNTIL YOU HAVE READ AND UNDERSTOOD ALL SAFETY PRECAUTIONS AND OPERATING INSTRUCTIONS. EQUIPMENT AND CHEMICALS WHEN USED IMPROPERLY CAN BE DANGEROUS.**



**H.E.R.O. Industries**

a division of Middlefield Bancorp Limited

2719 Lake City Way,

Burnaby, B.C., Canada

Phone: (604) 420-6543 Fax: (604) 420-8725

Toll Free: 1-800-494-4376

E-mail: [sales@hero.ca](mailto:sales@hero.ca) Website: [//www.hero.ca](http://www.hero.ca)

U.S. mail: P.O. Box 75, Custer, WA 98240-0052

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## WARRANTY

This product is warranted to be free from defects in materials and workmanship under normal use and service, for a period of two years from the date of purchase, when operated and maintained in accordance with the Maintenance and Operation Instructions supplied with the unit. The warranty does not cover misuse or negligence.

This warranty is extended only to the original purchaser. Hoses, spray guns, wands and other accessories are warranted for 30 days. Warranty is void if repairs are attempted by anyone other than an Authorized Service Center.

H.E.R.O. Industries liability under warranty is limited to repair of product and /or replacement of parts, and is given to the purchaser in lieu of all other remedies including incidental and consequential charges. There are no expressed warranties other than those specified herein.

## IMPORTANT SAFETY PRECAUTIONS

This book has important information for the use and safe operation of this machine. Read and understand all warnings before you start working.

### WARNING - WHEN USING THIS MACHINE:

- Read all the instructions before using machine
- To reduce risk of injury, close supervision is necessary when the machine is used near children
- Know how to stop the machine and bleed pressure quickly. Be quite familiar with the Stay alert! Watch what you are doing.
- Keep operating area clear of all persons.
- Follow the maintenance instructions specified in the manual.
  
- Do not operate the machine when fatigued or under the influence of alcohol or drugs.
- Do not overreach or stand on unstable support. Keep good footing and balance at all times.
- To prevent fire hazard, do not use with or near inflammables such as; gasoline, grain dust, solvents and thinners.
- Never add gasoline to a hot engine as this can result in a fire or explosion.
- Never direct spray at pressure washer unit.

### *Warning*

#### **Risk of injection or injury.**

**Do not direct discharge stream at persons or animals. The high pressure water stream can cause injury or death!**

## START-UP AND OPERATION INTRODUCTION

1. Verify that the vented **YELLOW** dip stick is installed in pressure washer pump. *Remove the RED shipping plug (if present) from top of the pump and replace it with the YELLOW oil level dipstick provided. Fig. 1*
2. Before first use, check engine and pump oil levels.  
*Note: For shipping purposes, engine oil has not been added. Before each use, check engine oil level by unscrewing the oil dipstick. Add motor oil (consult Honda manual for correct grade) as required to bring to proper level.*
3. Check water supply volume. To operate correctly, the unit requires a water supply 25% greater than the units output.
4. Connect a standard garden hose to the water inlet or bottom connection on the pump head ( Female hose connector). Fig. 2.
5. Connect the high pressure hose to the water “Outlet” or upper connection on the pump head. (Male quick connect nipple). Fig. 2.
6. Turn the un loader knob on top of the pump head counter- clockwise to reduce the pressure prior to starting the machine.
7. Select the desired tip for the job. Insert tip into quick-connect fitting.  
**RED**-0°, Narrow Fan, *Direct or Concentrated Cleaning.*  
**YELLOW** - 15°, Medium Fan, *General Use.*  
**WHITE** - 40°, Wide Fan, *Soft Pattern, For Rinsing.*  
**BLACK** - 65°, Chemical Injector Tip. *Must be used with chemical injector*
8. If using injector system, insert **BLACK** spray tip and connect the chemical injector to the outlet fitting and place the filter end into the chemical/detergent jug.
9. Turn on the water supply and trigger the spray gun to purge all air from the system, PRIOR to starting engine.
10. Start the engine by following this procedure:
  - a. Turn the ON/OFF switch to ON.
  - b. Turn the GAS to ON.
  - c. Turn the CHOKE to FULL.
  - d. Push the THROTTLE lever to the ON position.
  - e. Pull the STARTING cord.
  - f. Once the engine has started, turn the CHOKE until it is OFF,
11. Then trigger the gun and begin turning the red unloader knob in a clockwise direction as far as it will turn. You should now have full pressure.
12. To reduce the pressure , turn the pressure control knob counter clock wise.

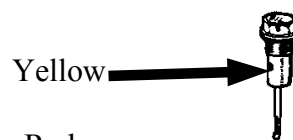


Fig. 1

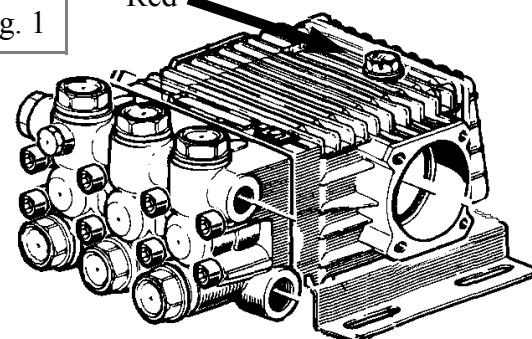
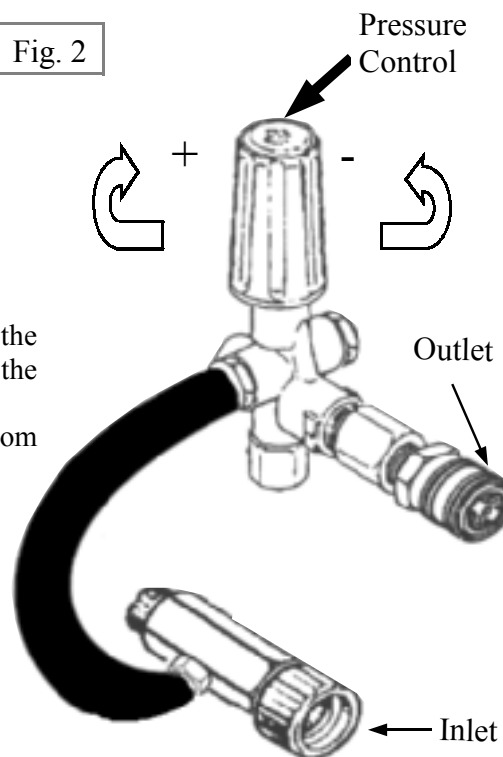


Fig. 2



## SHUTTING DOWN THE MACHINE AFTER USE.

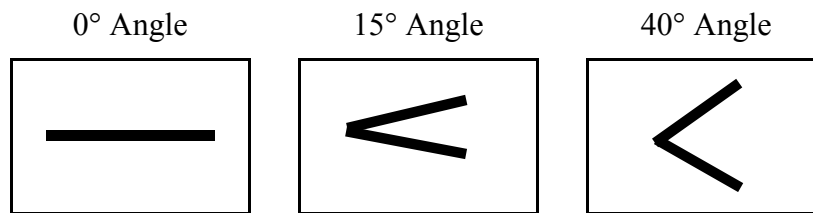
1. Turn engine switch to the OFF position.
3. Turn the throttle and gas levers to the OFF or Closed positions.
4. Shut OFF the water.
5. Trigger gun to remove any remaining pressure in the system.
6. Disconnect hose.

## NOZZLE SELECTION

For your convenience, we have provided a selection of nozzles to choose from.  
Your machine is equipped with a 0°, 15°, 40°, and a chemical nozzle.

If you require a different cleaning action, we suggest selecting the correct tip for the job.

1. RED = 0° Angle - High impact, solid stream.
2. YELLOW = 15° Angle - Narrow width spray pattern.
3. WHITE = 40° Angle - Wide width spray pattern.
4. BLACK = Chemical Injector



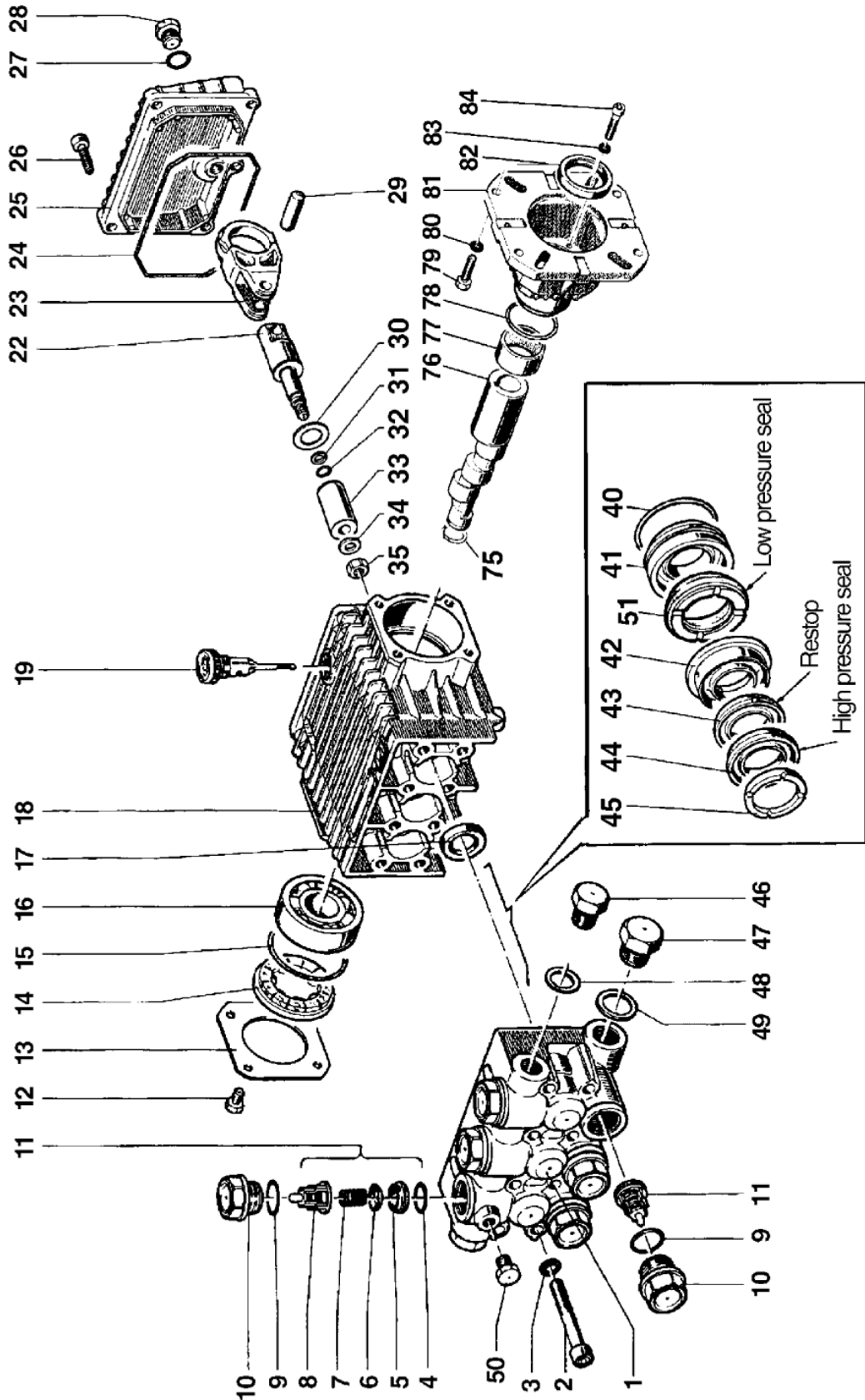
## MAINTENANCE PRECAUTIONS

- Change oil in pump after the first 50 hours, then every 100 hours.  
Use SAE30 Non-Detergent Motor oil.
- Change engine oil as specified by the Honda. See Honda owners manual.
- Do Not run washer longer than 3 minutes with gun closed, as this can result in damage to the seals. Heat generated by the re-circulating water can damage seals.
- Avoid *freezing* pump. Drain unit prior to storage, or run an antifreeze solution through pump. Ensure the pump and hoses are completely bled of all liquid.

## TROUBLE SHOOTING

FAULT	CAUSE	REMEDY
Pump running normally but pressure does not achieve rated pressure.	Pump sucking air. Valves worn or dirty. Insufficient water flow. Unloader valve packing worn. Nozzle incorrect or worn. Worn piston packing.	Check that hoses and fittings are air tight. Check, clean or replace. Increase water supply. Check and replace. Check and replace. Check and replace.
Fluctuating pressure	Valves worn, dirty or stuck. Pump sucking air.  Worn piston packing. Insufficient water flow.	Check, clean or replace. Check that hoses and fittings are air tight. Check and replace. Increase water supply. May require new water supply source.
Pressure drops after period of normal use.	Nozzle worn. Valves worn, dirty or stuck. Unloader valve packing worn. Worn piston packing.	Check and replace. Check, clean or replace. Check, clean or replace. Check and replace.
Pump noisy	Pump sucking air.  Valves dirty or worn. Worn bearings. Water too hot.	Check that hoses and fittings are air tight. Check, clean or replace. Check and replace if necessary. Reduce temperature.
Presence of water in oil	High humidity in air.  Piston packing and oil seal worn.	Check and change oil twice as often. Check and replace.
Water dripping from under pump.	Piston packing worn. The O-rings of piston guide or retainer worn. Thermal relief valve opened.	Check and replace. Check and replace.  Check and replace.
Oil dripping.	Oil seal worn.	Check and replace.
Engine will not start.	Low fuel level. Low oil level. Worn spark plug or gap.	Add fuel. Add oil. Replace.

# PW4040-AC - WW965 Pump Assembly

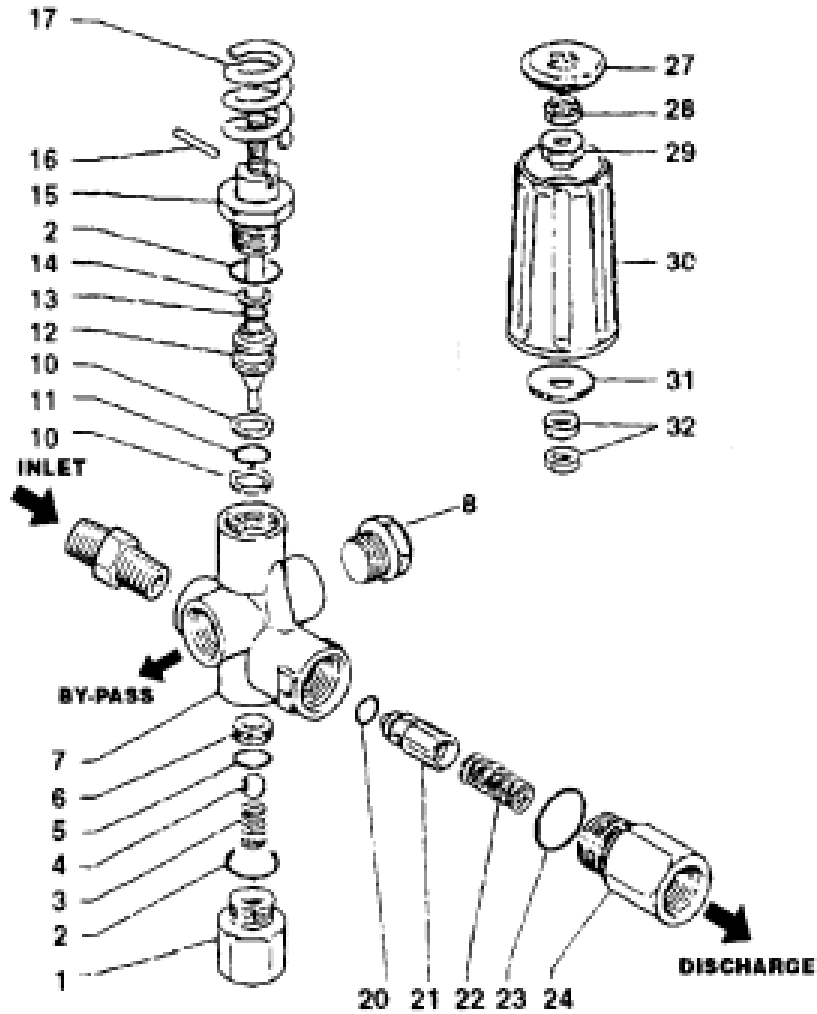


REF #	PART #	DESCRIPTION	QTY
Assy	PW-3110	Pump & Unloader Assembly, <b>PW-3540-AC</b> c/w thermal valve, WW965	
Assy	PW-3080	Pump Only, Less fittings	
1	PW-44.1206.41	Manifold ( Ø 13 Piston )	1
2	PW-99.3175.00	Screw	8
3	PW-96.7014.00	Washer	8
4	PW-90.3841.00	O-Ring	Kit 123 6
5		Sold Only In Kit 123 – Part Number PW-RKI123	Kit 123 6
6		Sold Only In Kit 123 – Part Number PW-RKI123	Kit 123 6
7		Sold Only In Kit 123 – Part Number PW-RKI123	Kit 123 6
8		Sold Only In Kit 123 – Part Number PW-RKI123	Kit 123 6
9	PW-90.3847.00	O-Ring	Kit 124 6
10	PW-98.2226.00	Cap	Kit 124 6
11	PW-36.7115.01	Valve Unit	Kit 123 6
12	PW-99.1807.00	Screw	4
13	PW-50.1500.74	Side Cover	1
14	PW-44.2118.01	Indicator Spacer	1
15	PW-90.4097.00	O-Ring	1
16	PW-91.8328.00	Bearing	1
17	PW-90.1614.00	Oil Seal	Kit 23 3
18	PW-44.0100.22	Crankcase	1
19	PW-98.2103.00	Oil Dip Stick	1
22	PW-44.0501.66	Piston Guide ( Ø 13 Piston )	3
23	PW-44.0300.22	Connecting Rod	3
24	PW-90.3920.00	O-Ring	1
25	PW-44.1600.22	Rear Cover	1
26	PW-99.1837.00	Screw	5
27	PW-90.3585.00	O-Ring	1
28	PW-98.2041.00	Cap	1
29	PW-97.7340.00	Piston Pin	3
30	PW-96.6967.00	Washer ( Ø 13 Piston )	3

REF #	PART #	DESCRIPTION	QTY
33	PW-44.0402.66	Plunger ( Ø 13 Piston )	3
37	PW-50.2000.74	Foot	2
38	PW-96.7016.00	Washer	4
39	PW-99.3037.00	Screw	4
40	PW-90.3612.00	O-Ring	Kit 125, 130, 152 - 156
41	PW-44.0803.70	Packing Retainer Ø 13	Kit 152, 156
42	PW-44.2162.70	Intermediate Ring Ø 13	Kit 154 – 156
43	PW-90.5076.00	Backup Ring Ø 13	Kit 153 – 156
44	PW-90.2602.00	Packing Ø 13	Kit 153 – 156
45	PW-44.10002.51	Head Ring Ø 13	Kit 155 – 156
46	PW-98.2100.00	Cap	1
47	PW-98.2176.00	Cap	1
48	PW-96.7380.00	Washer	1
49	PW-96.7514.00	Washer	1
50	PW-98.1966.00	Cap	1
51	PW-90.2603.00	Low Pressure Seal Ø 13	Kit 153 – 156
52	PW-1075	Valve, Thermal Protection, 1/2,	1
53	PW-1405	Tubing, P.R.V.	1
75	PW-90.0635.00	Circlip	1
76	PW-44.0221.65	Crankshaft, WW965,	1
77	PW-91.8568.00	Bushing	1
78	PW-90.4097.00	O-Ring	1
79	PW-99.2755.00	Screw	4
80	PW-96.7020.00	Washer	4
81	PW-10.0518.22	Motor Flange	1
82	PW-90.1690.00	Oil Seal	1
83	PW-96.6938.00	Washer	4
84	PW-99.1912.00	Screw	4

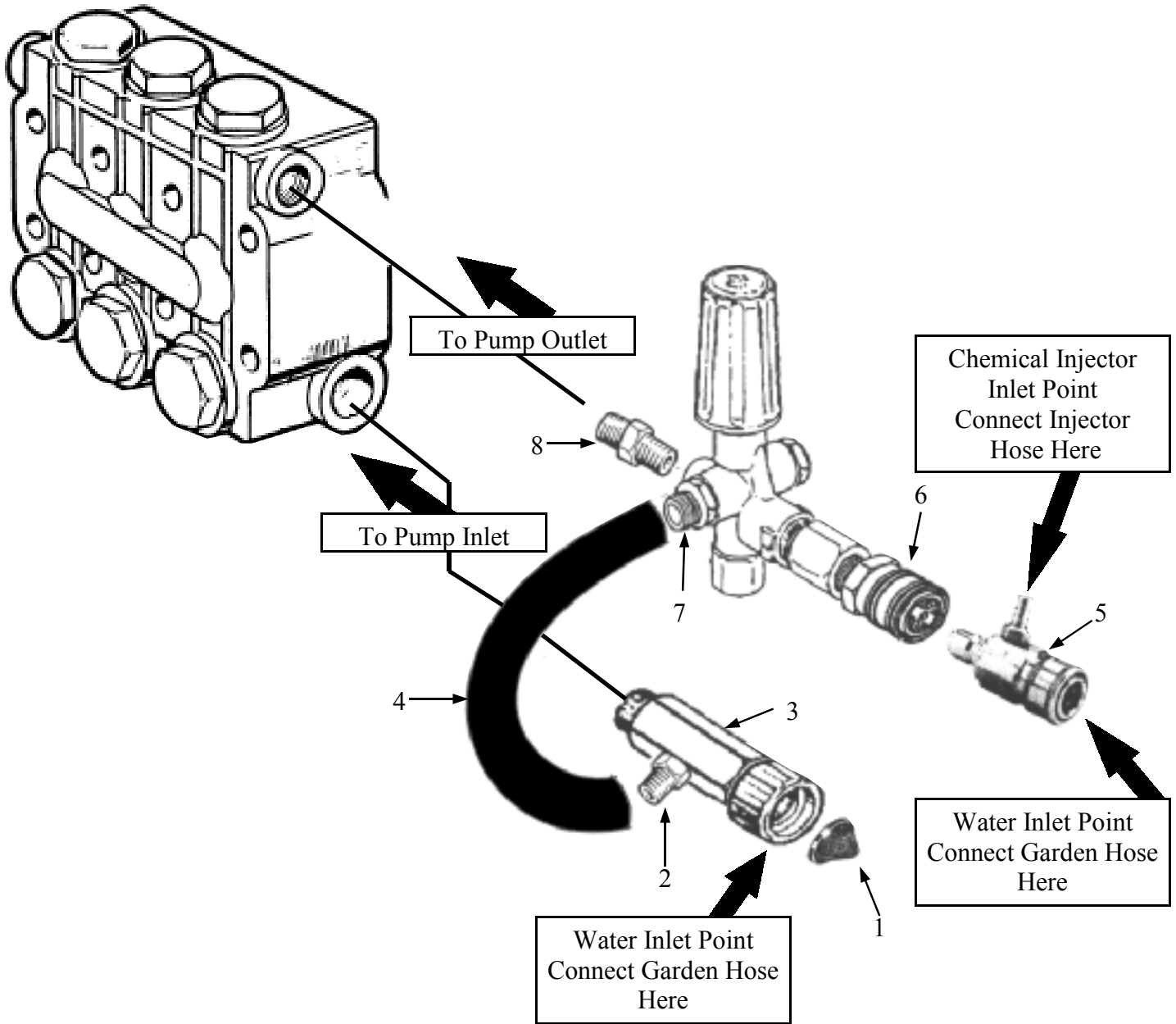
Part #	Description	Kit	Ref# Included	# Pieces
PW-RKI023	Repair Kit, Oil Seal, 2500, 3000	23	17	3
PW-RKI123	Repair Kit, Valve,	123	4,5,6,7,8,11	6
PW-RKI124	Valve Cap ( Brass ) & O-ring,	124	9, 10	6
PW-RKI125	Low Pressure Brass Ring & O-Ring	125	40, 41	3
PW-RKI152	Repair Kit, Packing, 13mm,	152	40, 41	3 each
PW-RKI153	Repair Kit	153	43, 44, 51	3 each
PW-RKI154	Repair Kit	154	42	3 each
PW-RKI155	Repair Kit	155	45	3 each
PW-RKI156	Repair Kit	156	40, 41, 42, 43, 44, 45, 51	3 each

## UNLOADER PW-1195



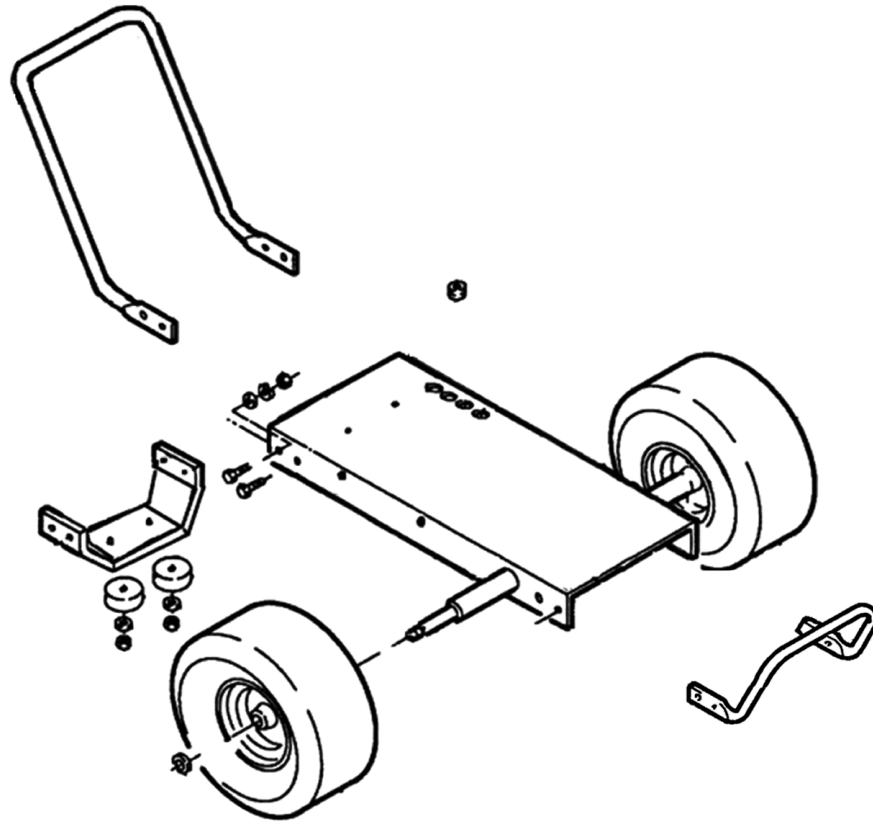
ITEM #	PART #	DESCRIPTION	QTY	ITEM #	PART #	DESCRIPTION	QTY
1-40	PW-1195	Unloader	ASSY	15	PW-60.0064.31	Piston Housing	1
1	PW-60.0030.31	Inlet Fitting/Plug,	1	16	PW-15.1021.00	Locking Pin	5
2	PW-10.3068.00	O-Ring	2	17	PW-60.0033.61	Blue Spring	1
3	PW-60.0015.51	Ball Spring	1	20	PW-10.3213.08	O-Ring	1
4	PW-14.7461.00	Ball, S.S.	1	21	PW-60.0052.31	Check Valve	1
5	PW-10.3059.01	O-Ring	1	22	PW-60.0053.51	S.S. Spring	2
6	PW-60.0254.51	S.S. Seal	1	23	PW-10.3070.02	O-Ring	1
7	PW-60.0057.35	Brass Body	1	24	PW-60.0059.31	Outlet Fitting	1
8	PW-60.0025.31	Plug	8	27	PW-60.0002.84	Plastic Plug	1
10	PW-10.4021.00	Backup Ring	2	28	PW-11.4589.10	Zinc Nut	1
11	PW-10.3175.08	O-Ring	2	29	PW-60.0001.31	Insert	1
12	PW-60.0061.23	S.S. Piston	2	30	PW-60.0003.84	Plastic Knob	1
13	PW-10.3170.08	O-Ring	1	31	PW-14.3720.40	Washer	1
14	PW-10.4020.00	Backup Ring	1	32	PW-11.4573.31	Brass Nut	2

## UNLOADER and CHEMICAL INJECTOR LAYOUT



Item #	Part #	Description	Qty
1	PW-1060	Inlet Filter Washer	1
2	PW-1155	3/8" X 1/4" NPT Hose Fitting	1
3	PW-1175	Garden Hose Inlet Manifold	1
4	PW-1185	Bypass Hose, 3/8"	1
5	PW-1205	Chemical Injector Only	1
6	PW-1052	Quick Disconnect Fitting, 3/8" Male	1
7	PW-1165	3/8" Bypass Hose Fitting	1
8	667-10	3/8" Male Connector	1

## CHASSIS PARTS



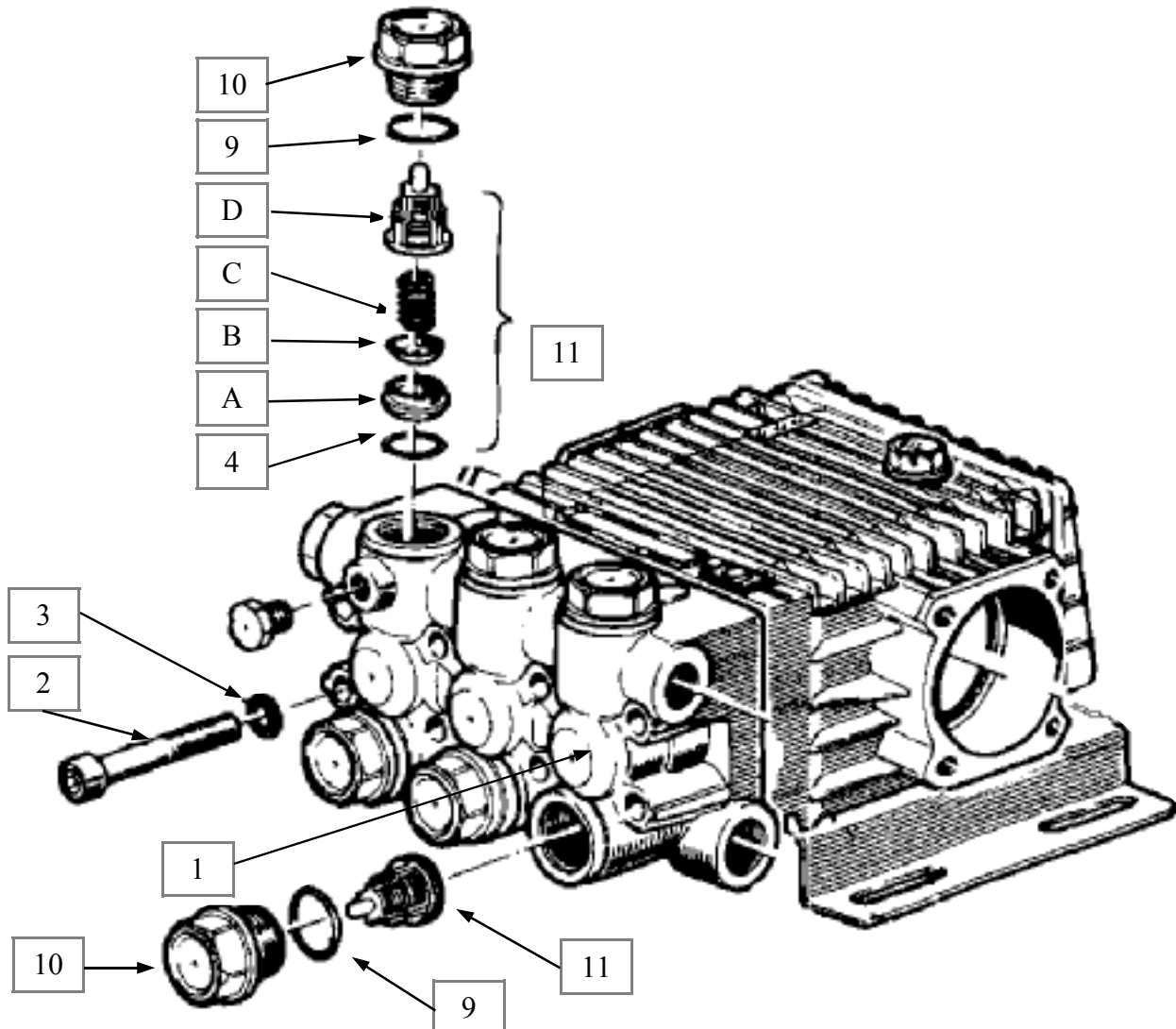
PART #	DESCRIPTION	QTY
PW-4335	Cart, Aluminum	1
PW-4075	Grommet, Tip Holding	4
PW-3052	Engine, Gas, Honda, 13 HP, c/w Oil Alert	1
97B	Decal “ Quality By Design ”	1
PW-4085	Decal, Warning, Pressure Washing	1

## PUMP SERVICE

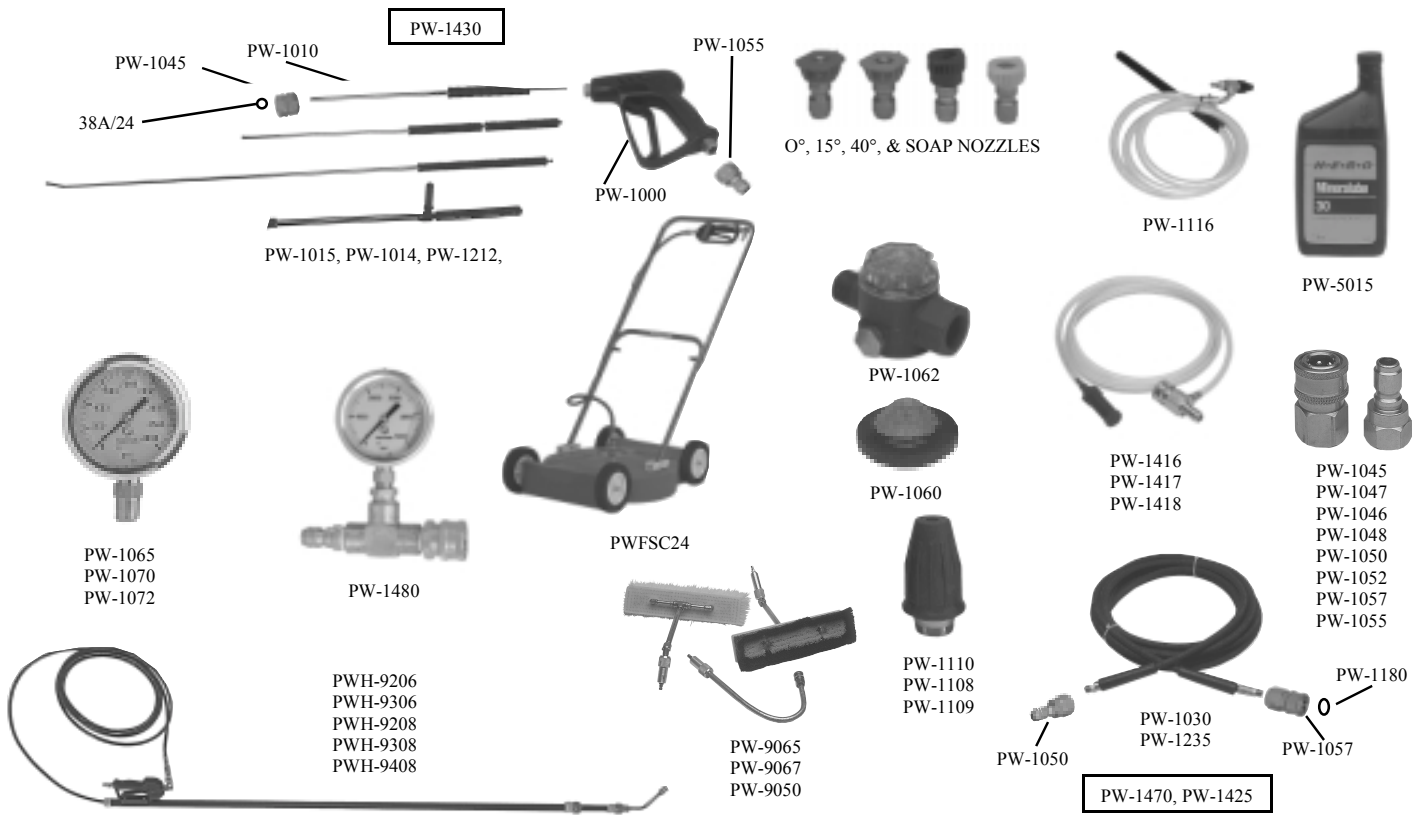
All inlet and discharge valves can be serviced without disrupting the inlet or discharge plumbing. The inlet and discharge valves are identical on all H.E.R.O. models. See pages 8-10.

### VALVE ASSEMBLIES

1. To service any valve, remove valve cap ( ref # 10 ) and extract valve assembly ( ref # 4-A-D-9 ).
2. Examine o-rings and replace if there is any evidence of cuts, abrasions or distortion.
3. Remove valve assembly ( ref # A-D ) from valve cavity.
4. Remove o-ring ( ref # 4 ) from valve cavity.
5. Only one valve kit is necessary to repair all the valves in the pump. The kit includes new o-rings, valve seat, poppet, spring and retainer, ( ref # 4, A-D ) all pre-assembled.
6. Install new o-ring in valve cavity.
7. Insert assembly into valve cavity.
8. Replace valve cap ( ref # 10 ) and torque to 74 foot pounds.



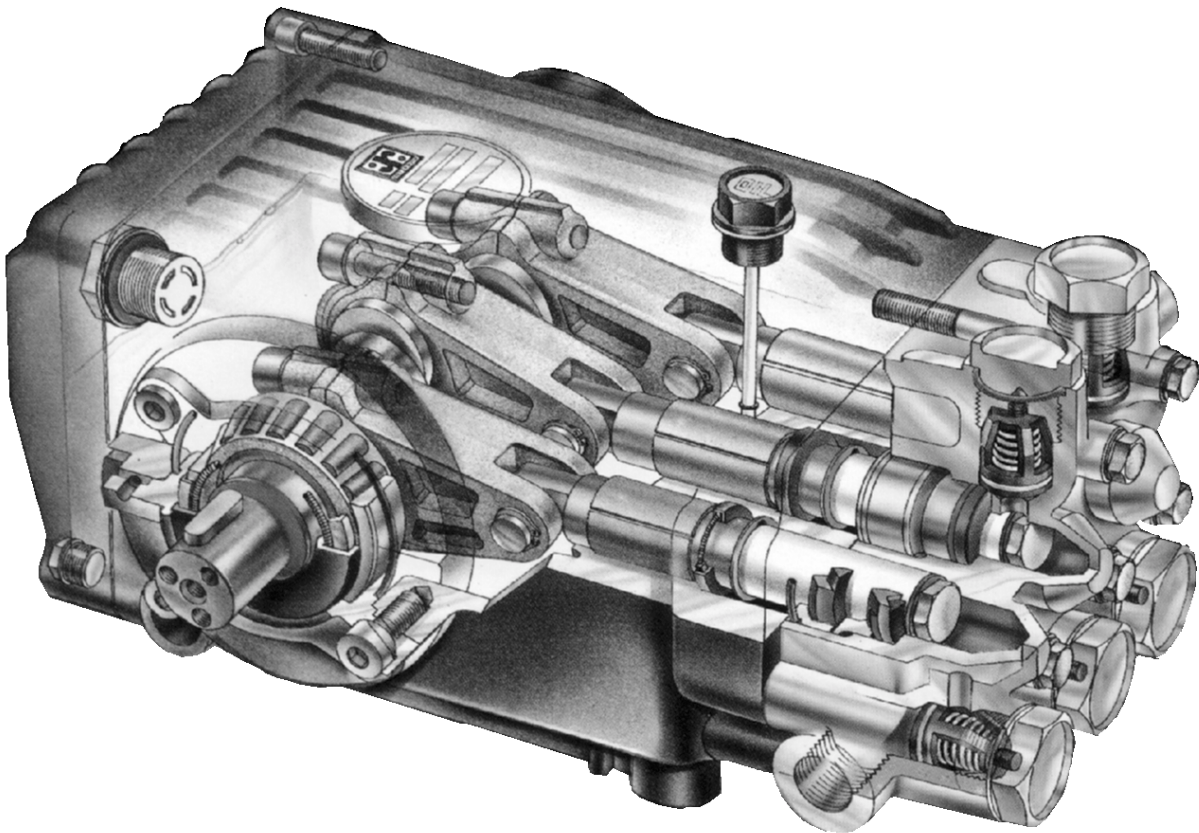
## ACCESSORIES



Part #	Description	Part #	Description
PW-1000	Heavy duty, pressure wash gun, 4000 psi	PW-1116	Sandblast kit, 2500 psi
PW-1430	pressure wash gun with 36" Wand	PW-1117	Sandblast kit, 3000 psi
PW-1010	Wand, with insulator, 36',	PW-5015	Pump oil, 1 Liter
PW-1012	Wand, with insulator, 48',	PW-1100-6540	Black, soap nozzle, <b>all models</b>
PW-1014	Wand, with insulator, 79',	PW-1100-00045	Red, 0° degree nozzle, 2540BD & 3040BD models only
PW-1015	Wand, twin-lance, less fittings,	PW-1100-15045	Yellow, 15° degree nozzle, 2540BD & 3040BD models only
PW-1020	Strainer, chemical suction, c/w tubing, less fitting,	PW-1100-40045	White, 40° degree nozzle, 2540BD & 3040BD models only
PW-1022	Fitting, chemical suction	PW-1100-0004	Red, 0° degree nozzle, 3540BD models only
PW-1415	Assembly, chemical injector hose, c/w brass fitting	PW-1100-1504	Yellow, 15° degree nozzle, 3540BD models only
PW-1045	Body, quick-disconnect, 1/4 brass, female	PW-1100-4004	White, 40° degree nozzle, 3540BD models only
PW-1046	Body, quick-disconnect, 1/4 brass, male	PW-1416	Chemical injector assembly, 3000 psi
PW-1047	Plug, quick-disconnect, 1/4 steel, male	PW-1417	Chemical injector assembly, 3500 psi
PW-1048	Plug, quick-disconnect, 1/4 steel, female	PW-1418	Chemical injector assembly, 4000 psi
PW-1050	Body, quick-disconnect, 3/8 brass, female	PWH-9206	6ft to 12ft Telescopic wand, 2 6ft poles
PW-1052	Body, quick-disconnect, 3/8 brass, male	PWH-9306	6ft to 18ft Telescopic wand, 3 6ft poles
PW-1055	Plug, quick-disconnect, 3/8 steel, male	PWH-9208	8ft to 16ft Telescopic wand, 2 8ft poles
PW-1057	Plug, quick-disconnect, 3/8 steel, female	PWH-9308	8ft to 24ft Telescopic wand, 3 8ft poles
PW-1180	3/8" Q.D body o-ring	PWH-9408	8ft to 32ft Telescopic wand, 4 8ft poles
38A/24	1/4" Q.D body o-ring	PW-9065	12" Internal low pressure, two jet, hard surface brush
PW-1065	Gauge, 0-3000 psi	PW-9067	12" Internal high pressure, two jet, hard surface brush
PW-1070	Gauge, 0-4000 psi	PW-9050	Stainless steel, gutter cleaner
PW-1072	Gauge, 0-5000 psi	PW-1470	Pressure washer hose, 50' x 3/8", c/w couplers, 4000 psi
PW-1480	0-4000 psi pressure washer pump test gauge kit	PW-1425	Pressure washer hose, 50' x 3/8", c/w couplers, 3000 psi
PW-1062	Inline filter, use with PW-1060	PW-1030	Pressure washer hose, 50' x 3/8", less couplers, 3000 psi
PW-1060	Inlet filter washer	PW-1235	Pressure washer hose, 50' x 3/8", less couplers, 4000 psi

# ***HOERD***

## ***Pressure Washers***



MODEL # \_\_\_\_\_

SERIAL # \_\_\_\_\_

PURCHASED ON \_\_\_\_\_

PURCHASED FROM: \_\_\_\_\_